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3.366Tc-105 E_γ = 2082.00 keV 743

3.367Tc-105 E_γ = 2155.40 keV . . . 745
3.368Ru-103 E_γ = 497.08 keV . . . 747
3.369Ru-103 E_γ = 610.33 keV . . . 749
3.370Ru-105 E_γ = 149.10 keV . . . 751
3.371Ru-105 E_γ = 262.83 keV . . . 753
3.372Ru-105 E_γ = 316.44 keV . . . 755
3.373Ru-105 E_γ = 326.14 keV . . . 757
3.374Ru-105 E_γ = 350.18 keV . . . 759
3.375Ru-105 E_γ = 393.36 keV . . . 761
3.376Ru-105 E_γ = 413.53 keV . . . 763
3.377Ru-105 E_γ = 469.37 keV . . . 765
3.378Ru-105 E_γ = 499.30 keV . . . 767
3.379Ru-105 E_γ = 656.21 keV . . . 769
3.380Ru-105 E_γ = 676.36 keV . . . 771
3.381Ru-105 E_γ = 724.30 keV . . . 773
3.382Ru-105 E_γ = 875.85 keV . . . 775
3.383Ru-105 E_γ = 969.44 keV . . . 777
3.384Rh-105 E_γ = 306.31 keV . . . 779
3.385Rh-105 E_γ = 319.23 keV . . . 781
3.386Rh-107 E_γ = 277.58 keV . . . 783
3.387Rh-107 E_γ = 302.77 keV . . . 785
3.388Rh-107 E_γ = 312.21 keV . . . 787
3.389Rh-107 E_γ = 321.84 keV . . . 789
3.390Rh-107 E_γ = 348.21 keV . . . 791
3.391Rh-107 E_γ = 367.31 keV . . . 793
3.392Rh-107 E_γ = 392.47 keV . . . 795
3.393Rh-107 E_γ = 567.70 keV . . . 797
3.394Rh-107 E_γ = 670.05 keV . . . 799
3.395Pd-112 E_γ = 18.50 keV . . . 801
3.396Ag-111 E_γ = 245.40 keV . . . 804
3.397Ag-111 E_γ = 342.13 keV . . . 806
3.398Ag-112 E_γ = 606.70 keV . . . 808
3.399Ag-112 E_γ = 617.40 keV . . . 810
3.400Ag-112 E_γ = 692.70 keV . . . 812
3.401Ag-112 E_γ = 694.80 keV . . . 814
3.402Ag-112 E_γ = 851.20 keV . . . 816
3.403Ag-112 E_γ = 1312.30 keV . . . 818
3.404Ag-112 E_γ = 1387.70 keV . . . 820
3.405Ag-112 E_γ = 1613.60 keV . . . 822
3.406Ag-112 E_γ = 2106.20 keV . . . 824
3.407Ag-112 E_γ = 2506.80 keV . . . 826
3.408Ag-113 E_γ = 258.80 keV . . . 828
3.409Ag-113 E_γ = 298.60 keV . . . 830
3.410Ag-113 E_γ = 316.30 keV . . . 832
3.411Cd-115 E_γ = 260.90 keV . . . 834
3.412Cd-115 E_γ = 492.35 keV . . . 836
3.413Cd-115 E_γ = 527.90 keV . . . 838

3.414In-115 E_γ = 336.24 keV . . . 840
3.415Sn-123 E_γ = 160.35 keV . . . 842
3.416Sn-125 E_γ = 332.10 keV . . . 844
3.417Sn-125 E_γ = 469.85 keV . . . 846
3.418Sn-125 E_γ = 800.28 keV . . . 848
3.419Sn-125 E_γ = 822.48 keV . . . 850
3.420Sn-125 E_γ = 915.55 keV . . . 852
3.421Sn-125 E_γ = 1067.10 keV . . . 854
3.422Sn-125 E_γ = 1087.70 keV . . . 856
3.423Sn-125 E_γ = 1089.15 keV . . . 858
3.424Sn-125 E_γ = 2002.13 keV . . . 860
3.425Sn-125 E_γ = 331.94 keV . . . 862
3.426Sn-126 E_γ = 21.65 keV . . . 864
3.427Sn-126 E_γ = 23.28 keV . . . 867
3.428Sn-126 E_γ = 64.28 keV . . . 870
3.429Sn-126 E_γ = 86.94 keV . . . 872
3.430Sn-126 E_γ = 87.57 keV . . . 874
3.431Sn-127 E_γ = 119.70 keV . . . 876
3.432Sn-127 E_γ = 169.20 keV . . . 878
3.433Sn-127 E_γ = 184.70 keV . . . 880
3.434Sn-127 E_γ = 262.50 keV . . . 882
3.435Sn-127 E_γ = 266.20 keV . . . 884
3.436Sn-127 E_γ = 284.30 keV . . . 886
3.437Sn-127 E_γ = 292.90 keV . . . 888
3.438Sn-127 E_γ = 390.50 keV . . . 890
3.439Sn-127 E_γ = 407.10 keV . . . 892
3.440Sn-127 E_γ = 438.20 keV . . . 894
3.441Sn-127 E_γ = 490.90 keV . . . 896
3.442Sn-127 E_γ = 493.20 keV . . . 898
3.443Sn-127 E_γ = 500.70 keV . . . 900
3.444Sn-127 E_γ = 509.00 keV . . . 902
3.445Sn-127 E_γ = 545.40 keV . . . 904
3.446Sn-127 E_γ = 583.30 keV . . . 906
3.447Sn-127 E_γ = 592.30 keV . . . 908
3.448Sn-127 E_γ = 805.90 keV . . . 910
3.449Sn-127 E_γ = 823.10 keV . . . 912
3.450Sn-127 E_γ = 824.70 keV . . . 914
3.451Sn-127 E_γ = 859.50 keV . . . 916
3.452Sn-127 E_γ = 916.50 keV . . . 918
3.453Sn-127 E_γ = 979.20 keV . . . 920
3.454Sn-127 E_γ = 997.90 keV . . . 922
3.455Sn-127 E_γ = 1002.60 keV . . . 924
3.456Sn-127 E_γ = 1036.10 keV . . . 926
3.457Sn-127 E_γ = 1093.30 keV . . . 928
3.458Sn-127 E_γ = 1095.60 keV . . . 930
3.459Sn-127 E_γ = 1114.30 keV . . . 932
3.460Sn-127 E_γ = 1160.40 keV . . . 934

3.461Sn-127 E_γ = 1472.50 keV . . . 936
3.462Sn-127 E_γ = 1584.30 keV . . . 938
3.463Sn-127 E_γ = 1647.80 keV . . . 940
3.464Sn-127 E_γ = 2003.40 keV . . . 942
3.465Sn-127 E_γ = 2317.40 keV . . . 944
3.466Sn-127 E_γ = 2584.90 keV . . . 946
3.467Sn-127 E_γ = 2695.90 keV . . . 948
3.468Sn-128 E_γ = 32.10 keV . . . 950
3.469Sn-128 E_γ = 45.70 keV . . . 953
3.470Sn-128 E_γ = 75.10 keV . . . 956
3.471Sn-128 E_γ = 152.70 keV . . . 958
3.472Sn-128 E_γ = 404.40 keV . . . 960
3.473Sn-128 E_γ = 436.70 keV . . . 962
3.474Sn-128 E_γ = 482.30 keV . . . 964
3.475Sn-128 E_γ = 557.30 keV . . . 966
3.476Sn-128 E_γ = 680.50 keV . . . 968
3.477Sn-129 E_γ = 50.20 keV . . . 970
3.478Sn-129 E_γ = 67.60 keV . . . 972
3.479Sn-129 E_γ = 69.80 keV . . . 974
3.480Sn-129 E_γ = 77.30 keV . . . 976
3.481Sn-129 E_γ = 108.60 keV . . . 978
3.482Sn-129 E_γ = 117.20 keV . . . 980
3.483Sn-129 E_γ = 119.90 keV . . . 982
3.484Sn-129 E_γ = 148.80 keV . . . 984
3.485Sn-129 E_γ = 236.70 keV . . . 986
3.486Sn-129 E_γ = 238.70 keV . . . 988
3.487Sn-129 E_γ = 266.50 keV . . . 990
3.488Sn-129 E_γ = 286.30 keV . . . 992
3.489Sn-129 E_γ = 298.40 keV . . . 994
3.490Sn-129 E_γ = 352.50 keV . . . 996
3.491Sn-129 E_γ = 409.10 keV . . . 998
3.492Sn-129 E_γ = 423.00 keV . . . 1000
3.493Sn-129 E_γ = 505.50 keV . . . 1002
3.494Sn-129 E_γ = 577.90 keV . . . 1004
3.495Sn-129 E_γ = 692.40 keV . . . 1006
3.496Sn-129 E_γ = 695.10 keV . . . 1008
3.497Sn-129 E_γ = 732.40 keV . . . 1010
3.498Sn-129 E_γ = 760.80 keV . . . 1012
3.499Sn-129 E_γ = 782.48 keV . . . 1014
3.500Sn-129 E_γ = 792.20 keV . . . 1016
3.501Sn-129 E_γ = 801.00 keV . . . 1018
3.502Sn-129 E_γ = 850.20 keV . . . 1020
3.503Sn-129 E_γ = 862.70 keV . . . 1022
3.504Sn-129 E_γ = 902.30 keV . . . 1024
3.505Sn-129 E_γ = 1128.44 keV . . . 1026
3.506Sn-129 E_γ = 1155.50 keV . . . 1028
3.507Sn-129 E_γ = 1161.31 keV . . . 1030

3.508Sn-129 E_γ = 1188.50 keV 1032
3.509Sn-129 E_γ = 1207.80 keV 1034
3.510Sb-125 E_γ = 35.49 keV 1036
3.511Sb-125 E_γ = 176.31 keV 1039
3.512Sb-125 E_γ = 380.45 keV 1041
3.513Sb-125 E_γ = 427.87 keV 1043
3.514Sb-125 E_γ = 463.36 keV 1045
3.515Sb-125 E_γ = 600.60 keV 1047
3.516Sb-125 E_γ = 606.71 keV 1049
3.517Sb-125 E_γ = 635.95 keV 1051
3.518Sb-125 E_γ = 671.44 keV 1053
3.519Sb-126 E_γ = 414.50 keV 1055
3.520Sb-126 E_γ = 620.00 keV 1057
3.521Sb-126 E_γ = 666.10 keV 1059
3.522Sb-126 E_γ = 694.80 keV 1061
3.523Sb-126 E_γ = 928.20 keV 1063
3.524Sb-126 E_γ = 1034.90 keV 1065
3.525Sb-127 E_γ = 61.10 keV 1067
3.526Sb-127 E_γ = 252.40 keV 1069
3.527Sb-127 E_γ = 290.80 keV 1071
3.528Sb-127 E_γ = 412.10 keV 1073
3.529Sb-127 E_γ = 445.10 keV 1075
3.530Sb-127 E_γ = 473.00 keV 1077
3.531Sb-127 E_γ = 543.30 keV 1079
3.532Sb-127 E_γ = 603.50 keV 1081
3.533Sb-127 E_γ = 685.70 keV 1083
3.534Sb-127 E_γ = 698.50 keV 1085
3.535Sb-127 E_γ = 722.20 keV 1087
3.536Sb-127 E_γ = 783.70 keV 1089
3.537Sb-128 E_γ = 227.30 keV 1091
3.538Sb-128 E_γ = 314.10 keV 1093
3.539Sb-128 E_γ = 317.70 keV 1095
3.540Sb-128 E_γ = 322.30 keV 1097
3.541Sb-128 E_γ = 357.00 keV 1099
3.542Sb-128 E_γ = 366.10 keV 1101
3.543Sb-128 E_γ = 445.70 keV 1103
3.544Sb-128 E_γ = 454.50 keV 1105
3.545Sb-128 E_γ = 459.50 keV 1107
3.546Sb-128 E_γ = 526.50 keV 1109
3.547Sb-128 E_γ = 603.00 keV 1111
3.548Sb-128 E_γ = 628.70 keV 1113
3.549Sb-128 E_γ = 636.20 keV 1115
3.550Sb-128 E_γ = 654.20 keV 1117
3.551Sb-128 E_γ = 667.10 keV 1119
3.552Sb-128 E_γ = 683.90 keV 1121
3.553Sb-128 E_γ = 692.90 keV 1123
3.554Sb-128 E_γ = 727.60 keV 1125

3.555Sb-128 E_γ = 743.30 keV 1127
3.556Sb-128 E_γ = 754.00 keV 1129
3.557Sb-128 E_γ = 773.70 keV 1131
3.558Sb-128 E_γ = 802.70 keV 1133
3.559Sb-128 E_γ = 813.60 keV 1135
3.560Sb-128 E_γ = 845.80 keV 1137
3.561Sb-128 E_γ = 878.00 keV 1139
3.562Sb-128 E_γ = 1047.50 keV 1141
3.563Sb-128 E_γ = 1078.60 keV 1143
3.564Sb-128 E_γ = 1112.70 keV 1145
3.565Sb-128 E_γ = 1158.20 keV 1147
3.566Sb-128 E_γ = 1181.60 keV 1149
3.567Sb-128 E_γ = 314.00 keV 1151
3.568Sb-128 E_γ = 594.10 keV 1153
3.569Sb-128 E_γ = 743.24 keV 1155
3.570Sb-128 E_γ = 753.90 keV 1157
3.571Sb-128 E_γ = 787.60 keV 1159
3.572Sb-128 E_γ = 844.00 keV 1161
3.573Sb-128 E_γ = 908.30 keV 1163
3.574Sb-128 E_γ = 1158.00 keV 1165
3.575Sb-129 E_γ = 180.80 keV 1167
3.576Sb-129 E_γ = 295.50 keV 1169
3.577Sb-129 E_γ = 359.40 keV 1171
3.578Sb-129 E_γ = 405.00 keV 1173
3.579Sb-129 E_γ = 523.80 keV 1175
3.580Sb-129 E_γ = 544.70 keV 1177
3.581Sb-129 E_γ = 633.70 keV 1179
3.582Sb-129 E_γ = 654.30 keV 1181
3.583Sb-129 E_γ = 683.60 keV 1183
3.584Sb-129 E_γ = 761.00 keV 1185
3.585Sb-129 E_γ = 773.40 keV 1187
3.586Sb-129 E_γ = 786.60 keV 1189
3.587Sb-129 E_γ = 812.80 keV 1191
3.588Sb-129 E_γ = 876.20 keV 1193
3.589Sb-129 E_γ = 914.60 keV 1195
3.590Sb-129 E_γ = 966.40 keV 1197
3.591Sb-129 E_γ = 1030.10 keV 1199
3.592Sb-129 E_γ = 1736.50 keV 1201
3.593Sb-130 E_γ = 182.33 keV 1203
3.594Sb-130 E_γ = 258.00 keV 1205
3.595Sb-130 E_γ = 285.48 keV 1207
3.596Sb-130 E_γ = 303.30 keV 1209
3.597Sb-130 E_γ = 330.91 keV 1211
3.598Sb-130 E_γ = 455.40 keV 1213
3.599Sb-130 E_γ = 468.00 keV 1215
3.600Sb-130 E_γ = 483.60 keV 1217
3.601Sb-130 E_γ = 506.70 keV 1219

3.602Sb-130 $E_\gamma = 626.70$ keV 1221
3.603Sb-130 $E_\gamma = 635.70$ keV 1223
3.604Sb-130 $E_\gamma = 654.70$ keV 1225
3.605Sb-130 $E_\gamma = 658.20$ keV 1227
3.606Sb-130 $E_\gamma = 669.20$ keV 1229
3.607Sb-130 $E_\gamma = 680.90$ keV 1231
3.608Sb-130 $E_\gamma = 686.60$ keV 1233
3.609Sb-130 $E_\gamma = 732.00$ keV 1235
3.610Sb-130 $E_\gamma = 793.40$ keV 1237
3.611Sb-130 $E_\gamma = 829.80$ keV 1239
3.612Sb-130 $E_\gamma = 839.52$ keV 1241
3.613Sb-130 $E_\gamma = 855.70$ keV 1243
3.614Sb-130 $E_\gamma = 883.30$ keV 1245
3.615Sb-130 $E_\gamma = 914.90$ keV 1247
3.616Sb-130 $E_\gamma = 934.90$ keV 1249
3.617Sb-130 $E_\gamma = 992.10$ keV 1251
3.618Sb-130 $E_\gamma = 1000.20$ keV 1253
3.619Sb-130 $E_\gamma = 1030.70$ keV 1255
3.620Sb-130 $E_\gamma = 1089.50$ keV 1257
3.621Sb-130 $E_\gamma = 1141.40$ keV 1259
3.622Sb-130 $E_\gamma = 1239.00$ keV 1261
3.623Sb-130 $E_\gamma = 1292.30$ keV 1263
3.624Sb-130 $E_\gamma = 1368.70$ keV 1265
3.625Sb-130 $E_\gamma = 1419.30$ keV 1267
3.626Sb-130 $E_\gamma = 1443.70$ keV 1269
3.627Sb-130 $E_\gamma = 1581.90$ keV 1271
3.628Sb-130 $E_\gamma = 1762.60$ keV 1273
3.629Sb-130 $E_\gamma = 1948.00$ keV 1275
3.630Sb-130 $E_\gamma = 1997.40$ keV 1277
3.631Sb-130 $E_\gamma = 182.33$ keV 1279
3.632Sb-130 $E_\gamma = 348.50$ keV 1281
3.633Sb-130 $E_\gamma = 468.00$ keV 1283
3.634Sb-130 $E_\gamma = 502.60$ keV 1285
3.635Sb-130 $E_\gamma = 647.70$ keV 1287
3.636Sb-130 $E_\gamma = 697.40$ keV 1289
3.637Sb-130 $E_\gamma = 748.60$ keV 1291
3.638Sb-130 $E_\gamma = 793.40$ keV 1293
3.639Sb-130 $E_\gamma = 816.30$ keV 1295
3.640Sb-130 $E_\gamma = 839.52$ keV 1297
3.641Sb-130 $E_\gamma = 920.80$ keV 1299
3.642Sb-130 $E_\gamma = 942.20$ keV 1301
3.643Sb-130 $E_\gamma = 1017.50$ keV 1303
3.644Sb-130 $E_\gamma = 1046.50$ keV 1305
3.645Sb-130 $E_\gamma = 1102.80$ keV 1307
3.646Sb-130 $E_\gamma = 1131.90$ keV 1309
3.647Sb-130 $E_\gamma = 1142.00$ keV 1311
3.648Sb-130 $E_\gamma = 1177.30$ keV 1313

3.649Sb-130 $E_\gamma = 1200.00$ keV . . . 1315
3.650Sb-130 $E_\gamma = 1491.20$ keV . . . 1317
3.651Sb-130 $E_\gamma = 1598.00$ keV . . . 1319
3.652Sb-130 $E_\gamma = 1896.90$ keV . . . 1321
3.653Sb-131 $E_\gamma = 134.60$ keV . . . 1323
3.654Sb-131 $E_\gamma = 274.26$ keV . . . 1325
3.655Sb-131 $E_\gamma = 295.70$ keV . . . 1327
3.656Sb-131 $E_\gamma = 301.30$ keV . . . 1329
3.657Sb-131 $E_\gamma = 323.80$ keV . . . 1331
3.658Sb-131 $E_\gamma = 326.20$ keV . . . 1333
3.659Sb-131 $E_\gamma = 619.78$ keV . . . 1335
3.660Sb-131 $E_\gamma = 625.65$ keV . . . 1337
3.661Sb-131 $E_\gamma = 642.30$ keV . . . 1339
3.662Sb-131 $E_\gamma = 669.00$ keV . . . 1341
3.663Sb-131 $E_\gamma = 726.30$ keV . . . 1343
3.664Sb-131 $E_\gamma = 824.91$ keV . . . 1345
3.665Sb-131 $E_\gamma = 933.09$ keV . . . 1347
3.666Sb-131 $E_\gamma = 943.41$ keV . . . 1349
3.667Sb-131 $E_\gamma = 1123.63$ keV . . . 1351
3.668Sb-131 $E_\gamma = 1191.90$ keV . . . 1353
3.669Sb-131 $E_\gamma = 1207.40$ keV . . . 1355
3.670Sb-131 $E_\gamma = 1233.76$ keV . . . 1357
3.671Sb-131 $E_\gamma = 1267.57$ keV . . . 1359
3.672Sb-131 $E_\gamma = 1284.70$ keV . . . 1361
3.673Sb-131 $E_\gamma = 1398.90$ keV . . . 1363
3.674Sb-131 $E_\gamma = 1470.30$ keV . . . 1365
3.675Sb-131 $E_\gamma = 1608.80$ keV . . . 1367
3.676Sb-131 $E_\gamma = 1721.80$ keV . . . 1369
3.677Sb-131 $E_\gamma = 1756.10$ keV . . . 1371
3.678Sb-131 $E_\gamma = 1821.20$ keV . . . 1373
3.679Sb-131 $E_\gamma = 1854.31$ keV . . . 1375
3.680Sb-131 $E_\gamma = 2179.20$ keV . . . 1377
3.681Sb-131 $E_\gamma = 2335.03$ keV . . . 1379
3.682Sb-131 $E_\gamma = 2398.60$ keV . . . 1381
3.683Sb-131 $E_\gamma = 2662.30$ keV . . . 1383
3.684Te-129 $E_\gamma = 27.81$ keV . . . 1385
3.685Te-129 $E_\gamma = 459.60$ keV . . . 1388
3.686Te-129 $E_\gamma = 487.39$ keV . . . 1390
3.687Te-129 $E_\gamma = 695.88$ keV . . . 1392
3.688Te-131 $E_\gamma = 149.72$ keV . . . 1394
3.689Te-131 $E_\gamma = 452.32$ keV . . . 1396
3.690Te-131 $E_\gamma = 492.66$ keV . . . 1398
3.691Te-131 $E_\gamma = 602.04$ keV . . . 1400
3.692Te-131 $E_\gamma = 654.26$ keV . . . 1402
3.693Te-131 $E_\gamma = 948.54$ keV . . . 1404
3.694Te-131 $E_\gamma = 997.25$ keV . . . 1406
3.695Te-131 $E_\gamma = 1146.96$ keV . . . 1408

3.696Te-131 E_γ = 81.14 keV 1410
3.697Te-131 E_γ = 102.06 keV 1412
3.698Te-131 E_γ = 149.71 keV 1414
3.699Te-131 E_γ = 182.25 keV 1416
3.700Te-131 E_γ = 200.63 keV 1418
3.701Te-131 E_γ = 240.93 keV 1420
3.702Te-131 E_γ = 278.56 keV 1422
3.703Te-131 E_γ = 334.27 keV 1424
3.704Te-131 E_γ = 364.98 keV 1426
3.705Te-131 E_γ = 452.30 keV 1428
3.706Te-131 E_γ = 462.92 keV 1430
3.707Te-131 E_γ = 586.30 keV 1432
3.708Te-131 E_γ = 665.05 keV 1434
3.709Te-131 E_γ = 713.10 keV 1436
3.710Te-131 E_γ = 744.20 keV 1438
3.711Te-131 E_γ = 773.67 keV 1440
3.712Te-131 E_γ = 782.49 keV 1442
3.713Te-131 E_γ = 793.75 keV 1444
3.714Te-131 E_γ = 822.78 keV 1446
3.715Te-131 E_γ = 852.21 keV 1448
3.716Te-131 E_γ = 910.00 keV 1450
3.717Te-131 E_γ = 920.62 keV 1452
3.718Te-131 E_γ = 1059.69 keV 1454
3.719Te-131 E_γ = 1125.46 keV 1456
3.720Te-131 E_γ = 1148.89 keV 1458
3.721Te-131 E_γ = 1206.60 keV 1460
3.722Te-131 E_γ = 1646.01 keV 1462
3.723Te-131 E_γ = 1887.70 keV 1464
3.724Te-131 E_γ = 2000.94 keV 1466
3.725Te-132 E_γ = 49.72 keV 1468
3.726Te-132 E_γ = 111.76 keV 1471
3.727Te-132 E_γ = 116.30 keV 1473
3.728Te-132 E_γ = 228.16 keV 1475
3.729Te-133 E_γ = 312.08 keV 1477
3.730Te-133 E_γ = 407.63 keV 1479
3.731Te-133 E_γ = 719.71 keV 1481
3.732Te-133 E_γ = 786.93 keV 1483
3.733Te-133 E_γ = 844.36 keV 1485
3.734Te-133 E_γ = 930.71 keV 1487
3.735Te-133 E_γ = 997.66 keV 1489
3.736Te-133 E_γ = 1000.72 keV 1491
3.737Te-133 E_γ = 1021.13 keV 1493
3.738Te-133 E_γ = 1061.61 keV 1495
3.739Te-133 E_γ = 1252.08 keV 1497
3.740Te-133 E_γ = 1333.21 keV 1499
3.741Te-133 E_γ = 1717.61 keV 1501
3.742Te-133 E_γ = 1881.52 keV 1503

3.743Te-133 $E_\gamma = 2136.51$ keV 1505
3.744Te-133 $E_\gamma = 88.06$ keV 1507
3.745Te-133 $E_\gamma = 94.99$ keV 1509
3.746Te-133 $E_\gamma = 169.02$ keV 1511
3.747Te-133 $E_\gamma = 213.48$ keV 1513
3.748Te-133 $E_\gamma = 261.63$ keV 1515
3.749Te-133 $E_\gamma = 312.07$ keV 1517
3.750Te-133 $E_\gamma = 334.24$ keV 1519
3.751Te-133 $E_\gamma = 334.26$ keV 1521
3.752Te-133 $E_\gamma = 429.03$ keV 1523
3.753Te-133 $E_\gamma = 435.28$ keV 1525
3.754Te-133 $E_\gamma = 444.94$ keV 1527
3.755Te-133 $E_\gamma = 462.23$ keV 1529
3.756Te-133 $E_\gamma = 574.11$ keV 1531
3.757Te-133 $E_\gamma = 605.11$ keV 1533
3.758Te-133 $E_\gamma = 647.51$ keV 1535
3.759Te-133 $E_\gamma = 702.91$ keV 1537
3.760Te-133 $E_\gamma = 734.00$ keV 1539
3.761Te-133 $E_\gamma = 779.67$ keV 1541
3.762Te-133 $E_\gamma = 800.54$ keV 1543
3.763Te-133 $E_\gamma = 863.96$ keV 1545
3.764Te-133 $E_\gamma = 882.70$ keV 1547
3.765Te-133 $E_\gamma = 884.80$ keV 1549
3.766Te-133 $E_\gamma = 912.67$ keV 1551
3.767Te-133 $E_\gamma = 914.77$ keV 1553
3.768Te-133 $E_\gamma = 978.30$ keV 1555
3.769Te-133 $E_\gamma = 980.26$ keV 1557
3.770Te-133 $E_\gamma = 1029.88$ keV 1559
3.771Te-133 $E_\gamma = 1061.89$ keV 1561
3.772Te-133 $E_\gamma = 1142.74$ keV 1563
3.773Te-133 $E_\gamma = 1348.87$ keV 1565
3.774Te-133 $E_\gamma = 1516.26$ keV 1567
3.775Te-133 $E_\gamma = 1587.66$ keV 1569
3.776Te-133 $E_\gamma = 1683.23$ keV 1571
3.777Te-133 $E_\gamma = 2005.33$ keV 1573
3.778Te-133 $E_\gamma = 2049.70$ keV 1575
3.779Te-134 $E_\gamma = 79.44$ keV 1577
3.780Te-134 $E_\gamma = 180.89$ keV 1579
3.781Te-134 $E_\gamma = 201.24$ keV 1581
3.782Te-134 $E_\gamma = 210.46$ keV 1583
3.783Te-134 $E_\gamma = 277.95$ keV 1585
3.784Te-134 $E_\gamma = 435.06$ keV 1587
3.785Te-134 $E_\gamma = 461.00$ keV 1589
3.786Te-134 $E_\gamma = 464.64$ keV 1591
3.787Te-134 $E_\gamma = 565.99$ keV 1593
3.788Te-134 $E_\gamma = 636.26$ keV 1595
3.789Te-134 $E_\gamma = 665.85$ keV 1597

3.790Te-134 E_γ = 712.97 keV . . . 1599
3.791Te-134 E_γ = 742.59 keV . . . 1601
3.792Te-134 E_γ = 767.20 keV . . . 1603
3.793Te-134 E_γ = 844.06 keV . . . 1605
3.794Te-134 E_γ = 925.55 keV . . . 1607
3.795I-129 E_γ = 39.58 keV . . . 1609
3.796I-131 E_γ = 80.18 keV . . . 1612
3.797I-131 E_γ = 284.30 keV . . . 1614
3.798I-131 E_γ = 364.49 keV . . . 1616
3.799I-131 E_γ = 636.99 keV . . . 1618
3.800I-131 E_γ = 722.91 keV . . . 1620
3.801I-132 E_γ = 262.90 keV . . . 1622
3.802I-132 E_γ = 505.79 keV . . . 1624
3.803I-132 E_γ = 522.65 keV . . . 1626
3.804I-132 E_γ = 547.20 keV . . . 1628
3.805I-132 E_γ = 621.20 keV . . . 1630
3.806I-132 E_γ = 630.19 keV . . . 1632
3.807I-132 E_γ = 650.50 keV . . . 1634
3.808I-132 E_γ = 667.71 keV . . . 1636
3.809I-132 E_γ = 669.80 keV . . . 1638
3.810I-132 E_γ = 671.40 keV . . . 1640
3.811I-132 E_γ = 727.00 keV . . . 1642
3.812I-132 E_γ = 727.20 keV . . . 1644
3.813I-132 E_γ = 728.40 keV . . . 1646
3.814I-132 E_γ = 772.60 keV . . . 1648
3.815I-132 E_γ = 780.00 keV . . . 1650
3.816I-132 E_γ = 809.50 keV . . . 1652
3.817I-132 E_γ = 812.00 keV . . . 1654
3.818I-132 E_γ = 876.60 keV . . . 1656
3.819I-132 E_γ = 954.55 keV . . . 1658
3.820I-132 E_γ = 1136.00 keV . . . 1660
3.821I-132 E_γ = 1143.30 keV . . . 1662
3.822I-132 E_γ = 1172.90 keV . . . 1664
3.823I-132 E_γ = 1290.80 keV . . . 1666
3.824I-132 E_γ = 1295.10 keV . . . 1668
3.825I-132 E_γ = 1372.07 keV . . . 1670
3.826I-132 E_γ = 1398.57 keV . . . 1672
3.827I-132 E_γ = 1442.56 keV . . . 1674
3.828I-132 E_γ = 1921.08 keV . . . 1676
3.829I-132 E_γ = 2002.20 keV . . . 1678
3.830I-133 E_γ = 510.53 keV . . . 1680
3.831I-133 E_γ = 529.87 keV . . . 1682
3.832I-133 E_γ = 706.58 keV . . . 1684
3.833I-133 E_γ = 856.28 keV . . . 1686
3.834I-133 E_γ = 875.33 keV . . . 1688
3.835I-133 E_γ = 1236.44 keV . . . 1690
3.836I-133 E_γ = 1298.22 keV . . . 1692

3.837I-134 E_γ = 135.40 keV 1694
3.838I-134 E_γ = 235.47 keV 1696
3.839I-134 E_γ = 405.45 keV 1698
3.840I-134 E_γ = 433.35 keV 1700
3.841I-134 E_γ = 458.92 keV 1702
3.842I-134 E_γ = 488.88 keV 1704
3.843I-134 E_γ = 514.40 keV 1706
3.844I-134 E_γ = 540.83 keV 1708
3.845I-134 E_γ = 595.36 keV 1710
3.846I-134 E_γ = 621.79 keV 1712
3.847I-134 E_γ = 627.96 keV 1714
3.848I-134 E_γ = 677.34 keV 1716
3.849I-134 E_γ = 730.74 keV 1718
3.850I-134 E_γ = 766.68 keV 1720
3.851I-134 E_γ = 847.03 keV 1722
3.852I-134 E_γ = 857.29 keV 1724
3.853I-134 E_γ = 884.09 keV 1726
3.854I-134 E_γ = 947.86 keV 1728
3.855I-134 E_γ = 974.67 keV 1730
3.856I-134 E_γ = 1040.25 keV 1732
3.857I-134 E_γ = 1072.55 keV 1734
3.858I-134 E_γ = 1136.16 keV 1736
3.859I-134 E_γ = 1455.24 keV 1738
3.860I-134 E_γ = 1613.80 keV 1740
3.861I-134 E_γ = 1741.49 keV 1742
3.862I-134 E_γ = 1806.84 keV 1744
3.863I-135 E_γ = 220.50 keV 1746
3.864I-135 E_γ = 288.45 keV 1748
3.865I-135 E_γ = 417.63 keV 1750
3.866I-135 E_γ = 546.56 keV 1752
3.867I-135 E_γ = 836.80 keV 1754
3.868I-135 E_γ = 972.62 keV 1756
3.869I-135 E_γ = 1038.76 keV 1758
3.870I-135 E_γ = 1101.58 keV 1760
3.871I-135 E_γ = 1124.00 keV 1762
3.872I-135 E_γ = 1131.51 keV 1764
3.873I-135 E_γ = 1260.41 keV 1766
3.874I-135 E_γ = 1457.56 keV 1768
3.875I-135 E_γ = 1502.79 keV 1770
3.876I-135 E_γ = 1566.41 keV 1772
3.877I-135 E_γ = 1678.03 keV 1774
3.878I-135 E_γ = 1706.46 keV 1776
3.879I-135 E_γ = 1791.20 keV 1778
3.880Xe-131 E_γ = 163.93 keV 1780
3.881Xe-133 E_γ = 81.00 keV 1782
3.882Xe-133 E_γ = 233.22 keV 1784
3.883Xe-135 E_γ = 249.79 keV 1786

3.884Xe-135 E_γ = 608.18 keV 1788
3.885Xe-135 E_γ = 526.56 keV 1790
3.886Xe-138 E_γ = 153.86 keV 1792
3.887Xe-138 E_γ = 242.56 keV 1794
3.888Xe-138 E_γ = 258.41 keV 1796
3.889Xe-138 E_γ = 396.51 keV 1798
3.890Xe-138 E_γ = 401.36 keV 1800
3.891Xe-138 E_γ = 434.56 keV 1802
3.892Xe-138 E_γ = 1114.29 keV 1804
3.893Xe-138 E_γ = 1768.26 keV 1806
3.894Xe-138 E_γ = 1850.86 keV 1808
3.895Xe-138 E_γ = 2004.75 keV 1810
3.896Xe-138 E_γ = 2015.82 keV 1812
3.897Xe-138 E_γ = 2079.17 keV 1814
3.898Xe-138 E_γ = 2252.26 keV 1816
3.899Cs-138 E_γ = 138.10 keV 1818
3.900Cs-138 E_γ = 227.76 keV 1820
3.901Cs-138 E_γ = 408.98 keV 1822
3.902Cs-138 E_γ = 462.80 keV 1824
3.903Cs-138 E_γ = 547.00 keV 1826
3.904Cs-138 E_γ = 871.80 keV 1828
3.905Cs-138 E_γ = 1009.78 keV 1830
3.906Cs-138 E_γ = 1147.22 keV 1832
3.907Cs-138 E_γ = 1343.59 keV 1834
3.908Cs-138 E_γ = 1435.86 keV 1836
3.909Cs-138 E_γ = 2218.00 keV 1838
3.910Cs-138 E_γ = 2639.59 keV 1840
3.911Cs-139 E_γ = 627.24 keV 1842
3.912Cs-139 E_γ = 1283.23 keV 1844
3.913Ba-139 E_γ = 165.86 keV 1846
3.914Ba-140 E_γ = 13.85 keV 1848
3.915Ba-140 E_γ = 29.97 keV 1851
3.916Ba-140 E_γ = 162.66 keV 1854
3.917Ba-140 E_γ = 304.85 keV 1856
3.918Ba-140 E_γ = 423.72 keV 1858
3.919Ba-140 E_γ = 437.58 keV 1860
3.920Ba-140 E_γ = 537.26 keV 1862
3.921Ba-141 E_γ = 112.80 keV 1864
3.922Ba-141 E_γ = 190.33 keV 1866
3.923Ba-141 E_γ = 276.95 keV 1868
3.924Ba-141 E_γ = 304.19 keV 1870
3.925Ba-141 E_γ = 343.67 keV 1872
3.926Ba-141 E_γ = 390.00 keV 1874
3.927Ba-141 E_γ = 457.80 keV 1876
3.928Ba-141 E_γ = 462.30 keV 1878
3.929Ba-141 E_γ = 467.50 keV 1880
3.930Ba-141 E_γ = 625.40 keV 1882

3.931Ba-141 E_γ = 648.10 keV 1884
3.932Ba-141 E_γ = 739.20 keV 1886
3.933Ba-141 E_γ = 831.70 keV 1888
3.934Ba-141 E_γ = 876.30 keV 1890
3.935Ba-141 E_γ = 1160.80 keV 1892
3.936Ba-141 E_γ = 1197.30 keV 1894
3.937Ba-141 E_γ = 1682.30 keV 1896
3.938Ba-142 E_γ = 77.59 keV 1898
3.939Ba-142 E_γ = 177.00 keV 1900
3.940Ba-142 E_γ = 231.61 keV 1902
3.941Ba-142 E_γ = 255.30 keV 1904
3.942Ba-142 E_γ = 286.30 keV 1906
3.943Ba-142 E_γ = 309.20 keV 1908
3.944Ba-142 E_γ = 335.00 keV 1910
3.945Ba-142 E_γ = 363.96 keV 1912
3.946Ba-142 E_γ = 425.04 keV 1914
3.947Ba-142 E_γ = 432.30 keV 1916
3.948Ba-142 E_γ = 599.80 keV 1918
3.949Ba-142 E_γ = 840.40 keV 1920
3.950Ba-142 E_γ = 895.20 keV 1922
3.951Ba-142 E_γ = 949.10 keV 1924
3.952Ba-142 E_γ = 1001.20 keV 1926
3.953Ba-142 E_γ = 1078.70 keV 1928
3.954Ba-142 E_γ = 1094.10 keV 1930
3.955Ba-142 E_γ = 1126.80 keV 1932
3.956Ba-142 E_γ = 1202.40 keV 1934
3.957Ba-142 E_γ = 1204.30 keV 1936
3.958Ba-142 E_γ = 1380.20 keV 1938
3.959La-140 E_γ = 328.76 keV 1940
3.960La-140 E_γ = 432.49 keV 1942
3.961La-140 E_γ = 487.02 keV 1944
3.962La-140 E_γ = 751.64 keV 1946
3.963La-140 E_γ = 815.77 keV 1948
3.964La-140 E_γ = 867.85 keV 1950
3.965La-140 E_γ = 919.55 keV 1952
3.966La-140 E_γ = 925.19 keV 1954
3.967La-140 E_γ = 1596.21 keV 1956
3.968La-140 E_γ = 2521.40 keV 1958
3.969La-141 E_γ = 1354.52 keV 1960
3.970La-142 E_γ = 578.09 keV 1962
3.971La-142 E_γ = 641.28 keV 1964
3.972La-142 E_γ = 861.60 keV 1966
3.973La-142 E_γ = 894.90 keV 1968
3.974La-142 E_γ = 1011.40 keV 1970
3.975La-142 E_γ = 1043.70 keV 1972
3.976La-142 E_γ = 1160.20 keV 1974
3.977La-142 E_γ = 1233.10 keV 1976

3.978La-142 E_γ = 1363.00 keV 1978
3.979La-142 E_γ = 1545.80 keV 1980
3.980La-142 E_γ = 1722.70 keV 1982
3.981La-142 E_γ = 1756.40 keV 1984
3.982La-142 E_γ = 1901.30 keV 1986
3.983La-142 E_γ = 2055.20 keV 1988
3.984La-142 E_γ = 2100.40 keV 1990
3.985La-142 E_γ = 2187.20 keV 1992
3.986La-142 E_γ = 2397.80 keV 1994
3.987La-142 E_γ = 2542.70 keV 1996
3.988La-142 E_γ = 2666.80 keV 1998
3.989La-142 E_γ = 2971.00 keV 2000
3.990La-143 E_γ = 620.30 keV 2002
3.991La-143 E_γ = 621.40 keV 2004
3.992La-143 E_γ = 643.75 keV 2006
3.993La-143 E_γ = 798.14 keV 2008
3.994La-143 E_γ = 1148.50 keV 2010
3.995La-143 E_γ = 1961.44 keV 2012
3.996Ce-141 E_γ = 145.44 keV 2014
3.997Ce-143 E_γ = 57.36 keV 2016
3.998Ce-143 E_γ = 231.55 keV 2018
3.999Ce-143 E_γ = 293.27 keV 2020
3.1000Ce-143 E_γ = 350.62 keV 2022
3.1001Ce-143 E_γ = 490.37 keV 2024
3.1002Ce-143 E_γ = 664.57 keV 2026
3.1003Ce-143 E_γ = 721.93 keV 2028
3.1004Ce-143 E_γ = 880.46 keV 2030
3.1005Ce-144 E_γ = 80.12 keV 2032
3.1006Ce-144 E_γ = 133.51 keV 2034
3.1007Ce-146 E_γ = 35.05 keV 2036
3.1008Ce-146 E_γ = 98.55 keV 2039
3.1009Ce-146 E_γ = 100.88 keV 2041
3.1010Ce-146 E_γ = 133.52 keV 2043
3.1011Ce-146 E_γ = 141.29 keV 2045
3.1012Ce-146 E_γ = 210.46 keV 2047
3.1013Ce-146 E_γ = 218.23 keV 2049
3.1014Ce-146 E_γ = 250.89 keV 2051
3.1015Ce-146 E_γ = 264.56 keV 2053
3.1016Ce-146 E_γ = 316.74 keV 2055
3.1017Ce-146 E_γ = 351.49 keV 2057
3.1018Ce-146 E_γ = 415.71 keV 2059
3.1019Ce-146 E_γ = 503.00 keV 2061
3.1020Pr-144 E_γ = 696.51 keV 2063
3.1021Pr-146 E_γ = 453.88 keV 2065
3.1022Pr-146 E_γ = 601.74 keV 2067
3.1023Pr-146 E_γ = 735.72 keV 2069
3.1024Pr-146 E_γ = 788.90 keV 2071

3.1025 Pr-146 E_γ = 922.92 keV 2073
3.1026 Pr-146 E_γ = 1016.78 keV 2075
3.1027 Pr-146 E_γ = 1376.71 keV 2077
3.1028 Pr-146 E_γ = 1451.82 keV 2079
3.1029 Pr-146 E_γ = 1470.63 keV 2081
3.1030 Pr-146 E_γ = 1524.73 keV 2083
3.1031 Pr-146 E_γ = 2252.19 keV 2085
3.1032 Pr-147 E_γ = 49.88 keV 2087
3.1033 Pr-147 E_γ = 77.97 keV 2090
3.1034 Pr-147 E_γ = 86.69 keV 2092
3.1035 Pr-147 E_γ = 127.80 keV 2094
3.1036 Pr-147 E_γ = 141.00 keV 2096
3.1037 Pr-147 E_γ = 186.50 keV 2098
3.1038 Pr-147 E_γ = 214.60 keV 2100
3.1039 Pr-147 E_γ = 249.20 keV 2102
3.1040 Pr-147 E_γ = 314.70 keV 2104
3.1041 Pr-147 E_γ = 328.80 keV 2106
3.1042 Pr-147 E_γ = 335.70 keV 2108
3.1043 Pr-147 E_γ = 388.80 keV 2110
3.1044 Pr-147 E_γ = 466.80 keV 2112
3.1045 Pr-147 E_γ = 477.90 keV 2114
3.1046 Pr-147 E_γ = 516.70 keV 2116
3.1047 Pr-147 E_γ = 554.70 keV 2118
3.1048 Pr-147 E_γ = 577.90 keV 2120
3.1049 Pr-147 E_γ = 641.40 keV 2122
3.1050 Pr-147 E_γ = 718.90 keV 2124
3.1051 Pr-147 E_γ = 793.80 keV 2127
3.1052 Pr-147 E_γ = 942.30 keV 2129
3.1053 Pr-147 E_γ = 996.00 keV 2131
3.1054 Pr-147 E_γ = 1136.70 keV 2133
3.1055 Pr-147 E_γ = 1182.80 keV 2135
3.1056 Pr-147 E_γ = 1261.10 keV 2137
3.1057 Pr-147 E_γ = 1264.20 keV 2139
3.1058 Pr-147 E_γ = 1300.40 keV 2141
3.1059 Nd-147 E_γ = 91.11 keV 2143
3.1060 Nd-147 E_γ = 319.41 keV 2145
3.1061 Nd-147 E_γ = 439.89 keV 2147
3.1062 Nd-147 E_γ = 531.02 keV 2149
3.1063 Nd-149 E_γ = 58.53 keV 2151
3.1064 Nd-149 E_γ = 58.88 keV 2153
3.1065 Nd-149 E_γ = 74.32 keV 2155
3.1066 Nd-149 E_γ = 97.00 keV 2157
3.1067 Nd-149 E_γ = 114.31 keV 2159
3.1068 Nd-149 E_γ = 155.87 keV 2161
3.1069 Nd-149 E_γ = 188.64 keV 2163
3.1070 Nd-149 E_γ = 198.93 keV 2165
3.1071 Nd-149 E_γ = 208.15 keV 2167

3.1072 Nd-149 E_γ = 211.31 keV . . . 2169
3.1073 Nd-149 E_γ = 240.22 keV . . . 2171
3.1074 Nd-149 E_γ = 267.69 keV . . . 2173
3.1075 Nd-149 E_γ = 270.17 keV . . . 2175
3.1076 Nd-149 E_γ = 326.55 keV . . . 2177
3.1077 Nd-149 E_γ = 349.23 keV . . . 2179
3.1078 Nd-149 E_γ = 351.63 keV . . . 2181
3.1079 Nd-149 E_γ = 423.55 keV . . . 2183
3.1080 Nd-149 E_γ = 443.55 keV . . . 2185
3.1081 Nd-149 E_γ = 540.51 keV . . . 2187
3.1082 Nd-149 E_γ = 654.83 keV . . . 2189
3.1083 Nd-151 E_γ = 68.98 keV . . . 2191
3.1084 Nd-151 E_γ = 85.12 keV . . . 2193
3.1085 Nd-151 E_γ = 89.96 keV . . . 2195
3.1086 Nd-151 E_γ = 116.80 keV . . . 2197
3.1087 Nd-151 E_γ = 138.89 keV . . . 2199
3.1088 Nd-151 E_γ = 170.76 keV . . . 2201
3.1089 Nd-151 E_γ = 175.07 keV . . . 2203
3.1090 Nd-151 E_γ = 255.68 keV . . . 2205
3.1091 Nd-151 E_γ = 300.58 keV . . . 2207
3.1092 Nd-151 E_γ = 423.56 keV . . . 2209
3.1093 Nd-151 E_γ = 585.22 keV . . . 2211
3.1094 Nd-151 E_γ = 677.88 keV . . . 2213
3.1095 Nd-151 E_γ = 736.23 keV . . . 2215
3.1096 Nd-151 E_γ = 739.20 keV . . . 2217
3.1097 Nd-151 E_γ = 755.57 keV . . . 2219
3.1098 Nd-151 E_γ = 797.53 keV . . . 2221
3.1099 Nd-151 E_γ = 1016.40 keV . . . 2223
3.1100 Nd-151 E_γ = 1122.63 keV . . . 2225
3.1101 Nd-151 E_γ = 1180.89 keV . . . 2227
3.1102 Nd-152 E_γ = 16.09 keV . . . 2229
3.1103 Nd-152 E_γ = 44.44 keV . . . 2232
3.1104 Nd-152 E_γ = 250.15 keV . . . 2234
3.1105 Nd-152 E_γ = 278.56 keV . . . 2236
3.1106 Nd-152 E_γ = 294.47 keV . . . 2238
3.1107 Nd-152 E_γ = 592.50 keV . . . 2240
3.1108 Pm-149 E_γ = 285.95 keV . . . 2242
3.1109 Pm-151 E_γ = 64.88 keV . . . 2244
3.1110 Pm-151 E_γ = 65.83 keV . . . 2246
3.1111 Pm-151 E_γ = 100.02 keV . . . 2248
3.1112 Pm-151 E_γ = 101.93 keV . . . 2250
3.1113 Pm-151 E_γ = 104.84 keV . . . 2252
3.1114 Pm-151 E_γ = 163.58 keV . . . 2254
3.1115 Pm-151 E_γ = 167.75 keV . . . 2256
3.1116 Pm-151 E_γ = 177.16 keV . . . 2258
3.1117 Pm-151 E_γ = 209.00 keV . . . 2260
3.1118 Pm-151 E_γ = 232.43 keV . . . 2262

3.1119 Pm-151 $E_\gamma = 240.09$ keV . . . 2264
3.1120 Pm-151 $E_\gamma = 275.21$ keV . . . 2266
3.1121 Pm-151 $E_\gamma = 323.94$ keV . . . 2268
3.1122 Pm-151 $E_\gamma = 340.08$ keV . . . 2270
3.1123 Pm-151 $E_\gamma = 344.90$ keV . . . 2272
3.1124 Pm-151 $E_\gamma = 440.85$ keV . . . 2274
3.1125 Pm-151 $E_\gamma = 445.68$ keV . . . 2276
3.1126 Pm-151 $E_\gamma = 636.20$ keV . . . 2278
3.1127 Pm-151 $E_\gamma = 717.72$ keV . . . 2280
3.1128 Pm-151 $E_\gamma = 752.82$ keV . . . 2282
3.1129 Sm-153 $E_\gamma = 69.67$ keV . . . 2284
3.1130 Sm-153 $E_\gamma = 103.18$ keV . . . 2286
3.1131 Sm-155 $E_\gamma = 104.32$ keV . . . 2288
3.1132 Sm-155 $E_\gamma = 141.41$ keV . . . 2290
3.1133 Sm-155 $E_\gamma = 245.73$ keV . . . 2292
3.1134 Sm-156 $E_\gamma = 22.60$ keV . . . 2294
3.1135 Sm-156 $E_\gamma = 38.10$ keV . . . 2297
3.1136 Sm-156 $E_\gamma = 65.00$ keV . . . 2300
3.1137 Sm-156 $E_\gamma = 87.60$ keV . . . 2302
3.1138 Sm-156 $E_\gamma = 103.00$ keV . . . 2304
3.1139 Sm-156 $E_\gamma = 165.80$ keV . . . 2306
3.1140 Sm-156 $E_\gamma = 204.00$ keV . . . 2308
3.1141 Sm-156 $E_\gamma = 244.00$ keV . . . 2310
3.1142 Sm-156 $E_\gamma = 268.50$ keV . . . 2312
3.1143 Sm-156 $E_\gamma = 291.00$ keV . . . 2314
3.1144 Eu-155 $E_\gamma = 45.30$ keV . . . 2316
3.1145 Eu-155 $E_\gamma = 60.01$ keV . . . 2319
3.1146 Eu-155 $E_\gamma = 86.55$ keV . . . 2321
3.1147 Eu-155 $E_\gamma = 105.31$ keV . . . 2323
3.1148 Eu-156 $E_\gamma = 88.97$ keV . . . 2325
3.1149 Eu-156 $E_\gamma = 599.47$ keV . . . 2327
3.1150 Eu-156 $E_\gamma = 646.29$ keV . . . 2329
3.1151 Eu-156 $E_\gamma = 723.47$ keV . . . 2331
3.1152 Eu-156 $E_\gamma = 811.77$ keV . . . 2333
3.1153 Eu-156 $E_\gamma = 867.01$ keV . . . 2335
3.1154 Eu-156 $E_\gamma = 944.35$ keV . . . 2337
3.1155 Eu-156 $E_\gamma = 960.50$ keV . . . 2339
3.1156 Eu-156 $E_\gamma = 1065.14$ keV . . . 2341
3.1157 Eu-156 $E_\gamma = 1079.16$ keV . . . 2343
3.1158 Eu-156 $E_\gamma = 1153.67$ keV . . . 2345
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515 Te-125 gamma ray 600.597 keV. 1048

516 Te-125 gamma ray 606.713 keV. 1050
517 Te-125 gamma ray 635.950 keV. 1052
518 Te-125 gamma ray 671.441 keV. 1054
519 Te-126 gamma ray 414.500 keV. 1056
520 Te-126 gamma ray 620.000 keV. 1058
521 Te-126 gamma ray 666.100 keV. 1060
522 Te-126 gamma ray 694.800 keV. 1062
523 Te-126 gamma ray 928.200 keV. 1064
524 Te-126 gamma ray 1034.900 keV. 1066
525 Te-127 gamma ray 61.100 keV. 1068
526 Te-127 gamma ray 252.400 keV. 1070
527 Te-127 gamma ray 290.800 keV. 1072
528 Te-127 gamma ray 412.100 keV. 1074
529 Te-127 gamma ray 445.100 keV. 1076
530 Te-127 gamma ray 473.000 keV. 1078
531 Te-127 gamma ray 543.300 keV. 1080
532 Te-127 gamma ray 603.500 keV. 1082
533 Te-127 gamma ray 685.700 keV. 1084
534 Te-127 gamma ray 698.500 keV. 1086
535 Te-127 gamma ray 722.200 keV. 1088
536 Te-127 gamma ray 783.700 keV. 1090
537 Te-128 gamma ray 227.300 keV. 1092
538 Te-128 gamma ray 314.100 keV. 1094
539 Te-128 gamma ray 317.700 keV. 1096
540 Te-128 gamma ray 322.300 keV. 1098
541 Te-128 gamma ray 357.000 keV. 1100
542 Te-128 gamma ray 366.100 keV. 1102
543 Te-128 gamma ray 445.700 keV. 1104
544 Te-128 gamma ray 454.500 keV. 1106
545 Te-128 gamma ray 459.500 keV. 1108
546 Te-128 gamma ray 526.500 keV. 1110
547 Te-128 gamma ray 603.000 keV. 1112
548 Te-128 gamma ray 628.700 keV. 1114
549 Te-128 gamma ray 636.200 keV. 1116
550 Te-128 gamma ray 654.200 keV. 1118
551 Te-128 gamma ray 667.100 keV. 1120
552 Te-128 gamma ray 683.900 keV. 1122
553 Te-128 gamma ray 692.900 keV. 1124
554 Te-128 gamma ray 727.600 keV. 1126
555 Te-128 gamma ray 743.300 keV. 1128
556 Te-128 gamma ray 754.000 keV. 1130
557 Te-128 gamma ray 773.700 keV. 1132
558 Te-128 gamma ray 802.700 keV. 1134
559 Te-128 gamma ray 813.600 keV. 1136
560 Te-128 gamma ray 845.800 keV. 1138
561 Te-128 gamma ray 878.000 keV. 1140
562 Te-128 gamma ray 1047.500 keV. 1142

563 Te-128 gamma ray 1078.600 keV. 1144
564 Te-128 gamma ray 1112.700 keV. 1146
565 Te-128 gamma ray 1158.200 keV. 1148
566 Te-128 gamma ray 1181.600 keV. 1150
567 Te-128 gamma ray 314.000 keV. 1152
568 Te-128 gamma ray 594.100 keV. 1154
569 Te-128 gamma ray 743.240 keV. 1156
570 Te-128 gamma ray 753.900 keV. 1158
571 Te-128 gamma ray 787.600 keV. 1160
572 Te-128 gamma ray 844.000 keV. 1162
573 Te-128 gamma ray 908.300 keV. 1164
574 Te-128 gamma ray 1158.000 keV. 1166
575 Te-129 gamma ray 180.800 keV. 1168
576 Te-129 gamma ray 295.500 keV. 1170
577 Te-129 gamma ray 359.400 keV. 1172
578 Te-129 gamma ray 405.000 keV. 1174
579 Te-129 gamma ray 523.800 keV. 1176
580 Te-129 gamma ray 544.700 keV. 1178
581 Te-129 gamma ray 633.700 keV. 1180
582 Te-129 gamma ray 654.300 keV. 1182
583 Te-129 gamma ray 683.600 keV. 1184
584 Te-129 gamma ray 761.000 keV. 1186
585 Te-129 gamma ray 773.400 keV. 1188
586 Te-129 gamma ray 786.600 keV. 1190
587 Te-129 gamma ray 812.800 keV. 1192
588 Te-129 gamma ray 876.200 keV. 1194
589 Te-129 gamma ray 914.600 keV. 1196
590 Te-129 gamma ray 966.400 keV. 1198
591 Te-129 gamma ray 1030.100 keV. 1200
592 Te-129 gamma ray 1736.500 keV. 1202
593 Te-130 gamma ray 182.330 keV. 1204
594 Te-130 gamma ray 258.000 keV. 1206
595 Te-130 gamma ray 285.480 keV. 1208
596 Te-130 gamma ray 303.300 keV. 1210
597 Te-130 gamma ray 330.914 keV. 1212
598 Te-130 gamma ray 455.400 keV. 1214
599 Te-130 gamma ray 468.000 keV. 1216
600 Te-130 gamma ray 483.600 keV. 1218
601 Te-130 gamma ray 506.700 keV. 1220
602 Te-130 gamma ray 626.700 keV. 1222
603 Te-130 gamma ray 635.700 keV. 1224
604 Te-130 gamma ray 654.700 keV. 1226
605 Te-130 gamma ray 658.200 keV. 1228
606 Te-130 gamma ray 669.200 keV. 1230
607 Te-130 gamma ray 680.900 keV. 1232
608 Te-130 gamma ray 686.600 keV. 1234
609 Te-130 gamma ray 732.000 keV. 1236

610 Te-130 gamma ray 793.400 keV. 1238
611 Te-130 gamma ray 829.800 keV. 1240
612 Te-130 gamma ray 839.520 keV. 1242
613 Te-130 gamma ray 855.700 keV. 1244
614 Te-130 gamma ray 883.300 keV. 1246
615 Te-130 gamma ray 914.900 keV. 1248
616 Te-130 gamma ray 934.900 keV. 1250
617 Te-130 gamma ray 992.100 keV. 1252
618 Te-130 gamma ray 1000.200 keV. 1254
619 Te-130 gamma ray 1030.700 keV. 1256
620 Te-130 gamma ray 1089.500 keV. 1258
621 Te-130 gamma ray 1141.400 keV. 1260
622 Te-130 gamma ray 1239.000 keV. 1262
623 Te-130 gamma ray 1292.300 keV. 1264
624 Te-130 gamma ray 1368.700 keV. 1266
625 Te-130 gamma ray 1419.300 keV. 1268
626 Te-130 gamma ray 1443.700 keV. 1270
627 Te-130 gamma ray 1581.900 keV. 1272
628 Te-130 gamma ray 1762.600 keV. 1274
629 Te-130 gamma ray 1948.000 keV. 1276
630 Te-130 gamma ray 1997.400 keV. 1278
631 Te-130 gamma ray 182.330 keV. 1280
632 Te-130 gamma ray 348.500 keV. 1282
633 Te-130 gamma ray 468.000 keV. 1284
634 Te-130 gamma ray 502.600 keV. 1286
635 Te-130 gamma ray 647.700 keV. 1288
636 Te-130 gamma ray 697.400 keV. 1290
637 Te-130 gamma ray 748.600 keV. 1292
638 Te-130 gamma ray 793.400 keV. 1294
639 Te-130 gamma ray 816.300 keV. 1296
640 Te-130 gamma ray 839.520 keV. 1298
641 Te-130 gamma ray 920.800 keV. 1300
642 Te-130 gamma ray 942.200 keV. 1302
643 Te-130 gamma ray 1017.500 keV. 1304
644 Te-130 gamma ray 1046.500 keV. 1306
645 Te-130 gamma ray 1102.800 keV. 1308
646 Te-130 gamma ray 1131.900 keV. 1310
647 Te-130 gamma ray 1142.000 keV. 1312
648 Te-130 gamma ray 1177.300 keV. 1314
649 Te-130 gamma ray 1200.000 keV. 1316
650 Te-130 gamma ray 1491.200 keV. 1318
651 Te-130 gamma ray 1598.000 keV. 1320
652 Te-130 gamma ray 1896.900 keV. 1322
653 Te-131 gamma ray 134.600 keV. 1324
654 Te-131 gamma ray 274.260 keV. 1326
655 Te-131 gamma ray 295.700 keV. 1328
656 Te-131 gamma ray 301.300 keV. 1330

657 Te-131 gamma ray 323.800 keV. 1332
658 Te-131 gamma ray 326.200 keV. 1334
659 Te-131 gamma ray 619.780 keV. 1336
660 Te-131 gamma ray 625.650 keV. 1338
661 Te-131 gamma ray 642.300 keV. 1340
662 Te-131 gamma ray 669.000 keV. 1342
663 Te-131 gamma ray 726.300 keV. 1344
664 Te-131 gamma ray 824.910 keV. 1346
665 Te-131 gamma ray 933.090 keV. 1348
666 Te-131 gamma ray 943.410 keV. 1350
667 Te-131 gamma ray 1123.630 keV. 1352
668 Te-131 gamma ray 1191.900 keV. 1354
669 Te-131 gamma ray 1207.400 keV. 1356
670 Te-131 gamma ray 1233.760 keV. 1358
671 Te-131 gamma ray 1267.570 keV. 1360
672 Te-131 gamma ray 1284.700 keV. 1362
673 Te-131 gamma ray 1398.900 keV. 1364
674 Te-131 gamma ray 1470.300 keV. 1366
675 Te-131 gamma ray 1608.800 keV. 1368
676 Te-131 gamma ray 1721.800 keV. 1370
677 Te-131 gamma ray 1756.100 keV. 1372
678 Te-131 gamma ray 1821.200 keV. 1374
679 Te-131 gamma ray 1854.310 keV. 1376
680 Te-131 gamma ray 2179.200 keV. 1378
681 Te-131 gamma ray 2335.030 keV. 1380
682 Te-131 gamma ray 2398.600 keV. 1382
683 Te-131 gamma ray 2662.300 keV. 1384
684 I-129 gamma ray 27.810 keV. 1386
685 I-129 gamma ray 459.600 keV. 1389
686 I-129 gamma ray 487.390 keV. 1391
687 I-129 gamma ray 695.880 keV. 1393
688 I-131 gamma ray 149.716 keV. 1395
689 I-131 gamma ray 452.323 keV. 1397
690 I-131 gamma ray 492.660 keV. 1399
691 I-131 gamma ray 602.039 keV. 1401
692 I-131 gamma ray 654.260 keV. 1403
693 I-131 gamma ray 948.542 keV. 1405
694 I-131 gamma ray 997.250 keV. 1407
695 I-131 gamma ray 1146.960 keV. 1409
696 I-131 gamma ray 81.140 keV. 1411
697 I-131 gamma ray 102.060 keV. 1413
698 I-131 gamma ray 149.710 keV. 1415
699 I-131 gamma ray 182.250 keV. 1417
700 I-131 gamma ray 200.630 keV. 1419
701 I-131 gamma ray 240.930 keV. 1421
702 I-131 gamma ray 278.560 keV. 1423
703 I-131 gamma ray 334.270 keV. 1425

704 I-131 gamma ray 364.980 keV. 1427
705 I-131 gamma ray 452.300 keV. 1429
706 I-131 gamma ray 462.920 keV. 1431
707 I-131 gamma ray 586.300 keV. 1433
708 I-131 gamma ray 665.050 keV. 1435
709 I-131 gamma ray 713.100 keV. 1437
710 I-131 gamma ray 744.200 keV. 1439
711 I-131 gamma ray 773.670 keV. 1441
712 I-131 gamma ray 782.490 keV. 1443
713 I-131 gamma ray 793.750 keV. 1445
714 I-131 gamma ray 822.780 keV. 1447
715 I-131 gamma ray 852.210 keV. 1449
716 I-131 gamma ray 910.000 keV. 1451
717 I-131 gamma ray 920.620 keV. 1453
718 I-131 gamma ray 1059.690 keV. 1455
719 I-131 gamma ray 1125.460 keV. 1457
720 I-131 gamma ray 1148.890 keV. 1459
721 I-131 gamma ray 1206.600 keV. 1461
722 I-131 gamma ray 1646.010 keV. 1463
723 I-131 gamma ray 1887.700 keV. 1465
724 I-131 gamma ray 2000.940 keV. 1467
725 I-132 gamma ray 49.720 keV. 1469
726 I-132 gamma ray 111.760 keV. 1472
727 I-132 gamma ray 116.300 keV. 1474
728 I-132 gamma ray 228.160 keV. 1476
729 I-133 gamma ray 312.080 keV. 1478
730 I-133 gamma ray 407.630 keV. 1480
731 I-133 gamma ray 719.710 keV. 1482
732 I-133 gamma ray 786.930 keV. 1484
733 I-133 gamma ray 844.360 keV. 1486
734 I-133 gamma ray 930.710 keV. 1488
735 I-133 gamma ray 997.660 keV. 1490
736 I-133 gamma ray 1000.720 keV. 1492
737 I-133 gamma ray 1021.130 keV. 1494
738 I-133 gamma ray 1061.610 keV. 1496
739 I-133 gamma ray 1252.080 keV. 1498
740 I-133 gamma ray 1333.210 keV. 1500
741 I-133 gamma ray 1717.610 keV. 1502
742 I-133 gamma ray 1881.520 keV. 1504
743 I-133 gamma ray 2136.510 keV. 1506
744 I-133 gamma ray 88.064 keV. 1508
745 I-133 gamma ray 94.989 keV. 1510
746 I-133 gamma ray 169.025 keV. 1512
747 I-133 gamma ray 213.478 keV. 1514
748 I-133 gamma ray 261.626 keV. 1516
749 I-133 gamma ray 312.072 keV. 1518
750 I-133 gamma ray 334.245 keV. 1520

751 I-133 gamma ray 334.260 keV. 1522
752 I-133 gamma ray 429.030 keV. 1524
753 I-133 gamma ray 435.280 keV. 1526
754 I-133 gamma ray 444.940 keV. 1528
755 I-133 gamma ray 462.230 keV. 1530
756 I-133 gamma ray 574.110 keV. 1532
757 I-133 gamma ray 605.110 keV. 1534
758 I-133 gamma ray 647.510 keV. 1536
759 I-133 gamma ray 702.910 keV. 1538
760 I-133 gamma ray 734.000 keV. 1540
761 I-133 gamma ray 779.670 keV. 1542
762 I-133 gamma ray 800.540 keV. 1544
763 I-133 gamma ray 863.955 keV. 1546
764 I-133 gamma ray 882.700 keV. 1548
765 I-133 gamma ray 884.800 keV. 1550
766 I-133 gamma ray 912.671 keV. 1552
767 I-133 gamma ray 914.774 keV. 1554
768 I-133 gamma ray 978.300 keV. 1556
769 I-133 gamma ray 980.260 keV. 1558
770 I-133 gamma ray 1029.880 keV. 1560
771 I-133 gamma ray 1061.890 keV. 1562
772 I-133 gamma ray 1142.740 keV. 1564
773 I-133 gamma ray 1348.870 keV. 1566
774 I-133 gamma ray 1516.260 keV. 1568
775 I-133 gamma ray 1587.660 keV. 1570
776 I-133 gamma ray 1683.230 keV. 1572
777 I-133 gamma ray 2005.330 keV. 1574
778 I-133 gamma ray 2049.700 keV. 1576
779 I-134 gamma ray 79.445 keV. 1578
780 I-134 gamma ray 180.891 keV. 1580
781 I-134 gamma ray 201.235 keV. 1582
782 I-134 gamma ray 210.465 keV. 1584
783 I-134 gamma ray 277.951 keV. 1586
784 I-134 gamma ray 435.060 keV. 1588
785 I-134 gamma ray 460.997 keV. 1590
786 I-134 gamma ray 464.640 keV. 1592
787 I-134 gamma ray 565.992 keV. 1594
788 I-134 gamma ray 636.260 keV. 1596
789 I-134 gamma ray 665.850 keV. 1598
790 I-134 gamma ray 712.970 keV. 1600
791 I-134 gamma ray 742.586 keV. 1602
792 I-134 gamma ray 767.200 keV. 1604
793 I-134 gamma ray 844.060 keV. 1606
794 I-134 gamma ray 925.550 keV. 1608
795 Xe-129 gamma ray 39.578 keV. 1610
796 Xe-131 gamma ray 80.185 keV. 1613
797 Xe-131 gamma ray 284.305 keV. 1615

798 Xe-131 gamma ray 364.489 keV. 1617
799 Xe-131 gamma ray 636.989 keV. 1619
800 Xe-131 gamma ray 722.911 keV. 1621
801 Xe-132 gamma ray 262.900 keV. 1623
802 Xe-132 gamma ray 505.790 keV. 1625
803 Xe-132 gamma ray 522.650 keV. 1627
804 Xe-132 gamma ray 547.200 keV. 1629
805 Xe-132 gamma ray 621.200 keV. 1631
806 Xe-132 gamma ray 630.190 keV. 1633
807 Xe-132 gamma ray 650.500 keV. 1635
808 Xe-132 gamma ray 667.714 keV. 1637
809 Xe-132 gamma ray 669.800 keV. 1639
810 Xe-132 gamma ray 671.400 keV. 1641
811 Xe-132 gamma ray 727.000 keV. 1643
812 Xe-132 gamma ray 727.200 keV. 1645
813 Xe-132 gamma ray 728.400 keV. 1647
814 Xe-132 gamma ray 772.600 keV. 1649
815 Xe-132 gamma ray 780.000 keV. 1651
816 Xe-132 gamma ray 809.500 keV. 1653
817 Xe-132 gamma ray 812.000 keV. 1655
818 Xe-132 gamma ray 876.600 keV. 1657
819 Xe-132 gamma ray 954.550 keV. 1659
820 Xe-132 gamma ray 1136.000 keV. 1661
821 Xe-132 gamma ray 1143.300 keV. 1663
822 Xe-132 gamma ray 1172.900 keV. 1665
823 Xe-132 gamma ray 1290.800 keV. 1667
824 Xe-132 gamma ray 1295.100 keV. 1669
825 Xe-132 gamma ray 1372.070 keV. 1671
826 Xe-132 gamma ray 1398.570 keV. 1673
827 Xe-132 gamma ray 1442.560 keV. 1675
828 Xe-132 gamma ray 1921.080 keV. 1677
829 Xe-132 gamma ray 2002.200 keV. 1679
830 Xe-133 gamma ray 510.530 keV. 1681
831 Xe-133 gamma ray 529.872 keV. 1683
832 Xe-133 gamma ray 706.578 keV. 1685
833 Xe-133 gamma ray 856.278 keV. 1687
834 Xe-133 gamma ray 875.329 keV. 1689
835 Xe-133 gamma ray 1236.441 keV. 1691
836 Xe-133 gamma ray 1298.223 keV. 1693
837 Xe-134 gamma ray 135.399 keV. 1695
838 Xe-134 gamma ray 235.471 keV. 1697
839 Xe-134 gamma ray 405.451 keV. 1699
840 Xe-134 gamma ray 433.350 keV. 1701
841 Xe-134 gamma ray 458.920 keV. 1703
842 Xe-134 gamma ray 488.880 keV. 1705
843 Xe-134 gamma ray 514.400 keV. 1707
844 Xe-134 gamma ray 540.825 keV. 1709

845 Xe-134 gamma ray 595.362 keV. 1711
846 Xe-134 gamma ray 621.790 keV. 1713
847 Xe-134 gamma ray 627.960 keV. 1715
848 Xe-134 gamma ray 677.340 keV. 1717
849 Xe-134 gamma ray 730.740 keV. 1719
850 Xe-134 gamma ray 766.680 keV. 1721
851 Xe-134 gamma ray 847.025 keV. 1723
852 Xe-134 gamma ray 857.290 keV. 1725
853 Xe-134 gamma ray 884.090 keV. 1727
854 Xe-134 gamma ray 947.860 keV. 1729
855 Xe-134 gamma ray 974.670 keV. 1731
856 Xe-134 gamma ray 1040.250 keV. 1733
857 Xe-134 gamma ray 1072.550 keV. 1735
858 Xe-134 gamma ray 1136.160 keV. 1737
859 Xe-134 gamma ray 1455.240 keV. 1739
860 Xe-134 gamma ray 1613.800 keV. 1741
861 Xe-134 gamma ray 1741.490 keV. 1743
862 Xe-134 gamma ray 1806.840 keV. 1745
863 Xe-135 gamma ray 220.502 keV. 1747
864 Xe-135 gamma ray 288.451 keV. 1749
865 Xe-135 gamma ray 417.633 keV. 1751
866 Xe-135 gamma ray 546.557 keV. 1753
867 Xe-135 gamma ray 836.804 keV. 1755
868 Xe-135 gamma ray 972.620 keV. 1757
869 Xe-135 gamma ray 1038.760 keV. 1759
870 Xe-135 gamma ray 1101.580 keV. 1761
871 Xe-135 gamma ray 1124.000 keV. 1763
872 Xe-135 gamma ray 1131.511 keV. 1765
873 Xe-135 gamma ray 1260.409 keV. 1767
874 Xe-135 gamma ray 1457.560 keV. 1769
875 Xe-135 gamma ray 1502.790 keV. 1771
876 Xe-135 gamma ray 1566.410 keV. 1773
877 Xe-135 gamma ray 1678.027 keV. 1775
878 Xe-135 gamma ray 1706.459 keV. 1777
879 Xe-135 gamma ray 1791.196 keV. 1779
880 Cs-131 gamma ray 163.930 keV. 1781
881 Cs-133 gamma ray 80.997 keV. 1783
882 Cs-133 gamma ray 233.221 keV. 1785
883 Cs-135 gamma ray 249.794 keV. 1787
884 Cs-135 gamma ray 608.185 keV. 1789
885 Cs-135 gamma ray 526.561 keV. 1791
886 Cs-138 gamma ray 153.858 keV. 1793
887 Cs-138 gamma ray 242.560 keV. 1795
888 Cs-138 gamma ray 258.411 keV. 1797
889 Cs-138 gamma ray 396.513 keV. 1799
890 Cs-138 gamma ray 401.360 keV. 1801
891 Cs-138 gamma ray 434.562 keV. 1803

892 Cs-138 gamma ray 1114.290 keV. 1805
893 Cs-138 gamma ray 1768.260 keV. 1807
894 Cs-138 gamma ray 1850.860 keV. 1809
895 Cs-138 gamma ray 2004.750 keV. 1811
896 Cs-138 gamma ray 2015.820 keV. 1813
897 Cs-138 gamma ray 2079.170 keV. 1815
898 Cs-138 gamma ray 2252.260 keV. 1817
899 Ba-138 gamma ray 138.100 keV. 1819
900 Ba-138 gamma ray 227.760 keV. 1821
901 Ba-138 gamma ray 408.980 keV. 1823
902 Ba-138 gamma ray 462.796 keV. 1825
903 Ba-138 gamma ray 547.001 keV. 1827
904 Ba-138 gamma ray 871.800 keV. 1829
905 Ba-138 gamma ray 1009.780 keV. 1831
906 Ba-138 gamma ray 1147.220 keV. 1833
907 Ba-138 gamma ray 1343.590 keV. 1835
908 Ba-138 gamma ray 1435.860 keV. 1837
909 Ba-138 gamma ray 2218.000 keV. 1839
910 Ba-138 gamma ray 2639.590 keV. 1841
911 Ba-139 gamma ray 627.240 keV. 1843
912 Ba-139 gamma ray 1283.230 keV. 1845
913 La-139 gamma ray 165.857 keV. 1847
914 La-140 gamma ray 13.846 keV. 1849
915 La-140 gamma ray 29.966 keV. 1852
916 La-140 gamma ray 162.660 keV. 1855
917 La-140 gamma ray 304.849 keV. 1857
918 La-140 gamma ray 423.722 keV. 1859
919 La-140 gamma ray 437.575 keV. 1861
920 La-140 gamma ray 537.261 keV. 1863
921 La-141 gamma ray 112.800 keV. 1865
922 La-141 gamma ray 190.328 keV. 1867
923 La-141 gamma ray 276.950 keV. 1869
924 La-141 gamma ray 304.190 keV. 1871
925 La-141 gamma ray 343.670 keV. 1873
926 La-141 gamma ray 390.000 keV. 1875
927 La-141 gamma ray 457.800 keV. 1877
928 La-141 gamma ray 462.300 keV. 1879
929 La-141 gamma ray 467.500 keV. 1881
930 La-141 gamma ray 625.400 keV. 1883
931 La-141 gamma ray 648.100 keV. 1885
932 La-141 gamma ray 739.200 keV. 1887
933 La-141 gamma ray 831.700 keV. 1889
934 La-141 gamma ray 876.300 keV. 1891
935 La-141 gamma ray 1160.800 keV. 1893
936 La-141 gamma ray 1197.300 keV. 1895
937 La-141 gamma ray 1682.300 keV. 1897
938 La-142 gamma ray 77.594 keV. 1899

939 La-142 gamma ray 177.000 keV. 1901
940 La-142 gamma ray 231.611 keV. 1903
941 La-142 gamma ray 255.300 keV. 1905
942 La-142 gamma ray 286.300 keV. 1907
943 La-142 gamma ray 309.200 keV. 1909
944 La-142 gamma ray 335.000 keV. 1911
945 La-142 gamma ray 363.960 keV. 1913
946 La-142 gamma ray 425.040 keV. 1915
947 La-142 gamma ray 432.300 keV. 1917
948 La-142 gamma ray 599.800 keV. 1919
949 La-142 gamma ray 840.400 keV. 1921
950 La-142 gamma ray 895.200 keV. 1923
951 La-142 gamma ray 949.100 keV. 1925
952 La-142 gamma ray 1001.200 keV. 1927
953 La-142 gamma ray 1078.700 keV. 1929
954 La-142 gamma ray 1094.100 keV. 1931
955 La-142 gamma ray 1126.800 keV. 1933
956 La-142 gamma ray 1202.400 keV. 1935
957 La-142 gamma ray 1204.300 keV. 1937
958 La-142 gamma ray 1380.200 keV. 1939
959 Ce-140 gamma ray 328.762 keV. 1941
960 Ce-140 gamma ray 432.493 keV. 1943
961 Ce-140 gamma ray 487.021 keV. 1945
962 Ce-140 gamma ray 751.637 keV. 1947
963 Ce-140 gamma ray 815.772 keV. 1949
964 Ce-140 gamma ray 867.846 keV. 1951
965 Ce-140 gamma ray 919.550 keV. 1953
966 Ce-140 gamma ray 925.189 keV. 1955
967 Ce-140 gamma ray 1596.210 keV. 1957
968 Ce-140 gamma ray 2521.400 keV. 1959
969 Ce-141 gamma ray 1354.520 keV. 1961
970 Ce-142 gamma ray 578.090 keV. 1963
971 Ce-142 gamma ray 641.285 keV. 1965
972 Ce-142 gamma ray 861.600 keV. 1967
973 Ce-142 gamma ray 894.900 keV. 1969
974 Ce-142 gamma ray 1011.400 keV. 1971
975 Ce-142 gamma ray 1043.700 keV. 1973
976 Ce-142 gamma ray 1160.200 keV. 1975
977 Ce-142 gamma ray 1233.100 keV. 1977
978 Ce-142 gamma ray 1363.000 keV. 1979
979 Ce-142 gamma ray 1545.800 keV. 1981
980 Ce-142 gamma ray 1722.700 keV. 1983
981 Ce-142 gamma ray 1756.400 keV. 1985
982 Ce-142 gamma ray 1901.300 keV. 1987
983 Ce-142 gamma ray 2055.200 keV. 1989
984 Ce-142 gamma ray 2100.400 keV. 1991
985 Ce-142 gamma ray 2187.200 keV. 1993

986 Ce-142 gamma ray 2397.800 keV. 1995
987 Ce-142 gamma ray 2542.700 keV. 1997
988 Ce-142 gamma ray 2666.800 keV. 1999
989 Ce-142 gamma ray 2971.000 keV. 2001
990 Ce-143 gamma ray 620.300 keV. 2003
991 Ce-143 gamma ray 621.400 keV. 2005
992 Ce-143 gamma ray 643.750 keV. 2007
993 Ce-143 gamma ray 798.140 keV. 2009
994 Ce-143 gamma ray 1148.500 keV. 2011
995 Ce-143 gamma ray 1961.440 keV. 2013
996 Pr-141 gamma ray 145.443 keV. 2015
997 Pr-143 gamma ray 57.356 keV. 2017
998 Pr-143 gamma ray 231.550 keV. 2019
999 Pr-143 gamma ray 293.266 keV. 2021
1000 Pr-143 gamma ray 350.619 keV. 2023
1001 Pr-143 gamma ray 490.368 keV. 2025
1002 Pr-143 gamma ray 664.571 keV. 2027
1003 Pr-143 gamma ray 721.929 keV. 2029
1004 Pr-143 gamma ray 880.460 keV. 2031
1005 Pr-144 gamma ray 80.120 keV. 2033
1006 Pr-144 gamma ray 133.515 keV. 2035
1007 Pr-146 gamma ray 35.050 keV. 2037
1008 Pr-146 gamma ray 98.550 keV. 2040
1009 Pr-146 gamma ray 100.880 keV. 2042
1010 Pr-146 gamma ray 133.520 keV. 2044
1011 Pr-146 gamma ray 141.290 keV. 2046
1012 Pr-146 gamma ray 210.460 keV. 2048
1013 Pr-146 gamma ray 218.230 keV. 2050
1014 Pr-146 gamma ray 250.890 keV. 2052
1015 Pr-146 gamma ray 264.560 keV. 2054
1016 Pr-146 gamma ray 316.740 keV. 2056
1017 Pr-146 gamma ray 351.490 keV. 2058
1018 Pr-146 gamma ray 415.710 keV. 2060
1019 Pr-146 gamma ray 503.000 keV. 2062
1020 Nd-144 gamma ray 696.510 keV. 2064
1021 Nd-146 gamma ray 453.880 keV. 2066
1022 Nd-146 gamma ray 601.740 keV. 2068
1023 Nd-146 gamma ray 735.720 keV. 2070
1024 Nd-146 gamma ray 788.900 keV. 2072
1025 Nd-146 gamma ray 922.920 keV. 2074
1026 Nd-146 gamma ray 1016.780 keV. 2076
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2337 Decay chain of fission product chain A = 156 2367
2338 Summary of candidate interference lines 2367
2339 Decay chain of fission product chain A = 156 2369
2340 Summary of candidate interference lines 2369
2341 Decay chain of fission product chain A = 156 2371
2342 Summary of candidate interference lines 2371

1 Introduction

Fission product yields can be extracted from an irradiated sample by performing gamma ray spectroscopy on the whole sample post irradiation. There are several pitfalls to avoid when trying to determine a specific isotope's fission product yield.

The isotope of interest may not be in equilibrium as its precursors may interfere with the intrinsic isotope half-life. This can occur when the precursor has a longer or comparable half-life to the decaying nucleus. This can be corrected for by taking into account the fission product yield of the precursor and the isotope of interest. Another issue is gamma ray interference lines. In a situation where hundreds of nuclei are created from fission there can be (and are in many cases) gamma rays emitted from other nuclei which have a very similar gamma ray energy which will interfere with the determination of the true number of nuclei of interest. In order to avoid misidentifying the amount of an isotope from a gamma ray spectrum, a careful search for all possible interfering lines must also be conducted on a case by case basis.

This document contains a library of fission products and their properties to help address the issues discussed above. The data summarized here is from various National Nuclear Data Center databases currently available at www.nndc.bnl.gov supported by the United States Nuclear Data Program.

The relevant properties for a fission product include its decay chain precursors, gamma ray output, gamma ray branching ratios (relative intensity), interfering gamma rays from other fission products and their decay chain precursors. In the following document each page summarizes these characteristics for a single gamma ray emitted per fission product isotope. There may be, and often are, multiple gamma rays emitted from a beta decay daughter nucleus.

Of particular concern are gamma ray interferences from other fission fragment nuclei. A key point is that the gamma ray interferences can arise from a number of different fission fragments which can have a variety of half lives which can also be modified by their precursor isotopes. In some cases the interfering gamma ray precursors are short lived and within an hour post irradiation they have decayed down to longer lived isotopes. In other cases the interfering gamma ray precursors can be long lived while the candidate isotope has a short half life. This effectively modifies the observed half life of the observed gamma ray.

A clean observation would need to be devoid of interfering gamma ray lines and take into account the half-lives of any precursors, if any, at the post irradiation time of the measurement. The following section discusses the data format and organization.

2 Overview of data

2.1 Summary information

On each page the chemical element of the parent is listed, followed by the specific isotope of the beta decaying parent nucleus. The gamma rays are emitted from the daughter nucleus once the parent beta decays and this is also listed. Next the energy of the emitted gamma ray is listed, its relative branching ratio in percent. Then the half-life of the parent nucleus feeding the daughter that emits the gamma ray. Lastly the cumulative fission product yield from England and Rider (LANL Report LA-UR-94-3106 "Evaluation and Compilation of Fission Product Yields 1993) is listed for fission spectrum neutrons on U235.

Candidate fission products that could potentially be identified by their gamma ray output were only listed if their half lives were greater than 6 minutes, had a fission product yield of greater than 0.01 percent and a gamma ray branching ratio of greater than 1 percent.

2.2 Decay chain table

The nuclear decay chain for the specific atomic mass of the emitting nucleus is listed. This is so the user, at a glance, can understand the decay chain precursors and end point. In this table the parent and daughter isotopes are listed, as well as the parent half-life and half-life uncertainty.

2.3 Candidate gamma ray interferences

The final thing to consider when trying to assess a fission product yield from gamma ray intensities is the possibility of an interfering gamma ray from another fission product. The last table on each page lists all parent and daughter isotopes which have a gamma ray within plus or minus 1.5 keV of the original isotope of concern. The $\pm$1.5 keV was range was chosen to match the detector resolution of a HPGe gamma ray detector. If a gamma ray was a little further off in energy it should appear as a doublet for a gamma ray detector with an energy resolution of 0.5 to 1.0 keV 1 σ depending on the energy region looked at. At low energies the intrinsic resolution is smaller at low energies (<1000 keV) than at higher energies (>1500 keV). The branching ratios, half-lives and cumulative fission yields of the parent isotopes are also listed. The candidate interfering gamma rays are just that, candidates. They may not interfere after a certain amount of time because they have decayed away, have a very small branching ratio and/or a very small fission product yield. Each case needs to be examined to look for issues. Interfering fission fragment isotopes considered here were required to have a half life greater than 6 minutes and a cumulative fission yield of greater than 0.0001 or 0.01 percent. No limit was put on the gamma ray branching ratio.

2.4 Fission product decay curves

Following each set of summary data and tables of potential interferences is a graph of the gamma ray emitting daughters and any potential interfering gamma rays. This visualization of the potential interferences is meant to aid the researcher by allowing them to see the time dependent behavior of the each case. The initial value for each curve was generated by multiplying the cumulative fission yields from England and Rider by 10^9 fission events and the branching ratio of the emitted gamma ray. The initial values were then used to make exponential decay curves using the half-life of the parent isotope.

3 Summary of nuclear data for fission product isotopes

3.1 Ge-78 E_γ = 277.30 keV

Chemical element: Germanium
Fission product parent: Ge-78
Gamma originates in daughter: As-78
Eγ: 277.30 keV
Gamma Intensity = 96.00 ± 1.000 %
$T_{1/2}$ = 1.467 ± 0.017 hours or 88.00 ± 1.00 minutes
CFY: 0.021 ± 0.005 %

Table 1: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 2: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	275.930	0.007	0.308	0.002
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Rh-107	Pd-107	277.580	0.017	0.362	0.001
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Sn-125	Sb-125	278.560	0.000	0.159	0.000
Te-129	I-129	278.430	0.006	1.160	0.005
Te-129	I-129	278.430	0.000	806.400	0.001
Te-131	I-131	278.170	0.001	0.417	0.025
Te-131	I-131	278.560	0.017	33.250	0.004
Te-133	I-133	278.000	0.005	0.923	0.040
Te-134	I-134	277.951	0.212	0.697	0.070
I-132	Xe-132	278.400	0.001	2.295	0.043
I-134	Xe-134	278.800	0.001	0.875	0.078
Ba-141	La-141	276.950	0.234	0.304	0.058
Nd-149	Pm-149	276.960	0.003	1.728	0.011
Nd-152	Pm-152	276.100	0.001	0.190	0.003
Nd-152	Pm-152	278.560	0.290	0.190	0.003
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004

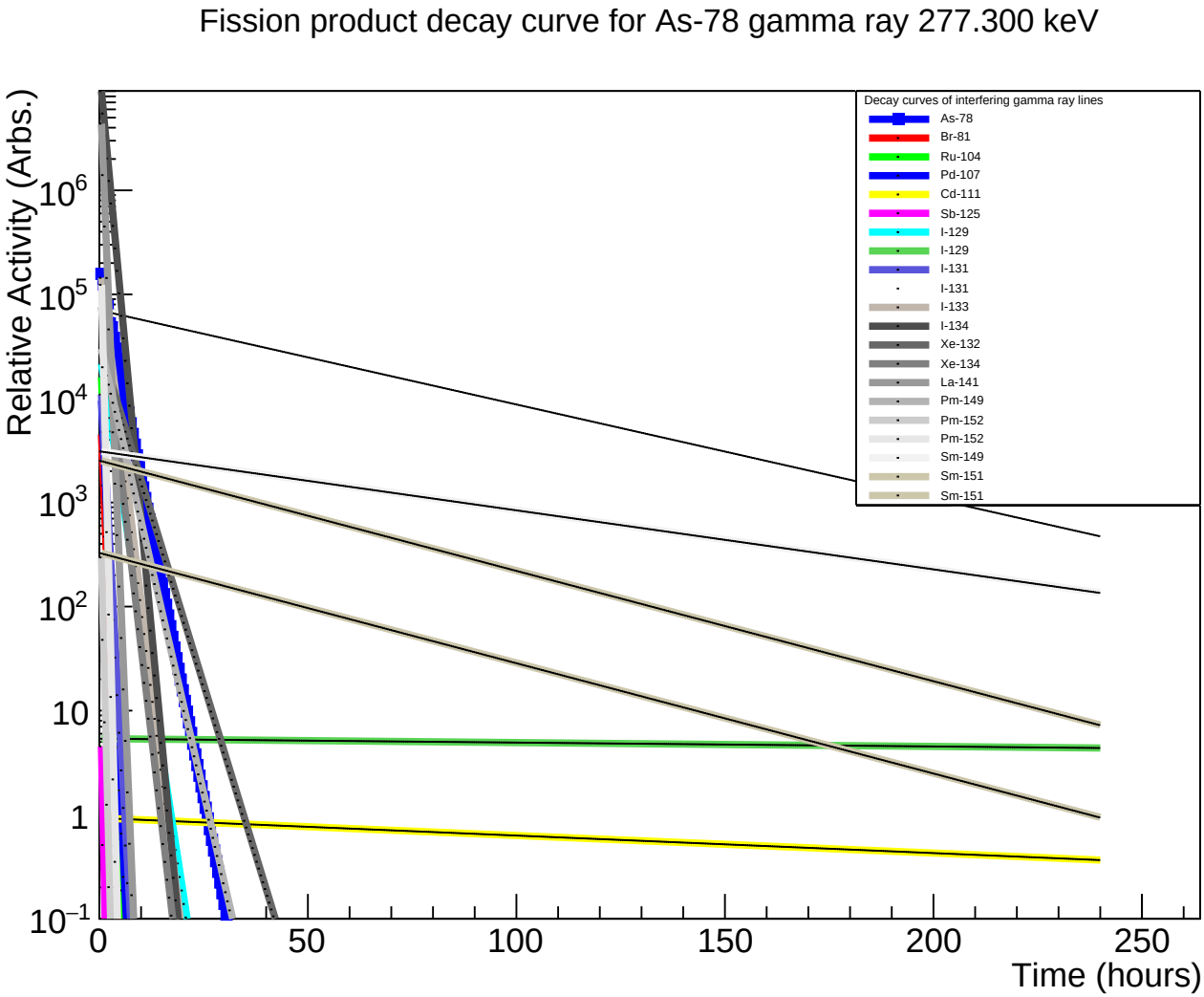


Figure 1: As-78 decay curve for 277.300 keV gamma ray.

3.2 Ge-78 E_γ = 293.90 keV

Chemical element: Germanium
Fission product parent: Ge-78
Gamma originates in daughter: As-78
Eγ: 293.90 keV
Gamma Intensity = 4.03 ± 0.769 %
$T_{1/2}$ = 1.467 ± 0.017 hours or 88.00 ± 1.00 minutes
CFY: 0.021 ± 0.005 %

Table 3: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 4: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-101	Ru-101	295.170	0.000	0.237	0.052
Tc-104	Ru-104	294.900	0.006	0.305	0.019
Ru-103	Rh-103	292.700	0.000	941.928	0.030
Ru-103	Rh-103	294.964	0.003	941.928	0.030
Sn-127	Sb-127	292.900	0.013	2.100	0.001
Sb-127	Te-127	293.300	0.003	92.400	0.002
Te-131	I-131	294.750	0.000	0.417	0.025
Te-133	I-133	294.820	0.002	0.923	0.040
Ce-143	Pr-143	293.266	0.428	33.039	0.060
Nd-149	Pm-149	294.802	0.006	1.728	0.011
Nd-152	Pm-152	294.470	0.033	0.190	0.003
Pm-151	Sm-151	292.400	0.000	28.400	0.004
Pm-151	Sm-151	294.800	0.000	28.400	0.004
Pm-151	Sm-151	295.200	0.000	28.400	0.004

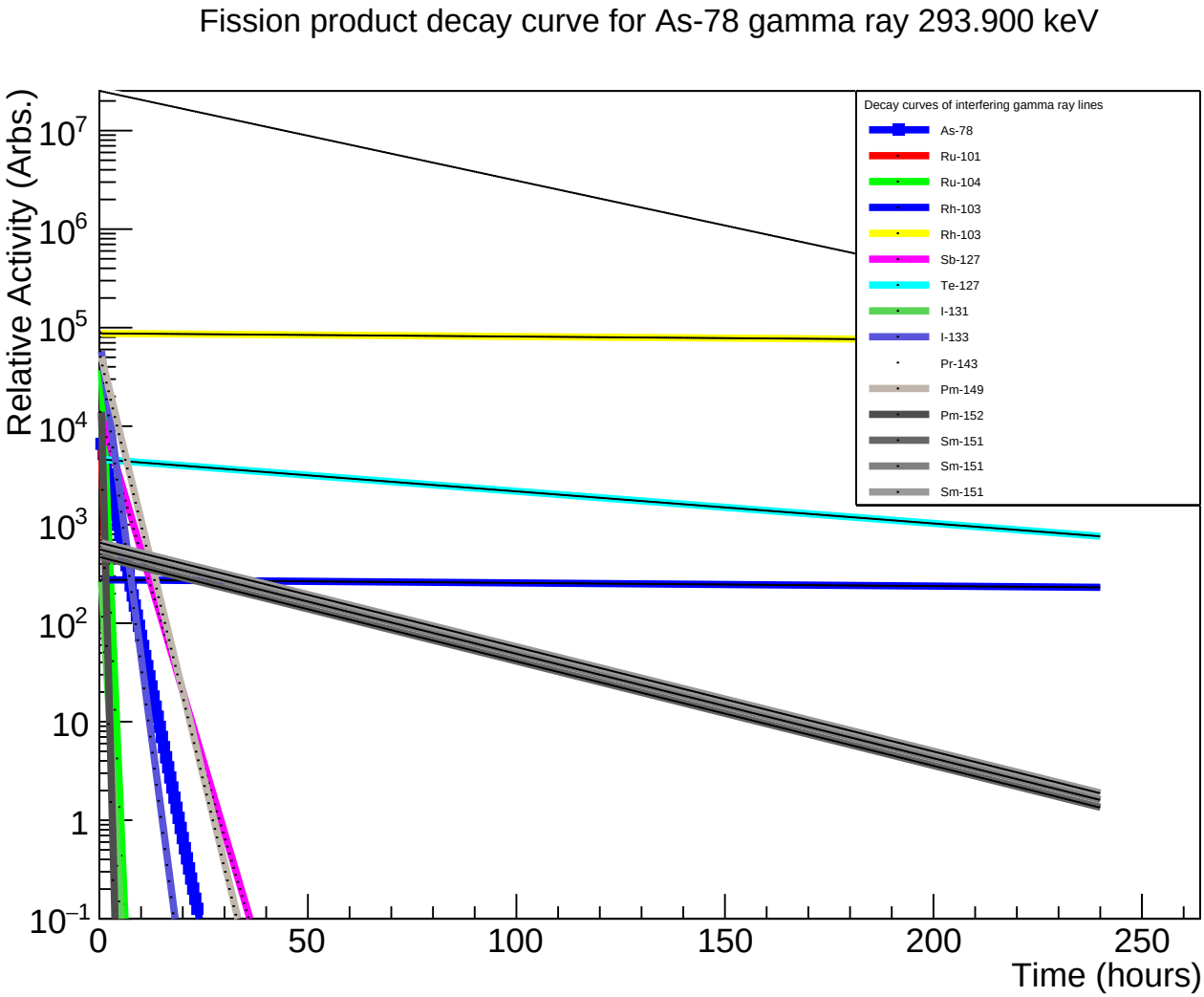


Figure 2: As-78 decay curve for 293.900 keV gamma ray.

3.3 As-78 E_γ = 354.30 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 354.30 keV
Gamma Intensity = 1.89 ± 0.301 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 5: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 6: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	354.700	0.003	0.529	0.010
Zr-97	Nb-97	355.400	0.021	16.749	0.060
Mo-101	Tc-101	352.970	0.001	0.243	0.052
Tc-104	Ru-104	353.700	0.010	0.305	0.019
Tc-105	Ru-105	353.000	0.006	0.127	0.010
Sn-127	Sb-127	353.300	0.001	2.100	0.001
Te-131	I-131	353.580	0.000	0.417	0.025
Te-131	I-131	353.500	0.001	33.250	0.004
Te-131	I-131	354.700	0.002	33.250	0.004
Te-133	I-133	355.420	0.006	0.923	0.040
I-132	Xe-132	355.200	0.001	2.295	0.043
Ba-142	La-142	354.700	0.000	0.177	0.058
La-142	Ce-142	355.300	0.000	1.518	0.058
Pr-145	Nd-145	353.544	0.000	5.984	0.039
Pm-149	Sm-149	353.460	0.000	53.080	0.011
Pm-151	Sm-151	353.320	0.001	28.400	0.004
Eu-156	Gd-156	354.200	0.000	364.560	0.000

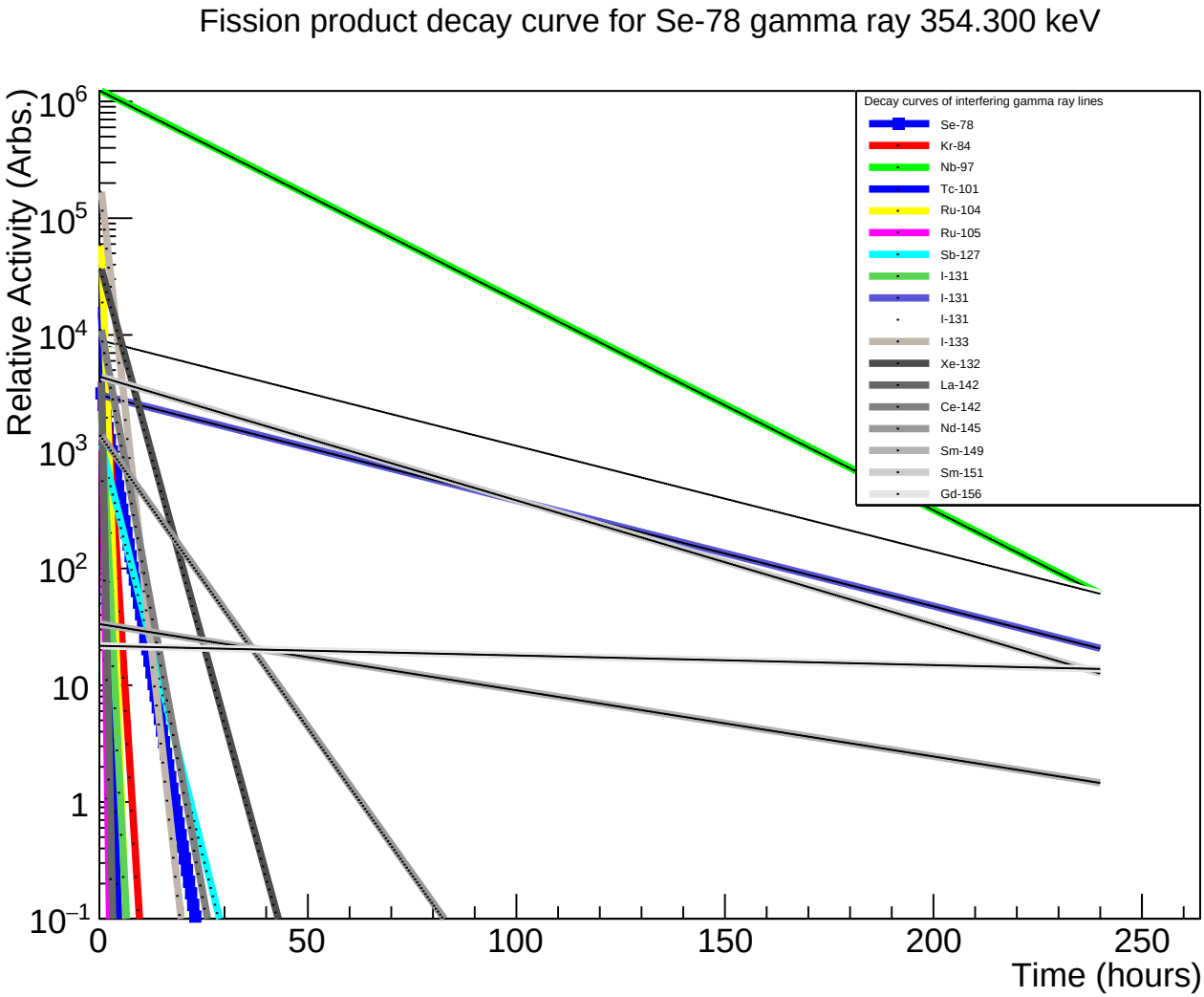


Figure 3: Se-78 decay curve for 354.300 keV gamma ray.

3.4 As-78 E_γ = 545.30 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 545.30 keV
Gamma Intensity = 3.02 ± 0.353 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 7: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 8: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	545.810	0.004	0.124	0.062
Nb-98	Mo-98	543.830	0.005	0.855	0.000
Nb-98	Mo-98	544.500	0.001	0.855	0.000
Tc-101	Ru-101	545.050	0.060	0.237	0.052
Sn-127	Sb-127	545.400	0.023	2.100	0.001
Sb-129	Te-129	544.700	0.181	4.400	0.005
Te-131	I-131	544.880	0.004	0.417	0.025
Te-131	I-131	546.700	0.000	33.250	0.004
Te-133	I-133	546.290	0.005	0.208	0.031
I-135	Xe-135	546.557	0.071	6.570	0.063
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	545.500	0.000	1.728	0.011
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-151	Pm-151	544.610	0.001	0.207	0.004
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Pm-149	Sm-149	544.270	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

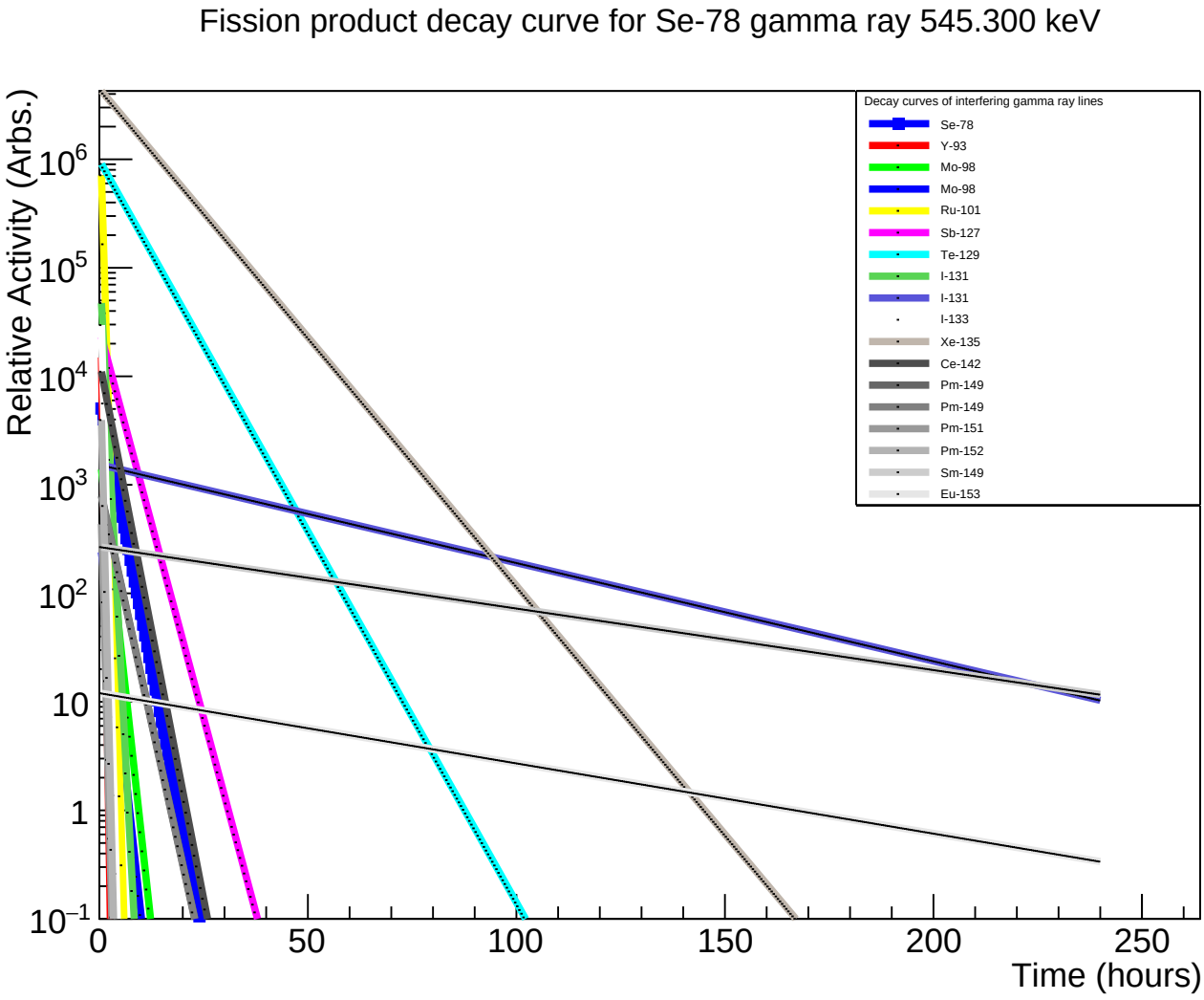


Figure 4: Se-78 decay curve for 545.300 keV gamma ray.

3.5 As-78 E_γ = 613.80 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 613.80 keV
Gamma Intensity = 54.00 ± 6.000 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 9: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 10: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	614.200	0.012	0.305	0.019
Te-133	I-133	613.520	0.003	0.208	0.031
Cs-139	Ba-139	613.400	0.000	0.155	0.063
Ce-143	Pr-143	614.220	0.000	33.039	0.060
Pm-149	Sm-149	613.920	0.000	53.080	0.011

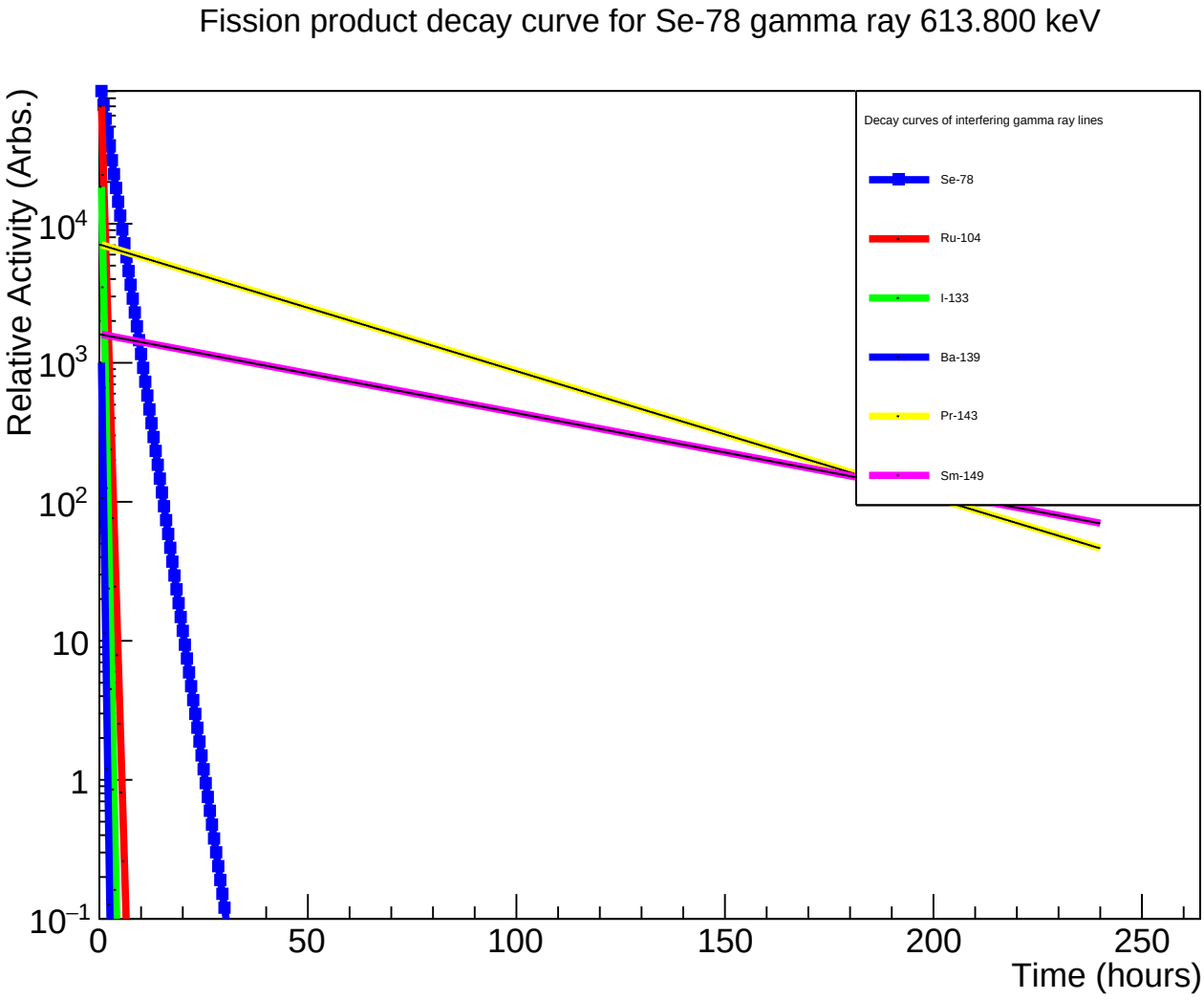


Figure 5: Se-78 decay curve for 613.800 keV gamma ray.

3.6 As-78 E_γ = 694.90 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 694.90 keV
Gamma Intensity = 16.74 ± 2.151 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 11: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 12: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	694.700	0.002	0.312	0.065
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Tc-101	Ru-101	694.300	0.001	0.237	0.052
Ag-112	Cd-112	694.800	0.030	3.130	0.000
Sn-129	Sb-129	695.100	0.042	0.115	0.002
Sb-126	Te-126	694.800	0.822	0.319	0.001
Te-129	I-129	695.880	0.031	806.400	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-141	Ce-141	694.900	0.000	3.920	0.058
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004
Sm-153	Eu-153	694.100	0.000	46.500	0.002

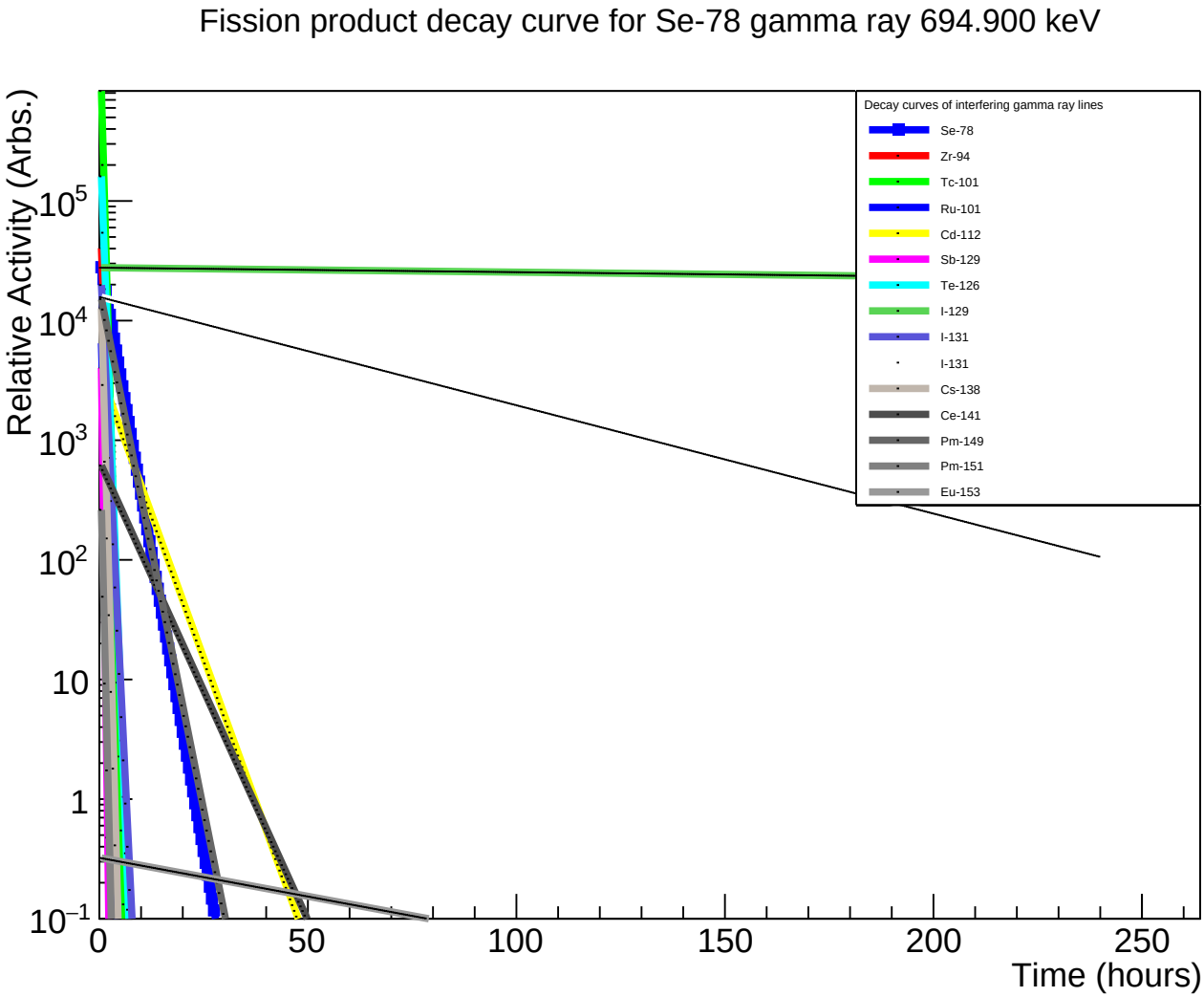


Figure 6: Se-78 decay curve for 694.900 keV gamma ray.

3.7 As-78 E_γ = 828.10 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 828.10 keV
Gamma Intensity = 8.10 ± 1.050 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 13: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 14: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	828.270	0.003	0.308	0.002
Ag-113	Cd-113	827.000	0.000	5.370	0.000
Te-133	I-133	829.200	0.001	0.208	0.031
Te-133	I-133	827.050	0.005	0.923	0.040
Cs-139	Ba-139	827.520	0.001	0.155	0.063
Nd-149	Pm-149	828.600	0.000	1.728	0.011
Nd-151	Pm-151	829.160	0.002	0.207	0.004

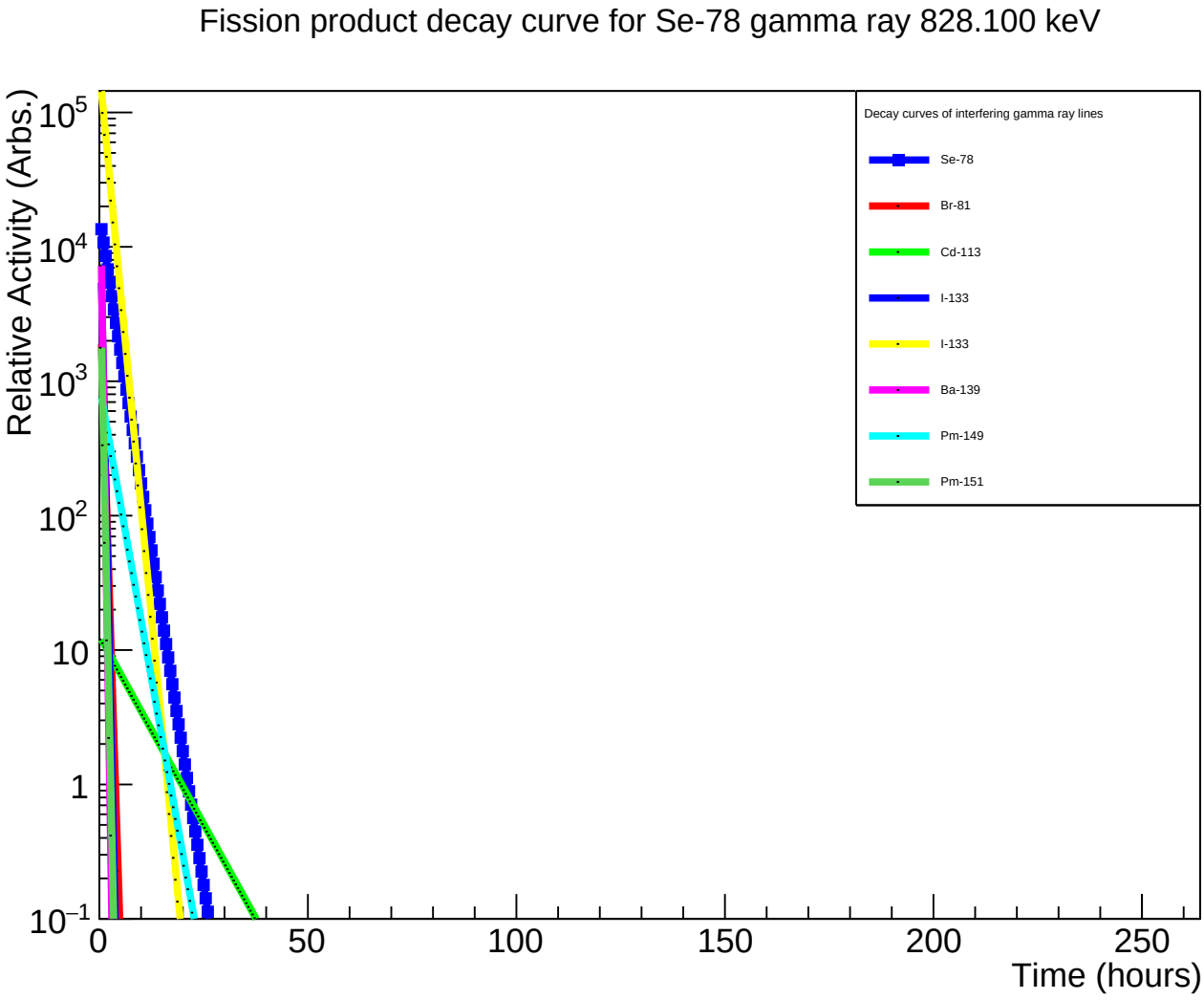


Figure 7: Se-78 decay curve for 828.100 keV gamma ray.

3.8 As-78 E_γ = 842.60 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 842.60 keV
Gamma Intensity = 1.08 ± 0.161 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 15: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 16: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	843.820	0.001	0.855	0.000
Tc-101	Ru-101	842.730	0.002	0.237	0.052
Ag-112	Cd-112	842.800	0.000	3.130	0.000
Sb-128	Te-128	844.000	0.022	0.173	0.003
Te-131	I-131	841.990	0.002	0.417	0.025
Te-134	I-134	844.060	0.012	0.697	0.070
Cs-138	Ba-138	842.210	0.001	0.557	0.067
Nd-149	Pm-149	842.847	0.001	1.728	0.011
Eu-156	Gd-156	841.160	0.002	364.560	0.000

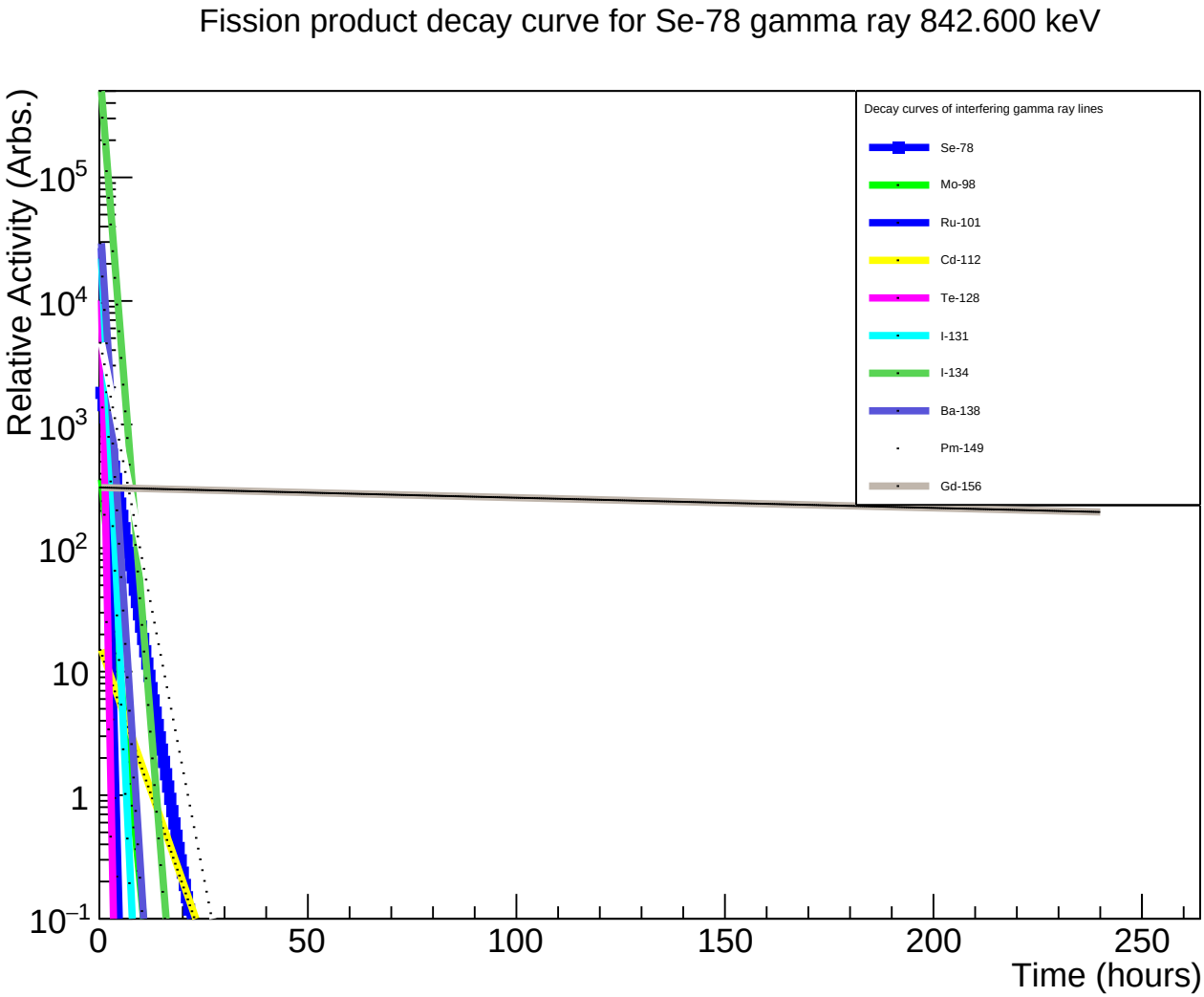


Figure 8: Se-78 decay curve for 842.600 keV gamma ray.

3.9 As-78 E_γ = 888.70 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 888.70 keV
Gamma Intensity = 2.11 ± 0.285 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 17: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 18: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	887.810	0.043	0.372	0.003
Sr-93	Y-93	888.130	0.221	0.124	0.062
Y-94	Zr-94	887.500	0.001	0.312	0.065
Mo-101	Tc-101	888.700	0.002	0.243	0.052
Pd-111	Ag-111	890.000	0.000	0.390	0.000
Sn-127	Sb-127	889.000	0.003	2.100	0.001
Te-133	I-133	888.900	0.000	0.208	0.031
Te-133	I-133	888.530	0.008	0.923	0.040
Te-133	I-133	889.900	0.003	0.923	0.040
I-132	Xe-132	888.700	0.001	2.295	0.043
Nd-151	Pm-151	889.100	0.000	0.207	0.004
Pm-151	Sm-151	887.600	0.000	28.400	0.004

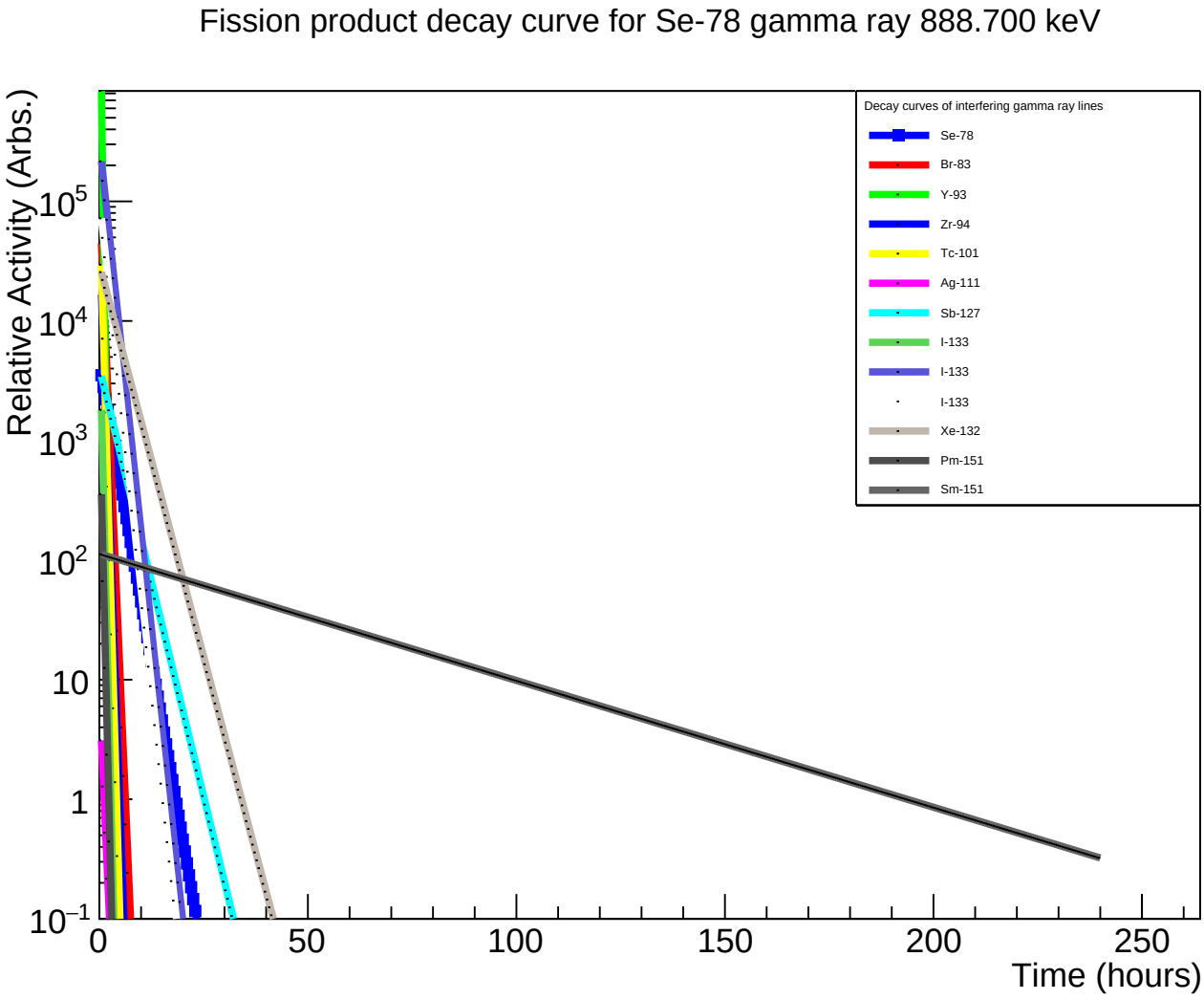


Figure 9: Se-78 decay curve for 888.700 keV gamma ray.

3.10 As-78 E_γ = 1079.80 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1079.80 keV
Gamma Intensity = 1.62 ± 0.210 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 19: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 20: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-128	Te-128	1078.600	0.020	9.010	0.000
Te-133	I-133	1079.630	0.005	0.923	0.040
Ba-142	La-142	1078.700	0.115	0.177	0.058
Pr-146	Nd-146	1081.300	0.008	0.403	0.030
Nd-149	Pm-149	1078.760	0.001	1.728	0.011
Nd-151	Pm-151	1079.500	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.002	0.207	0.004
Eu-156	Gd-156	1079.160	0.046	364.560	0.000

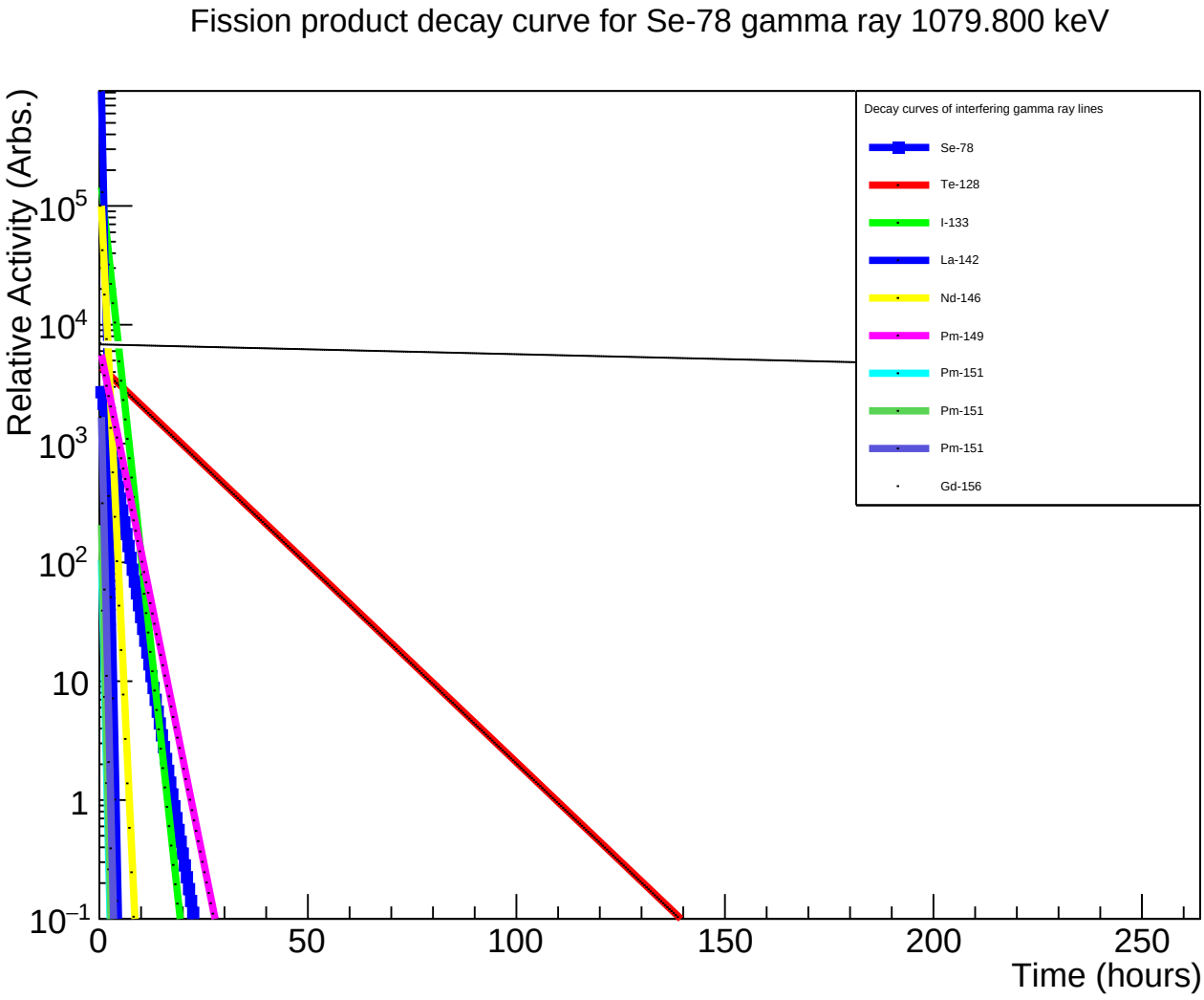


Figure 10: Se-78 decay curve for 1079.800 keV gamma ray.

3.11 As-78 E_γ = 1145.10 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1145.10 keV
Gamma Intensity = 1.67 ± 0.215 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 21: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 22: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1144.700	0.004	0.305	0.019
Sb-130	Te-130	1146.200	0.006	0.658	0.008
Xe-138	Cs-138	1145.440	0.001	0.235	0.063
La-142	Ce-142	1144.200	0.000	1.518	0.058
La-143	Ce-143	1146.100	0.009	0.237	0.059
Nd-151	Pm-151	1145.500	0.001	0.207	0.004
Nd-151	Pm-151	1145.900	0.001	0.207	0.004

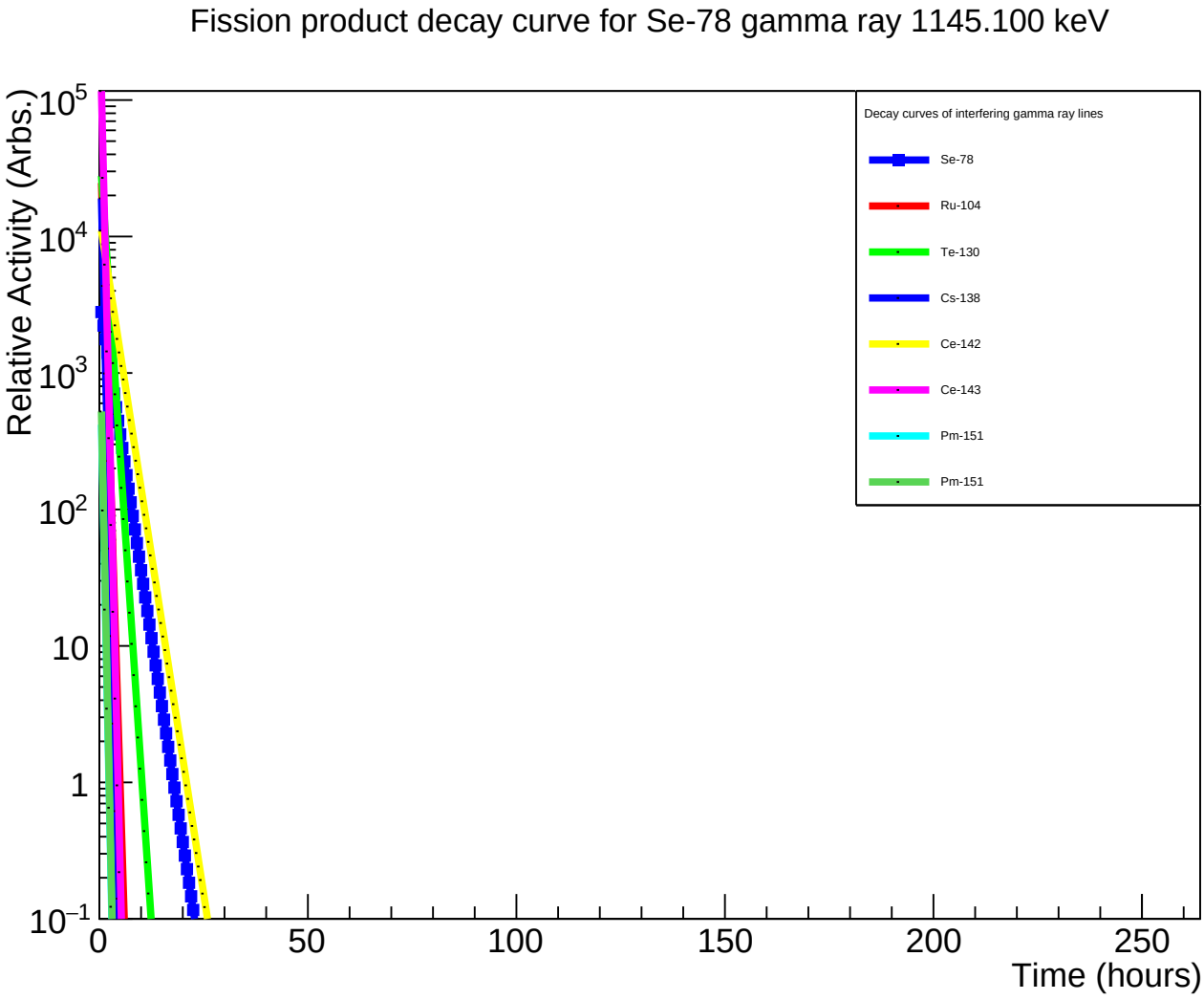


Figure 11: Se-78 decay curve for 1145.100 keV gamma ray.

3.12 As-78 E_γ = 1240.30 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1240.30 keV
Gamma Intensity = 5.94 ± 0.853 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 23: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 24: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1239.150	0.001	0.124	0.062
Tc-104	Ru-104	1239.600	0.002	0.305	0.019
Ru-105	Rh-105	1238.800	0.000	4.440	0.010
Sb-130	Te-130	1239.000	0.018	0.658	0.008
Te-133	I-133	1239.900	0.002	0.208	0.031
I-134	Xe-134	1239.000	0.002	0.875	0.078
I-135	Xe-135	1240.470	0.009	6.570	0.063
Cs-139	Ba-139	1240.930	0.000	0.155	0.063
La-143	Ce-143	1240.000	0.002	0.237	0.059
Nd-149	Pm-149	1239.500	0.000	1.728	0.011

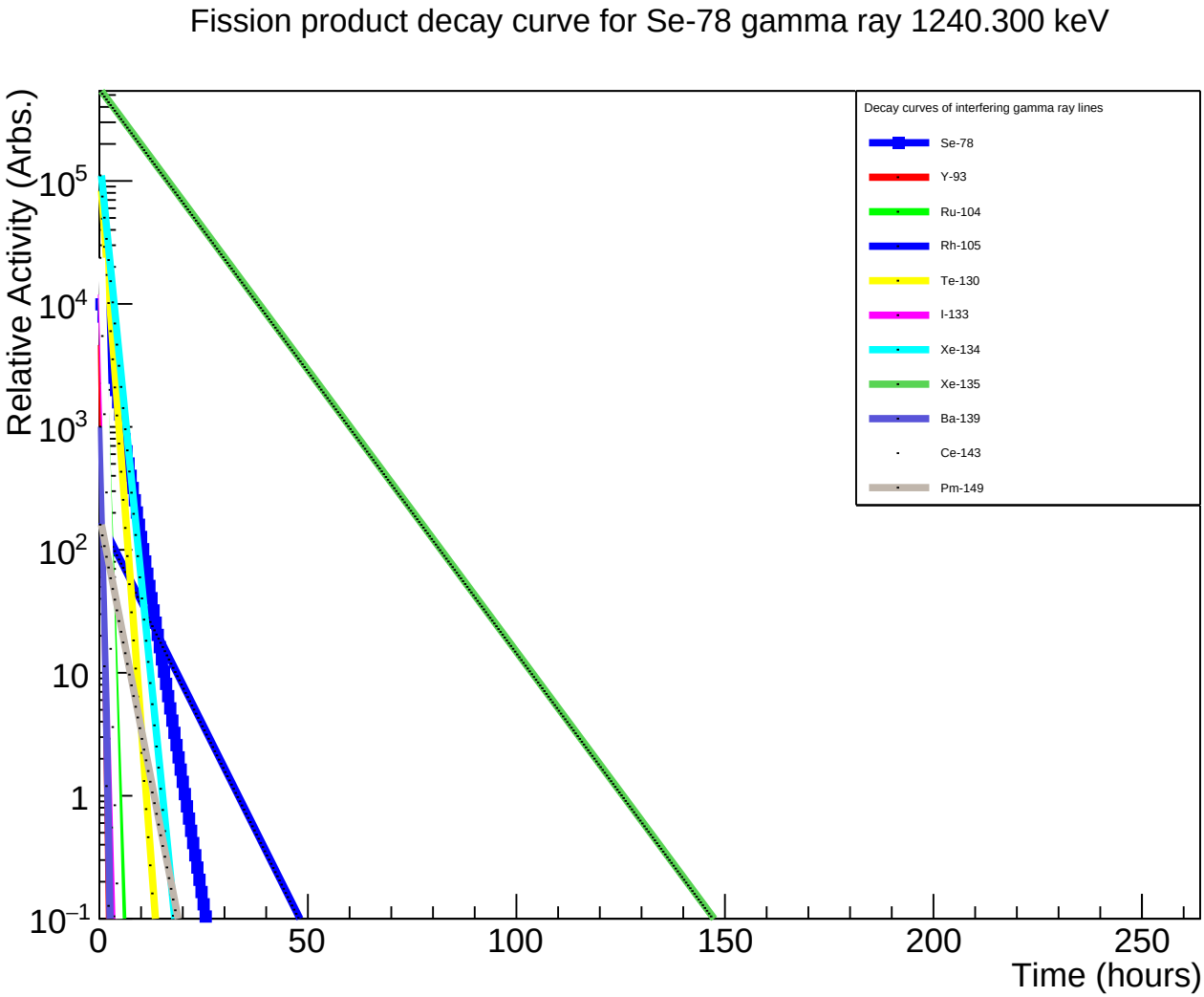


Figure 12: Se-78 decay curve for 1240.300 keV gamma ray.

3.13 As-78 E_γ = 1308.70 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1308.70 keV
Gamma Intensity = 12.96 ± 1.800 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 25: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 26: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1308.600	0.004	0.124	0.062
Y-95	Zr-95	1309.900	0.001	0.172	0.064
Nb-98	Mo-98	1308.900	0.001	0.855	0.000
Nb-98	Mo-98	1310.100	0.001	0.855	0.000
Mo-101	Tc-101	1308.130	0.001	0.243	0.052
Te-131	I-131	1308.100	0.000	0.417	0.025
Te-133	I-133	1307.200	0.005	0.208	0.031
Te-133	I-133	1307.200	0.004	0.923	0.040
Cs-139	Ba-139	1308.130	0.004	0.155	0.063
Ba-141	La-141	1309.400	0.002	0.304	0.058
Nd-149	Pm-149	1307.600	0.000	1.728	0.011
Nd-151	Pm-151	1308.500	0.000	0.207	0.004

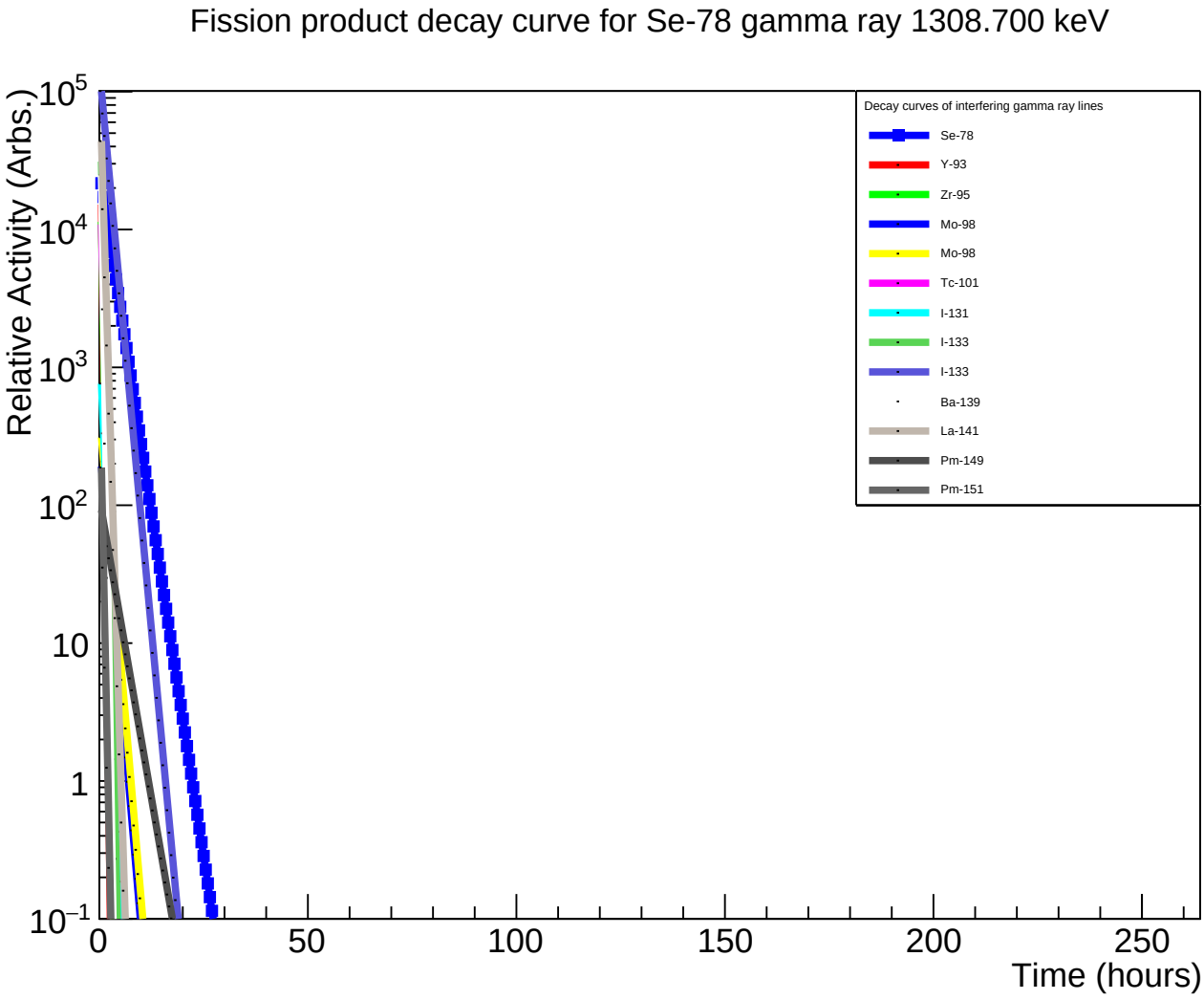


Figure 13: Se-78 decay curve for 1308.700 keV gamma ray.

3.14 As-78 E_γ = 1373.50 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1373.50 keV
Gamma Intensity = 4.81 ± 0.625 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 27: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 28: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-129	I-129	1373.750	0.000	806.400	0.001
Te-133	I-133	1372.300	0.003	0.923	0.040
I-132	Xe-132	1372.070	0.025	2.295	0.043
Ba-141	La-141	1373.100	0.001	0.304	0.058
La-142	Ce-142	1372.900	0.000	1.518	0.058

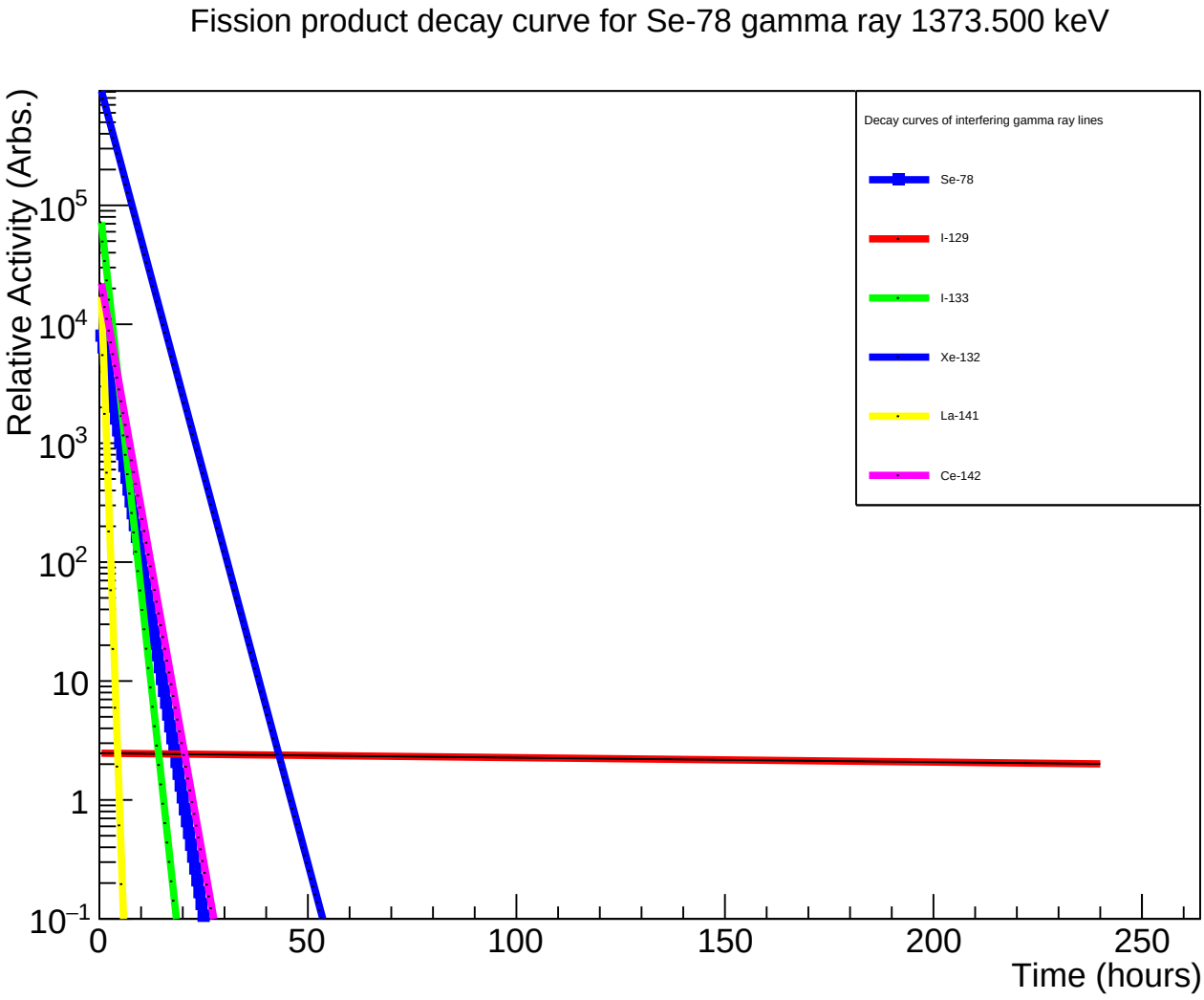


Figure 14: Se-78 decay curve for 1373.500 keV gamma ray.

3.15 As-78 E_γ = 1530.00 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1530.00 keV
Gamma Intensity = 2.48 ± 0.320 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 29: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 30: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1531.200	0.004	1.272	0.026
Kr-88	Rb-88	1529.770	0.109	2.840	0.036
Mo-101	Tc-101	1530.300	0.001	0.243	0.052
Tc-104	Ru-104	1531.200	0.004	0.305	0.019
Cs-139	Ba-139	1529.300	0.000	0.155	0.063
Cs-139	Ba-139	1531.200	0.000	0.155	0.063

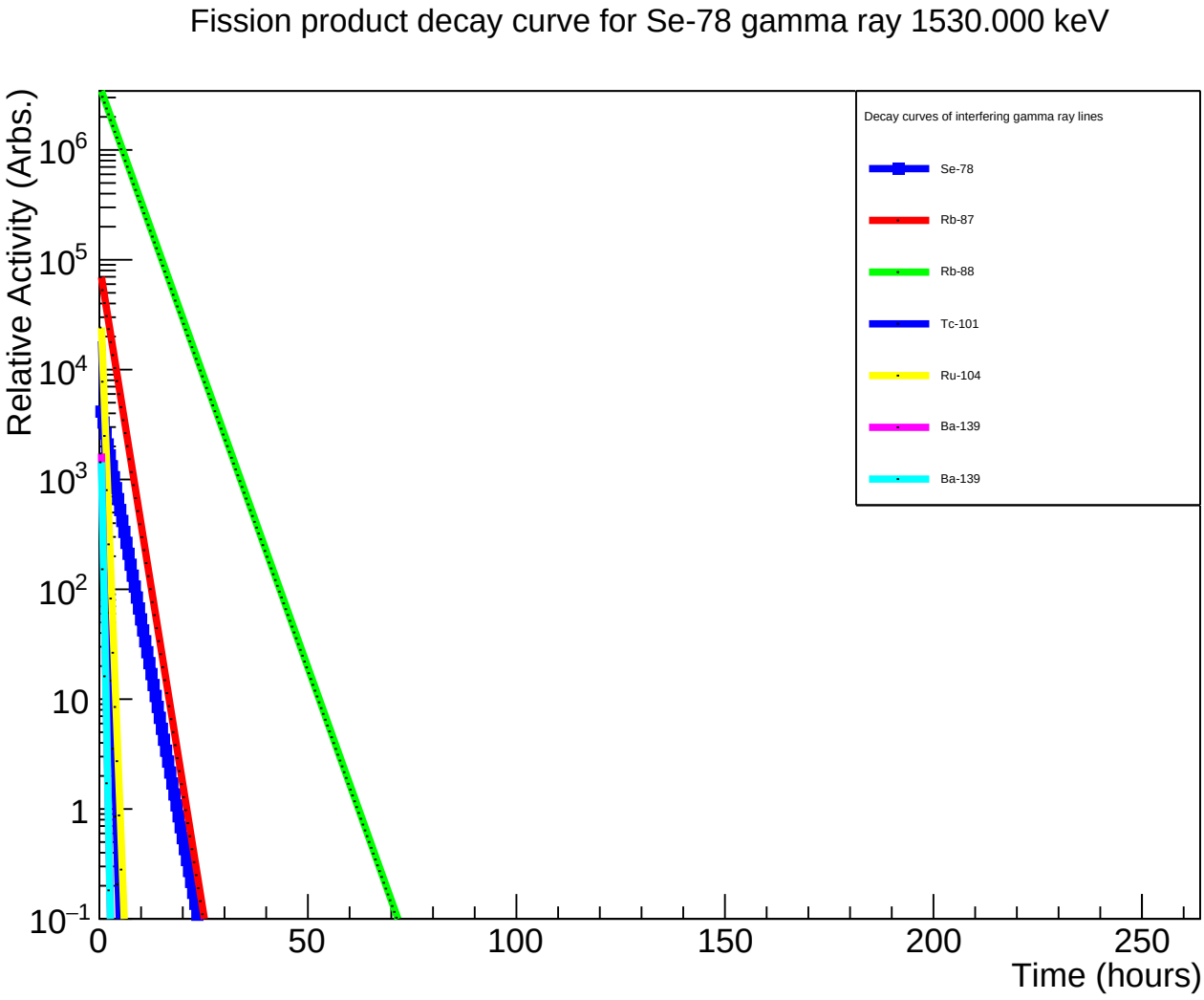


Figure 15: Se-78 decay curve for 1530.000 keV gamma ray.

3.16 As-78 E_γ = 1713.40 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1713.40 keV
Gamma Intensity = 1.78 ± 0.226 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 31: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 32: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1712.930	0.002	0.243	0.052
Ag-112	Cd-112	1714.700	0.000	3.130	0.000
Te-133	I-133	1713.000	0.004	0.208	0.031
Cs-139	Ba-139	1713.600	0.000	0.155	0.063
Ba-141	La-141	1712.700	0.002	0.304	0.058

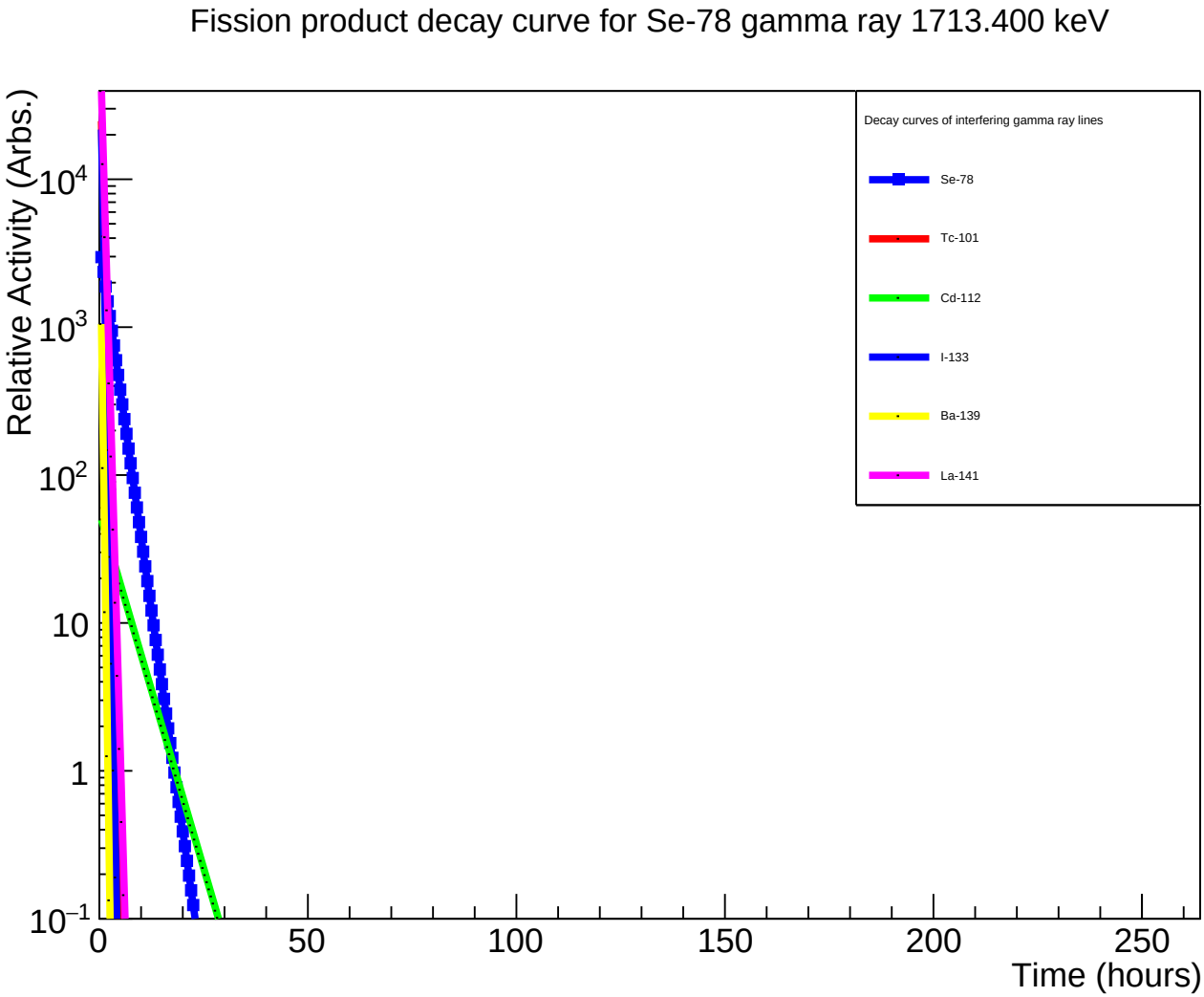


Figure 16: Se-78 decay curve for 1713.400 keV gamma ray.

3.17 As-78 E_γ = 1835.70 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1835.70 keV
Gamma Intensity = 1.46 ± 0.195 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 33: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 34: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	1836.000	0.227	0.296	0.036
Nd-151	Pm-151	1835.990	0.000	0.207	0.004

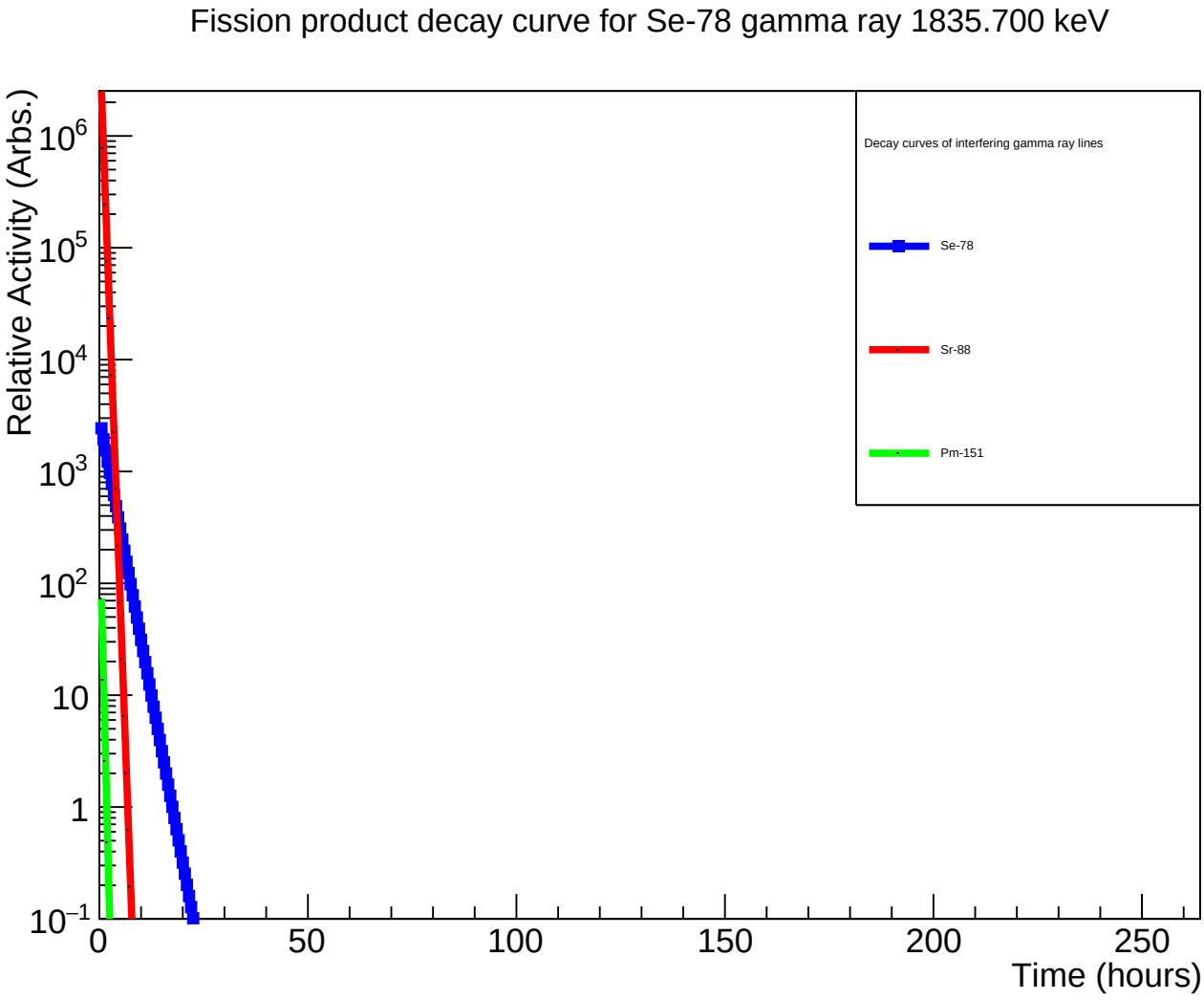


Figure 17: Se-78 decay curve for 1835.700 keV gamma ray.

3.18 As-78 E_γ = 1995.60 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 1995.60 keV
Gamma Intensity = 1.35 ± 0.185 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 35: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 36: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1997.100	0.006	0.305	0.019
Pr-147	Nd-147	1995.900	0.002	0.223	0.022

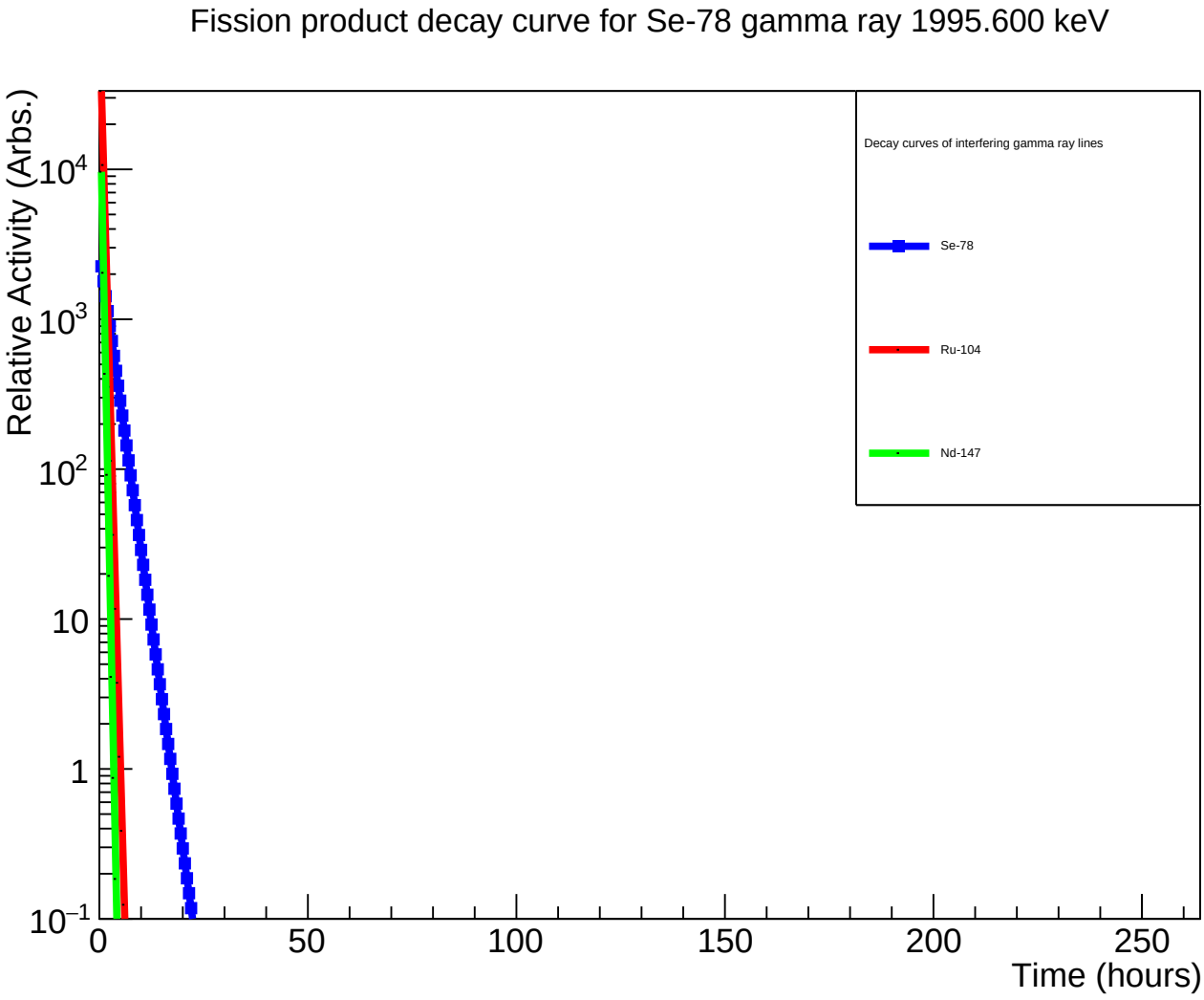


Figure 18: Se-78 decay curve for 1995.600 keV gamma ray.

3.19 As-78 E_γ = 2680.80 keV

Chemical element: Arsenic
Fission product parent: As-78
Gamma originates in daughter: Se-78
Eγ: 2680.80 keV
Gamma Intensity = 1.94 ± 0.241 %
$T_{1/2}$ = 1.512 ± 0.003 hours or 90.70 ± 0.20 minutes
CFY: 0.021 ± 0.002 %

Table 37: Decay chain of fission product chain A = 78

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zinc-78	Gallium-78	0.000	0.000
Gallium-78	Germanium-78	0.001	0.000
Germanium-78	Arsenic-78	1.467	0.017
Arsenic-78	Selenium-78	1.512	0.003

Table 38: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pr-146	Nd-146	2681.600	0.004	0.403	0.030

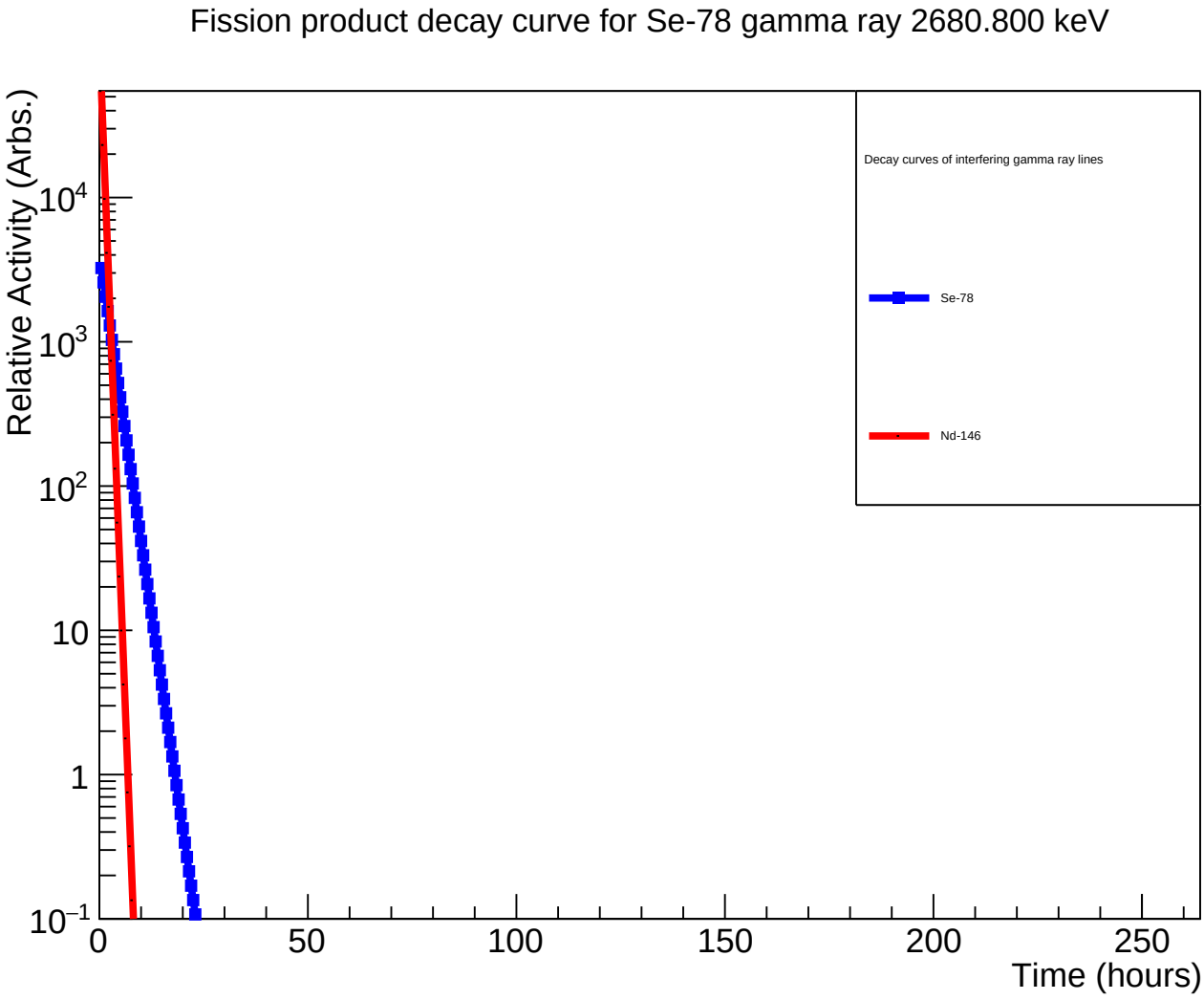


Figure 19: Se-78 decay curve for 2680.800 keV gamma ray.

3.20 As-79 E_γ = 364.50 keV

Chemical element: Arsenic
Fission product parent: As-79
Gamma originates in daughter: Se-79
Eγ: 364.50 keV
Gamma Intensity = 1.86 ± 0.086 %
$T_{1/2}$ = 0.150 ± 0.002 hours or 9.01 ± 0.15 minutes
CFY: 0.045 ± 0.004 %

Table 39: Decay chain of fission product chain A = 79

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Gallium-79	Germanium-79	0.001	0.000
Germanium-79	Arsenic-79	0.011	0.000
Arsenic-79	Selenium-79	0.150	0.002
Selenium-79	Bromine-79	0.065	0.000
Bromine-79	Krypton-79	0.001	0.000

Table 40: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	363.500	0.000	2.840	0.036
Ag-113	Cd-113	364.400	0.001	5.370	0.000
Cd-115	In-115	363.950	0.000	53.460	0.000
Sn-125	Sb-125	363.500	0.000	231.360	0.000
Sn-127	Sb-127	365.500	0.002	2.100	0.001
Sb-129	Te-129	363.000	0.004	4.400	0.005
Te-131	I-131	364.980	0.012	33.250	0.004
Te-133	I-133	363.060	0.005	0.923	0.040
I-131	Xe-131	364.489	0.815	192.605	0.029
I-132	Xe-132	363.340	0.005	2.295	0.043
Cs-138	Ba-138	363.930	0.002	0.557	0.067
Cs-138	Ba-138	365.290	0.002	0.557	0.067
Ba-141	La-141	364.500	0.006	0.304	0.058
Ba-142	La-142	363.960	0.047	0.177	0.058
Pr-145	Nd-145	364.810	0.000	5.984	0.039
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

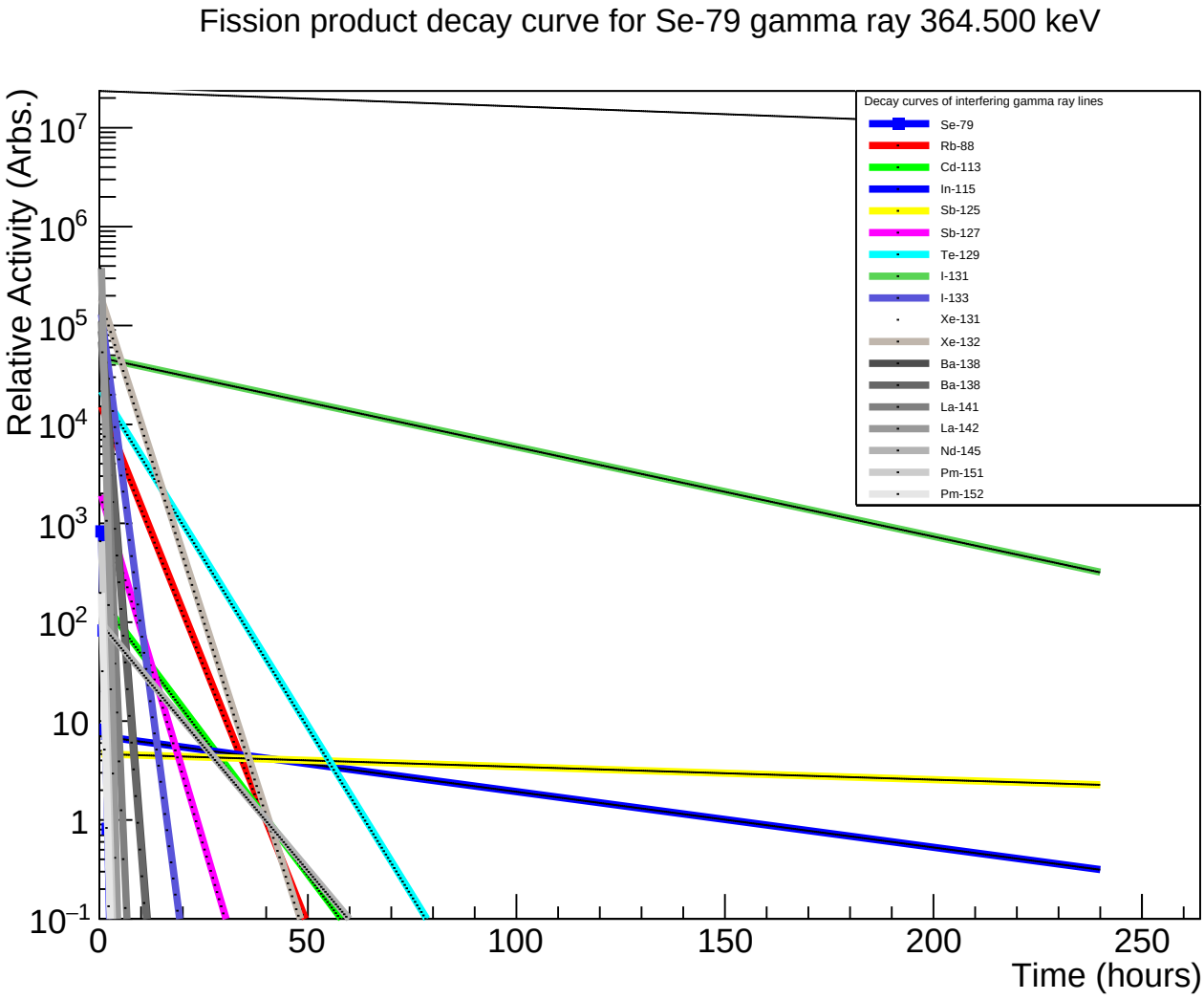


Figure 20: Se-79 decay curve for 364.500 keV gamma ray.

3.21 As-79 E_γ = 432.00 keV

Chemical element: Arsenic
Fission product parent: As-79
Gamma originates in daughter: Se-79
Eγ: 432.00 keV
Gamma Intensity = 1.49 ± 0.058 %
$T_{1/2}$ = 0.150 ± 0.002 hours or 9.01 ± 0.15 minutes
CFY: 0.045 ± 0.004 %

Table 41: Decay chain of fission product chain A = 79

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Gallium-79	Germanium-79	0.001	0.000
Germanium-79	Arsenic-79	0.011	0.000
Arsenic-79	Selenium-79	0.150	0.002
Selenium-79	Bromine-79	0.065	0.000
Bromine-79	Krypton-79	0.001	0.000

Table 42: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	433.000	0.002	0.372	0.003
Sr-93	Y-93	432.670	0.015	0.124	0.062
Y-95	Zr-95	432.000	0.016	0.172	0.064
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Te-131	I-131	432.400	0.006	33.250	0.004
Te-133	I-133	431.610	0.001	0.208	0.031
I-132	Xe-132	431.800	0.005	2.295	0.043
I-134	Xe-134	433.350	0.042	0.875	0.078
Ba-142	La-142	432.300	0.010	0.177	0.058
La-140	Ce-140	432.493	0.029	40.285	0.062
La-142	Ce-142	433.300	0.004	1.518	0.058
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011

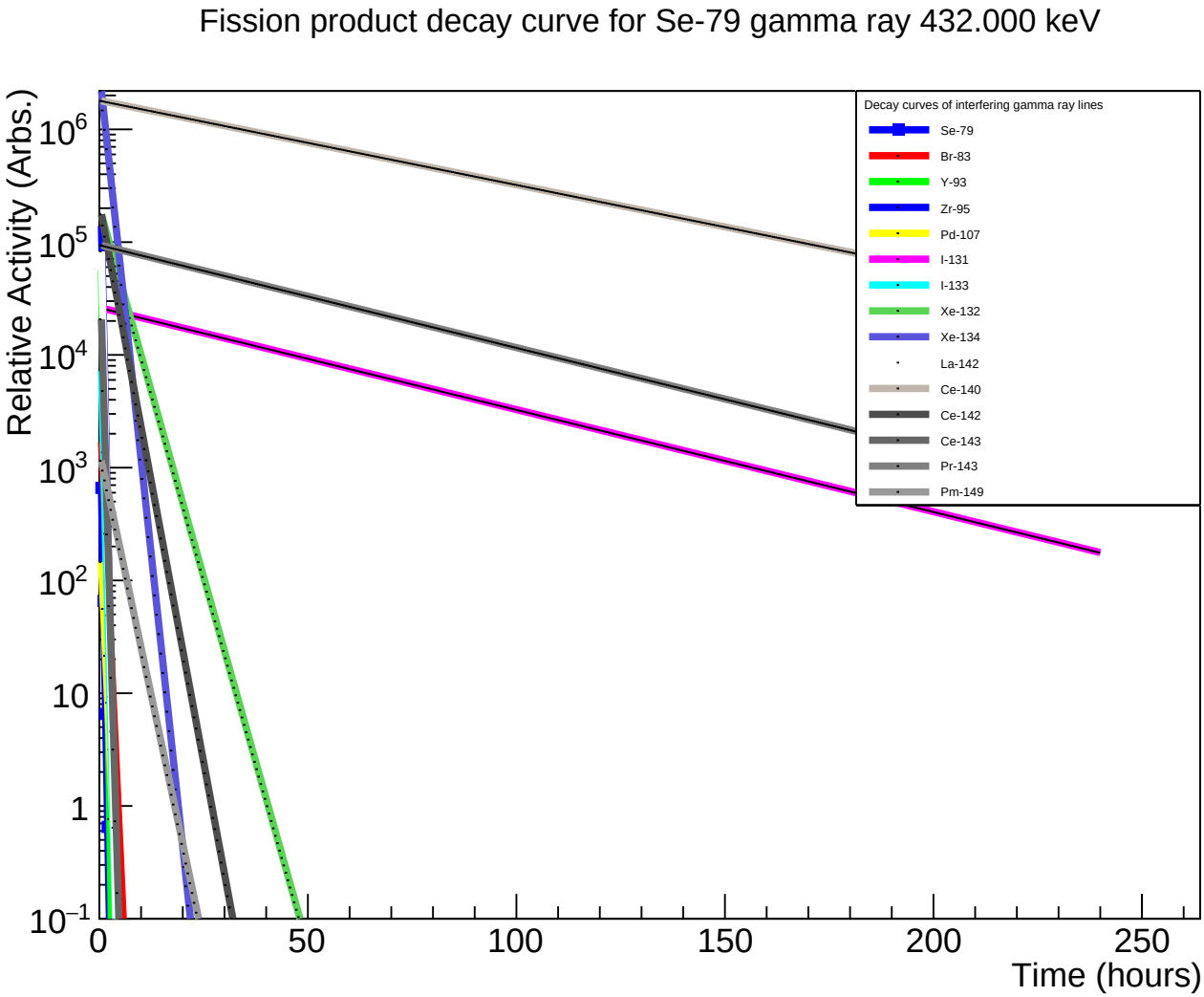


Figure 21: Se-79 decay curve for 432.000 keV gamma ray.

3.22 As-79 E_γ = 878.50 keV

Chemical element: Arsenic
Fission product parent: As-79
Gamma originates in daughter: Se-79
Eγ: 878.50 keV
Gamma Intensity = 1.40 ± 0.076 %
$T_{1/2}$ = 0.150 ± 0.002 hours or 9.01 ± 0.15 minutes
CFY: 0.045 ± 0.004 %

Table 43: Decay chain of fission product chain A = 79

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Gallium-79	Germanium-79	0.001	0.000
Germanium-79	Arsenic-79	0.011	0.000
Arsenic-79	Selenium-79	0.150	0.002
Selenium-79	Bromine-79	0.065	0.000
Bromine-79	Krypton-79	0.001	0.000

Table 44: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	879.510	0.000	2.840	0.036
Sr-91	Y-91	879.700	0.002	9.630	0.058
Nb-98	Mo-98	878.070	0.007	0.855	0.000
Mo-101	Tc-101	877.390	0.032	0.243	0.052
Ru-105	Rh-105	878.200	0.005	4.440	0.010
Ag-113	Cd-113	878.500	0.001	5.370	0.000
Sb-128	Te-128	878.000	0.035	9.010	0.000
La-142	Ce-142	878.200	0.002	1.518	0.058
Nd-149	Pm-149	877.900	0.000	1.728	0.011
Pm-151	Sm-151	877.700	0.001	28.400	0.004
Sm-155	Eu-155	880.000	0.000	0.372	0.000

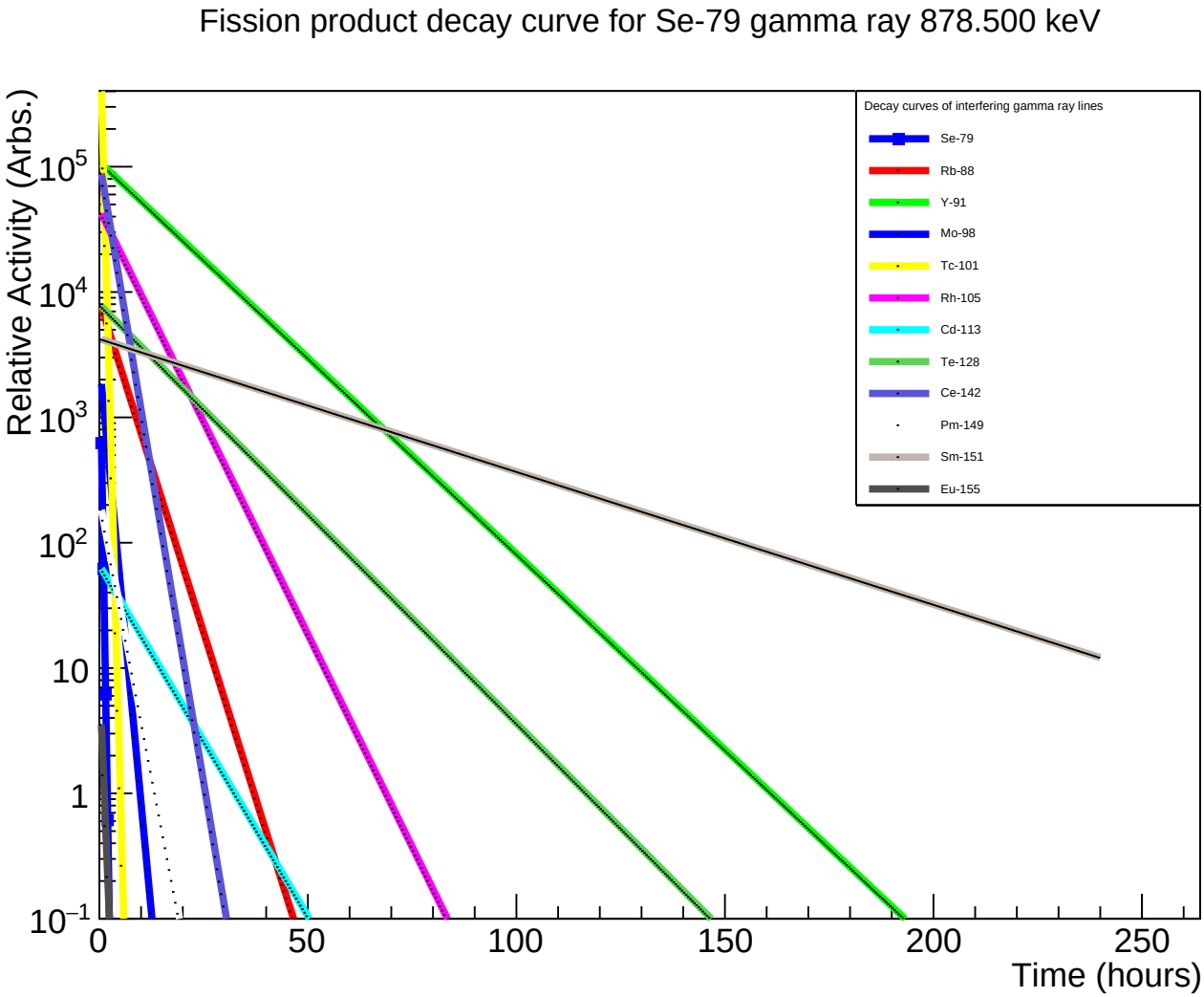


Figure 22: Se-79 decay curve for 878.500 keV gamma ray.

3.23 Se-83 E_γ = 208.30 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 208.30 keV
Gamma Intensity = 1.94 ± 0.122 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 45: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 46: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	208.900	0.013	0.127	0.010
Sn-127	Sb-127	208.000	0.002	2.100	0.001
Sb-125	Te-125	208.077	0.002	24194.445	0.000
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Te-129	I-129	208.960	0.002	1.160	0.005
Te-129	I-129	208.960	0.000	806.400	0.001
Te-131	I-131	207.500	0.000	33.250	0.004
Te-133	I-133	207.400	0.000	0.208	0.031
Nd-149	Pm-149	208.147	0.025	1.728	0.011
Nd-151	Pm-151	207.700	0.000	0.207	0.004
Pm-149	Sm-149	208.280	0.000	53.080	0.011
Pm-151	Sm-151	207.000	0.000	28.400	0.004
Pm-151	Sm-151	209.000	0.017	28.400	0.004

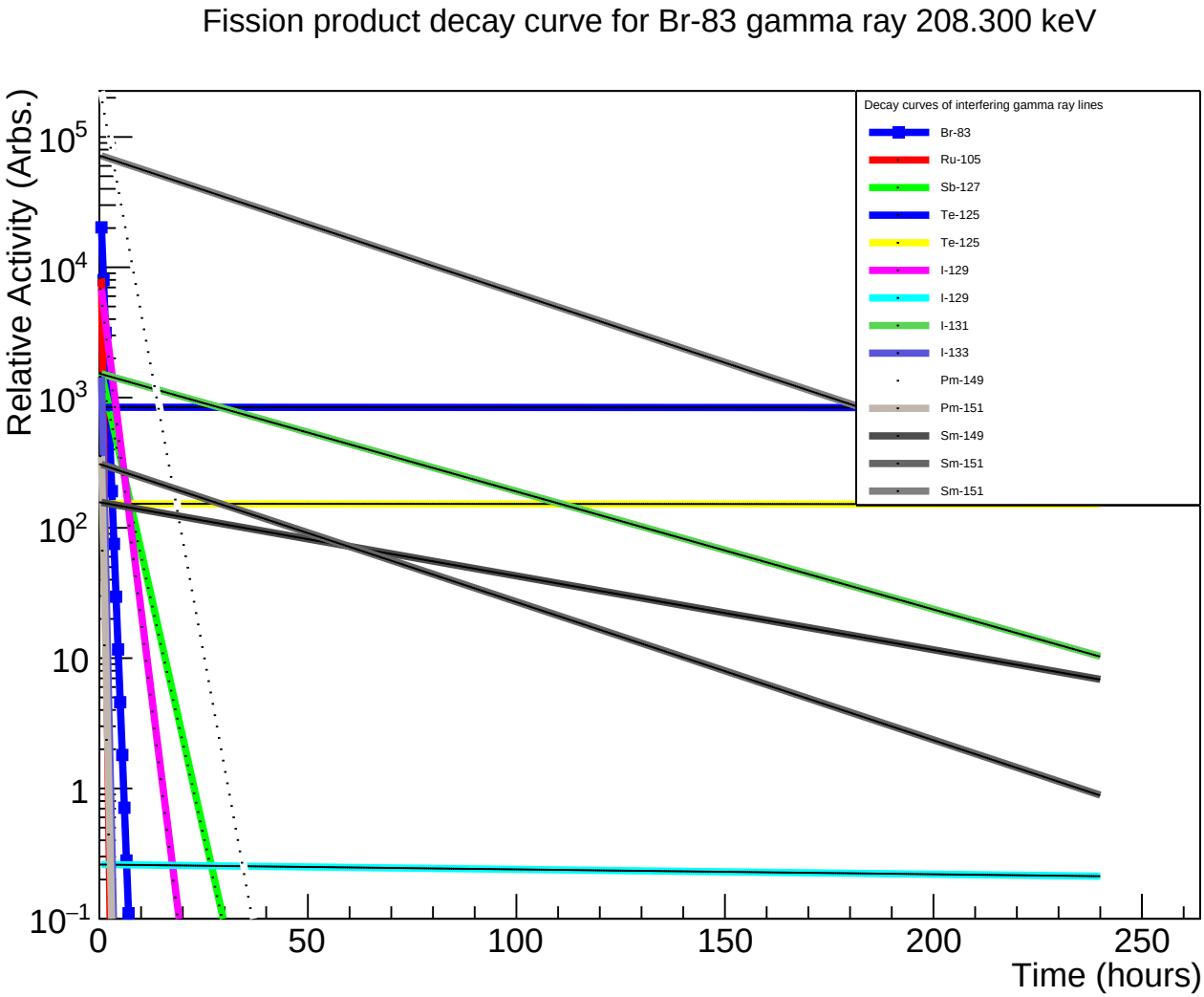


Figure 23: Br-83 decay curve for 208.300 keV gamma ray.

3.24 Se-83 E_γ = 225.18 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 225.18 keV
Gamma Intensity = 32.69 ± 1.344 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 47: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 48: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	223.830	0.014	0.188	0.043
Tc-105	Ru-105	224.600	0.002	0.127	0.010
Tc-105	Ru-105	225.600	0.029	0.127	0.010
Ru-105	Rh-105	225.080	0.001	4.440	0.010
Ag-112	Cd-112	226.000	0.000	3.130	0.000
Te-133	I-133	224.170	0.002	0.923	0.040
Nd-149	Pm-149	224.490	0.000	1.728	0.011

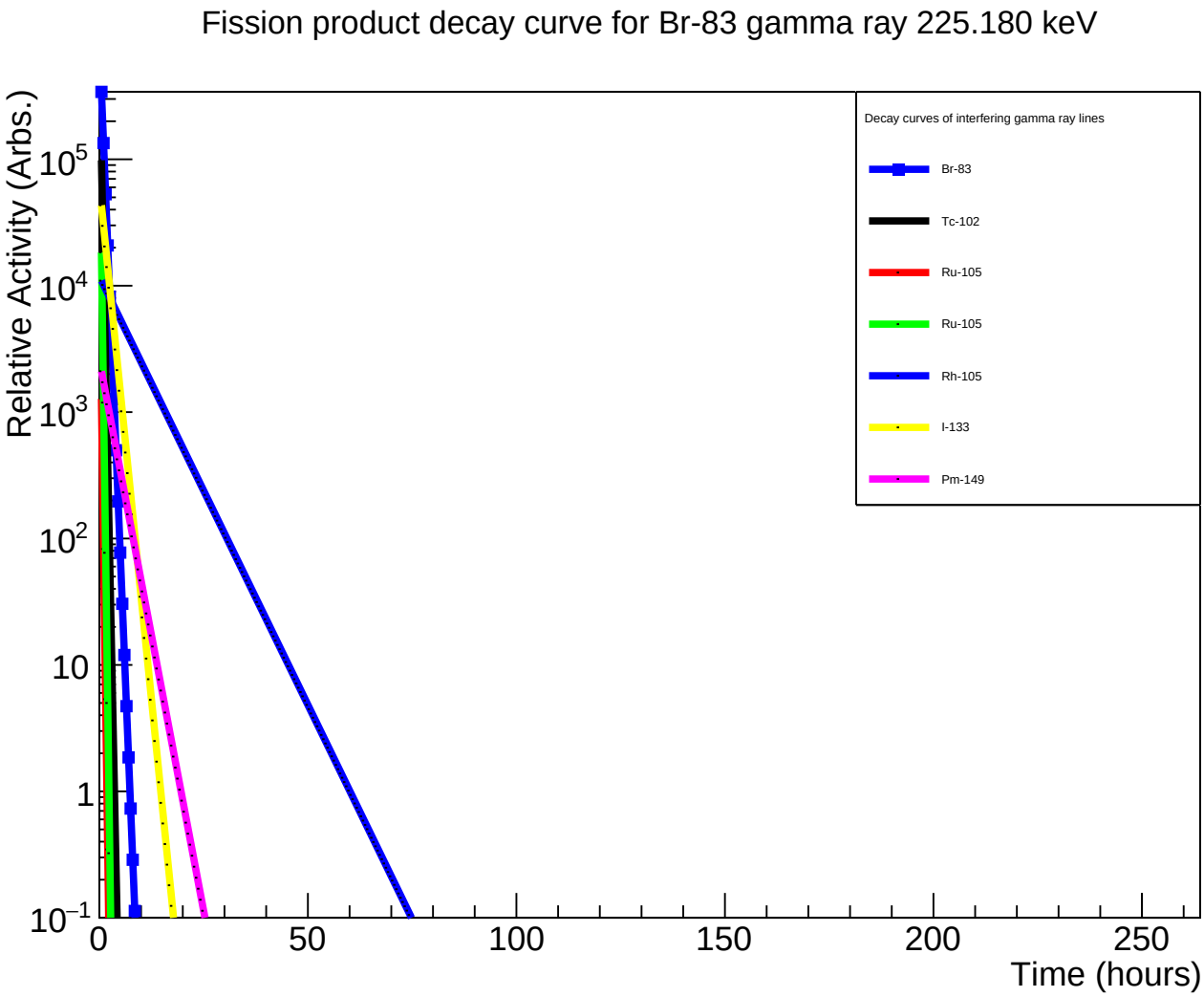


Figure 24: Br-83 decay curve for 225.180 keV gamma ray.

3.25 Se-83 E_γ = 356.70 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 356.70 keV
Gamma Intensity = 70.00 ± 1.000 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 49: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 50: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	355.400	0.021	16.749	0.060
Mo-101	Tc-101	358.200	0.000	0.243	0.052
Tc-104	Ru-104	358.000	0.890	0.305	0.019
Ru-103	Rh-103	357.382	0.000	941.928	0.030
Rh-107	Pd-107	357.840	0.004	0.362	0.001
Ag-112	Cd-112	355.900	0.000	3.130	0.000
Sn-127	Sb-127	357.000	0.002	2.100	0.001
Sb-128	Te-128	357.000	0.015	9.010	0.000
Te-131	I-131	357.400	0.000	33.250	0.004
Te-133	I-133	355.420	0.006	0.923	0.040
I-132	Xe-132	355.200	0.001	2.295	0.043
Cs-139	Ba-139	357.010	0.000	0.155	0.063
Ba-142	La-142	356.800	0.001	0.177	0.058
La-142	Ce-142	355.300	0.000	1.518	0.058
Ce-143	Pr-143	357.800	0.000	33.039	0.060
Nd-149	Pm-149	357.030	0.000	1.728	0.011
Nd-151	Pm-151	357.000	0.004	0.207	0.004
Pm-151	Sm-151	356.900	0.000	28.400	0.004

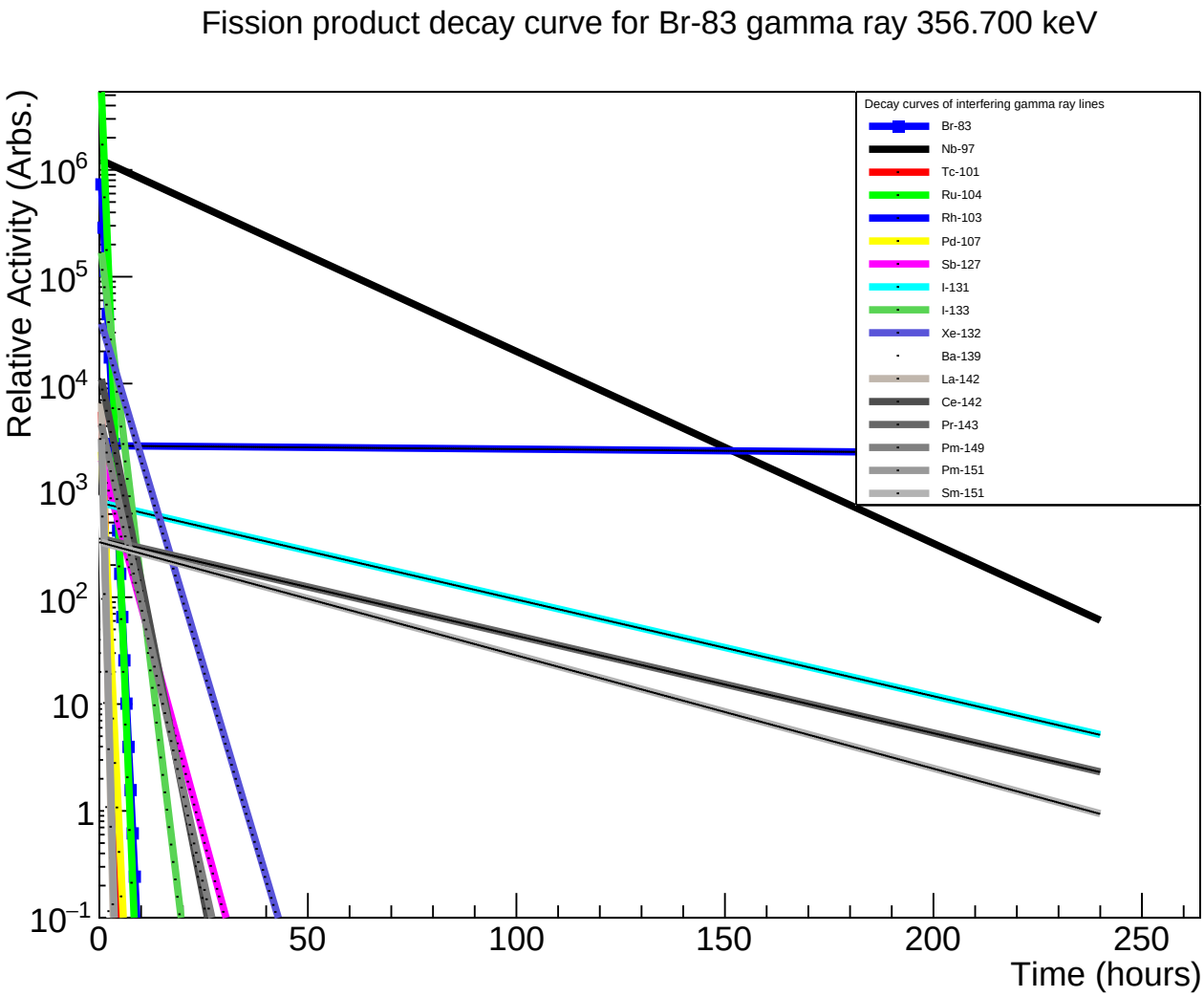


Figure 25: Br-83 decay curve for 356.700 keV gamma ray.

3.26 Se-83 E_γ = 415.20 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 415.20 keV
Gamma Intensity = 1.62 ± 0.108 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 51: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 52: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	416.200	0.000	0.296	0.036
Nb-98	Mo-98	415.500	0.000	0.855	0.000
Tc-105	Ru-105	415.000	0.002	0.127	0.010
Pd-109	Ag-109	415.200	0.000	13.701	0.000
Pd-111	Ag-111	415.500	0.001	0.390	0.000
Sb-126	Te-126	414.500	0.857	0.319	0.001
Te-129	I-129	415.880	0.000	1.160	0.005
Te-133	I-133	415.000	0.001	0.923	0.040
I-135	Xe-135	414.830	0.003	6.570	0.063
Cs-139	Ba-139	416.490	0.000	0.155	0.063
Ce-143	Pr-143	416.570	0.000	33.039	0.060
Ce-146	Pr-146	415.710	0.013	0.225	0.030
Pr-147	Nd-147	413.700	0.010	0.223	0.022
Nd-151	Pm-151	414.630	0.002	0.207	0.004
Nd-151	Pm-151	415.200	0.000	0.207	0.004
Pm-151	Sm-151	415.700	0.000	28.400	0.004

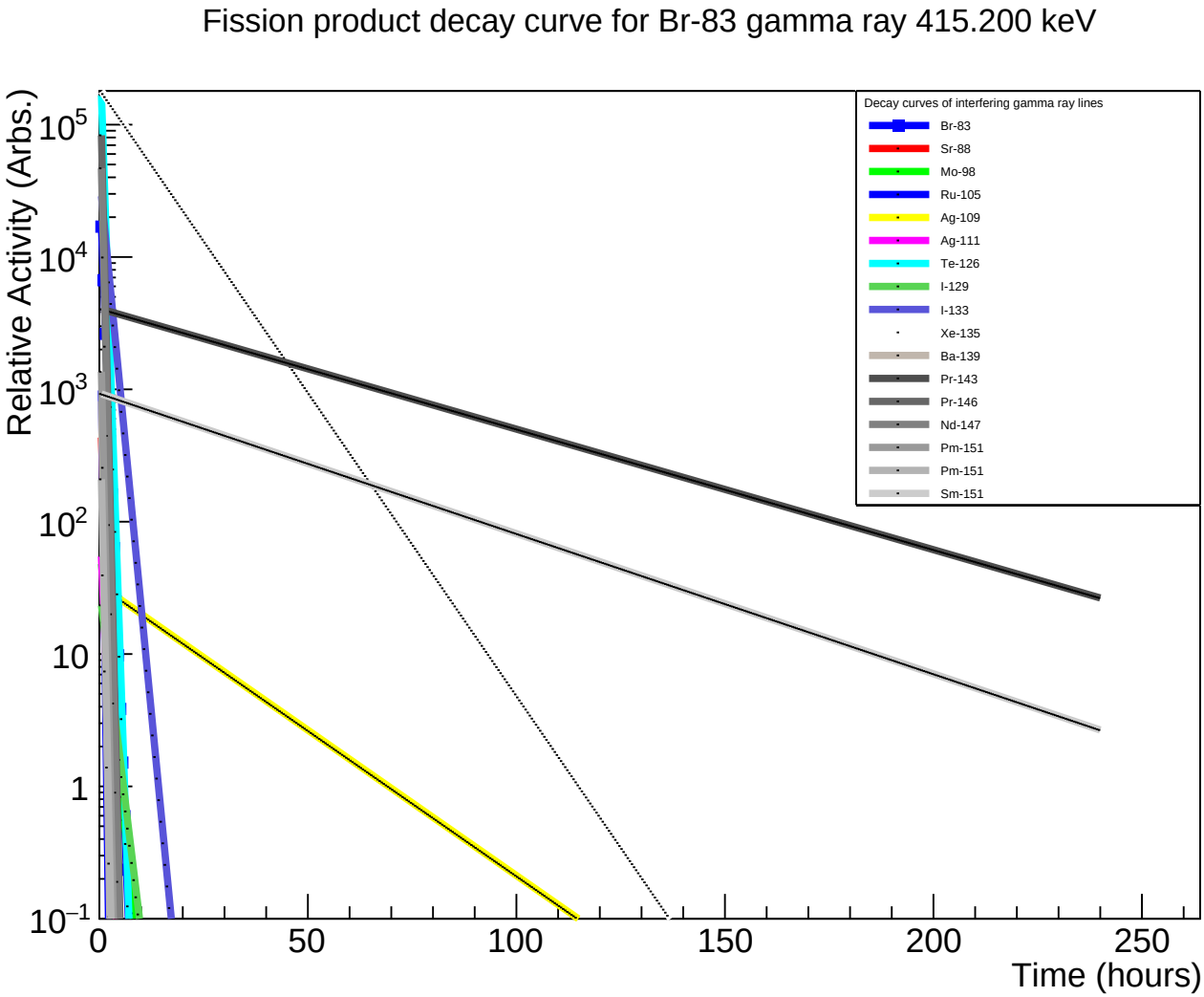


Figure 26: Br-83 decay curve for 415.200 keV gamma ray.

3.27 Se-83 E_γ = 457.41 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 457.41 keV
Gamma Intensity = 3.47 ± 0.162 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 53: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 54: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	457.600	0.000	65.976	0.061
Sb-127	Te-127	456.000	0.001	92.400	0.002
Sb-131	Te-131	456.700	0.007	0.384	0.026
Te-133	I-133	458.000	0.001	0.923	0.040
Ba-141	La-141	457.800	0.050	0.304	0.058
Ba-142	La-142	457.100	0.004	0.177	0.058
Nd-151	Pm-151	456.680	0.001	0.207	0.004
Pm-151	Sm-151	456.050	0.000	28.400	0.004
Pm-151	Sm-151	457.500	0.000	28.400	0.004

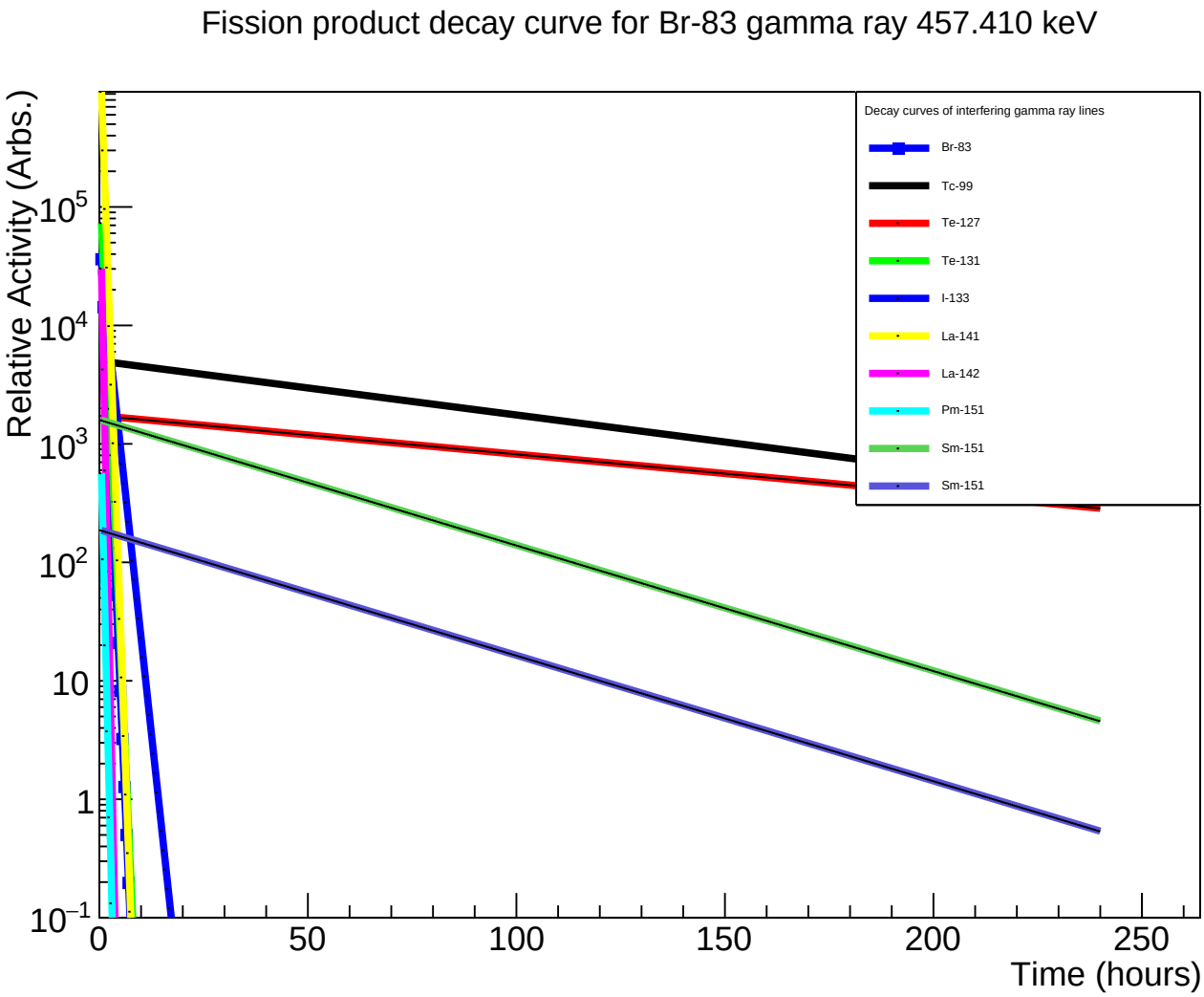


Figure 27: Br-83 decay curve for 457.410 keV gamma ray.

3.28 Se-83 E_γ = 485.70 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 485.70 keV
Gamma Intensity = 1.15 ± 1.155 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 55: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 56: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	484.530	0.000	0.296	0.036
Sr-91	Y-91	486.500	0.001	9.630	0.058
Sr-93	Y-93	486.700	0.001	0.124	0.062
Pd-111	Ag-111	485.800	0.000	0.390	0.000
Te-133	I-133	484.500	0.001	0.208	0.031
Ba-141	La-141	486.700	0.001	0.304	0.058
La-140	Ce-140	487.021	0.455	40.285	0.062
Nd-151	Pm-151	486.980	0.001	0.207	0.004
Pm-151	Sm-151	487.100	0.000	28.400	0.004
Sm-153	Eu-153	485.000	0.000	46.500	0.002

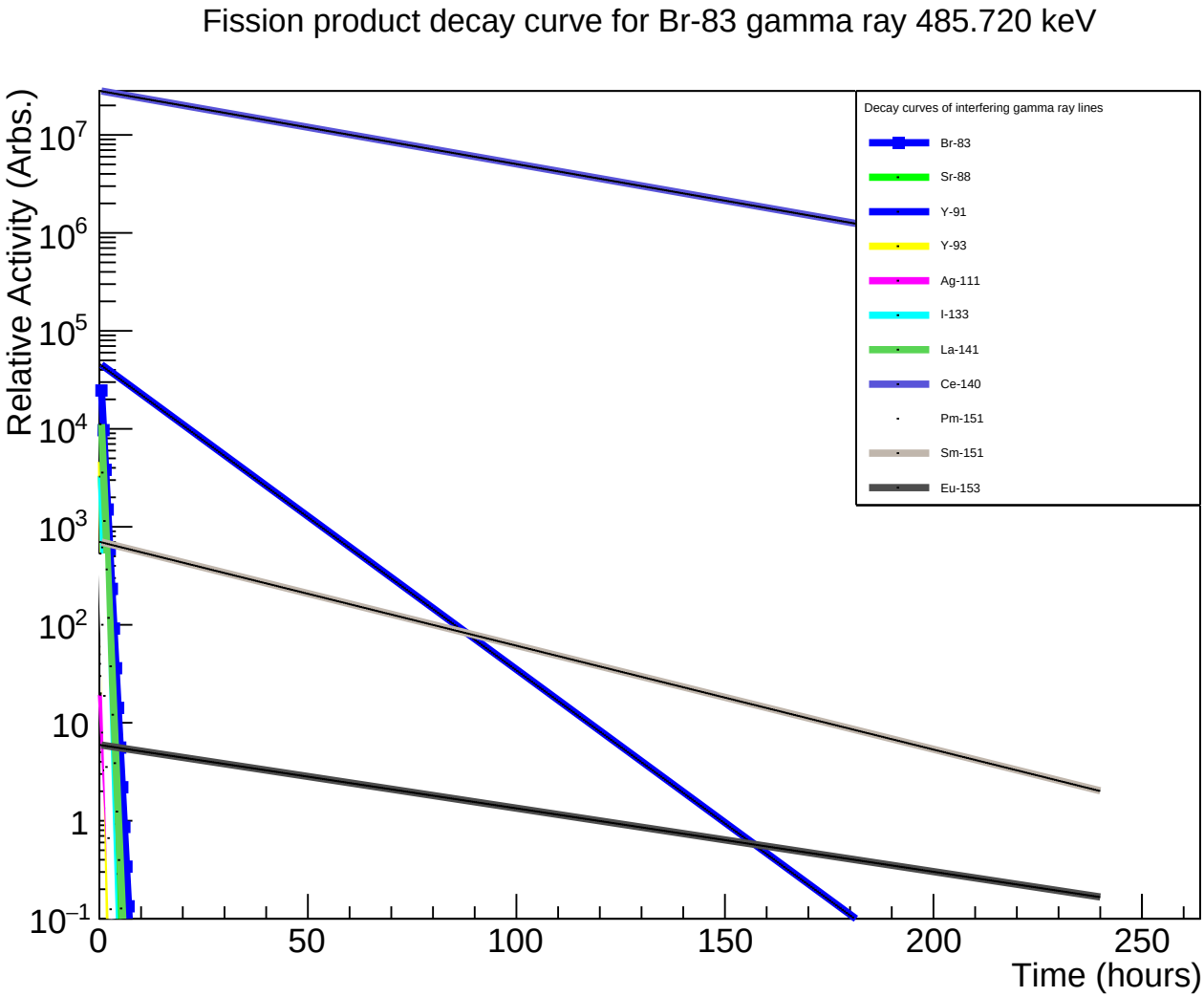


Figure 28: Br-83 decay curve for 485.700 keV gamma ray.

3.29 Se-83 E_γ = 485.72 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 485.72 keV
Gamma Intensity = 2.36 ± 0.124 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 57: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 58: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	484.530	0.000	0.296	0.036
Sr-91	Y-91	486.500	0.001	9.630	0.058
Sr-93	Y-93	486.700	0.001	0.124	0.062
Pd-111	Ag-111	485.800	0.000	0.390	0.000
Te-133	I-133	484.500	0.001	0.208	0.031
Ba-141	La-141	486.700	0.001	0.304	0.058
La-140	Ce-140	487.021	0.455	40.285	0.062
Nd-151	Pm-151	486.980	0.001	0.207	0.004
Pm-151	Sm-151	487.100	0.000	28.400	0.004
Sm-153	Eu-153	485.000	0.000	46.500	0.002

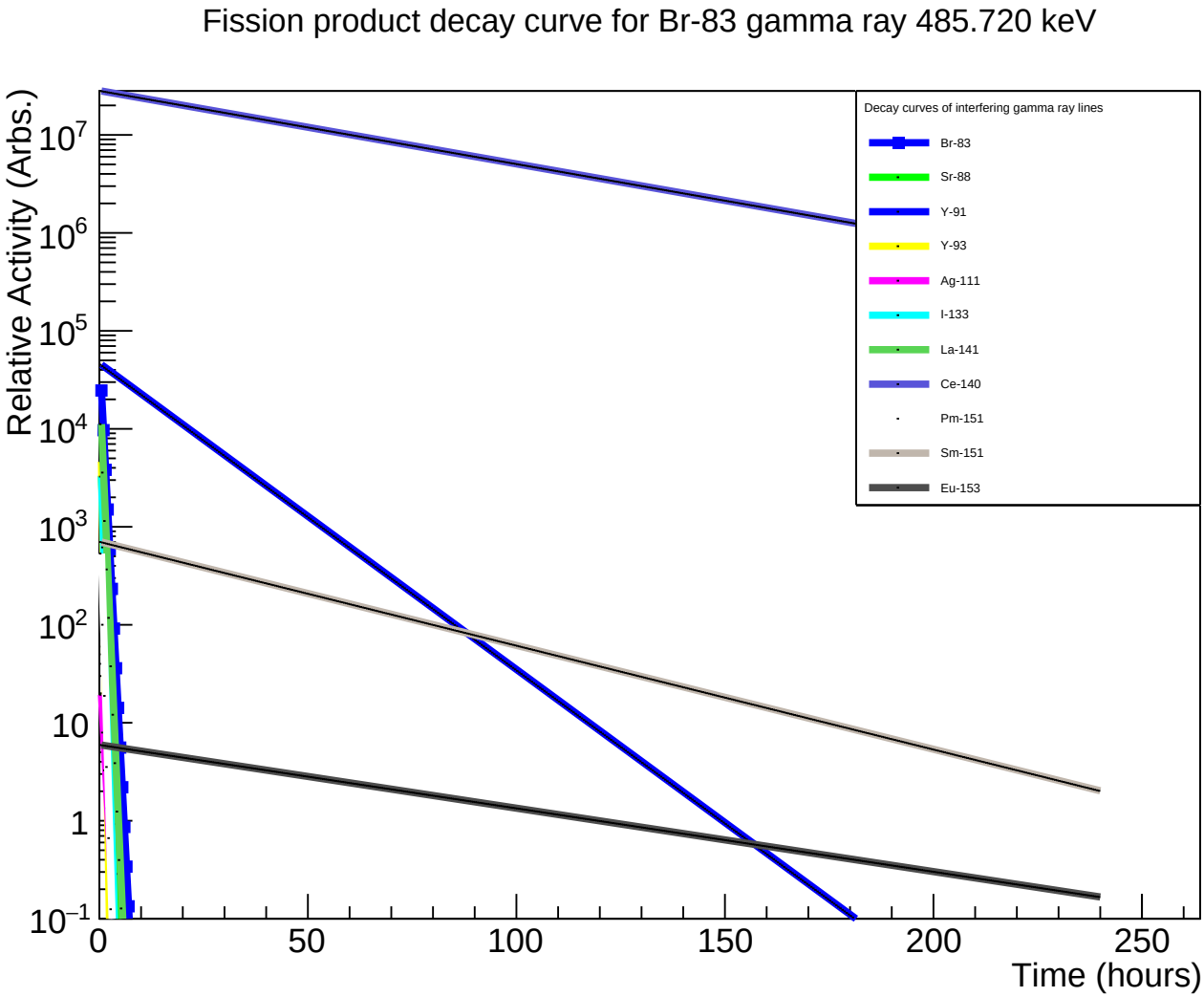


Figure 29: Br-83 decay curve for 485.720 keV gamma ray.

3.30 Se-83 E_γ = 510.06 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 510.06 keV
Gamma Intensity = 42.70 ± 2.866 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 59: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 60: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	510.780	0.001	1.272	0.026
Mo-101	Tc-101	510.210	0.002	0.243	0.052
Pd-111	Ag-111	509.100	0.004	0.390	0.000
Ag-111	Cd-111	509.400	0.000	178.800	0.000
Sn-127	Sb-127	509.000	0.014	2.100	0.001
Sn-127	Sb-127	509.700	0.008	2.100	0.001
I-133	Xe-133	510.530	0.018	20.800	0.067
I-133	Xe-133	510.800	0.000	20.800	0.067
Ba-141	La-141	510.300	0.001	0.304	0.058
Nd-149	Pm-149	510.300	0.001	1.728	0.011
Pm-151	Sm-151	510.100	0.000	28.400	0.004
Sm-153	Eu-153	509.150	0.000	46.500	0.002
Sm-155	Eu-155	510.200	0.000	0.372	0.000

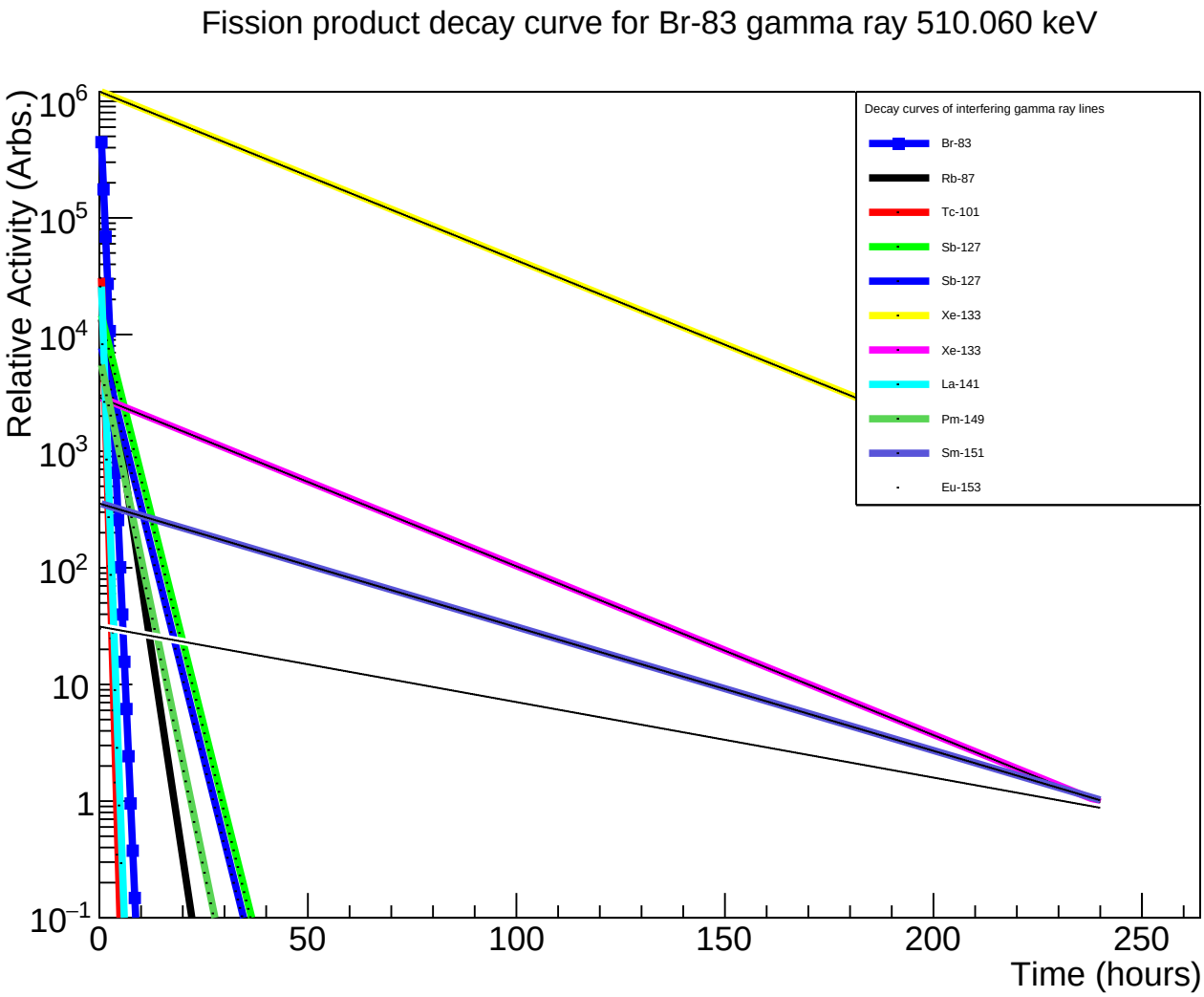


Figure 30: Br-83 decay curve for 510.060 keV gamma ray.

3.31 Se-83 E_γ = 553.20 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 553.20 keV
Gamma Intensity = 3.36 ± 0.215 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 61: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 62: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	551.800	0.002	1.512	0.000
As-79	Se-79	552.000	0.001	0.150	0.000
Tc-104	Ru-104	553.800	0.003	0.305	0.019
Rh-107	Pd-107	554.400	0.001	0.362	0.001
Pd-111	Ag-111	552.600	0.000	0.390	0.000
Sn-123	Sb-123	552.290	0.000	0.668	0.000
Te-129	I-129	551.980	0.000	1.160	0.005
Te-129	I-129	552.430	0.000	806.400	0.001
Te-133	I-133	553.700	0.001	0.208	0.031
I-133	Xe-133	554.500	0.000	20.800	0.067
Pr-147	Nd-147	554.700	0.058	0.223	0.022
Pm-149	Sm-149	552.920	0.000	53.080	0.011
Pm-151	Sm-151	554.200	0.000	28.400	0.004
Eu-156	Gd-156	554.660	0.000	364.560	0.000



Figure 31: Br-83 decay curve for 553.200 keV gamma ray.

3.32 Se-83 E_γ = 571.91 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 571.91 keV
Gamma Intensity = 4.27 ± 0.287 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 63: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 64: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	570.570	0.001	2.840	0.036
Kr-88	Rb-88	573.270	0.001	2.840	0.036
Sr-93	Y-93	571.960	0.002	0.124	0.062
Nb-98	Mo-98	572.600	0.001	0.855	0.000
Mo-101	Tc-101	571.620	0.002	0.243	0.052
Ru-105	Rh-105	572.000	0.000	4.440	0.010
Te-131	I-131	572.700	0.000	33.250	0.004
Te-133	I-133	572.000	0.000	0.208	0.031
I-132	Xe-132	572.500	0.001	2.295	0.043
I-134	Xe-134	570.750	0.003	0.875	0.078
Xe-135	Cs-135	573.320	0.000	9.140	0.065
Ba-141	La-141	572.300	0.003	0.304	0.058
La-142	Ce-142	570.600	0.000	1.518	0.058
Nd-151	Pm-151	573.000	0.000	0.207	0.004
Nd-152	Pm-152	570.700	0.004	0.190	0.003
Pm-151	Sm-151	572.500	0.001	28.400	0.004
Pm-151	Sm-151	573.200	0.000	28.400	0.004
Sm-155	Eu-155	571.800	0.000	0.372	0.000

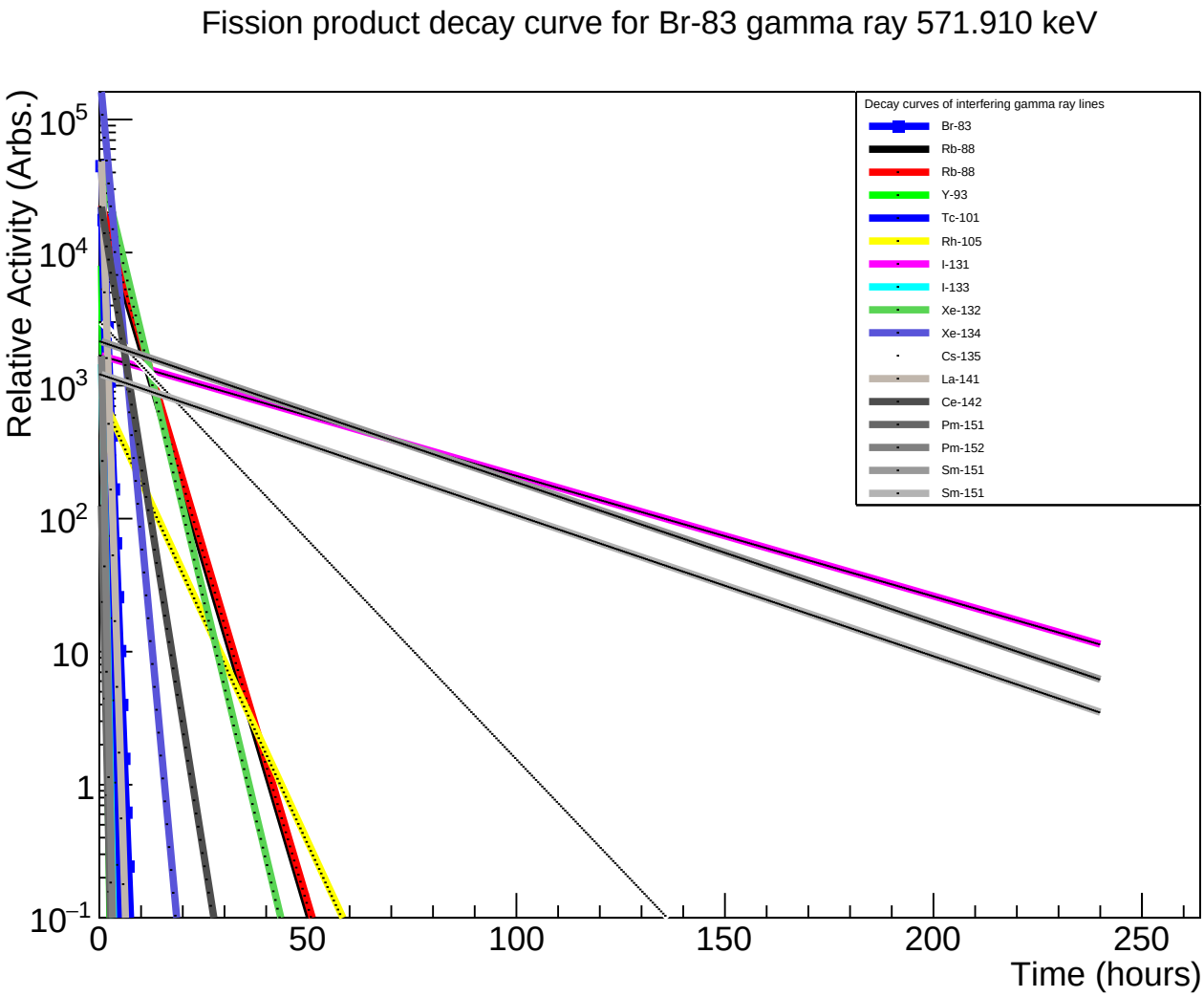


Figure 32: Br-83 decay curve for 571.910 keV gamma ray.

3.33 Se-83 E_γ = 609.22 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 609.22 keV
Gamma Intensity = 2.88 ± 0.146 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 65: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 66: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	608.340	0.010	0.243	0.052
Tc-104	Ru-104	609.500	0.020	0.305	0.019
Tc-105	Ru-105	608.500	0.024	0.127	0.010
Ru-103	Rh-103	610.333	0.058	941.928	0.030
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Te-131	I-131	609.400	0.001	33.250	0.004
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Ba-141	La-141	609.000	0.004	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

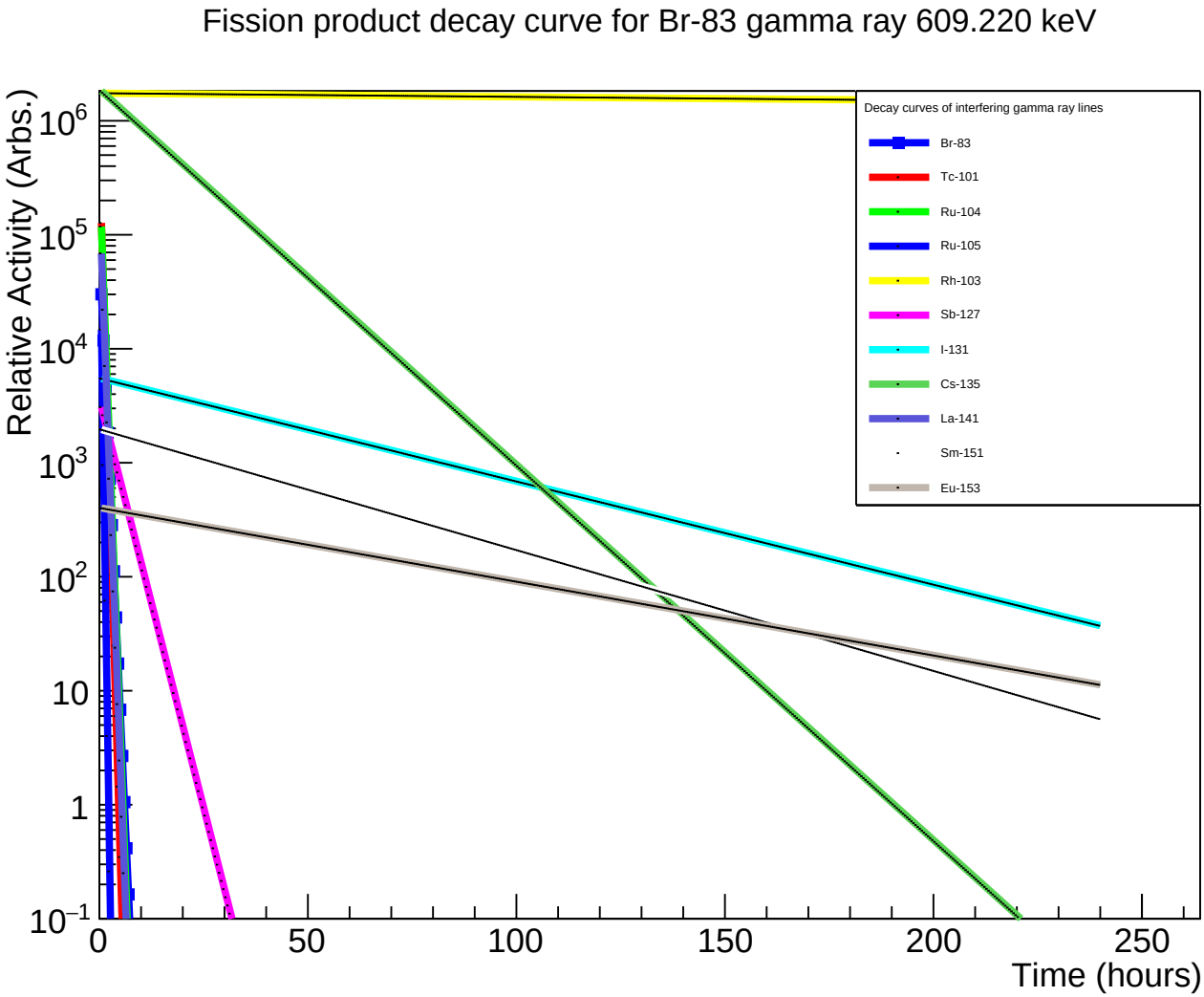


Figure 33: Br-83 decay curve for 609.220 keV gamma ray.

3.34 Se-83 E_γ = 664.80 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 664.80 keV
Gamma Intensity = 3.29 ± 0.215 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 67: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 68: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Sr-93	Y-93	663.580	0.016	0.124	0.062
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Ag-112	Cd-112	663.500	0.000	3.130	0.000
Sb-126	Te-126	666.100	0.857	0.319	0.001
Te-131	I-131	665.050	0.042	33.250	0.004
Te-134	I-134	665.850	0.012	0.697	0.070
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Ce-143	Pr-143	664.571	0.057	33.039	0.060
Pr-147	Nd-147	664.500	0.002	0.223	0.022
Nd-149	Pm-149	665.220	0.000	1.728	0.011
Nd-151	Pm-151	665.210	0.001	0.207	0.004
Pm-149	Sm-149	664.400	0.000	53.080	0.011
Pm-151	Sm-151	663.500	0.001	28.400	0.004
Sm-155	Eu-155	664.000	0.001	0.372	0.000
Sm-155	Eu-155	665.000	0.000	0.372	0.000

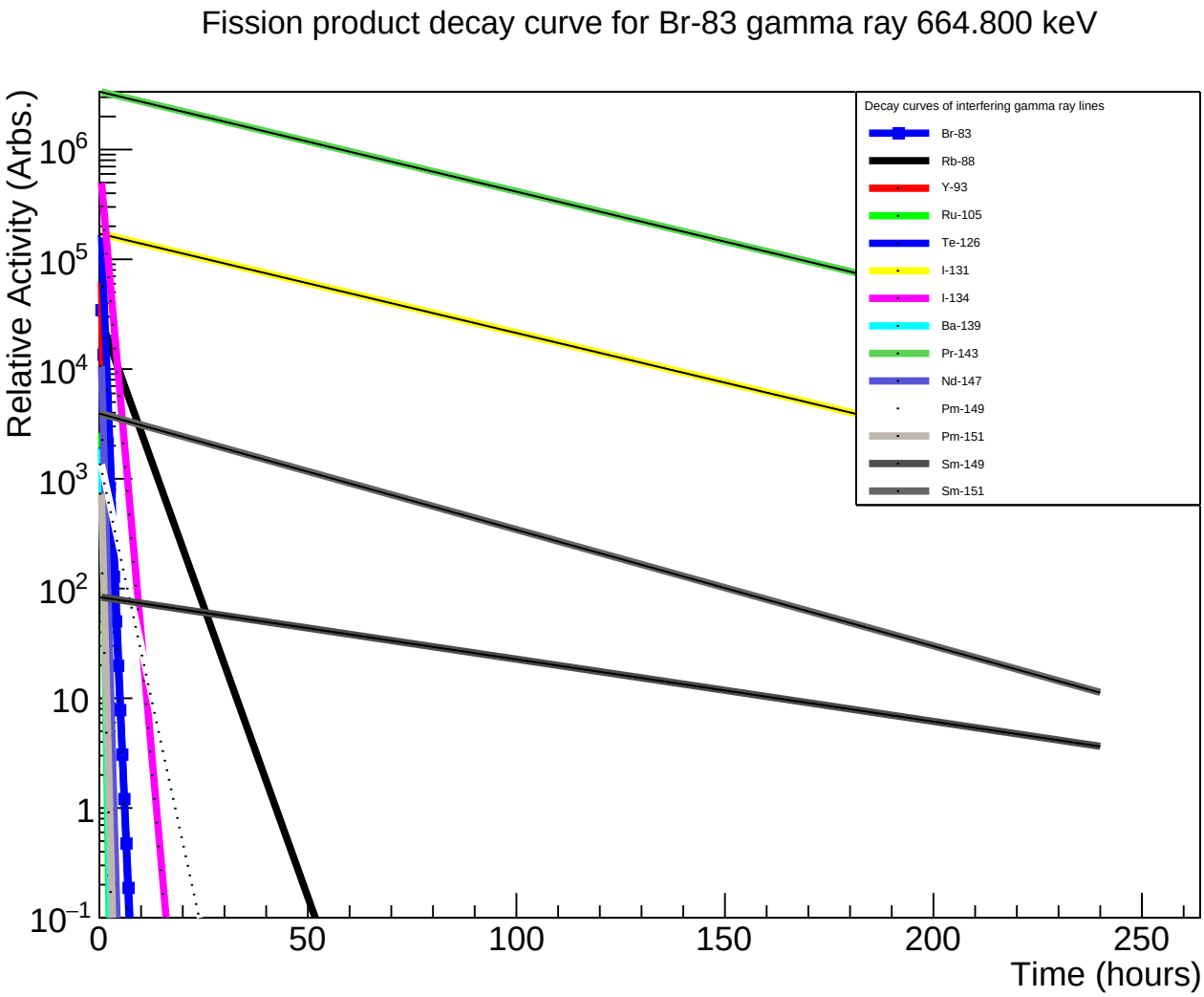


Figure 34: Br-83 decay curve for 664.800 keV gamma ray.

3.35 Se-83 E_γ = 679.40 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 679.40 keV
Gamma Intensity = 1.03 ± 0.071 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 69: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 70: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	680.200	0.007	10.180	0.063
Nb-98	Mo-98	679.680	0.001	0.855	0.000
Ag-113	Cd-113	680.600	0.007	5.370	0.000
Sn-128	Sb-128	680.500	0.159	0.984	0.003
Sb-130	Te-130	680.900	0.065	0.658	0.008
Te-133	I-133	679.800	0.001	0.208	0.031
I-133	Xe-133	678.650	0.000	20.800	0.067
I-133	Xe-133	680.247	0.006	20.800	0.067
I-135	Xe-135	679.220	0.001	6.570	0.063
Xe-138	Cs-138	680.240	0.001	0.235	0.063
Nd-147	Pm-147	680.520	0.000	263.520	0.022
Nd-149	Pm-149	678.100	0.000	1.728	0.011
Nd-151	Pm-151	679.600	0.000	0.207	0.004
Pm-151	Sm-151	678.300	0.000	28.400	0.004

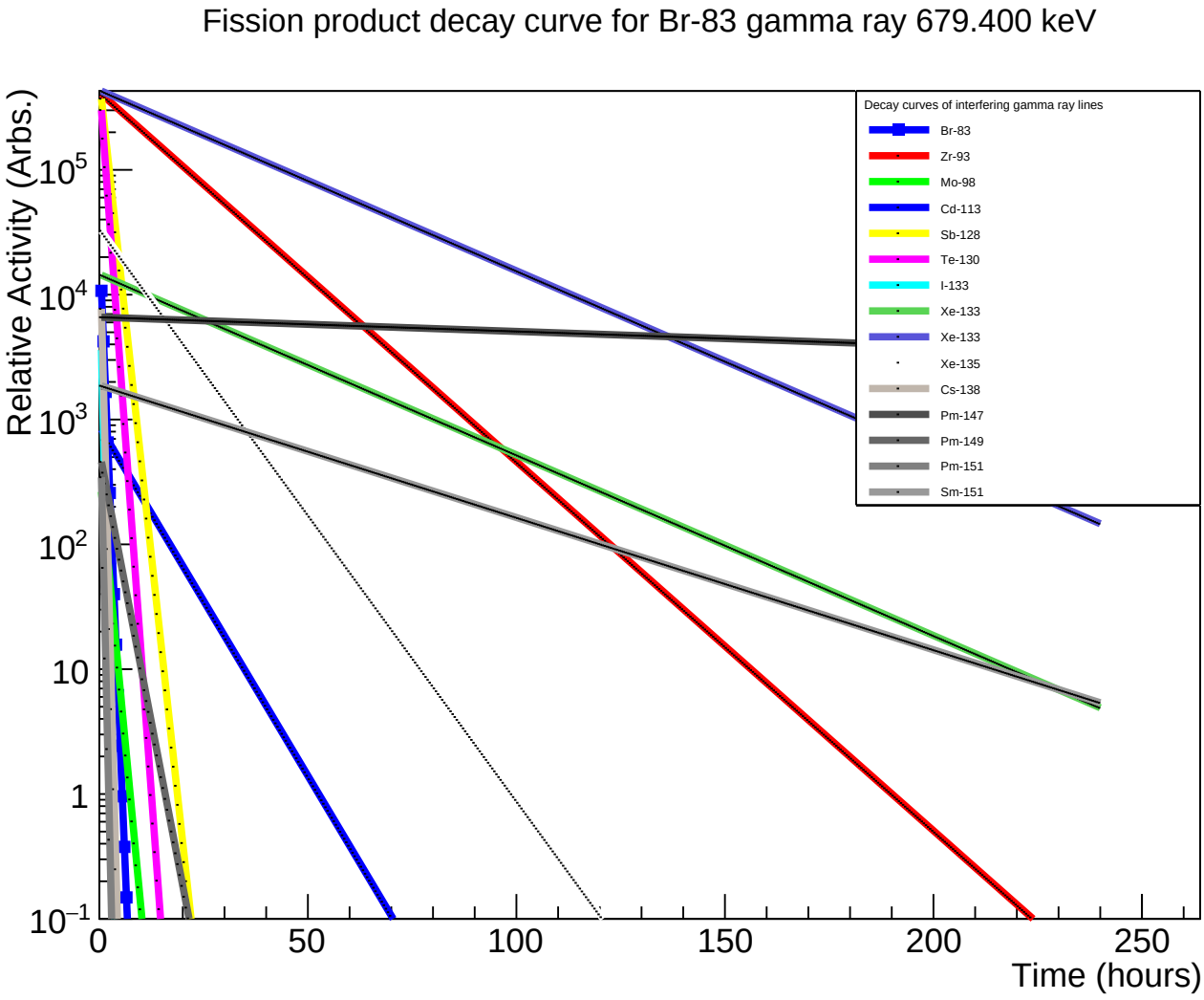


Figure 35: Br-83 decay curve for 679.400 keV gamma ray.

3.36 Se-83 E_γ = 712.11 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 712.11 keV
Gamma Intensity = 3.08 ± 0.283 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 71: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 72: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	713.040	0.033	0.243	0.052
Te-131	I-131	713.100	0.014	33.250	0.004
Te-133	I-133	712.600	0.002	0.208	0.031
Te-134	I-134	712.970	0.047	0.697	0.070
Pr-145	Nd-145	713.224	0.000	5.984	0.039
Nd-149	Pm-149	712.590	0.001	1.728	0.011
Pm-151	Sm-151	712.000	0.001	28.400	0.004
Pm-151	Sm-151	713.400	0.000	28.400	0.004
Sm-155	Eu-155	713.400	0.000	0.372	0.000

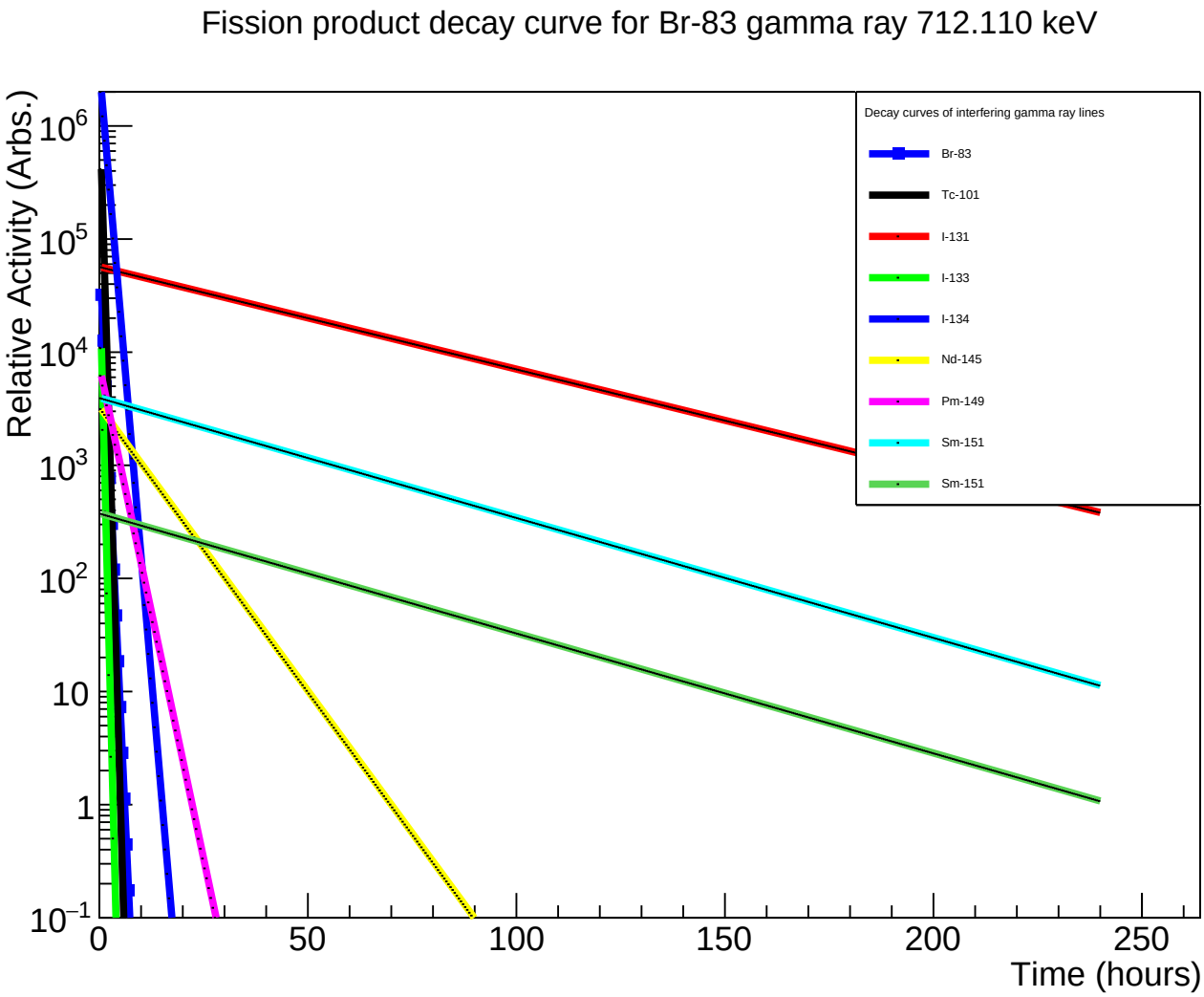


Figure 36: Br-83 decay curve for 712.110 keV gamma ray.

3.37 Se-83 E_γ = 718.03 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 718.03 keV
Gamma Intensity = 14.98 ± 1.694 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 73: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 74: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	716.800	0.003	0.124	0.062
Sr-93	Y-93	718.330	0.015	0.124	0.062
Nb-97	Mo-97	719.530	0.001	1.202	0.060
Nb-98	Mo-98	717.500	0.003	0.855	0.000
Tc-105	Ru-105	716.600	0.006	0.127	0.010
Ag-112	Cd-112	718.400	0.002	3.130	0.000
Te-133	I-133	717.800	0.001	0.208	0.031
Te-133	I-133	718.900	0.008	0.923	0.040
Cs-138	Ba-138	717.700	0.000	0.557	0.067
Pr-147	Nd-147	718.900	0.011	0.223	0.022
Nd-149	Pm-149	718.430	0.000	1.728	0.011
Nd-151	Pm-151	717.600	0.001	0.207	0.004
Pm-151	Sm-151	717.720	0.041	28.400	0.004
Pm-151	Sm-151	719.000	0.000	28.400	0.004
Sm-153	Eu-153	719.000	0.000	46.500	0.002

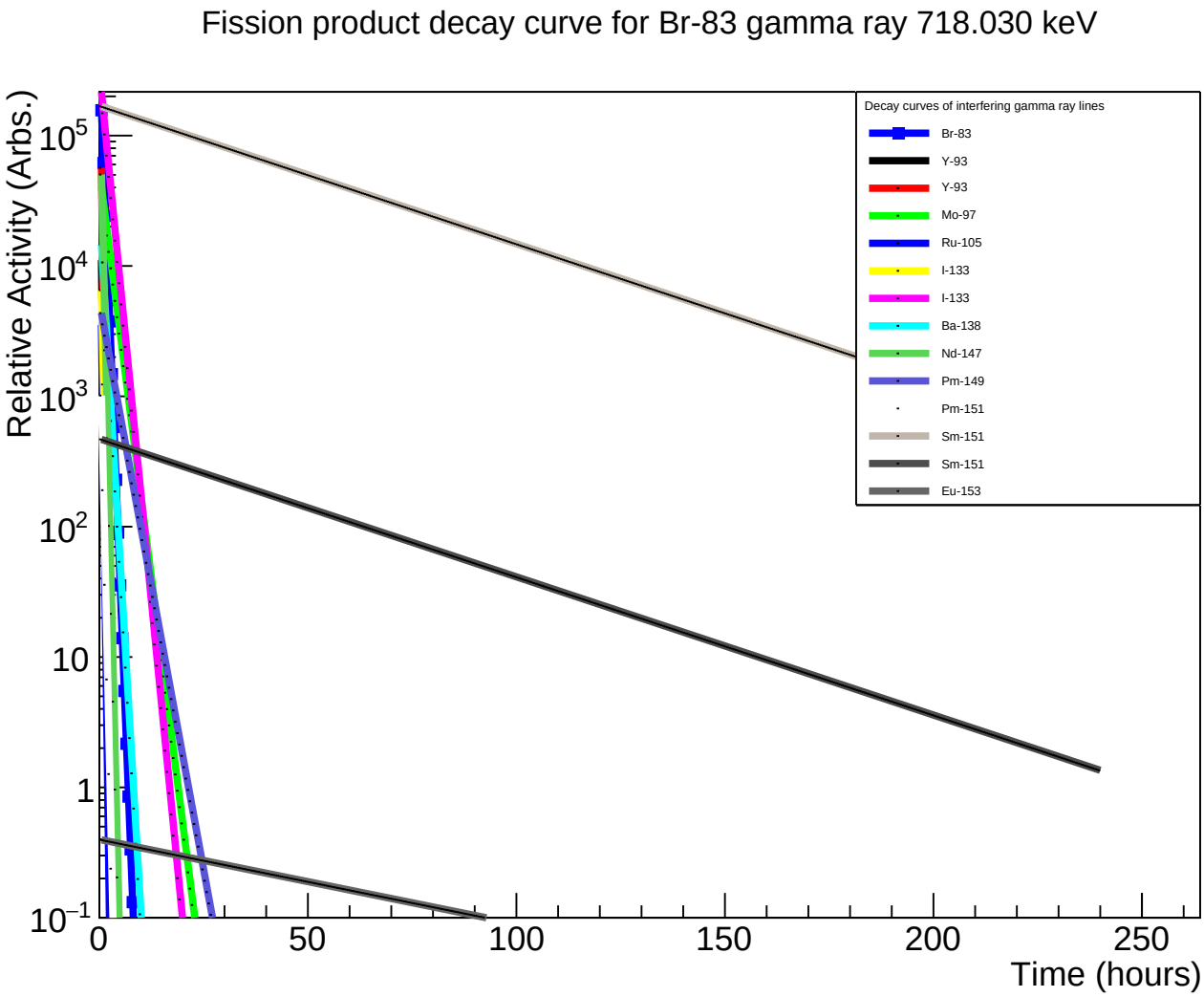


Figure 37: Br-83 decay curve for 718.030 keV gamma ray.

3.38 Se-83 E_γ = 799.04 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 799.04 keV
Gamma Intensity = 14.84 ± 1.555 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 75: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 76: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	798.650	0.000	2.840	0.036
Nb-98	Mo-98	797.880	0.006	0.855	0.000
Mo-101	Tc-101	798.000	0.001	0.243	0.052
Ag-112	Cd-112	797.900	0.005	3.130	0.000
Sn-125	Sb-125	800.280	0.011	231.360	0.000
Te-133	I-133	800.540	0.011	0.923	0.040
I-135	Xe-135	797.710	0.002	6.570	0.063
Xe-138	Cs-138	799.600	0.000	0.235	0.063
Cs-138	Ba-138	797.700	0.001	0.557	0.067
Cs-139	Ba-139	798.010	0.000	0.155	0.063
La-143	Ce-143	798.140	0.012	0.237	0.059
Pr-147	Nd-147	800.400	0.002	0.223	0.022
Nd-151	Pm-151	798.200	0.001	0.207	0.004
Eu-156	Gd-156	797.730	0.001	364.560	0.000

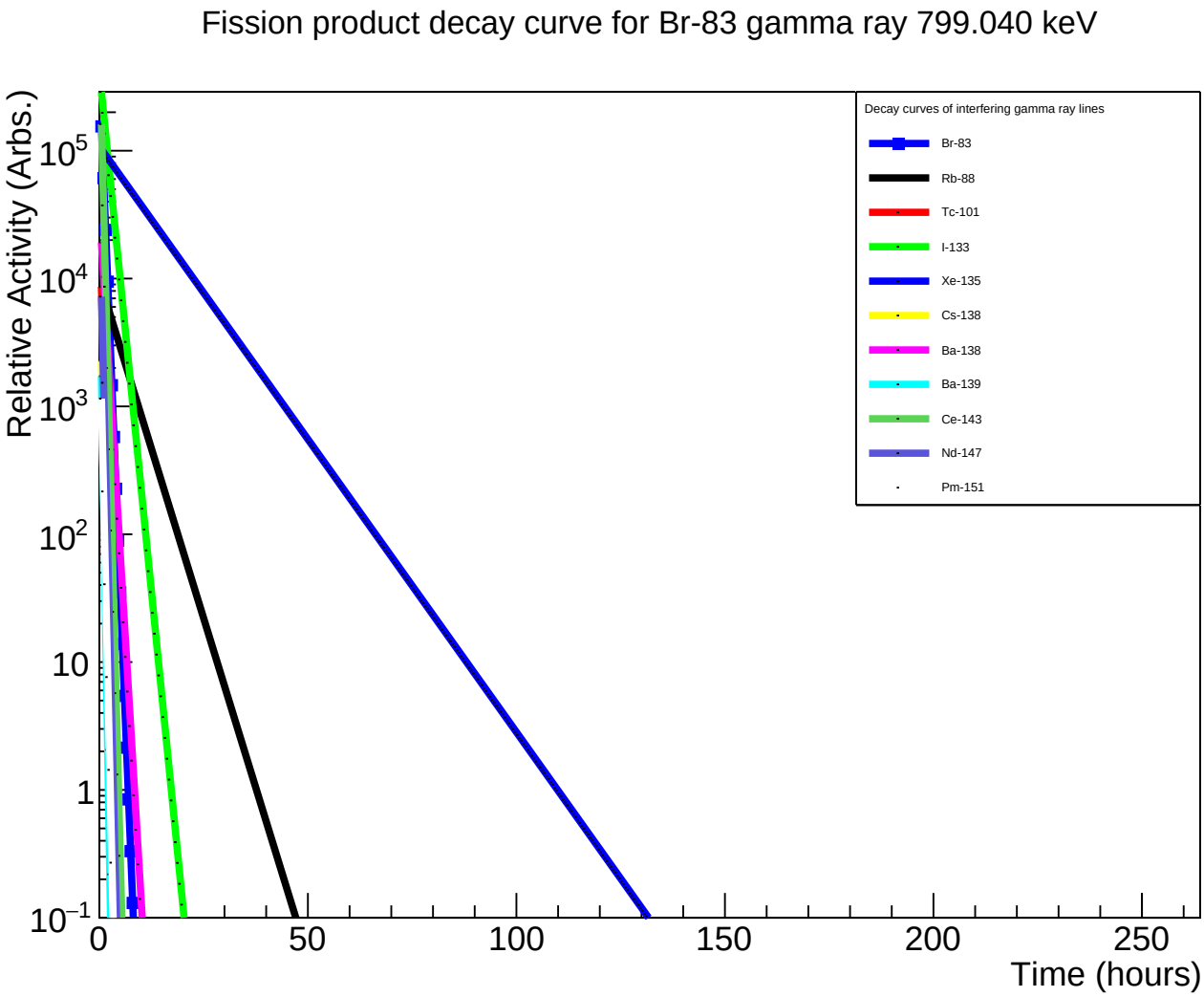


Figure 38: Br-83 decay curve for 799.040 keV gamma ray.

3.39 Se-83 E_γ = 836.52 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 836.52 keV
Gamma Intensity = 13.30 ± 2.806 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 77: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 78: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	836.370	0.008	1.272	0.026
Rh-107	Pd-107	836.500	0.000	0.362	0.001
Pd-111	Ag-111	835.700	0.003	0.390	0.000
Sb-128	Te-128	835.800	0.010	9.010	0.000
I-135	Xe-135	836.804	0.067	6.570	0.063
Nd-149	Pm-149	837.400	0.000	1.728	0.011
Nd-151	Pm-151	837.500	0.000	0.207	0.004
Pm-149	Sm-149	835.550	0.000	53.080	0.011
Eu-156	Gd-156	836.520	0.001	364.560	0.000

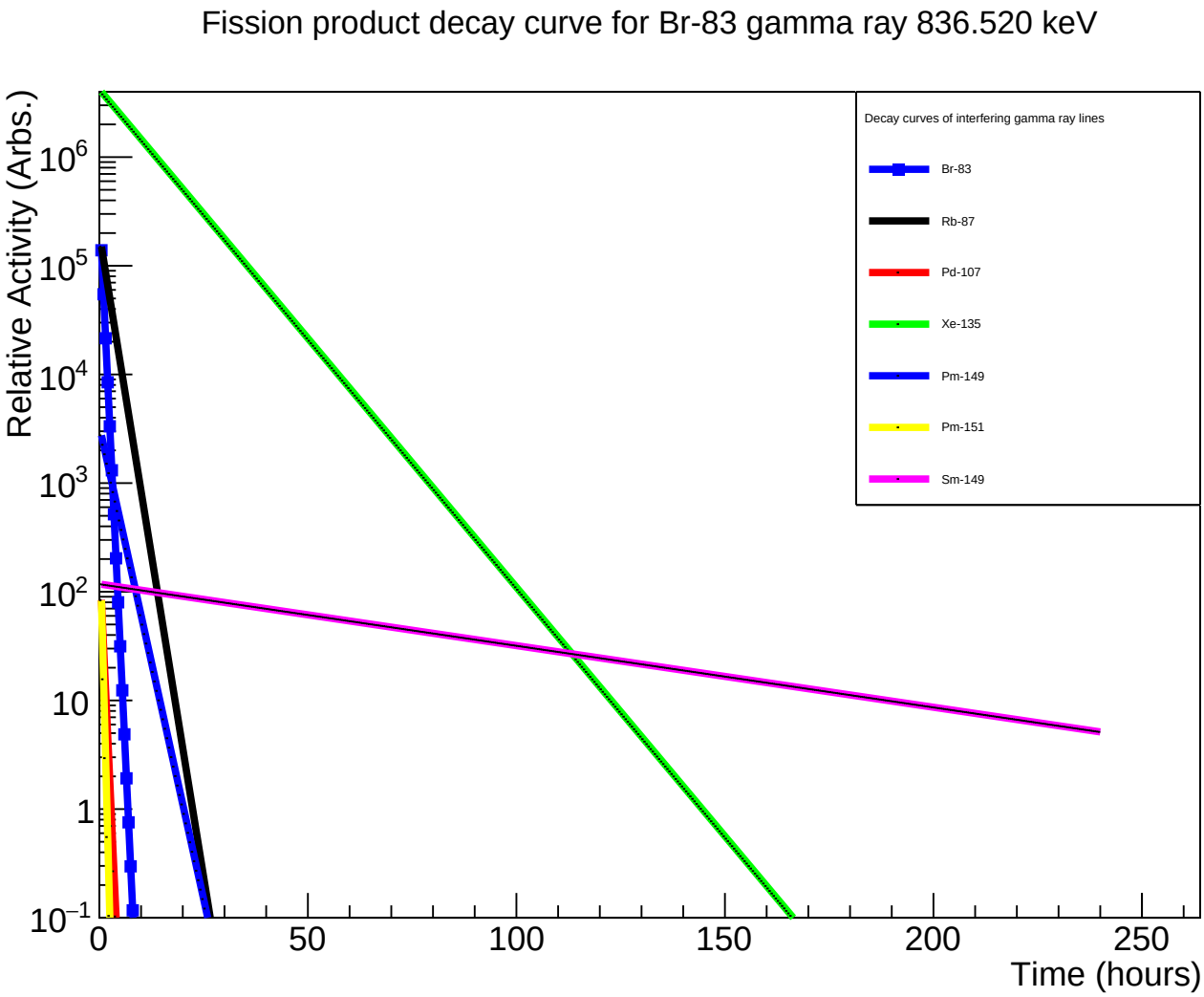


Figure 39: Br-83 decay curve for 836.520 keV gamma ray.

3.40 Se-83 E_γ = 866.64 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 866.64 keV
Gamma Intensity = 8.19 ± 0.848 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 79: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 80: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-111	Cd-111	867.000	0.000	178.800	0.000
Sb-131	Te-131	866.000	0.005	0.384	0.026
I-132	Xe-132	866.000	0.001	2.295	0.043
Xe-138	Cs-138	865.820	0.003	0.235	0.063
Ba-141	La-141	867.800	0.001	0.304	0.058
La-140	Ce-140	867.846	0.055	40.285	0.062
Nd-151	Pm-151	865.900	0.000	0.207	0.004
Nd-151	Pm-151	866.400	0.000	0.207	0.004
Nd-151	Pm-151	866.400	0.001	0.207	0.004
Nd-151	Pm-151	867.600	0.001	0.207	0.004
Pm-151	Sm-151	867.100	0.000	28.400	0.004
Eu-156	Gd-156	865.800	0.002	364.560	0.000
Eu-156	Gd-156	867.010	0.013	364.560	0.000

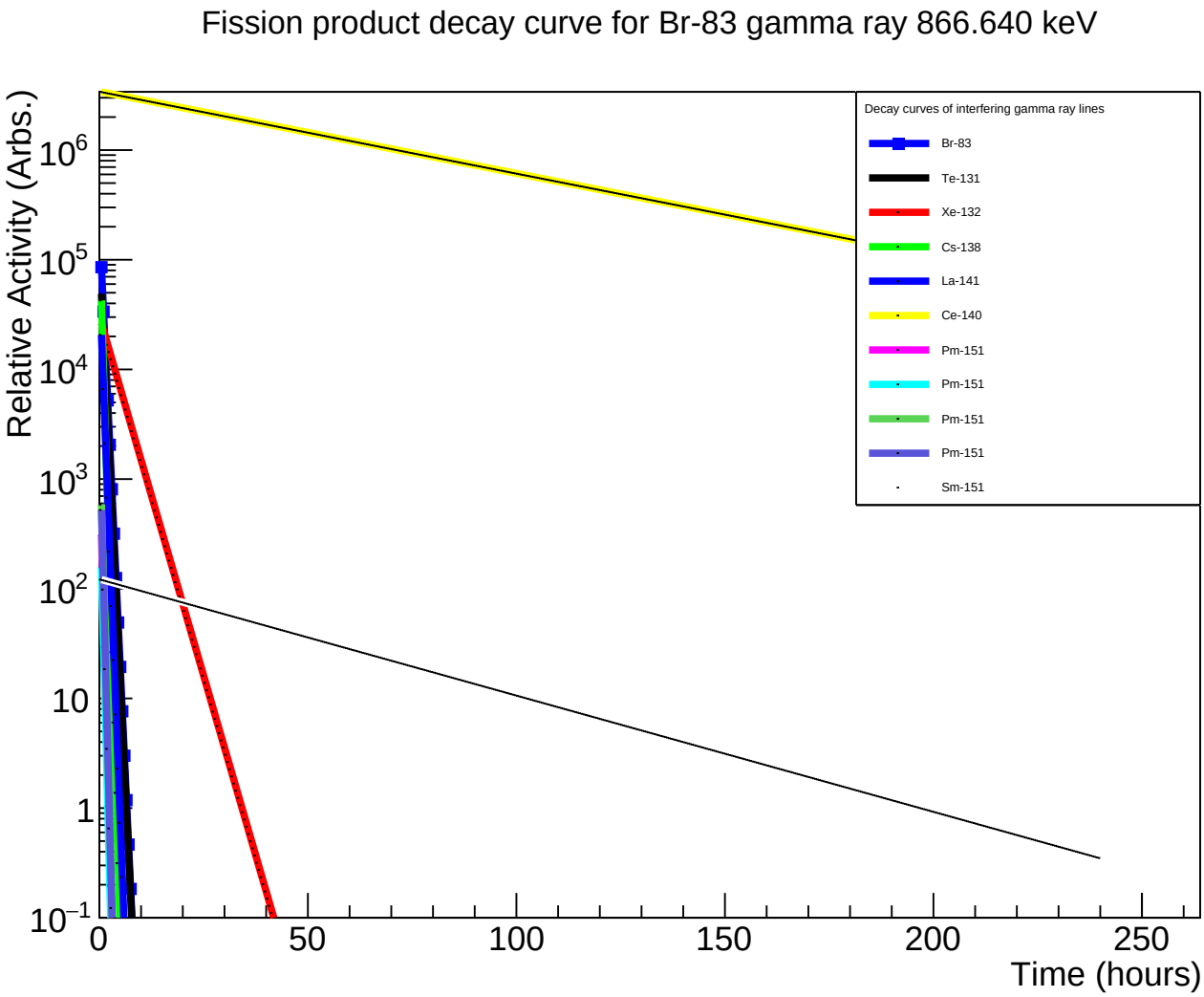


Figure 40: Br-83 decay curve for 866.640 keV gamma ray.

3.41 Se-83 E_γ = 883.61 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 883.61 keV
Gamma Intensity = 7.21 ± 0.234 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 81: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 82: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	884.900	0.005	1.512	0.000
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Tc-104	Ru-104	884.400	0.109	0.305	0.019
Tc-105	Ru-105	883.500	0.001	0.127	0.010
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Sb-130	Te-130	883.300	0.012	0.658	0.008
Te-133	I-133	884.290	0.007	0.208	0.031
Te-133	I-133	882.700	0.021	0.923	0.040
Te-133	I-133	884.800	0.019	0.923	0.040
I-134	Xe-134	884.090	0.651	0.875	0.078
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Pm-151	Sm-151	883.680	0.000	28.400	0.004

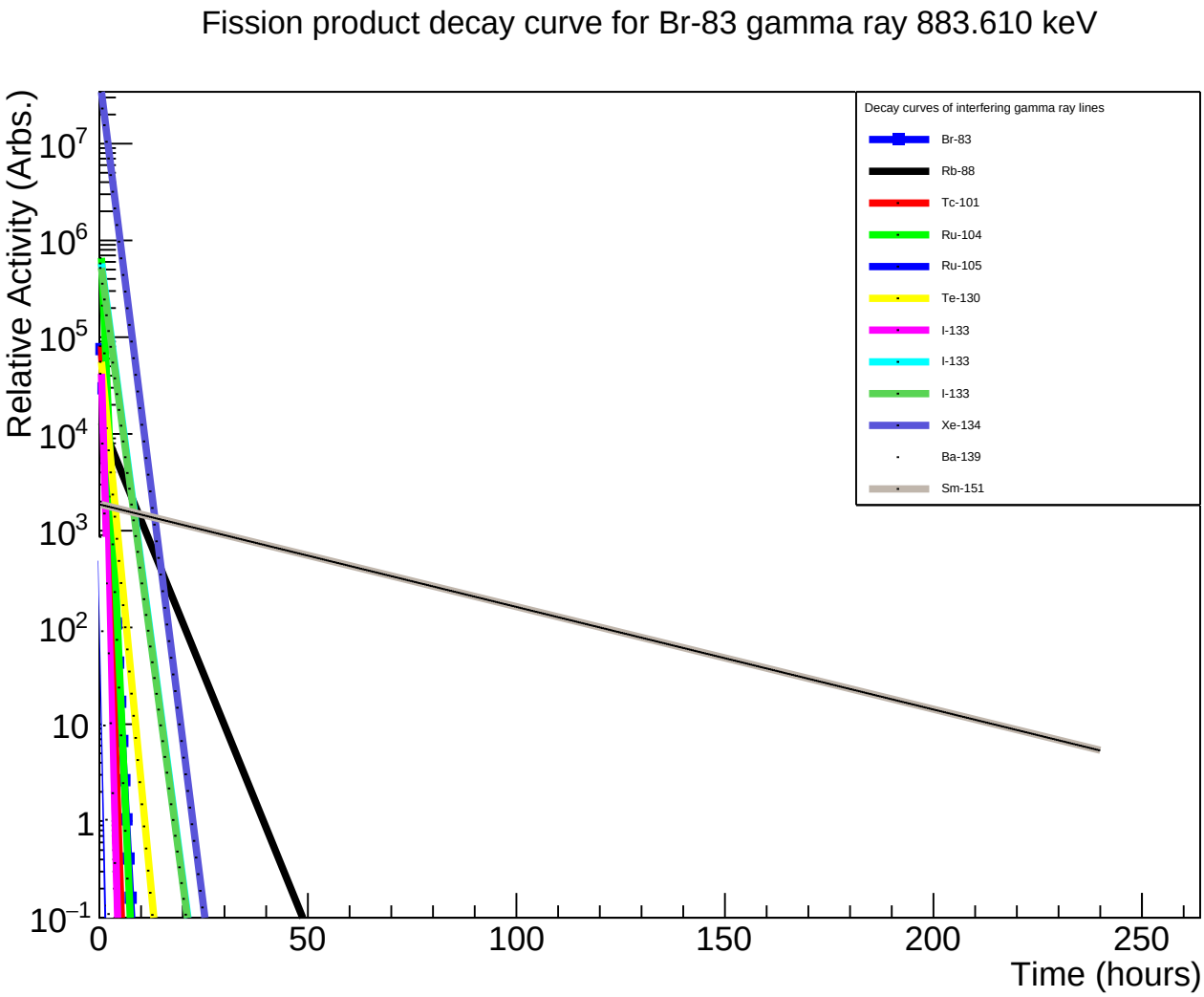


Figure 41: Br-83 decay curve for 883.610 keV gamma ray.

3.42 Se-83 E_γ = 887.81 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 887.81 keV
Gamma Intensity = 4.27 ± 0.563 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 83: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 84: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	888.700	0.021	1.512	0.000
Sr-93	Y-93	888.130	0.221	0.124	0.062
Y-94	Zr-94	887.500	0.001	0.312	0.065
Nb-98	Mo-98	887.000	0.000	0.855	0.000
Mo-101	Tc-101	887.000	0.002	0.243	0.052
Mo-101	Tc-101	888.700	0.002	0.243	0.052
Sn-127	Sb-127	889.000	0.003	2.100	0.001
Te-133	I-133	888.900	0.000	0.208	0.031
Te-133	I-133	888.530	0.008	0.923	0.040
I-132	Xe-132	888.700	0.001	2.295	0.043
Pr-147	Nd-147	887.000	0.005	0.223	0.022
Nd-149	Pm-149	886.590	0.000	1.728	0.011
Nd-151	Pm-151	886.800	0.000	0.207	0.004
Nd-151	Pm-151	889.100	0.000	0.207	0.004
Pm-151	Sm-151	887.600	0.000	28.400	0.004

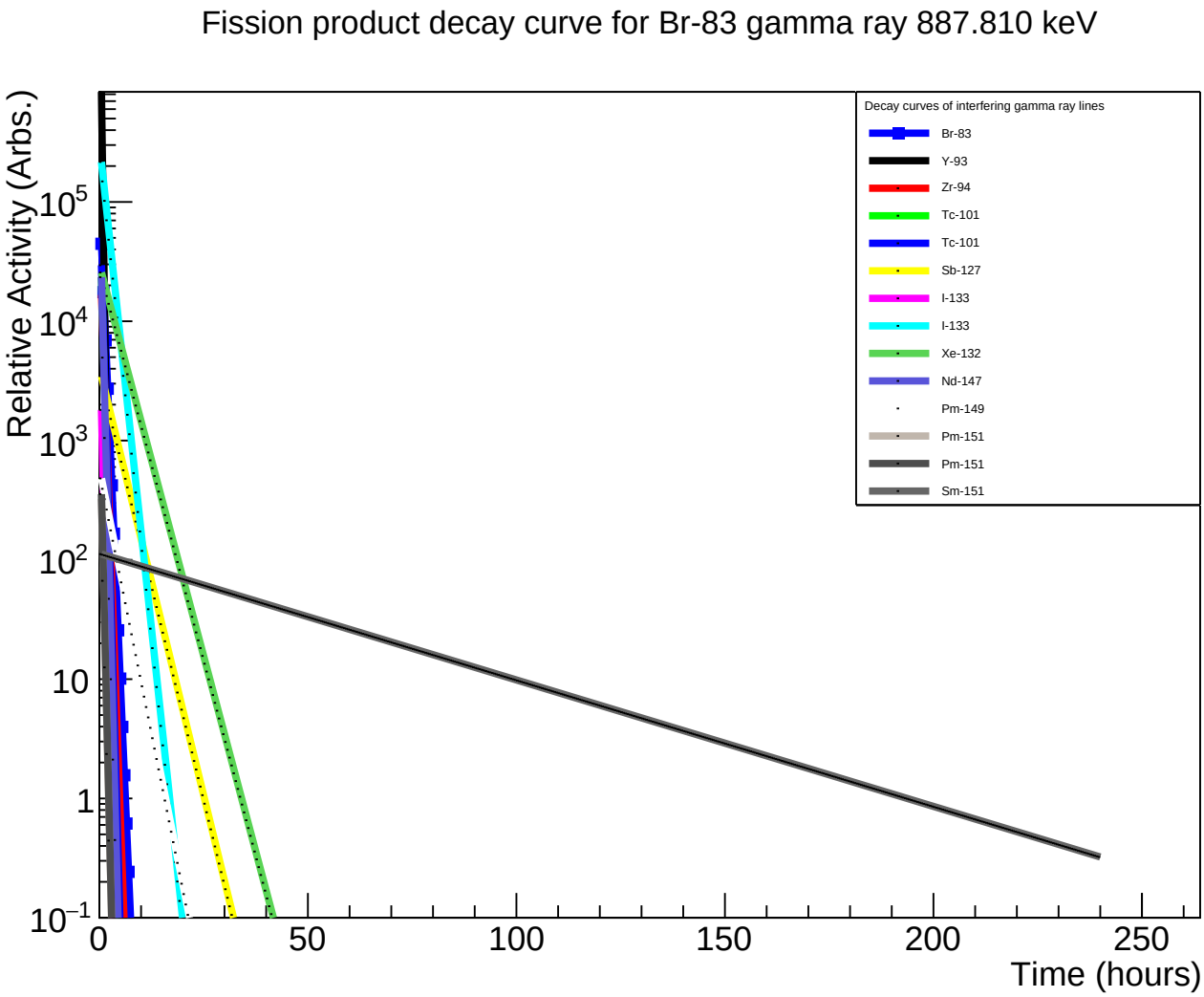


Figure 42: Br-83 decay curve for 887.810 keV gamma ray.

3.43 Se-83 E_γ = 995.93 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 995.93 keV
Gamma Intensity = 1.31 ± 0.086 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 85: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 86: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	996.300	0.021	0.855	0.000
Te-131	I-131	997.250	0.033	0.417	0.025
Te-131	I-131	995.100	0.001	33.250	0.004
Te-133	I-133	995.090	0.007	0.208	0.031
Te-133	I-133	995.090	0.005	0.923	0.040
Te-133	I-133	996.100	0.004	0.923	0.040
I-132	Xe-132	995.800	0.000	2.295	0.043
I-135	Xe-135	995.090	0.002	6.570	0.063
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Pr-147	Nd-147	996.000	0.015	0.223	0.022
Nd-151	Pm-151	994.640	0.001	0.207	0.004

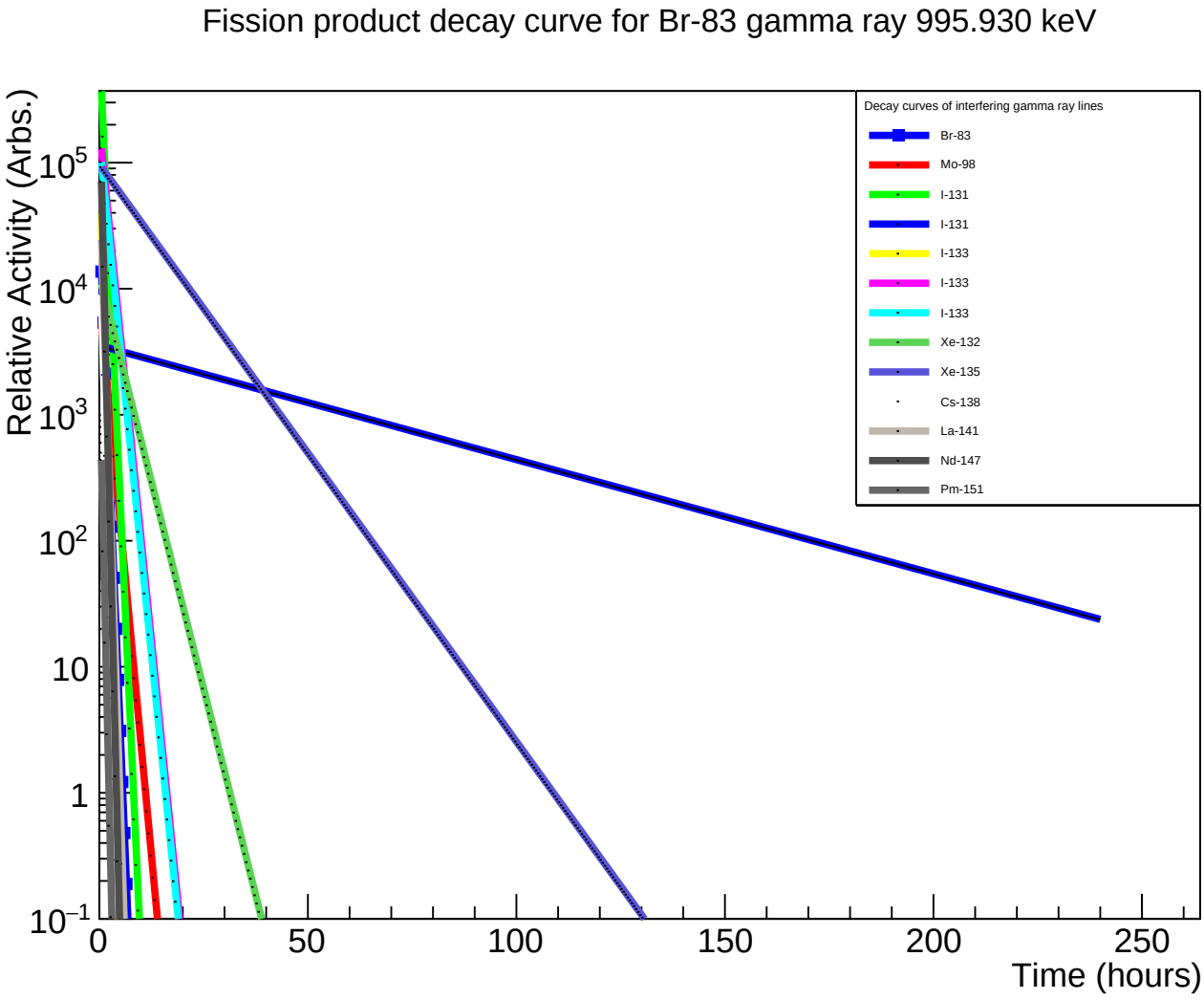


Figure 43: Br-83 decay curve for 995.930 keV gamma ray.

3.44 Se-83 E_γ = 1042.13 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1042.13 keV
Gamma Intensity = 1.19 ± 0.113 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 87: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 88: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1040.630	0.032	0.124	0.062
Sb-128	Te-128	1040.900	0.010	0.173	0.003
Cs-138	Ba-138	1041.400	0.001	0.557	0.067
Cs-139	Ba-139	1040.930	0.000	0.155	0.063
Ba-139	La-139	1042.900	0.000	1.384	0.064
Nd-149	Pm-149	1040.700	0.000	1.728	0.011
Nd-149	Pm-149	1041.950	0.000	1.728	0.011
Nd-151	Pm-151	1041.910	0.003	0.207	0.004

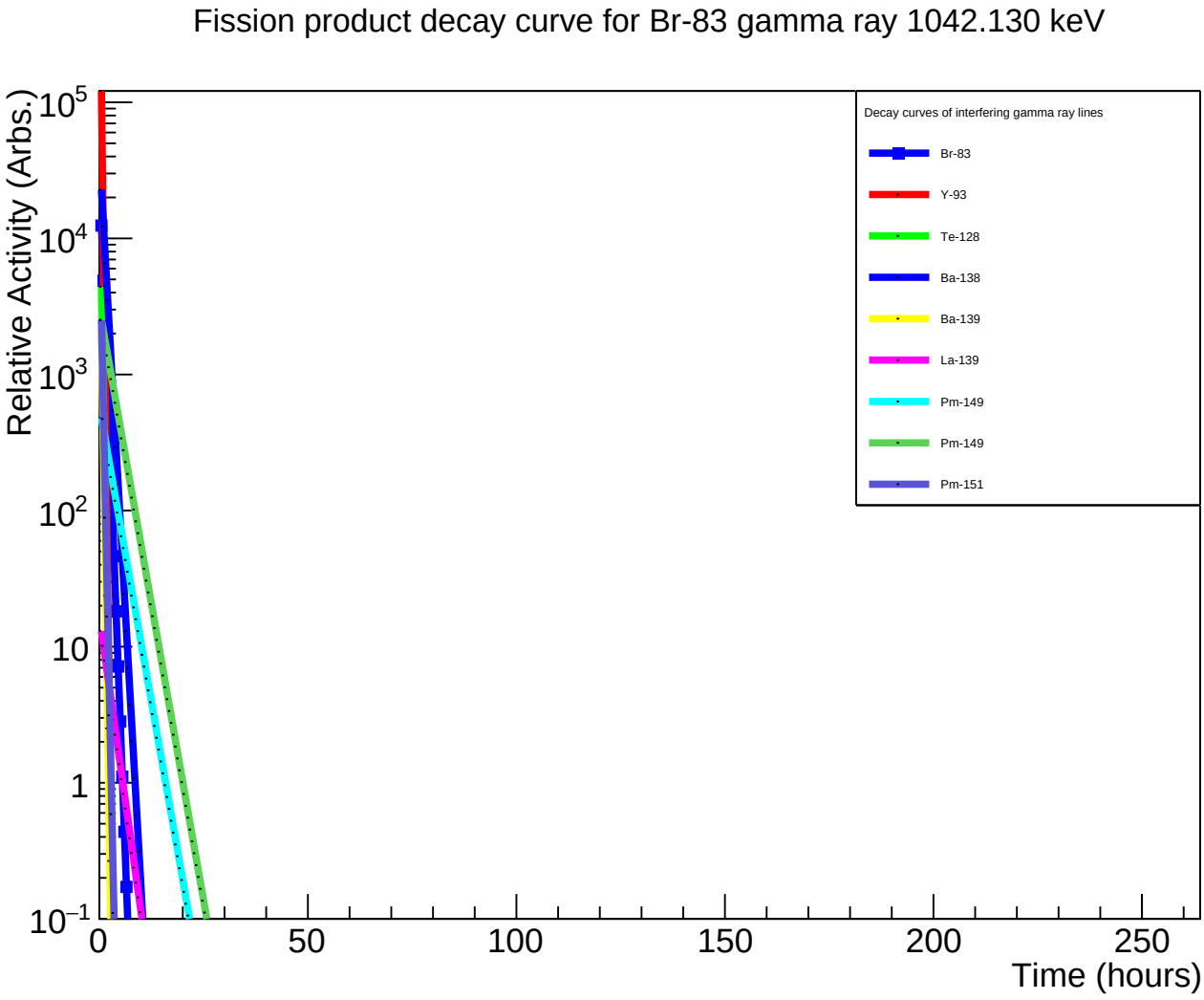


Figure 44: Br-83 decay curve for 1042.130 keV gamma ray.

3.45 Se-83 E_γ = 1064.11 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1064.11 keV
Gamma Intensity = 5.46 ± 0.496 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 89: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 90: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1063.100	0.000	1.272	0.026
Sr-93	Y-93	1064.370	0.004	0.124	0.062
Nb-98	Mo-98	1063.000	0.003	0.855	0.000
Mo-101	Tc-101	1064.590	0.003	0.243	0.052
Ag-112	Cd-112	1063.700	0.001	3.130	0.000
Sn-127	Sb-127	1064.600	0.004	2.100	0.001
Cs-139	Ba-139	1063.700	0.000	0.155	0.063
La-143	Ce-143	1064.100	0.001	0.237	0.059
Nd-151	Pm-151	1064.000	0.001	0.207	0.004
Eu-156	Gd-156	1065.140	0.049	364.560	0.000

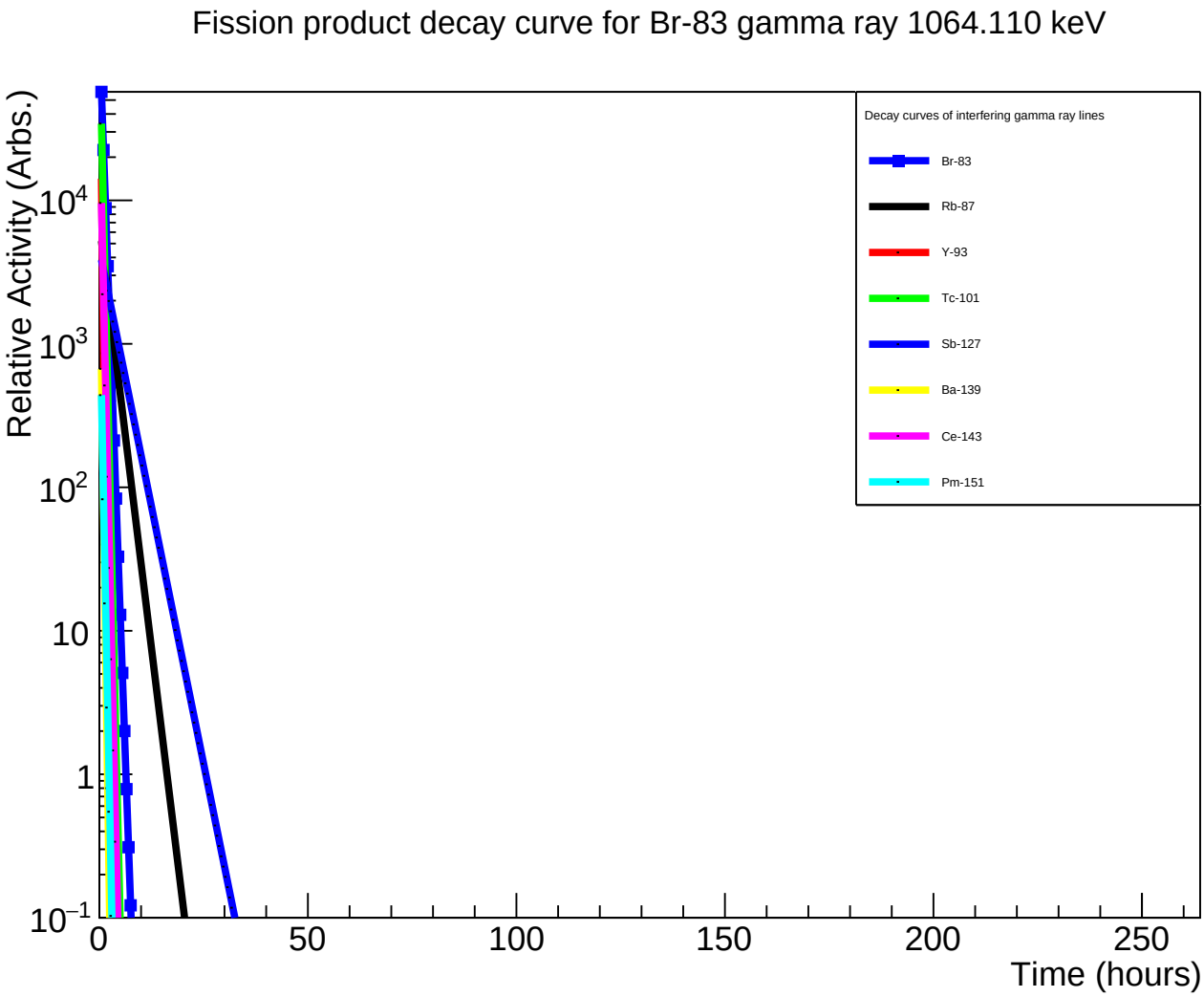


Figure 45: Br-83 decay curve for 1064.110 keV gamma ray.

3.46 Se-83 E_γ = 1082.06 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1082.06 keV
Gamma Intensity = 2.65 ± 0.099 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 91: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 92: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1082.600	0.001	0.529	0.010
Rb-89	Sr-89	1081.400	0.000	0.252	0.047
Ru-105	Rh-105	1082.700	0.000	4.440	0.010
I-132	Xe-132	1081.800	0.001	2.295	0.043
Pr-146	Nd-146	1081.300	0.008	0.403	0.030
Nd-151	Pm-151	1082.700	0.000	0.207	0.004

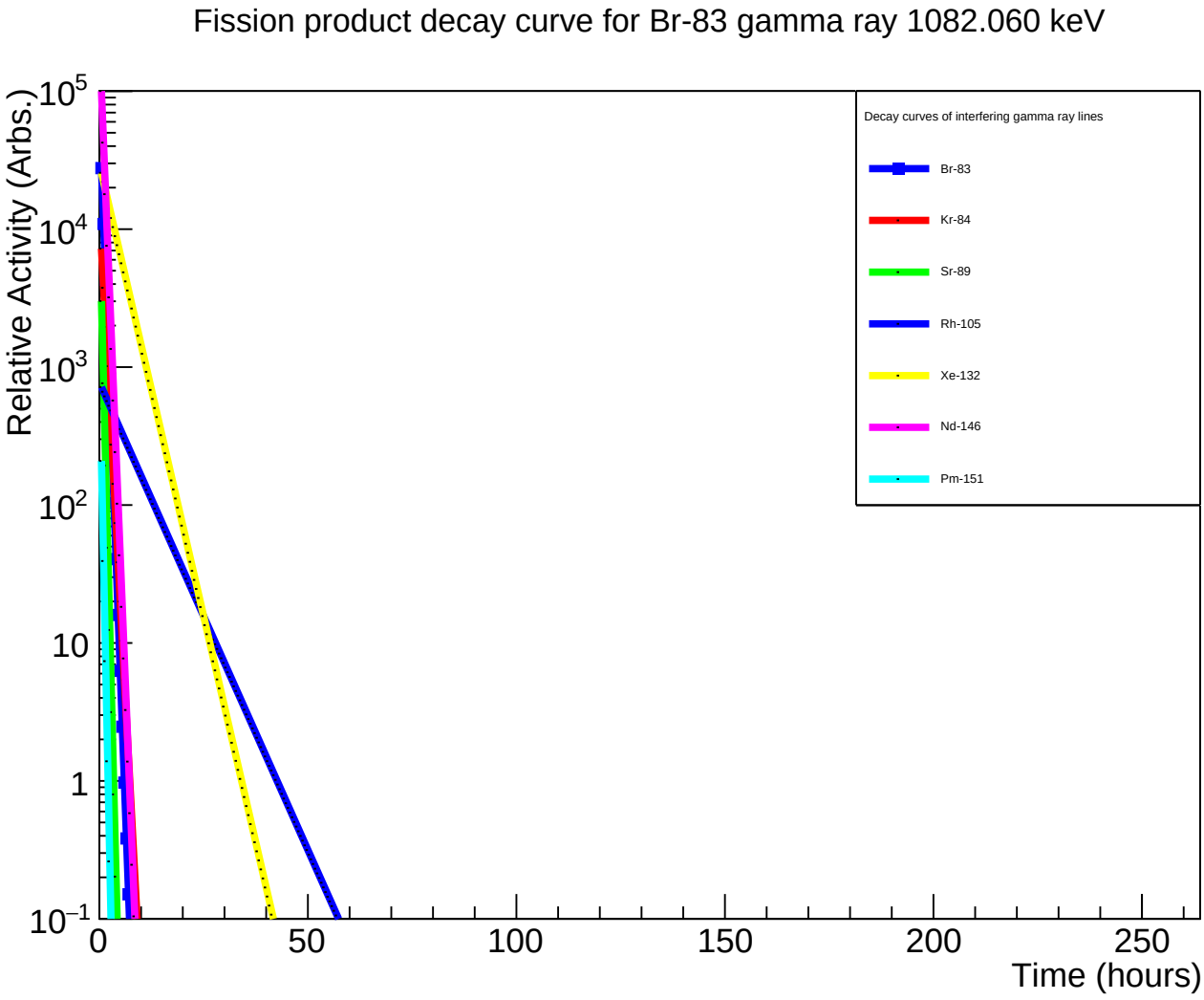


Figure 46: Br-83 decay curve for 1082.060 keV gamma ray.

3.47 Se-83 E_γ = 1191.75 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1191.75 keV
Gamma Intensity = 4.14 ± 0.165 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 93: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 94: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1190.800	0.003	0.855	0.000
Sb-131	Te-131	1191.900	0.021	0.384	0.026
Xe-135	Cs-135	1192.200	0.000	0.255	0.011
Cs-139	Ba-139	1190.420	0.002	0.155	0.063
La-142	Ce-142	1191.100	0.004	1.518	0.058
Pr-146	Nd-146	1192.200	0.000	0.403	0.030
Nd-149	Pm-149	1190.280	0.000	1.728	0.011
Nd-151	Pm-151	1191.100	0.000	0.207	0.004

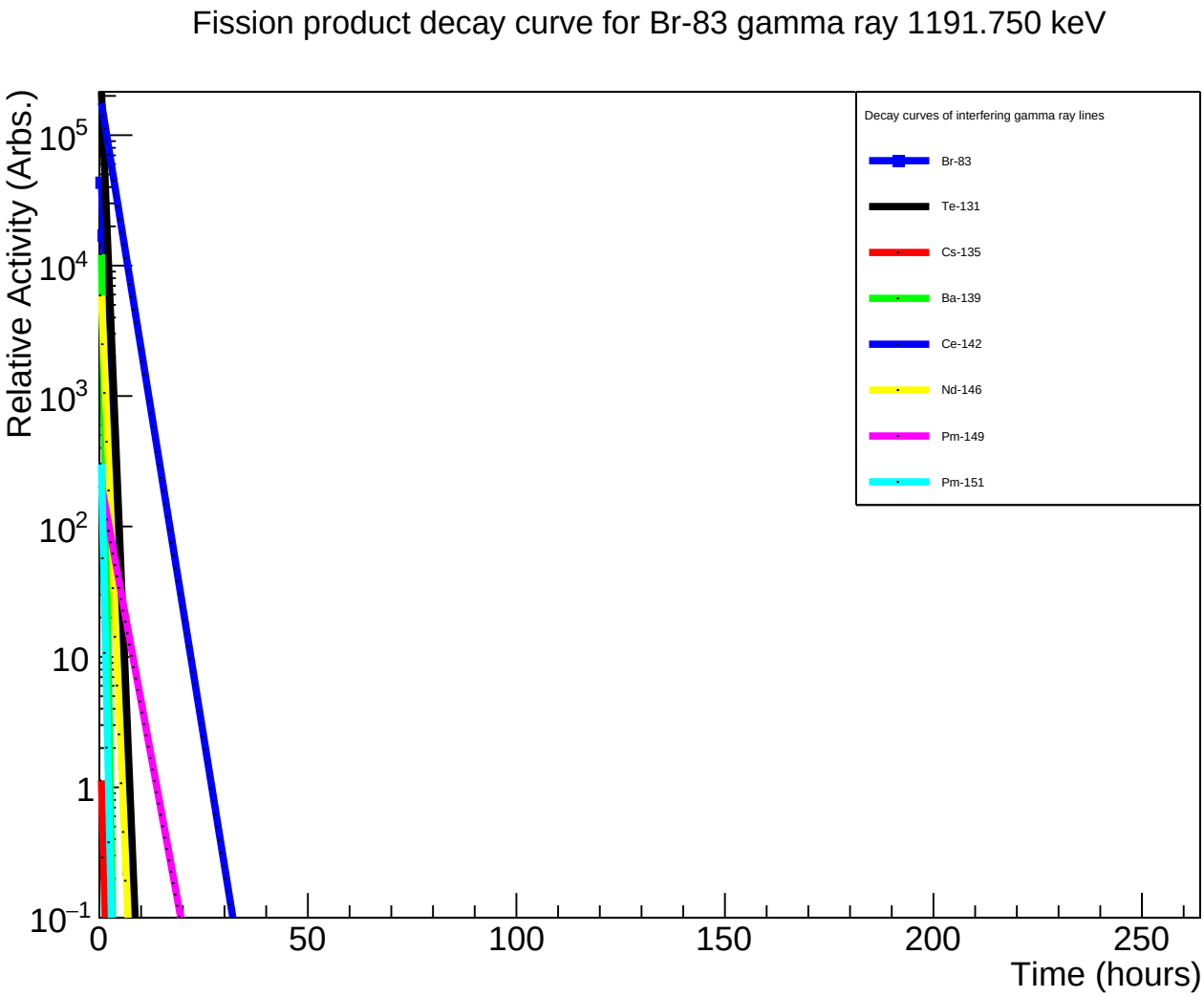


Figure 47: Br-83 decay curve for 1191.750 keV gamma ray.

3.48 Se-83 E_γ = 1225.95 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1225.95 keV
Gamma Intensity = 1.30 ± 0.059 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 95: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 96: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1225.600	0.001	0.172	0.064
I-134	Xe-134	1225.500	0.001	0.875	0.078
I-135	Xe-135	1225.600	0.000	6.570	0.063
Ba-141	La-141	1224.900	0.004	0.304	0.058
Nd-149	Pm-149	1225.670	0.000	1.728	0.011
Nd-151	Pm-151	1224.450	0.000	0.207	0.004

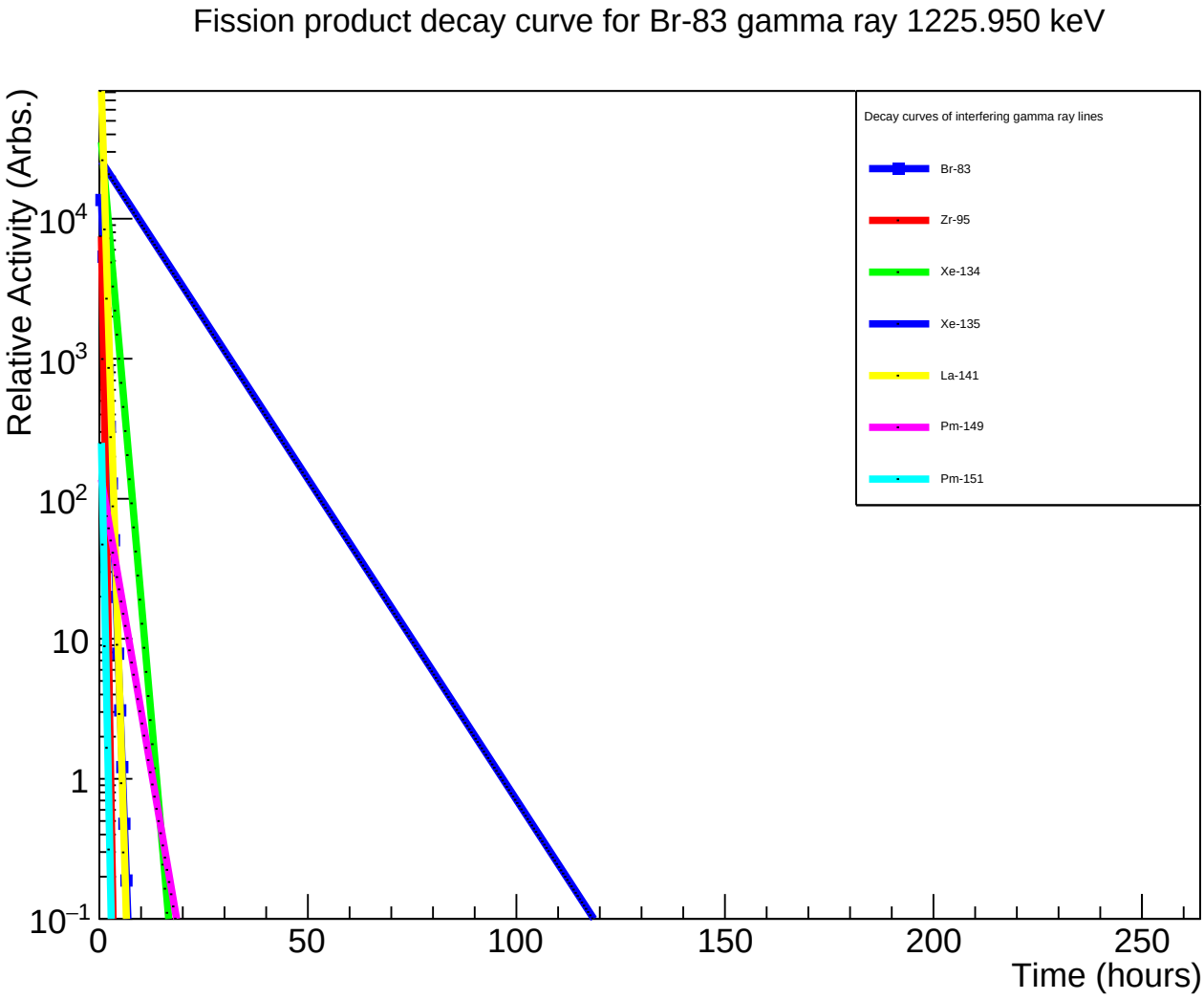


Figure 48: Br-83 decay curve for 1225.950 keV gamma ray.

3.49 Se-83 E_γ = 1293.80 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1293.80 keV
Gamma Intensity = 1.68 ± 0.351 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 97: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 98: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1293.600	0.002	0.172	0.064
Mo-101	Tc-101	1293.290	0.002	0.243	0.052
Sb-130	Te-130	1292.300	0.037	0.658	0.008
Te-131	I-131	1294.340	0.005	0.417	0.025
I-132	Xe-132	1295.100	0.019	2.295	0.043
Nd-149	Pm-149	1293.400	0.000	1.728	0.011
Nd-151	Pm-151	1293.610	0.003	0.207	0.004

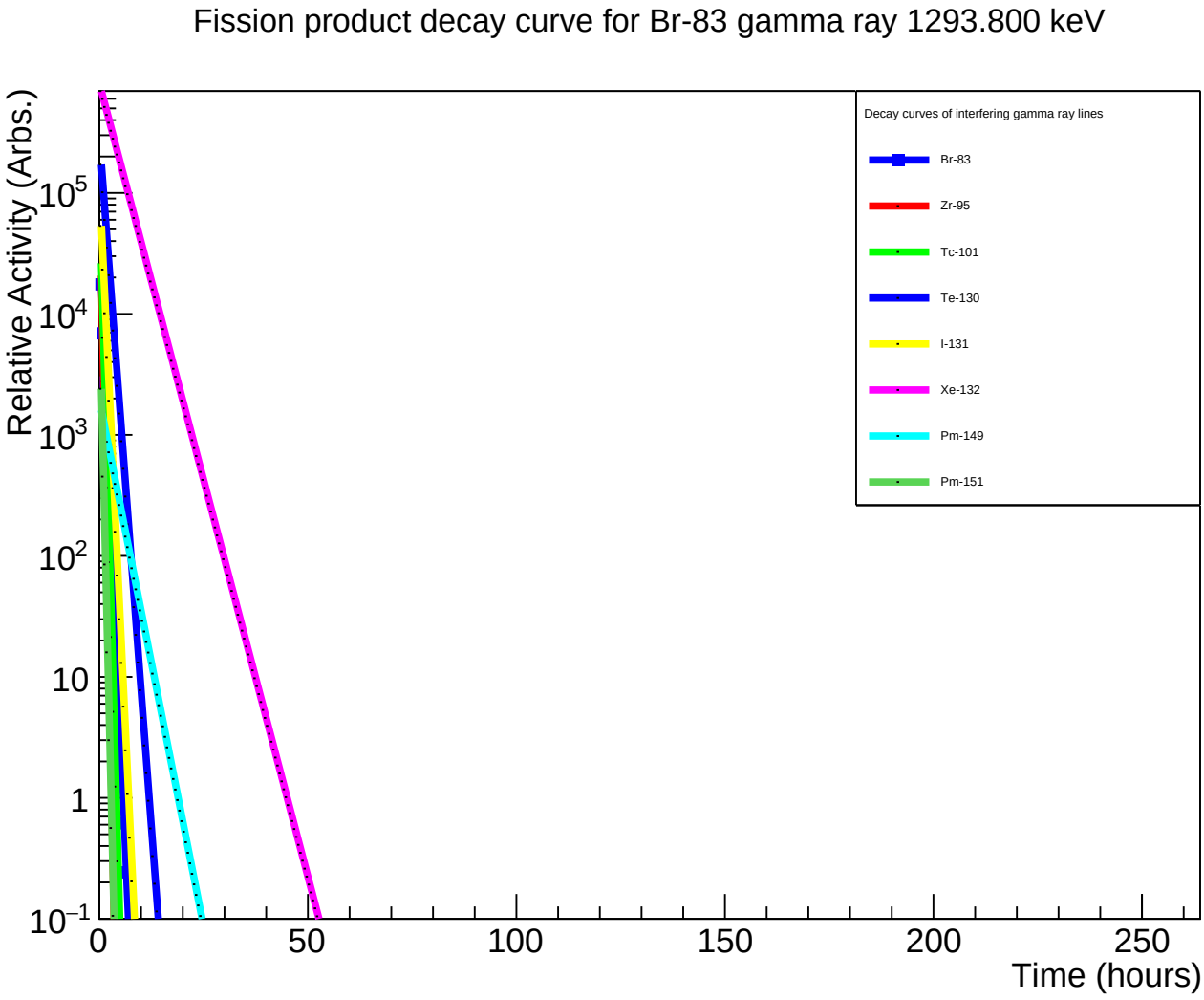


Figure 49: Br-83 decay curve for 1293.800 keV gamma ray.

3.50 Se-83 E_γ = 1299.15 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1299.15 keV
Gamma Intensity = 5.25 ± 0.565 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 99: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 100: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1298.780	0.001	2.840	0.036
Sb-129	Te-129	1300.000	0.003	4.400	0.005
Te-131	I-131	1297.980	0.000	0.417	0.025
Te-133	I-133	1299.200	0.002	0.923	0.040
I-132	Xe-132	1297.910	0.009	2.295	0.043
I-133	Xe-133	1298.223	0.023	20.800	0.067
La-143	Ce-143	1299.900	0.000	0.237	0.059
Pr-147	Nd-147	1300.400	0.025	0.223	0.022
Nd-149	Pm-149	1298.320	0.000	1.728	0.011

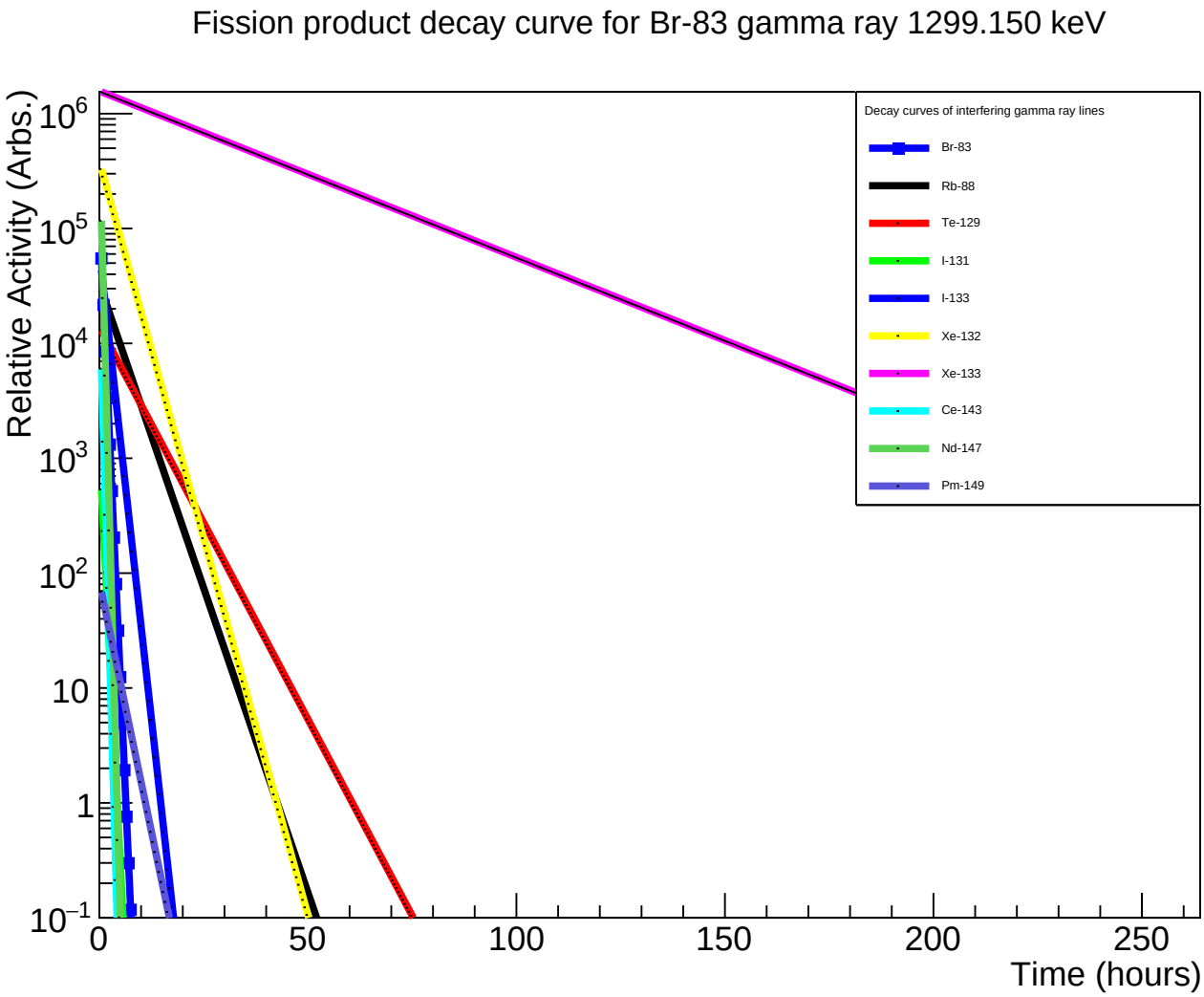


Figure 50: Br-83 decay curve for 1299.150 keV gamma ray.

3.51 Se-83 E_γ = 1317.05 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1317.05 keV
Gamma Intensity = 3.99 ± 0.218 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 101: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 102: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1317.330	0.008	0.855	0.000
Sb-129	Te-129	1317.200	0.003	4.400	0.005
Te-131	I-131	1316.200	0.001	33.250	0.004
Te-131	I-131	1318.300	0.000	33.250	0.004
I-132	Xe-132	1317.918	0.001	2.295	0.043
I-135	Xe-135	1315.770	0.001	6.570	0.063
Cs-139	Ba-139	1316.400	0.000	0.155	0.063
Nd-151	Pm-151	1316.300	0.001	0.207	0.004

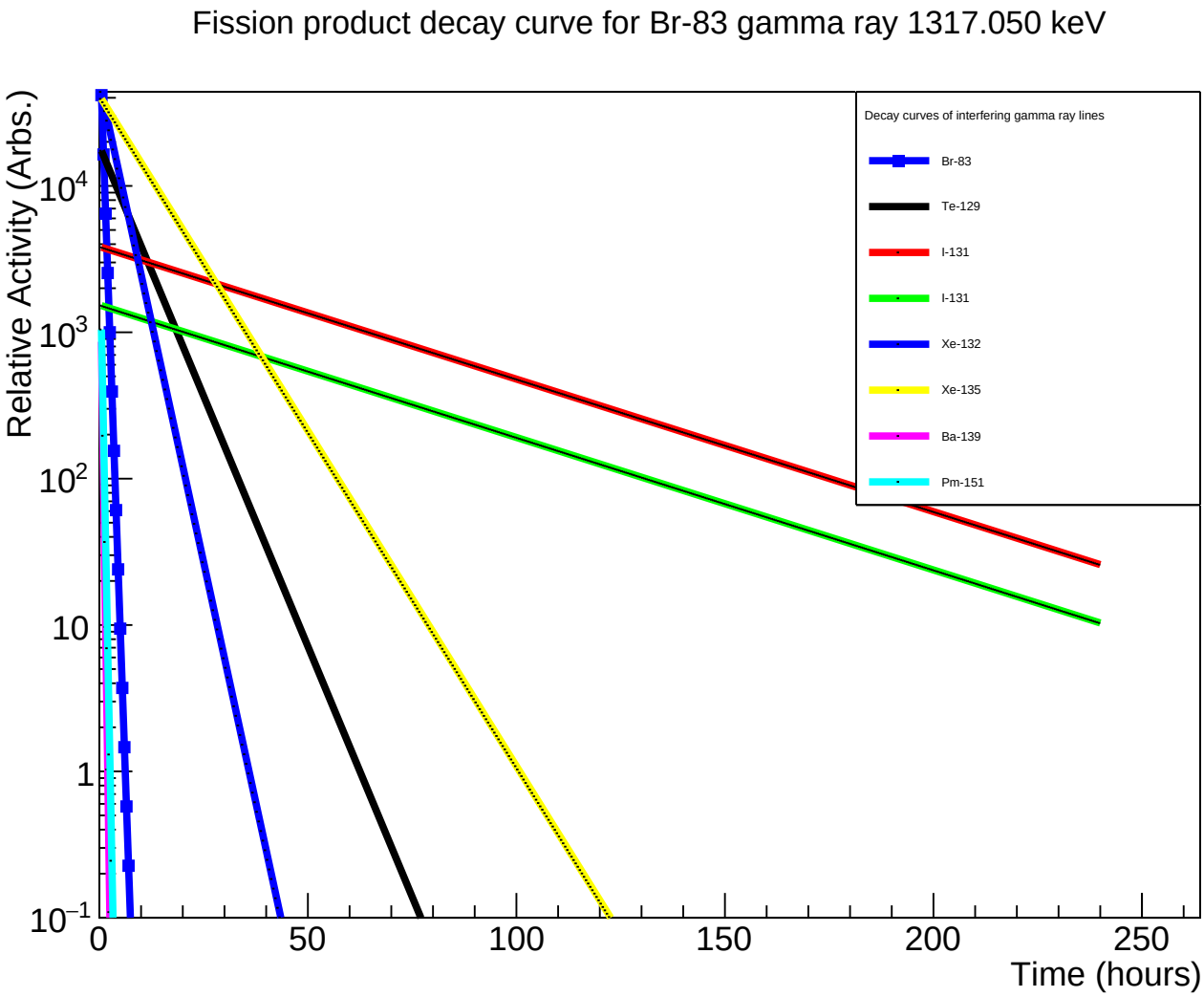


Figure 51: Br-83 decay curve for 1317.050 keV gamma ray.

3.52 Se-83 E_γ = 1341.29 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1341.29 keV
Gamma Intensity = 5.39 ± 0.427 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 103: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 104: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1341.740	0.004	0.855	0.000
Ru-105	Rh-105	1340.000	0.000	4.440	0.010
Sb-128	Te-128	1339.800	0.010	9.010	0.000
Te-131	I-131	1340.600	0.001	33.250	0.004
Ce-143	Pr-143	1340.100	0.000	33.039	0.060
Nd-151	Pm-151	1341.580	0.001	0.207	0.004

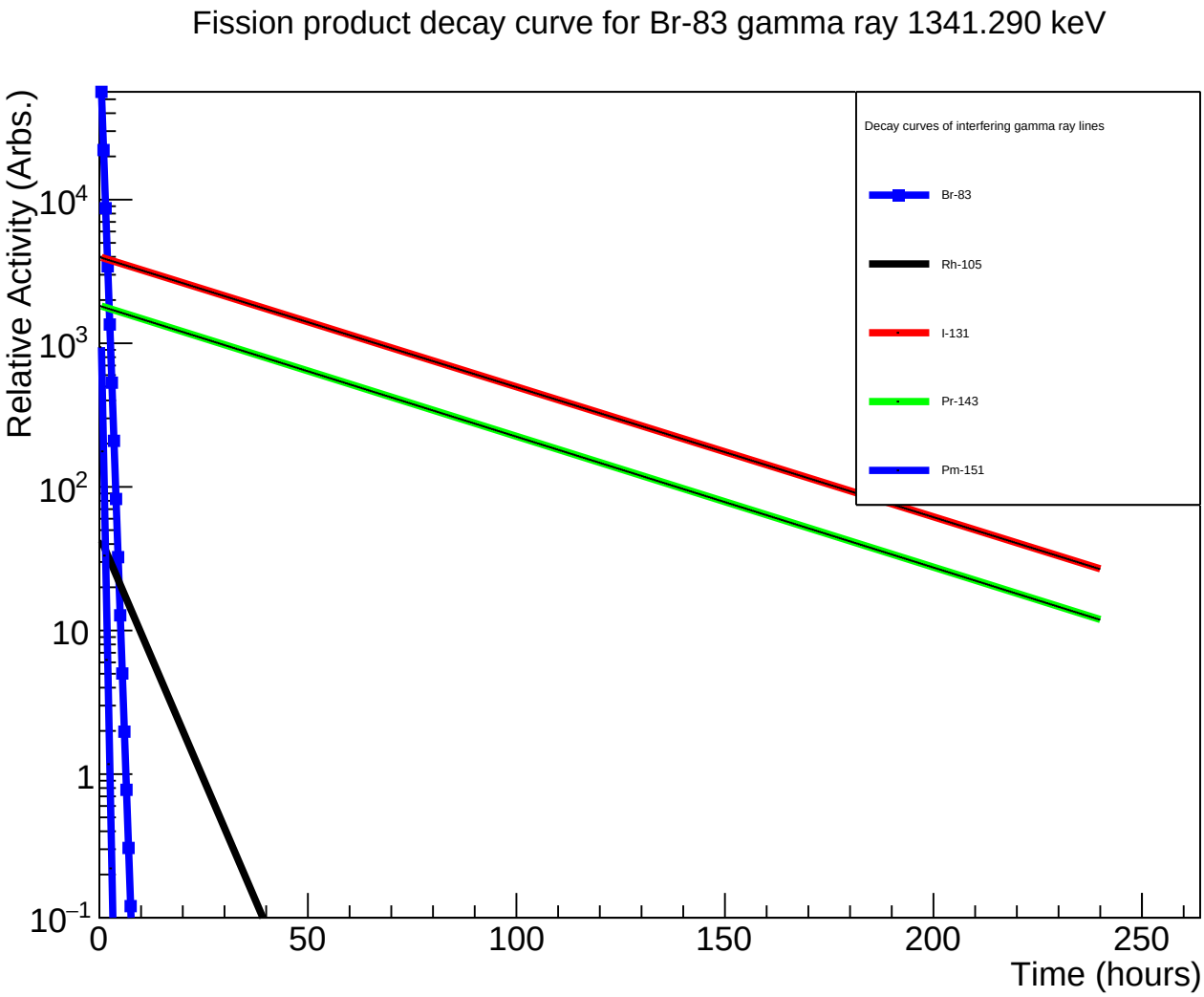


Figure 52: Br-83 decay curve for 1341.290 keV gamma ray.

3.53 Se-83 E_γ = 1352.59 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1352.59 keV
Gamma Intensity = 4.62 ± 0.220 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 105: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 106: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1352.320	0.002	2.840	0.036
Sr-91	Y-91	1353.500	0.000	9.630	0.058
I-134	Xe-134	1352.620	0.004	0.875	0.078
Cs-139	Ba-139	1353.920	0.000	0.155	0.063
La-142	Ce-142	1352.600	0.001	1.518	0.058
Nd-151	Pm-151	1351.700	0.000	0.207	0.004



Figure 53: Br-83 decay curve for 1352.590 keV gamma ray.

3.54 Se-83 E_γ = 1420.60 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1420.60 keV
Gamma Intensity = 1.13 ± 0.052 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 107: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 108: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1419.550	0.001	0.252	0.047
Sn-125	Sb-125	1419.700	0.005	231.360	0.000
Sb-130	Te-130	1419.300	0.012	0.658	0.008
Cs-139	Ba-139	1420.660	0.008	0.155	0.063
Ba-139	La-139	1420.500	0.003	1.384	0.064
Ba-141	La-141	1421.900	0.000	0.304	0.058

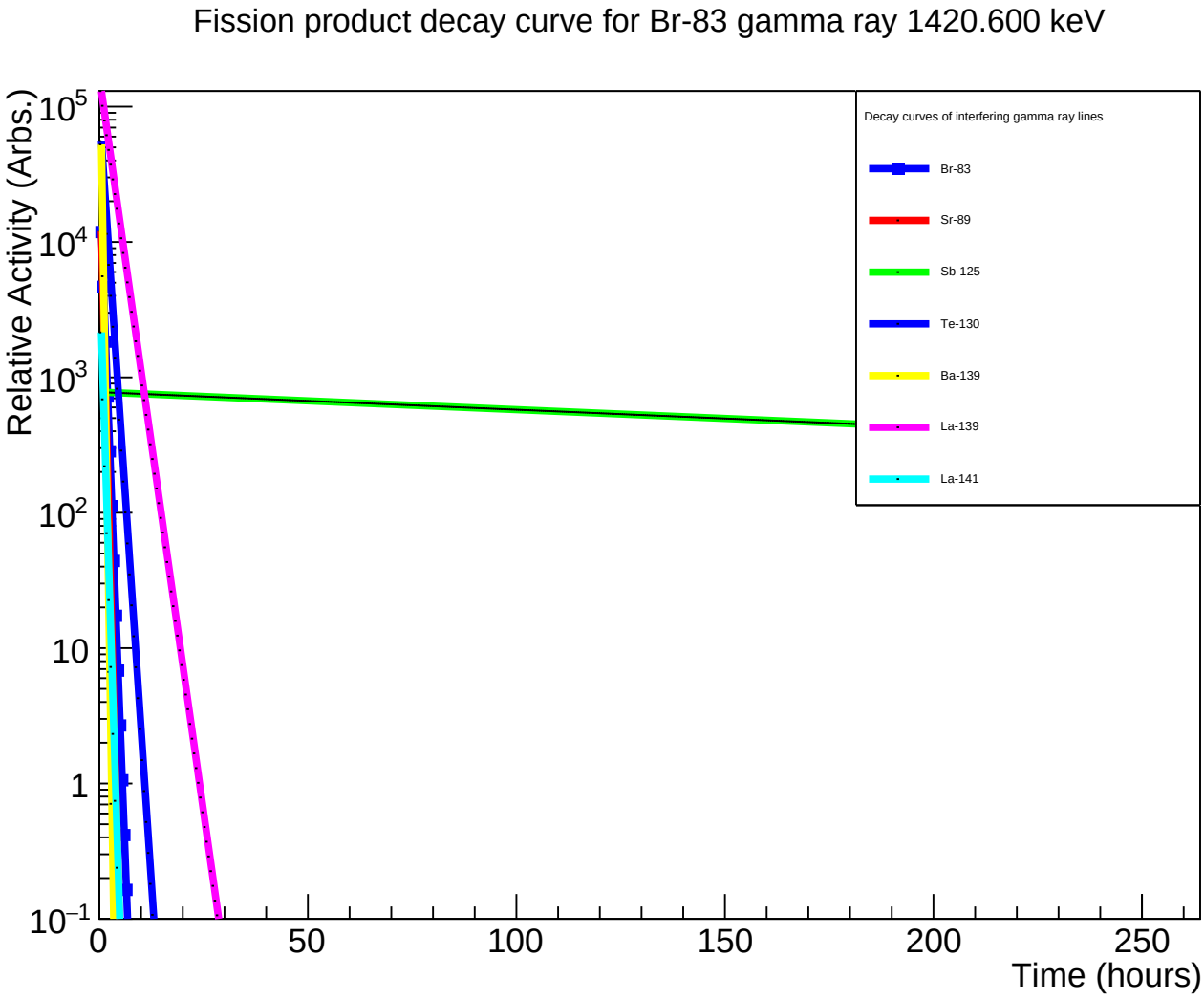


Figure 54: Br-83 decay curve for 1420.600 keV gamma ray.

3.55 Se-83 E_γ = 1554.81 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1554.81 keV
Gamma Intensity = 2.53 ± 0.124 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 109: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 110: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1553.600	0.000	9.630	0.058
Sb-131	Te-131	1553.500	0.006	0.384	0.026
Cs-138	Ba-138	1555.310	0.004	0.557	0.067
Pr-146	Nd-146	1555.600	0.001	0.403	0.030
Nd-151	Pm-151	1553.840	0.001	0.207	0.004

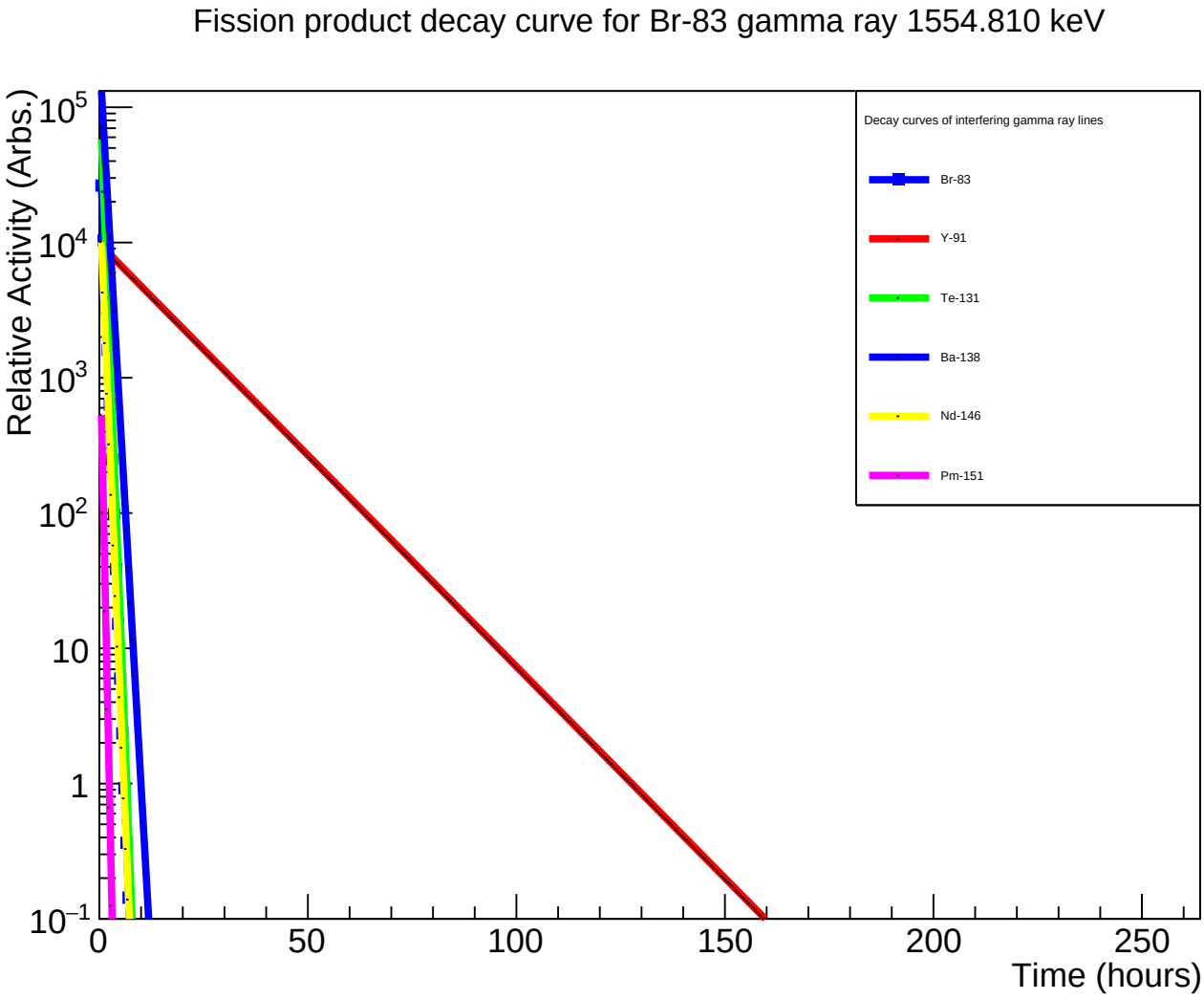


Figure 55: Br-83 decay curve for 1554.810 keV gamma ray.

3.56 Se-83 E_γ = 1779.96 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1779.96 keV
Gamma Intensity = 2.09 ± 0.178 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 111: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 112: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	1779.870	0.002	0.296	0.036
I-132	Xe-132	1778.500	0.001	2.295	0.043
Pr-146	Nd-146	1781.300	0.001	0.403	0.030

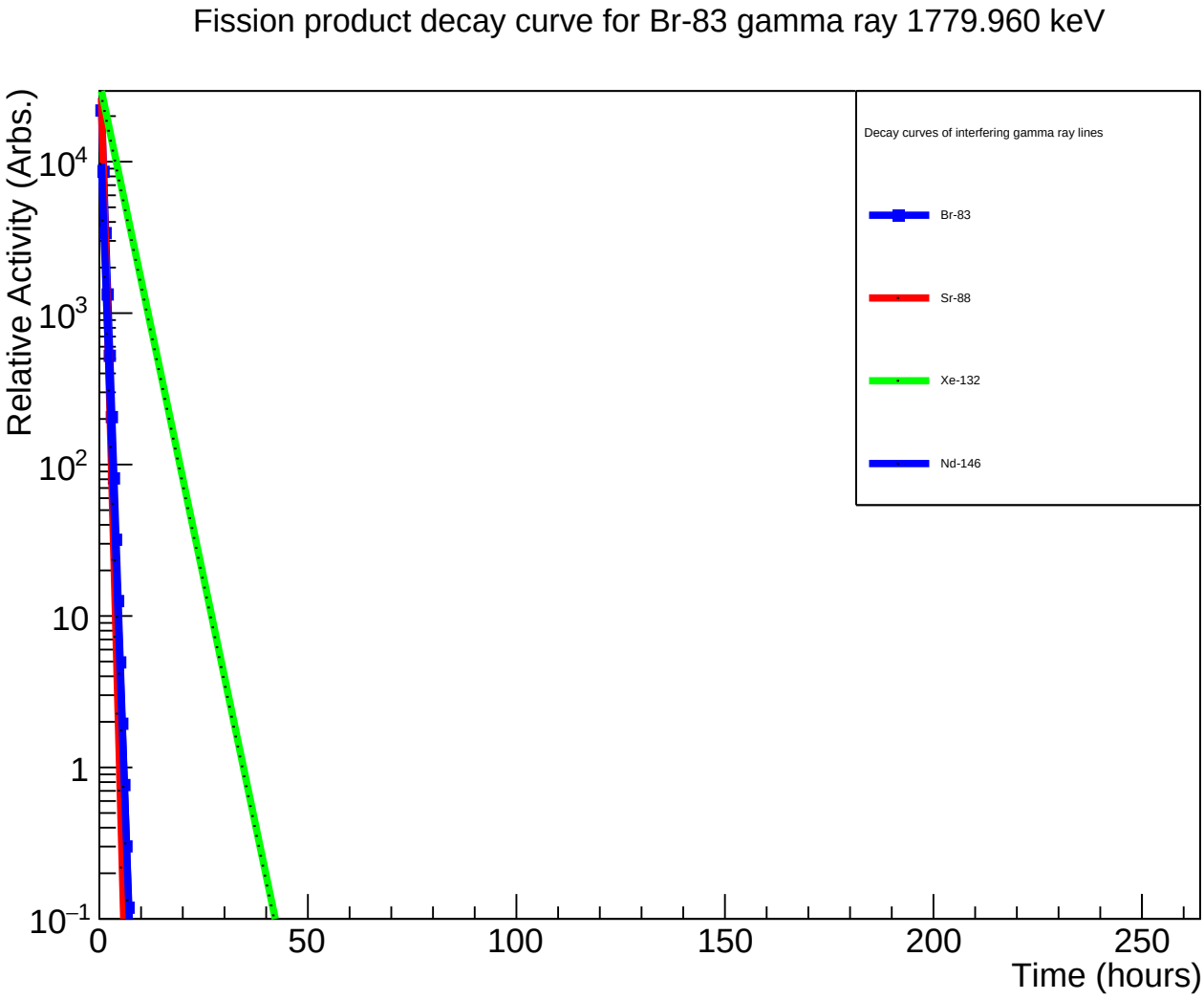


Figure 56: Br-83 decay curve for 1779.960 keV gamma ray.

3.57 Se-83 E_γ = 1827.12 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1827.12 keV
Gamma Intensity = 1.33 ± 0.086 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 113: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 114: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1827.800	0.000	10.180	0.063

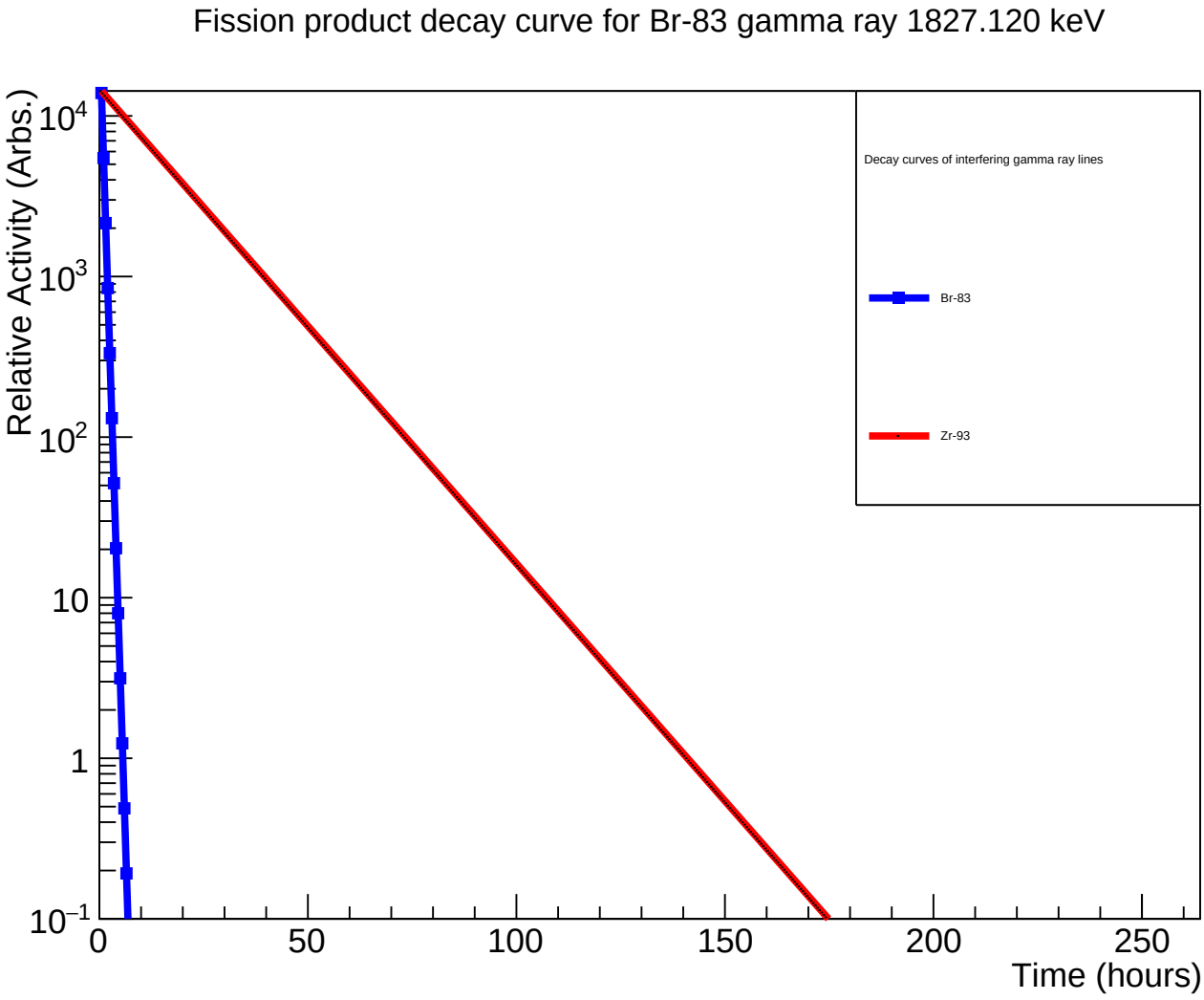


Figure 57: Br-83 decay curve for 1827.120 keV gamma ray.

3.58 Se-83 E_γ = 1854.50 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1854.50 keV
Gamma Intensity = 1.68 ± 0.211 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 115: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 116: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1855.200	0.002	0.172	0.064
Sb-131	Te-131	1854.310	0.042	0.384	0.026
Nd-151	Pm-151	1854.550	0.000	0.207	0.004
Nd-151	Pm-151	1855.800	0.000	0.207	0.004

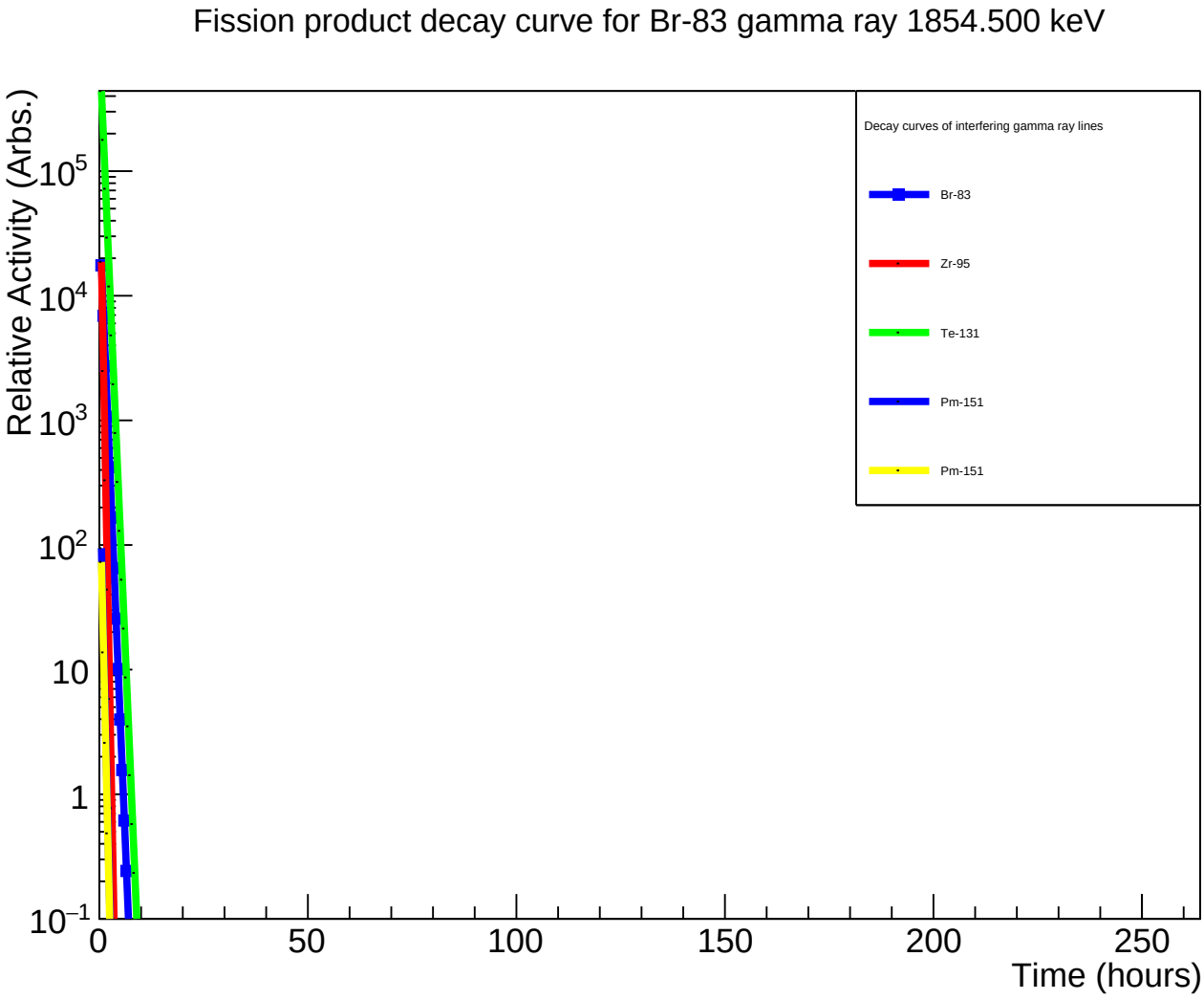


Figure 58: Br-83 decay curve for 1854.500 keV gamma ray.

3.59 Se-83 E_γ = 1871.30 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1871.30 keV
Gamma Intensity = 1.57 ± 0.087 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 117: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 118: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1871.600	0.002	0.305	0.019
Sb-129	Te-129	1869.900	0.003	4.400	0.005
Te-133	I-133	1870.800	0.005	0.923	0.040

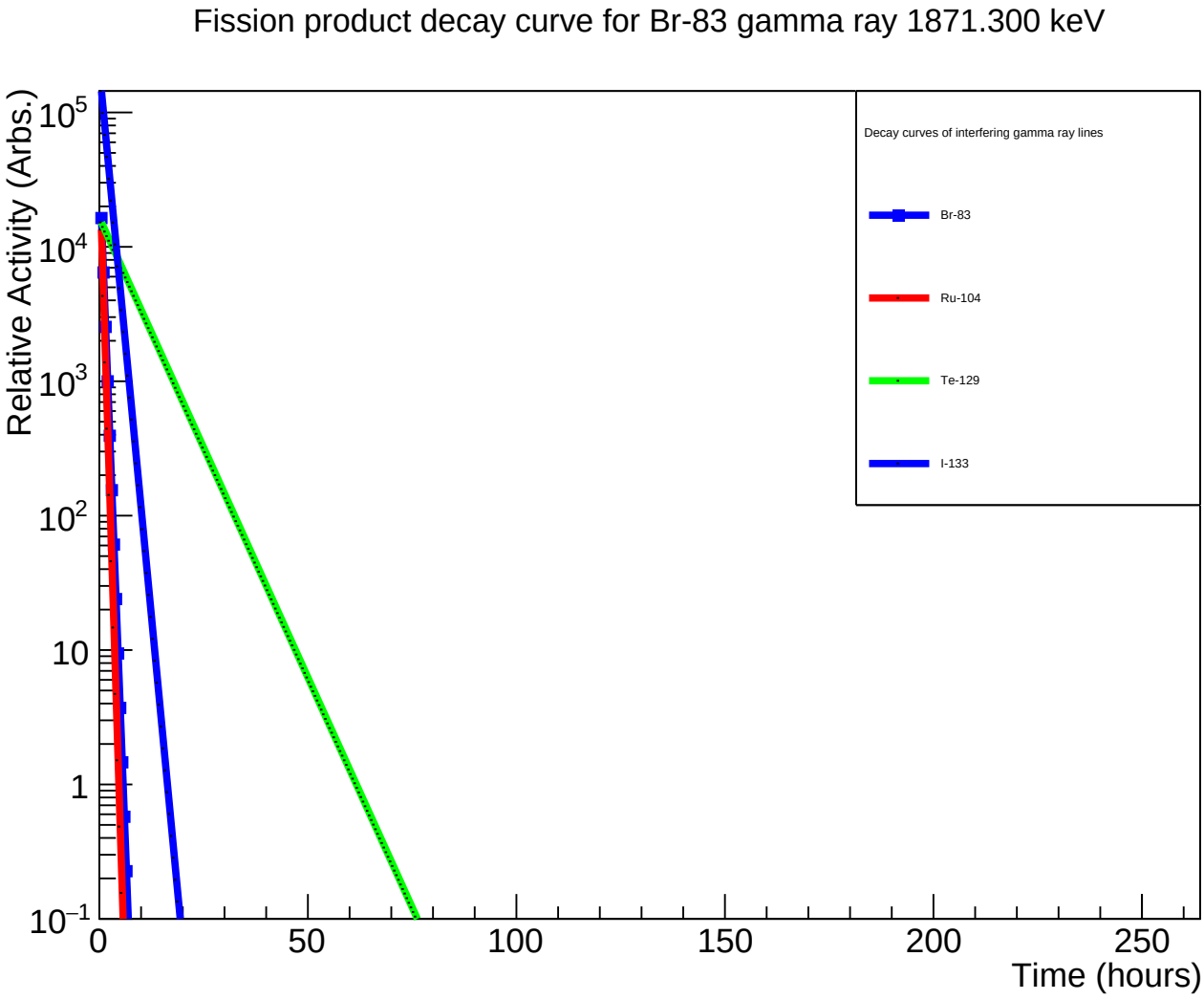


Figure 59: Br-83 decay curve for 1871.300 keV gamma ray.

3.60 Se-83 E_γ = 1894.88 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 1894.88 keV
Gamma Intensity = 7.77 ± 0.301 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 119: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 120: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1894.000	0.003	1.512	0.000
Sr-93	Y-93	1894.100	0.001	0.124	0.062
Ba-139	La-139	1894.700	0.000	1.384	0.064
Nd-151	Pm-151	1894.000	0.000	0.207	0.004

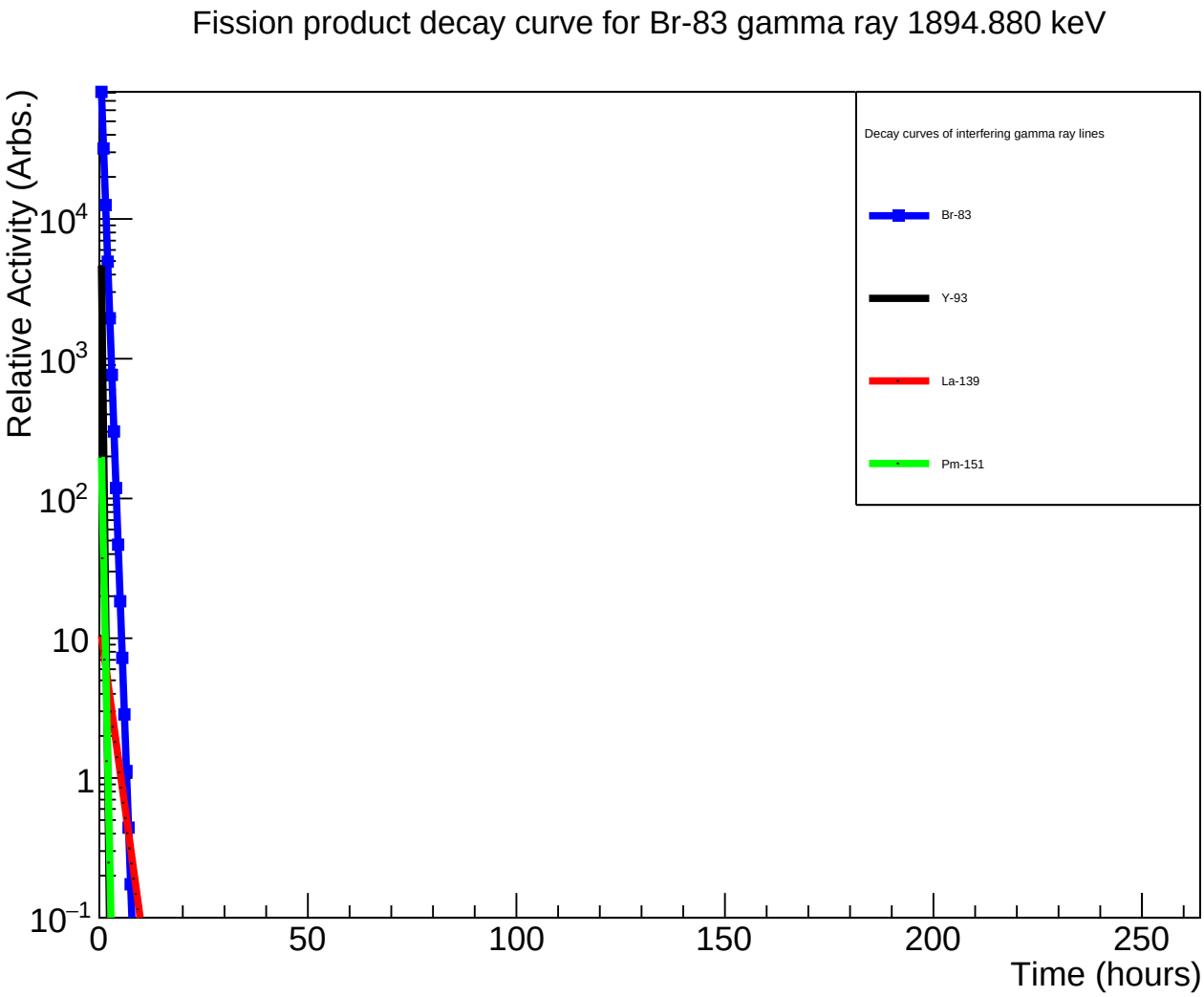


Figure 60: Br-83 decay curve for 1894.880 keV gamma ray.

3.61 Se-83 E_γ = 2290.30 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 2290.30 keV
Gamma Intensity = 9.31 ± 0.374 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 121: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 122: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-132	Xe-132	2290.600	0.000	2.295	0.043

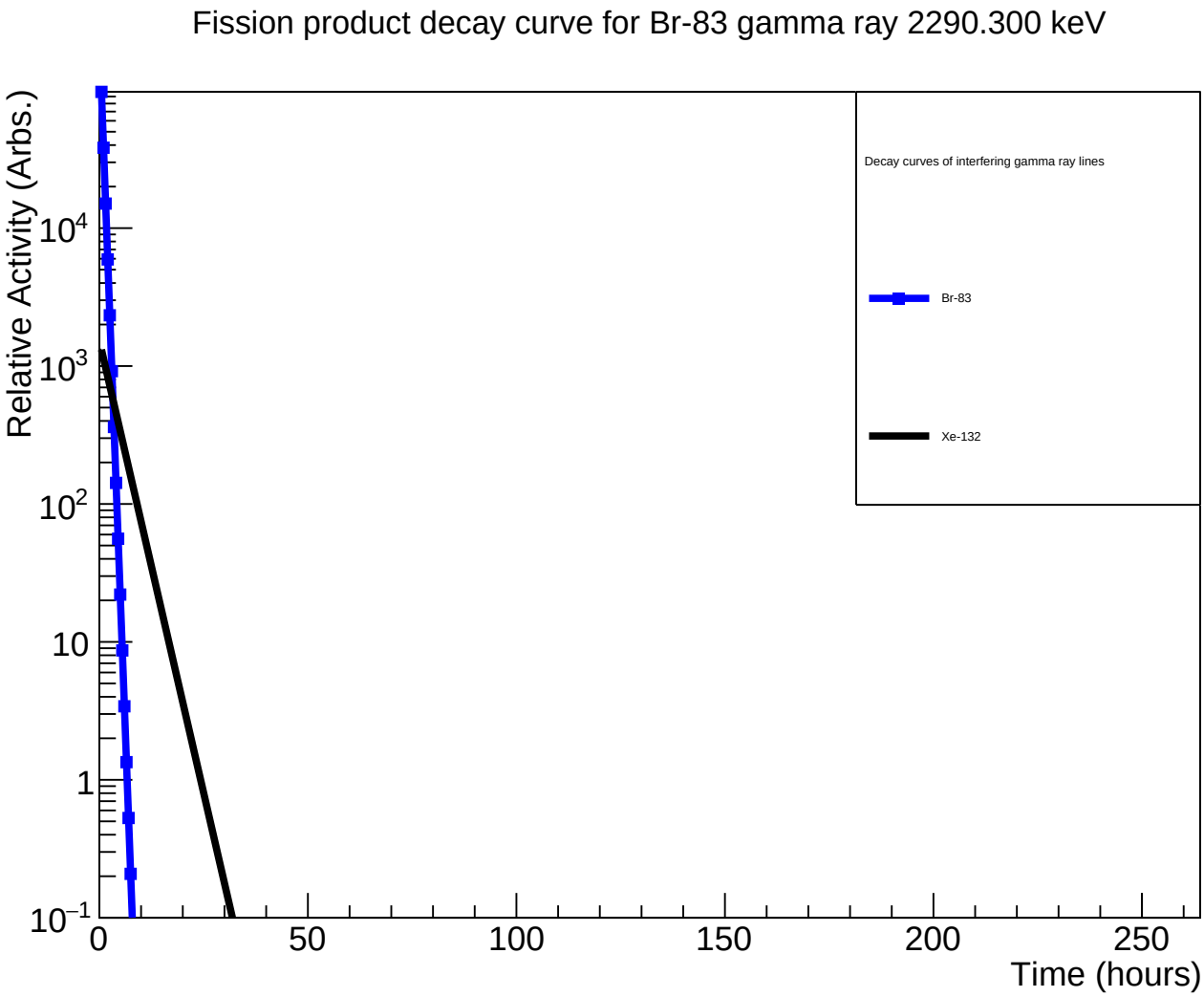


Figure 61: Br-83 decay curve for 2290.300 keV gamma ray.

3.62 Se-83 E_γ = 2337.50 keV

Chemical element: Selenium
Fission product parent: Se-83
Gamma originates in daughter: Br-83
Eγ: 2337.50 keV
Gamma Intensity = 3.43 ± 0.216 %
$T_{1/2}$ = 0.372 ± 0.005 hours or 22.30 ± 0.30 minutes
CFY: 0.265 ± 0.011 %

Table 123: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 124: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pr-147	Nd-147	2336.100	0.002	0.223	0.022

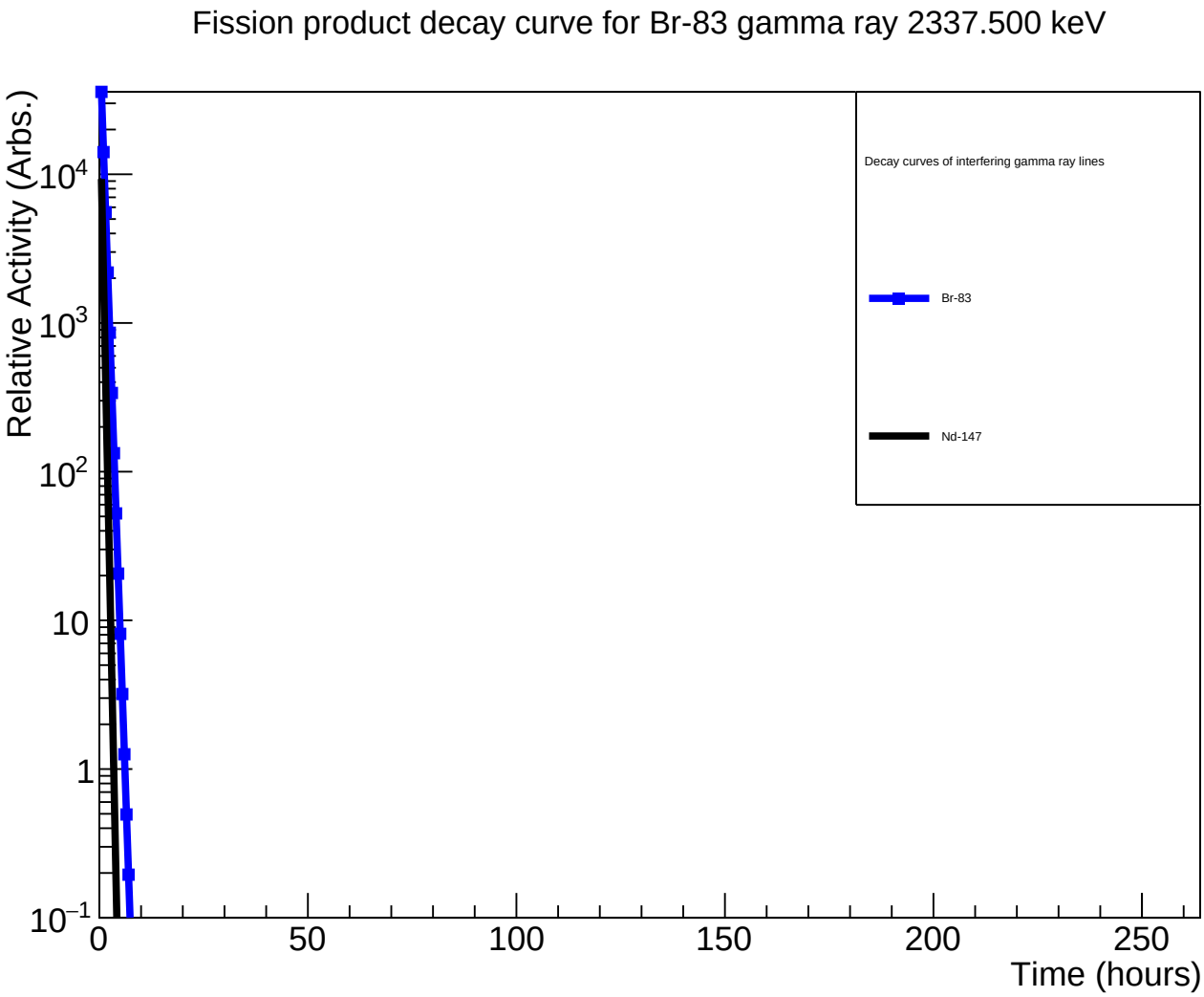


Figure 62: Br-83 decay curve for 2337.500 keV gamma ray.

3.63 Br-83 E_γ = 529.64 keV

Chemical element: Bromine
Fission product parent: Br-83
Gamma originates in daughter: Kr-83
Eγ: 529.64 keV
Gamma Intensity = 1.20 ± 0.500 %
$T_{1/2}$ = 2.400 ± 0.020 hours or 144.00 ± 1.20 minutes
CFY: 0.536 ± 0.011 %

Table 125: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 126: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	530.420	0.001	0.855	0.000
Mo-99	Tc-99	528.788	0.001	65.976	0.061
Tc-104	Ru-104	530.500	0.156	0.305	0.019
Sn-127	Sb-127	528.500	0.001	2.100	0.001
Sn-127	Sb-127	530.600	0.001	2.100	0.001
Te-131	I-131	530.700	0.001	33.250	0.004
I-133	Xe-133	529.872	0.870	20.800	0.067
I-135	Xe-135	530.800	0.000	6.570	0.063
Xe-138	Cs-138	530.070	0.003	0.235	0.063
Cs-139	Ba-139	528.200	0.000	0.155	0.063
La-142	Ce-142	529.400	0.000	1.518	0.058
Nd-147	Pm-147	531.016	0.134	263.520	0.022
Pm-149	Sm-149	528.600	0.000	53.080	0.011

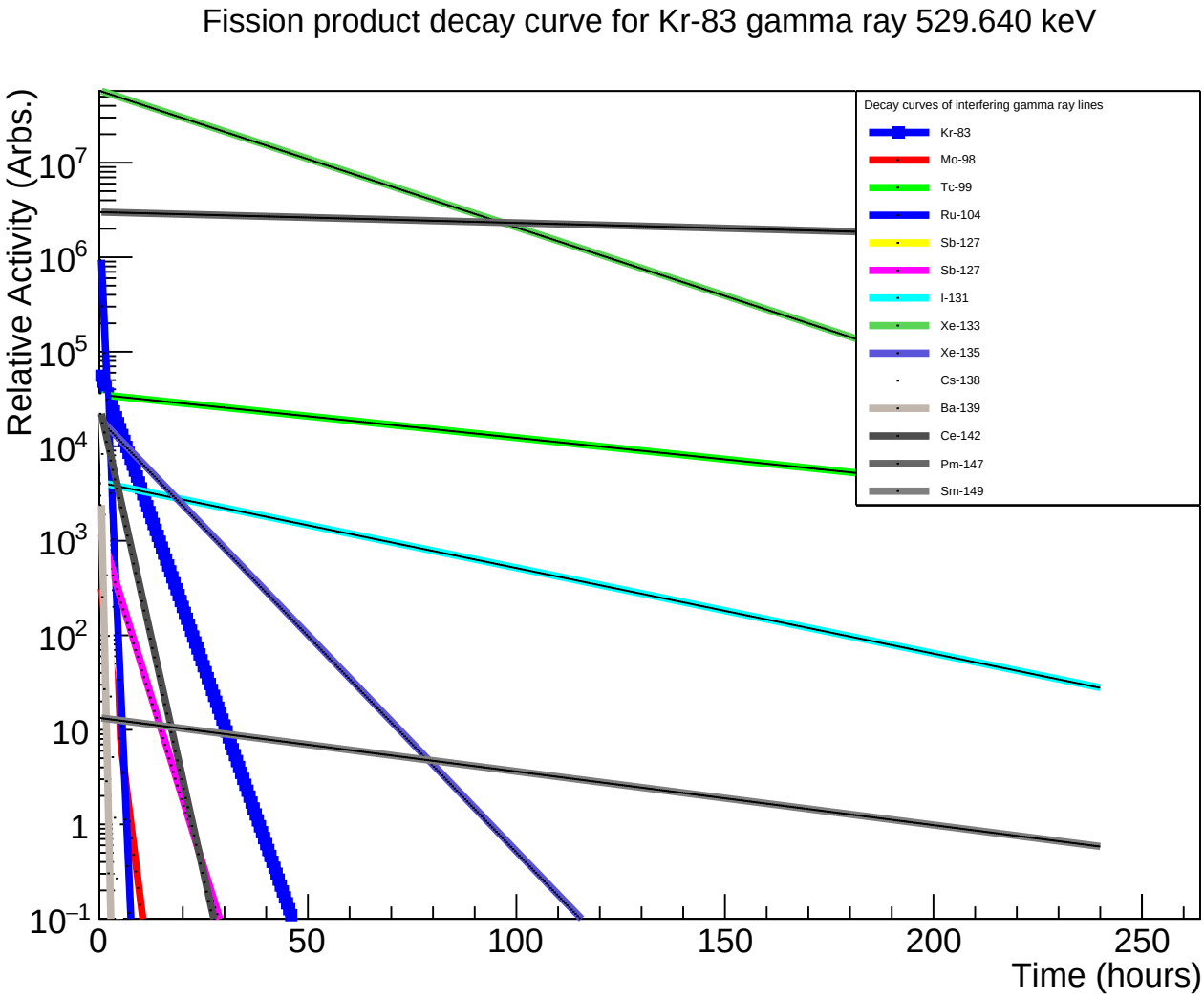


Figure 63: Kr-83 decay curve for 529.640 keV gamma ray.

3.64 Br-84 E_γ = 604.80 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 604.80 keV
Gamma Intensity = 1.75 ± 0.282 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 127: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 128: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	605.200	0.007	0.305	0.019
Tc-105	Ru-105	604.600	0.011	0.127	0.010
Sb-127	Te-127	603.500	0.045	92.400	0.002
Te-131	I-131	605.550	0.001	0.417	0.025
Te-133	I-133	605.110	0.012	0.923	0.040
Cs-139	Ba-139	604.220	0.000	0.155	0.063
Ba-142	La-142	604.300	0.004	0.177	0.058
Pr-147	Nd-147	604.500	0.005	0.223	0.022
Nd-151	Pm-151	605.800	0.000	0.207	0.004
Pm-151	Sm-151	604.000	0.000	28.400	0.004
Pm-151	Sm-151	605.900	0.000	28.400	0.004
Sm-153	Eu-153	603.600	0.000	46.500	0.002
Sm-155	Eu-155	603.800	0.000	0.372	0.000

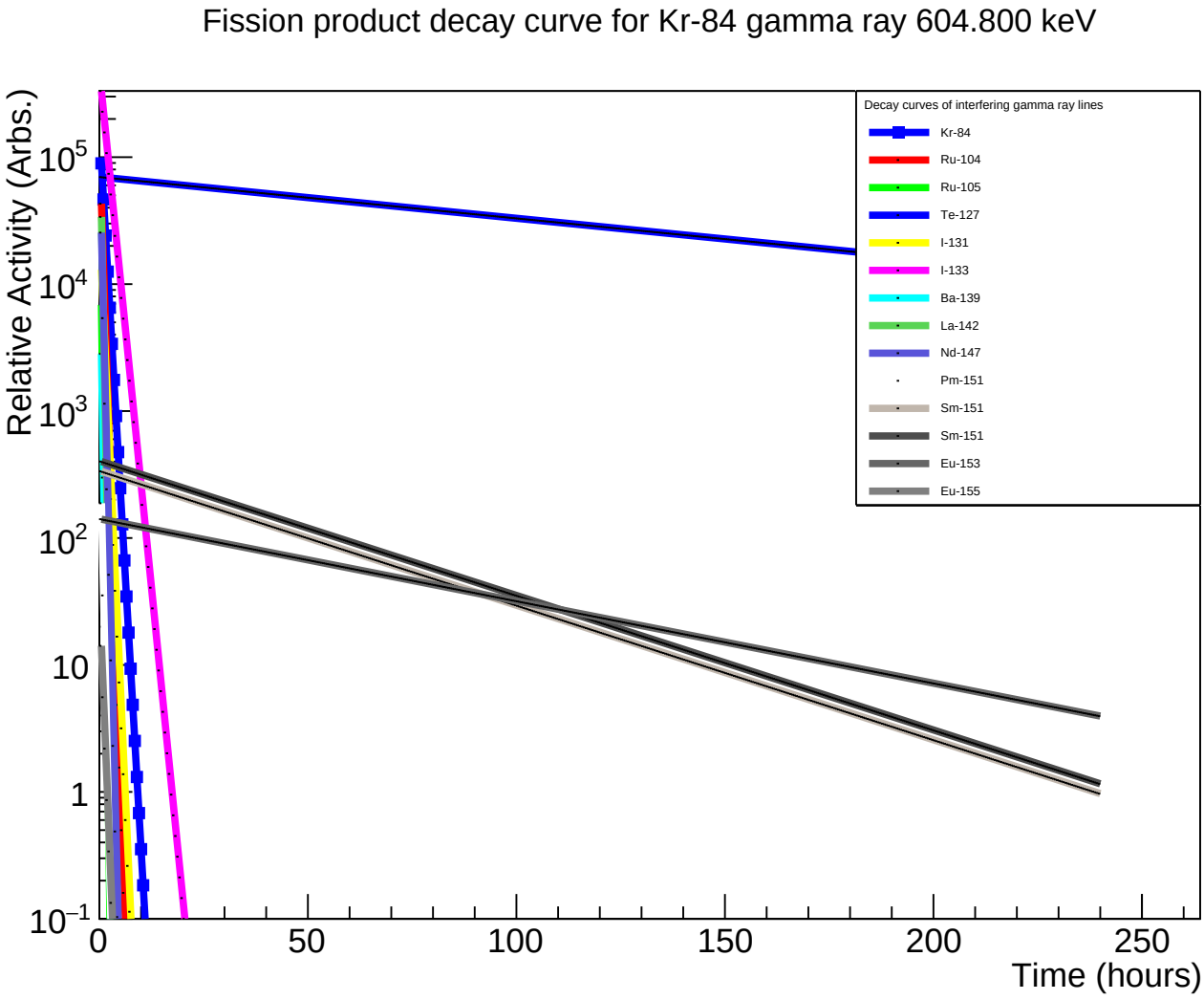


Figure 64: Kr-84 decay curve for 604.800 keV gamma ray.

3.65 Br-84 E_γ = 736.50 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 736.50 keV
Gamma Intensity = 1.29 ± 0.229 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 129: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 130: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	735.120	0.008	0.372	0.003
Mo-101	Tc-101	737.300	0.000	0.243	0.052
Pd-109	Ag-109	736.700	0.000	13.701	0.000
Sb-129	Te-129	737.100	0.004	4.400	0.005
Cs-139	Ba-139	735.680	0.001	0.155	0.063
Cs-139	Ba-139	737.600	0.000	0.155	0.063
Pr-146	Nd-146	735.720	0.075	0.403	0.030
Nd-149	Pm-149	736.180	0.000	1.728	0.011
Nd-151	Pm-151	736.230	0.059	0.207	0.004
Pm-151	Sm-151	736.120	0.005	28.400	0.004

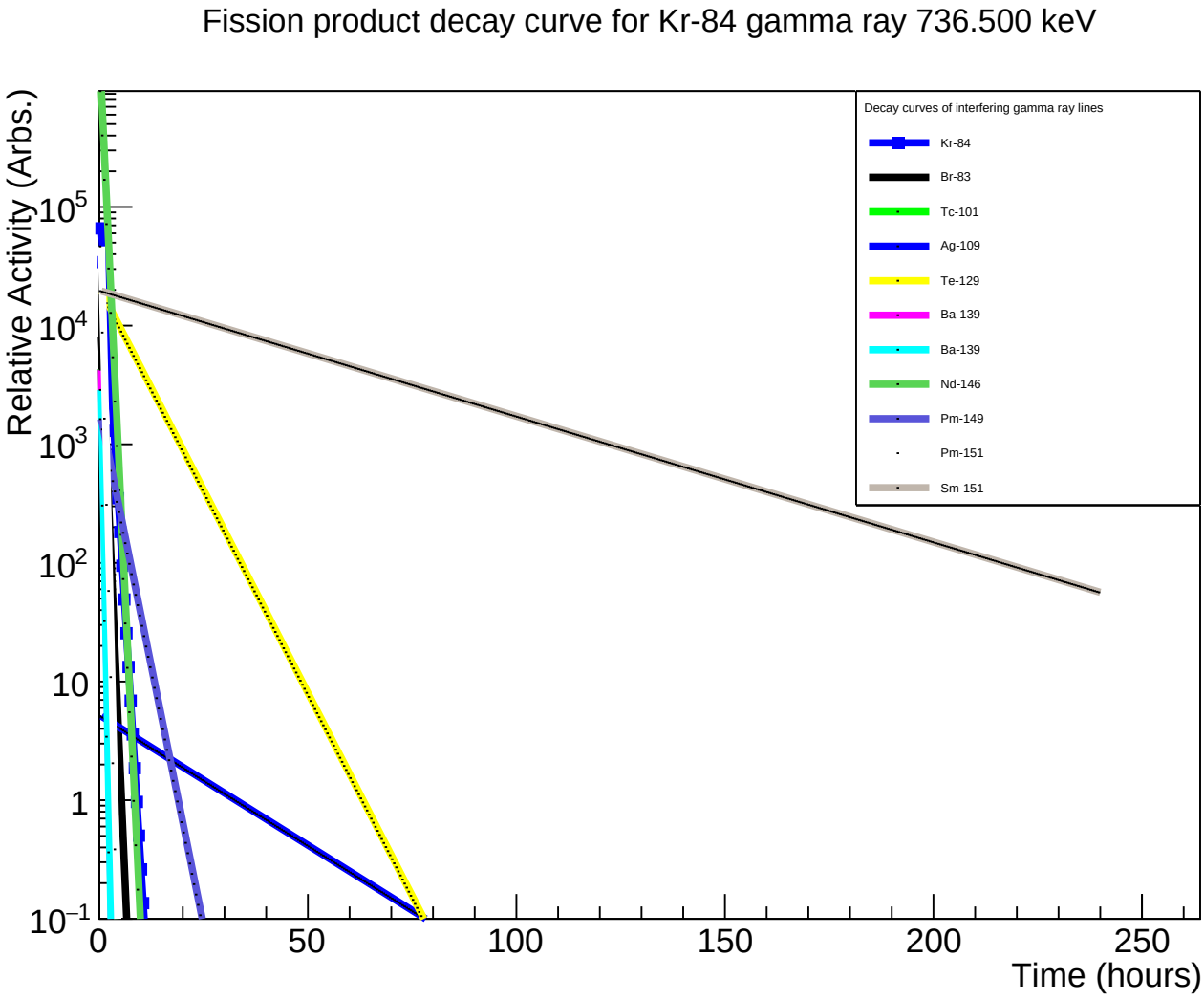


Figure 65: Kr-84 decay curve for 736.500 keV gamma ray.

3.66 Br-84 E_γ = 802.20 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 802.20 keV
Gamma Intensity = 5.99 ± 0.767 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 131: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 132: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	801.100	0.000	0.252	0.047
Tc-105	Ru-105	801.000	0.003	0.127	0.010
Ag-112	Cd-112	802.300	0.000	3.130	0.000
Sn-129	Sb-129	801.000	0.021	0.115	0.002
Sb-128	Te-128	802.700	0.012	9.010	0.000
Te-129	I-129	802.100	0.002	1.160	0.005
Te-131	I-131	801.600	0.000	33.250	0.004
Te-133	I-133	802.900	0.001	0.208	0.031
Te-133	I-133	803.300	0.001	0.208	0.031
Cs-138	Ba-138	802.600	0.000	0.557	0.067
Ba-141	La-141	801.700	0.001	0.304	0.058
Nd-151	Pm-151	801.000	0.000	0.207	0.004

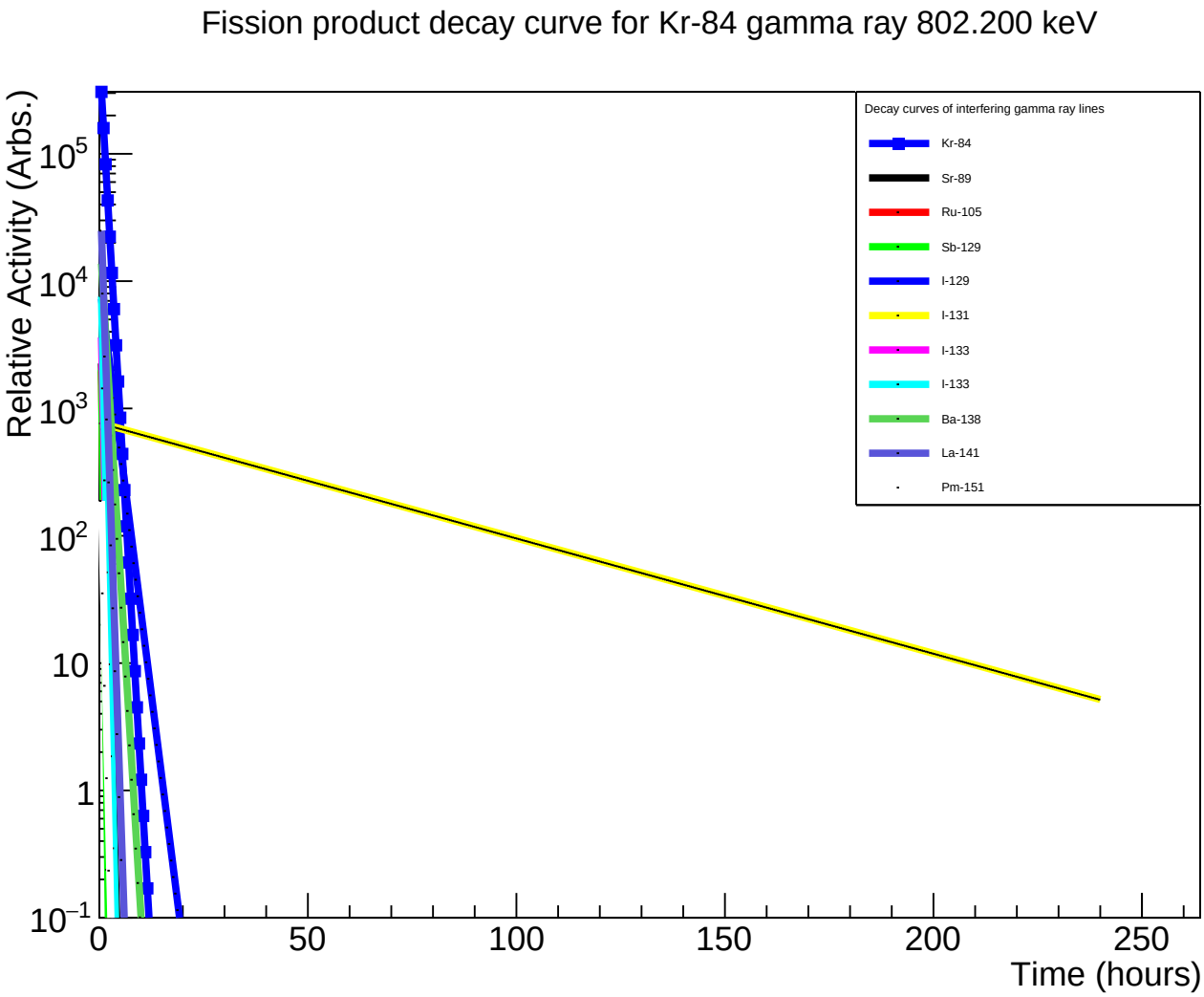


Figure 66: Kr-84 decay curve for 802.200 keV gamma ray.

3.67 Br-84 E_γ = 881.60 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 881.60 keV
Gamma Intensity = 41.60 ± 3.100 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 133: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 134: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	882.000	0.002	1.512	0.000
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Te-131	I-131	881.150	0.000	0.417	0.025
Te-131	I-131	881.600	0.000	33.250	0.004
Te-133	I-133	880.700	0.001	0.208	0.031
Te-133	I-133	882.700	0.021	0.923	0.040
Cs-138	Ba-138	880.800	0.001	0.557	0.067
Ba-141	La-141	880.800	0.000	0.304	0.058
Ba-141	La-141	881.200	0.001	0.304	0.058
Ce-143	Pr-143	880.460	0.010	33.039	0.060
Pr-147	Nd-147	881.500	0.003	0.223	0.022
Nd-151	Pm-151	881.140	0.001	0.207	0.004
Pm-149	Sm-149	881.980	0.000	53.080	0.011

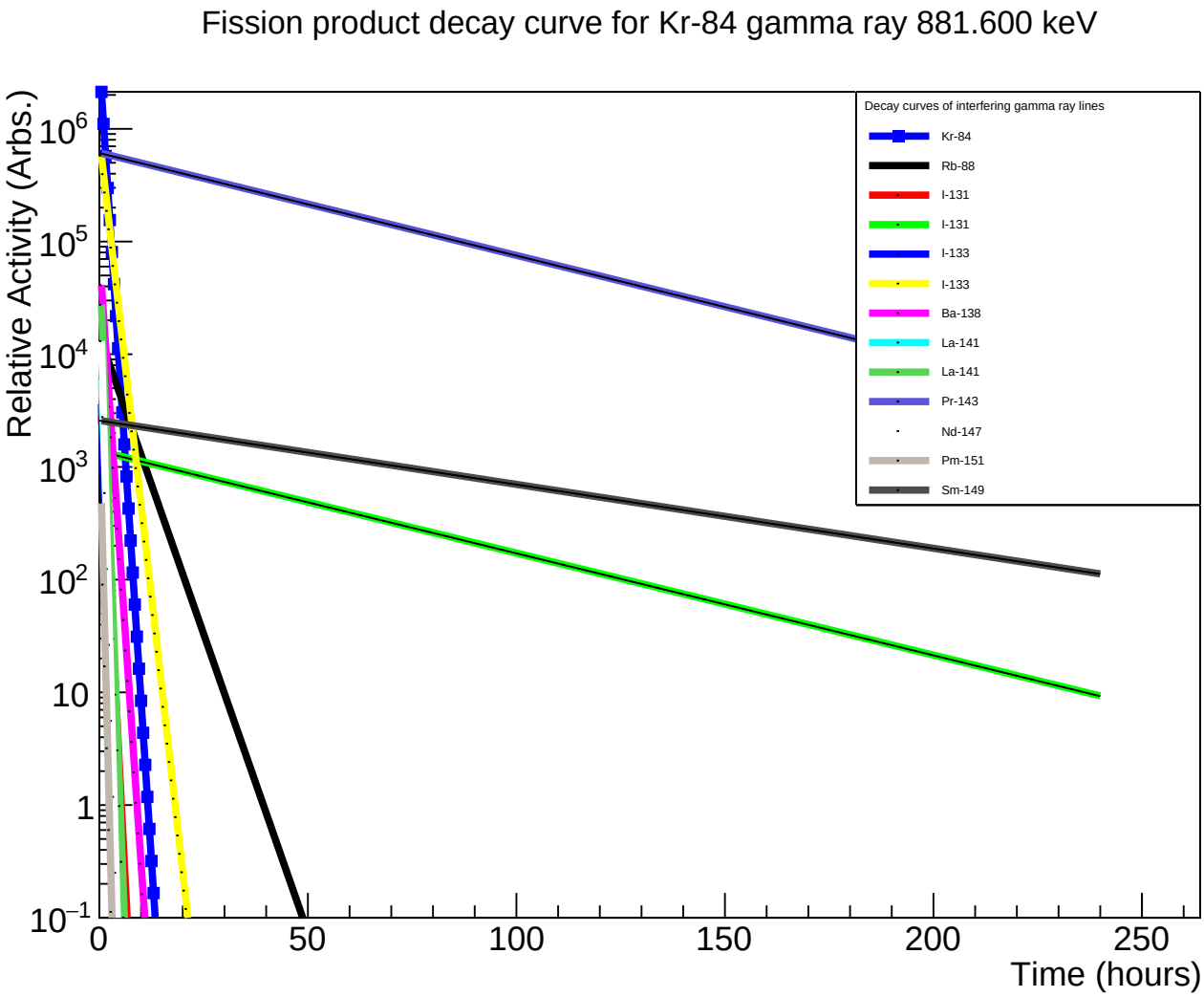


Figure 67: Kr-84 decay curve for 881.600 keV gamma ray.

3.68 Br-84 E_γ = 1015.90 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1015.90 keV
Gamma Intensity = 6.16 ± 0.775 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 135: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 136: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	1017.000	0.000	65.976	0.061
Pd-111	Ag-111	1015.000	0.000	0.390	0.000
Sn-125	Sb-125	1017.400	0.003	231.360	0.000
Te-133	I-133	1015.300	0.001	0.208	0.031
Te-133	I-133	1015.100	0.001	0.923	0.040
Pr-146	Nd-146	1016.780	0.012	0.403	0.030
Nd-149	Pm-149	1016.100	0.000	1.728	0.011
Nd-151	Pm-151	1016.400	0.025	0.207	0.004

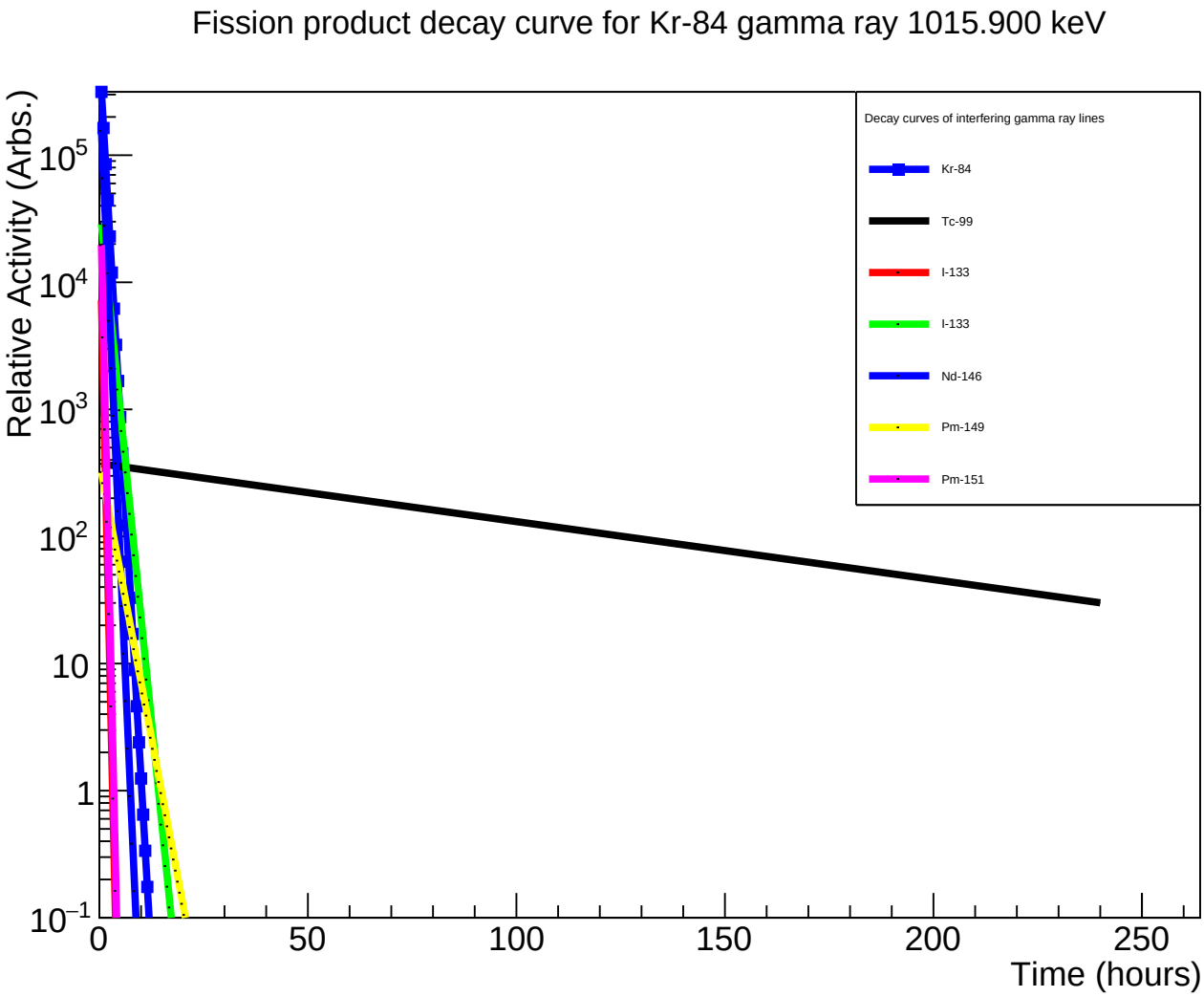


Figure 68: Kr-84 decay curve for 1015.900 keV gamma ray.

3.69 Br-84 E_γ = 1213.30 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1213.30 keV
Gamma Intensity = 2.58 ± 0.349 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 137: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 138: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1212.730	0.001	2.840	0.036
Y-95	Zr-95	1213.850	0.000	0.172	0.064
Nb-98	Mo-98	1213.300	0.001	0.855	0.000
La-142	Ce-142	1214.000	0.000	1.518	0.058
La-143	Ce-143	1212.000	0.001	0.237	0.059
Pr-145	Nd-145	1213.080	0.000	5.984	0.039
Pr-147	Nd-147	1214.800	0.004	0.223	0.022
Nd-151	Pm-151	1213.180	0.001	0.207	0.004
Nd-151	Pm-151	1213.180	0.000	0.207	0.004

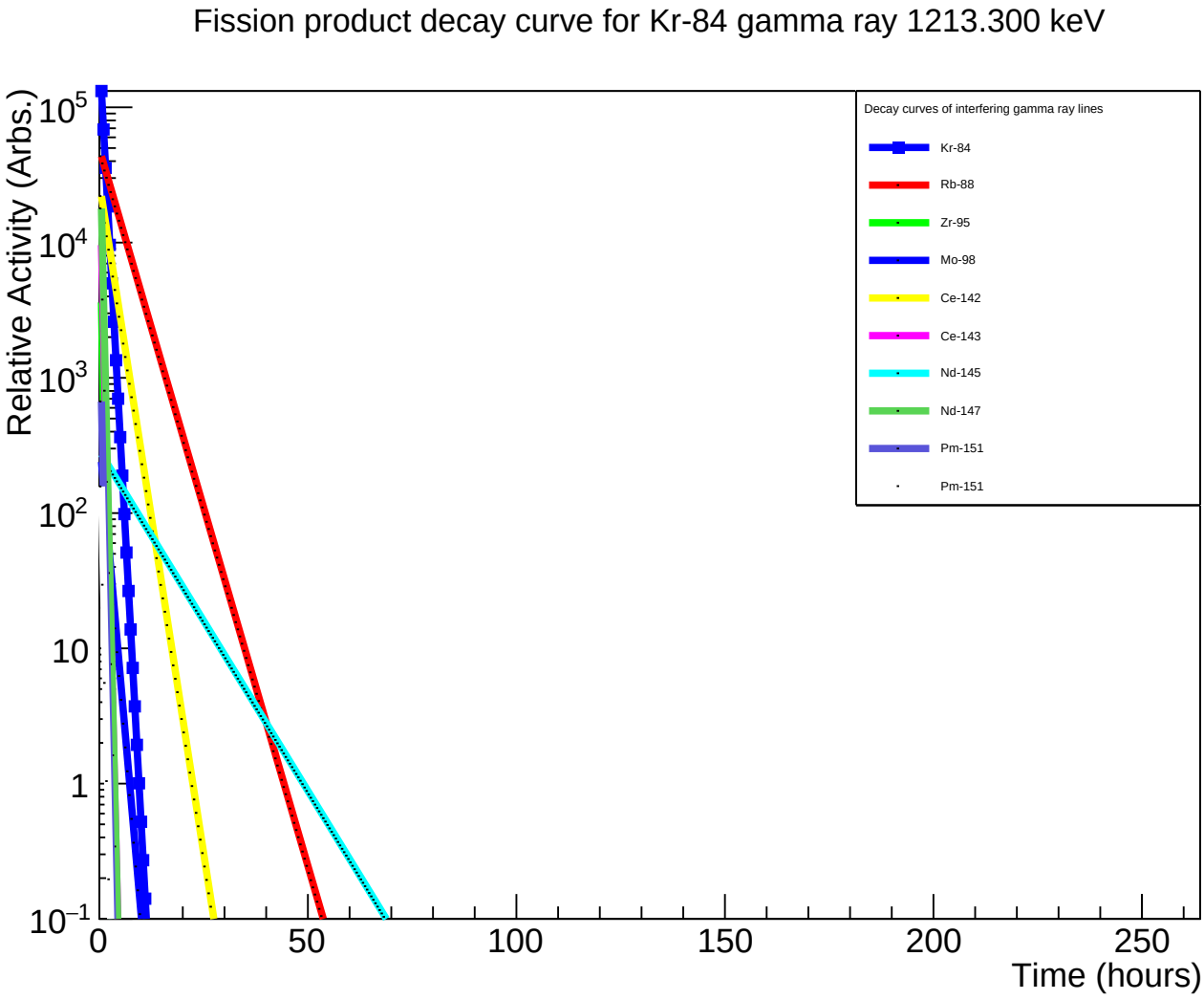


Figure 69: Kr-84 decay curve for 1213.300 keV gamma ray.

3.70 Br-84 E_γ = 1463.80 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1463.80 keV
Gamma Intensity = 1.96 ± 0.402 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 139: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 140: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1464.840	0.001	2.840	0.036
Cs-139	Ba-139	1462.430	0.000	0.155	0.063
Pr-146	Nd-146	1463.800	0.001	0.403	0.030
Pr-147	Nd-147	1464.400	0.005	0.223	0.022

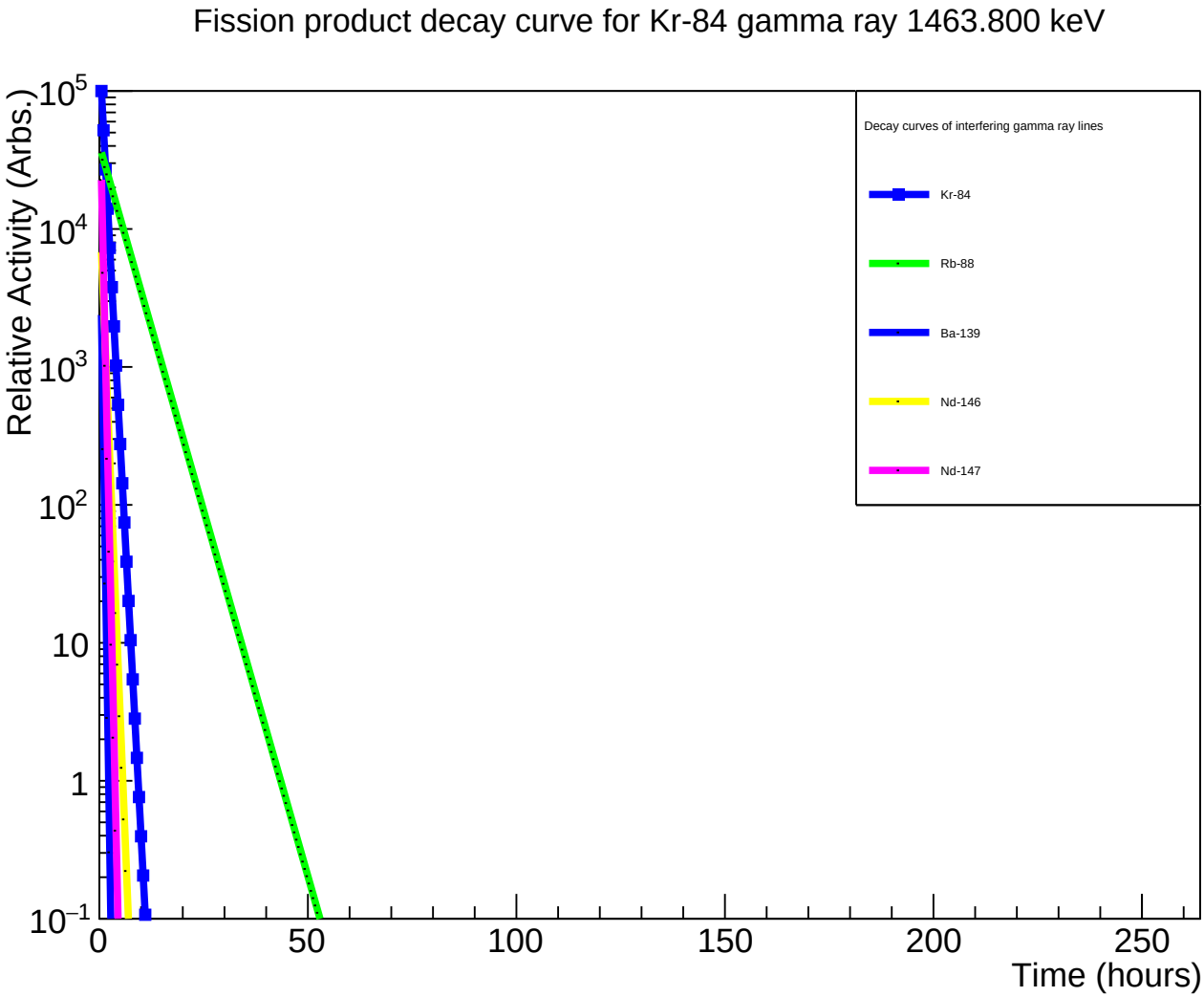


Figure 70: Kr-84 decay curve for 1463.800 keV gamma ray.

3.71 Br-84 E_γ = 1741.20 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1741.20 keV
Gamma Intensity = 1.62 ± 0.277 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 141: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 142: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1740.520	0.020	1.272	0.026
Sr-93	Y-93	1742.100	0.001	0.124	0.062
Te-133	I-133	1741.570	0.001	0.208	0.031
I-134	Xe-134	1741.490	0.026	0.875	0.078
Ba-141	La-141	1740.600	0.003	0.304	0.058
La-143	Ce-143	1740.700	0.001	0.237	0.059
Nd-151	Pm-151	1742.400	0.000	0.207	0.004

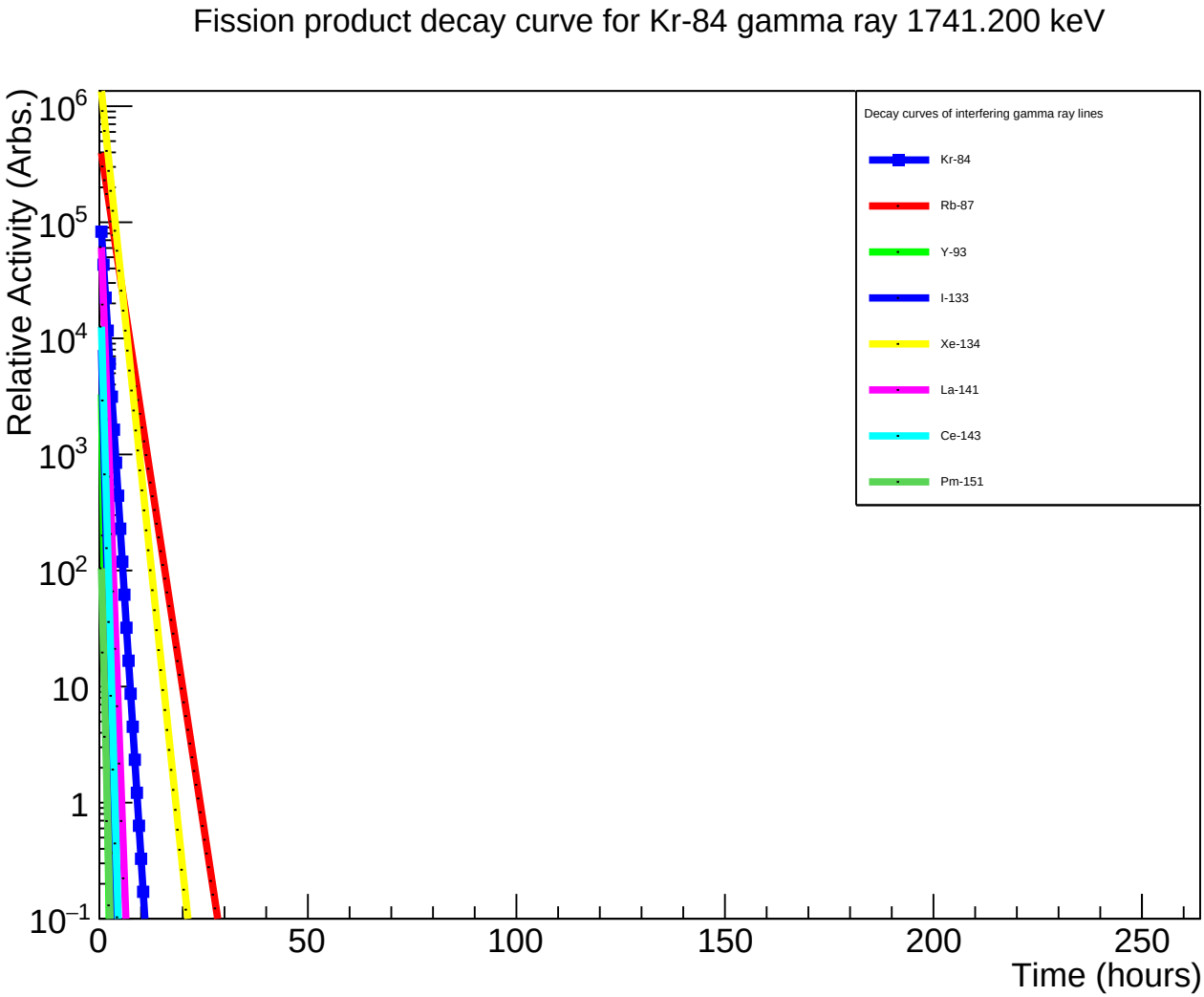


Figure 71: Kr-84 decay curve for 1741.200 keV gamma ray.

3.72 Br-84 E_γ = 1877.50 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1877.50 keV
Gamma Intensity = 1.12 ± 0.186 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 143: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 144: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1877.300	0.000	0.855	0.000
Cs-139	Ba-139	1877.450	0.003	0.155	0.063
La-140	Ce-140	1877.290	0.000	40.285	0.062
La-143	Ce-143	1876.500	0.003	0.237	0.059
La-143	Ce-143	1878.400	0.002	0.237	0.059
Nd-151	Pm-151	1877.600	0.000	0.207	0.004
Eu-156	Gd-156	1877.030	0.015	364.560	0.000

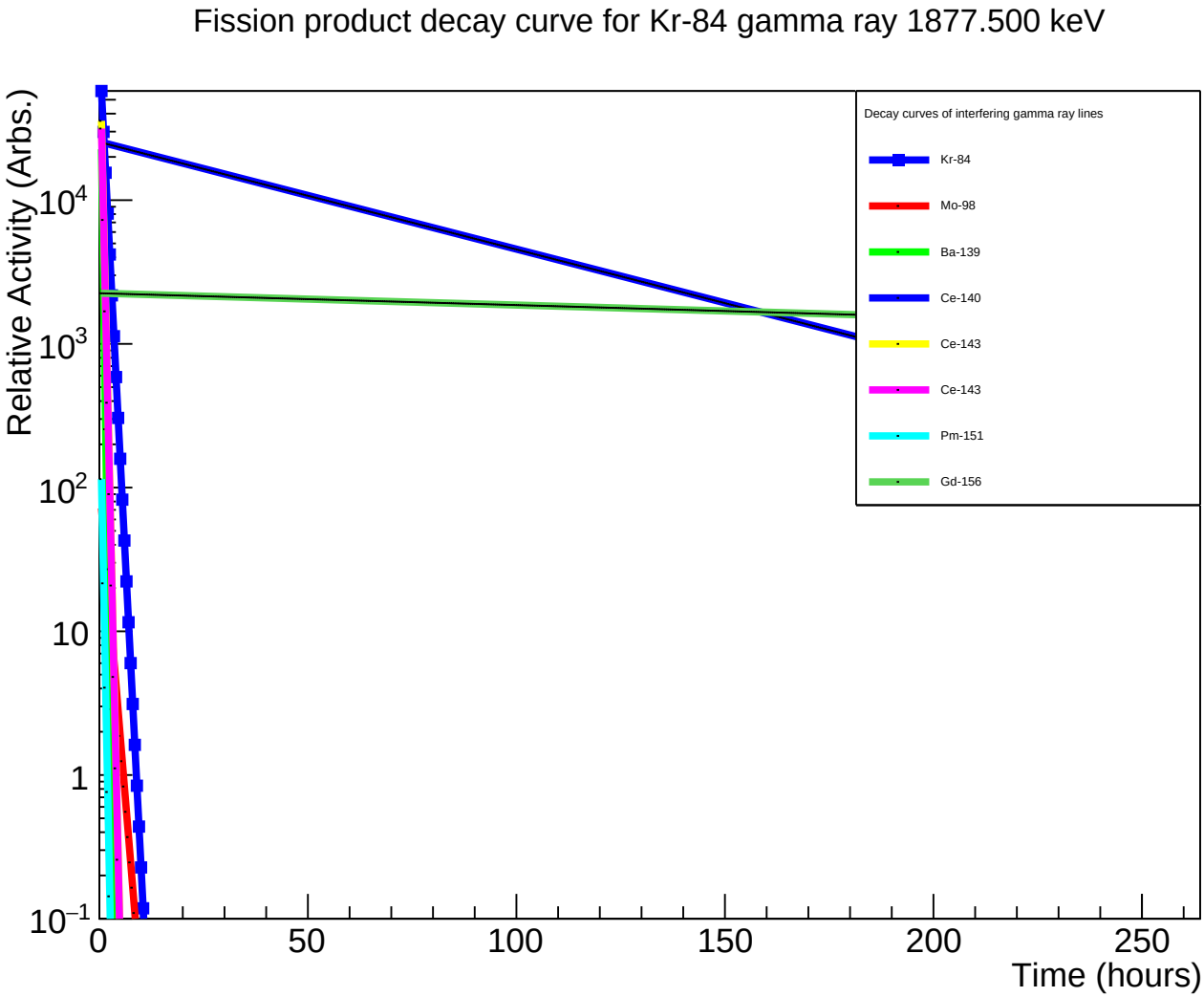


Figure 72: Kr-84 decay curve for 1877.500 keV gamma ray.

3.73 Br-84 E_γ = 1897.60 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1897.60 keV
Gamma Intensity = 14.56 ± 1.986 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 145: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 146: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-130	Te-130	1896.900	0.013	0.105	0.010
Te-133	I-133	1897.590	0.001	0.208	0.031

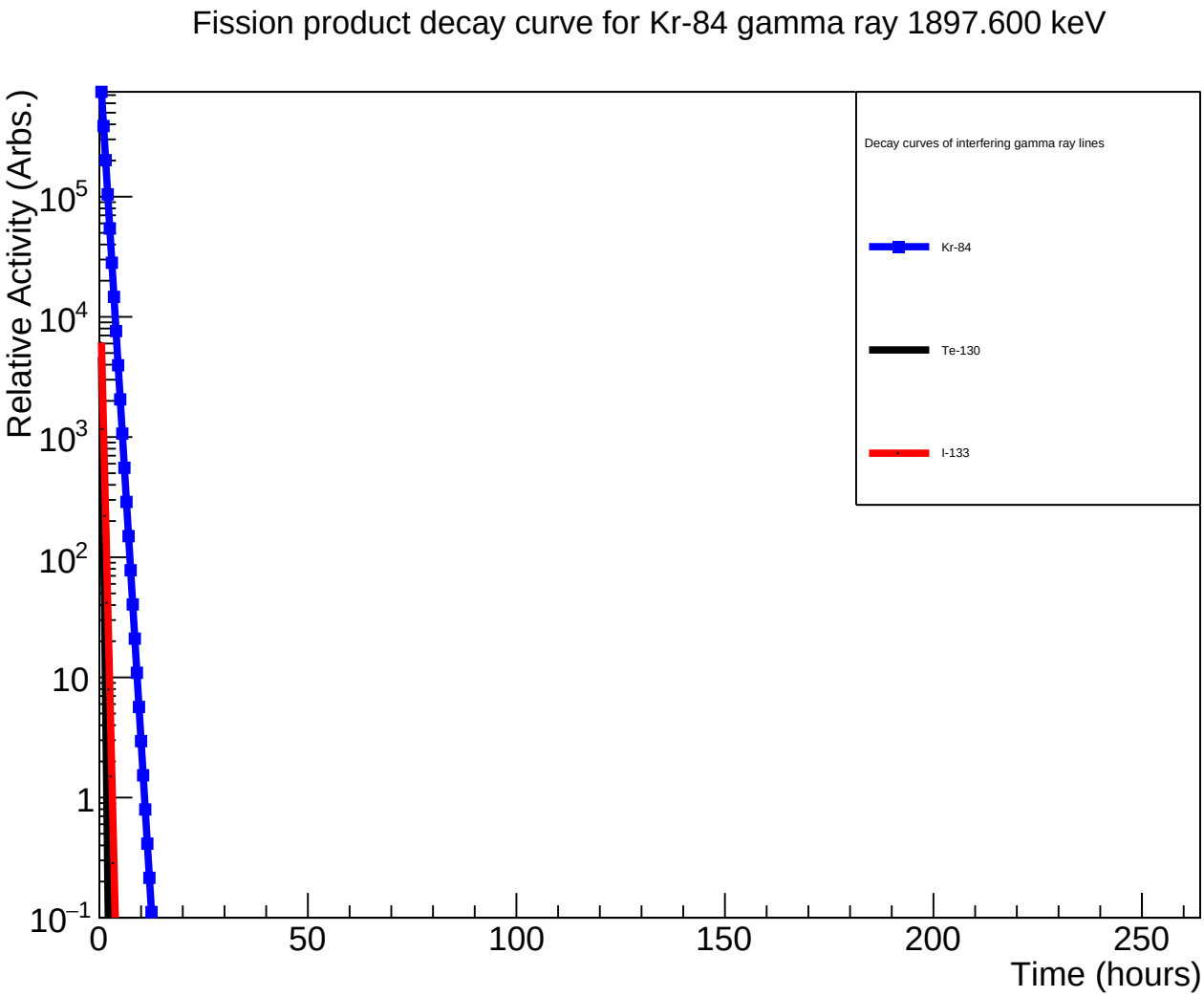


Figure 73: Kr-84 decay curve for 1897.600 keV gamma ray.

3.74 Br-84 E_γ = 2029.60 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 2029.60 keV
Gamma Intensity = 2.08 ± 0.444 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 147: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 148: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	2029.840	0.045	2.840	0.036
La-141	Ce-141	2030.200	0.000	3.920	0.058

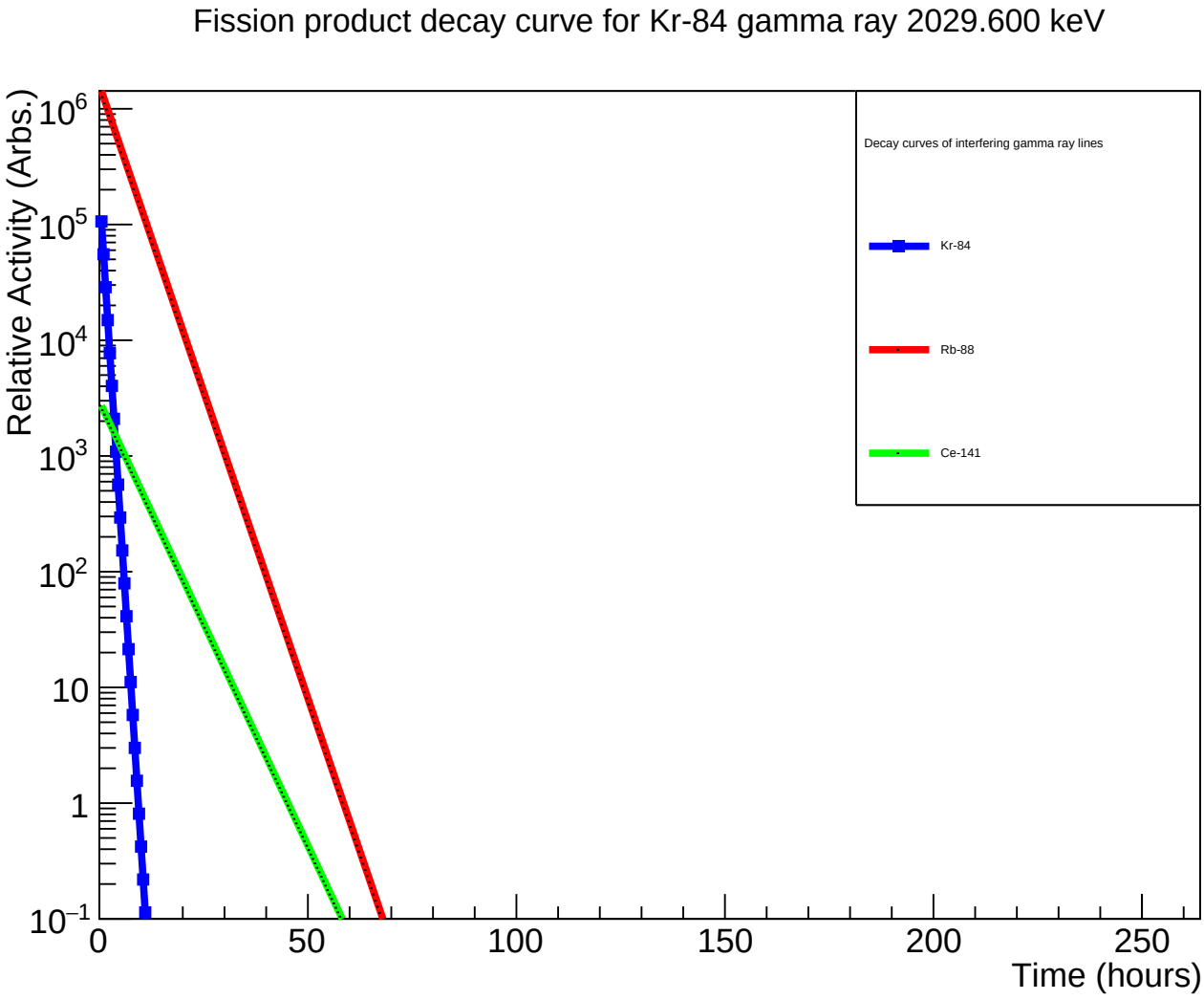


Figure 74: Kr-84 decay curve for 2029.600 keV gamma ray.

3.75 Br-84 E_γ = 2200.70 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 2200.70 keV
Gamma Intensity = 1.16 ± 0.188 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 149: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 150: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2201.800	0.000	0.855	0.000
Sn-125	Sb-125	2201.002	0.000	231.360	0.000

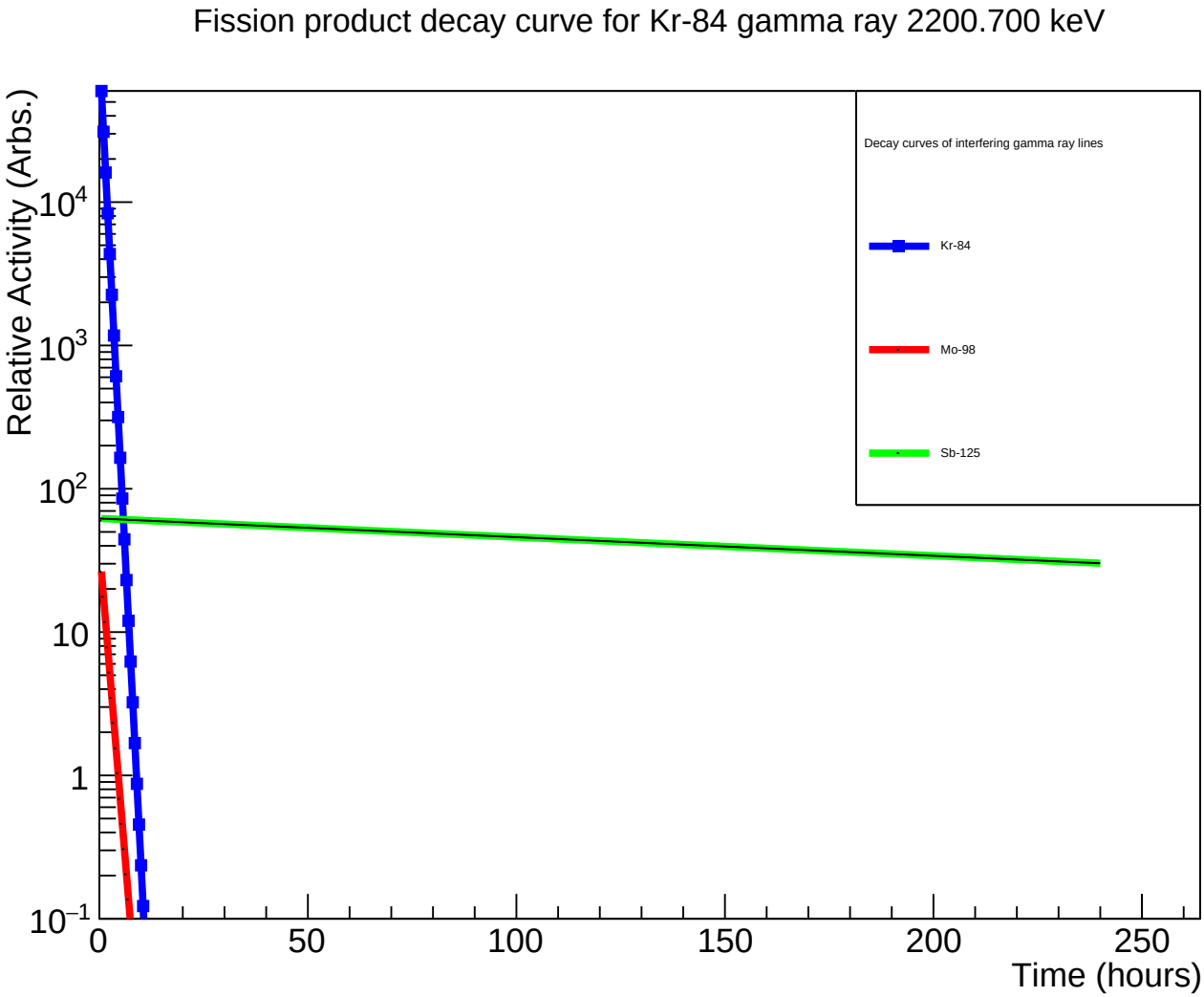


Figure 75: Kr-84 decay curve for 2200.700 keV gamma ray.

3.76 Br-84 E_γ = 2484.10 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 2484.10 keV
Gamma Intensity = 6.66 ± 0.830 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 151: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 152: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

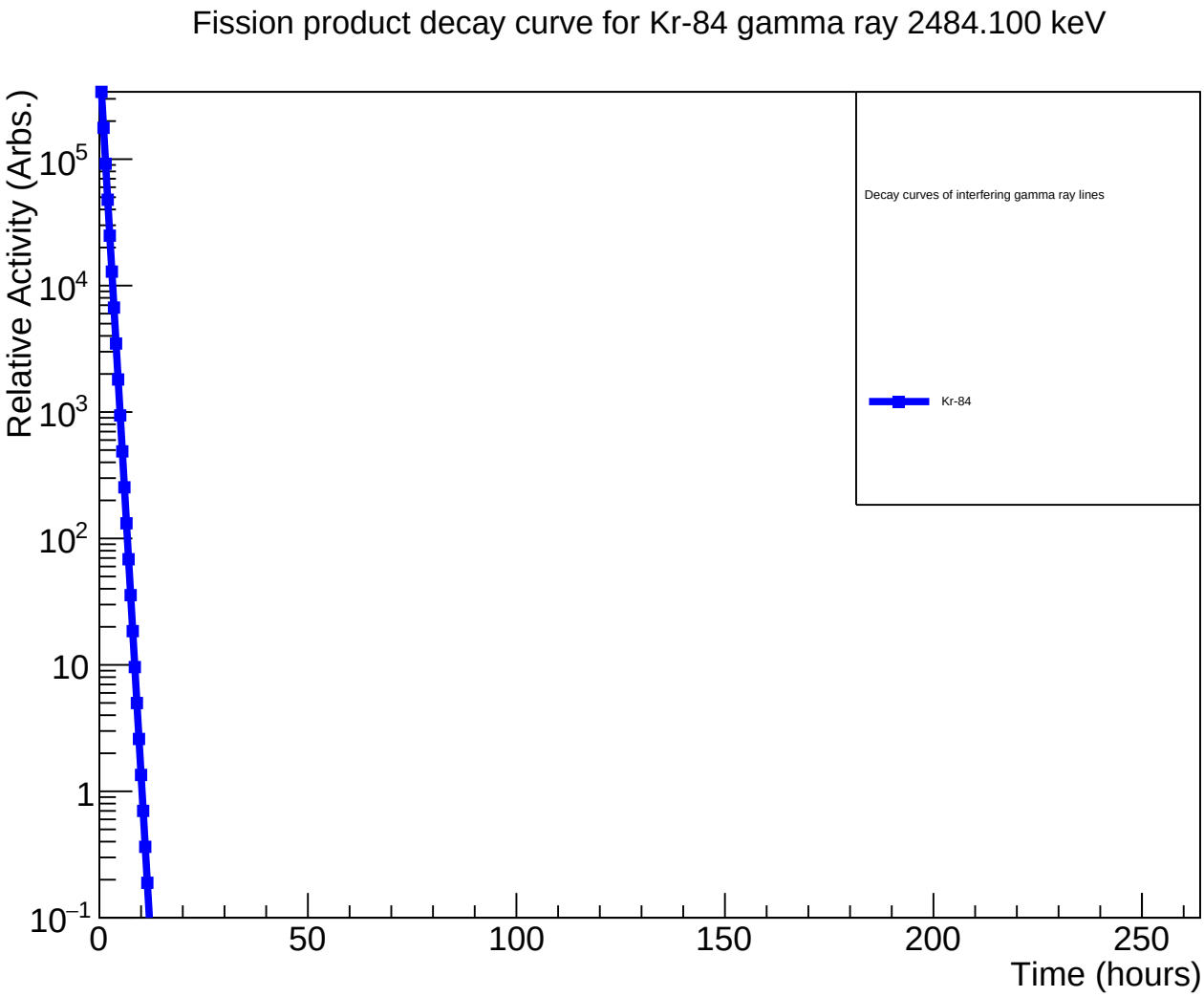


Figure 76: Kr-84 decay curve for 2484.100 keV gamma ray.

3.77 Br-84 E_γ = 2824.10 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 2824.10 keV
Gamma Intensity = 1.12 ± 0.186 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 153: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 154: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2825.300	0.002	0.208	0.031
La-143	Ce-143	2825.100	0.001	0.237	0.059

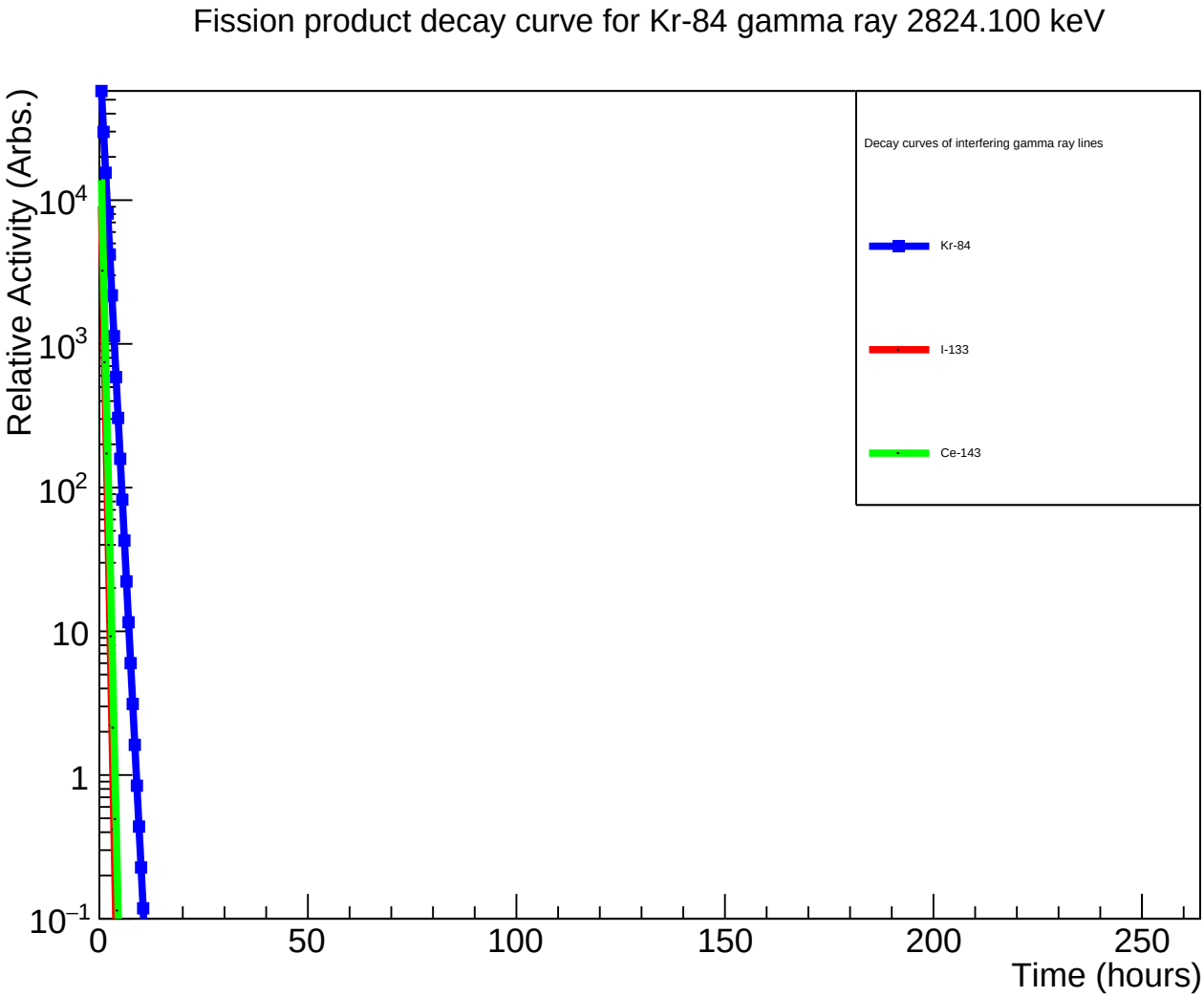


Figure 77: Kr-84 decay curve for 2824.100 keV gamma ray.

3.78 Br-84 E_γ = 3045.40 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 3045.40 keV
Gamma Intensity = 2.50 ± 0.418 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 155: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 156: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

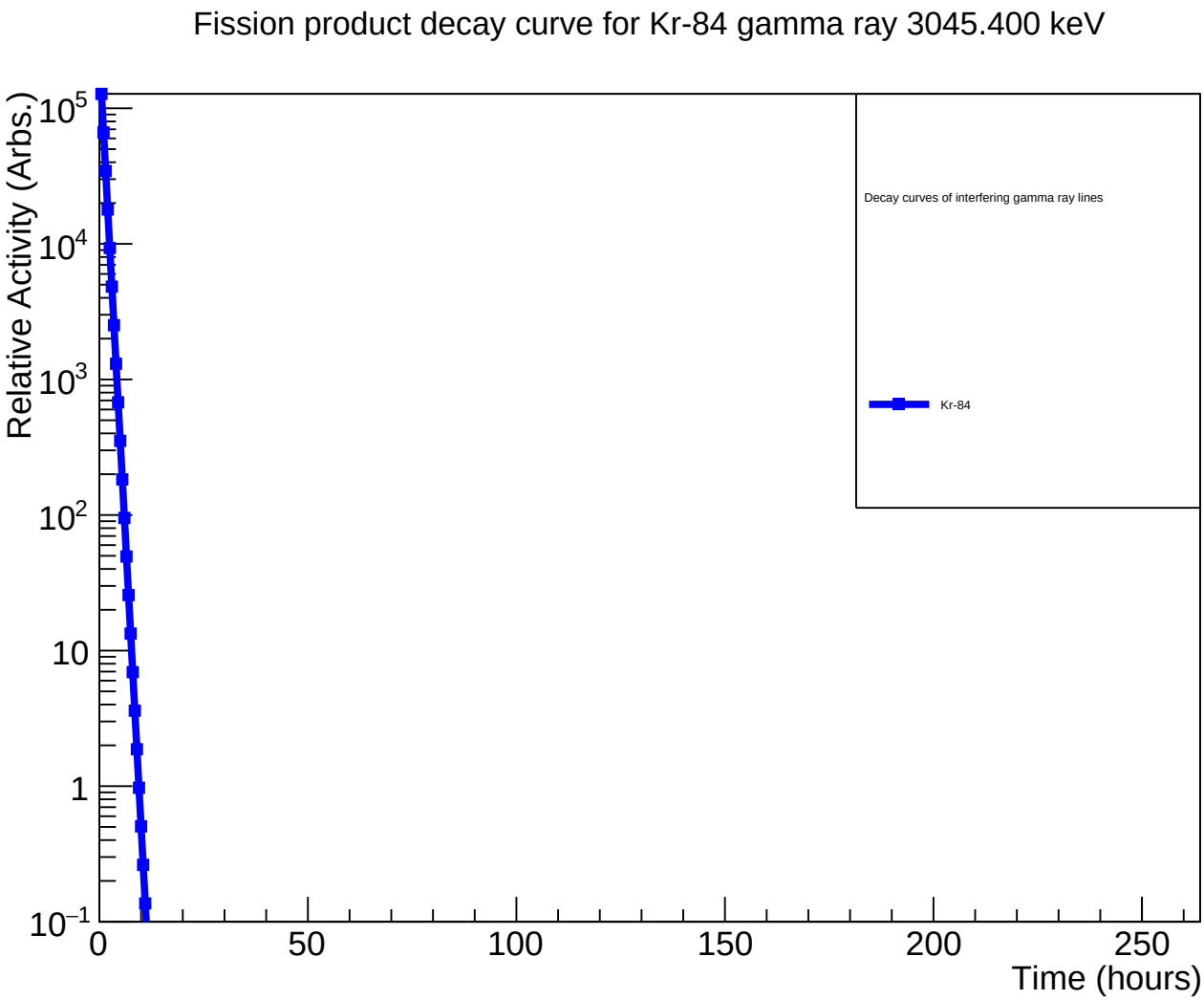


Figure 78: Kr-84 decay curve for 3045.400 keV gamma ray.

3.79 Br-84 E_γ = 3235.30 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 3235.30 keV
Gamma Intensity = 2.04 ± 0.366 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 157: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 158: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

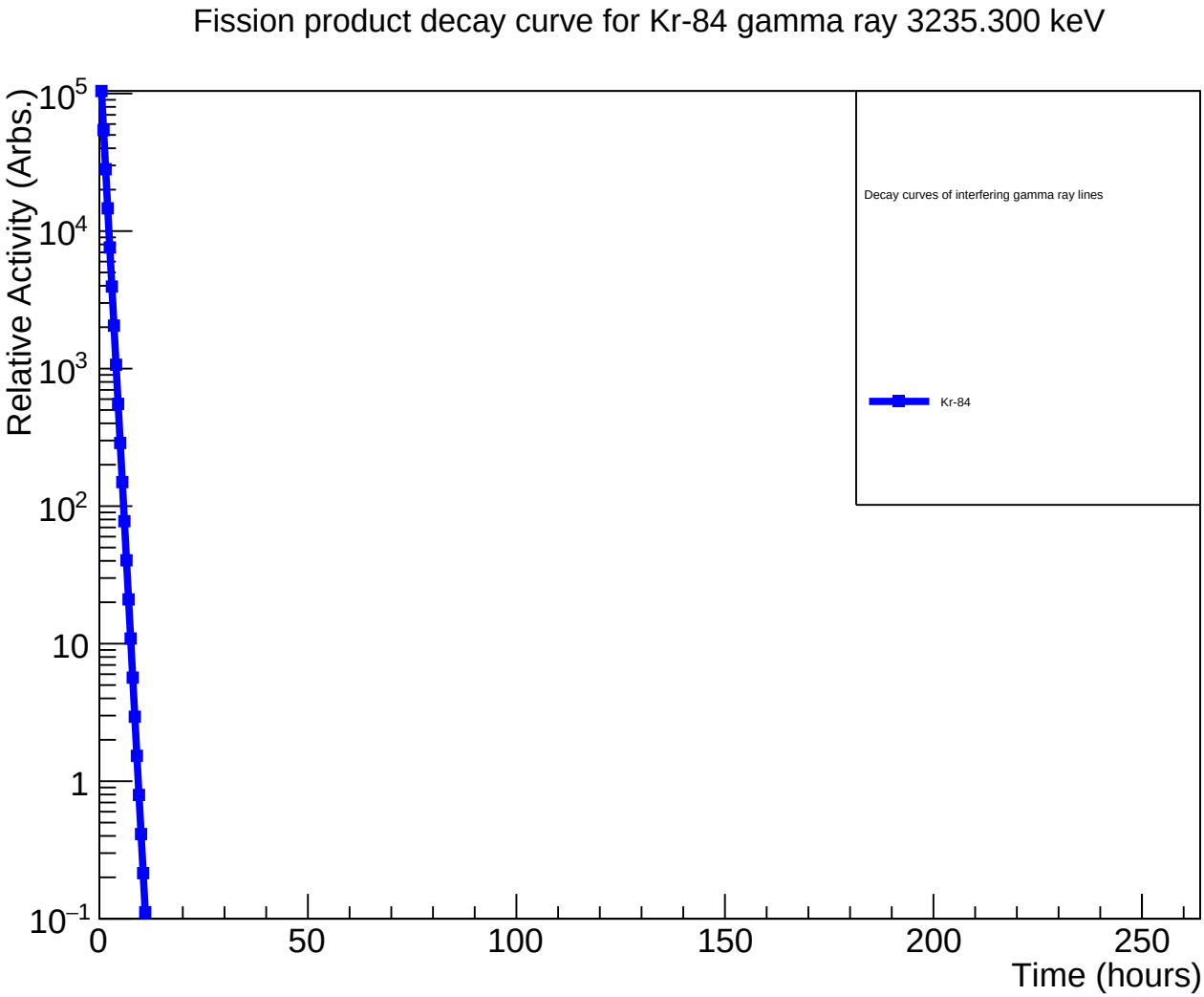


Figure 79: Kr-84 decay curve for 3235.300 keV gamma ray.

3.80 Br-84 E_γ = 3365.80 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 3365.80 keV
Gamma Intensity = 2.87 ± 0.468 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 159: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 160: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cs-138	Ba-138	3366.980	0.002	0.557	0.067

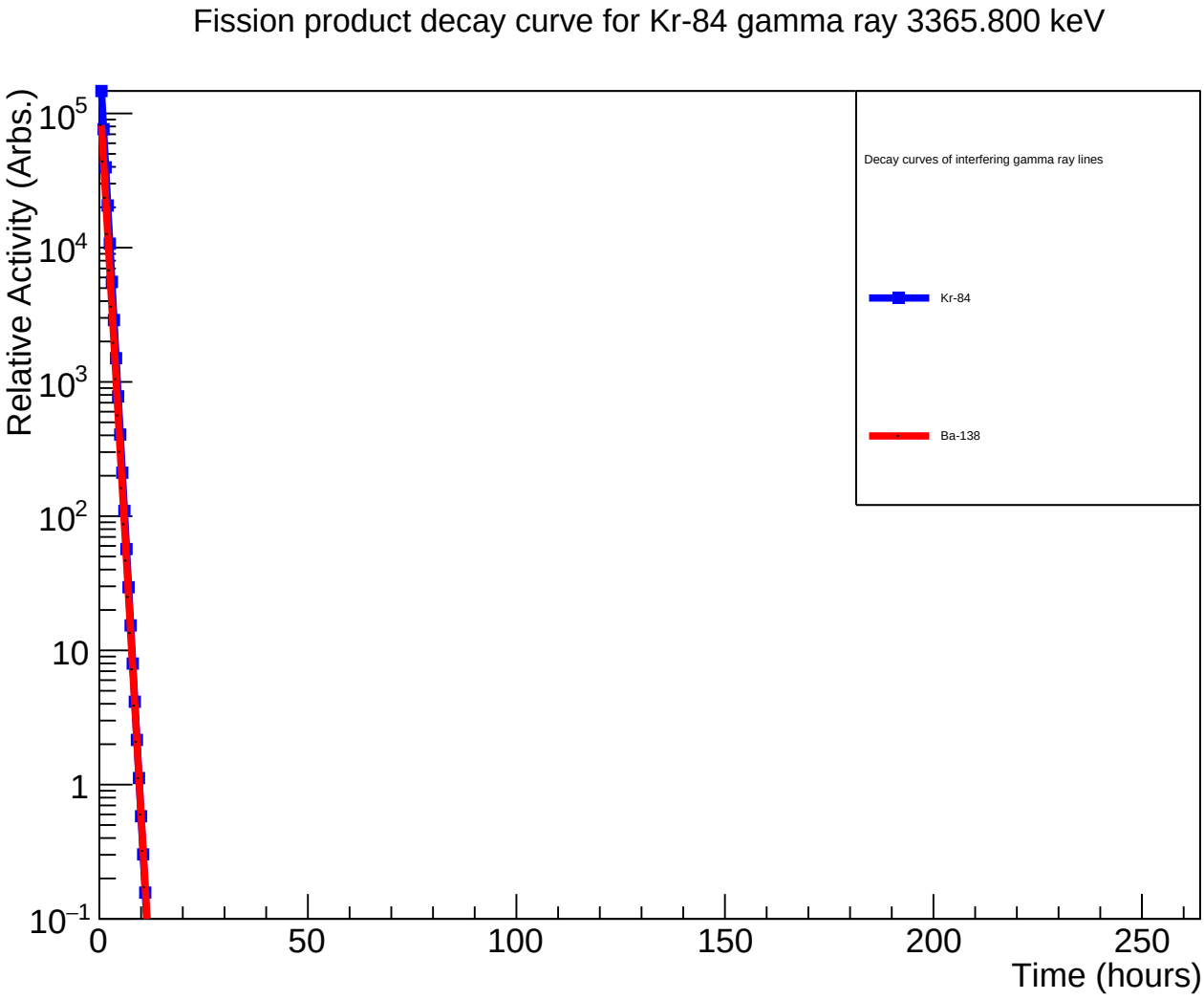


Figure 80: Kr-84 decay curve for 3365.800 keV gamma ray.

3.81 Br-84 E_γ = 3927.50 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 3927.50 keV
Gamma Intensity = 6.78 ± 0.869 %
$T_{1/2}$ = 0.529 ± 0.001 hours or 31.76 ± 0.08 minutes
CFY: 0.985 ± 0.014 %

Table 161: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 162: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	3926.000	0.000	0.172	0.064

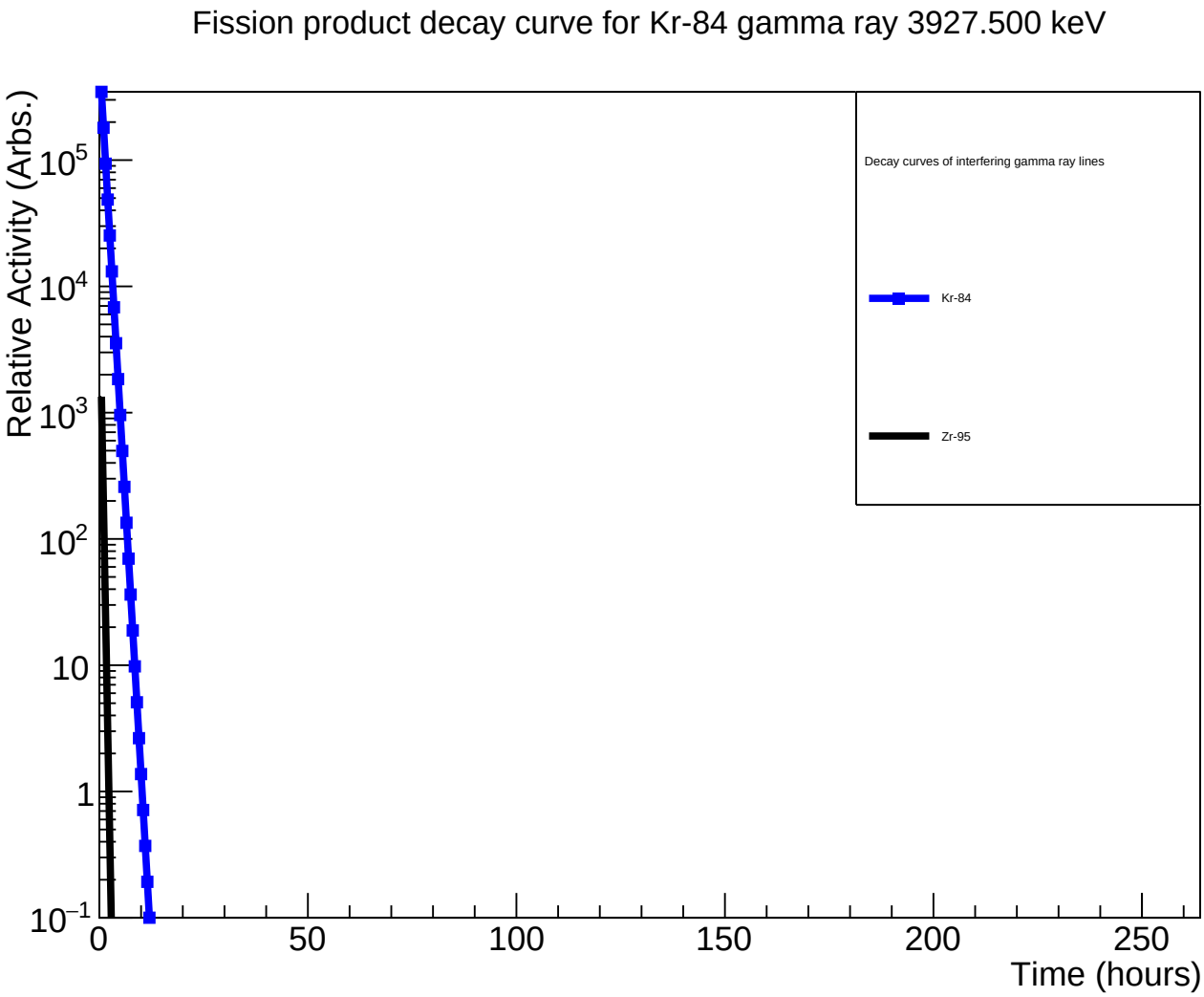


Figure 81: Kr-84 decay curve for 3927.500 keV gamma ray.

3.82 Br-84 E_γ = 424.00 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 424.00 keV
Gamma Intensity = 100.00 ± 10.000 %
$T_{1/2}$ = 0.100 ± 0.003 hours or 6.00 ± 0.20 minutes
CFY: 0.017 ± 0.001 %

Table 163: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 164: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	424.700	0.003	0.124	0.062
Pd-109	Ag-109	423.900	0.000	13.701	0.000
Sn-129	Sb-129	423.000	0.018	0.115	0.002
I-133	Xe-133	422.910	0.003	20.800	0.067
Ba-140	La-140	423.722	0.032	306.065	0.062
Ba-142	La-142	425.040	0.057	0.177	0.058
Nd-149	Pm-149	423.553	0.074	1.728	0.011
Nd-149	Pm-149	425.220	0.003	1.728	0.011
Nd-151	Pm-151	422.600	0.004	0.207	0.004
Nd-151	Pm-151	423.560	0.001	0.207	0.004
Nd-151	Pm-151	423.560	0.059	0.207	0.004
Pm-151	Sm-151	424.550	0.000	28.400	0.004
Sm-153	Eu-153	424.400	0.000	46.500	0.002

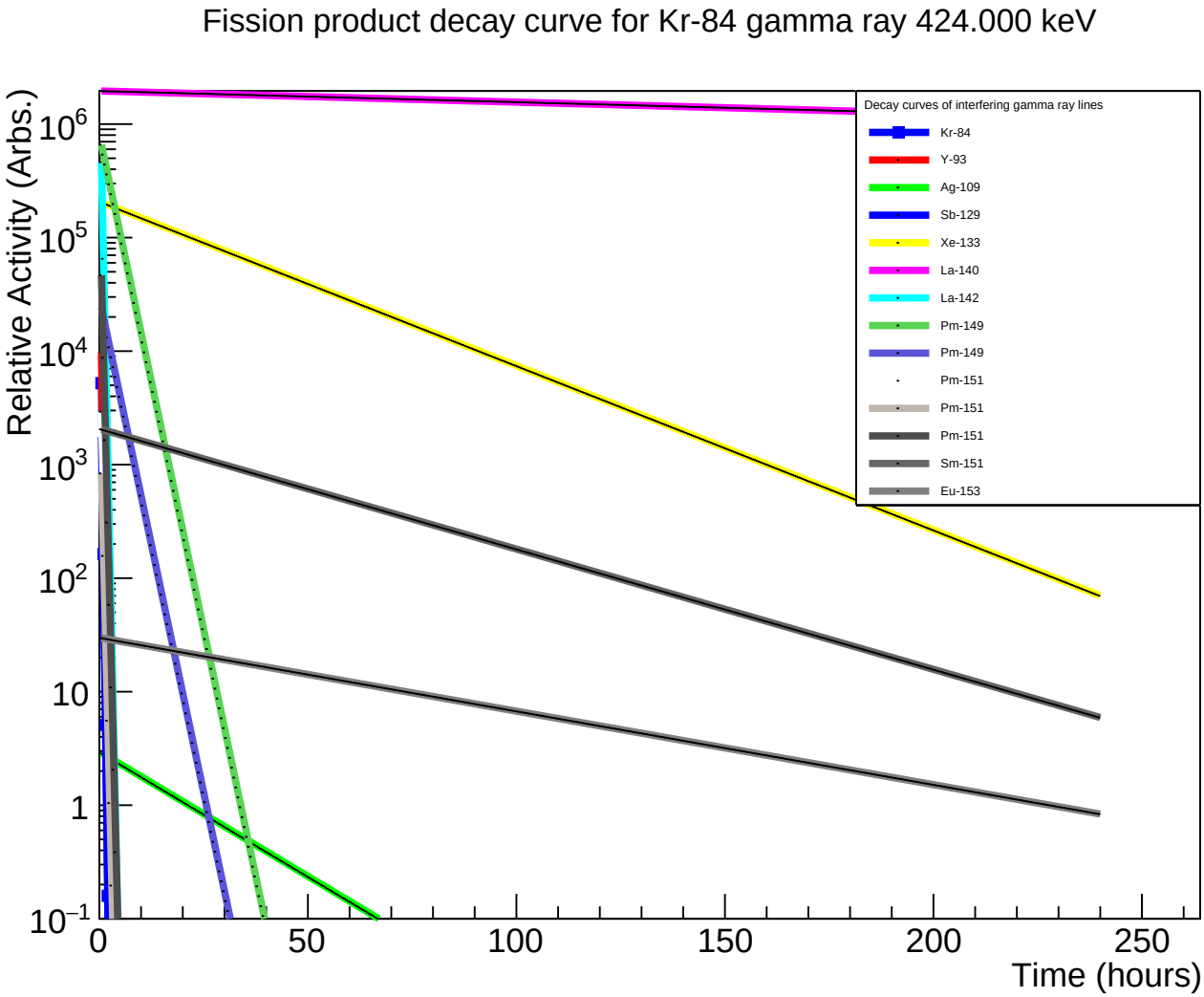


Figure 82: Kr-84 decay curve for 424.000 keV gamma ray.

3.83 Br-84 E_γ = 447.00 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 447.00 keV
Gamma Intensity = 3.00 ± 0.000 %
$T_{1/2}$ = 0.100 ± 0.003 hours or 6.00 ± 0.20 minutes
CFY: 0.017 ± 0.001 %

Table 165: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 166: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	446.800	0.003	0.150	0.000
Sr-93	Y-93	446.200	0.024	0.124	0.062
Y-92	Zr-92	448.500	0.023	3.540	0.060
Nb-98	Mo-98	446.910	0.004	0.855	0.000
Nb-98	Mo-98	448.200	0.000	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Pd-109	Ag-109	447.600	0.000	13.701	0.000
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Sb-128	Te-128	445.700	0.015	9.010	0.000
I-132	Xe-132	446.200	0.006	2.295	0.043
Ba-142	La-142	448.300	0.002	0.177	0.058
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Ce-143	Pr-143	447.450	0.001	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Nd-151	Pm-151	446.880	0.002	0.207	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

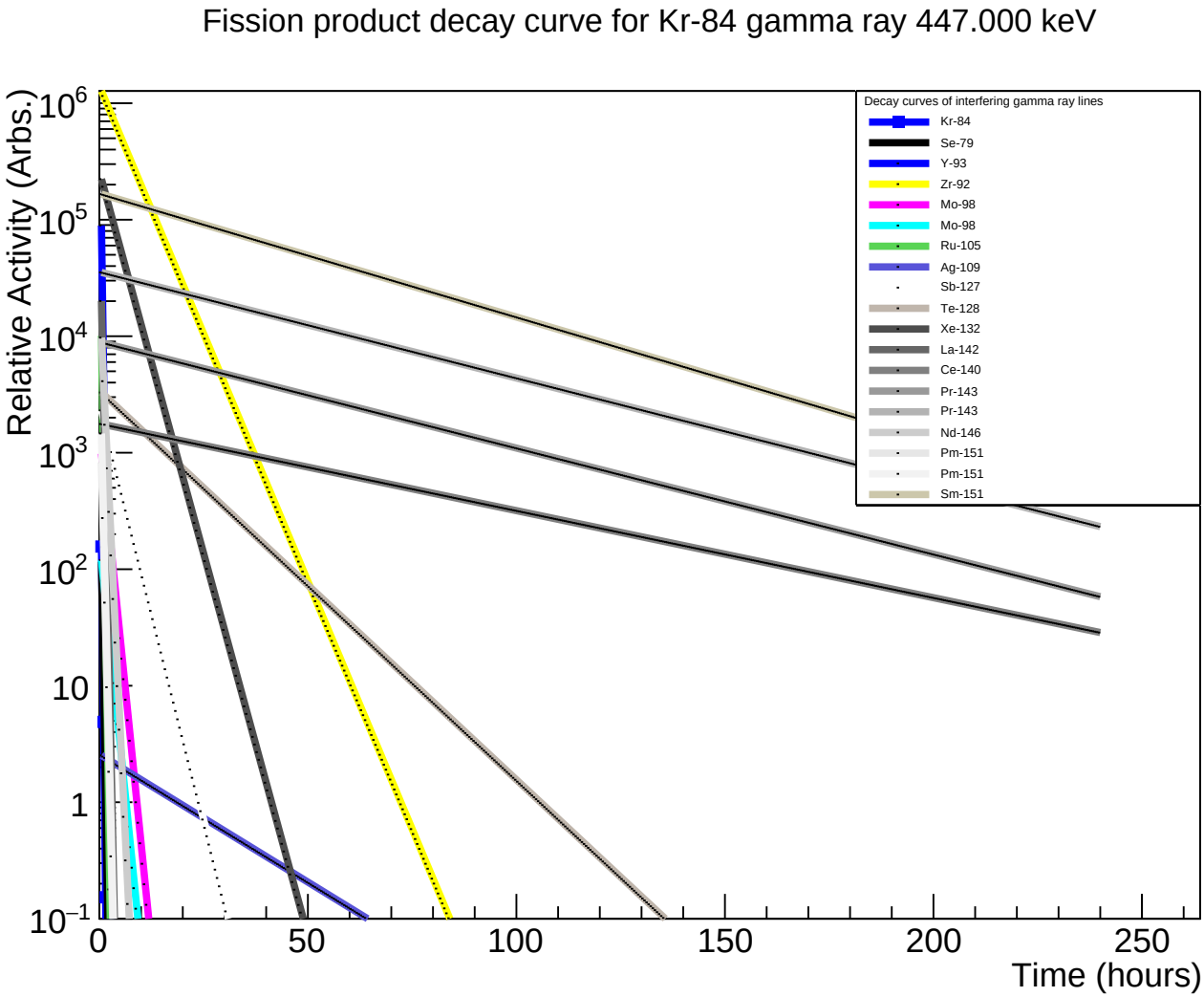


Figure 83: Kr-84 decay curve for 447.000 keV gamma ray.

3.84 Br-84 E_γ = 881.60 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 881.60 keV
Gamma Intensity = 98.00 ± 10.000 %
$T_{1/2}$ = 0.100 ± 0.003 hours or 6.00 ± 0.20 minutes
CFY: 0.017 ± 0.001 %

Table 167: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 168: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	882.000	0.002	1.512	0.000
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Te-131	I-131	881.150	0.000	0.417	0.025
Te-131	I-131	881.600	0.000	33.250	0.004
Te-133	I-133	880.700	0.001	0.208	0.031
Te-133	I-133	882.700	0.021	0.923	0.040
Cs-138	Ba-138	880.800	0.001	0.557	0.067
Ba-141	La-141	880.800	0.000	0.304	0.058
Ba-141	La-141	881.200	0.001	0.304	0.058
Ce-143	Pr-143	880.460	0.010	33.039	0.060
Pr-147	Nd-147	881.500	0.003	0.223	0.022
Nd-151	Pm-151	881.140	0.001	0.207	0.004
Pm-149	Sm-149	881.980	0.000	53.080	0.011

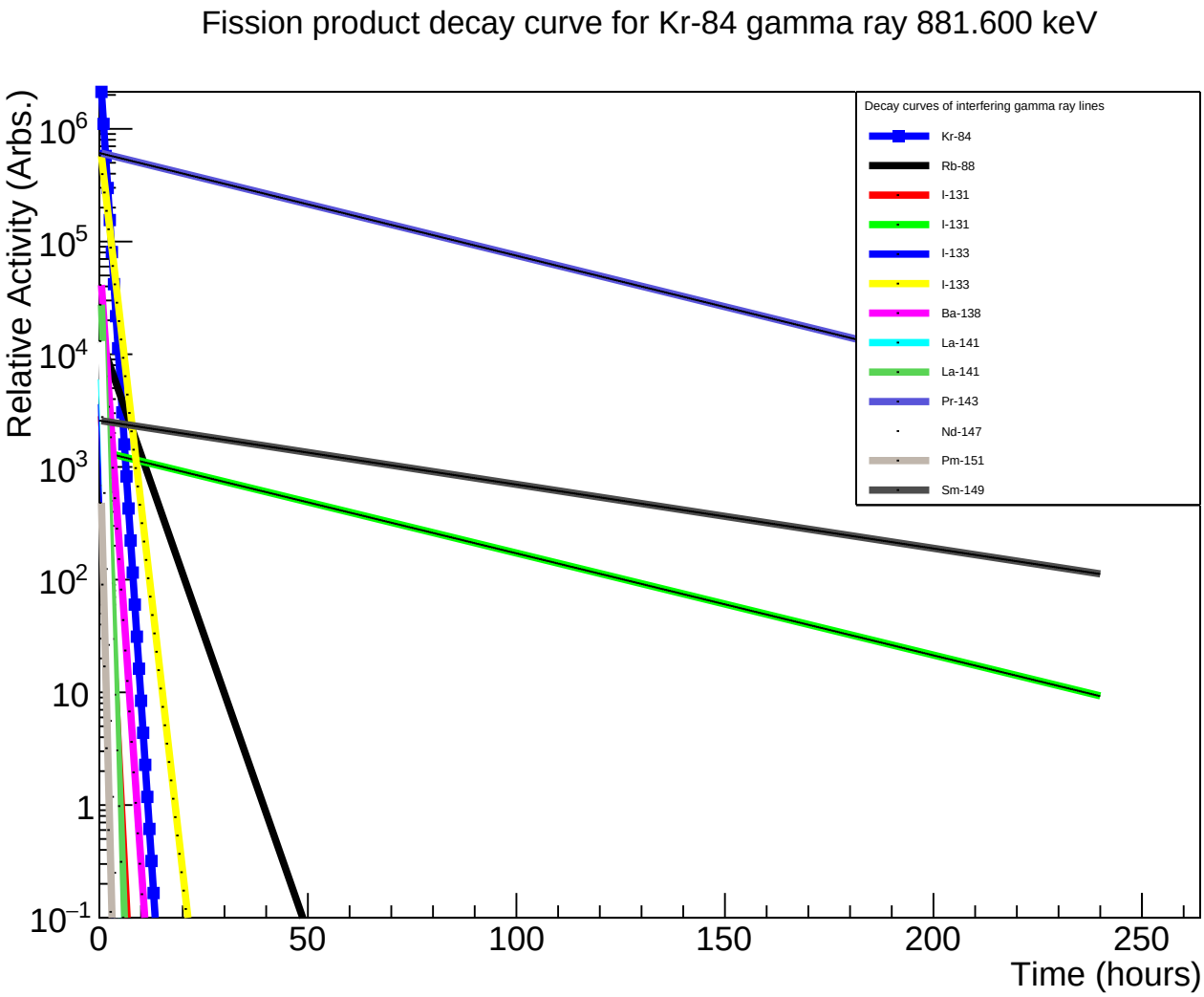


Figure 84: Kr-84 decay curve for 881.600 keV gamma ray.

3.85 Br-84 E_γ = 1462.80 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1462.80 keV
Gamma Intensity = 97.00 ± 10.000 %
$T_{1/2}$ = 0.100 ± 0.003 hours or 6.00 ± 0.20 minutes
CFY: 0.017 ± 0.001 %

Table 169: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 170: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1461.300	0.000	1.272	0.026
Cs-139	Ba-139	1462.430	0.000	0.155	0.063
Pr-146	Nd-146	1463.800	0.001	0.403	0.030
Nd-151	Pm-151	1461.600	0.000	0.207	0.004

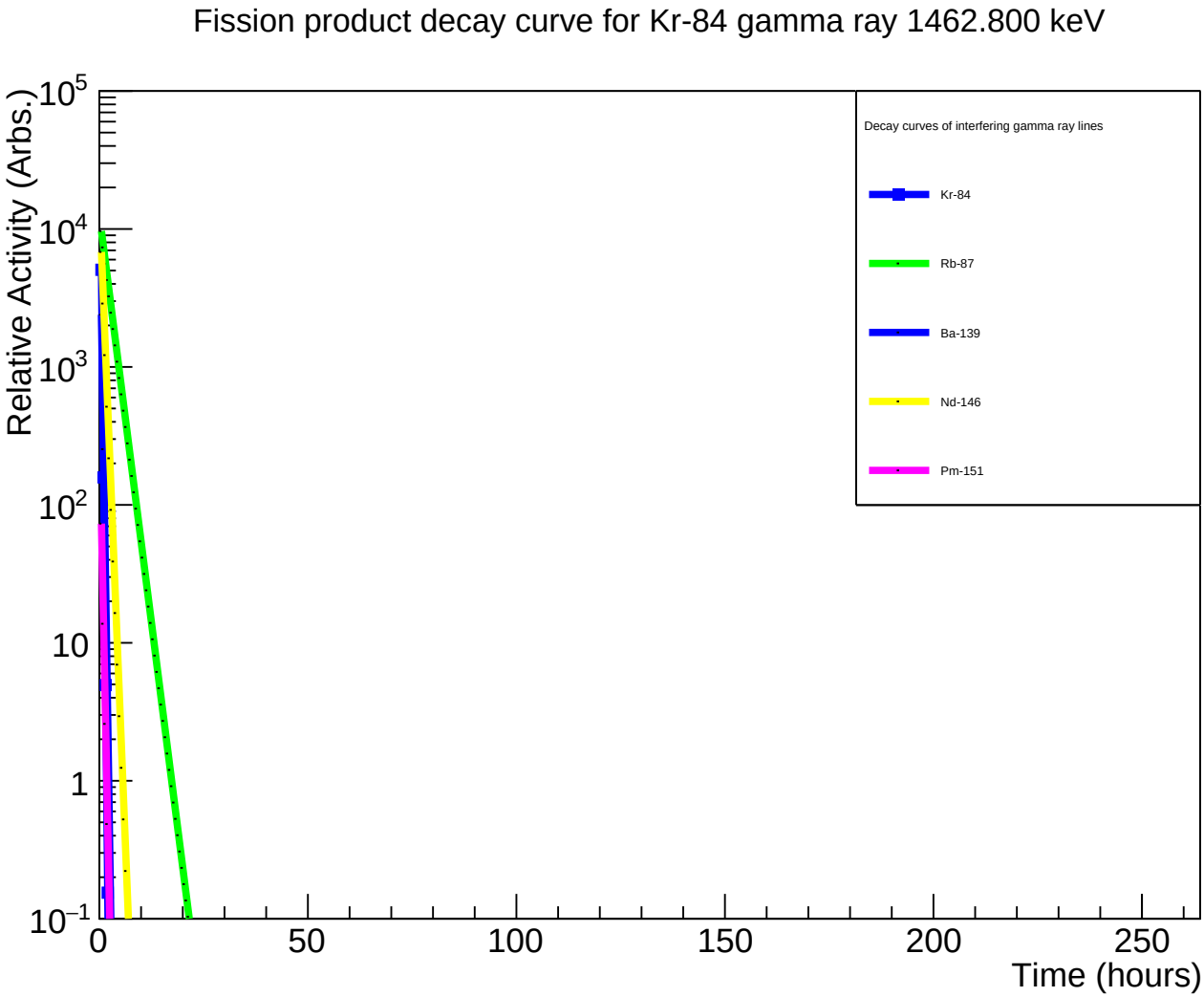


Figure 85: Kr-84 decay curve for 1462.800 keV gamma ray.

3.86 Br-84 E_γ = 1897.70 keV

Chemical element: Bromine
Fission product parent: Br-84
Gamma originates in daughter: Kr-84
Eγ: 1897.70 keV
Gamma Intensity = 2.00 ± 0.000 %
$T_{1/2}$ = 0.100 ± 0.003 hours or 6.00 ± 0.20 minutes
CFY: 0.017 ± 0.001 %

Table 171: Decay chain of fission product chain A = 84

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Arsenic-84	Selenium-84	0.001	0.000
Selenium-84	Bromine-84	0.054	0.002
Bromine-84	Krypton-84	0.529	0.001

Table 172: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-130	Te-130	1896.900	0.013	0.105	0.010
Te-133	I-133	1897.590	0.001	0.208	0.031

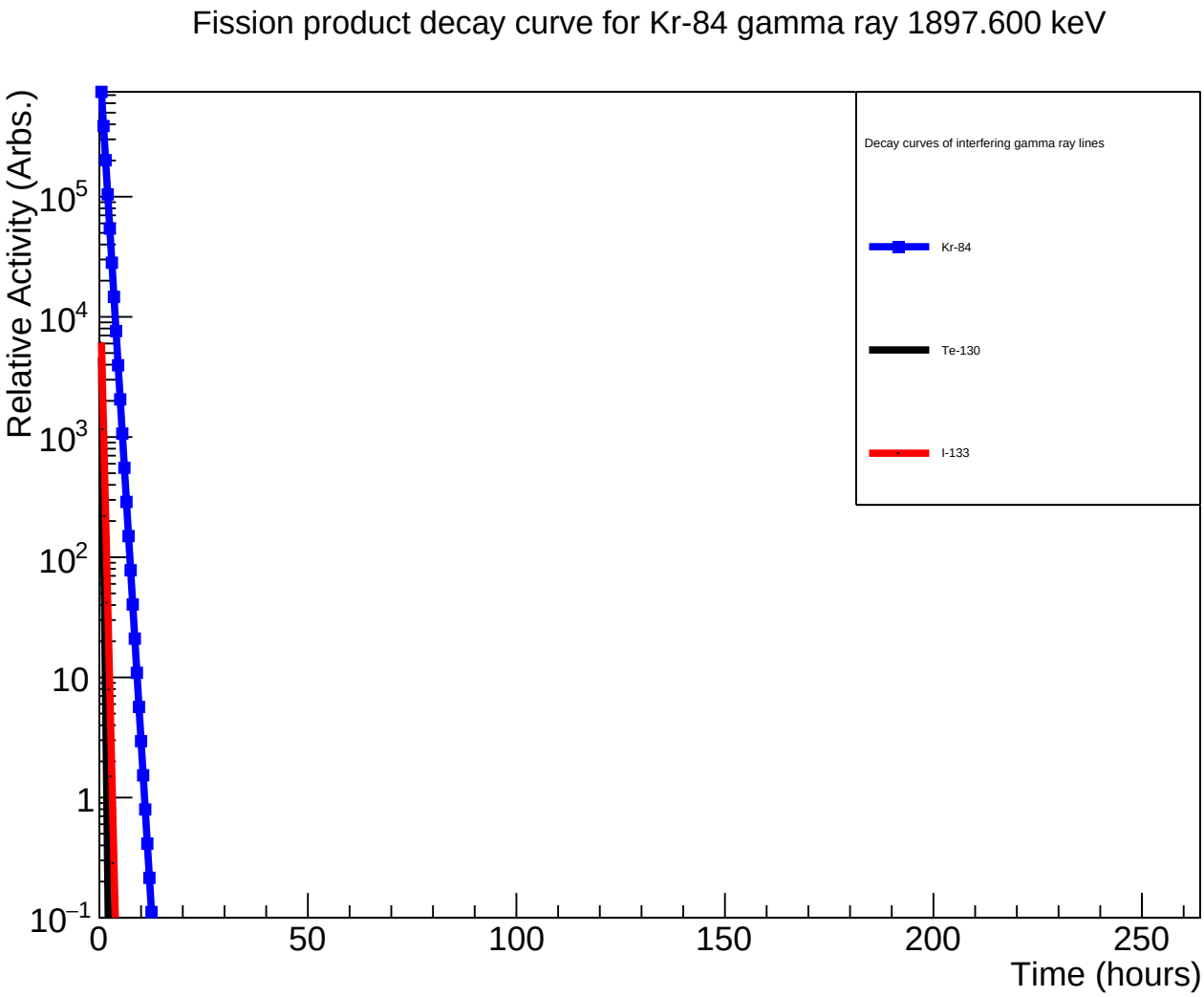


Figure 86: Kr-84 decay curve for 1897.700 keV gamma ray.

3.87 Kr-83 E_γ = 9.41 keV

Chemical element: Krypton
Fission product parent: Kr-83
Gamma originates in daughter: Rb-83
Eγ: 9.41 keV
Gamma Intensity = 5.78 ± 0.080 %
$T_{1/2}$ = 1.830 ± 0.020 hours or 109.80 ± 1.20 minutes
CFY: 0.536 ± 0.005 %

Table 173: Decay chain of fission product chain A = 83

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Germanium-83	Arsenic-83	0.001	0.000

Table 174: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	10.463	0.001	1.467	0.000
Ge-78	As-78	10.501	0.001	1.467	0.000
Mo-101	Tc-101	9.317	0.021	0.243	0.052
Xe-138	Cs-138	10.850	0.007	0.235	0.063
Eu-155	Gd-155	10.418	0.000	41666.668	0.000

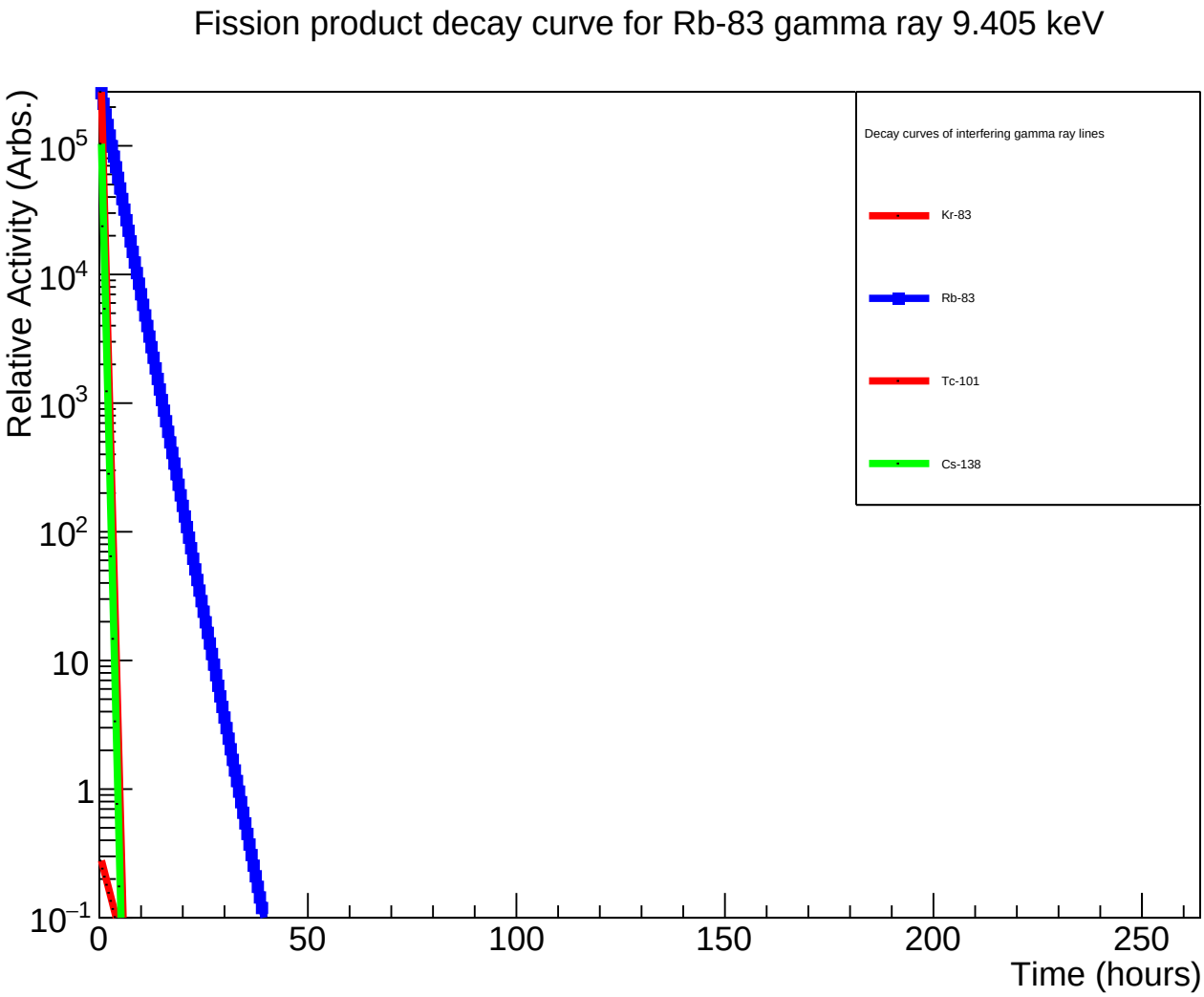


Figure 87: Rb-83 decay curve for 9.405 keV gamma ray.

3.88 Kr-85 E_γ = 151.20 keV

Chemical element: Krypton
Fission product parent: Kr-85
Gamma originates in daughter: Rb-85
Eγ: 151.20 keV
Gamma Intensity = 74.98 ± 4.512 %
$T_{1/2}$ = 4.480 ± 0.008 hours or 268.80 ± 0.48 minutes
CFY: 1.291 ± 0.005 %

Table 175: Decay chain of fission product chain A = 85

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-85	Bromine-85	0.009	0.000
Bromine-85	Krypton-85	0.048	0.001
Krypton-85	Rubidium-85	94166.664	157.788

Table 176: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	151.800	0.000	0.855	0.000
Tc-104	Ru-104	150.800	0.004	0.305	0.019
Sb-128	Te-128	152.600	0.005	9.010	0.000
Te-131	I-131	149.716	0.688	0.417	0.025
Te-131	I-131	151.100	0.002	0.417	0.025
Te-131	I-131	149.710	0.049	33.250	0.004
Te-131	I-131	151.200	0.001	33.250	0.004
Te-133	I-133	150.800	0.009	0.923	0.040
I-133	Xe-133	150.390	0.000	20.800	0.067
I-134	Xe-134	151.980	0.001	0.875	0.078
Pm-151	Sm-151	150.100	0.000	28.400	0.004
Sm-153	Eu-153	151.624	0.000	46.500	0.002

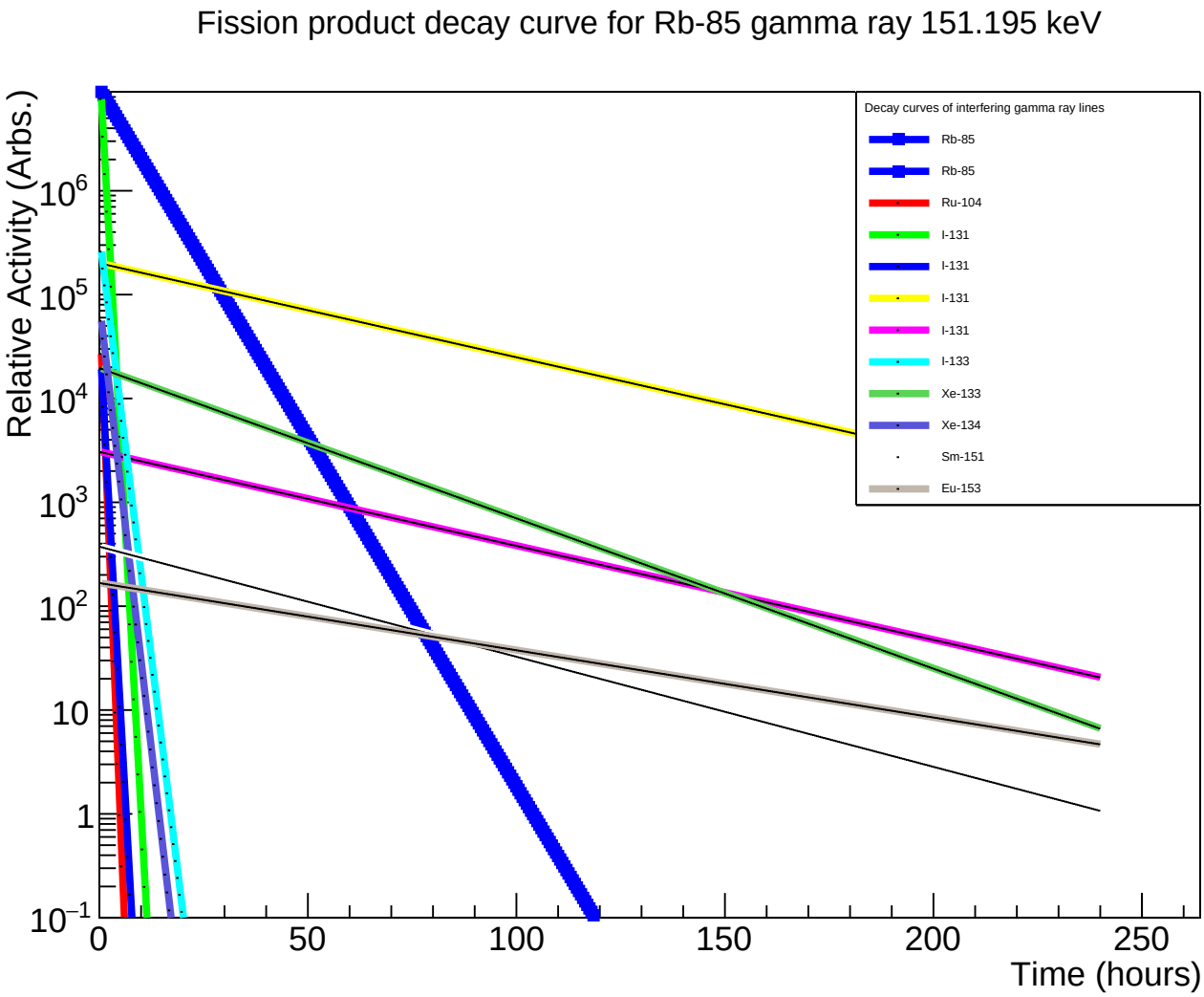


Figure 88: Rb-85 decay curve for 151.195 keV gamma ray.

3.89 Kr-85 E_γ = 304.87 keV

Chemical element: Krypton
Fission product parent: Kr-85
Gamma originates in daughter: Rb-85
Eγ: 304.87 keV
Gamma Intensity = 14.02 ± 0.352 %
$T_{1/2}$ = 4.480 ± 0.008 hours or 268.80 ± 0.48 minutes
CFY: 1.291 ± 0.005 %

Table 177: Decay chain of fission product chain A = 85

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-85	Bromine-85	0.009	0.000
Bromine-85	Krypton-85	0.048	0.001
Krypton-85	Rubidium-85	94166.664	157.788

Table 178: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Tc-105	Ru-105	304.500	0.011	0.127	0.010
Tc-105	Ru-105	305.500	0.011	0.127	0.010
Rh-105	Pd-105	306.311	0.053	35.360	0.010
Sn-127	Sb-127	305.900	0.001	2.100	0.001
Te-131	I-131	303.900	0.000	33.250	0.004
I-135	Xe-135	304.910	0.000	6.570	0.063
I-135	Xe-135	305.830	0.001	6.570	0.063
Ba-140	La-140	304.849	0.043	306.065	0.062
Ba-141	La-141	304.190	0.254	0.304	0.058
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Pm-149	Sm-149	305.220	0.000	53.080	0.011

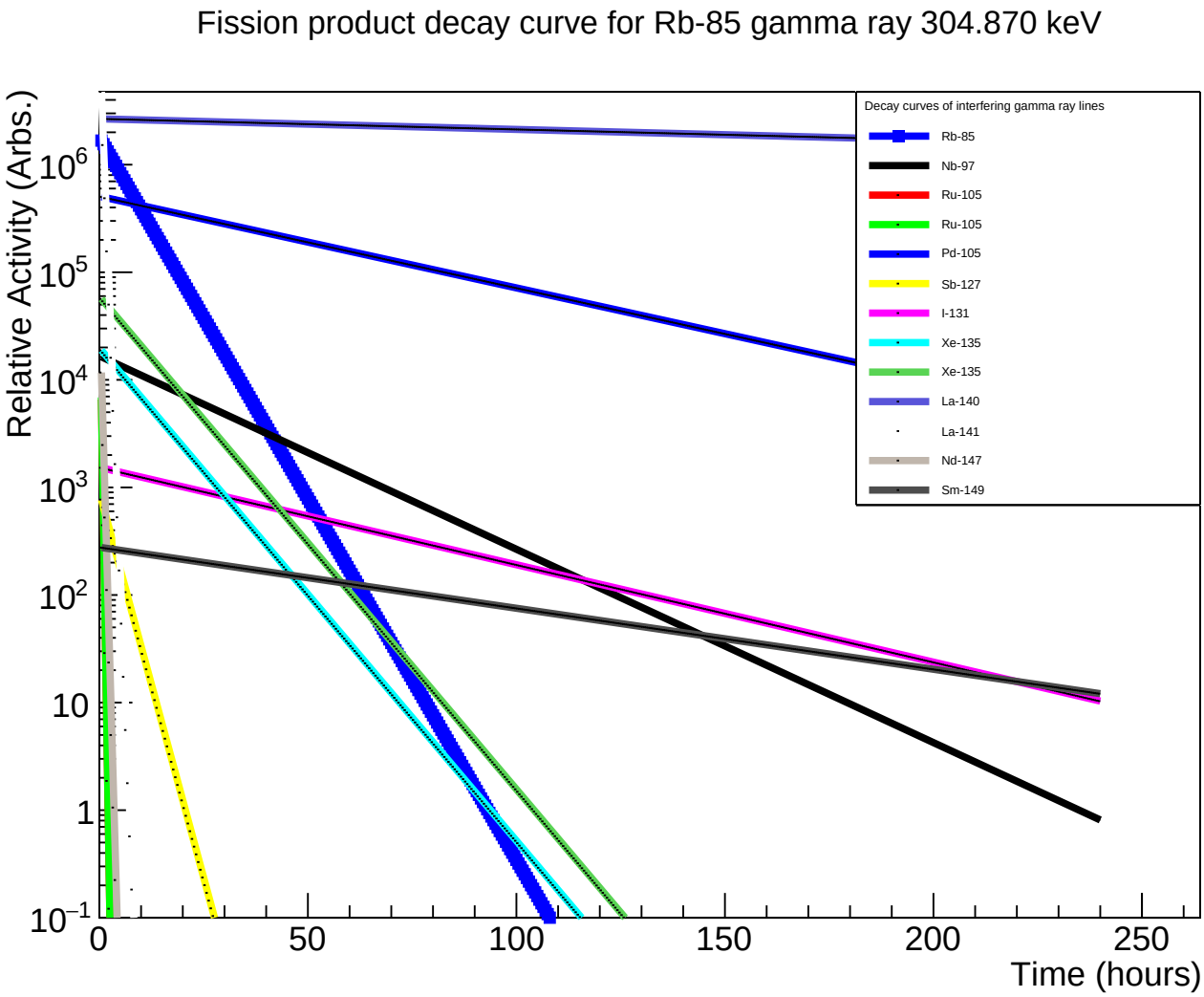


Figure 89: Rb-85 decay curve for 304.870 keV gamma ray.

3.90 Kr-87 E_γ = 402.59 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 402.59 keV
Gamma Intensity = 49.60 ± 3.114 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 179: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 180: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	402.300	0.001	0.150	0.000
Nb-98	Mo-98	401.990	0.002	0.855	0.000
Ag-112	Cd-112	402.000	0.000	3.130	0.000
Sb-125	Te-125	401.950	0.000	24194.445	0.000
Te-131	I-131	402.360	0.000	0.417	0.025
Te-131	I-131	403.300	0.000	0.417	0.025
Te-131	I-131	403.300	0.000	33.250	0.004
I-135	Xe-135	403.030	0.002	6.570	0.063
Xe-138	Cs-138	401.360	0.022	0.235	0.063
Pr-145	Nd-145	402.101	0.000	5.984	0.039
Nd-151	Pm-151	402.330	0.003	0.207	0.004

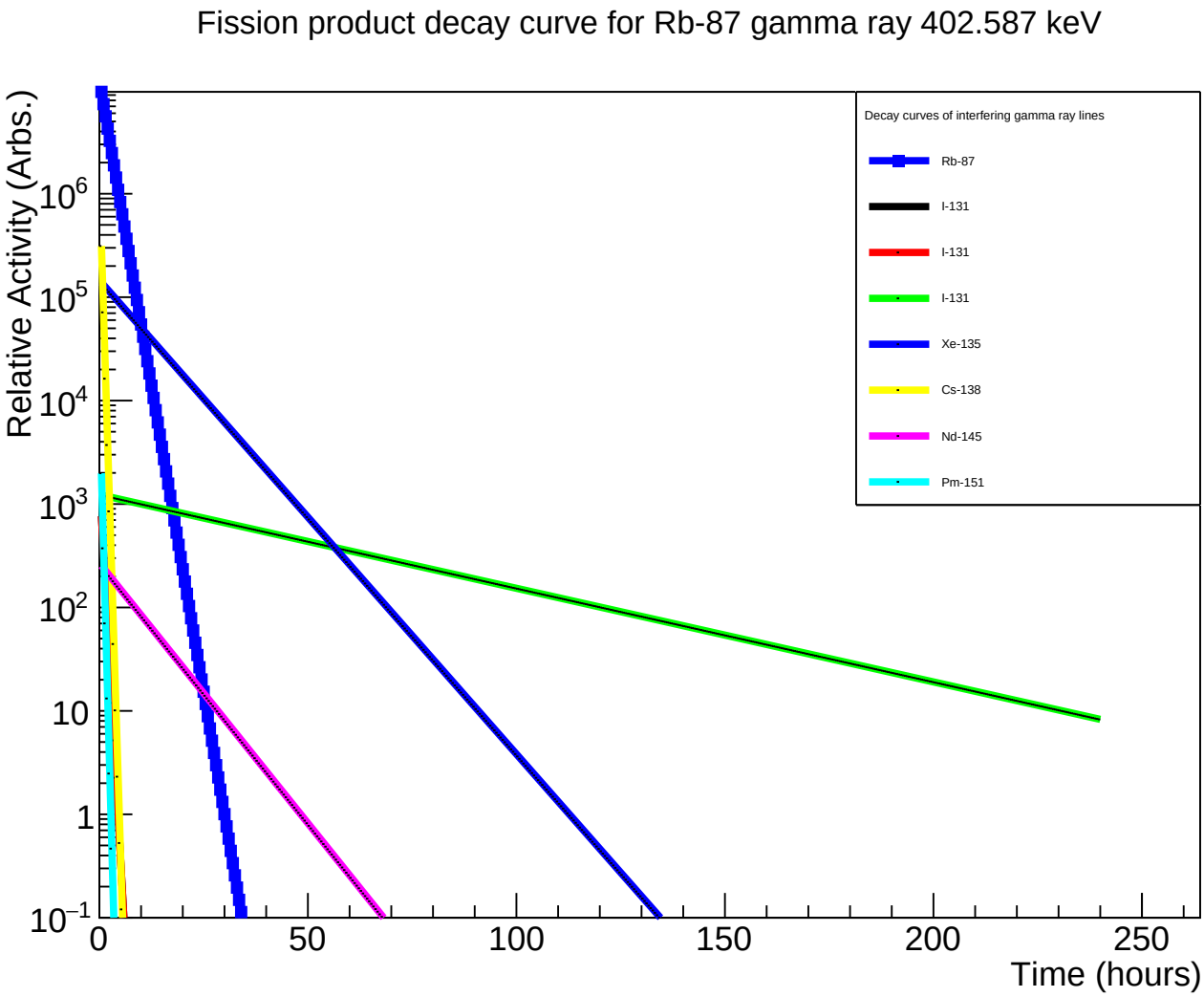


Figure 90: Rb-87 decay curve for 402.587 keV gamma ray.

3.91 Kr-87 E_γ = 673.83 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 673.83 keV
Gamma Intensity = 1.89 ± 0.104 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 181: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 182: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	672.590	0.006	0.855	0.000
Ba-142	La-142	674.400	0.001	0.177	0.058
Ba-142	La-142	674.700	0.001	0.177	0.058
Pr-144	Nd-144	674.950	0.000	0.288	0.055
Nd-149	Pm-149	673.580	0.000	1.728	0.011
Nd-151	Pm-151	673.220	0.001	0.207	0.004

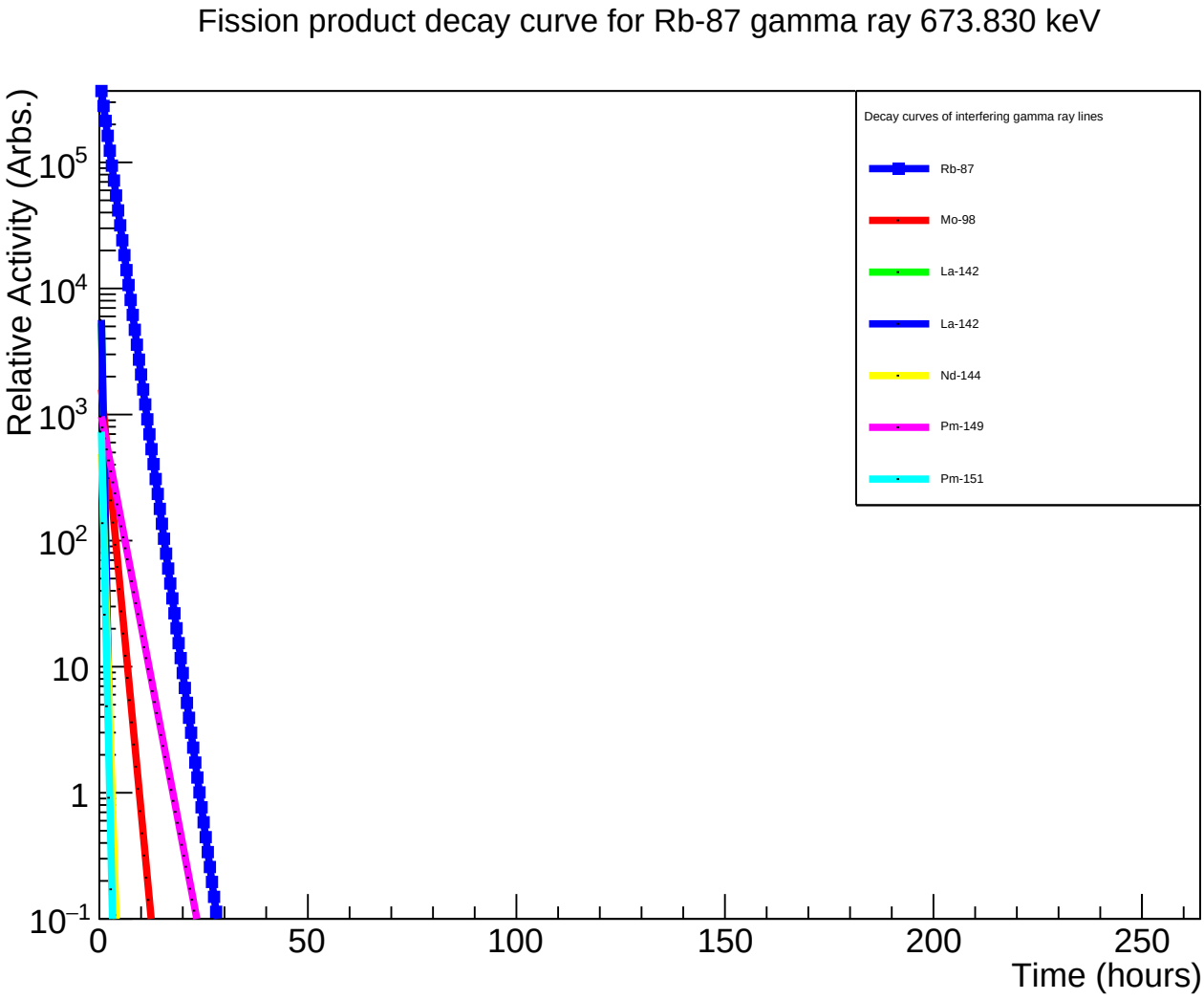


Figure 91: Rb-87 decay curve for 673.830 keV gamma ray.

3.92 Kr-87 E_γ = 845.44 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 845.44 keV
Gamma Intensity = 7.34 ± 0.407 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 183: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 184: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	844.300	0.013	3.540	0.060
Ru-105	Rh-105	845.910	0.006	4.440	0.010
Ru-105	Rh-105	846.900	0.000	4.440	0.010
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Sb-128	Te-128	845.800	0.025	9.010	0.000
Sb-128	Te-128	844.000	0.022	0.173	0.003
Te-129	I-129	844.810	0.000	806.400	0.001
Te-131	I-131	844.900	0.001	33.250	0.004
Te-133	I-133	844.360	0.033	0.208	0.031
Te-134	I-134	844.060	0.012	0.697	0.070
Ba-141	La-141	846.600	0.001	0.304	0.058
Pr-147	Nd-147	846.900	0.008	0.223	0.022

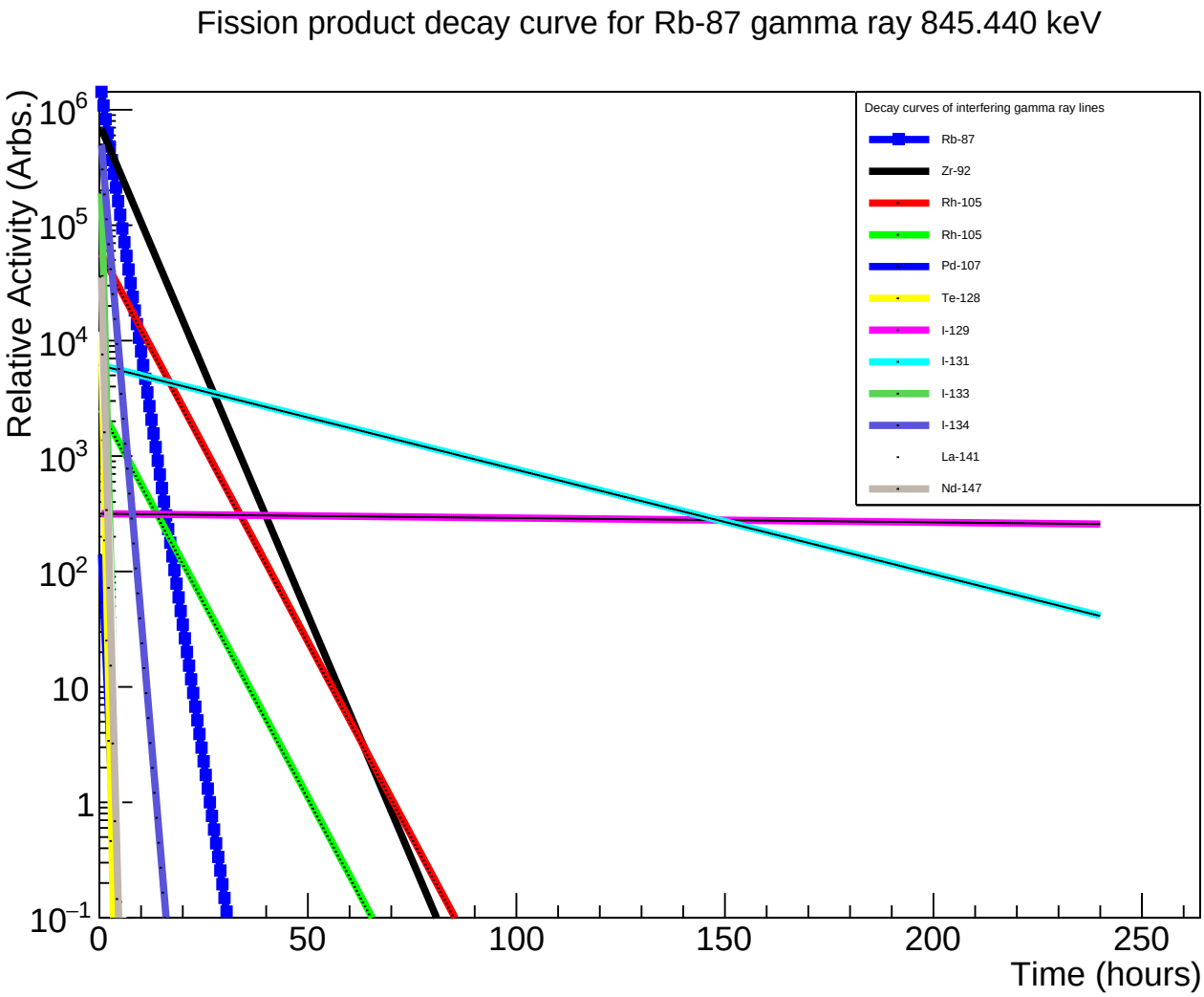


Figure 92: Rb-87 decay curve for 845.440 keV gamma ray.

3.93 Kr-87 E_γ = 1175.40 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 1175.40 keV
Gamma Intensity = 1.11 ± 0.064 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 185: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 186: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-129	I-129	1176.000	0.000	806.400	0.001
Te-133	I-133	1174.000	0.004	0.923	0.040
La-142	Ce-142	1176.400	0.001	1.518	0.058
Nd-149	Pm-149	1175.750	0.000	1.728	0.011
Nd-151	Pm-151	1174.900	0.000	0.207	0.004
Sm-155	Eu-155	1174.500	0.000	0.372	0.000

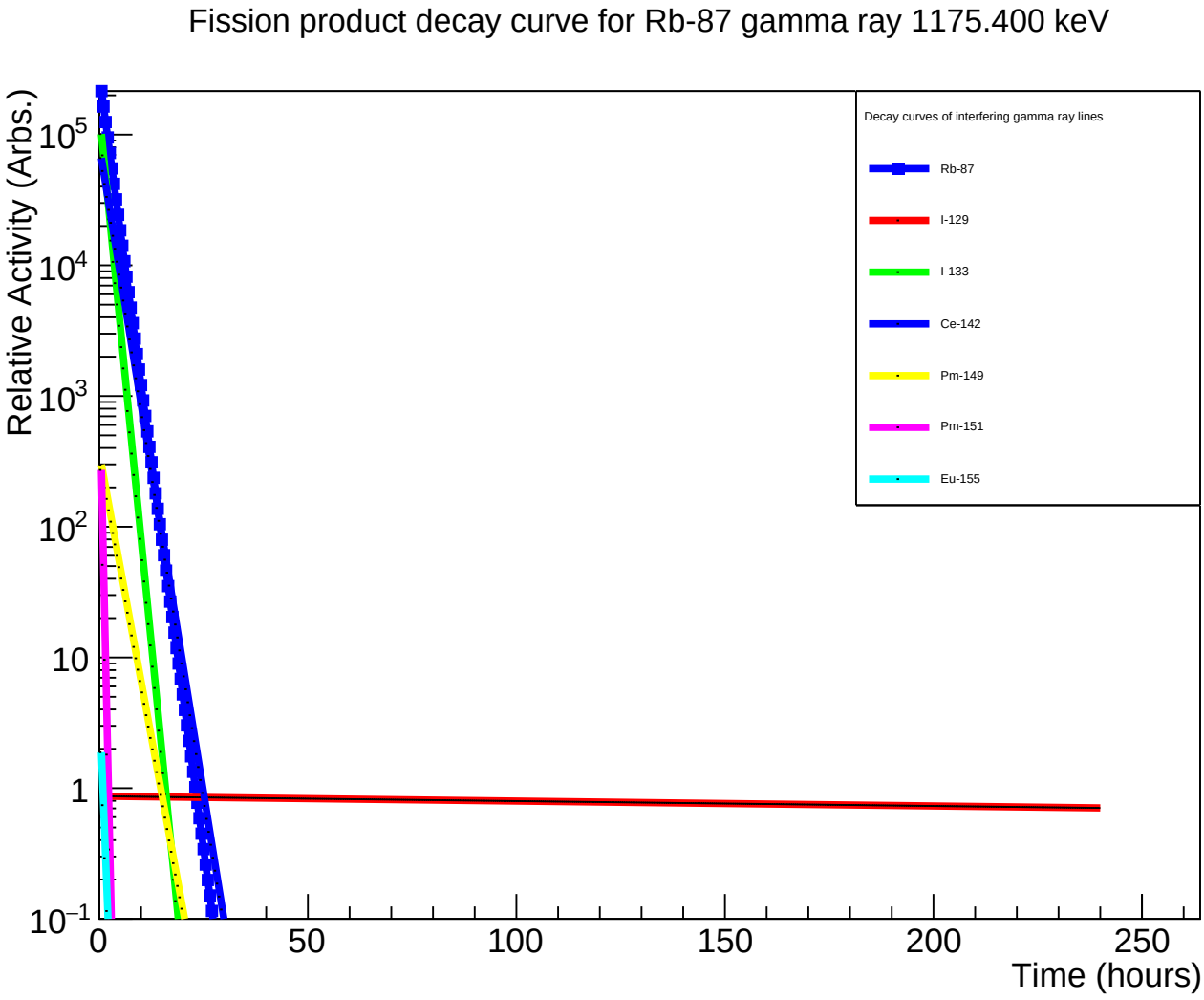


Figure 93: Rb-87 decay curve for 1175.400 keV gamma ray.

3.94 Kr-87 E_γ = 1740.52 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 1740.52 keV
Gamma Intensity = 2.04 ± 0.108 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 187: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 188: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1741.200	0.016	0.529	0.010
Te-133	I-133	1741.570	0.001	0.208	0.031
I-134	Xe-134	1741.490	0.026	0.875	0.078
Ba-141	La-141	1740.600	0.003	0.304	0.058
La-143	Ce-143	1740.700	0.001	0.237	0.059

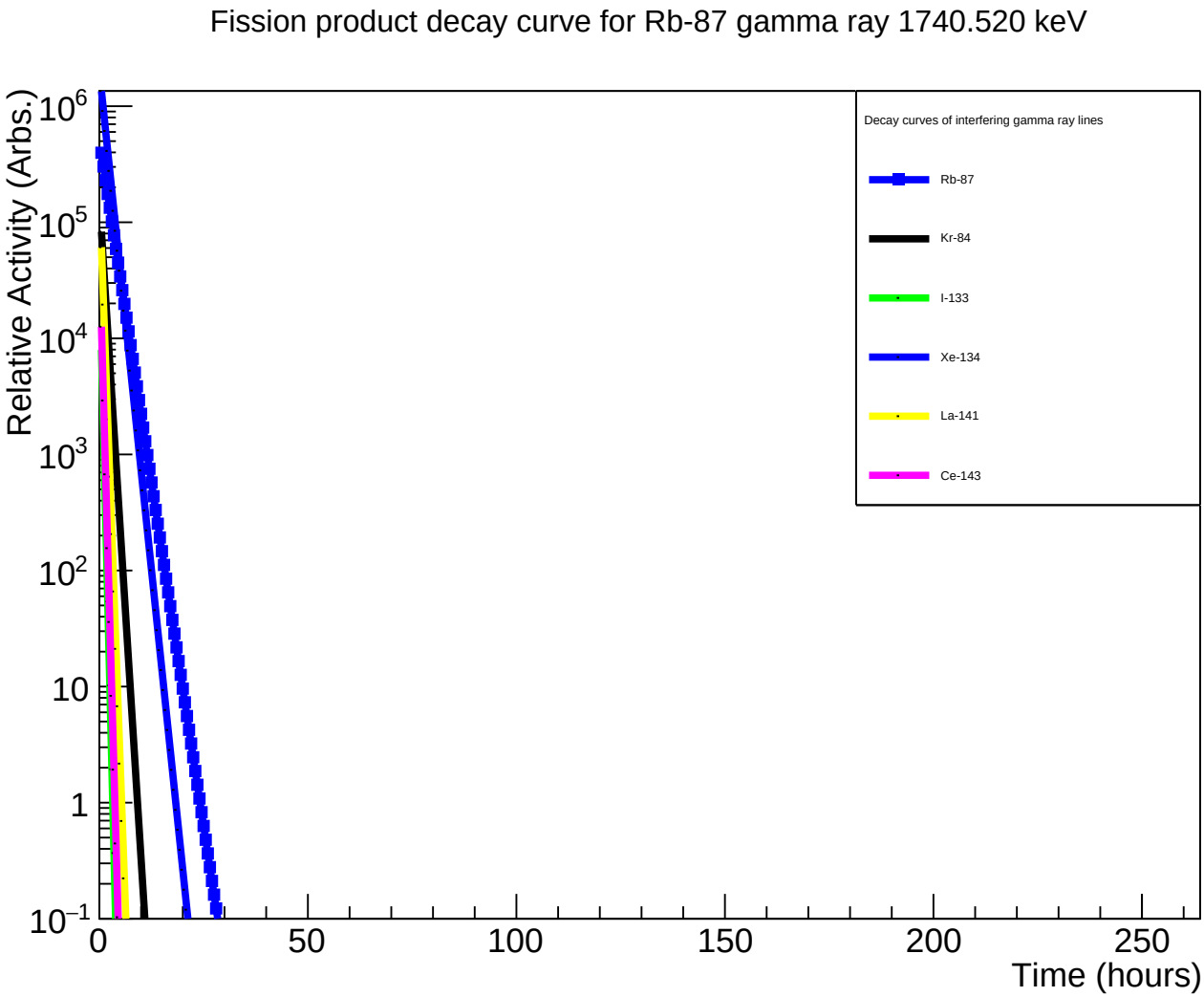


Figure 94: Rb-87 decay curve for 1740.520 keV gamma ray.

3.95 Kr-87 E_γ = 2011.88 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 2011.88 keV
Gamma Intensity = 2.88 ± 0.180 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 189: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 190: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2010.800	0.001	0.124	0.062
Nd-151	Pm-151	2010.920	0.000	0.207	0.004

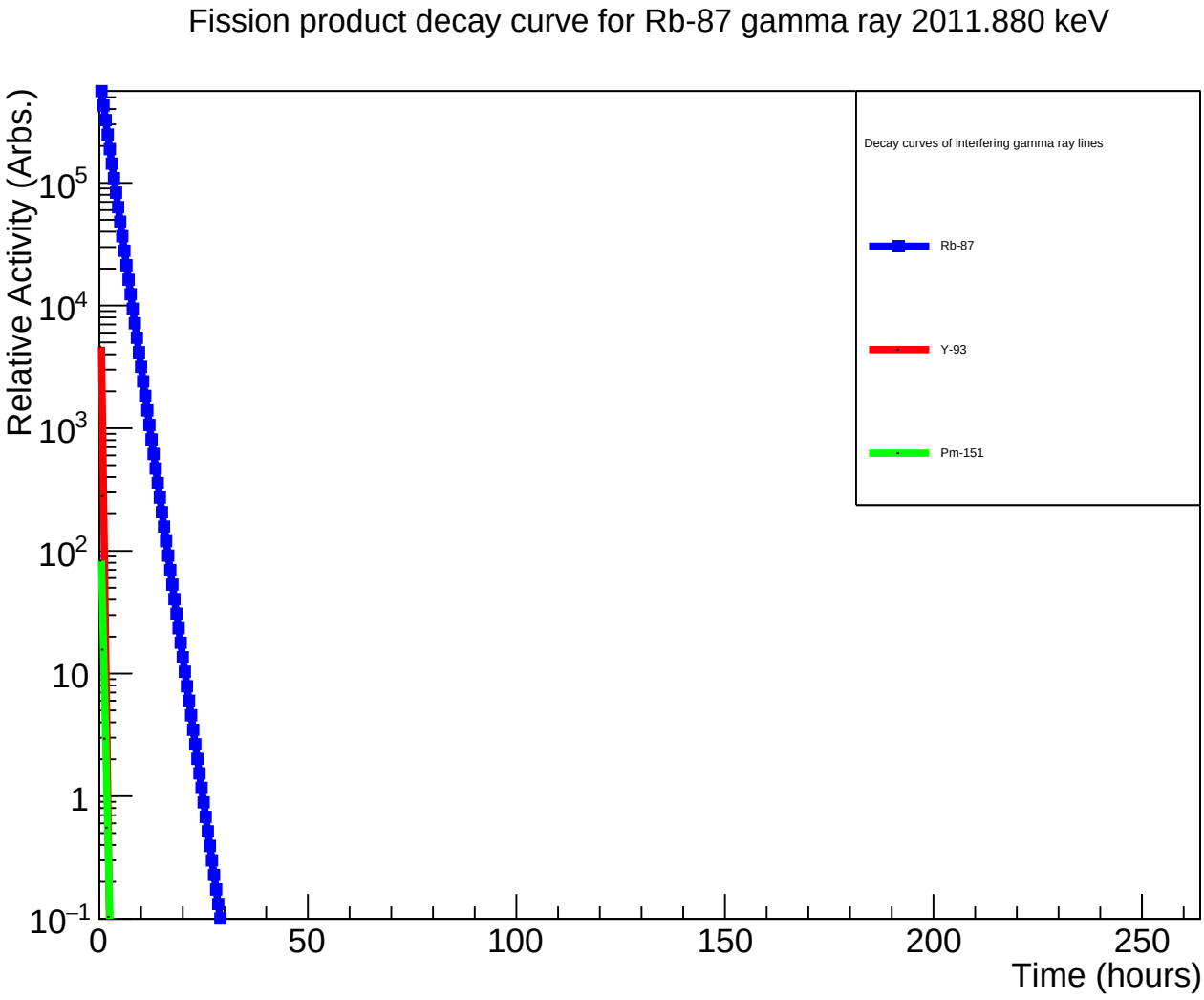


Figure 95: Rb-87 decay curve for 2011.880 keV gamma ray.

3.96 Kr-87 E_γ = 2554.80 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 2554.80 keV
Gamma Intensity = 9.23 ± 0.631 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 191: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 192: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2554.190	0.003	0.208	0.031

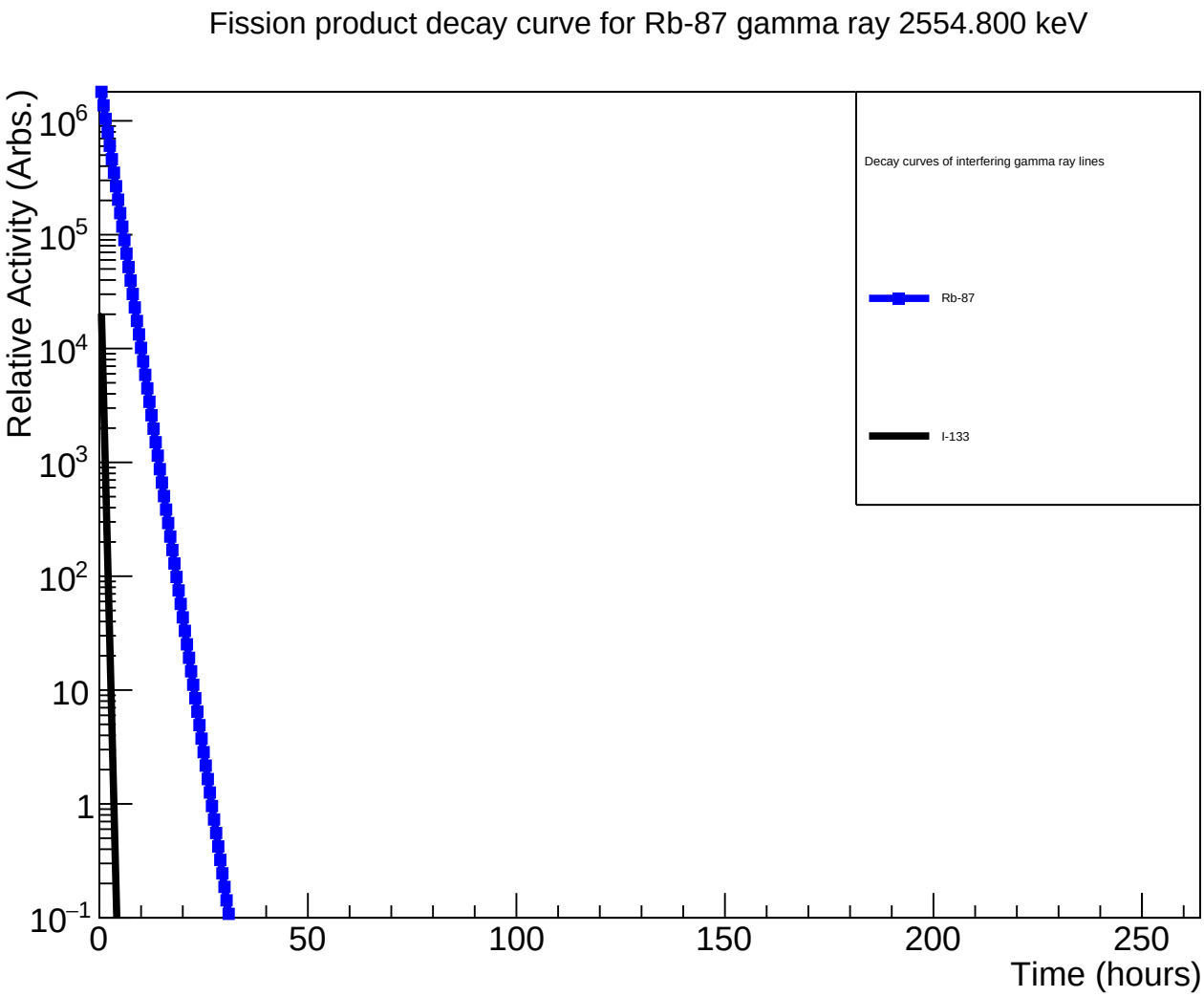


Figure 96: Rb-87 decay curve for 2554.800 keV gamma ray.

3.97 Kr-87 E_γ = 2558.10 keV

Chemical element: Krypton
Fission product parent: Kr-87
Gamma originates in daughter: Rb-87
Eγ: 2558.10 keV
Gamma Intensity = 3.92 ± 0.312 %
$T_{1/2}$ = 1.272 ± 0.008 hours or 76.30 ± 0.50 minutes
CFY: 2.558 ± 0.026 %

Table 193: Decay chain of fission product chain A = 87

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Selenium-87	Bromine-87	0.002	0.000
Bromine-87	Krypton-87	0.015	0.000
Krypton-87	Rubidium-87	1.272	0.008

Table 194: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

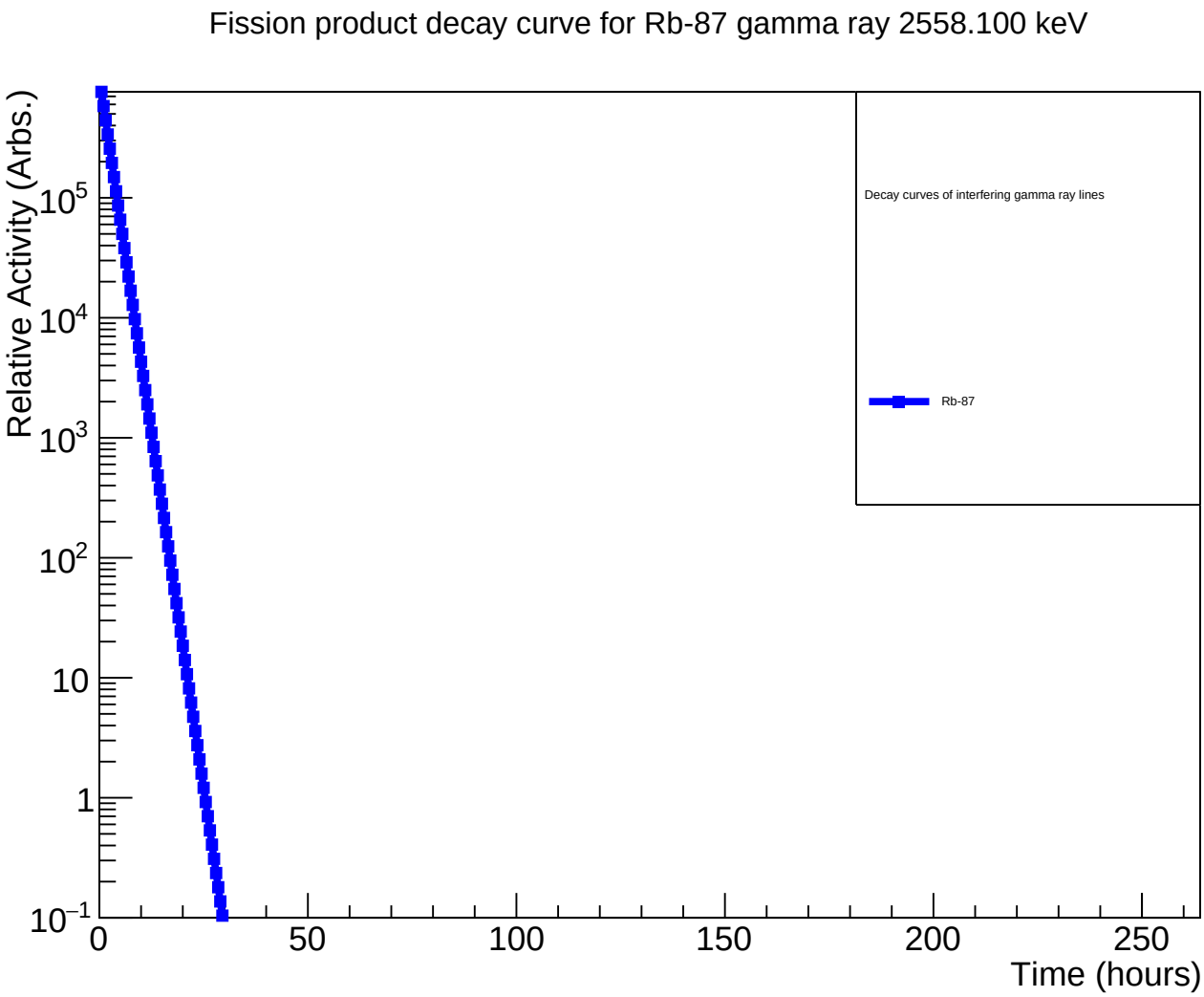


Figure 97: Rb-87 decay curve for 2558.100 keV gamma ray.

3.98 Kr-88 E_γ = 27.51 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 27.51 keV
Gamma Intensity = 1.96 ± 0.163 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 195: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

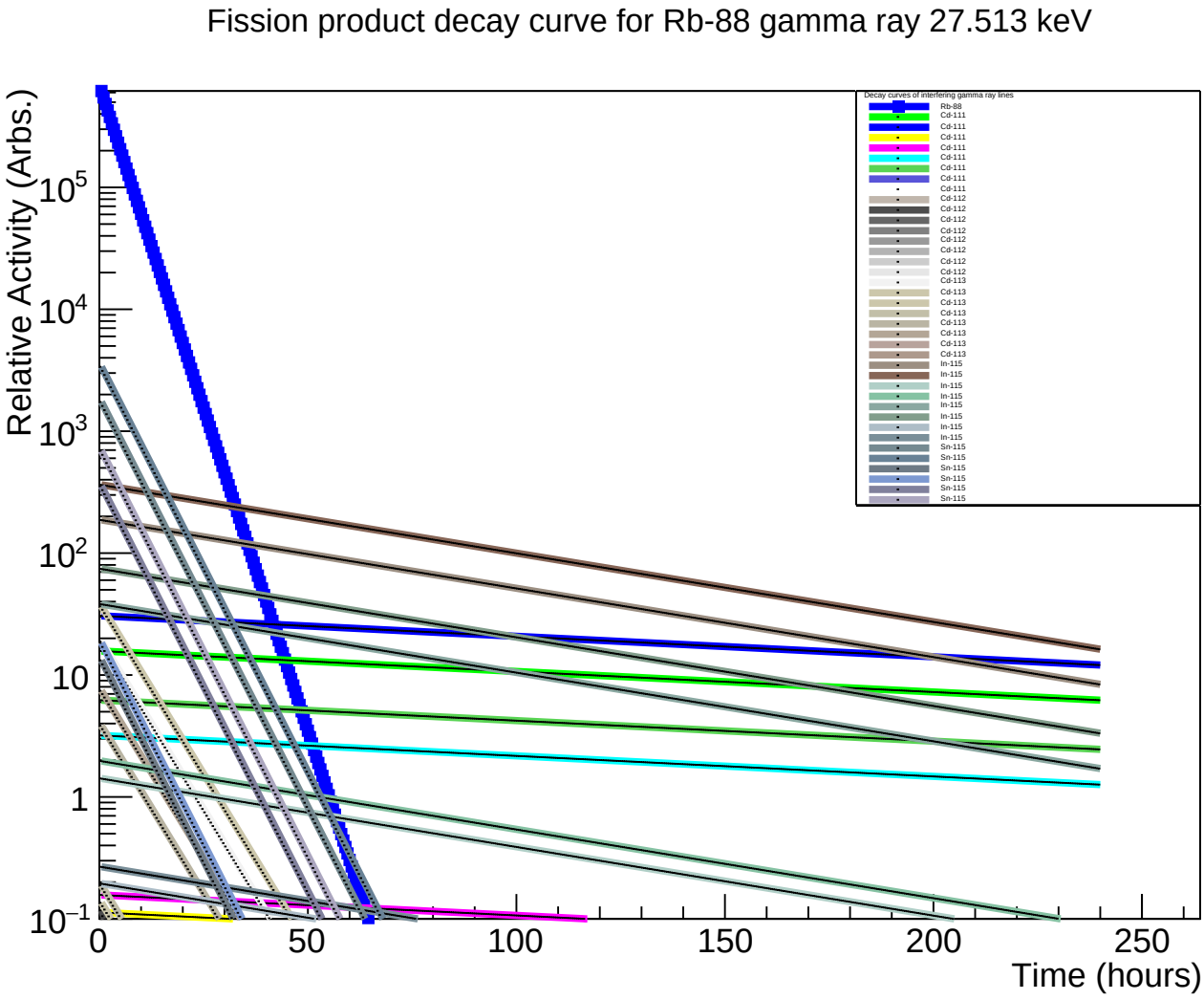


Figure 98: Rb-88 decay curve for 27.513 keV gamma ray.

Table 196: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-111	Cd-111	26.040	0.000	178.800	0.000
Ag-111	Cd-111	26.075	0.000	178.800	0.000
Ag-111	Cd-111	26.268	0.000	178.800	0.000
Ag-111	Cd-111	26.275	0.000	178.800	0.000
Ag-111	Cd-111	26.610	0.000	178.800	0.000
Ag-111	Cd-111	26.616	0.000	178.800	0.000
Ag-111	Cd-111	26.670	0.000	178.800	0.000
Ag-111	Cd-111	26.671	0.000	178.800	0.000
Ag-112	Cd-112	26.040	0.000	3.130	0.000
Ag-112	Cd-112	26.075	0.000	3.130	0.000
Ag-112	Cd-112	26.268	0.000	3.130	0.000
Ag-112	Cd-112	26.275	0.000	3.130	0.000
Ag-112	Cd-112	26.610	0.000	3.130	0.000
Ag-112	Cd-112	26.616	0.000	3.130	0.000
Ag-112	Cd-112	26.670	0.000	3.130	0.000
Ag-112	Cd-112	26.671	0.000	3.130	0.000
Ag-113	Cd-113	26.040	0.000	5.370	0.000
Ag-113	Cd-113	26.075	0.000	5.370	0.000
Ag-113	Cd-113	26.268	0.000	5.370	0.000
Ag-113	Cd-113	26.275	0.000	5.370	0.000
Ag-113	Cd-113	26.610	0.000	5.370	0.000
Ag-113	Cd-113	26.616	0.000	5.370	0.000
Ag-113	Cd-113	26.670	0.000	5.370	0.000
Ag-113	Cd-113	26.671	0.000	5.370	0.000
Cd-115	In-115	27.221	0.002	53.460	0.000
Cd-115	In-115	27.260	0.003	53.460	0.000
Cd-115	In-115	27.460	0.000	53.460	0.000
Cd-115	In-115	27.468	0.000	53.460	0.000
Cd-115	In-115	27.830	0.000	53.460	0.000
Cd-115	In-115	27.837	0.001	53.460	0.000
Cd-115	In-115	27.896	0.000	53.460	0.000
Cd-115	In-115	27.896	0.000	53.460	0.000
In-115	Sn-115	27.221	0.016	4.486	0.000
In-115	Sn-115	27.260	0.031	4.486	0.000
In-115	Sn-115	27.460	0.000	4.486	0.000
In-115	Sn-115	27.468	0.000	4.486	0.000
In-115	Sn-115	27.830	0.003	4.486	0.000
In-115	Sn-115	27.837	0.006	4.486	0.000

3.99 Kr-88 E_γ = 165.98 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 165.98 keV
Gamma Intensity = 3.10 ± 0.144 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 197: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 198: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	166.600	0.006	0.124	0.062
Tc-105	Ru-105	164.800	0.003	0.127	0.010
Pd-111	Ag-111	166.000	0.000	0.390	0.000
I-135	Xe-135	165.740	0.000	6.570	0.063
Ba-139	La-139	165.857	0.238	1.384	0.064
Nd-151	Pm-151	165.990	0.001	0.207	0.004
Sm-153	Eu-153	166.555	0.000	46.500	0.002
Sm-155	Eu-155	167.160	0.000	0.372	0.000
Sm-156	Eu-156	165.800	0.127	9.400	0.000

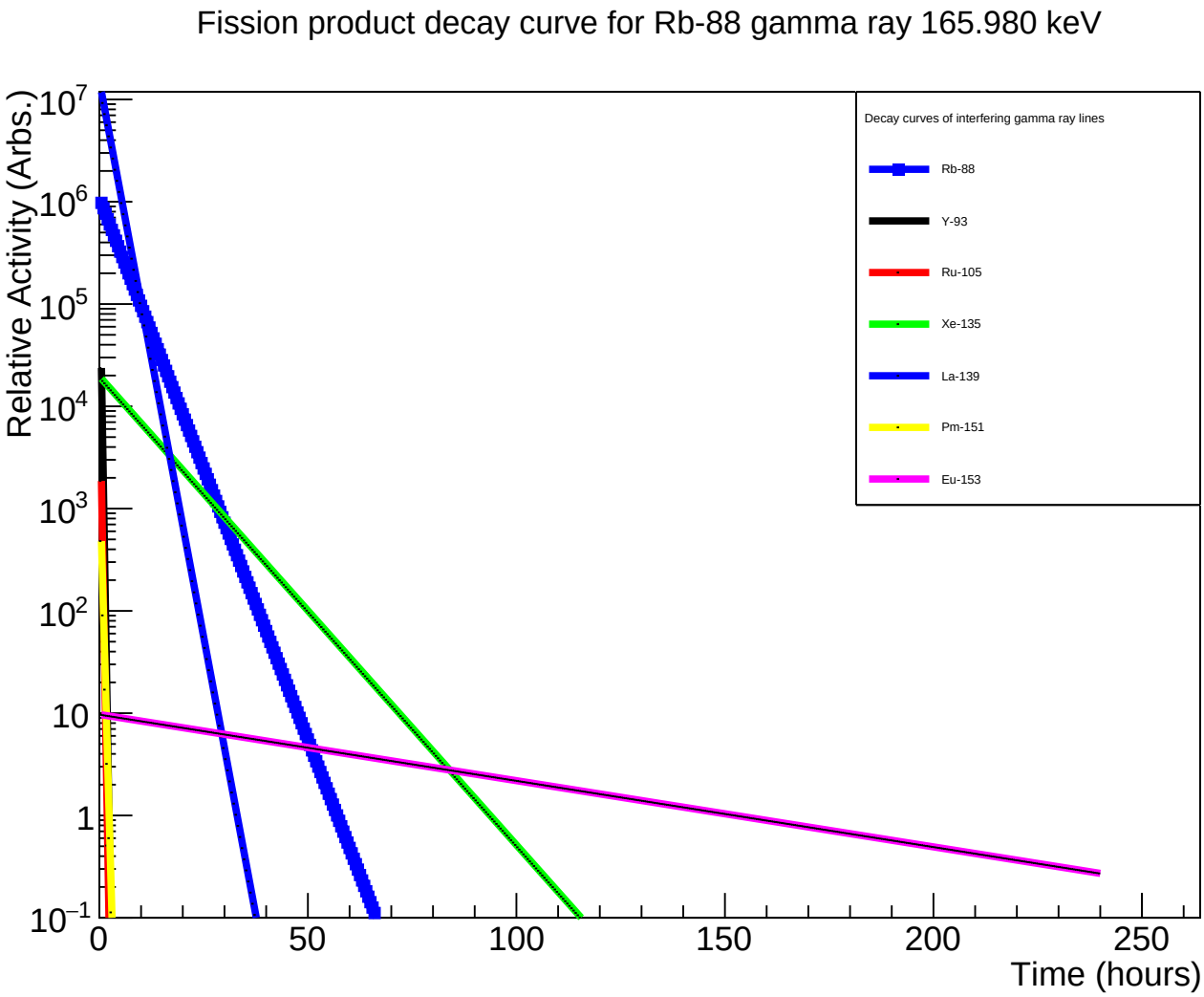


Figure 99: Rb-88 decay curve for 165.980 keV gamma ray.

3.100 Kr-88 E_γ = 196.30 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 196.30 keV
Gamma Intensity = 25.98 ± 1.214 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 199: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 200: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	195.660	0.001	0.855	0.000
Mo-101	Tc-101	195.930	0.028	0.243	0.052
Sn-127	Sb-127	195.000	0.001	2.100	0.001
I-135	Xe-135	197.190	0.000	6.570	0.063
Cs-139	Ba-139	196.510	0.000	0.155	0.063
Ce-143	Pr-143	197.600	0.000	33.039	0.060
Nd-147	Pm-147	196.640	0.002	263.520	0.022
Nd-149	Pm-149	197.400	0.000	1.728	0.011
Nd-151	Pm-151	197.270	0.002	0.207	0.004
Pm-147	Sm-147	197.299	0.000	23000.000	0.022
Pm-151	Sm-151	195.500	0.000	28.400	0.004
Sm-155	Eu-155	195.700	0.000	0.372	0.000

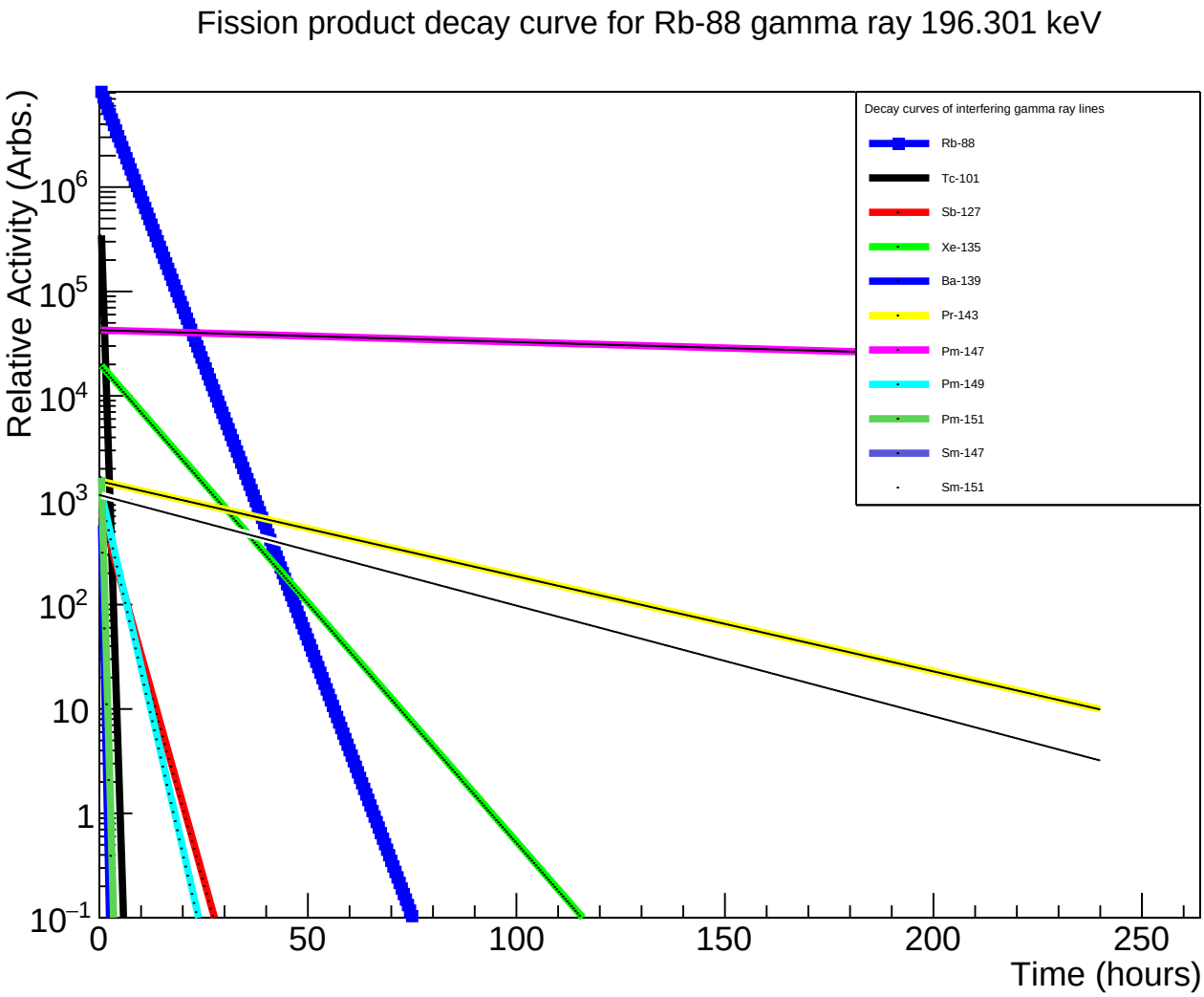


Figure 100: Rb-88 decay curve for 196.301 keV gamma ray.

3.101 Kr-88 E_γ = 362.23 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 362.23 keV
Gamma Intensity = 2.25 ± 0.118 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 201: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 202: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	363.500	0.000	231.360	0.000
Sn-127	Sb-127	362.700	0.004	2.100	0.001
Sb-129	Te-129	363.000	0.004	4.400	0.005
Te-131	I-131	362.300	0.001	33.250	0.004
Te-133	I-133	360.800	0.000	0.923	0.040
Te-133	I-133	363.060	0.005	0.923	0.040
I-132	Xe-132	363.340	0.005	2.295	0.043
I-133	Xe-133	361.090	0.001	20.800	0.067
I-135	Xe-135	361.850	0.002	6.570	0.063
La-142	Ce-142	361.100	0.001	1.518	0.058
Nd-149	Pm-149	361.400	0.000	1.728	0.011
Nd-151	Pm-151	362.700	0.000	0.207	0.004
Pm-151	Sm-151	360.900	0.000	28.400	0.004

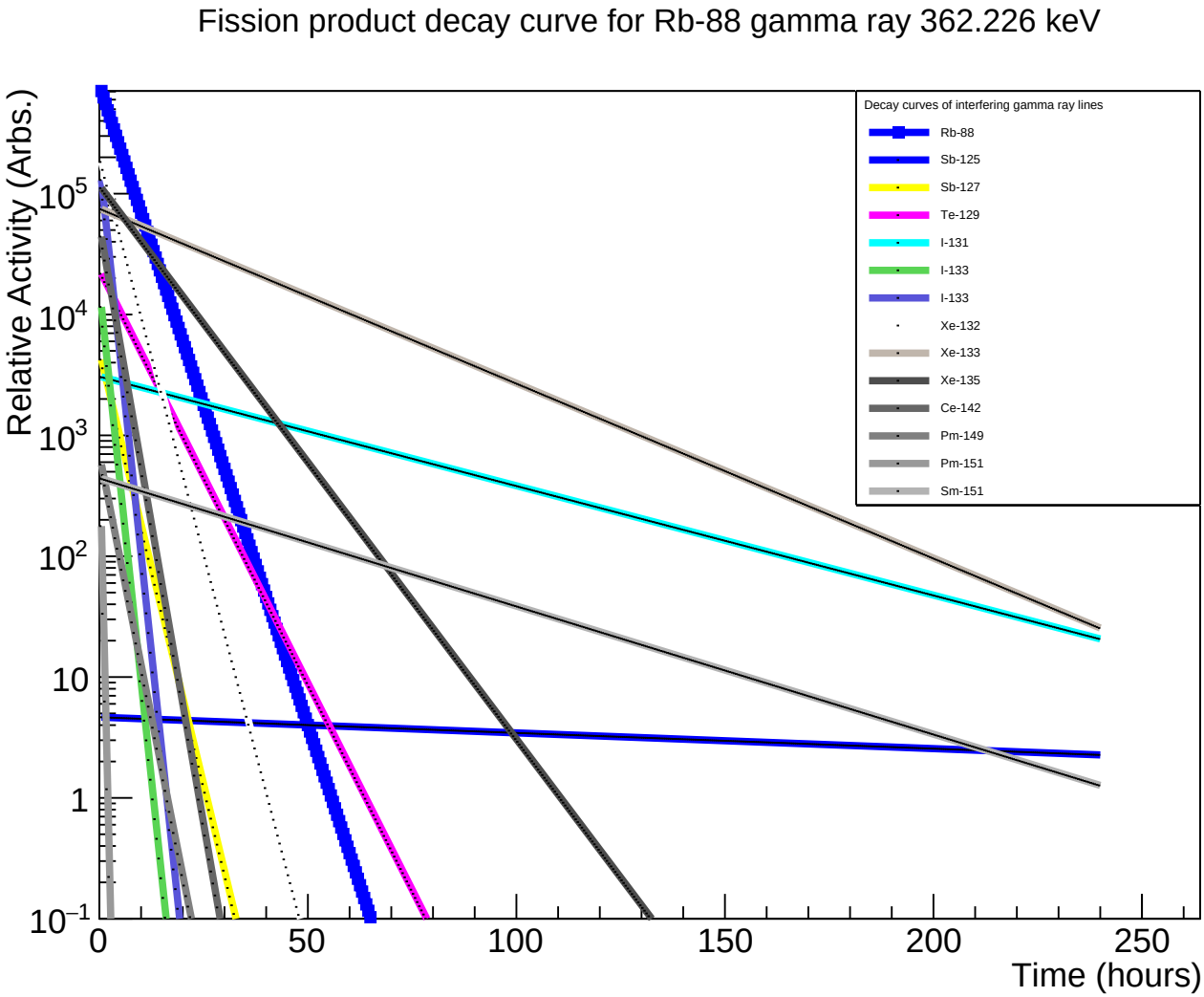


Figure 101: Rb-88 decay curve for 362.226 keV gamma ray.

3.102 Kr-88 E_γ = 834.83 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 834.83 keV
Gamma Intensity = 12.97 ± 0.616 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 203: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 204: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	834.890	0.017	0.124	0.062
Nb-98	Mo-98	833.556	0.108	0.855	0.000
Pd-111	Ag-111	835.700	0.003	0.390	0.000
Sb-128	Te-128	835.800	0.010	9.010	0.000
Ba-141	La-141	833.800	0.002	0.304	0.058
La-141	Ce-141	834.800	0.000	3.920	0.058
Pm-149	Sm-149	833.400	0.000	53.080	0.011
Pm-149	Sm-149	835.550	0.000	53.080	0.011

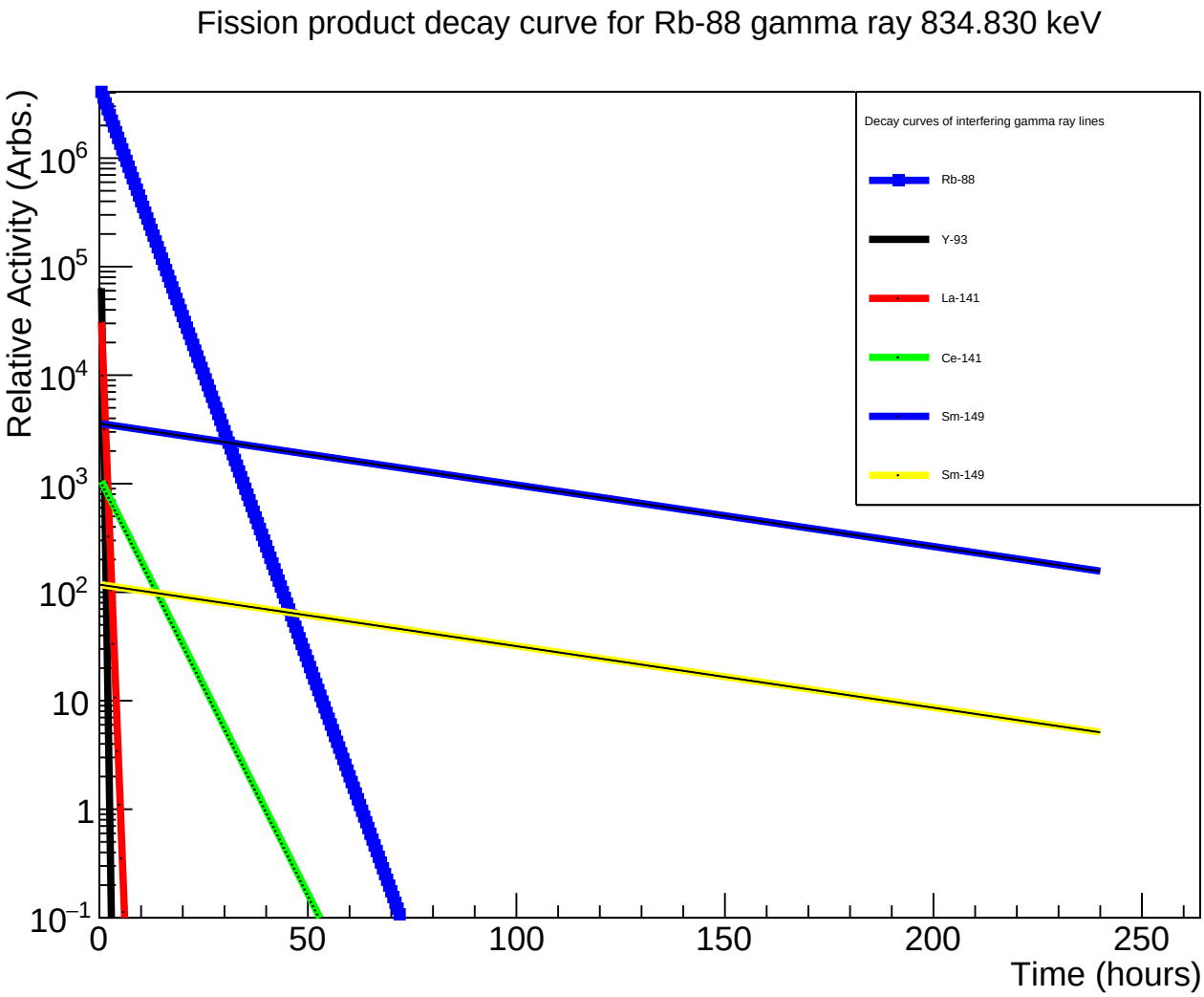


Figure 102: Rb-88 decay curve for 834.830 keV gamma ray.

3.103 Kr-88 E_γ = 985.78 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 985.78 keV
Gamma Intensity = 1.31 ± 0.065 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 205: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 206: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	985.200	0.001	0.855	0.000
Mo-99	Tc-99	986.440	0.000	65.976	0.061
Tc-104	Ru-104	986.600	0.002	0.305	0.019
Ru-105	Rh-105	984.600	0.000	4.440	0.010
Ru-105	Rh-105	987.000	0.000	4.440	0.010
Ba-142	La-142	984.500	0.001	0.177	0.058
Nd-149	Pm-149	986.680	0.000	1.728	0.011
Nd-151	Pm-151	985.300	0.000	0.207	0.004

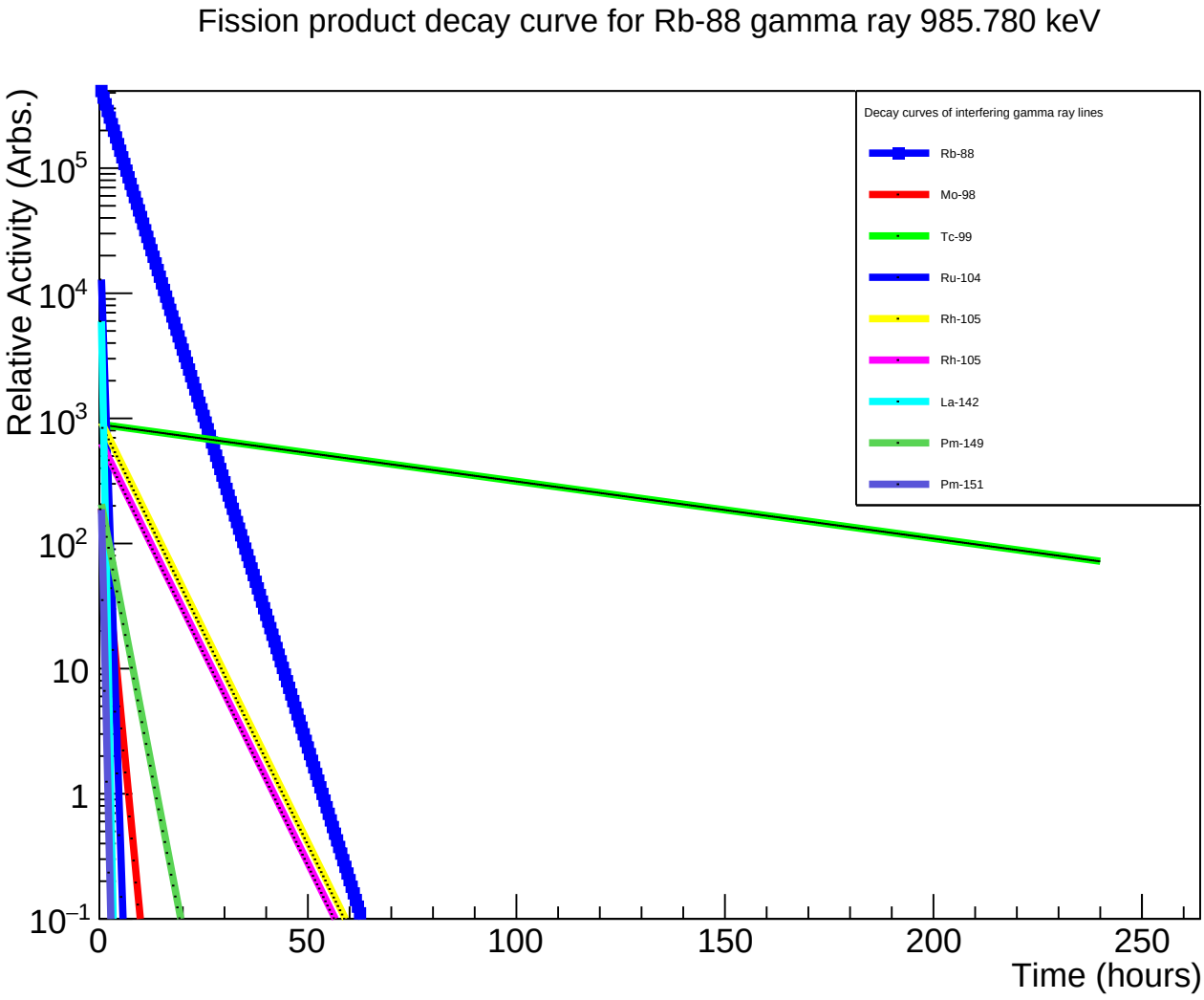


Figure 103: Rb-88 decay curve for 985.780 keV gamma ray.

3.104 Kr-88 E_γ = 1141.33 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 1141.33 keV
Gamma Intensity = 1.28 ± 0.067 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 207: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 208: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1140.800	0.001	9.630	0.058
Sr-92	Y-92	1142.350	0.028	2.710	0.059
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Sb-127	Te-127	1141.600	0.004	92.400	0.002
Sb-130	Te-130	1141.400	0.020	0.658	0.008
Sb-130	Te-130	1142.000	0.056	0.105	0.010
Te-133	I-133	1142.740	0.013	0.923	0.040
Xe-138	Cs-138	1141.640	0.005	0.235	0.063
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Eu-156	Gd-156	1140.510	0.003	364.560	0.000

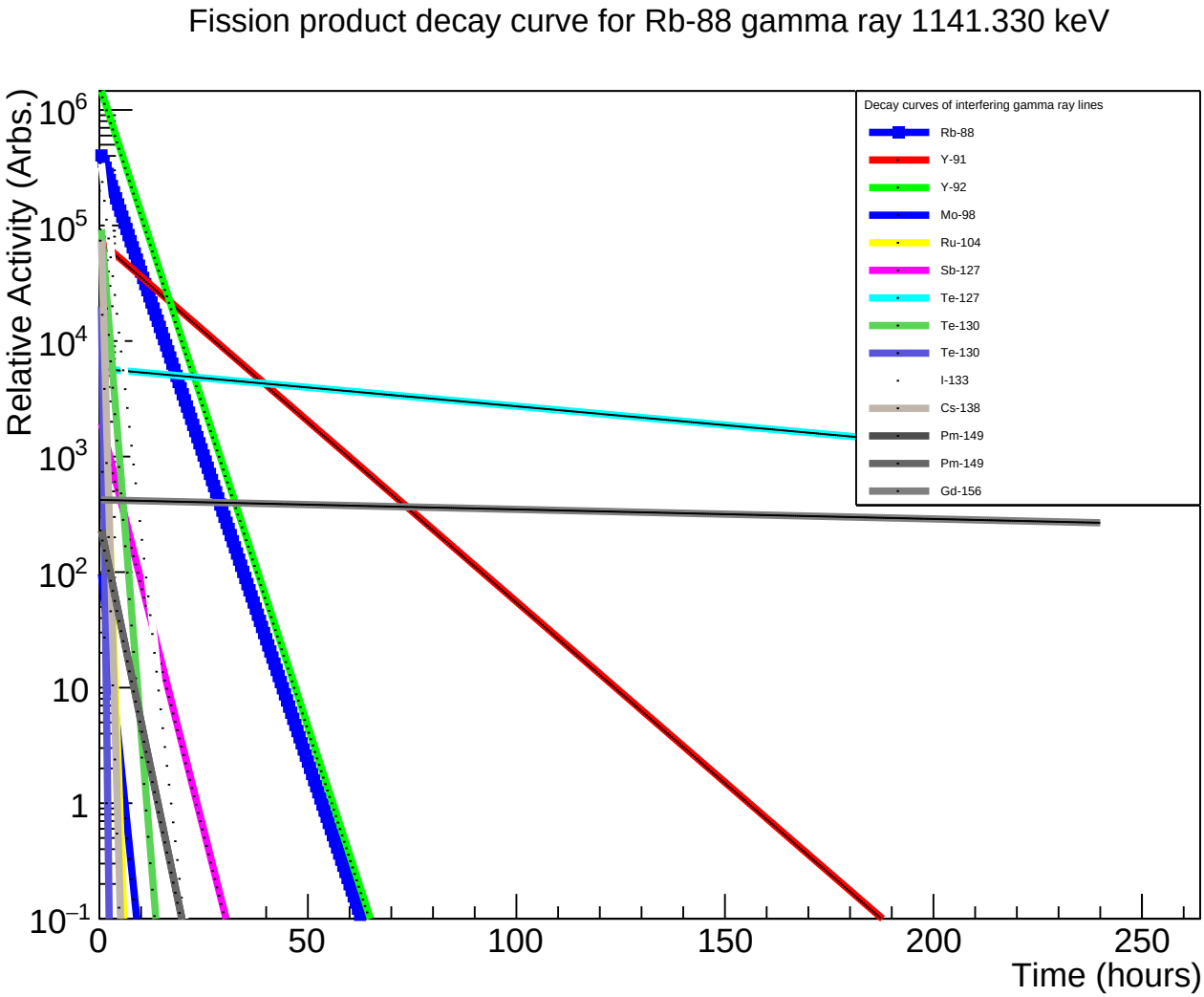


Figure 104: Rb-88 decay curve for 1141.330 keV gamma ray.

3.105 Kr-88 E_γ = 1250.67 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 1250.67 keV
Gamma Intensity = 1.12 ± 0.056 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 209: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 210: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1249.200	0.001	0.124	0.062
Mo-101	Tc-101	1249.400	0.002	0.243	0.052
Mo-101	Tc-101	1251.100	0.047	0.243	0.052
Ru-105	Rh-105	1251.890	0.000	4.440	0.010
Sb-128	Te-128	1250.500	0.010	9.010	0.000
Te-133	I-133	1252.080	0.014	0.208	0.031
Te-133	I-133	1252.000	0.003	0.923	0.040
Cs-139	Ba-139	1249.410	0.000	0.155	0.063
Pr-145	Nd-145	1249.730	0.000	5.984	0.039
Nd-151	Pm-151	1251.600	0.001	0.207	0.004

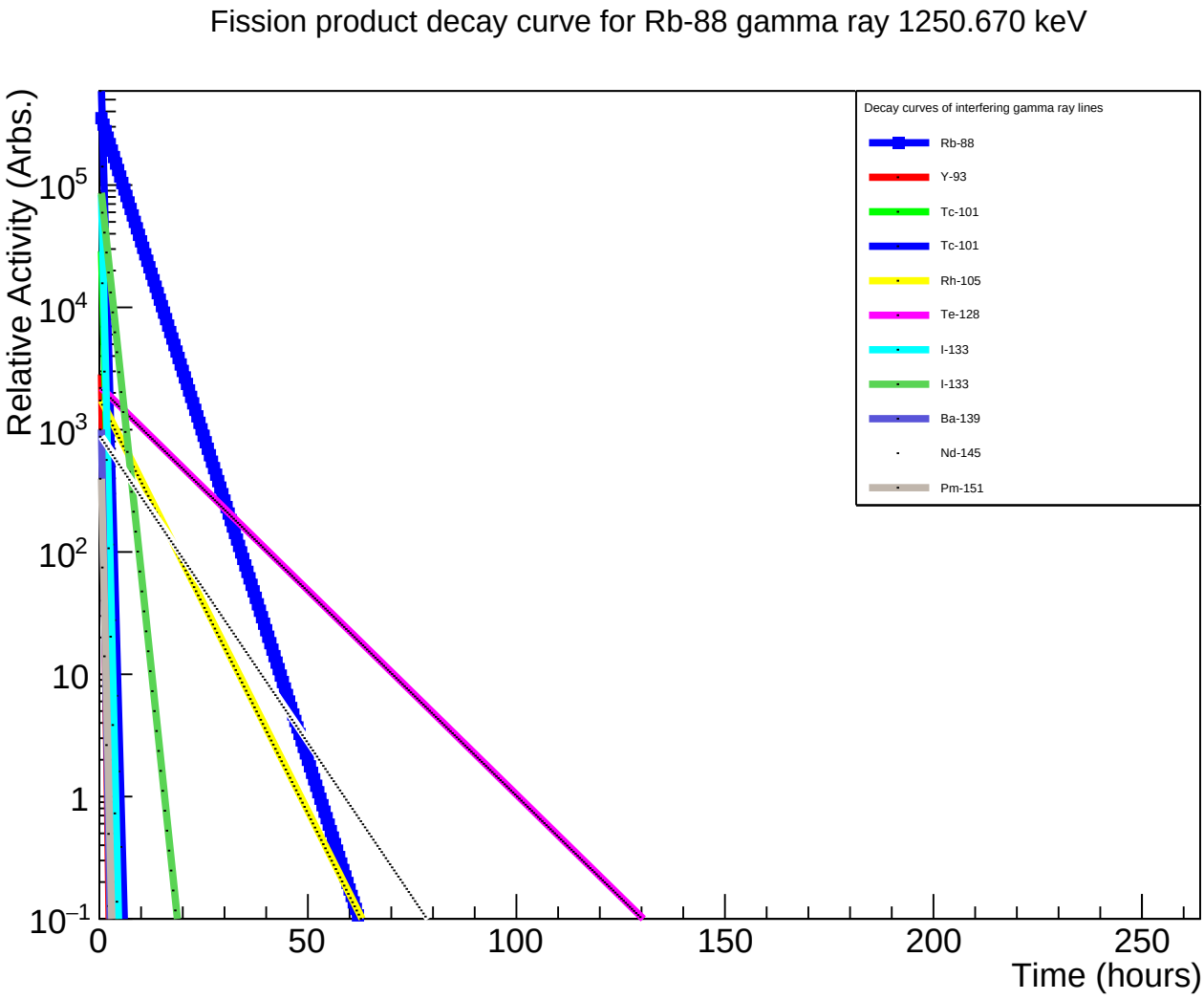


Figure 105: Rb-88 decay curve for 1250.670 keV gamma ray.

3.106 Kr-88 E_γ = 1369.50 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 1369.50 keV
Gamma Intensity = 1.48 ± 0.090 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 211: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 212: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	1370.800	0.007	0.127	0.010
Sn-125	Sb-125	1368.610	0.001	0.159	0.000
Sn-127	Sb-127	1368.400	0.005	2.100	0.001
Sb-130	Te-130	1368.700	0.011	0.658	0.008
Ba-139	La-139	1370.500	0.000	1.384	0.064
La-141	Ce-141	1368.700	0.000	3.920	0.058

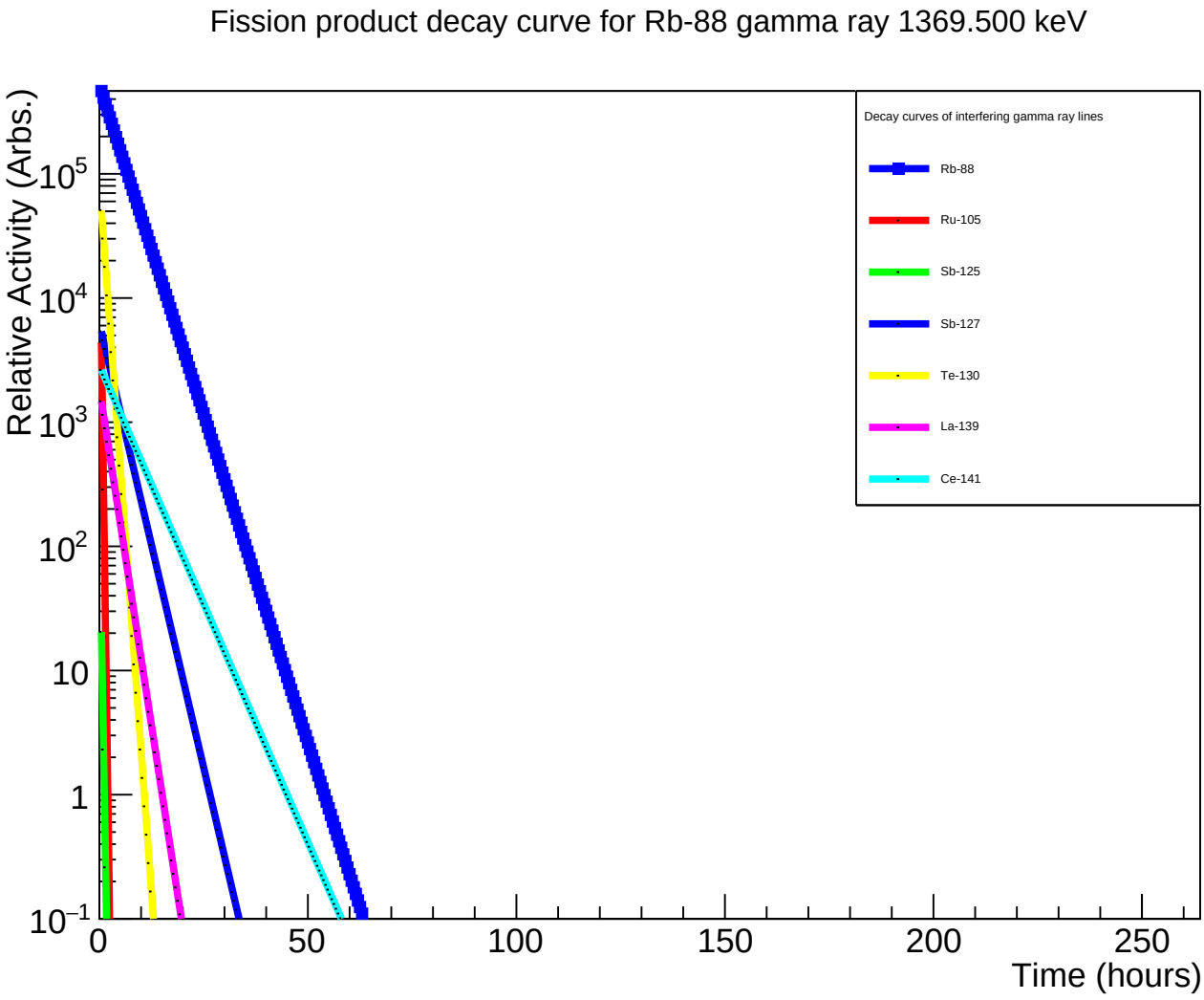


Figure 106: Rb-88 decay curve for 1369.500 keV gamma ray.

3.107 Kr-88 E_γ = 1518.39 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 1518.39 keV
Gamma Intensity = 2.15 ± 0.114 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 213: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 214: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1518.790	0.002	0.855	0.000
Mo-101	Tc-101	1517.800	0.002	0.243	0.052
Tc-104	Ru-104	1517.400	0.007	0.305	0.019
Ag-112	Cd-112	1518.000	0.008	3.130	0.000
I-132	Xe-132	1519.600	0.001	2.295	0.043
Ba-139	La-139	1518.000	0.000	1.384	0.064
Pr-147	Nd-147	1518.800	0.003	0.223	0.022

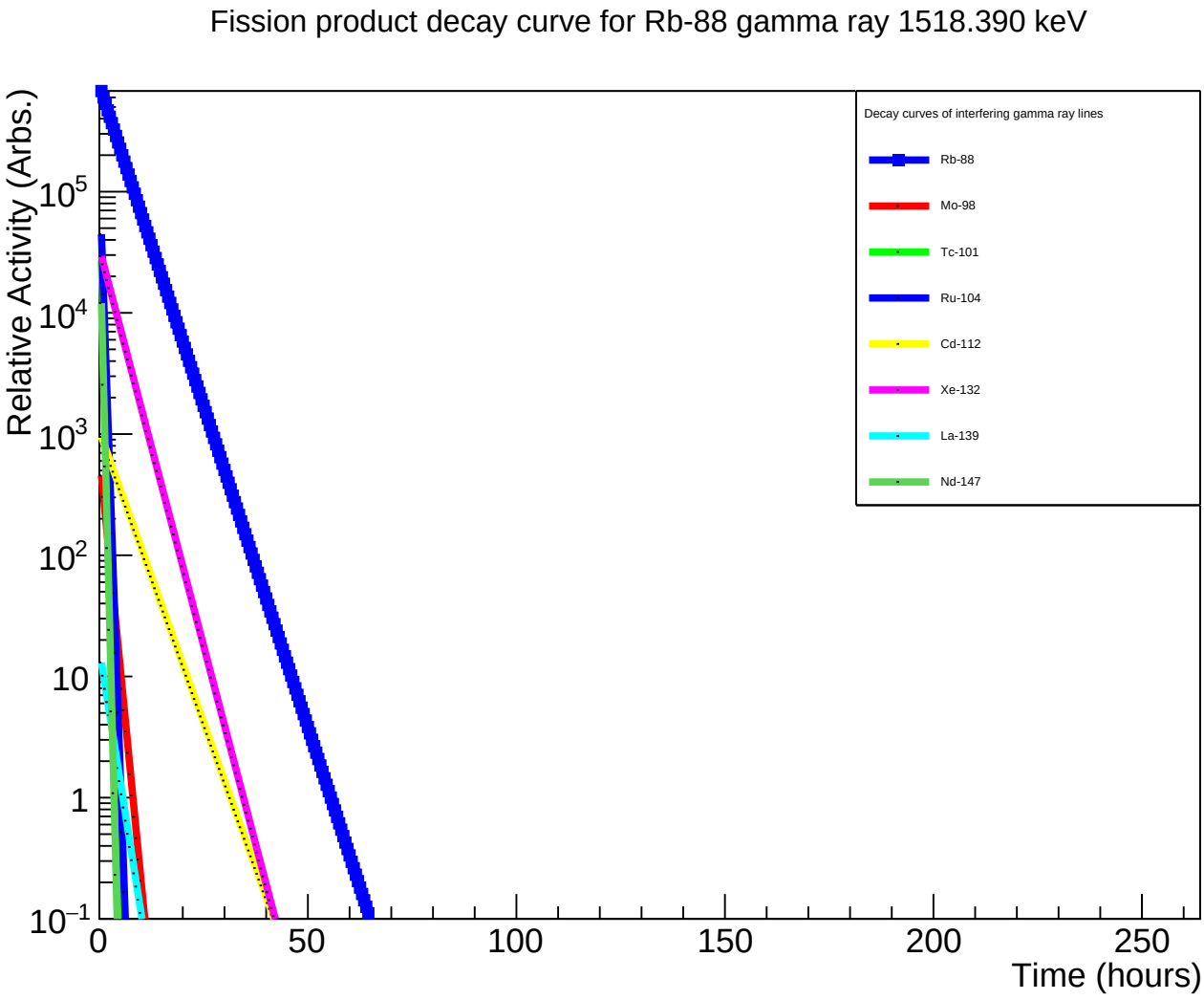


Figure 107: Rb-88 decay curve for 1518.390 keV gamma ray.

3.108 Kr-88 E_γ = 1529.77 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 1529.77 keV
Gamma Intensity = 10.93 ± 0.534 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 215: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 216: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1530.000	0.025	1.512	0.000
Mo-101	Tc-101	1530.300	0.001	0.243	0.052
Tc-104	Ru-104	1531.200	0.004	0.305	0.019
Cs-139	Ba-139	1529.300	0.000	0.155	0.063
Cs-139	Ba-139	1531.200	0.000	0.155	0.063

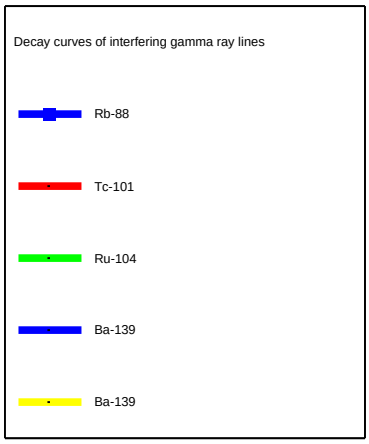


Figure 108: Rb-88 decay curve for 1529.770 keV gamma ray.

3.109 Kr-88 E_γ = 2029.84 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 2029.84 keV
Gamma Intensity = 4.53 ± 0.227 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 217: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 218: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	2029.600	0.021	0.529	0.010
La-141	Ce-141	2030.200	0.000	3.920	0.058

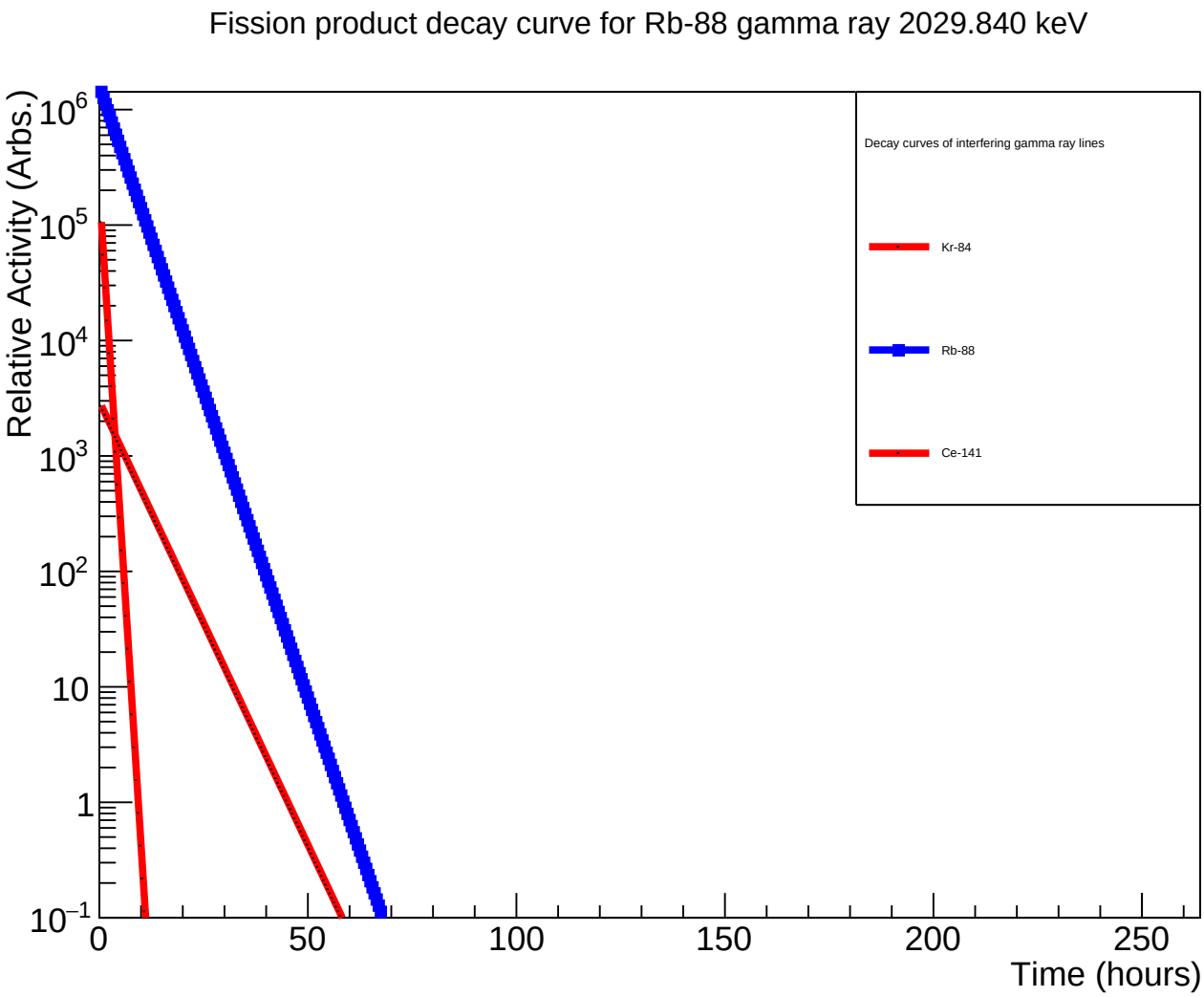


Figure 109: Rb-88 decay curve for 2029.840 keV gamma ray.

3.110 Kr-88 E_γ = 2035.41 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 2035.41 keV
Gamma Intensity = 3.74 ± 0.202 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 219: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 220: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

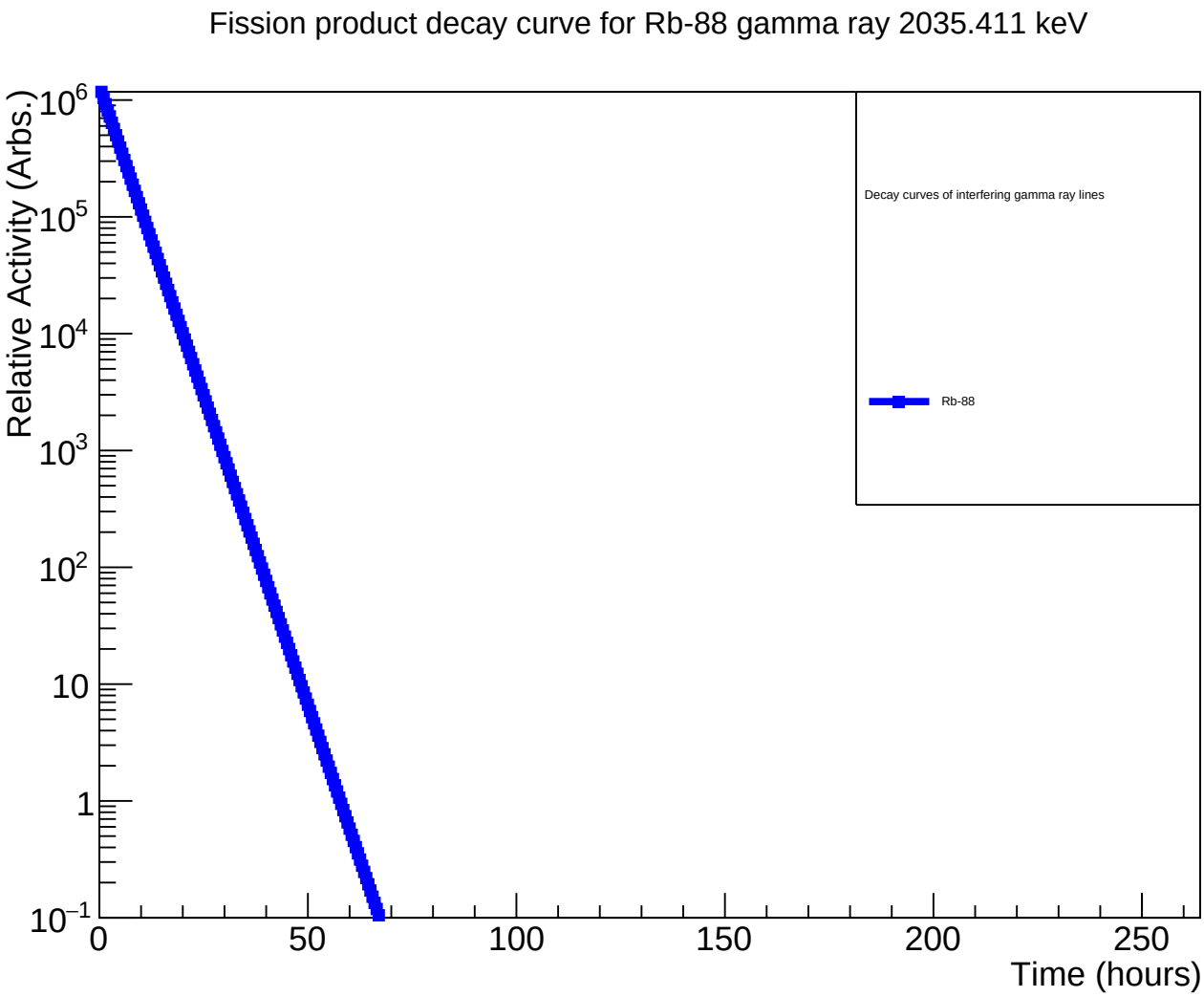


Figure 110: Rb-88 decay curve for 2035.411 keV gamma ray.

3.111 Kr-88 E_γ = 2195.84 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 2195.84 keV
Gamma Intensity = 13.18 ± 0.618 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 221: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 222: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	2195.920	0.145	0.252	0.047
Ba-141	La-141	2195.000	0.001	0.304	0.058

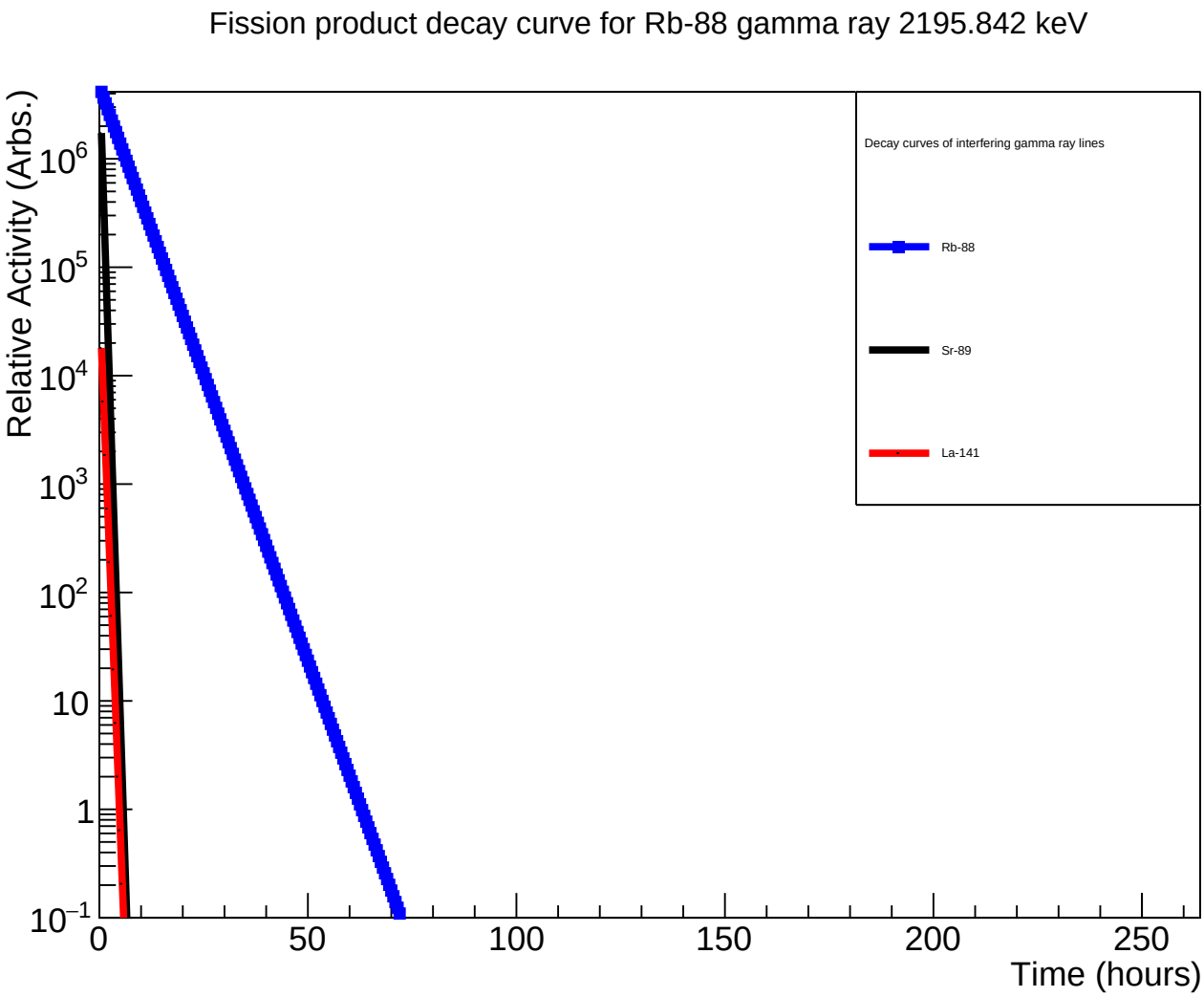


Figure 111: Rb-88 decay curve for 2195.842 keV gamma ray.

3.112 Kr-88 E_γ = 2231.77 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 2231.77 keV
Gamma Intensity = 3.39 ± 0.170 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 223: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 224: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

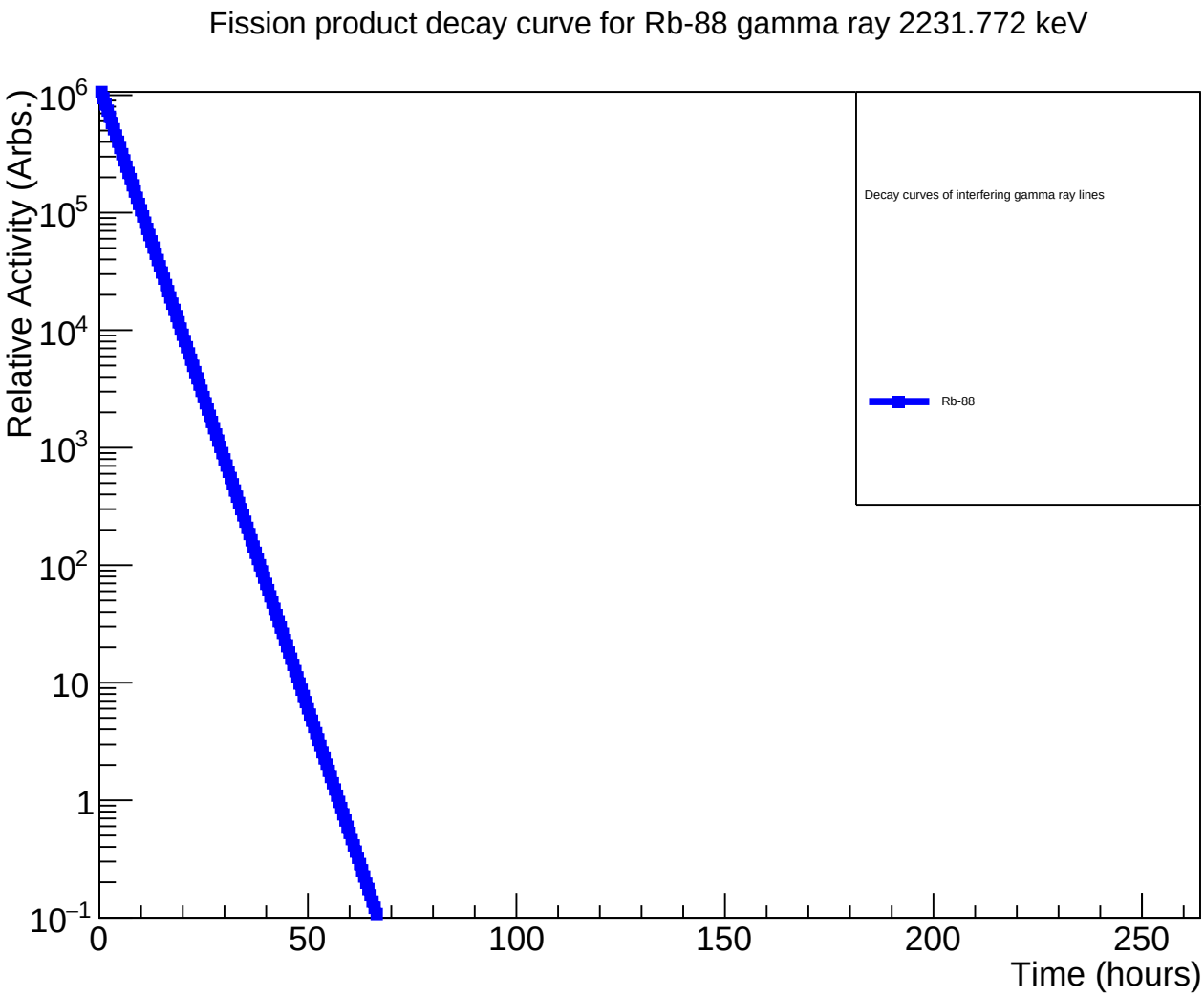


Figure 112: Rb-88 decay curve for 2231.772 keV gamma ray.

3.113 Kr-88 E_γ = 2392.11 keV

Chemical element: Krypton
Fission product parent: Kr-88
Gamma originates in daughter: Rb-88
Eγ: 2392.11 keV
Gamma Intensity = 34.60 ± 1.603 %
$T_{1/2}$ = 2.840 ± 0.030 hours or 170.40 ± 1.80 minutes
CFY: 3.552 ± 0.071 %

Table 225: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 226: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2393.000	0.000	0.208	0.031

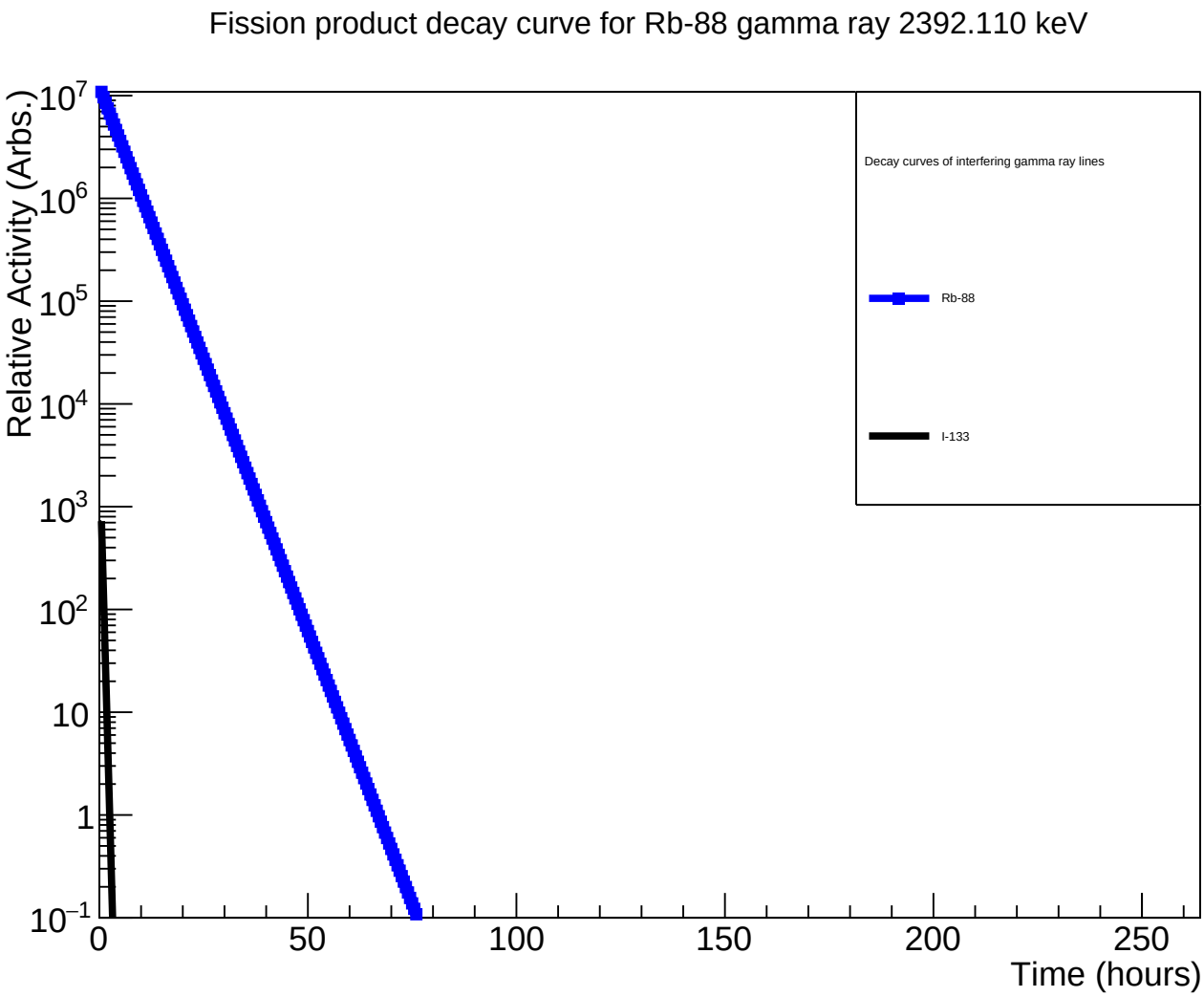


Figure 113: Rb-88 decay curve for 2392.110 keV gamma ray.

3.114 Rb-88 E_γ = 898.03 keV

Chemical element: Rubidium
Fission product parent: Rb-88
Gamma originates in daughter: Sr-88
Eγ: 898.03 keV
Gamma Intensity = 14.68 ± 0.130 %
$T_{1/2}$ = 0.296 ± 0.000 hours or 17.77 ± 0.01 minutes
CFY: 3.575 ± 0.050 %

Table 227: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 228: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	898.800	0.002	2.100	0.001
Te-131	I-131	898.540	0.001	0.417	0.025
Te-133	I-133	896.700	0.000	0.208	0.031
Xe-138	Cs-138	896.870	0.001	0.235	0.063
Nd-149	Pm-149	896.650	0.000	1.728	0.011
Nd-151	Pm-151	897.650	0.003	0.207	0.004
Pm-151	Sm-151	898.580	0.000	28.400	0.004

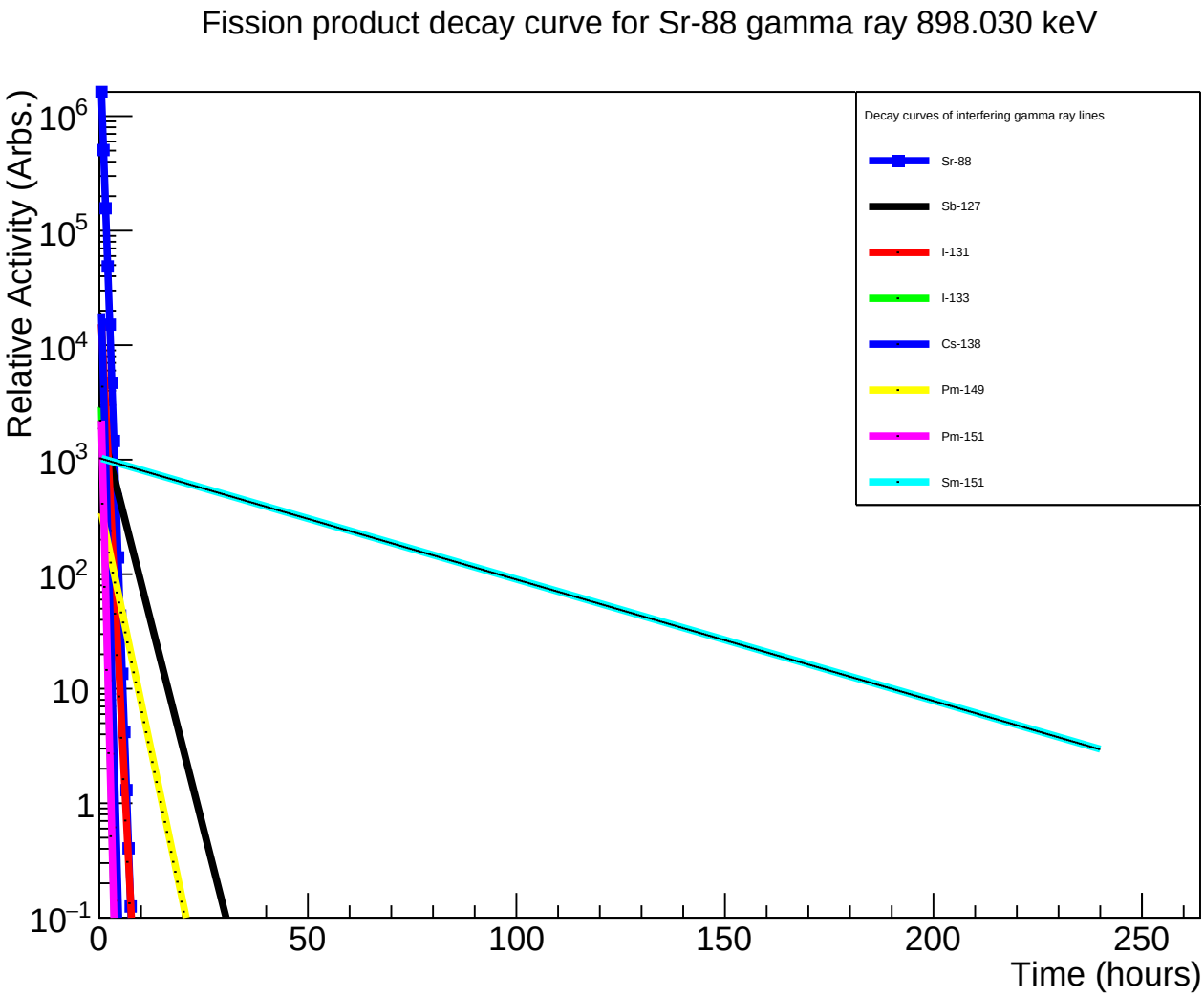


Figure 114: Sr-88 decay curve for 898.030 keV gamma ray.

3.115 Rb-88 E_γ = 1836.00 keV

Chemical element: Rubidium
Fission product parent: Rb-88
Gamma originates in daughter: Sr-88
Eγ: 1836.00 keV
Gamma Intensity = 22.73 ± 0.150 %
$T_{1/2}$ = 0.296 ± 0.000 hours or 17.77 ± 0.01 minutes
CFY: 3.575 ± 0.050 %

Table 229: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 230: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1835.700	0.015	1.512	0.000
Nd-151	Pm-151	1835.990	0.000	0.207	0.004

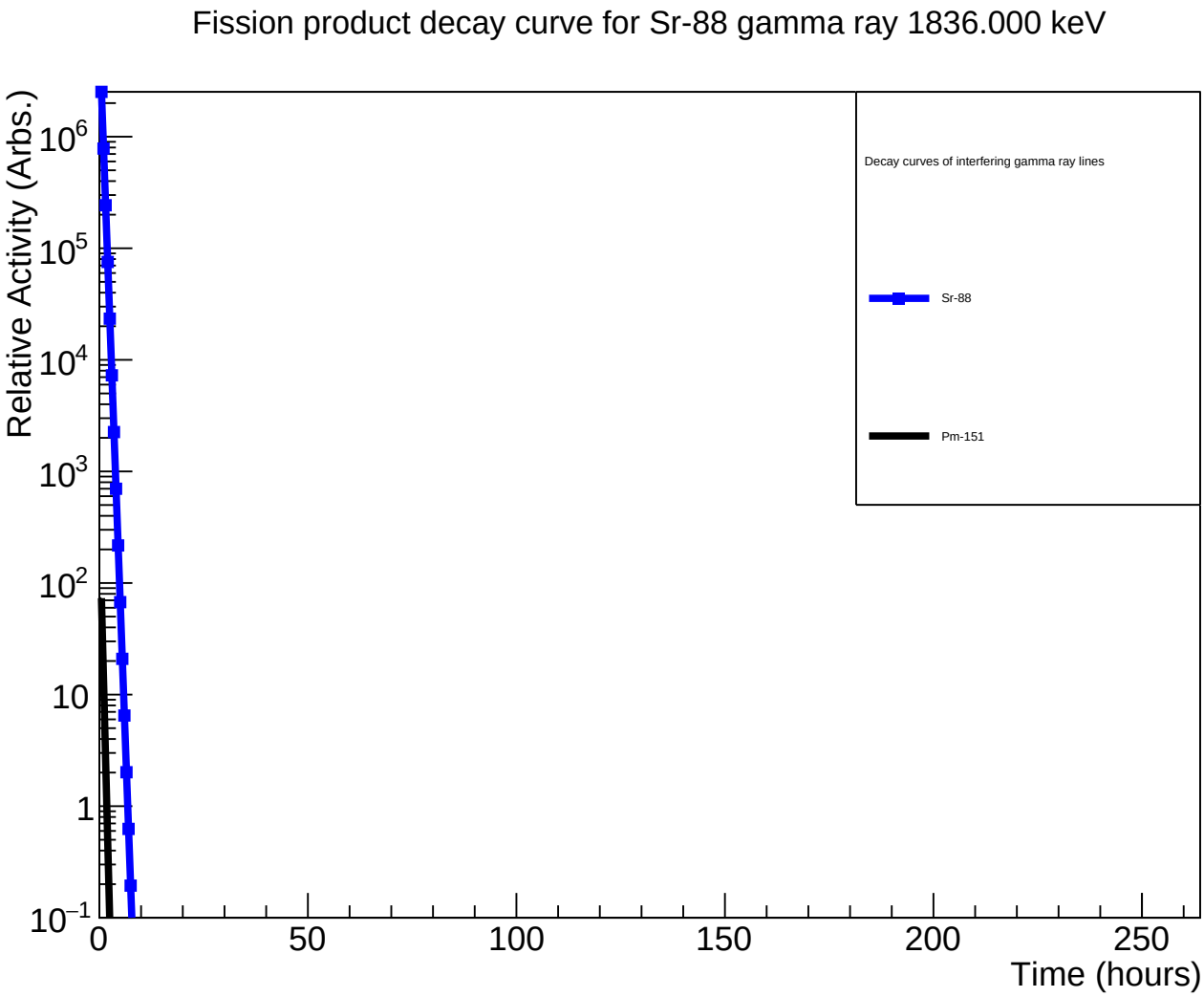


Figure 115: Sr-88 decay curve for 1836.000 keV gamma ray.

3.116 Rb-88 E_γ = 2677.89 keV

Chemical element: Rubidium
Fission product parent: Rb-88
Gamma originates in daughter: Sr-88
Eγ: 2677.89 keV
Gamma Intensity = 2.12 ± 0.021 %
$T_{1/2}$ = 0.296 ± 0.000 hours or 17.77 ± 0.01 minutes
CFY: 3.575 ± 0.050 %

Table 231: Decay chain of fission product chain A = 88

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-88	Krypton-88	0.005	0.000
Krypton-88	Rubidium-88	2.840	0.030
Rubidium-88	Strontium-88	0.296	0.000

Table 232: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	2677.000	0.003	0.305	0.019

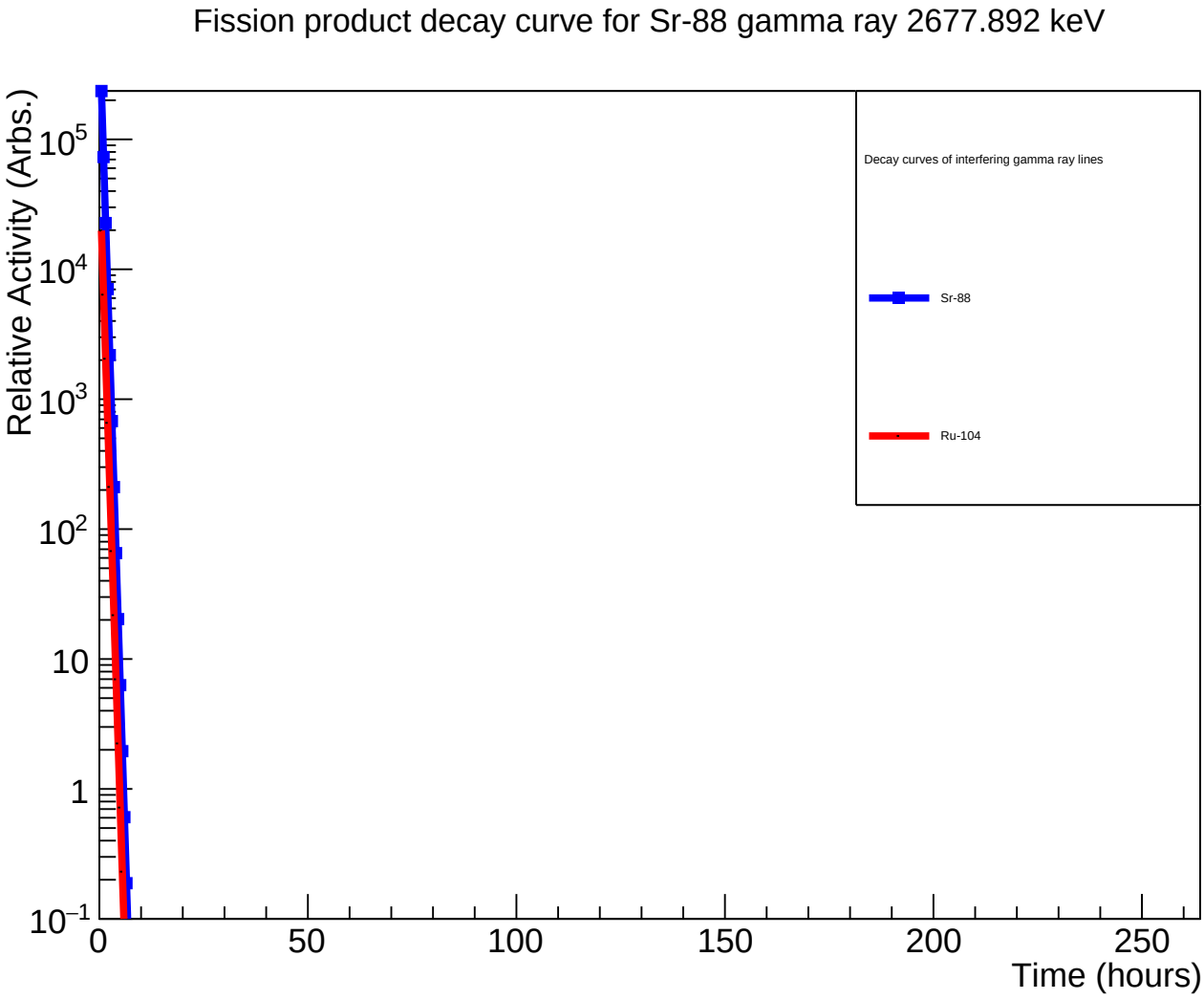


Figure 116: Sr-88 decay curve for 2677.892 keV gamma ray.

3.117 Rb-89 E_γ = 272.42 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 272.42 keV
Gamma Intensity = 1.53 ± 0.079 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 233: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 234: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	272.600	0.003	9.630	0.058
Y-93	Zr-93	273.000	0.001	10.180	0.063
Zr-97	Nb-97	272.400	0.002	16.749	0.060
Tc-104	Ru-104	272.000	0.002	0.305	0.019
Tc-105	Ru-105	272.600	0.035	0.127	0.010
Sn-127	Sb-127	271.500	0.001	2.100	0.001
I-131	Xe-131	272.498	0.001	192.605	0.029
Ce-143	Pr-143	272.900	0.000	33.039	0.060
Nd-147	Pm-147	271.870	0.000	263.520	0.022
Nd-149	Pm-149	273.240	0.002	1.728	0.011
Nd-149	Pm-149	273.500	0.001	1.728	0.011
Nd-152	Pm-152	273.200	0.001	0.190	0.003

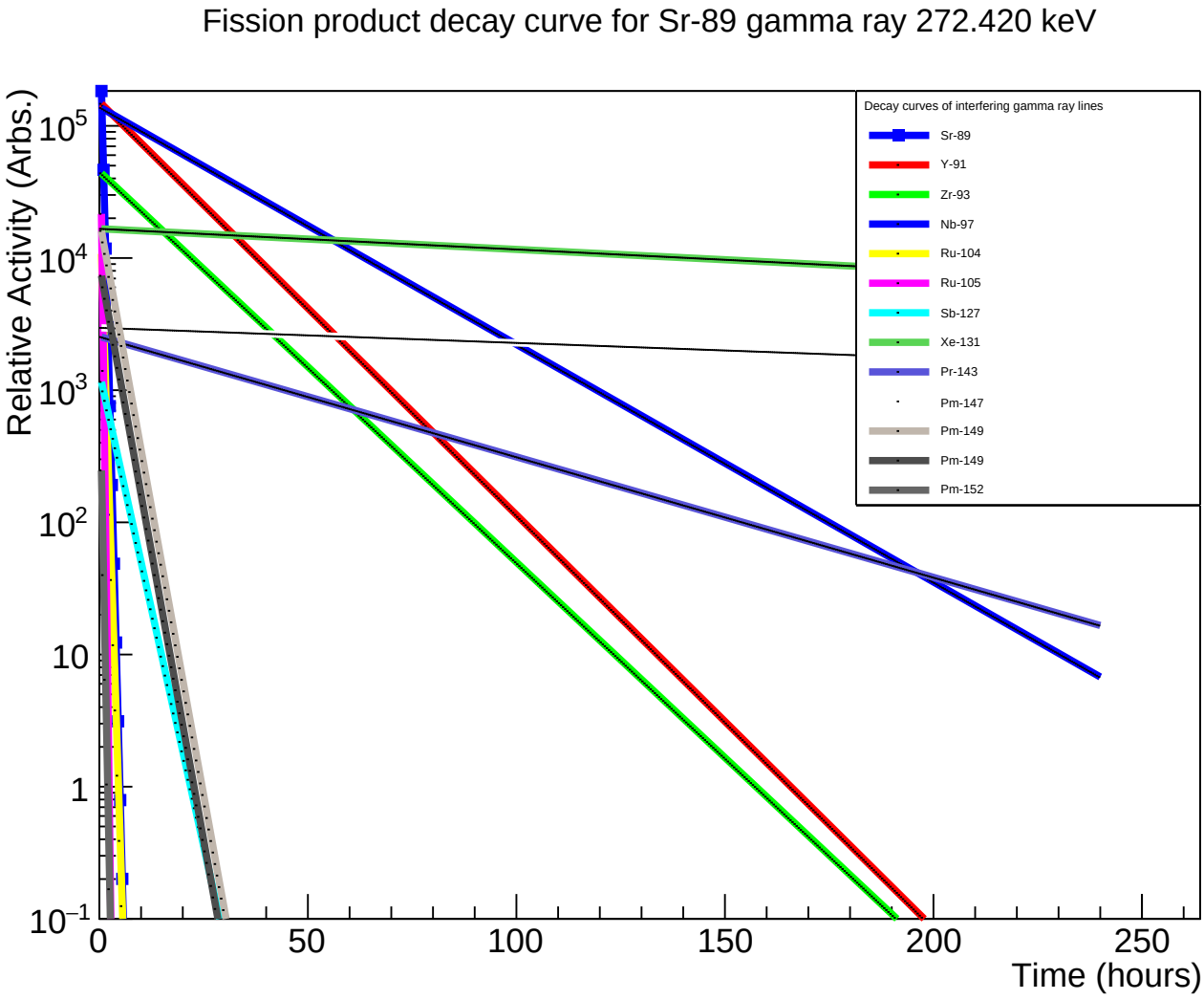


Figure 117: Sr-89 decay curve for 272.420 keV gamma ray.

3.118 Rb-89 E_γ = 657.77 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 657.77 keV
Gamma Intensity = 10.82 ± 0.592 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 235: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 236: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	657.900	0.003	1.512	0.000
Sr-93	Y-93	658.560	0.004	0.124	0.062
Nb-97	Mo-97	657.940	0.982	1.202	0.060
Tc-105	Ru-105	657.000	0.001	0.127	0.010
Pd-111	Ag-111	657.300	0.000	0.390	0.000
Sb-130	Te-130	658.200	0.017	0.658	0.008
Te-127	I-127	658.900	0.000	2616.000	0.000
Cs-139	Ba-139	656.580	0.000	0.155	0.063
Ba-141	La-141	658.900	0.000	0.304	0.058
Pr-145	Nd-145	657.668	0.001	5.984	0.039
Nd-149	Pm-149	657.200	0.000	1.728	0.011
Nd-151	Pm-151	658.610	0.007	0.207	0.004
Sm-153	Eu-153	657.550	0.000	46.500	0.002

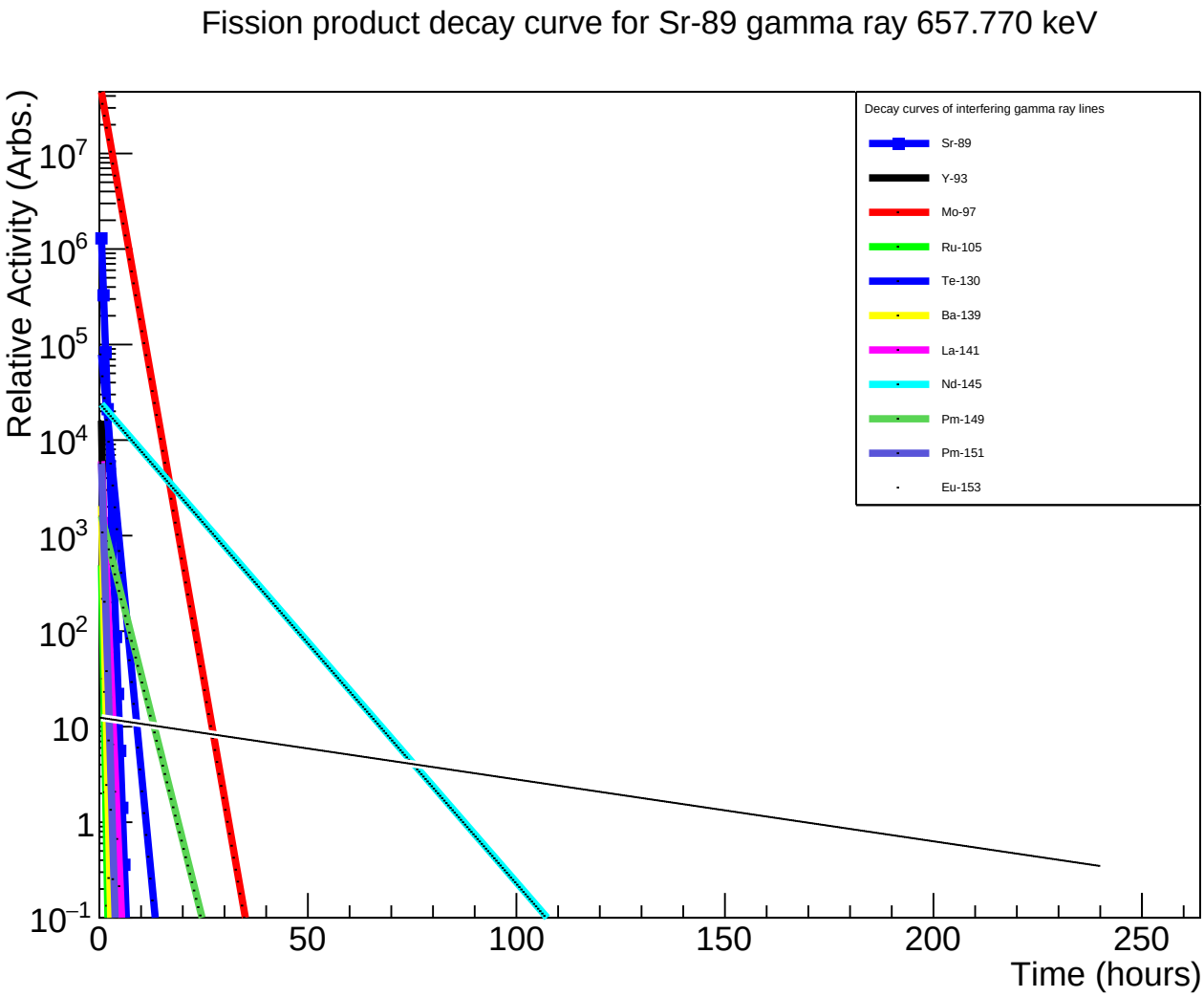


Figure 118: Sr-89 decay curve for 657.770 keV gamma ray.

3.119 Rb-89 E_γ = 947.73 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 947.73 keV
Gamma Intensity = 10.00 ± 0.528 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 237: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 238: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	947.500	0.004	0.529	0.010
Kr-87	Rb-87	946.690	0.001	1.272	0.026
Y-93	Zr-93	947.100	0.021	10.180	0.063
Ag-112	Cd-112	947.300	0.001	3.130	0.000
Te-131	I-131	948.542	0.023	0.417	0.025
Te-133	I-133	949.200	0.006	0.923	0.040
I-132	Xe-132	947.200	0.000	2.295	0.043
I-134	Xe-134	947.860	0.040	0.875	0.078
Xe-138	Cs-138	946.630	0.001	0.235	0.063
Cs-139	Ba-139	946.460	0.001	0.155	0.063
Ba-142	La-142	949.100	0.106	0.177	0.058
La-142	Ce-142	946.900	0.001	1.518	0.058
La-143	Ce-143	948.600	0.001	0.237	0.059
Nd-151	Pm-151	949.050	0.001	0.207	0.004
Pm-151	Sm-151	948.720	0.004	28.400	0.004
Eu-156	Gd-156	947.460	0.003	364.560	0.000

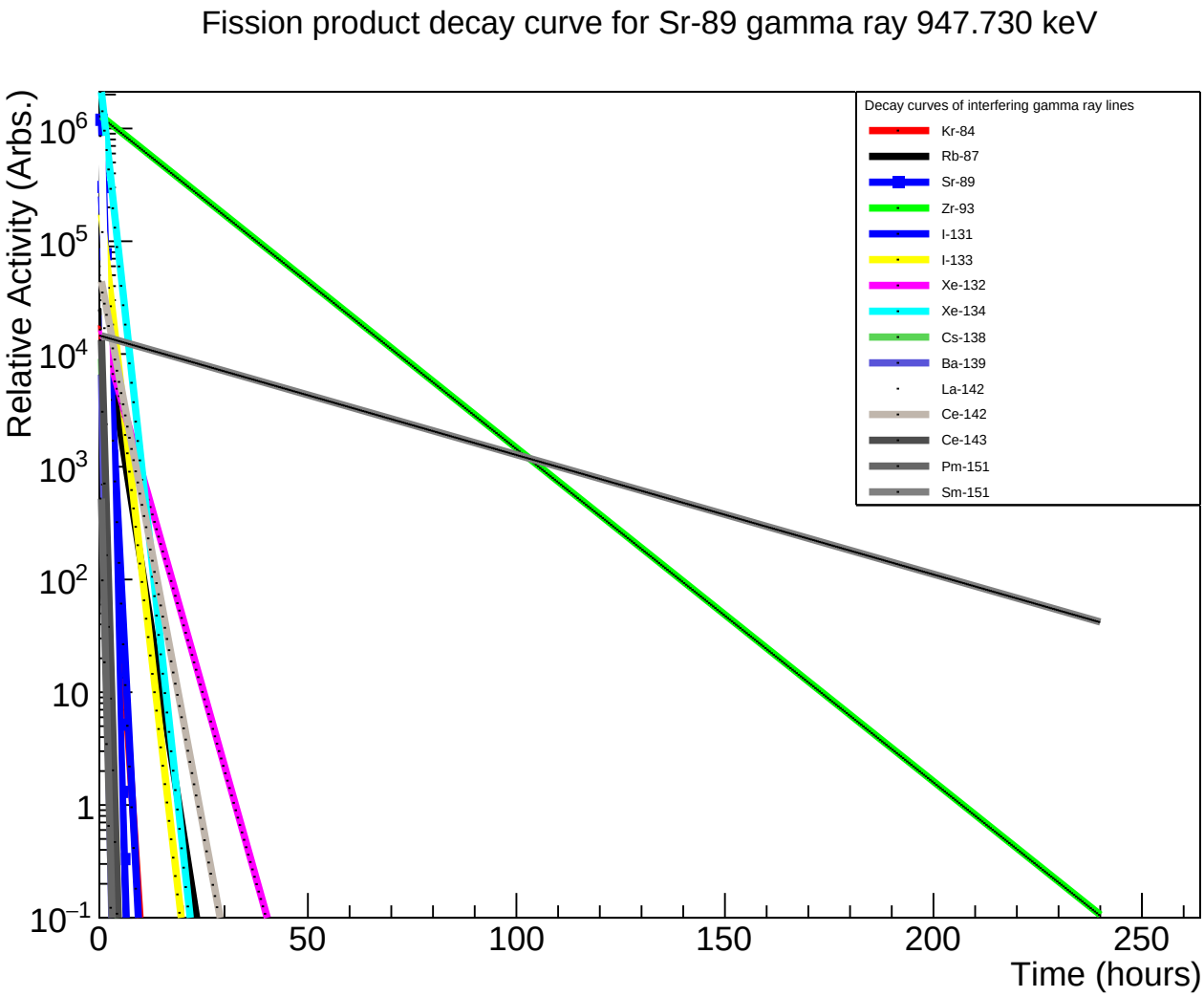


Figure 119: Sr-89 decay curve for 947.730 keV gamma ray.

3.120 Rb-89 E_γ = 1031.92 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 1031.92 keV
Gamma Intensity = 62.90 ± 3.300 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 239: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 240: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1031.100	0.002	0.372	0.003
Sr-93	Y-93	1032.400	0.001	0.124	0.062
Sb-130	Te-130	1030.700	0.015	0.658	0.008
Ba-142	La-142	1033.000	0.003	0.177	0.058
Ce-143	Pr-143	1031.220	0.000	33.039	0.060
Nd-149	Pm-149	1031.770	0.000	1.728	0.011
Nd-151	Pm-151	1030.500	0.000	0.207	0.004
Nd-151	Pm-151	1032.400	0.000	0.207	0.004
Nd-151	Pm-151	1032.400	0.000	0.207	0.004

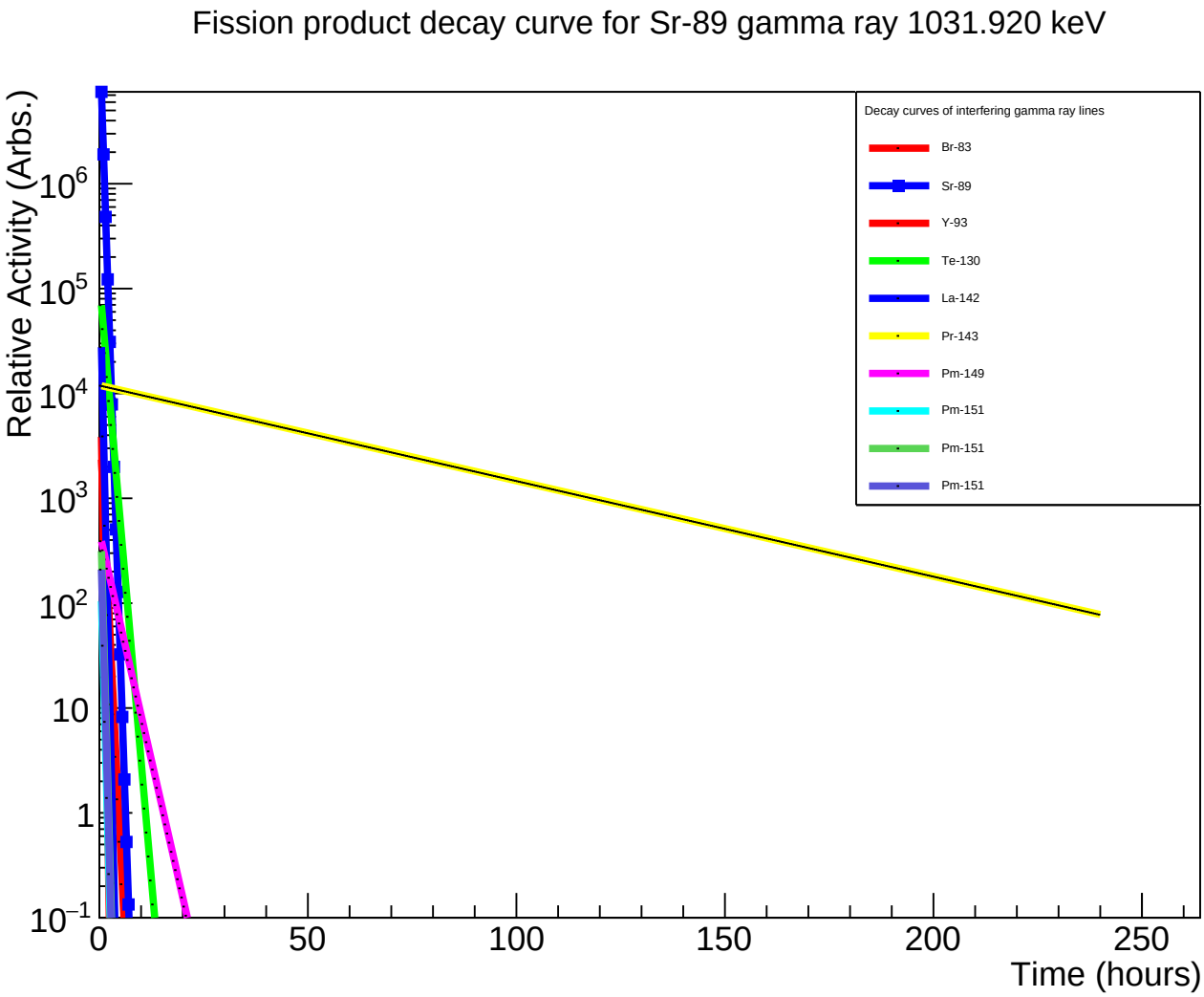


Figure 120: Sr-89 decay curve for 1031.920 keV gamma ray.

3.121 Rb-89 E_γ = 1248.14 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 1248.14 keV
Gamma Intensity = 45.92 ± 2.620 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 241: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 242: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1249.200	0.001	0.124	0.062
Mo-101	Tc-101	1249.400	0.002	0.243	0.052
Tc-104	Ru-104	1247.600	0.006	0.305	0.019
Cs-139	Ba-139	1249.410	0.000	0.155	0.063
La-143	Ce-143	1248.300	0.001	0.237	0.059
Pr-146	Nd-146	1247.900	0.000	0.403	0.030

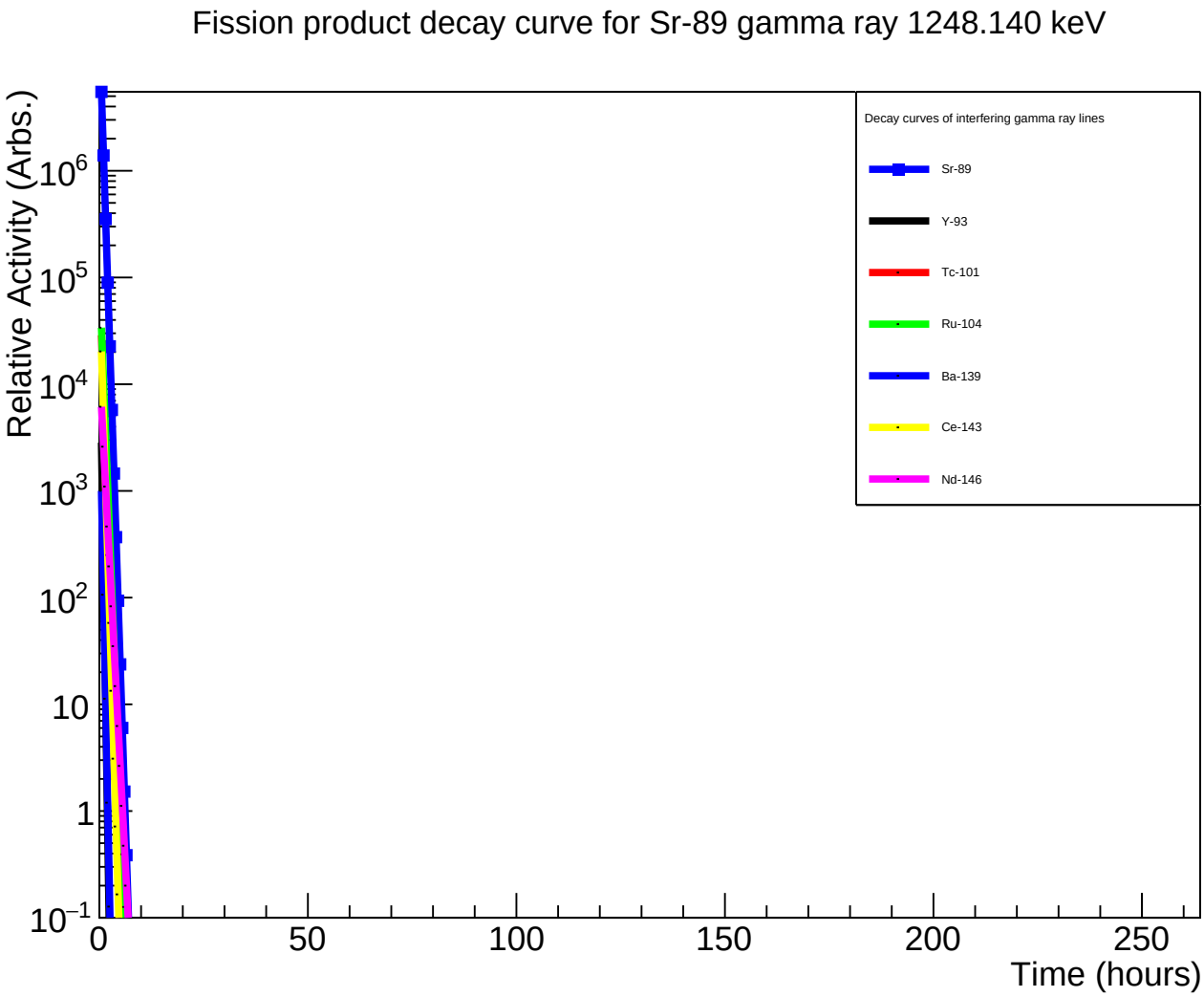


Figure 121: Sr-89 decay curve for 1248.140 keV gamma ray.

3.122 Rb-89 E_γ = 1538.07 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 1538.07 keV
Gamma Intensity = 2.77 ± 0.194 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 243: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 244: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1538.710	0.001	0.124	0.062
Tc-104	Ru-104	1536.700	0.002	0.305	0.019
Ag-112	Cd-112	1538.600	0.005	3.130	0.000
Sb-131	Te-131	1538.000	0.005	0.384	0.026
Te-133	I-133	1537.000	0.001	0.923	0.040
Cs-139	Ba-139	1539.090	0.000	0.155	0.063

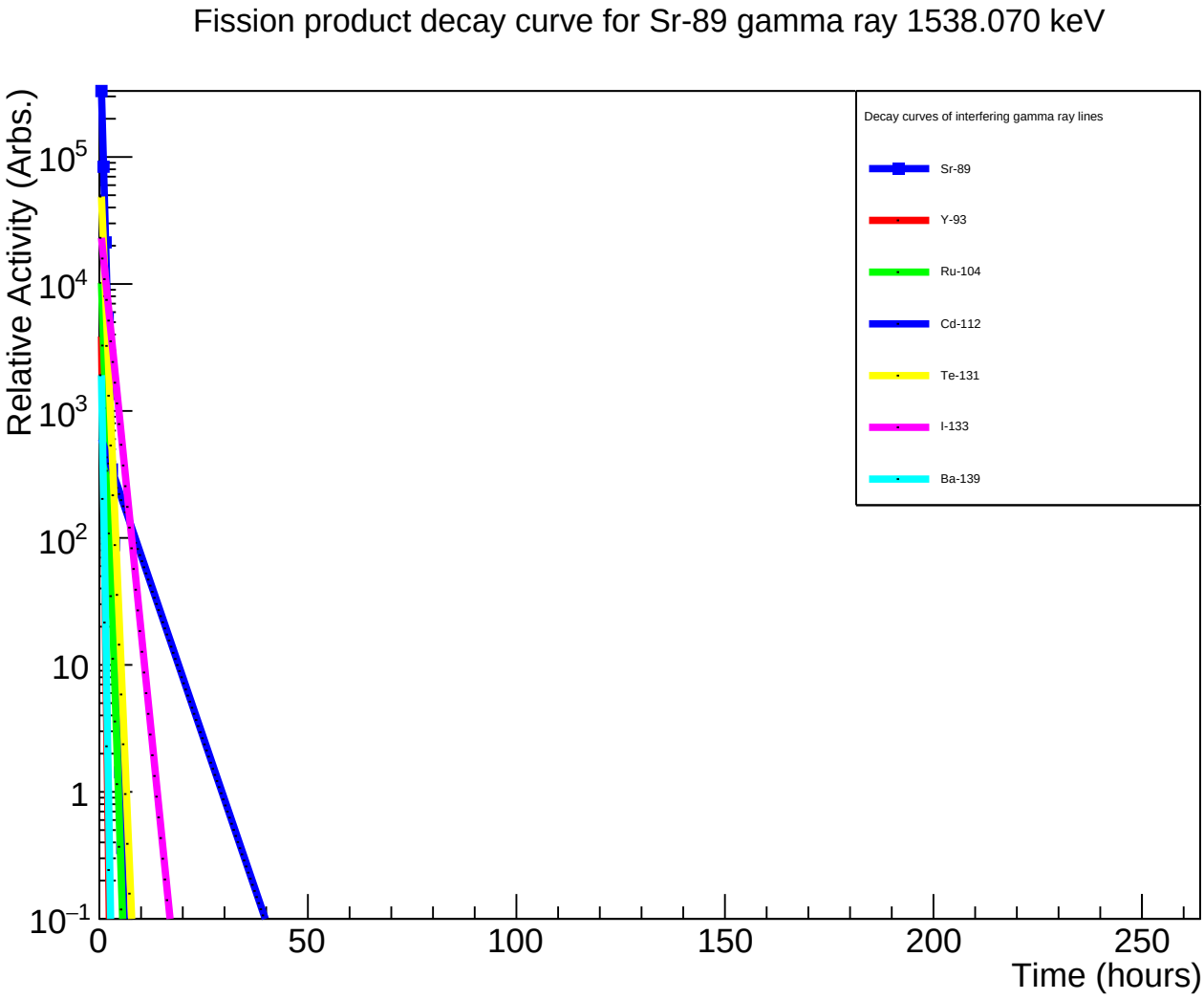


Figure 122: Sr-89 decay curve for 1538.070 keV gamma ray.

3.123 Rb-89 E_γ = 2007.50 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 2007.50 keV
Gamma Intensity = 2.58 ± 0.193 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 245: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 246: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2006.600	0.001	0.855	0.000
Nd-151	Pm-151	2009.000	0.000	0.207	0.004

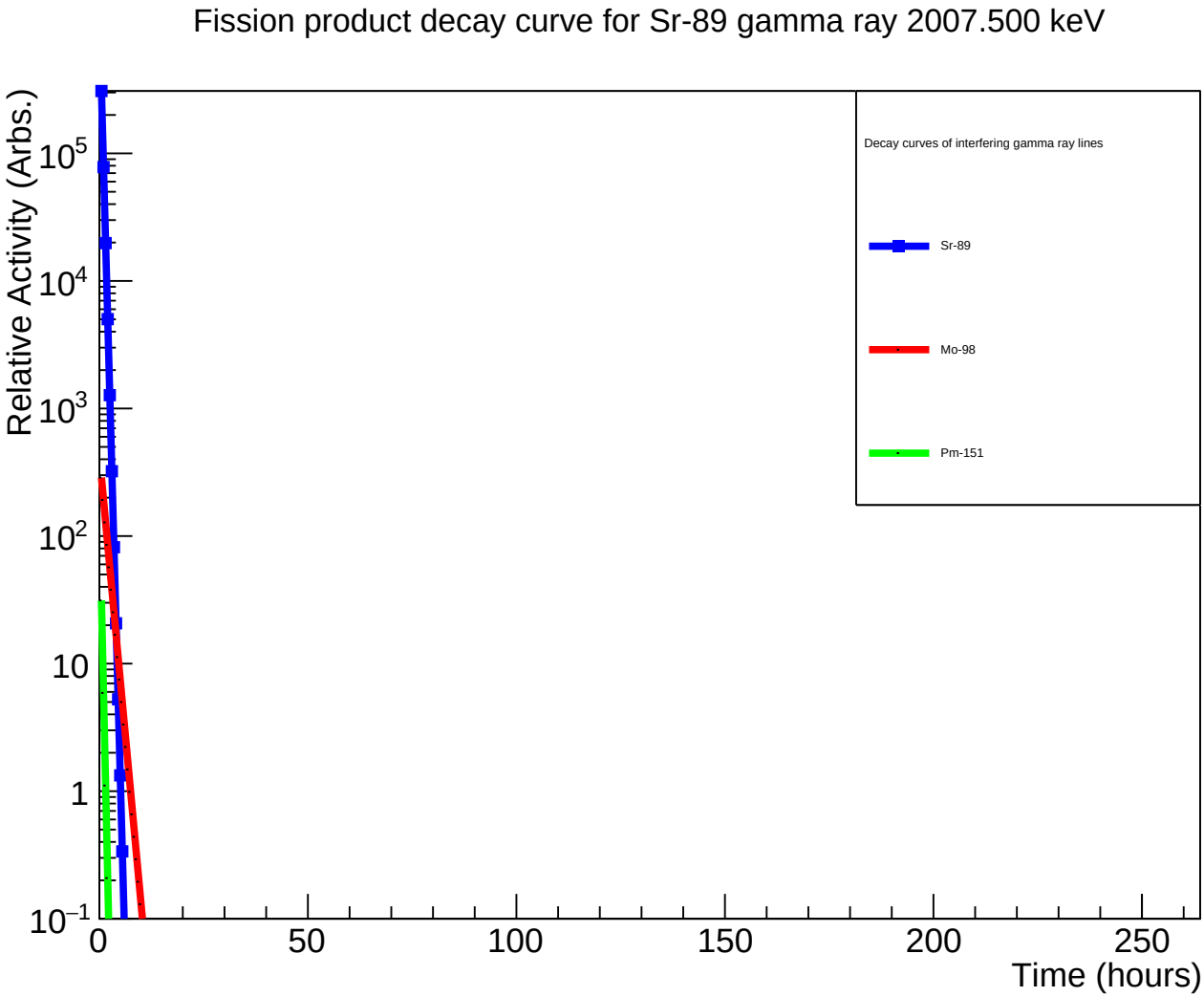


Figure 123: Sr-89 decay curve for 2007.500 keV gamma ray.

3.124 Rb-89 E_γ = 2195.92 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 2195.92 keV
Gamma Intensity = 14.47 ± 0.971 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 247: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 248: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	2195.842	0.132	2.840	0.036
Ba-141	La-141	2195.000	0.001	0.304	0.058

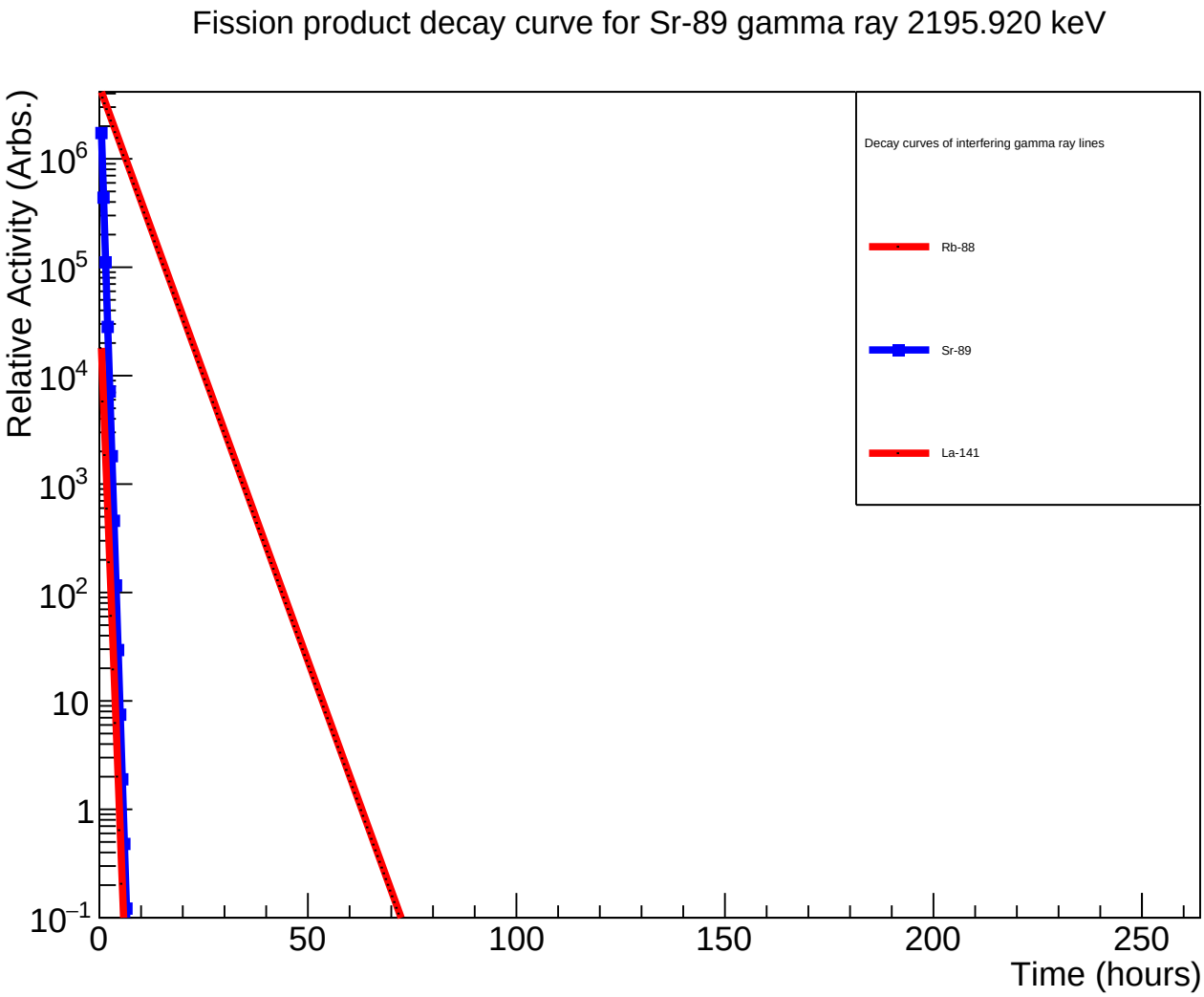


Figure 124: Sr-89 decay curve for 2195.920 keV gamma ray.

3.125 Rb-89 E_γ = 2570.20 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 2570.20 keV
Gamma Intensity = 10.69 ± 0.591 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 249: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 250: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-132	Xe-132	2569.800	0.000	2.295	0.043

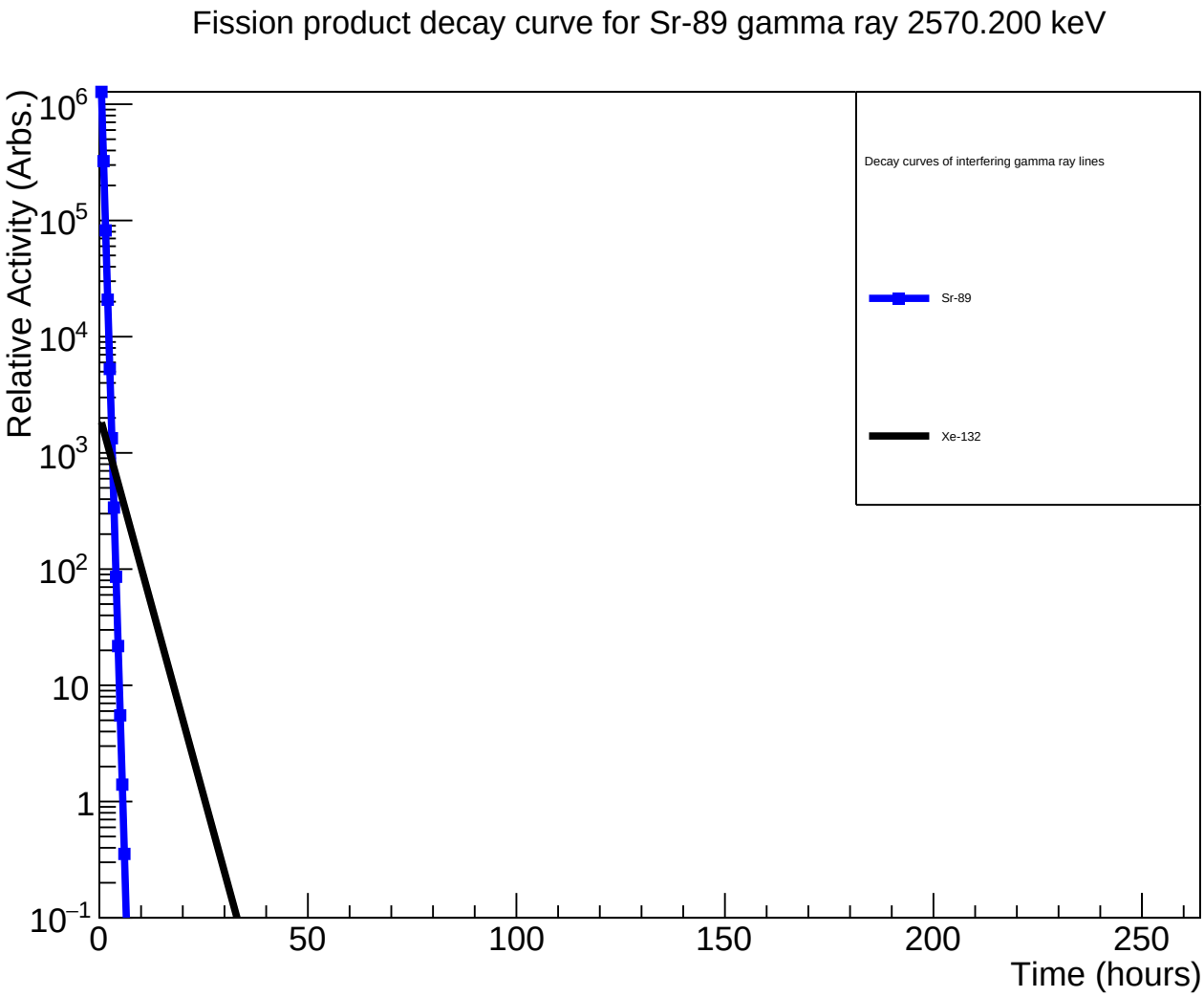


Figure 125: Sr-89 decay curve for 2570.200 keV gamma ray.

3.126 Rb-89 E_γ = 2707.26 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 2707.26 keV
Gamma Intensity = 2.20 ± 0.131 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 251: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 252: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	2705.900	0.003	0.305	0.019

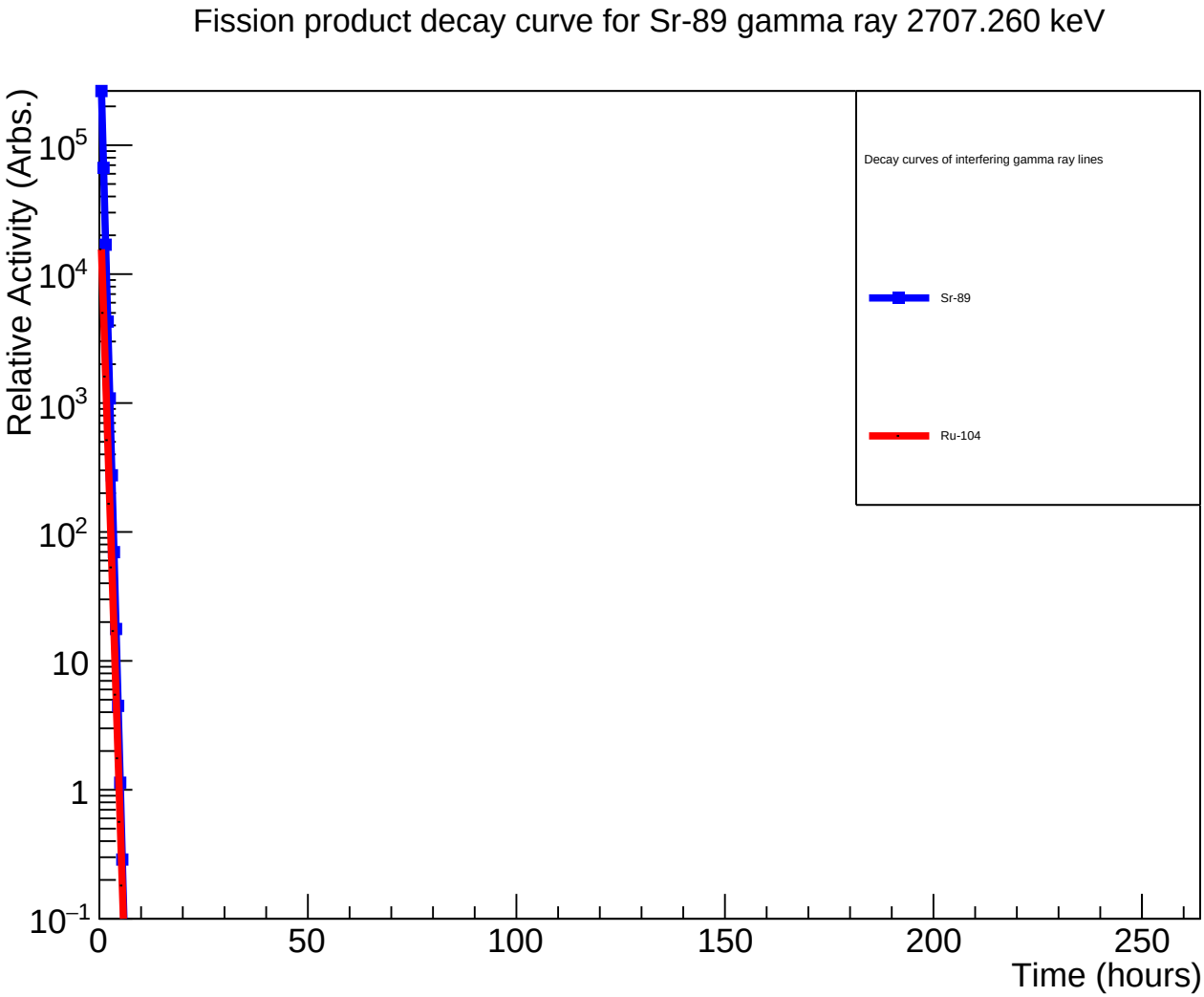


Figure 126: Sr-89 decay curve for 2707.260 keV gamma ray.

3.127 Rb-89 E_γ = 3509.00 keV

Chemical element: Rubidium
Fission product parent: Rb-89
Gamma originates in daughter: Sr-89
Eγ: 3509.00 keV
Gamma Intensity = 1.25 ± 0.078 %
$T_{1/2}$ = 0.252 ± 0.002 hours or 15.15 ± 0.12 minutes
CFY: 4.715 ± 0.066 %

Table 253: Decay chain of fission product chain A = 89

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-89	Krypton-89	0.001	0.000
Krypton-89	Rubidium-89	0.052	0.001
Rubidium-89	Strontium-89	0.252	0.002

Table 254: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

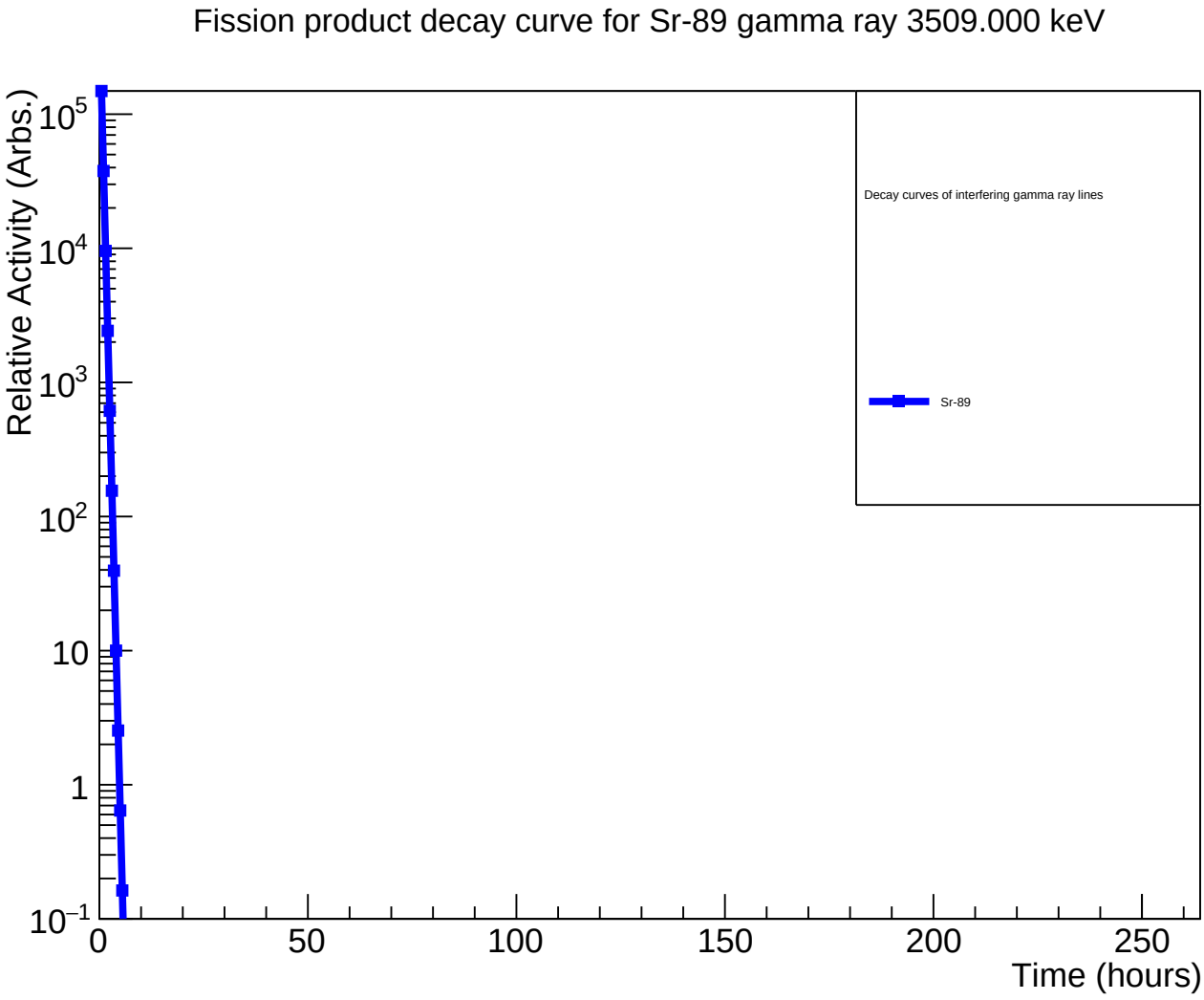


Figure 127: Sr-89 decay curve for 3509.000 keV gamma ray.

3.128 Sr-91 E_γ = 274.70 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 274.70 keV
Gamma Intensity = 1.04 ± 0.043 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 255: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 256: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	275.930	0.007	0.308	0.002
Mo-101	Tc-101	274.970	0.001	0.243	0.052
Sb-131	Te-131	274.260	0.012	0.384	0.026
Te-131	I-131	274.680	0.000	0.417	0.025
Ba-140	La-140	275.180	0.000	306.065	0.062
Nd-147	Pm-147	275.374	0.009	263.520	0.022
Nd-149	Pm-149	273.240	0.002	1.728	0.011
Nd-149	Pm-149	273.500	0.001	1.728	0.011
Nd-149	Pm-149	275.437	0.007	1.728	0.011
Nd-151	Pm-151	275.520	0.002	0.207	0.004
Nd-152	Pm-152	273.200	0.001	0.190	0.003
Nd-152	Pm-152	276.100	0.001	0.190	0.003
Pm-151	Sm-151	275.210	0.068	28.400	0.004

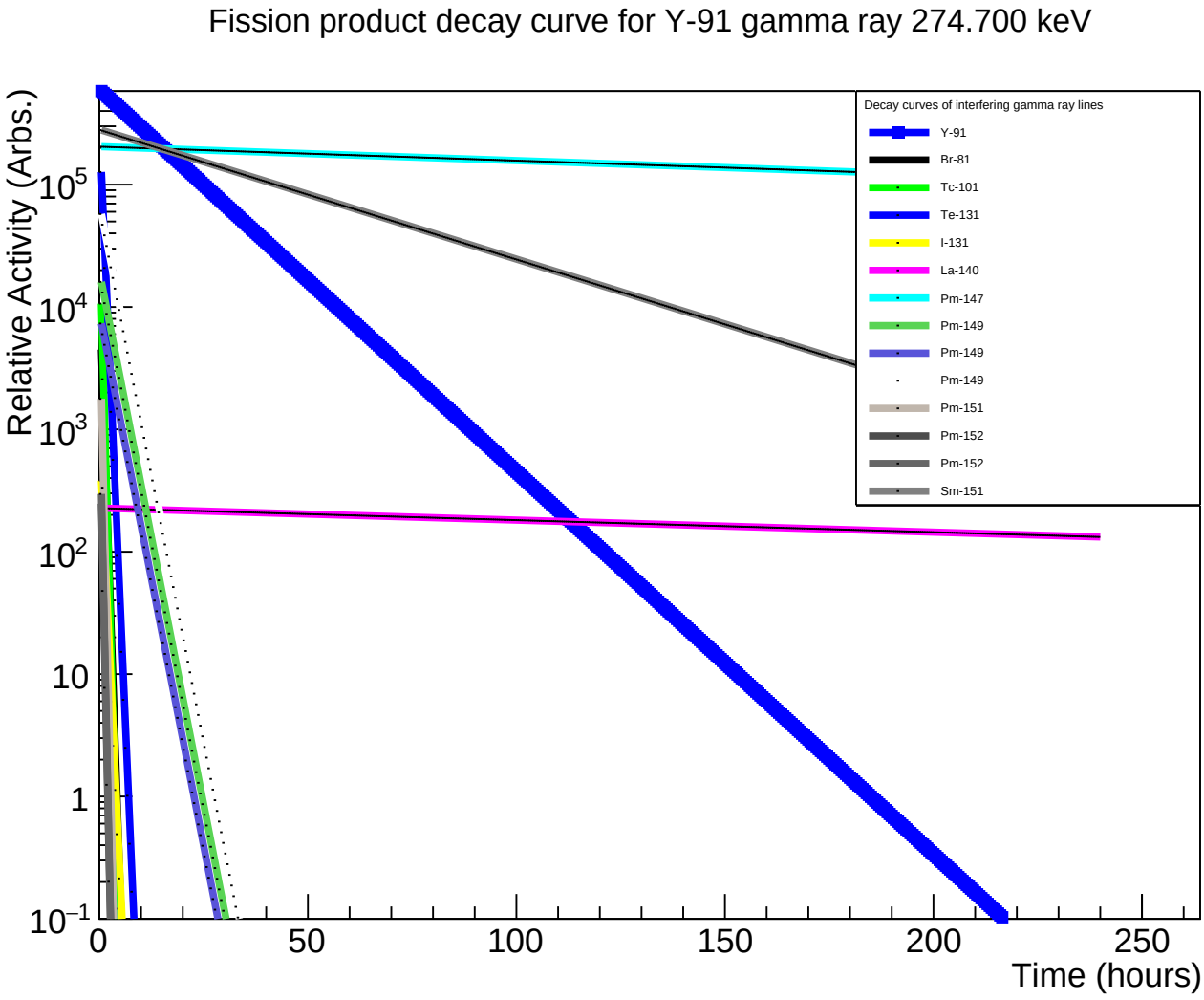


Figure 128: Y-91 decay curve for 274.700 keV gamma ray.

3.129 Sr-91 E_γ = 620.10 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 620.10 keV
Gamma Intensity = 1.78 ± 0.067 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 257: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 258: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	619.300	0.000	178.800	0.000
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Sb-126	Te-126	620.000	0.015	0.319	0.001
Sb-131	Te-131	619.780	0.016	0.384	0.026
Te-133	I-133	620.000	0.000	0.208	0.031
Te-133	I-133	621.300	0.005	0.923	0.040
I-132	Xe-132	620.900	0.004	2.295	0.043
I-132	Xe-132	621.200	0.016	2.295	0.043
Xe-138	Cs-138	619.700	0.000	0.235	0.063
Cs-139	Ba-139	619.700	0.000	0.155	0.063
Ba-142	La-142	620.300	0.000	0.177	0.058
La-143	Ce-143	620.300	0.023	0.237	0.059
La-143	Ce-143	621.400	0.015	0.237	0.059
Nd-151	Pm-151	619.010	0.003	0.207	0.004
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

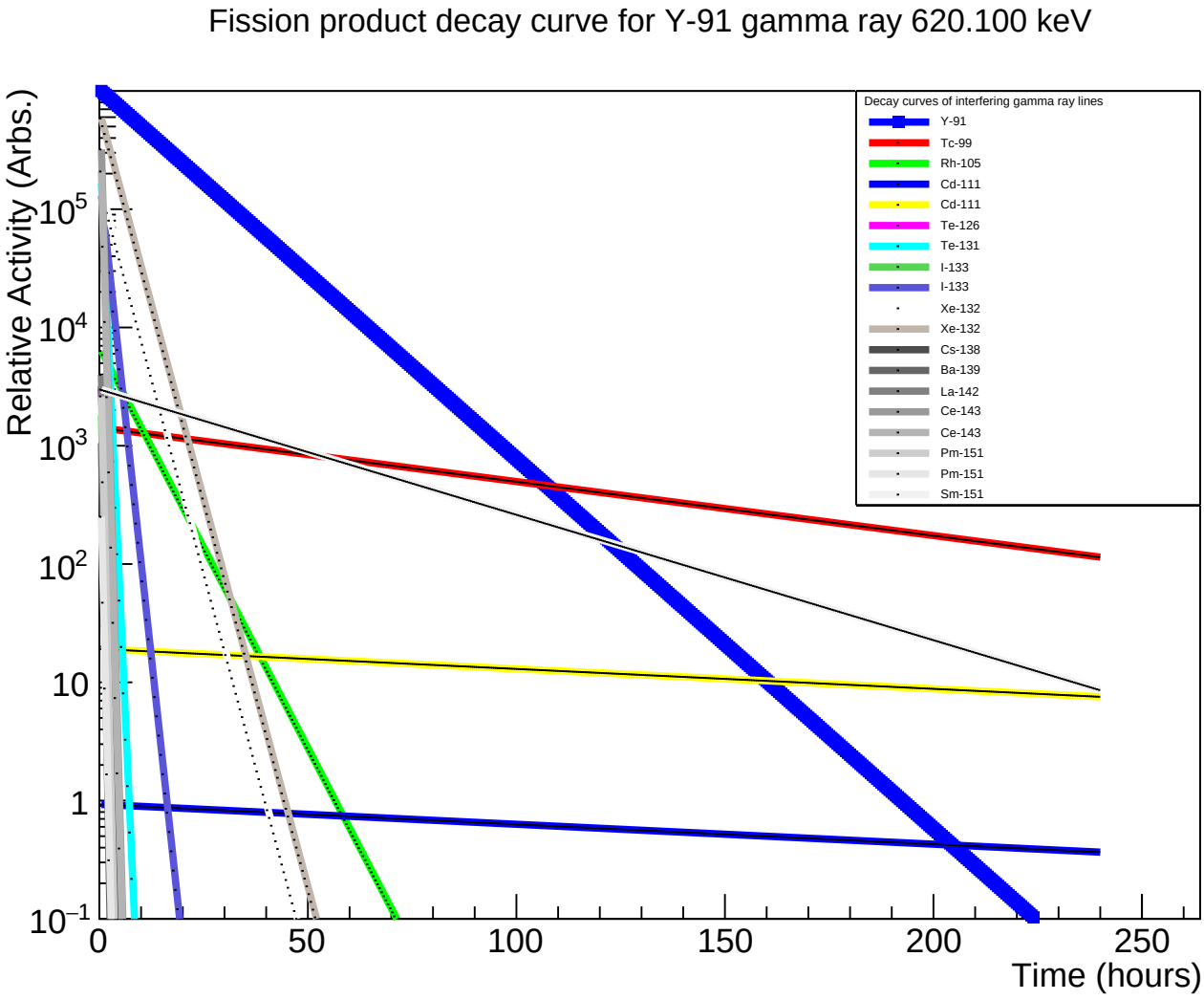


Figure 129: Y-91 decay curve for 620.100 keV gamma ray.

3.130 Sr-91 E_γ = 652.30 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 652.30 keV
Gamma Intensity = 2.98 ± 0.194 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 259: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 260: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	650.900	0.000	0.243	0.052
Mo-101	Tc-101	652.700	0.000	0.243	0.052
Ru-103	Rh-103	651.690	0.000	941.928	0.030
Ru-105	Rh-105	652.700	0.003	4.440	0.010
Sn-125	Sb-125	652.600	0.000	231.360	0.000
Sb-125	Te-125	652.800	0.000	24194.445	0.000
Sb-127	Te-127	652.300	0.004	92.400	0.002
Te-127	I-127	651.000	0.000	2616.000	0.000
Te-133	I-133	653.300	0.006	0.923	0.040
Cs-139	Ba-139	651.080	0.000	0.155	0.063
Nd-149	Pm-149	651.000	0.001	1.728	0.011
Nd-151	Pm-151	650.800	0.000	0.207	0.004

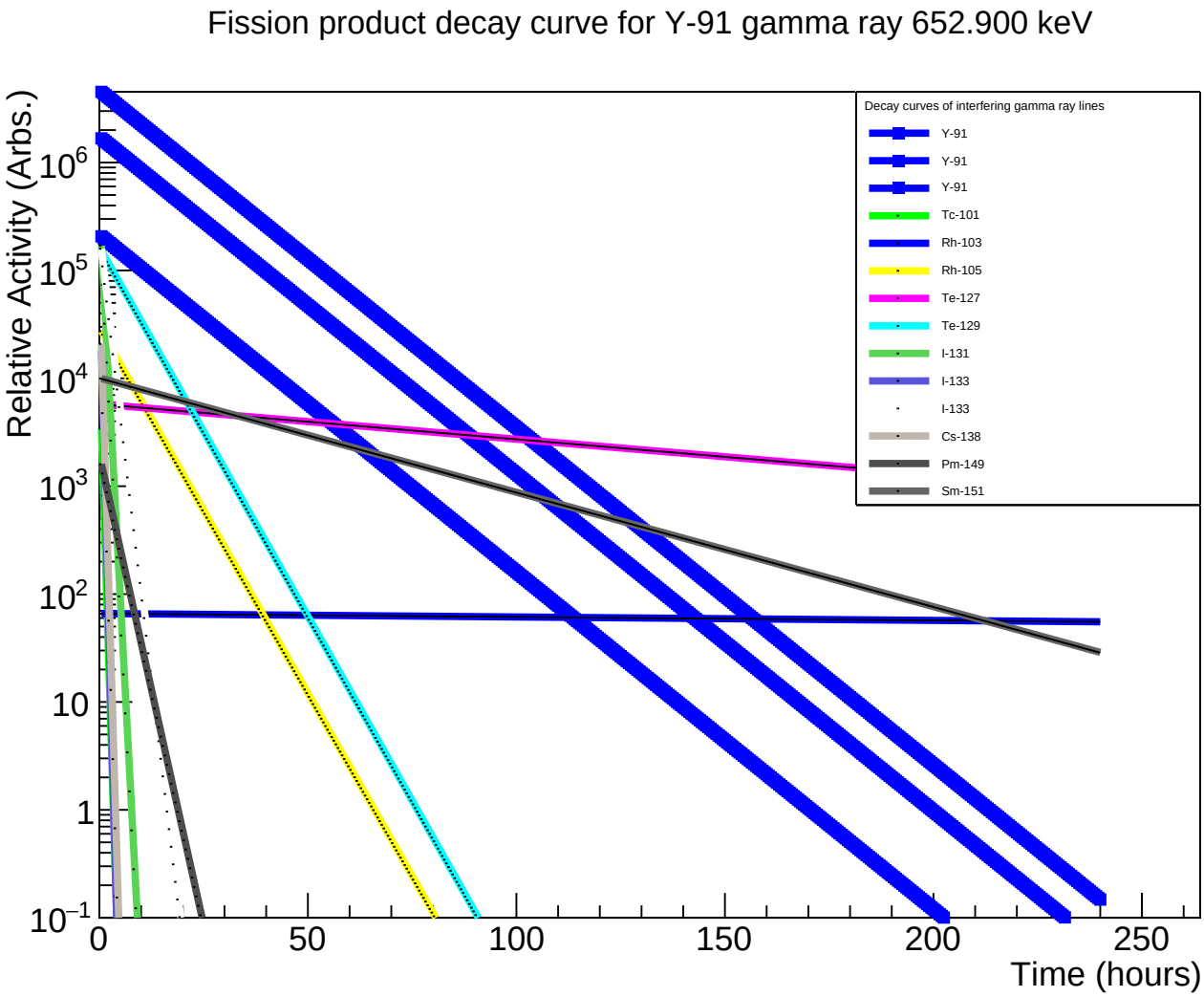


Figure 130: Y-91 decay curve for 652.300 keV gamma ray.

3.131 Sr-91 E_γ = 652.90 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 652.90 keV
Gamma Intensity = 8.04 ± 0.427 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 261: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 262: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	652.700	0.000	0.243	0.052
Ru-103	Rh-103	651.690	0.000	941.928	0.030
Ru-105	Rh-105	652.700	0.003	4.440	0.010
Sn-125	Sb-125	652.600	0.000	231.360	0.000
Sb-125	Te-125	652.800	0.000	24194.445	0.000
Sb-127	Te-127	652.300	0.004	92.400	0.002
Sb-128	Te-128	654.200	0.170	9.010	0.000
Sb-129	Te-129	654.300	0.030	4.400	0.005
Te-131	I-131	654.260	0.015	0.417	0.025
Te-133	I-133	653.980	0.003	0.208	0.031
Te-133	I-133	653.300	0.006	0.923	0.040
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Nd-149	Pm-149	653.900	0.000	1.728	0.011
Pm-151	Sm-151	654.250	0.002	28.400	0.004

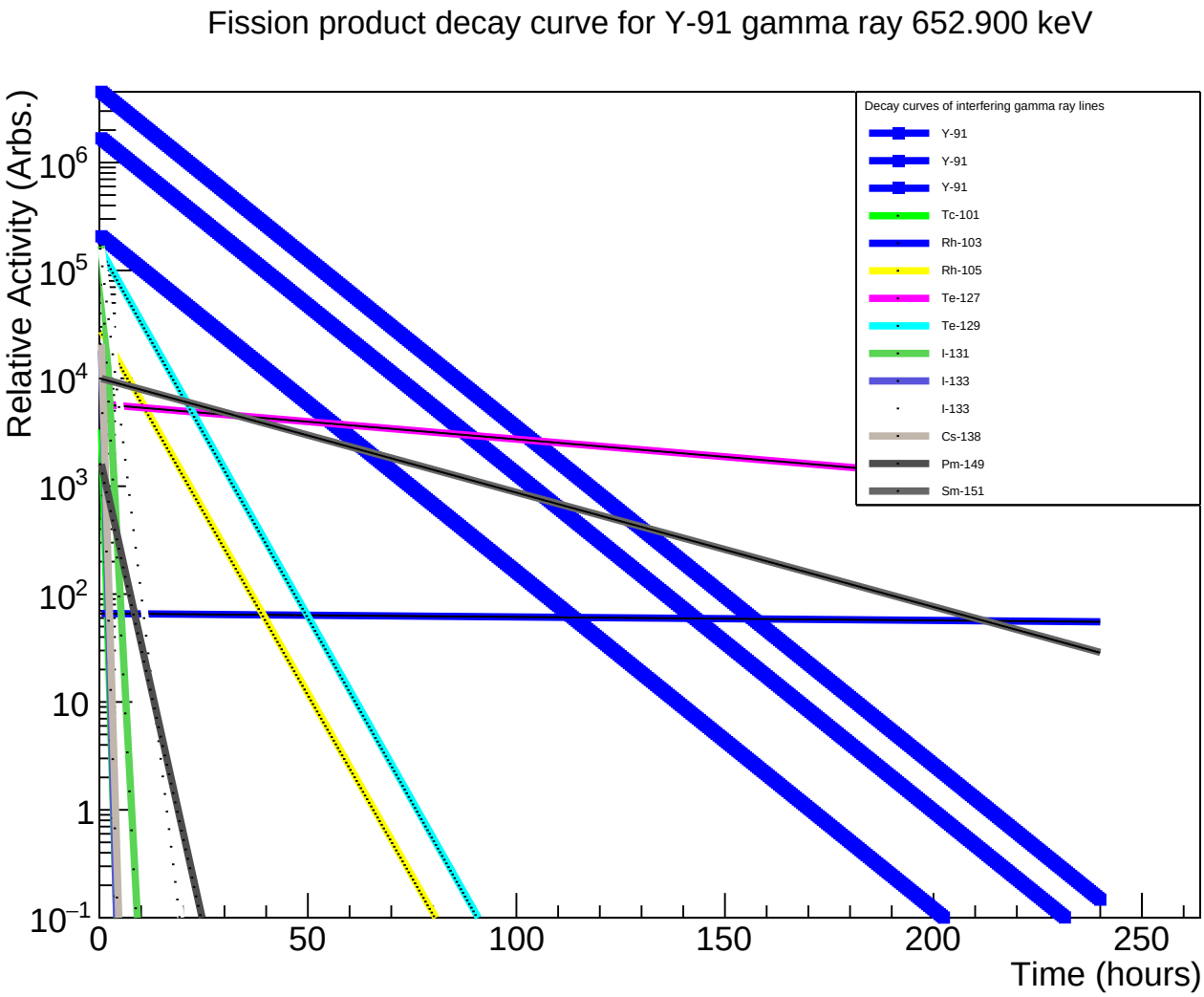


Figure 131: Y-91 decay curve for 652.900 keV gamma ray.

3.132 Sr-91 E_γ = 749.80 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 749.80 keV
Gamma Intensity = 23.68 ± 0.796 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 263: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 264: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	750.100	0.000	0.855	0.000
Sb-130	Te-130	748.600	0.040	0.105	0.010
Te-131	I-131	749.000	0.000	33.250	0.004
Nd-149	Pm-149	749.630	0.000	1.728	0.011
Nd-151	Pm-151	751.000	0.000	0.207	0.004

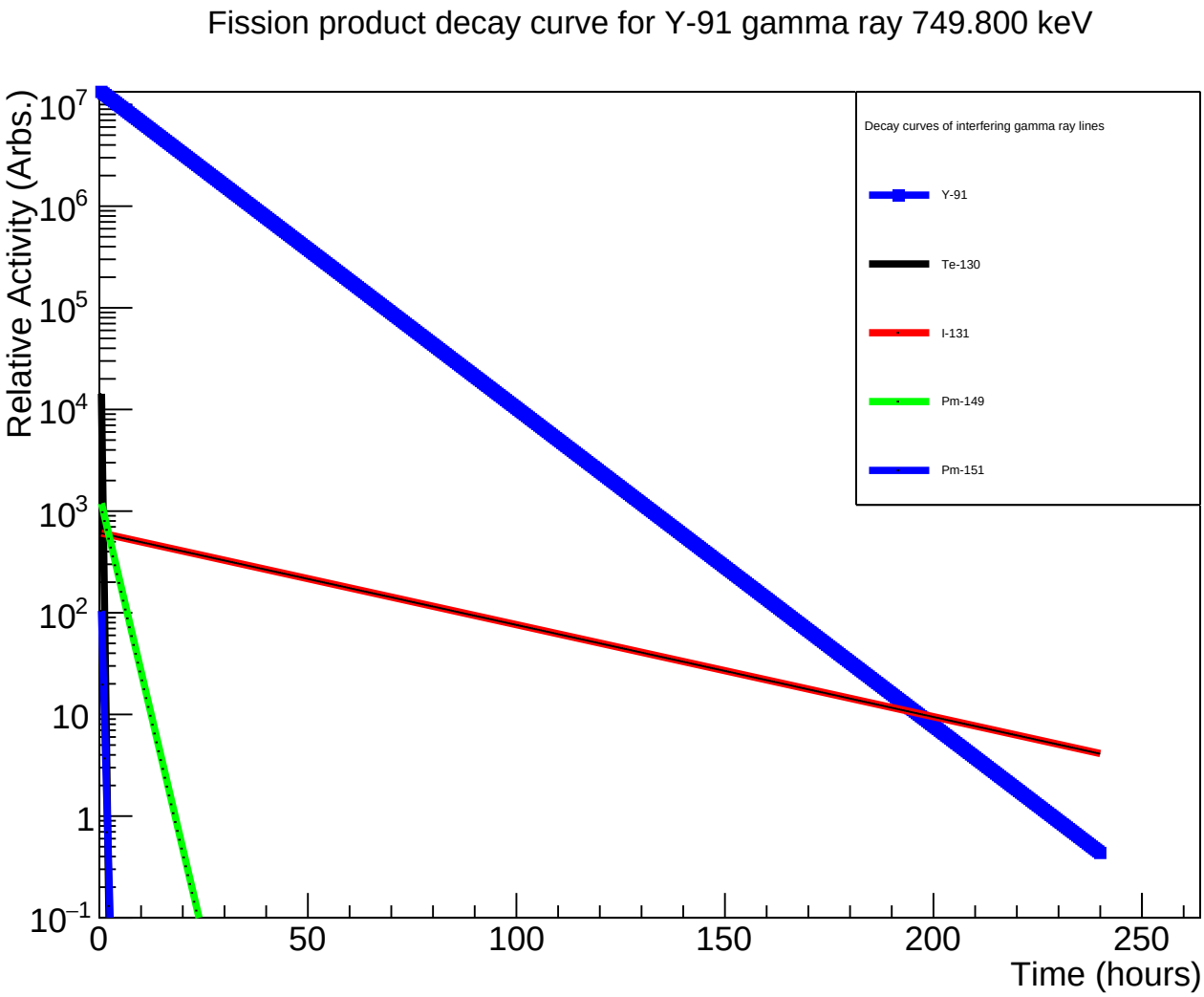


Figure 132: Y-91 decay curve for 749.800 keV gamma ray.

3.133 Sr-91 E_γ = 925.80 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 925.80 keV
Gamma Intensity = 3.85 ± 0.131 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 265: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 266: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-127	Te-127	924.400	0.005	92.400	0.002
Sb-130	Te-130	926.000	0.004	0.658	0.008
Te-134	I-134	925.550	0.015	0.697	0.070
Cs-139	Ba-139	924.960	0.001	0.155	0.063
La-140	Ce-140	925.189	0.069	40.285	0.062
Nd-151	Pm-151	924.400	0.000	0.207	0.004
Nd-151	Pm-151	925.500	0.001	0.207	0.004
Nd-151	Pm-151	925.500	0.000	0.207	0.004
Pm-151	Sm-151	926.100	0.000	28.400	0.004

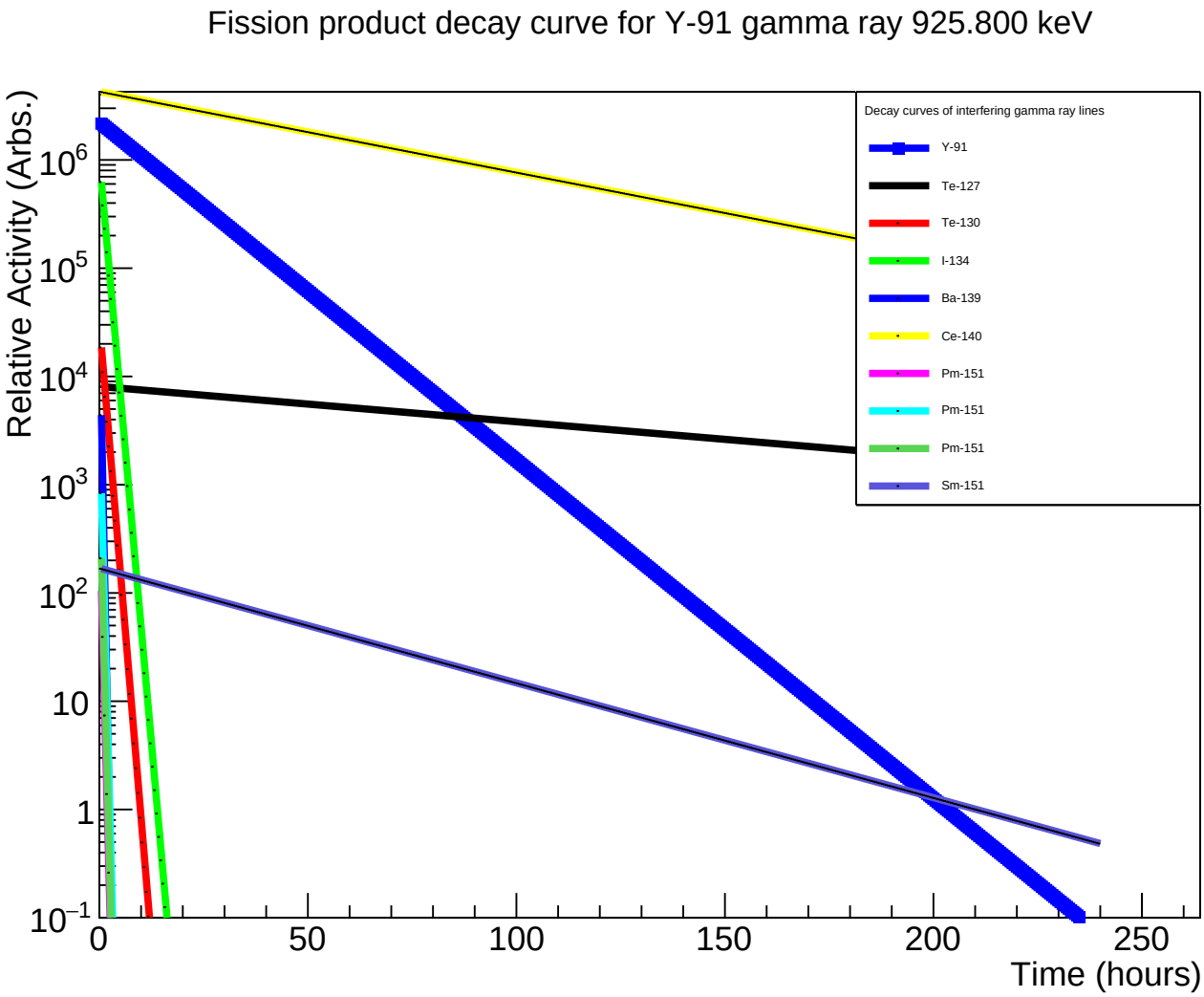


Figure 133: Y-91 decay curve for 925.800 keV gamma ray.

3.134 Sr-91 E_γ = 1024.30 keV

Chemical element: Strontium
Fission product parent: Sr-91
Gamma originates in daughter: Y-91
Eγ: 1024.30 keV
Gamma Intensity = 33.50 ± 1.100 %
$T_{1/2}$ = 9.630 ± 0.050 hours or 577.80 ± 3.00 minutes
CFY: 5.827 ± 0.058 %

Table 267: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 268: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1025.300	0.002	0.252	0.047
Nb-97	Mo-97	1024.400	0.011	1.202	0.060
Nb-98	Mo-98	1023.700	0.010	0.855	0.000
Sn-125	Sb-125	1025.460	0.000	0.159	0.000
Te-131	I-131	1023.600	0.001	33.250	0.004

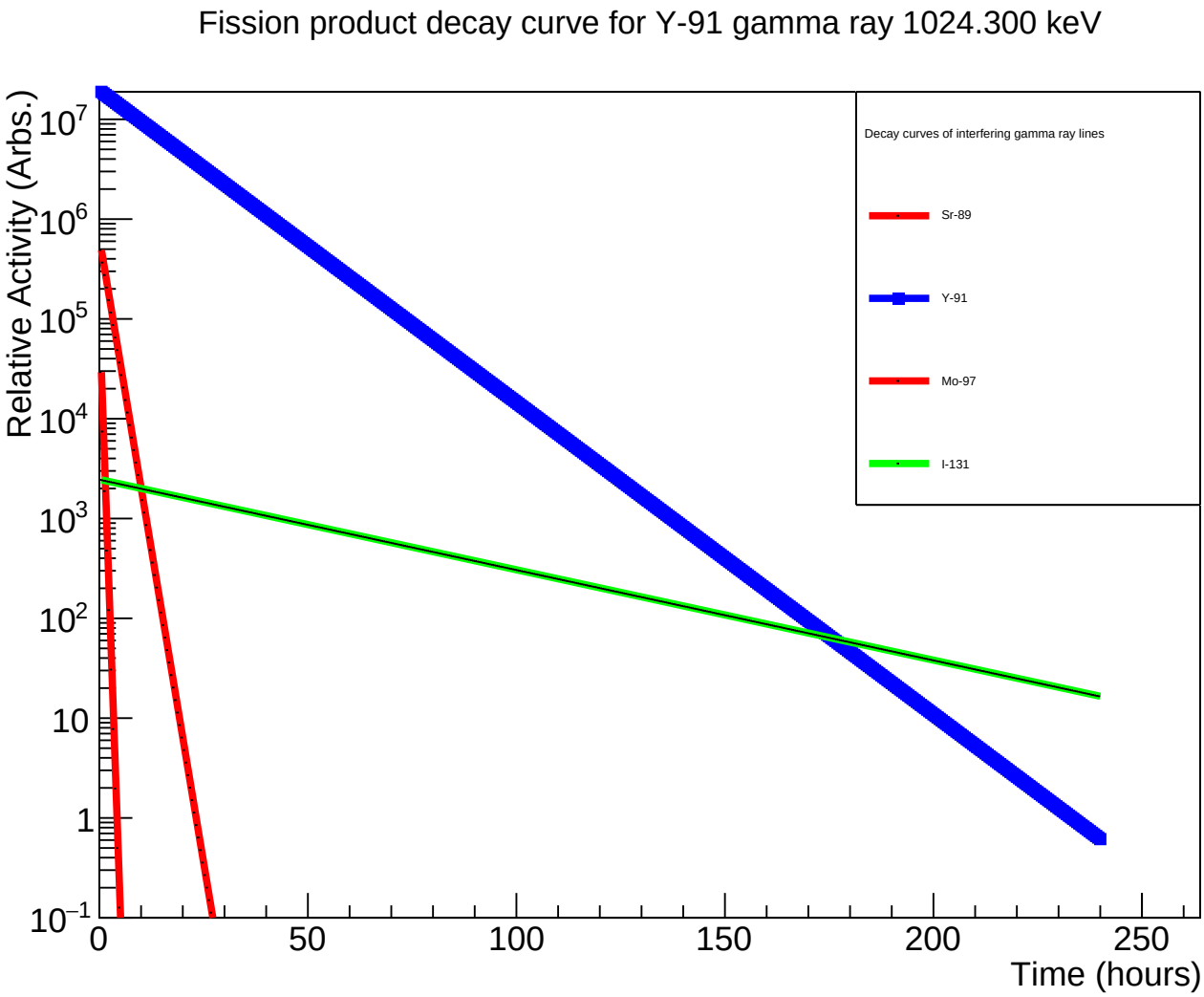


Figure 134: Y-91 decay curve for 1024.300 keV gamma ray.

3.135 Sr-92 E_γ = 241.56 keV

Chemical element: Strontium
Fission product parent: Sr-92
Gamma originates in daughter: Y-92
Eγ: 241.56 keV
Gamma Intensity = 2.92 ± 0.200 %
$T_{1/2}$ = 2.710 ± 0.010 hours or 162.60 ± 0.60 minutes
CFY: 5.938 ± 0.083 %

Table 269: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 270: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	240.710	0.003	2.840	0.036
Mo-99	Tc-99	242.290	0.000	65.976	0.061
Tc-105	Ru-105	242.450	0.001	0.127	0.010
Ru-103	Rh-103	241.875	0.000	941.928	0.030
Sn-129	Sb-129	241.600	0.009	0.115	0.002
Te-129	I-129	242.200	0.000	1.160	0.005
Te-129	I-129	242.200	0.000	806.400	0.001
Te-131	I-131	240.930	0.073	33.250	0.004
Te-133	I-133	242.000	0.000	0.208	0.031
Te-133	I-133	240.900	0.003	0.923	0.040
Xe-138	Cs-138	242.560	0.035	0.235	0.063
Ba-141	La-141	242.700	0.001	0.304	0.058
Ba-142	La-142	242.900	0.002	0.177	0.058
La-140	Ce-140	241.933	0.004	40.285	0.062
Pr-145	Nd-145	242.910	0.000	5.984	0.039
Nd-147	Pm-147	240.500	0.000	263.520	0.022
Nd-149	Pm-149	240.220	0.039	1.728	0.011
Nd-152	Pm-152	240.500	0.001	0.190	0.003
Pm-149	Sm-149	242.100	0.000	53.080	0.011
Pm-151	Sm-151	240.090	0.038	28.400	0.004

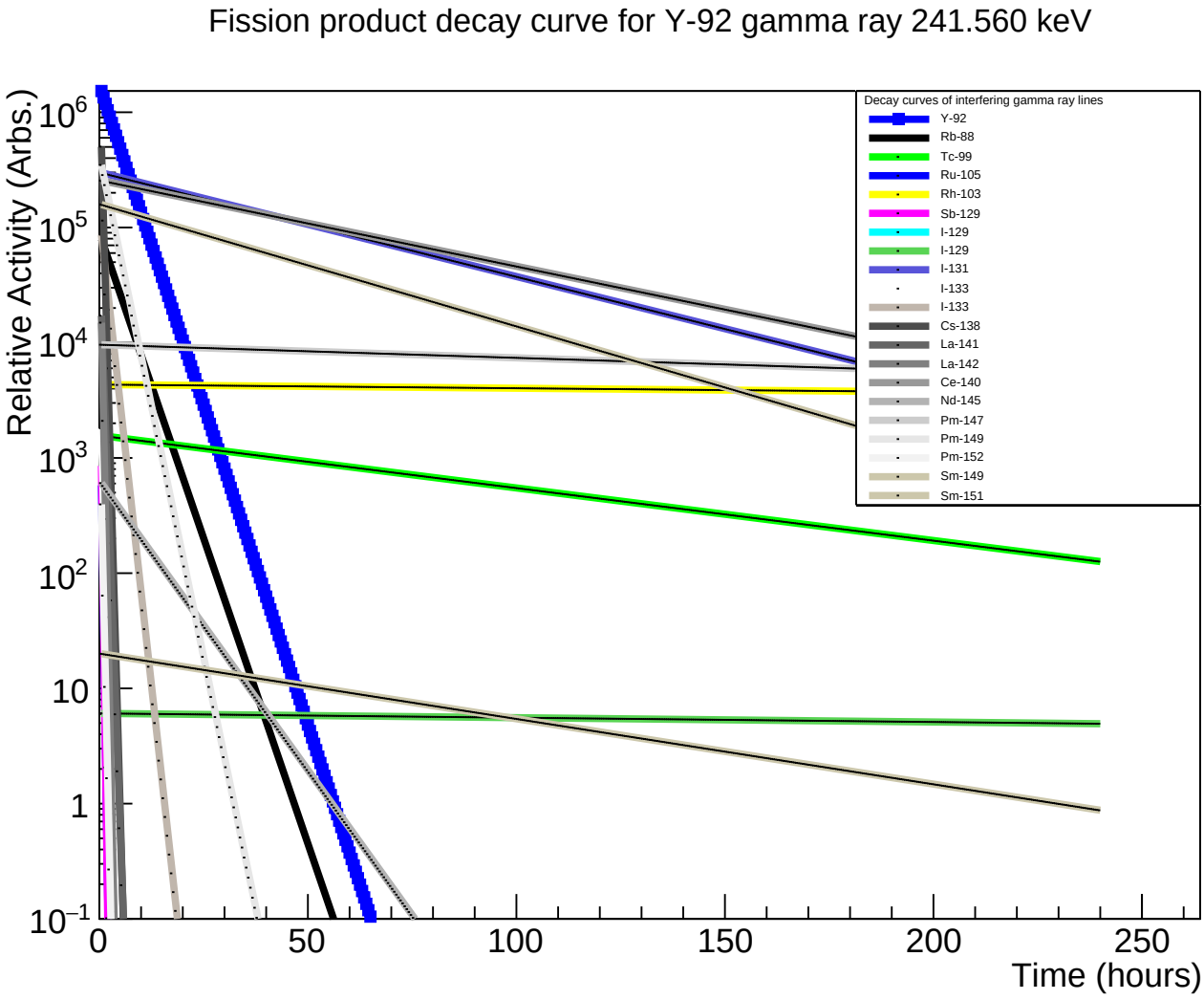


Figure 135: Y-92 decay curve for 241.560 keV gamma ray.

3.136 Sr-92 E_γ = 430.49 keV

Chemical element: Strontium
Fission product parent: Sr-92
Gamma originates in daughter: Y-92
Eγ: 430.49 keV
Gamma Intensity = 3.28 ± 0.238 %
$T_{1/2}$ = 2.710 ± 0.010 hours or 162.60 ± 0.60 minutes
CFY: 5.938 ± 0.083 %

Table 271: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 272: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Sn-125	Sb-125	430.030	0.000	0.159	0.000
Te-133	I-133	431.610	0.001	0.208	0.031
Te-133	I-133	429.030	0.021	0.923	0.040
I-132	Xe-132	431.800	0.005	2.295	0.043
I-135	Xe-135	429.930	0.003	6.570	0.063
Cs-139	Ba-139	430.200	0.000	0.155	0.063
Nd-151	Pm-151	430.200	0.000	0.207	0.004
Pm-151	Sm-151	429.100	0.000	28.400	0.004

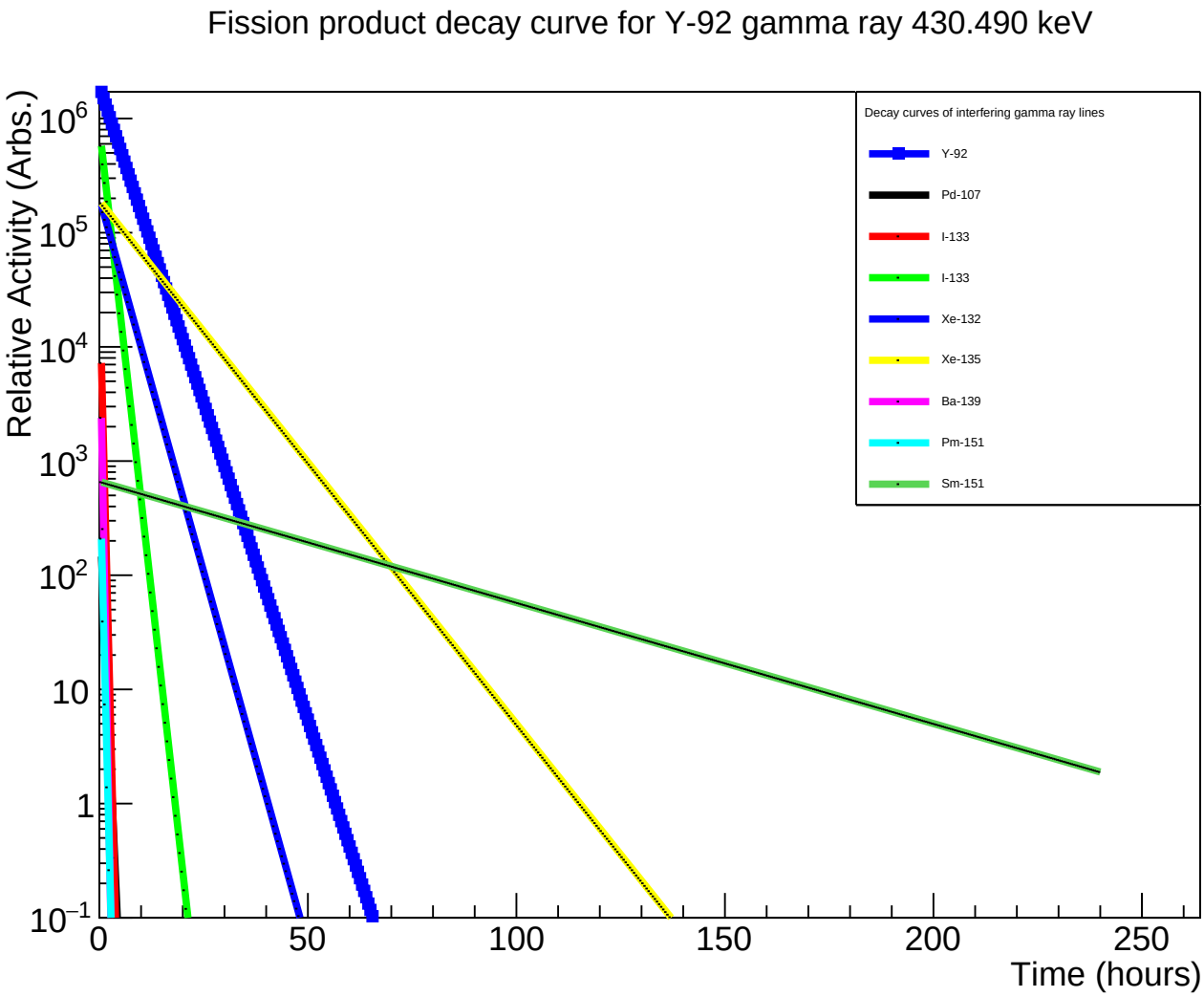


Figure 136: Y-92 decay curve for 430.490 keV gamma ray.

3.137 Sr-92 E_γ = 953.31 keV

Chemical element: Strontium
Fission product parent: Sr-92
Gamma originates in daughter: Y-92
Eγ: 953.31 keV
Gamma Intensity = 3.52 ± 0.243 %
$T_{1/2}$ = 2.710 ± 0.010 hours or 162.60 ± 0.60 minutes
CFY: 5.938 ± 0.083 %

Table 273: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 274: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	954.000	0.158	0.172	0.064
Ru-105	Rh-105	952.780	0.000	4.440	0.010
I-132	Xe-132	954.550	0.176	2.295	0.043
Xe-138	Cs-138	953.100	0.000	0.235	0.063
Cs-138	Ba-138	953.000	0.001	0.557	0.067
Pr-146	Nd-146	954.000	0.000	0.403	0.030
Nd-149	Pm-149	952.000	0.000	1.728	0.011
Nd-151	Pm-151	951.850	0.001	0.207	0.004
Nd-151	Pm-151	954.400	0.000	0.207	0.004
Pm-149	Sm-149	952.800	0.000	53.080	0.011
Pm-151	Sm-151	953.410	0.001	28.400	0.004

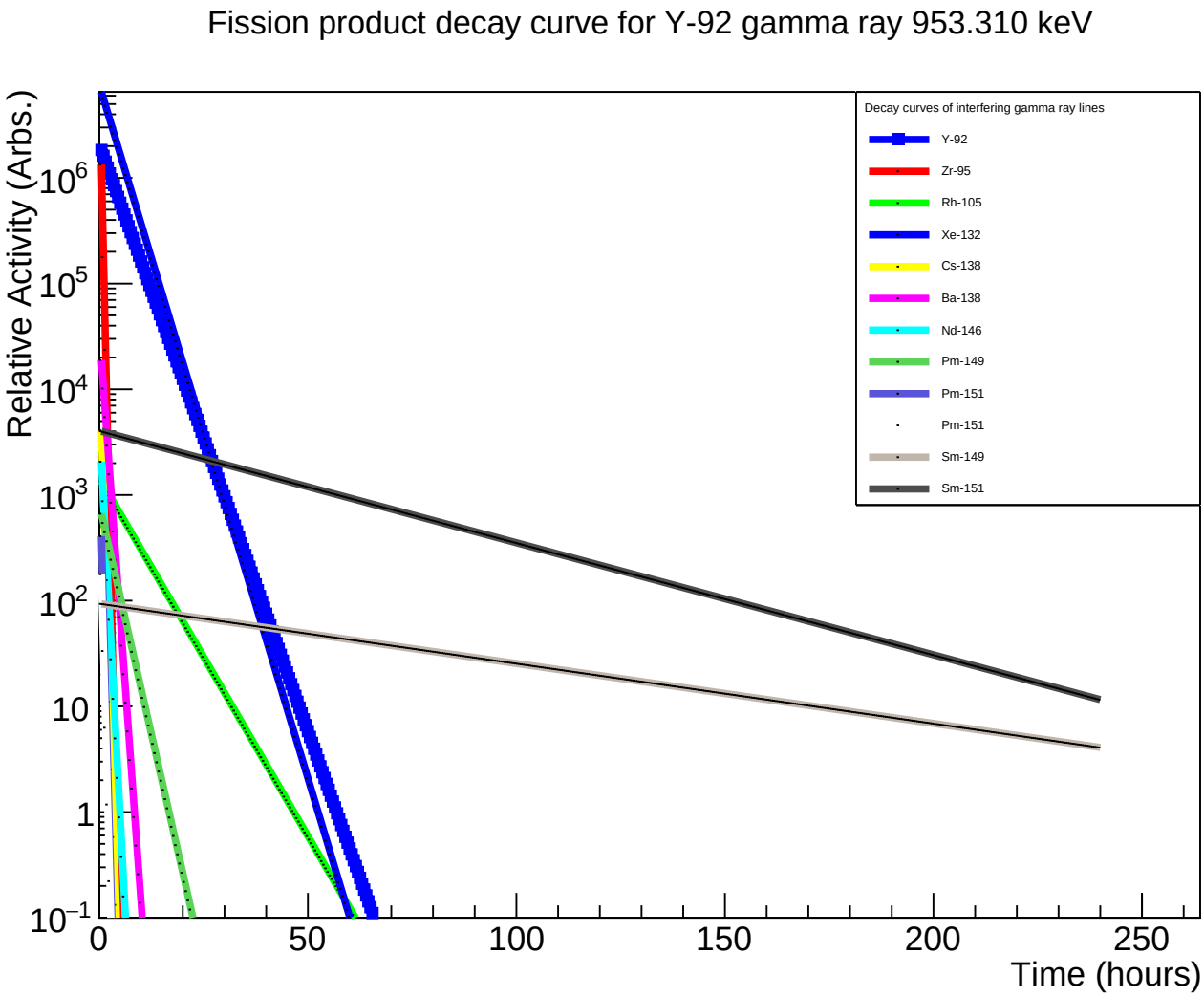


Figure 137: Y-92 decay curve for 953.310 keV gamma ray.

3.138 Sr-92 E_γ = 1142.35 keV

Chemical element: Strontium
Fission product parent: Sr-92
Gamma originates in daughter: Y-92
Eγ: 1142.35 keV
Gamma Intensity = 2.79 ± 0.206 %
$T_{1/2}$ = 2.710 ± 0.010 hours or 162.60 ± 0.60 minutes
CFY: 5.938 ± 0.083 %

Table 275: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 276: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1141.330	0.013	2.840	0.036
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Sb-127	Te-127	1141.600	0.004	92.400	0.002
Sb-130	Te-130	1141.400	0.020	0.658	0.008
Sb-130	Te-130	1142.000	0.056	0.105	0.010
Te-133	I-133	1142.740	0.013	0.923	0.040
I-132	Xe-132	1143.300	0.014	2.295	0.043
Xe-138	Cs-138	1141.640	0.005	0.235	0.063
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Nd-149	Pm-149	1141.770	0.000	1.728	0.011

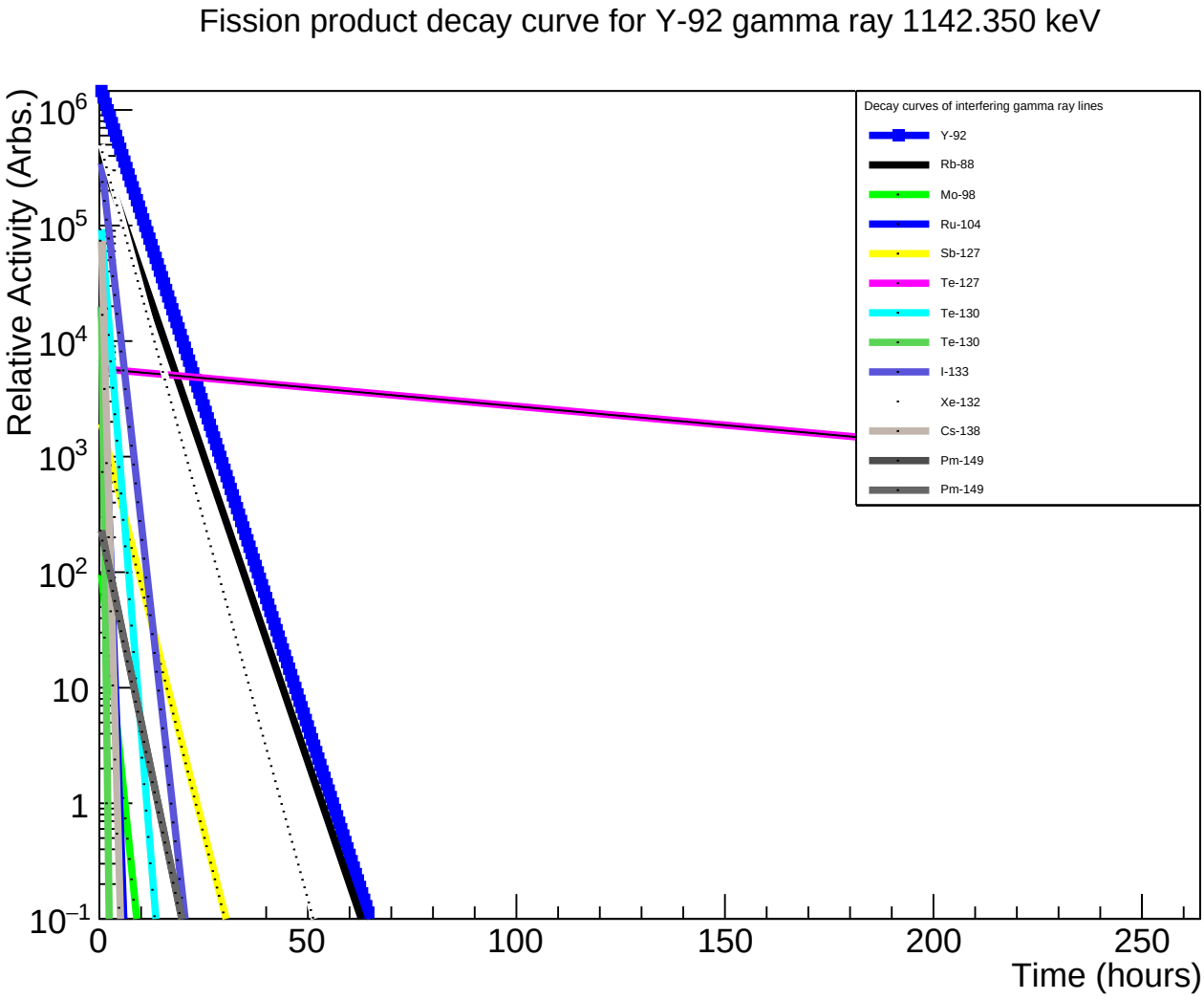


Figure 138: Y-92 decay curve for 1142.350 keV gamma ray.

3.139 Sr-92 E_γ = 1383.93 keV

Chemical element: Strontium
Fission product parent: Sr-92
Gamma originates in daughter: Y-92
Eγ: 1383.93 keV
Gamma Intensity = 90.00 ± 5.682 %
$T_{1/2}$ = 2.710 ± 0.010 hours or 162.60 ± 0.60 minutes
CFY: 5.938 ± 0.083 %

Table 277: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 278: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1384.000	0.004	0.372	0.003
Kr-87	Rb-87	1382.550	0.003	1.272	0.026
Rb-88	Sr-88	1382.450	0.008	0.296	0.036
Y-94	Zr-94	1384.400	0.000	0.312	0.065
Mo-101	Tc-101	1382.710	0.011	0.243	0.052
Nd-151	Pm-151	1383.370	0.001	0.207	0.004

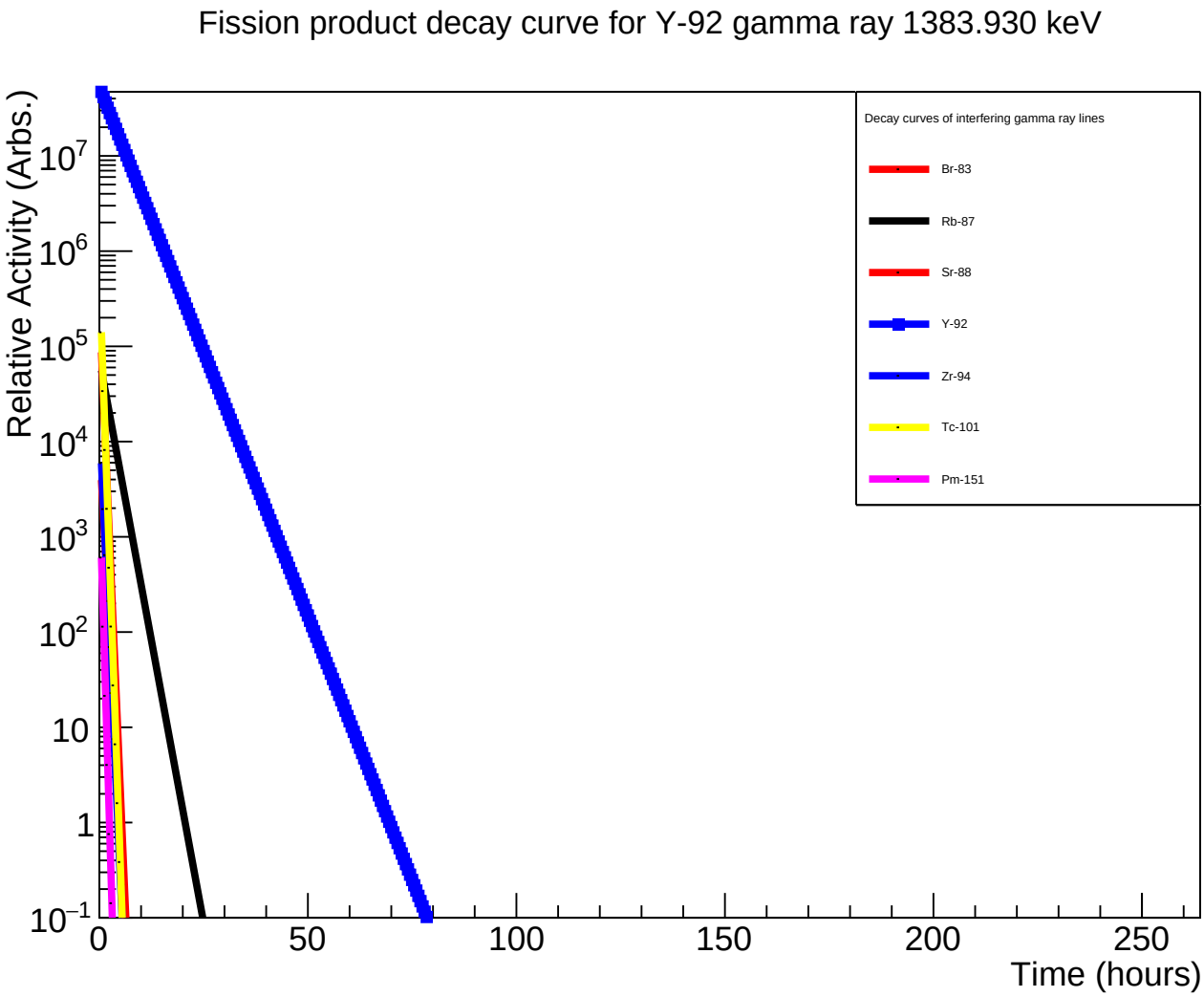


Figure 139: Y-92 decay curve for 1383.930 keV gamma ray.

3.140 Sr-93 E_γ = 260.12 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 260.12 keV
Gamma Intensity = 7.41 ± 0.523 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 279: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 280: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	259.000	0.004	0.855	0.000
Ag-113	Cd-113	258.800	0.016	5.370	0.000
Cd-115	In-115	260.896	0.019	53.460	0.000
Te-131	I-131	261.400	0.000	33.250	0.004
Te-134	I-134	259.800	0.004	0.697	0.070
Cs-139	Ba-139	260.600	0.000	0.155	0.063
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-151	Sm-151	261.400	0.000	28.400	0.004

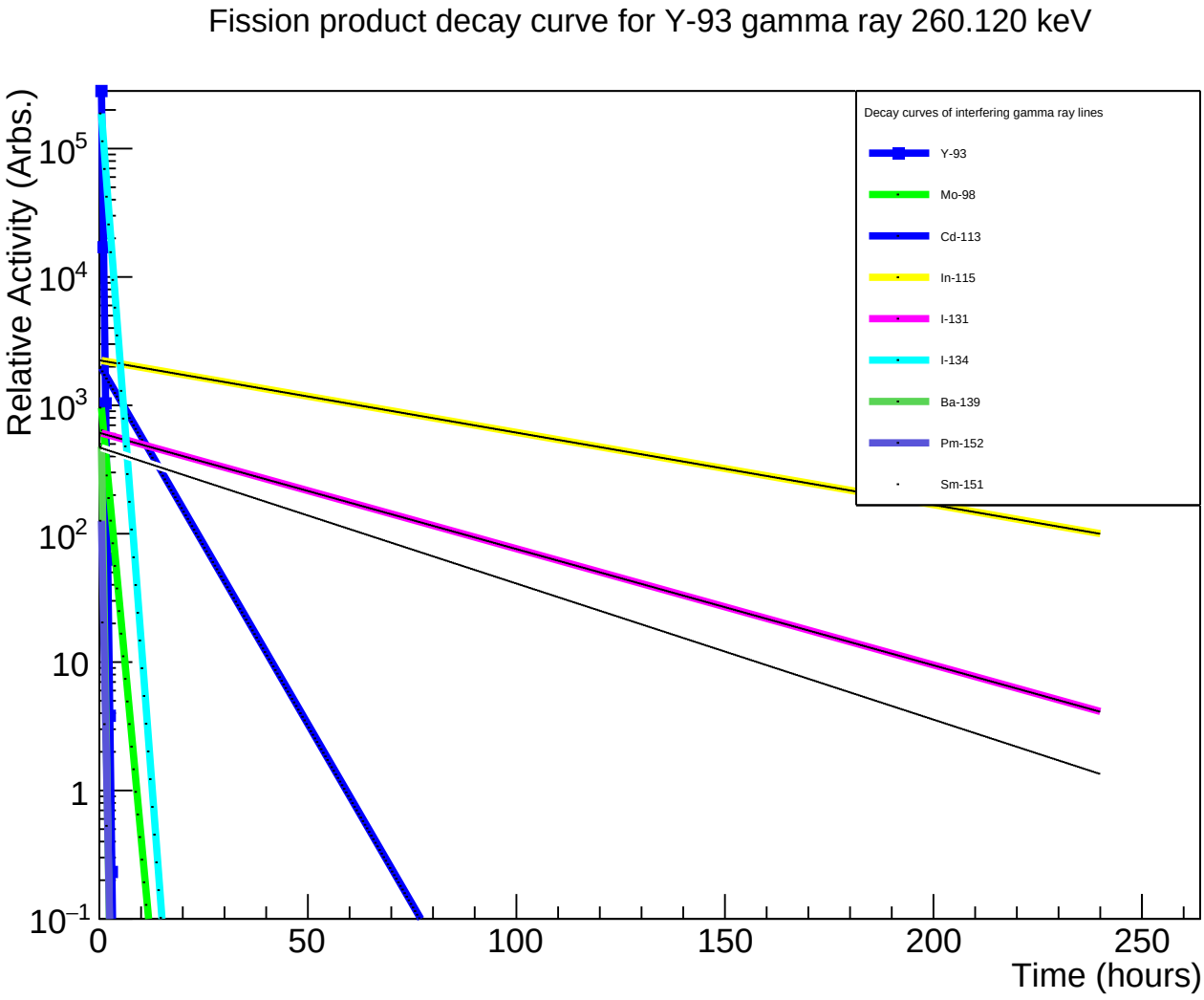


Figure 140: Y-93 decay curve for 260.120 keV gamma ray.

3.141 Sr-93 E_γ = 346.49 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 346.49 keV
Gamma Intensity = 3.28 ± 0.223 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 281: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 282: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	345.530	0.001	0.855	0.000
Nb-98	Mo-98	347.940	0.002	0.855	0.000
Mo-101	Tc-101	347.560	0.001	0.243	0.052
Te-131	I-131	345.900	0.001	33.250	0.004
Te-133	I-133	345.600	0.002	0.923	0.040
Te-133	I-133	347.300	0.006	0.923	0.040
I-133	Xe-133	345.430	0.001	20.800	0.067
Ba-142	La-142	346.800	0.001	0.177	0.058
Nd-149	Pm-149	347.843	0.002	1.728	0.011
Nd-151	Pm-151	344.990	0.000	0.207	0.004
Nd-151	Pm-151	347.130	0.004	0.207	0.004
Pm-151	Sm-151	346.100	0.000	28.400	0.004

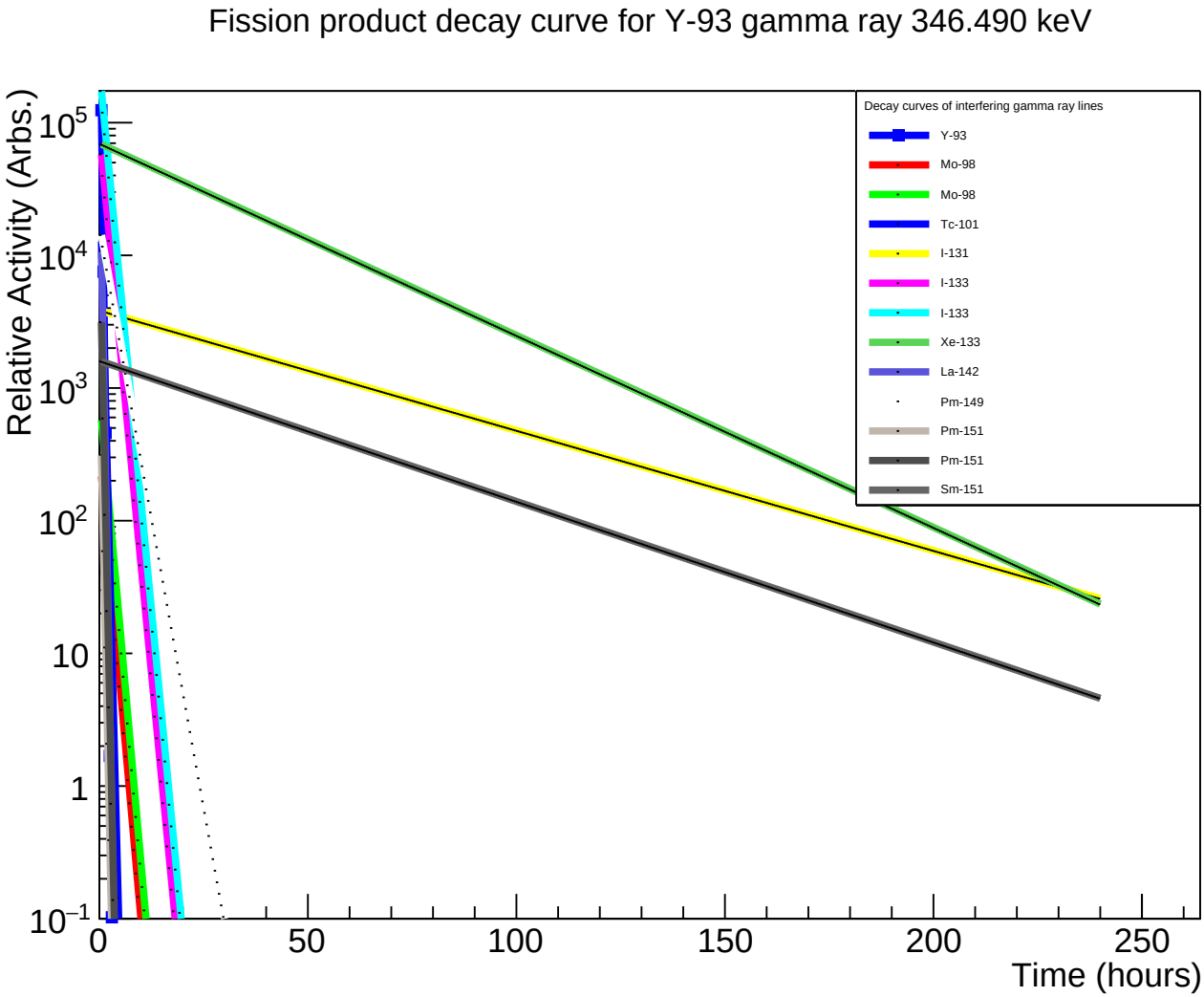


Figure 141: Y-93 decay curve for 346.490 keV gamma ray.

3.142 Sr-93 E_γ = 377.36 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 377.36 keV
Gamma Intensity = 1.48 ± 0.115 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 283: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 284: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	377.900	0.002	0.243	0.052
Pd-111	Ag-111	376.680	0.005	0.390	0.000
Te-131	I-131	377.800	0.000	33.250	0.004
Te-133	I-133	376.800	0.002	0.923	0.040
Cs-139	Ba-139	375.910	0.000	0.155	0.063
Nd-149	Pm-149	376.900	0.000	1.728	0.011
Nd-151	Pm-151	377.730	0.001	0.207	0.004
Pm-151	Sm-151	376.900	0.000	28.400	0.004
Pm-151	Sm-151	378.500	0.000	28.400	0.004

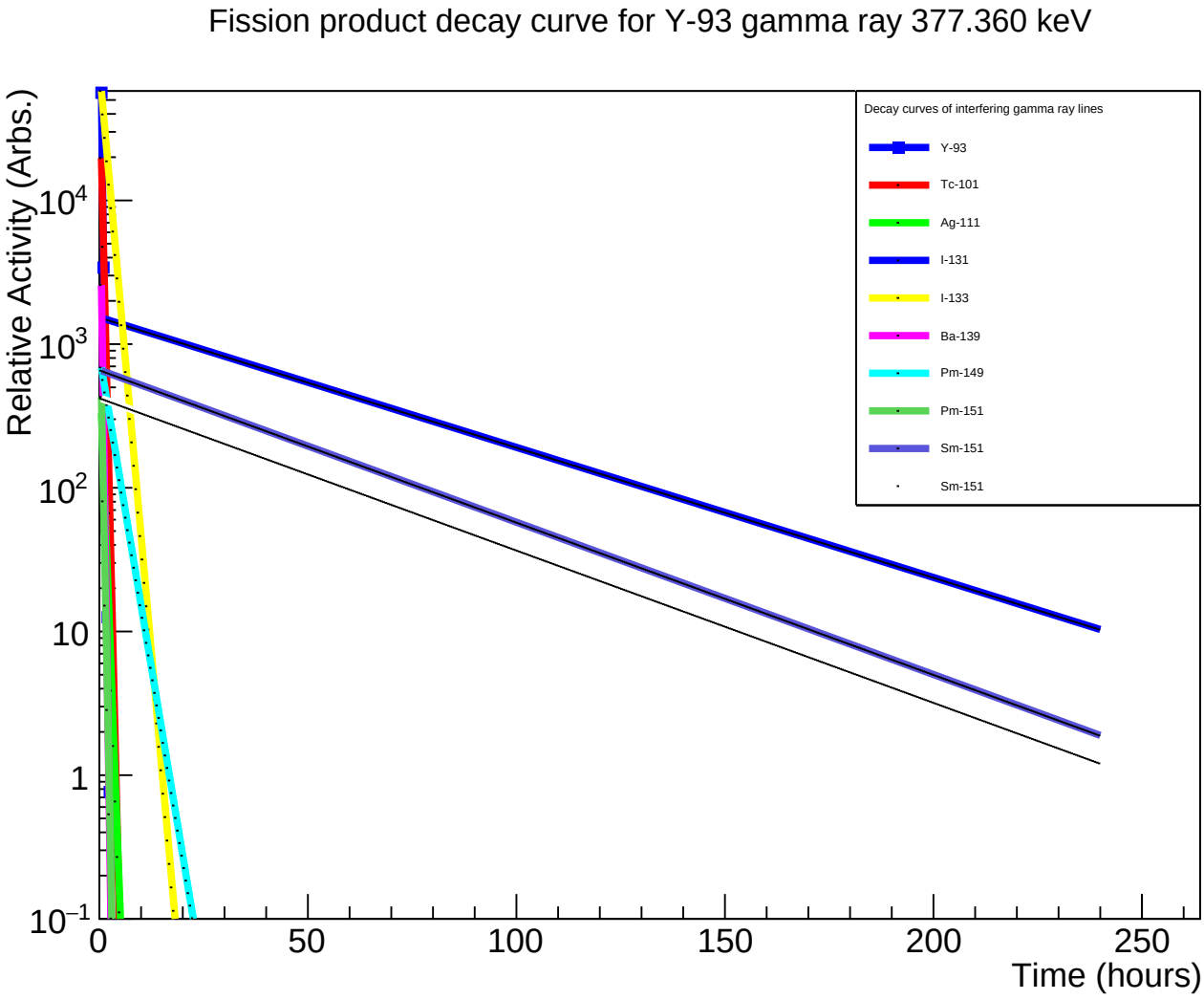


Figure 142: Y-93 decay curve for 377.360 keV gamma ray.

3.143 Sr-93 E_γ = 432.67 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 432.67 keV
Gamma Intensity = 1.48 ± 0.110 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 285: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 286: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	432.000	0.015	0.150	0.000
Se-83	Br-83	433.000	0.002	0.372	0.003
Y-95	Zr-95	432.000	0.016	0.172	0.064
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Sn-125	Sb-125	434.130	0.000	231.360	0.000
Te-131	I-131	432.400	0.006	33.250	0.004
Te-133	I-133	431.610	0.001	0.208	0.031
I-132	Xe-132	431.800	0.005	2.295	0.043
I-134	Xe-134	433.350	0.042	0.875	0.078
I-135	Xe-135	433.741	0.006	6.570	0.063
Ba-142	La-142	432.300	0.010	0.177	0.058
La-140	Ce-140	432.493	0.029	40.285	0.062
La-142	Ce-142	433.300	0.004	1.518	0.058
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011

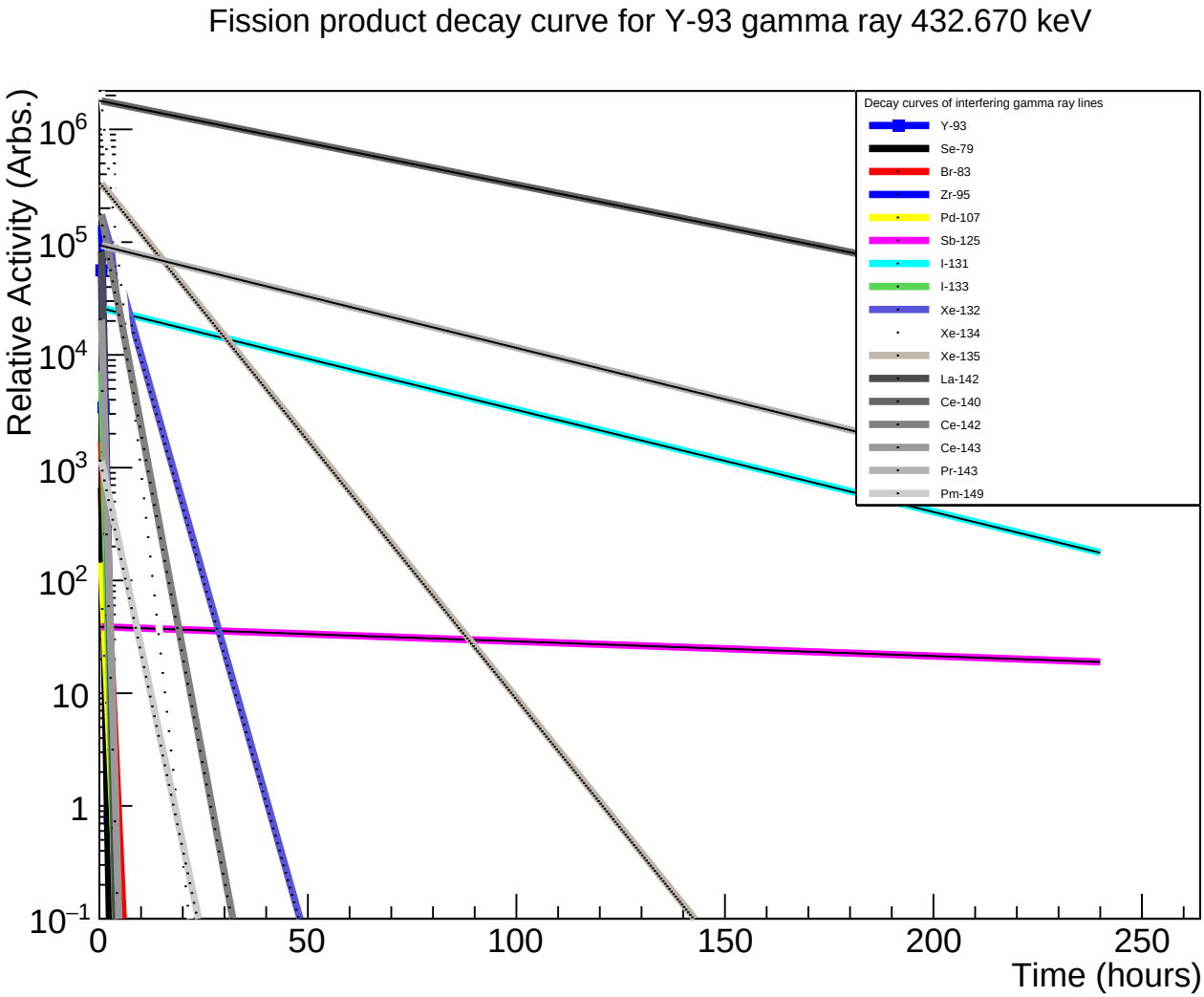


Figure 143: Y-93 decay curve for 432.670 keV gamma ray.

3.144 Sr-93 E_γ = 446.20 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 446.20 keV
Gamma Intensity = 2.36 ± 0.166 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 287: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 288: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	446.800	0.003	0.150	0.000
Br-84	Kr-84	447.700	0.000	0.529	0.010
Br-84	Kr-84	447.000	0.030	0.100	0.000
Nb-98	Mo-98	446.910	0.004	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Pd-109	Ag-109	447.600	0.000	13.701	0.000
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Sb-127	Te-127	445.100	0.043	92.400	0.002
Sb-128	Te-128	445.700	0.015	9.010	0.000
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Ce-143	Pr-143	447.450	0.001	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-151	Pm-151	444.700	0.000	0.207	0.004
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Nd-151	Pm-151	446.880	0.002	0.207	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

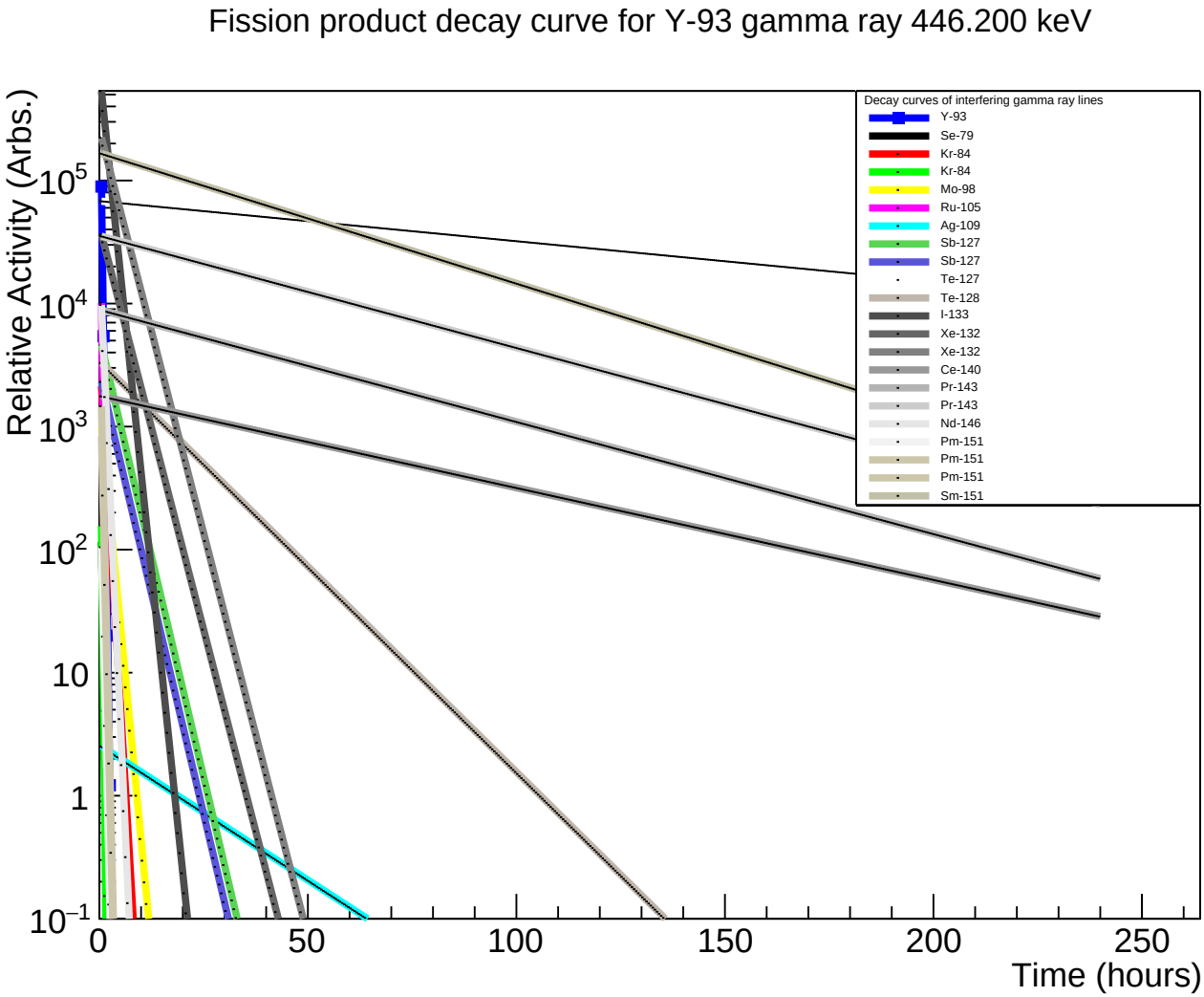


Figure 144: Y-93 decay curve for 446.200 keV gamma ray.

3.145 Sr-93 E_γ = 481.96 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 481.96 keV
Gamma Intensity = 1.14 ± 0.114 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 289: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 290: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-128	Sb-128	482.300	0.590	0.984	0.003
Pr-146	Nd-146	481.500	0.000	0.403	0.030
Nd-151	Pm-151	481.920	0.001	0.207	0.004

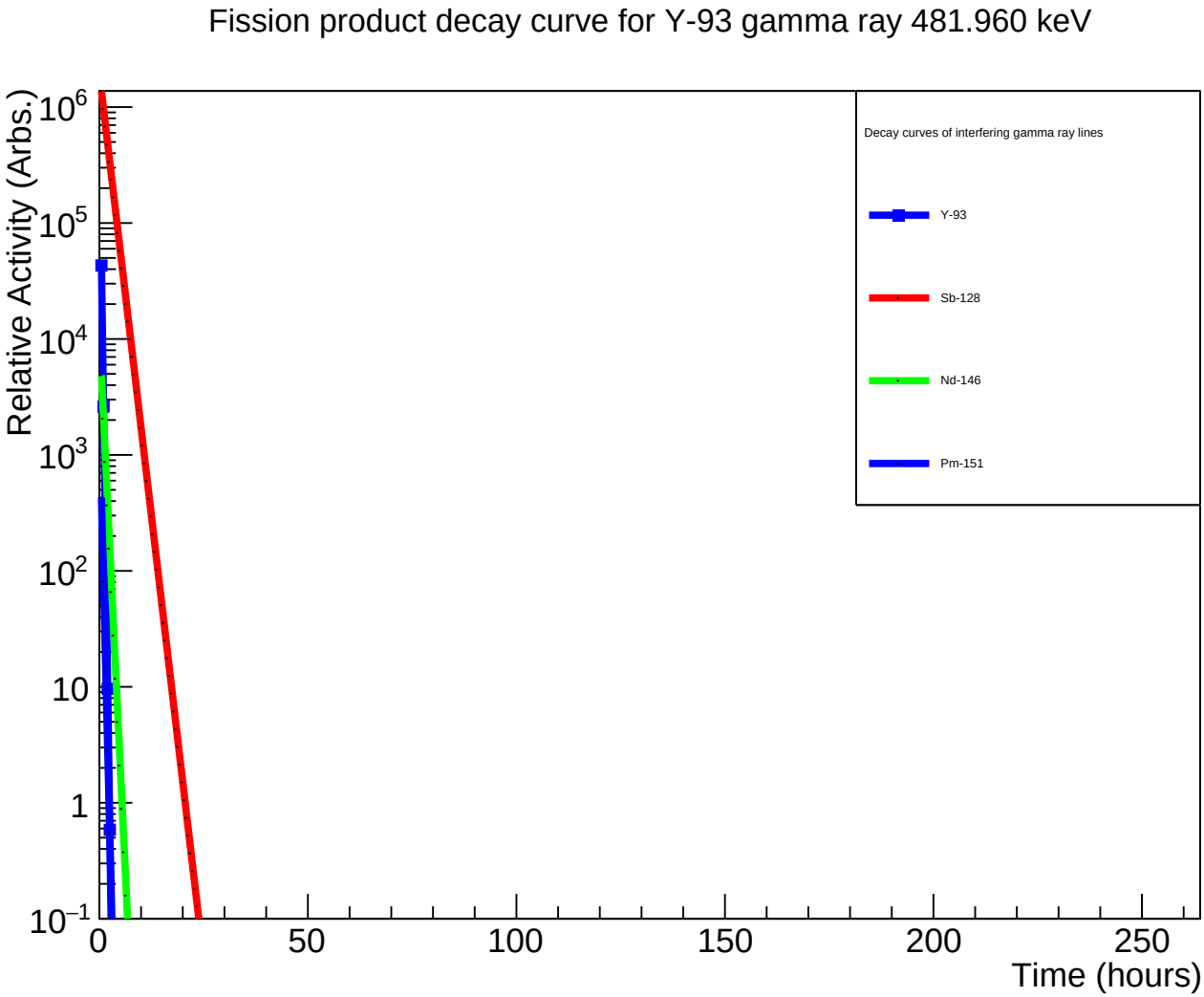


Figure 145: Y-93 decay curve for 481.960 keV gamma ray.

3.146 Sr-93 E_γ = 483.73 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 483.73 keV
Gamma Intensity = 1.67 ± 0.143 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 291: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 292: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	484.530	0.000	0.296	0.036
Tc-105	Ru-105	484.000	0.004	0.127	0.010
Sn-128	Sb-128	482.300	0.590	0.984	0.003
Sb-130	Te-130	483.600	0.022	0.658	0.008
Te-133	I-133	484.500	0.001	0.208	0.031
Nd-149	Pm-149	483.590	0.001	1.728	0.011
Sm-153	Eu-153	485.000	0.000	46.500	0.002

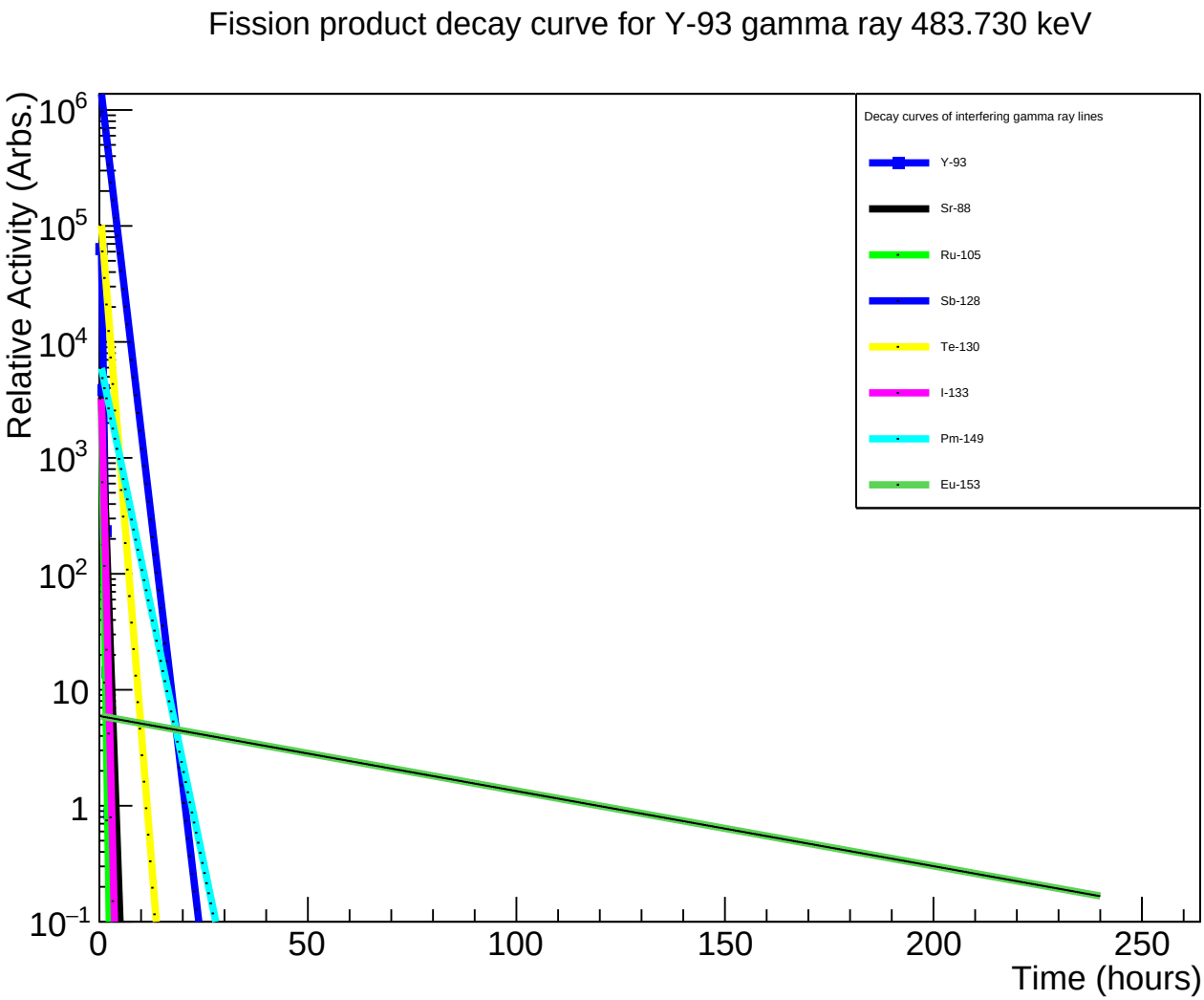


Figure 146: Y-93 decay curve for 483.730 keV gamma ray.

3.147 Sr-93 E_γ = 590.24 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 590.24 keV
Gamma Intensity = 32.03 ± 3.998 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 293: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 294: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	590.900	0.004	0.855	0.000
Mo-101	Tc-101	590.100	0.011	0.243	0.052
Mo-101	Tc-101	590.100	0.192	0.243	0.052
Ru-105	Rh-105	591.200	0.001	4.440	0.010
Sn-125	Sb-125	589.610	0.002	0.159	0.000
I-132	Xe-132	591.100	0.001	2.295	0.043
Xe-138	Cs-138	588.840	0.001	0.235	0.063
Ba-141	La-141	588.800	0.001	0.304	0.058
Ba-142	La-142	590.700	0.003	0.177	0.058
La-141	Ce-141	589.900	0.000	3.920	0.058
Pr-146	Nd-146	589.400	0.003	0.403	0.030
Nd-147	Pm-147	589.350	0.000	263.520	0.022
Nd-149	Pm-149	590.740	0.000	1.728	0.011
Nd-151	Pm-151	589.610	0.003	0.207	0.004
Pm-149	Sm-149	590.880	0.001	53.080	0.011
Sm-153	Eu-153	590.960	0.000	46.500	0.002

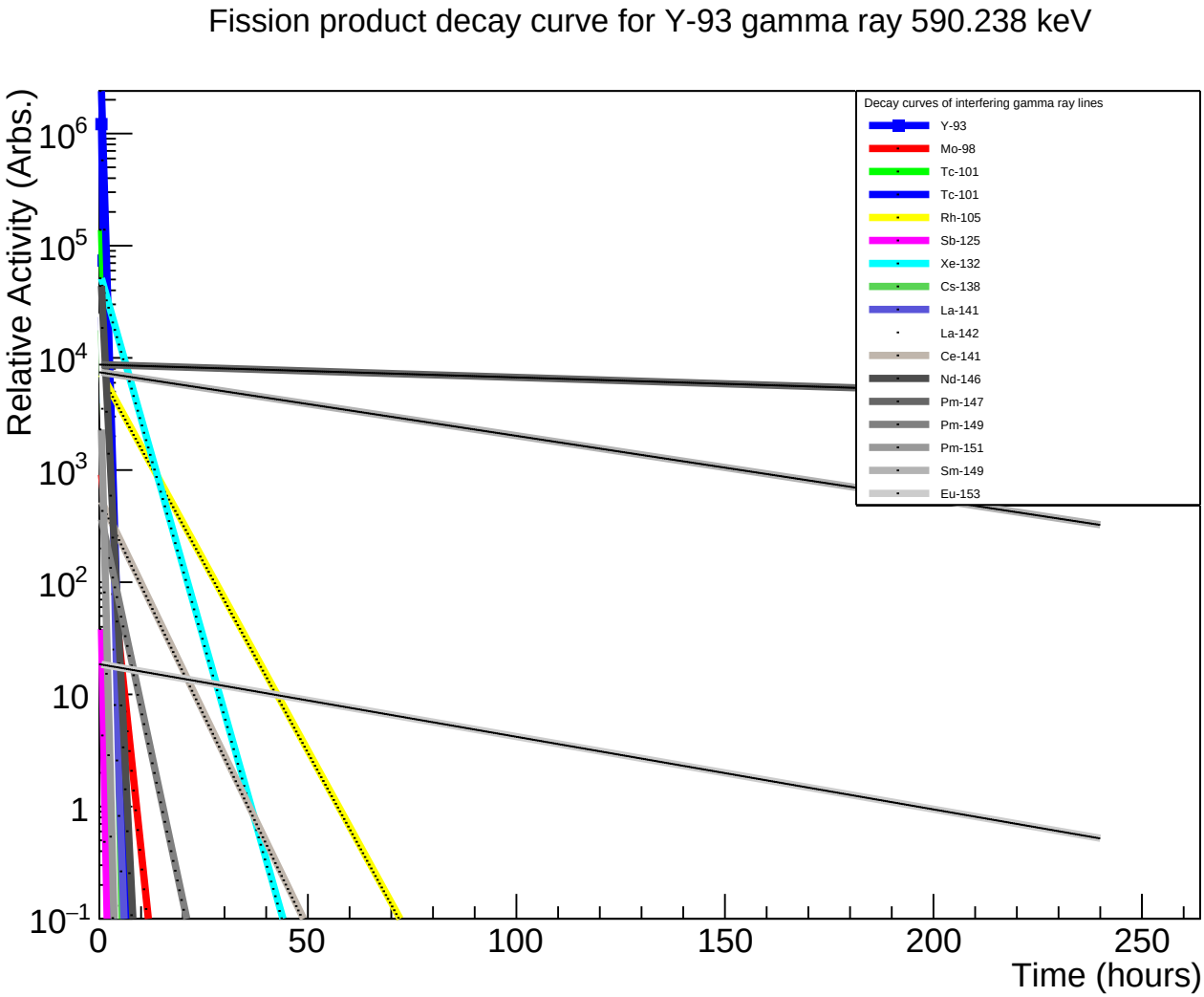


Figure 147: Y-93 decay curve for 590.238 keV gamma ray.

3.148 Sr-93 E_γ = 593.81 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 593.81 keV
Gamma Intensity = 1.12 ± 0.151 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 295: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 296: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	593.410	0.007	0.372	0.003
Nb-98	Mo-98	594.660	0.001	0.855	0.000
Sb-128	Te-128	594.300	0.010	9.010	0.000
Sb-128	Te-128	594.100	0.033	0.173	0.003
Te-127	I-127	593.300	0.000	2616.000	0.000
Te-133	I-133	593.000	0.002	0.208	0.031
Cs-139	Ba-139	594.020	0.001	0.155	0.063
Ce-143	Pr-143	594.500	0.000	33.039	0.060
Nd-147	Pm-147	594.800	0.003	263.520	0.022
Nd-149	Pm-149	594.400	0.000	1.728	0.011
Nd-151	Pm-151	592.400	0.000	0.207	0.004
Nd-152	Pm-152	592.500	0.011	0.190	0.003
Pm-151	Sm-151	593.600	0.000	28.400	0.004

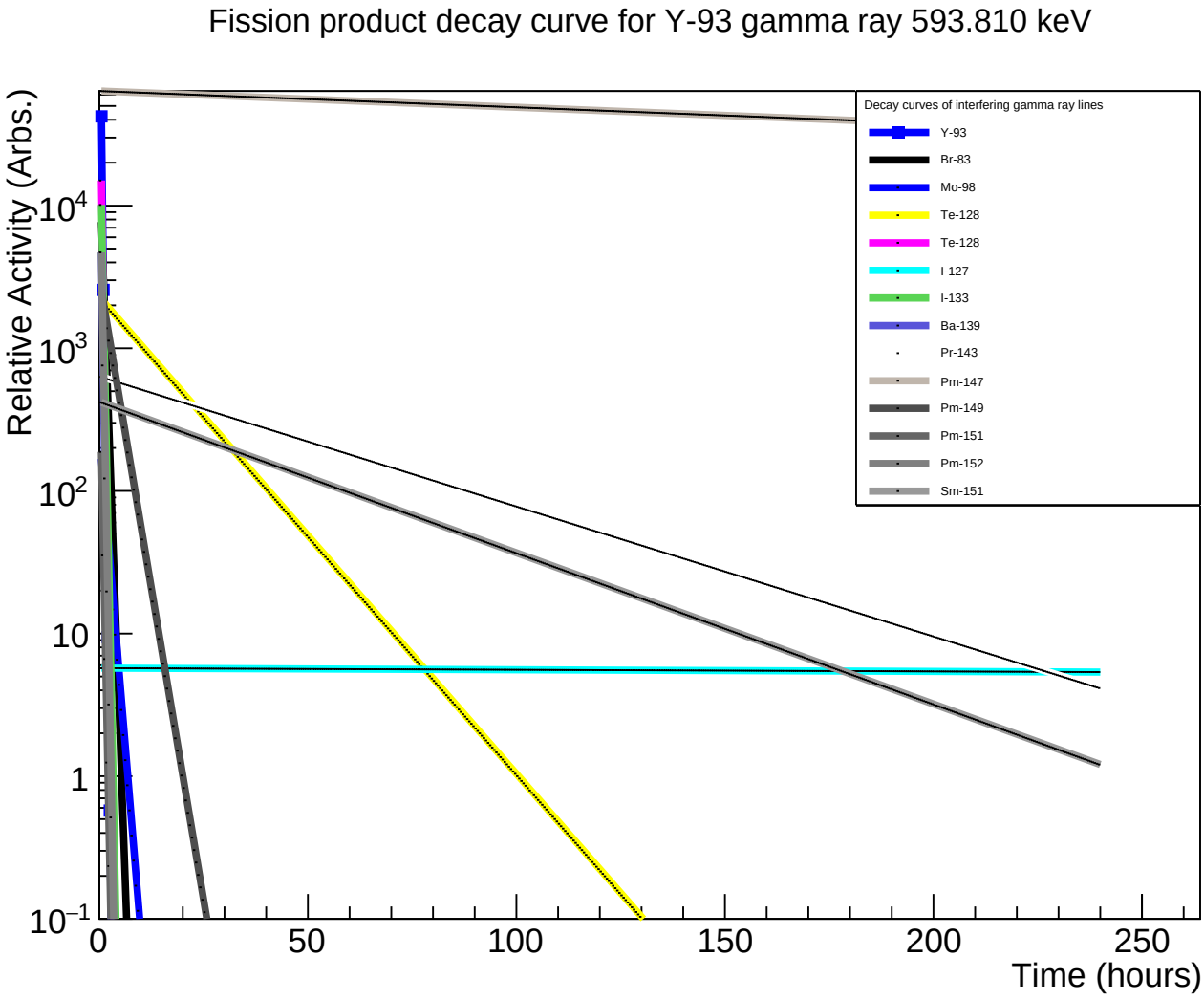


Figure 148: Y-93 decay curve for 593.810 keV gamma ray.

3.149 Sr-93 E_γ = 596.15 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 596.15 keV
Gamma Intensity = 1.33 ± 0.161 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 297: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 298: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	596.000	0.000	0.252	0.047
Nb-98	Mo-98	594.660	0.001	0.855	0.000
Ru-105	Rh-105	597.100	0.000	4.440	0.010
Cd-115	In-115	595.375	0.000	53.460	0.000
Sb-130	Te-130	595.500	0.010	0.658	0.008
Te-131	I-131	597.000	0.000	33.250	0.004
I-134	Xe-134	595.362	0.111	0.875	0.078
Cs-138	Ba-138	596.200	0.000	0.557	0.067
Nd-147	Pm-147	594.800	0.003	263.520	0.022
Nd-151	Pm-151	596.640	0.004	0.207	0.004
Nd-151	Pm-151	597.600	0.002	0.207	0.004
Sm-153	Eu-153	596.700	0.000	46.500	0.002

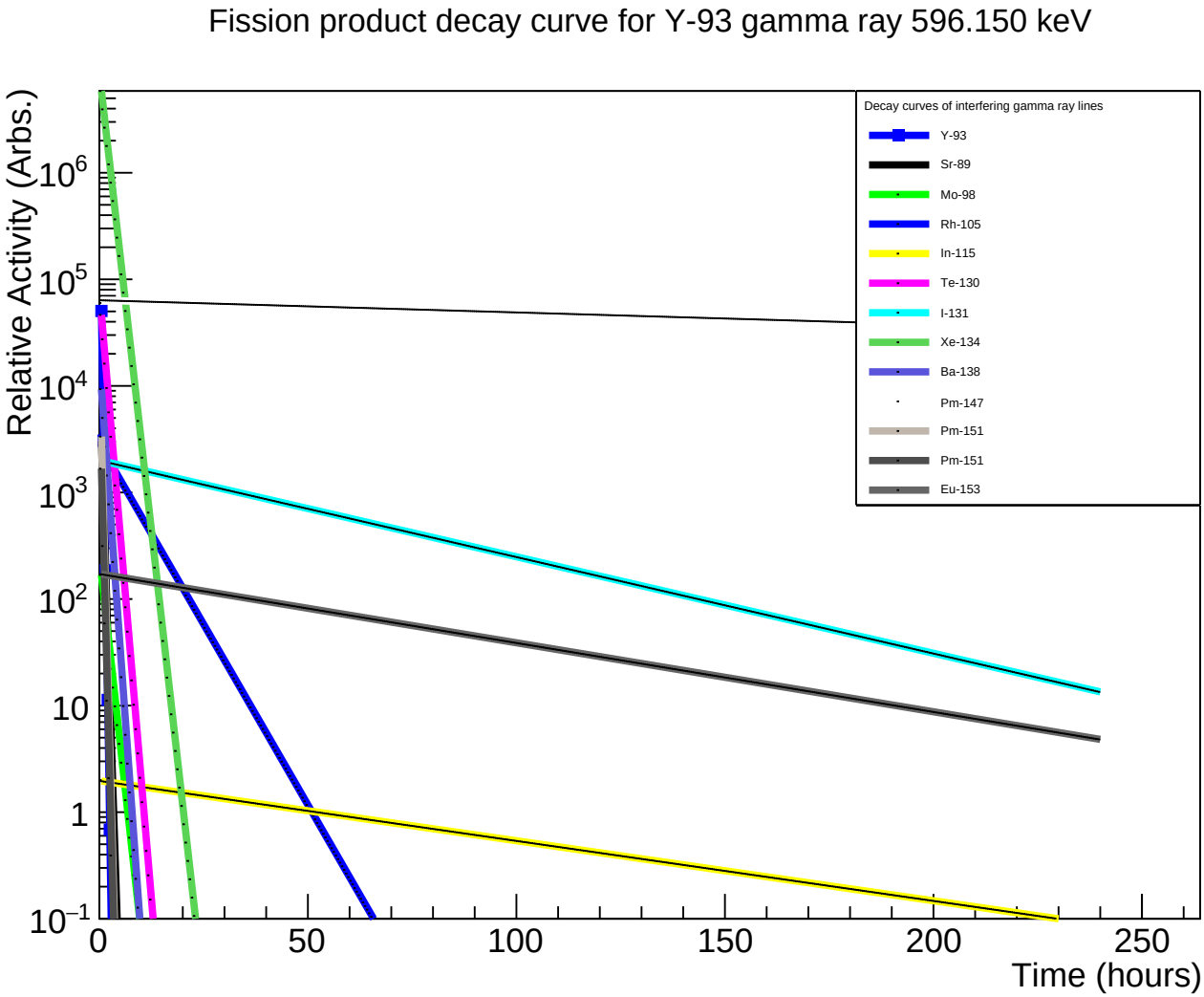


Figure 149: Y-93 decay curve for 596.150 keV gamma ray.

3.150 Sr-93 E_γ = 610.93 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 610.93 keV
Gamma Intensity = 1.09 ± 0.083 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 299: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 300: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	611.600	0.001	0.243	0.052
Tc-104	Ru-104	609.500	0.020	0.305	0.019
Ru-103	Rh-103	610.333	0.058	941.928	0.030
Ru-103	Rh-103	612.094	0.001	941.928	0.030
Pd-111	Ag-111	611.300	0.000	0.390	0.000
Ag-113	Cd-113	611.000	0.000	5.370	0.000
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Ba-141	La-141	611.300	0.000	0.304	0.058
Nd-151	Pm-151	612.220	0.001	0.207	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

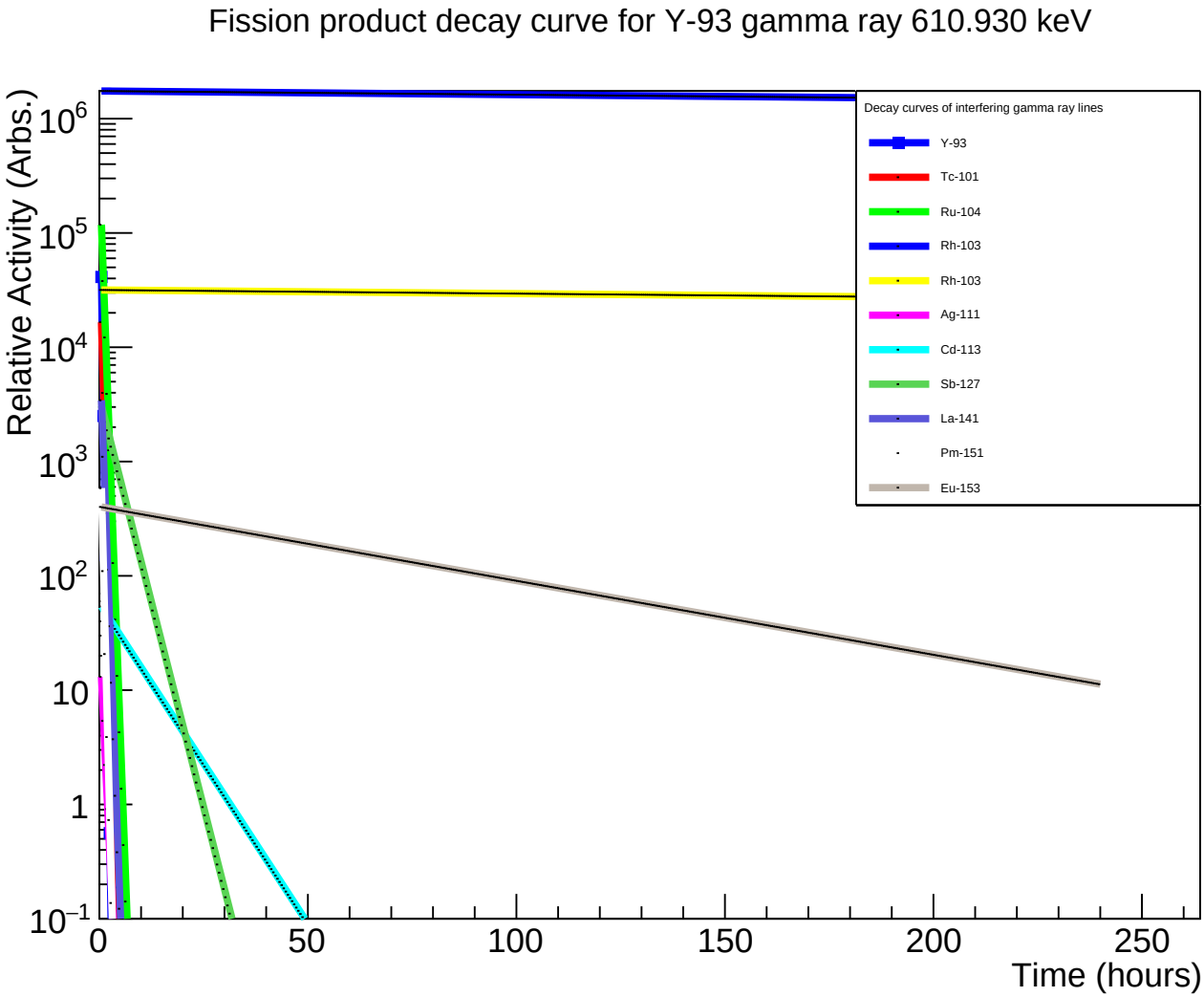


Figure 150: Y-93 decay curve for 610.930 keV gamma ray.

3.151 Sr-93 E_γ = 663.58 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 663.58 keV
Gamma Intensity = 1.65 ± 0.120 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 301: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 302: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	664.800	0.033	0.372	0.003
Nb-98	Mo-98	662.890	0.002	0.855	0.000
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Ag-112	Cd-112	663.500	0.000	3.130	0.000
Te-131	I-131	665.050	0.042	33.250	0.004
Te-133	I-133	663.200	0.001	0.923	0.040
Ce-143	Pr-143	664.571	0.057	33.039	0.060
Pr-147	Nd-147	664.500	0.002	0.223	0.022
Pm-149	Sm-149	664.400	0.000	53.080	0.011
Pm-151	Sm-151	663.500	0.001	28.400	0.004
Sm-153	Eu-153	662.400	0.000	46.500	0.002
Sm-155	Eu-155	664.000	0.001	0.372	0.000
Sm-155	Eu-155	665.000	0.000	0.372	0.000

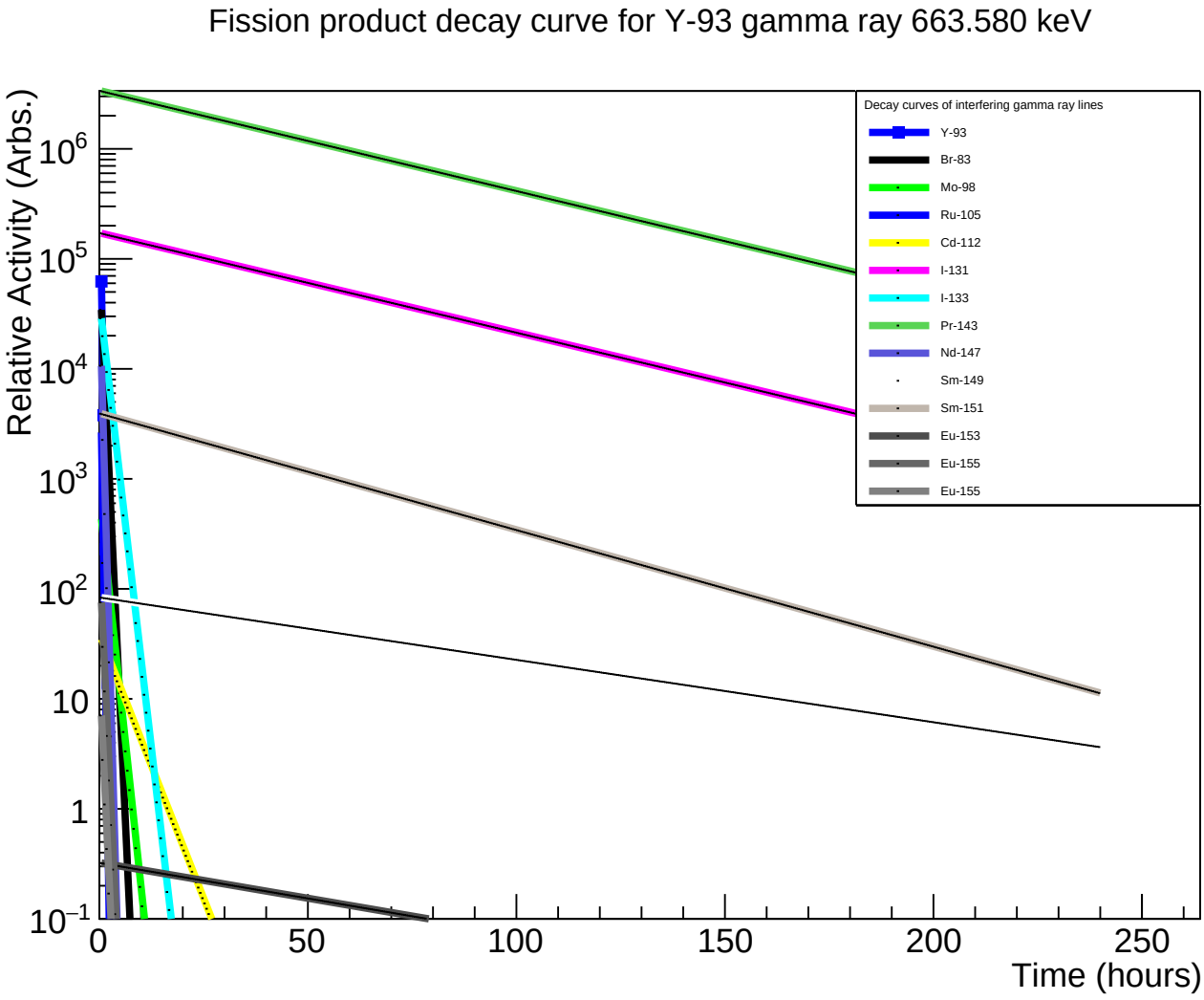


Figure 151: Y-93 decay curve for 663.580 keV gamma ray.

3.152 Sr-93 E_γ = 690.06 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 690.06 keV
Gamma Intensity = 1.01 ± 0.093 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 303: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 304: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	690.520	0.002	16.749	0.060
Mo-99	Tc-99	689.600	0.000	65.976	0.061
Ag-112	Cd-112	688.900	0.000	3.130	0.000
Cd-115	In-115	690.230	0.000	53.460	0.000
Te-133	I-133	690.800	0.001	0.208	0.031
I-135	Xe-135	690.130	0.001	6.570	0.063
Xe-138	Cs-138	691.500	0.000	0.235	0.063
Cs-139	Ba-139	690.040	0.000	0.155	0.063

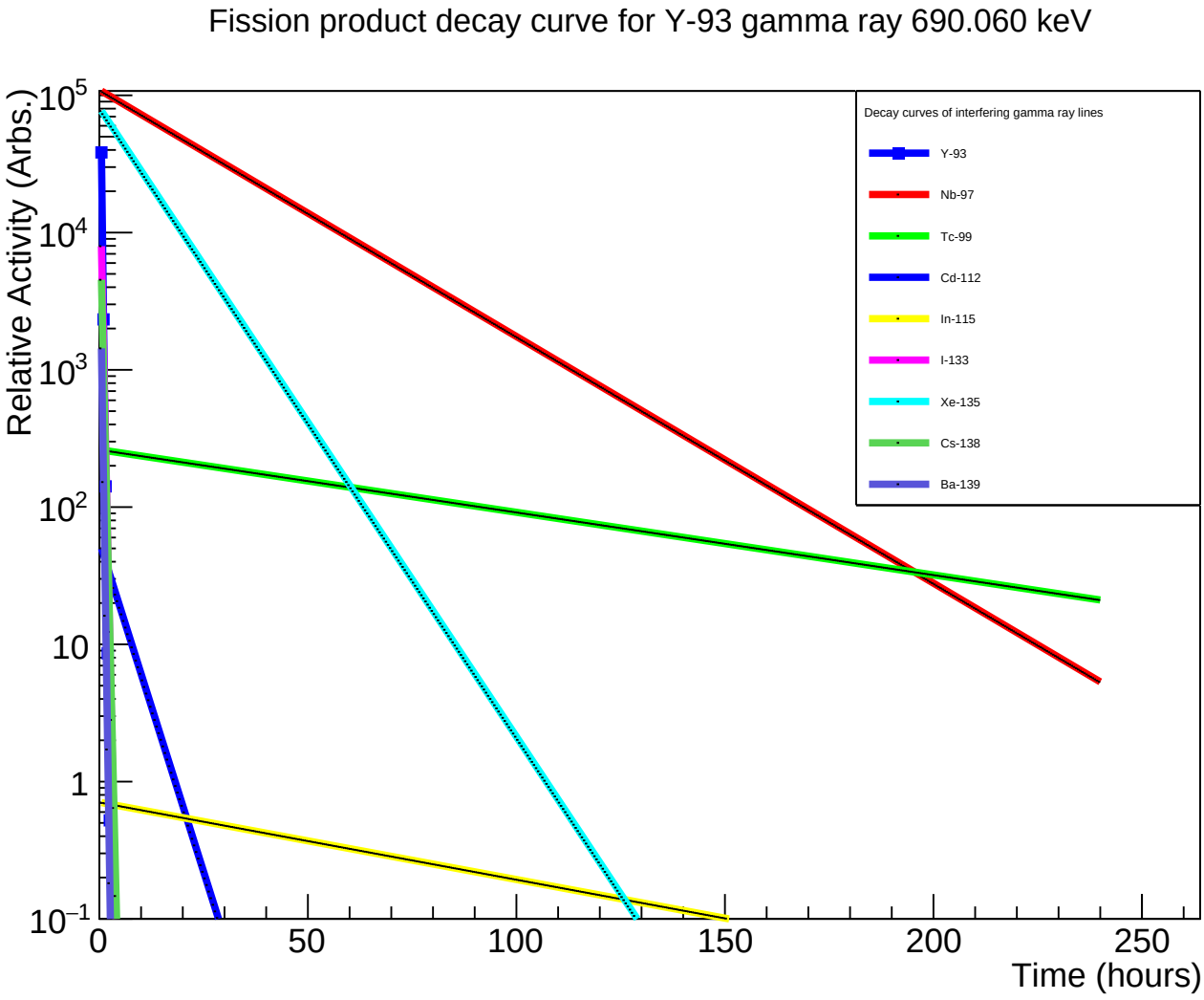


Figure 152: Y-93 decay curve for 690.060 keV gamma ray.

3.153 Sr-93 E_γ = 710.31 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 710.31 keV
Gamma Intensity = 21.76 ± 1.503 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 305: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 306: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	709.500	0.001	0.362	0.001
Pd-111	Ag-111	709.800	0.001	0.390	0.000
Te-133	I-133	710.400	0.007	0.923	0.040
La-141	Ce-141	710.400	0.000	3.920	0.058
Ce-143	Pr-143	709.590	0.000	33.039	0.060
Nd-151	Pm-151	709.300	0.000	0.207	0.004
Pm-151	Sm-151	709.250	0.001	28.400	0.004
Eu-156	Gd-156	709.860	0.009	364.560	0.000

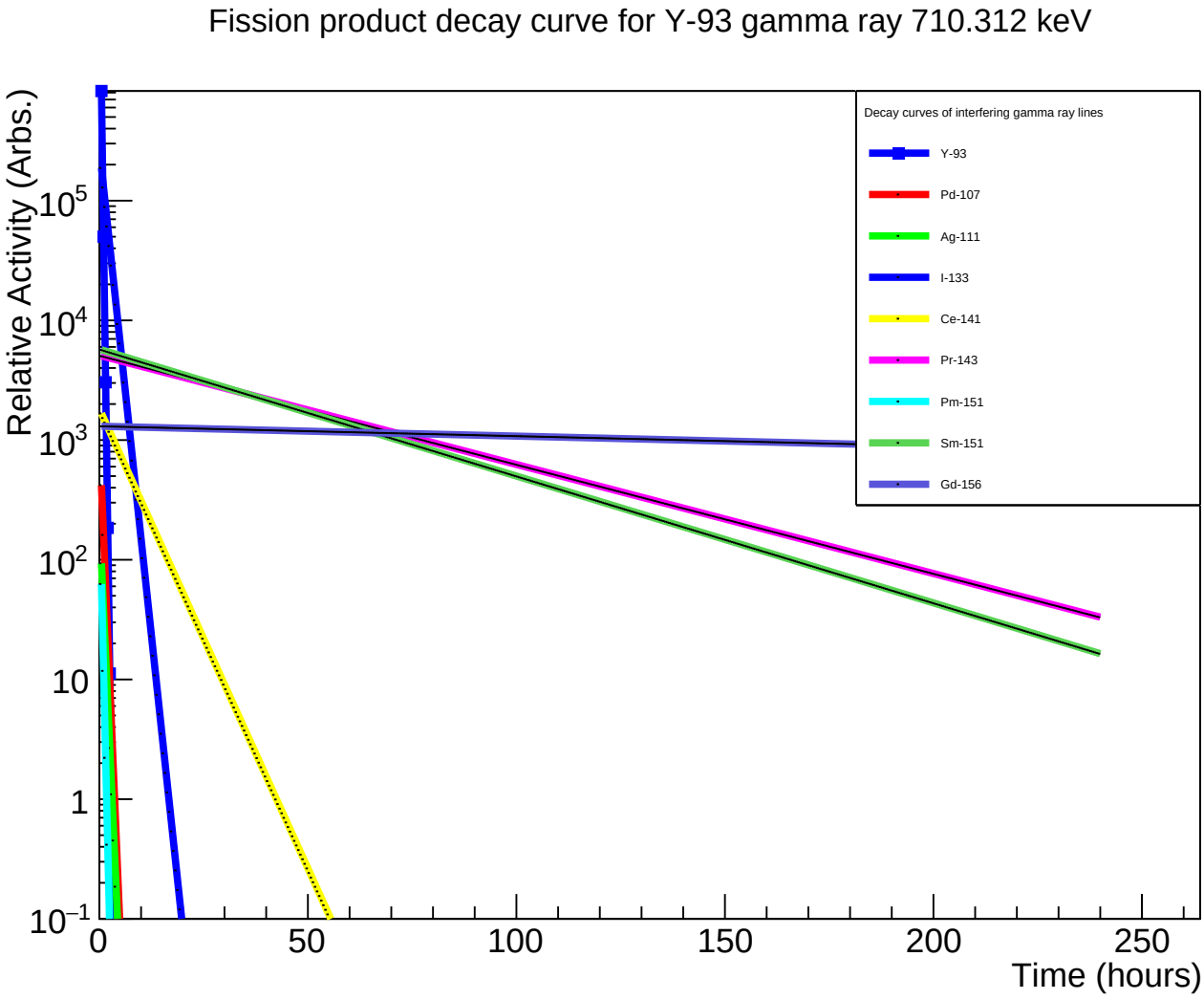


Figure 153: Y-93 decay curve for 710.312 keV gamma ray.

3.154 Sr-93 E_γ = 718.33 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 718.33 keV
Gamma Intensity = 1.50 ± 0.214 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 307: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 308: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	718.030	0.150	0.372	0.003
Nb-97	Mo-97	719.530	0.001	1.202	0.060
Nb-98	Mo-98	717.500	0.003	0.855	0.000
Ag-112	Cd-112	718.400	0.002	3.130	0.000
Te-133	I-133	717.800	0.001	0.208	0.031
Te-133	I-133	719.600	0.000	0.208	0.031
Te-133	I-133	719.710	0.089	0.208	0.031
Te-133	I-133	718.900	0.008	0.923	0.040
Cs-138	Ba-138	717.700	0.000	0.557	0.067
Pr-147	Nd-147	718.900	0.011	0.223	0.022
Nd-149	Pm-149	718.430	0.000	1.728	0.011
Nd-151	Pm-151	717.600	0.001	0.207	0.004
Nd-151	Pm-151	719.600	0.000	0.207	0.004
Pm-151	Sm-151	717.720	0.041	28.400	0.004
Pm-151	Sm-151	719.000	0.000	28.400	0.004
Sm-153	Eu-153	719.000	0.000	46.500	0.002

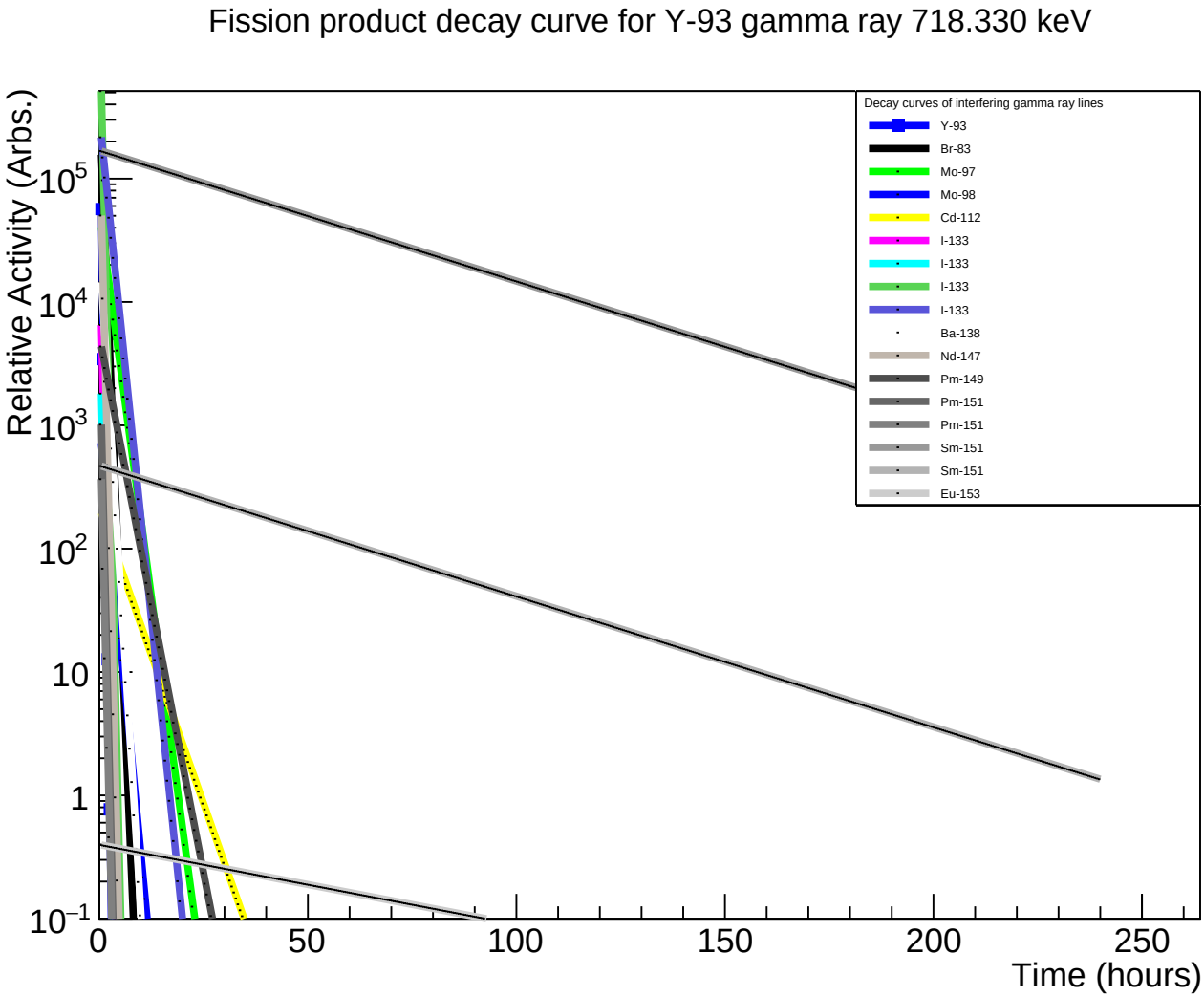


Figure 154: Y-93 decay curve for 718.330 keV gamma ray.

3.155 Sr-93 E_γ = 771.19 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 771.19 keV
Gamma Intensity = 1.16 ± 0.085 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 309: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 310: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-129	I-129	771.800	0.000	806.400	0.001
I-132	Xe-132	771.700	0.000	2.295	0.043
I-132	Xe-132	772.600	0.756	2.295	0.043
Cs-139	Ba-139	770.560	0.000	0.155	0.063
Ba-142	La-142	771.900	0.001	0.177	0.058
Pr-146	Nd-146	772.300	0.000	0.403	0.030

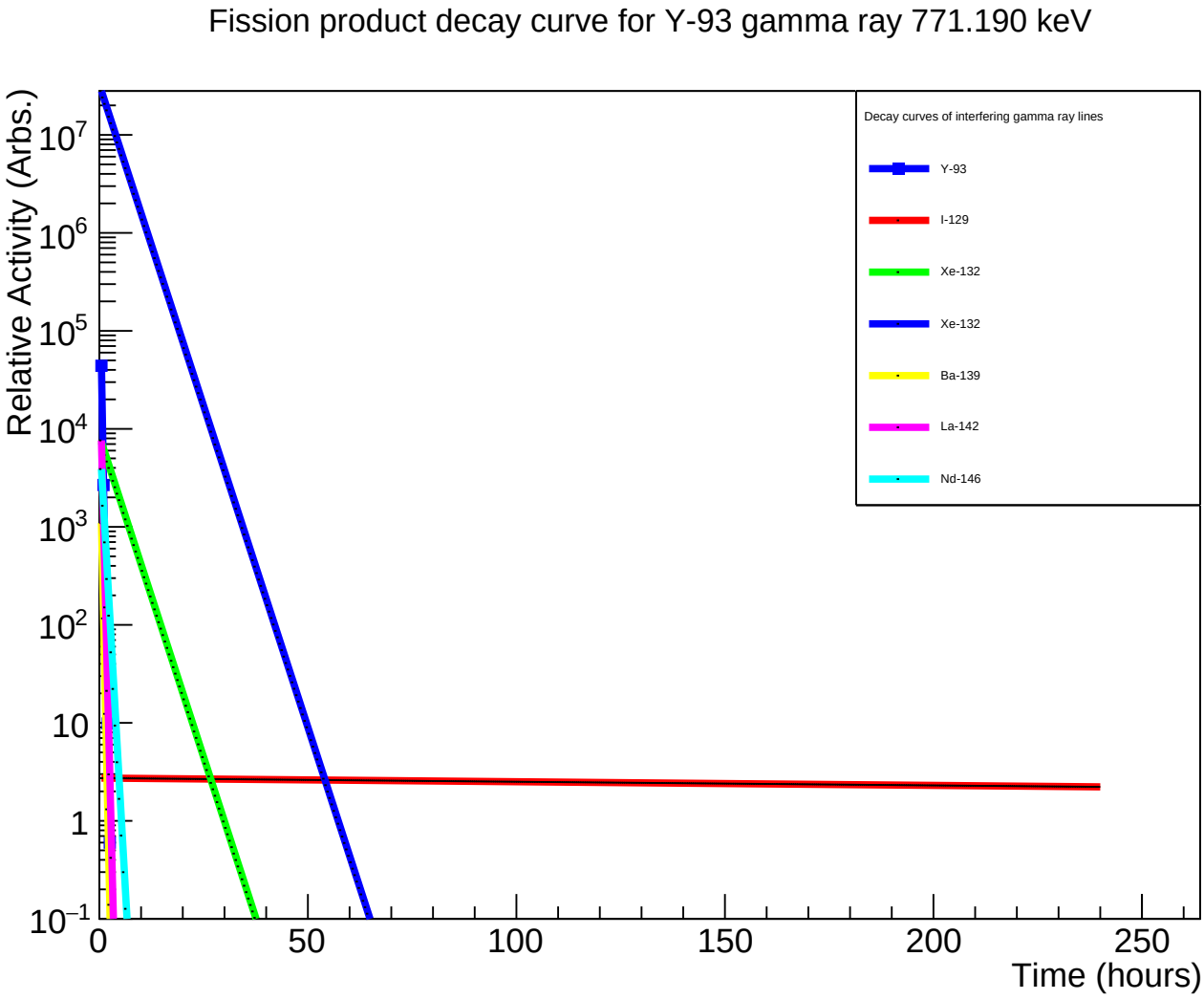


Figure 155: Y-93 decay curve for 771.190 keV gamma ray.

3.156 Sr-93 E_γ = 834.89 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 834.89 keV
Gamma Intensity = 1.67 ± 0.115 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 311: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 312: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	836.370	0.008	1.272	0.026
Kr-88	Rb-88	834.830	0.130	2.840	0.036
Nb-98	Mo-98	833.556	0.108	0.855	0.000
Pd-111	Ag-111	835.700	0.003	0.390	0.000
Sb-128	Te-128	835.800	0.010	9.010	0.000
Ba-141	La-141	833.800	0.002	0.304	0.058
La-141	Ce-141	834.800	0.000	3.920	0.058
Pm-149	Sm-149	833.400	0.000	53.080	0.011
Pm-149	Sm-149	835.550	0.000	53.080	0.011

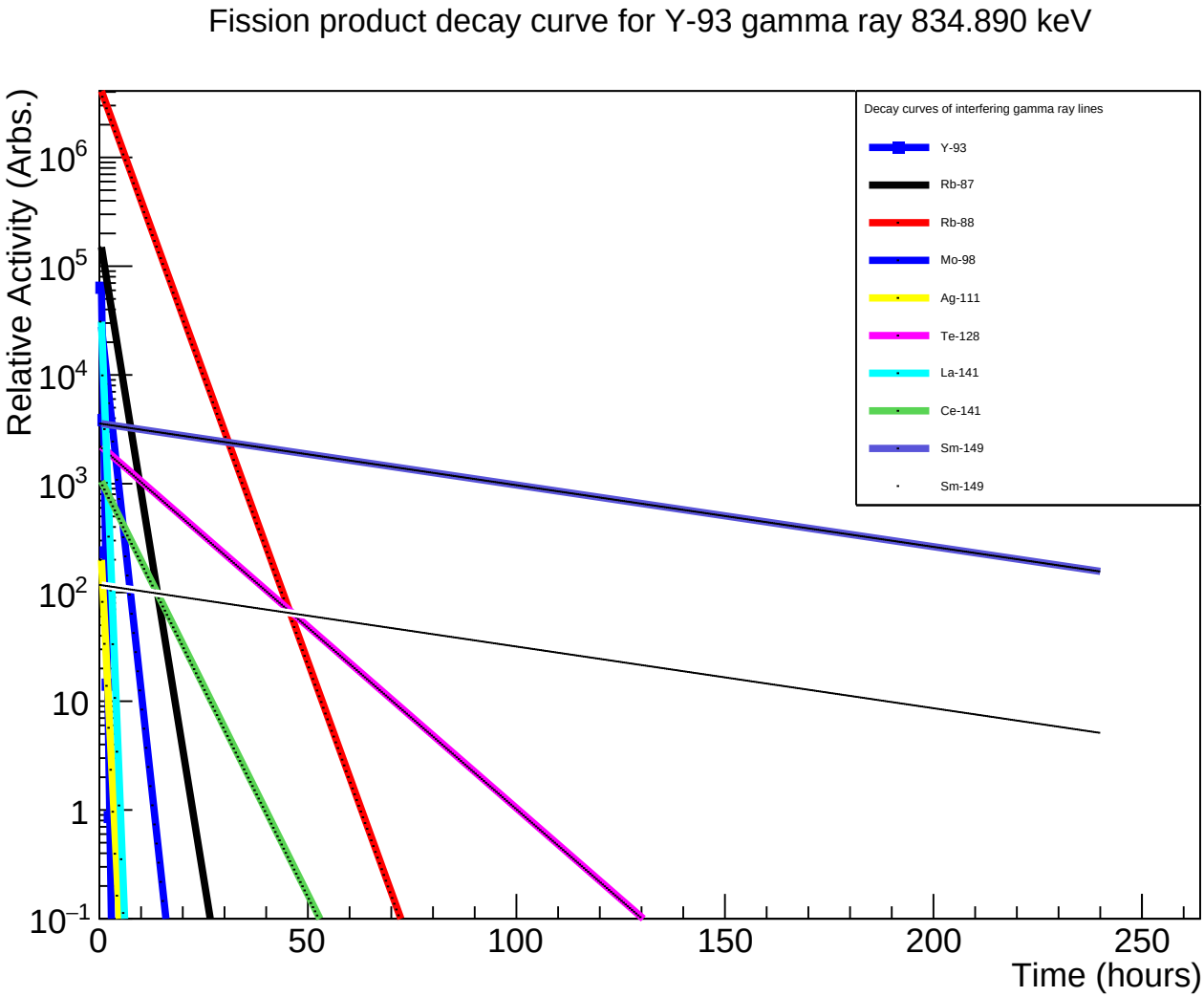


Figure 156: Y-93 decay curve for 834.890 keV gamma ray.

3.157 Sr-93 E_γ = 875.73 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 875.73 keV
Gamma Intensity = 24.48 ± 1.737 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 313: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 314: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	875.850	0.025	4.440	0.010
Sb-129	Te-129	876.200	0.026	4.400	0.005
I-132	Xe-132	876.600	0.010	2.295	0.043
I-133	Xe-133	875.329	0.045	20.800	0.067
Ba-141	La-141	876.300	0.037	0.304	0.058
Nd-151	Pm-151	874.500	0.001	0.207	0.004
Nd-151	Pm-151	876.390	0.004	0.207	0.004

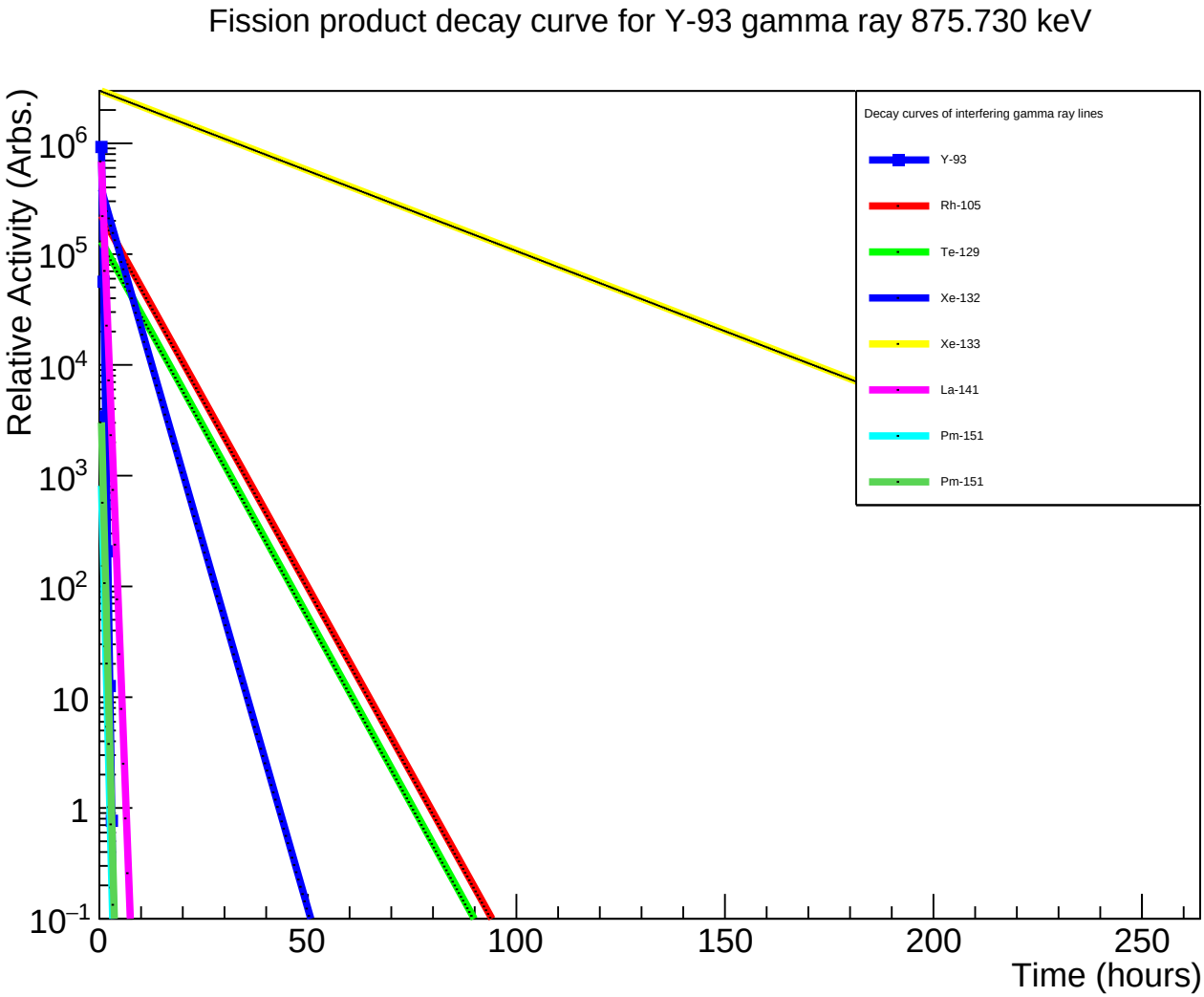


Figure 157: Y-93 decay curve for 875.730 keV gamma ray.

3.158 Sr-93 E_γ = 888.13 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 888.13 keV
Gamma Intensity = 22.10 ± 1.512 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 315: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 316: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	888.700	0.021	1.512	0.000
Se-83	Br-83	887.810	0.043	0.372	0.003
Y-94	Zr-94	887.500	0.001	0.312	0.065
Nb-98	Mo-98	887.000	0.000	0.855	0.000
Mo-101	Tc-101	887.000	0.002	0.243	0.052
Mo-101	Tc-101	888.700	0.002	0.243	0.052
Sn-127	Sb-127	889.000	0.003	2.100	0.001
Te-133	I-133	888.900	0.000	0.208	0.031
Te-133	I-133	888.530	0.008	0.923	0.040
I-132	Xe-132	888.700	0.001	2.295	0.043
Pr-147	Nd-147	887.000	0.005	0.223	0.022
Nd-151	Pm-151	886.800	0.000	0.207	0.004
Nd-151	Pm-151	889.100	0.000	0.207	0.004
Pm-151	Sm-151	887.600	0.000	28.400	0.004

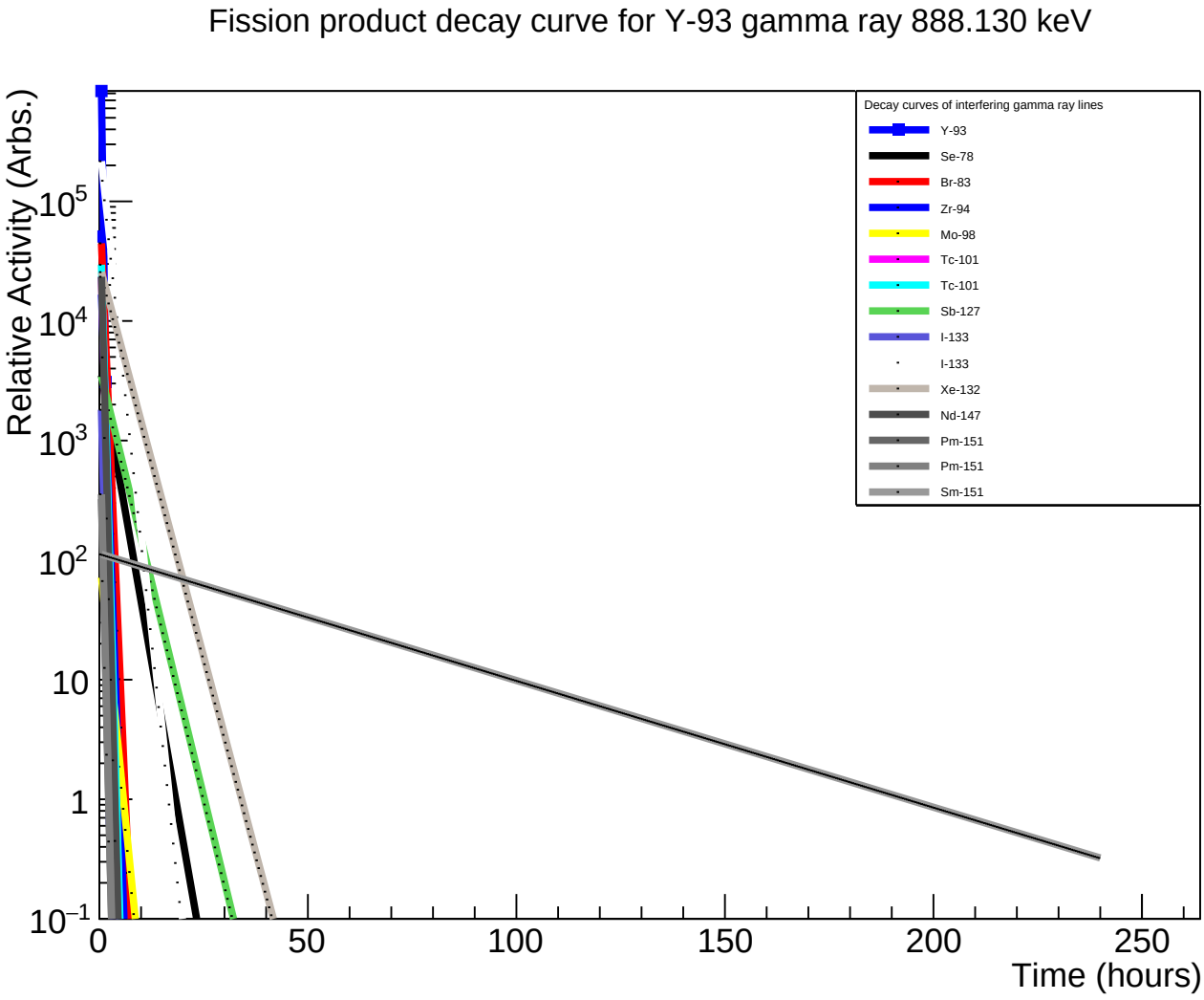


Figure 158: Y-93 decay curve for 888.130 keV gamma ray.

3.159 Sr-93 E_γ = 1040.63 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1040.63 keV
Gamma Intensity = 3.20 ± 0.248 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 317: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 318: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1042.130	0.012	0.372	0.003
Kr-88	Rb-88	1039.590	0.005	2.840	0.036
Sb-128	Te-128	1040.900	0.010	0.173	0.003
I-134	Xe-134	1040.250	0.020	0.875	0.078
Cs-138	Ba-138	1041.400	0.001	0.557	0.067
Cs-139	Ba-139	1040.930	0.000	0.155	0.063
Ba-141	La-141	1039.900	0.001	0.304	0.058
Ba-142	La-142	1040.000	0.001	0.177	0.058
La-142	Ce-142	1039.400	0.001	1.518	0.058
Nd-149	Pm-149	1040.700	0.000	1.728	0.011
Nd-149	Pm-149	1041.950	0.000	1.728	0.011
Nd-151	Pm-151	1040.400	0.001	0.207	0.004
Nd-151	Pm-151	1041.910	0.003	0.207	0.004
Eu-156	Gd-156	1040.440	0.005	364.560	0.000

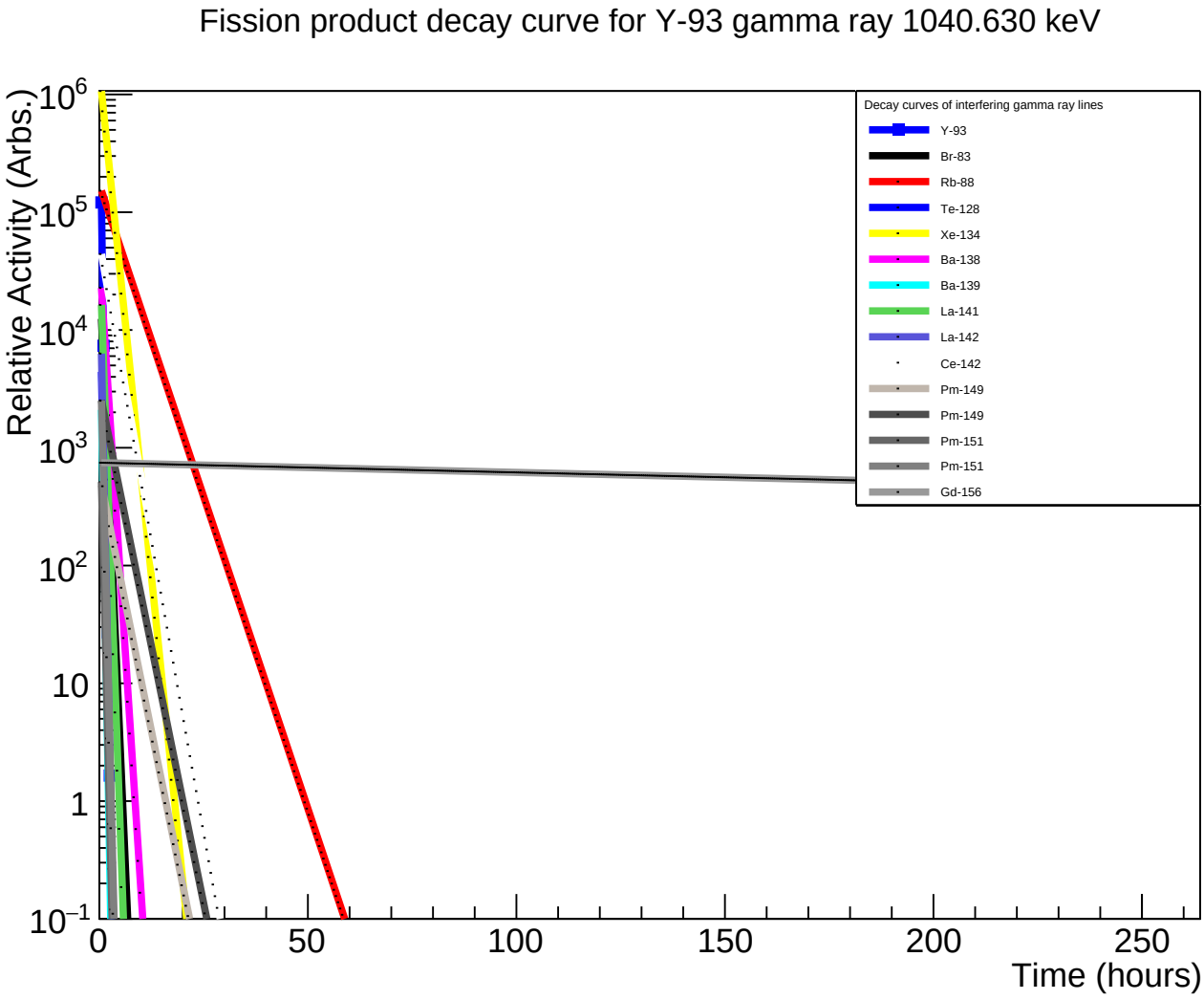


Figure 159: Y-93 decay curve for 1040.630 keV gamma ray.

3.160 Sr-93 E_γ = 1094.00 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1094.00 keV
Gamma Intensity = 1.76 ± 0.128 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 319: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 320: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1093.000	0.003	0.372	0.003
Tc-104	Ru-104	1092.900	0.005	0.305	0.019
Ru-105	Rh-105	1094.000	0.000	4.440	0.010
Sn-125	Sb-125	1093.270	0.000	0.159	0.000
Sn-127	Sb-127	1093.300	0.038	2.100	0.001
Xe-138	Cs-138	1093.870	0.004	0.235	0.063
Ba-141	La-141	1093.200	0.001	0.304	0.058
Ba-141	La-141	1094.200	0.001	0.304	0.058
Ba-142	La-142	1094.100	0.028	0.177	0.058
La-143	Ce-143	1093.600	0.001	0.237	0.059
Pr-145	Nd-145	1093.778	0.000	5.984	0.039

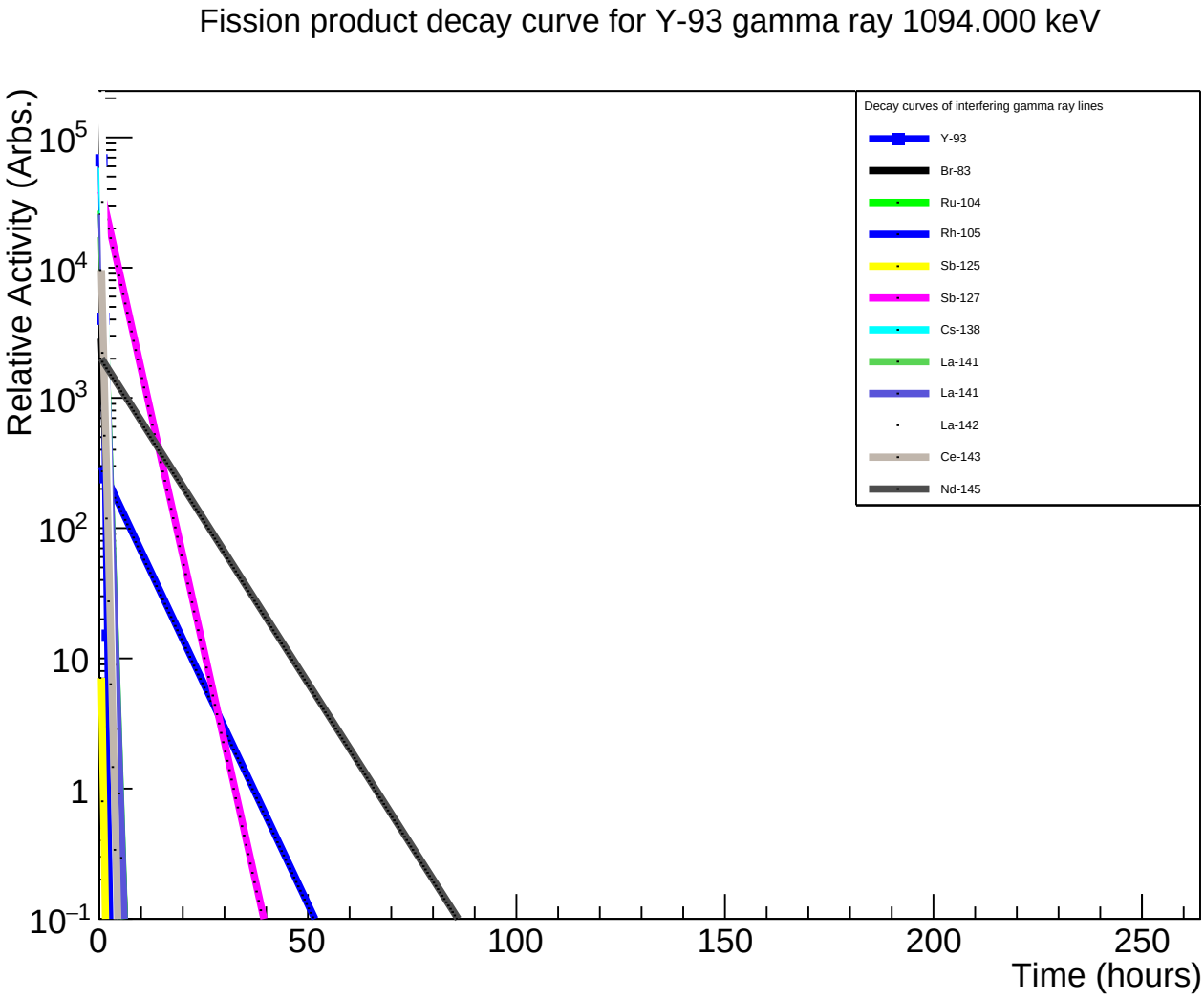


Figure 160: Y-93 decay curve for 1094.000 keV gamma ray.

3.161 Sr-93 E_γ = 1122.48 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1122.48 keV
Gamma Intensity = 4.01 ± 0.270 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 321: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 322: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1121.600	0.001	0.855	0.000
Nb-98	Mo-98	1122.320	0.002	0.855	0.000
Sb-131	Te-131	1123.630	0.089	0.384	0.026
Te-133	I-133	1123.900	0.001	0.208	0.031
Ba-142	La-142	1122.900	0.004	0.177	0.058
La-142	Ce-142	1121.200	0.000	1.518	0.058
La-143	Ce-143	1122.730	0.004	0.237	0.059
Nd-149	Pm-149	1123.470	0.000	1.728	0.011
Nd-151	Pm-151	1122.630	0.041	0.207	0.004
Nd-151	Pm-151	1123.500	0.000	0.207	0.004

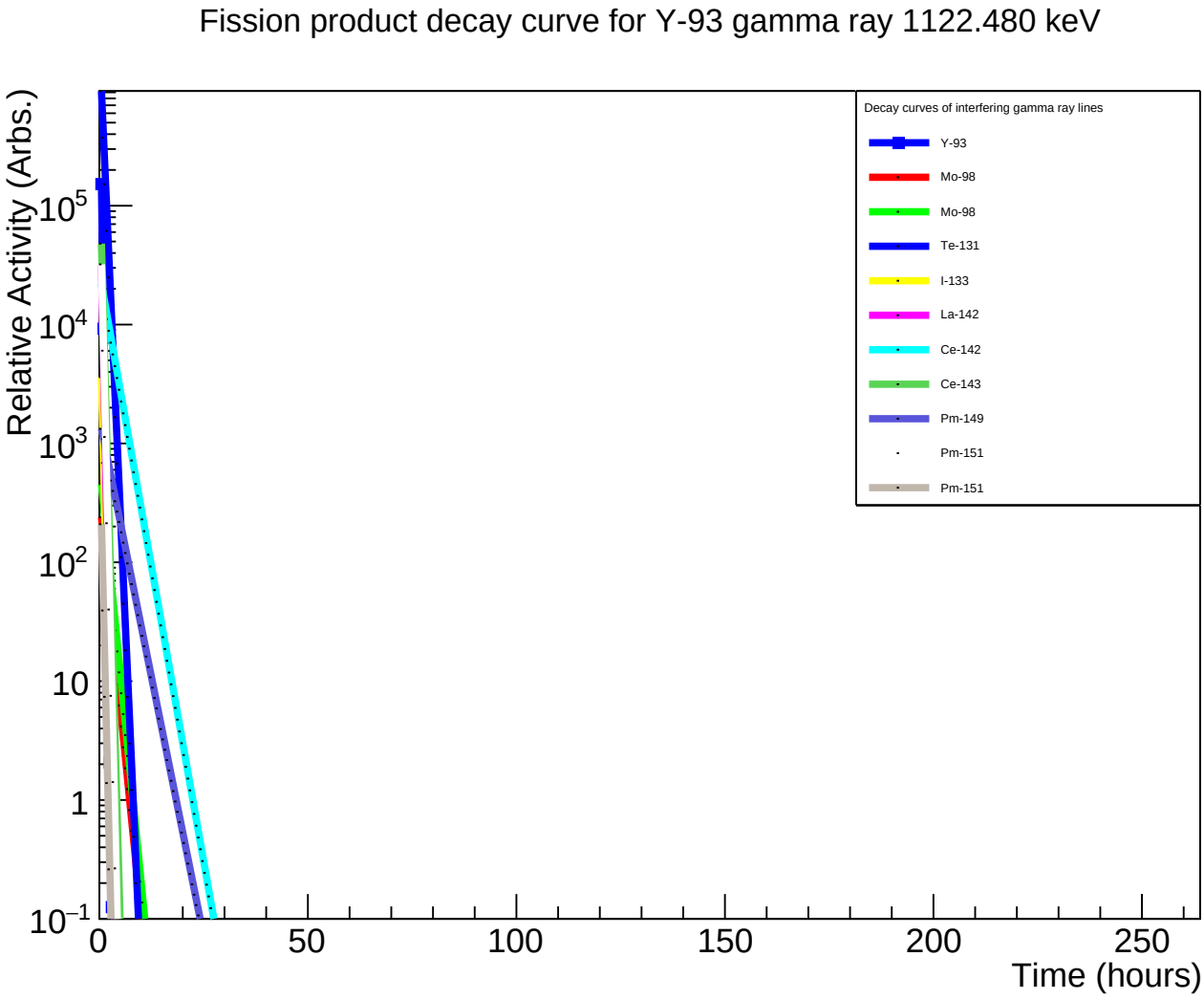


Figure 161: Y-93 decay curve for 1122.480 keV gamma ray.

3.162 Sr-93 E_γ = 1215.48 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1215.48 keV
Gamma Intensity = 2.50 ± 0.175 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 323: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 324: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	1215.380	0.001	4.440	0.010
Cs-139	Ba-139	1216.140	0.000	0.155	0.063
Ba-139	La-139	1215.500	0.000	1.384	0.064
La-142	Ce-142	1214.000	0.000	1.518	0.058
La-143	Ce-143	1216.600	0.001	0.237	0.059
Pr-147	Nd-147	1214.800	0.004	0.223	0.022

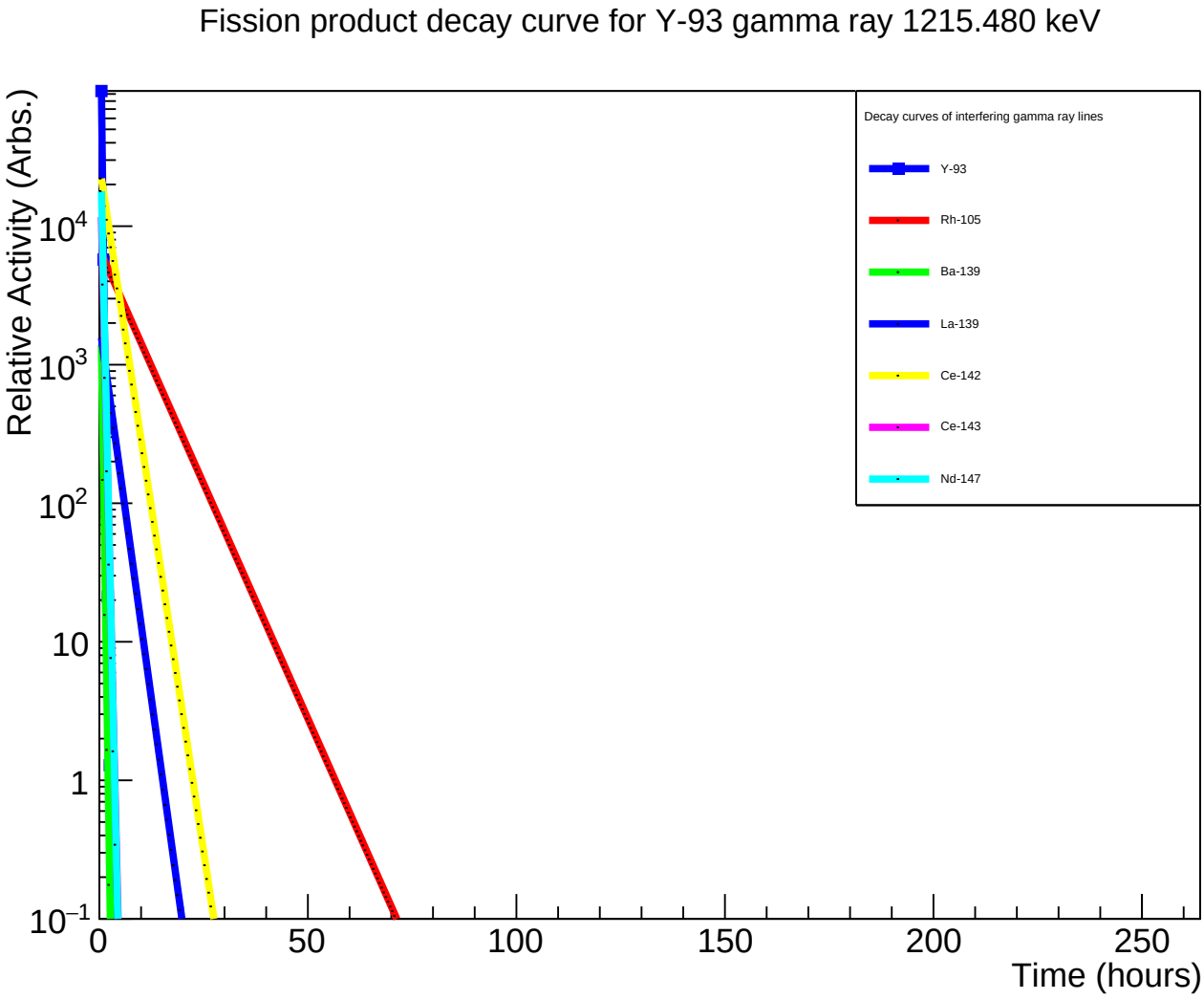


Figure 162: Y-93 decay curve for 1215.480 keV gamma ray.

3.163 Sr-93 E_γ = 1266.38 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1266.38 keV
Gamma Intensity = 1.12 ± 0.095 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 325: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 326: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-131	Te-131	1267.570	0.030	0.384	0.026
Te-131	I-131	1265.200	0.000	0.417	0.025
Te-133	I-133	1266.580	0.002	0.208	0.031
Cs-138	Ba-138	1264.940	0.001	0.557	0.067
Pr-145	Nd-145	1266.130	0.000	5.984	0.039

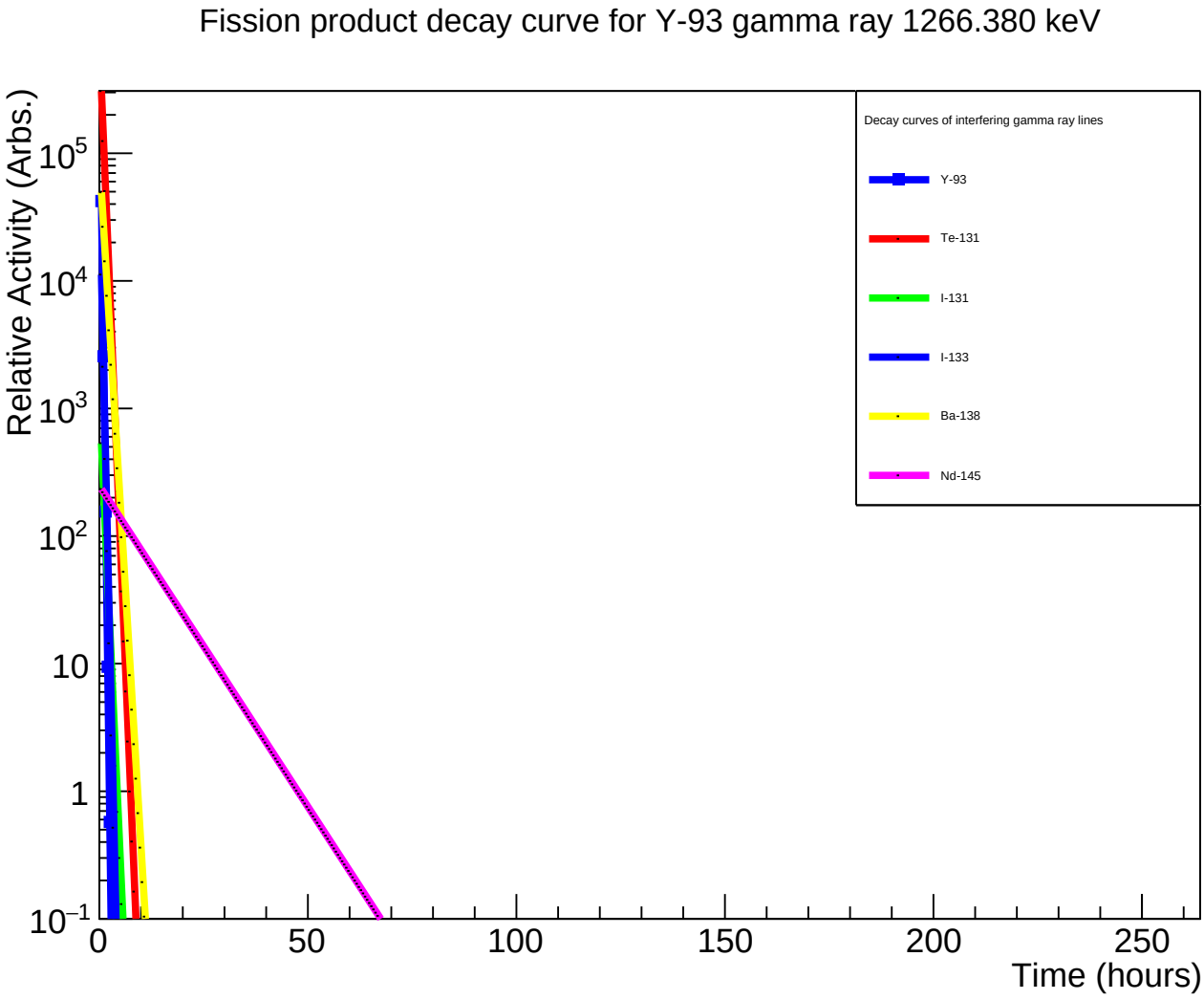


Figure 163: Y-93 decay curve for 1266.380 keV gamma ray.

3.164 Sr-93 E_γ = 1269.47 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1269.47 keV
Gamma Intensity = 7.14 ± 0.463 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 327: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 328: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-97	Mo-97	1268.620	0.001	1.202	0.060
Nb-98	Mo-98	1268.600	0.001	0.855	0.000
Tc-104	Ru-104	1269.000	0.004	0.305	0.019
Pd-111	Ag-111	1269.700	0.000	0.390	0.000
I-134	Xe-134	1269.490	0.006	0.875	0.078
Nd-151	Pm-151	1268.500	0.001	0.207	0.004
Nd-151	Pm-151	1269.600	0.001	0.207	0.004
Nd-151	Pm-151	1270.900	0.001	0.207	0.004

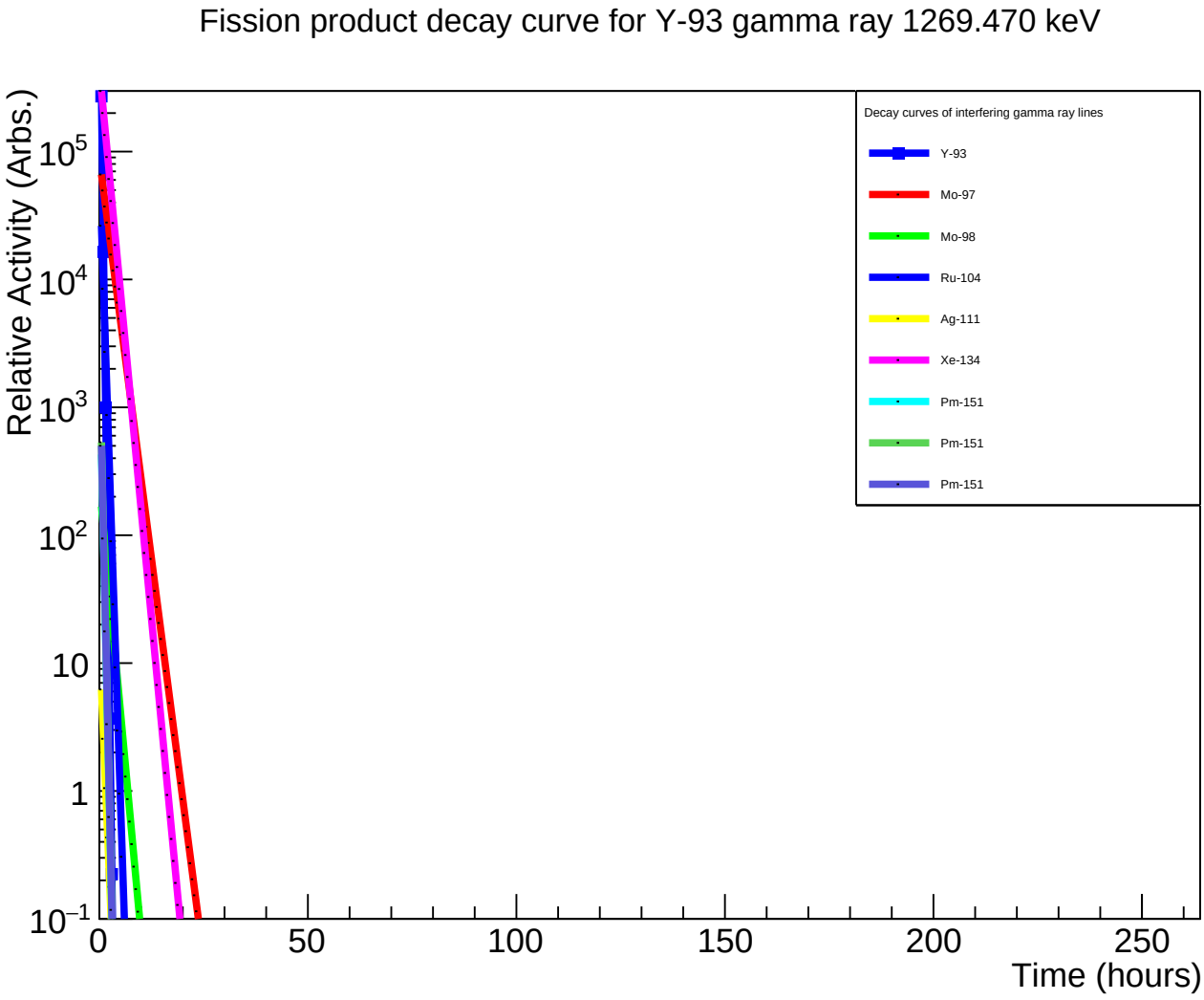


Figure 164: Y-93 decay curve for 1269.470 keV gamma ray.

3.165 Sr-93 E_γ = 1321.24 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1321.24 keV
Gamma Intensity = 2.61 ± 0.178 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 329: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 330: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	1321.260	0.002	4.440	0.010
Te-133	I-133	1320.400	0.000	0.208	0.031
I-134	Xe-134	1322.400	0.001	0.875	0.078
Cs-139	Ba-139	1321.770	0.002	0.155	0.063

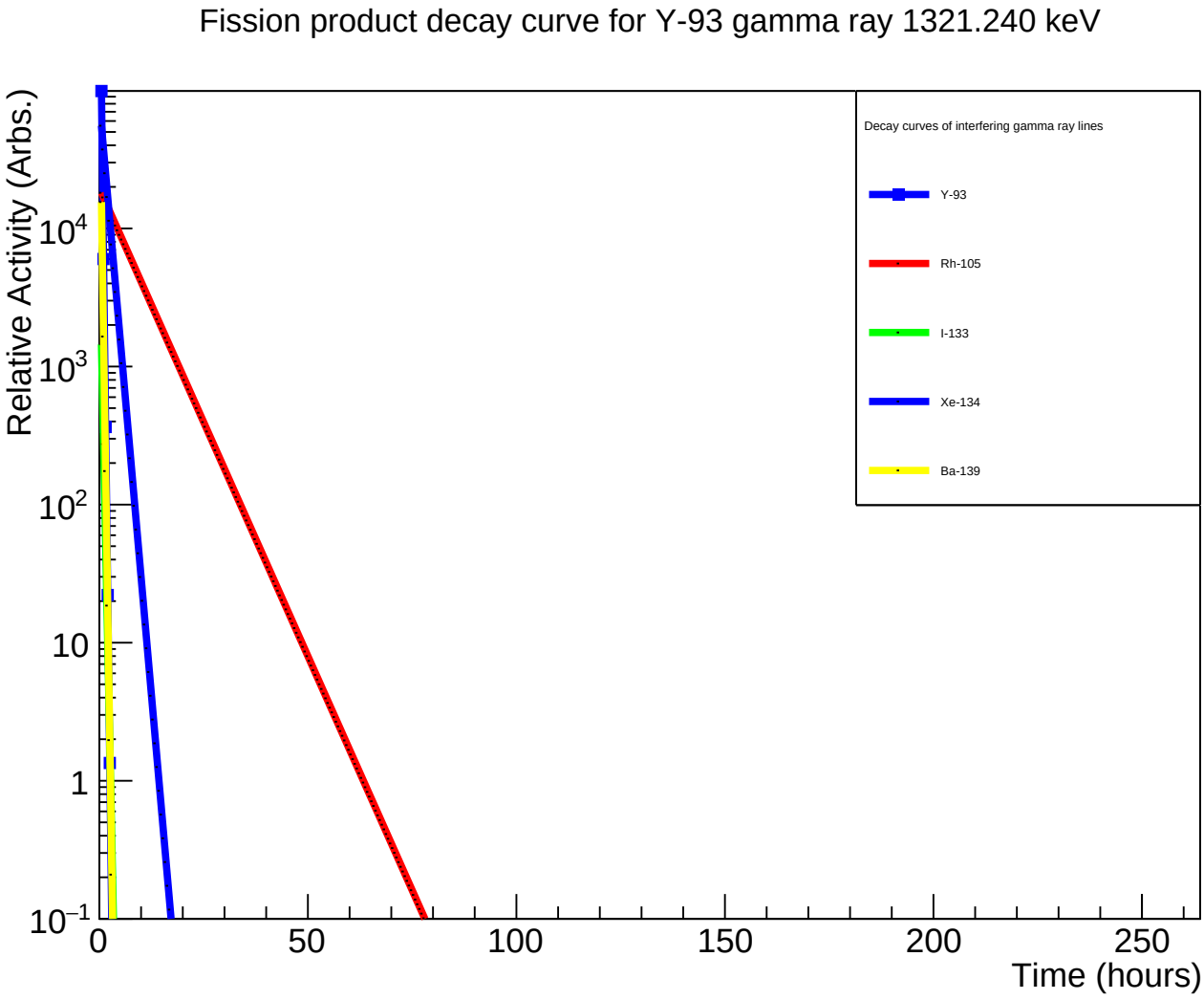


Figure 165: Y-93 decay curve for 1321.240 keV gamma ray.

3.166 Sr-93 E_γ = 1387.11 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1387.11 keV
Gamma Intensity = 3.47 ± 0.255 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 331: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 332: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1387.600	0.001	0.243	0.052
Pd-111	Ag-111	1388.500	0.006	0.390	0.000
Ag-112	Cd-112	1387.700	0.054	3.130	0.000
I-133	Xe-133	1386.150	0.000	20.800	0.067
Cs-138	Ba-138	1386.390	0.001	0.557	0.067
Cs-139	Ba-139	1386.850	0.000	0.155	0.063
Pr-144	Nd-144	1388.020	0.000	0.288	0.055
Nd-151	Pm-151	1387.100	0.000	0.207	0.004

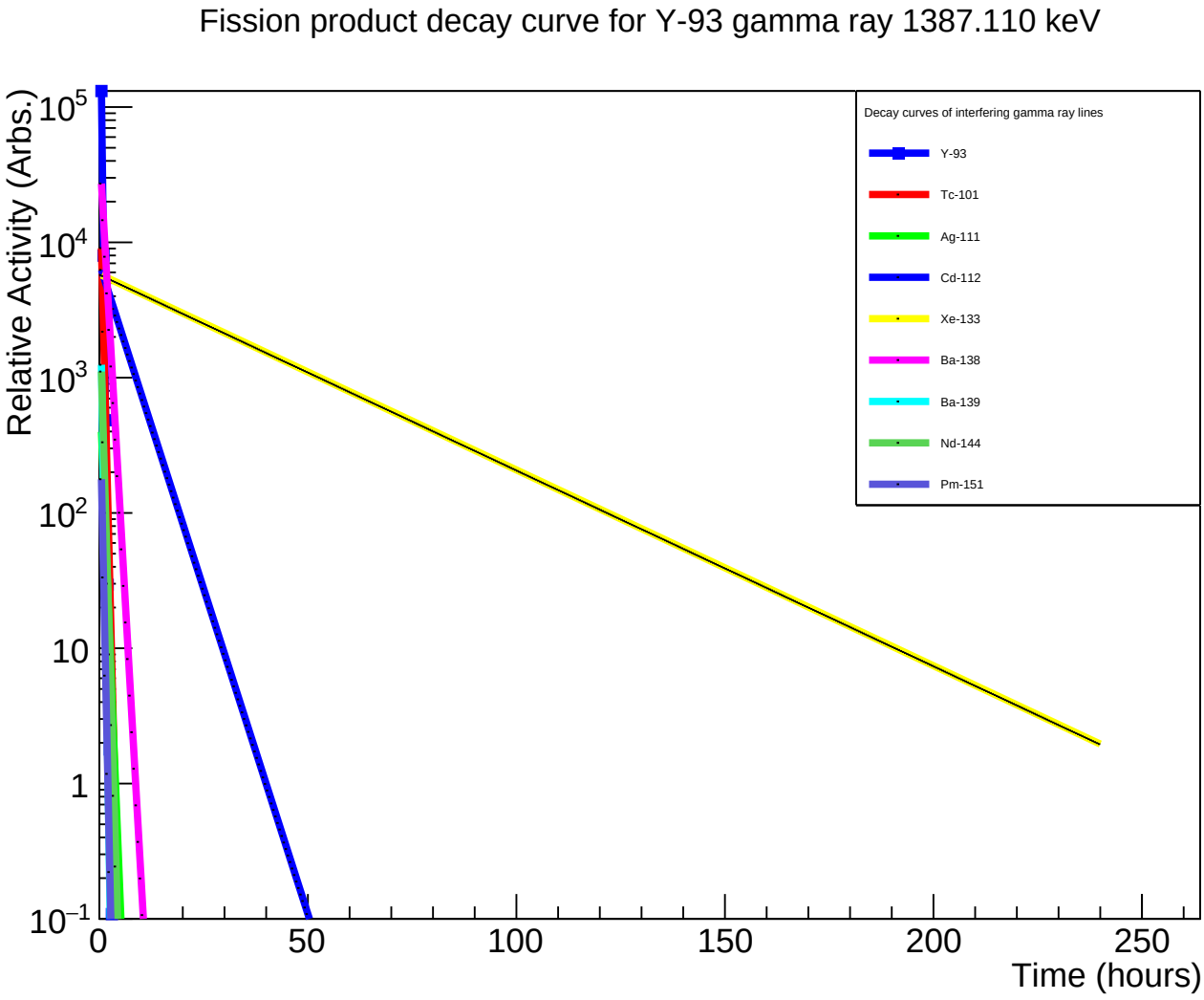


Figure 166: Y-93 decay curve for 1387.110 keV gamma ray.

3.167 Sr-93 E_γ = 1551.59 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1551.59 keV
Gamma Intensity = 1.02 ± 0.076 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 333: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 334: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	1552.000	0.002	0.923	0.040
Ba-141	La-141	1550.200	0.004	0.304	0.058

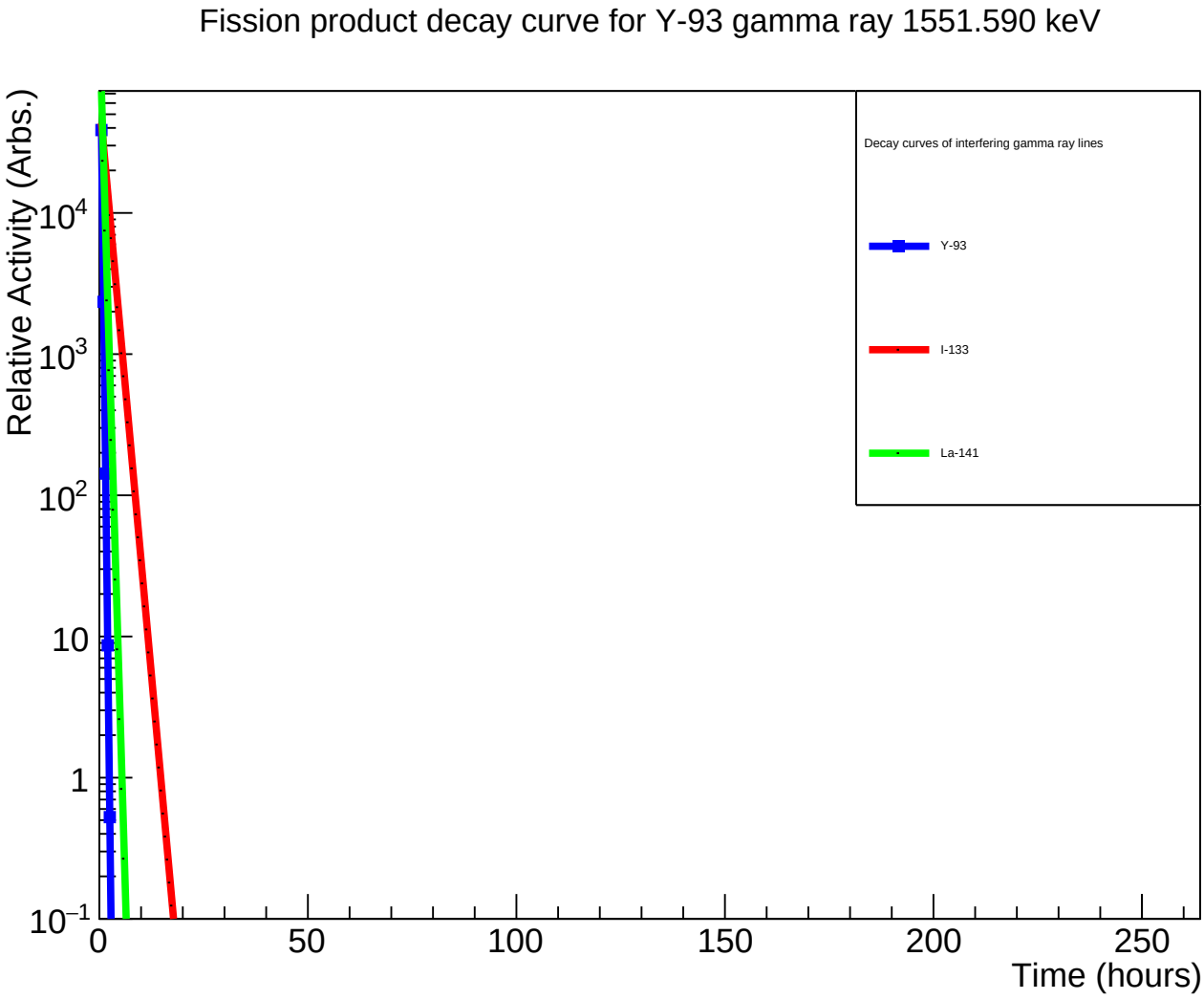


Figure 167: Y-93 decay curve for 1551.590 keV gamma ray.

3.168 Sr-93 E_γ = 1634.05 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1634.05 keV
Gamma Intensity = 1.45 ± 0.104 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 335: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 336: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1635.400	0.001	0.172	0.064
Tc-104	Ru-104	1633.700	0.001	0.305	0.019
Te-133	I-133	1633.700	0.001	0.208	0.031

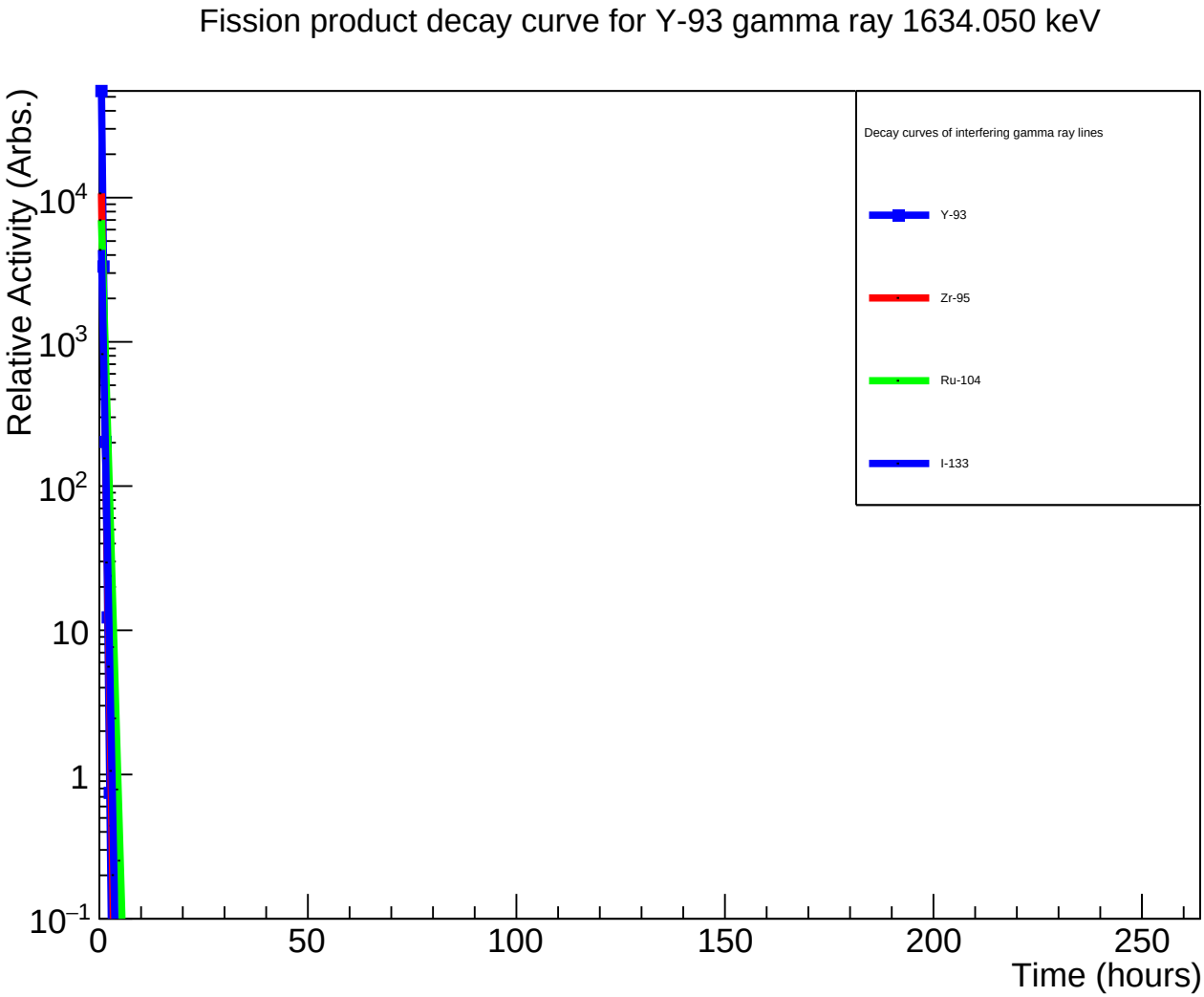


Figure 168: Y-93 decay curve for 1634.050 keV gamma ray.

3.169 Sr-93 E_γ = 1694.07 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1694.07 keV
Gamma Intensity = 2.58 ± 0.183 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 337: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 338: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	1693.300	0.000	0.923	0.040
La-141	Ce-141	1693.300	0.001	3.920	0.058
Nd-151	Pm-151	1693.000	0.000	0.207	0.004

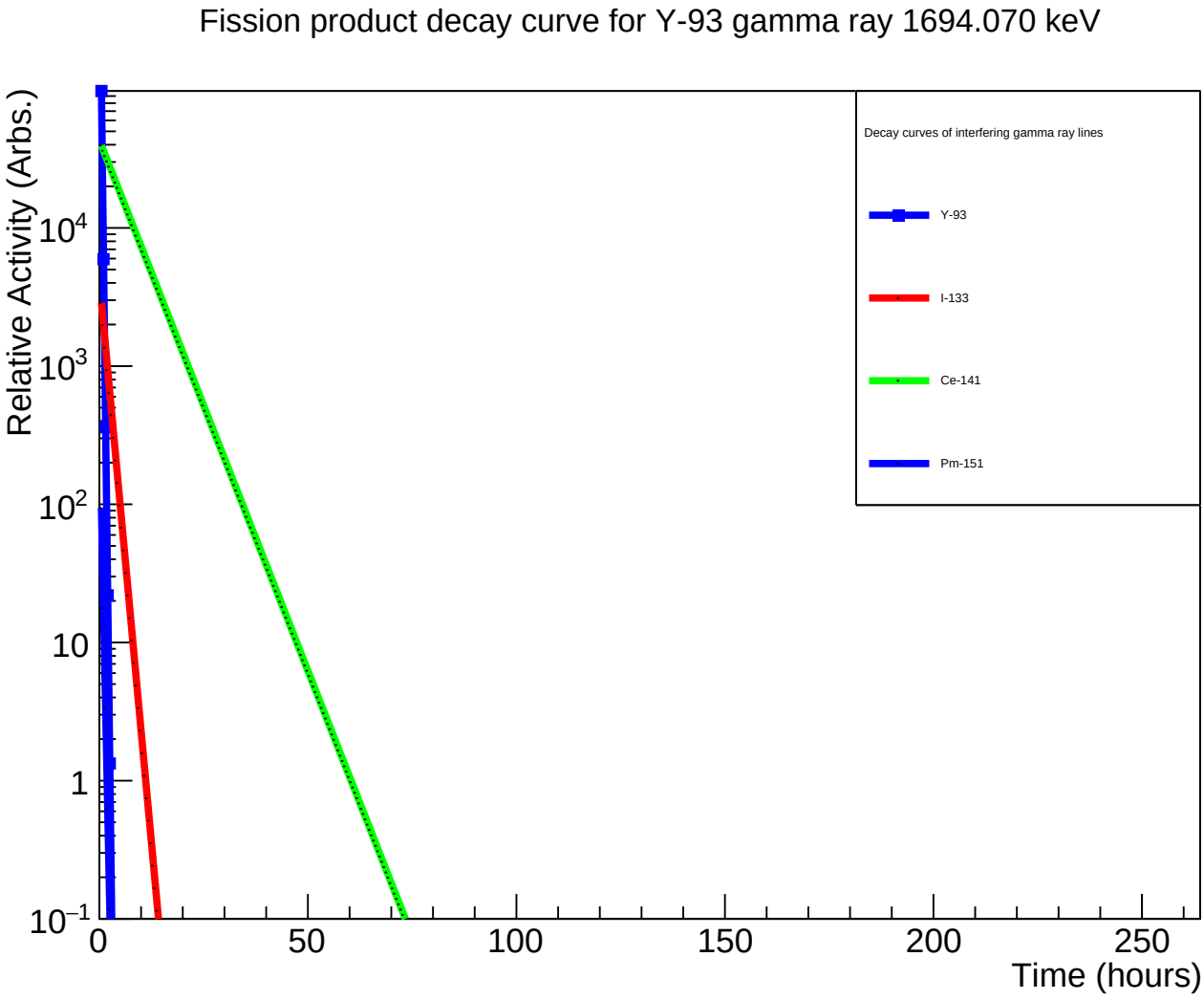


Figure 169: Y-93 decay curve for 1694.070 keV gamma ray.

3.170 Sr-93 E_γ = 1699.06 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1699.06 keV
Gamma Intensity = 3.33 ± 0.251 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 339: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 340: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1700.000	0.002	0.372	0.003
Ru-105	Rh-105	1698.100	0.001	4.440	0.010
Cs-139	Ba-139	1698.660	0.002	0.155	0.063
Nd-151	Pm-151	1698.420	0.000	0.207	0.004

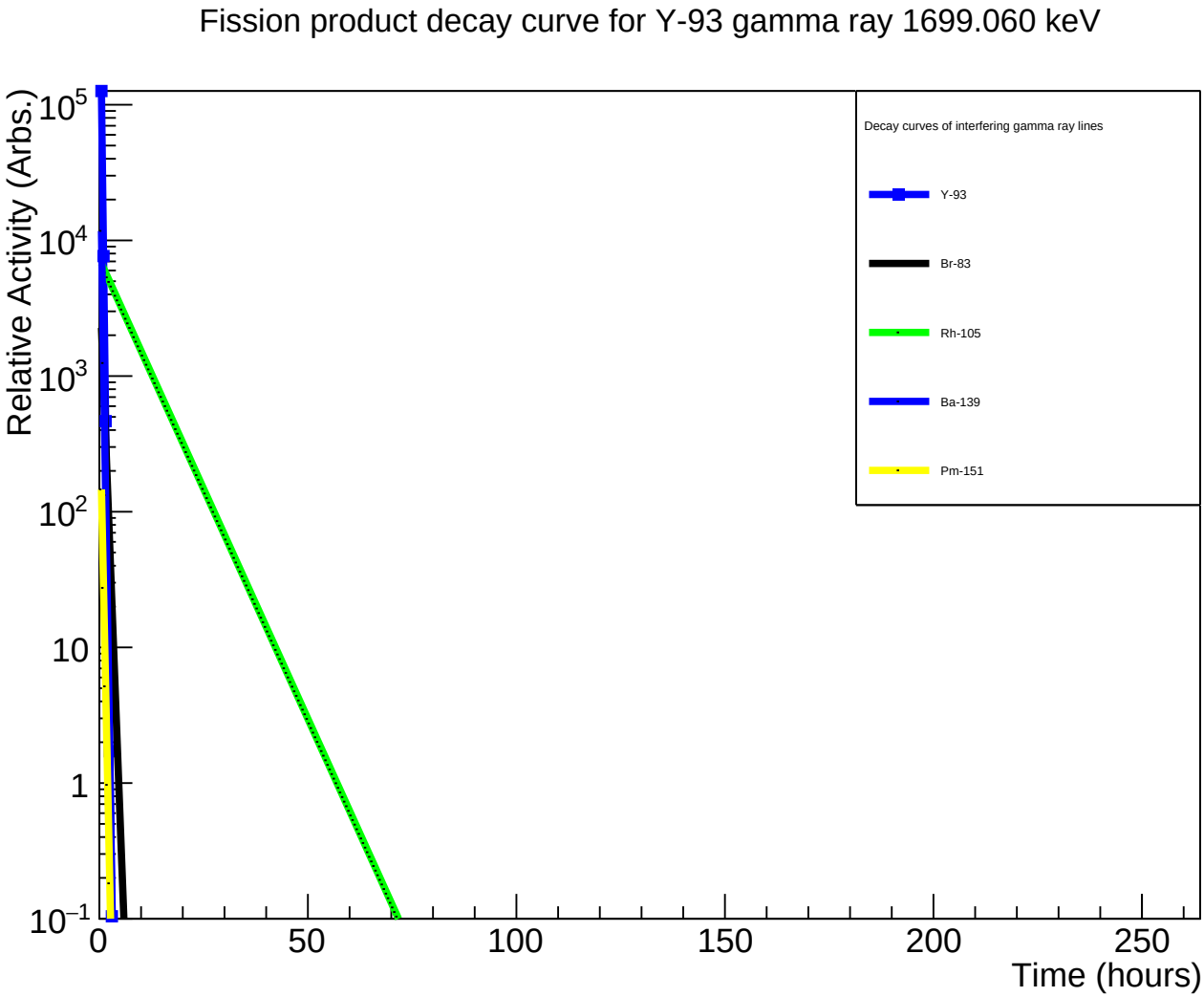


Figure 170: Y-93 decay curve for 1699.060 keV gamma ray.

3.171 Sr-93 E_γ = 1706.59 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1706.59 keV
Gamma Intensity = 1.11 ± 0.084 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 341: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 342: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-128	Te-128	1707.900	0.003	9.010	0.000
Te-133	I-133	1706.000	0.001	0.208	0.031
I-135	Xe-135	1706.459	0.041	6.570	0.063
La-143	Ce-143	1707.700	0.003	0.237	0.059

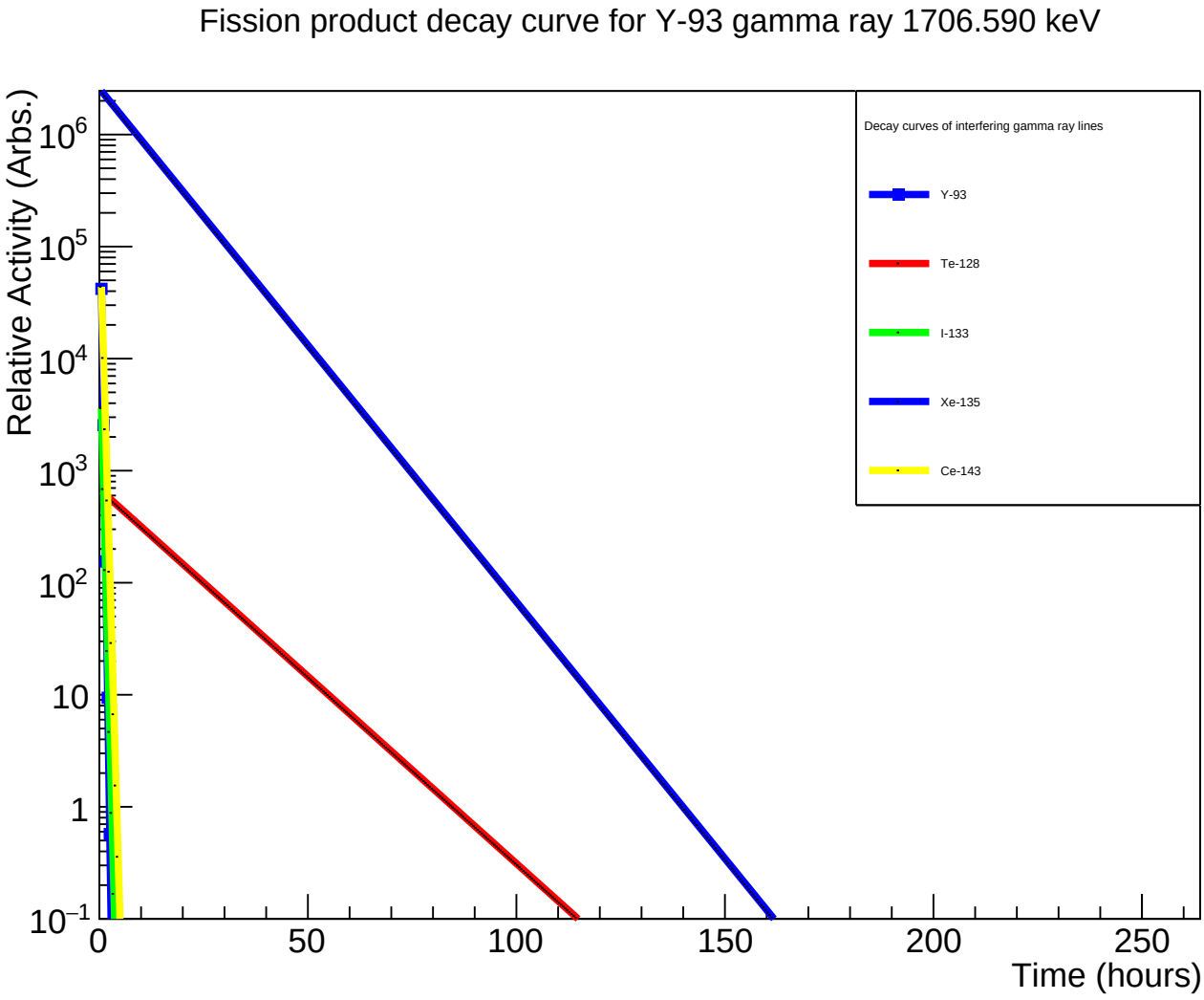


Figure 171: Y-93 decay curve for 1706.590 keV gamma ray.

3.172 Sr-93 E_γ = 1765.36 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1765.36 keV
Gamma Intensity = 1.07 ± 0.072 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 343: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 344: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	1765.400	0.000	4.440	0.010
Ba-139	La-139	1765.500	0.000	1.384	0.064
Pr-146	Nd-146	1765.900	0.001	0.403	0.030

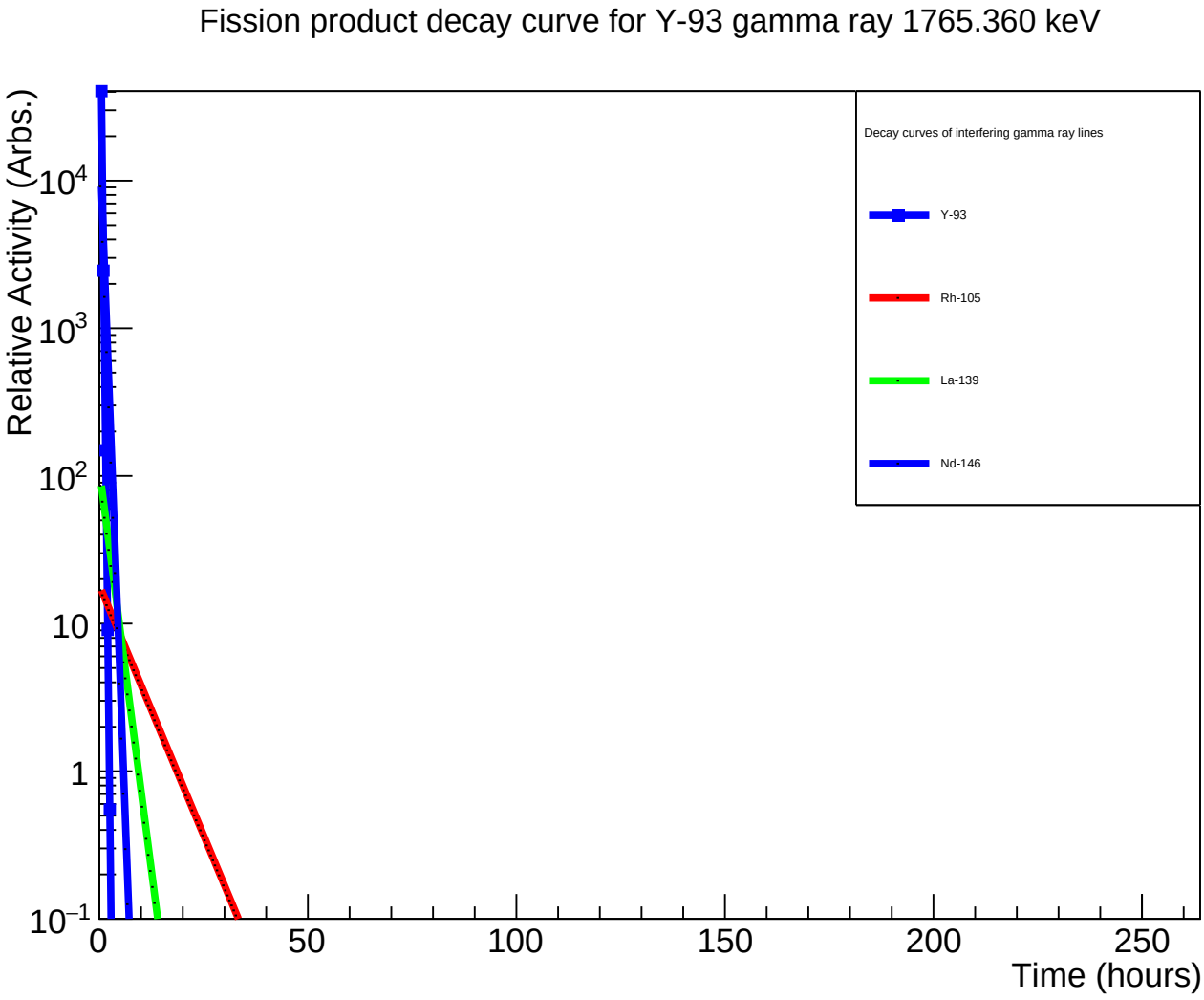


Figure 172: Y-93 decay curve for 1765.360 keV gamma ray.

3.173 Sr-93 E_γ = 1811.45 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1811.45 keV
Gamma Intensity = 1.41 ± 0.103 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 345: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 346: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	1812.800	0.001	2.100	0.001
Xe-138	Cs-138	1812.540	0.002	0.235	0.063
Pr-146	Nd-146	1812.700	0.001	0.403	0.030
Nd-151	Pm-151	1810.900	0.001	0.207	0.004

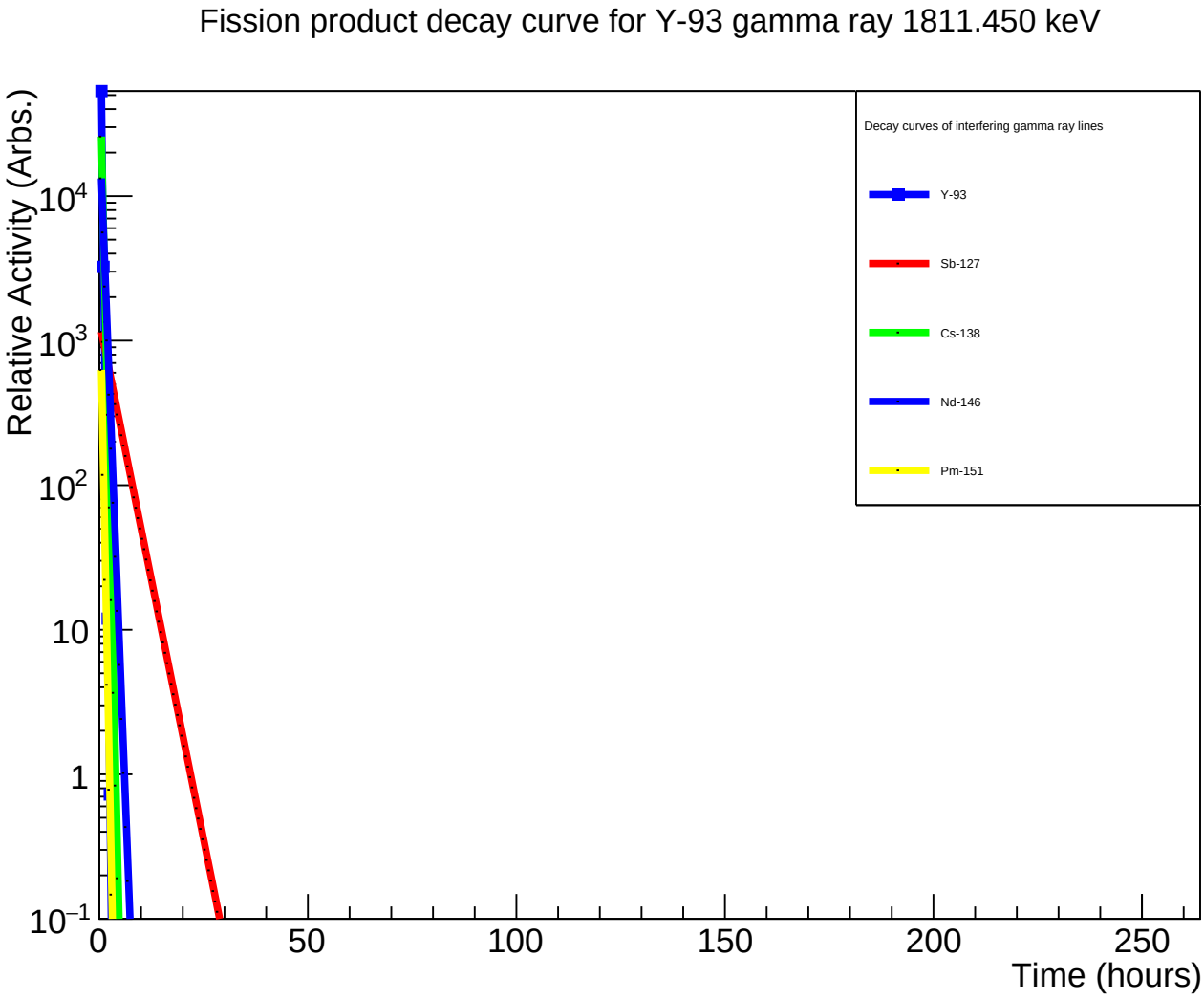


Figure 173: Y-93 decay curve for 1811.450 keV gamma ray.

3.174 Sr-93 E_γ = 1928.79 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 1928.79 keV
Gamma Intensity = 1.17 ± 0.085 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 347: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 348: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1927.500	0.000	0.312	0.065
Tc-104	Ru-104	1927.900	0.004	0.305	0.019
I-135	Xe-135	1927.300	0.003	6.570	0.063

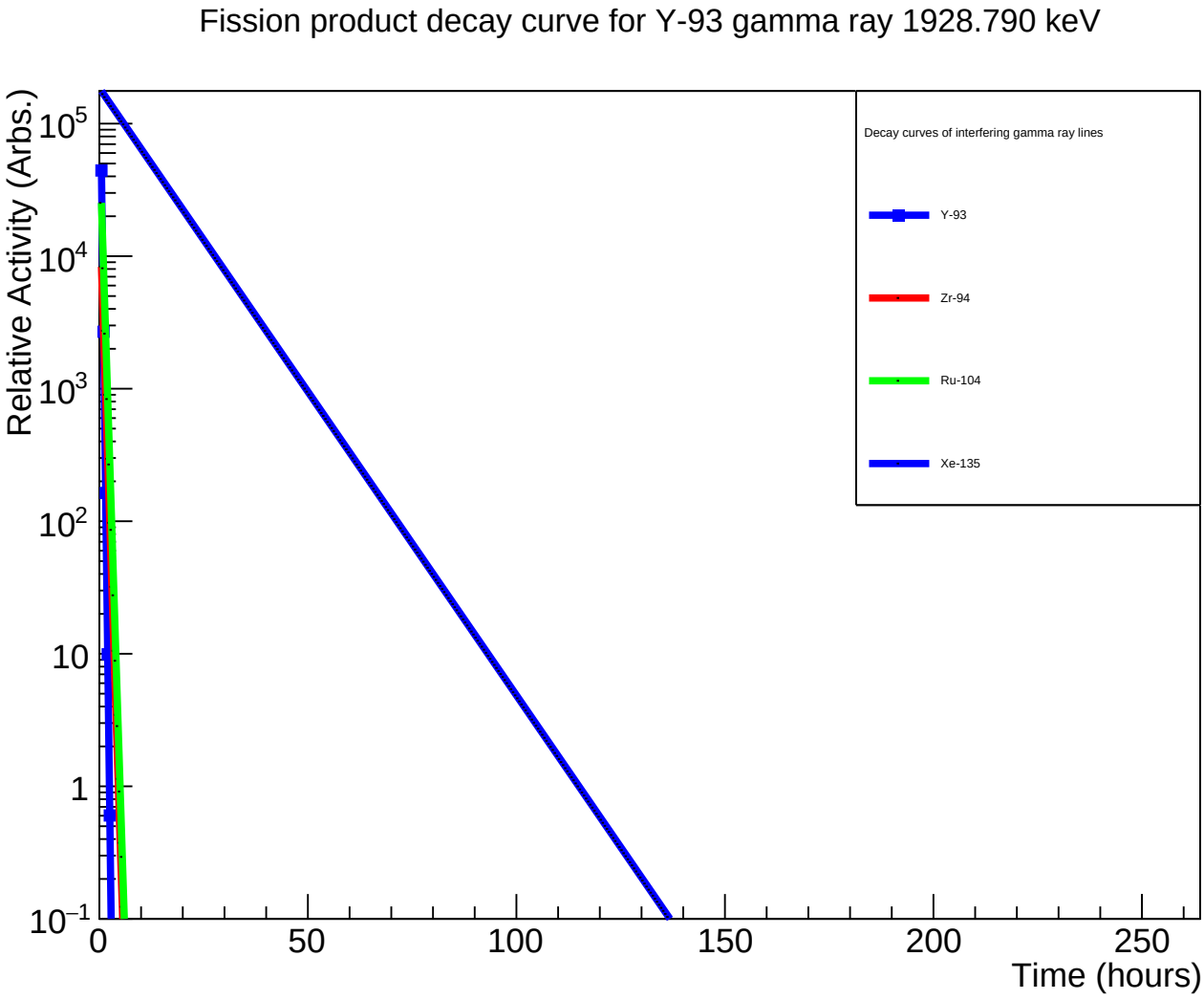


Figure 174: Y-93 decay curve for 1928.790 keV gamma ray.

3.175 Sr-93 E_γ = 2230.27 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 2230.27 keV
Gamma Intensity = 1.55 ± 0.112 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 349: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 350: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2229.640	0.009	0.208	0.031
Cs-139	Ba-139	2229.900	0.000	0.155	0.063

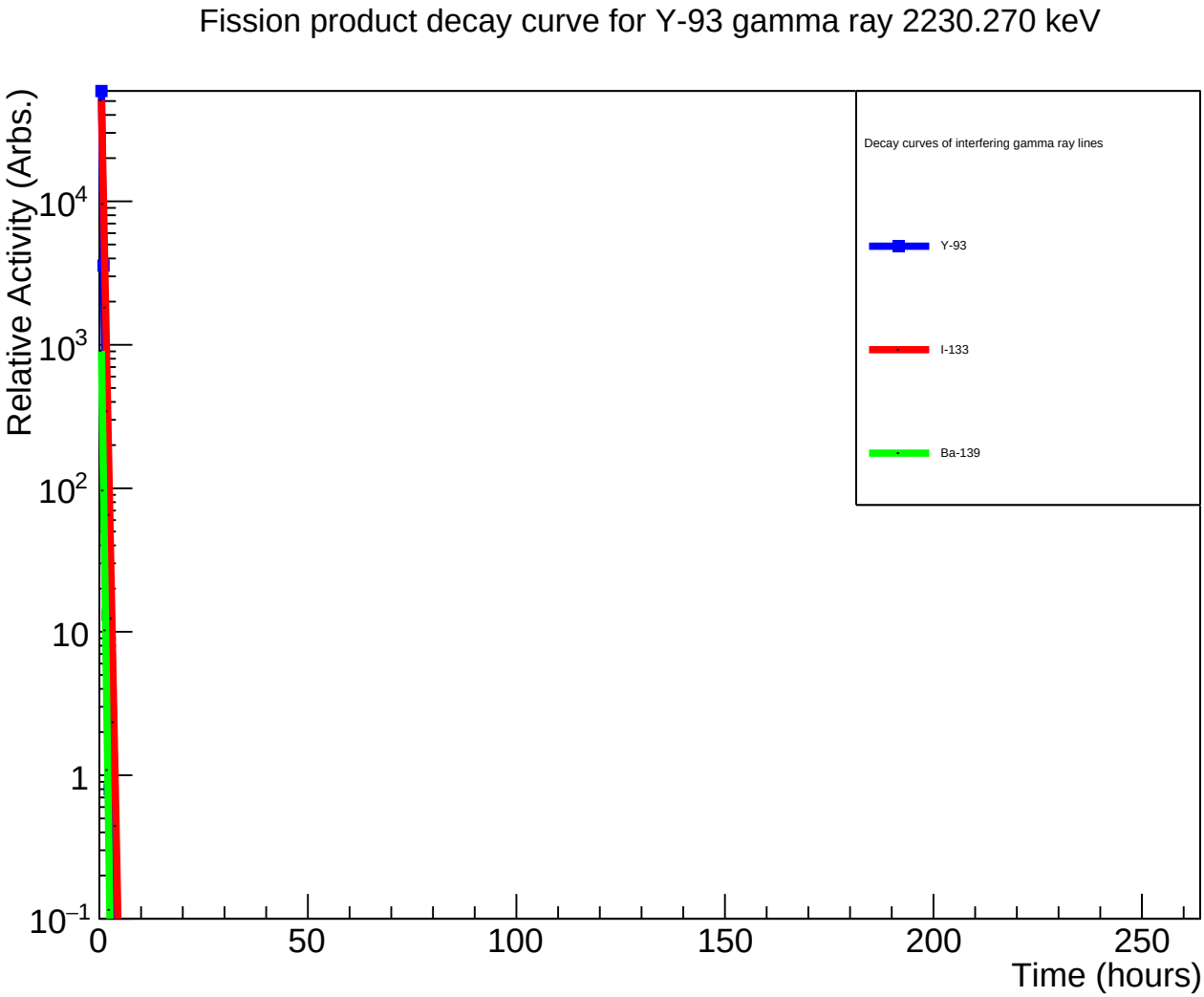


Figure 175: Y-93 decay curve for 2230.270 keV gamma ray.

3.176 Sr-93 E_γ = 2364.72 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 2364.72 keV
Gamma Intensity = 1.58 ± 0.113 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 351: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 352: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	2364.700	0.000	2.840	0.036
Y-95	Zr-95	2364.800	0.001	0.172	0.064
La-142	Ce-142	2364.400	0.004	1.518	0.058

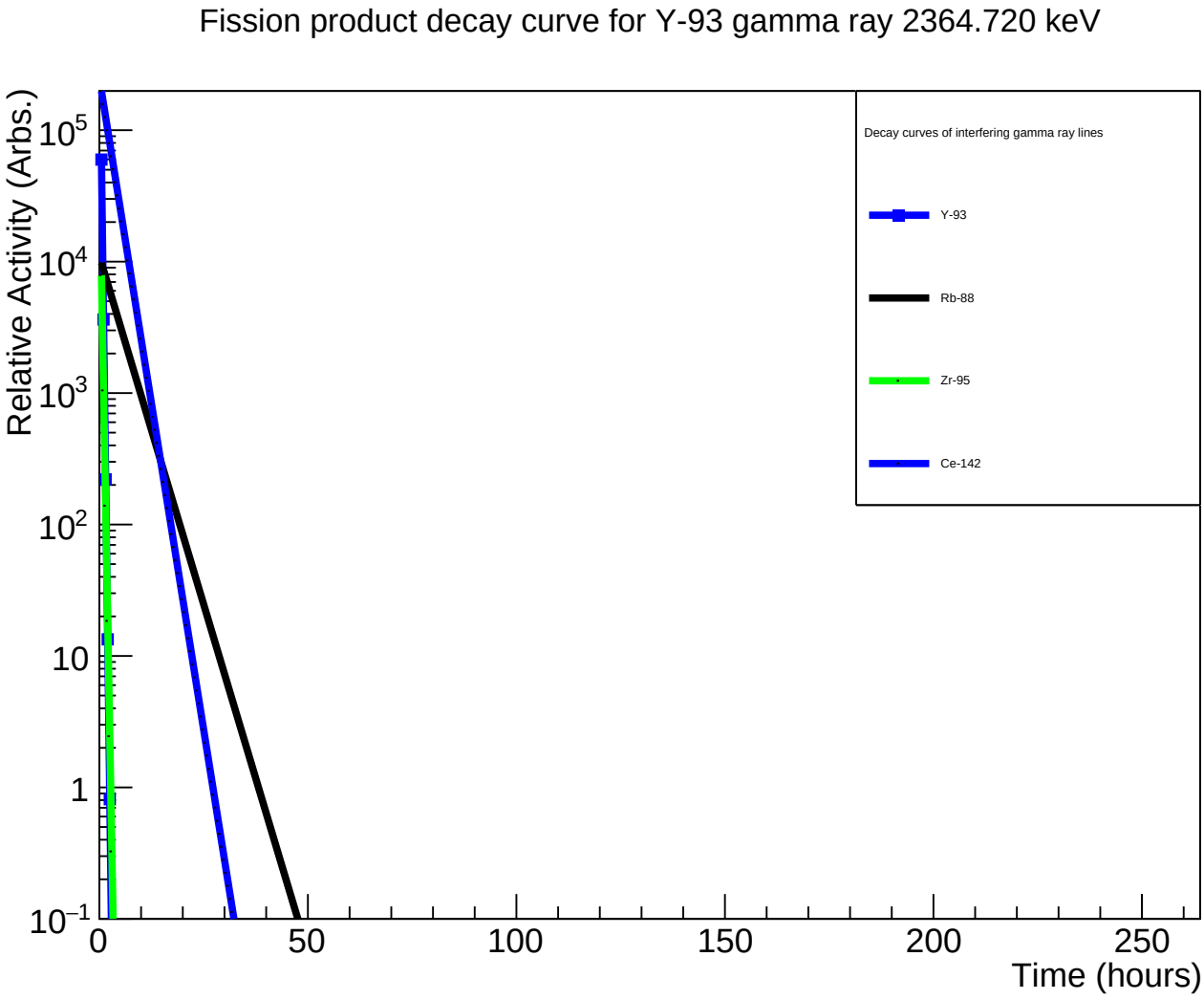


Figure 176: Y-93 decay curve for 2364.720 keV gamma ray.

3.177 Sr-93 E_γ = 2543.84 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 2543.84 keV
Gamma Intensity = 3.03 ± 0.211 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 353: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 354: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	2544.300	0.007	0.305	0.019
La-142	Ce-142	2542.700	0.100	1.518	0.058

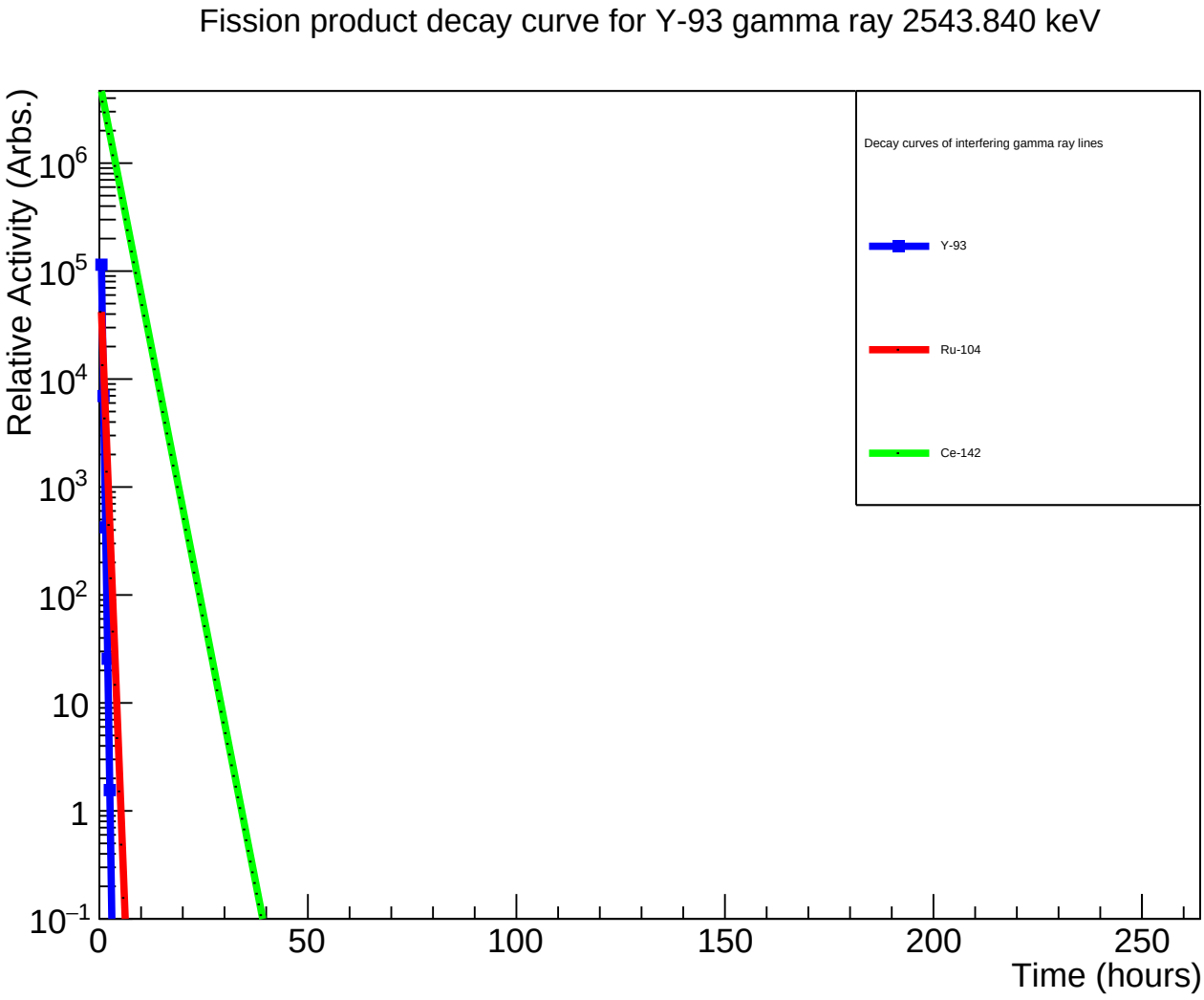


Figure 177: Y-93 decay curve for 2543.840 keV gamma ray.

3.178 Sr-93 E_γ = 2688.65 keV

Chemical element: Strontium
Fission product parent: Sr-93
Gamma originates in daughter: Y-93
Eγ: 2688.65 keV
Gamma Intensity = 2.13 ± 0.154 %
$T_{1/2}$ = 0.124 ± 0.000 hours or 7.42 ± 0.02 minutes
CFY: 6.237 ± 0.062 %

Table 355: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 356: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

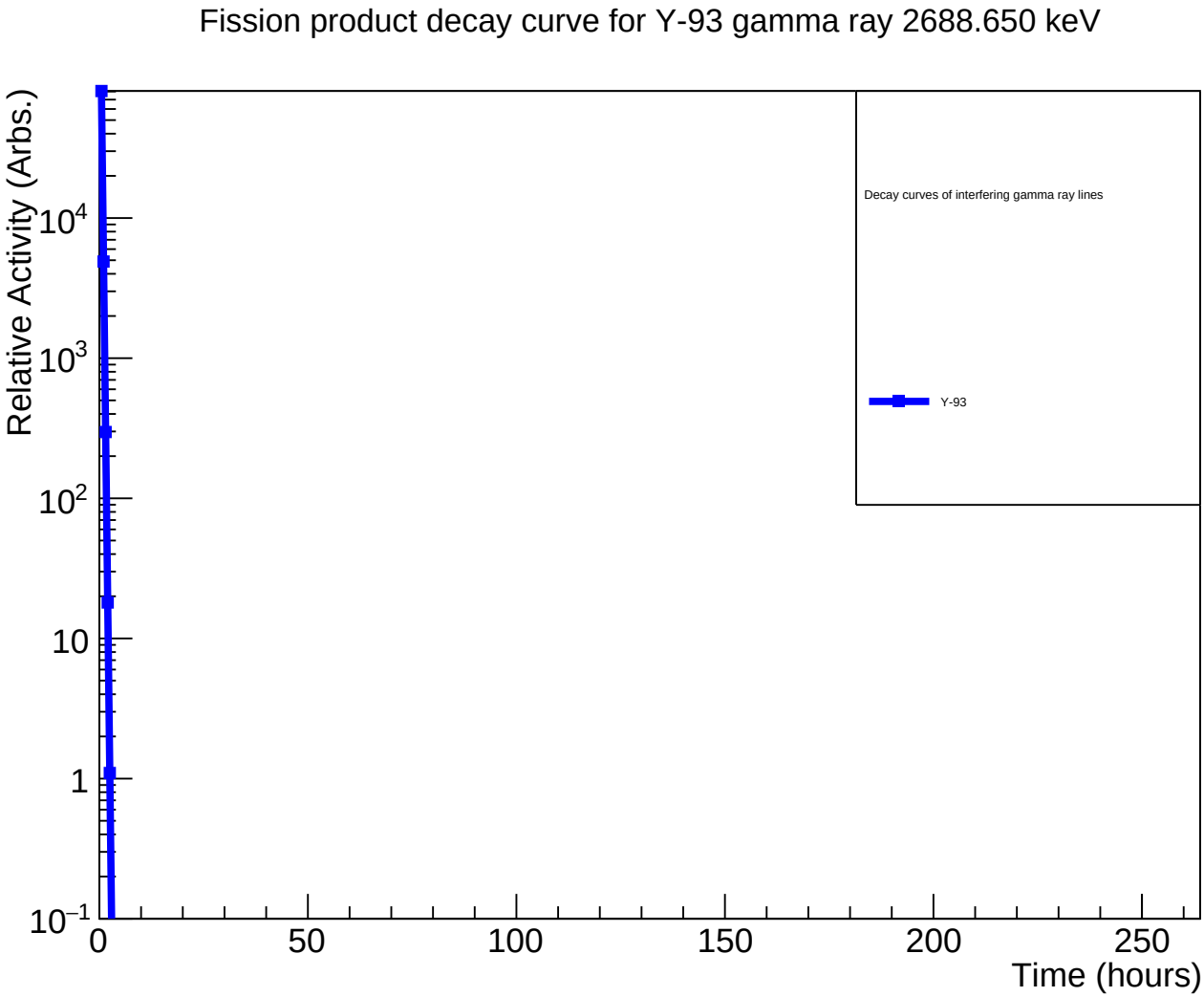


Figure 178: Y-93 decay curve for 2688.650 keV gamma ray.

3.179 Y-91 E_γ = 555.57 keV

Chemical element: Yttrium
Fission product parent: Y-91
Gamma originates in daughter: Zr-91
Eγ: 555.57 keV
Gamma Intensity = 94.96 ± 0.055 %
$T_{1/2}$ = 0.829 ± 0.001 hours or 49.71 ± 0.04 minutes
CFY: 3.380 ± 2.163 %

Table 357: Decay chain of fission product chain A = 91

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Bromine-91	Krypton-91	0.000	0.000
Krypton-91	Rubidium-91	0.002	0.000
Rubidium-91	Strontium-91	0.016	0.000
Strontium-91	Yttrium-91	9.630	0.050
Yttrium-91	Zirconium-91	0.829	0.001

Table 358: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	555.300	0.000	0.855	0.000
Ru-103	Rh-103	557.057	0.008	941.928	0.030
Rh-107	Pd-107	554.400	0.001	0.362	0.001
Te-129	I-129	556.650	0.001	806.400	0.001
Te-133	I-133	555.000	0.001	0.923	0.040
I-133	Xe-133	554.500	0.000	20.800	0.067
I-133	Xe-133	556.170	0.000	20.800	0.067
Xe-138	Cs-138	555.950	0.001	0.235	0.063
Ce-143	Pr-143	556.870	0.000	33.039	0.060
Pr-147	Nd-147	554.700	0.058	0.223	0.022
Nd-149	Pm-149	555.880	0.006	1.728	0.011
Nd-149	Pm-149	556.830	0.004	1.728	0.011
Pm-151	Sm-151	554.200	0.000	28.400	0.004
Sm-153	Eu-153	554.940	0.000	46.500	0.002
Eu-156	Gd-156	554.660	0.000	364.560	0.000

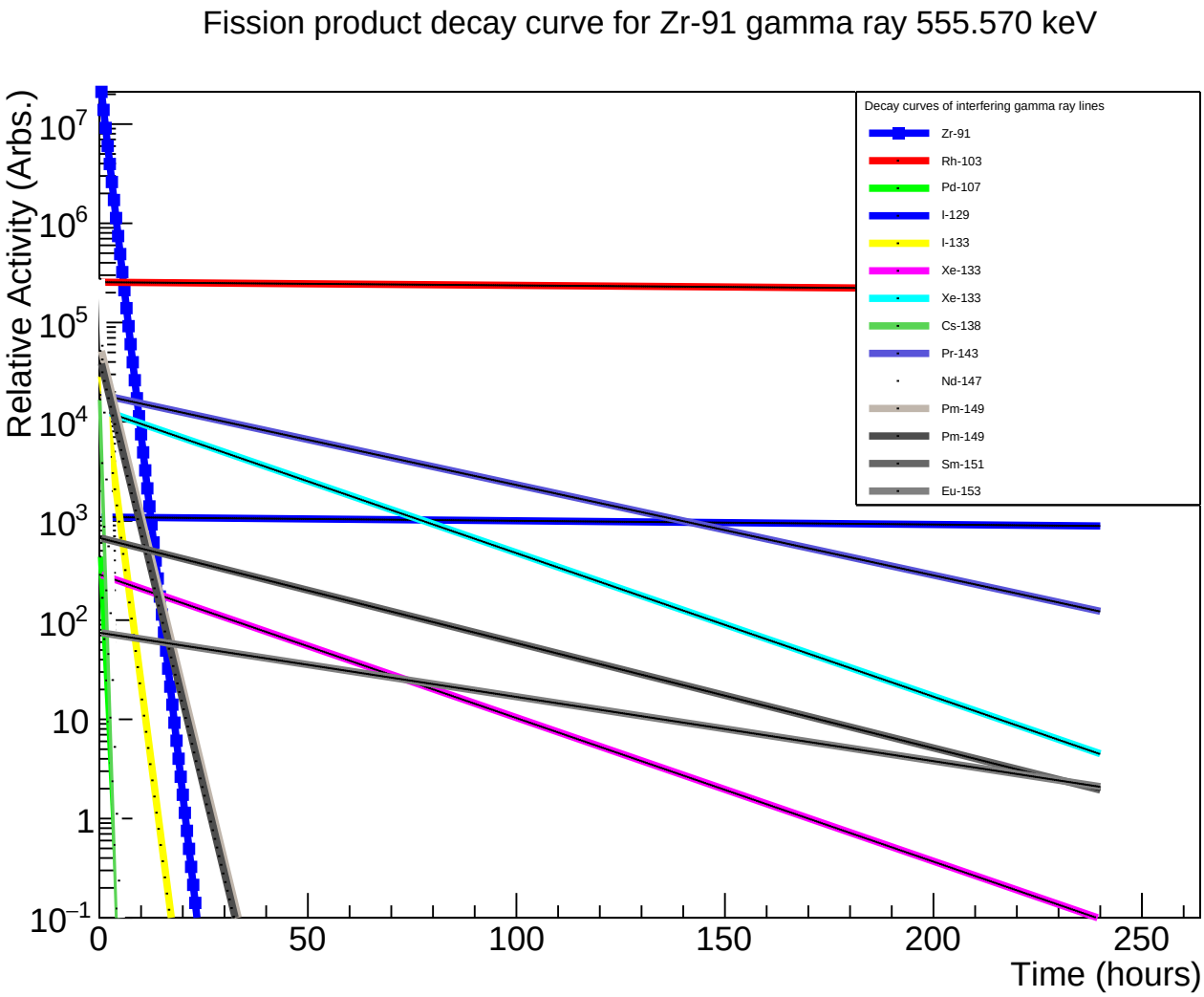


Figure 179: Zr-91 decay curve for 555.570 keV gamma ray.

3.180 Y-92 E_γ = 448.50 keV

Chemical element: Yttrium
Fission product parent: Y-92
Gamma originates in daughter: Zr-92
Eγ: 448.50 keV
Gamma Intensity = 2.34 ± 0.259 %
$T_{1/2}$ = 3.540 ± 0.010 hours or 212.40 ± 0.60 minutes
CFY: 6.009 ± 0.060 %

Table 359: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 360: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	449.800	0.001	1.512	0.000
Br-84	Kr-84	447.700	0.000	0.529	0.010
Br-84	Kr-84	447.000	0.030	0.100	0.000
Nb-98	Mo-98	448.200	0.000	0.855	0.000
Mo-101	Tc-101	448.600	0.007	0.243	0.052
Pd-109	Ag-109	447.600	0.000	13.701	0.000
Cs-139	Ba-139	448.760	0.000	0.155	0.063
Ba-142	La-142	448.300	0.002	0.177	0.058
Ce-143	Pr-143	447.450	0.001	33.039	0.060
Nd-149	Pm-149	448.800	0.000	1.728	0.011
Nd-151	Pm-151	449.200	0.000	0.207	0.004
Pm-151	Sm-151	448.700	0.000	28.400	0.004

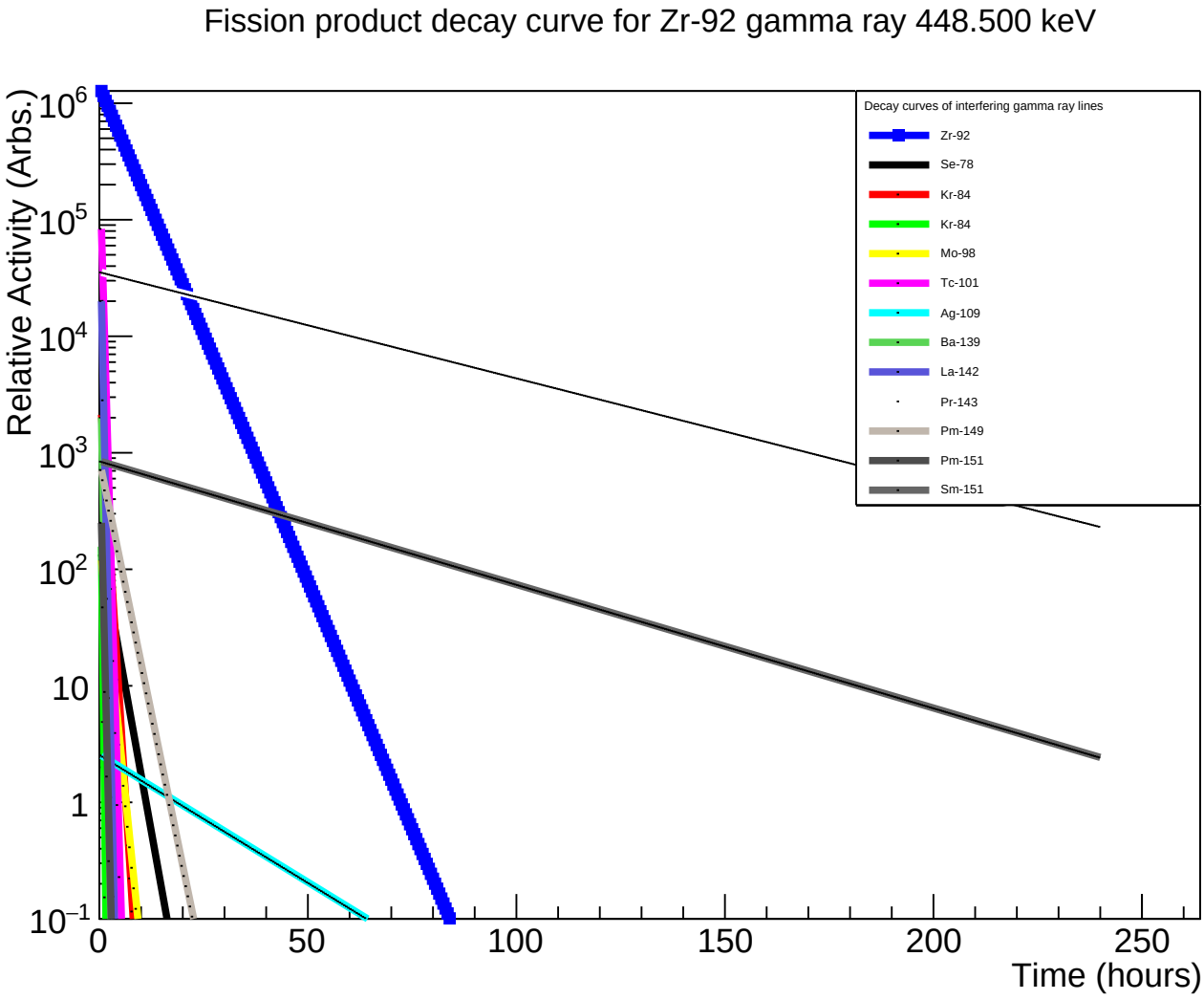


Figure 180: Zr-92 decay curve for 448.500 keV gamma ray.

3.181 Y-92 E_γ = 561.10 keV

Chemical element: Yttrium
Fission product parent: Y-92
Gamma originates in daughter: Zr-92
Eγ: 561.10 keV
Gamma Intensity = 2.40 ± 0.264 %
$T_{1/2}$ = 3.540 ± 0.010 hours or 212.40 ± 0.60 minutes
CFY: 6.009 ± 0.060 %

Table 361: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 362: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	561.400	0.001	0.529	0.010
Rb-89	Sr-89	562.080	0.001	0.252	0.047
Sr-93	Y-93	559.920	0.002	0.124	0.062
Nb-95	Mo-95	561.880	0.000	839.784	0.065
Nb-98	Mo-98	561.210	0.001	0.855	0.000
Nb-98	Mo-98	562.300	0.001	0.855	0.000
Mo-101	Tc-101	560.300	0.001	0.243	0.052
Te-129	I-129	560.050	0.000	1.160	0.005
I-132	Xe-132	559.700	0.001	2.295	0.043
Ba-141	La-141	561.700	0.002	0.304	0.058
La-141	Ce-141	561.800	0.000	3.920	0.058
La-143	Ce-143	559.900	0.001	0.237	0.059
Pr-146	Nd-146	562.100	0.004	0.403	0.030
Pm-151	Sm-151	562.100	0.000	28.400	0.004

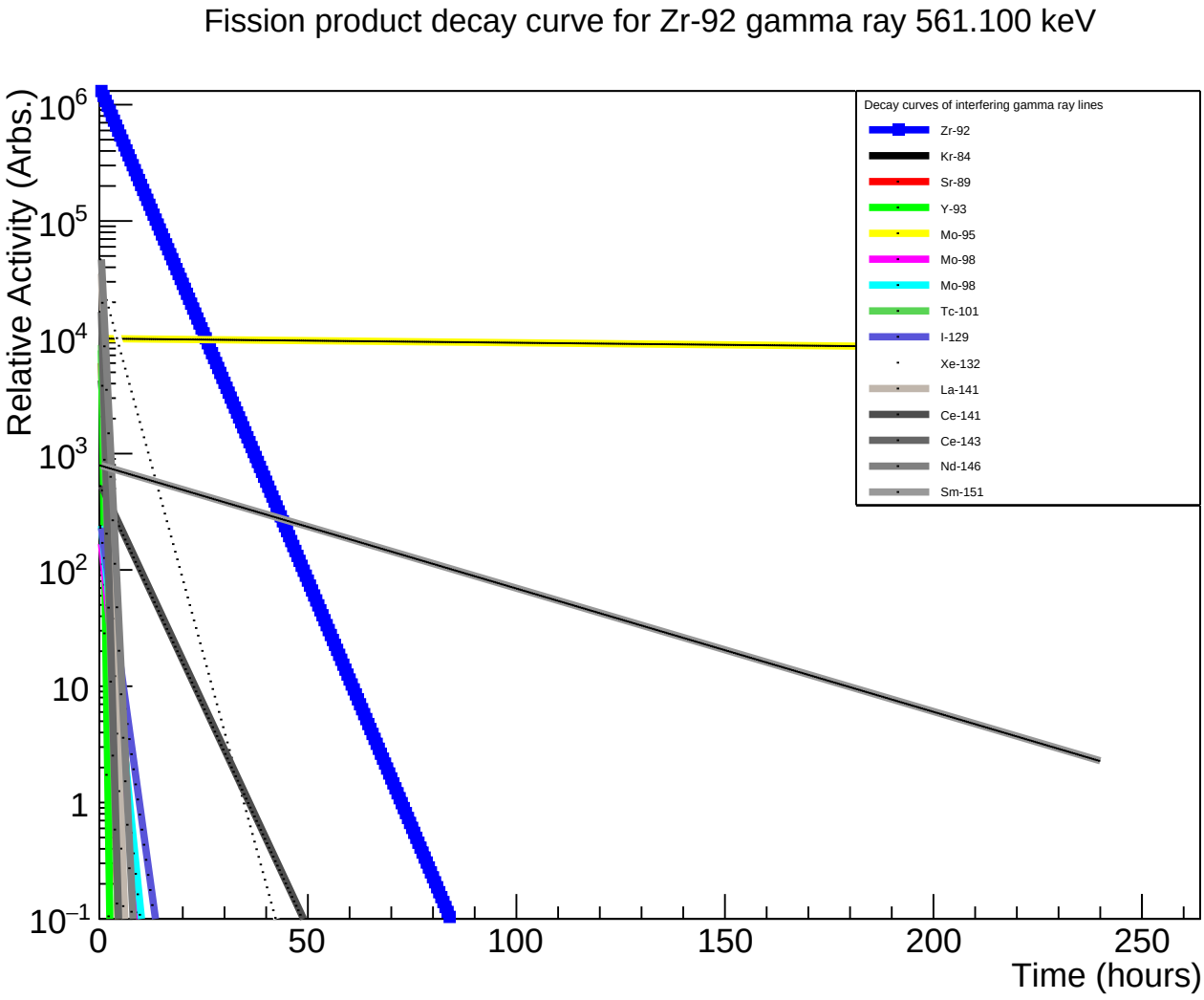


Figure 181: Zr-92 decay curve for 561.100 keV gamma ray.

3.182 Y-92 E_γ = 844.30 keV

Chemical element: Yttrium
Fission product parent: Y-92
Gamma originates in daughter: Zr-92
Eγ: 844.30 keV
Gamma Intensity = 1.25 ± 0.144 %
$T_{1/2}$ = 3.540 ± 0.010 hours or 212.40 ± 0.60 minutes
CFY: 6.009 ± 0.060 %

Table 363: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 364: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	845.440	0.073	1.272	0.026
Nb-98	Mo-98	843.820	0.001	0.855	0.000
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Ag-112	Cd-112	842.800	0.000	3.130	0.000
Sb-128	Te-128	845.800	0.025	9.010	0.000
Sb-128	Te-128	844.000	0.022	0.173	0.003
Te-129	I-129	844.810	0.000	806.400	0.001
Te-131	I-131	844.900	0.001	33.250	0.004
Te-133	I-133	844.360	0.033	0.208	0.031
Te-134	I-134	844.060	0.012	0.697	0.070
Nd-149	Pm-149	842.847	0.001	1.728	0.011

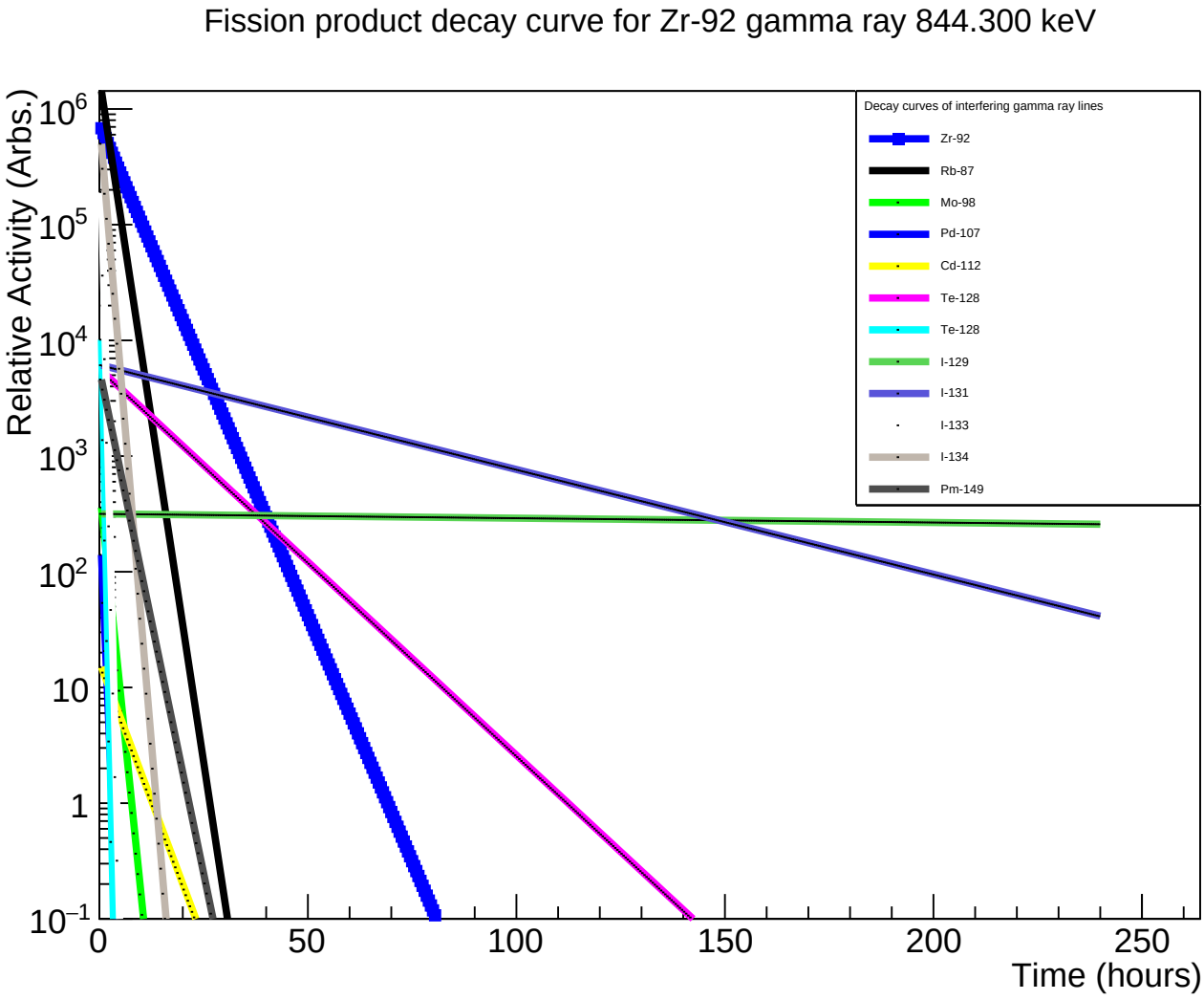


Figure 182: Zr-92 decay curve for 844.300 keV gamma ray.

3.183 Y-92 E_γ = 934.47 keV

Chemical element: Yttrium
Fission product parent: Y-92
Gamma originates in daughter: Zr-92
Eγ: 934.47 keV
Gamma Intensity = 13.90 ± 1.545 %
$T_{1/2}$ = 3.540 ± 0.010 hours or 212.40 ± 0.60 minutes
CFY: 6.009 ± 0.060 %

Table 365: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 366: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	933.730	0.007	0.372	0.003
Mo-101	Tc-101	933.300	0.006	0.243	0.052
Mo-101	Tc-101	934.210	0.041	0.243	0.052
Sn-125	Sb-125	934.630	0.002	231.360	0.000
Sb-130	Te-130	934.900	0.190	0.658	0.008
Sb-131	Te-131	933.090	0.264	0.384	0.026
Te-131	I-131	934.483	0.009	0.417	0.025
Te-133	I-133	934.000	0.001	0.208	0.031
Cs-138	Ba-138	935.030	0.002	0.557	0.067
Cs-139	Ba-139	933.000	0.000	0.155	0.063
Ba-142	La-142	934.000	0.000	0.177	0.058
Nd-149	Pm-149	933.240	0.001	1.728	0.011
Nd-149	Pm-149	935.900	0.000	1.728	0.011
Nd-151	Pm-151	934.040	0.001	0.207	0.004
Nd-151	Pm-151	935.100	0.000	0.207	0.004
Pm-151	Sm-151	933.900	0.000	28.400	0.004

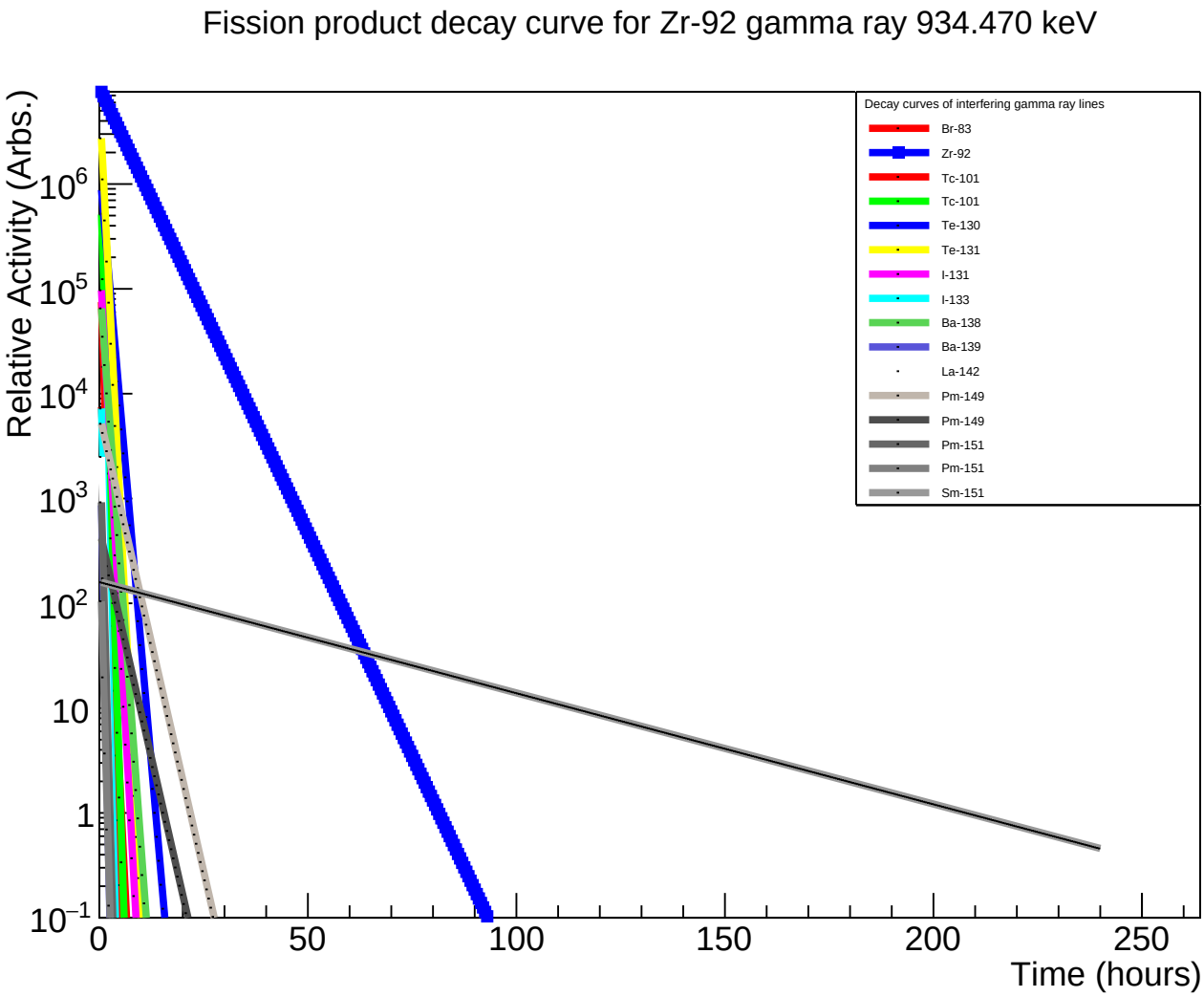


Figure 183: Zr-92 decay curve for 934.470 keV gamma ray.

3.184 Y-92 E_γ = 1405.40 keV

Chemical element: Yttrium
Fission product parent: Y-92
Gamma originates in daughter: Zr-92
Eγ: 1405.40 keV
Gamma Intensity = 4.78 ± 0.534 %
$T_{1/2}$ = 3.540 ± 0.010 hours or 212.40 ± 0.60 minutes
CFY: 6.009 ± 0.060 %

Table 367: Decay chain of fission product chain A = 92

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-92	Rubidium-92	0.001	0.000
Rubidium-92	Strontium-92	0.001	0.000
Strontium-92	Yttrium-92	2.710	0.010
Yttrium-92	Zirconium-92	3.540	0.010

Table 368: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	1404.060	0.007	0.159	0.000
Te-133	I-133	1405.500	0.006	0.208	0.031
Te-133	I-133	1405.000	0.001	0.923	0.040
Ba-141	La-141	1405.100	0.003	0.304	0.058
La-140	Ce-140	1405.200	0.001	40.285	0.062
Pr-145	Nd-145	1403.920	0.000	5.984	0.039

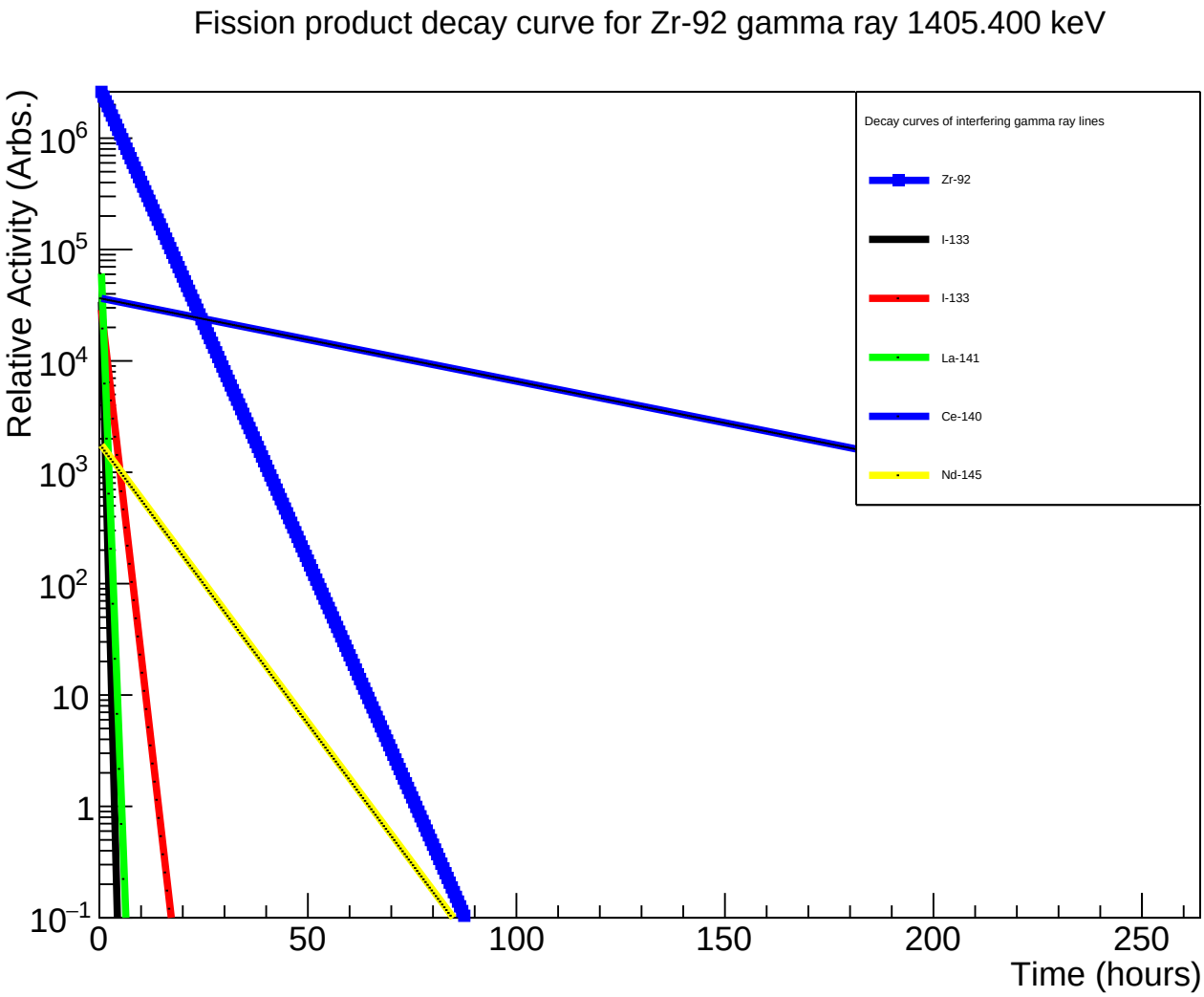


Figure 184: Zr-92 decay curve for 1405.400 keV gamma ray.

3.185 Y-93 E_γ = 266.90 keV

Chemical element: Yttrium
Fission product parent: Y-93
Gamma originates in daughter: Zr-93
Eγ: 266.90 keV
Gamma Intensity = 7.32 ± 1.054 %
$T_{1/2}$ = 10.180 ± 0.080 hours or 610.80 ± 4.80 minutes
CFY: 6.346 ± 4.062 %

Table 369: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 370: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	268.240	0.000	2.840	0.036
Mo-102	Tc-102	266.600	0.001	0.188	0.043
Rh-107	Pd-107	266.060	0.003	0.362	0.001
Cd-115	In-115	266.985	0.001	53.460	0.000
Sn-127	Sb-127	266.200	0.021	2.100	0.001
Sn-129	Sb-129	266.500	0.025	0.115	0.002
Te-131	I-131	267.200	0.000	33.250	0.004
I-133	Xe-133	267.173	0.001	20.800	0.067
Cs-139	Ba-139	267.600	0.000	0.155	0.063
La-140	Ce-140	266.543	0.005	40.285	0.062
Nd-149	Pm-149	267.693	0.060	1.728	0.011

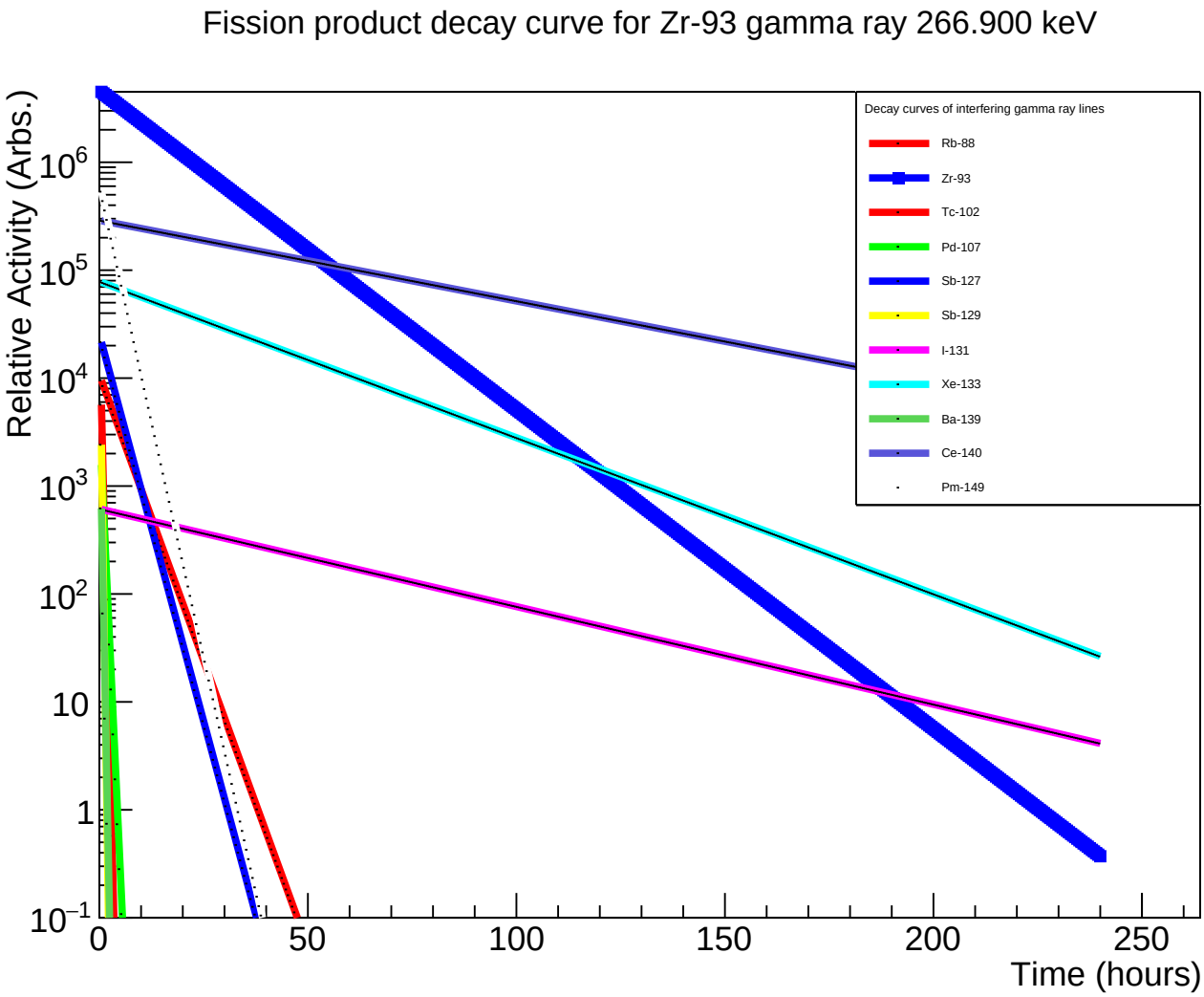


Figure 185: Zr-93 decay curve for 266.900 keV gamma ray.

3.186 Y-93 E_γ = 947.10 keV

Chemical element: Yttrium
Fission product parent: Y-93
Gamma originates in daughter: Zr-93
Eγ: 947.10 keV
Gamma Intensity = 2.09 ± 0.298 %
$T_{1/2}$ = 10.180 ± 0.080 hours or 610.80 ± 4.80 minutes
CFY: 6.346 ± 4.062 %

Table 371: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 372: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	947.500	0.004	0.529	0.010
Kr-87	Rb-87	946.690	0.001	1.272	0.026
Rb-89	Sr-89	947.730	0.100	0.252	0.047
Ag-112	Cd-112	947.300	0.001	3.130	0.000
Te-131	I-131	948.542	0.023	0.417	0.025
I-132	Xe-132	947.200	0.000	2.295	0.043
I-134	Xe-134	947.860	0.040	0.875	0.078
Xe-138	Cs-138	946.630	0.001	0.235	0.063
Cs-138	Ba-138	946.000	0.000	0.557	0.067
Cs-139	Ba-139	946.460	0.001	0.155	0.063
La-142	Ce-142	946.900	0.001	1.518	0.058
La-143	Ce-143	948.600	0.001	0.237	0.059
Nd-149	Pm-149	945.800	0.000	1.728	0.011
Eu-156	Gd-156	947.460	0.003	364.560	0.000

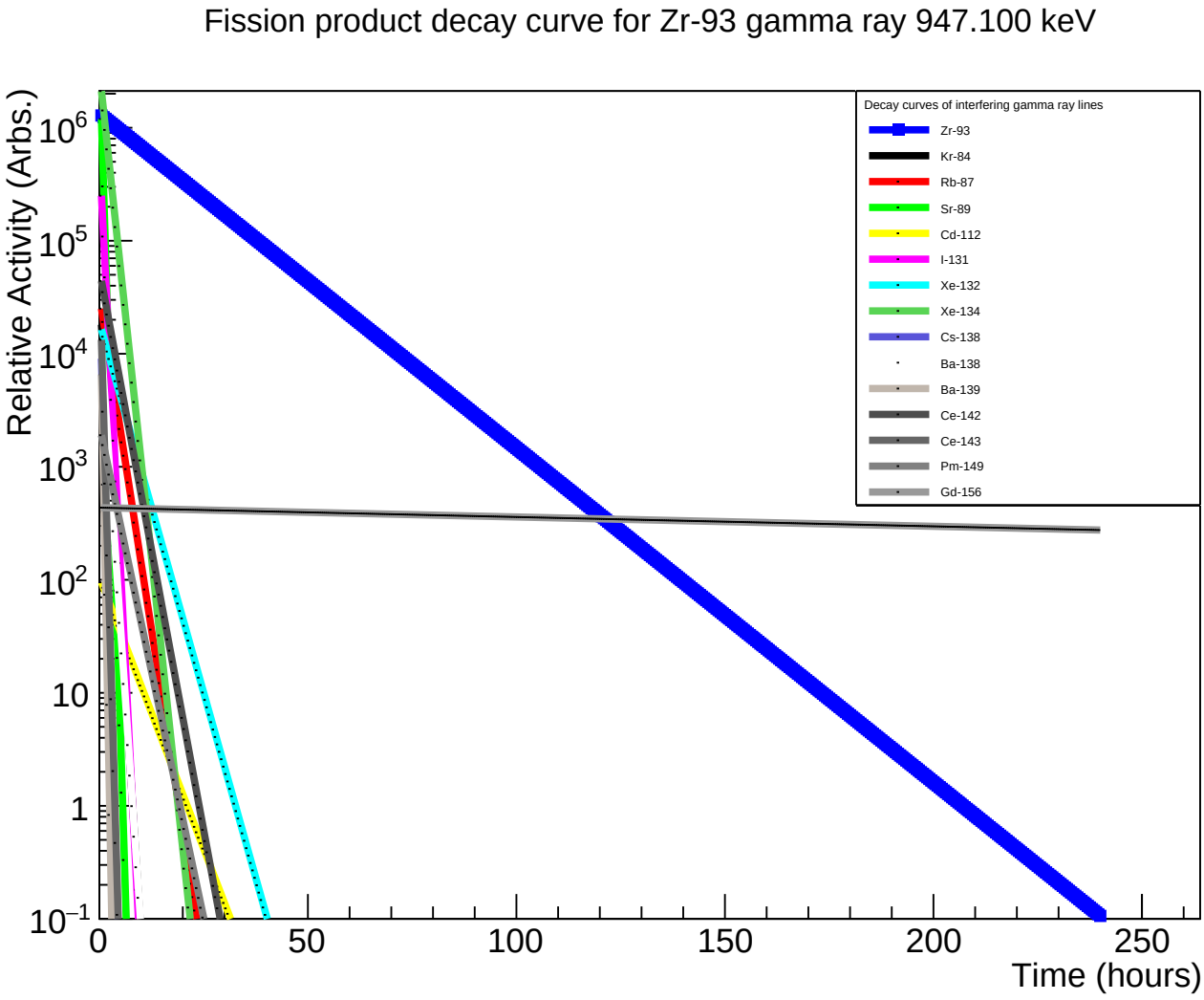


Figure 186: Zr-93 decay curve for 947.100 keV gamma ray.

3.187 Y-93 E_γ = 1917.80 keV

Chemical element: Yttrium
Fission product parent: Y-93
Gamma originates in daughter: Zr-93
Eγ: 1917.80 keV
Gamma Intensity = 1.54 ± 0.208 %
$T_{1/2}$ = 10.180 ± 0.080 hours or 610.80 ± 4.80 minutes
CFY: 6.346 ± 4.062 %

Table 373: Decay chain of fission product chain A = 93

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Krypton-93	Rubidium-93	0.000	0.000
Rubidium-93	Strontium-93	0.002	0.000
Strontium-93	Yttrium-93	0.124	0.000
Yttrium-93	Zirconium-93	0.000	0.000

Table 374: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ba-141	La-141	1918.300	0.001	0.304	0.058

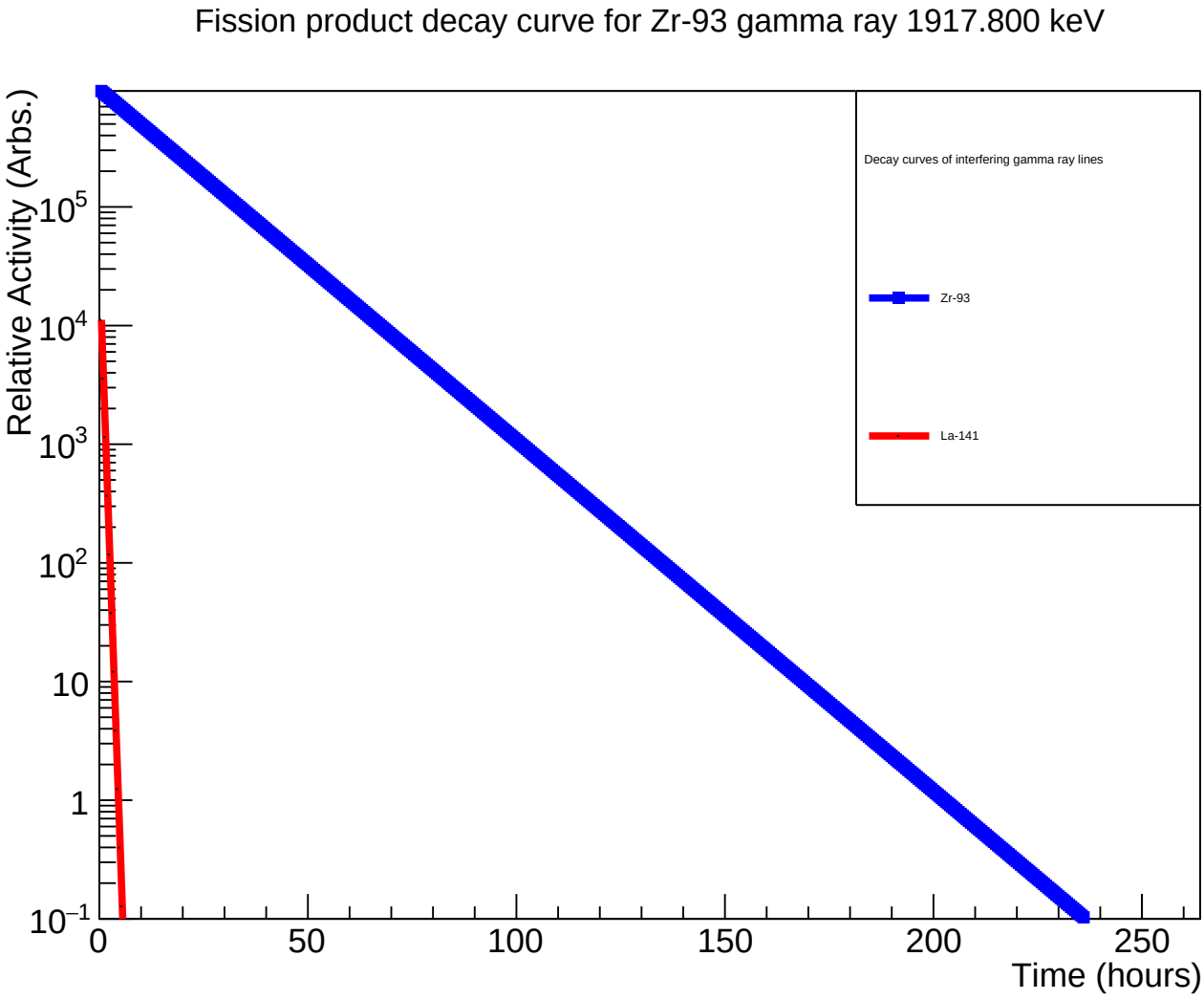


Figure 187: Zr-93 decay curve for 1917.800 keV gamma ray.

3.188 Y-94 E_γ = 381.60 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 381.60 keV
Gamma Intensity = 2.02 ± 0.200 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 375: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 376: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	382.000	0.006	0.529	0.010
Nb-98	Mo-98	380.400	0.000	0.855	0.000
Mo-99	Tc-99	380.130	0.000	65.976	0.061
Mo-101	Tc-101	381.120	0.003	0.243	0.052
Rh-107	Pd-107	381.860	0.007	0.362	0.001
Ag-113	Cd-113	382.100	0.001	5.370	0.000
Sn-123	Sb-123	381.770	0.000	0.668	0.000
Sb-125	Te-125	380.452	0.015	24194.445	0.000
Te-129	I-129	382.080	0.000	1.160	0.005
I-133	Xe-133	381.590	0.000	20.800	0.067
Ba-141	La-141	381.400	0.001	0.304	0.058
Nd-149	Pm-149	380.790	0.001	1.728	0.011
Nd-151	Pm-151	380.100	0.000	0.207	0.004
Pm-151	Sm-151	381.200	0.000	28.400	0.004

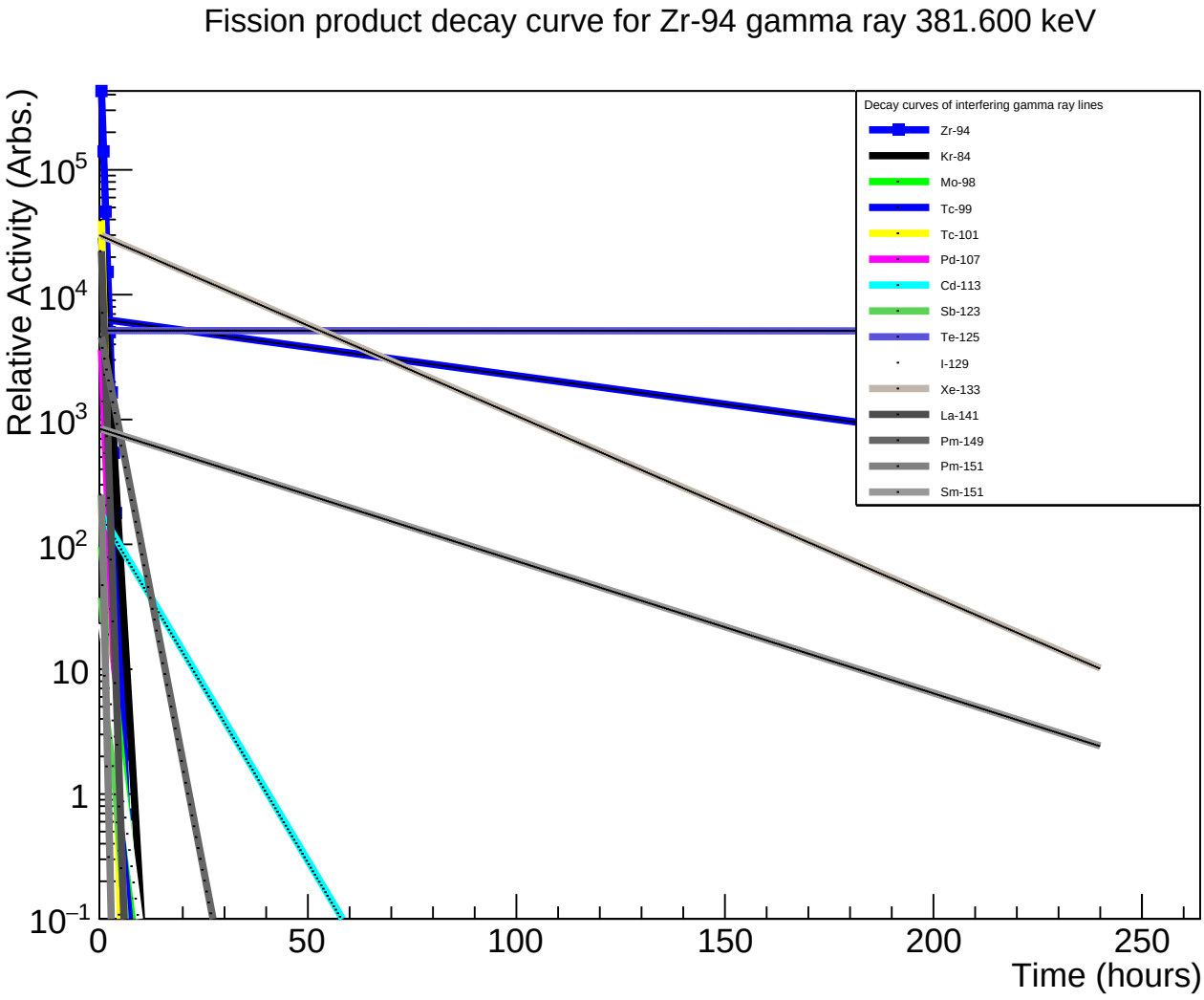


Figure 188: Zr-94 decay curve for 381.600 keV gamma ray.

3.189 Y-94 E_γ = 550.90 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 550.90 keV
Gamma Intensity = 4.93 ± 0.385 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 377: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 378: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	551.800	0.002	1.512	0.000
As-79	Se-79	552.000	0.001	0.150	0.000
Pd-109	Ag-109	551.400	0.000	13.701	0.000
Sn-123	Sb-123	552.290	0.000	0.668	0.000
Te-129	I-129	551.500	0.000	1.160	0.005
Te-129	I-129	551.980	0.000	1.160	0.005
Te-131	I-131	550.400	0.000	0.417	0.025
Ba-140	La-140	551.080	0.000	306.065	0.062
Ba-141	La-141	551.000	0.001	0.304	0.058
Nd-151	Pm-151	550.040	0.006	0.207	0.004
Nd-151	Pm-151	551.100	0.000	0.207	0.004
Pm-149	Sm-149	550.010	0.000	53.080	0.011
Pm-151	Sm-151	550.700	0.000	28.400	0.004

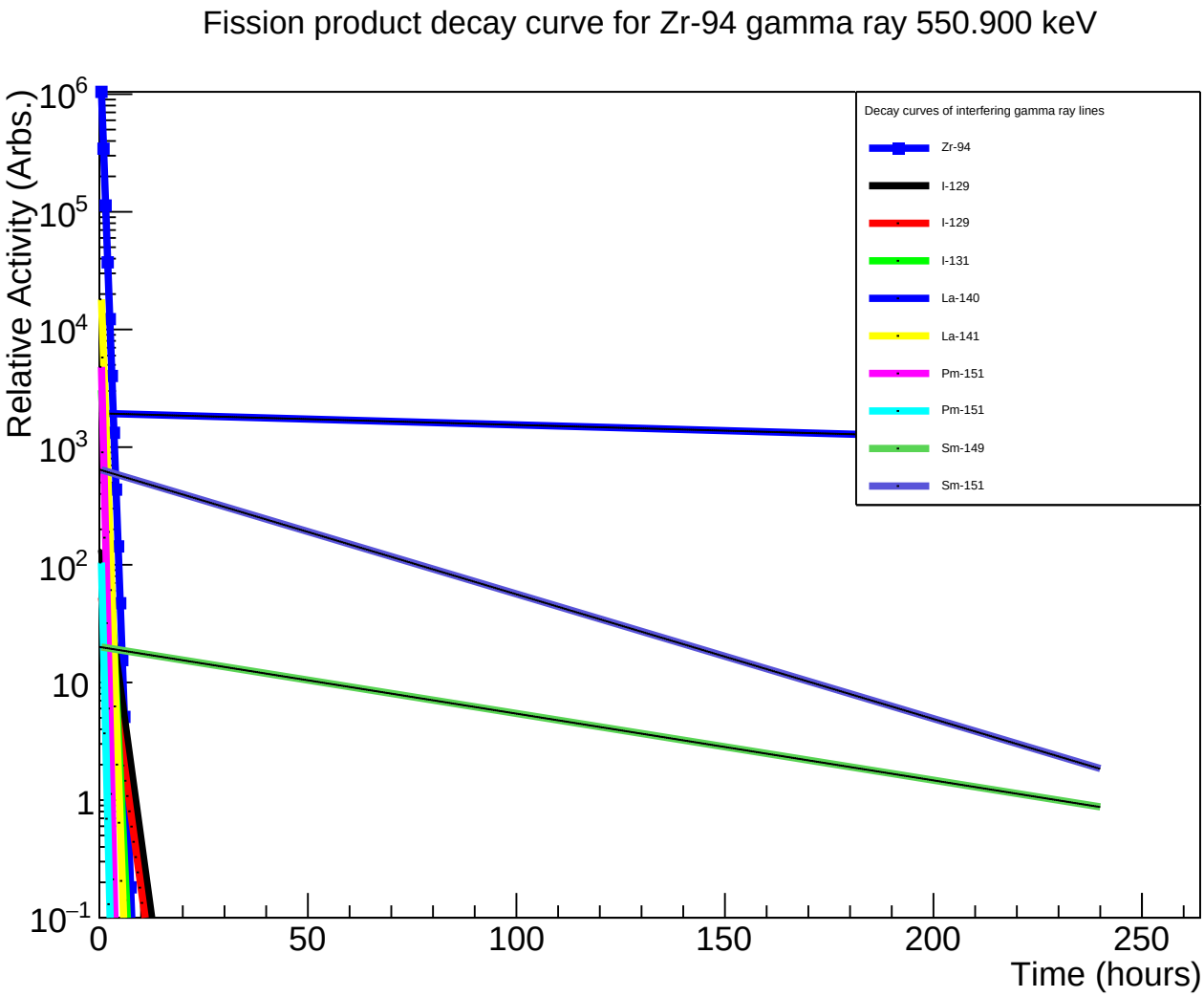


Figure 189: Zr-94 decay curve for 550.900 keV gamma ray.

3.190 Y-94 E_γ = 752.60 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 752.60 keV
Gamma Intensity = 1.40 ± 0.135 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 379: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 380: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	753.000	0.000	0.855	0.000
Nb-98	Mo-98	753.190	0.001	0.855	0.000
Rh-107	Pd-107	753.800	0.000	0.362	0.001
Ag-112	Cd-112	751.800	0.000	3.130	0.000
Sb-128	Te-128	754.000	1.000	9.010	0.000
Sb-128	Te-128	753.900	0.964	0.173	0.003
Te-133	I-133	753.300	0.003	0.923	0.040
Ba-141	La-141	753.800	0.000	0.304	0.058
La-140	Ce-140	751.637	0.043	40.285	0.062
Nd-151	Pm-151	753.000	0.001	0.207	0.004
Nd-151	Pm-151	753.800	0.000	0.207	0.004
Pm-151	Sm-151	752.820	0.013	28.400	0.004

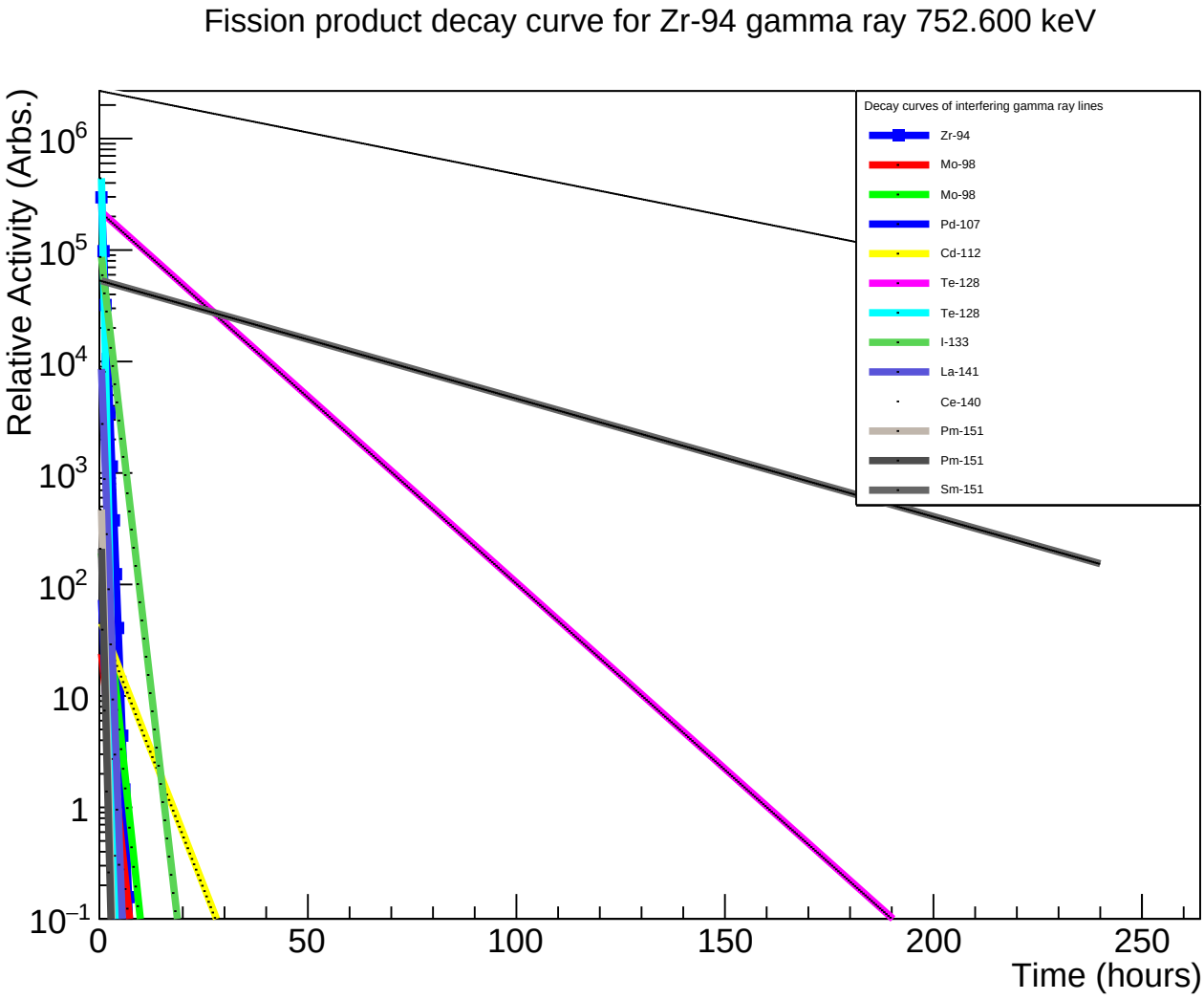


Figure 190: Zr-94 decay curve for 752.600 keV gamma ray.

3.191 Y-94 E_γ = 918.74 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 918.74 keV
Gamma Intensity = 56.00 ± 3.000 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 381: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 382: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	919.000	0.001	0.305	0.019
Ag-112	Cd-112	918.700	0.001	3.130	0.000
Te-129	I-129	918.290	0.000	1.160	0.005
Ba-141	La-141	917.400	0.001	0.304	0.058
La-140	Ce-140	919.550	0.027	40.285	0.062
La-143	Ce-143	919.180	0.003	0.237	0.059
Nd-151	Pm-151	919.930	0.001	0.207	0.004
Pm-151	Sm-151	919.300	0.000	28.400	0.004

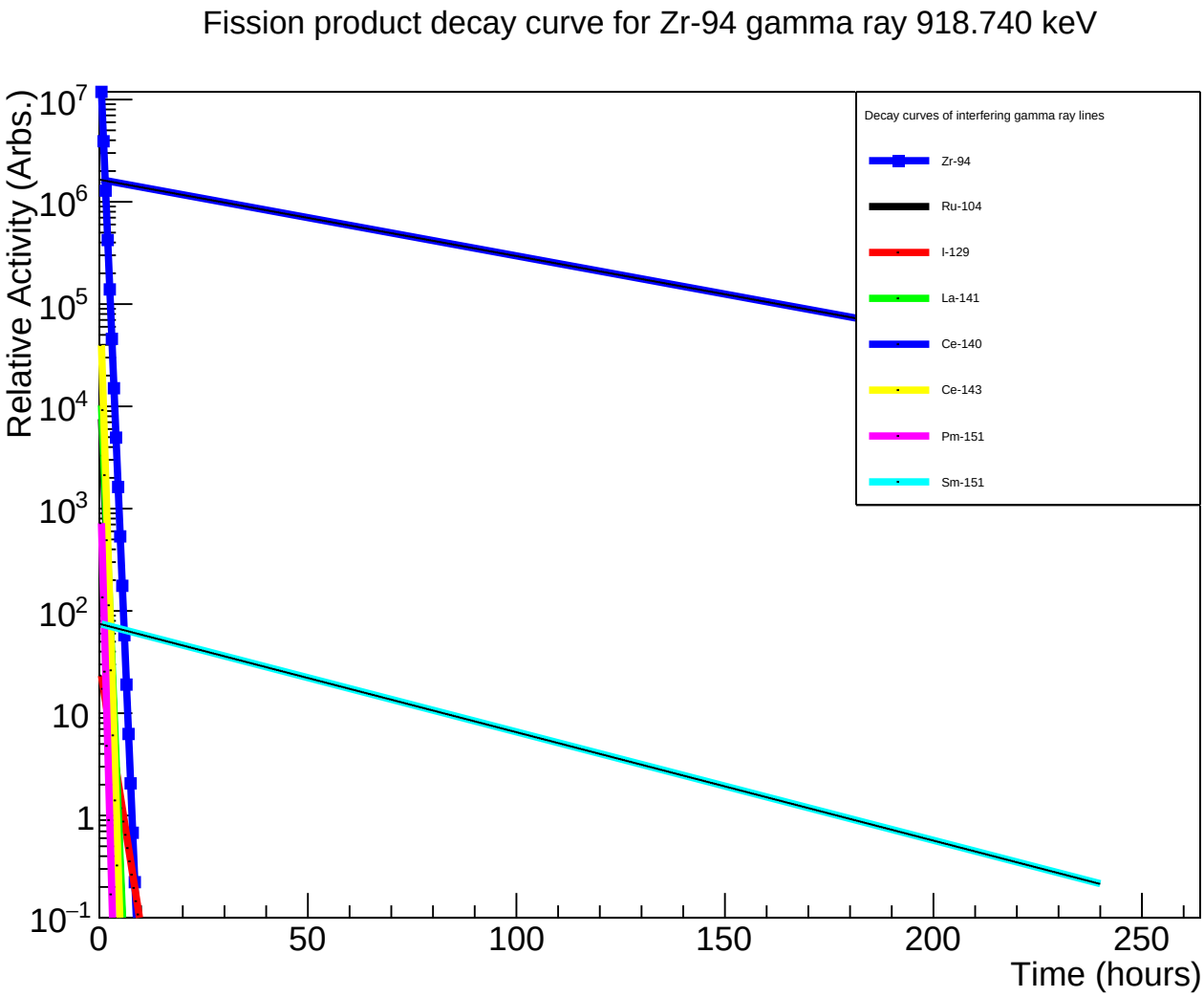


Figure 191: Zr-94 decay curve for 918.740 keV gamma ray.

3.192 Y-94 E_γ = 1138.90 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 1138.90 keV
Gamma Intensity = 5.99 ± 0.507 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 383: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 384: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1138.500	0.000	0.252	0.047
Sn-125	Sb-125	1137.500	0.000	231.360	0.000
Sb-130	Te-130	1137.600	0.003	0.658	0.008
La-143	Ce-143	1139.400	0.002	0.237	0.059
Nd-151	Pm-151	1139.000	0.001	0.207	0.004

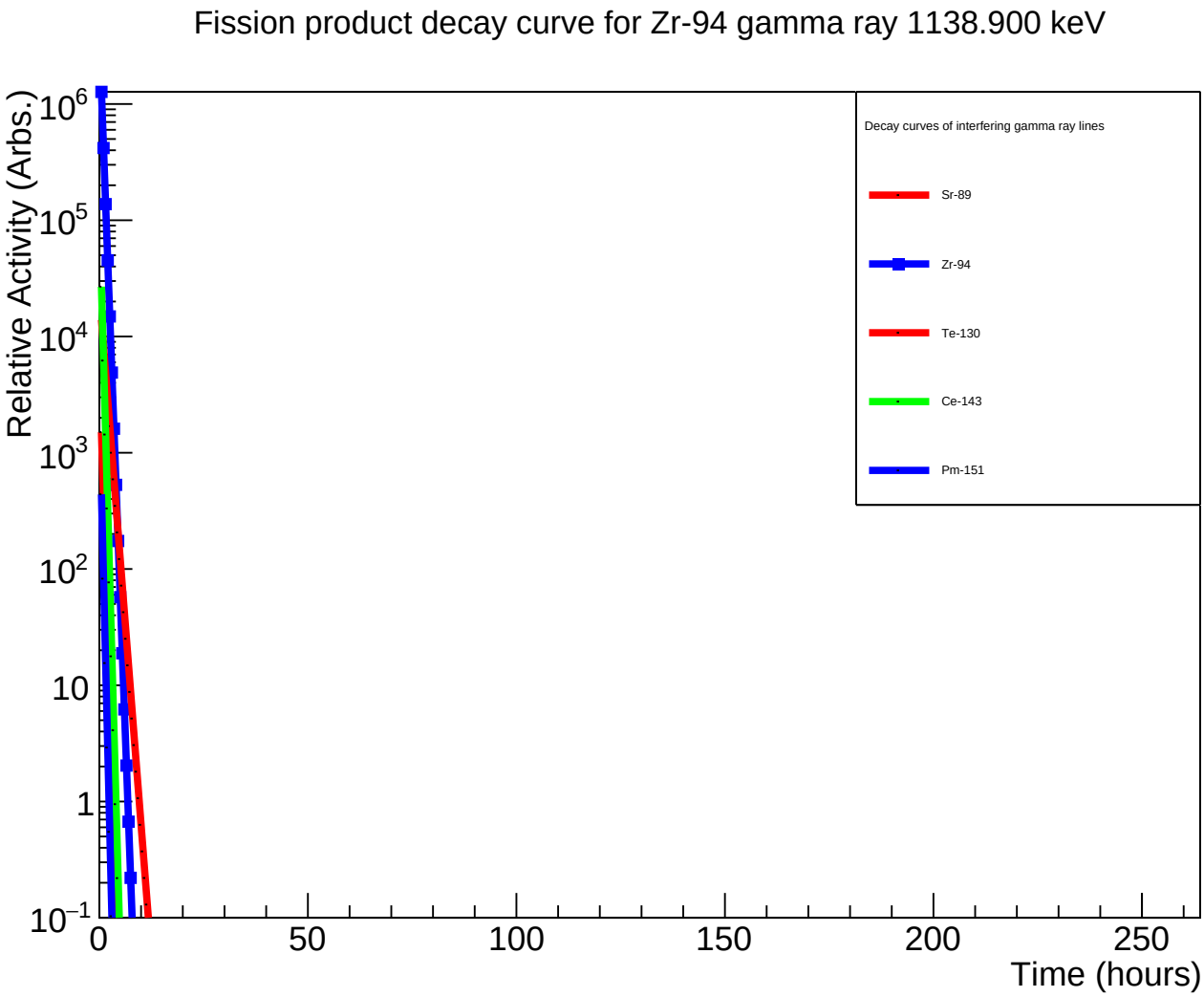


Figure 192: Zr-94 decay curve for 1138.900 keV gamma ray.

3.193 Y-94 E_γ = 1671.40 keV

Chemical element: Yttrium
Fission product parent: Y-94
Gamma originates in daughter: Zr-94
Eγ: 1671.40 keV
Gamma Intensity = 2.46 ± 0.260 %
$T_{1/2}$ = 0.312 ± 0.002 hours or 18.70 ± 0.10 minutes
CFY: 6.453 ± 0.065 %

Table 385: Decay chain of fission product chain A = 94

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-94	Strontium-94	0.001	0.000
Strontium-94	Yttrium-94	0.021	0.000
Yttrium-94	Zirconium-94	0.312	0.002

Table 386: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	1671.190	0.002	0.208	0.031
I-132	Xe-132	1671.300	0.000	2.295	0.043

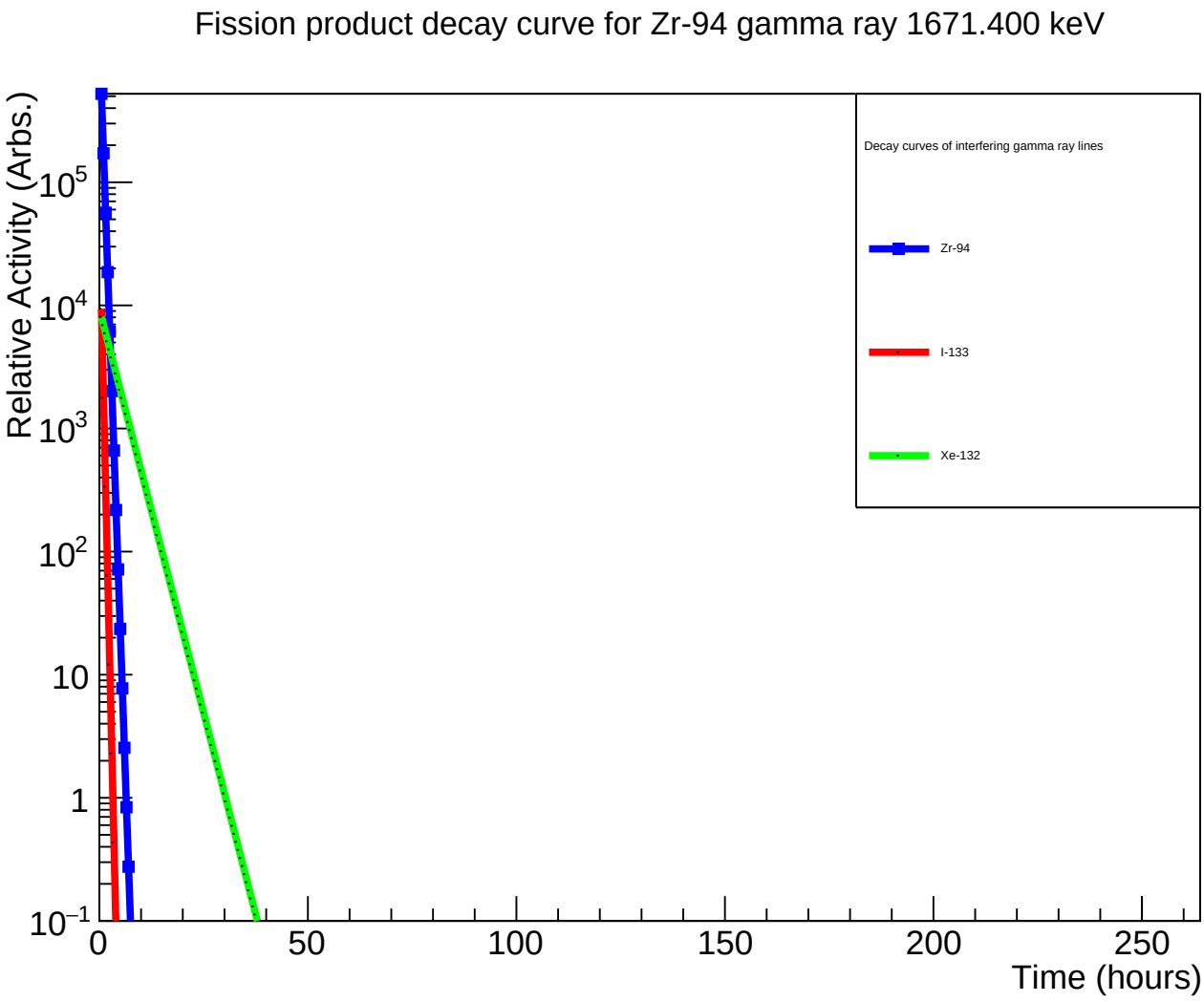


Figure 193: Zr-94 decay curve for 1671.400 keV gamma ray.

3.194 Y-95 E_γ = 432.00 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 432.00 keV
Gamma Intensity = 1.64 ± 0.120 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 387: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 388: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	432.000	0.015	0.150	0.000
Se-83	Br-83	433.000	0.002	0.372	0.003
Sr-93	Y-93	432.670	0.015	0.124	0.062
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Te-131	I-131	432.400	0.006	33.250	0.004
Te-133	I-133	431.610	0.001	0.208	0.031
I-132	Xe-132	431.800	0.005	2.295	0.043
I-134	Xe-134	433.350	0.042	0.875	0.078
Ba-142	La-142	432.300	0.010	0.177	0.058
La-140	Ce-140	432.493	0.029	40.285	0.062
La-142	Ce-142	433.300	0.004	1.518	0.058
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011

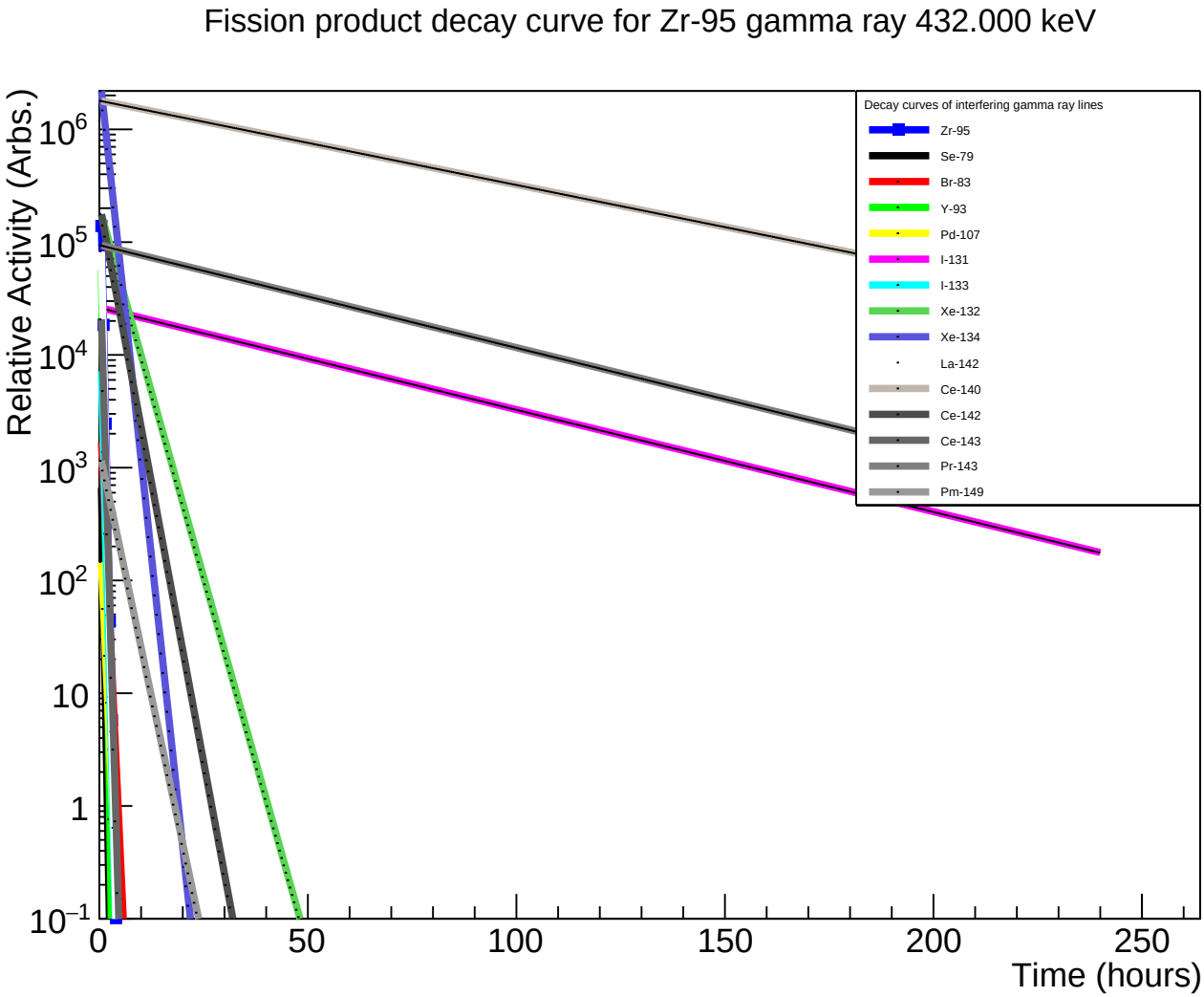


Figure 194: Zr-95 decay curve for 432.000 keV gamma ray.

3.195 Y-95 E_γ = 954.00 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 954.00 keV
Gamma Intensity = 15.80 ± 0.700 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 389: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 390: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	953.310	0.035	2.710	0.059
Sr-93	Y-93	952.580	0.001	0.124	0.062
Ru-105	Rh-105	952.780	0.000	4.440	0.010
Pd-111	Ag-111	955.500	0.000	0.390	0.000
I-132	Xe-132	954.550	0.176	2.295	0.043
Xe-138	Cs-138	953.100	0.000	0.235	0.063
Cs-138	Ba-138	953.000	0.001	0.557	0.067
Cs-139	Ba-139	955.190	0.000	0.155	0.063
Pr-146	Nd-146	954.000	0.000	0.403	0.030
Nd-151	Pm-151	954.400	0.000	0.207	0.004
Pm-149	Sm-149	952.800	0.000	53.080	0.011
Pm-151	Sm-151	953.410	0.001	28.400	0.004

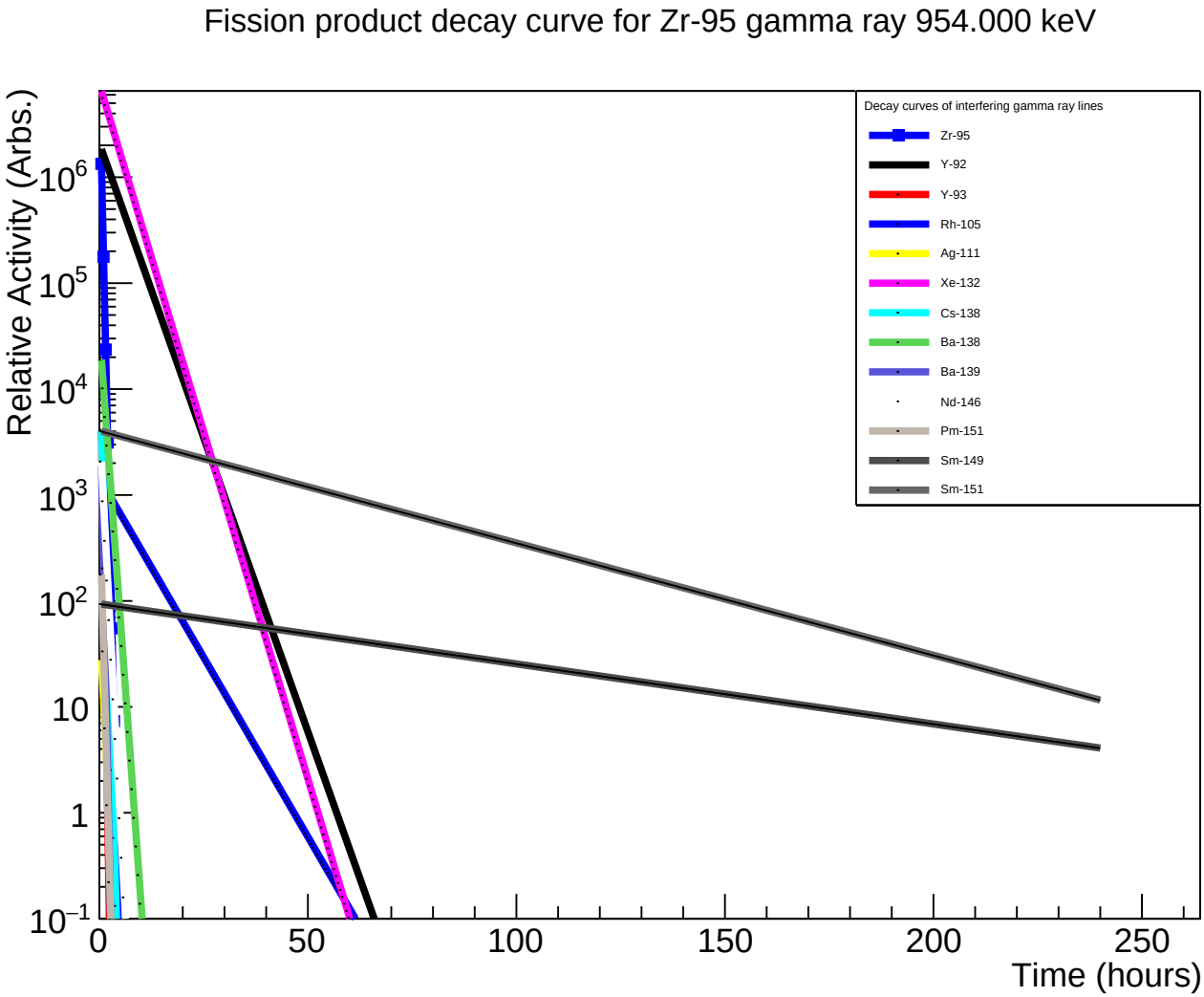


Figure 195: Zr-95 decay curve for 954.000 keV gamma ray.

3.196 Y-95 E_γ = 1324.00 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 1324.00 keV
Gamma Intensity = 4.91 ± 0.310 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 391: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 392: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1324.980	0.002	2.840	0.036
Sr-93	Y-93	1324.800	0.001	0.124	0.062
Nb-98	Mo-98	1323.990	0.003	0.855	0.000
Ba-141	La-141	1323.800	0.010	0.304	0.058
La-142	Ce-142	1323.200	0.003	1.518	0.058
Ce-143	Pr-143	1324.480	0.000	33.039	0.060
Pr-146	Nd-146	1323.600	0.006	0.403	0.030

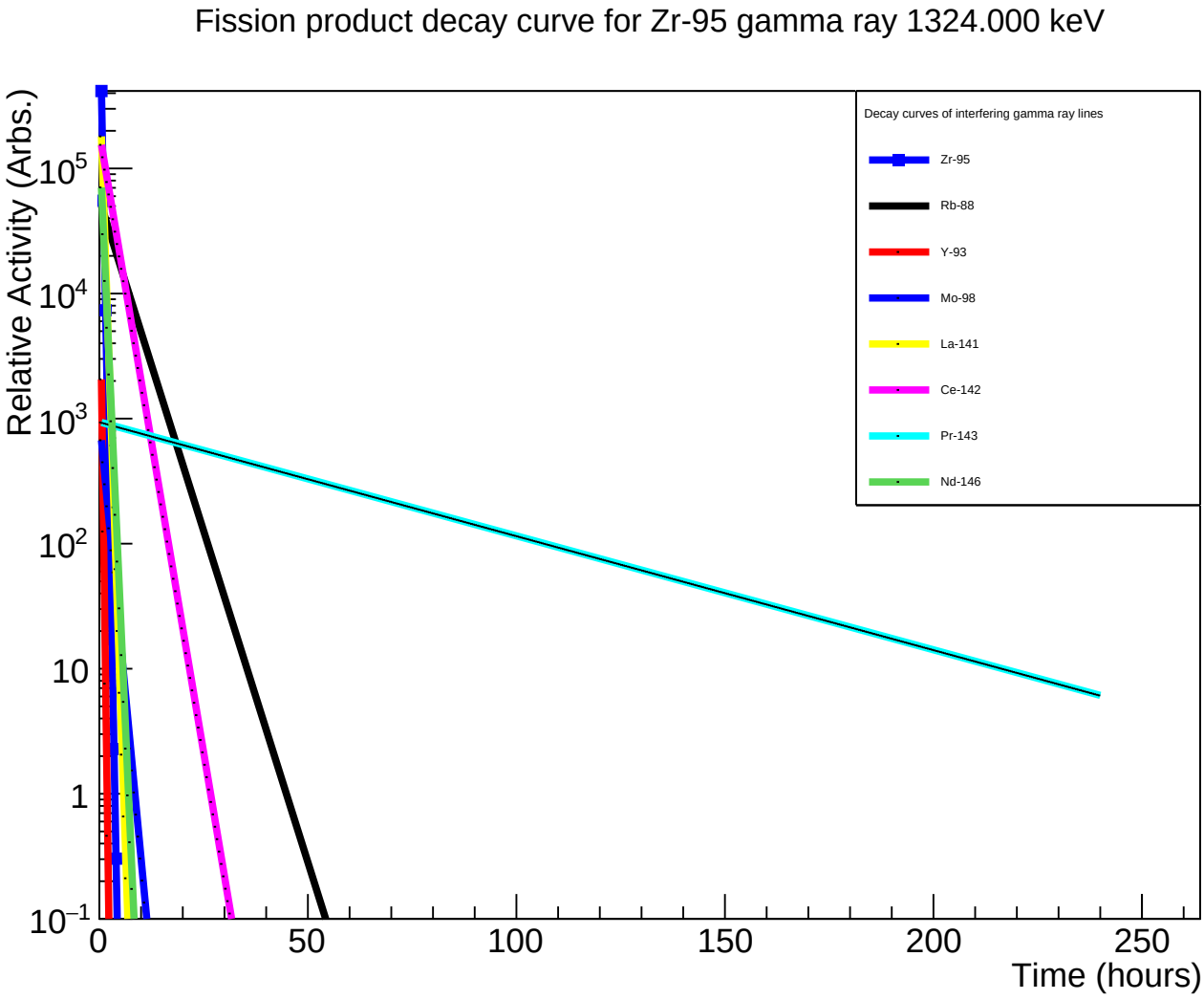


Figure 196: Zr-95 decay curve for 1324.000 keV gamma ray.

3.197 Y-95 E_γ = 1617.90 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 1617.90 keV
Gamma Intensity = 1.47 ± 0.128 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 393: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 394: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1618.750	0.002	0.855	0.000
Sb-130	Te-130	1617.000	0.009	0.658	0.008
I-132	Xe-132	1617.900	0.000	2.295	0.043
I-132	Xe-132	1618.900	0.000	2.295	0.043
La-142	Ce-142	1618.200	0.003	1.518	0.058
Nd-151	Pm-151	1617.940	0.003	0.207	0.004
Nd-151	Pm-151	1618.600	0.000	0.207	0.004

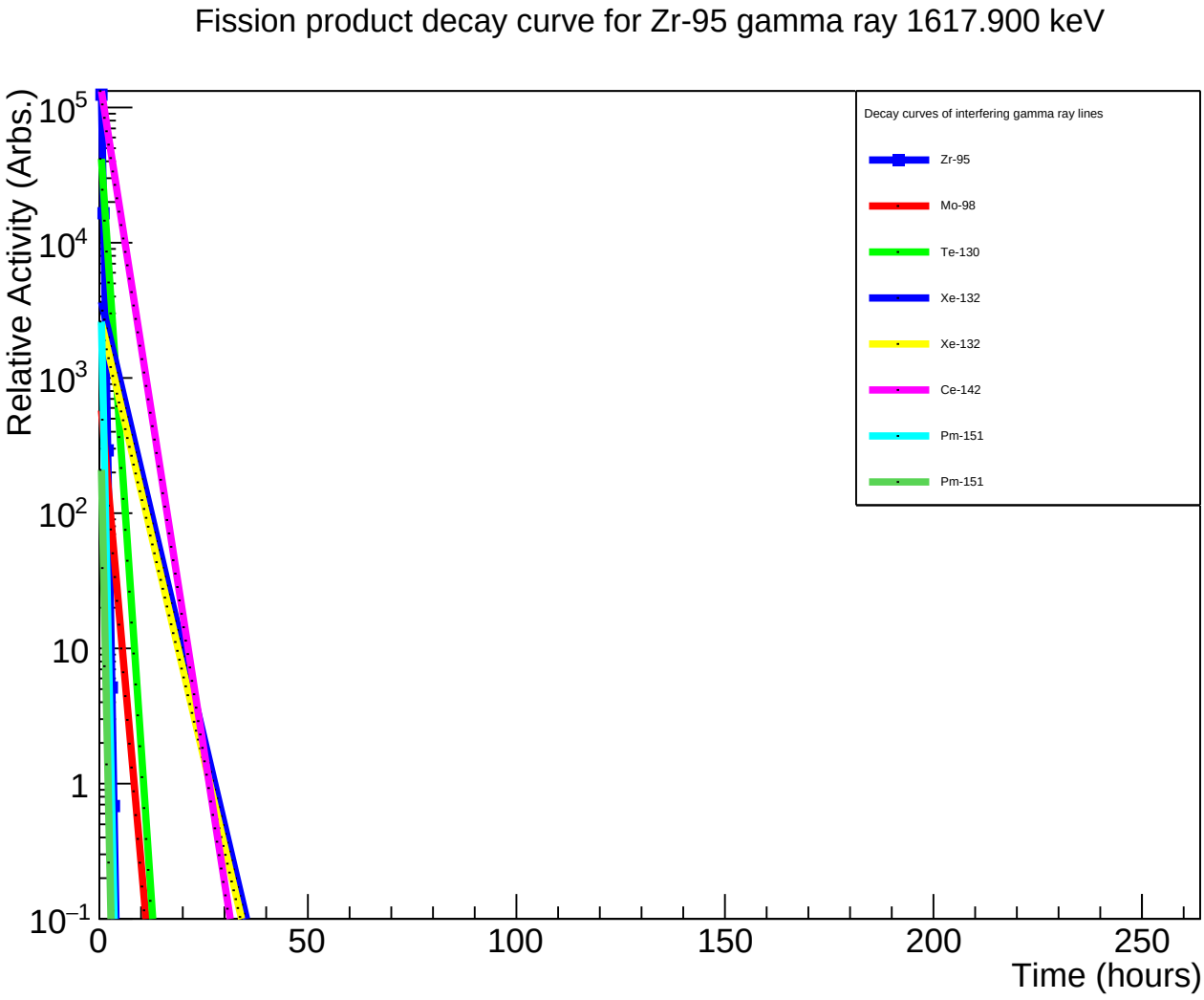


Figure 197: Zr-95 decay curve for 1617.900 keV gamma ray.

3.198 Y-95 E_γ = 1805.60 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 1805.60 keV
Gamma Intensity = 1.41 ± 0.141 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 395: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 396: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	1806.690	0.001	231.360	0.000
Te-133	I-133	1806.900	0.003	0.208	0.031
I-134	Xe-134	1806.840	0.056	0.875	0.078
Cs-138	Ba-138	1806.650	0.001	0.557	0.067
Nd-151	Pm-151	1807.000	0.001	0.207	0.004

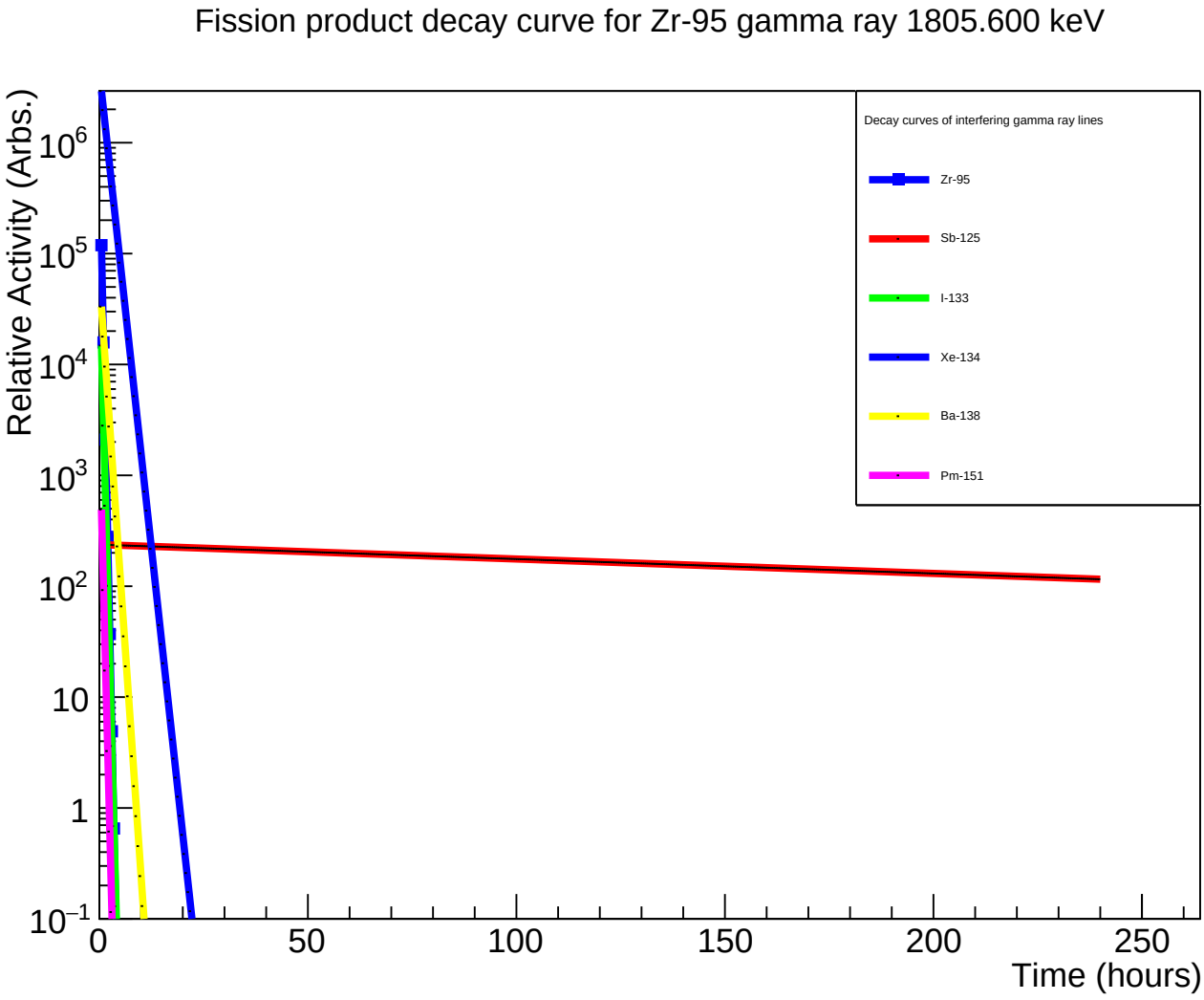


Figure 198: Zr-95 decay curve for 1805.600 keV gamma ray.

3.199 Y-95 E_γ = 1940.30 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 1940.30 keV
Gamma Intensity = 2.39 ± 0.217 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 397: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 398: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1939.950	0.004	0.252	0.047
Mo-101	Tc-101	1941.800	0.001	0.243	0.052
Cs-138	Ba-138	1941.000	0.001	0.557	0.067

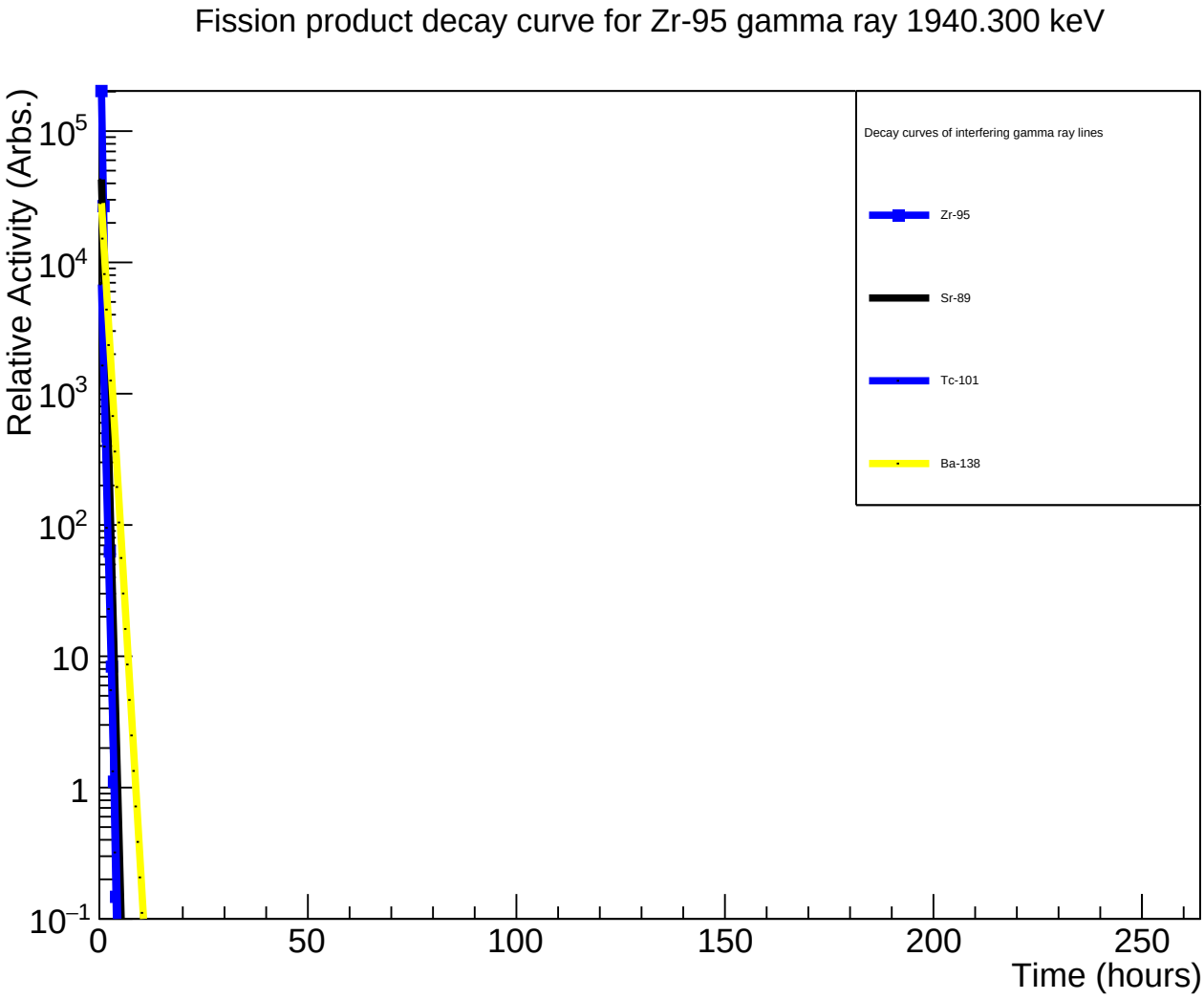


Figure 199: Zr-95 decay curve for 1940.300 keV gamma ray.

3.200 Y-95 E_γ = 2175.60 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 2175.60 keV
Gamma Intensity = 7.00 ± 0.372 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 399: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 400: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

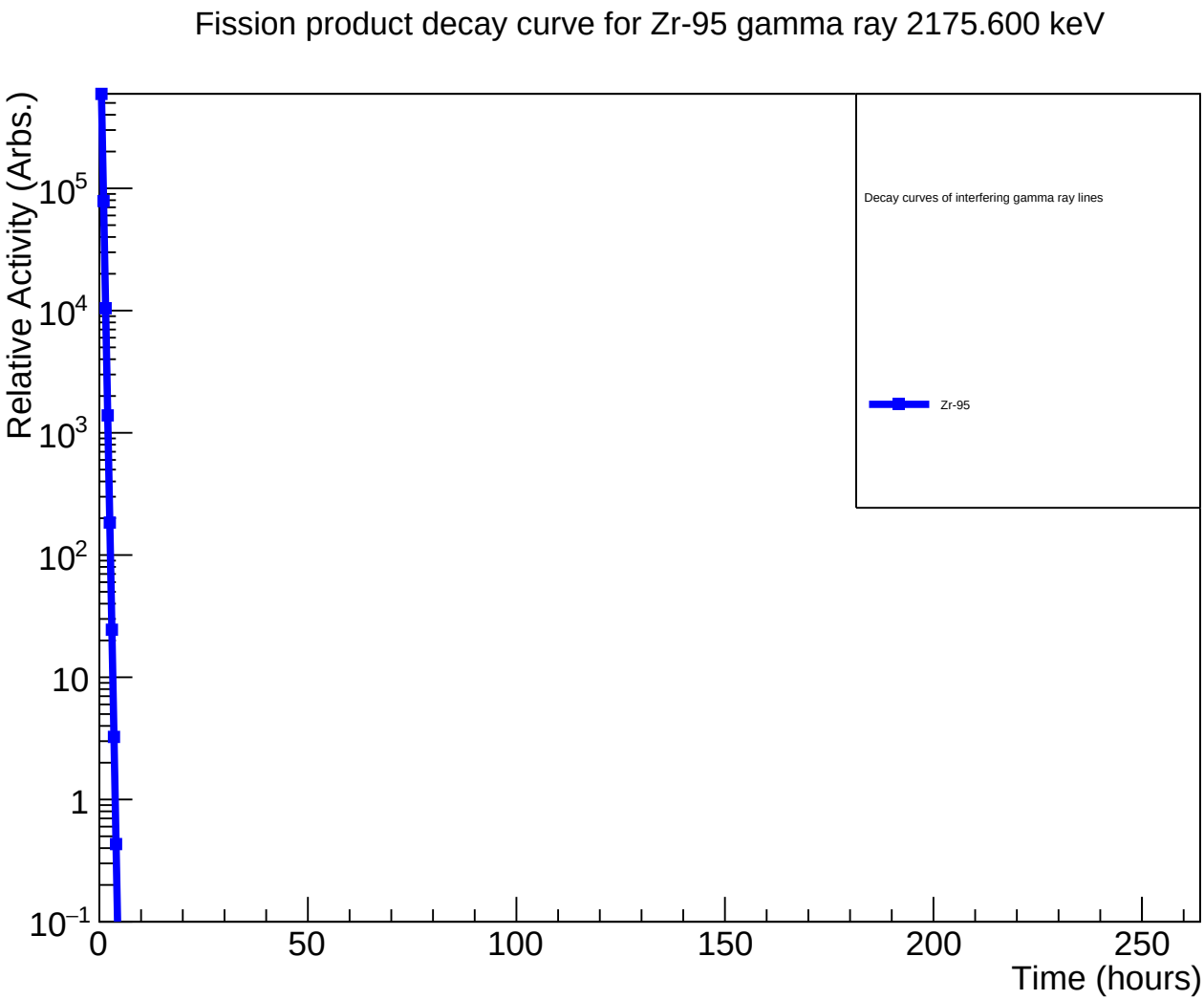


Figure 200: Zr-95 decay curve for 2175.600 keV gamma ray.

3.201 Y-95 E_γ = 2295.50 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 2295.50 keV
Gamma Intensity = 1.07 ± 0.115 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 401: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 402: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2296.130	0.007	0.124	0.062

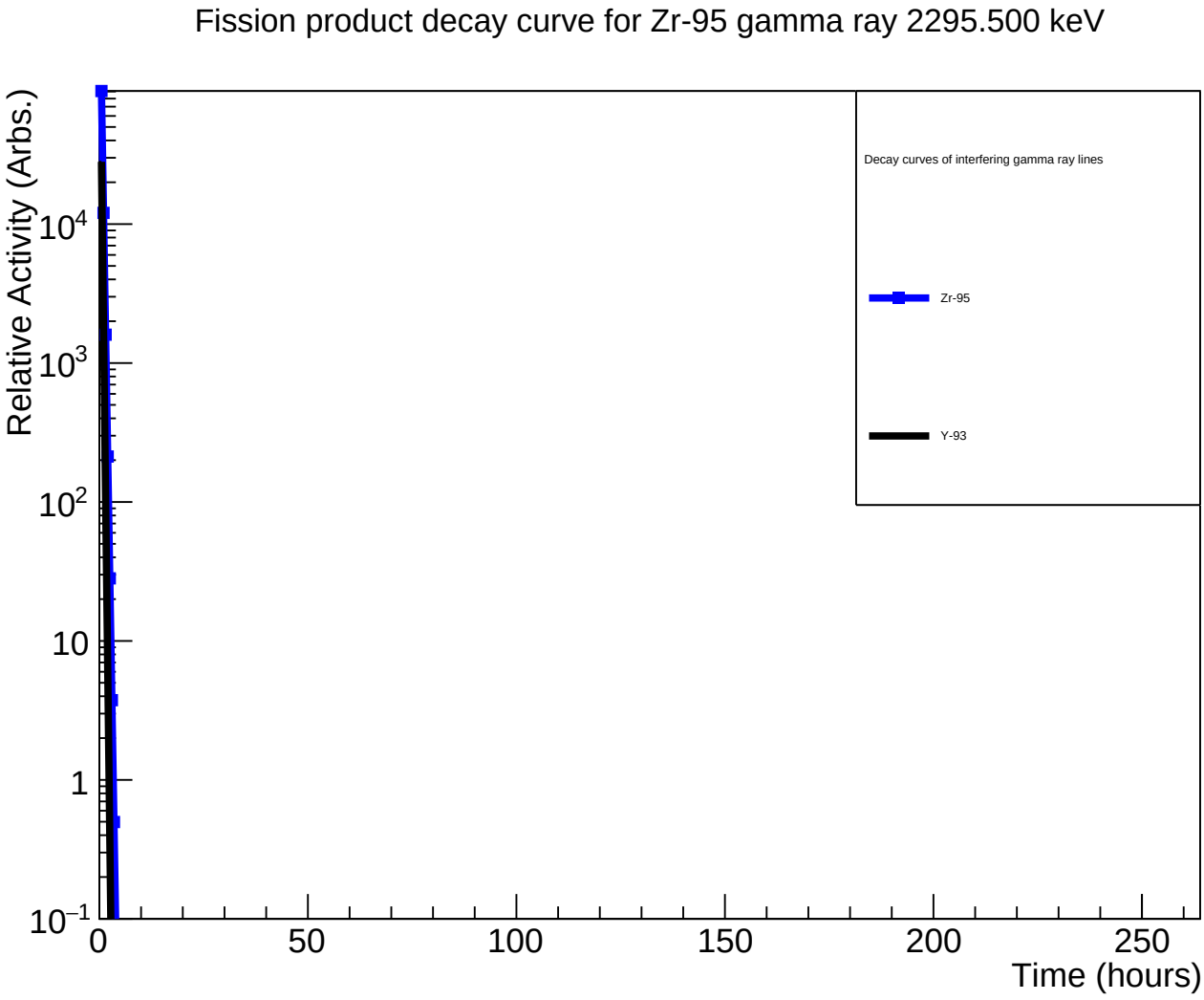


Figure 201: Zr-95 decay curve for 2295.500 keV gamma ray.

3.202 Y-95 E_γ = 2632.40 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 2632.40 keV
Gamma Intensity = 4.76 ± 0.406 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 403: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 404: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2631.300	0.000	0.855	0.000
Tc-104	Ru-104	2633.000	0.001	0.305	0.019

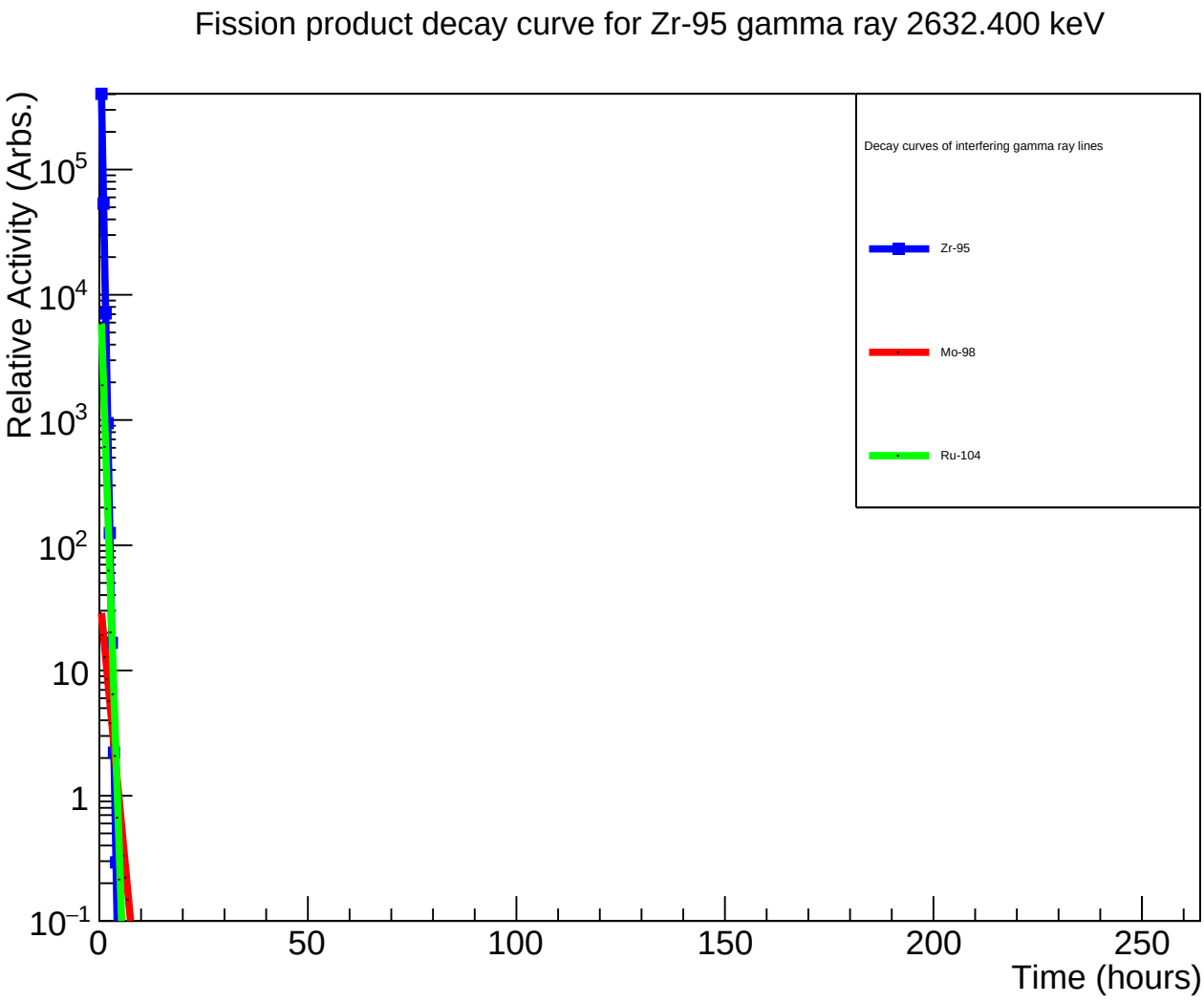


Figure 202: Zr-95 decay curve for 2632.400 keV gamma ray.

3.203 Y-95 E_γ = 3576.00 keV

Chemical element: Yttrium
Fission product parent: Y-95
Gamma originates in daughter: Zr-95
Eγ: 3576.00 keV
Gamma Intensity = 6.38 ± 0.538 %
$T_{1/2}$ = 0.172 ± 0.002 hours or 10.30 ± 0.10 minutes
CFY: 6.375 ± 0.383 %

Table 405: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 406: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

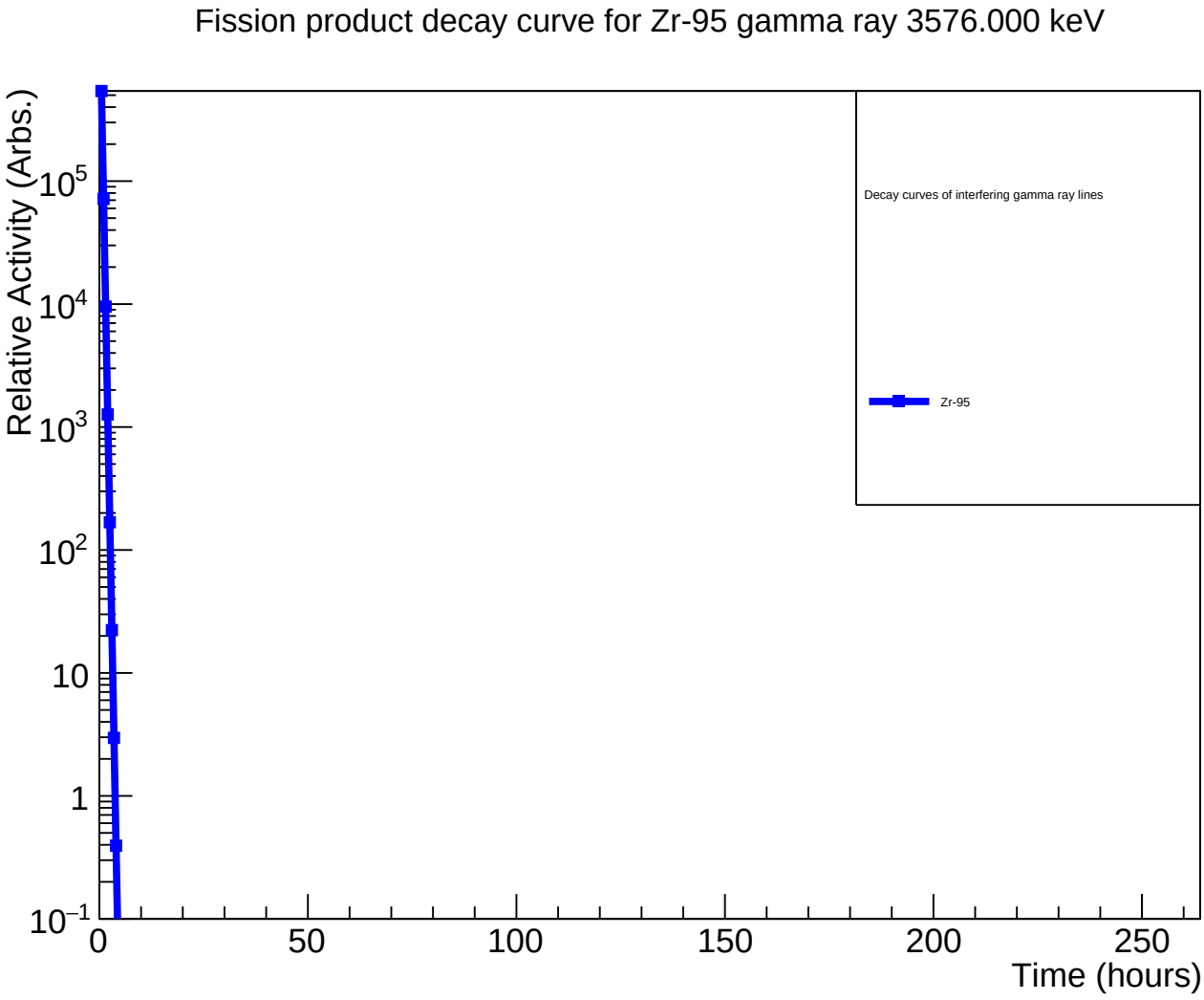


Figure 203: Zr-95 decay curve for 3576.000 keV gamma ray.

3.204 Zr-95 E_γ = 724.19 keV

Chemical element: Zirconium
Fission product parent: Zr-95
Gamma originates in daughter: Nb-95
Eγ: 724.19 keV
Gamma Intensity = 44.27 ± 0.220 %
$T_{1/2}$ = 1536.768 ± 0.144 hours or 92206.08 ± 8.64 minutes
CFY: 6.503 ± 0.091 %

Table 407: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 408: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	723.600	0.001	0.150	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Ru-105	Rh-105	724.300	0.473	4.440	0.010
Pd-109	Ag-109	724.400	0.000	13.701	0.000
Te-133	I-133	723.500	0.003	0.923	0.040
Te-133	I-133	724.000	0.001	0.923	0.040
I-131	Xe-131	722.911	0.018	192.605	0.029
Nd-151	Pm-151	724.280	0.001	0.207	0.004
Nd-151	Pm-151	724.280	0.002	0.207	0.004
Eu-156	Gd-156	723.470	0.054	364.560	0.000

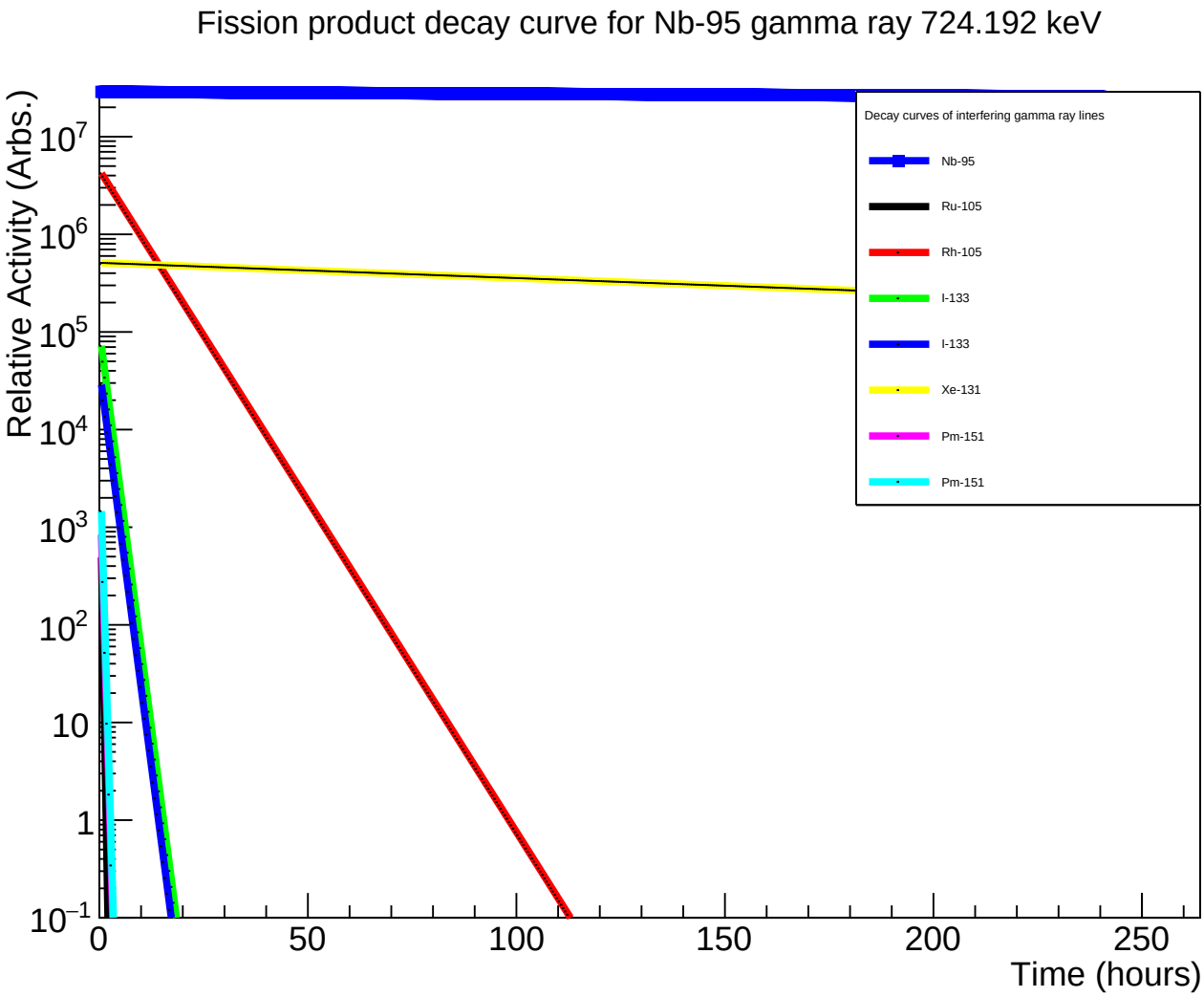


Figure 204: Nb-95 decay curve for 724.192 keV gamma ray.

3.205 Zr-95 E_γ = 756.72 keV

Chemical element: Zirconium
Fission product parent: Zr-95
Gamma originates in daughter: Nb-95
Eγ: 756.72 keV
Gamma Intensity = 54.38 ± 0.220 %
$T_{1/2}$ = 1536.768 ± 0.144 hours or 92206.08 ± 8.64 minutes
CFY: 6.503 ± 0.091 %

Table 409: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 410: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	756.900	0.001	1.512	0.000
Tc-105	Ru-105	757.000	0.012	0.127	0.010
Te-133	I-133	756.800	0.003	0.923	0.040
Nd-151	Pm-151	755.570	0.012	0.207	0.004
Nd-151	Pm-151	757.900	0.000	0.207	0.004
Sm-155	Eu-155	758.000	0.000	0.372	0.000

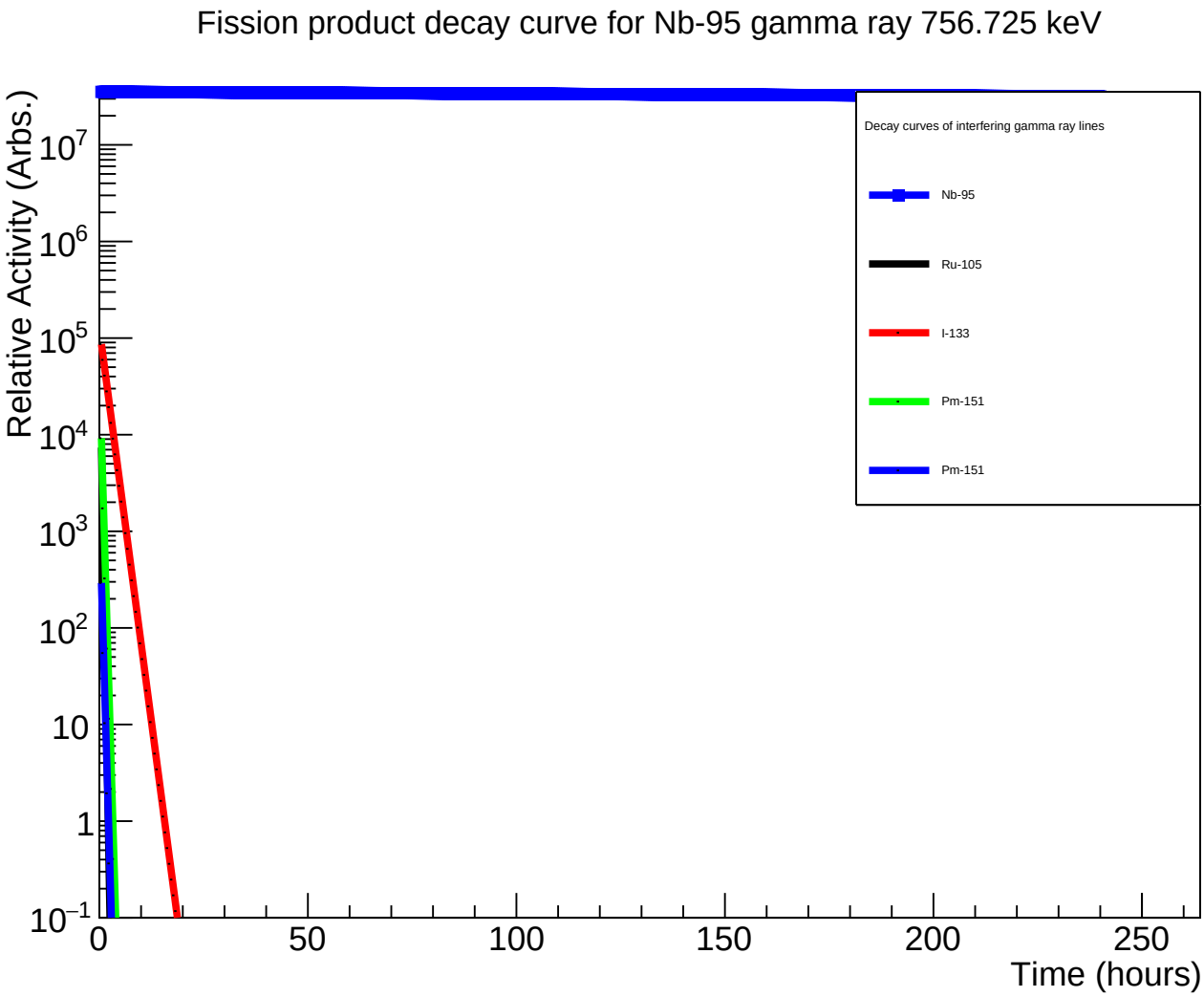


Figure 205: Nb-95 decay curve for 756.725 keV gamma ray.

3.206 Zr-97 E_γ = 254.17 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 254.17 keV
Gamma Intensity = 1.15 ± 0.075 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 411: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 412: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	254.050	0.000	0.855	0.000
Ru-105	Rh-105	254.880	0.001	4.440	0.010
Sn-127	Sb-127	255.300	0.001	2.100	0.001
Te-131	I-131	253.170	0.006	33.250	0.004
Te-131	I-131	255.440	0.003	33.250	0.004
I-132	Xe-132	255.100	0.002	2.295	0.043
I-135	Xe-135	254.740	0.000	6.570	0.063
Ba-141	La-141	255.100	0.000	0.304	0.058
Ba-142	La-142	253.700	0.005	0.177	0.058
Ba-142	La-142	255.300	0.205	0.177	0.058
Nd-149	Pm-149	254.228	0.001	1.728	0.011
Pm-149	Sm-149	254.570	0.000	53.080	0.011
Pm-151	Sm-151	254.280	0.002	28.400	0.004

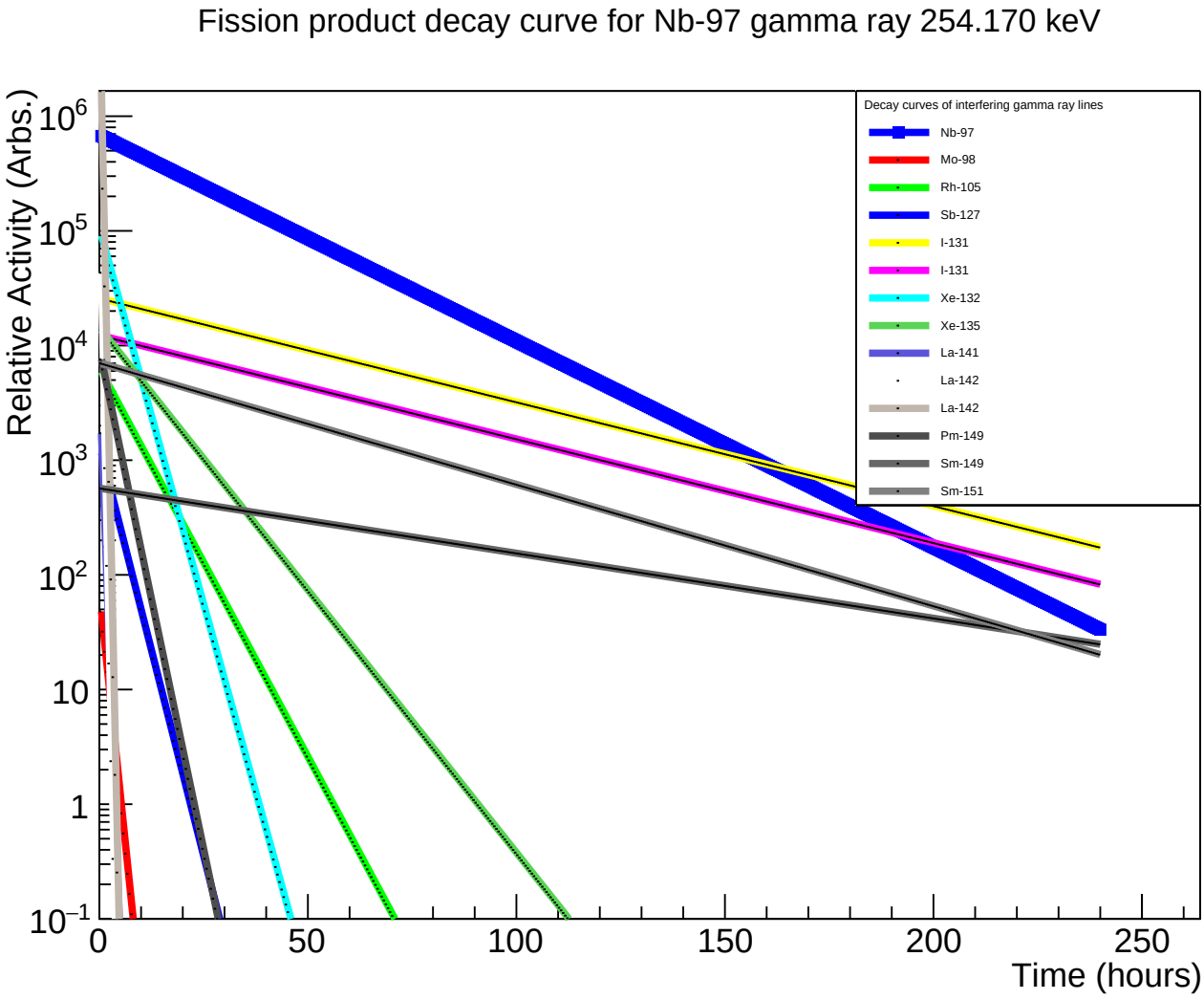


Figure 206: Nb-97 decay curve for 254.170 keV gamma ray.

3.207 Zr-97 E_γ = 355.40 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 355.40 keV
Gamma Intensity = 2.09 ± 0.093 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 413: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 414: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	354.300	0.019	1.512	0.000
Se-83	Br-83	356.700	0.700	0.372	0.003
Br-84	Kr-84	354.700	0.003	0.529	0.010
Ag-112	Cd-112	355.900	0.000	3.130	0.000
Te-131	I-131	354.700	0.002	33.250	0.004
Te-133	I-133	355.420	0.006	0.923	0.040
I-132	Xe-132	355.200	0.001	2.295	0.043
Ba-142	La-142	354.700	0.000	0.177	0.058
Ba-142	La-142	356.800	0.001	0.177	0.058
La-142	Ce-142	355.300	0.000	1.518	0.058
Pm-151	Sm-151	356.900	0.000	28.400	0.004
Eu-156	Gd-156	354.200	0.000	364.560	0.000

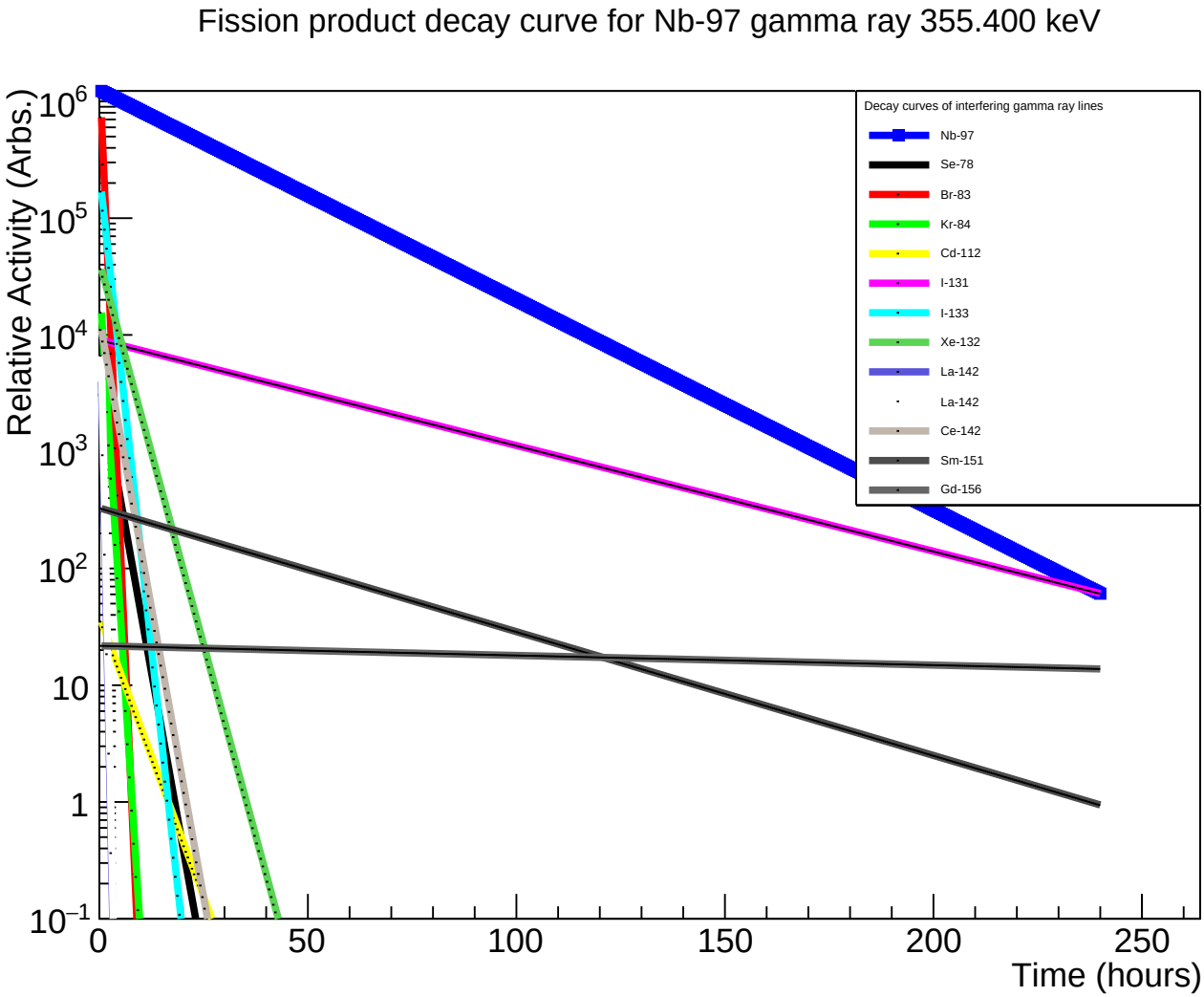


Figure 207: Nb-97 decay curve for 355.400 keV gamma ray.

3.208 Zr-97 E_γ = 507.64 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 507.64 keV
Gamma Intensity = 5.03 ± 0.186 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 415: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 416: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	506.700	0.000	9.630	0.058
Nb-98	Mo-98	507.800	0.001	0.855	0.000
Pd-111	Ag-111	509.100	0.004	0.390	0.000
Sn-127	Sb-127	509.000	0.014	2.100	0.001
Sb-130	Te-130	506.700	0.020	0.658	0.008
Te-133	I-133	507.300	0.001	0.208	0.031
Te-133	I-133	507.200	0.004	0.923	0.040
Pr-146	Nd-146	508.000	0.005	0.403	0.030
Nd-151	Pm-151	507.840	0.001	0.207	0.004
Pm-151	Sm-151	507.270	0.000	28.400	0.004

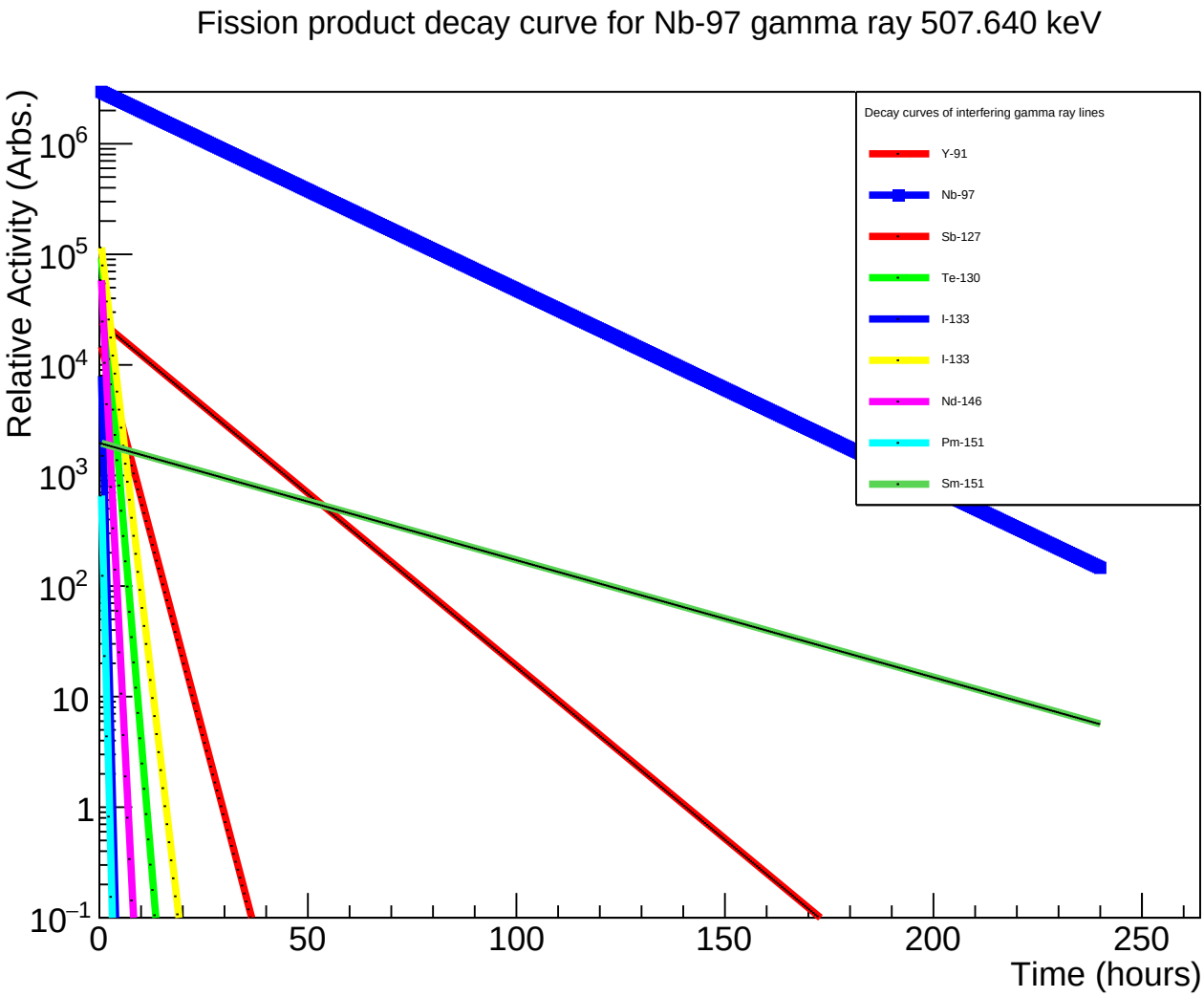


Figure 208: Nb-97 decay curve for 507.640 keV gamma ray.

3.209 Zr-97 E_γ = 602.37 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 602.37 keV
Gamma Intensity = 1.38 ± 0.075 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 417: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 418: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Nb-98	Mo-98	603.280	0.005	0.855	0.000
Mo-101	Tc-101	602.980	0.001	0.243	0.052
Pd-109	Ag-109	602.500	0.000	13.701	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Sb-127	Te-127	603.500	0.045	92.400	0.002
Sb-128	Te-128	603.000	0.017	9.010	0.000
Te-131	I-131	602.039	0.042	0.417	0.025
Te-131	I-131	602.090	0.003	33.250	0.004
Te-133	I-133	601.500	0.001	0.923	0.040
Te-133	I-133	602.100	0.000	0.923	0.040
Cs-139	Ba-139	601.480	0.001	0.155	0.063
Pr-146	Nd-146	601.740	0.030	0.403	0.030
Nd-151	Pm-151	602.400	0.000	0.207	0.004
Pm-151	Sm-151	603.000	0.000	28.400	0.004
Sm-153	Eu-153	603.600	0.000	46.500	0.002
Sm-155	Eu-155	603.800	0.000	0.372	0.000

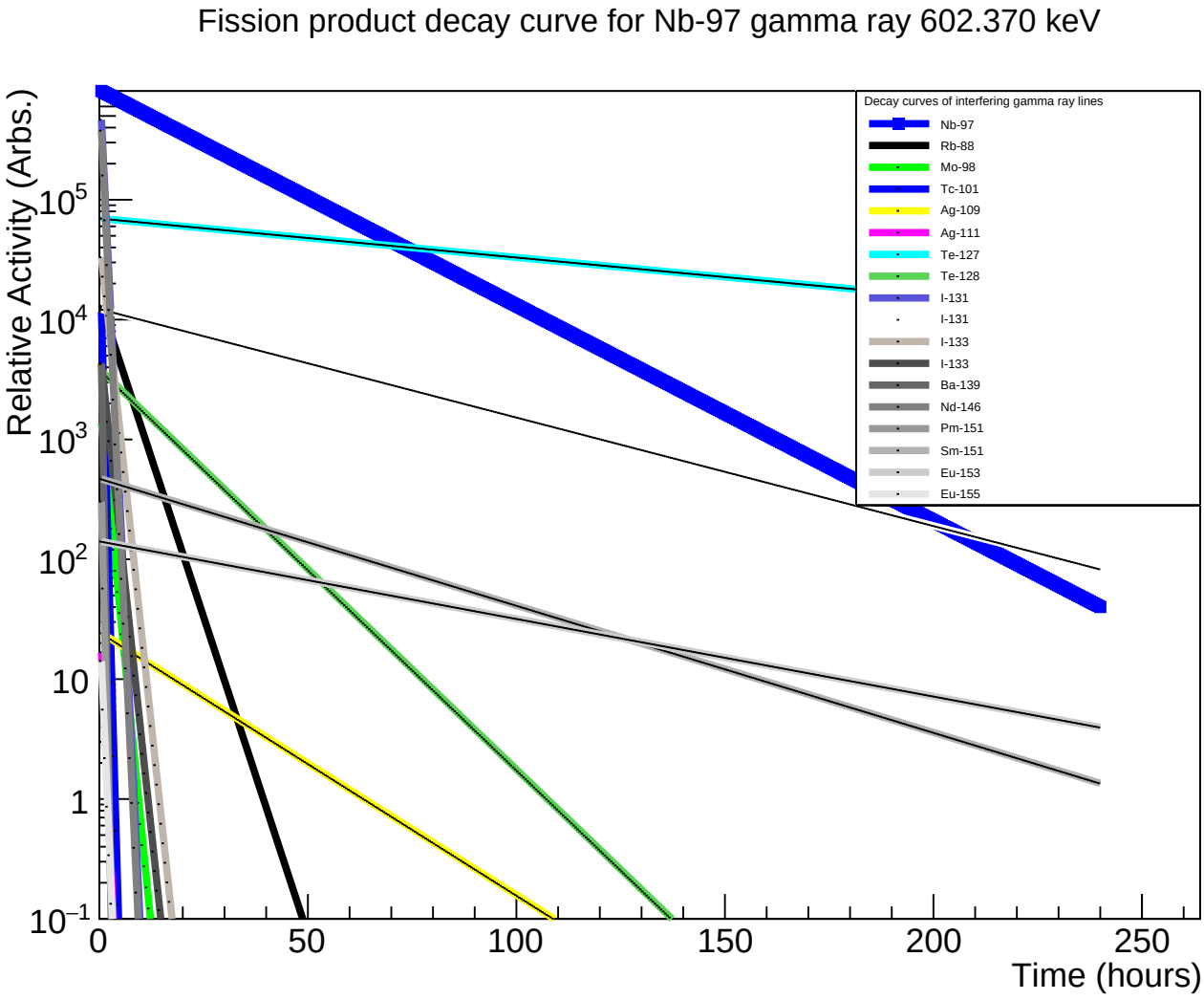


Figure 209: Nb-97 decay curve for 602.370 keV gamma ray.

3.210 Zr-97 E_γ = 703.76 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 703.76 keV
Gamma Intensity = 1.01 ± 0.047 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 419: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 420: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cd-115	In-115	705.180	0.000	53.460	0.000
Sn-127	Sb-127	702.600	0.002	2.100	0.001
Te-131	I-131	702.700	0.000	0.417	0.025
Te-131	I-131	702.500	0.004	33.250	0.004
Te-133	I-133	702.910	0.023	0.923	0.040
Xe-138	Cs-138	703.580	0.001	0.235	0.063
Cs-138	Ba-138	702.920	0.001	0.557	0.067
Ba-141	La-141	704.800	0.003	0.304	0.058
Nd-149	Pm-149	704.070	0.000	1.728	0.011
Nd-151	Pm-151	702.800	0.000	0.207	0.004
Pm-151	Sm-151	704.240	0.003	28.400	0.004

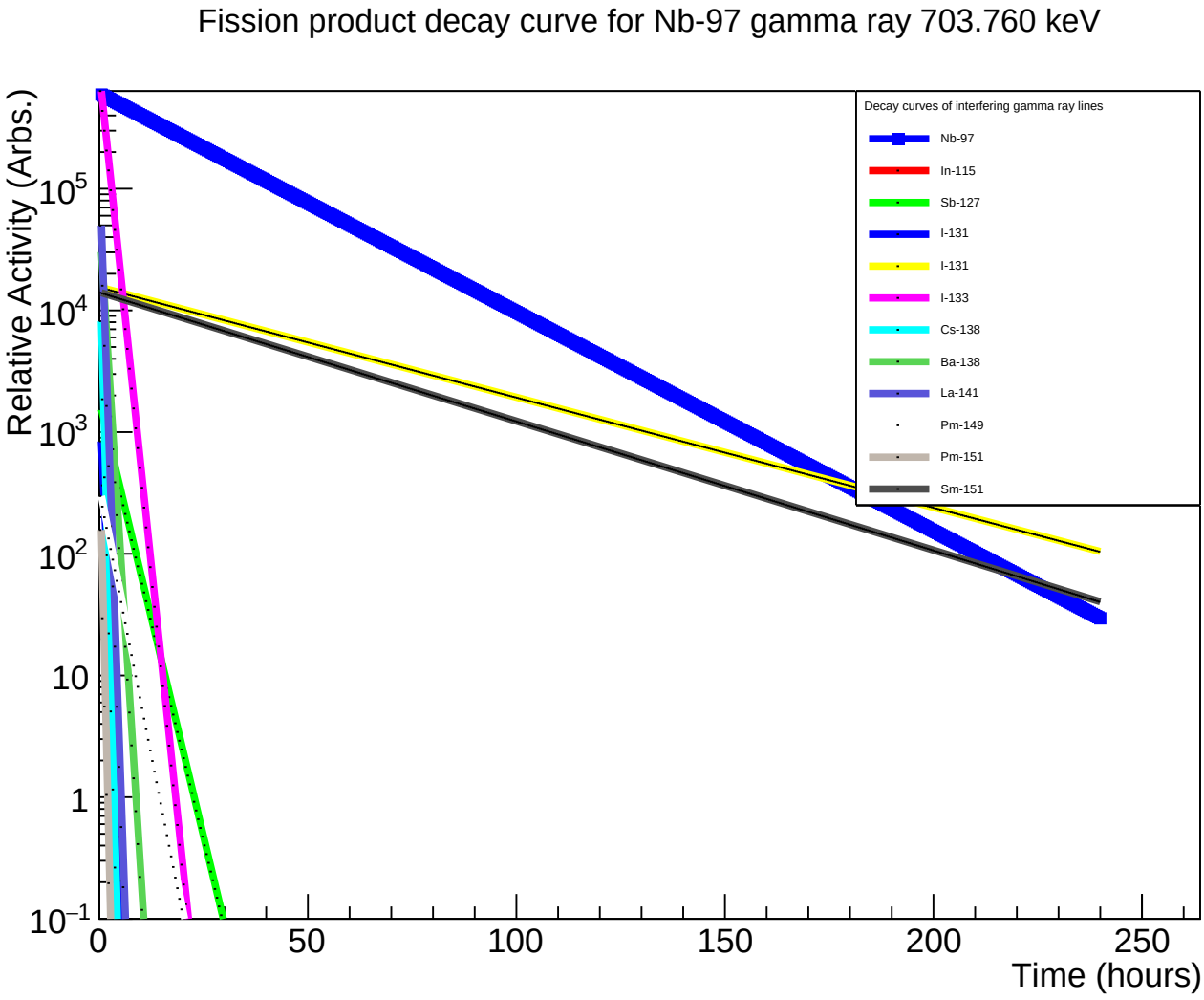


Figure 210: Nb-97 decay curve for 703.760 keV gamma ray.

3.211 Zr-97 E_γ = 1021.20 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 1021.20 keV
Gamma Intensity = 1.01 ± 0.168 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 421: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 422: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1020.000	0.004	0.243	0.052
Tc-104	Ru-104	1021.800	0.005	0.305	0.019
Pd-111	Ag-111	1022.000	0.000	0.390	0.000
Te-129	I-129	1022.430	0.000	1.160	0.005
Te-129	I-129	1022.430	0.000	806.400	0.001
Te-133	I-133	1021.130	0.028	0.208	0.031
La-142	Ce-142	1020.800	0.000	1.518	0.058
Nd-149	Pm-149	1021.800	0.000	1.728	0.011
Nd-151	Pm-151	1021.050	0.001	0.207	0.004
Nd-151	Pm-151	1021.050	0.000	0.207	0.004

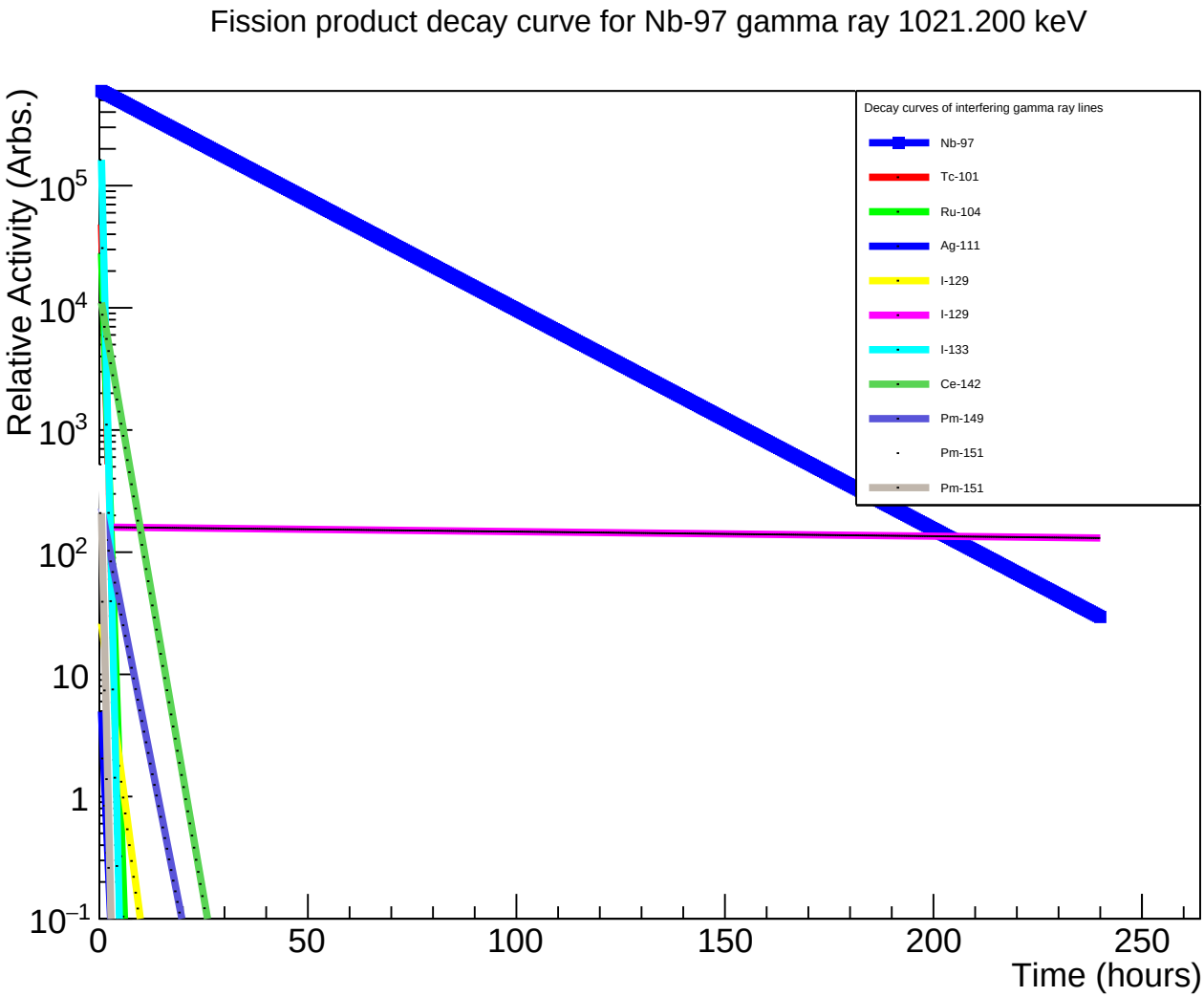


Figure 211: Nb-97 decay curve for 1021.200 keV gamma ray.

3.212 Zr-97 E_γ = 1147.97 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 1147.97 keV
Gamma Intensity = 2.62 ± 0.102 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 423: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 424: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	1148.500	0.000	0.362	0.001
Sb-129	Te-129	1147.200	0.000	4.400	0.005
Te-131	I-131	1146.960	0.050	0.417	0.025
Te-131	I-131	1148.510	0.001	0.417	0.025
Te-131	I-131	1148.900	0.001	0.417	0.025
Te-131	I-131	1148.890	0.017	33.250	0.004
I-132	Xe-132	1147.800	0.003	2.295	0.043
Cs-138	Ba-138	1147.220	0.012	0.557	0.067
Ba-141	La-141	1147.000	0.000	0.304	0.058
Ba-142	La-142	1148.700	0.005	0.177	0.058
La-143	Ce-143	1148.500	0.012	0.237	0.059
Pr-146	Nd-146	1148.900	0.002	0.403	0.030
Nd-151	Pm-151	1147.800	0.000	0.207	0.004

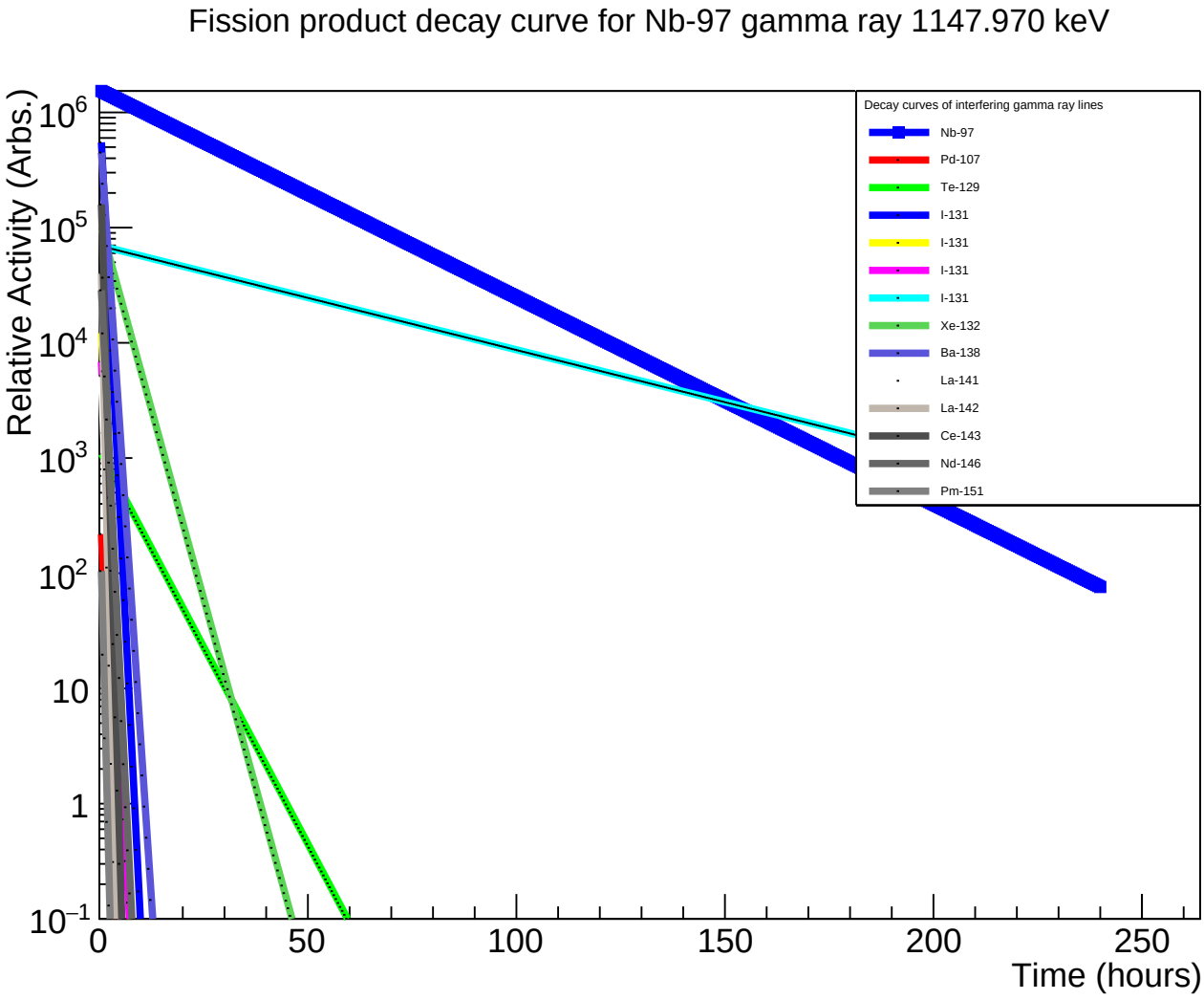


Figure 212: Nb-97 decay curve for 1147.970 keV gamma ray.

3.213 Zr-97 E_γ = 1362.68 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 1362.68 keV
Gamma Intensity = 1.02 ± 0.102 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 425: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 426: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1363.300	0.002	0.305	0.019
Xe-138	Cs-138	1361.900	0.000	0.235	0.063
Ba-141	La-141	1361.200	0.000	0.304	0.058
La-142	Ce-142	1363.000	0.021	1.518	0.058
Nd-151	Pm-151	1362.780	0.003	0.207	0.004

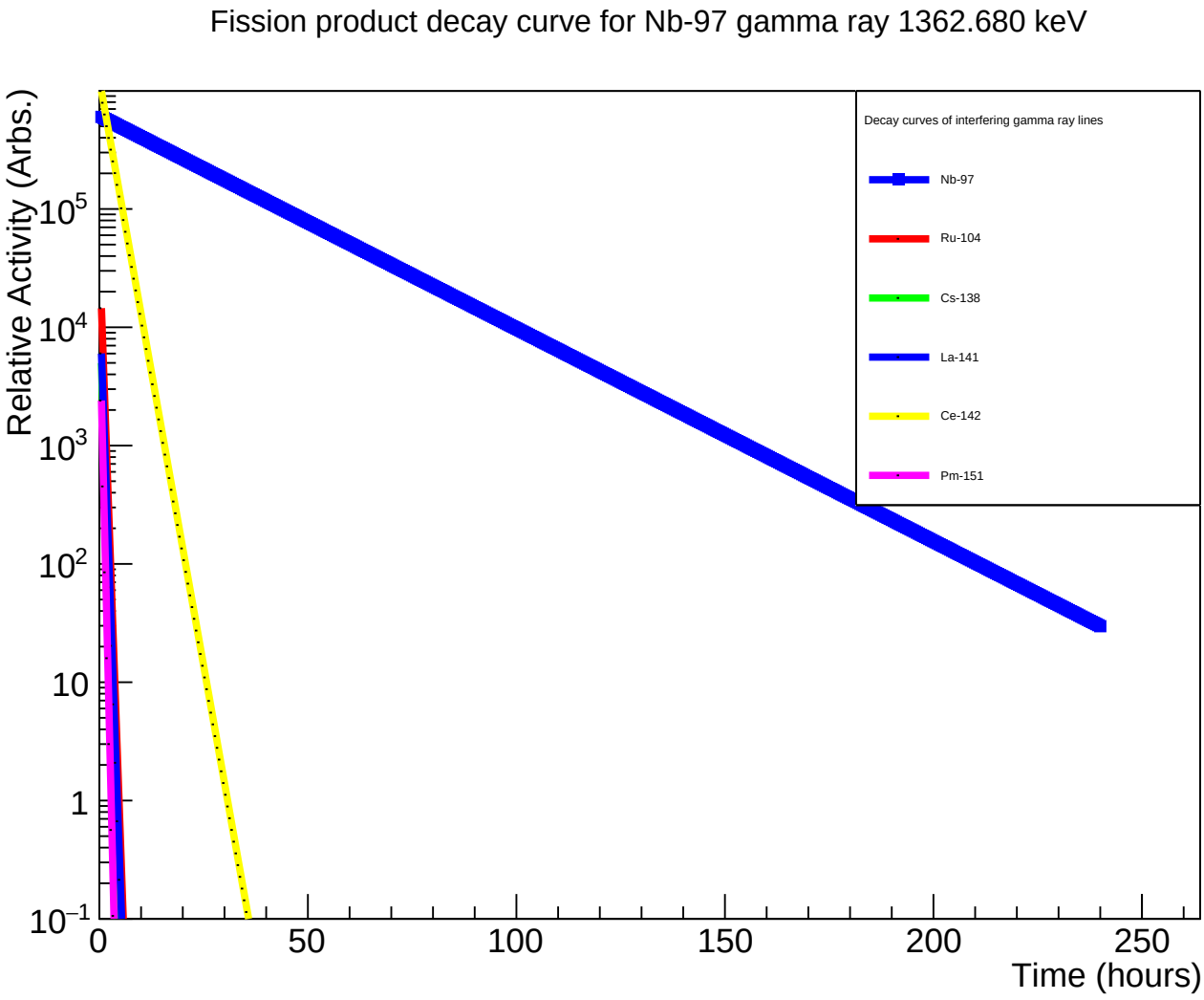


Figure 213: Nb-97 decay curve for 1362.680 keV gamma ray.

3.214 Zr-97 E_γ = 1750.24 keV

Chemical element: Zirconium
Fission product parent: Zr-97
Gamma originates in daughter: Nb-97
Eγ: 1750.24 keV
Gamma Intensity = 1.09 ± 0.102 %
$T_{1/2}$ = 16.749 ± 0.008 hours or 1004.94 ± 0.48 minutes
CFY: 5.984 ± 0.120 %

Table 427: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 428: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	1750.700	0.002	2.100	0.001
Sb-130	Te-130	1749.800	0.003	0.658	0.008

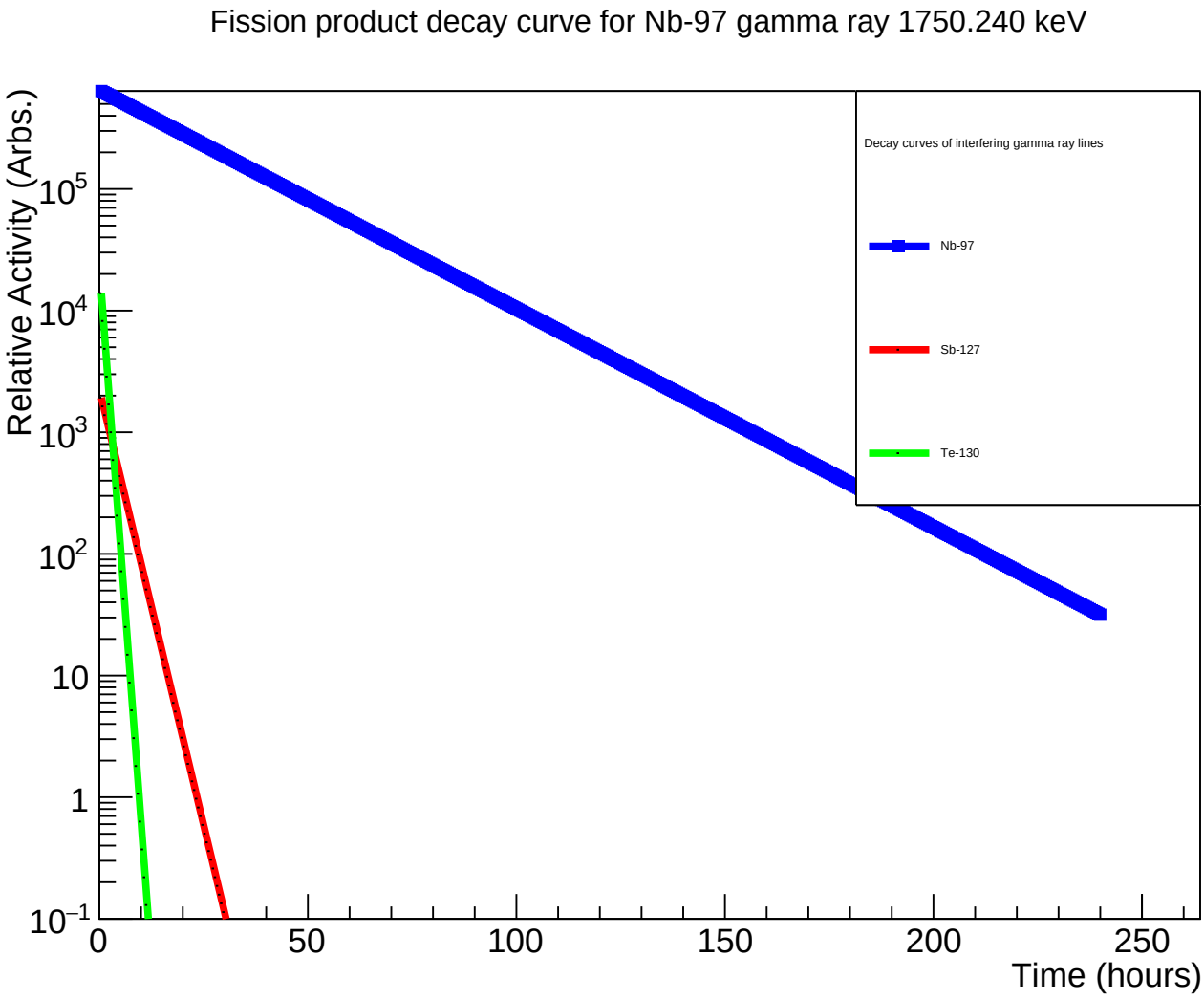


Figure 214: Nb-97 decay curve for 1750.240 keV gamma ray.

3.215 Nb-95 E_γ = 765.80 keV

Chemical element: Niobium
Fission product parent: Nb-95
Gamma originates in daughter: Mo-95
Eγ: 765.80 keV
Gamma Intensity = 99.81 ± 0.007 %
$T_{1/2}$ = 839.784 ± 0.144 hours or 50387.03 ± 8.64 minutes
CFY: 6.503 ± 0.091 %

Table 429: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 430: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	766.760	0.002	0.252	0.047
Sr-93	Y-93	764.800	0.000	0.124	0.062
Te-134	I-134	767.200	0.295	0.697	0.070
I-134	Xe-134	766.680	0.042	0.875	0.078
Cs-138	Ba-138	766.100	0.001	0.557	0.067
La-143	Ce-143	766.400	0.002	0.237	0.059
Pr-146	Nd-146	766.400	0.000	0.403	0.030
Nd-149	Pm-149	765.100	0.000	1.728	0.011
Nd-151	Pm-151	765.400	0.002	0.207	0.004

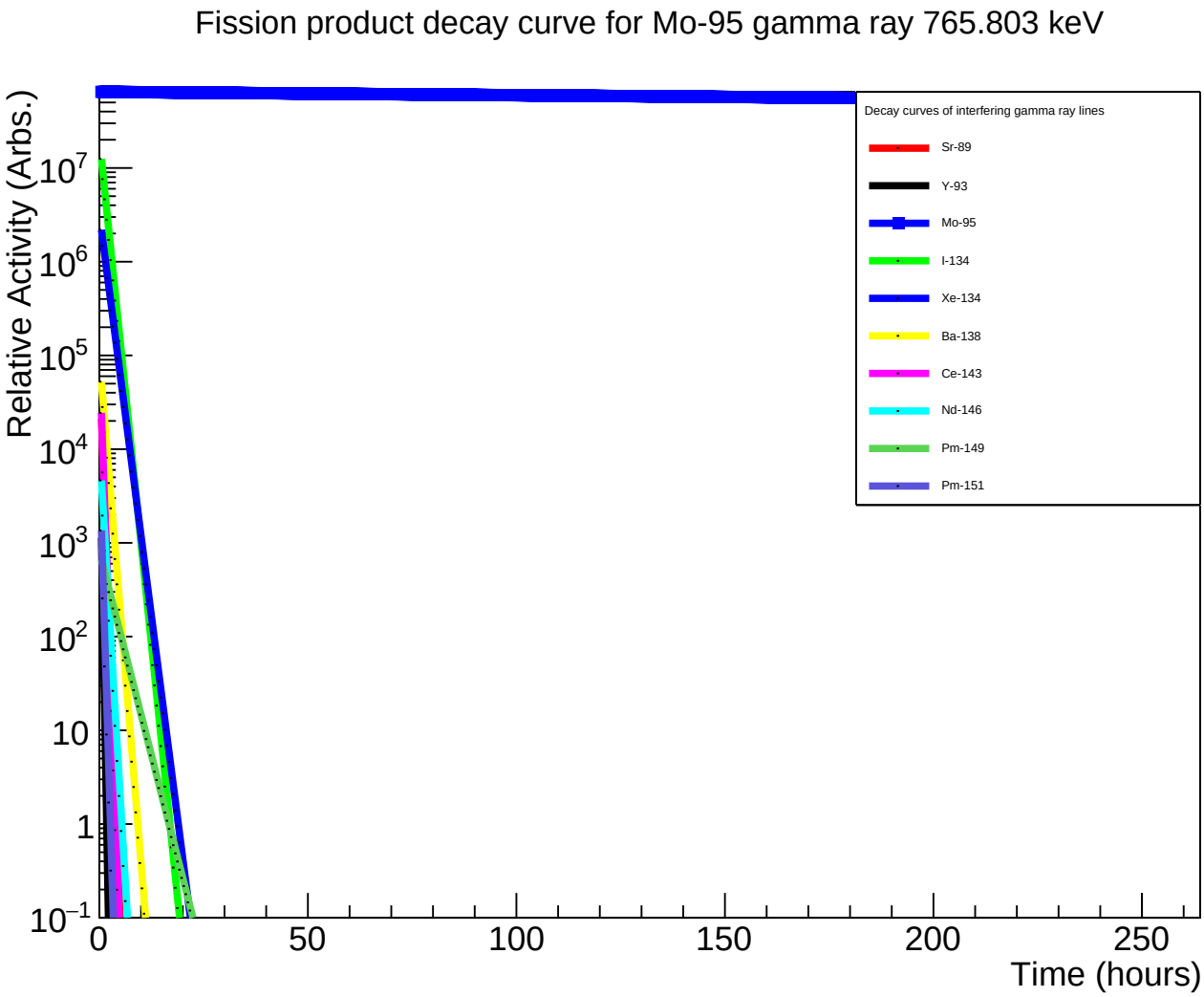


Figure 215: Mo-95 decay curve for 765.803 keV gamma ray.

3.216 Nb-95 E_γ = 204.12 keV

Chemical element: Niobium
Fission product parent: Nb-95
Gamma originates in daughter: Mo-95
Eγ: 204.12 keV
Gamma Intensity = 2.30 ± 0.246 %
$T_{1/2}$ = 86.640 ± 0.720 hours or 5198.40 ± 43.20 minutes
CFY: 0.065 ± 0.001 %

Table 431: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 432: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	202.800	0.008	2.100	0.001
Sn-127	Sb-127	204.100	0.002	2.100	0.001
Sn-127	Sb-127	205.200	0.002	2.100	0.001
Sb-125	Te-125	204.138	0.003	24194.445	0.000
Sb-128	Te-128	204.400	0.010	9.010	0.000
Te-127	I-127	202.900	0.001	9.350	0.002
Te-131	I-131	203.400	0.000	33.250	0.004
I-133	Xe-133	203.700	0.000	20.800	0.067
Pr-147	Nd-147	202.800	0.003	0.223	0.022
Pm-151	Sm-151	204.170	0.001	28.400	0.004
Sm-155	Eu-155	203.100	0.000	0.372	0.000
Sm-156	Eu-156	204.000	0.206	9.400	0.000

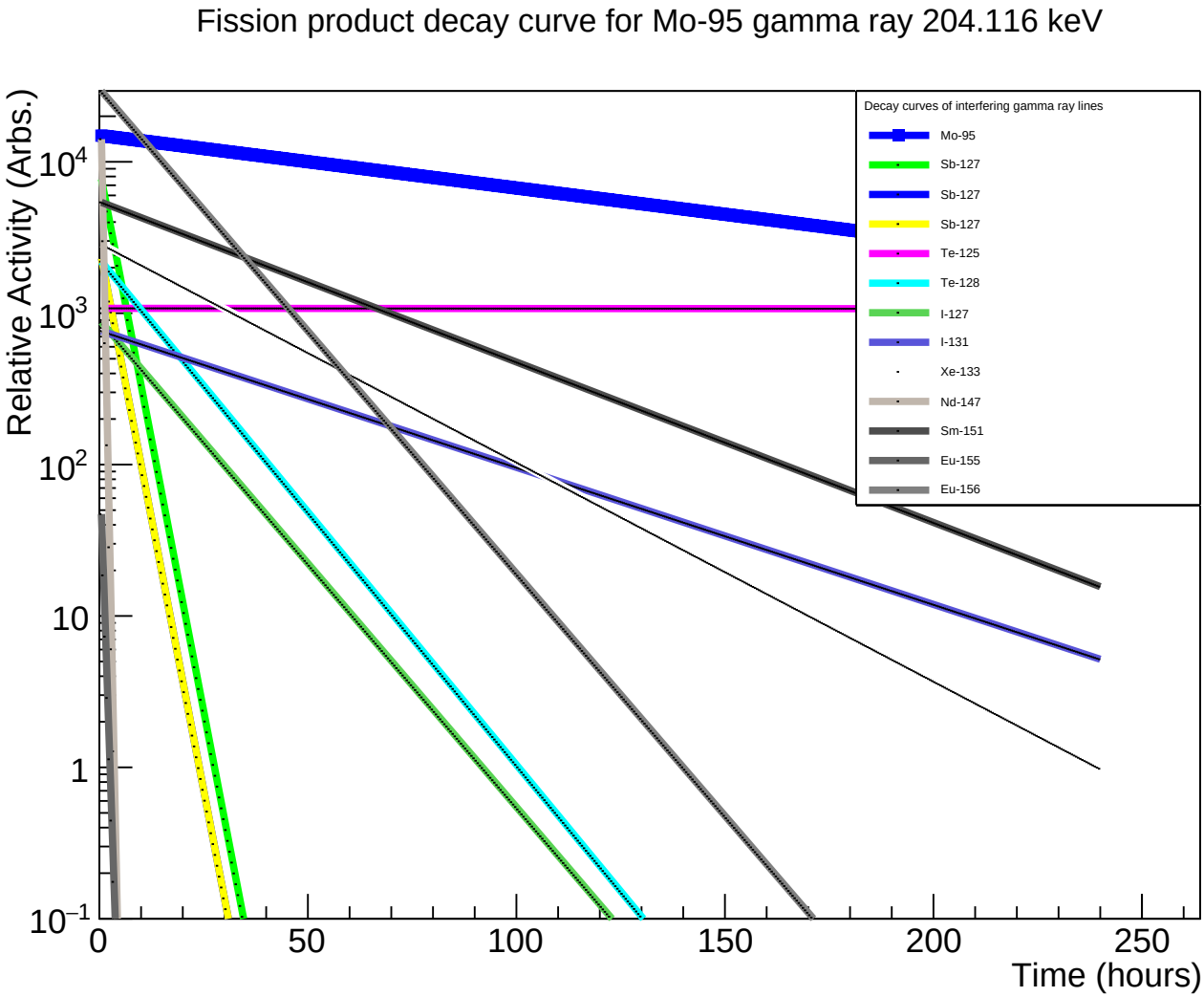


Figure 216: Mo-95 decay curve for 204.116 keV gamma ray.

3.217 Nb-95 E_γ = 235.69 keV

Chemical element: Niobium
Fission product parent: Nb-95
Gamma originates in daughter: Mo-95
Eγ: 235.69 keV
Gamma Intensity = 24.83 ± 0.772 %
$T_{1/2}$ = 86.640 ± 0.720 hours or 5198.40 ± 43.20 minutes
CFY: 0.065 ± 0.001 %

Table 433: Decay chain of fission product chain A = 95

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-95	Strontium-95	0.000	0.000
Strontium-95	Yttrium-95	0.007	0.000
Yttrium-95	Zirconium-95	0.172	0.002
Zirconium-95	Niobium-95	1536.768	0.144
Niobium-95	Molybdenum-95	839.784	0.144

Table 434: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	234.300	0.005	2.100	0.001
Sn-127	Sb-127	235.300	0.003	2.100	0.001
Sn-129	Sb-129	236.700	0.028	0.115	0.002
Te-131	I-131	235.000	0.000	33.250	0.004
Te-133	I-133	235.000	0.002	0.923	0.040
I-132	Xe-132	234.300	0.000	2.295	0.043
I-134	Xe-134	235.471	0.021	0.875	0.078
Ba-141	La-141	234.900	0.001	0.304	0.058
Pm-151	Sm-151	236.200	0.001	28.400	0.004
Pm-151	Sm-151	236.600	0.002	28.400	0.004
Pm-151	Sm-151	236.700	0.002	28.400	0.004
Pm-151	Sm-151	237.100	0.005	28.400	0.004

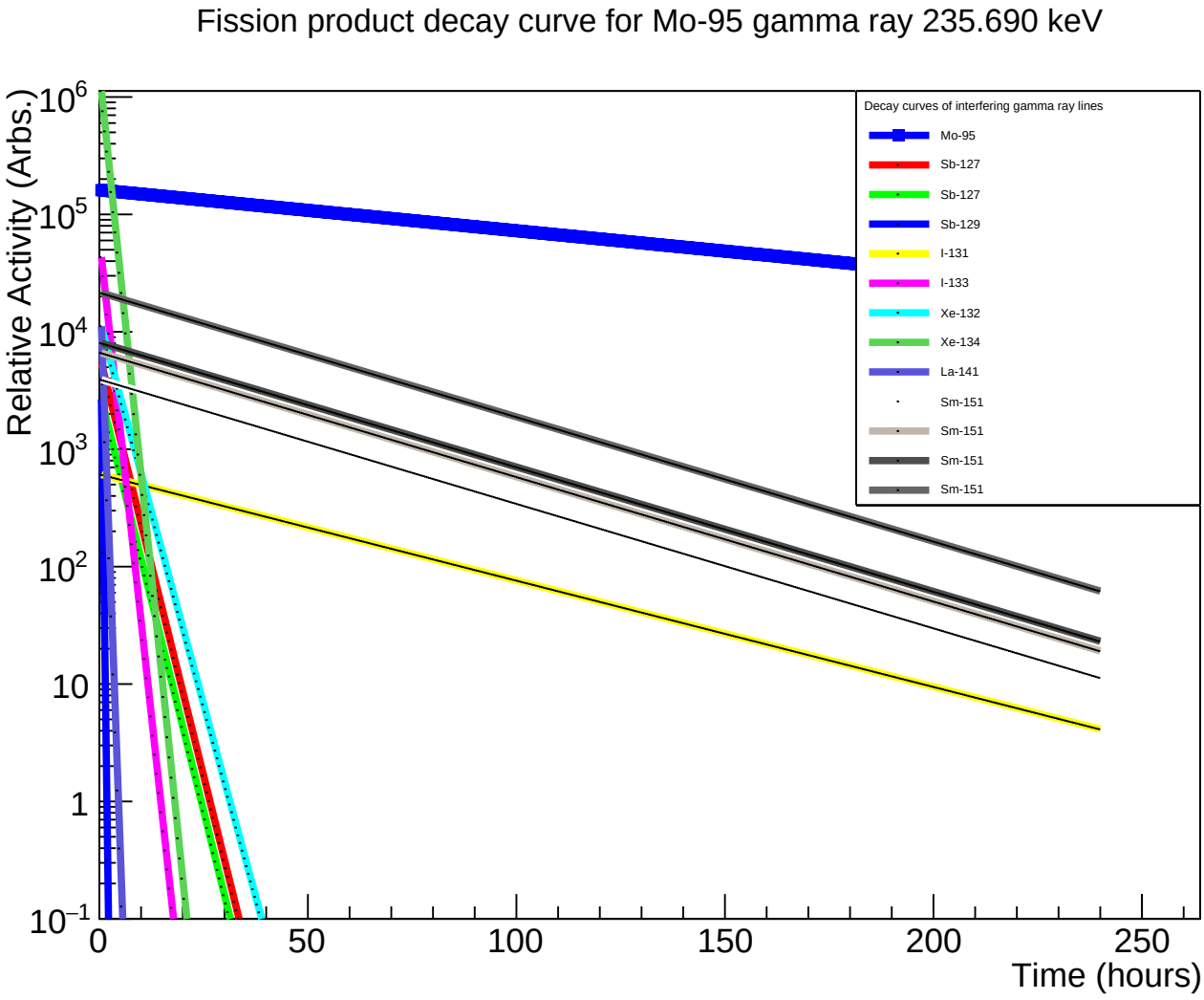


Figure 217: Mo-95 decay curve for 235.690 keV gamma ray.

3.218 Nb-97 E_γ = 657.94 keV

Chemical element: Niobium
Fission product parent: Nb-97
Gamma originates in daughter: Mo-97
Eγ: 657.94 keV
Gamma Intensity = 98.23 ± 0.080 %
$T_{1/2}$ = 1.202 ± 0.012 hours or 72.10 ± 0.70 minutes
CFY: 5.997 ± 0.060 %

Table 435: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 436: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	657.900	0.003	1.512	0.000
Rb-89	Sr-89	657.770	0.108	0.252	0.047
Sr-93	Y-93	658.560	0.004	0.124	0.062
Tc-104	Ru-104	659.300	0.001	0.305	0.019
Tc-105	Ru-105	657.000	0.001	0.127	0.010
Pd-111	Ag-111	657.300	0.000	0.390	0.000
Sb-130	Te-130	658.200	0.017	0.658	0.008
Te-127	I-127	658.900	0.000	2616.000	0.000
Cs-139	Ba-139	656.580	0.000	0.155	0.063
Ba-141	La-141	658.900	0.000	0.304	0.058
Pr-145	Nd-145	657.668	0.001	5.984	0.039
Nd-149	Pm-149	657.200	0.000	1.728	0.011
Nd-151	Pm-151	658.610	0.007	0.207	0.004
Sm-153	Eu-153	657.550	0.000	46.500	0.002

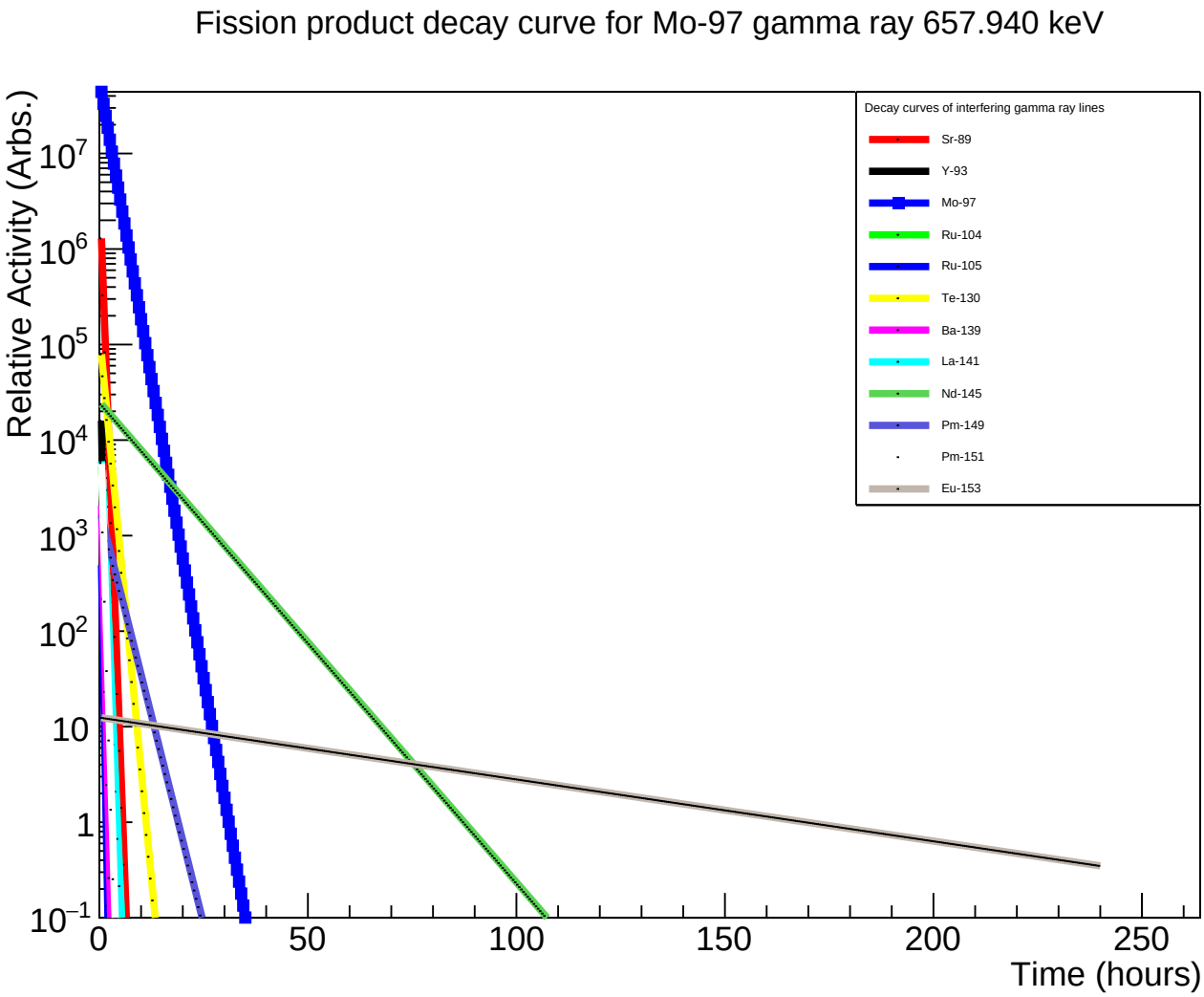


Figure 218: Mo-97 decay curve for 657.940 keV gamma ray.

3.219 Nb-97 E_γ = 1024.40 keV

Chemical element: Niobium
Fission product parent: Nb-97
Gamma originates in daughter: Mo-97
Eγ: 1024.40 keV
Gamma Intensity = 1.09 ± 0.069 %
$T_{1/2}$ = 1.202 ± 0.012 hours or 72.10 ± 0.70 minutes
CFY: 5.997 ± 0.060 %

Table 437: Decay chain of fission product chain A = 97

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-97	Strontium-97	0.000	0.000
Strontium-97	Yttrium-97	0.000	0.000
Yttrium-97	Zirconium-97	0.001	0.000
Zirconium-97	Niobium-97	16.749	0.008
Niobium-97	Molybdenum-97	1.202	0.012

Table 438: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1025.300	0.002	0.252	0.047
Sr-91	Y-91	1024.300	0.335	9.630	0.058
Sn-125	Sb-125	1025.460	0.000	0.159	0.000
Te-131	I-131	1023.600	0.001	33.250	0.004

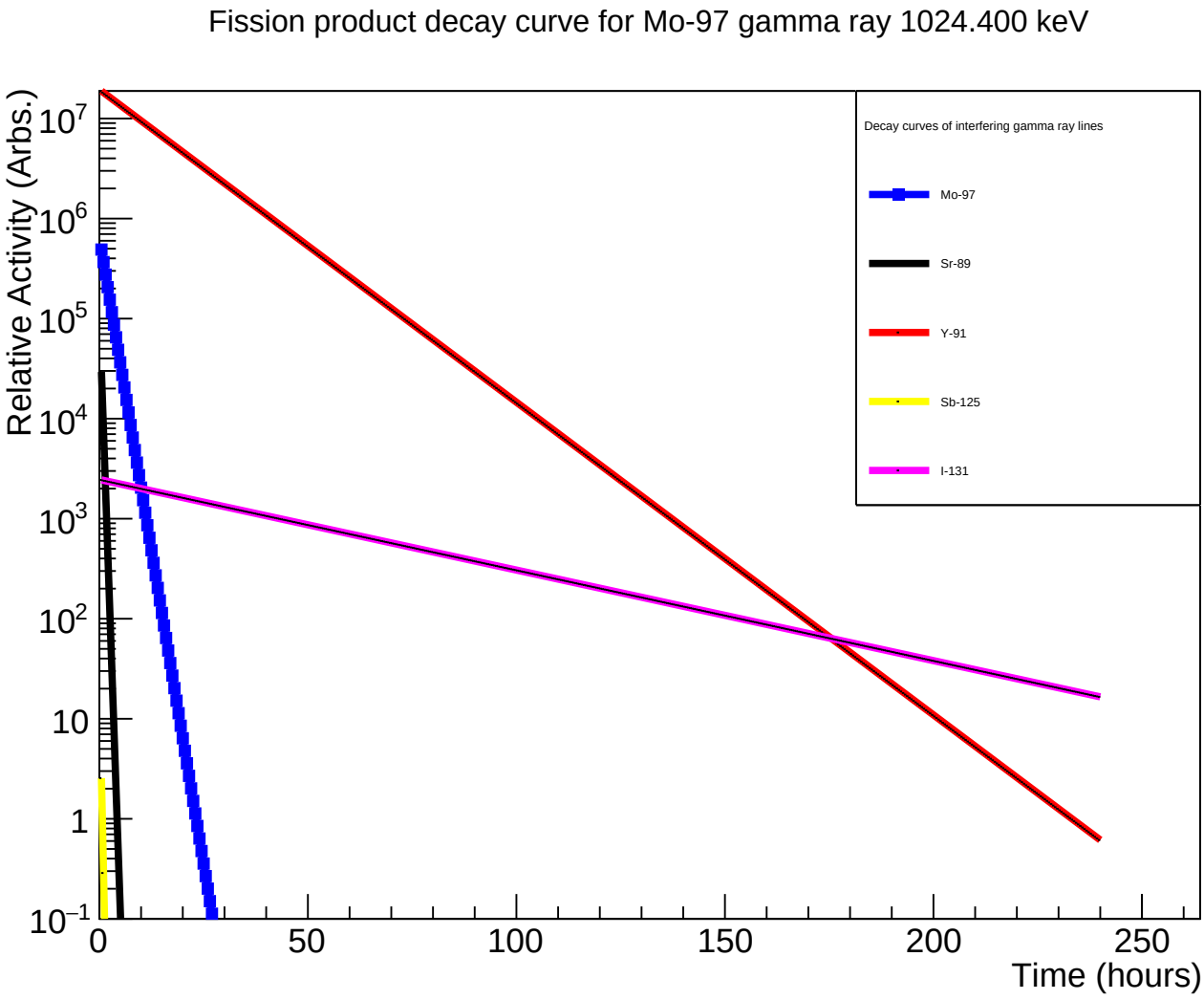


Figure 219: Mo-97 decay curve for 1024.400 keV gamma ray.

3.220 Nb-98 E_γ = 172.95 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 172.95 keV
Gamma Intensity = 1.35 ± 0.084 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 439: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 440: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	174.200	0.002	1.512	0.000
Sb-125	Te-125	172.719	0.002	24194.445	0.000
Te-127	I-127	172.100	0.000	9.350	0.002
Ba-142	La-142	172.600	0.000	0.177	0.058
La-140	Ce-140	173.543	0.001	40.285	0.062
La-142	Ce-142	173.500	0.001	1.518	0.058
Ce-146	Pr-146	173.840	0.002	0.225	0.030
Sm-153	Eu-153	172.303	0.000	46.500	0.002
Sm-153	Eu-153	172.853	0.001	46.500	0.002

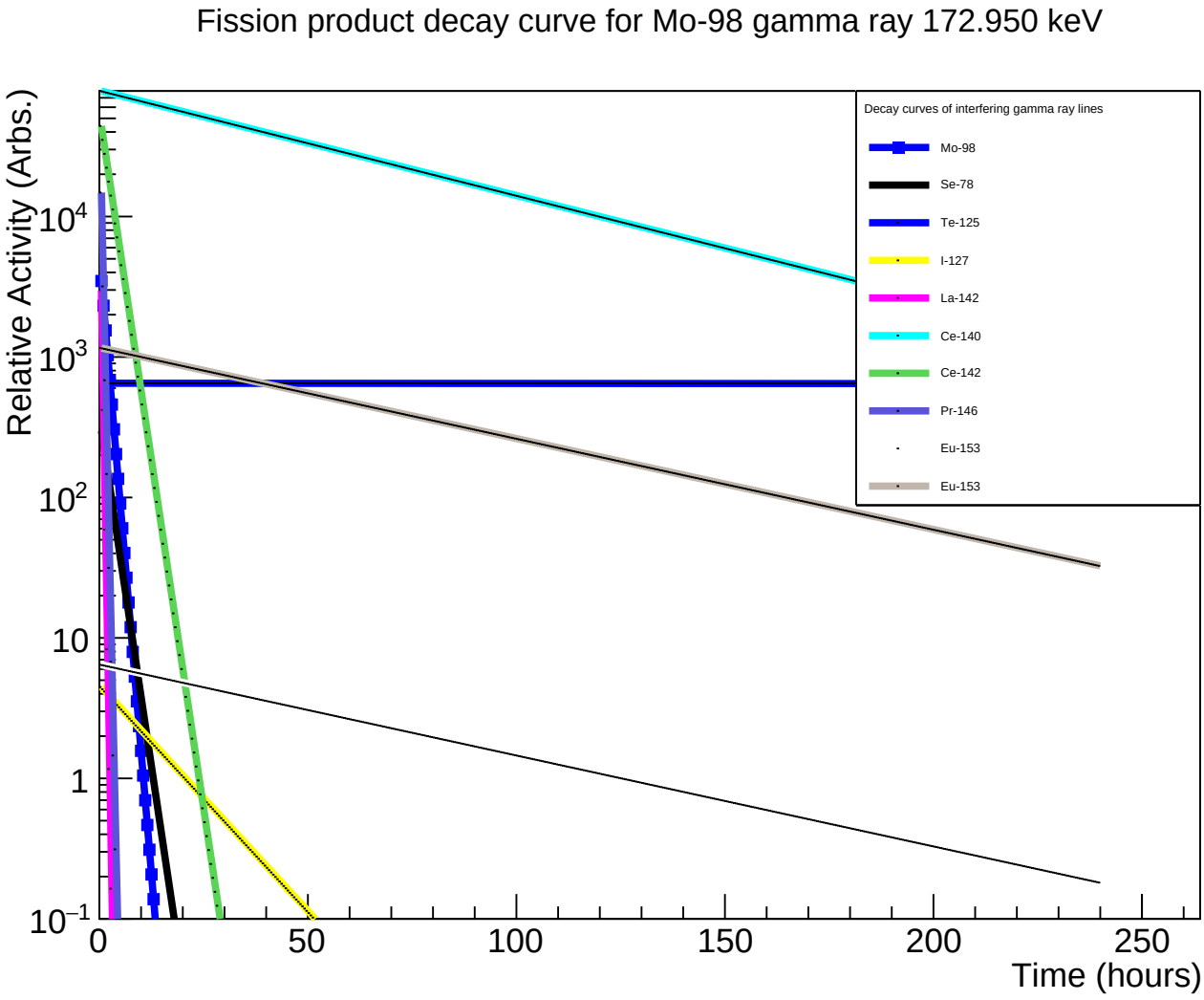


Figure 220: Mo-98 decay curve for 172.950 keV gamma ray.

3.221 Nb-98 E_γ = 335.26 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 335.26 keV
Gamma Intensity = 9.53 ± 0.188 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 441: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 442: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Tc-104	Ru-104	333.800	0.006	0.305	0.019
Tc-105	Ru-105	333.900	0.007	0.127	0.010
In-115	Sn-115	336.241	0.458	4.486	0.000
Te-131	I-131	334.270	0.092	33.250	0.004
Te-131	I-131	335.440	0.001	33.250	0.004
Te-133	I-133	334.245	0.032	0.923	0.040
Te-133	I-133	334.260	0.068	0.923	0.040
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Cs-138	Ba-138	333.860	0.001	0.557	0.067
Ba-142	La-142	335.000	0.015	0.177	0.058
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

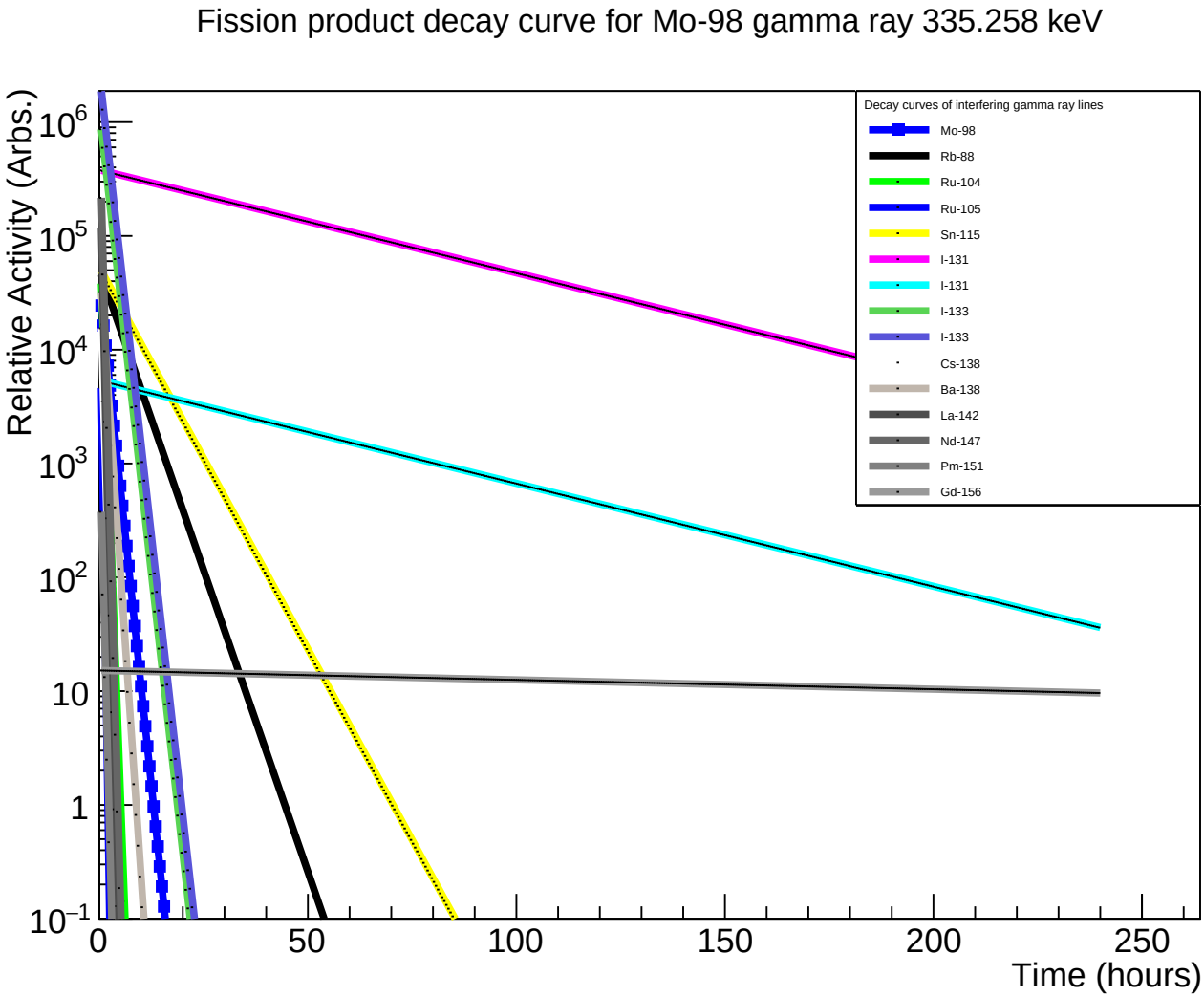


Figure 221: Mo-98 decay curve for 335.258 keV gamma ray.

3.222 Nb-98 E_γ = 434.26 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 434.26 keV
Gamma Intensity = 1.13 ± 0.028 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 443: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 444: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	433.000	0.002	0.372	0.003
Sn-125	Sb-125	434.130	0.000	231.360	0.000
Te-133	I-133	435.280	0.012	0.923	0.040
Te-134	I-134	435.060	0.189	0.697	0.070
I-134	Xe-134	433.350	0.042	0.875	0.078
I-135	Xe-135	433.741	0.006	6.570	0.063
Xe-138	Cs-138	434.562	0.203	0.235	0.063
Cs-139	Ba-139	434.230	0.000	0.155	0.063
Ba-142	La-142	434.400	0.005	0.177	0.058
La-141	Ce-141	435.000	0.000	3.920	0.058
La-142	Ce-142	433.300	0.004	1.518	0.058
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	434.900	0.000	1.728	0.011
Eu-156	Gd-156	434.400	0.002	364.560	0.000

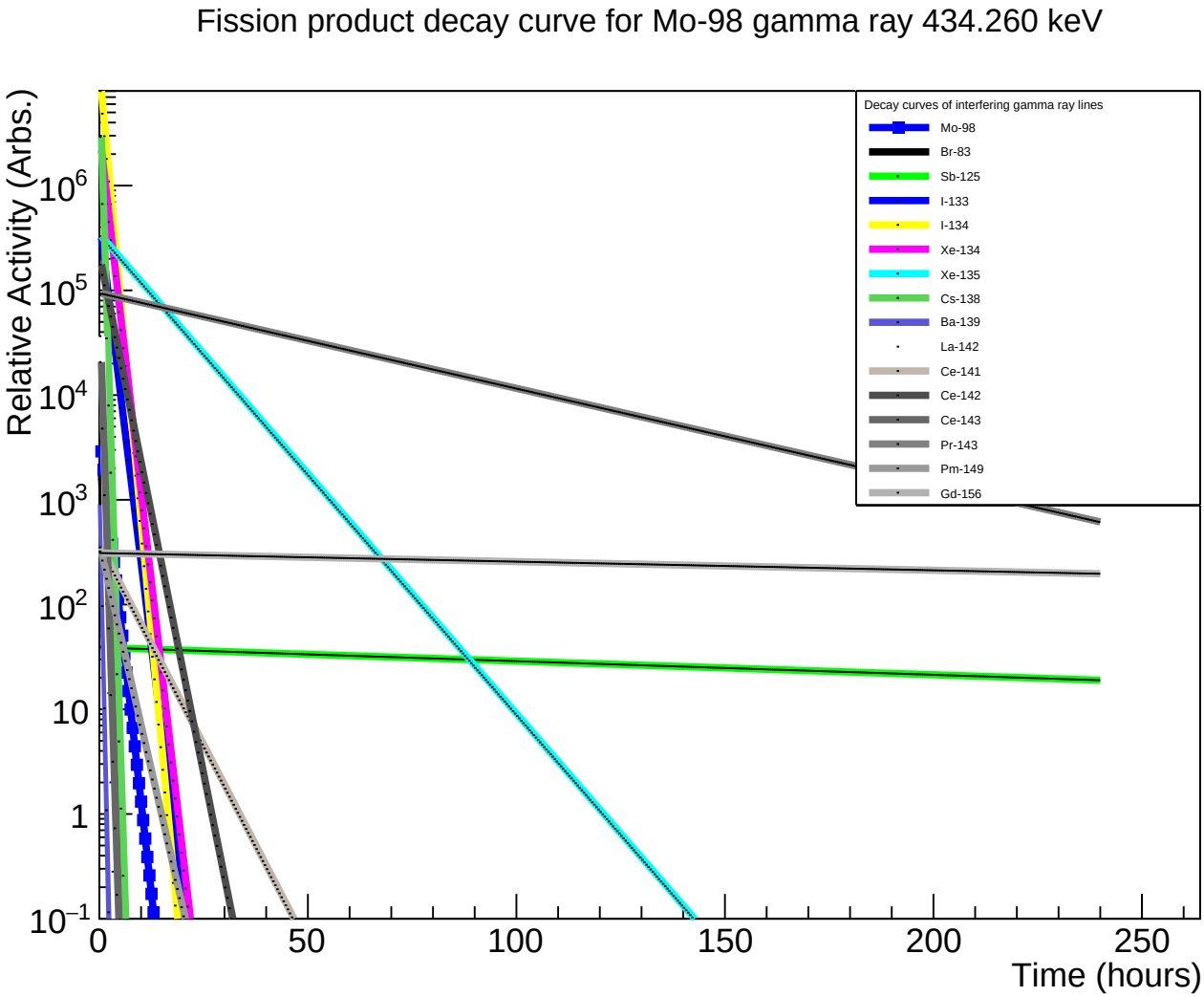


Figure 222: Mo-98 decay curve for 434.260 keV gamma ray.

3.223 Nb-98 E_γ = 644.85 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 644.85 keV
Gamma Intensity = 5.60 ± 0.187 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 445: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 446: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	644.000	0.007	0.127	0.010
Tc-105	Ru-105	646.300	0.012	0.127	0.010
Rh-107	Pd-107	643.900	0.000	0.362	0.001
Te-133	I-133	645.600	0.004	0.208	0.031
Te-134	I-134	645.400	0.009	0.697	0.070
La-142	Ce-142	646.200	0.001	1.518	0.058
La-143	Ce-143	643.750	0.015	0.237	0.059
Eu-156	Gd-156	646.290	0.063	364.560	0.000

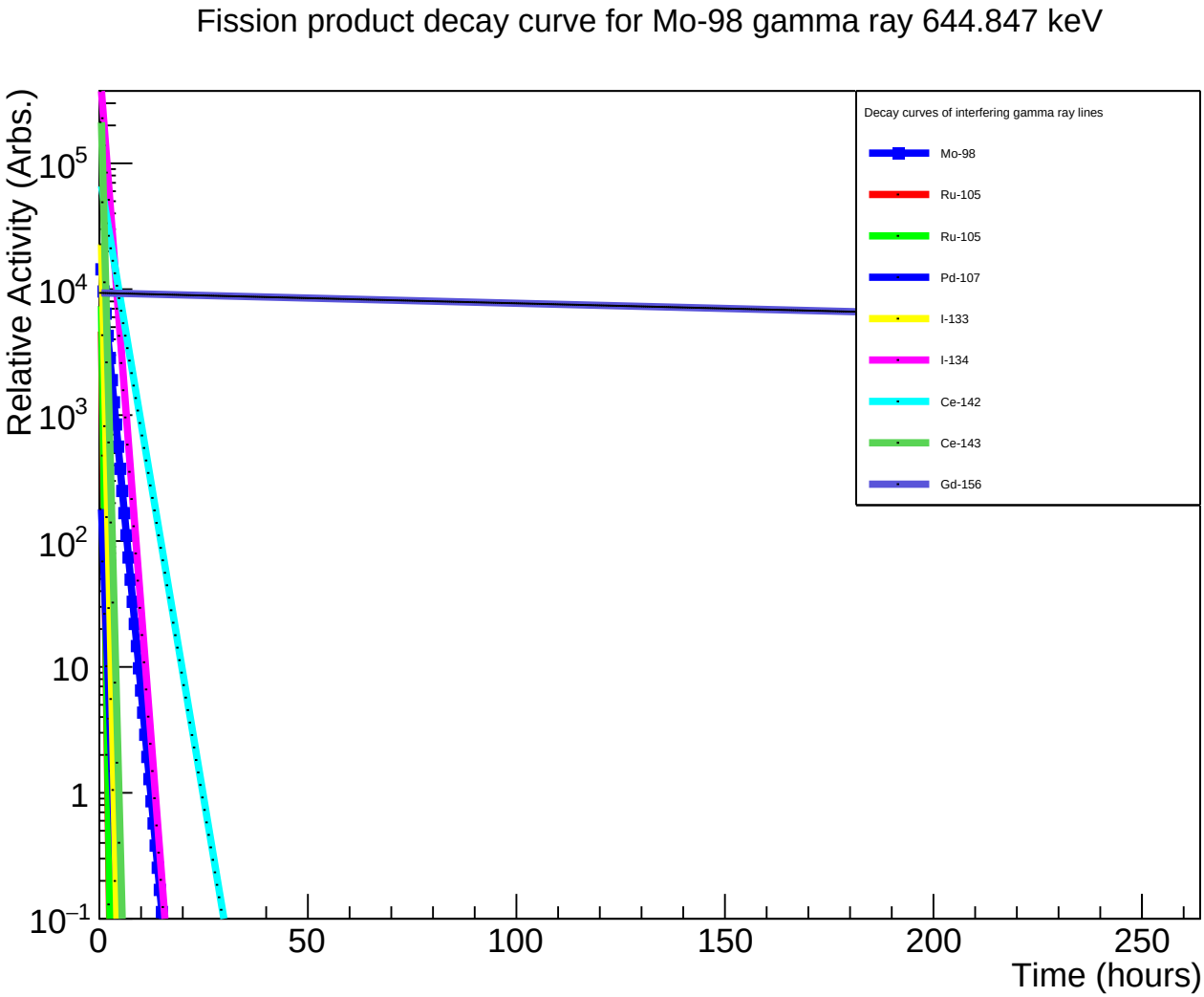


Figure 223: Mo-98 decay curve for 644.847 keV gamma ray.

3.224 Nb-98 E_γ = 713.82 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 713.82 keV
Gamma Intensity = 9.15 ± 0.188 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 447: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 448: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	715.100	0.003	0.150	0.000
Y-93	Zr-93	714.400	0.000	10.180	0.063
Mo-101	Tc-101	713.040	0.033	0.243	0.052
Tc-105	Ru-105	713.800	0.006	0.127	0.010
Ag-112	Cd-112	714.800	0.001	3.130	0.000
Te-131	I-131	713.100	0.014	33.250	0.004
Te-133	I-133	712.600	0.002	0.208	0.031
Te-134	I-134	712.970	0.047	0.697	0.070
Cs-139	Ba-139	714.900	0.001	0.155	0.063
Ba-142	La-142	714.400	0.000	0.177	0.058
Pr-145	Nd-145	713.224	0.000	5.984	0.039
Nd-149	Pm-149	712.590	0.001	1.728	0.011
Pm-151	Sm-151	713.400	0.000	28.400	0.004
Sm-155	Eu-155	713.400	0.000	0.372	0.000

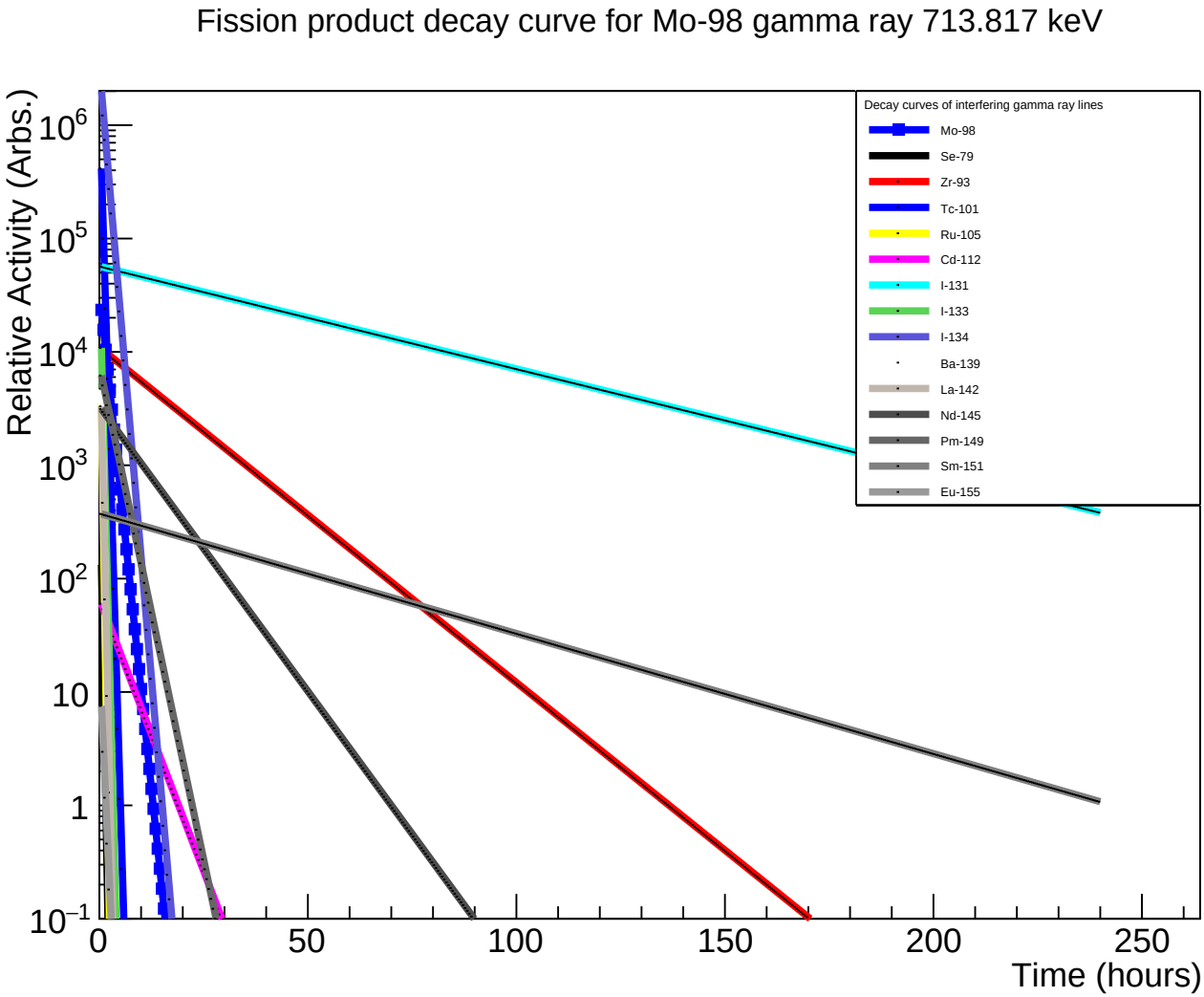


Figure 224: Mo-98 decay curve for 713.817 keV gamma ray.

3.225 Nb-98 E_γ = 722.63 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 722.63 keV
Gamma Intensity = 73.79 ± 1.503 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 449: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 450: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	722.400	0.001	1.512	0.000
As-79	Se-79	723.600	0.001	0.150	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Sb-127	Te-127	722.200	0.019	92.400	0.002
Te-129	I-129	722.500	0.000	1.160	0.005
Te-133	I-133	722.000	0.000	0.208	0.031
Te-133	I-133	723.500	0.003	0.923	0.040
Te-133	I-133	724.000	0.001	0.923	0.040
I-131	Xe-131	722.911	0.018	192.605	0.029
Ce-143	Pr-143	721.929	0.054	33.039	0.060
Eu-156	Gd-156	723.470	0.054	364.560	0.000

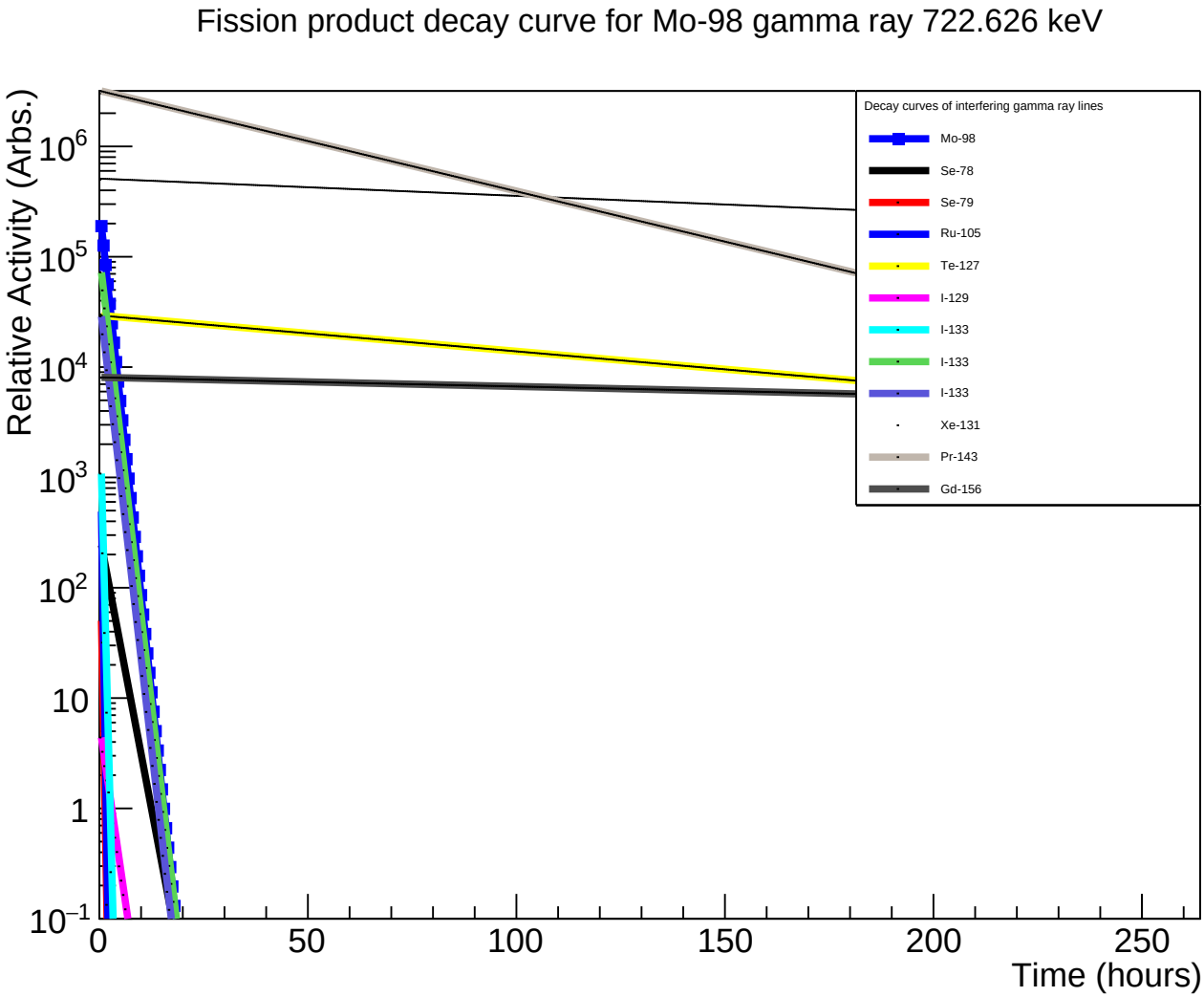


Figure 225: Mo-98 decay curve for 722.626 keV gamma ray.

3.226 Nb-98 E_γ = 787.36 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 787.36 keV
Gamma Intensity = 93.40 ± 0.200 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 451: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 452: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	788.280	0.005	2.840	0.036
Sr-93	Y-93	788.680	0.008	0.124	0.062
Sb-128	Te-128	787.600	0.071	0.173	0.003
Sb-129	Te-129	786.600	0.019	4.400	0.005
Te-133	I-133	786.930	0.054	0.208	0.031
Xe-135	Cs-135	786.900	0.000	0.255	0.011
Cs-139	Ba-139	788.300	0.000	0.155	0.063
Ba-142	La-142	786.600	0.002	0.177	0.058
Ce-143	Pr-143	787.400	0.000	33.039	0.060
Nd-149	Pm-149	786.730	0.000	1.728	0.011
Nd-151	Pm-151	787.200	0.000	0.207	0.004

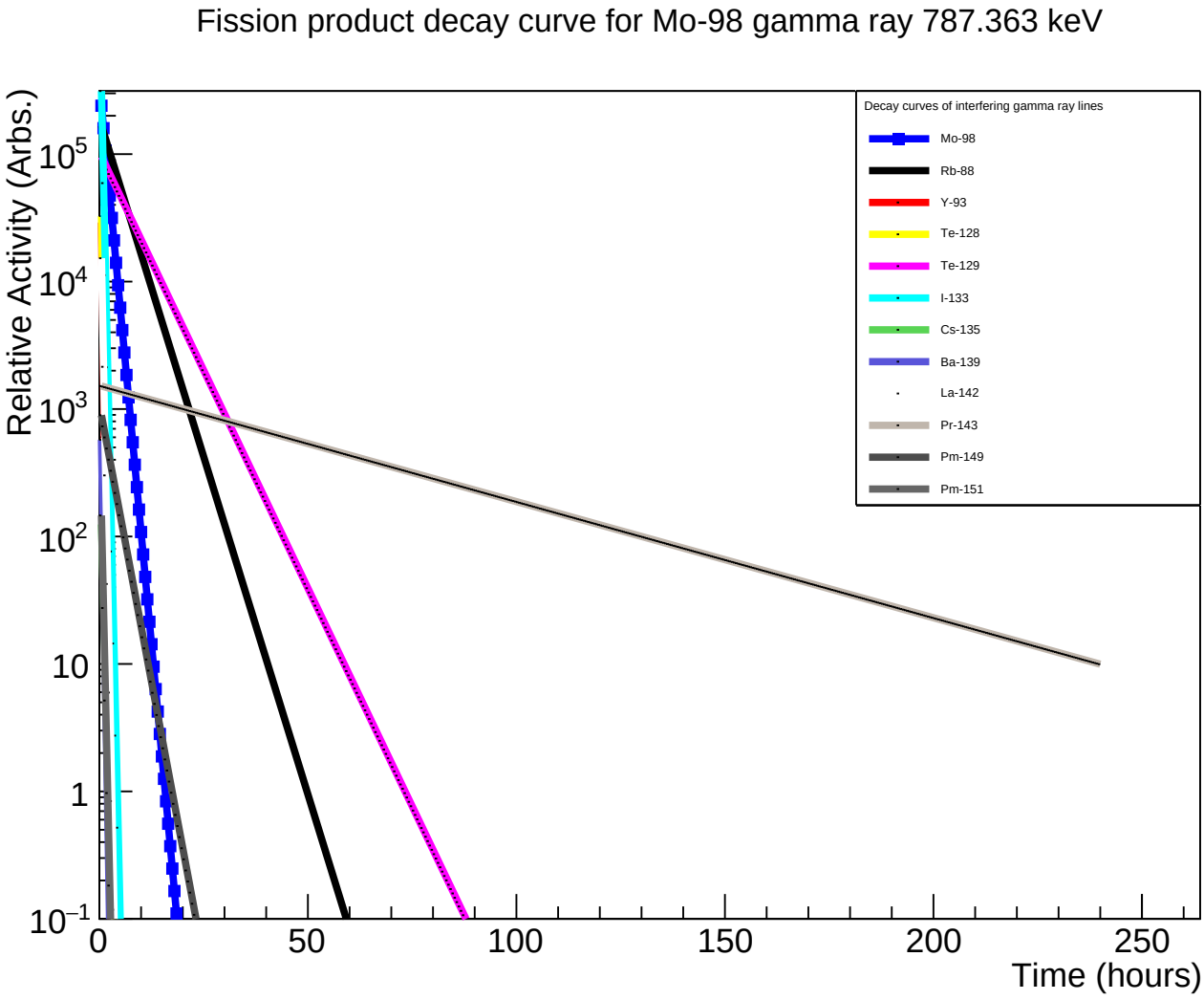


Figure 226: Mo-98 decay curve for 787.363 keV gamma ray.

3.227 Nb-98 E_γ = 791.65 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 791.65 keV
Gamma Intensity = 7.83 ± 0.050 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 453: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 454: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	790.320	0.001	2.840	0.036
Sr-93	Y-93	791.100	0.003	0.124	0.062
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Sn-129	Sb-129	792.200	0.010	0.115	0.002
I-132	Xe-132	791.200	0.001	2.295	0.043
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Ba-142	La-142	791.600	0.001	0.177	0.058
La-142	Ce-142	793.100	0.000	1.518	0.058
Ce-143	Pr-143	791.070	0.000	33.039	0.060
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

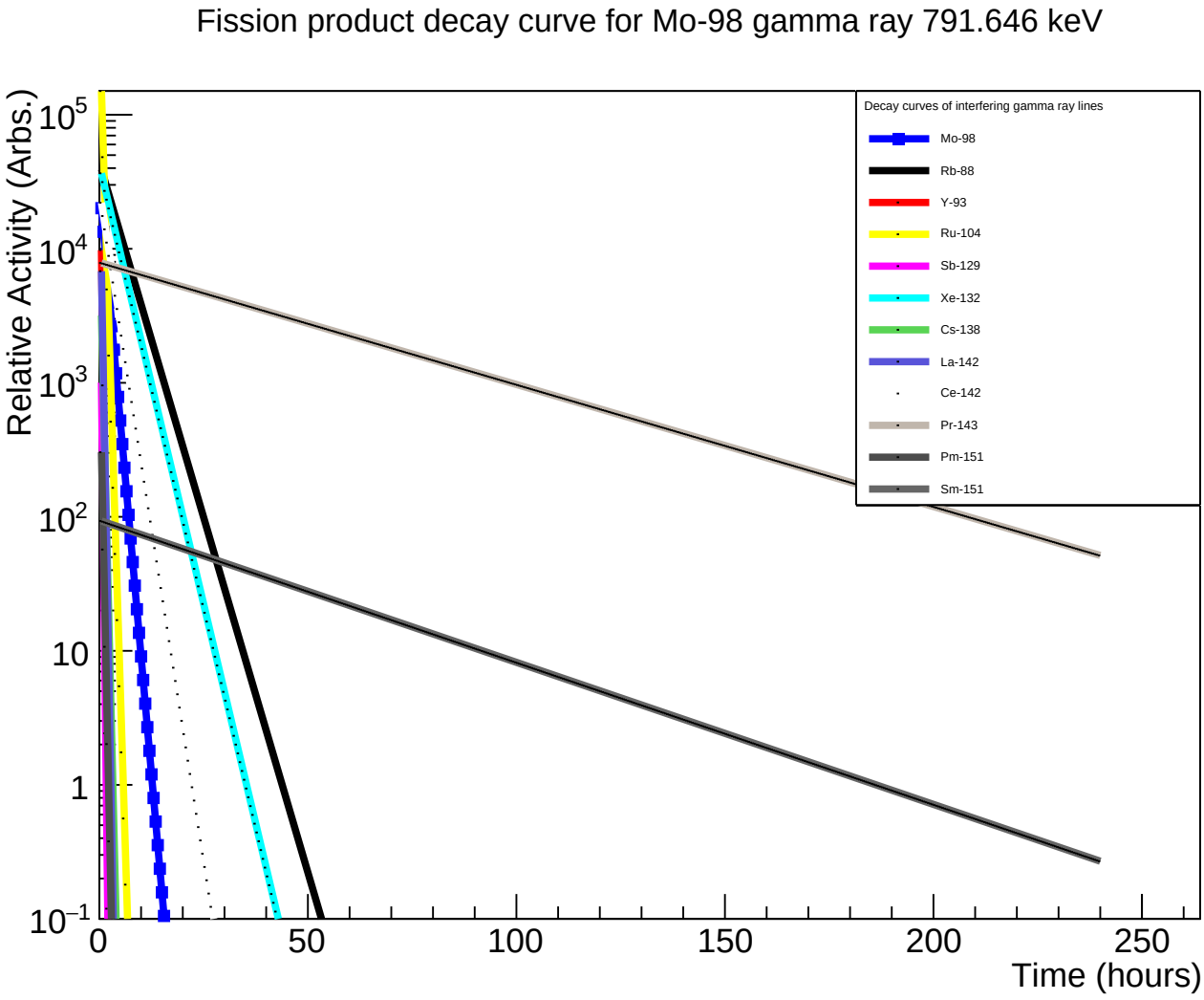


Figure 227: Mo-98 decay curve for 791.646 keV gamma ray.

3.228 Nb-98 E_γ = 823.39 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 823.39 keV
Gamma Intensity = 2.52 ± 0.056 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 455: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 456: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	822.010	0.001	2.840	0.036
Rb-89	Sr-89	822.000	0.000	0.252	0.047
Sr-91	Y-91	823.700	0.001	9.630	0.058
Mo-99	Tc-99	822.972	0.001	65.976	0.061
Tc-105	Ru-105	824.300	0.012	0.127	0.010
Ru-105	Rh-105	821.980	0.002	4.440	0.010
Pd-109	Ag-109	822.900	0.000	13.701	0.000
Sn-125	Sb-125	822.480	0.043	231.360	0.000
Sn-127	Sb-127	823.100	0.106	2.100	0.001
Sn-127	Sb-127	824.700	0.061	2.100	0.001
Te-131	I-131	822.780	0.059	33.250	0.004
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004
Pm-151	Sm-151	822.450	0.000	28.400	0.004

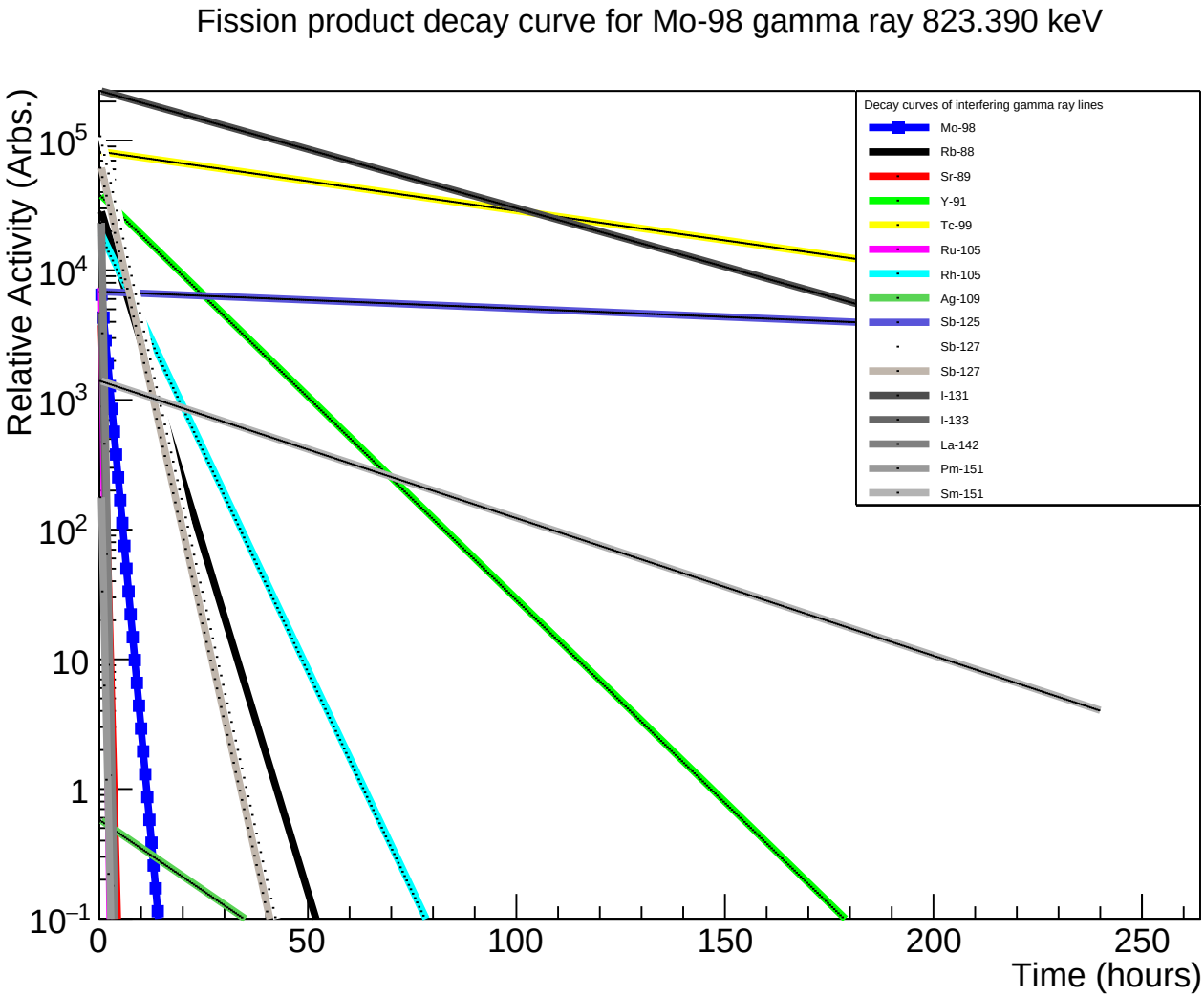


Figure 228: Mo-98 decay curve for 823.390 keV gamma ray.

3.229 Nb-98 E_γ = 833.56 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 833.56 keV
Gamma Intensity = 10.83 ± 0.374 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 457: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 458: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	834.830	0.130	2.840	0.036
Sr-93	Y-93	834.890	0.017	0.124	0.062
Pd-111	Ag-111	833.000	0.000	0.390	0.000
Te-129	I-129	833.280	0.000	1.160	0.005
Cs-139	Ba-139	832.200	0.000	0.155	0.063
Ba-141	La-141	833.800	0.002	0.304	0.058
La-141	Ce-141	834.800	0.000	3.920	0.058
Nd-149	Pm-149	832.090	0.000	1.728	0.011
Pm-149	Sm-149	833.400	0.000	53.080	0.011

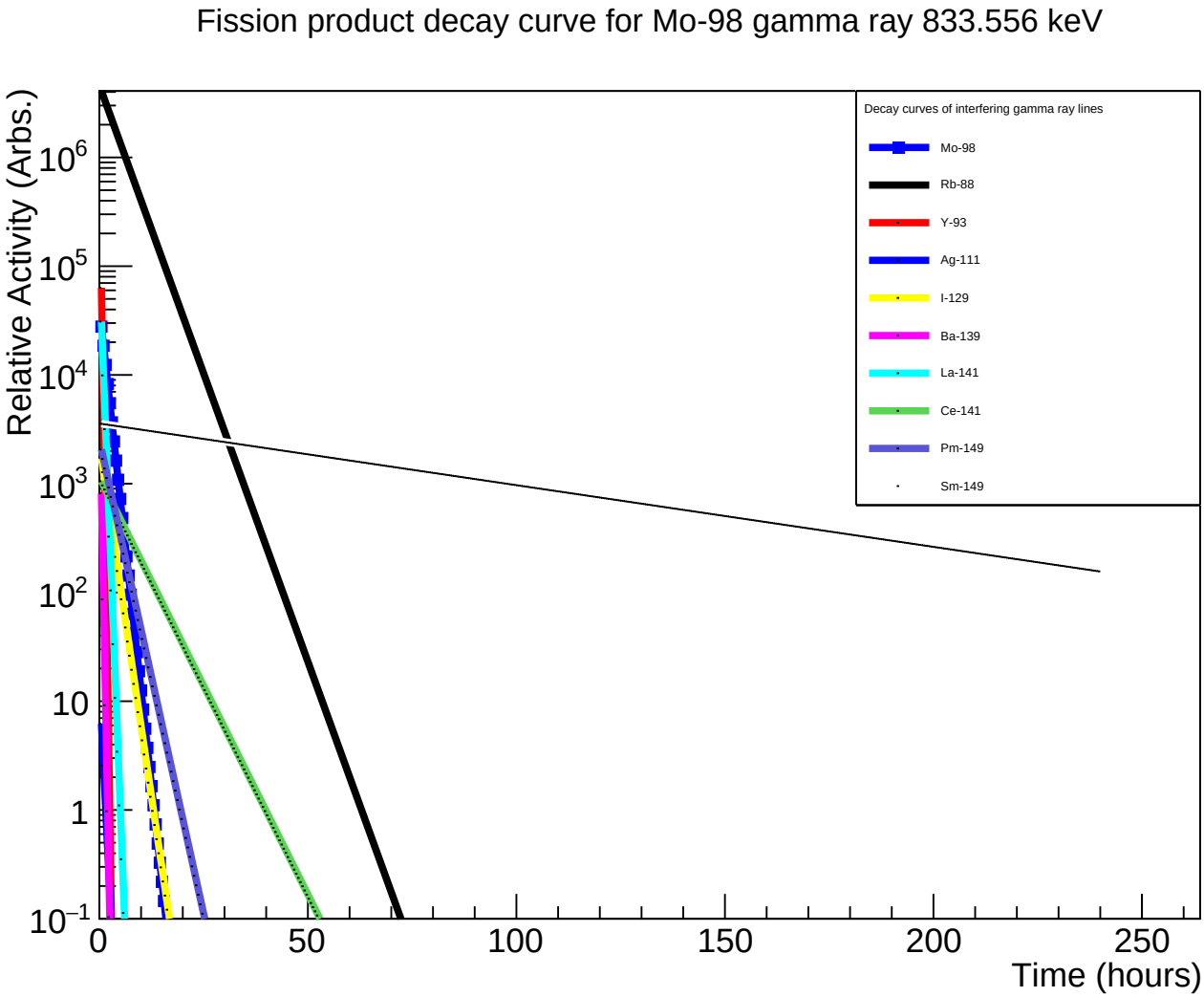


Figure 229: Mo-98 decay curve for 833.556 keV gamma ray.

3.230 Nb-98 E_γ = 909.67 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 909.67 keV
Gamma Intensity = 1.28 ± 0.028 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 459: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 460: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	910.180	0.008	0.124	0.062
Sb-128	Te-128	908.800	0.010	9.010	0.000
Sb-128	Te-128	908.300	0.023	0.173	0.003
Sb-131	Te-131	911.000	0.007	0.384	0.026
Te-131	I-131	910.000	0.032	33.250	0.004
Te-133	I-133	910.000	0.001	0.208	0.031
I-132	Xe-132	910.100	0.009	2.295	0.043
I-133	Xe-133	909.670	0.002	20.800	0.067
Ba-141	La-141	909.300	0.001	0.304	0.058
Sm-155	Eu-155	911.000	0.000	0.372	0.000

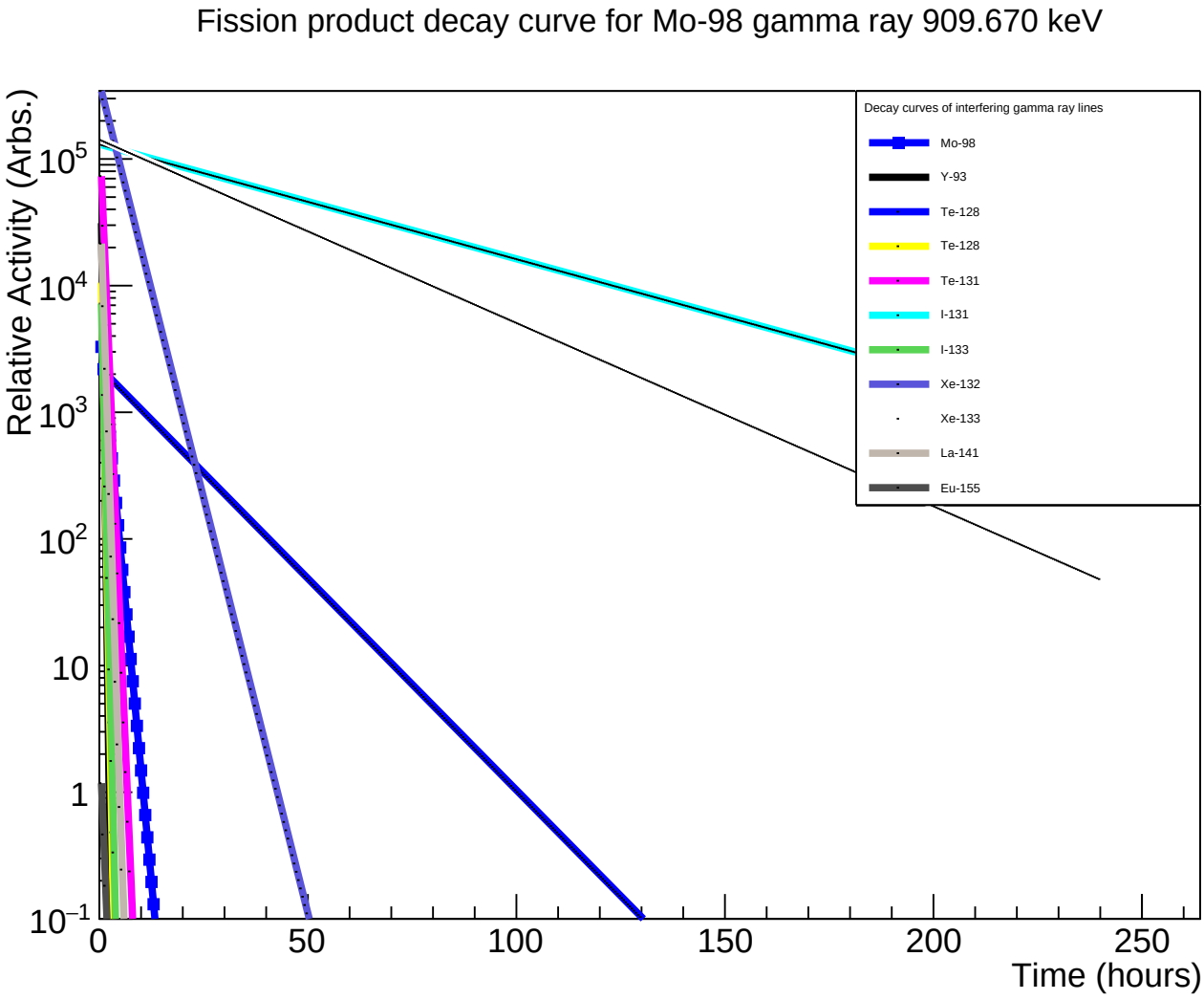


Figure 230: Mo-98 decay curve for 909.670 keV gamma ray.

3.231 Nb-98 E_γ = 992.88 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 992.88 keV
Gamma Intensity = 1.10 ± 0.028 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 461: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 462: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	993.400	0.001	0.150	0.000
Se-83	Br-83	993.000	0.003	0.372	0.003
Sr-91	Y-91	992.200	0.000	9.630	0.058
Sr-93	Y-93	991.590	0.001	0.124	0.062
Sb-130	Te-130	992.100	0.019	0.658	0.008
La-140	Ce-140	992.900	0.000	40.285	0.062
Nd-149	Pm-149	992.830	0.000	1.728	0.011
Nd-149	Pm-149	993.050	0.000	1.728	0.011

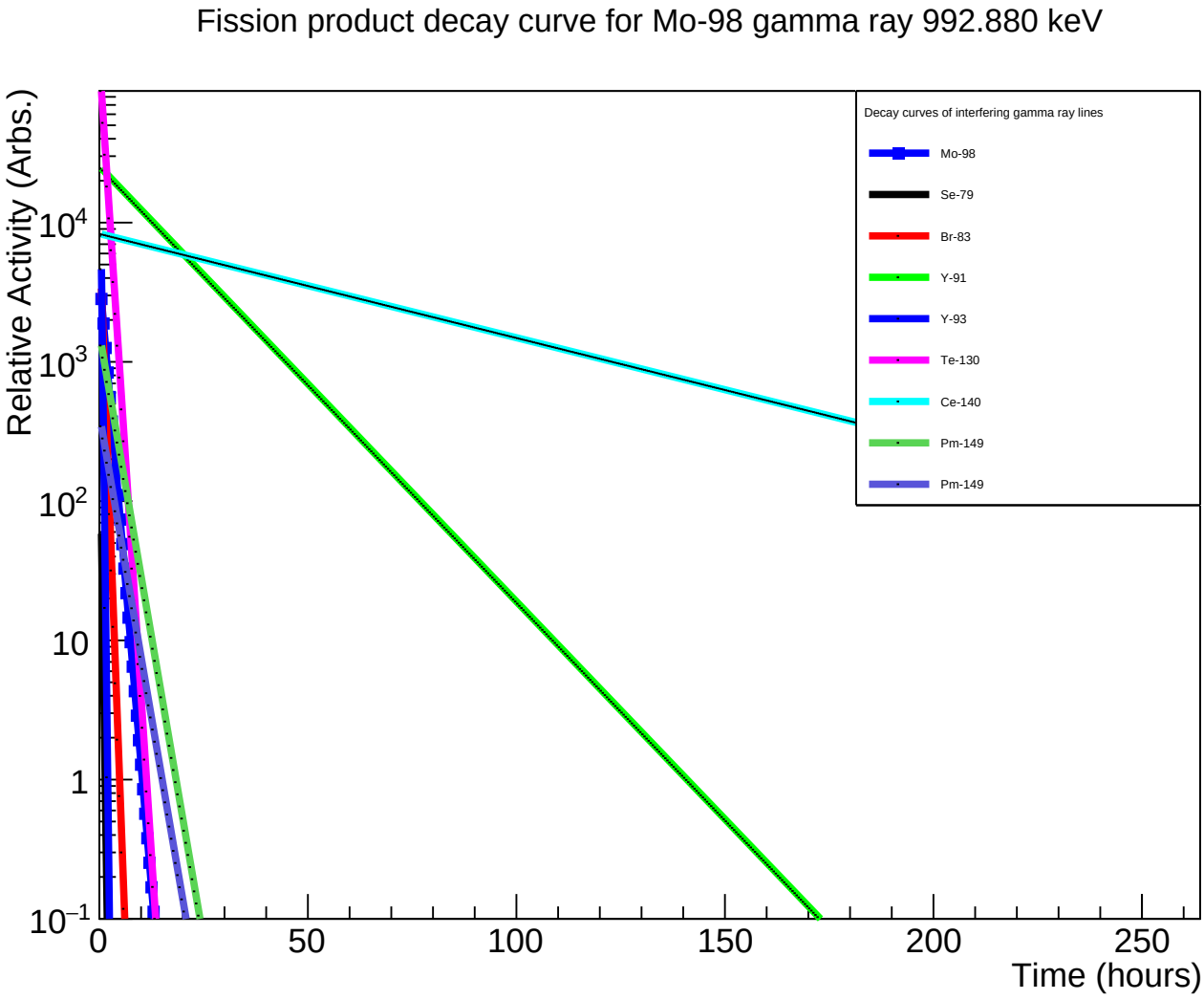


Figure 231: Mo-98 decay curve for 992.880 keV gamma ray.

3.232 Nb-98 E_γ = 996.30 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 996.30 keV
Gamma Intensity = 2.07 ± 0.038 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 463: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 464: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	995.930	0.013	0.372	0.003
Te-131	I-131	997.250	0.033	0.417	0.025
Te-131	I-131	995.100	0.001	33.250	0.004
Te-133	I-133	995.090	0.007	0.208	0.031
Te-133	I-133	997.660	0.010	0.208	0.031
Te-133	I-133	995.090	0.005	0.923	0.040
Te-133	I-133	996.100	0.004	0.923	0.040
I-132	Xe-132	995.800	0.000	2.295	0.043
I-135	Xe-135	995.090	0.002	6.570	0.063
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Pr-147	Nd-147	996.000	0.015	0.223	0.022

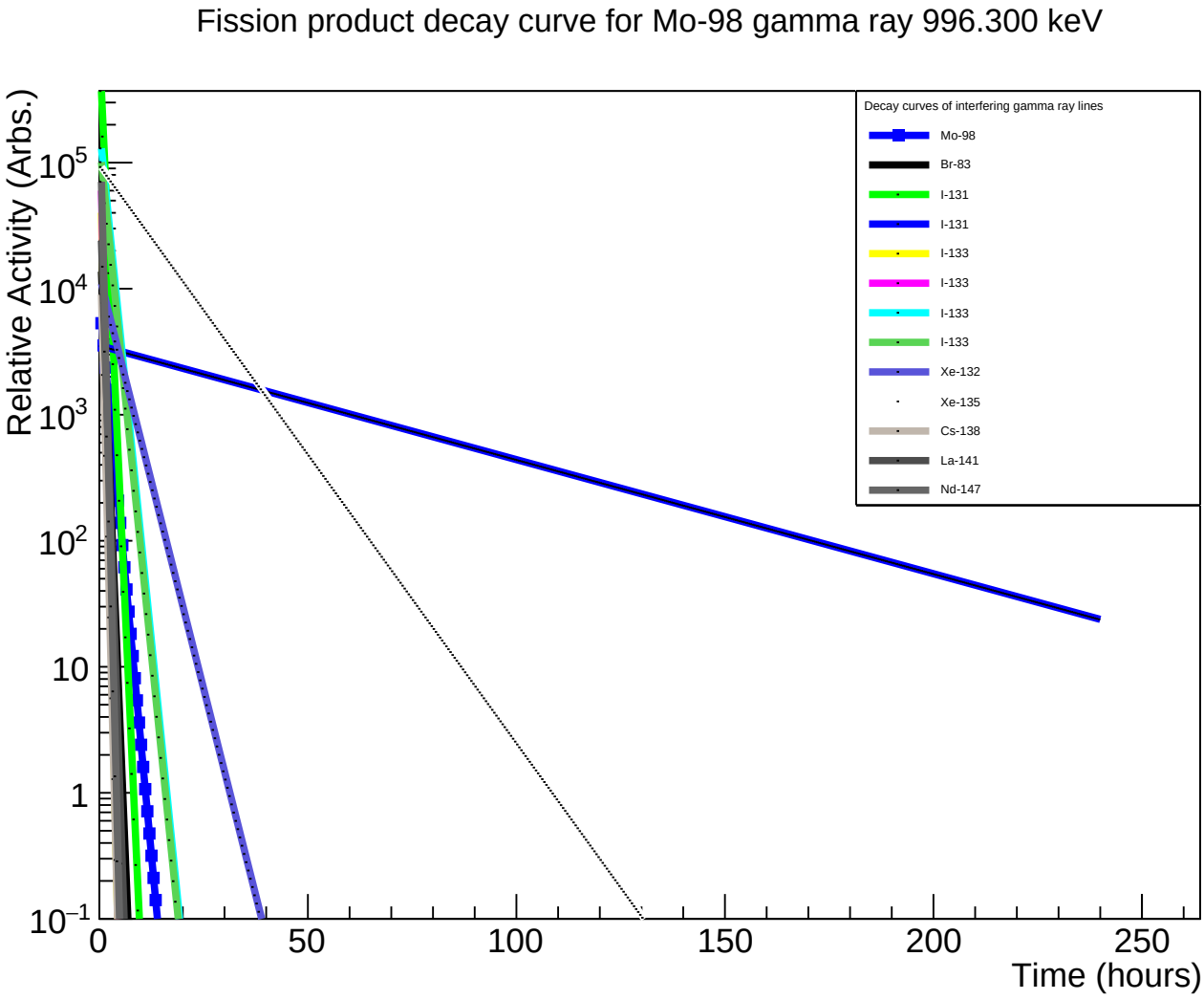


Figure 232: Mo-98 decay curve for 996.300 keV gamma ray.

3.233 Nb-98 E_γ = 1023.70 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1023.70 keV
Gamma Intensity = 1.02 ± 0.065 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 465: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 466: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1024.300	0.335	9.630	0.058
Te-129	I-129	1022.430	0.000	1.160	0.005
Te-129	I-129	1022.430	0.000	806.400	0.001
Te-131	I-131	1023.600	0.001	33.250	0.004
Nd-149	Pm-149	1022.780	0.001	1.728	0.011

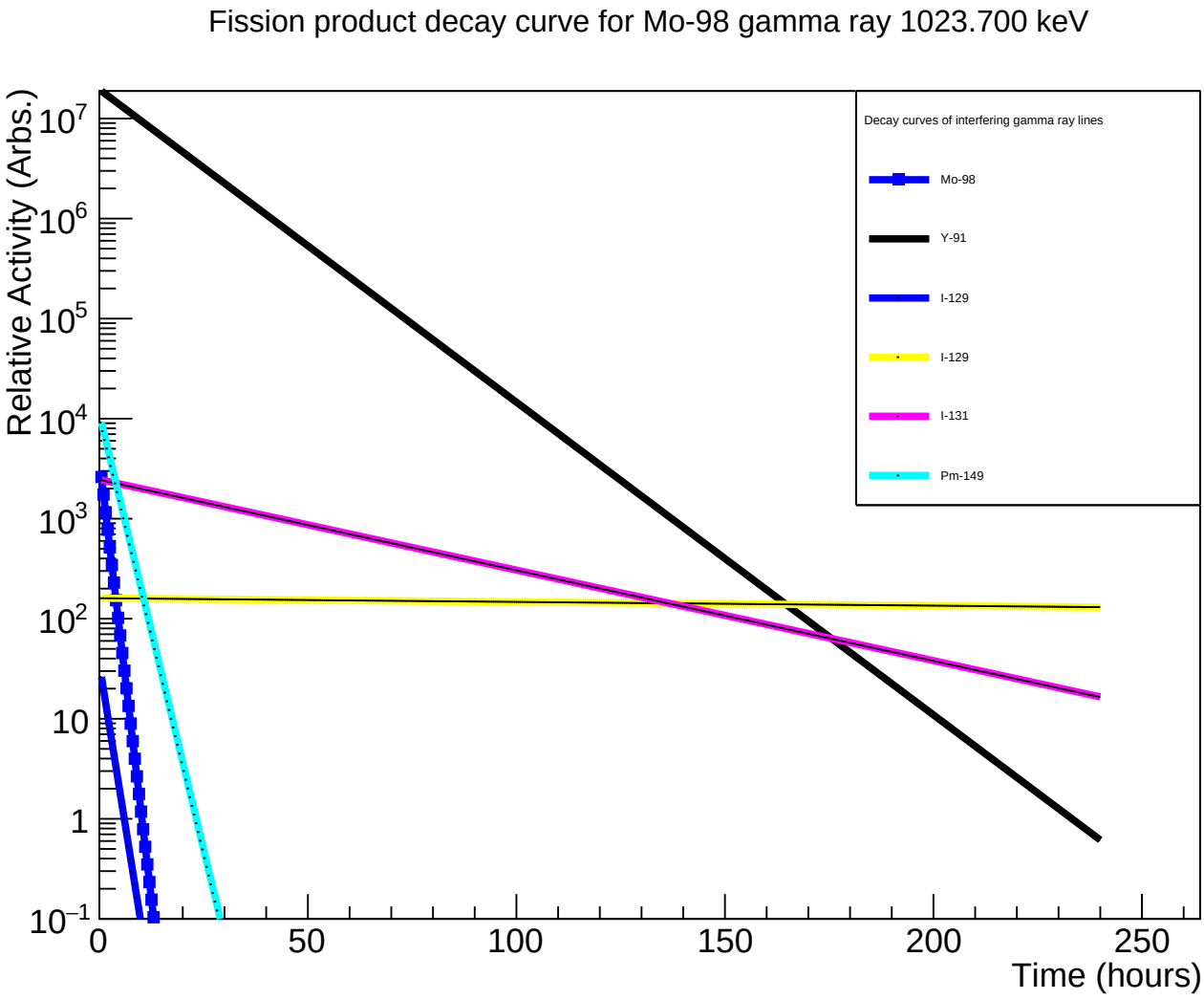


Figure 233: Mo-98 decay curve for 1023.700 keV gamma ray.

3.234 Nb-98 E_γ = 1168.83 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1168.83 keV
Gamma Intensity = 17.84 ± 0.376 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 467: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 468: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1169.500	0.001	1.512	0.000
Y-93	Zr-93	1168.600	0.000	10.180	0.063
Mo-101	Tc-101	1169.230	0.002	0.243	0.052
Sb-129	Te-129	1167.800	0.003	4.400	0.005
Te-129	I-129	1168.800	0.000	1.160	0.005
I-135	Xe-135	1169.040	0.009	6.570	0.063
La-143	Ce-143	1167.900	0.001	0.237	0.059
Nd-151	Pm-151	1169.200	0.002	0.207	0.004
Eu-156	Gd-156	1169.120	0.003	364.560	0.000

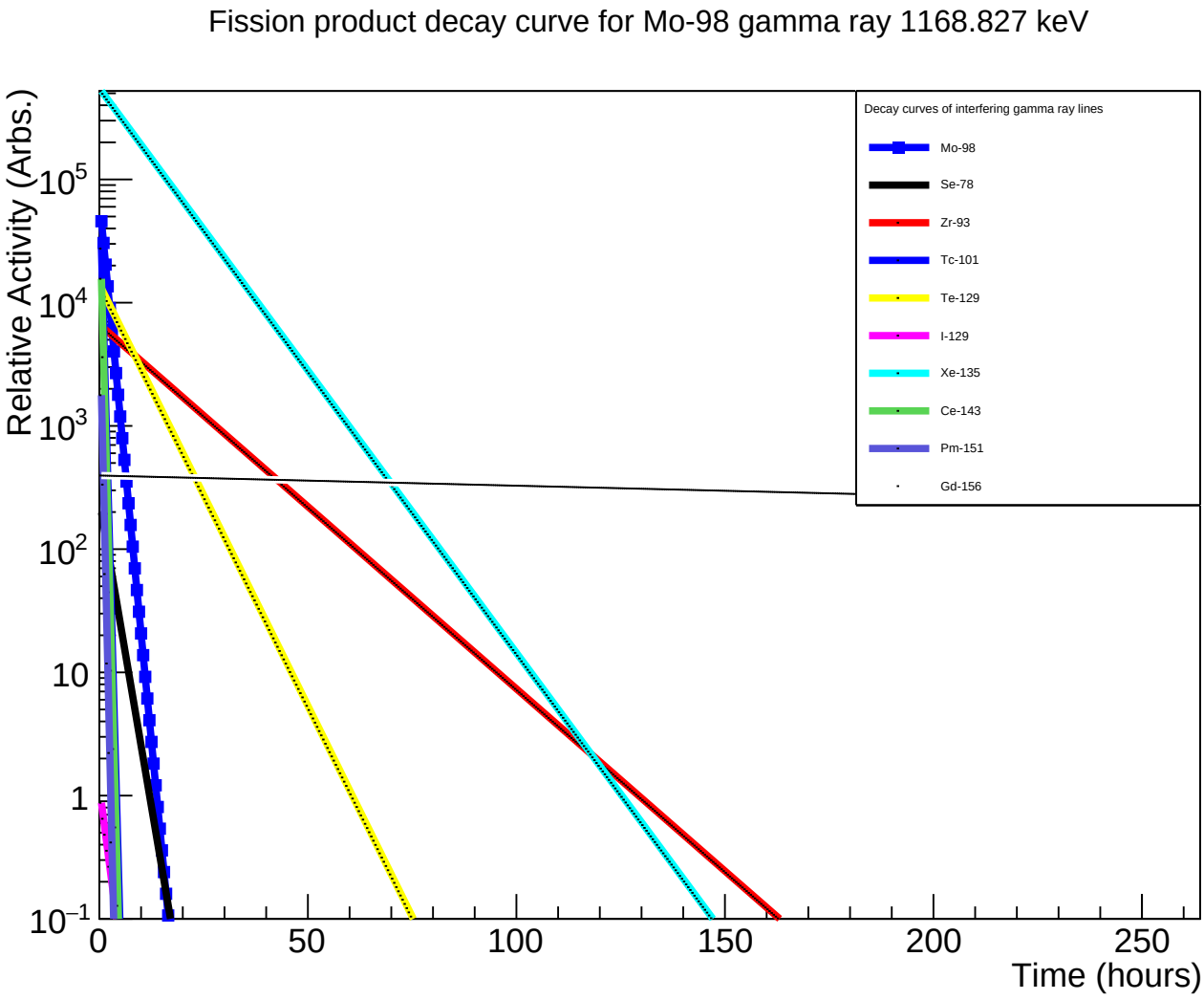


Figure 234: Mo-98 decay curve for 1168.827 keV gamma ray.

3.235 Nb-98 E_γ = 1230.15 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1230.15 keV
Gamma Intensity = 1.42 ± 0.038 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 469: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 470: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	1229.500	0.000	4.440	0.010
Te-133	I-133	1229.600	0.002	0.923	0.040
Ba-142	La-142	1230.200	0.001	0.177	0.058
La-142	Ce-142	1231.300	0.000	1.518	0.058
Pr-147	Nd-147	1230.400	0.002	0.223	0.022
Eu-156	Gd-156	1230.710	0.080	364.560	0.000

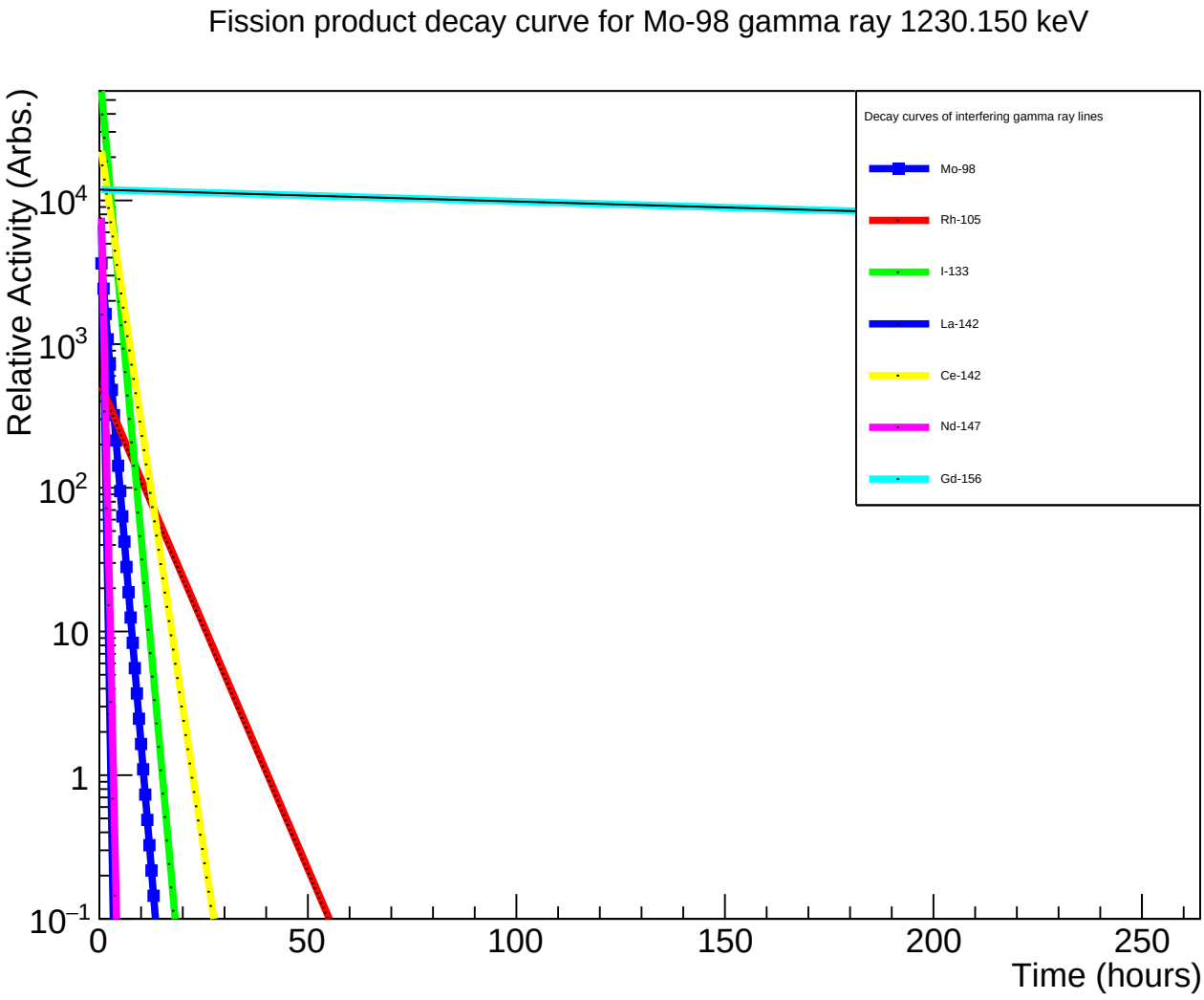


Figure 235: Mo-98 decay curve for 1230.150 keV gamma ray.

3.236 Nb-98 E_γ = 1335.45 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1335.45 keV
Gamma Intensity = 1.24 ± 0.019 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 471: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 472: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1335.810	0.001	2.840	0.036
Sr-93	Y-93	1334.500	0.007	0.124	0.062
Mo-101	Tc-101	1336.400	0.002	0.243	0.052
Te-133	I-133	1334.000	0.003	0.923	0.040
I-134	Xe-134	1336.000	0.001	0.875	0.078
I-135	Xe-135	1334.800	0.000	6.570	0.063
Pr-145	Nd-145	1336.650	0.000	5.984	0.039

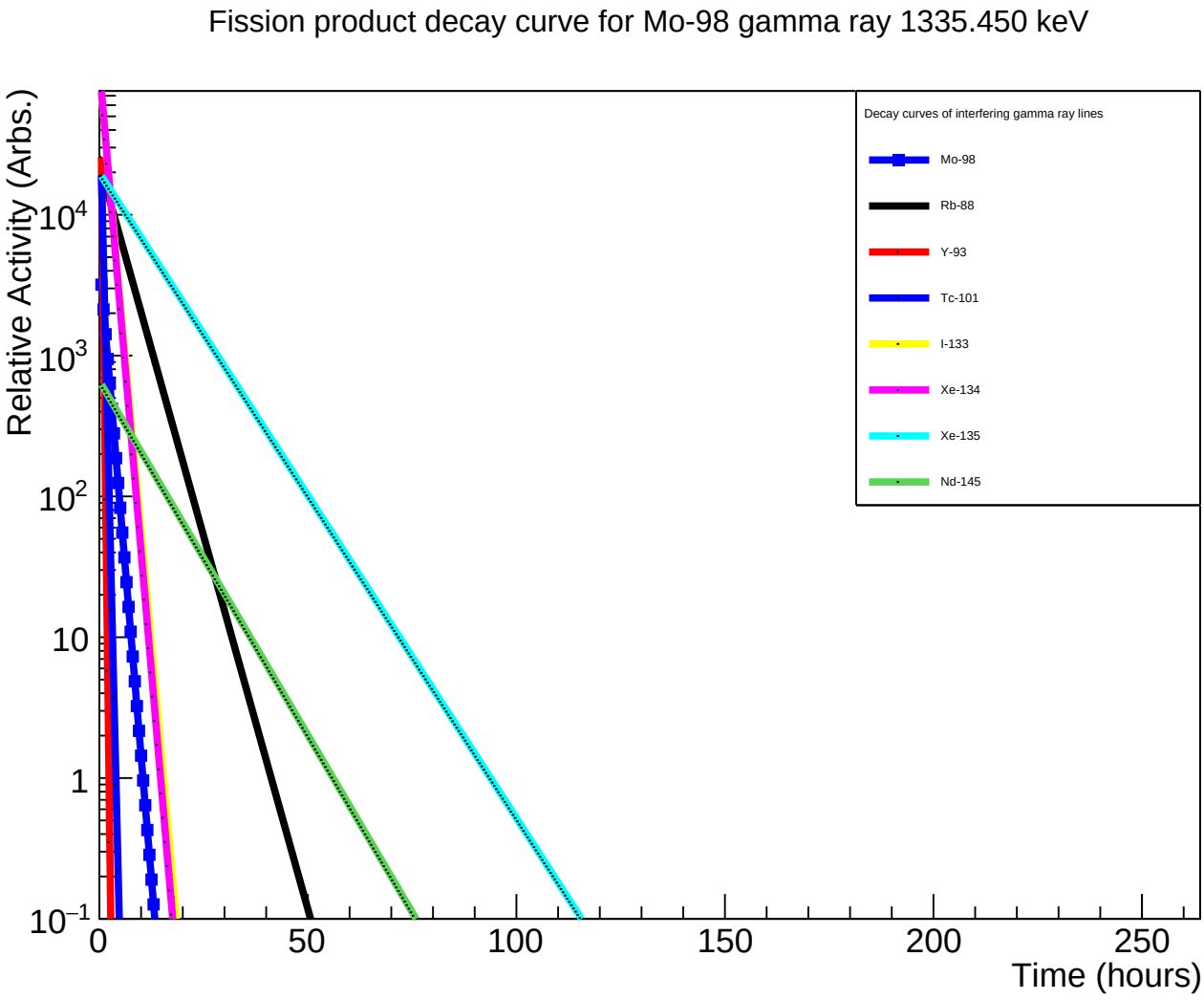


Figure 236: Mo-98 decay curve for 1335.450 keV gamma ray.

3.237 Nb-98 E_γ = 1432.18 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1432.18 keV
Gamma Intensity = 4.97 ± 0.048 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 473: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 474: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1431.680	0.004	0.243	0.052
I-134	Xe-134	1431.350	0.002	0.875	0.078

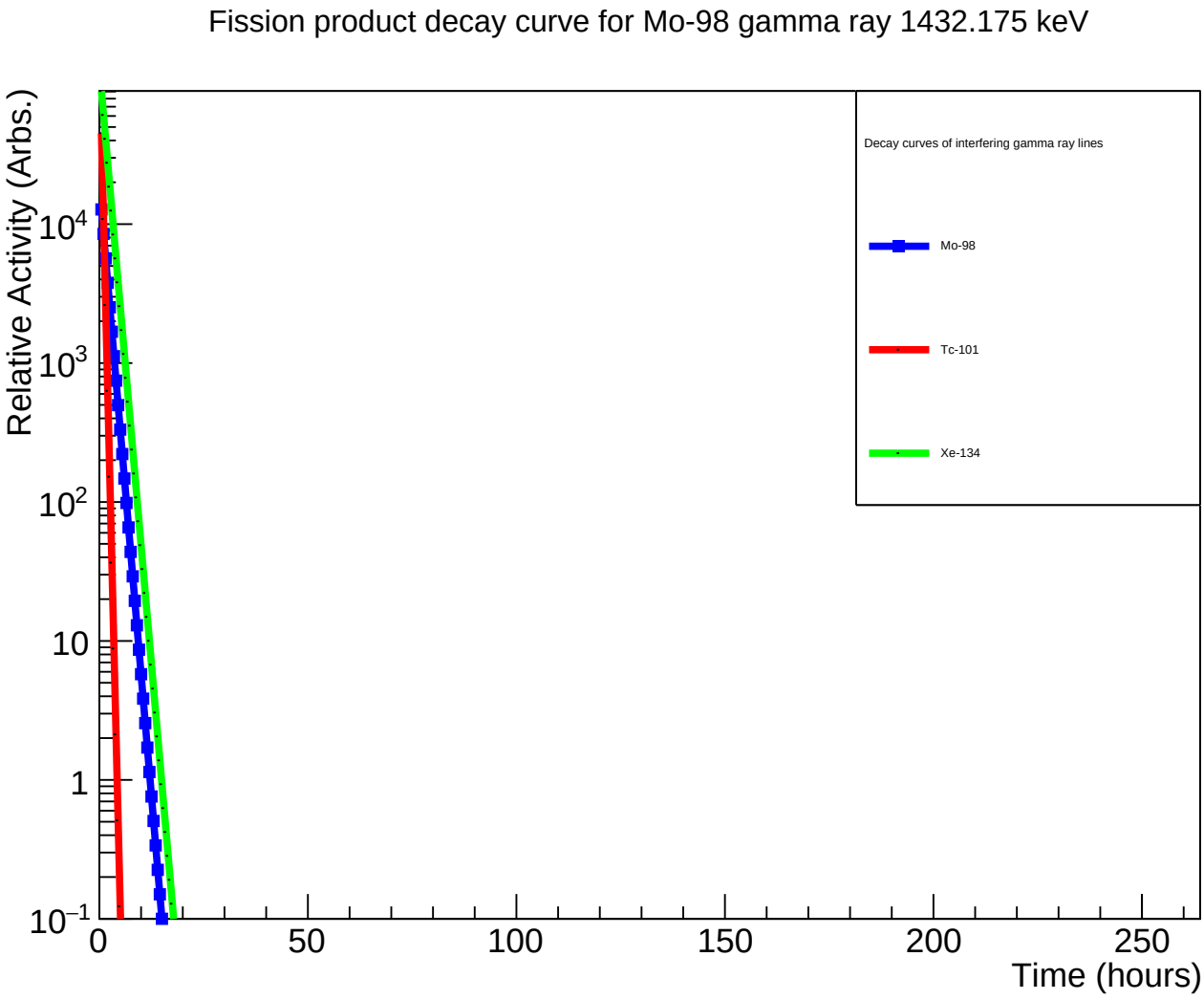


Figure 237: Mo-98 decay curve for 1432.175 keV gamma ray.

3.238 Nb-98 E_γ = 1436.42 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1436.42 keV
Gamma Intensity = 2.52 ± 0.038 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 475: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 476: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1436.000	0.009	0.372	0.003
Mo-101	Tc-101	1435.100	0.001	0.243	0.052
Tc-104	Ru-104	1436.300	0.004	0.305	0.019
Sb-129	Te-129	1436.100	0.003	4.400	0.005
Cs-138	Ba-138	1435.860	0.763	0.557	0.067
Ba-141	La-141	1436.600	0.009	0.304	0.058
Ba-141	La-141	1437.800	0.002	0.304	0.058
Pr-146	Nd-146	1436.000	0.002	0.403	0.030

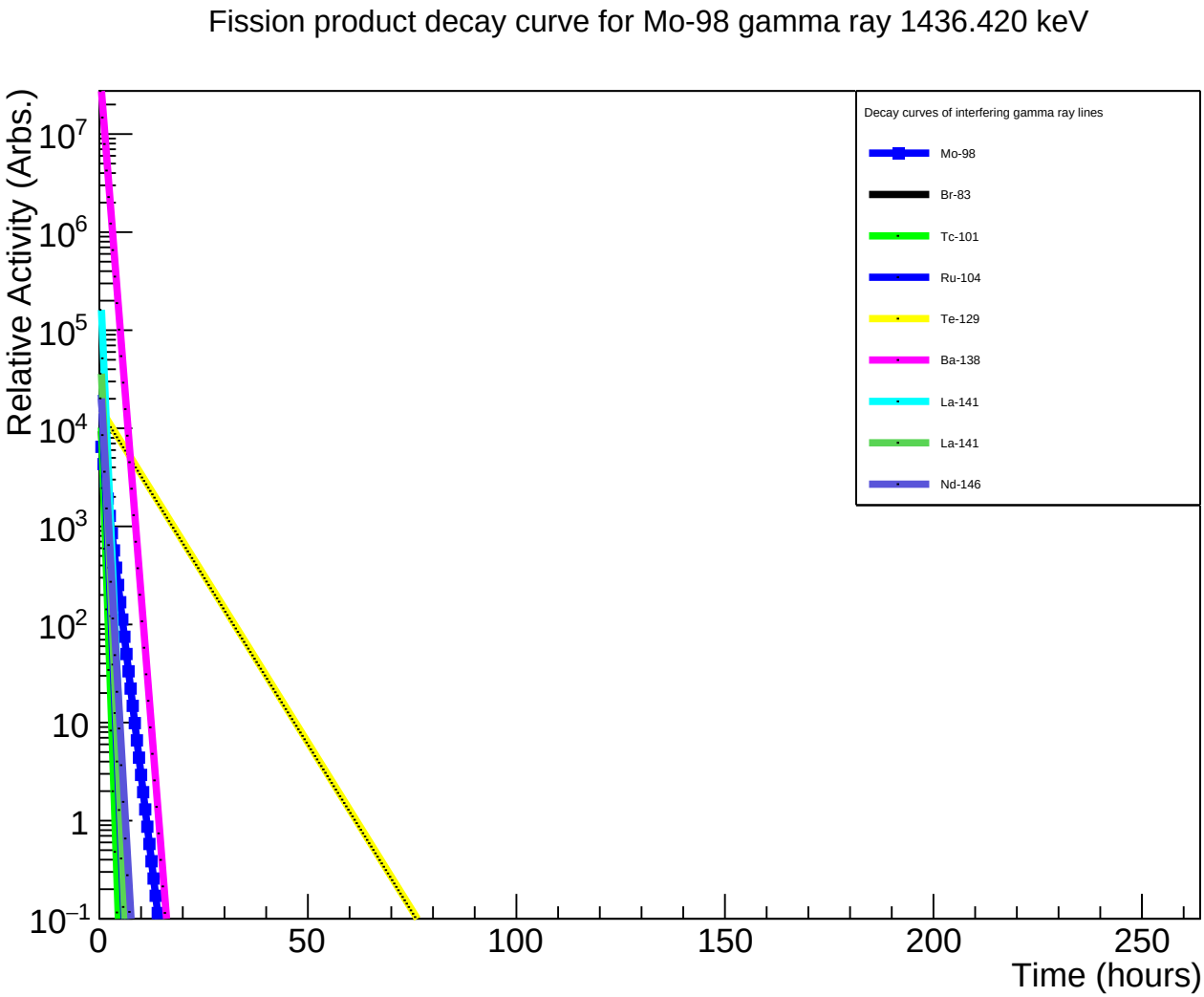


Figure 238: Mo-98 decay curve for 1436.420 keV gamma ray.

3.239 Nb-98 E_γ = 1511.68 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1511.68 keV
Gamma Intensity = 4.82 ± 0.048 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 477: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 478: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1511.800	0.001	0.124	0.062
Y-95	Zr-95	1511.500	0.003	0.172	0.064
Tc-105	Ru-105	1510.600	0.024	0.127	0.010
La-141	Ce-141	1512.100	0.000	3.920	0.058

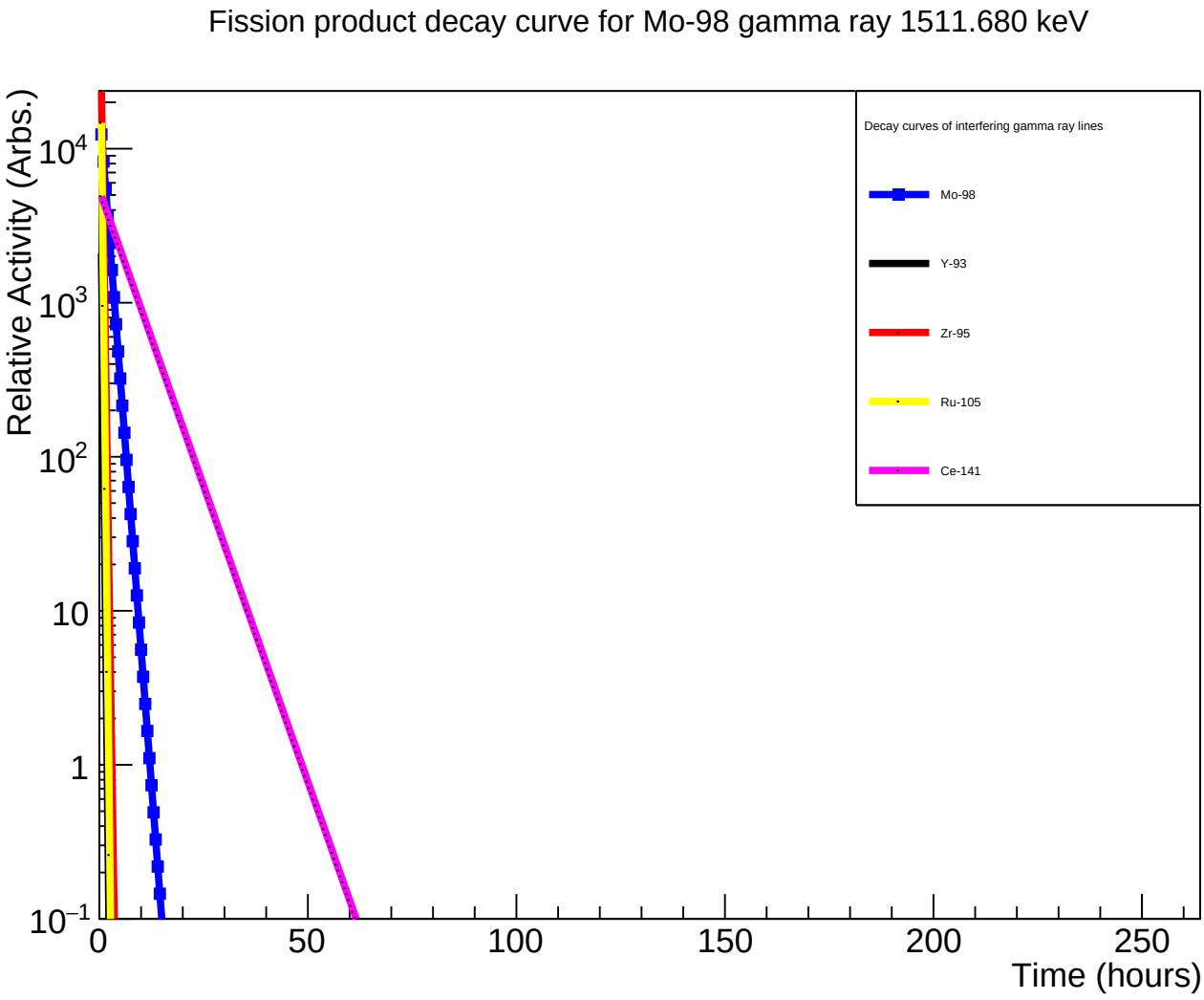


Figure 239: Mo-98 decay curve for 1511.680 keV gamma ray.

3.240 Nb-98 E_γ = 1540.92 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1540.92 keV
Gamma Intensity = 1.96 ± 0.038 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 479: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 480: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1541.300	0.011	0.305	0.019
Sb-129	Te-129	1540.000	0.001	4.400	0.005
I-132	Xe-132	1542.300	0.000	2.295	0.043
I-134	Xe-134	1541.510	0.005	0.875	0.078
Ba-141	La-141	1540.200	0.001	0.304	0.058
Ba-141	La-141	1540.200	0.001	0.304	0.058
La-142	Ce-142	1540.200	0.005	1.518	0.058
Nd-151	Pm-151	1540.000	0.000	0.207	0.004

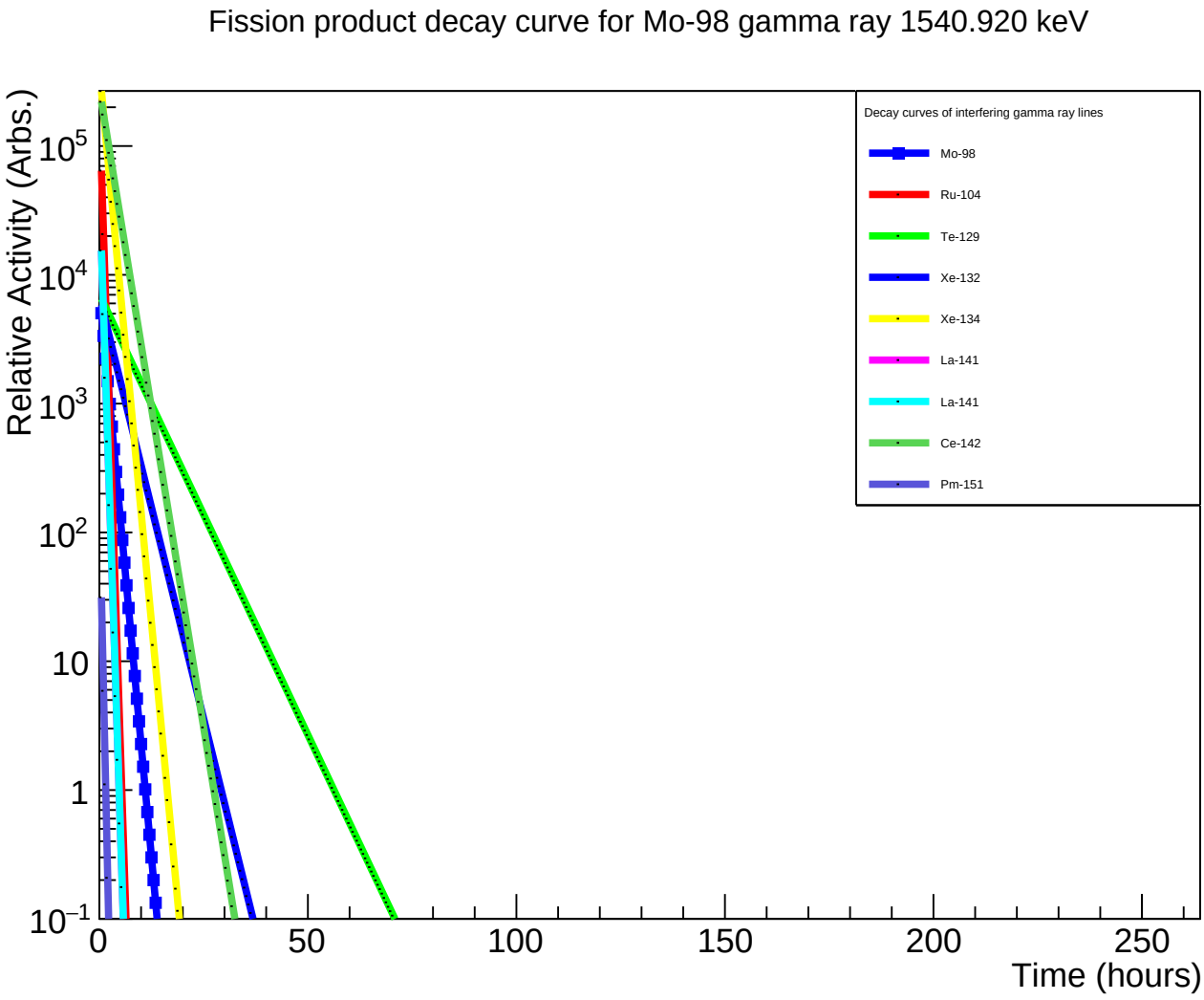


Figure 240: Mo-98 decay curve for 1540.920 keV gamma ray.

3.241 Nb-98 E_γ = 1546.03 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1546.03 keV
Gamma Intensity = 3.93 ± 0.075 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 481: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 482: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1545.900	0.001	9.630	0.058
Cs-139	Ba-139	1546.630	0.000	0.155	0.063
Ba-141	La-141	1547.100	0.000	0.304	0.058
La-142	Ce-142	1545.800	0.030	1.518	0.058

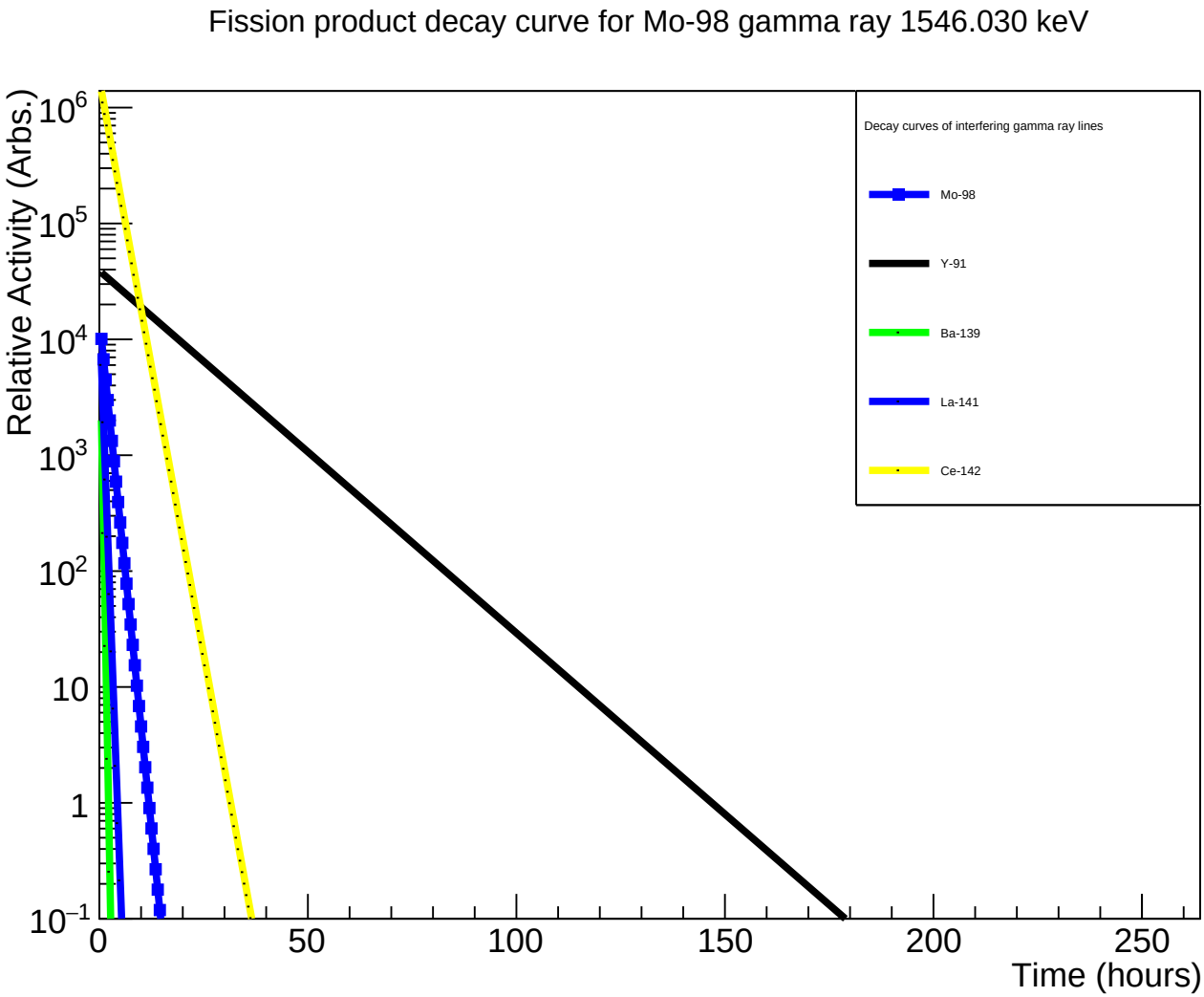


Figure 241: Mo-98 decay curve for 1546.030 keV gamma ray.

3.242 Nb-98 E_γ = 1701.50 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1701.50 keV
Gamma Intensity = 8.87 ± 0.095 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 483: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 484: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

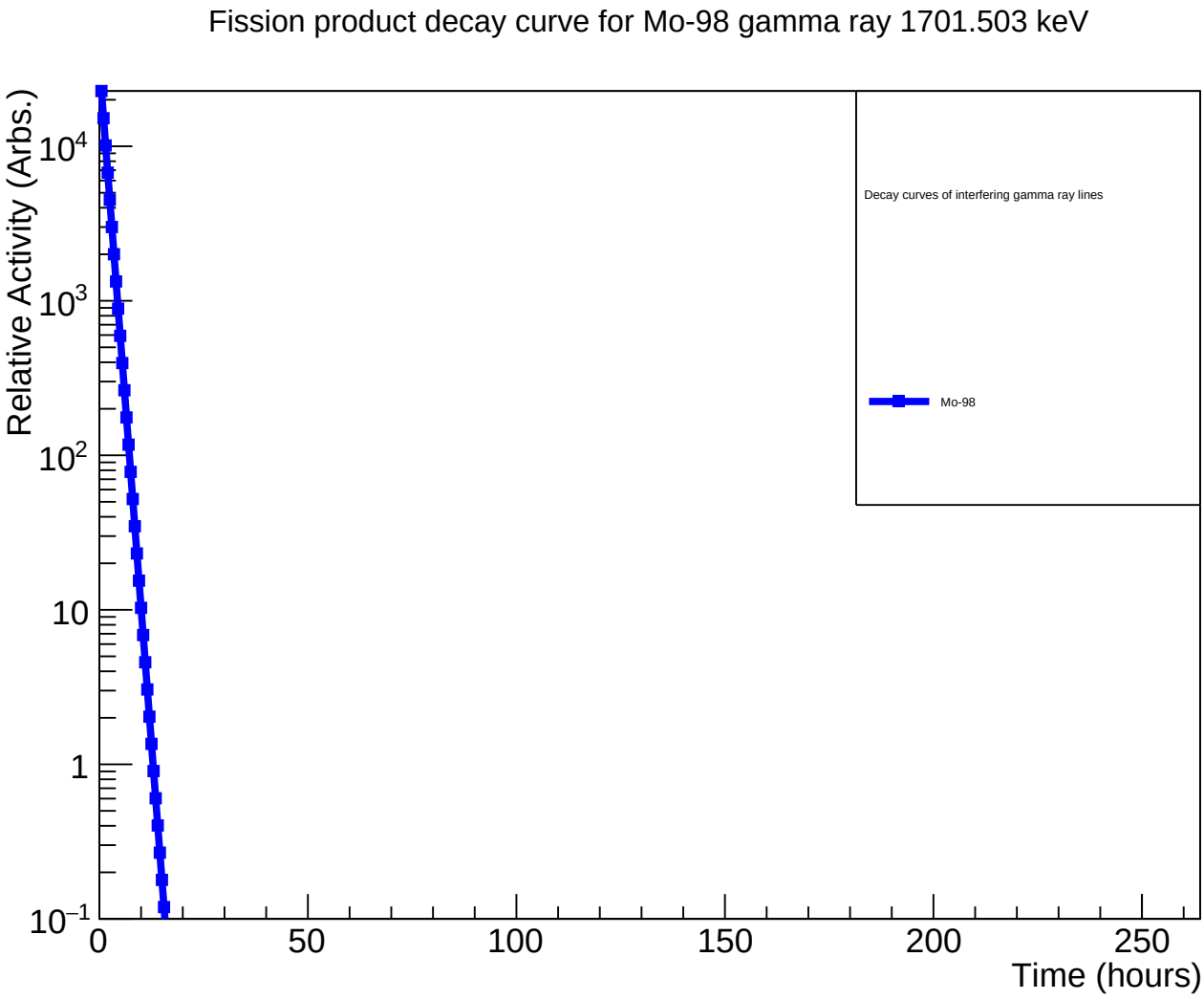


Figure 242: Mo-98 decay curve for 1701.503 keV gamma ray.

3.243 Nb-98 E_γ = 1884.40 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1884.40 keV
Gamma Intensity = 2.89 ± 0.029 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 485: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 486: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	1885.100	0.000	3.540	0.060
Sb-130	Te-130	1884.400	0.007	0.658	0.008
Te-133	I-133	1885.620	0.009	0.923	0.040
Pr-144	Nd-144	1885.300	0.000	0.120	0.000

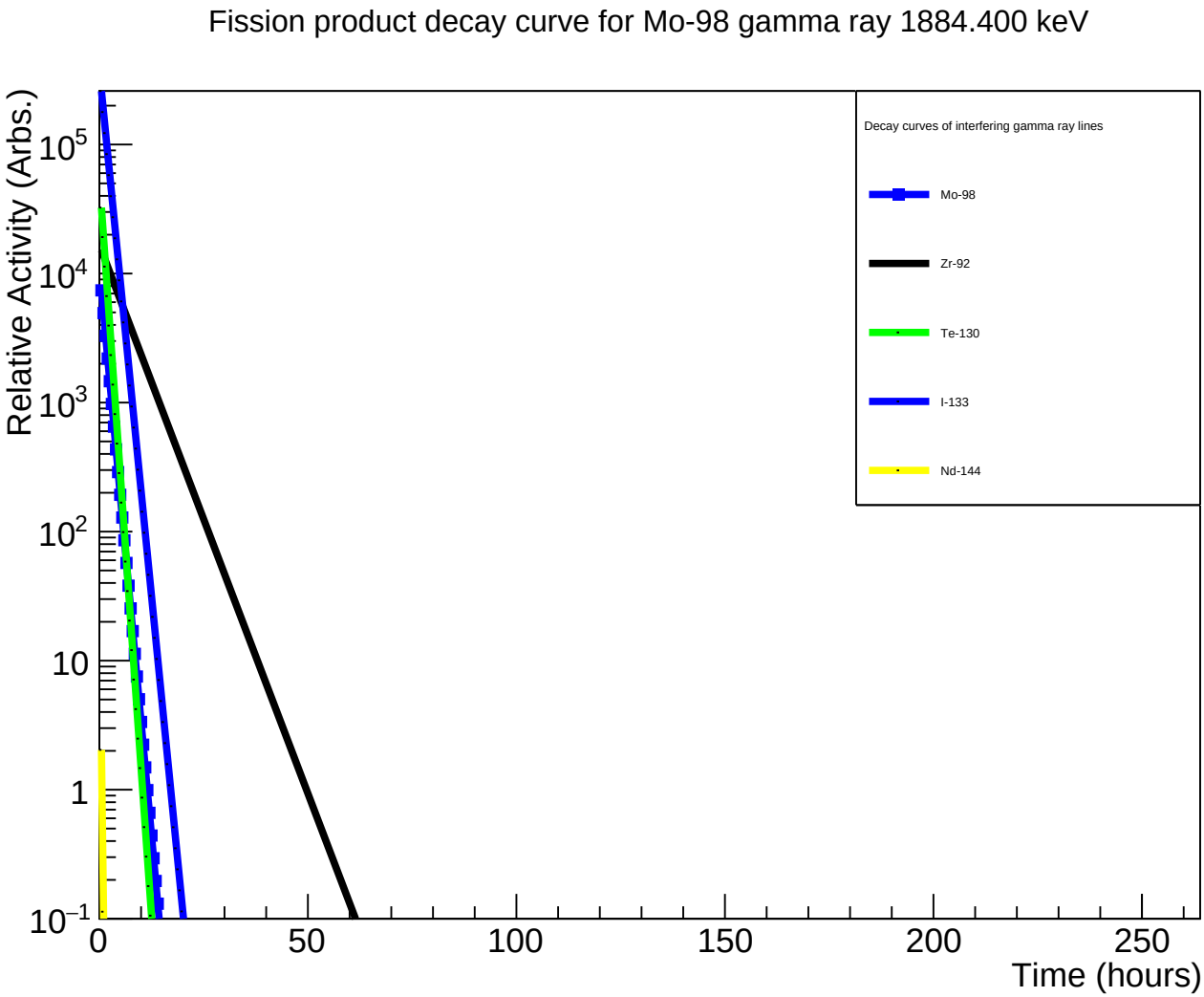


Figure 243: Mo-98 decay curve for 1884.400 keV gamma ray.

3.244 Nb-98 E_γ = 1945.01 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1945.01 keV
Gamma Intensity = 1.38 ± 0.019 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 487: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 488: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1944.750	0.006	0.124	0.062
Ag-112	Cd-112	1944.700	0.001	3.130	0.000
Te-133	I-133	1943.800	0.001	0.208	0.031
La-141	Ce-141	1943.700	0.000	3.920	0.058
Eu-156	Gd-156	1946.340	0.002	364.560	0.000

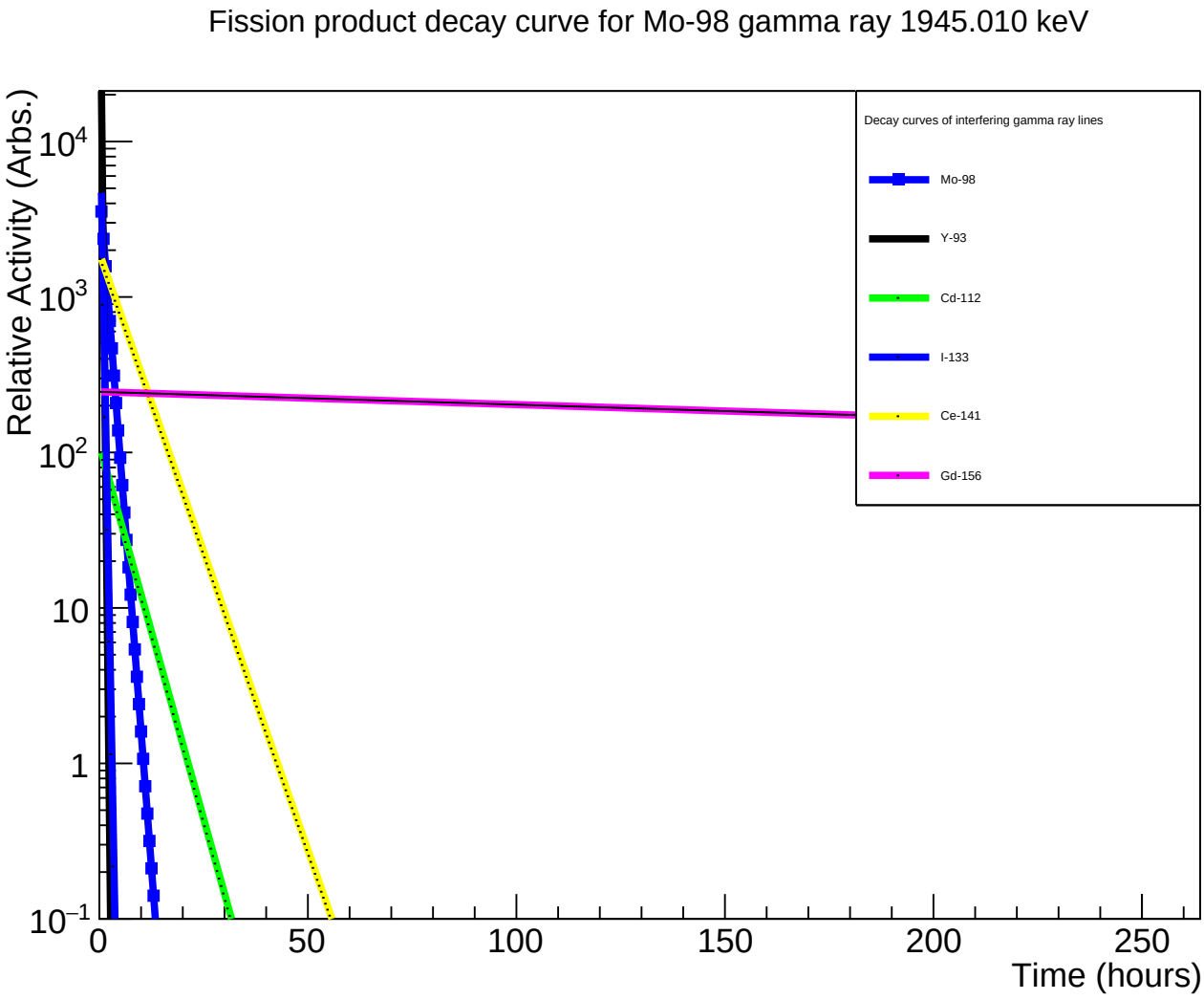


Figure 244: Mo-98 decay curve for 1945.010 keV gamma ray.

3.245 Nb-98 E_γ = 1980.17 keV

Chemical element: Niobium
Fission product parent: Nb-98
Gamma originates in daughter: Mo-98
Eγ: 1980.17 keV
Gamma Intensity = 3.24 ± 0.029 %
$T_{1/2}$ = 0.855 ± 0.007 hours or 51.30 ± 0.40 minutes
CFY: 0.038 ± 0.025 %

Table 489: Decay chain of fission product chain A = 98

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rubidium-98	Strontium-98	0.000	0.000
Strontium-98	Yttrium-98	0.000	0.000
Yttrium-98	Zirconium-98	0.000	0.000

Table 490: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1979.700	0.000	0.252	0.047
Sr-93	Y-93	1981.400	0.000	0.124	0.062
Te-131	I-131	1980.300	0.000	33.250	0.004
La-143	Ce-143	1980.190	0.003	0.237	0.059
Pr-144	Nd-144	1978.820	0.000	0.288	0.055
Nd-151	Pm-151	1980.200	0.000	0.207	0.004

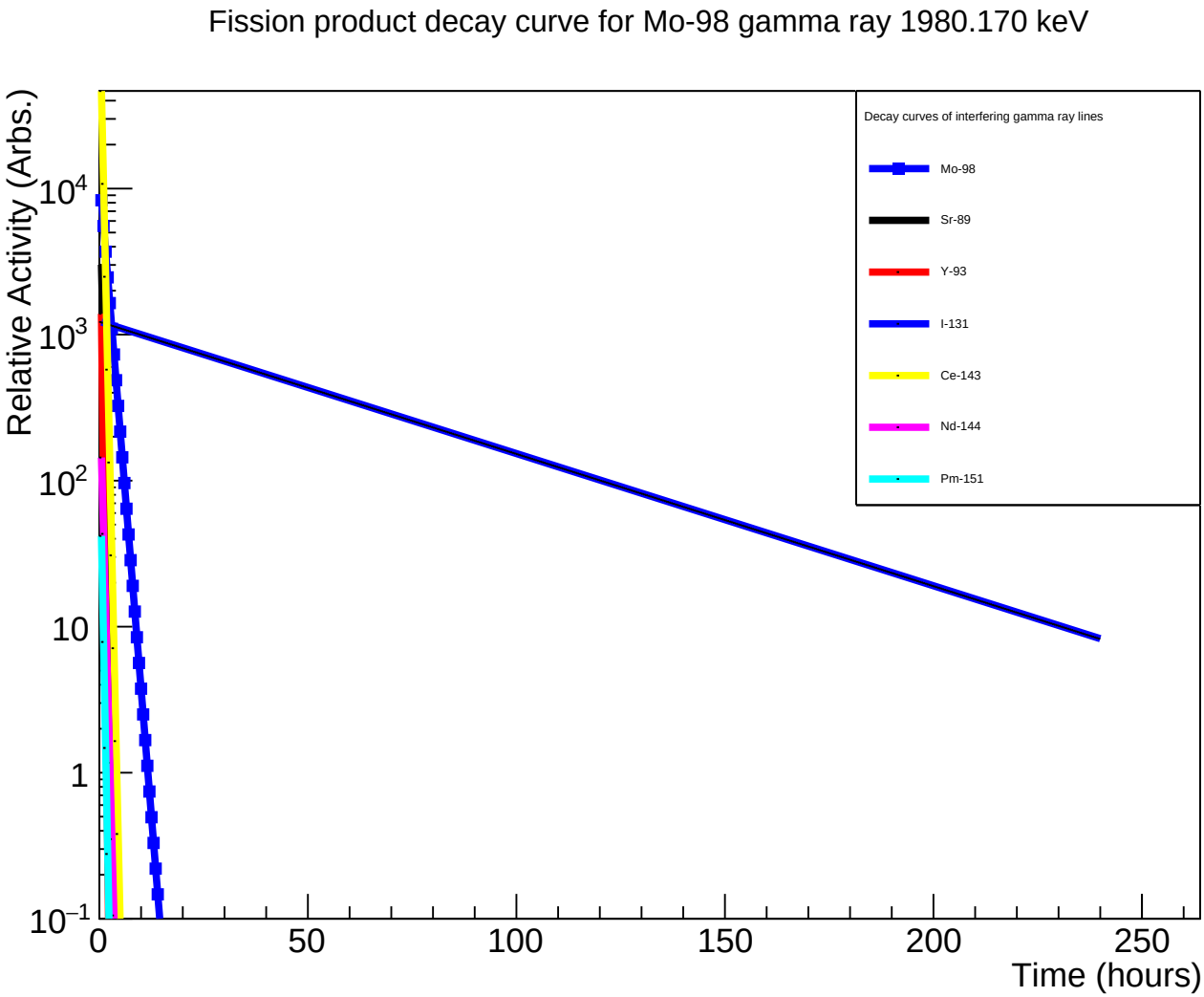


Figure 245: Mo-98 decay curve for 1980.170 keV gamma ray.

3.246 Mo-99 E_γ = 40.58 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 40.58 keV
Gamma Intensity = 1.06 ± 0.037 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 491: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

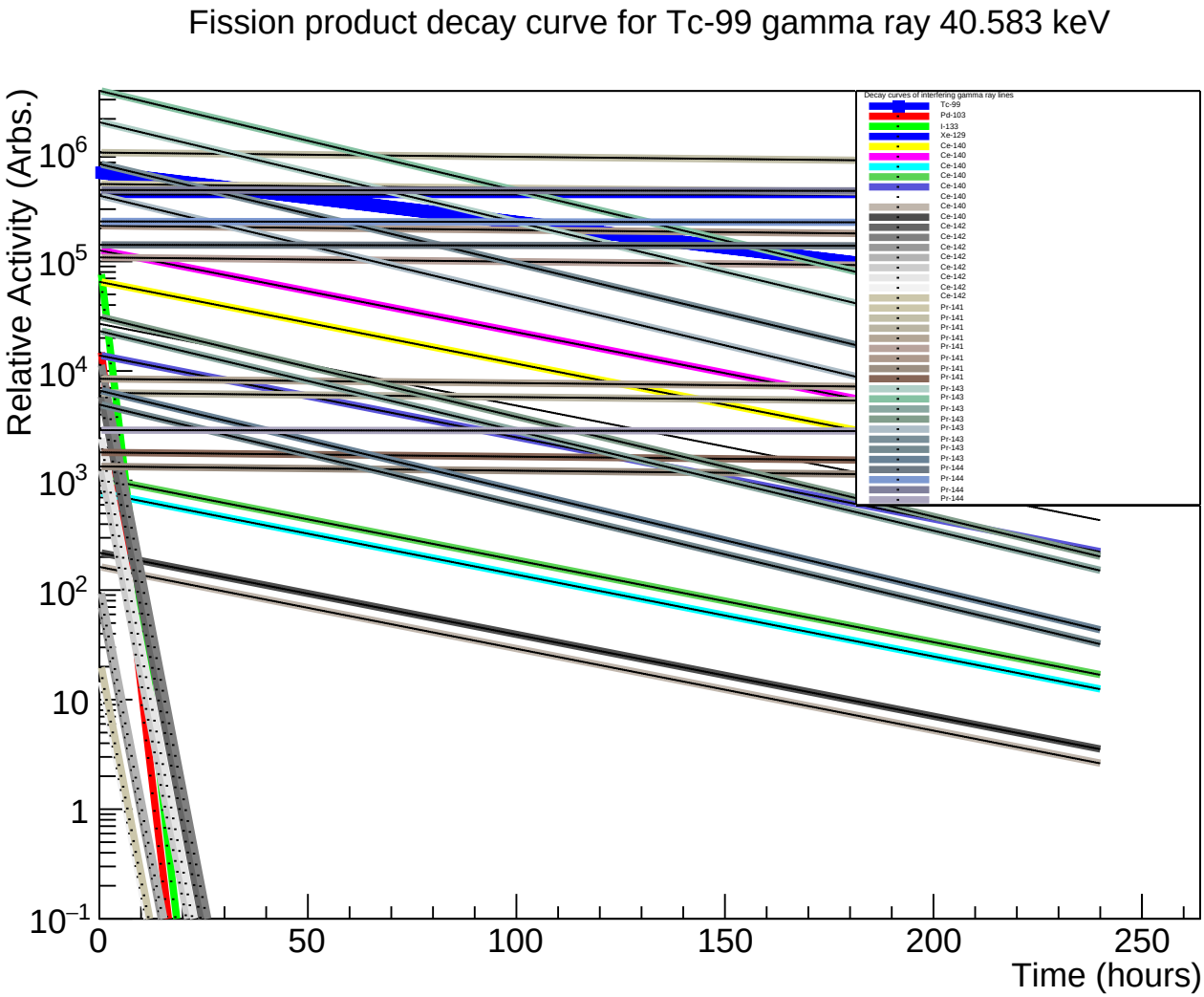


Figure 246: Tc-99 decay curve for 40.583 keV gamma ray.

Table 492: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-103	Pd-103	39.755	0.001	0.935	0.030
Te-133	I-133	39.900	0.003	0.923	0.040
I-129	Xe-129	39.578	0.075	137500000256.000	0.005
La-140	Ce-140	39.196	0.001	40.285	0.062
La-140	Ce-140	39.285	0.002	40.285	0.062
La-140	Ce-140	39.550	0.000	40.285	0.062
La-140	Ce-140	39.570	0.000	40.285	0.062
La-140	Ce-140	40.227	0.000	40.285	0.062
La-140	Ce-140	40.247	0.000	40.285	0.062
La-140	Ce-140	40.340	0.000	40.285	0.062
La-140	Ce-140	40.344	0.000	40.285	0.062
La-142	Ce-142	39.196	0.000	1.518	0.058
La-142	Ce-142	39.285	0.000	1.518	0.058
La-142	Ce-142	39.550	0.000	1.518	0.058
La-142	Ce-142	39.570	0.000	1.518	0.058
La-142	Ce-142	40.227	0.000	1.518	0.058
La-142	Ce-142	40.247	0.000	1.518	0.058
La-142	Ce-142	40.340	0.000	1.518	0.058
La-142	Ce-142	40.344	0.000	1.518	0.058
Ce-141	Pr-141	40.684	0.009	780.192	0.058
Ce-141	Pr-141	40.782	0.017	780.192	0.058
Ce-141	Pr-141	41.054	0.000	780.192	0.058
Ce-141	Pr-141	41.075	0.000	780.192	0.058
Ce-141	Pr-141	41.769	0.002	780.192	0.058
Ce-141	Pr-141	41.790	0.004	780.192	0.058
Ce-141	Pr-141	41.888	0.000	780.192	0.058
Ce-141	Pr-141	41.891	0.000	780.192	0.058
Ce-143	Pr-143	40.684	0.031	33.039	0.060
Ce-143	Pr-143	40.782	0.061	33.039	0.060
Ce-143	Pr-143	41.054	0.000	33.039	0.060
Ce-143	Pr-143	41.075	0.001	33.039	0.060
Ce-143	Pr-143	41.769	0.007	33.039	0.060
Ce-143	Pr-143	41.790	0.013	33.039	0.060
Ce-143	Pr-143	41.888	0.000	33.039	0.060
Ce-143	Pr-143	41.891	0.000	33.039	0.060
Ce-144	Pr-144	40.980	0.003	6833.333	0.055
Ce-144	Pr-144	40.684	0.004	6833.333	0.055
Ce-144	Pr-144	40.782	0.008	6833.333	0.055
Ce-144	Pr-144	41.054	0.000	6833.333	0.055

3.247 Mo-99 E_γ = 140.51 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 140.51 keV
Gamma Intensity = 4.54 ± 0.161 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 493: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 494: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	139.330	0.000	4.440	0.010
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Te-131	I-131	141.200	0.000	0.417	0.025
I-134	Xe-134	139.030	0.008	0.875	0.078
Ce-143	Pr-143	139.742	0.001	33.039	0.060
Ce-146	Pr-146	141.290	0.033	0.225	0.030
Pr-147	Nd-147	141.000	0.013	0.223	0.022
Nd-149	Pm-149	139.210	0.005	1.728	0.011
Nd-149	Pm-149	141.060	0.000	1.728	0.011
Pm-151	Sm-151	139.280	0.005	28.400	0.004
Pm-151	Sm-151	141.700	0.000	28.400	0.004
Sm-155	Eu-155	141.411	0.020	0.372	0.000

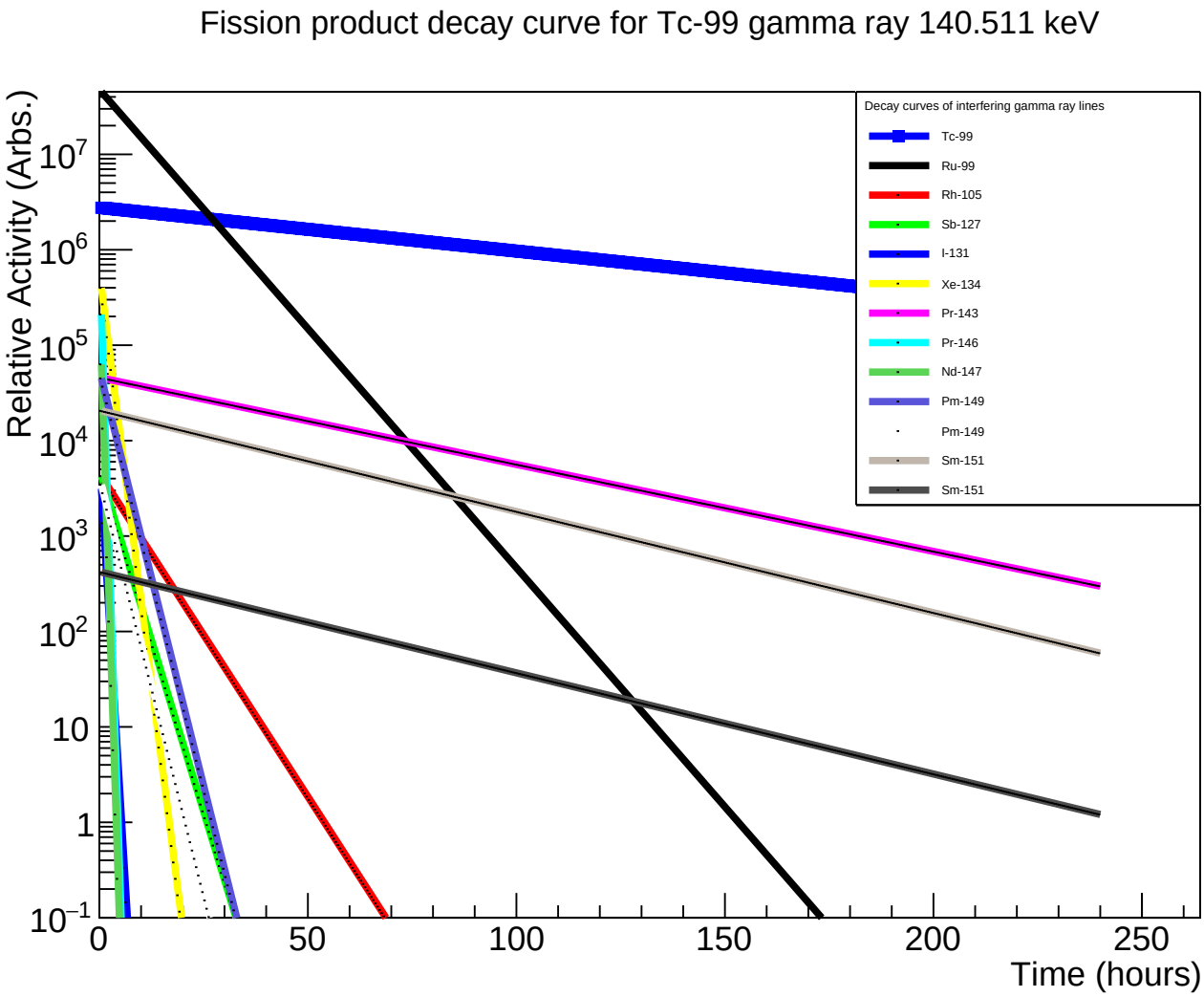


Figure 247: Tc-99 decay curve for 140.511 keV gamma ray.

3.248 Mo-99 E_γ = 181.07 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 181.07 keV
Gamma Intensity = 6.14 ± 0.124 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 495: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 496: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-101	Ru-101	179.600	0.006	0.237	0.052
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Sb-129	Te-129	180.800	0.026	4.400	0.005
Sb-130	Te-130	182.330	0.650	0.658	0.008
Sb-130	Te-130	182.330	0.410	0.105	0.010
Te-131	I-131	182.250	0.017	33.250	0.004
Te-134	I-134	180.891	0.183	0.697	0.070
Ba-141	La-141	180.800	0.005	0.304	0.058

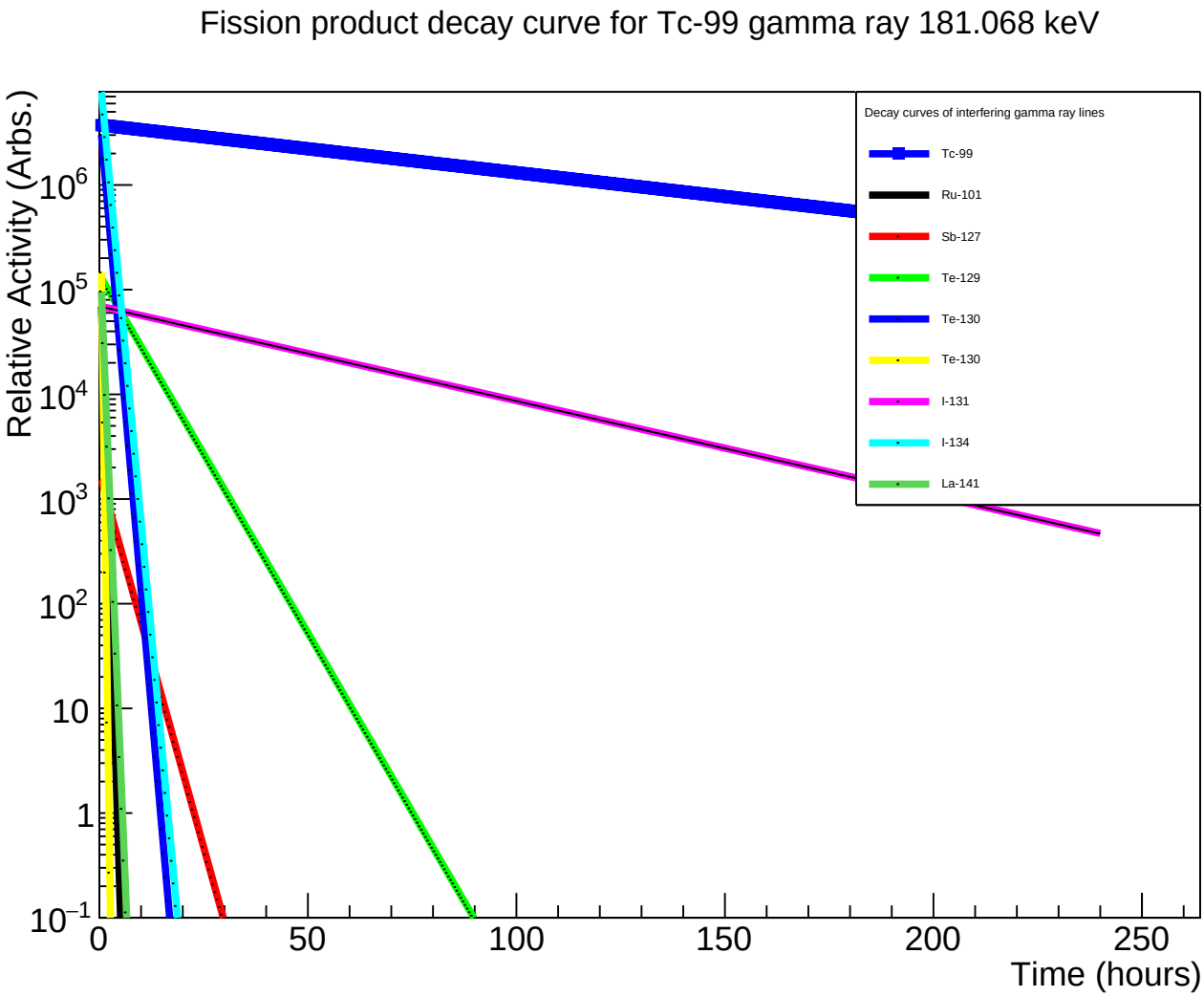


Figure 248: Tc-99 decay curve for 181.068 keV gamma ray.

3.249 Mo-99 E_γ = 366.42 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 366.42 keV
Gamma Intensity = 1.20 ± 0.022 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 497: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 498: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	367.310	0.019	0.362	0.001
Sn-127	Sb-127	365.500	0.002	2.100	0.001
Sb-125	Te-125	366.560	0.000	24194.445	0.000
Sb-128	Te-128	366.100	0.015	9.010	0.000
Te-131	I-131	364.980	0.012	33.250	0.004
Te-133	I-133	367.900	0.002	0.923	0.040
Cs-138	Ba-138	365.290	0.002	0.557	0.067
La-142	Ce-142	367.300	0.001	1.518	0.058
Nd-149	Pm-149	366.634	0.005	1.728	0.011
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-151	Pm-151	366.900	0.000	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

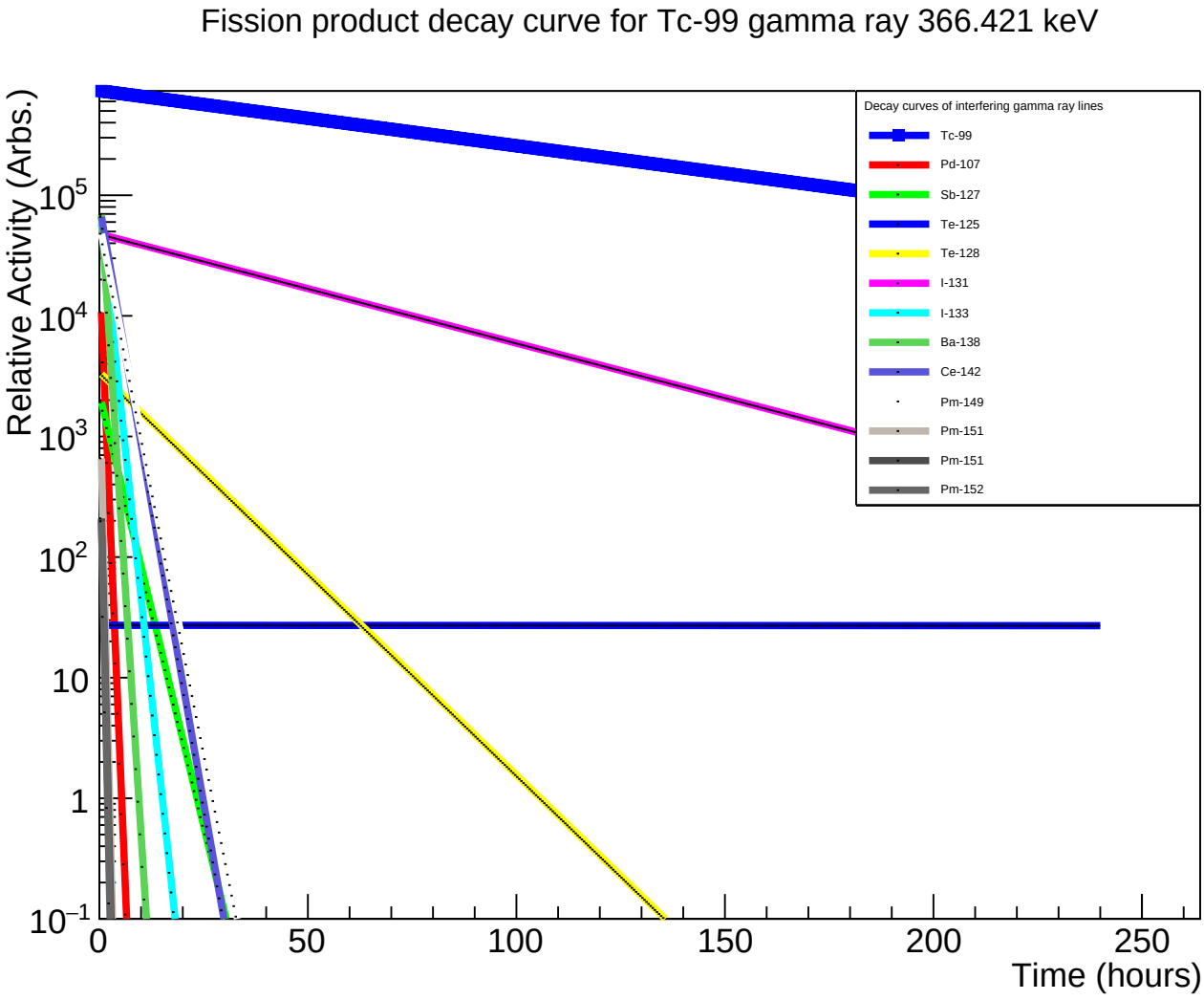


Figure 249: Tc-99 decay curve for 366.421 keV gamma ray.

3.250 Mo-99 E_γ = 739.50 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 739.50 keV
Gamma Intensity = 12.26 ± 0.218 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 499: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 500: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	739.300	0.016	0.127	0.010
Ru-105	Rh-105	738.270	0.001	4.440	0.010
Te-129	I-129	740.960	0.000	1.160	0.005
Te-129	I-129	740.960	0.000	806.400	0.001
Te-131	I-131	738.800	0.001	33.250	0.004
Te-133	I-133	740.800	0.002	0.208	0.031
Te-133	I-133	739.790	0.006	0.923	0.040
I-134	Xe-134	739.180	0.007	0.875	0.078
Ba-141	La-141	739.200	0.048	0.304	0.058
Nd-149	Pm-149	740.570	0.000	1.728	0.011
Nd-151	Pm-151	739.200	0.015	0.207	0.004
Pm-151	Sm-151	740.800	0.000	28.400	0.004

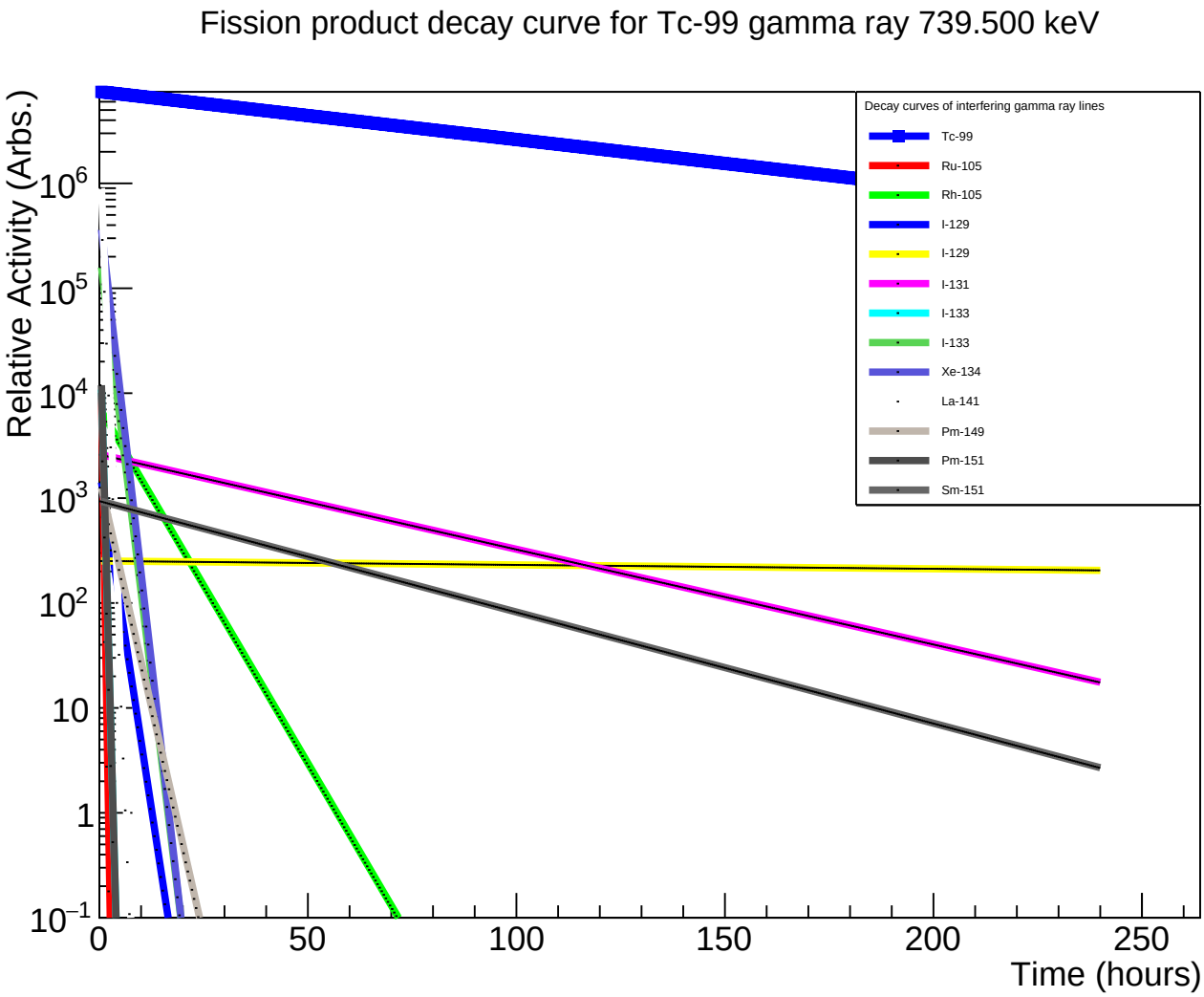


Figure 250: Tc-99 decay curve for 739.500 keV gamma ray.

3.251 Mo-99 E_γ = 777.92 keV

Chemical element: Molybdenum
Fission product parent: Mo-99
Gamma originates in daughter: Tc-99
Eγ: 777.92 keV
Gamma Intensity = 4.30 ± 0.080 %
$T_{1/2}$ = 65.976 ± 0.024 hours or 3958.56 ± 1.44 minutes
CFY: 6.109 ± 0.085 %

Table 501: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 502: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	779.120	0.001	2.840	0.036
Pd-109	Ag-109	778.300	0.000	13.701	0.000
Te-133	I-133	778.000	0.002	0.208	0.031
Xe-138	Cs-138	778.100	0.000	0.235	0.063
Ba-141	La-141	778.400	0.001	0.304	0.058
Pr-145	Nd-145	778.770	0.000	5.984	0.039
Nd-151	Pm-151	777.100	0.000	0.207	0.004
Eu-156	Gd-156	778.000	0.000	364.560	0.000

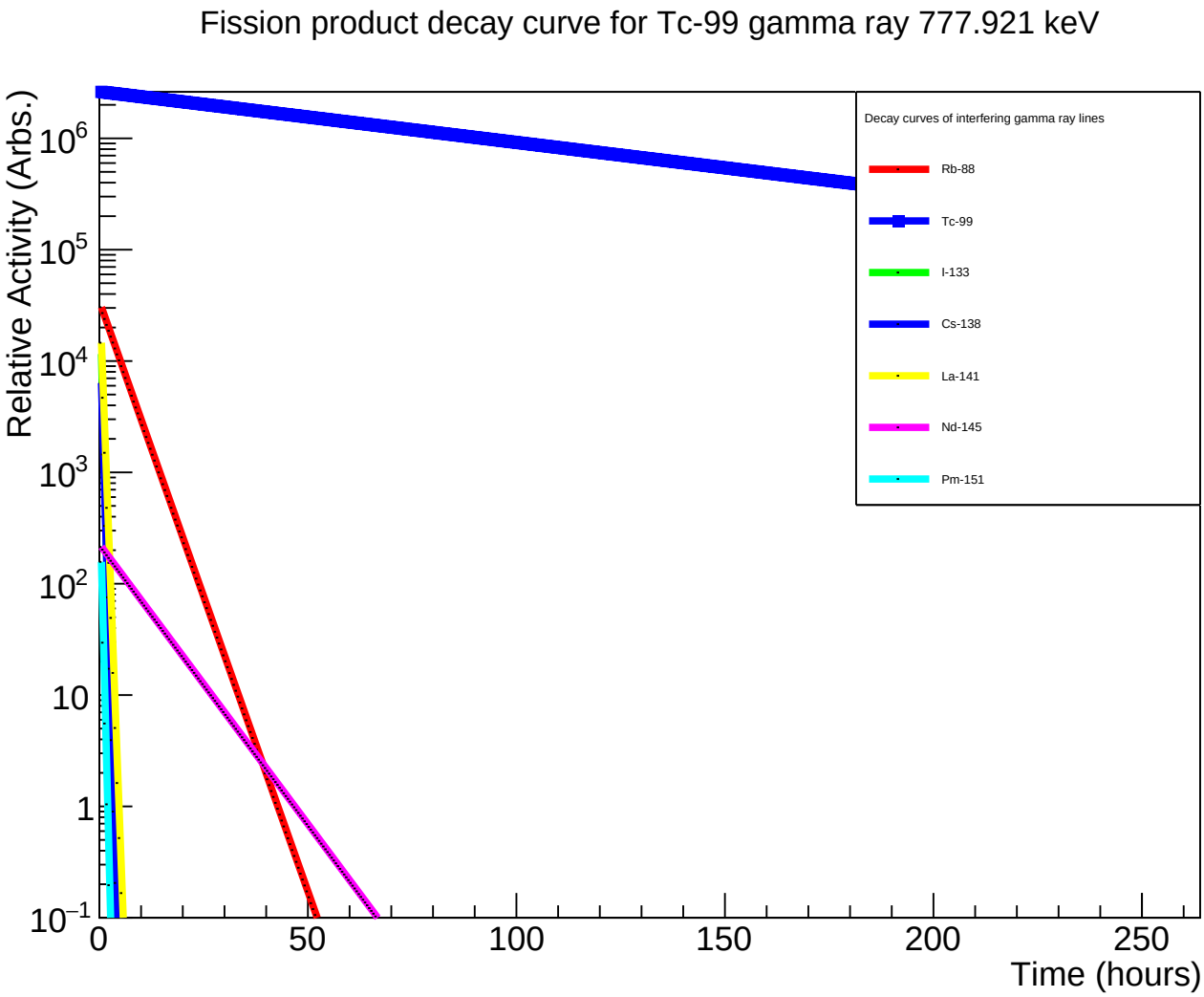


Figure 251: Tc-99 decay curve for 777.921 keV gamma ray.

3.252 Mo-101 E_γ = 9.32 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 9.32 keV
Gamma Intensity = 2.11 ± 0.212 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 503: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 504: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	10.463	0.001	1.467	0.000
Ge-78	As-78	10.501	0.001	1.467	0.000
Br-83	Kr-83	9.405	0.000	2.400	0.005
Kr-83	Rb-83	9.405	0.058	1.830	0.005
Eu-155	Gd-155	10.418	0.000	41666.668	0.000

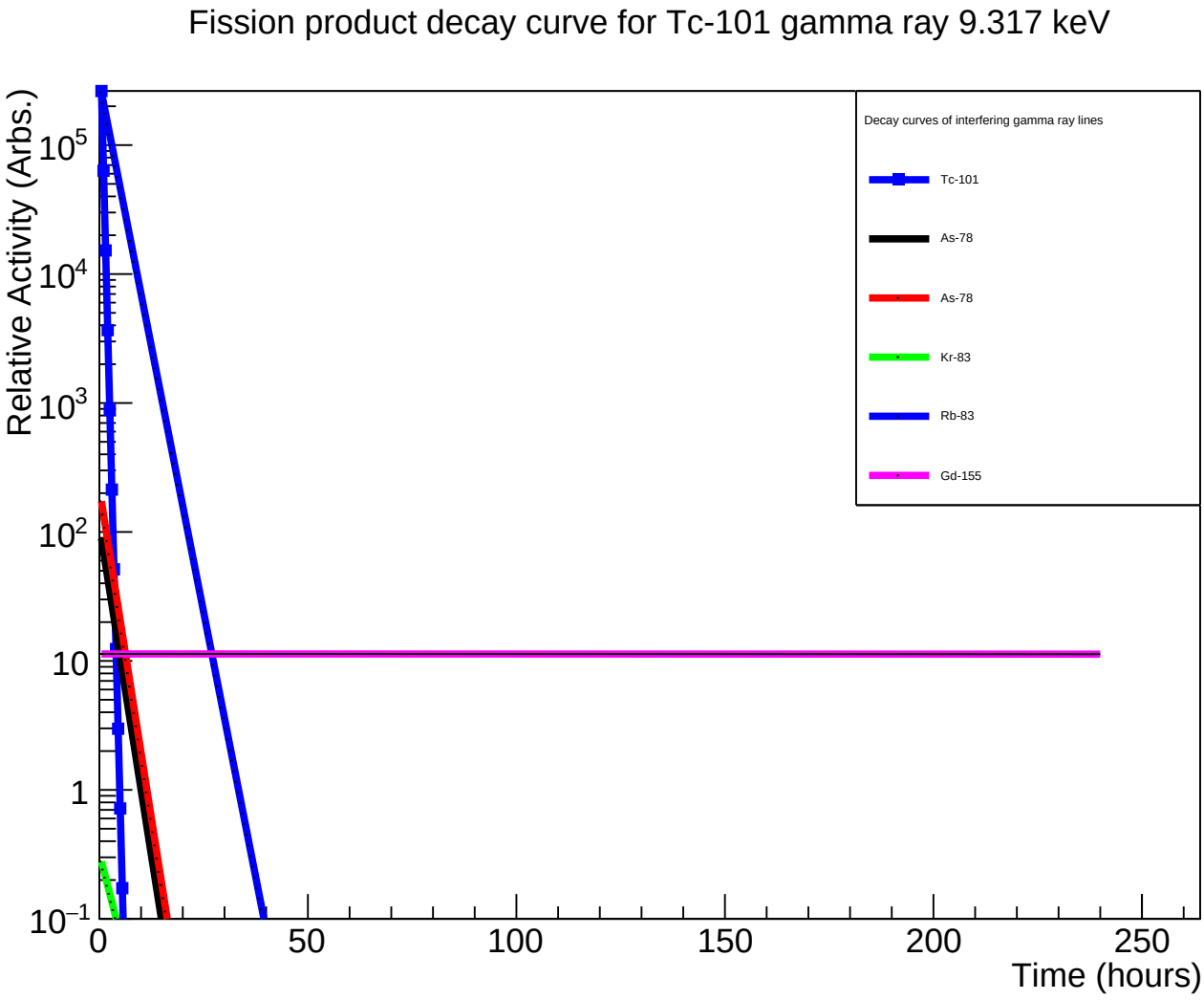


Figure 252: Tc-101 decay curve for 9.317 keV gamma ray.

3.253 Mo-101 E_γ = 80.92 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 80.92 keV
Gamma Intensity = 3.73 ± 0.117 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 505: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 506: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Ru-105	Rh-105	81.200	0.001	4.440	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
Sb-125	Te-125	81.020	0.000	24194.445	0.000
Te-131	I-131	81.140	0.039	33.250	0.004
Te-133	I-133	81.610	0.003	0.923	0.040
Te-134	I-134	79.445	0.209	0.697	0.070
I-131	Xe-131	80.185	0.026	192.605	0.029
Xe-133	Cs-133	79.623	0.003	125.832	0.067
Xe-133	Cs-133	80.997	0.380	125.832	0.067
Ba-142	La-142	79.800	0.000	0.177	0.058
Ce-144	Pr-144	80.120	0.014	6833.333	0.055
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	80.000	0.000	0.372	0.000

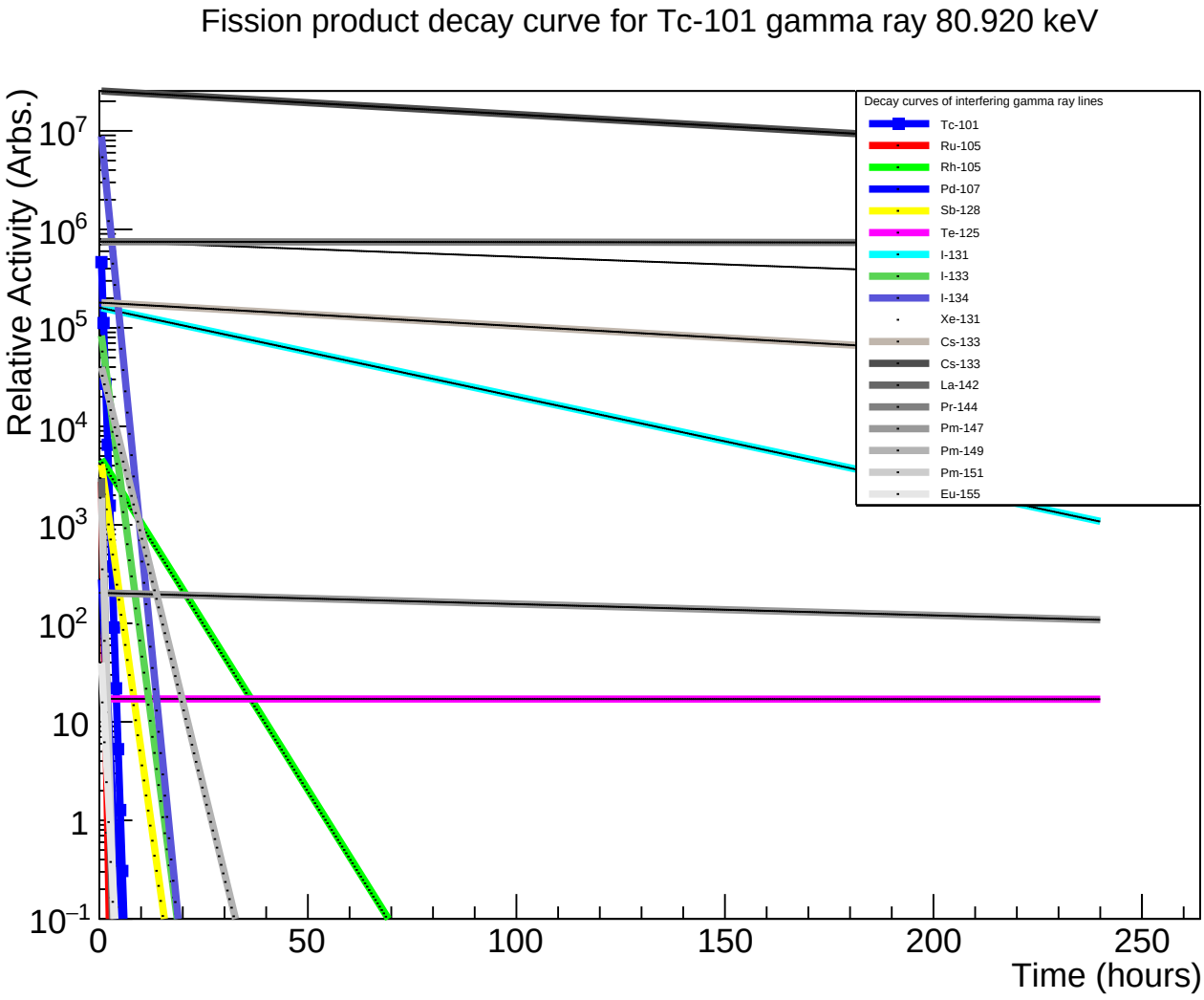


Figure 253: Tc-101 decay curve for 80.920 keV gamma ray.

3.254 Mo-101 E_γ = 191.92 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 191.92 keV
Gamma Intensity = 18.21 ± 0.210 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 507: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 508: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	192.360	0.000	0.855	0.000
Tc-105	Ru-105	193.300	0.003	0.127	0.010
Te-131	I-131	190.520	0.001	33.250	0.004
Te-133	I-133	190.500	0.001	0.208	0.031
Te-133	I-133	193.394	0.006	0.923	0.040
Cs-138	Ba-138	191.960	0.005	0.557	0.067
Pr-146	Nd-146	191.200	0.000	0.403	0.030
Nd-147	Pm-147	191.000	0.000	263.520	0.022
Nd-149	Pm-149	192.026	0.006	1.728	0.011
Pm-151	Sm-151	192.900	0.000	28.400	0.004

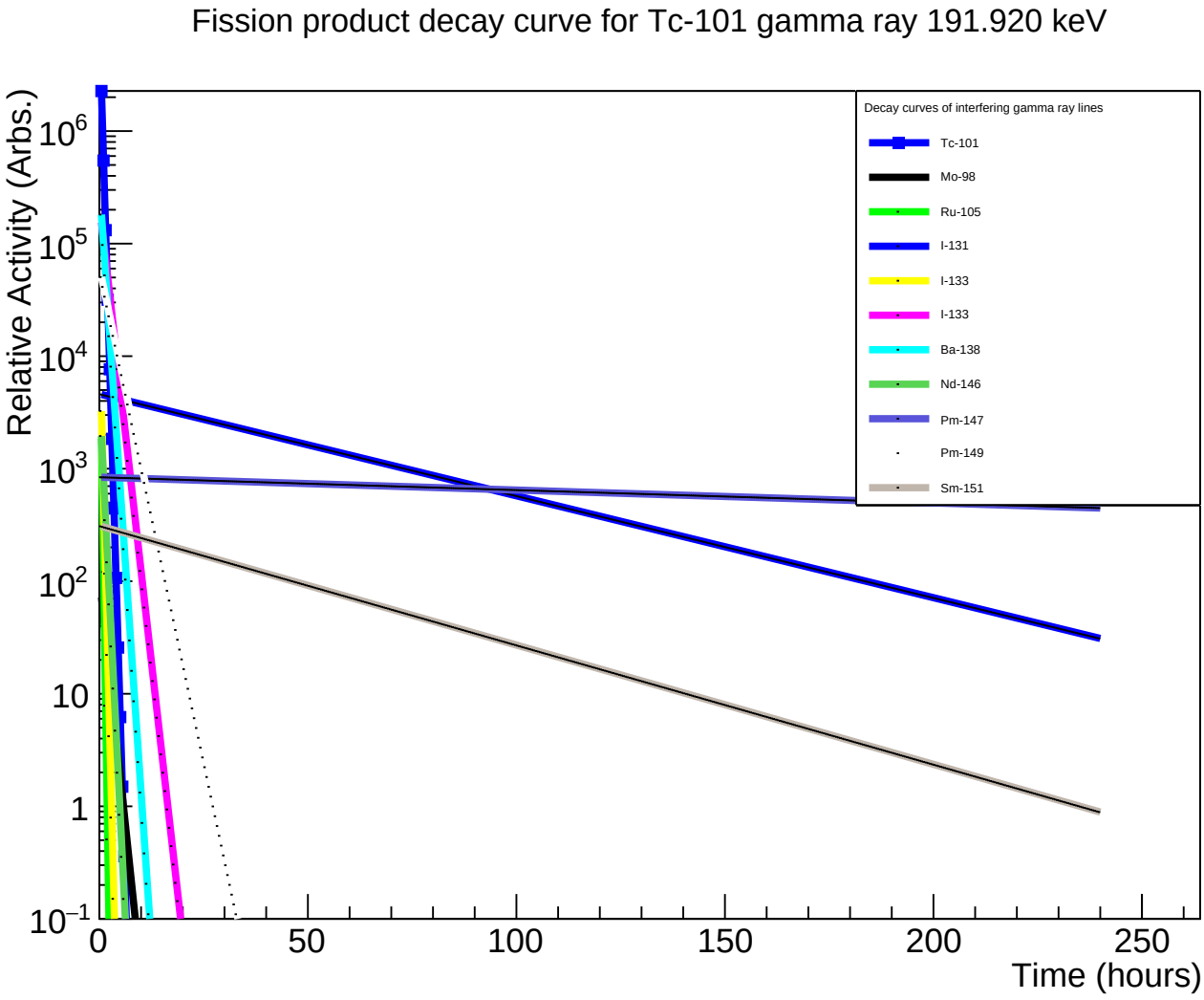


Figure 254: Tc-101 decay curve for 191.920 keV gamma ray.

3.255 Mo-101 E_γ = 195.93 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 195.93 keV
Gamma Intensity = 2.77 ± 0.079 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 509: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 510: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	196.301	0.260	2.840	0.036
Nb-98	Mo-98	195.660	0.001	0.855	0.000
Sn-127	Sb-127	195.000	0.001	2.100	0.001
I-135	Xe-135	197.190	0.000	6.570	0.063
Cs-139	Ba-139	196.510	0.000	0.155	0.063
Nd-147	Pm-147	196.640	0.002	263.520	0.022
Nd-149	Pm-149	197.400	0.000	1.728	0.011
Nd-151	Pm-151	197.270	0.002	0.207	0.004
Pm-147	Sm-147	197.299	0.000	23000.000	0.022
Pm-151	Sm-151	195.500	0.000	28.400	0.004
Sm-155	Eu-155	195.700	0.000	0.372	0.000

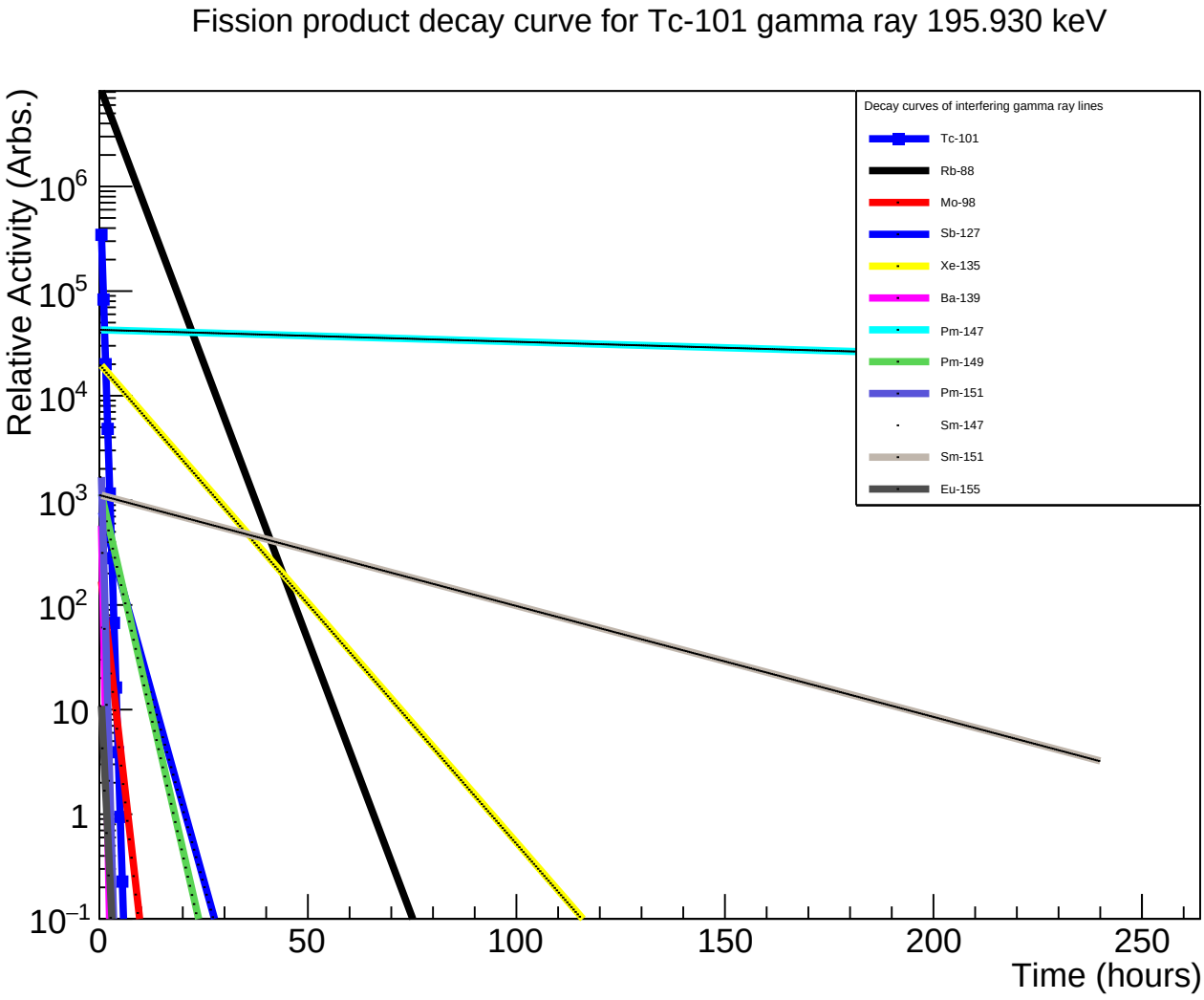


Figure 255: Tc-101 decay curve for 195.930 keV gamma ray.

3.256 Mo-101 E_γ = 408.69 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 408.69 keV
Gamma Intensity = 1.53 ± 0.057 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 511: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 512: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	408.400	0.000	0.855	0.000
Tc-105	Ru-105	407.400	0.003	0.127	0.010
Ru-105	Rh-105	407.600	0.001	4.440	0.010
Sn-129	Sb-129	409.100	0.023	0.115	0.002
Sb-125	Te-125	408.065	0.002	24194.445	0.000
Te-131	I-131	408.200	0.001	33.250	0.004
Te-133	I-133	407.630	0.271	0.208	0.031
Xe-135	Cs-135	407.990	0.004	9.140	0.065
Cs-138	Ba-138	408.980	0.047	0.557	0.067
Nd-147	Pm-147	408.520	0.000	263.520	0.022
Nd-151	Pm-151	407.550	0.005	0.207	0.004

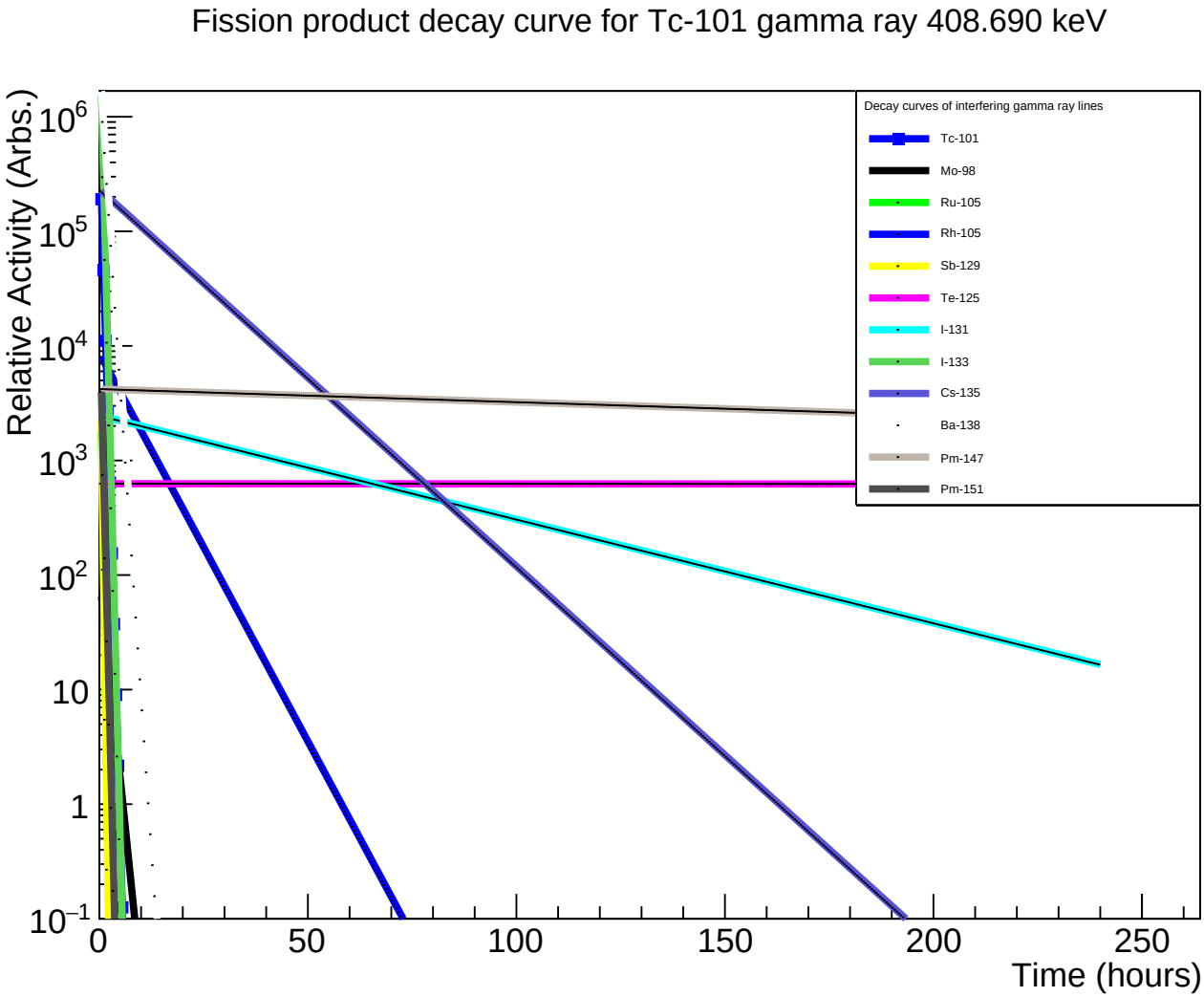


Figure 256: Tc-101 decay curve for 408.690 keV gamma ray.

3.257 Mo-101 E_γ = 499.65 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 499.65 keV
Gamma Intensity = 1.39 ± 0.047 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 513: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 514: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	500.020	0.001	2.840	0.036
Ru-105	Rh-105	499.300	0.020	4.440	0.010
Ru-105	Rh-105	500.100	0.006	4.440	0.010
Sn-127	Sb-127	500.700	0.015	2.100	0.001
Sb-129	Te-129	499.600	0.002	4.400	0.005
Xe-138	Cs-138	500.220	0.004	0.235	0.063
Nd-149	Pm-149	498.620	0.000	1.728	0.011
Eu-156	Gd-156	498.880	0.001	364.560	0.000

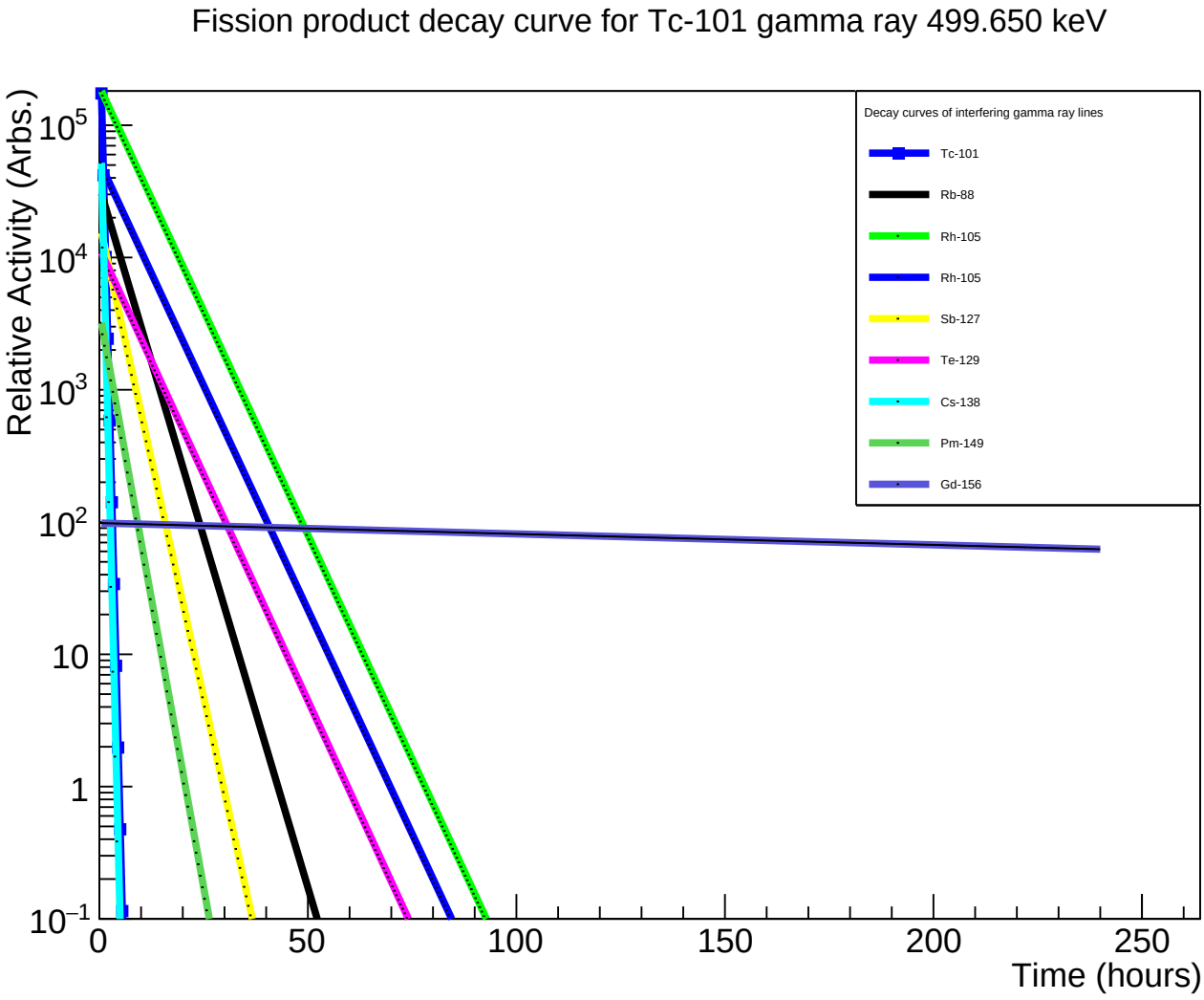


Figure 257: Tc-101 decay curve for 499.650 keV gamma ray.

3.258 Mo-101 E_γ = 505.92 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 505.92 keV
Gamma Intensity = 11.62 ± 0.288 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 515: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 516: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	506.700	0.000	9.630	0.058
Sn-129	Sb-129	505.500	0.083	0.115	0.002
Sb-130	Te-130	506.700	0.020	0.658	0.008
Te-133	I-133	507.300	0.001	0.208	0.031
Te-133	I-133	507.200	0.004	0.923	0.040
I-132	Xe-132	505.790	0.049	2.295	0.043
Cs-139	Ba-139	505.400	0.000	0.155	0.063
Pr-145	Nd-145	504.650	0.000	5.984	0.039
Pm-149	Sm-149	506.100	0.000	53.080	0.011
Pm-151	Sm-151	507.270	0.000	28.400	0.004

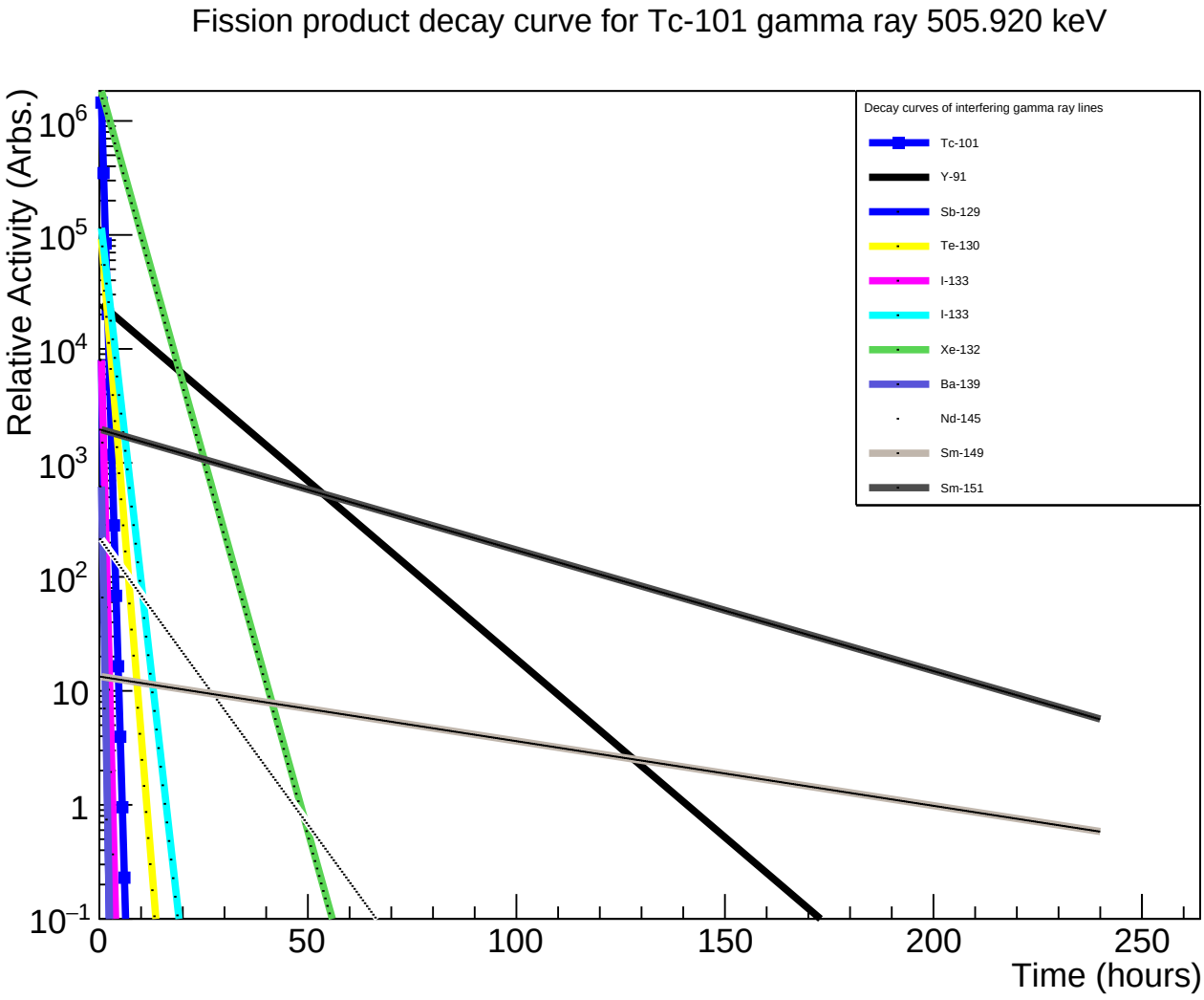


Figure 258: Tc-101 decay curve for 505.920 keV gamma ray.

3.259 Mo-101 E_γ = 512.83 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 512.83 keV
Gamma Intensity = 1.40 ± 0.093 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 517: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 518: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	513.997	0.004	94166.664	0.003
Zr-97	Nb-97	513.410	0.005	16.749	0.060
Nb-98	Mo-98	512.000	0.006	0.855	0.000
Tc-104	Ru-104	511.600	0.001	0.305	0.019
Ru-105	Rh-105	513.730	0.002	4.440	0.010
Rh-107	Pd-107	511.700	0.000	0.362	0.001
Sn-127	Sb-127	513.900	0.003	2.100	0.001
Nd-149	Pm-149	512.700	0.000	1.728	0.011
Nd-149	Pm-149	512.700	0.000	1.728	0.011

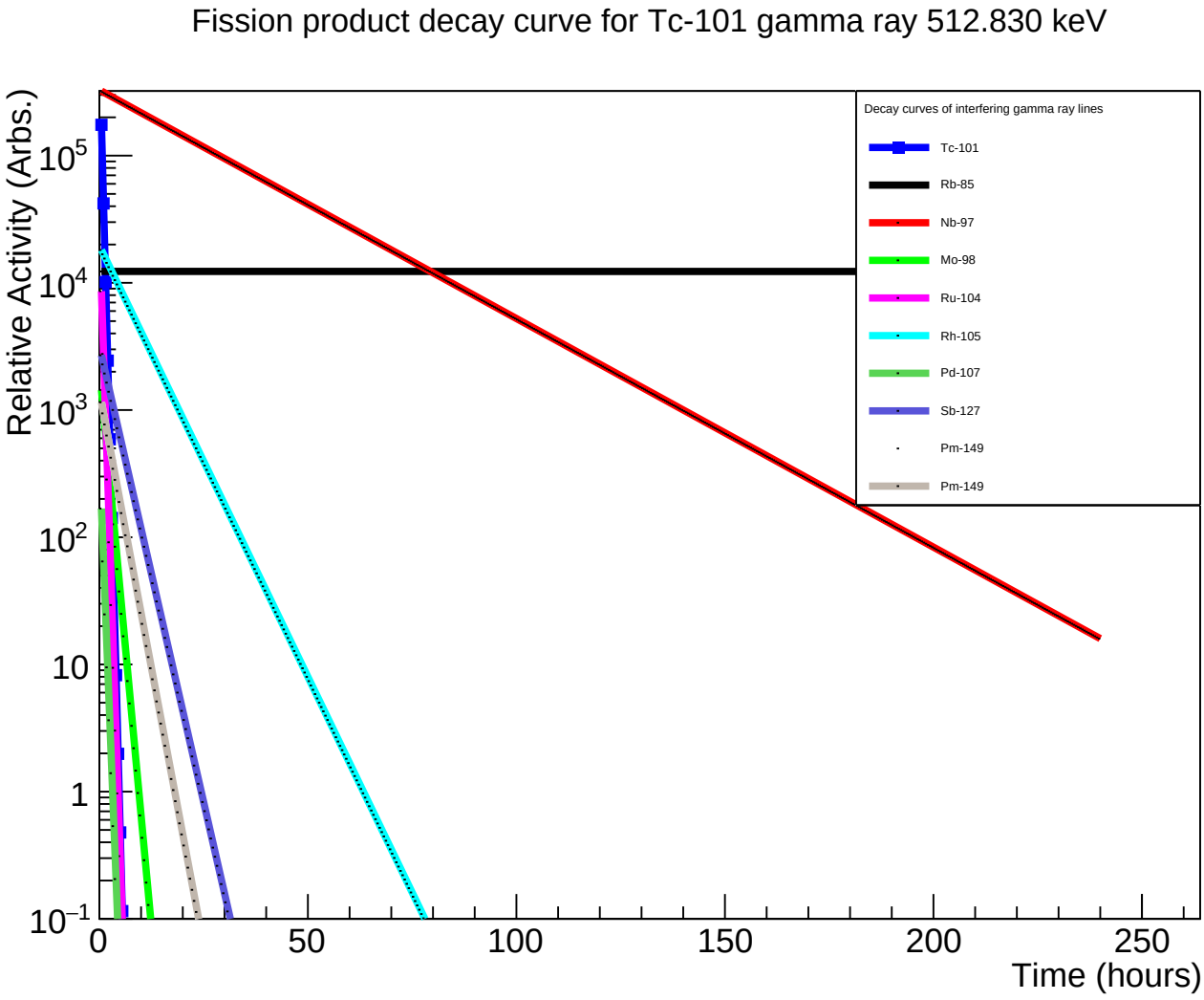


Figure 259: Tc-101 decay curve for 512.830 keV gamma ray.

3.260 Mo-101 E_γ = 590.10 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 590.10 keV
Gamma Intensity = 1.11 ± 0.110 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 519: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 520: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	590.238	0.320	0.124	0.062
Nb-98	Mo-98	590.900	0.004	0.855	0.000
Ru-105	Rh-105	591.200	0.001	4.440	0.010
Sn-125	Sb-125	589.610	0.002	0.159	0.000
I-132	Xe-132	591.100	0.001	2.295	0.043
Xe-138	Cs-138	588.840	0.001	0.235	0.063
Ba-141	La-141	588.800	0.001	0.304	0.058
Ba-142	La-142	590.700	0.003	0.177	0.058
La-141	Ce-141	589.900	0.000	3.920	0.058
Pr-146	Nd-146	589.400	0.003	0.403	0.030
Nd-147	Pm-147	589.350	0.000	263.520	0.022
Nd-149	Pm-149	590.740	0.000	1.728	0.011
Nd-151	Pm-151	589.610	0.003	0.207	0.004
Pm-149	Sm-149	590.880	0.001	53.080	0.011
Sm-153	Eu-153	590.960	0.000	46.500	0.002

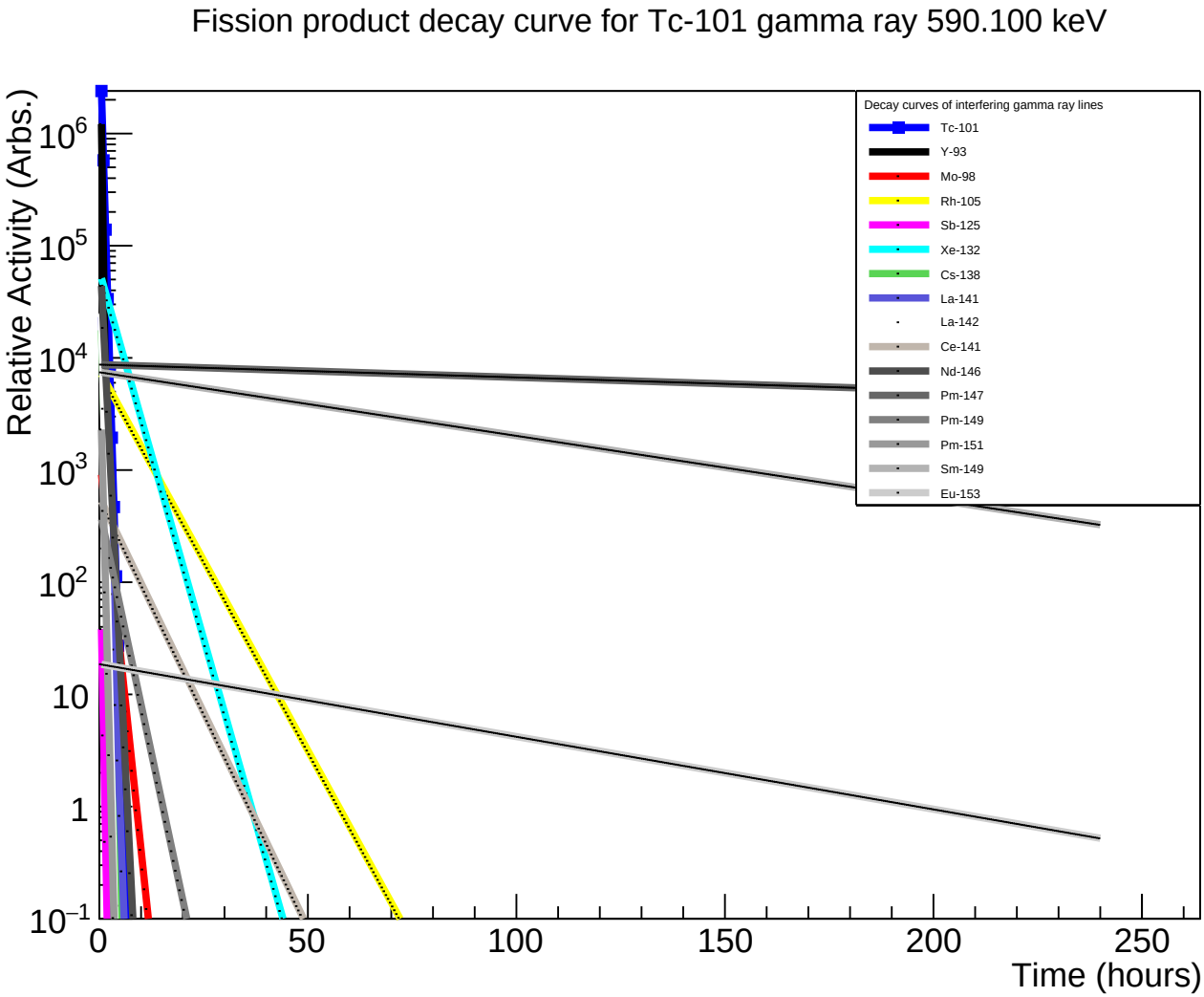


Figure 260: Tc-101 decay curve for 590.100 keV gamma ray.

3.261 Mo-101 E_γ = 590.10 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 590.10 keV
Gamma Intensity = 19.21 ± 0.866 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 521: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 522: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	590.238	0.320	0.124	0.062
Nb-98	Mo-98	590.900	0.004	0.855	0.000
Ru-105	Rh-105	591.200	0.001	4.440	0.010
Sn-125	Sb-125	589.610	0.002	0.159	0.000
I-132	Xe-132	591.100	0.001	2.295	0.043
Xe-138	Cs-138	588.840	0.001	0.235	0.063
Ba-141	La-141	588.800	0.001	0.304	0.058
Ba-142	La-142	590.700	0.003	0.177	0.058
La-141	Ce-141	589.900	0.000	3.920	0.058
Pr-146	Nd-146	589.400	0.003	0.403	0.030
Nd-147	Pm-147	589.350	0.000	263.520	0.022
Nd-149	Pm-149	590.740	0.000	1.728	0.011
Nd-151	Pm-151	589.610	0.003	0.207	0.004
Pm-149	Sm-149	590.880	0.001	53.080	0.011
Sm-153	Eu-153	590.960	0.000	46.500	0.002

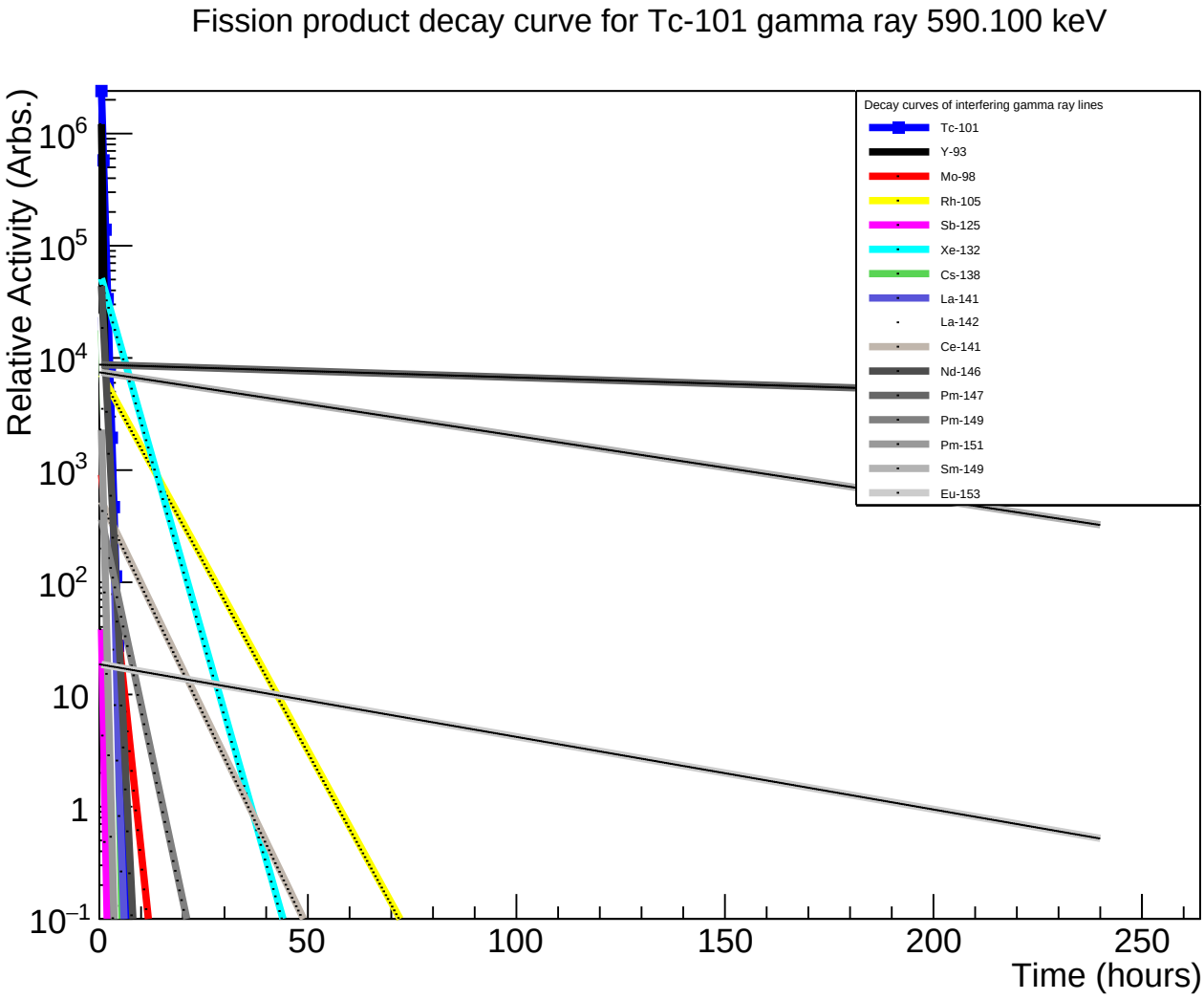


Figure 261: Tc-101 decay curve for 590.100 keV gamma ray.

3.262 Mo-101 E_γ = 608.34 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 608.34 keV
Gamma Intensity = 1.02 ± 0.038 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 523: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 524: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	609.220	0.029	0.372	0.003
Tc-104	Ru-104	609.500	0.020	0.305	0.019
Tc-105	Ru-105	608.500	0.024	0.127	0.010
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Te-131	I-131	609.400	0.001	33.250	0.004
Te-133	I-133	607.300	0.002	0.923	0.040
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Ba-141	La-141	609.000	0.004	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

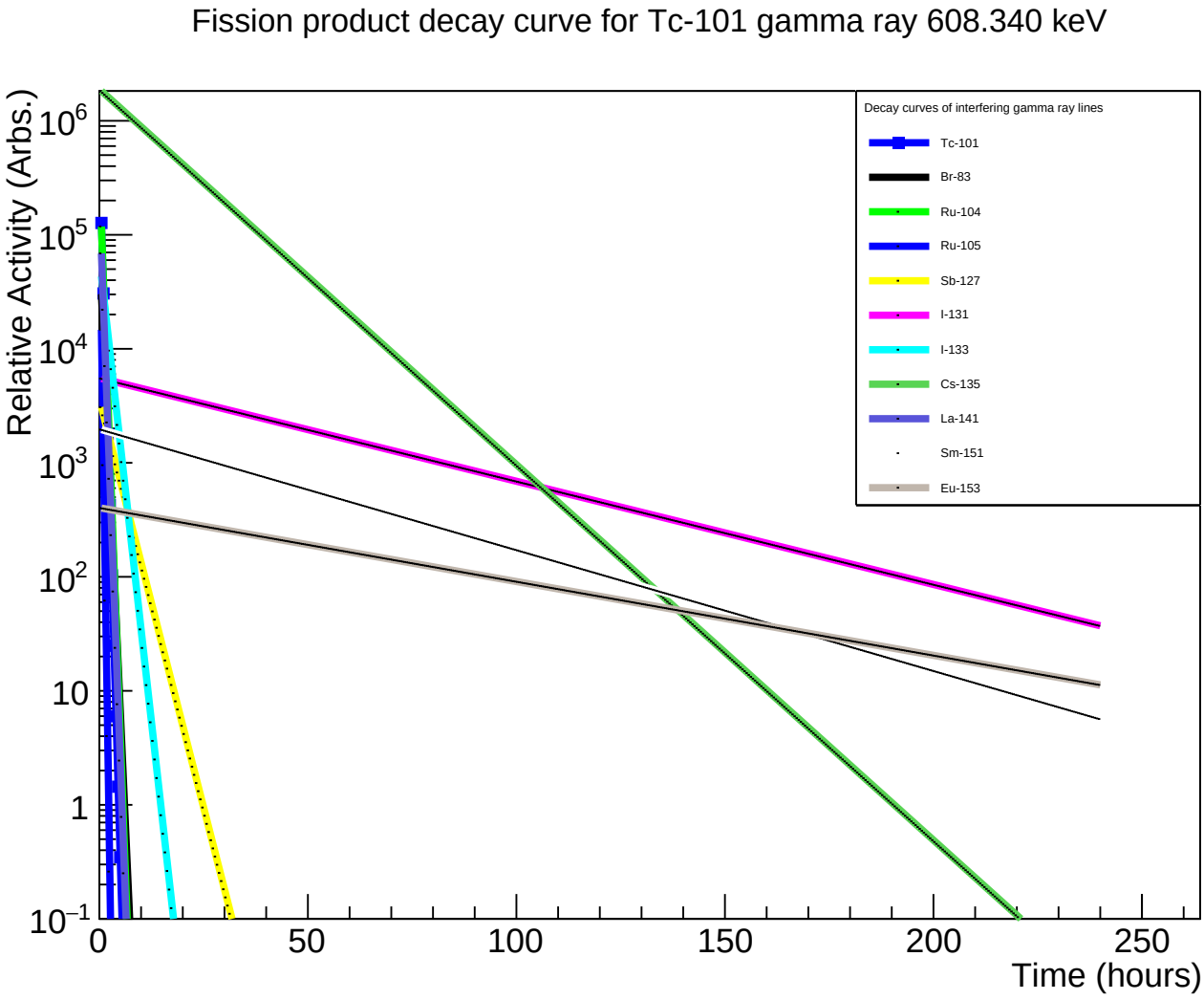


Figure 262: Tc-101 decay curve for 608.340 keV gamma ray.

3.263 Mo-101 E_γ = 642.71 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 642.71 keV
Gamma Intensity = 1.21 ± 0.046 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 525: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 526: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	644.000	0.007	0.127	0.010
Rh-107	Pd-107	643.900	0.000	0.362	0.001
Pd-111	Ag-111	641.700	0.001	0.390	0.000
Sn-125	Sb-125	642.960	0.002	0.159	0.000
Sb-131	Te-131	642.300	0.235	0.384	0.026
Te-133	I-133	642.330	0.008	0.923	0.040
I-131	Xe-131	642.719	0.002	192.605	0.029
Ba-141	La-141	641.500	0.004	0.304	0.058
La-142	Ce-142	641.285	0.474	1.518	0.058
La-143	Ce-143	643.750	0.015	0.237	0.059
Pr-147	Nd-147	641.400	0.156	0.223	0.022
Nd-151	Pm-151	643.110	0.001	0.207	0.004

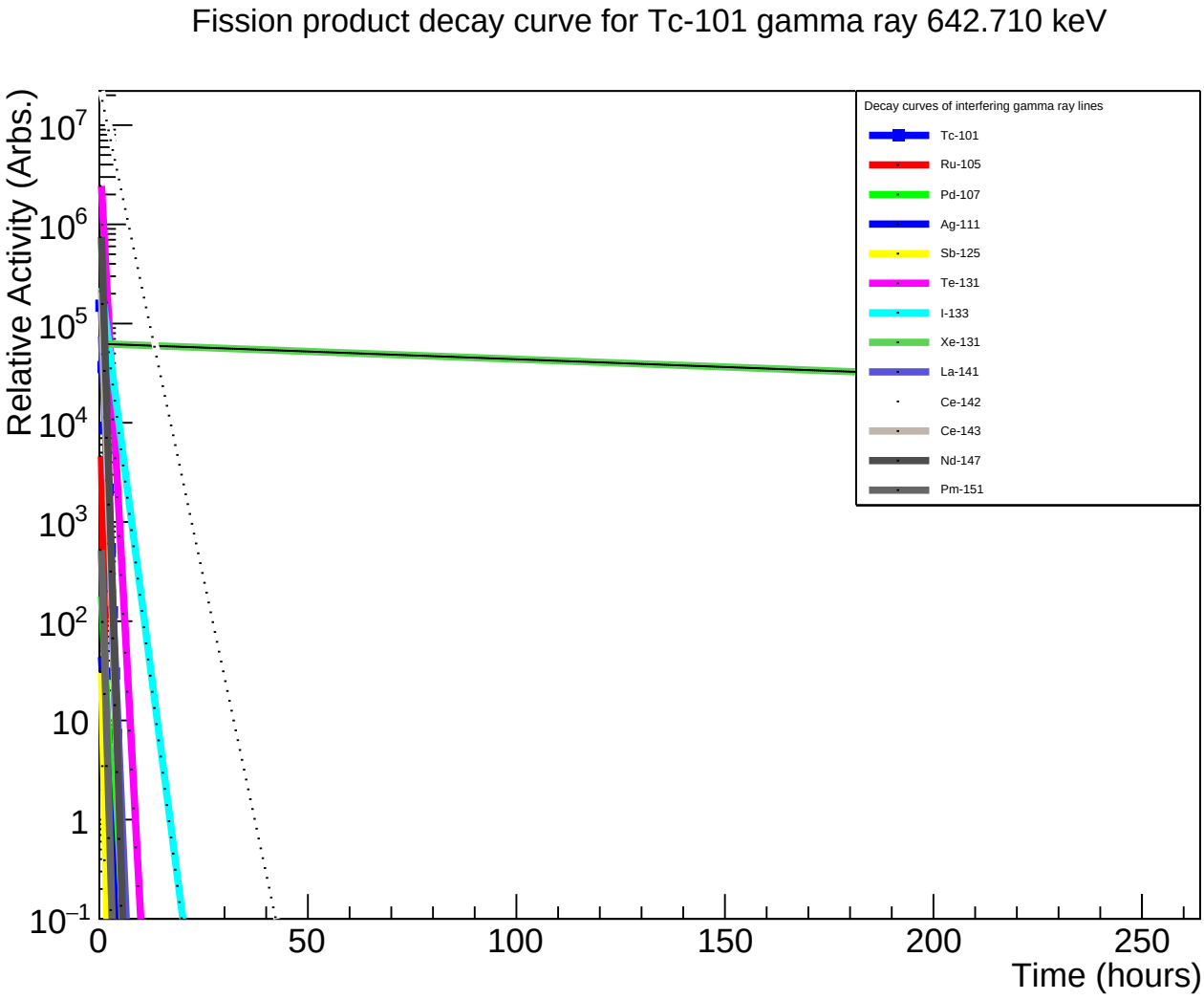


Figure 263: Tc-101 decay curve for 642.710 keV gamma ray.

3.264 Mo-101 E_γ = 695.56 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 695.56 keV
Gamma Intensity = 6.66 ± 0.165 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 527: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 528: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	694.900	0.167	1.512	0.000
Y-94	Zr-94	694.700	0.002	0.312	0.065
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Rh-107	Pd-107	696.700	0.000	0.362	0.001
Ag-112	Cd-112	694.800	0.030	3.130	0.000
Sn-129	Sb-129	695.100	0.042	0.115	0.002
Sb-126	Te-126	694.800	0.822	0.319	0.001
Te-129	I-129	695.880	0.031	806.400	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
La-141	Ce-141	694.900	0.000	3.920	0.058
Pr-144	Nd-144	696.510	0.013	0.288	0.055
Pr-144	Nd-144	696.500	0.001	0.120	0.000
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004
Sm-153	Eu-153	694.100	0.000	46.500	0.002

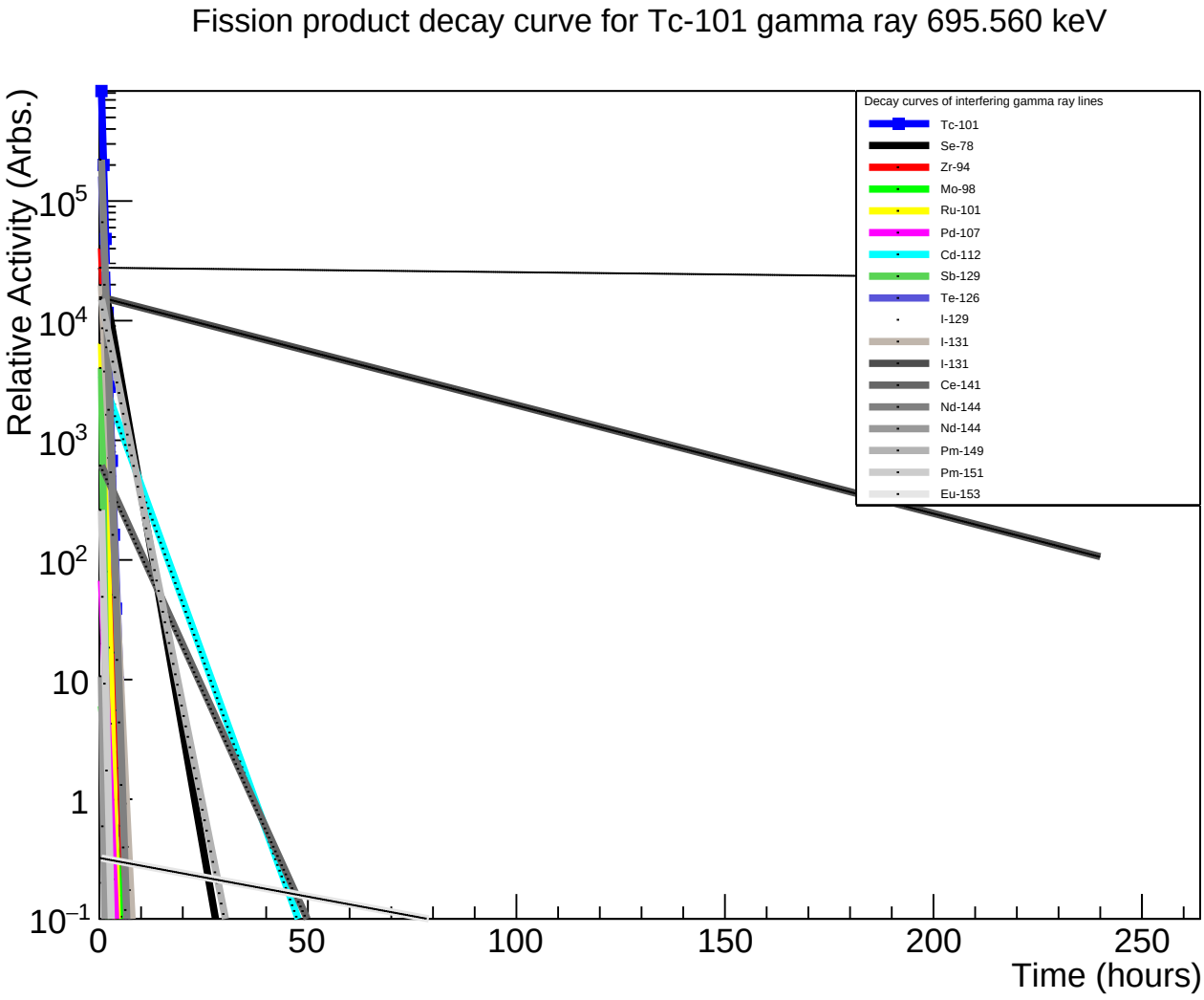


Figure 264: Tc-101 decay curve for 695.560 keV gamma ray.

3.265 Mo-101 E_γ = 713.04 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 713.04 keV
Gamma Intensity = 3.33 ± 0.151 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 529: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 530: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	712.110	0.031	0.372	0.003
Y-93	Zr-93	714.400	0.000	10.180	0.063
Nb-98	Mo-98	713.817	0.092	0.855	0.000
Tc-105	Ru-105	713.800	0.006	0.127	0.010
Te-131	I-131	713.100	0.014	33.250	0.004
Te-133	I-133	712.600	0.002	0.208	0.031
Te-134	I-134	712.970	0.047	0.697	0.070
Ba-142	La-142	714.400	0.000	0.177	0.058
Pr-145	Nd-145	713.224	0.000	5.984	0.039
Nd-149	Pm-149	712.590	0.001	1.728	0.011
Pm-151	Sm-151	712.000	0.001	28.400	0.004
Pm-151	Sm-151	713.400	0.000	28.400	0.004
Sm-155	Eu-155	713.400	0.000	0.372	0.000

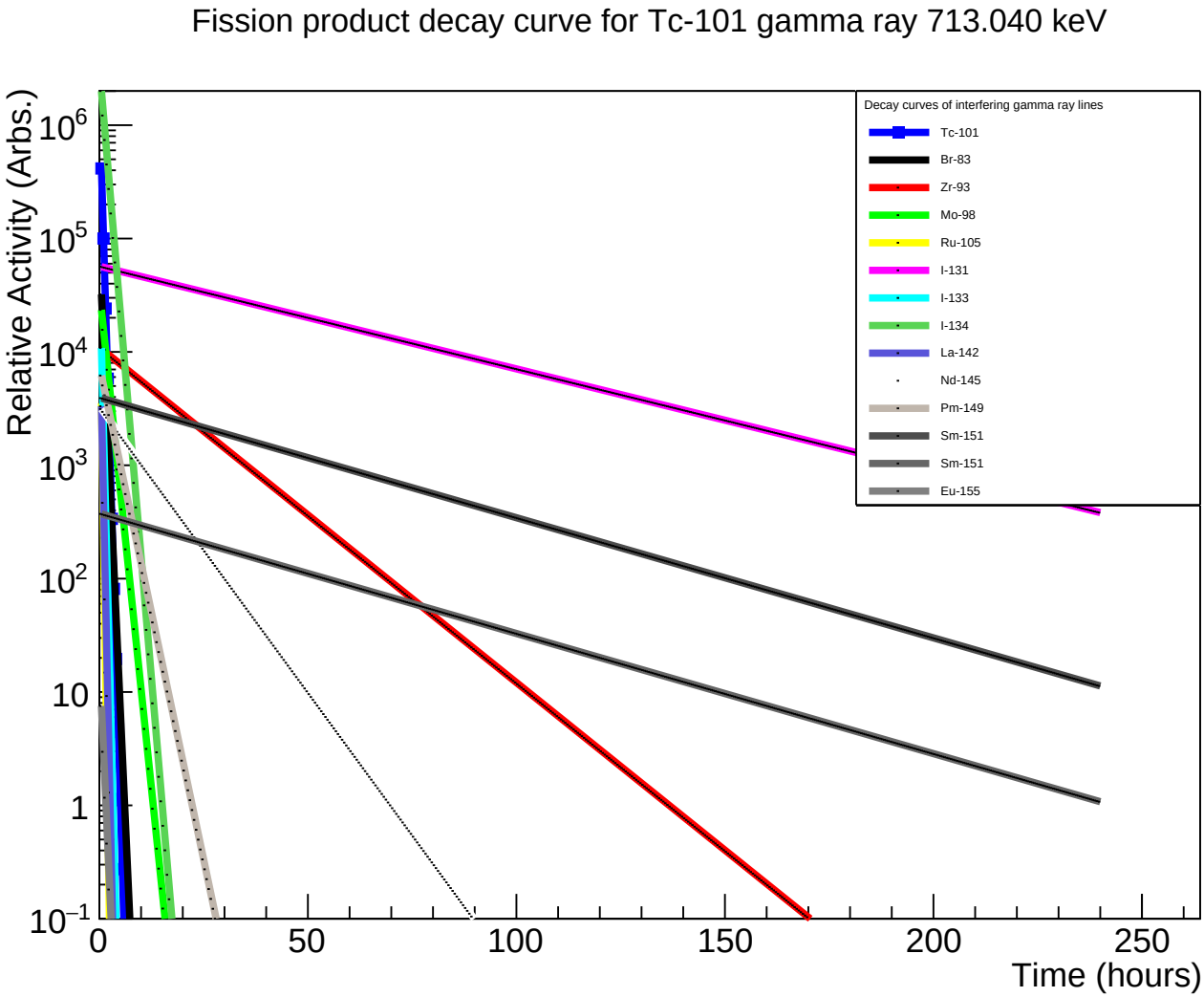


Figure 265: Tc-101 decay curve for 713.040 keV gamma ray.

3.266 Mo-101 E_γ = 871.08 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 871.08 keV
Gamma Intensity = 1.71 ± 0.075 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 531: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 532: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	872.300	0.001	33.250	0.004
Cs-138	Ba-138	871.800	0.051	0.557	0.067
Nd-149	Pm-149	871.375	0.000	1.728	0.011
Nd-151	Pm-151	870.700	0.001	0.207	0.004
Nd-151	Pm-151	870.700	0.001	0.207	0.004
Nd-151	Pm-151	872.500	0.000	0.207	0.004
Eu-156	Gd-156	872.390	0.000	364.560	0.000

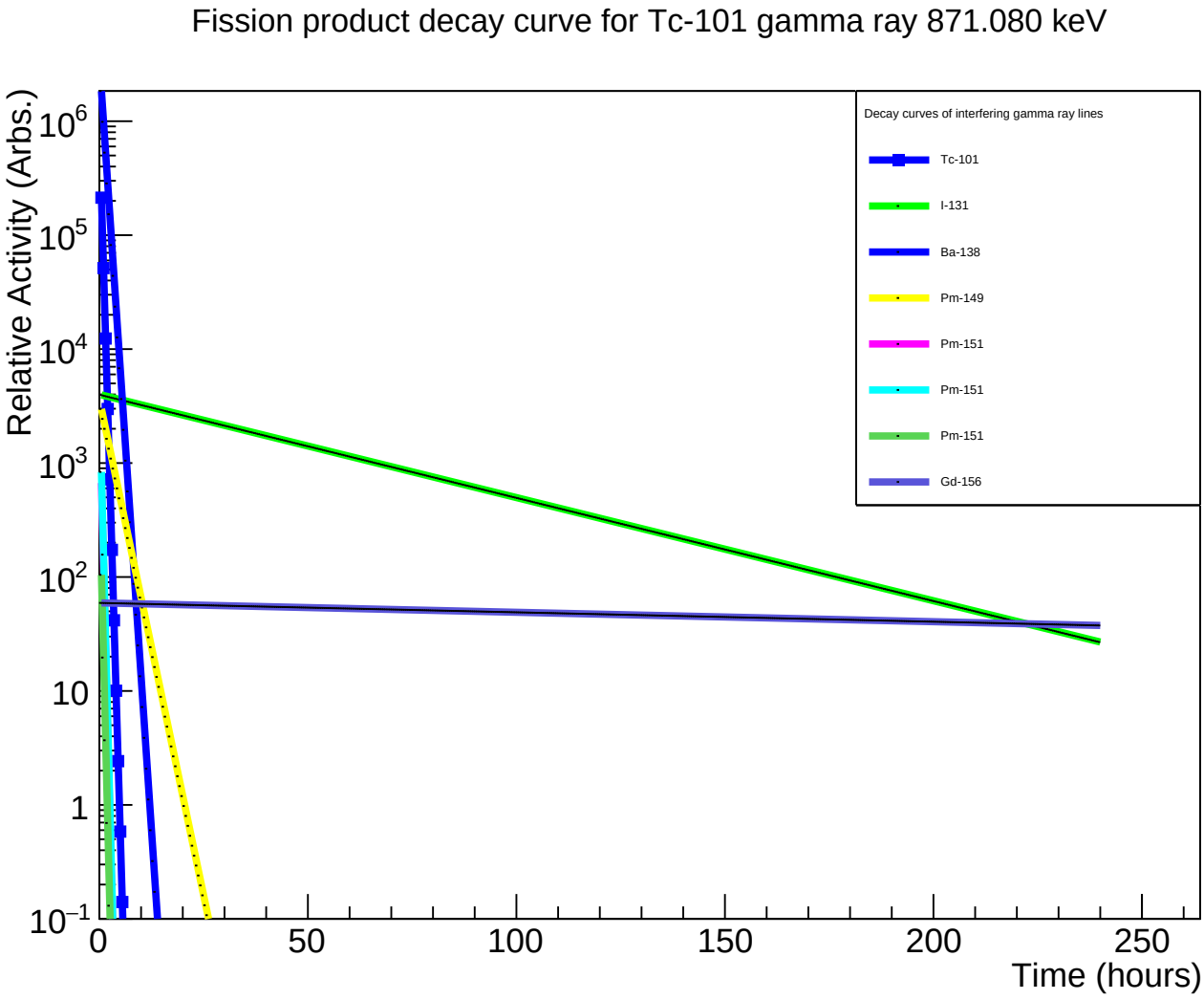


Figure 266: Tc-101 decay curve for 871.080 keV gamma ray.

3.267 Mo-101 E_γ = 877.39 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 877.39 keV
Gamma Intensity = 3.22 ± 0.186 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 533: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 534: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	878.500	0.014	0.150	0.000
Nb-98	Mo-98	878.070	0.007	0.855	0.000
Ru-105	Rh-105	878.200	0.005	4.440	0.010
Ag-113	Cd-113	878.500	0.001	5.370	0.000
Sb-128	Te-128	878.000	0.035	9.010	0.000
Sb-129	Te-129	876.200	0.026	4.400	0.005
I-132	Xe-132	876.600	0.010	2.295	0.043
Ba-141	La-141	876.300	0.037	0.304	0.058
La-142	Ce-142	878.200	0.002	1.518	0.058
Nd-149	Pm-149	877.900	0.000	1.728	0.011
Nd-151	Pm-151	876.390	0.004	0.207	0.004
Pm-151	Sm-151	877.700	0.001	28.400	0.004

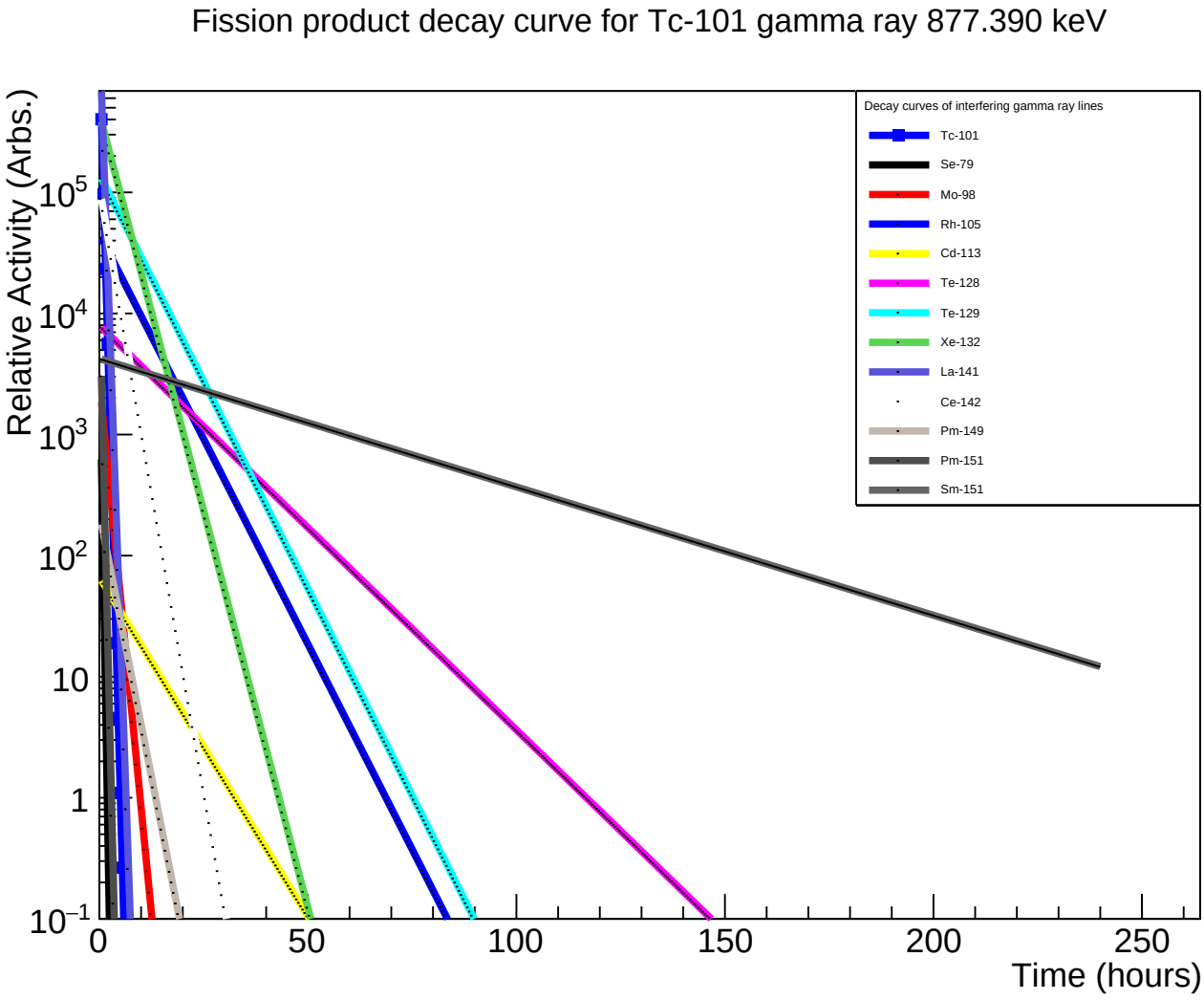


Figure 267: Tc-101 decay curve for 877.390 keV gamma ray.

3.268 Mo-101 E_γ = 934.21 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 934.21 keV
Gamma Intensity = 4.12 ± 0.259 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 535: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 536: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	933.730	0.007	0.372	0.003
Y-92	Zr-92	934.470	0.139	3.540	0.060
Sn-125	Sb-125	934.630	0.002	231.360	0.000
Sb-130	Te-130	934.900	0.190	0.658	0.008
Sb-131	Te-131	933.090	0.264	0.384	0.026
Te-131	I-131	934.483	0.009	0.417	0.025
Te-133	I-133	934.000	0.001	0.208	0.031
Cs-138	Ba-138	935.030	0.002	0.557	0.067
Cs-139	Ba-139	933.000	0.000	0.155	0.063
Ba-142	La-142	934.000	0.000	0.177	0.058
Nd-149	Pm-149	933.240	0.001	1.728	0.011
Nd-151	Pm-151	934.040	0.001	0.207	0.004
Nd-151	Pm-151	935.100	0.000	0.207	0.004
Pm-151	Sm-151	933.900	0.000	28.400	0.004
Sm-155	Eu-155	932.900	0.000	0.372	0.000

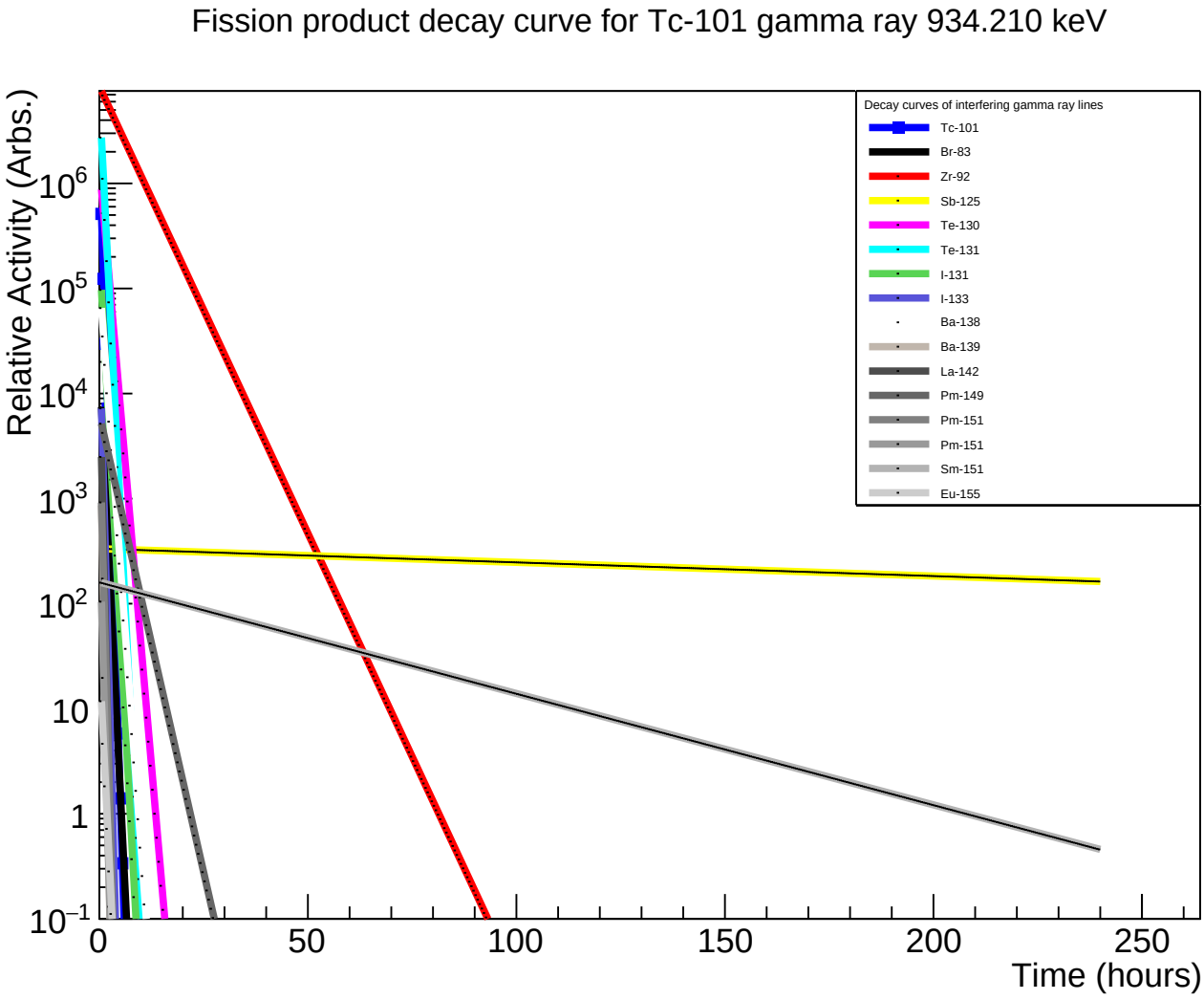


Figure 268: Tc-101 decay curve for 934.210 keV gamma ray.

3.269 Mo-101 E_γ = 1012.47 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1012.47 keV
Gamma Intensity = 13.02 ± 0.690 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 537: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 538: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-129	I-129	1013.570	0.000	1.160	0.005
Ba-141	La-141	1012.500	0.001	0.304	0.058
La-142	Ce-142	1011.400	0.039	1.518	0.058
Pr-145	Nd-145	1011.000	0.000	5.984	0.039
Pr-145	Nd-145	1012.745	0.000	5.984	0.039
Pr-146	Nd-146	1012.700	0.001	0.403	0.030
Nd-151	Pm-151	1012.700	0.000	0.207	0.004
Pm-151	Sm-151	1012.200	0.000	28.400	0.004
Eu-156	Gd-156	1011.870	0.003	364.560	0.000

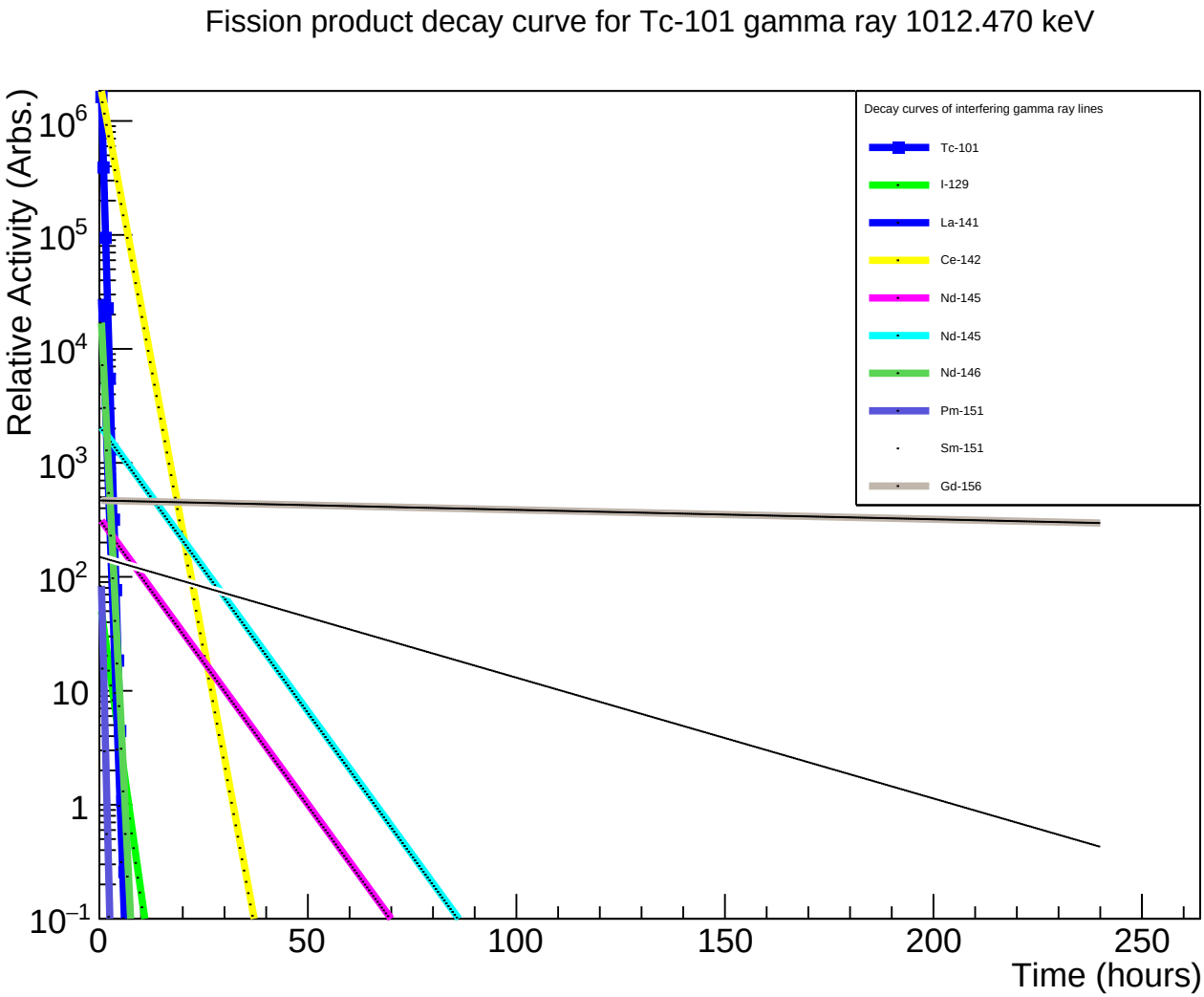


Figure 269: Tc-101 decay curve for 1012.470 keV gamma ray.

3.270 Mo-101 E_γ = 1160.98 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1160.98 keV
Gamma Intensity = 4.02 ± 0.136 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 539: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 540: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1161.800	0.007	0.312	0.065
Sn-127	Sb-127	1160.400	0.024	2.100	0.001
Sn-129	Sb-129	1161.310	0.520	0.115	0.002
I-135	Xe-135	1159.900	0.001	6.570	0.063
Xe-138	Cs-138	1160.960	0.001	0.235	0.063
Ba-141	La-141	1160.800	0.011	0.304	0.058
La-142	Ce-142	1160.200	0.017	1.518	0.058
Ce-143	Pr-143	1160.580	0.000	33.039	0.060
Pr-145	Nd-145	1161.040	0.000	5.984	0.039
Pr-145	Nd-145	1162.320	0.000	5.984	0.039
Sm-155	Eu-155	1159.700	0.000	0.372	0.000

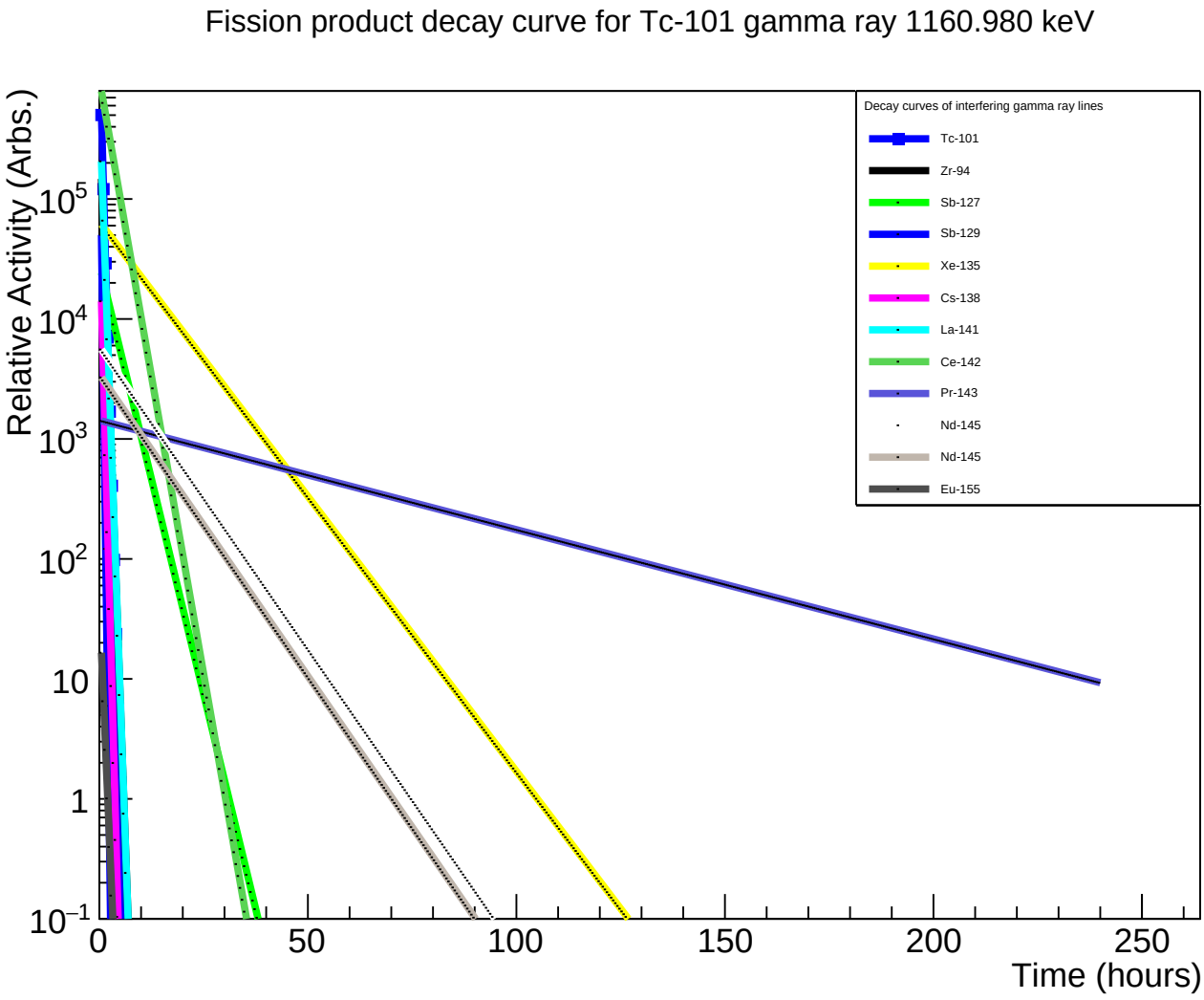


Figure 270: Tc-101 decay curve for 1160.980 keV gamma ray.

3.271 Mo-101 E_γ = 1186.76 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1186.76 keV
Gamma Intensity = 1.01 ± 0.040 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 541: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 542: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1187.100	0.000	0.855	0.000
Tc-104	Ru-104	1187.700	0.003	0.305	0.019
Sn-125	Sb-125	1186.150	0.000	231.360	0.000
Ba-141	La-141	1187.800	0.000	0.304	0.058
Nd-151	Pm-151	1186.000	0.000	0.207	0.004
Nd-151	Pm-151	1186.700	0.001	0.207	0.004
Eu-156	Gd-156	1187.300	0.000	364.560	0.000

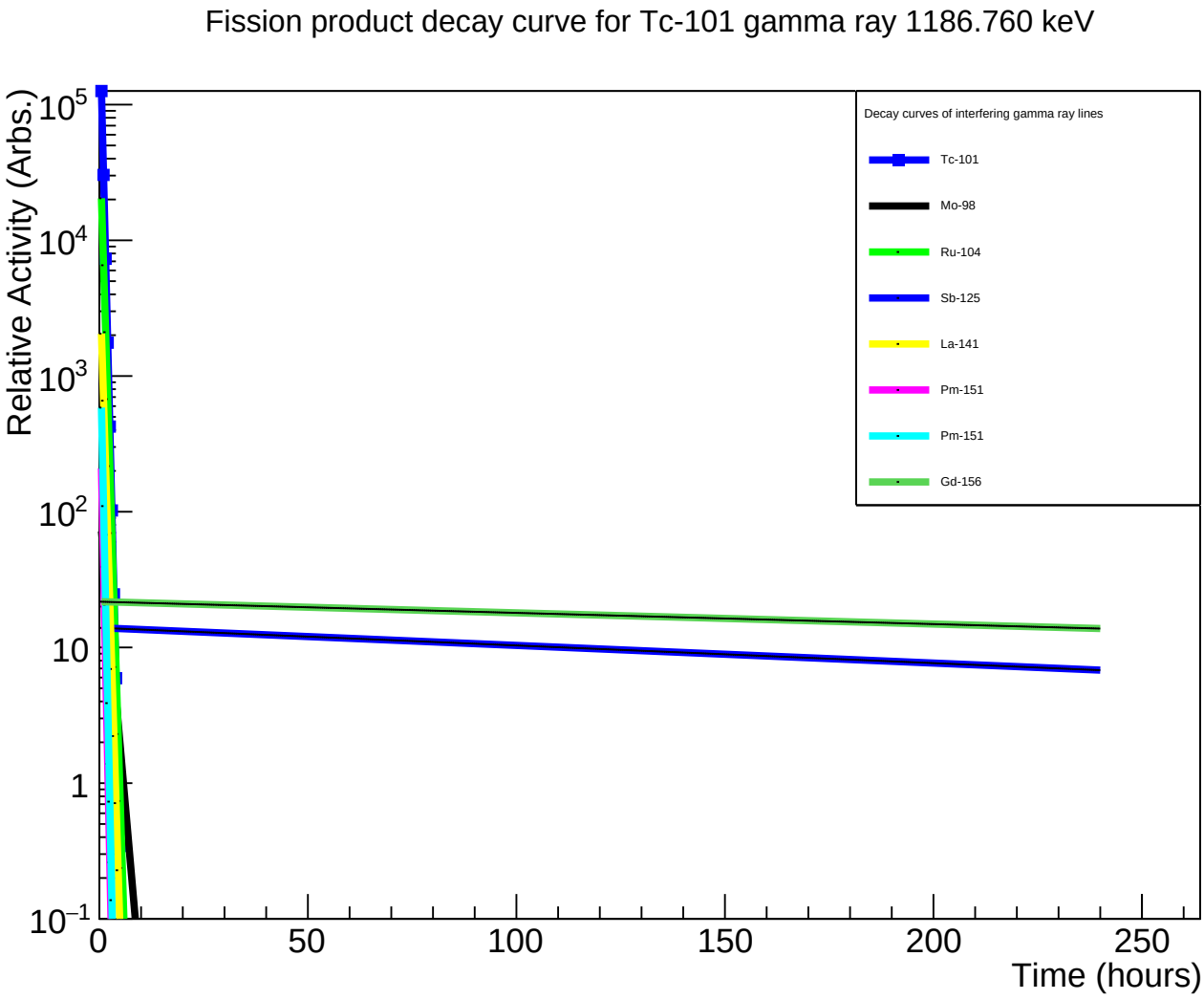


Figure 271: Tc-101 decay curve for 1186.760 keV gamma ray.

3.272 Mo-101 E_γ = 1199.94 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1199.94 keV
Gamma Intensity = 1.80 ± 0.058 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 543: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 544: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1199.100	0.007	1.512	0.000
Sn-125	Sb-125	1198.700	0.000	231.360	0.000
Sb-130	Te-130	1200.000	0.036	0.105	0.010
Cs-138	Ba-138	1199.150	0.002	0.557	0.067
La-143	Ce-143	1201.300	0.003	0.237	0.059
Nd-151	Pm-151	1201.030	0.000	0.207	0.004
Nd-151	Pm-151	1201.030	0.002	0.207	0.004

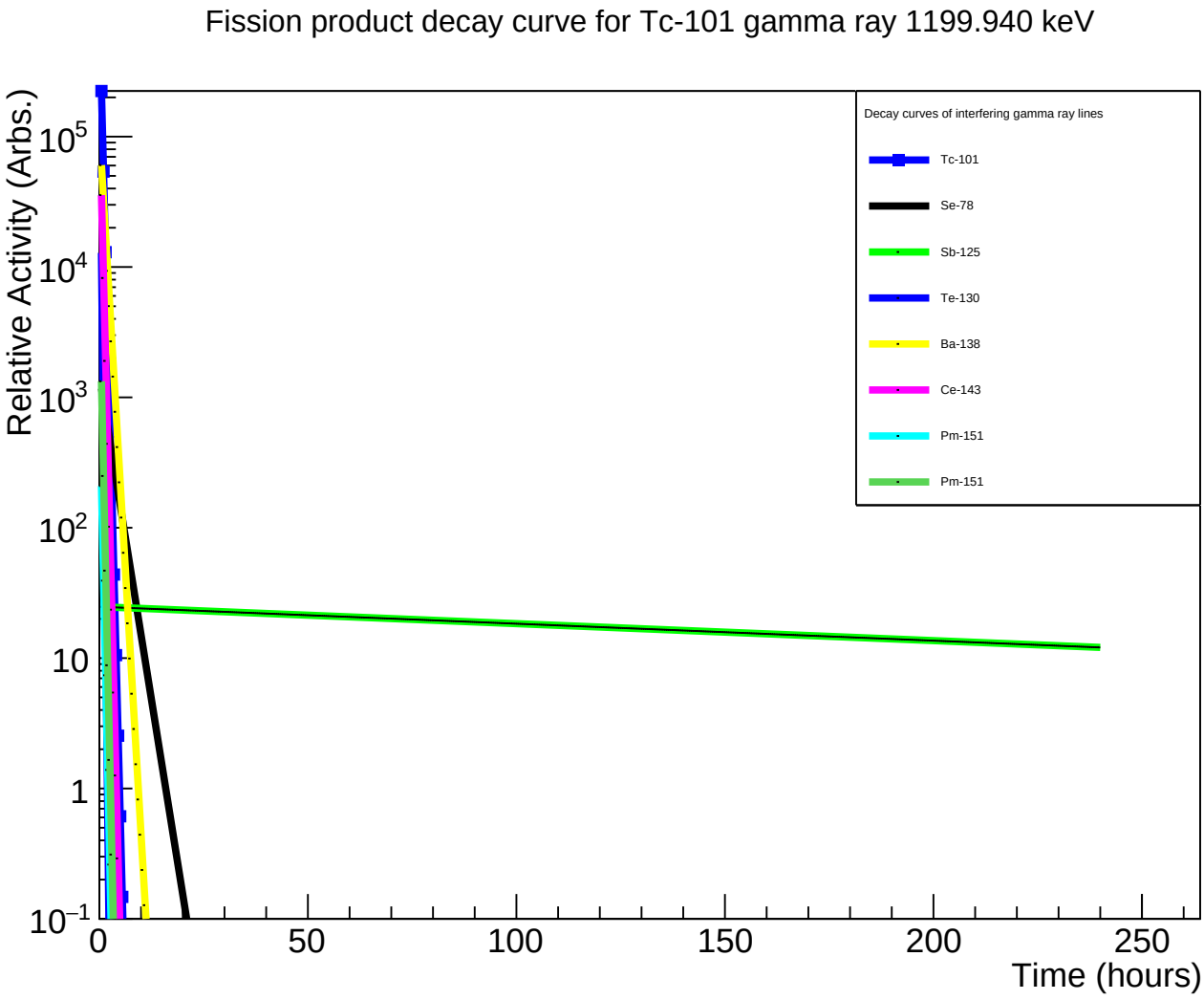


Figure 272: Tc-101 decay curve for 1199.940 keV gamma ray.

3.273 Mo-101 E_γ = 1251.10 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1251.10 keV
Gamma Intensity = 4.72 ± 0.156 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 545: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 546: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1250.670	0.011	2.840	0.036
Ru-105	Rh-105	1251.890	0.000	4.440	0.010
Sb-128	Te-128	1250.500	0.010	9.010	0.000
Te-133	I-133	1252.080	0.014	0.208	0.031
Te-133	I-133	1252.000	0.003	0.923	0.040
Pr-145	Nd-145	1249.730	0.000	5.984	0.039
Nd-151	Pm-151	1251.600	0.001	0.207	0.004

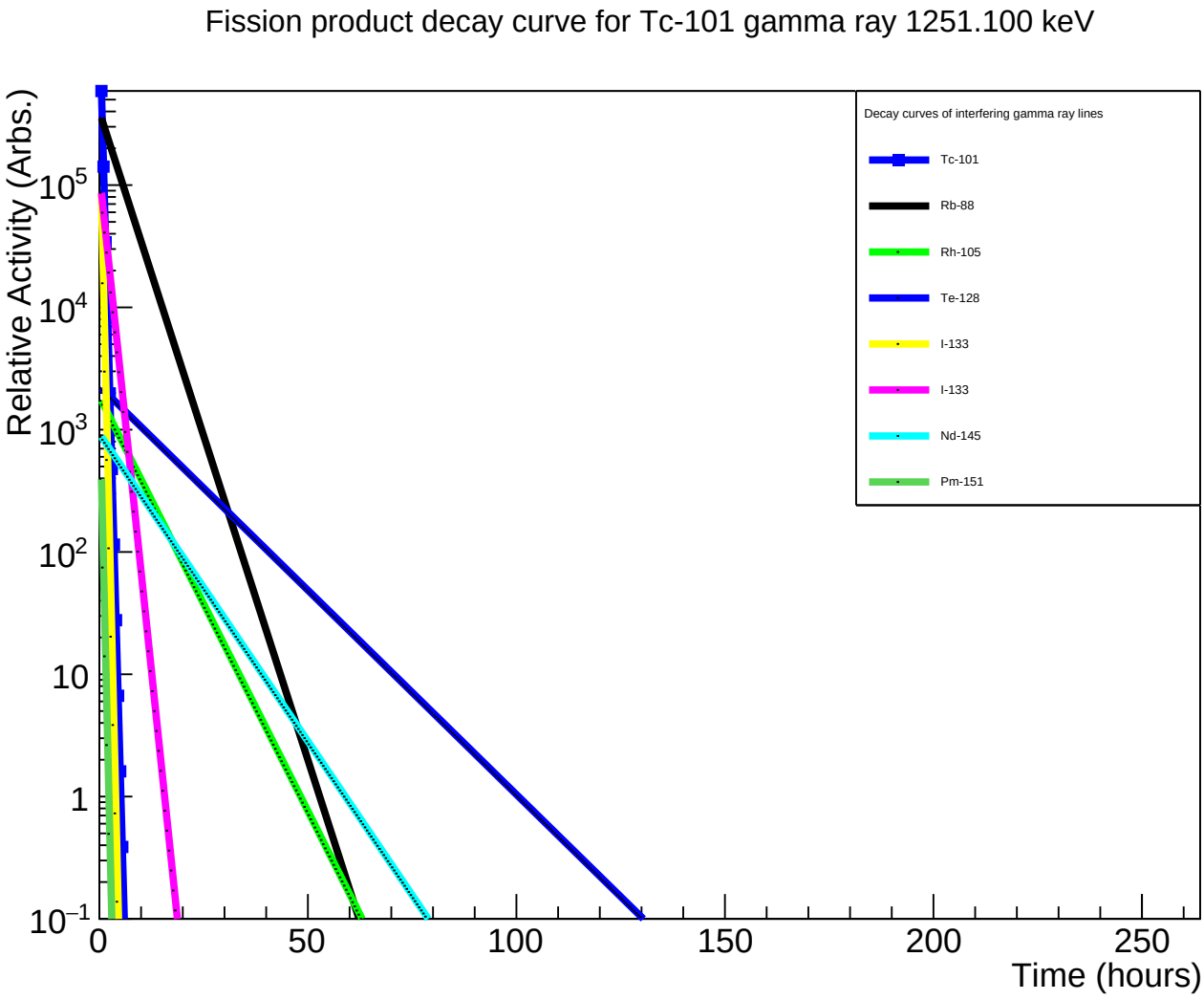


Figure 273: Tc-101 decay curve for 1251.100 keV gamma ray.

3.274 Mo-101 E_γ = 1304.00 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1304.00 keV
Gamma Intensity = 2.71 ± 0.079 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 547: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 548: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1303.090	0.001	2.840	0.036
Sr-91	Y-91	1305.300	0.000	9.630	0.058
Y-94	Zr-94	1303.800	0.000	0.312	0.065
Sn-125	Sb-125	1304.420	0.000	0.159	0.000
La-140	Ce-140	1303.500	0.000	40.285	0.062
Pr-146	Nd-146	1303.400	0.001	0.403	0.030
Pr-147	Nd-147	1303.400	0.002	0.223	0.022

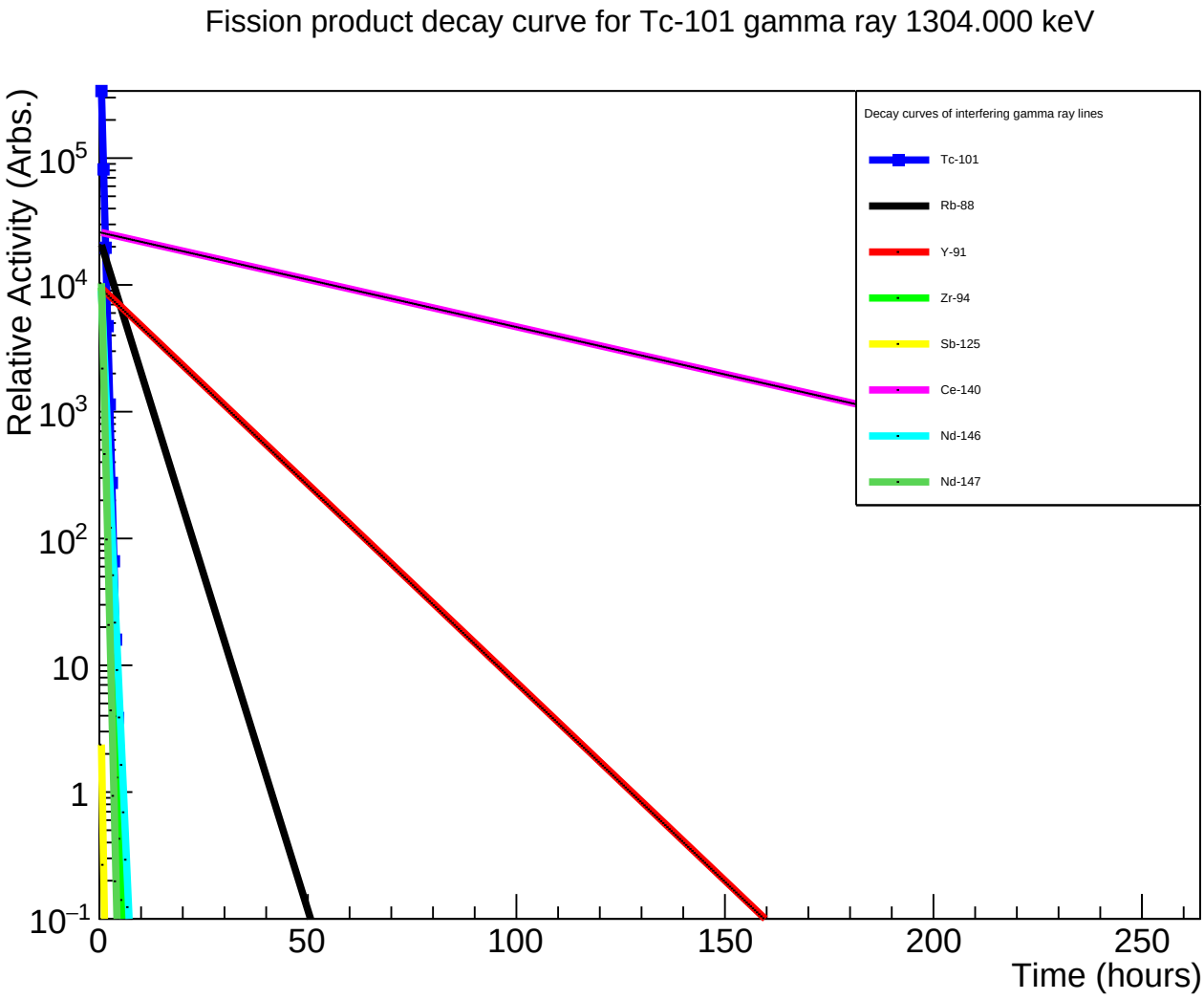


Figure 274: Tc-101 decay curve for 1304.000 keV gamma ray.

3.275 Mo-101 E_γ = 1355.89 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1355.89 keV
Gamma Intensity = 1.69 ± 0.075 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 549: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 550: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1356.800	0.005	0.172	0.064
Ru-105	Rh-105	1357.200	0.000	4.440	0.010
Ag-112	Cd-112	1356.600	0.005	3.130	0.000
Sb-128	Te-128	1354.600	0.006	0.173	0.003
Xe-138	Cs-138	1356.600	0.001	0.235	0.063
Ba-141	La-141	1354.600	0.001	0.304	0.058
Ba-141	La-141	1357.100	0.001	0.304	0.058
La-141	Ce-141	1354.520	0.016	3.920	0.058
Nd-149	Pm-149	1357.260	0.000	1.728	0.011
Nd-151	Pm-151	1357.000	0.000	0.207	0.004

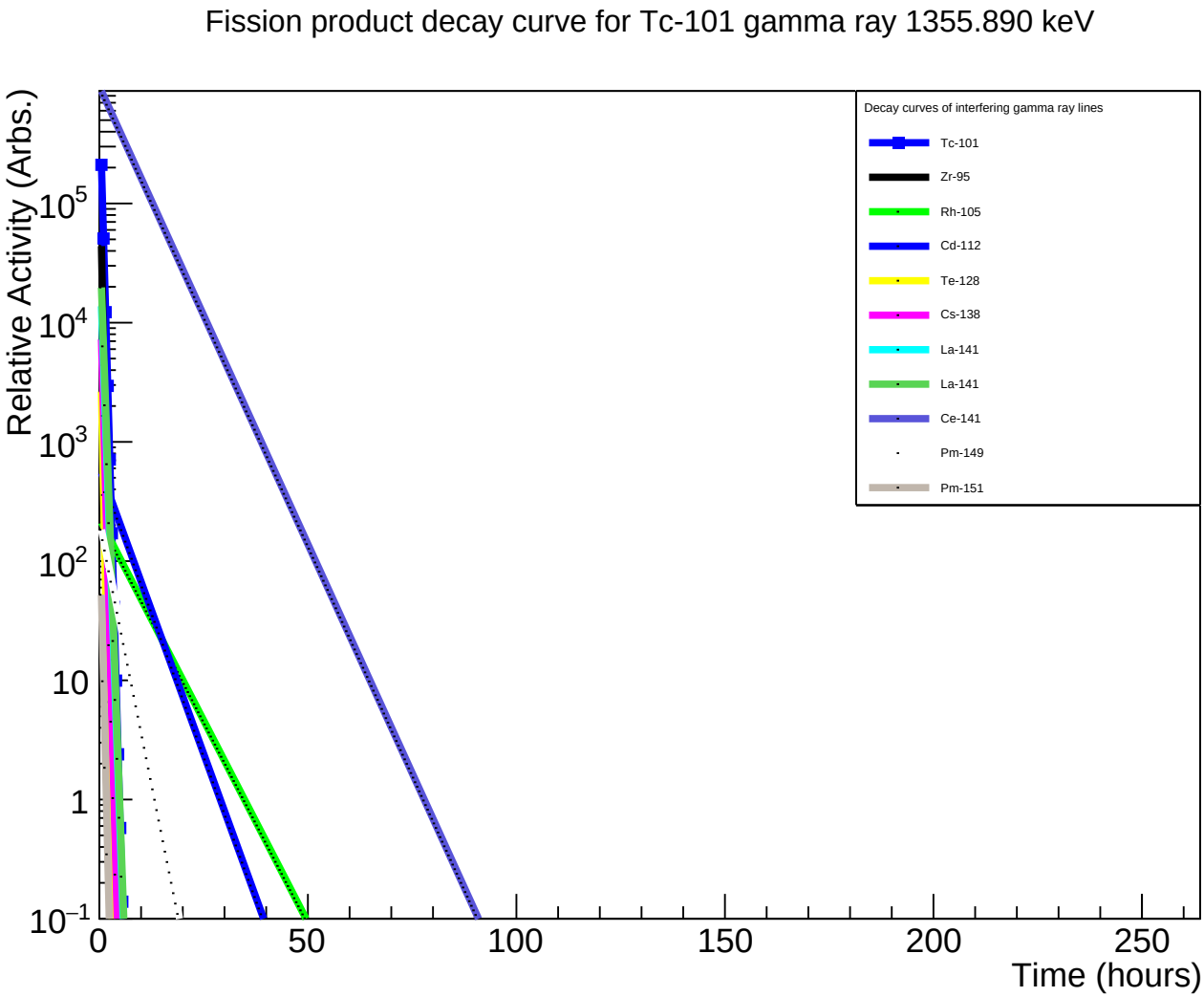


Figure 275: Tc-101 decay curve for 1355.890 keV gamma ray.

3.276 Mo-101 E_γ = 1382.71 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1382.71 keV
Gamma Intensity = 1.13 ± 0.039 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 551: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 552: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1384.000	0.004	0.372	0.003
Kr-87	Rb-87	1382.550	0.003	1.272	0.026
Rb-88	Sr-88	1382.450	0.008	0.296	0.036
Sr-92	Y-92	1383.930	0.900	2.710	0.059
Xe-138	Cs-138	1381.400	0.001	0.235	0.063
Ba-139	La-139	1381.500	0.000	1.384	0.064
Ce-143	Pr-143	1382.000	0.000	33.039	0.060
Nd-149	Pm-149	1381.420	0.000	1.728	0.011
Nd-151	Pm-151	1383.370	0.001	0.207	0.004

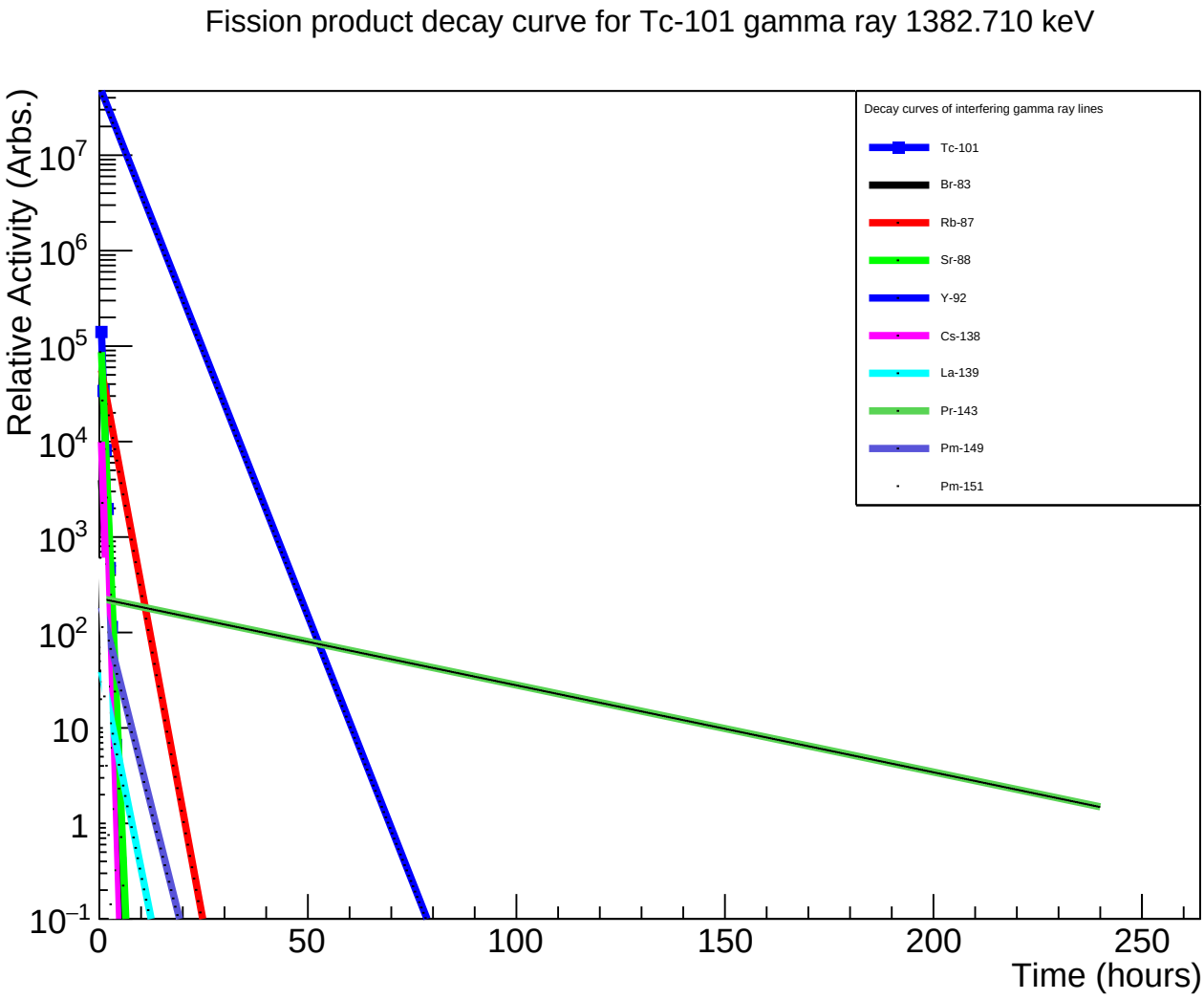


Figure 276: Tc-101 decay curve for 1382.710 keV gamma ray.

3.277 Mo-101 E_γ = 1532.49 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1532.49 keV
Gamma Intensity = 6.14 ± 0.195 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 553: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 554: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1532.000	0.002	0.372	0.003
Kr-87	Rb-87	1531.200	0.004	1.272	0.026
Tc-104	Ru-104	1531.200	0.004	0.305	0.019
Sb-130	Te-130	1533.700	0.009	0.658	0.008
Cs-139	Ba-139	1531.200	0.000	0.155	0.063
Nd-151	Pm-151	1533.600	0.000	0.207	0.004

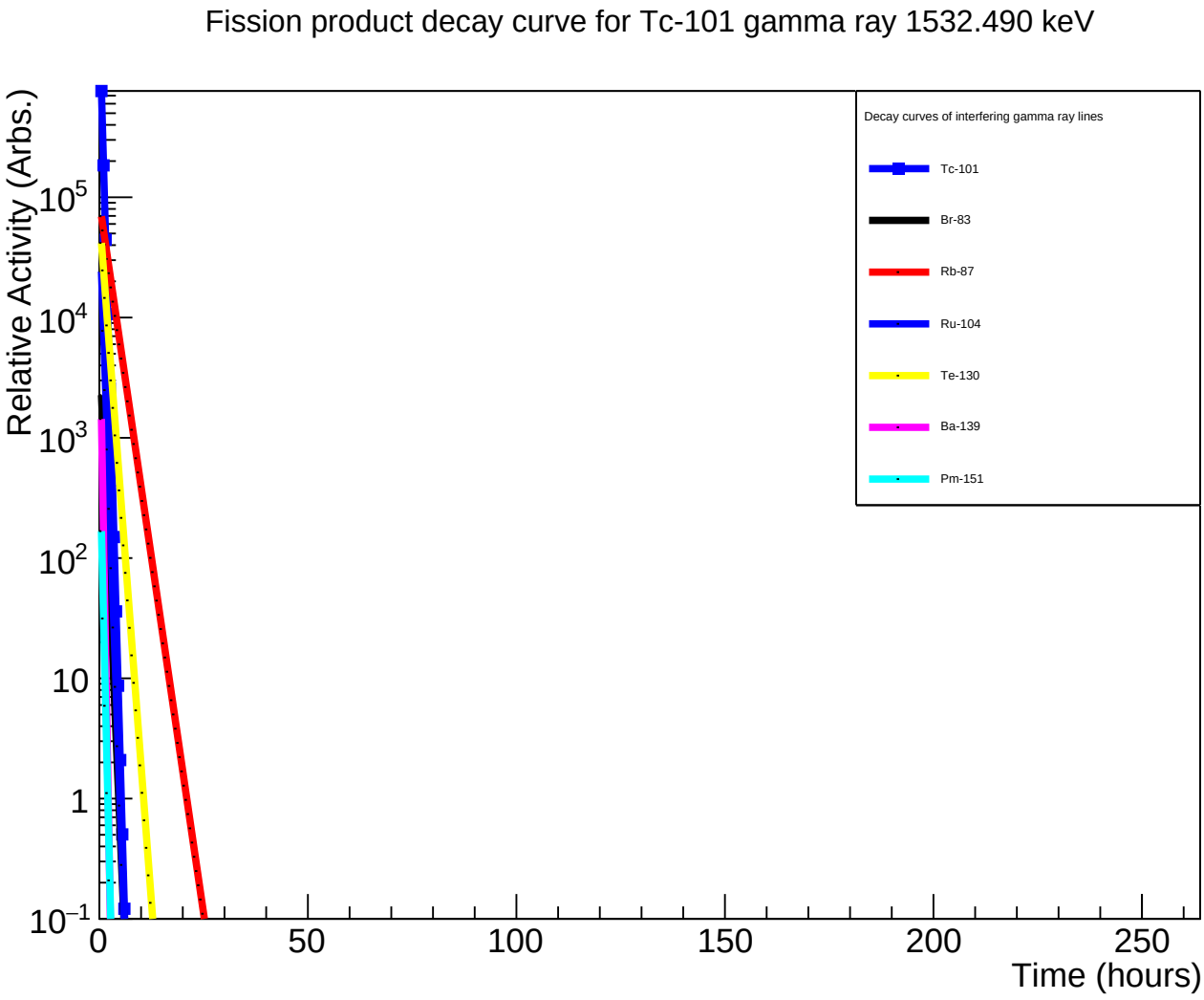


Figure 277: Tc-101 decay curve for 1532.490 keV gamma ray.

3.278 Mo-101 E_γ = 1599.26 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1599.26 keV
Gamma Intensity = 1.75 ± 0.076 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 555: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 556: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	1600.000	0.002	2.100	0.001
Sb-129	Te-129	1598.500	0.005	4.400	0.005
Sb-130	Te-130	1598.000	0.026	0.105	0.010
Cs-139	Ba-139	1600.700	0.000	0.155	0.063
Ba-141	La-141	1600.600	0.001	0.304	0.058
Nd-151	Pm-151	1598.040	0.001	0.207	0.004

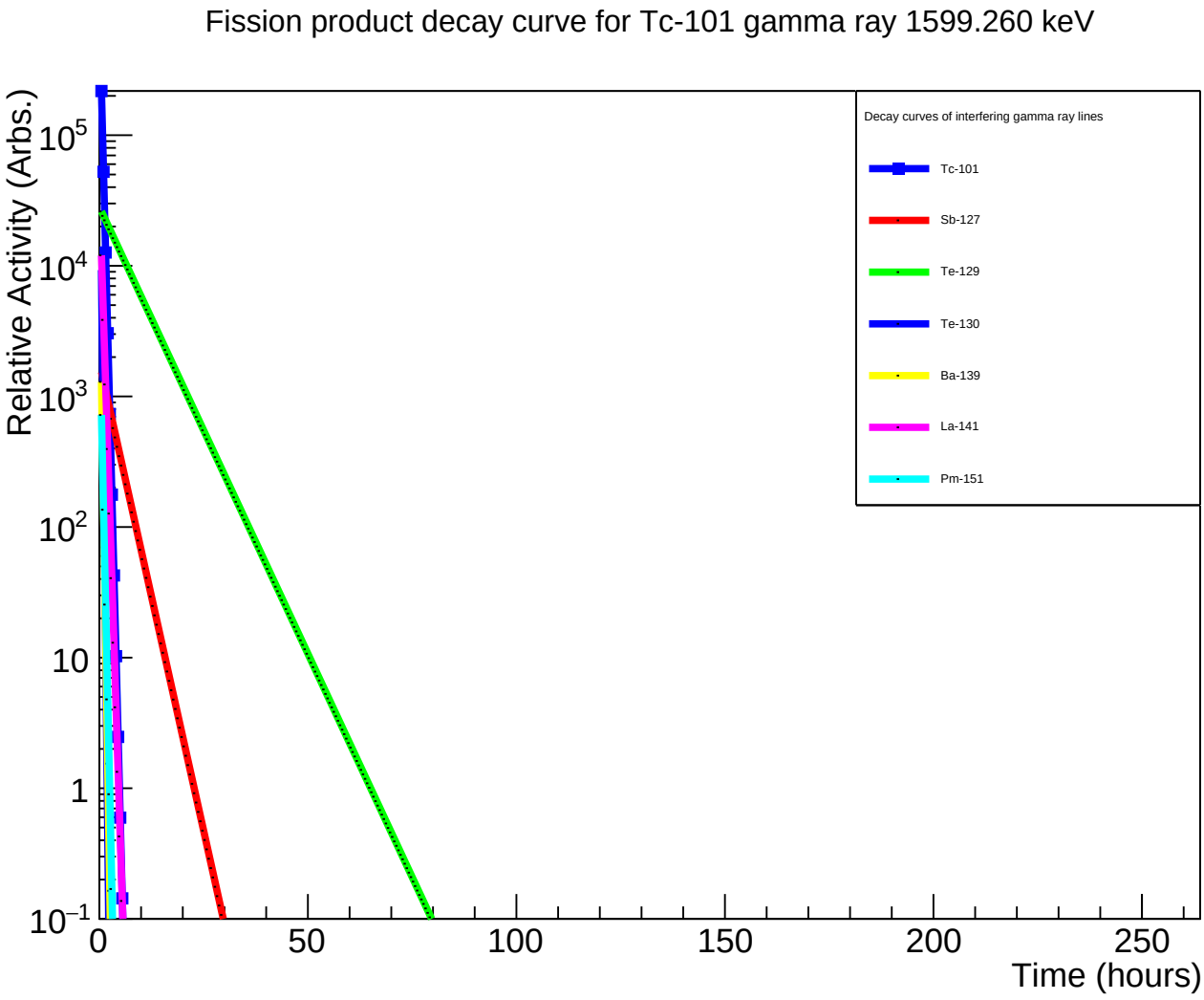


Figure 278: Tc-101 decay curve for 1599.260 keV gamma ray.

3.279 Mo-101 E_γ = 1673.91 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1673.91 keV
Gamma Intensity = 1.68 ± 0.075 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 557: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 558: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	1673.300	0.001	0.127	0.010
Pr-147	Nd-147	1673.900	0.002	0.223	0.022
Nd-151	Pm-151	1673.200	0.000	0.207	0.004

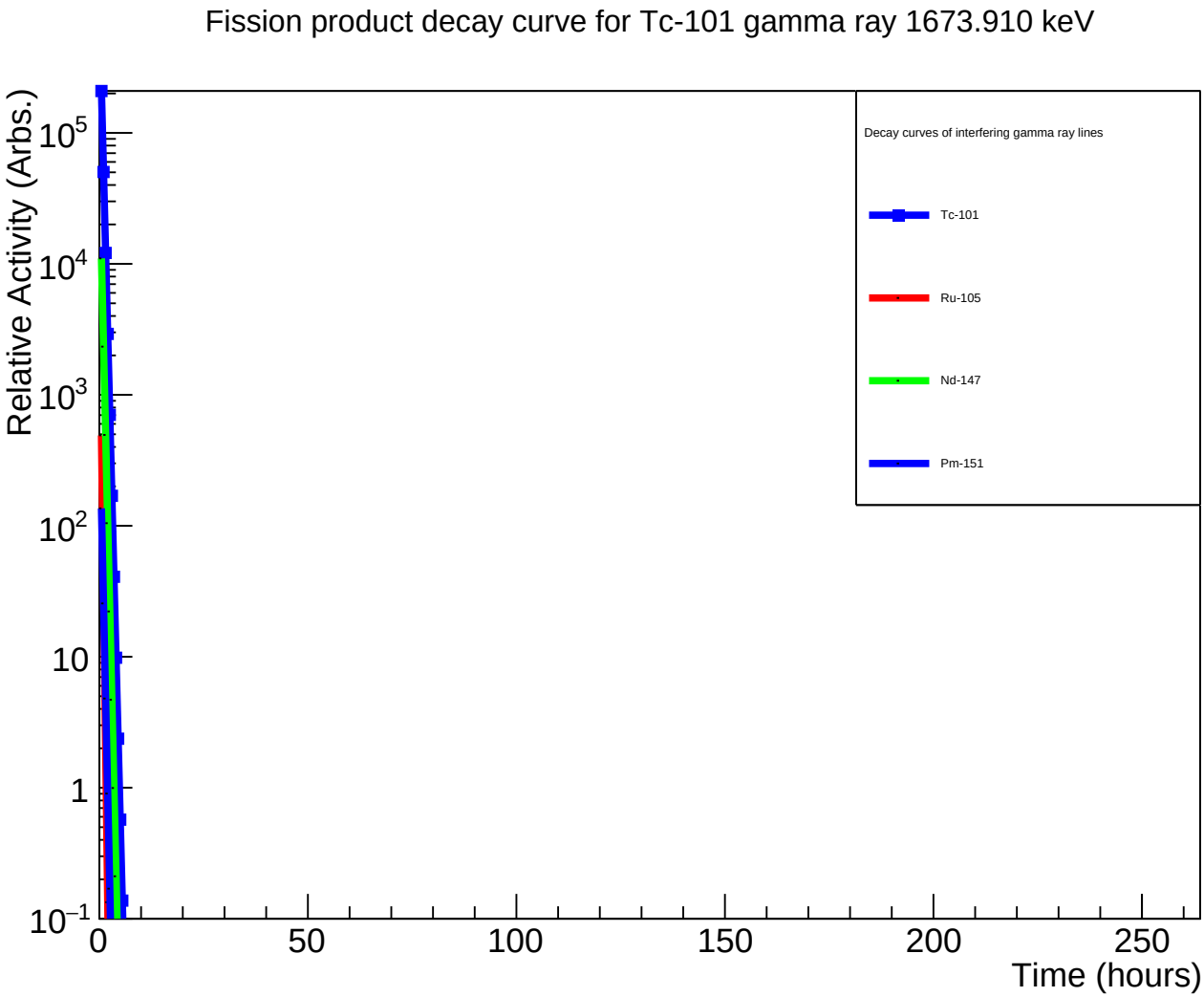


Figure 279: Tc-101 decay curve for 1673.910 keV gamma ray.

3.280 Mo-101 E_γ = 1759.72 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1759.72 keV
Gamma Intensity = 1.01 ± 0.045 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 559: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 560: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1758.460	0.001	0.855	0.000
Nb-98	Mo-98	1758.700	0.000	0.855	0.000
I-132	Xe-132	1760.400	0.001	2.295	0.043

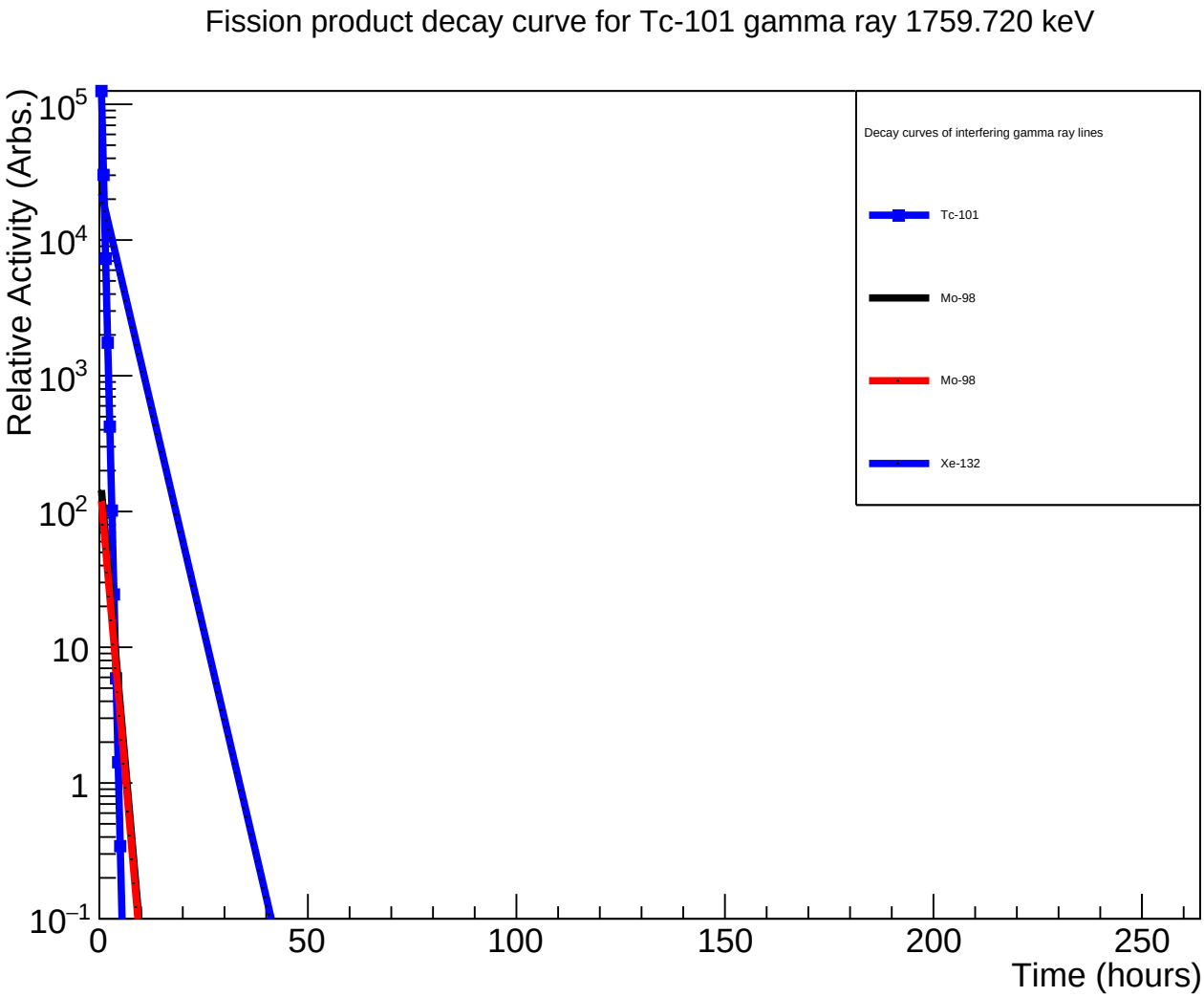


Figure 280: Tc-101 decay curve for 1759.720 keV gamma ray.

3.281 Mo-101 E_γ = 1840.24 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 1840.24 keV
Gamma Intensity = 1.40 ± 0.093 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 561: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 562: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1840.500	0.002	0.305	0.019
Ba-141	La-141	1841.700	0.000	0.304	0.058

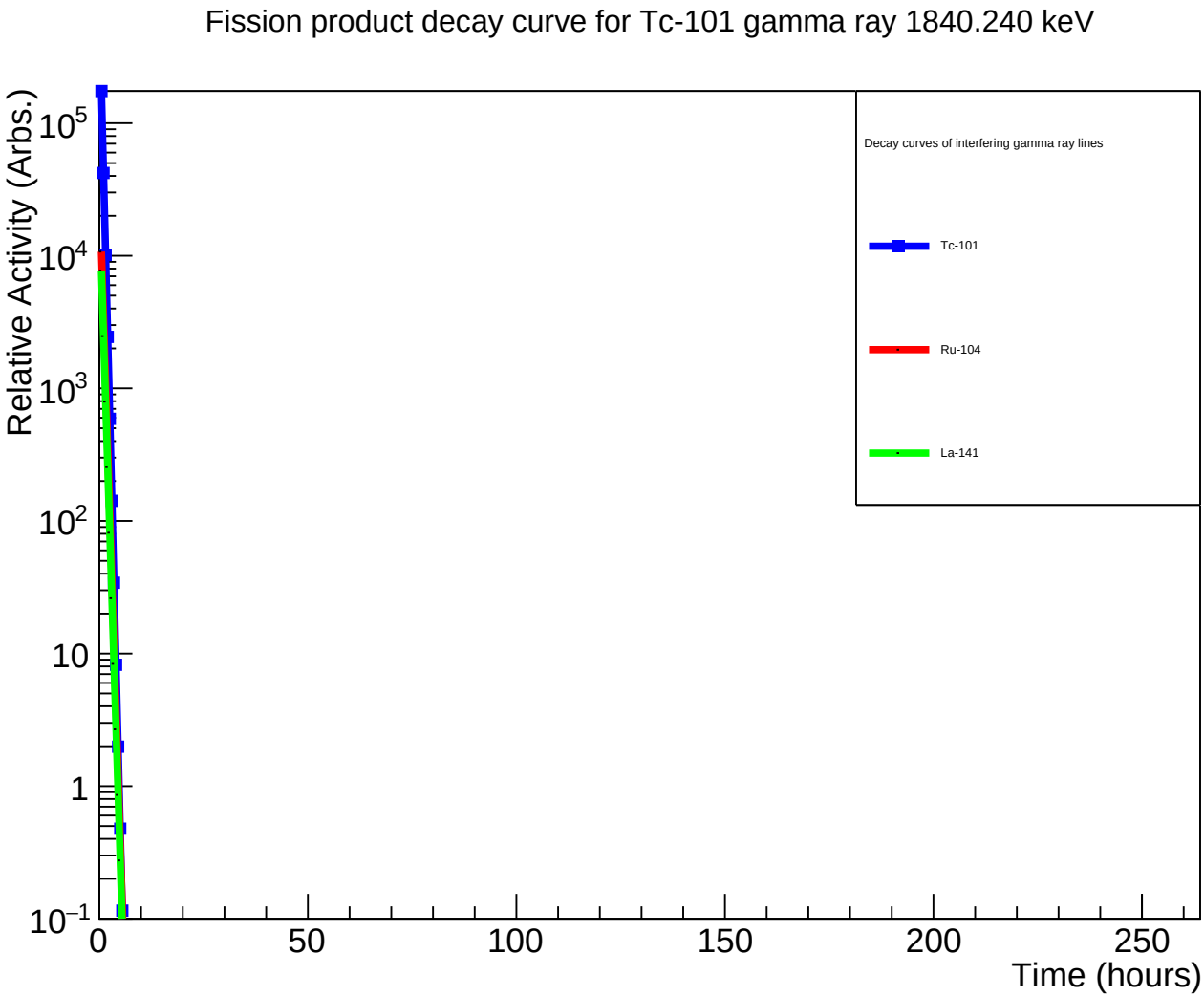


Figure 281: Tc-101 decay curve for 1840.240 keV gamma ray.

3.282 Mo-101 E_γ = 2032.10 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 2032.10 keV
Gamma Intensity = 6.59 ± 0.197 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 563: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 564: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Eu-156	Gd-156	2032.510	0.001	364.560	0.000

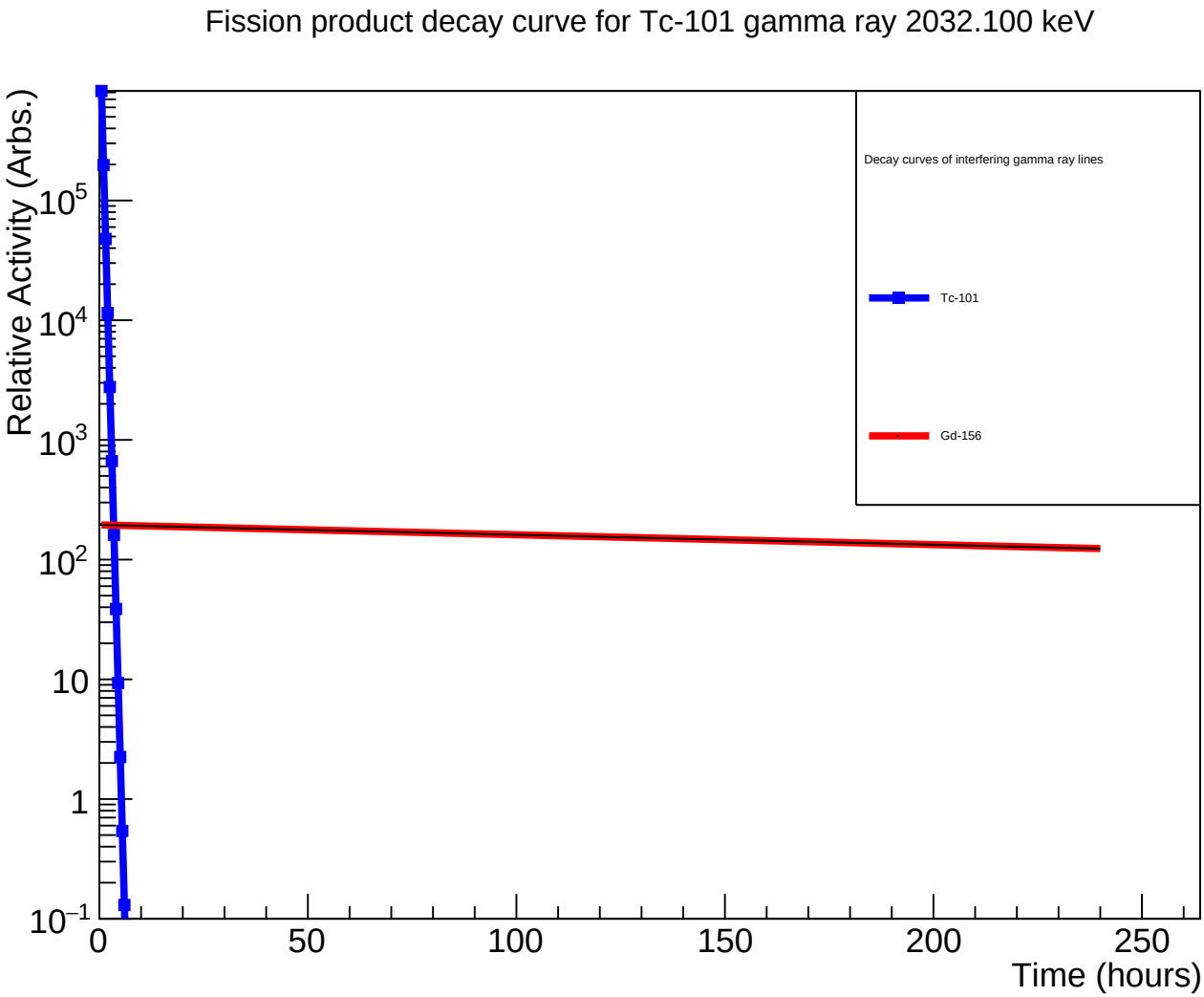


Figure 282: Tc-101 decay curve for 2032.100 keV gamma ray.

3.283 Mo-101 E_γ = 2041.24 keV

Chemical element: Molybdenum
Fission product parent: Mo-101
Gamma originates in daughter: Tc-101
Eγ: 2041.24 keV
Gamma Intensity = 2.15 ± 0.077 %
$T_{1/2}$ = 0.243 ± 0.000 hours or 14.61 ± 0.03 minutes
CFY: 5.172 ± 0.103 %

Table 565: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 566: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	2040.800	0.000	0.417	0.025
Xe-138	Cs-138	2041.200	0.000	0.235	0.063

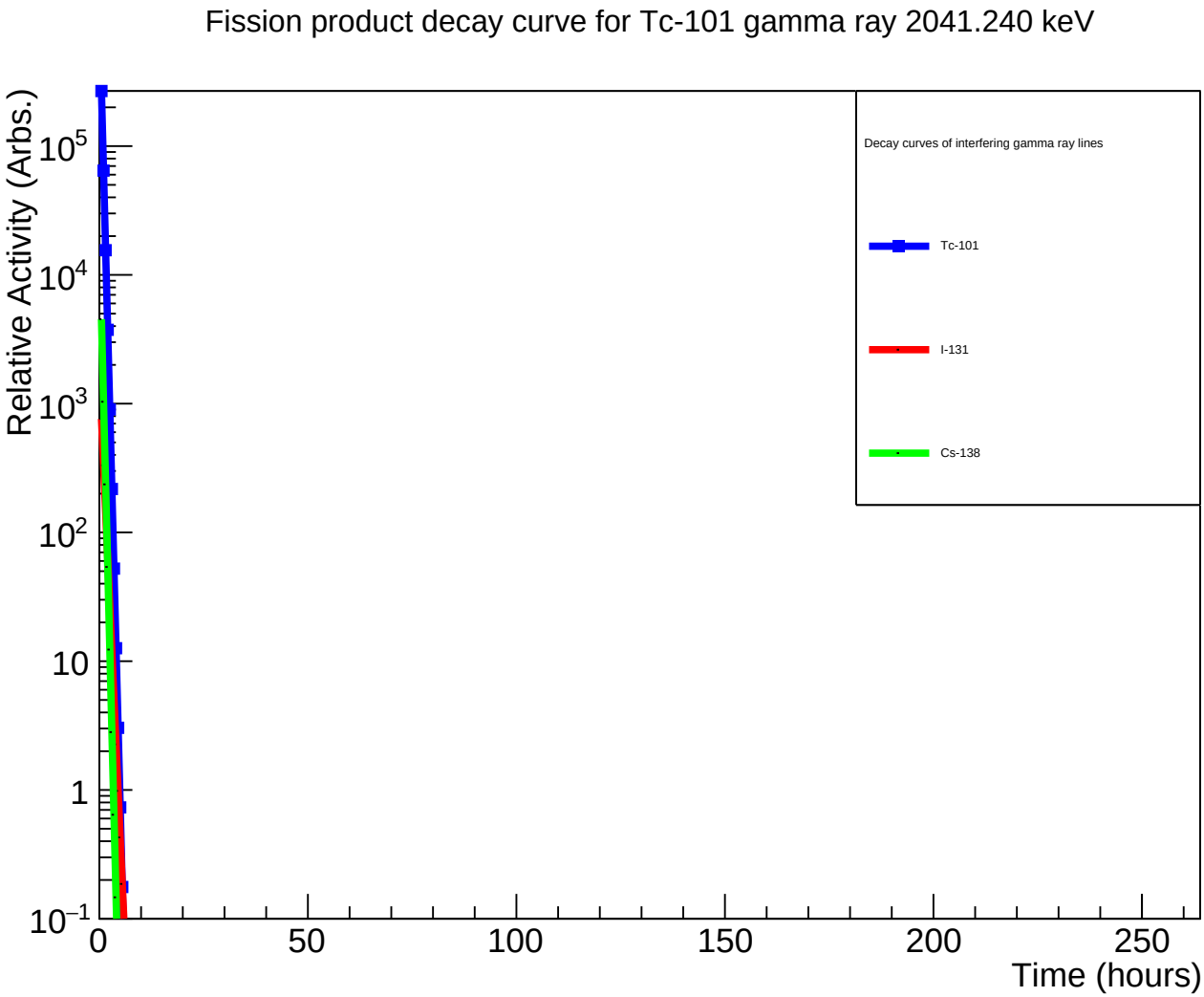


Figure 283: Tc-101 decay curve for 2041.240 keV gamma ray.

3.284 Mo-102 E_γ = 148.19 keV

Chemical element: Molybdenum
Fission product parent: Mo-102
Gamma originates in daughter: Tc-102
Eγ: 148.19 keV
Gamma Intensity = 3.76 ± 0.530 %
$T_{1/2}$ = 0.188 ± 0.003 hours or 11.30 ± 0.20 minutes
CFY: 4.279 ± 0.471 %

Table 567: Decay chain of fission product chain A = 102

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-102	Niobium-102	0.001	0.000
Niobium-102	Molybdenum-102	0.001	0.000
Molybdenum-102	Technetium-102	0.188	0.003
Technetium-102	Ruthenium-102	0.001	0.000

Table 568: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	149.100	0.018	4.440	0.010
Ag-112	Cd-112	147.900	0.000	3.130	0.000
Sn-129	Sb-129	148.800	0.011	0.115	0.002
Te-131	I-131	149.300	0.001	33.250	0.004
I-132	Xe-132	147.400	0.002	2.295	0.043
Ba-142	La-142	147.500	0.001	0.177	0.058
Pr-147	Nd-147	148.700	0.001	0.223	0.022
Nd-147	Pm-147	149.300	0.000	263.520	0.022
Nd-151	Pm-151	149.610	0.003	0.207	0.004
Pm-151	Sm-151	147.530	0.002	28.400	0.004
Pm-151	Sm-151	148.500	0.001	28.400	0.004

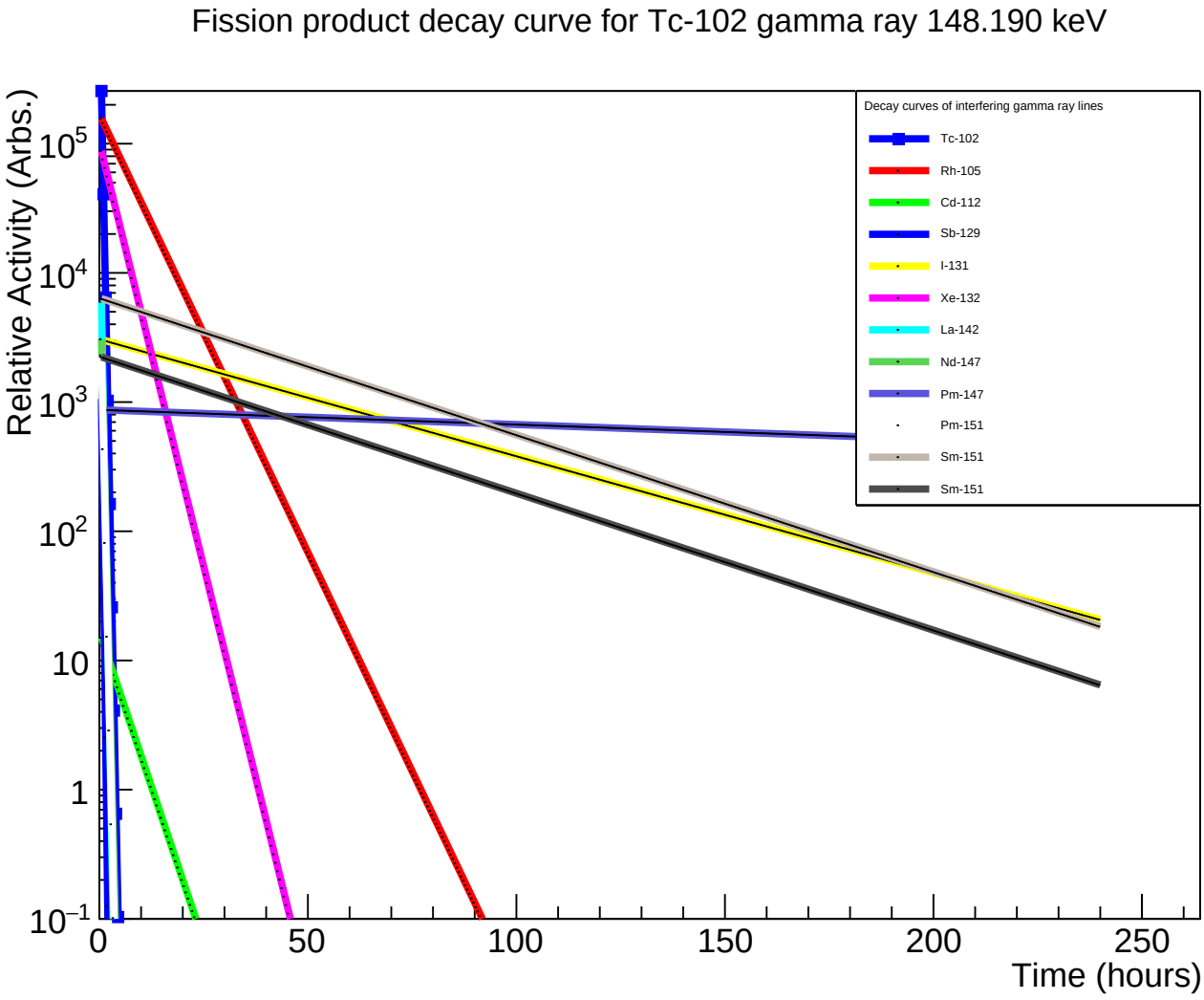


Figure 284: Tc-102 decay curve for 148.190 keV gamma ray.

3.285 Mo-102 E_γ = 211.66 keV

Chemical element: Molybdenum
Fission product parent: Mo-102
Gamma originates in daughter: Tc-102
Eγ: 211.66 keV
Gamma Intensity = 3.80 ± 0.500 %
$T_{1/2}$ = 0.188 ± 0.003 hours or 11.30 ± 0.20 minutes
CFY: 4.279 ± 0.471 %

Table 569: Decay chain of fission product chain A = 102

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-102	Niobium-102	0.001	0.000
Niobium-102	Molybdenum-102	0.001	0.000
Molybdenum-102	Technetium-102	0.188	0.003
Technetium-102	Ruthenium-102	0.001	0.000

Table 570: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	212.400	0.004	0.127	0.010
Sn-127	Sb-127	211.500	0.001	2.100	0.001
Sn-127	Sb-127	212.900	0.001	2.100	0.001
Te-129	I-129	210.660	0.000	1.160	0.005
Te-131	I-131	211.900	0.000	33.250	0.004
Te-134	I-134	210.465	0.227	0.697	0.070
Cs-138	Ba-138	212.320	0.002	0.557	0.067
Ce-146	Pr-146	210.460	0.049	0.225	0.030
Nd-149	Pm-149	211.309	0.259	1.728	0.011
Nd-151	Pm-151	211.360	0.001	0.207	0.004

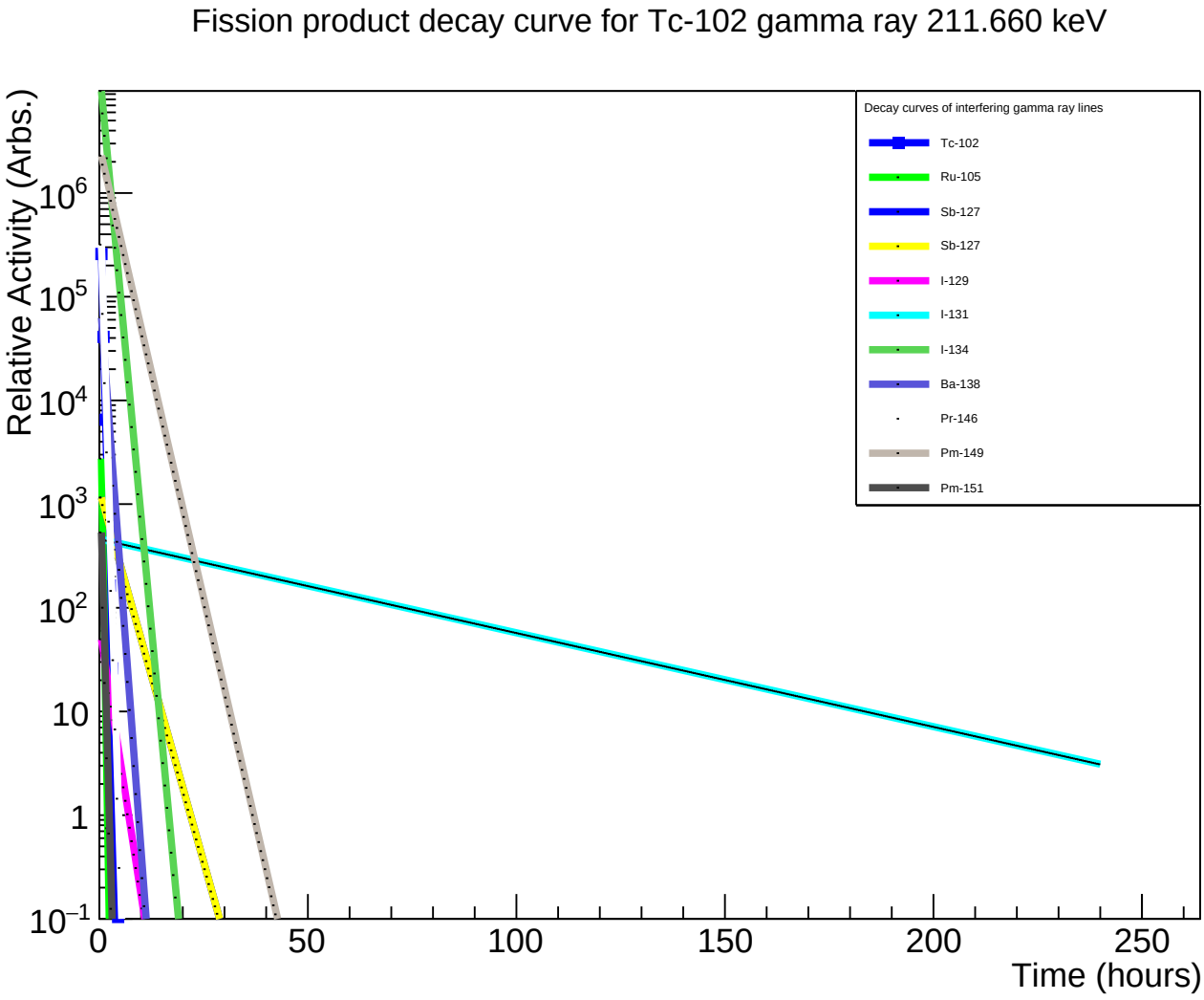


Figure 285: Tc-102 decay curve for 211.660 keV gamma ray.

3.286 Mo-102 E_γ = 223.83 keV

Chemical element: Molybdenum
Fission product parent: Mo-102
Gamma originates in daughter: Tc-102
Eγ: 223.83 keV
Gamma Intensity = 1.44 ± 0.205 %
$T_{1/2}$ = 0.188 ± 0.003 hours or 11.30 ± 0.20 minutes
CFY: 4.279 ± 0.471 %

Table 571: Decay chain of fission product chain A = 102

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-102	Niobium-102	0.001	0.000
Niobium-102	Molybdenum-102	0.001	0.000
Molybdenum-102	Technetium-102	0.188	0.003
Technetium-102	Ruthenium-102	0.001	0.000

Table 572: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	225.180	0.327	0.372	0.003
Tc-105	Ru-105	224.600	0.002	0.127	0.010
Ru-105	Rh-105	225.080	0.001	4.440	0.010
Te-133	I-133	224.170	0.002	0.923	0.040
Xe-133	Cs-133	223.234	0.000	125.832	0.067
Ba-142	La-142	222.800	0.003	0.177	0.058
Nd-149	Pm-149	224.490	0.000	1.728	0.011

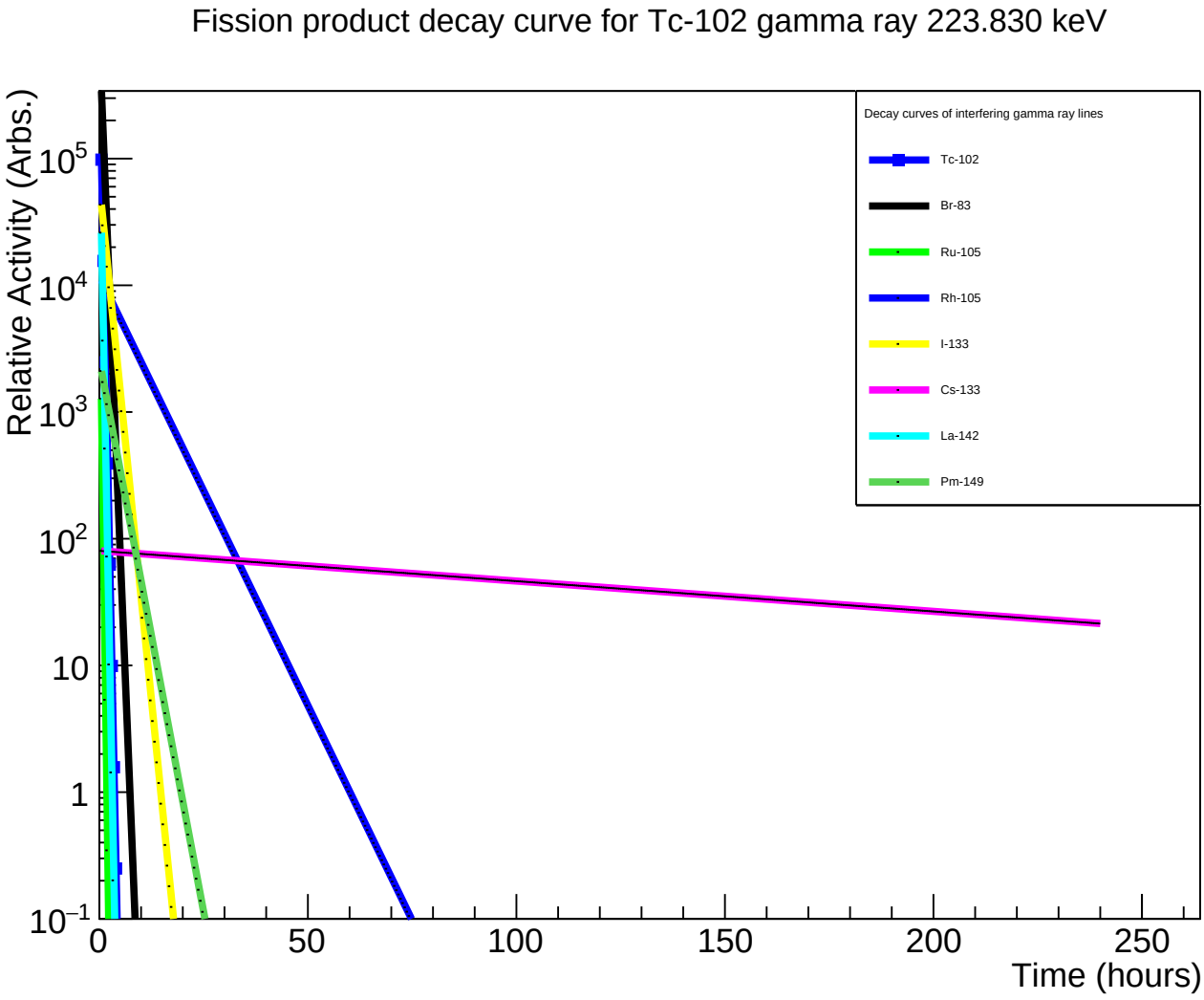


Figure 286: Tc-102 decay curve for 223.830 keV gamma ray.

3.287 Tc-99 E_γ = 140.51 keV

Chemical element: Technetium
Fission product parent: Tc-99
Gamma originates in daughter: Ru-99
Eγ: 140.51 keV
Gamma Intensity = 89.00 ± 4.016 %
$T_{1/2}$ = 6.007 ± 0.000 hours or 360.40 ± 0.03 minutes
CFY: 5.376 ± 0.075 %

Table 573: Decay chain of fission product chain A = 99

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Strontium-99	Yttrium-99	0.000	0.000
Yttrium-99	Zirconium-99	0.000	0.000
Zirconium-99	Niobium-99	0.001	0.000
Niobium-99	Molybdenum-99	0.004	0.000
Molybdenum-99	Technetium-99	65.976	0.024
Technetium-99	Ruthenium-99	1850000000.000	10527778.000

Table 574: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	139.330	0.000	4.440	0.010
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Te-131	I-131	141.200	0.000	0.417	0.025
I-134	Xe-134	139.030	0.008	0.875	0.078
Ce-143	Pr-143	139.742	0.001	33.039	0.060
Ce-146	Pr-146	141.290	0.033	0.225	0.030
Pr-147	Nd-147	141.000	0.013	0.223	0.022
Nd-149	Pm-149	139.210	0.005	1.728	0.011
Nd-149	Pm-149	141.060	0.000	1.728	0.011
Pm-151	Sm-151	139.280	0.005	28.400	0.004
Pm-151	Sm-151	141.700	0.000	28.400	0.004
Sm-155	Eu-155	141.411	0.020	0.372	0.000

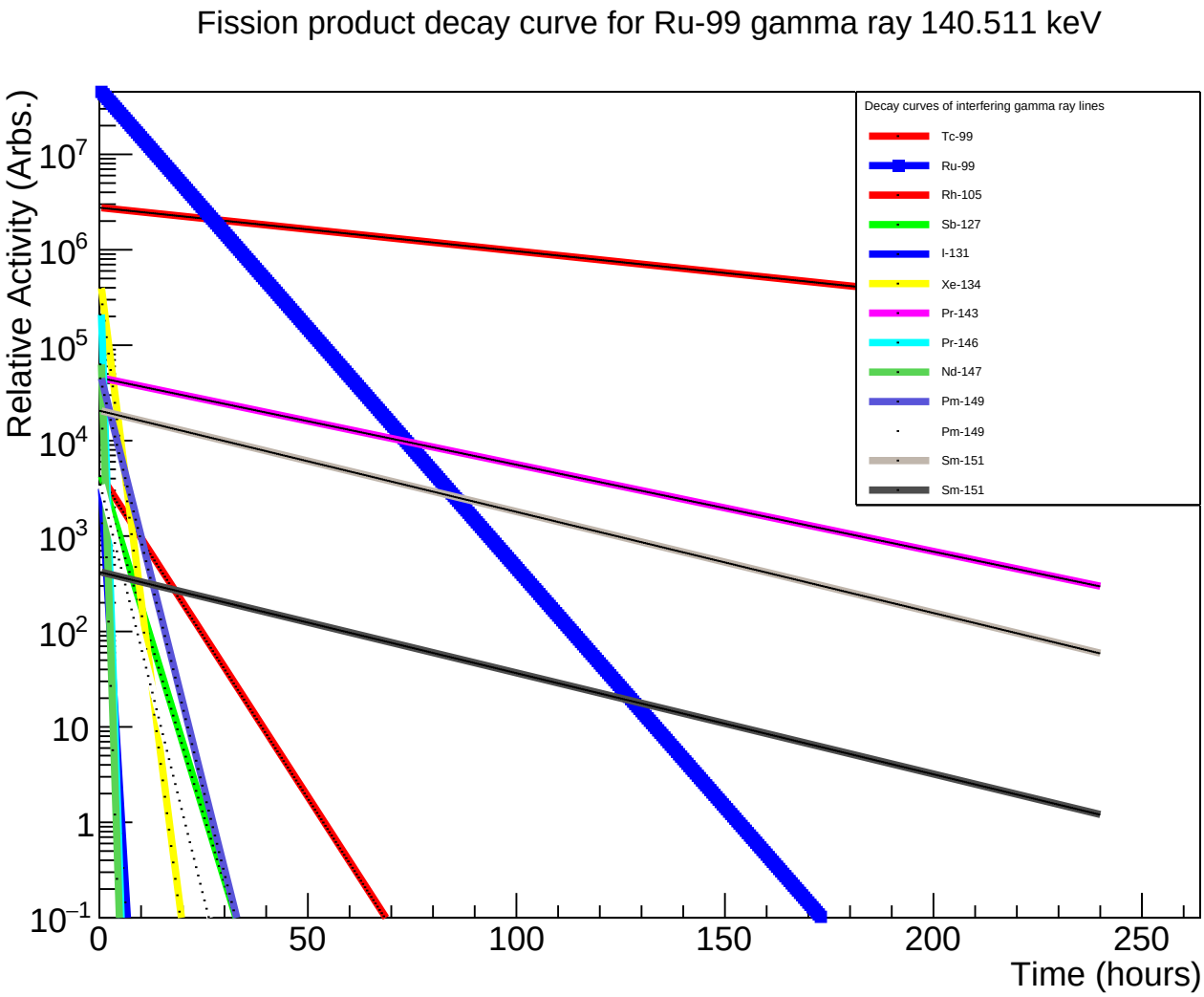


Figure 287: Ru-99 decay curve for 140.511 keV gamma ray.

3.288 Tc-101 E_γ = 127.22 keV

Chemical element: Technetium
Fission product parent: Tc-101
Gamma originates in daughter: Ru-101
Eγ: 127.22 keV
Gamma Intensity = 2.63 ± 0.080 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.173 ± 0.072 %

Table 575: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 576: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	128.550	0.000	2.400	0.005
Te-131	I-131	126.100	0.000	33.250	0.004
Te-131	I-131	127.400	0.000	33.250	0.004
Pr-147	Nd-147	127.800	0.072	0.223	0.022
Nd-149	Pm-149	126.630	0.001	1.728	0.011
Nd-151	Pm-151	125.740	0.000	0.207	0.004
Pm-151	Sm-151	126.800	0.000	28.400	0.004

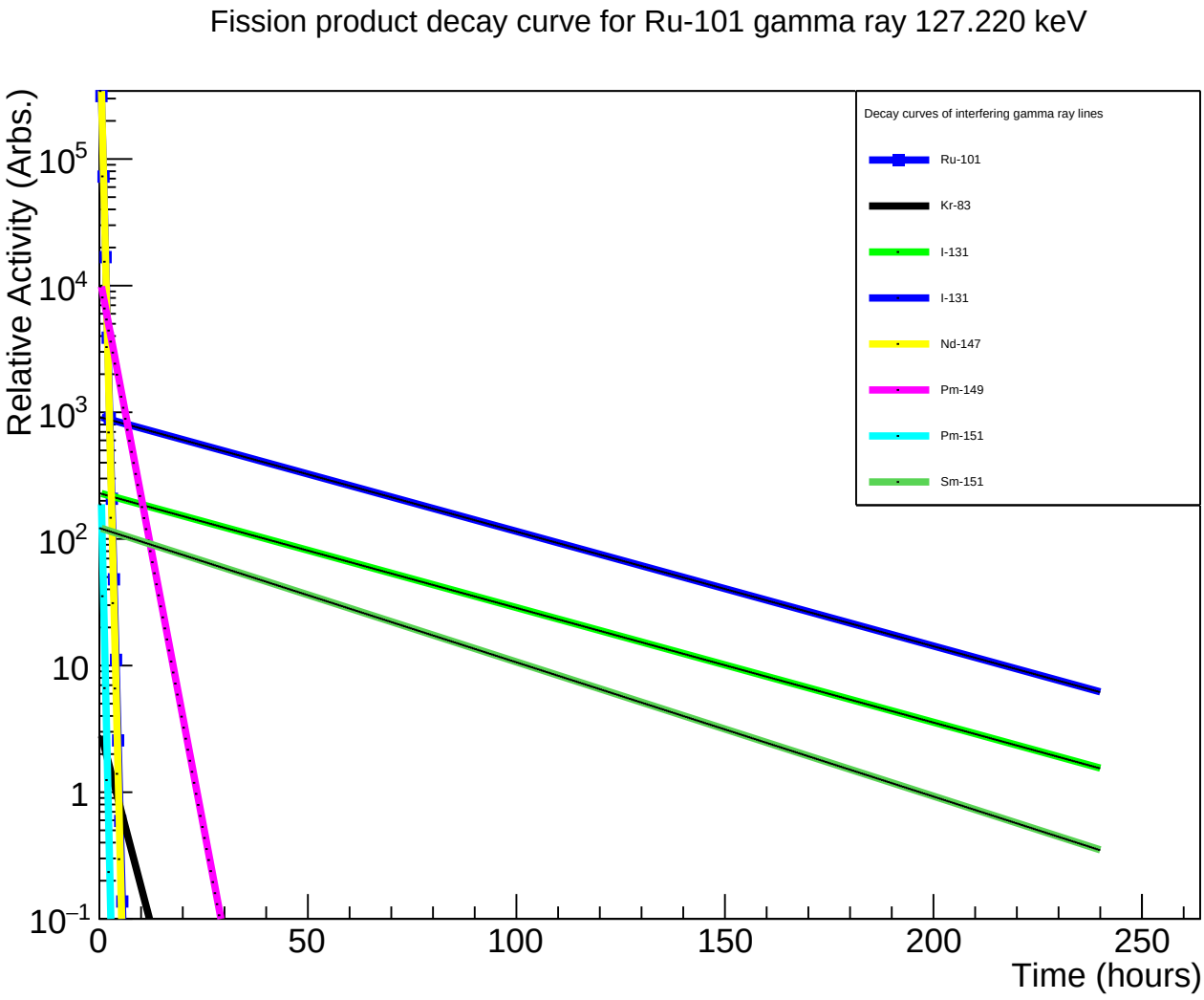


Figure 288: Ru-101 decay curve for 127.220 keV gamma ray.

3.289 Tc-101 E_γ = 184.12 keV

Chemical element: Technetium
Fission product parent: Tc-101
Gamma originates in daughter: Ru-101
Eγ: 184.12 keV
Gamma Intensity = 1.60 ± 0.053 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.173 ± 0.072 %

Table 577: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 578: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	182.900	0.000	16.749	0.060
Ru-105	Rh-105	183.600	0.001	4.440	0.010
Sn-127	Sb-127	184.000	0.005	2.100	0.001
Sn-127	Sb-127	184.700	0.011	2.100	0.001
Te-131	I-131	183.110	0.001	33.250	0.004
Te-133	I-133	183.300	0.000	0.208	0.031
Te-133	I-133	184.610	0.002	0.923	0.040
Te-134	I-134	183.050	0.006	0.697	0.070
I-132	Xe-132	183.600	0.001	2.295	0.043
I-135	Xe-135	184.490	0.000	6.570	0.063
Ba-140	La-140	183.830	0.000	306.065	0.062
Nd-149	Pm-149	185.489	0.001	1.728	0.011
Nd-151	Pm-151	183.190	0.005	0.207	0.004
Nd-152	Pm-152	184.500	0.001	0.190	0.003
Sm-155	Eu-155	183.400	0.000	0.372	0.000

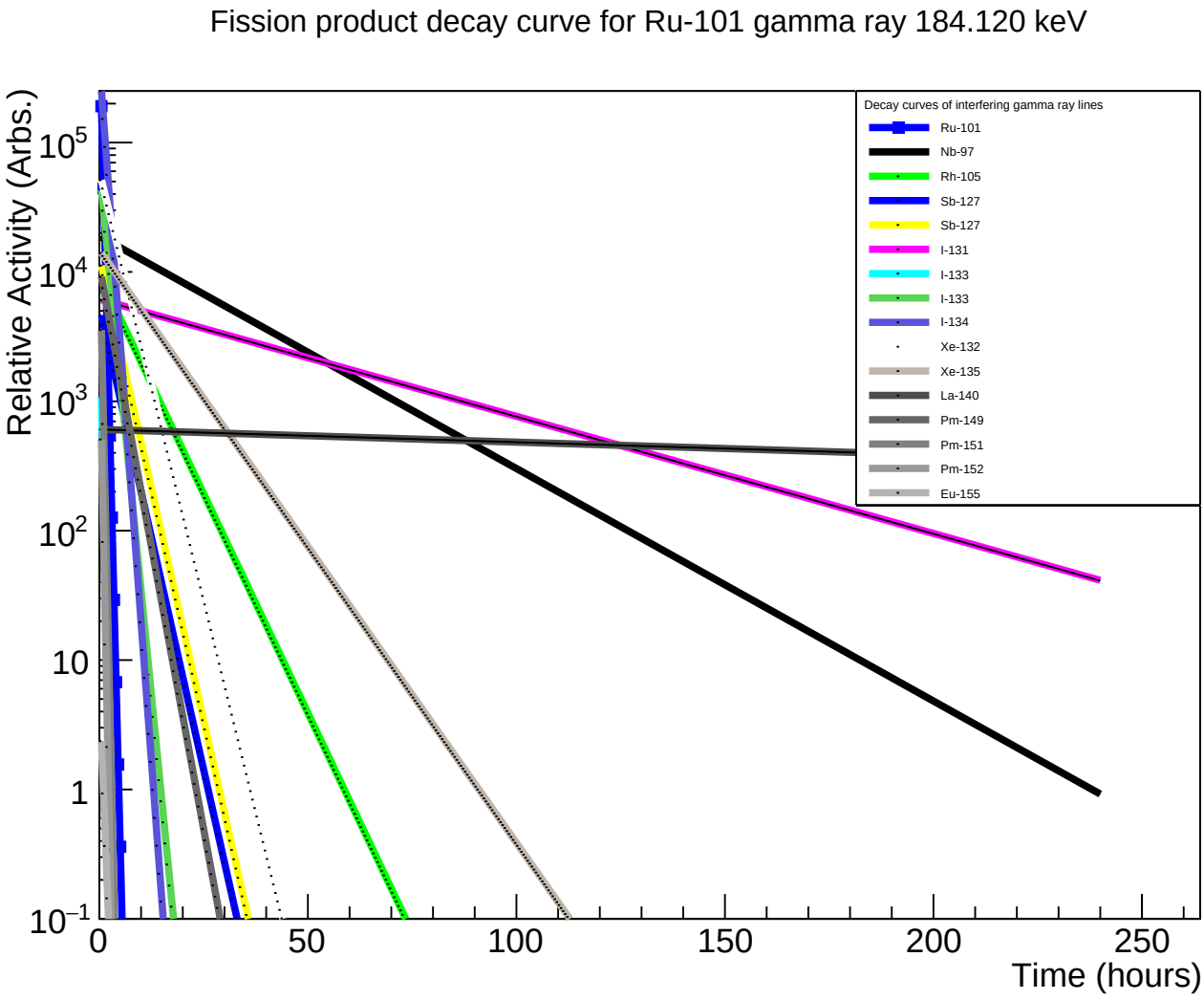


Figure 289: Ru-101 decay curve for 184.120 keV gamma ray.

3.290 Tc-101 E_γ = 306.83 keV

Chemical element: Technetium
Fission product parent: Tc-101
Gamma originates in daughter: Ru-101
Eγ: 306.83 keV
Gamma Intensity = 88.70 ± 4.440 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.173 ± 0.072 %

Table 579: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 580: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	308.200	0.001	0.312	0.065
Nb-98	Mo-98	306.890	0.003	0.855	0.000
Ru-105	Rh-105	306.660	0.001	4.440	0.010
Rh-105	Pd-105	306.311	0.053	35.360	0.010
Sn-127	Sb-127	305.900	0.001	2.100	0.001
Te-133	I-133	307.900	0.003	0.923	0.040
I-132	Xe-132	306.700	0.002	2.295	0.043
I-135	Xe-135	305.830	0.001	6.570	0.063
La-140	Ce-140	306.900	0.000	40.285	0.062
Pm-151	Sm-151	306.740	0.002	28.400	0.004
Sm-155	Eu-155	307.300	0.000	0.372	0.000

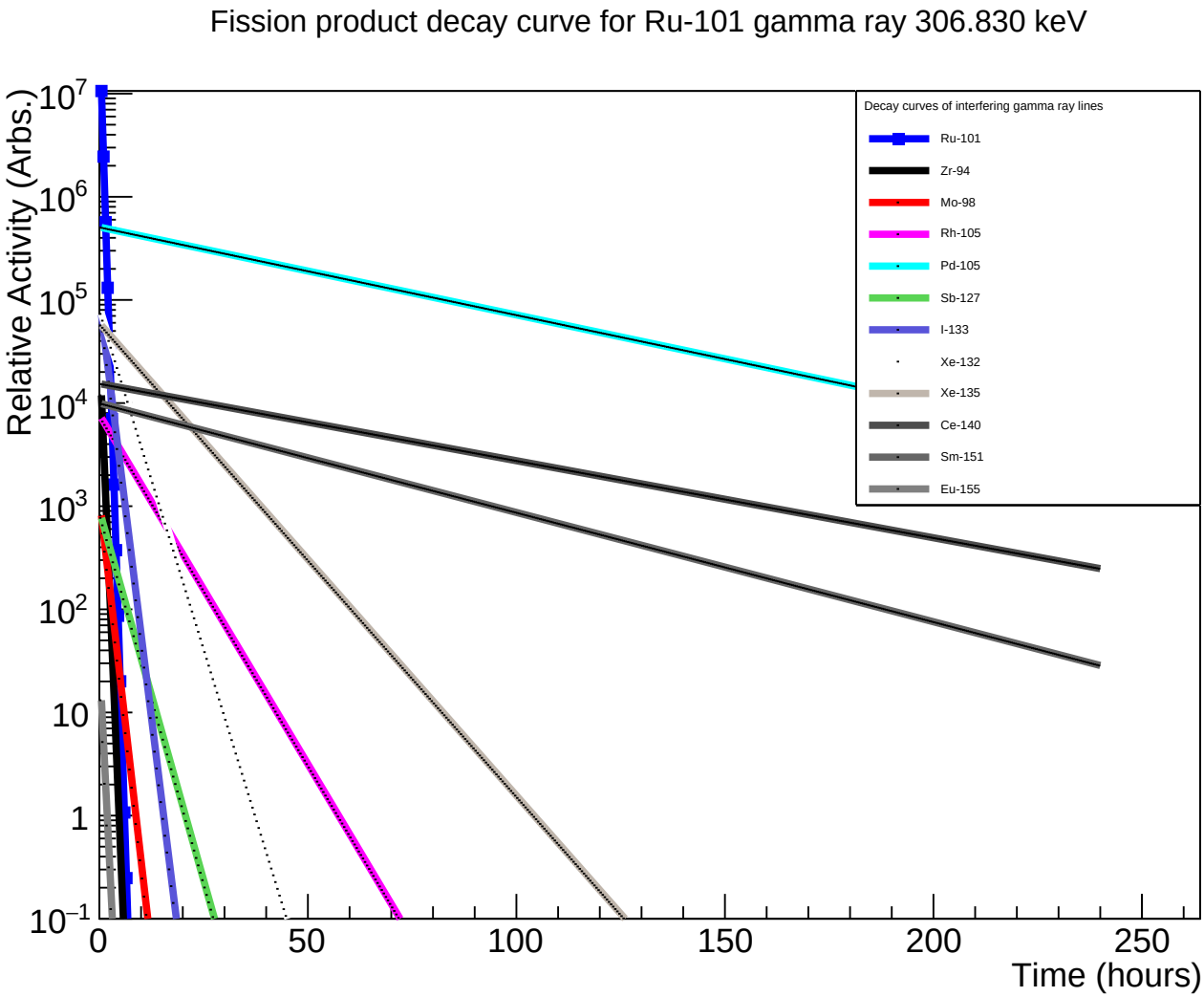


Figure 290: Ru-101 decay curve for 306.830 keV gamma ray.

3.291 Tc-101 E_γ = 531.42 keV

Chemical element: Technetium
Fission product parent: Tc-101
Gamma originates in daughter: Ru-101
Eγ: 531.42 keV
Gamma Intensity = 1.00 ± 0.036 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.173 ± 0.072 %

Table 581: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 582: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	530.420	0.001	0.855	0.000
Sn-127	Sb-127	530.600	0.001	2.100	0.001
Te-129	I-129	531.830	0.001	1.160	0.005
Te-131	I-131	530.700	0.001	33.250	0.004
Te-133	I-133	532.400	0.008	0.923	0.040
I-135	Xe-135	530.800	0.000	6.570	0.063
Xe-138	Cs-138	530.070	0.003	0.235	0.063
Cs-139	Ba-139	531.980	0.002	0.155	0.063
La-142	Ce-142	531.600	0.001	1.518	0.058
Nd-147	Pm-147	531.016	0.134	263.520	0.022
Nd-151	Pm-151	531.970	0.001	0.207	0.004
Pm-149	Sm-149	531.610	0.000	53.080	0.011
Pm-151	Sm-151	532.500	0.000	28.400	0.004
Sm-153	Eu-153	531.400	0.001	46.500	0.002

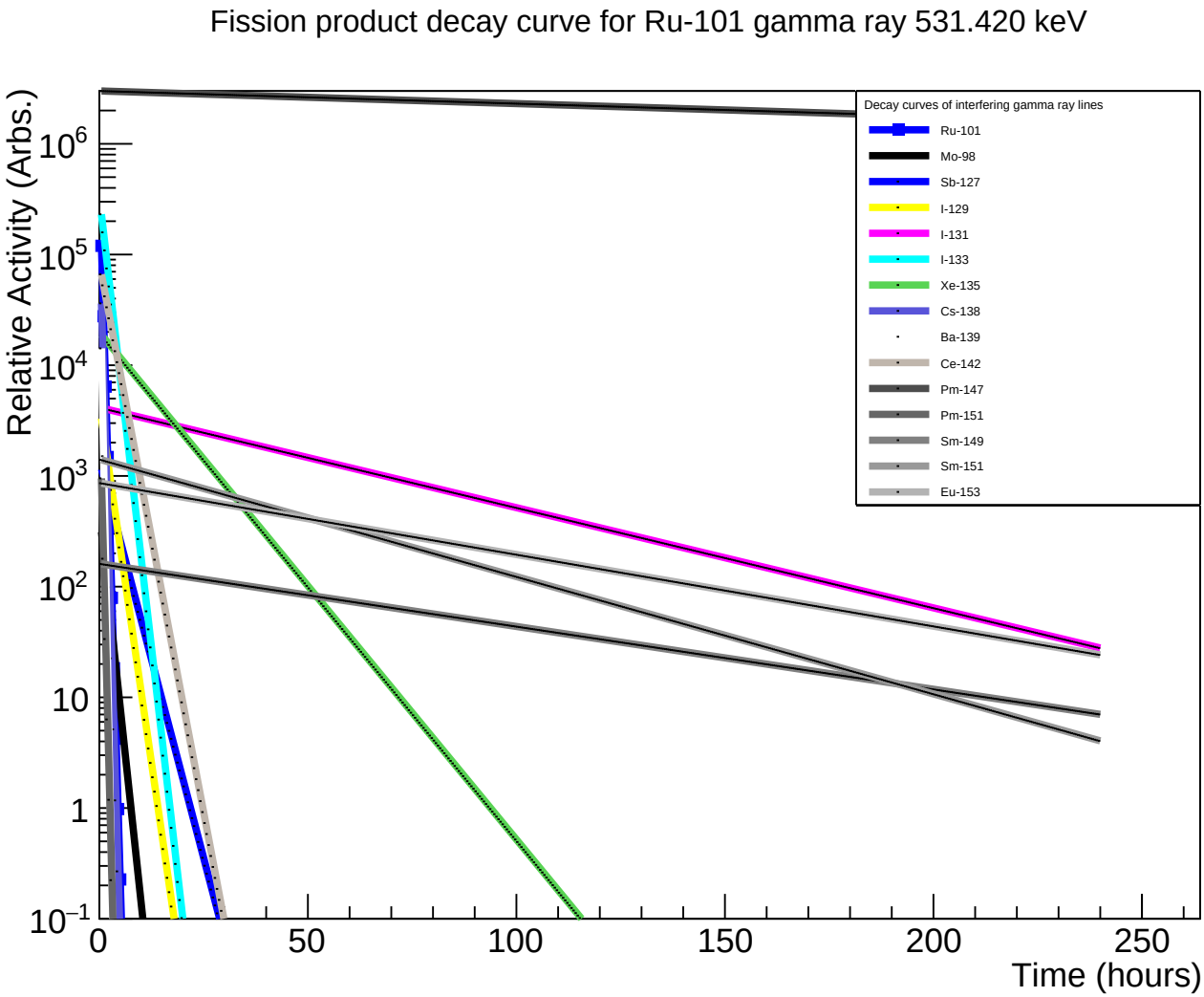


Figure 291: Ru-101 decay curve for 531.420 keV gamma ray.

3.292 Tc-101 E_γ = 545.05 keV

Chemical element: Technetium
Fission product parent: Tc-101
Gamma originates in daughter: Ru-101
Eγ: 545.05 keV
Gamma Intensity = 5.96 ± 0.160 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.173 ± 0.072 %

Table 583: Decay chain of fission product chain A = 101

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Zirconium-101	Niobium-101	0.001	0.000
Niobium-101	Molybdenum-101	0.002	0.000
Molybdenum-101	Technetium-101	0.243	0.000
Technetium-101	Ruthenium-101	0.237	0.002

Table 584: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	545.300	0.030	1.512	0.000
Sr-93	Y-93	545.810	0.004	0.124	0.062
Nb-98	Mo-98	543.830	0.005	0.855	0.000
Nb-98	Mo-98	544.500	0.001	0.855	0.000
Sn-127	Sb-127	545.400	0.023	2.100	0.001
Sb-129	Te-129	544.700	0.181	4.400	0.005
Te-131	I-131	544.880	0.004	0.417	0.025
Te-133	I-133	546.290	0.005	0.208	0.031
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	545.500	0.000	1.728	0.011
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-151	Pm-151	544.610	0.001	0.207	0.004
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Pm-149	Sm-149	544.270	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

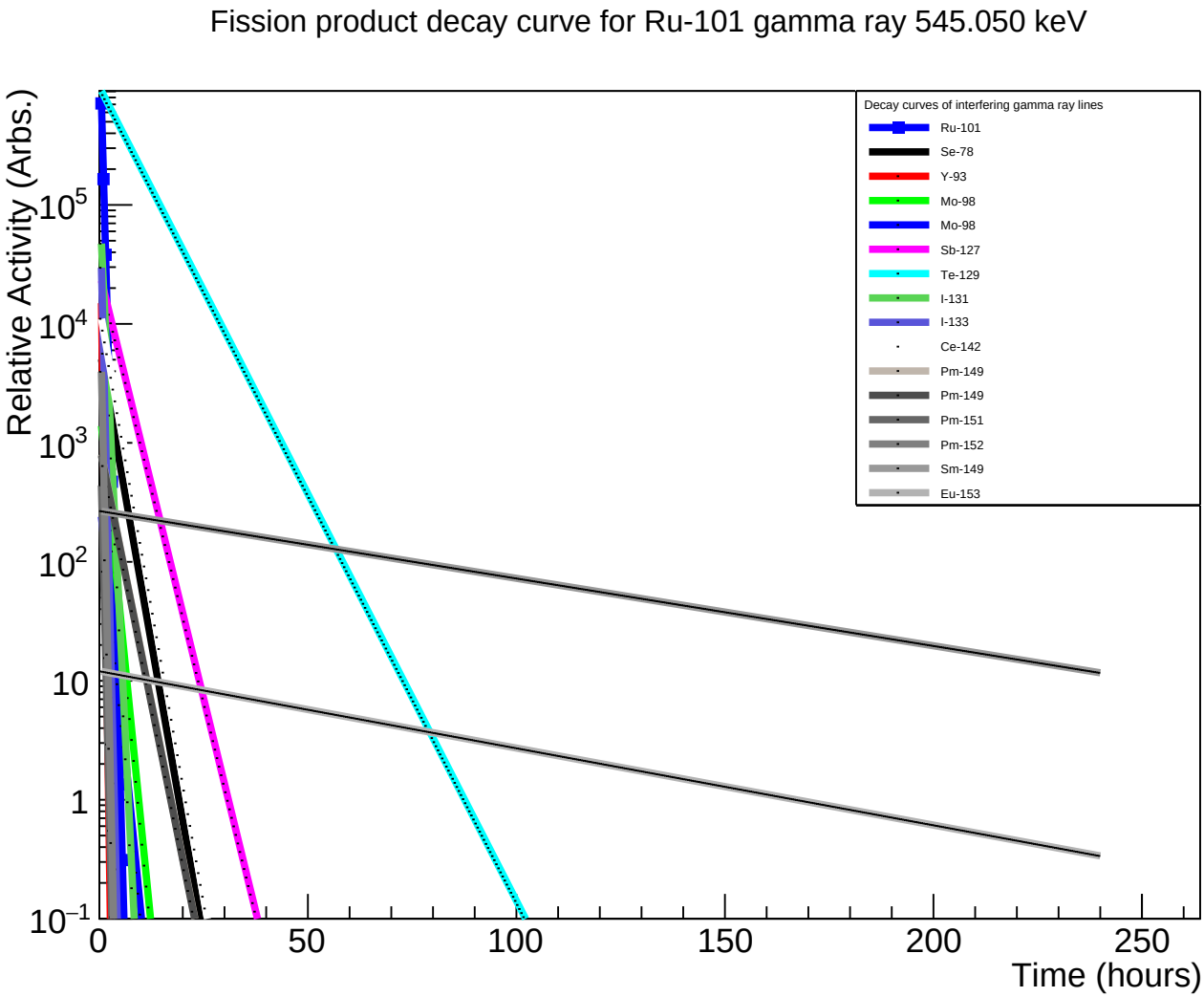


Figure 292: Ru-101 decay curve for 545.050 keV gamma ray.

3.293 Tc-104 E_γ = 160.40 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 160.40 keV
Gamma Intensity = 1.87 ± 0.362 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 585: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 586: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	159.500	0.000	3.130	0.000
Sn-123	Sb-123	160.350	0.856	0.668	0.000
Sb-131	Te-131	159.900	0.005	0.384	0.026
Te-131	I-131	159.660	0.001	33.250	0.004
Xe-133	Cs-133	160.613	0.001	125.832	0.067
Pr-147	Nd-147	161.100	0.008	0.223	0.022
Nd-147	Pm-147	159.700	0.000	263.520	0.022
Eu-156	Gd-156	160.200	0.000	364.560	0.000

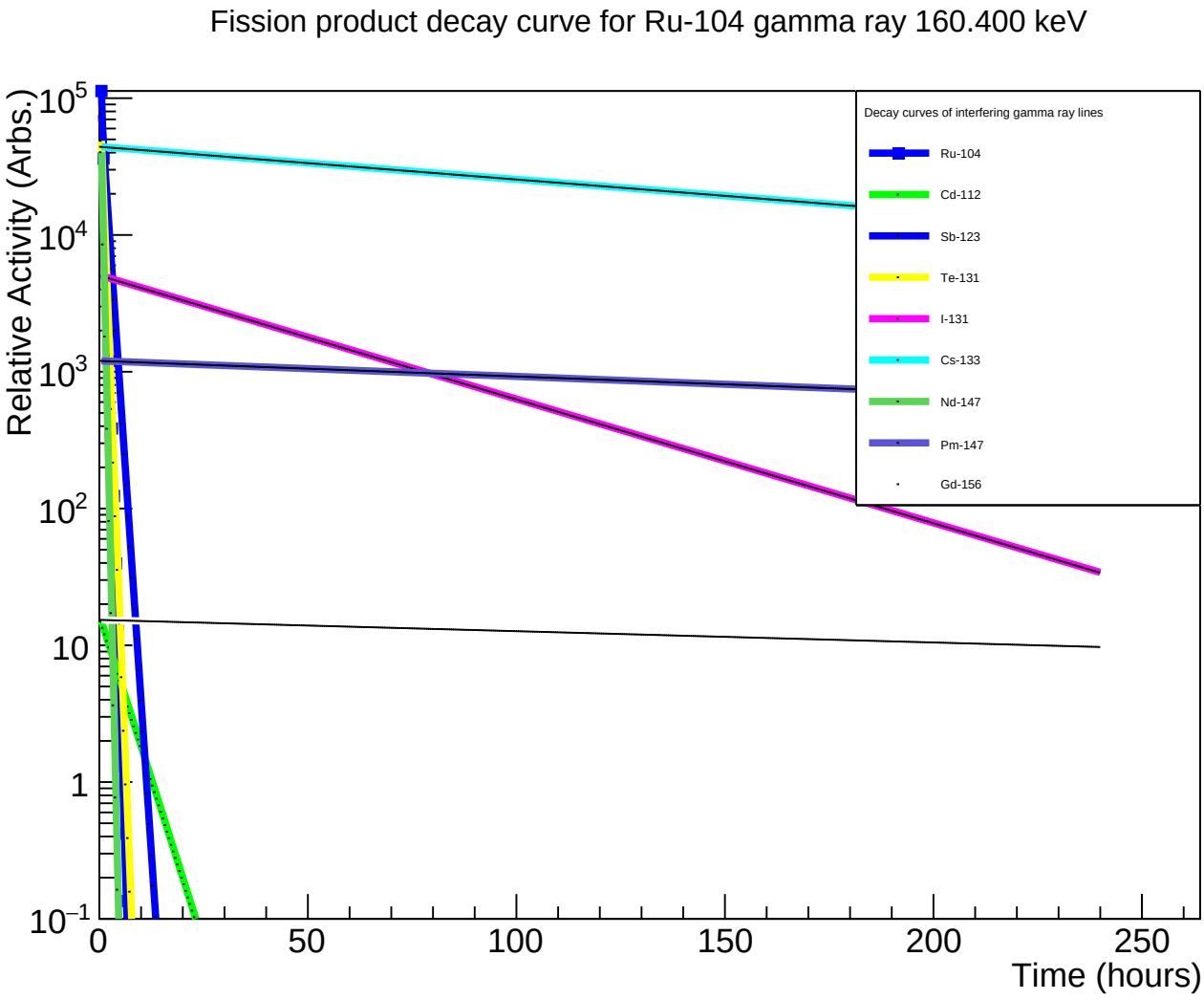


Figure 293: Ru-104 decay curve for 160.400 keV gamma ray.

3.294 Tc-104 E_γ = 349.30 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 349.30 keV
Gamma Intensity = 2.49 ± 0.280 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 587: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 588: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	350.040	0.000	2.840	0.036
Nb-98	Mo-98	347.940	0.002	0.855	0.000
Nb-98	Mo-98	350.780	0.000	0.855	0.000
Ru-105	Rh-105	349.960	0.003	4.440	0.010
Ru-105	Rh-105	350.180	0.010	4.440	0.010
Rh-107	Pd-107	348.210	0.023	0.362	0.001
Sn-127	Sb-127	348.400	0.005	2.100	0.001
Sb-130	Te-130	348.500	0.051	0.105	0.010
Ba-141	La-141	349.500	0.002	0.304	0.058
La-142	Ce-142	350.300	0.000	1.518	0.058
Ce-143	Pr-143	350.619	0.032	33.039	0.060
Nd-149	Pm-149	347.843	0.002	1.728	0.011
Nd-149	Pm-149	349.231	0.014	1.728	0.011
Nd-152	Pm-152	350.000	0.000	0.190	0.003
Pm-149	Sm-149	350.000	0.000	53.080	0.011
Pm-149	Sm-149	350.710	0.000	53.080	0.011
Pm-151	Sm-151	348.800	0.000	28.400	0.004
Pm-151	Sm-151	349.810	0.001	28.400	0.004
Eu-156	Gd-156	348.270	0.000	364.560	0.000

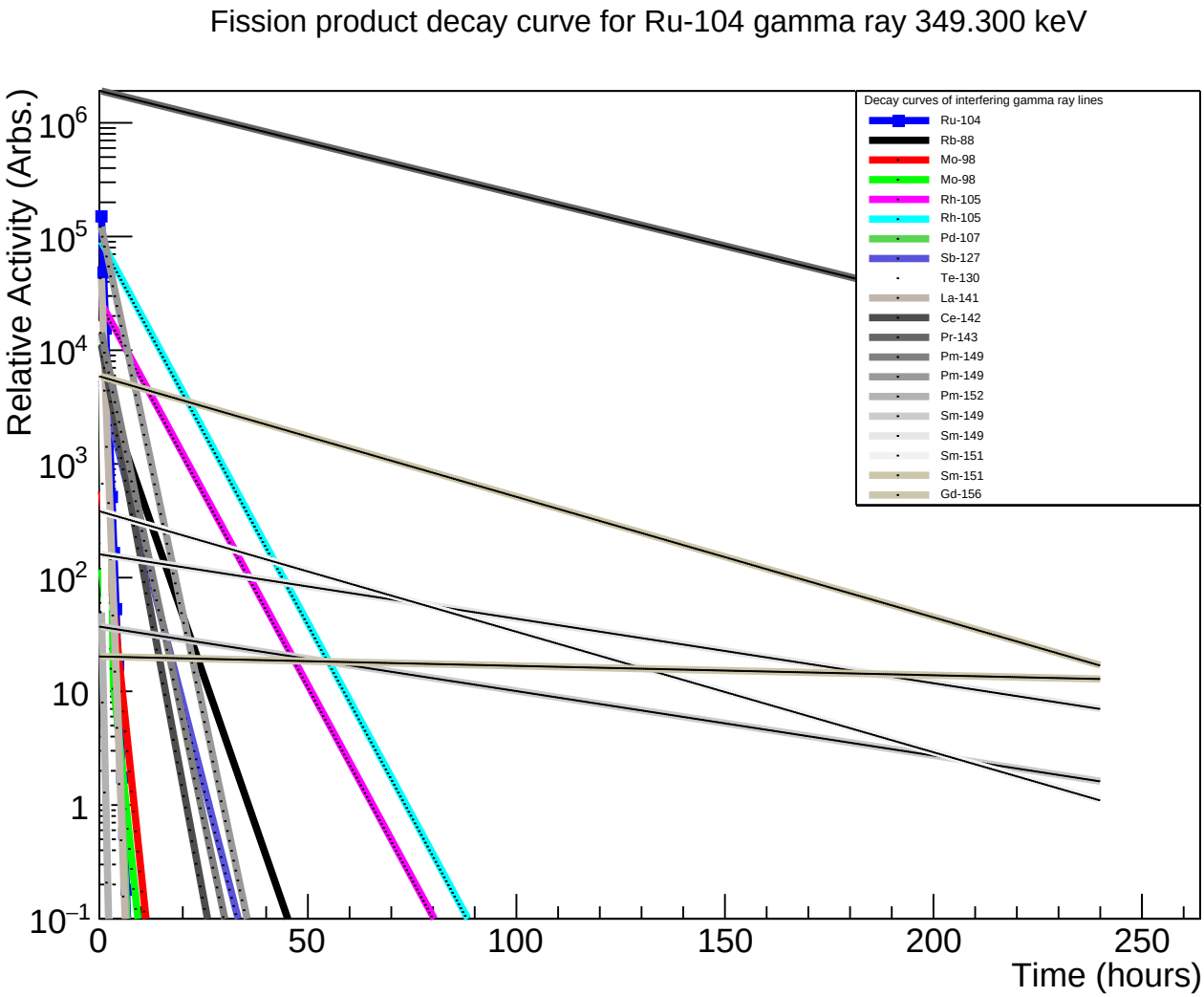


Figure 294: Ru-104 decay curve for 349.300 keV gamma ray.

3.295 Tc-104 E_γ = 358.00 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 358.00 keV
Gamma Intensity = 89.00 ± 3.000 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 589: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 590: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	356.700	0.700	0.372	0.003
Sr-91	Y-91	359.100	0.001	9.630	0.058
Mo-101	Tc-101	358.200	0.000	0.243	0.052
Ru-103	Rh-103	357.382	0.000	941.928	0.030
Rh-107	Pd-107	357.840	0.004	0.362	0.001
Sn-127	Sb-127	357.000	0.002	2.100	0.001
Sb-128	Te-128	357.000	0.015	9.010	0.000
Sb-129	Te-129	359.400	0.029	4.400	0.005
Te-131	I-131	357.400	0.000	33.250	0.004
Te-133	I-133	358.700	0.001	0.208	0.031
I-131	Xe-131	358.400	0.000	192.605	0.029
Xe-135	Cs-135	358.390	0.002	9.140	0.065
Cs-139	Ba-139	357.010	0.000	0.155	0.063
Ba-141	La-141	359.200	0.000	0.304	0.058
Ba-142	La-142	356.800	0.001	0.177	0.058
Ce-143	Pr-143	357.800	0.000	33.039	0.060
Nd-149	Pm-149	357.030	0.000	1.728	0.011
Nd-149	Pm-149	358.490	0.000	1.728	0.011
Nd-151	Pm-151	357.000	0.004	0.207	0.004
Pm-151	Sm-151	356.900	0.000	28.400	0.004
Pm-151	Sm-151	358.400	0.000	28.400	0.004

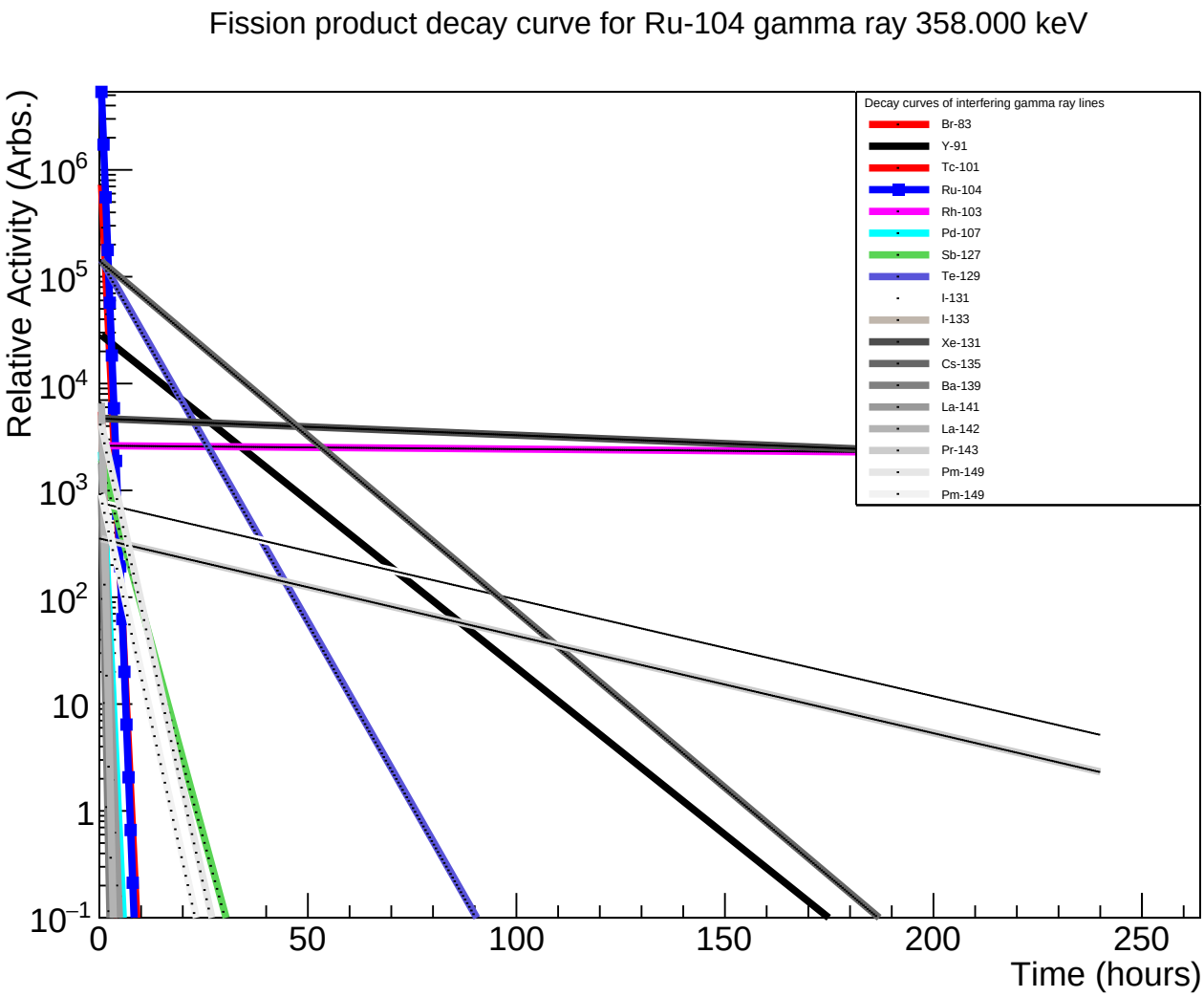


Figure 295: Ru-104 decay curve for 358.000 keV gamma ray.

3.296 Tc-104 E_γ = 530.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 530.50 keV
Gamma Intensity = 15.58 ± 1.190 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 591: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 592: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	529.640	0.012	2.400	0.005
Nb-98	Mo-98	530.420	0.001	0.855	0.000
Sn-127	Sb-127	530.600	0.001	2.100	0.001
Te-129	I-129	531.830	0.001	1.160	0.005
Te-131	I-131	530.700	0.001	33.250	0.004
I-133	Xe-133	529.872	0.870	20.800	0.067
I-135	Xe-135	530.800	0.000	6.570	0.063
Xe-138	Cs-138	530.070	0.003	0.235	0.063
Cs-139	Ba-139	531.980	0.002	0.155	0.063
La-142	Ce-142	529.400	0.000	1.518	0.058
La-142	Ce-142	531.600	0.001	1.518	0.058
Nd-147	Pm-147	531.016	0.134	263.520	0.022
Nd-151	Pm-151	531.970	0.001	0.207	0.004
Pm-149	Sm-149	531.610	0.000	53.080	0.011
Sm-153	Eu-153	531.400	0.001	46.500	0.002

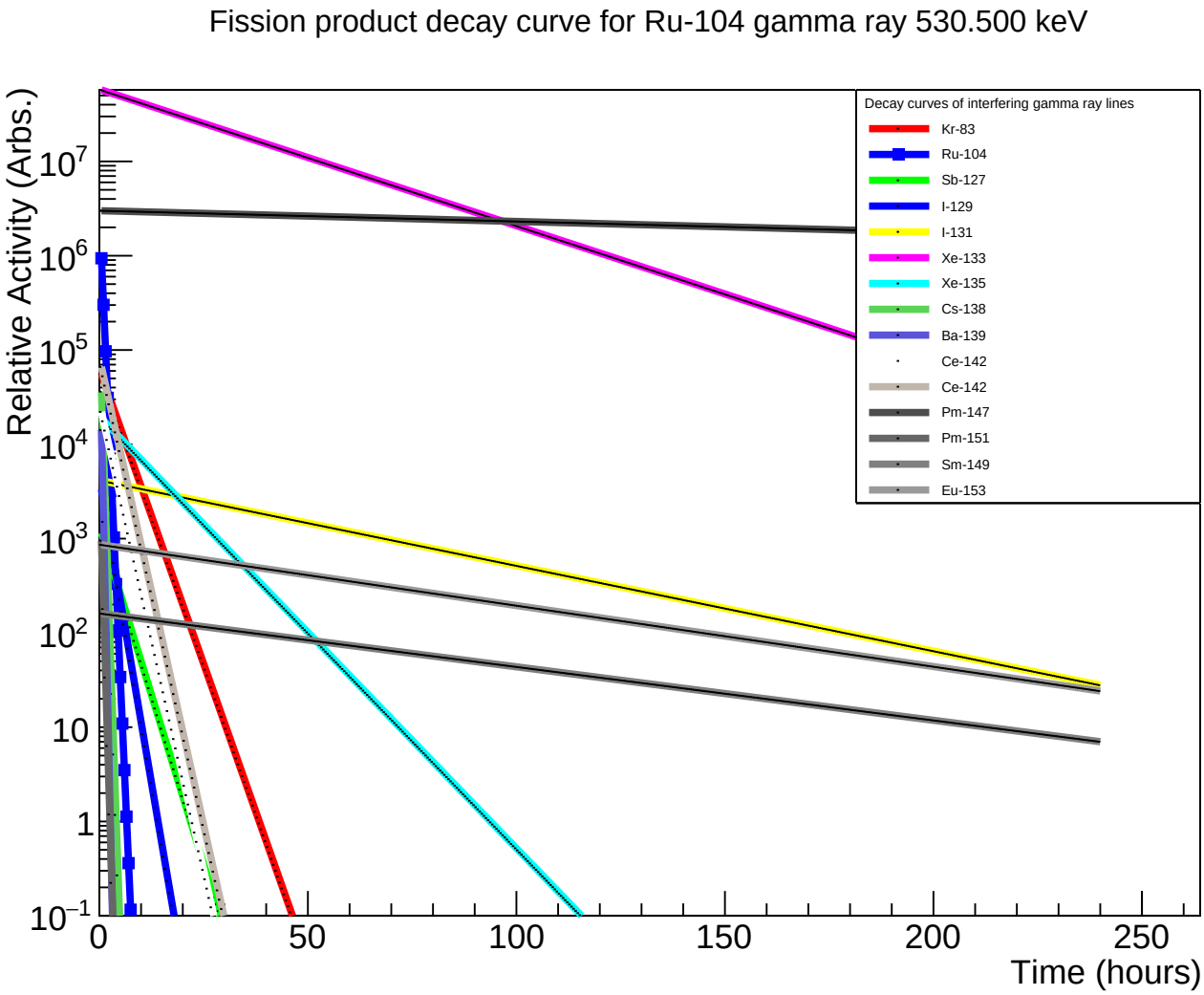


Figure 296: Ru-104 decay curve for 530.500 keV gamma ray.

3.297 Tc-104 E_γ = 535.10 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 535.10 keV
Gamma Intensity = 14.69 ± 1.177 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 593: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 594: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	533.900	0.001	9.630	0.058
Ag-112	Cd-112	536.400	0.001	3.130	0.000
Te-133	I-133	534.880	0.010	0.923	0.040
I-132	Xe-132	535.400	0.005	2.295	0.043
Xe-138	Cs-138	534.000	0.000	0.235	0.063
Nd-149	Pm-149	536.600	0.000	1.728	0.011
Nd-151	Pm-151	535.700	0.000	0.207	0.004
Pm-149	Sm-149	535.900	0.000	53.080	0.011

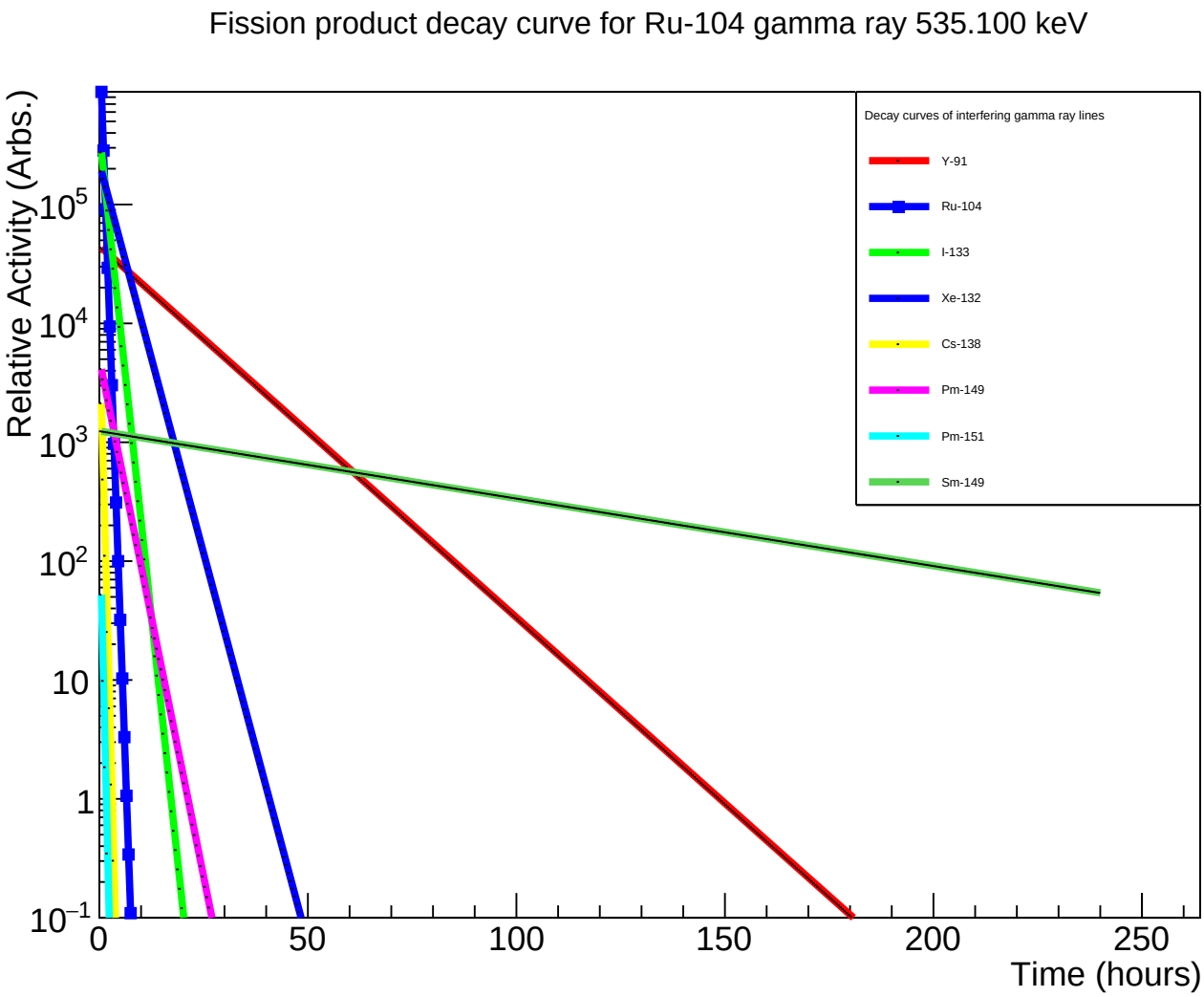


Figure 297: Ru-104 decay curve for 535.100 keV gamma ray.

3.298 Tc-104 E_γ = 609.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 609.50 keV
Gamma Intensity = 1.96 ± 0.275 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 595: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 596: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	609.220	0.029	0.372	0.003
Sr-93	Y-93	610.930	0.011	0.124	0.062
Mo-101	Tc-101	608.340	0.010	0.243	0.052
Ru-103	Rh-103	610.333	0.058	941.928	0.030
Ag-113	Cd-113	611.000	0.000	5.370	0.000
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Te-131	I-131	609.400	0.001	33.250	0.004
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Ba-141	La-141	609.000	0.004	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

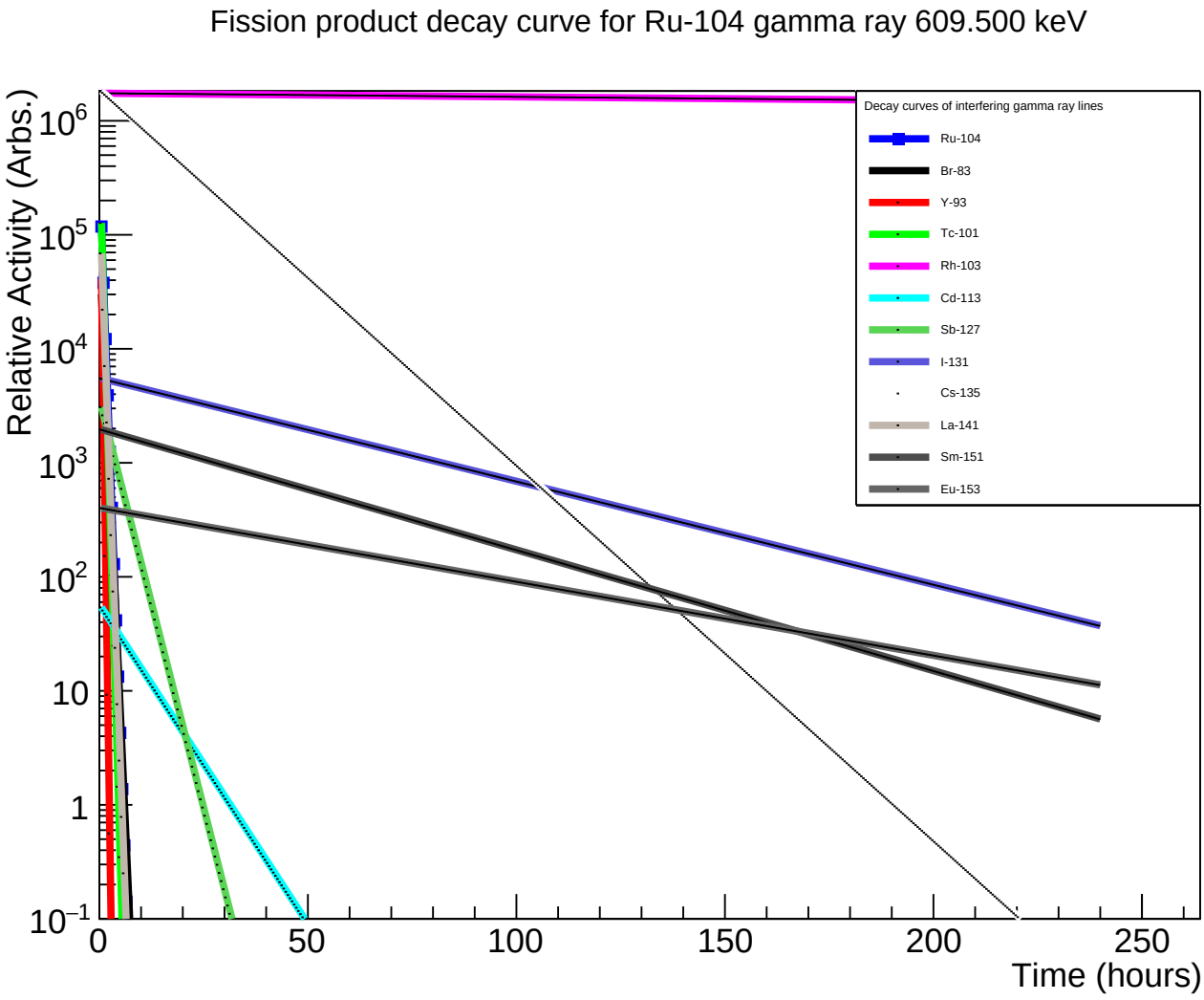


Figure 298: Ru-104 decay curve for 609.500 keV gamma ray.

3.299 Tc-104 E_γ = 614.20 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 614.20 keV
Gamma Intensity = 1.16 ± 0.097 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 597: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 598: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	613.800	0.540	1.512	0.000
Te-133	I-133	613.520	0.003	0.208	0.031
Cs-139	Ba-139	613.400	0.000	0.155	0.063
Ce-143	Pr-143	614.220	0.000	33.039	0.060
Pm-149	Sm-149	613.920	0.000	53.080	0.011

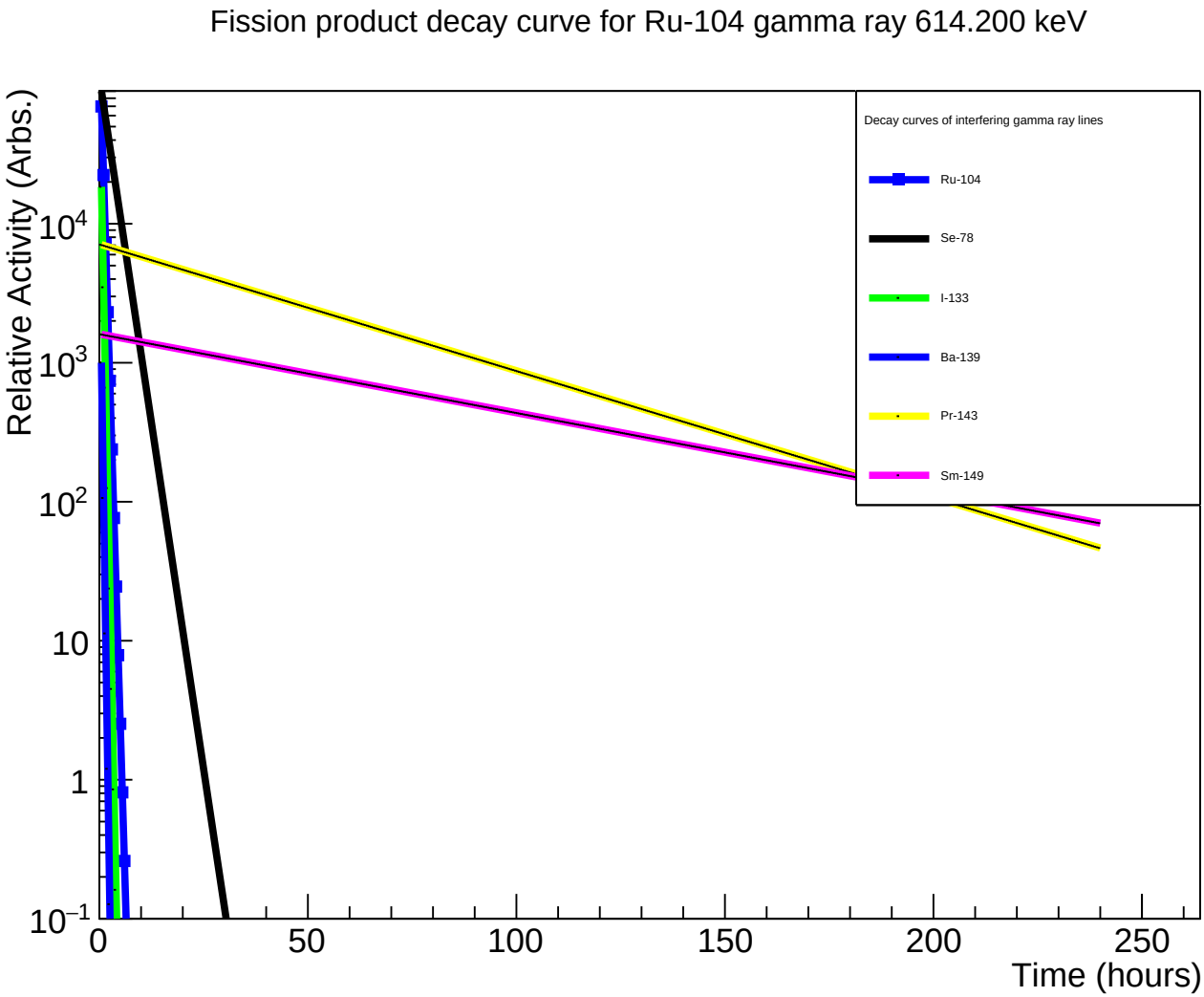


Figure 299: Ru-104 decay curve for 614.200 keV gamma ray.

3.300 Tc-104 E_γ = 792.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 792.50 keV
Gamma Intensity = 2.49 ± 0.280 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 599: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 600: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Sr-93	Y-93	791.100	0.003	0.124	0.062
Nb-98	Mo-98	791.646	0.078	0.855	0.000
Nb-98	Mo-98	791.980	0.002	0.855	0.000
Pd-111	Ag-111	793.800	0.000	0.390	0.000
Sn-129	Sb-129	792.200	0.010	0.115	0.002
Sb-130	Te-130	793.400	1.000	0.658	0.008
Sb-130	Te-130	793.400	0.860	0.105	0.010
Te-131	I-131	793.750	0.134	33.250	0.004
I-132	Xe-132	791.200	0.001	2.295	0.043
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
Ba-142	La-142	791.600	0.001	0.177	0.058
La-142	Ce-142	793.100	0.000	1.518	0.058
Ce-143	Pr-143	791.070	0.000	33.039	0.060
Pr-147	Nd-147	793.800	0.013	0.223	0.022
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

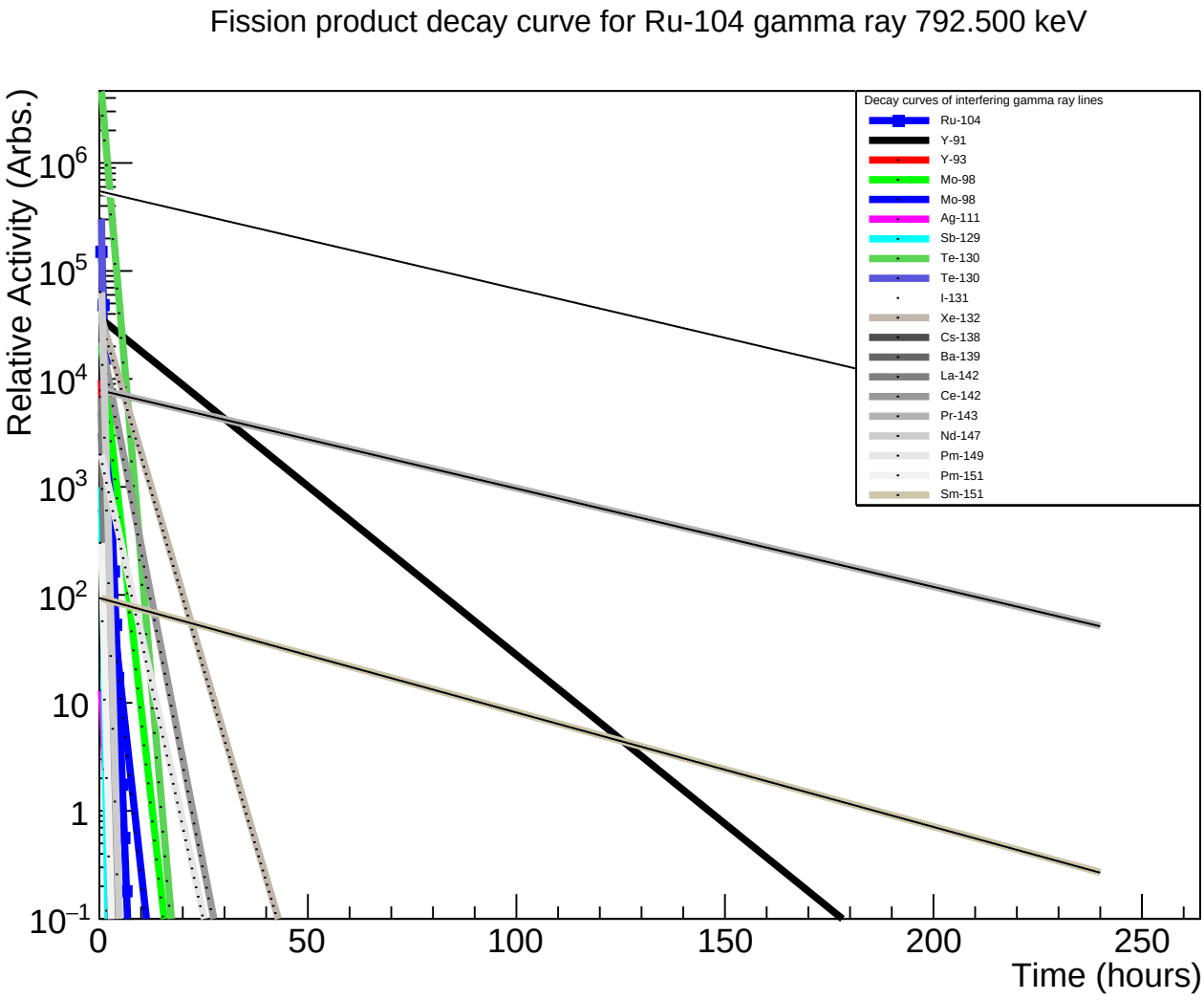


Figure 300: Ru-104 decay curve for 792.500 keV gamma ray.

3.301 Tc-104 E_γ = 884.40 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 884.40 keV
Gamma Intensity = 10.95 ± 1.214 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 601: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 602: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	884.900	0.005	1.512	0.000
Se-83	Br-83	883.610	0.072	0.372	0.003
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Nb-98	Mo-98	885.580	0.001	0.855	0.000
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Sb-130	Te-130	883.300	0.012	0.658	0.008
Te-133	I-133	884.290	0.007	0.208	0.031
Te-133	I-133	884.800	0.019	0.923	0.040
I-134	Xe-134	884.090	0.651	0.875	0.078
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Ba-141	La-141	885.200	0.000	0.304	0.058
Pm-151	Sm-151	883.680	0.000	28.400	0.004

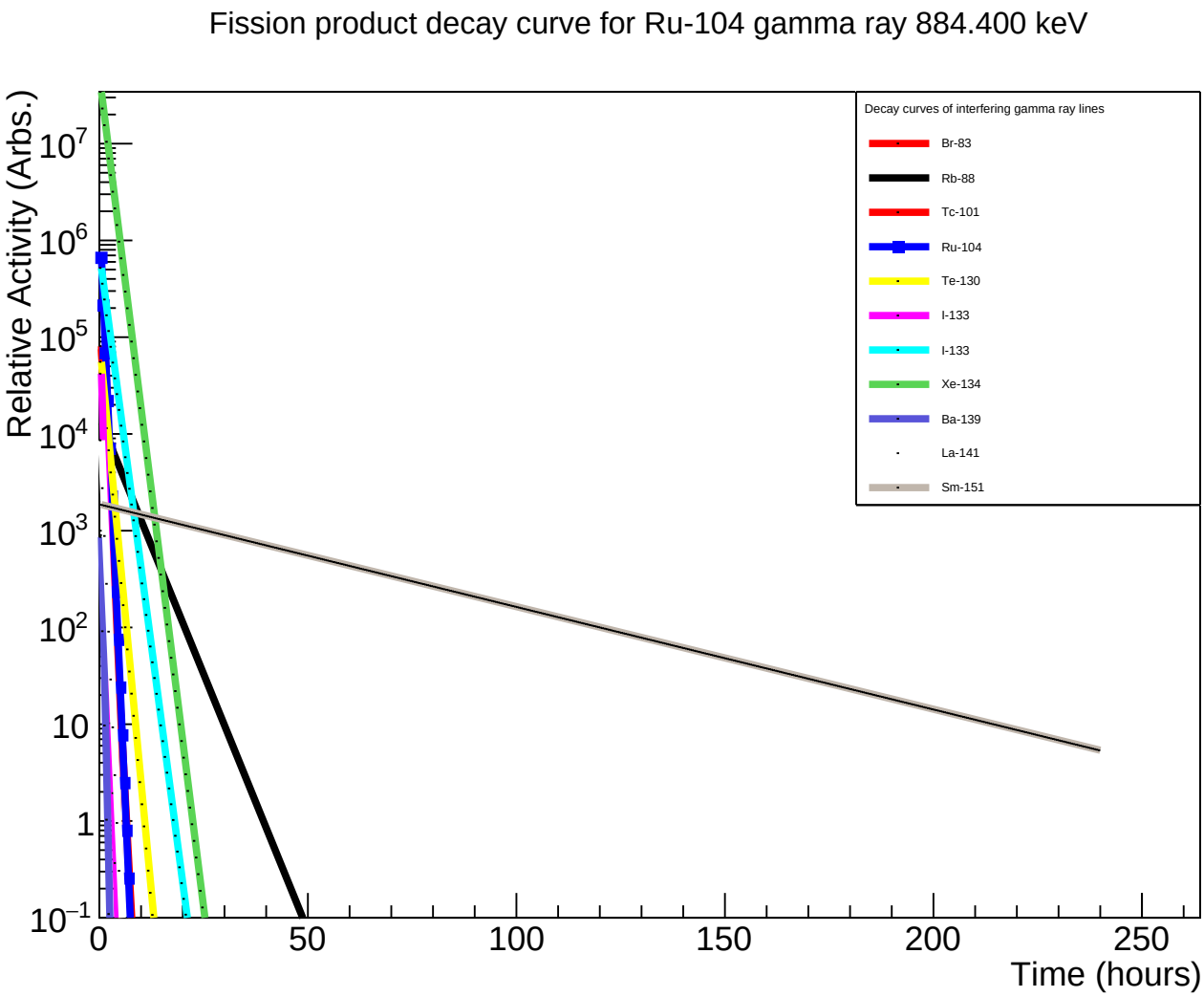


Figure 301: Ru-104 decay curve for 884.400 keV gamma ray.

3.302 Tc-104 E_γ = 893.10 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 893.10 keV
Gamma Intensity = 10.23 ± 1.122 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 603: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 604: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	894.020	0.000	1.272	0.026
Sr-91	Y-91	892.900	0.001	9.630	0.058
Sr-92	Y-92	892.680	0.001	2.710	0.059
Mo-101	Tc-101	894.400	0.001	0.243	0.052
Sn-125	Sb-125	893.400	0.003	231.360	0.000
Nd-149	Pm-149	893.300	0.000	1.728	0.011
Nd-151	Pm-151	892.700	0.001	0.207	0.004
Pm-151	Sm-151	894.100	0.000	28.400	0.004

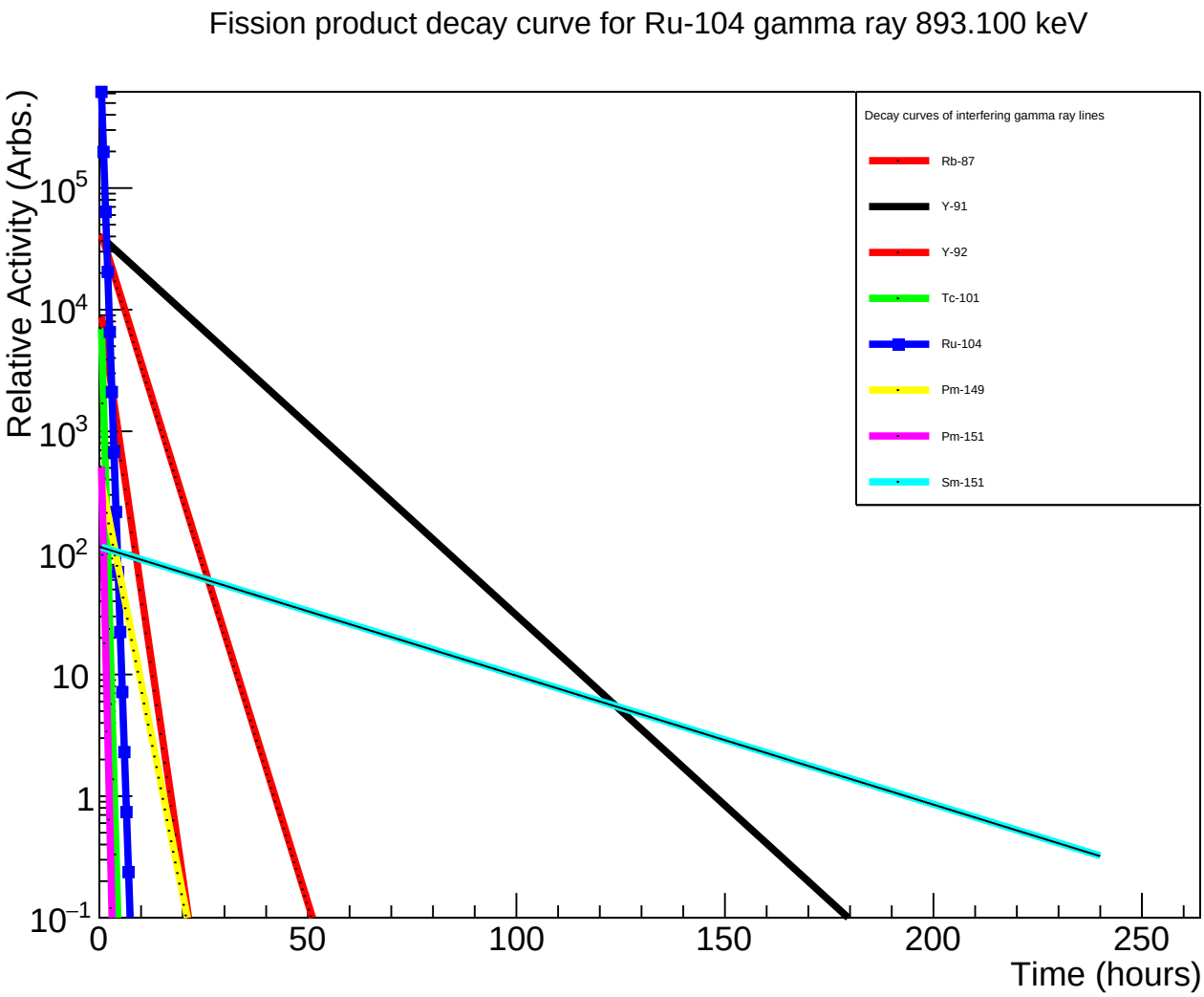


Figure 302: Ru-104 decay curve for 893.100 keV gamma ray.

3.303 Tc-104 E_γ = 1157.40 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1157.40 keV
Gamma Intensity = 2.85 ± 0.284 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 605: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 606: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1158.500	0.000	10.180	0.063
Sb-128	Te-128	1158.200	0.015	9.010	0.000
Sb-128	Te-128	1158.000	0.017	0.173	0.003
Te-133	I-133	1156.300	0.001	0.208	0.031
Pr-147	Nd-147	1157.400	0.001	0.223	0.022
Nd-149	Pm-149	1156.300	0.000	1.728	0.011
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Eu-156	Gd-156	1156.000	0.001	364.560	0.000

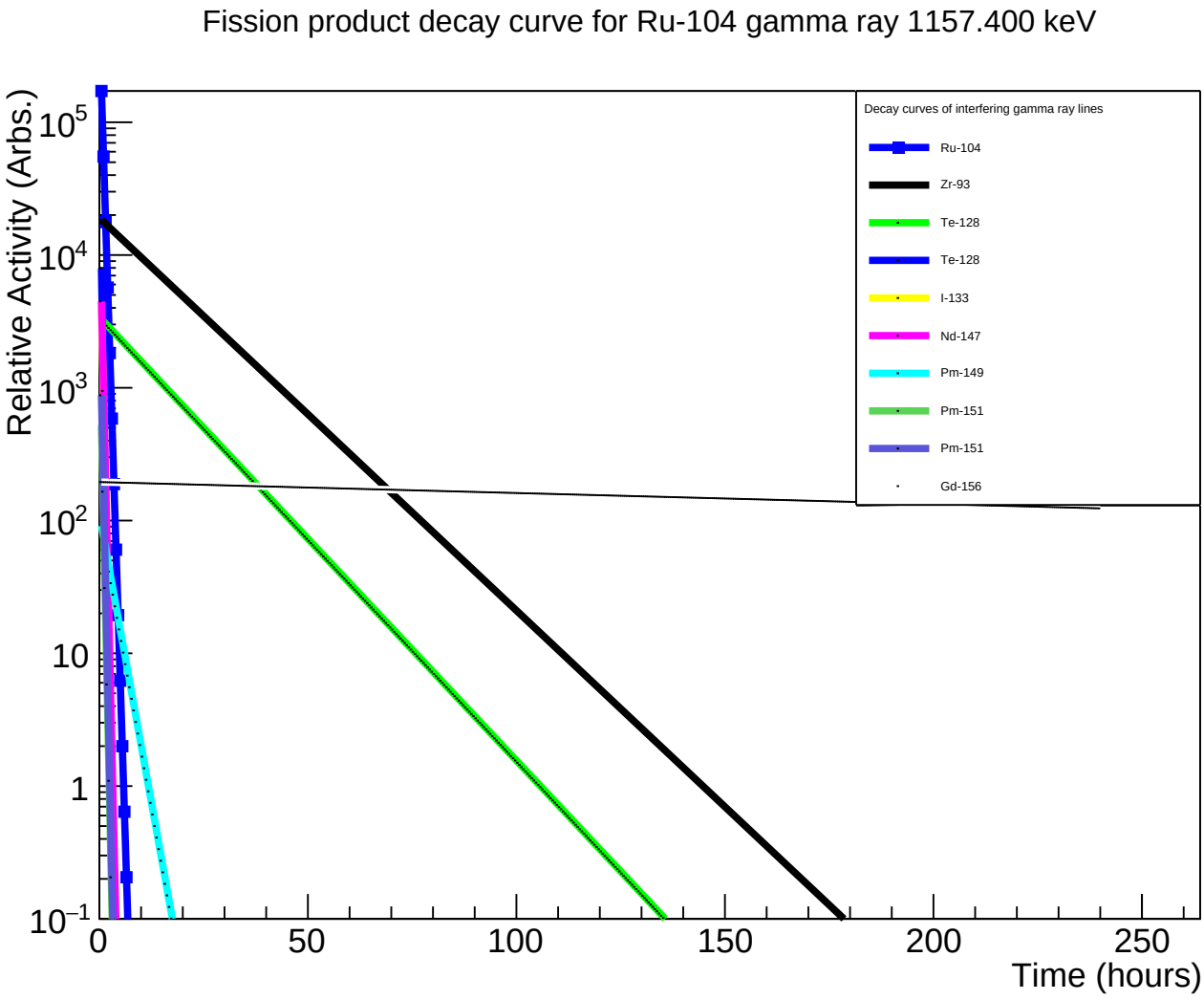


Figure 303: Ru-104 decay curve for 1157.400 keV gamma ray.

3.304 Tc-104 E_γ = 1281.80 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1281.80 keV
Gamma Intensity = 2.05 ± 0.191 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 607: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 608: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1280.900	0.009	9.630	0.058
Nb-98	Mo-98	1282.780	0.000	0.855	0.000
Ag-112	Cd-112	1282.900	0.000	3.130	0.000
Sb-129	Te-129	1280.800	0.006	4.400	0.005
Te-129	I-129	1281.960	0.000	806.400	0.001
Cs-139	Ba-139	1283.230	0.071	0.155	0.063
La-142	Ce-142	1283.200	0.000	1.518	0.058
Nd-151	Pm-151	1282.200	0.000	0.207	0.004

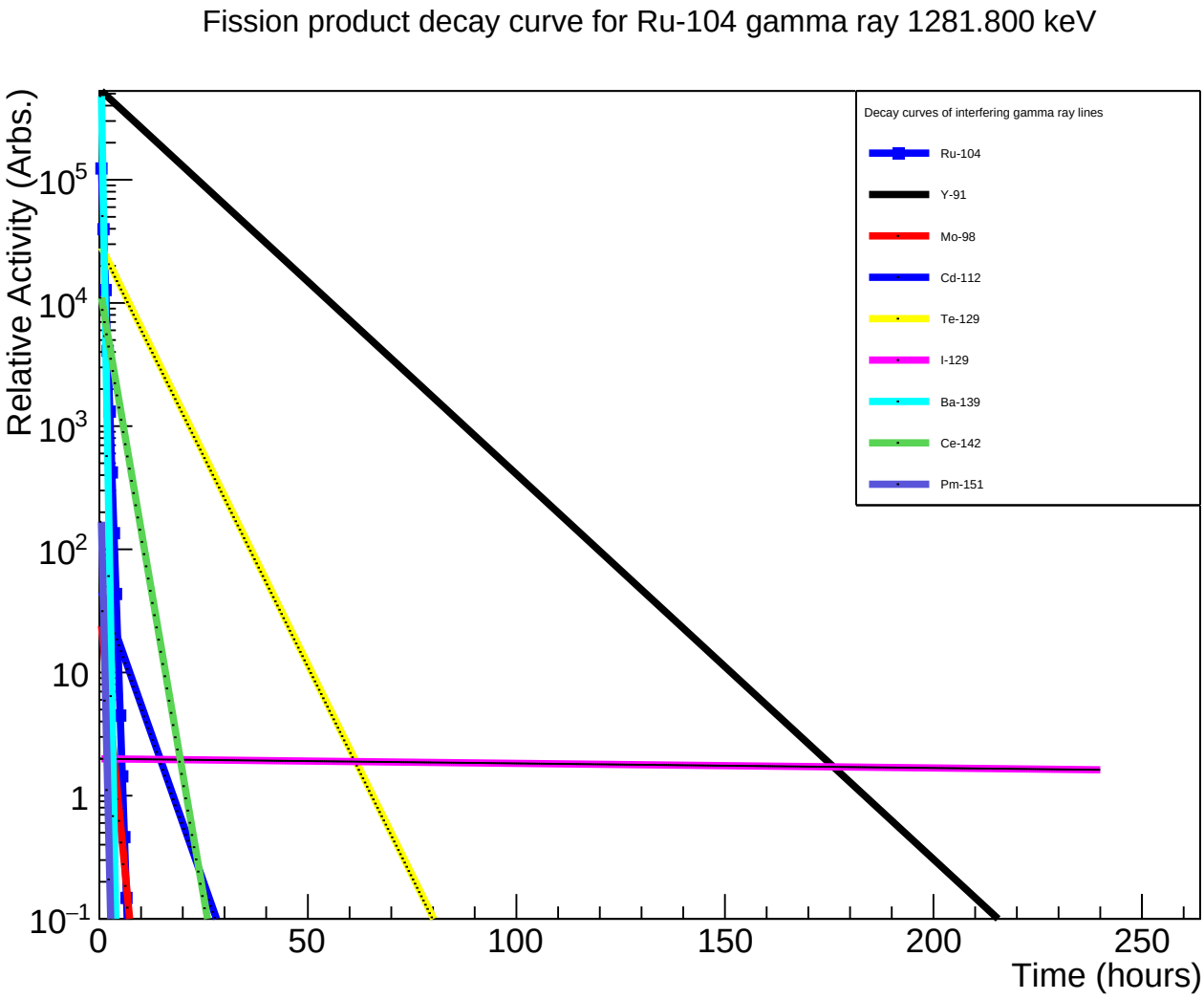


Figure 304: Ru-104 decay curve for 1281.800 keV gamma ray.

3.305 Tc-104 E_γ = 1380.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1380.50 keV
Gamma Intensity = 1.69 ± 0.187 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 609: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 610: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1381.200	0.008	1.512	0.000
Mo-101	Tc-101	1380.400	0.001	0.243	0.052
Xe-138	Cs-138	1381.400	0.001	0.235	0.063
Ba-139	La-139	1381.500	0.000	1.384	0.064
Ba-142	La-142	1380.200	0.034	0.177	0.058
Ce-143	Pr-143	1382.000	0.000	33.039	0.060
Nd-149	Pm-149	1381.420	0.000	1.728	0.011
Nd-151	Pm-151	1379.120	0.000	0.207	0.004
Nd-151	Pm-151	1379.120	0.001	0.207	0.004

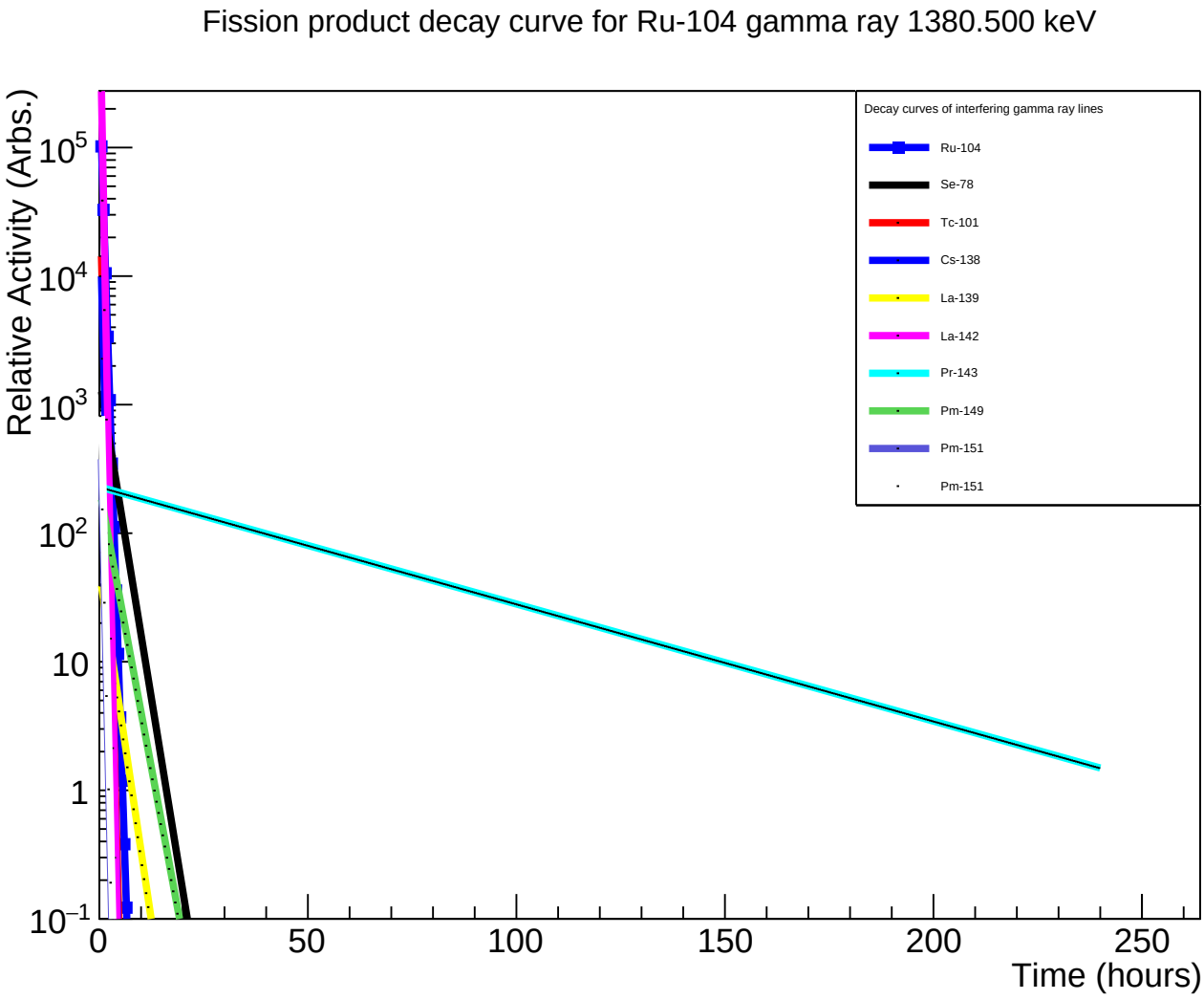


Figure 305: Ru-104 decay curve for 1380.500 keV gamma ray.

3.306 Tc-104 E_γ = 1396.60 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1396.60 keV
Gamma Intensity = 2.40 ± 0.279 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 611: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 612: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	1397.400	0.000	3.130	0.000
Pr-147	Nd-147	1398.000	0.001	0.223	0.022

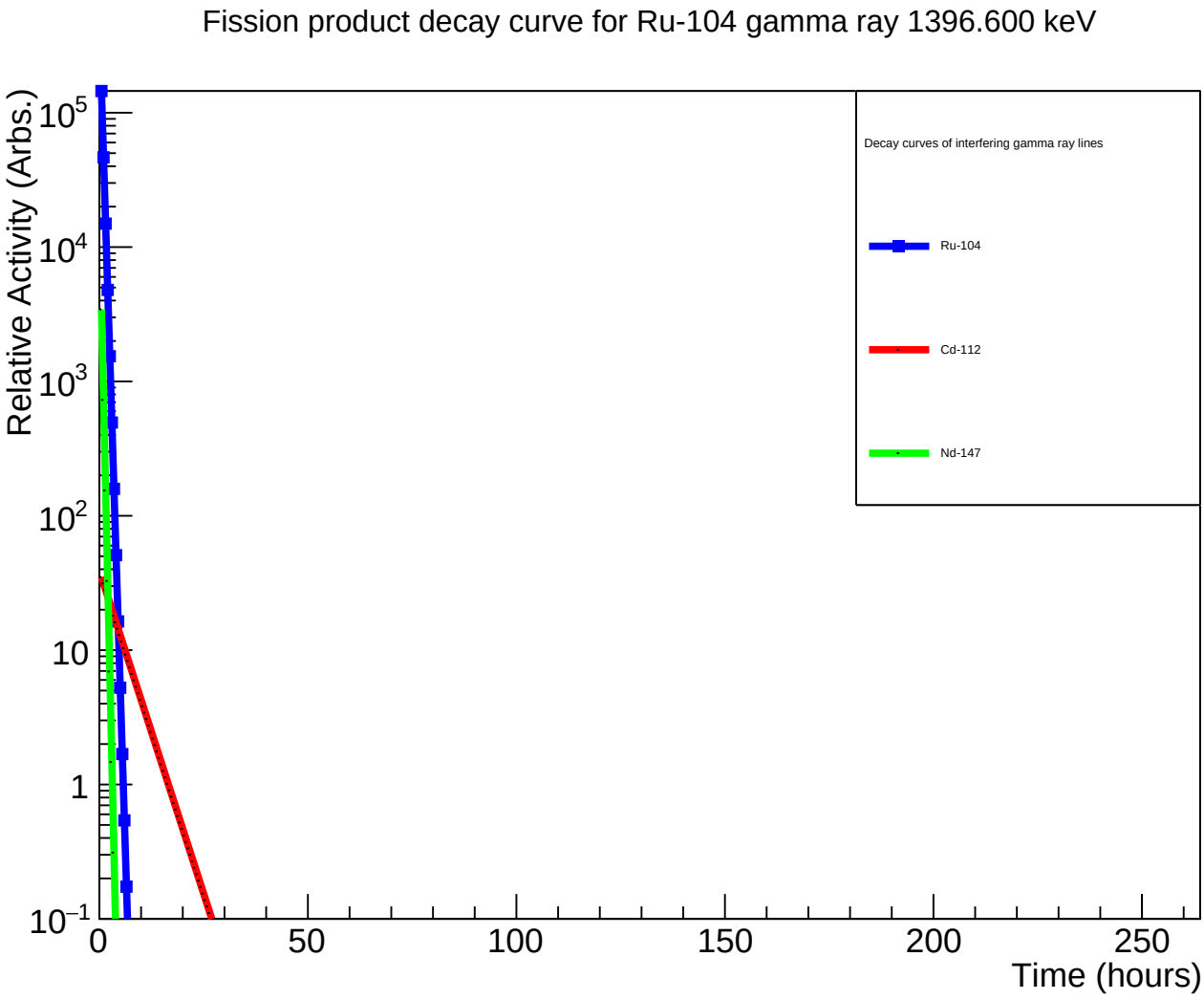


Figure 306: Ru-104 decay curve for 1396.600 keV gamma ray.

3.307 Tc-104 E_γ = 1541.30 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1541.30 keV
Gamma Intensity = 1.07 ± 0.096 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 613: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 614: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1540.920	0.020	0.855	0.000
Sn-127	Sb-127	1542.700	0.001	2.100	0.001
Sb-129	Te-129	1540.000	0.001	4.400	0.005
I-132	Xe-132	1542.300	0.000	2.295	0.043
I-134	Xe-134	1541.510	0.005	0.875	0.078
Ba-141	La-141	1540.200	0.001	0.304	0.058
Ba-141	La-141	1540.200	0.001	0.304	0.058
La-142	Ce-142	1540.200	0.005	1.518	0.058
Nd-151	Pm-151	1540.000	0.000	0.207	0.004

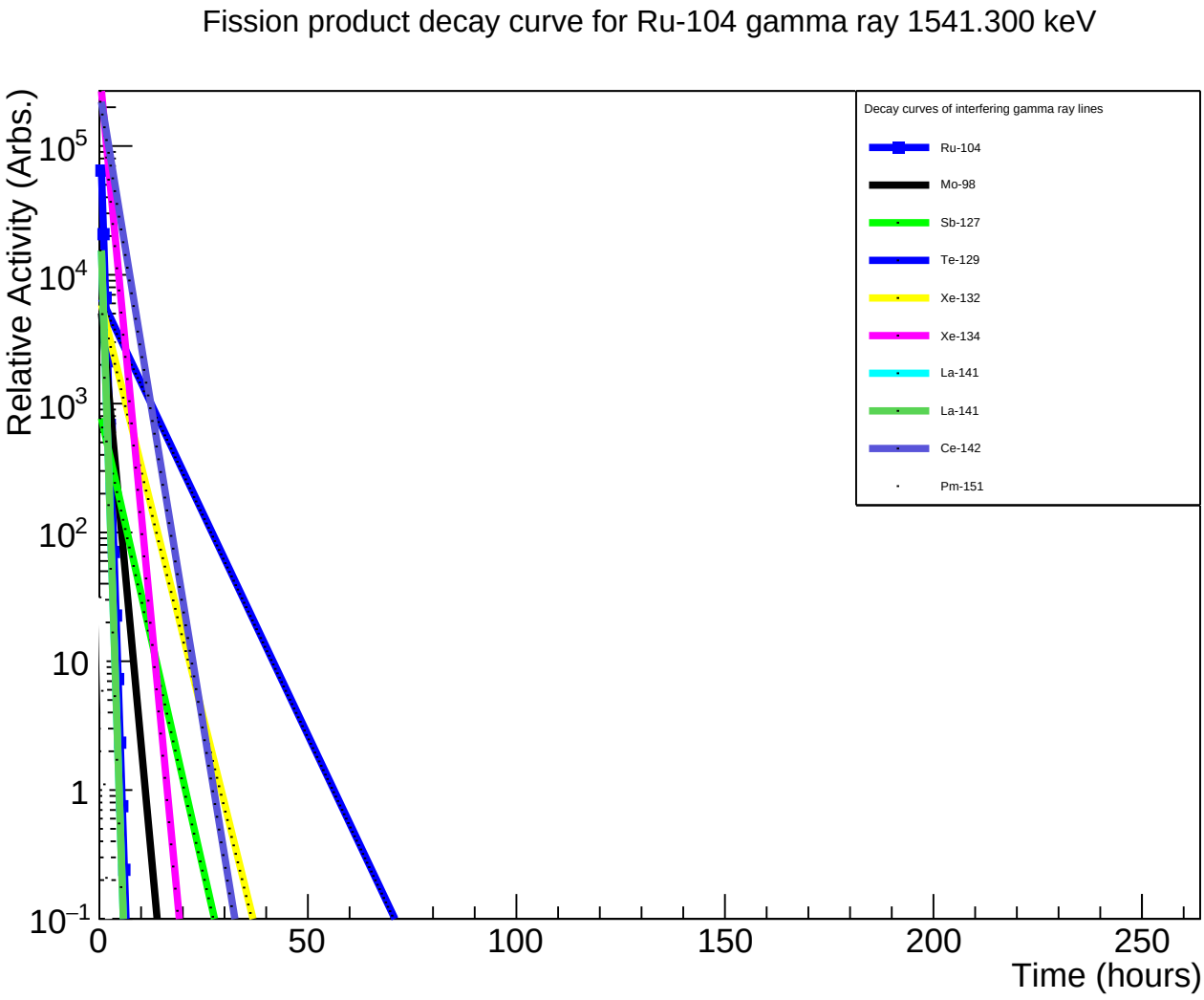


Figure 307: Ru-104 decay curve for 1541.300 keV gamma ray.

3.308 Tc-104 E_γ = 1596.70 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1596.70 keV
Gamma Intensity = 4.18 ± 0.383 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 615: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 616: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-130	Te-130	1598.000	0.026	0.105	0.010
Ba-139	La-139	1595.300	0.000	1.384	0.064
La-140	Ce-140	1596.210	0.954	40.285	0.062
Nd-151	Pm-151	1598.040	0.001	0.207	0.004

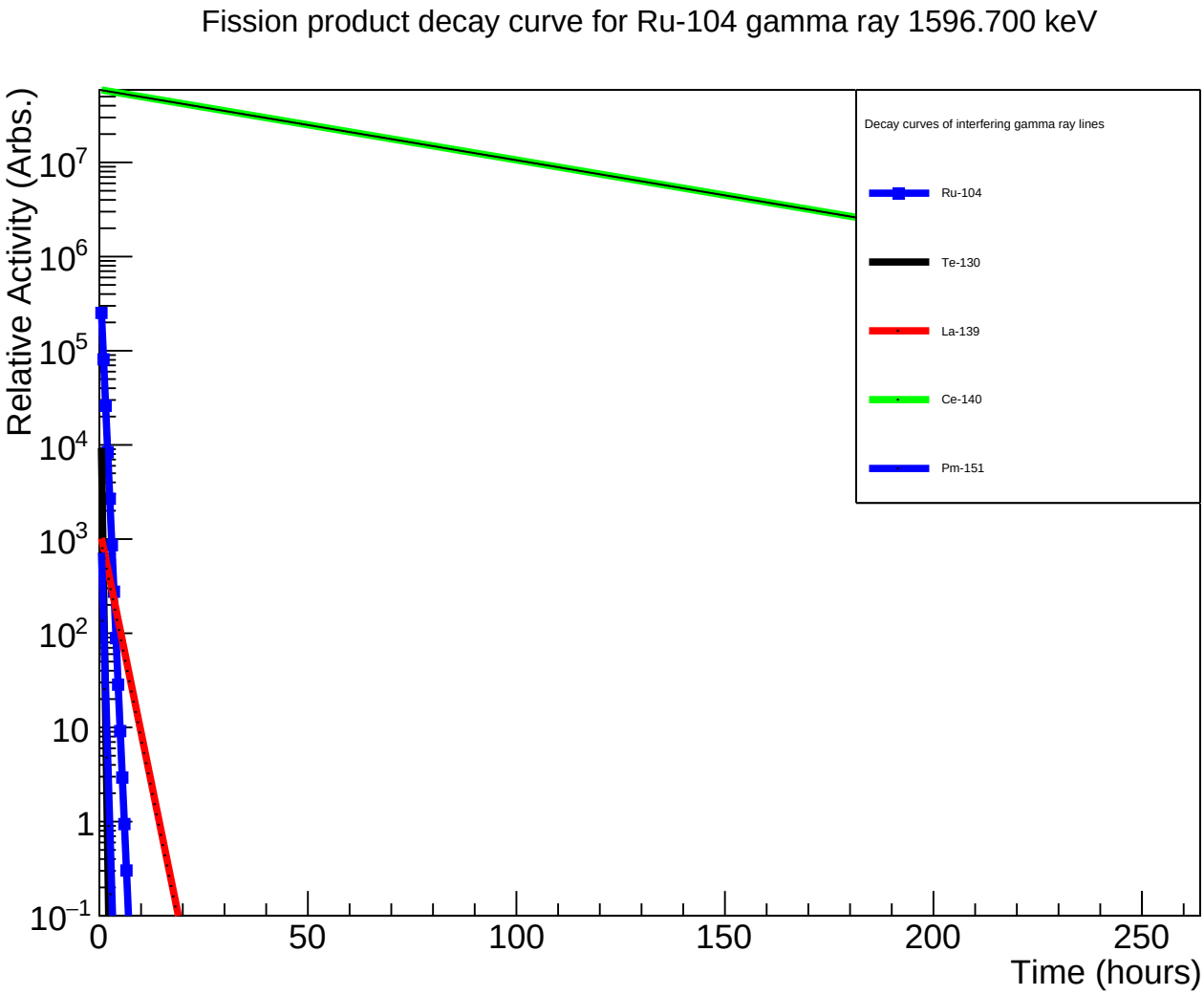


Figure 308: Ru-104 decay curve for 1596.700 keV gamma ray.

3.309 Tc-104 E_γ = 1612.40 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1612.40 keV
Gamma Intensity = 5.78 ± 0.568 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 617: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 618: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1611.180	0.001	1.272	0.026
Ag-112	Cd-112	1613.600	0.028	3.130	0.000
I-134	Xe-134	1613.800	0.043	0.875	0.078
La-143	Ce-143	1611.500	0.000	0.237	0.059
Nd-151	Pm-151	1611.500	0.000	0.207	0.004

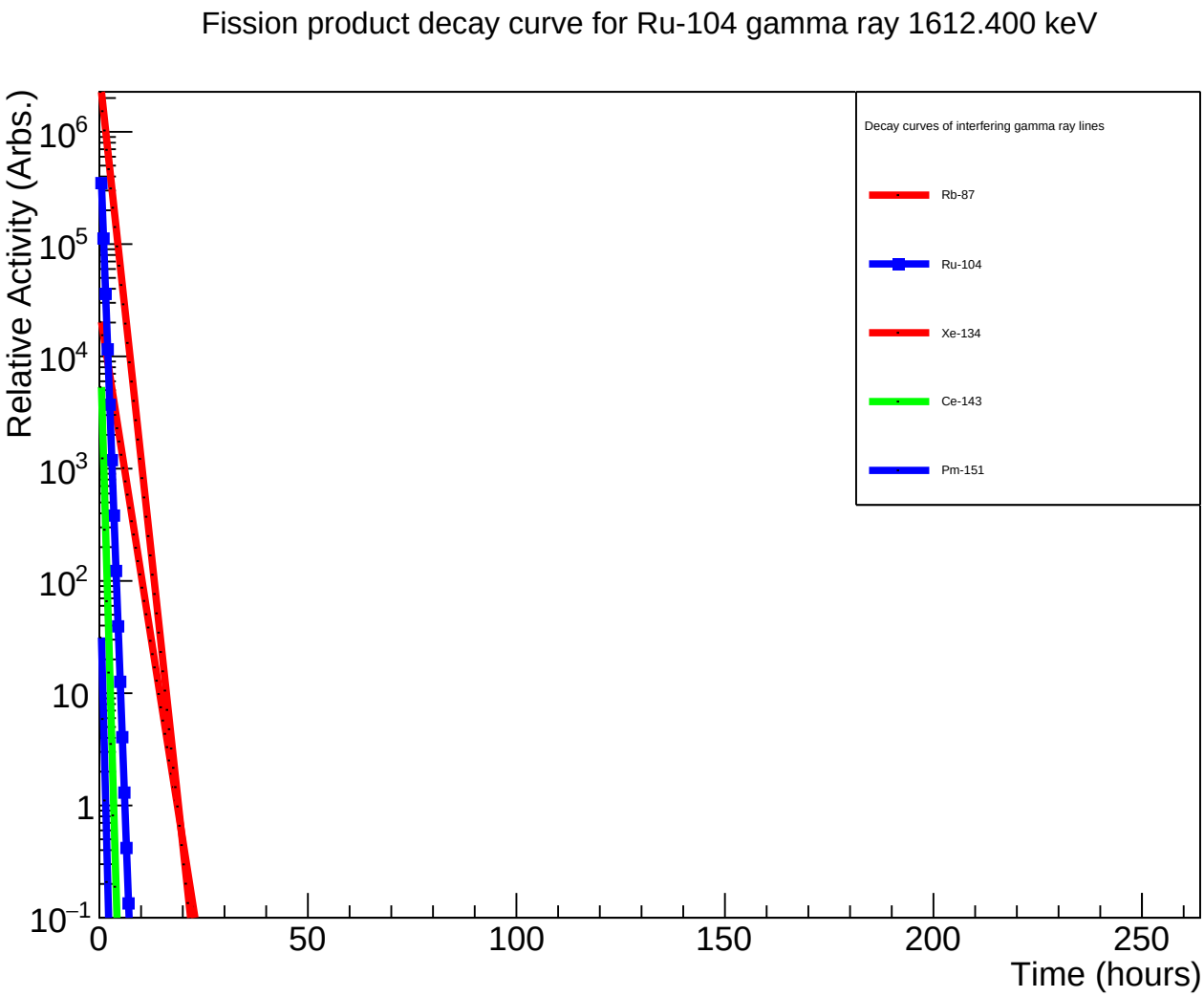


Figure 309: Ru-104 decay curve for 1612.400 keV gamma ray.

3.310 Tc-104 E_γ = 1676.80 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1676.80 keV
Gamma Intensity = 7.83 ± 0.759 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 619: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 620: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-135	Xe-135	1678.027	0.096	6.570	0.063
Cs-139	Ba-139	1677.440	0.001	0.155	0.063

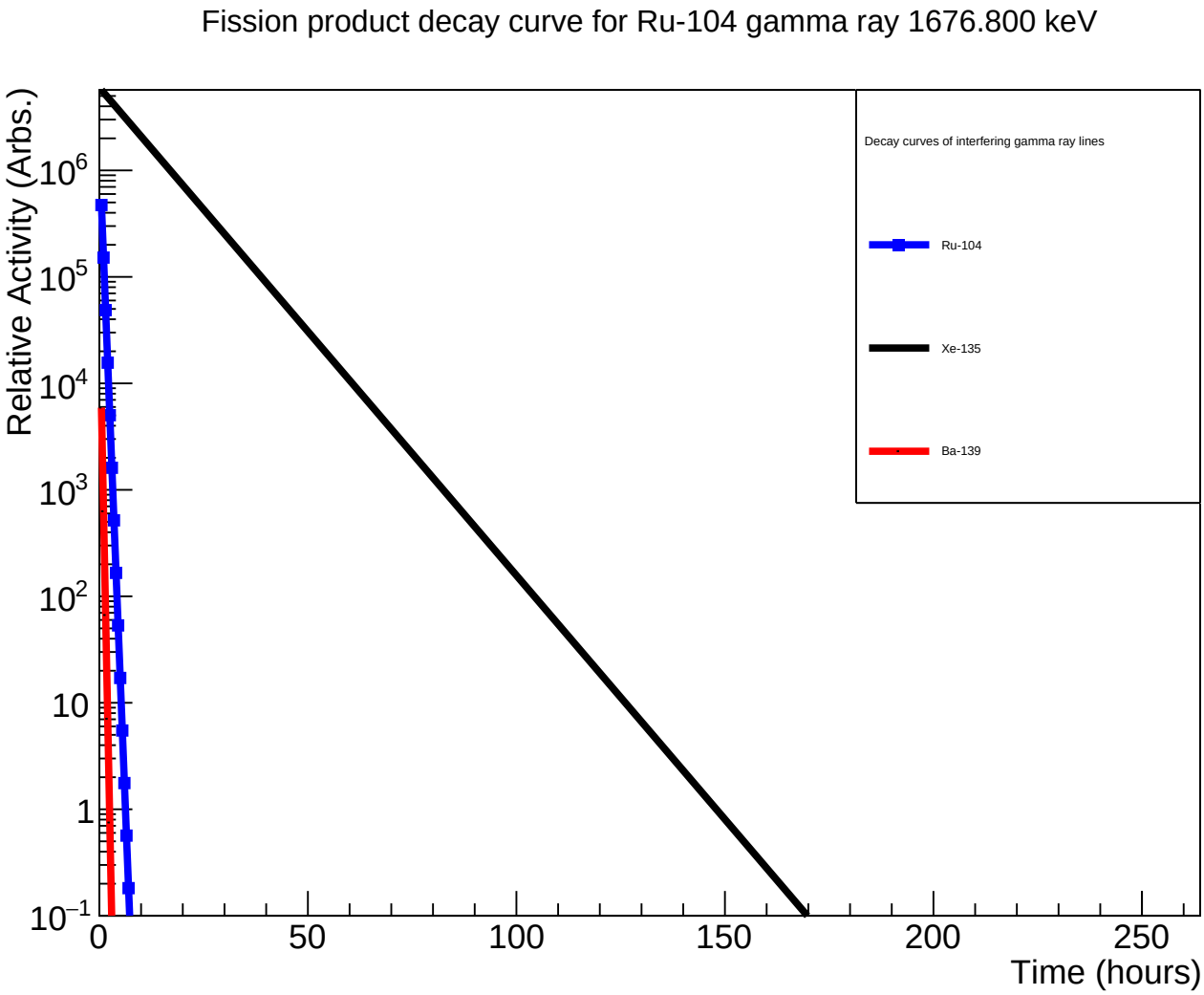


Figure 310: Ru-104 decay curve for 1676.800 keV gamma ray.

3.311 Tc-104 E_γ = 1736.90 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1736.90 keV
Gamma Intensity = 1.87 ± 0.189 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 621: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 622: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1737.200	0.001	1.512	0.000
Sn-125	Sb-125	1736.070	0.000	0.159	0.000
Sb-129	Te-129	1736.500	0.120	4.400	0.005
Te-133	I-133	1738.000	0.000	0.208	0.031
Cs-139	Ba-139	1737.900	0.000	0.155	0.063
Ba-141	La-141	1735.400	0.002	0.304	0.058
Nd-151	Pm-151	1737.750	0.000	0.207	0.004

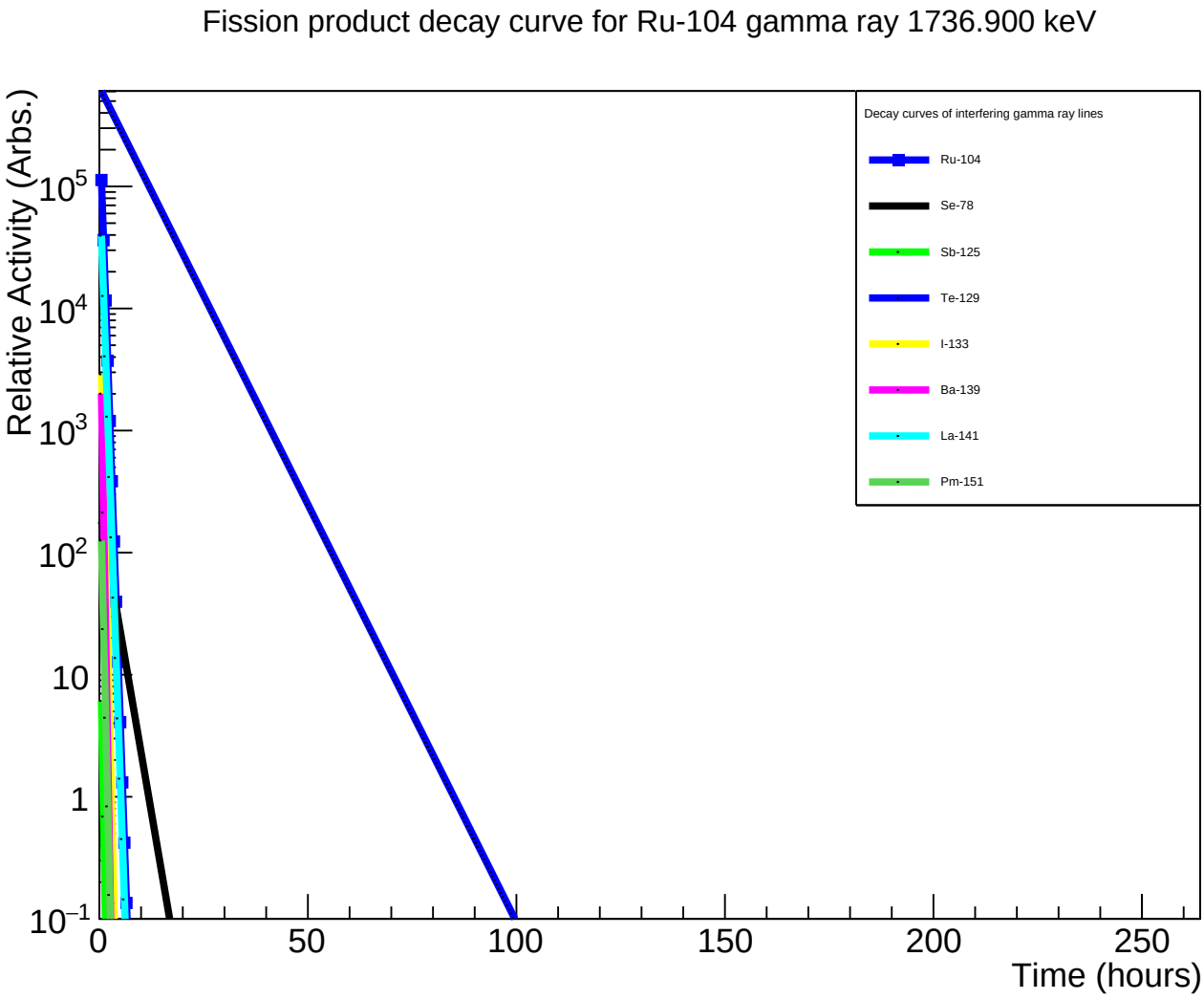


Figure 311: Ru-104 decay curve for 1736.900 keV gamma ray.

3.312 Tc-104 E_γ = 1911.00 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1911.00 keV
Gamma Intensity = 1.96 ± 0.190 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 623: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 624: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ba-141	La-141	1912.200	0.002	0.304	0.058

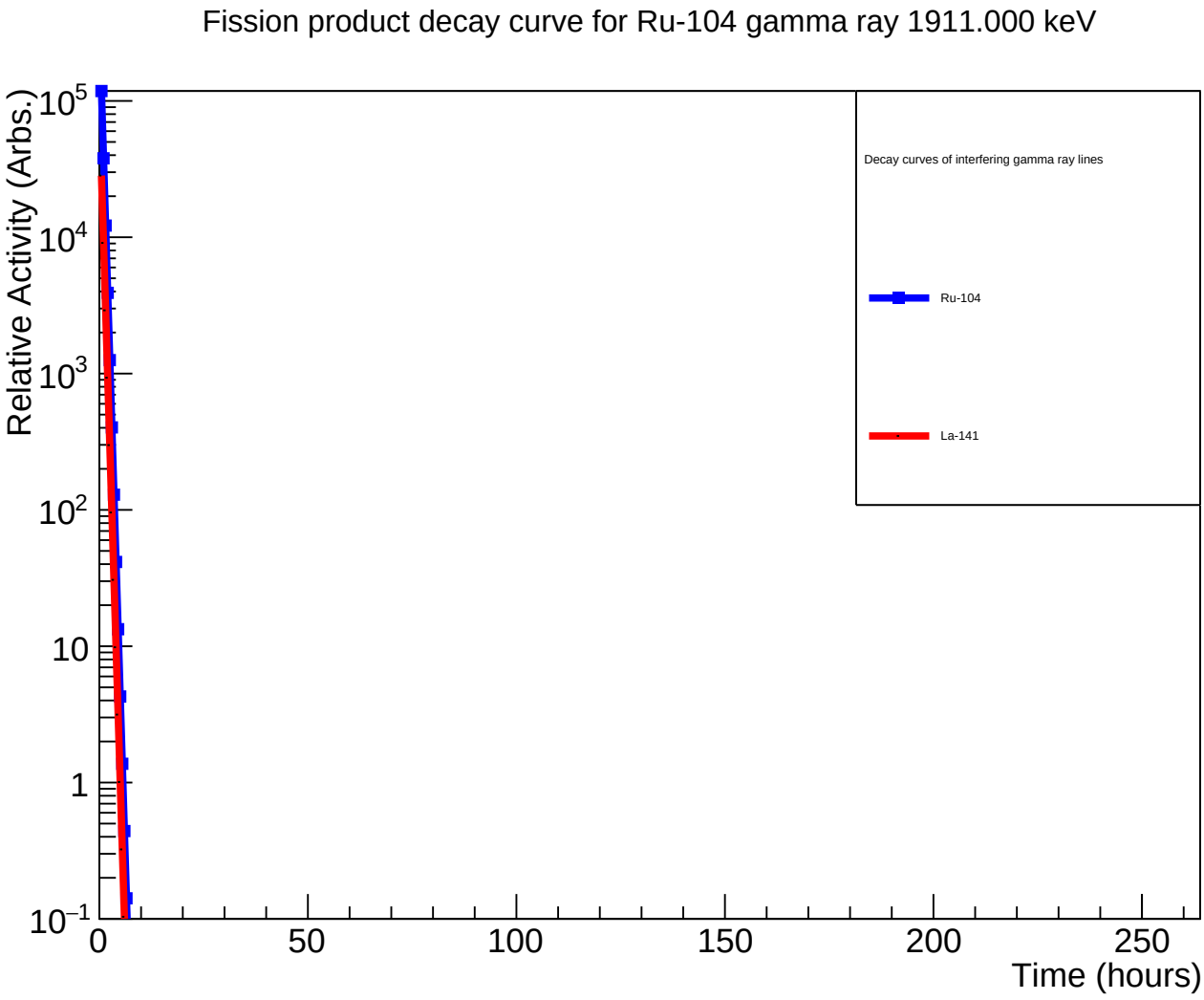


Figure 312: Ru-104 decay curve for 1911.000 keV gamma ray.

3.313 Tc-104 E_γ = 1971.10 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 1971.10 keV
Gamma Intensity = 1.60 ± 0.186 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 625: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 626: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1972.200	0.000	0.124	0.062
Te-133	I-133	1972.000	0.000	0.208	0.031

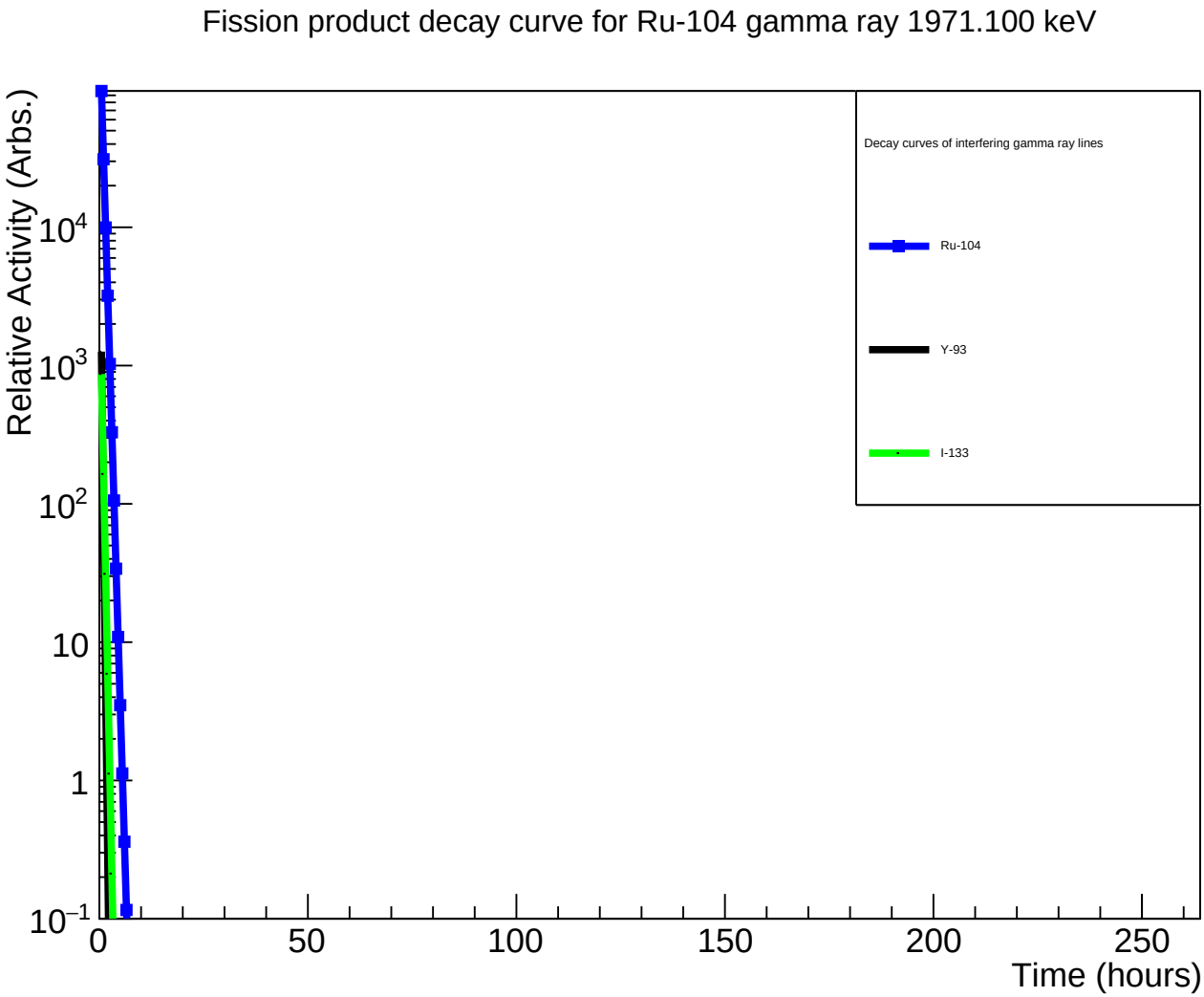


Figure 313: Ru-104 decay curve for 1971.100 keV gamma ray.

3.314 Tc-104 E_γ = 2015.70 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 2015.70 keV
Gamma Intensity = 1.78 ± 0.188 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 627: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 628: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	2016.000	0.000	9.630	0.058
Sb-131	Te-131	2016.500	0.007	0.384	0.026
Te-133	I-133	2016.000	0.000	0.923	0.040
Xe-138	Cs-138	2015.820	0.123	0.235	0.063

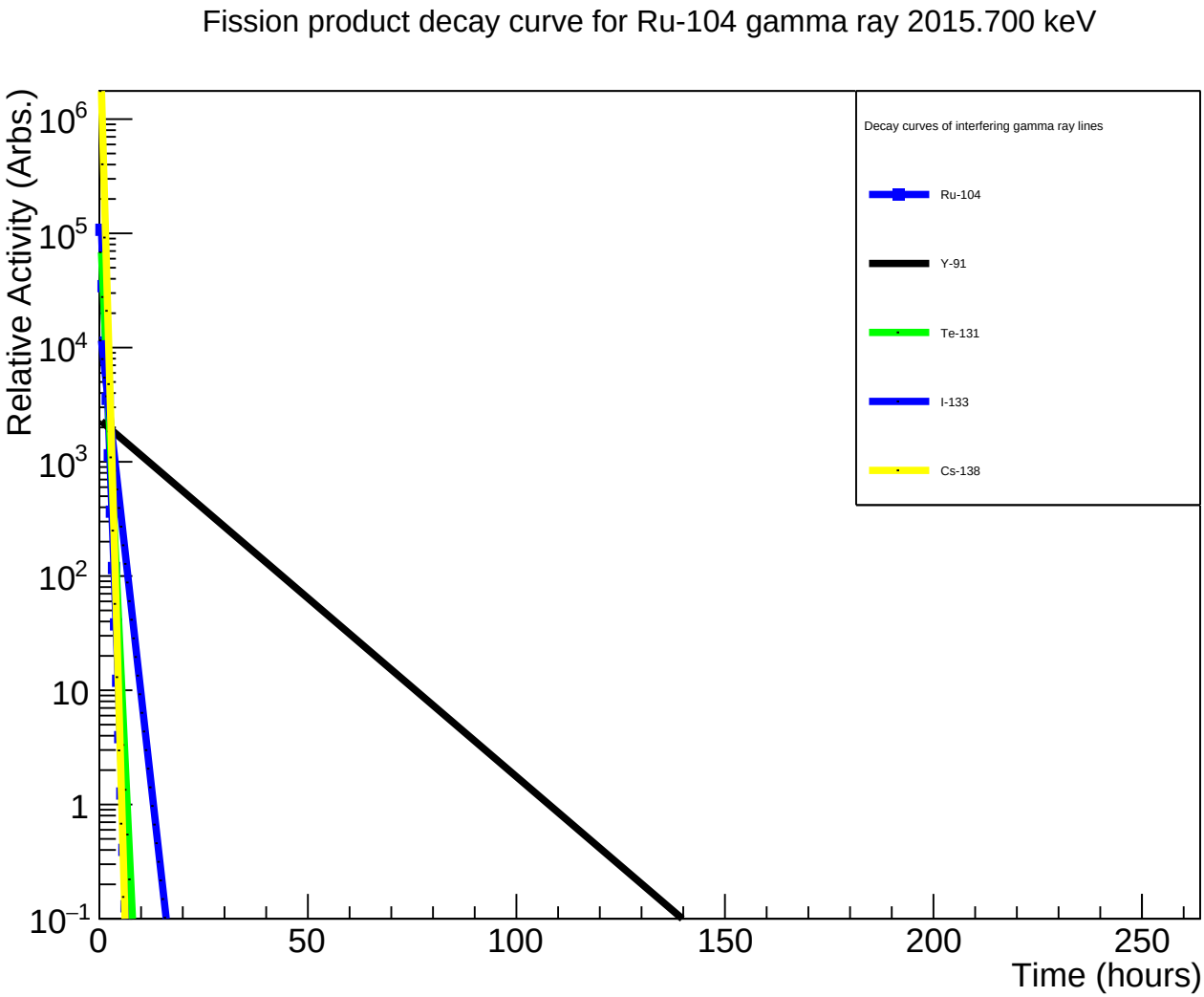


Figure 314: Ru-104 decay curve for 2015.700 keV gamma ray.

3.315 Tc-104 E_γ = 2123.80 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 2123.80 keV
Gamma Intensity = 2.23 ± 0.193 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 629: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 630: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nd-151	Pm-151	2124.700	0.000	0.207	0.004

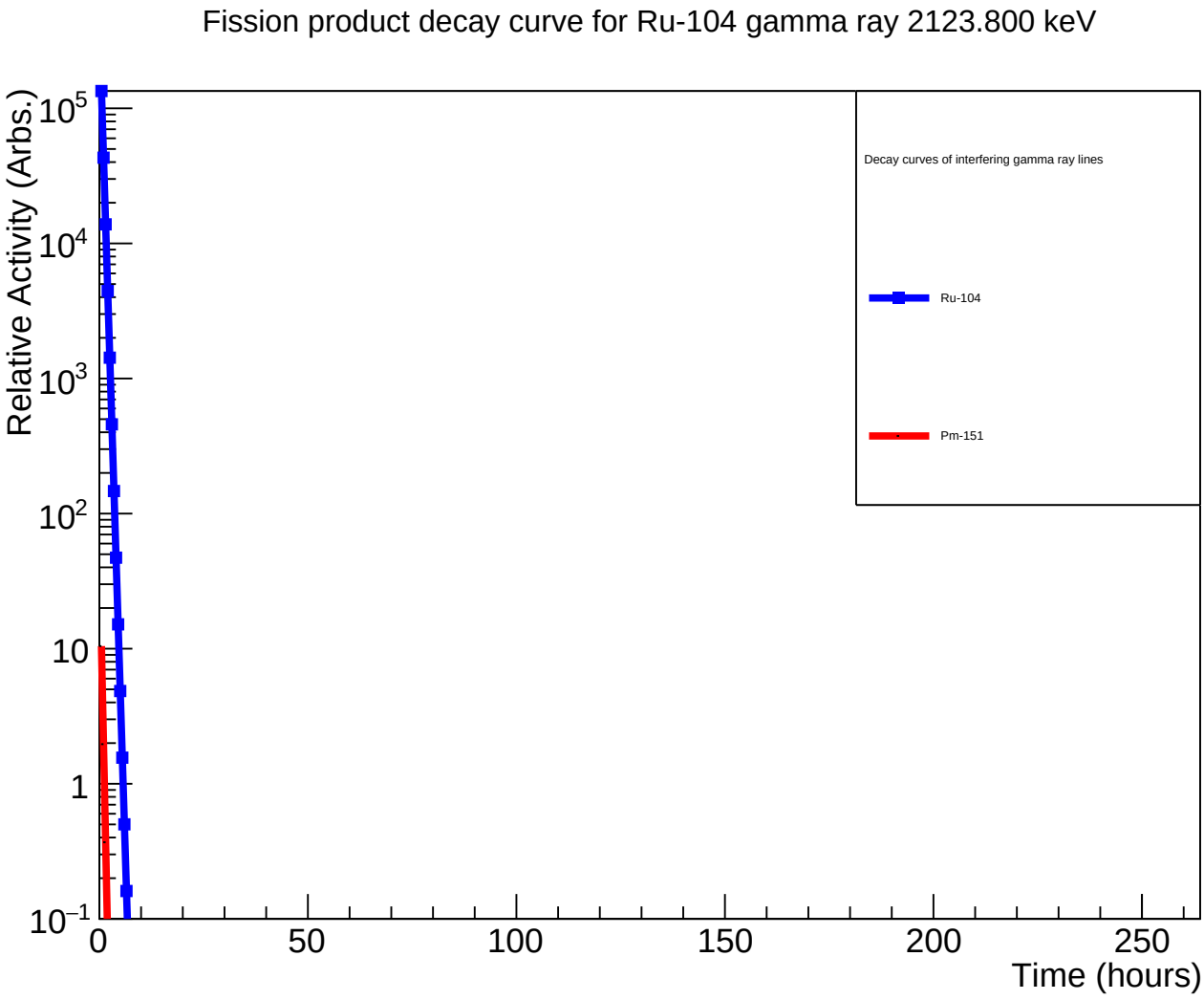


Figure 315: Ru-104 decay curve for 2123.800 keV gamma ray.

3.316 Tc-104 E_γ = 2190.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 2190.50 keV
Gamma Intensity = 1.78 ± 0.188 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 631: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 632: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	2190.800	0.002	10.180	0.063
Nb-98	Mo-98	2189.400	0.000	0.855	0.000
Nb-98	Mo-98	2191.100	0.000	0.855	0.000
I-135	Xe-135	2189.400	0.000	6.570	0.063

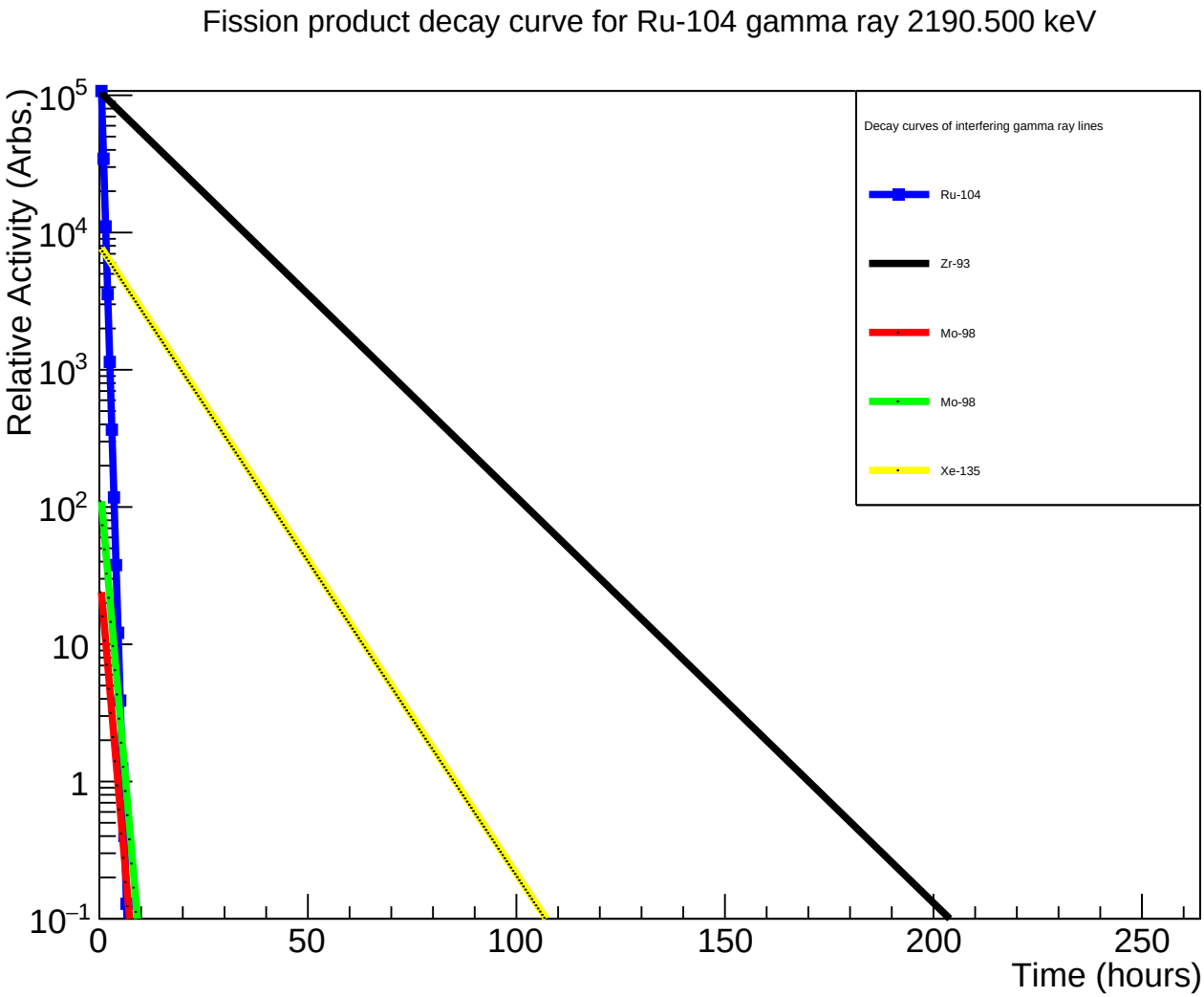


Figure 316: Ru-104 decay curve for 2190.500 keV gamma ray.

3.317 Tc-104 E_γ = 2465.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 2465.50 keV
Gamma Intensity = 1.16 ± 0.097 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 633: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 634: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-135	Xe-135	2466.070	0.001	6.570	0.063
La-140	Ce-140	2464.100	0.000	40.285	0.062

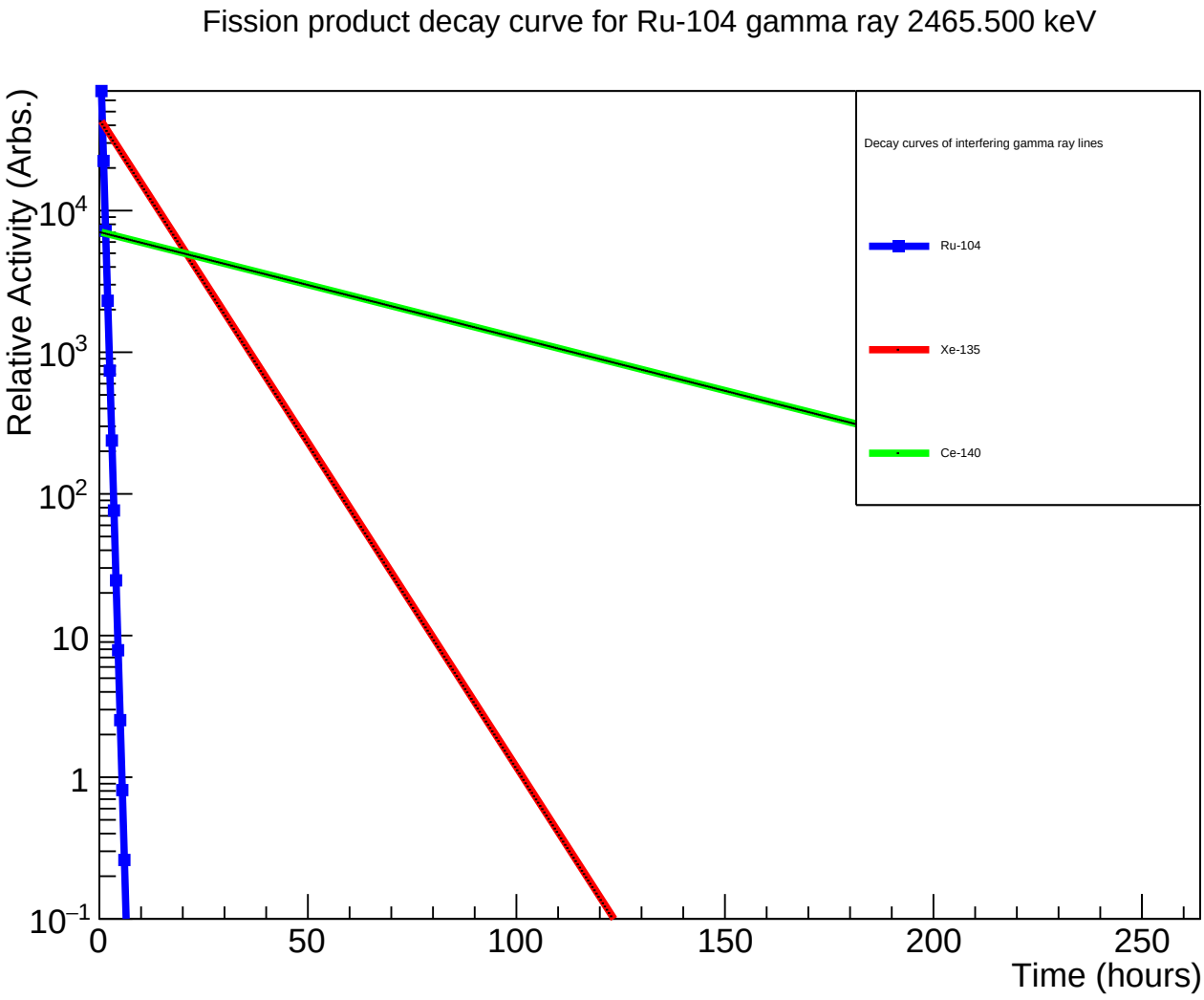


Figure 317: Ru-104 decay curve for 2465.500 keV gamma ray.

3.318 Tc-104 E_γ = 2608.50 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 2608.50 keV
Gamma Intensity = 1.60 ± 0.186 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 635: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 636: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2607.030	0.001	0.855	0.000
Cs-138	Ba-138	2609.300	0.000	0.557	0.067

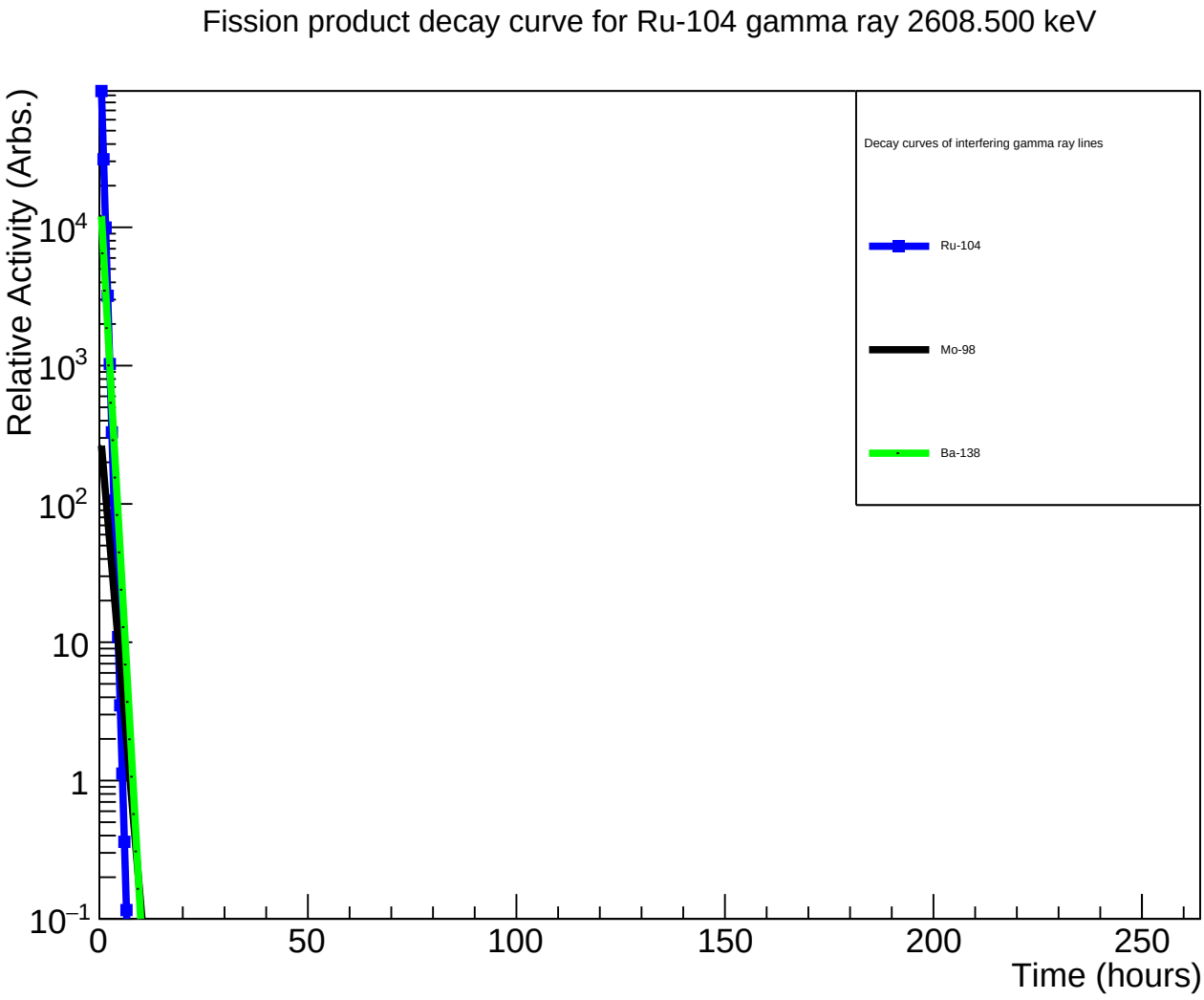


Figure 318: Ru-104 decay curve for 2608.500 keV gamma ray.

3.319 Tc-104 E_γ = 3149.20 keV

Chemical element: Technetium
Fission product parent: Tc-104
Gamma originates in daughter: Ru-104
Eγ: 3149.20 keV
Gamma Intensity = 1.16 ± 0.097 %
$T_{1/2}$ = 0.305 ± 0.005 hours or 18.30 ± 0.30 minutes
CFY: 1.880 ± 0.038 %

Table 637: Decay chain of fission product chain A = 104

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-104	Technetium-104	0.017	0.001
Technetium-104	Ruthenium-104	0.305	0.005

Table 638: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

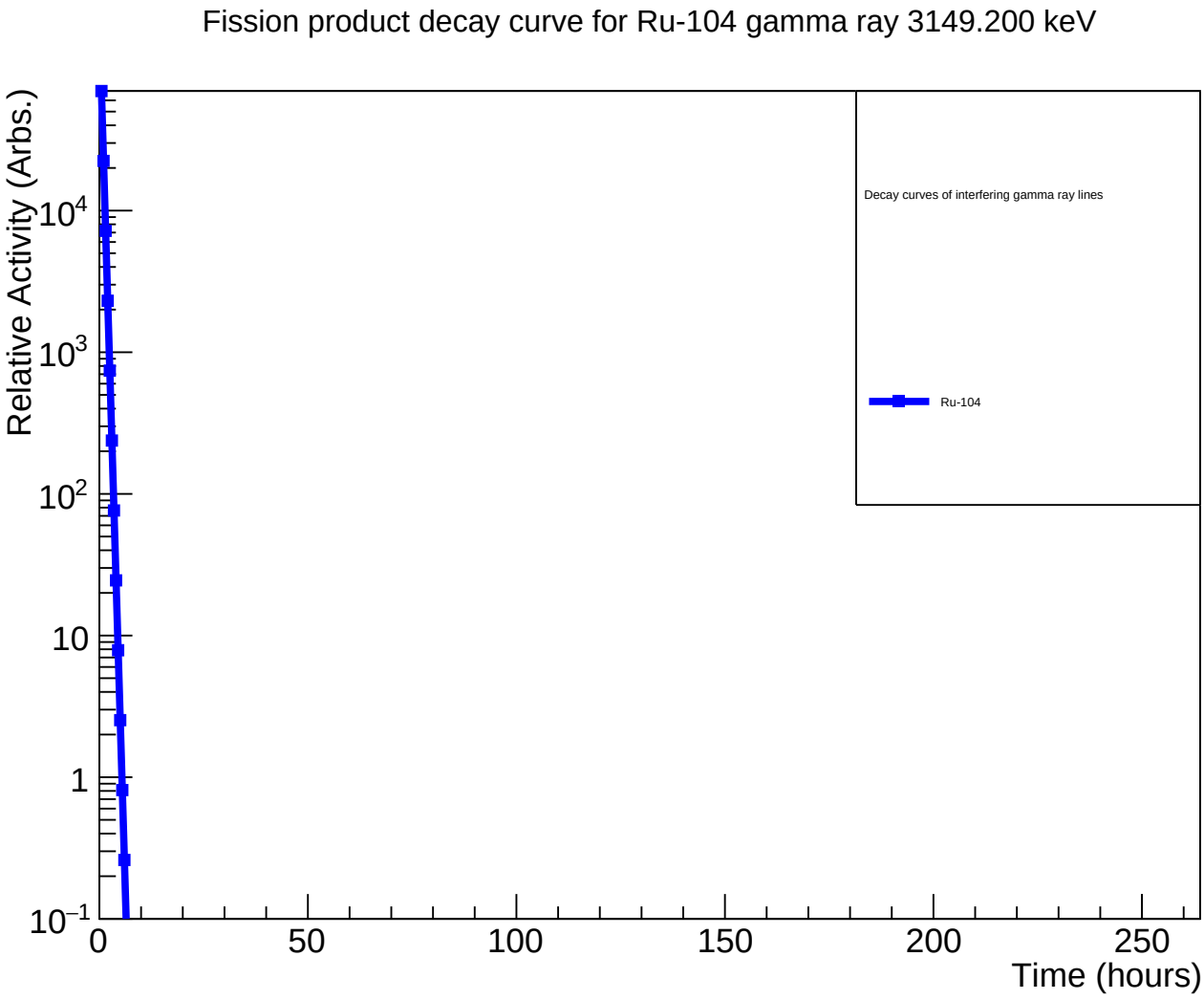


Figure 319: Ru-104 decay curve for 3149.200 keV gamma ray.

3.320 Tc-105 E_γ = 20.55 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 20.55 keV
Gamma Intensity = 1.57 ± 0.791 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 639: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

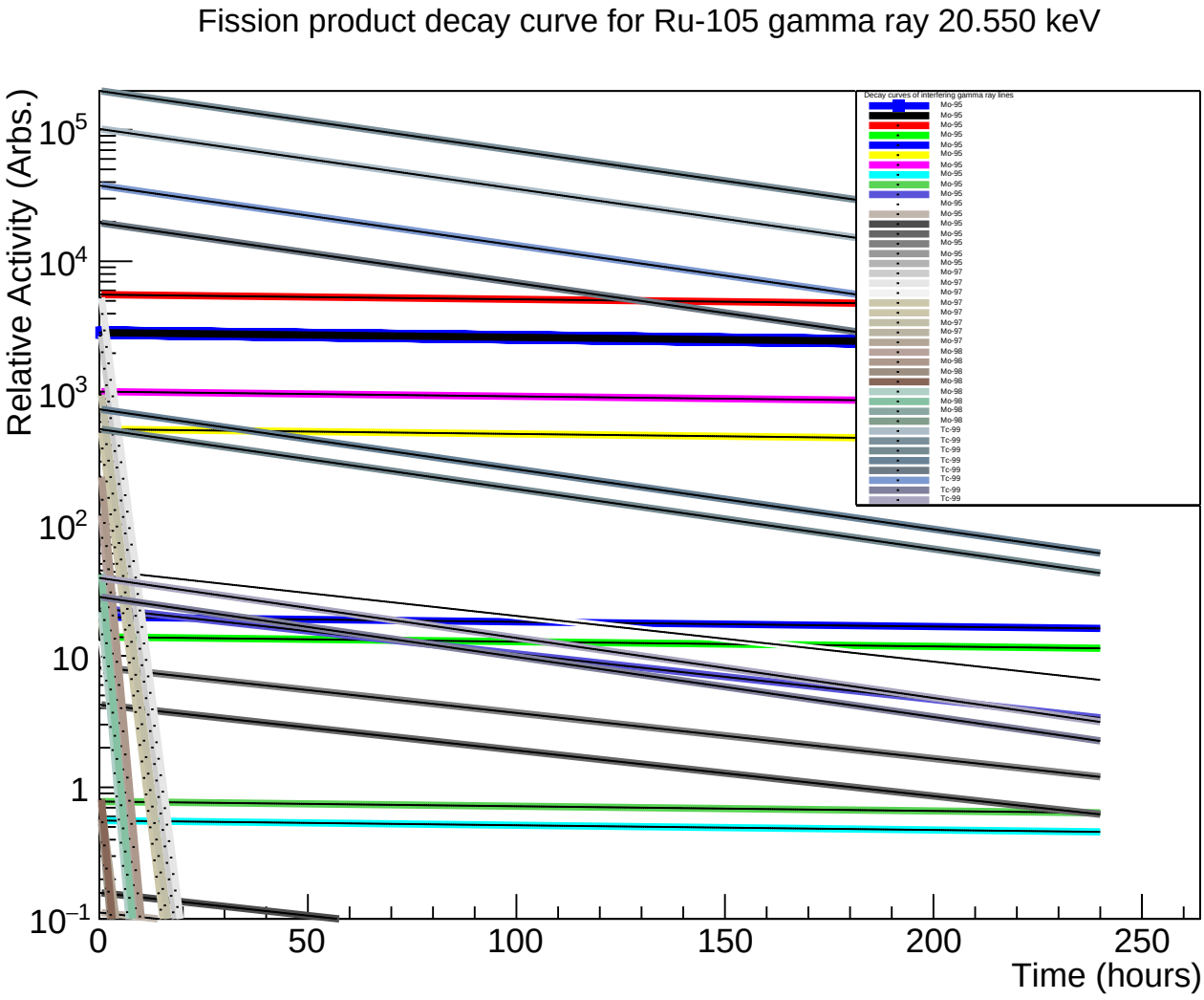


Figure 320: Ru-105 decay curve for 20.550 keV gamma ray.

Table 640: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-95	Mo-95	19.555	0.000	839.784	0.065
Nb-95	Mo-95	19.573	0.000	839.784	0.065
Nb-95	Mo-95	19.725	0.000	839.784	0.065
Nb-95	Mo-95	19.728	0.000	839.784	0.065
Nb-95	Mo-95	19.920	0.000	839.784	0.065
Nb-95	Mo-95	19.923	0.000	839.784	0.065
Nb-95	Mo-95	19.958	0.000	839.784	0.065
Nb-95	Mo-95	19.958	0.000	839.784	0.065
Nb-95	Mo-95	19.555	0.000	86.640	0.001
Nb-95	Mo-95	19.573	0.000	86.640	0.001
Nb-95	Mo-95	19.725	0.000	86.640	0.001
Nb-95	Mo-95	19.728	0.000	86.640	0.001
Nb-95	Mo-95	19.920	0.000	86.640	0.001
Nb-95	Mo-95	19.923	0.000	86.640	0.001
Nb-95	Mo-95	19.958	0.000	86.640	0.001
Nb-95	Mo-95	19.958	0.000	86.640	0.001
Nb-97	Mo-97	19.555	0.000	1.202	0.060
Nb-97	Mo-97	19.573	0.000	1.202	0.060
Nb-97	Mo-97	19.725	0.000	1.202	0.060
Nb-97	Mo-97	19.728	0.000	1.202	0.060
Nb-97	Mo-97	19.920	0.000	1.202	0.060
Nb-97	Mo-97	19.923	0.000	1.202	0.060
Nb-97	Mo-97	19.958	0.000	1.202	0.060
Nb-97	Mo-97	19.958	0.000	1.202	0.060
Nb-98	Mo-98	19.555	0.000	0.855	0.000
Nb-98	Mo-98	19.573	0.001	0.855	0.000
Nb-98	Mo-98	19.725	0.000	0.855	0.000
Nb-98	Mo-98	19.728	0.000	0.855	0.000
Nb-98	Mo-98	19.920	0.000	0.855	0.000
Nb-98	Mo-98	19.923	0.000	0.855	0.000
Nb-98	Mo-98	19.958	0.000	0.855	0.000
Nb-98	Mo-98	19.958	0.000	0.855	0.000
Mo-99	Tc-99	20.567	0.002	65.976	0.061
Mo-99	Tc-99	20.587	0.003	65.976	0.061
Mo-99	Tc-99	20.745	0.000	65.976	0.061
Mo-99	Tc-99	20.749	0.000	65.976	0.061
Mo-99	Tc-99	20.962	0.000	65.976	0.061
Mo-99	Tc-99	20.965	0.001	65.976	0.061
Mo-99	Tc-99	21.004	0.000	65.976	0.061
Mo-99	Tc-99	21.004	0.000	65.976	0.061

3.321 Tc-105 E_γ = 75.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 75.30 keV
Gamma Intensity = 2.20 ± 0.491 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 641: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 642: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-128	Sb-128	75.100	0.277	0.984	0.003
Te-129	I-129	76.100	0.000	806.400	0.001
Nd-149	Pm-149	74.320	0.011	1.728	0.011
Nd-149	Pm-149	74.660	0.010	1.728	0.011
Nd-149	Pm-149	75.690	0.002	1.728	0.011
Pm-147	Sm-147	76.073	0.000	23000.000	0.022
Pm-151	Sm-151	76.220	0.002	28.400	0.004
Sm-153	Eu-153	75.422	0.002	46.500	0.002

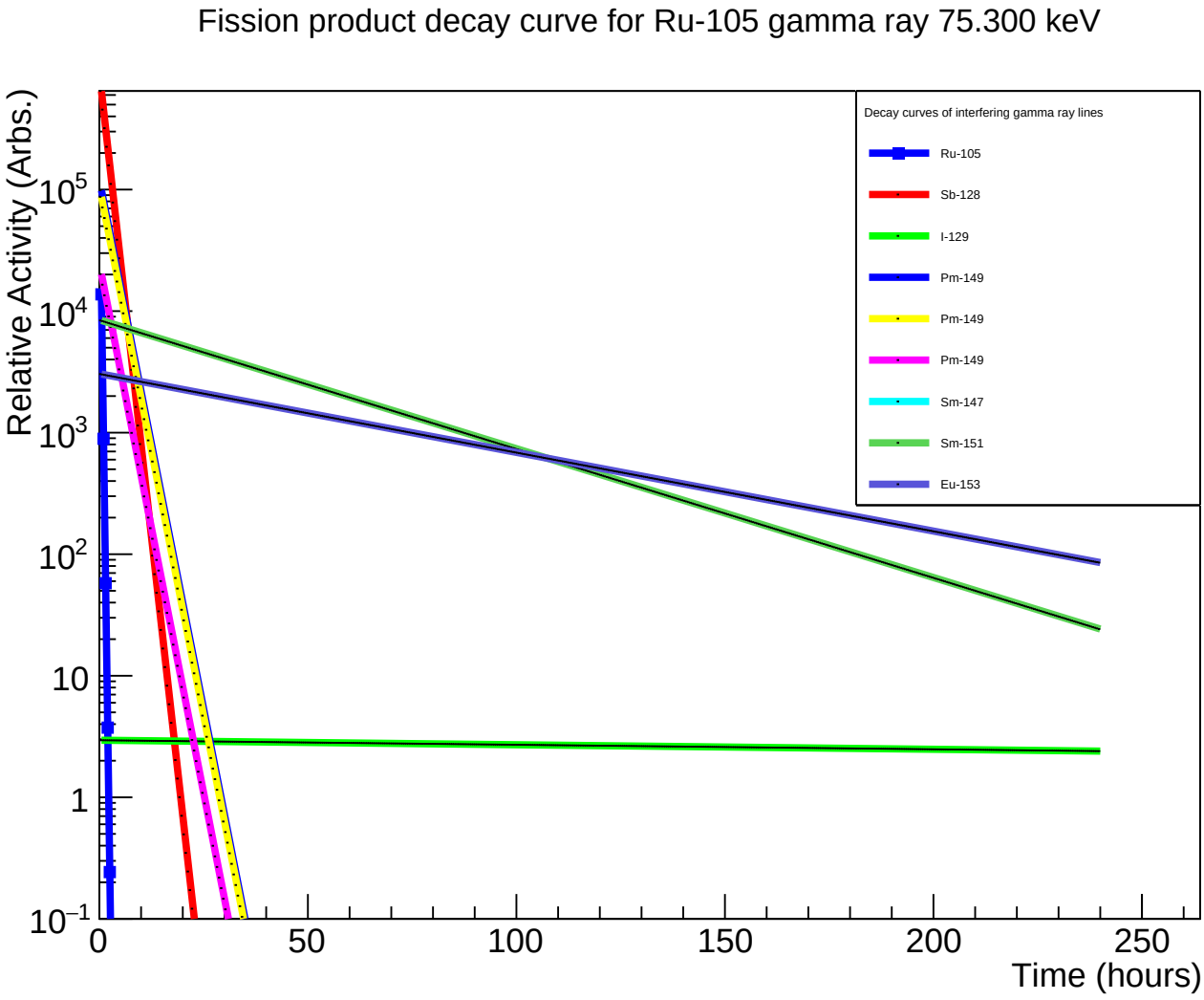


Figure 321: Ru-105 decay curve for 75.300 keV gamma ray.

3.322 Tc-105 E_γ = 82.55 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 82.55 keV
Gamma Intensity = 4.24 ± 0.830 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 643: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 644: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	81.140	0.039	33.250	0.004
Te-133	I-133	81.610	0.003	0.923	0.040
Ba-142	La-142	84.000	0.000	0.177	0.058
Sm-153	Eu-153	83.367	0.002	46.500	0.002

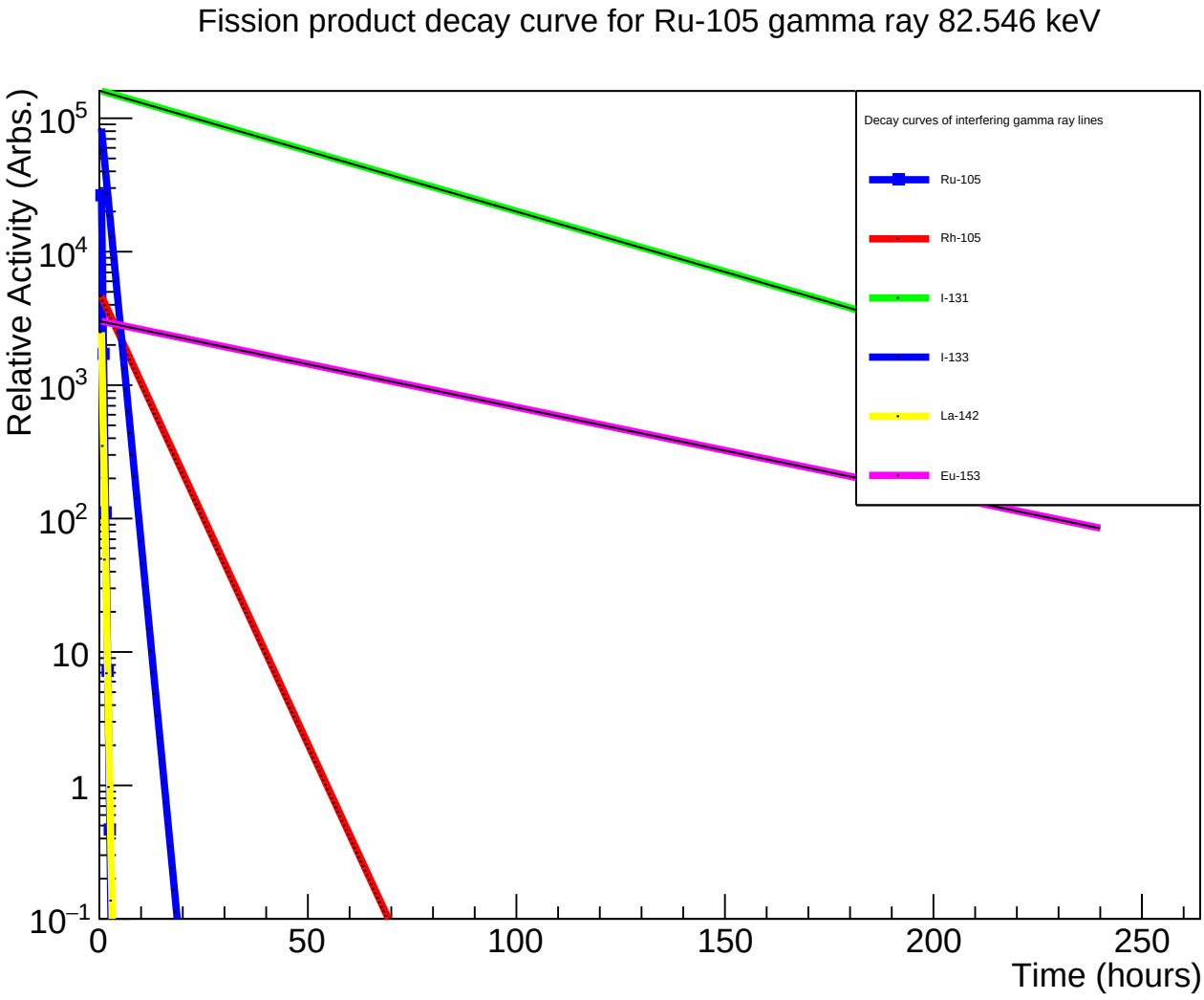


Figure 322: Ru-105 decay curve for 82.546 keV gamma ray.

3.323 Tc-105 E_γ = 107.94 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 107.94 keV
Gamma Intensity = 14.13 ± 1.675 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 645: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 646: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-129	Sb-129	108.600	0.012	0.115	0.002
Te-131	I-131	109.400	0.001	0.417	0.025
Te-131	I-131	109.400	0.000	33.250	0.004
La-140	Ce-140	109.422	0.002	40.285	0.062
Nd-149	Pm-149	107.790	0.001	1.728	0.011
Eu-155	Gd-155	107.600	0.000	41666.668	0.000

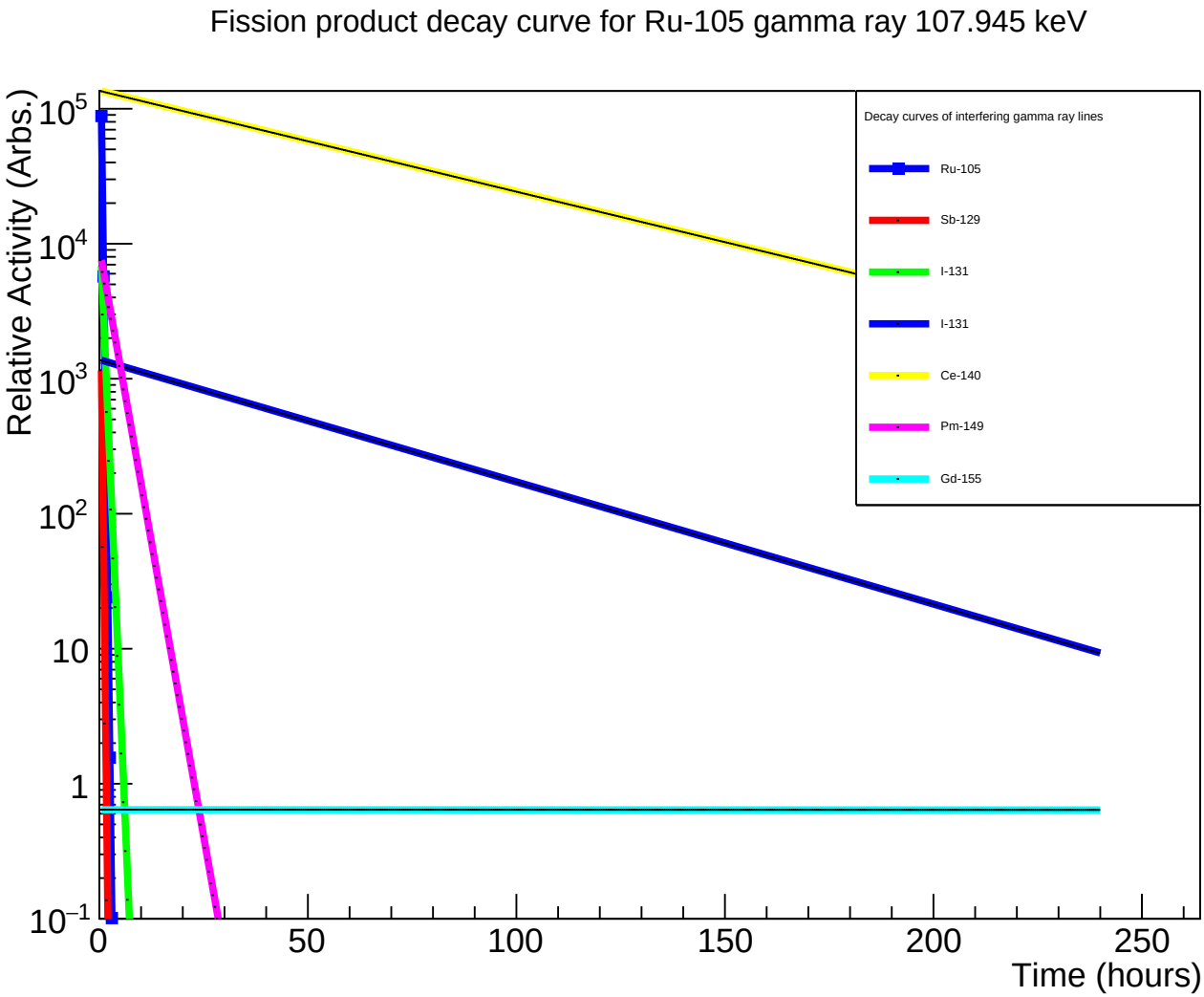


Figure 323: Ru-105 decay curve for 107.945 keV gamma ray.

3.324 Tc-105 E_γ = 138.45 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 138.45 keV
Gamma Intensity = 4.24 ± 0.543 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 647: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 648: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	137.600	0.001	33.250	0.004
Te-134	I-134	137.000	0.001	0.697	0.070
I-134	Xe-134	139.030	0.008	0.875	0.078
Xe-138	Cs-138	137.200	0.001	0.235	0.063
Cs-138	Ba-138	138.100	0.015	0.557	0.067
Ce-143	Pr-143	139.742	0.001	33.039	0.060
Nd-149	Pm-149	137.050	0.001	1.728	0.011
Nd-149	Pm-149	139.210	0.005	1.728	0.011
Nd-151	Pm-151	138.890	0.070	0.207	0.004
Pm-151	Sm-151	138.380	0.000	28.400	0.004
Pm-151	Sm-151	138.900	0.000	28.400	0.004
Pm-151	Sm-151	139.280	0.005	28.400	0.004
Sm-155	Eu-155	138.300	0.001	0.372	0.000
Eu-156	Gd-156	138.700	0.000	364.560	0.000

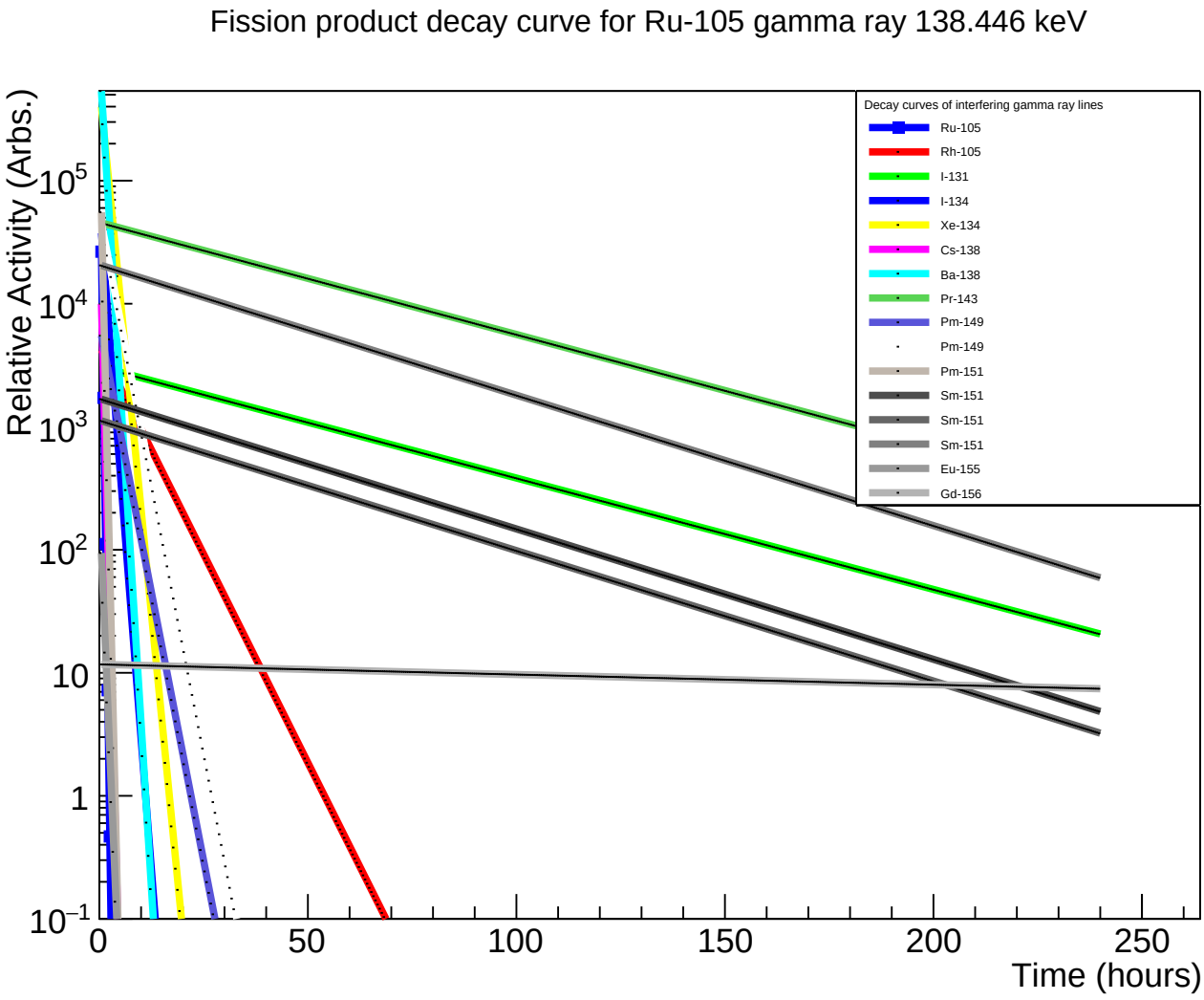


Figure 324: Ru-105 decay curve for 138.446 keV gamma ray.

3.325 Tc-105 E_γ = 143.26 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 143.26 keV
Gamma Intensity = 15.70 ± 1.000 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 649: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 650: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Sn-127	Sb-127	143.700	0.005	2.100	0.001
Pm-151	Sm-151	143.170	0.002	28.400	0.004
Pm-151	Sm-151	143.200	0.000	28.400	0.004

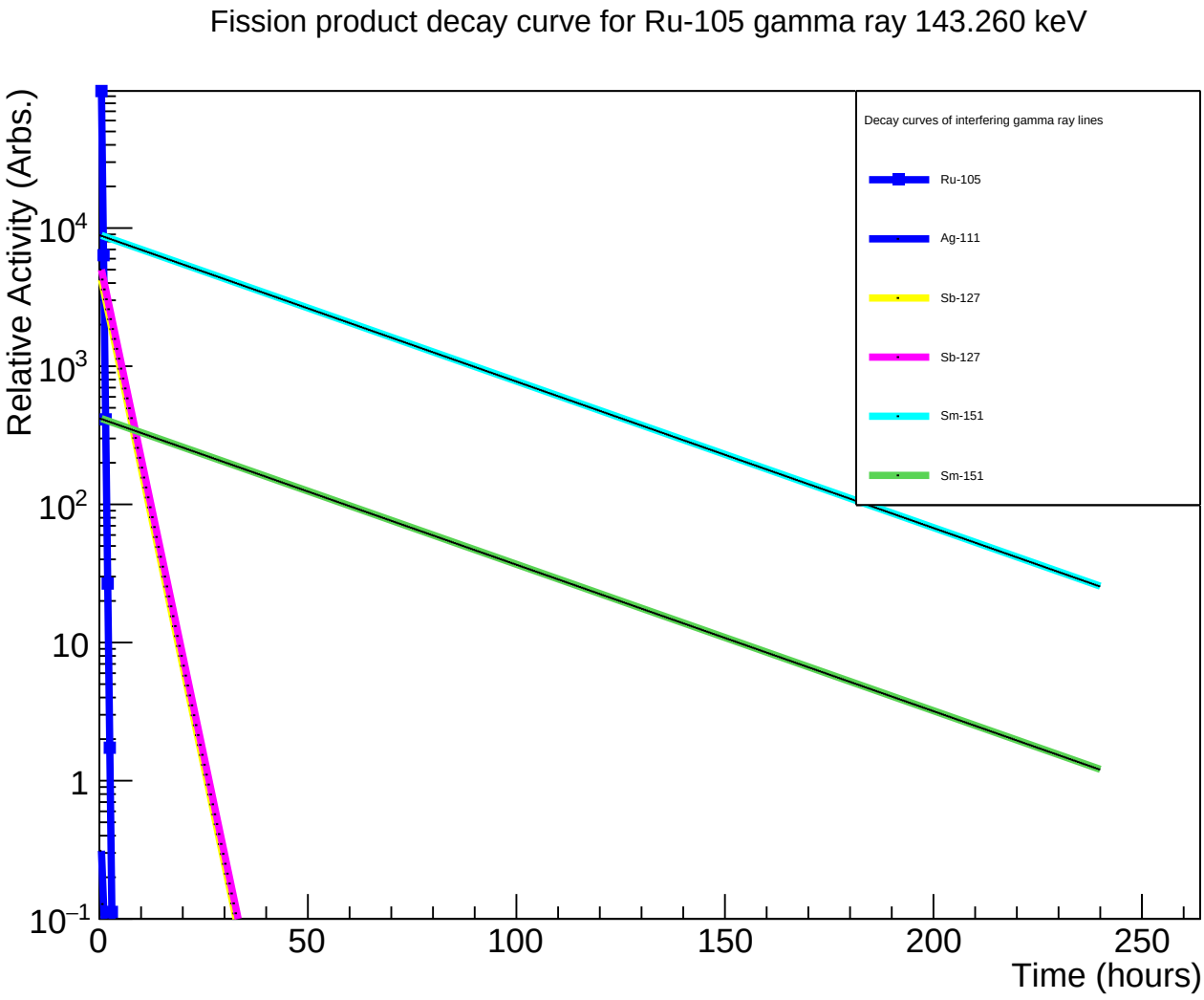


Figure 325: Ru-105 decay curve for 143.260 keV gamma ray.

3.326 Tc-105 E_γ = 157.82 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 157.82 keV
Gamma Intensity = 2.64 ± 0.342 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 651: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 652: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	156.600	0.001	1.512	0.000
Nb-98	Mo-98	157.880	0.004	0.855	0.000
Mo-99	Tc-99	158.782	0.000	65.976	0.061
Sn-127	Sb-127	156.900	0.003	2.100	0.001
Te-133	I-133	157.600	0.001	0.923	0.040
Xe-135	Cs-135	158.197	0.003	9.140	0.065
Nd-151	Pm-151	158.790	0.001	0.207	0.004

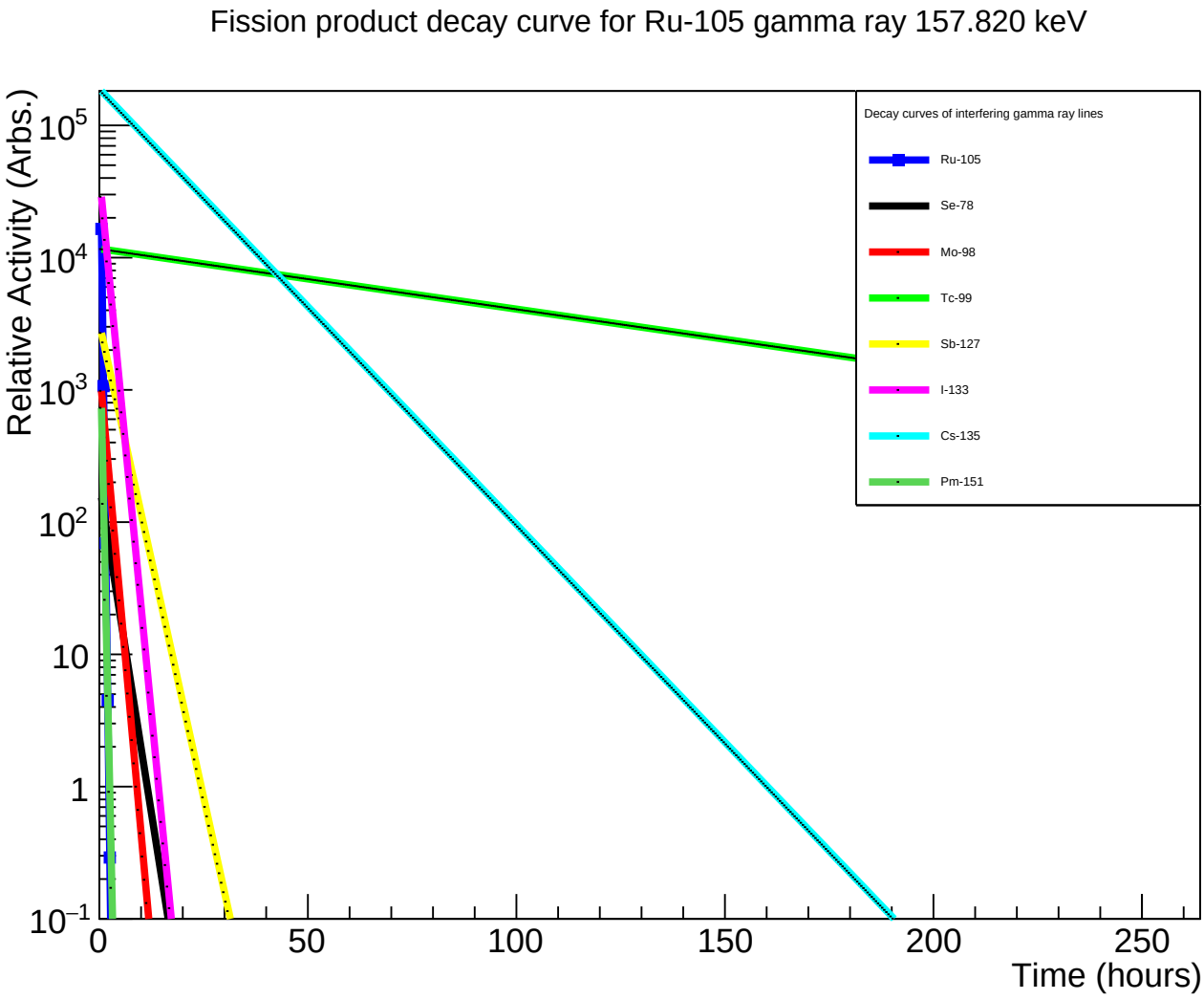


Figure 326: Ru-105 decay curve for 157.820 keV gamma ray.

3.327 Tc-105 E_γ = 159.53 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 159.53 keV
Gamma Intensity = 10.20 ± 1.277 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 653: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 654: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	158.782	0.000	65.976	0.061
Ag-112	Cd-112	159.500	0.000	3.130	0.000
Sn-123	Sb-123	160.350	0.856	0.668	0.000
Sb-131	Te-131	159.900	0.005	0.384	0.026
Te-131	I-131	159.660	0.001	33.250	0.004
Xe-133	Cs-133	160.613	0.001	125.832	0.067
Xe-135	Cs-135	158.197	0.003	9.140	0.065
Nd-147	Pm-147	159.700	0.000	263.520	0.022
Nd-151	Pm-151	158.790	0.001	0.207	0.004
Eu-156	Gd-156	160.200	0.000	364.560	0.000

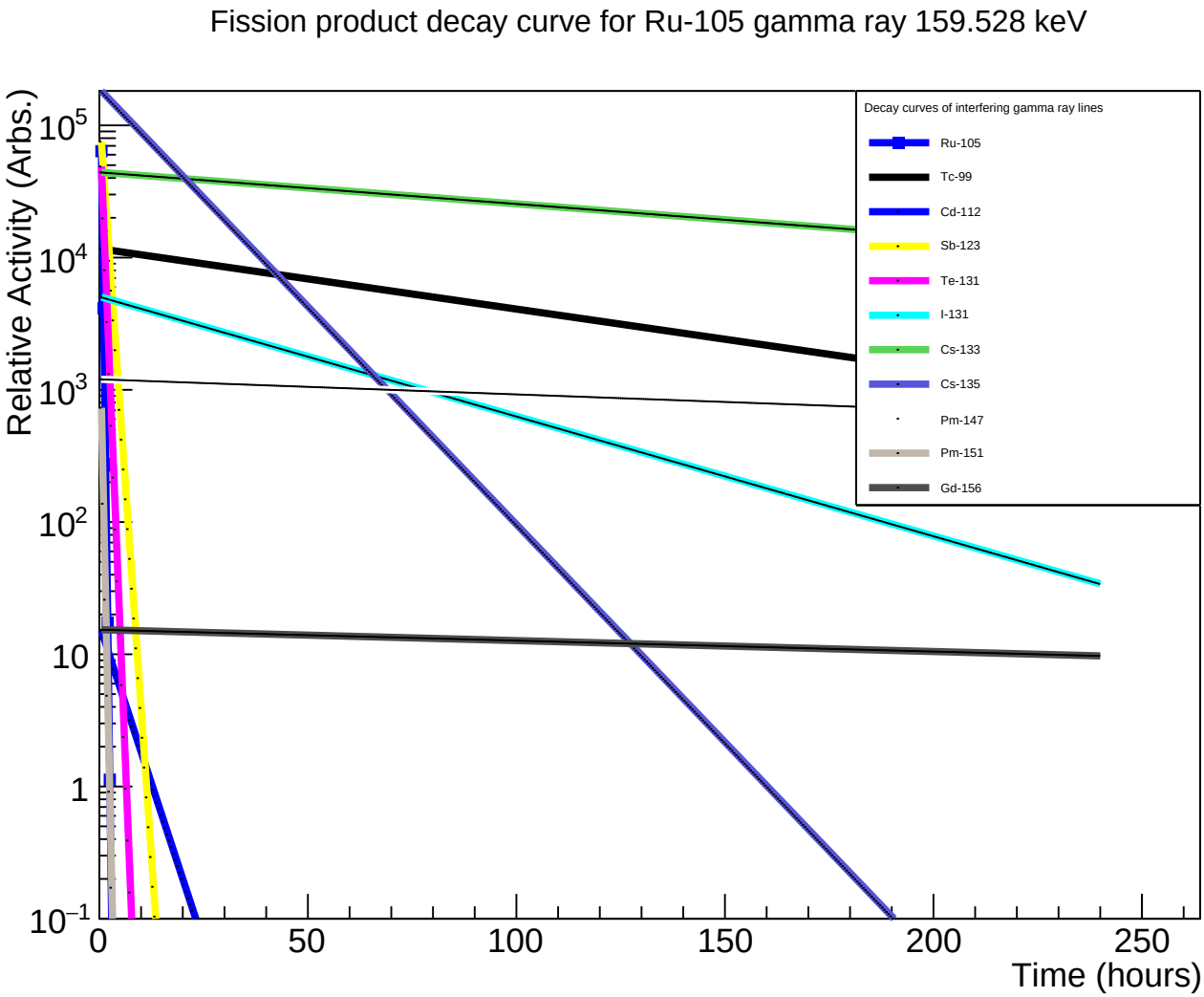


Figure 327: Ru-105 decay curve for 159.528 keV gamma ray.

3.328 Tc-105 E_γ = 208.90 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 208.90 keV
Gamma Intensity = 1.32 ± 0.164 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 655: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 656: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	208.300	0.019	0.372	0.003
Sn-127	Sb-127	208.000	0.002	2.100	0.001
Sb-125	Te-125	208.077	0.002	24194.445	0.000
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Te-129	I-129	208.960	0.002	1.160	0.005
Te-129	I-129	208.960	0.000	806.400	0.001
Te-131	I-131	207.500	0.000	33.250	0.004
Te-133	I-133	207.400	0.000	0.208	0.031
Nd-149	Pm-149	208.147	0.025	1.728	0.011
Nd-151	Pm-151	207.700	0.000	0.207	0.004
Pm-149	Sm-149	208.280	0.000	53.080	0.011
Pm-151	Sm-151	209.000	0.017	28.400	0.004

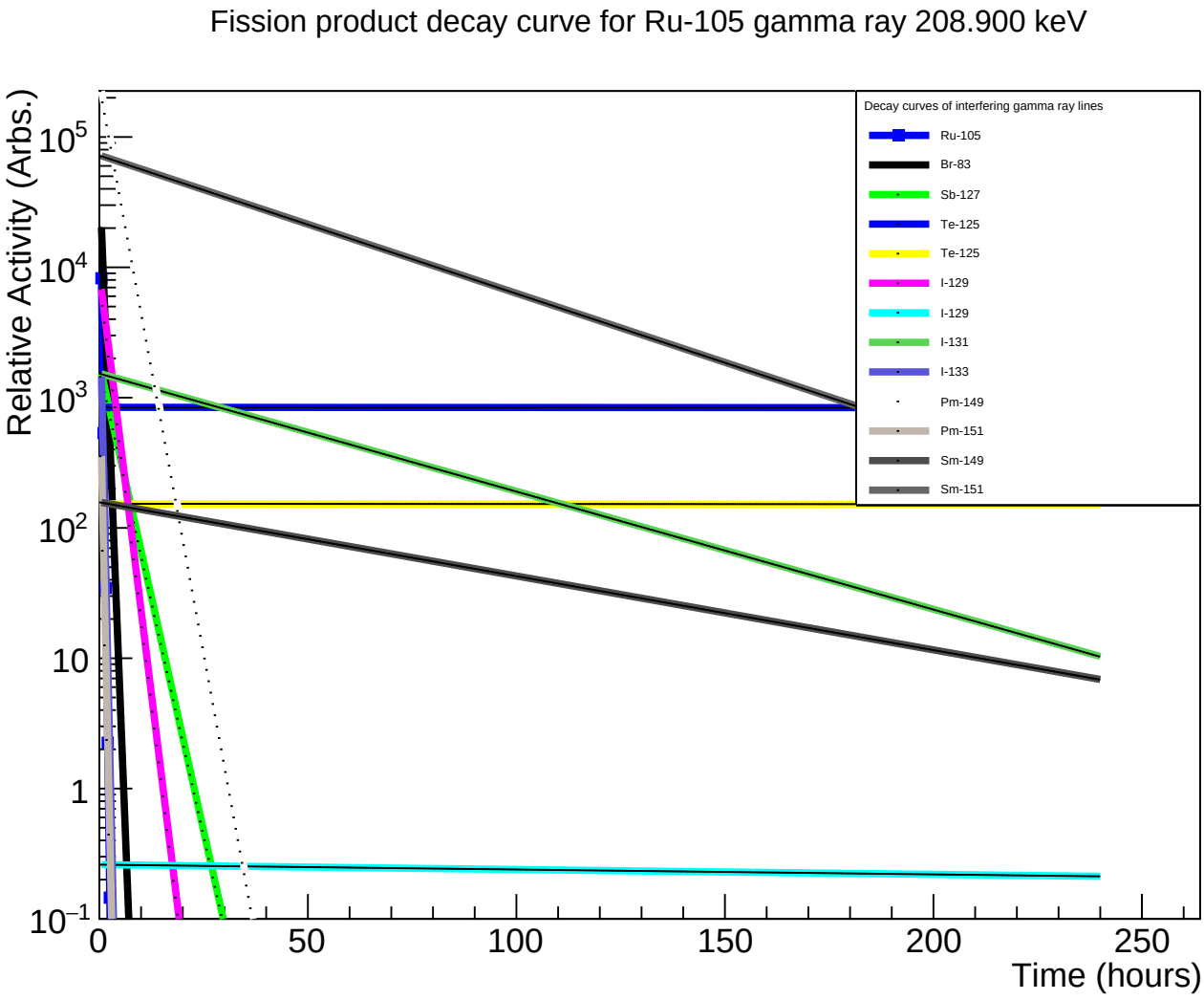


Figure 328: Ru-105 decay curve for 208.900 keV gamma ray.

3.329 Tc-105 E_γ = 213.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 213.60 keV
Gamma Intensity = 1.32 ± 0.164 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 657: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 658: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	212.900	0.001	2.100	0.001
Sn-127	Sb-127	215.000	0.001	2.100	0.001
Sb-128	Te-128	214.800	0.010	9.010	0.000
Te-127	I-127	215.100	0.000	9.350	0.002
Te-131	I-131	213.980	0.004	33.250	0.004
Te-133	I-133	213.478	0.021	0.923	0.040
Te-133	I-133	214.000	0.002	0.923	0.040
Cs-138	Ba-138	212.320	0.002	0.557	0.067
Pr-147	Nd-147	214.600	0.012	0.223	0.022
Nd-149	Pm-149	213.947	0.004	1.728	0.011

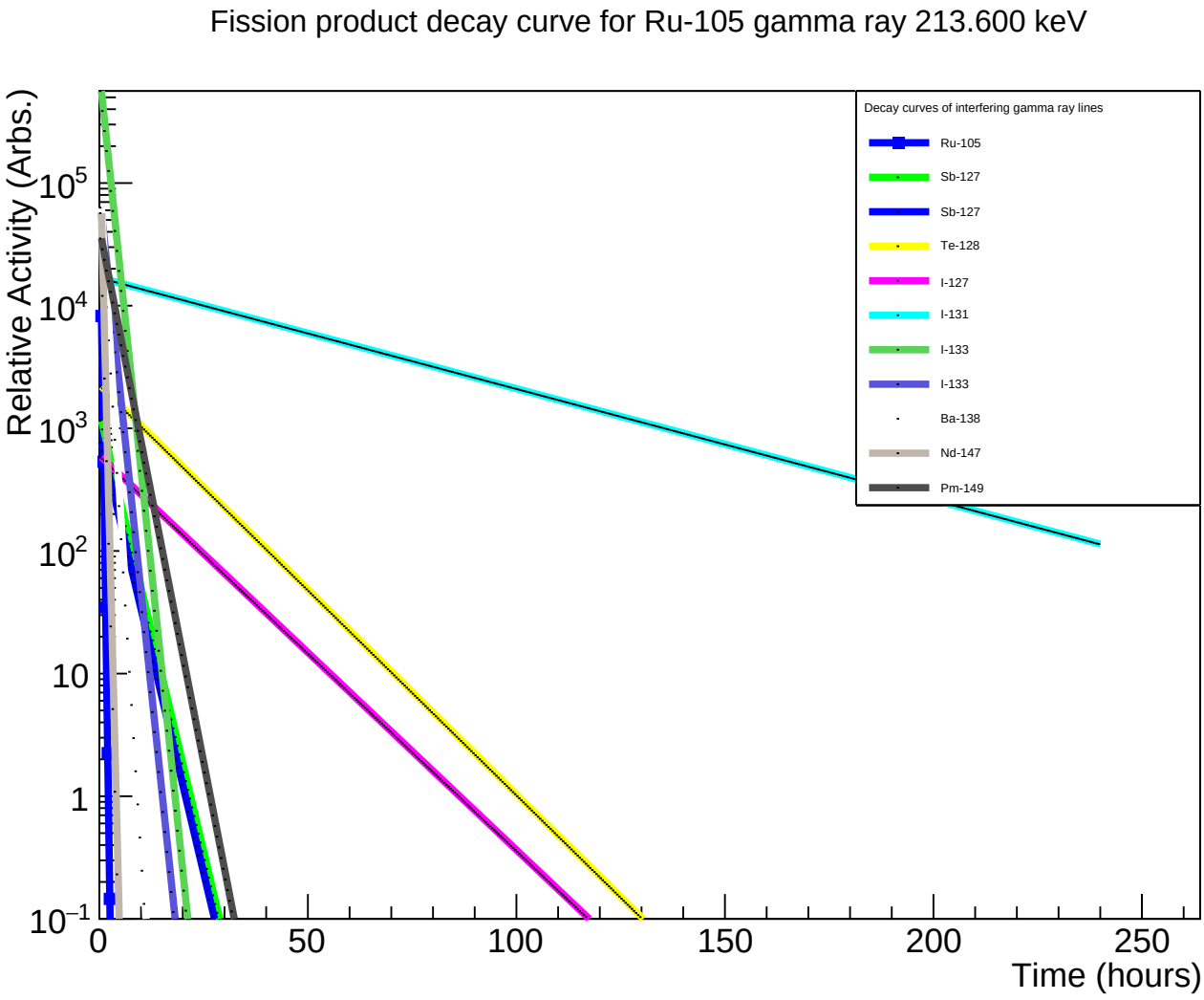


Figure 329: Ru-105 decay curve for 213.600 keV gamma ray.

3.330 Tc-105 E_γ = 225.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 225.60 keV
Gamma Intensity = 2.94 ± 0.352 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 659: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 660: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	225.180	0.327	0.372	0.003
Ag-112	Cd-112	226.000	0.000	3.130	0.000
Te-133	I-133	224.170	0.002	0.923	0.040
Nd-149	Pm-149	224.490	0.000	1.728	0.011
Nd-149	Pm-149	226.847	0.002	1.728	0.011

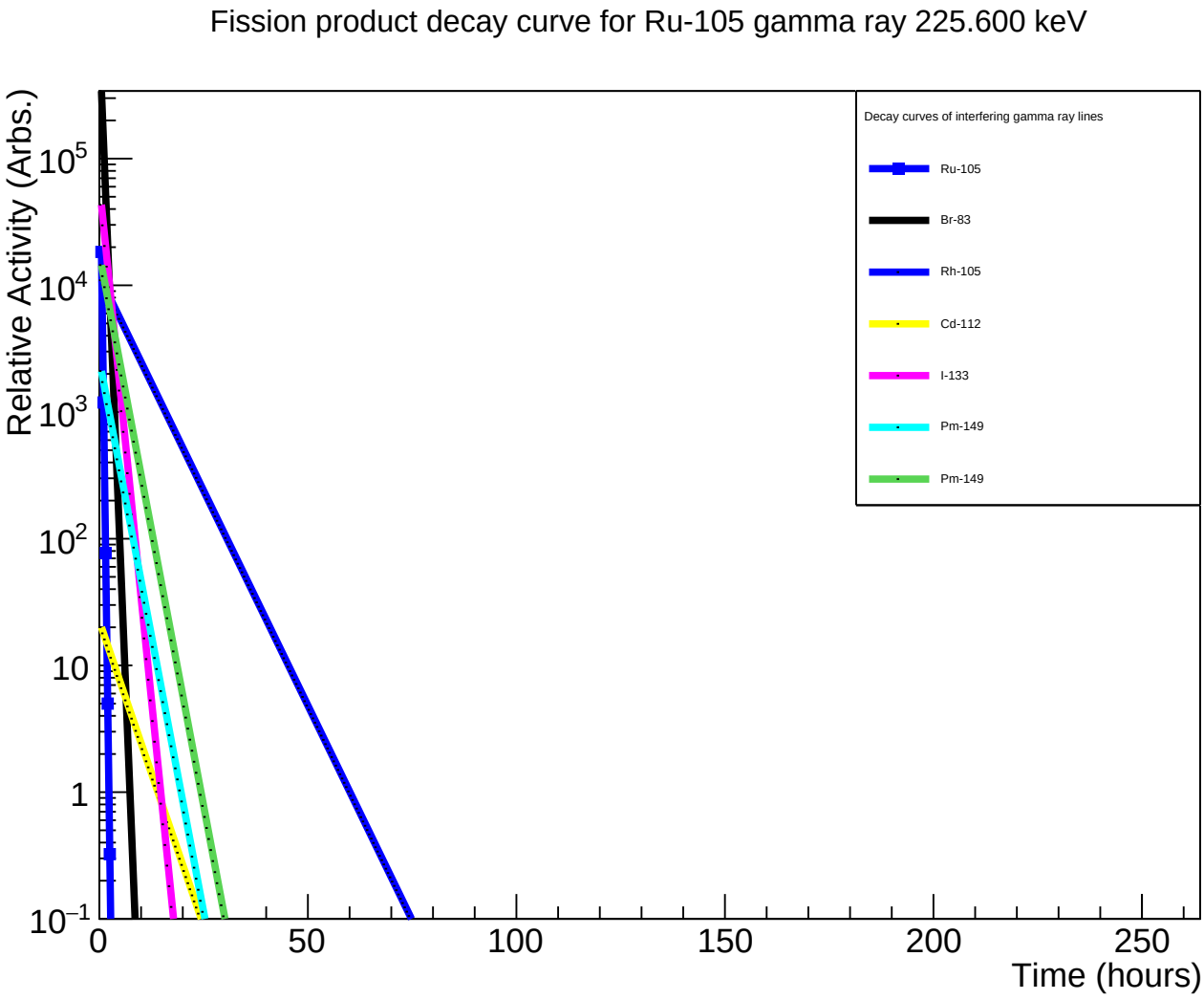


Figure 330: Ru-105 decay curve for 225.600 keV gamma ray.

3.331 Tc-105 E_γ = 252.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 252.00 keV
Gamma Intensity = 5.81 ± 0.729 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 661: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 662: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cd-115	In-115	252.000	0.000	53.460	0.000
Sb-127	Te-127	252.400	0.085	92.400	0.002
Te-129	I-129	250.620	0.004	1.160	0.005
Te-129	I-129	250.620	0.000	806.400	0.001
Te-131	I-131	253.170	0.006	33.250	0.004
Te-133	I-133	251.400	0.000	0.208	0.031
Te-133	I-133	251.510	0.003	0.923	0.040
I-132	Xe-132	250.800	0.000	2.295	0.043
Ce-146	Pr-146	250.890	0.025	0.225	0.030
Nd-149	Pm-149	250.826	0.000	1.728	0.011
Nd-151	Pm-151	252.230	0.001	0.207	0.004
Pm-151	Sm-151	250.500	0.000	28.400	0.004

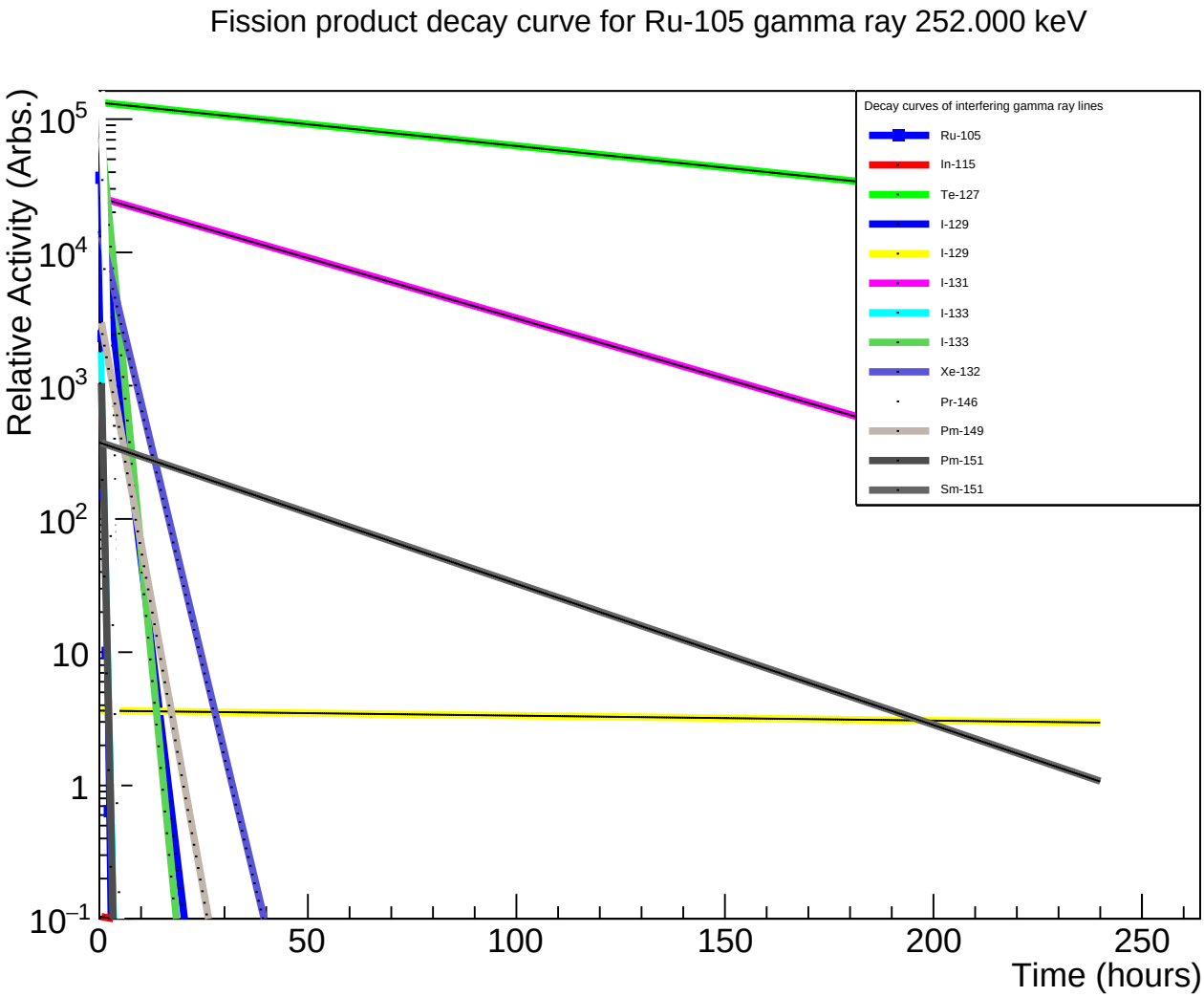


Figure 331: Ru-105 decay curve for 252.000 keV gamma ray.

3.332 Tc-105 E_γ = 272.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 272.60 keV
Gamma Intensity = 3.45 ± 0.520 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 663: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 664: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	272.420	0.015	0.252	0.047
Sr-91	Y-91	272.600	0.003	9.630	0.058
Y-93	Zr-93	273.000	0.001	10.180	0.063
Zr-97	Nb-97	272.400	0.002	16.749	0.060
Sn-127	Sb-127	271.500	0.001	2.100	0.001
I-131	Xe-131	272.498	0.001	192.605	0.029
Ce-143	Pr-143	272.900	0.000	33.039	0.060
Nd-147	Pm-147	271.870	0.000	263.520	0.022
Nd-149	Pm-149	273.240	0.002	1.728	0.011
Nd-149	Pm-149	273.500	0.001	1.728	0.011
Nd-152	Pm-152	273.200	0.001	0.190	0.003

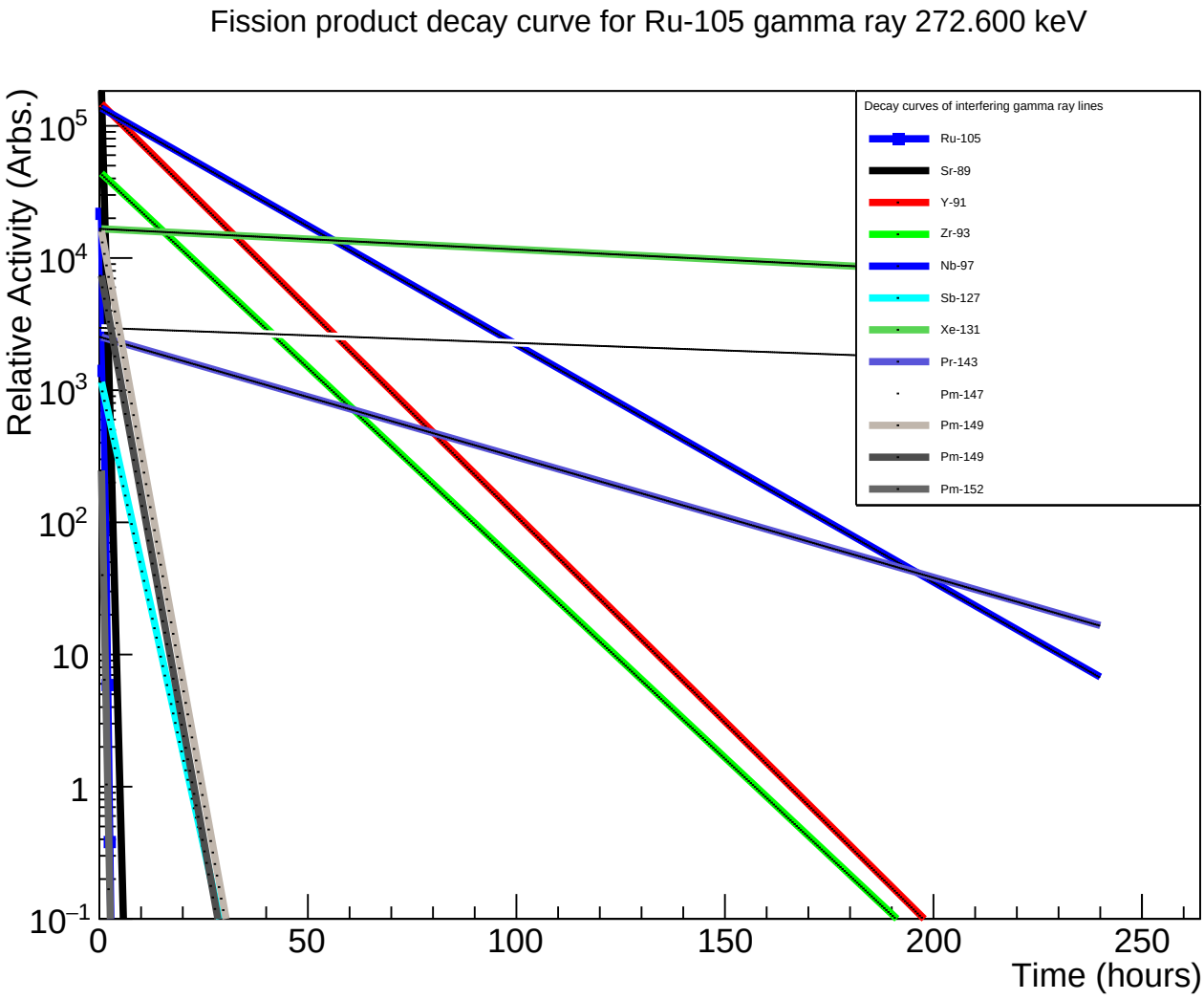


Figure 332: Ru-105 decay curve for 272.600 keV gamma ray.

3.333 Tc-105 E_γ = 280.20 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 280.20 keV
Gamma Intensity = 1.01 ± 0.154 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 665: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 666: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	279.000	0.000	0.390	0.000
Sn-127	Sb-127	279.300	0.006	2.100	0.001
Sb-127	Te-127	280.400	0.007	92.400	0.002
Te-129	I-129	281.260	0.002	1.160	0.005
Te-129	I-129	281.380	0.000	1.160	0.005
Te-129	I-129	281.700	0.000	1.160	0.005
Te-129	I-129	281.440	0.000	806.400	0.001
Te-131	I-131	280.170	0.000	0.417	0.025
Te-131	I-131	281.400	0.000	33.250	0.004
Te-133	I-133	281.200	0.001	0.923	0.040
I-134	Xe-134	278.800	0.001	0.875	0.078
Ba-141	La-141	281.600	0.001	0.304	0.058
Pm-149	Sm-149	281.240	0.000	53.080	0.011
Pm-151	Sm-151	280.090	0.002	28.400	0.004
Sm-155	Eu-155	280.000	0.000	0.372	0.000
Eu-156	Gd-156	281.400	0.000	364.560	0.000

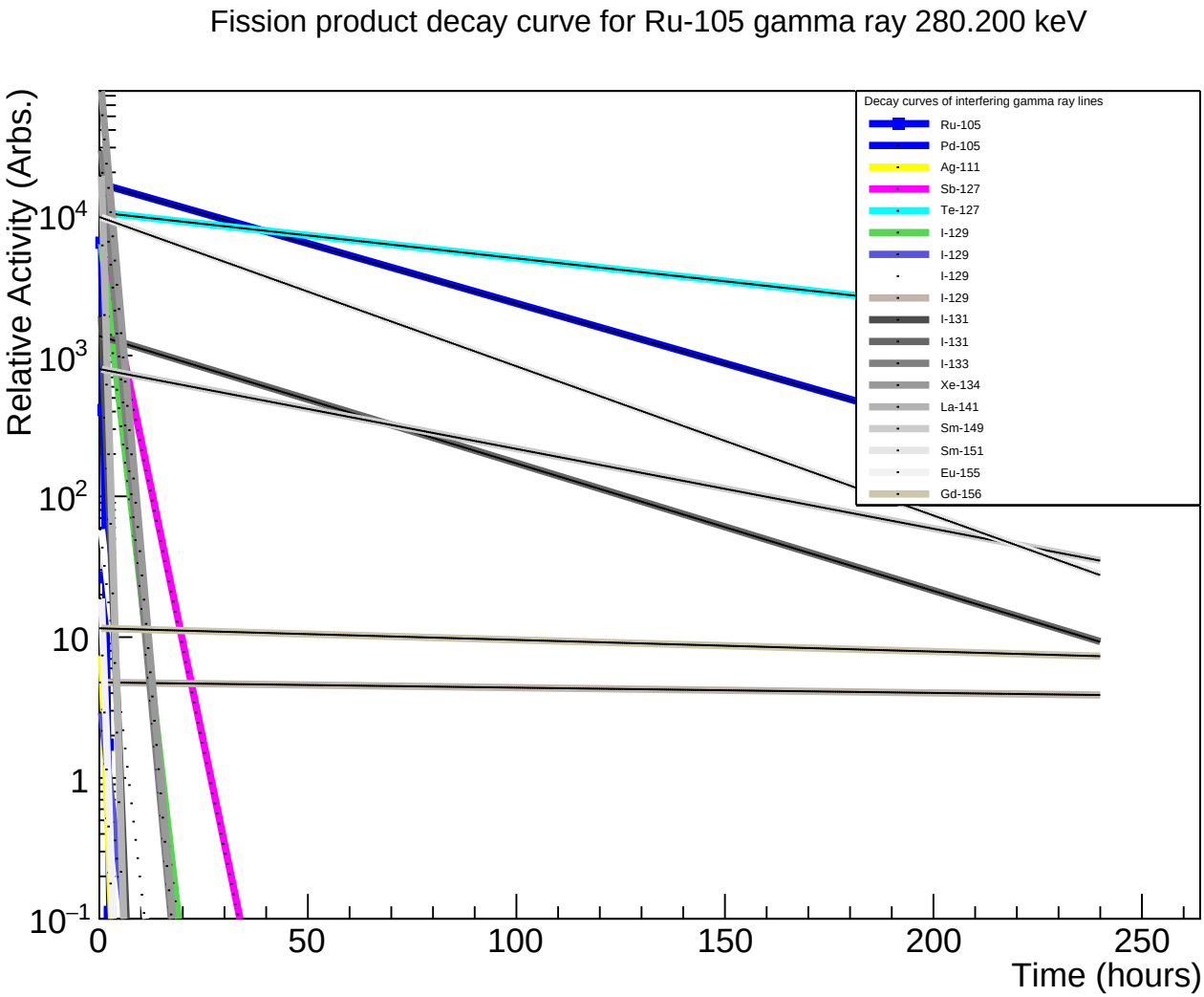


Figure 333: Ru-105 decay curve for 280.200 keV gamma ray.

3.334 Tc-105 E_γ = 301.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 301.00 keV
Gamma Intensity = 1.18 ± 0.152 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 667: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 668: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	299.600	0.000	0.855	0.000
Sn-127	Sb-127	301.700	0.001	2.100	0.001
Sb-131	Te-131	301.300	0.024	0.384	0.026
Te-131	I-131	299.940	0.000	0.417	0.025
Te-133	I-133	302.000	0.000	0.208	0.031
I-131	Xe-131	302.400	0.000	192.605	0.029
I-132	Xe-132	302.000	0.000	2.295	0.043
Nd-149	Pm-149	301.128	0.004	1.728	0.011
Nd-151	Pm-151	300.580	0.018	0.207	0.004
Nd-151	Pm-151	301.800	0.001	0.207	0.004
Pm-151	Sm-151	301.800	0.000	28.400	0.004
Pm-151	Sm-151	302.500	0.000	28.400	0.004

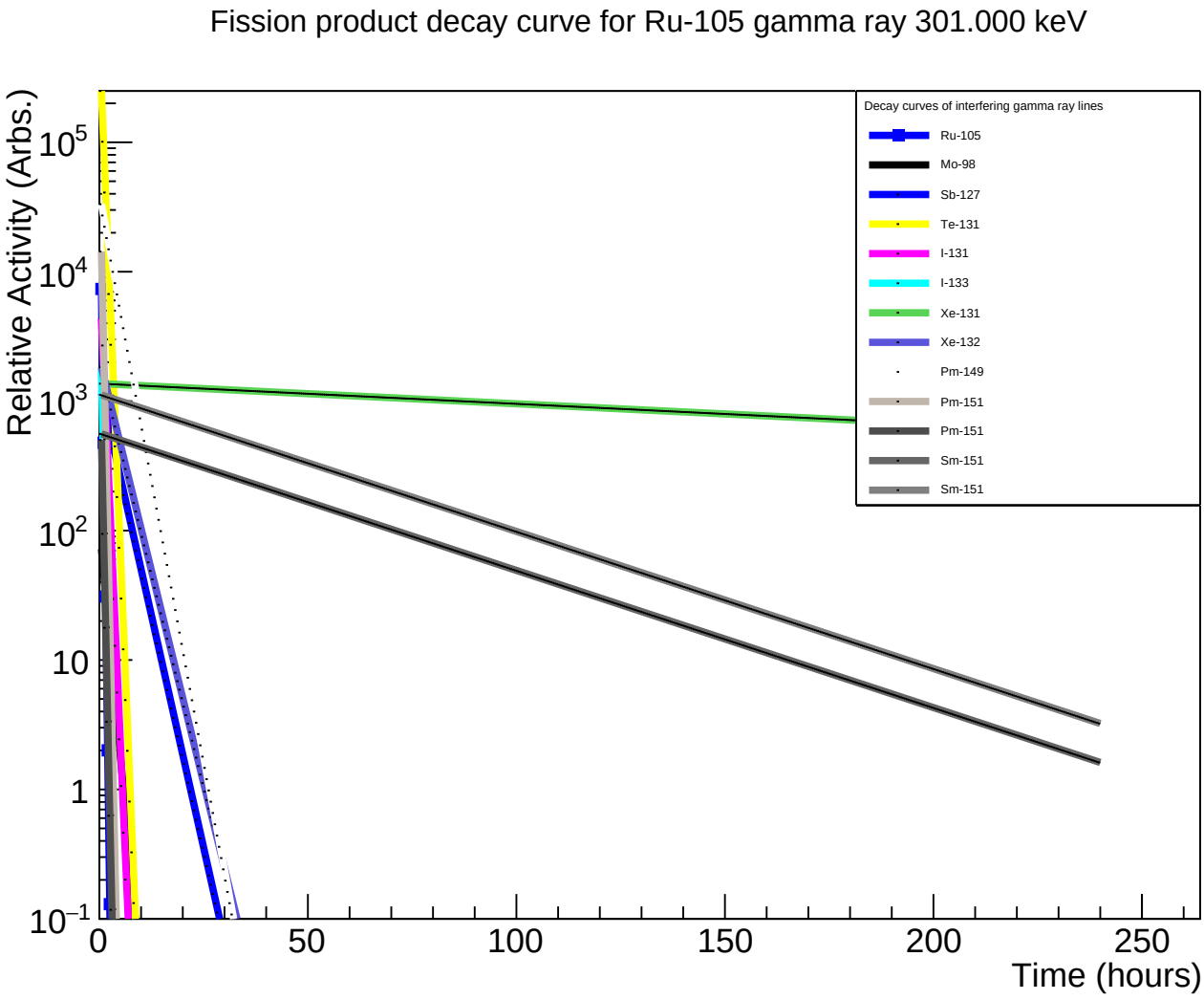


Figure 334: Ru-105 decay curve for 301.000 keV gamma ray.

3.335 Tc-105 E_γ = 303.20 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 303.20 keV
Gamma Intensity = 1.21 ± 0.233 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 669: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 670: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	302.770	0.660	0.362	0.001
Sn-127	Sb-127	301.700	0.001	2.100	0.001
Sb-130	Te-130	303.300	0.058	0.658	0.008
Te-131	I-131	302.700	0.000	33.250	0.004
Te-131	I-131	303.900	0.000	33.250	0.004
Te-133	I-133	302.000	0.000	0.208	0.031
I-131	Xe-131	302.400	0.000	192.605	0.029
I-132	Xe-132	302.000	0.000	2.295	0.043
Xe-133	Cs-133	302.853	0.000	125.832	0.067
Ba-141	La-141	304.190	0.254	0.304	0.058
Pr-145	Nd-145	303.192	0.000	5.984	0.039
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Nd-151	Pm-151	301.800	0.001	0.207	0.004
Nd-152	Pm-152	302.900	0.001	0.190	0.003
Pm-151	Sm-151	301.800	0.000	28.400	0.004
Pm-151	Sm-151	302.500	0.000	28.400	0.004
Pm-151	Sm-151	302.800	0.000	28.400	0.004

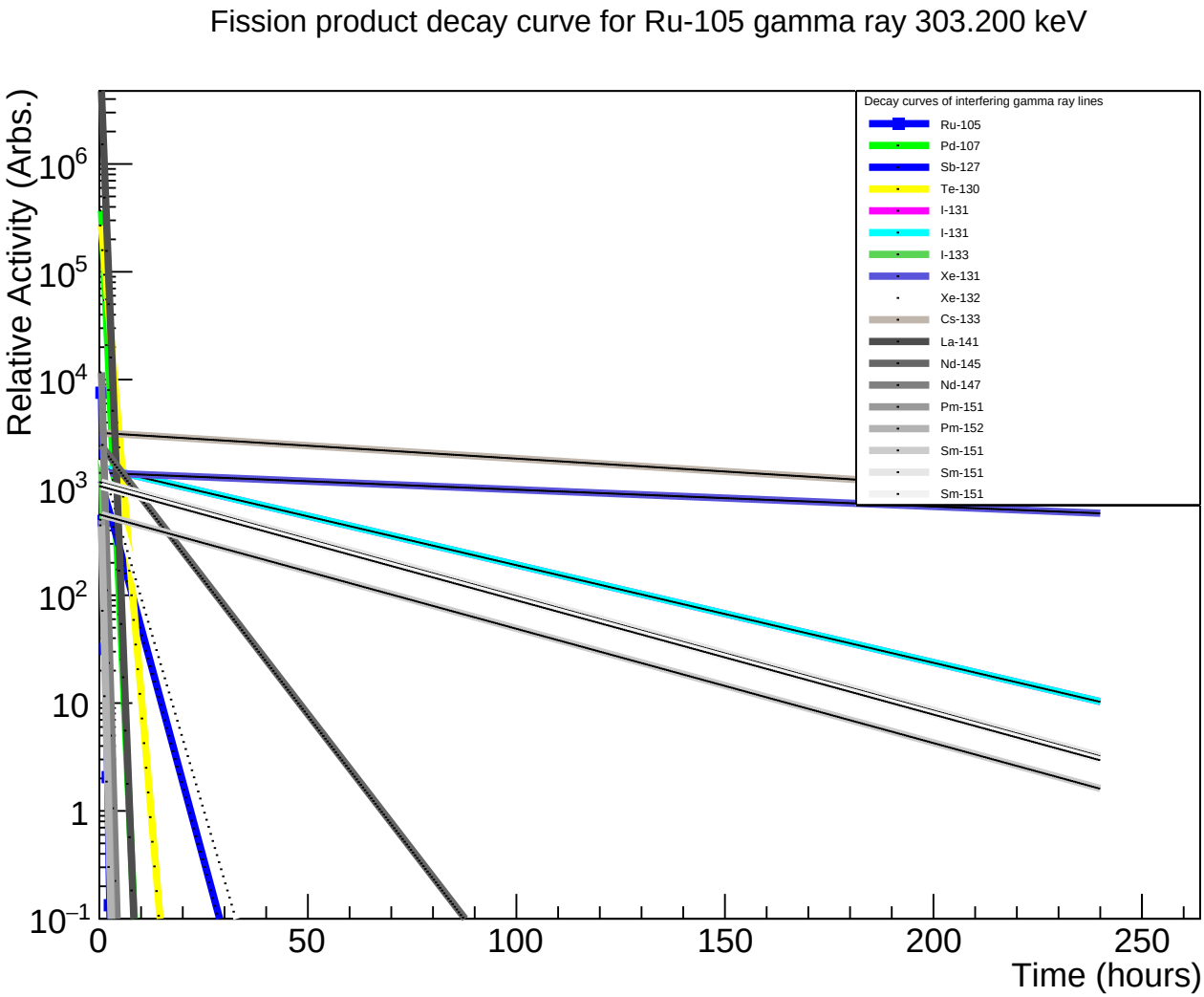


Figure 335: Ru-105 decay curve for 303.200 keV gamma ray.

3.336 Tc-105 E_γ = 304.50 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 304.50 keV
Gamma Intensity = 1.05 ± 0.245 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 671: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 672: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	304.870	0.140	4.480	0.013
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Sn-127	Sb-127	305.900	0.001	2.100	0.001
Sb-130	Te-130	303.300	0.058	0.658	0.008
Te-131	I-131	303.900	0.000	33.250	0.004
I-135	Xe-135	304.910	0.000	6.570	0.063
I-135	Xe-135	305.830	0.001	6.570	0.063
Ba-140	La-140	304.849	0.043	306.065	0.062
Ba-141	La-141	304.190	0.254	0.304	0.058
Pr-145	Nd-145	303.192	0.000	5.984	0.039
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Pm-149	Sm-149	305.220	0.000	53.080	0.011

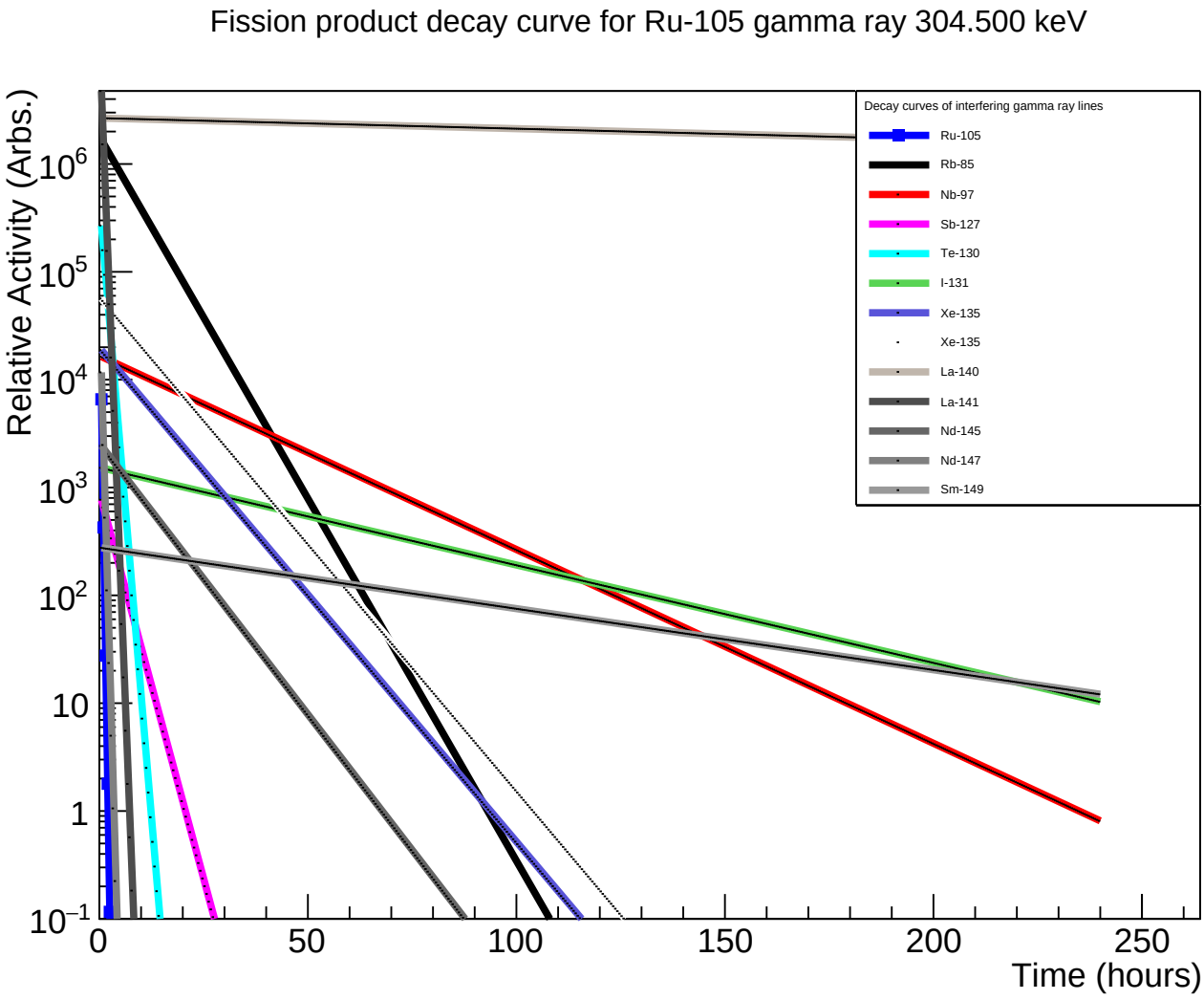


Figure 336: Ru-105 decay curve for 304.500 keV gamma ray.

3.337 Tc-105 E_γ = 305.50 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 305.50 keV
Gamma Intensity = 1.10 ± 0.945 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 673: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 674: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	304.870	0.140	4.480	0.013
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Nb-98	Mo-98	306.890	0.003	0.855	0.000
Sn-127	Sb-127	305.900	0.001	2.100	0.001
I-132	Xe-132	306.700	0.002	2.295	0.043
I-135	Xe-135	304.910	0.000	6.570	0.063
I-135	Xe-135	305.830	0.001	6.570	0.063
Ba-140	La-140	304.849	0.043	306.065	0.062
Ba-141	La-141	304.190	0.254	0.304	0.058
La-140	Ce-140	306.900	0.000	40.285	0.062
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Pm-149	Sm-149	305.220	0.000	53.080	0.011
Pm-151	Sm-151	306.740	0.002	28.400	0.004

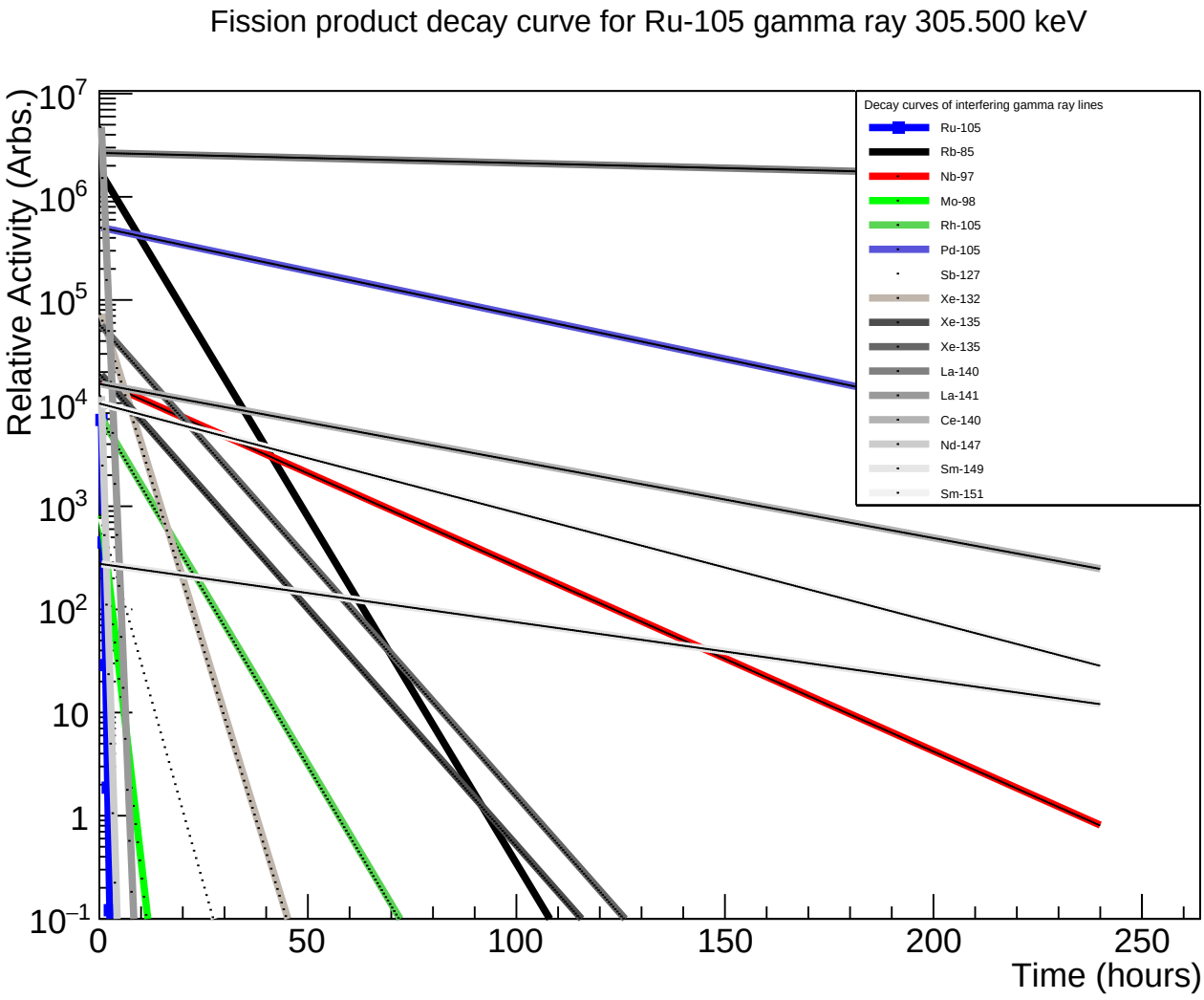


Figure 337: Ru-105 decay curve for 305.500 keV gamma ray.

3.338 Tc-105 E_γ = 307.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 307.00 keV
Gamma Intensity = 1.02 ± 0.290 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 675: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 676: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	308.200	0.001	0.312	0.065
Nb-98	Mo-98	306.890	0.003	0.855	0.000
Pd-111	Ag-111	308.400	0.000	0.390	0.000
Sn-127	Sb-127	305.900	0.001	2.100	0.001
Te-133	I-133	307.900	0.003	0.923	0.040
I-132	Xe-132	306.700	0.002	2.295	0.043
I-135	Xe-135	305.830	0.001	6.570	0.063
La-140	Ce-140	306.900	0.000	40.285	0.062
Pm-151	Sm-151	306.740	0.002	28.400	0.004
Sm-155	Eu-155	307.300	0.000	0.372	0.000

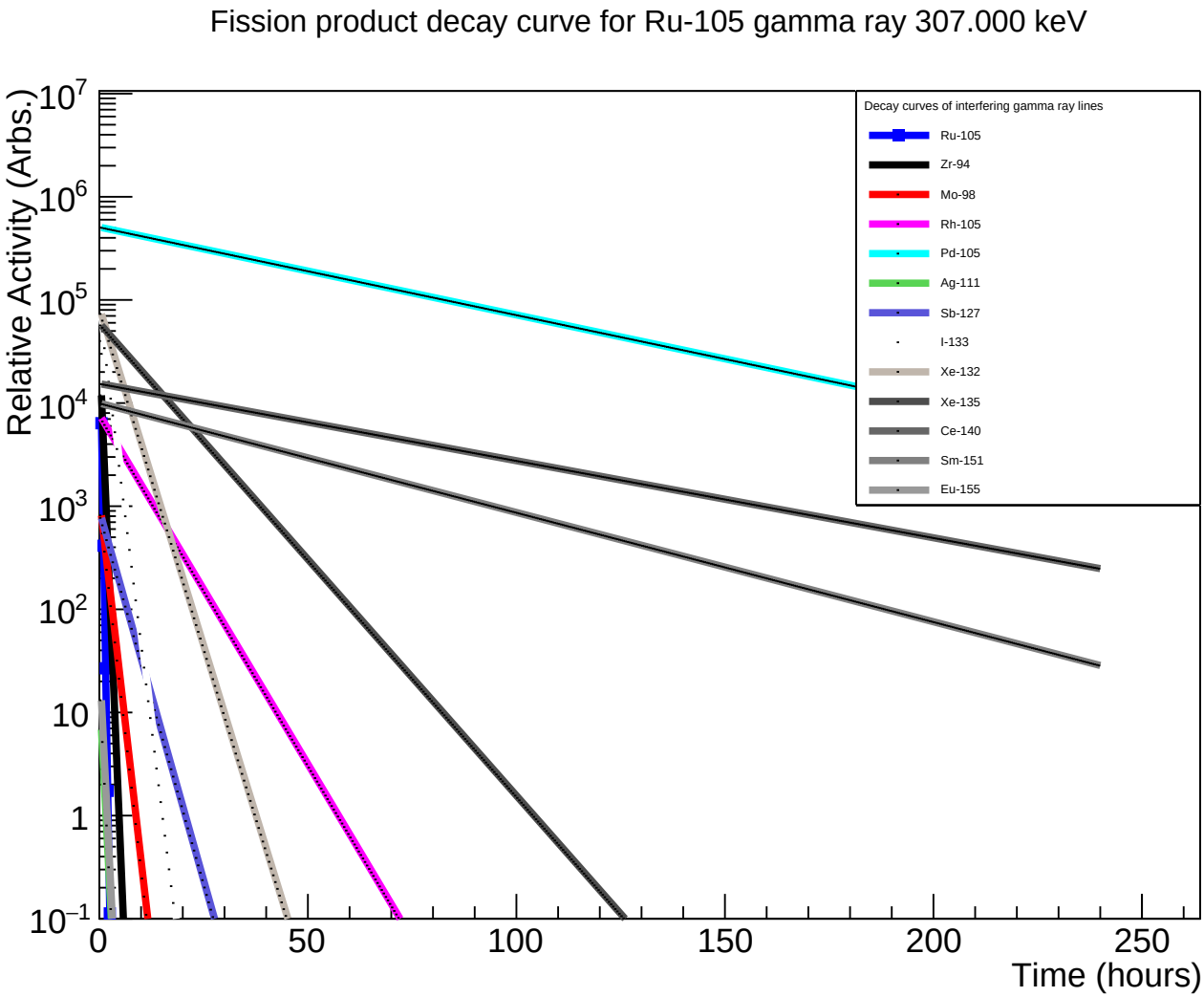


Figure 338: Ru-105 decay curve for 307.000 keV gamma ray.

3.339 Tc-105 E_γ = 321.50 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 321.50 keV
Gamma Intensity = 11.15 ± 1.723 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 677: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 678: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	322.000	0.002	0.372	0.003
Rh-107	Pd-107	321.840	0.023	0.362	0.001
Sb-125	Te-125	321.040	0.004	24194.445	0.000
Sb-128	Te-128	322.300	0.030	9.010	0.000
Te-129	I-129	320.640	0.000	806.400	0.001
Te-133	I-133	322.400	0.001	0.923	0.040
Ba-141	La-141	321.500	0.000	0.304	0.058
Nd-151	Pm-151	320.090	0.006	0.207	0.004
Nd-151	Pm-151	321.060	0.002	0.207	0.004
Pm-151	Sm-151	321.870	0.001	28.400	0.004

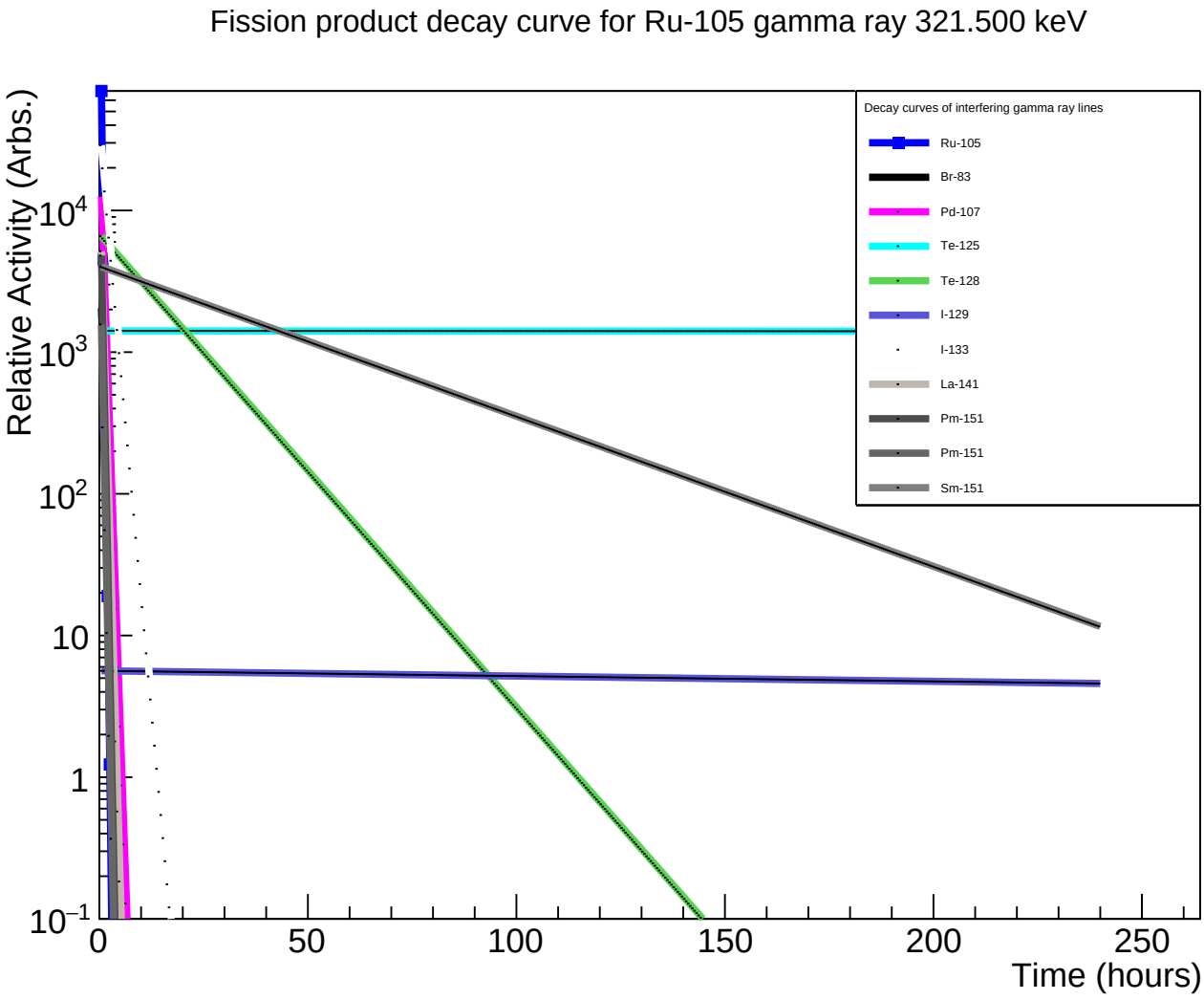


Figure 339: Ru-105 decay curve for 321.500 keV gamma ray.

3.340 Tc-105 E_γ = 322.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 322.30 keV
Gamma Intensity = 1.57 ± 0.481 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 679: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 680: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	322.000	0.002	0.372	0.003
Rh-107	Pd-107	321.840	0.023	0.362	0.001
Sb-125	Te-125	321.040	0.004	24194.445	0.000
Sb-128	Te-128	322.300	0.030	9.010	0.000
Sb-131	Te-131	323.800	0.012	0.384	0.026
Te-133	I-133	322.400	0.001	0.923	0.040
Ba-141	La-141	321.500	0.000	0.304	0.058
Nd-151	Pm-151	321.060	0.002	0.207	0.004
Nd-151	Pm-151	323.800	0.000	0.207	0.004
Pm-151	Sm-151	321.870	0.001	28.400	0.004

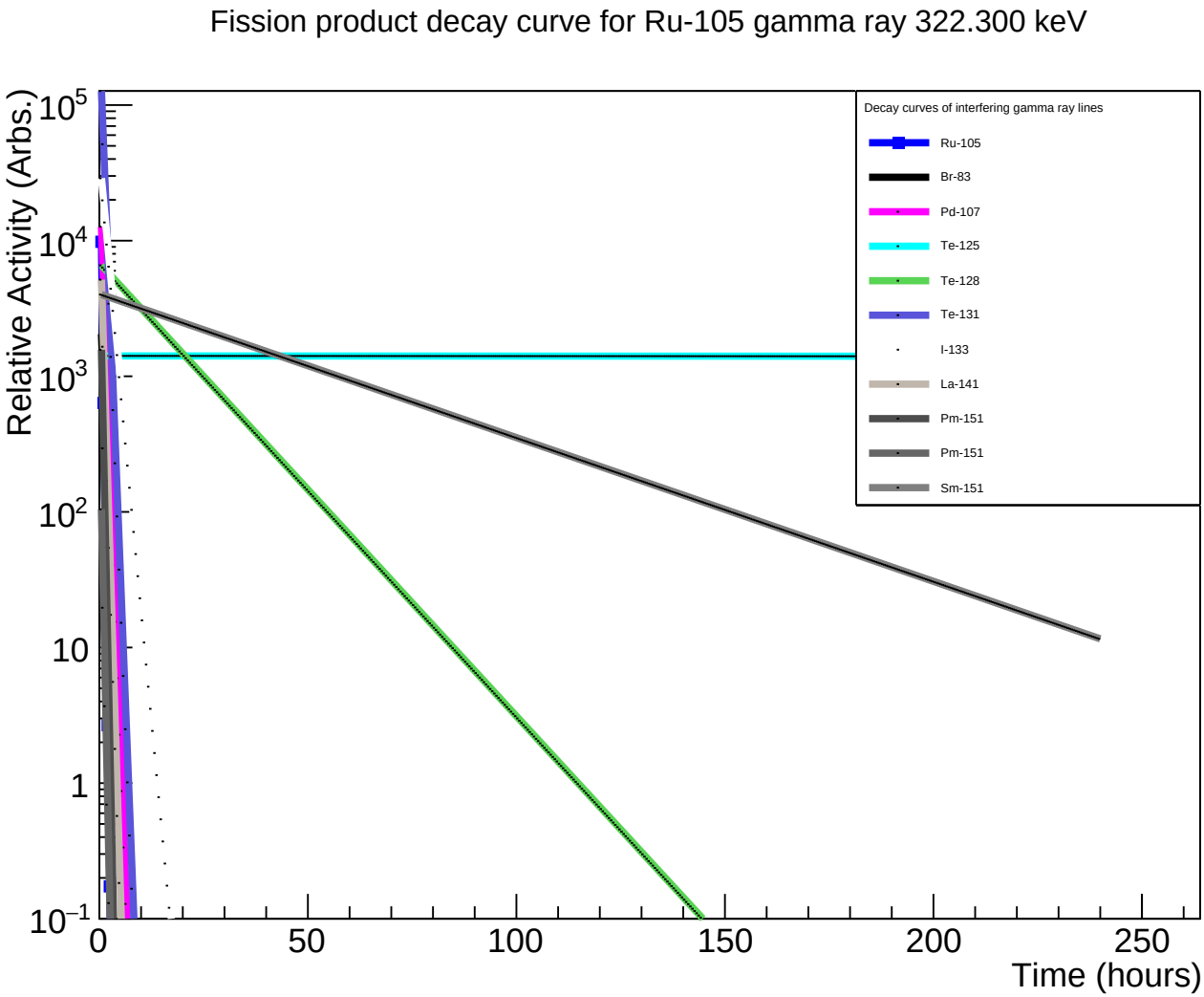


Figure 340: Ru-105 decay curve for 322.300 keV gamma ray.

3.341 Tc-105 E_γ = 358.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 358.30 keV
Gamma Intensity = 2.51 ± 0.497 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 681: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 682: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	359.100	0.001	9.630	0.058
Mo-101	Tc-101	358.200	0.000	0.243	0.052
Ru-103	Rh-103	357.382	0.000	941.928	0.030
Rh-107	Pd-107	357.840	0.004	0.362	0.001
Sn-127	Sb-127	357.000	0.002	2.100	0.001
Sb-128	Te-128	357.000	0.015	9.010	0.000
Sb-129	Te-129	359.400	0.029	4.400	0.005
Te-131	I-131	357.400	0.000	33.250	0.004
Te-133	I-133	358.700	0.001	0.208	0.031
I-131	Xe-131	358.400	0.000	192.605	0.029
Xe-135	Cs-135	358.390	0.002	9.140	0.065
Cs-139	Ba-139	357.010	0.000	0.155	0.063
Ba-141	La-141	359.200	0.000	0.304	0.058
Ba-142	La-142	356.800	0.001	0.177	0.058
Ce-143	Pr-143	357.800	0.000	33.039	0.060
Nd-149	Pm-149	357.030	0.000	1.728	0.011
Nd-149	Pm-149	358.490	0.000	1.728	0.011
Nd-151	Pm-151	357.000	0.004	0.207	0.004
Pm-149	Sm-149	359.570	0.000	53.080	0.011
Pm-151	Sm-151	356.900	0.000	28.400	0.004
Pm-151	Sm-151	358.400	0.000	28.400	0.004

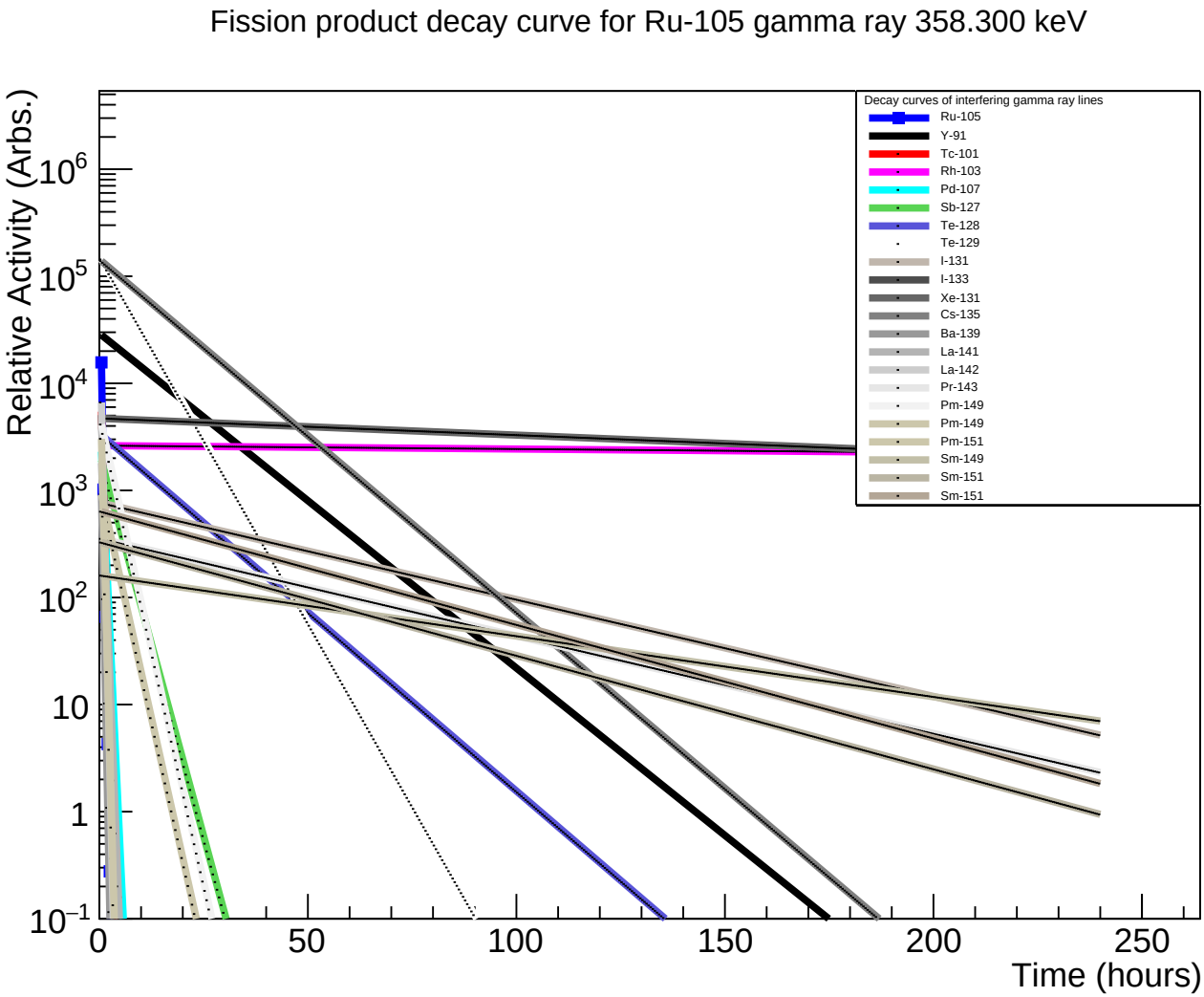


Figure 341: Ru-105 decay curve for 358.300 keV gamma ray.

3.342 Tc-105 E_γ = 441.90 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 441.90 keV
Gamma Intensity = 1.76 ± 0.333 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 683: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 684: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	442.400	0.003	0.372	0.003
Se-83	Br-83	442.500	0.008	0.372	0.003
Sr-93	Y-93	440.800	0.002	0.124	0.062
Mo-101	Tc-101	442.000	0.001	0.243	0.052
Sb-127	Te-127	441.000	0.007	92.400	0.002
Ba-141	La-141	441.100	0.000	0.304	0.058
Nd-149	Pm-149	441.470	0.000	1.728	0.011
Pm-151	Sm-151	440.850	0.015	28.400	0.004
Sm-153	Eu-153	443.200	0.000	46.500	0.002

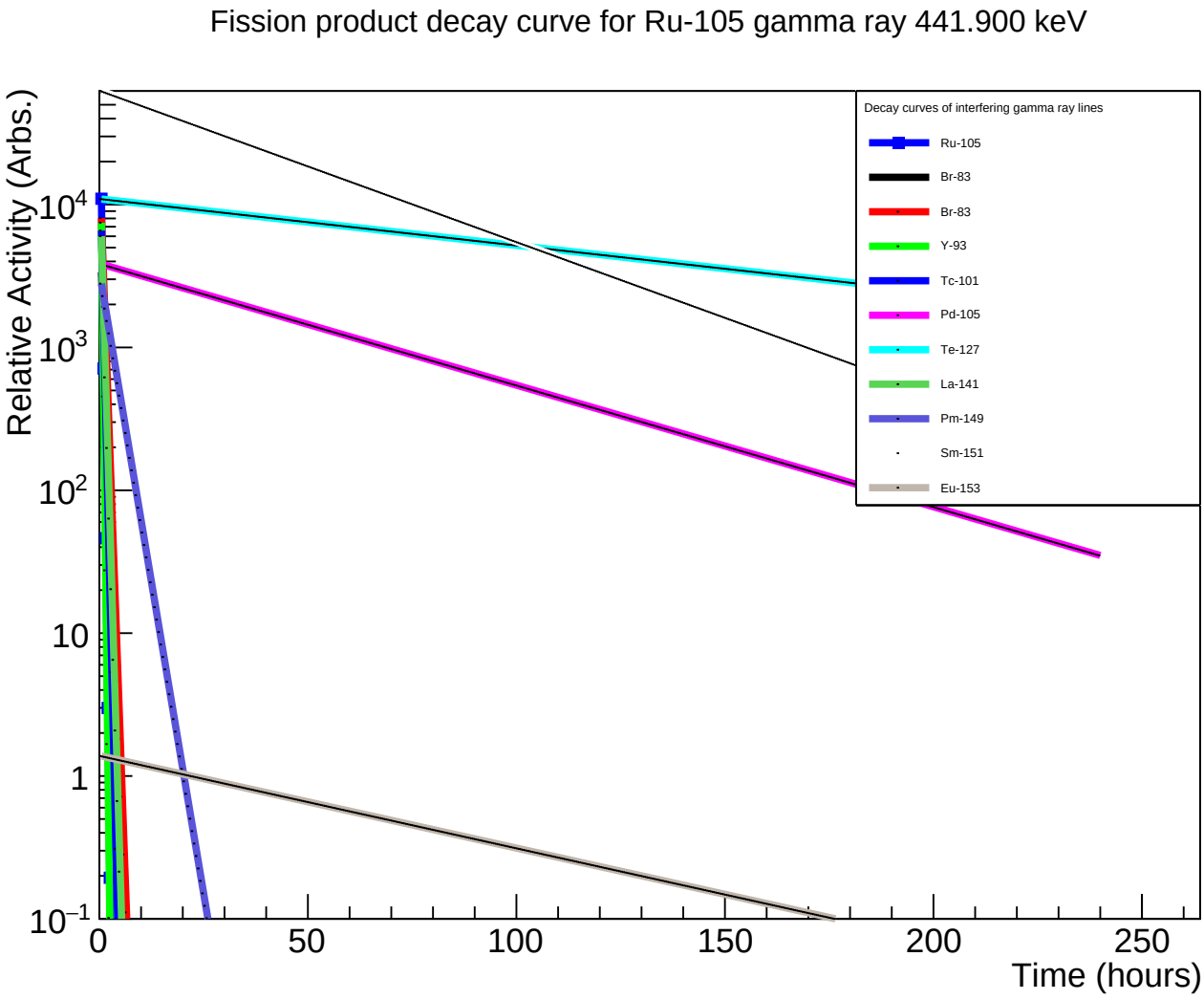


Figure 342: Ru-105 decay curve for 441.900 keV gamma ray.

3.343 Tc-105 E_γ = 445.90 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 445.90 keV
Gamma Intensity = 1.62 ± 0.330 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 685: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 686: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	446.800	0.003	0.150	0.000
Br-84	Kr-84	447.000	0.030	0.100	0.000
Sr-93	Y-93	446.200	0.024	0.124	0.062
Nb-98	Mo-98	446.910	0.004	0.855	0.000
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Sb-127	Te-127	445.100	0.043	92.400	0.002
Sb-128	Te-128	445.700	0.015	9.010	0.000
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-151	Pm-151	444.700	0.000	0.207	0.004
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Nd-151	Pm-151	446.880	0.002	0.207	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

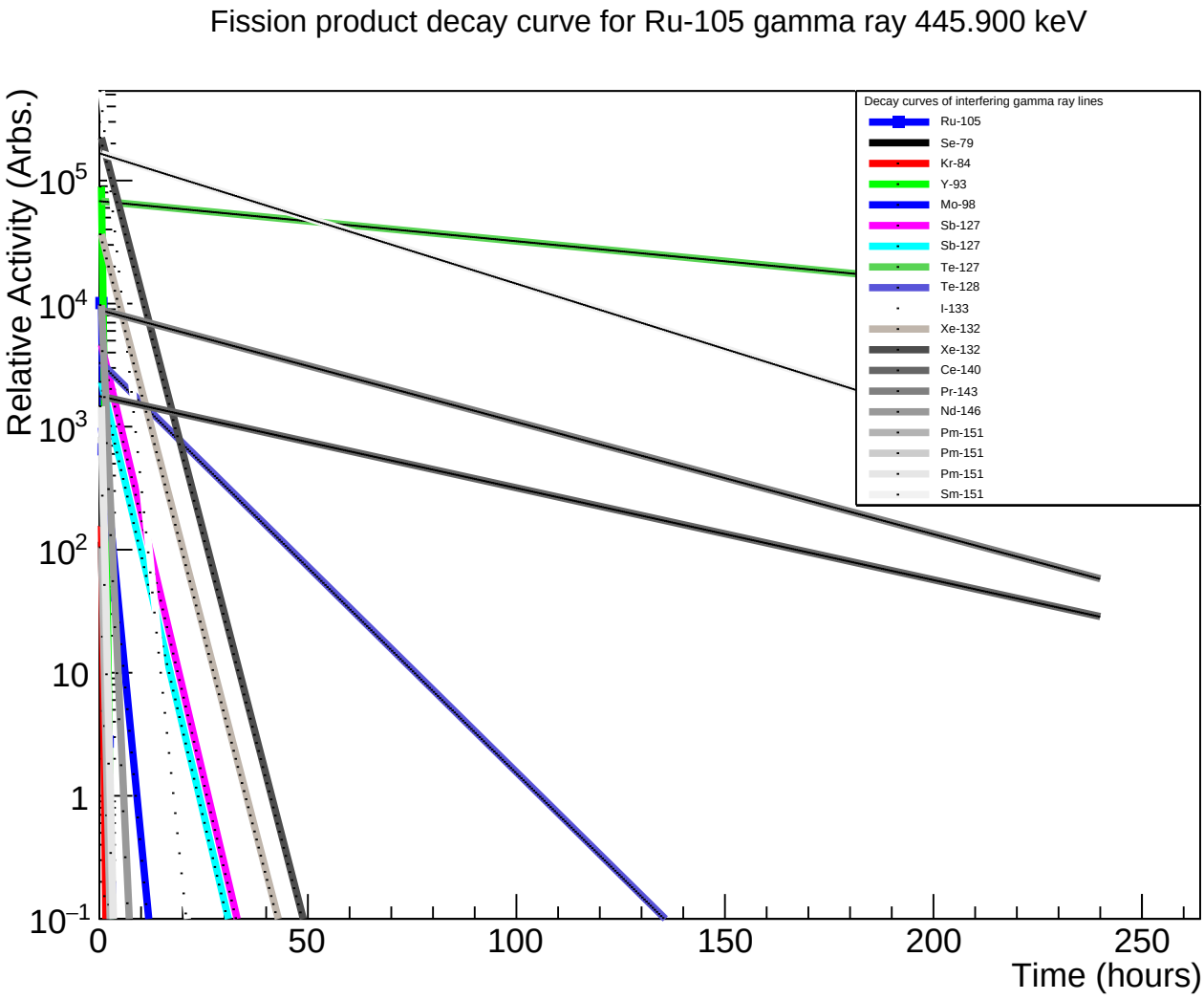


Figure 343: Ru-105 decay curve for 445.900 keV gamma ray.

3.344 Tc-105 E_γ = 462.80 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 462.80 keV
Gamma Intensity = 4.40 ± 0.548 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 687: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 688: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Sb-130	Te-130	462.500	0.008	0.658	0.008
Te-129	I-129	462.040	0.000	1.160	0.005
Te-131	I-131	462.920	0.018	33.250	0.004
Te-133	I-133	461.300	0.006	0.208	0.031
Te-133	I-133	462.230	0.015	0.923	0.040
Te-133	I-133	464.000	0.003	0.923	0.040
Cs-138	Ba-138	462.796	0.307	0.557	0.067
Ba-141	La-141	462.300	0.049	0.304	0.058
Ba-141	La-141	462.900	0.001	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002

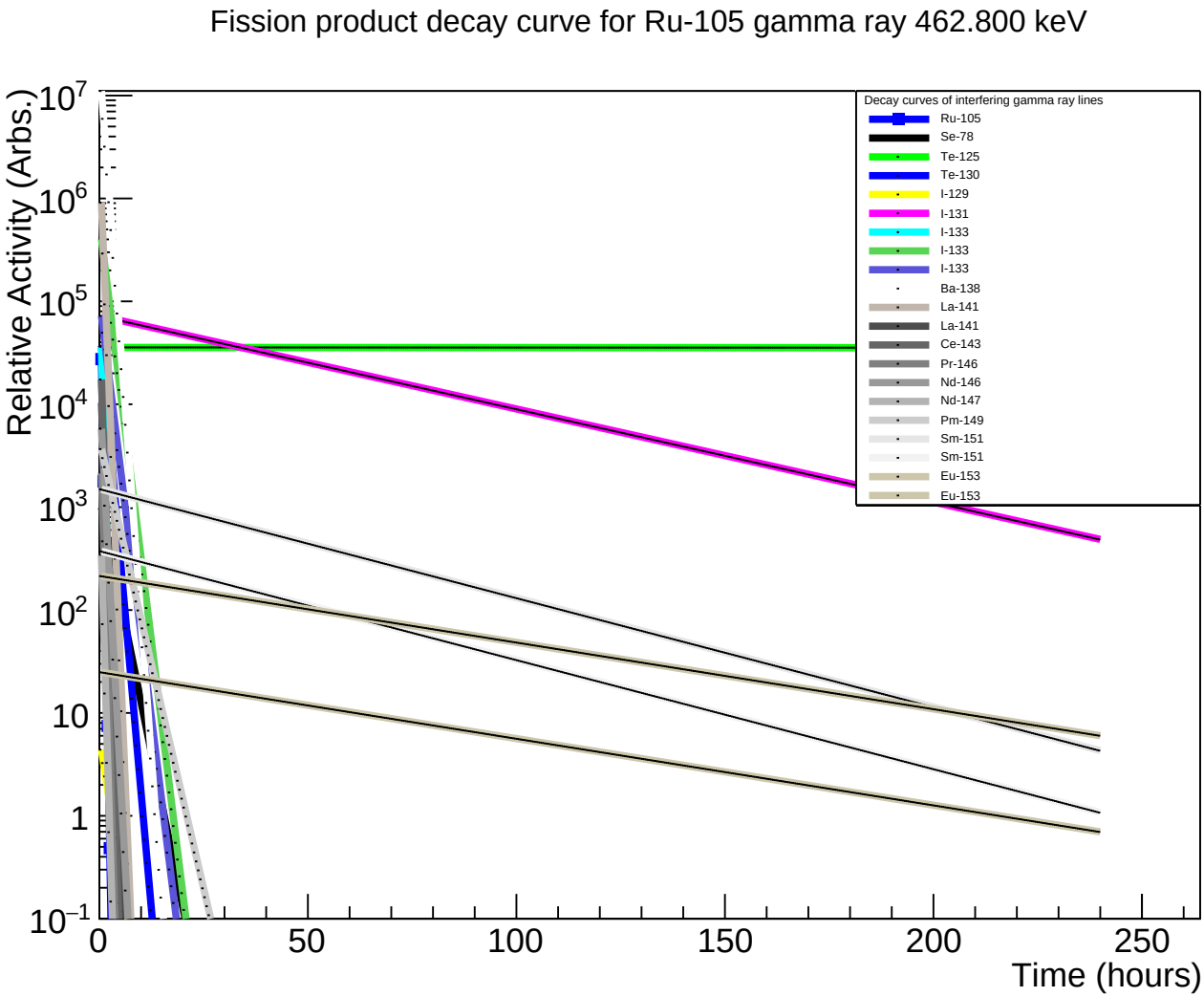


Figure 344: Ru-105 decay curve for 462.800 keV gamma ray.

3.345 Tc-105 E_γ = 466.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 466.30 keV
Gamma Intensity = 1.49 ± 0.184 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 689: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 690: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	466.620	0.001	0.252	0.047
Nb-98	Mo-98	465.500	0.001	0.855	0.000
Nb-98	Mo-98	467.000	0.000	0.855	0.000
I-134	Xe-134	465.500	0.004	0.875	0.078
Cs-139	Ba-139	466.700	0.000	0.155	0.063
Ba-140	La-140	467.500	0.000	306.065	0.062
Ba-141	La-141	467.500	0.057	0.304	0.058
Pr-145	Nd-145	467.030	0.000	5.984	0.039
Pr-147	Nd-147	466.800	0.019	0.223	0.022
Nd-151	Pm-151	465.600	0.000	0.207	0.004
Pm-151	Sm-151	467.200	0.000	28.400	0.004

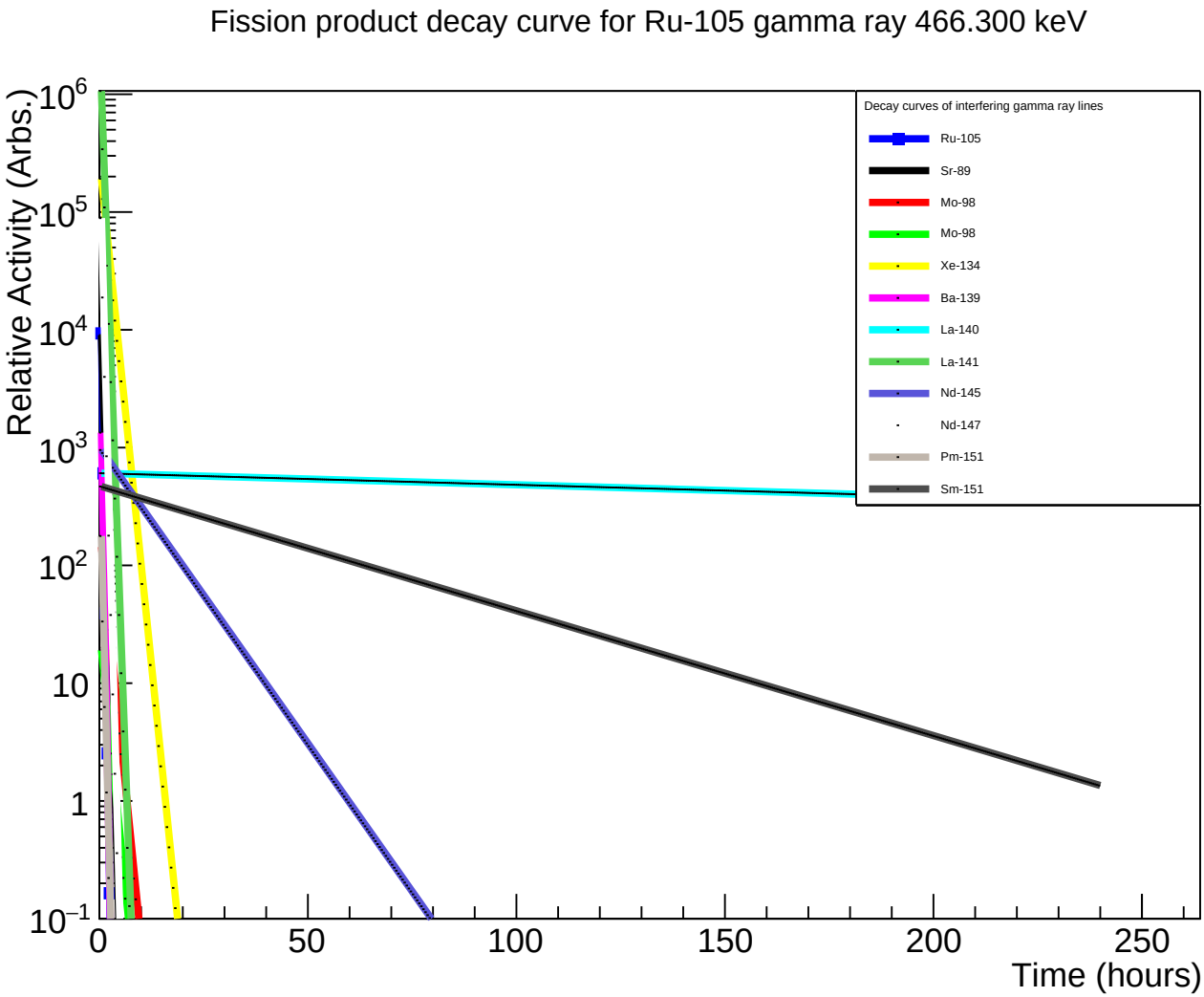


Figure 345: Ru-105 decay curve for 466.300 keV gamma ray.

3.346 Tc-105 E_γ = 480.10 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 480.10 keV
Gamma Intensity = 1.49 ± 0.184 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 691: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 692: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	478.900	0.000	0.390	0.000
Te-133	I-133	478.620	0.009	0.923	0.040
Pr-146	Nd-146	481.500	0.000	0.403	0.030
Nd-149	Pm-149	480.320	0.000	1.728	0.011
Nd-151	Pm-151	479.300	0.000	0.207	0.004

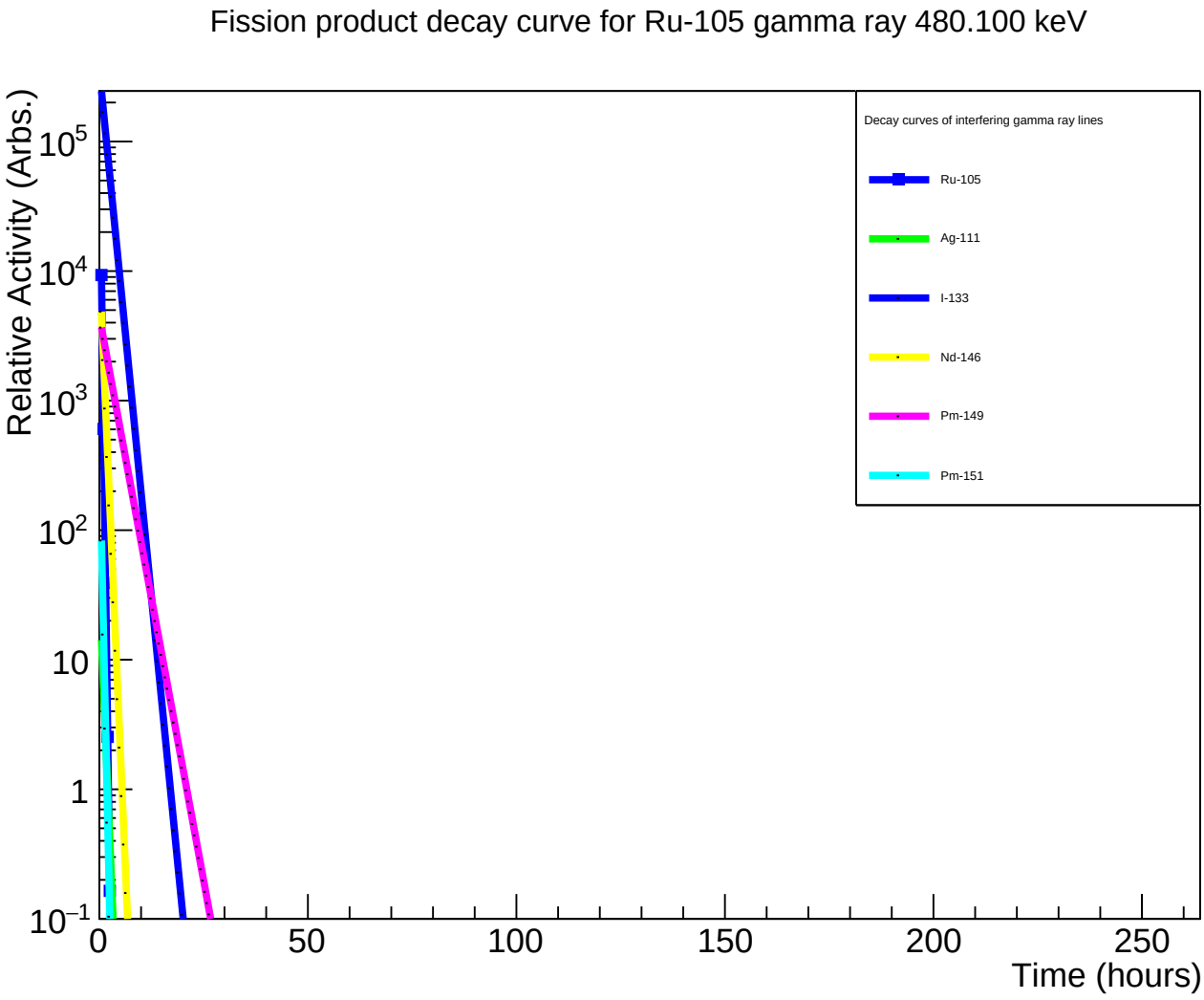


Figure 346: Ru-105 decay curve for 480.100 keV gamma ray.

3.347 Tc-105 E_γ = 490.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 490.60 keV
Gamma Intensity = 2.36 ± 0.320 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 693: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 694: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	491.270	0.003	2.710	0.059
Mo-101	Tc-101	491.500	0.001	0.243	0.052
Sn-127	Sb-127	490.900	0.053	2.100	0.001
Sb-125	Te-125	489.730	0.000	24194.445	0.000
Sb-125	Te-125	491.290	0.000	24194.445	0.000
Te-129	I-129	491.930	0.000	1.160	0.005
Ce-143	Pr-143	490.368	0.022	33.039	0.060
Ce-146	Pr-146	490.800	0.001	0.225	0.030
Pr-147	Nd-147	491.400	0.005	0.223	0.022
Nd-147	Pm-147	489.240	0.002	263.520	0.022
Nd-151	Pm-151	490.780	0.001	0.207	0.004
Pm-151	Sm-151	490.260	0.001	28.400	0.004
Eu-156	Gd-156	490.340	0.002	364.560	0.000

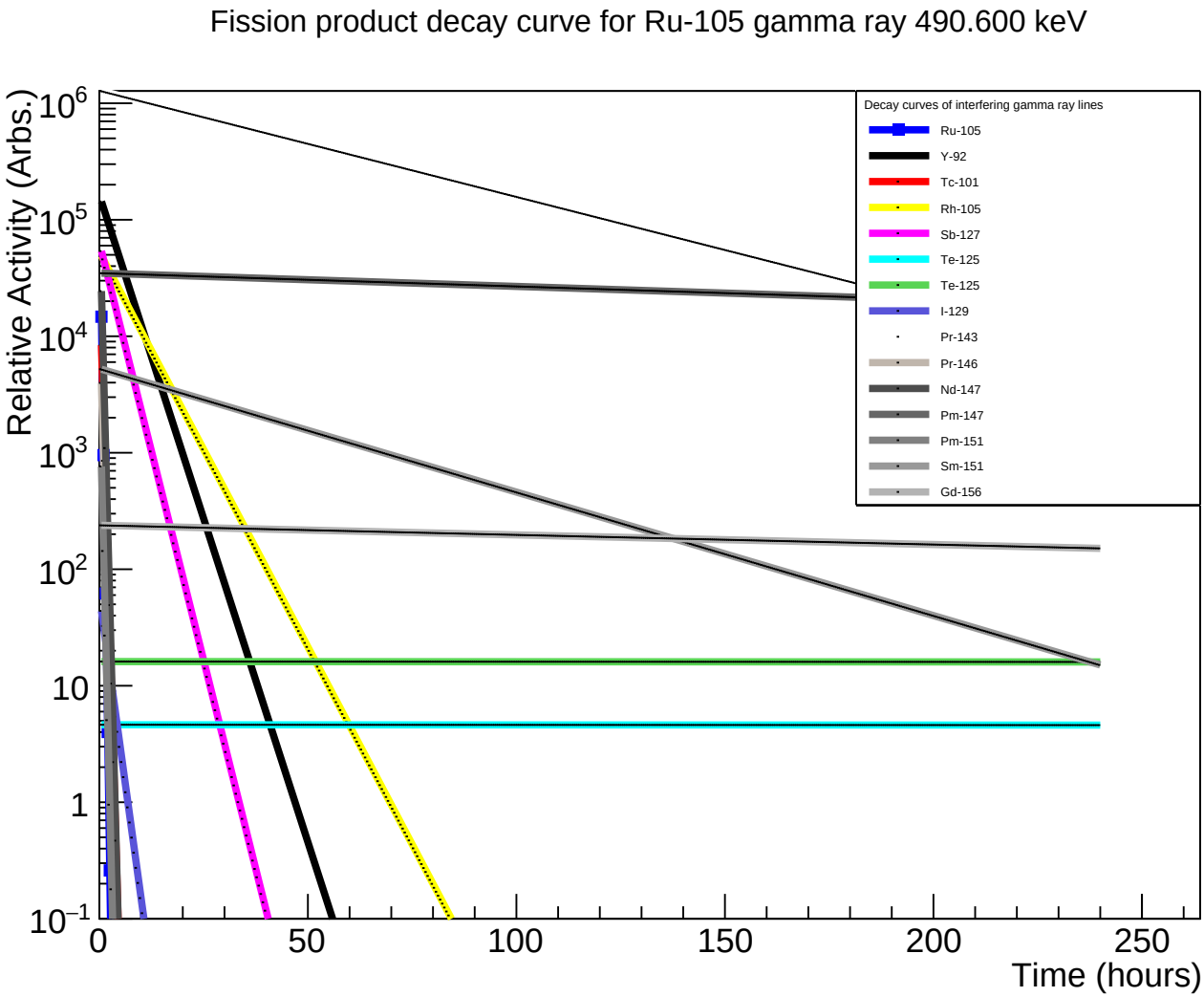


Figure 347: Ru-105 decay curve for 490.600 keV gamma ray.

3.348 Tc-105 E_γ = 565.10 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 565.10 keV
Gamma Intensity = 1.32 ± 0.178 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 695: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 696: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	566.030	0.002	0.308	0.002
Sn-127	Sb-127	565.800	0.001	2.100	0.001
Te-133	I-133	565.300	0.001	0.923	0.040
Te-134	I-134	565.992	0.186	0.697	0.070
I-134	Xe-134	565.520	0.009	0.875	0.078
Nd-149	Pm-149	563.800	0.000	1.728	0.011
Pm-151	Sm-151	565.000	0.004	28.400	0.004

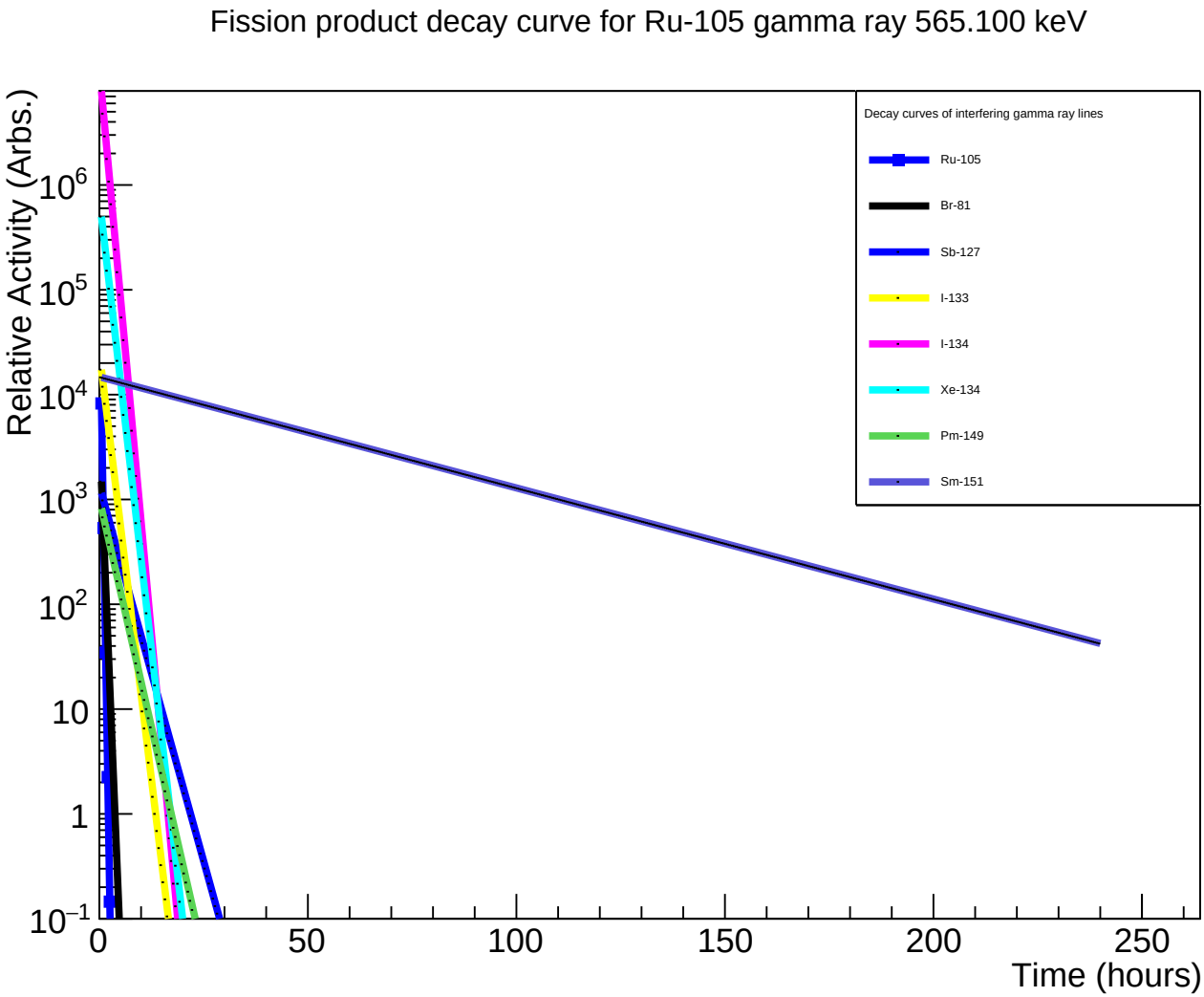


Figure 348: Ru-105 decay curve for 565.100 keV gamma ray.

3.349 Tc-105 E_γ = 577.90 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 577.90 keV
Gamma Intensity = 2.87 ± 0.484 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 697: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 698: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	579.040	0.000	2.840	0.036
Sn-129	Sb-129	577.900	0.018	0.115	0.002
Ba-142	La-142	577.700	0.001	0.177	0.058
La-142	Ce-142	578.090	0.013	1.518	0.058
Pr-147	Nd-147	577.900	0.137	0.223	0.022
Nd-149	Pm-149	579.280	0.001	1.728	0.011
Nd-151	Pm-151	577.360	0.004	0.207	0.004
Nd-152	Pm-152	576.700	0.004	0.190	0.003
Sm-153	Eu-153	578.750	0.000	46.500	0.002

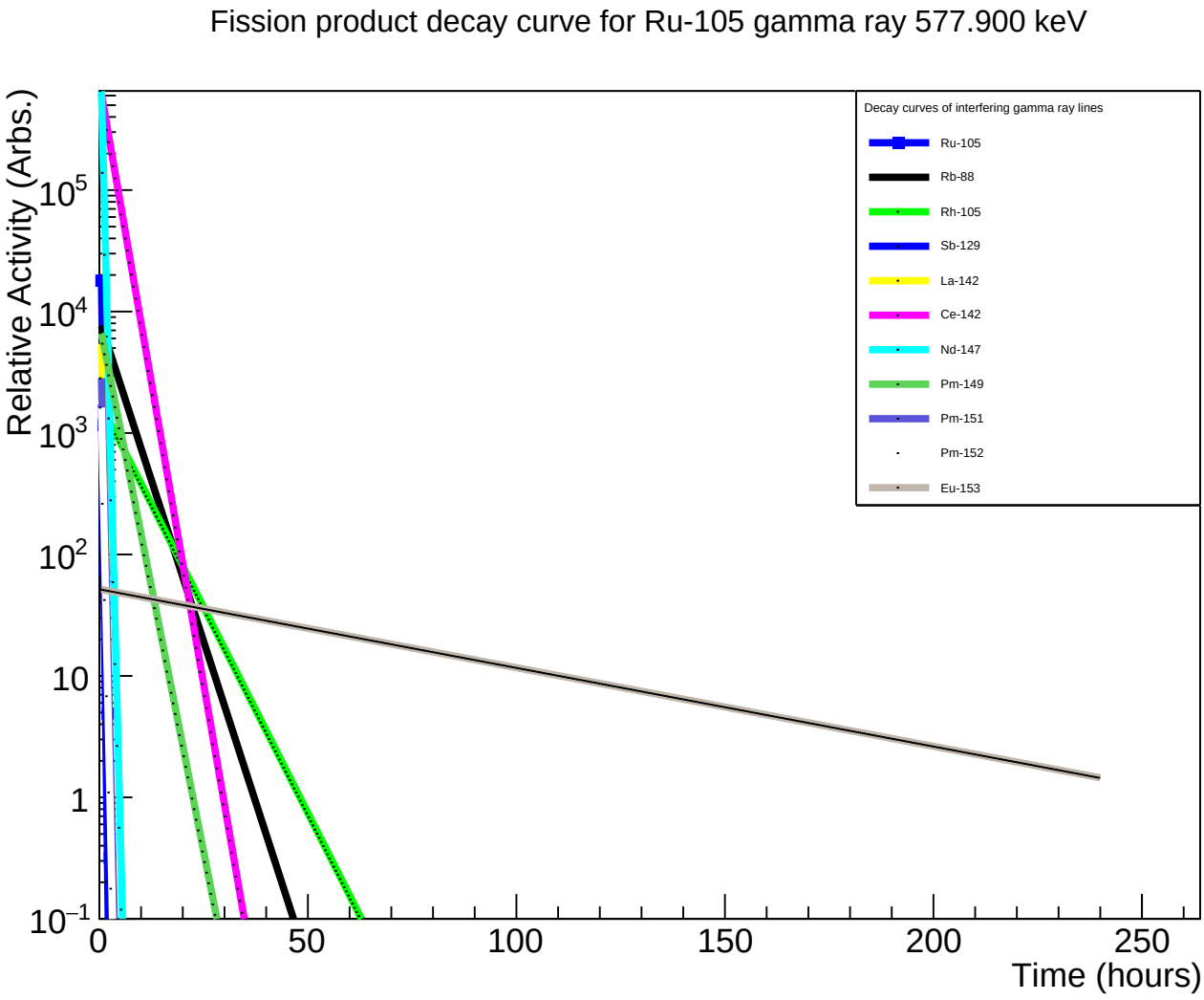


Figure 349: Ru-105 decay curve for 577.900 keV gamma ray.

3.350 Tc-105 E_γ = 604.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 604.60 keV
Gamma Intensity = 1.10 ± 0.476 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 699: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 700: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	604.800	0.017	0.529	0.010
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Nb-98	Mo-98	603.280	0.005	0.855	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Sb-127	Te-127	603.500	0.045	92.400	0.002
Te-131	I-131	605.550	0.001	0.417	0.025
Te-133	I-133	605.110	0.012	0.923	0.040
Cs-139	Ba-139	604.220	0.000	0.155	0.063
Ba-142	La-142	604.300	0.004	0.177	0.058
Pr-147	Nd-147	604.500	0.005	0.223	0.022
Nd-151	Pm-151	605.800	0.000	0.207	0.004
Pm-151	Sm-151	604.000	0.000	28.400	0.004
Pm-151	Sm-151	605.900	0.000	28.400	0.004
Sm-153	Eu-153	603.600	0.000	46.500	0.002
Sm-155	Eu-155	603.800	0.000	0.372	0.000

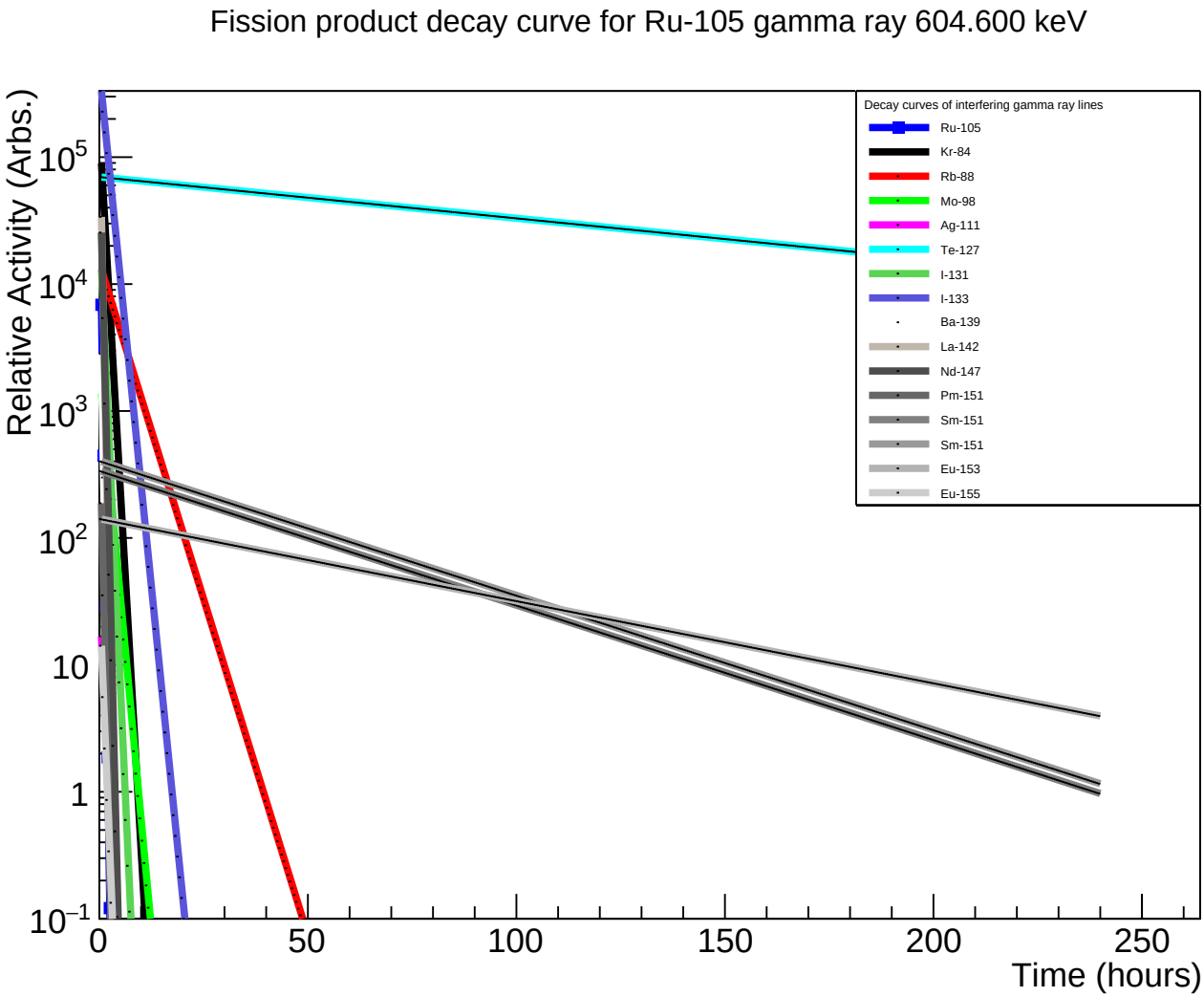


Figure 350: Ru-105 decay curve for 604.600 keV gamma ray.

3.351 Tc-105 E_γ = 608.50 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 608.50 keV
Gamma Intensity = 2.36 ± 0.799 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 701: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 702: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	609.220	0.029	0.372	0.003
Mo-101	Tc-101	608.340	0.010	0.243	0.052
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Te-131	I-131	609.400	0.001	33.250	0.004
Te-133	I-133	607.300	0.002	0.923	0.040
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Ba-141	La-141	609.000	0.004	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

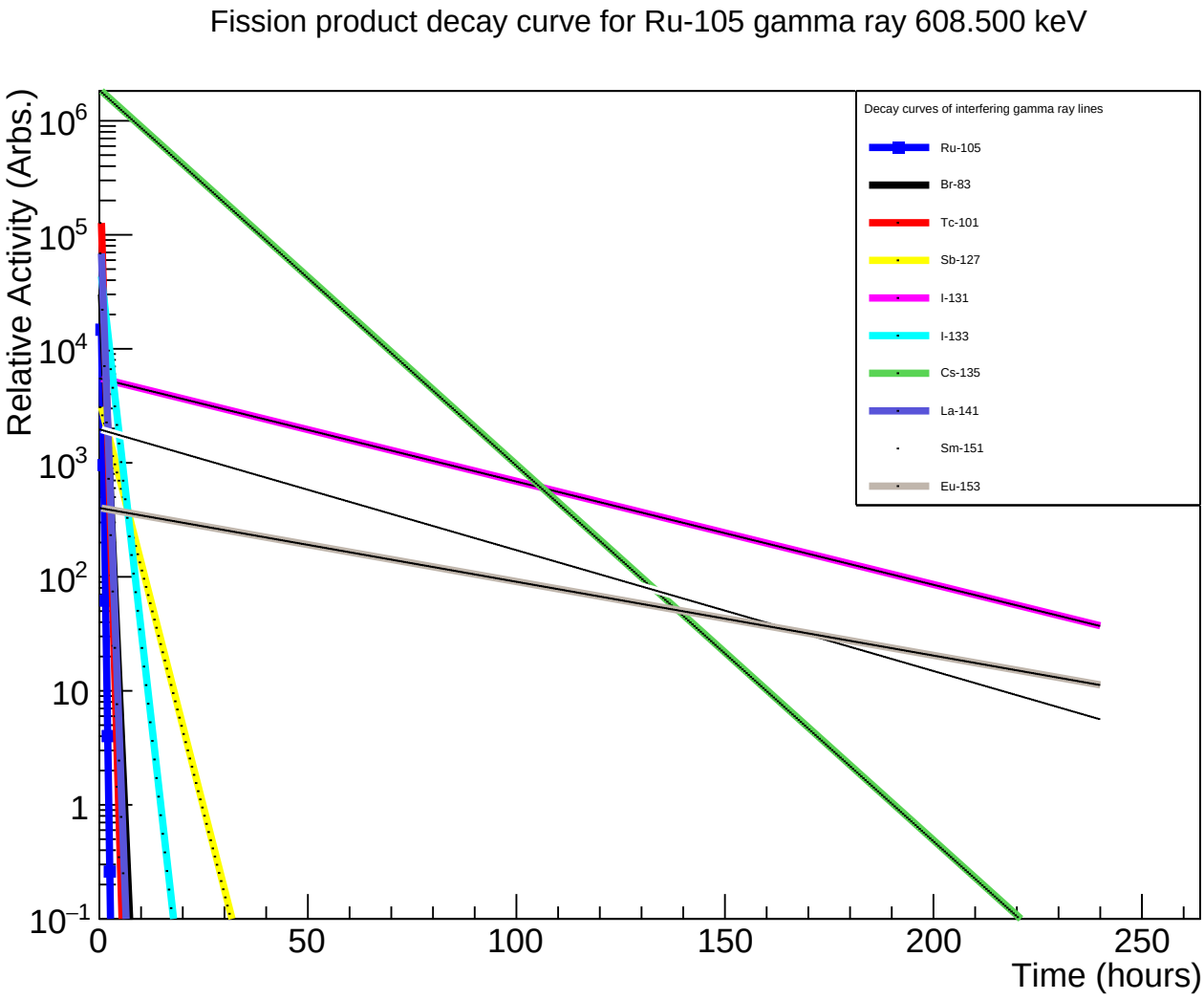


Figure 351: Ru-105 decay curve for 608.500 keV gamma ray.

3.352 Tc-105 E_γ = 640.20 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 640.20 keV
Gamma Intensity = 2.64 ± 0.289 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 703: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 704: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	641.700	0.001	0.390	0.000
Ba-141	La-141	641.500	0.004	0.304	0.058
La-142	Ce-142	639.500	0.001	1.518	0.058
La-142	Ce-142	641.285	0.474	1.518	0.058
Pr-147	Nd-147	641.400	0.156	0.223	0.022
Nd-151	Pm-151	639.000	0.000	0.207	0.004

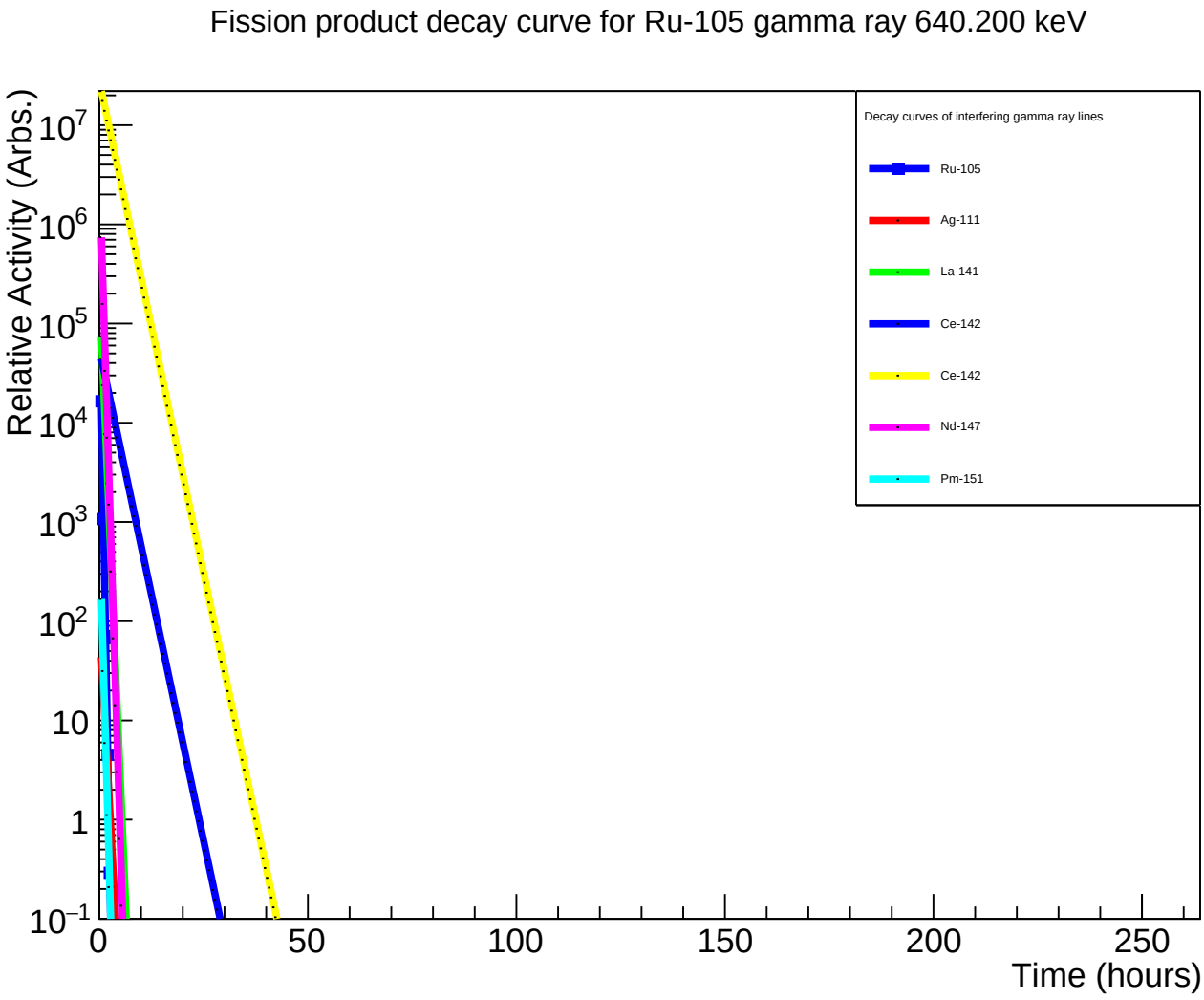


Figure 352: Ru-105 decay curve for 640.200 keV gamma ray.

3.353 Tc-105 E_γ = 646.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 646.30 keV
Gamma Intensity = 1.18 ± 0.160 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 705: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 706: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	644.847	0.056	0.855	0.000
Pd-109	Ag-109	647.300	0.000	13.701	0.000
Ag-112	Cd-112	647.500	0.000	3.130	0.000
Sb-130	Te-130	647.700	0.048	0.105	0.010
Te-133	I-133	645.600	0.004	0.208	0.031
Te-133	I-133	647.510	0.097	0.923	0.040
Te-134	I-134	645.400	0.009	0.697	0.070
Xe-138	Cs-138	647.200	0.000	0.235	0.063
La-142	Ce-142	646.200	0.001	1.518	0.058
Eu-156	Gd-156	646.290	0.063	364.560	0.000

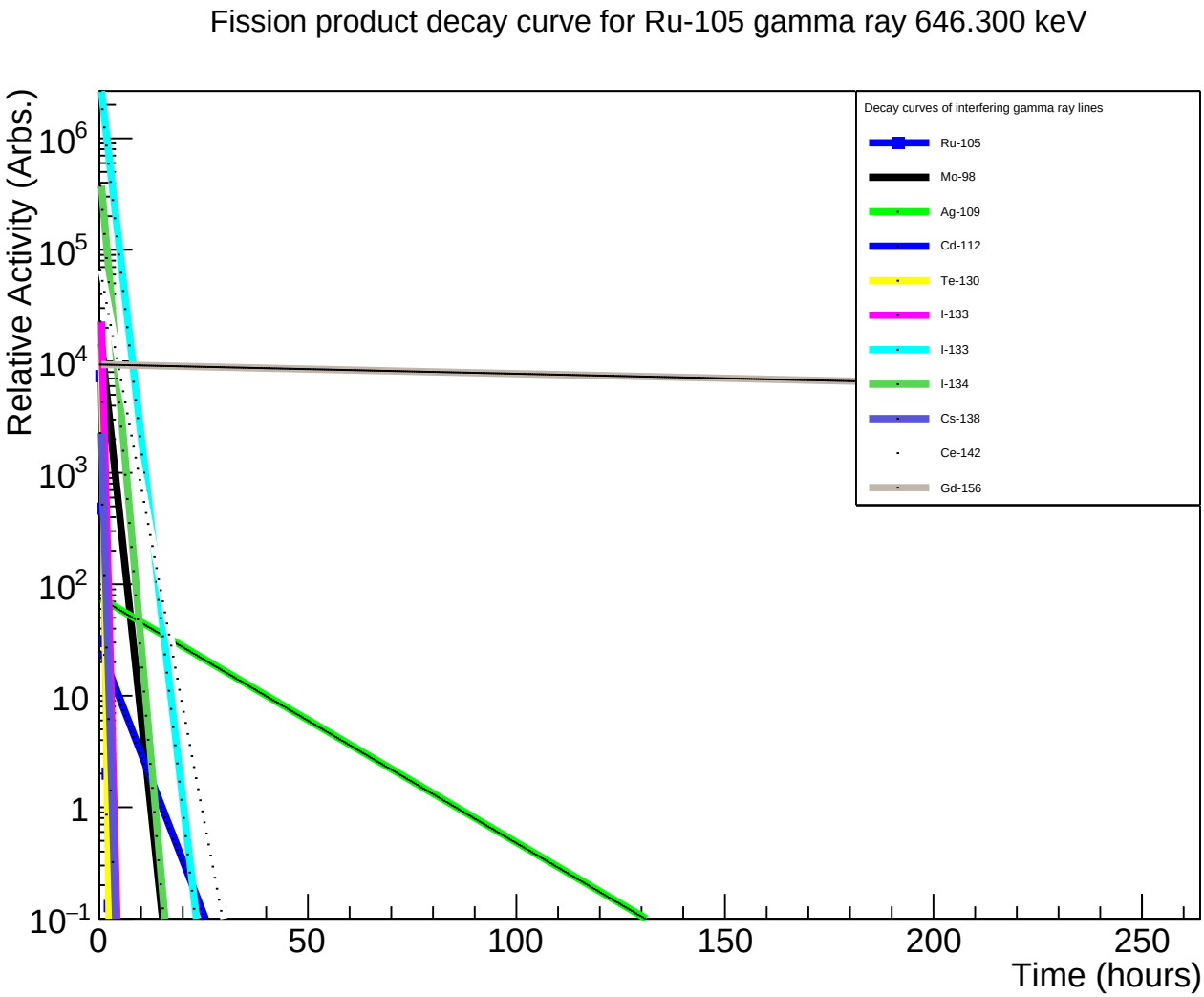


Figure 353: Ru-105 decay curve for 646.300 keV gamma ray.

3.354 Tc-105 E_γ = 698.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 698.00 keV
Gamma Intensity = 1.57 ± 0.481 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 707: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 708: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	699.200	0.001	16.749	0.060
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Nb-98	Mo-98	697.380	0.003	0.855	0.000
Rh-107	Pd-107	696.700	0.000	0.362	0.001
Sb-127	Te-127	698.500	0.036	92.400	0.002
Sb-130	Te-130	697.400	0.044	0.105	0.010
Te-133	I-133	698.100	0.009	0.923	0.040
Xe-138	Cs-138	697.600	0.000	0.235	0.063
Ba-141	La-141	698.800	0.004	0.304	0.058
Pr-144	Nd-144	696.510	0.013	0.288	0.055
Pr-144	Nd-144	696.500	0.001	0.120	0.000
Pm-151	Sm-151	699.000	0.000	28.400	0.004

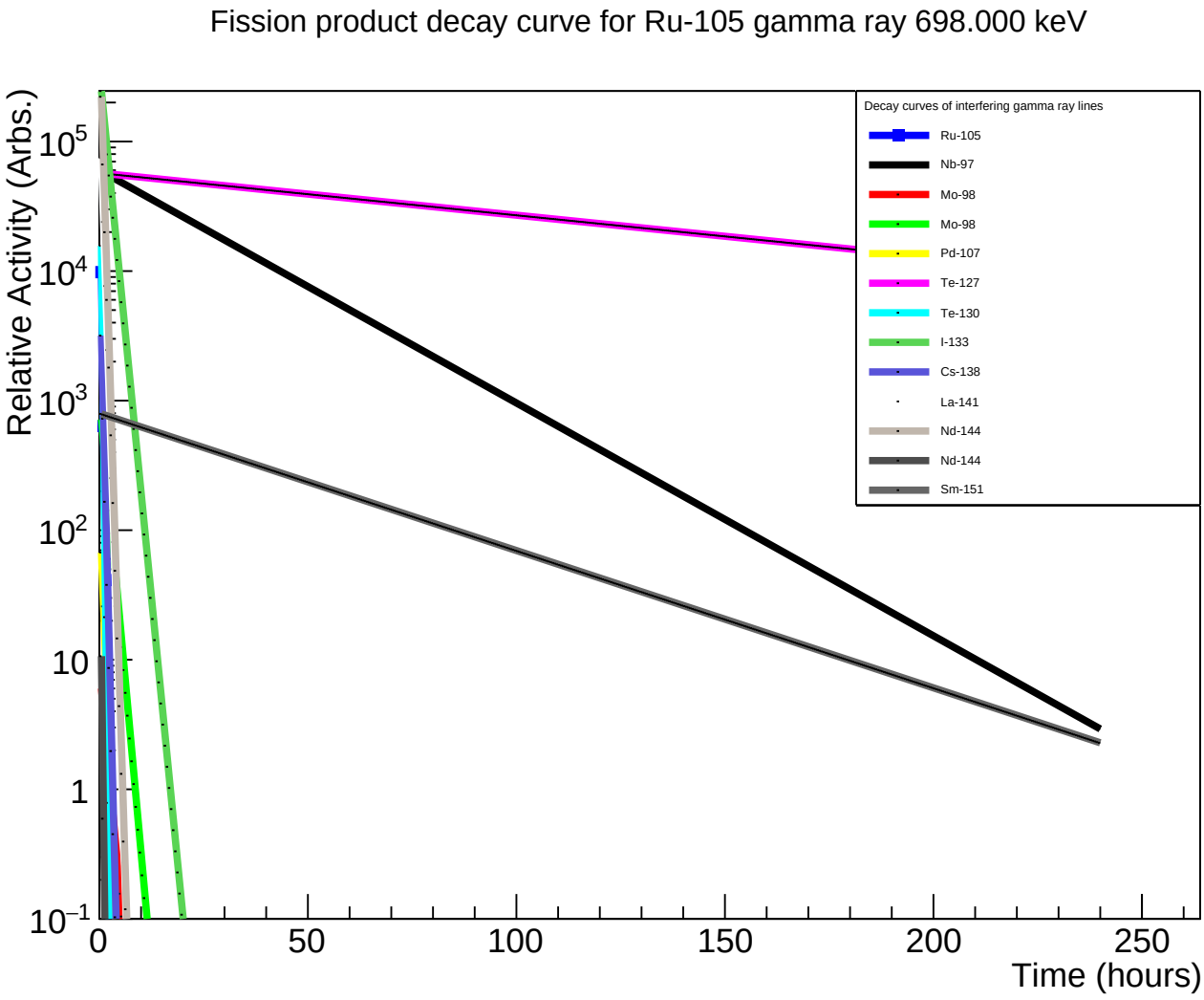


Figure 354: Ru-105 decay curve for 698.000 keV gamma ray.

3.355 Tc-105 E_γ = 739.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 739.30 keV
Gamma Intensity = 1.62 ± 0.188 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 709: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 710: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	739.500	0.123	65.976	0.061
Mo-101	Tc-101	739.540	0.003	0.243	0.052
Te-131	I-131	738.800	0.001	33.250	0.004
Te-133	I-133	740.800	0.002	0.208	0.031
Te-133	I-133	739.790	0.006	0.923	0.040
I-134	Xe-134	739.180	0.007	0.875	0.078
Ba-141	La-141	739.200	0.048	0.304	0.058
Nd-149	Pm-149	740.570	0.000	1.728	0.011
Nd-151	Pm-151	739.200	0.015	0.207	0.004
Pm-151	Sm-151	740.800	0.000	28.400	0.004

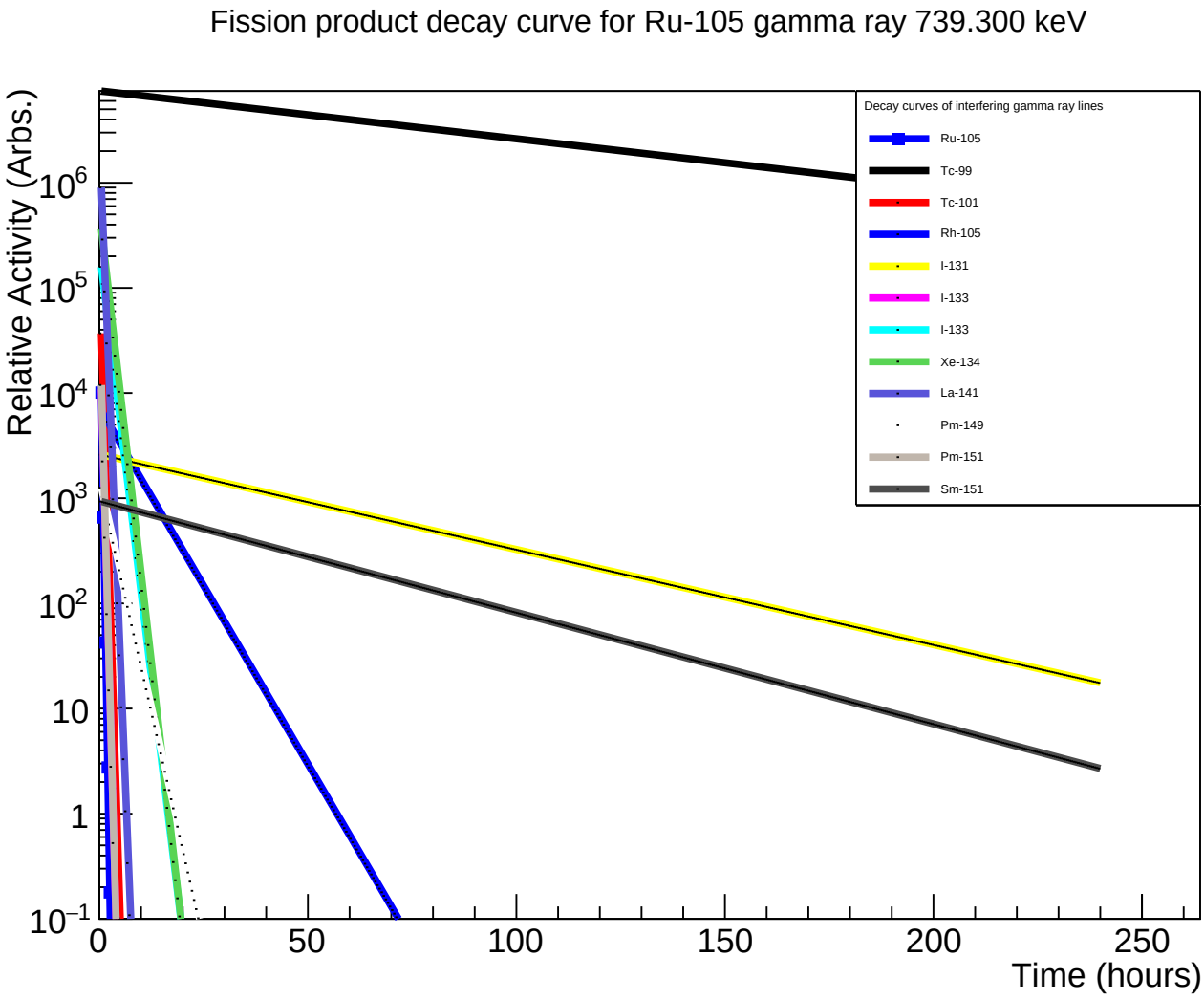


Figure 355: Ru-105 decay curve for 739.300 keV gamma ray.

3.356 Tc-105 E_γ = 757.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 757.00 keV
Gamma Intensity = 1.18 ± 0.174 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 711: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 712: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	756.900	0.001	1.512	0.000
Zr-95	Nb-95	756.725	0.544	1536.768	0.065
Te-133	I-133	756.800	0.003	0.923	0.040
Nd-151	Pm-151	755.570	0.012	0.207	0.004
Nd-151	Pm-151	757.900	0.000	0.207	0.004
Pm-151	Sm-151	758.500	0.000	28.400	0.004
Sm-155	Eu-155	758.000	0.000	0.372	0.000

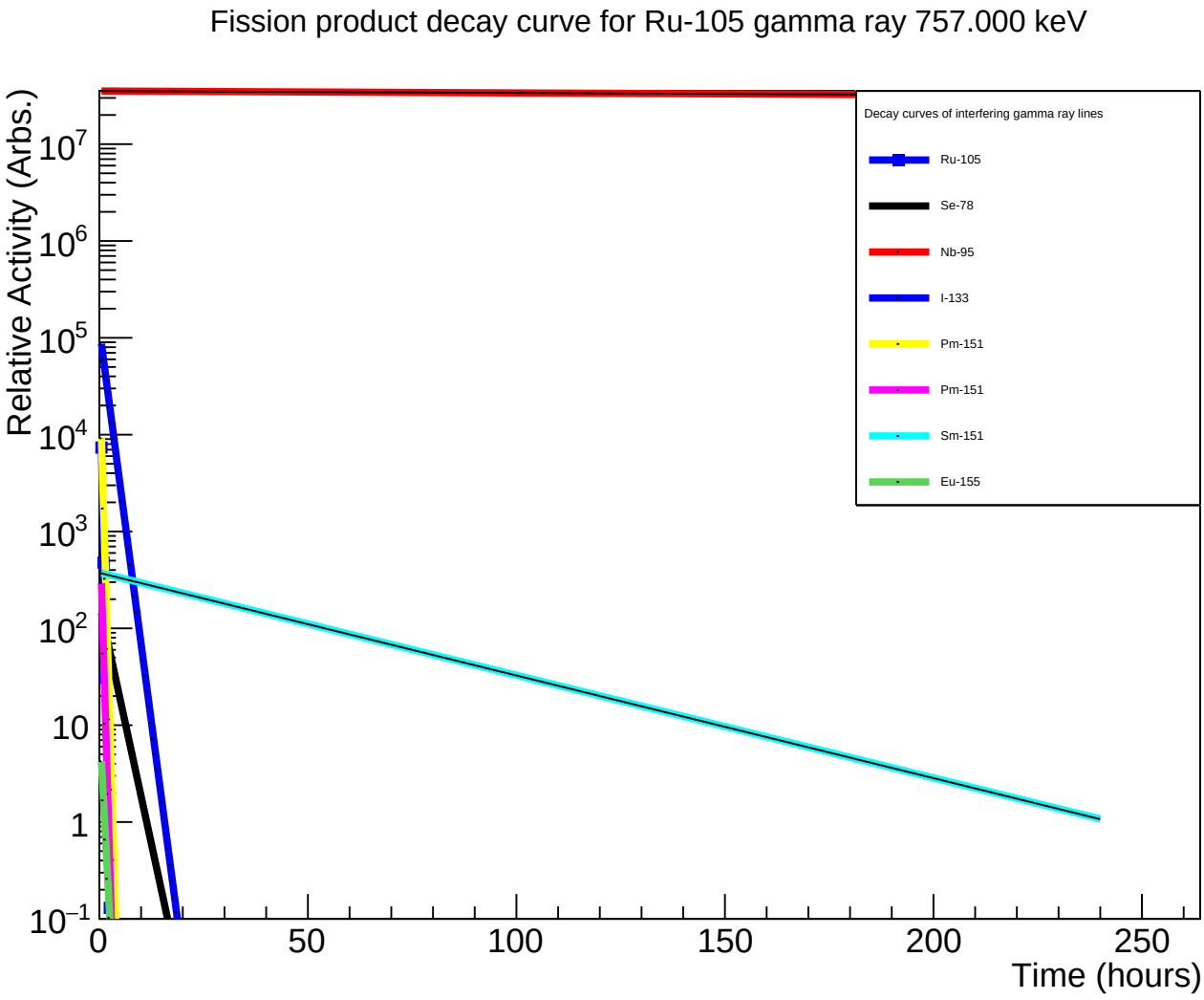


Figure 356: Ru-105 decay curve for 757.000 keV gamma ray.

3.357 Tc-105 E_γ = 824.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 824.30 keV
Gamma Intensity = 1.18 ± 0.174 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 713: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 714: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	823.700	0.001	9.630	0.058
Nb-98	Mo-98	823.390	0.025	0.855	0.000
Mo-99	Tc-99	822.972	0.001	65.976	0.061
Pd-109	Ag-109	822.900	0.000	13.701	0.000
Sn-127	Sb-127	823.100	0.106	2.100	0.001
Sn-127	Sb-127	824.700	0.061	2.100	0.001
Sb-131	Te-131	824.910	0.026	0.384	0.026
Te-131	I-131	825.000	0.000	0.417	0.025
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004

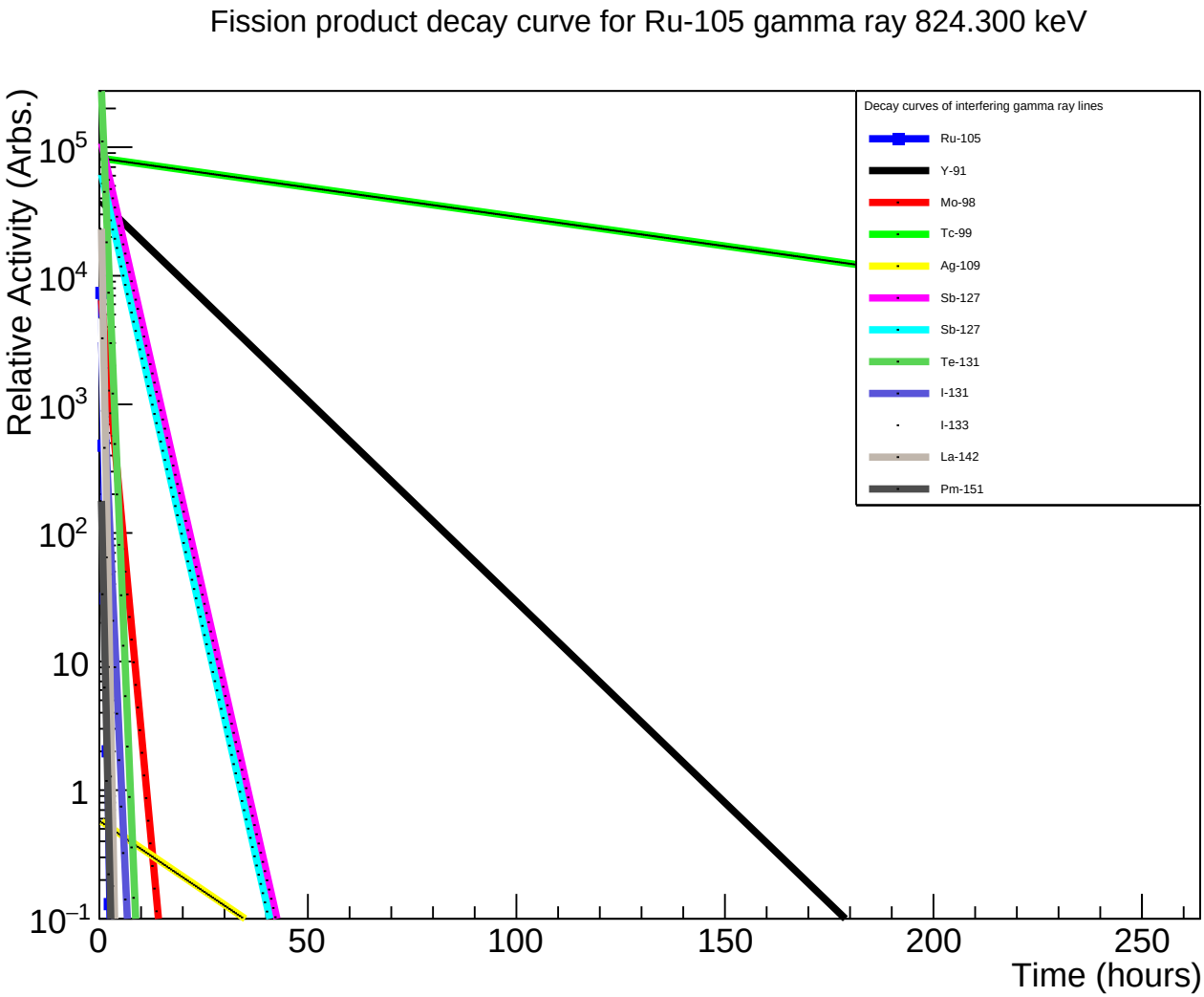


Figure 357: Ru-105 decay curve for 824.300 keV gamma ray.

3.358 Tc-105 E_γ = 896.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 896.00 keV
Gamma Intensity = 1.57 ± 0.791 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 715: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 716: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	895.890	0.002	0.243	0.052
Ag-113	Cd-113	896.100	0.001	5.370	0.000
Te-133	I-133	896.700	0.000	0.208	0.031
Te-134	I-134	896.020	0.004	0.697	0.070
Xe-138	Cs-138	896.870	0.001	0.235	0.063
Ba-142	La-142	895.200	0.139	0.177	0.058
La-142	Ce-142	894.900	0.083	1.518	0.058
Nd-149	Pm-149	896.650	0.000	1.728	0.011

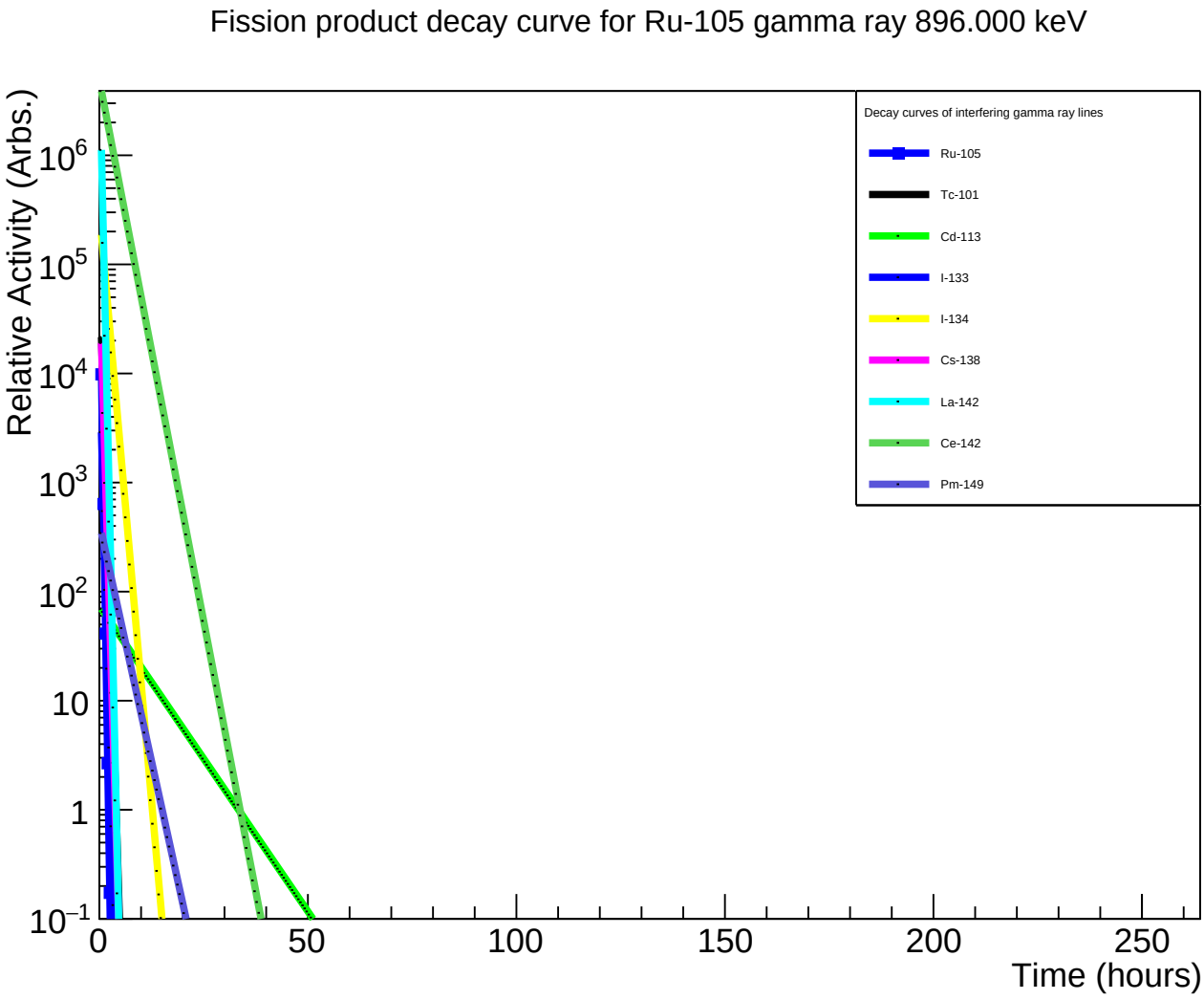


Figure 358: Ru-105 decay curve for 896.000 keV gamma ray.

3.359 Tc-105 E_γ = 914.50 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 914.50 keV
Gamma Intensity = 3.77 ± 1.588 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 717: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 718: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	915.550	0.041	231.360	0.000
Sb-129	Te-129	914.600	0.202	4.400	0.005
Sb-130	Te-130	914.900	0.018	0.658	0.008
Te-133	I-133	914.740	0.007	0.208	0.031
Te-133	I-133	914.774	0.104	0.923	0.040
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Nd-151	Pm-151	914.280	0.009	0.207	0.004

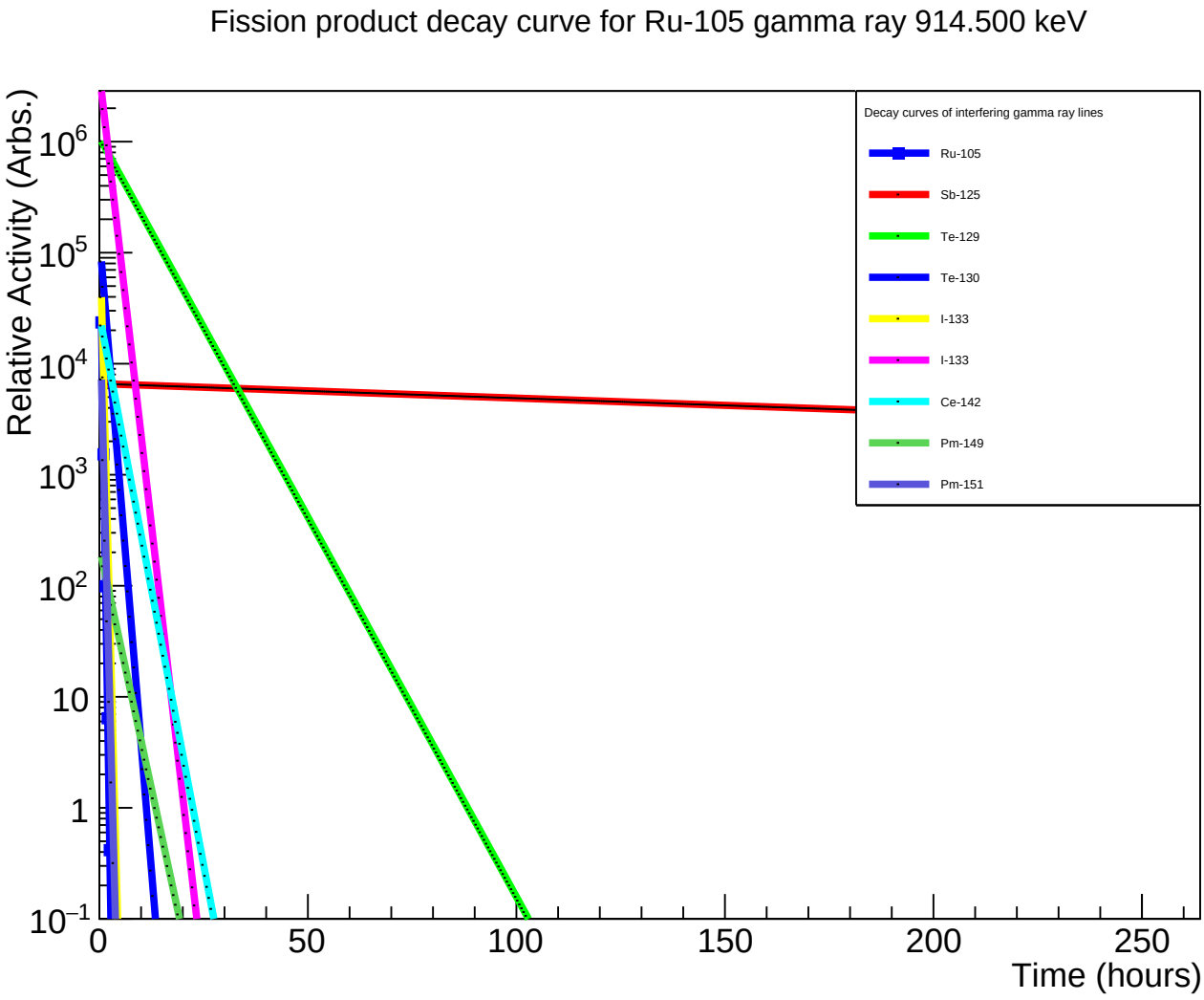


Figure 359: Ru-105 decay curve for 914.500 keV gamma ray.

3.360 Tc-105 E_γ = 1008.40 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 1008.40 keV
Gamma Intensity = 1.76 ± 0.193 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 719: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 720: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1009.300	0.000	0.855	0.000
Mo-101	Tc-101	1007.400	0.002	0.243	0.052
Ag-112	Cd-112	1007.000	0.001	3.130	0.000
Te-131	I-131	1007.960	0.008	0.417	0.025
Te-133	I-133	1007.500	0.006	0.923	0.040
I-132	Xe-132	1009.000	0.000	2.295	0.043
Cs-138	Ba-138	1009.780	0.298	0.557	0.067
Ba-141	La-141	1008.400	0.001	0.304	0.058
Nd-151	Pm-151	1008.600	0.000	0.207	0.004

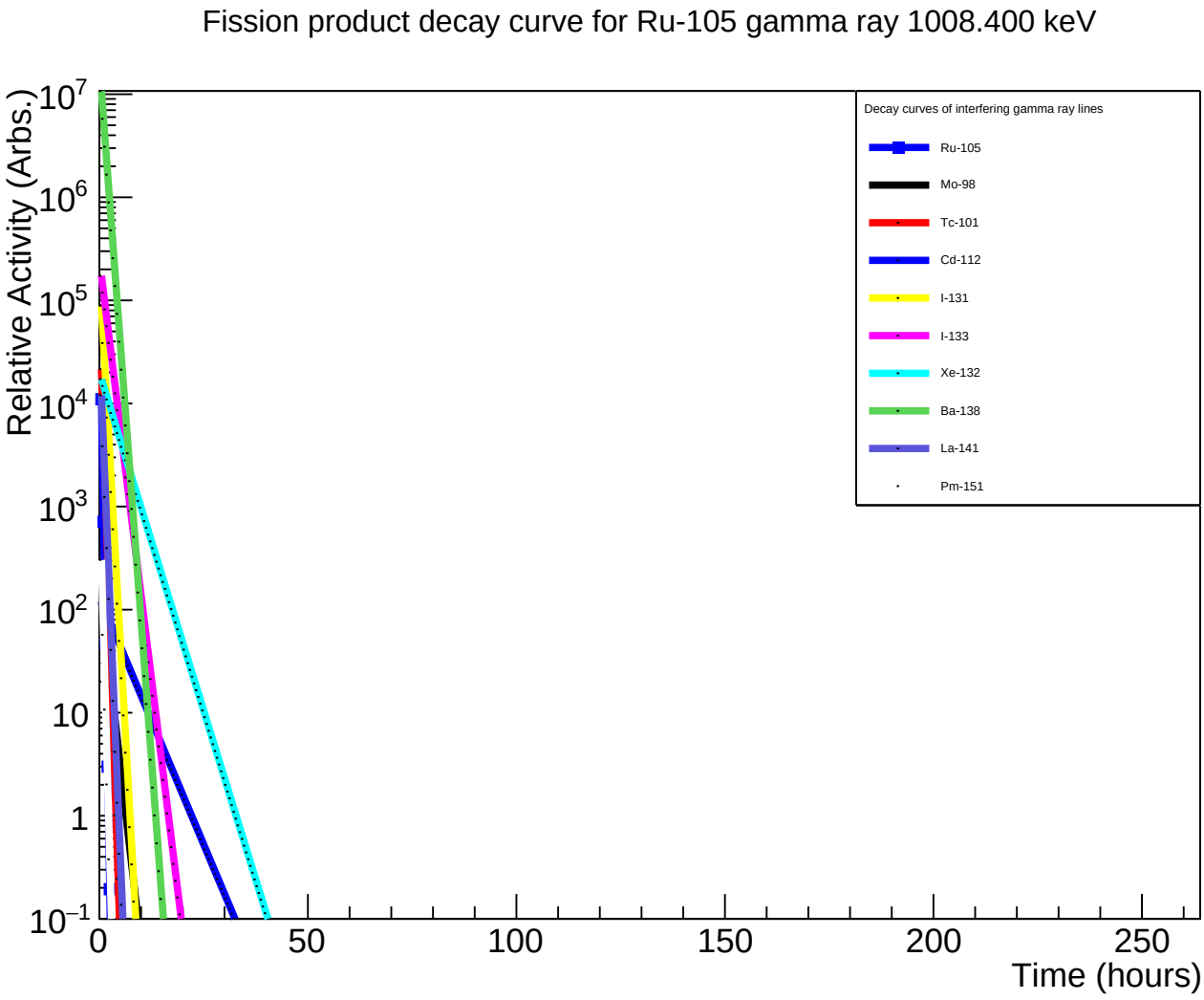


Figure 360: Ru-105 decay curve for 1008.400 keV gamma ray.

3.361 Tc-105 E_γ = 1201.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 1201.60 keV
Gamma Intensity = 1.18 ± 0.160 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 721: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 722: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ba-142	La-142	1202.400	0.055	0.177	0.058
La-143	Ce-143	1201.300	0.003	0.237	0.059
Nd-149	Pm-149	1202.290	0.000	1.728	0.011
Nd-151	Pm-151	1201.030	0.000	0.207	0.004
Nd-151	Pm-151	1201.030	0.002	0.207	0.004

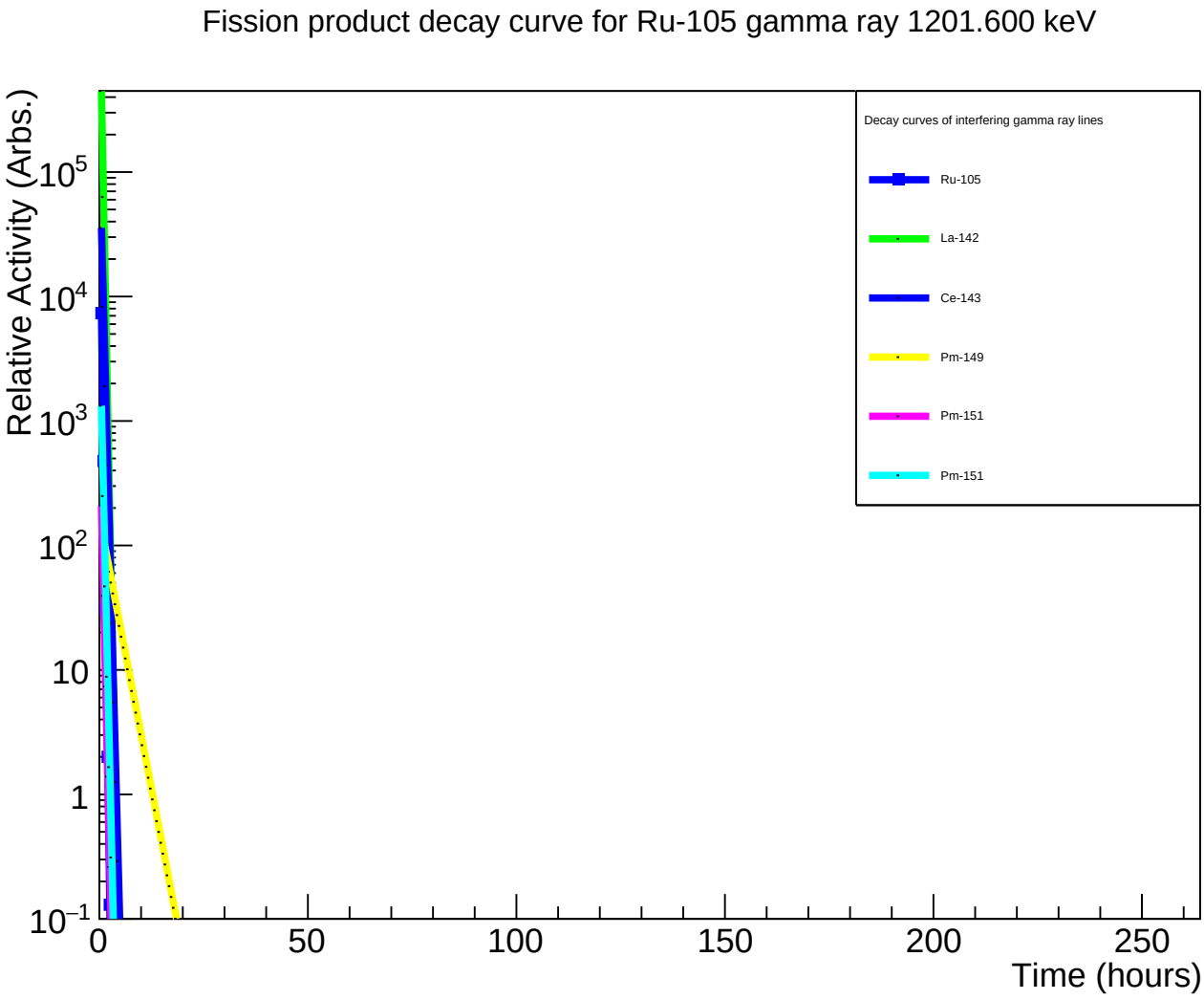


Figure 361: Ru-105 decay curve for 1201.600 keV gamma ray.

3.362 Tc-105 E_γ = 1366.30 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 1366.30 keV
Gamma Intensity = 3.23 ± 0.376 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 723: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 724: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	1366.260	0.001	0.296	0.036
Nd-151	Pm-151	1366.100	0.000	0.207	0.004
Eu-156	Gd-156	1366.410	0.016	364.560	0.000

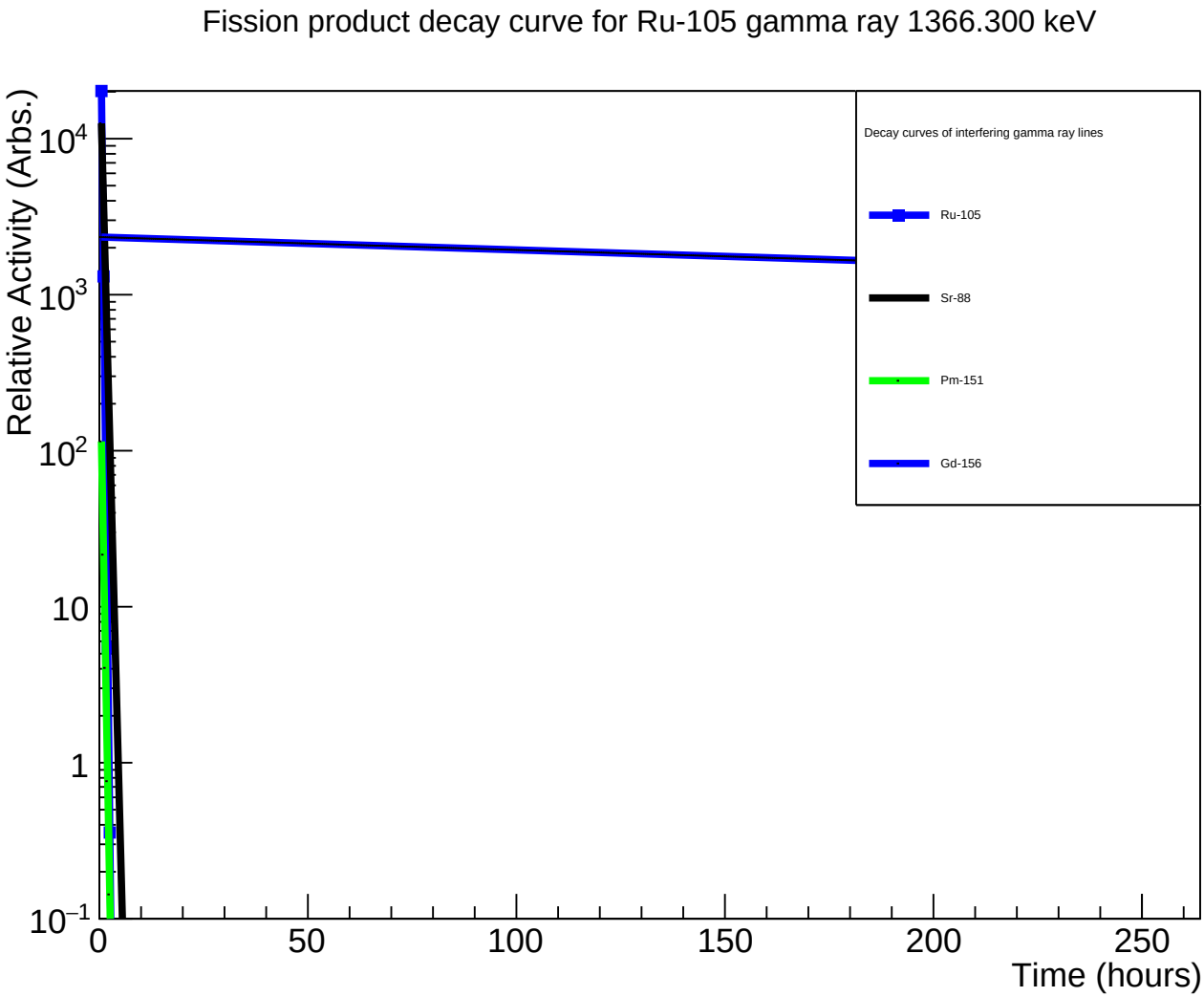


Figure 362: Ru-105 decay curve for 1366.300 keV gamma ray.

3.363 Tc-105 E_γ = 1510.60 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 1510.60 keV
Gamma Intensity = 2.36 ± 0.279 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 725: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 726: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1511.800	0.001	0.124	0.062
Y-95	Zr-95	1511.500	0.003	0.172	0.064
Nb-98	Mo-98	1510.430	0.001	0.855	0.000
Nb-98	Mo-98	1511.680	0.048	0.855	0.000
La-141	Ce-141	1512.100	0.000	3.920	0.058

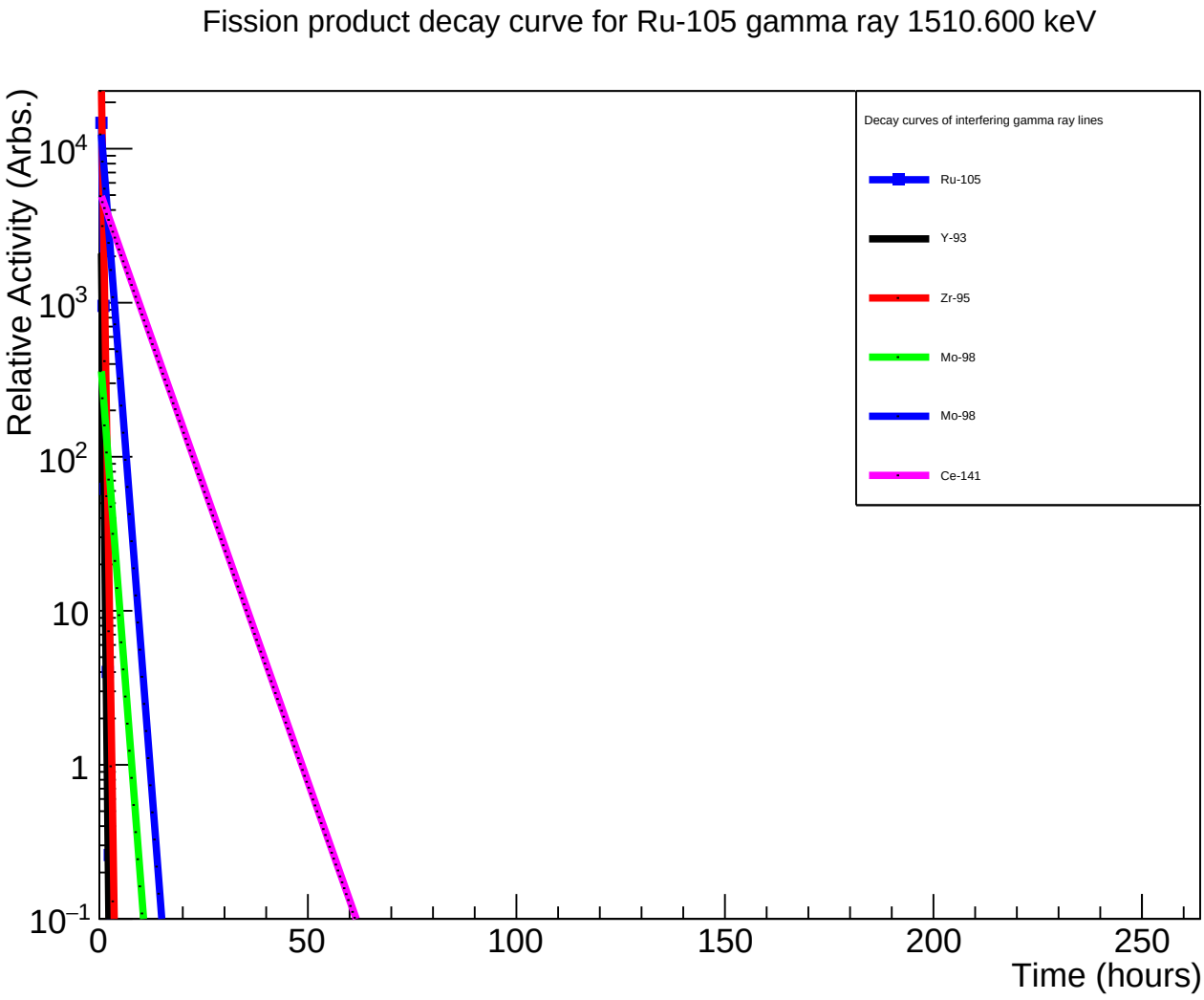


Figure 363: Ru-105 decay curve for 1510.600 keV gamma ray.

3.364 Tc-105 E_γ = 1560.10 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 1560.10 keV
Gamma Intensity = 2.04 ± 0.269 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 727: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 728: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-130	Te-130	1561.600	0.006	0.658	0.008
Sb-131	Te-131	1559.000	0.004	0.384	0.026
Ba-141	La-141	1559.900	0.001	0.304	0.058
Pr-144	Nd-144	1560.970	0.000	0.288	0.055
Pr-147	Nd-147	1559.900	0.001	0.223	0.022
Nd-151	Pm-151	1559.800	0.000	0.207	0.004

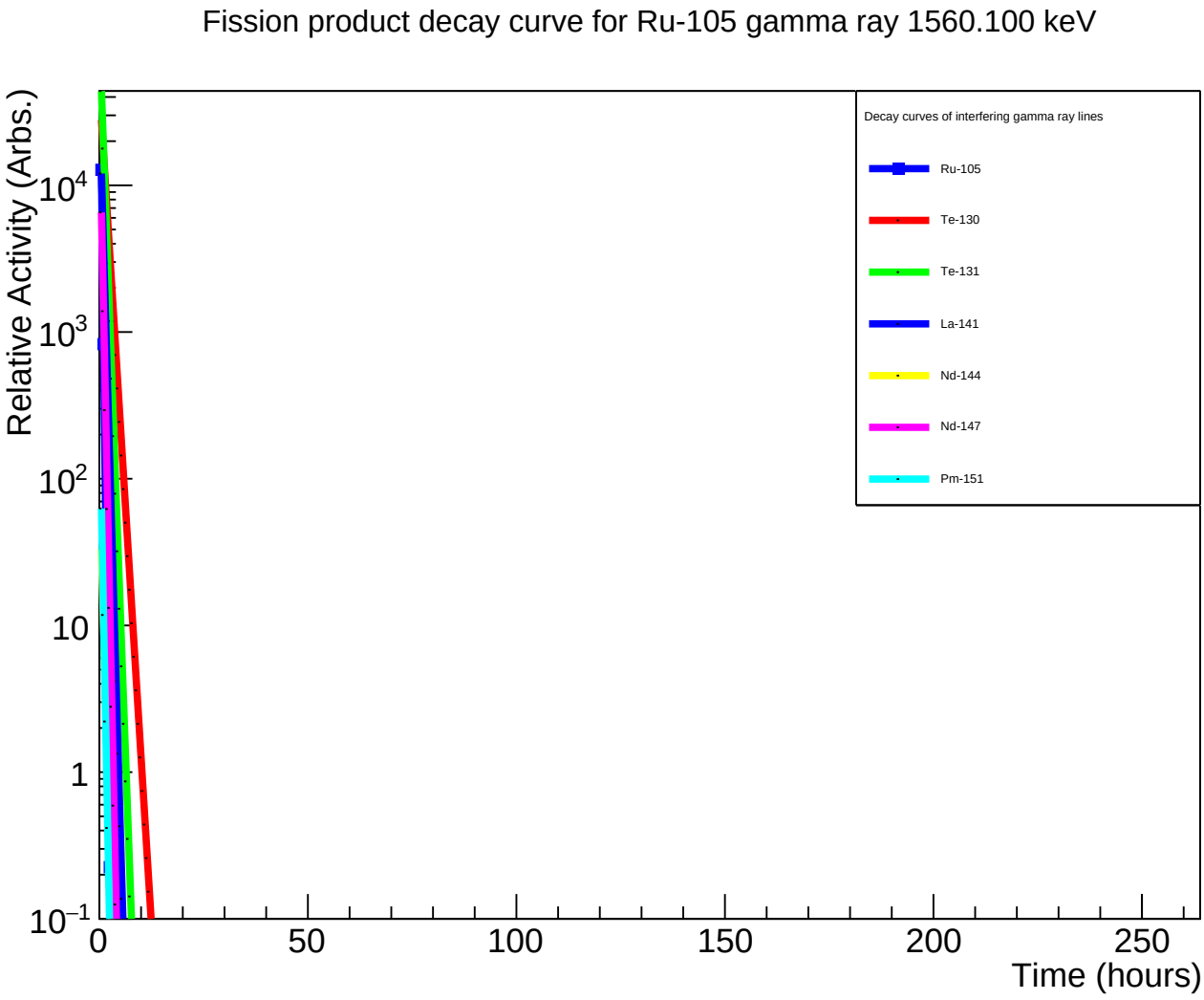


Figure 364: Ru-105 decay curve for 1560.100 keV gamma ray.

3.365 Tc-105 E_γ = 2053.90 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 2053.90 keV
Gamma Intensity = 1.49 ± 0.328 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 729: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 730: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2053.430	0.001	0.208	0.031
La-142	Ce-142	2055.200	0.022	1.518	0.058
Nd-151	Pm-151	2053.100	0.000	0.207	0.004

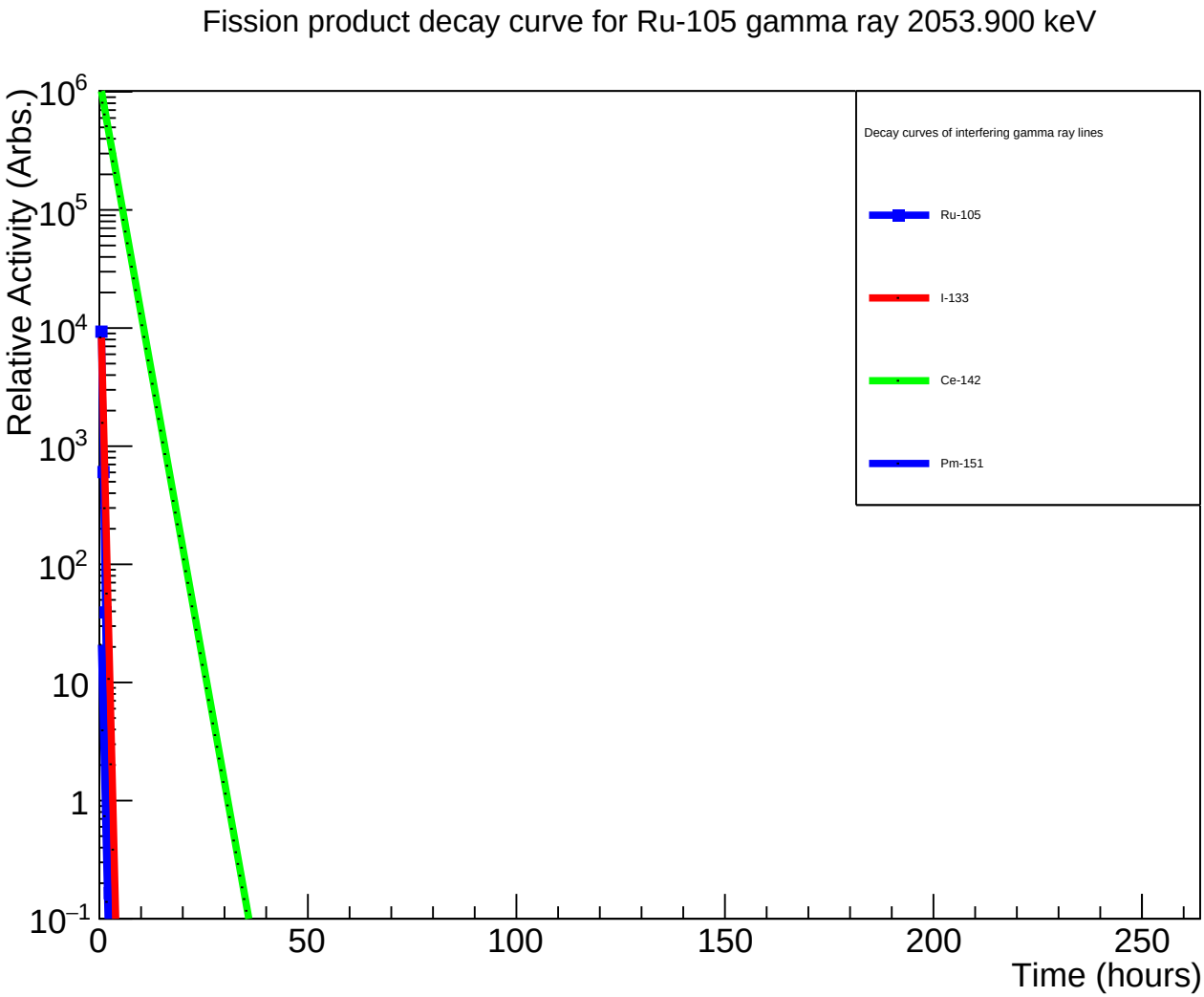


Figure 365: Ru-105 decay curve for 2053.900 keV gamma ray.

3.366 Tc-105 E_γ = 2082.00 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 2082.00 keV
Gamma Intensity = 1.49 ± 0.328 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 731: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 732: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2081.300	0.001	0.208	0.031
La-140	Ce-140	2083.200	0.000	40.285	0.062

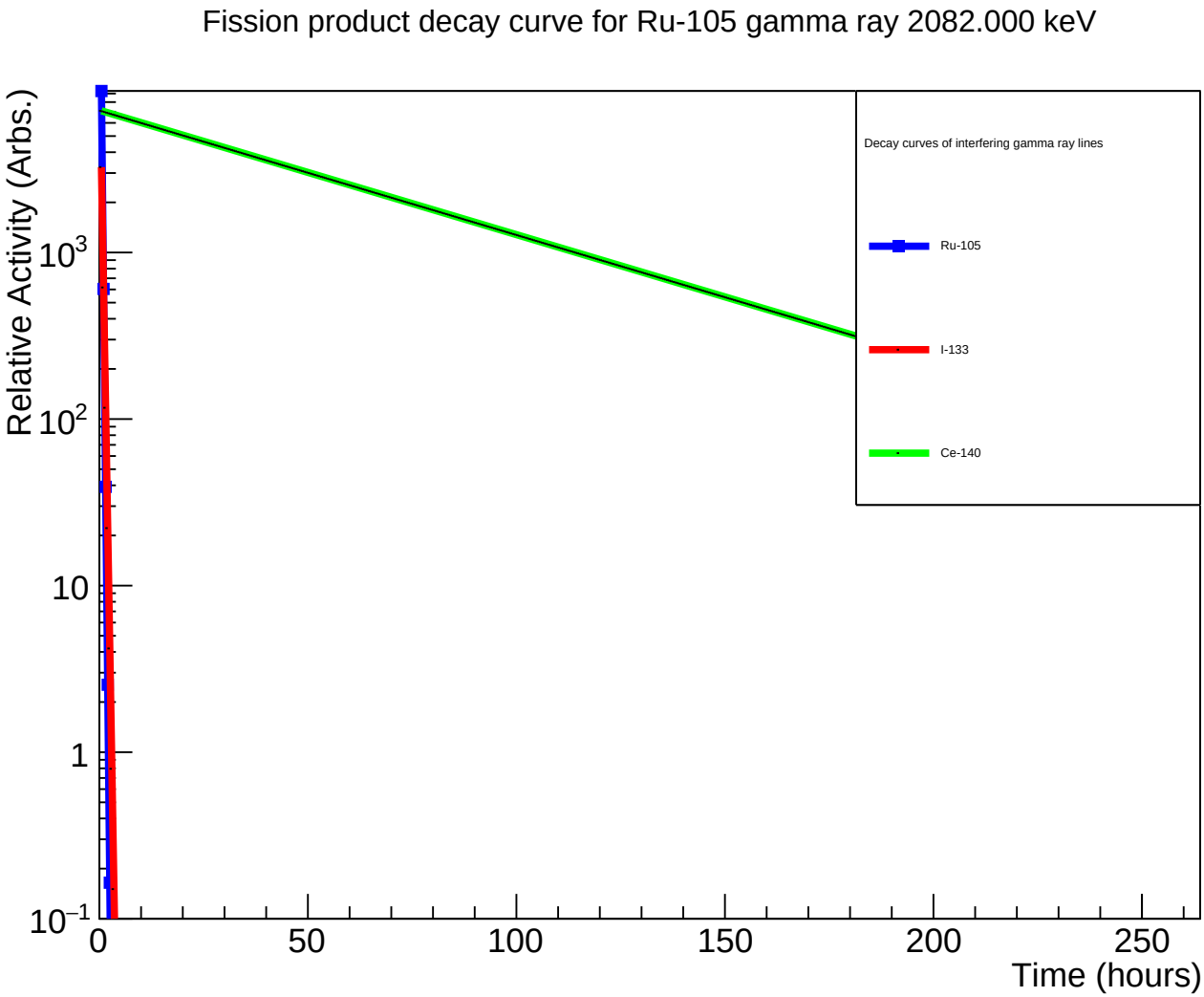


Figure 366: Ru-105 decay curve for 2082.000 keV gamma ray.

3.367 Tc-105 E_γ = 2155.40 keV

Chemical element: Technetium
Fission product parent: Tc-105
Gamma originates in daughter: Ru-105
Eγ: 2155.40 keV
Gamma Intensity = 2.20 ± 0.274 %
$T_{1/2}$ = 0.127 ± 0.002 hours or 7.60 ± 0.10 minutes
CFY: 0.964 ± 0.077 %

Table 733: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 734: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	2156.000	0.001	3.130	0.000
Te-133	I-133	2155.000	0.000	0.208	0.031

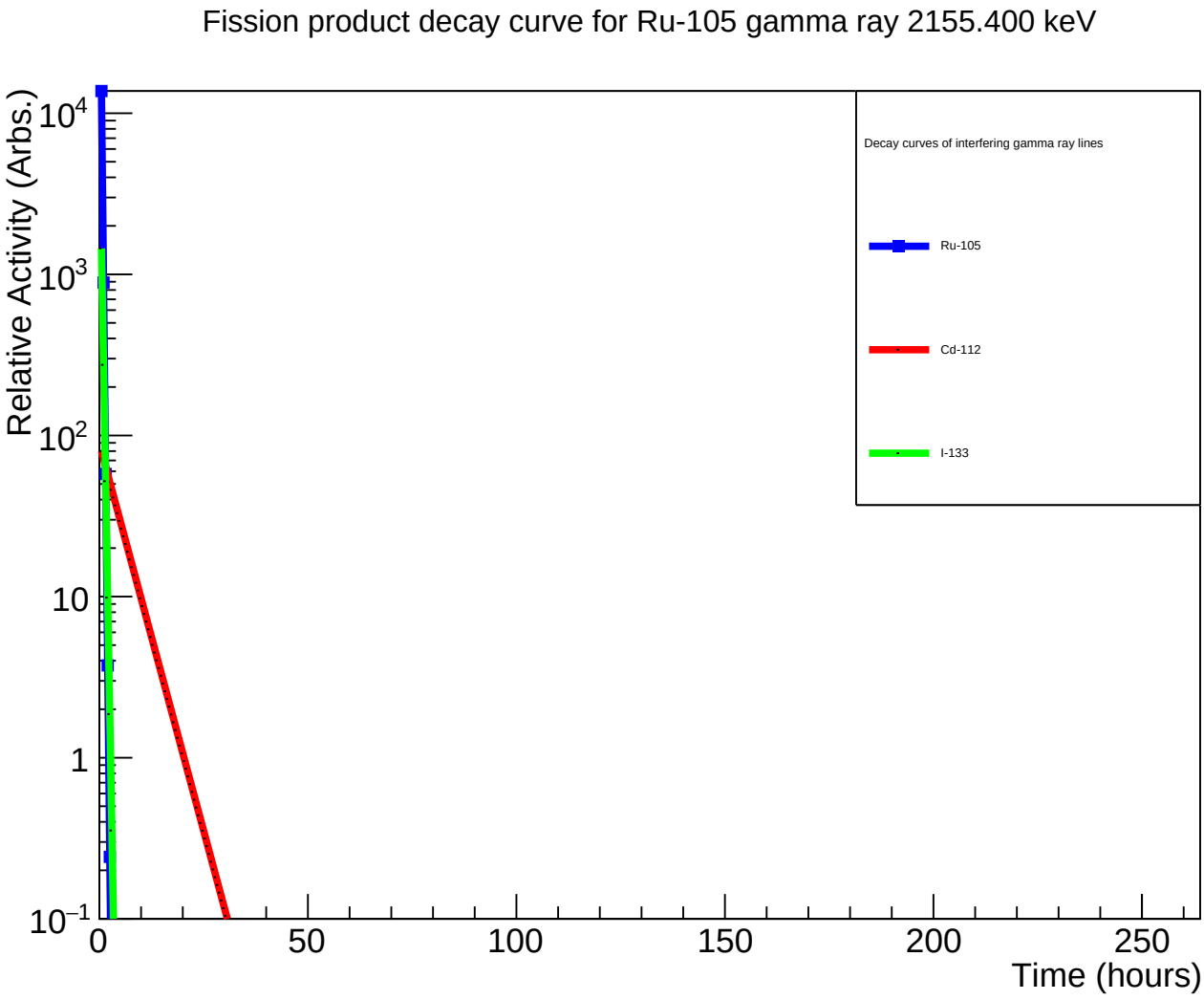


Figure 367: Ru-105 decay curve for 2155.400 keV gamma ray.

3.368 Ru-103 E_γ = 497.08 keV

Chemical element: Ruthenium
Fission product parent: Ru-103
Gamma originates in daughter: Rh-103
Eγ: 497.08 keV
Gamma Intensity = 91.00 ± 1.221 %
$T_{1/2}$ = 941.928 ± 0.072 hours or 56515.68 ± 4.32 minutes
CFY: 3.031 ± 0.042 %

Table 735: Decay chain of fission product chain A = 103

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-103	Technetium-103	0.019	0.000
Technetium-103	Ruthenium-103	0.015	0.000
Ruthenium-103	Rhodium-103	941.928	0.072
Rhodium-103	Palladium-103	0.935	0.000

Table 736: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	497.000	0.002	1.512	0.000
Mo-101	Tc-101	497.000	0.001	0.243	0.052
Pd-109	Ag-109	496.900	0.000	13.701	0.000
In-115	Sn-115	497.370	0.000	4.486	0.000
Sb-125	Te-125	497.370	0.000	24194.445	0.000
Te-131	I-131	496.230	0.000	0.417	0.025
Ce-143	Pr-143	497.810	0.000	33.039	0.060
Nd-149	Pm-149	498.060	0.000	1.728	0.011
Nd-151	Pm-151	498.000	0.000	0.207	0.004

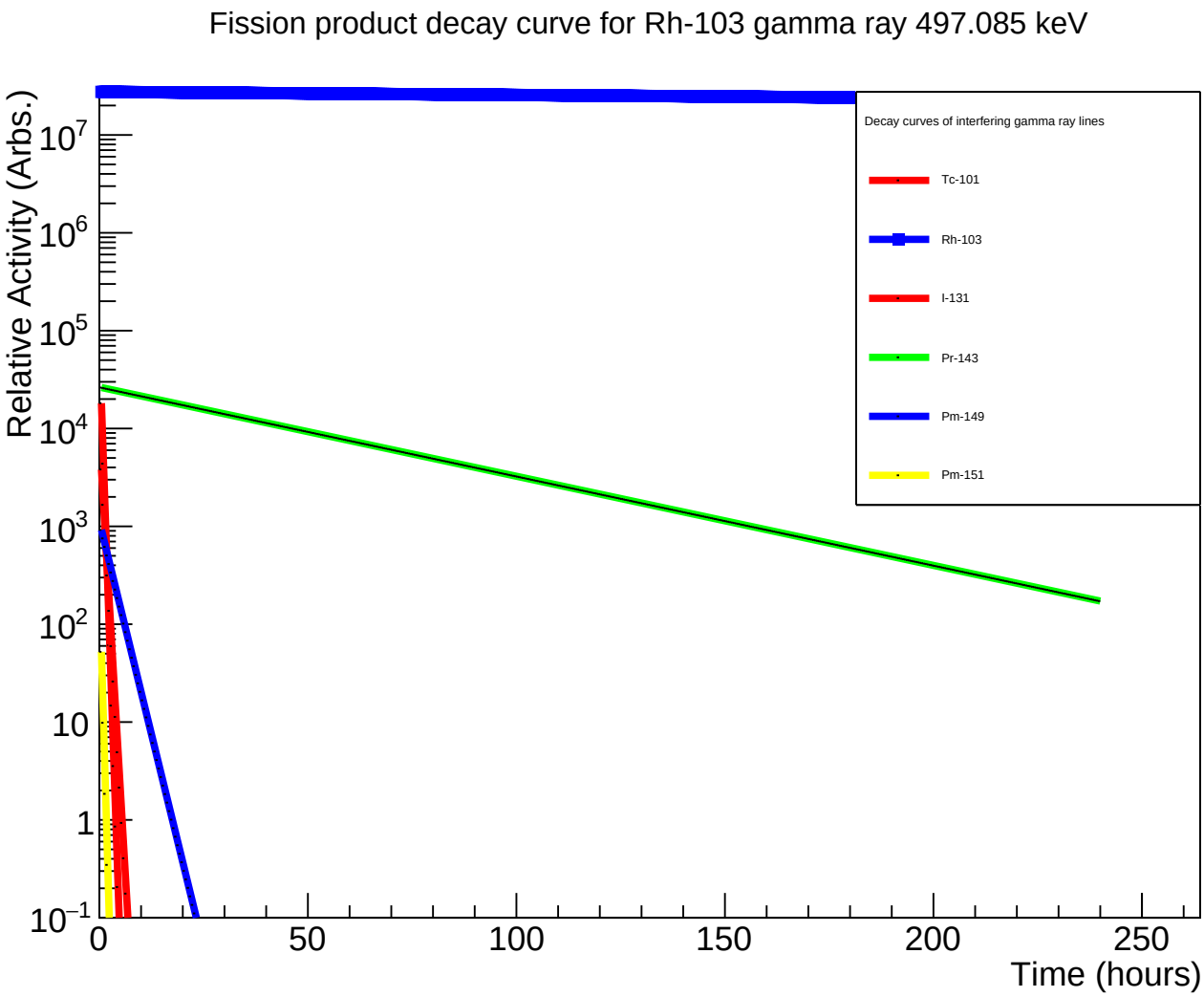


Figure 368: Rh-103 decay curve for 497.085 keV gamma ray.

3.369 Ru-103 E_γ = 610.33 keV

Chemical element: Ruthenium
Fission product parent: Ru-103
Gamma originates in daughter: Rh-103
Eγ: 610.33 keV
Gamma Intensity = 5.76 ± 0.064 %
$T_{1/2}$ = 941.928 ± 0.072 hours or 56515.68 ± 4.32 minutes
CFY: 3.031 ± 0.042 %

Table 737: Decay chain of fission product chain A = 103

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-103	Technetium-103	0.019	0.000
Technetium-103	Ruthenium-103	0.015	0.000
Ruthenium-103	Rhodium-103	941.928	0.072
Rhodium-103	Palladium-103	0.935	0.000

Table 738: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	609.220	0.029	0.372	0.003
Sr-93	Y-93	610.930	0.011	0.124	0.062
Mo-101	Tc-101	611.600	0.001	0.243	0.052
Tc-104	Ru-104	609.500	0.020	0.305	0.019
Pd-111	Ag-111	611.300	0.000	0.390	0.000
Ag-113	Cd-113	611.000	0.000	5.370	0.000
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Te-131	I-131	609.400	0.001	33.250	0.004
Ba-141	La-141	609.000	0.004	0.304	0.058
Ba-141	La-141	611.300	0.000	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

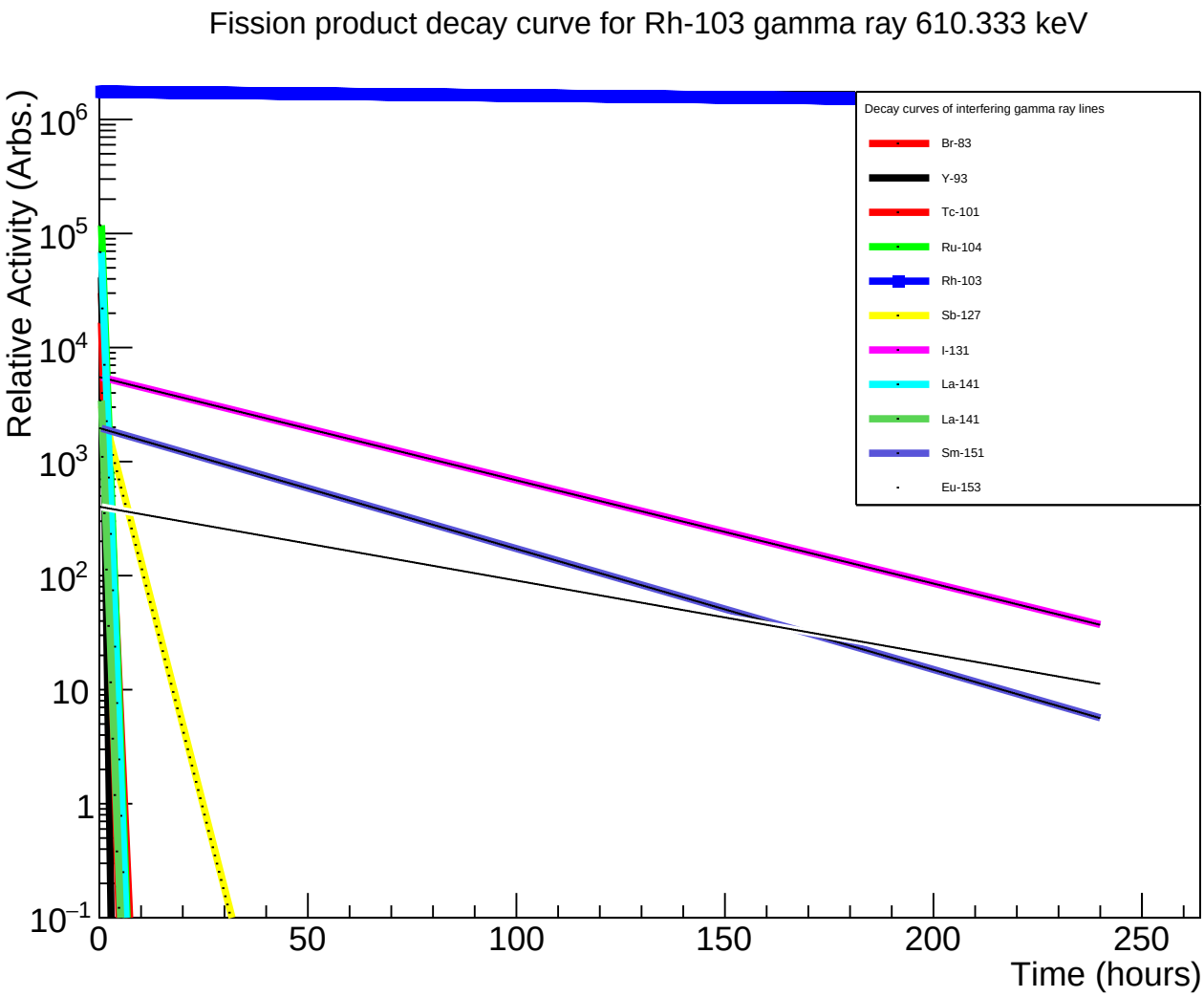


Figure 369: Rh-103 decay curve for 610.333 keV gamma ray.

3.370 Ru-105 E_γ = 149.10 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 149.10 keV
Gamma Intensity = 1.75 ± 0.190 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 739: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 740: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	148.190	0.038	0.188	0.043
Ag-112	Cd-112	147.900	0.000	3.130	0.000
Sn-129	Sb-129	148.800	0.011	0.115	0.002
Te-131	I-131	149.716	0.688	0.417	0.025
Te-131	I-131	149.300	0.001	33.250	0.004
Te-131	I-131	149.710	0.049	33.250	0.004
I-133	Xe-133	150.390	0.000	20.800	0.067
Pr-147	Nd-147	148.700	0.001	0.223	0.022
Nd-147	Pm-147	149.300	0.000	263.520	0.022
Nd-151	Pm-151	149.610	0.003	0.207	0.004
Pm-151	Sm-151	148.500	0.001	28.400	0.004
Pm-151	Sm-151	150.100	0.000	28.400	0.004

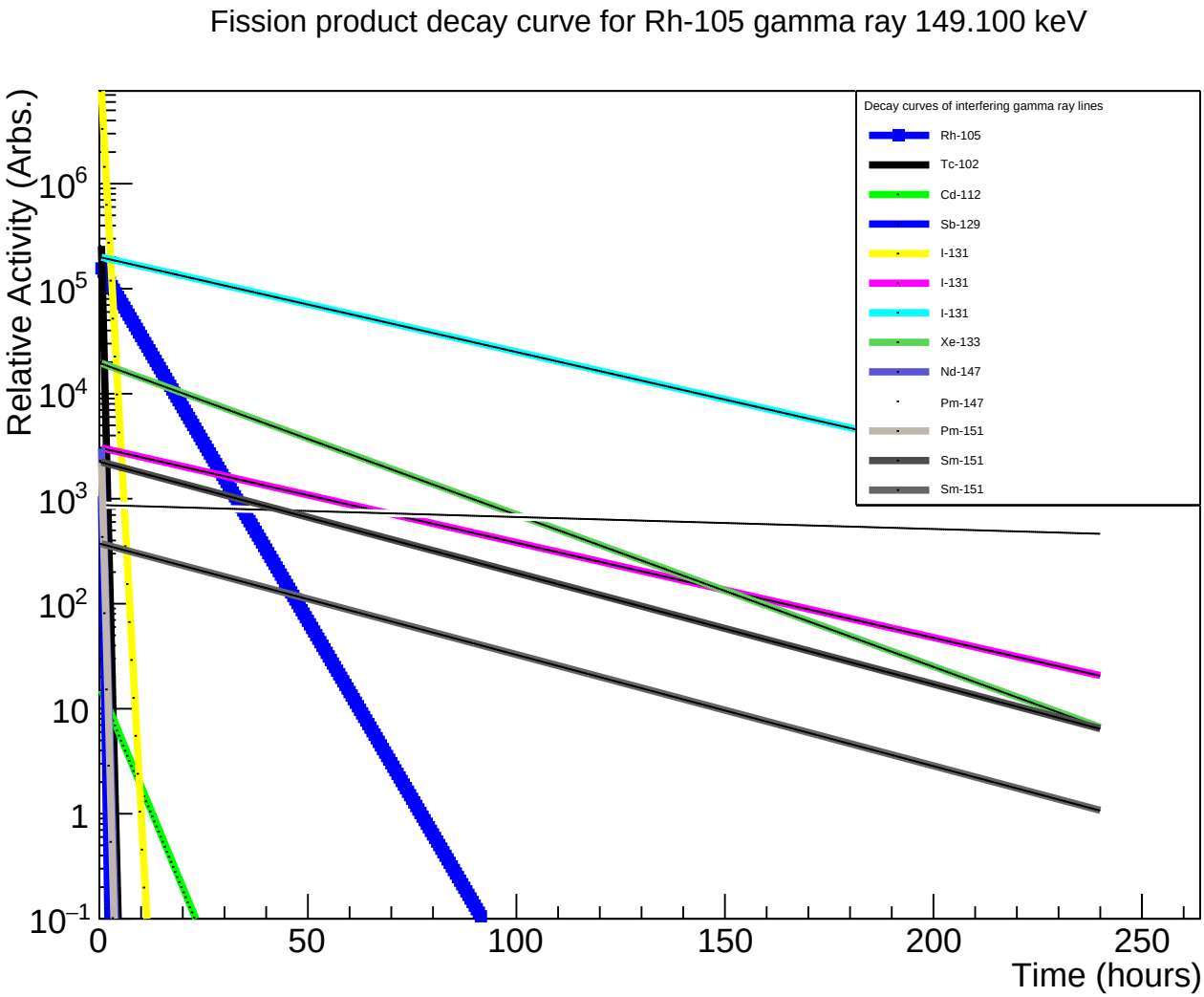


Figure 370: Rh-105 decay curve for 149.100 keV gamma ray.

3.371 Ru-105 E_γ = 262.83 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 262.83 keV
Gamma Intensity = 6.57 ± 0.158 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 741: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 742: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	262.500	0.023	2.100	0.001
Sn-129	Sb-129	264.300	0.007	0.115	0.002
Te-131	I-131	261.400	0.000	33.250	0.004
Te-133	I-133	261.626	0.075	0.923	0.040
I-132	Xe-132	262.900	0.013	2.295	0.043
I-133	Xe-133	262.702	0.004	20.800	0.067
I-135	Xe-135	264.260	0.002	6.570	0.063
Pr-145	Nd-145	262.886	0.000	5.984	0.039
Pr-145	Nd-145	262.940	0.000	5.984	0.039
Nd-149	Pm-149	263.400	0.000	1.728	0.011
Nd-151	Pm-151	263.560	0.008	0.207	0.004
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-149	Sm-149	263.230	0.000	53.080	0.011
Pm-151	Sm-151	261.400	0.000	28.400	0.004

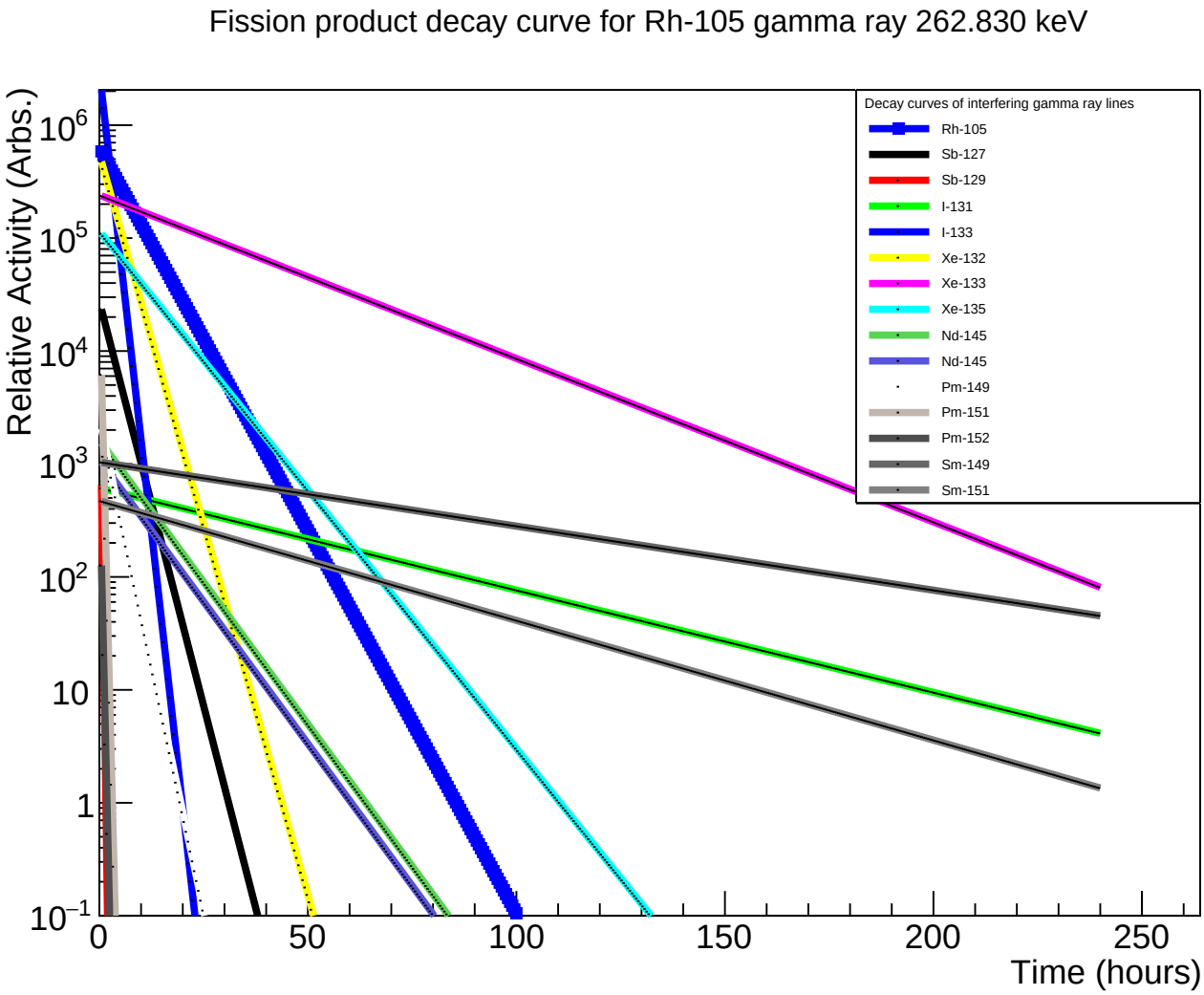


Figure 371: Rh-105 decay curve for 262.830 keV gamma ray.

3.372 Ru-105 E_γ = 316.44 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 316.44 keV
Gamma Intensity = 11.12 ± 0.396 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 743: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 744: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	315.000	0.000	0.855	0.000
Pd-111	Ag-111	316.800	0.000	0.390	0.000
Ag-113	Cd-113	316.300	0.013	5.370	0.000
Sb-125	Te-125	314.950	0.000	24194.445	0.000
Sb-128	Te-128	317.700	0.030	9.010	0.000
I-132	Xe-132	316.700	0.001	2.295	0.043
Ce-146	Pr-146	316.740	0.562	0.225	0.030
Nd-151	Pm-151	316.560	0.000	0.207	0.004
Pm-151	Sm-151	315.100	0.000	28.400	0.004
Eu-156	Gd-156	317.300	0.001	364.560	0.000

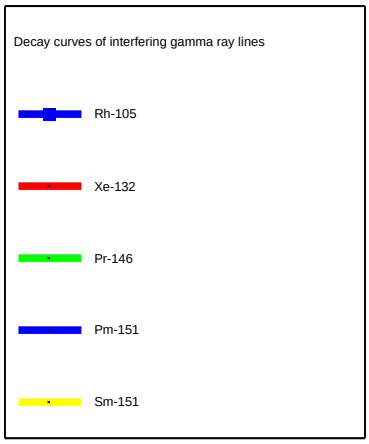


Figure 372: Rh-105 decay curve for 316.440 keV gamma ray.

3.373 Ru-105 E_γ = 326.14 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 326.14 keV
Gamma Intensity = 1.06 ± 0.119 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 745: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 746: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	326.430	0.000	0.855	0.000
Sb-131	Te-131	326.200	0.012	0.384	0.026
Te-133	I-133	326.000	0.003	0.923	0.040
I-131	Xe-131	324.651	0.000	192.605	0.029
I-131	Xe-131	325.789	0.003	192.605	0.029
I-135	Xe-135	326.000	0.000	6.570	0.063
Xe-138	Cs-138	325.300	0.000	0.235	0.063
Cs-138	Ba-138	324.900	0.003	0.557	0.067
Nd-149	Pm-149	326.554	0.046	1.728	0.011
Nd-151	Pm-151	324.680	0.005	0.207	0.004
Nd-151	Pm-151	326.300	0.000	0.207	0.004
Pm-149	Sm-149	327.530	0.000	53.080	0.011
Pm-151	Sm-151	325.200	0.000	28.400	0.004
Pm-151	Sm-151	325.800	0.001	28.400	0.004

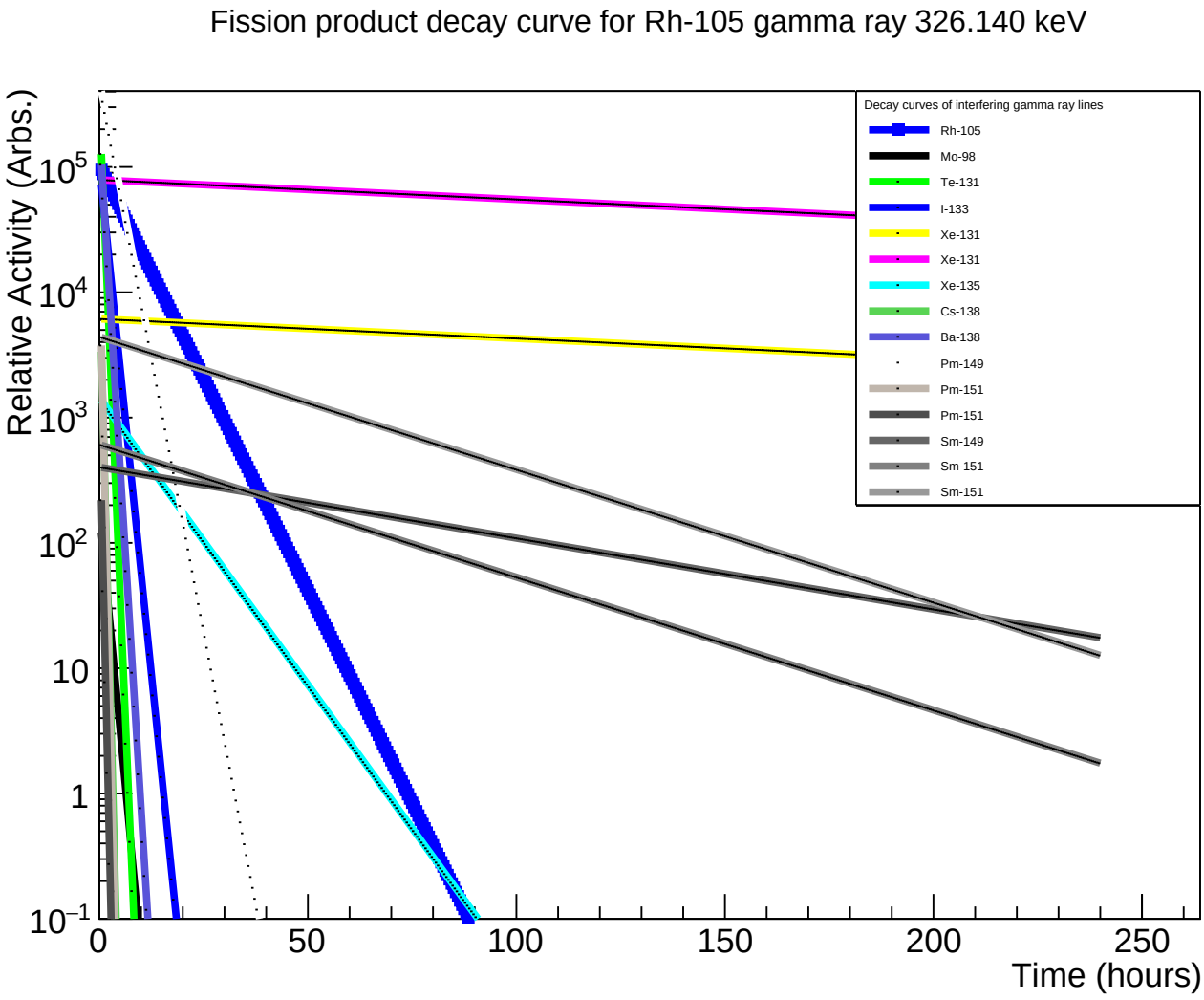


Figure 373: Rh-105 decay curve for 326.140 keV gamma ray.

3.374 Ru-105 E_γ = 350.18 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 350.18 keV
Gamma Intensity = 1.02 ± 0.119 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 747: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 748: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	351.100	0.002	1.512	0.000
Kr-88	Rb-88	350.040	0.000	2.840	0.036
Nb-98	Mo-98	350.780	0.000	0.855	0.000
Nb-98	Mo-98	350.920	0.004	0.855	0.000
Tc-104	Ru-104	349.100	0.001	0.305	0.019
Tc-104	Ru-104	349.300	0.025	0.305	0.019
Sn-125	Sb-125	350.950	0.003	231.360	0.000
Te-131	I-131	351.480	0.000	0.417	0.025
Te-131	I-131	351.300	0.002	33.250	0.004
I-134	Xe-134	351.080	0.004	0.875	0.078
Ba-141	La-141	349.500	0.002	0.304	0.058
La-142	Ce-142	350.300	0.000	1.518	0.058
Ce-143	Pr-143	350.619	0.032	33.039	0.060
Ce-146	Pr-146	351.490	0.023	0.225	0.030
Nd-149	Pm-149	349.231	0.014	1.728	0.011
Nd-149	Pm-149	351.632	0.012	1.728	0.011
Nd-152	Pm-152	350.000	0.000	0.190	0.003
Pm-149	Sm-149	350.000	0.000	53.080	0.011
Pm-149	Sm-149	350.710	0.000	53.080	0.011
Pm-151	Sm-151	348.800	0.000	28.400	0.004
Pm-151	Sm-151	349.810	0.001	28.400	0.004

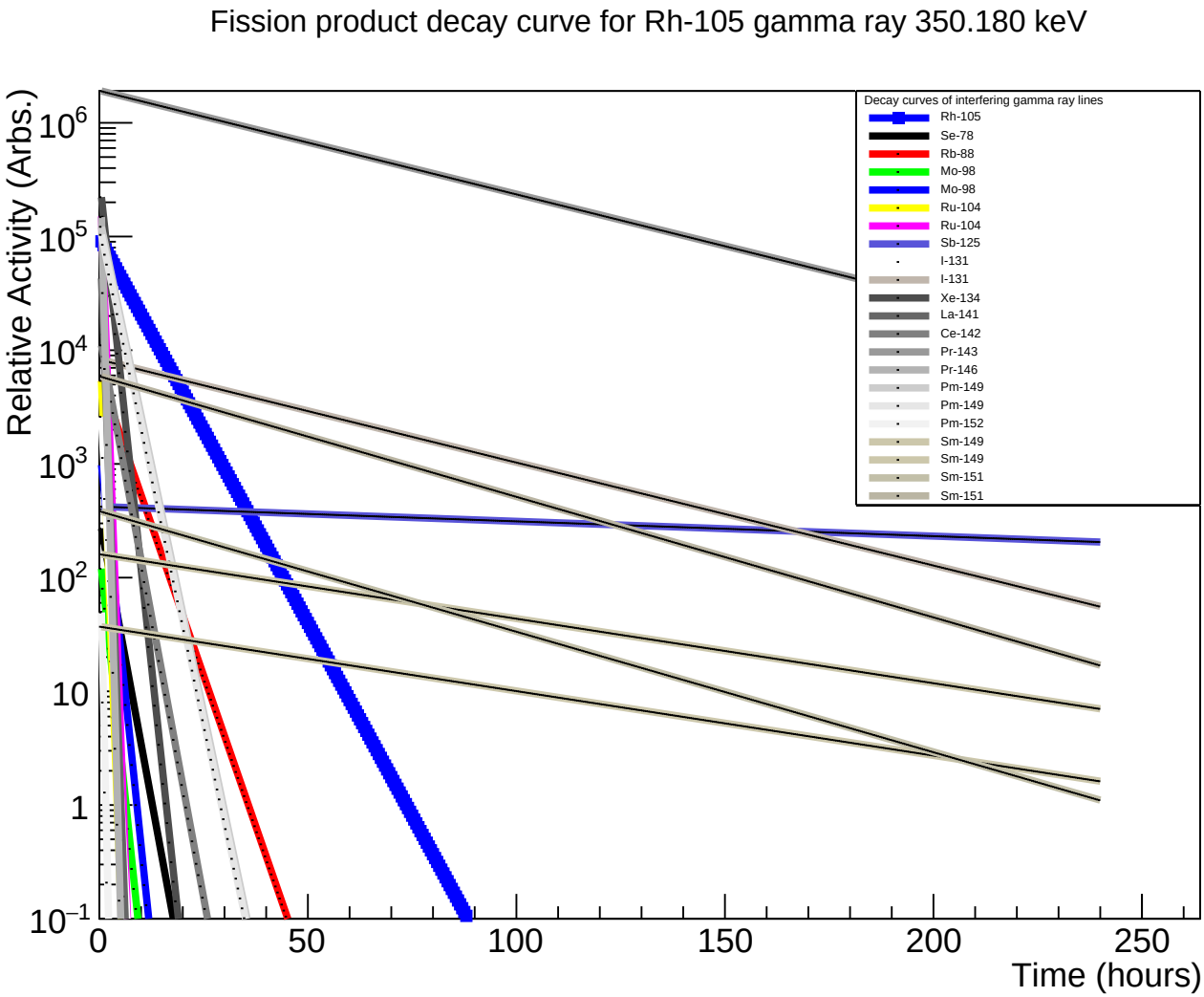


Figure 374: Rh-105 decay curve for 350.180 keV gamma ray.

3.375 Ru-105 E_γ = 393.36 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 393.36 keV
Gamma Intensity = 3.77 ± 0.062 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 749: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 750: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	393.000	0.001	9.630	0.058
Tc-101	Ru-101	393.300	0.001	0.237	0.052
Rh-107	Pd-107	392.470	0.088	0.362	0.001
Ag-113	Cd-113	392.400	0.000	5.370	0.000
Te-133	I-133	392.440	0.002	0.208	0.031
Te-133	I-133	394.000	0.000	0.208	0.031
Te-133	I-133	392.440	0.002	0.923	0.040
La-142	Ce-142	393.600	0.002	1.518	0.058
Nd-151	Pm-151	394.600	0.000	0.207	0.004
Nd-152	Pm-152	392.000	0.000	0.190	0.003

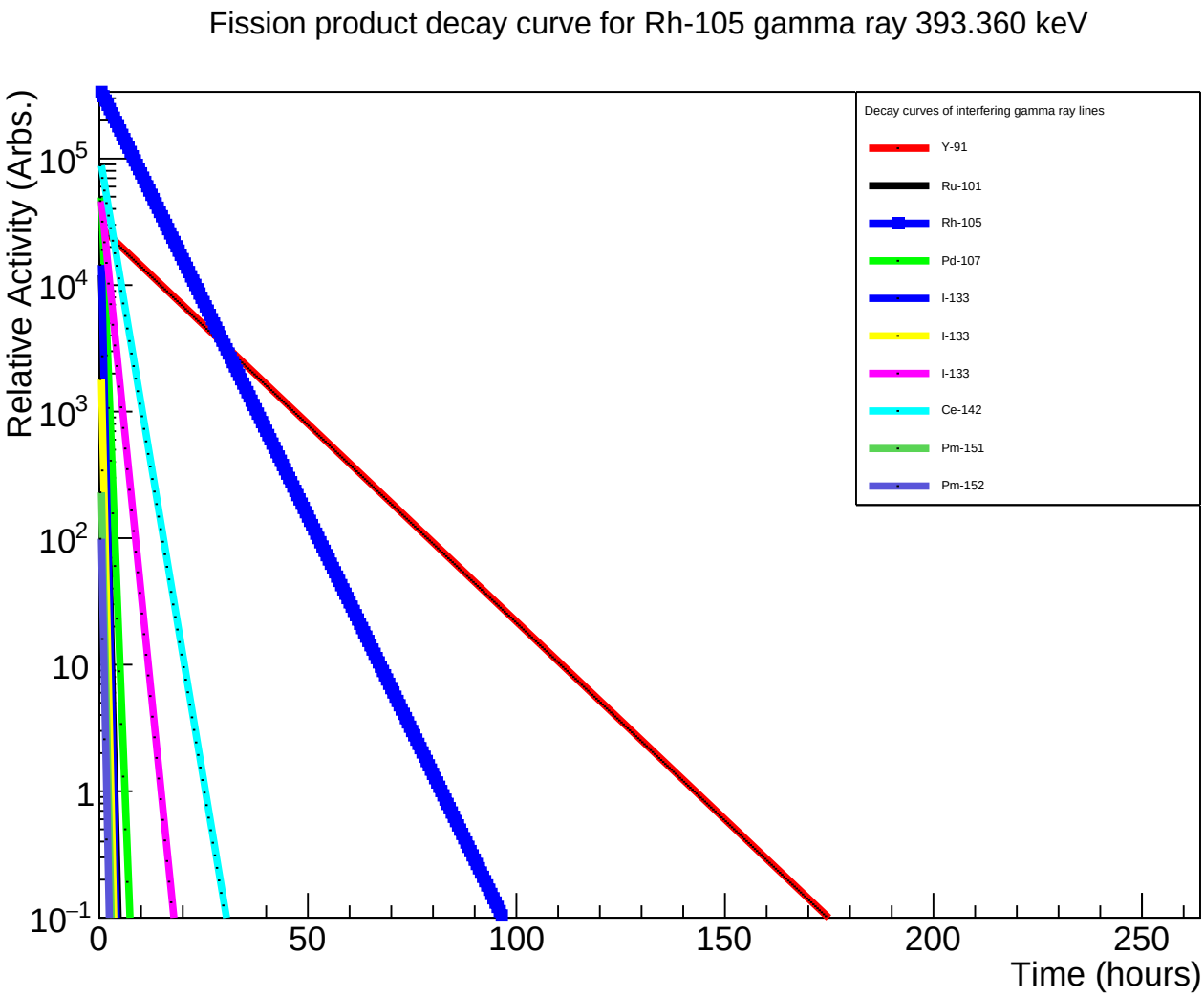


Figure 375: Rh-105 decay curve for 393.360 keV gamma ray.

3.376 Ru-105 E_γ = 413.53 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 413.53 keV
Gamma Intensity = 2.27 ± 0.238 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 751: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 752: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	413.200	0.001	0.305	0.019
Pd-109	Ag-109	413.000	0.000	13.701	0.000
Sb-126	Te-126	414.500	0.857	0.319	0.001
Sb-127	Te-127	412.100	0.038	92.400	0.002
Te-133	I-133	413.200	0.006	0.923	0.040
Te-133	I-133	415.000	0.001	0.923	0.040
I-135	Xe-135	414.830	0.003	6.570	0.063
Xe-138	Cs-138	412.800	0.001	0.235	0.063
Ba-142	La-142	412.700	0.001	0.177	0.058
Pr-147	Nd-147	413.700	0.010	0.223	0.022
Nd-149	Pm-149	413.690	0.000	1.728	0.011
Nd-151	Pm-151	413.500	0.000	0.207	0.004
Nd-151	Pm-151	414.630	0.002	0.207	0.004
Sm-153	Eu-153	412.050	0.000	46.500	0.002

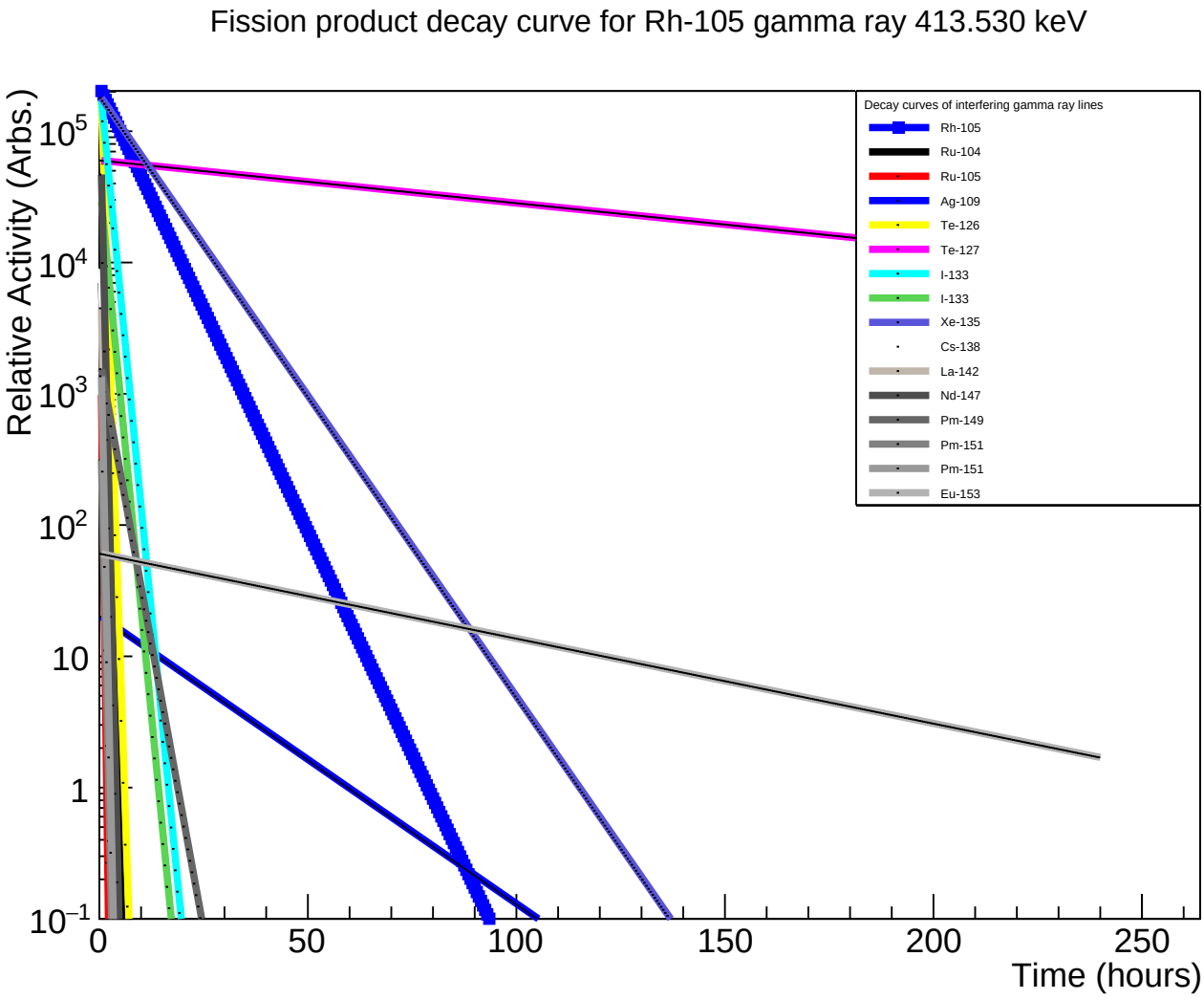


Figure 376: Rh-105 decay curve for 413.530 keV gamma ray.

3.377 Ru-105 E_γ = 469.37 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 469.37 keV
Gamma Intensity = 17.55 ± 0.552 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 753: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 754: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	468.800	0.001	1.512	0.000
Nb-98	Mo-98	469.900	0.001	0.855	0.000
Mo-99	Tc-99	469.630	0.000	65.976	0.061
Sn-125	Sb-125	469.850	0.015	231.360	0.000
Sn-127	Sb-127	468.700	0.005	2.100	0.001
Sb-130	Te-130	468.000	0.180	0.658	0.008
Sb-130	Te-130	468.000	0.031	0.105	0.010
Te-131	I-131	469.700	0.000	0.417	0.025
Te-131	I-131	468.160	0.003	33.250	0.004
Ce-146	Pr-146	468.020	0.008	0.225	0.030
Nd-149	Pm-149	470.500	0.000	1.728	0.011
Pm-151	Sm-151	470.500	0.000	28.400	0.004

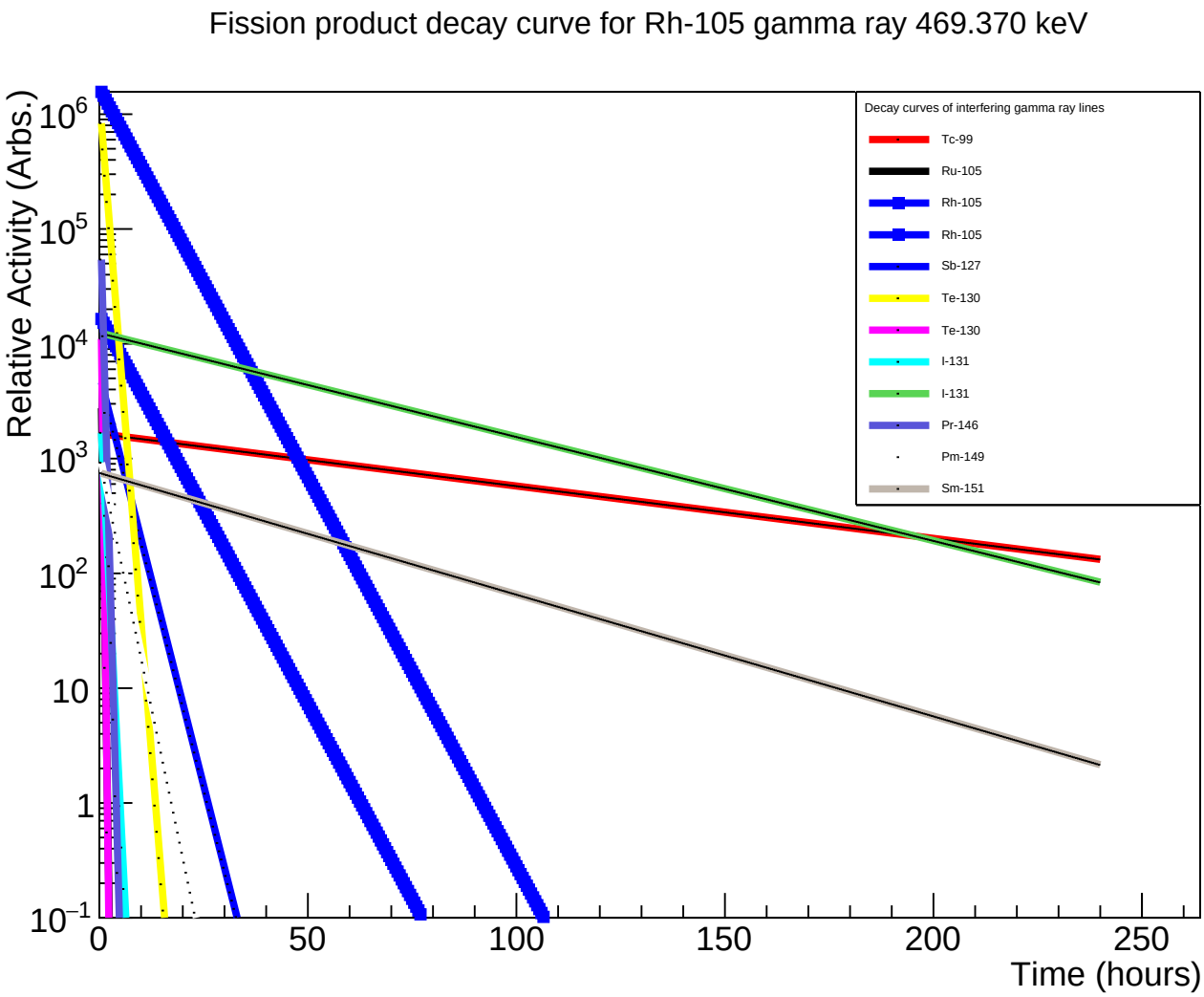


Figure 377: Rh-105 decay curve for 469.370 keV gamma ray.

3.378 Ru-105 E_γ = 499.30 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 499.30 keV
Gamma Intensity = 2.03 ± 0.285 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 755: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 756: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	500.020	0.001	2.840	0.036
Mo-101	Tc-101	499.650	0.014	0.243	0.052
Sn-127	Sb-127	500.700	0.015	2.100	0.001
Sb-129	Te-129	499.600	0.002	4.400	0.005
Xe-138	Cs-138	500.220	0.004	0.235	0.063
Ce-143	Pr-143	497.810	0.000	33.039	0.060
Nd-149	Pm-149	498.060	0.000	1.728	0.011
Nd-149	Pm-149	498.620	0.000	1.728	0.011
Nd-151	Pm-151	498.000	0.000	0.207	0.004
Eu-156	Gd-156	498.880	0.001	364.560	0.000

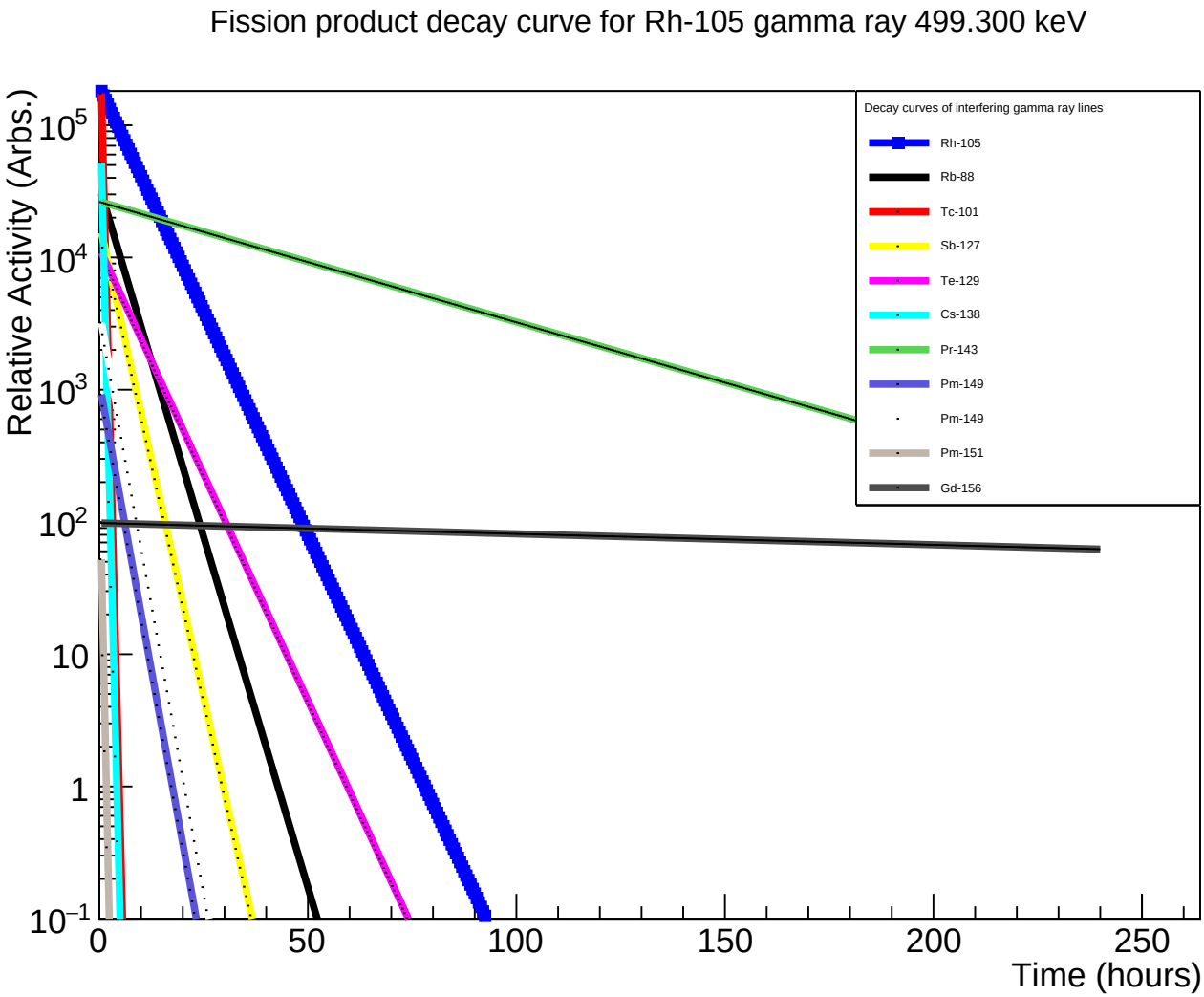


Figure 378: Rh-105 decay curve for 499.300 keV gamma ray.

3.379 Ru-105 E_γ = 656.21 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 656.21 keV
Gamma Intensity = 2.08 ± 0.285 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 757: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 758: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	657.300	0.000	0.390	0.000
I-135	Xe-135	656.090	0.001	6.570	0.063
Cs-139	Ba-139	656.580	0.000	0.155	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Pr-145	Nd-145	657.668	0.001	5.984	0.039
Pr-147	Nd-147	656.100	0.002	0.223	0.022
Nd-149	Pm-149	654.831	0.080	1.728	0.011
Nd-149	Pm-149	657.200	0.000	1.728	0.011
Nd-151	Pm-151	655.000	0.000	0.207	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004
Sm-153	Eu-153	657.550	0.000	46.500	0.002

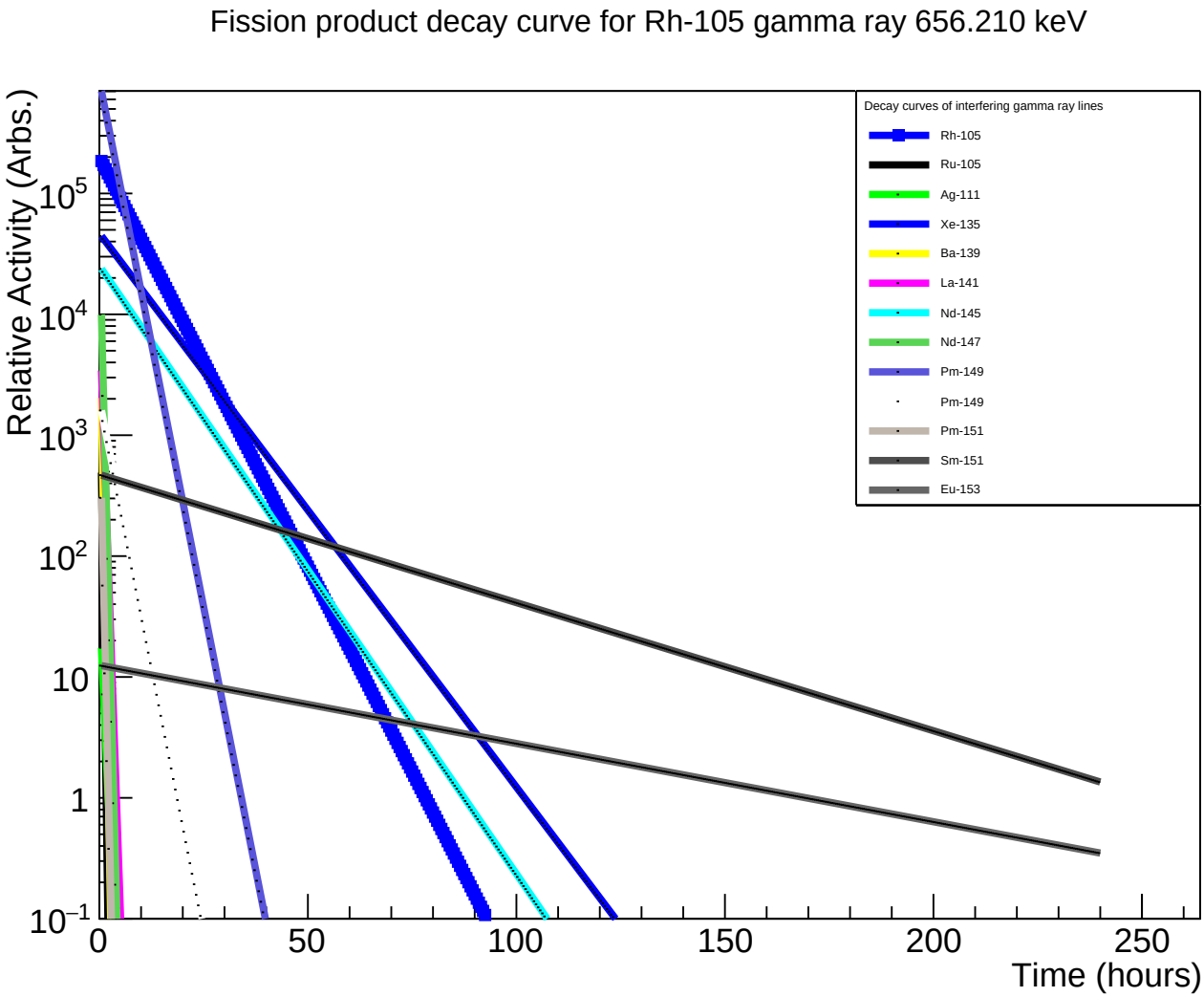


Figure 379: Rh-105 decay curve for 656.210 keV gamma ray.

3.380 Ru-105 E_γ = 676.36 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 676.36 keV
Gamma Intensity = 15.66 ± 0.501 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 759: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 760: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	677.340	0.002	2.840	0.036
Nb-98	Mo-98	676.870	0.001	0.855	0.000
Mo-101	Tc-101	675.900	0.000	0.243	0.052
I-134	Xe-134	677.340	0.079	0.875	0.078
Xe-138	Cs-138	675.370	0.001	0.235	0.063
Ba-141	La-141	675.400	0.003	0.304	0.058
La-141	Ce-141	676.800	0.000	3.920	0.058
La-142	Ce-142	677.000	0.000	1.518	0.058
Ce-143	Pr-143	675.500	0.000	33.039	0.060
Pr-144	Nd-144	674.950	0.000	0.288	0.055
Pr-145	Nd-145	675.795	0.005	5.984	0.039
Nd-149	Pm-149	675.790	0.000	1.728	0.011
Nd-151	Pm-151	676.800	0.001	0.207	0.004
Sm-153	Eu-153	677.000	0.000	46.500	0.002
Sm-155	Eu-155	677.200	0.000	0.372	0.000

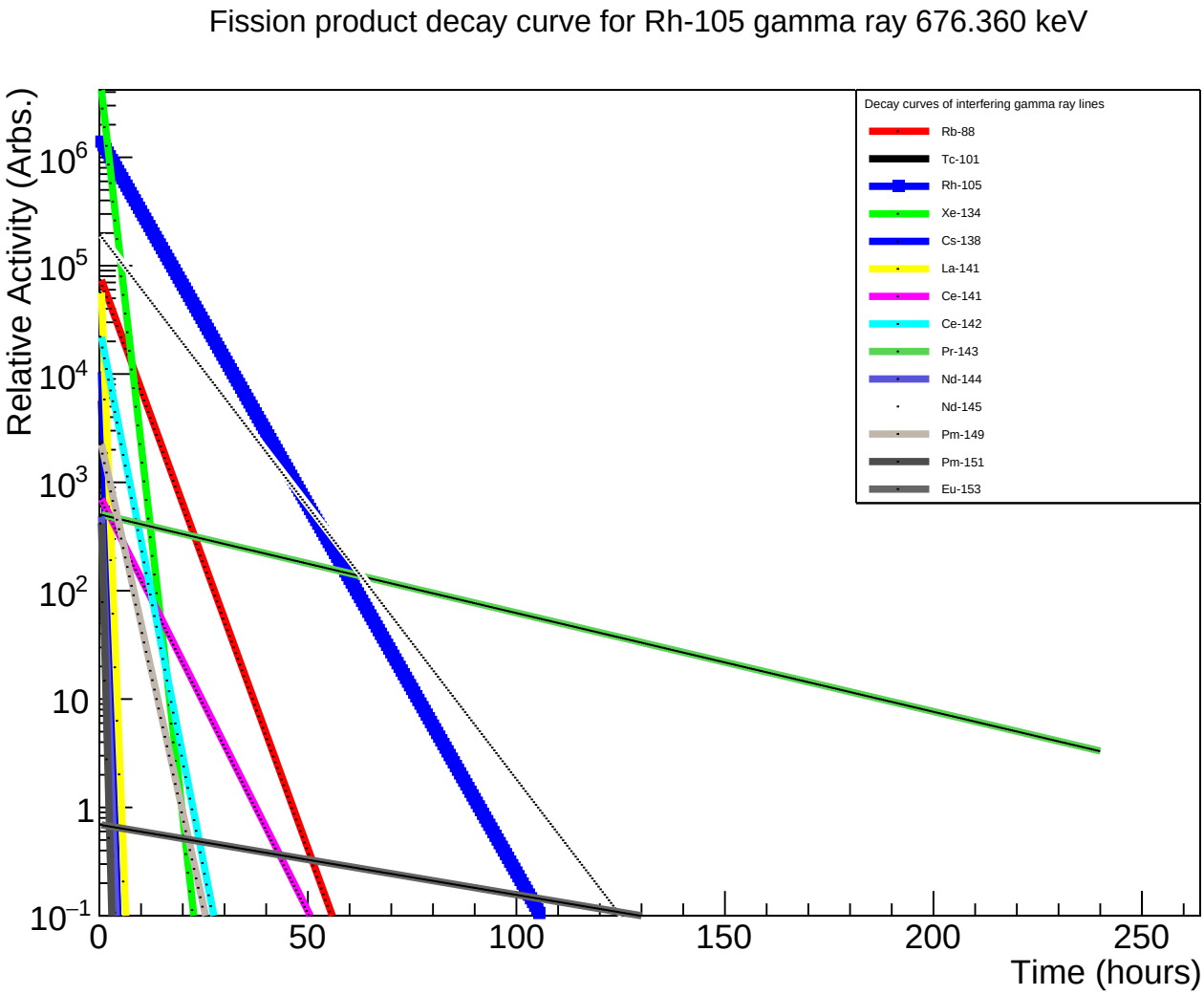


Figure 380: Rh-105 decay curve for 676.360 keV gamma ray.

3.381 Ru-105 E_γ = 724.30 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 724.30 keV
Gamma Intensity = 47.30 ± 0.500 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 761: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 762: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	723.600	0.001	0.150	0.000
Zr-95	Nb-95	724.192	0.443	1536.768	0.065
Pd-109	Ag-109	724.400	0.000	13.701	0.000
Te-133	I-133	723.500	0.003	0.923	0.040
Te-133	I-133	724.000	0.001	0.923	0.040
I-131	Xe-131	722.911	0.018	192.605	0.029
Nd-151	Pm-151	724.280	0.001	0.207	0.004
Nd-151	Pm-151	724.280	0.002	0.207	0.004
Eu-156	Gd-156	723.470	0.054	364.560	0.000

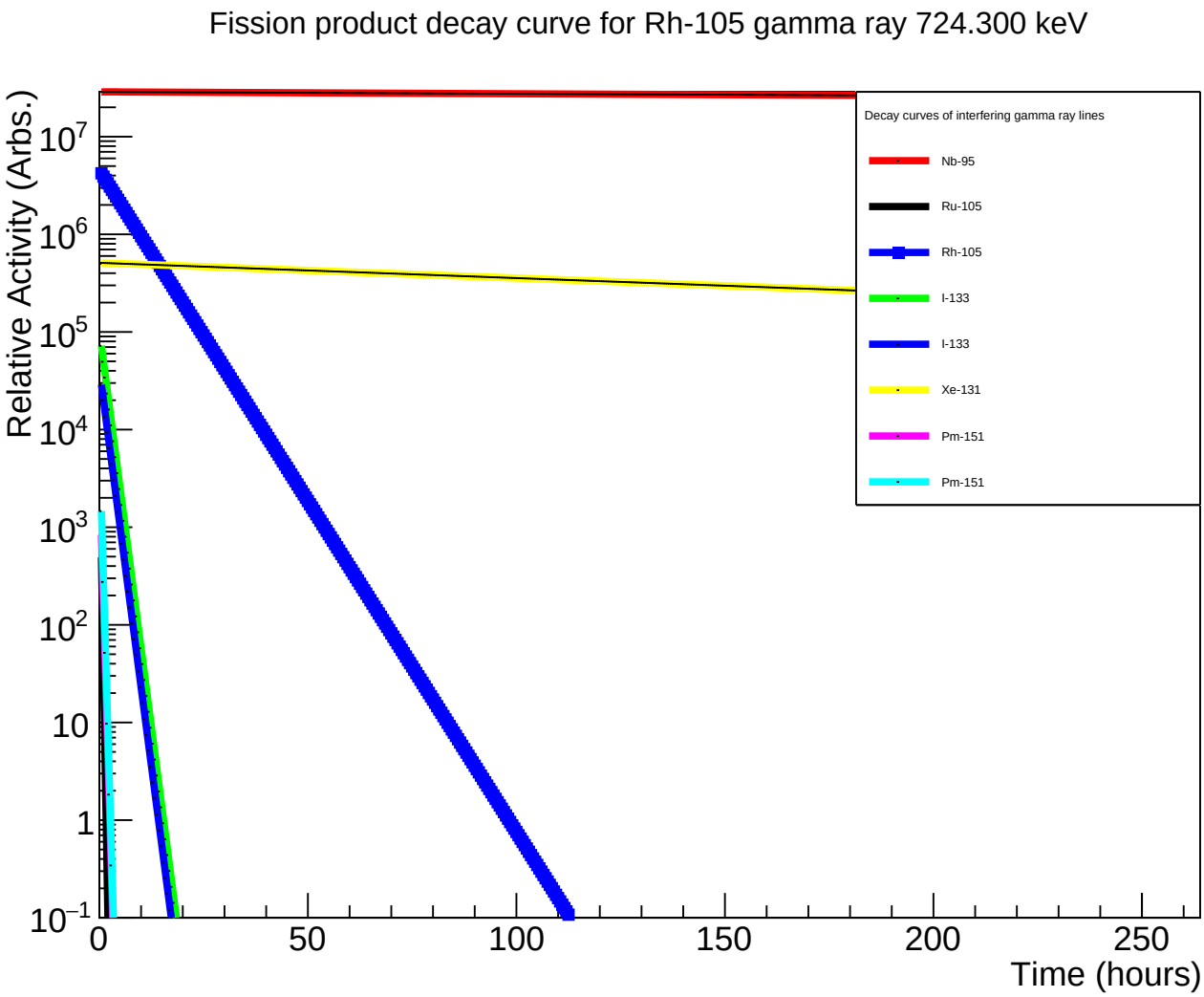


Figure 381: Rh-105 decay curve for 724.300 keV gamma ray.

3.382 Ru-105 E_γ = 875.85 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 875.85 keV
Gamma Intensity = 2.50 ± 0.098 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 763: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 764: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	875.730	0.245	0.124	0.062
Sb-129	Te-129	876.200	0.026	4.400	0.005
I-132	Xe-132	876.600	0.010	2.295	0.043
I-133	Xe-133	875.329	0.045	20.800	0.067
Ba-141	La-141	876.300	0.037	0.304	0.058
Nd-151	Pm-151	874.500	0.001	0.207	0.004
Nd-151	Pm-151	876.390	0.004	0.207	0.004

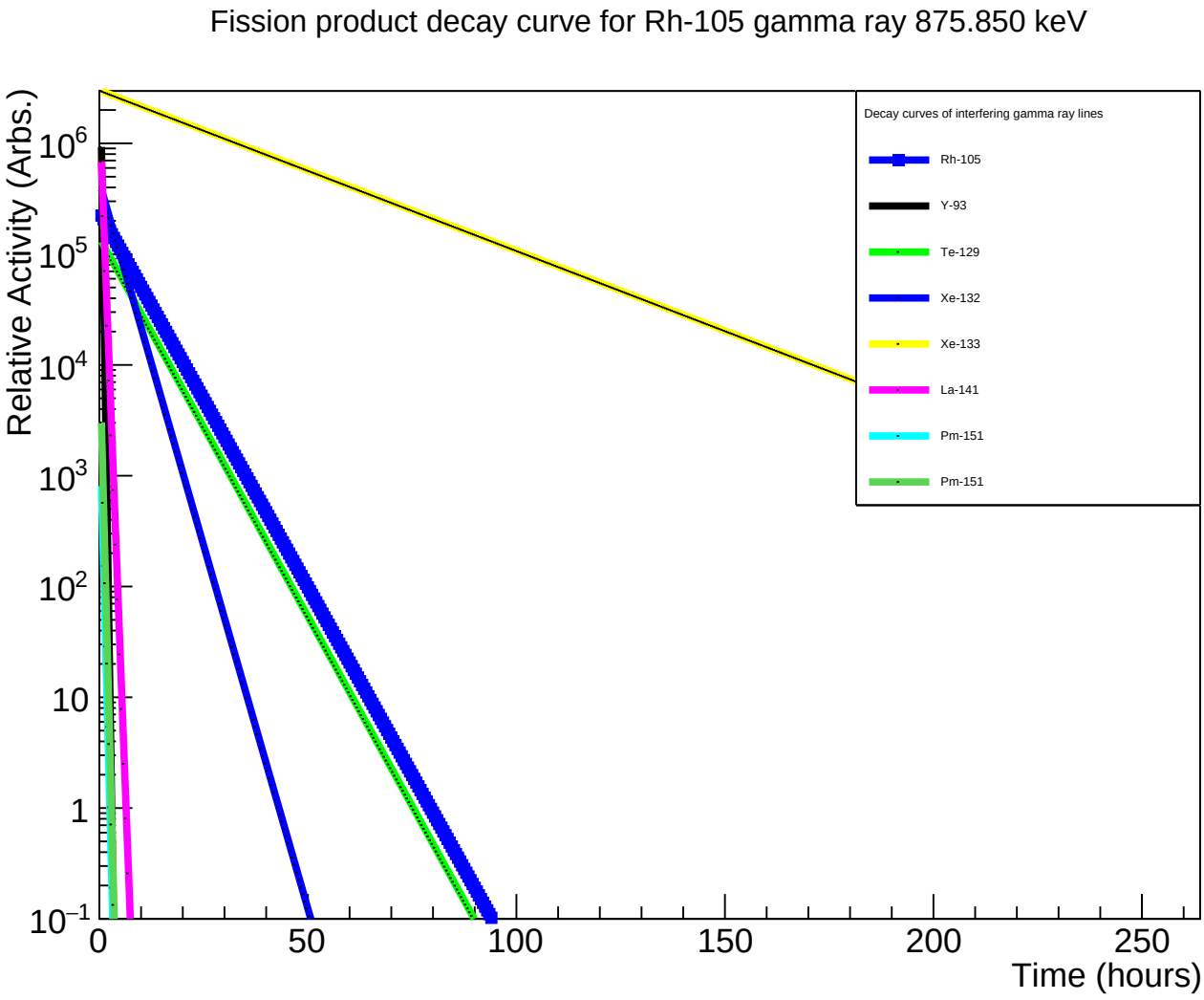


Figure 382: Rh-105 decay curve for 875.850 keV gamma ray.

3.383 Ru-105 E_γ = 969.44 keV

Chemical element: Ruthenium
Fission product parent: Ru-105
Gamma originates in daughter: Rh-105
Eγ: 969.44 keV
Gamma Intensity = 2.10 ± 0.074 %
$T_{1/2}$ = 4.440 ± 0.020 hours or 266.40 ± 1.20 minutes
CFY: 0.964 ± 0.058 %

Table 765: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 766: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	968.200	0.002	1.512	0.000
Nb-98	Mo-98	970.860	0.006	0.855	0.000
Te-133	I-133	970.500	0.003	0.923	0.040
Nd-151	Pm-151	969.200	0.000	0.207	0.004
Nd-151	Pm-151	969.200	0.001	0.207	0.004
Pm-151	Sm-151	968.900	0.000	28.400	0.004
Eu-156	Gd-156	969.830	0.004	364.560	0.000

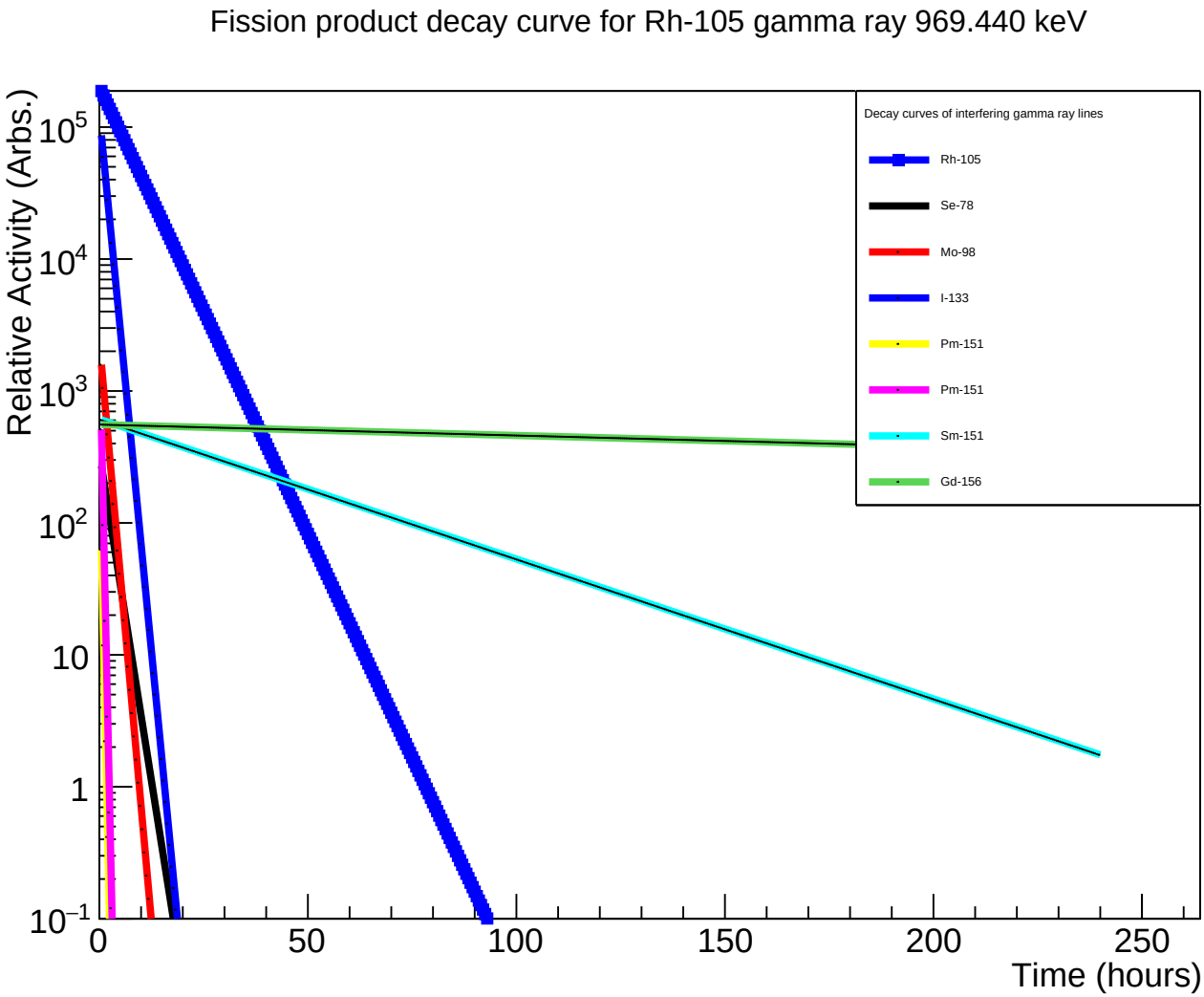


Figure 383: Rh-105 decay curve for 969.440 keV gamma ray.

3.384 Rh-105 E_γ = 306.31 keV

Chemical element: Rhodium
Fission product parent: Rh-105
Gamma originates in daughter: Pd-105
Eγ: 306.31 keV
Gamma Intensity = 5.27 ± 0.175 %
$T_{1/2}$ = 35.360 ± 0.060 hours or 2121.60 ± 3.60 minutes
CFY: 0.964 ± 0.019 %

Table 767: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 768: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	304.870	0.140	4.480	0.013
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Nb-98	Mo-98	306.890	0.003	0.855	0.000
Tc-101	Ru-101	306.830	0.887	0.237	0.052
Sn-127	Sb-127	305.900	0.001	2.100	0.001
I-132	Xe-132	306.700	0.002	2.295	0.043
I-135	Xe-135	304.910	0.000	6.570	0.063
I-135	Xe-135	305.830	0.001	6.570	0.063
Ba-140	La-140	304.849	0.043	306.065	0.062
La-140	Ce-140	306.900	0.000	40.285	0.062
Pm-149	Sm-149	305.220	0.000	53.080	0.011
Pm-151	Sm-151	306.740	0.002	28.400	0.004
Sm-155	Eu-155	307.300	0.000	0.372	0.000

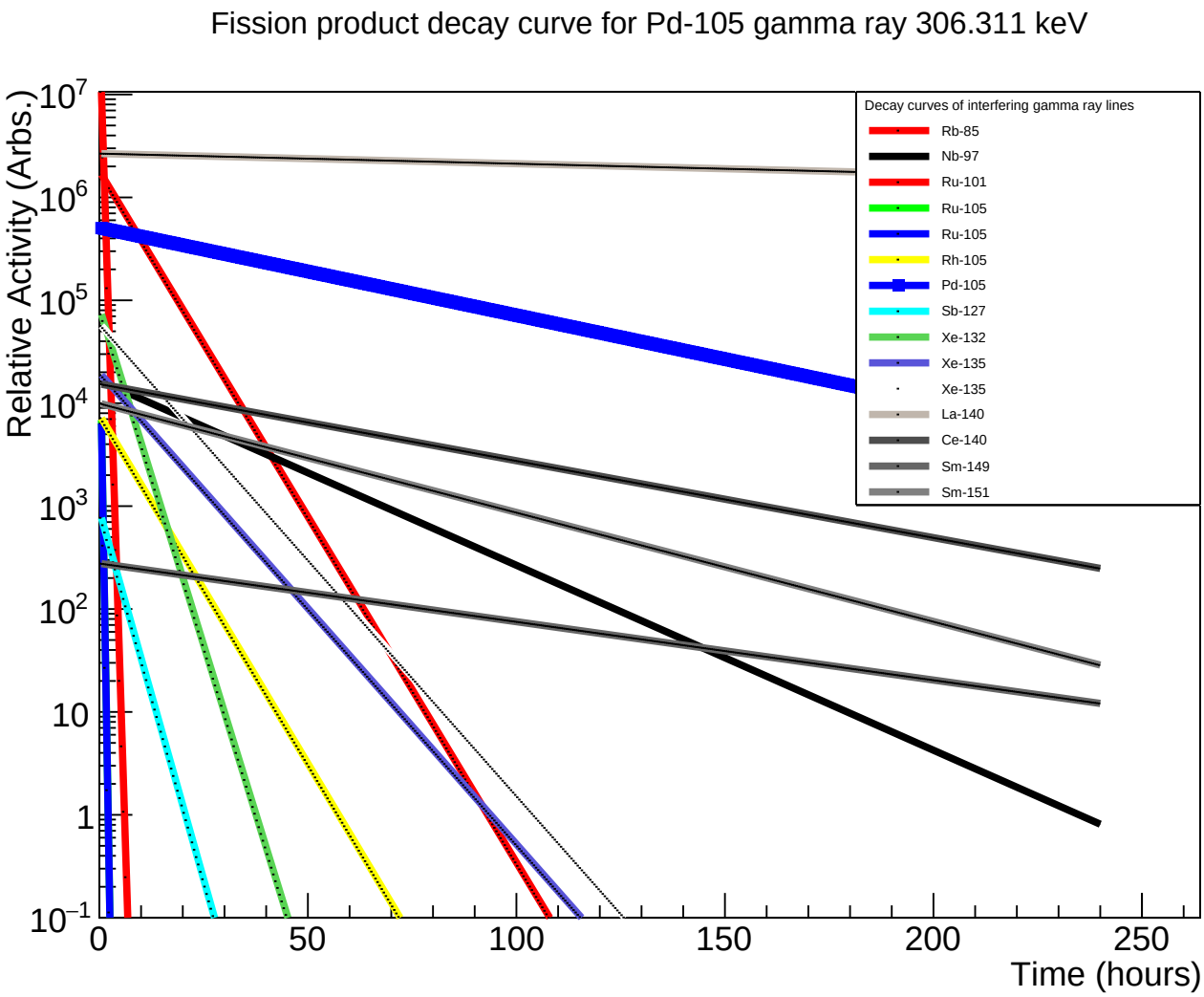


Figure 384: Pd-105 decay curve for 306.311 keV gamma ray.

3.385 Rh-105 E_γ = 319.23 keV

Chemical element: Rhodium
Fission product parent: Rh-105
Gamma originates in daughter: Pd-105
Eγ: 319.23 keV
Gamma Intensity = 19.10 ± 0.630 %
$T_{1/2}$ = 35.360 ± 0.060 hours or 2121.60 ± 3.60 minutes
CFY: 0.964 ± 0.019 %

Table 769: Decay chain of fission product chain A = 105

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Molybdenum-105	Technetium-105	0.010	0.000
Technetium-105	Ruthenium-105	0.127	0.002
Ruthenium-105	Rhodium-105	4.440	0.020
Rhodium-105	Palladium-105	35.360	0.060

Table 770: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	318.000	0.002	0.243	0.052
Te-129	I-129	320.640	0.000	806.400	0.001
Te-133	I-133	318.800	0.002	0.923	0.040
I-131	Xe-131	318.088	0.001	192.605	0.029
I-134	Xe-134	319.810	0.005	0.875	0.078
La-142	Ce-142	318.000	0.000	1.518	0.058
Pr-145	Nd-145	318.666	0.000	5.984	0.039
Nd-147	Pm-147	319.411	0.021	263.520	0.022
Nd-149	Pm-149	318.200	0.000	1.728	0.011
Nd-151	Pm-151	320.090	0.006	0.207	0.004

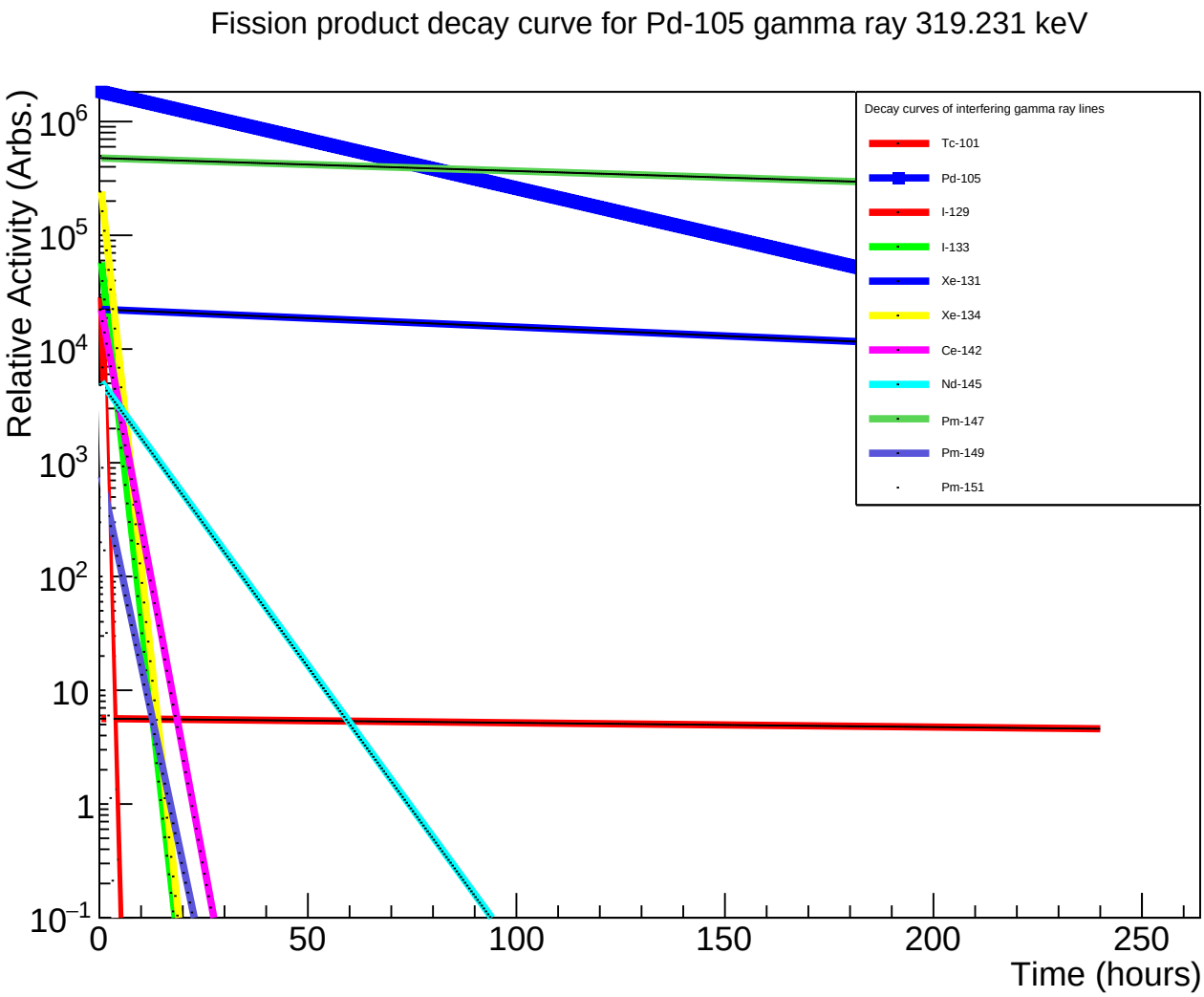


Figure 385: Pd-105 decay curve for 319.231 keV gamma ray.

3.386 Rh-107 E_γ = 277.58 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 277.58 keV
Gamma Intensity = 1.70 ± 0.147 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 771: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 772: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	277.300	0.960	1.467	0.000
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Pd-111	Ag-111	279.000	0.000	0.390	0.000
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Sn-125	Sb-125	278.560	0.000	0.159	0.000
Te-129	I-129	278.430	0.006	1.160	0.005
Te-129	I-129	278.430	0.000	806.400	0.001
Te-131	I-131	278.170	0.001	0.417	0.025
Te-131	I-131	278.560	0.017	33.250	0.004
Te-133	I-133	278.000	0.005	0.923	0.040
Te-134	I-134	277.951	0.212	0.697	0.070
I-132	Xe-132	278.400	0.001	2.295	0.043
I-134	Xe-134	278.800	0.001	0.875	0.078
Ba-141	La-141	276.950	0.234	0.304	0.058
Nd-149	Pm-149	276.960	0.003	1.728	0.011
Nd-152	Pm-152	276.100	0.001	0.190	0.003
Nd-152	Pm-152	278.560	0.290	0.190	0.003
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004

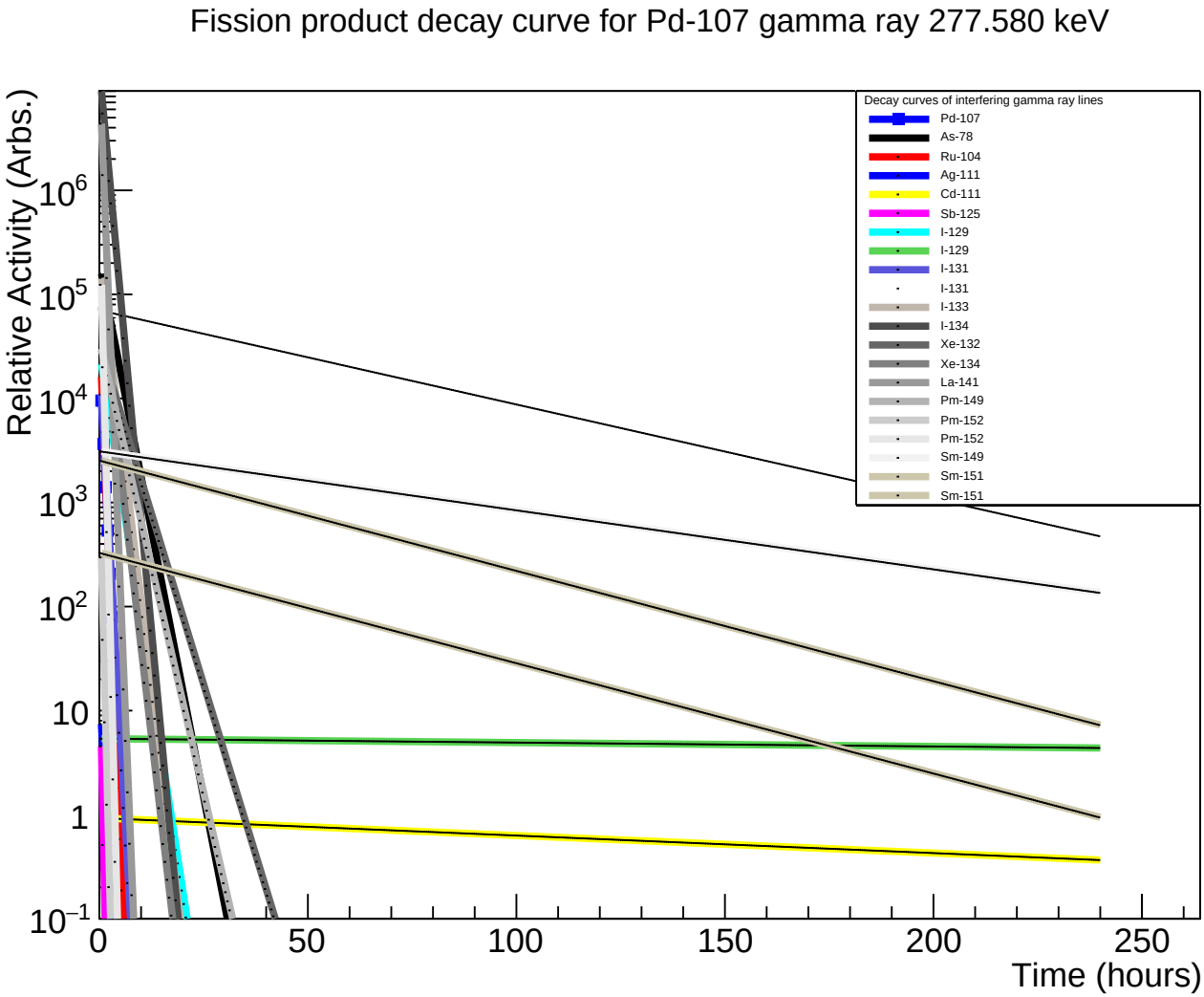


Figure 386: Pd-107 decay curve for 277.580 keV gamma ray.

3.387 Rh-107 E_γ = 302.77 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 302.77 keV
Gamma Intensity = 66.00 ± 5.991 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 773: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 774: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	303.200	0.012	0.127	0.010
Sn-127	Sb-127	301.700	0.001	2.100	0.001
Sb-130	Te-130	303.300	0.058	0.658	0.008
Sb-131	Te-131	301.300	0.024	0.384	0.026
Te-131	I-131	302.700	0.000	33.250	0.004
Te-131	I-131	303.900	0.000	33.250	0.004
Te-133	I-133	302.000	0.000	0.208	0.031
I-131	Xe-131	302.400	0.000	192.605	0.029
I-132	Xe-132	302.000	0.000	2.295	0.043
Xe-133	Cs-133	302.853	0.000	125.832	0.067
Ba-141	La-141	304.190	0.254	0.304	0.058
Pr-145	Nd-145	303.192	0.000	5.984	0.039
Nd-151	Pm-151	301.800	0.001	0.207	0.004
Nd-152	Pm-152	302.900	0.001	0.190	0.003
Pm-151	Sm-151	301.800	0.000	28.400	0.004
Pm-151	Sm-151	302.500	0.000	28.400	0.004
Pm-151	Sm-151	302.800	0.000	28.400	0.004

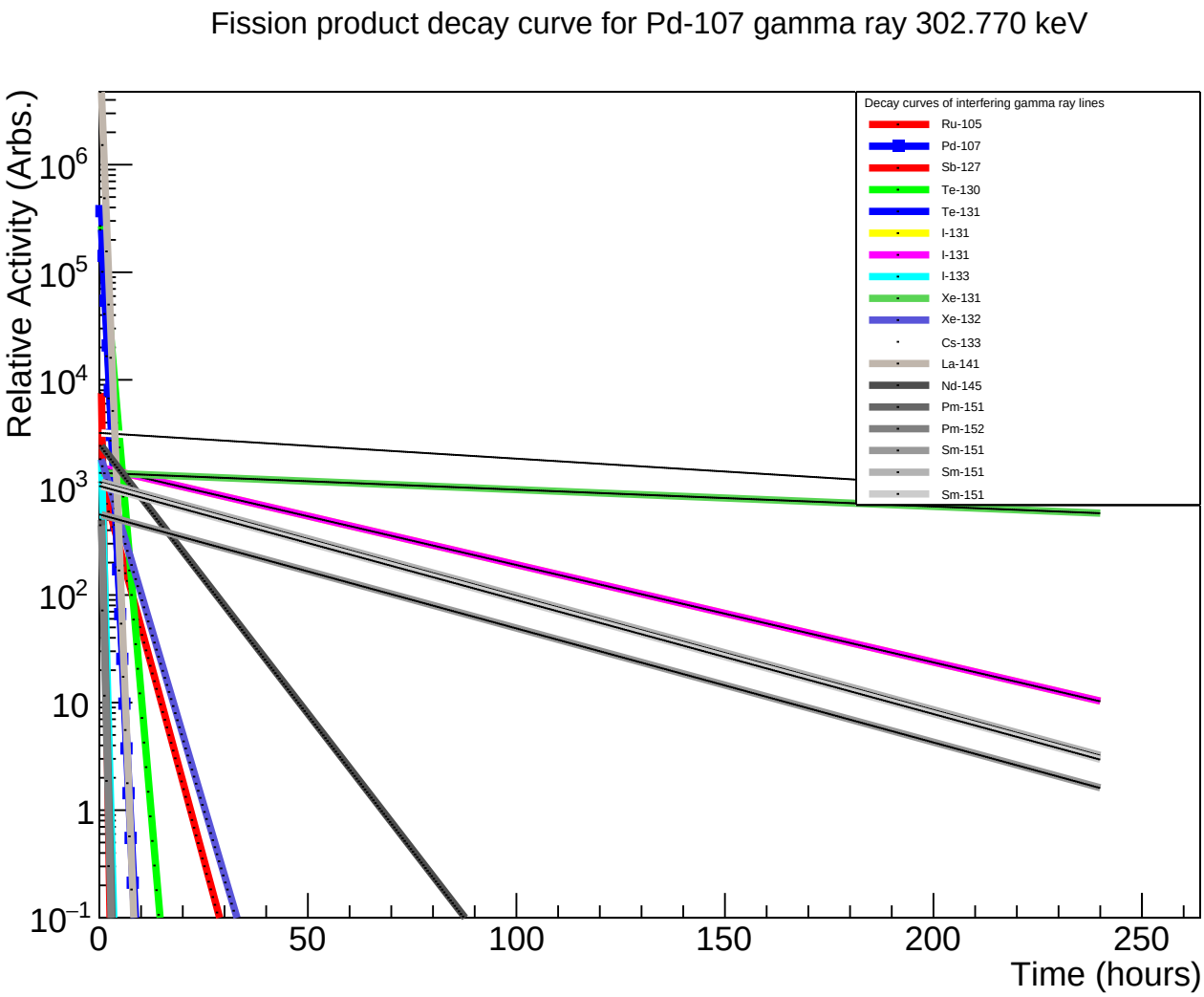


Figure 387: Pd-107 decay curve for 302.770 keV gamma ray.

3.388 Rh-107 E_γ = 312.21 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 312.21 keV
Gamma Intensity = 4.80 ± 0.466 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 775: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 776: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	311.690	0.001	2.840	0.036
Tc-101	Ru-101	311.280	0.002	0.237	0.052
Pd-109	Ag-109	311.400	0.000	13.701	0.000
Sn-125	Sb-125	311.300	0.000	231.360	0.000
Sn-125	Sb-125	310.960	0.000	0.159	0.000
Te-133	I-133	312.080	0.624	0.208	0.031
Te-133	I-133	312.072	0.021	0.923	0.040
Cs-139	Ba-139	312.310	0.000	0.155	0.063
Nd-149	Pm-149	310.979	0.005	1.728	0.011
Nd-151	Pm-151	312.630	0.002	0.207	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004

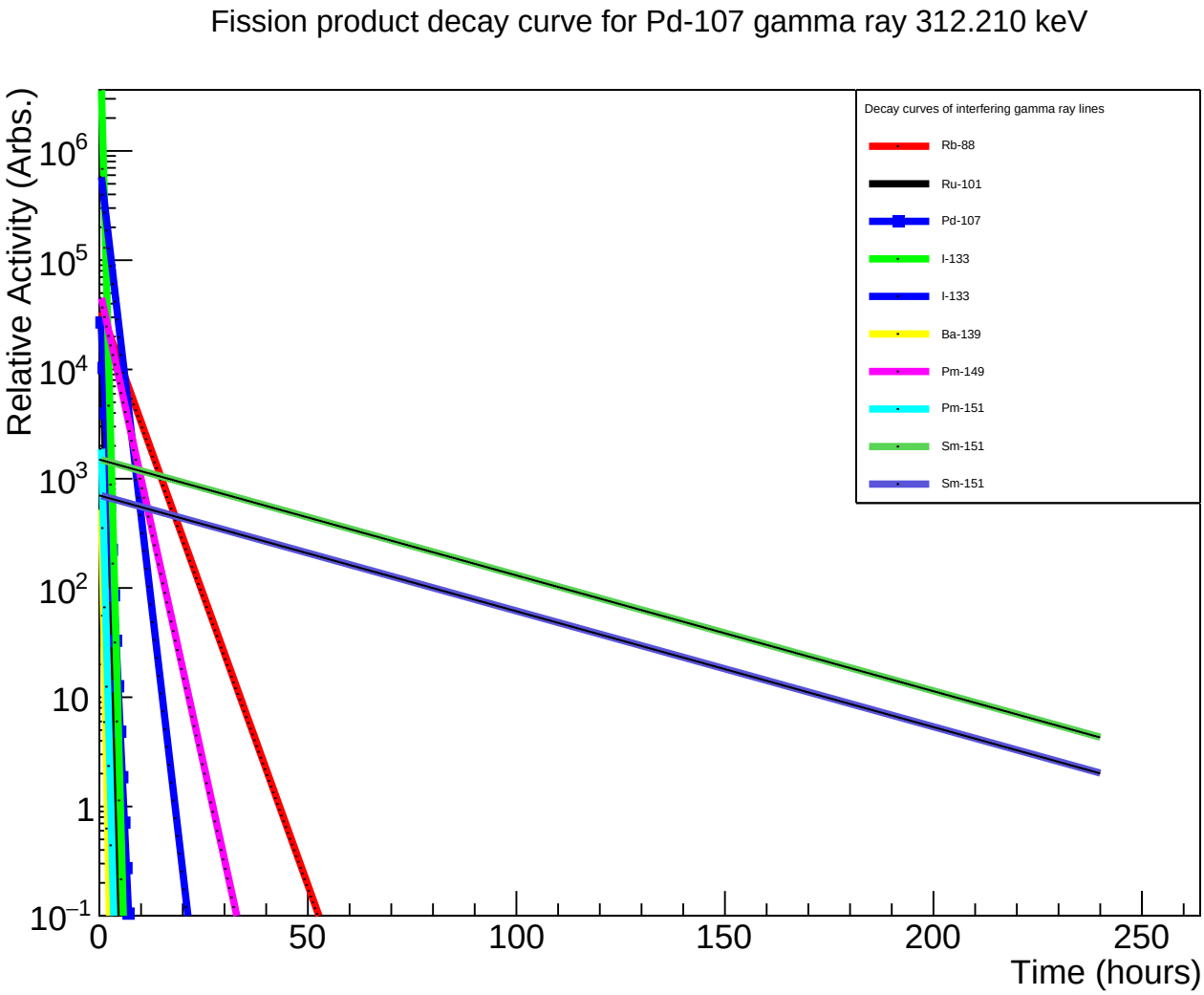


Figure 388: Pd-107 decay curve for 312.210 keV gamma ray.

3.389 Rh-107 E_γ = 321.84 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 321.84 keV
Gamma Intensity = 2.26 ± 0.196 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 777: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 778: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	322.000	0.002	0.372	0.003
Tc-99	Ru-99	322.400	0.000	6.007	0.054
Tc-101	Ru-101	322.010	0.000	0.237	0.052
Tc-105	Ru-105	321.500	0.111	0.127	0.010
Tc-105	Ru-105	322.300	0.016	0.127	0.010
Sb-125	Te-125	321.040	0.004	24194.445	0.000
Sb-128	Te-128	322.300	0.030	9.010	0.000
Te-129	I-129	320.640	0.000	806.400	0.001
Te-133	I-133	322.400	0.001	0.923	0.040
Ba-141	La-141	321.500	0.000	0.304	0.058
Nd-151	Pm-151	321.060	0.002	0.207	0.004
Pm-151	Sm-151	321.870	0.001	28.400	0.004

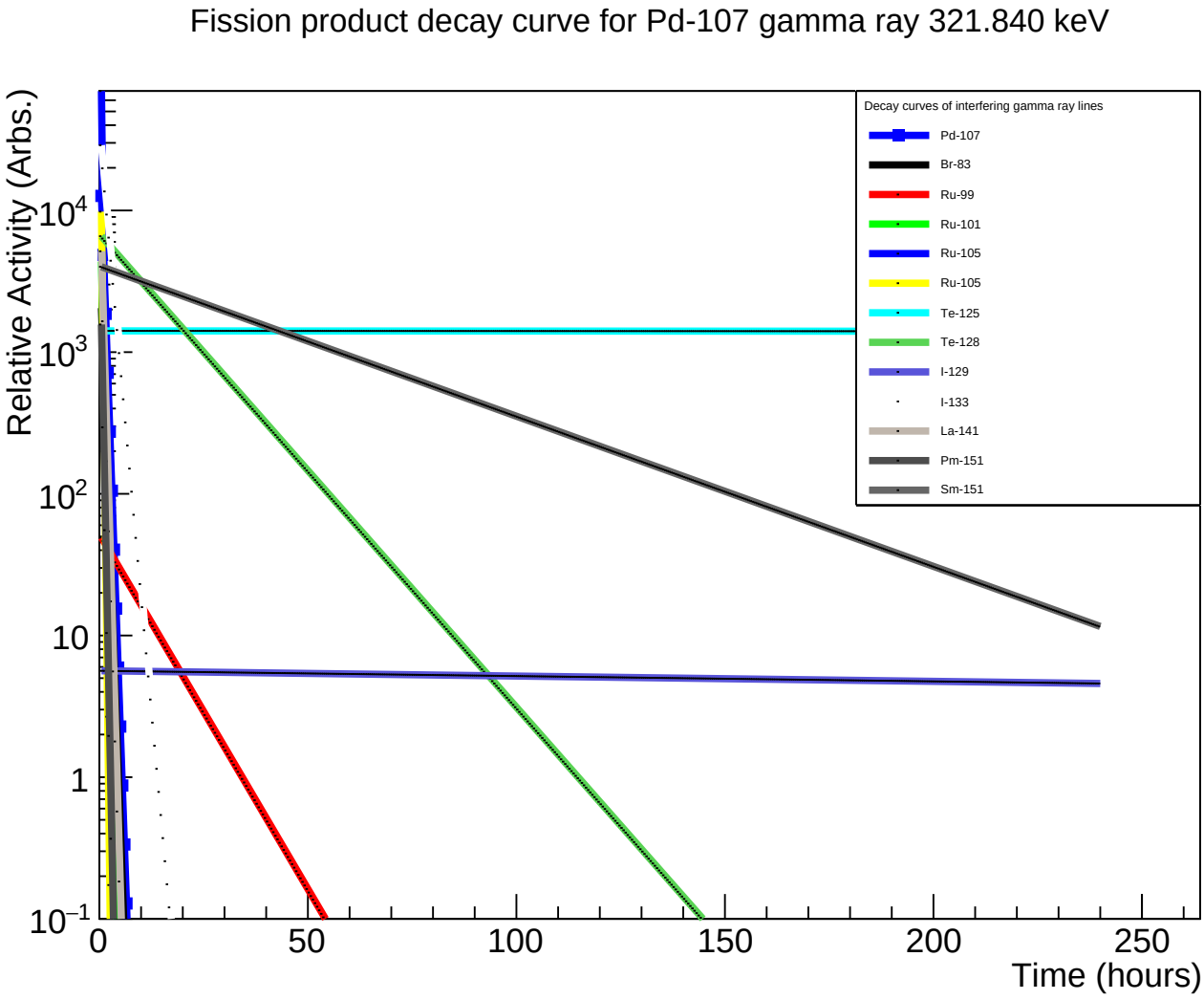


Figure 389: Pd-107 decay curve for 321.840 keV gamma ray.

3.390 Rh-107 E_γ = 348.21 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 348.21 keV
Gamma Intensity = 2.27 ± 0.196 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 779: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 780: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	347.940	0.002	0.855	0.000
Mo-101	Tc-101	347.560	0.001	0.243	0.052
Tc-104	Ru-104	349.100	0.001	0.305	0.019
Tc-104	Ru-104	349.300	0.025	0.305	0.019
Sn-127	Sb-127	348.400	0.005	2.100	0.001
Sb-130	Te-130	348.500	0.051	0.105	0.010
Te-133	I-133	347.300	0.006	0.923	0.040
Ba-141	La-141	349.500	0.002	0.304	0.058
Ba-142	La-142	346.800	0.001	0.177	0.058
Nd-149	Pm-149	347.843	0.002	1.728	0.011
Nd-149	Pm-149	349.231	0.014	1.728	0.011
Nd-151	Pm-151	347.130	0.004	0.207	0.004
Pm-151	Sm-151	348.800	0.000	28.400	0.004
Eu-156	Gd-156	348.270	0.000	364.560	0.000

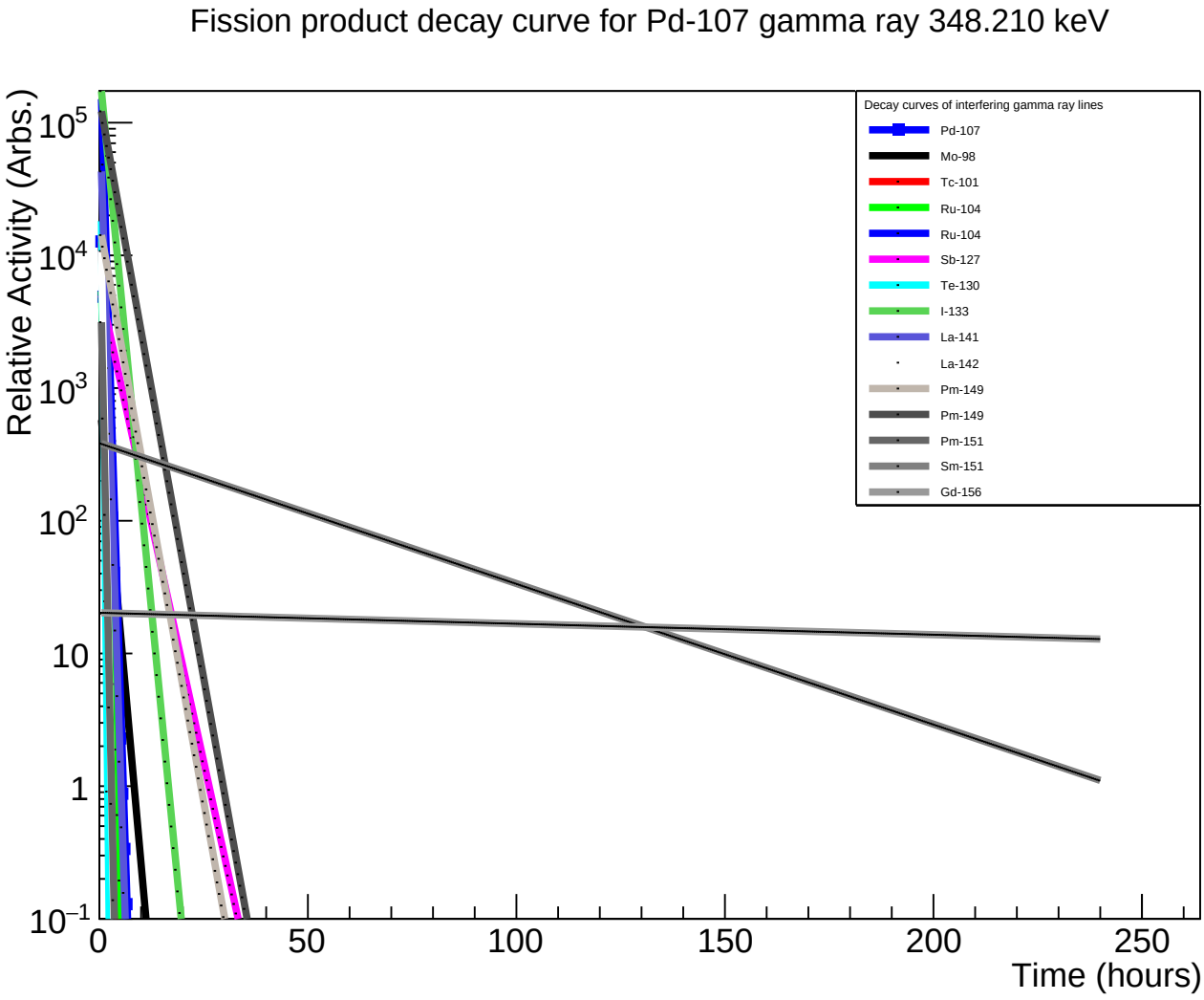


Figure 390: Pd-107 decay curve for 348.210 keV gamma ray.

3.391 Rh-107 E_γ = 367.31 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 367.31 keV
Gamma Intensity = 1.91 ± 0.169 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 781: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 782: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	366.421	0.012	65.976	0.061
Mo-101	Tc-101	368.400	0.001	0.243	0.052
Sb-125	Te-125	366.560	0.000	24194.445	0.000
Sb-128	Te-128	366.100	0.015	9.010	0.000
Te-133	I-133	367.900	0.002	0.923	0.040
Te-133	I-133	368.500	0.001	0.923	0.040
Cs-138	Ba-138	368.700	0.000	0.557	0.067
La-142	Ce-142	367.300	0.001	1.518	0.058
Nd-149	Pm-149	366.634	0.005	1.728	0.011
Nd-151	Pm-151	366.900	0.000	0.207	0.004

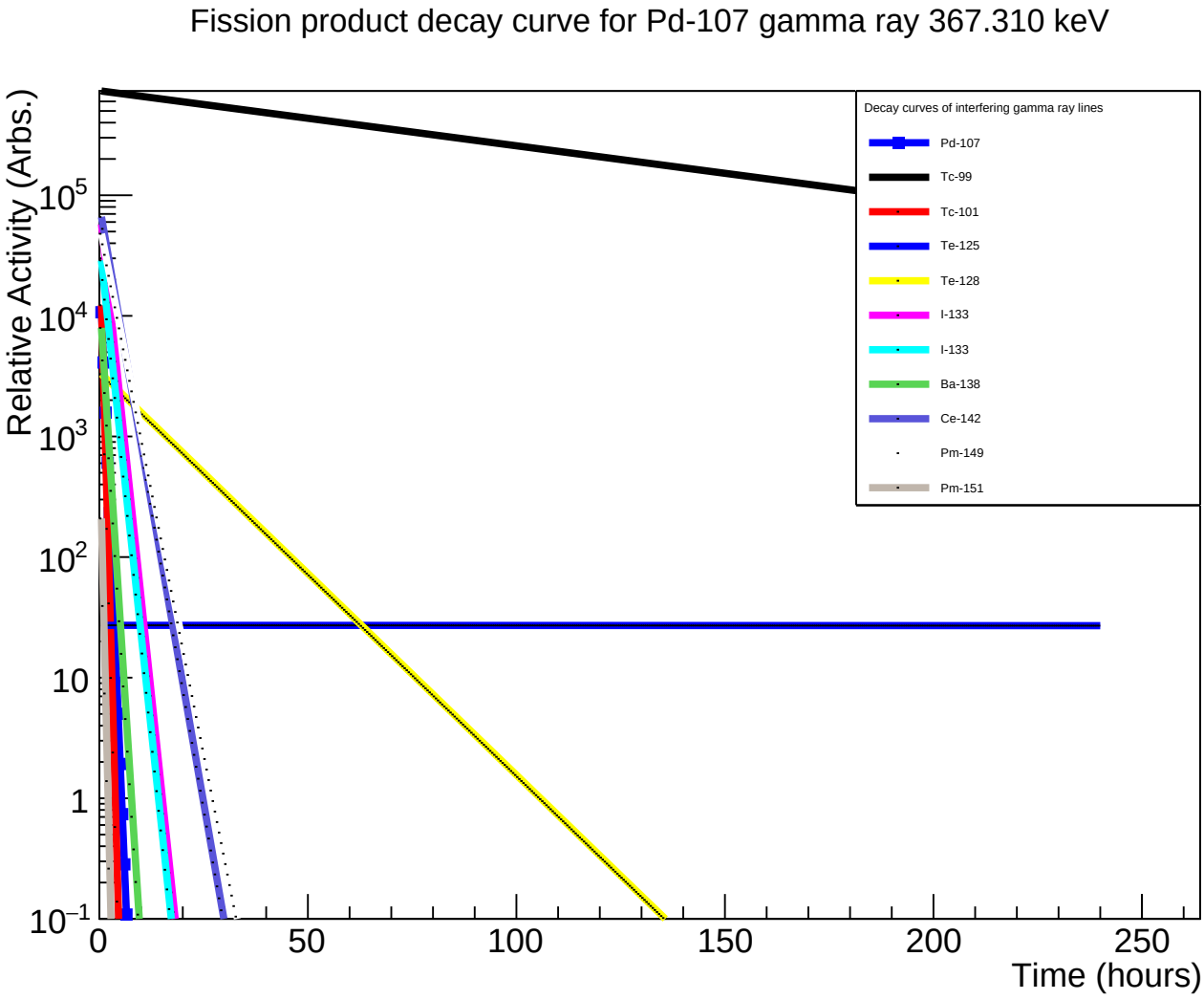


Figure 391: Pd-107 decay curve for 367.310 keV gamma ray.

3.392 Rh-107 E_γ = 392.47 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 392.47 keV
Gamma Intensity = 8.80 ± 0.744 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 783: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 784: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	391.000	0.001	1.512	0.000
Kr-88	Rb-88	391.200	0.001	2.840	0.036
Sr-91	Y-91	393.000	0.001	9.630	0.058
Mo-99	Tc-99	391.700	0.000	65.976	0.061
Tc-101	Ru-101	393.300	0.001	0.237	0.052
Ru-105	Rh-105	393.360	0.038	4.440	0.010
Pd-111	Ag-111	391.200	0.000	0.390	0.000
Ag-113	Cd-113	392.400	0.000	5.370	0.000
Sb-127	Te-127	391.800	0.010	92.400	0.002
Te-133	I-133	392.440	0.002	0.208	0.031
Te-133	I-133	392.440	0.002	0.923	0.040
La-142	Ce-142	393.600	0.002	1.518	0.058
Nd-151	Pm-151	391.130	0.000	0.207	0.004
Nd-151	Pm-151	391.700	0.000	0.207	0.004
Nd-152	Pm-152	392.000	0.000	0.190	0.003

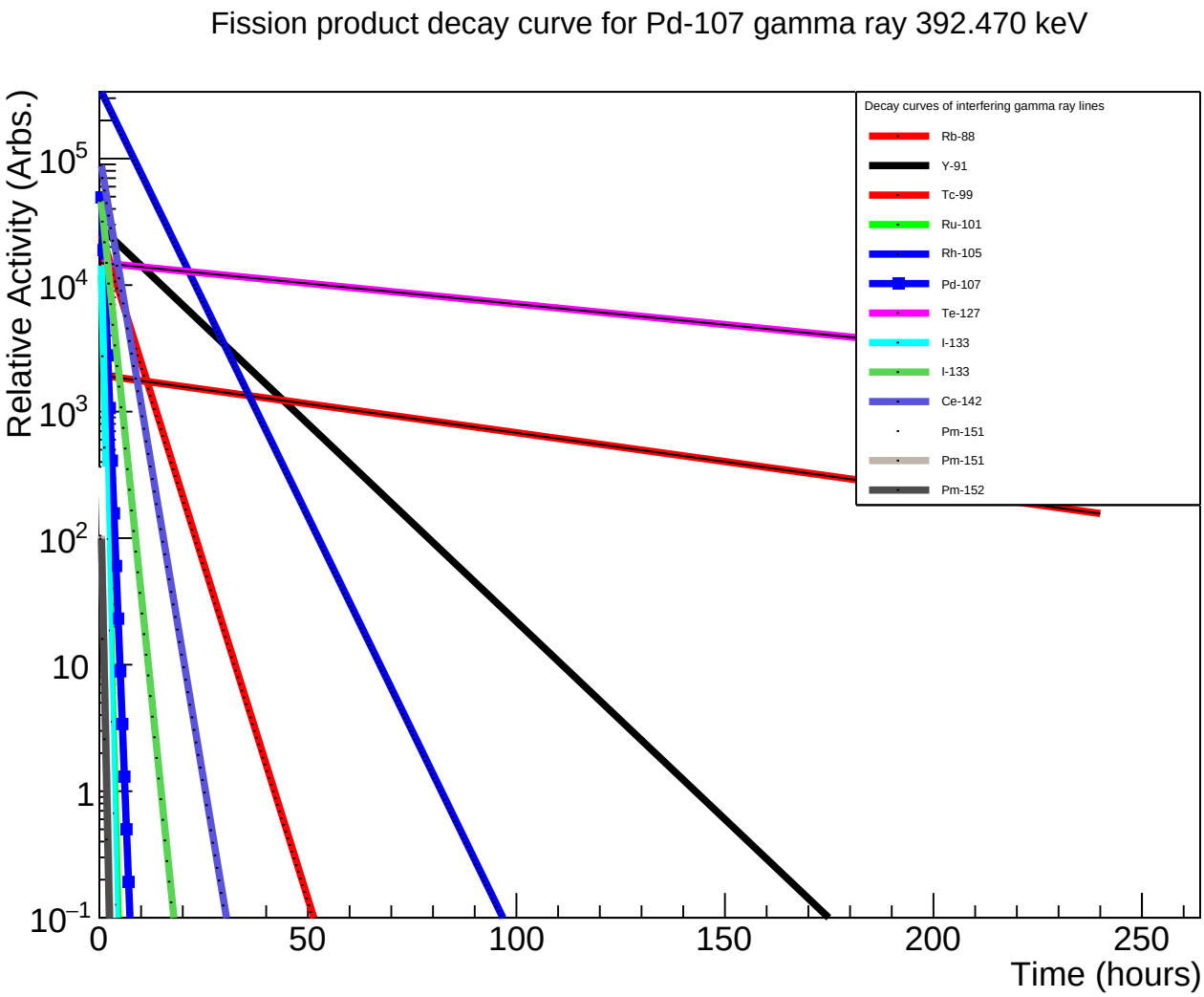


Figure 392: Pd-107 decay curve for 392.470 keV gamma ray.

3.393 Rh-107 E_γ = 567.70 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 567.70 keV
Gamma Intensity = 1.15 ± 0.099 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 785: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 786: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	569.100	0.002	0.172	0.064
Mo-101	Tc-101	566.620	0.008	0.243	0.052
Ru-103	Rh-103	567.693	0.000	941.928	0.030
Te-131	I-131	567.330	0.001	0.417	0.025
Xe-138	Cs-138	568.530	0.003	0.235	0.063
Cs-139	Ba-139	567.720	0.000	0.155	0.063
Cs-139	Ba-139	567.720	0.001	0.155	0.063
Nd-149	Pm-149	567.560	0.000	1.728	0.011
Nd-152	Pm-152	567.500	0.001	0.190	0.003
Pm-149	Sm-149	568.360	0.000	53.080	0.011

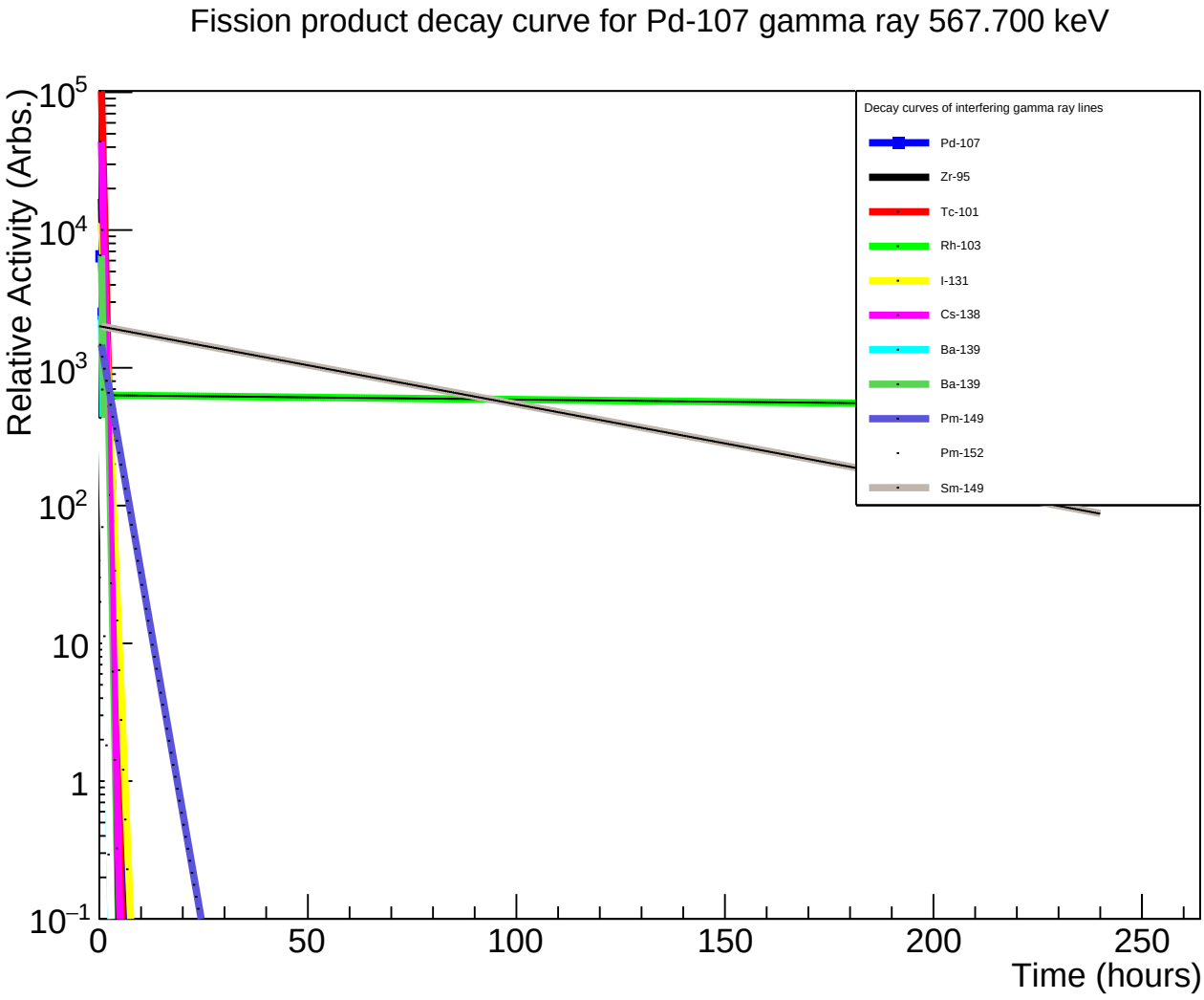


Figure 393: Pd-107 decay curve for 567.700 keV gamma ray.

3.394 Rh-107 E_γ = 670.05 keV

Chemical element: Rhodium
Fission product parent: Rh-107
Gamma originates in daughter: Pd-107
Eγ: 670.05 keV
Gamma Intensity = 2.22 ± 0.195 %
$T_{1/2}$ = 0.362 ± 0.007 hours or 21.70 ± 0.40 minutes
CFY: 0.146 ± 0.009 %

Table 787: Decay chain of fission product chain A = 107

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Technetium-107	Ruthenium-107	0.006	0.000
Ruthenium-107	Rhodium-107	0.062	0.001
Rhodium-107	Palladium-107	0.362	0.007

Table 788: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	670.900	0.003	0.372	0.003
Sn-127	Sb-127	668.600	0.002	2.100	0.001
Sb-125	Te-125	671.441	0.018	24194.445	0.000
Sb-129	Te-129	669.800	0.008	4.400	0.005
Sb-130	Te-130	669.200	0.011	0.658	0.008
Sb-131	Te-131	669.000	0.019	0.384	0.026
I-132	Xe-132	669.800	0.046	2.295	0.043
I-132	Xe-132	671.400	0.035	2.295	0.043
I-133	Xe-133	670.100	0.000	20.800	0.067
Cs-139	Ba-139	668.970	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	668.700	0.004	28.400	0.004
Pm-151	Sm-151	669.200	0.003	28.400	0.004
Pm-151	Sm-151	671.280	0.009	28.400	0.004

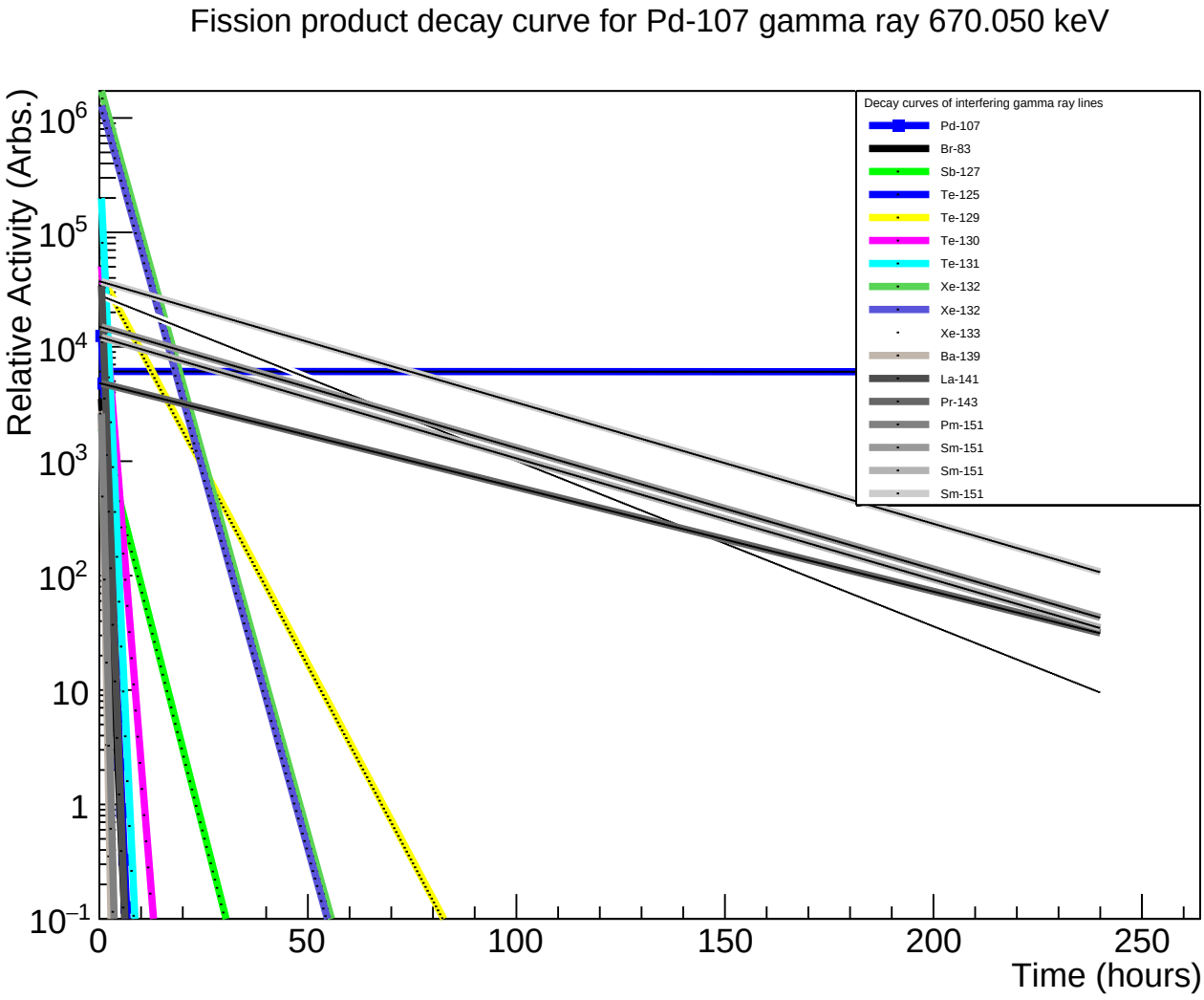


Figure 394: Pd-107 decay curve for 670.050 keV gamma ray.

3.395 Pd-112 E_γ = 18.50 keV

Chemical element: Palladium
Fission product parent: Pd-112
Gamma originates in daughter: Ag-112
Eγ: 18.50 keV
Gamma Intensity = 27.25 ± 2.725 %
$T_{1/2}$ = 21.030 ± 0.050 hours or 1261.80 ± 3.00 minutes
CFY: 0.013 ± 0.001 %

Table 789: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

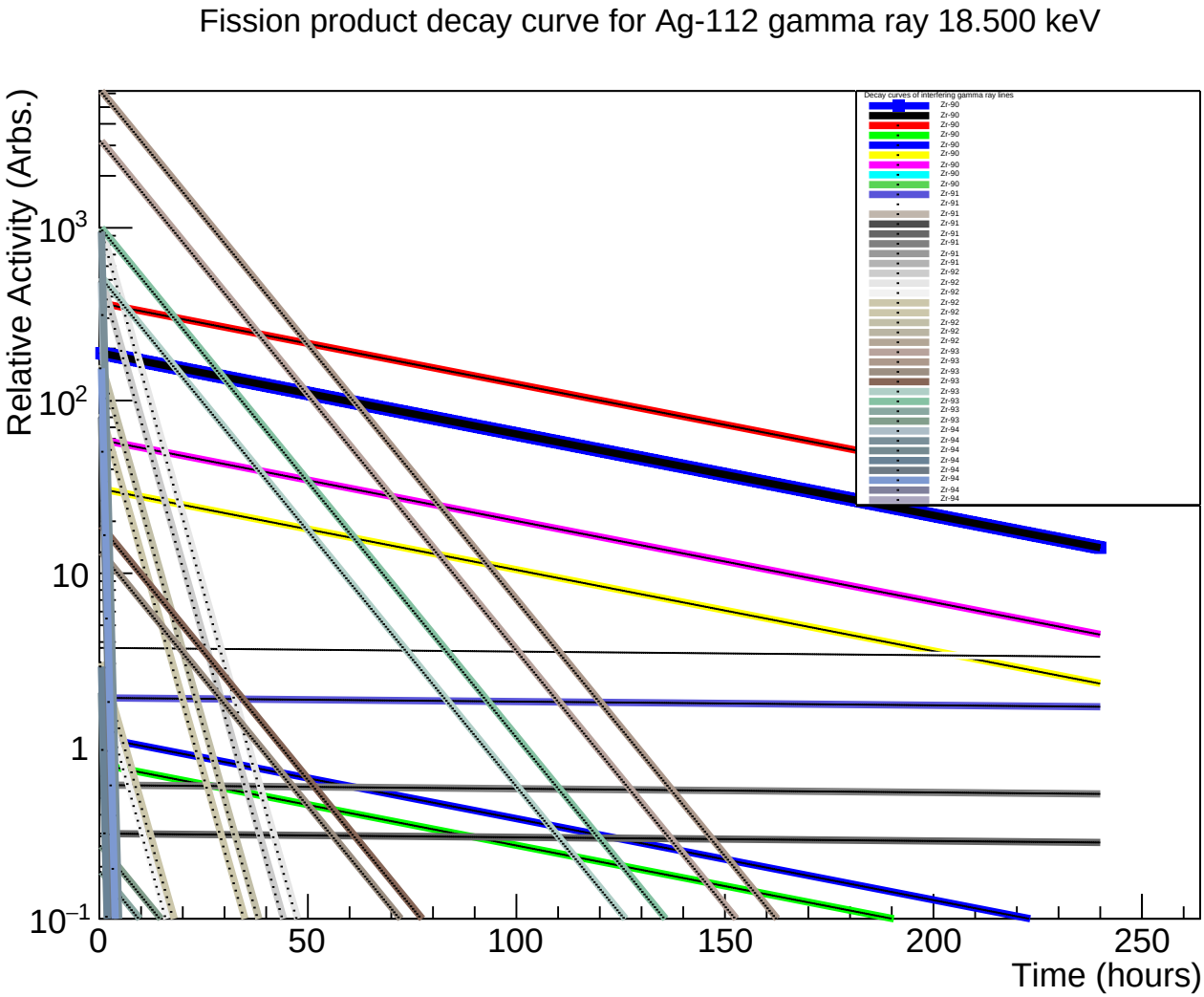


Figure 395: Ag-112 decay curve for 18.500 keV gamma ray.

Table 790: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-90	Zr-90	17.617	0.000	64.000	0.058
Y-90	Zr-90	17.631	0.000	64.000	0.058
Y-90	Zr-90	17.769	0.000	64.000	0.058
Y-90	Zr-90	17.771	0.000	64.000	0.058
Y-90	Zr-90	17.923	0.000	64.000	0.058
Y-90	Zr-90	17.925	0.000	64.000	0.058
Y-90	Zr-90	17.955	0.000	64.000	0.058
Y-90	Zr-90	17.955	0.000	64.000	0.058
Y-91	Zr-91	17.617	0.000	1404.240	0.058
Y-91	Zr-91	17.631	0.000	1404.240	0.058
Y-91	Zr-91	17.769	0.000	1404.240	0.058
Y-91	Zr-91	17.771	0.000	1404.240	0.058
Y-91	Zr-91	17.923	0.000	1404.240	0.058
Y-91	Zr-91	17.925	0.000	1404.240	0.058
Y-91	Zr-91	17.955	0.000	1404.240	0.058
Y-91	Zr-91	17.955	0.000	1404.240	0.058
Y-92	Zr-92	17.617	0.000	3.540	0.060
Y-92	Zr-92	17.631	0.000	3.540	0.060
Y-92	Zr-92	17.769	0.000	3.540	0.060
Y-92	Zr-92	17.771	0.000	3.540	0.060
Y-92	Zr-92	17.923	0.000	3.540	0.060
Y-92	Zr-92	17.925	0.000	3.540	0.060
Y-92	Zr-92	17.955	0.000	3.540	0.060
Y-92	Zr-92	17.955	0.000	3.540	0.060
Y-93	Zr-93	17.617	0.000	10.180	0.063
Y-93	Zr-93	17.631	0.000	10.180	0.063
Y-93	Zr-93	17.769	0.000	10.180	0.063
Y-93	Zr-93	17.771	0.000	10.180	0.063
Y-93	Zr-93	17.923	0.000	10.180	0.063
Y-93	Zr-93	17.925	0.000	10.180	0.063
Y-93	Zr-93	17.955	0.000	10.180	0.063
Y-93	Zr-93	17.955	0.000	10.180	0.063
Y-94	Zr-94	17.617	0.000	0.312	0.065
Y-94	Zr-94	17.631	0.000	0.312	0.065
Y-94	Zr-94	17.769	0.000	0.312	0.065
Y-94	Zr-94	17.771	0.000	0.312	0.065
Y-94	Zr-94	17.923	0.000	0.312	0.065
Y-94	Zr-94	17.925	0.000	0.312	0.065
Y-94	Zr-94	17.955	0.000	0.312	0.065
Y-94	Zr-94	17.955	0.000	0.312	0.065

3.396 Ag-111 E_γ = 245.40 keV

Chemical element: Silver
Fission product parent: Ag-111
Gamma originates in daughter: Cd-111
Eγ: 245.40 keV
Gamma Intensity = 1.33 ± 0.077 %
$T_{1/2}$ = 178.800 ± 0.240 hours or 10728.00 ± 14.40 minutes
CFY: 0.017 ± 0.001 %

Table 791: Decay chain of fission product chain A = 111

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rhodium-111	Palladium-111	0.003	0.000
Palladium-111	Silver-111	0.390	0.003
Silver-111	Cadmium-111	178.800	0.240

Table 792: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	245.500	0.004	0.305	0.019
Tc-105	Ru-105	246.200	0.006	0.127	0.010
Ru-105	Rh-105	245.210	0.000	4.440	0.010
Sb-129	Te-129	244.500	0.005	4.400	0.005
Te-133	I-133	244.380	0.003	0.923	0.040
I-133	Xe-133	245.950	0.000	20.800	0.067
Ce-146	Pr-146	245.500	0.003	0.225	0.030
Nd-149	Pm-149	245.500	0.002	1.728	0.011
Nd-149	Pm-149	245.720	0.008	1.728	0.011
Sm-155	Eu-155	245.730	0.037	0.372	0.000
Sm-156	Eu-156	244.000	0.021	9.400	0.000
Eu-156	Gd-156	244.700	0.000	364.560	0.000

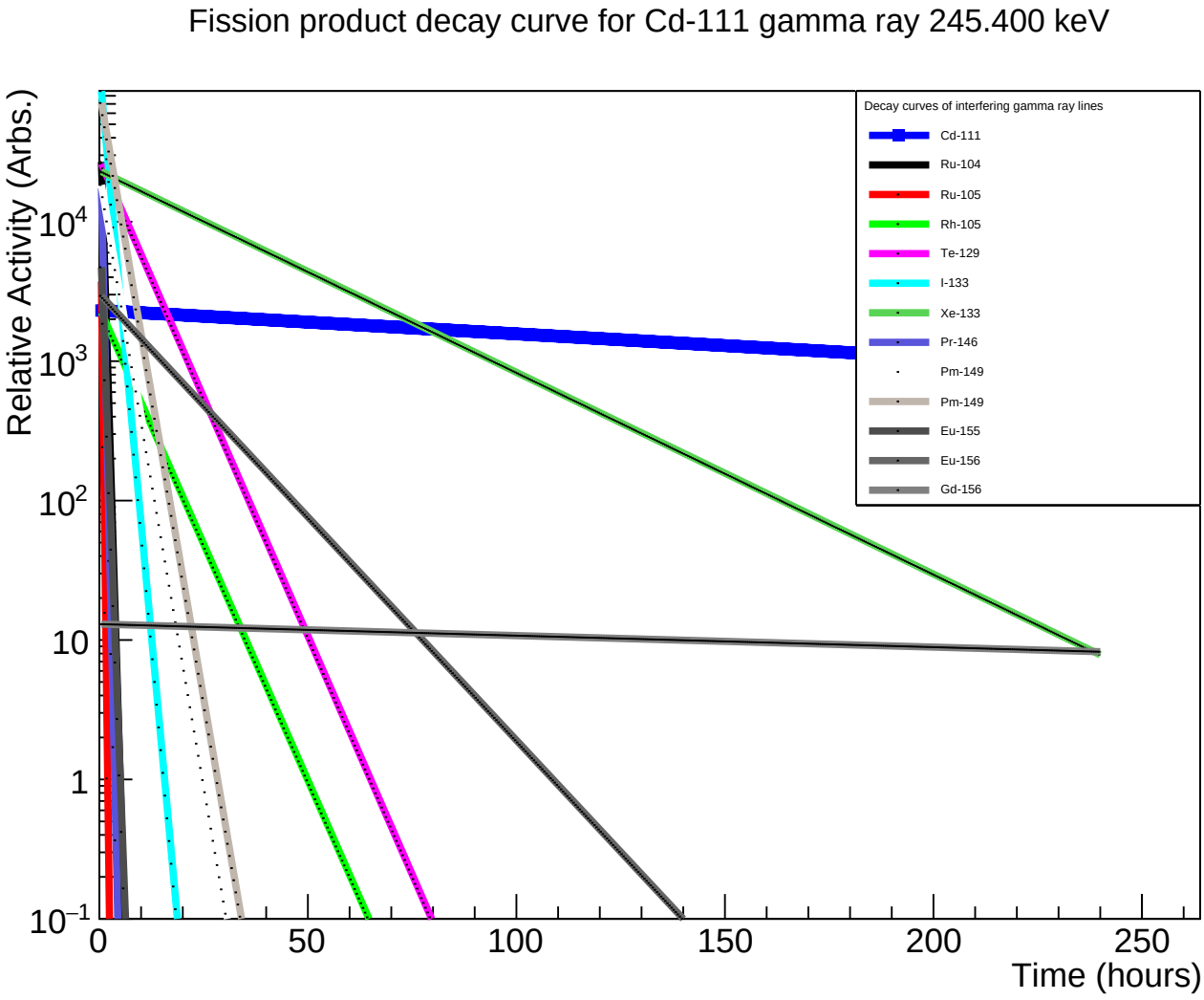


Figure 396: Cd-111 decay curve for 245.400 keV gamma ray.

3.397 Ag-111 E_γ = 342.13 keV

Chemical element: Silver
Fission product parent: Ag-111
Gamma originates in daughter: Cd-111
Eγ: 342.13 keV
Gamma Intensity = 6.68 ± 0.330 %
$T_{1/2}$ = 178.800 ± 0.240 hours or 10728.00 ± 14.40 minutes
CFY: 0.017 ± 0.001 %

Table 793: Decay chain of fission product chain A = 111

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Rhodium-111	Palladium-111	0.003	0.000
Palladium-111	Silver-111	0.390	0.003
Silver-111	Cadmium-111	178.800	0.240

Table 794: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	342.900	0.001	0.124	0.062
Ru-105	Rh-105	343.300	0.000	4.440	0.010
Te-129	I-129	342.540	0.000	1.160	0.005
Te-129	I-129	342.880	0.000	1.160	0.005
Te-131	I-131	342.945	0.007	0.417	0.025
Te-131	I-131	342.920	0.004	33.250	0.004
Te-133	I-133	341.000	0.000	0.208	0.031
Te-133	I-133	342.800	0.005	0.923	0.040
I-135	Xe-135	342.520	0.000	6.570	0.063
La-142	Ce-142	341.700	0.000	1.518	0.058
Nd-149	Pm-149	342.810	0.001	1.728	0.011
Nd-151	Pm-151	341.950	0.001	0.207	0.004
Pm-151	Sm-151	341.000	0.001	28.400	0.004

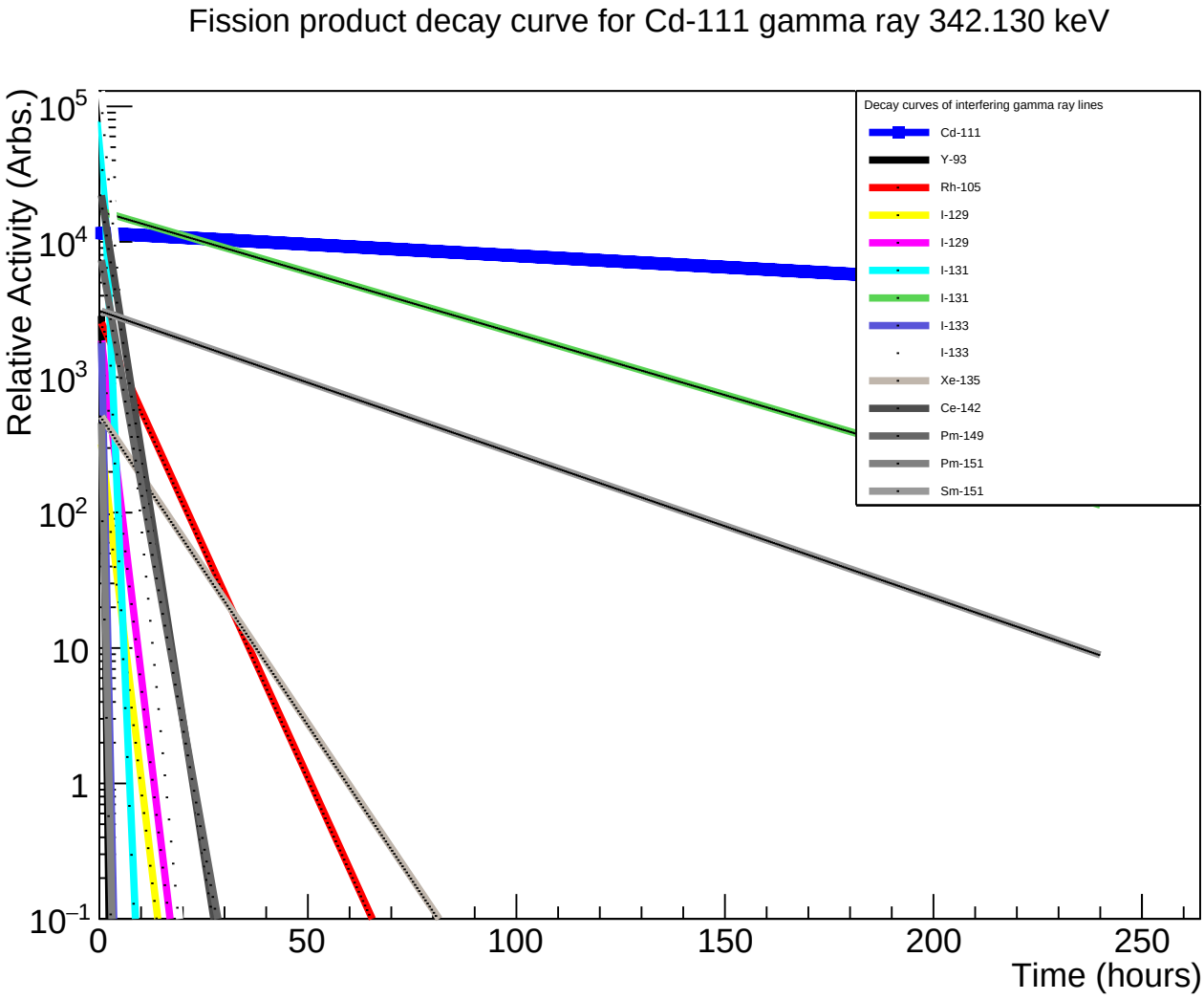


Figure 397: Cd-111 decay curve for 342.130 keV gamma ray.

3.398 Ag-112 E_γ = 606.70 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 606.70 keV
Gamma Intensity = 3.10 ± 0.469 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 795: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 796: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	606.800	0.001	0.243	0.052
Tc-104	Ru-104	605.200	0.007	0.305	0.019
Sb-125	Te-125	606.713	0.050	24194.445	0.000
Te-131	I-131	605.550	0.001	0.417	0.025
Te-133	I-133	607.300	0.002	0.923	0.040
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Pr-145	Nd-145	606.420	0.000	5.984	0.039
Nd-149	Pm-149	606.670	0.000	1.728	0.011
Nd-151	Pm-151	605.800	0.000	0.207	0.004
Pm-151	Sm-151	605.900	0.000	28.400	0.004

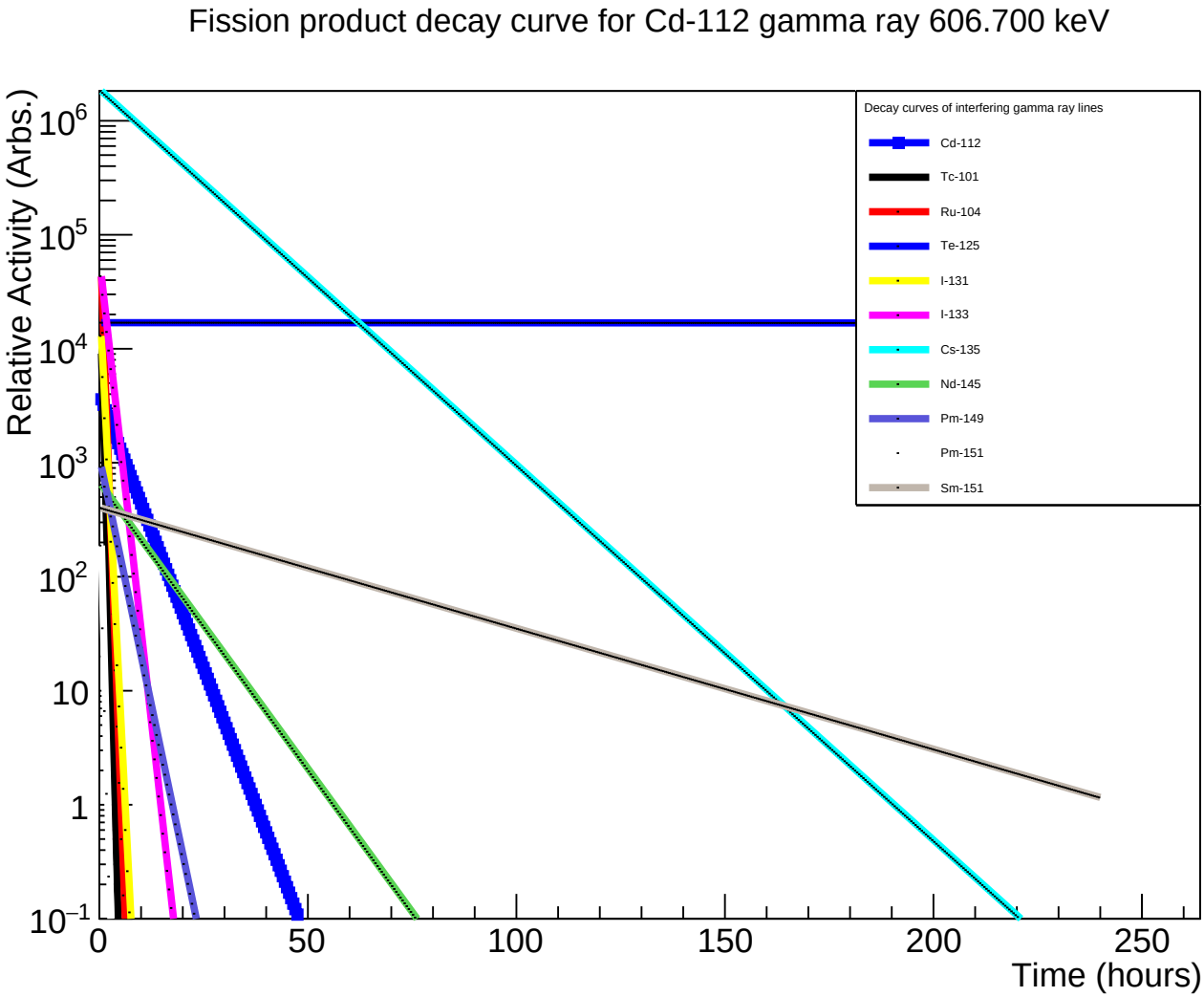


Figure 398: Cd-112 decay curve for 606.700 keV gamma ray.

3.399 Ag-112 E_γ = 617.40 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 617.40 keV
Gamma Intensity = 43.00 ± 5.000 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 797: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 798: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-95	Mo-95	616.507	0.000	86.640	0.001
Tc-101	Ru-101	617.310	0.001	0.237	0.052
Sn-127	Sb-127	616.100	0.002	2.100	0.001
Sb-125	Te-125	617.400	0.000	24194.445	0.000
Te-127	I-127	618.400	0.000	9.350	0.002
I-133	Xe-133	617.974	0.005	20.800	0.067
I-135	Xe-135	616.900	0.000	6.570	0.063
Cs-139	Ba-139	616.910	0.000	0.155	0.063
La-140	Ce-140	618.120	0.000	40.285	0.062
Pr-144	Nd-144	617.800	0.000	0.120	0.000
Nd-149	Pm-149	617.900	0.000	1.728	0.011
Nd-151	Pm-151	615.900	0.000	0.207	0.004
Sm-153	Eu-153	617.900	0.000	46.500	0.002

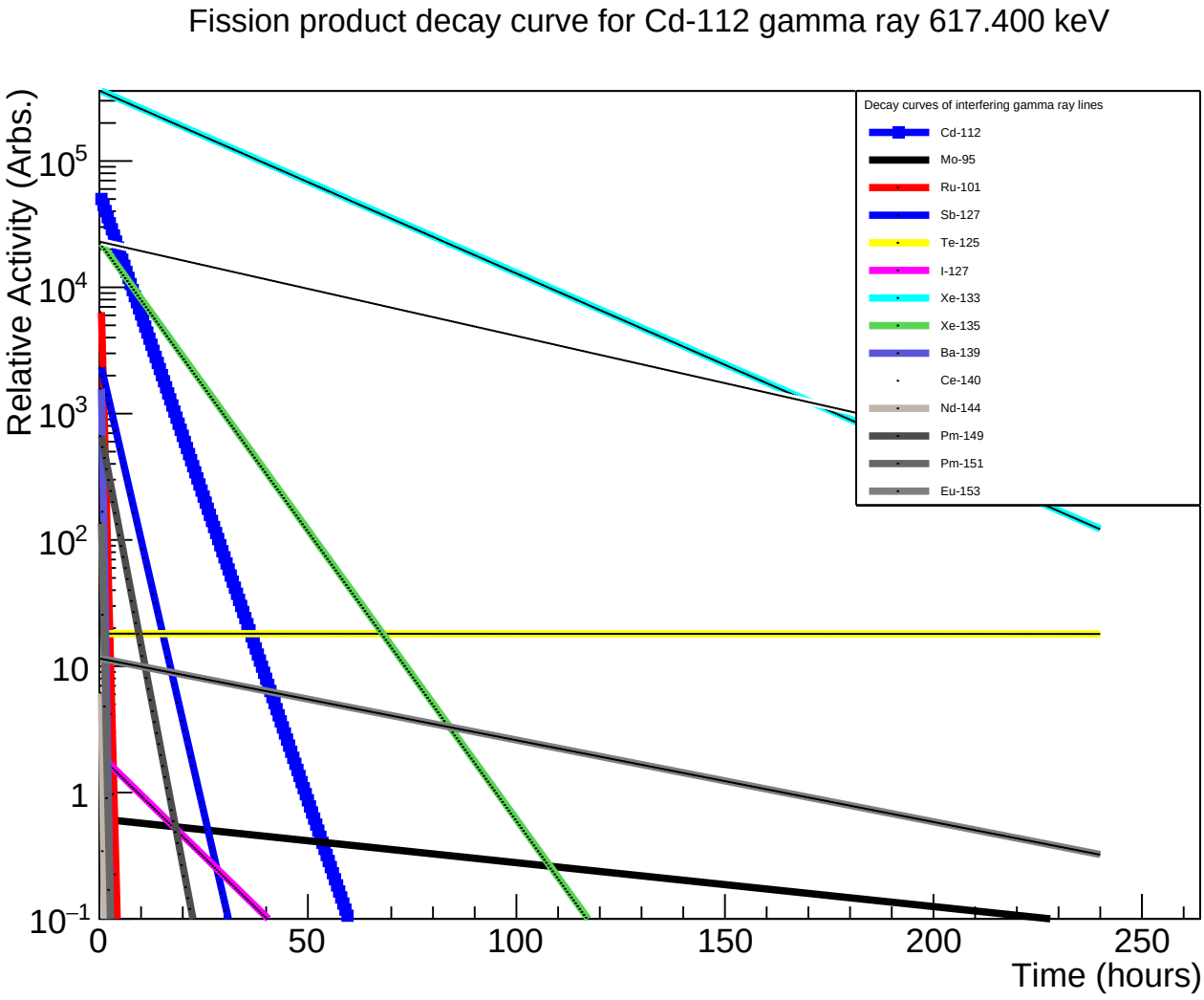


Figure 399: Cd-112 decay curve for 617.400 keV gamma ray.

3.400 Ag-112 E_γ = 692.70 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 692.70 keV
Gamma Intensity = 1.08 ± 0.180 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 799: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 800: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	692.000	0.002	0.124	0.062
Sn-129	Sb-129	692.400	0.026	0.115	0.002
Sb-125	Te-125	693.300	0.000	24194.445	0.000
Sb-128	Te-128	692.900	0.020	9.010	0.000
Xe-138	Cs-138	691.500	0.000	0.235	0.063
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-142	Ce-142	692.400	0.001	1.518	0.058
Sm-153	Eu-153	694.100	0.000	46.500	0.002

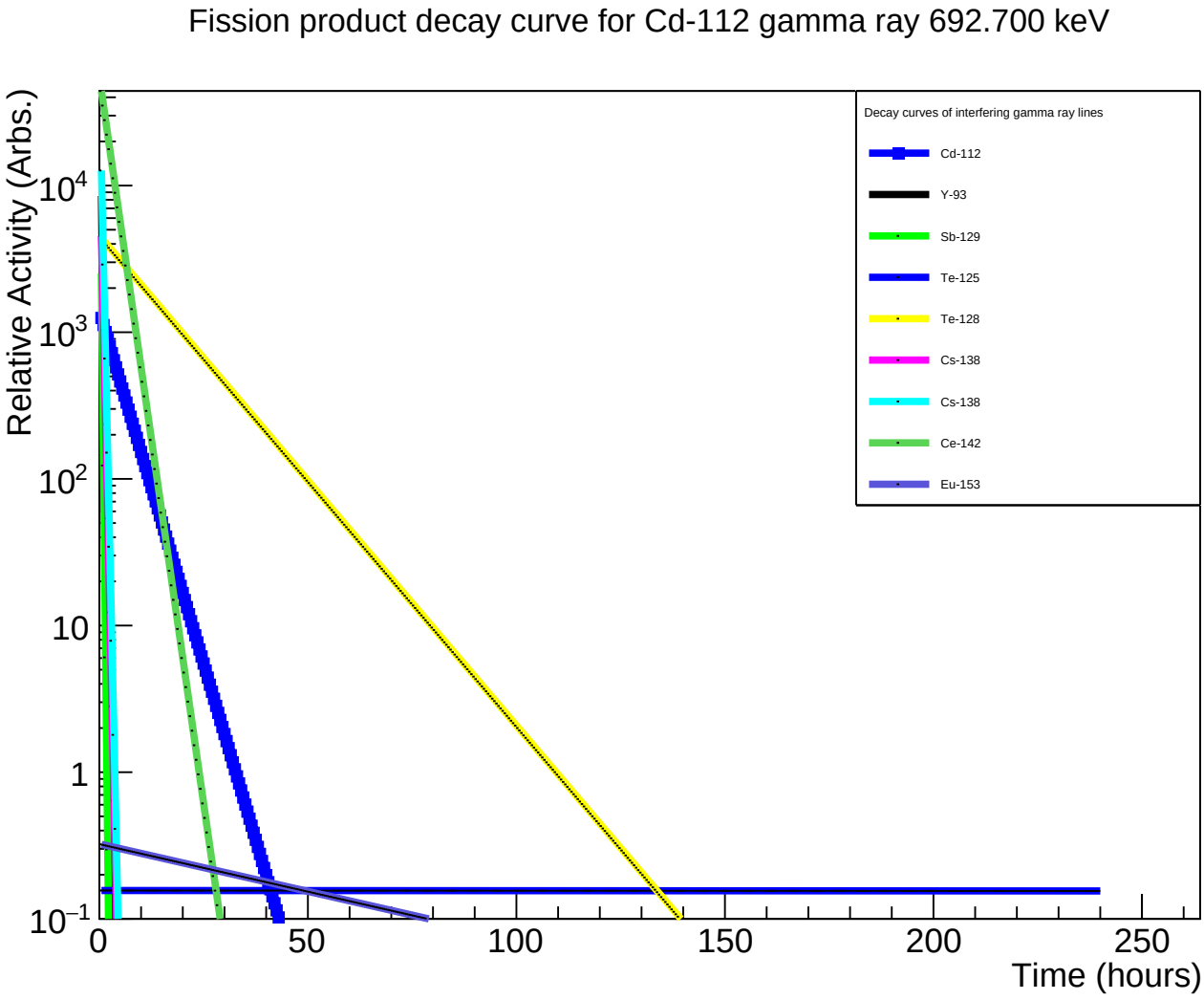


Figure 400: Cd-112 decay curve for 692.700 keV gamma ray.

3.401 Ag-112 E_γ = 694.80 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 694.80 keV
Gamma Intensity = 2.97 ± 0.458 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 801: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 802: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	694.900	0.167	1.512	0.000
Y-94	Zr-94	694.700	0.002	0.312	0.065
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Tc-101	Ru-101	694.300	0.001	0.237	0.052
Sn-129	Sb-129	695.100	0.042	0.115	0.002
Sb-125	Te-125	693.300	0.000	24194.445	0.000
Sb-126	Te-126	694.800	0.822	0.319	0.001
Te-129	I-129	695.880	0.031	806.400	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-141	Ce-141	694.900	0.000	3.920	0.058
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004
Sm-153	Eu-153	694.100	0.000	46.500	0.002

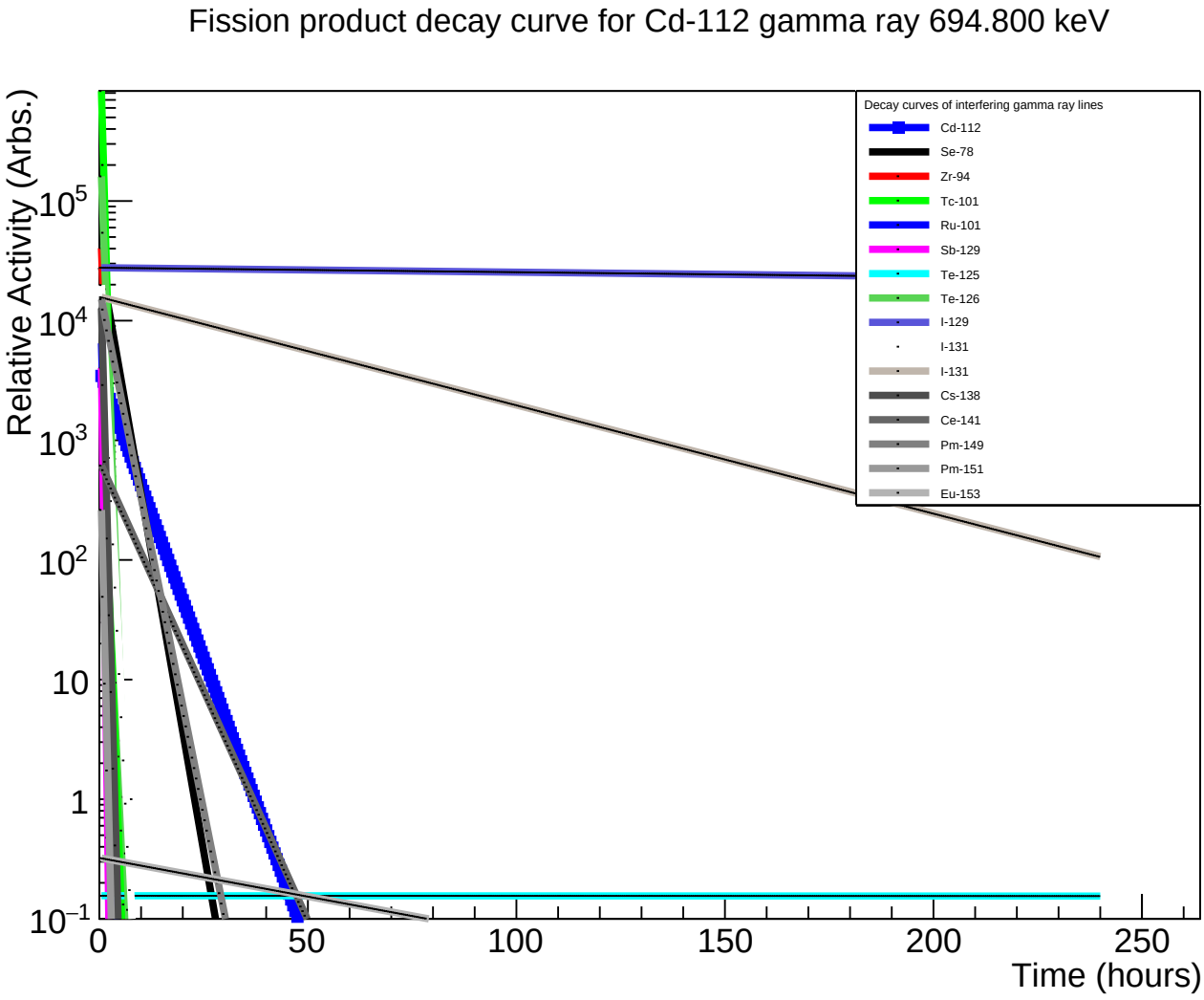


Figure 401: Cd-112 decay curve for 694.800 keV gamma ray.

3.402 Ag-112 E_γ = 851.20 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 851.20 keV
Gamma Intensity = 1.03 ± 0.176 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 803: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 804: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	850.340	0.002	2.840	0.036
Ru-105	Rh-105	851.980	0.002	4.440	0.010
Sn-129	Sb-129	850.200	0.016	0.115	0.002
Te-131	I-131	852.210	0.000	0.417	0.025
Te-131	I-131	852.210	0.203	33.250	0.004
Te-133	I-133	851.370	0.003	0.208	0.031
Te-133	I-133	851.700	0.001	0.923	0.040
Xe-138	Cs-138	851.300	0.001	0.235	0.063
Cs-139	Ba-139	849.700	0.000	0.155	0.063
Nd-149	Pm-149	849.926	0.000	1.728	0.011
Nd-151	Pm-151	851.800	0.002	0.207	0.004
Nd-151	Pm-151	851.800	0.001	0.207	0.004

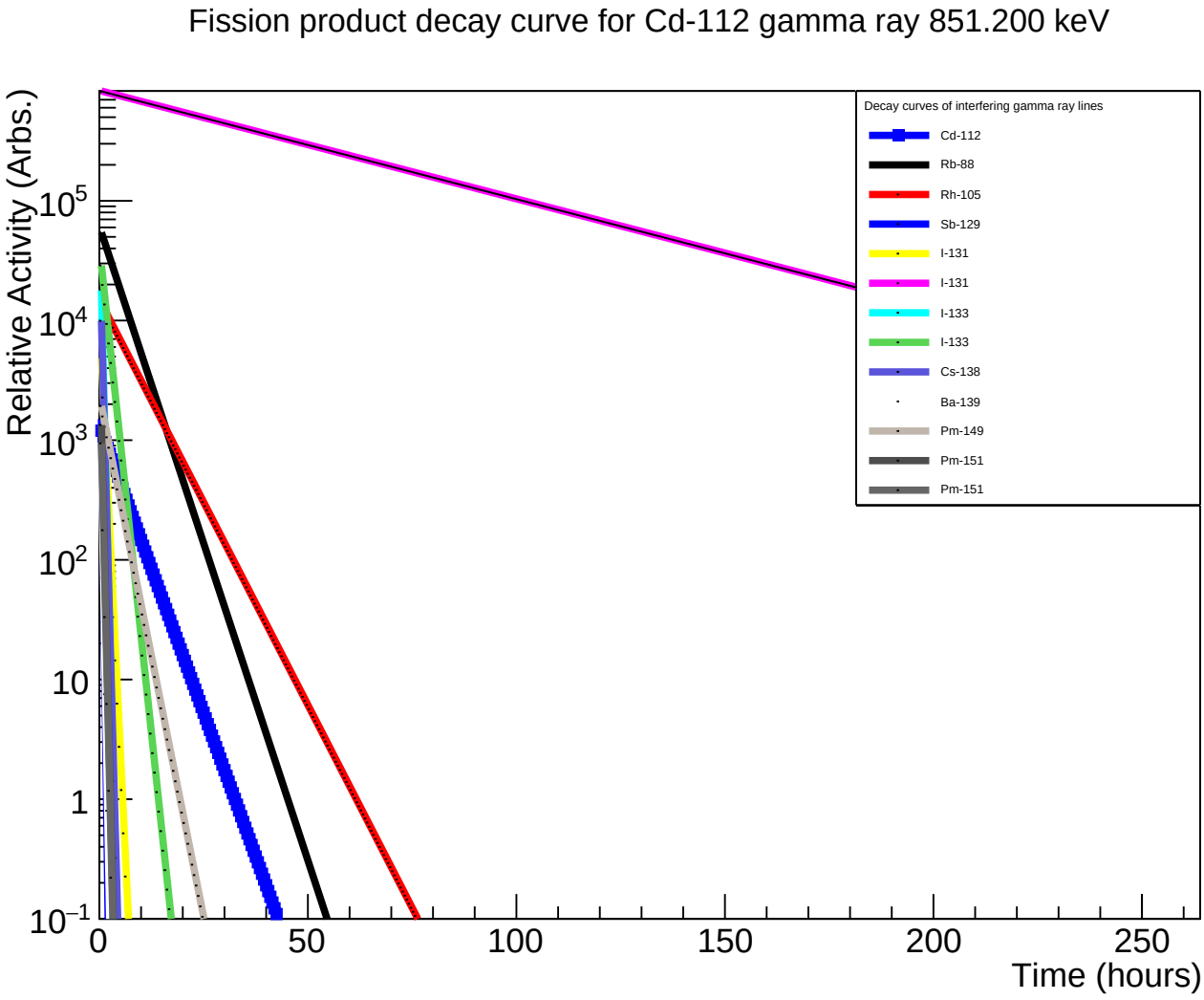


Figure 402: Cd-112 decay curve for 851.200 keV gamma ray.

3.403 Ag-112 E_γ = 1312.30 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 1312.30 keV
Gamma Intensity = 1.20 ± 0.190 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 805: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 806: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	1311.200	0.000	0.390	0.000
Te-133	I-133	1312.800	0.009	0.208	0.031
Xe-138	Cs-138	1311.070	0.001	0.235	0.063
Ba-141	La-141	1311.200	0.007	0.304	0.058
Nd-149	Pm-149	1312.130	0.000	1.728	0.011

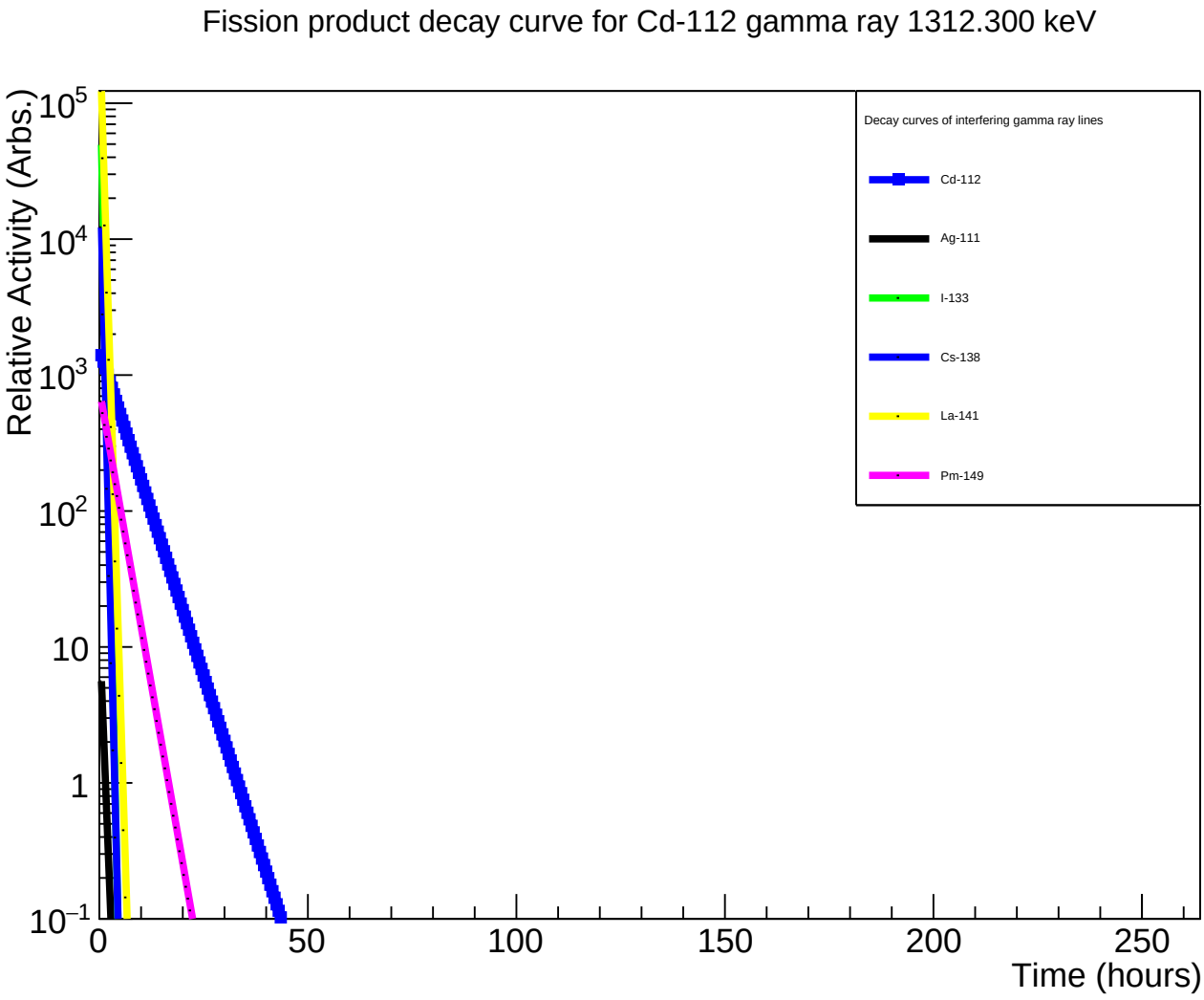


Figure 403: Cd-112 decay curve for 1312.300 keV gamma ray.

3.404 Ag-112 E_γ = 1387.70 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 1387.70 keV
Gamma Intensity = 5.38 ± 0.839 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 807: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 808: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1387.110	0.035	0.124	0.062
Mo-101	Tc-101	1387.600	0.001	0.243	0.052
Pd-111	Ag-111	1388.500	0.006	0.390	0.000
Cs-138	Ba-138	1386.390	0.001	0.557	0.067
Cs-139	Ba-139	1386.850	0.000	0.155	0.063
Pr-144	Nd-144	1388.020	0.000	0.288	0.055
Nd-151	Pm-151	1387.100	0.000	0.207	0.004

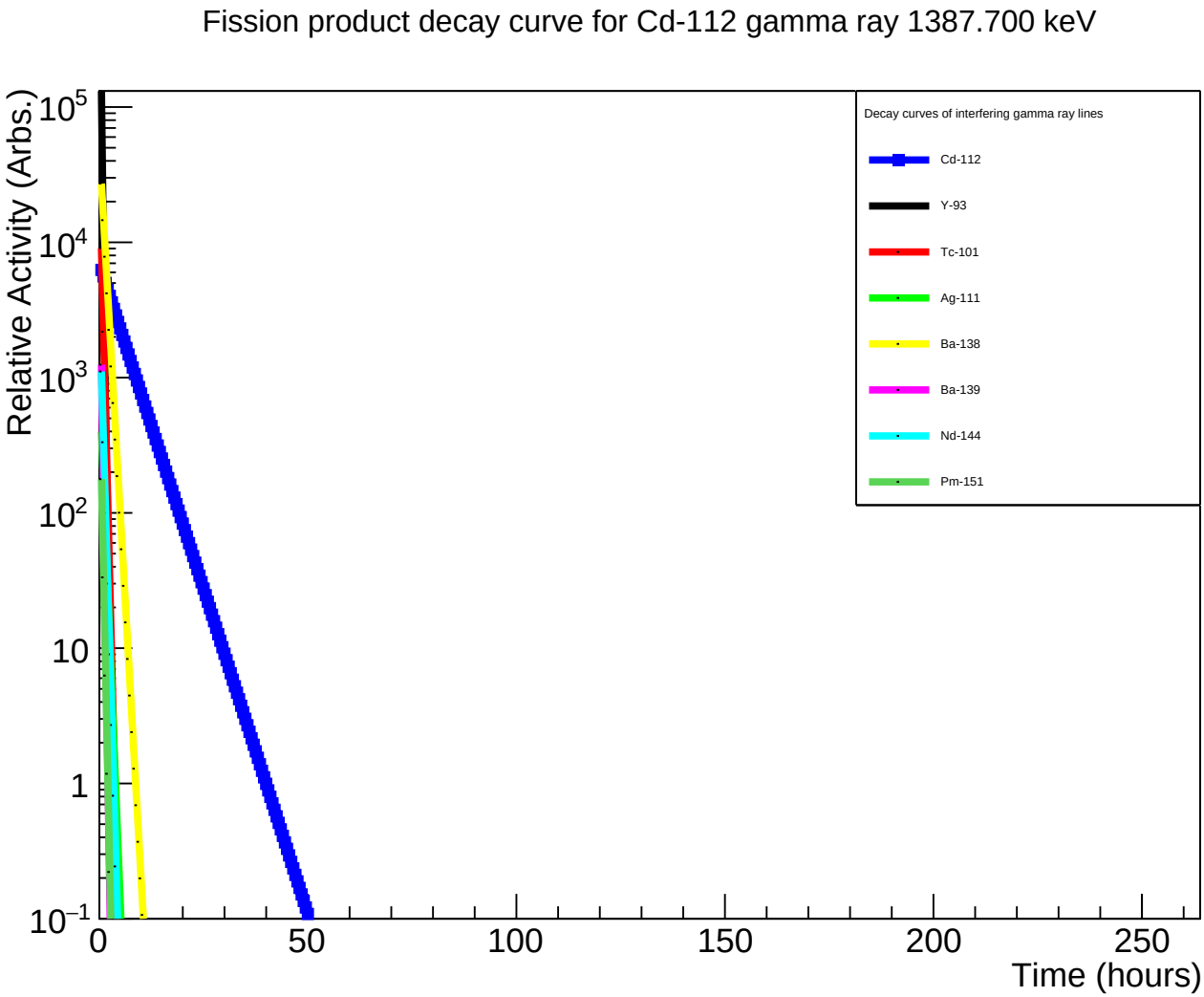


Figure 404: Cd-112 decay curve for 1387.700 keV gamma ray.

3.405 Ag-112 E_γ = 1613.60 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 1613.60 keV
Gamma Intensity = 2.84 ± 0.447 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 809: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 810: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1615.000	0.001	0.243	0.052
Tc-104	Ru-104	1612.400	0.058	0.305	0.019
I-134	Xe-134	1613.800	0.043	0.875	0.078
Xe-138	Cs-138	1614.570	0.002	0.235	0.063
Cs-138	Ba-138	1614.090	0.001	0.557	0.067
Pr-146	Nd-146	1614.100	0.001	0.403	0.030

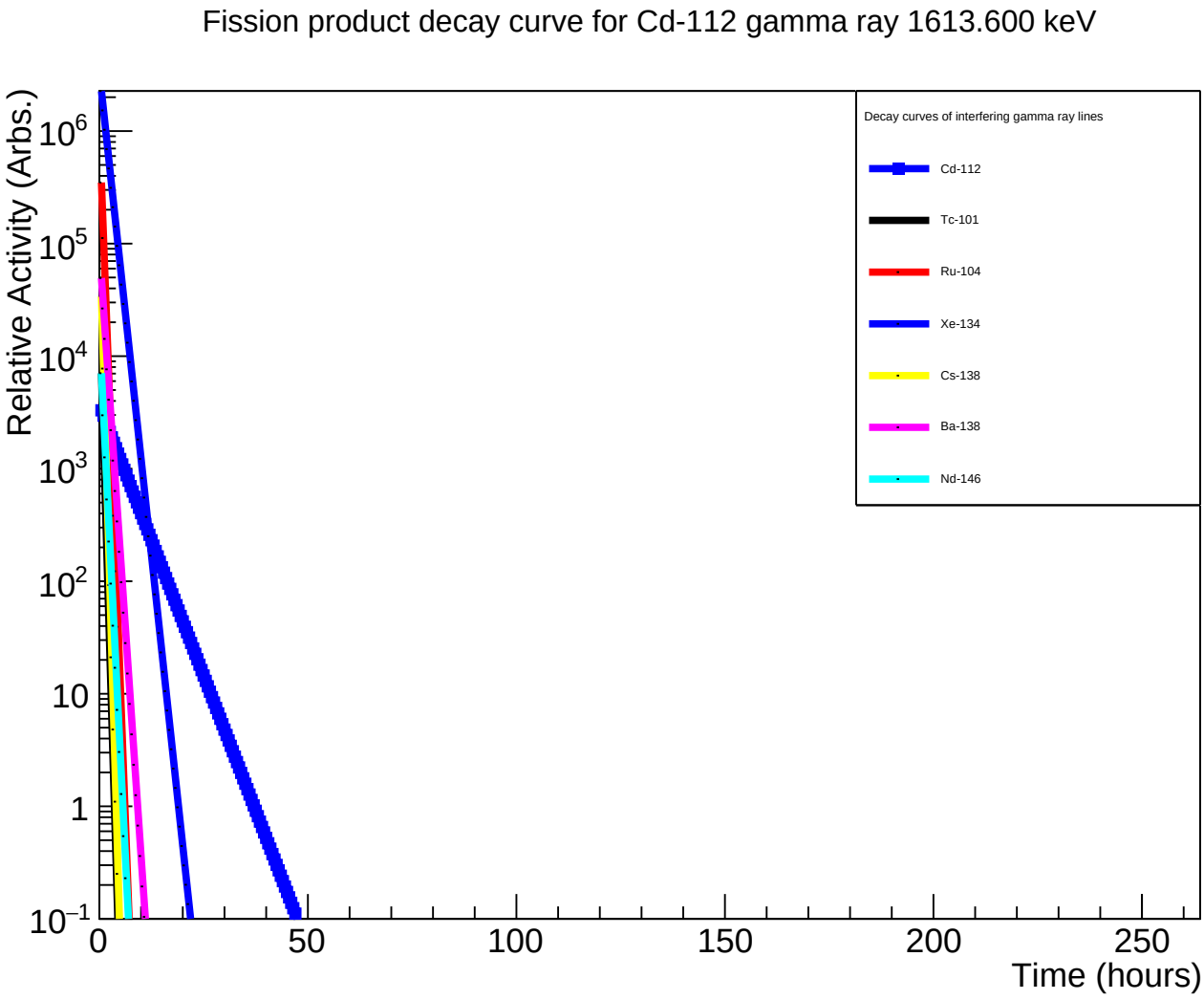


Figure 405: Cd-112 decay curve for 1613.600 keV gamma ray.

3.406 Ag-112 E_γ = 2106.20 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 2106.20 keV
Gamma Intensity = 2.41 ± 0.381 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 811: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 812: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	2105.600	0.000	3.540	0.060
Te-133	I-133	2105.500	0.002	0.208	0.031
Cs-138	Ba-138	2105.900	0.001	0.557	0.067
Nd-151	Pm-151	2106.960	0.000	0.207	0.004

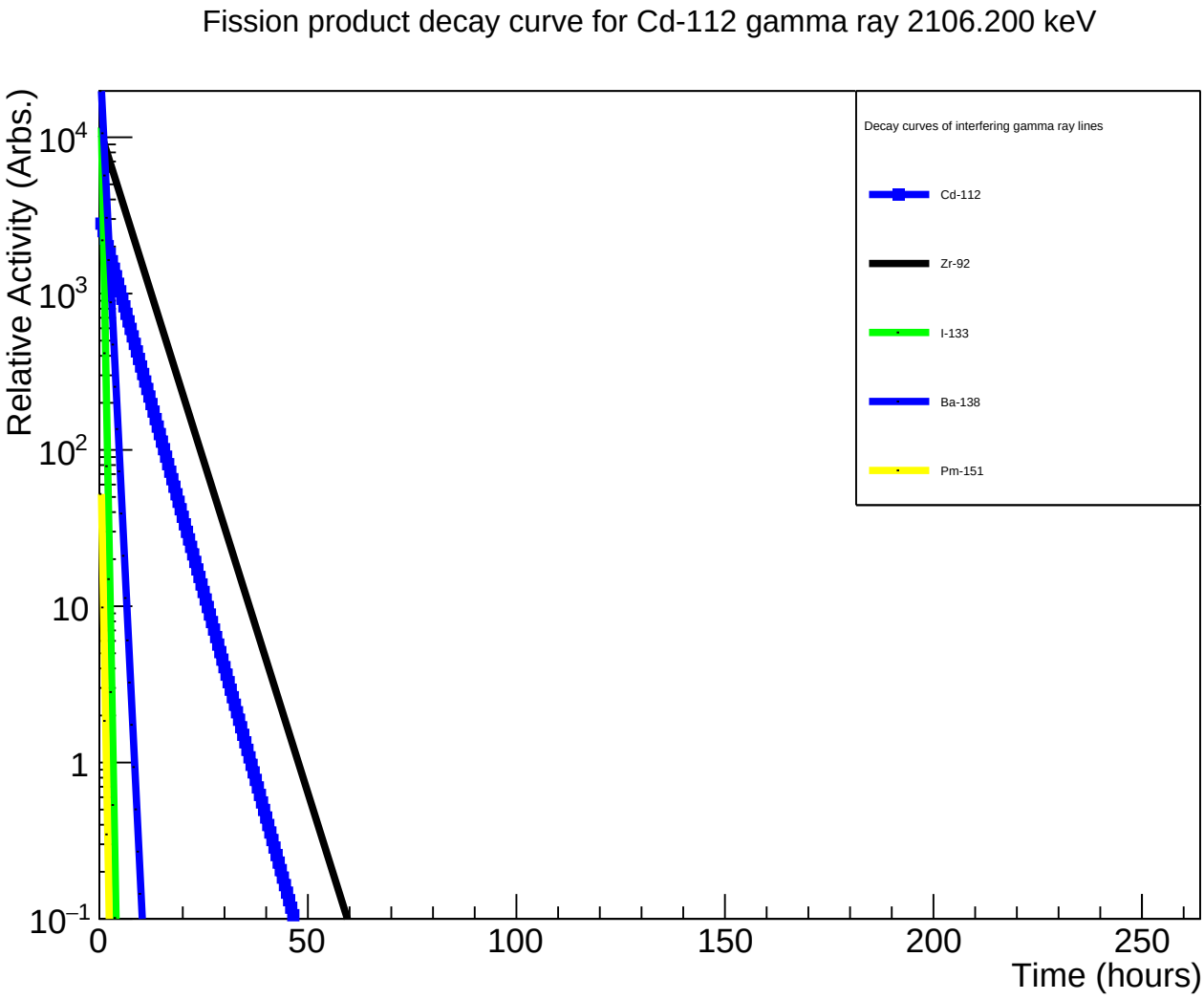


Figure 406: Cd-112 decay curve for 2106.200 keV gamma ray.

3.407 Ag-112 E_γ = 2506.80 keV

Chemical element: Silver
Fission product parent: Ag-112
Gamma originates in daughter: Cd-112
Eγ: 2506.80 keV
Gamma Intensity = 1.08 ± 0.180 %
$T_{1/2}$ = 3.130 ± 0.009 hours or 187.80 ± 0.54 minutes
CFY: 0.013 ± 0.001 %

Table 813: Decay chain of fission product chain A = 112

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Palladium-112	Silver-112	21.030	0.050
Silver-112	Cadmium-112	3.130	0.009

Table 814: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

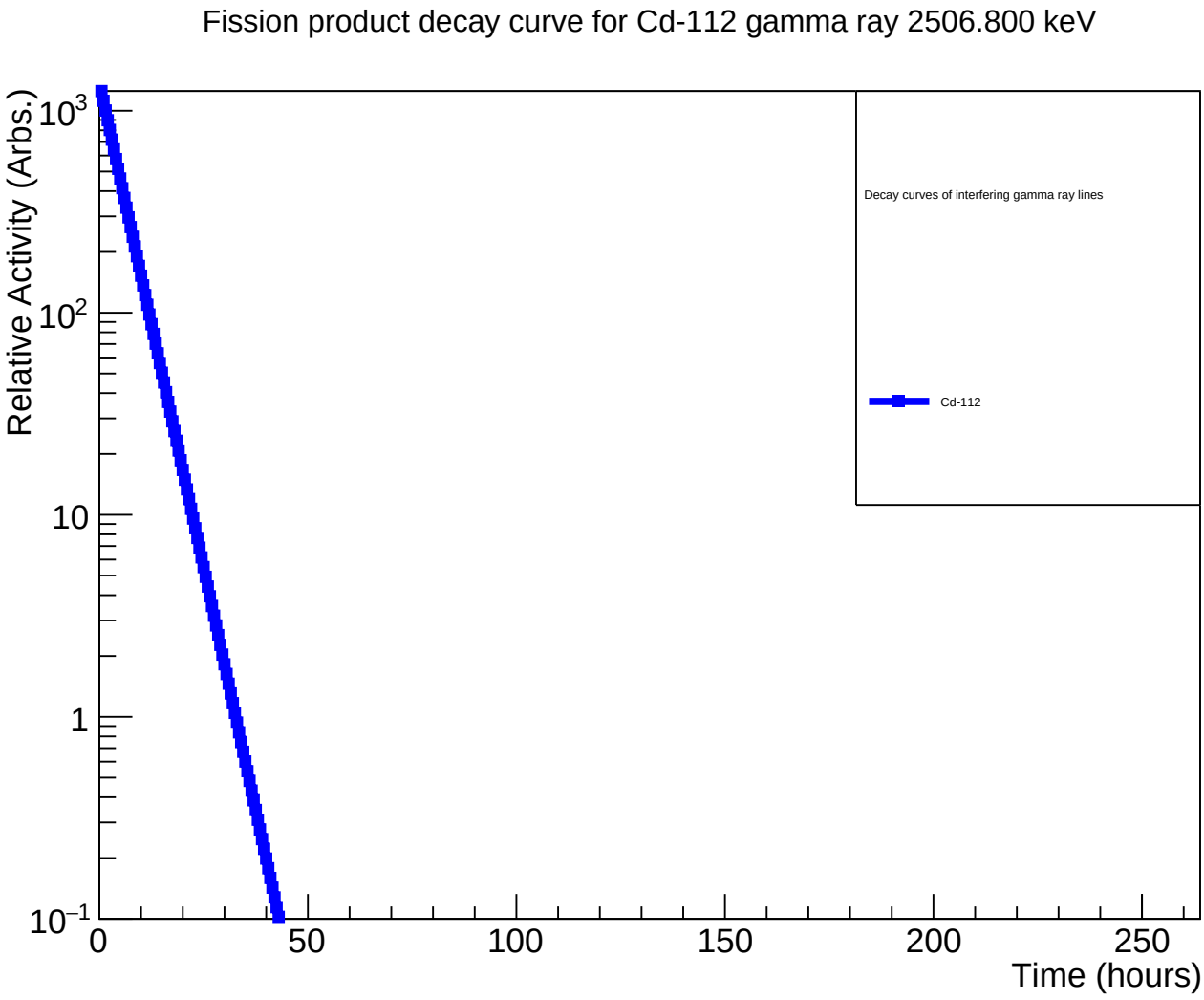


Figure 407: Cd-112 decay curve for 2506.800 keV gamma ray.

3.408 Ag-113 E_γ = 258.80 keV

Chemical element: Silver
Fission product parent: Ag-113
Gamma originates in daughter: Cd-113
Eγ: 258.80 keV
Gamma Intensity = 1.63 ± 0.166 %
$T_{1/2}$ = 5.370 ± 0.050 hours or 322.20 ± 3.00 minutes
CFY: 0.013 ± 0.001 %

Table 815: Decay chain of fission product chain A = 113

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Ruthenium-113	Rhodium-113	0.000	0.000

Table 816: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	260.120	0.074	0.124	0.062
Nb-98	Mo-98	259.000	0.004	0.855	0.000
Sn-125	Sb-125	258.250	0.000	231.360	0.000
Sb-130	Te-130	258.000	0.039	0.658	0.008
Te-133	I-133	257.790	0.004	0.923	0.040
Te-134	I-134	259.800	0.004	0.697	0.070
Xe-138	Cs-138	258.411	0.315	0.235	0.063
Ba-142	La-142	257.500	0.001	0.177	0.058
Nd-149	Pm-149	258.067	0.004	1.728	0.011
Nd-151	Pm-151	258.000	0.000	0.207	0.004
Pm-151	Sm-151	258.110	0.006	28.400	0.004

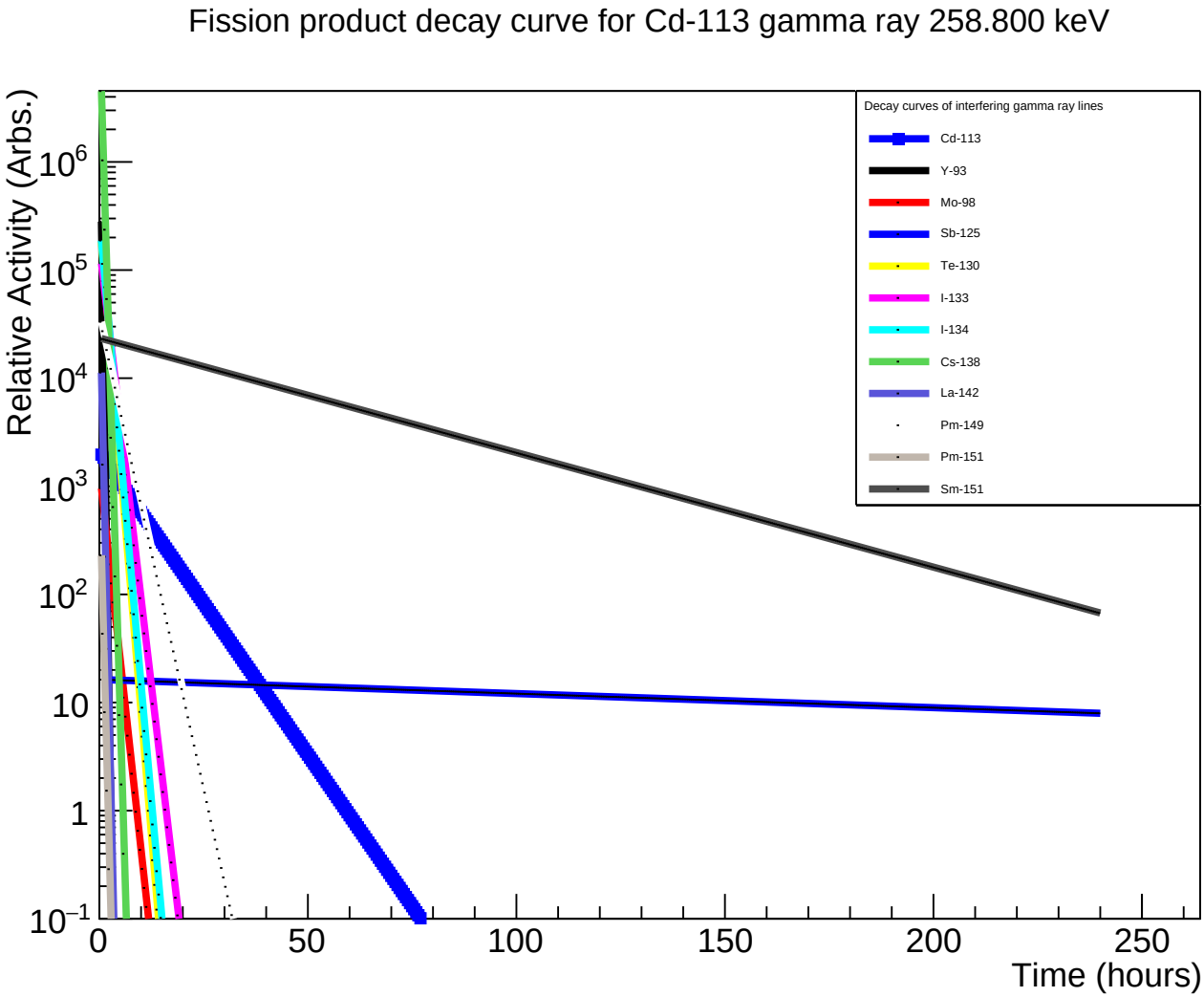


Figure 408: Cd-113 decay curve for 258.800 keV gamma ray.

3.409 Ag-113 E_γ = 298.60 keV

Chemical element: Silver
Fission product parent: Ag-113
Gamma originates in daughter: Cd-113
Eγ: 298.60 keV
Gamma Intensity = 10.00 ± 1.000 %
$T_{1/2}$ = 5.370 ± 0.050 hours or 322.20 ± 3.00 minutes
CFY: 0.013 ± 0.001 %

Table 817: Decay chain of fission product chain A = 113

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Ruthenium-113	Rhodium-113	0.000	0.000

Table 818: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	297.200	0.001	16.749	0.060
Nb-98	Mo-98	299.600	0.000	0.855	0.000
Tc-104	Ru-104	298.600	0.001	0.305	0.019
Sn-129	Sb-129	298.400	0.042	0.115	0.002
Te-131	I-131	299.940	0.000	0.417	0.025
La-142	Ce-142	297.900	0.000	1.518	0.058
Nd-151	Pm-151	297.300	0.000	0.207	0.004
Pm-151	Sm-151	297.800	0.000	28.400	0.004
Pm-151	Sm-151	298.600	0.000	28.400	0.004

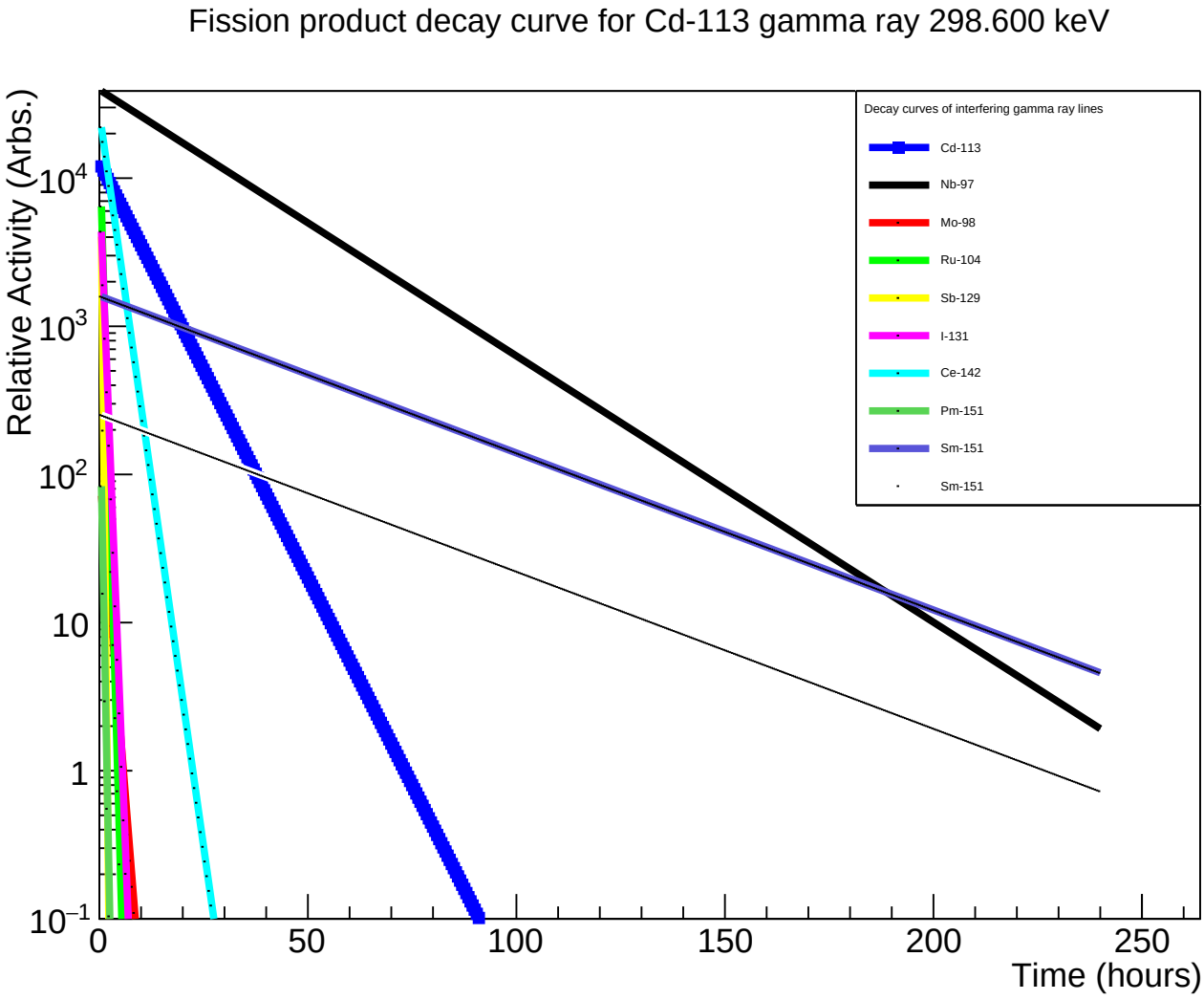


Figure 409: Cd-113 decay curve for 298.600 keV gamma ray.

3.410 Ag-113 E_γ = 316.30 keV

Chemical element: Silver
Fission product parent: Ag-113
Gamma originates in daughter: Cd-113
Eγ: 316.30 keV
Gamma Intensity = 1.34 ± 0.136 %
$T_{1/2}$ = 5.370 ± 0.050 hours or 322.20 ± 3.00 minutes
CFY: 0.013 ± 0.001 %

Table 819: Decay chain of fission product chain A = 113

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Ruthenium-113	Rhodium-113	0.000	0.000

Table 820: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	315.000	0.000	0.855	0.000
Ru-103	Rh-103	317.720	0.000	941.928	0.030
Ru-105	Rh-105	316.440	0.111	4.440	0.010
Pd-111	Ag-111	316.800	0.000	0.390	0.000
Sb-125	Te-125	314.950	0.000	24194.445	0.000
Sb-128	Te-128	317.700	0.030	9.010	0.000
I-132	Xe-132	316.700	0.001	2.295	0.043
Ce-146	Pr-146	316.740	0.562	0.225	0.030
Nd-151	Pm-151	316.560	0.000	0.207	0.004
Pm-151	Sm-151	314.920	0.001	28.400	0.004
Pm-151	Sm-151	315.100	0.000	28.400	0.004
Eu-156	Gd-156	317.300	0.001	364.560	0.000

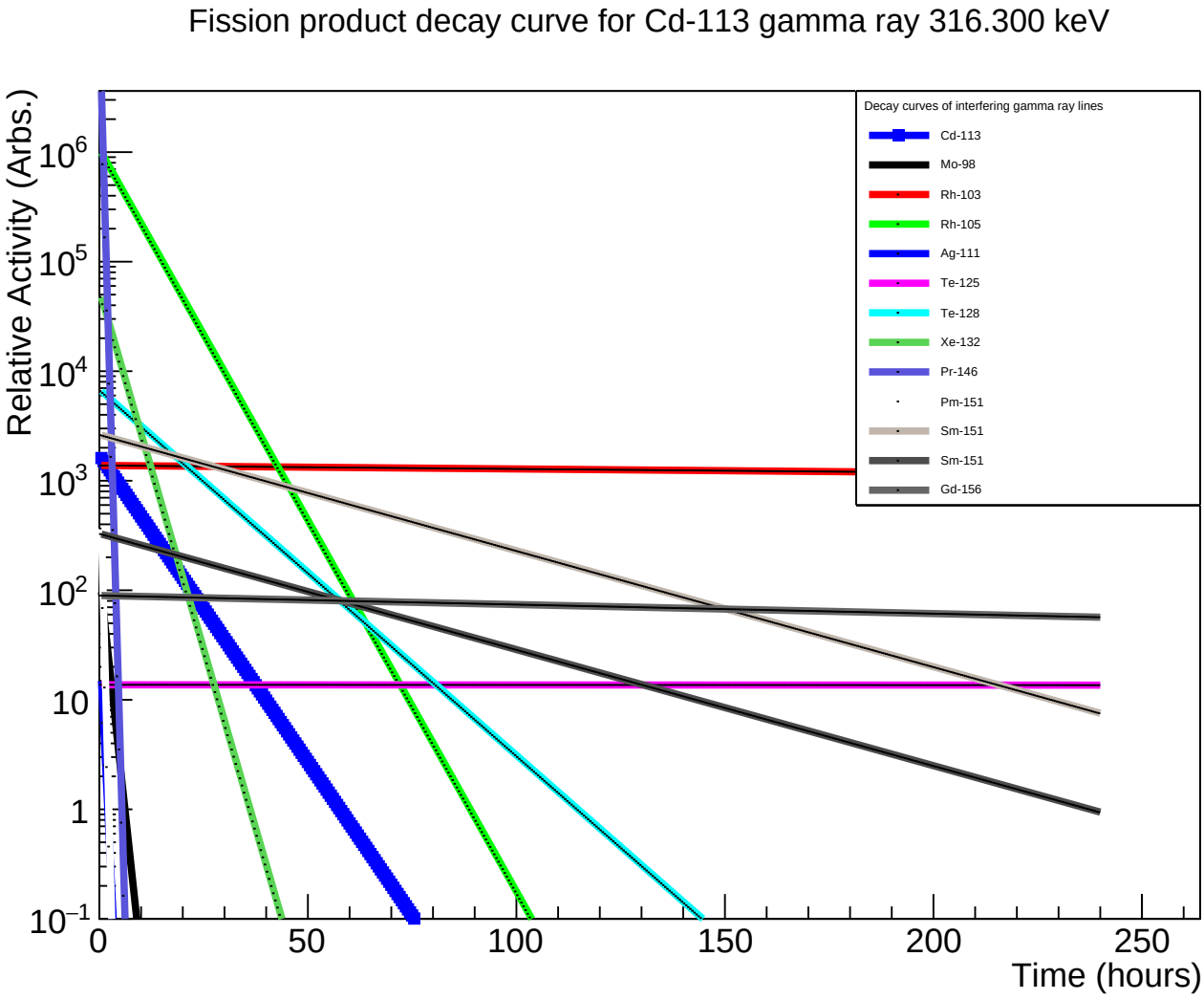


Figure 410: Cd-113 decay curve for 316.300 keV gamma ray.

3.411 Cd-115 E_γ = 260.90 keV

Chemical element: Cadmium
Fission product parent: Cd-115
Gamma originates in daughter: In-115
Eγ: 260.90 keV
Gamma Intensity = 1.94 ± 0.040 %
$T_{1/2}$ = 53.460 ± 0.050 hours or 3207.60 ± 3.00 minutes
CFY: 0.012 ± 0.001 %

Table 821: Decay chain of fission product chain A = 115

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Silver-115	Cadmium-115	0.333	0.008
Cadmium-115	Indium-115	53.460	0.050
Indium-115	Tin-115	4.486	0.004

Table 822: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	261.200	0.004	9.630	0.058
Sr-93	Y-93	260.120	0.074	0.124	0.062
Te-131	I-131	261.400	0.000	33.250	0.004
Te-133	I-133	261.626	0.075	0.923	0.040
Te-134	I-134	259.800	0.004	0.697	0.070
Cs-139	Ba-139	260.600	0.000	0.155	0.063
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-151	Sm-151	261.400	0.000	28.400	0.004

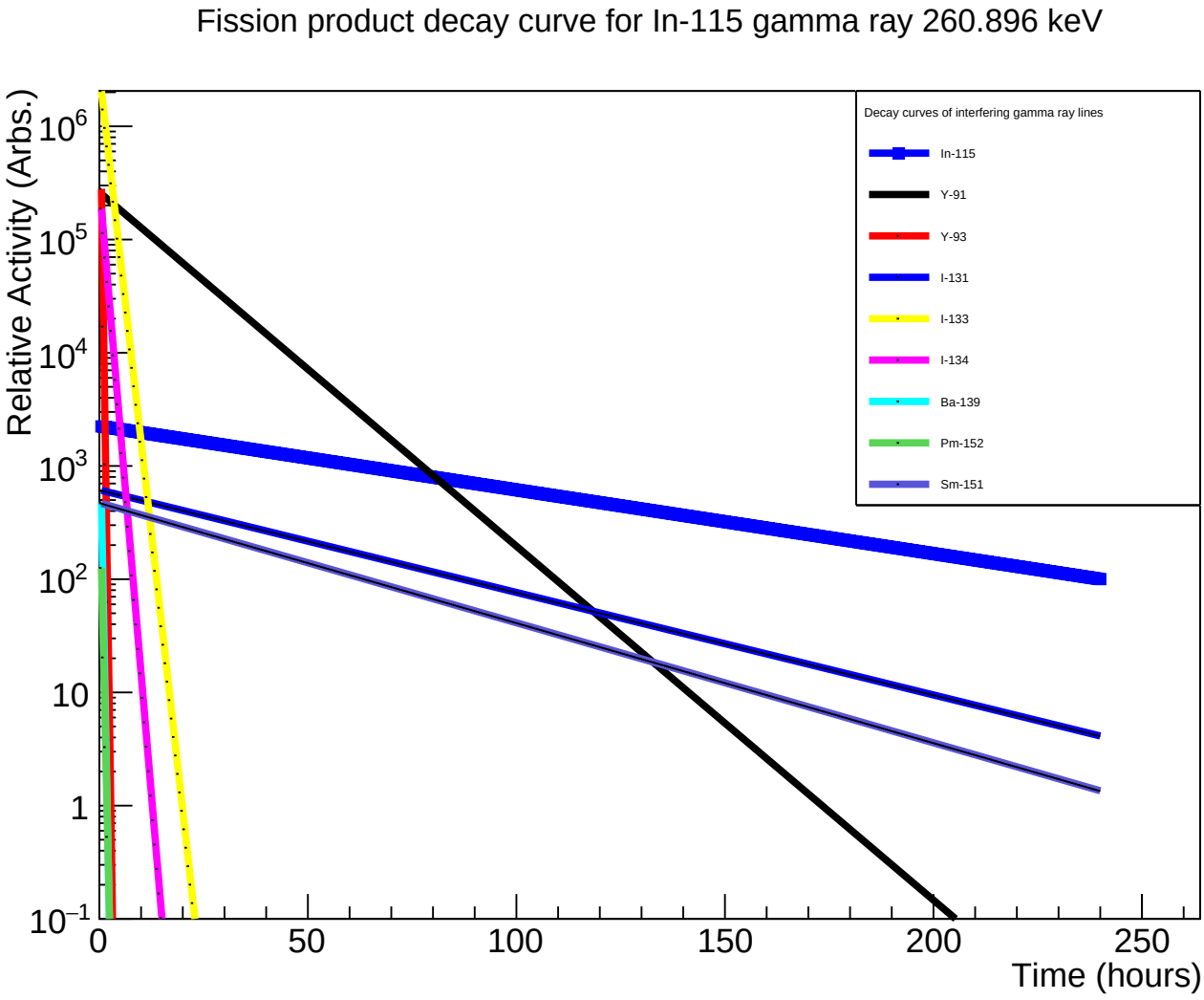


Figure 411: In-115 decay curve for 260.896 keV gamma ray.

3.412 Cd-115 E_γ = 492.35 keV

Chemical element: Cadmium
Fission product parent: Cd-115
Gamma originates in daughter: In-115
Eγ: 492.35 keV
Gamma Intensity = 8.03 ± 0.184 %
$T_{1/2}$ = 53.460 ± 0.050 hours or 3207.60 ± 3.00 minutes
CFY: 0.012 ± 0.001 %

Table 823: Decay chain of fission product chain A = 115

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Silver-115	Cadmium-115	0.333	0.008
Cadmium-115	Indium-115	53.460	0.050
Indium-115	Tin-115	4.486	0.004

Table 824: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	491.270	0.003	2.710	0.059
Y-92	Zr-92	492.600	0.005	3.540	0.060
Nb-98	Mo-98	493.180	0.001	0.855	0.000
Mo-101	Tc-101	491.500	0.001	0.243	0.052
Sn-127	Sb-127	490.900	0.053	2.100	0.001
Sn-127	Sb-127	493.200	0.031	2.100	0.001
Sb-125	Te-125	491.290	0.000	24194.445	0.000
Te-129	I-129	491.930	0.000	1.160	0.005
Te-131	I-131	492.660	0.048	0.417	0.025
Te-133	I-133	492.960	0.007	0.923	0.040
Pr-145	Nd-145	492.624	0.000	5.984	0.039
Pr-147	Nd-147	491.400	0.005	0.223	0.022
Nd-149	Pm-149	493.850	0.001	1.728	0.011
Nd-151	Pm-151	492.240	0.001	0.207	0.004

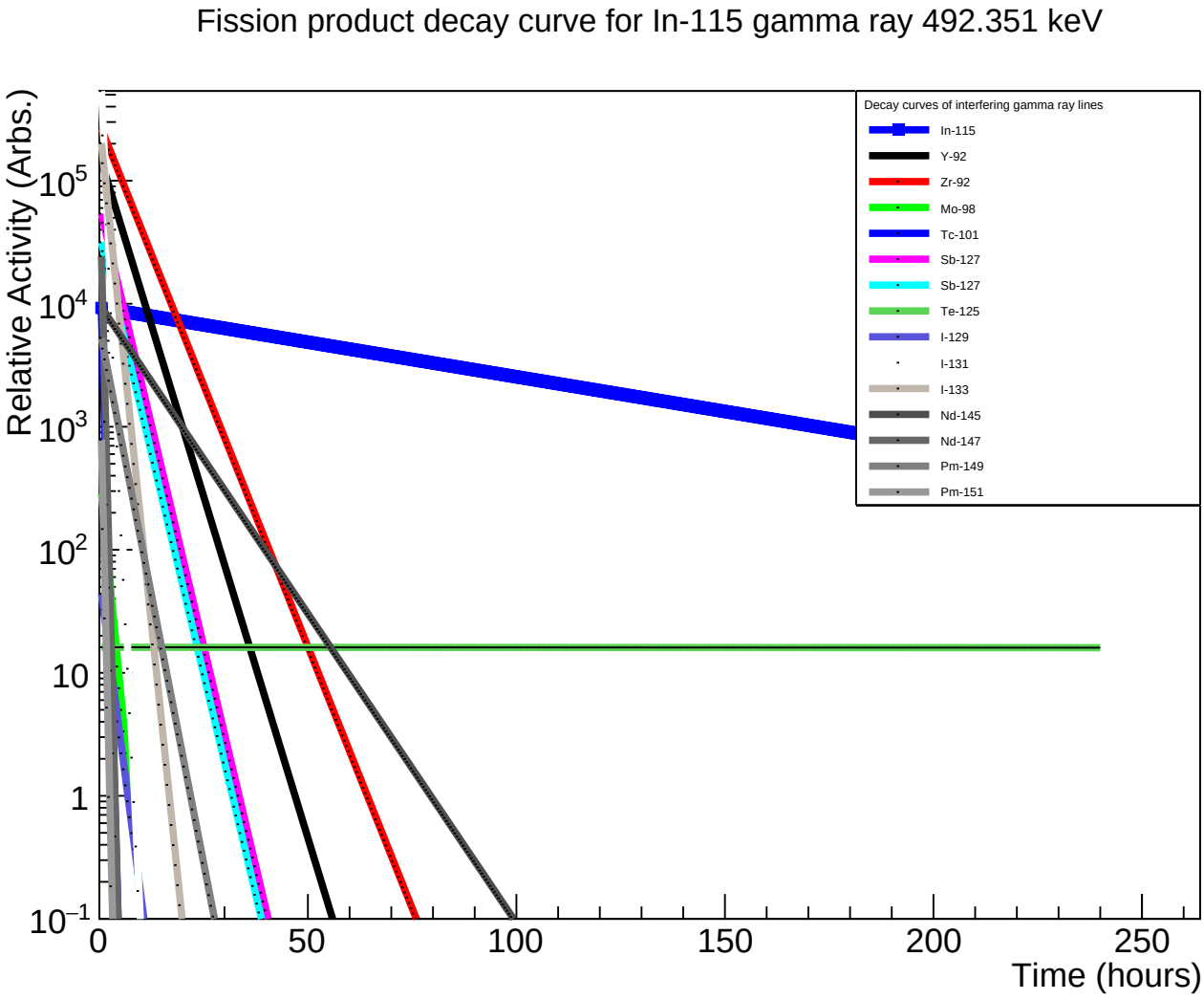


Figure 412: In-115 decay curve for 492.351 keV gamma ray.

3.413 Cd-115 E_γ = 527.90 keV

Chemical element: Cadmium
Fission product parent: Cd-115
Gamma originates in daughter: In-115
Eγ: 527.90 keV
Gamma Intensity = 27.45 ± 0.578 %
$T_{1/2}$ = 53.460 ± 0.050 hours or 3207.60 ± 3.00 minutes
CFY: 0.012 ± 0.001 %

Table 825: Decay chain of fission product chain A = 115

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Silver-115	Cadmium-115	0.333	0.008
Cadmium-115	Indium-115	53.460	0.050
Indium-115	Tin-115	4.486	0.004

Table 826: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	528.788	0.001	65.976	0.061
Tc-104	Ru-104	527.200	0.004	0.305	0.019
Sn-127	Sb-127	528.500	0.001	2.100	0.001
Sb-128	Te-128	526.500	0.450	9.010	0.000
Xe-135	Cs-135	526.561	0.806	0.255	0.011
Cs-139	Ba-139	528.200	0.000	0.155	0.063
Ba-141	La-141	527.600	0.005	0.304	0.058
La-142	Ce-142	529.400	0.000	1.518	0.058
La-143	Ce-143	527.300	0.001	0.237	0.059
Ce-146	Pr-146	526.830	0.001	0.225	0.030
Nd-149	Pm-149	527.600	0.000	1.728	0.011
Nd-151	Pm-151	527.600	0.000	0.207	0.004
Pm-149	Sm-149	528.600	0.000	53.080	0.011

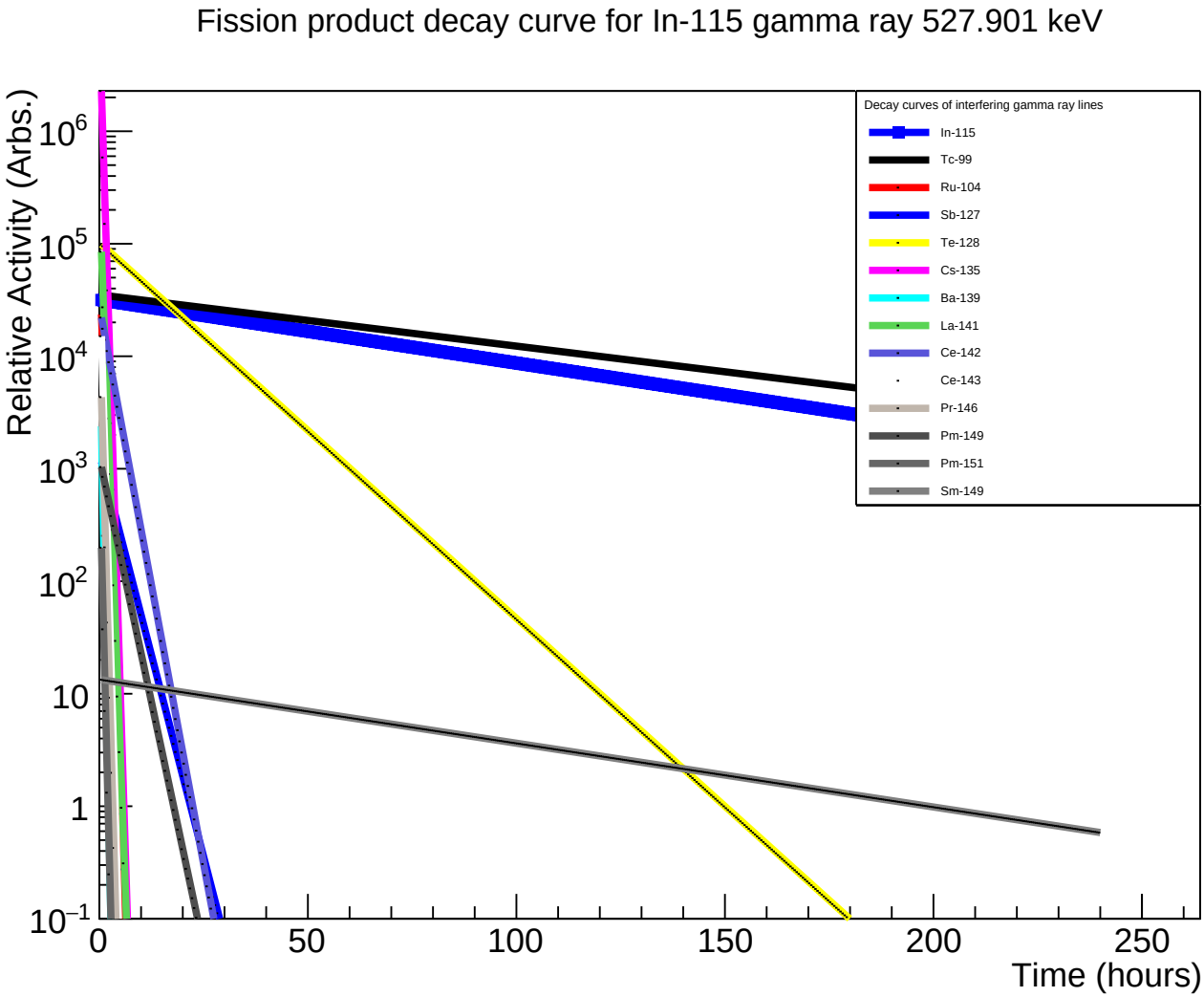


Figure 413: In-115 decay curve for 527.901 keV gamma ray.

3.414 In-115 E_γ = 336.24 keV

Chemical element: Indium
Fission product parent: In-115
Gamma originates in daughter: Sn-115
Eγ: 336.24 keV
Gamma Intensity = 45.79 ± 2.208 %
$T_{1/2}$ = 4.486 ± 0.004 hours or 269.16 ± 0.24 minutes
CFY: 0.012 ± 0.001 %

Table 827: Decay chain of fission product chain A = 115

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Silver-115	Cadmium-115	0.333	0.008
Cadmium-115	Indium-115	53.460	0.050
Indium-115	Tin-115	4.486	0.004

Table 828: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	335.258	0.095	0.855	0.000
Te-131	I-131	335.440	0.001	33.250	0.004
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Ba-142	La-142	335.000	0.015	0.177	0.058
Ba-142	La-142	337.700	0.003	0.177	0.058
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	337.120	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

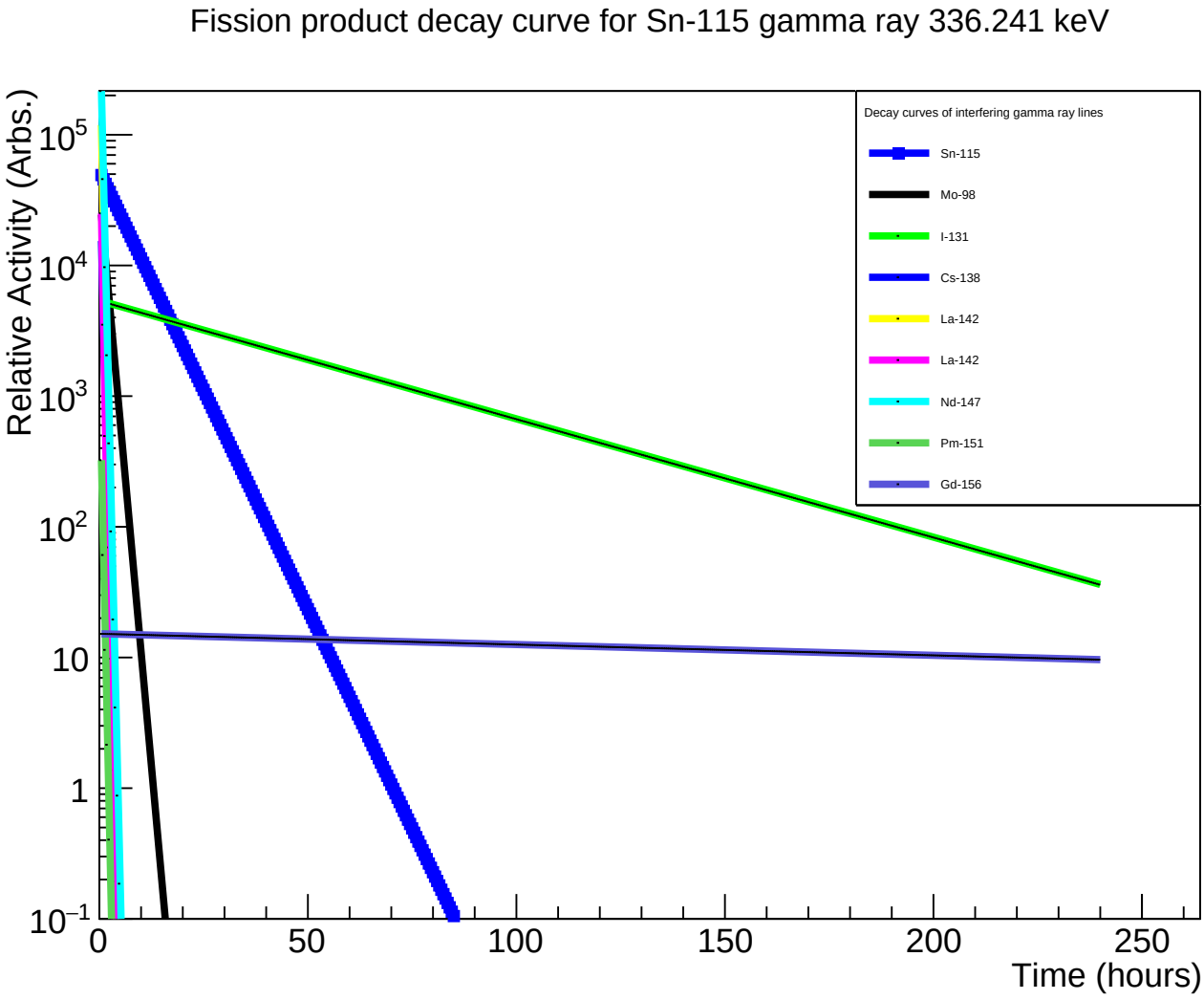


Figure 414: Sn-115 decay curve for 336.241 keV gamma ray.

3.415 Sn-123 E_γ = 160.35 keV

Chemical element: Tin
Fission product parent: Sn-123
Gamma originates in daughter: Sb-123
Eγ: 160.35 keV
Gamma Intensity = 85.60 ± 2.484 %
$T_{1/2}$ = 0.668 ± 0.000 hours or 40.06 ± 0.01 minutes
CFY: 0.015 ± 0.001 %

Table 829: Decay chain of fission product chain A = 123

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-123	Indium-123	0.001	0.000
Indium-123	Tin-123	0.002	0.000
Tin-123	Antimony-123	3111.111	9.600

Table 830: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	160.400	0.019	0.305	0.019
Tc-105	Ru-105	159.528	0.102	0.127	0.010
Ag-112	Cd-112	159.500	0.000	3.130	0.000
Sb-131	Te-131	159.900	0.005	0.384	0.026
Te-131	I-131	159.660	0.001	33.250	0.004
Xe-133	Cs-133	160.613	0.001	125.832	0.067
Pr-147	Nd-147	161.100	0.008	0.223	0.022
Nd-147	Pm-147	159.700	0.000	263.520	0.022
Eu-156	Gd-156	160.200	0.000	364.560	0.000

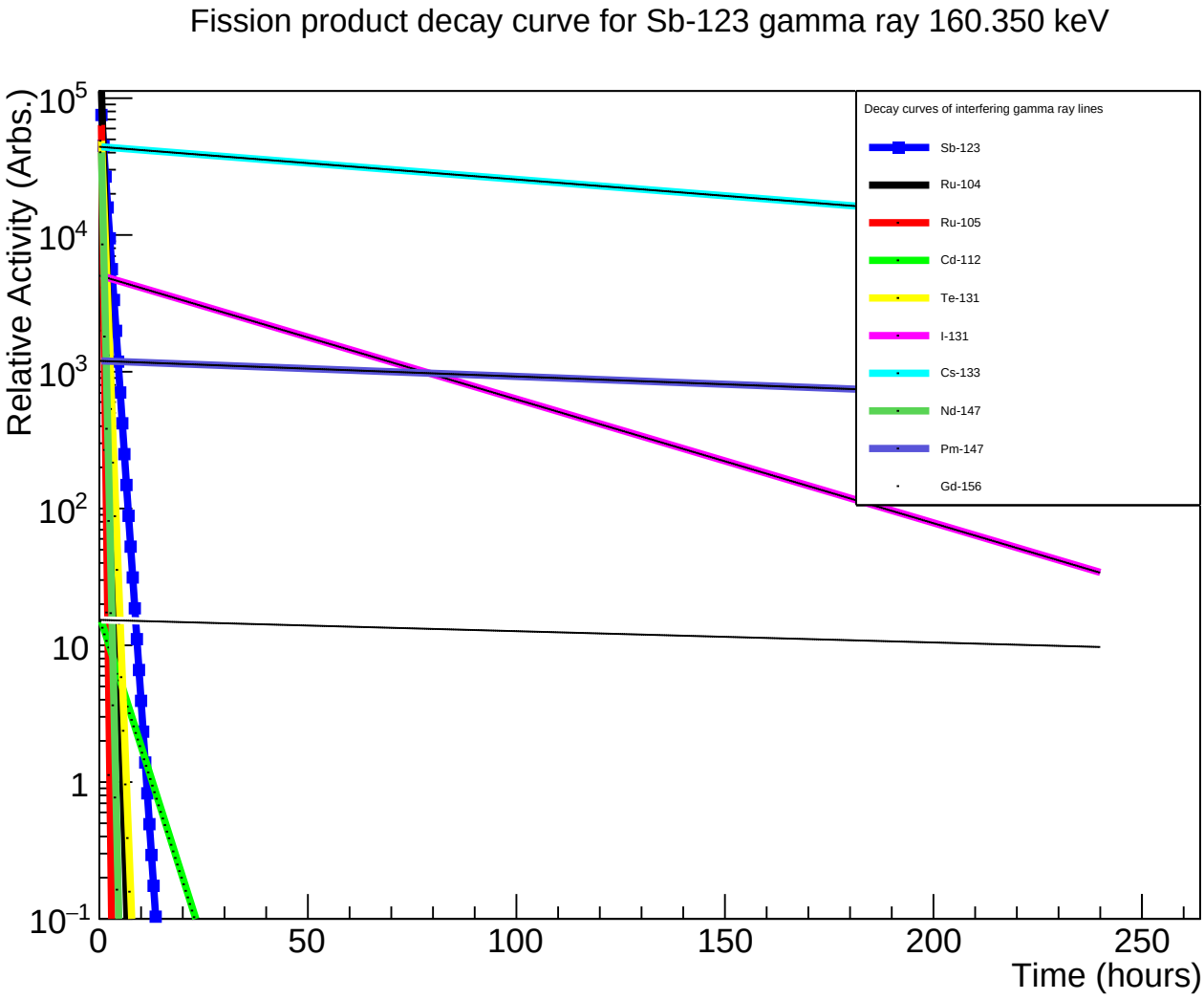


Figure 415: Sb-123 decay curve for 160.350 keV gamma ray.

3.416 Sn-125 E_γ = 332.10 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 332.10 keV
Gamma Intensity = 1.41 ± 0.378 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 831: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 832: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	332.040	0.004	0.124	0.062
Tc-105	Ru-105	331.640	0.005	0.127	0.010
Tc-105	Ru-105	333.280	0.006	0.127	0.010
Ru-105	Rh-105	330.850	0.007	4.440	0.010
Ag-113	Cd-113	333.100	0.006	5.370	0.000
Sb-130	Te-130	330.914	0.780	0.658	0.008
Te-131	I-131	331.200	0.000	33.250	0.004
Te-133	I-133	331.500	0.001	0.208	0.031
I-135	Xe-135	333.600	0.000	6.570	0.063
La-142	Ce-142	332.100	0.000	1.518	0.058
Nd-149	Pm-149	332.167	0.000	1.728	0.011
Nd-151	Pm-151	332.780	0.007	0.207	0.004

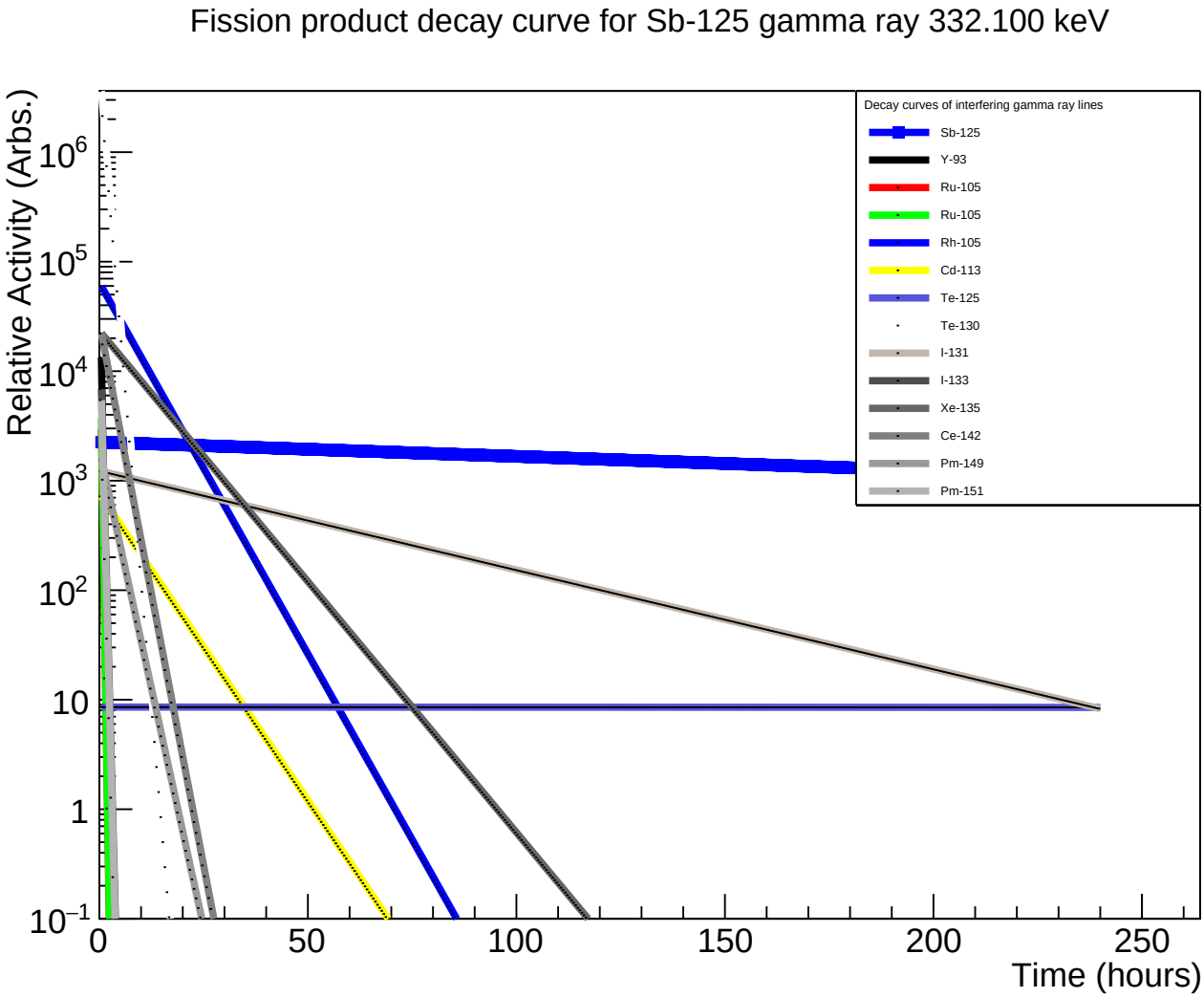


Figure 416: Sb-125 decay curve for 332.100 keV gamma ray.

3.417 Sn-125 E_γ = 469.85 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 469.85 keV
Gamma Intensity = 1.48 ± 0.399 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 833: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 834: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	468.800	0.001	1.512	0.000
Nb-98	Mo-98	469.900	0.001	0.855	0.000
Mo-99	Tc-99	469.630	0.000	65.976	0.061
Tc-105	Ru-105	469.900	0.004	0.127	0.010
Ru-105	Rh-105	469.370	0.175	4.440	0.010
Ru-105	Rh-105	470.100	0.002	4.440	0.010
Rh-107	Pd-107	471.200	0.001	0.362	0.001
Te-131	I-131	469.700	0.000	0.417	0.025
Nd-149	Pm-149	470.500	0.000	1.728	0.011
Pm-151	Sm-151	470.500	0.000	28.400	0.004
Pm-151	Sm-151	471.300	0.000	28.400	0.004

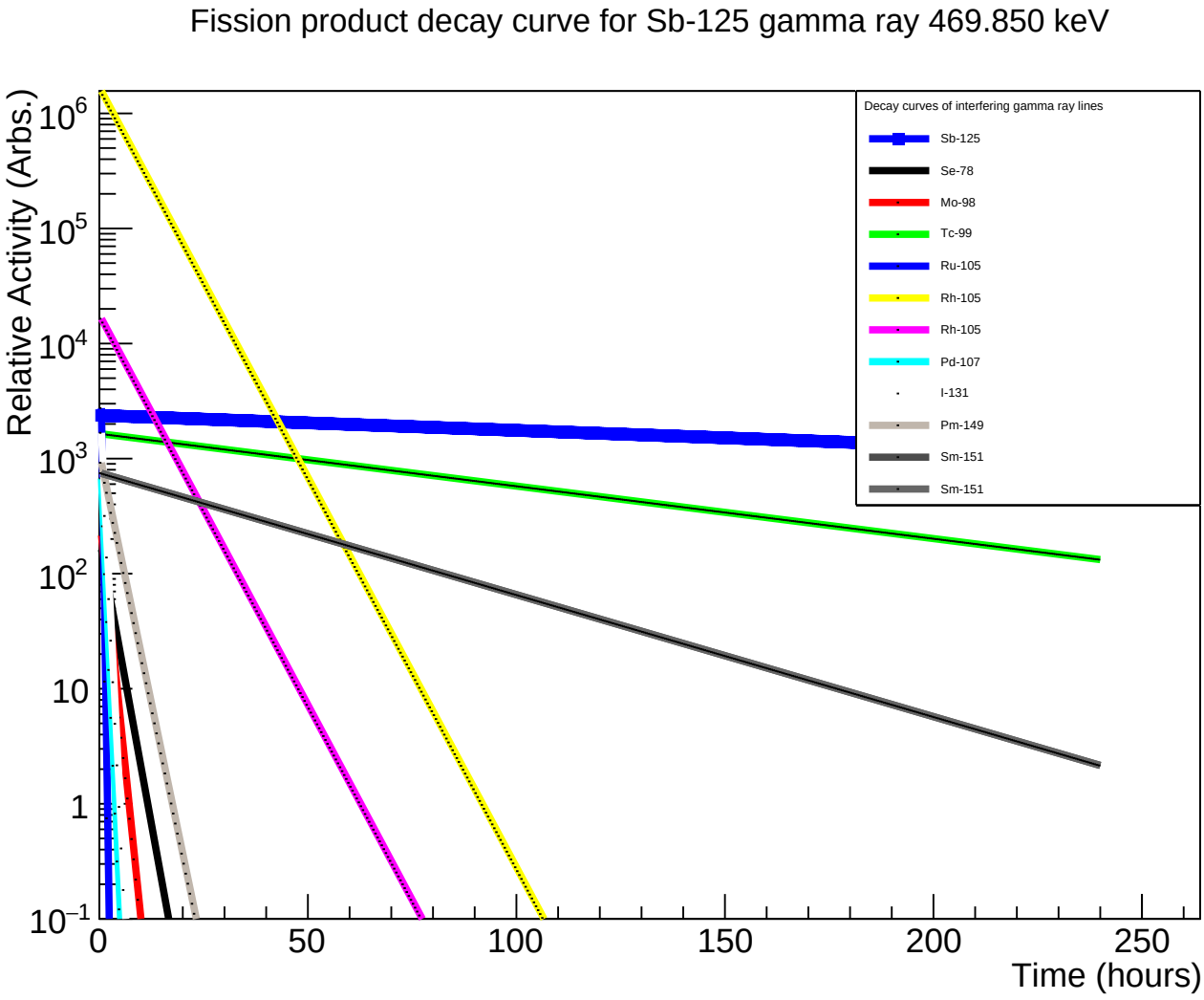


Figure 417: Sb-125 decay curve for 469.850 keV gamma ray.

3.418 Sn-125 E_γ = 800.28 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 800.28 keV
Gamma Intensity = 1.07 ± 0.287 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 835: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 836: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	799.040	0.148	0.372	0.003
Rb-89	Sr-89	801.100	0.000	0.252	0.047
Tc-105	Ru-105	801.000	0.003	0.127	0.010
Te-131	I-131	801.600	0.000	33.250	0.004
Te-133	I-133	800.540	0.011	0.923	0.040
Xe-138	Cs-138	799.600	0.000	0.235	0.063
Ba-141	La-141	801.700	0.001	0.304	0.058
Pr-147	Nd-147	800.400	0.002	0.223	0.022
Nd-151	Pm-151	801.000	0.000	0.207	0.004

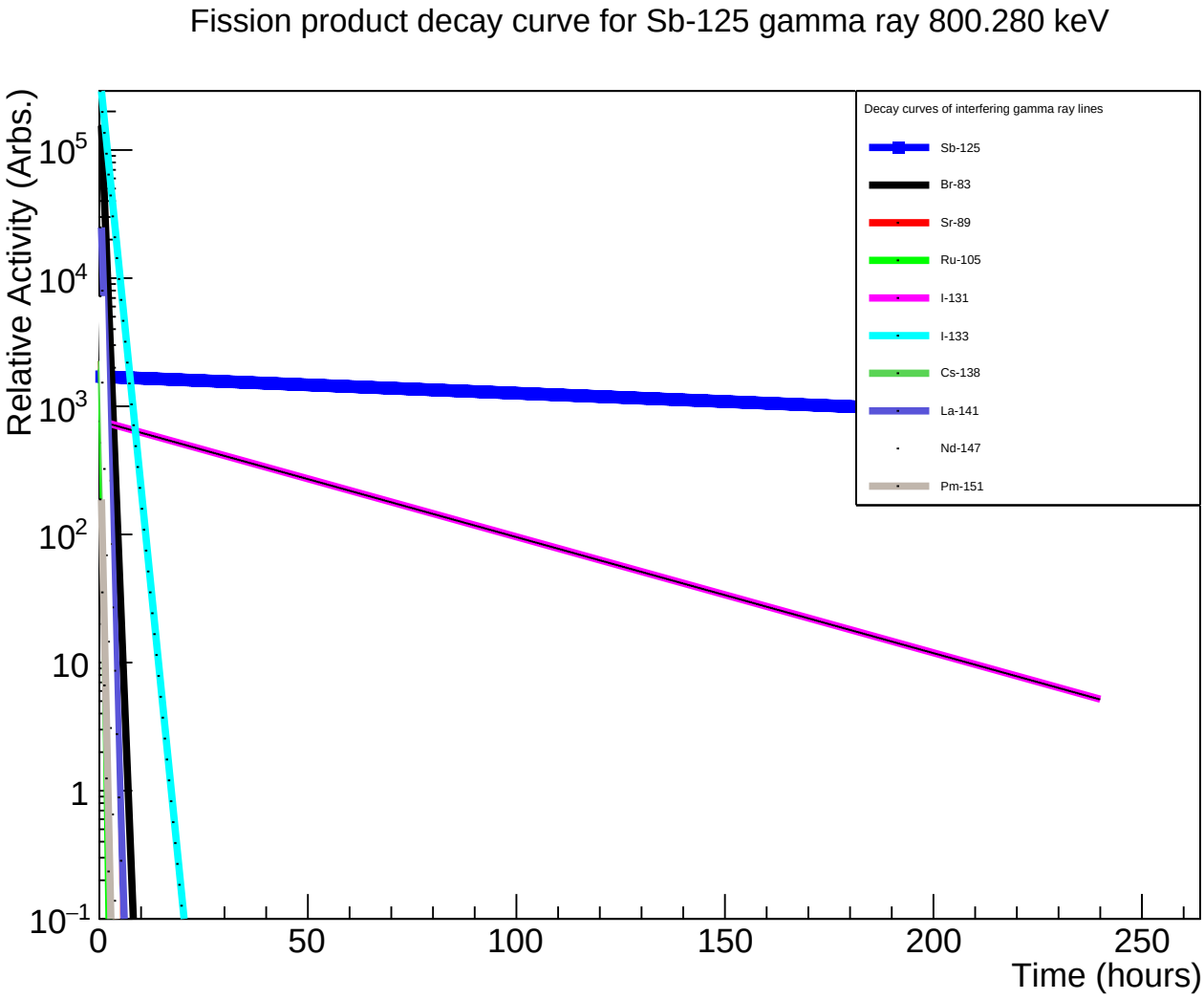


Figure 418: Sb-125 decay curve for 800.280 keV gamma ray.

3.419 Sn-125 E_γ = 822.48 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 822.48 keV
Gamma Intensity = 4.28 ± 1.150 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 837: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 838: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	822.010	0.001	2.840	0.036
Rb-89	Sr-89	822.000	0.000	0.252	0.047
Sr-91	Y-91	823.700	0.001	9.630	0.058
Nb-98	Mo-98	823.390	0.025	0.855	0.000
Mo-99	Tc-99	822.972	0.001	65.976	0.061
Ru-105	Rh-105	821.980	0.002	4.440	0.010
Pd-109	Ag-109	822.900	0.000	13.701	0.000
Te-131	I-131	822.780	0.059	33.250	0.004
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004
Pm-151	Sm-151	822.450	0.000	28.400	0.004

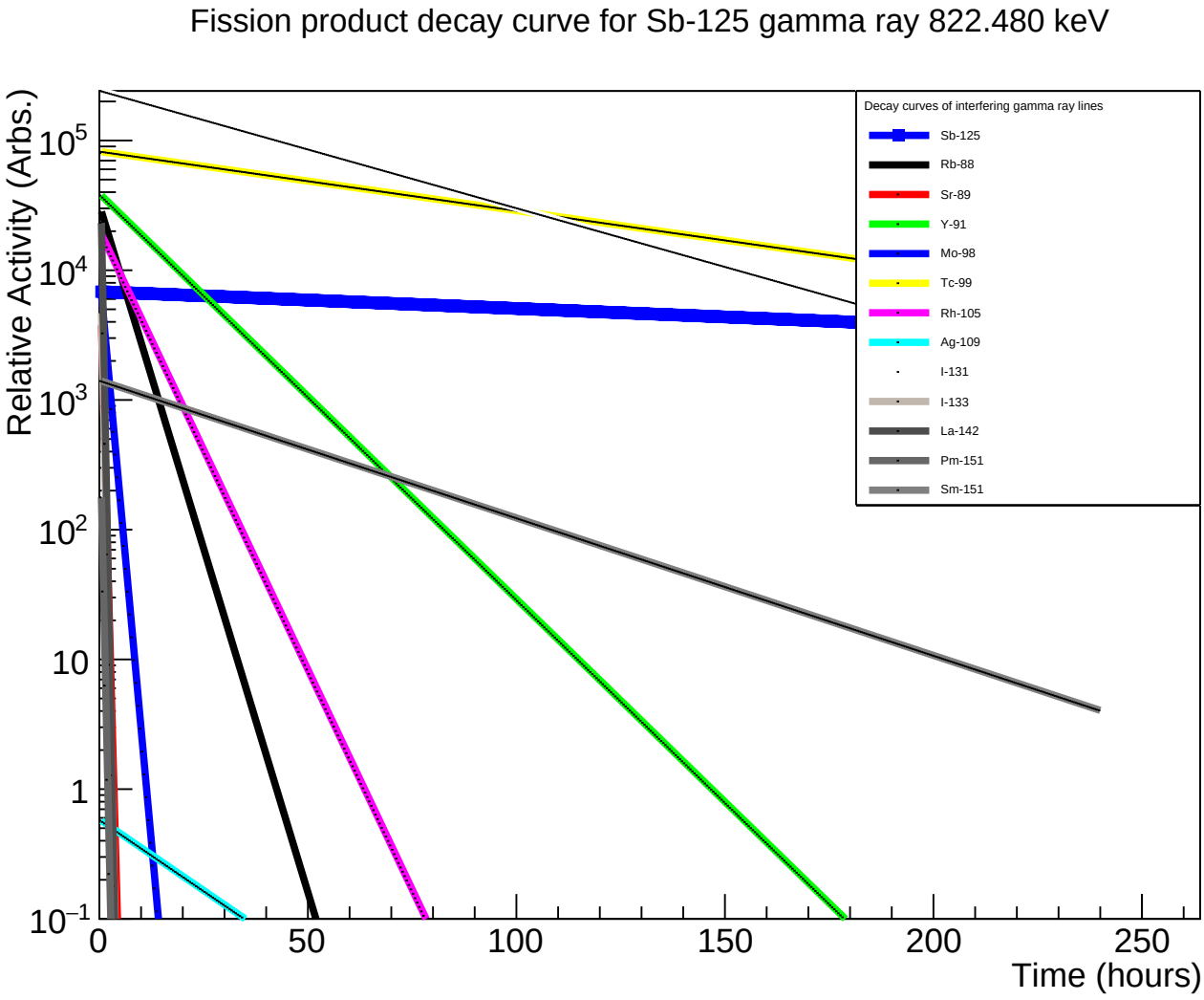


Figure 419: Sb-125 decay curve for 822.480 keV gamma ray.

3.420 Sn-125 E_γ = 915.55 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 915.55 keV
Gamma Intensity = 4.13 ± 1.111 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 839: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 840: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	917.050	0.001	0.855	0.000
Tc-105	Ru-105	914.500	0.038	0.127	0.010
Sb-129	Te-129	914.600	0.202	4.400	0.005
Sb-130	Te-130	914.900	0.018	0.658	0.008
Te-133	I-133	914.740	0.007	0.208	0.031
Te-133	I-133	914.774	0.104	0.923	0.040
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Nd-151	Pm-151	914.280	0.009	0.207	0.004
Eu-156	Gd-156	916.400	0.000	364.560	0.000

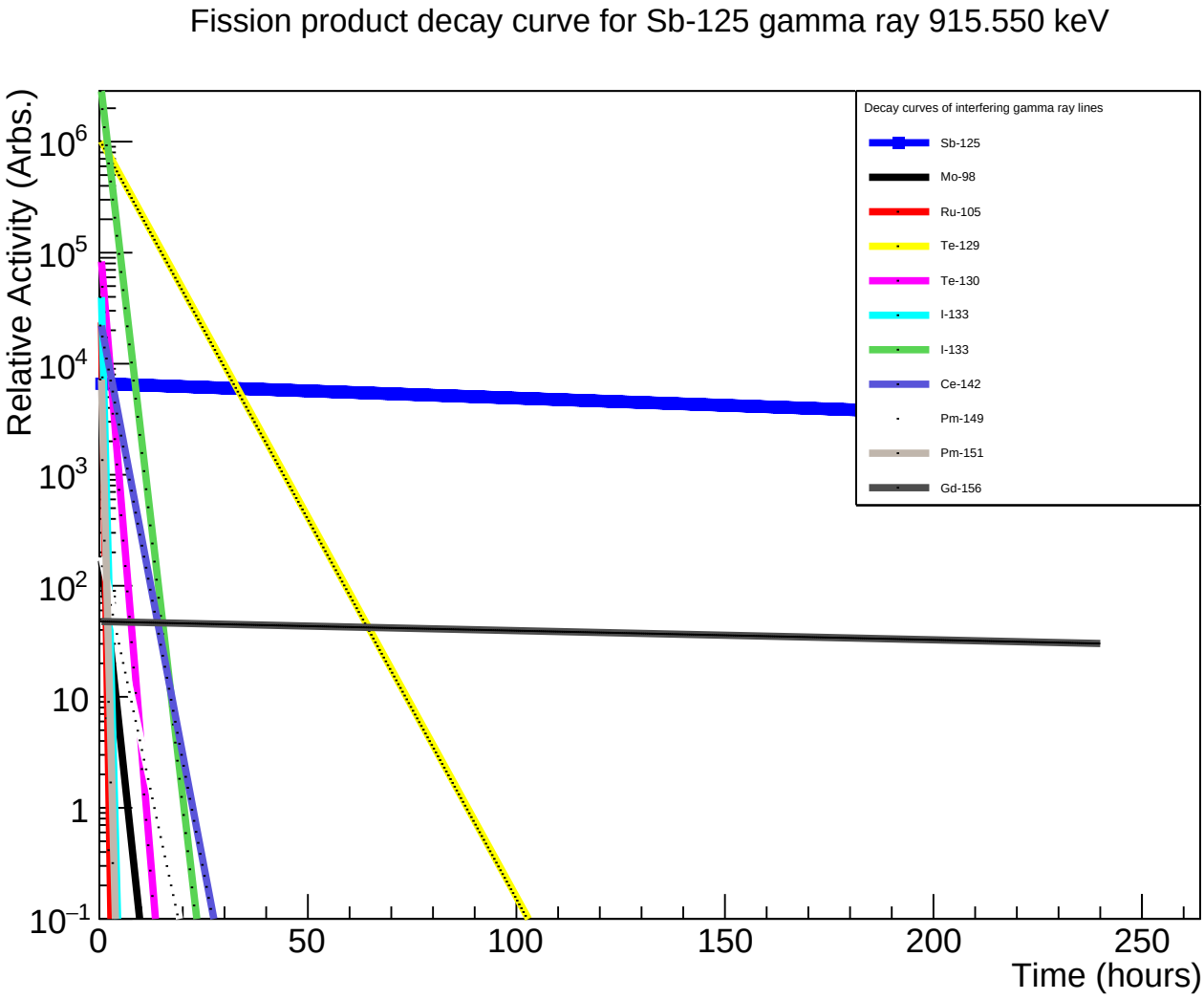


Figure 420: Sb-125 decay curve for 915.550 keV gamma ray.

3.421 Sn-125 E_γ = 1067.10 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 1067.10 keV
Gamma Intensity = 9.70 ± 2.600 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 841: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 842: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1066.500	0.001	0.312	0.065
Mo-101	Tc-101	1065.900	0.002	0.243	0.052
Pd-111	Ag-111	1067.100	0.000	0.390	0.000
Te-131	I-131	1066.800	0.000	0.417	0.025
Cs-139	Ba-139	1067.060	0.000	0.155	0.063
Ba-141	La-141	1066.600	0.001	0.304	0.058
Nd-151	Pm-151	1066.570	0.000	0.207	0.004
Nd-151	Pm-151	1066.570	0.002	0.207	0.004

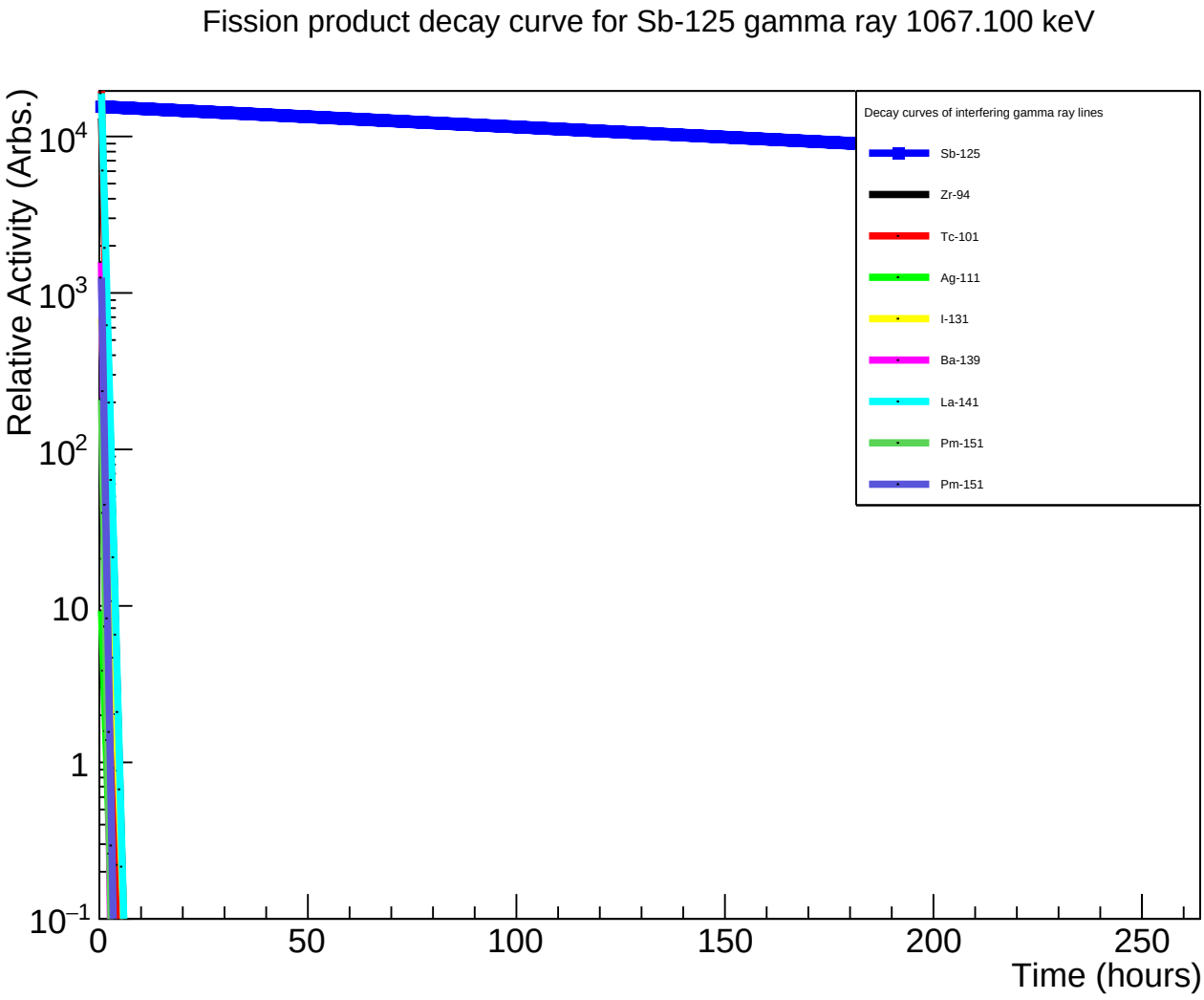


Figure 421: Sb-125 decay curve for 1067.100 keV gamma ray.

3.422 Sn-125 E_γ = 1087.70 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 1087.70 keV
Gamma Intensity = 1.19 ± 0.320 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 843: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 844: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-132	Xe-132	1086.200	0.001	2.295	0.043
I-133	Xe-133	1087.710	0.000	20.800	0.067
I-134	Xe-134	1087.000	0.001	0.875	0.078
La-143	Ce-143	1087.100	0.000	0.237	0.059
Pr-145	Nd-145	1088.520	0.000	5.984	0.039

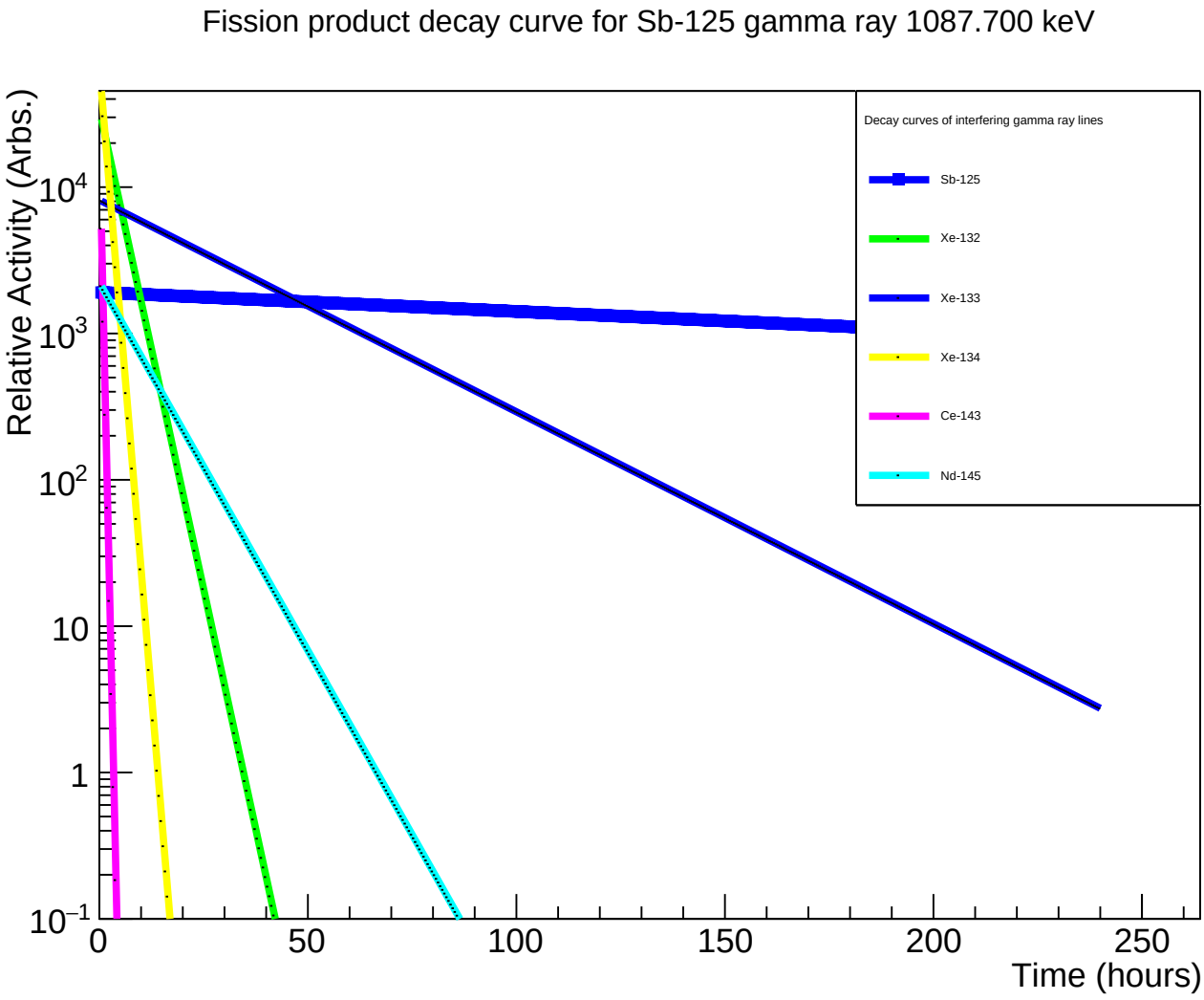


Figure 422: Sb-125 decay curve for 1087.700 keV gamma ray.

3.423 Sn-125 E_γ = 1089.15 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 1089.15 keV
Gamma Intensity = 4.59 ± 1.233 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 845: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 846: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1090.530	0.001	2.840	0.036
Sb-130	Te-130	1089.500	0.037	0.658	0.008
Te-133	I-133	1090.500	0.001	0.923	0.040
I-133	Xe-133	1087.710	0.000	20.800	0.067
La-142	Ce-142	1089.900	0.001	1.518	0.058
Pr-145	Nd-145	1088.520	0.000	5.984	0.039
Pr-145	Nd-145	1089.900	0.000	5.984	0.039

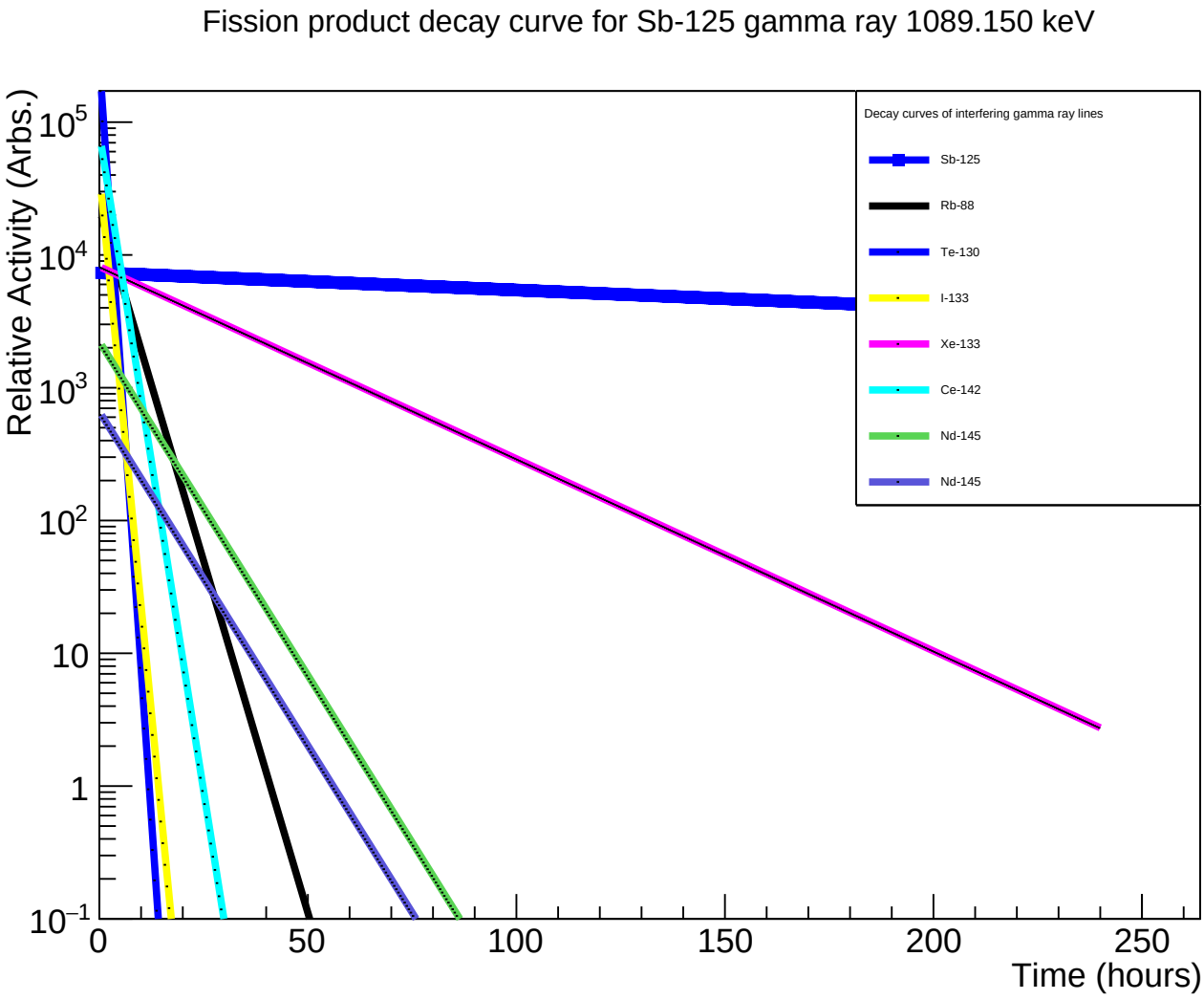


Figure 423: Sb-125 decay curve for 1089.150 keV gamma ray.

3.424 Sn-125 E_γ = 2002.13 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 2002.13 keV
Gamma Intensity = 1.92 ± 0.516 %
$T_{1/2}$ = 231.360 ± 0.720 hours or 13881.60 ± 43.20 minutes
CFY: 0.016 ± 0.001 %

Table 847: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 848: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	2000.940	0.019	33.250	0.004
I-132	Xe-132	2002.200	0.011	2.295	0.043
Cs-139	Ba-139	2003.400	0.000	0.155	0.063

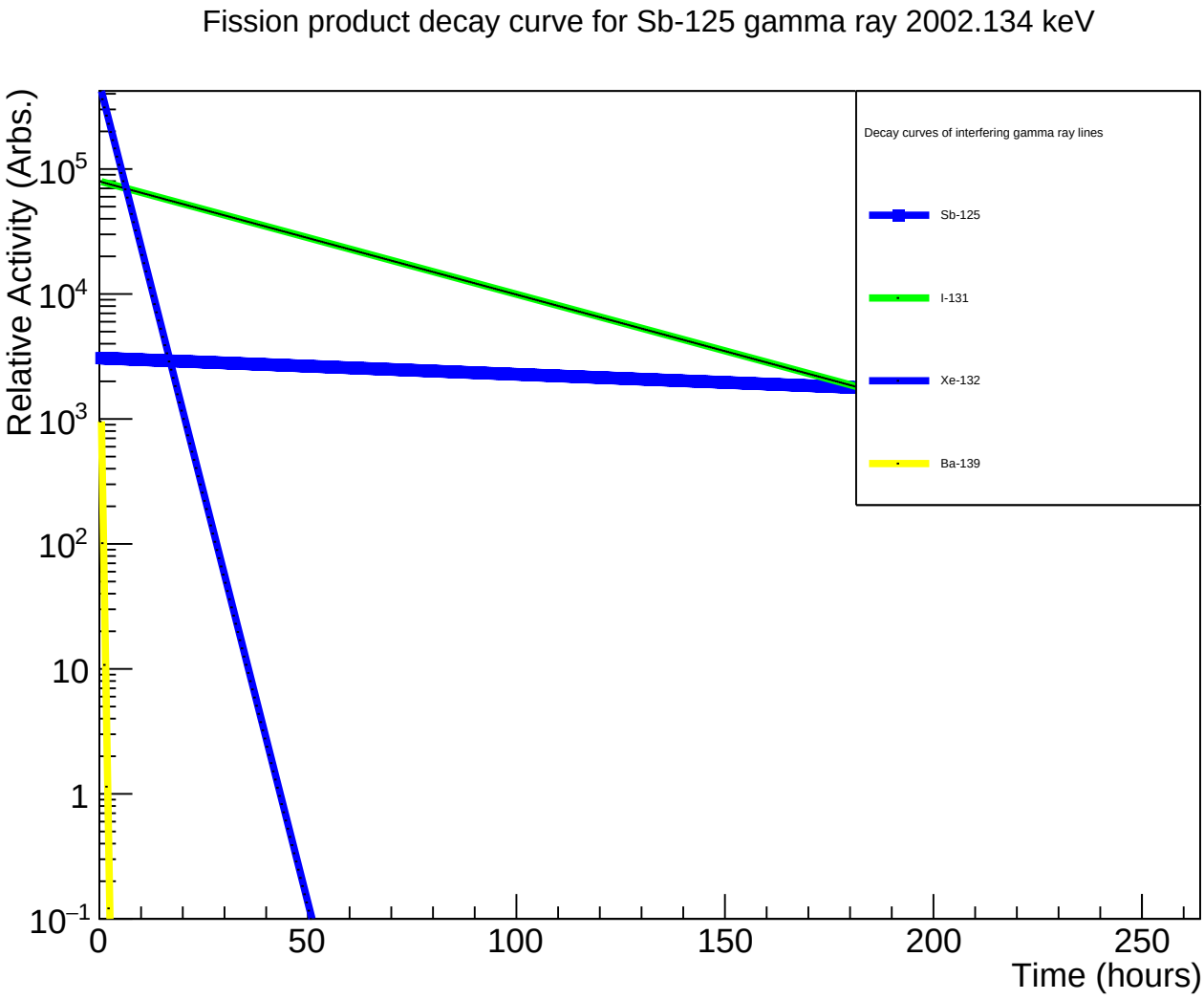


Figure 424: Sb-125 decay curve for 2002.134 keV gamma ray.

3.425 Sn-125 E_γ = 331.94 keV

Chemical element: Tin
Fission product parent: Sn-125
Gamma originates in daughter: Sb-125
Eγ: 331.94 keV
Gamma Intensity = 97.30 ± 1.395 %
$T_{1/2}$ = 0.159 ± 0.001 hours or 9.52 ± 0.05 minutes
CFY: 0.018 ± 0.001 %

Table 849: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 850: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	332.040	0.004	0.124	0.062
Tc-105	Ru-105	331.640	0.005	0.127	0.010
Tc-105	Ru-105	333.280	0.006	0.127	0.010
Ru-105	Rh-105	330.850	0.007	4.440	0.010
Ag-113	Cd-113	333.100	0.006	5.370	0.000
Sb-130	Te-130	330.914	0.780	0.658	0.008
Te-131	I-131	331.200	0.000	33.250	0.004
Te-133	I-133	331.500	0.001	0.208	0.031
La-142	Ce-142	332.100	0.000	1.518	0.058
Nd-149	Pm-149	332.167	0.000	1.728	0.011
Nd-151	Pm-151	332.780	0.007	0.207	0.004

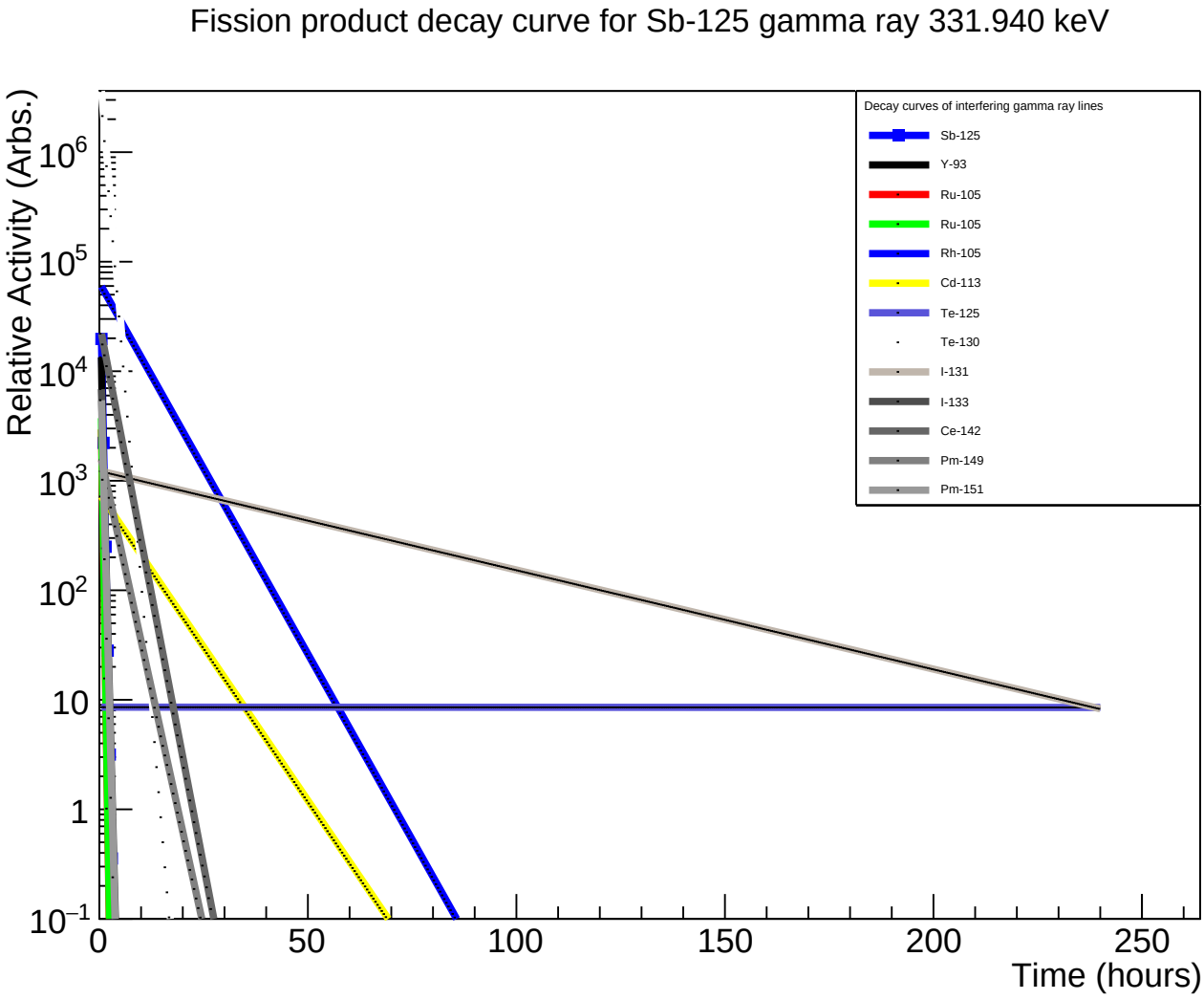


Figure 425: Sb-125 decay curve for 331.940 keV gamma ray.

3.426 Sn-126 E_γ = 21.65 keV

Chemical element: Tin
Fission product parent: Sn-126
Gamma originates in daughter: Sb-126
Eγ: 21.65 keV
Gamma Intensity = 1.26 ± 0.176 %
$T_{1/2}$ = 2016666624.000 ± 122777784.000 hours or 120999997440.00 ± 7366667040.00 minutes
CFY: 0.056 ± 0.004 %

Table 851: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

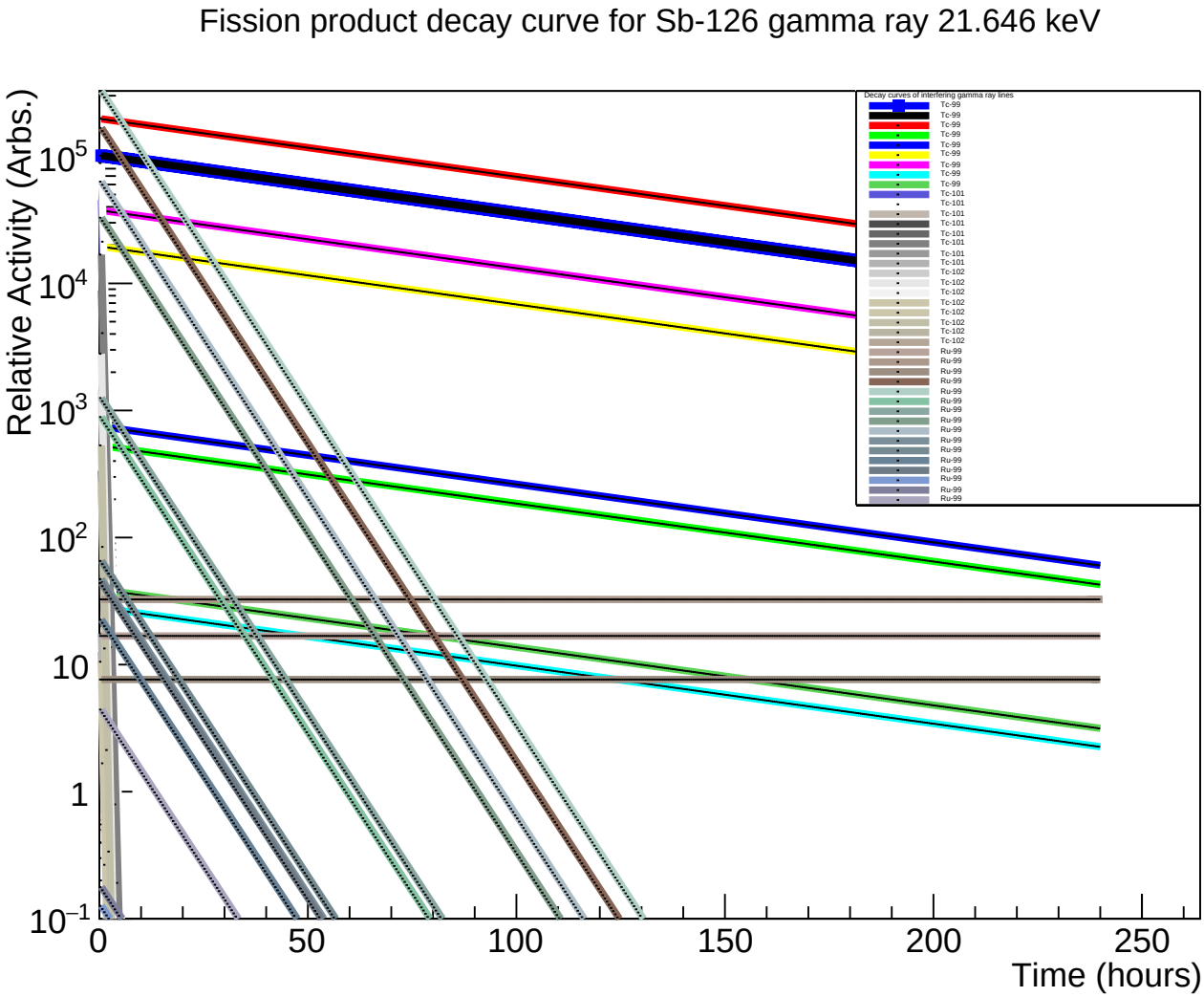


Figure 426: Sb-126 decay curve for 21.646 keV gamma ray.

Table 852: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	20.567	0.002	65.976	0.061
Mo-99	Tc-99	20.587	0.003	65.976	0.061
Mo-99	Tc-99	20.745	0.000	65.976	0.061
Mo-99	Tc-99	20.749	0.000	65.976	0.061
Mo-99	Tc-99	20.962	0.000	65.976	0.061
Mo-99	Tc-99	20.965	0.001	65.976	0.061
Mo-99	Tc-99	21.004	0.000	65.976	0.061
Mo-99	Tc-99	21.004	0.000	65.976	0.061
Mo-101	Tc-101	20.567	0.004	0.243	0.052
Mo-101	Tc-101	20.587	0.007	0.243	0.052
Mo-101	Tc-101	20.745	0.000	0.243	0.052
Mo-101	Tc-101	20.749	0.000	0.243	0.052
Mo-101	Tc-101	20.962	0.001	0.243	0.052
Mo-101	Tc-101	20.965	0.001	0.243	0.052
Mo-101	Tc-101	21.004	0.000	0.243	0.052
Mo-101	Tc-101	21.004	0.000	0.243	0.052
Mo-102	Tc-102	20.567	0.000	0.188	0.043
Mo-102	Tc-102	20.587	0.000	0.188	0.043
Mo-102	Tc-102	20.745	0.000	0.188	0.043
Mo-102	Tc-102	20.749	0.000	0.188	0.043
Mo-102	Tc-102	20.962	0.000	0.188	0.043
Mo-102	Tc-102	20.965	0.000	0.188	0.043
Mo-102	Tc-102	21.004	0.000	0.188	0.043
Mo-102	Tc-102	21.004	0.000	0.188	0.043
Tc-99	Ru-99	21.634	0.000	1850000000.000	0.061
Tc-99	Ru-99	21.657	0.000	1850000000.000	0.061
Tc-99	Ru-99	22.074	0.000	1850000000.000	0.061
Tc-99	Ru-99	20.567	0.003	6.007	0.054
Tc-99	Ru-99	20.587	0.006	6.007	0.054
Tc-99	Ru-99	20.745	0.000	6.007	0.054
Tc-99	Ru-99	20.749	0.000	6.007	0.054
Tc-99	Ru-99	20.962	0.001	6.007	0.054
Tc-99	Ru-99	20.965	0.001	6.007	0.054
Tc-99	Ru-99	21.004	0.000	6.007	0.054
Tc-99	Ru-99	21.004	0.000	6.007	0.054
Tc-99	Ru-99	21.605	0.000	6.007	0.054
Tc-99	Ru-99	21.628	0.000	6.007	0.054
Tc-99	Ru-99	21.792	0.000	6.007	0.054
Tc-99	Ru-99	21.797	0.000	6.007	0.054
Tc-99	Ru-99	22.033	0.000	6.007	0.054

3.427 Sn-126 E_γ = 23.28 keV

Chemical element: Tin
Fission product parent: Sn-126
Gamma originates in daughter: Sb-126
Eγ: 23.28 keV
Gamma Intensity = 6.40 ± 0.935 %
$T_{1/2}$ = 2016666624.000 ± 122777784.000 hours or 120999997440.00 ± 7366667040.00 minutes
CFY: 0.056 ± 0.004 %

Table 853: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

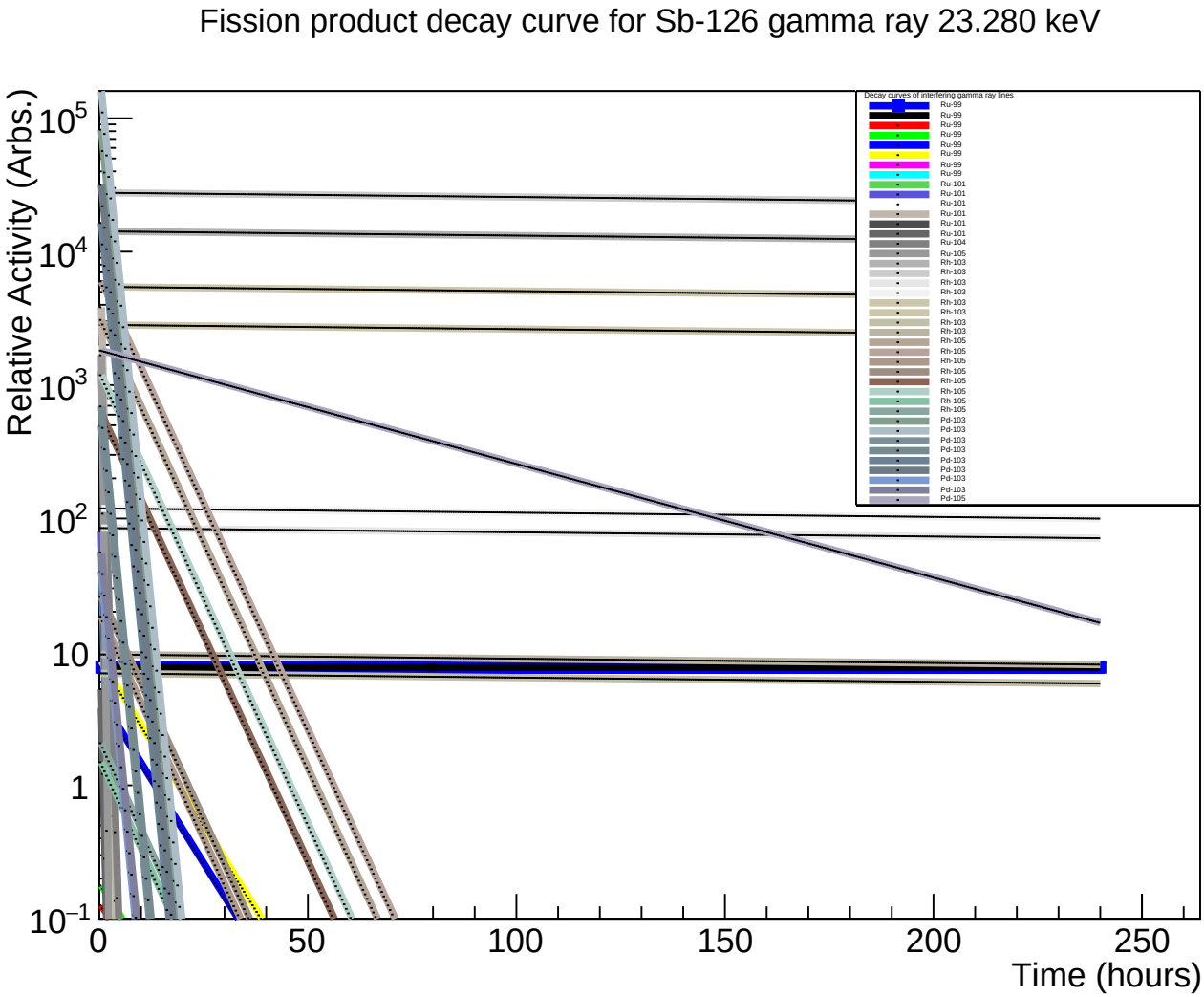


Figure 427: Sb-126 decay curve for 23.280 keV gamma ray.

Table 854: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	22.074	0.000	1850000000.000	0.061
Tc-99	Ru-99	21.792	0.000	6.007	0.054
Tc-99	Ru-99	21.797	0.000	6.007	0.054
Tc-99	Ru-99	22.033	0.000	6.007	0.054
Tc-99	Ru-99	22.036	0.000	6.007	0.054
Tc-99	Ru-99	22.078	0.000	6.007	0.054
Tc-99	Ru-99	22.078	0.000	6.007	0.054
Tc-101	Ru-101	21.792	0.000	0.237	0.052
Tc-101	Ru-101	21.797	0.000	0.237	0.052
Tc-101	Ru-101	22.033	0.000	0.237	0.052
Tc-101	Ru-101	22.036	0.000	0.237	0.052
Tc-101	Ru-101	22.078	0.000	0.237	0.052
Tc-101	Ru-101	22.078	0.000	0.237	0.052
Tc-104	Ru-104	22.074	0.000	0.305	0.019
Tc-105	Ru-105	22.074	0.003	0.127	0.010
Ru-103	Rh-103	22.671	0.000	941.928	0.030
Ru-103	Rh-103	22.696	0.001	941.928	0.030
Ru-103	Rh-103	22.868	0.000	941.928	0.030
Ru-103	Rh-103	22.873	0.000	941.928	0.030
Ru-103	Rh-103	23.132	0.000	941.928	0.030
Ru-103	Rh-103	23.136	0.000	941.928	0.030
Ru-103	Rh-103	23.181	0.000	941.928	0.030
Ru-103	Rh-103	23.181	0.000	941.928	0.030
Ru-105	Rh-105	22.671	0.000	4.440	0.010
Ru-105	Rh-105	22.696	0.001	4.440	0.010
Ru-105	Rh-105	22.868	0.000	4.440	0.010
Ru-105	Rh-105	22.873	0.000	4.440	0.010
Ru-105	Rh-105	23.132	0.000	4.440	0.010
Ru-105	Rh-105	23.136	0.000	4.440	0.010
Ru-105	Rh-105	23.181	0.000	4.440	0.010
Ru-105	Rh-105	23.181	0.000	4.440	0.010
Rh-103	Pd-103	22.671	0.004	0.935	0.030
Rh-103	Pd-103	22.696	0.008	0.935	0.030
Rh-103	Pd-103	22.868	0.000	0.935	0.030
Rh-103	Pd-103	22.873	0.000	0.935	0.030
Rh-103	Pd-103	23.132	0.001	0.935	0.030
Rh-103	Pd-103	23.136	0.002	0.935	0.030
Rh-103	Pd-103	23.181	0.000	0.935	0.030
Rh-103	Pd-103	23.181	0.000	0.935	0.030
Rh-105	Pd-105	23.791	0.000	35.360	0.010

3.428 Sn-126 E_γ = 64.28 keV

Chemical element: Tin
Fission product parent: Sn-126
Gamma originates in daughter: Sb-126
Eγ: 64.28 keV
Gamma Intensity = 9.62 ± 1.521 %
$T_{1/2}$ = 2016666624.000 ± 122777784.000 hours or 120999997440.00 ± 7366667040.00 minutes
CFY: 0.056 ± 0.004 %

Table 855: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 856: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	65.050	0.000	33.250	0.004
Ba-140	La-140	63.170	0.000	306.065	0.062
Ba-142	La-142	63.600	0.001	0.177	0.058
La-140	Ce-140	64.135	0.000	40.285	0.062
Nd-149	Pm-149	65.230	0.000	1.728	0.011
Nd-149	Pm-149	65.420	0.000	1.728	0.011
Nd-151	Pm-151	63.810	0.000	0.207	0.004
Pm-151	Sm-151	62.910	0.002	28.400	0.004
Pm-151	Sm-151	64.880	0.019	28.400	0.004
Sm-155	Eu-155	63.100	0.000	0.372	0.000
Sm-155	Eu-155	64.500	0.000	0.372	0.000
Sm-156	Eu-156	65.000	0.023	9.400	0.000

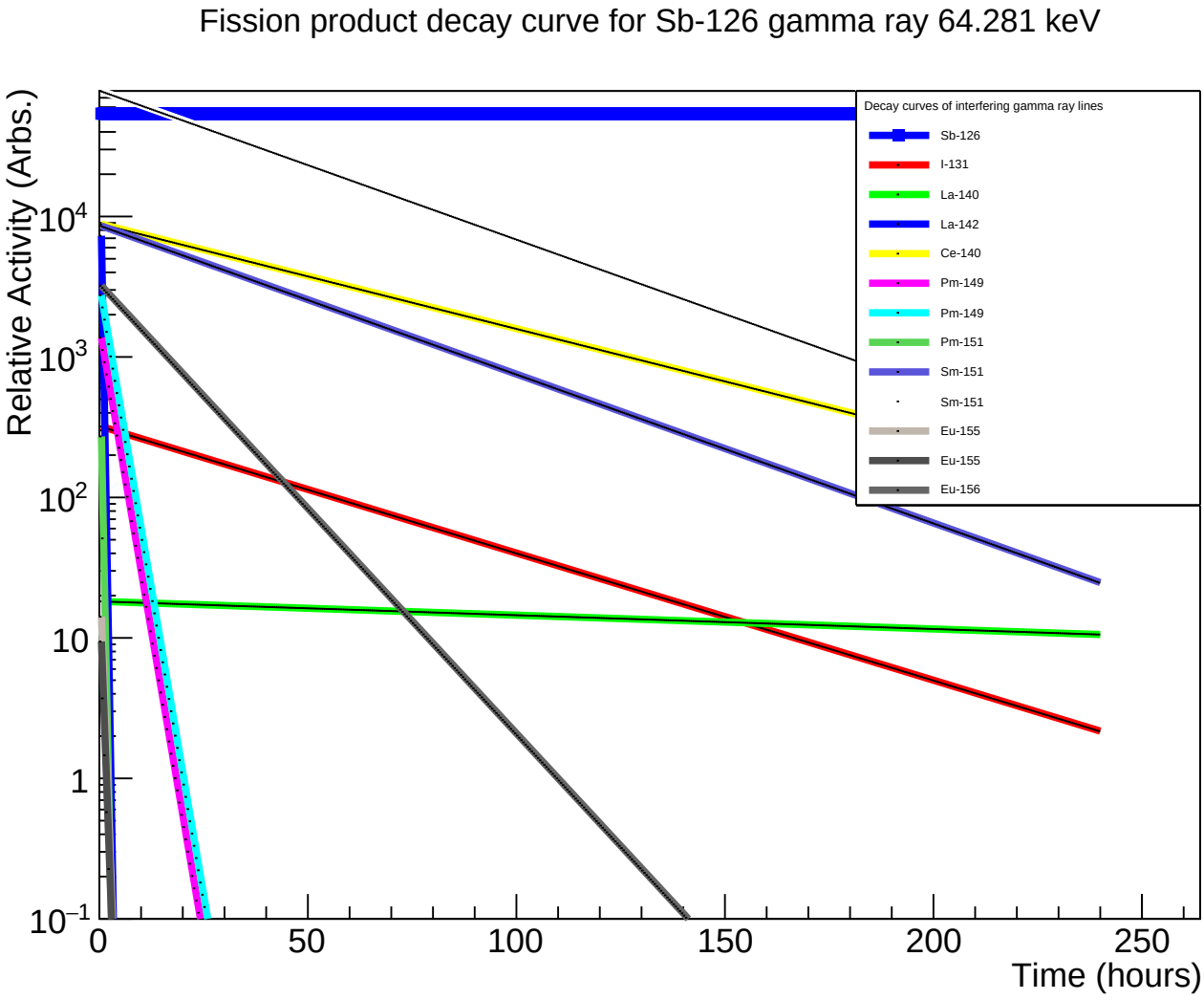


Figure 428: Sb-126 decay curve for 64.281 keV gamma ray.

3.429 Sn-126 E_γ = 86.94 keV

Chemical element: Tin
Fission product parent: Sn-126
Gamma originates in daughter: Sb-126
Eγ: 86.94 keV
Gamma Intensity = 8.92 ± 1.311 %
$T_{1/2}$ = 2016666624.000 ± 122777784.000 hours or 120999997440.00 ± 7366667040.00 minutes
CFY: 0.056 ± 0.004 %

Table 857: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 858: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Te-127	I-127	88.260	0.001	2616.000	0.000
Te-131	I-131	86.430	0.001	33.250	0.004
Te-133	I-133	86.900	0.000	0.923	0.040
Te-133	I-133	88.064	0.013	0.923	0.040
I-131	Xe-131	85.900	0.000	192.605	0.029
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Pr-147	Nd-147	86.690	0.054	0.223	0.022
Nd-151	Pm-151	86.080	0.001	0.207	0.004
Sm-156	Eu-156	87.600	0.235	9.400	0.000
Eu-155	Gd-155	86.059	0.002	41666.668	0.000
Eu-155	Gd-155	86.548	0.307	41666.668	0.000

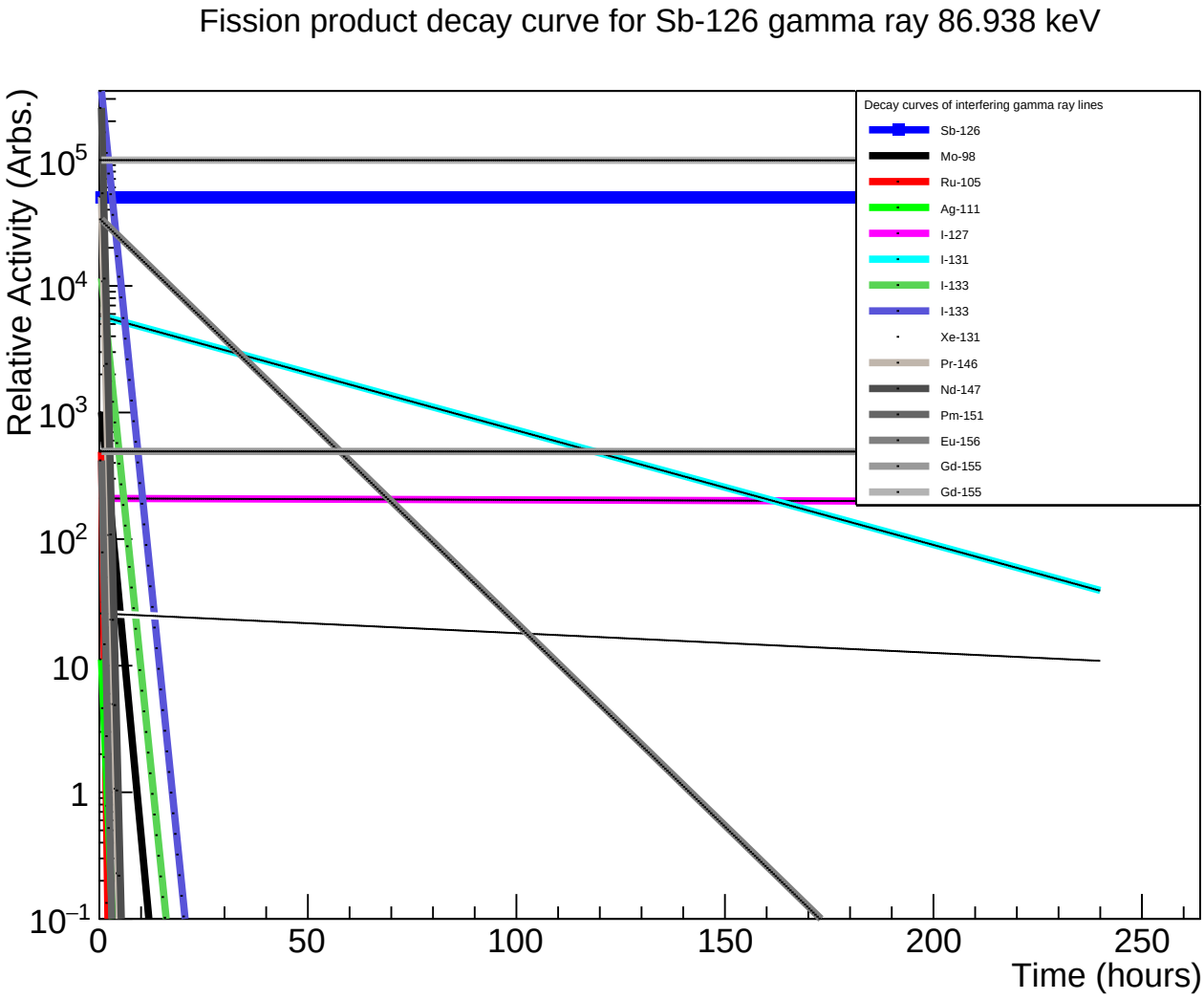


Figure 429: Sb-126 decay curve for 86.938 keV gamma ray.

3.430 Sn-126 E_γ = 87.57 keV

Chemical element: Tin
Fission product parent: Sn-126
Gamma originates in daughter: Sb-126
Eγ: 87.57 keV
Gamma Intensity = 37.00 ± 4.000 %
$T_{1/2}$ = 2016666624.000 ± 122777784.000 hours or 120999997440.00 ± 7366667040.00 minutes
CFY: 0.056 ± 0.004 %

Table 859: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 860: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Te-127	I-127	88.260	0.001	2616.000	0.000
Te-131	I-131	86.430	0.001	33.250	0.004
Te-133	I-133	86.900	0.000	0.923	0.040
Te-133	I-133	88.064	0.013	0.923	0.040
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Pr-147	Nd-147	86.690	0.054	0.223	0.022
Nd-151	Pm-151	86.080	0.001	0.207	0.004
Pm-151	Sm-151	88.800	0.000	28.400	0.004
Sm-156	Eu-156	87.600	0.235	9.400	0.000
Eu-155	Gd-155	86.548	0.307	41666.668	0.000
Eu-156	Gd-156	88.970	0.084	364.560	0.000

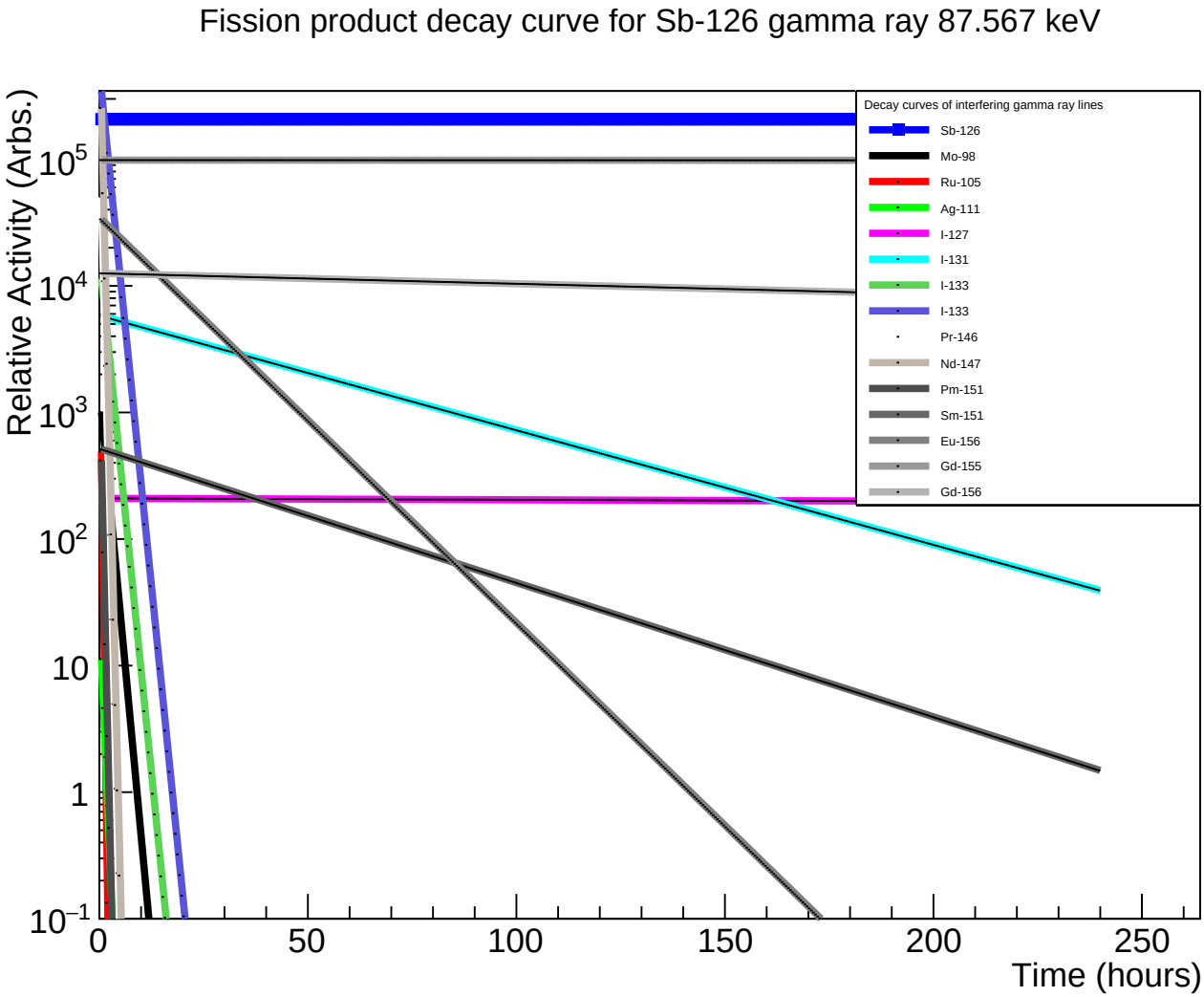


Figure 430: Sb-126 decay curve for 87.567 keV gamma ray.

3.431 Sn-127 E_γ = 119.70 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 119.70 keV
Gamma Intensity = 2.17 ± 0.460 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 861: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 862: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	119.320	0.000	2.400	0.005
Rb-89	Sr-89	118.300	0.000	0.252	0.047
Sr-91	Y-91	118.500	0.001	9.630	0.058
Ag-112	Cd-112	121.000	0.001	3.130	0.000
Te-133	I-133	119.580	0.001	0.923	0.040
Ba-140	La-140	118.837	0.001	306.065	0.062
Nd-147	Pm-147	120.480	0.004	263.520	0.022

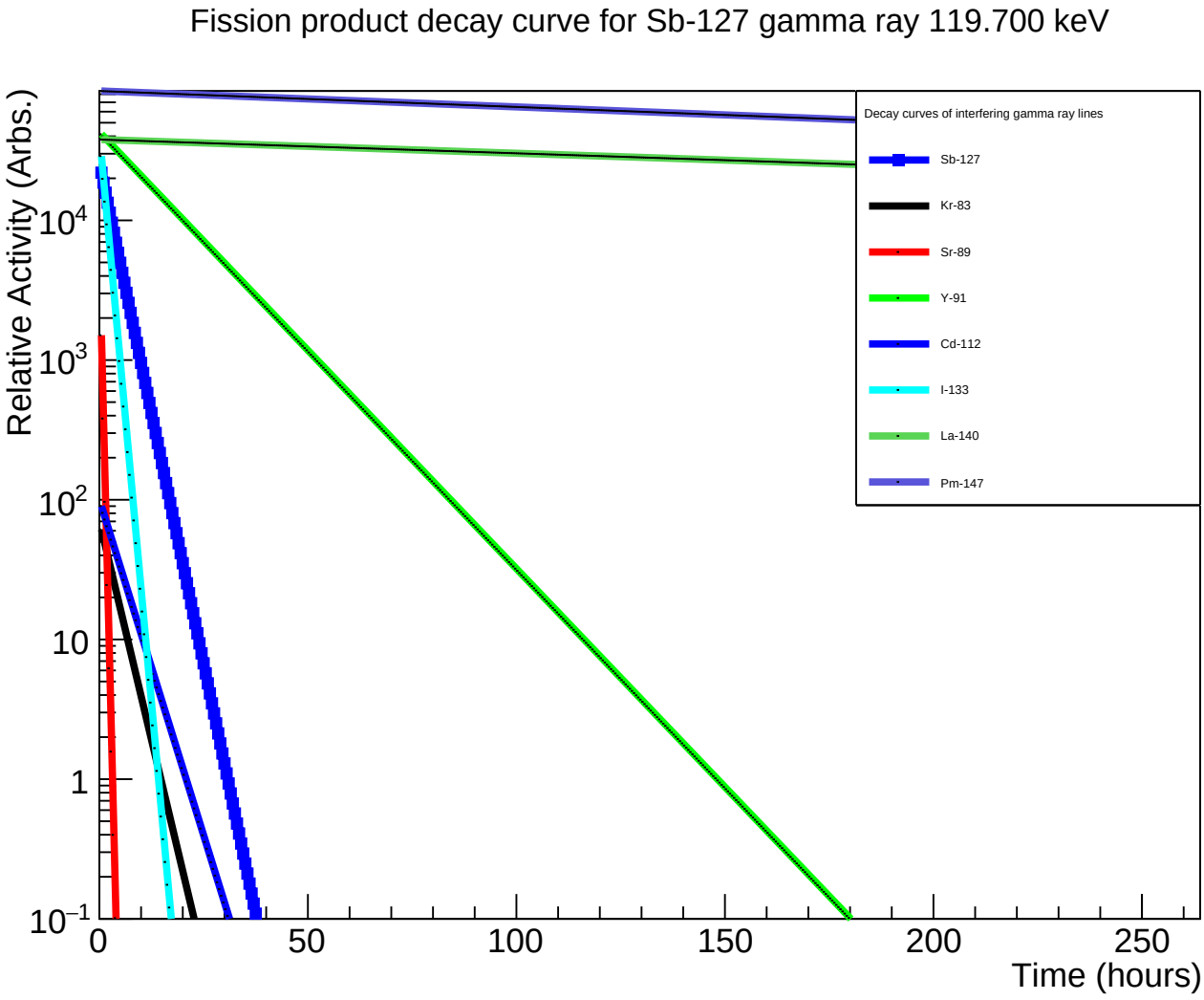


Figure 431: Sb-127 decay curve for 119.700 keV gamma ray.

3.432 Sn-127 E_γ = 169.20 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 169.20 keV
Gamma Intensity = 2.01 ± 0.417 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 863: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 864: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	168.500	0.000	2.840	0.036
Tc-104	Ru-104	170.000	0.003	0.305	0.019
Tc-105	Ru-105	169.200	0.006	0.127	0.010
Pd-111	Ag-111	169.400	0.000	0.390	0.000
Te-131	I-131	169.700	0.000	33.250	0.004
Te-133	I-133	169.025	0.050	0.923	0.040
Pr-147	Nd-147	168.200	0.000	0.223	0.022
Nd-151	Pm-151	167.880	0.001	0.207	0.004
Nd-151	Pm-151	169.200	0.001	0.207	0.004
Pm-151	Sm-151	167.750	0.083	28.400	0.004
Pm-151	Sm-151	168.390	0.009	28.400	0.004
Sm-155	Eu-155	169.100	0.000	0.372	0.000

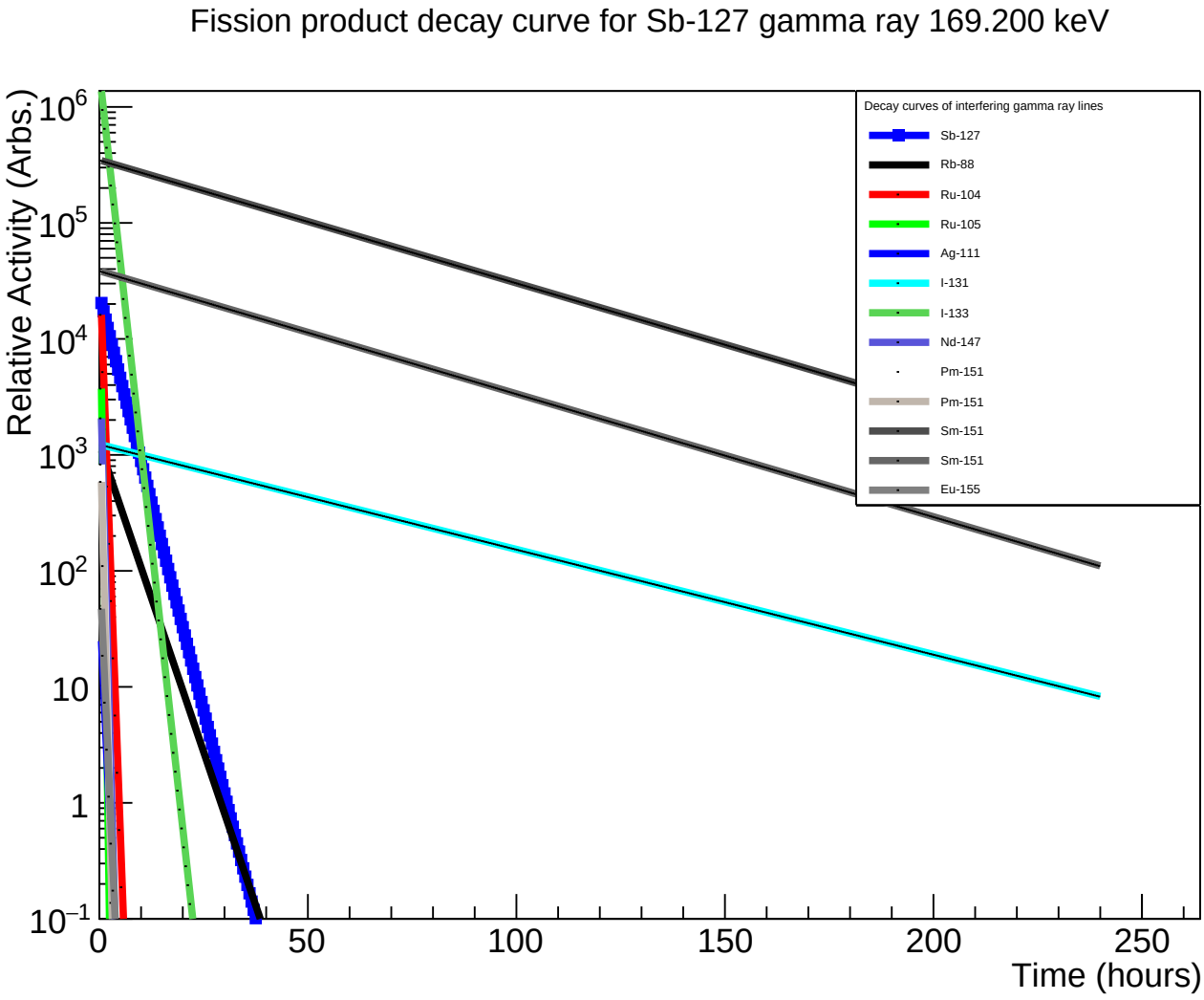


Figure 432: Sb-127 decay curve for 169.200 keV gamma ray.

3.433 Sn-127 E_γ = 184.70 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 184.70 keV
Gamma Intensity = 1.10 ± 0.305 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 865: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 866: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-101	Ru-101	184.120	0.016	0.237	0.052
Ru-105	Rh-105	183.600	0.001	4.440	0.010
Te-133	I-133	183.300	0.000	0.208	0.031
Te-133	I-133	184.610	0.002	0.923	0.040
I-132	Xe-132	183.600	0.001	2.295	0.043
I-135	Xe-135	184.490	0.000	6.570	0.063
Ba-140	La-140	183.830	0.000	306.065	0.062
Nd-149	Pm-149	185.489	0.001	1.728	0.011
Nd-152	Pm-152	184.500	0.001	0.190	0.003
Sm-155	Eu-155	183.400	0.000	0.372	0.000

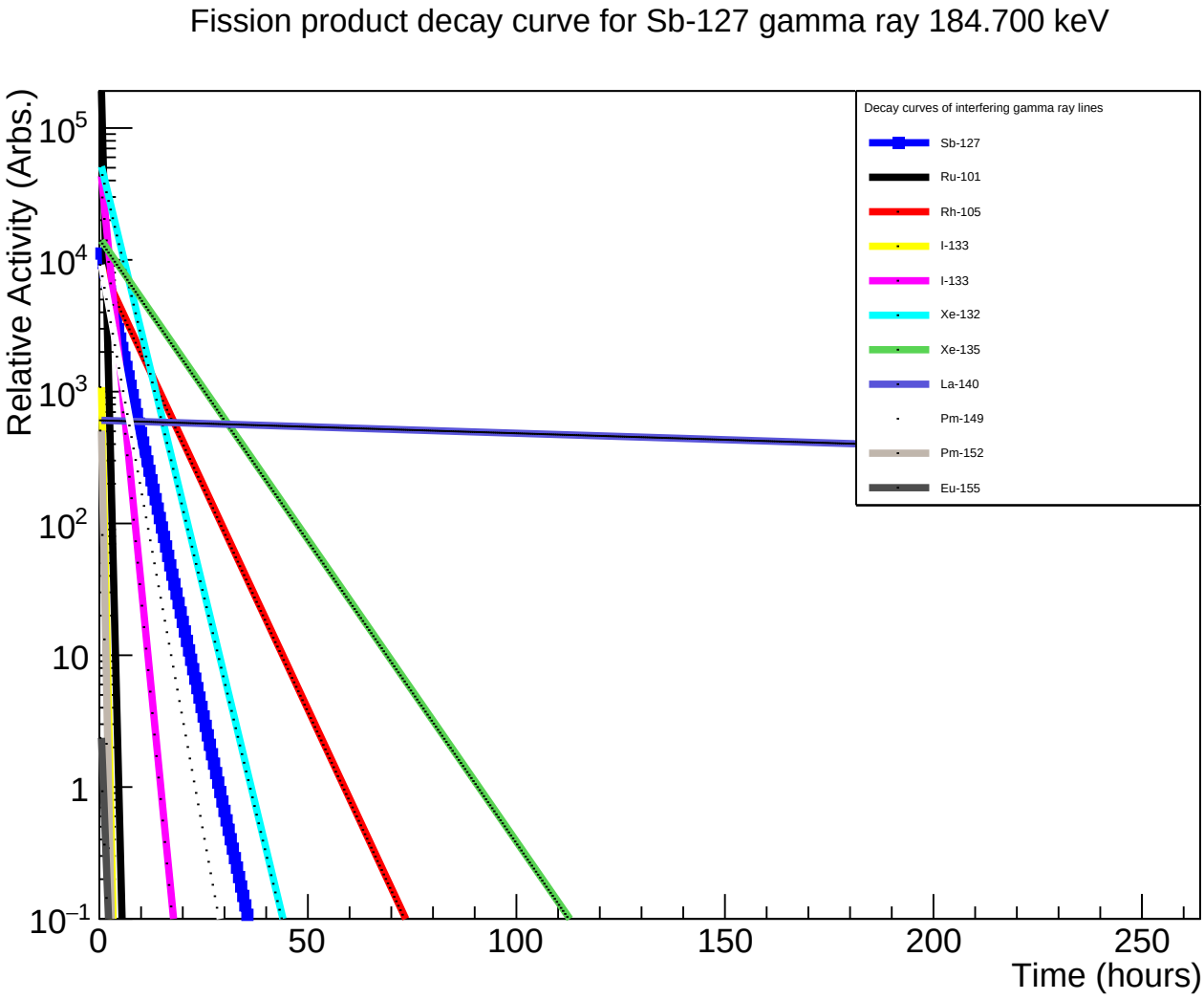


Figure 433: Sb-127 decay curve for 184.700 keV gamma ray.

3.434 Sn-127 E_γ = 262.50 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 262.50 keV
Gamma Intensity = 2.32 ± 0.484 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 867: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 868: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	261.200	0.004	9.630	0.058
Ru-105	Rh-105	262.830	0.066	4.440	0.010
Te-131	I-131	261.400	0.000	33.250	0.004
Te-133	I-133	261.626	0.075	0.923	0.040
I-132	Xe-132	262.900	0.013	2.295	0.043
I-133	Xe-133	262.702	0.004	20.800	0.067
Pr-145	Nd-145	262.886	0.000	5.984	0.039
Pr-145	Nd-145	262.940	0.000	5.984	0.039
Nd-149	Pm-149	263.400	0.000	1.728	0.011
Nd-151	Pm-151	263.560	0.008	0.207	0.004
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-149	Sm-149	263.230	0.000	53.080	0.011
Pm-151	Sm-151	261.400	0.000	28.400	0.004

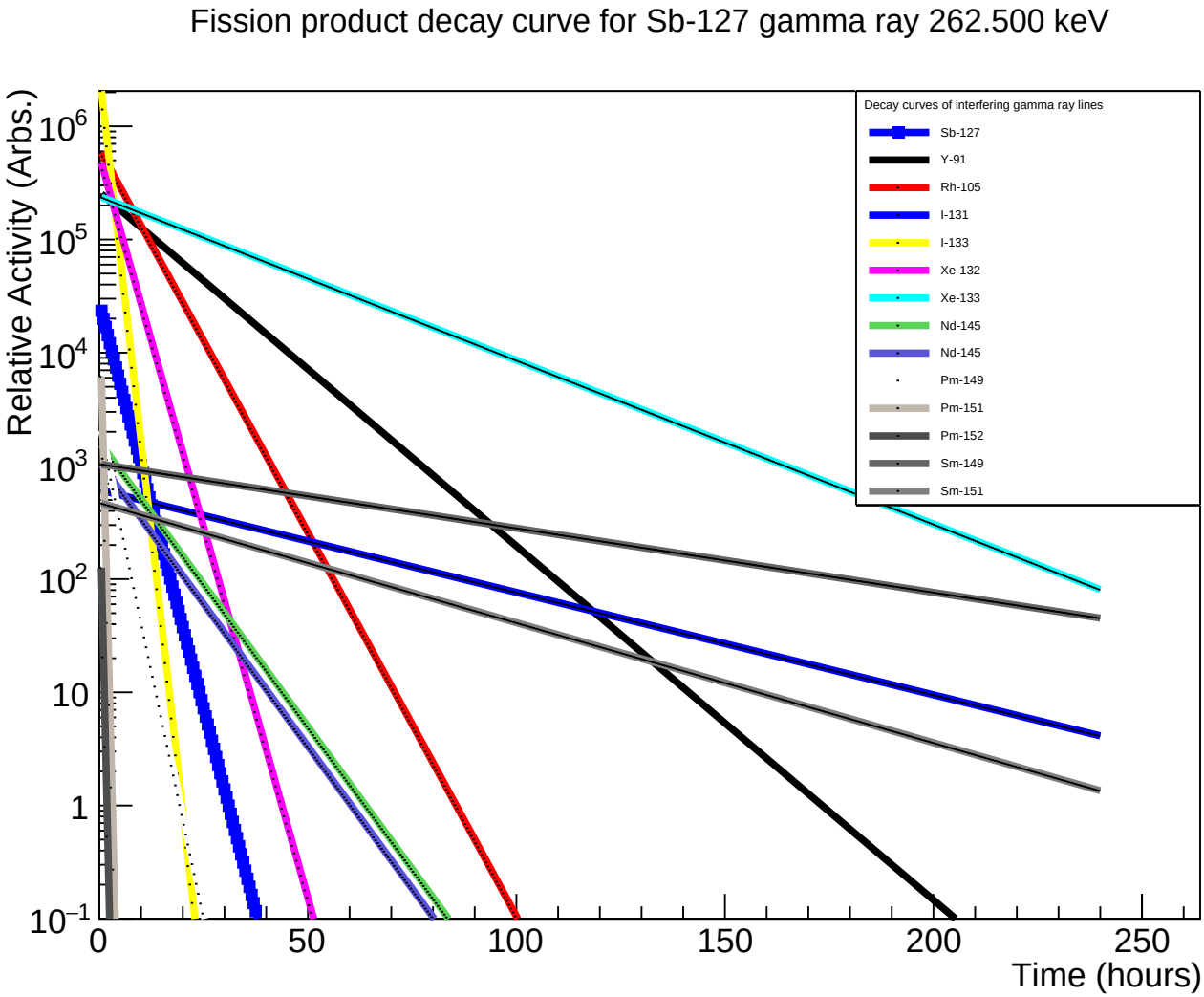


Figure 434: Sb-127 decay curve for 262.500 keV gamma ray.

3.435 Sn-127 E_γ = 266.20 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 266.20 keV
Gamma Intensity = 2.13 ± 0.453 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 869: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 870: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	266.900	0.073	10.180	0.063
Mo-102	Tc-102	266.600	0.001	0.188	0.043
Rh-107	Pd-107	266.060	0.003	0.362	0.001
Cd-115	In-115	266.985	0.001	53.460	0.000
Te-131	I-131	267.200	0.000	33.250	0.004
I-133	Xe-133	267.173	0.001	20.800	0.067
Cs-139	Ba-139	267.600	0.000	0.155	0.063
La-140	Ce-140	266.543	0.005	40.285	0.062
Nd-149	Pm-149	267.693	0.060	1.728	0.011

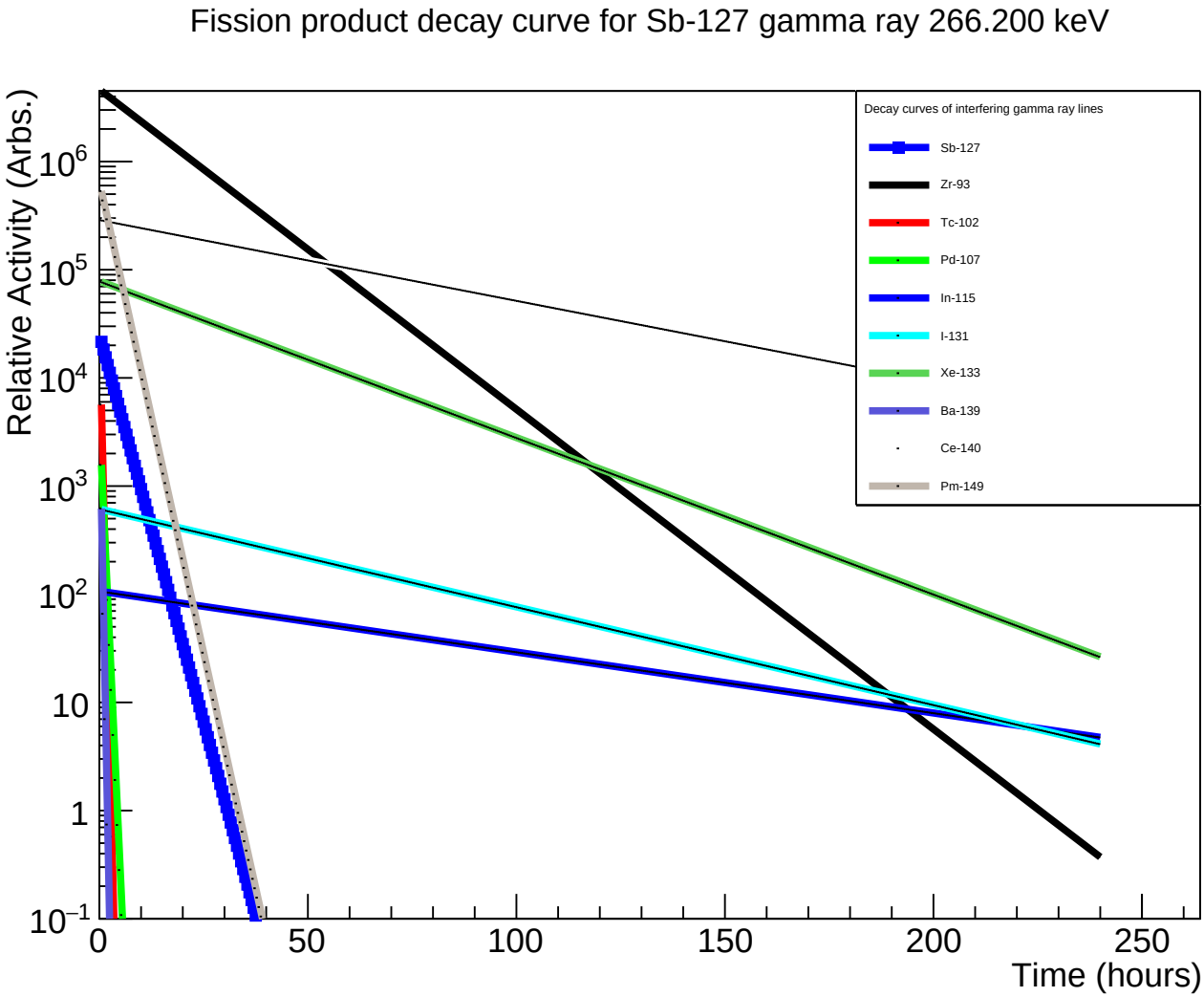


Figure 435: Sb-127 decay curve for 266.200 keV gamma ray.

3.436 Sn-127 E_γ = 284.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 284.30 keV
Gamma Intensity = 2.66 ± 0.558 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 871: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 872: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Sb-130	Te-130	285.480	0.035	0.658	0.008
Te-131	I-131	283.200	0.004	33.250	0.004
Te-133	I-133	284.800	0.002	0.923	0.040
I-131	Xe-131	284.305	0.061	192.605	0.029
I-132	Xe-132	284.900	0.007	2.295	0.043
Cs-137	Ba-137	283.500	0.000	263611.125	0.062
Ba-142	La-142	283.500	0.003	0.177	0.058
Nd-151	Pm-151	284.700	0.000	0.207	0.004
Pm-151	Sm-151	285.000	0.000	28.400	0.004

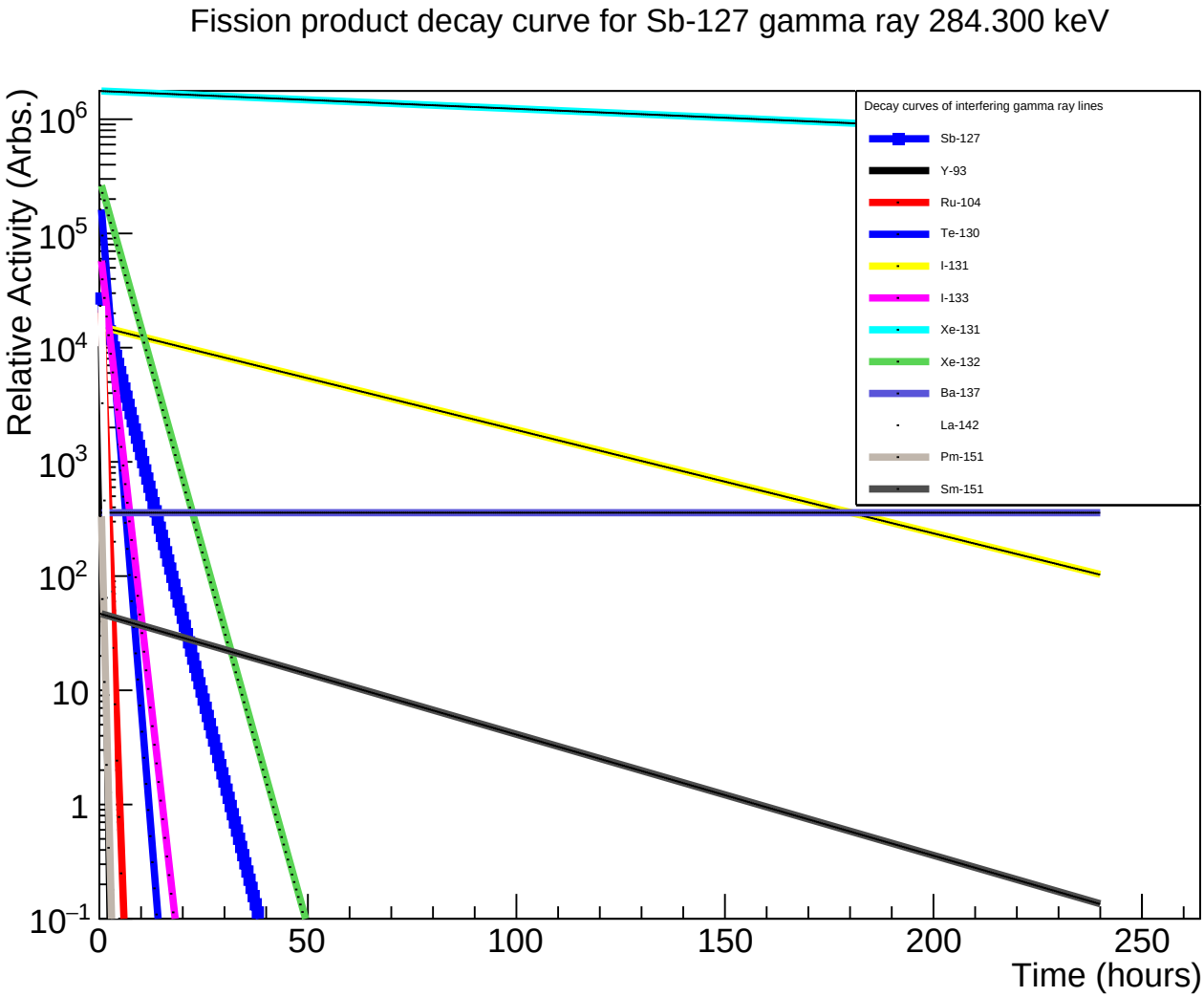


Figure 436: Sb-127 decay curve for 284.300 keV gamma ray.

3.437 Sn-127 E_γ = 292.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 292.90 keV
Gamma Intensity = 1.25 ± 0.258 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 873: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 874: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	293.900	0.040	1.467	0.000
Ru-103	Rh-103	292.700	0.000	941.928	0.030
Ce-143	Pr-143	293.266	0.428	33.039	0.060
Nd-151	Pm-151	292.150	0.001	0.207	0.004
Pm-151	Sm-151	292.400	0.000	28.400	0.004

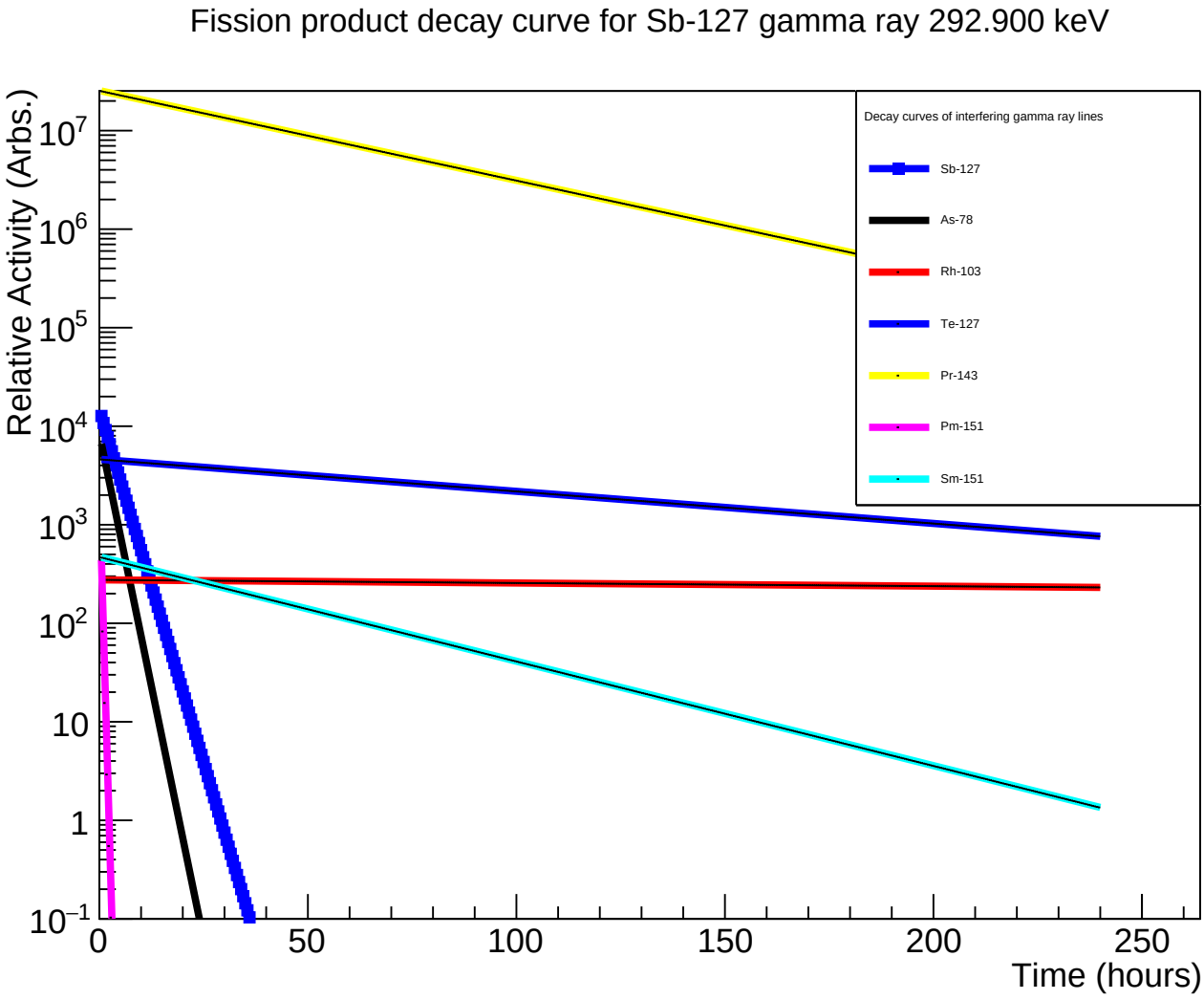


Figure 437: Sb-127 decay curve for 292.900 keV gamma ray.

3.438 Sn-127 E_γ = 390.50 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 390.50 keV
Gamma Intensity = 1.25 ± 0.258 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 875: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 876: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	391.000	0.001	1.512	0.000
Se-83	Br-83	389.200	0.006	0.372	0.003
Kr-88	Rb-88	390.543	0.006	2.840	0.036
Kr-88	Rb-88	391.200	0.001	2.840	0.036
Mo-99	Tc-99	391.700	0.000	65.976	0.061
Pd-109	Ag-109	390.600	0.000	13.701	0.000
Pd-111	Ag-111	391.200	0.000	0.390	0.000
Ba-141	La-141	390.000	0.013	0.304	0.058
Ce-143	Pr-143	389.640	0.000	33.039	0.060
Nd-149	Pm-149	390.900	0.000	1.728	0.011
Nd-151	Pm-151	391.130	0.000	0.207	0.004
Nd-151	Pm-151	391.700	0.000	0.207	0.004
Nd-152	Pm-152	392.000	0.000	0.190	0.003
Pm-151	Sm-151	390.670	0.001	28.400	0.004

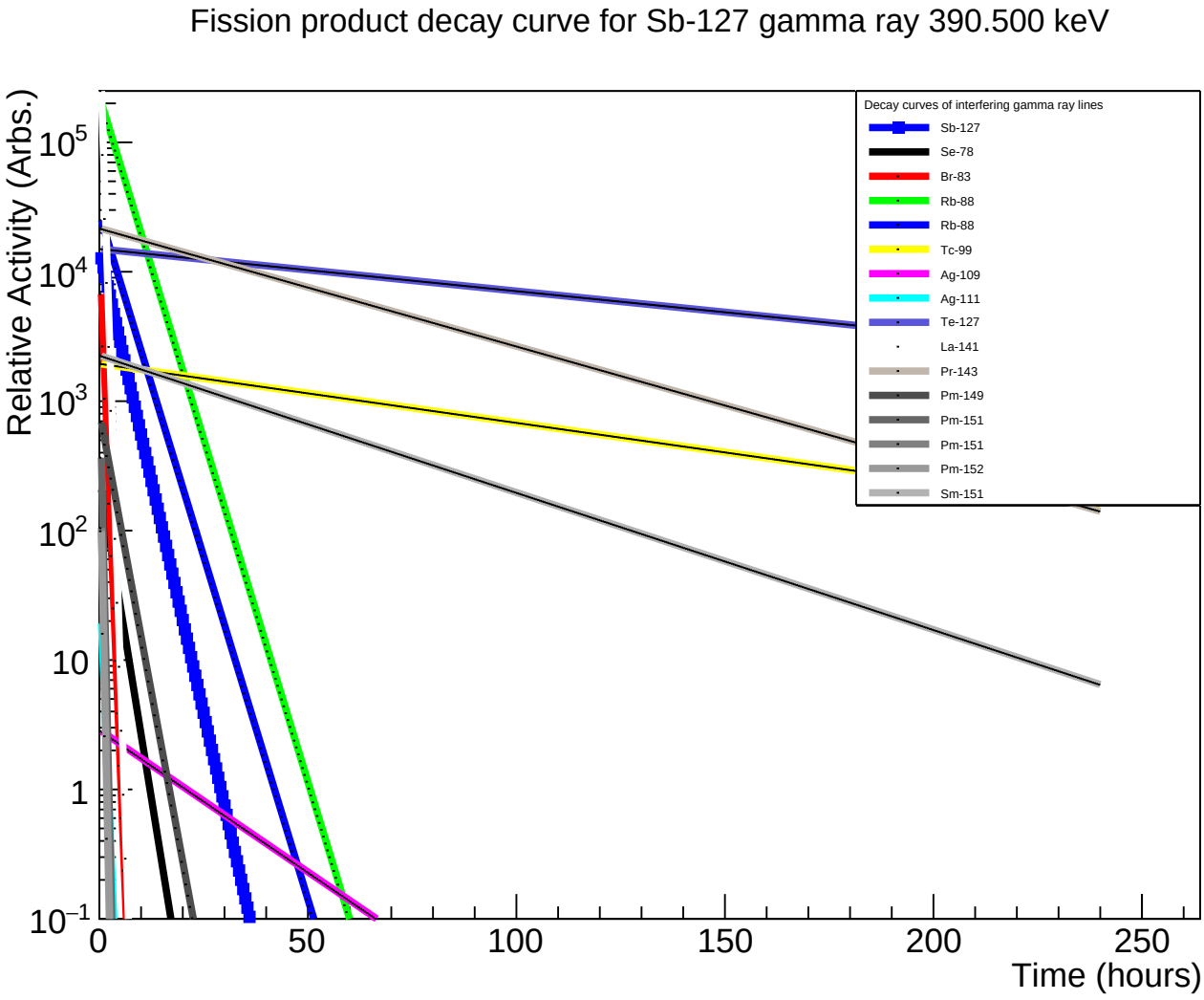


Figure 438: Sb-127 decay curve for 390.500 keV gamma ray.

3.439 Sn-127 E_γ = 407.10 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 407.10 keV
Gamma Intensity = 1.52 ± 0.319 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 877: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 878: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	406.710	0.004	0.124	0.062
Nb-98	Mo-98	408.400	0.000	0.855	0.000
Tc-104	Ru-104	407.100	0.003	0.305	0.019
Tc-105	Ru-105	407.400	0.003	0.127	0.010
Ru-105	Rh-105	407.600	0.001	4.440	0.010
Sb-125	Te-125	408.065	0.002	24194.445	0.000
Te-131	I-131	408.200	0.001	33.250	0.004
Te-133	I-133	407.630	0.271	0.208	0.031
Te-133	I-133	406.000	0.004	0.923	0.040
Xe-135	Cs-135	407.990	0.004	9.140	0.065
Nd-147	Pm-147	408.520	0.000	263.520	0.022
Nd-151	Pm-151	407.550	0.005	0.207	0.004
Nd-152	Pm-152	406.400	0.000	0.190	0.003
Pm-151	Sm-151	407.030	0.002	28.400	0.004

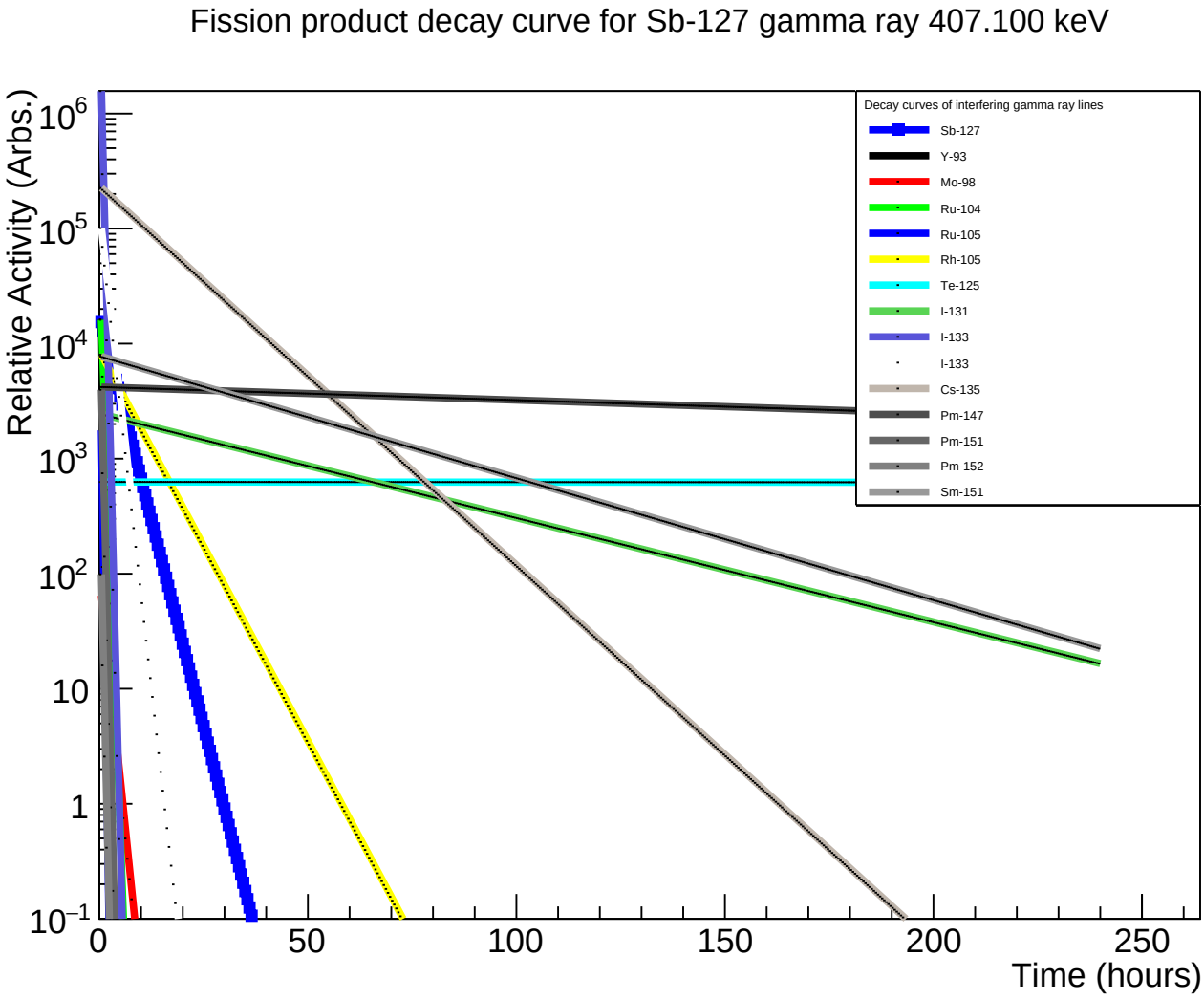


Figure 439: Sb-127 decay curve for 407.100 keV gamma ray.

3.440 Sn-127 E_γ = 438.20 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 438.20 keV
Gamma Intensity = 6.08 ± 1.274 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 879: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 880: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	439.200	0.000	0.296	0.036
Tc-105	Ru-105	439.000	0.003	0.127	0.010
Pd-111	Ag-111	438.500	0.001	0.390	0.000
Te-131	I-131	438.300	0.000	0.417	0.025
I-133	Xe-133	438.870	0.000	20.800	0.067
Ba-140	La-140	437.575	0.019	306.065	0.062
La-140	Ce-140	438.500	0.000	40.285	0.062
La-142	Ce-142	439.000	0.000	1.518	0.058
Ce-143	Pr-143	438.430	0.000	33.039	0.060
Nd-149	Pm-149	439.600	0.000	1.728	0.011
Nd-151	Pm-151	439.220	0.003	0.207	0.004
Sm-153	Eu-153	436.900	0.000	46.500	0.002

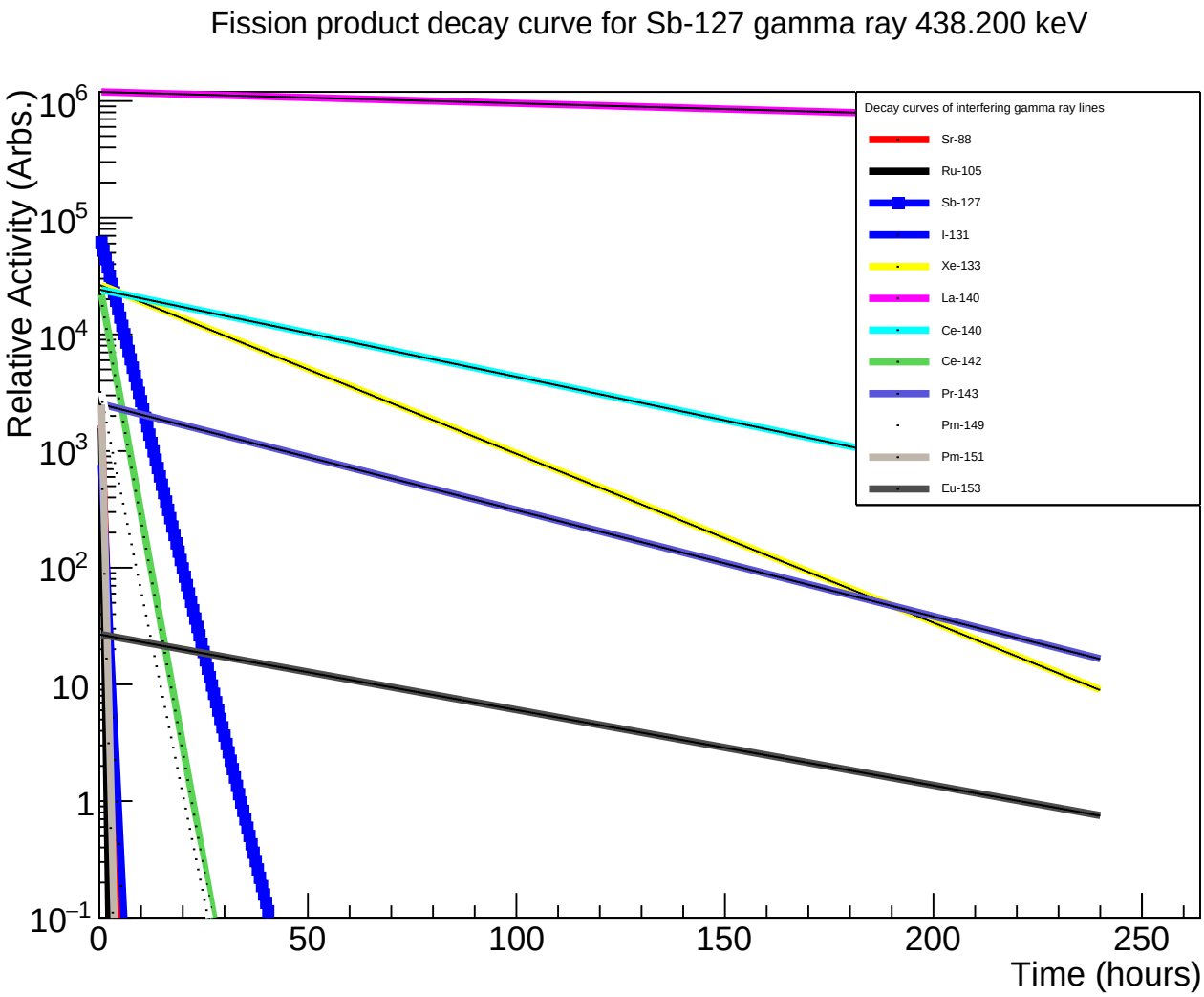


Figure 440: Sb-127 decay curve for 438.200 keV gamma ray.

3.441 Sn-127 E_γ = 490.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 490.90 keV
Gamma Intensity = 5.32 ± 1.115 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 881: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 882: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	491.270	0.003	2.710	0.059
Mo-101	Tc-101	491.500	0.001	0.243	0.052
Tc-105	Ru-105	490.600	0.024	0.127	0.010
Ru-105	Rh-105	489.480	0.005	4.440	0.010
Cd-115	In-115	492.351	0.080	53.460	0.000
Sb-125	Te-125	489.730	0.000	24194.445	0.000
Sb-125	Te-125	491.290	0.000	24194.445	0.000
Te-129	I-129	491.930	0.000	1.160	0.005
Ce-143	Pr-143	490.368	0.022	33.039	0.060
Ce-146	Pr-146	490.800	0.001	0.225	0.030
Pr-147	Nd-147	491.400	0.005	0.223	0.022
Nd-151	Pm-151	490.780	0.001	0.207	0.004
Nd-151	Pm-151	492.240	0.001	0.207	0.004
Pm-151	Sm-151	490.260	0.001	28.400	0.004
Eu-156	Gd-156	490.340	0.002	364.560	0.000

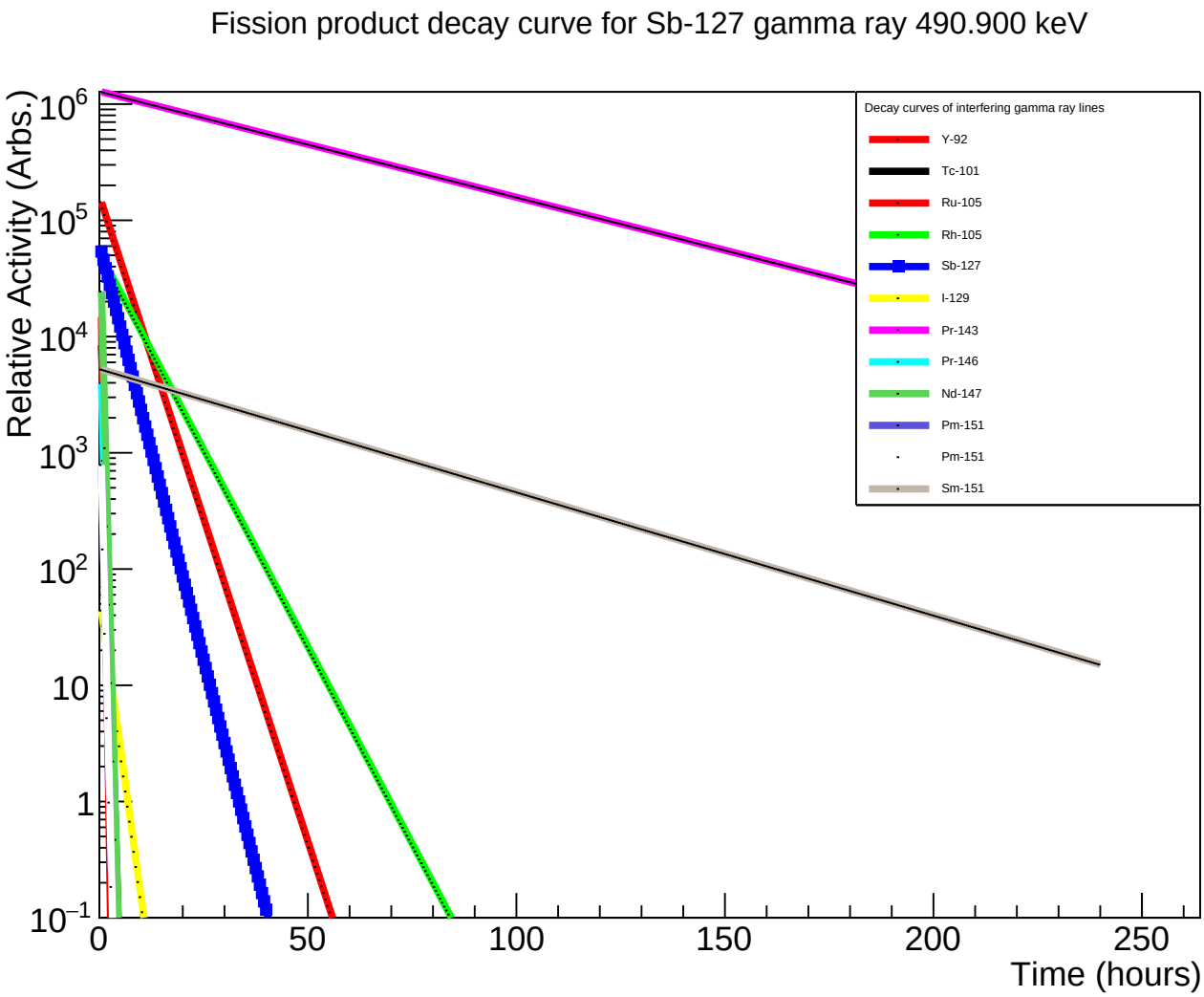


Figure 441: Sb-127 decay curve for 490.900 keV gamma ray.

3.442 Sn-127 E_γ = 493.20 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 493.20 keV
Gamma Intensity = 3.12 ± 0.650 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 883: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 884: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	492.600	0.005	3.540	0.060
Nb-98	Mo-98	493.180	0.001	0.855	0.000
Pd-111	Ag-111	494.100	0.000	0.390	0.000
Cd-115	In-115	492.351	0.080	53.460	0.000
Te-129	I-129	491.930	0.000	1.160	0.005
Te-131	I-131	492.660	0.048	0.417	0.025
Te-133	I-133	492.960	0.007	0.923	0.040
Pr-145	Nd-145	492.624	0.000	5.984	0.039
Nd-149	Pm-149	493.850	0.001	1.728	0.011
Nd-151	Pm-151	492.240	0.001	0.207	0.004

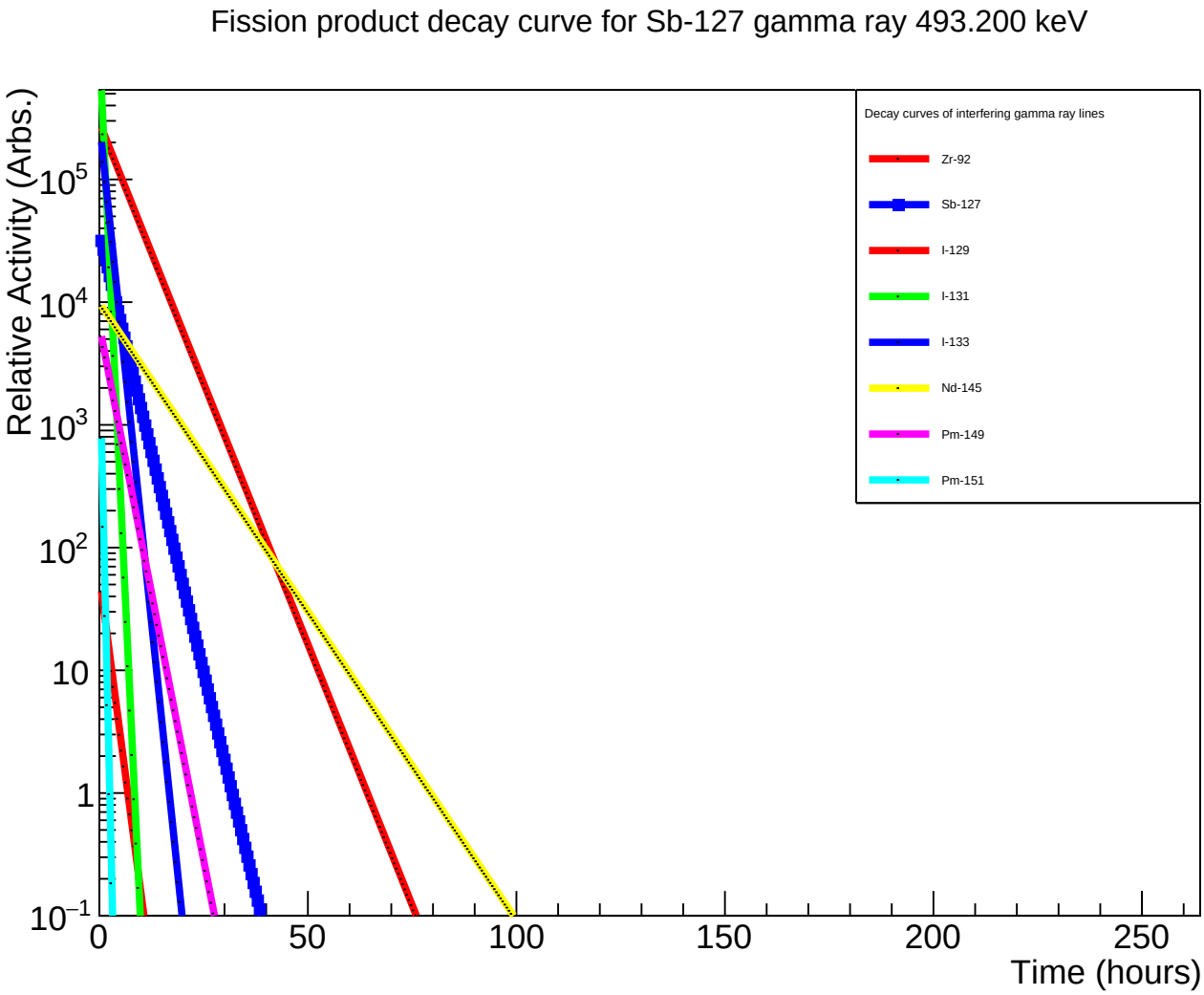


Figure 442: Sb-127 decay curve for 493.200 keV gamma ray.

3.443 Sn-127 E_γ = 500.70 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 500.70 keV
Gamma Intensity = 1.52 ± 0.319 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 885: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 886: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	500.020	0.001	2.840	0.036
Mo-101	Tc-101	499.650	0.014	0.243	0.052
Ru-105	Rh-105	499.300	0.020	4.440	0.010
Ru-105	Rh-105	500.100	0.006	4.440	0.010
Sb-129	Te-129	499.600	0.002	4.400	0.005
Xe-138	Cs-138	500.220	0.004	0.235	0.063

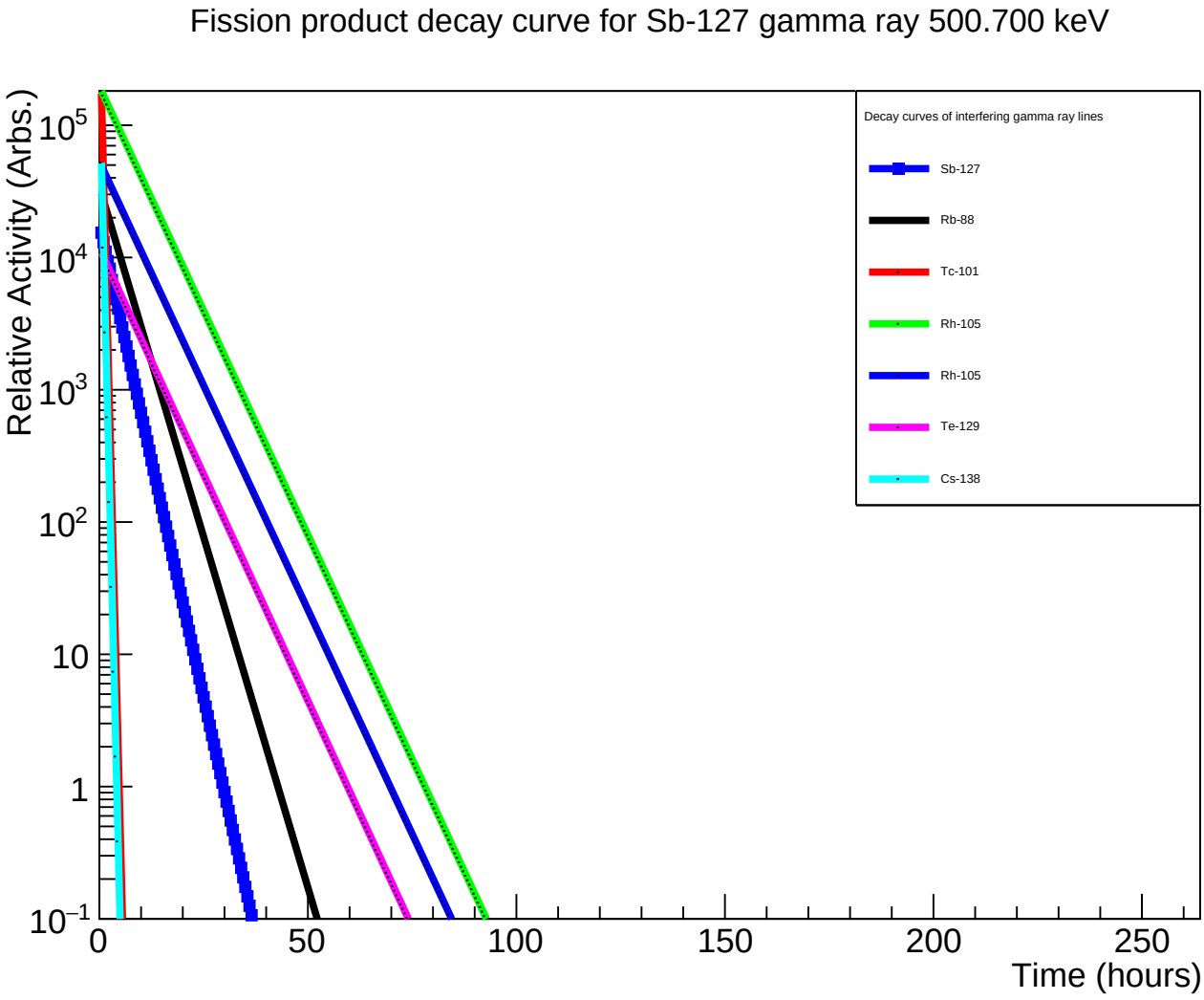


Figure 443: Sb-127 decay curve for 500.700 keV gamma ray.

3.444 Sn-127 E_γ = 509.00 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 509.00 keV
Gamma Intensity = 1.44 ± 0.404 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 887: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 888: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	510.060	0.427	0.372	0.003
Zr-97	Nb-97	507.640	0.050	16.749	0.060
Nb-98	Mo-98	507.800	0.001	0.855	0.000
Mo-101	Tc-101	510.210	0.002	0.243	0.052
Pd-111	Ag-111	509.100	0.004	0.390	0.000
Ag-111	Cd-111	509.400	0.000	178.800	0.000
Ba-141	La-141	510.300	0.001	0.304	0.058
Pr-146	Nd-146	508.000	0.005	0.403	0.030
Nd-149	Pm-149	510.300	0.001	1.728	0.011
Nd-151	Pm-151	507.840	0.001	0.207	0.004
Pm-151	Sm-151	510.100	0.000	28.400	0.004
Sm-153	Eu-153	509.150	0.000	46.500	0.002
Sm-155	Eu-155	510.200	0.000	0.372	0.000

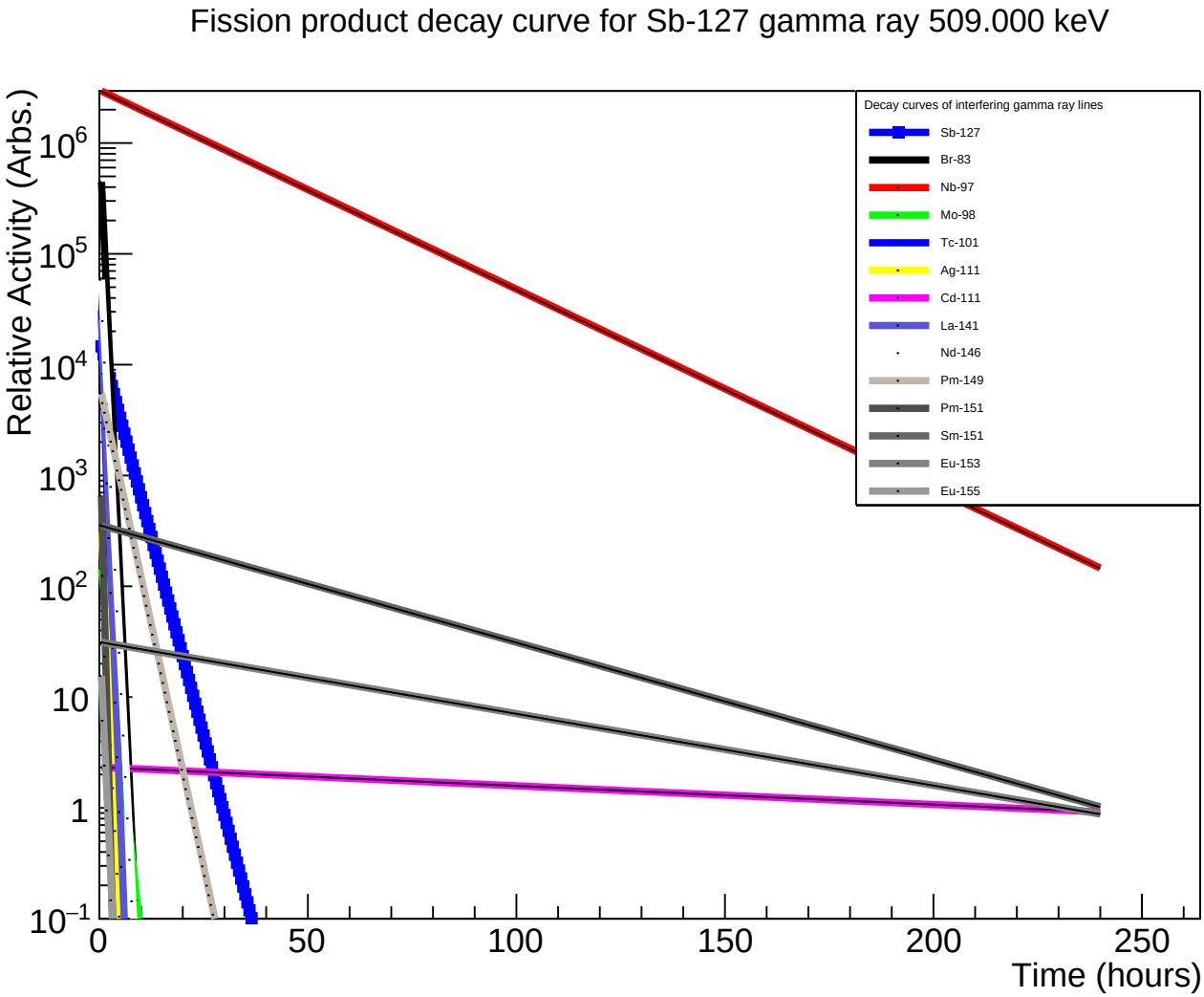


Figure 444: Sb-127 decay curve for 509.000 keV gamma ray.

3.445 Sn-127 E_γ = 545.40 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 545.40 keV
Gamma Intensity = 2.28 ± 0.478 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 889: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 890: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	545.300	0.030	1.512	0.000
Sr-93	Y-93	545.810	0.004	0.124	0.062
Nb-98	Mo-98	544.500	0.001	0.855	0.000
Tc-101	Ru-101	545.050	0.060	0.237	0.052
Sb-129	Te-129	544.700	0.181	4.400	0.005
Te-131	I-131	544.880	0.004	0.417	0.025
Te-131	I-131	546.700	0.000	33.250	0.004
Te-133	I-133	546.290	0.005	0.208	0.031
I-135	Xe-135	546.557	0.071	6.570	0.063
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	545.500	0.000	1.728	0.011
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-151	Pm-151	544.610	0.001	0.207	0.004
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Pm-149	Sm-149	544.270	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

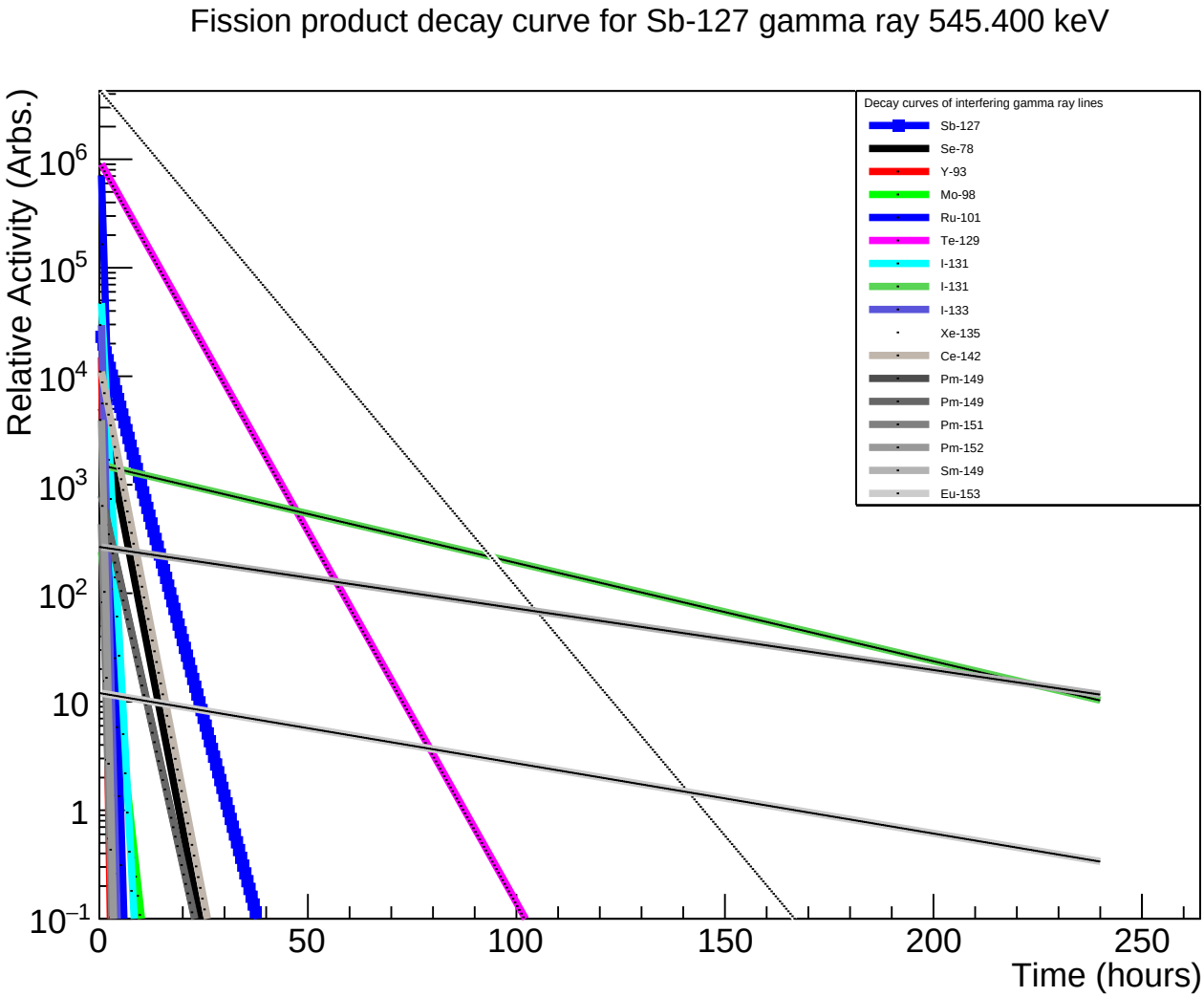


Figure 445: Sb-127 decay curve for 545.400 keV gamma ray.

3.446 Sn-127 E_γ = 583.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 583.30 keV
Gamma Intensity = 3.19 ± 0.662 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 891: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 892: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	582.300	0.000	1.272	0.026
Nb-95	Mo-95	582.078	0.000	86.640	0.001
Mo-101	Tc-101	582.900	0.001	0.243	0.052
Tc-104	Ru-104	584.000	0.006	0.305	0.019
Ag-113	Cd-113	584.000	0.002	5.370	0.000
Sb-128	Te-128	582.900	0.010	9.010	0.000
Nd-149	Pm-149	582.900	0.000	1.728	0.011
Nd-149	Pm-149	583.030	0.000	1.728	0.011
Pm-151	Sm-151	583.100	0.000	28.400	0.004
Sm-153	Eu-153	584.550	0.000	46.500	0.002

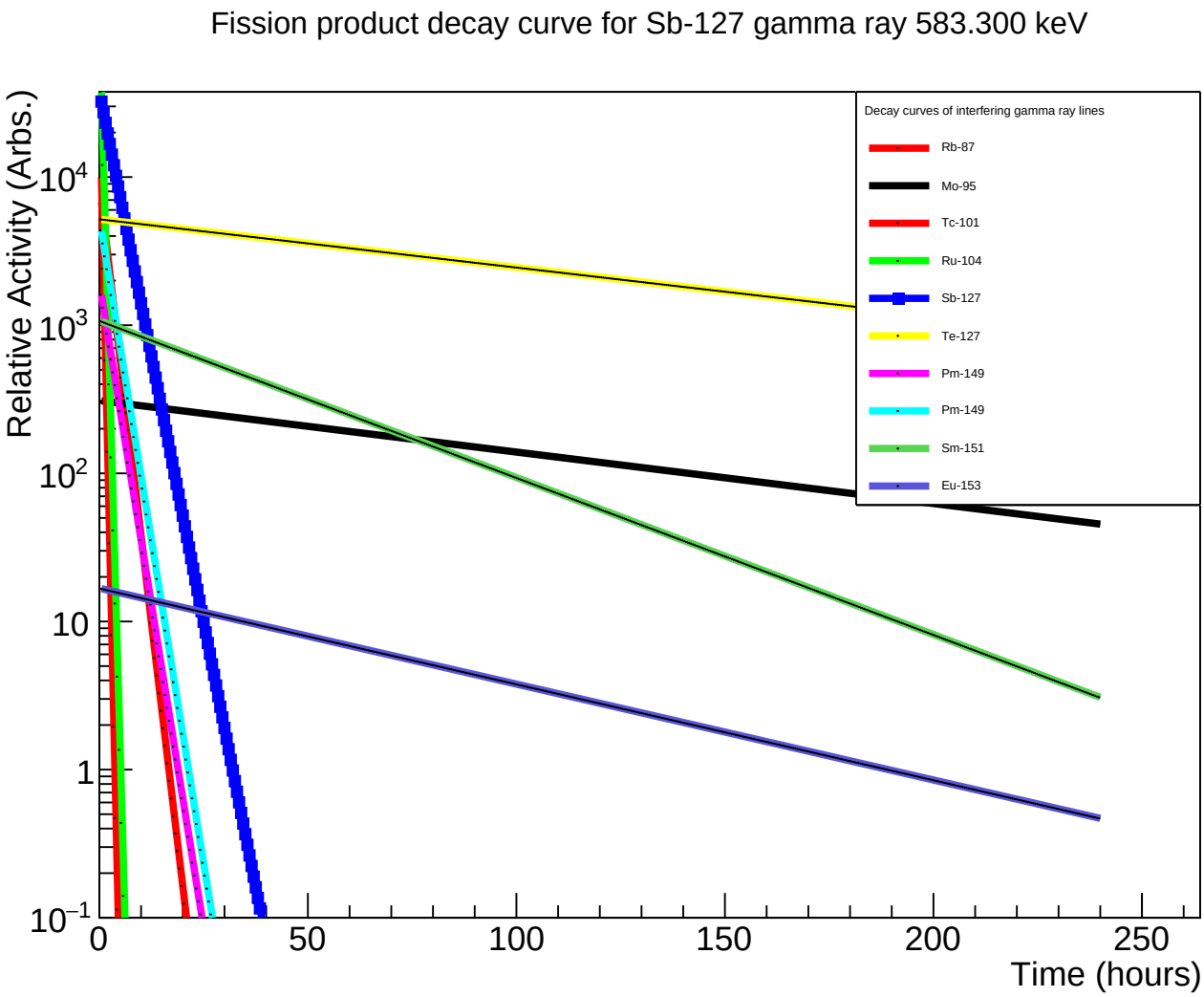


Figure 446: Sb-127 decay curve for 583.300 keV gamma ray.

3.447 Sn-127 E_γ = 592.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 592.30 keV
Gamma Intensity = 2.01 ± 0.417 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 893: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 894: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	593.410	0.007	0.372	0.003
Sr-91	Y-91	593.100	0.001	9.630	0.058
Nb-98	Mo-98	590.900	0.004	0.855	0.000
Ru-105	Rh-105	591.200	0.001	4.440	0.010
Te-133	I-133	593.000	0.002	0.208	0.031
I-132	Xe-132	591.100	0.001	2.295	0.043
Nd-151	Pm-151	592.400	0.000	0.207	0.004
Nd-152	Pm-152	592.500	0.011	0.190	0.003
Pm-149	Sm-149	590.880	0.001	53.080	0.011
Pm-151	Sm-151	593.600	0.000	28.400	0.004
Sm-153	Eu-153	590.960	0.000	46.500	0.002

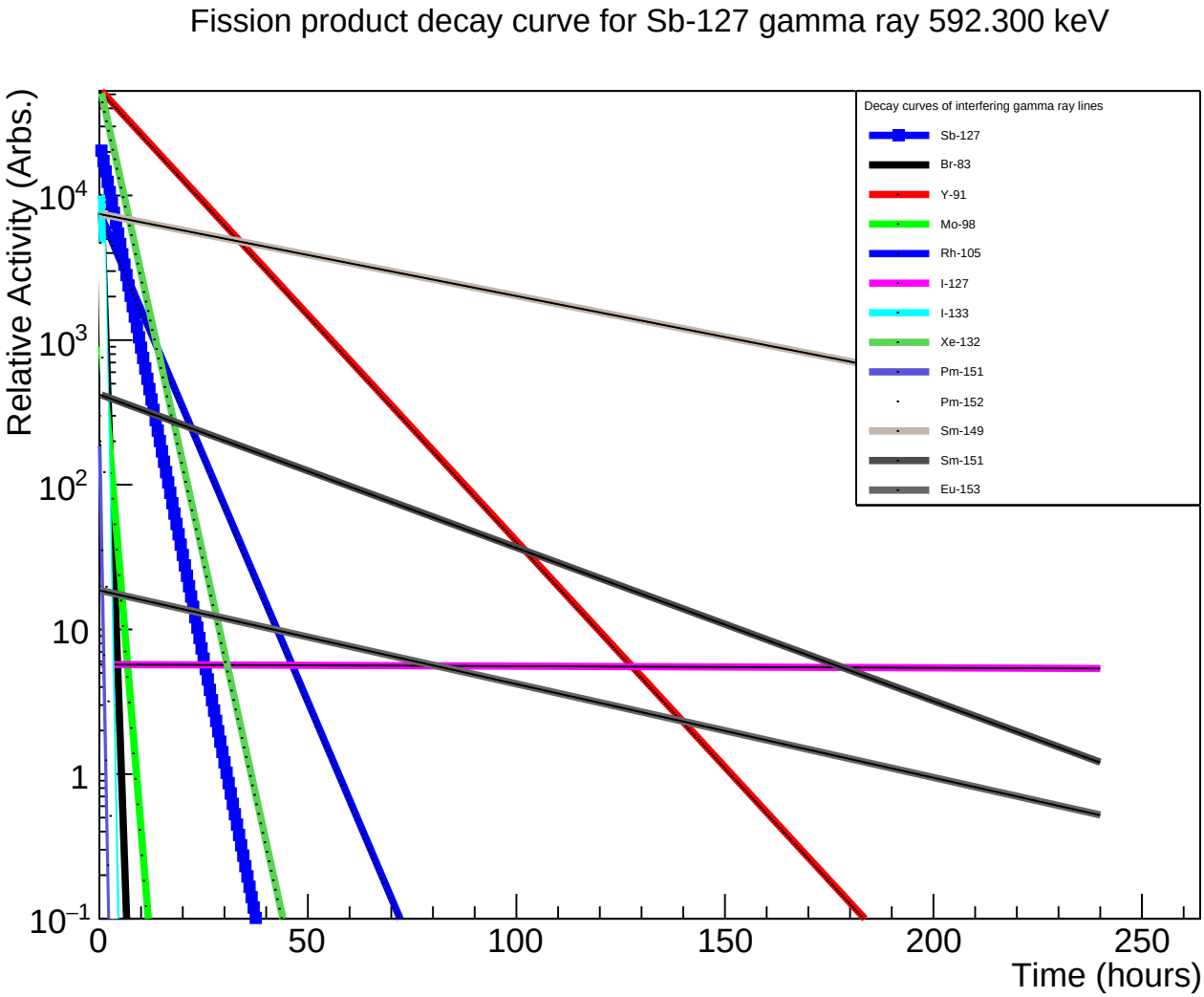


Figure 447: Sb-127 decay curve for 592.300 keV gamma ray.

3.448 Sn-127 E_γ = 805.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 805.90 keV
Gamma Intensity = 8.25 ± 1.734 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 895: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 896: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	805.840	0.000	4.440	0.010
Te-129	I-129	804.600	0.000	1.160	0.005
Te-131	I-131	805.570	0.000	0.417	0.025
Te-133	I-133	805.100	0.002	0.923	0.040
I-135	Xe-135	807.200	0.000	6.570	0.063
Cs-139	Ba-139	806.320	0.000	0.155	0.063
Ba-141	La-141	805.300	0.001	0.304	0.058
Ba-141	La-141	806.400	0.001	0.304	0.058
Ce-143	Pr-143	806.340	0.000	33.039	0.060
Nd-149	Pm-149	806.100	0.000	1.728	0.011

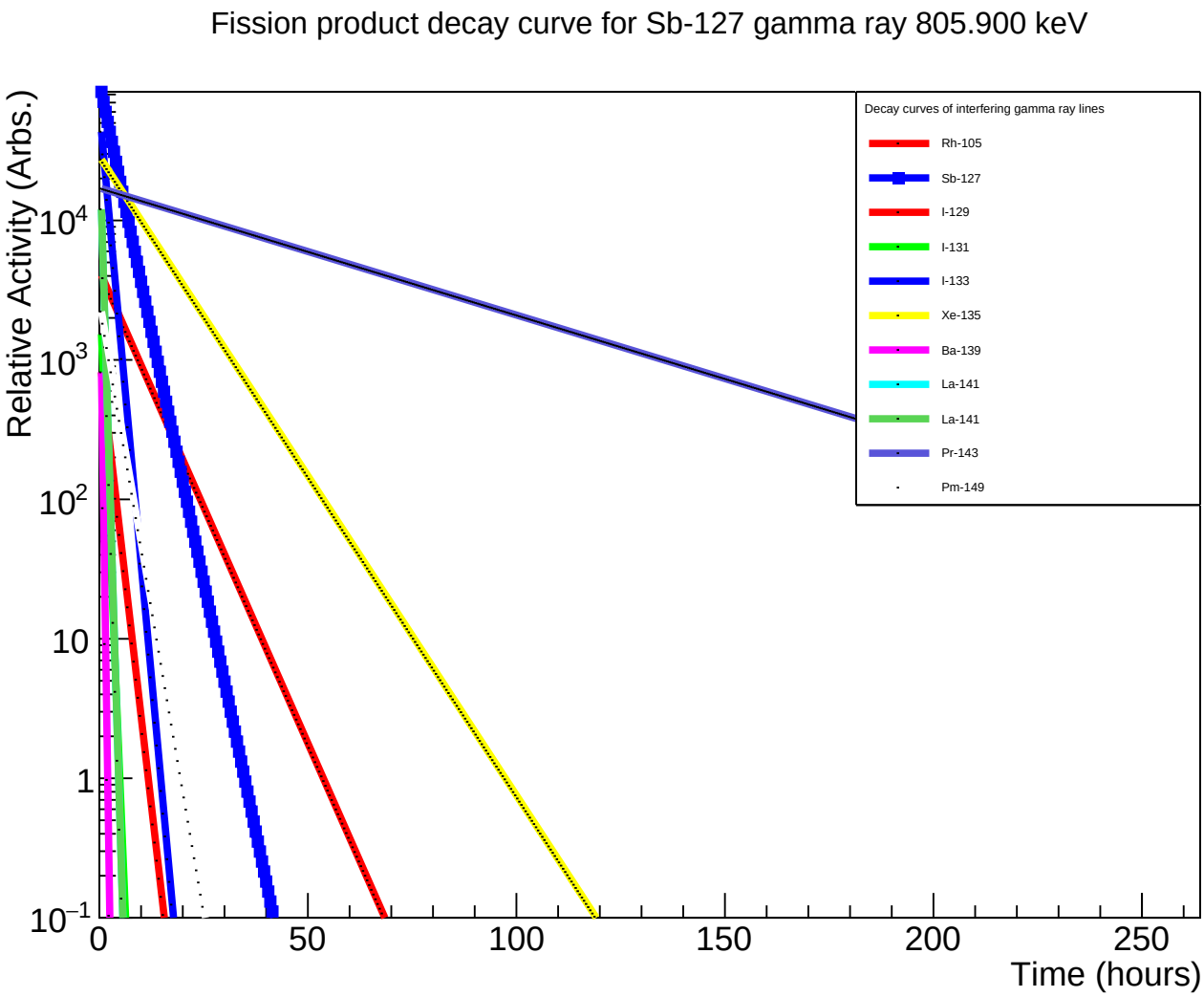


Figure 448: Sb-127 decay curve for 805.900 keV gamma ray.

3.449 Sn-127 E_γ = 823.10 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 823.10 keV
Gamma Intensity = 10.64 ± 3.007 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 897: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 898: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	822.010	0.001	2.840	0.036
Rb-89	Sr-89	822.000	0.000	0.252	0.047
Sr-91	Y-91	823.700	0.001	9.630	0.058
Nb-98	Mo-98	823.390	0.025	0.855	0.000
Mo-99	Tc-99	822.972	0.001	65.976	0.061
Tc-105	Ru-105	824.300	0.012	0.127	0.010
Ru-105	Rh-105	821.980	0.002	4.440	0.010
Pd-109	Ag-109	822.900	0.000	13.701	0.000
Te-131	I-131	822.780	0.059	33.250	0.004
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004
Pm-151	Sm-151	822.450	0.000	28.400	0.004

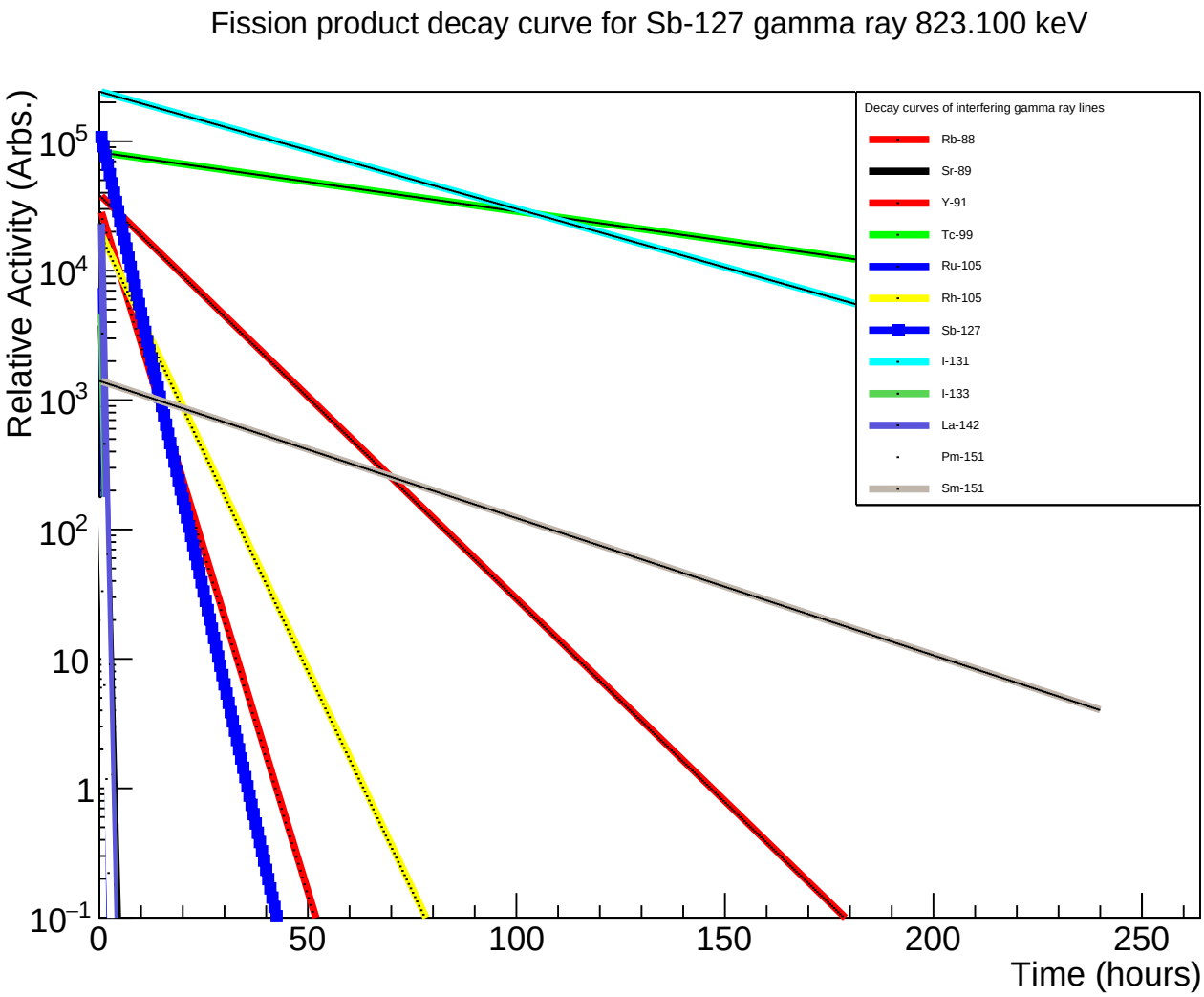


Figure 449: Sb-127 decay curve for 823.100 keV gamma ray.

3.450 Sn-127 E_γ = 824.70 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 824.70 keV
Gamma Intensity = 6.08 ± 1.598 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 899: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 900: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	823.700	0.001	9.630	0.058
Nb-98	Mo-98	823.390	0.025	0.855	0.000
Tc-105	Ru-105	824.300	0.012	0.127	0.010
Sb-131	Te-131	824.910	0.026	0.384	0.026
Te-131	I-131	825.000	0.000	0.417	0.025
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004

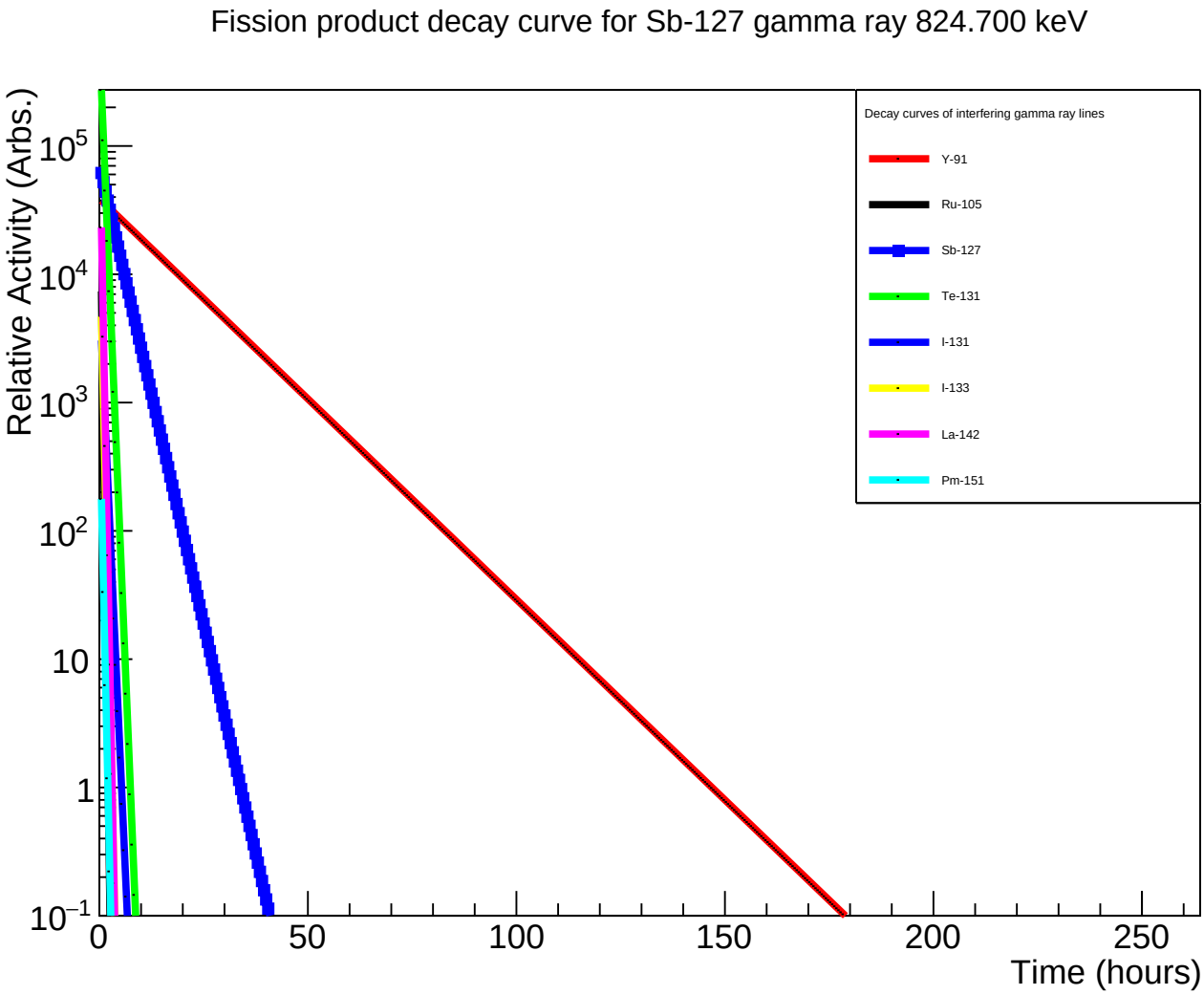


Figure 450: Sb-127 decay curve for 824.700 keV gamma ray.

3.451 Sn-127 E_γ = 859.50 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 859.50 keV
Gamma Intensity = 7.98 ± 1.673 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 901: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 902: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	858.470	0.007	0.124	0.062
Mo-101	Tc-101	859.130	0.001	0.243	0.052
Sb-128	Te-128	860.800	0.004	9.010	0.000
Te-133	I-133	860.200	0.001	0.208	0.031
Te-133	I-133	859.000	0.001	0.923	0.040
Cs-139	Ba-139	858.400	0.000	0.155	0.063
Nd-149	Pm-149	859.420	0.000	1.728	0.011
Nd-151	Pm-151	858.300	0.001	0.207	0.004
Pm-149	Sm-149	859.460	0.001	53.080	0.011
Pm-151	Sm-151	859.800	0.000	28.400	0.004
Eu-156	Gd-156	858.360	0.002	364.560	0.000

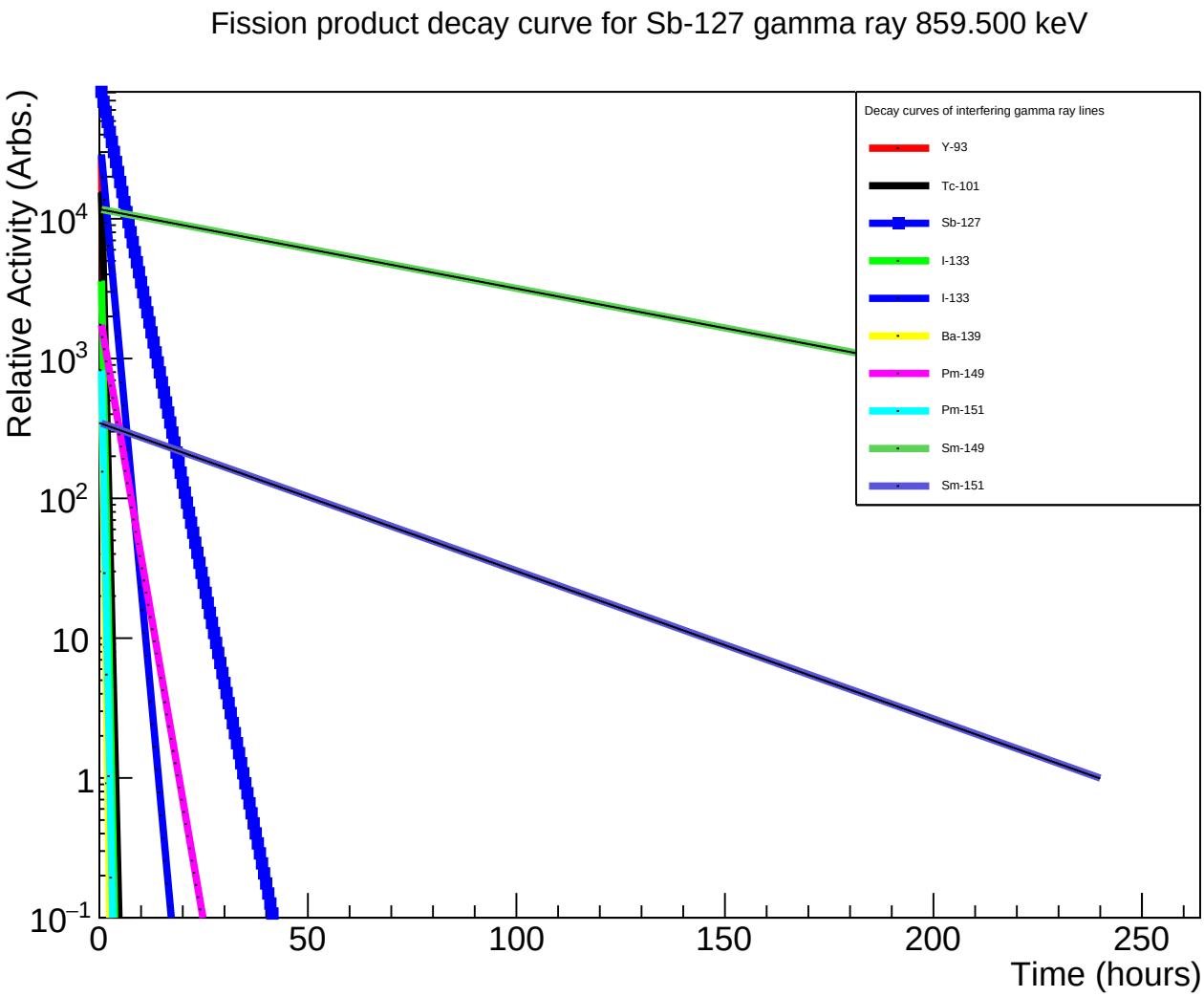


Figure 451: Sb-127 decay curve for 859.500 keV gamma ray.

3.452 Sn-127 E_γ = 916.50 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 916.50 keV
Gamma Intensity = 1.18 ± 0.245 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 903: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 904: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	917.050	0.001	0.855	0.000
Xe-138	Cs-138	917.130	0.009	0.235	0.063
Ba-141	La-141	917.400	0.001	0.304	0.058
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Eu-156	Gd-156	916.400	0.000	364.560	0.000

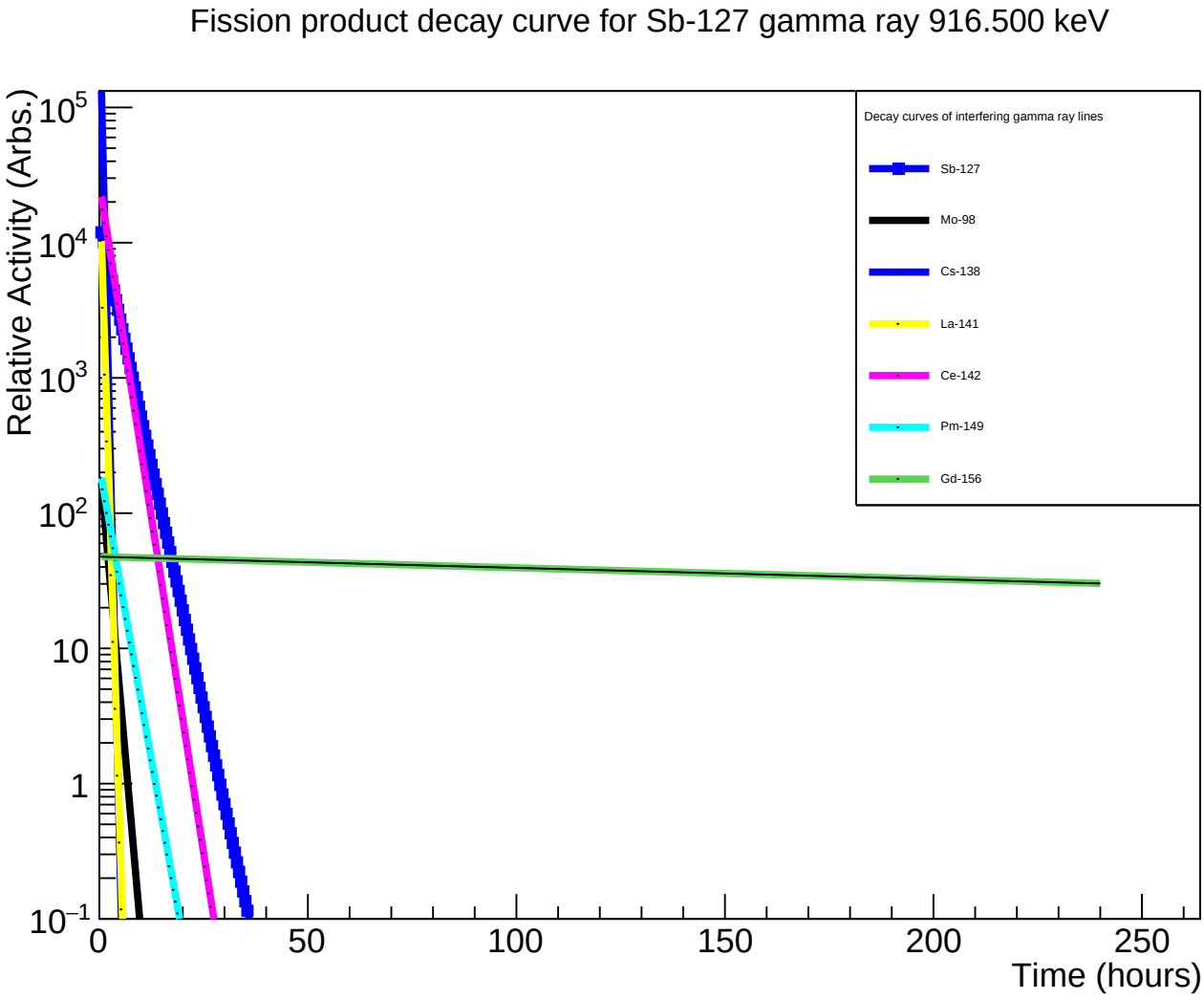


Figure 452: Sb-127 decay curve for 916.500 keV gamma ray.

3.453 Sn-127 E_γ = 979.20 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 979.20 keV
Gamma Intensity = 7.22 ± 2.020 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 905: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 906: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	978.000	0.001	0.208	0.031
Te-133	I-133	978.300	0.046	0.923	0.040
Te-133	I-133	980.260	0.014	0.923	0.040
Pr-145	Nd-145	978.969	0.003	5.984	0.039
Nd-149	Pm-149	978.800	0.000	1.728	0.011
Nd-149	Pm-149	979.013	0.001	1.728	0.011
Nd-151	Pm-151	979.650	0.001	0.207	0.004

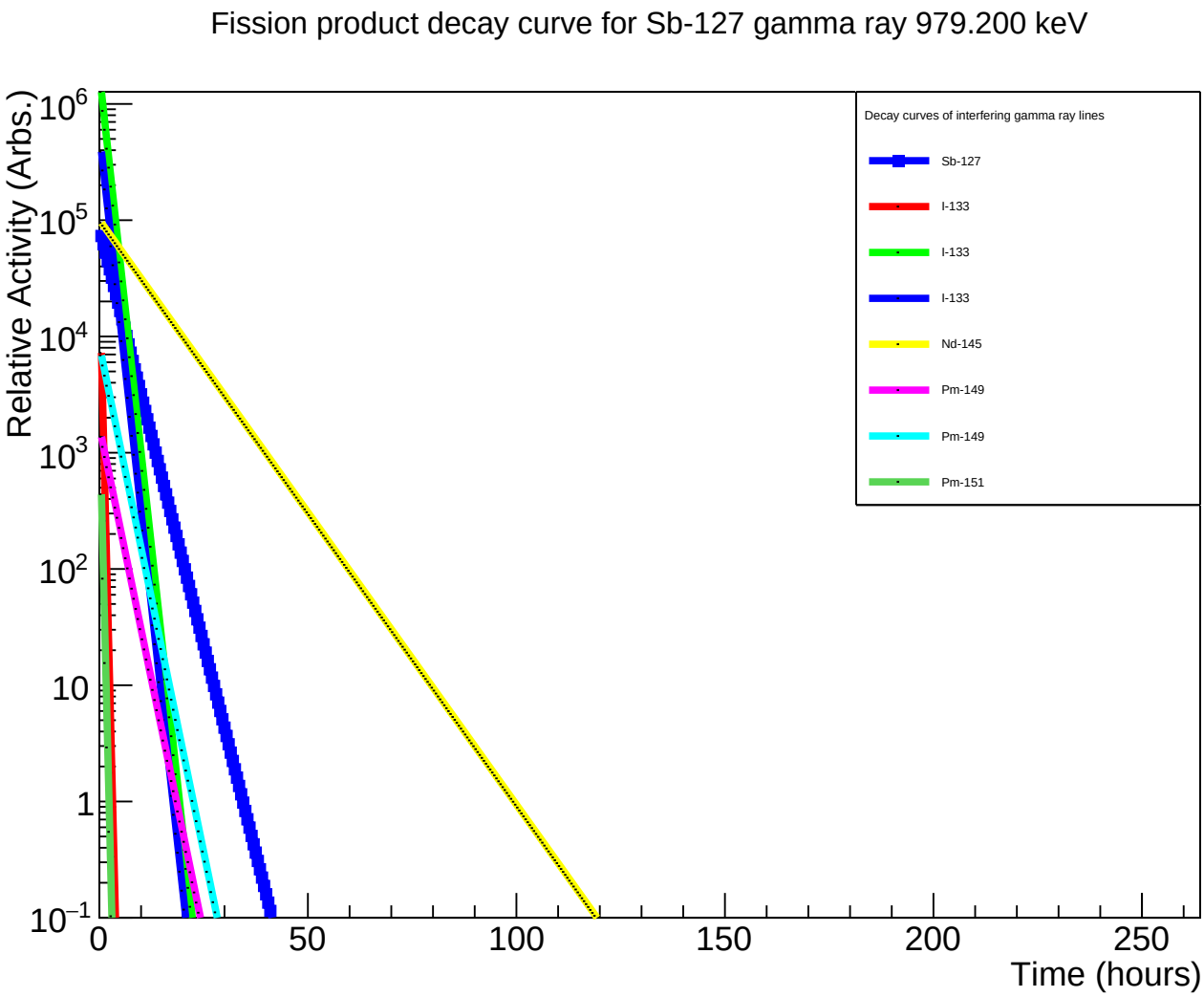


Figure 453: Sb-127 decay curve for 979.200 keV gamma ray.

3.454 Sn-127 E_γ = 997.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 997.90 keV
Gamma Intensity = 1.94 ± 0.404 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 907: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 908: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	997.250	0.033	0.417	0.025
Te-131	I-131	999.260	0.000	0.417	0.025
Te-131	I-131	999.200	0.002	33.250	0.004
Te-133	I-133	997.660	0.010	0.208	0.031
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Sm-155	Eu-155	997.900	0.000	0.372	0.000

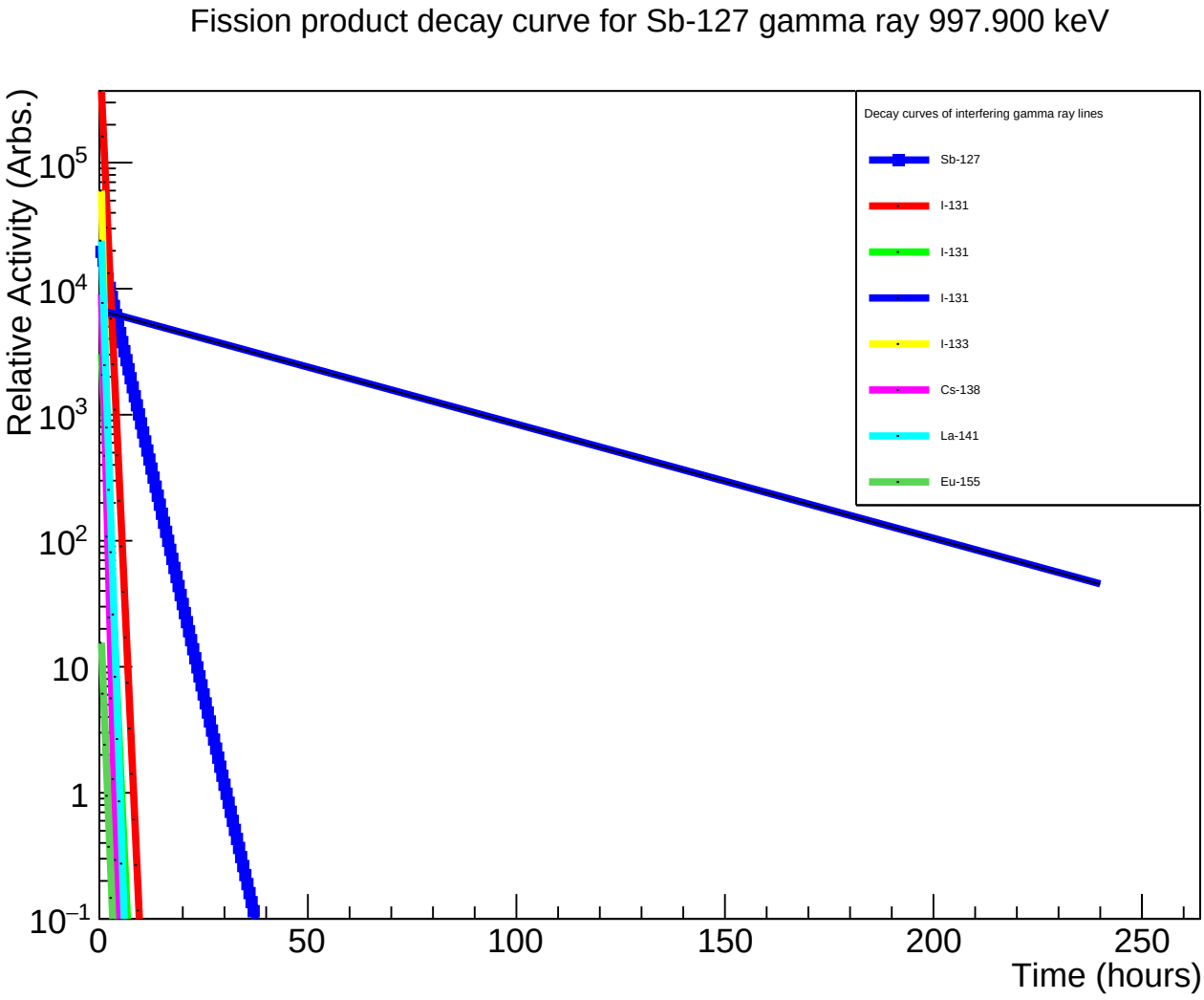


Figure 454: Sb-127 decay curve for 997.900 keV gamma ray.

3.455 Sn-127 E_γ = 1002.60 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1002.60 keV
Gamma Intensity = 1.75 ± 0.374 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 909: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 910: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1001.800	0.001	0.312	0.065
Y-95	Zr-95	1002.100	0.002	0.172	0.064
Nb-98	Mo-98	1002.900	0.001	0.855	0.000
Mo-99	Tc-99	1001.343	0.000	65.976	0.061
Tc-105	Ru-105	1003.800	0.007	0.127	0.010
Pd-111	Ag-111	1002.300	0.001	0.390	0.000
Te-129	I-129	1003.650	0.000	806.400	0.001
Te-131	I-131	1003.600	0.000	33.250	0.004
I-132	Xe-132	1002.500	0.001	2.295	0.043
Ba-142	La-142	1001.200	0.097	0.177	0.058
Ce-143	Pr-143	1002.850	0.001	33.039	0.060
Nd-151	Pm-151	1003.240	0.001	0.207	0.004
Sm-155	Eu-155	1002.700	0.000	0.372	0.000

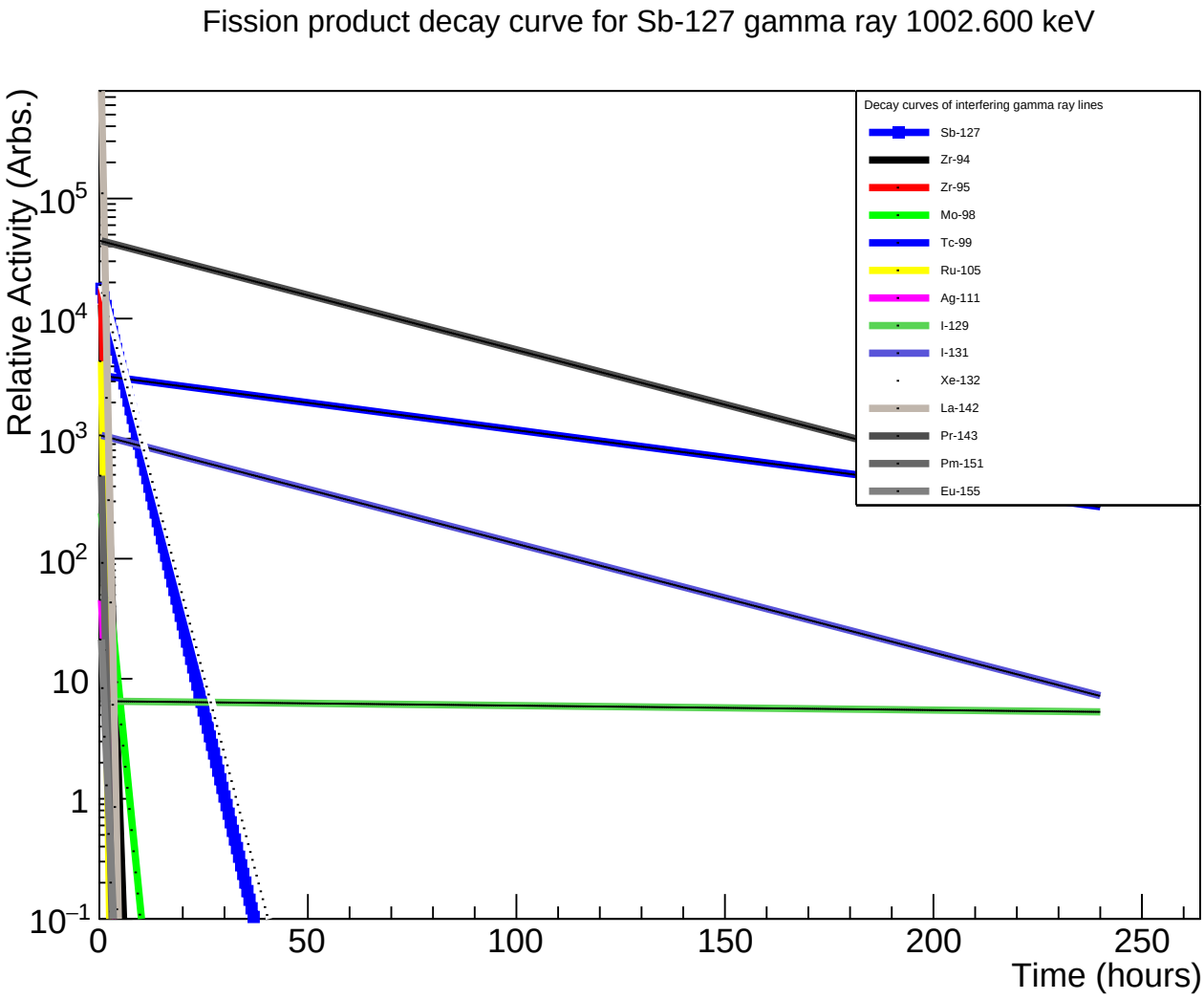


Figure 455: Sb-127 decay curve for 1002.600 keV gamma ray.

3.456 Sn-127 E_γ = 1036.10 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1036.10 keV
Gamma Intensity = 1.98 ± 0.411 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 911: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 912: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1036.500	0.005	0.372	0.003
Sr-93	Y-93	1035.500	0.002	0.124	0.062
Nb-98	Mo-98	1035.500	0.000	0.855	0.000
Sb-126	Te-126	1034.900	0.018	0.319	0.001
Te-131	I-131	1035.500	0.000	0.417	0.025
Te-131	I-131	1035.400	0.001	33.250	0.004
Te-133	I-133	1035.500	0.001	0.923	0.040
I-132	Xe-132	1035.000	0.005	2.295	0.043
I-133	Xe-133	1035.580	0.000	20.800	0.067
Pr-147	Nd-147	1036.600	0.002	0.223	0.022
Nd-151	Pm-151	1035.400	0.000	0.207	0.004
Nd-151	Pm-151	1036.160	0.002	0.207	0.004
Eu-156	Gd-156	1037.000	0.001	364.560	0.000

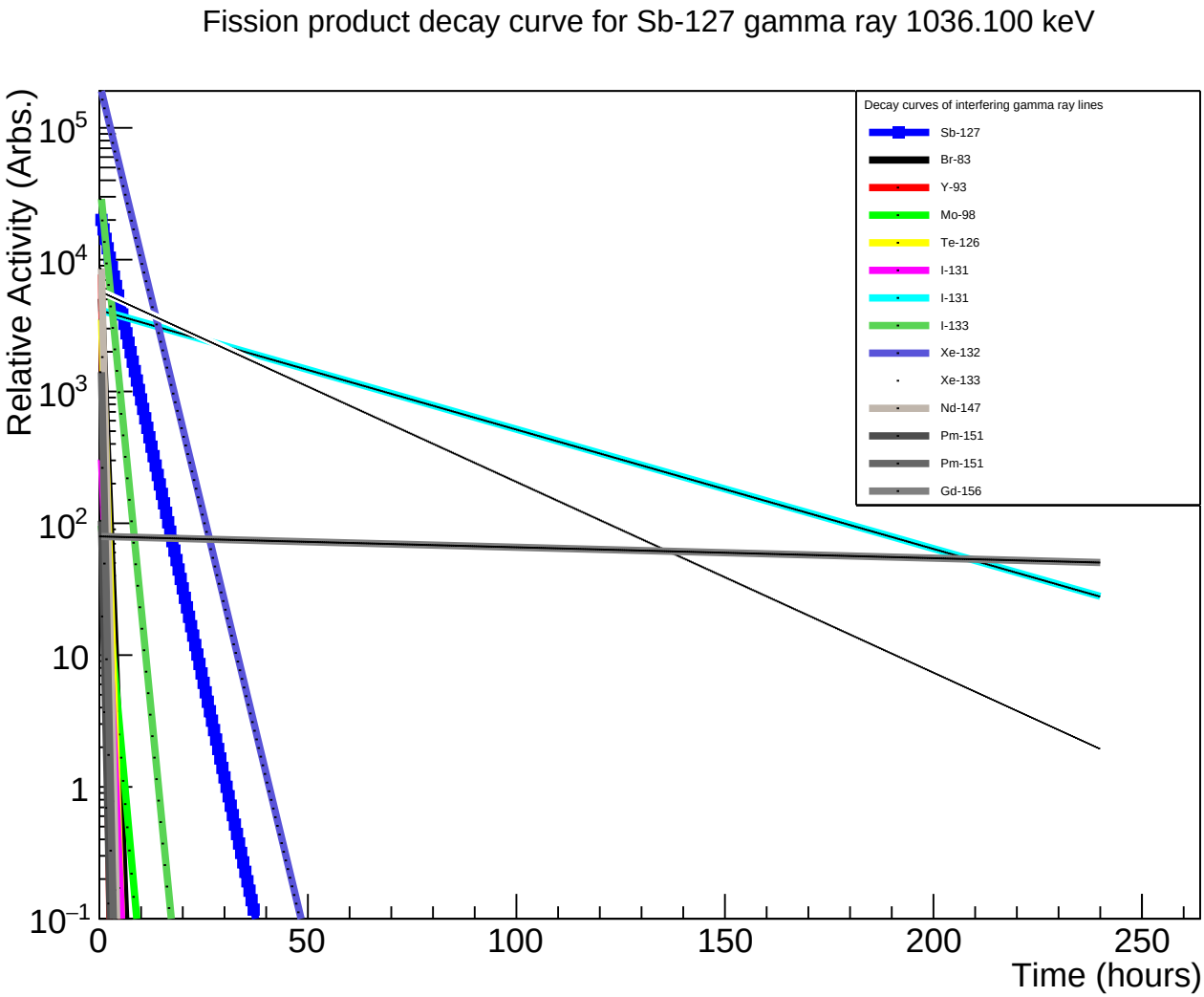


Figure 456: Sb-127 decay curve for 1036.100 keV gamma ray.

3.457 Sn-127 E_γ = 1093.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1093.30 keV
Gamma Intensity = 3.80 ± 1.033 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 913: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 914: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1093.000	0.003	0.372	0.003
Sr-93	Y-93	1094.000	0.018	0.124	0.062
Tc-104	Ru-104	1092.900	0.005	0.305	0.019
Ru-105	Rh-105	1094.000	0.000	4.440	0.010
Xe-138	Cs-138	1093.870	0.004	0.235	0.063
Cs-139	Ba-139	1092.230	0.000	0.155	0.063
Ba-141	La-141	1093.200	0.001	0.304	0.058
Ba-141	La-141	1094.200	0.001	0.304	0.058
Ba-142	La-142	1094.100	0.028	0.177	0.058
La-143	Ce-143	1093.600	0.001	0.237	0.059
Pr-145	Nd-145	1093.778	0.000	5.984	0.039
Nd-151	Pm-151	1092.000	0.000	0.207	0.004

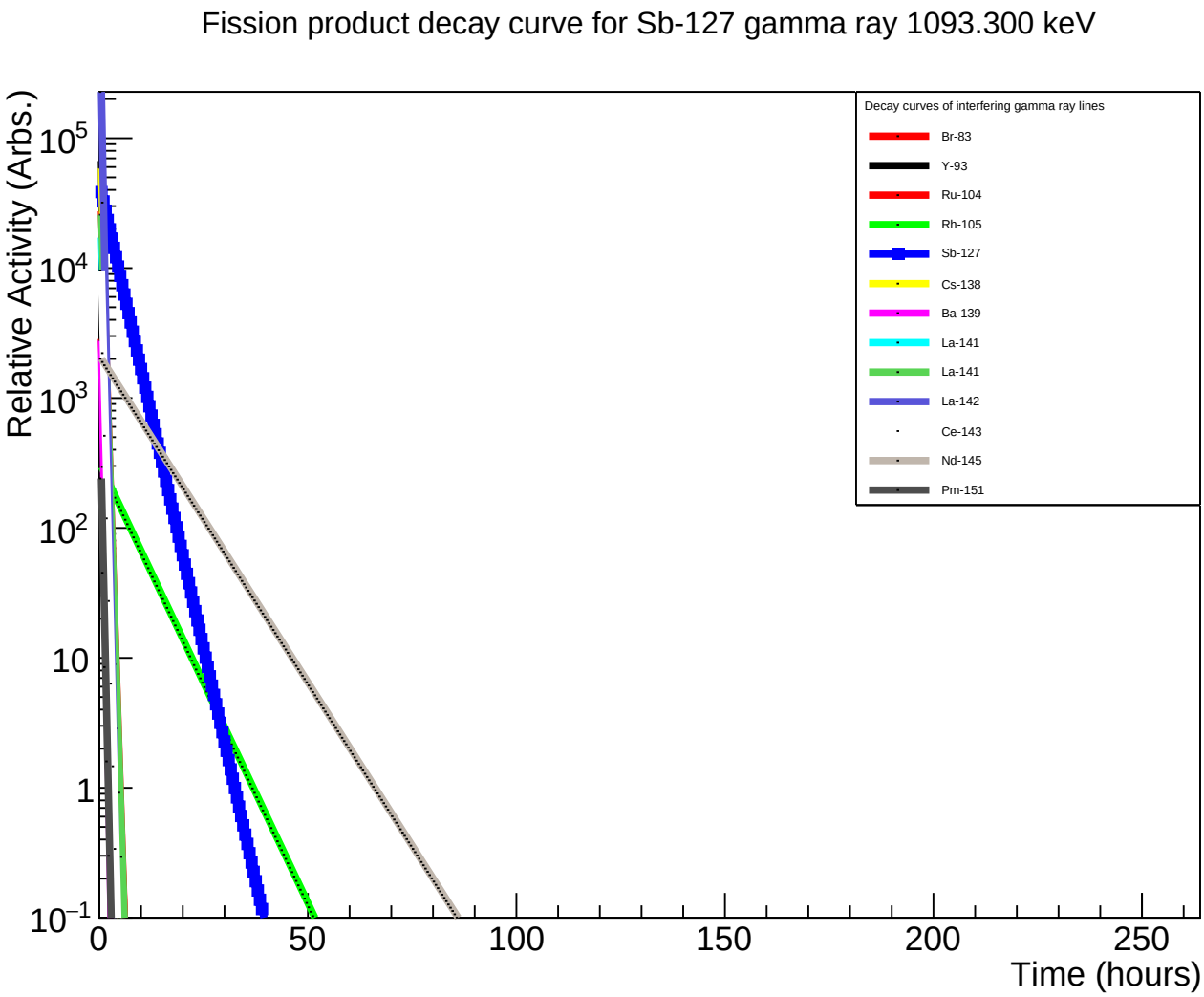


Figure 457: Sb-127 decay curve for 1093.300 keV gamma ray.

3.458 Sn-127 E_γ = 1095.60 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1095.60 keV
Gamma Intensity = 19.38 ± 5.214 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 915: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 916: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-130	Te-130	1096.500	0.008	0.658	0.008
I-132	Xe-132	1096.900	0.000	2.295	0.043
I-135	Xe-135	1096.860	0.001	6.570	0.063
Ba-141	La-141	1094.200	0.001	0.304	0.058
Ba-142	La-142	1094.100	0.028	0.177	0.058
Pr-147	Nd-147	1096.800	0.007	0.223	0.022
Sm-155	Eu-155	1096.000	0.000	0.372	0.000

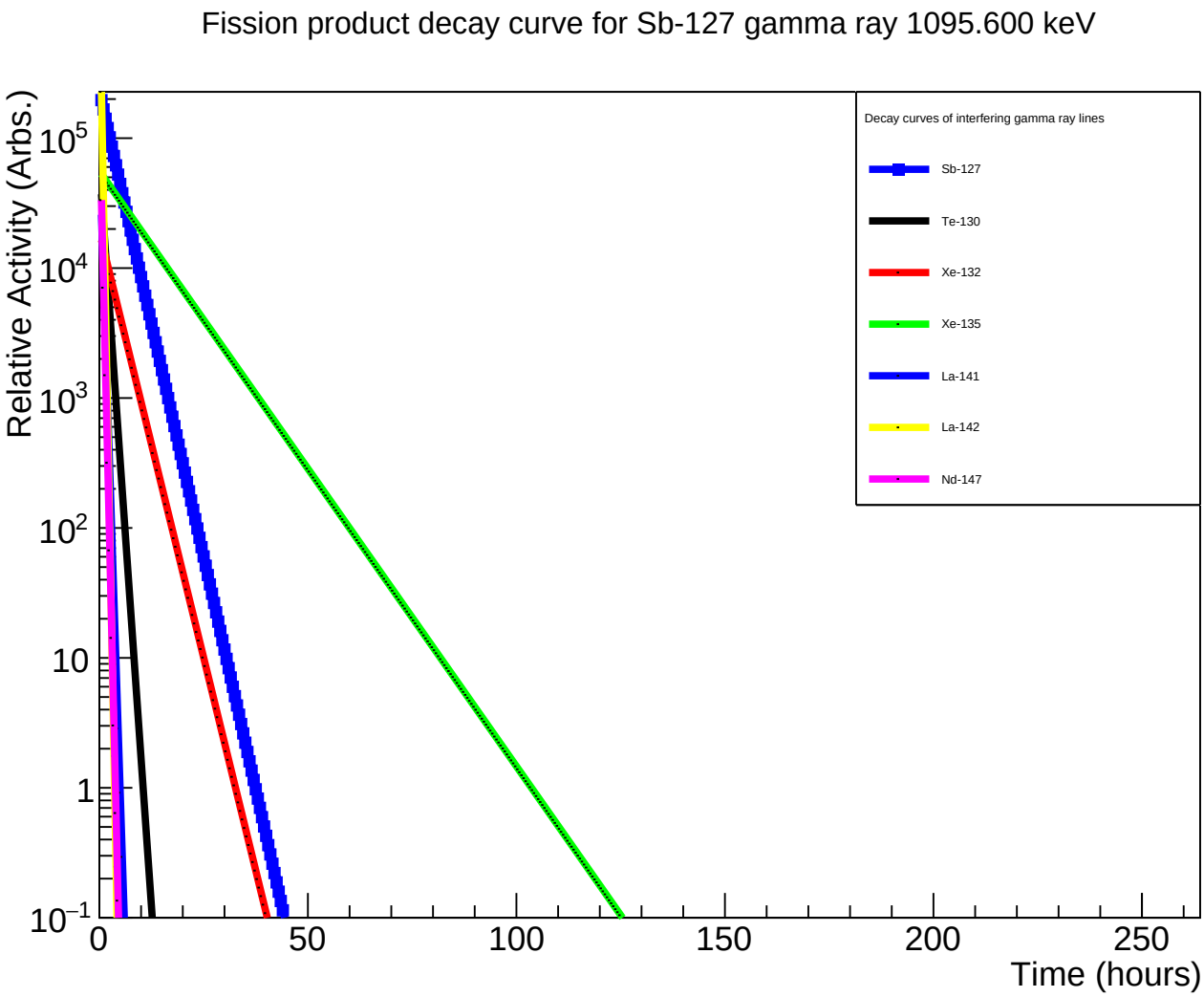


Figure 458: Sb-127 decay curve for 1095.600 keV gamma ray.

3.459 Sn-127 E_γ = 1114.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1114.30 keV
Gamma Intensity = 38.00 ± 7.965 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 917: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 918: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	1114.100	0.000	33.250	0.004
Xe-138	Cs-138	1114.290	0.015	0.235	0.063
Ba-142	La-142	1114.400	0.001	0.177	0.058
La-142	Ce-142	1112.900	0.000	1.518	0.058
Nd-151	Pm-151	1115.400	0.001	0.207	0.004
Eu-156	Gd-156	1115.780	0.001	364.560	0.000

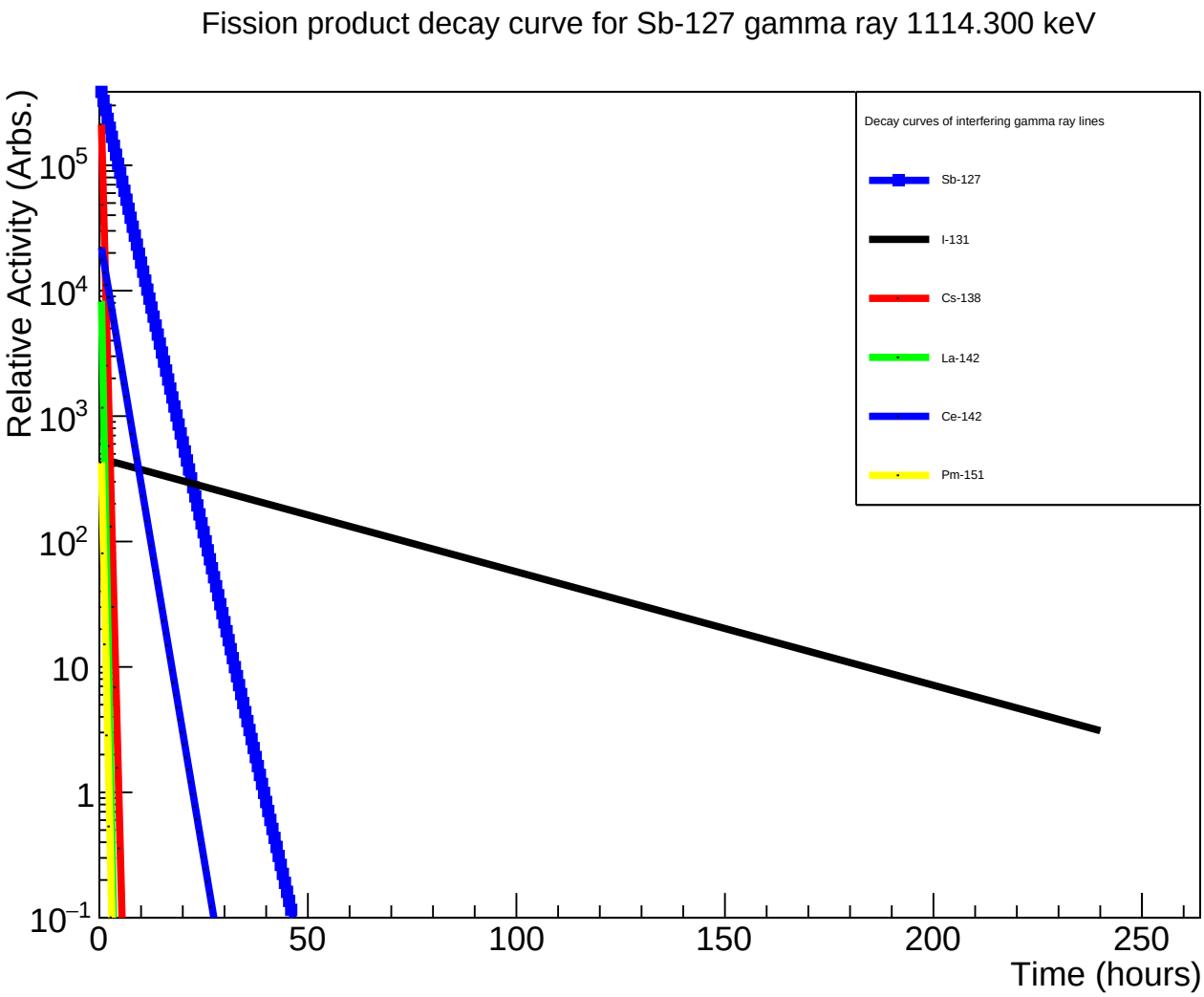


Figure 459: Sb-127 decay curve for 1114.300 keV gamma ray.

3.460 Sn-127 E_γ = 1160.40 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1160.40 keV
Gamma Intensity = 2.39 ± 0.662 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 919: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 920: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1161.800	0.007	0.312	0.065
Mo-101	Tc-101	1160.980	0.040	0.243	0.052
I-134	Xe-134	1159.100	0.003	0.875	0.078
I-135	Xe-135	1159.900	0.001	6.570	0.063
Xe-138	Cs-138	1160.960	0.001	0.235	0.063
Cs-139	Ba-139	1159.300	0.000	0.155	0.063
Ba-141	La-141	1160.800	0.011	0.304	0.058
La-142	Ce-142	1160.200	0.017	1.518	0.058
Ce-143	Pr-143	1160.580	0.000	33.039	0.060
Pr-145	Nd-145	1161.040	0.000	5.984	0.039
Nd-151	Pm-151	1159.400	0.001	0.207	0.004
Sm-155	Eu-155	1159.700	0.000	0.372	0.000

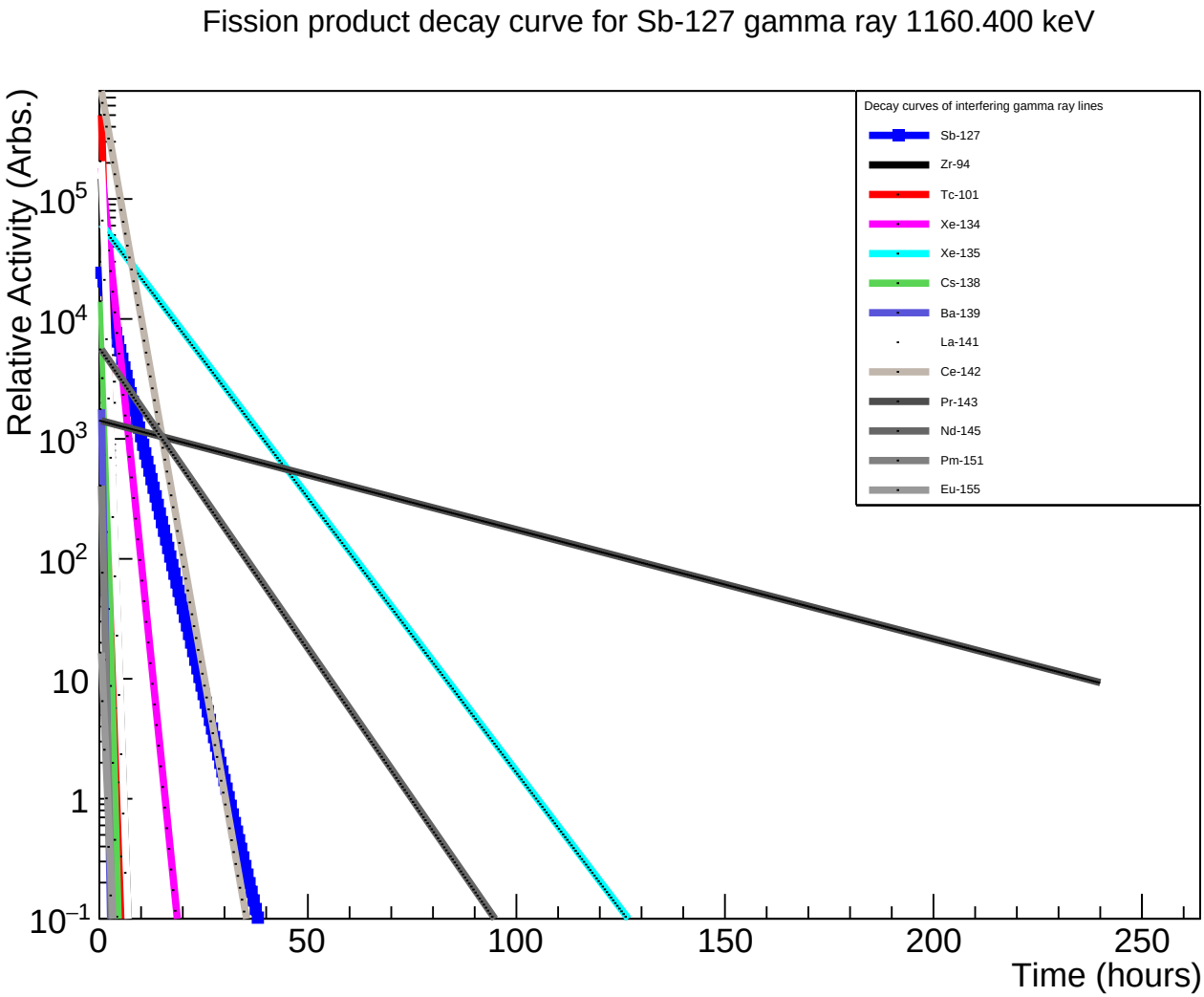


Figure 460: Sb-127 decay curve for 1160.400 keV gamma ray.

3.461 Sn-127 E_γ = 1472.50 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1472.50 keV
Gamma Intensity = 1.25 ± 0.352 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 921: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 922: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1473.290	0.004	0.252	0.047
Sr-91	Y-91	1473.800	0.002	9.630	0.058
Tc-104	Ru-104	1472.500	0.007	0.305	0.019
Sb-130	Te-130	1473.100	0.006	0.658	0.008
Te-133	I-133	1473.740	0.003	0.208	0.031
Xe-138	Cs-138	1473.200	0.001	0.235	0.063
Cs-139	Ba-139	1472.600	0.000	0.155	0.063
Nd-151	Pm-151	1473.600	0.000	0.207	0.004

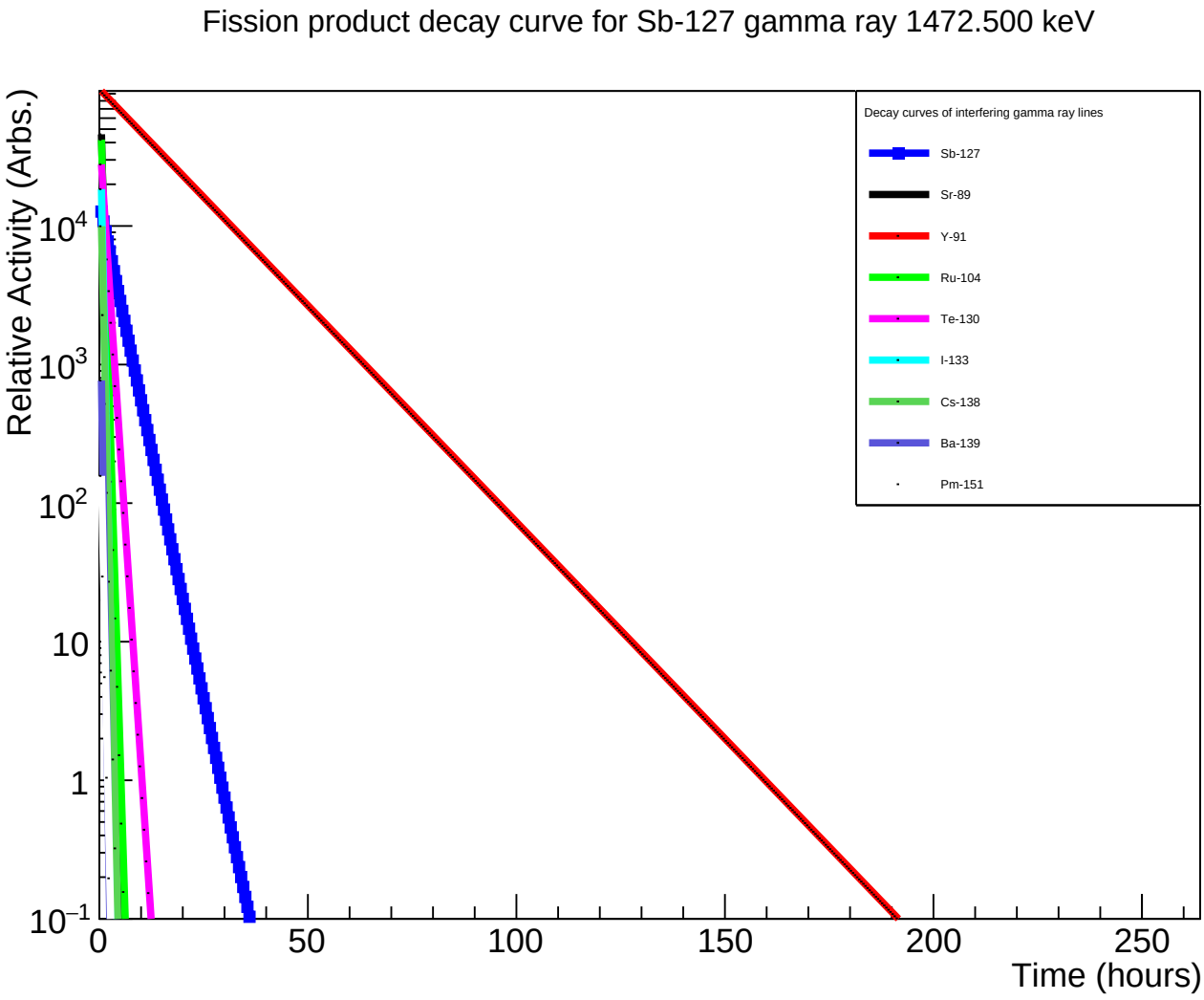


Figure 461: Sb-127 decay curve for 1472.500 keV gamma ray.

3.462 Sn-127 E_γ = 1584.30 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1584.30 keV
Gamma Intensity = 1.79 ± 0.380 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 923: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 924: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1585.600	0.000	0.855	0.000
Mo-101	Tc-101	1583.100	0.001	0.243	0.052
Nd-151	Pm-151	1584.600	0.000	0.207	0.004
Nd-151	Pm-151	1585.800	0.000	0.207	0.004

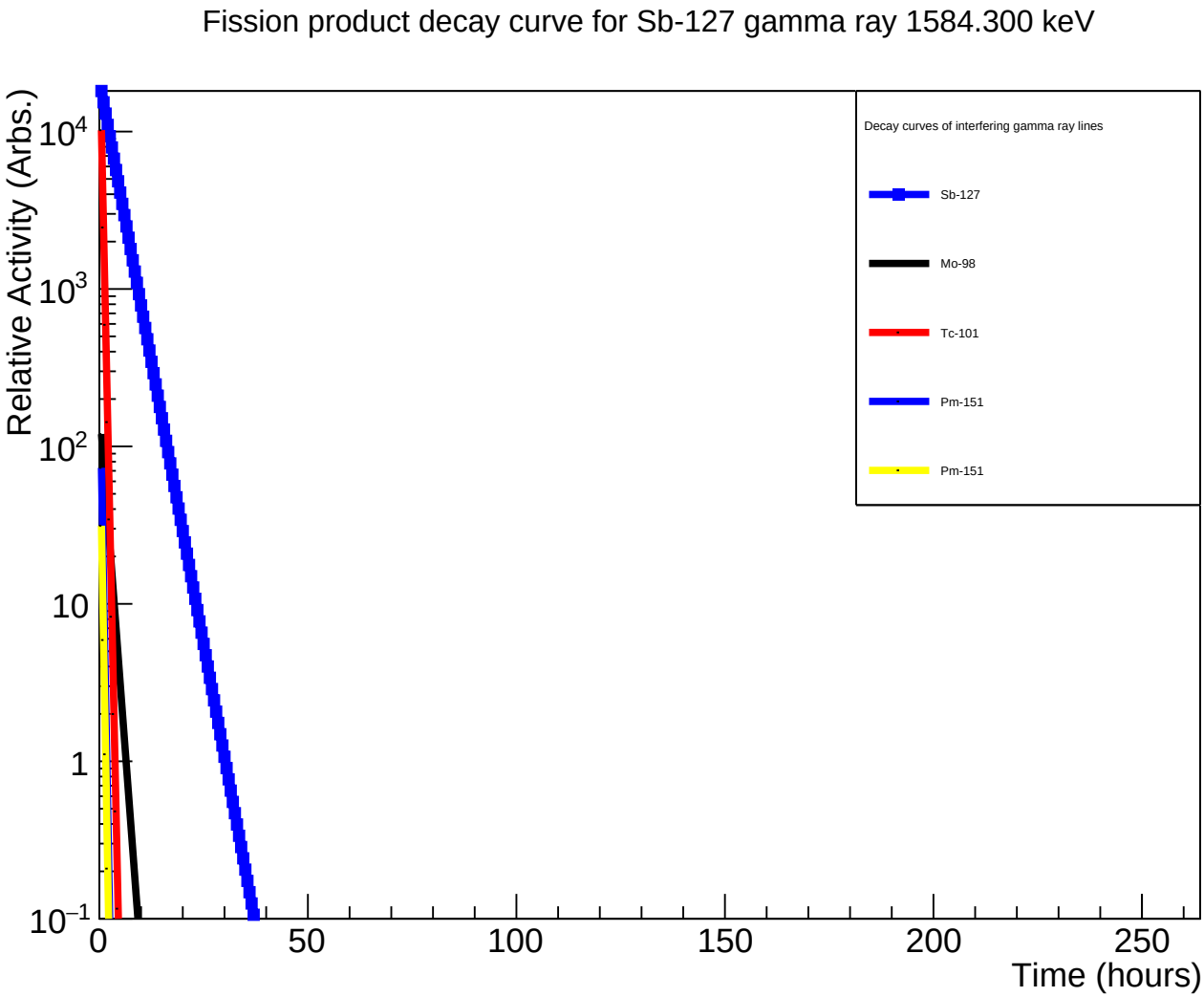


Figure 462: Sb-127 decay curve for 1584.300 keV gamma ray.

3.463 Sn-127 E_γ = 1647.80 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 1647.80 keV
Gamma Intensity = 1.03 ± 0.221 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 925: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 926: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1647.530	0.009	0.124	0.062
Mo-101	Tc-101	1646.400	0.001	0.243	0.052
Xe-138	Cs-138	1646.500	0.001	0.235	0.063
Nd-151	Pm-151	1647.430	0.000	0.207	0.004

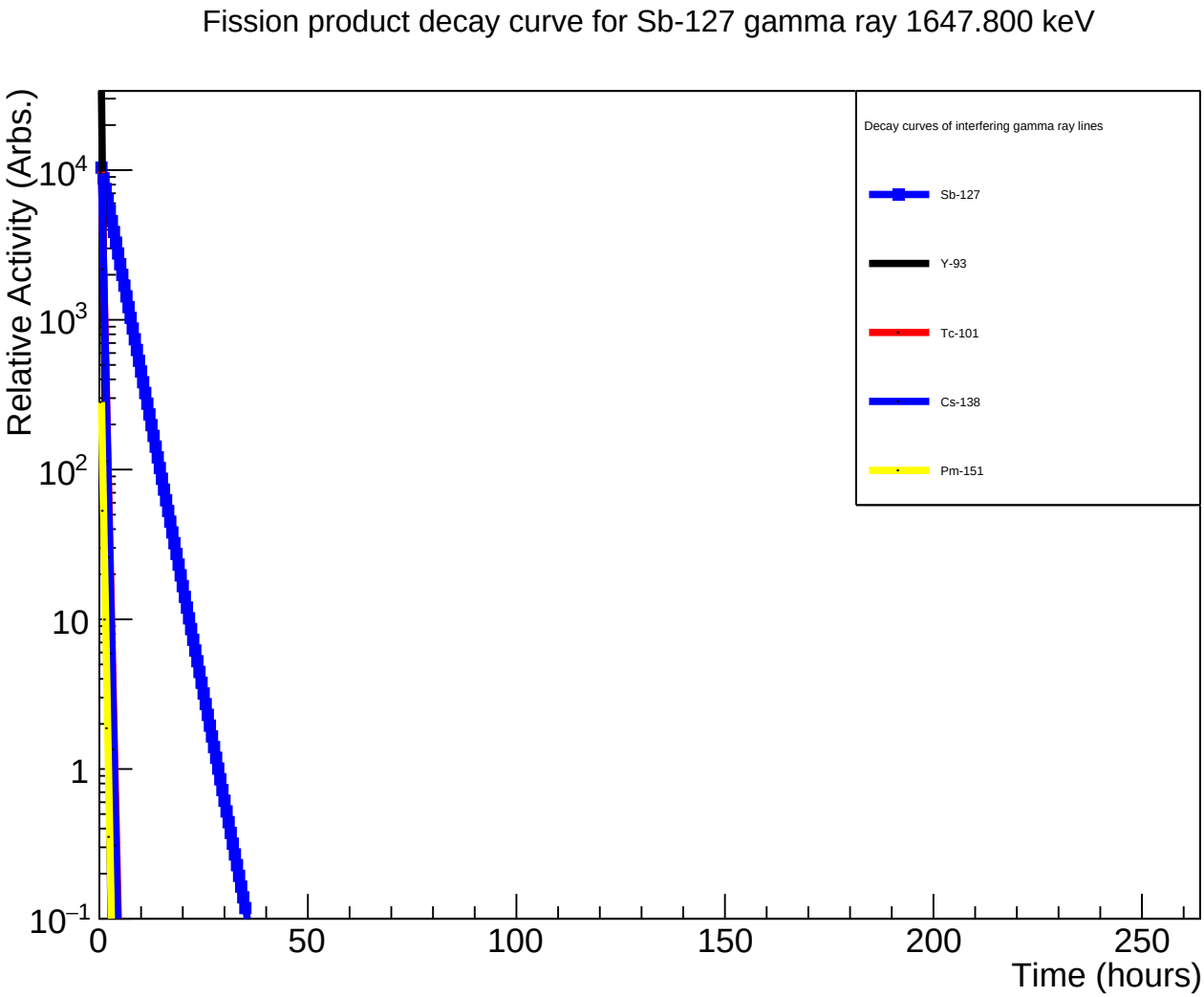


Figure 463: Sb-127 decay curve for 1647.800 keV gamma ray.

3.464 Sn-127 E_γ = 2003.40 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 2003.40 keV
Gamma Intensity = 5.32 ± 1.115 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 927: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 928: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
I-132	Xe-132	2002.200	0.011	2.295	0.043
Xe-138	Cs-138	2004.750	0.054	0.235	0.063
Cs-139	Ba-139	2003.400	0.000	0.155	0.063
La-142	Ce-142	2004.200	0.009	1.518	0.058
La-143	Ce-143	2003.910	0.004	0.237	0.059

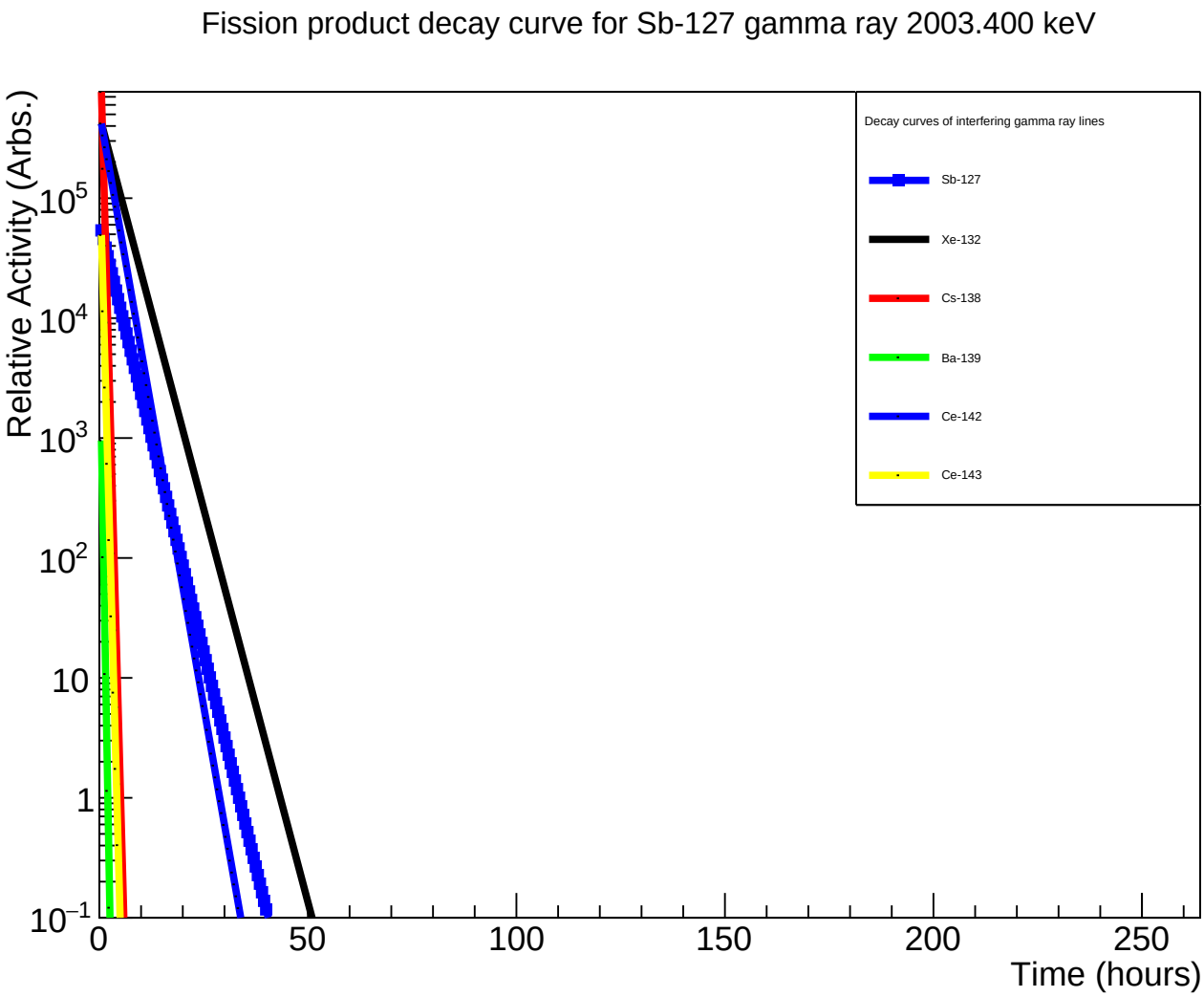


Figure 464: Sb-127 decay curve for 2003.400 keV gamma ray.

3.465 Sn-127 E_γ = 2317.40 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 2317.40 keV
Gamma Intensity = 1.10 ± 0.233 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 929: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 930: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

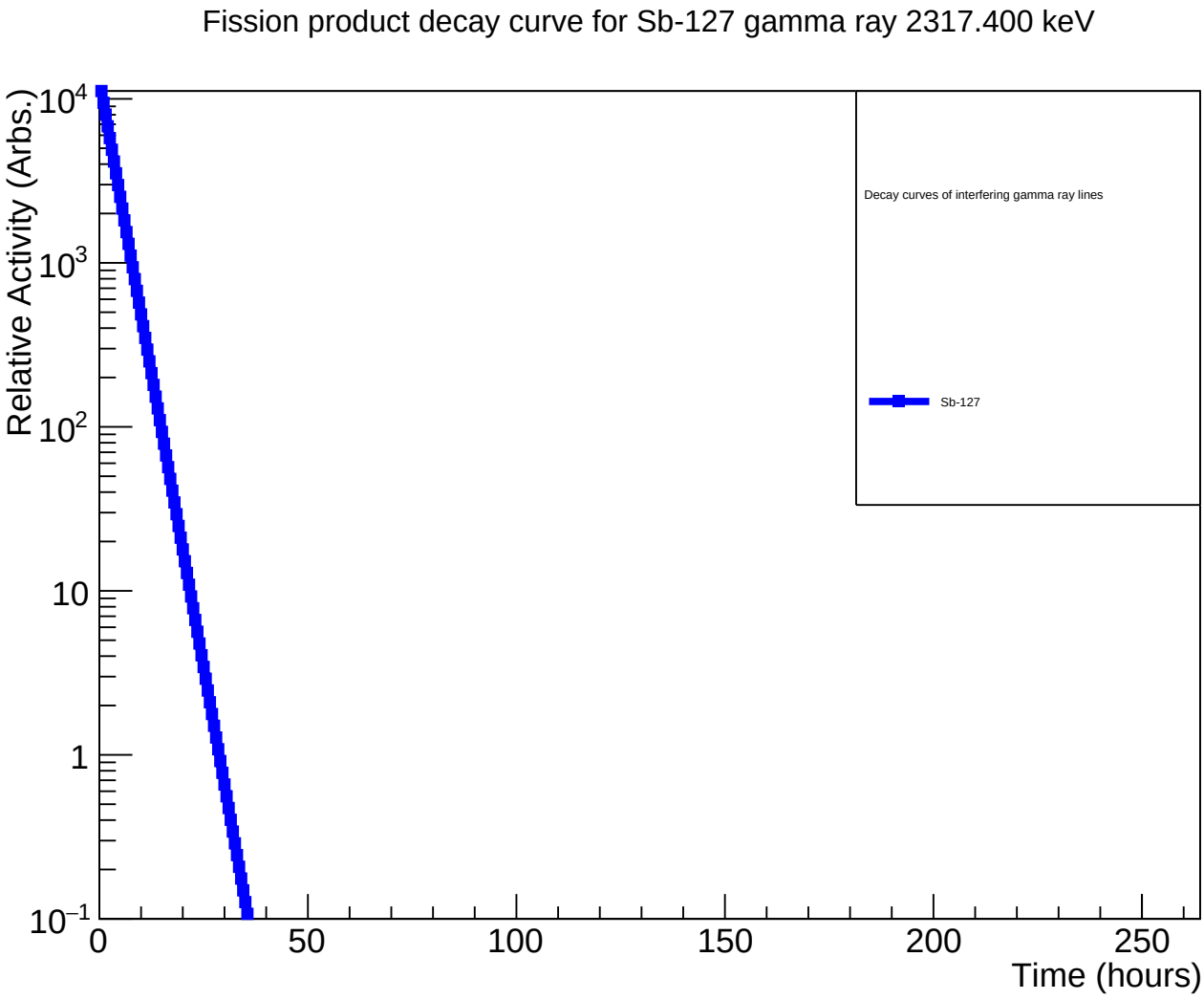


Figure 465: Sb-127 decay curve for 2317.400 keV gamma ray.

3.466 Sn-127 E_γ = 2584.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 2584.90 keV
Gamma Intensity = 1.56 ± 0.325 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 931: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 932: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2585.900	0.000	0.124	0.062

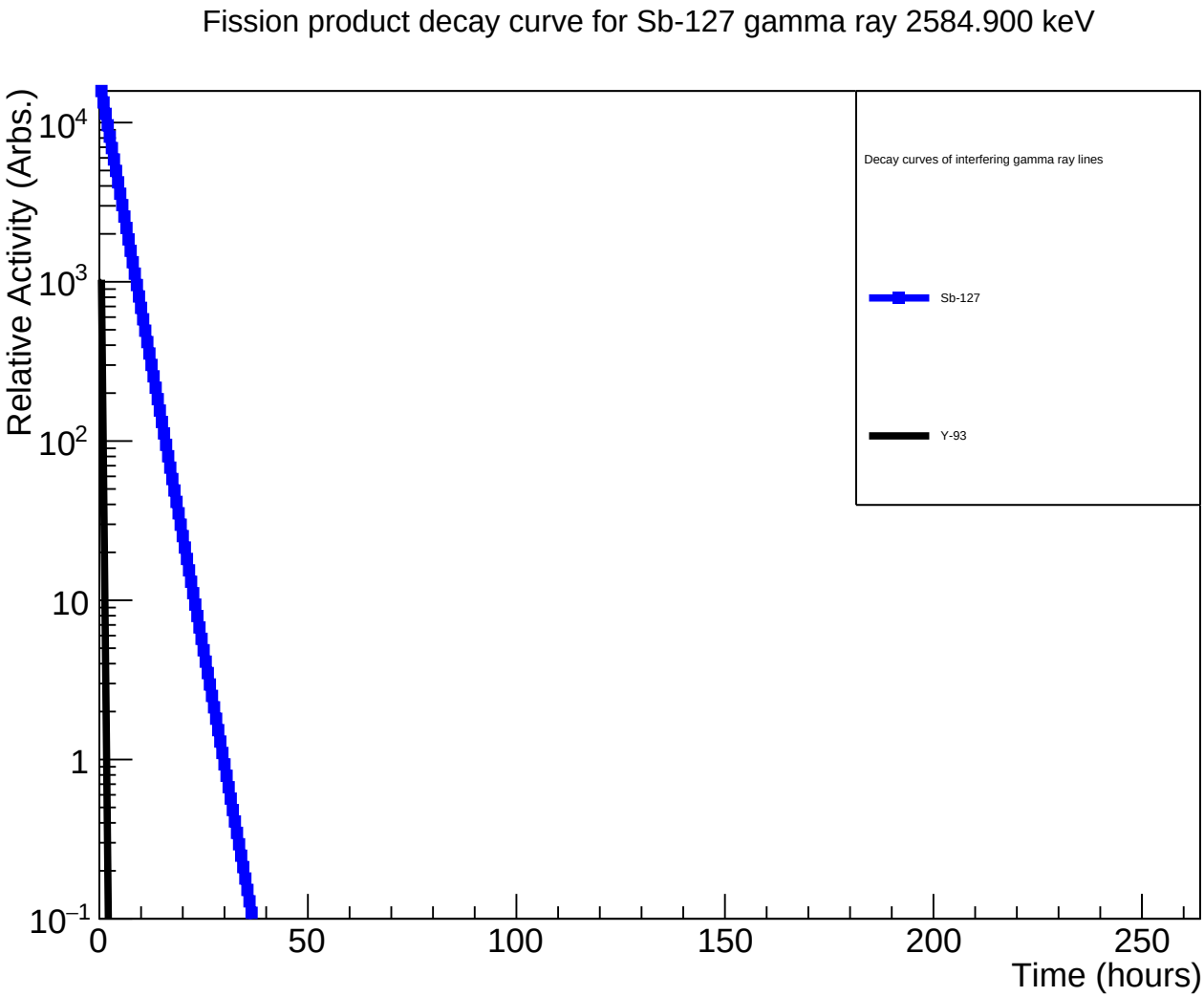


Figure 466: Sb-127 decay curve for 2584.900 keV gamma ray.

3.467 Sn-127 E_γ = 2695.90 keV

Chemical element: Tin
Fission product parent: Sn-127
Gamma originates in daughter: Sb-127
Eγ: 2695.90 keV
Gamma Intensity = 1.63 ± 0.337 %
$T_{1/2}$ = 2.100 ± 0.040 hours or 126.00 ± 2.40 minutes
CFY: 0.119 ± 0.007 %

Table 933: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 934: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

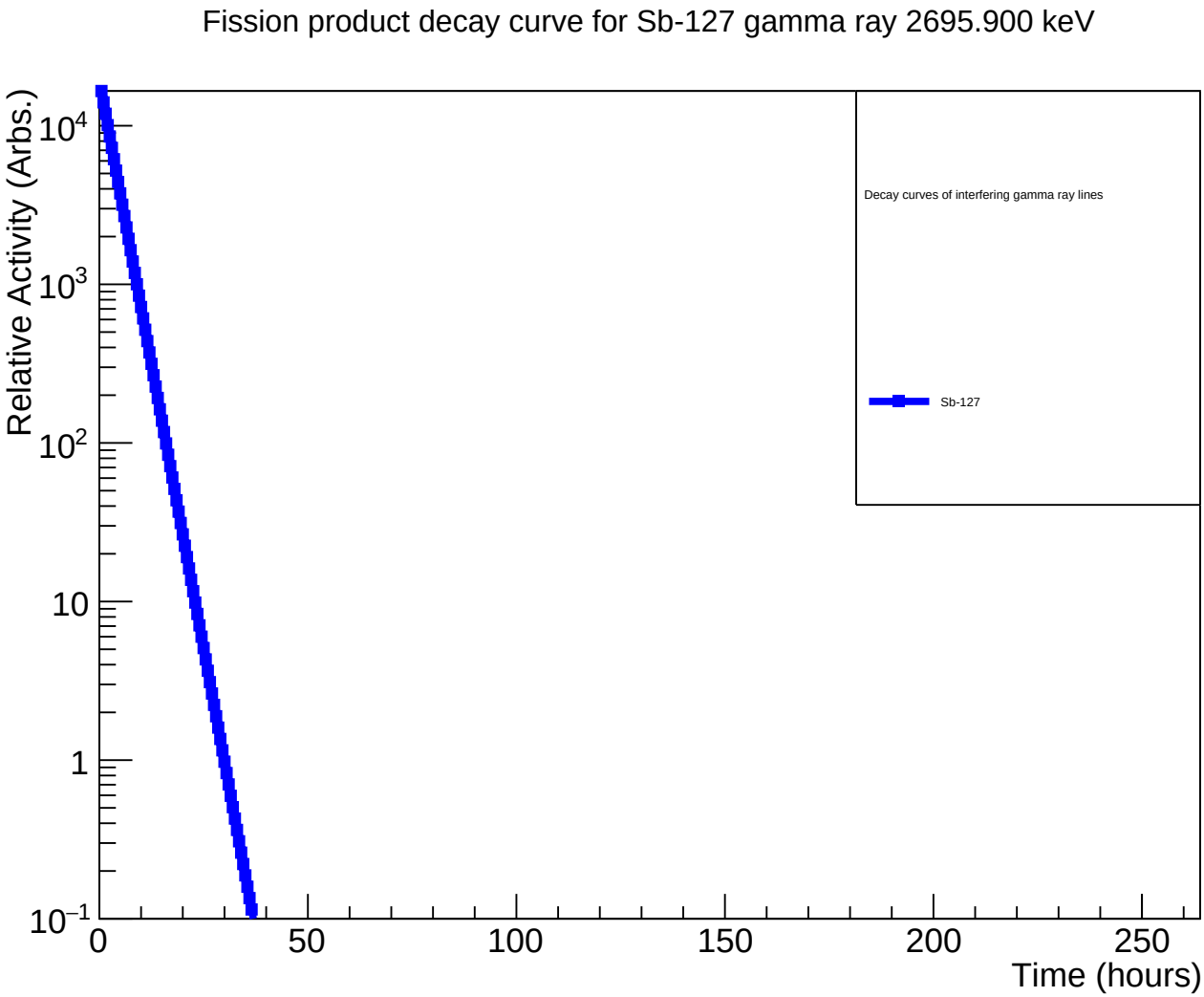


Figure 467: Sb-127 decay curve for 2695.900 keV gamma ray.

3.468 Sn-128 E_γ = 32.10 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 32.10 keV
Gamma Intensity = 4.01 ± 0.471 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 935: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 936: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-83	Rb-83	32.150	0.001	1.830	0.005
Nb-93	Mo-93	30.770	0.000	141388.891	0.060
Sb-125	Te-125	30.938	0.023	24194.445	0.000
Sb-125	Te-125	30.990	0.045	24194.445	0.000
Sb-125	Te-125	31.211	0.000	24194.445	0.000
Sb-125	Te-125	31.222	0.000	24194.445	0.000
Sb-125	Te-125	31.674	0.005	24194.445	0.000
Sb-125	Te-125	31.684	0.009	24194.445	0.000
Sb-125	Te-125	31.754	0.000	24194.445	0.000
Sb-125	Te-125	31.756	0.000	24194.445	0.000
Sb-126	Te-126	30.938	0.001	0.319	0.001
Sb-126	Te-126	30.990	0.001	0.319	0.001
Sb-126	Te-126	31.211	0.000	0.319	0.001
Sb-126	Te-126	31.222	0.000	0.319	0.001
Sb-126	Te-126	31.674	0.000	0.319	0.001
Sb-126	Te-126	31.684	0.000	0.319	0.001
Sb-126	Te-126	31.754	0.000	0.319	0.001
Sb-126	Te-126	31.756	0.000	0.319	0.001
Sb-127	Te-127	30.938	0.002	92.400	0.002
Sb-127	Te-127	30.990	0.004	92.400	0.002
Sb-127	Te-127	31.211	0.000	92.400	0.002
Sb-127	Te-127	31.222	0.000	92.400	0.002
Sb-127	Te-127	31.674	0.000	92.400	0.002
Sb-127	Te-127	31.684	0.001	92.400	0.002
Sb-127	Te-127	31.754	0.000	92.400	0.002
Sb-127	Te-127	31.756	0.000	92.400	0.002

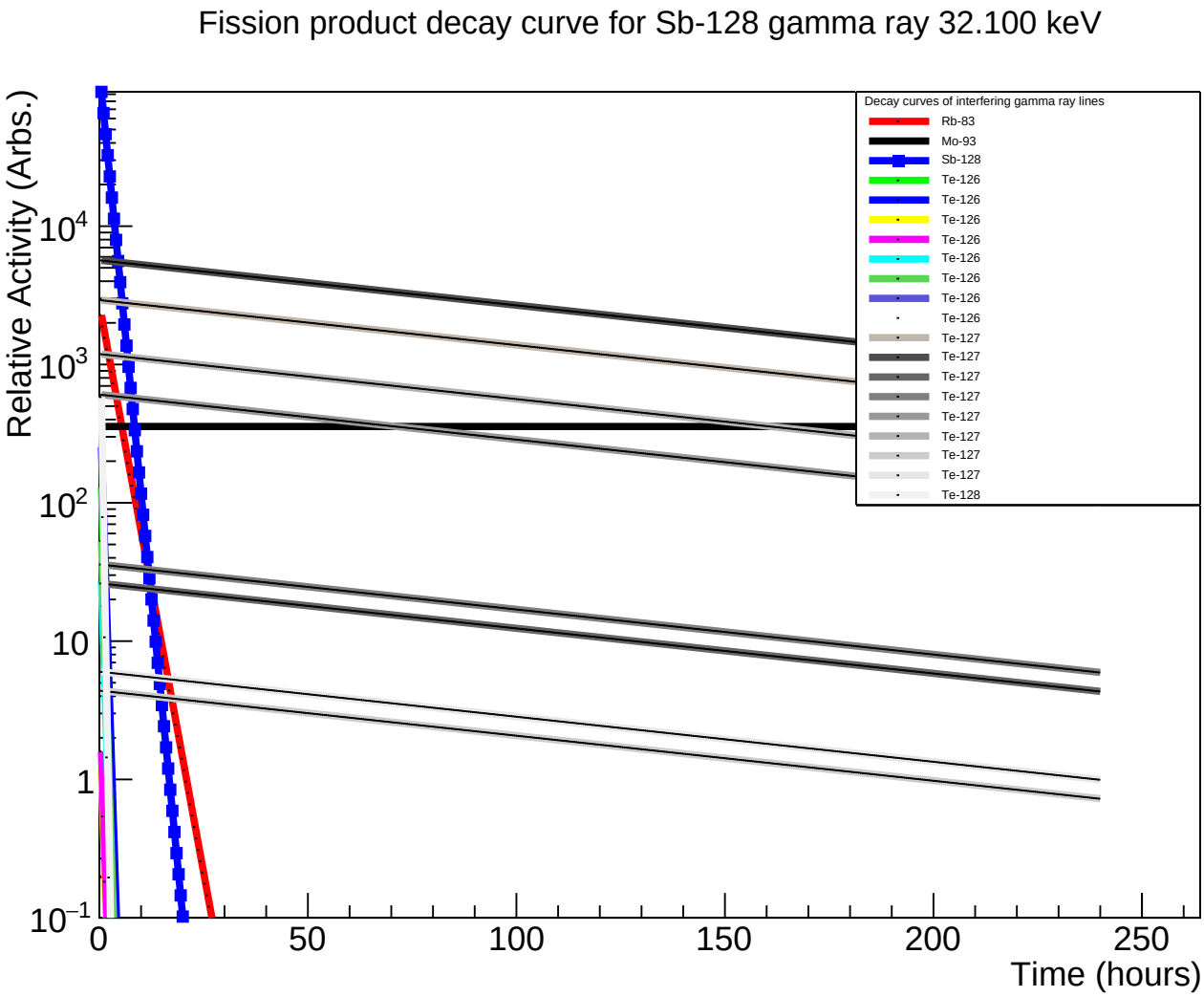


Figure 468: Sb-128 decay curve for 32.100 keV gamma ray.

3.469 Sn-128 E_γ = 45.70 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 45.70 keV
Gamma Intensity = 12.98 ± 1.446 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 937: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

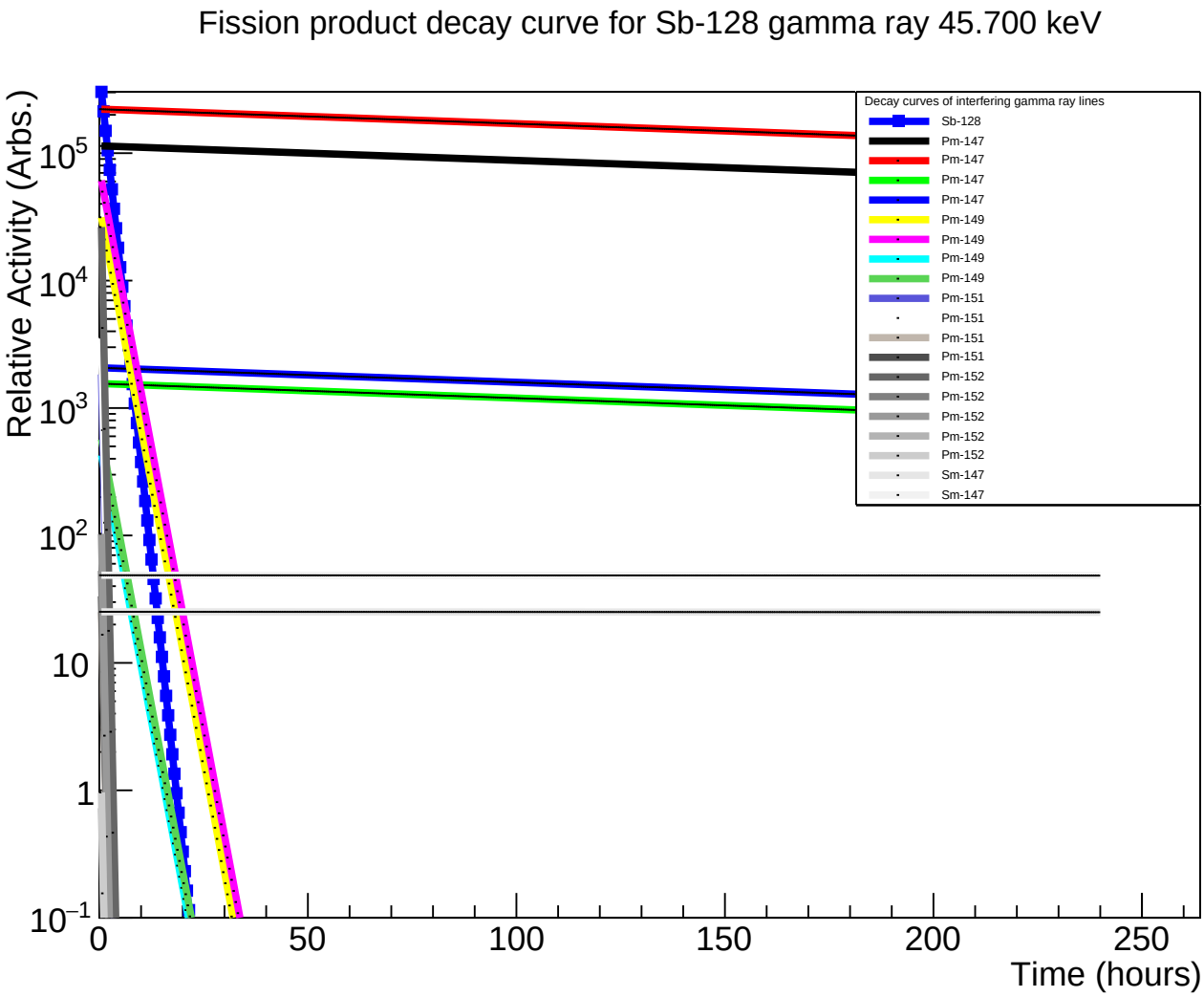


Figure 469: Sb-128 decay curve for 45.700 keV gamma ray.

Table 938: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	44.700	0.000	13.701	0.000
Nd-147	Pm-147	44.954	0.005	263.520	0.022
Nd-147	Pm-147	44.979	0.010	263.520	0.022
Nd-147	Pm-147	45.084	0.000	263.520	0.022
Nd-147	Pm-147	45.088	0.000	263.520	0.022
Nd-149	Pm-149	44.954	0.004	1.728	0.011
Nd-149	Pm-149	44.979	0.007	1.728	0.011
Nd-149	Pm-149	45.084	0.000	1.728	0.011
Nd-149	Pm-149	45.088	0.000	1.728	0.011
Nd-151	Pm-151	44.954	0.002	0.207	0.004
Nd-151	Pm-151	44.979	0.005	0.207	0.004
Nd-151	Pm-151	45.084	0.000	0.207	0.004
Nd-151	Pm-151	45.088	0.000	0.207	0.004
Nd-152	Pm-152	44.440	0.062	0.190	0.003
Nd-152	Pm-152	44.954	0.000	0.190	0.003
Nd-152	Pm-152	44.979	0.000	0.190	0.003
Nd-152	Pm-152	45.084	0.000	0.190	0.003
Nd-152	Pm-152	45.088	0.000	0.190	0.003
Pm-147	Sm-147	45.344	0.000	23000.000	0.022
Pm-147	Sm-147	45.468	0.000	23000.000	0.022
Pm-147	Sm-147	45.763	0.000	23000.000	0.022
Pm-147	Sm-147	45.790	0.000	23000.000	0.022
Pm-147	Sm-147	46.599	0.000	23000.000	0.022
Pm-147	Sm-147	46.626	0.000	23000.000	0.022
Pm-147	Sm-147	46.735	0.000	23000.000	0.022
Pm-147	Sm-147	46.739	0.000	23000.000	0.022
Pm-149	Sm-149	45.344	0.000	53.080	0.011
Pm-149	Sm-149	45.468	0.000	53.080	0.011
Pm-149	Sm-149	45.763	0.000	53.080	0.011
Pm-149	Sm-149	45.790	0.000	53.080	0.011
Pm-149	Sm-149	46.599	0.000	53.080	0.011
Pm-149	Sm-149	46.626	0.000	53.080	0.011
Pm-149	Sm-149	46.735	0.000	53.080	0.011
Pm-149	Sm-149	46.739	0.000	53.080	0.011
Pm-151	Sm-151	45.344	0.015	28.400	0.004
Pm-151	Sm-151	45.468	0.028	28.400	0.004
Pm-151	Sm-151	45.763	0.000	28.400	0.004
Pm-151	Sm-151	45.790	0.000	28.400	0.004
Pm-151	Sm-151	46.599	0.003	28.400	0.004

3.470 Sn-128 E_γ = 75.10 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 75.10 keV
Gamma Intensity = 27.73 ± 3.329 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 939: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 940: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	75.300	0.022	0.127	0.010
Te-129	I-129	76.100	0.000	806.400	0.001
Nd-149	Pm-149	74.320	0.011	1.728	0.011
Nd-149	Pm-149	74.660	0.010	1.728	0.011
Nd-149	Pm-149	75.690	0.002	1.728	0.011
Pm-147	Sm-147	76.073	0.000	23000.000	0.022
Pm-151	Sm-151	76.220	0.002	28.400	0.004
Sm-153	Eu-153	75.422	0.002	46.500	0.002

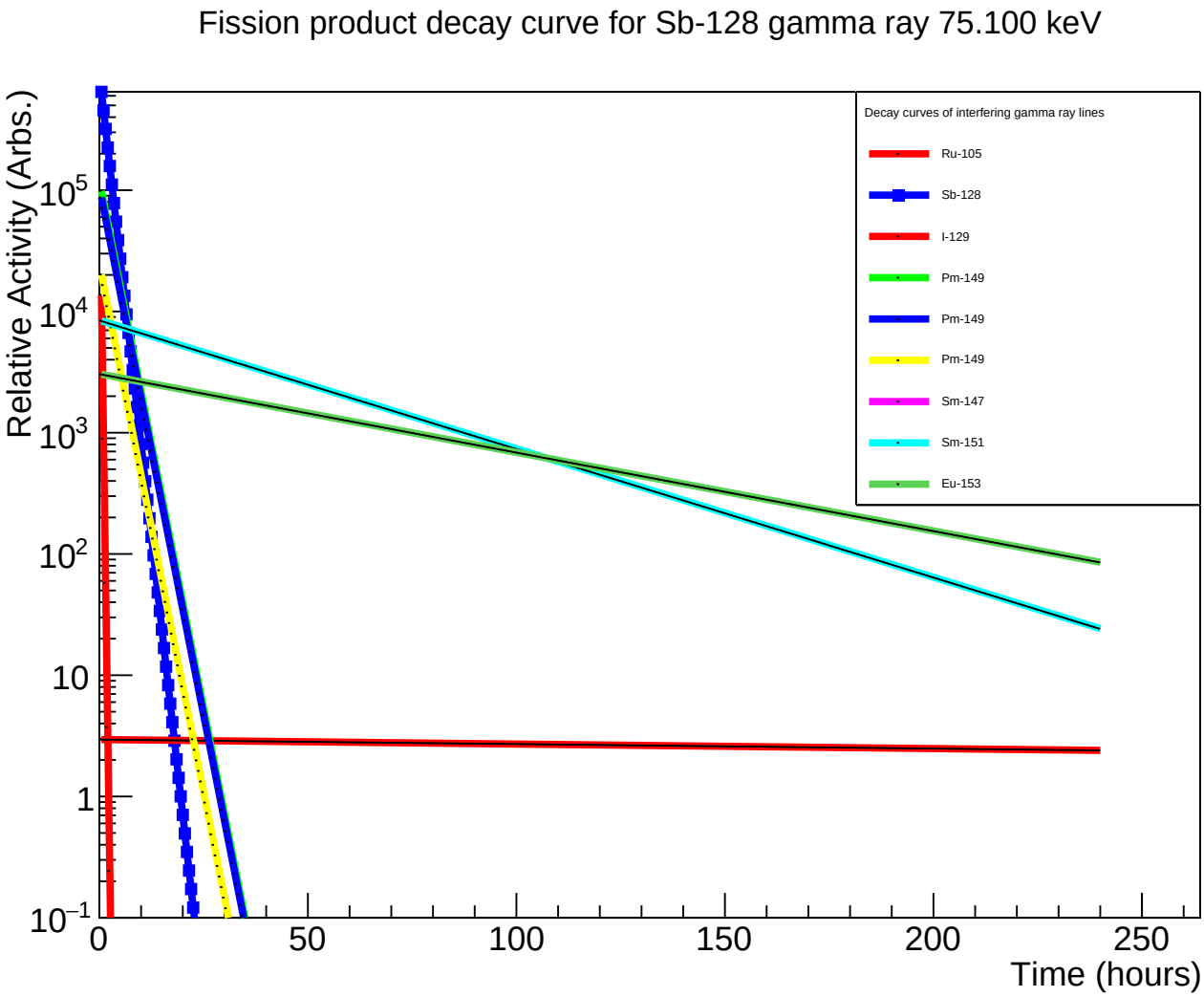


Figure 470: Sb-128 decay curve for 75.100 keV gamma ray.

3.471 Sn-128 E_γ = 152.70 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 152.70 keV
Gamma Intensity = 6.49 ± 0.885 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 941: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 942: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	151.800	0.000	0.855	0.000
Tc-104	Ru-104	153.400	0.003	0.305	0.019
Te-131	I-131	151.200	0.001	33.250	0.004
I-134	Xe-134	151.980	0.001	0.875	0.078
Xe-138	Cs-138	153.858	0.060	0.235	0.063
Ba-142	La-142	153.100	0.001	0.177	0.058
Sm-153	Eu-153	151.624	0.000	46.500	0.002

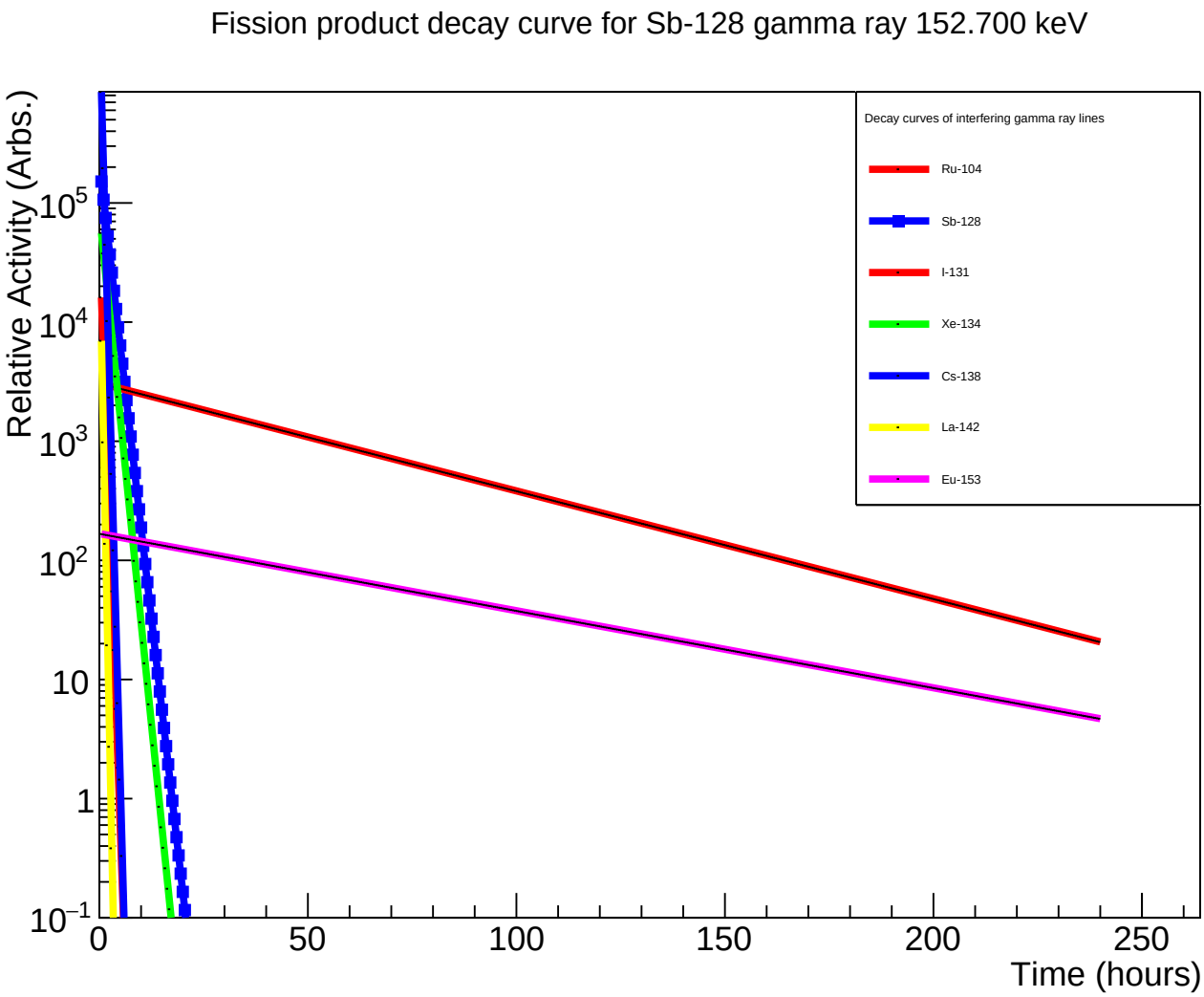


Figure 471: Sb-128 decay curve for 152.700 keV gamma ray.

3.472 Sn-128 E_γ = 404.40 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 404.40 keV
Gamma Intensity = 5.90 ± 0.841 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 943: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 944: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	404.800	0.001	0.390	0.000
Sb-129	Te-129	405.000	0.014	4.400	0.005
Sb-130	Te-130	405.200	0.005	0.105	0.010
Te-131	I-131	403.300	0.000	0.417	0.025
Te-131	I-131	403.300	0.000	33.250	0.004
Te-133	I-133	404.850	0.003	0.208	0.031
I-131	Xe-131	404.814	0.001	192.605	0.029
I-134	Xe-134	405.451	0.074	0.875	0.078
I-135	Xe-135	403.030	0.002	6.570	0.063
Cs-139	Ba-139	404.610	0.000	0.155	0.063
Pm-151	Sm-151	404.740	0.001	28.400	0.004

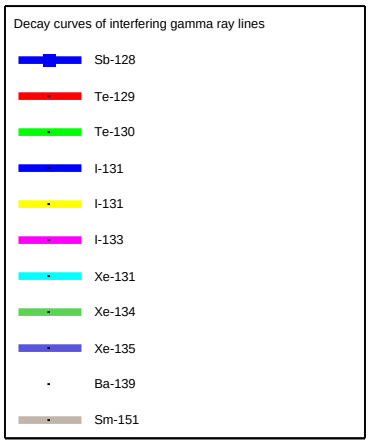


Figure 472: Sb-128 decay curve for 404.400 keV gamma ray.

3.473 Sn-128 E_γ = 436.70 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 436.70 keV
Gamma Intensity = 4.13 ± 0.724 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 945: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 946: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	435.280	0.012	0.923	0.040
Ba-140	La-140	437.575	0.019	306.065	0.062
Nd-151	Pm-151	435.900	0.000	0.207	0.004
Sm-153	Eu-153	436.900	0.000	46.500	0.002

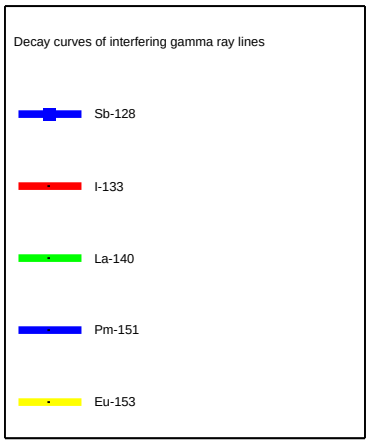


Figure 473: Sb-128 decay curve for 436.700 keV gamma ray.

3.474 Sn-128 E_γ = 482.30 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 482.30 keV
Gamma Intensity = 59.00 ± 6.686 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 947: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 948: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	481.960	0.011	0.124	0.062
Sr-93	Y-93	483.730	0.017	0.124	0.062
Sb-130	Te-130	483.600	0.022	0.658	0.008
Pr-146	Nd-146	481.500	0.000	0.403	0.030
Nd-149	Pm-149	483.590	0.001	1.728	0.011
Nd-151	Pm-151	481.920	0.001	0.207	0.004

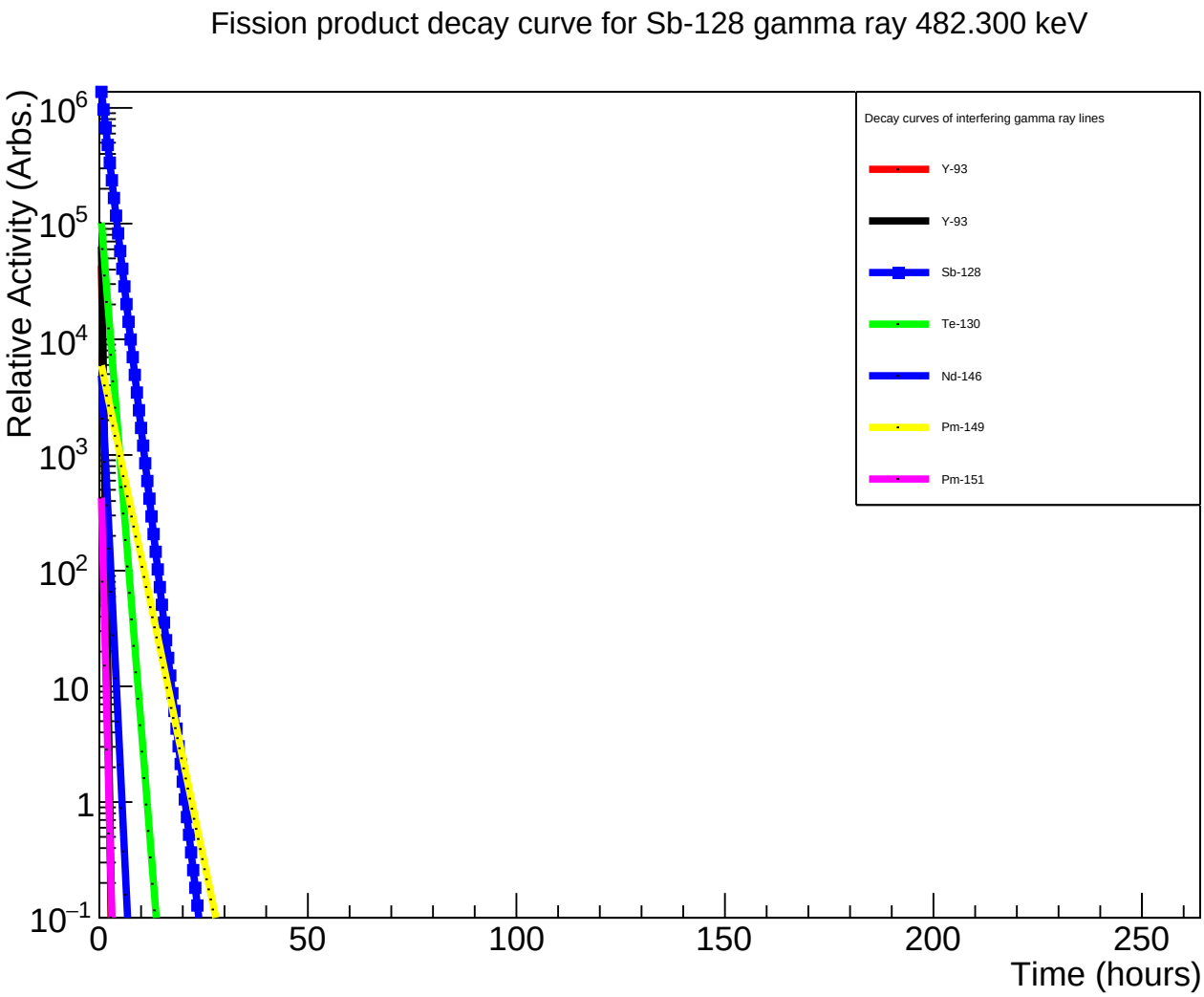


Figure 474: Sb-128 decay curve for 482.300 keV gamma ray.

3.475 Sn-128 E_γ = 557.30 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 557.30 keV
Gamma Intensity = 16.52 ± 2.440 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 949: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 950: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	558.000	0.000	16.749	0.060
Nb-98	Mo-98	557.500	0.001	0.855	0.000
Ru-103	Rh-103	557.057	0.008	941.928	0.030
Pd-109	Ag-109	558.100	0.000	13.701	0.000
Ag-112	Cd-112	558.000	0.000	3.130	0.000
Te-129	I-129	556.650	0.001	806.400	0.001
Te-131	I-131	558.100	0.000	33.250	0.004
I-133	Xe-133	556.170	0.000	20.800	0.067
Xe-138	Cs-138	555.950	0.001	0.235	0.063
Cs-139	Ba-139	558.100	0.000	0.155	0.063
Ba-142	La-142	557.700	0.002	0.177	0.058
Ce-143	Pr-143	556.870	0.000	33.039	0.060
Nd-149	Pm-149	555.880	0.006	1.728	0.011
Nd-149	Pm-149	556.830	0.004	1.728	0.011
Nd-149	Pm-149	558.000	0.000	1.728	0.011
Nd-151	Pm-151	557.400	0.000	0.207	0.004
Pm-149	Sm-149	558.370	0.000	53.080	0.011

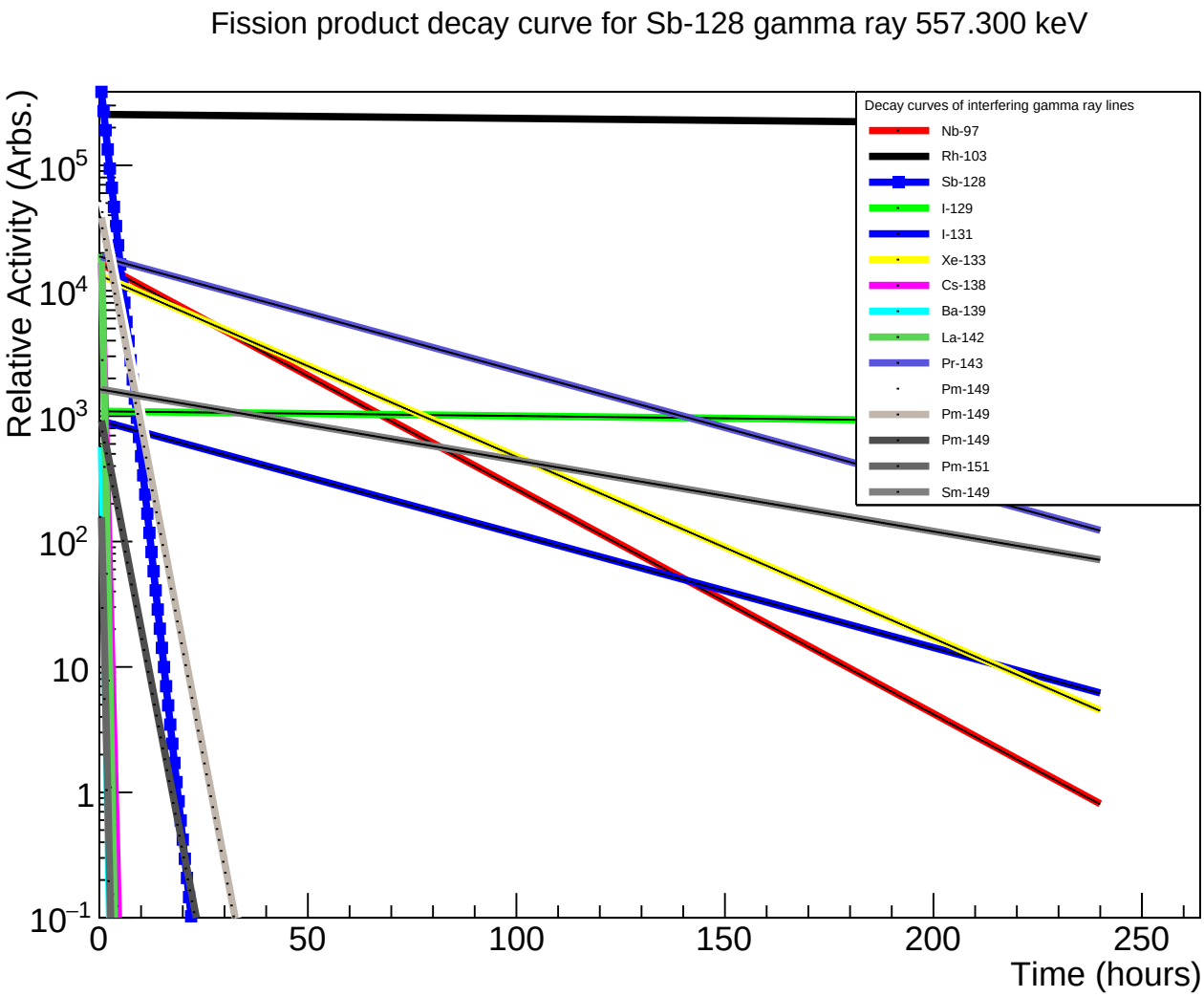


Figure 475: Sb-128 decay curve for 557.300 keV gamma ray.

3.476 Sn-128 E_γ = 680.50 keV

Chemical element: Tin
Fission product parent: Sn-128
Gamma originates in daughter: Sb-128
Eγ: 680.50 keV
Gamma Intensity = 15.93 ± 2.399 %
$T_{1/2}$ = 0.984 ± 0.002 hours or 59.07 ± 0.14 minutes
CFY: 0.332 ± 0.212 %

Table 951: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 952: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	679.400	0.010	0.372	0.003
Br-83	Kr-83	681.170	0.000	2.400	0.005
Y-93	Zr-93	680.200	0.007	10.180	0.063
Nb-98	Mo-98	679.680	0.001	0.855	0.000
Ag-113	Cd-113	680.600	0.007	5.370	0.000
Sb-130	Te-130	680.900	0.065	0.658	0.008
Te-131	I-131	681.900	0.000	33.250	0.004
Te-133	I-133	679.800	0.001	0.208	0.031
Te-133	I-133	681.000	0.001	0.923	0.040
I-133	Xe-133	680.247	0.006	20.800	0.067
I-135	Xe-135	679.220	0.001	6.570	0.063
Xe-138	Cs-138	680.240	0.001	0.235	0.063
La-142	Ce-142	681.200	0.000	1.518	0.058
Nd-147	Pm-147	680.520	0.000	263.520	0.022
Nd-149	Pm-149	681.340	0.000	1.728	0.011
Nd-151	Pm-151	679.600	0.000	0.207	0.004
Nd-151	Pm-151	682.000	0.000	0.207	0.004
Sm-153	Eu-153	682.000	0.000	46.500	0.002

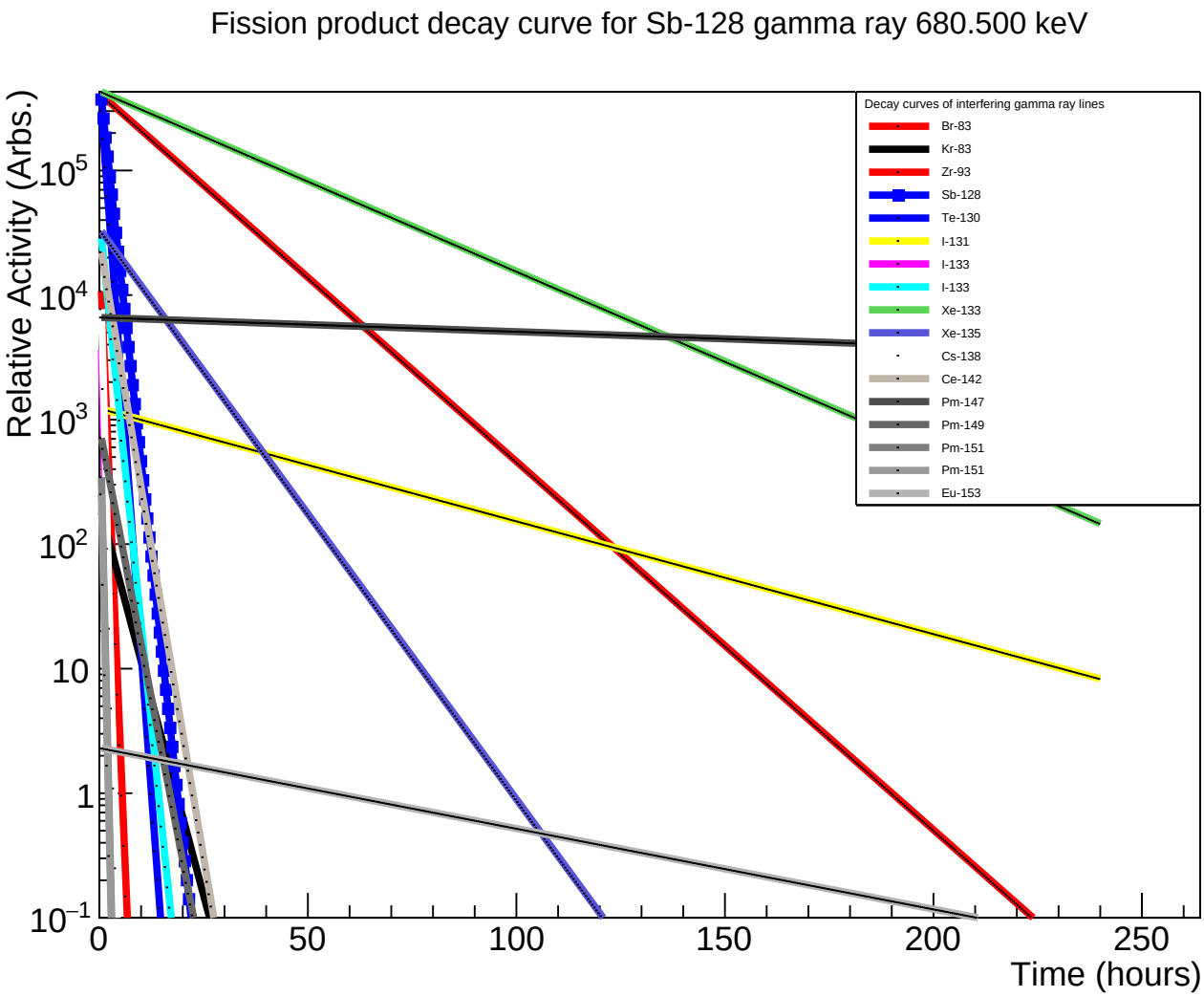


Figure 476: Sb-128 decay curve for 680.500 keV gamma ray.

3.477 Sn-129 E_γ = 50.20 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 50.20 keV
Gamma Intensity = 5.20 ± 2.651 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 953: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 954: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	48.940	0.000	0.127	0.010
Tc-105	Ru-105	51.200	0.001	0.127	0.010
Te-131	I-131	51.000	0.000	33.250	0.004
Te-132	I-132	49.720	0.150	76.896	0.043
Te-133	I-133	50.000	0.001	0.923	0.040
Pr-147	Nd-147	49.880	0.042	0.223	0.022
Eu-155	Gd-155	48.761	0.024	41666.668	0.000
Eu-155	Gd-155	49.071	0.000	41666.668	0.000
Eu-155	Gd-155	49.103	0.000	41666.668	0.000
Eu-155	Gd-155	49.992	0.003	41666.668	0.000
Eu-155	Gd-155	50.024	0.005	41666.668	0.000
Eu-155	Gd-155	50.141	0.000	41666.668	0.000
Eu-155	Gd-155	50.147	0.000	41666.668	0.000
Eu-156	Gd-156	48.761	0.013	364.560	0.000
Eu-156	Gd-156	49.071	0.000	364.560	0.000
Eu-156	Gd-156	49.103	0.000	364.560	0.000
Eu-156	Gd-156	49.992	0.001	364.560	0.000
Eu-156	Gd-156	50.024	0.003	364.560	0.000
Eu-156	Gd-156	50.141	0.000	364.560	0.000
Eu-156	Gd-156	50.147	0.000	364.560	0.000

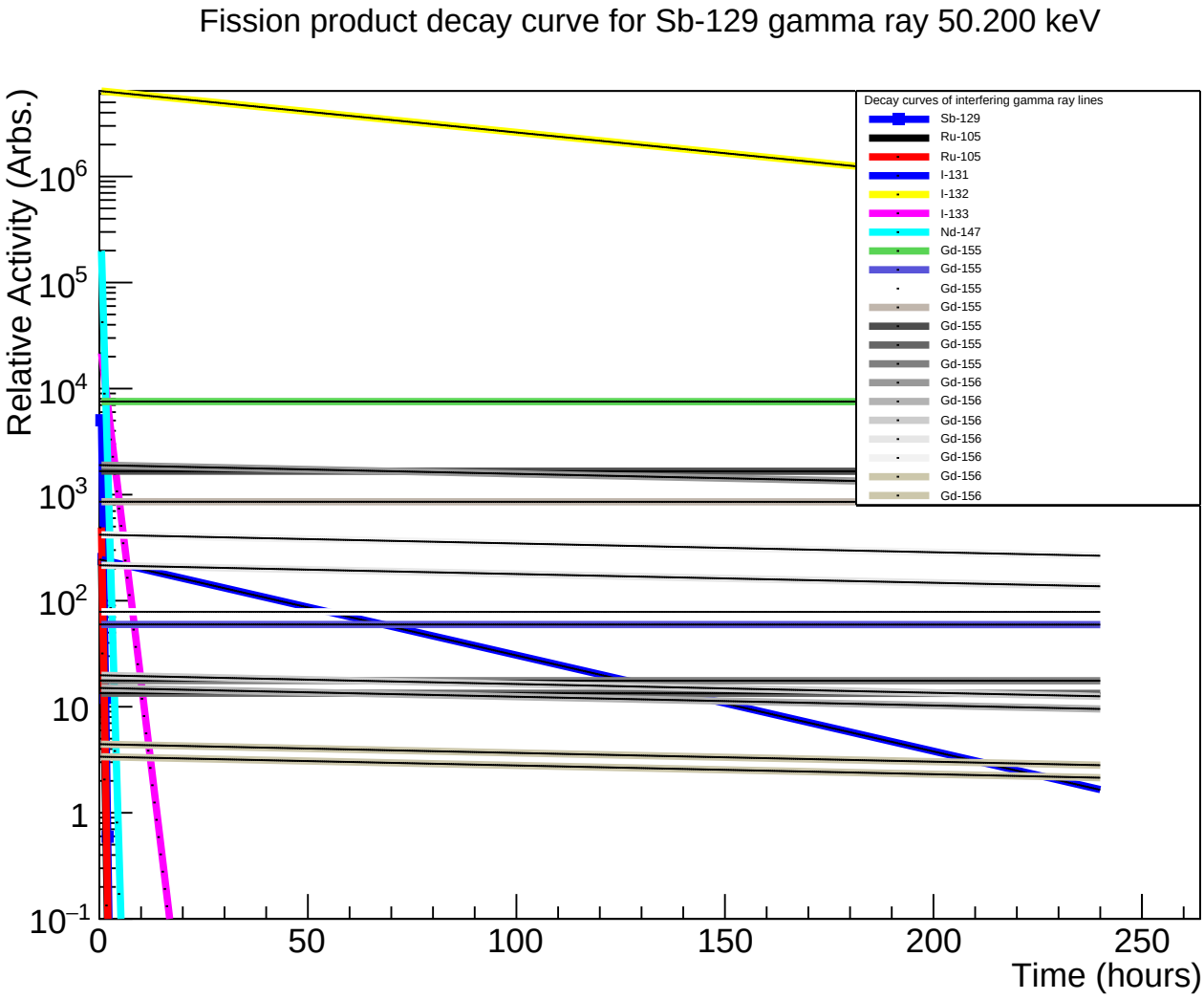


Figure 477: Sb-129 decay curve for 50.200 keV gamma ray.

3.478 Sn-129 E_γ = 67.60 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 67.60 keV
Gamma Intensity = 5.20 ± 1.644 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 955: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 956: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	67.220	0.001	0.208	0.031
Xe-138	Cs-138	68.300	0.000	0.235	0.063
Ba-141	La-141	67.800	0.000	0.304	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
La-140	Ce-140	68.916	0.001	40.285	0.062
Pr-145	Nd-145	67.100	0.000	5.984	0.039
Nd-149	Pm-149	67.200	0.000	1.728	0.011
Nd-151	Pm-151	67.020	0.000	0.207	0.004
Nd-151	Pm-151	68.980	0.013	0.207	0.004
Sm-153	Eu-153	68.256	0.000	46.500	0.002

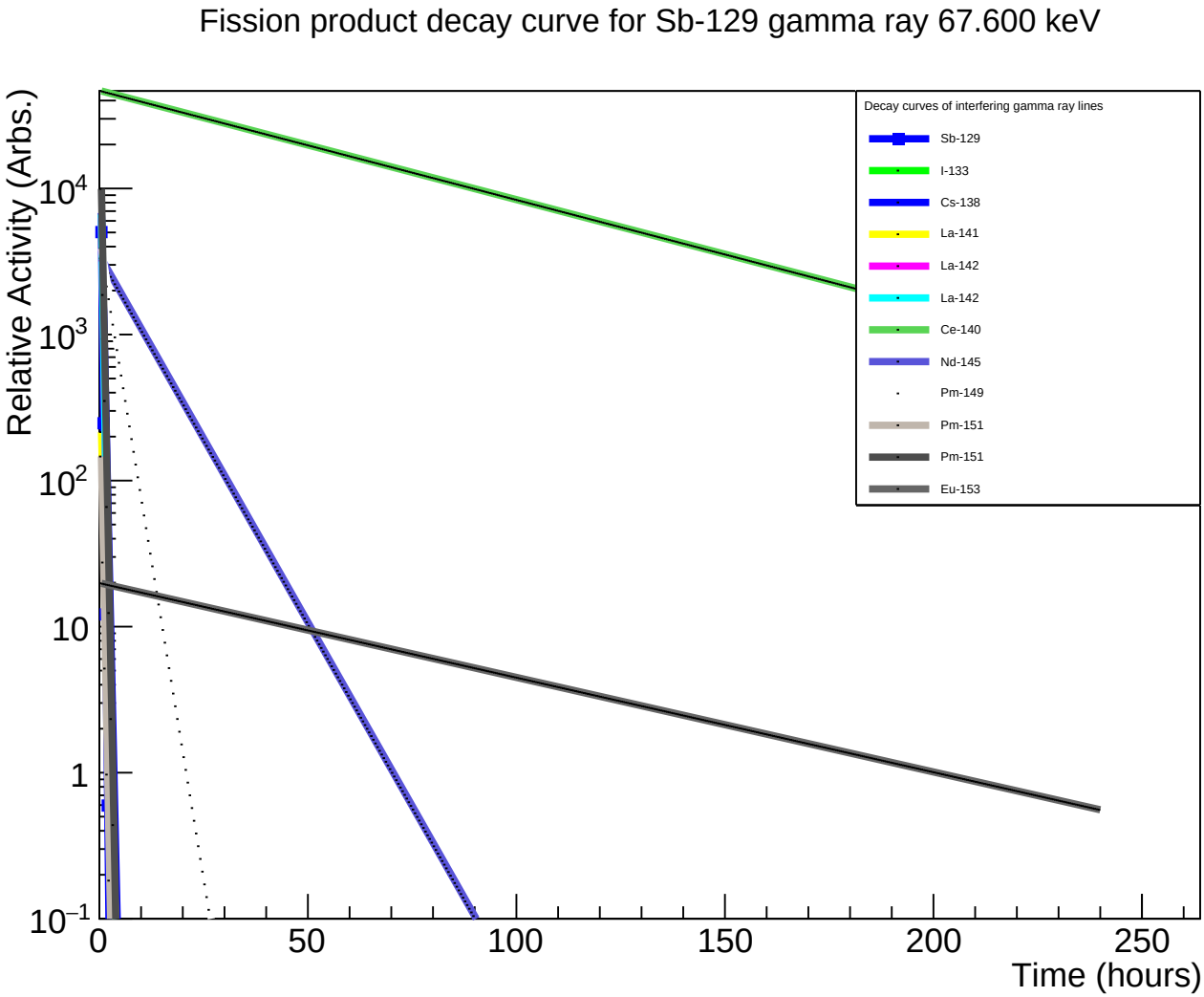


Figure 478: Sb-129 decay curve for 67.600 keV gamma ray.

3.479 Sn-129 E_γ = 69.80 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 69.80 keV
Gamma Intensity = 7.80 ± 2.714 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 957: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 958: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	70.430	0.008	0.390	0.000
Xe-138	Cs-138	68.300	0.000	0.235	0.063
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	69.700	0.003	0.177	0.058
La-140	Ce-140	68.916	0.001	40.285	0.062
Nd-149	Pm-149	69.510	0.001	1.728	0.011
Nd-151	Pm-151	68.980	0.013	0.207	0.004
Pm-151	Sm-151	69.700	0.005	28.400	0.004
Sm-153	Eu-153	69.673	0.047	46.500	0.002

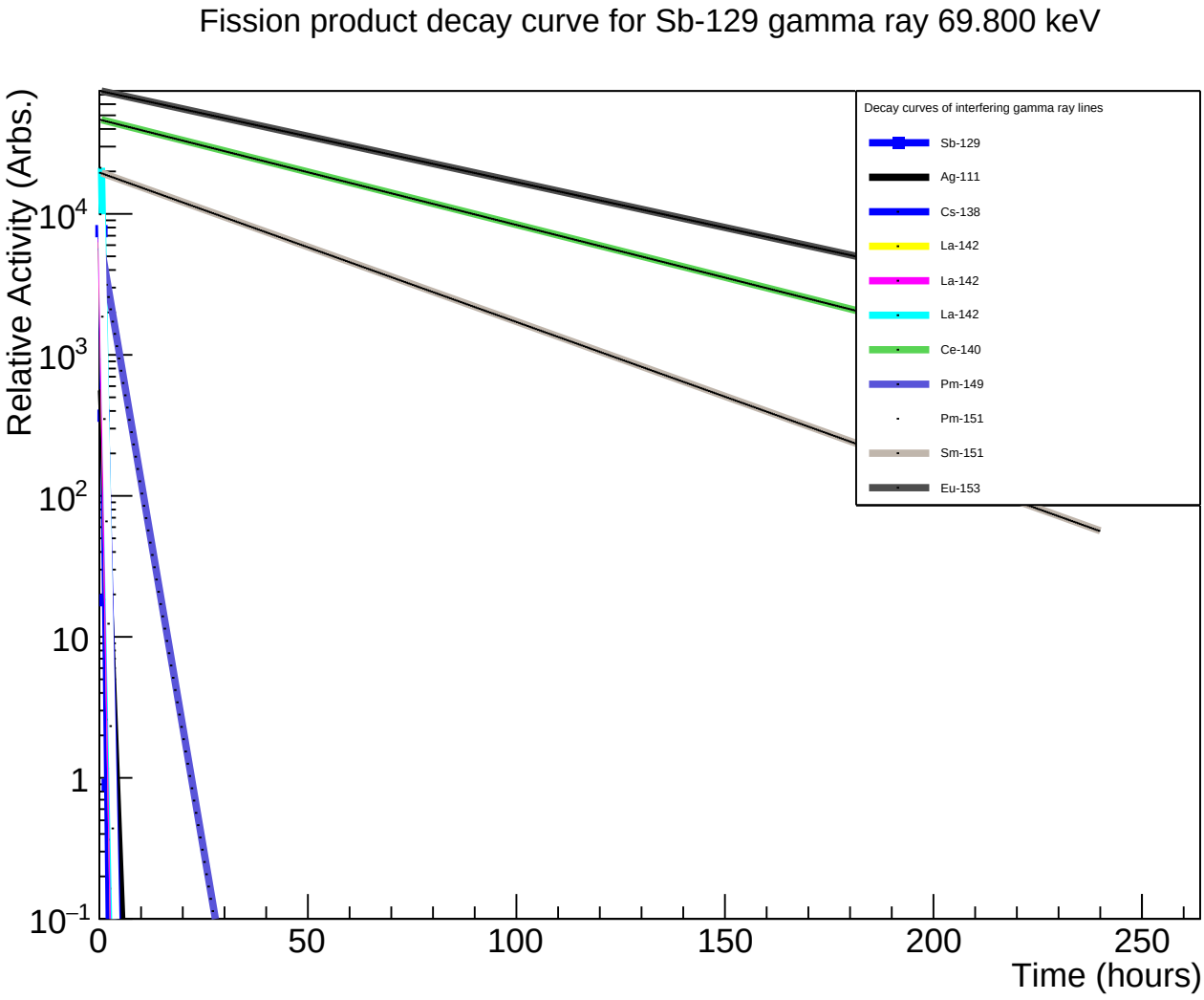


Figure 479: Sb-129 decay curve for 69.800 keV gamma ray.

3.480 Sn-129 E_γ = 77.30 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 77.30 keV
Gamma Intensity = 7.80 ± 4.745 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 959: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 960: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	78.570	0.000	33.250	0.004
Te-134	I-134	76.830	0.003	0.697	0.070
Ba-142	La-142	77.594	0.095	0.177	0.058
Pr-147	Nd-147	77.970	0.099	0.223	0.022
Nd-149	Pm-149	77.097	0.006	1.728	0.011
Pm-147	Sm-147	76.073	0.000	23000.000	0.022
Pm-151	Sm-151	76.220	0.002	28.400	0.004
Sm-155	Eu-155	78.650	0.003	0.372	0.000

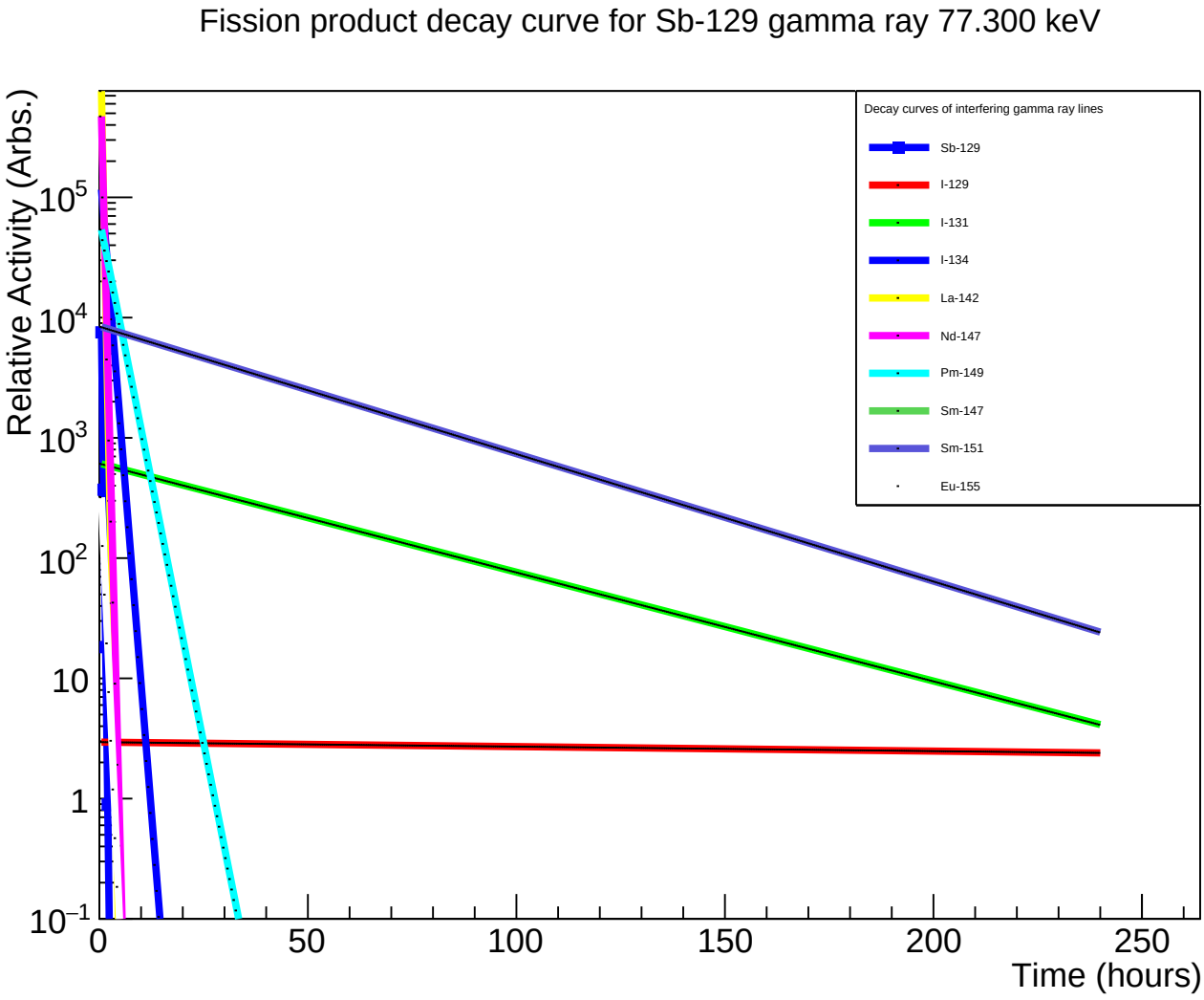


Figure 480: Sb-129 decay curve for 77.300 keV gamma ray.

3.481 Sn-129 E_γ = 108.60 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 108.60 keV
Gamma Intensity = 1.20 ± 0.383 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 961: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 962: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	109.530	0.000	0.855	0.000
Tc-105	Ru-105	107.945	0.141	0.127	0.010
Te-131	I-131	109.400	0.001	0.417	0.025
Te-131	I-131	109.400	0.000	33.250	0.004
La-140	Ce-140	109.422	0.002	40.285	0.062
Nd-149	Pm-149	107.790	0.001	1.728	0.011
Pm-151	Sm-151	109.560	0.001	28.400	0.004
Eu-155	Gd-155	107.600	0.000	41666.668	0.000

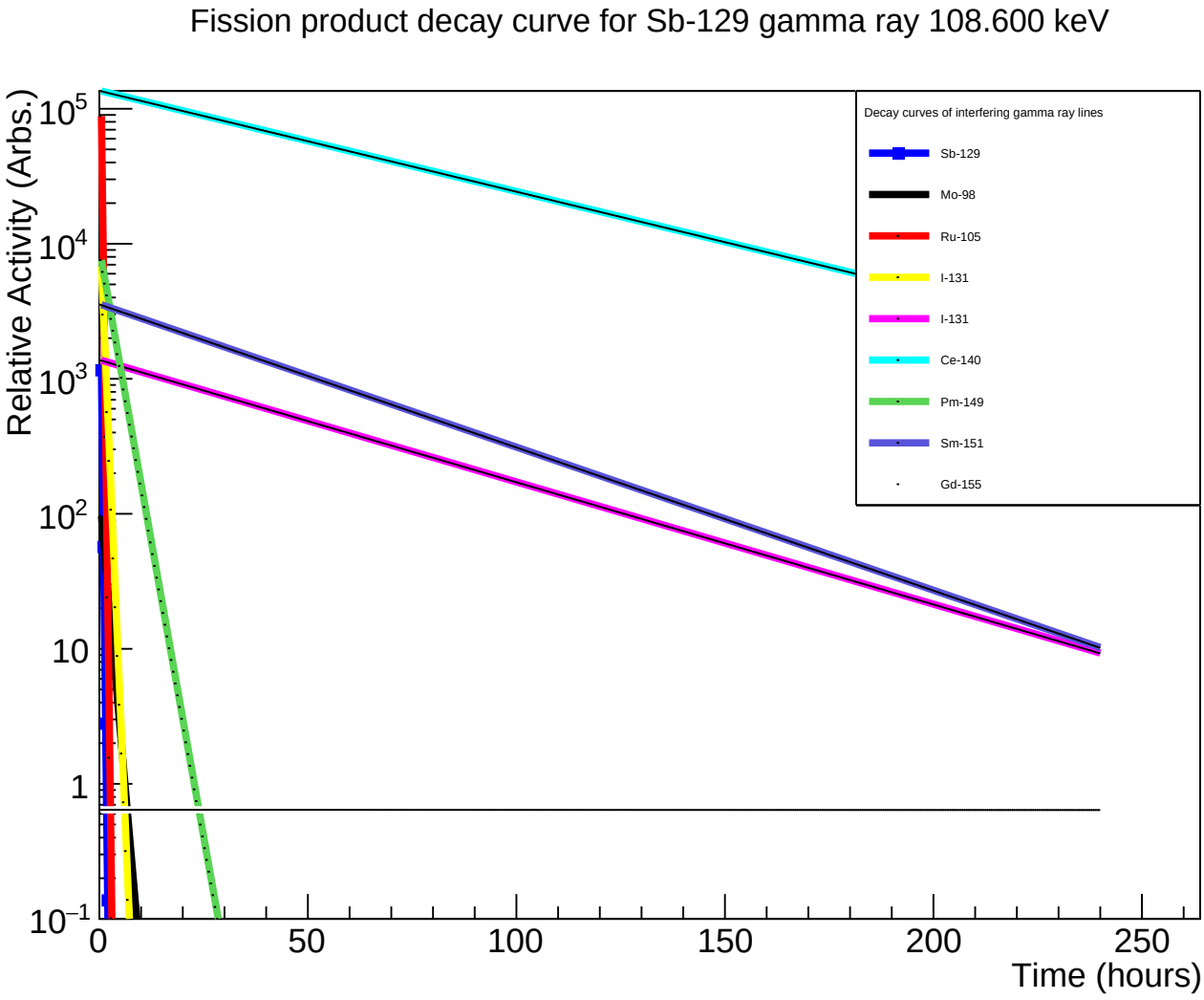


Figure 481: Sb-129 decay curve for 108.600 keV gamma ray.

3.482 Sn-129 E_γ = 117.20 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 117.20 keV
Gamma Intensity = 1.92 ± 0.506 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 963: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 964: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	118.300	0.000	0.252	0.047
Sr-91	Y-91	118.500	0.001	9.630	0.058
Mo-101	Tc-101	115.760	0.000	0.243	0.052
Sb-125	Te-125	116.955	0.003	24194.445	0.000
Te-132	I-132	116.300	0.020	76.896	0.043
Te-133	I-133	116.440	0.003	0.923	0.040
Nd-147	Pm-147	117.980	0.000	263.520	0.022
Nd-149	Pm-149	116.930	0.001	1.728	0.011
Nd-151	Pm-151	116.800	0.390	0.207	0.004
Sm-153	Eu-153	118.112	0.000	46.500	0.002

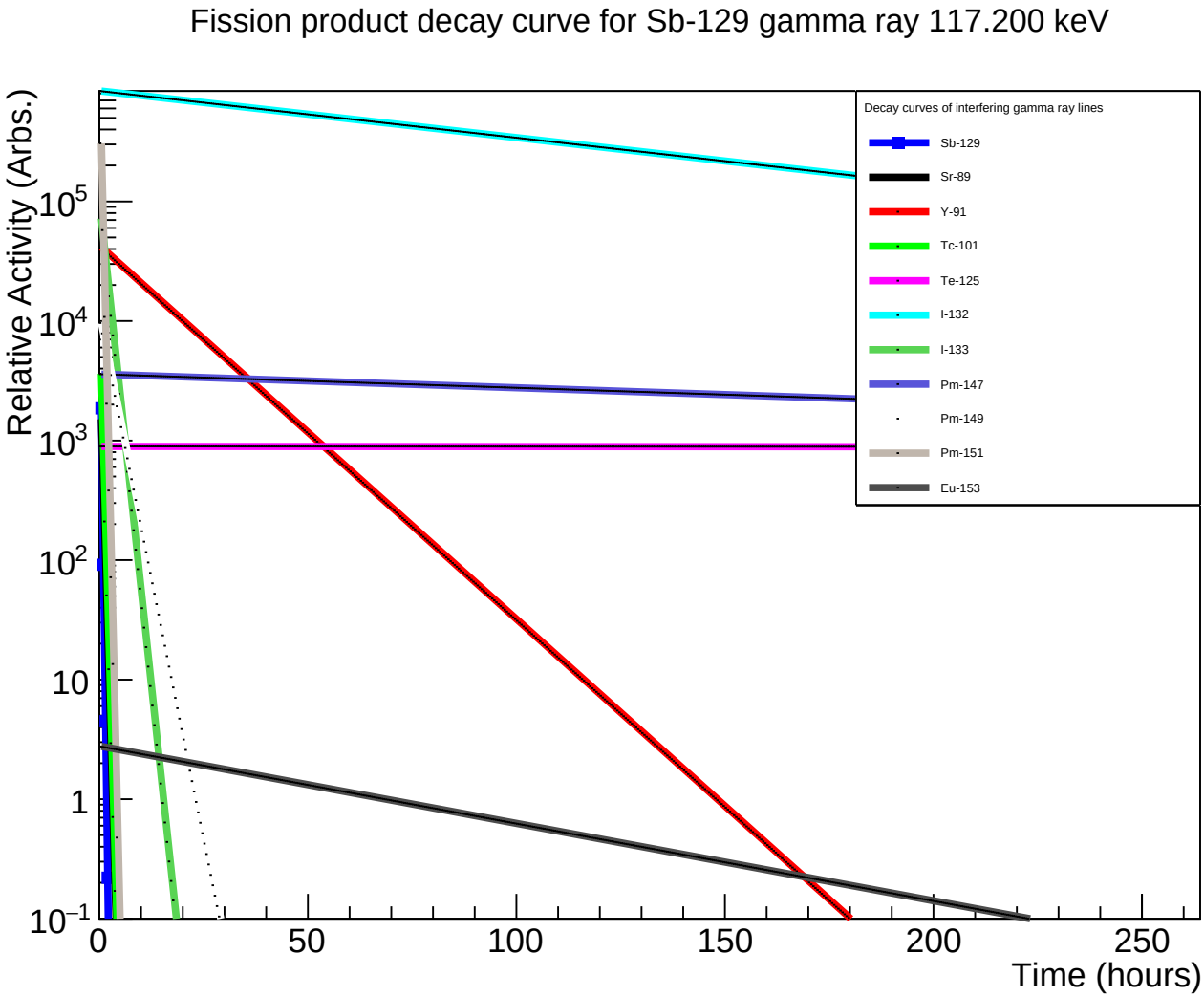


Figure 482: Sb-129 decay curve for 117.200 keV gamma ray.

3.483 Sn-129 E_γ = 119.90 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 119.90 keV
Gamma Intensity = 4.99 ± 0.684 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 965: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 966: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	119.320	0.000	2.400	0.005
Sr-91	Y-91	118.500	0.001	9.630	0.058
Ag-112	Cd-112	121.000	0.001	3.130	0.000
Te-133	I-133	119.580	0.001	0.923	0.040
Ba-140	La-140	118.837	0.001	306.065	0.062
Nd-147	Pm-147	120.480	0.004	263.520	0.022
Pm-147	Sm-147	121.220	0.000	23000.000	0.022

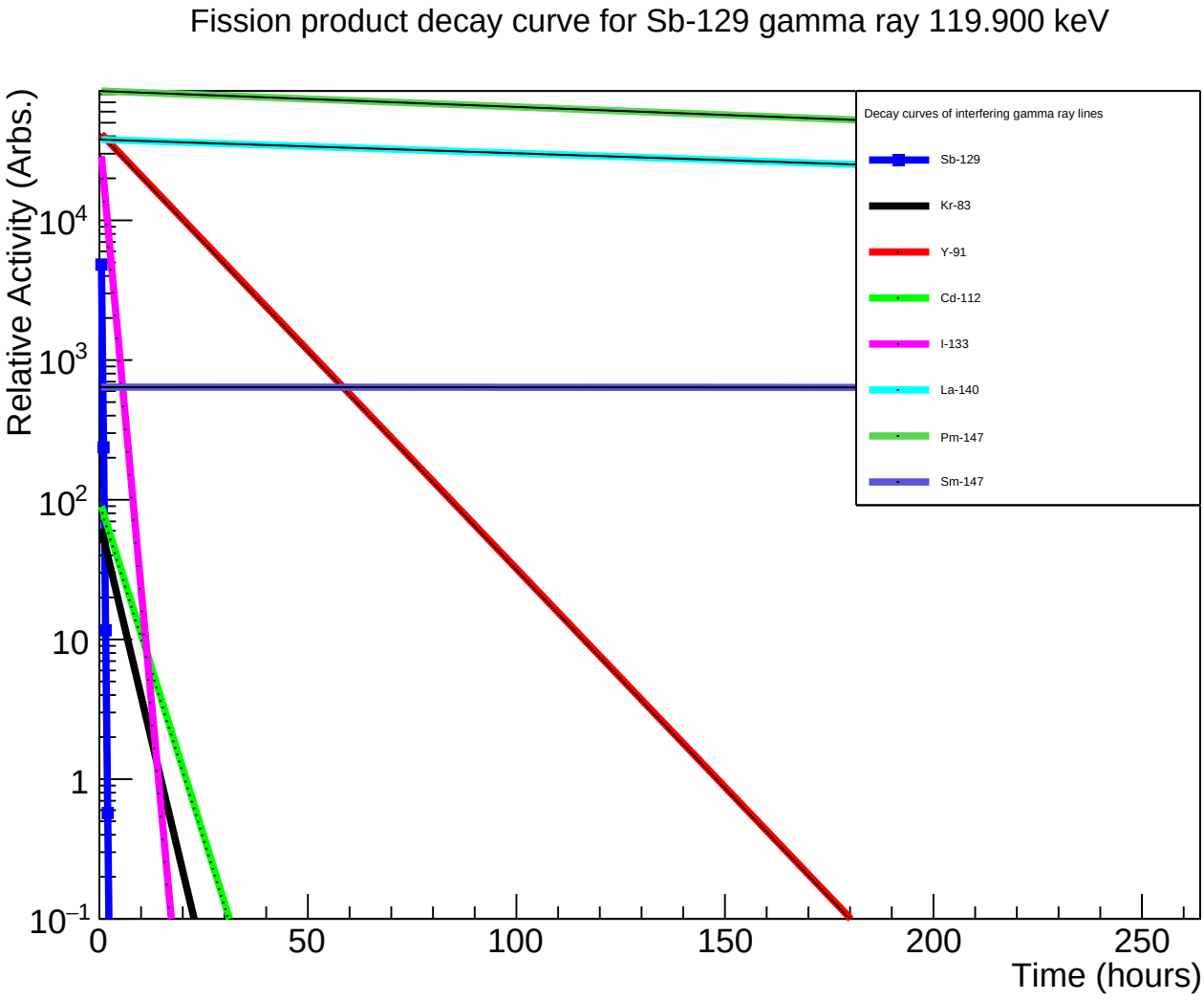


Figure 483: Sb-129 decay curve for 119.900 keV gamma ray.

3.484 Sn-129 E_γ = 148.80 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 148.80 keV
Gamma Intensity = 1.09 ± 0.190 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 967: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 968: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	148.190	0.038	0.188	0.043
Ru-105	Rh-105	149.100	0.018	4.440	0.010
Ag-112	Cd-112	147.900	0.000	3.130	0.000
Te-131	I-131	149.716	0.688	0.417	0.025
Te-131	I-131	149.300	0.001	33.250	0.004
Te-131	I-131	149.710	0.049	33.250	0.004
I-132	Xe-132	147.400	0.002	2.295	0.043
Ba-142	La-142	147.500	0.001	0.177	0.058
Pr-147	Nd-147	148.700	0.001	0.223	0.022
Nd-147	Pm-147	149.300	0.000	263.520	0.022
Nd-151	Pm-151	149.610	0.003	0.207	0.004
Pm-151	Sm-151	147.530	0.002	28.400	0.004
Pm-151	Sm-151	148.500	0.001	28.400	0.004
Pm-151	Sm-151	150.100	0.000	28.400	0.004

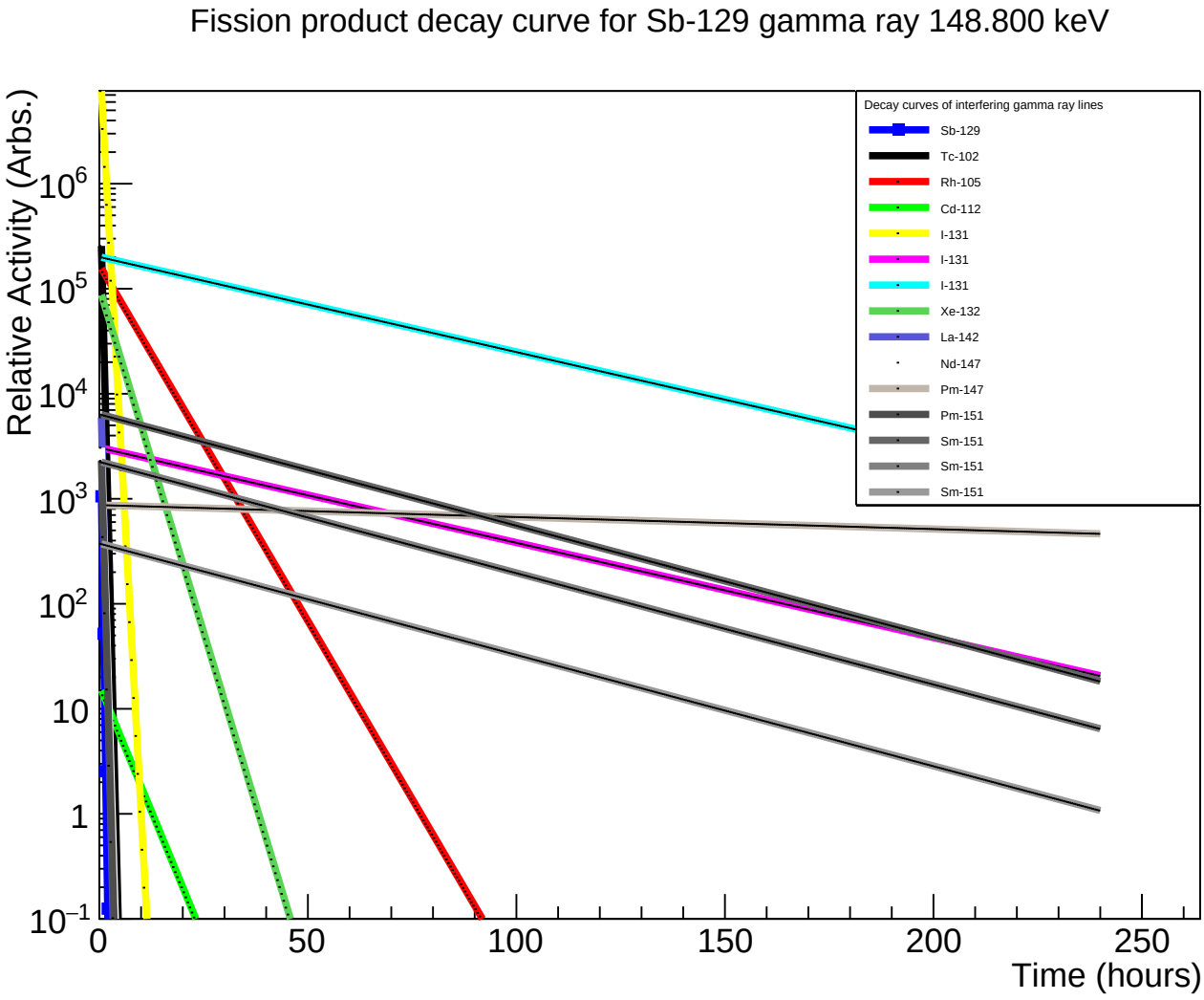


Figure 484: Sb-129 decay curve for 148.800 keV gamma ray.

3.485 Sn-129 E_γ = 236.70 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 236.70 keV
Gamma Intensity = 2.76 ± 0.379 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 969: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 970: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-95	Mo-95	235.690	0.248	86.640	0.001
I-134	Xe-134	235.471	0.021	0.875	0.078
Pm-151	Sm-151	236.200	0.001	28.400	0.004
Pm-151	Sm-151	236.600	0.002	28.400	0.004
Pm-151	Sm-151	236.700	0.002	28.400	0.004
Pm-151	Sm-151	237.100	0.005	28.400	0.004

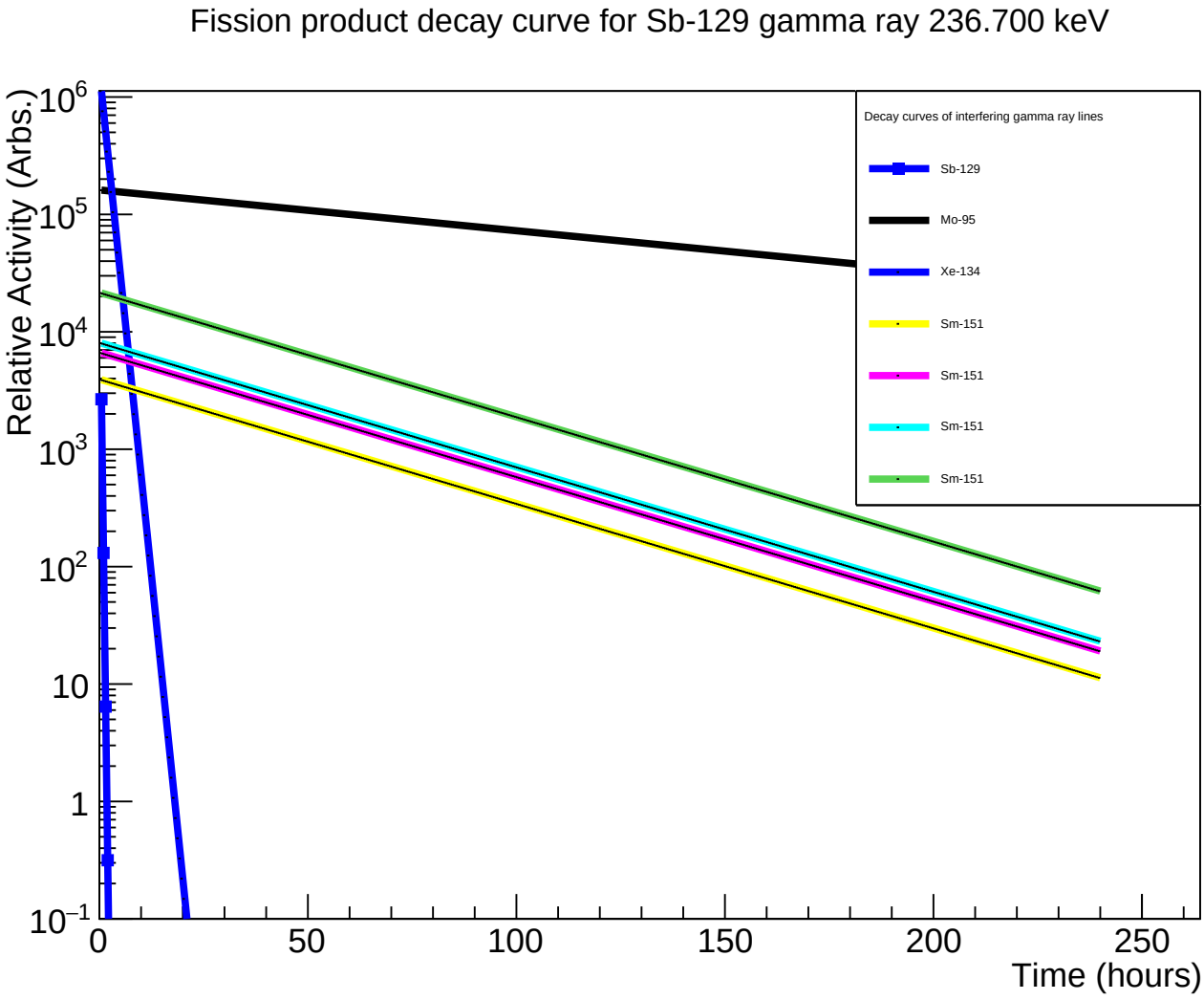


Figure 485: Sb-129 decay curve for 236.700 keV gamma ray.

3.486 Sn-129 E_γ = 238.70 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 238.70 keV
Gamma Intensity = 2.13 ± 0.298 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 971: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 972: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-101	Ru-101	238.250	0.003	0.237	0.052
Nd-149	Pm-149	238.611	0.009	1.728	0.011
Nd-149	Pm-149	239.600	0.000	1.728	0.011
Nd-151	Pm-151	238.630	0.005	0.207	0.004
Nd-151	Pm-151	239.600	0.004	0.207	0.004
Pm-151	Sm-151	240.090	0.038	28.400	0.004

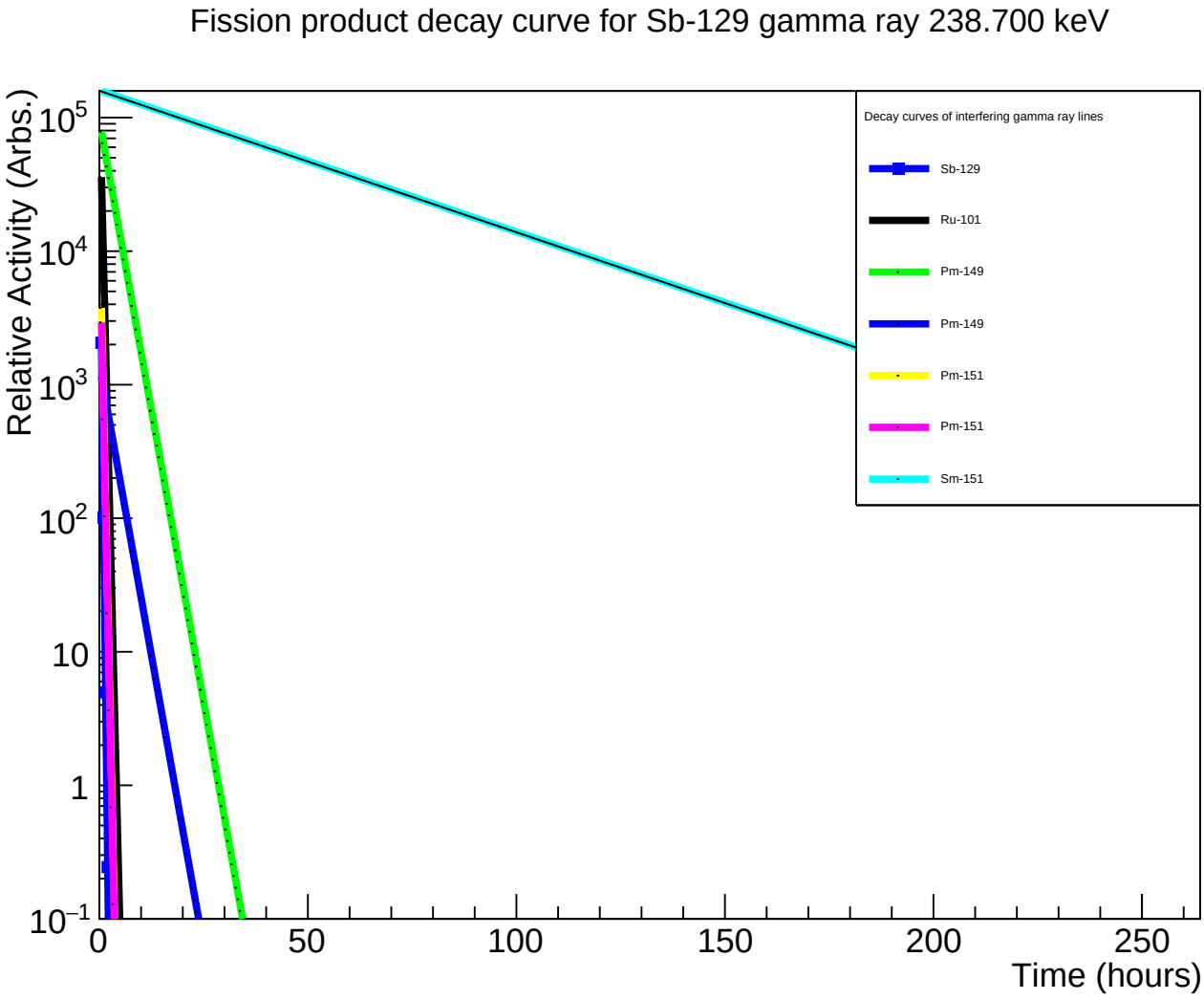


Figure 486: Sb-129 decay curve for 238.700 keV gamma ray.

3.487 Sn-129 E_γ = 266.50 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 266.50 keV
Gamma Intensity = 2.50 ± 0.441 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 973: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 974: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	266.900	0.073	10.180	0.063
Mo-102	Tc-102	266.600	0.001	0.188	0.043
Rh-107	Pd-107	266.060	0.003	0.362	0.001
Cd-115	In-115	266.985	0.001	53.460	0.000
Te-131	I-131	267.200	0.000	33.250	0.004
I-133	Xe-133	267.173	0.001	20.800	0.067
Cs-139	Ba-139	267.600	0.000	0.155	0.063
La-140	Ce-140	266.543	0.005	40.285	0.062
Nd-149	Pm-149	267.693	0.060	1.728	0.011

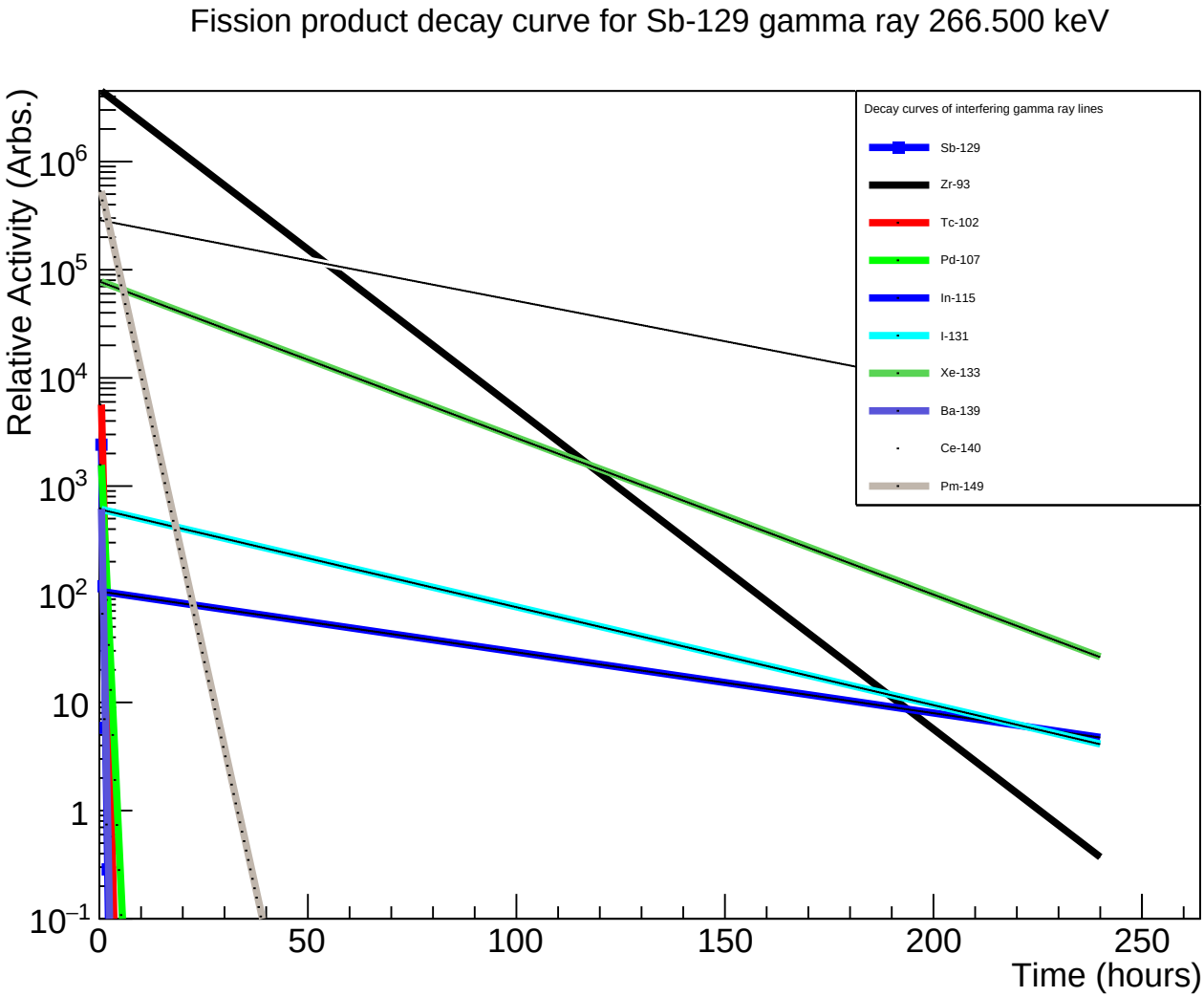


Figure 487: Sb-129 decay curve for 266.500 keV gamma ray.

3.488 Sn-129 E_γ = 286.30 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 286.30 keV
Gamma Intensity = 1.40 ± 0.251 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 975: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 976: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Ru-105	Rh-105	286.300	0.000	4.440	0.010
Pd-109	Ag-109	286.300	0.000	13.701	0.000
Sb-130	Te-130	285.480	0.035	0.658	0.008
Te-133	I-133	284.800	0.002	0.923	0.040
I-132	Xe-132	284.900	0.007	2.295	0.043
Ba-142	La-142	286.300	0.011	0.177	0.058
Nd-149	Pm-149	287.700	0.000	1.728	0.011
Pm-149	Sm-149	285.950	0.031	53.080	0.011
Pm-151	Sm-151	285.000	0.000	28.400	0.004
Sm-155	Eu-155	287.100	0.000	0.372	0.000

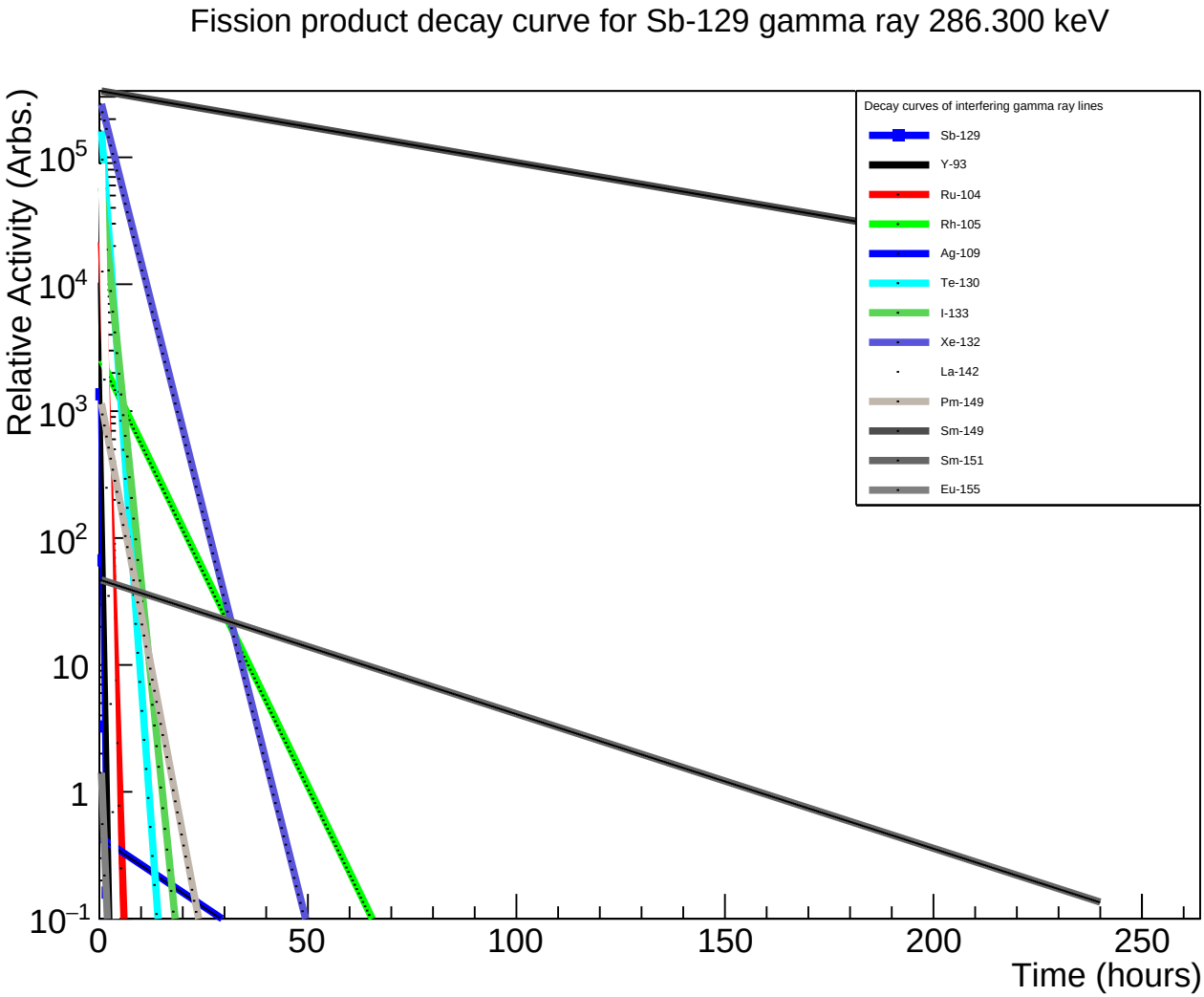


Figure 488: Sb-129 decay curve for 286.300 keV gamma ray.

3.489 Sn-129 E_γ = 298.40 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 298.40 keV
Gamma Intensity = 4.16 ± 0.666 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 977: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 978: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	297.200	0.001	16.749	0.060
Nb-98	Mo-98	299.600	0.000	0.855	0.000
Tc-104	Ru-104	298.600	0.001	0.305	0.019
Ag-113	Cd-113	298.600	0.100	5.370	0.000
Te-131	I-131	297.090	0.000	0.417	0.025
La-142	Ce-142	297.900	0.000	1.518	0.058
Nd-151	Pm-151	297.300	0.000	0.207	0.004
Pm-151	Sm-151	297.800	0.000	28.400	0.004
Pm-151	Sm-151	298.600	0.000	28.400	0.004

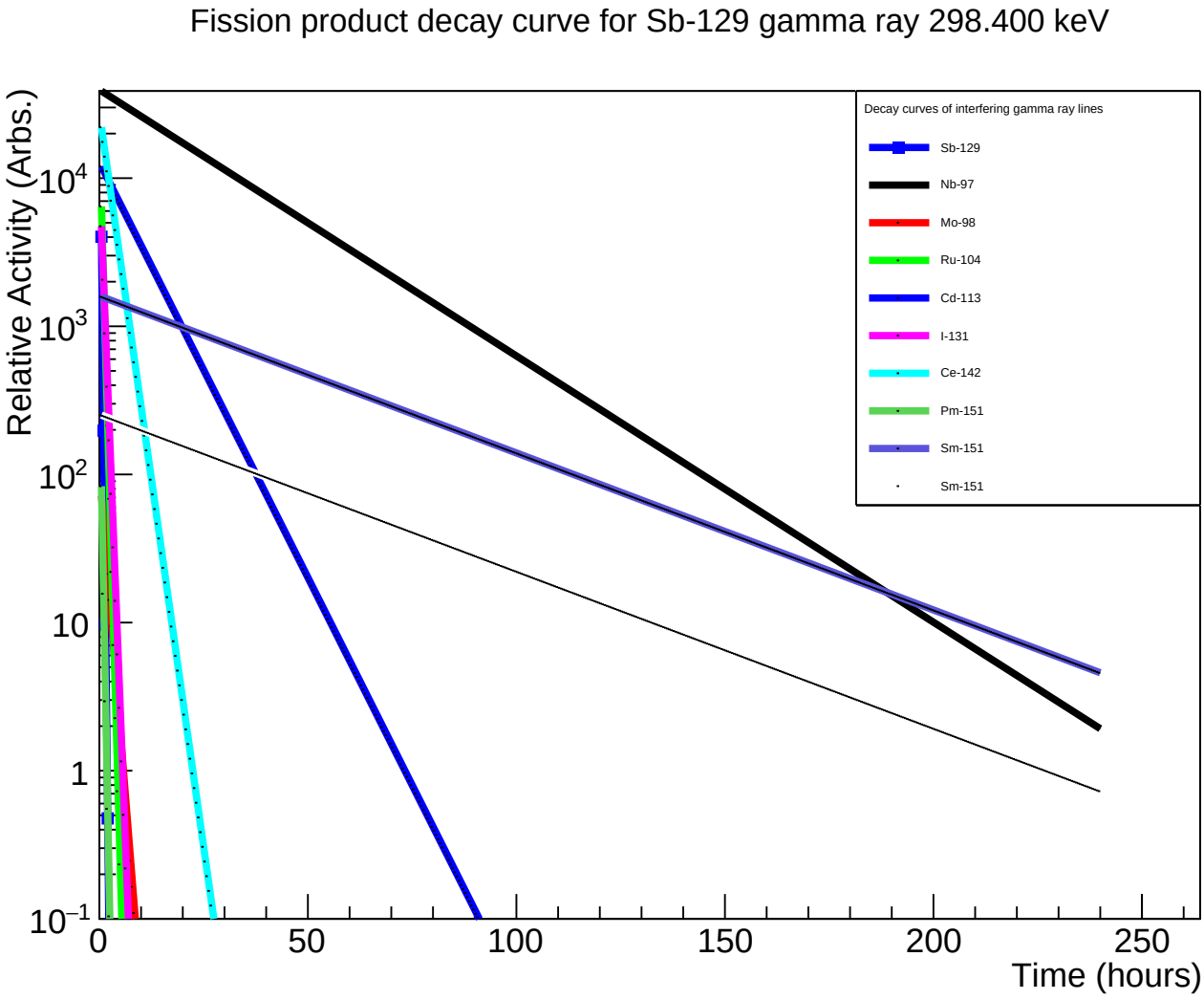


Figure 489: Sb-129 decay curve for 298.400 keV gamma ray.

3.490 Sn-129 E_γ = 352.50 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 352.50 keV
Gamma Intensity = 1.40 ± 0.390 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 979: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 980: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	351.100	0.002	1.512	0.000
Sr-92	Y-92	352.500	0.001	2.710	0.059
Mo-101	Tc-101	352.970	0.001	0.243	0.052
Tc-104	Ru-104	353.700	0.010	0.305	0.019
Tc-105	Ru-105	353.000	0.006	0.127	0.010
Pd-111	Ag-111	352.200	0.000	0.390	0.000
Te-131	I-131	351.480	0.000	0.417	0.025
Te-131	I-131	353.580	0.000	0.417	0.025
Te-131	I-131	351.300	0.002	33.250	0.004
Te-131	I-131	353.500	0.001	33.250	0.004
I-134	Xe-134	351.080	0.004	0.875	0.078
Ce-146	Pr-146	351.490	0.023	0.225	0.030
Pr-145	Nd-145	352.481	0.000	5.984	0.039
Pr-145	Nd-145	353.544	0.000	5.984	0.039
Nd-149	Pm-149	351.632	0.012	1.728	0.011
Nd-149	Pm-149	352.780	0.001	1.728	0.011
Pm-149	Sm-149	353.460	0.000	53.080	0.011
Pm-151	Sm-151	352.300	0.000	28.400	0.004
Pm-151	Sm-151	353.320	0.001	28.400	0.004

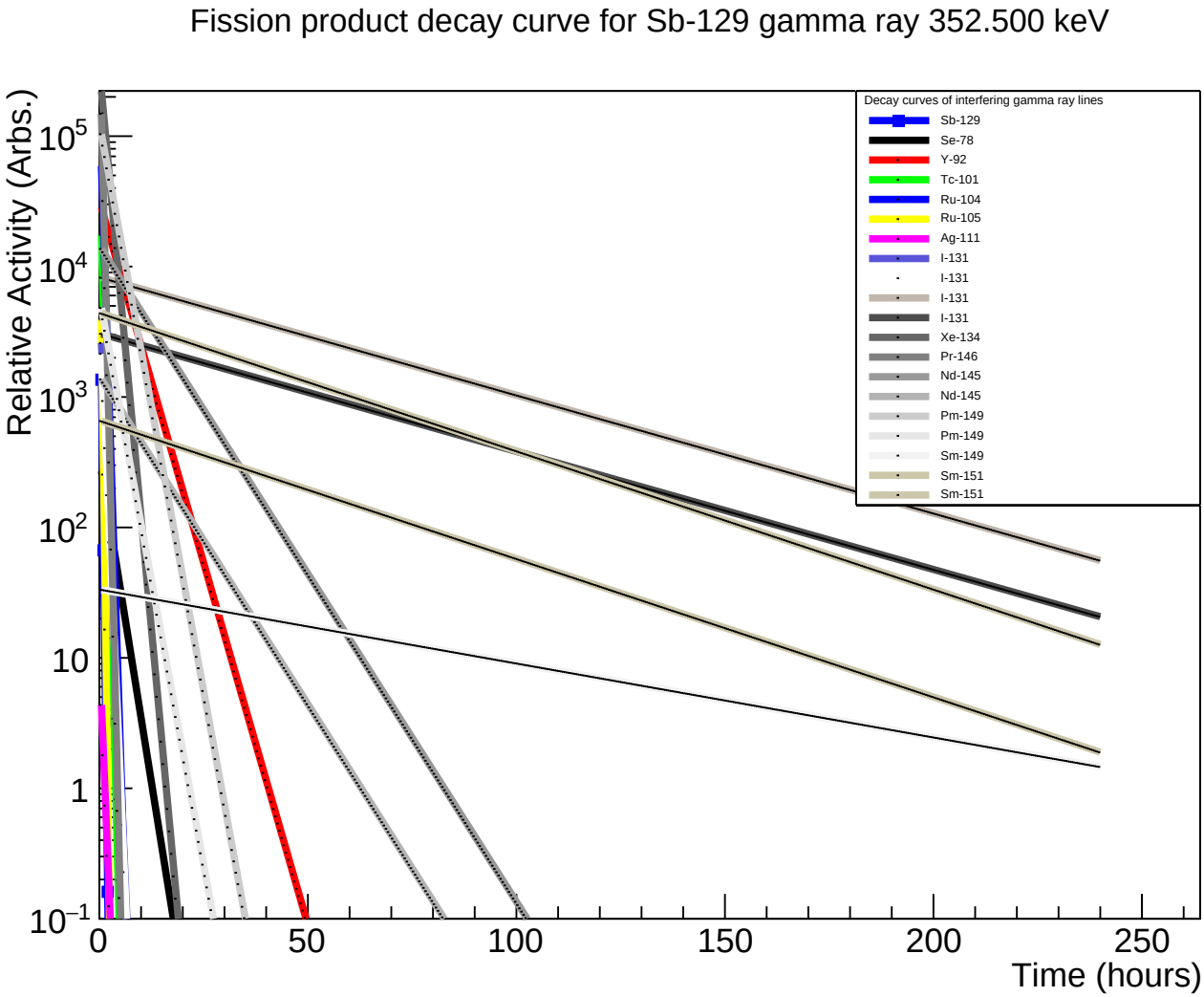


Figure 490: Sb-129 decay curve for 352.500 keV gamma ray.

3.491 Sn-129 E_γ = 409.10 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 409.10 keV
Gamma Intensity = 2.34 ± 0.523 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 981: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 982: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	408.400	0.000	0.855	0.000
Mo-99	Tc-99	410.270	0.000	65.976	0.061
Mo-101	Tc-101	408.690	0.015	0.243	0.052
Ru-105	Rh-105	407.600	0.001	4.440	0.010
Sb-125	Te-125	408.065	0.002	24194.445	0.000
Te-131	I-131	408.200	0.001	33.250	0.004
Te-133	I-133	407.630	0.271	0.208	0.031
Te-133	I-133	410.400	0.009	0.208	0.031
Xe-135	Cs-135	407.990	0.004	9.140	0.065
Cs-138	Ba-138	408.980	0.047	0.557	0.067
Nd-147	Pm-147	408.520	0.000	263.520	0.022
Nd-147	Pm-147	410.480	0.001	263.520	0.022

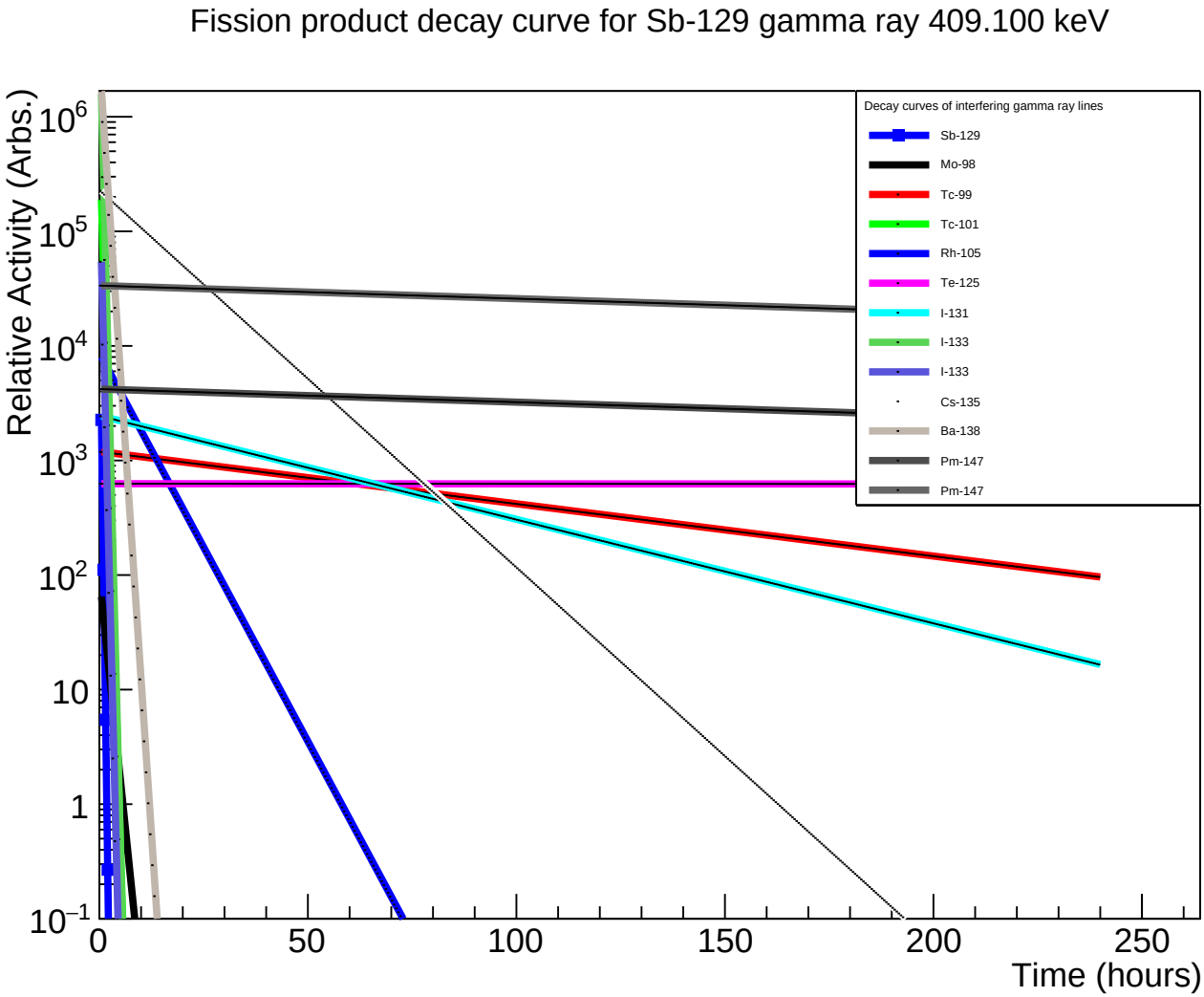


Figure 491: Sb-129 decay curve for 409.100 keV gamma ray.

3.492 Sn-129 E_γ = 423.00 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 423.00 keV
Gamma Intensity = 1.82 ± 0.240 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 983: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 984: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	424.000	1.000	0.100	0.000
Kr-88	Rb-88	421.700	0.000	2.840	0.036
Mo-101	Tc-101	421.670	0.005	0.243	0.052
Tc-101	Ru-101	422.020	0.000	0.237	0.052
Tc-104	Ru-104	421.800	0.003	0.305	0.019
Pd-109	Ag-109	423.900	0.000	13.701	0.000
I-133	Xe-133	422.910	0.003	20.800	0.067
Cs-138	Ba-138	421.590	0.004	0.557	0.067
Ba-140	La-140	423.722	0.032	306.065	0.062
Nd-149	Pm-149	423.553	0.074	1.728	0.011
Nd-151	Pm-151	421.800	0.001	0.207	0.004
Nd-151	Pm-151	422.600	0.004	0.207	0.004
Nd-151	Pm-151	423.560	0.001	0.207	0.004
Nd-151	Pm-151	423.560	0.059	0.207	0.004
Sm-153	Eu-153	424.400	0.000	46.500	0.002

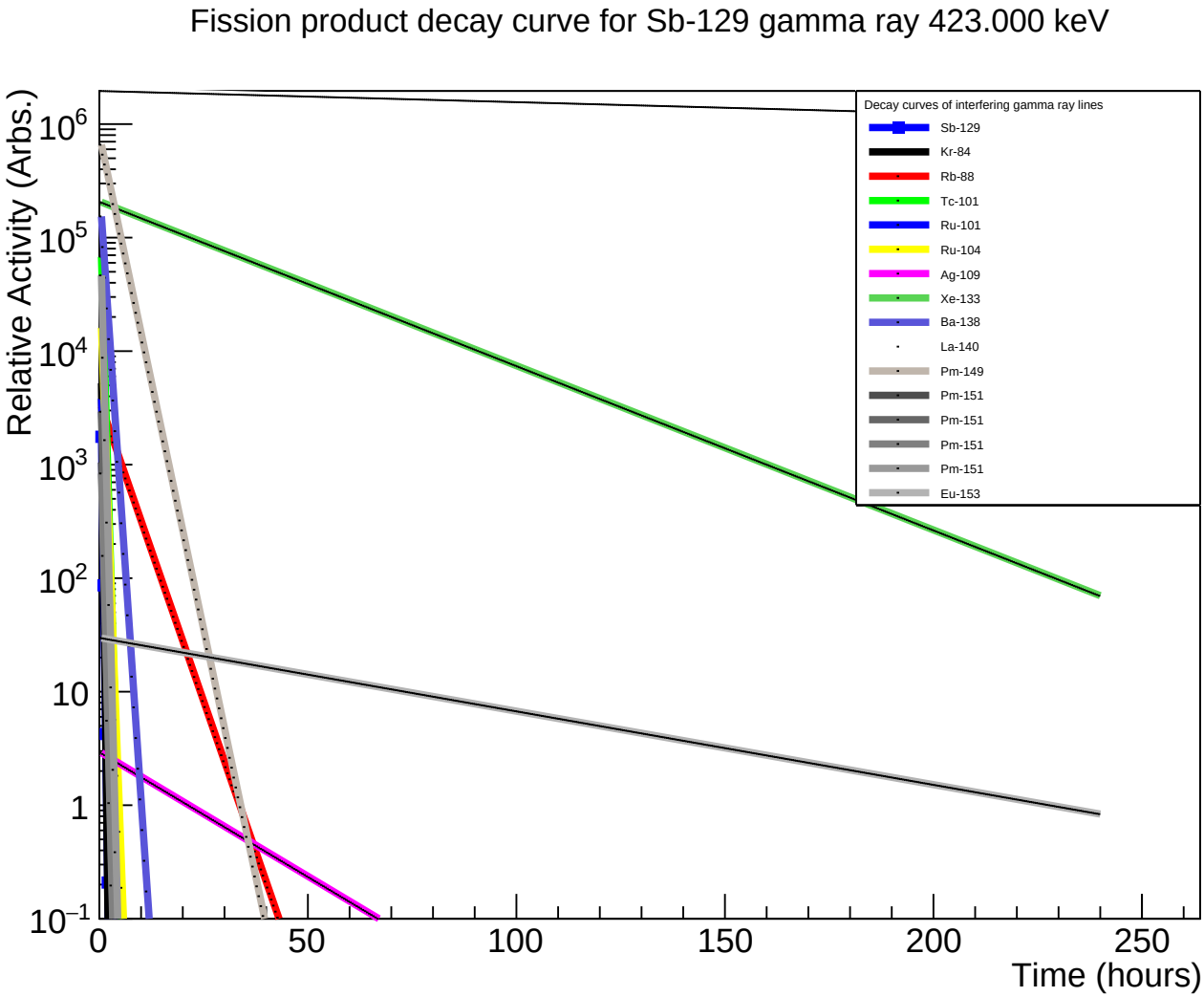


Figure 492: Sb-129 decay curve for 423.000 keV gamma ray.

3.493 Sn-129 E_γ = 505.50 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 505.50 keV
Gamma Intensity = 8.32 ± 1.768 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 985: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 986: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	506.700	0.000	9.630	0.058
Mo-101	Tc-101	505.050	0.004	0.243	0.052
Mo-101	Tc-101	505.920	0.116	0.243	0.052
Sb-130	Te-130	506.700	0.020	0.658	0.008
I-132	Xe-132	505.790	0.049	2.295	0.043
Cs-139	Ba-139	505.400	0.000	0.155	0.063
Pr-145	Nd-145	504.650	0.000	5.984	0.039
Pm-149	Sm-149	506.100	0.000	53.080	0.011

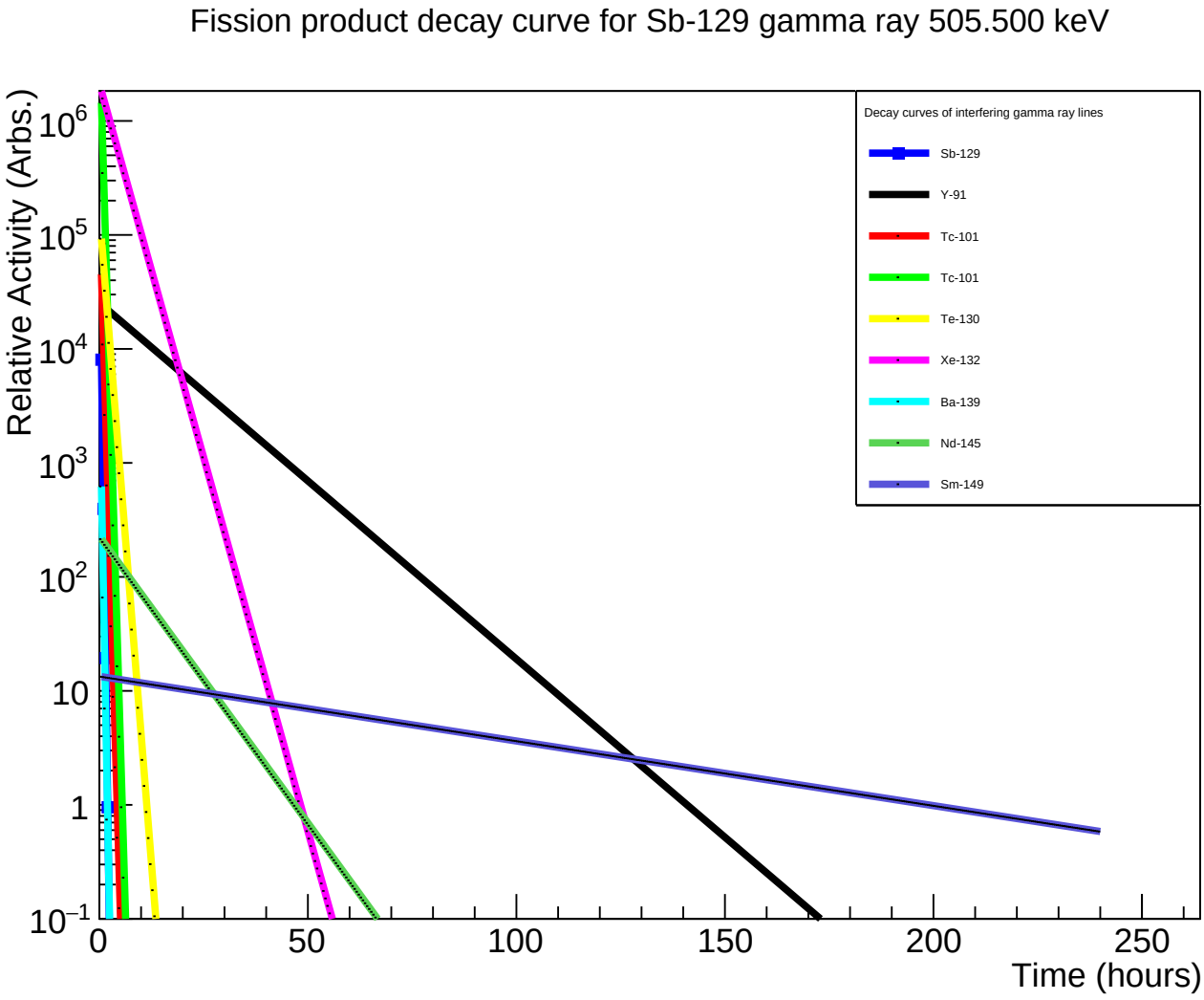


Figure 493: Sb-129 decay curve for 505.500 keV gamma ray.

3.494 Sn-129 E_γ = 577.90 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 577.90 keV
Gamma Intensity = 1.77 ± 0.500 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 987: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 988: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	579.040	0.000	2.840	0.036
Tc-105	Ru-105	577.900	0.029	0.127	0.010
Ru-105	Rh-105	577.000	0.000	4.440	0.010
Ba-142	La-142	577.700	0.001	0.177	0.058
La-142	Ce-142	578.090	0.013	1.518	0.058
Pr-147	Nd-147	577.900	0.137	0.223	0.022
Nd-149	Pm-149	579.280	0.001	1.728	0.011
Nd-151	Pm-151	577.360	0.004	0.207	0.004
Nd-152	Pm-152	576.700	0.004	0.190	0.003
Sm-153	Eu-153	578.750	0.000	46.500	0.002

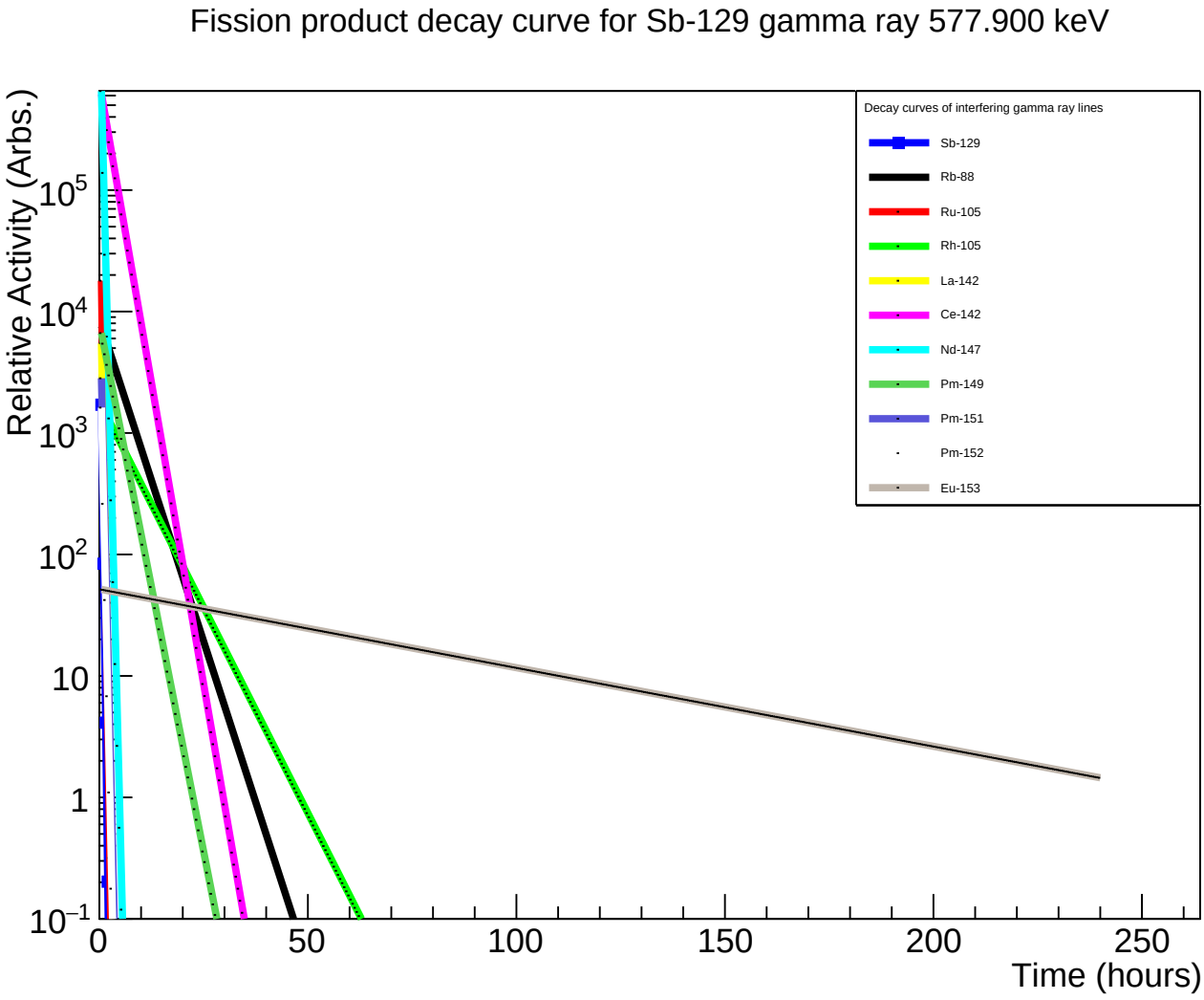


Figure 494: Sb-129 decay curve for 577.900 keV gamma ray.

3.495 Sn-129 E_γ = 692.40 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 692.40 keV
Gamma Intensity = 2.60 ± 0.581 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 989: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 990: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	692.000	0.002	0.124	0.062
Ag-112	Cd-112	692.700	0.011	3.130	0.000
Sb-125	Te-125	693.300	0.000	24194.445	0.000
Sb-128	Te-128	692.900	0.020	9.010	0.000
Xe-138	Cs-138	691.500	0.000	0.235	0.063
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-142	Ce-142	692.400	0.001	1.518	0.058

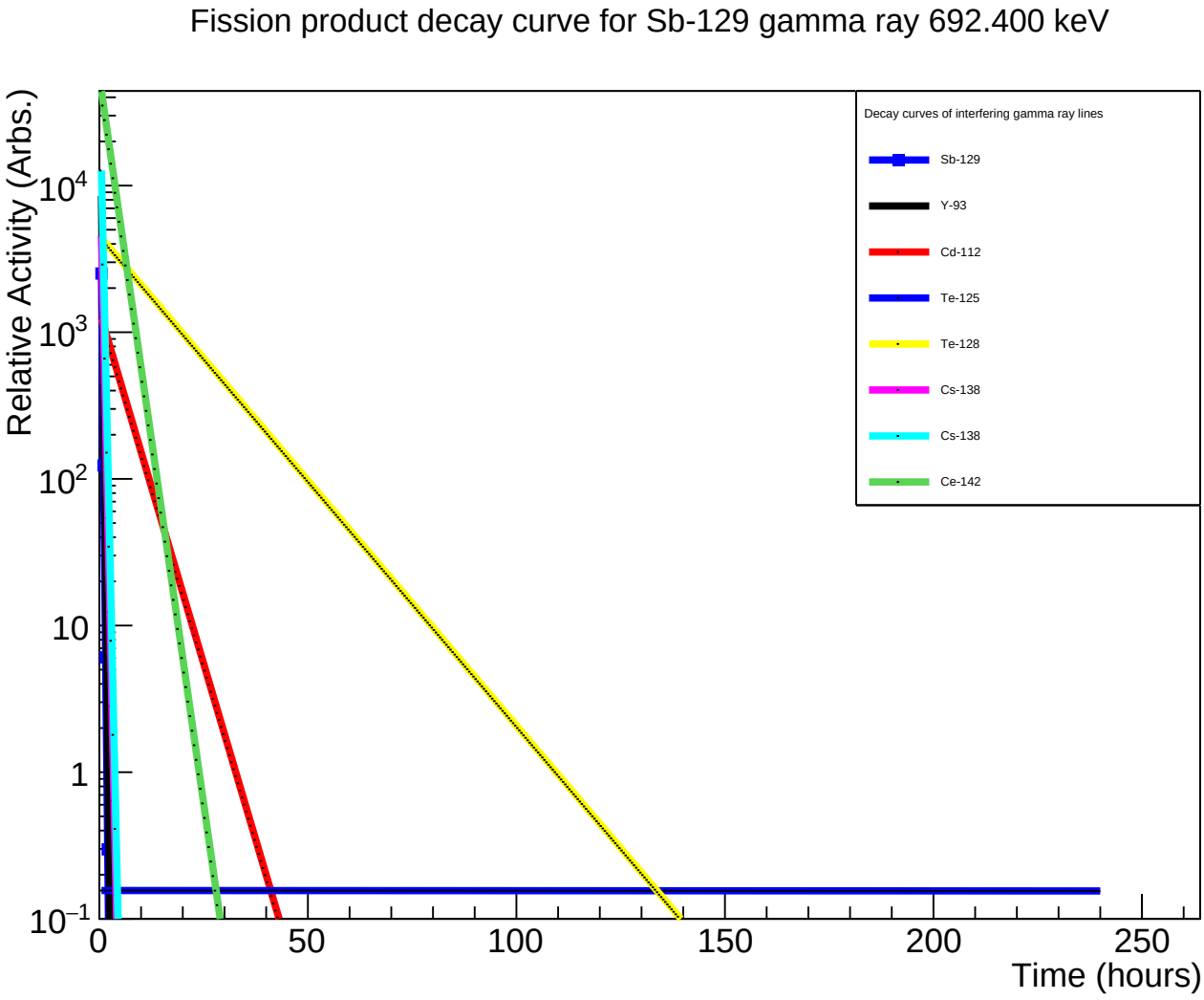


Figure 495: Sb-129 decay curve for 692.400 keV gamma ray.

3.496 Sn-129 E_γ = 695.10 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 695.10 keV
Gamma Intensity = 4.16 ± 1.120 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 991: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 992: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	694.900	0.167	1.512	0.000
Y-94	Zr-94	694.700	0.002	0.312	0.065
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Tc-101	Ru-101	694.300	0.001	0.237	0.052
Ag-112	Cd-112	694.800	0.030	3.130	0.000
Sb-126	Te-126	694.800	0.822	0.319	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
La-141	Ce-141	694.900	0.000	3.920	0.058
Pr-144	Nd-144	696.510	0.013	0.288	0.055
Pr-144	Nd-144	696.500	0.001	0.120	0.000
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004
Sm-153	Eu-153	694.100	0.000	46.500	0.002

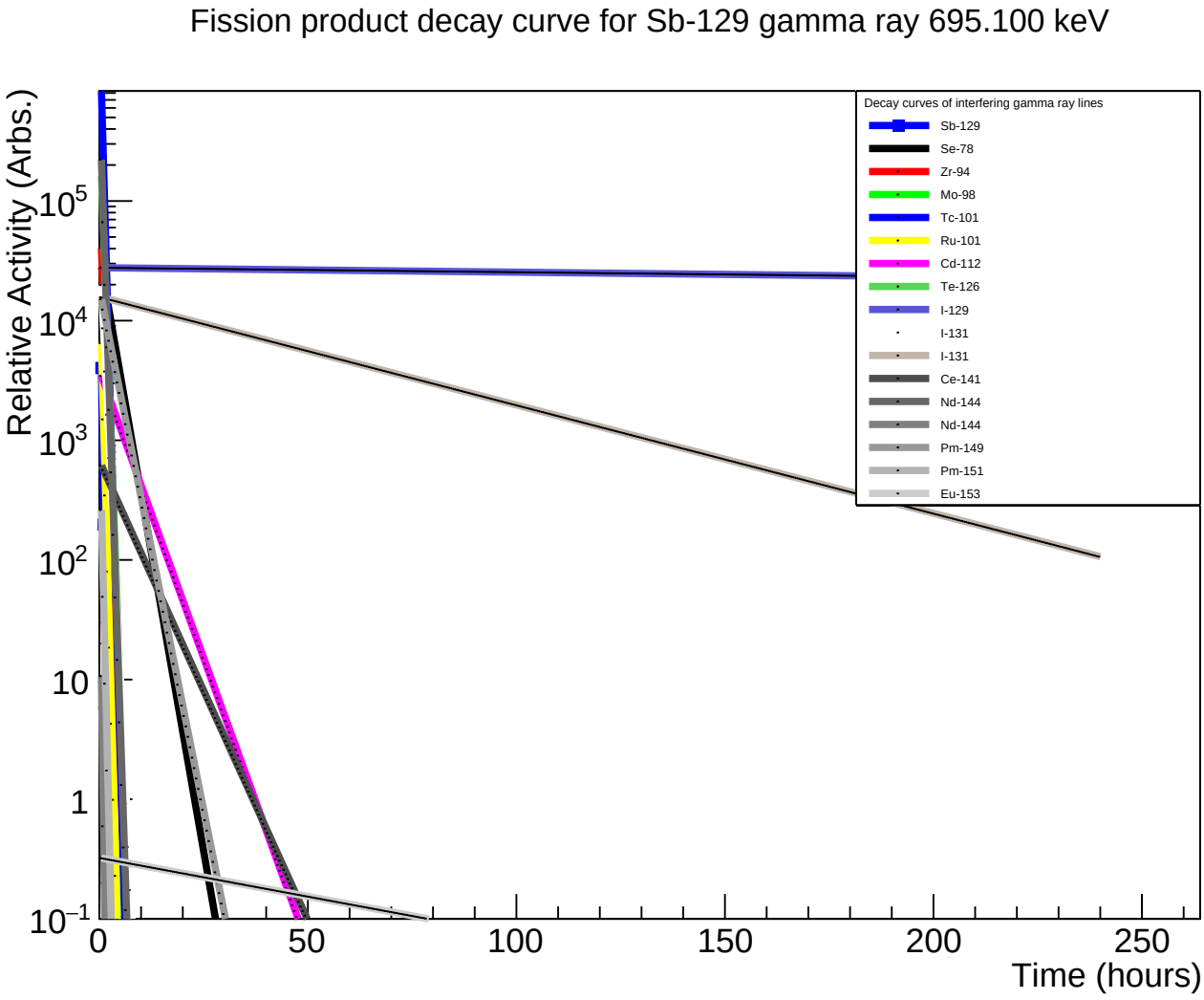


Figure 496: Sb-129 decay curve for 695.100 keV gamma ray.

3.497 Sn-129 E_γ = 732.40 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 732.40 keV
Gamma Intensity = 4.68 ± 1.140 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 993: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 994: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	731.600	0.000	4.480	0.013
Kr-88	Rb-88	731.010	0.000	2.840	0.036
Mo-101	Tc-101	732.980	0.003	0.243	0.052
Sb-130	Te-130	732.000	0.220	0.658	0.008
Te-133	I-133	731.880	0.006	0.923	0.040
Xe-135	Cs-135	731.520	0.001	9.140	0.065
Xe-138	Cs-138	733.900	0.000	0.235	0.063
Nd-151	Pm-151	731.900	0.000	0.207	0.004

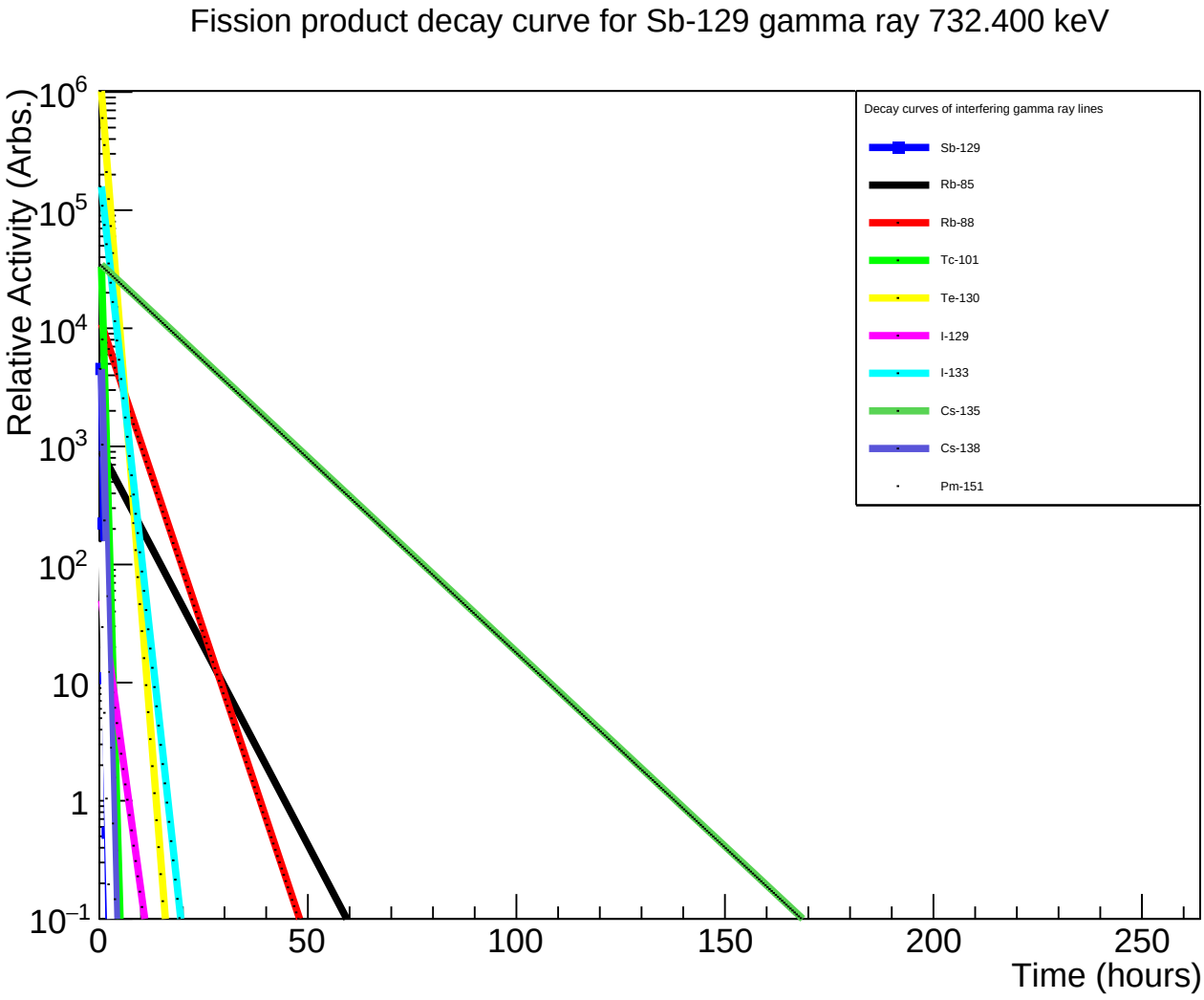


Figure 497: Sb-129 decay curve for 732.400 keV gamma ray.

3.498 Sn-129 E_γ = 760.80 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 760.80 keV
Gamma Intensity = 15.60 ± 2.600 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 995: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 996: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	761.400	0.006	9.630	0.058
Mo-99	Tc-99	761.770	0.000	65.976	0.061
Ag-112	Cd-112	762.300	0.001	3.130	0.000
Ba-141	La-141	762.000	0.002	0.304	0.058
Nd-149	Pm-149	761.460	0.000	1.728	0.011
Sm-153	Eu-153	760.500	0.000	46.500	0.002

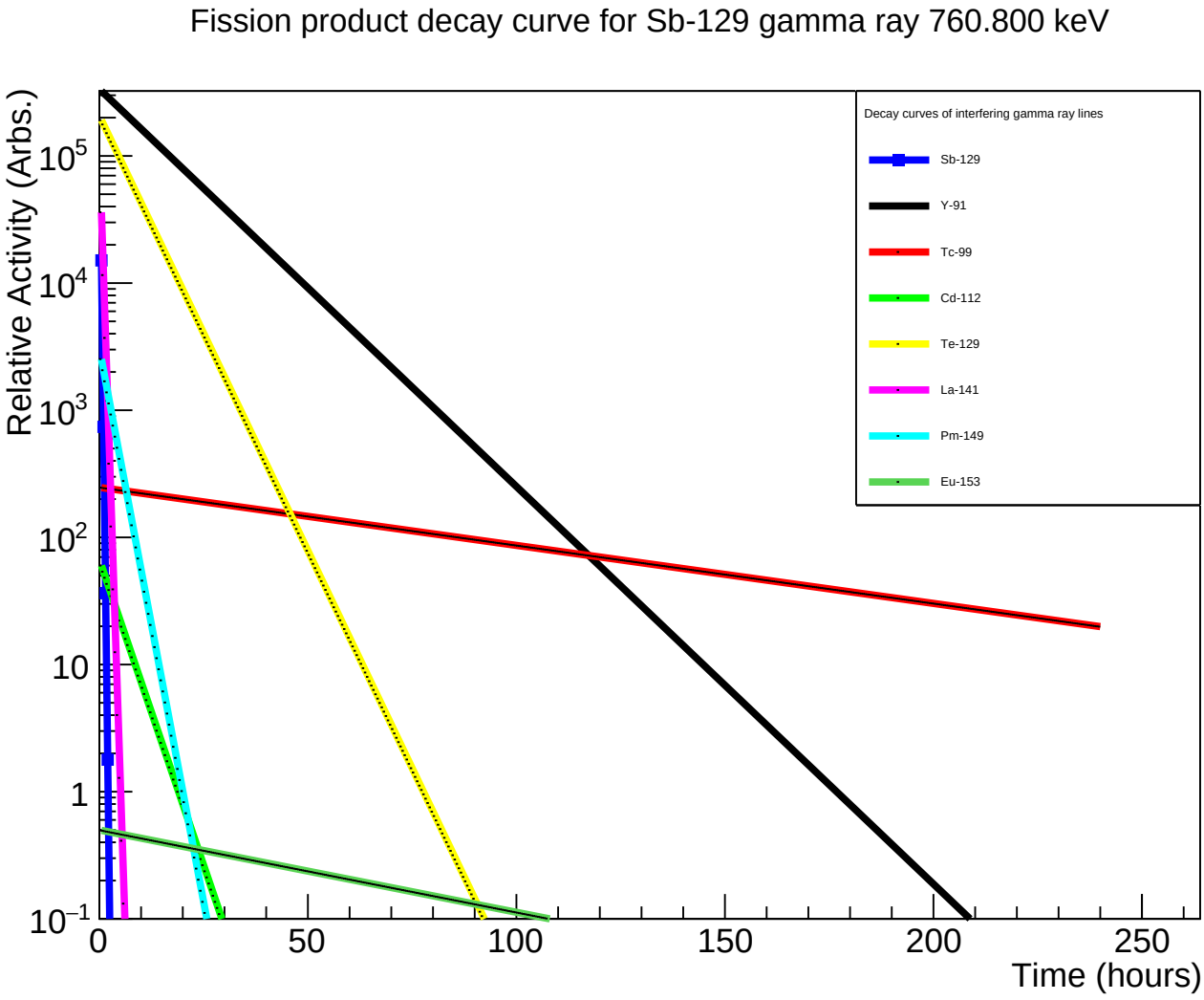


Figure 498: Sb-129 decay curve for 760.800 keV gamma ray.

3.499 Sn-129 E_γ = 782.48 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 782.48 keV
Gamma Intensity = 14.04 ± 2.955 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 997: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 998: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	782.830	0.002	0.124	0.062
Pd-109	Ag-109	781.400	0.000	13.701	0.000
Sb-127	Te-127	783.700	0.151	92.400	0.002
Te-131	I-131	782.490	0.075	33.250	0.004
Te-133	I-133	782.110	0.003	0.923	0.040
Cs-138	Ba-138	782.080	0.003	0.557	0.067
Ba-141	La-141	783.600	0.000	0.304	0.058
Nd-149	Pm-149	781.400	0.000	1.728	0.011
Nd-151	Pm-151	783.400	0.000	0.207	0.004

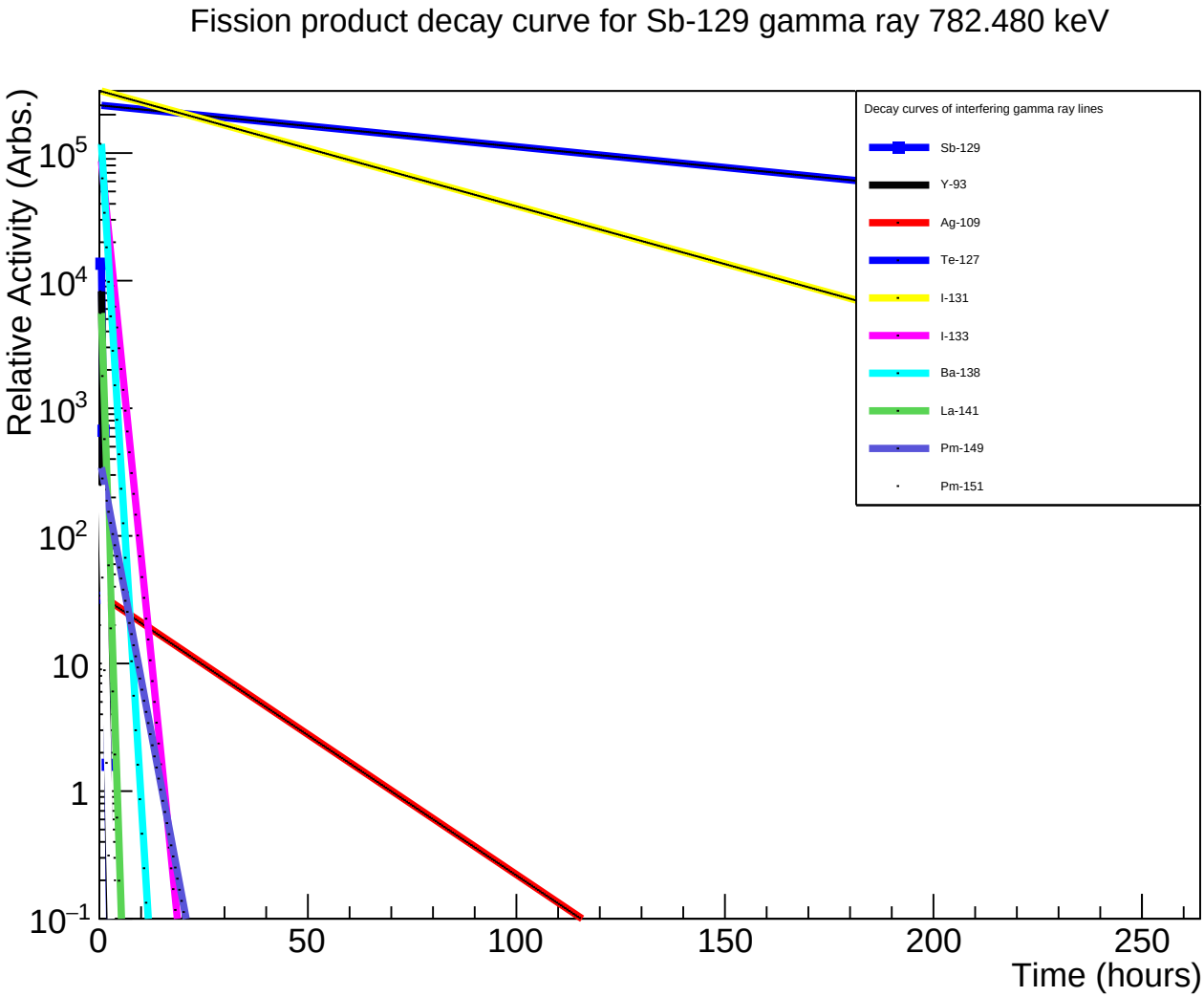


Figure 499: Sb-129 decay curve for 782.480 keV gamma ray.

3.500 Sn-129 E_γ = 792.20 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 792.20 keV
Gamma Intensity = 1.04 ± 0.530 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 999: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1000: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Sr-93	Y-93	791.100	0.003	0.124	0.062
Nb-98	Mo-98	791.646	0.078	0.855	0.000
Nb-98	Mo-98	791.980	0.002	0.855	0.000
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Sb-130	Te-130	793.400	1.000	0.658	0.008
Sb-130	Te-130	793.400	0.860	0.105	0.010
I-132	Xe-132	791.200	0.001	2.295	0.043
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
Ba-142	La-142	791.600	0.001	0.177	0.058
La-142	Ce-142	793.100	0.000	1.518	0.058
Ce-143	Pr-143	791.070	0.000	33.039	0.060
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

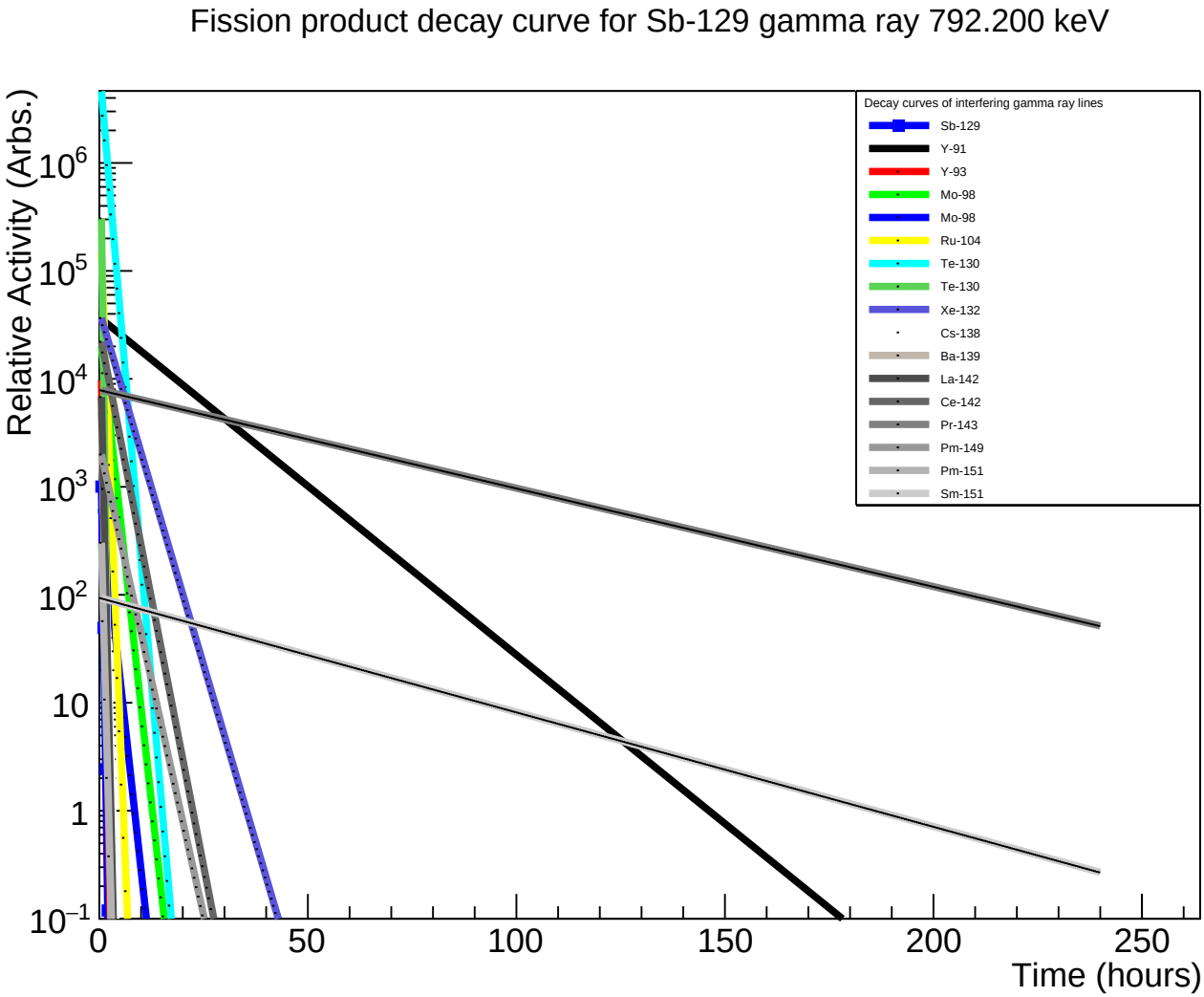


Figure 500: Sb-129 decay curve for 792.200 keV gamma ray.

3.501 Sn-129 E_γ = 801.00 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 801.00 keV
Gamma Intensity = 2.08 ± 0.560 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1001: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1002: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	802.200	0.060	0.529	0.010
Rb-89	Sr-89	801.100	0.000	0.252	0.047
Tc-105	Ru-105	801.000	0.003	0.127	0.010
Ag-112	Cd-112	802.300	0.000	3.130	0.000
Te-131	I-131	801.600	0.000	33.250	0.004
Te-133	I-133	800.540	0.011	0.923	0.040
Xe-138	Cs-138	799.600	0.000	0.235	0.063
Ba-141	La-141	801.700	0.001	0.304	0.058
Pr-147	Nd-147	800.400	0.002	0.223	0.022
Nd-151	Pm-151	801.000	0.000	0.207	0.004

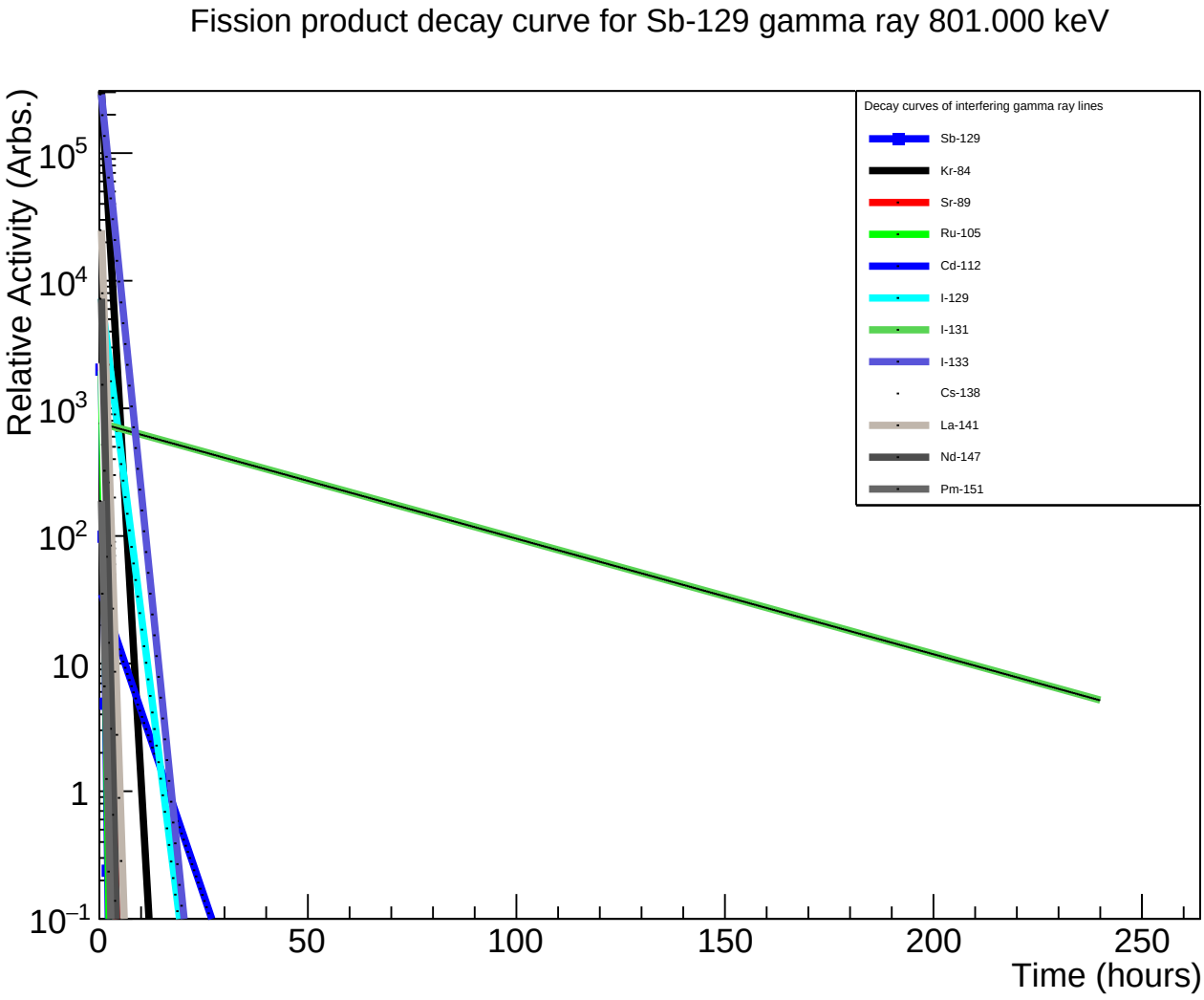


Figure 501: Sb-129 decay curve for 801.000 keV gamma ray.

3.502 Sn-129 E_γ = 850.20 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 850.20 keV
Gamma Intensity = 1.56 ± 0.543 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1003: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1004: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	850.340	0.002	2.840	0.036
Ag-112	Cd-112	851.200	0.010	3.130	0.000
Te-131	I-131	848.900	0.000	33.250	0.004
Te-133	I-133	851.370	0.003	0.208	0.031
Te-133	I-133	851.700	0.001	0.923	0.040
Xe-138	Cs-138	848.700	0.000	0.235	0.063
Xe-138	Cs-138	851.300	0.001	0.235	0.063
Cs-139	Ba-139	849.700	0.000	0.155	0.063
Pr-146	Nd-146	849.100	0.001	0.403	0.030
Nd-149	Pm-149	849.926	0.000	1.728	0.011

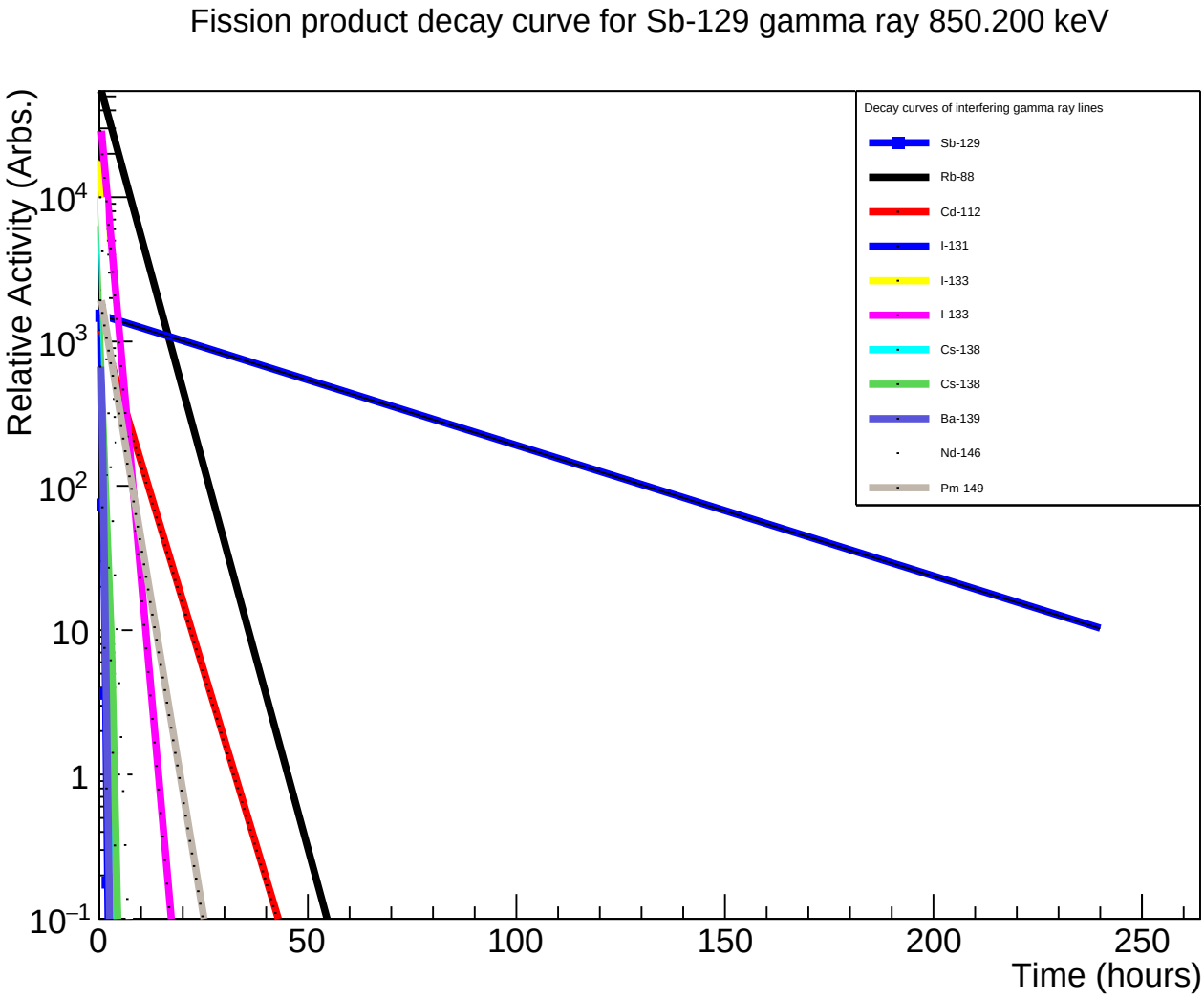


Figure 502: Sb-129 decay curve for 850.200 keV gamma ray.

3.503 Sn-129 E_γ = 862.70 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 862.70 keV
Gamma Intensity = 1.20 ± 0.433 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1005: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1006: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	862.327	0.007	2.840	0.036
Nb-98	Mo-98	862.400	0.001	0.855	0.000
Mo-99	Tc-99	861.200	0.000	65.976	0.061
Rh-107	Pd-107	863.400	0.000	0.362	0.001
Pd-109	Ag-109	862.500	0.000	13.701	0.000
Ag-112	Cd-112	861.600	0.002	3.130	0.000
Sb-130	Te-130	861.600	0.004	0.105	0.010
Te-133	I-133	863.955	0.149	0.923	0.040
I-132	Xe-132	863.000	0.006	2.295	0.043
I-134	Xe-134	864.000	0.002	0.875	0.078
La-142	Ce-142	861.600	0.017	1.518	0.058
Nd-149	Pm-149	861.540	0.000	1.728	0.011

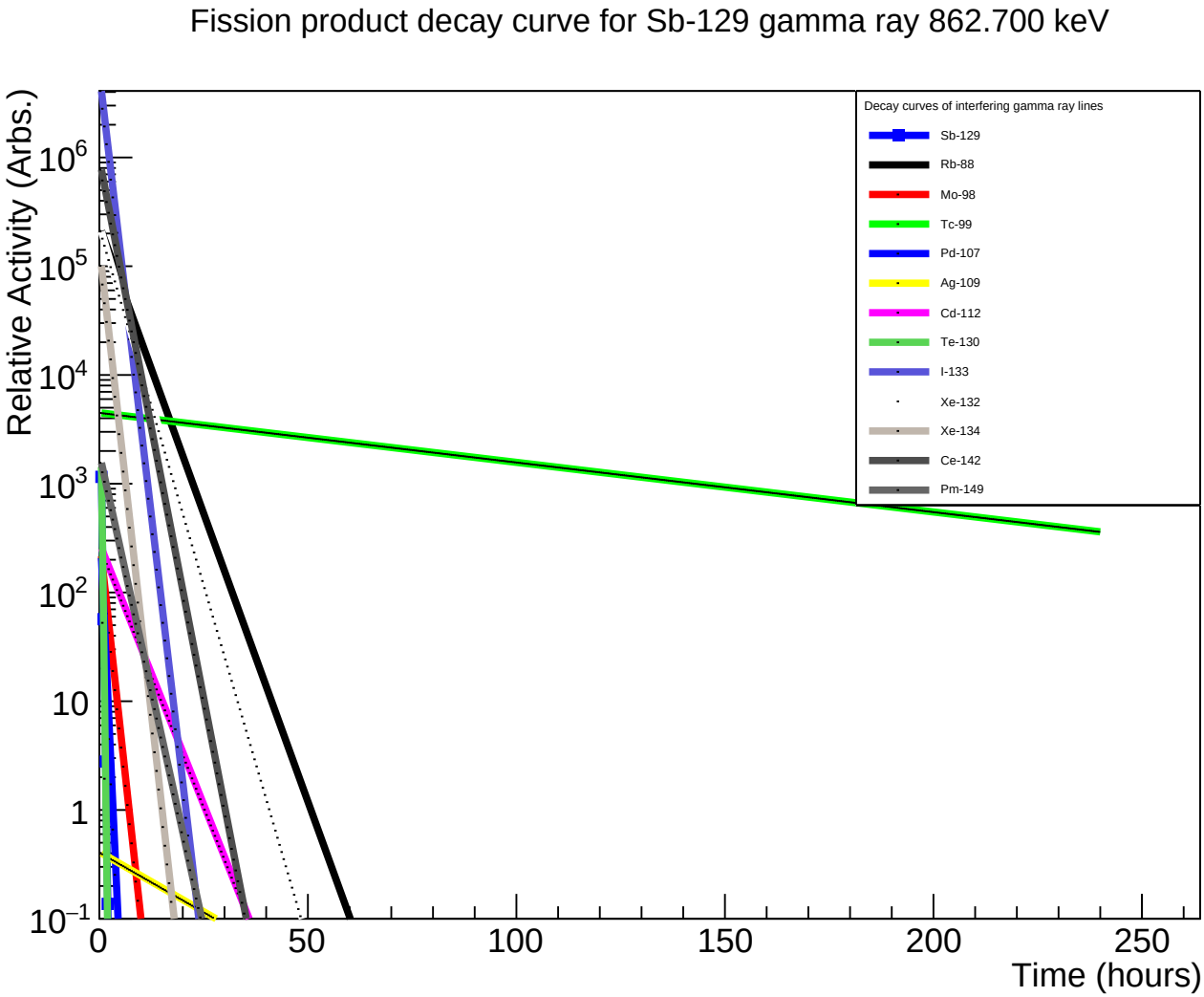


Figure 503: Sb-129 decay curve for 862.700 keV gamma ray.

3.504 Sn-129 E_γ = 902.30 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 902.30 keV
Gamma Intensity = 4.68 ± 1.140 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1007: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1008: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	903.600	0.001	1.512	0.000
Kr-87	Rb-87	901.500	0.000	1.272	0.026
Sr-91	Y-91	901.300	0.001	9.630	0.058
Sr-93	Y-93	900.980	0.007	0.124	0.062
Nb-98	Mo-98	900.970	0.001	0.855	0.000
Mo-101	Tc-101	903.550	0.002	0.243	0.052
Te-133	I-133	902.500	0.002	0.208	0.031
Xe-138	Cs-138	902.300	0.000	0.235	0.063
Pr-147	Nd-147	903.800	0.009	0.223	0.022
Pm-151	Sm-151	903.500	0.000	28.400	0.004
Eu-156	Gd-156	903.620	0.000	364.560	0.000

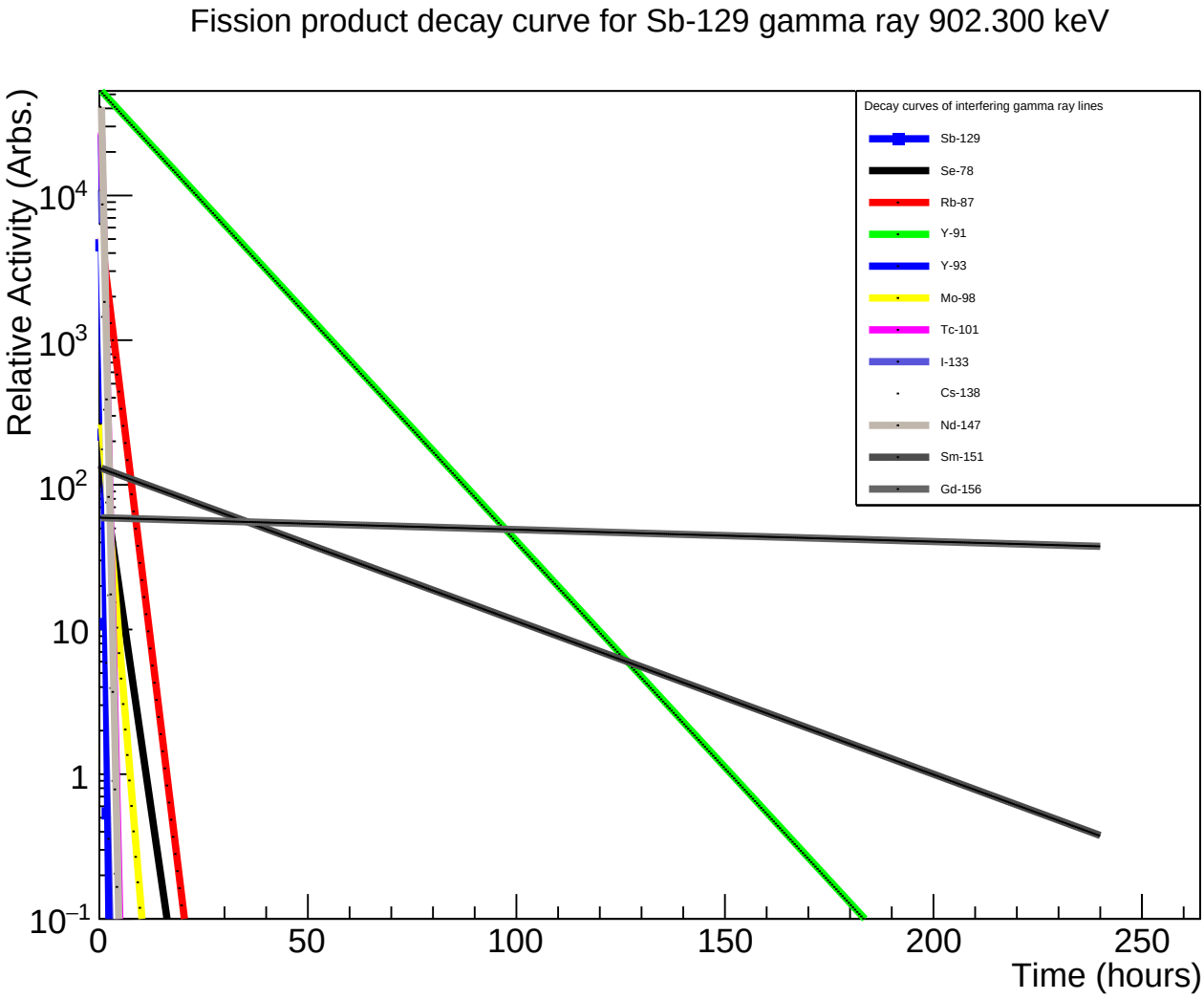


Figure 504: Sb-129 decay curve for 902.300 keV gamma ray.

3.505 Sn-129 E_γ = 1128.44 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 1128.44 keV
Gamma Intensity = 40.04 ± 6.563 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1009: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1010: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1128.000	0.003	0.305	0.019
Te-131	I-131	1127.960	0.009	33.250	0.004
Pr-147	Nd-147	1129.900	0.002	0.223	0.022
Nd-149	Pm-149	1128.560	0.000	1.728	0.011
Nd-151	Pm-151	1127.110	0.002	0.207	0.004
Nd-151	Pm-151	1128.700	0.000	0.207	0.004
Eu-156	Gd-156	1129.470	0.001	364.560	0.000

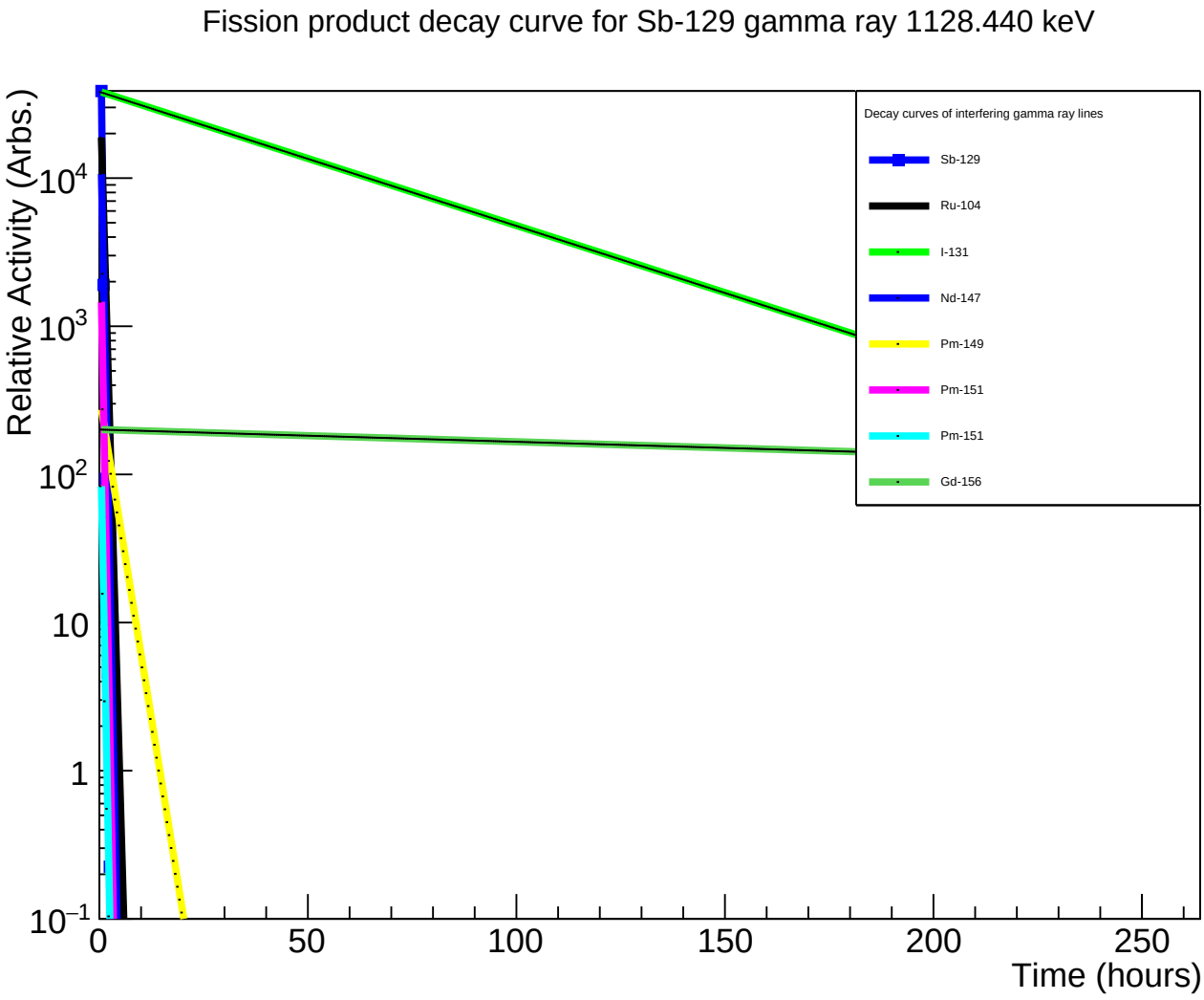


Figure 505: Sb-129 decay curve for 1128.440 keV gamma ray.

3.506 Sn-129 E_γ = 1155.50 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 1155.50 keV
Gamma Intensity = 8.84 ± 1.793 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1011: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1012: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-127	Te-127	1155.200	0.000	92.400	0.002
Te-131	I-131	1155.800	0.000	0.417	0.025
Te-133	I-133	1156.300	0.001	0.208	0.031
Pr-147	Nd-147	1154.600	0.002	0.223	0.022
Nd-149	Pm-149	1156.300	0.000	1.728	0.011
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Eu-156	Gd-156	1154.080	0.047	364.560	0.000
Eu-156	Gd-156	1156.000	0.001	364.560	0.000

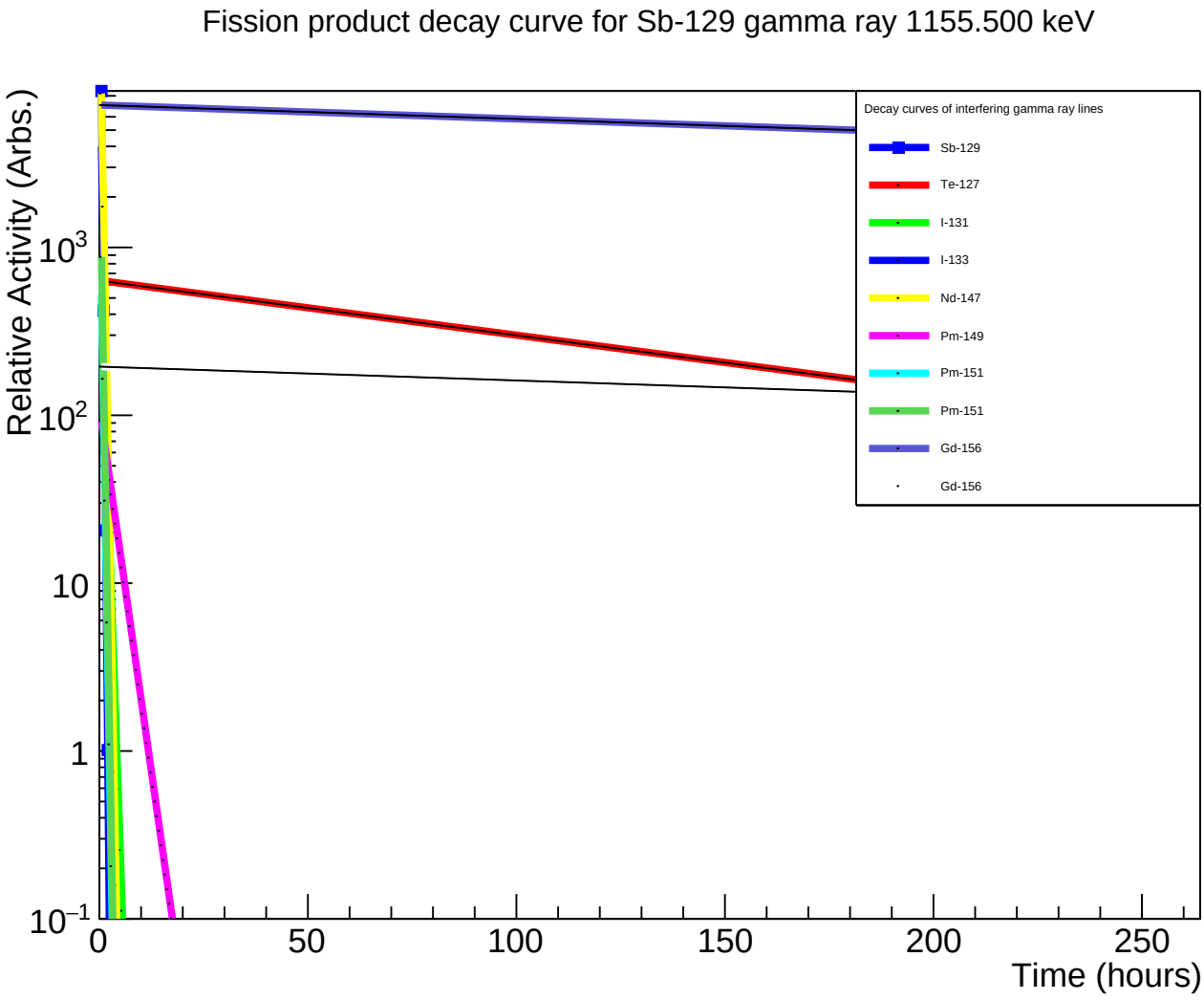


Figure 506: Sb-129 decay curve for 1155.500 keV gamma ray.

3.507 Sn-129 E_γ = 1161.31 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 1161.31 keV
Gamma Intensity = 52.00 ± 5.303 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1013: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1014: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1161.800	0.007	0.312	0.065
Mo-101	Tc-101	1160.980	0.040	0.243	0.052
Te-131	I-131	1162.700	0.000	33.250	0.004
I-135	Xe-135	1159.900	0.001	6.570	0.063
Xe-138	Cs-138	1160.960	0.001	0.235	0.063
Ba-141	La-141	1160.800	0.011	0.304	0.058
La-142	Ce-142	1160.200	0.017	1.518	0.058
Ce-143	Pr-143	1160.580	0.000	33.039	0.060
Pr-145	Nd-145	1161.040	0.000	5.984	0.039
Pr-145	Nd-145	1162.320	0.000	5.984	0.039

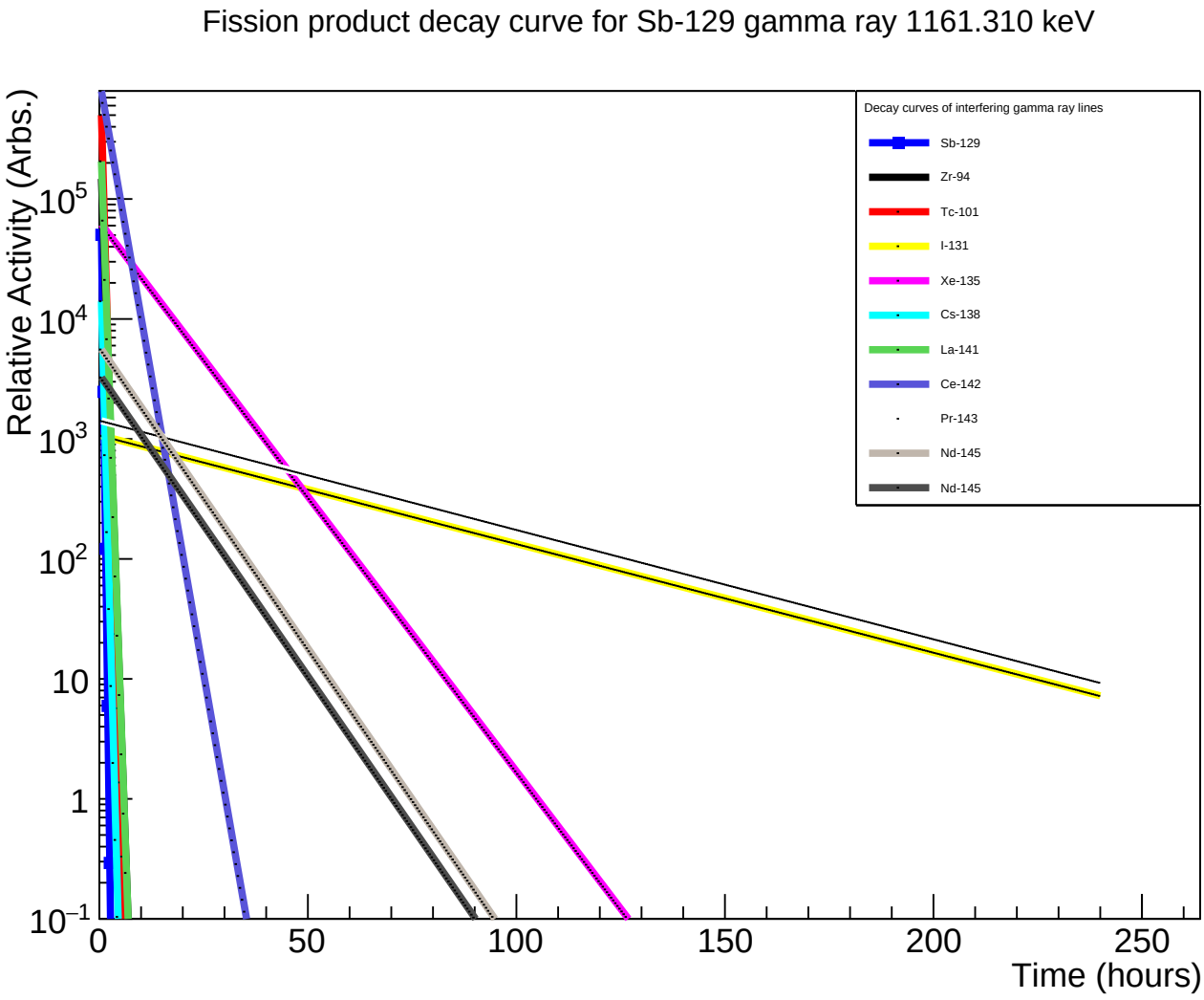


Figure 507: Sb-129 decay curve for 1161.310 keV gamma ray.

3.508 Sn-129 E_γ = 1188.50 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 1188.50 keV
Gamma Intensity = 3.38 ± 1.193 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1015: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1016: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1187.100	0.000	0.855	0.000
Nb-98	Mo-98	1189.300	0.001	0.855	0.000
Tc-104	Ru-104	1187.700	0.003	0.305	0.019
Xe-138	Cs-138	1189.540	0.001	0.235	0.063
Ba-141	La-141	1187.800	0.000	0.304	0.058
Nd-151	Pm-151	1189.240	0.003	0.207	0.004
Eu-156	Gd-156	1187.300	0.000	364.560	0.000

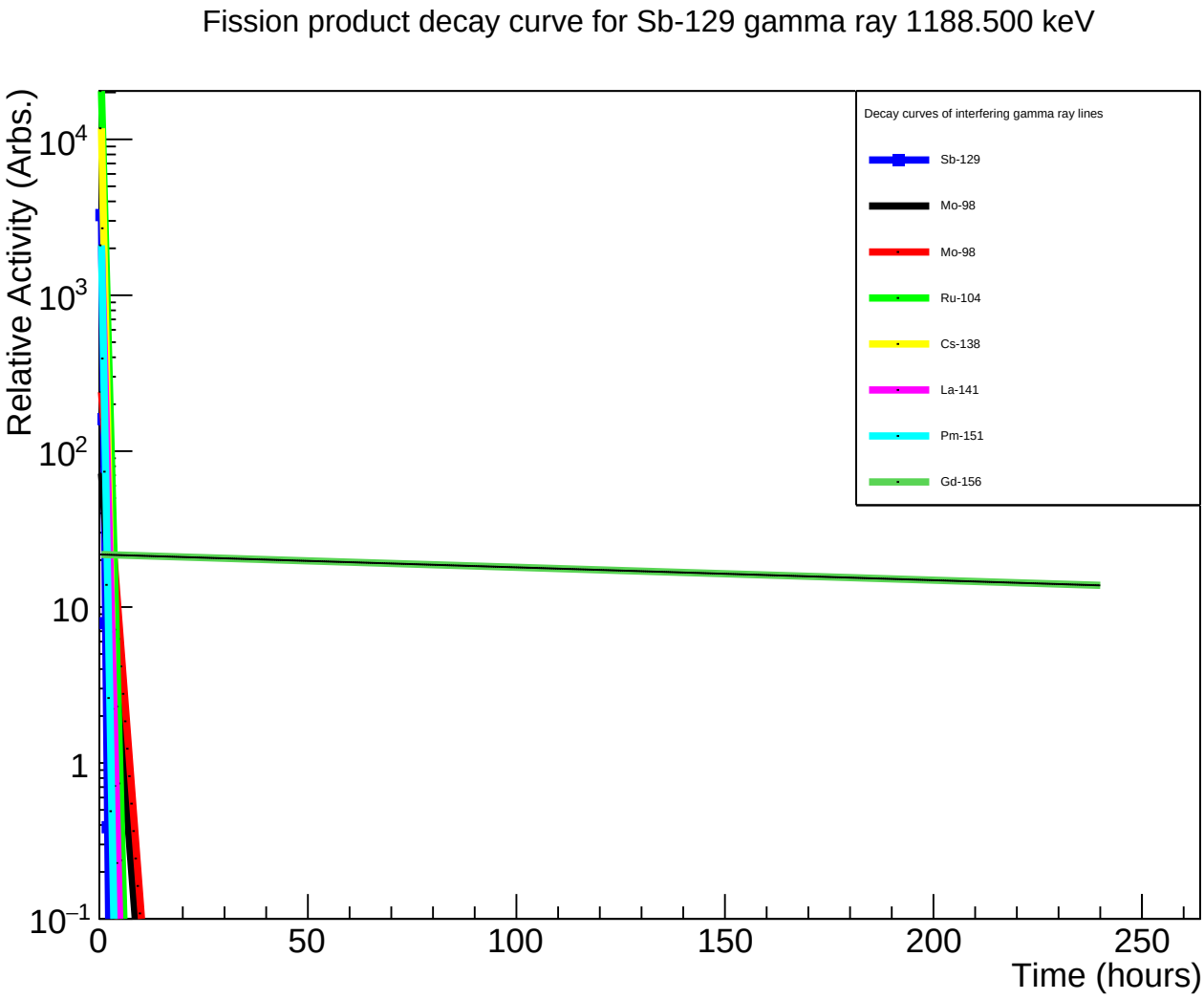


Figure 508: Sb-129 decay curve for 1188.500 keV gamma ray.

3.509 Sn-129 E_γ = 1207.80 keV

Chemical element: Tin
Fission product parent: Sn-129
Gamma originates in daughter: Sb-129
Eγ: 1207.80 keV
Gamma Intensity = 3.38 ± 1.094 %
$T_{1/2}$ = 0.115 ± 0.002 hours or 6.90 ± 0.10 minutes
CFY: 0.197 ± 0.008 %

Table 1017: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1018: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1208.000	0.004	0.372	0.003
Ru-105	Rh-105	1209.000	0.000	4.440	0.010
Sb-131	Te-131	1207.400	0.041	0.384	0.026
Te-131	I-131	1206.600	0.094	33.250	0.004
Te-133	I-133	1208.500	0.002	0.208	0.031
Nd-149	Pm-149	1206.700	0.000	1.728	0.011
Nd-151	Pm-151	1206.600	0.000	0.207	0.004
Sm-155	Eu-155	1207.800	0.000	0.372	0.000

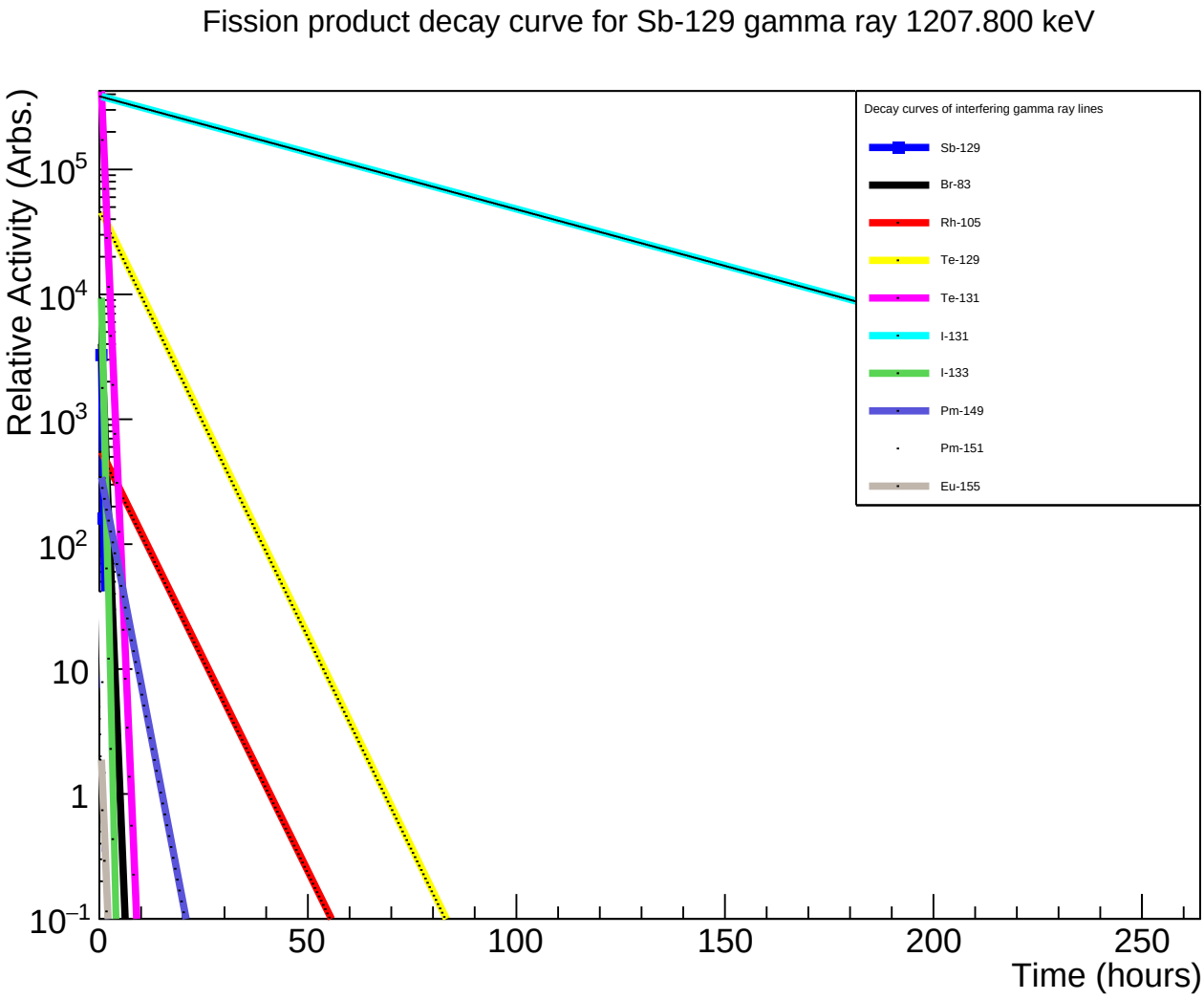


Figure 509: Sb-129 decay curve for 1207.800 keV gamma ray.

3.510 Sb-125 E_γ = 35.49 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 35.49 keV
Gamma Intensity = 4.37 ± 0.045 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1019: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

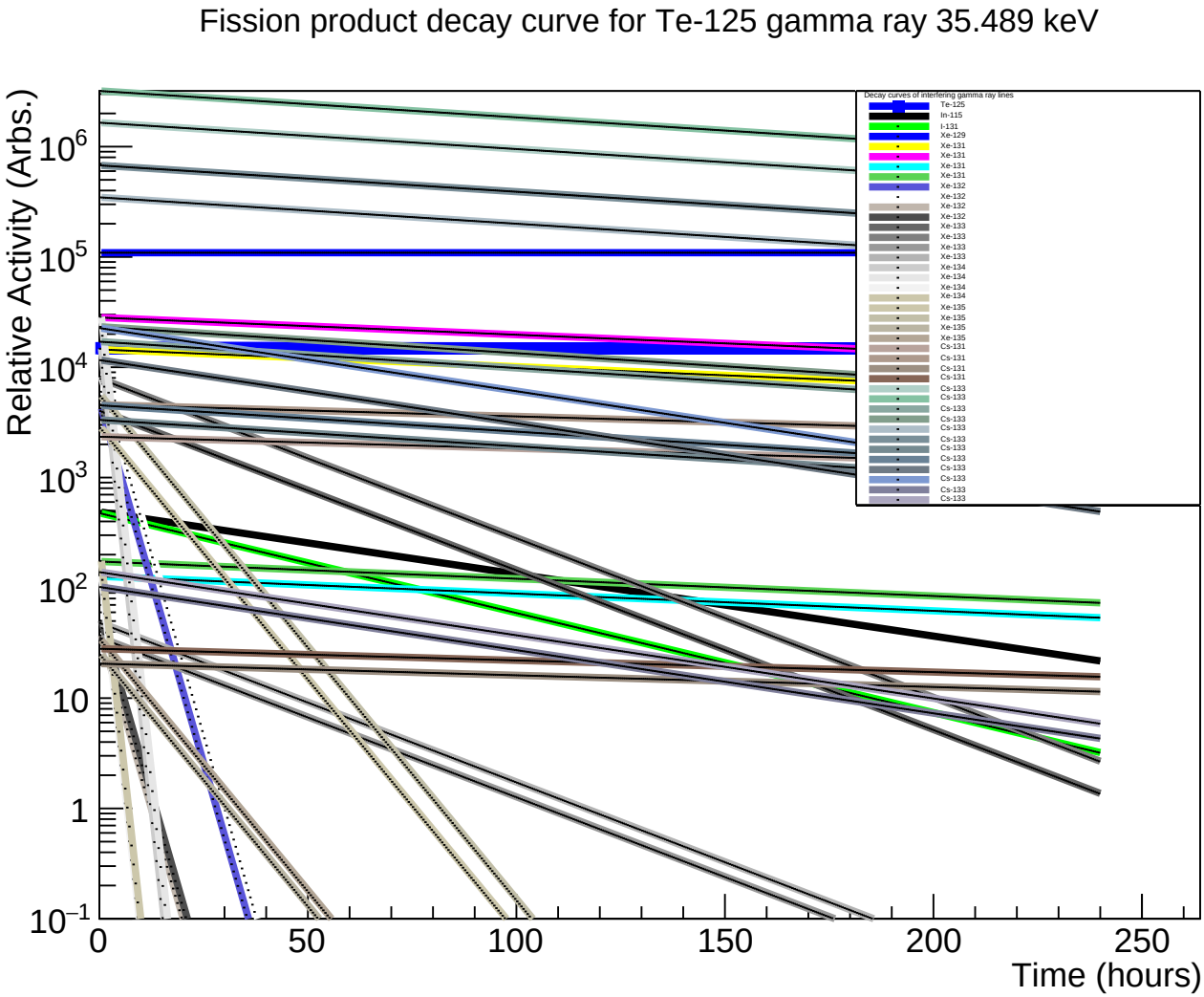


Figure 510: Te-125 decay curve for 35.489 keV gamma ray.

Table 1020: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cd-115	In-115	35.570	0.004	53.460	0.000
Te-131	I-131	36.830	0.000	33.250	0.004
I-129	Xe-129	34.419	0.020	137500000256.000	0.005
I-131	Xe-131	34.395	0.001	192.605	0.029
I-131	Xe-131	34.408	0.001	192.605	0.029
I-131	Xe-131	34.486	0.000	192.605	0.029
I-131	Xe-131	34.488	0.000	192.605	0.029
I-132	Xe-132	34.395	0.000	2.295	0.043
I-132	Xe-132	34.408	0.000	2.295	0.043
I-132	Xe-132	34.486	0.000	2.295	0.043
I-132	Xe-132	34.488	0.000	2.295	0.043
I-133	Xe-133	34.395	0.000	20.800	0.067
I-133	Xe-133	34.408	0.000	20.800	0.067
I-133	Xe-133	34.486	0.000	20.800	0.067
I-133	Xe-133	34.488	0.000	20.800	0.067
I-134	Xe-134	34.395	0.000	0.875	0.078
I-134	Xe-134	34.408	0.001	0.875	0.078
I-134	Xe-134	34.486	0.000	0.875	0.078
I-134	Xe-134	34.488	0.000	0.875	0.078
I-135	Xe-135	34.395	0.000	6.570	0.063
I-135	Xe-135	34.408	0.000	6.570	0.063
I-135	Xe-135	34.486	0.000	6.570	0.063
I-135	Xe-135	34.488	0.000	6.570	0.063
Xe-131	Cs-131	34.395	0.006	284.160	0.000
Xe-131	Cs-131	34.408	0.011	284.160	0.000
Xe-131	Cs-131	34.486	0.000	284.160	0.000
Xe-131	Cs-131	34.488	0.000	284.160	0.000
Xe-133	Cs-133	34.925	0.025	125.832	0.067
Xe-133	Cs-133	34.994	0.048	125.832	0.067
Xe-133	Cs-133	35.237	0.000	125.832	0.067
Xe-133	Cs-133	35.252	0.000	125.832	0.067
Xe-133	Cs-133	35.803	0.005	125.832	0.067
Xe-133	Cs-133	35.817	0.010	125.832	0.067
Xe-133	Cs-133	35.899	0.000	125.832	0.067
Xe-133	Cs-133	35.902	0.000	125.832	0.067
Xe-133	Cs-133	34.395	0.006	52.560	0.002
Xe-133	Cs-133	34.408	0.012	52.560	0.002
Xe-133	Cs-133	34.486	0.000	52.560	0.002
Xe-133	Cs-133	34.488	0.000	52.560	0.002

3.511 Sb-125 E_γ = 176.31 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 176.31 keV
Gamma Intensity = 6.84 ± 0.071 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1021: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1022: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	176.710	0.000	2.840	0.036
Nb-98	Mo-98	177.400	0.000	0.855	0.000
Tc-104	Ru-104	176.800	0.006	0.305	0.019
Rh-107	Pd-107	175.300	0.001	0.362	0.001
Te-131	I-131	177.200	0.001	33.250	0.004
Te-133	I-133	176.900	0.002	0.923	0.040
Te-133	I-133	177.190	0.002	0.923	0.040
I-131	Xe-131	177.214	0.003	192.605	0.029
Ba-142	La-142	177.000	0.017	0.177	0.058
Nd-149	Pm-149	176.270	0.000	1.728	0.011
Nd-151	Pm-151	175.070	0.063	0.207	0.004
Nd-151	Pm-151	176.090	0.003	0.207	0.004
Nd-152	Pm-152	176.600	0.000	0.190	0.003
Pm-151	Sm-151	176.520	0.009	28.400	0.004
Pm-151	Sm-151	177.160	0.038	28.400	0.004

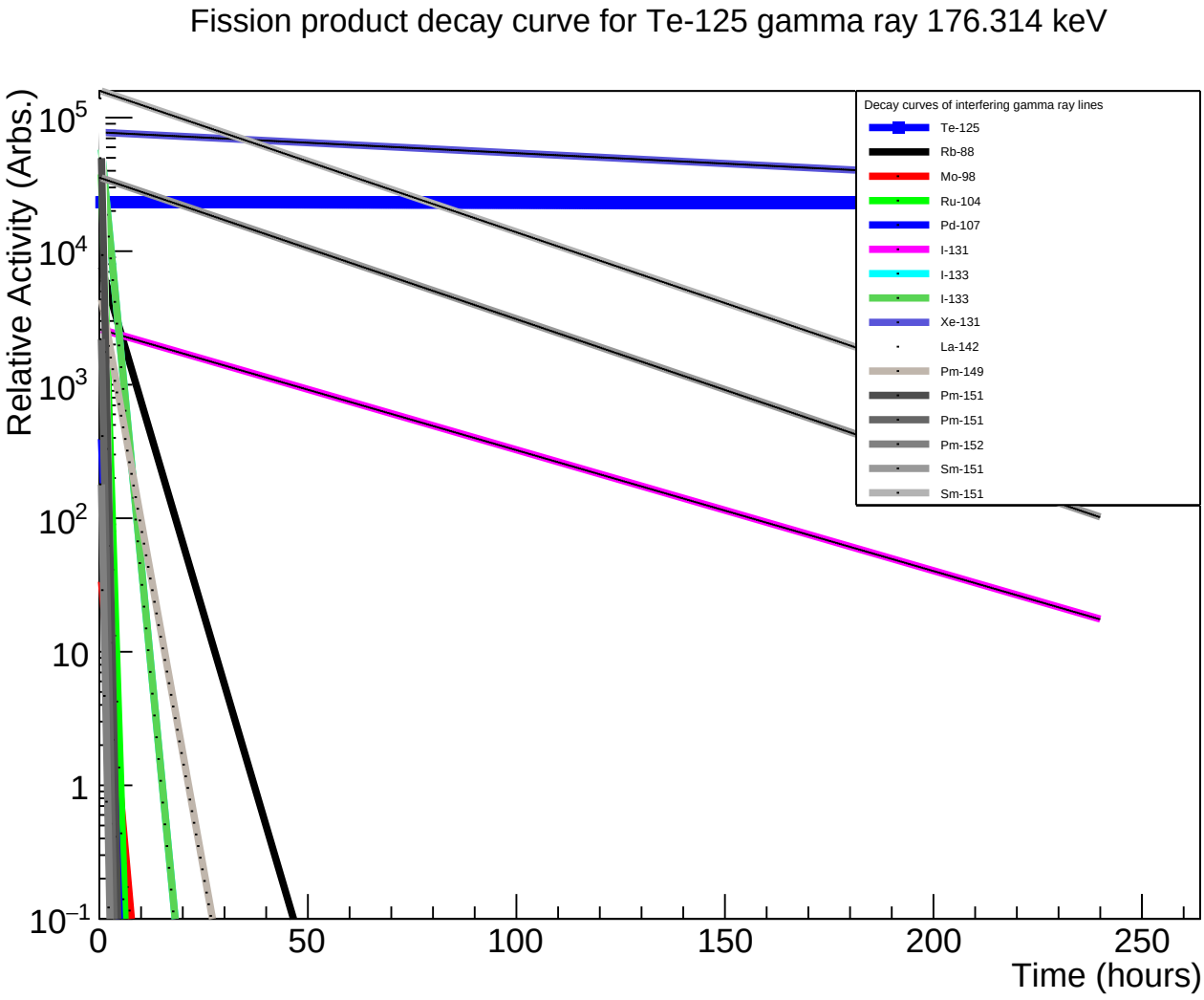


Figure 511: Te-125 decay curve for 176.314 keV gamma ray.

3.512 Sb-125 E_γ = 380.45 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 380.45 keV
Gamma Intensity = 1.52 ± 0.016 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1023: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1024: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	379.900	0.001	9.630	0.058
Y-94	Zr-94	381.600	0.020	0.312	0.065
Nb-98	Mo-98	380.400	0.000	0.855	0.000
Mo-99	Tc-99	380.130	0.000	65.976	0.061
Mo-101	Tc-101	378.990	0.003	0.243	0.052
Mo-101	Tc-101	381.120	0.003	0.243	0.052
Rh-107	Pd-107	381.860	0.007	0.362	0.001
Sn-123	Sb-123	381.770	0.000	0.668	0.000
Te-131	I-131	379.300	0.000	33.250	0.004
I-133	Xe-133	381.590	0.000	20.800	0.067
Ba-141	La-141	381.400	0.001	0.304	0.058
Ba-142	La-142	379.400	0.006	0.177	0.058
Ba-142	La-142	380.000	0.001	0.177	0.058
Nd-149	Pm-149	380.790	0.001	1.728	0.011
Nd-151	Pm-151	380.100	0.000	0.207	0.004
Pm-151	Sm-151	379.860	0.009	28.400	0.004
Pm-151	Sm-151	381.200	0.000	28.400	0.004

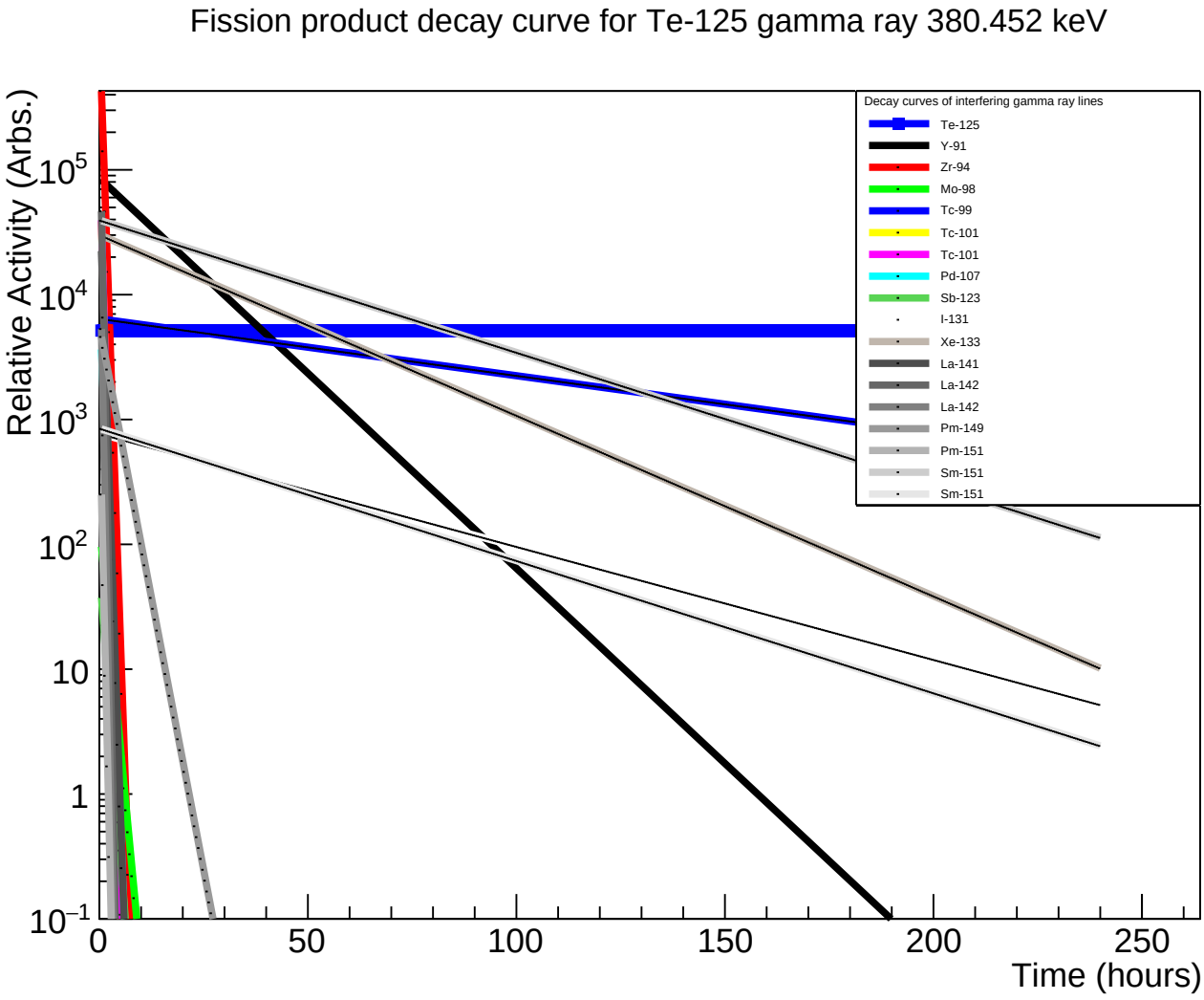


Figure 512: Te-125 decay curve for 380.452 keV gamma ray.

3.513 Sb-125 E_γ = 427.87 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 427.87 keV
Gamma Intensity = 29.60 ± 0.300 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1025: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1026: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	428.030	0.001	0.124	0.062
Te-133	I-133	429.030	0.021	0.923	0.040
Nd-151	Pm-151	426.470	0.004	0.207	0.004
Nd-151	Pm-151	427.200	0.001	0.207	0.004
Nd-151	Pm-151	427.650	0.002	0.207	0.004
Pm-151	Sm-151	427.250	0.001	28.400	0.004
Pm-151	Sm-151	429.100	0.000	28.400	0.004

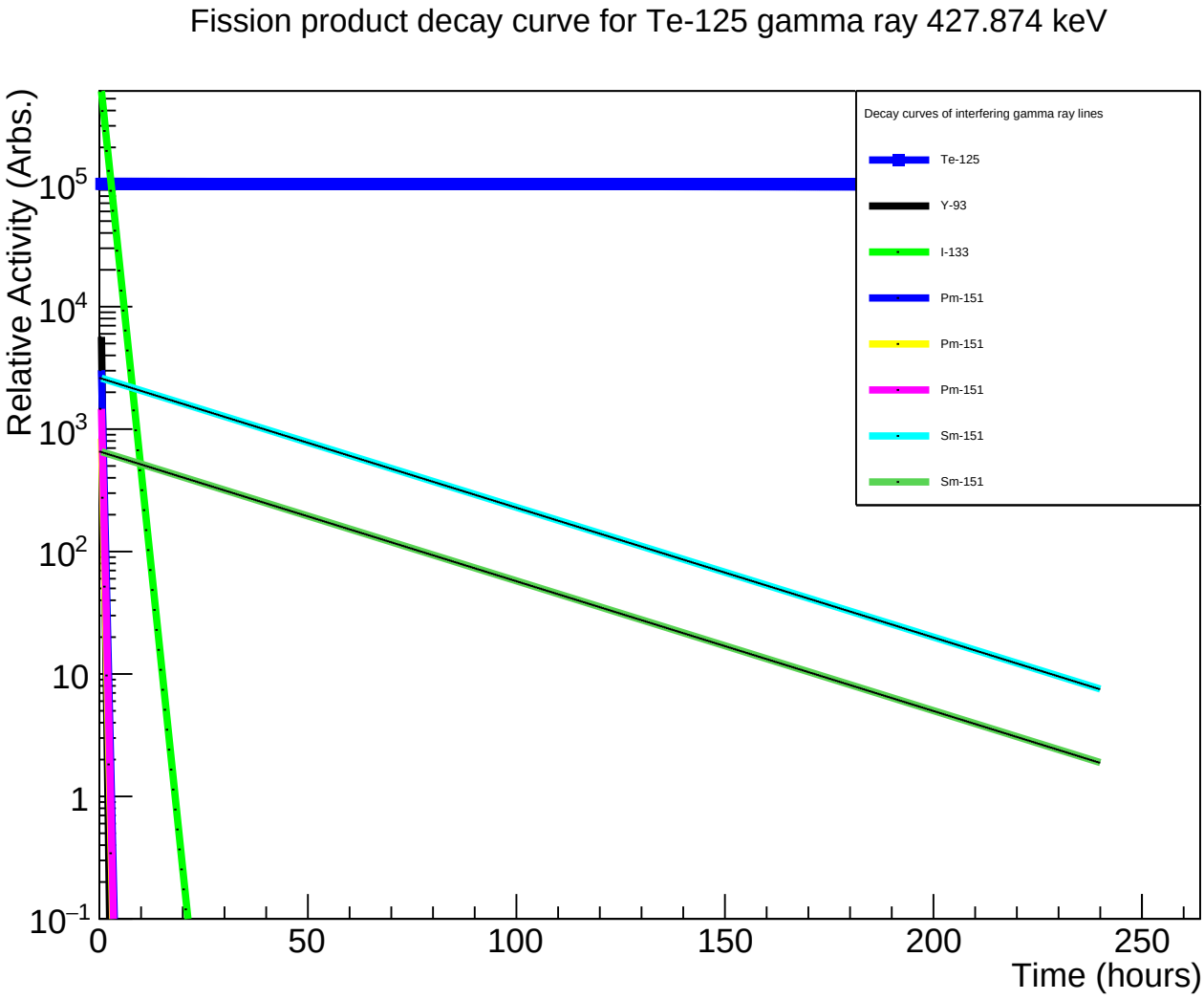


Figure 513: Te-125 decay curve for 427.874 keV gamma ray.

3.514 Sb-125 E_γ = 463.36 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 463.36 keV
Gamma Intensity = 10.49 ± 0.110 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1027: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1028: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-105	Ru-105	462.800	0.044	0.127	0.010
Tc-105	Ru-105	464.500	0.008	0.127	0.010
Te-129	I-129	462.040	0.000	1.160	0.005
Te-131	I-131	462.920	0.018	33.250	0.004
Te-133	I-133	462.230	0.015	0.923	0.040
Te-133	I-133	464.000	0.003	0.923	0.040
Te-134	I-134	464.640	0.047	0.697	0.070
Cs-138	Ba-138	462.796	0.307	0.557	0.067
Ba-141	La-141	462.300	0.049	0.304	0.058
Ba-141	La-141	462.900	0.001	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002

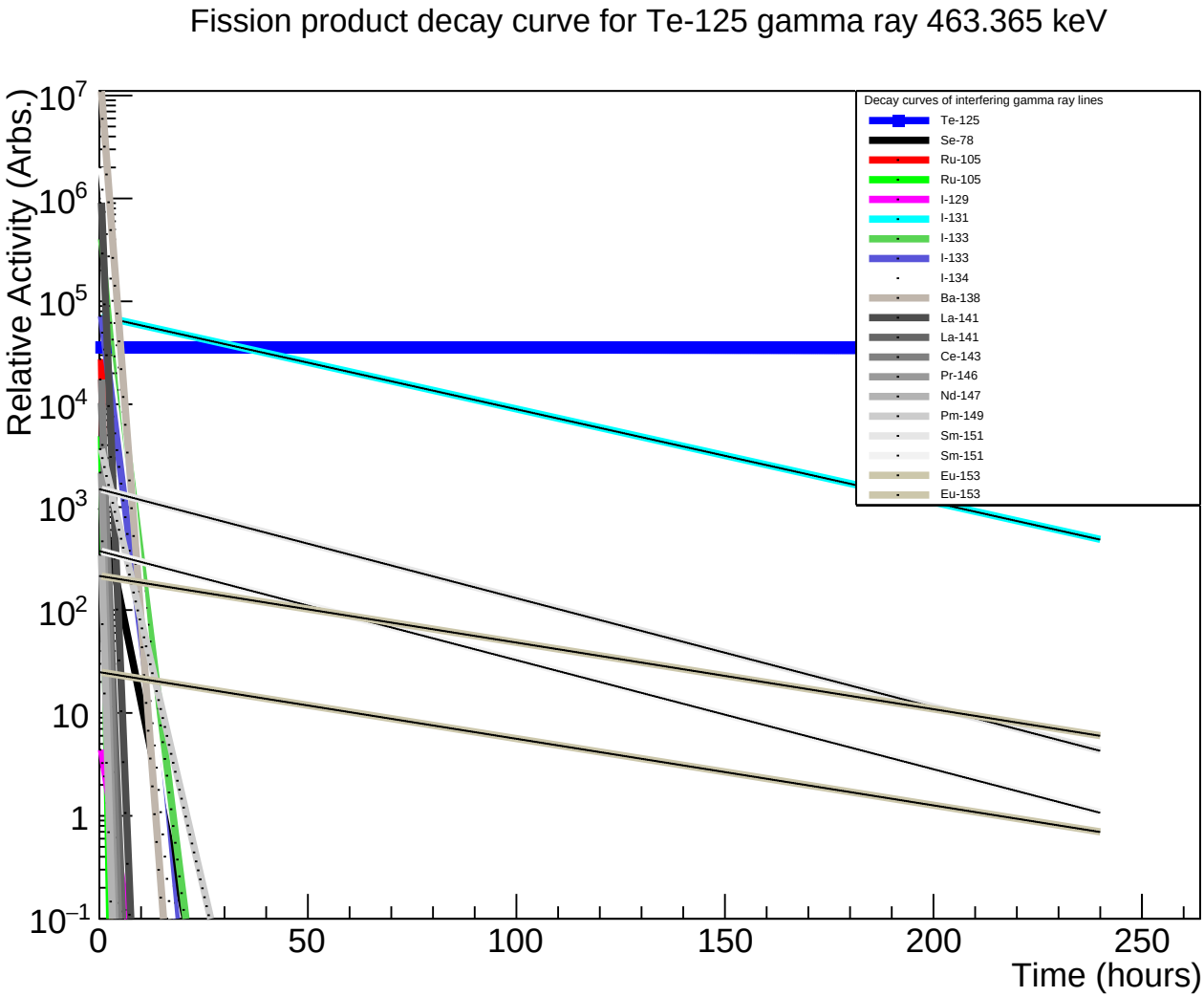


Figure 514: Te-125 decay curve for 463.365 keV gamma ray.

3.515 Sb-125 E_γ = 600.60 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 600.60 keV
Gamma Intensity = 17.65 ± 0.185 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1029: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1030: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	600.600	0.001	16.749	0.060
Te-131	I-131	602.039	0.042	0.417	0.025
Te-131	I-131	602.090	0.003	33.250	0.004
Te-133	I-133	601.500	0.001	0.923	0.040
I-132	Xe-132	600.000	0.003	2.295	0.043
Cs-139	Ba-139	601.480	0.001	0.155	0.063
Ba-141	La-141	599.400	0.003	0.304	0.058
Ba-142	La-142	599.800	0.018	0.177	0.058
Pr-146	Nd-146	601.740	0.030	0.403	0.030
Nd-151	Pm-151	600.800	0.000	0.207	0.004
Pm-151	Sm-151	599.100	0.000	28.400	0.004
Eu-156	Gd-156	599.470	0.021	364.560	0.000

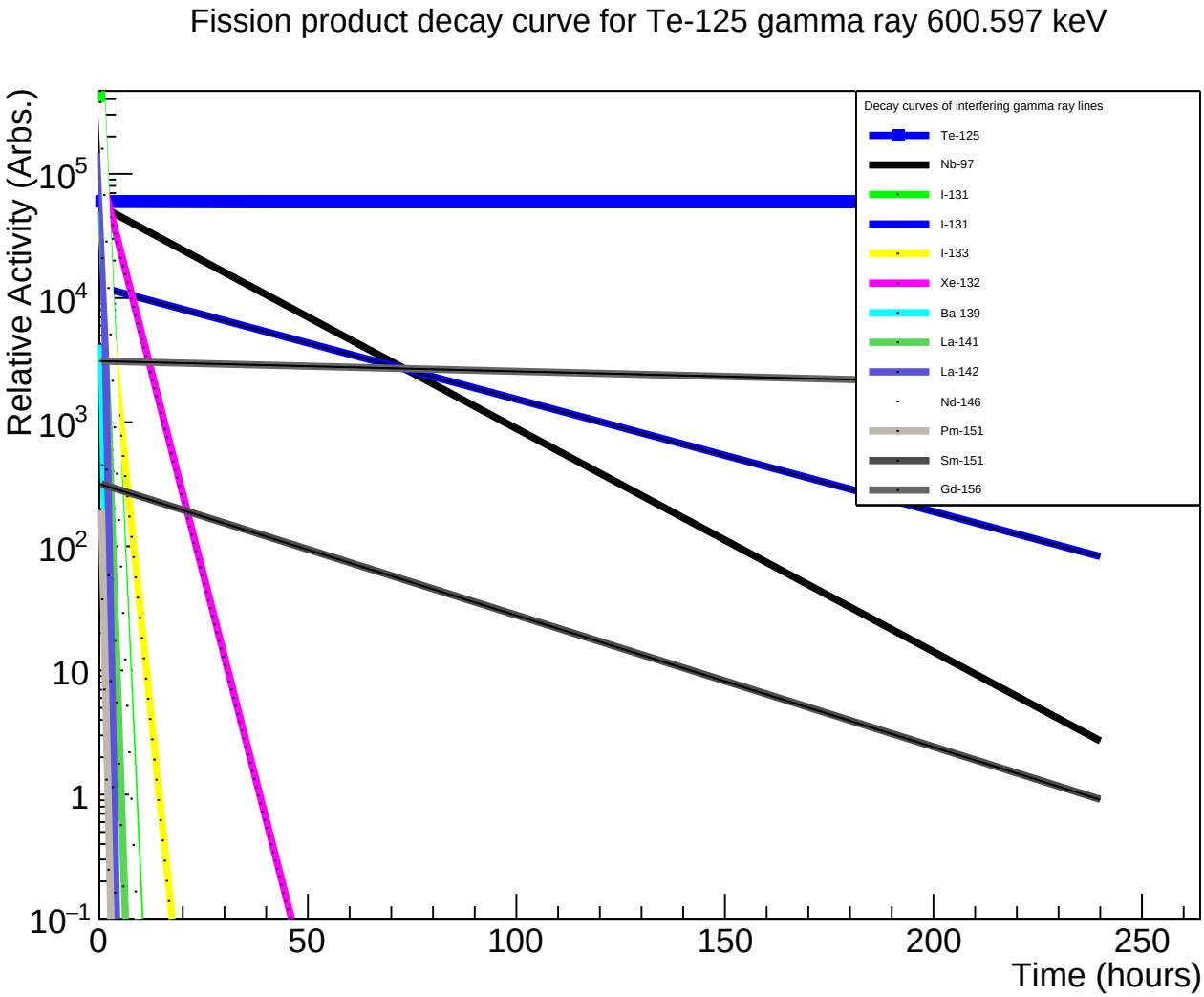


Figure 515: Te-125 decay curve for 600.597 keV gamma ray.

3.516 Sb-125 E_γ = 606.71 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 606.71 keV
Gamma Intensity = 4.98 ± 0.053 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1031: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1032: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	606.800	0.001	0.243	0.052
Ag-112	Cd-112	606.700	0.031	3.130	0.000
Te-131	I-131	605.550	0.001	0.417	0.025
Te-133	I-133	607.300	0.002	0.923	0.040
Xe-135	Cs-135	608.185	0.029	9.140	0.065
Pr-145	Nd-145	606.420	0.000	5.984	0.039
Nd-149	Pm-149	606.670	0.000	1.728	0.011
Nd-151	Pm-151	605.800	0.000	0.207	0.004
Pm-151	Sm-151	605.900	0.000	28.400	0.004

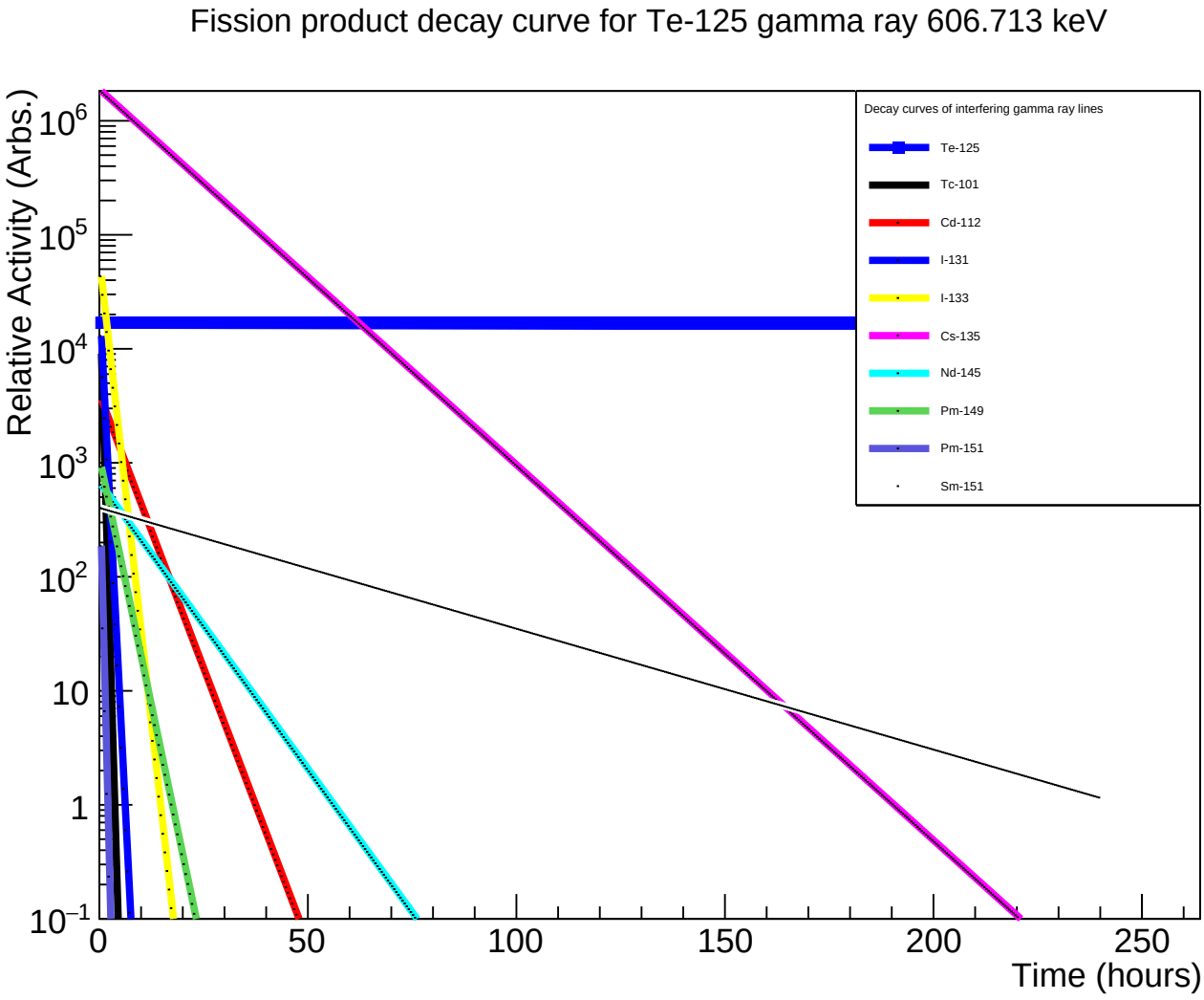


Figure 516: Te-125 decay curve for 606.713 keV gamma ray.

3.517 Sb-125 E_γ = 635.95 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 635.95 keV
Gamma Intensity = 11.22 ± 0.144 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1033: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1034: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Te-133	I-133	636.500	0.002	0.923	0.040
Te-134	I-134	636.260	0.017	0.697	0.070
I-131	Xe-131	636.989	0.072	192.605	0.029
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-151	Pm-151	636.400	0.000	0.207	0.004
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Pm-149	Sm-149	636.500	0.000	53.080	0.011
Pm-151	Sm-151	636.200	0.014	28.400	0.004
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Sm-153	Eu-153	636.500	0.000	46.500	0.002

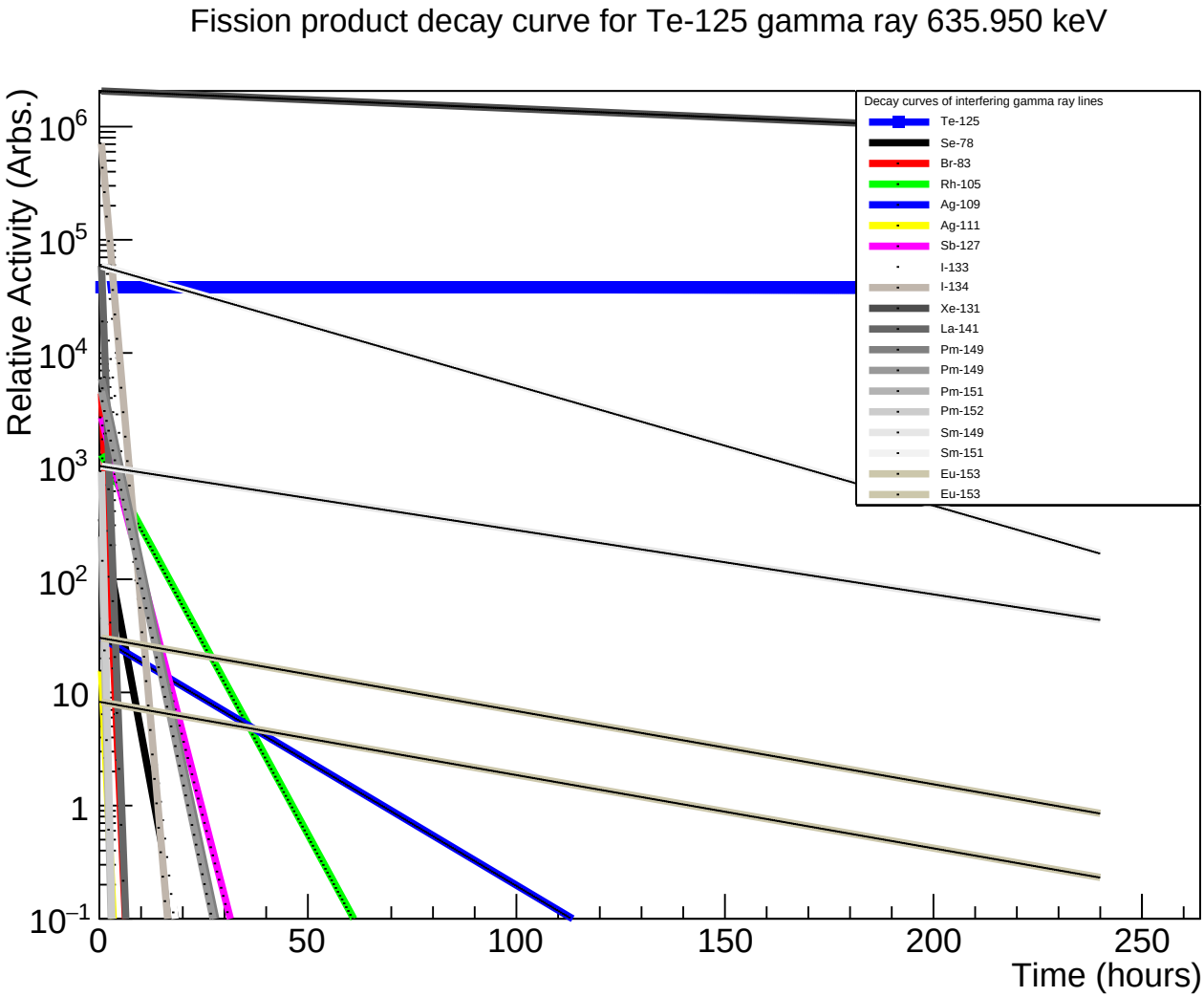


Figure 517: Te-125 decay curve for 635.950 keV gamma ray.

3.518 Sb-125 E_γ = 671.44 keV

Chemical element: Antimony
Fission product parent: Sb-125
Gamma originates in daughter: Te-125
Eγ: 671.44 keV
Gamma Intensity = 1.79 ± 0.019 %
$T_{1/2}$ = 24194.445 ± 2.191 hours or 1451666.72 ± 131.49 minutes
CFY: 0.034 ± 0.001 %

Table 1035: Decay chain of fission product chain A = 125

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cadmium-125	Indium-125	0.000	0.000
Indium-125	Tin-125	0.001	0.000
Tin-125	Antimony-125	231.360	0.720
Antimony-125	Tellurium-125	24194.445	2.191
Tellurium-125	Iodine-125	1377.600	3.600

Table 1036: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	670.900	0.003	0.372	0.003
Nb-98	Mo-98	672.590	0.006	0.855	0.000
Rh-107	Pd-107	670.050	0.022	0.362	0.001
Ag-113	Cd-113	672.300	0.009	5.370	0.000
Te-129	I-129	671.840	0.000	806.400	0.001
I-132	Xe-132	671.400	0.035	2.295	0.043
I-133	Xe-133	670.100	0.000	20.800	0.067
Cs-139	Ba-139	672.210	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-149	Pm-149	671.560	0.000	1.728	0.011
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	671.280	0.009	28.400	0.004

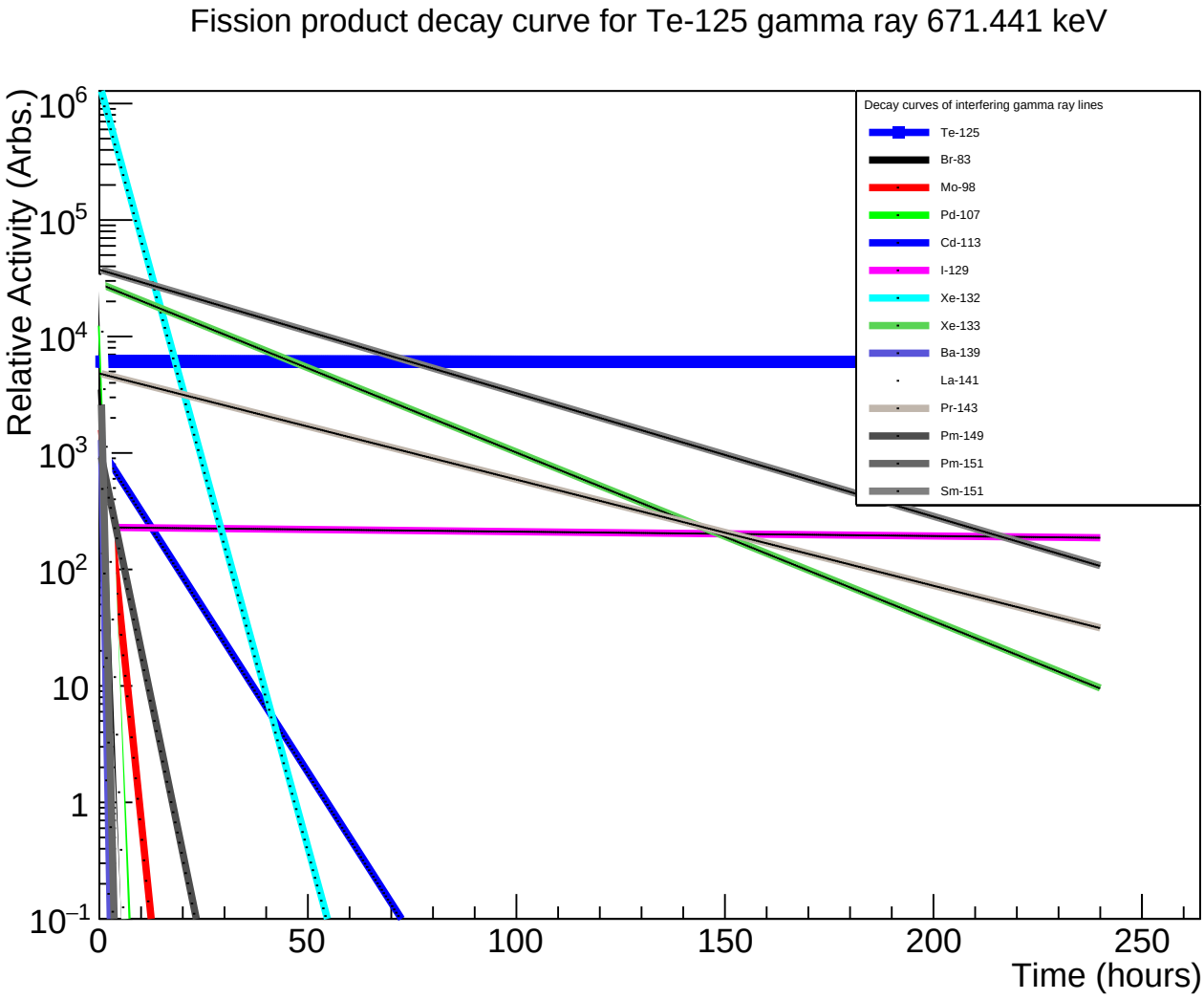


Figure 518: Te-125 decay curve for 671.441 keV gamma ray.

3.519 Sb-126 E_γ = 414.50 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 414.50 keV
Gamma Intensity = 85.67 ± 5.851 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1037: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1038: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	415.200	0.016	0.372	0.003
Nb-98	Mo-98	415.500	0.000	0.855	0.000
Tc-104	Ru-104	413.200	0.001	0.305	0.019
Tc-105	Ru-105	415.000	0.002	0.127	0.010
Ru-105	Rh-105	413.530	0.023	4.440	0.010
Pd-109	Ag-109	413.000	0.000	13.701	0.000
Pd-109	Ag-109	415.200	0.000	13.701	0.000
Pd-111	Ag-111	415.500	0.001	0.390	0.000
Te-129	I-129	415.880	0.000	1.160	0.005
Te-133	I-133	413.200	0.006	0.923	0.040
Te-133	I-133	415.000	0.001	0.923	0.040
I-135	Xe-135	414.830	0.003	6.570	0.063
Ce-146	Pr-146	415.710	0.013	0.225	0.030
Pr-147	Nd-147	413.700	0.010	0.223	0.022
Nd-149	Pm-149	413.690	0.000	1.728	0.011
Nd-151	Pm-151	413.500	0.000	0.207	0.004
Nd-151	Pm-151	414.630	0.002	0.207	0.004
Nd-151	Pm-151	415.200	0.000	0.207	0.004
Pm-151	Sm-151	415.700	0.000	28.400	0.004

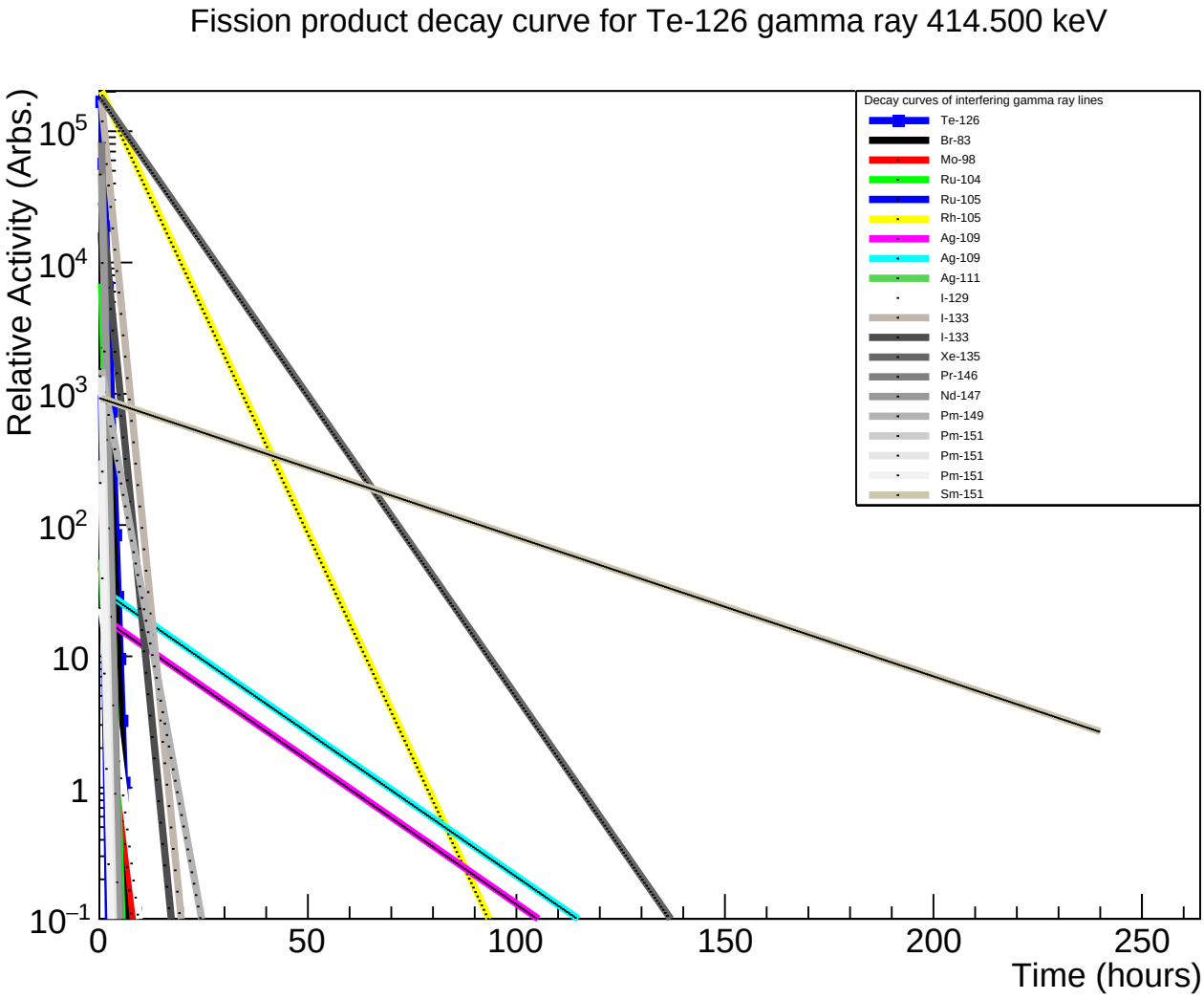


Figure 519: Te-126 decay curve for 414.500 keV gamma ray.

3.520 Sb-126 E_γ = 620.00 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 620.00 keV
Gamma Intensity = 1.54 ± 0.186 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1039: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1040: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	620.100	0.018	9.630	0.058
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	619.300	0.000	178.800	0.000
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Te-133	I-133	620.000	0.000	0.208	0.031
Te-133	I-133	621.300	0.005	0.923	0.040
I-132	Xe-132	620.900	0.004	2.295	0.043
I-132	Xe-132	621.200	0.016	2.295	0.043
Xe-138	Cs-138	619.700	0.000	0.235	0.063
Cs-139	Ba-139	619.700	0.000	0.155	0.063
Ba-142	La-142	620.300	0.000	0.177	0.058
La-143	Ce-143	620.300	0.023	0.237	0.059
La-143	Ce-143	621.400	0.015	0.237	0.059
Nd-151	Pm-151	619.010	0.003	0.207	0.004
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

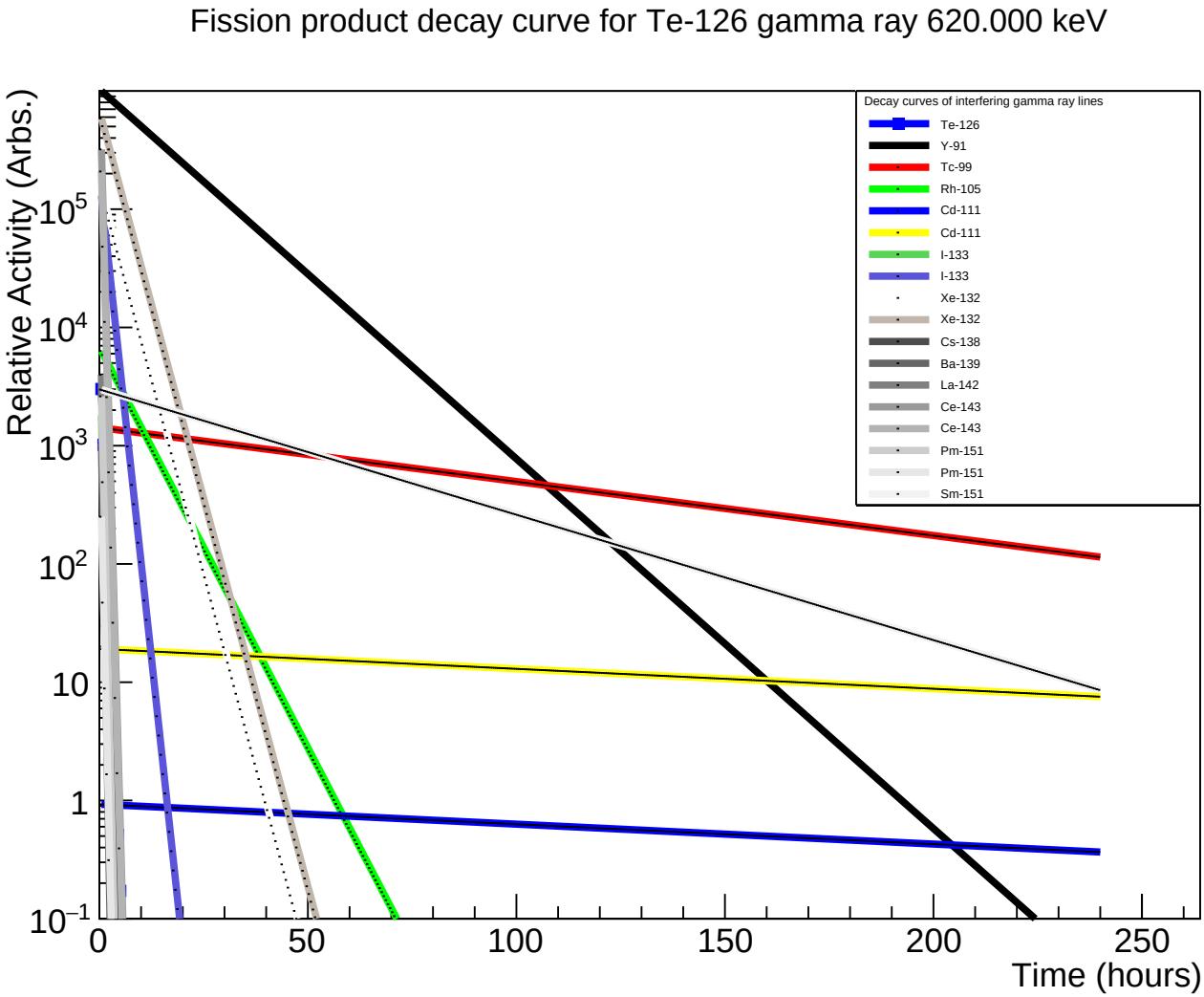


Figure 520: Te-126 decay curve for 620.000 keV gamma ray.

3.521 Sb-126 E_γ = 666.10 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 666.10 keV
Gamma Intensity = 85.67 ± 3.985 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1041: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1042: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	664.800	0.033	0.372	0.003
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Te-131	I-131	665.050	0.042	33.250	0.004
Te-133	I-133	667.000	0.002	0.208	0.031
Te-134	I-134	665.850	0.012	0.697	0.070
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Nd-149	Pm-149	665.220	0.000	1.728	0.011
Nd-151	Pm-151	665.210	0.001	0.207	0.004
Sm-155	Eu-155	665.000	0.000	0.372	0.000

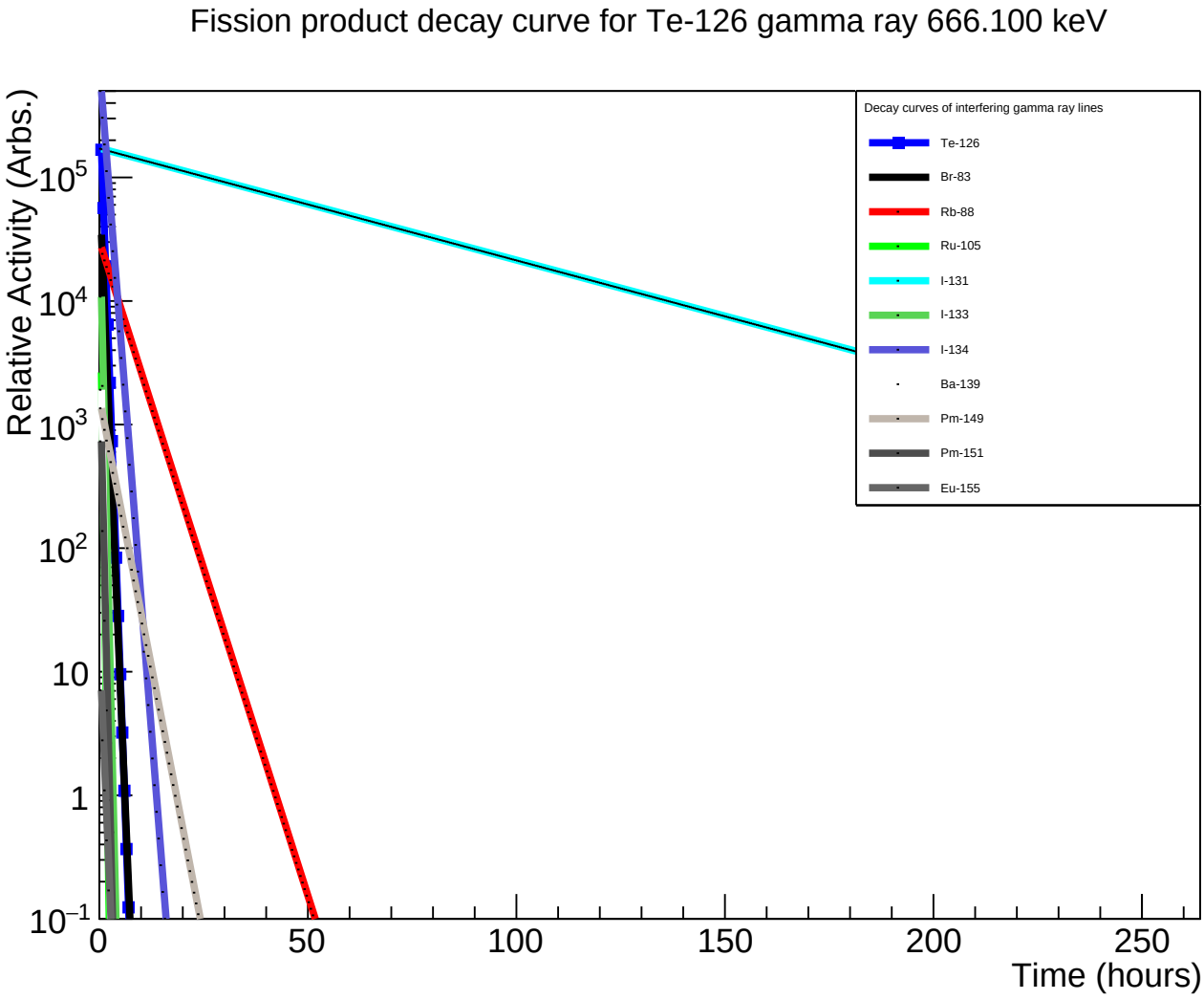


Figure 521: Te-126 decay curve for 666.100 keV gamma ray.

3.522 Sb-126 E_γ = 694.80 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 694.80 keV
Gamma Intensity = 82.25 ± 5.743 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1043: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1044: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	694.900	0.167	1.512	0.000
Y-94	Zr-94	694.700	0.002	0.312	0.065
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Tc-101	Ru-101	694.300	0.001	0.237	0.052
Ag-112	Cd-112	694.800	0.030	3.130	0.000
Sn-129	Sb-129	695.100	0.042	0.115	0.002
Te-129	I-129	695.880	0.031	806.400	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-141	Ce-141	694.900	0.000	3.920	0.058
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004
Sm-153	Eu-153	694.100	0.000	46.500	0.002

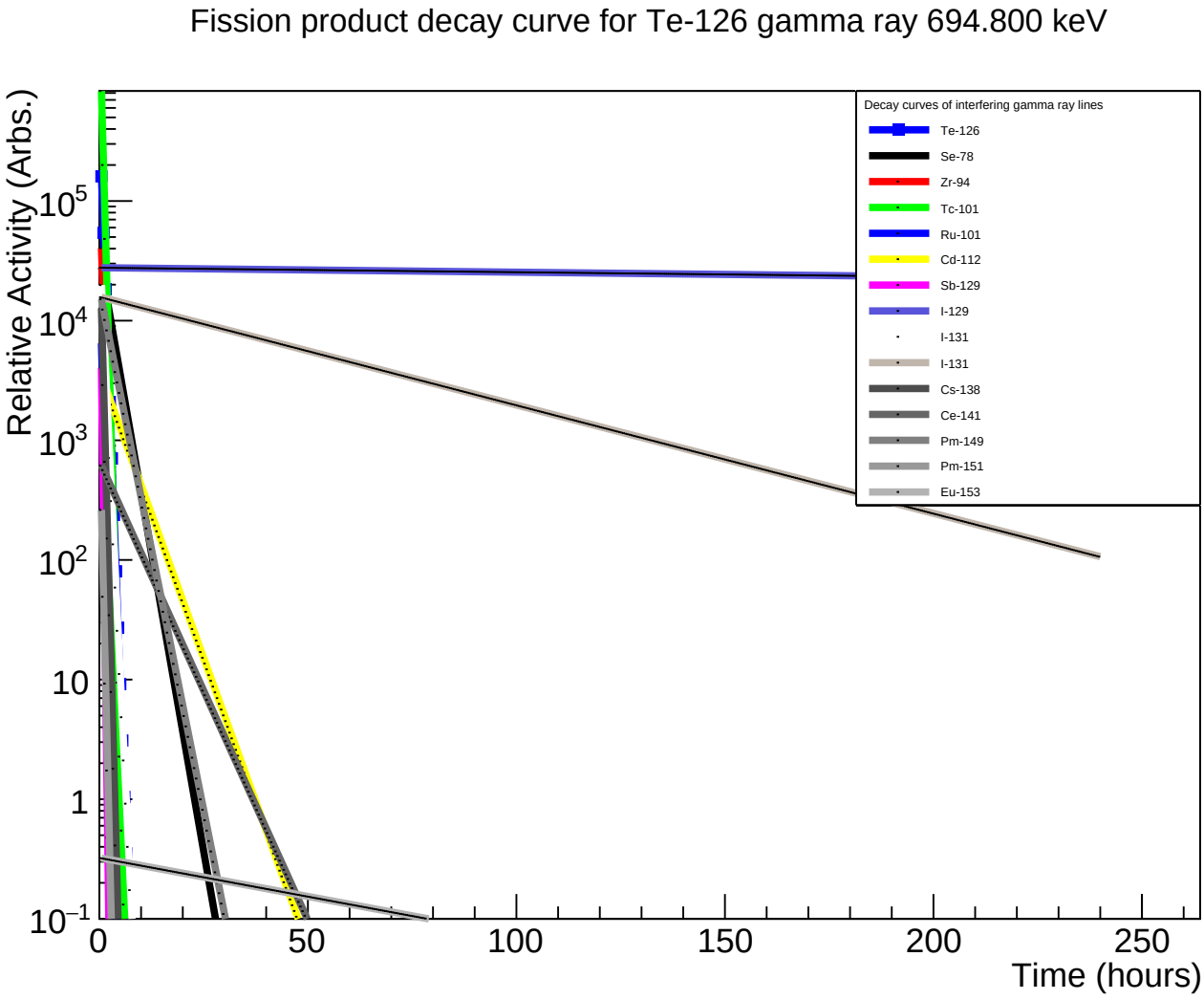


Figure 522: Te-126 decay curve for 694.800 keV gamma ray.

3.523 Sb-126 E_γ = 928.20 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 928.20 keV
Gamma Intensity = 1.29 ± 0.264 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1045: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1046: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	928.000	0.002	0.372	0.003
Sr-93	Y-93	927.690	0.006	0.124	0.062
Tc-101	Ru-101	928.720	0.001	0.237	0.052
Sn-127	Sb-127	929.700	0.003	2.100	0.001
Te-133	I-133	927.750	0.005	0.208	0.031
Te-133	I-133	928.000	0.001	0.208	0.031
I-132	Xe-132	927.400	0.004	2.295	0.043
Cs-139	Ba-139	929.180	0.002	0.155	0.063
Ba-141	La-141	929.500	0.007	0.304	0.058
Pr-146	Nd-146	928.100	0.002	0.403	0.030
Nd-149	Pm-149	929.200	0.000	1.728	0.011
Eu-156	Gd-156	928.800	0.000	364.560	0.000

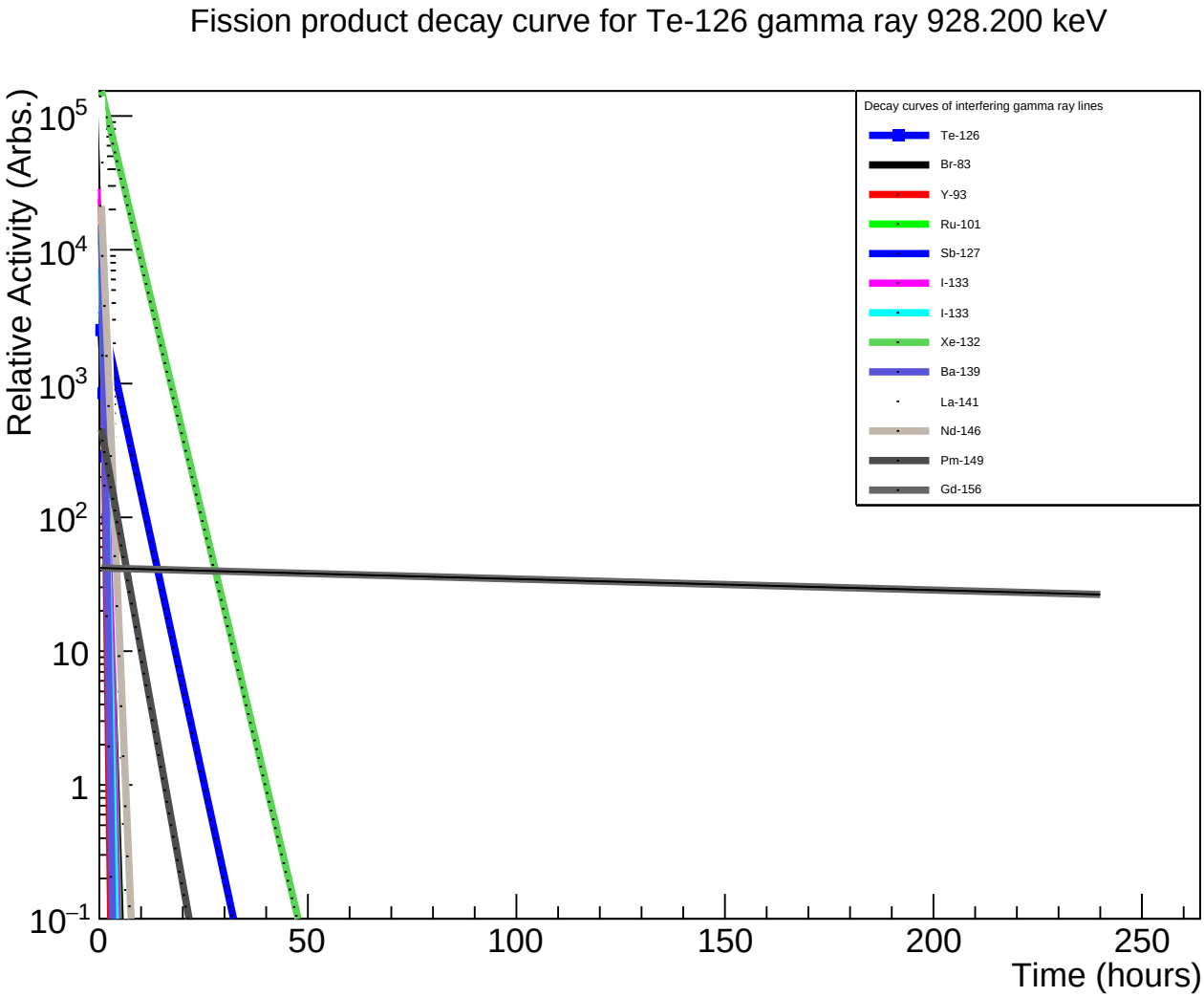


Figure 523: Te-126 decay curve for 928.200 keV gamma ray.

3.524 Sb-126 E_γ = 1034.90 keV

Chemical element: Antimony
Fission product parent: Sb-126
Gamma originates in daughter: Te-126
Eγ: 1034.90 keV
Gamma Intensity = 1.80 ± 0.191 %
$T_{1/2}$ = 0.319 ± 0.001 hours or 19.15 ± 0.08 minutes
CFY: 0.058 ± 0.005 %

Table 1047: Decay chain of fission product chain A = 126

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-126	Tin-126	0.000	0.000
Tin-126	Antimony-126	2016666624.000	122777784.000
Antimony-126	Tellurium-126	0.003	0.000

Table 1048: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1035.500	0.002	0.124	0.062
Nb-98	Mo-98	1035.500	0.000	0.855	0.000
Sn-127	Sb-127	1036.100	0.020	2.100	0.001
Te-131	I-131	1035.500	0.000	0.417	0.025
Te-131	I-131	1035.400	0.001	33.250	0.004
Te-133	I-133	1035.500	0.001	0.923	0.040
I-132	Xe-132	1035.000	0.005	2.295	0.043
I-133	Xe-133	1035.580	0.000	20.800	0.067
Ba-141	La-141	1034.300	0.002	0.304	0.058
Nd-151	Pm-151	1035.400	0.000	0.207	0.004
Nd-151	Pm-151	1036.160	0.002	0.207	0.004

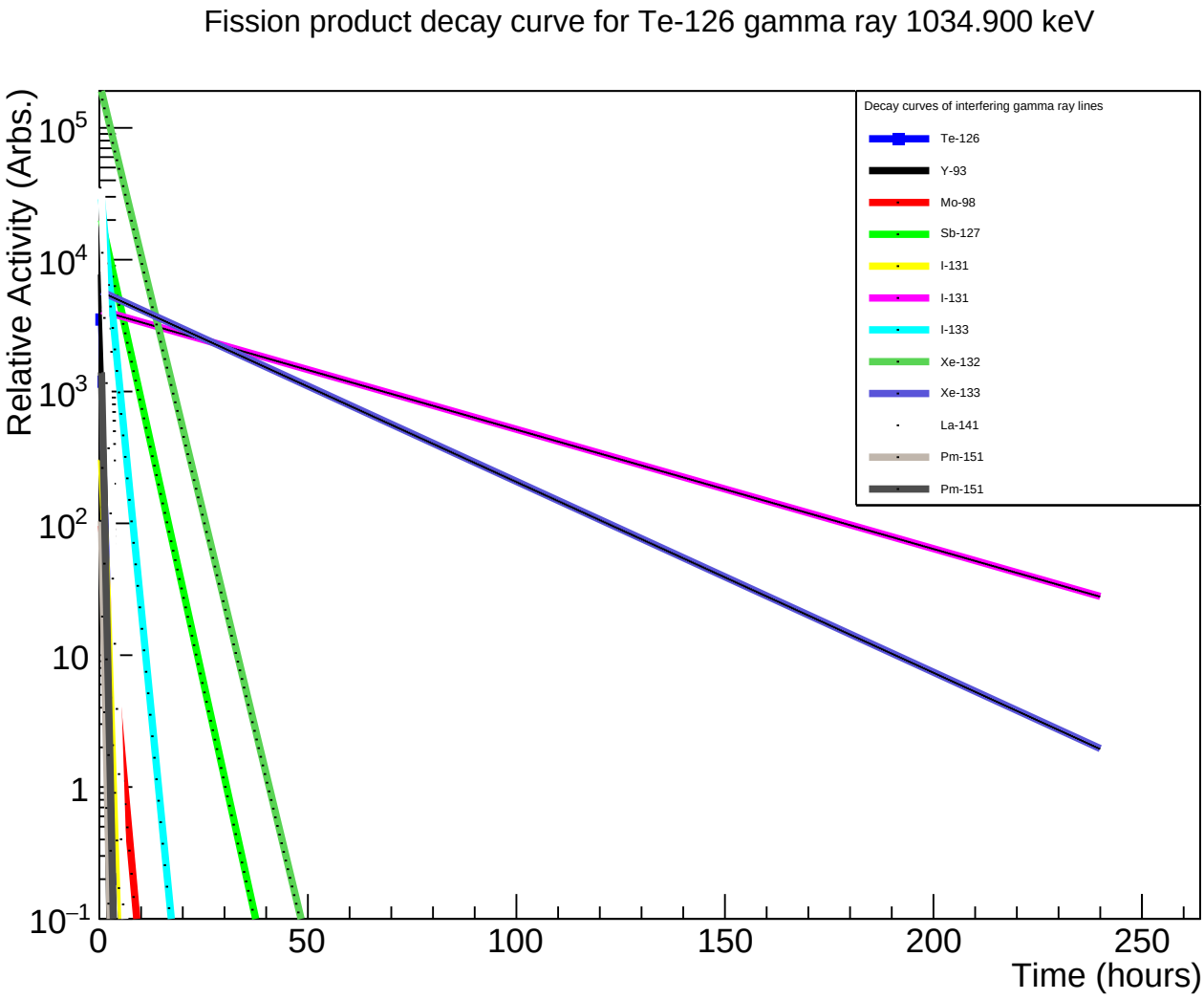


Figure 524: Te-126 decay curve for 1034.900 keV gamma ray.

3.525 Sb-127 E_γ = 61.10 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 61.10 keV
Gamma Intensity = 1.43 ± 0.215 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1049: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1050: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-103	Rh-103	62.410	0.000	941.928	0.030
Ru-105	Rh-105	62.390	0.001	4.440	0.010
Te-131	I-131	62.380	0.000	33.250	0.004
Pm-151	Sm-151	59.930	0.000	28.400	0.004
Pm-151	Sm-151	61.000	0.000	28.400	0.004
Sm-155	Eu-155	61.550	0.002	0.372	0.000
Eu-155	Gd-155	60.009	0.012	41666.668	0.000

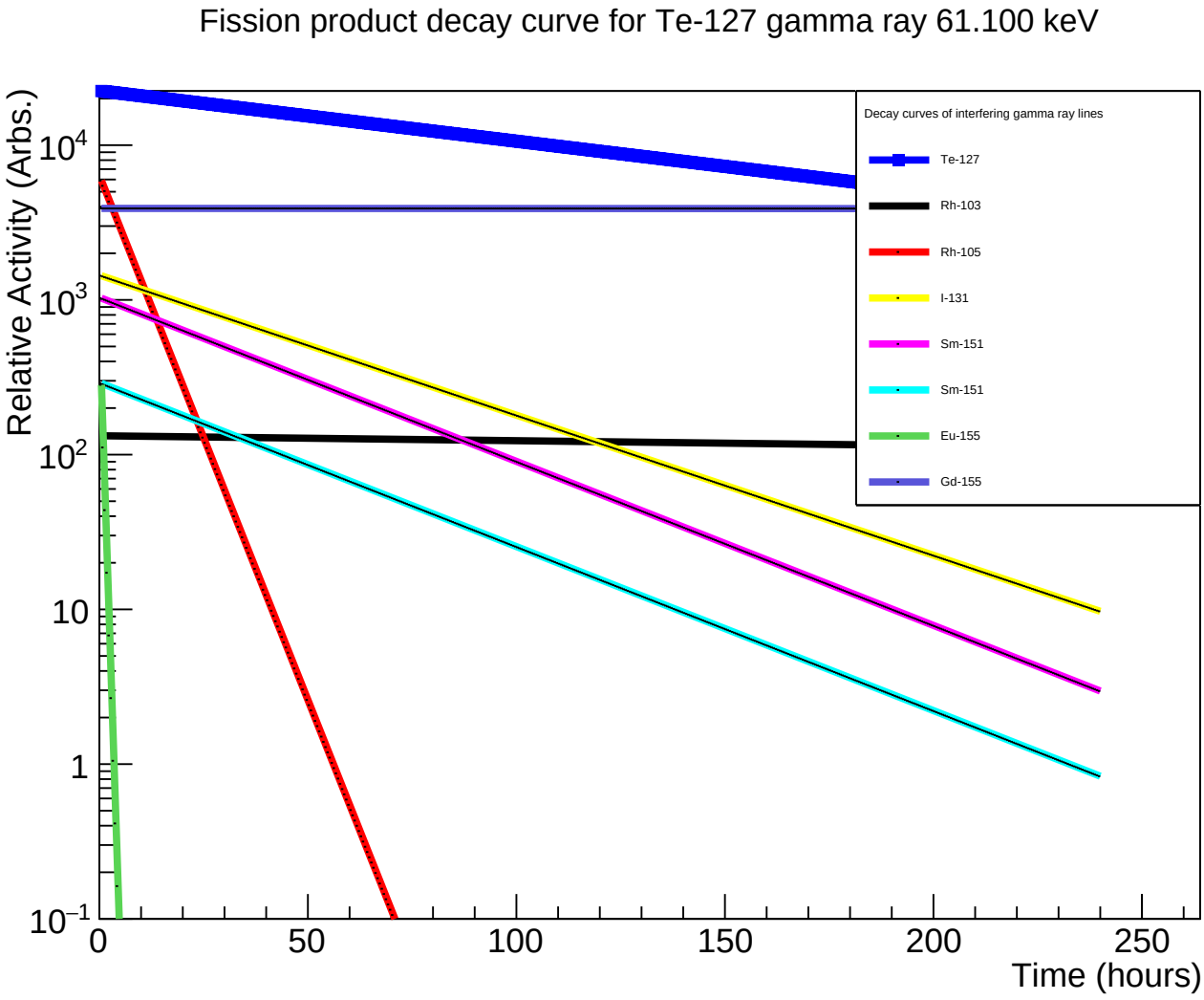


Figure 525: Te-127 decay curve for 61.100 keV gamma ray.

3.526 Sb-127 E_γ = 252.40 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 252.40 keV
Gamma Intensity = 8.50 ± 0.568 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1051: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1052: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	252.000	0.058	0.127	0.010
Cd-115	In-115	252.000	0.000	53.460	0.000
Te-131	I-131	253.170	0.006	33.250	0.004
Te-133	I-133	251.400	0.000	0.208	0.031
Te-133	I-133	251.510	0.003	0.923	0.040
Ba-142	La-142	253.700	0.005	0.177	0.058
Nd-151	Pm-151	252.230	0.001	0.207	0.004

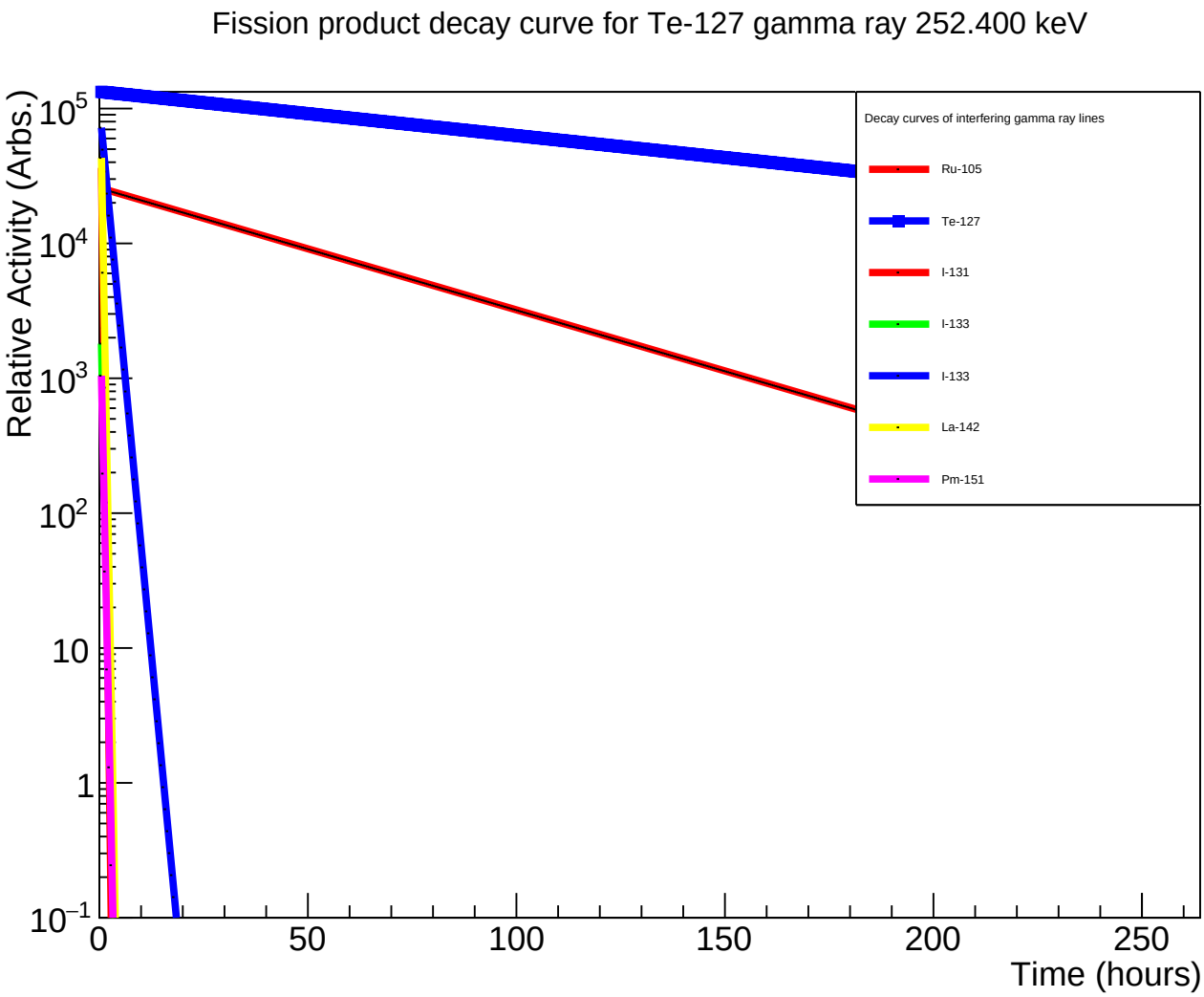


Figure 526: Te-127 decay curve for 252.400 keV gamma ray.

3.527 Sb-127 E_γ = 290.80 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 290.80 keV
Gamma Intensity = 2.02 ± 0.156 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1053: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1054: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	290.000	0.000	0.308	0.002
Se-81	Br-81	290.040	0.006	0.308	0.002
Rb-89	Sr-89	289.760	0.006	0.252	0.047
Pd-111	Ag-111	289.800	0.001	0.390	0.000
Te-131	I-131	290.300	0.001	33.250	0.004
I-135	Xe-135	290.270	0.003	6.570	0.063
Nd-149	Pm-149	290.374	0.001	1.728	0.011
Nd-151	Pm-151	292.150	0.001	0.207	0.004
Pm-151	Sm-151	290.750	0.008	28.400	0.004
Sm-156	Eu-156	291.000	0.027	9.400	0.000
Eu-156	Gd-156	290.490	0.000	364.560	0.000

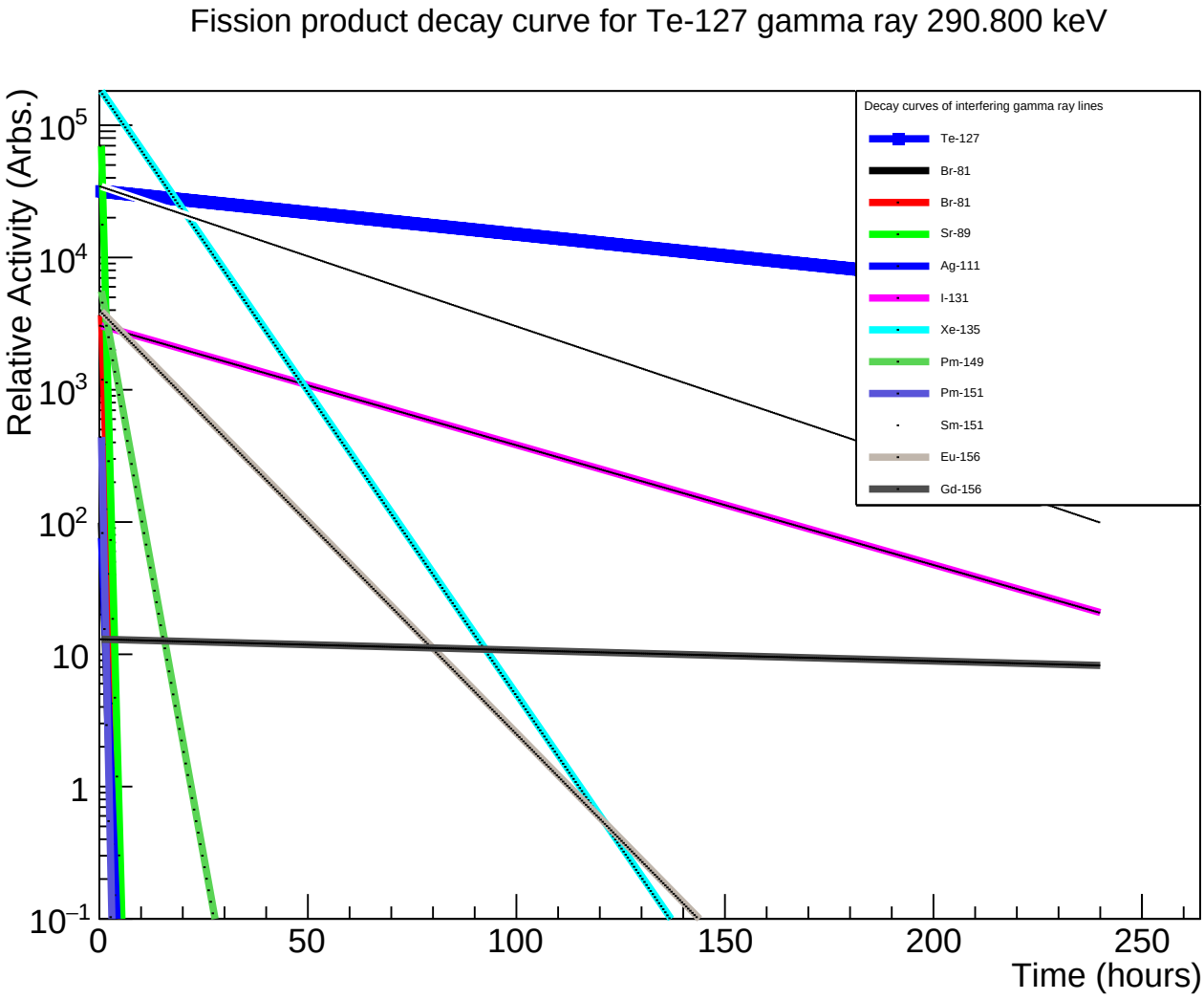


Figure 527: Te-127 decay curve for 290.800 keV gamma ray.

3.528 Sb-127 E_γ = 412.10 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 412.10 keV
Gamma Intensity = 3.83 ± 0.455 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1055: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1056: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	411.491	0.000	65.976	0.061
Tc-104	Ru-104	413.200	0.001	0.305	0.019
Ru-105	Rh-105	413.530	0.023	4.440	0.010
Pd-109	Ag-109	413.000	0.000	13.701	0.000
Ag-112	Cd-112	410.700	0.001	3.130	0.000
Te-133	I-133	413.200	0.006	0.923	0.040
I-134	Xe-134	411.000	0.006	0.875	0.078
Xe-138	Cs-138	412.800	0.001	0.235	0.063
Ba-142	La-142	412.700	0.001	0.177	0.058
Nd-151	Pm-151	413.500	0.000	0.207	0.004
Pm-151	Sm-151	410.750	0.001	28.400	0.004
Sm-153	Eu-153	412.050	0.000	46.500	0.002

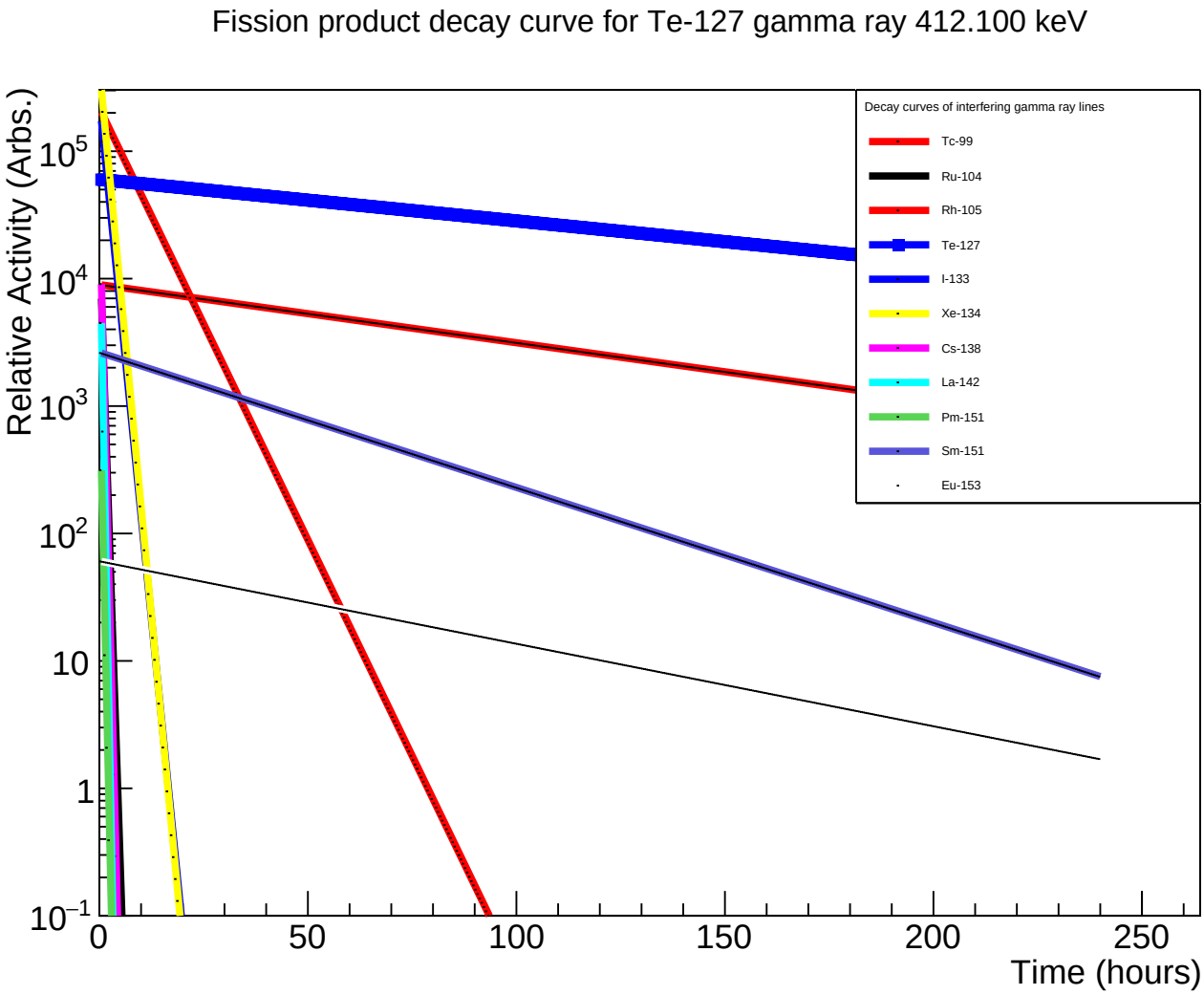


Figure 528: Te-127 decay curve for 412.100 keV gamma ray.

3.529 Sb-127 E_γ = 445.10 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 445.10 keV
Gamma Intensity = 4.34 ± 0.261 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1057: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1058: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	446.200	0.024	0.124	0.062
Nb-98	Mo-98	443.600	0.000	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Ru-103	Rh-103	443.810	0.003	941.928	0.030
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-149	Pm-149	443.700	0.000	1.728	0.011
Nd-151	Pm-151	444.700	0.000	0.207	0.004
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Pm-151	Sm-151	443.800	0.000	28.400	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

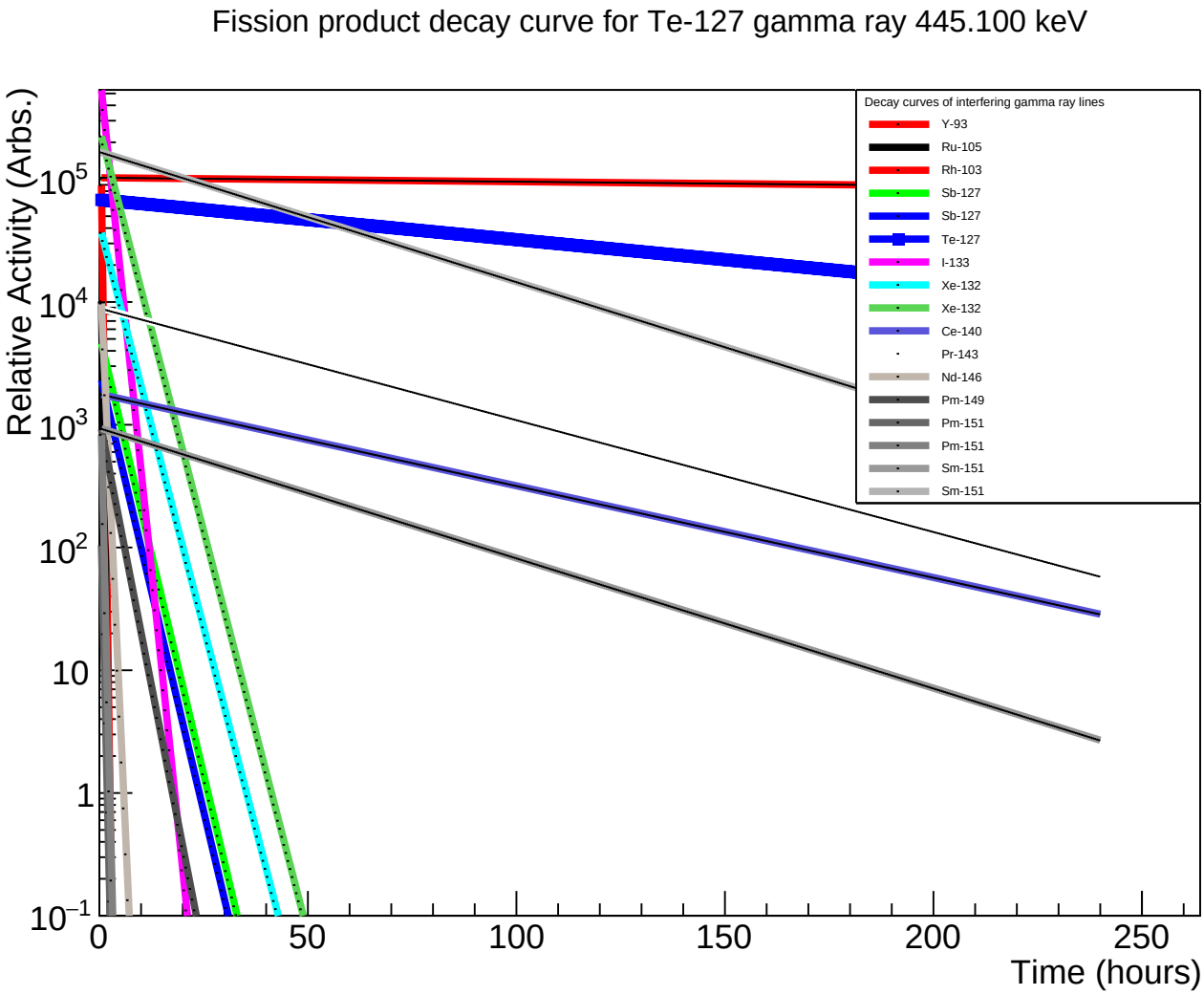


Figure 529: Te-127 decay curve for 445.100 keV gamma ray.

3.530 Sb-127 E_γ = 473.00 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 473.00 keV
Gamma Intensity = 25.80 ± 1.567 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1059: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1060: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	472.700	0.001	0.372	0.003
Kr-88	Rb-88	471.800	0.007	2.840	0.036
Zr-97	Nb-97	473.500	0.001	16.749	0.060
Tc-105	Ru-105	471.700	0.003	0.127	0.010
Te-133	I-133	471.870	0.008	0.923	0.040
I-132	Xe-132	473.600	0.002	2.295	0.043
Ba-142	La-142	473.400	0.004	0.177	0.058
Pm-151	Sm-151	473.800	0.000	28.400	0.004
Eu-156	Gd-156	472.700	0.001	364.560	0.000

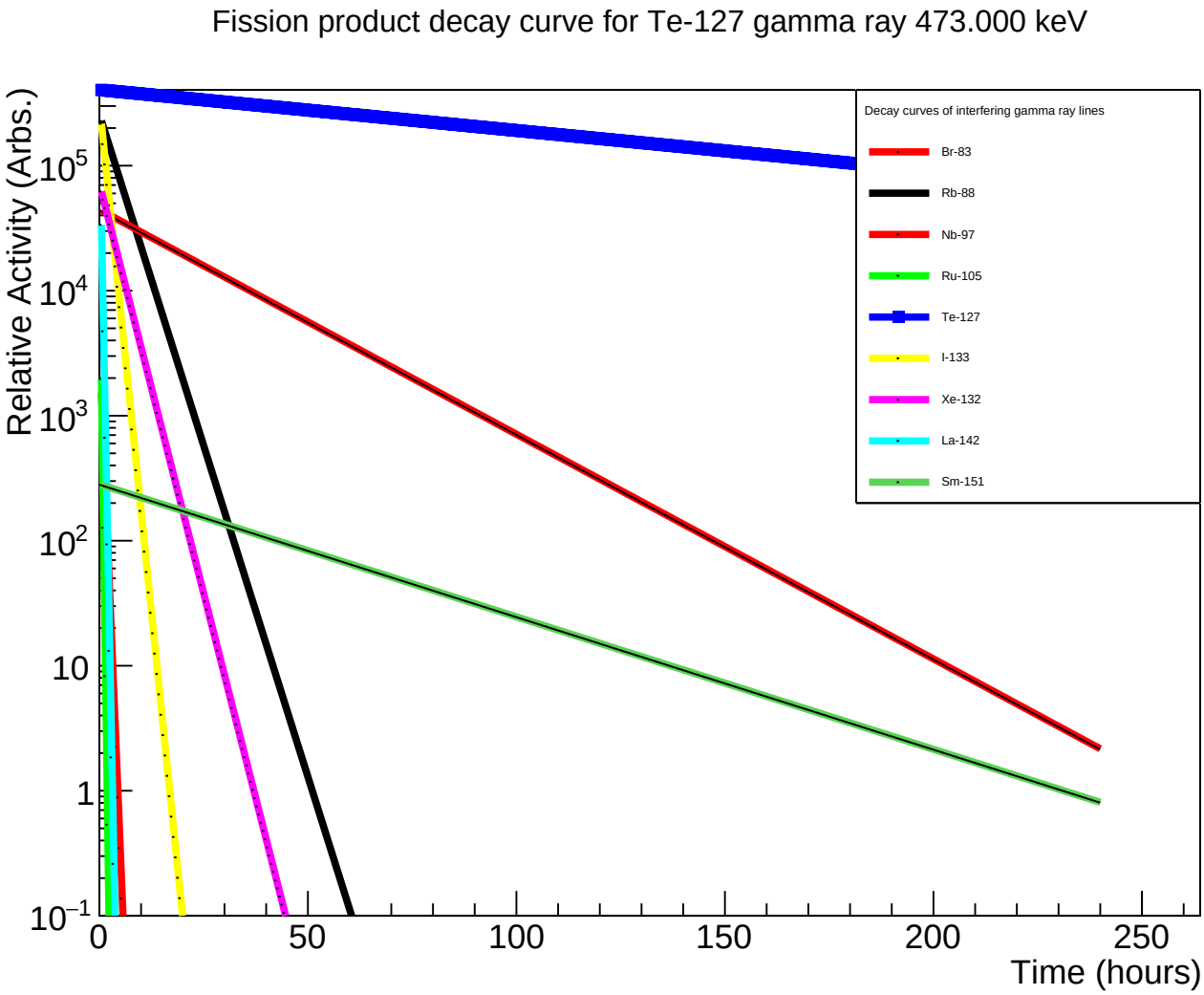


Figure 530: Te-127 decay curve for 473.000 keV gamma ray.

3.531 Sb-127 E_γ = 543.30 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 543.30 keV
Gamma Intensity = 2.94 ± 0.470 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1061: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1062: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	541.890	0.007	0.124	0.062
Nb-98	Mo-98	543.830	0.005	0.855	0.000
Nb-98	Mo-98	544.500	0.001	0.855	0.000
Tc-104	Ru-104	542.700	0.001	0.305	0.019
Tc-105	Ru-105	543.000	0.003	0.127	0.010
Sn-123	Sb-123	541.950	0.000	0.668	0.000
Te-133	I-133	543.500	0.001	0.208	0.031
Cs-139	Ba-139	542.710	0.000	0.155	0.063
Nd-147	Pm-147	541.830	0.000	263.520	0.022
Nd-151	Pm-151	542.060	0.005	0.207	0.004
Nd-151	Pm-151	544.610	0.001	0.207	0.004
Pm-149	Sm-149	544.270	0.000	53.080	0.011
Sm-153	Eu-153	542.700	0.000	46.500	0.002

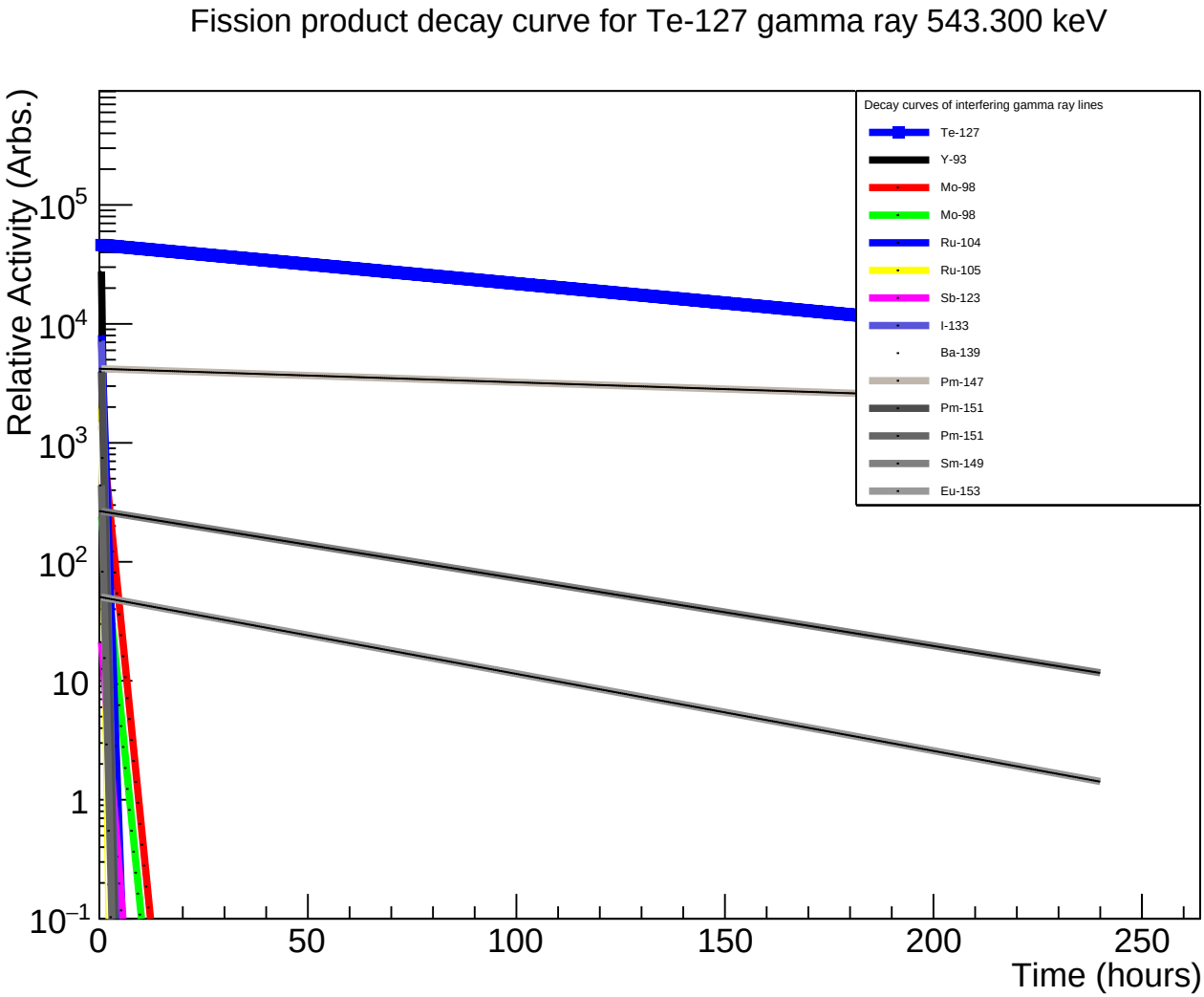


Figure 531: Te-127 decay curve for 543.300 keV gamma ray.

3.532 Sb-127 E_γ = 603.50 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 603.50 keV
Gamma Intensity = 4.45 ± 0.266 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1063: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1064: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	604.800	0.017	0.529	0.010
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Zr-97	Nb-97	602.370	0.014	16.749	0.060
Nb-98	Mo-98	603.280	0.005	0.855	0.000
Mo-101	Tc-101	602.980	0.001	0.243	0.052
Tc-105	Ru-105	604.600	0.011	0.127	0.010
Pd-109	Ag-109	602.500	0.000	13.701	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Te-131	I-131	602.039	0.042	0.417	0.025
Te-131	I-131	602.090	0.003	33.250	0.004
Te-133	I-133	602.100	0.000	0.923	0.040
Cs-139	Ba-139	604.220	0.000	0.155	0.063
Ba-142	La-142	604.300	0.004	0.177	0.058
Pr-147	Nd-147	604.500	0.005	0.223	0.022
Nd-151	Pm-151	602.400	0.000	0.207	0.004
Pm-151	Sm-151	603.000	0.000	28.400	0.004
Pm-151	Sm-151	604.000	0.000	28.400	0.004
Sm-153	Eu-153	603.600	0.000	46.500	0.002
Sm-155	Eu-155	603.800	0.000	0.372	0.000

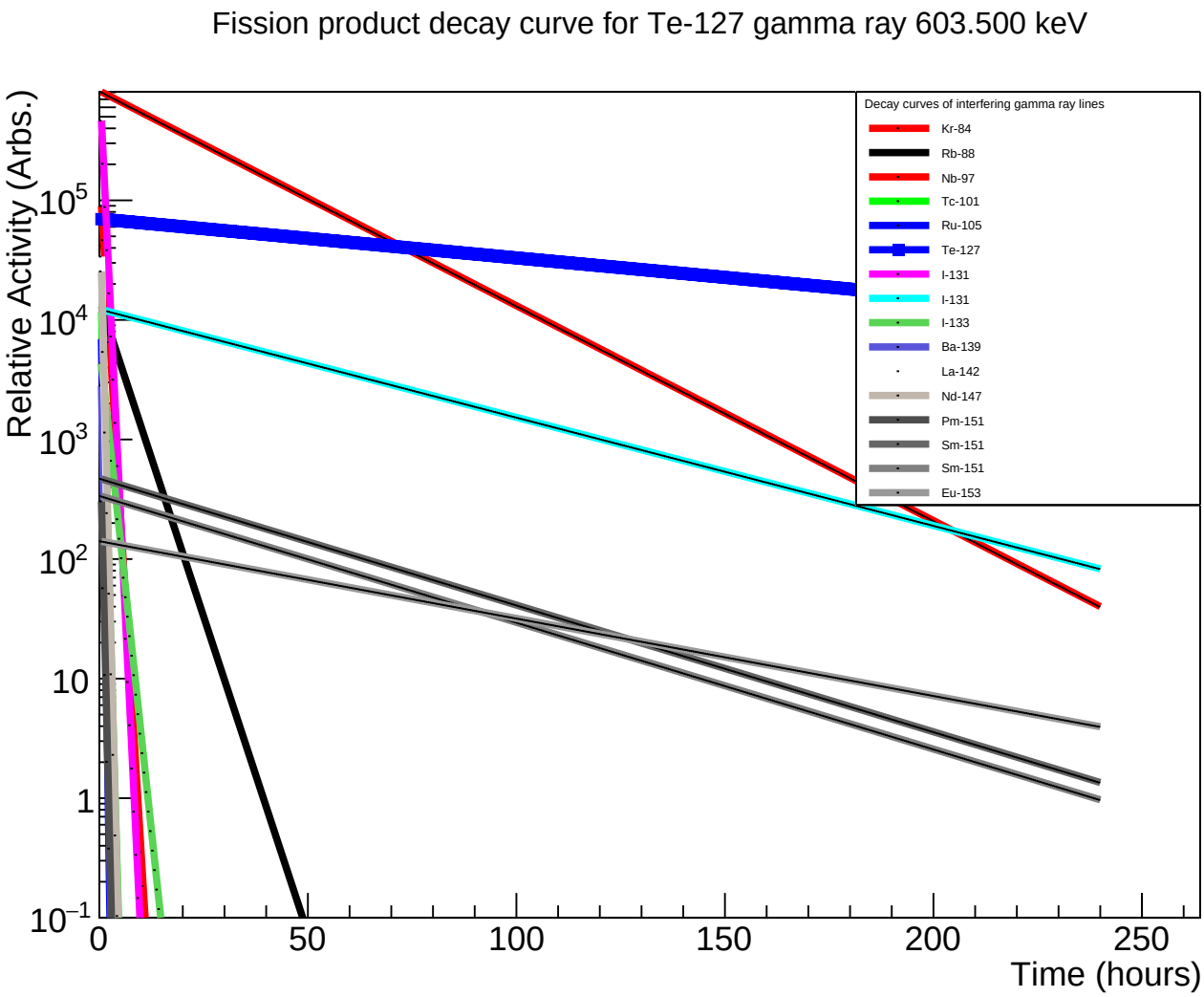


Figure 532: Te-127 decay curve for 603.500 keV gamma ray.

3.533 Sb-127 E_γ = 685.70 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 685.70 keV
Gamma Intensity = 36.80 ± 2.000 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1065: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1066: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	686.300	0.009	1.512	0.000
Mo-101	Tc-101	686.000	0.001	0.243	0.052
Pd-111	Ag-111	685.400	0.001	0.390	0.000
Te-131	I-131	685.900	0.001	33.250	0.004
I-132	Xe-132	684.400	0.000	2.295	0.043
I-135	Xe-135	684.600	0.000	6.570	0.063
Ba-141	La-141	685.400	0.002	0.304	0.058
Nd-147	Pm-147	685.900	0.009	263.520	0.022
Nd-149	Pm-149	686.943	0.001	1.728	0.011

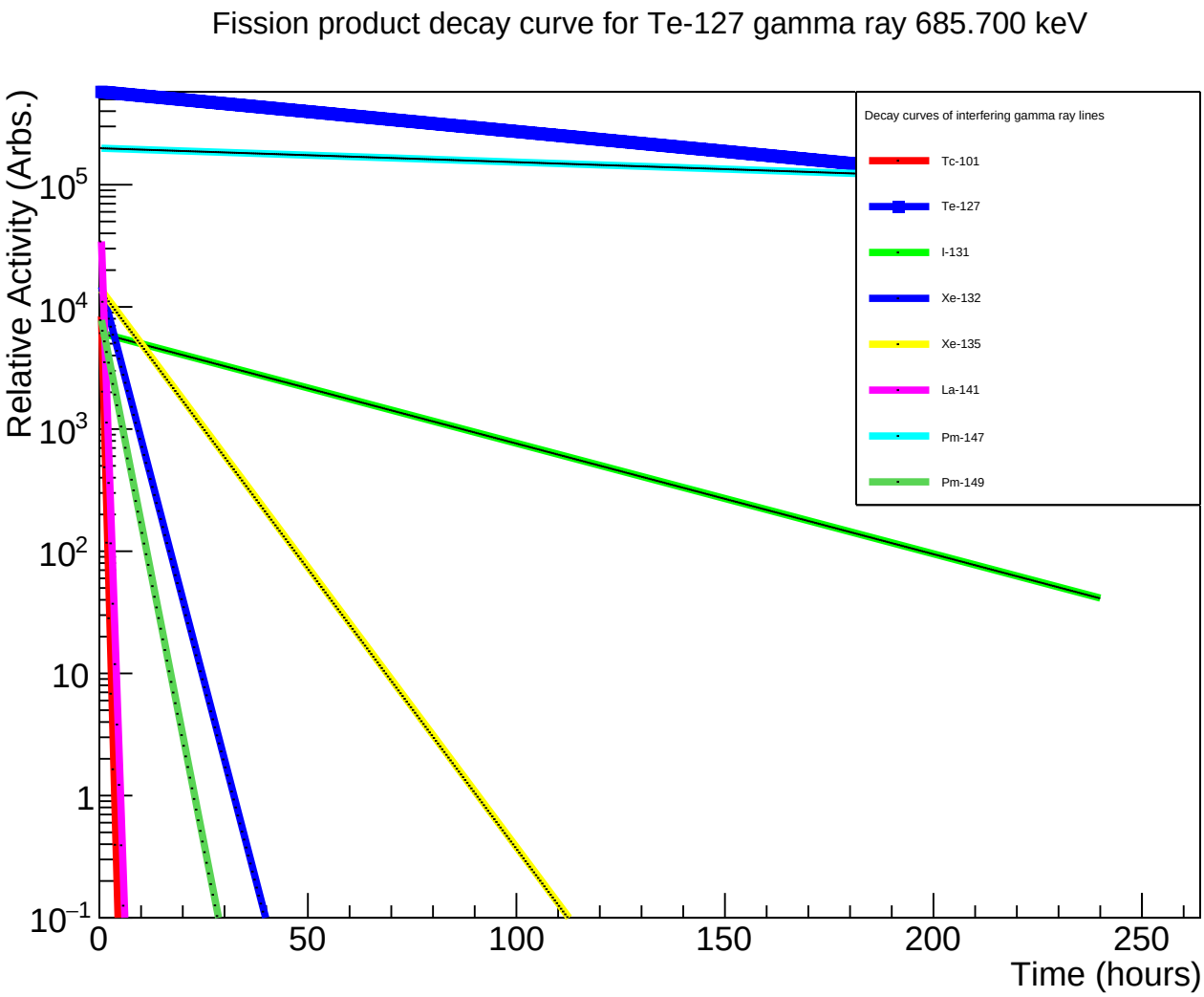


Figure 533: Te-127 decay curve for 685.700 keV gamma ray.

3.534 Sb-127 E_γ = 698.50 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 698.50 keV
Gamma Intensity = 3.64 ± 0.211 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1067: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1068: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	699.600	0.000	0.252	0.047
Zr-97	Nb-97	699.200	0.001	16.749	0.060
Nb-98	Mo-98	697.380	0.003	0.855	0.000
Tc-105	Ru-105	698.000	0.016	0.127	0.010
Te-133	I-133	698.100	0.009	0.923	0.040
Xe-138	Cs-138	697.600	0.000	0.235	0.063
Ba-140	La-140	699.890	0.000	306.065	0.062
Ba-141	La-141	698.800	0.004	0.304	0.058
Pm-151	Sm-151	699.000	0.000	28.400	0.004

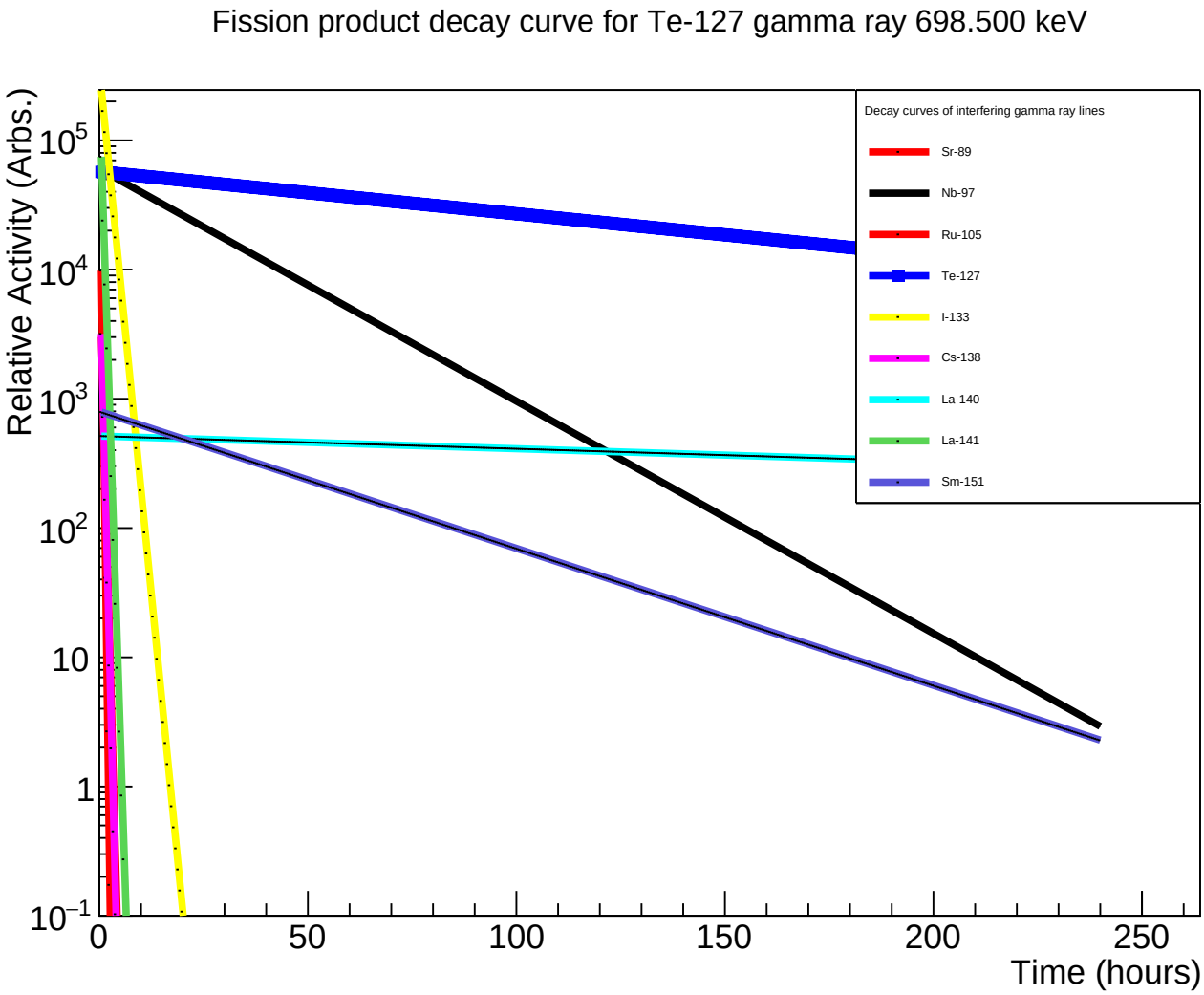


Figure 534: Te-127 decay curve for 698.500 keV gamma ray.

3.535 Sb-127 E_γ = 722.20 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 722.20 keV
Gamma Intensity = 1.88 ± 0.150 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1069: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1070: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	722.400	0.001	1.512	0.000
As-79	Se-79	723.600	0.001	0.150	0.000
Nb-98	Mo-98	722.626	0.738	0.855	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Te-129	I-129	722.500	0.000	1.160	0.005
Te-133	I-133	722.000	0.000	0.208	0.031
Te-133	I-133	723.500	0.003	0.923	0.040
I-131	Xe-131	722.911	0.018	192.605	0.029
Ce-143	Pr-143	721.929	0.054	33.039	0.060
Eu-156	Gd-156	723.470	0.054	364.560	0.000

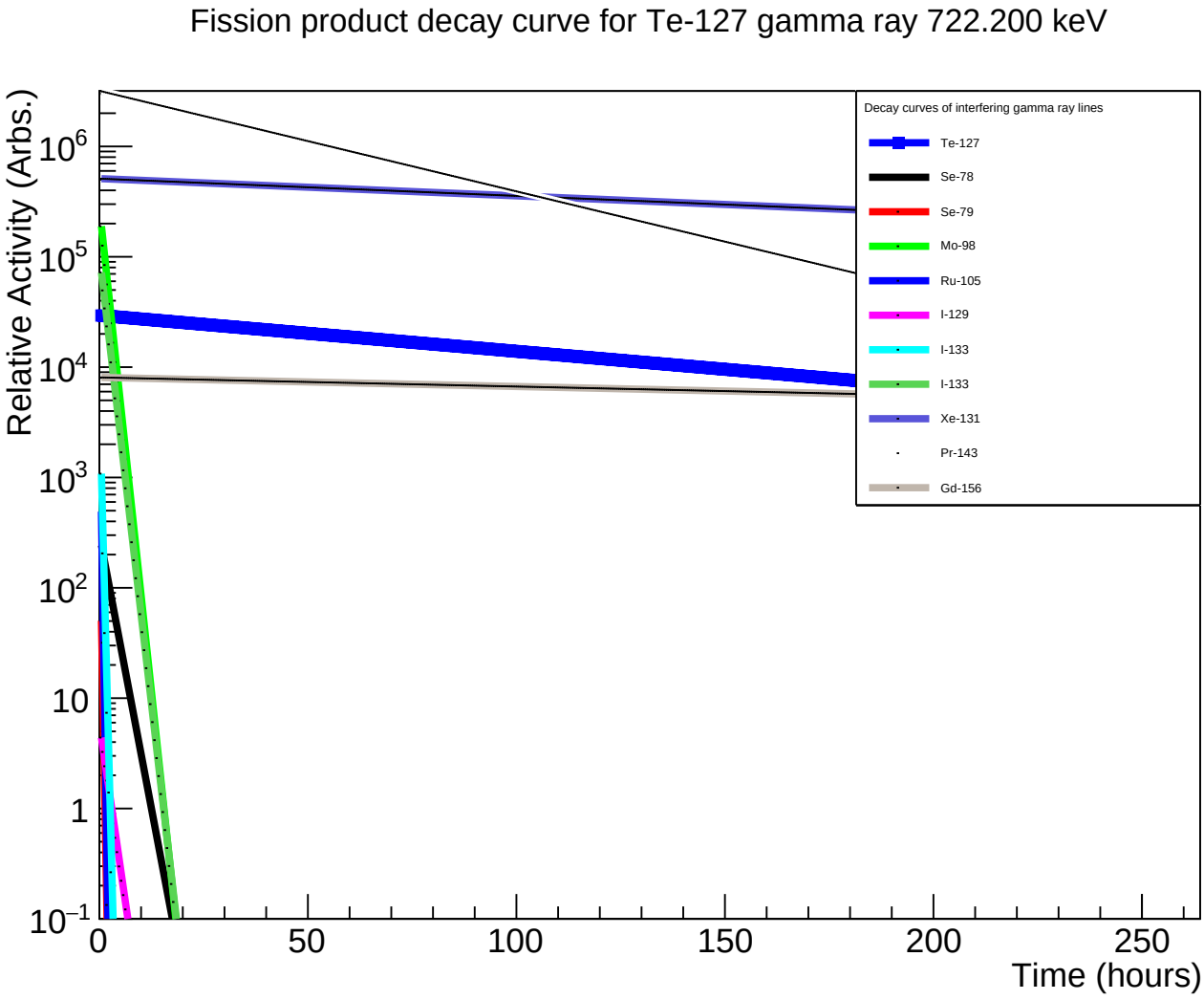


Figure 535: Te-127 decay curve for 722.200 keV gamma ray.

3.536 Sb-127 E_γ = 783.70 keV

Chemical element: Antimony
Fission product parent: Sb-127
Gamma originates in daughter: Te-127
Eγ: 783.70 keV
Gamma Intensity = 15.12 ± 0.886 %
$T_{1/2}$ = 92.400 ± 1.200 hours or 5544.00 ± 72.00 minutes
CFY: 0.157 ± 0.006 %

Table 1071: Decay chain of fission product chain A = 127

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-127	Tin-127	0.000	0.000
Tin-127	Antimony-127	2.100	0.040
Antimony-127	Tellurium-127	92.400	1.200
Tellurium-127	Iodine-127	9.350	0.070

Table 1072: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	782.830	0.002	0.124	0.062
Ag-112	Cd-112	784.600	0.000	3.130	0.000
Sn-129	Sb-129	782.480	0.140	0.115	0.002
Te-131	I-131	782.490	0.075	33.250	0.004
I-132	Xe-132	784.400	0.004	2.295	0.043
Ba-141	La-141	783.600	0.000	0.304	0.058
Nd-151	Pm-151	783.400	0.000	0.207	0.004
Pm-151	Sm-151	785.100	0.002	28.400	0.004
Eu-156	Gd-156	784.140	0.000	364.560	0.000

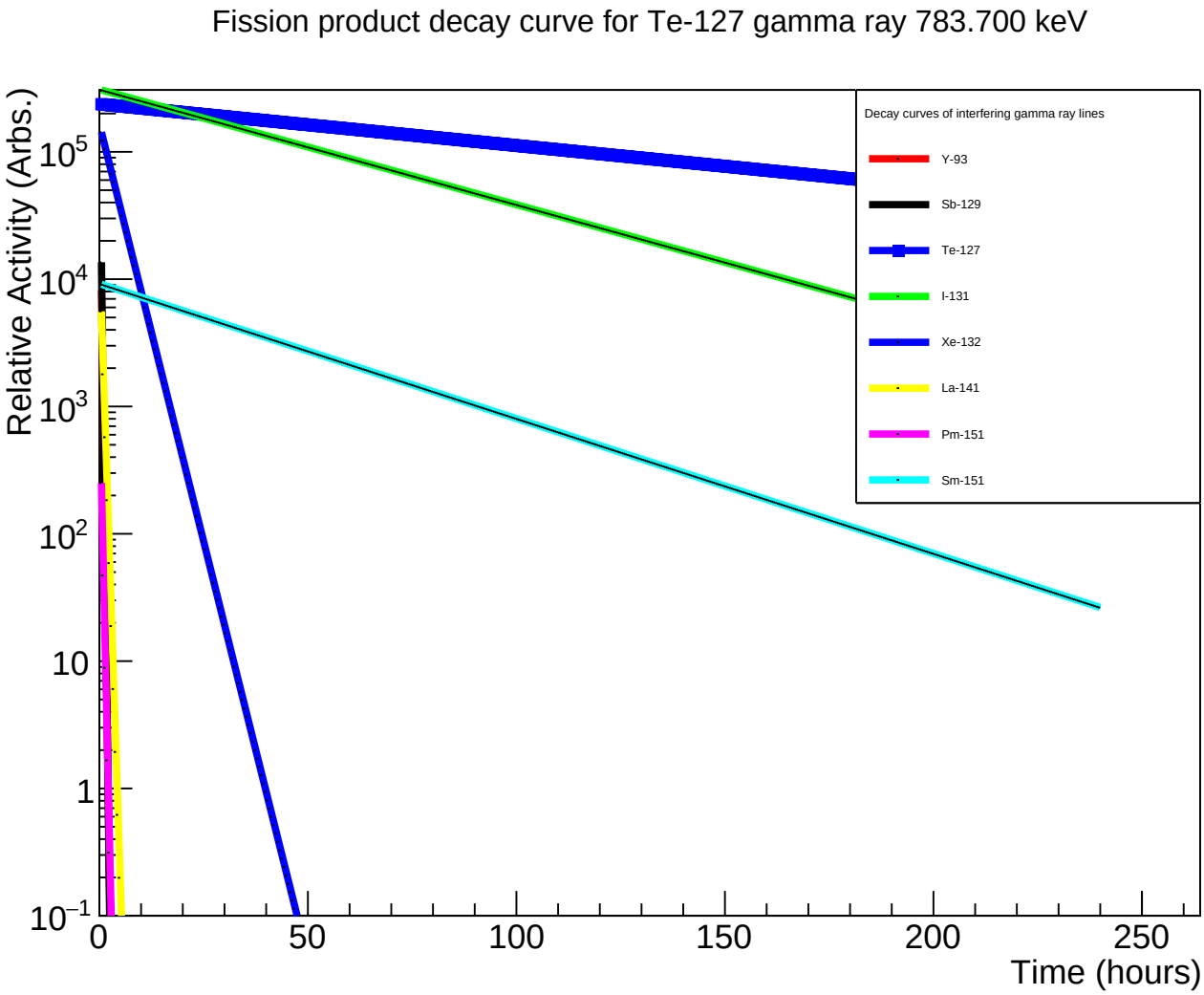


Figure 536: Te-127 decay curve for 783.700 keV gamma ray.

3.537 Sb-128 E_γ = 227.30 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 227.30 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1073: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1074: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	226.000	0.000	3.130	0.000
Sn-127	Sb-127	228.400	0.002	2.100	0.001
Te-131	I-131	227.700	0.000	33.250	0.004
Te-132	I-132	228.160	0.880	76.896	0.043
Cs-138	Ba-138	227.760	0.015	0.557	0.067
Nd-149	Pm-149	226.847	0.002	1.728	0.011
Pm-151	Sm-151	227.180	0.003	28.400	0.004
Pm-151	Sm-151	227.810	0.000	28.400	0.004
Sm-155	Eu-155	228.700	0.001	0.372	0.000

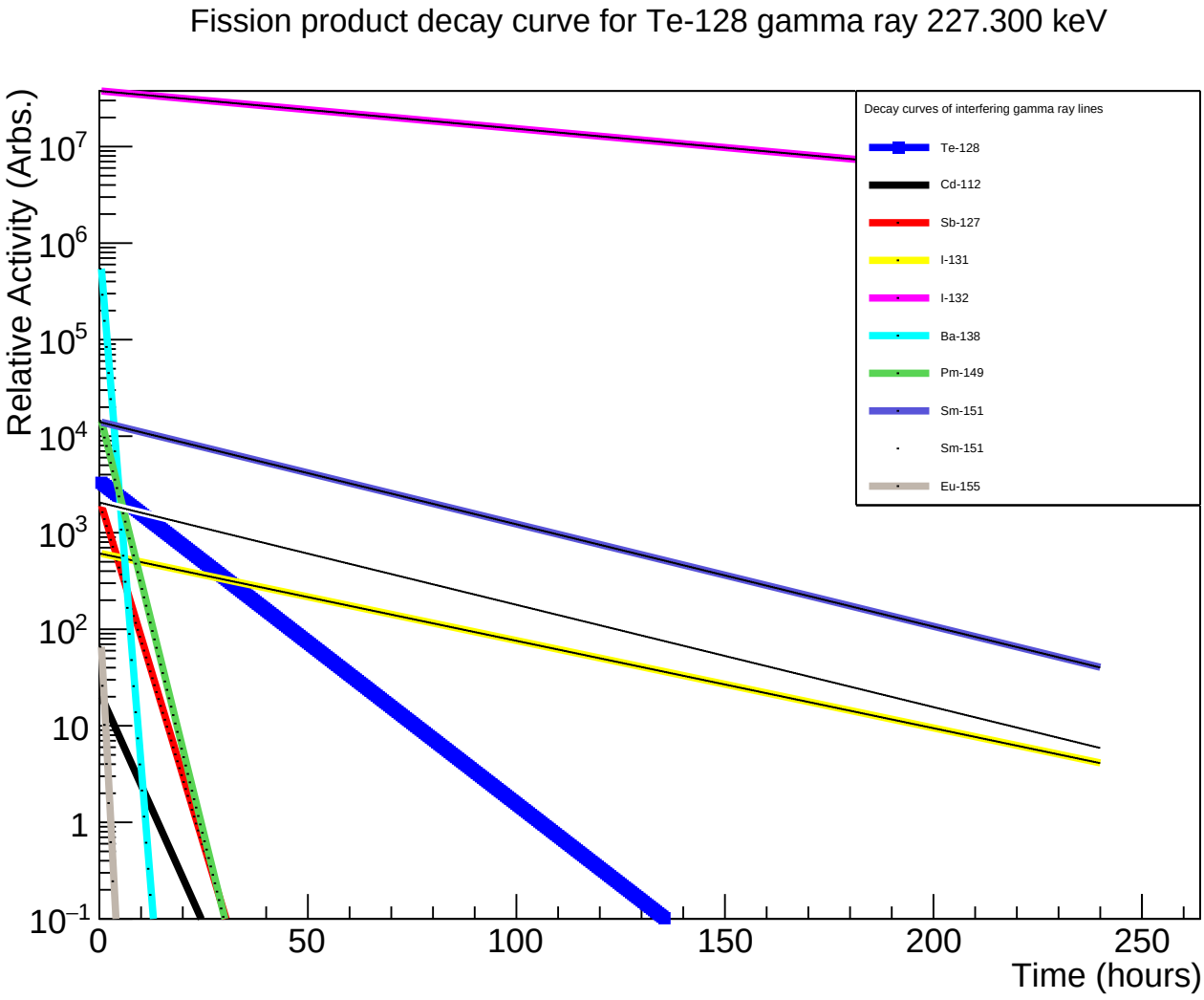


Figure 537: Te-128 decay curve for 227.300 keV gamma ray.

3.538 Sb-128 E_γ = 314.10 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 314.10 keV
Gamma Intensity = 61.00 ± 4.278 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1075: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1076: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	315.000	0.000	0.855	0.000
Tc-104	Ru-104	314.700	0.002	0.305	0.019
Tc-105	Ru-105	314.700	0.007	0.127	0.010
Te-133	I-133	314.240	0.004	0.923	0.040
Pr-147	Nd-147	314.700	0.175	0.223	0.022
Nd-151	Pm-151	312.630	0.002	0.207	0.004
Nd-152	Pm-152	314.400	0.001	0.190	0.003
Pm-151	Sm-151	314.920	0.001	28.400	0.004
Pm-151	Sm-151	315.100	0.000	28.400	0.004

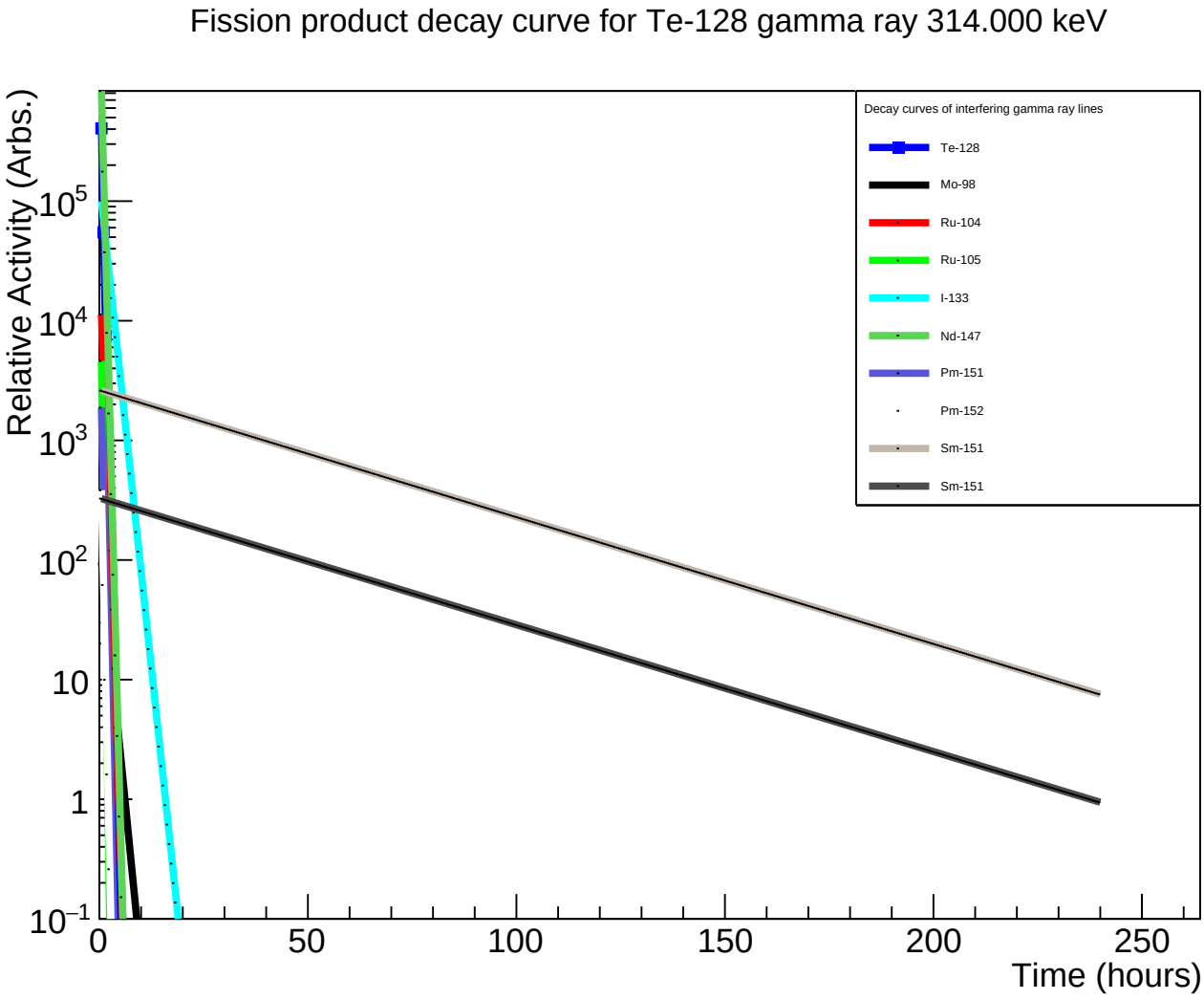


Figure 538: Te-128 decay curve for 314.100 keV gamma ray.

3.539 Sb-128 E_γ = 317.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 317.70 keV
Gamma Intensity = 3.00 ± 1.011 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1077: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1078: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	318.000	0.002	0.243	0.052
Ru-103	Rh-103	317.720	0.000	941.928	0.030
Ru-105	Rh-105	316.440	0.111	4.440	0.010
Pd-111	Ag-111	316.800	0.000	0.390	0.000
Ag-113	Cd-113	316.300	0.013	5.370	0.000
Te-133	I-133	318.800	0.002	0.923	0.040
I-131	Xe-131	318.088	0.001	192.605	0.029
I-132	Xe-132	316.700	0.001	2.295	0.043
La-142	Ce-142	318.000	0.000	1.518	0.058
Ce-146	Pr-146	316.740	0.562	0.225	0.030
Pr-145	Nd-145	318.666	0.000	5.984	0.039
Nd-149	Pm-149	318.200	0.000	1.728	0.011
Nd-151	Pm-151	316.560	0.000	0.207	0.004
Eu-156	Gd-156	317.300	0.001	364.560	0.000

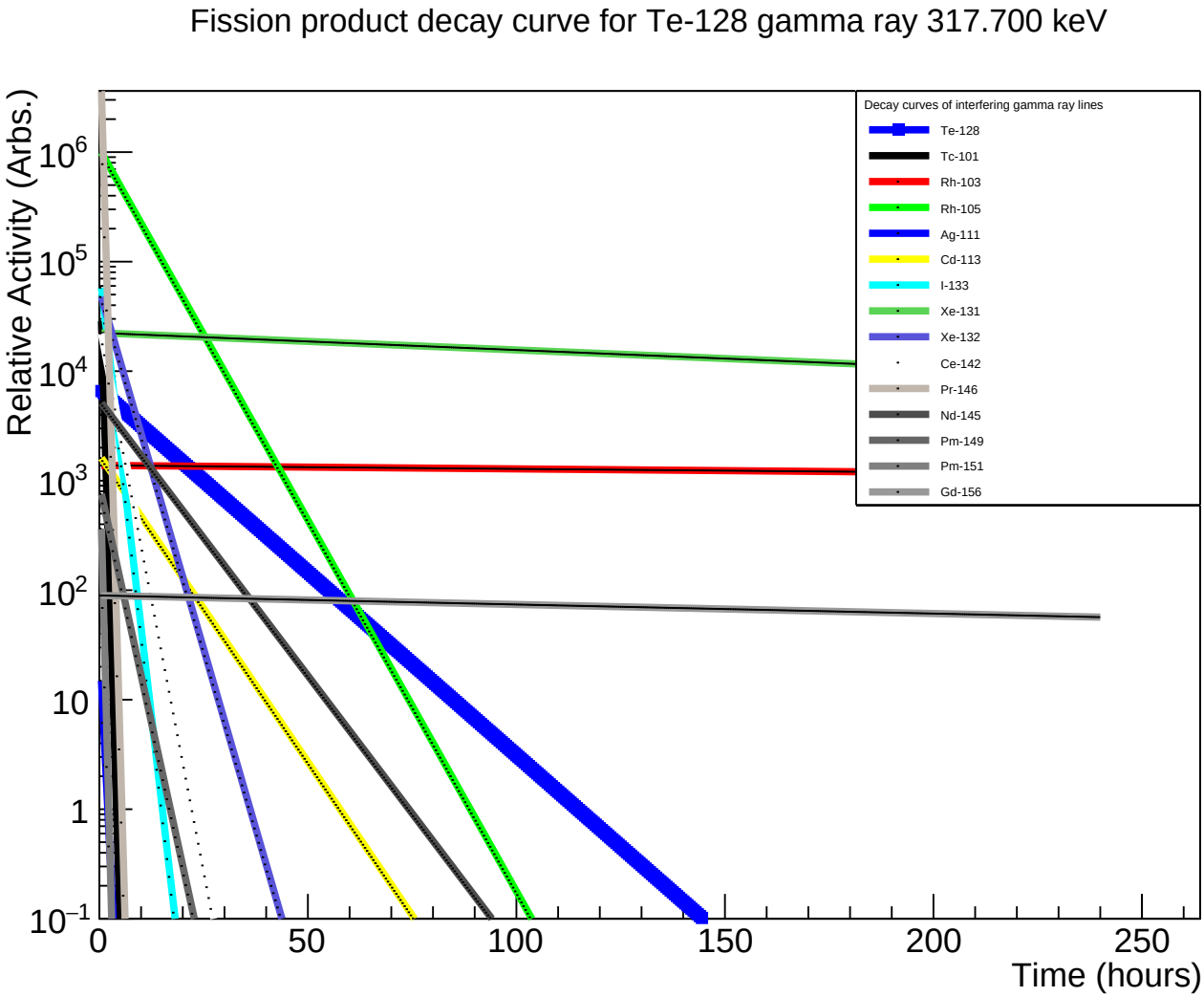


Figure 539: Te-128 decay curve for 317.700 keV gamma ray.

3.540 Sb-128 E_γ = 322.30 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 322.30 keV
Gamma Intensity = 3.00 ± 1.011 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1079: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1080: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	322.000	0.002	0.372	0.003
Tc-99	Ru-99	322.400	0.000	6.007	0.054
Tc-101	Ru-101	322.010	0.000	0.237	0.052
Tc-105	Ru-105	321.500	0.111	0.127	0.010
Tc-105	Ru-105	322.300	0.016	0.127	0.010
Rh-107	Pd-107	321.840	0.023	0.362	0.001
Te-133	I-133	322.400	0.001	0.923	0.040
Ba-141	La-141	321.500	0.000	0.304	0.058
Nd-151	Pm-151	321.060	0.002	0.207	0.004
Nd-151	Pm-151	323.800	0.000	0.207	0.004
Pm-151	Sm-151	321.870	0.001	28.400	0.004

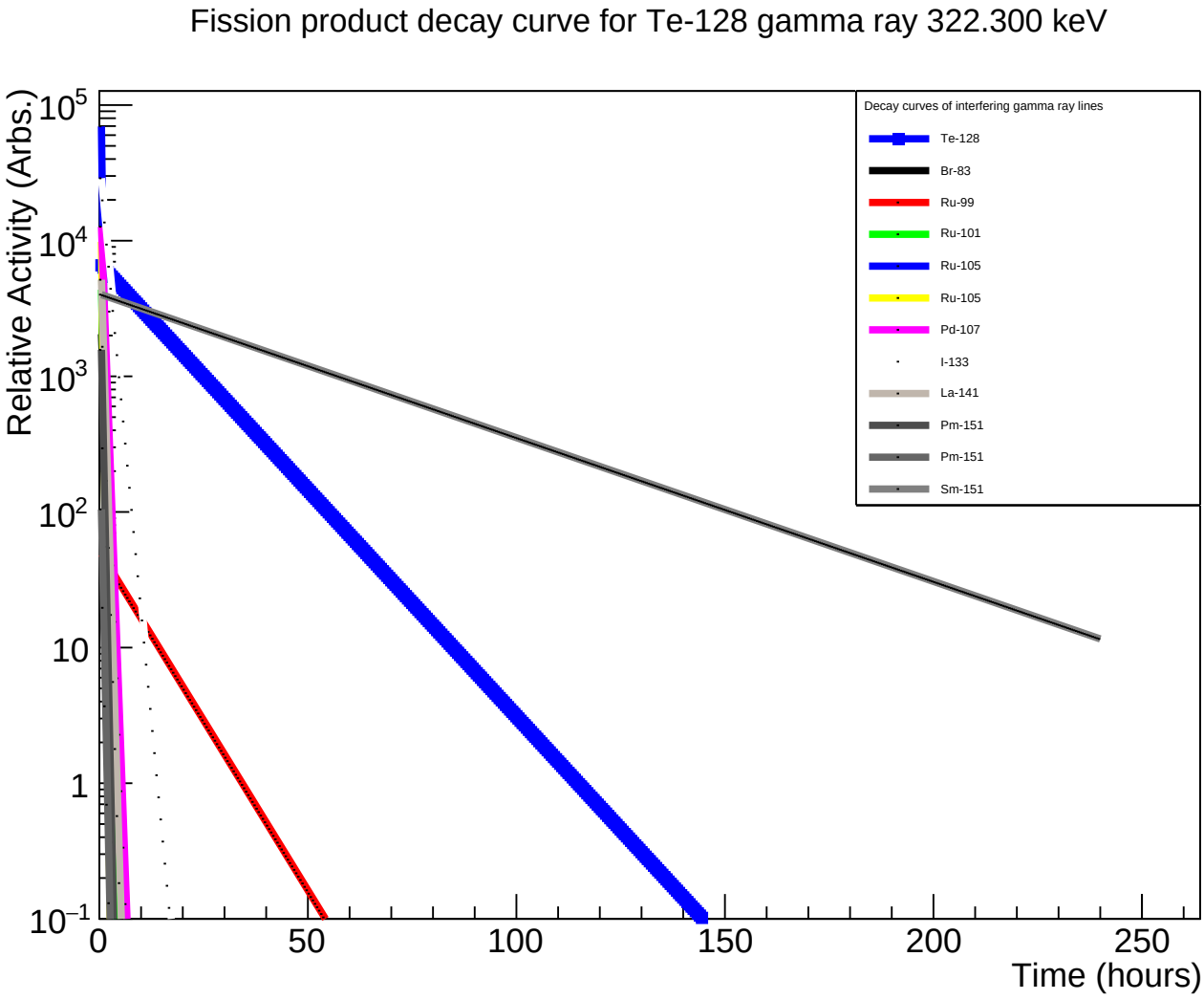


Figure 540: Te-128 decay curve for 322.300 keV gamma ray.

3.541 Sb-128 E_γ = 357.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 357.00 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1081: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1082: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	356.700	0.700	0.372	0.003
Mo-101	Tc-101	358.200	0.000	0.243	0.052
Tc-104	Ru-104	358.000	0.890	0.305	0.019
Tc-105	Ru-105	358.300	0.025	0.127	0.010
Tc-105	Ru-105	358.400	0.006	0.127	0.010
Ru-103	Rh-103	357.382	0.000	941.928	0.030
Rh-107	Pd-107	357.840	0.004	0.362	0.001
Ag-112	Cd-112	355.900	0.000	3.130	0.000
Sn-127	Sb-127	357.000	0.002	2.100	0.001
Te-131	I-131	357.400	0.000	33.250	0.004
I-131	Xe-131	358.400	0.000	192.605	0.029
Xe-135	Cs-135	358.390	0.002	9.140	0.065
Cs-139	Ba-139	357.010	0.000	0.155	0.063
Ba-142	La-142	356.800	0.001	0.177	0.058
Ce-143	Pr-143	357.800	0.000	33.039	0.060
Nd-149	Pm-149	357.030	0.000	1.728	0.011
Nd-149	Pm-149	358.490	0.000	1.728	0.011
Nd-151	Pm-151	357.000	0.004	0.207	0.004
Pm-151	Sm-151	356.900	0.000	28.400	0.004
Pm-151	Sm-151	358.400	0.000	28.400	0.004

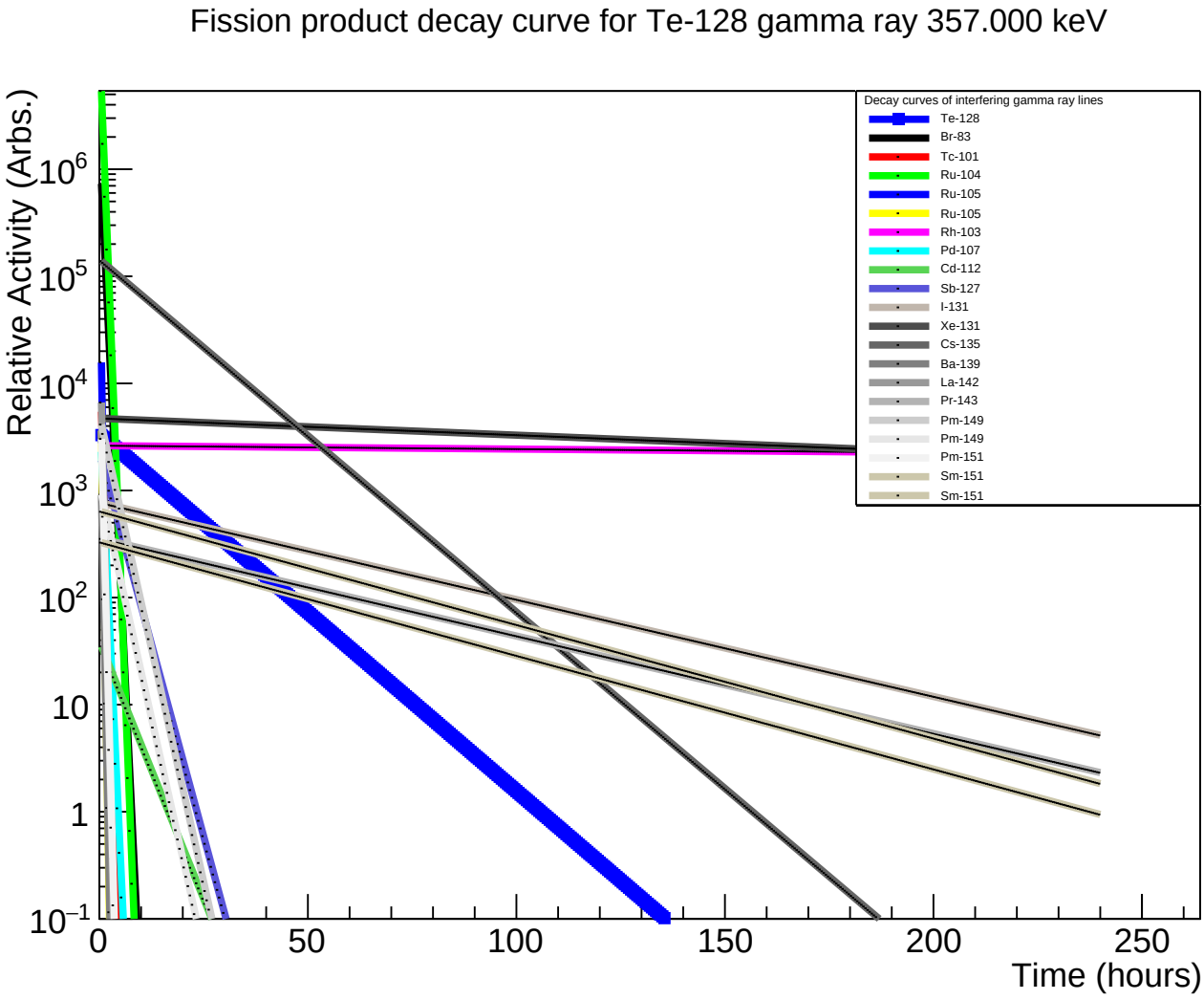


Figure 541: Te-128 decay curve for 357.000 keV gamma ray.

3.542 Sb-128 E_γ = 366.10 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 366.10 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1083: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1084: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	366.421	0.012	65.976	0.061
Rh-107	Pd-107	367.310	0.019	0.362	0.001
Sn-127	Sb-127	365.500	0.002	2.100	0.001
Te-131	I-131	364.980	0.012	33.250	0.004
Cs-138	Ba-138	365.290	0.002	0.557	0.067
La-142	Ce-142	367.300	0.001	1.518	0.058
Pr-145	Nd-145	364.810	0.000	5.984	0.039
Nd-149	Pm-149	366.634	0.005	1.728	0.011
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-151	Pm-151	366.900	0.000	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

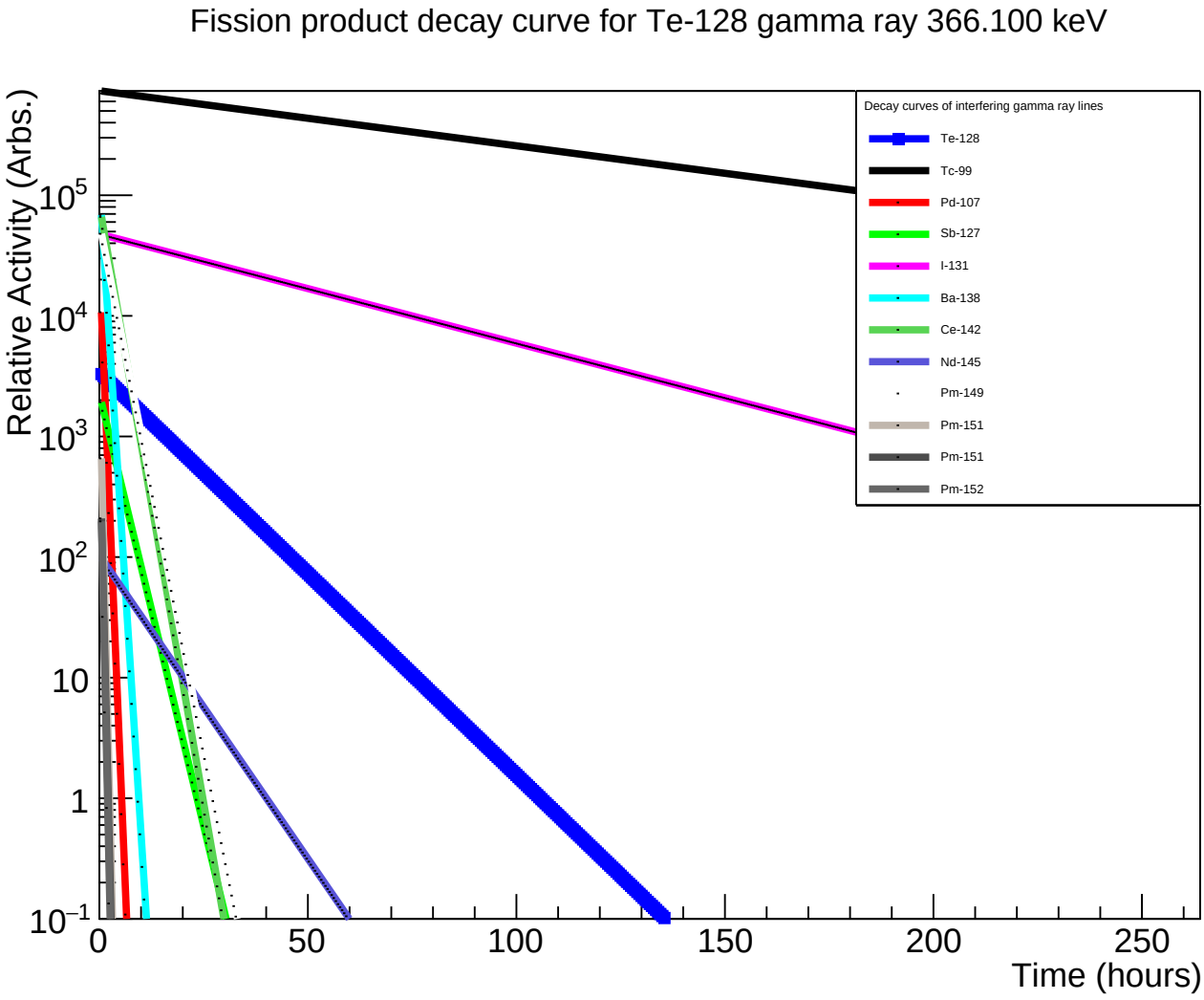


Figure 542: Te-128 decay curve for 366.100 keV gamma ray.

3.543 Sb-128 E_γ = 445.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 445.70 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1085: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1086: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	446.800	0.003	0.150	0.000
Br-84	Kr-84	447.000	0.030	0.100	0.000
Sr-93	Y-93	446.200	0.024	0.124	0.062
Nb-98	Mo-98	446.910	0.004	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-151	Pm-151	444.700	0.000	0.207	0.004
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Nd-151	Pm-151	446.880	0.002	0.207	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

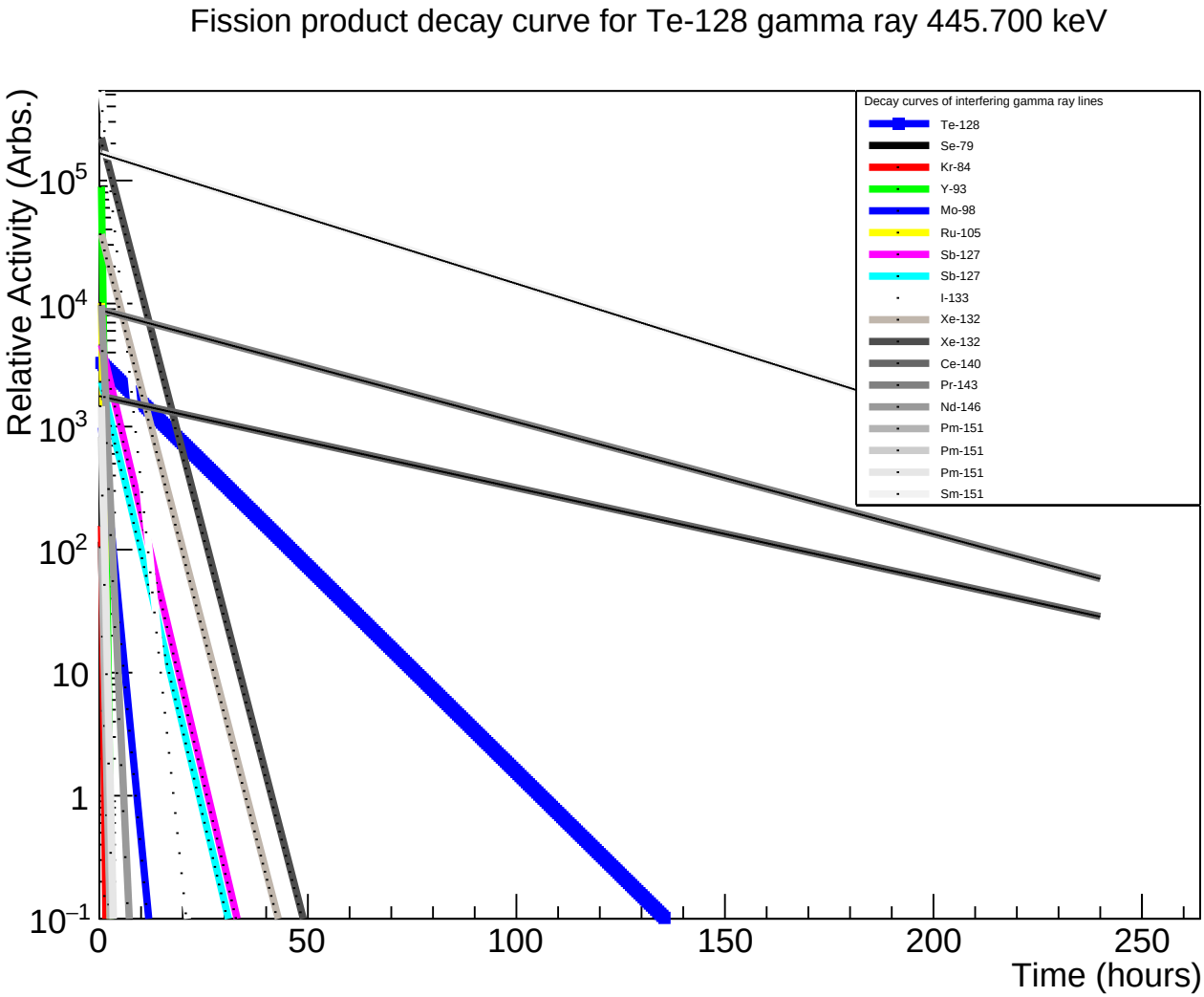


Figure 543: Te-128 decay curve for 445.700 keV gamma ray.

3.544 Sb-128 E_γ = 454.50 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 454.50 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1087: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1088: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	455.040	0.008	0.855	0.000
Pd-109	Ag-109	454.300	0.000	13.701	0.000
Xe-135	Cs-135	454.200	0.000	9.140	0.065
Cs-139	Ba-139	454.660	0.001	0.155	0.063
La-142	Ce-142	453.700	0.001	1.518	0.058
La-143	Ce-143	454.030	0.006	0.237	0.059
Pr-146	Nd-146	453.880	0.480	0.403	0.030
Pr-147	Nd-147	454.800	0.001	0.223	0.022
Nd-151	Pm-151	454.600	0.000	0.207	0.004
Pm-151	Sm-151	454.400	0.000	28.400	0.004

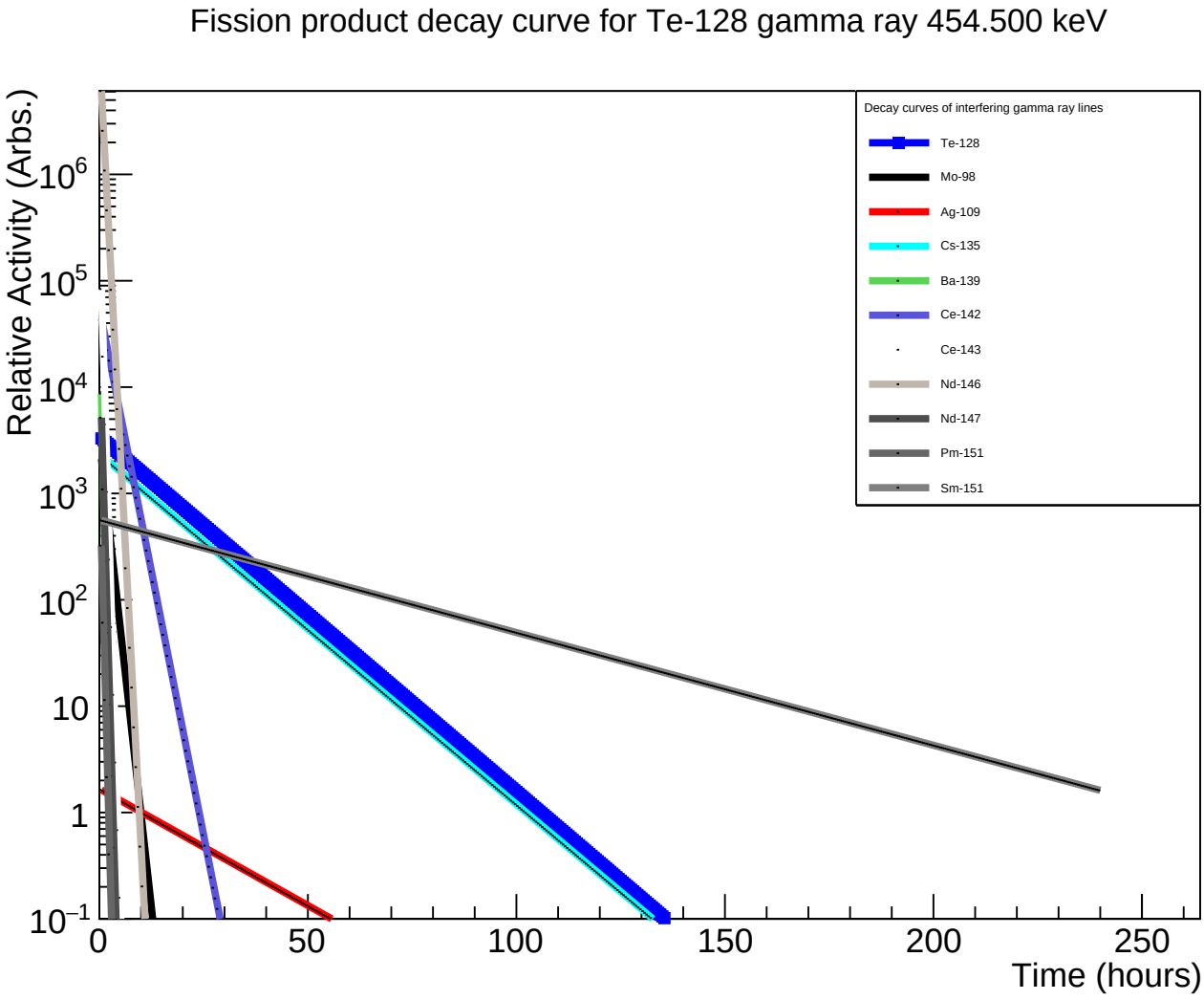


Figure 544: Te-128 decay curve for 454.500 keV gamma ray.

3.545 Sb-128 E_γ = 459.50 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 459.50 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1089: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1090: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	459.600	0.001	0.305	0.019
Te-129	I-129	459.600	0.077	1.160	0.005
Te-129	I-129	459.600	0.000	806.400	0.001
Te-133	I-133	458.000	0.001	0.923	0.040
Te-134	I-134	460.997	0.097	0.697	0.070
I-134	Xe-134	458.920	0.013	0.875	0.078
Nd-151	Pm-151	459.800	0.000	0.207	0.004
Nd-151	Pm-151	460.590	0.010	0.207	0.004
Sm-155	Eu-155	460.800	0.001	0.372	0.000

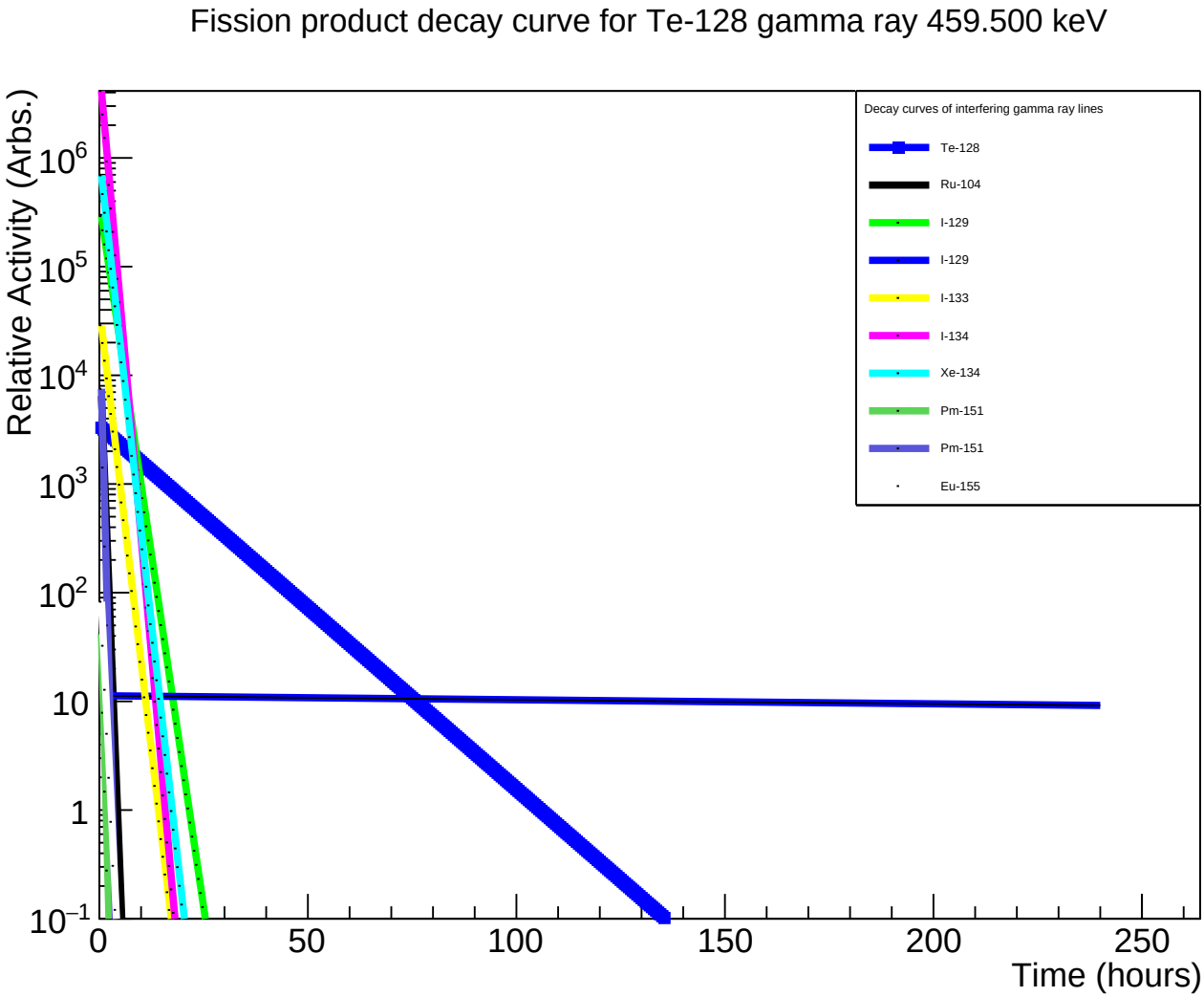


Figure 545: Te-128 decay curve for 459.500 keV gamma ray.

3.546 Sb-128 E_γ = 526.50 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 526.50 keV
Gamma Intensity = 45.00 ± 3.010 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1091: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1092: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	527.200	0.004	0.305	0.019
Cd-115	In-115	527.901	0.275	53.460	0.000
Te-133	I-133	525.840	0.002	0.208	0.031
Te-133	I-133	525.630	0.003	0.923	0.040
Xe-135	Cs-135	526.561	0.806	0.255	0.011
Ba-141	La-141	527.600	0.005	0.304	0.058
La-143	Ce-143	527.300	0.001	0.237	0.059
Ce-146	Pr-146	526.830	0.001	0.225	0.030
Nd-149	Pm-149	527.600	0.000	1.728	0.011
Nd-151	Pm-151	527.600	0.000	0.207	0.004
Nd-152	Pm-152	526.300	0.001	0.190	0.003

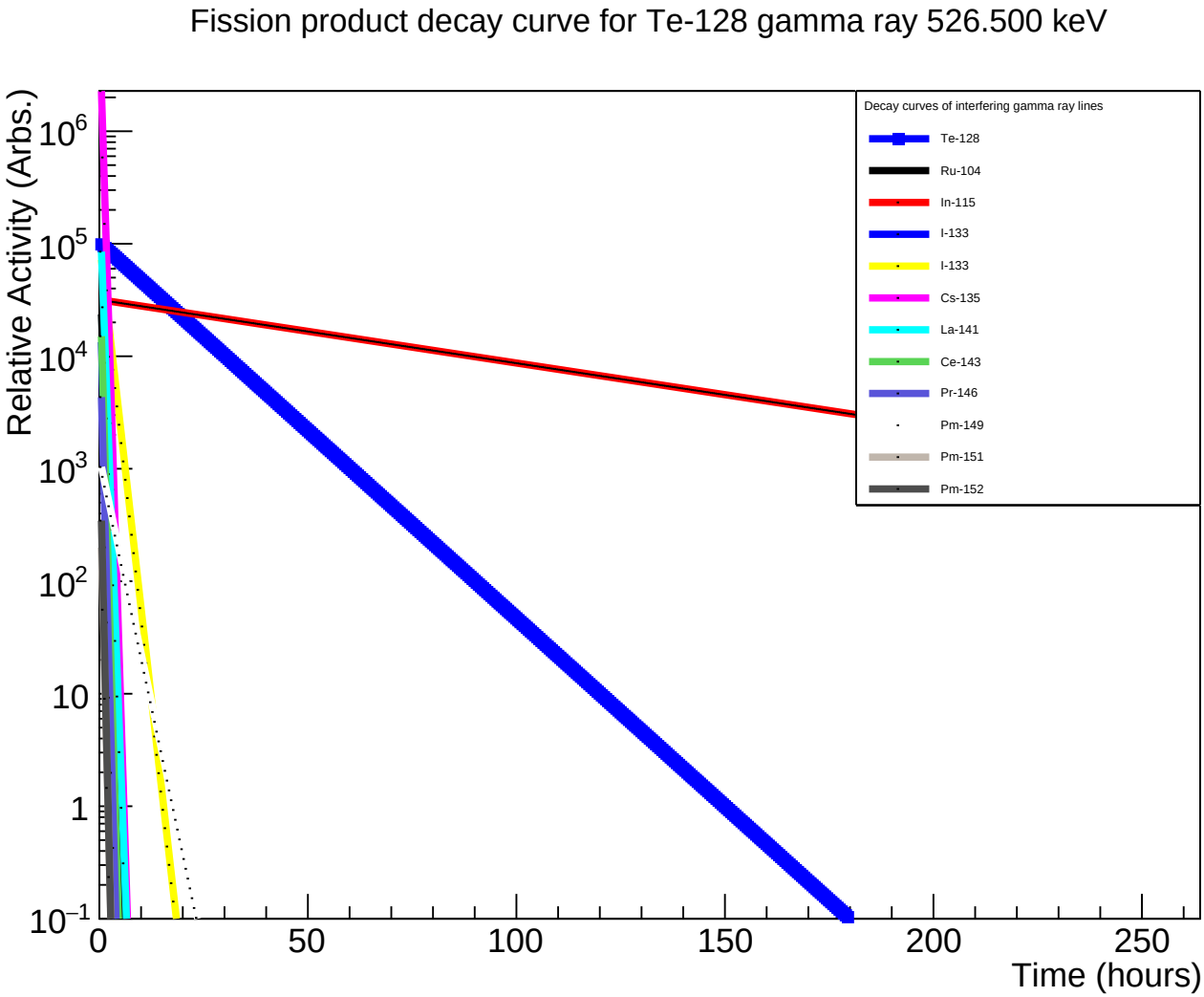


Figure 546: Te-128 decay curve for 526.500 keV gamma ray.

3.547 Sb-128 E_γ = 603.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 603.00 keV
Gamma Intensity = 1.70 ± 0.312 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1093: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1094: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Zr-97	Nb-97	602.370	0.014	16.749	0.060
Nb-98	Mo-98	603.280	0.005	0.855	0.000
Mo-101	Tc-101	602.980	0.001	0.243	0.052
Pd-109	Ag-109	602.500	0.000	13.701	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Te-131	I-131	602.039	0.042	0.417	0.025
Te-131	I-131	602.090	0.003	33.250	0.004
Te-133	I-133	601.500	0.001	0.923	0.040
Te-133	I-133	602.100	0.000	0.923	0.040
Cs-139	Ba-139	604.220	0.000	0.155	0.063
Ba-142	La-142	604.300	0.004	0.177	0.058
Pr-146	Nd-146	601.740	0.030	0.403	0.030
Pr-147	Nd-147	604.500	0.005	0.223	0.022
Nd-151	Pm-151	602.400	0.000	0.207	0.004
Pm-151	Sm-151	603.000	0.000	28.400	0.004
Pm-151	Sm-151	604.000	0.000	28.400	0.004
Sm-153	Eu-153	603.600	0.000	46.500	0.002
Sm-155	Eu-155	603.800	0.000	0.372	0.000

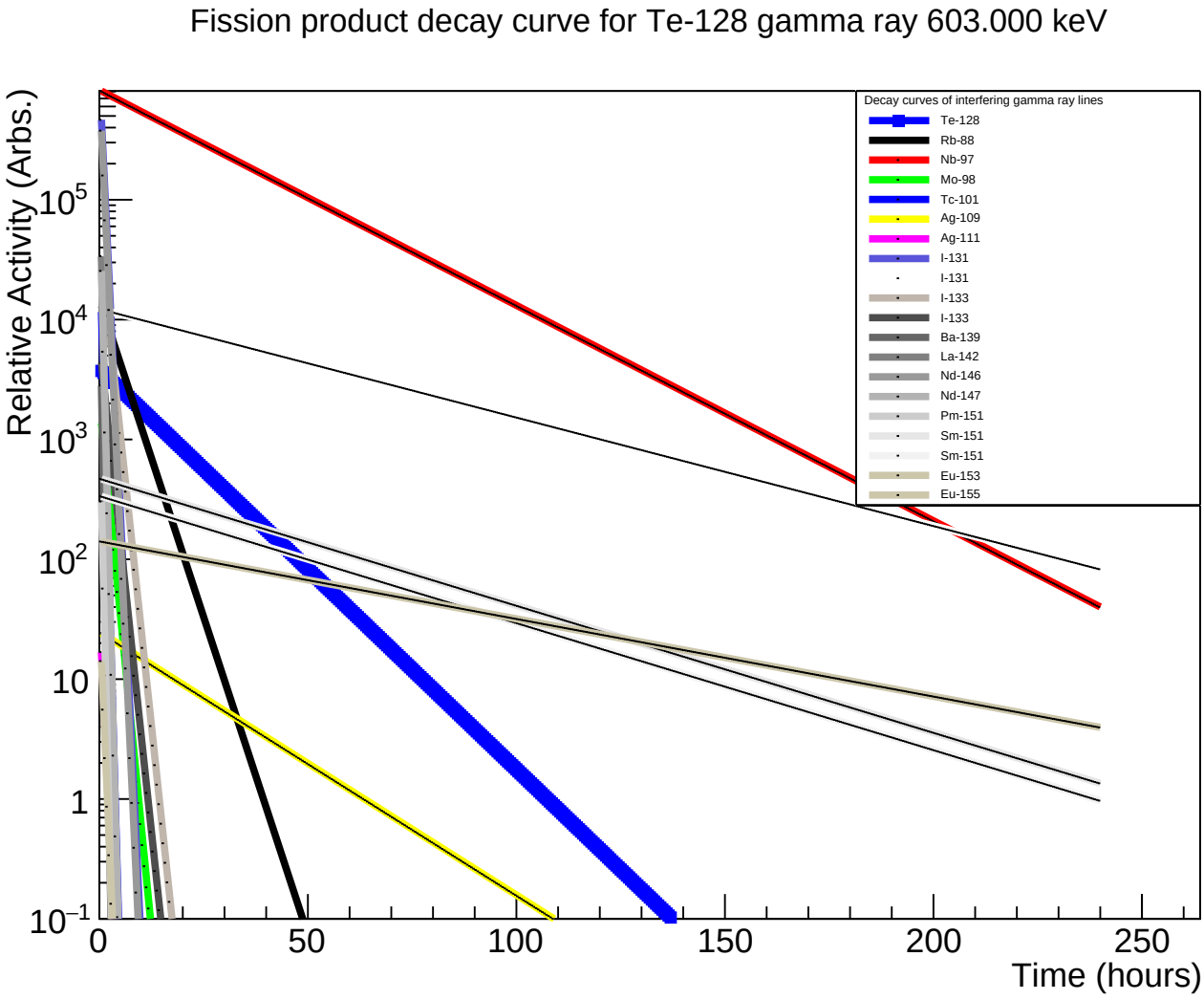


Figure 547: Te-128 decay curve for 603.000 keV gamma ray.

3.548 Sb-128 E_γ = 628.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 628.70 keV
Gamma Intensity = 31.00 ± 2.530 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1095: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1096: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	630.000	0.004	0.305	0.019
Ag-112	Cd-112	629.200	0.000	3.130	0.000
Te-127	I-127	628.600	0.000	2616.000	0.000
Te-133	I-133	629.000	0.003	0.923	0.040
I-132	Xe-132	630.190	0.133	2.295	0.043
I-134	Xe-134	627.960	0.022	0.875	0.078
Cs-139	Ba-139	627.240	0.015	0.155	0.063
Pr-147	Nd-147	627.600	0.003	0.223	0.022
Nd-151	Pm-151	629.740	0.001	0.207	0.004

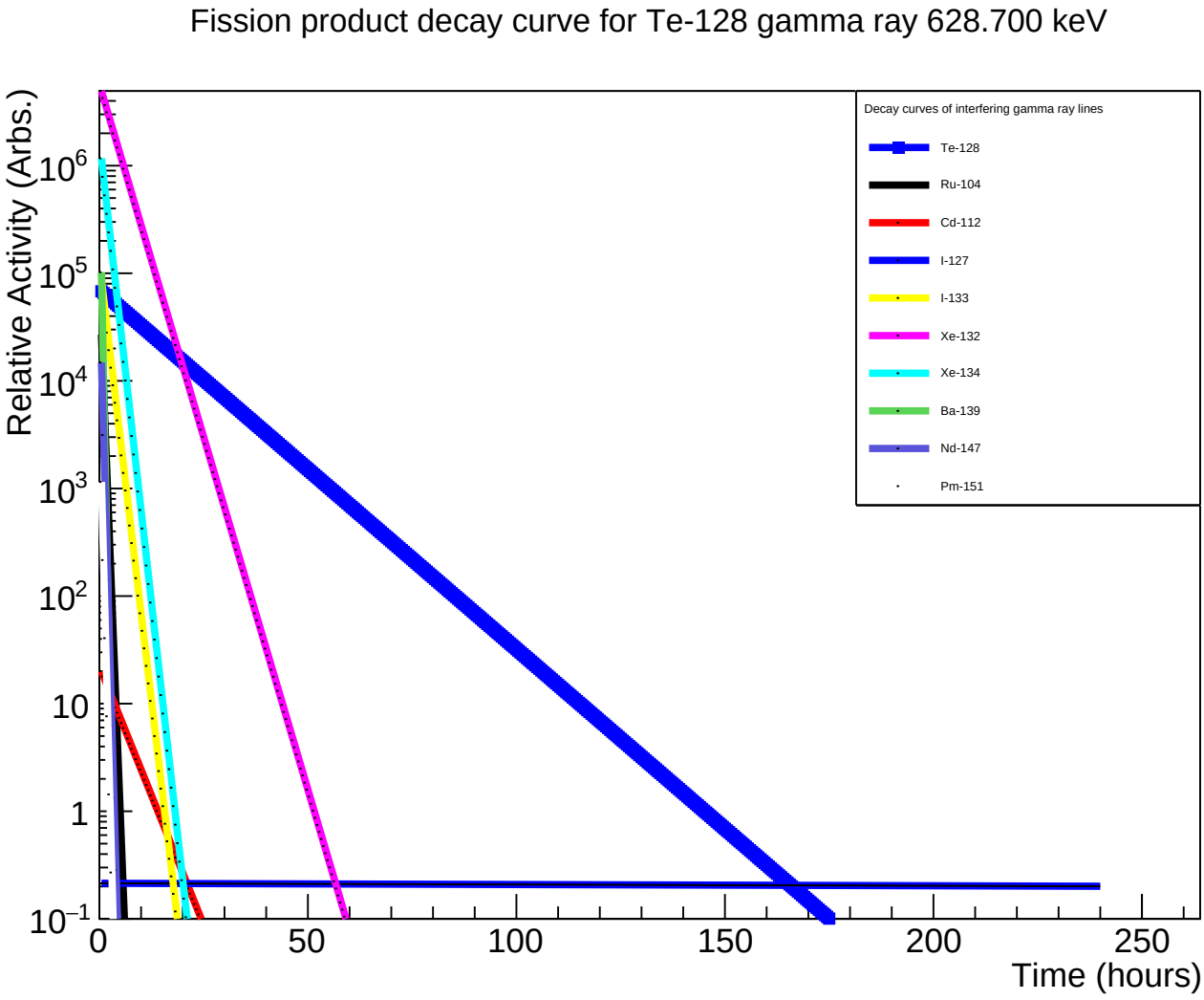


Figure 548: Te-128 decay curve for 628.700 keV gamma ray.

3.549 Sb-128 E_γ = 636.20 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 636.20 keV
Gamma Intensity = 36.00 ± 2.691 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1097: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1098: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Te-133	I-133	636.500	0.002	0.923	0.040
Te-134	I-134	636.260	0.017	0.697	0.070
I-131	Xe-131	636.989	0.072	192.605	0.029
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-151	Pm-151	636.400	0.000	0.207	0.004
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Pm-149	Sm-149	636.500	0.000	53.080	0.011
Pm-151	Sm-151	636.200	0.014	28.400	0.004
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Sm-153	Eu-153	636.500	0.000	46.500	0.002

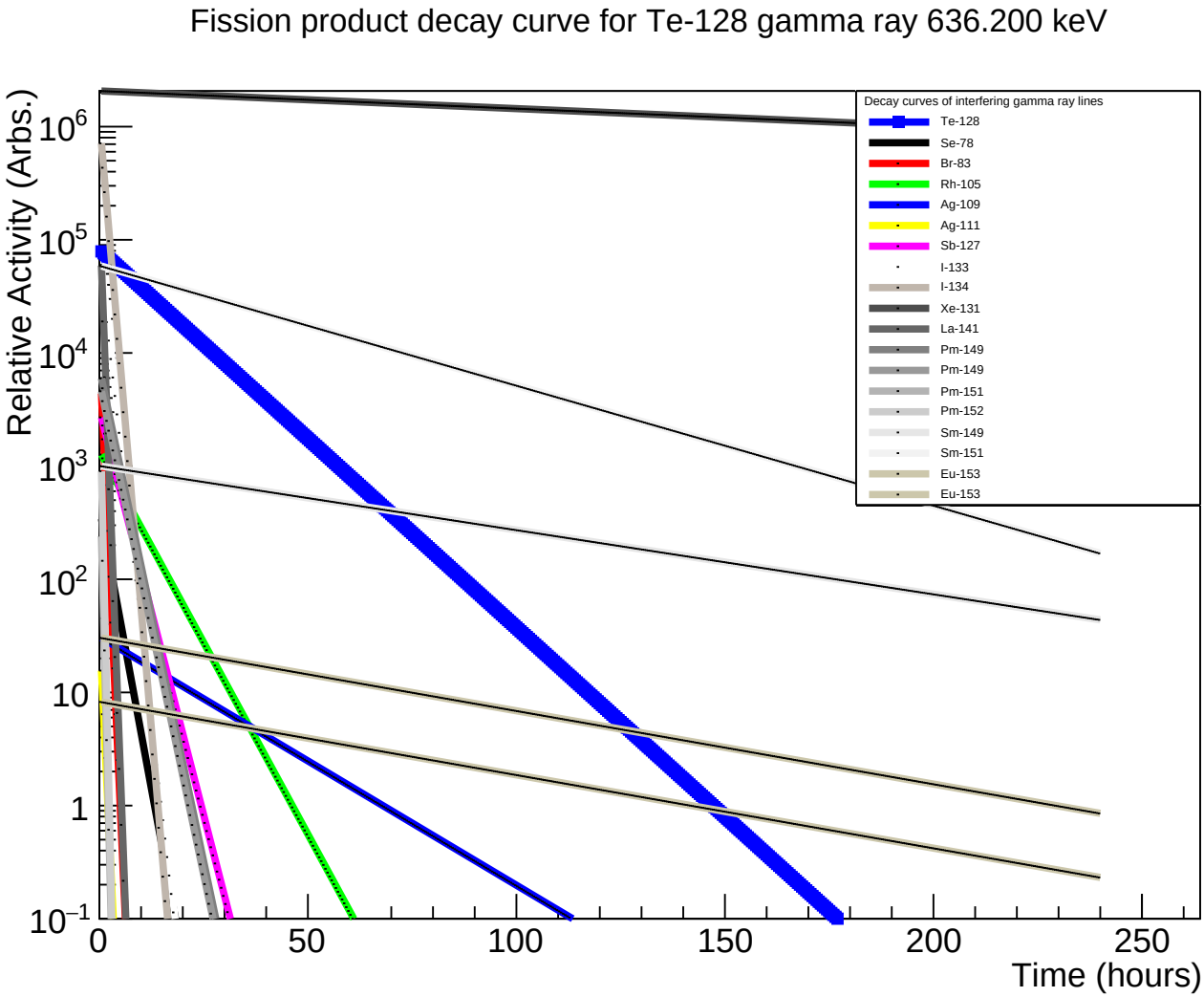


Figure 549: Te-128 decay curve for 636.200 keV gamma ray.

3.550 Sb-128 E_γ = 654.20 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 654.20 keV
Gamma Intensity = 17.00 ± 1.312 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1099: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1100: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	652.900	0.080	9.630	0.058
Sr-91	Y-91	653.000	0.004	9.630	0.058
Mo-101	Tc-101	652.700	0.000	0.243	0.052
Ru-105	Rh-105	652.700	0.003	4.440	0.010
Te-131	I-131	654.260	0.015	0.417	0.025
Te-133	I-133	653.980	0.003	0.208	0.031
Te-133	I-133	653.300	0.006	0.923	0.040
Xe-135	Cs-135	654.432	0.000	9.140	0.065
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Ba-142	La-142	654.600	0.001	0.177	0.058
Nd-149	Pm-149	653.900	0.000	1.728	0.011
Nd-149	Pm-149	654.831	0.080	1.728	0.011
Nd-151	Pm-151	655.000	0.000	0.207	0.004
Pm-151	Sm-151	654.250	0.002	28.400	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004

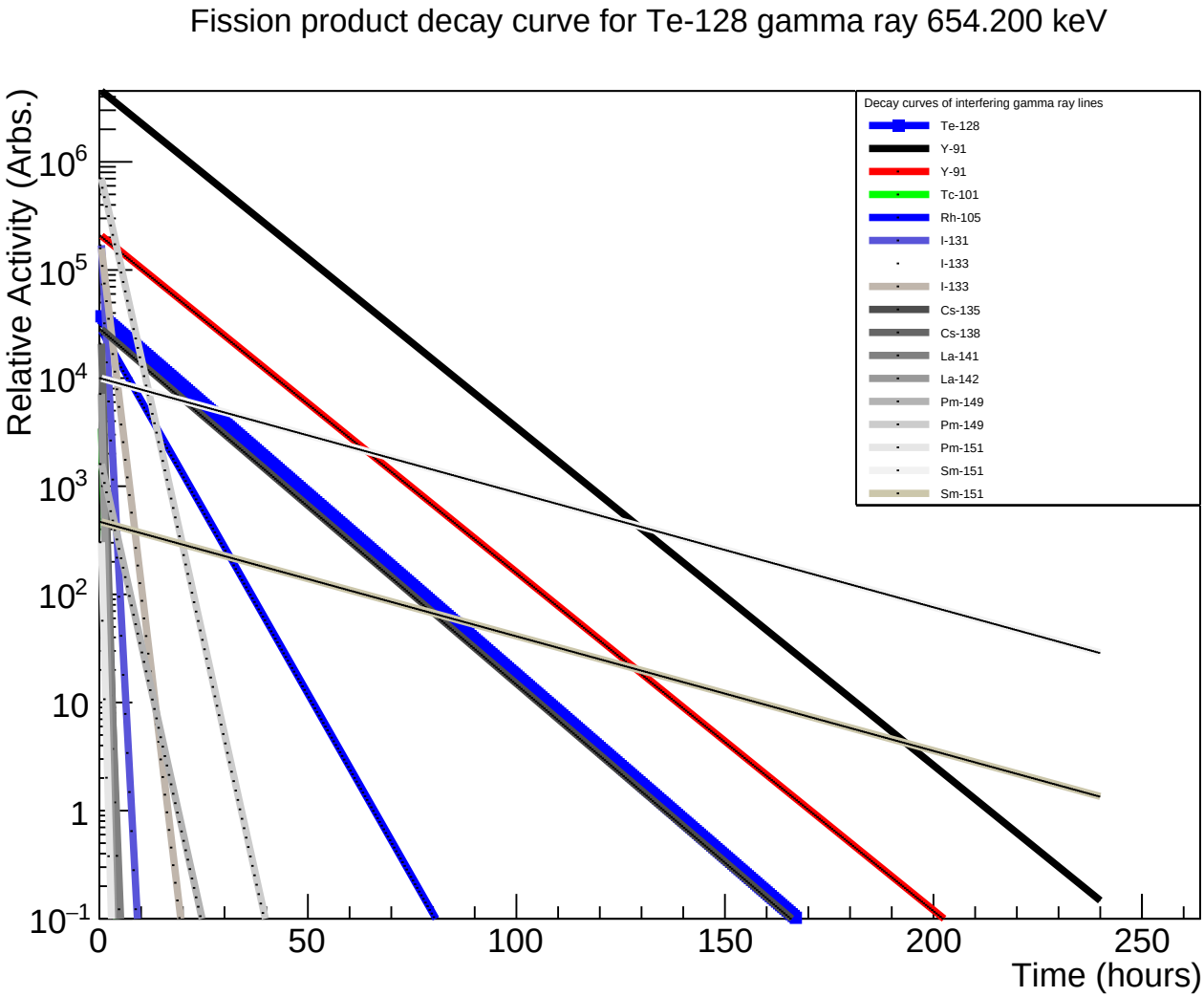


Figure 550: Te-128 decay curve for 654.200 keV gamma ray.

3.551 Sb-128 E_γ = 667.10 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 667.10 keV
Gamma Intensity = 2.50 ± 0.325 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1101: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1102: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Tc-104	Ru-104	668.000	0.003	0.305	0.019
Sn-127	Sb-127	668.600	0.002	2.100	0.001
Te-133	I-133	667.000	0.002	0.208	0.031
Te-134	I-134	665.850	0.012	0.697	0.070
I-132	Xe-132	667.714	0.987	2.295	0.043
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Nd-151	Pm-151	668.100	0.000	0.207	0.004
Pm-151	Sm-151	668.500	0.000	28.400	0.004

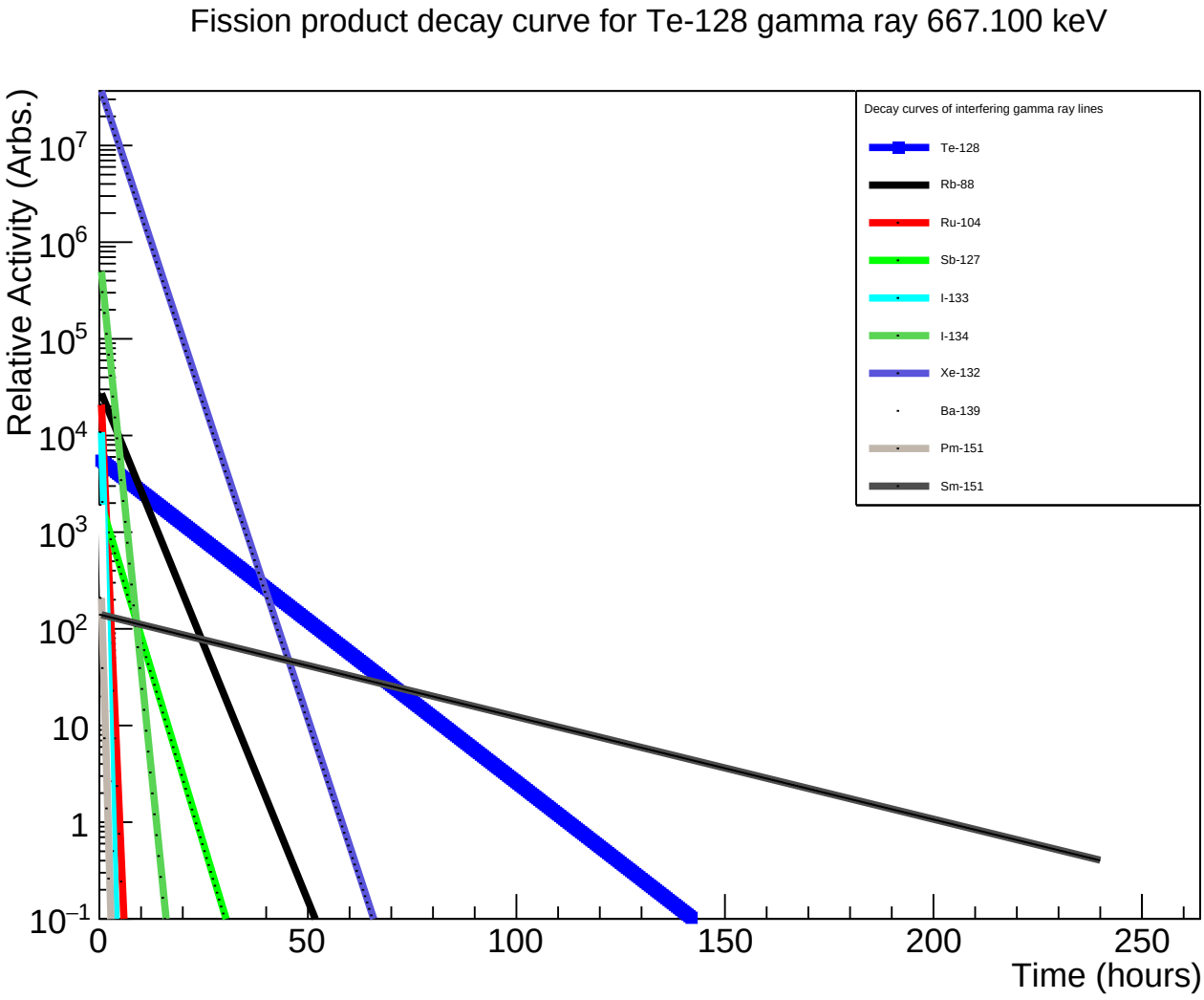


Figure 551: Te-128 decay curve for 667.100 keV gamma ray.

3.552 Sb-128 E_γ = 683.90 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 683.90 keV
Gamma Intensity = 3.00 ± 1.011 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1103: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1104: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	685.400	0.001	0.390	0.000
Sn-125	Sb-125	684.000	0.000	231.360	0.000
I-132	Xe-132	684.400	0.000	2.295	0.043
I-135	Xe-135	684.600	0.000	6.570	0.063
Cs-138	Ba-138	683.590	0.001	0.557	0.067
Ba-141	La-141	685.400	0.002	0.304	0.058
Ce-143	Pr-143	682.820	0.000	33.039	0.060

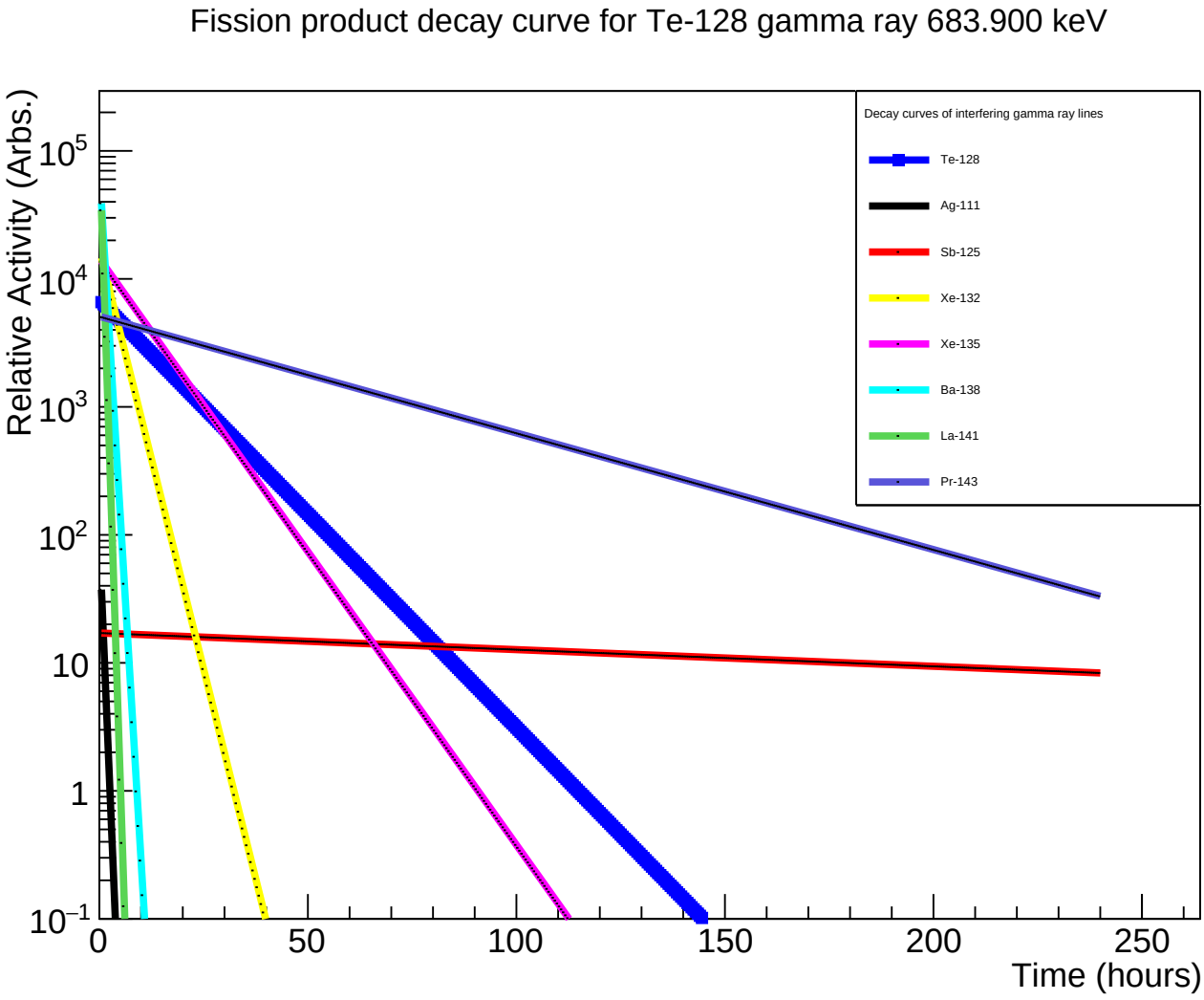


Figure 552: Te-128 decay curve for 683.900 keV gamma ray.

3.553 Sb-128 E_γ = 692.90 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 692.90 keV
Gamma Intensity = 2.00 ± 1.005 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1105: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1106: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	692.000	0.002	0.124	0.062
Tc-101	Ru-101	694.300	0.001	0.237	0.052
Ag-112	Cd-112	692.700	0.011	3.130	0.000
Sn-129	Sb-129	692.400	0.026	0.115	0.002
Xe-138	Cs-138	691.500	0.000	0.235	0.063
Xe-138	Cs-138	693.530	0.001	0.235	0.063
La-142	Ce-142	692.400	0.001	1.518	0.058
Sm-153	Eu-153	694.100	0.000	46.500	0.002

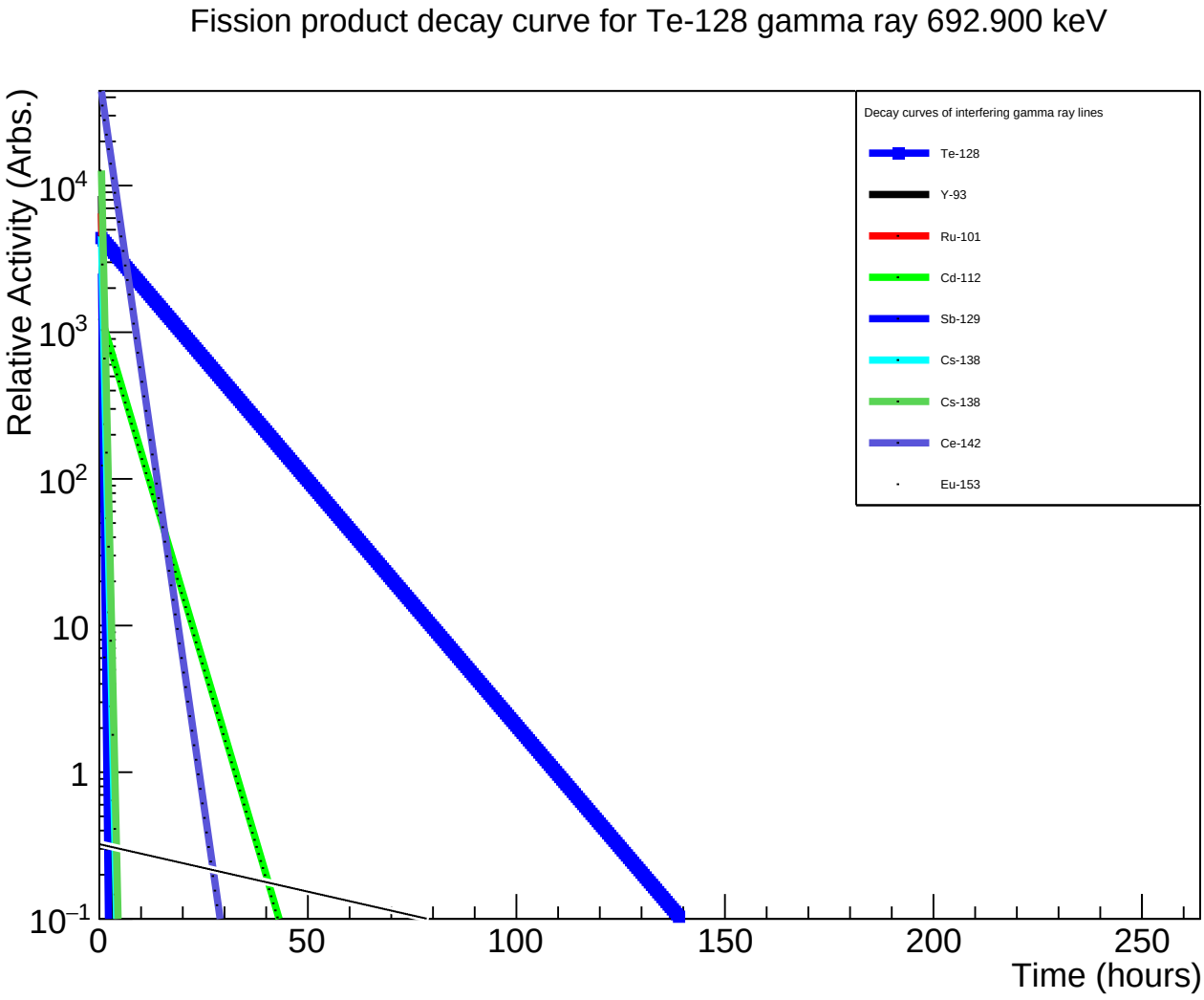


Figure 553: Te-128 decay curve for 692.900 keV gamma ray.

3.554 Sb-128 E_γ = 727.60 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 727.60 keV
Gamma Intensity = 4.00 ± 1.020 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1107: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1108: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	726.830	0.001	0.855	0.000
Mo-101	Tc-101	728.190	0.001	0.243	0.052
Te-131	I-131	727.000	0.005	0.417	0.025
Te-133	I-133	727.000	0.000	0.208	0.031
I-132	Xe-132	727.000	0.022	2.295	0.043
I-132	Xe-132	727.200	0.032	2.295	0.043
I-132	Xe-132	728.400	0.016	2.295	0.043
Cs-139	Ba-139	728.380	0.000	0.155	0.063
Pr-146	Nd-146	727.300	0.006	0.403	0.030
Nd-149	Pm-149	726.822	0.000	1.728	0.011
Nd-149	Pm-149	727.880	0.000	1.728	0.011
Nd-151	Pm-151	727.500	0.000	0.207	0.004
Pm-151	Sm-151	727.000	0.000	28.400	0.004

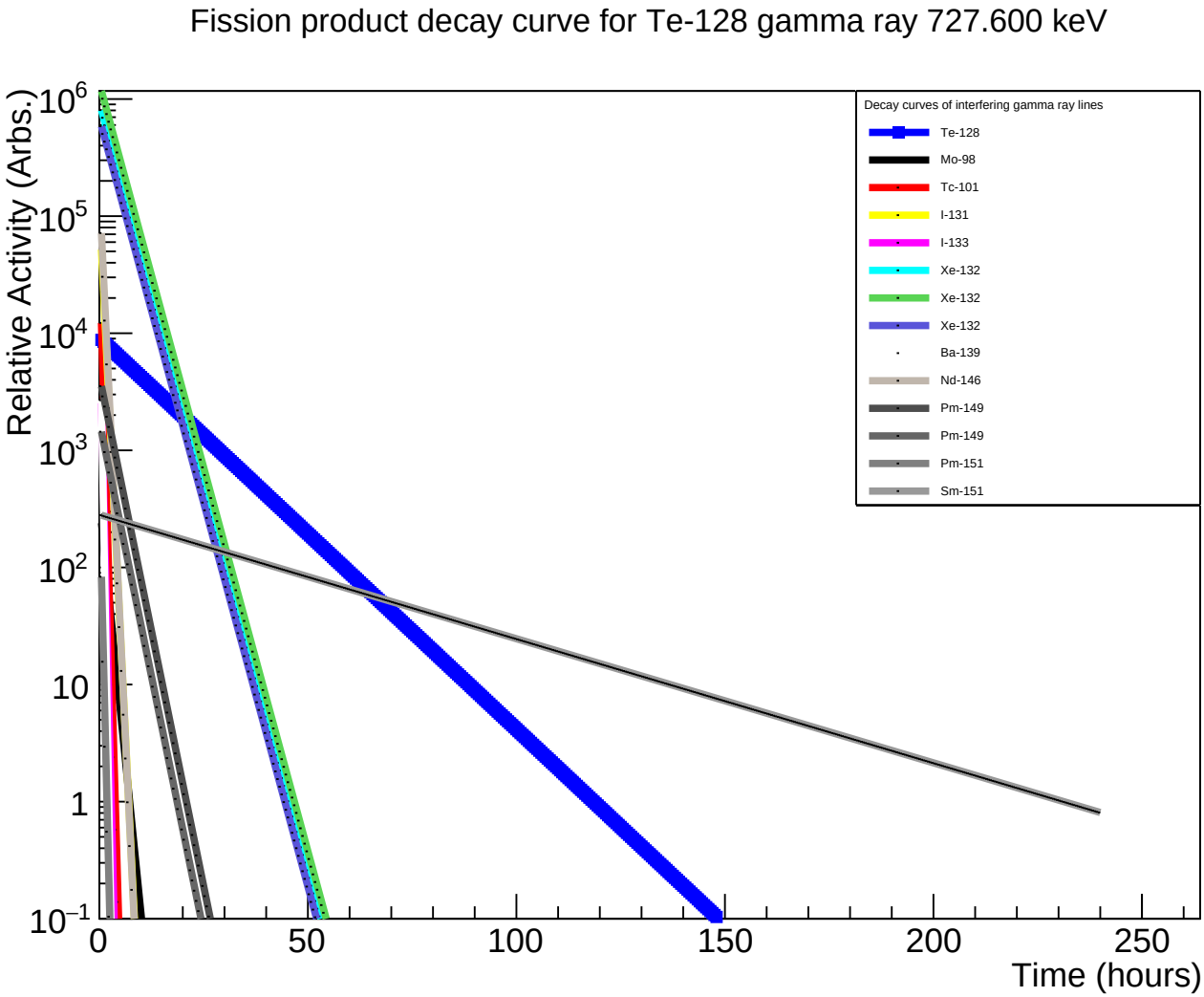


Figure 554: Te-128 decay curve for 727.600 keV gamma ray.

3.555 Sb-128 E_γ = 743.30 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 743.30 keV
Gamma Intensity = 100.00 ± 7.071 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1109: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1110: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	742.600	0.000	0.390	0.000
Te-131	I-131	744.400	0.000	0.417	0.025
Te-131	I-131	744.200	0.015	33.250	0.004
Te-133	I-133	743.000	0.003	0.208	0.031
Te-133	I-133	742.900	0.004	0.923	0.040
Te-134	I-134	742.586	0.153	0.697	0.070
Pr-143	Nd-143	742.100	0.000	325.680	0.060
Nd-149	Pm-149	743.500	0.000	1.728	0.011
Nd-151	Pm-151	744.000	0.000	0.207	0.004

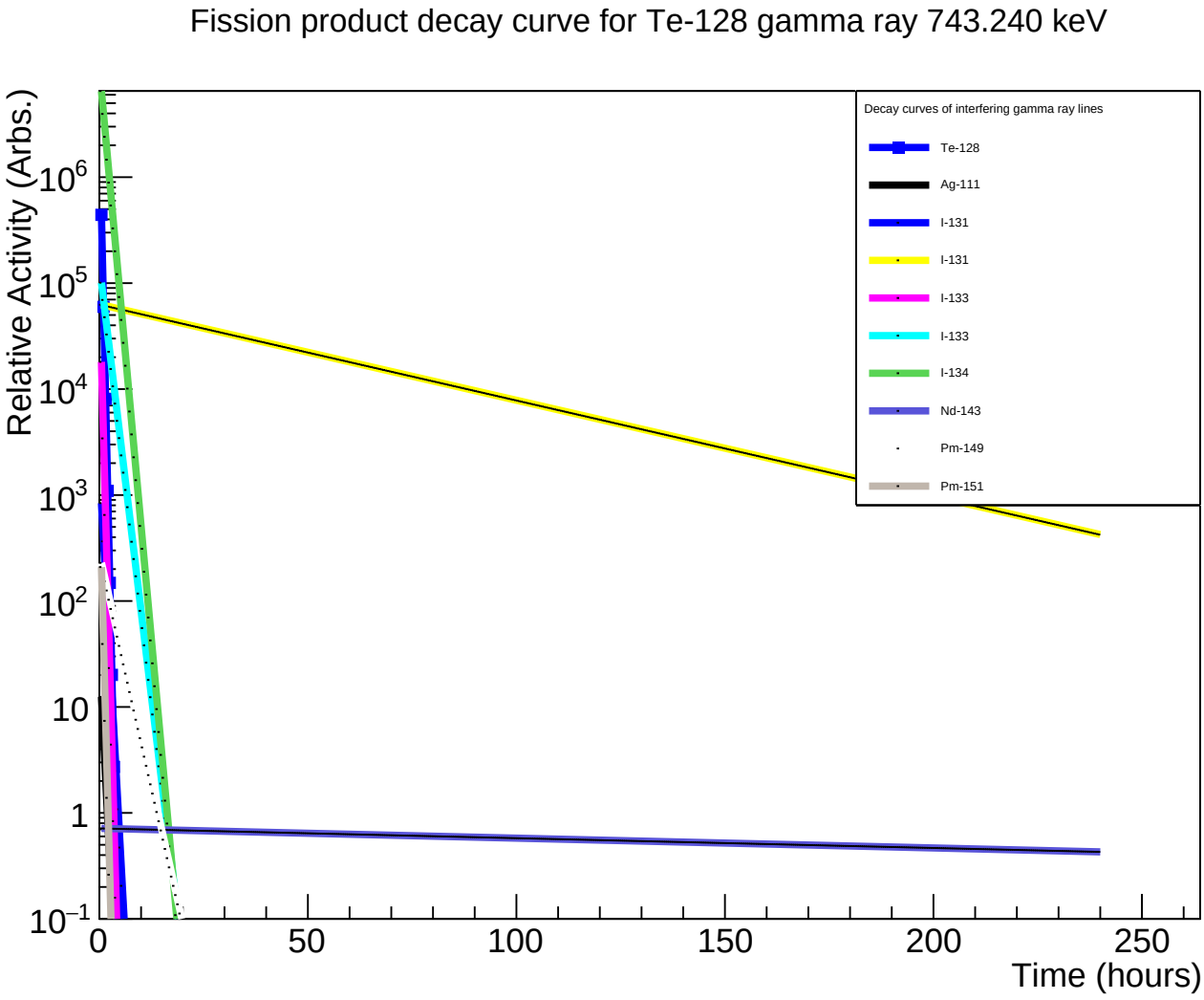


Figure 555: Te-128 decay curve for 743.300 keV gamma ray.

3.556 Sb-128 E_γ = 754.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 754.00 keV
Gamma Intensity = 100.00 ± 7.071 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1111: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1112: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	752.600	0.014	0.312	0.065
Nb-98	Mo-98	753.000	0.000	0.855	0.000
Nb-98	Mo-98	753.190	0.001	0.855	0.000
Rh-107	Pd-107	753.800	0.000	0.362	0.001
Ag-111	Cd-111	754.600	0.000	178.800	0.000
Te-133	I-133	753.300	0.003	0.923	0.040
Xe-138	Cs-138	755.000	0.000	0.235	0.063
Cs-138	Ba-138	754.500	0.000	0.557	0.067
Ba-141	La-141	753.800	0.000	0.304	0.058
Nd-149	Pm-149	754.291	0.000	1.728	0.011
Nd-151	Pm-151	753.000	0.001	0.207	0.004
Nd-151	Pm-151	753.800	0.000	0.207	0.004
Pm-151	Sm-151	752.820	0.013	28.400	0.004
Pm-151	Sm-151	755.000	0.000	28.400	0.004

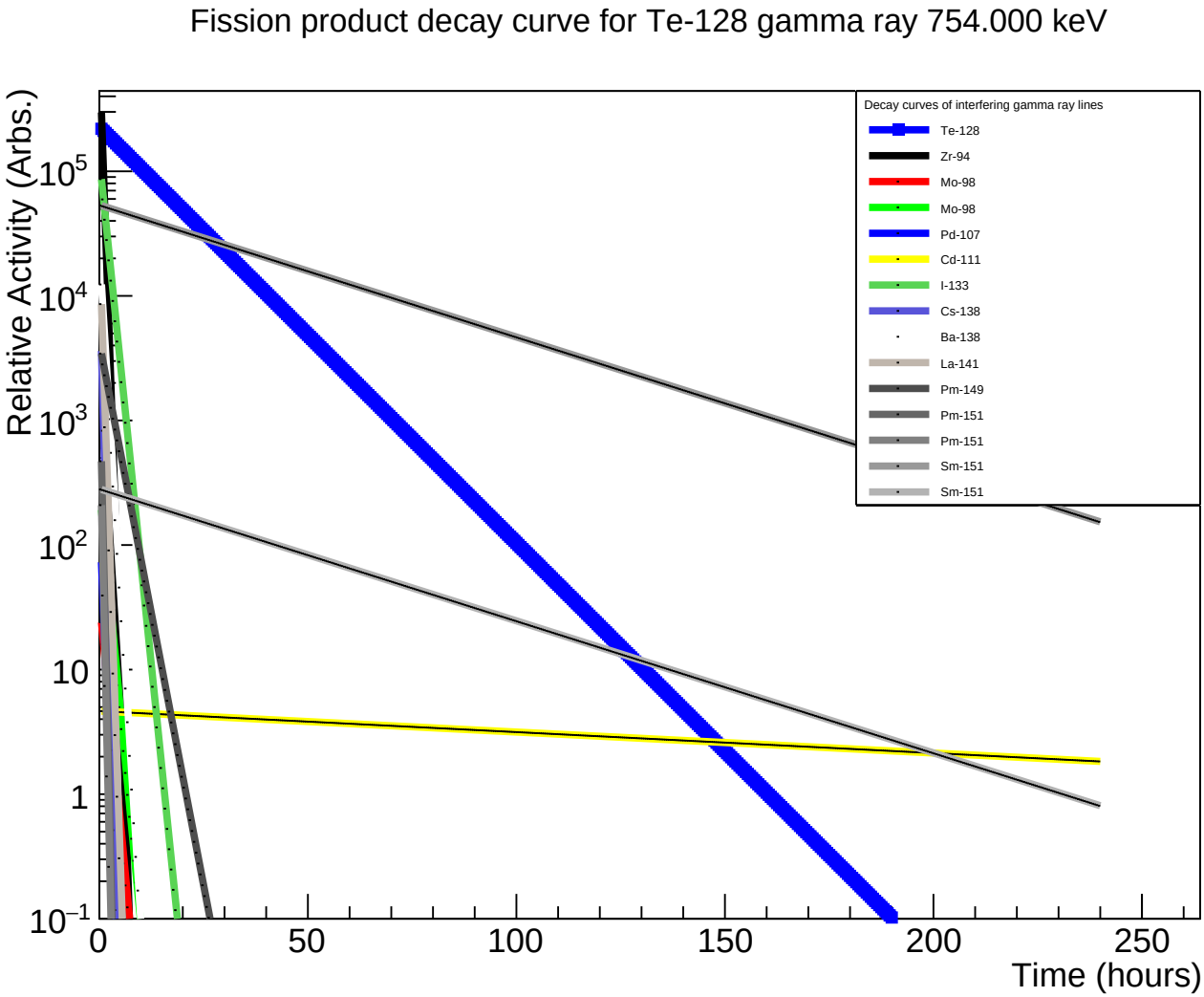


Figure 556: Te-128 decay curve for 754.000 keV gamma ray.

3.557 Sb-128 E_γ = 773.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 773.70 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1113: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1114: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	774.140	0.001	2.840	0.036
Nb-98	Mo-98	773.700	0.001	0.855	0.000
Nb-98	Mo-98	774.300	0.000	0.855	0.000
Pd-111	Ag-111	773.000	0.000	0.390	0.000
Sn-127	Sb-127	773.700	0.004	2.100	0.001
Te-129	I-129	773.540	0.000	1.160	0.005
Te-131	I-131	773.670	0.368	33.250	0.004
Te-131	I-131	774.100	0.005	33.250	0.004
I-132	Xe-132	772.600	0.756	2.295	0.043
Xe-138	Cs-138	774.210	0.001	0.235	0.063
Cs-138	Ba-138	773.310	0.002	0.557	0.067
Cs-139	Ba-139	773.500	0.000	0.155	0.063
La-143	Ce-143	774.700	0.004	0.237	0.059
Pr-146	Nd-146	772.300	0.000	0.403	0.030
Pr-146	Nd-146	774.400	0.003	0.403	0.030
Nd-149	Pm-149	774.600	0.000	1.728	0.011
Nd-151	Pm-151	773.620	0.001	0.207	0.004
Nd-151	Pm-151	773.620	0.003	0.207	0.004
Pm-151	Sm-151	772.760	0.009	28.400	0.004

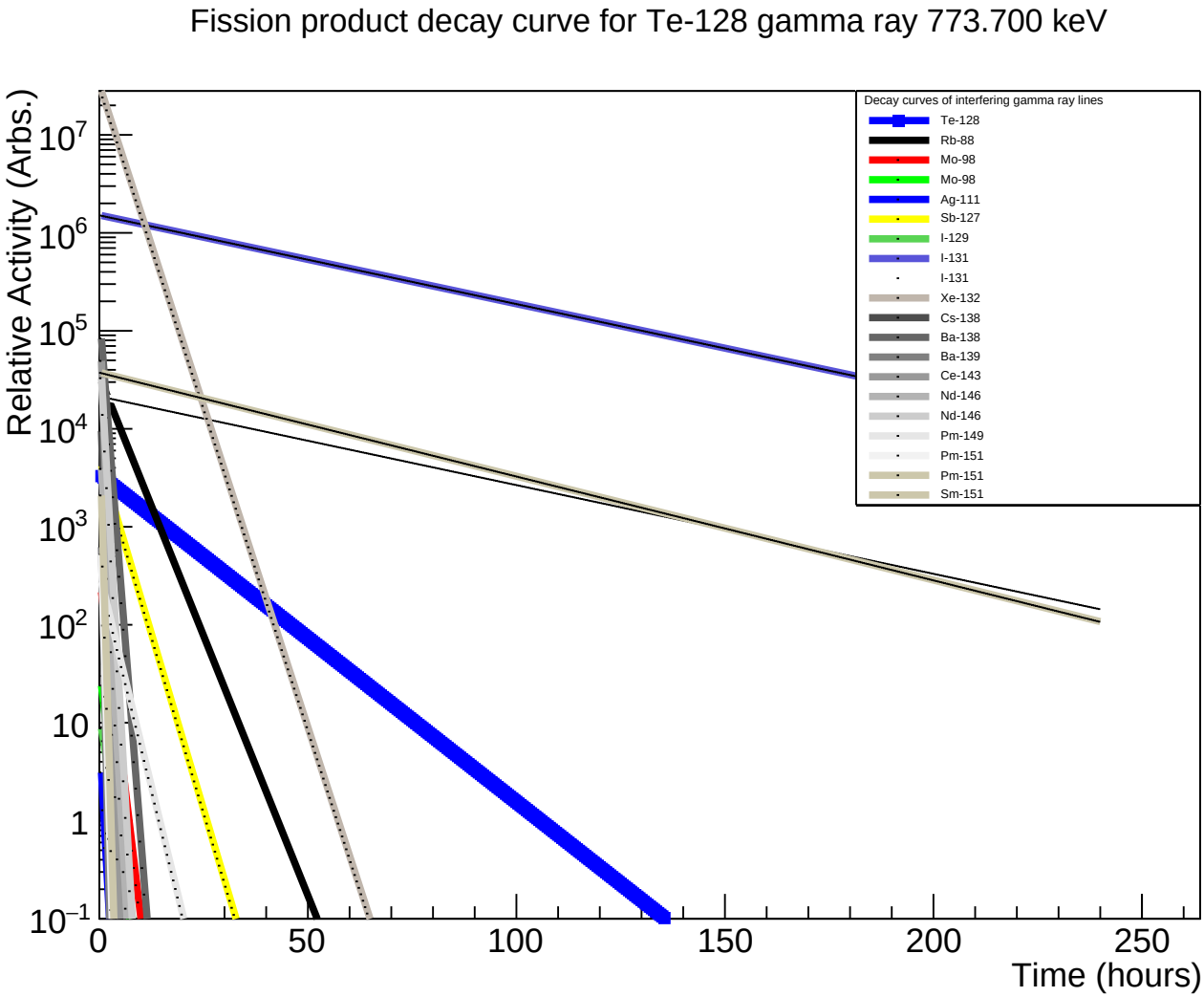


Figure 557: Te-128 decay curve for 773.700 keV gamma ray.

3.558 Sb-128 E_γ = 802.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 802.70 keV
Gamma Intensity = 1.20 ± 0.209 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1115: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1116: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	802.200	0.060	0.529	0.010
Tc-105	Ru-105	803.800	0.003	0.127	0.010
Pd-111	Ag-111	803.800	0.000	0.390	0.000
Ag-112	Cd-112	802.300	0.000	3.130	0.000
Te-129	I-129	802.100	0.002	1.160	0.005
Te-131	I-131	801.600	0.000	33.250	0.004
Te-133	I-133	802.900	0.001	0.208	0.031
Te-133	I-133	803.300	0.001	0.208	0.031
Cs-138	Ba-138	802.600	0.000	0.557	0.067
Ba-141	La-141	801.700	0.001	0.304	0.058

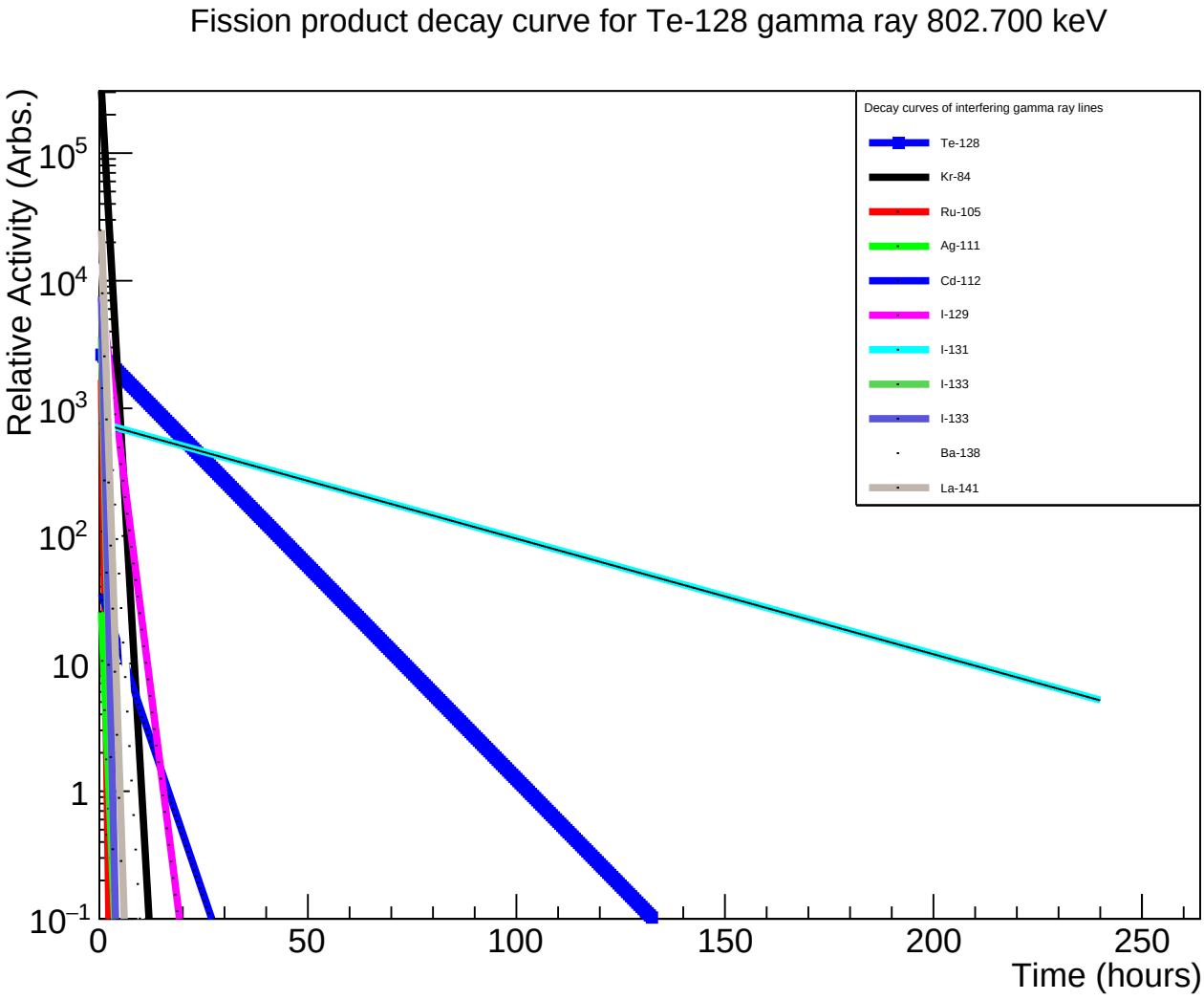


Figure 558: Te-128 decay curve for 802.700 keV gamma ray.

3.559 Sb-128 E_γ = 813.60 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 813.60 keV
Gamma Intensity = 13.00 ± 2.103 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1117: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1118: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	814.250	0.002	1.272	0.026
Nb-98	Mo-98	814.800	0.000	0.855	0.000
Te-133	I-133	813.400	0.001	0.208	0.031
Xe-135	Cs-135	812.630	0.001	9.140	0.065
Cs-138	Ba-138	813.000	0.001	0.557	0.067
Pr-144	Nd-144	814.100	0.000	0.288	0.055
Pr-144	Nd-144	814.100	0.000	0.120	0.000
Pr-147	Nd-147	814.900	0.001	0.223	0.022
Nd-149	Pm-149	813.190	0.000	1.728	0.011
Nd-151	Pm-151	812.600	0.001	0.207	0.004
Pm-149	Sm-149	812.920	0.000	53.080	0.011

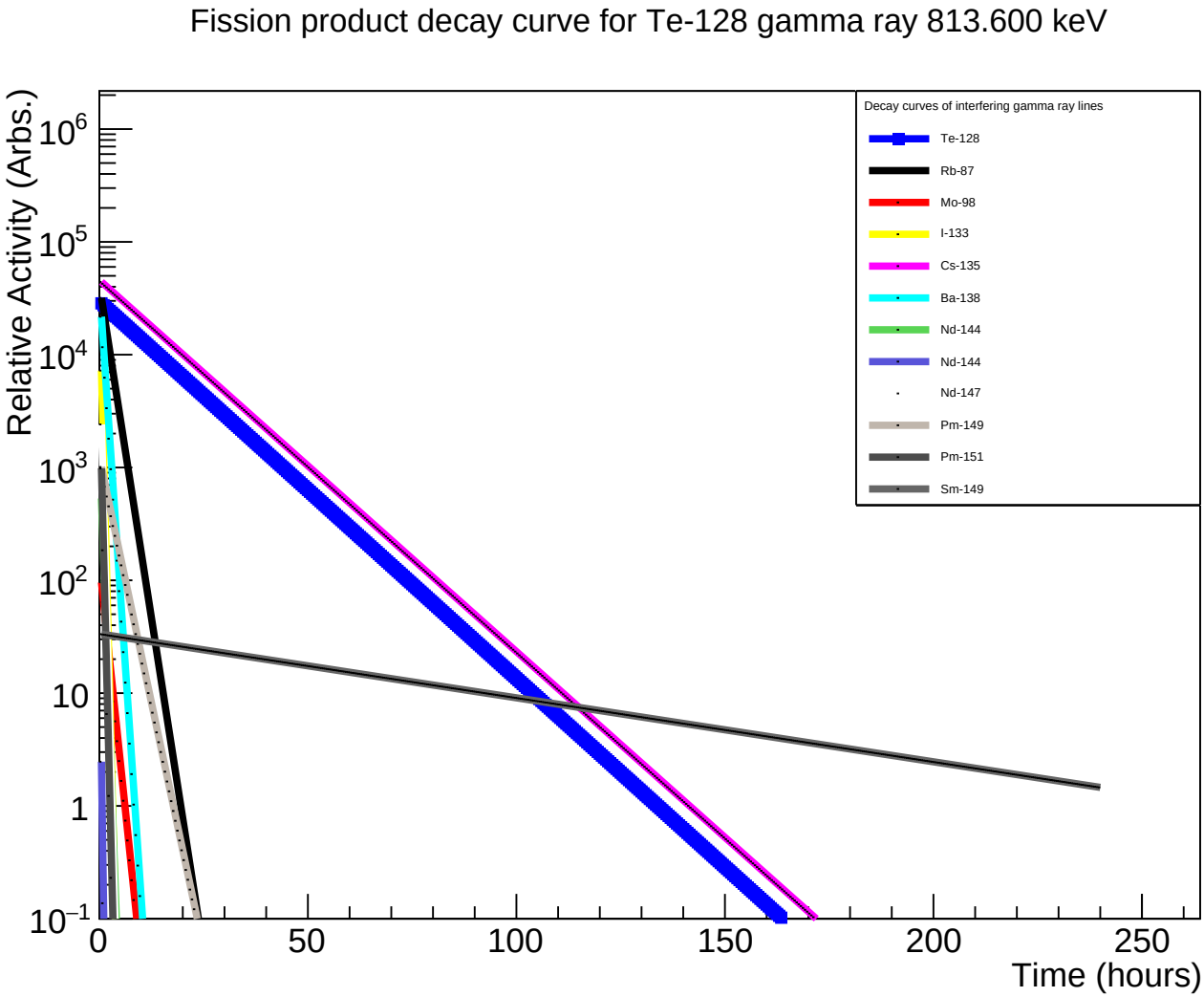


Figure 559: Te-128 decay curve for 813.600 keV gamma ray.

3.560 Sb-128 E_γ = 845.80 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 845.80 keV
Gamma Intensity = 2.50 ± 0.325 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1119: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1120: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	845.440	0.073	1.272	0.026
Y-92	Zr-92	844.300	0.013	3.540	0.060
Mo-101	Tc-101	847.240	0.001	0.243	0.052
Ru-105	Rh-105	845.910	0.006	4.440	0.010
Ru-105	Rh-105	846.900	0.000	4.440	0.010
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Te-129	I-129	844.810	0.000	806.400	0.001
Te-131	I-131	844.900	0.001	33.250	0.004
Te-133	I-133	844.360	0.033	0.208	0.031
I-134	Xe-134	847.025	0.957	0.875	0.078
Ba-141	La-141	846.600	0.001	0.304	0.058
Pr-147	Nd-147	846.900	0.008	0.223	0.022
Nd-151	Pm-151	847.120	0.001	0.207	0.004

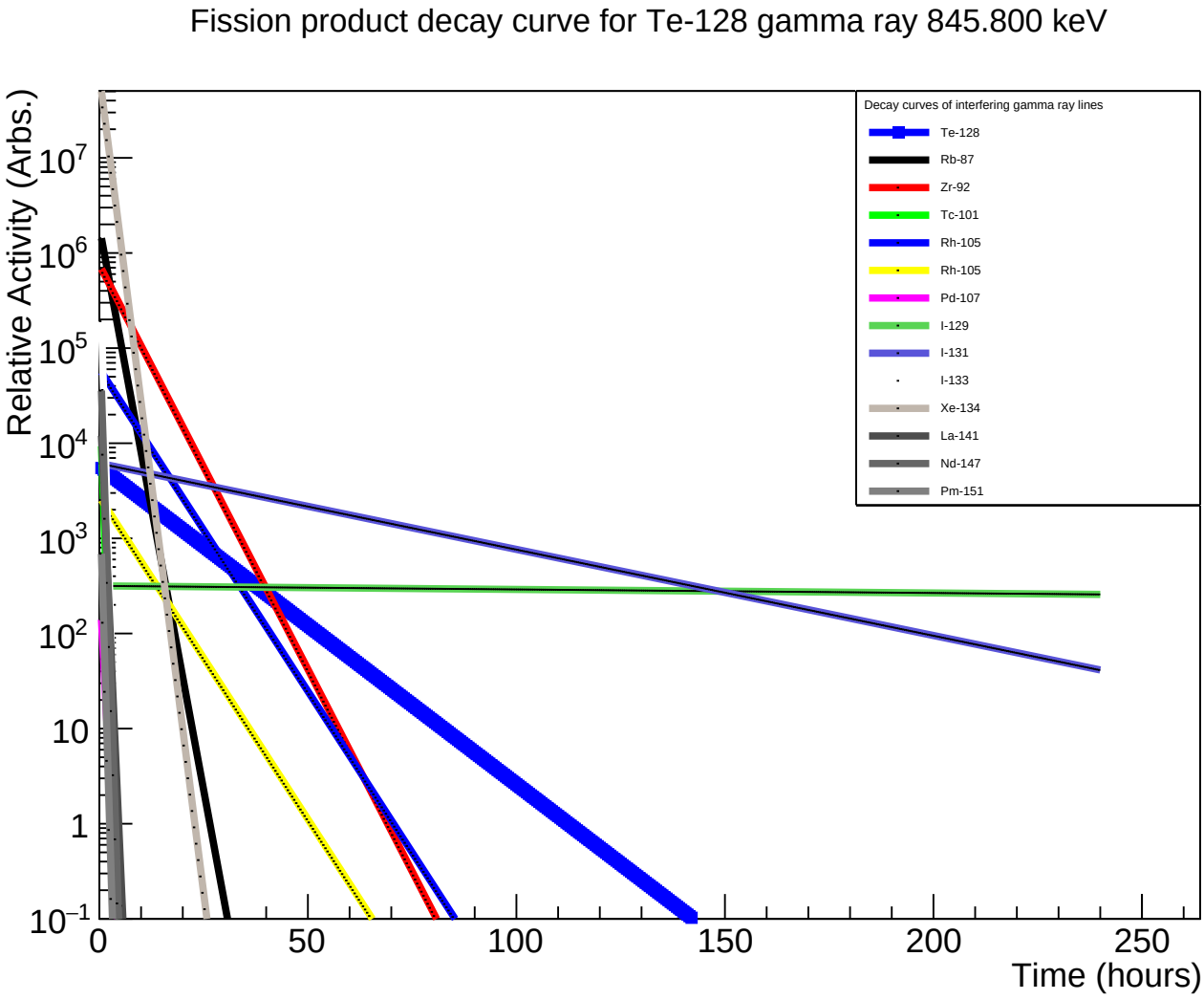


Figure 560: Te-128 decay curve for 845.800 keV gamma ray.

3.561 Sb-128 E_γ = 878.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 878.00 keV
Gamma Intensity = 3.50 ± 0.437 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1121: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1122: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	878.500	0.014	0.150	0.000
Nb-98	Mo-98	878.070	0.007	0.855	0.000
Mo-101	Tc-101	877.390	0.032	0.243	0.052
Ru-105	Rh-105	878.200	0.005	4.440	0.010
Ag-113	Cd-113	878.500	0.001	5.370	0.000
I-132	Xe-132	876.600	0.010	2.295	0.043
La-142	Ce-142	878.200	0.002	1.518	0.058
Nd-149	Pm-149	877.900	0.000	1.728	0.011
Pm-151	Sm-151	877.700	0.001	28.400	0.004

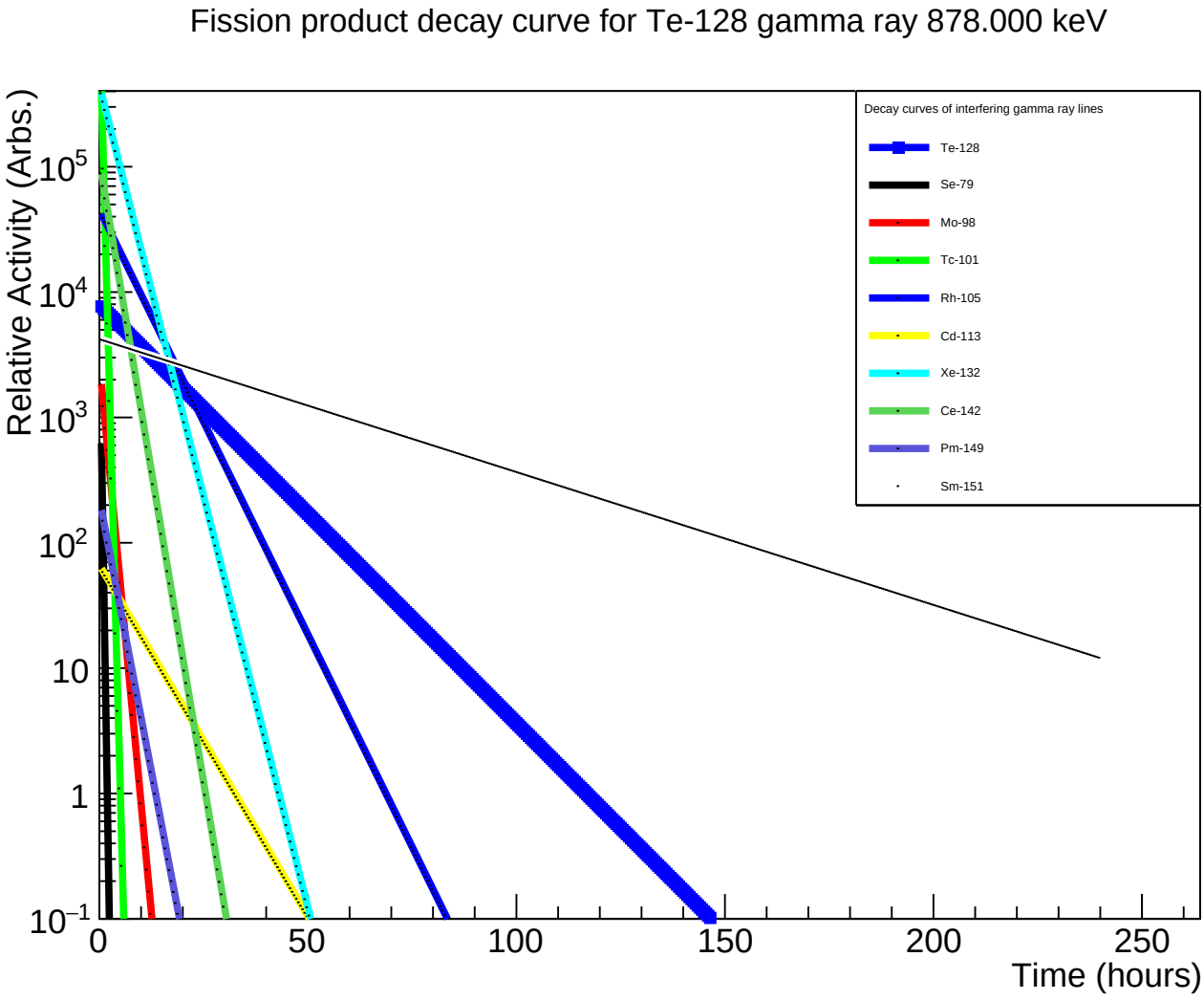


Figure 561: Te-128 decay curve for 878.000 keV gamma ray.

3.562 Sb-128 E_γ = 1047.50 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1047.50 keV
Gamma Intensity = 3.50 ± 0.437 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1123: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1124: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1046.400	0.001	0.124	0.062
Y-95	Zr-95	1048.350	0.009	0.172	0.064
Nb-98	Mo-98	1048.700	0.002	0.855	0.000
Tc-105	Ru-105	1047.900	0.006	0.127	0.010
Ba-141	La-141	1046.300	0.003	0.304	0.058
Ce-143	Pr-143	1046.780	0.000	33.039	0.060
Nd-151	Pm-151	1048.110	0.006	0.207	0.004

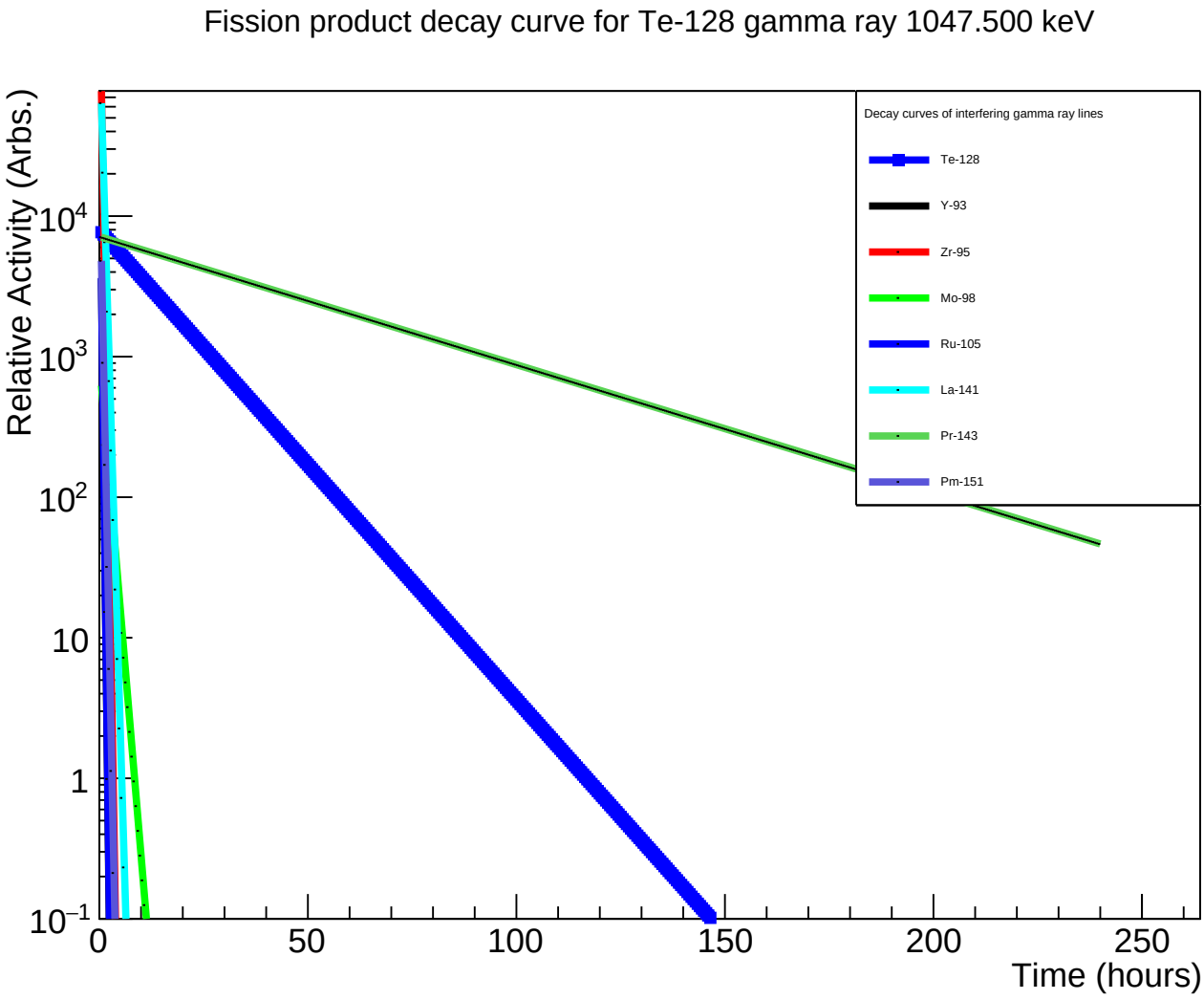


Figure 562: Te-128 decay curve for 1047.500 keV gamma ray.

3.563 Sb-128 E_γ = 1078.60 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1078.60 keV
Gamma Intensity = 2.00 ± 1.005 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1125: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1126: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1079.800	0.016	1.512	0.000
Sr-93	Y-93	1077.860	0.002	0.124	0.062
Te-133	I-133	1078.130	0.002	0.923	0.040
Te-133	I-133	1079.630	0.005	0.923	0.040
Ba-142	La-142	1078.700	0.115	0.177	0.058
Nd-149	Pm-149	1078.760	0.001	1.728	0.011
Nd-151	Pm-151	1077.120	0.001	0.207	0.004
Nd-151	Pm-151	1079.500	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.002	0.207	0.004
Eu-156	Gd-156	1079.160	0.046	364.560	0.000

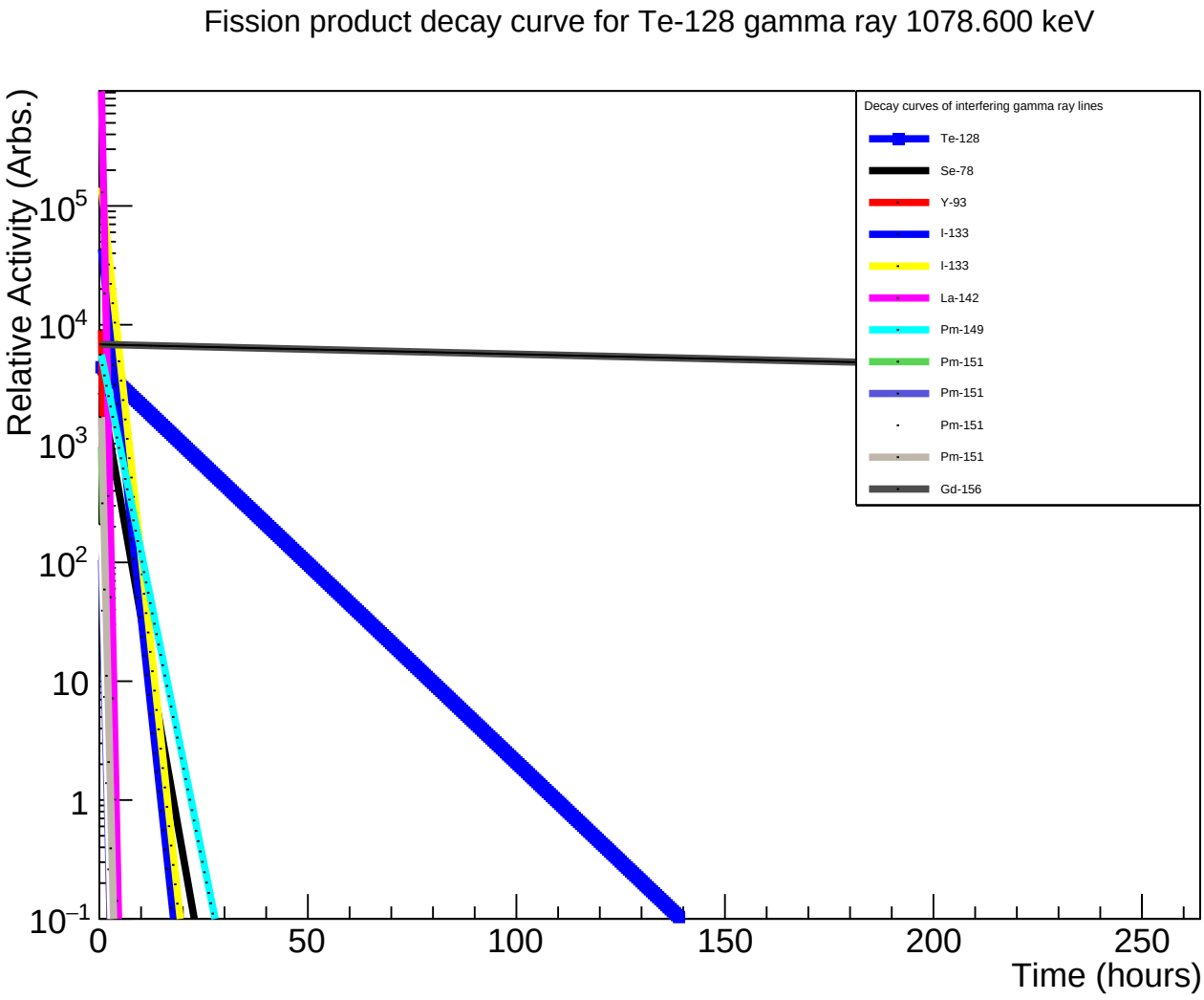


Figure 563: Te-128 decay curve for 1078.600 keV gamma ray.

3.564 Sb-128 E_γ = 1112.70 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1112.70 keV
Gamma Intensity = 2.00 ± 1.005 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1127: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1128: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	1111.400	0.000	231.360	0.000
Te-129	I-129	1111.640	0.002	1.160	0.005
Te-131	I-131	1114.100	0.000	33.250	0.004
I-132	Xe-132	1112.400	0.001	2.295	0.043
La-142	Ce-142	1112.900	0.000	1.518	0.058
Pr-147	Nd-147	1112.100	0.001	0.223	0.022

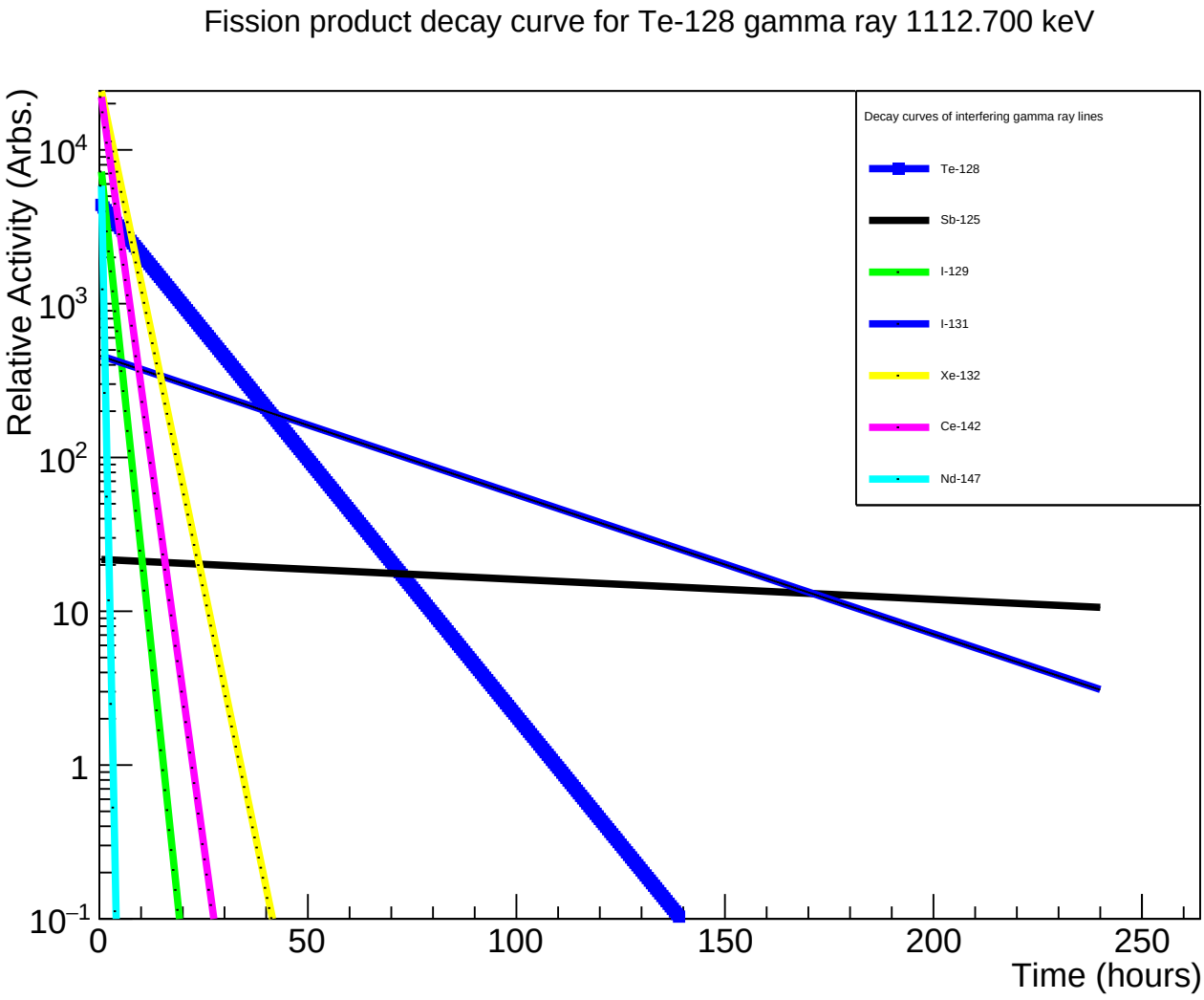


Figure 564: Te-128 decay curve for 1112.700 keV gamma ray.

3.565 Sb-128 E_γ = 1158.20 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1158.20 keV
Gamma Intensity = 1.50 ± 0.309 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1129: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1130: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1158.500	0.000	10.180	0.063
Tc-104	Ru-104	1157.400	0.028	0.305	0.019
Sn-127	Sb-127	1159.200	0.009	2.100	0.001
I-134	Xe-134	1159.100	0.003	0.875	0.078
Cs-139	Ba-139	1159.300	0.000	0.155	0.063
Pr-147	Nd-147	1157.400	0.001	0.223	0.022
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1159.400	0.001	0.207	0.004
Sm-155	Eu-155	1159.700	0.000	0.372	0.000

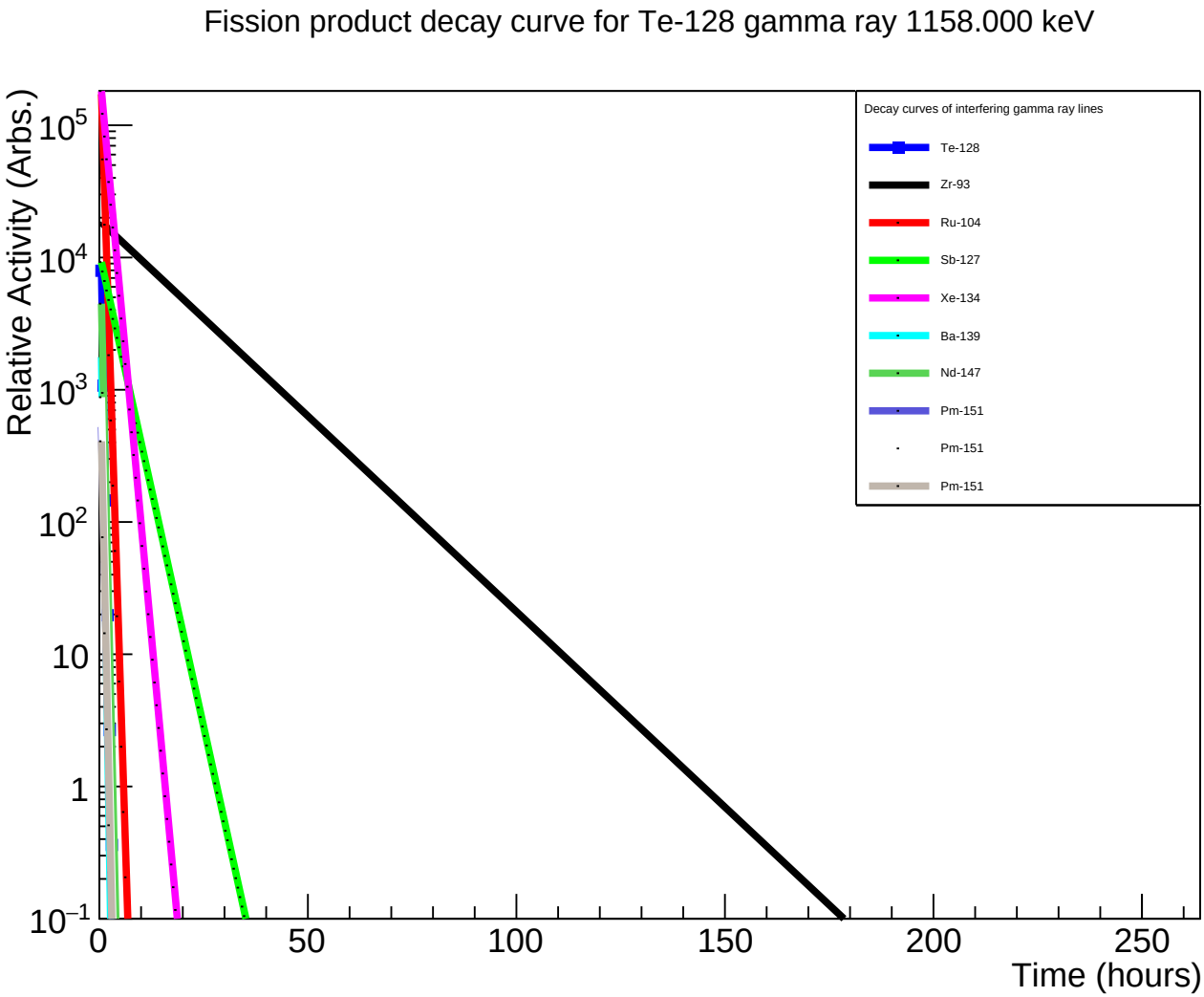


Figure 565: Te-128 decay curve for 1158.200 keV gamma ray.

3.566 Sb-128 E_γ = 1181.60 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1181.60 keV
Gamma Intensity = 4.50 ± 0.548 %
$T_{1/2}$ = 9.010 ± 0.030 hours or 540.60 ± 1.80 minutes
CFY: 0.023 ± 0.015 %

Table 1131: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1132: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1180.760	0.002	0.124	0.062
Ag-113	Cd-113	1180.800	0.000	5.370	0.000
Te-129	I-129	1181.960	0.000	1.160	0.005
Te-131	I-131	1181.400	0.000	33.250	0.004
Pr-144	Nd-144	1182.000	0.000	0.288	0.055
Pr-145	Nd-145	1182.480	0.000	5.984	0.039
Pr-146	Nd-146	1183.100	0.001	0.403	0.030
Pr-147	Nd-147	1182.800	0.010	0.223	0.022
Nd-149	Pm-149	1180.500	0.000	1.728	0.011
Nd-151	Pm-151	1180.890	0.133	0.207	0.004

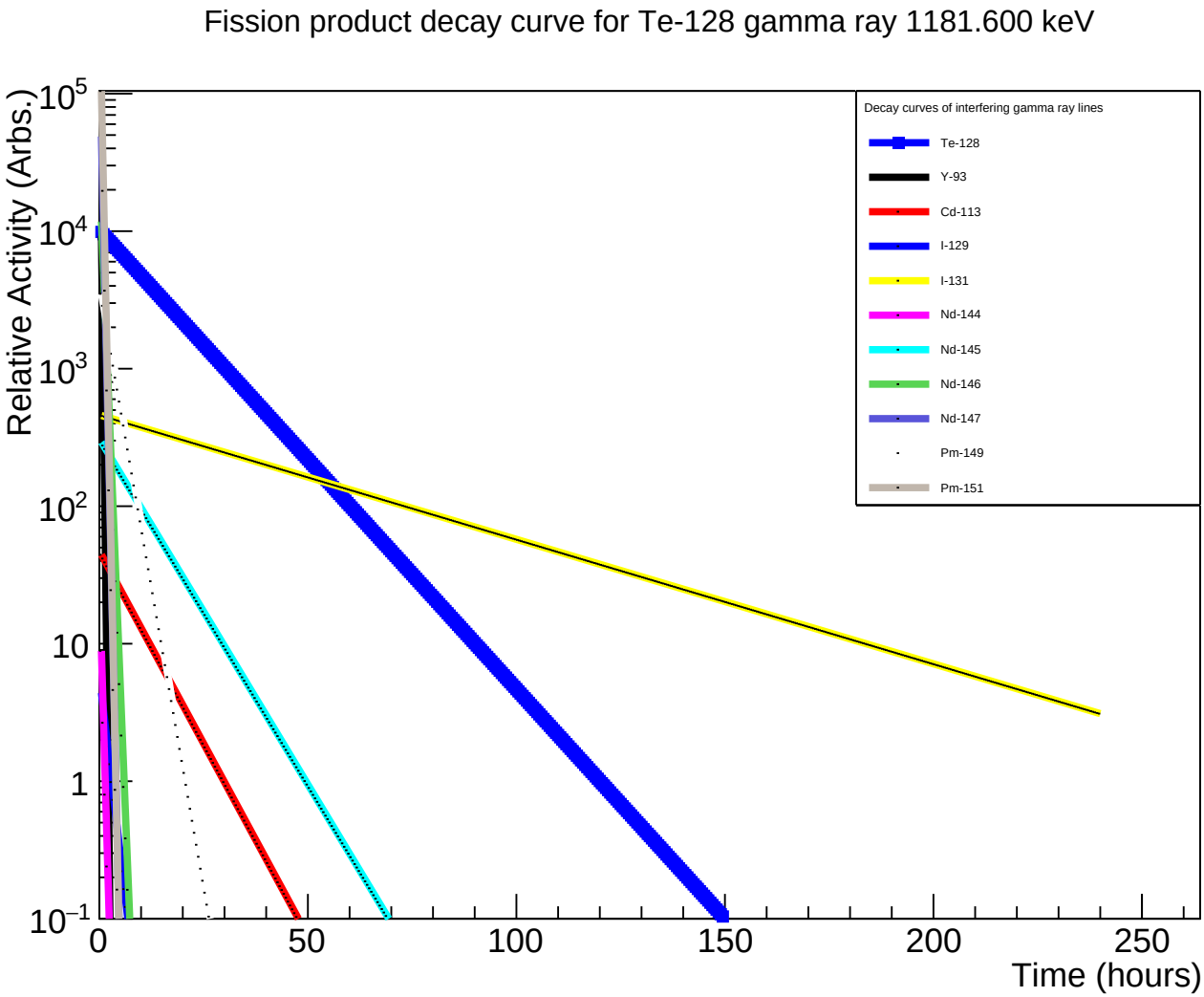


Figure 566: Te-128 decay curve for 1181.600 keV gamma ray.

3.567 Sb-128 E_γ = 314.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 314.00 keV
Gamma Intensity = 88.69 ± 6.614 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1133: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1134: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	315.000	0.000	0.855	0.000
Tc-104	Ru-104	314.700	0.002	0.305	0.019
Tc-105	Ru-105	314.700	0.007	0.127	0.010
Te-133	I-133	314.240	0.004	0.923	0.040
Pr-147	Nd-147	314.700	0.175	0.223	0.022
Nd-151	Pm-151	312.630	0.002	0.207	0.004
Nd-152	Pm-152	314.400	0.001	0.190	0.003
Pm-151	Sm-151	314.920	0.001	28.400	0.004
Pm-151	Sm-151	315.100	0.000	28.400	0.004

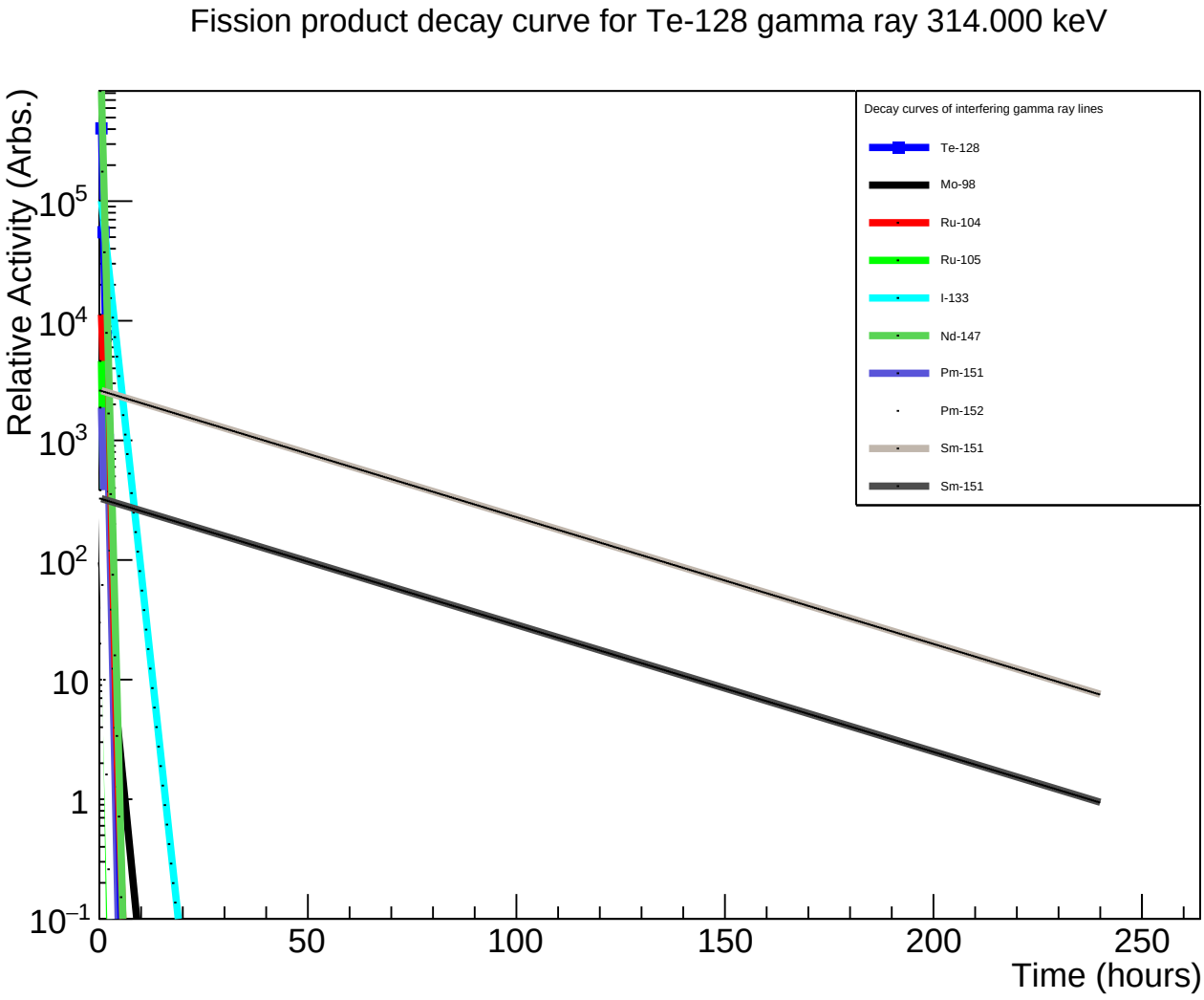


Figure 567: Te-128 decay curve for 314.000 keV gamma ray.

3.568 Sb-128 E_γ = 594.10 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 594.10 keV
Gamma Intensity = 3.28 ± 0.510 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1135: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1136: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	593.410	0.007	0.372	0.003
Sr-91	Y-91	593.100	0.001	9.630	0.058
Sr-93	Y-93	593.810	0.011	0.124	0.062
Nb-98	Mo-98	594.660	0.001	0.855	0.000
Cd-115	In-115	595.375	0.000	53.460	0.000
Te-127	I-127	593.300	0.000	2616.000	0.000
Te-133	I-133	593.000	0.002	0.208	0.031
I-134	Xe-134	595.362	0.111	0.875	0.078
Cs-139	Ba-139	594.020	0.001	0.155	0.063
Ce-143	Pr-143	594.500	0.000	33.039	0.060
Nd-147	Pm-147	594.800	0.003	263.520	0.022
Nd-149	Pm-149	594.400	0.000	1.728	0.011
Pm-151	Sm-151	593.600	0.000	28.400	0.004

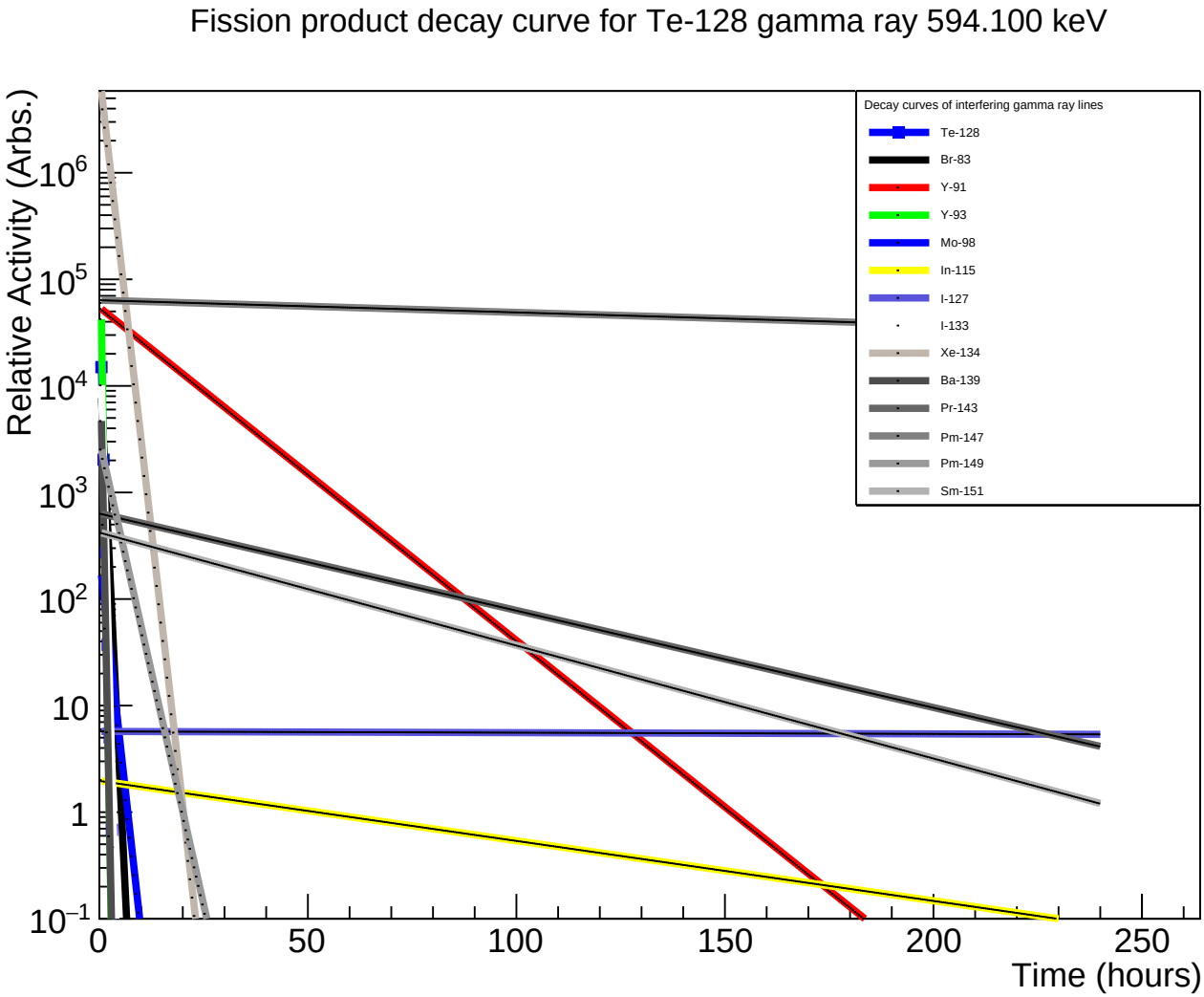


Figure 568: Te-128 decay curve for 594.100 keV gamma ray.

3.569 Sb-128 E_γ = 743.24 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 743.24 keV
Gamma Intensity = 96.40 ± 4.923 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1137: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1138: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	742.600	0.000	0.390	0.000
Te-131	I-131	744.400	0.000	0.417	0.025
Te-131	I-131	744.200	0.015	33.250	0.004
Te-133	I-133	743.000	0.003	0.208	0.031
Te-133	I-133	742.900	0.004	0.923	0.040
Te-134	I-134	742.586	0.153	0.697	0.070
Pr-143	Nd-143	742.100	0.000	325.680	0.060
Nd-149	Pm-149	743.500	0.000	1.728	0.011
Nd-151	Pm-151	744.000	0.000	0.207	0.004

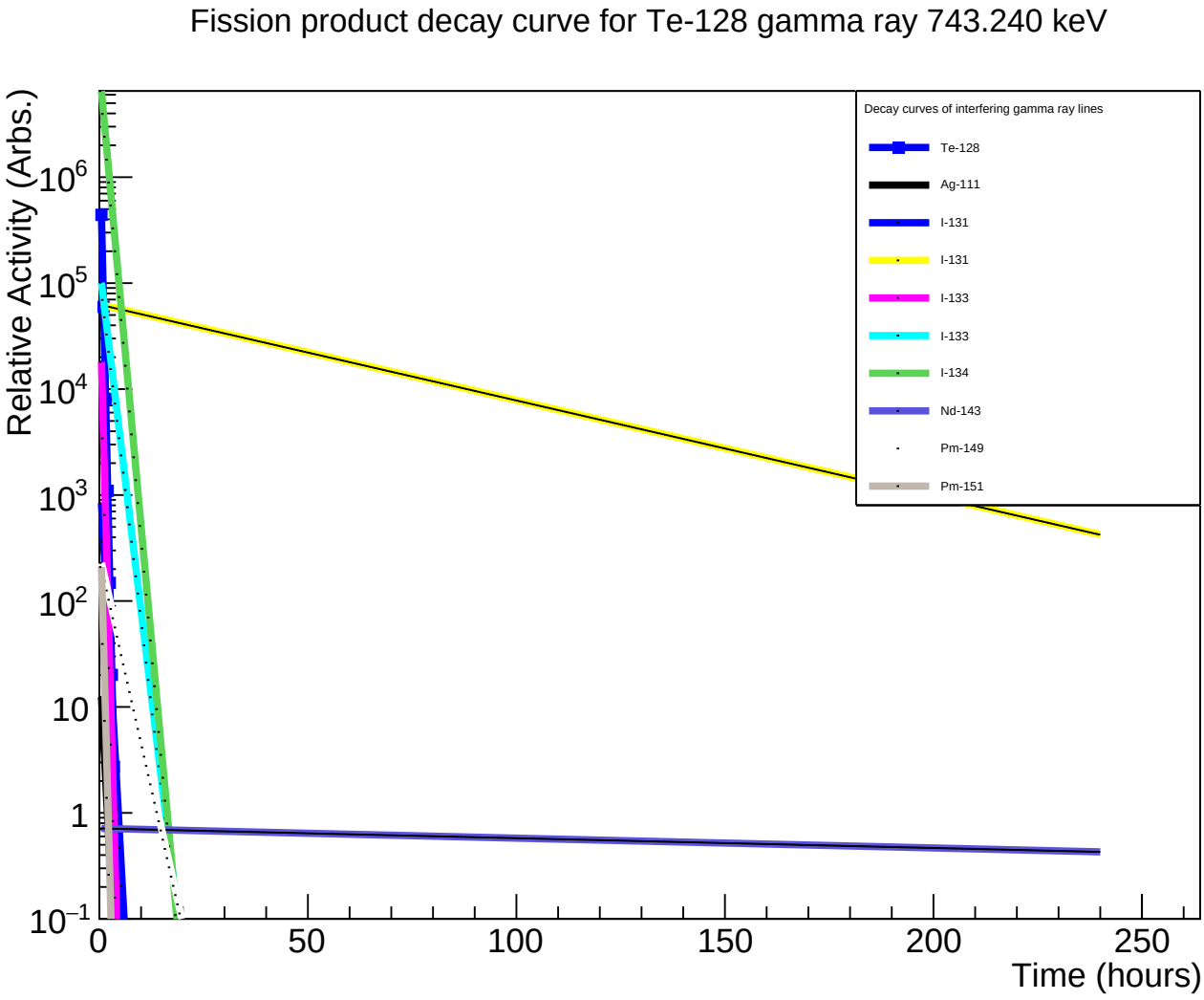


Figure 569: Te-128 decay curve for 743.240 keV gamma ray.

3.570 Sb-128 E_γ = 753.90 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 753.90 keV
Gamma Intensity = 96.40 ± 5.287 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1139: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1140: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	752.600	0.014	0.312	0.065
Nb-98	Mo-98	753.000	0.000	0.855	0.000
Nb-98	Mo-98	753.190	0.001	0.855	0.000
Rh-107	Pd-107	753.800	0.000	0.362	0.001
Ag-111	Cd-111	754.600	0.000	178.800	0.000
Te-133	I-133	753.300	0.003	0.923	0.040
Xe-138	Cs-138	755.000	0.000	0.235	0.063
Cs-138	Ba-138	754.500	0.000	0.557	0.067
Ba-141	La-141	753.800	0.000	0.304	0.058
Nd-149	Pm-149	754.291	0.000	1.728	0.011
Nd-151	Pm-151	753.000	0.001	0.207	0.004
Nd-151	Pm-151	753.800	0.000	0.207	0.004
Pm-151	Sm-151	752.820	0.013	28.400	0.004
Pm-151	Sm-151	755.000	0.000	28.400	0.004

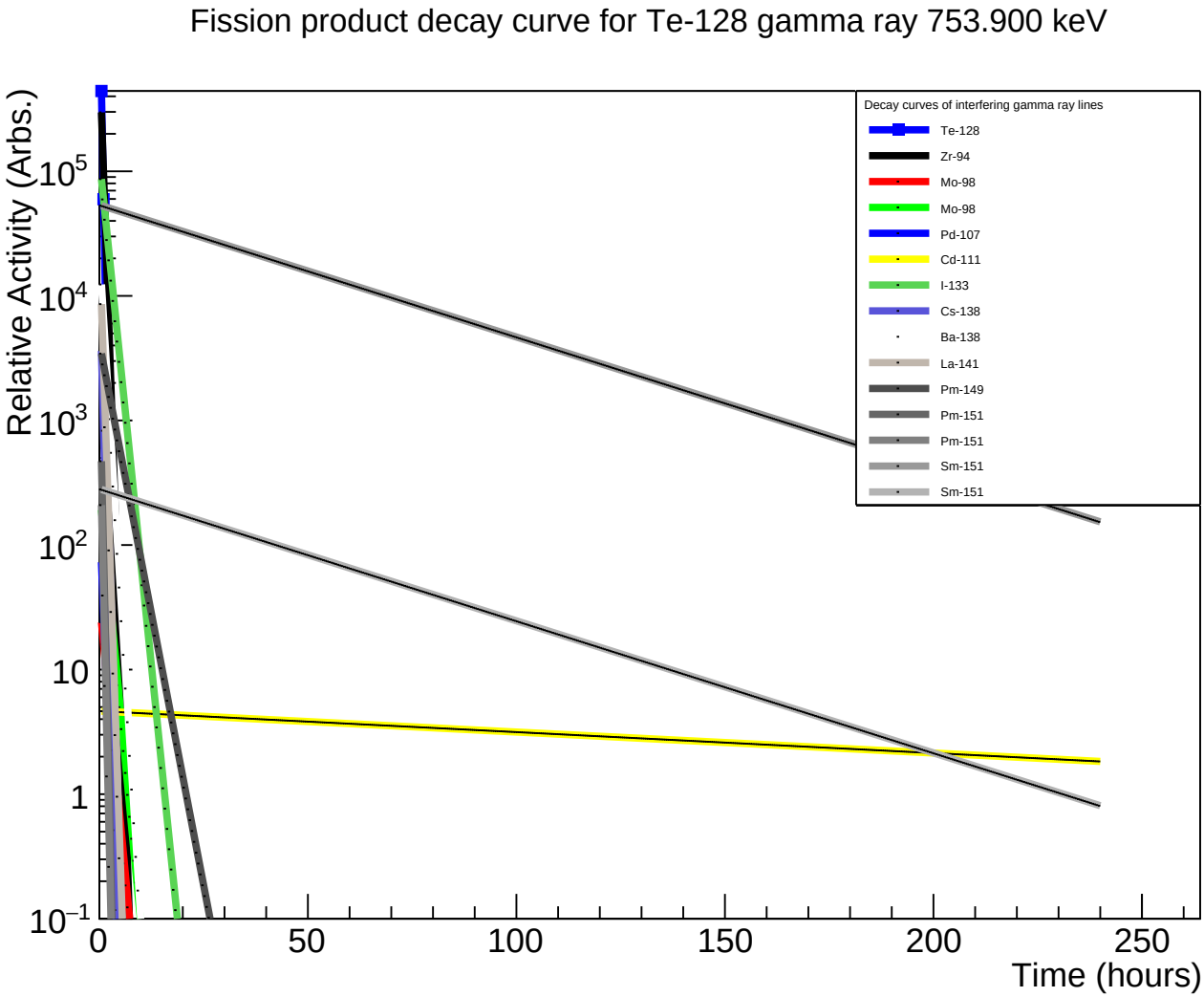


Figure 570: Te-128 decay curve for 753.900 keV gamma ray.

3.571 Sb-128 E_γ = 787.60 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 787.60 keV
Gamma Intensity = 7.13 ± 1.031 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1141: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1142: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	789.100	0.000	0.308	0.002
Kr-88	Rb-88	788.280	0.005	2.840	0.036
Sr-93	Y-93	788.680	0.008	0.124	0.062
Nb-95	Mo-95	786.192	0.000	86.640	0.001
Nb-98	Mo-98	787.363	0.934	0.855	0.000
Te-133	I-133	786.930	0.054	0.208	0.031
Xe-135	Cs-135	786.900	0.000	0.255	0.011
Cs-139	Ba-139	788.300	0.000	0.155	0.063
Ba-142	La-142	786.600	0.002	0.177	0.058
Ce-143	Pr-143	787.400	0.000	33.039	0.060
Pr-146	Nd-146	788.900	0.063	0.403	0.030
Nd-149	Pm-149	786.730	0.000	1.728	0.011
Nd-151	Pm-151	787.200	0.000	0.207	0.004

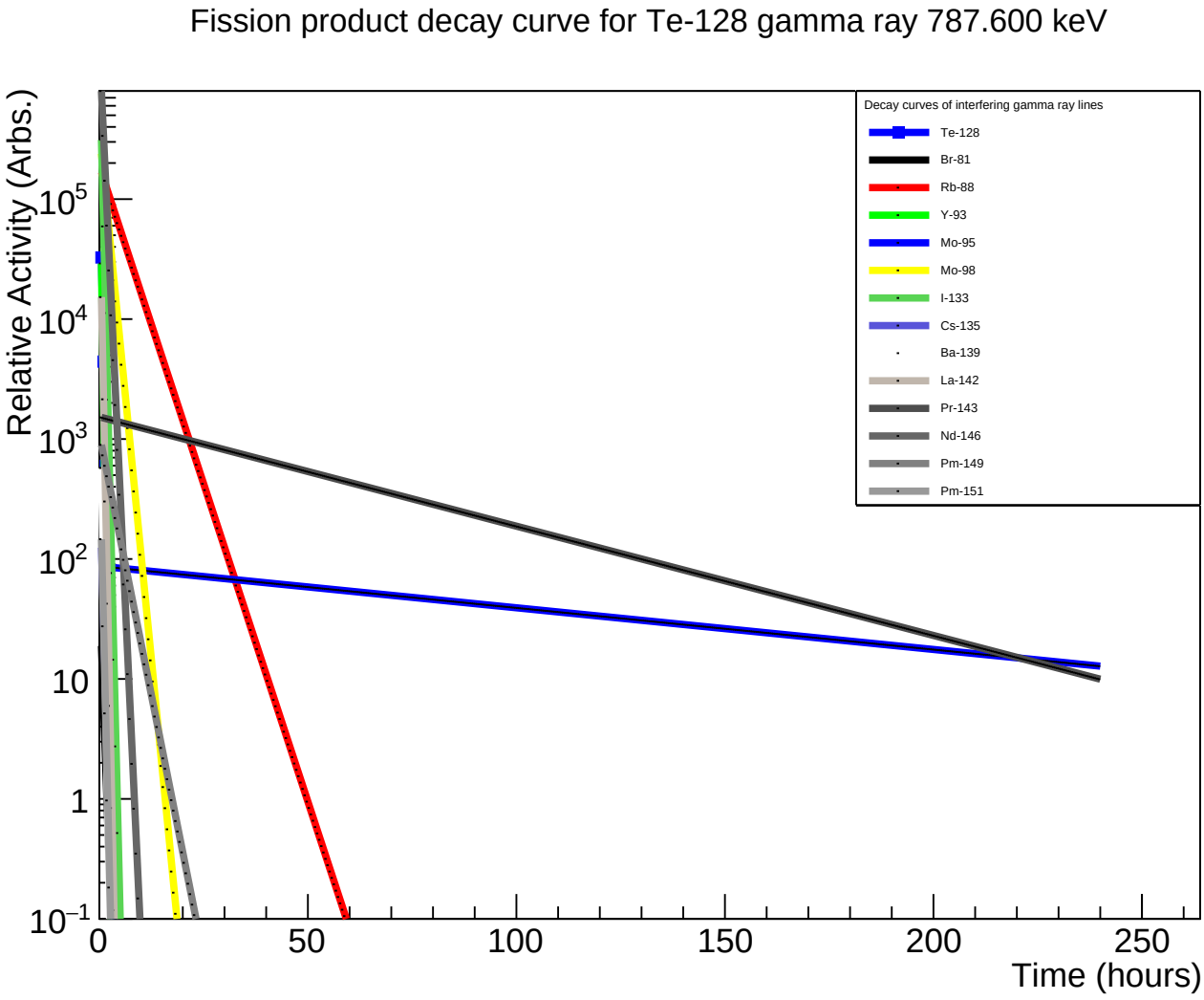


Figure 571: Te-128 decay curve for 787.600 keV gamma ray.

3.572 Sb-128 E_γ = 844.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 844.00 keV
Gamma Intensity = 2.22 ± 0.402 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1143: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1144: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	842.600	0.011	1.512	0.000
Kr-87	Rb-87	845.440	0.073	1.272	0.026
Y-92	Zr-92	844.300	0.013	3.540	0.060
Nb-98	Mo-98	843.820	0.001	0.855	0.000
Tc-101	Ru-101	842.730	0.002	0.237	0.052
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Ag-112	Cd-112	842.800	0.000	3.130	0.000
Te-129	I-129	844.810	0.000	806.400	0.001
Te-131	I-131	844.900	0.001	33.250	0.004
Te-133	I-133	844.360	0.033	0.208	0.031
Te-134	I-134	844.060	0.012	0.697	0.070
Nd-149	Pm-149	842.847	0.001	1.728	0.011

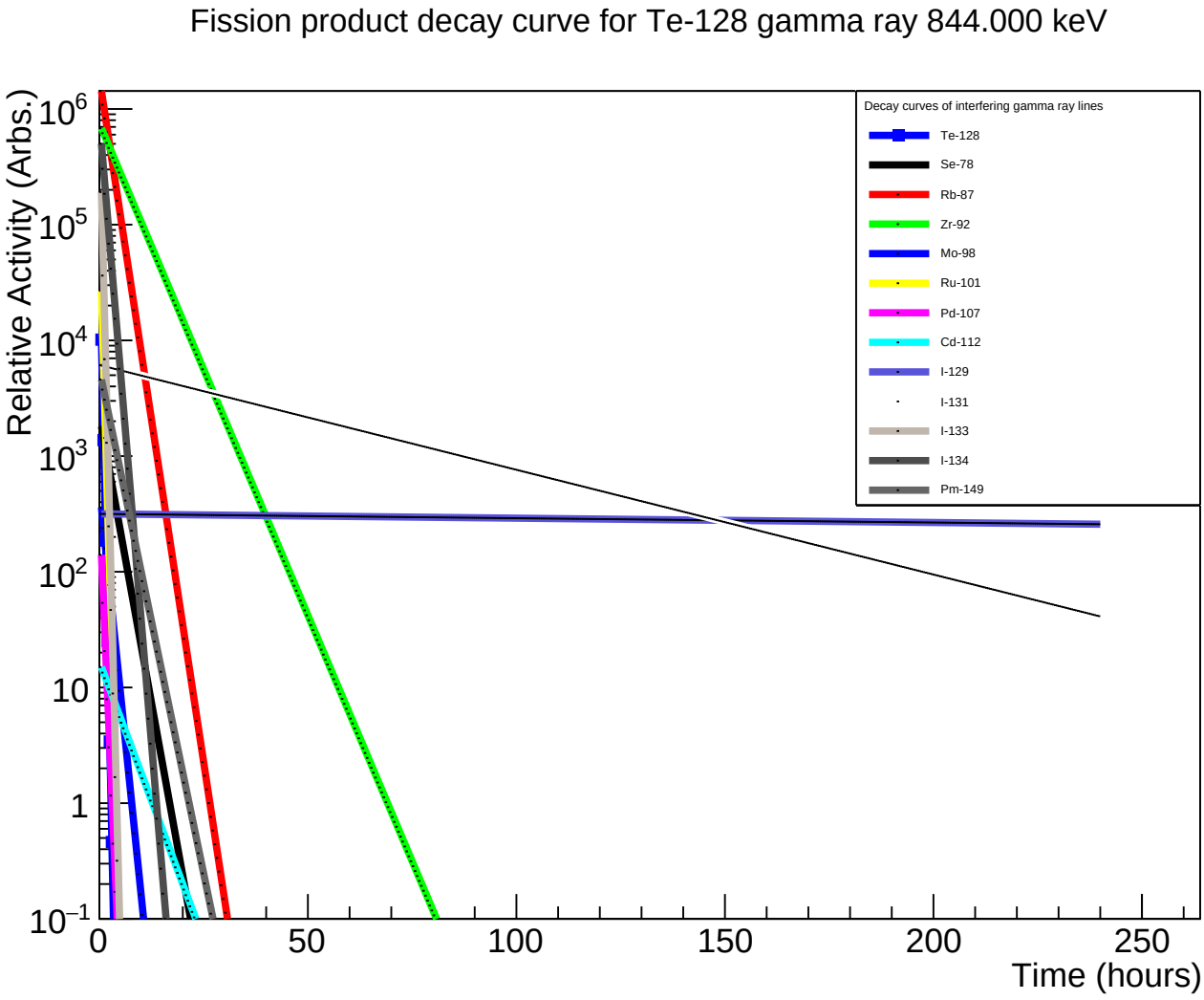


Figure 572: Te-128 decay curve for 844.000 keV gamma ray.

3.573 Sb-128 E_γ = 908.30 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 908.30 keV
Gamma Intensity = 2.31 ± 0.312 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1145: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1146: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-97	Mo-97	909.550	0.000	1.202	0.060
Nb-98	Mo-98	906.860	0.006	0.855	0.000
Nb-98	Mo-98	909.670	0.013	0.855	0.000
Ru-105	Rh-105	907.640	0.005	4.440	0.010
I-133	Xe-133	909.670	0.002	20.800	0.067
Ba-141	La-141	909.300	0.001	0.304	0.058
Ba-142	La-142	907.200	0.000	0.177	0.058
Ce-143	Pr-143	907.100	0.000	33.039	0.060
Nd-149	Pm-149	907.690	0.000	1.728	0.011

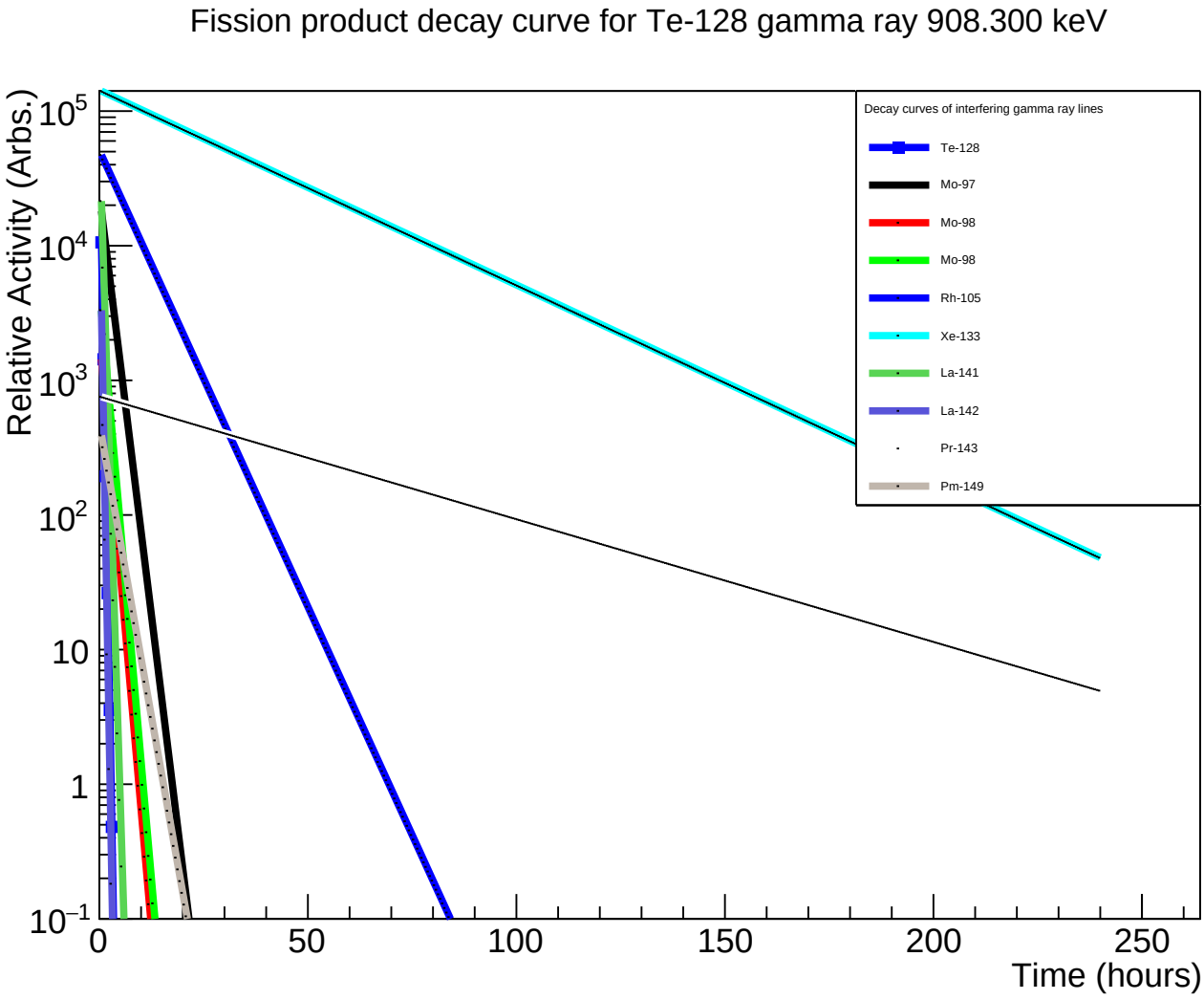


Figure 573: Te-128 decay curve for 908.300 keV gamma ray.

3.574 Sb-128 E_γ = 1158.00 keV

Chemical element: Antimony
Fission product parent: Sb-128
Gamma originates in daughter: Te-128
Eγ: 1158.00 keV
Gamma Intensity = 1.74 ± 0.212 %
$T_{1/2}$ = 0.173 ± 0.003 hours or 10.40 ± 0.20 minutes
CFY: 0.338 ± 0.216 %

Table 1147: Decay chain of fission product chain A = 128

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-128	Tin-128	0.000	0.000
Tin-128	Antimony-128	0.002	0.000
Antimony-128	Tellurium-128	9.010	0.030

Table 1148: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1158.500	0.000	10.180	0.063
Tc-104	Ru-104	1157.400	0.028	0.305	0.019
Sn-127	Sb-127	1159.200	0.009	2.100	0.001
I-134	Xe-134	1159.100	0.003	0.875	0.078
Cs-139	Ba-139	1159.300	0.000	0.155	0.063
Pr-147	Nd-147	1157.400	0.001	0.223	0.022
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1156.900	0.001	0.207	0.004
Nd-151	Pm-151	1159.400	0.001	0.207	0.004

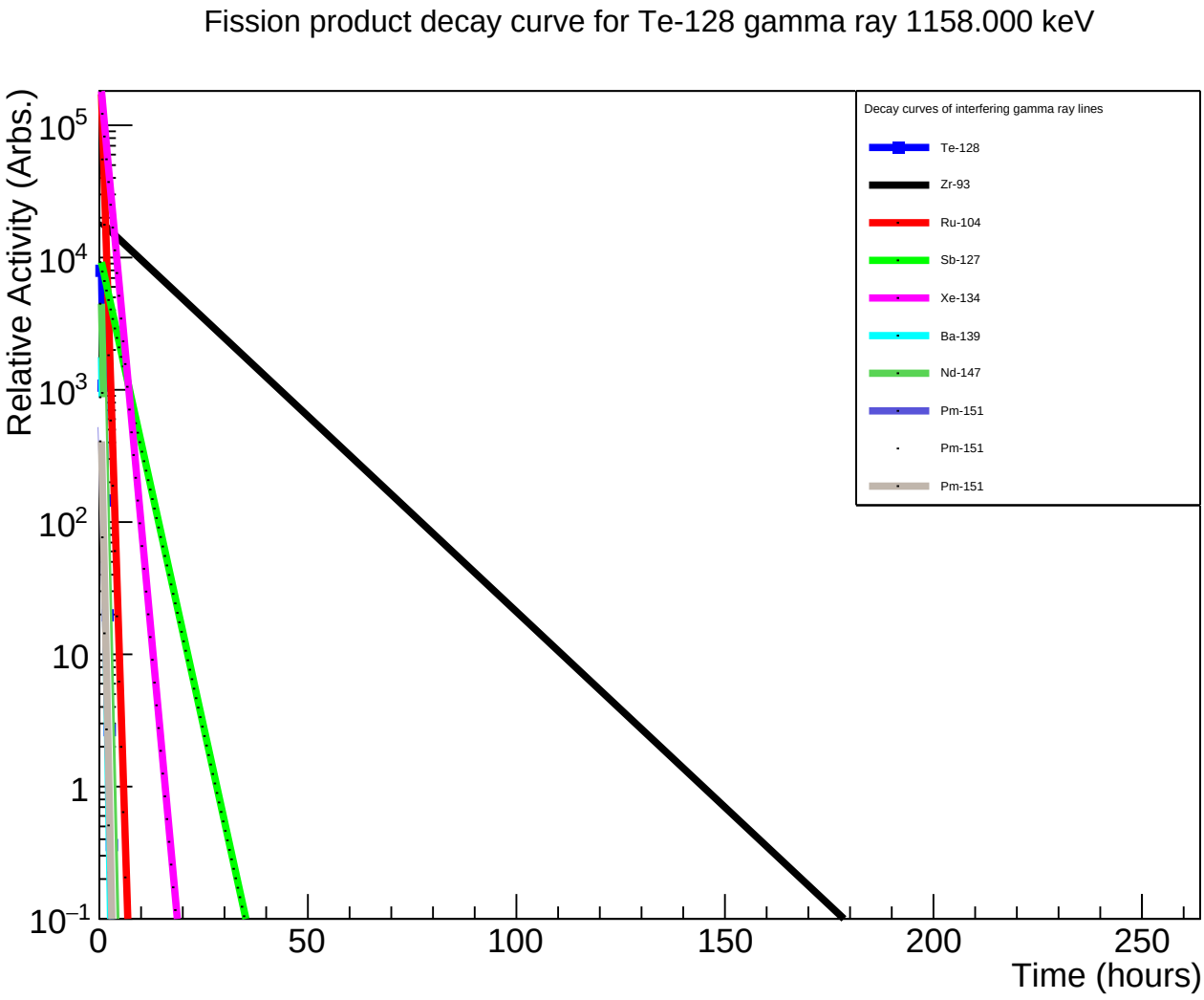


Figure 574: Te-128 decay curve for 1158.000 keV gamma ray.

3.575 Sb-129 E_γ = 180.80 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 180.80 keV
Gamma Intensity = 2.55 ± 0.175 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1149: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1150: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	181.068	0.061	65.976	0.061
Tc-101	Ru-101	179.600	0.006	0.237	0.052
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Te-131	I-131	182.250	0.017	33.250	0.004
Te-134	I-134	180.891	0.183	0.697	0.070
Ba-141	La-141	180.800	0.005	0.304	0.058

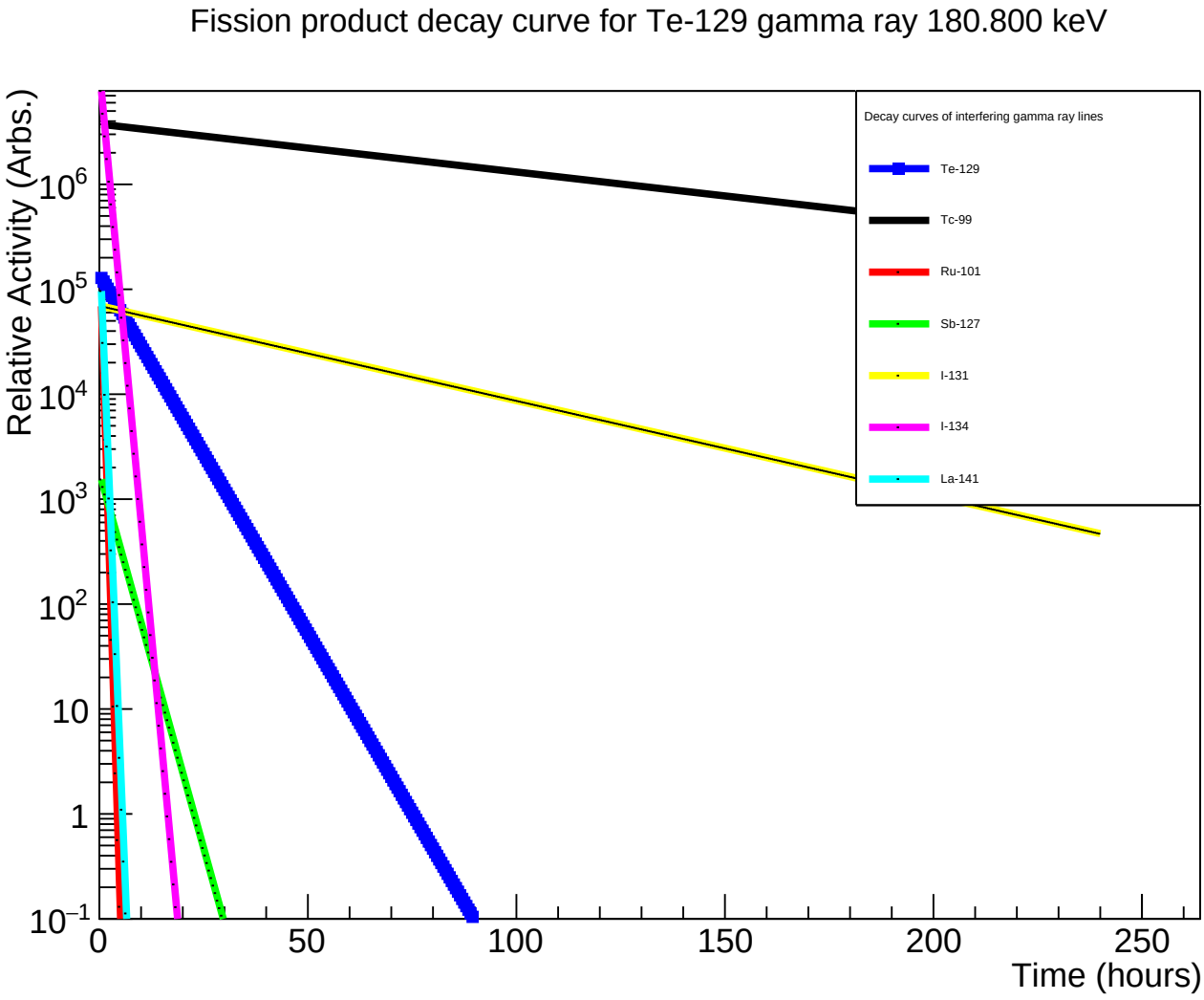


Figure 575: Te-129 decay curve for 180.800 keV gamma ray.

3.576 Sb-129 E_γ = 295.50 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 295.50 keV
Gamma Intensity = 1.04 ± 0.099 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1151: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1152: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	296.060	0.003	0.372	0.003
Tc-101	Ru-101	295.170	0.000	0.237	0.052
Tc-104	Ru-104	294.900	0.006	0.305	0.019
Ru-103	Rh-103	294.964	0.003	941.928	0.030
Te-131	I-131	294.750	0.000	0.417	0.025
Te-131	I-131	296.800	0.000	0.417	0.025
Te-131	I-131	296.800	0.000	33.250	0.004
Te-133	I-133	294.820	0.002	0.923	0.040
I-131	Xe-131	295.800	0.000	192.605	0.029
Nd-149	Pm-149	294.802	0.006	1.728	0.011
Nd-152	Pm-152	294.470	0.033	0.190	0.003
Pm-151	Sm-151	294.800	0.000	28.400	0.004
Pm-151	Sm-151	295.200	0.000	28.400	0.004

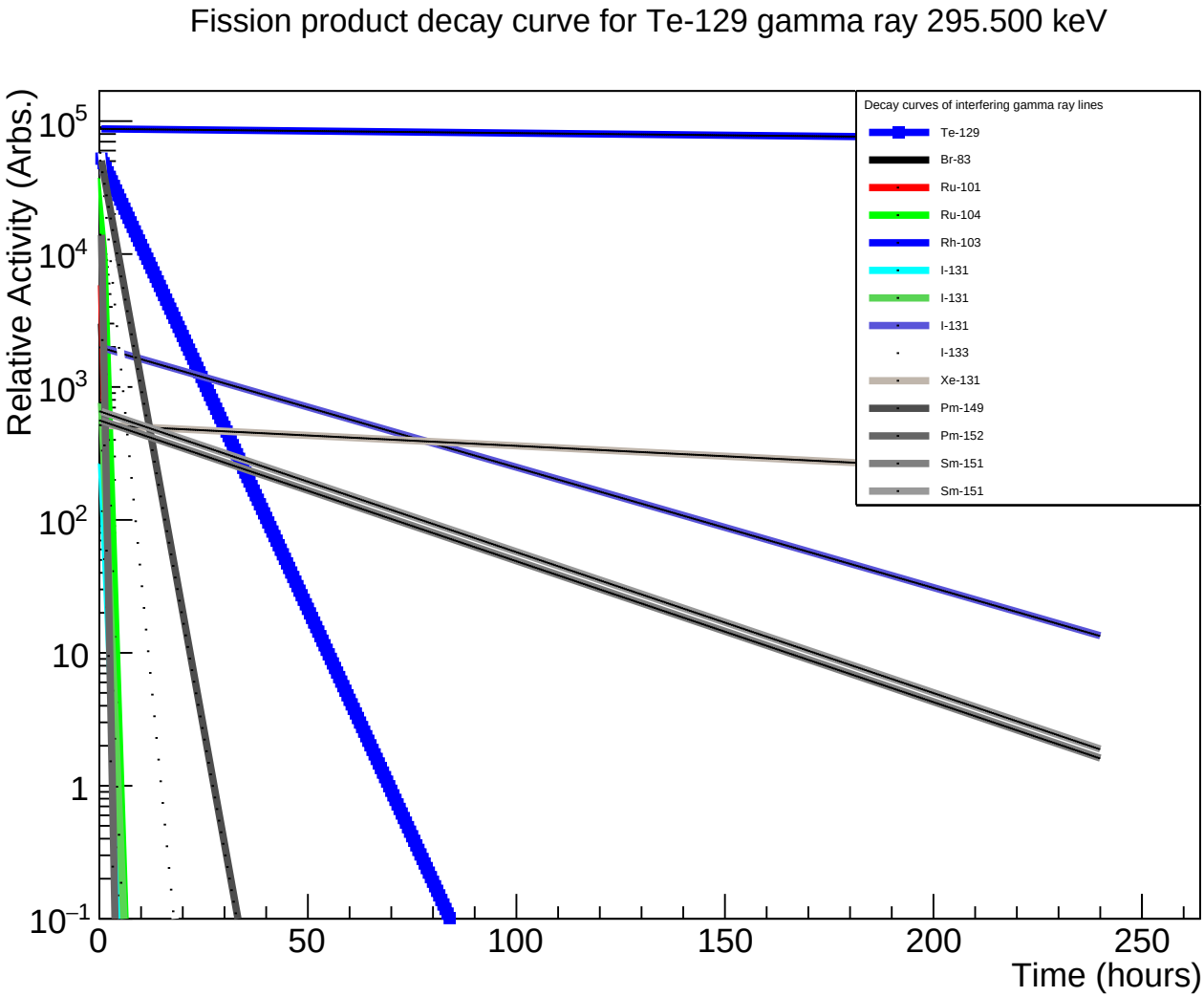


Figure 576: Te-129 decay curve for 295.500 keV gamma ray.

3.577 Sb-129 E_γ = 359.40 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 359.40 keV
Gamma Intensity = 2.86 ± 0.291 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1153: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1154: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	359.100	0.001	9.630	0.058
Mo-101	Tc-101	358.200	0.000	0.243	0.052
Mo-102	Tc-102	359.900	0.003	0.188	0.043
Tc-104	Ru-104	358.000	0.890	0.305	0.019
Tc-105	Ru-105	358.300	0.025	0.127	0.010
Tc-105	Ru-105	358.400	0.006	0.127	0.010
Sn-127	Sb-127	360.600	0.002	2.100	0.001
Te-127	I-127	360.300	0.001	9.350	0.002
Te-133	I-133	358.700	0.001	0.208	0.031
Te-133	I-133	360.800	0.000	0.923	0.040
I-131	Xe-131	358.400	0.000	192.605	0.029
Xe-135	Cs-135	358.390	0.002	9.140	0.065
Ba-141	La-141	359.200	0.000	0.304	0.058
Nd-149	Pm-149	358.490	0.000	1.728	0.011
Nd-149	Pm-149	360.052	0.002	1.728	0.011
Pm-149	Sm-149	359.570	0.000	53.080	0.011
Pm-151	Sm-151	358.400	0.000	28.400	0.004
Pm-151	Sm-151	360.900	0.000	28.400	0.004

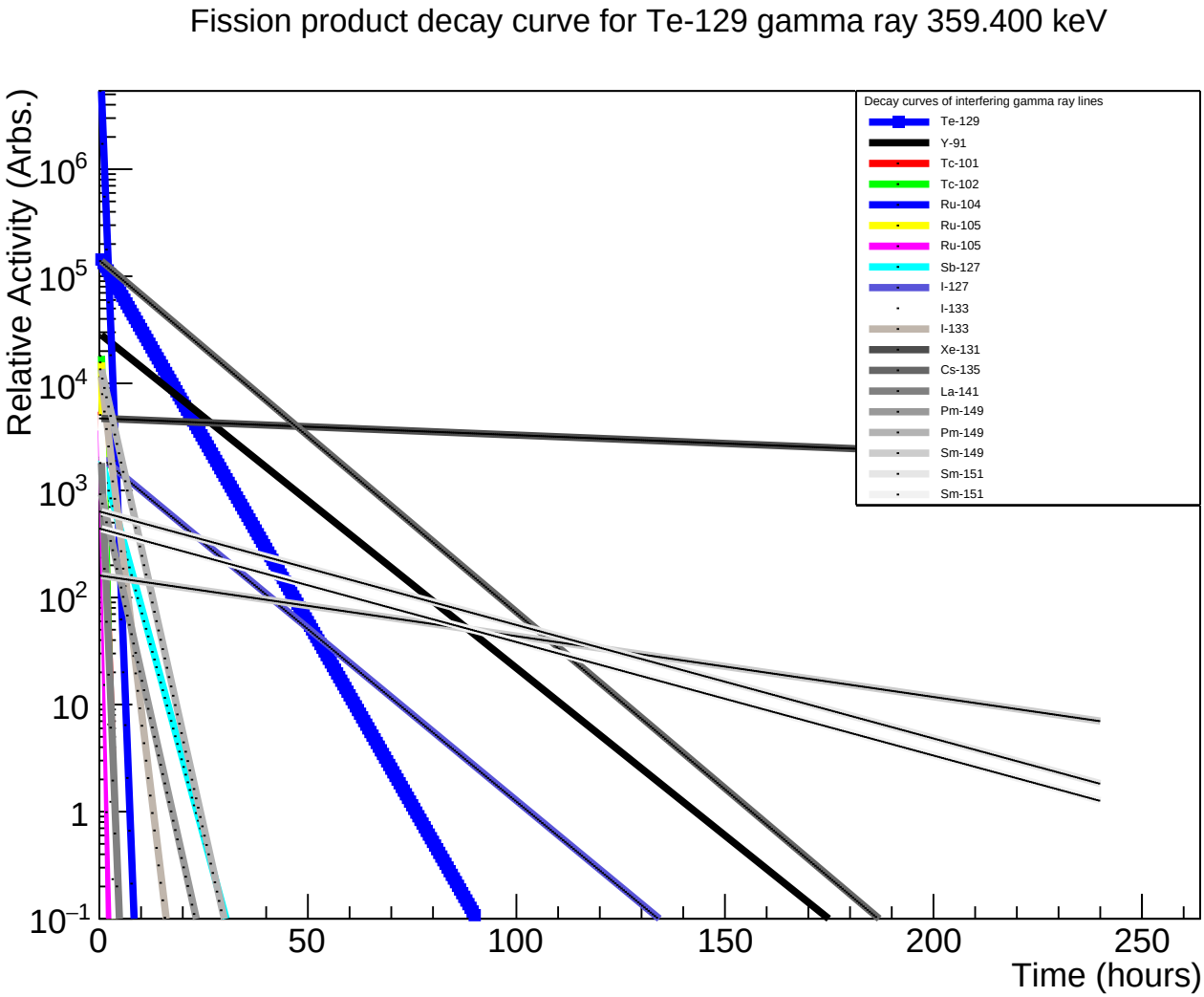


Figure 577: Te-129 decay curve for 359.400 keV gamma ray.

3.578 Sb-129 E_γ = 405.00 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 405.00 keV
Gamma Intensity = 1.39 ± 0.145 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1155: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1156: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	404.800	0.001	0.390	0.000
Sn-127	Sb-127	405.000	0.005	2.100	0.001
Sn-128	Sb-128	404.400	0.059	0.984	0.003
Te-133	I-133	404.850	0.003	0.208	0.031
Te-133	I-133	406.000	0.004	0.923	0.040
I-131	Xe-131	404.814	0.001	192.605	0.029
I-134	Xe-134	405.451	0.074	0.875	0.078
Cs-139	Ba-139	404.610	0.000	0.155	0.063
Nd-152	Pm-152	406.400	0.000	0.190	0.003
Pm-151	Sm-151	404.740	0.001	28.400	0.004

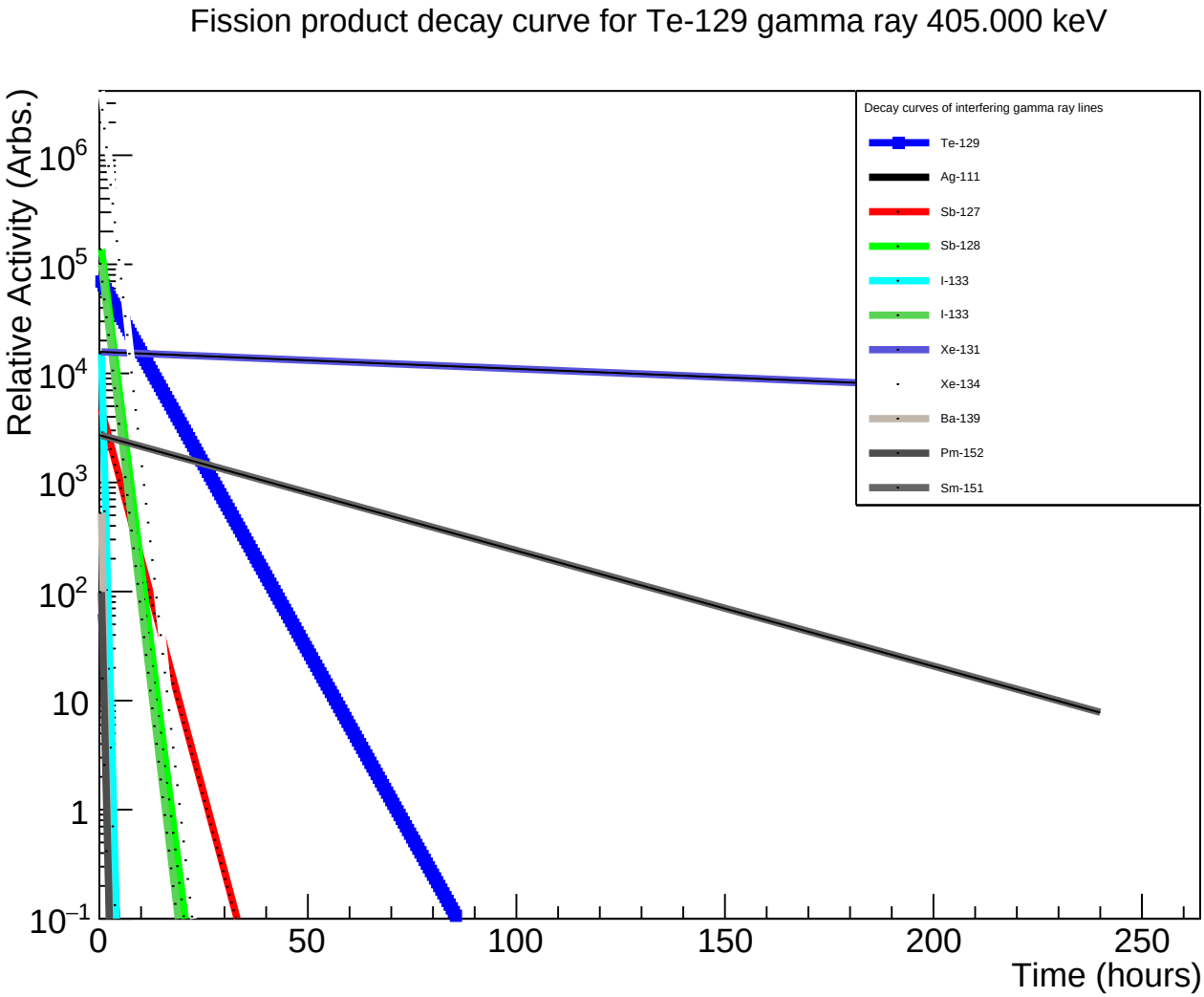


Figure 578: Te-129 decay curve for 405.000 keV gamma ray.

3.579 Sb-129 E_γ = 523.80 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 523.80 keV
Gamma Intensity = 1.60 ± 0.149 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1157: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1158: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	523.830	0.002	0.243	0.052
Ag-111	Cd-111	522.400	0.000	178.800	0.000
Ag-111	Cd-111	524.300	0.000	178.800	0.000
Sn-125	Sb-125	524.300	0.000	231.360	0.000
Te-131	I-131	524.800	0.001	33.250	0.004
I-132	Xe-132	522.650	0.160	2.295	0.043
I-133	Xe-133	522.400	0.000	20.800	0.067
Ba-141	La-141	522.300	0.004	0.304	0.058
Ba-141	La-141	524.300	0.005	0.304	0.058
Ce-143	Pr-143	523.000	0.000	33.039	0.060
Nd-151	Pm-151	524.310	0.005	0.207	0.004
Sm-155	Eu-155	522.540	0.001	0.372	0.000

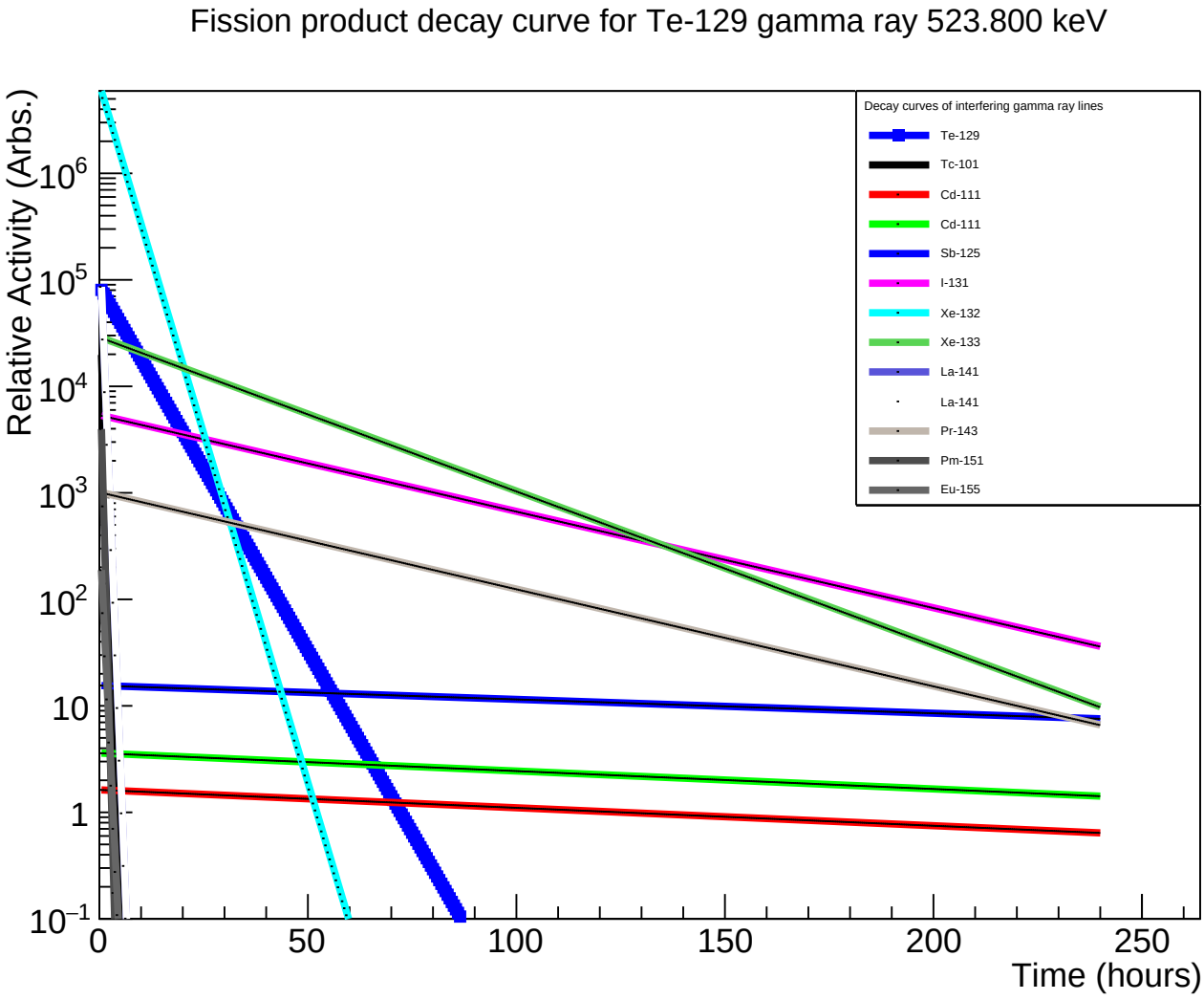


Figure 579: Te-129 decay curve for 523.800 keV gamma ray.

3.580 Sb-129 E_γ = 544.70 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 544.70 keV
Gamma Intensity = 18.06 ± 1.234 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1159: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1160: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	545.300	0.030	1.512	0.000
Sr-93	Y-93	545.810	0.004	0.124	0.062
Nb-98	Mo-98	543.830	0.005	0.855	0.000
Nb-98	Mo-98	544.500	0.001	0.855	0.000
Tc-101	Ru-101	545.050	0.060	0.237	0.052
Sn-127	Sb-127	545.400	0.023	2.100	0.001
Te-131	I-131	544.880	0.004	0.417	0.025
Te-133	I-133	543.500	0.001	0.208	0.031
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	545.500	0.000	1.728	0.011
Nd-151	Pm-151	544.610	0.001	0.207	0.004
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Pm-149	Sm-149	544.270	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

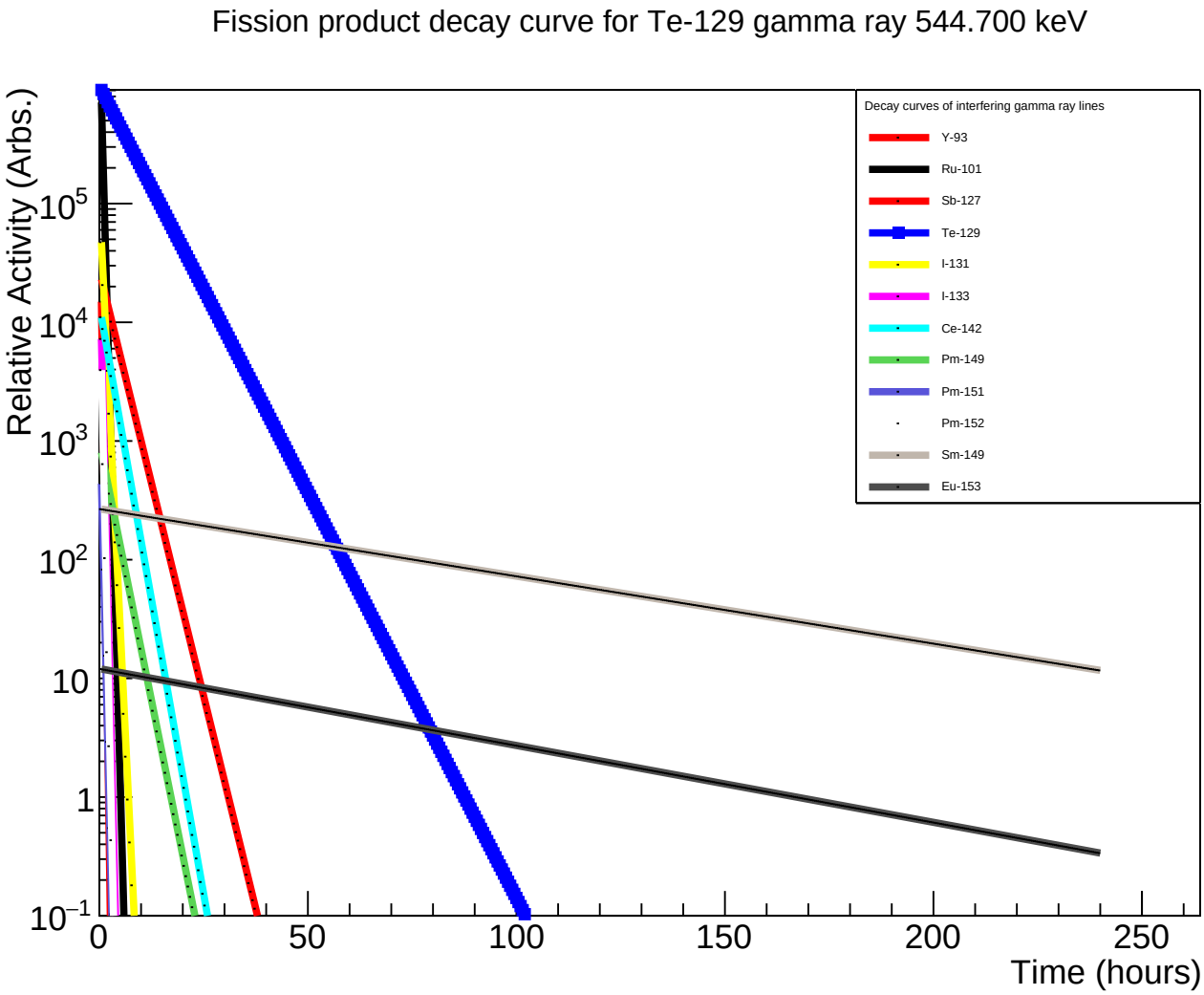


Figure 580: Te-129 decay curve for 544.700 keV gamma ray.

3.581 Sb-129 E_γ = 633.70 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 633.70 keV
Gamma Intensity = 2.77 ± 0.252 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1161: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1162: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	633.500	0.001	0.124	0.062
Y-95	Zr-95	632.300	0.003	0.172	0.064
Ru-105	Rh-105	632.340	0.002	4.440	0.010
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Nd-151	Pm-151	634.000	0.000	0.207	0.004
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Eu-156	Gd-156	632.790	0.000	364.560	0.000

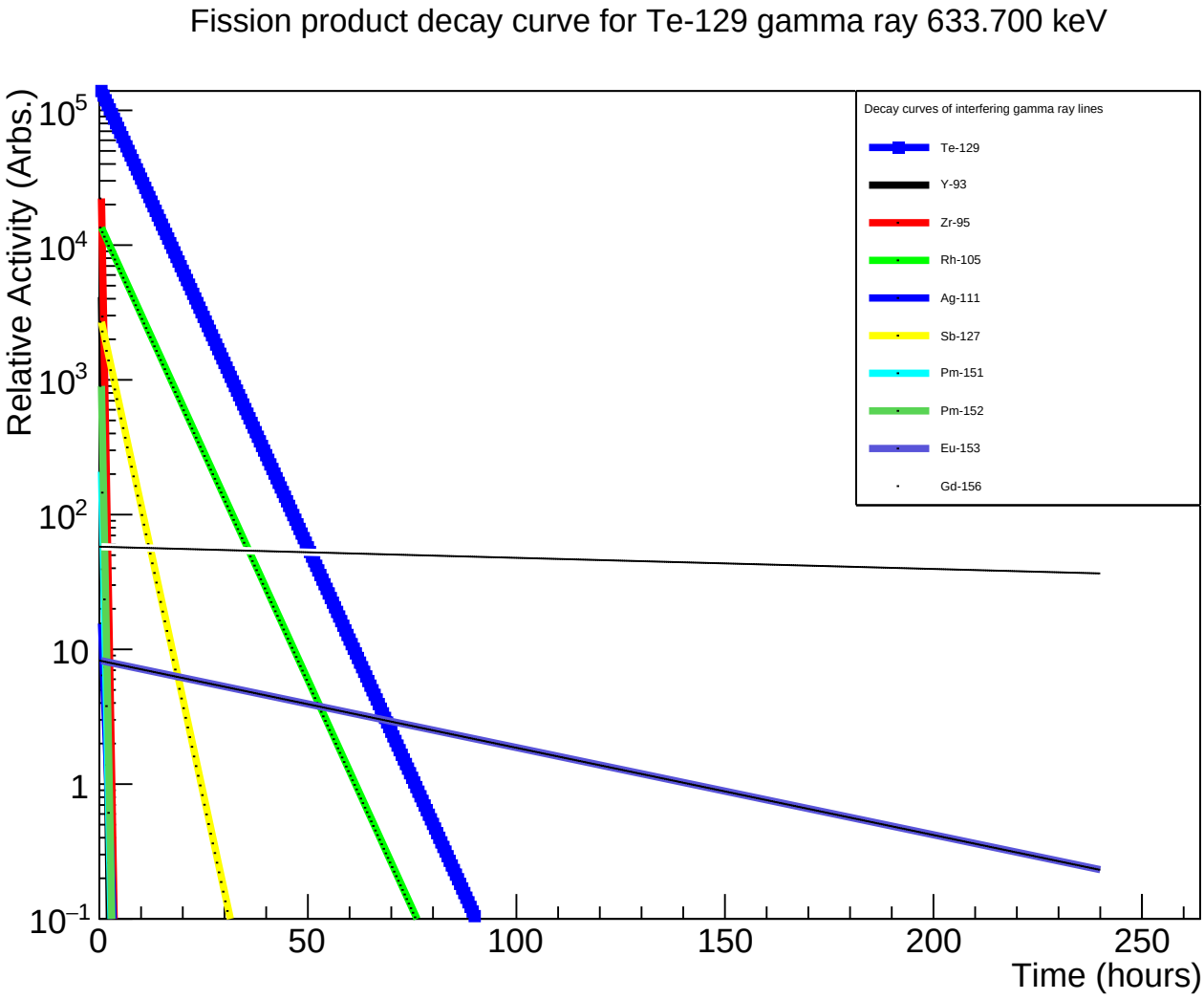


Figure 581: Te-129 decay curve for 633.700 keV gamma ray.

3.582 Sb-129 E_γ = 654.30 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 654.30 keV
Gamma Intensity = 3.03 ± 0.258 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1163: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1164: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	652.900	0.080	9.630	0.058
Sr-91	Y-91	653.000	0.004	9.630	0.058
Te-131	I-131	654.260	0.015	0.417	0.025
Te-133	I-133	653.980	0.003	0.208	0.031
Te-133	I-133	653.300	0.006	0.923	0.040
Xe-135	Cs-135	654.432	0.000	9.140	0.065
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Ba-142	La-142	654.600	0.001	0.177	0.058
Nd-149	Pm-149	653.900	0.000	1.728	0.011
Nd-149	Pm-149	654.831	0.080	1.728	0.011
Nd-151	Pm-151	655.000	0.000	0.207	0.004
Pm-151	Sm-151	654.250	0.002	28.400	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004

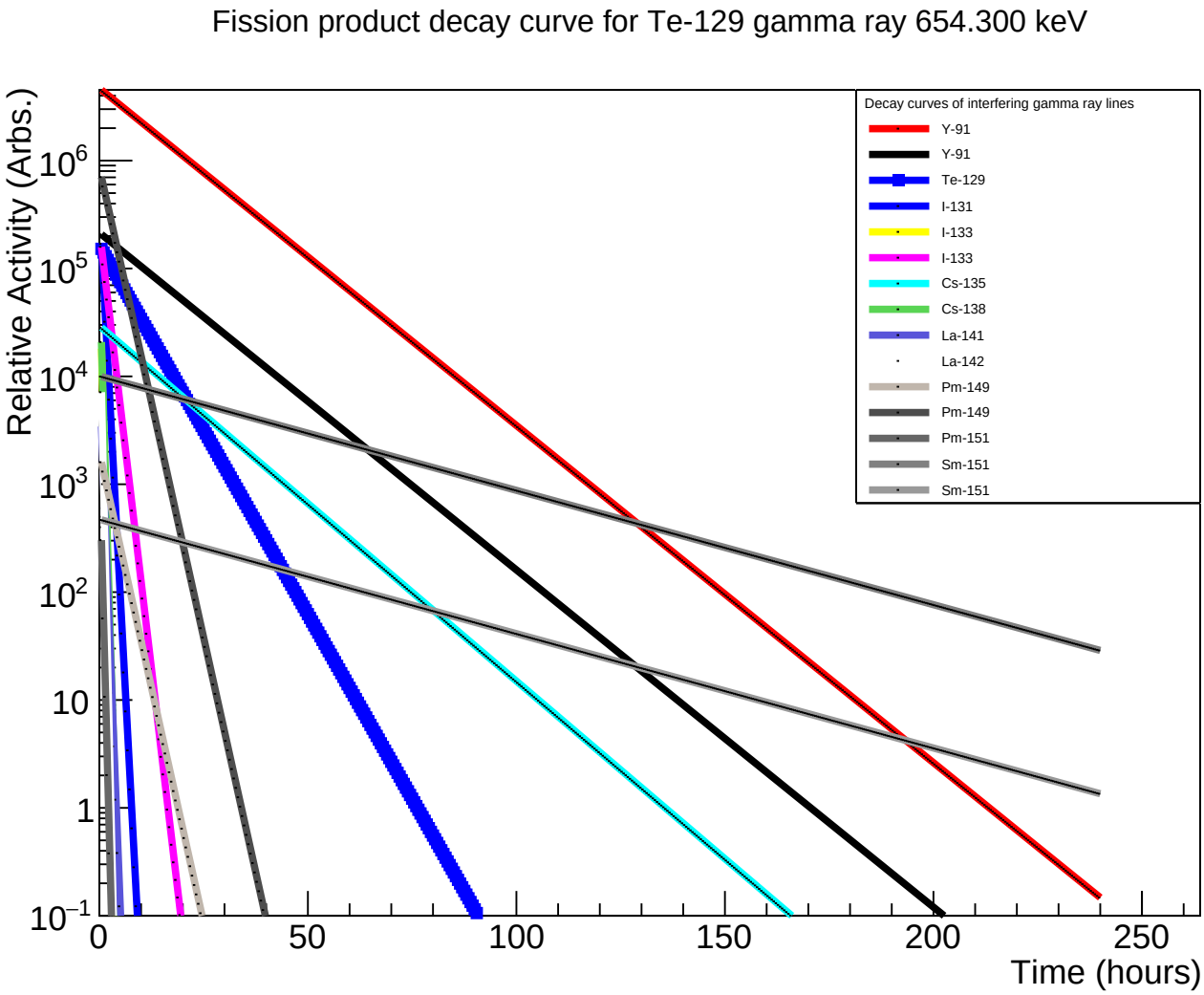


Figure 582: Te-129 decay curve for 654.300 keV gamma ray.

3.583 Sb-129 E_γ = 683.60 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 683.60 keV
Gamma Intensity = 5.85 ± 0.474 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1165: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1166: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	684.000	0.000	231.360	0.000
I-132	Xe-132	684.400	0.000	2.295	0.043
I-135	Xe-135	684.600	0.000	6.570	0.063
Cs-138	Ba-138	683.590	0.001	0.557	0.067
Ce-143	Pr-143	682.820	0.000	33.039	0.060

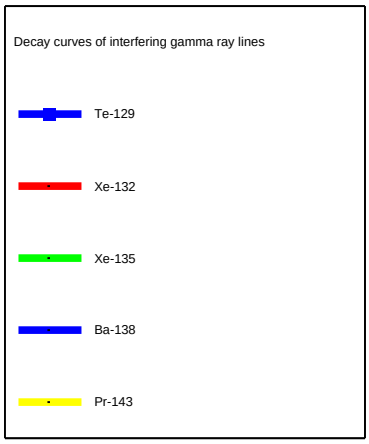


Figure 583: Te-129 decay curve for 683.600 keV gamma ray.

3.584 Sb-129 E_γ = 761.00 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 761.00 keV
Gamma Intensity = 3.81 ± 0.314 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1167: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1168: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	761.400	0.006	9.630	0.058
Mo-99	Tc-99	761.770	0.000	65.976	0.061
Ag-112	Cd-112	762.300	0.001	3.130	0.000
Ba-141	La-141	762.000	0.002	0.304	0.058
Nd-149	Pm-149	761.460	0.000	1.728	0.011
Sm-153	Eu-153	760.500	0.000	46.500	0.002

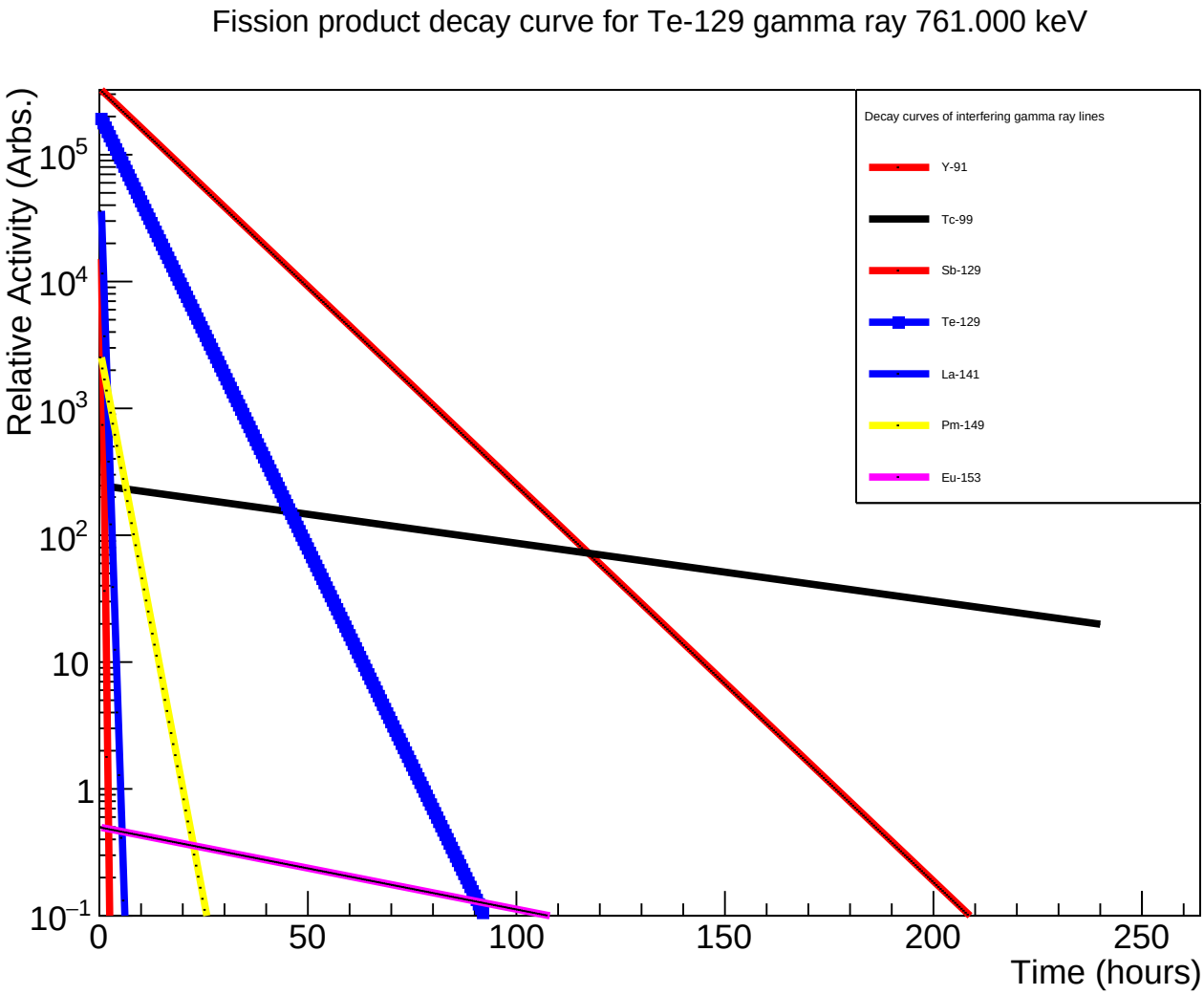


Figure 584: Te-129 decay curve for 761.000 keV gamma ray.

3.585 Sb-129 E_γ = 773.40 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 773.40 keV
Gamma Intensity = 2.77 ± 0.252 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1169: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1170: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	774.140	0.001	2.840	0.036
Nb-98	Mo-98	773.700	0.001	0.855	0.000
Nb-98	Mo-98	774.300	0.000	0.855	0.000
Pd-111	Ag-111	773.000	0.000	0.390	0.000
Sn-127	Sb-127	773.700	0.004	2.100	0.001
Te-131	I-131	773.670	0.368	33.250	0.004
Te-131	I-131	774.100	0.005	33.250	0.004
I-132	Xe-132	772.600	0.756	2.295	0.043
Xe-138	Cs-138	774.210	0.001	0.235	0.063
Cs-138	Ba-138	773.310	0.002	0.557	0.067
Cs-139	Ba-139	773.500	0.000	0.155	0.063
Ba-142	La-142	771.900	0.001	0.177	0.058
La-143	Ce-143	774.700	0.004	0.237	0.059
Pr-146	Nd-146	772.300	0.000	0.403	0.030
Pr-146	Nd-146	774.400	0.003	0.403	0.030
Nd-149	Pm-149	774.600	0.000	1.728	0.011
Nd-151	Pm-151	773.620	0.001	0.207	0.004
Nd-151	Pm-151	773.620	0.003	0.207	0.004
Pm-151	Sm-151	772.760	0.009	28.400	0.004

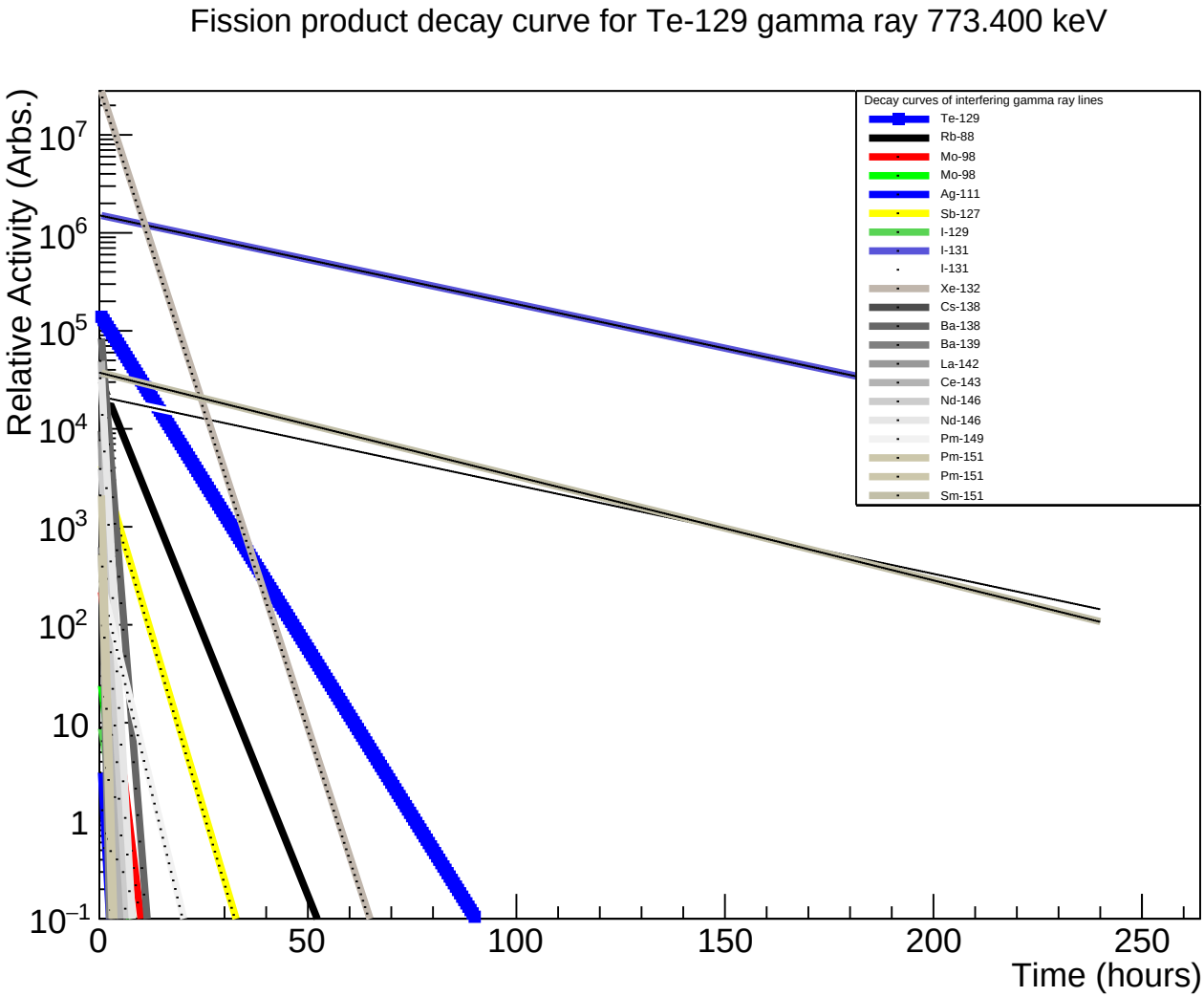


Figure 585: Te-129 decay curve for 773.400 keV gamma ray.

3.586 Sb-129 E_γ = 786.60 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 786.60 keV
Gamma Intensity = 1.91 ± 0.194 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1171: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1172: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	785.400	0.001	0.124	0.062
Nb-95	Mo-95	786.192	0.000	86.640	0.001
Nb-98	Mo-98	787.363	0.934	0.855	0.000
Te-133	I-133	786.930	0.054	0.208	0.031
I-135	Xe-135	785.480	0.002	6.570	0.063
Xe-135	Cs-135	786.900	0.000	0.255	0.011
Ba-142	La-142	786.600	0.002	0.177	0.058
Ce-143	Pr-143	787.400	0.000	33.039	0.060
Nd-149	Pm-149	786.730	0.000	1.728	0.011
Nd-151	Pm-151	785.280	0.001	0.207	0.004
Nd-151	Pm-151	787.200	0.000	0.207	0.004
Pm-149	Sm-149	785.230	0.000	53.080	0.011
Pm-151	Sm-151	785.100	0.002	28.400	0.004

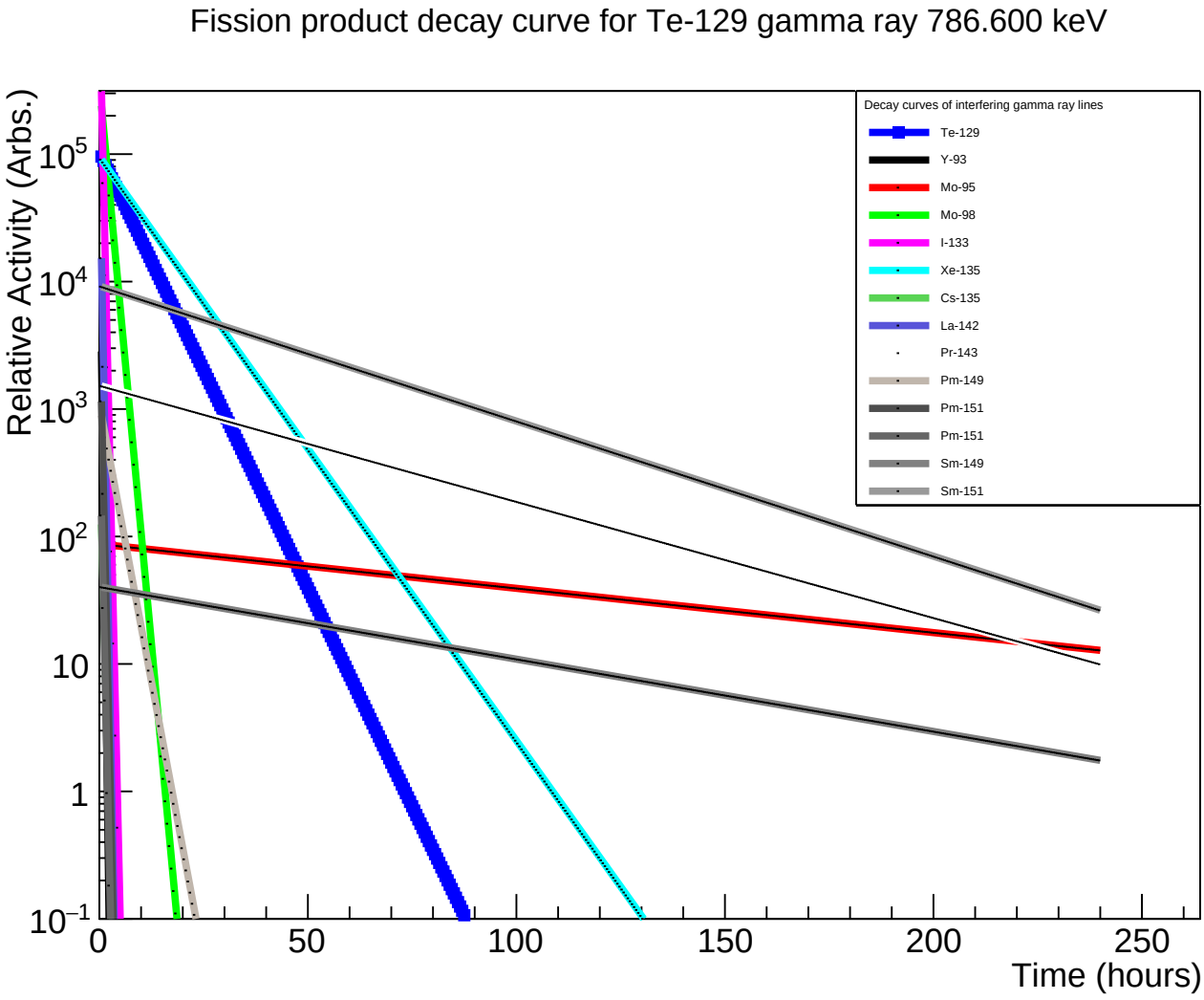


Figure 586: Te-129 decay curve for 786.600 keV gamma ray.

3.587 Sb-129 E_γ = 812.80 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 812.80 keV
Gamma Intensity = 43.30 ± 2.000 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1173: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1174: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	812.000	0.004	0.372	0.003
Kr-87	Rb-87	814.250	0.002	1.272	0.026
Te-133	I-133	813.400	0.001	0.208	0.031
I-132	Xe-132	812.000	0.055	2.295	0.043
Xe-135	Cs-135	812.630	0.001	9.140	0.065
Cs-138	Ba-138	813.000	0.001	0.557	0.067
Pr-144	Nd-144	814.100	0.000	0.288	0.055
Pr-144	Nd-144	814.100	0.000	0.120	0.000
Nd-149	Pm-149	813.190	0.000	1.728	0.011
Nd-151	Pm-151	812.600	0.001	0.207	0.004
Pm-149	Sm-149	812.920	0.000	53.080	0.011
Pm-151	Sm-151	811.800	0.001	28.400	0.004
Eu-156	Gd-156	811.770	0.097	364.560	0.000

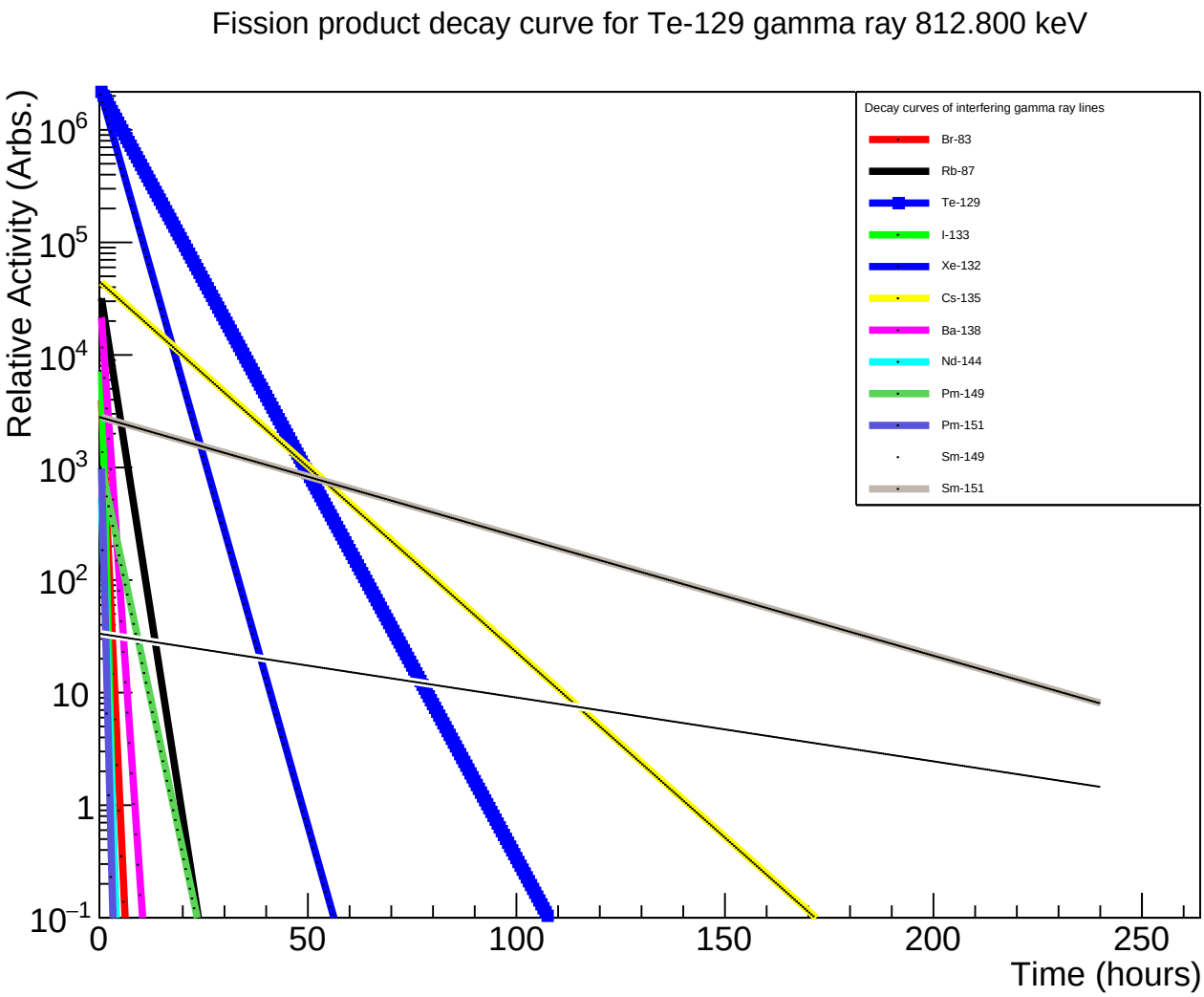


Figure 587: Te-129 decay curve for 812.800 keV gamma ray.

3.588 Sb-129 E_γ = 876.20 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 876.20 keV
Gamma Intensity = 2.60 ± 0.248 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1175: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1176: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	875.730	0.245	0.124	0.062
Mo-101	Tc-101	877.390	0.032	0.243	0.052
Ru-105	Rh-105	875.850	0.025	4.440	0.010
I-132	Xe-132	876.600	0.010	2.295	0.043
I-133	Xe-133	875.329	0.045	20.800	0.067
Ba-141	La-141	876.300	0.037	0.304	0.058
Nd-151	Pm-151	876.390	0.004	0.207	0.004
Pm-151	Sm-151	877.700	0.001	28.400	0.004

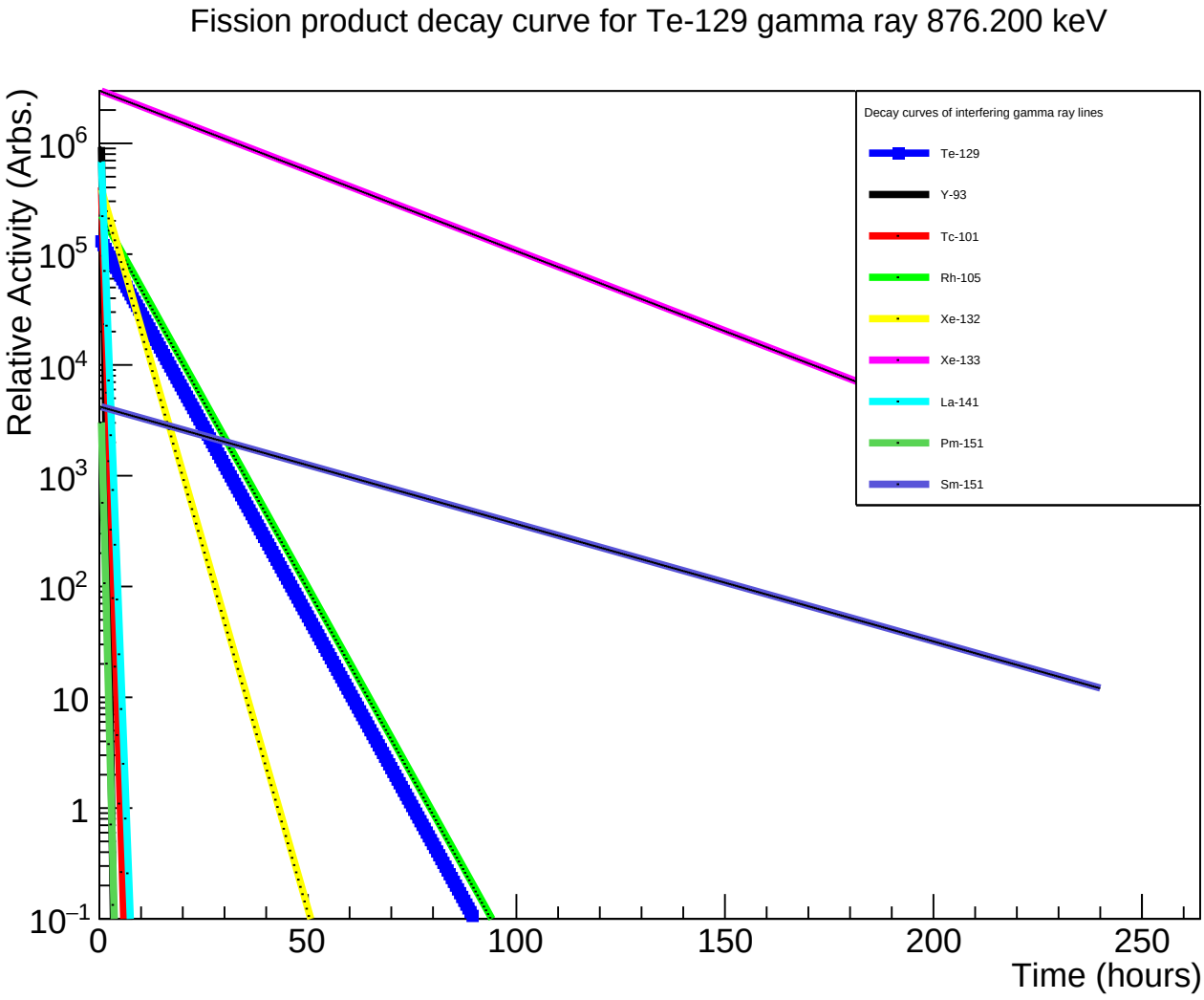


Figure 588: Te-129 decay curve for 876.200 keV gamma ray.

3.589 Sb-129 E_γ = 914.60 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 914.60 keV
Gamma Intensity = 20.18 ± 1.428 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1177: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1178: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	914.500	0.038	0.127	0.010
Sn-125	Sb-125	915.550	0.041	231.360	0.000
Te-133	I-133	914.740	0.007	0.208	0.031
Te-133	I-133	914.774	0.104	0.923	0.040
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Nd-151	Pm-151	914.280	0.009	0.207	0.004

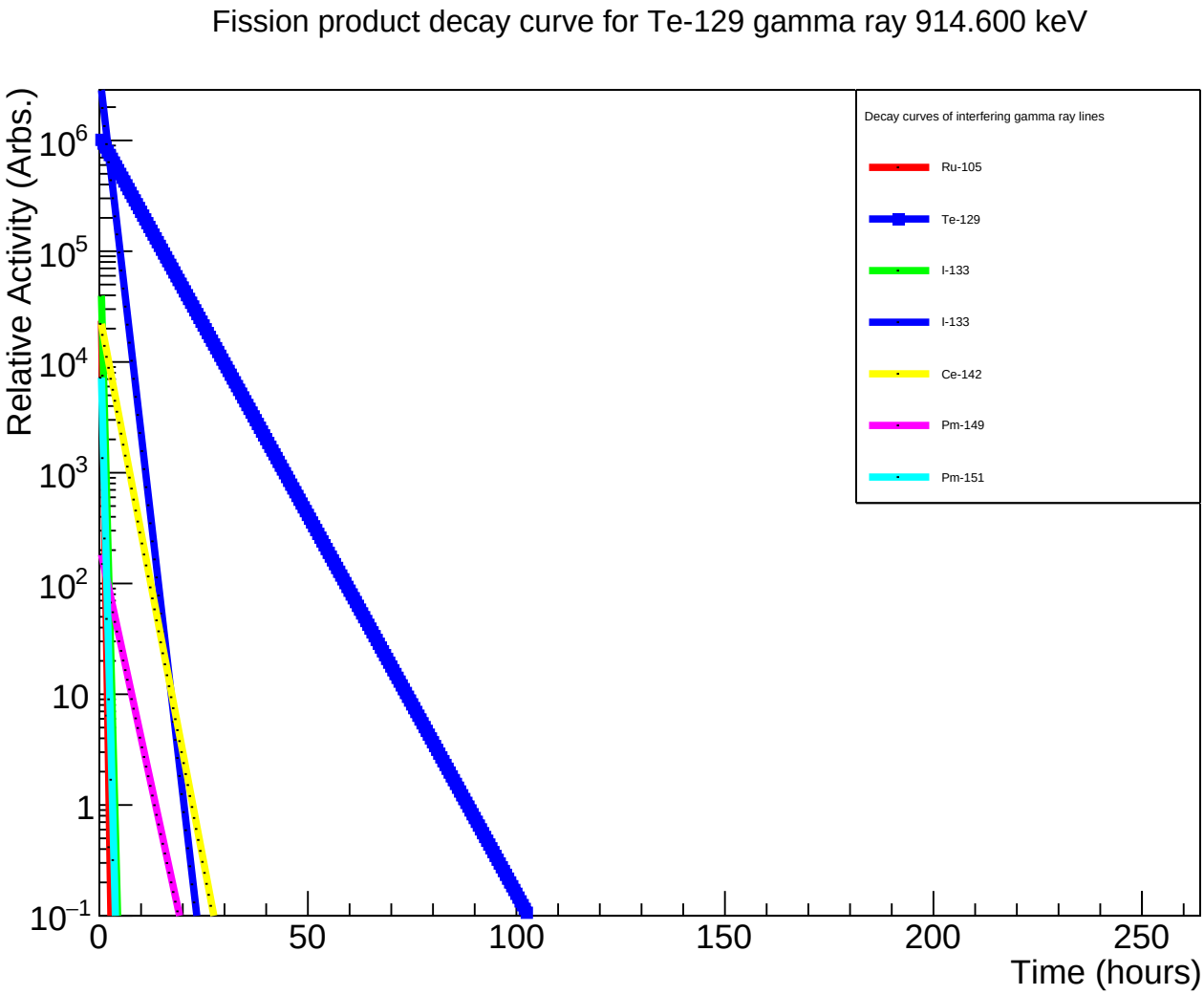


Figure 589: Te-129 decay curve for 914.600 keV gamma ray.

3.590 Sb-129 E_γ = 966.40 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 966.40 keV
Gamma Intensity = 7.75 ± 0.596 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1179: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1180: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	966.000	0.003	0.372	0.003
Pd-109	Ag-109	966.200	0.000	13.701	0.000
I-132	Xe-132	965.800	0.000	2.295	0.043
I-134	Xe-134	966.900	0.004	0.875	0.078
Cs-139	Ba-139	966.600	0.000	0.155	0.063
Ba-141	La-141	967.600	0.000	0.304	0.058
Nd-149	Pm-149	967.430	0.000	1.728	0.011
Nd-151	Pm-151	967.580	0.000	0.207	0.004
Nd-151	Pm-151	967.580	0.002	0.207	0.004

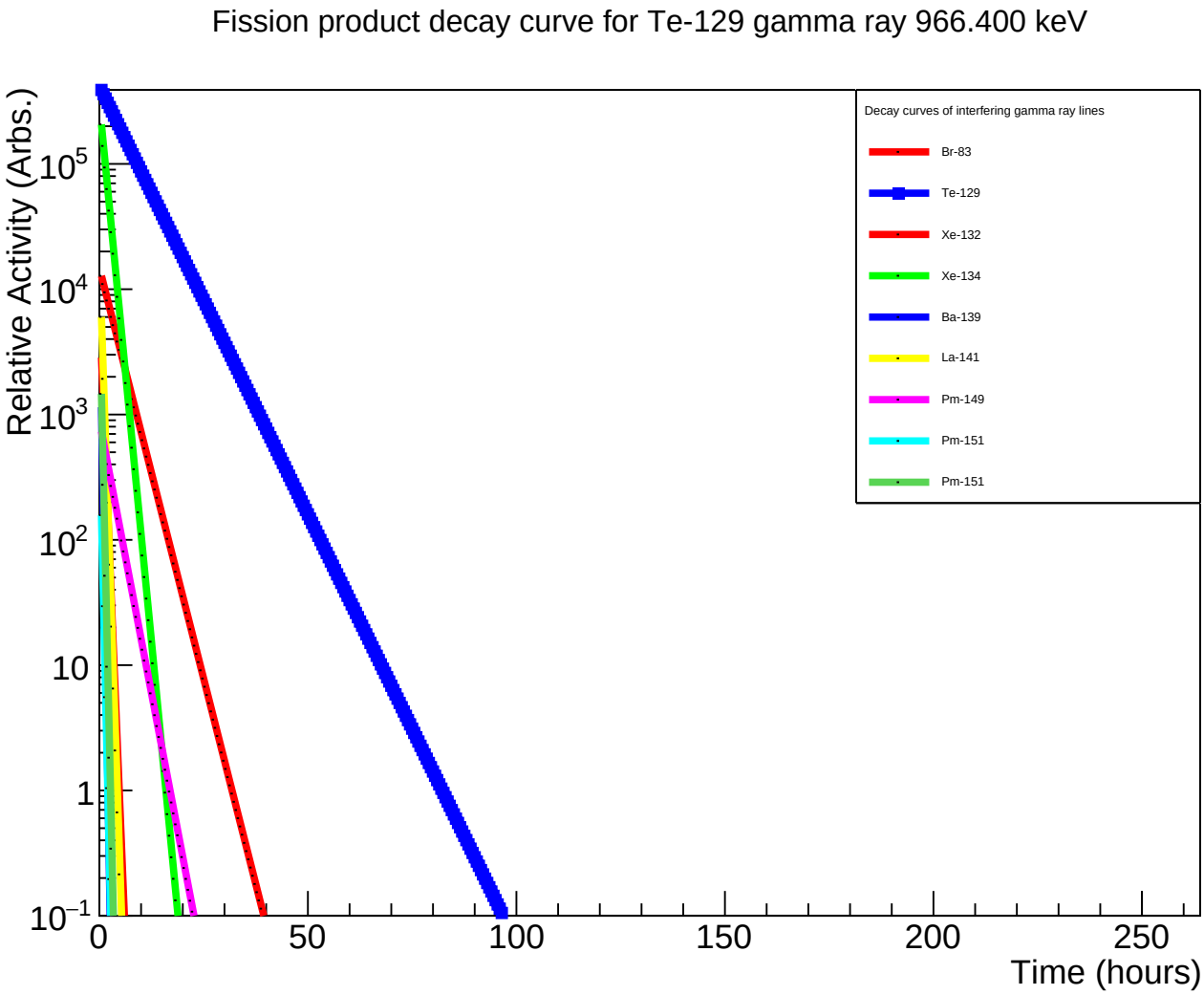


Figure 590: Te-129 decay curve for 966.400 keV gamma ray.

3.591 Sb-129 E_γ = 1030.10 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 1030.10 keV
Gamma Intensity = 12.69 ± 0.975 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1181: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1182: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1031.100	0.002	0.372	0.003
Mo-101	Tc-101	1030.100	0.001	0.243	0.052
Te-133	I-133	1029.880	0.012	0.923	0.040
Ce-143	Pr-143	1031.220	0.000	33.039	0.060
Nd-151	Pm-151	1029.050	0.000	0.207	0.004
Nd-151	Pm-151	1030.500	0.000	0.207	0.004

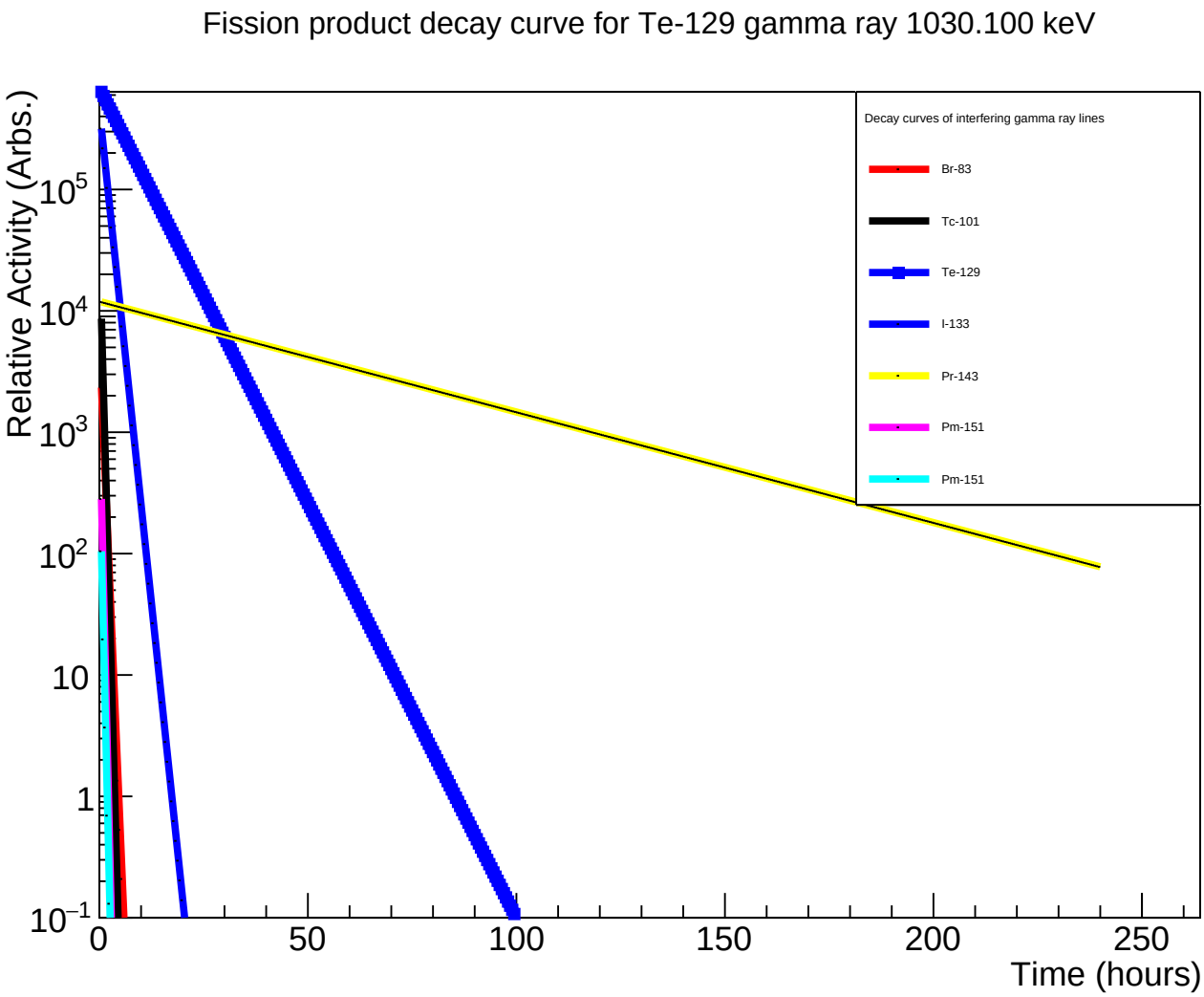


Figure 591: Te-129 decay curve for 1030.100 keV gamma ray.

3.592 Sb-129 E_γ = 1736.50 keV

Chemical element: Antimony
Fission product parent: Sb-129
Gamma originates in daughter: Te-129
Eγ: 1736.50 keV
Gamma Intensity = 12.04 ± 1.113 %
$T_{1/2}$ = 4.400 ± 0.010 hours or 264.00 ± 0.60 minutes
CFY: 0.543 ± 0.008 %

Table 1183: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1184: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1737.200	0.001	1.512	0.000
Tc-104	Ru-104	1736.900	0.019	0.305	0.019
Sn-125	Sb-125	1736.070	0.000	0.159	0.000
Te-133	I-133	1738.000	0.000	0.208	0.031
Cs-139	Ba-139	1737.900	0.000	0.155	0.063
Ba-141	La-141	1735.400	0.002	0.304	0.058
Nd-151	Pm-151	1737.750	0.000	0.207	0.004

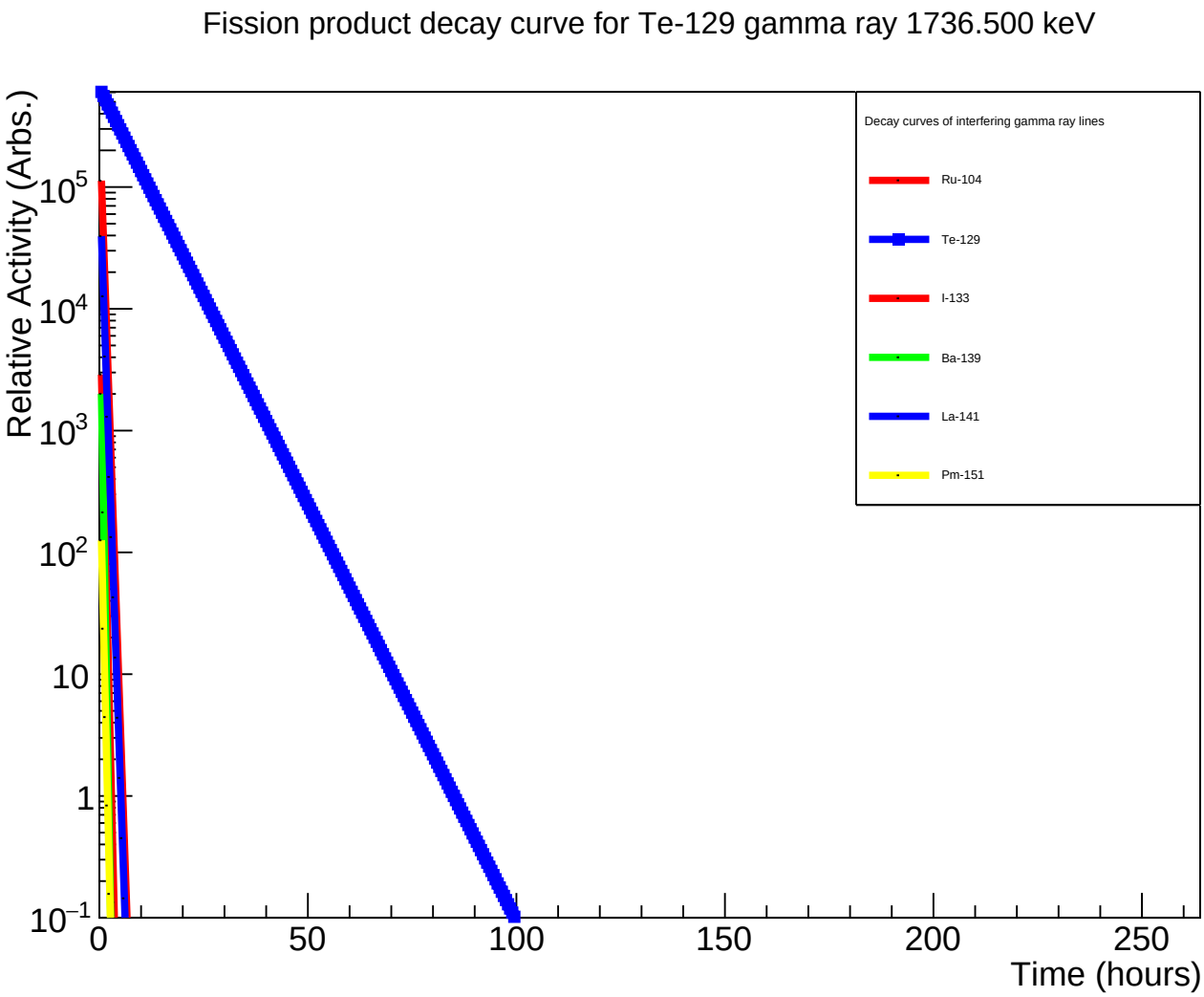


Figure 592: Te-129 decay curve for 1736.500 keV gamma ray.

3.593 Sb-130 E_γ = 182.33 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 182.33 keV
Gamma Intensity = 65.00 ± 4.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1185: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1186: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	182.900	0.000	16.749	0.060
Mo-99	Tc-99	181.068	0.061	65.976	0.061
Ru-105	Rh-105	183.600	0.001	4.440	0.010
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Te-131	I-131	182.250	0.017	33.250	0.004
Te-131	I-131	183.110	0.001	33.250	0.004
Te-133	I-133	183.300	0.000	0.208	0.031
Te-134	I-134	180.891	0.183	0.697	0.070
Te-134	I-134	183.050	0.006	0.697	0.070
I-132	Xe-132	183.600	0.001	2.295	0.043
Ba-140	La-140	183.830	0.000	306.065	0.062
Nd-151	Pm-151	183.190	0.005	0.207	0.004
Sm-155	Eu-155	183.400	0.000	0.372	0.000

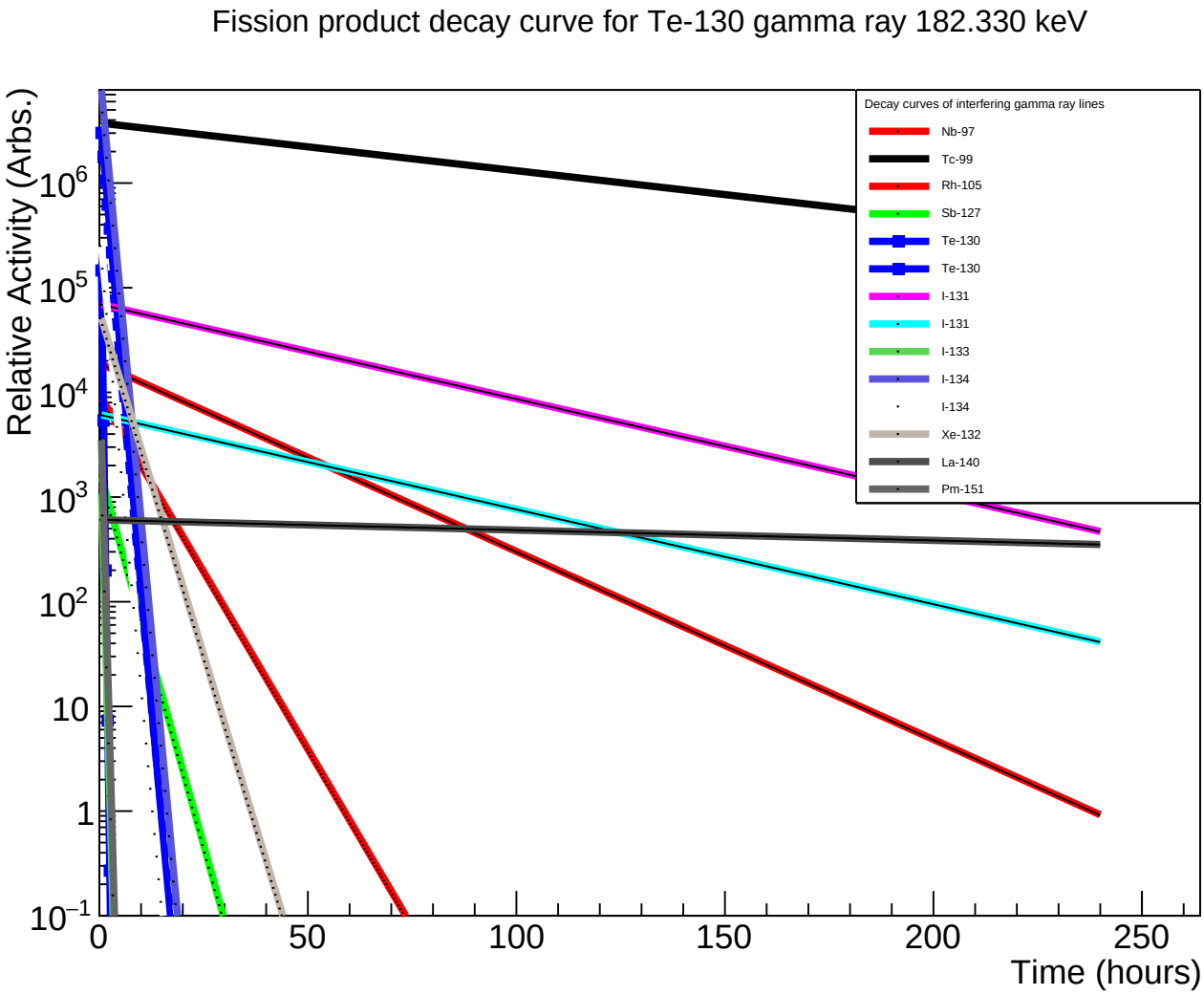


Figure 593: Te-130 decay curve for 182.330 keV gamma ray.

3.594 Sb-130 E_γ = 258.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 258.00 keV
Gamma Intensity = 3.90 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1187: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1188: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	259.000	0.004	0.855	0.000
Ag-113	Cd-113	258.800	0.016	5.370	0.000
Sn-125	Sb-125	258.250	0.000	231.360	0.000
Te-133	I-133	257.790	0.004	0.923	0.040
Xe-138	Cs-138	258.411	0.315	0.235	0.063
Ba-142	La-142	257.500	0.001	0.177	0.058
Nd-149	Pm-149	258.067	0.004	1.728	0.011
Nd-151	Pm-151	258.000	0.000	0.207	0.004
Pm-151	Sm-151	258.110	0.006	28.400	0.004

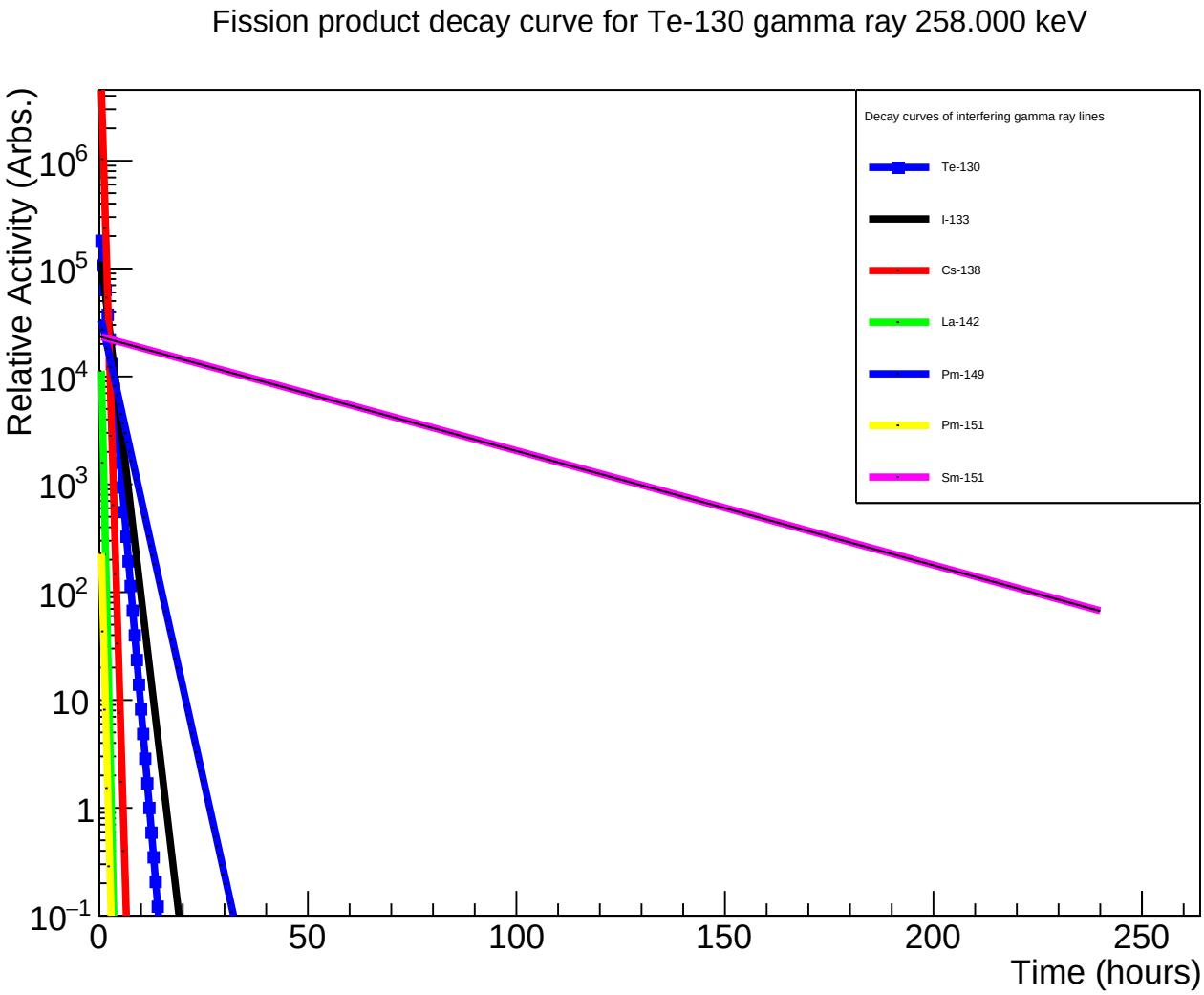


Figure 594: Te-130 decay curve for 258.000 keV gamma ray.

3.595 Sb-130 E_γ = 285.48 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 285.48 keV
Gamma Intensity = 3.50 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1189: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1190: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Ru-105	Rh-105	286.300	0.000	4.440	0.010
Pd-109	Ag-109	286.300	0.000	13.701	0.000
Sn-125	Sb-125	286.200	0.000	231.360	0.000
Sn-127	Sb-127	284.300	0.027	2.100	0.001
Sn-129	Sb-129	286.300	0.014	0.115	0.002
Te-133	I-133	284.800	0.002	0.923	0.040
I-131	Xe-131	284.305	0.061	192.605	0.029
I-132	Xe-132	284.900	0.007	2.295	0.043
Ba-142	La-142	286.300	0.011	0.177	0.058
Nd-151	Pm-151	284.700	0.000	0.207	0.004
Pm-149	Sm-149	285.950	0.031	53.080	0.011
Pm-151	Sm-151	285.000	0.000	28.400	0.004

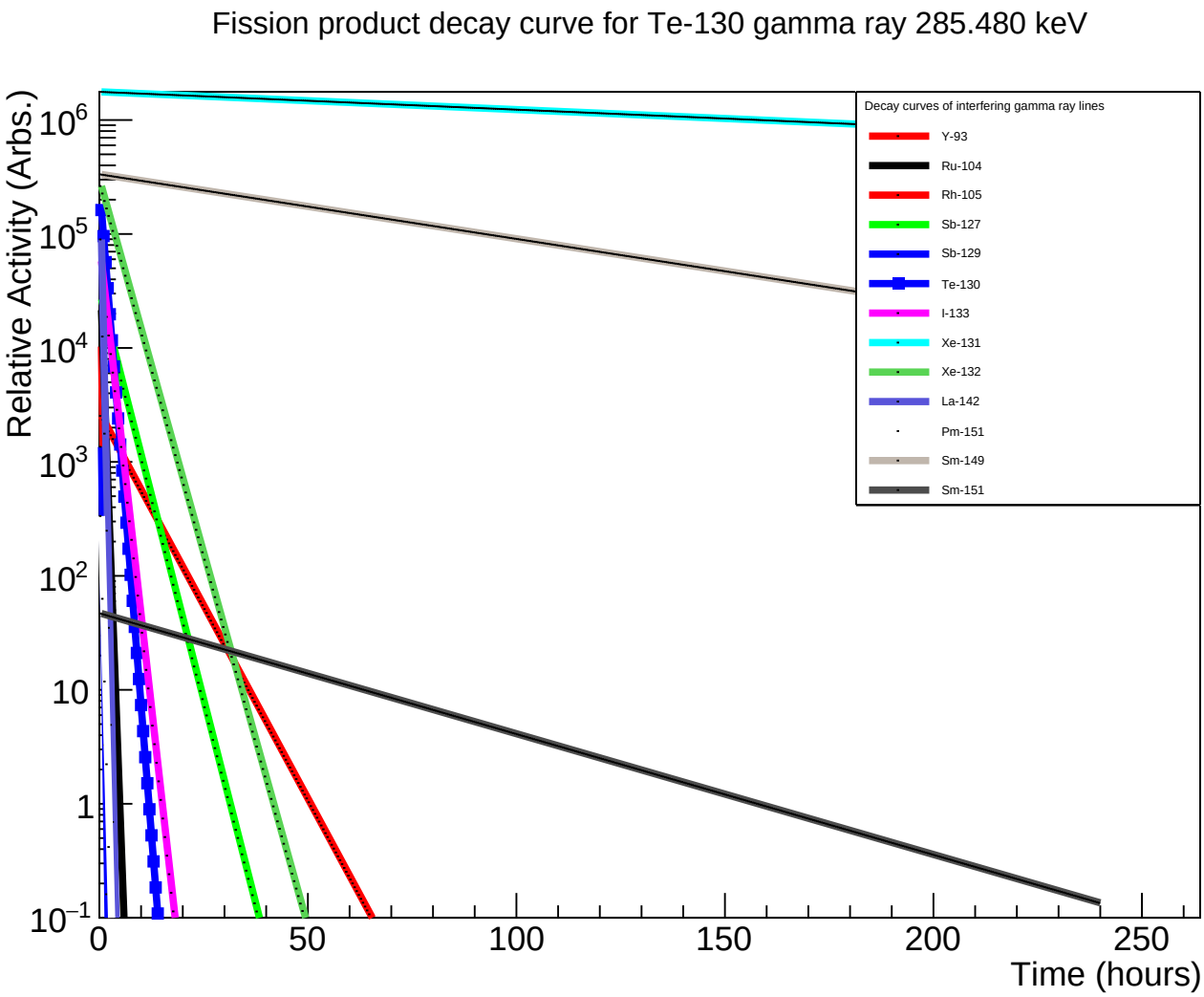


Figure 595: Te-130 decay curve for 285.480 keV gamma ray.

3.596 Sb-130 E_γ = 303.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 303.30 keV
Gamma Intensity = 5.80 ± 0.600 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1191: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1192: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	303.200	0.012	0.127	0.010
Tc-105	Ru-105	304.500	0.011	0.127	0.010
Rh-107	Pd-107	302.770	0.660	0.362	0.001
Te-131	I-131	302.700	0.000	33.250	0.004
Te-131	I-131	303.900	0.000	33.250	0.004
Te-133	I-133	302.000	0.000	0.208	0.031
I-131	Xe-131	302.400	0.000	192.605	0.029
I-132	Xe-132	302.000	0.000	2.295	0.043
Xe-133	Cs-133	302.853	0.000	125.832	0.067
Ba-141	La-141	304.190	0.254	0.304	0.058
Pr-145	Nd-145	303.192	0.000	5.984	0.039
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Nd-151	Pm-151	301.800	0.001	0.207	0.004
Nd-152	Pm-152	302.900	0.001	0.190	0.003
Pm-151	Sm-151	301.800	0.000	28.400	0.004
Pm-151	Sm-151	302.500	0.000	28.400	0.004
Pm-151	Sm-151	302.800	0.000	28.400	0.004

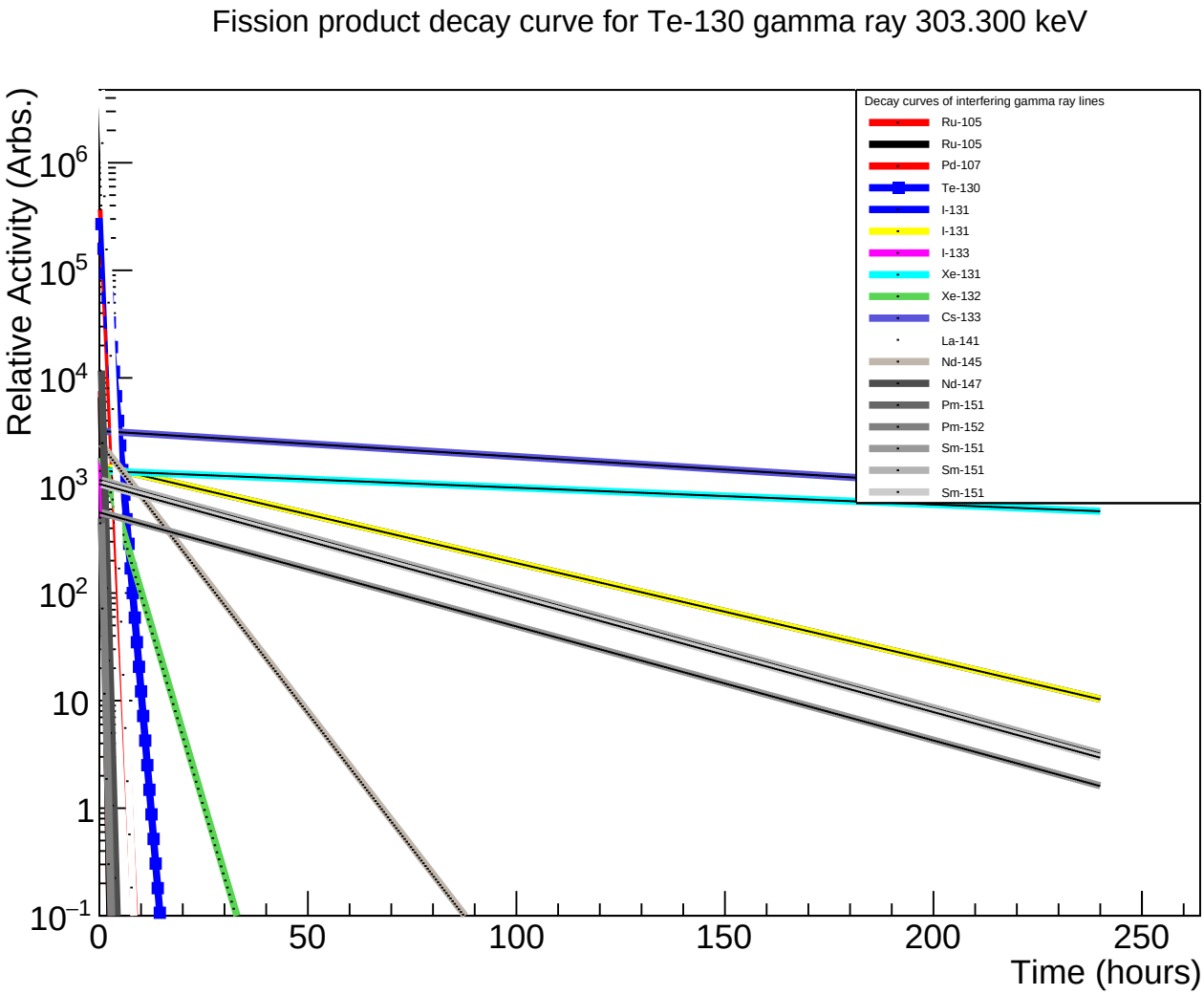


Figure 596: Te-130 decay curve for 303.300 keV gamma ray.

3.597 Sb-130 E_γ = 330.91 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 330.91 keV
Gamma Intensity = 78.00 ± 4.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1193: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1194: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	329.500	0.006	0.372	0.003
Sr-93	Y-93	332.040	0.004	0.124	0.062
Zr-97	Nb-97	330.430	0.001	16.749	0.060
Nb-98	Mo-98	330.370	0.001	0.855	0.000
Tc-105	Ru-105	331.640	0.005	0.127	0.010
Ru-105	Rh-105	330.850	0.007	4.440	0.010
Sn-125	Sb-125	332.100	0.014	231.360	0.000
Sn-125	Sb-125	331.940	0.973	0.159	0.000
Sn-127	Sb-127	331.700	0.005	2.100	0.001
Te-131	I-131	331.200	0.000	33.250	0.004
Te-133	I-133	331.500	0.001	0.208	0.031
La-142	Ce-142	332.100	0.000	1.518	0.058
Nd-149	Pm-149	332.167	0.000	1.728	0.011
Pm-151	Sm-151	329.750	0.002	28.400	0.004

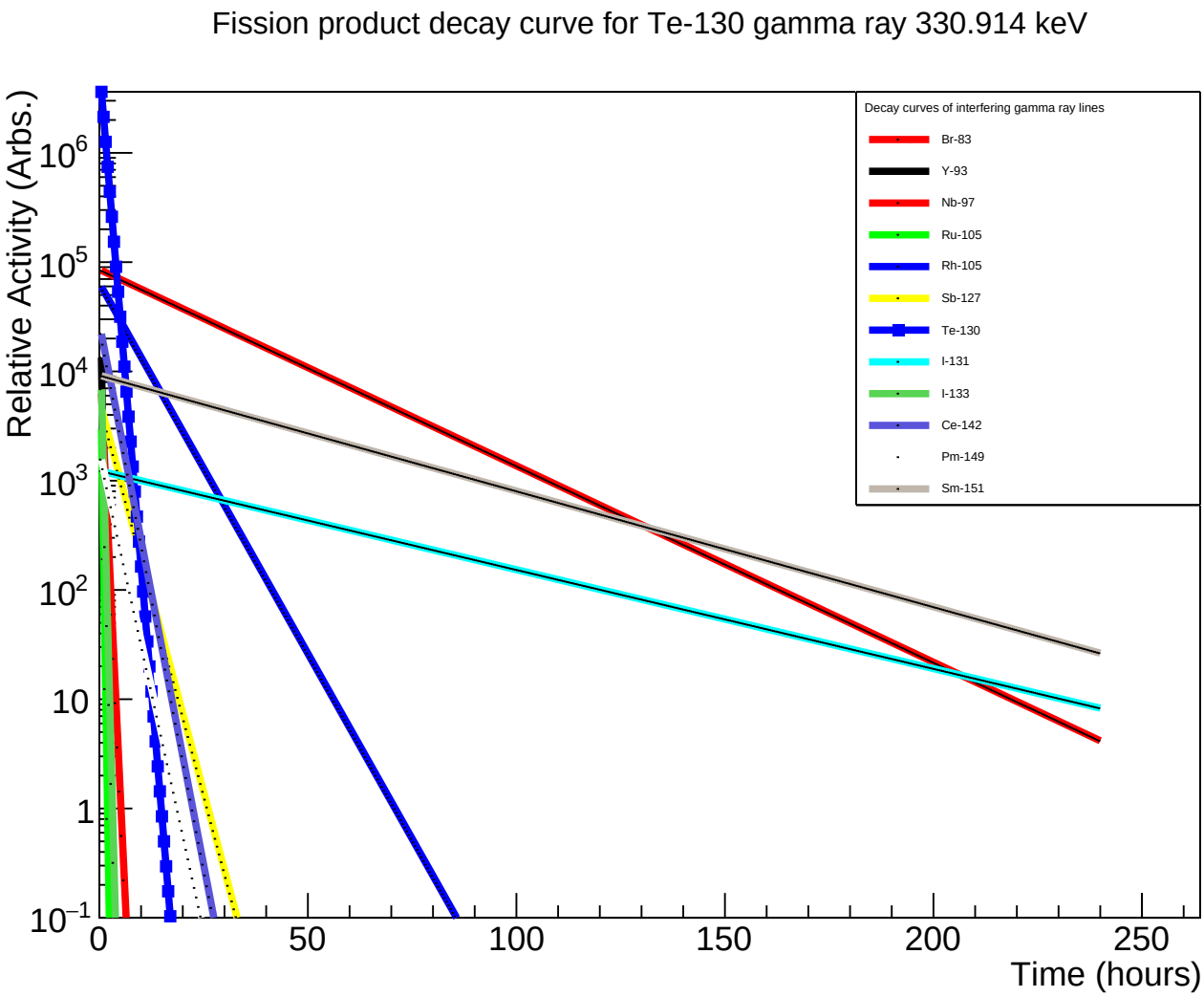


Figure 597: Te-130 decay curve for 330.914 keV gamma ray.

3.598 Sb-130 E_γ = 455.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 455.40 keV
Gamma Intensity = 4.80 ± 0.500 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1195: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1196: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	455.040	0.008	0.855	0.000
Pd-109	Ag-109	454.300	0.000	13.701	0.000
Xe-135	Cs-135	454.200	0.000	9.140	0.065
Cs-139	Ba-139	454.660	0.001	0.155	0.063
La-143	Ce-143	454.030	0.006	0.237	0.059
Pr-147	Nd-147	454.800	0.001	0.223	0.022
Nd-151	Pm-151	454.600	0.000	0.207	0.004
Nd-151	Pm-151	456.680	0.001	0.207	0.004
Pm-151	Sm-151	454.400	0.000	28.400	0.004
Pm-151	Sm-151	456.050	0.000	28.400	0.004

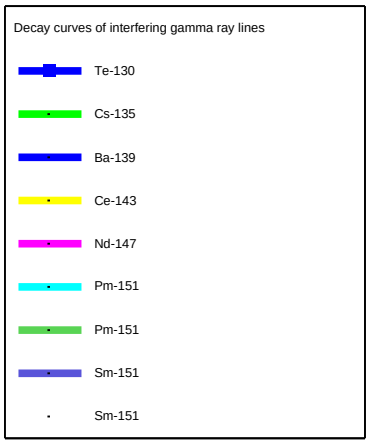


Figure 598: Te-130 decay curve for 455.400 keV gamma ray.

3.599 Sb-130 E_γ = 468.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 468.00 keV
Gamma Intensity = 18.00 ± 1.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1197: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1198: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	468.800	0.001	1.512	0.000
Rb-89	Sr-89	466.620	0.001	0.252	0.047
Nb-98	Mo-98	467.000	0.000	0.855	0.000
Ru-105	Rh-105	469.370	0.175	4.440	0.010
Sn-127	Sb-127	468.700	0.005	2.100	0.001
Te-131	I-131	468.160	0.003	33.250	0.004
Cs-139	Ba-139	466.700	0.000	0.155	0.063
Ba-140	La-140	467.500	0.000	306.065	0.062
Ba-141	La-141	467.500	0.057	0.304	0.058
Ce-146	Pr-146	468.020	0.008	0.225	0.030
Pr-145	Nd-145	467.030	0.000	5.984	0.039
Pr-147	Nd-147	466.800	0.019	0.223	0.022
Pm-151	Sm-151	467.200	0.000	28.400	0.004

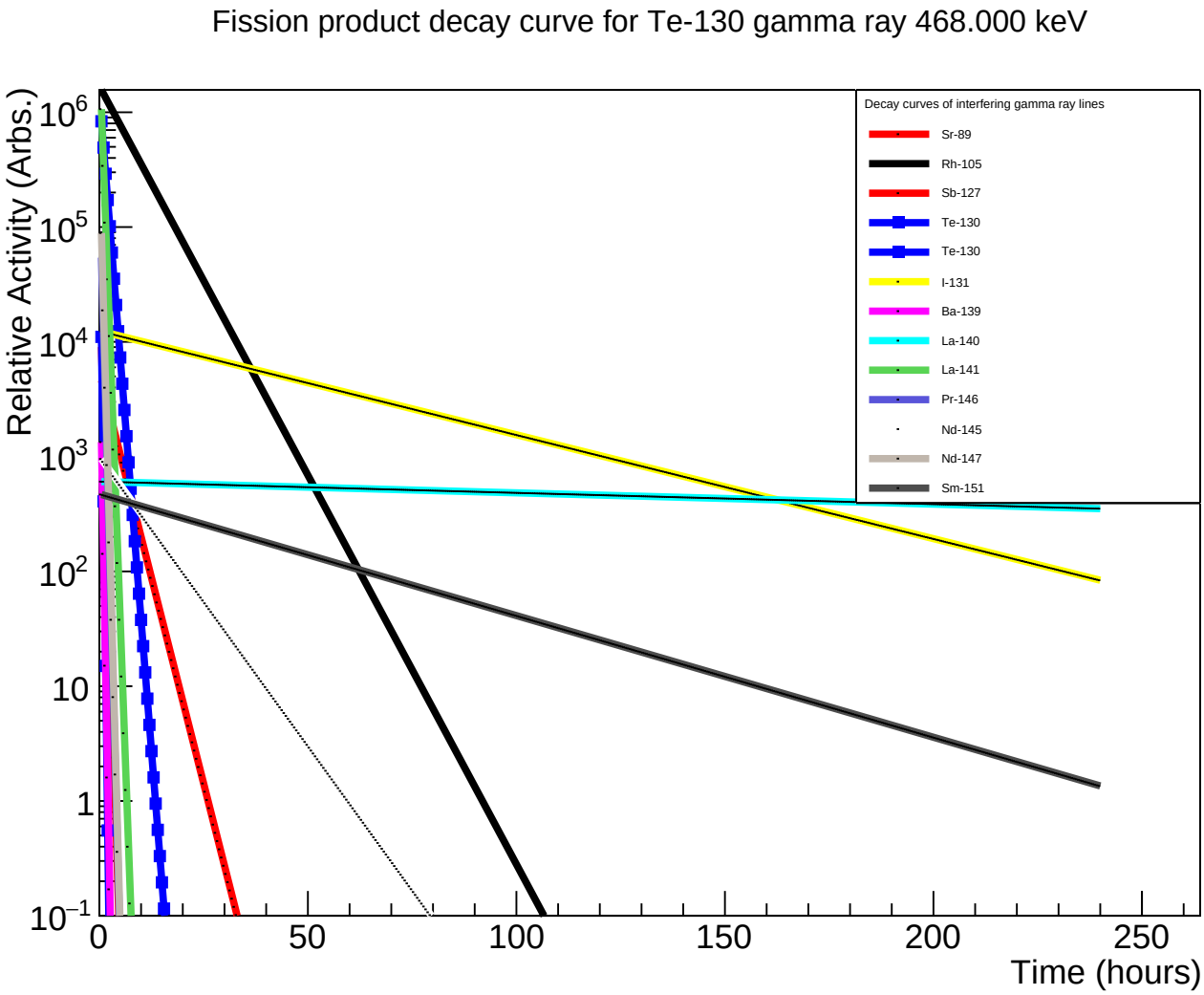


Figure 599: Te-130 decay curve for 468.000 keV gamma ray.

3.600 Sb-130 E_γ = 483.60 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 483.60 keV
Gamma Intensity = 2.20 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1199: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1200: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	484.530	0.000	0.296	0.036
Sr-93	Y-93	483.730	0.017	0.124	0.062
Tc-105	Ru-105	484.000	0.004	0.127	0.010
Sn-128	Sb-128	482.300	0.590	0.984	0.003
Te-133	I-133	484.500	0.001	0.208	0.031
Nd-149	Pm-149	483.590	0.001	1.728	0.011
Sm-153	Eu-153	485.000	0.000	46.500	0.002

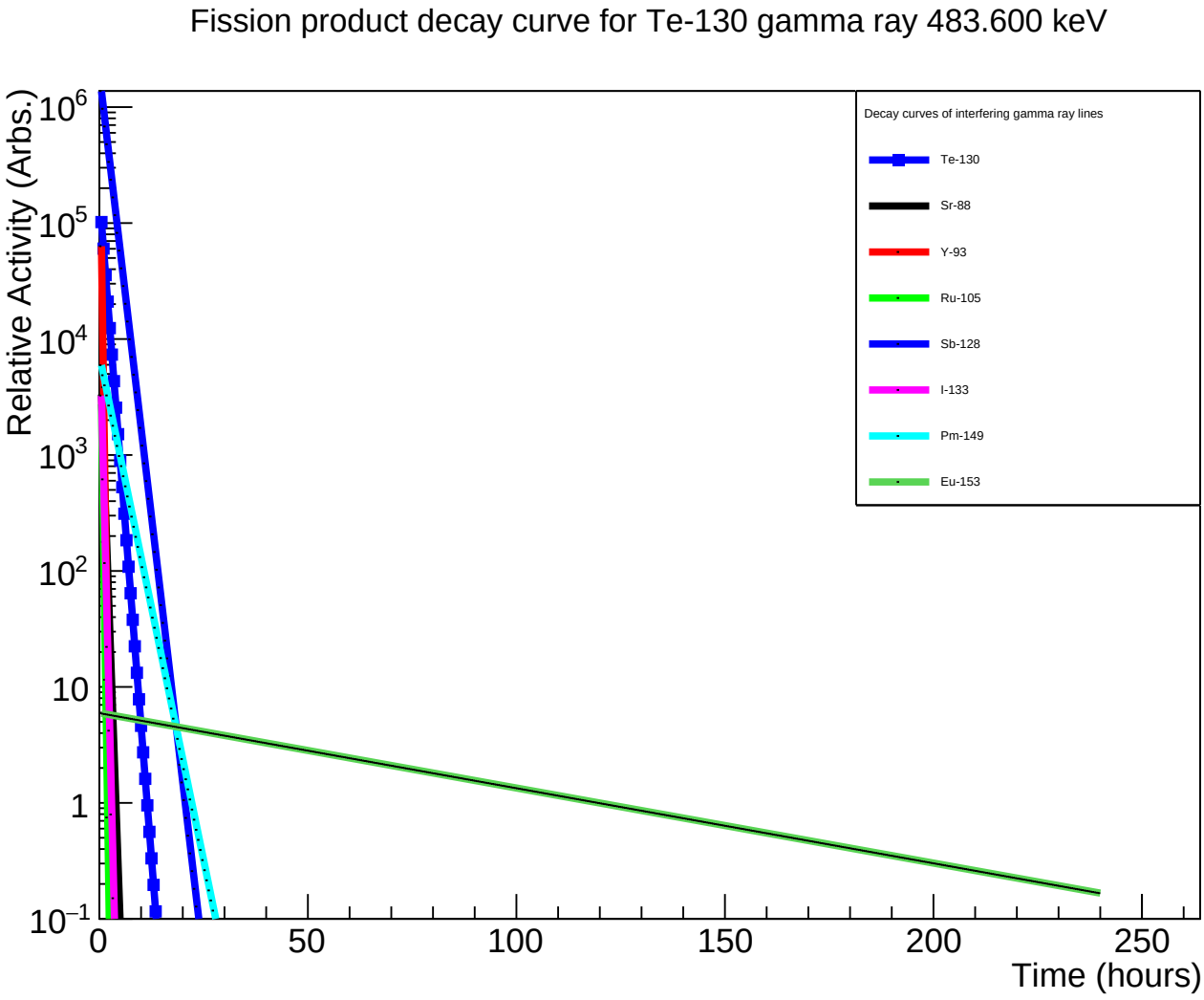


Figure 600: Te-130 decay curve for 483.600 keV gamma ray.

3.601 Sb-130 E_γ = 506.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 506.70 keV
Gamma Intensity = 2.00 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1201: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1202: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	506.700	0.000	9.630	0.058
Zr-97	Nb-97	507.640	0.050	16.749	0.060
Nb-98	Mo-98	507.800	0.001	0.855	0.000
Mo-101	Tc-101	505.920	0.116	0.243	0.052
Sn-129	Sb-129	505.500	0.083	0.115	0.002
Te-133	I-133	507.300	0.001	0.208	0.031
Te-133	I-133	507.200	0.004	0.923	0.040
I-132	Xe-132	505.790	0.049	2.295	0.043
Cs-139	Ba-139	505.400	0.000	0.155	0.063
Pr-146	Nd-146	508.000	0.005	0.403	0.030
Nd-151	Pm-151	507.840	0.001	0.207	0.004
Pm-149	Sm-149	506.100	0.000	53.080	0.011
Pm-151	Sm-151	507.270	0.000	28.400	0.004

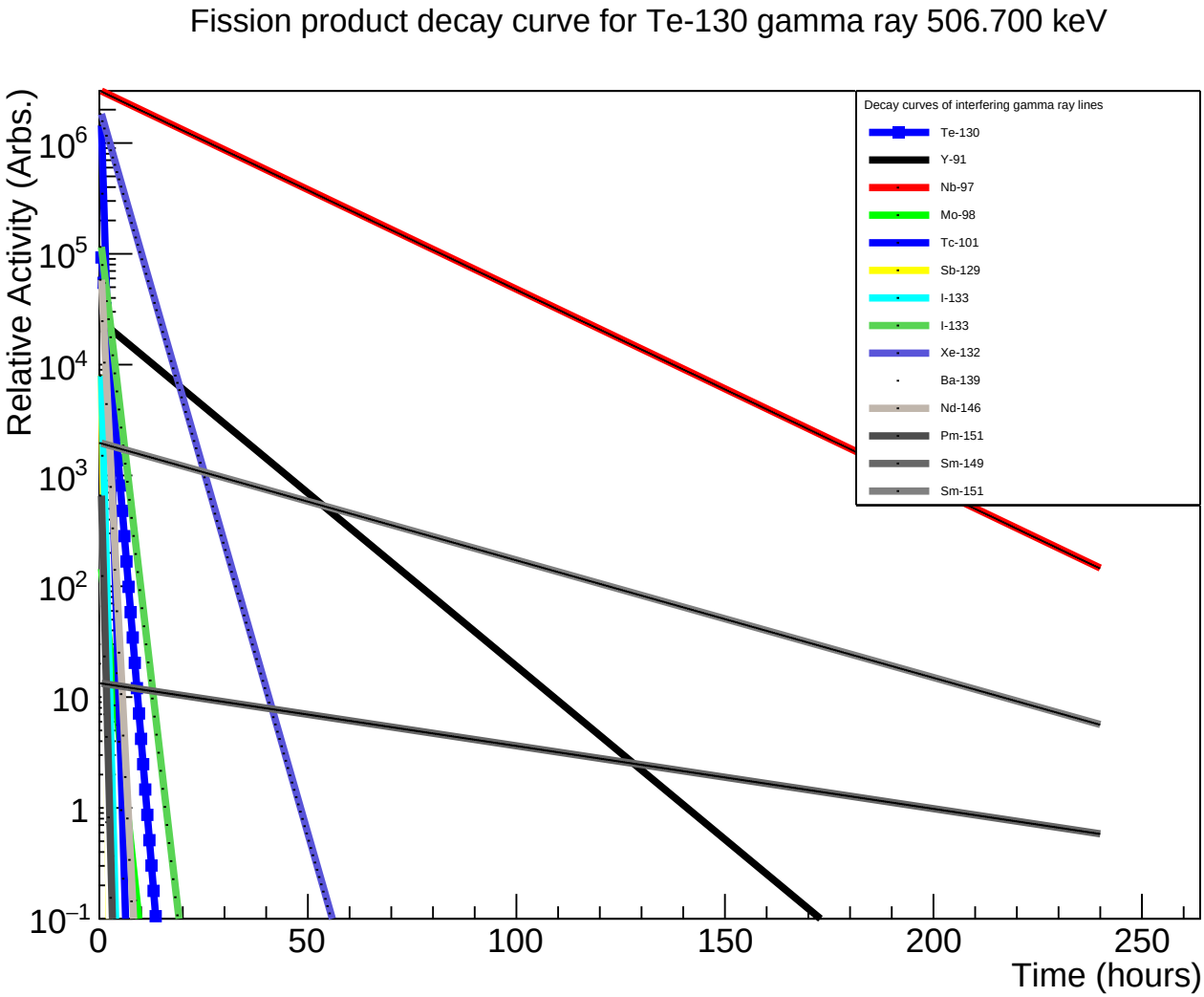


Figure 601: Te-130 decay curve for 506.700 keV gamma ray.

3.602 Sb-130 E_γ = 626.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 626.70 keV
Gamma Intensity = 2.80 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1203: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1204: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	626.800	0.000	9.630	0.058
Mo-101	Tc-101	625.300	0.001	0.243	0.052
Tc-101	Ru-101	627.000	0.004	0.237	0.052
Tc-104	Ru-104	627.000	0.002	0.305	0.019
I-134	Xe-134	627.960	0.022	0.875	0.078
Cs-139	Ba-139	627.240	0.015	0.155	0.063
Ba-141	La-141	625.400	0.036	0.304	0.058
Pr-147	Nd-147	627.600	0.003	0.223	0.022
Nd-151	Pm-151	625.600	0.000	0.207	0.004
Eu-156	Gd-156	626.000	0.000	364.560	0.000

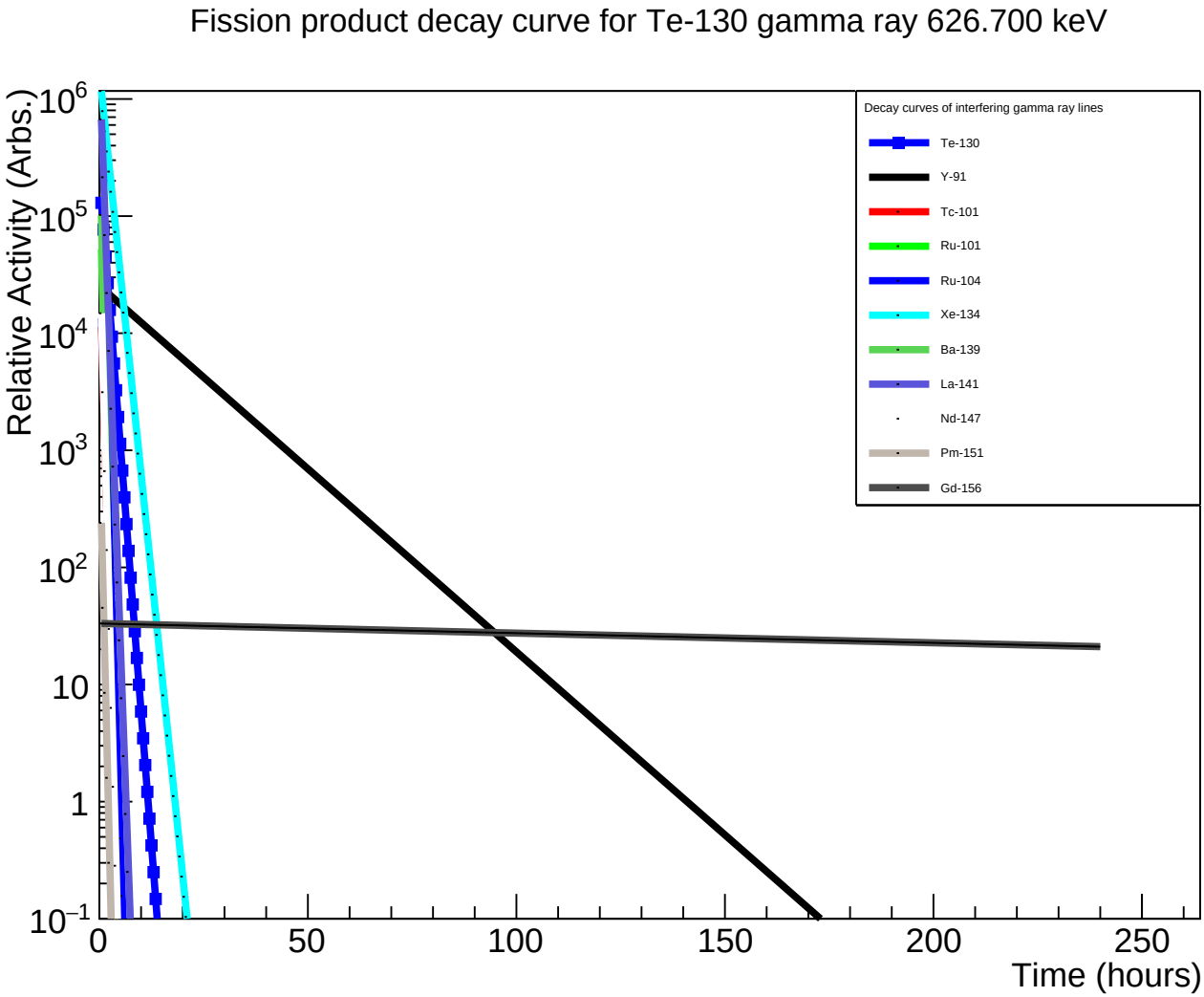


Figure 602: Te-130 decay curve for 626.700 keV gamma ray.

3.603 Sb-130 E_γ = 635.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 635.70 keV
Gamma Intensity = 1.60 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1205: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1206: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Te-133	I-133	636.500	0.002	0.923	0.040
Te-134	I-134	636.260	0.017	0.697	0.070
I-131	Xe-131	636.989	0.072	192.605	0.029
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-151	Pm-151	636.400	0.000	0.207	0.004
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Pm-149	Sm-149	636.500	0.000	53.080	0.011
Pm-151	Sm-151	636.200	0.014	28.400	0.004
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Sm-153	Eu-153	636.500	0.000	46.500	0.002

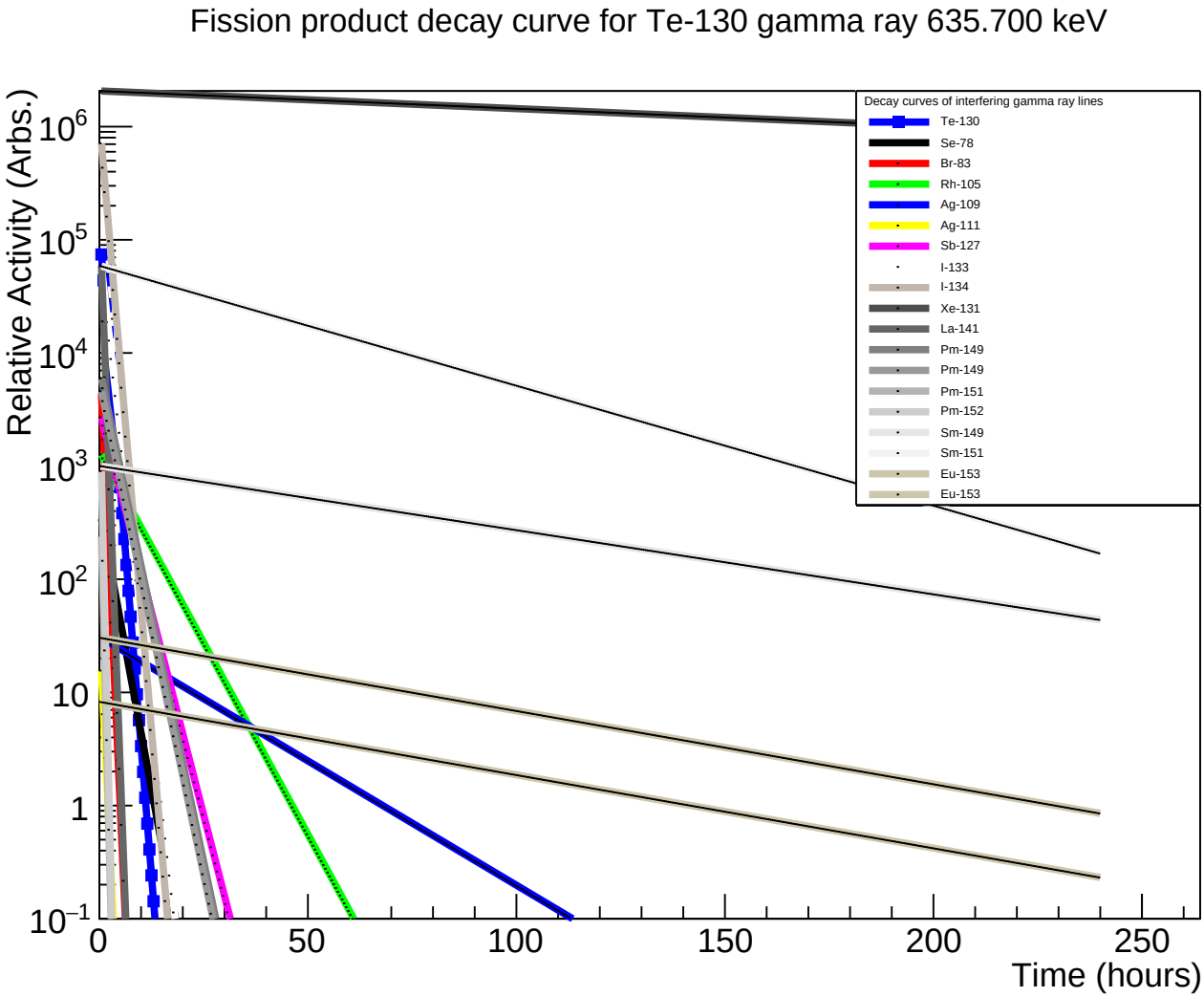


Figure 603: Te-130 decay curve for 635.700 keV gamma ray.

3.604 Sb-130 E_γ = 654.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 654.70 keV
Gamma Intensity = 2.00 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1207: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1208: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	654.260	0.015	0.417	0.025
Te-133	I-133	653.980	0.003	0.208	0.031
Te-133	I-133	653.300	0.006	0.923	0.040
I-135	Xe-135	656.090	0.001	6.570	0.063
Xe-135	Cs-135	654.432	0.000	9.140	0.065
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Ba-142	La-142	654.600	0.001	0.177	0.058
Pr-147	Nd-147	656.100	0.002	0.223	0.022
Nd-149	Pm-149	653.900	0.000	1.728	0.011
Nd-149	Pm-149	654.831	0.080	1.728	0.011
Nd-151	Pm-151	655.000	0.000	0.207	0.004
Pm-151	Sm-151	654.250	0.002	28.400	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004

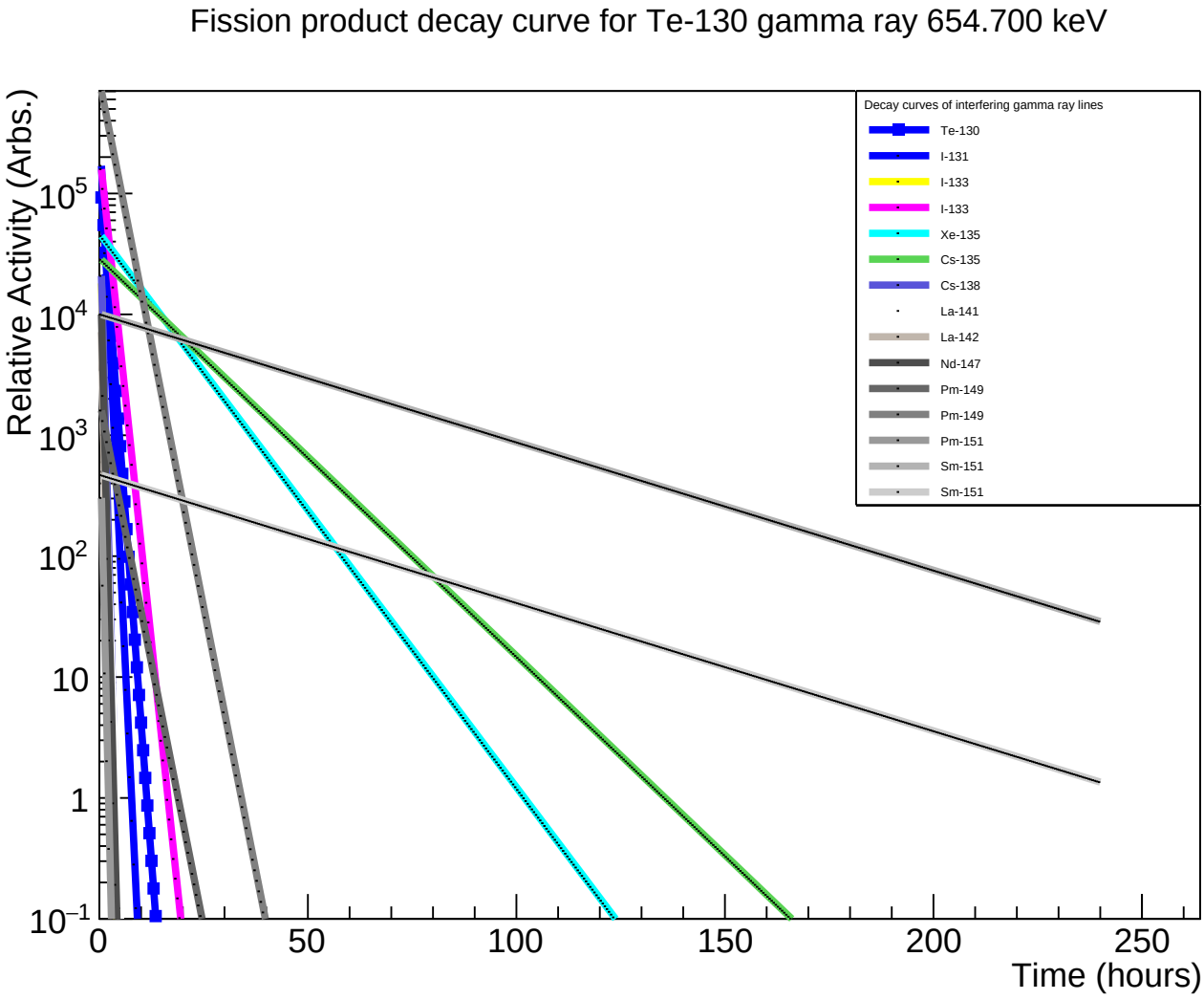


Figure 604: Te-130 decay curve for 654.700 keV gamma ray.

3.605 Sb-130 E_γ = 658.20 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 658.20 keV
Gamma Intensity = 1.70 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1209: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1210: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	657.900	0.003	1.512	0.000
Rb-89	Sr-89	657.770	0.108	0.252	0.047
Sr-93	Y-93	658.560	0.004	0.124	0.062
Nb-97	Mo-97	657.940	0.982	1.202	0.060
Tc-104	Ru-104	659.300	0.001	0.305	0.019
Tc-105	Ru-105	657.000	0.001	0.127	0.010
Pd-111	Ag-111	657.300	0.000	0.390	0.000
Te-127	I-127	658.900	0.000	2616.000	0.000
Ba-141	La-141	658.900	0.000	0.304	0.058
Pr-145	Nd-145	657.668	0.001	5.984	0.039
Nd-149	Pm-149	657.200	0.000	1.728	0.011
Nd-151	Pm-151	658.610	0.007	0.207	0.004
Sm-153	Eu-153	657.550	0.000	46.500	0.002

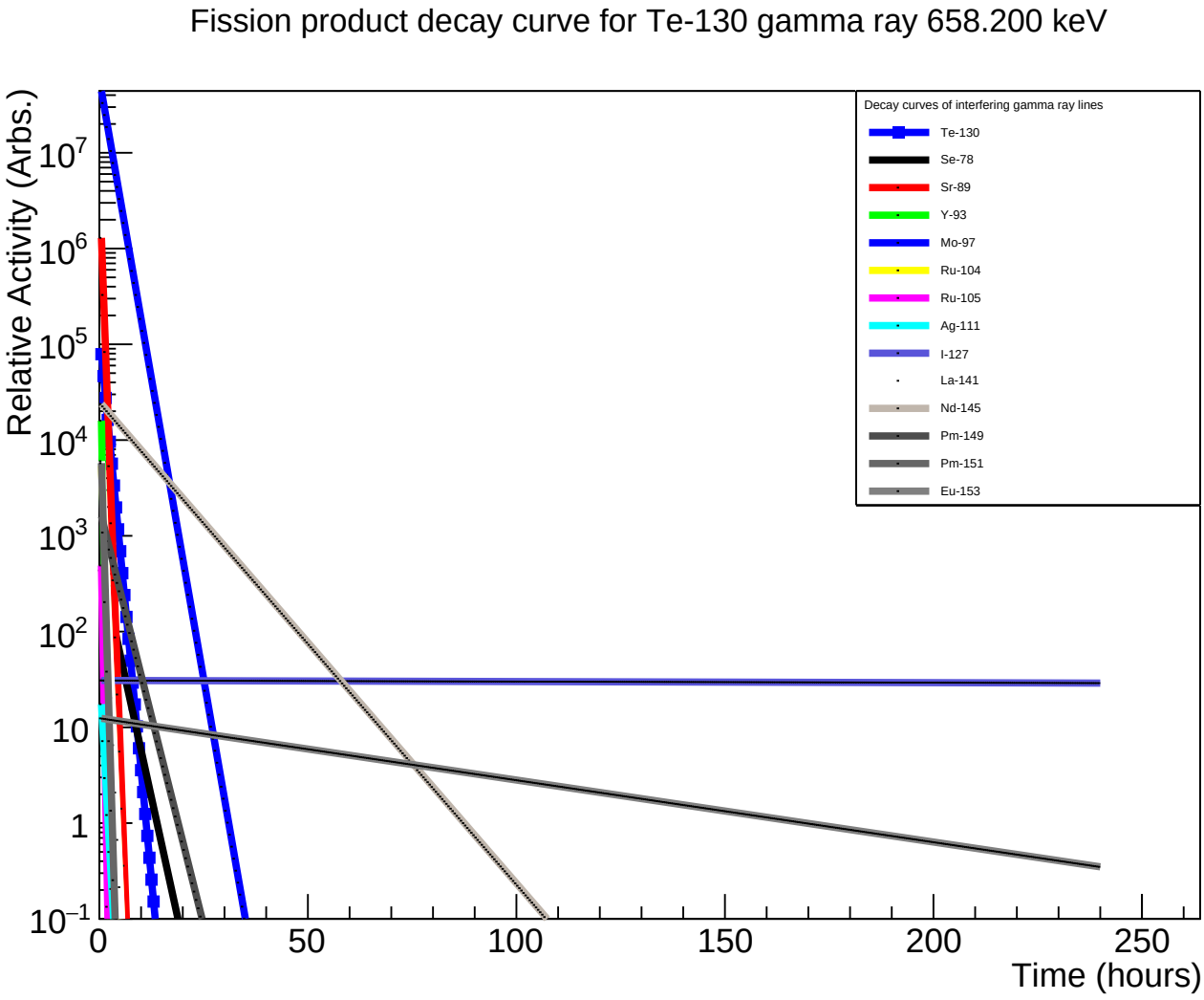


Figure 605: Te-130 decay curve for 658.200 keV gamma ray.

3.606 Sb-130 E_γ = 669.20 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 669.20 keV
Gamma Intensity = 1.10 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1211: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1212: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	668.000	0.003	0.305	0.019
Rh-107	Pd-107	670.050	0.022	0.362	0.001
Sn-127	Sb-127	668.600	0.002	2.100	0.001
I-132	Xe-132	667.714	0.987	2.295	0.043
I-132	Xe-132	669.800	0.046	2.295	0.043
I-133	Xe-133	670.100	0.000	20.800	0.067
Cs-139	Ba-139	668.970	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-151	Pm-151	668.100	0.000	0.207	0.004
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	668.500	0.000	28.400	0.004
Pm-151	Sm-151	668.700	0.004	28.400	0.004
Pm-151	Sm-151	669.200	0.003	28.400	0.004

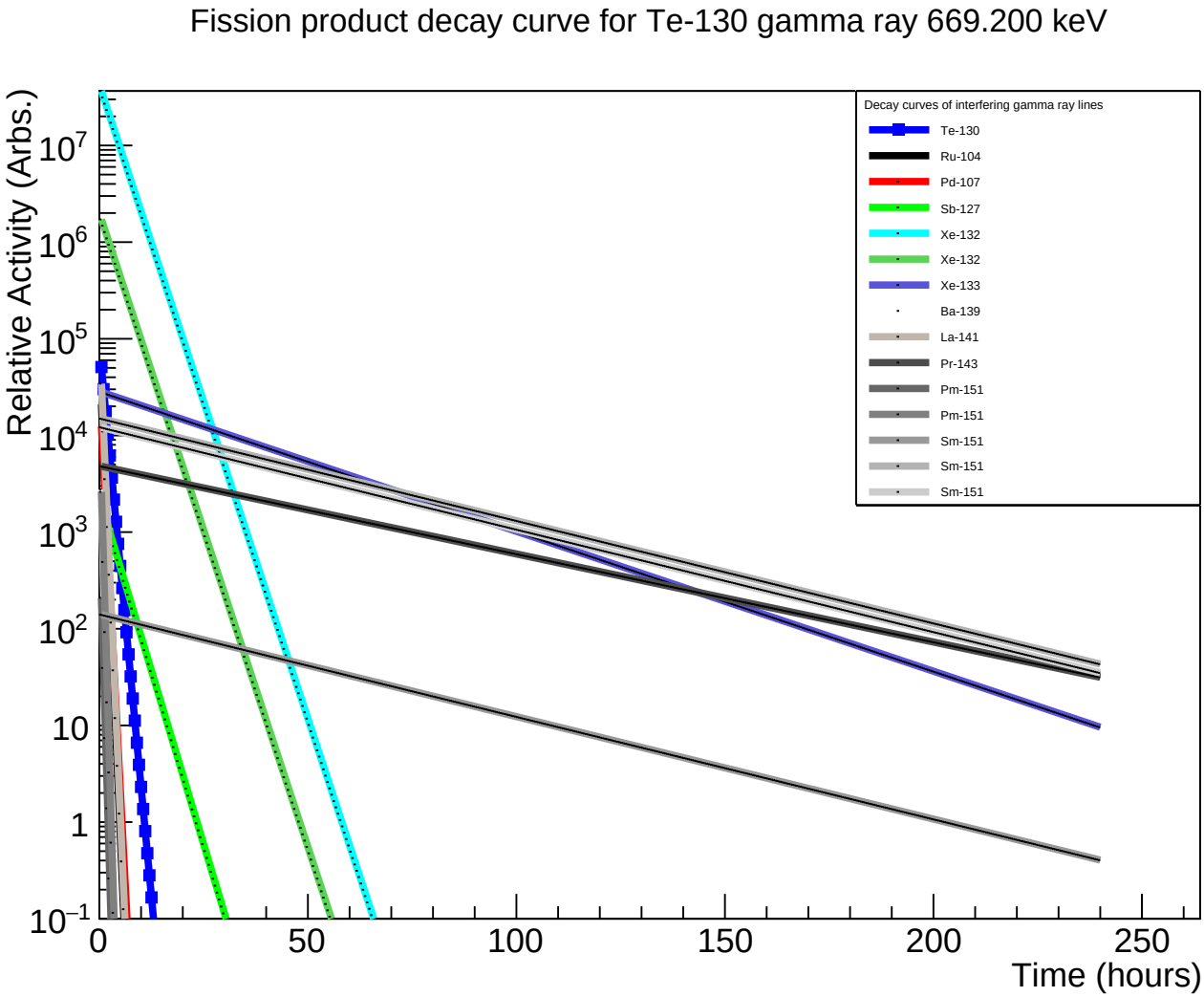


Figure 606: Te-130 decay curve for 669.200 keV gamma ray.

3.607 Sb-130 E_γ = 680.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 680.90 keV
Gamma Intensity = 6.50 ± 0.700 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1213: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1214: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	679.400	0.010	0.372	0.003
Br-83	Kr-83	681.170	0.000	2.400	0.005
Y-93	Zr-93	680.200	0.007	10.180	0.063
Nb-98	Mo-98	679.680	0.001	0.855	0.000
Ag-113	Cd-113	680.600	0.007	5.370	0.000
Sn-128	Sb-128	680.500	0.159	0.984	0.003
Te-131	I-131	681.900	0.000	33.250	0.004
Te-133	I-133	679.800	0.001	0.208	0.031
Te-133	I-133	681.000	0.001	0.923	0.040
I-133	Xe-133	680.247	0.006	20.800	0.067
Xe-138	Cs-138	680.240	0.001	0.235	0.063
La-142	Ce-142	681.200	0.000	1.518	0.058
Nd-147	Pm-147	680.520	0.000	263.520	0.022
Nd-149	Pm-149	681.340	0.000	1.728	0.011
Nd-151	Pm-151	679.600	0.000	0.207	0.004
Nd-151	Pm-151	682.000	0.000	0.207	0.004
Sm-153	Eu-153	682.000	0.000	46.500	0.002

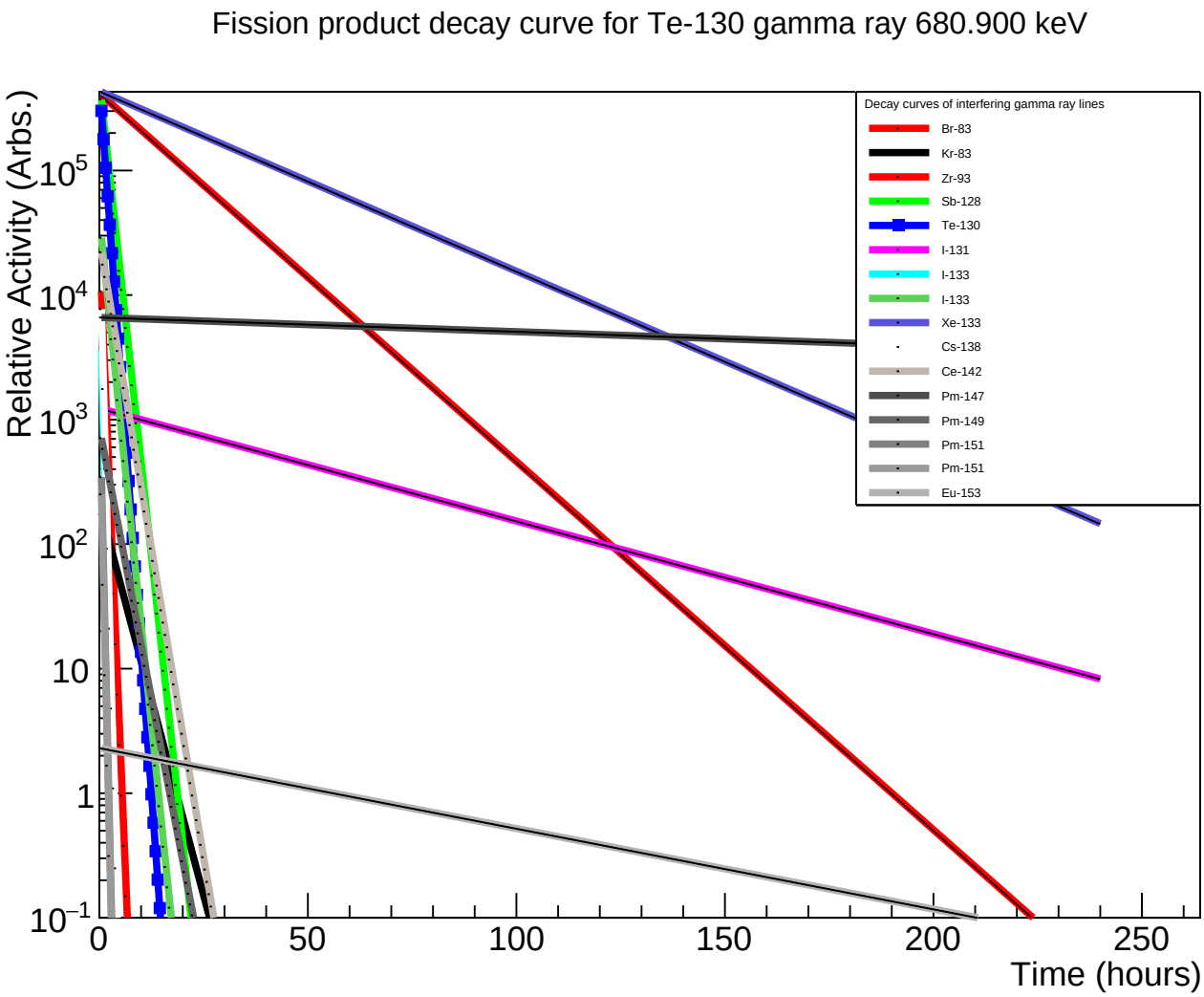


Figure 607: Te-130 decay curve for 680.900 keV gamma ray.

3.608 Sb-130 E_γ = 686.60 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 686.60 keV
Gamma Intensity = 3.20 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1215: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1216: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	686.300	0.009	1.512	0.000
As-78	Se-78	687.500	0.006	1.512	0.000
Sr-93	Y-93	687.790	0.007	0.124	0.062
Mo-101	Tc-101	686.000	0.001	0.243	0.052
Pd-111	Ag-111	685.400	0.001	0.390	0.000
Te-131	I-131	685.900	0.001	33.250	0.004
I-132	Xe-132	687.800	0.000	2.295	0.043
Ba-141	La-141	685.400	0.002	0.304	0.058
Ba-141	La-141	688.000	0.001	0.304	0.058
Nd-147	Pm-147	685.900	0.009	263.520	0.022
Nd-149	Pm-149	686.943	0.001	1.728	0.011
Nd-151	Pm-151	687.500	0.000	0.207	0.004

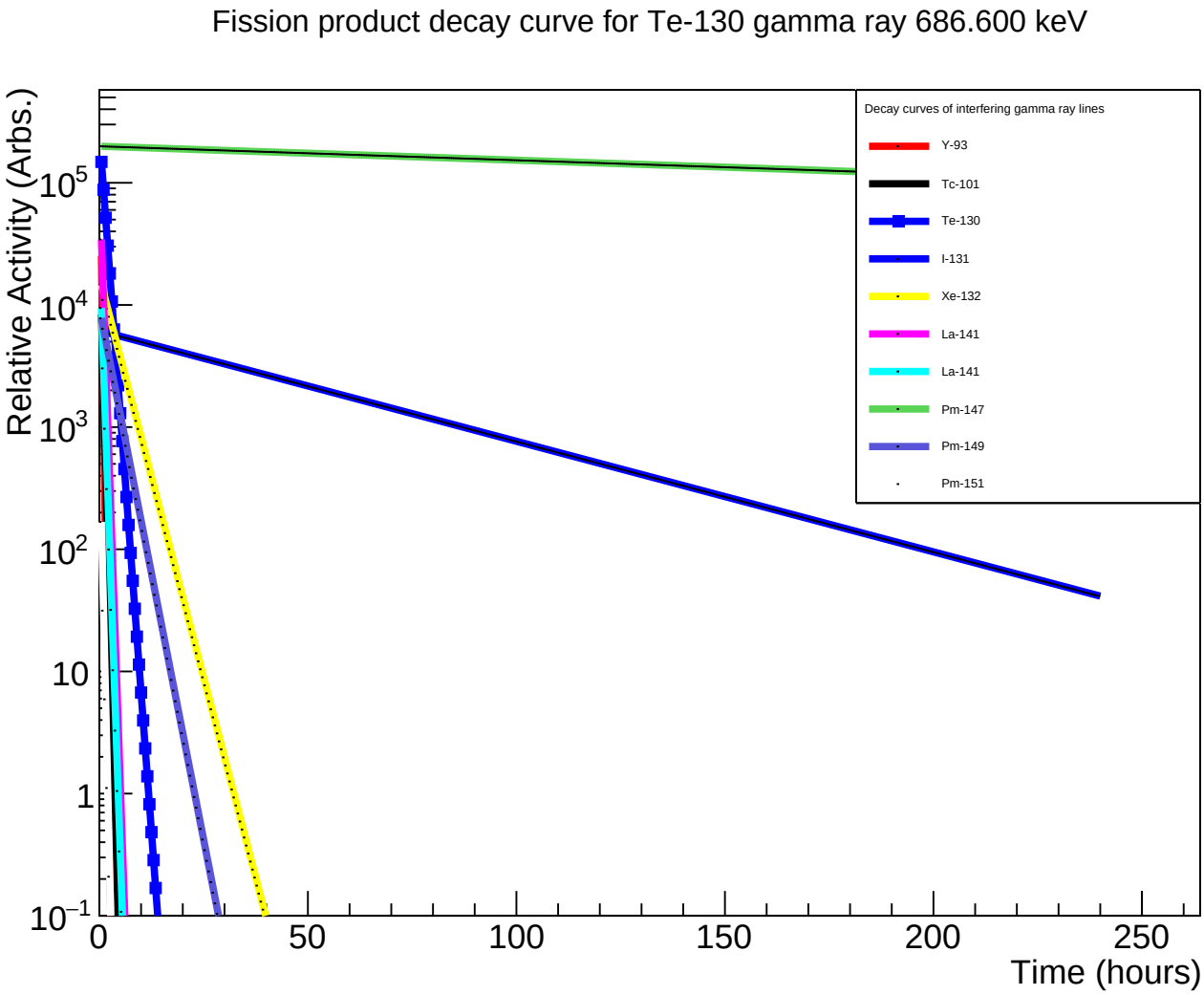


Figure 608: Te-130 decay curve for 686.600 keV gamma ray.

3.609 Sb-130 E_γ = 732.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 732.00 keV
Gamma Intensity = 22.00 ± 1.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1217: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1218: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	731.600	0.000	4.480	0.013
Kr-88	Rb-88	731.010	0.000	2.840	0.036
Mo-101	Tc-101	732.980	0.003	0.243	0.052
Sn-129	Sb-129	732.400	0.047	0.115	0.002
Te-129	I-129	732.620	0.000	1.160	0.005
Te-133	I-133	731.880	0.006	0.923	0.040
I-134	Xe-134	730.740	0.018	0.875	0.078
Xe-135	Cs-135	731.520	0.001	9.140	0.065
Nd-151	Pm-151	731.900	0.000	0.207	0.004

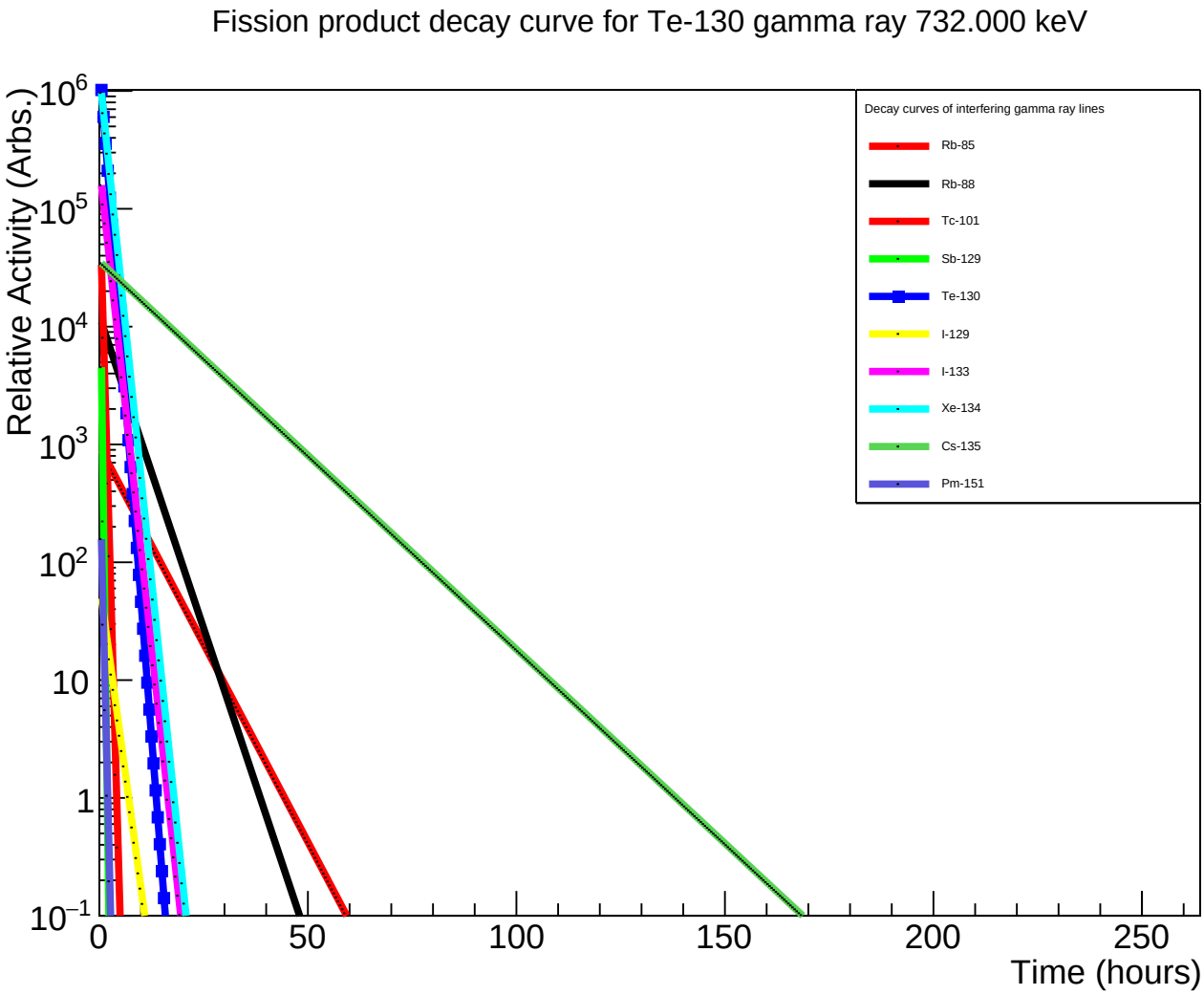


Figure 609: Te-130 decay curve for 732.000 keV gamma ray.

3.610 Sb-130 E_γ = 793.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 793.40 keV
Gamma Intensity = 100.00 ± 5.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1219: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1220: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Nb-98	Mo-98	791.980	0.002	0.855	0.000
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Pd-111	Ag-111	793.800	0.000	0.390	0.000
Sn-129	Sb-129	792.200	0.010	0.115	0.002
Te-129	I-129	794.600	0.000	806.400	0.001
Te-131	I-131	793.750	0.134	33.250	0.004
Te-133	I-133	794.700	0.010	0.923	0.040
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
La-142	Ce-142	793.100	0.000	1.518	0.058
Pr-147	Nd-147	793.800	0.013	0.223	0.022
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

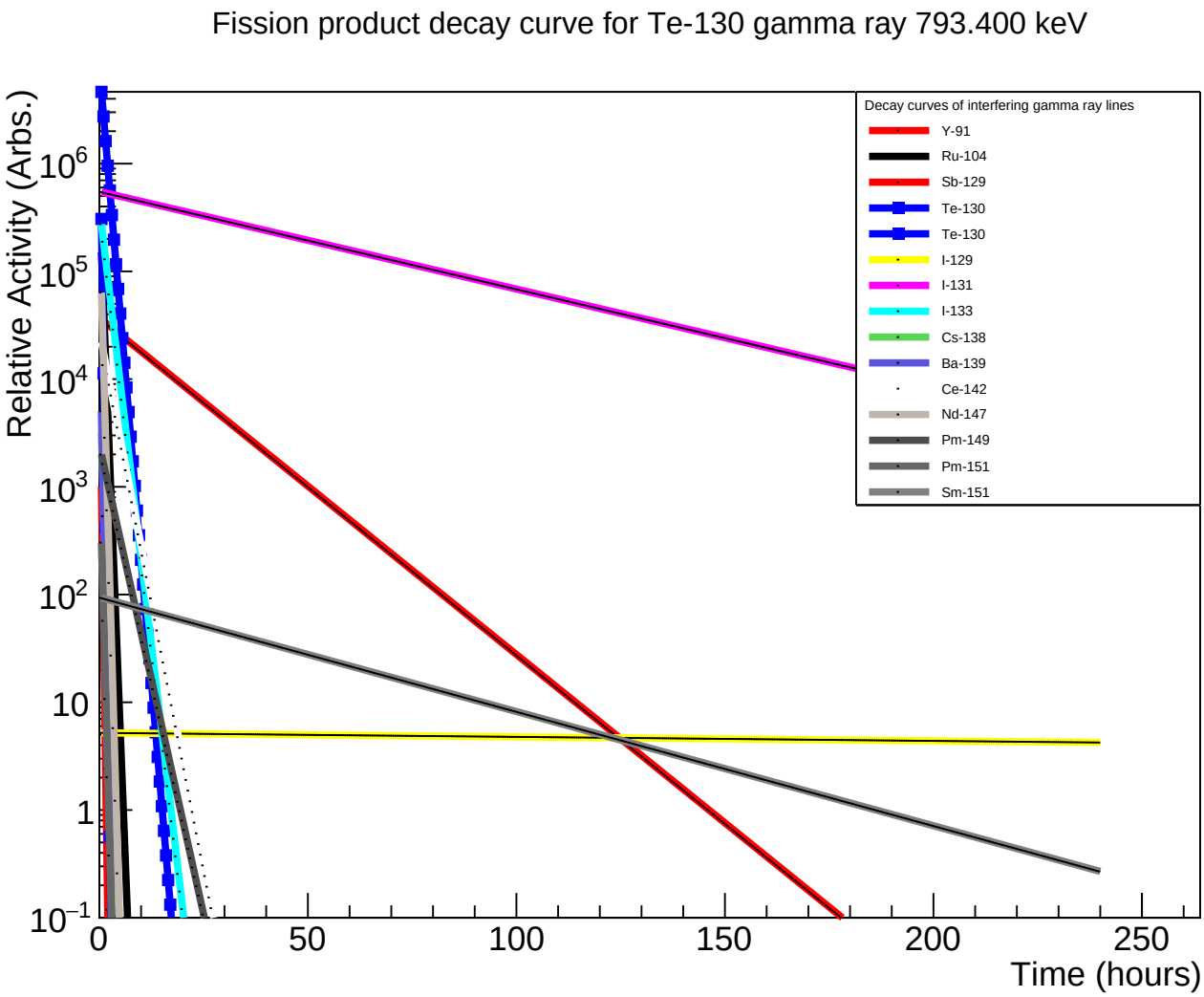


Figure 610: Te-130 decay curve for 793.400 keV gamma ray.

3.611 Sb-130 E_γ = 829.80 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 829.80 keV
Gamma Intensity = 1.80 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1221: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1222: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	829.790	0.002	16.749	0.060
Te-129	I-129	829.930	0.000	1.160	0.005
Te-133	I-133	829.200	0.001	0.208	0.031
I-132	Xe-132	831.300	0.000	2.295	0.043
Nd-149	Pm-149	828.600	0.000	1.728	0.011
Nd-151	Pm-151	829.160	0.002	0.207	0.004
Pm-149	Sm-149	830.530	0.000	53.080	0.011
Sm-155	Eu-155	830.000	0.000	0.372	0.000

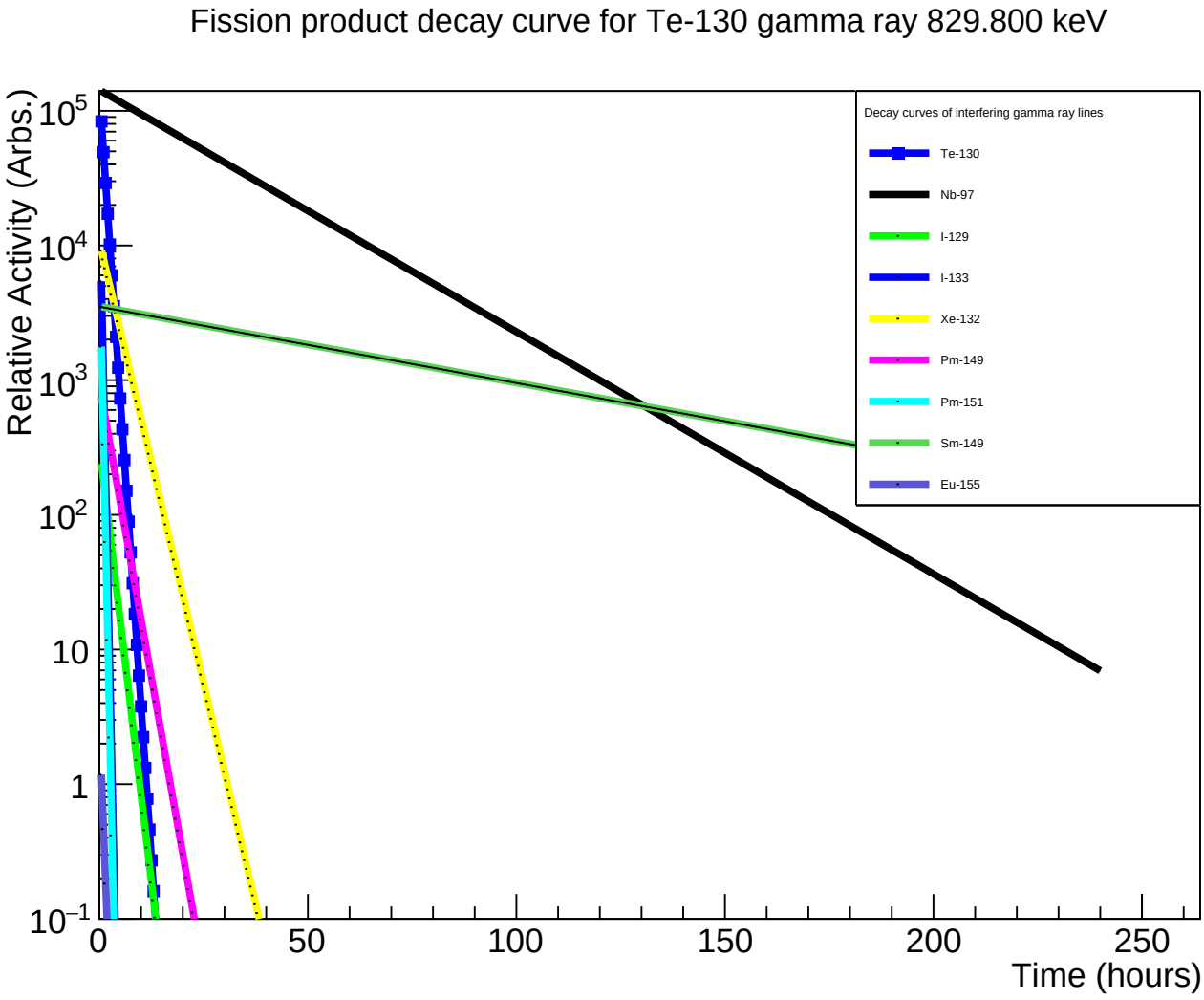


Figure 611: Te-130 decay curve for 829.800 keV gamma ray.

3.612 Sb-130 E_γ = 839.52 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 839.52 keV
Gamma Intensity = 100.00 ± 5.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1223: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1224: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	838.600	0.008	0.305	0.019
Sn-125	Sb-125	840.830	0.001	0.159	0.000
Ba-141	La-141	841.000	0.000	0.304	0.058
Ba-142	La-142	840.400	0.036	0.177	0.058
Pr-146	Nd-146	839.500	0.000	0.403	0.030
Nd-149	Pm-149	839.240	0.000	1.728	0.011
Eu-156	Gd-156	839.000	0.000	364.560	0.000

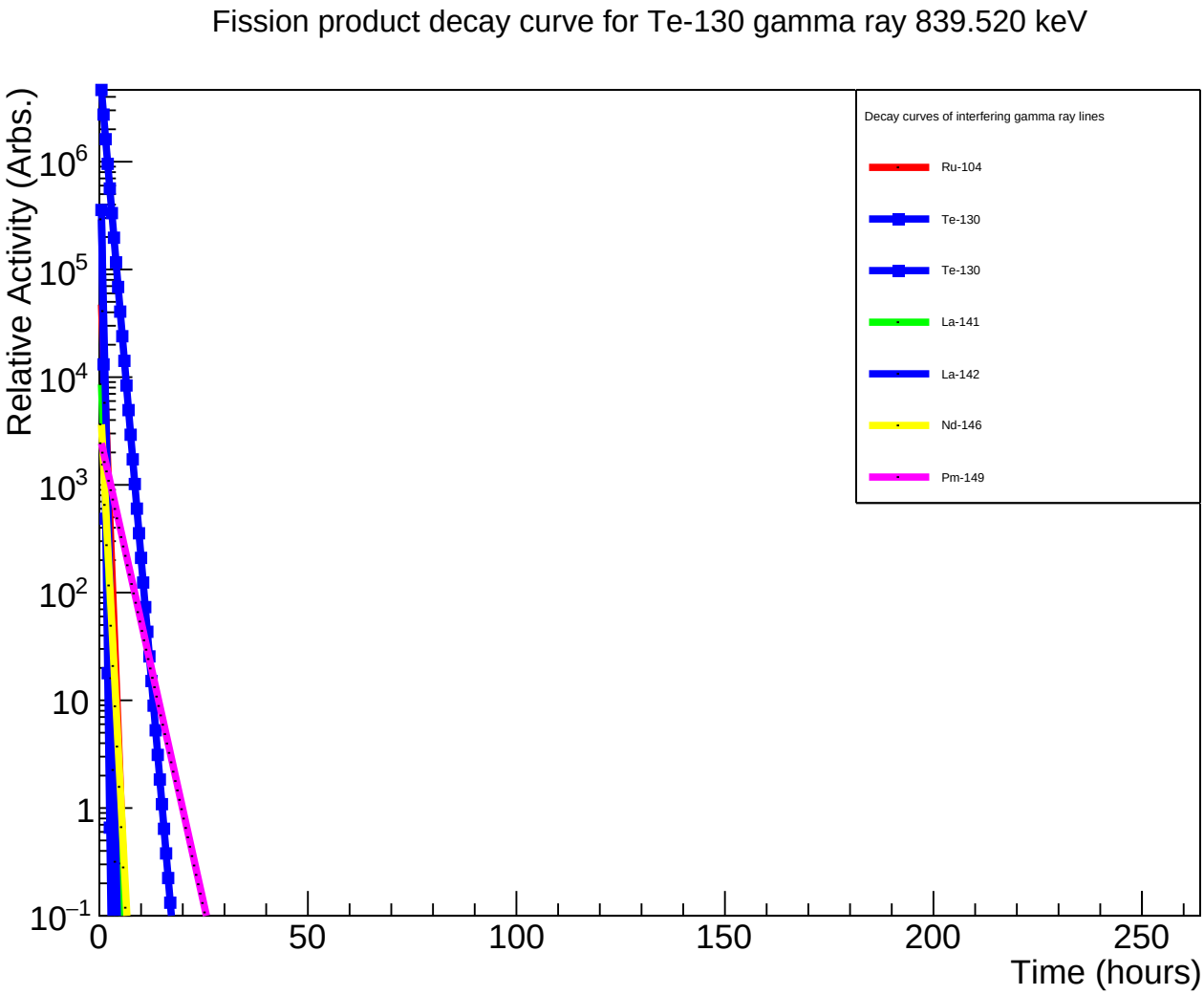


Figure 612: Te-130 decay curve for 839.520 keV gamma ray.

3.613 Sb-130 E_γ = 855.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 855.70 keV
Gamma Intensity = 1.60 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1225: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1226: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	854.890	0.004	16.749	0.060
Cd-115	In-115	856.245	0.000	53.460	0.000
Te-131	I-131	856.080	0.001	0.417	0.025
Te-131	I-131	856.050	0.006	33.250	0.004
Te-133	I-133	854.200	0.001	0.208	0.031
I-133	Xe-133	856.278	0.012	20.800	0.067
Cs-138	Ba-138	855.600	0.000	0.557	0.067
Nd-149	Pm-149	854.740	0.000	1.728	0.011
Pm-151	Sm-151	856.200	0.000	28.400	0.004

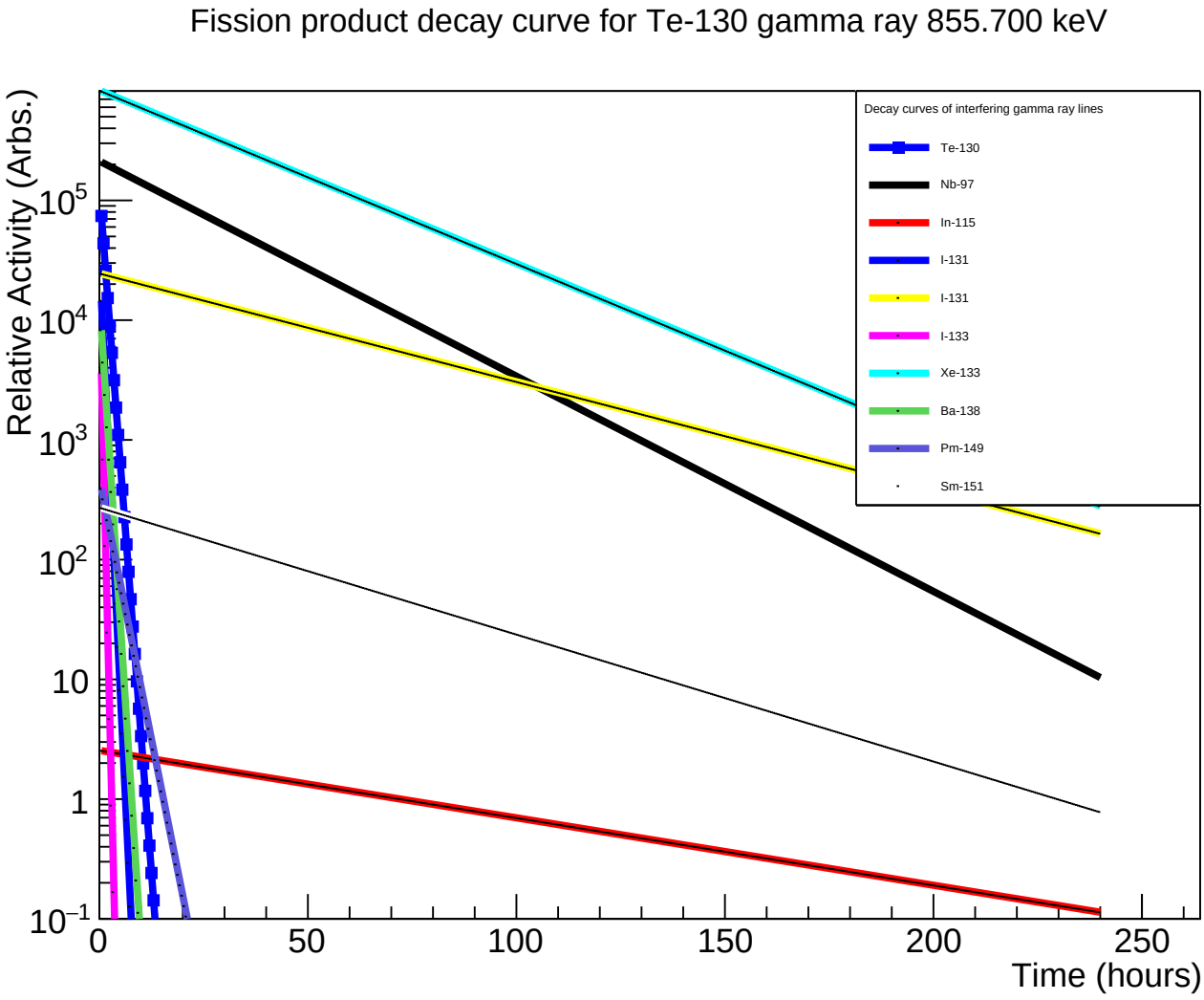


Figure 613: Te-130 decay curve for 855.700 keV gamma ray.

3.614 Sb-130 E_γ = 883.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 883.30 keV
Gamma Intensity = 1.20 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1227: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1228: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	882.000	0.002	1.512	0.000
Se-83	Br-83	883.610	0.072	0.372	0.003
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Tc-104	Ru-104	884.400	0.109	0.305	0.019
Tc-105	Ru-105	883.500	0.001	0.127	0.010
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Te-133	I-133	884.290	0.007	0.208	0.031
Te-133	I-133	882.700	0.021	0.923	0.040
Te-133	I-133	884.800	0.019	0.923	0.040
I-134	Xe-134	884.090	0.651	0.875	0.078
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Pm-149	Sm-149	881.980	0.000	53.080	0.011
Pm-151	Sm-151	883.680	0.000	28.400	0.004

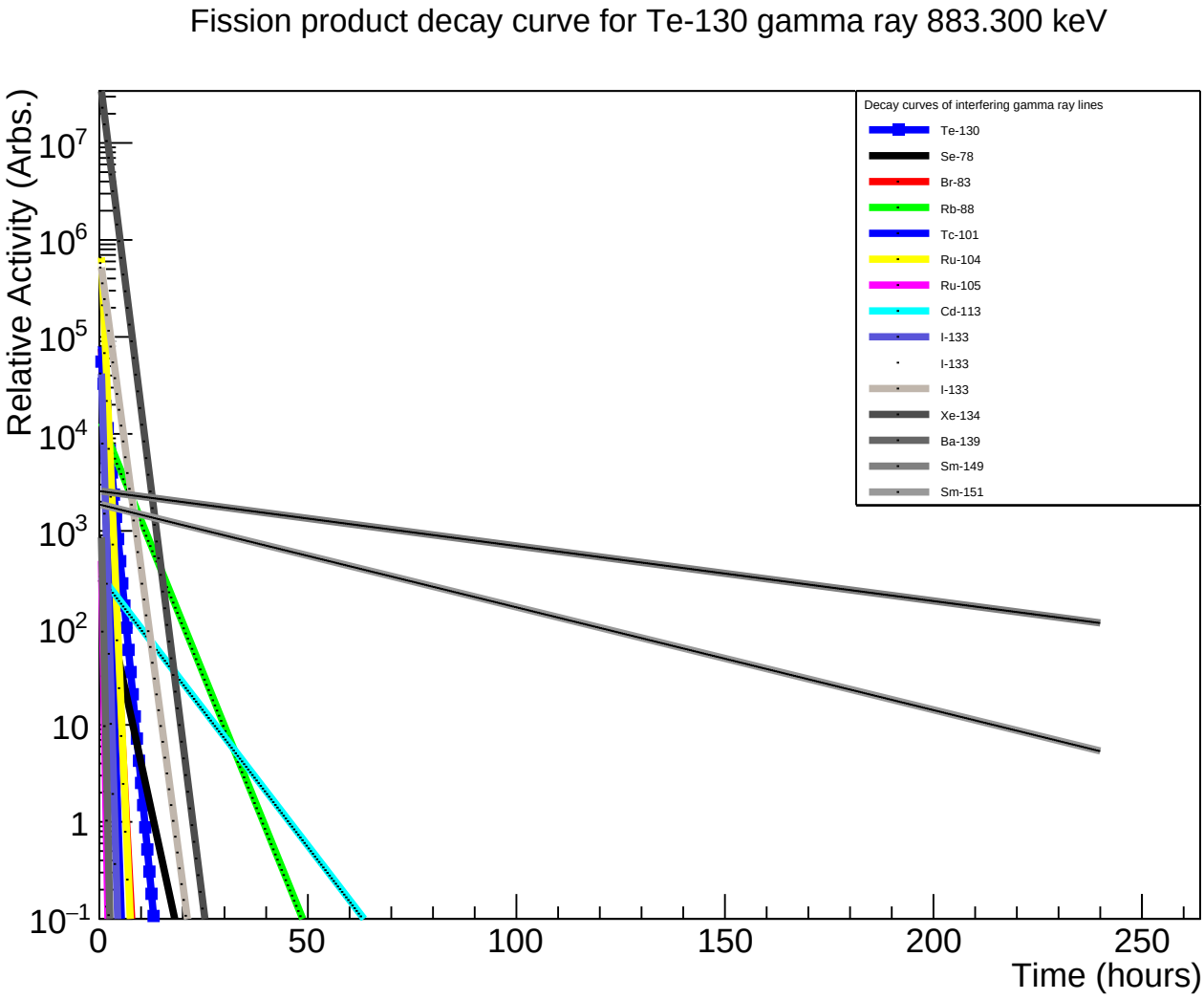


Figure 614: Te-130 decay curve for 883.300 keV gamma ray.

3.615 Sb-130 E_γ = 914.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 914.90 keV
Gamma Intensity = 1.80 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1229: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1230: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	914.500	0.038	0.127	0.010
Sn-125	Sb-125	915.550	0.041	231.360	0.000
Te-133	I-133	914.740	0.007	0.208	0.031
Te-133	I-133	914.774	0.104	0.923	0.040
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Nd-151	Pm-151	914.280	0.009	0.207	0.004
Eu-156	Gd-156	916.400	0.000	364.560	0.000

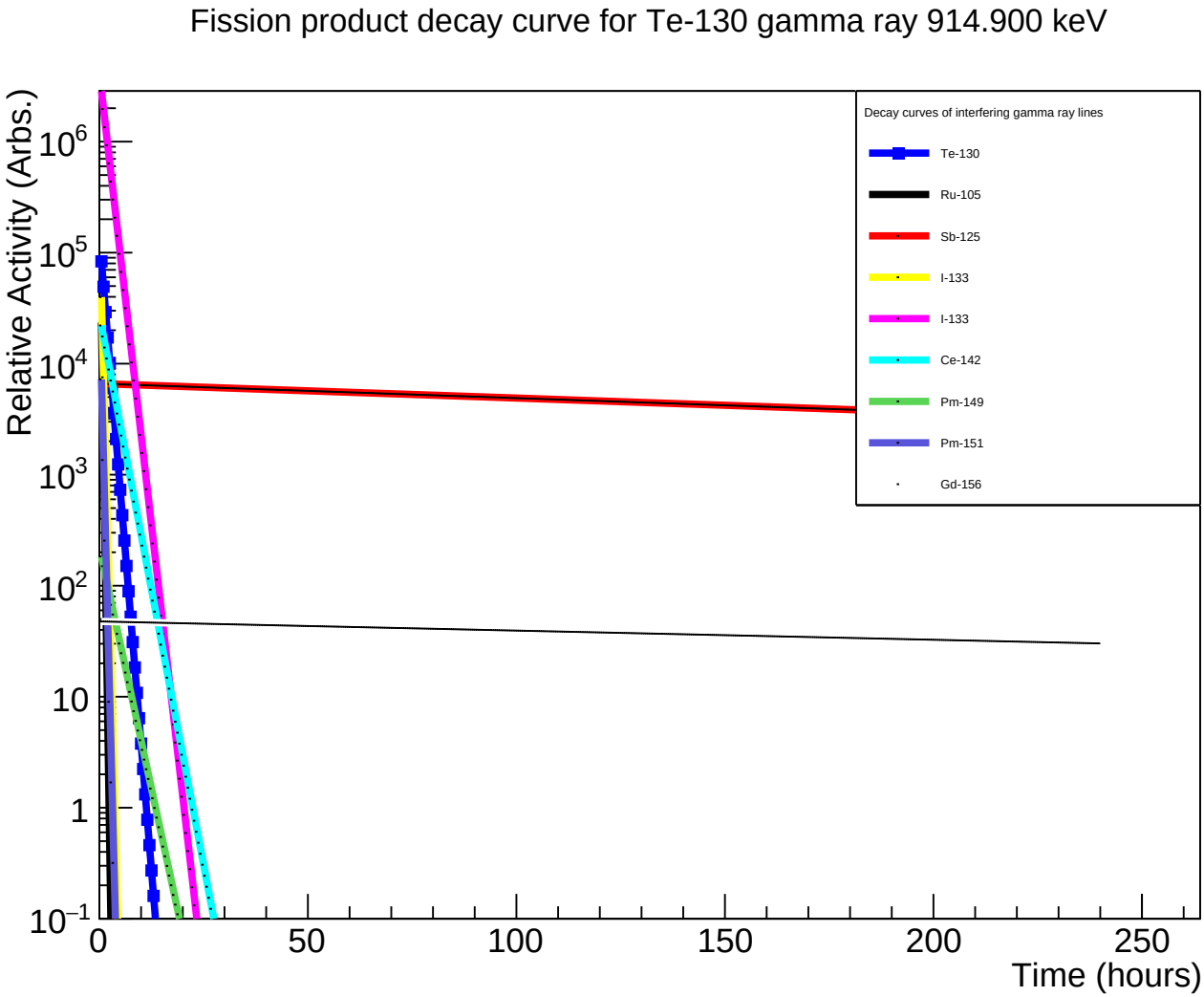


Figure 615: Te-130 decay curve for 914.900 keV gamma ray.

3.616 Sb-130 E_γ = 934.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 934.90 keV
Gamma Intensity = 19.00 ± 1.000 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1231: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1232: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	933.730	0.007	0.372	0.003
Y-92	Zr-92	934.470	0.139	3.540	0.060
Mo-101	Tc-101	934.210	0.041	0.243	0.052
Sn-125	Sb-125	934.630	0.002	231.360	0.000
Te-131	I-131	934.483	0.009	0.417	0.025
Te-133	I-133	934.000	0.001	0.208	0.031
Xe-138	Cs-138	936.360	0.001	0.235	0.063
Cs-138	Ba-138	935.030	0.002	0.557	0.067
Ba-142	La-142	934.000	0.000	0.177	0.058
Nd-149	Pm-149	935.900	0.000	1.728	0.011
Nd-151	Pm-151	934.040	0.001	0.207	0.004
Nd-151	Pm-151	935.100	0.000	0.207	0.004
Pm-151	Sm-151	933.900	0.000	28.400	0.004

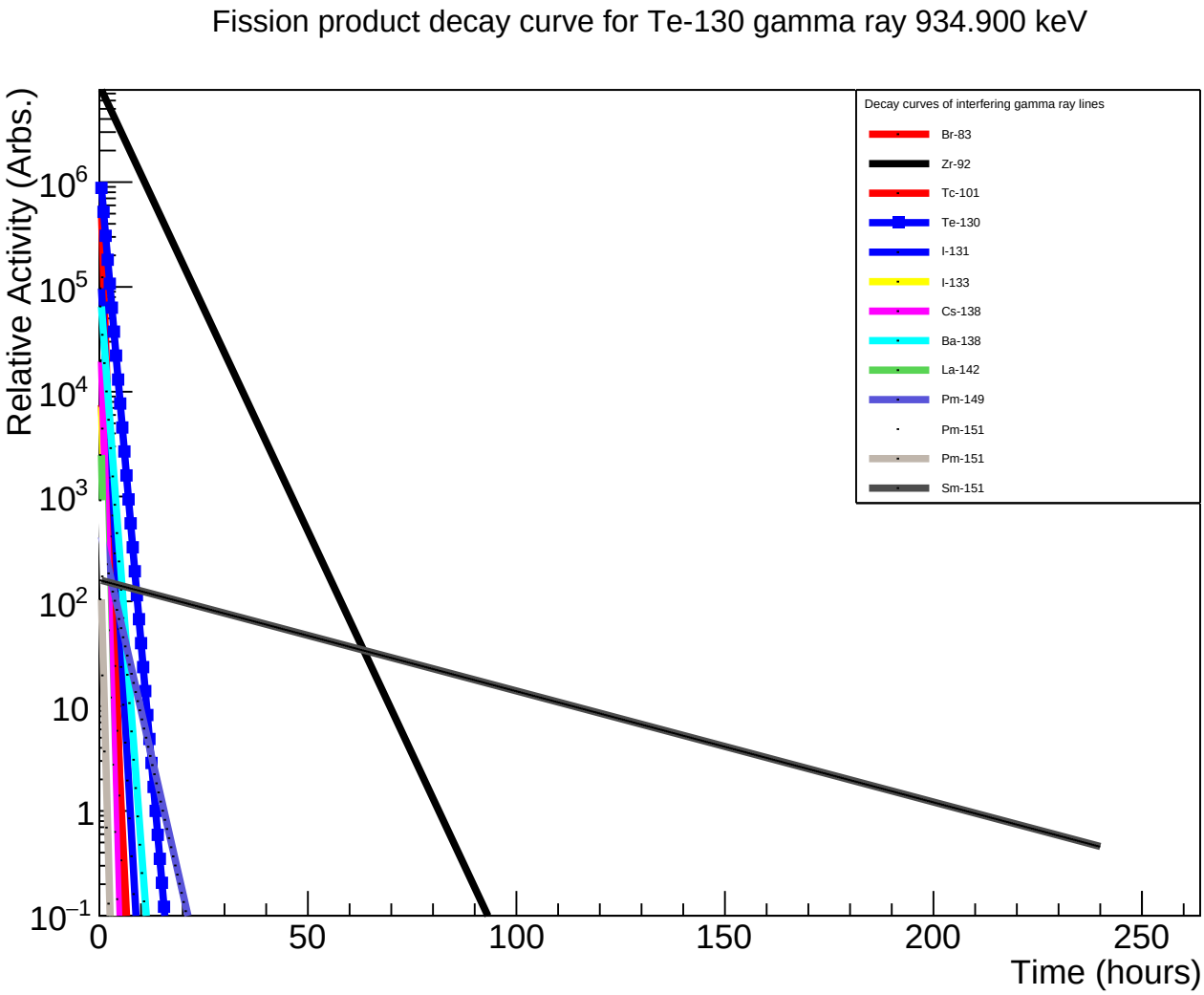


Figure 616: Te-130 decay curve for 934.900 keV gamma ray.

3.617 Sb-130 E_γ = 992.10 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 992.10 keV
Gamma Intensity = 1.90 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1233: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1234: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	993.400	0.001	0.150	0.000
Se-83	Br-83	993.000	0.003	0.372	0.003
Sr-91	Y-91	992.200	0.000	9.630	0.058
Sr-93	Y-93	991.590	0.001	0.124	0.062
Nb-98	Mo-98	992.880	0.011	0.855	0.000
La-140	Ce-140	992.900	0.000	40.285	0.062
Nd-149	Pm-149	992.830	0.000	1.728	0.011
Nd-149	Pm-149	993.050	0.000	1.728	0.011

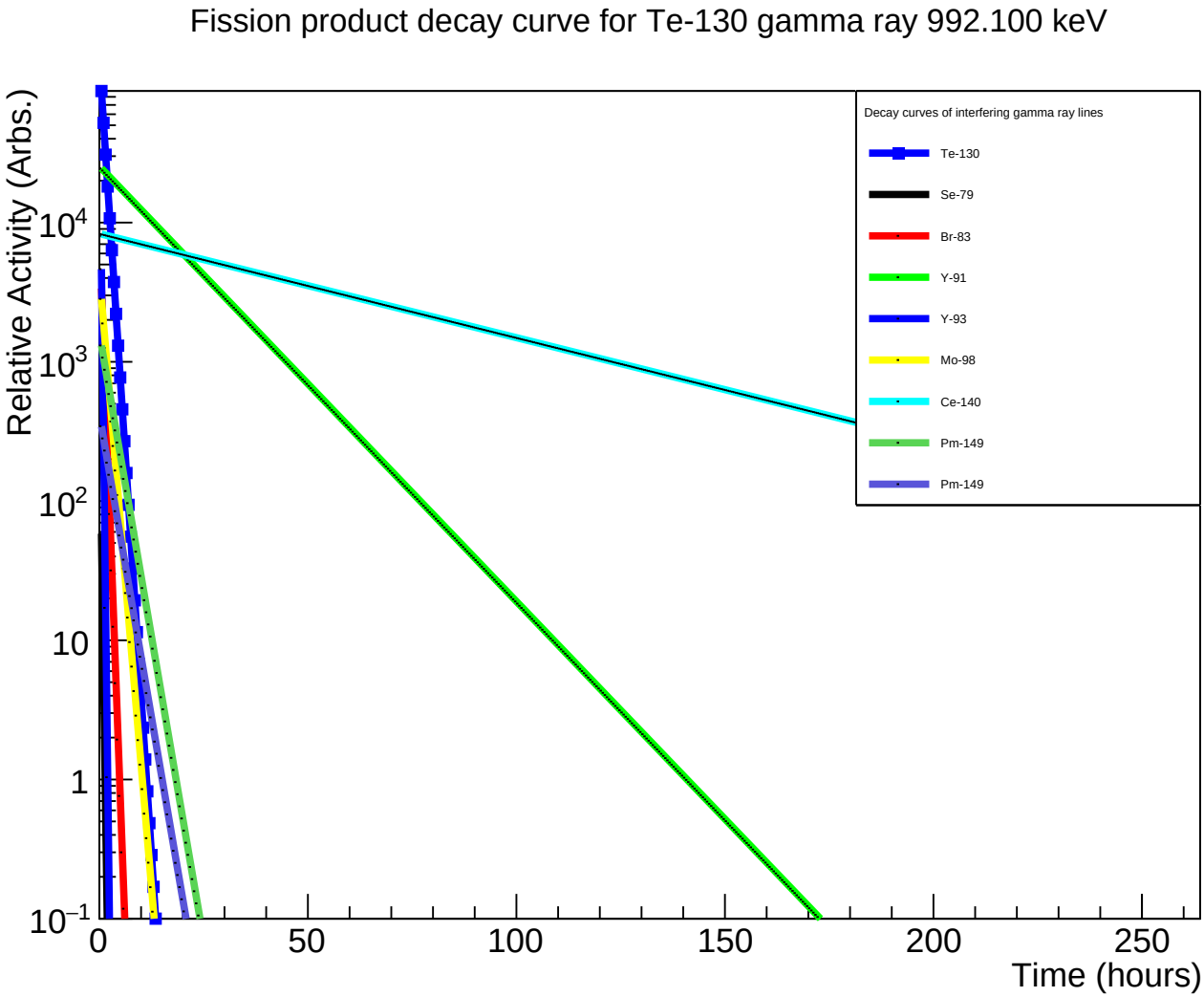


Figure 617: Te-130 decay curve for 992.100 keV gamma ray.

3.618 Sb-130 E_γ = 1000.20 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1000.20 keV
Gamma Intensity = 2.30 ± 0.500 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1235: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1236: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	1001.343	0.000	65.976	0.061
Te-131	I-131	999.260	0.000	0.417	0.025
Te-131	I-131	999.200	0.002	33.250	0.004
Te-133	I-133	1000.720	0.036	0.208	0.031
Ba-142	La-142	1001.200	0.097	0.177	0.058
Nd-151	Pm-151	999.500	0.000	0.207	0.004

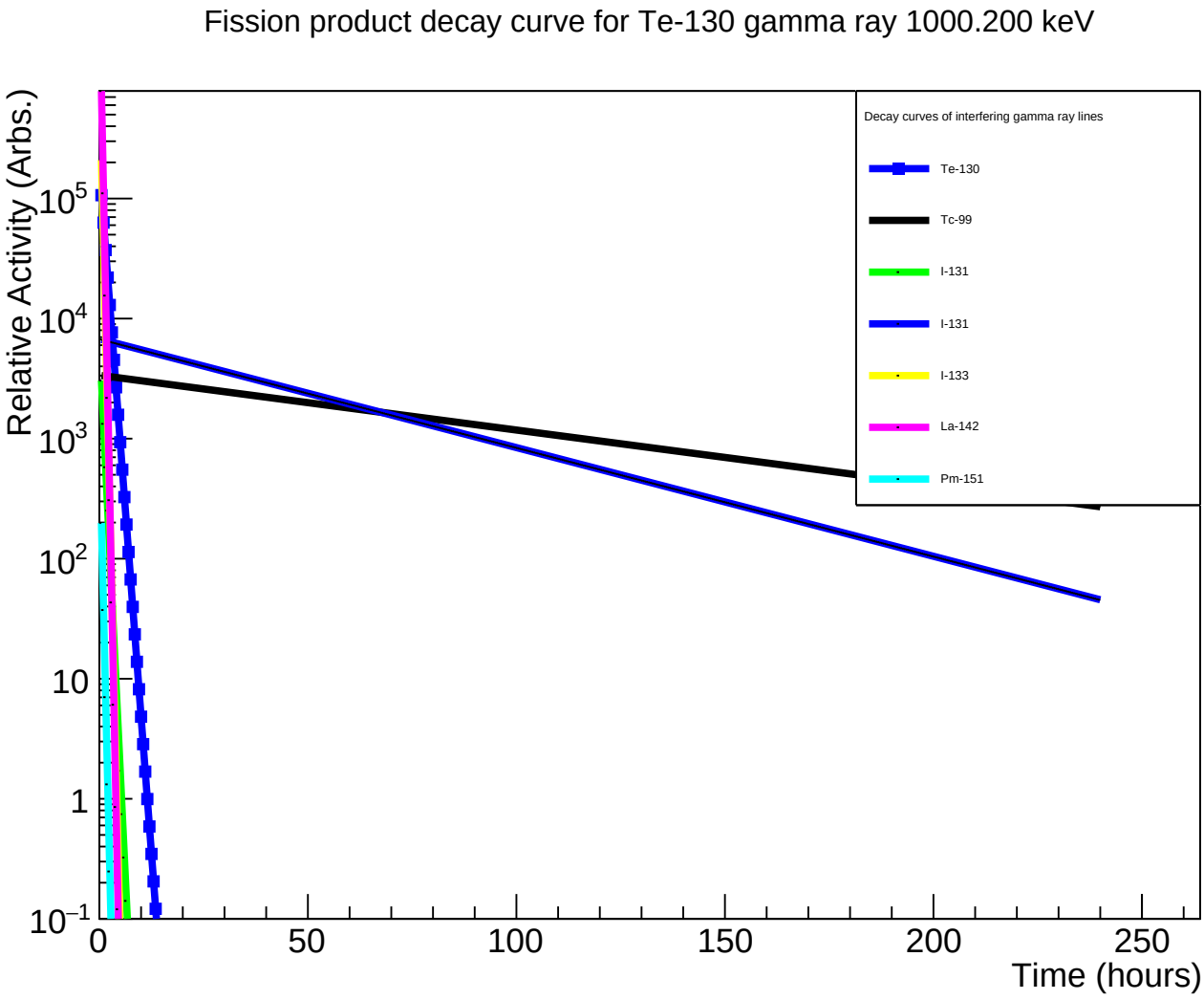


Figure 618: Te-130 decay curve for 1000.200 keV gamma ray.

3.619 Sb-130 E_γ = 1030.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1030.70 keV
Gamma Intensity = 1.50 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1237: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1238: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1031.100	0.002	0.372	0.003
Rb-89	Sr-89	1031.920	0.629	0.252	0.047
Mo-101	Tc-101	1030.100	0.001	0.243	0.052
Te-133	I-133	1029.880	0.012	0.923	0.040
Ce-143	Pr-143	1031.220	0.000	33.039	0.060
Nd-149	Pm-149	1031.770	0.000	1.728	0.011
Nd-151	Pm-151	1030.500	0.000	0.207	0.004

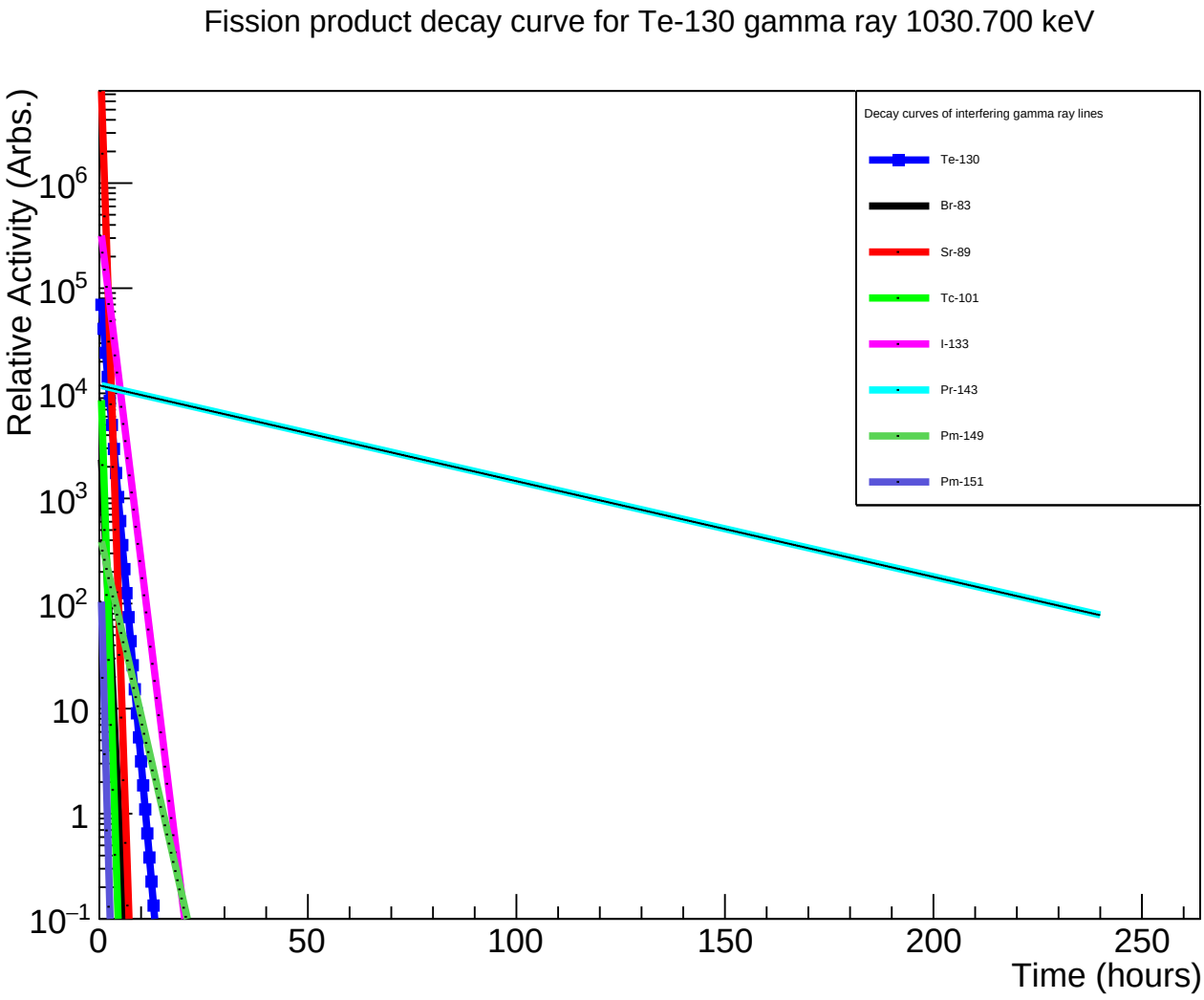


Figure 619: Te-130 decay curve for 1030.700 keV gamma ray.

3.620 Sb-130 E_γ = 1089.50 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1089.50 keV
Gamma Intensity = 3.70 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1239: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1240: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1090.530	0.001	2.840	0.036
Sn-125	Sb-125	1089.150	0.046	231.360	0.000
Te-133	I-133	1090.500	0.001	0.923	0.040
Ba-139	La-139	1090.800	0.000	1.384	0.064
La-142	Ce-142	1089.900	0.001	1.518	0.058
Pr-145	Nd-145	1088.520	0.000	5.984	0.039
Pr-145	Nd-145	1089.900	0.000	5.984	0.039

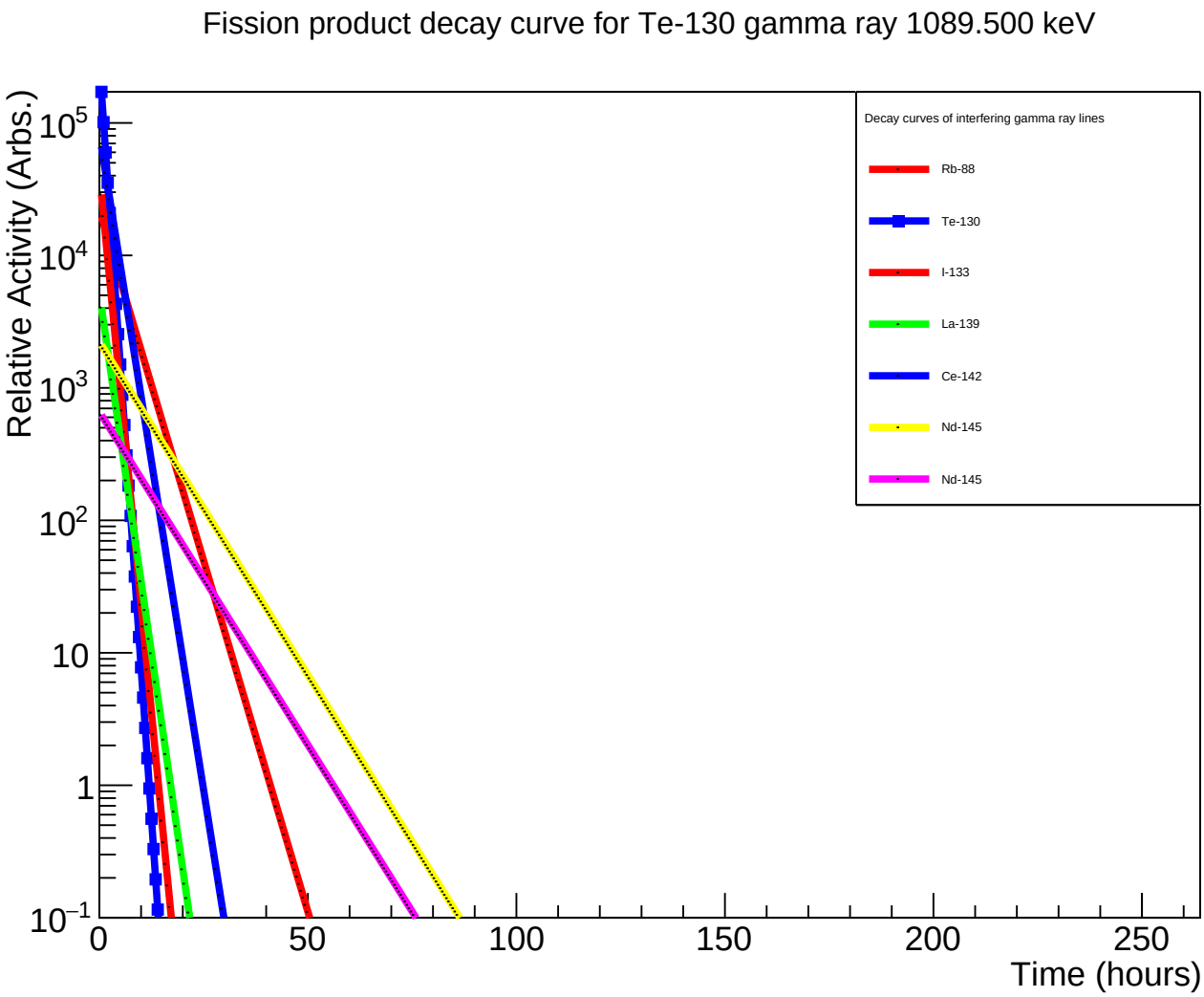


Figure 620: Te-130 decay curve for 1089.500 keV gamma ray.

3.621 Sb-130 E_γ = 1141.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1141.40 keV
Gamma Intensity = 2.00 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1241: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1242: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1141.330	0.013	2.840	0.036
Sr-91	Y-91	1140.800	0.001	9.630	0.058
Sr-92	Y-92	1142.350	0.028	2.710	0.059
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Te-133	I-133	1142.740	0.013	0.923	0.040
Xe-138	Cs-138	1141.640	0.005	0.235	0.063
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Eu-156	Gd-156	1140.510	0.003	364.560	0.000

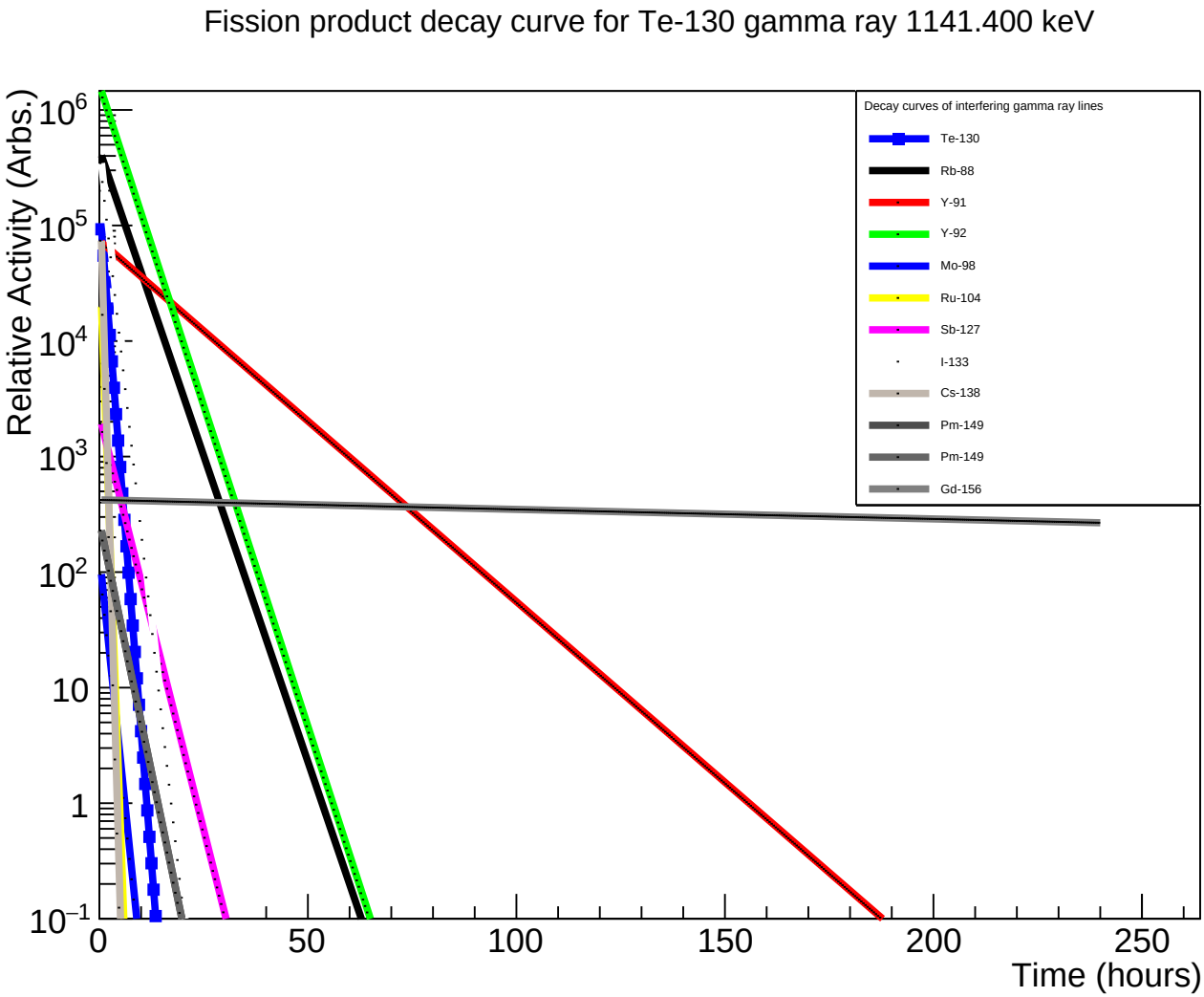


Figure 621: Te-130 decay curve for 1141.400 keV gamma ray.

3.622 Sb-130 E_γ = 1239.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1239.00 keV
Gamma Intensity = 1.80 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1243: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1244: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1240.300	0.059	1.512	0.000
Sr-93	Y-93	1239.150	0.001	0.124	0.062
Tc-104	Ru-104	1239.600	0.002	0.305	0.019
Ru-105	Rh-105	1238.800	0.000	4.440	0.010
Te-133	I-133	1238.500	0.001	0.208	0.031
Te-133	I-133	1239.900	0.002	0.208	0.031
I-134	Xe-134	1239.000	0.002	0.875	0.078
I-135	Xe-135	1240.470	0.009	6.570	0.063
La-143	Ce-143	1240.000	0.002	0.237	0.059
Nd-149	Pm-149	1239.500	0.000	1.728	0.011
Nd-151	Pm-151	1238.350	0.000	0.207	0.004

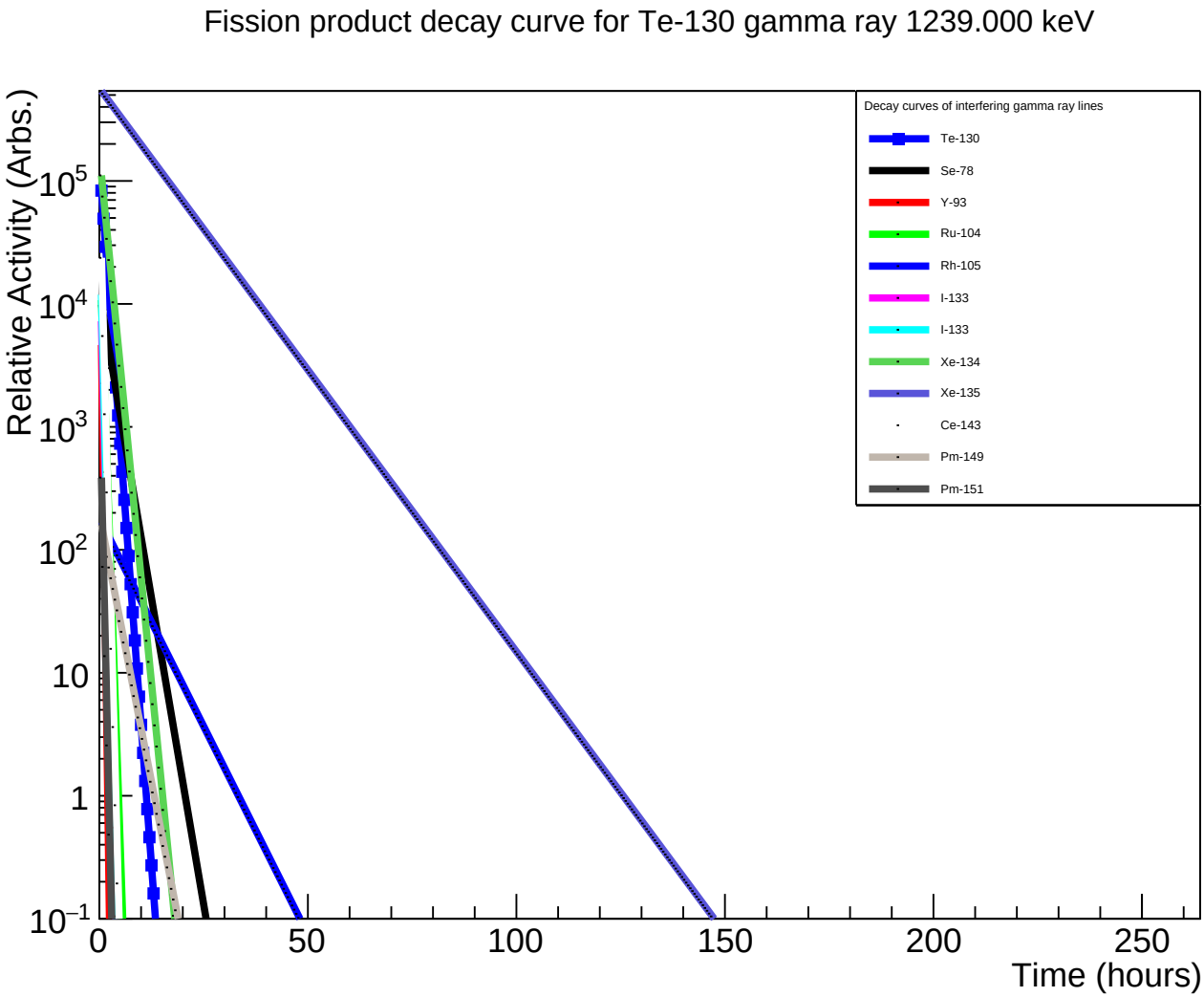


Figure 622: Te-130 decay curve for 1239.000 keV gamma ray.

3.623 Sb-130 E_γ = 1292.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1292.30 keV
Gamma Intensity = 3.70 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1245: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1246: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1293.800	0.017	0.372	0.003
Y-95	Zr-95	1293.600	0.002	0.172	0.064
Nb-98	Mo-98	1291.400	0.001	0.855	0.000
Mo-101	Tc-101	1293.290	0.002	0.243	0.052
Sn-127	Sb-127	1292.100	0.008	2.100	0.001
Te-129	I-129	1291.500	0.000	1.160	0.005
I-132	Xe-132	1290.800	0.011	2.295	0.043
Nd-149	Pm-149	1293.400	0.000	1.728	0.011
Nd-151	Pm-151	1293.610	0.003	0.207	0.004

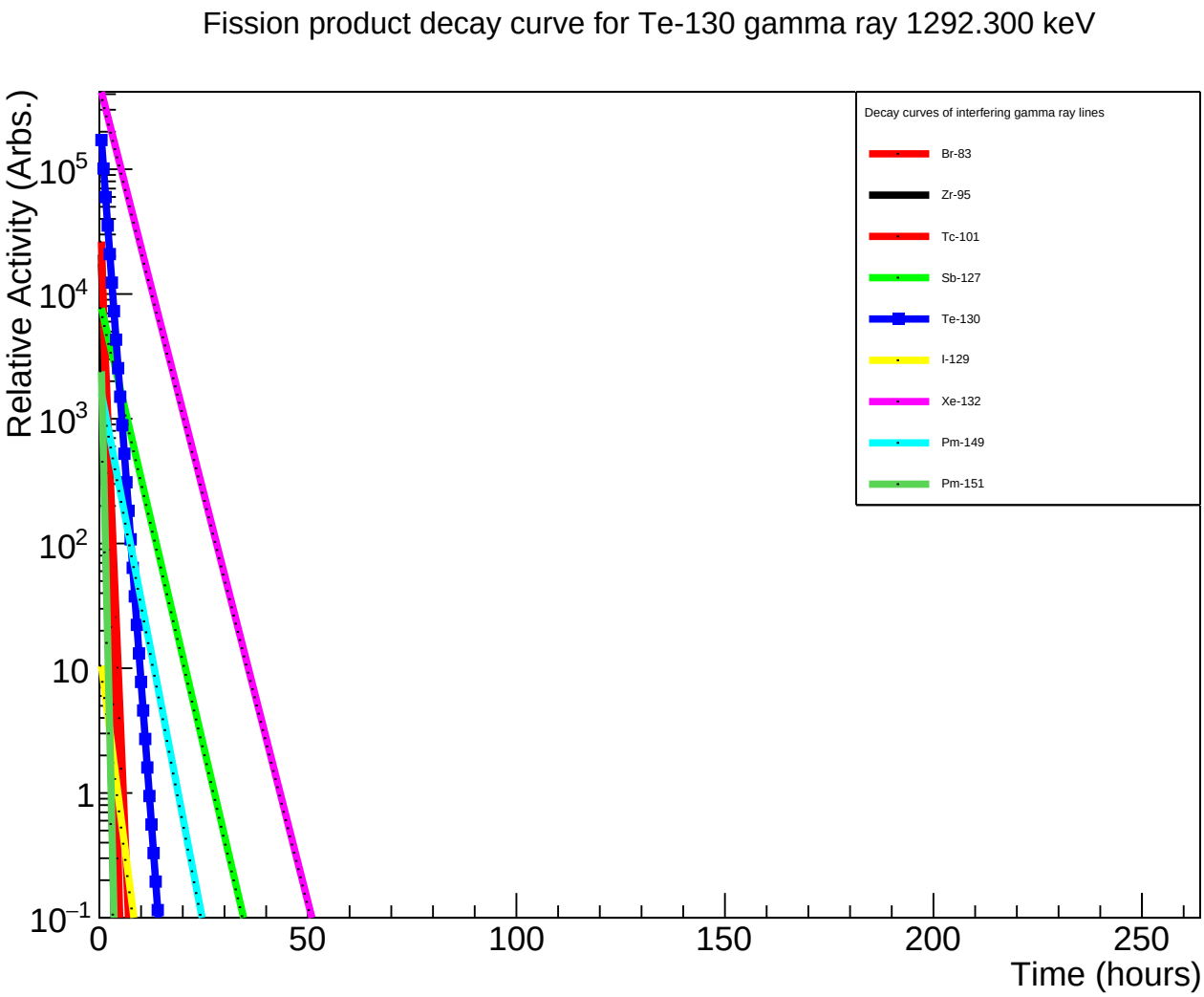


Figure 623: Te-130 decay curve for 1292.300 keV gamma ray.

3.624 Sb-130 E_γ = 1368.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1368.70 keV
Gamma Intensity = 1.10 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1247: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1248: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1369.500	0.015	2.840	0.036
Sn-125	Sb-125	1368.610	0.001	0.159	0.000
Sn-127	Sb-127	1368.400	0.005	2.100	0.001
I-135	Xe-135	1367.890	0.006	6.570	0.063
La-141	Ce-141	1368.700	0.000	3.920	0.058
Nd-149	Pm-149	1367.960	0.000	1.728	0.011

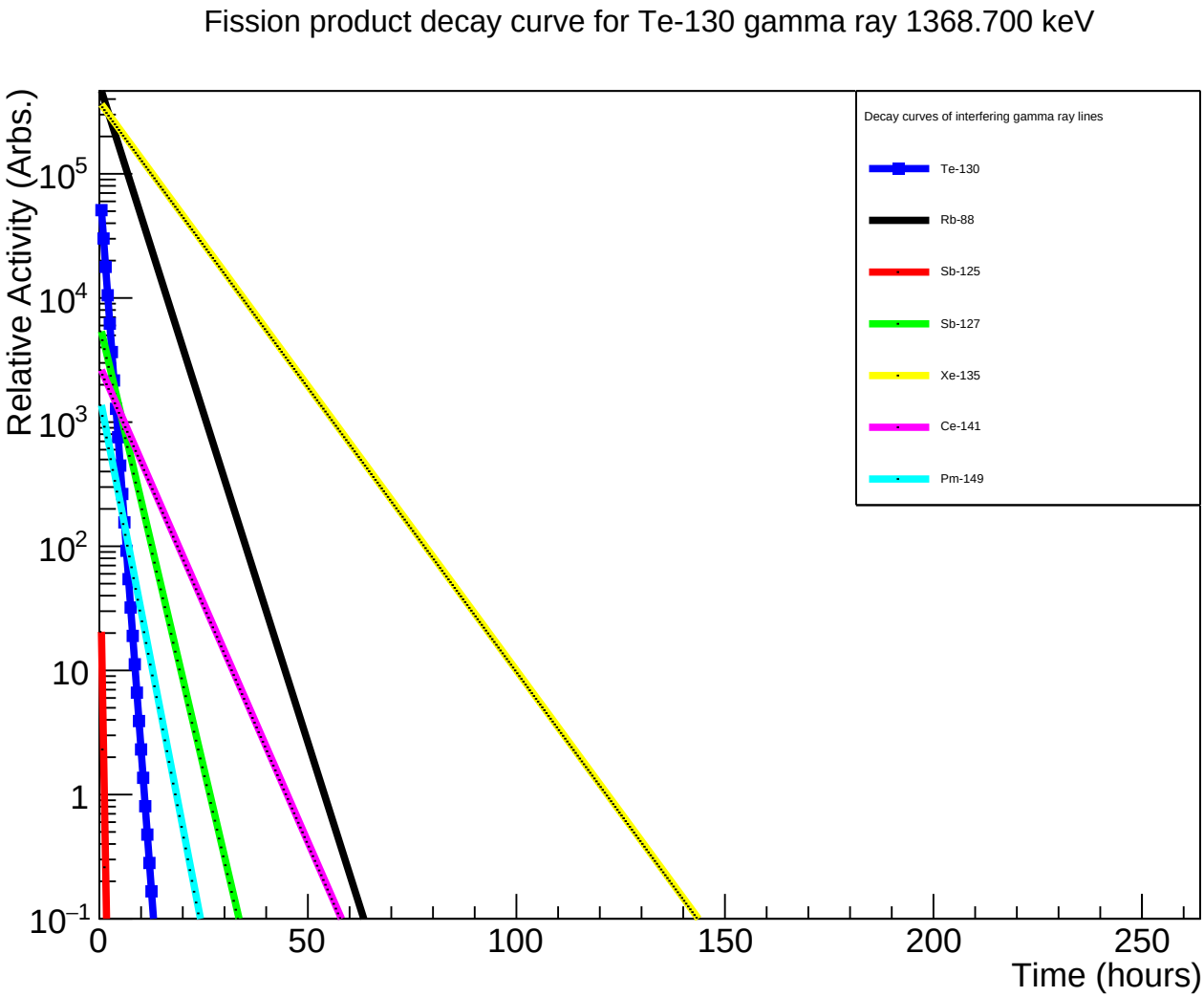


Figure 624: Te-130 decay curve for 1368.700 keV gamma ray.

3.625 Sb-130 E_γ = 1419.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1419.30 keV
Gamma Intensity = 1.20 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1249: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1250: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1420.600	0.011	0.372	0.003
Rb-89	Sr-89	1419.550	0.001	0.252	0.047
Y-95	Zr-95	1418.400	0.004	0.172	0.064
Nb-98	Mo-98	1419.070	0.003	0.855	0.000
Mo-101	Tc-101	1418.560	0.009	0.243	0.052
Sn-125	Sb-125	1419.700	0.005	231.360	0.000
Cs-139	Ba-139	1420.660	0.008	0.155	0.063
Ba-139	La-139	1420.500	0.003	1.384	0.064

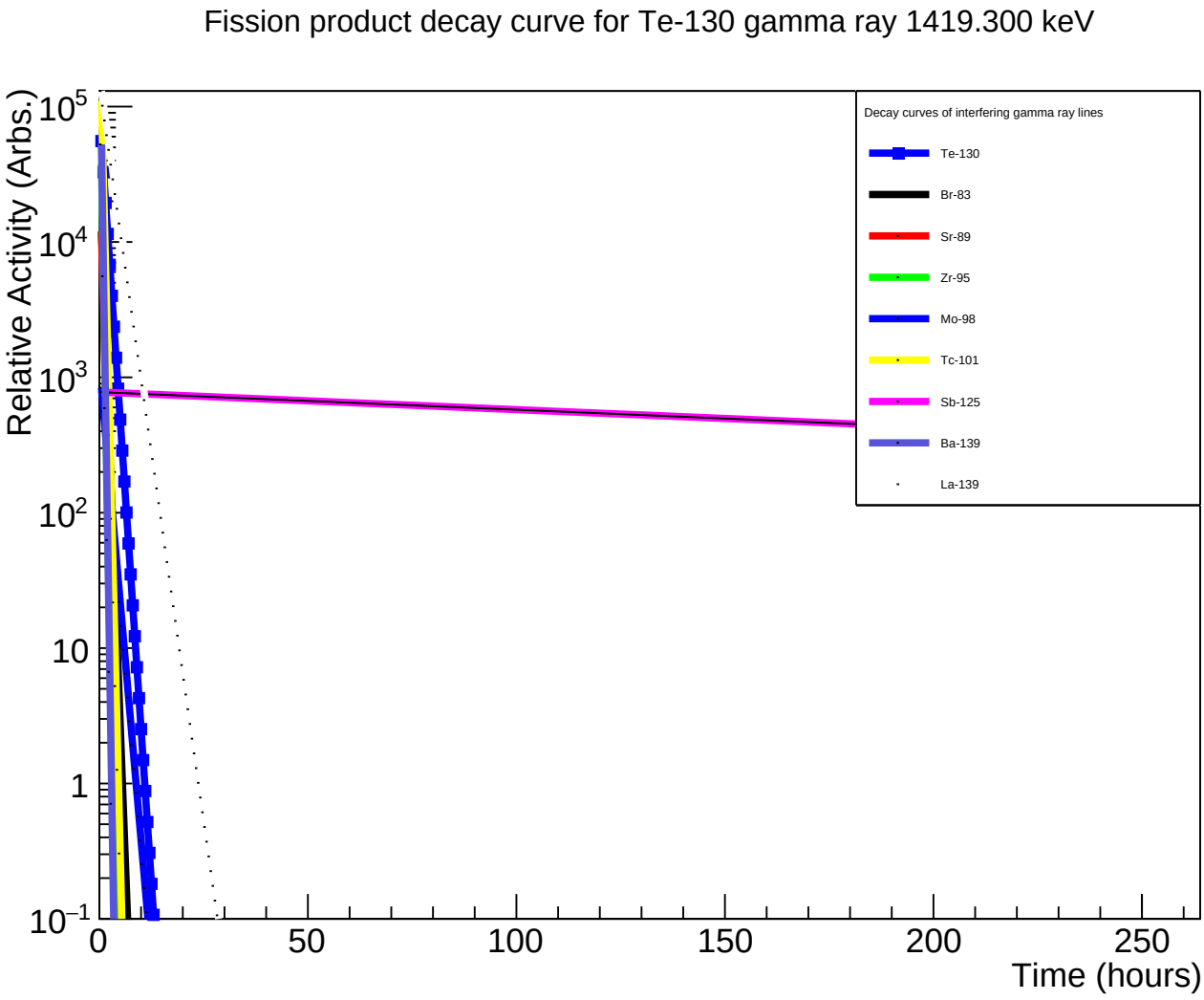


Figure 625: Te-130 decay curve for 1419.300 keV gamma ray.

3.626 Sb-130 E_γ = 1443.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1443.70 keV
Gamma Intensity = 2.50 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1251: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1252: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1442.600	0.001	0.855	0.000
Ag-112	Cd-112	1445.000	0.000	3.130	0.000
I-132	Xe-132	1442.560	0.014	2.295	0.043
Cs-138	Ba-138	1445.040	0.010	0.557	0.067
Nd-151	Pm-151	1442.400	0.000	0.207	0.004

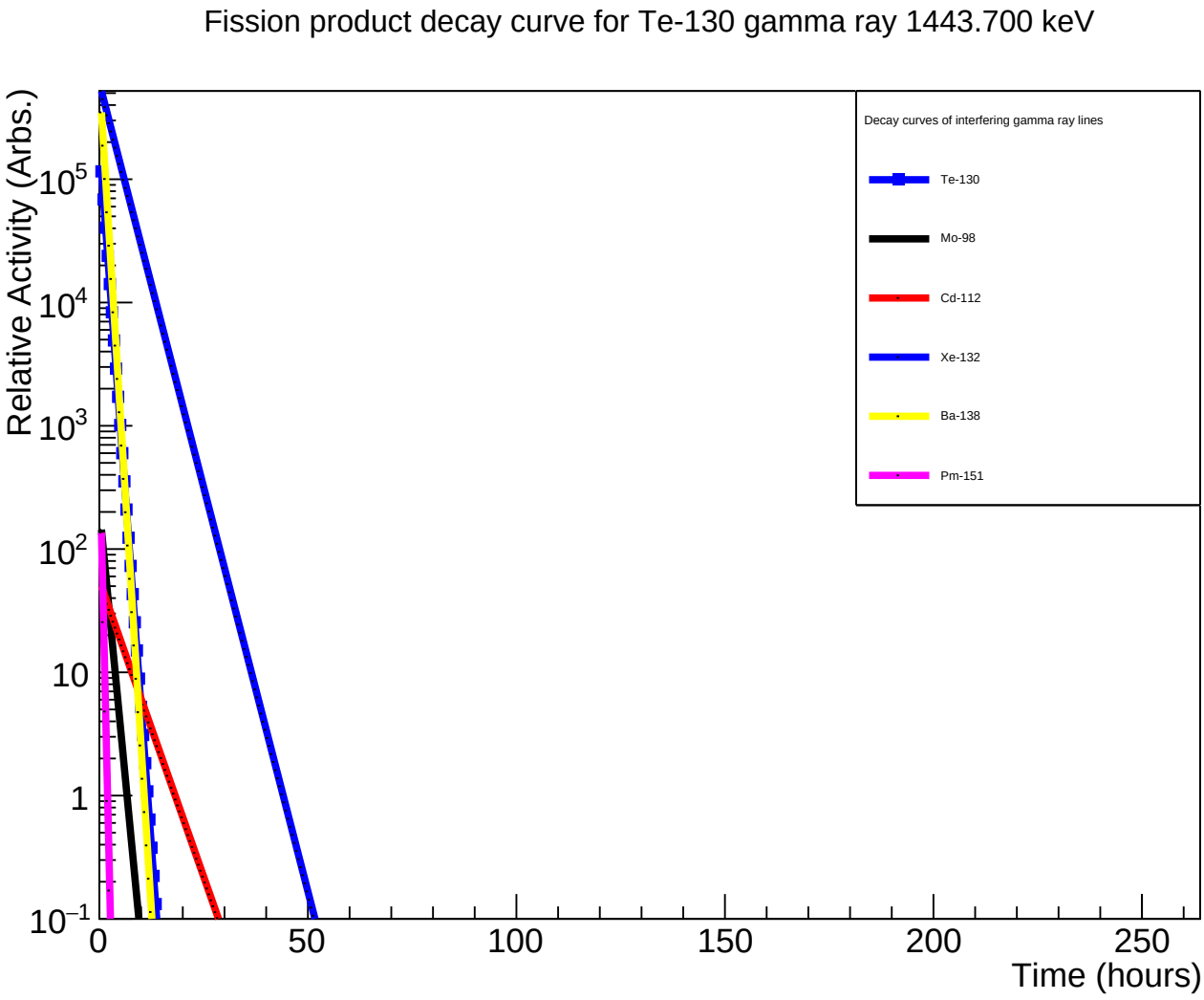


Figure 626: Te-130 decay curve for 1443.700 keV gamma ray.

3.627 Sb-130 E_γ = 1581.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1581.90 keV
Gamma Intensity = 1.90 ± 0.400 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1253: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1254: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1583.100	0.001	0.243	0.052
Tc-104	Ru-104	1580.900	0.003	0.305	0.019
Sn-125	Sb-125	1581.960	0.000	0.159	0.000
Te-133	I-133	1581.000	0.002	0.923	0.040

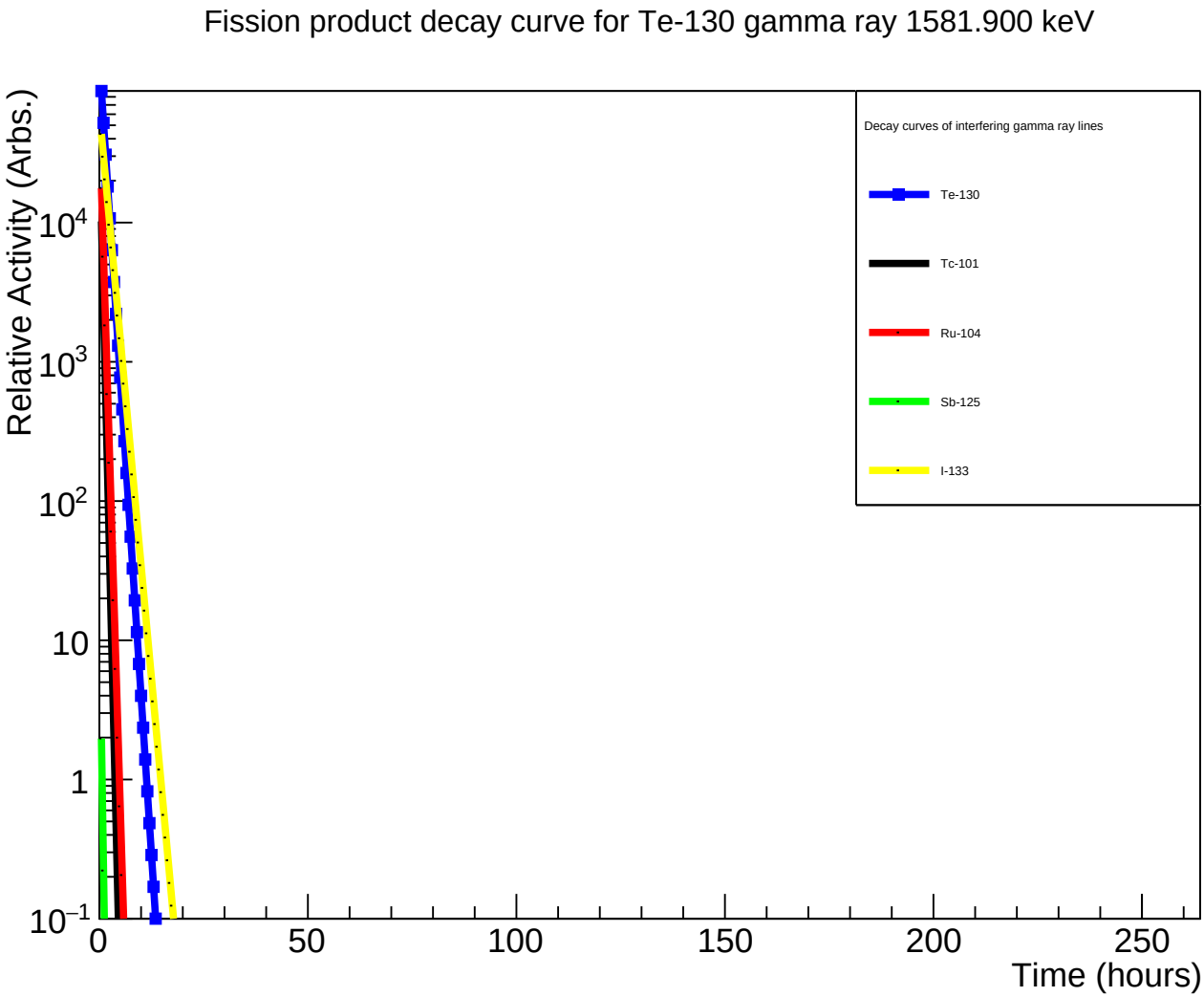


Figure 627: Te-130 decay curve for 1581.900 keV gamma ray.

3.628 Sb-130 E_γ = 1762.60 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1762.60 keV
Gamma Intensity = 2.50 ± 0.300 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1255: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1256: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ba-139	La-139	1762.000	0.000	1.384	0.064
Nd-151	Pm-151	1761.770	0.000	0.207	0.004

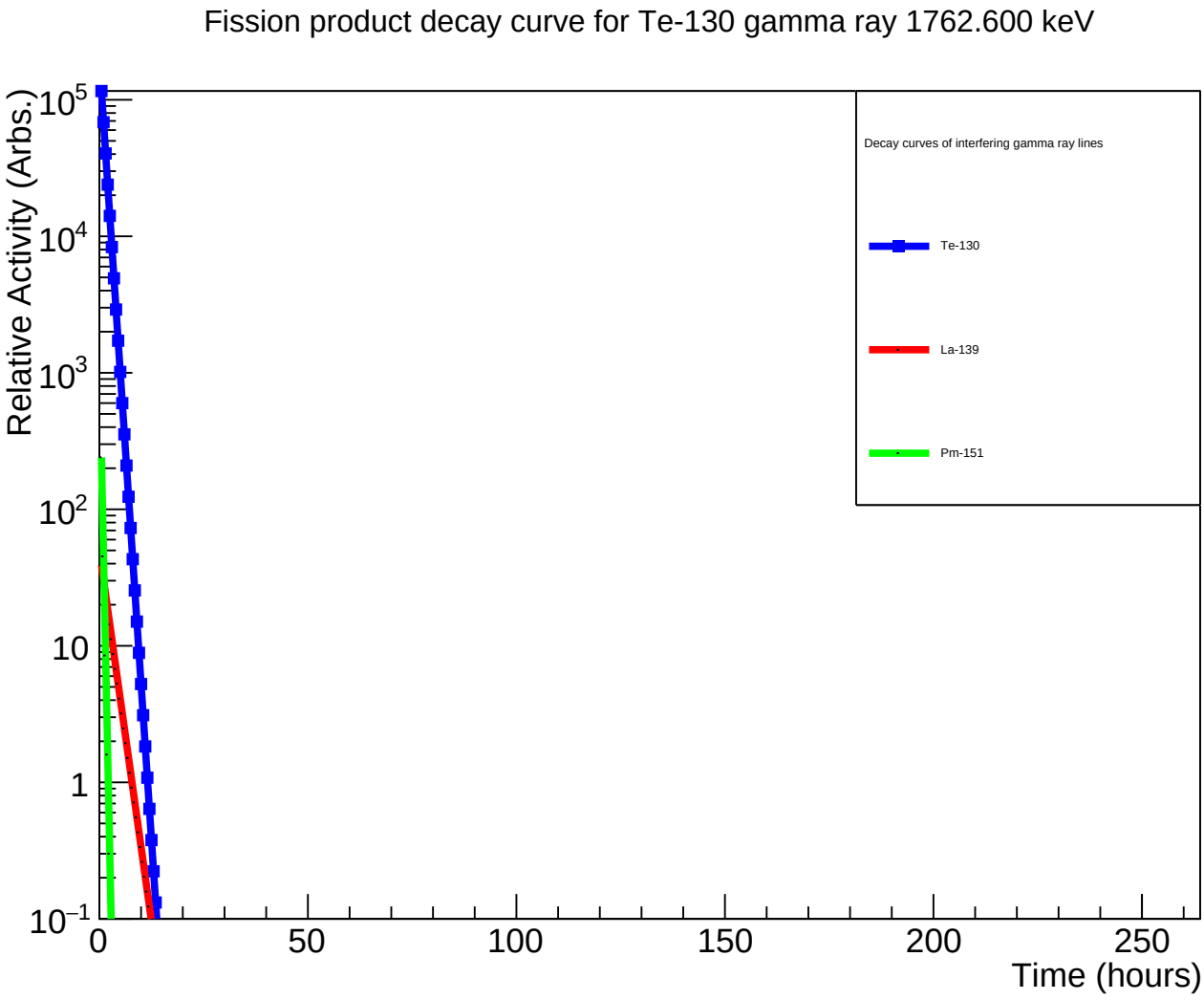


Figure 628: Te-130 decay curve for 1762.600 keV gamma ray.

3.629 Sb-130 E_γ = 1948.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1948.00 keV
Gamma Intensity = 1.20 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1257: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1258: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1946.540	0.001	0.243	0.052
Sn-125	Sb-125	1947.500	0.000	0.159	0.000
I-134	Xe-134	1947.300	0.001	0.875	0.078
I-135	Xe-135	1948.490	0.001	6.570	0.063
Cs-139	Ba-139	1949.260	0.000	0.155	0.063
La-142	Ce-142	1949.400	0.004	1.518	0.058

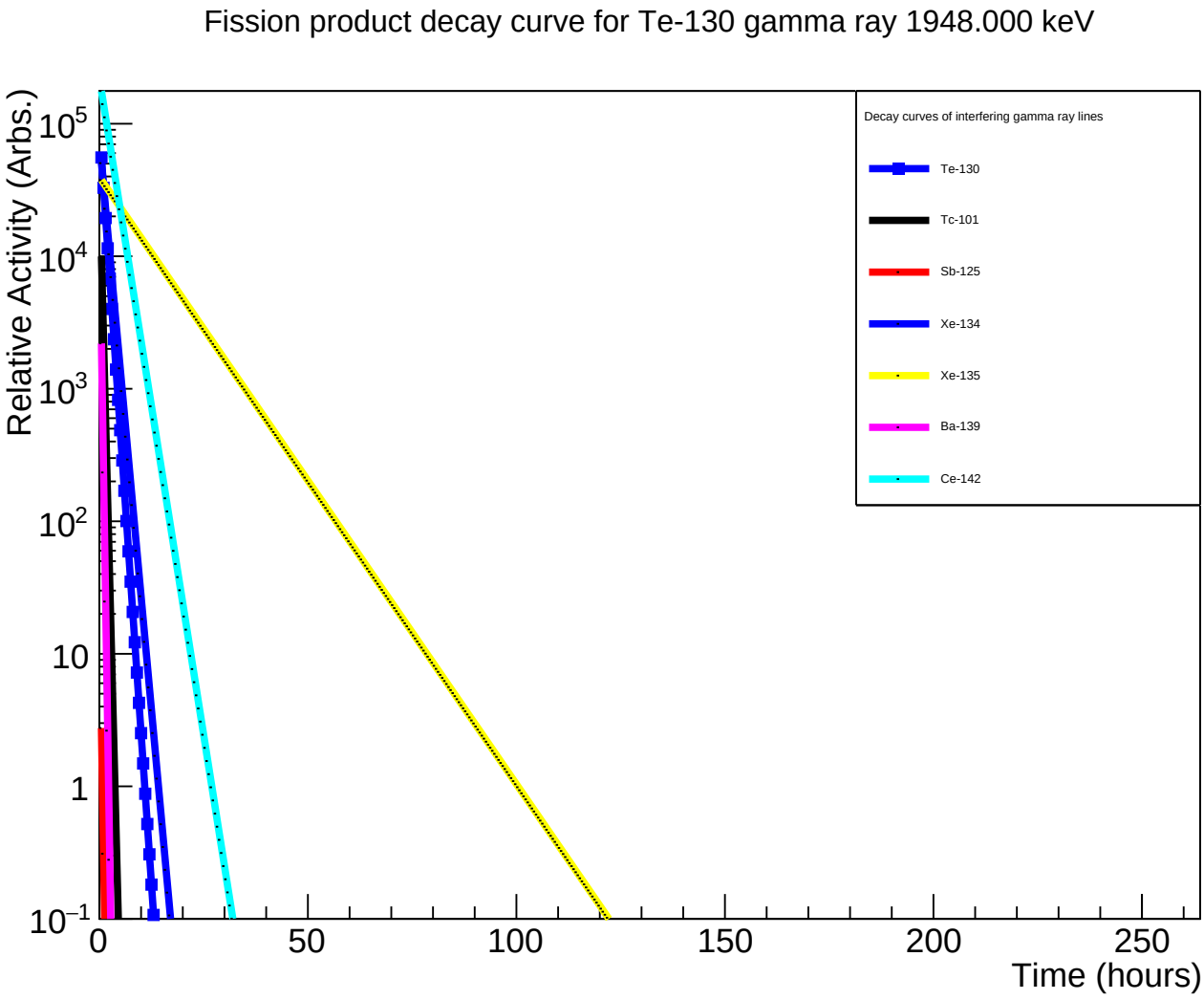


Figure 629: Te-130 decay curve for 1948.000 keV gamma ray.

3.630 Sb-130 E_γ = 1997.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1997.40 keV
Gamma Intensity = 2.10 ± 0.200 %
$T_{1/2}$ = 0.658 ± 0.013 hours or 39.50 ± 0.80 minutes
CFY: 0.785 ± 0.502 %

Table 1259: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1260: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1997.100	0.006	0.305	0.019
Cs-139	Ba-139	1998.460	0.000	0.155	0.063
Pr-147	Nd-147	1995.900	0.002	0.223	0.022
Nd-151	Pm-151	1998.100	0.000	0.207	0.004

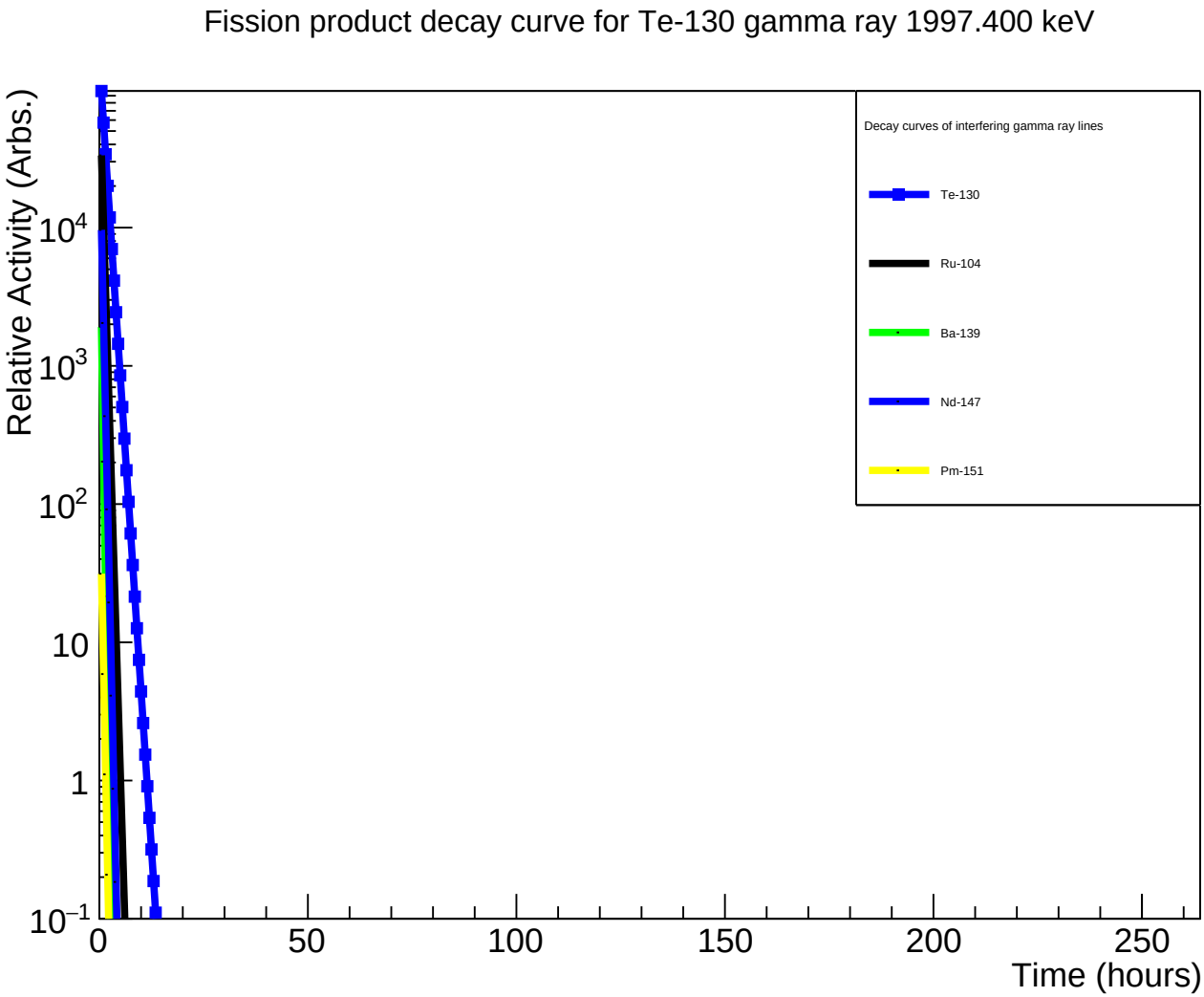


Figure 630: Te-130 decay curve for 1997.400 keV gamma ray.

3.631 Sb-130 E_γ = 182.33 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 182.33 keV
Gamma Intensity = 41.00 ± 2.000 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1261: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1262: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	182.900	0.000	16.749	0.060
Mo-99	Tc-99	181.068	0.061	65.976	0.061
Ru-105	Rh-105	183.600	0.001	4.440	0.010
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Te-131	I-131	182.250	0.017	33.250	0.004
Te-131	I-131	183.110	0.001	33.250	0.004
Te-133	I-133	183.300	0.000	0.208	0.031
Te-134	I-134	180.891	0.183	0.697	0.070
Te-134	I-134	183.050	0.006	0.697	0.070
I-132	Xe-132	183.600	0.001	2.295	0.043
Ba-140	La-140	183.830	0.000	306.065	0.062
Nd-151	Pm-151	183.190	0.005	0.207	0.004
Sm-155	Eu-155	183.400	0.000	0.372	0.000

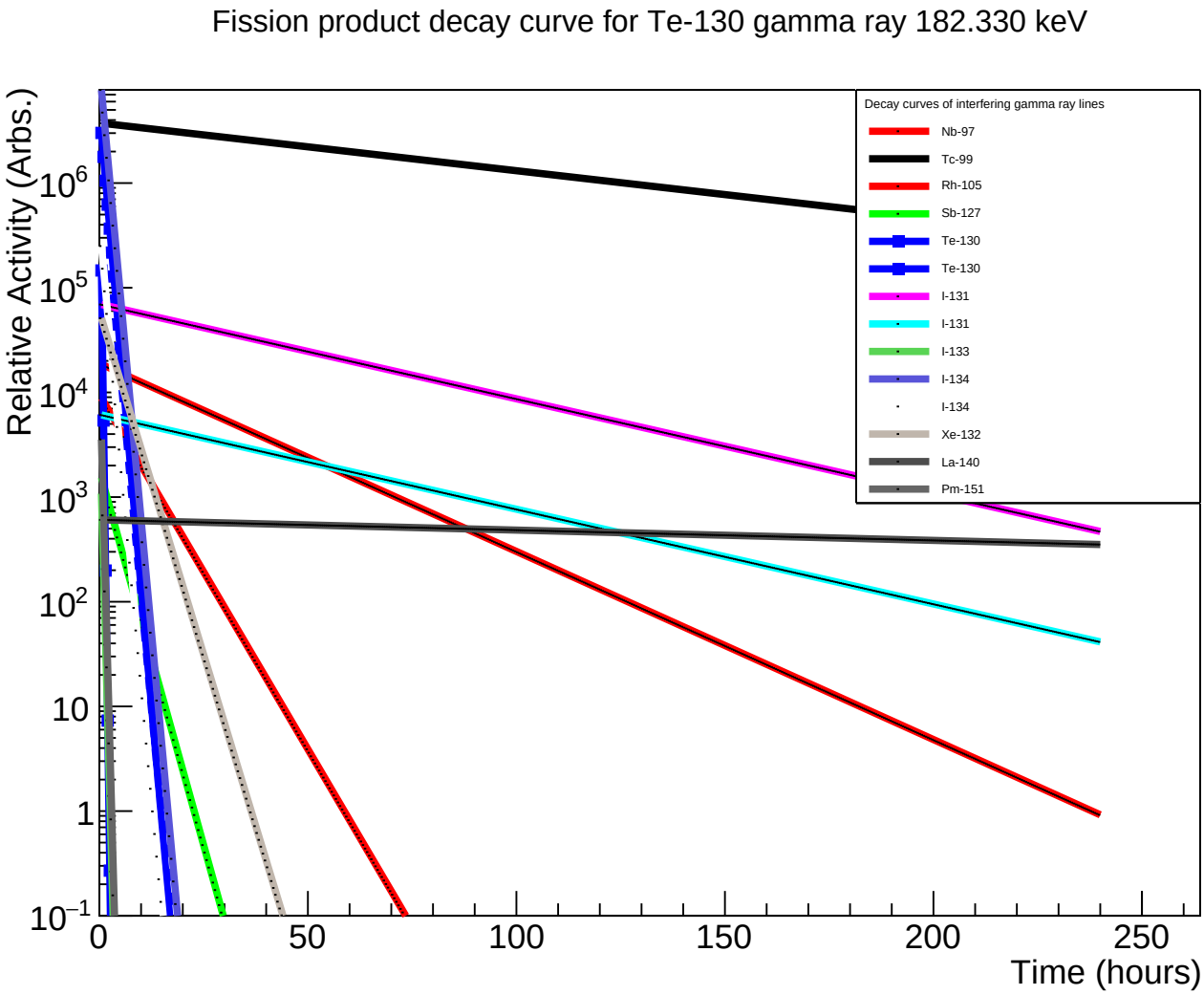


Figure 631: Te-130 decay curve for 182.330 keV gamma ray.

3.632 Sb-130 E_γ = 348.50 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 348.50 keV
Gamma Intensity = 5.10 ± 0.500 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1263: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1264: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	347.940	0.002	0.855	0.000
Mo-101	Tc-101	347.560	0.001	0.243	0.052
Tc-104	Ru-104	349.100	0.001	0.305	0.019
Tc-104	Ru-104	349.300	0.025	0.305	0.019
Ru-105	Rh-105	349.960	0.003	4.440	0.010
Rh-107	Pd-107	348.210	0.023	0.362	0.001
Sn-127	Sb-127	348.400	0.005	2.100	0.001
Te-133	I-133	347.300	0.006	0.923	0.040
Ba-141	La-141	349.500	0.002	0.304	0.058
Nd-149	Pm-149	347.843	0.002	1.728	0.011
Nd-149	Pm-149	349.231	0.014	1.728	0.011
Nd-151	Pm-151	347.130	0.004	0.207	0.004
Nd-152	Pm-152	350.000	0.000	0.190	0.003
Pm-149	Sm-149	350.000	0.000	53.080	0.011
Pm-151	Sm-151	348.800	0.000	28.400	0.004
Pm-151	Sm-151	349.810	0.001	28.400	0.004
Eu-156	Gd-156	348.270	0.000	364.560	0.000

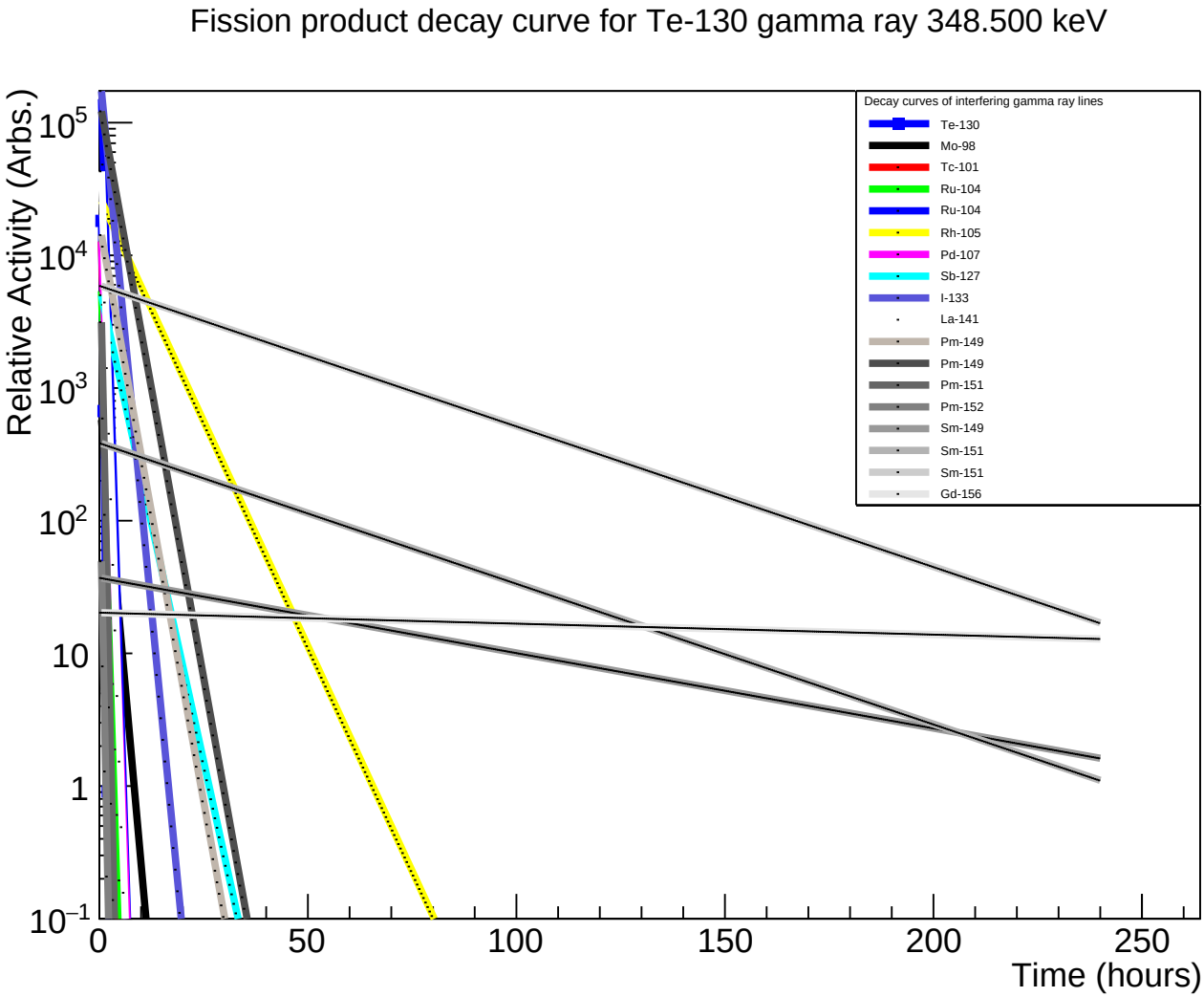


Figure 632: Te-130 decay curve for 348.500 keV gamma ray.

3.633 Sb-130 E_γ = 468.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 468.00 keV
Gamma Intensity = 3.10 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1265: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1266: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	468.800	0.001	1.512	0.000
Rb-89	Sr-89	466.620	0.001	0.252	0.047
Nb-98	Mo-98	467.000	0.000	0.855	0.000
Ru-105	Rh-105	469.370	0.175	4.440	0.010
Sn-127	Sb-127	468.700	0.005	2.100	0.001
Te-131	I-131	468.160	0.003	33.250	0.004
Cs-139	Ba-139	466.700	0.000	0.155	0.063
Ba-140	La-140	467.500	0.000	306.065	0.062
Ba-141	La-141	467.500	0.057	0.304	0.058
Ce-146	Pr-146	468.020	0.008	0.225	0.030
Pr-145	Nd-145	467.030	0.000	5.984	0.039
Pr-147	Nd-147	466.800	0.019	0.223	0.022
Pm-151	Sm-151	467.200	0.000	28.400	0.004

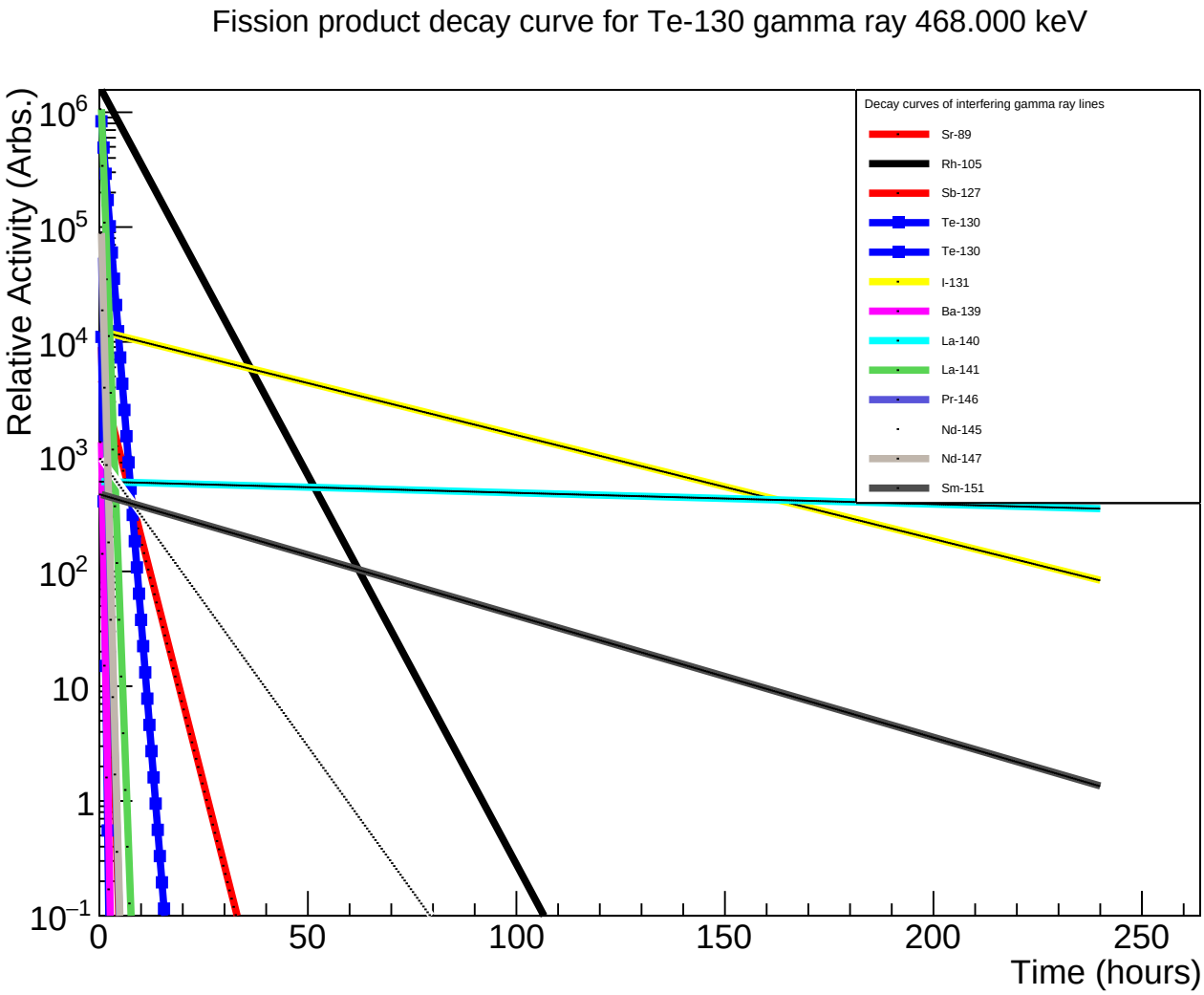


Figure 633: Te-130 decay curve for 468.000 keV gamma ray.

3.634 Sb-130 E_γ = 502.60 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 502.60 keV
Gamma Intensity = 1.90 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1267: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1268: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	503.700	0.004	1.512	0.000
I-131	Xe-131	503.004	0.004	192.605	0.029
Ce-146	Pr-146	503.000	0.010	0.225	0.030
Pr-147	Nd-147	503.500	0.004	0.223	0.022
Nd-151	Pm-151	503.800	0.000	0.207	0.004
Pm-151	Sm-151	503.700	0.000	28.400	0.004

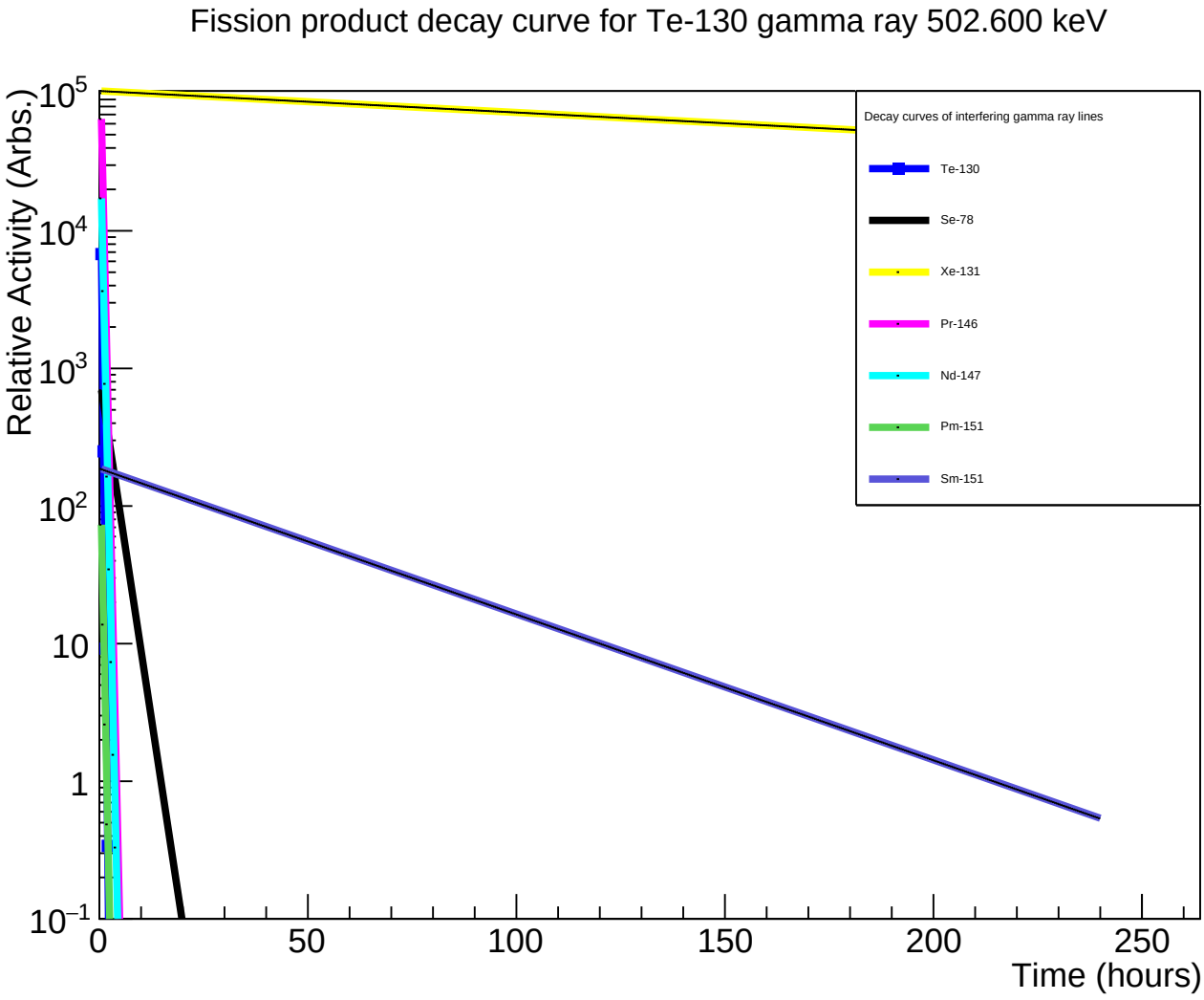


Figure 634: Te-130 decay curve for 502.600 keV gamma ray.

3.635 Sb-130 E_γ = 647.70 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 647.70 keV
Gamma Intensity = 4.80 ± 0.500 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1269: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1270: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	648.960	0.000	2.400	0.005
Tc-104	Ru-104	648.700	0.002	0.305	0.019
Tc-105	Ru-105	646.300	0.012	0.127	0.010
Tc-105	Ru-105	648.700	0.007	0.127	0.010
Pd-109	Ag-109	647.300	0.000	13.701	0.000
Ag-112	Cd-112	647.500	0.000	3.130	0.000
Sn-127	Sb-127	649.100	0.008	2.100	0.001
Te-133	I-133	647.510	0.097	0.923	0.040
I-133	Xe-133	648.760	0.001	20.800	0.067
Xe-138	Cs-138	647.200	0.000	0.235	0.063
Ba-141	La-141	648.100	0.063	0.304	0.058
La-142	Ce-142	646.200	0.001	1.518	0.058
Nd-147	Pm-147	649.040	0.000	263.520	0.022
Nd-151	Pm-151	648.400	0.000	0.207	0.004
Sm-155	Eu-155	648.600	0.000	0.372	0.000
Eu-156	Gd-156	646.290	0.063	364.560	0.000

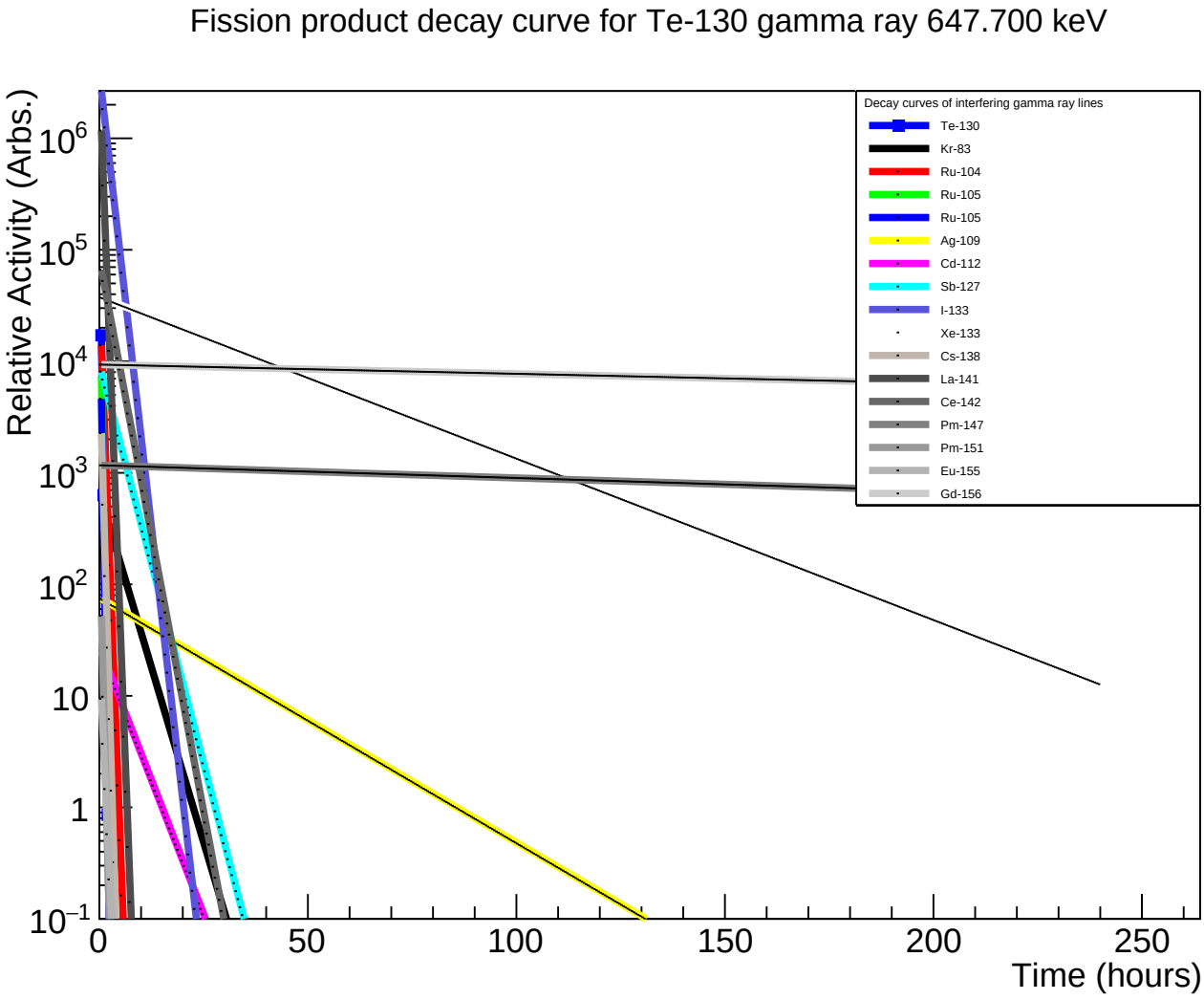


Figure 635: Te-130 decay curve for 647.700 keV gamma ray.

3.636 Sb-130 E_γ = 697.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 697.40 keV
Gamma Intensity = 4.40 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1271: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1272: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Nb-98	Mo-98	697.380	0.003	0.855	0.000
Tc-105	Ru-105	698.000	0.016	0.127	0.010
Rh-107	Pd-107	696.700	0.000	0.362	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-133	I-133	698.100	0.009	0.923	0.040
Xe-138	Cs-138	697.600	0.000	0.235	0.063
Ba-141	La-141	698.800	0.004	0.304	0.058
Pr-144	Nd-144	696.510	0.013	0.288	0.055
Pr-144	Nd-144	696.500	0.001	0.120	0.000
Nd-149	Pm-149	696.264	0.002	1.728	0.011

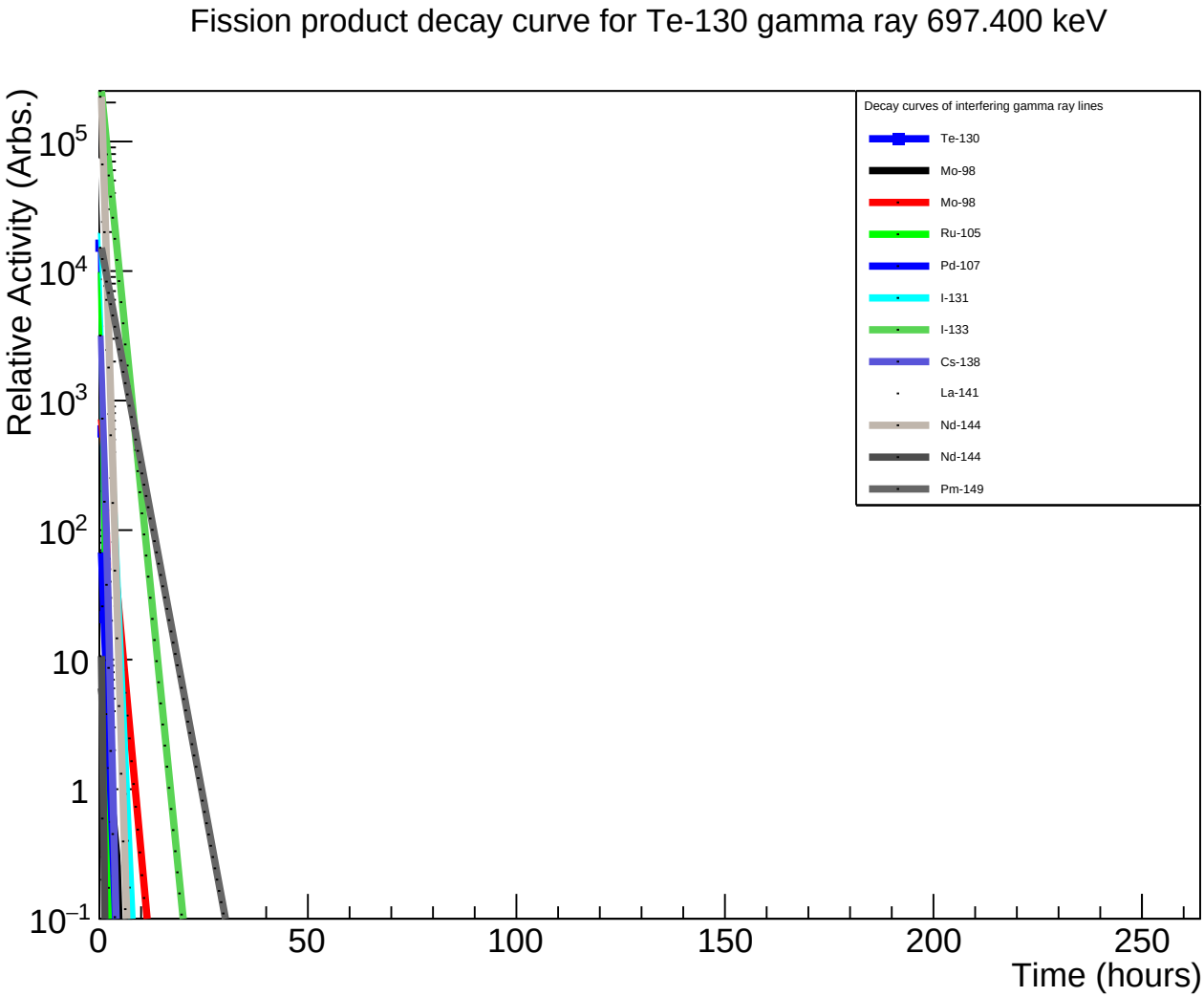


Figure 636: Te-130 decay curve for 697.400 keV gamma ray.

3.637 Sb-130 E_γ = 748.60 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 748.60 keV
Gamma Intensity = 4.00 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1273: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1274: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	749.800	0.237	9.630	0.058
Nb-98	Mo-98	750.100	0.000	0.855	0.000
Te-131	I-131	749.000	0.000	33.250	0.004
Pr-145	Nd-145	748.278	0.005	5.984	0.039
Nd-149	Pm-149	749.630	0.000	1.728	0.011

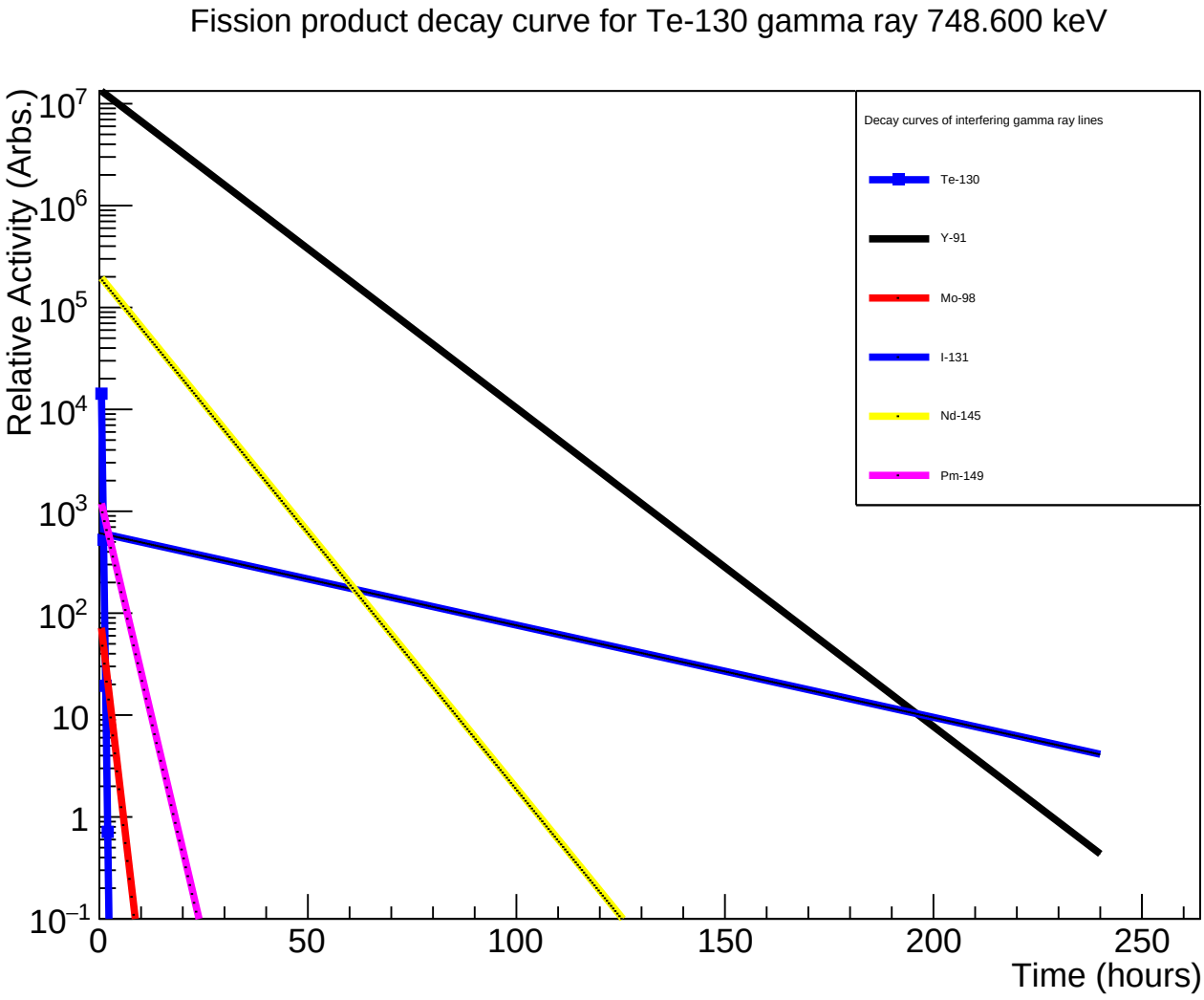


Figure 637: Te-130 decay curve for 748.600 keV gamma ray.

3.638 Sb-130 E_γ = 793.40 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 793.40 keV
Gamma Intensity = 86.00 ± 4.000 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1275: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1276: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Nb-98	Mo-98	791.980	0.002	0.855	0.000
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Pd-111	Ag-111	793.800	0.000	0.390	0.000
Sn-129	Sb-129	792.200	0.010	0.115	0.002
Te-129	I-129	794.600	0.000	806.400	0.001
Te-131	I-131	793.750	0.134	33.250	0.004
Te-133	I-133	794.700	0.010	0.923	0.040
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
La-142	Ce-142	793.100	0.000	1.518	0.058
Pr-147	Nd-147	793.800	0.013	0.223	0.022
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

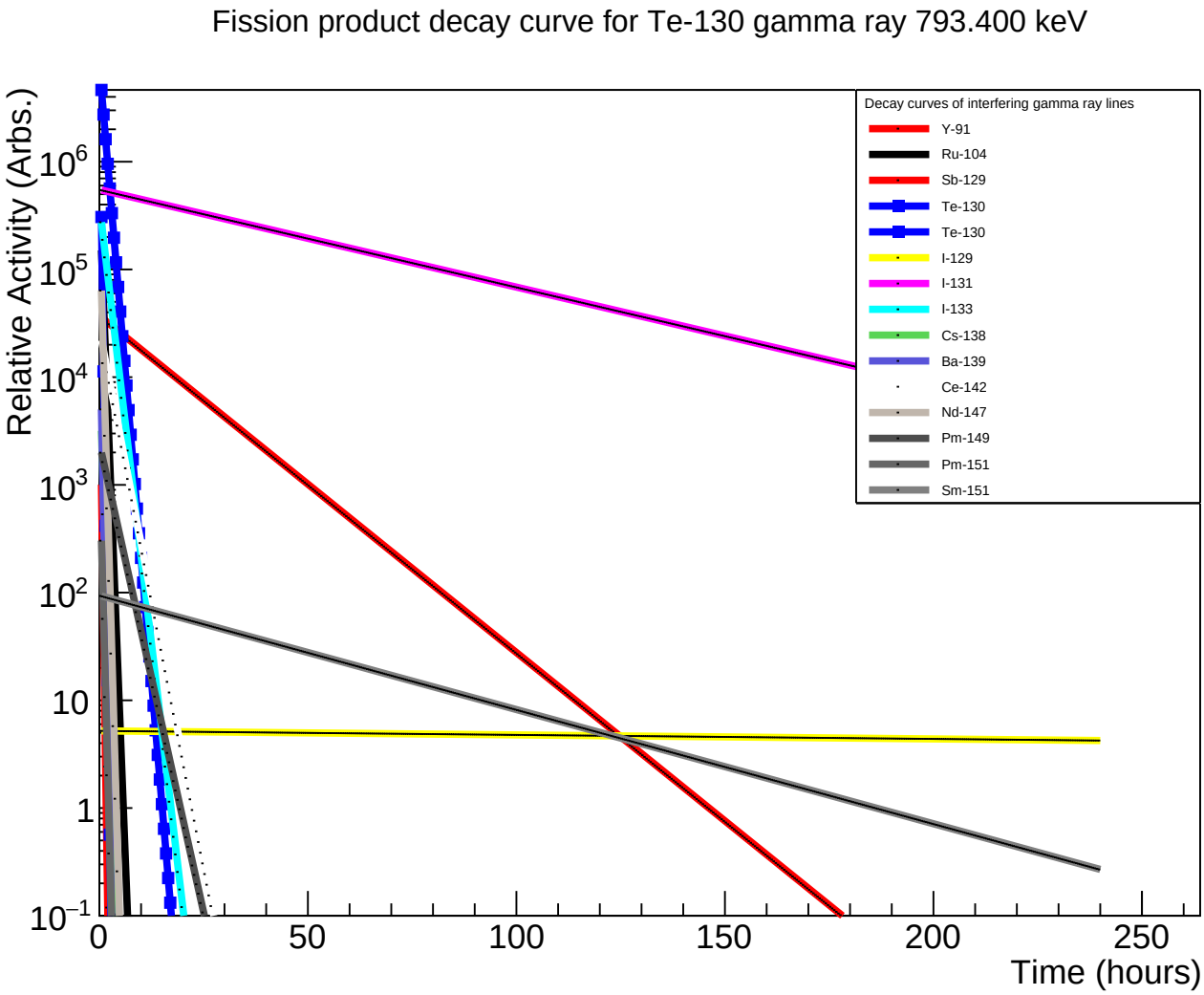


Figure 638: Te-130 decay curve for 793.400 keV gamma ray.

3.639 Sb-130 E_γ = 816.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 816.30 keV
Gamma Intensity = 12.00 ± 1.000 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1277: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1278: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	814.800	0.000	0.855	0.000
Nb-98	Mo-98	815.500	0.000	0.855	0.000
Mo-101	Tc-101	815.290	0.002	0.243	0.052
Pd-111	Ag-111	816.500	0.000	0.390	0.000
Ag-112	Cd-112	815.800	0.001	3.130	0.000
Te-129	I-129	817.000	0.000	1.160	0.005
Te-129	I-129	817.040	0.001	806.400	0.001
Te-133	I-133	816.340	0.007	0.923	0.040
I-134	Xe-134	816.380	0.006	0.875	0.078
Xe-138	Cs-138	816.060	0.001	0.235	0.063
La-140	Ce-140	815.772	0.233	40.285	0.062
Pr-146	Nd-146	816.500	0.000	0.403	0.030
Pr-147	Nd-147	814.900	0.001	0.223	0.022
Nd-151	Pm-151	815.400	0.000	0.207	0.004
Pm-151	Sm-151	817.700	0.002	28.400	0.004
Pm-151	Sm-151	817.700	0.001	28.400	0.004

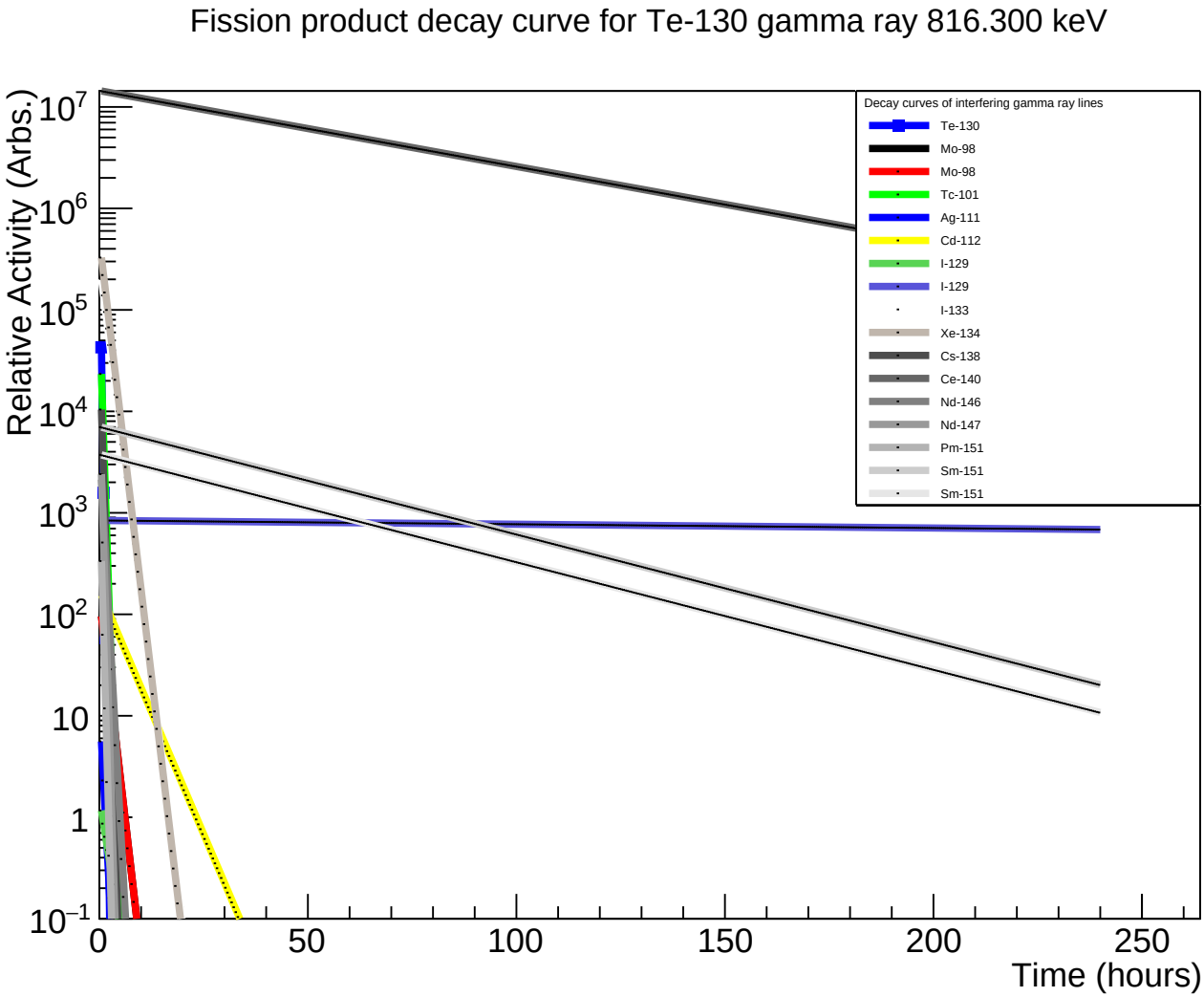


Figure 639: Te-130 decay curve for 816.300 keV gamma ray.

3.640 Sb-130 E_γ = 839.52 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 839.52 keV
Gamma Intensity = 100.00 ± 5.000 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1279: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1280: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	838.600	0.008	0.305	0.019
Sn-125	Sb-125	840.830	0.001	0.159	0.000
Ba-141	La-141	841.000	0.000	0.304	0.058
Ba-142	La-142	840.400	0.036	0.177	0.058
Pr-146	Nd-146	839.500	0.000	0.403	0.030
Nd-149	Pm-149	839.240	0.000	1.728	0.011
Eu-156	Gd-156	839.000	0.000	364.560	0.000

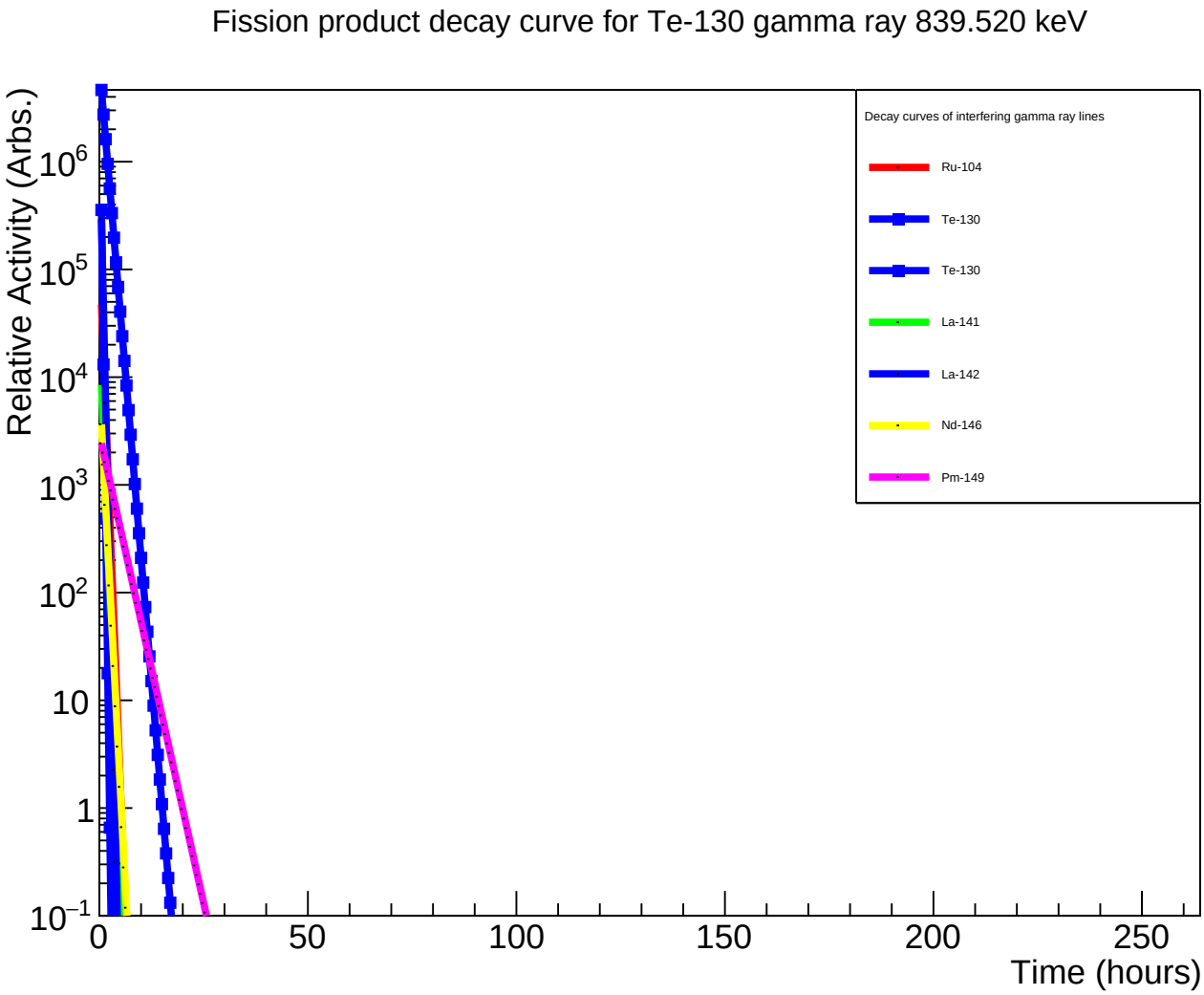


Figure 640: Te-130 decay curve for 839.520 keV gamma ray.

3.641 Sb-130 E_γ = 920.80 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 920.80 keV
Gamma Intensity = 4.00 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1281: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1282: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	922.300	0.001	0.855	0.000
Pd-111	Ag-111	921.400	0.000	0.390	0.000
Te-131	I-131	920.620	0.012	33.250	0.004
Te-133	I-133	922.000	0.001	0.208	0.031
La-140	Ce-140	919.550	0.027	40.285	0.062
Pr-145	Nd-145	920.710	0.001	5.984	0.039
Nd-149	Pm-149	920.300	0.000	1.728	0.011
Nd-151	Pm-151	919.930	0.001	0.207	0.004
Pm-151	Sm-151	919.300	0.000	28.400	0.004
Pm-151	Sm-151	922.100	0.000	28.400	0.004

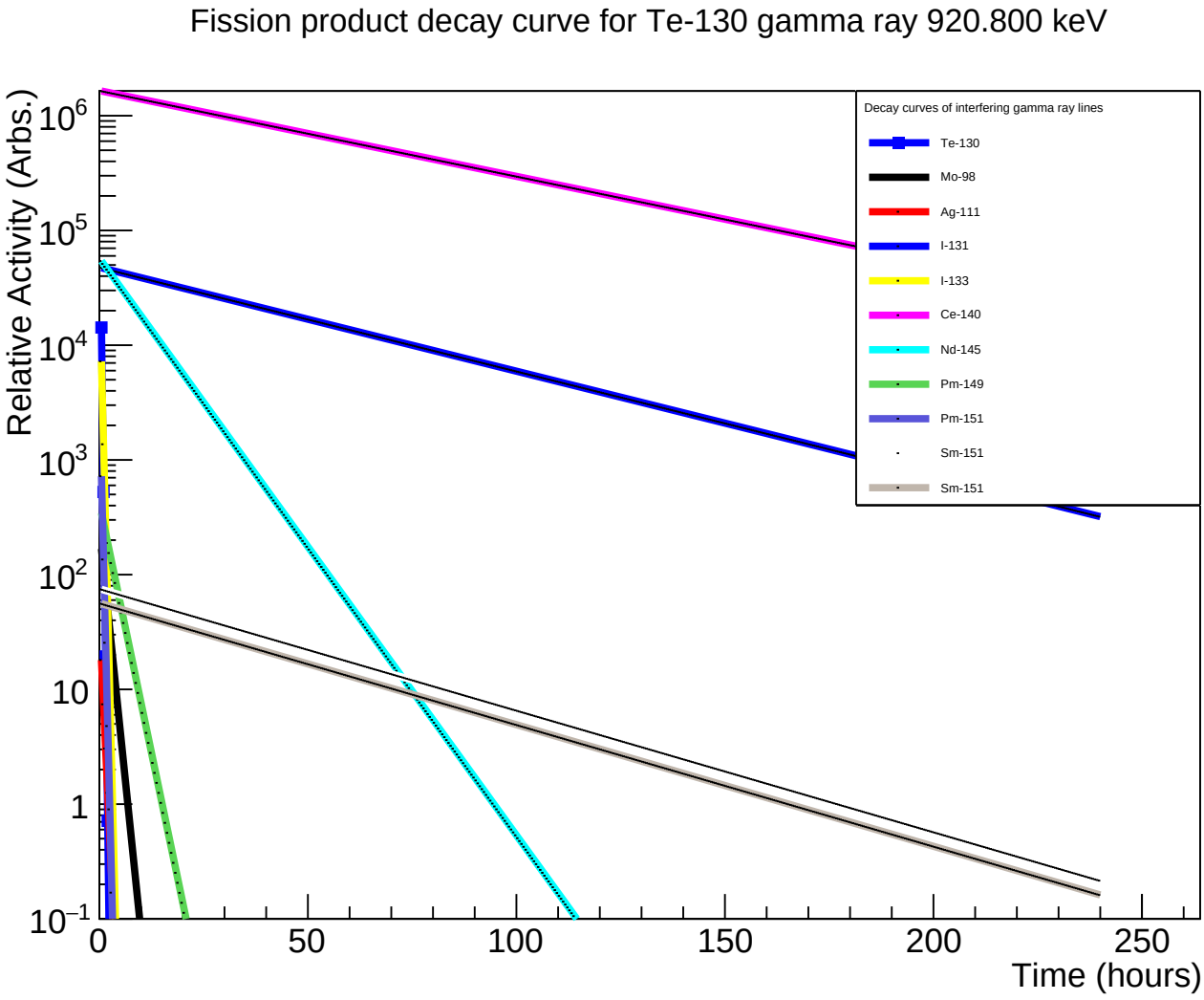


Figure 641: Te-130 decay curve for 920.800 keV gamma ray.

3.642 Sb-130 E_γ = 942.20 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 942.20 keV
Gamma Intensity = 2.80 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1283: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1284: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	943.300	0.005	0.372	0.003
Se-83	Br-83	943.400	0.009	0.372	0.003
Cd-115	In-115	941.420	0.000	53.460	0.000
Te-131	I-131	941.270	0.008	33.250	0.004
Te-133	I-133	942.200	0.003	0.208	0.031
Te-133	I-133	943.000	0.001	0.208	0.031
Xe-138	Cs-138	941.250	0.002	0.235	0.063
Ba-141	La-141	943.200	0.008	0.304	0.058
La-143	Ce-143	942.900	0.000	0.237	0.059
Pr-147	Nd-147	942.300	0.010	0.223	0.022
Nd-149	Pm-149	942.970	0.000	1.728	0.011
Nd-151	Pm-151	943.170	0.004	0.207	0.004

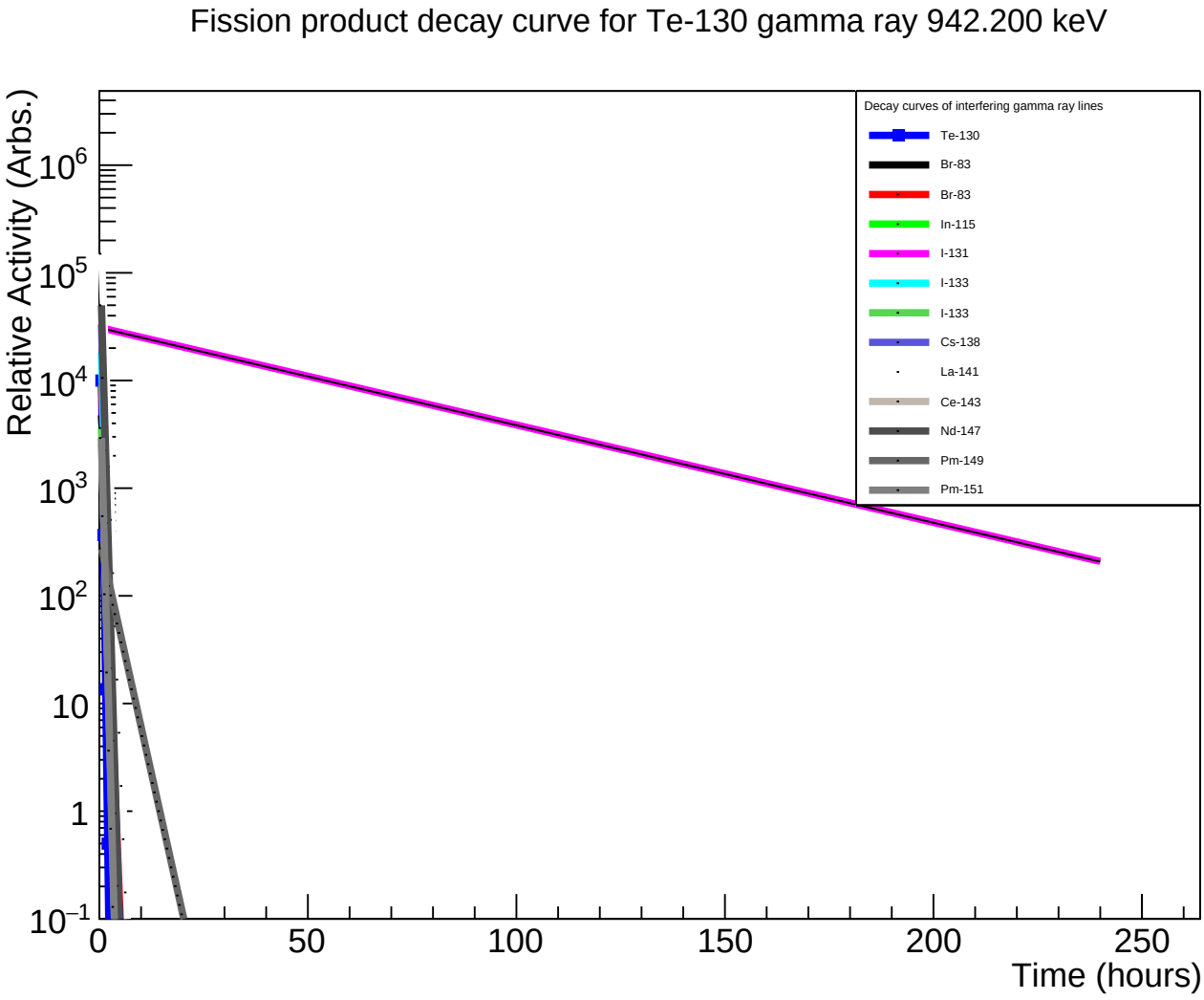


Figure 642: Te-130 decay curve for 942.200 keV gamma ray.

3.643 Sb-130 E_γ = 1017.50 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1017.50 keV
Gamma Intensity = 30.00 ± 2.000 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1285: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1286: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1018.700	0.001	1.512	0.000
Br-84	Kr-84	1016.000	0.010	0.100	0.000
Mo-99	Tc-99	1017.000	0.000	65.976	0.061
Mo-101	Tc-101	1018.580	0.007	0.243	0.052
Ru-105	Rh-105	1017.470	0.003	4.440	0.010
Sn-125	Sb-125	1017.400	0.003	231.360	0.000
Sn-125	Sb-125	1017.570	0.001	0.159	0.000
Pr-145	Nd-145	1017.999	0.000	5.984	0.039
Pr-146	Nd-146	1016.780	0.012	0.403	0.030
Nd-149	Pm-149	1016.100	0.000	1.728	0.011
Nd-151	Pm-151	1016.400	0.025	0.207	0.004
Sm-155	Eu-155	1018.000	0.000	0.372	0.000
Eu-156	Gd-156	1018.500	0.001	364.560	0.000

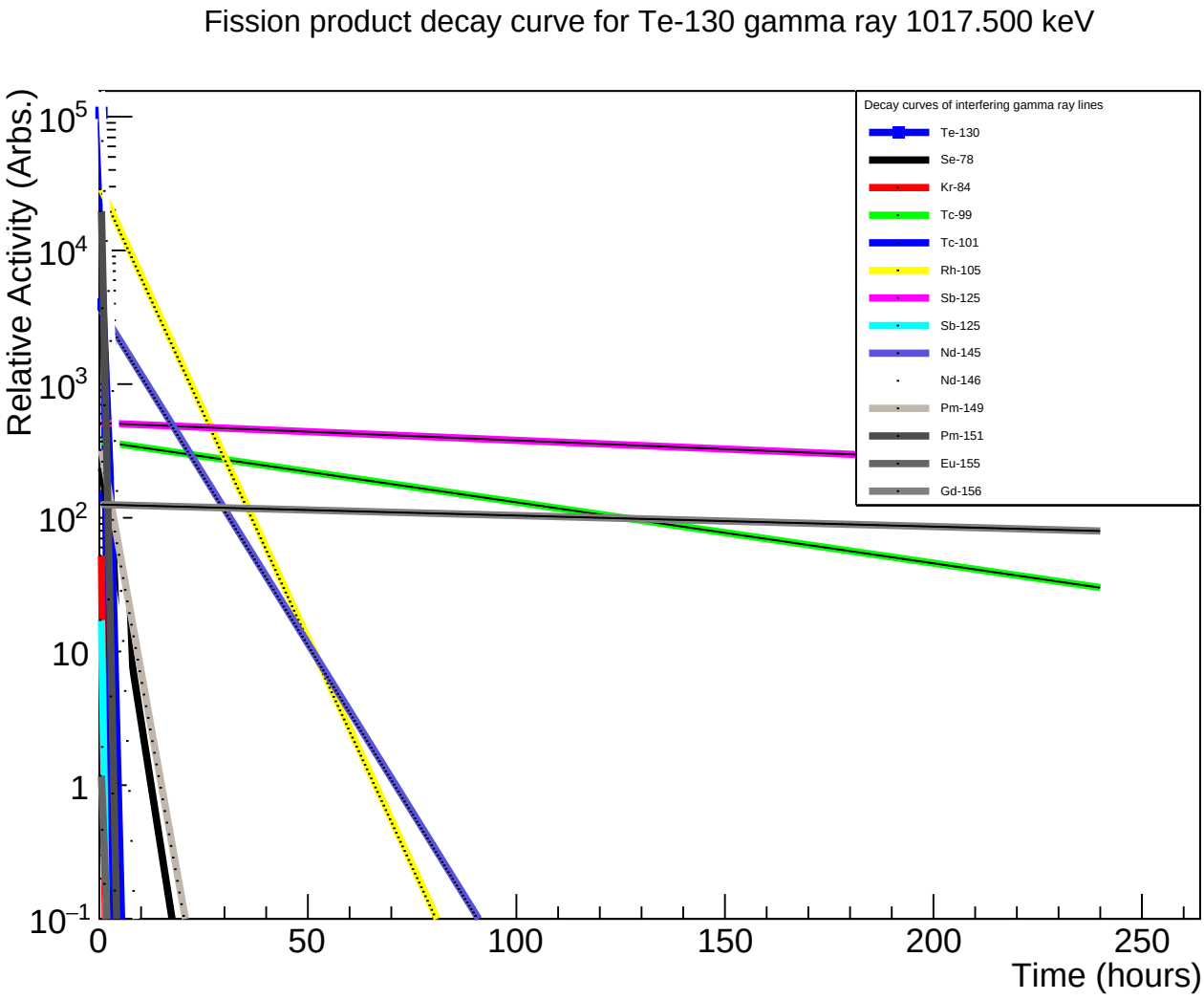


Figure 643: Te-130 decay curve for 1017.500 keV gamma ray.

3.644 Sb-130 E_γ = 1046.50 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1046.50 keV
Gamma Intensity = 2.80 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1287: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1288: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1046.400	0.001	0.124	0.062
Tc-105	Ru-105	1047.900	0.006	0.127	0.010
Ba-141	La-141	1046.300	0.003	0.304	0.058
La-140	Ce-140	1045.050	0.000	40.285	0.062
Ce-143	Pr-143	1046.780	0.000	33.039	0.060
Nd-151	Pm-151	1045.000	0.000	0.207	0.004

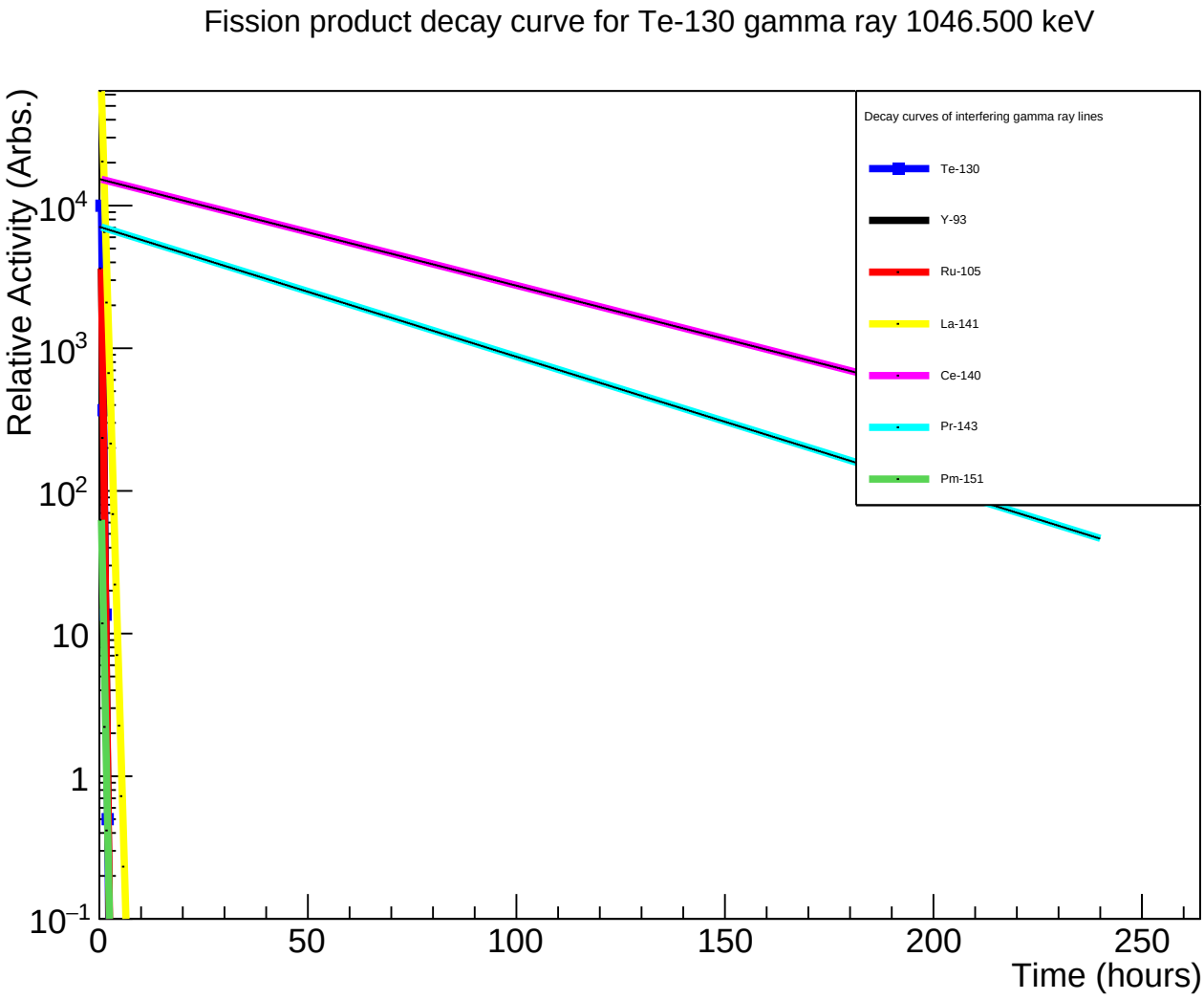


Figure 644: Te-130 decay curve for 1046.500 keV gamma ray.

3.645 Sb-130 E_γ = 1102.80 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1102.80 keV
Gamma Intensity = 3.70 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1289: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1290: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1102.660	0.005	0.855	0.000
Rh-107	Pd-107	1101.900	0.000	0.362	0.001
Ag-112	Cd-112	1103.600	0.004	3.130	0.000
Te-133	I-133	1103.900	0.001	0.923	0.040
I-134	Xe-134	1103.180	0.008	0.875	0.078
I-135	Xe-135	1101.580	0.016	6.570	0.063
Xe-138	Cs-138	1102.240	0.001	0.235	0.063
Ce-143	Pr-143	1103.250	0.004	33.039	0.060
Pr-147	Nd-147	1101.400	0.006	0.223	0.022
Eu-156	Gd-156	1101.800	0.000	364.560	0.000

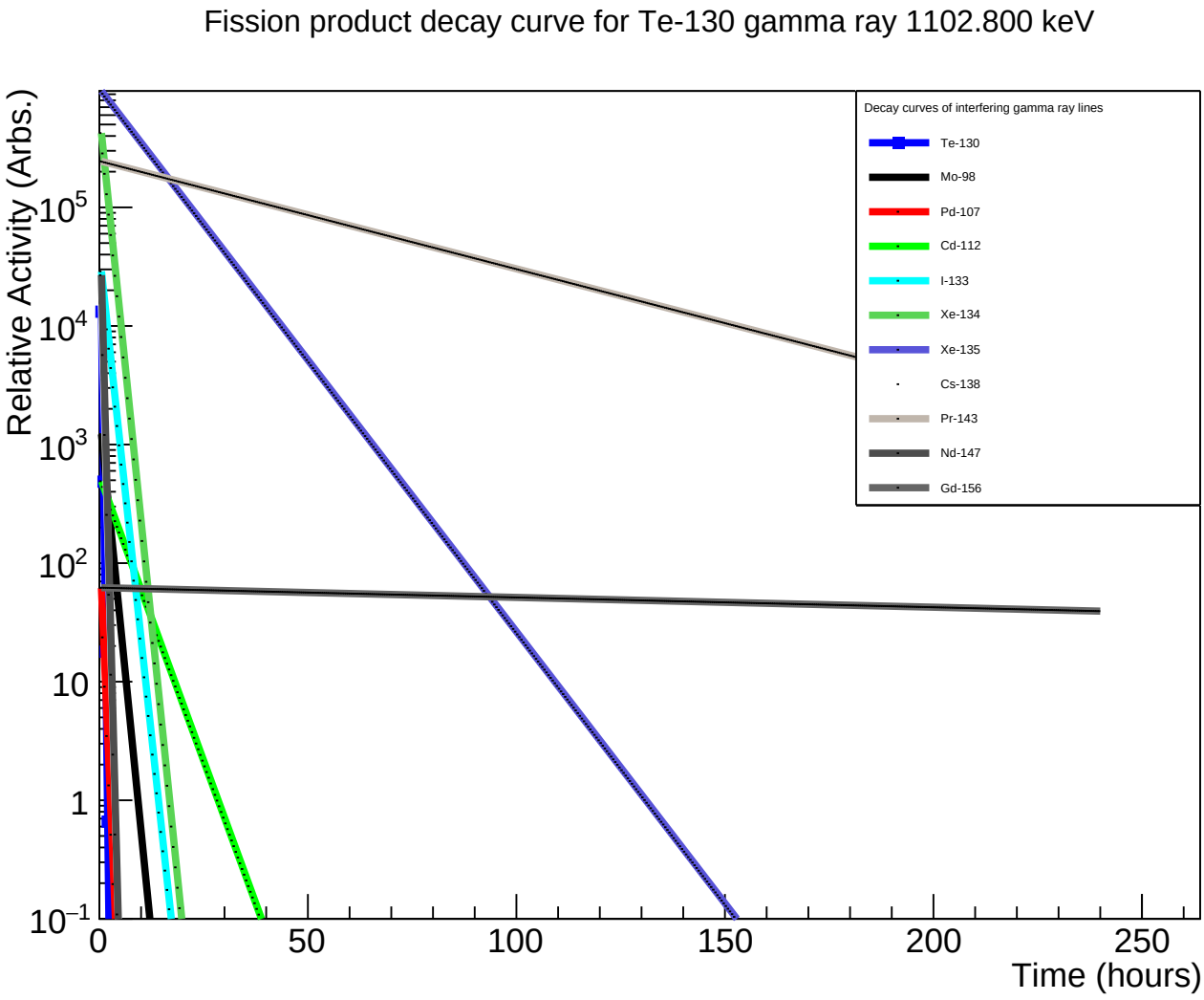


Figure 645: Te-130 decay curve for 1102.800 keV gamma ray.

3.646 Sb-130 E_γ = 1131.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1131.90 keV
Gamma Intensity = 1.30 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1291: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1292: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	1132.400	0.002	3.540	0.060
Tc-104	Ru-104	1133.400	0.002	0.305	0.019
I-135	Xe-135	1131.511	0.226	6.570	0.063
Xe-135	Cs-135	1133.000	0.000	0.255	0.011
La-142	Ce-142	1130.600	0.005	1.518	0.058
Nd-151	Pm-151	1131.600	0.001	0.207	0.004
Nd-151	Pm-151	1132.550	0.001	0.207	0.004
Sm-155	Eu-155	1132.000	0.000	0.372	0.000

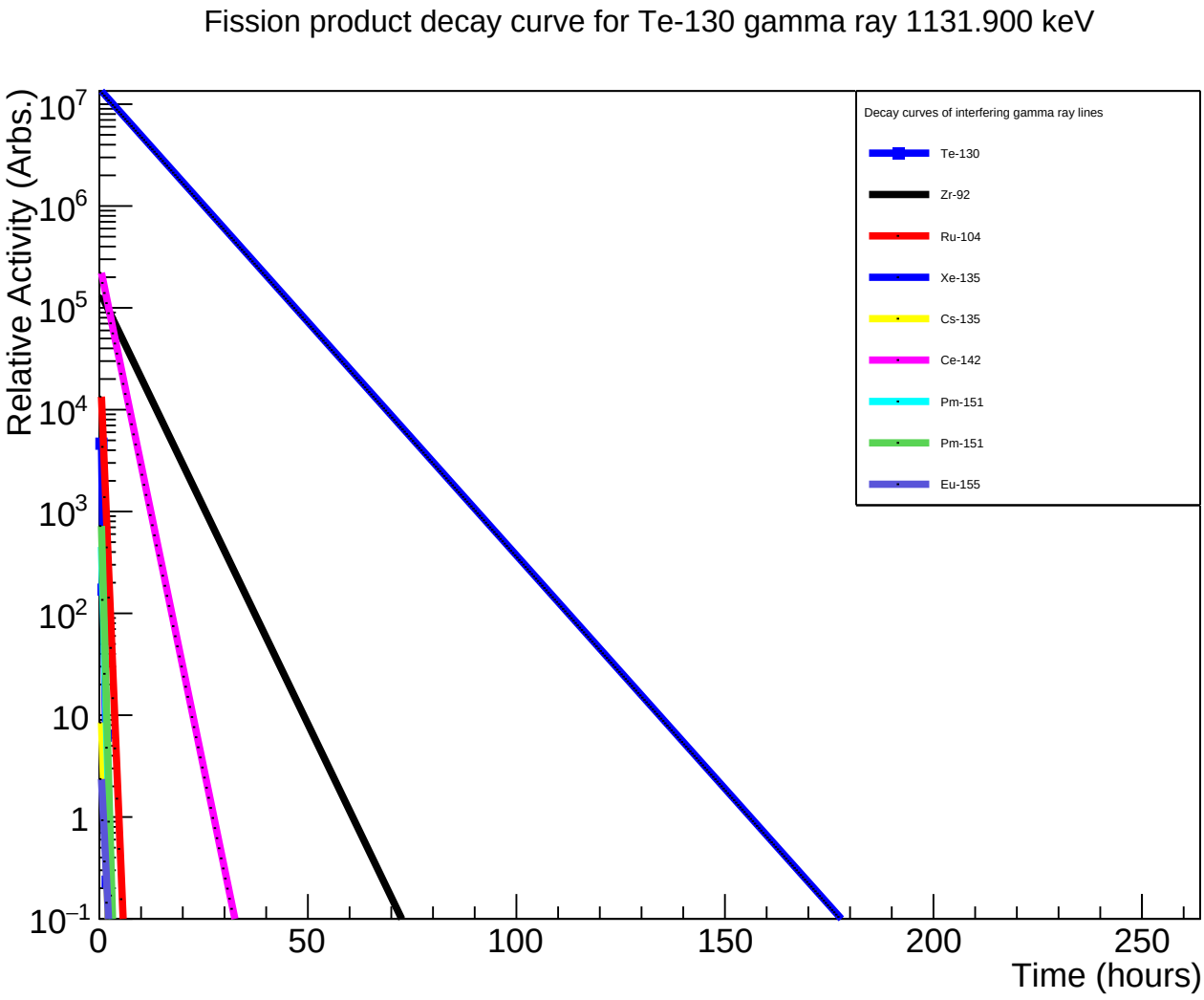


Figure 646: Te-130 decay curve for 1131.900 keV gamma ray.

3.647 Sb-130 E_γ = 1142.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1142.00 keV
Gamma Intensity = 5.60 ± 0.600 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1293: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1294: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1141.330	0.013	2.840	0.036
Sr-91	Y-91	1140.800	0.001	9.630	0.058
Sr-92	Y-92	1142.350	0.028	2.710	0.059
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Te-133	I-133	1142.740	0.013	0.923	0.040
I-132	Xe-132	1143.300	0.014	2.295	0.043
Xe-138	Cs-138	1141.640	0.005	0.235	0.063
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Eu-156	Gd-156	1140.510	0.003	364.560	0.000

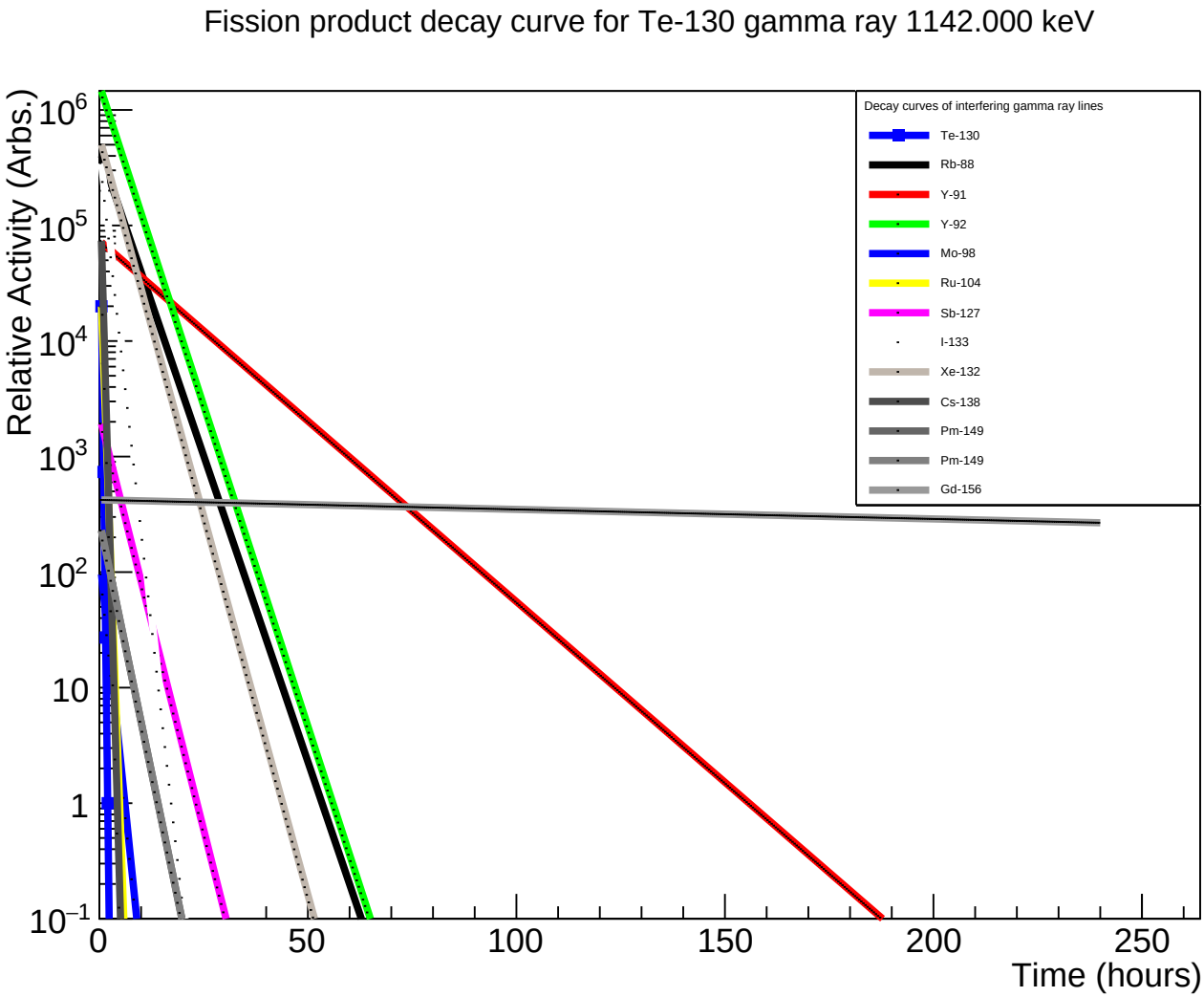


Figure 647: Te-130 decay curve for 1142.000 keV gamma ray.

3.648 Sb-130 E_γ = 1177.30 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1177.30 keV
Gamma Intensity = 2.20 ± 0.200 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1295: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1296: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-129	I-129	1176.000	0.000	806.400	0.001
Cs-139	Ba-139	1178.350	0.001	0.155	0.063
Ba-141	La-141	1178.300	0.001	0.304	0.058
La-142	Ce-142	1176.400	0.001	1.518	0.058
La-143	Ce-143	1177.600	0.000	0.237	0.059
Pr-145	Nd-145	1177.220	0.000	5.984	0.039
Nd-151	Pm-151	1177.700	0.000	0.207	0.004

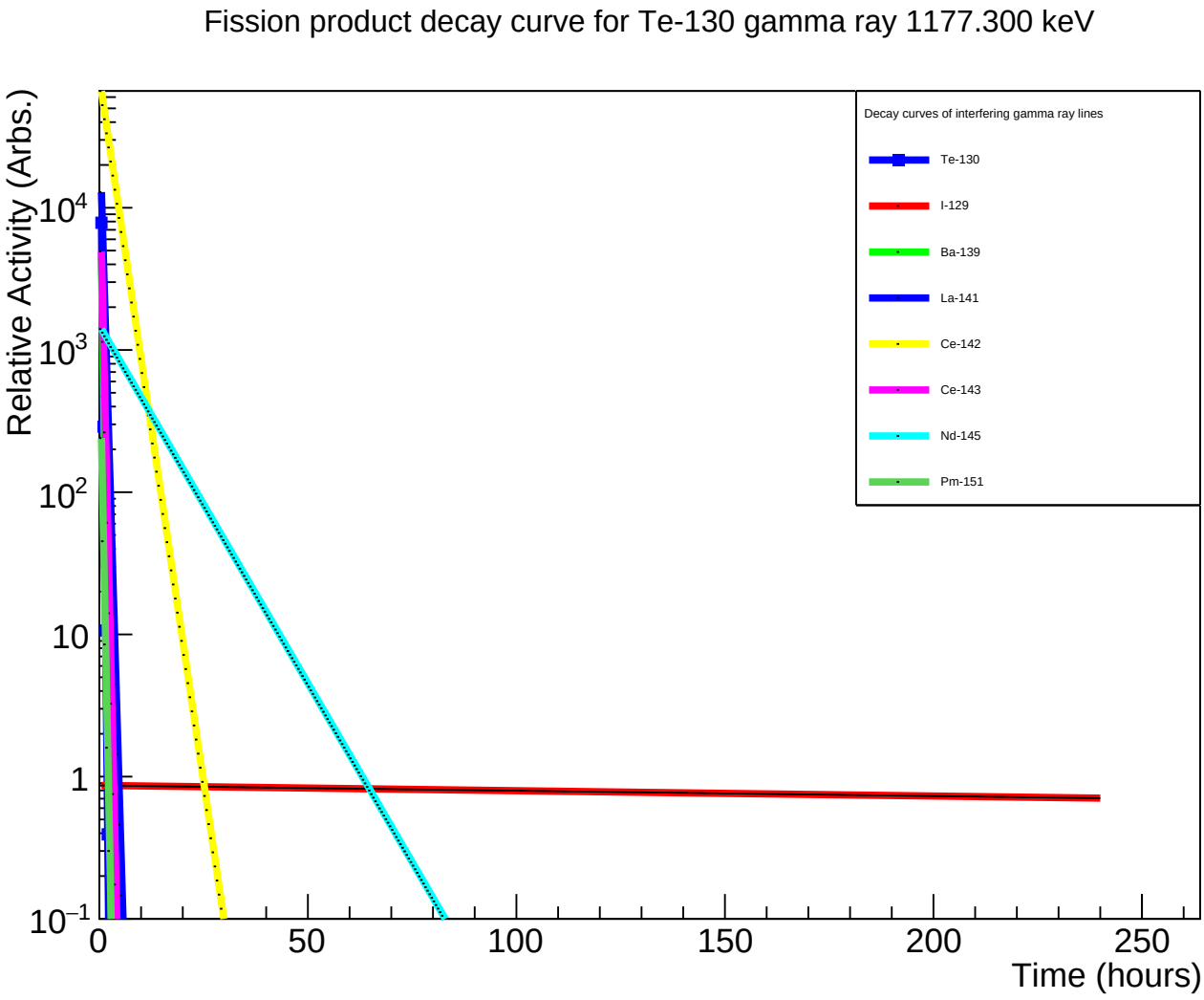


Figure 648: Te-130 decay curve for 1177.300 keV gamma ray.

3.649 Sb-130 E_γ = 1200.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1200.00 keV
Gamma Intensity = 3.60 ± 0.400 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1297: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1298: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1199.100	0.007	1.512	0.000
Mo-101	Tc-101	1199.940	0.018	0.243	0.052
Sn-125	Sb-125	1198.700	0.000	231.360	0.000
Cs-138	Ba-138	1199.150	0.002	0.557	0.067
La-143	Ce-143	1201.300	0.003	0.237	0.059
Nd-151	Pm-151	1201.030	0.000	0.207	0.004
Nd-151	Pm-151	1201.030	0.002	0.207	0.004

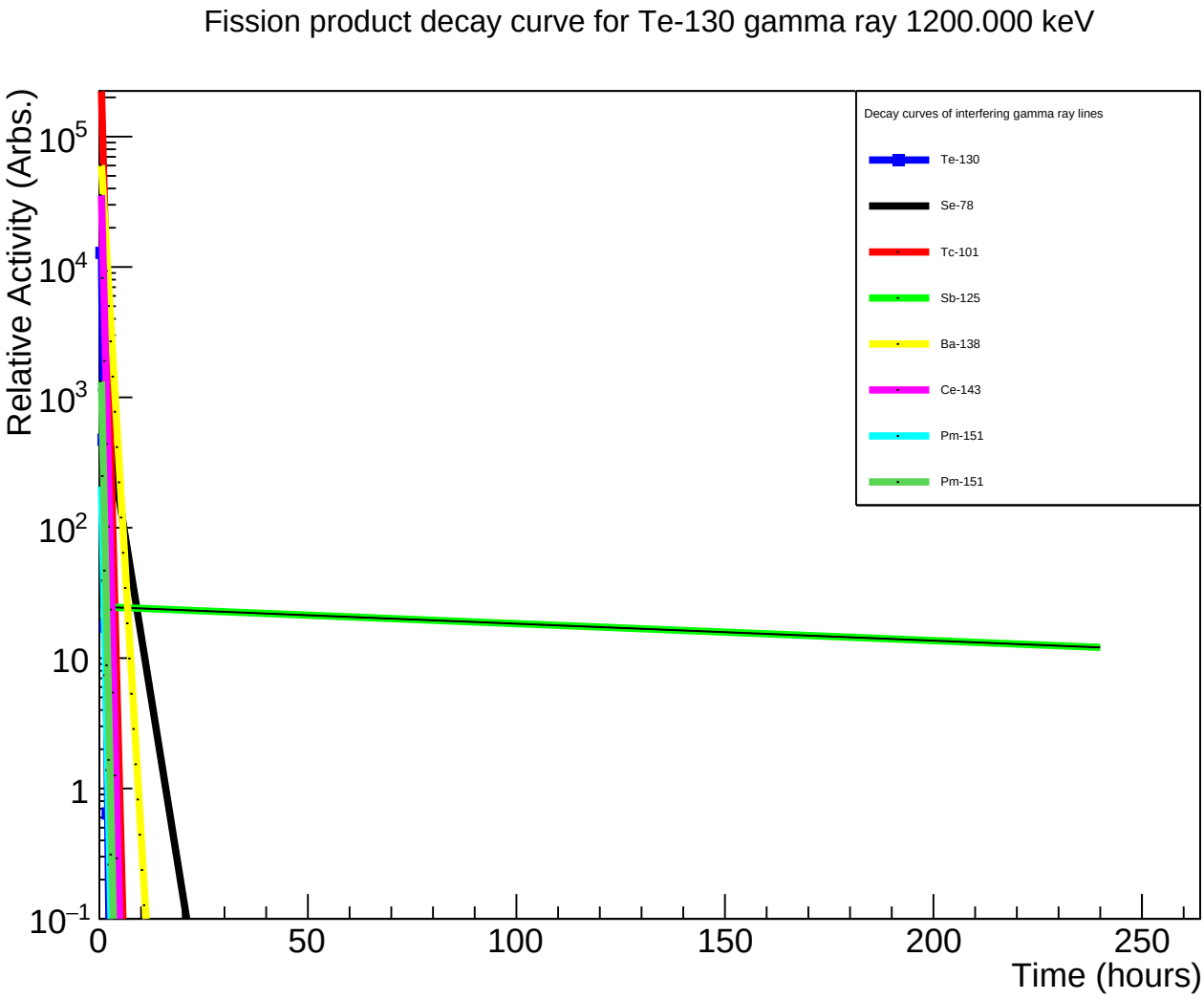


Figure 649: Te-130 decay curve for 1200.000 keV gamma ray.

3.650 Sb-130 E_γ = 1491.20 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1491.20 keV
Gamma Intensity = 1.30 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1299: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1300: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1492.130	0.006	0.124	0.062
Te-133	I-133	1489.880	0.001	0.208	0.031
Nd-151	Pm-151	1490.930	0.000	0.207	0.004

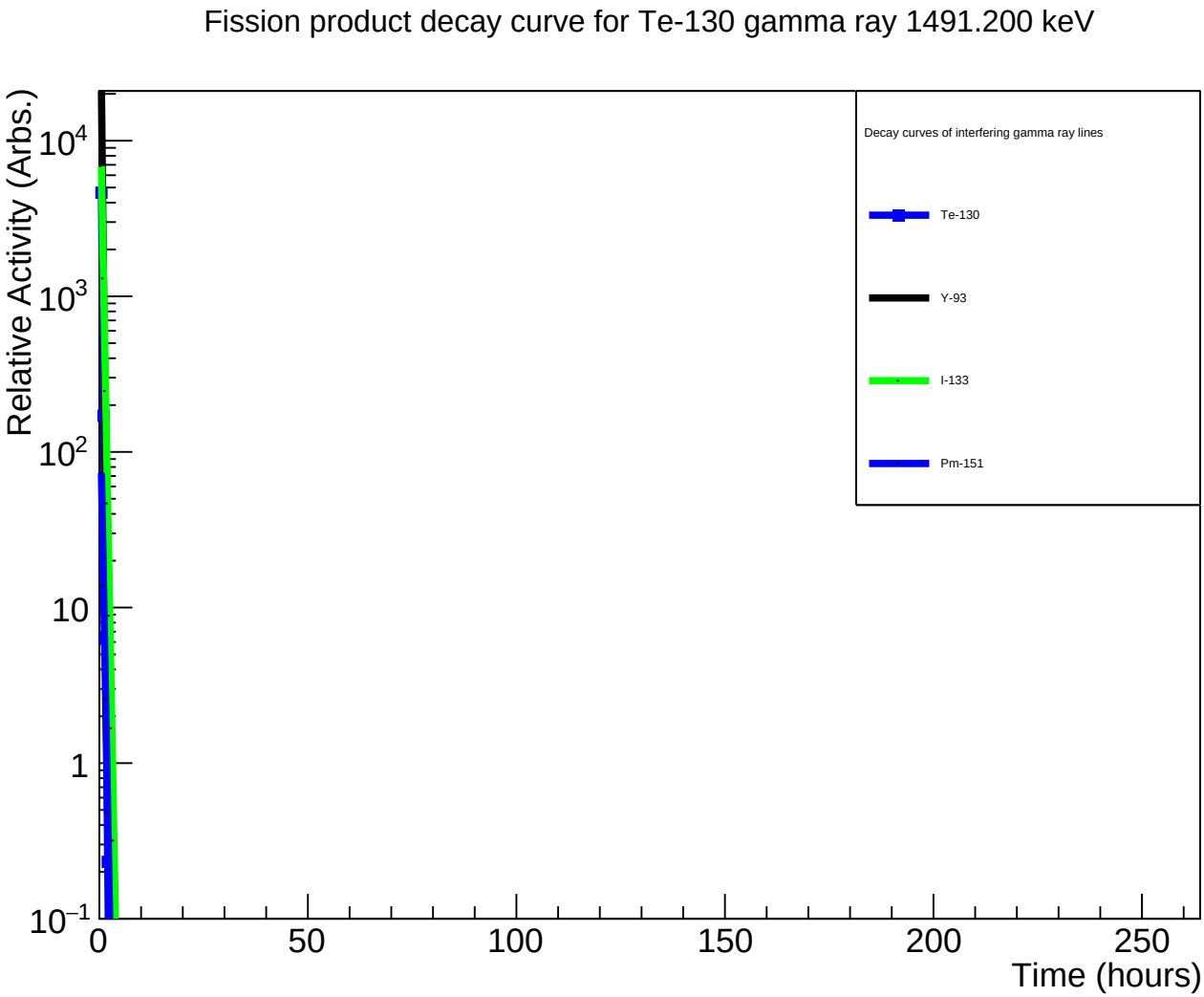


Figure 650: Te-130 decay curve for 1491.200 keV gamma ray.

3.651 Sb-130 E_γ = 1598.00 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1598.00 keV
Gamma Intensity = 2.60 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1301: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1302: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1599.260	0.017	0.243	0.052
Tc-104	Ru-104	1596.700	0.042	0.305	0.019
Nd-151	Pm-151	1598.040	0.001	0.207	0.004

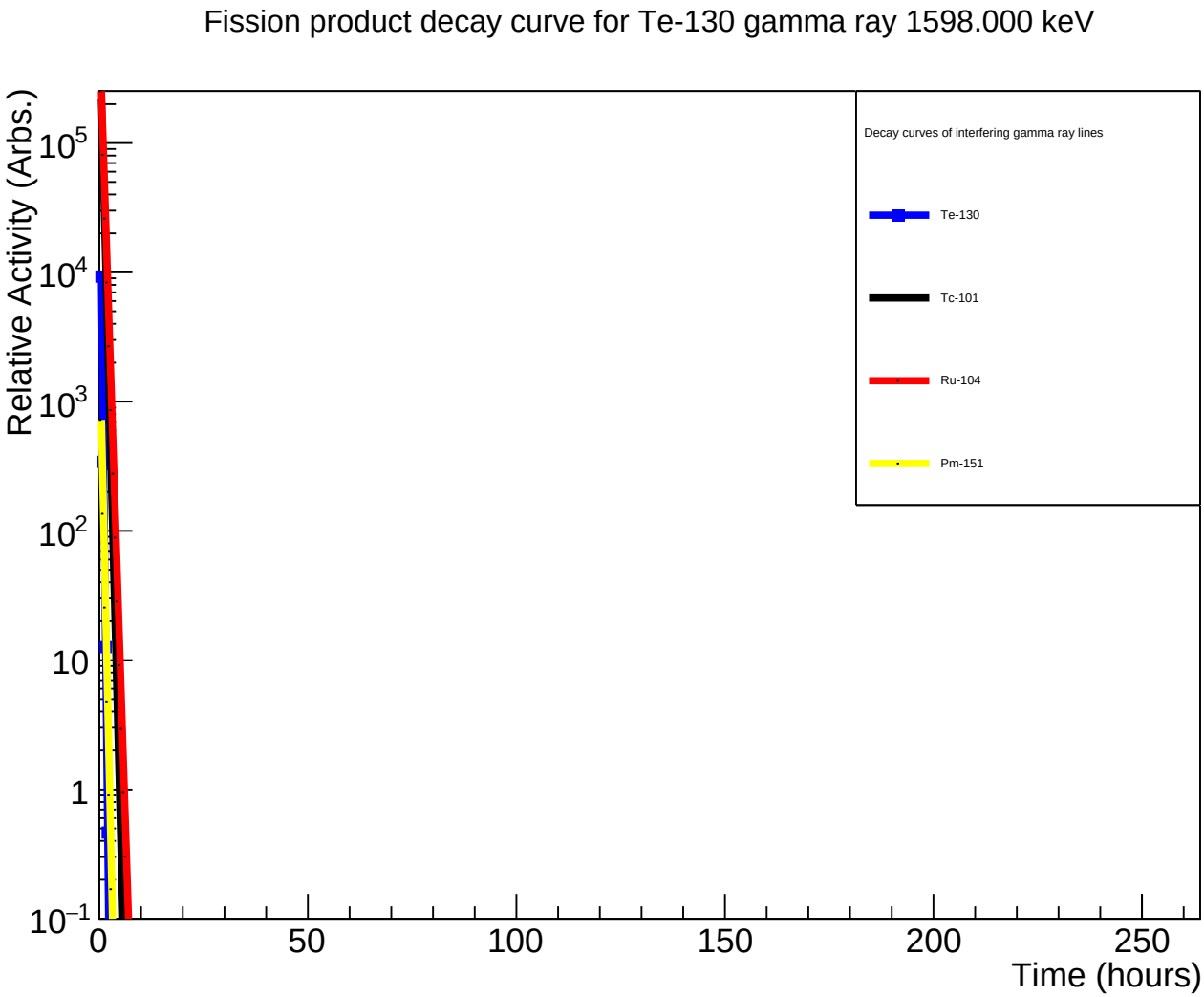


Figure 651: Te-130 decay curve for 1598.000 keV gamma ray.

3.652 Sb-130 E_γ = 1896.90 keV

Chemical element: Antimony
Fission product parent: Sb-130
Gamma originates in daughter: Te-130
Eγ: 1896.90 keV
Gamma Intensity = 1.30 ± 0.300 %
$T_{1/2}$ = 0.105 ± 0.003 hours or 6.30 ± 0.20 minutes
CFY: 0.967 ± 0.619 %

Table 1303: Decay chain of fission product chain A = 130

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-130	Tin-130	0.000	0.000
Tin-130	Antimony-130	0.028	0.002
Antimony-130	Tellurium-130	0.658	0.013

Table 1304: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1897.600	0.146	0.529	0.010
Br-84	Kr-84	1897.700	0.020	0.100	0.000
Te-133	I-133	1897.590	0.001	0.208	0.031

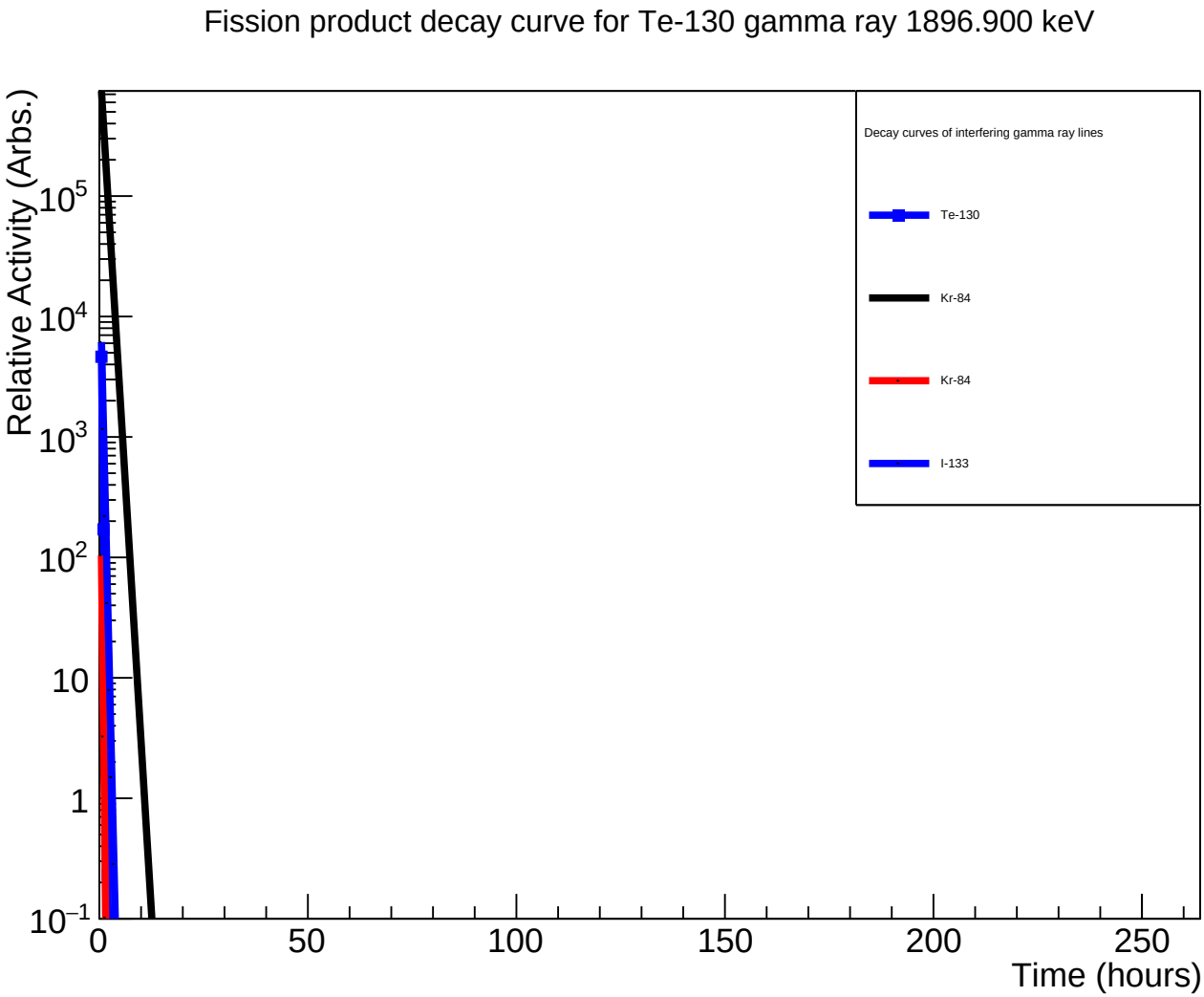


Figure 652: Te-130 decay curve for 1896.900 keV gamma ray.

3.653 Sb-131 E_γ = 134.60 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 134.60 keV
Gamma Intensity = 2.54 ± 0.951 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1305: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1306: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	136.020	0.002	0.188	0.043
Tc-104	Ru-104	135.300	0.002	0.305	0.019
Pd-109	Ag-109	134.200	0.000	13.701	0.000
I-134	Xe-134	135.399	0.043	0.875	0.078
Ce-144	Pr-144	133.515	0.111	6833.333	0.055
Ce-146	Pr-146	133.520	0.081	0.225	0.030
Pm-151	Sm-151	134.220	0.000	28.400	0.004
Pm-151	Sm-151	134.900	0.000	28.400	0.004

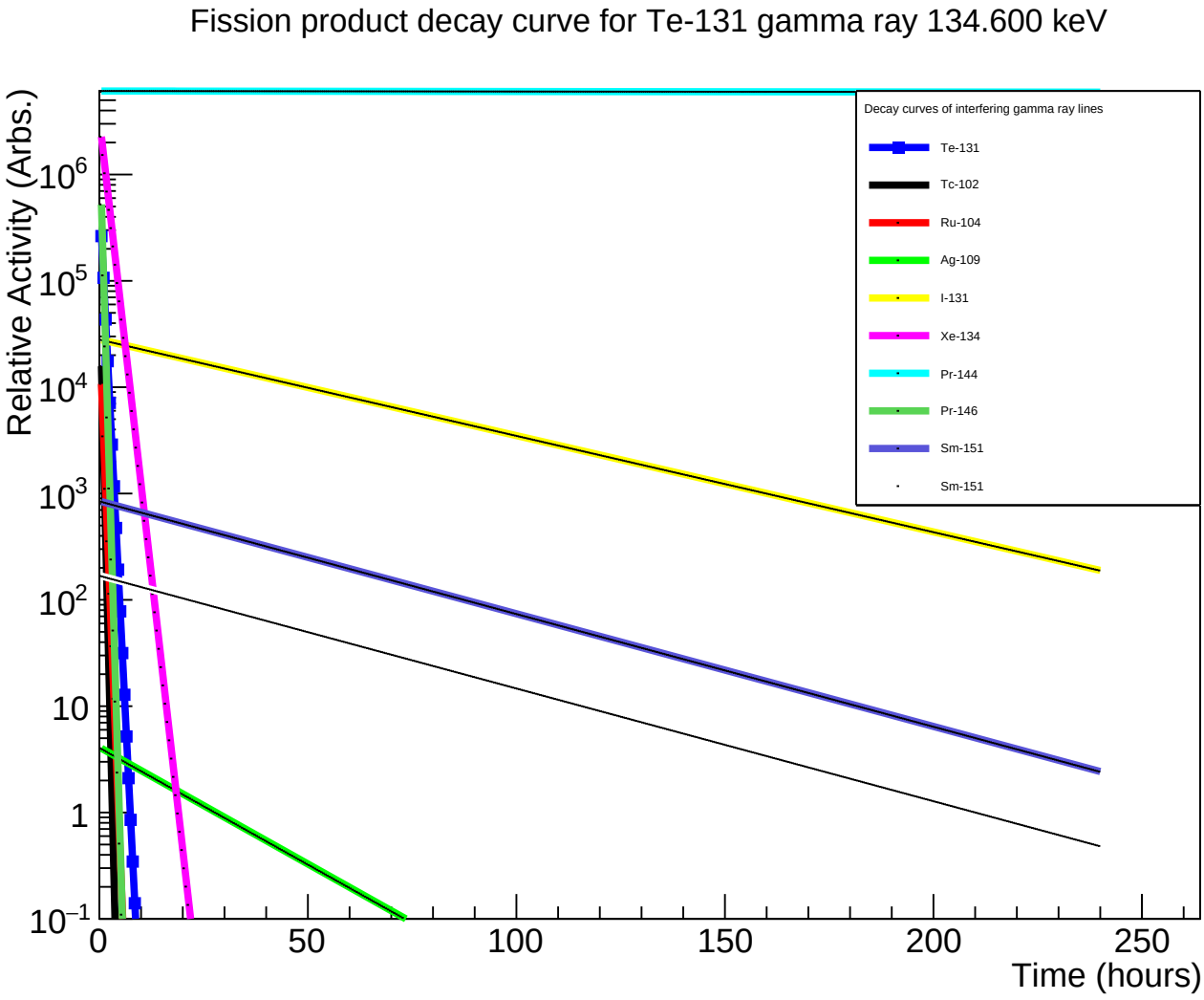


Figure 653: Te-131 decay curve for 134.600 keV gamma ray.

3.654 Sb-131 E_γ = 274.26 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 274.26 keV
Gamma Intensity = 1.22 ± 1.225 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1307: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1308: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	274.700	0.010	9.630	0.058
Y-93	Zr-93	273.000	0.001	10.180	0.063
Mo-101	Tc-101	274.970	0.001	0.243	0.052
Ba-140	La-140	275.180	0.000	306.065	0.062
Ce-143	Pr-143	272.900	0.000	33.039	0.060
Nd-147	Pm-147	275.374	0.009	263.520	0.022
Nd-149	Pm-149	273.240	0.002	1.728	0.011
Nd-149	Pm-149	273.500	0.001	1.728	0.011
Nd-149	Pm-149	275.437	0.007	1.728	0.011
Nd-151	Pm-151	275.520	0.002	0.207	0.004
Nd-152	Pm-152	273.200	0.001	0.190	0.003
Pm-151	Sm-151	275.210	0.068	28.400	0.004

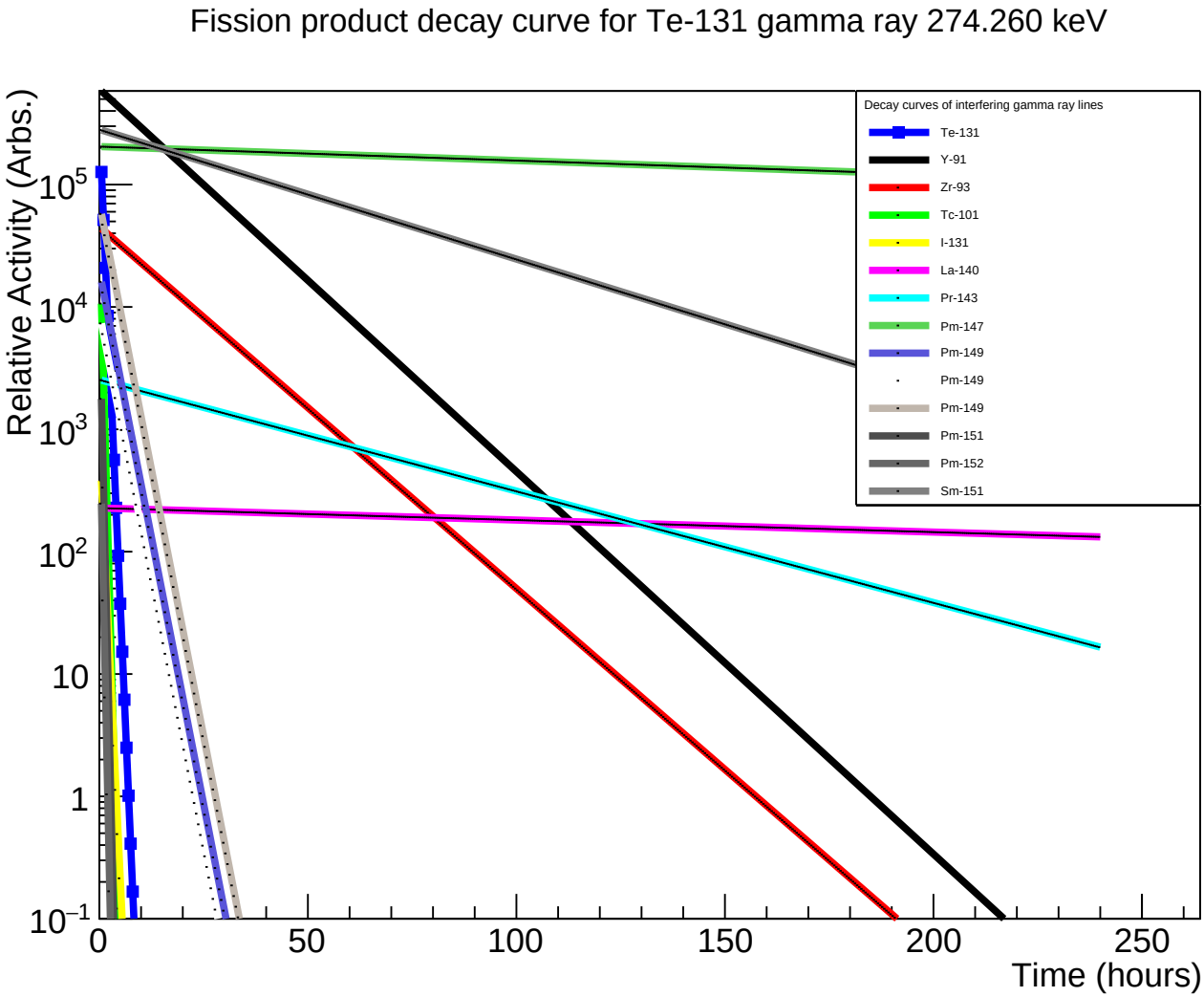


Figure 654: Te-131 decay curve for 274.260 keV gamma ray.

3.655 Sb-131 E_γ = 295.70 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 295.70 keV
Gamma Intensity = 1.62 ± 1.625 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1309: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1310: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	296.060	0.003	0.372	0.003
Zr-97	Nb-97	297.200	0.001	16.749	0.060
Tc-101	Ru-101	295.170	0.000	0.237	0.052
Tc-104	Ru-104	294.900	0.006	0.305	0.019
Ru-103	Rh-103	294.964	0.003	941.928	0.030
Te-133	I-133	294.820	0.002	0.923	0.040
Nd-149	Pm-149	294.802	0.006	1.728	0.011
Nd-152	Pm-152	294.470	0.033	0.190	0.003
Pm-151	Sm-151	294.800	0.000	28.400	0.004
Pm-151	Sm-151	295.200	0.000	28.400	0.004

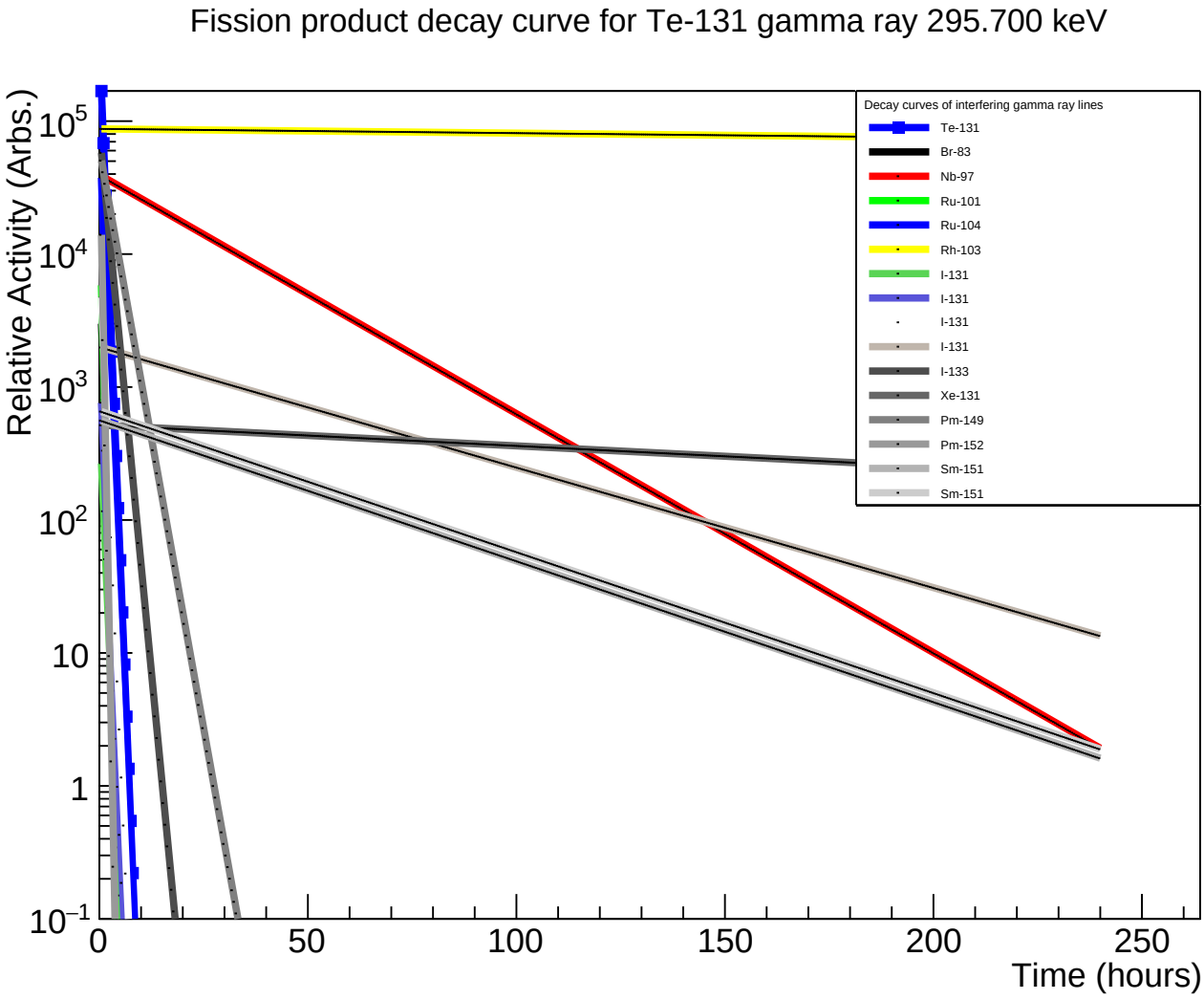


Figure 655: Te-131 decay curve for 295.700 keV gamma ray.

3.656 Sb-131 E_γ = 301.30 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 301.30 keV
Gamma Intensity = 2.40 ± 0.487 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1311: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1312: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	300.300	0.005	0.127	0.010
Tc-105	Ru-105	301.000	0.012	0.127	0.010
Rh-107	Pd-107	302.770	0.660	0.362	0.001
Sn-127	Sb-127	301.700	0.001	2.100	0.001
Te-133	I-133	302.000	0.000	0.208	0.031
I-132	Xe-132	302.000	0.000	2.295	0.043
Nd-149	Pm-149	301.128	0.004	1.728	0.011
Nd-151	Pm-151	300.580	0.018	0.207	0.004
Nd-151	Pm-151	301.800	0.001	0.207	0.004
Pm-151	Sm-151	301.800	0.000	28.400	0.004
Pm-151	Sm-151	302.500	0.000	28.400	0.004
Pm-151	Sm-151	302.800	0.000	28.400	0.004

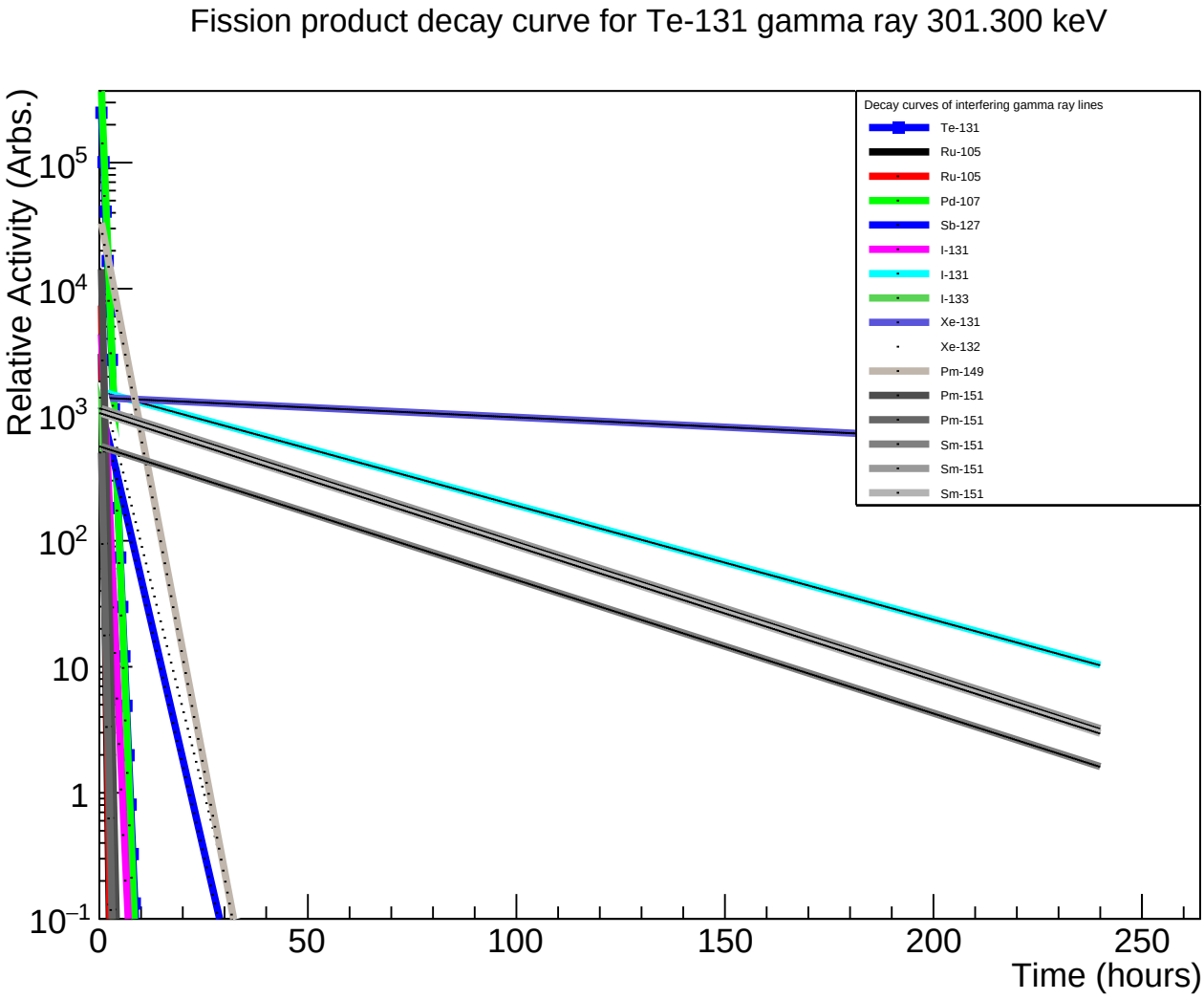


Figure 656: Te-131 decay curve for 301.300 keV gamma ray.

3.657 Sb-131 E_γ = 323.80 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 323.80 keV
Gamma Intensity = 1.22 ± 0.382 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1313: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1314: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	322.400	0.000	6.007	0.054
Tc-105	Ru-105	322.300	0.016	0.127	0.010
Te-133	I-133	324.300	0.000	0.208	0.031
Te-133	I-133	322.400	0.001	0.923	0.040
Xe-138	Cs-138	325.300	0.000	0.235	0.063
Cs-138	Ba-138	324.900	0.003	0.557	0.067
La-141	Ce-141	324.600	0.000	3.920	0.058
Nd-151	Pm-151	323.800	0.000	0.207	0.004
Nd-151	Pm-151	324.680	0.005	0.207	0.004
Pm-149	Sm-149	323.950	0.000	53.080	0.011
Pm-151	Sm-151	323.940	0.012	28.400	0.004
Pm-151	Sm-151	325.200	0.000	28.400	0.004

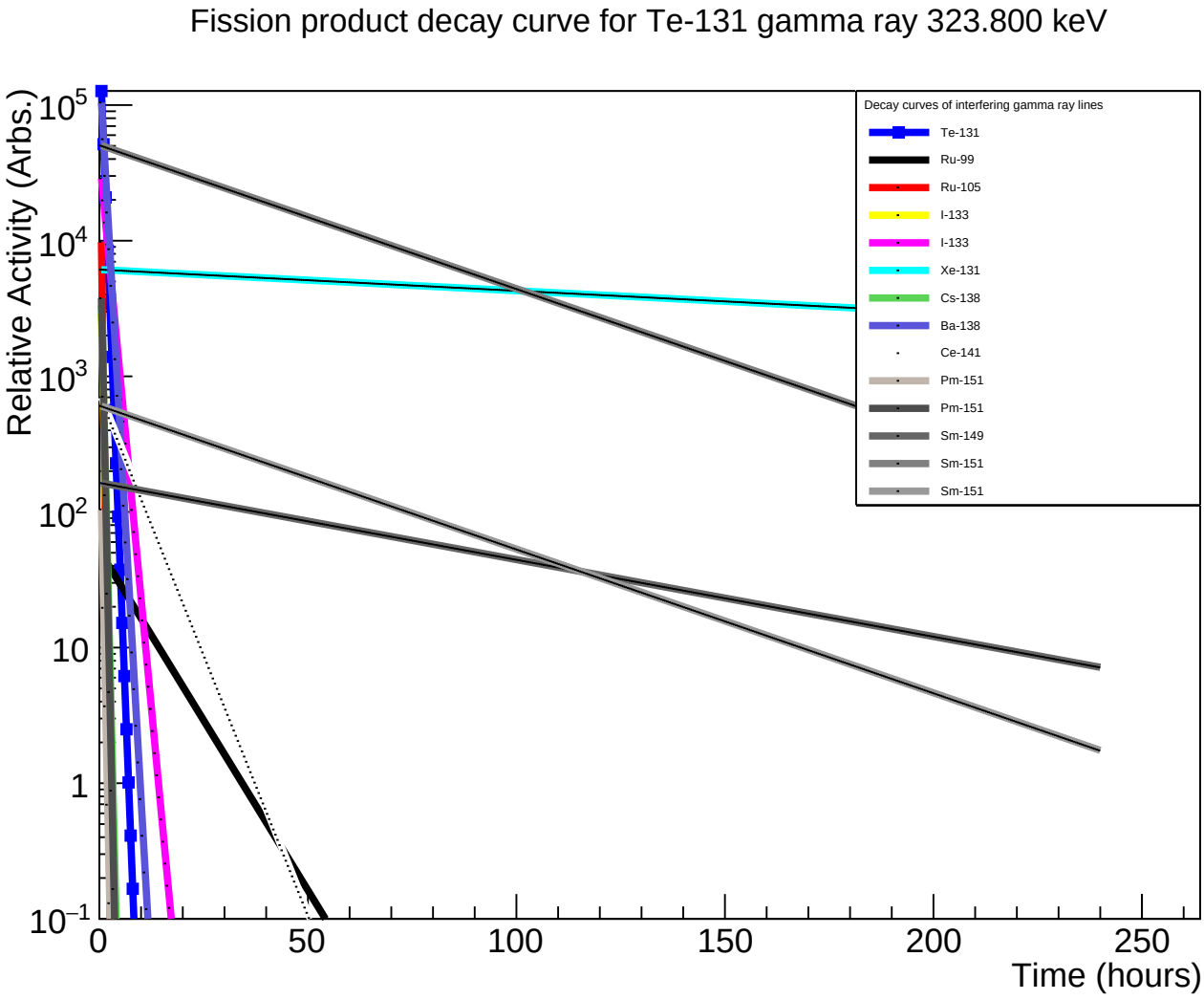


Figure 657: Te-131 decay curve for 323.800 keV gamma ray.

3.658 Sb-131 E_γ = 326.20 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 326.20 keV
Gamma Intensity = 1.22 ± 0.615 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1315: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1316: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	326.430	0.000	0.855	0.000
Mo-101	Tc-101	327.700	0.002	0.243	0.052
Ru-105	Rh-105	326.140	0.011	4.440	0.010
Te-133	I-133	326.000	0.003	0.923	0.040
I-135	Xe-135	326.000	0.000	6.570	0.063
Xe-138	Cs-138	325.300	0.000	0.235	0.063
Cs-138	Ba-138	324.900	0.003	0.557	0.067
Nd-149	Pm-149	326.554	0.046	1.728	0.011
Nd-151	Pm-151	326.300	0.000	0.207	0.004
Pm-149	Sm-149	327.530	0.000	53.080	0.011
Pm-151	Sm-151	325.200	0.000	28.400	0.004
Pm-151	Sm-151	325.800	0.001	28.400	0.004

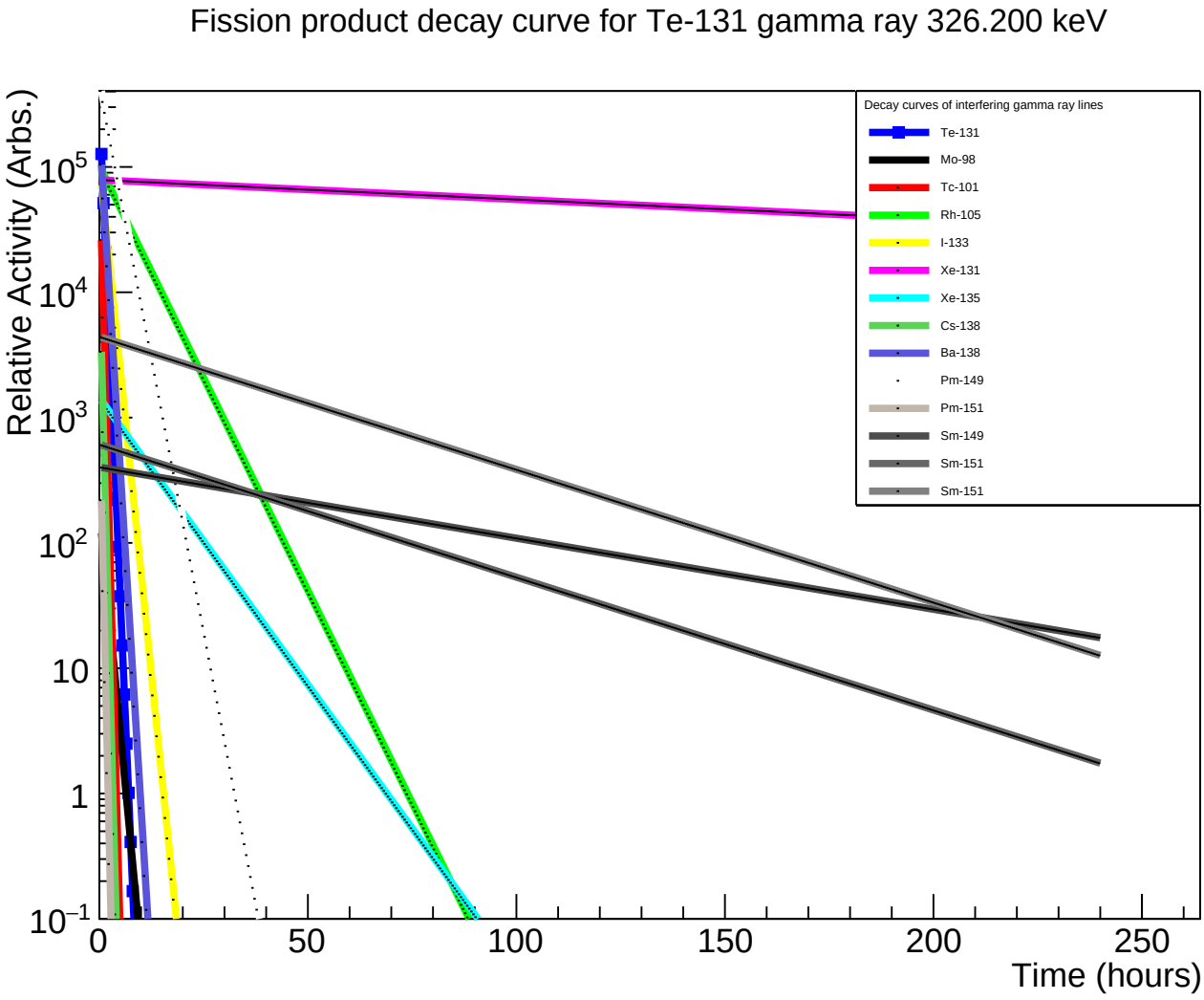


Figure 658: Te-131 decay curve for 326.200 keV gamma ray.

3.659 Sb-131 E_γ = 619.78 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 619.78 keV
Gamma Intensity = 1.60 ± 0.294 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1317: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1318: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	620.100	0.018	9.630	0.058
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	619.300	0.000	178.800	0.000
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Te-127	I-127	618.400	0.000	9.350	0.002
Te-133	I-133	620.000	0.000	0.208	0.031
I-132	Xe-132	620.900	0.004	2.295	0.043
I-132	Xe-132	621.200	0.016	2.295	0.043
Xe-138	Cs-138	619.700	0.000	0.235	0.063
Cs-139	Ba-139	619.700	0.000	0.155	0.063
Ba-142	La-142	620.300	0.000	0.177	0.058
La-143	Ce-143	620.300	0.023	0.237	0.059
Nd-151	Pm-151	619.010	0.003	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

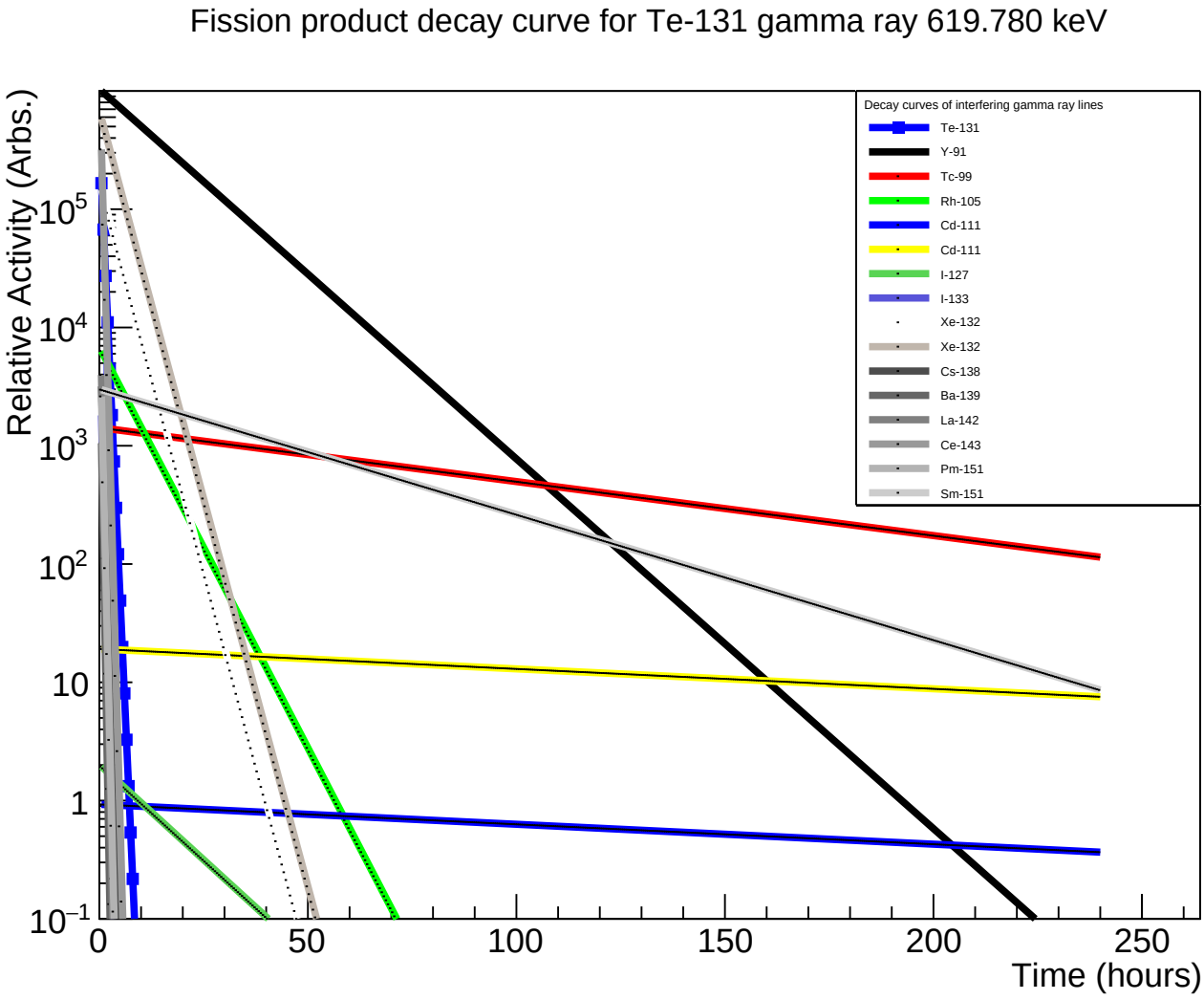


Figure 659: Te-131 decay curve for 619.780 keV gamma ray.

3.660 Sb-131 E_γ = 625.65 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 625.65 keV
Gamma Intensity = 2.45 ± 0.442 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1319: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1320: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	626.800	0.000	9.630	0.058
Mo-101	Tc-101	625.300	0.001	0.243	0.052
Tc-101	Ru-101	627.000	0.004	0.237	0.052
Tc-104	Ru-104	627.000	0.002	0.305	0.019
Te-129	I-129	624.340	0.001	1.160	0.005
Ba-141	La-141	625.400	0.036	0.304	0.058
Pr-144	Nd-144	624.700	0.000	0.288	0.055
Nd-151	Pm-151	625.600	0.000	0.207	0.004
Eu-156	Gd-156	626.000	0.000	364.560	0.000

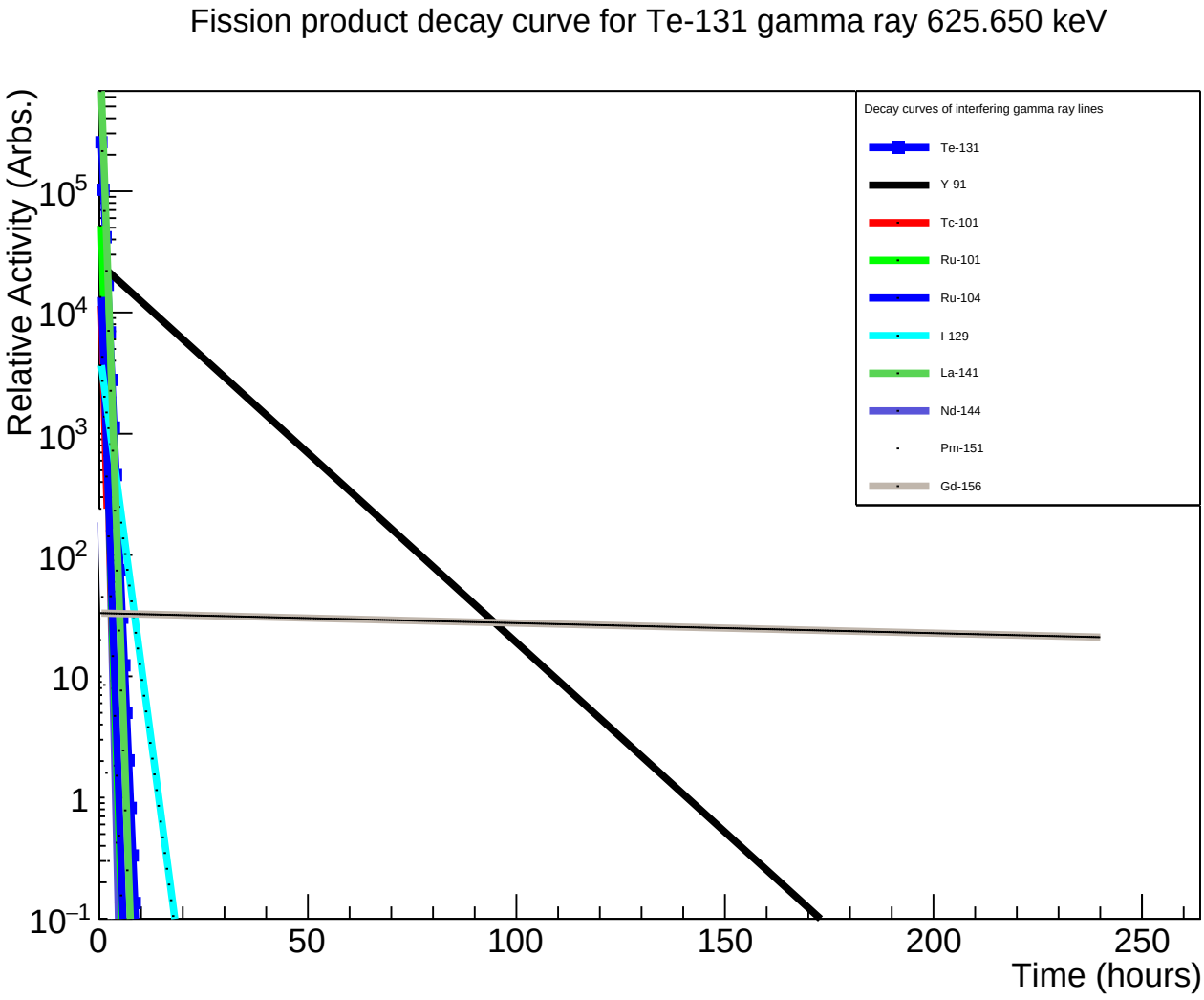


Figure 660: Te-131 decay curve for 625.650 keV gamma ray.

3.661 Sb-131 E_γ = 642.30 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 642.30 keV
Gamma Intensity = 23.55 ± 4.406 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1321: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1322: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	642.710	0.012	0.243	0.052
Pd-111	Ag-111	641.700	0.001	0.390	0.000
Sn-125	Sb-125	642.960	0.002	0.159	0.000
Te-133	I-133	642.330	0.008	0.923	0.040
Ba-141	La-141	641.500	0.004	0.304	0.058
La-142	Ce-142	641.285	0.474	1.518	0.058
La-143	Ce-143	643.750	0.015	0.237	0.059
Pr-147	Nd-147	641.400	0.156	0.223	0.022
Nd-151	Pm-151	643.110	0.001	0.207	0.004

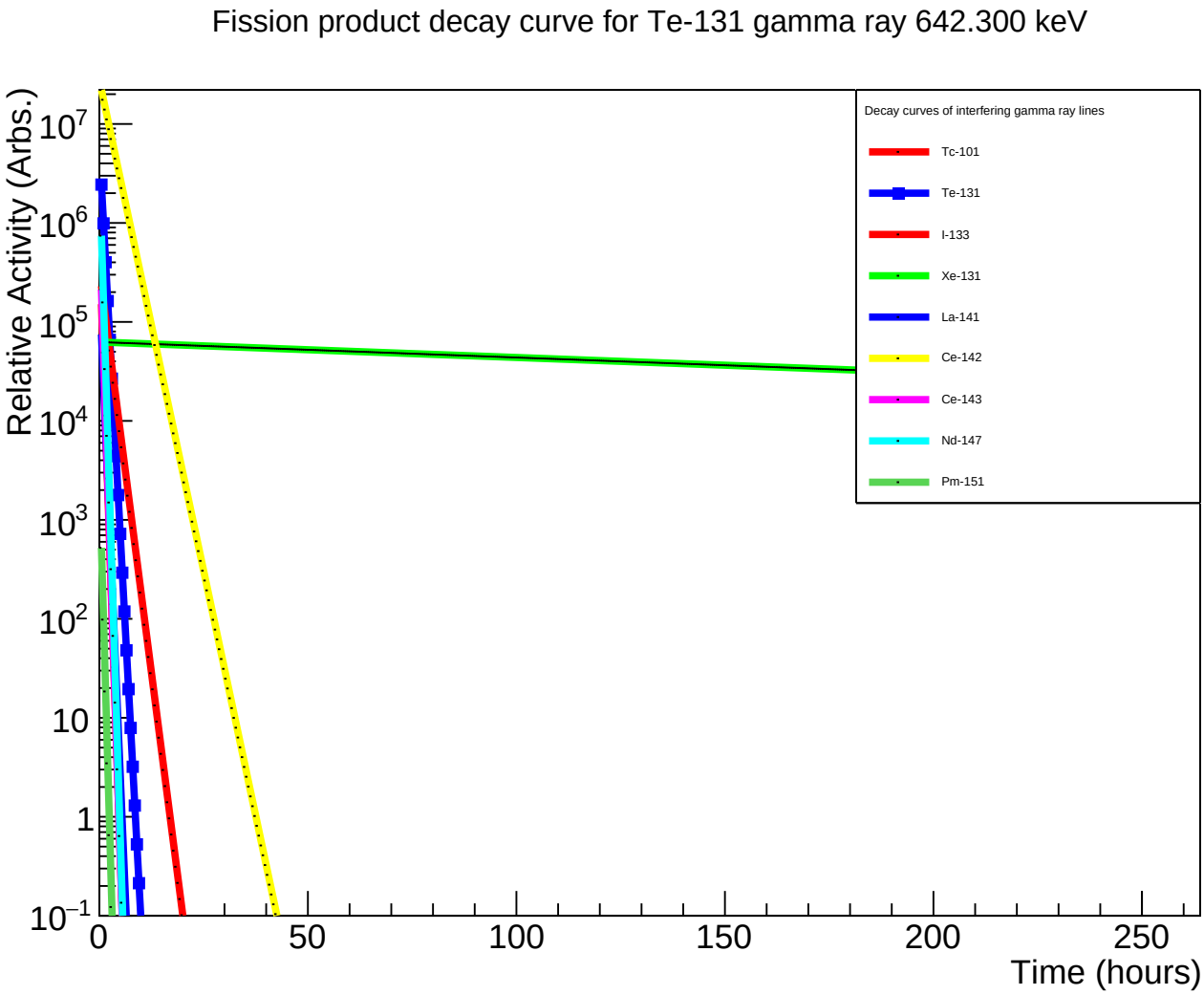


Figure 661: Te-131 decay curve for 642.300 keV gamma ray.

3.662 Sb-131 E_γ = 669.00 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 669.00 keV
Gamma Intensity = 1.93 ± 0.344 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1323: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1324: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	668.000	0.003	0.305	0.019
Rh-107	Pd-107	670.050	0.022	0.362	0.001
Sn-127	Sb-127	668.600	0.002	2.100	0.001
I-132	Xe-132	667.714	0.987	2.295	0.043
I-132	Xe-132	669.800	0.046	2.295	0.043
I-133	Xe-133	670.100	0.000	20.800	0.067
Cs-139	Ba-139	668.970	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-151	Pm-151	668.100	0.000	0.207	0.004
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	668.500	0.000	28.400	0.004
Pm-151	Sm-151	668.700	0.004	28.400	0.004
Pm-151	Sm-151	669.200	0.003	28.400	0.004

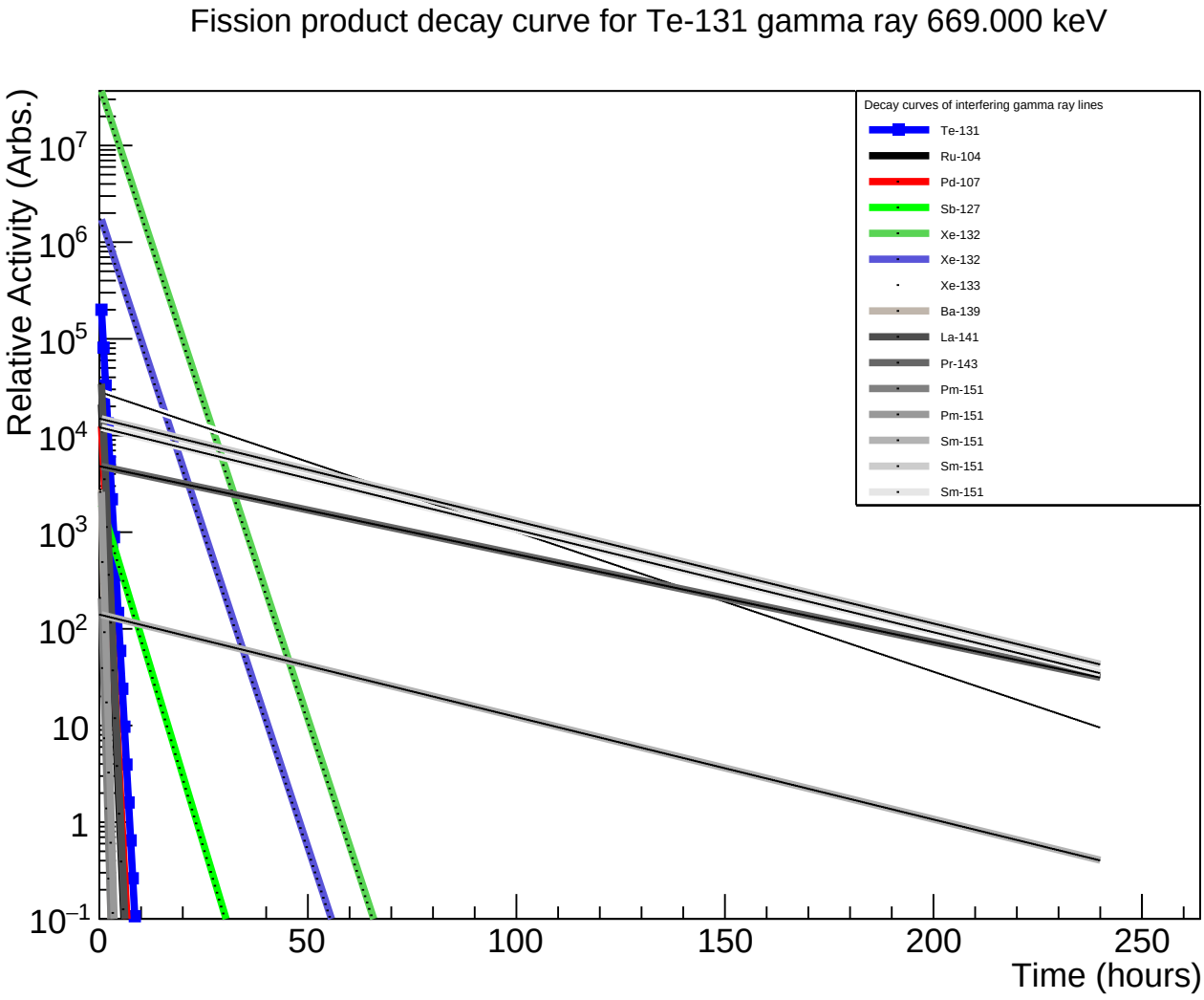


Figure 662: Te-131 decay curve for 669.000 keV gamma ray.

3.663 Sb-131 E_γ = 726.30 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 726.30 keV
Gamma Intensity = 4.10 ± 0.431 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1325: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1326: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	726.830	0.001	0.855	0.000
Te-133	I-133	727.000	0.000	0.208	0.031
I-132	Xe-132	727.000	0.022	2.295	0.043
I-132	Xe-132	727.200	0.032	2.295	0.043
Pr-146	Nd-146	727.300	0.006	0.403	0.030
Nd-149	Pm-149	726.822	0.000	1.728	0.011
Nd-151	Pm-151	727.500	0.000	0.207	0.004
Pm-151	Sm-151	727.000	0.000	28.400	0.004

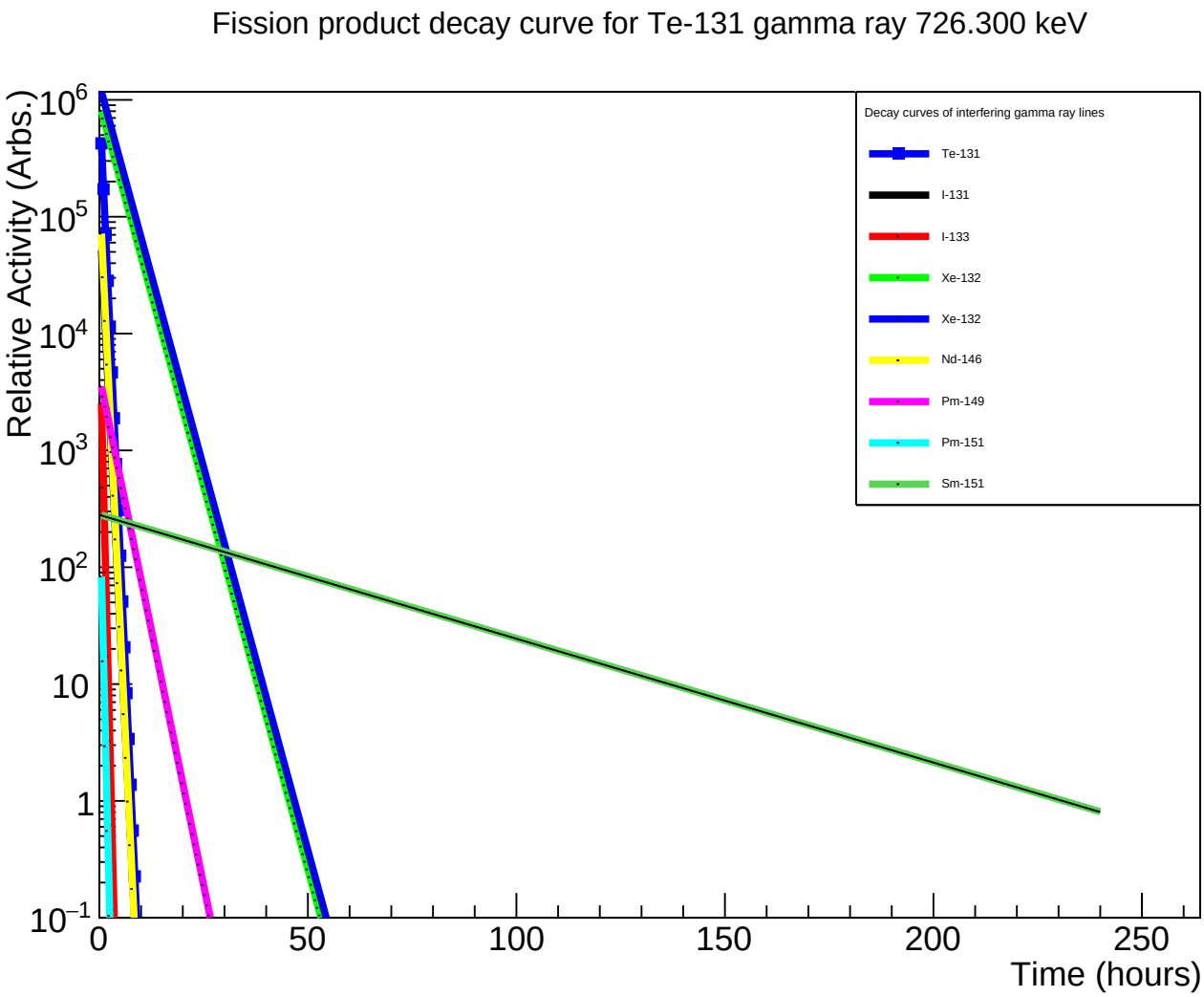


Figure 663: Te-131 decay curve for 726.300 keV gamma ray.

3.664 Sb-131 E_γ = 824.91 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 824.91 keV
Gamma Intensity = 2.64 ± 0.356 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1327: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1328: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	823.700	0.001	9.630	0.058
Tc-105	Ru-105	824.300	0.012	0.127	0.010
Sn-127	Sb-127	824.700	0.061	2.100	0.001
Te-133	I-133	823.900	0.001	0.208	0.031
Ba-141	La-141	826.400	0.004	0.304	0.058

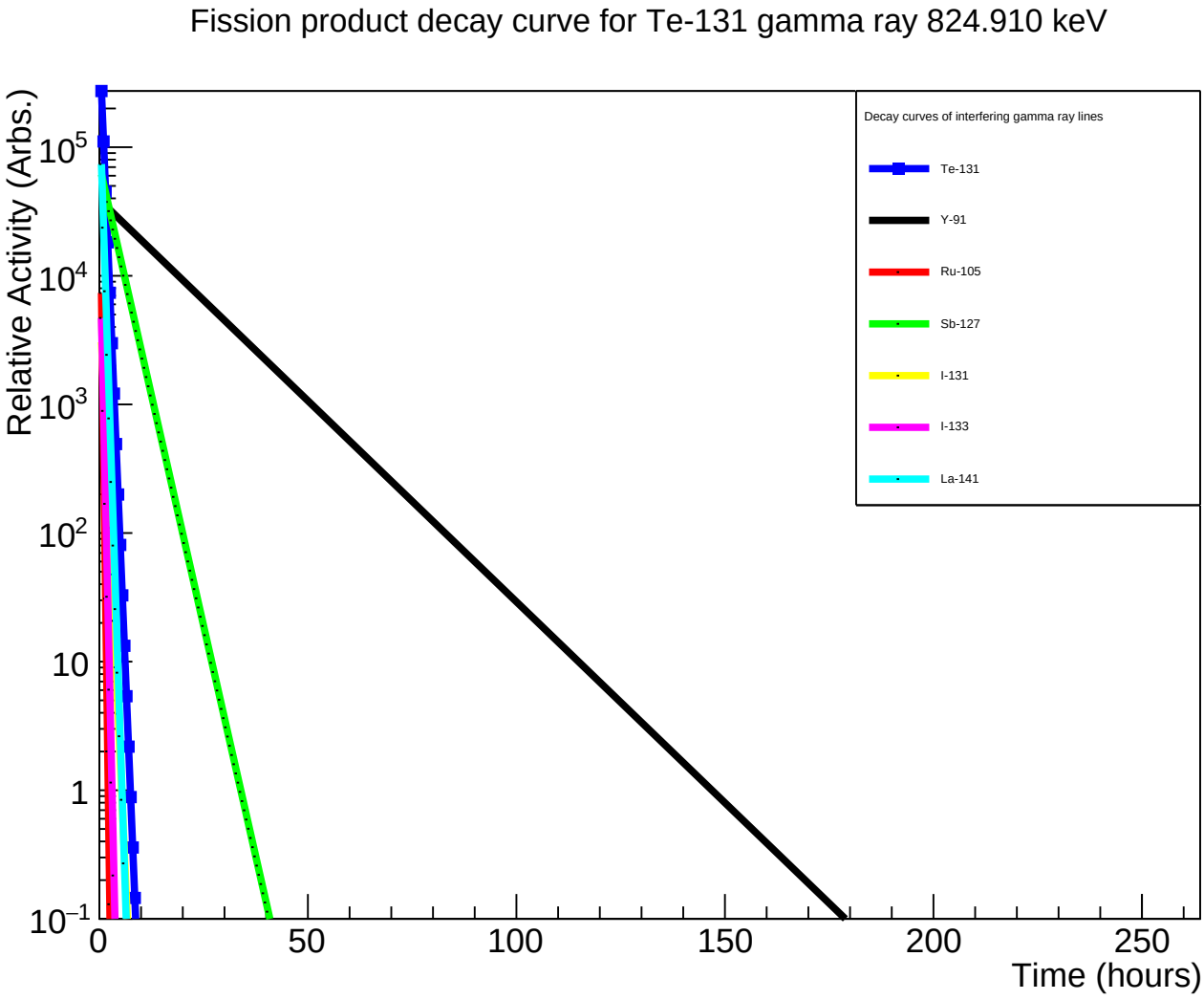


Figure 664: Te-131 decay curve for 824.910 keV gamma ray.

3.665 Sb-131 E_γ = 933.09 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 933.09 keV
Gamma Intensity = 26.38 ± 1.950 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1329: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1330: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	933.730	0.007	0.372	0.003
Y-92	Zr-92	934.470	0.139	3.540	0.060
Mo-101	Tc-101	933.300	0.006	0.243	0.052
Mo-101	Tc-101	934.210	0.041	0.243	0.052
Te-133	I-133	934.000	0.001	0.208	0.031
Cs-139	Ba-139	933.000	0.000	0.155	0.063
Ba-142	La-142	931.600	0.001	0.177	0.058
Ba-142	La-142	932.600	0.001	0.177	0.058
Ba-142	La-142	934.000	0.000	0.177	0.058
Nd-149	Pm-149	933.240	0.001	1.728	0.011
Nd-151	Pm-151	934.040	0.001	0.207	0.004
Pm-151	Sm-151	933.900	0.000	28.400	0.004
Sm-155	Eu-155	932.900	0.000	0.372	0.000

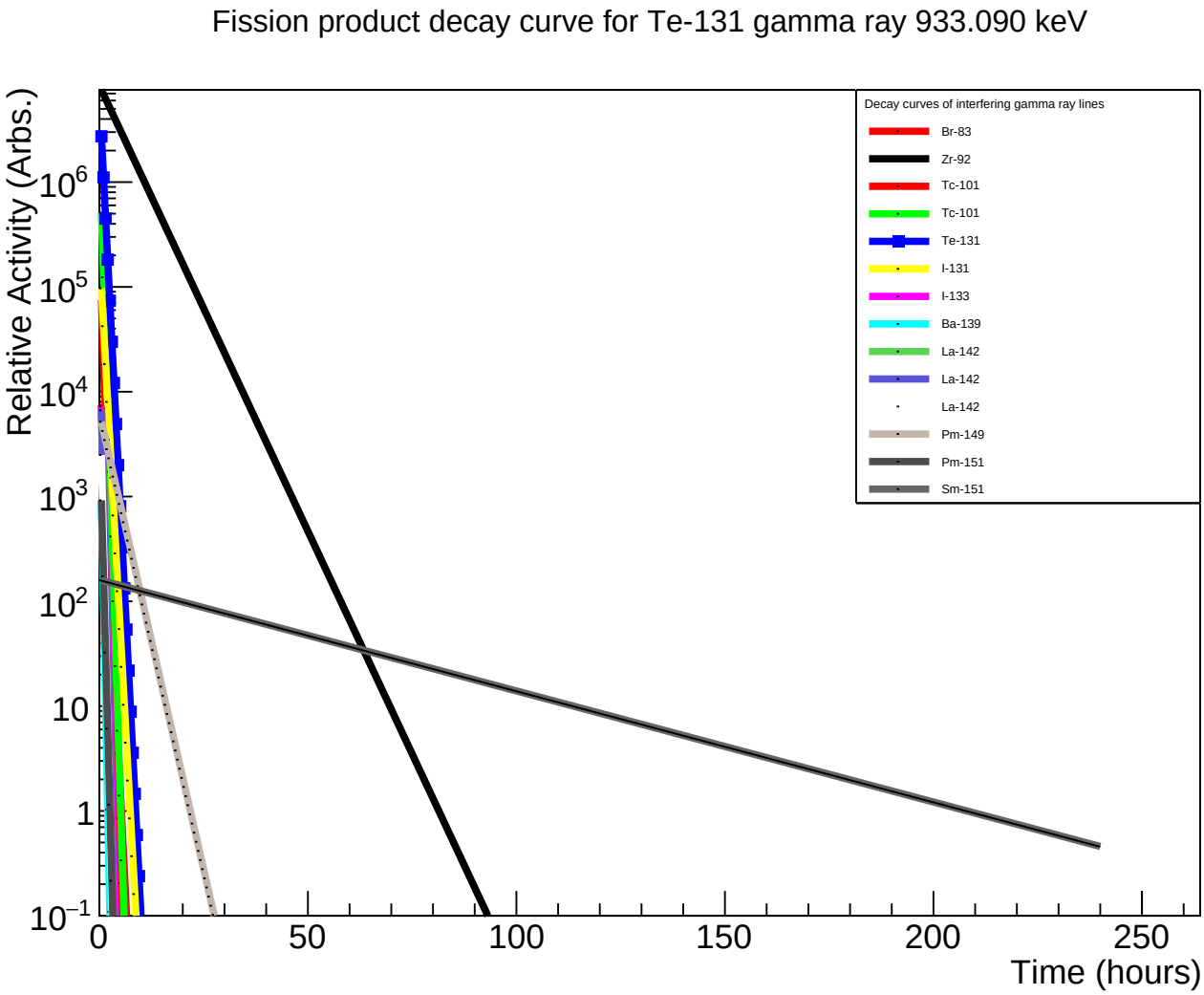


Figure 665: Te-131 decay curve for 933.090 keV gamma ray.

3.666 Sb-131 E_γ = 943.41 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 943.41 keV
Gamma Intensity = 47.10 ± 2.400 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1331: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1332: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	943.300	0.005	0.372	0.003
Se-83	Br-83	943.400	0.009	0.372	0.003
Nb-98	Mo-98	944.600	0.000	0.855	0.000
Mo-101	Tc-101	943.980	0.001	0.243	0.052
Te-133	I-133	942.200	0.003	0.208	0.031
Te-133	I-133	943.000	0.001	0.208	0.031
Ba-141	La-141	943.200	0.008	0.304	0.058
La-143	Ce-143	942.900	0.000	0.237	0.059
Pr-147	Nd-147	942.300	0.010	0.223	0.022
Nd-149	Pm-149	942.970	0.000	1.728	0.011
Nd-151	Pm-151	943.170	0.004	0.207	0.004
Eu-156	Gd-156	944.350	0.013	364.560	0.000

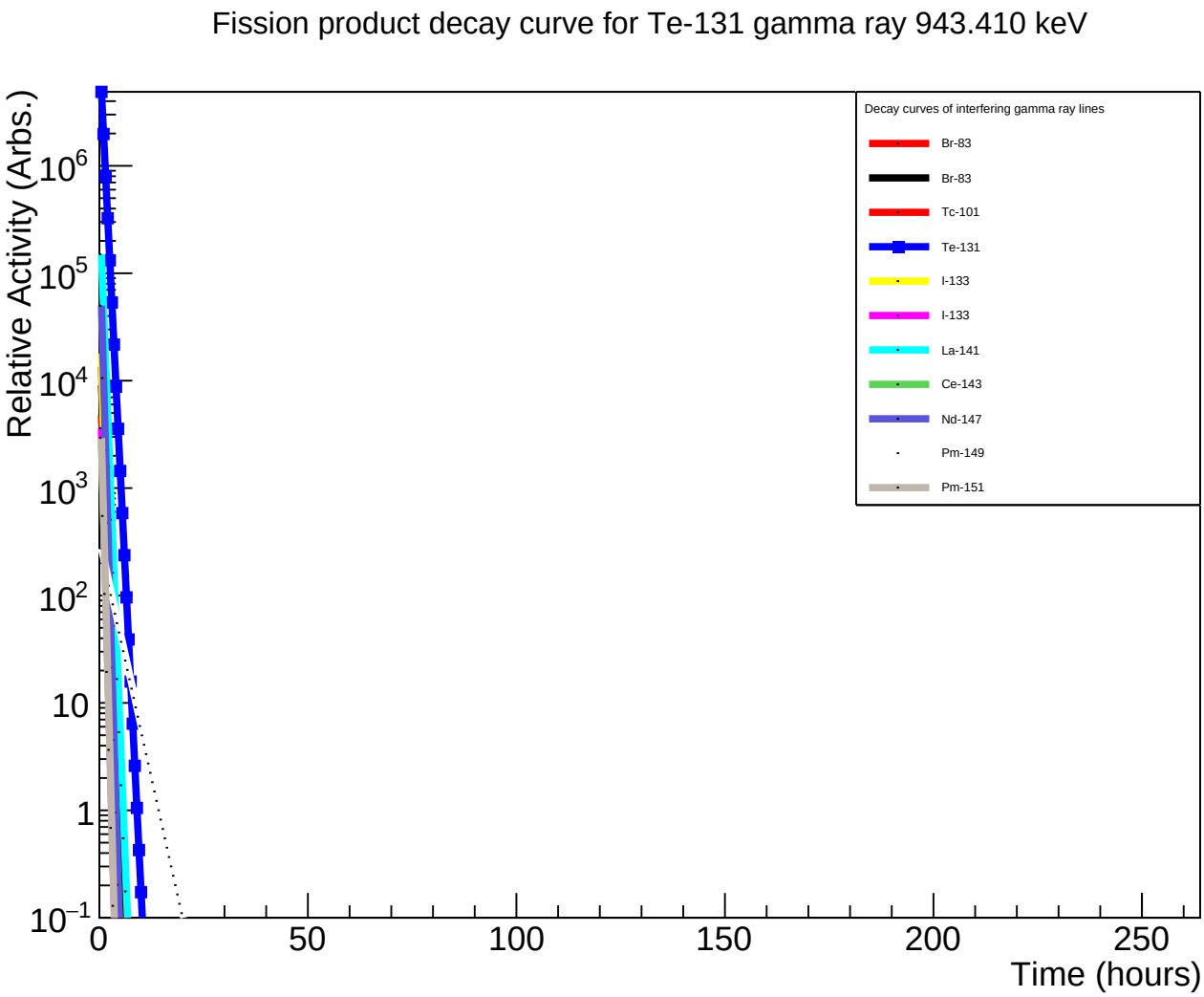


Figure 666: Te-131 decay curve for 943.410 keV gamma ray.

3.667 Sb-131 E_γ = 1123.63 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1123.63 keV
Gamma Intensity = 8.90 ± 0.880 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1333: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1334: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1122.480	0.040	0.124	0.062
Nb-98	Mo-98	1122.320	0.002	0.855	0.000
Te-133	I-133	1123.900	0.001	0.208	0.031
I-135	Xe-135	1124.000	0.036	6.570	0.063
Ba-142	La-142	1122.900	0.004	0.177	0.058
La-143	Ce-143	1122.730	0.004	0.237	0.059
Nd-149	Pm-149	1123.470	0.000	1.728	0.011
Nd-151	Pm-151	1122.630	0.041	0.207	0.004
Nd-151	Pm-151	1123.500	0.000	0.207	0.004

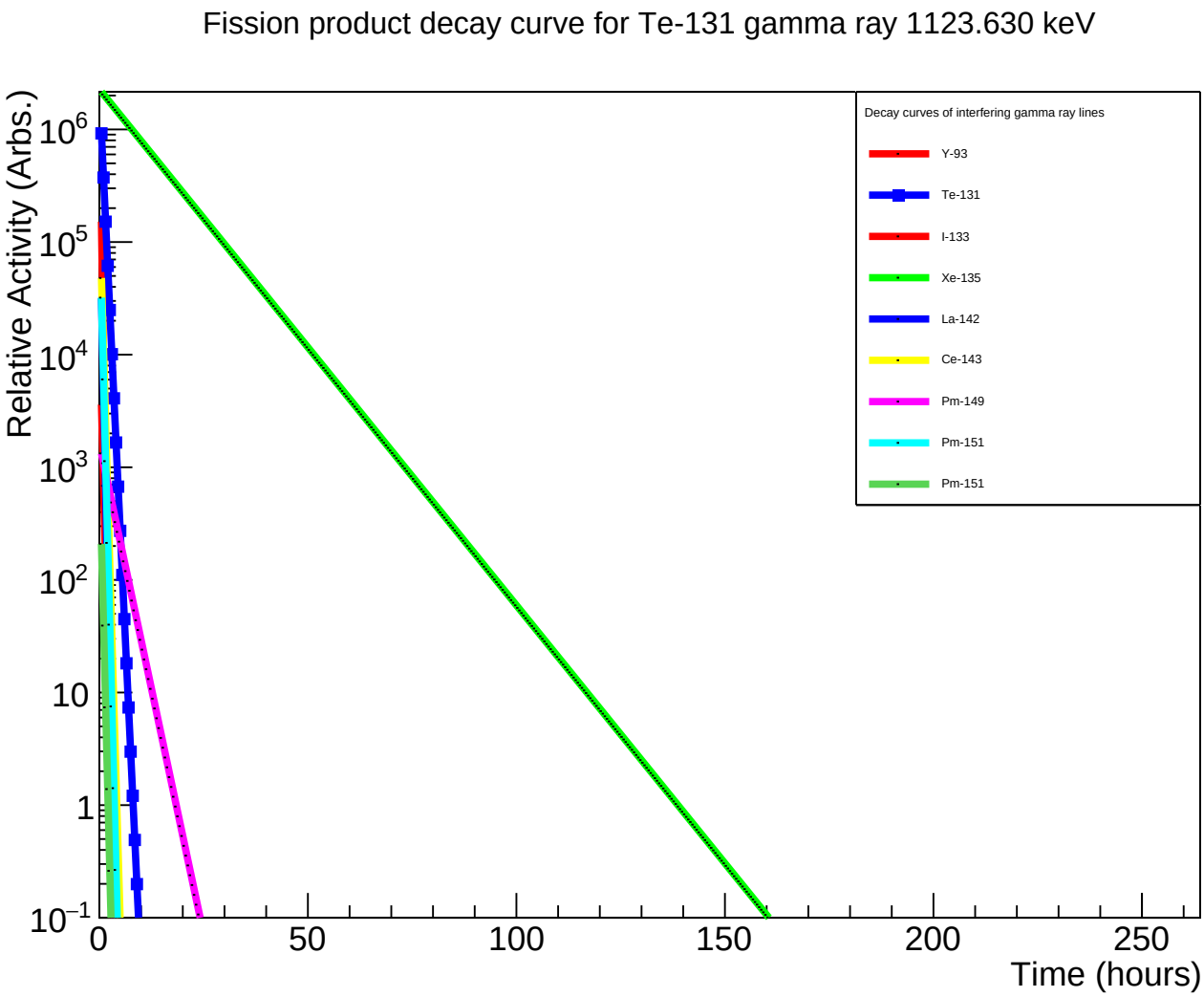


Figure 667: Te-131 decay curve for 1123.630 keV gamma ray.

3.668 Sb-131 E_γ = 1191.90 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1191.90 keV
Gamma Intensity = 2.07 ± 0.153 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1335: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1336: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1191.750	0.041	0.372	0.003
Nb-98	Mo-98	1190.800	0.003	0.855	0.000
Xe-135	Cs-135	1192.200	0.000	0.255	0.011
Cs-139	Ba-139	1190.420	0.002	0.155	0.063
La-142	Ce-142	1191.100	0.004	1.518	0.058
Pr-146	Nd-146	1192.200	0.000	0.403	0.030
Nd-151	Pm-151	1191.100	0.000	0.207	0.004

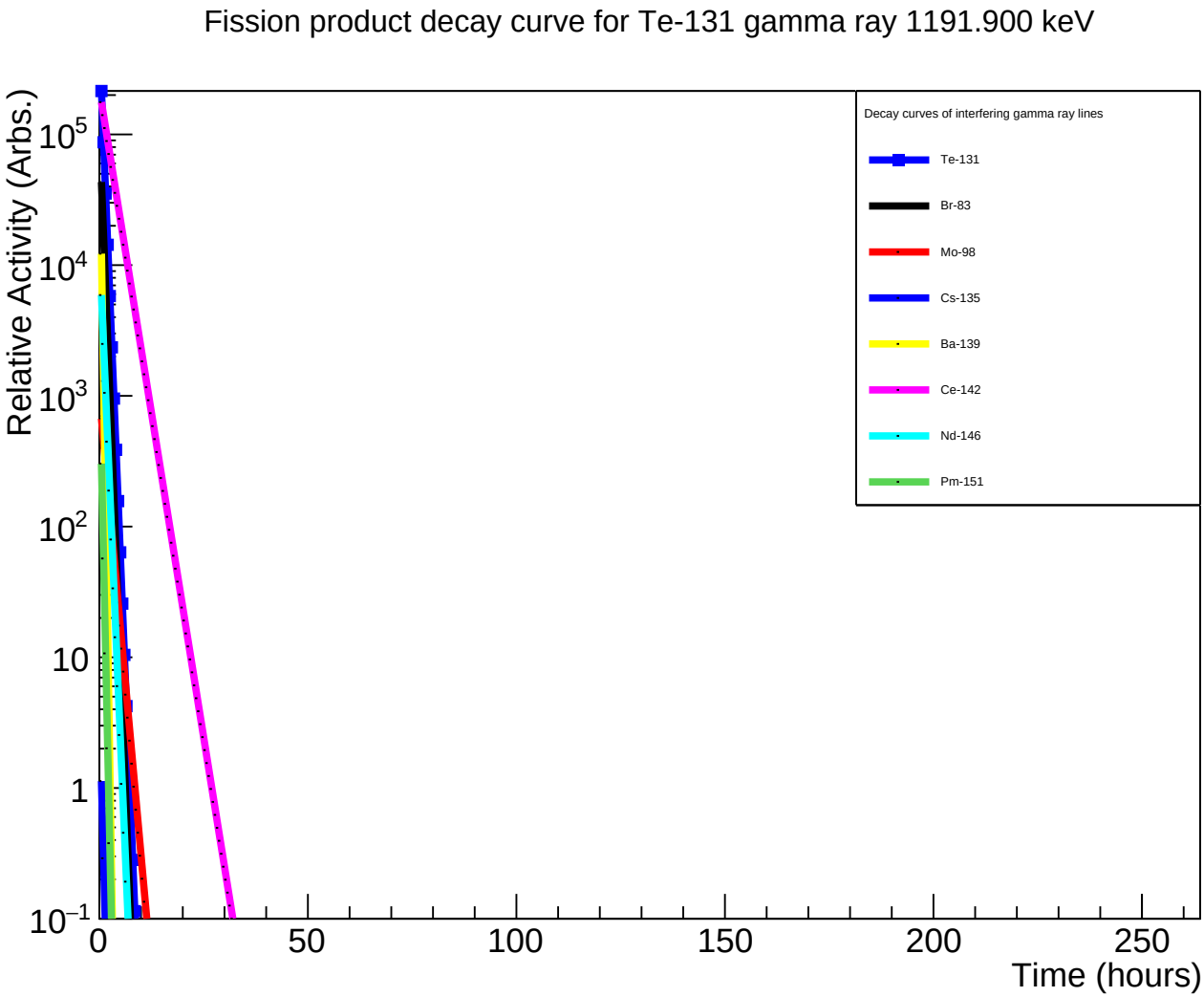


Figure 668: Te-131 decay curve for 1191.900 keV gamma ray.

3.669 Sb-131 E_γ = 1207.40 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1207.40 keV
Gamma Intensity = 4.10 ± 0.390 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1337: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1338: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1208.000	0.004	0.372	0.003
Sn-125	Sb-125	1208.400	0.000	231.360	0.000
Sn-129	Sb-129	1207.800	0.034	0.115	0.002
Te-133	I-133	1208.500	0.002	0.208	0.031
Nd-149	Pm-149	1206.700	0.000	1.728	0.011
Nd-151	Pm-151	1206.600	0.000	0.207	0.004
Sm-155	Eu-155	1207.800	0.000	0.372	0.000

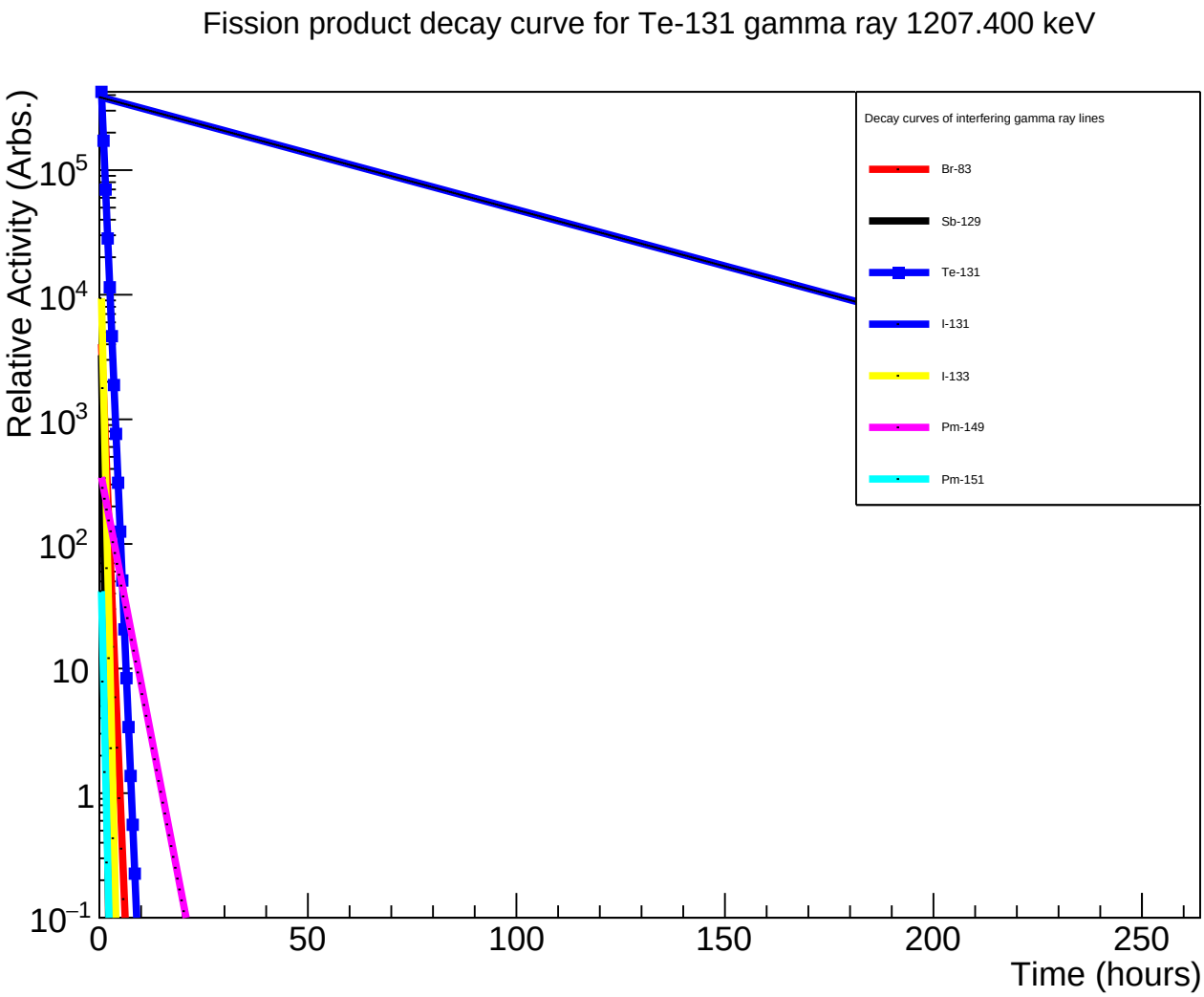


Figure 669: Te-131 decay curve for 1207.400 keV gamma ray.

3.670 Sb-131 E_γ = 1233.76 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1233.76 keV
Gamma Intensity = 2.31 ± 0.485 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1339: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1340: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1234.000	0.000	0.252	0.047
Y-94	Zr-94	1232.600	0.003	0.312	0.065
Te-129	I-129	1232.820	0.000	1.160	0.005
Ba-141	La-141	1233.200	0.000	0.304	0.058
La-142	Ce-142	1233.100	0.019	1.518	0.058
Pr-146	Nd-146	1235.100	0.004	0.403	0.030
Nd-149	Pm-149	1234.120	0.000	1.728	0.011
Nd-151	Pm-151	1232.600	0.001	0.207	0.004
Nd-151	Pm-151	1234.100	0.000	0.207	0.004

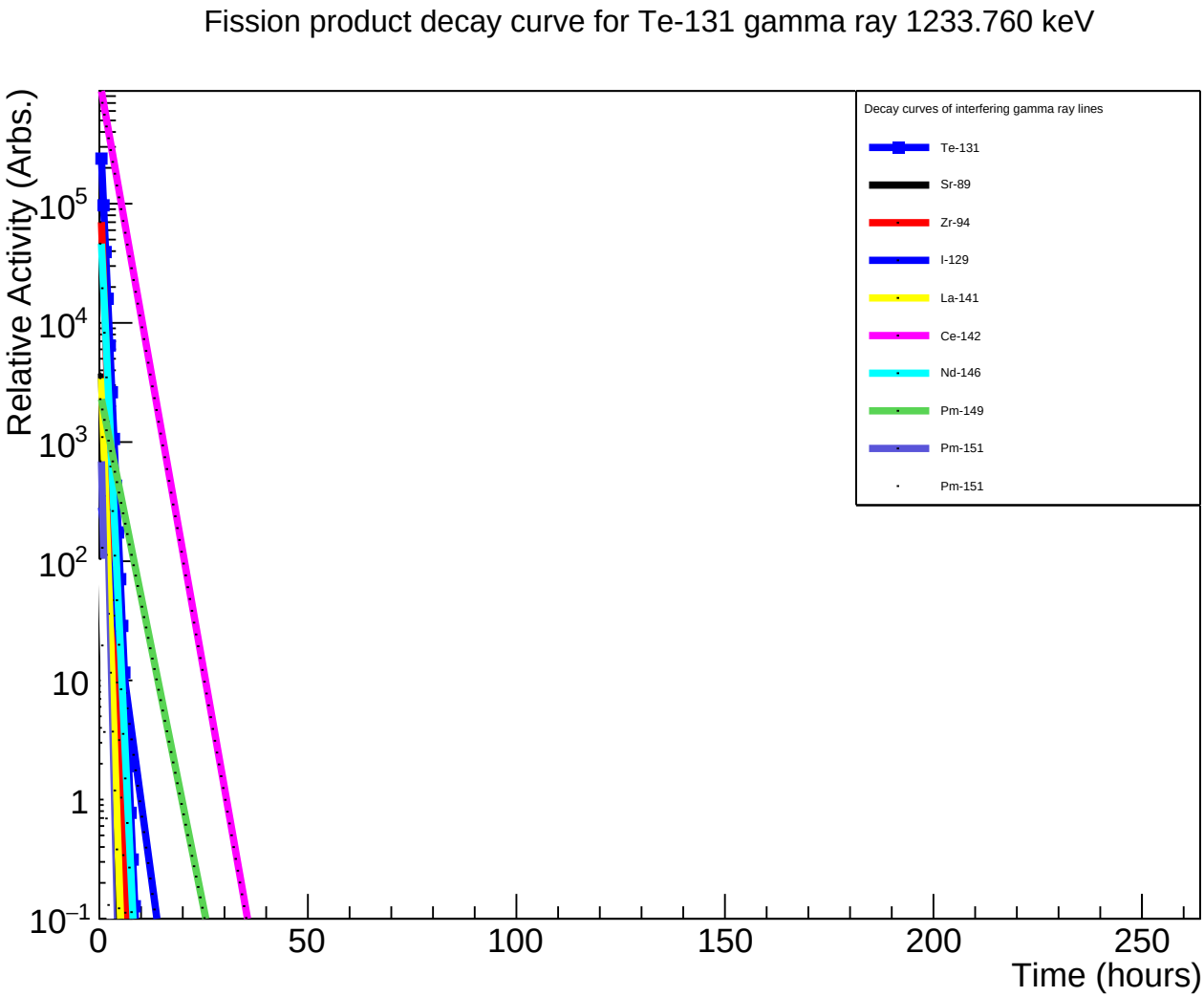


Figure 670: Te-131 decay curve for 1233.760 keV gamma ray.

3.671 Sb-131 E_γ = 1267.57 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1267.57 keV
Gamma Intensity = 2.97 ± 0.280 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1341: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1342: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1266.380	0.011	0.124	0.062
Nb-97	Mo-97	1268.620	0.001	1.202	0.060
Nb-98	Mo-98	1268.600	0.001	0.855	0.000
Tc-104	Ru-104	1269.000	0.004	0.305	0.019
Te-133	I-133	1266.580	0.002	0.208	0.031
Pr-145	Nd-145	1266.130	0.000	5.984	0.039
Nd-151	Pm-151	1268.500	0.001	0.207	0.004

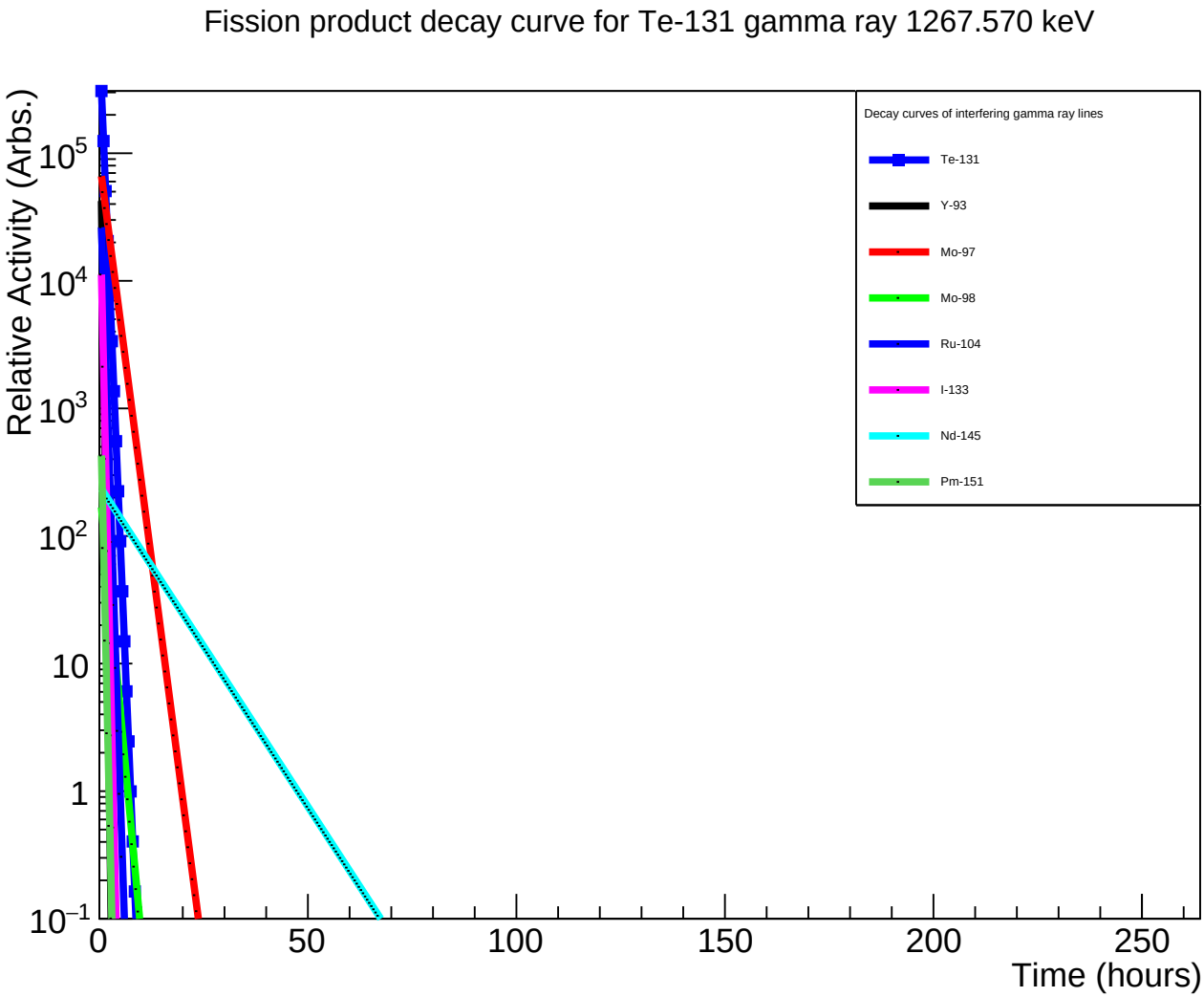


Figure 671: Te-131 decay curve for 1267.570 keV gamma ray.

3.672 Sb-131 E_γ = 1284.70 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1284.70 keV
Gamma Intensity = 1.04 ± 0.138 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1343: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1344: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1285.400	0.000	0.855	0.000
Te-133	I-133	1285.000	0.000	0.208	0.031
Te-133	I-133	1286.000	0.000	0.208	0.031
Cs-139	Ba-139	1283.230	0.071	0.155	0.063
Ba-142	La-142	1283.600	0.001	0.177	0.058
La-142	Ce-142	1283.200	0.000	1.518	0.058
Pr-145	Nd-145	1285.480	0.000	5.984	0.039
Nd-149	Pm-149	1284.490	0.000	1.728	0.011
Nd-151	Pm-151	1285.630	0.002	0.207	0.004

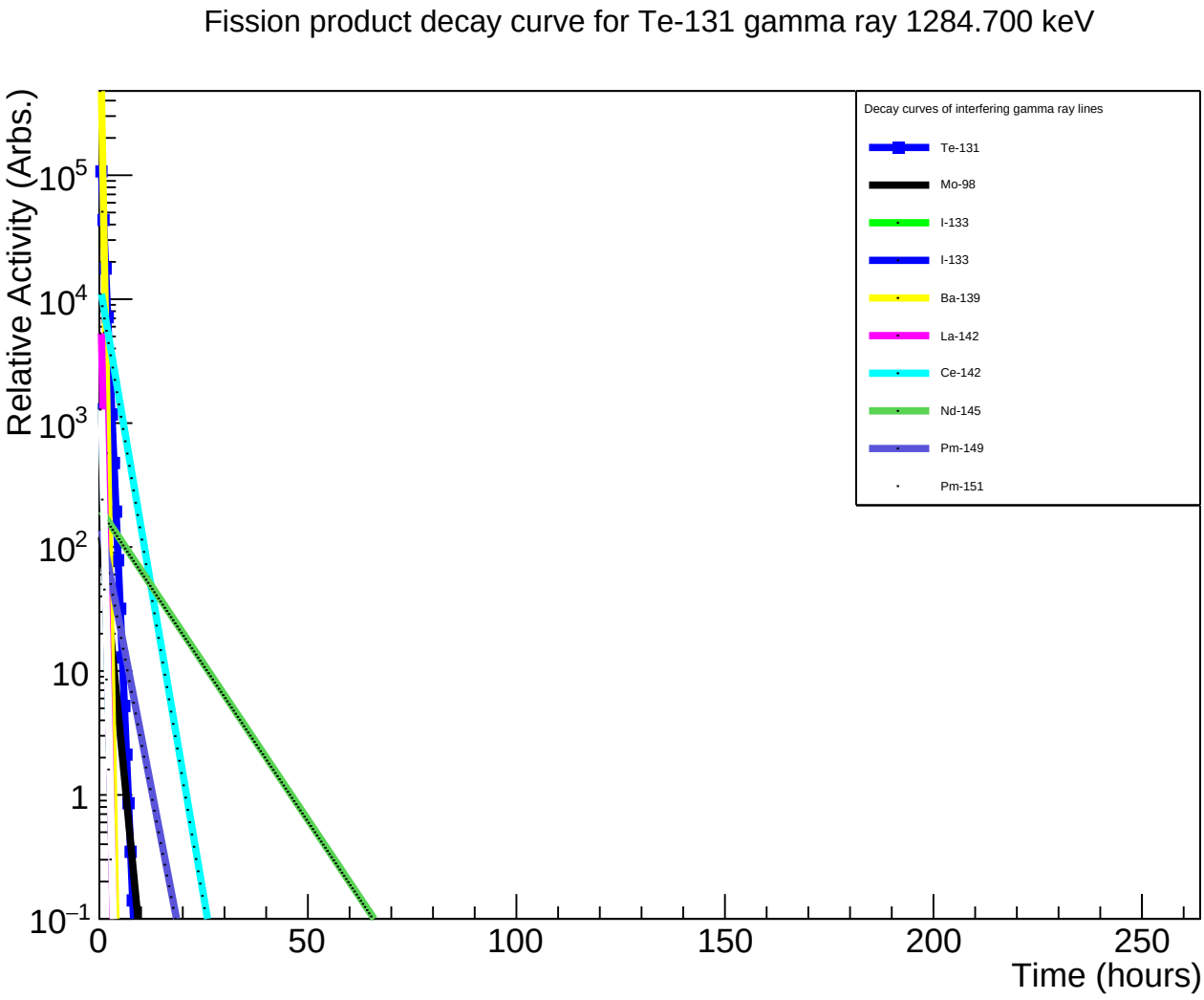


Figure 672: Te-131 decay curve for 1284.700 keV gamma ray.

3.673 Sb-131 E_γ = 1398.90 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1398.90 keV
Gamma Intensity = 1.37 ± 0.158 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1345: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1346: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1399.830	0.001	0.855	0.000
Ag-112	Cd-112	1397.400	0.000	3.130	0.000
I-132	Xe-132	1398.570	0.070	2.295	0.043
Pr-147	Nd-147	1398.000	0.001	0.223	0.022

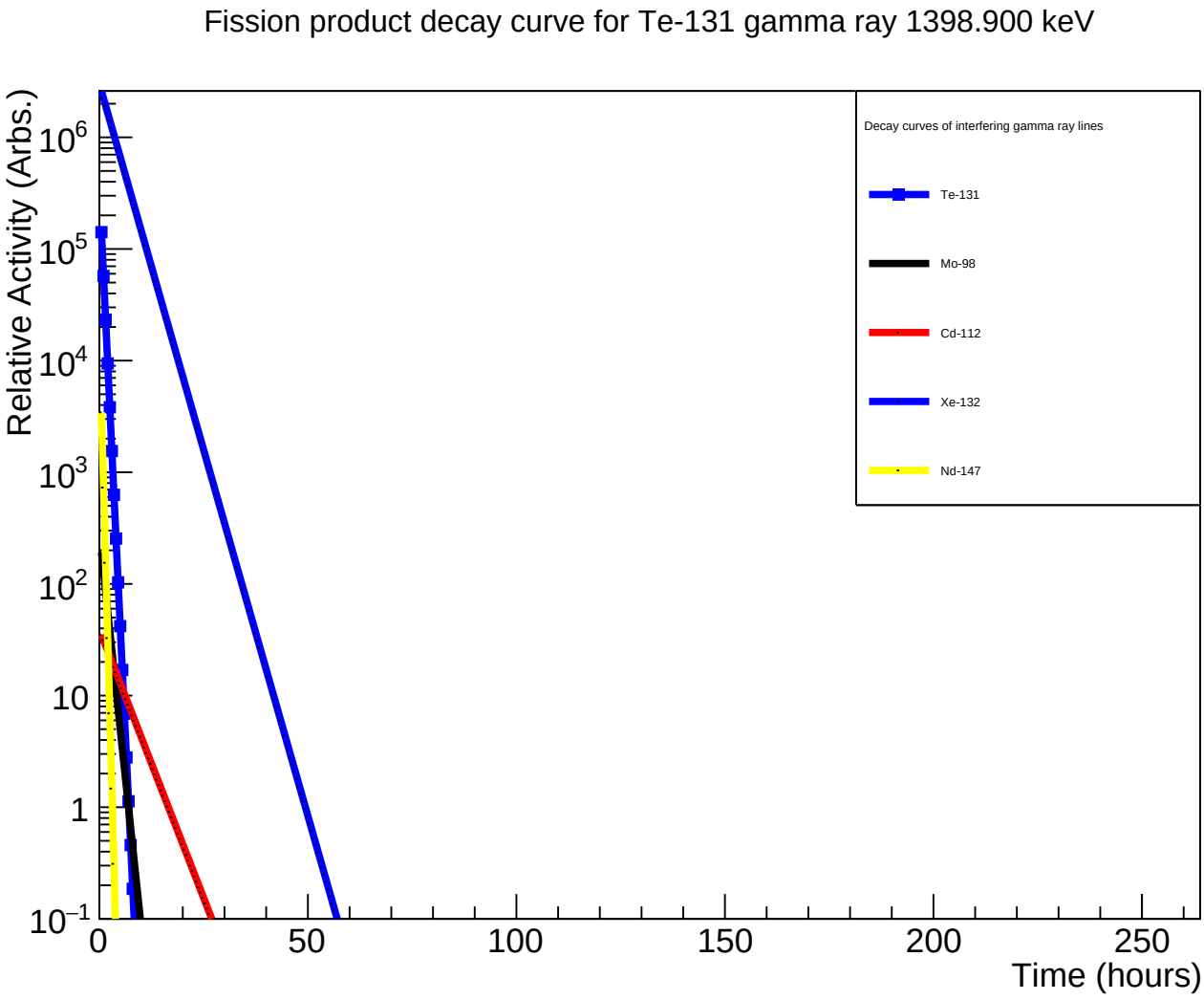


Figure 673: Te-131 decay curve for 1398.900 keV gamma ray.

3.674 Sb-131 E_γ = 1470.30 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1470.30 keV
Gamma Intensity = 1.55 ± 0.162 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1347: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1348: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1469.500	0.005	0.124	0.062
Y-93	Zr-93	1470.100	0.001	10.180	0.063
Ag-112	Cd-112	1468.800	0.006	3.130	0.000
Sn-127	Sb-127	1471.200	0.008	2.100	0.001
I-134	Xe-134	1470.000	0.008	0.875	0.078
Pr-146	Nd-146	1470.630	0.012	0.403	0.030
Nd-151	Pm-151	1470.800	0.000	0.207	0.004

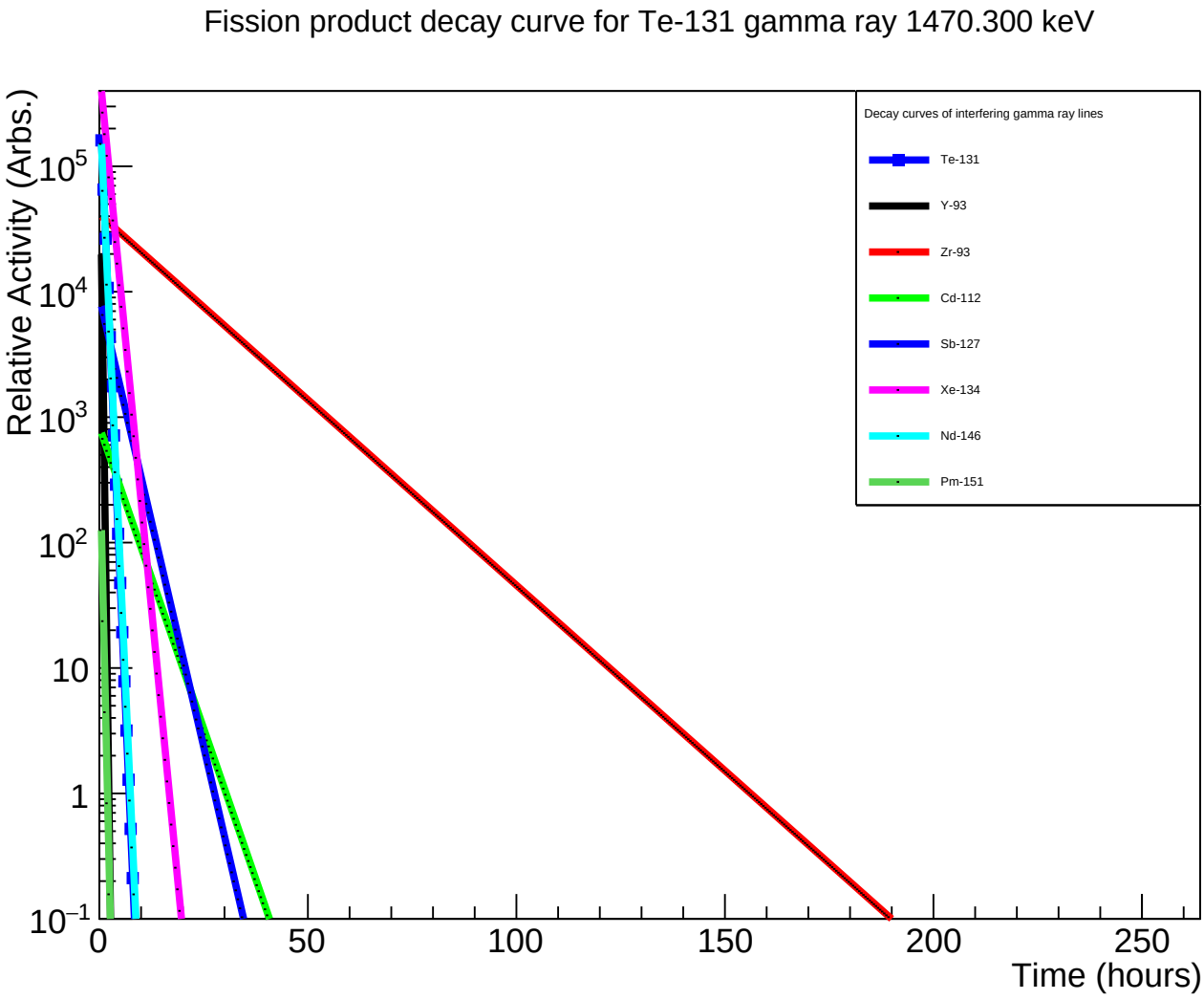


Figure 674: Te-131 decay curve for 1470.300 keV gamma ray.

3.675 Sb-131 E_γ = 1608.80 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1608.80 keV
Gamma Intensity = 1.41 ± 0.292 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1349: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1350: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1607.600	0.004	0.529	0.010
Kr-88	Rb-88	1608.010	0.001	2.840	0.036
Mo-101	Tc-101	1609.200	0.001	0.243	0.052
Tc-104	Ru-104	1609.000	0.001	0.305	0.019
Ba-141	La-141	1609.300	0.000	0.304	0.058

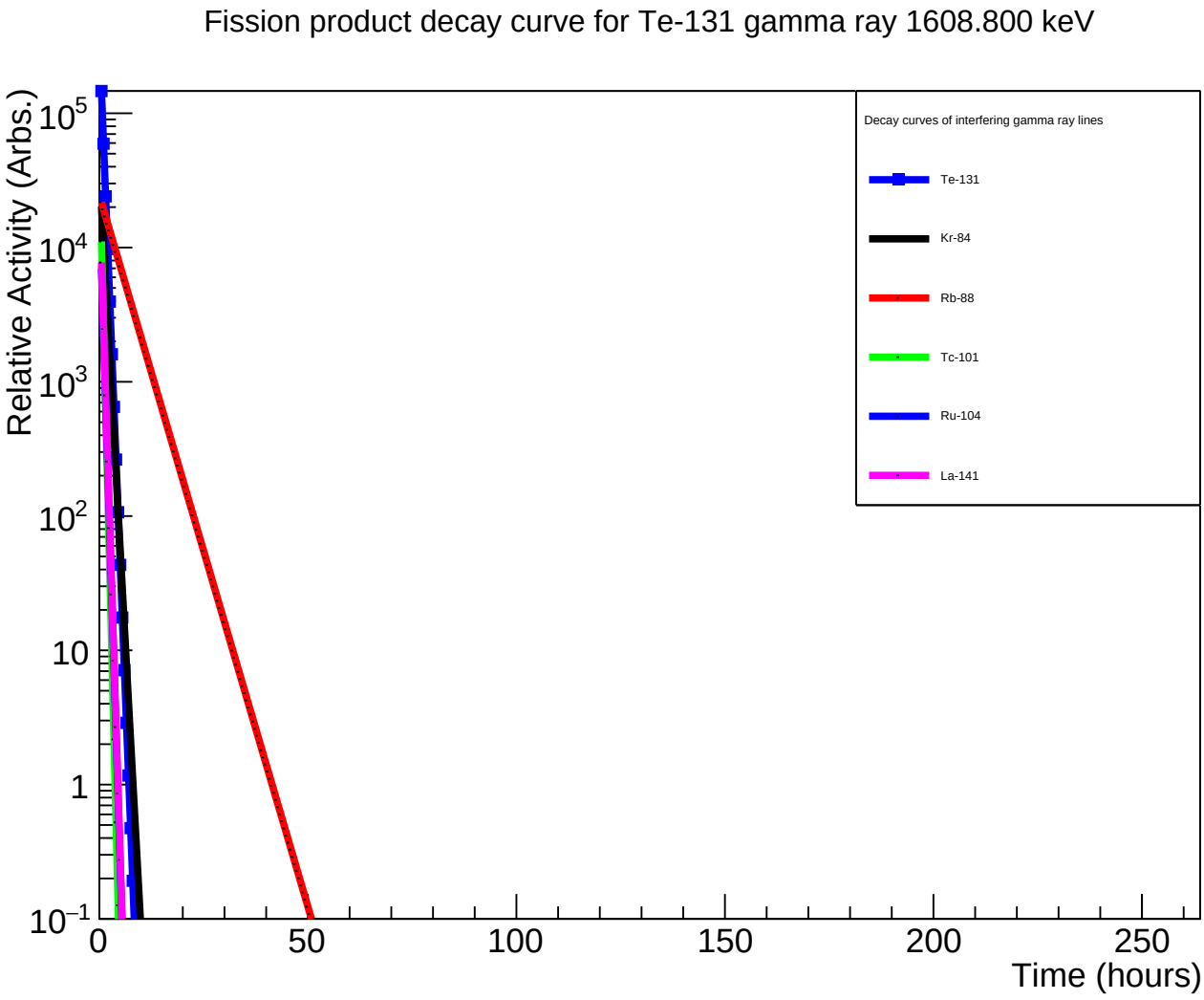


Figure 675: Te-131 decay curve for 1608.800 keV gamma ray.

3.676 Sb-131 E_γ = 1721.80 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1721.80 keV
Gamma Intensity = 2.45 ± 0.189 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1351: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1352: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1721.000	0.003	1.512	0.000
Y-95	Zr-95	1721.400	0.003	0.172	0.064
Mo-101	Tc-101	1722.100	0.000	0.243	0.052
Tc-104	Ru-104	1722.700	0.007	0.305	0.019
Ru-105	Rh-105	1721.360	0.000	4.440	0.010
Te-133	I-133	1722.000	0.001	0.208	0.031
Cs-139	Ba-139	1722.550	0.001	0.155	0.063
La-142	Ce-142	1722.700	0.015	1.518	0.058

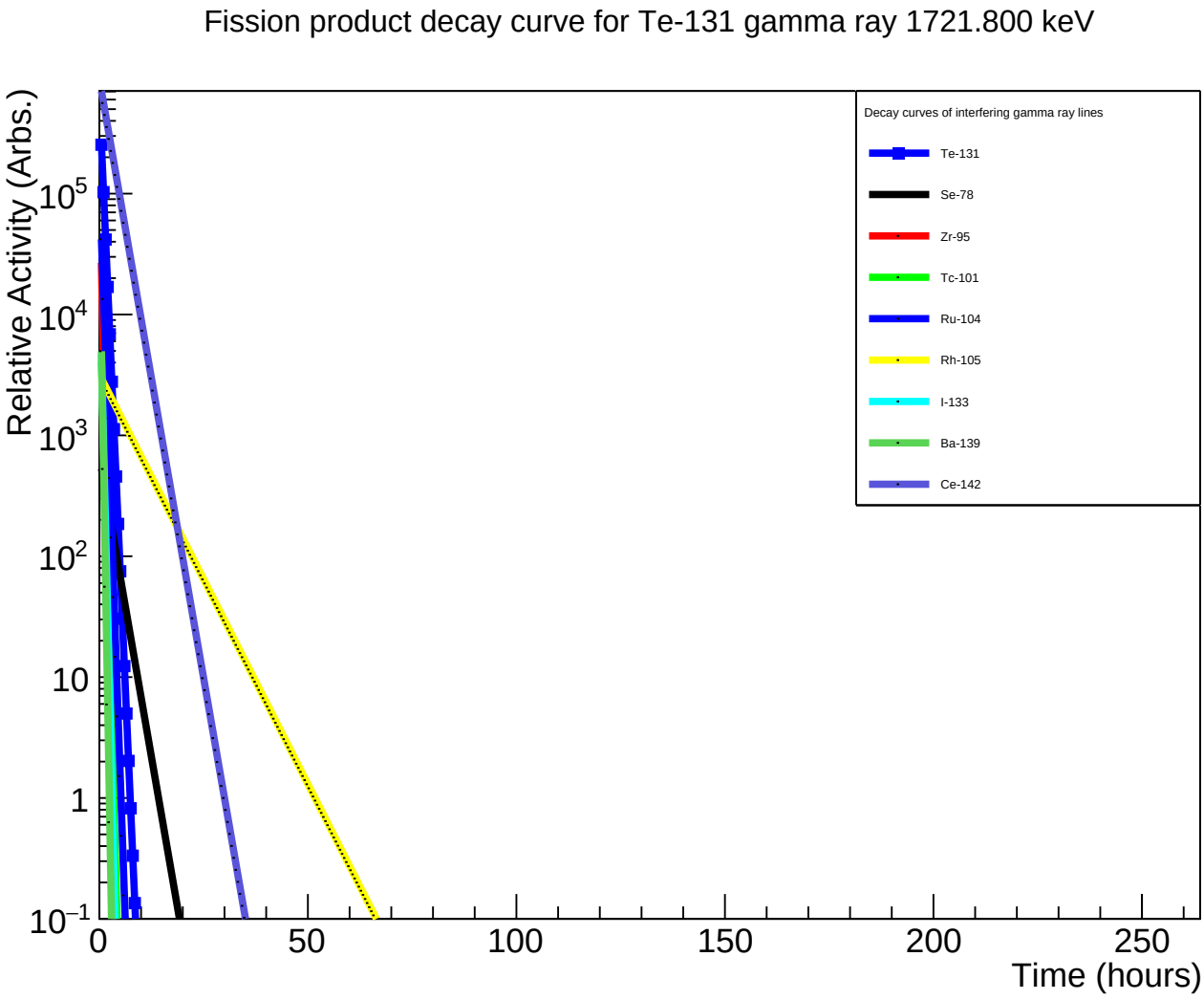


Figure 676: Te-131 decay curve for 1721.800 keV gamma ray.

3.677 Sb-131 E_γ = 1756.10 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1756.10 keV
Gamma Intensity = 1.13 ± 0.153 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1353: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1354: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1754.900	0.004	0.243	0.052
Te-133	I-133	1754.900	0.000	0.208	0.031
I-132	Xe-132	1757.400	0.003	2.295	0.043
La-142	Ce-142	1756.400	0.027	1.518	0.058
Pr-147	Nd-147	1754.800	0.001	0.223	0.022
Nd-151	Pm-151	1756.820	0.000	0.207	0.004

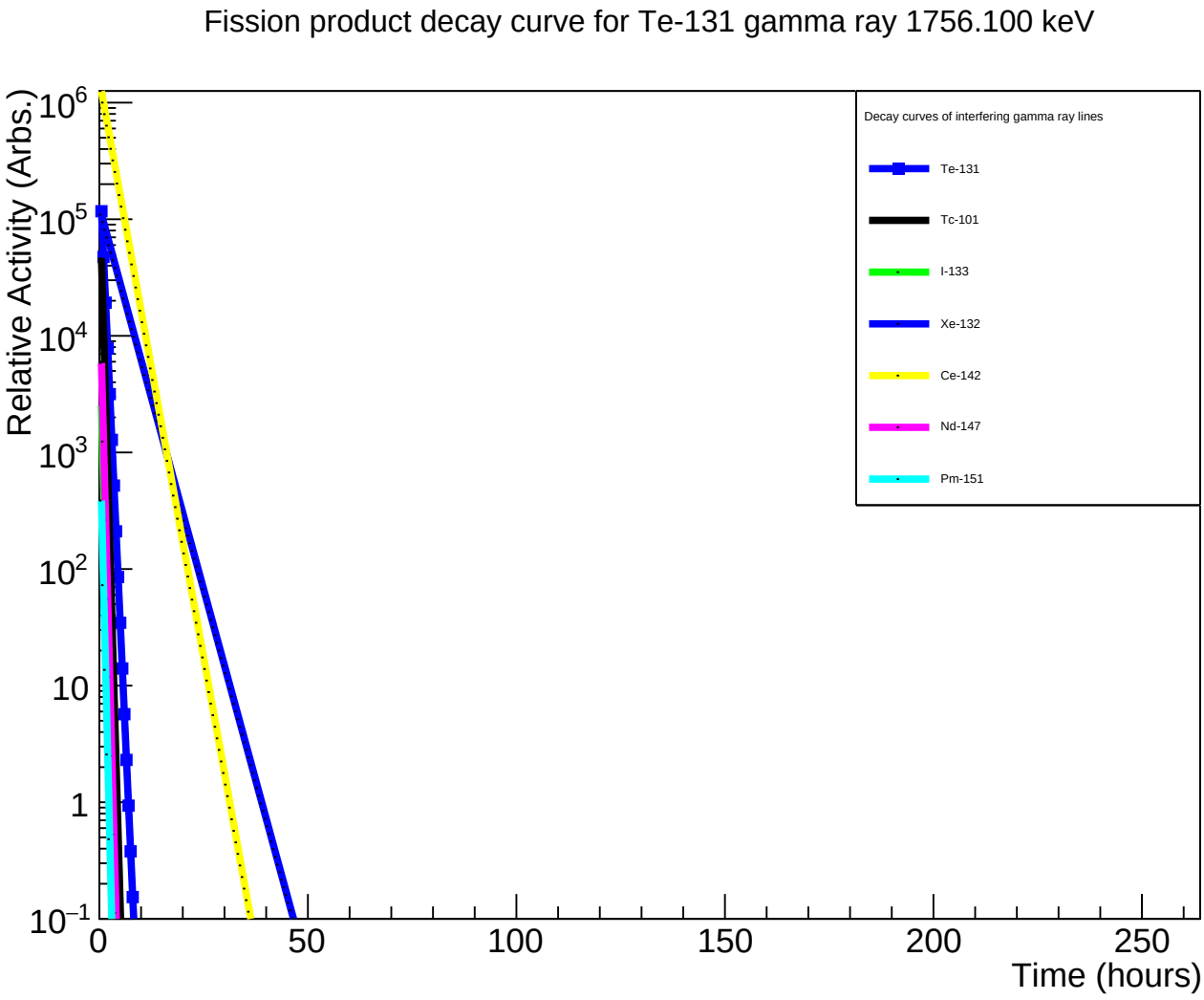


Figure 677: Te-131 decay curve for 1756.100 keV gamma ray.

3.678 Sb-131 E_γ = 1821.20 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1821.20 keV
Gamma Intensity = 1.22 ± 0.244 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1355: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1356: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	1821.700	0.002	0.208	0.031
Cs-138	Ba-138	1821.700	0.000	0.557	0.067
Ba-141	La-141	1820.500	0.001	0.304	0.058

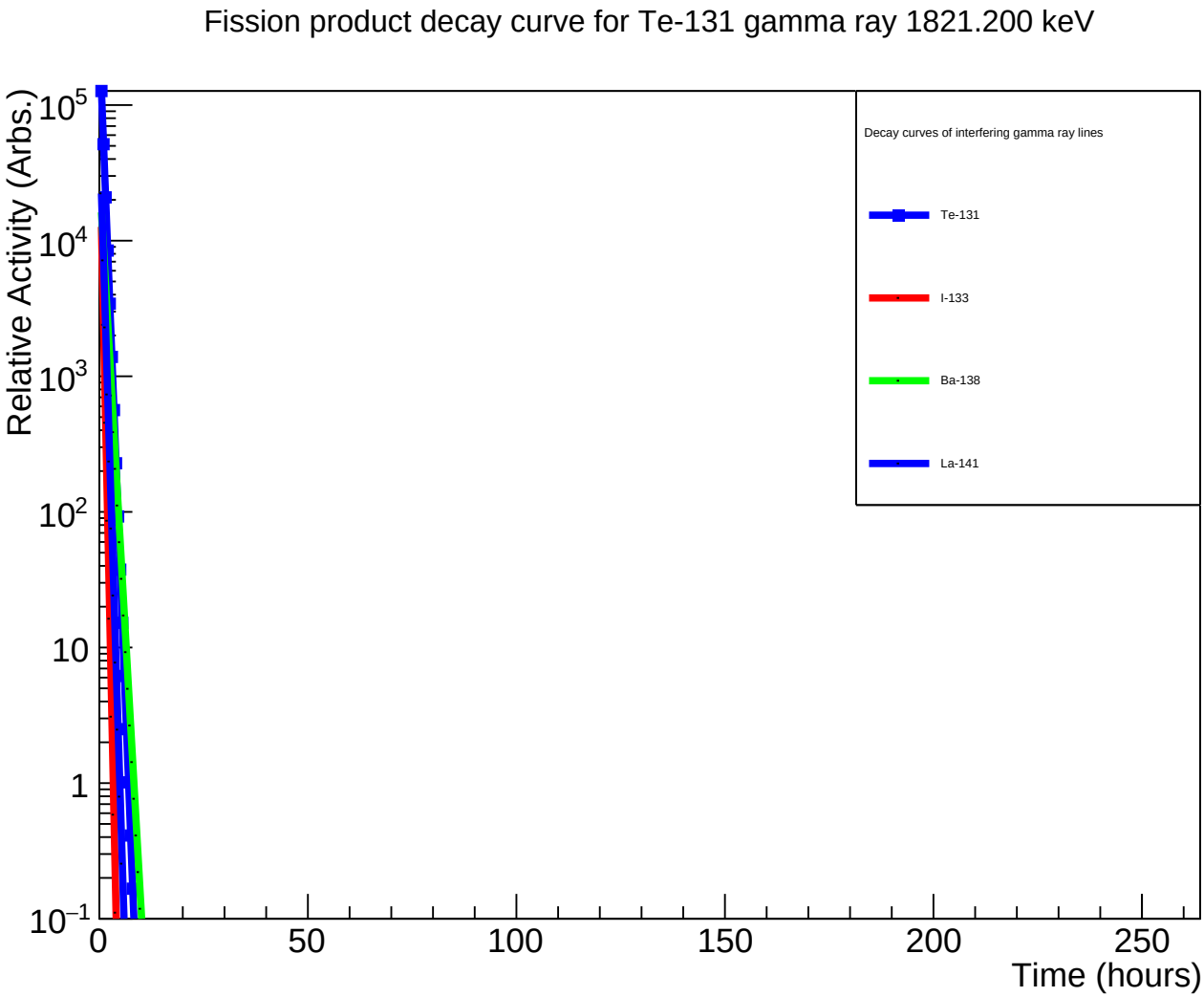


Figure 678: Te-131 decay curve for 1821.200 keV gamma ray.

3.679 Sb-131 E_γ = 1854.31 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 1854.31 keV
Gamma Intensity = 4.24 ± 0.605 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1357: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1358: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1854.500	0.017	0.372	0.003
Y-95	Zr-95	1855.200	0.002	0.172	0.064
Nd-151	Pm-151	1854.550	0.000	0.207	0.004
Nd-151	Pm-151	1855.800	0.000	0.207	0.004

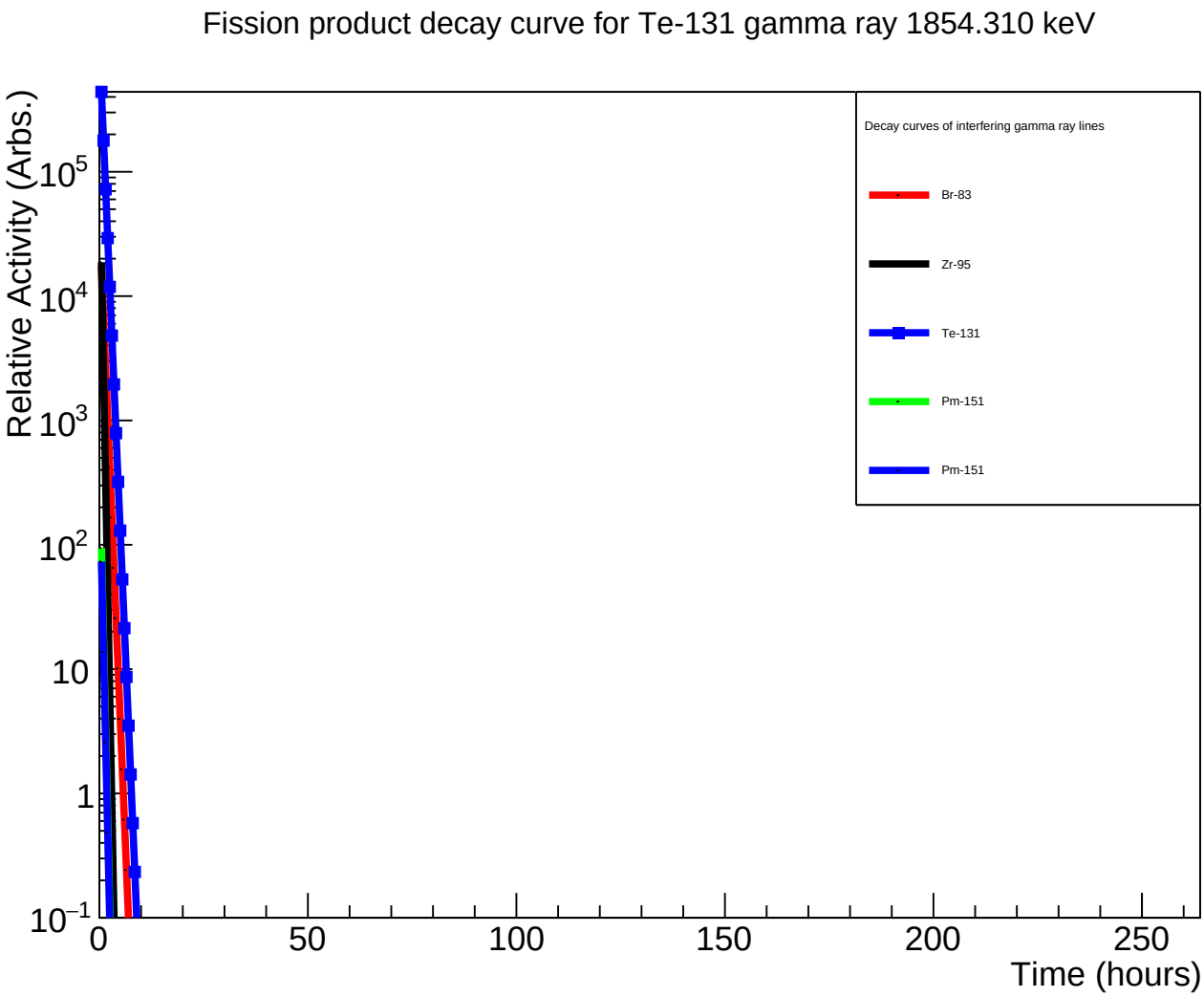


Figure 679: Te-131 decay curve for 1854.310 keV gamma ray.

3.680 Sb-131 E_γ = 2179.20 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 2179.20 keV
Gamma Intensity = 2.26 ± 0.349 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1359: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1360: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2179.490	0.003	0.124	0.062
Pr-146	Nd-146	2179.300	0.002	0.403	0.030

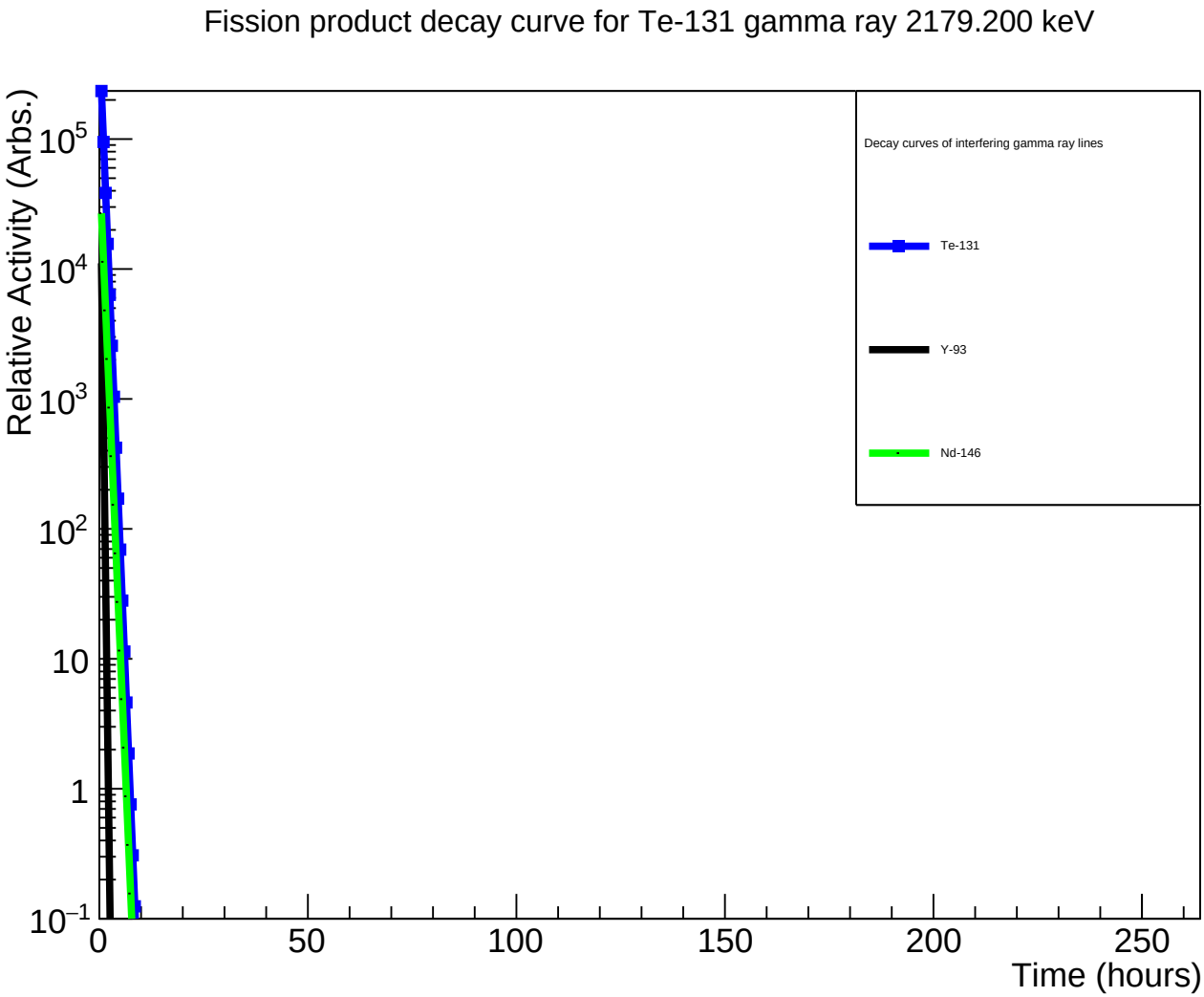


Figure 680: Te-131 decay curve for 2179.200 keV gamma ray.

3.681 Sb-131 E_γ = 2335.03 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 2335.03 keV
Gamma Intensity = 1.88 ± 0.134 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1361: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1362: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pr-147	Nd-147	2336.100	0.002	0.223	0.022

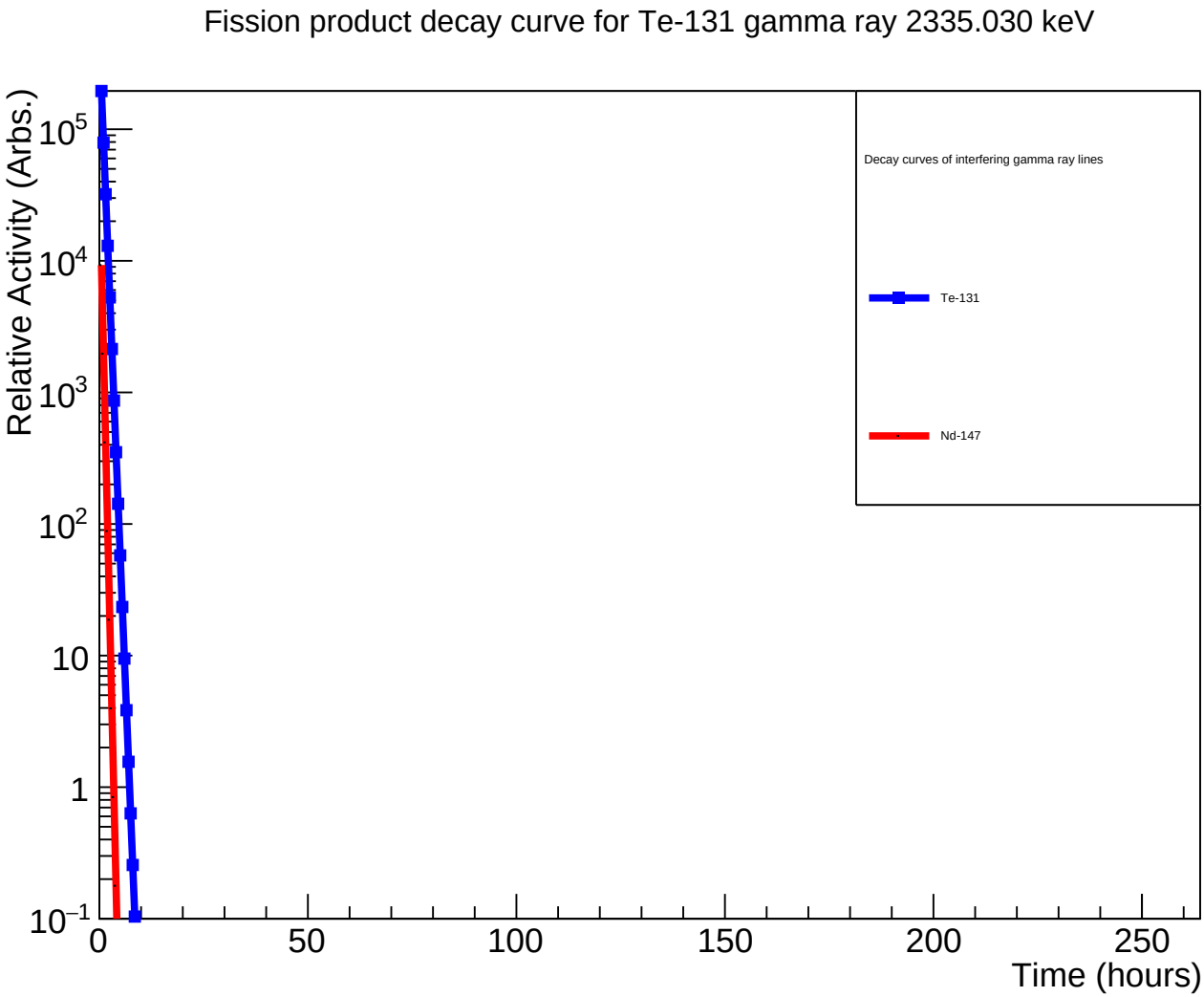


Figure 681: Te-131 decay curve for 2335.030 keV gamma ray.

3.682 Sb-131 E_γ = 2398.60 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 2398.60 keV
Gamma Intensity = 1.13 ± 0.110 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1363: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1364: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
La-142	Ce-142	2397.800	0.133	1.518	0.058

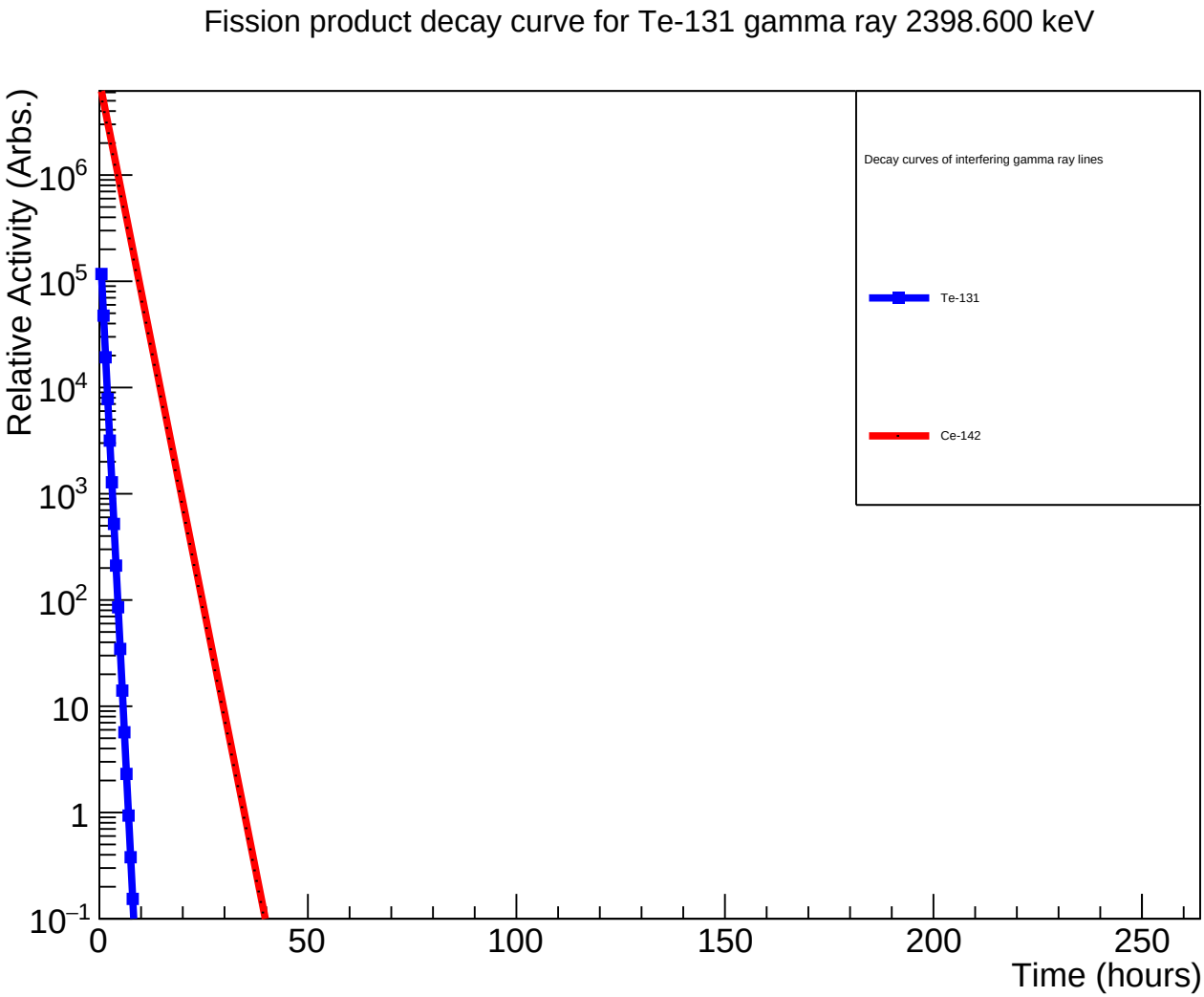


Figure 682: Te-131 decay curve for 2398.600 keV gamma ray.

3.683 Sb-131 E_γ = 2662.30 keV

Chemical element: Antimony
Fission product parent: Sb-131
Gamma originates in daughter: Te-131
Eγ: 2662.30 keV
Gamma Intensity = 1.08 ± 0.109 %
$T_{1/2}$ = 0.384 ± 0.001 hours or 23.03 ± 0.04 minutes
CFY: 2.556 ± 0.072 %

Table 1365: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1366: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	2662.400	0.000	0.312	0.065
Te-133	I-133	2661.100	0.001	0.208	0.031
La-142	Ce-142	2663.100	0.007	1.518	0.058

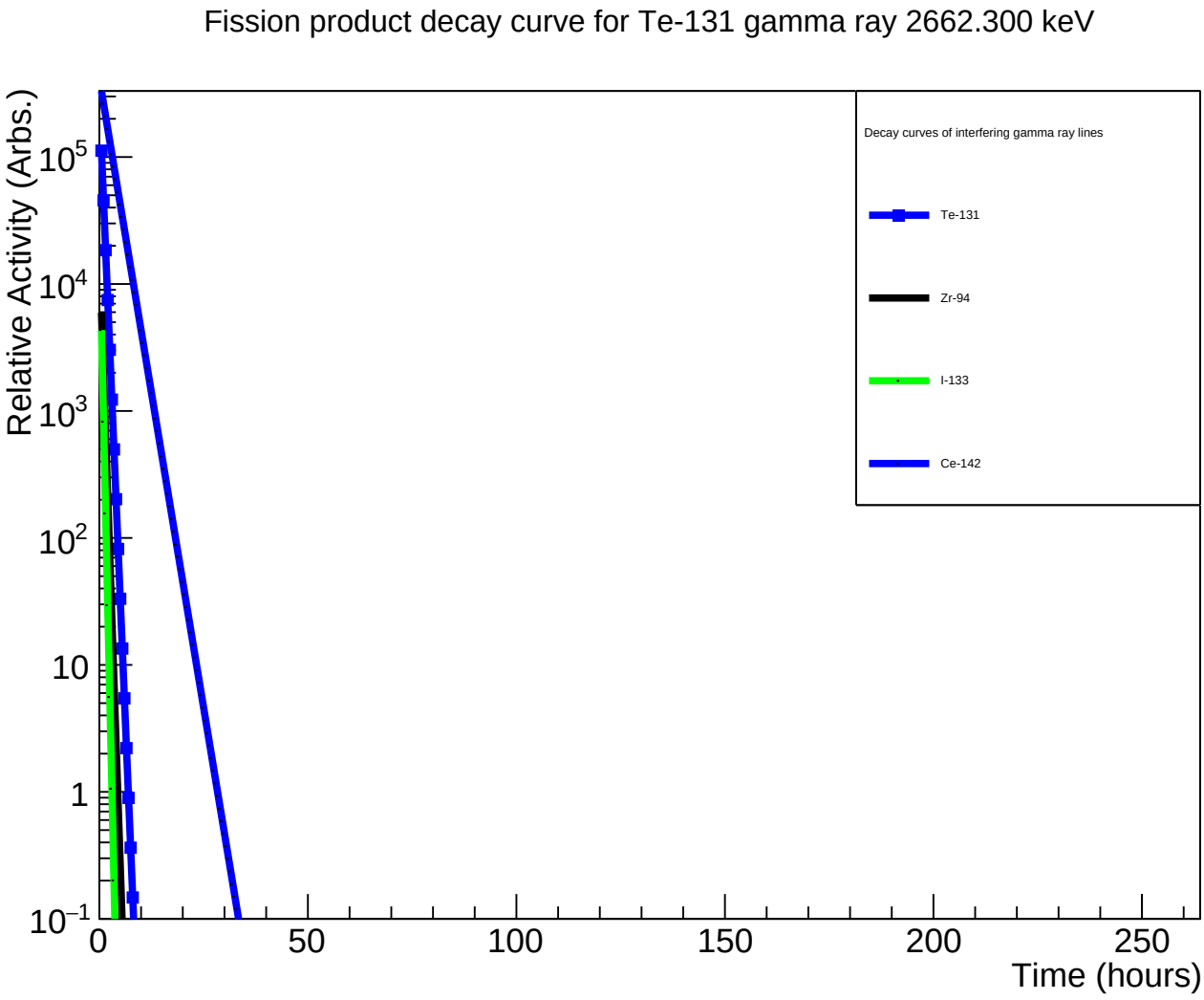


Figure 683: Te-131 decay curve for 2662.300 keV gamma ray.

3.684 Te-129 E_γ = 27.81 keV

Chemical element: Tellurium
Fission product parent: Te-129
Gamma originates in daughter: I-129
Eγ: 27.81 keV
Gamma Intensity = 16.32 ± 1.933 %
$T_{1/2}$ = 1.160 ± 0.003 hours or 69.60 ± 0.20 minutes
CFY: 0.511 ± 0.007 %

Table 1367: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

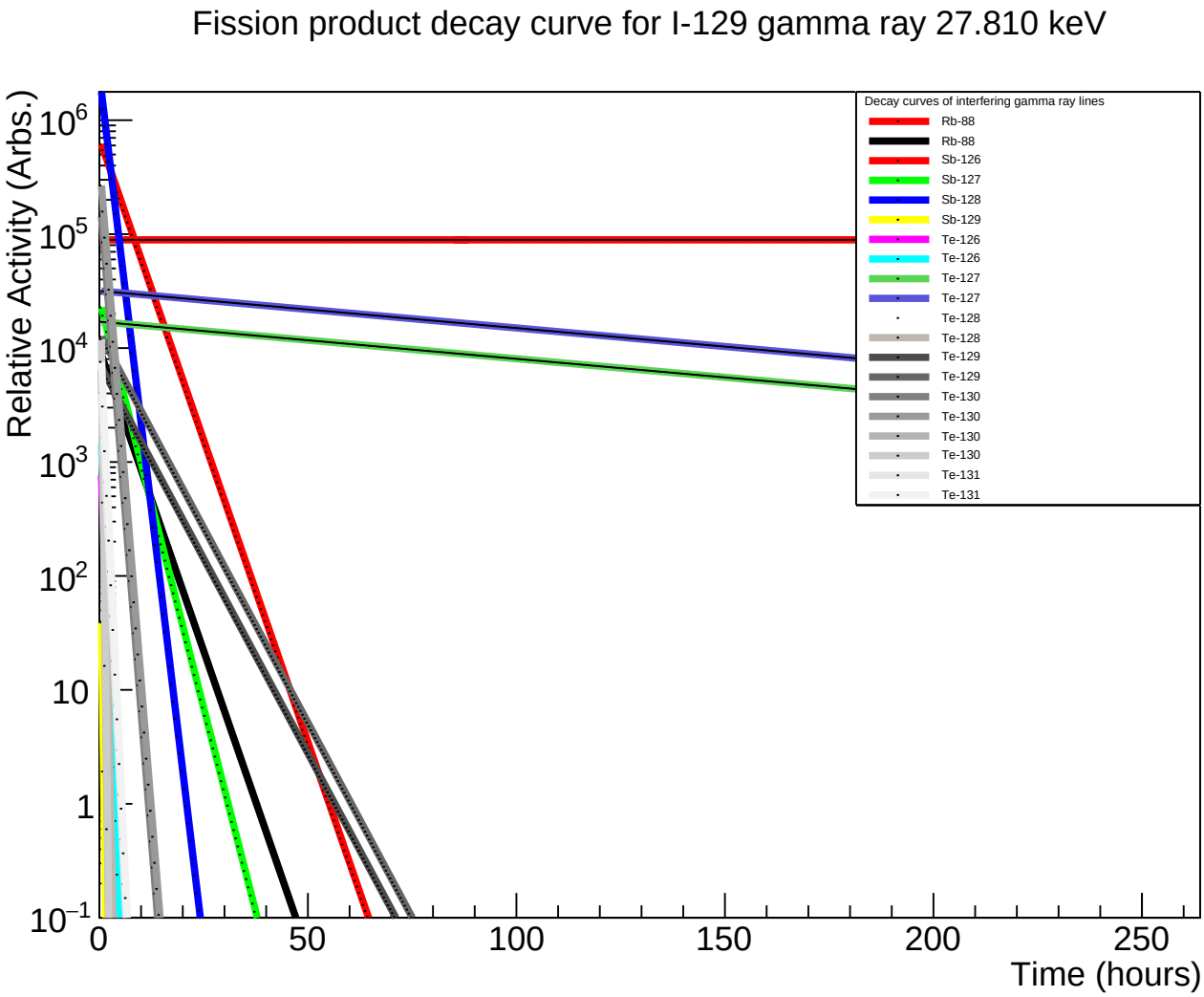


Figure 684: I-129 decay curve for 27.810 keV gamma ray.

Table 1368: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	27.513	0.020	2.840	0.036
Kr-88	Rb-88	28.260	0.000	2.840	0.036
Ag-111	Cd-111	26.610	0.000	178.800	0.000
Ag-111	Cd-111	26.616	0.000	178.800	0.000
Ag-111	Cd-111	26.670	0.000	178.800	0.000
Ag-111	Cd-111	26.671	0.000	178.800	0.000
Ag-112	Cd-112	26.610	0.000	3.130	0.000
Ag-112	Cd-112	26.616	0.000	3.130	0.000
Ag-112	Cd-112	26.670	0.000	3.130	0.000
Ag-112	Cd-112	26.671	0.000	3.130	0.000
Ag-113	Cd-113	26.610	0.000	5.370	0.000
Ag-113	Cd-113	26.616	0.000	5.370	0.000
Ag-113	Cd-113	26.670	0.000	5.370	0.000
Ag-113	Cd-113	26.671	0.000	5.370	0.000
Cd-115	In-115	27.221	0.002	53.460	0.000
Cd-115	In-115	27.260	0.003	53.460	0.000
Cd-115	In-115	27.460	0.000	53.460	0.000
Cd-115	In-115	27.468	0.000	53.460	0.000
Cd-115	In-115	27.830	0.000	53.460	0.000
Cd-115	In-115	27.837	0.001	53.460	0.000
Cd-115	In-115	27.896	0.000	53.460	0.000
Cd-115	In-115	27.896	0.000	53.460	0.000
In-115	Sn-115	27.221	0.016	4.486	0.000
In-115	Sn-115	27.260	0.031	4.486	0.000
In-115	Sn-115	27.460	0.000	4.486	0.000
In-115	Sn-115	27.468	0.000	4.486	0.000
In-115	Sn-115	27.830	0.003	4.486	0.000
In-115	Sn-115	27.837	0.006	4.486	0.000
In-115	Sn-115	27.896	0.000	4.486	0.000
In-115	Sn-115	27.896	0.000	4.486	0.000
In-115	Sn-115	28.431	0.000	4.486	0.000
In-115	Sn-115	28.474	0.000	4.486	0.000
In-115	Sn-115	28.680	0.000	4.486	0.000
In-115	Sn-115	28.689	0.000	4.486	0.000
In-115	Sn-115	29.080	0.000	4.486	0.000
In-115	Sn-115	29.088	0.000	4.486	0.000
In-115	Sn-115	29.150	0.000	4.486	0.000
In-115	Sn-115	29.152	0.000	4.486	0.000
Sn-123	Sb-123	26.359	0.057	0.668	0.000
Sn-125	Sb-125	26.348	0.000	231.360	0.000

3.685 Te-129 E_γ = 459.60 keV

Chemical element: Tellurium
Fission product parent: Te-129
Gamma originates in daughter: I-129
Eγ: 459.60 keV
Gamma Intensity = 7.70 ± 0.551 %
$T_{1/2}$ = 1.160 ± 0.003 hours or 69.60 ± 0.20 minutes
CFY: 0.511 ± 0.007 %

Table 1369: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1370: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	459.600	0.001	0.305	0.019
Sb-128	Te-128	459.500	0.015	9.010	0.000
I-134	Xe-134	458.920	0.013	0.875	0.078
Nd-151	Pm-151	459.800	0.000	0.207	0.004
Nd-151	Pm-151	460.590	0.010	0.207	0.004
Sm-155	Eu-155	460.800	0.001	0.372	0.000

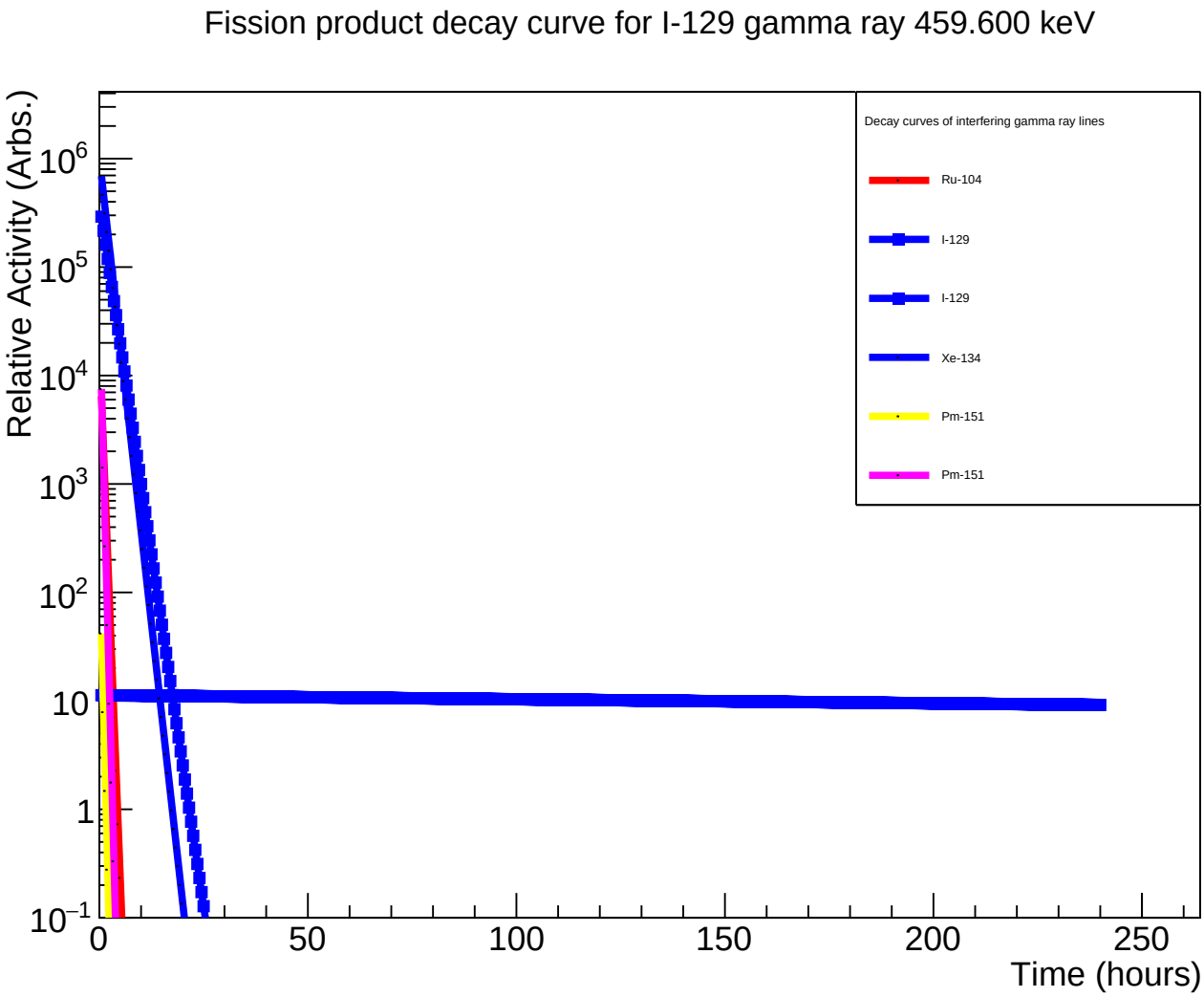


Figure 685: I-129 decay curve for 459.600 keV gamma ray.

3.686 Te-129 E_γ = 487.39 keV

Chemical element: Tellurium
Fission product parent: Te-129
Gamma originates in daughter: I-129
Eγ: 487.39 keV
Gamma Intensity = 1.42 ± 0.103 %
$T_{1/2}$ = 1.160 ± 0.003 hours or 69.60 ± 0.20 minutes
CFY: 0.511 ± 0.007 %

Table 1371: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1372: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	486.500	0.001	9.630	0.058
Sr-93	Y-93	486.700	0.001	0.124	0.062
Sn-127	Sb-127	487.500	0.005	2.100	0.001
I-132	Xe-132	488.000	0.008	2.295	0.043
I-134	Xe-134	488.880	0.015	0.875	0.078
Ba-141	La-141	486.700	0.001	0.304	0.058
Ba-142	La-142	488.300	0.001	0.177	0.058
La-140	Ce-140	487.021	0.455	40.285	0.062
Nd-151	Pm-151	486.980	0.001	0.207	0.004
Nd-151	Pm-151	488.180	0.001	0.207	0.004
Pm-151	Sm-151	487.100	0.000	28.400	0.004
Sm-153	Eu-153	487.750	0.000	46.500	0.002

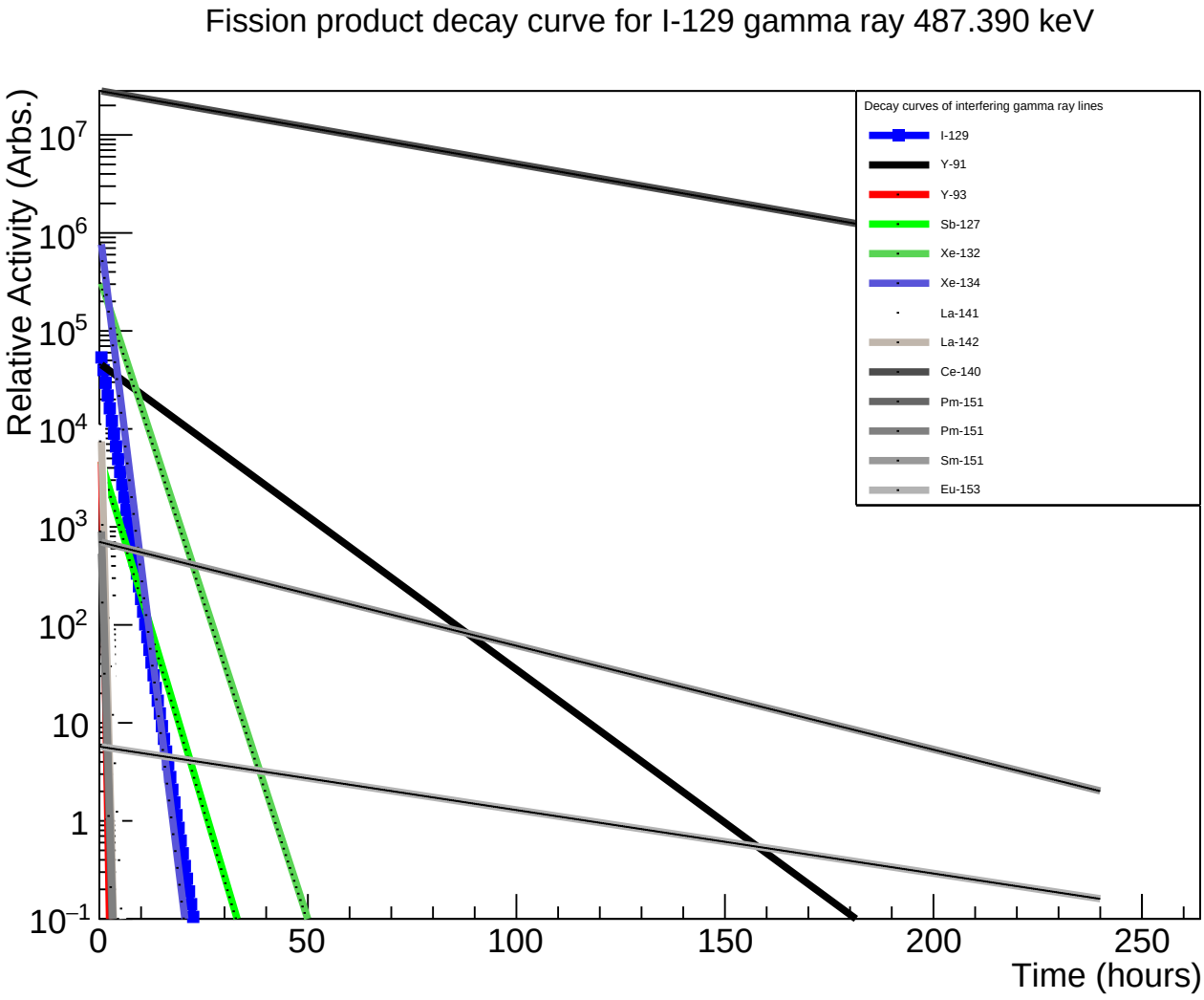


Figure 686: I-129 decay curve for 487.390 keV gamma ray.

3.687 Te-129 E_γ = 695.88 keV

Chemical element: Tellurium
Fission product parent: Te-129
Gamma originates in daughter: I-129
Eγ: 695.88 keV
Gamma Intensity = 3.07 ± 1.698 %
$T_{1/2}$ = 806.400 ± 2.400 hours or 48384.00 ± 144.00 minutes
CFY: 0.090 ± 0.001 %

Table 1373: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

Table 1374: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	694.900	0.167	1.512	0.000
Y-94	Zr-94	694.700	0.002	0.312	0.065
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Nb-98	Mo-98	697.380	0.003	0.855	0.000
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Rh-107	Pd-107	696.700	0.000	0.362	0.001
Ag-112	Cd-112	694.800	0.030	3.130	0.000
Sb-126	Te-126	694.800	0.822	0.319	0.001
La-141	Ce-141	694.900	0.000	3.920	0.058
Pr-144	Nd-144	696.510	0.013	0.288	0.055
Pr-144	Nd-144	696.500	0.001	0.120	0.000
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004

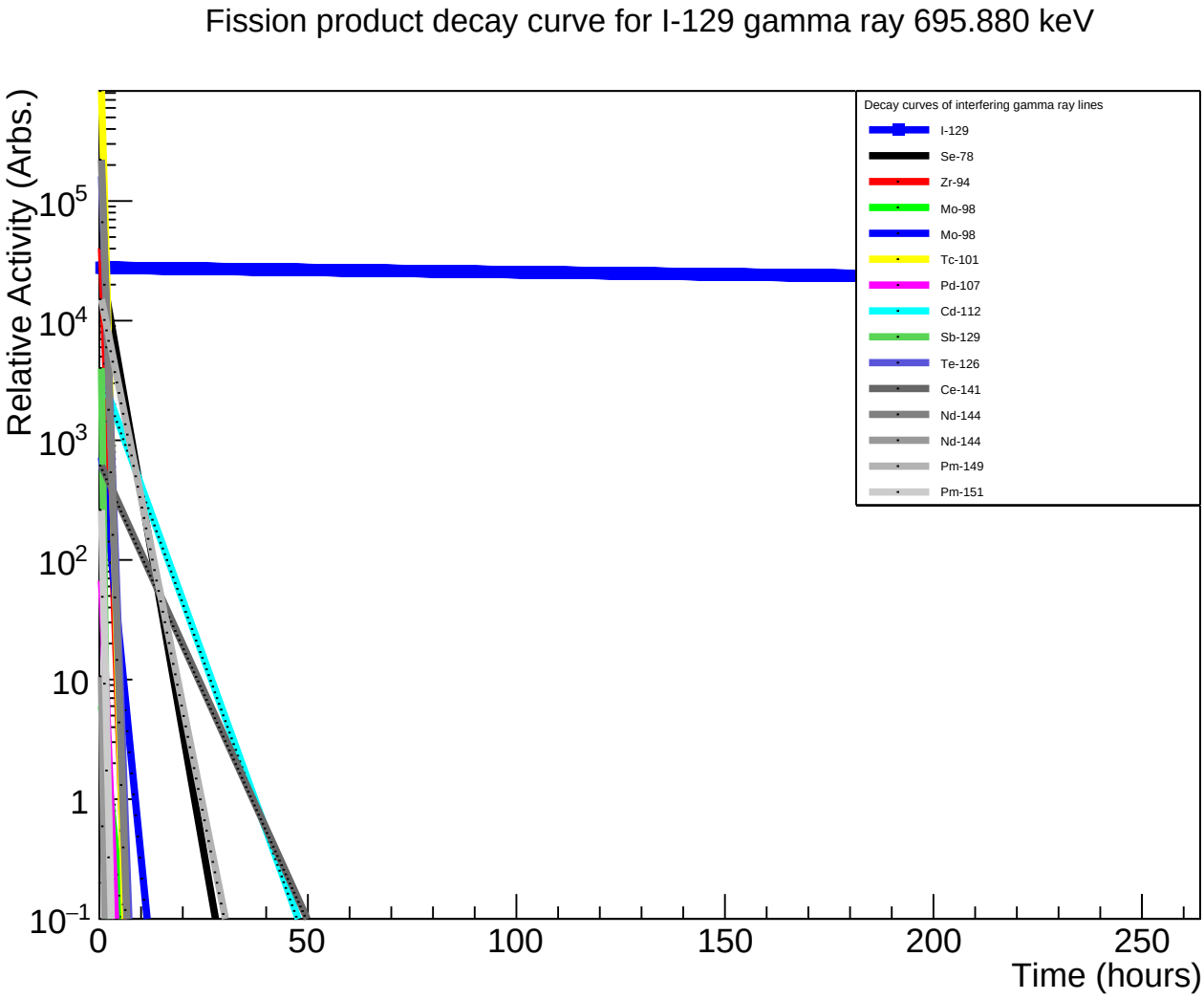


Figure 687: I-129 decay curve for 695.880 keV gamma ray.

3.688 Te-131 E_γ = 149.72 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 149.72 keV
Gamma Intensity = 68.80 ± 0.400 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1375: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1376: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	151.180	0.000	94166.664	0.003
Kr-85	Rb-85	151.195	0.750	4.480	0.013
Tc-104	Ru-104	150.800	0.004	0.305	0.019
Ru-105	Rh-105	149.100	0.018	4.440	0.010
Sn-129	Sb-129	148.800	0.011	0.115	0.002
I-133	Xe-133	150.390	0.000	20.800	0.067
Pr-147	Nd-147	148.700	0.001	0.223	0.022
Nd-147	Pm-147	149.300	0.000	263.520	0.022
Nd-151	Pm-151	149.610	0.003	0.207	0.004
Pm-151	Sm-151	148.500	0.001	28.400	0.004
Pm-151	Sm-151	150.100	0.000	28.400	0.004

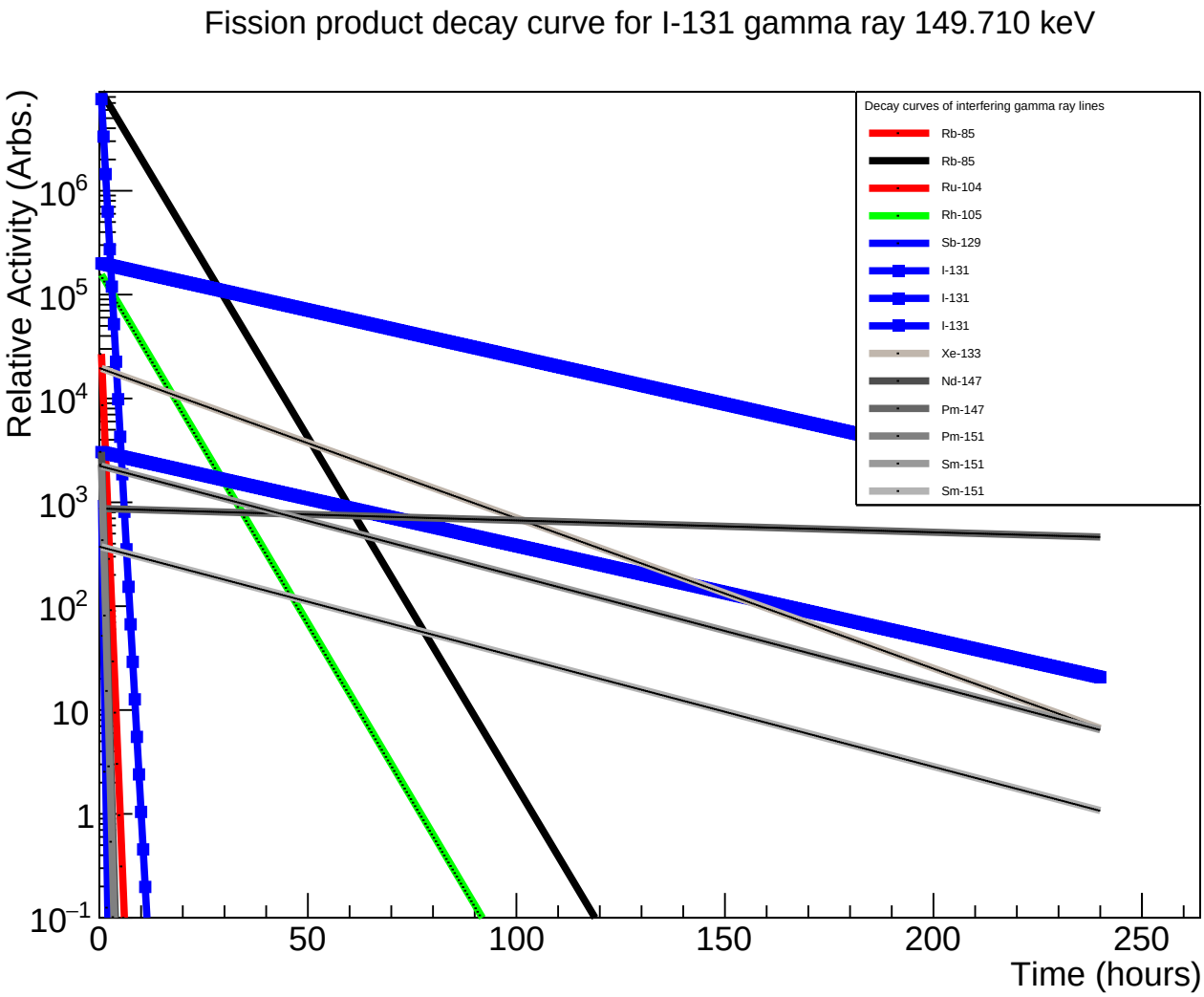


Figure 688: I-131 decay curve for 149.716 keV gamma ray.

3.689 Te-131 E_γ = 452.32 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 452.32 keV
Gamma Intensity = 18.20 ± 0.116 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1377: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1378: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	451.630	0.009	0.372	0.003
Kr-85	Rb-85	451.000	0.000	4.480	0.013
Mo-101	Tc-101	452.500	0.001	0.243	0.052
Rh-107	Pd-107	451.880	0.005	0.362	0.001
Ag-112	Cd-112	450.900	0.000	3.130	0.000
Sn-127	Sb-127	452.100	0.004	2.100	0.001
Sn-129	Sb-129	451.300	0.006	0.115	0.002
Sb-127	Te-127	451.000	0.002	92.400	0.002
Sb-129	Te-129	453.500	0.008	4.400	0.005
I-135	Xe-135	451.630	0.003	6.570	0.063
La-142	Ce-142	453.700	0.001	1.518	0.058
Pm-151	Sm-151	451.400	0.003	28.400	0.004
Pm-151	Sm-151	452.200	0.000	28.400	0.004

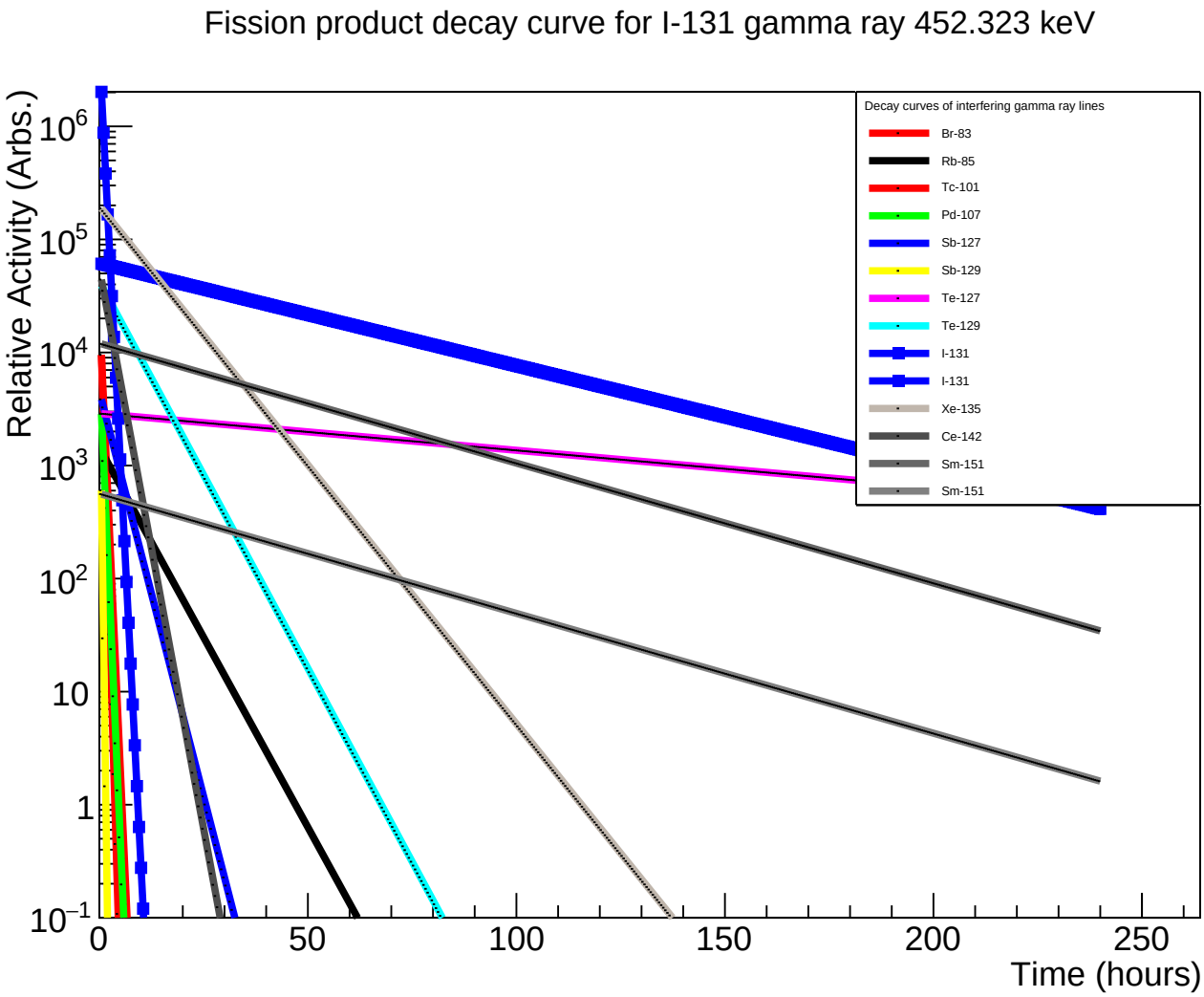


Figure 689: I-131 decay curve for 452.323 keV gamma ray.

3.690 Te-131 E_γ = 492.66 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 492.66 keV
Gamma Intensity = 4.83 ± 0.035 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1379: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1380: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	491.270	0.003	2.710	0.059
Y-92	Zr-92	492.600	0.005	3.540	0.060
Nb-98	Mo-98	493.180	0.001	0.855	0.000
Mo-101	Tc-101	491.500	0.001	0.243	0.052
Pd-111	Ag-111	494.100	0.000	0.390	0.000
Cd-115	In-115	492.351	0.080	53.460	0.000
Sn-127	Sb-127	493.200	0.031	2.100	0.001
Sb-125	Te-125	491.290	0.000	24194.445	0.000
Pr-145	Nd-145	492.624	0.000	5.984	0.039
Pr-147	Nd-147	491.400	0.005	0.223	0.022
Nd-149	Pm-149	493.850	0.001	1.728	0.011
Nd-151	Pm-151	492.240	0.001	0.207	0.004

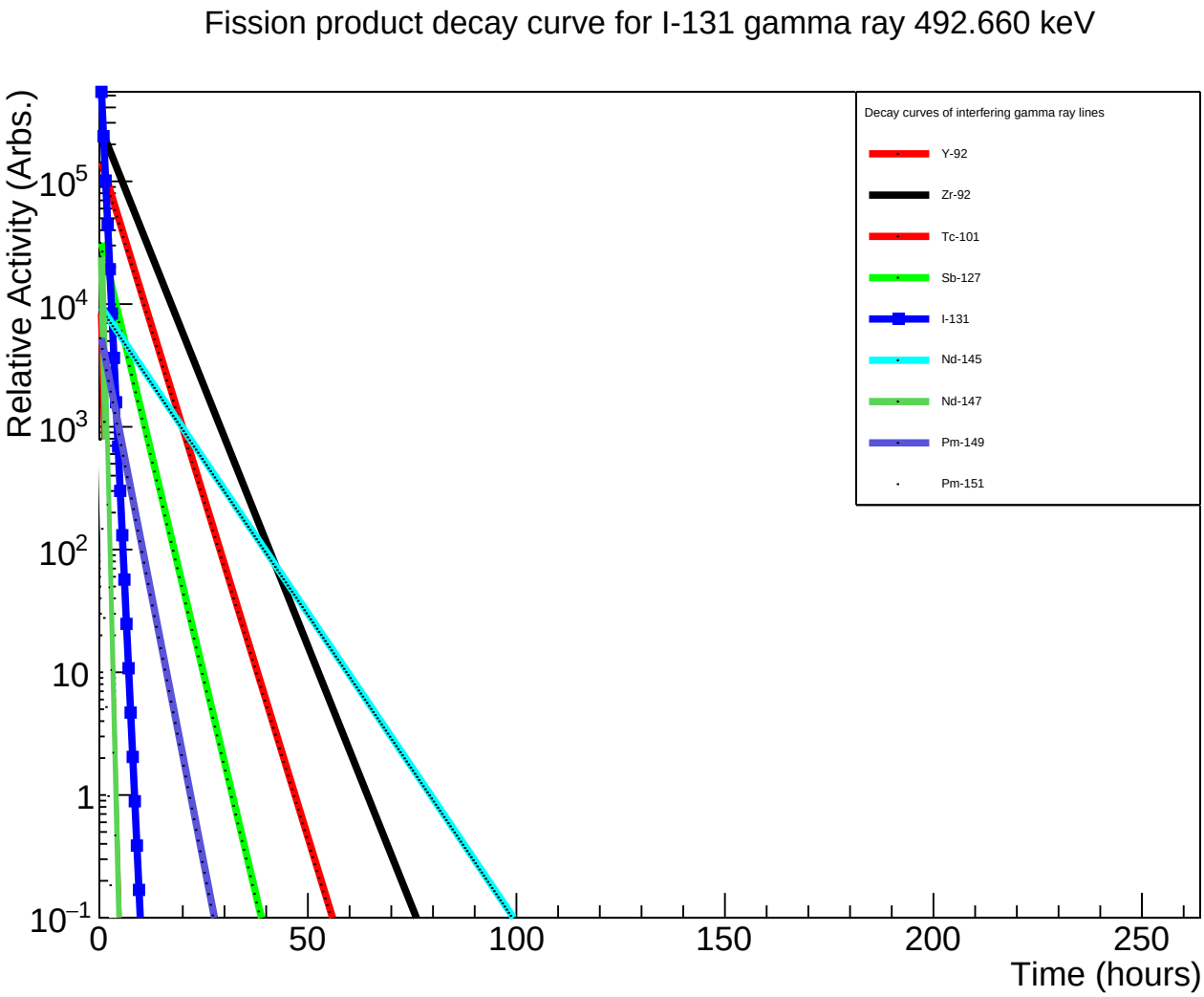


Figure 690: I-131 decay curve for 492.660 keV gamma ray.

3.691 Te-131 E_γ = 602.04 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 602.04 keV
Gamma Intensity = 4.19 ± 0.032 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1381: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1382: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Zr-97	Nb-97	600.600	0.001	16.749	0.060
Zr-97	Nb-97	602.370	0.014	16.749	0.060
Nb-98	Mo-98	603.280	0.005	0.855	0.000
Mo-101	Tc-101	602.980	0.001	0.243	0.052
Pd-109	Ag-109	602.500	0.000	13.701	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Sb-125	Te-125	600.597	0.176	24194.445	0.000
Sb-127	Te-127	603.500	0.045	92.400	0.002
Sb-128	Te-128	603.000	0.017	9.010	0.000
Cs-139	Ba-139	601.480	0.001	0.155	0.063
Pr-146	Nd-146	601.740	0.030	0.403	0.030
Nd-151	Pm-151	600.800	0.000	0.207	0.004
Nd-151	Pm-151	602.400	0.000	0.207	0.004
Pm-151	Sm-151	603.000	0.000	28.400	0.004

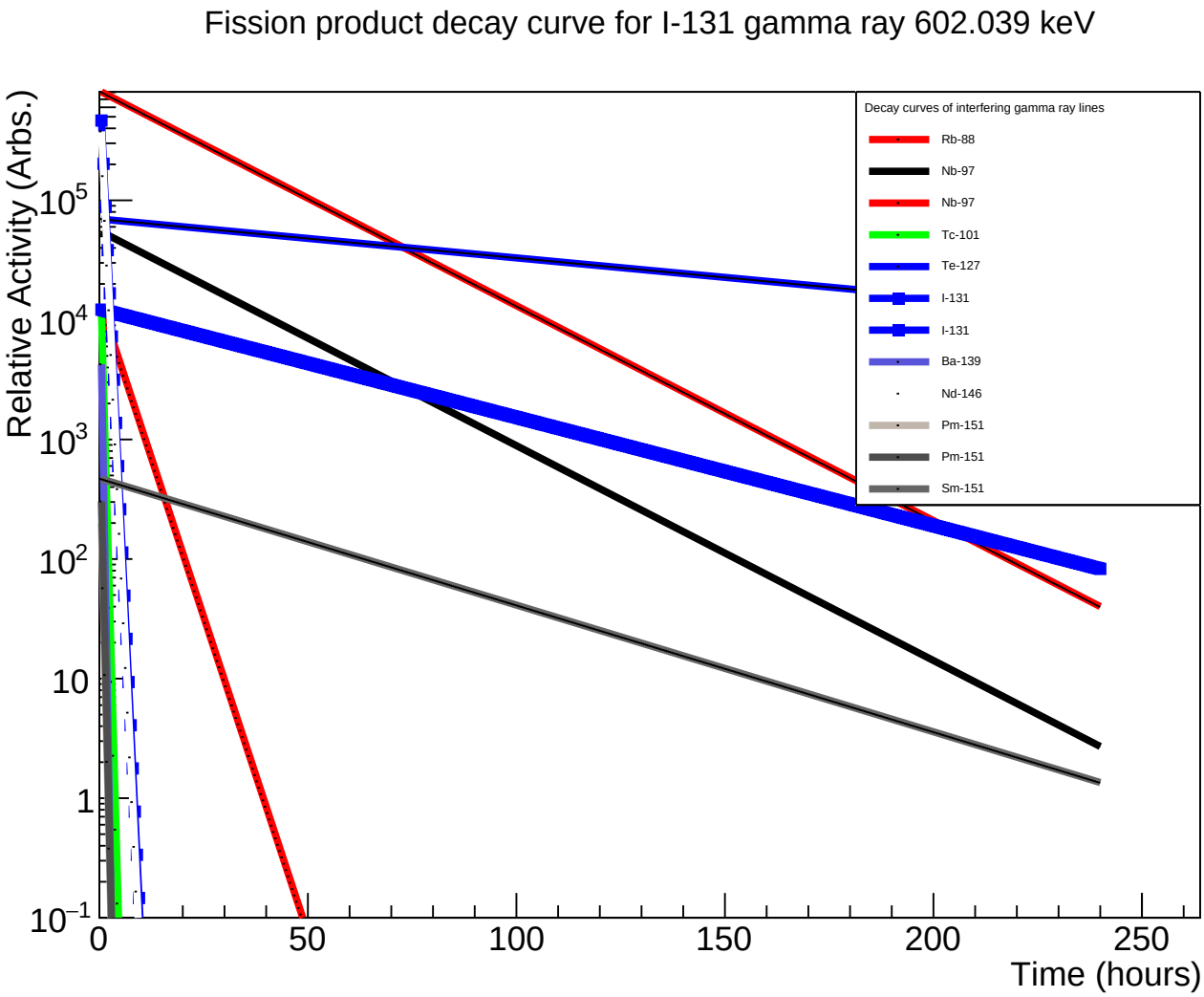


Figure 691: I-131 decay curve for 602.039 keV gamma ray.

3.692 Te-131 E_γ = 654.26 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 654.26 keV
Gamma Intensity = 1.53 ± 0.016 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1383: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1384: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	652.900	0.080	9.630	0.058
Sr-91	Y-91	653.000	0.004	9.630	0.058
Sb-125	Te-125	652.800	0.000	24194.445	0.000
Sb-128	Te-128	654.200	0.170	9.010	0.000
Sb-129	Te-129	654.300	0.030	4.400	0.005
Sb-130	Te-130	654.700	0.020	0.658	0.008
Xe-135	Cs-135	654.432	0.000	9.140	0.065
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Ba-142	La-142	654.600	0.001	0.177	0.058
Nd-149	Pm-149	653.900	0.000	1.728	0.011
Nd-149	Pm-149	654.831	0.080	1.728	0.011
Nd-151	Pm-151	655.000	0.000	0.207	0.004
Pm-151	Sm-151	654.250	0.002	28.400	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004

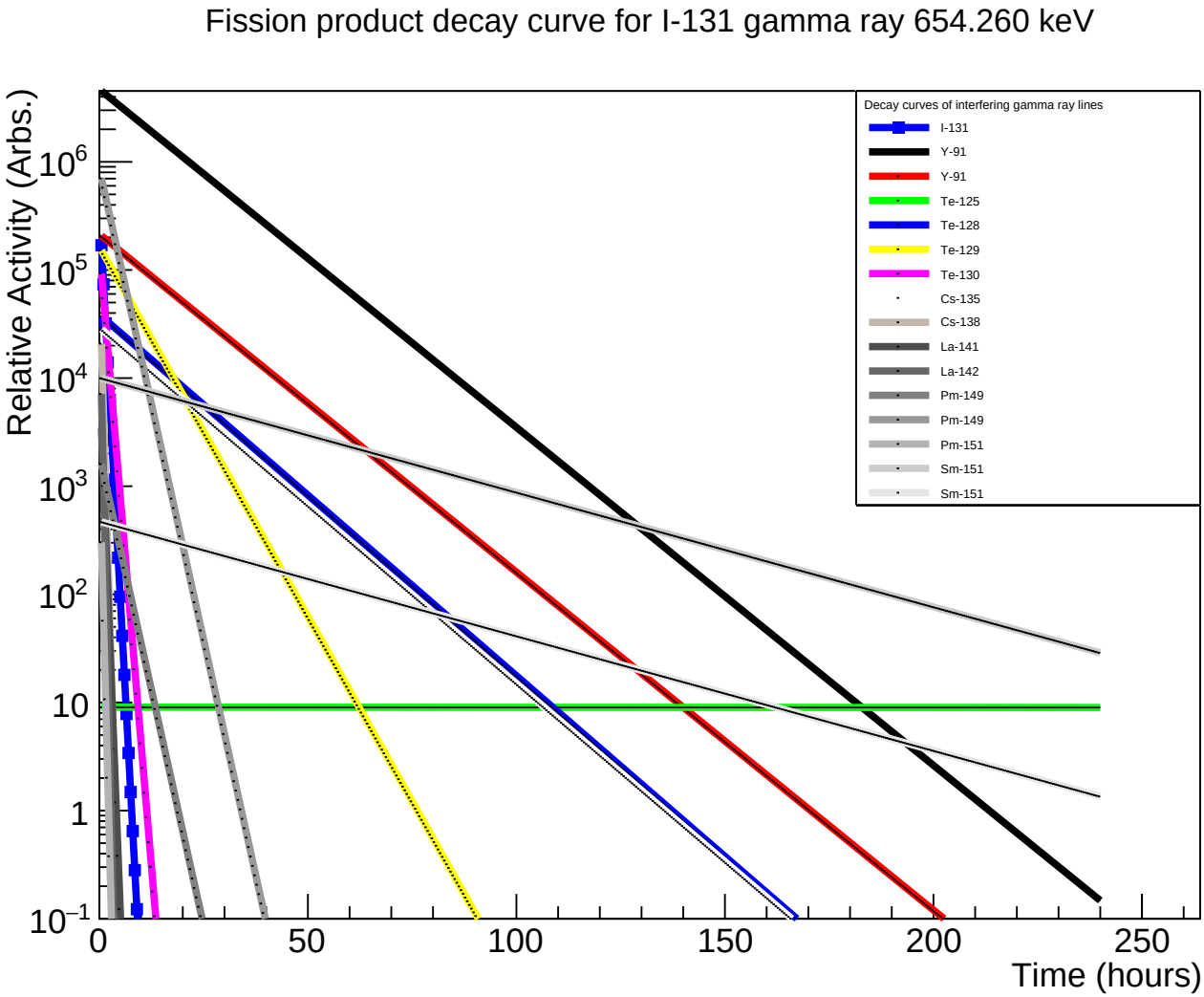


Figure 692: I-131 decay curve for 654.260 keV gamma ray.

3.693 Te-131 E_γ = 948.54 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 948.54 keV
Gamma Intensity = 2.26 ± 0.030 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1385: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1386: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	947.500	0.004	0.529	0.010
Rb-89	Sr-89	947.730	0.100	0.252	0.047
Y-93	Zr-93	947.100	0.021	10.180	0.063
Pd-111	Ag-111	950.000	0.000	0.390	0.000
Ag-112	Cd-112	947.300	0.001	3.130	0.000
Sb-130	Te-130	949.800	0.010	0.105	0.010
I-132	Xe-132	947.200	0.000	2.295	0.043
I-134	Xe-134	947.860	0.040	0.875	0.078
Ba-142	La-142	949.100	0.106	0.177	0.058
La-143	Ce-143	948.600	0.001	0.237	0.059
Pr-147	Nd-147	949.300	0.002	0.223	0.022
Nd-151	Pm-151	949.050	0.001	0.207	0.004
Pm-151	Sm-151	948.720	0.004	28.400	0.004
Eu-156	Gd-156	947.460	0.003	364.560	0.000

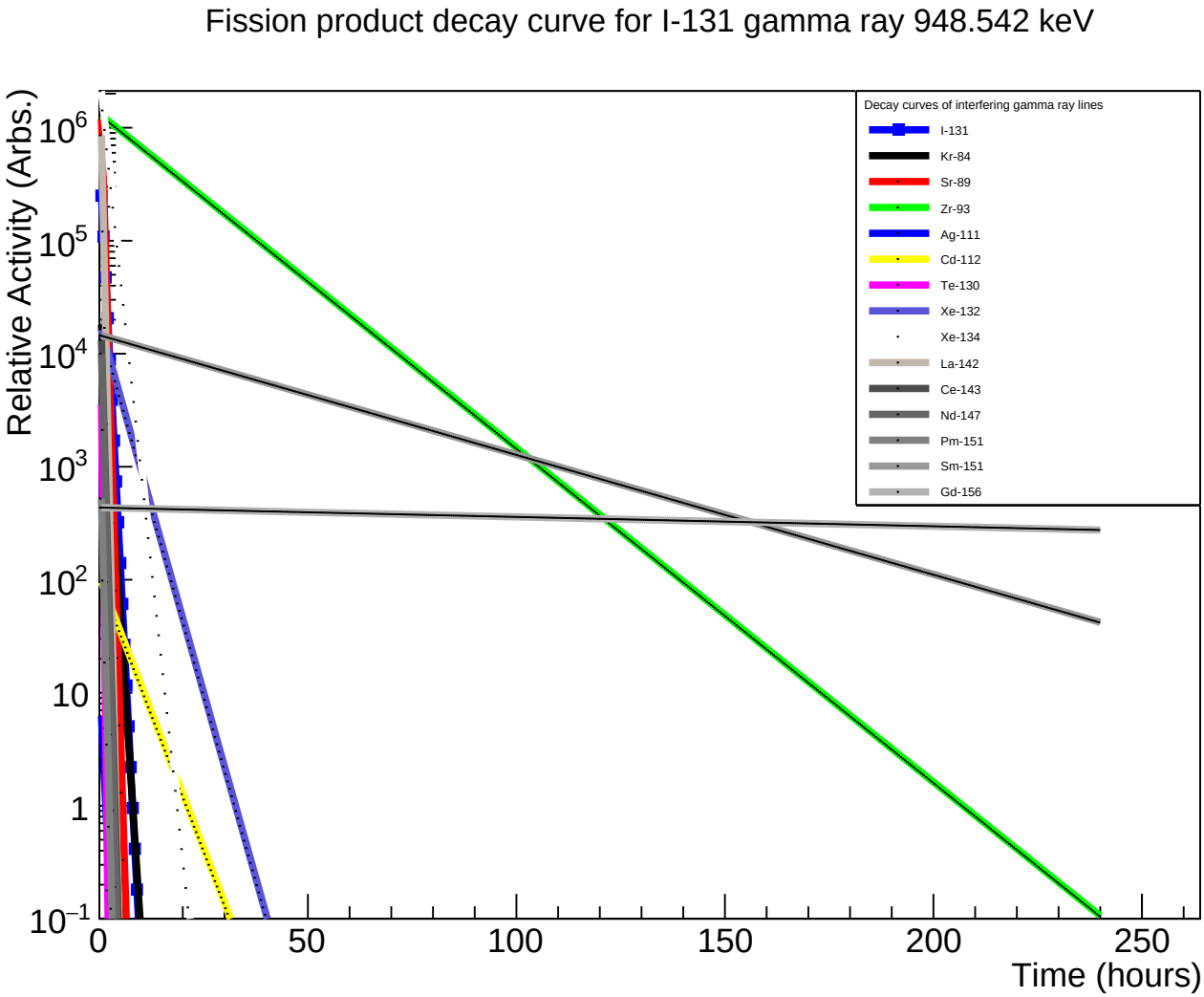


Figure 693: I-131 decay curve for 948.542 keV gamma ray.

3.694 Te-131 E_γ = 997.25 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 997.25 keV
Gamma Intensity = 3.34 ± 0.024 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1387: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1388: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	995.930	0.013	0.372	0.003
Nb-98	Mo-98	996.300	0.021	0.855	0.000
Sn-127	Sb-127	997.900	0.019	2.100	0.001
I-132	Xe-132	995.800	0.000	2.295	0.043
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Pr-147	Nd-147	996.000	0.015	0.223	0.022
Sm-155	Eu-155	997.900	0.000	0.372	0.000

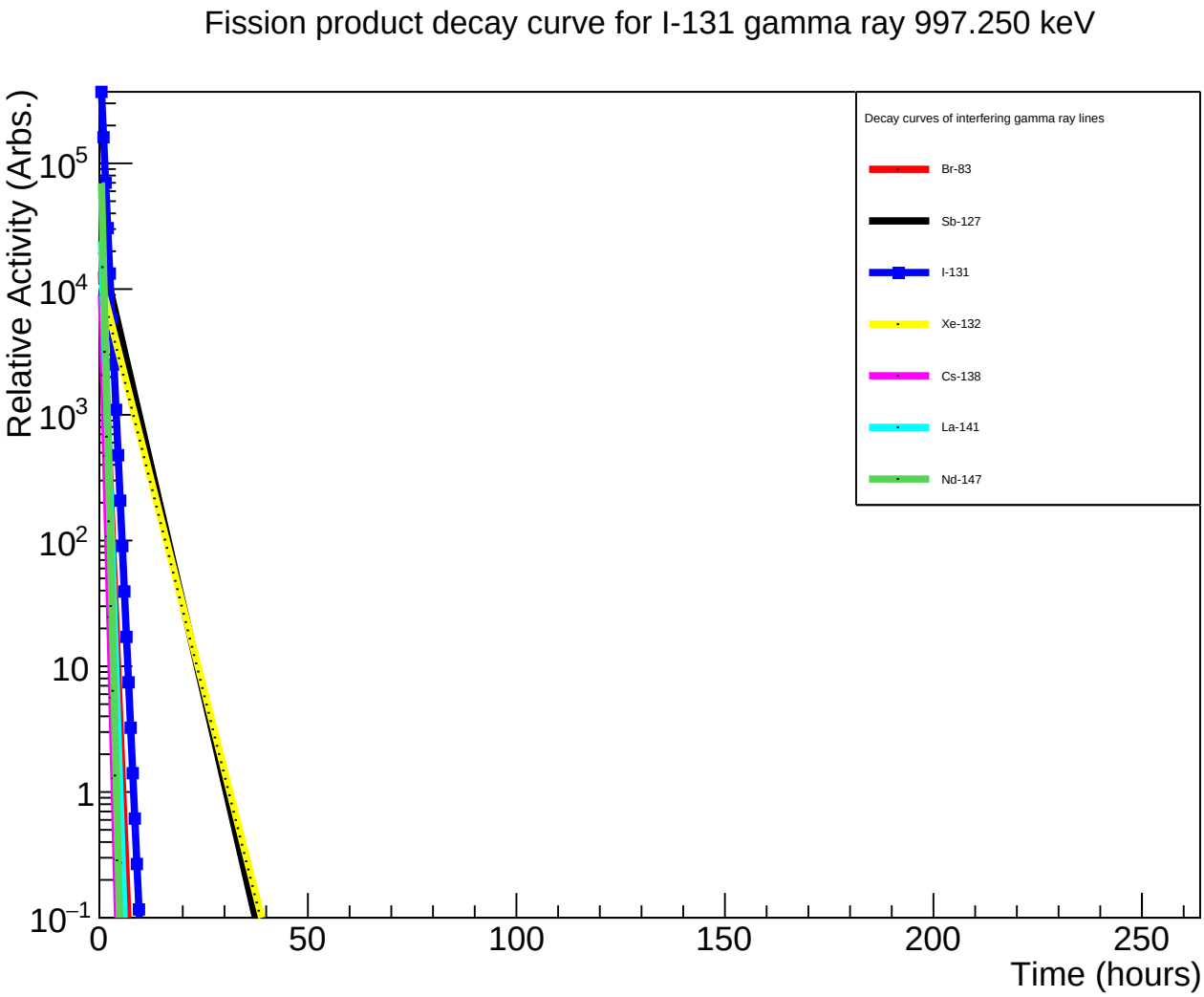


Figure 694: I-131 decay curve for 997.250 keV gamma ray.

3.695 Te-131 E_γ = 1146.96 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1146.96 keV
Gamma Intensity = 4.95 ± 0.040 %
$T_{1/2}$ = 0.417 ± 0.002 hours or 25.00 ± 0.10 minutes
CFY: 2.549 ± 0.051 %

Table 1389: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1390: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1147.970	0.026	16.749	0.060
Sb-129	Te-129	1147.200	0.000	4.400	0.005
Sb-130	Te-130	1146.200	0.006	0.658	0.008
I-132	Xe-132	1147.800	0.003	2.295	0.043
Cs-138	Ba-138	1147.220	0.012	0.557	0.067
Ba-141	La-141	1147.000	0.000	0.304	0.058
La-143	Ce-143	1146.100	0.009	0.237	0.059
Nd-151	Pm-151	1145.500	0.001	0.207	0.004
Nd-151	Pm-151	1145.900	0.001	0.207	0.004
Nd-151	Pm-151	1147.800	0.000	0.207	0.004

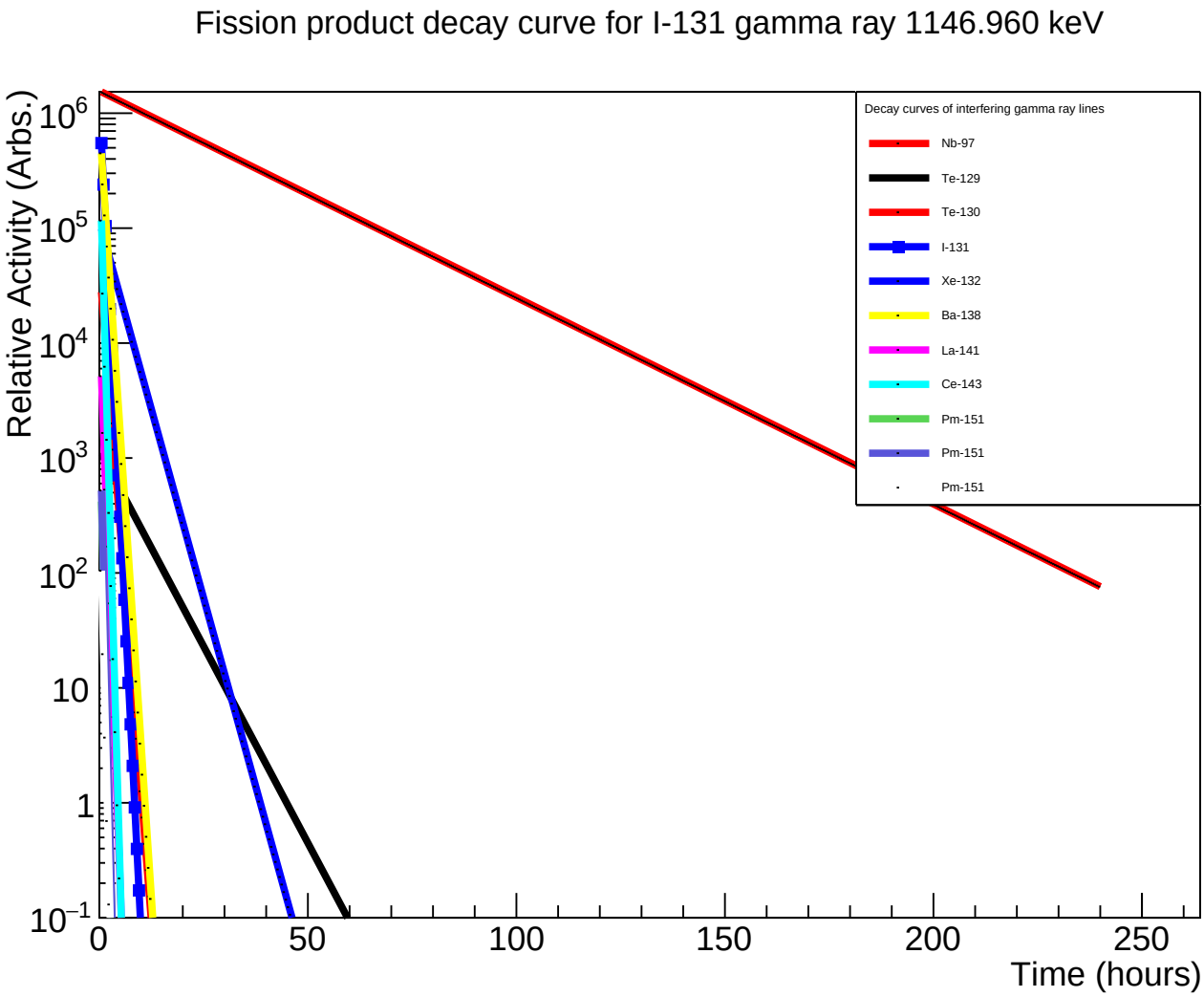


Figure 695: I-131 decay curve for 1146.960 keV gamma ray.

3.696 Te-131 E_γ = 81.14 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 81.14 keV
Gamma Intensity = 3.92 ± 0.101 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1391: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1392: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	80.920	0.037	0.243	0.052
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Tc-105	Ru-105	82.546	0.042	0.127	0.010
Ru-105	Rh-105	81.200	0.001	4.440	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
Sb-125	Te-125	81.020	0.000	24194.445	0.000
Xe-133	Cs-133	80.997	0.380	125.832	0.067
Ba-142	La-142	79.800	0.000	0.177	0.058
Ce-144	Pr-144	80.120	0.014	6833.333	0.055
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	80.000	0.000	0.372	0.000

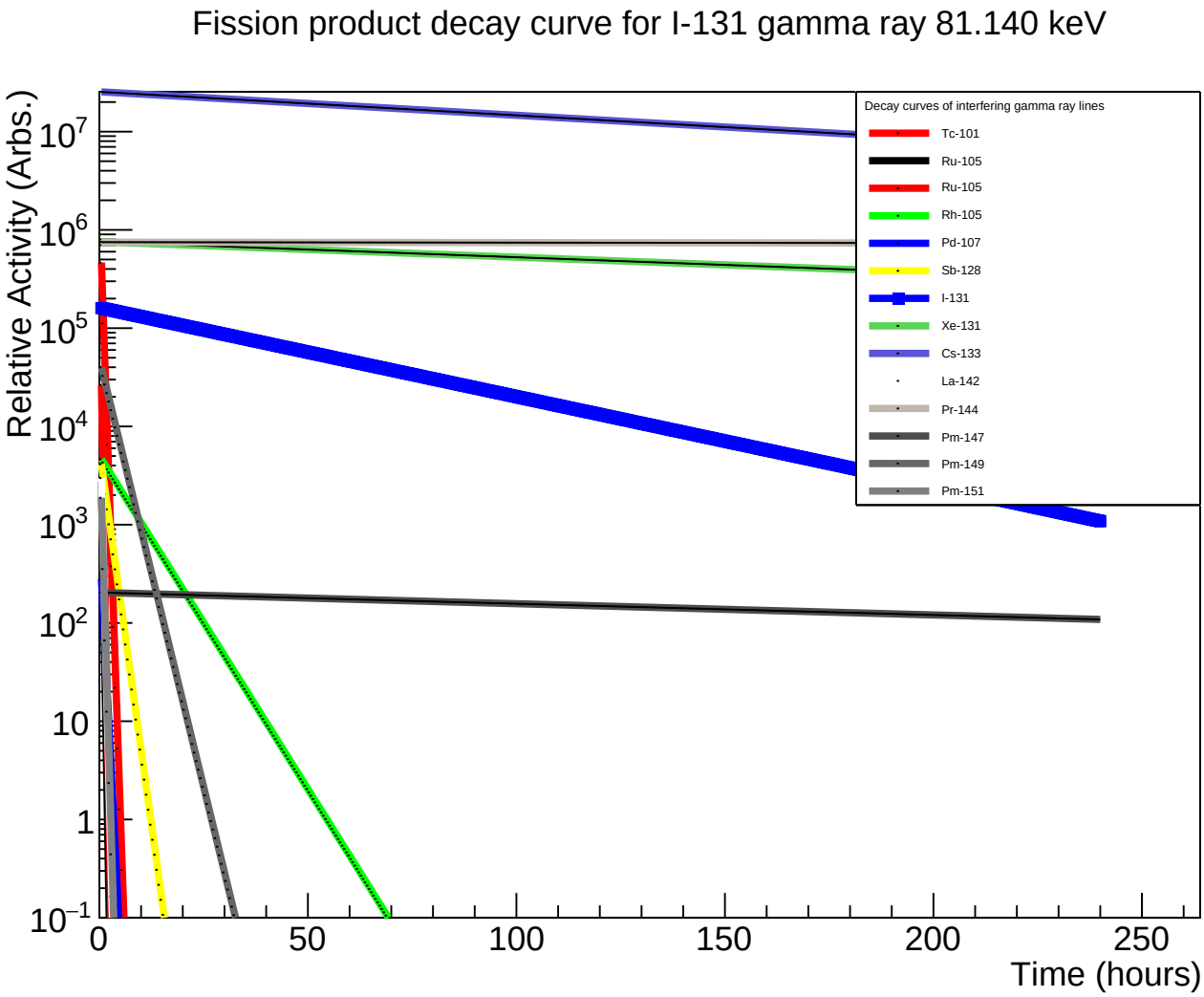


Figure 696: I-131 decay curve for 81.140 keV gamma ray.

3.697 Te-131 E_γ = 102.06 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 102.06 keV
Gamma Intensity = 7.66 ± 0.199 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1393: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1394: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	102.400	0.000	0.362	0.001
Pd-111	Ag-111	101.400	0.000	0.390	0.000
Sb-128	Te-128	102.800	0.004	9.010	0.000
Ce-146	Pr-146	100.880	0.025	0.225	0.030
Nd-151	Pm-151	102.450	0.005	0.207	0.004
Pm-151	Sm-151	100.600	0.000	28.400	0.004
Pm-151	Sm-151	101.930	0.013	28.400	0.004
Pm-151	Sm-151	102.700	0.000	28.400	0.004
Sm-153	Eu-153	103.180	0.292	46.500	0.002
Sm-156	Eu-156	103.000	0.018	9.400	0.000

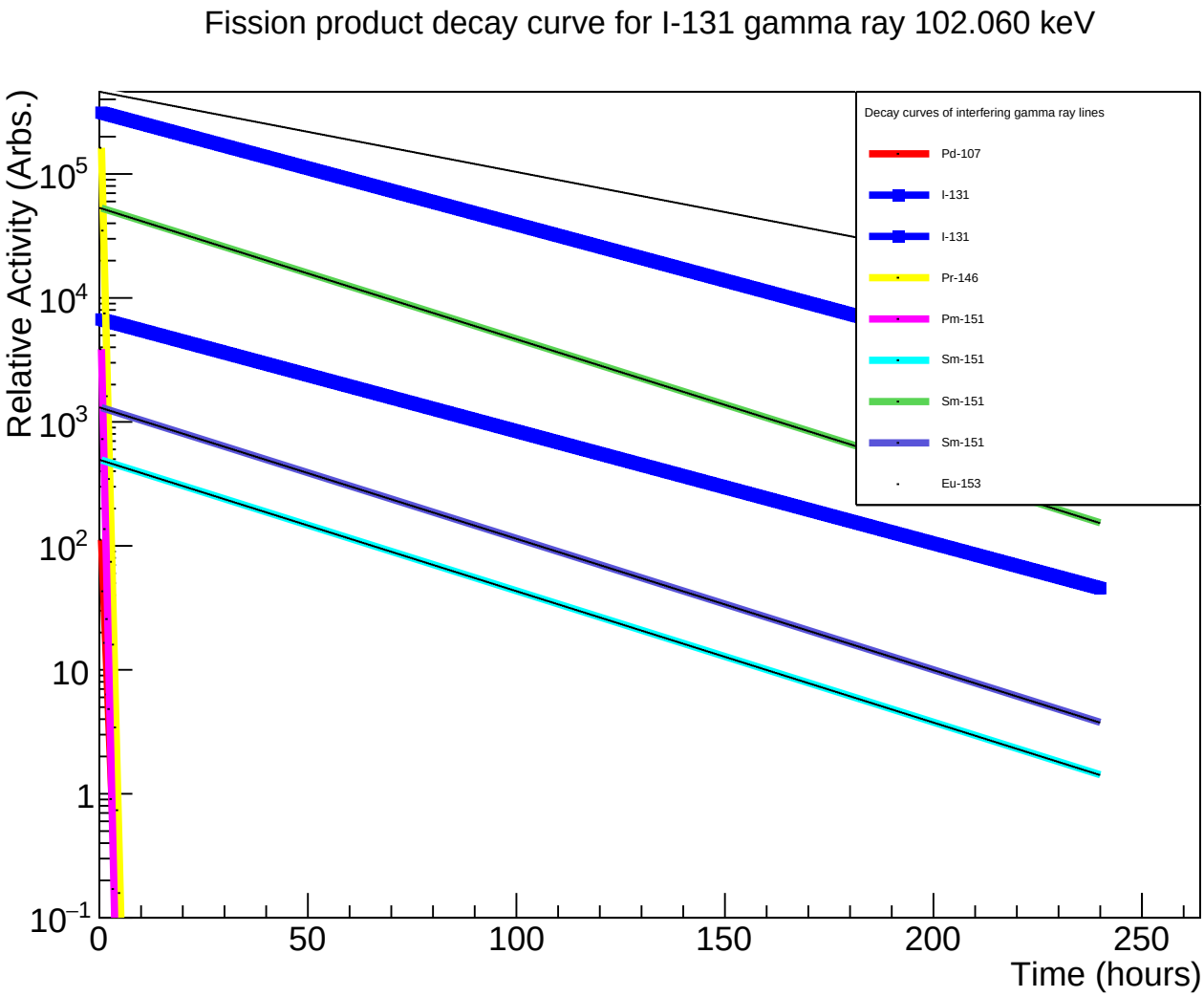


Figure 697: I-131 decay curve for 102.060 keV gamma ray.

3.698 Te-131 E_γ = 149.71 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 149.71 keV
Gamma Intensity = 4.89 ± 0.640 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1395: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1396: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	151.180	0.000	94166.664	0.003
Kr-85	Rb-85	151.195	0.750	4.480	0.013
Tc-104	Ru-104	150.800	0.004	0.305	0.019
Ru-105	Rh-105	149.100	0.018	4.440	0.010
Sn-129	Sb-129	148.800	0.011	0.115	0.002
I-133	Xe-133	150.390	0.000	20.800	0.067
Pr-147	Nd-147	148.700	0.001	0.223	0.022
Nd-147	Pm-147	149.300	0.000	263.520	0.022
Nd-151	Pm-151	149.610	0.003	0.207	0.004
Pm-151	Sm-151	148.500	0.001	28.400	0.004
Pm-151	Sm-151	150.100	0.000	28.400	0.004

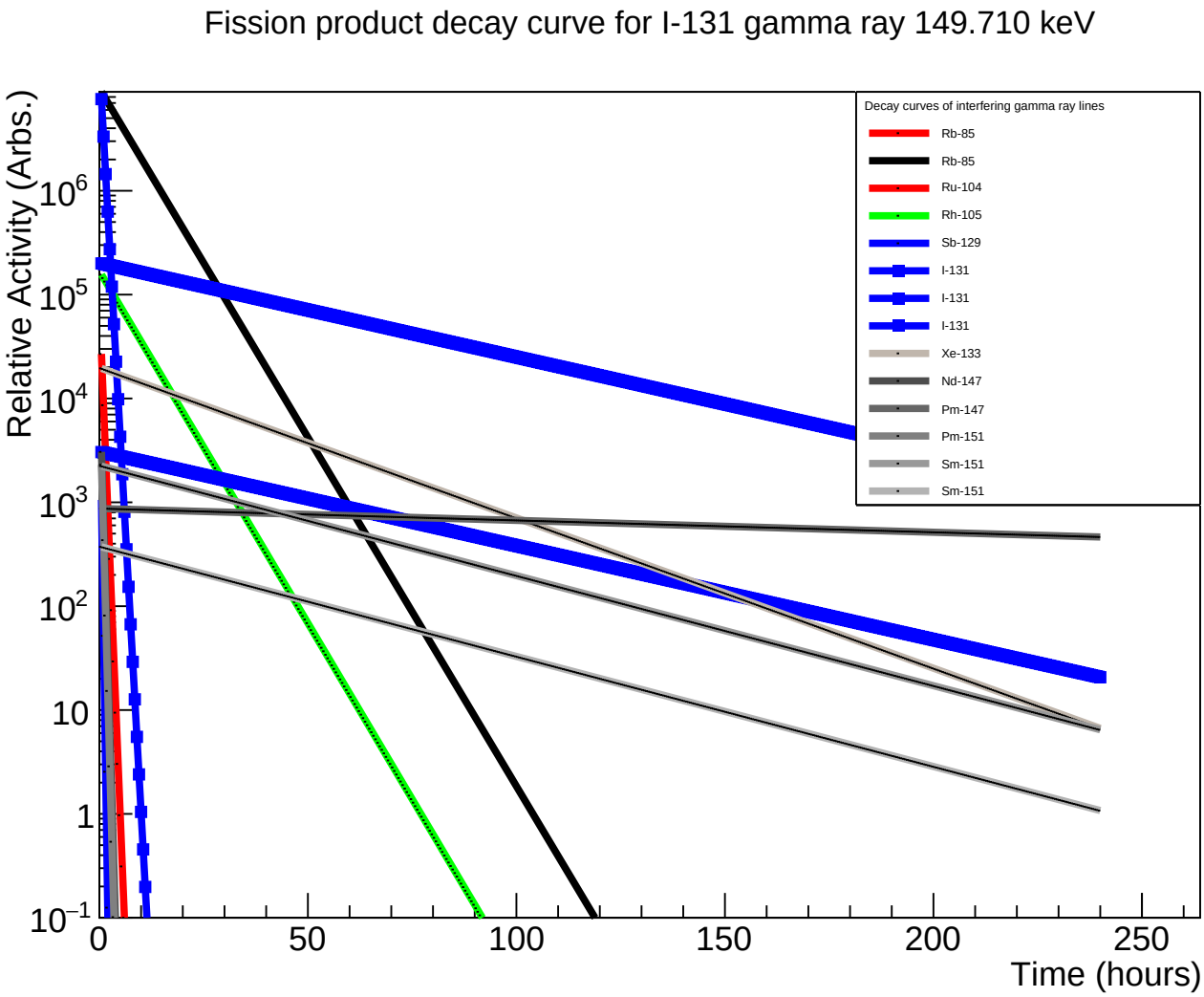


Figure 698: I-131 decay curve for 149.710 keV gamma ray.

3.699 Te-131 E_γ = 182.25 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 182.25 keV
Gamma Intensity = 1.69 ± 0.188 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1397: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1398: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	182.900	0.000	16.749	0.060
Mo-99	Tc-99	181.068	0.061	65.976	0.061
Ru-105	Rh-105	183.600	0.001	4.440	0.010
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Sb-129	Te-129	180.800	0.026	4.400	0.005
Sb-130	Te-130	182.330	0.650	0.658	0.008
Sb-130	Te-130	182.330	0.410	0.105	0.010
I-132	Xe-132	183.600	0.001	2.295	0.043
Ba-141	La-141	180.800	0.005	0.304	0.058
Nd-151	Pm-151	183.190	0.005	0.207	0.004
Sm-155	Eu-155	183.400	0.000	0.372	0.000

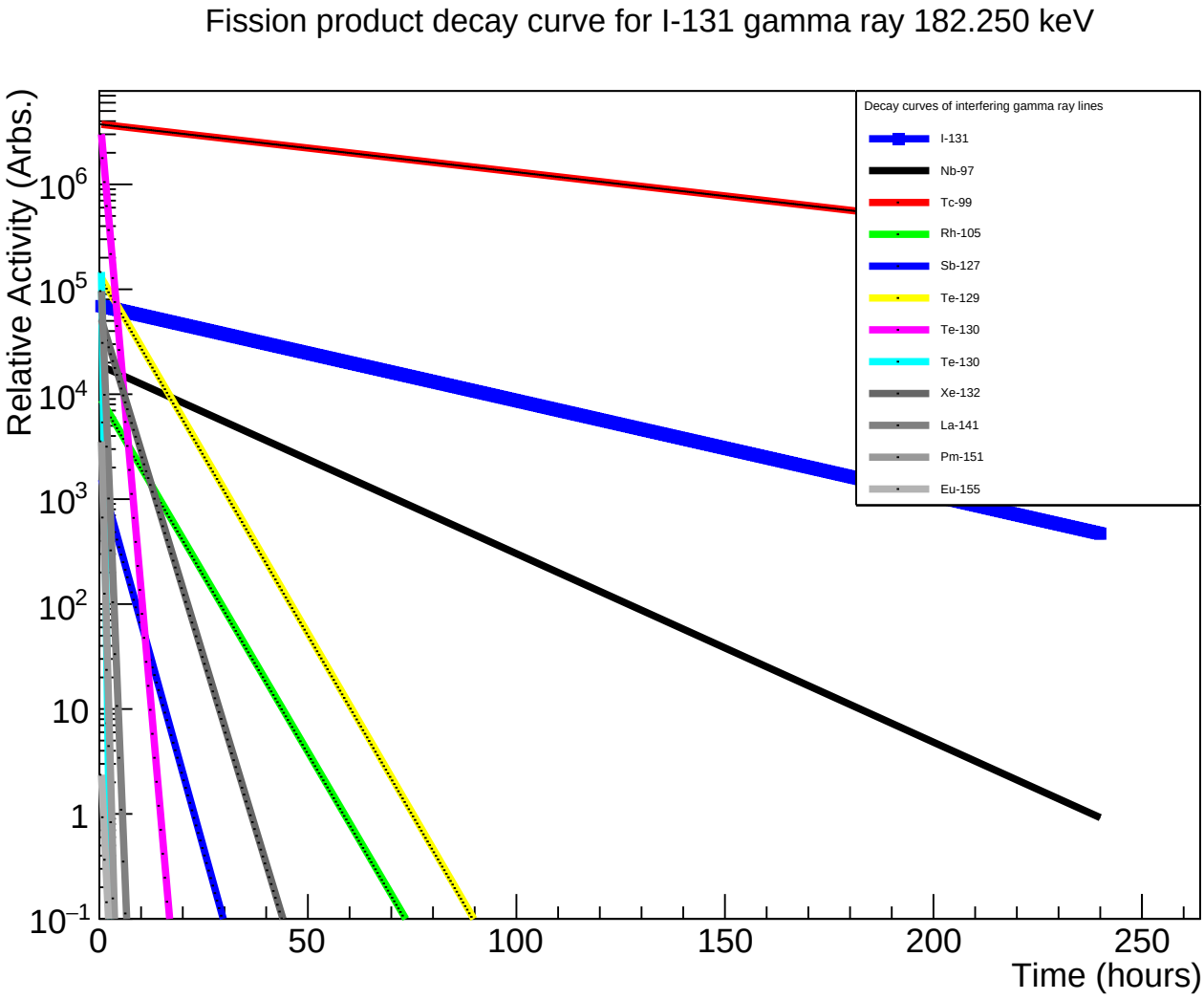


Figure 699: I-131 decay curve for 182.250 keV gamma ray.

3.700 Te-131 E_γ = 200.63 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 200.63 keV
Gamma Intensity = 7.28 ± 0.168 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1399: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1400: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Xe-135	Cs-135	200.190	0.000	9.140	0.065
Nd-151	Pm-151	199.680	0.003	0.207	0.004
Nd-152	Pm-152	200.500	0.000	0.190	0.003
Pm-151	Sm-151	201.960	0.009	28.400	0.004
Eu-156	Gd-156	199.214	0.007	364.560	0.000

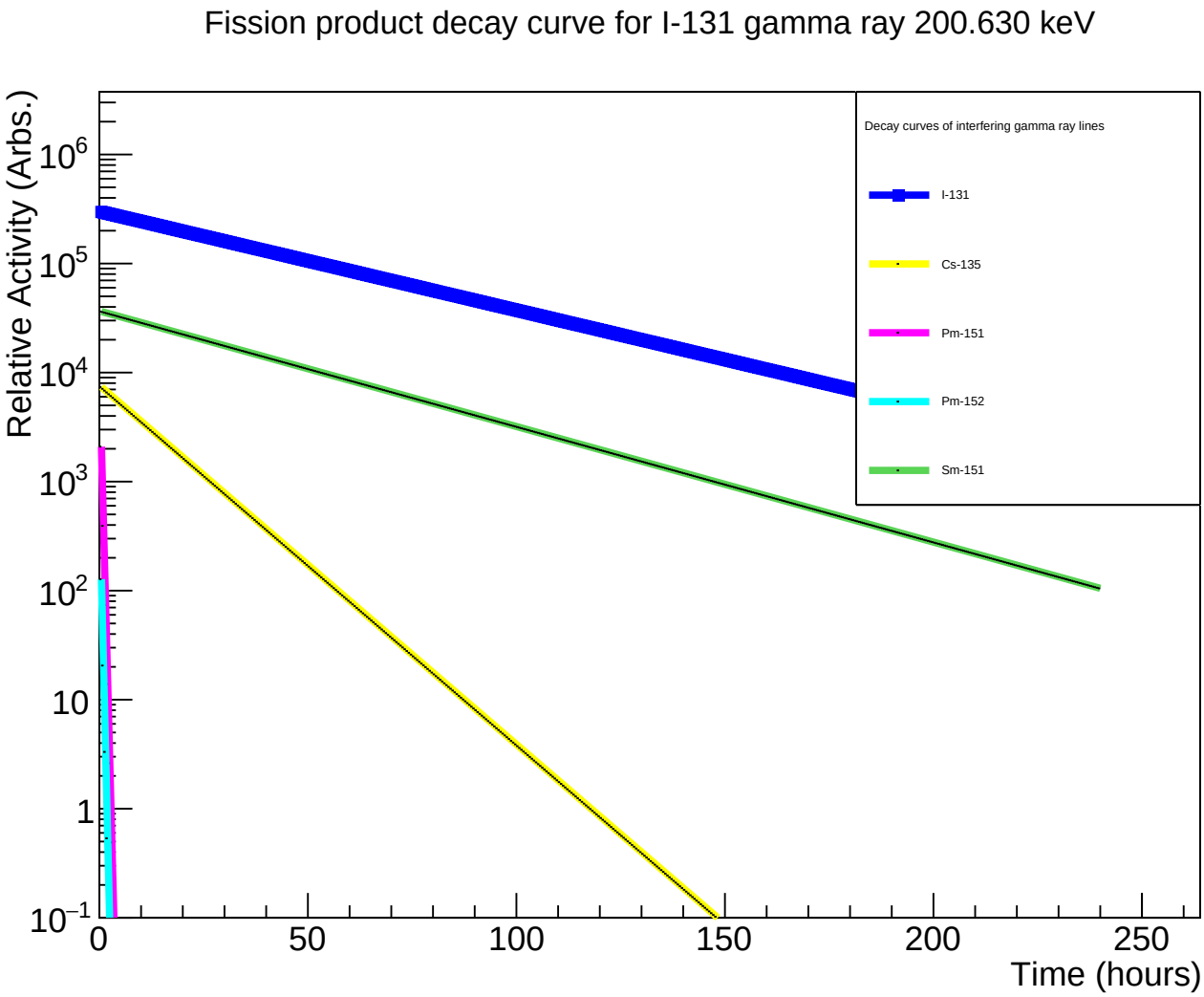


Figure 700: I-131 decay curve for 200.630 keV gamma ray.

3.701 Te-131 E_γ = 240.93 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 240.93 keV
Gamma Intensity = 7.32 ± 0.147 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1401: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1402: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	240.710	0.003	2.840	0.036
Sr-92	Y-92	241.560	0.029	2.710	0.059
Mo-99	Tc-99	242.290	0.000	65.976	0.061
Ru-103	Rh-103	241.875	0.000	941.928	0.030
Sn-129	Sb-129	241.600	0.009	0.115	0.002
La-140	Ce-140	241.933	0.004	40.285	0.062
Nd-147	Pm-147	240.500	0.000	263.520	0.022
Nd-149	Pm-149	239.600	0.000	1.728	0.011
Nd-149	Pm-149	240.220	0.039	1.728	0.011
Nd-151	Pm-151	239.600	0.004	0.207	0.004
Nd-152	Pm-152	240.500	0.001	0.190	0.003
Pm-149	Sm-149	242.100	0.000	53.080	0.011
Pm-151	Sm-151	240.090	0.038	28.400	0.004

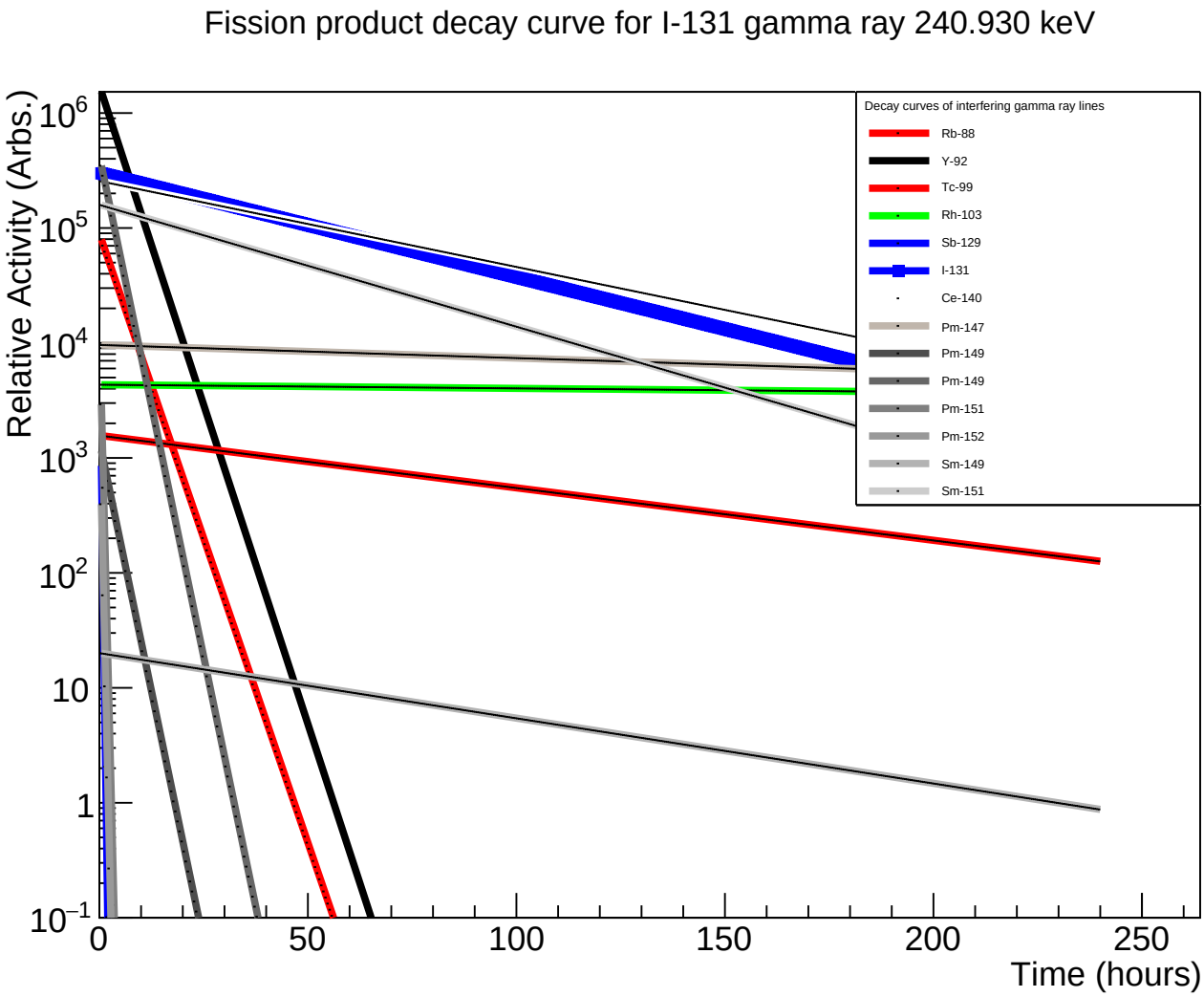


Figure 701: I-131 decay curve for 240.930 keV gamma ray.

3.702 Te-131 E_γ = 278.56 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 278.56 keV
Gamma Intensity = 1.72 ± 0.048 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1403: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1404: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	277.300	0.960	1.467	0.000
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Rh-107	Pd-107	277.580	0.017	0.362	0.001
Pd-111	Ag-111	279.000	0.000	0.390	0.000
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Sn-125	Sb-125	278.560	0.000	0.159	0.000
Sn-127	Sb-127	279.300	0.006	2.100	0.001
I-132	Xe-132	278.400	0.001	2.295	0.043
I-134	Xe-134	278.800	0.001	0.875	0.078
Nd-152	Pm-152	278.560	0.290	0.190	0.003
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004
Sm-155	Eu-155	280.000	0.000	0.372	0.000

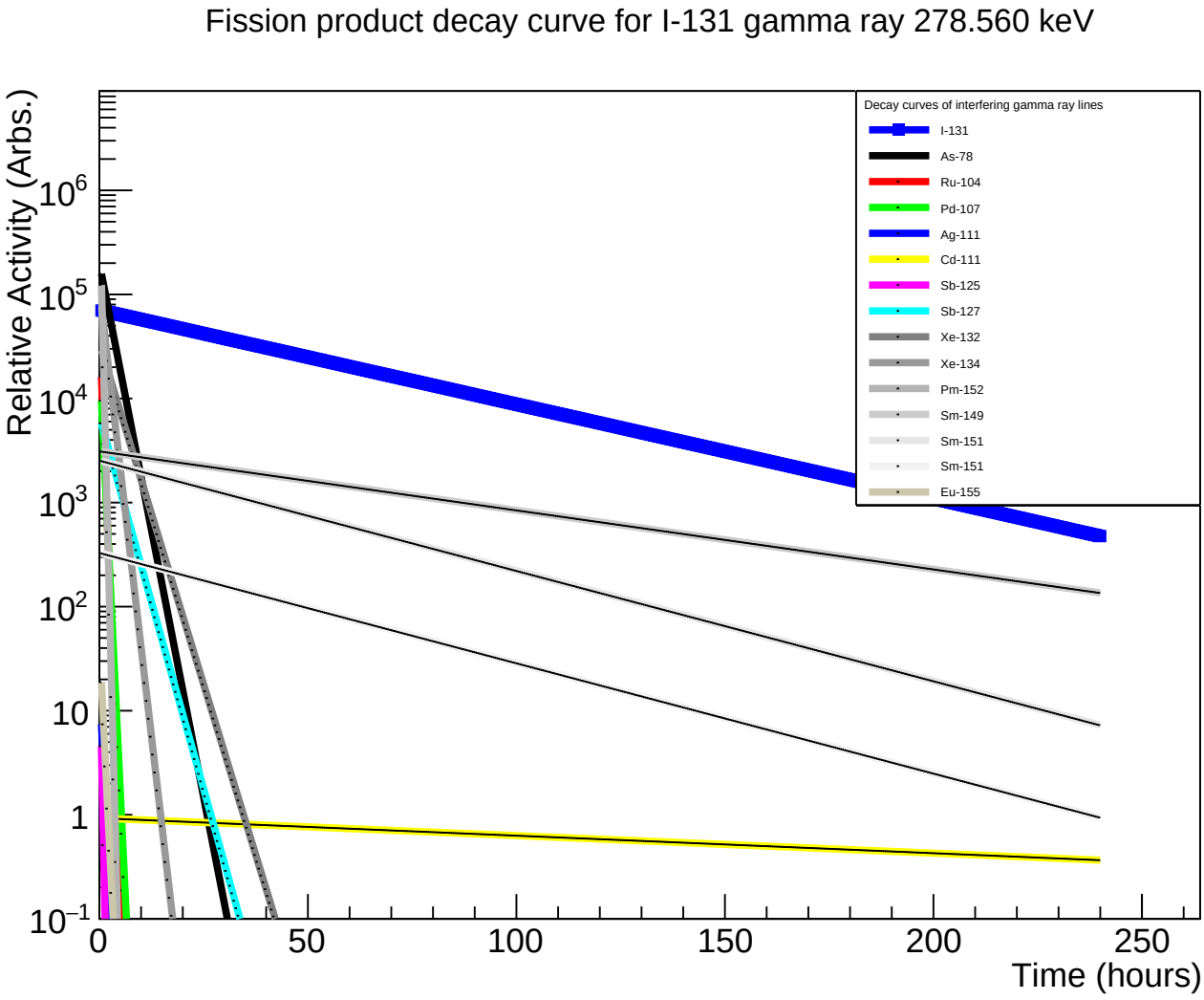


Figure 702: I-131 decay curve for 278.560 keV gamma ray.

3.703 Te-131 E_γ = 334.27 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 334.27 keV
Gamma Intensity = 9.22 ± 0.195 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1405: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1406: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Nb-98	Mo-98	335.258	0.095	0.855	0.000
Mo-101	Tc-101	333.610	0.007	0.243	0.052
Tc-104	Ru-104	333.800	0.006	0.305	0.019
Tc-105	Ru-105	333.280	0.006	0.127	0.010
Tc-105	Ru-105	333.900	0.007	0.127	0.010
Ag-113	Cd-113	333.100	0.006	5.370	0.000
I-135	Xe-135	333.600	0.000	6.570	0.063
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Cs-138	Ba-138	333.860	0.001	0.557	0.067
Ba-142	La-142	335.000	0.015	0.177	0.058
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	332.780	0.007	0.207	0.004
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

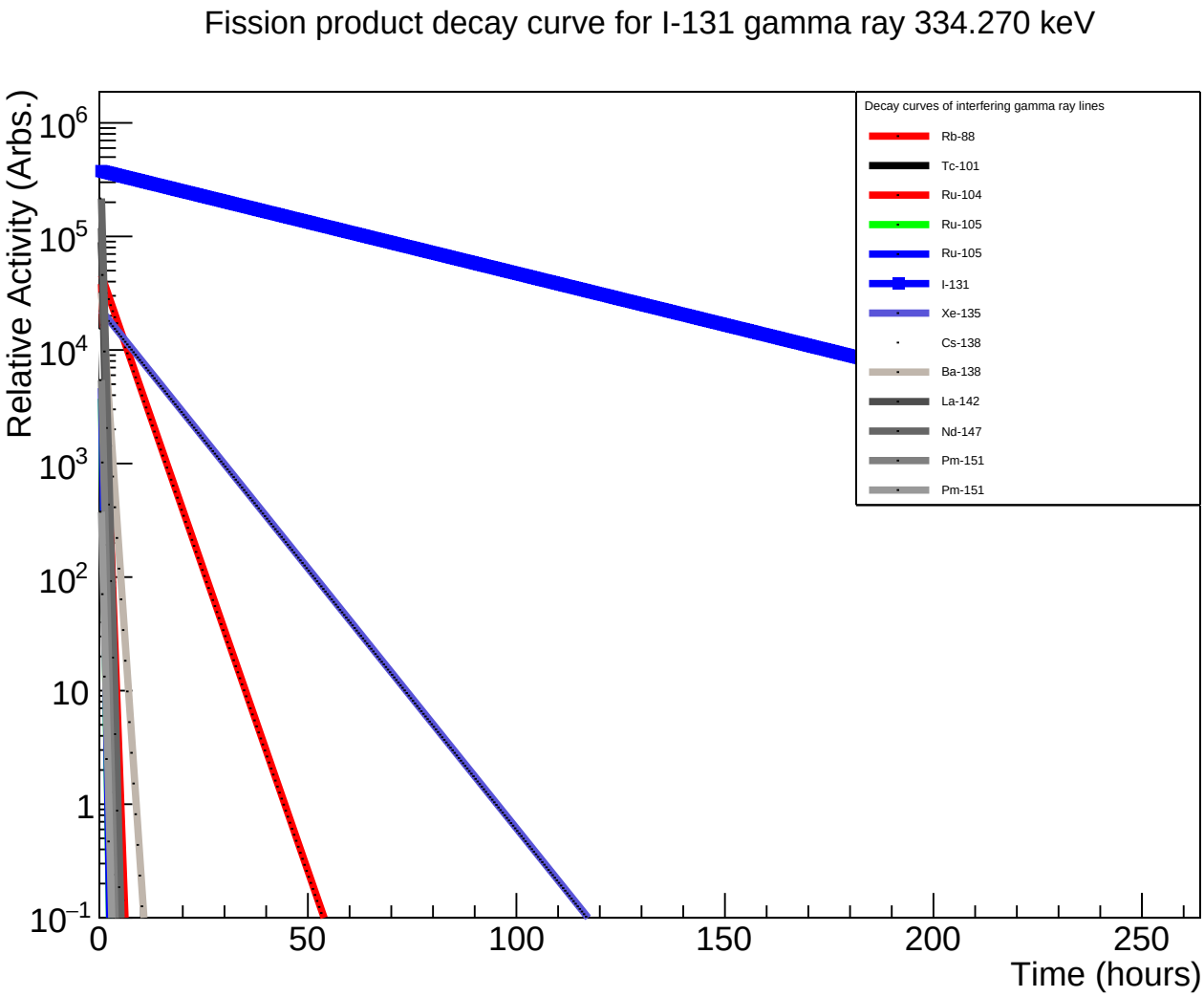


Figure 703: I-131 decay curve for 334.270 keV gamma ray.

3.704 Te-131 E_γ = 364.98 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 364.98 keV
Gamma Intensity = 1.16 ± 0.151 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1407: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1408: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	364.500	0.019	0.150	0.000
Kr-88	Rb-88	363.500	0.000	2.840	0.036
Mo-99	Tc-99	366.421	0.012	65.976	0.061
Ag-113	Cd-113	364.400	0.001	5.370	0.000
Cd-115	In-115	363.950	0.000	53.460	0.000
Sn-125	Sb-125	363.500	0.000	231.360	0.000
Sn-127	Sb-127	365.500	0.002	2.100	0.001
Sb-128	Te-128	366.100	0.015	9.010	0.000
Cs-138	Ba-138	363.930	0.002	0.557	0.067
Cs-138	Ba-138	365.290	0.002	0.557	0.067
Ba-141	La-141	364.500	0.006	0.304	0.058
Ba-142	La-142	363.960	0.047	0.177	0.058
Pr-145	Nd-145	364.810	0.000	5.984	0.039
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

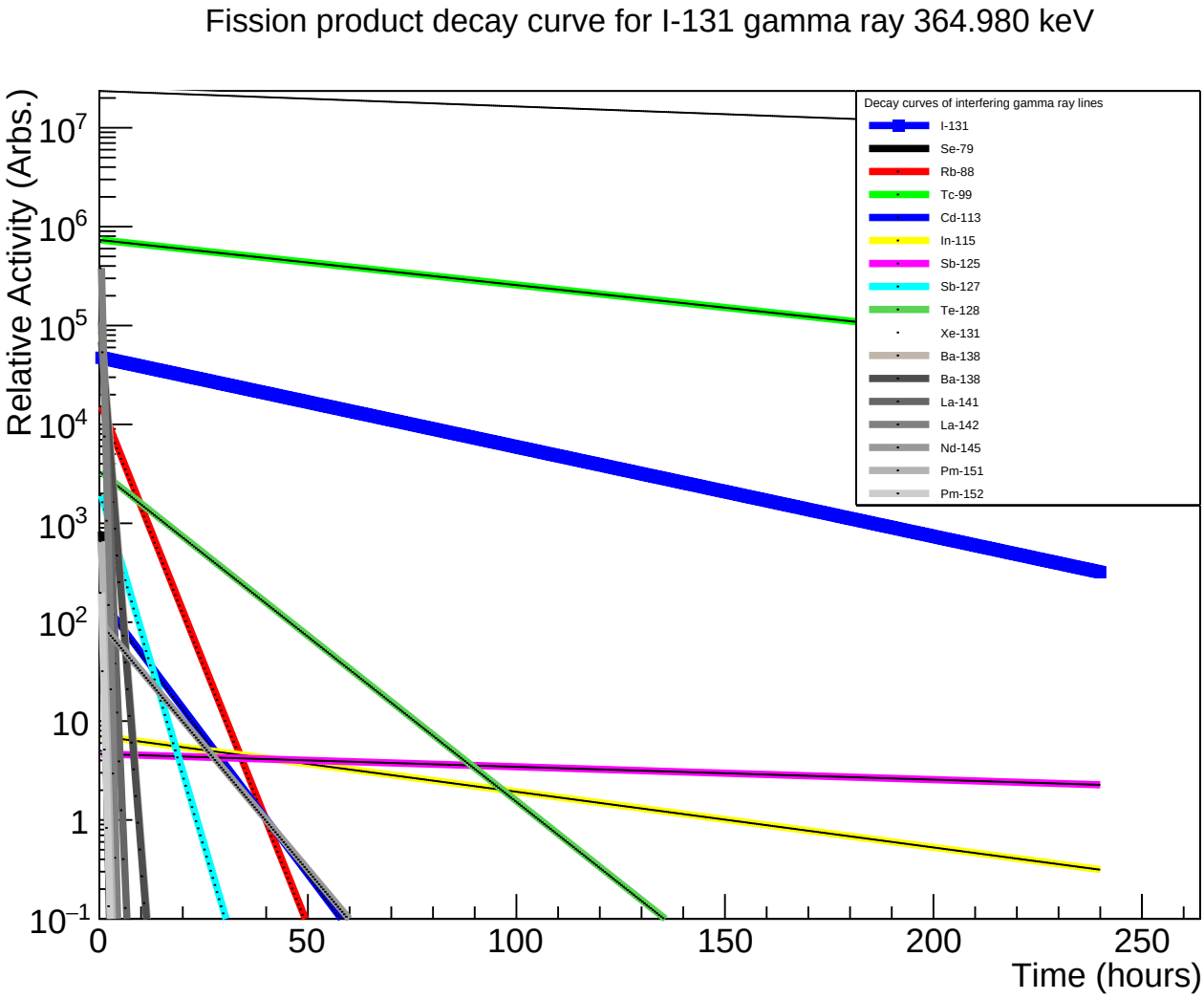


Figure 704: I-131 decay curve for 364.980 keV gamma ray.

3.705 Te-131 E_γ = 452.30 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 452.30 keV
Gamma Intensity = 1.49 ± 0.374 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1409: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1410: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	451.630	0.009	0.372	0.003
Kr-85	Rb-85	451.000	0.000	4.480	0.013
Mo-101	Tc-101	452.500	0.001	0.243	0.052
Rh-107	Pd-107	451.880	0.005	0.362	0.001
Ag-112	Cd-112	450.900	0.000	3.130	0.000
Sn-127	Sb-127	452.100	0.004	2.100	0.001
Sn-129	Sb-129	451.300	0.006	0.115	0.002
Sb-127	Te-127	451.000	0.002	92.400	0.002
Sb-129	Te-129	453.500	0.008	4.400	0.005
I-135	Xe-135	451.630	0.003	6.570	0.063
La-142	Ce-142	453.700	0.001	1.518	0.058
Pm-151	Sm-151	451.400	0.003	28.400	0.004
Pm-151	Sm-151	452.200	0.000	28.400	0.004

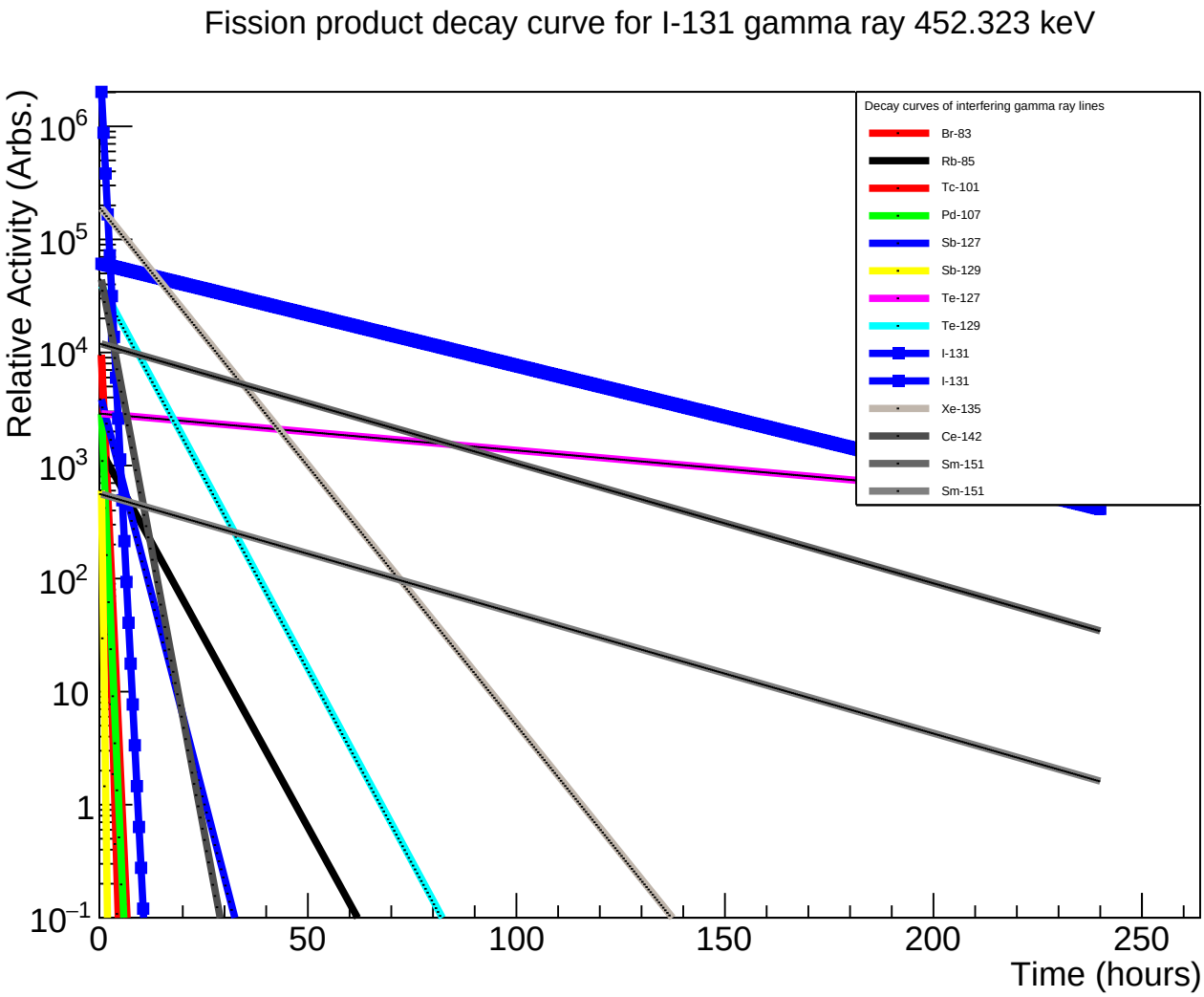


Figure 705: I-131 decay curve for 452.300 keV gamma ray.

3.706 Te-131 E_γ = 462.92 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 462.92 keV
Gamma Intensity = 1.76 ± 0.048 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1411: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1412: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-105	Ru-105	462.800	0.044	0.127	0.010
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Sb-130	Te-130	462.500	0.008	0.658	0.008
Cs-138	Ba-138	462.796	0.307	0.557	0.067
Ba-141	La-141	462.300	0.049	0.304	0.058
Ba-141	La-141	462.900	0.001	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002

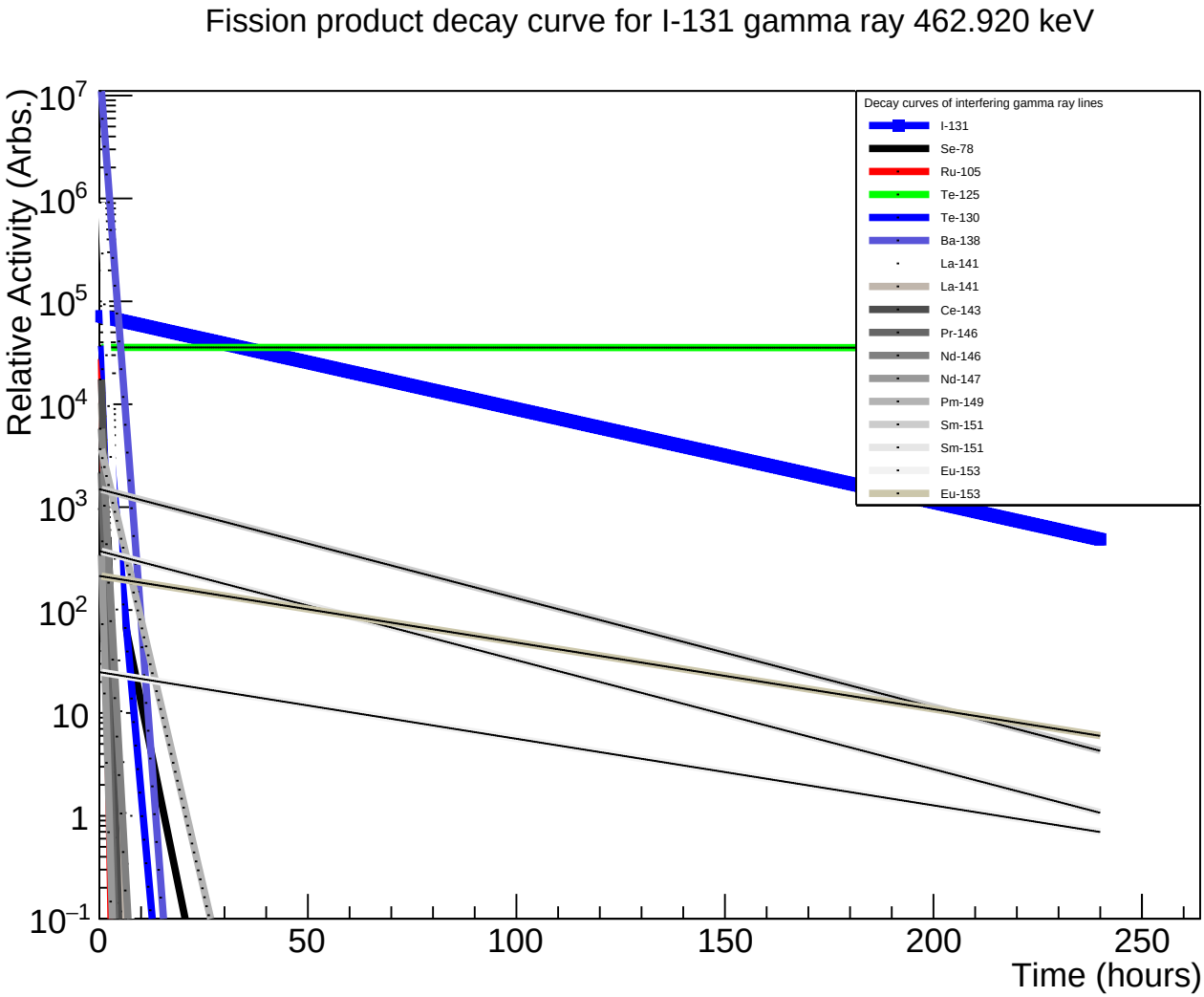


Figure 706: I-131 decay curve for 462.920 keV gamma ray.

3.707 Te-131 E_γ = 586.30 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 586.30 keV
Gamma Intensity = 1.90 ± 0.082 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1413: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1414: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	586.500	0.004	0.124	0.062
Nb-98	Mo-98	585.400	0.000	0.855	0.000
Tc-104	Ru-104	585.100	0.002	0.305	0.019
Ag-112	Cd-112	585.400	0.000	3.130	0.000
Ag-113	Cd-113	585.000	0.000	5.370	0.000
Xe-138	Cs-138	586.000	0.000	0.235	0.063
Ce-143	Pr-143	587.200	0.003	33.039	0.060
Pr-146	Nd-146	587.800	0.001	0.403	0.030
Nd-151	Pm-151	585.220	0.013	0.207	0.004
Pm-151	Sm-151	584.900	0.000	28.400	0.004
Sm-153	Eu-153	587.600	0.000	46.500	0.002
Eu-156	Gd-156	585.900	0.001	364.560	0.000
Eu-156	Gd-156	585.900	0.000	364.560	0.000

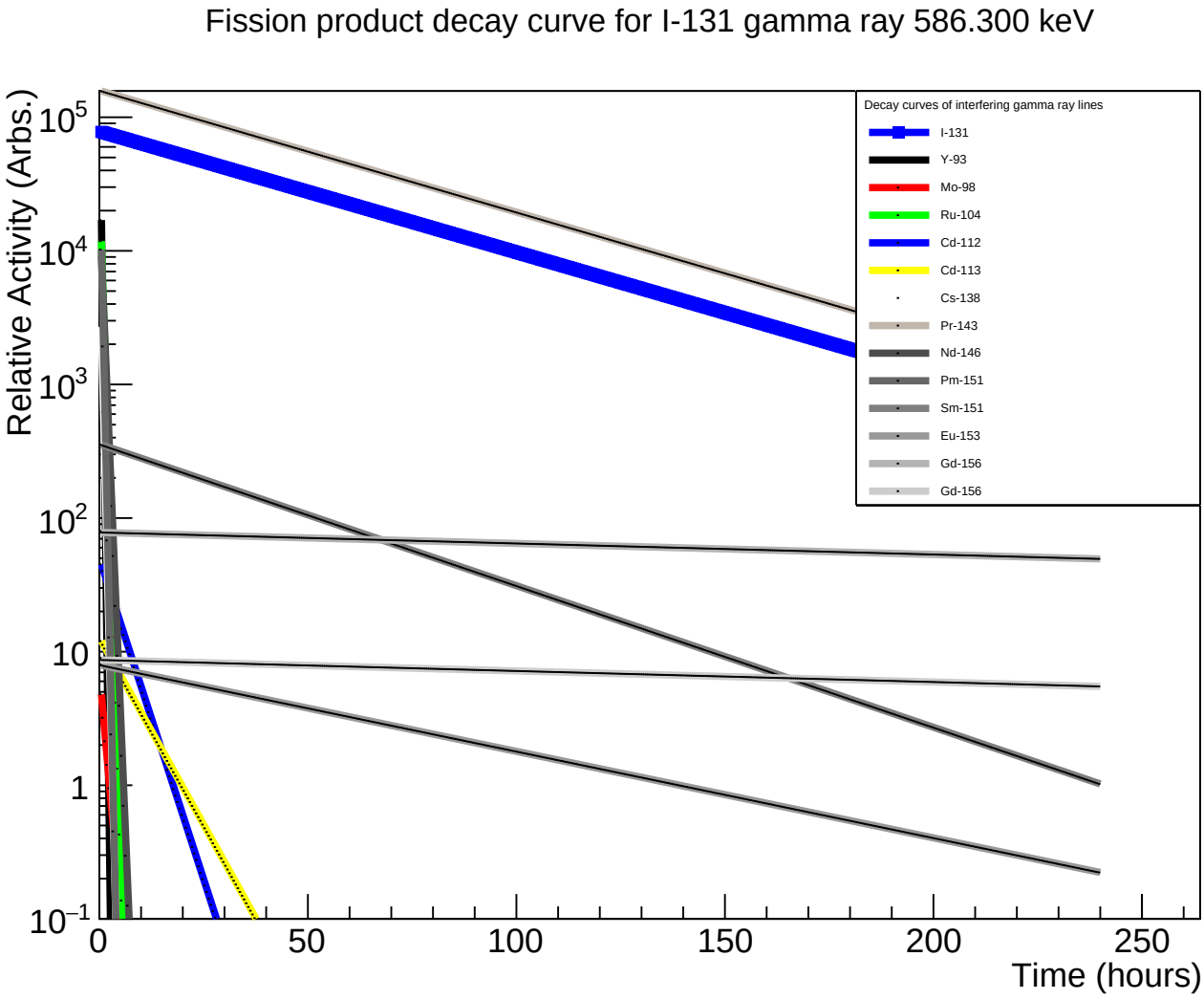


Figure 707: I-131 decay curve for 586.300 keV gamma ray.

3.708 Te-131 E_γ = 665.05 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 665.05 keV
Gamma Intensity = 4.18 ± 0.104 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1415: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1416: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	664.800	0.033	0.372	0.003
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Sr-93	Y-93	663.580	0.016	0.124	0.062
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Sb-126	Te-126	666.100	0.857	0.319	0.001
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Ce-143	Pr-143	664.571	0.057	33.039	0.060
Pr-147	Nd-147	664.500	0.002	0.223	0.022
Nd-149	Pm-149	665.220	0.000	1.728	0.011
Nd-151	Pm-151	665.210	0.001	0.207	0.004
Pm-149	Sm-149	664.400	0.000	53.080	0.011
Sm-155	Eu-155	664.000	0.001	0.372	0.000
Sm-155	Eu-155	665.000	0.000	0.372	0.000

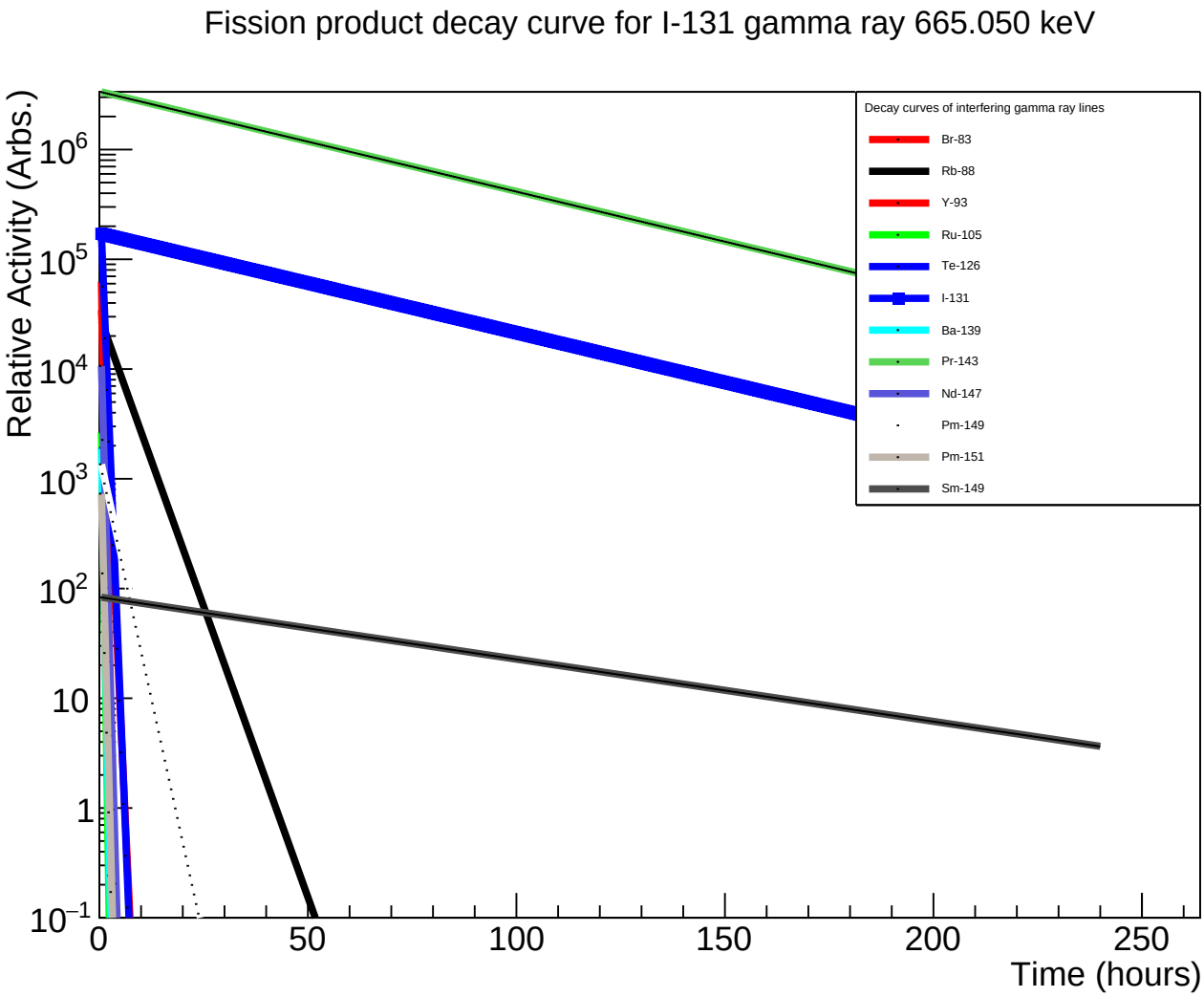


Figure 708: I-131 decay curve for 665.050 keV gamma ray.

3.709 Te-131 E_γ = 713.10 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 713.10 keV
Gamma Intensity = 1.38 ± 0.151 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1417: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1418: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	712.110	0.031	0.372	0.003
Y-93	Zr-93	714.400	0.000	10.180	0.063
Nb-98	Mo-98	713.817	0.092	0.855	0.000
Mo-101	Tc-101	713.040	0.033	0.243	0.052
Tc-105	Ru-105	713.800	0.006	0.127	0.010
Ba-142	La-142	714.400	0.000	0.177	0.058
Pr-145	Nd-145	713.224	0.000	5.984	0.039
Nd-149	Pm-149	712.590	0.001	1.728	0.011
Pm-151	Sm-151	712.000	0.001	28.400	0.004
Pm-151	Sm-151	713.400	0.000	28.400	0.004
Sm-155	Eu-155	713.400	0.000	0.372	0.000

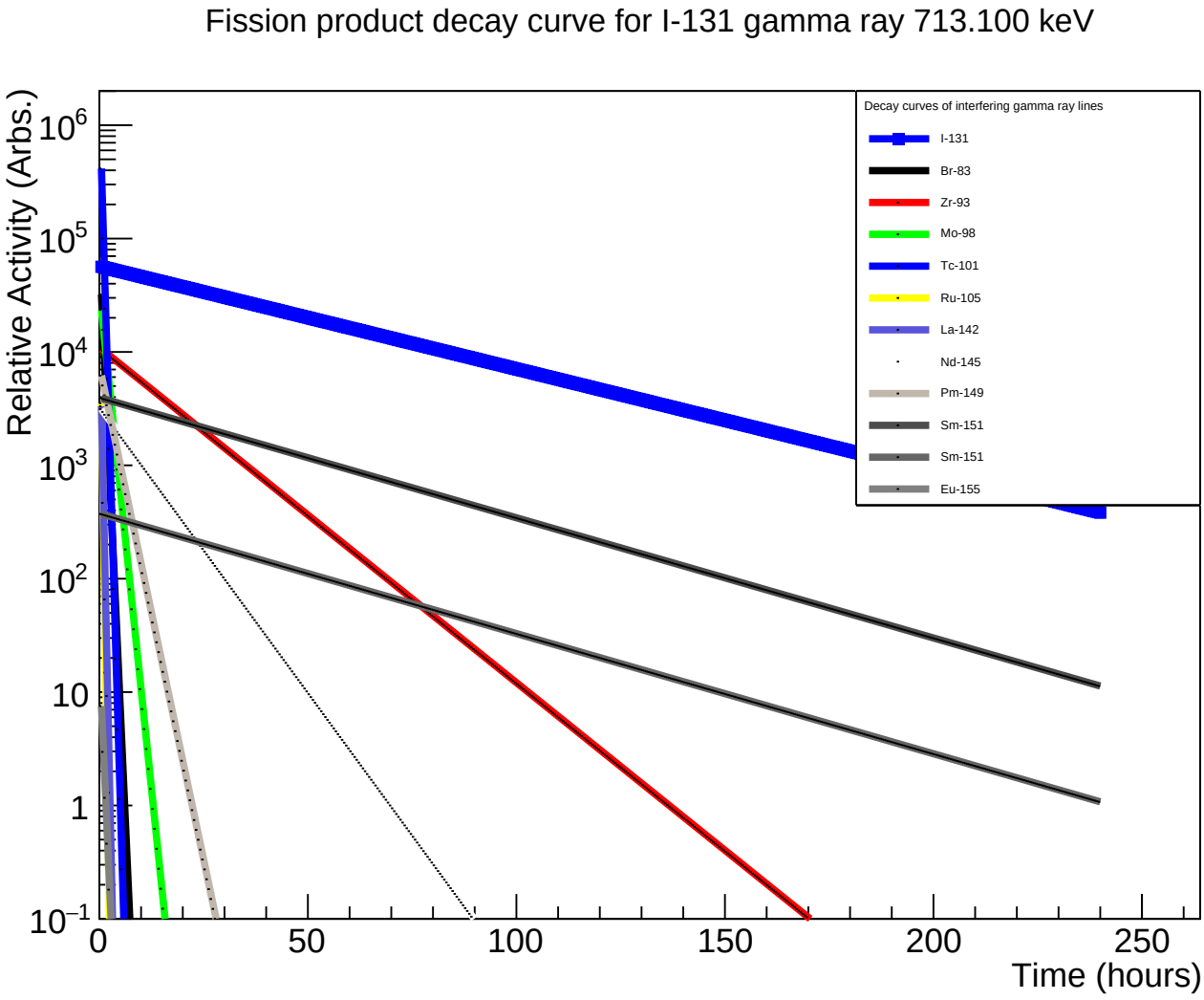


Figure 709: I-131 decay curve for 713.100 keV gamma ray.

3.710 Te-131 E_γ = 744.20 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 744.20 keV
Gamma Intensity = 1.53 ± 0.046 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1419: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1420: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	745.700	0.000	0.390	0.000
Sb-128	Te-128	743.300	1.000	9.010	0.000
Sb-128	Te-128	743.240	0.964	0.173	0.003
Nd-149	Pm-149	743.500	0.000	1.728	0.011
Nd-151	Pm-151	744.000	0.000	0.207	0.004

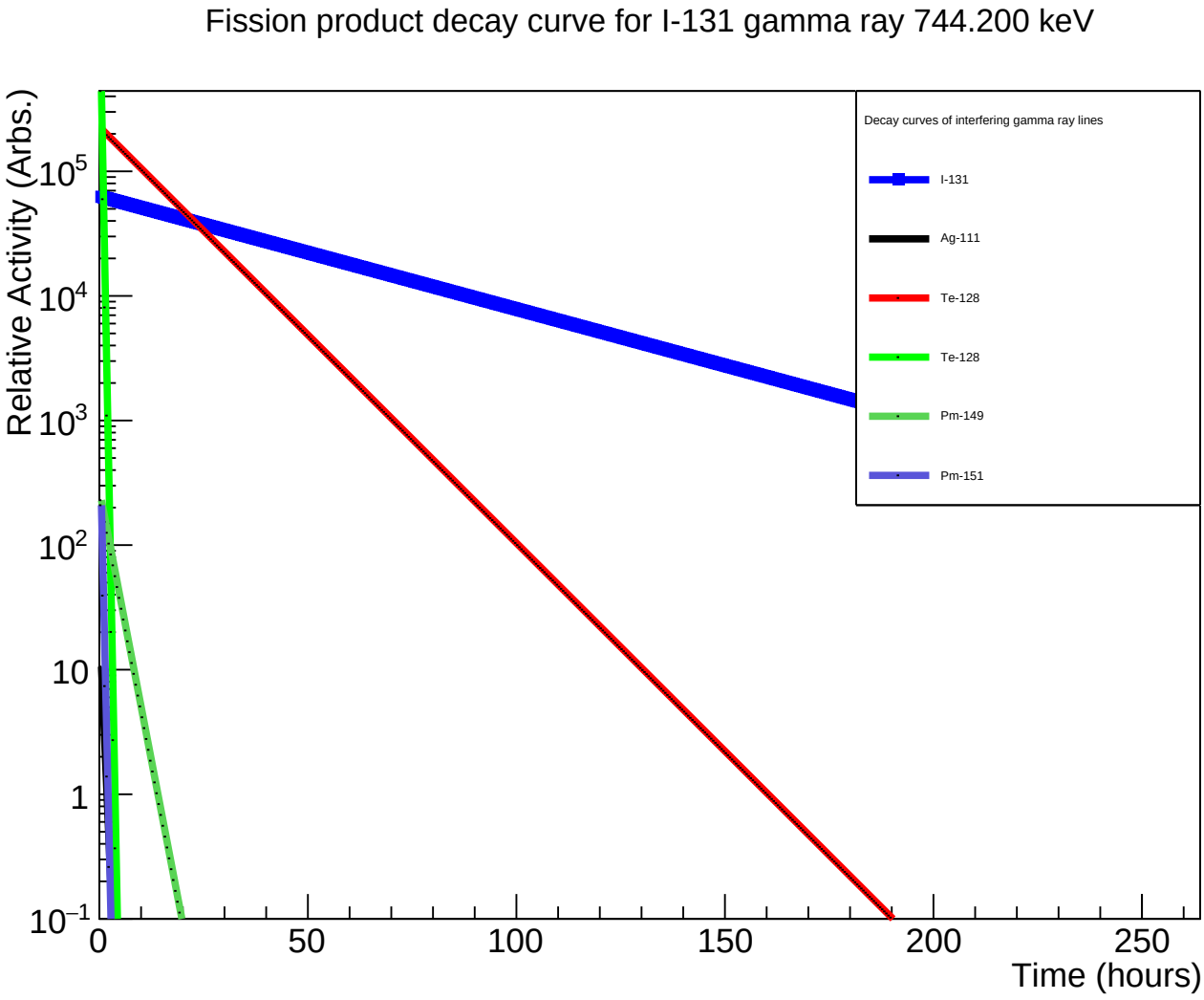


Figure 710: I-131 decay curve for 744.200 keV gamma ray.

3.711 Te-131 E_γ = 773.67 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 773.67 keV
Gamma Intensity = 36.82 ± 0.737 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1421: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1422: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	774.140	0.001	2.840	0.036
Nb-98	Mo-98	773.700	0.001	0.855	0.000
Nb-98	Mo-98	774.300	0.000	0.855	0.000
Pd-111	Ag-111	773.000	0.000	0.390	0.000
Sn-127	Sb-127	773.700	0.004	2.100	0.001
Sb-128	Te-128	773.700	0.015	9.010	0.000
Sb-129	Te-129	773.400	0.028	4.400	0.005
I-132	Xe-132	772.600	0.756	2.295	0.043
Xe-138	Cs-138	774.210	0.001	0.235	0.063
Cs-138	Ba-138	773.310	0.002	0.557	0.067
Cs-139	Ba-139	773.500	0.000	0.155	0.063
La-143	Ce-143	774.700	0.004	0.237	0.059
Pr-146	Nd-146	772.300	0.000	0.403	0.030
Pr-146	Nd-146	774.400	0.003	0.403	0.030
Nd-149	Pm-149	774.600	0.000	1.728	0.011
Nd-151	Pm-151	773.620	0.001	0.207	0.004
Nd-151	Pm-151	773.620	0.003	0.207	0.004
Pm-151	Sm-151	772.760	0.009	28.400	0.004

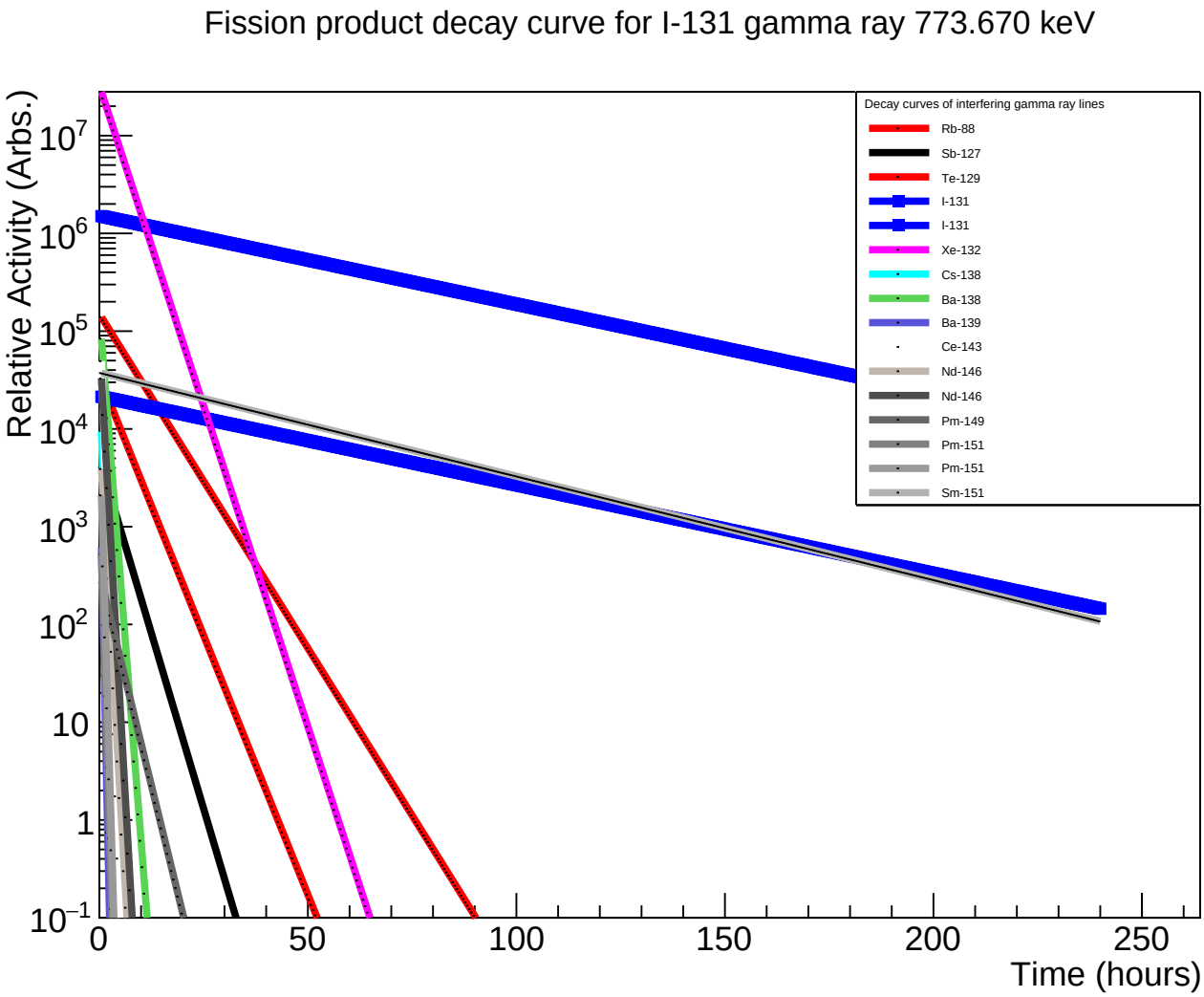


Figure 711: I-131 decay curve for 773.670 keV gamma ray.

3.712 Te-131 E_γ = 782.49 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 782.49 keV
Gamma Intensity = 7.51 ± 0.171 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1423: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1424: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	782.830	0.002	0.124	0.062
Pd-109	Ag-109	781.400	0.000	13.701	0.000
Sn-129	Sb-129	782.480	0.140	0.115	0.002
Sb-127	Te-127	783.700	0.151	92.400	0.002
Cs-138	Ba-138	782.080	0.003	0.557	0.067
Ba-141	La-141	783.600	0.000	0.304	0.058
Nd-149	Pm-149	781.400	0.000	1.728	0.011
Nd-151	Pm-151	783.400	0.000	0.207	0.004

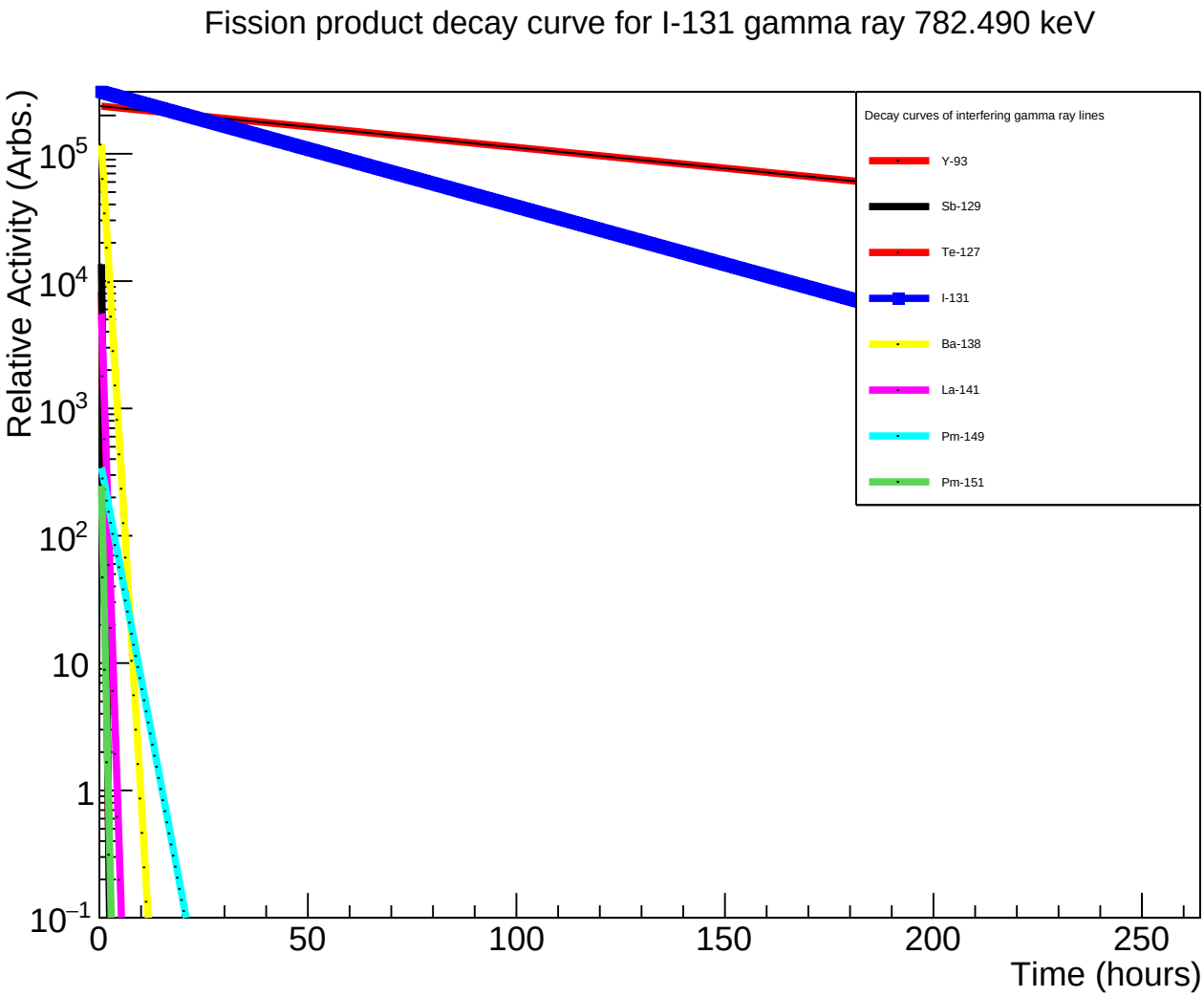


Figure 712: I-131 decay curve for 782.490 keV gamma ray.

3.713 Te-131 E_γ = 793.75 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 793.75 keV
Gamma Intensity = 13.37 ± 0.297 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1425: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1426: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Pd-111	Ag-111	793.800	0.000	0.390	0.000
Sb-130	Te-130	793.400	1.000	0.658	0.008
Sb-130	Te-130	793.400	0.860	0.105	0.010
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
La-142	Ce-142	793.100	0.000	1.518	0.058
Pr-147	Nd-147	793.800	0.013	0.223	0.022
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

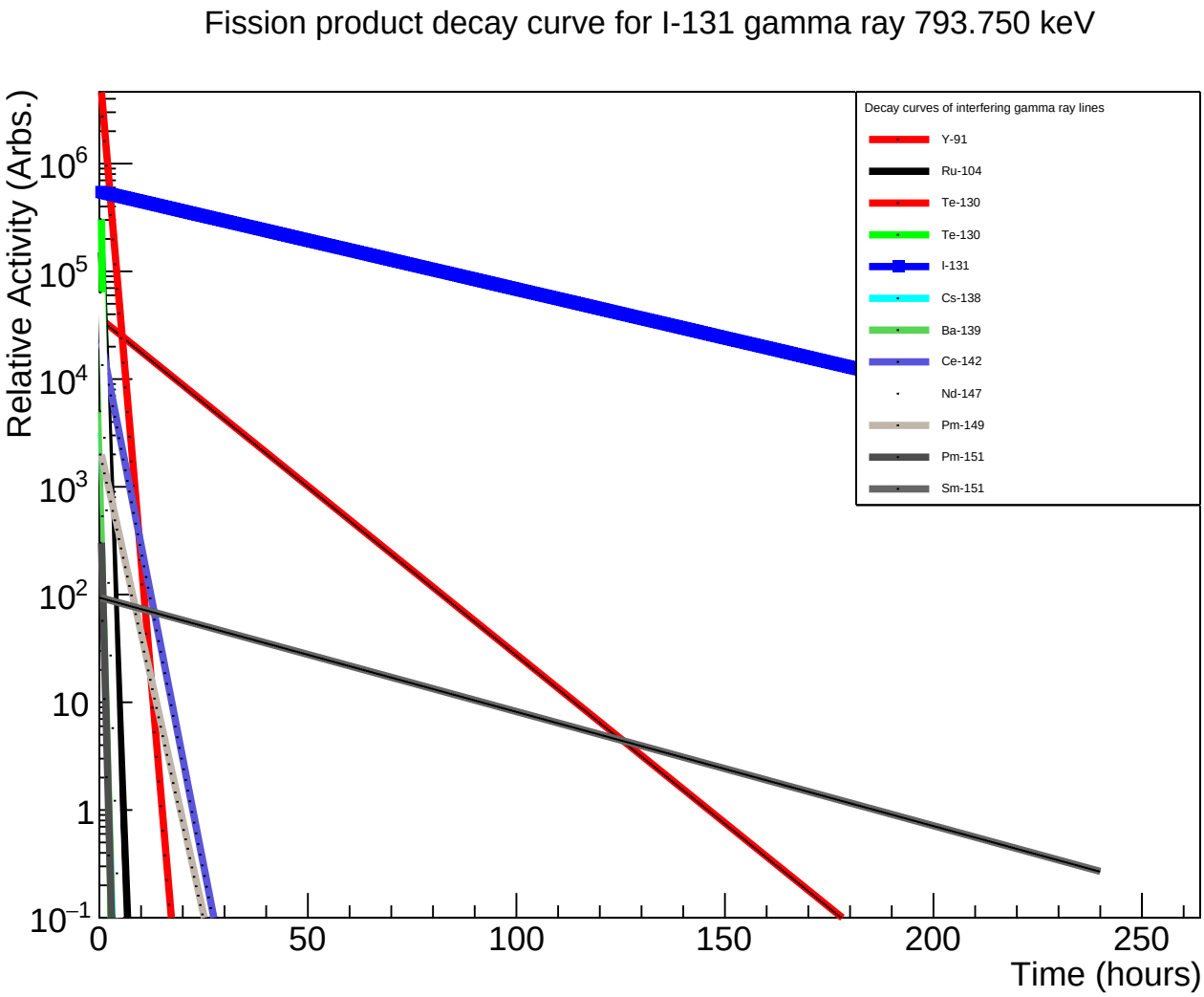


Figure 713: I-131 decay curve for 793.750 keV gamma ray.

3.714 Te-131 E_γ = 822.78 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 822.78 keV
Gamma Intensity = 5.90 ± 0.126 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1427: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1428: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	822.010	0.001	2.840	0.036
Rb-89	Sr-89	822.000	0.000	0.252	0.047
Sr-91	Y-91	823.700	0.001	9.630	0.058
Nb-98	Mo-98	823.390	0.025	0.855	0.000
Mo-99	Tc-99	822.972	0.001	65.976	0.061
Ru-105	Rh-105	821.980	0.002	4.440	0.010
Pd-109	Ag-109	822.900	0.000	13.701	0.000
Sn-125	Sb-125	822.480	0.043	231.360	0.000
Sn-127	Sb-127	823.100	0.106	2.100	0.001
Ba-142	La-142	823.400	0.003	0.177	0.058
Nd-151	Pm-151	823.200	0.000	0.207	0.004
Pm-151	Sm-151	822.450	0.000	28.400	0.004

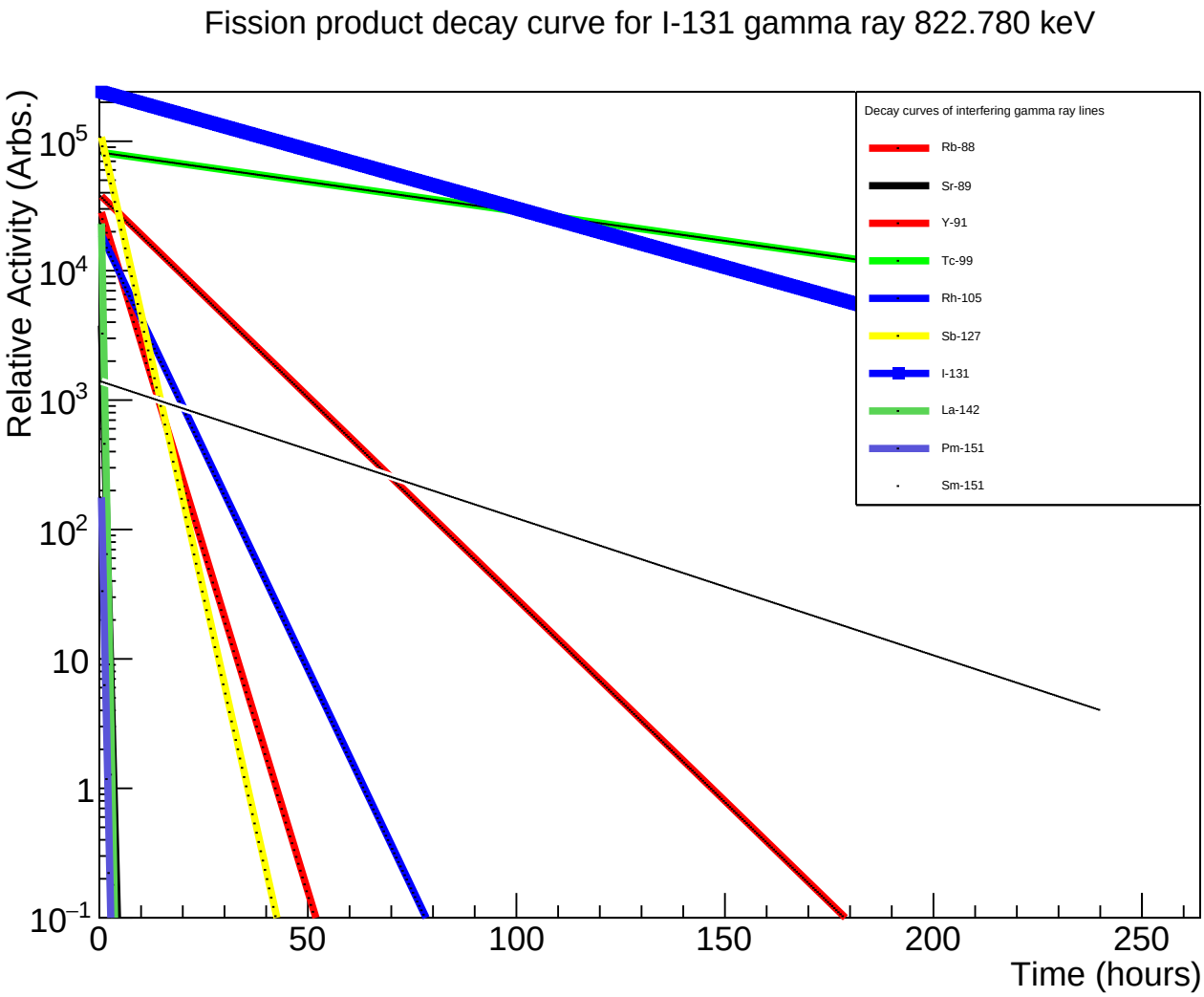


Figure 714: I-131 decay curve for 822.780 keV gamma ray.

3.715 Te-131 E_γ = 852.21 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 852.21 keV
Gamma Intensity = 20.28 ± 0.567 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1429: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1430: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	851.980	0.002	4.440	0.010
Ag-112	Cd-112	851.200	0.010	3.130	0.000
Xe-138	Cs-138	851.300	0.001	0.235	0.063
Ba-142	La-142	853.000	0.000	0.177	0.058
La-141	Ce-141	853.000	0.000	3.920	0.058
Pr-147	Nd-147	853.700	0.001	0.223	0.022
Nd-151	Pm-151	851.800	0.002	0.207	0.004
Nd-151	Pm-151	851.800	0.001	0.207	0.004
Nd-151	Pm-151	853.300	0.002	0.207	0.004

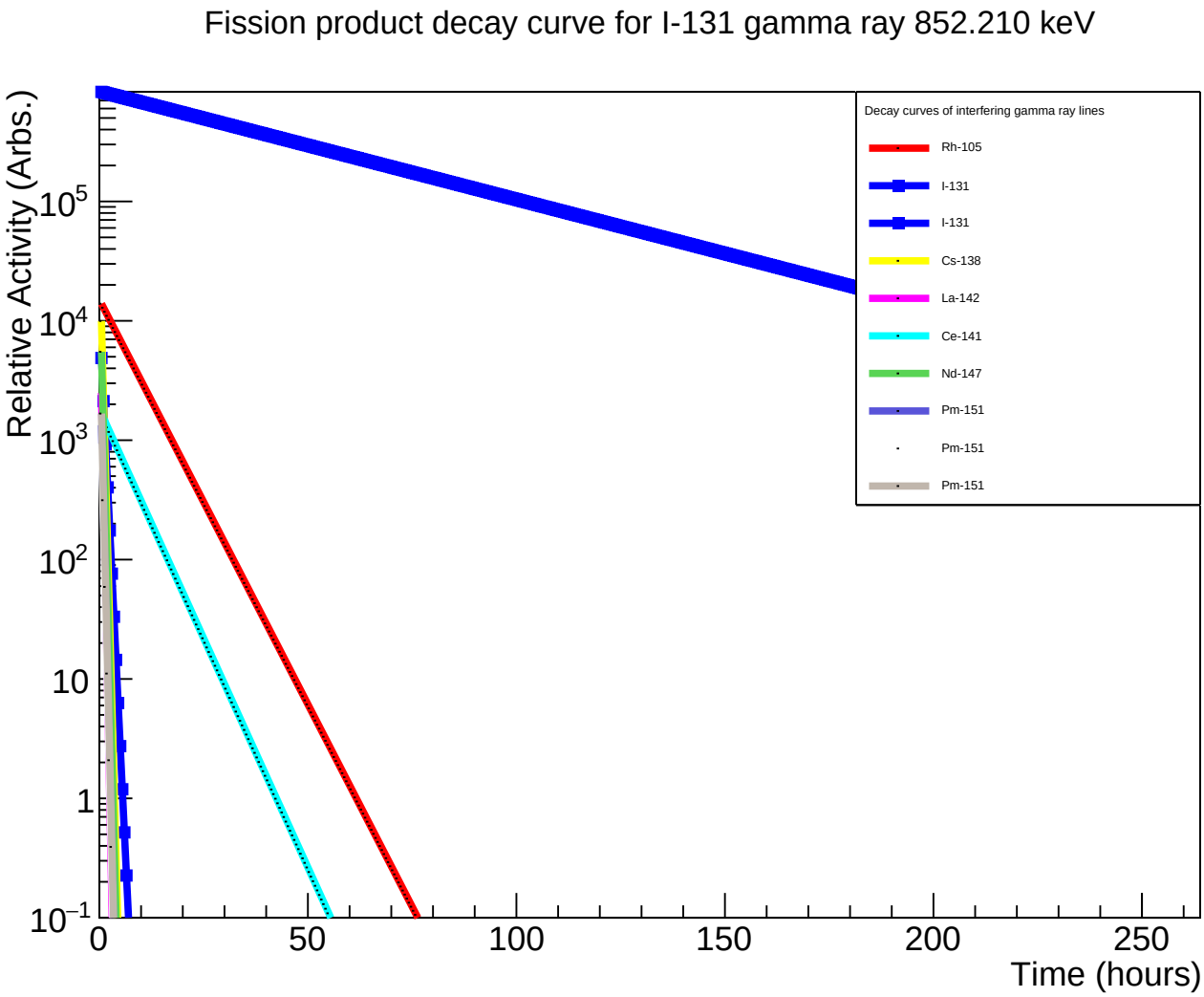


Figure 715: I-131 decay curve for 852.210 keV gamma ray.

3.716 Te-131 E_γ = 910.00 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 910.00 keV
Gamma Intensity = 3.17 ± 0.093 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1431: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1432: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	910.180	0.008	0.124	0.062
Nb-97	Mo-97	909.550	0.000	1.202	0.060
Nb-98	Mo-98	909.670	0.013	0.855	0.000
Sb-128	Te-128	908.800	0.010	9.010	0.000
I-132	Xe-132	910.100	0.009	2.295	0.043
I-133	Xe-133	909.670	0.002	20.800	0.067
I-133	Xe-133	911.490	0.000	20.800	0.067
Ba-141	La-141	909.300	0.001	0.304	0.058
Nd-149	Pm-149	911.300	0.000	1.728	0.011
Pm-151	Sm-151	911.250	0.000	28.400	0.004
Sm-155	Eu-155	911.000	0.000	0.372	0.000

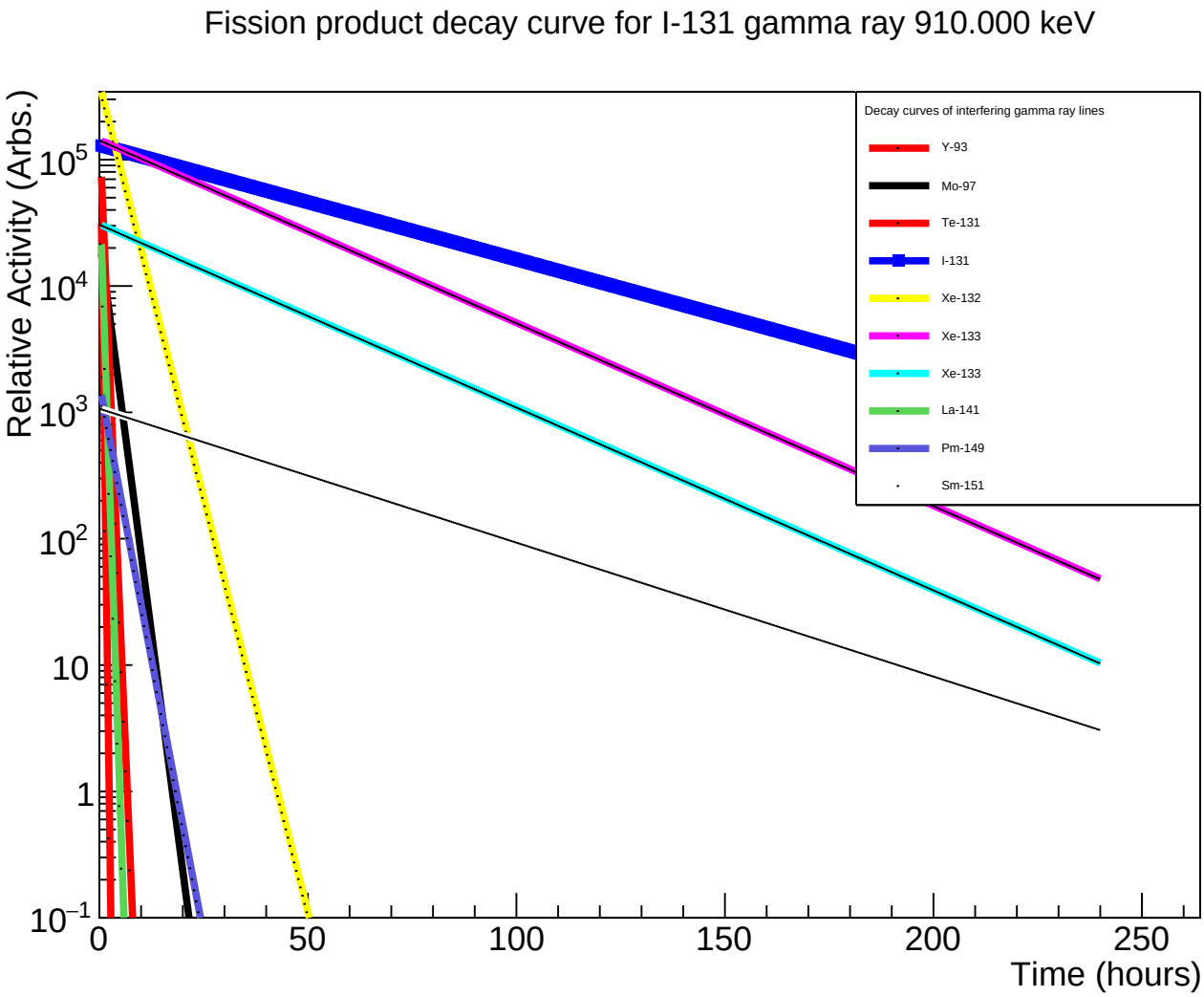


Figure 716: I-131 decay curve for 910.000 keV gamma ray.

3.717 Te-131 E_γ = 920.62 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 920.62 keV
Gamma Intensity = 1.16 ± 0.077 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1433: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1434: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	921.400	0.000	0.390	0.000
Sb-130	Te-130	920.800	0.040	0.105	0.010
La-140	Ce-140	919.550	0.027	40.285	0.062
La-143	Ce-143	919.180	0.003	0.237	0.059
Pr-145	Nd-145	920.710	0.001	5.984	0.039
Nd-149	Pm-149	920.300	0.000	1.728	0.011
Nd-151	Pm-151	919.930	0.001	0.207	0.004
Pm-151	Sm-151	919.300	0.000	28.400	0.004
Pm-151	Sm-151	922.100	0.000	28.400	0.004

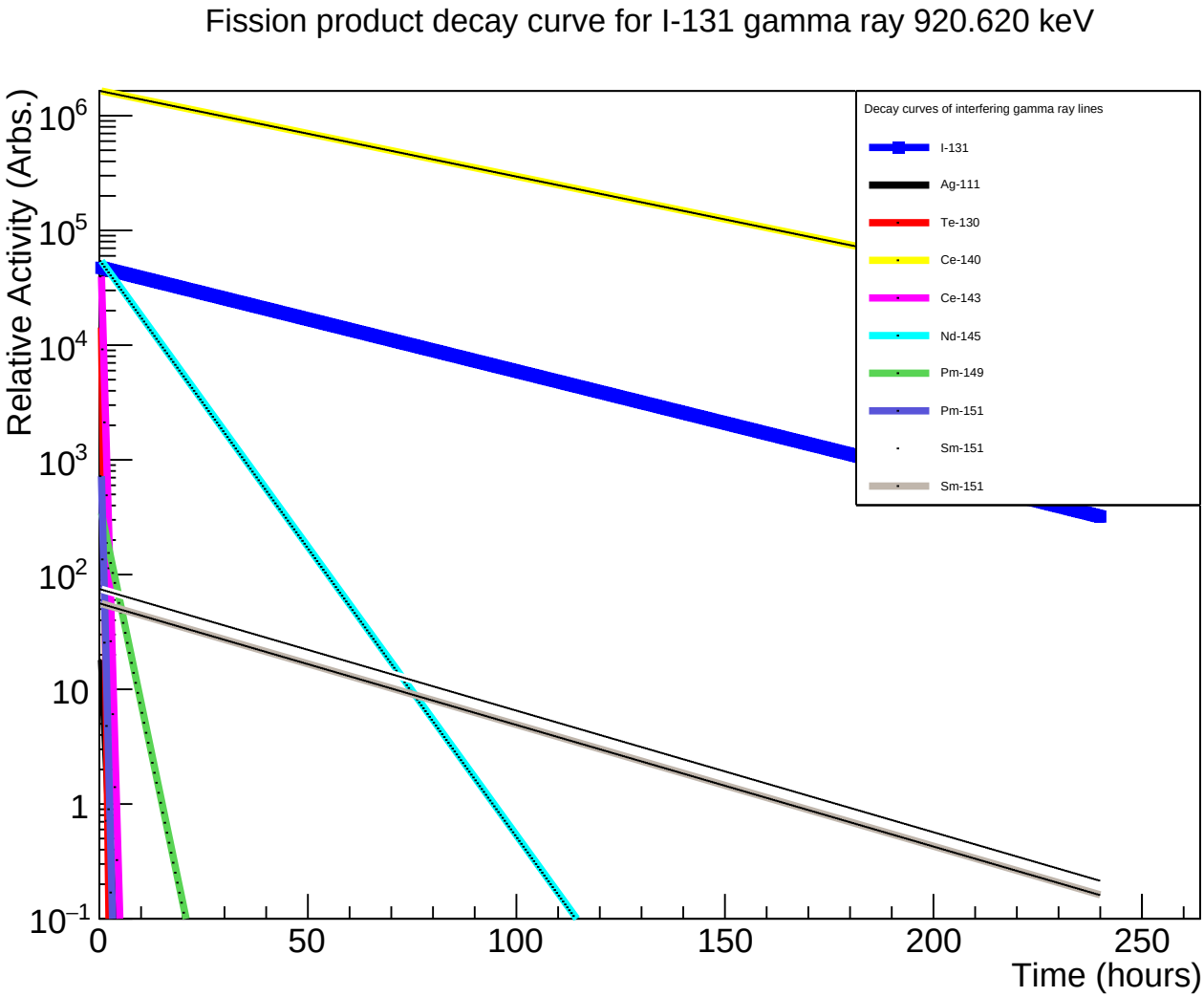


Figure 717: I-131 decay curve for 920.620 keV gamma ray.

3.718 Te-131 E_γ = 1059.69 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1059.69 keV
Gamma Intensity = 1.49 ± 0.045 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1435: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1436: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	1058.500	0.009	0.127	0.010
Ru-105	Rh-105	1059.600	0.000	4.440	0.010
Pd-111	Ag-111	1059.800	0.000	0.390	0.000
I-133	Xe-133	1060.070	0.001	20.800	0.067
I-134	Xe-134	1058.800	0.001	0.875	0.078
Cs-139	Ba-139	1059.900	0.000	0.155	0.063
La-142	Ce-142	1058.400	0.001	1.518	0.058
Ce-143	Pr-143	1060.220	0.000	33.039	0.060

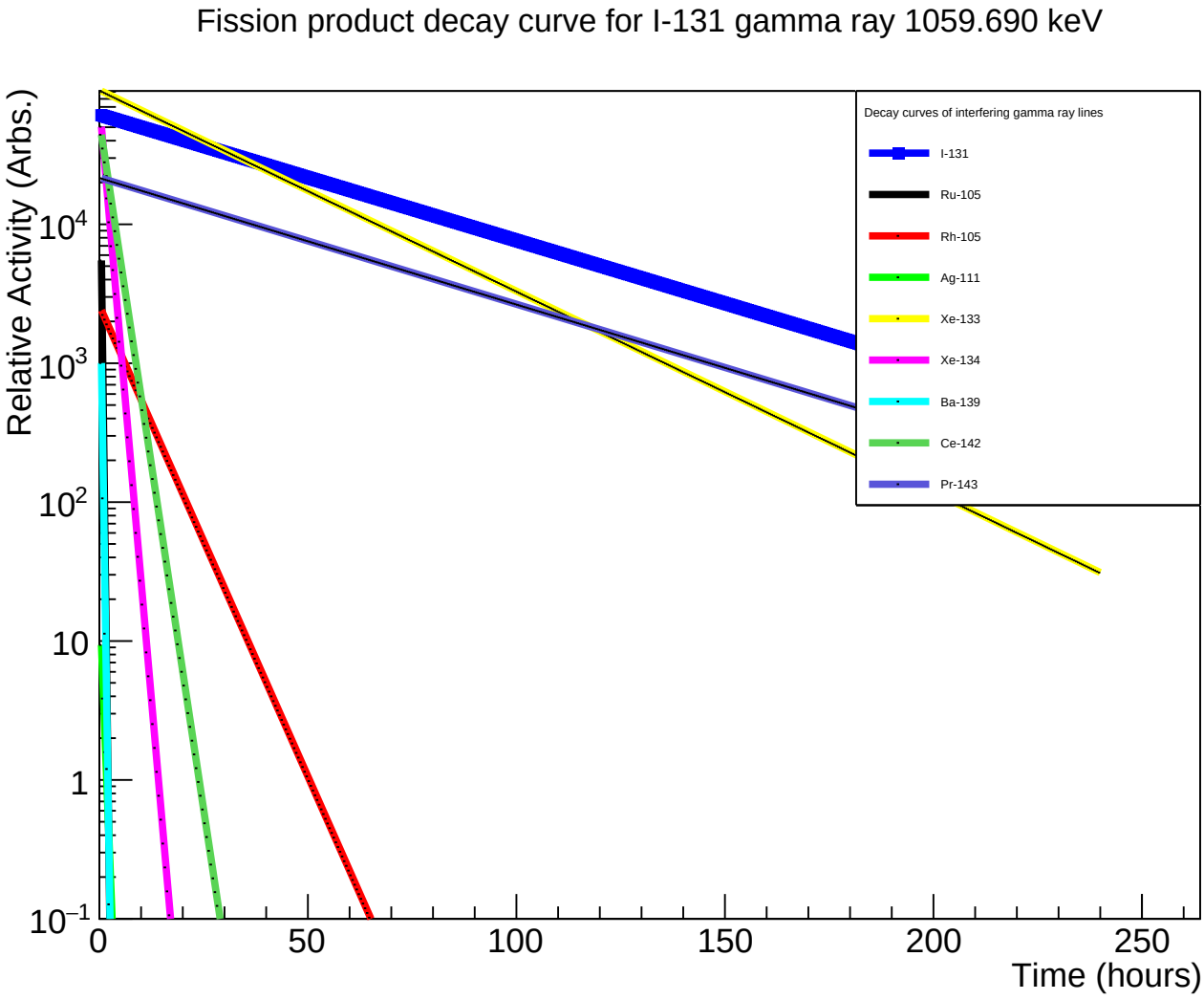


Figure 718: I-131 decay curve for 1059.690 keV gamma ray.

3.719 Te-131 E_γ = 1125.46 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1125.46 keV
Gamma Intensity = 11.02 ± 0.294 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1437: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1438: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	1125.900	0.002	3.130	0.000
Ag-113	Cd-113	1126.100	0.001	5.370	0.000
I-132	Xe-132	1126.500	0.001	2.295	0.043
I-135	Xe-135	1124.000	0.036	6.570	0.063
Ba-142	La-142	1126.800	0.015	0.177	0.058
Nd-149	Pm-149	1125.320	0.000	1.728	0.011
Nd-151	Pm-151	1125.400	0.000	0.207	0.004

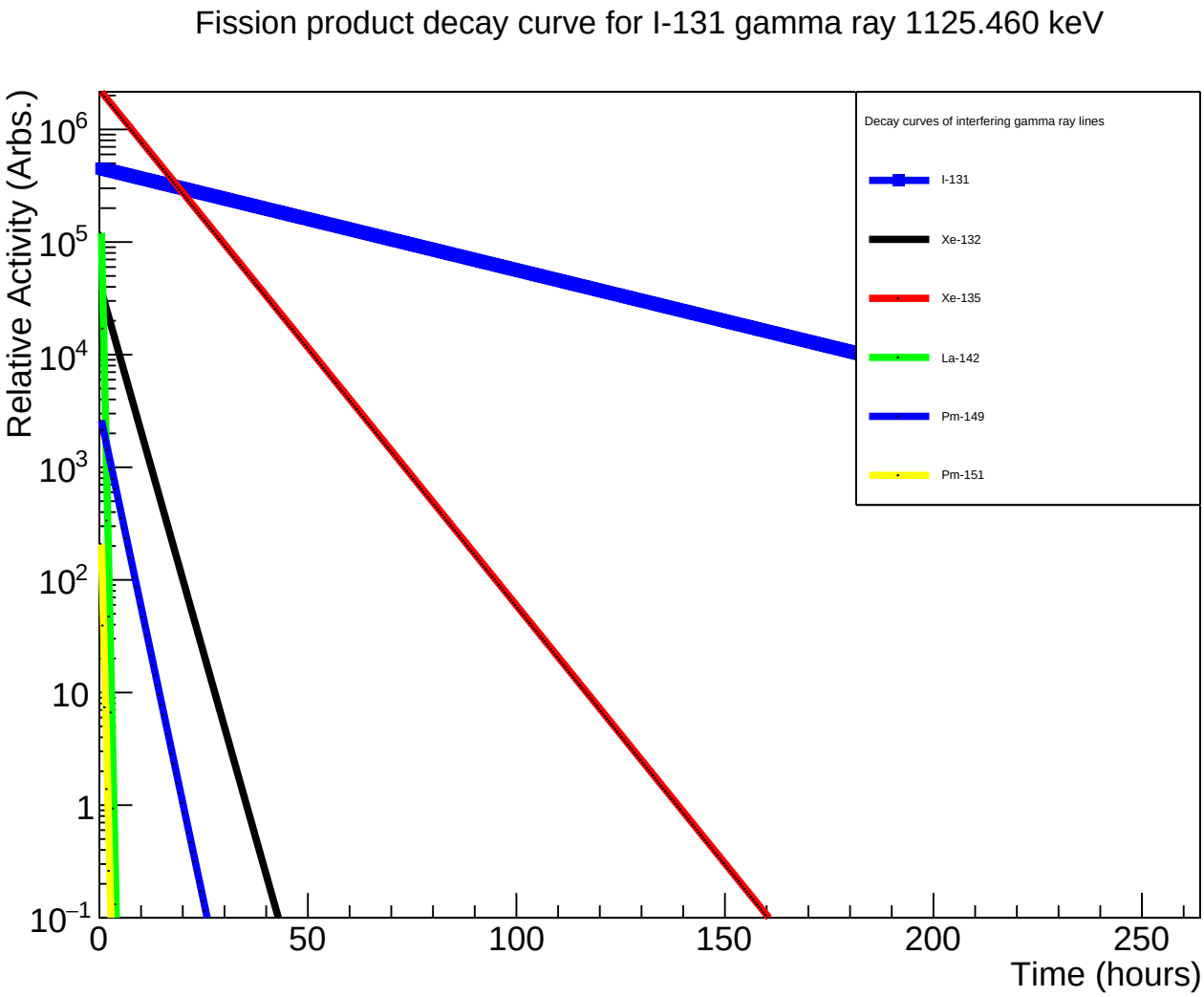


Figure 719: I-131 decay curve for 1125.460 keV gamma ray.

3.720 Te-131 E_γ = 1148.89 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1148.89 keV
Gamma Intensity = 1.70 ± 0.386 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1439: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1440: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1147.970	0.026	16.749	0.060
Rh-107	Pd-107	1148.500	0.000	0.362	0.001
I-132	Xe-132	1147.800	0.003	2.295	0.043
Ba-142	La-142	1148.700	0.005	0.177	0.058
La-143	Ce-143	1148.500	0.012	0.237	0.059
Pr-145	Nd-145	1150.258	0.002	5.984	0.039
Pr-146	Nd-146	1148.900	0.002	0.403	0.030
Nd-149	Pm-149	1150.080	0.000	1.728	0.011
Nd-151	Pm-151	1147.800	0.000	0.207	0.004

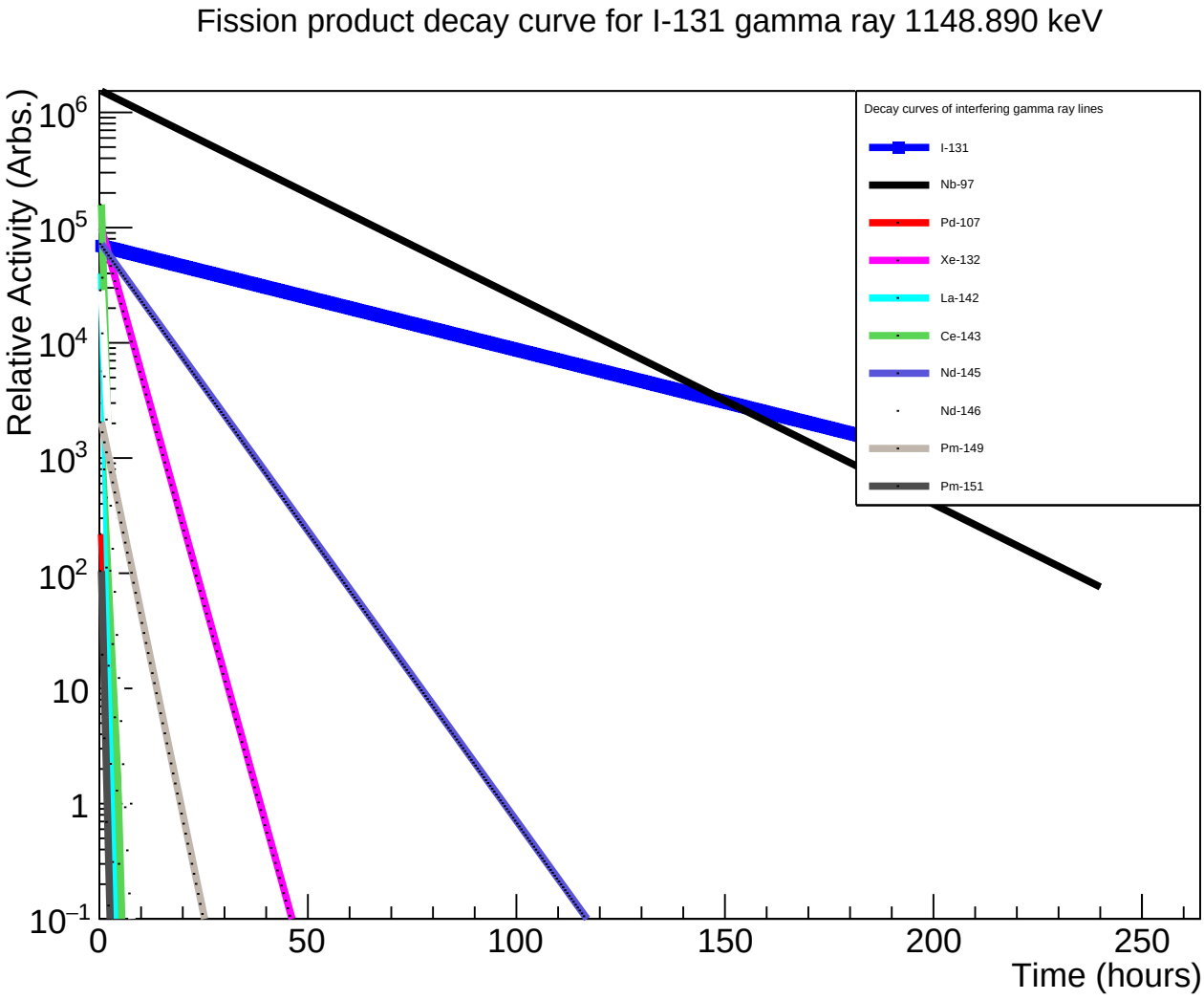


Figure 720: I-131 decay curve for 1148.890 keV gamma ray.

3.721 Te-131 E_γ = 1206.60 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1206.60 keV
Gamma Intensity = 9.41 ± 0.221 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1441: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1442: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1208.000	0.004	0.372	0.003
Sn-129	Sb-129	1207.800	0.034	0.115	0.002
La-142	Ce-142	1205.700	0.000	1.518	0.058
Nd-149	Pm-149	1206.700	0.000	1.728	0.011
Nd-151	Pm-151	1206.600	0.000	0.207	0.004
Sm-155	Eu-155	1207.800	0.000	0.372	0.000

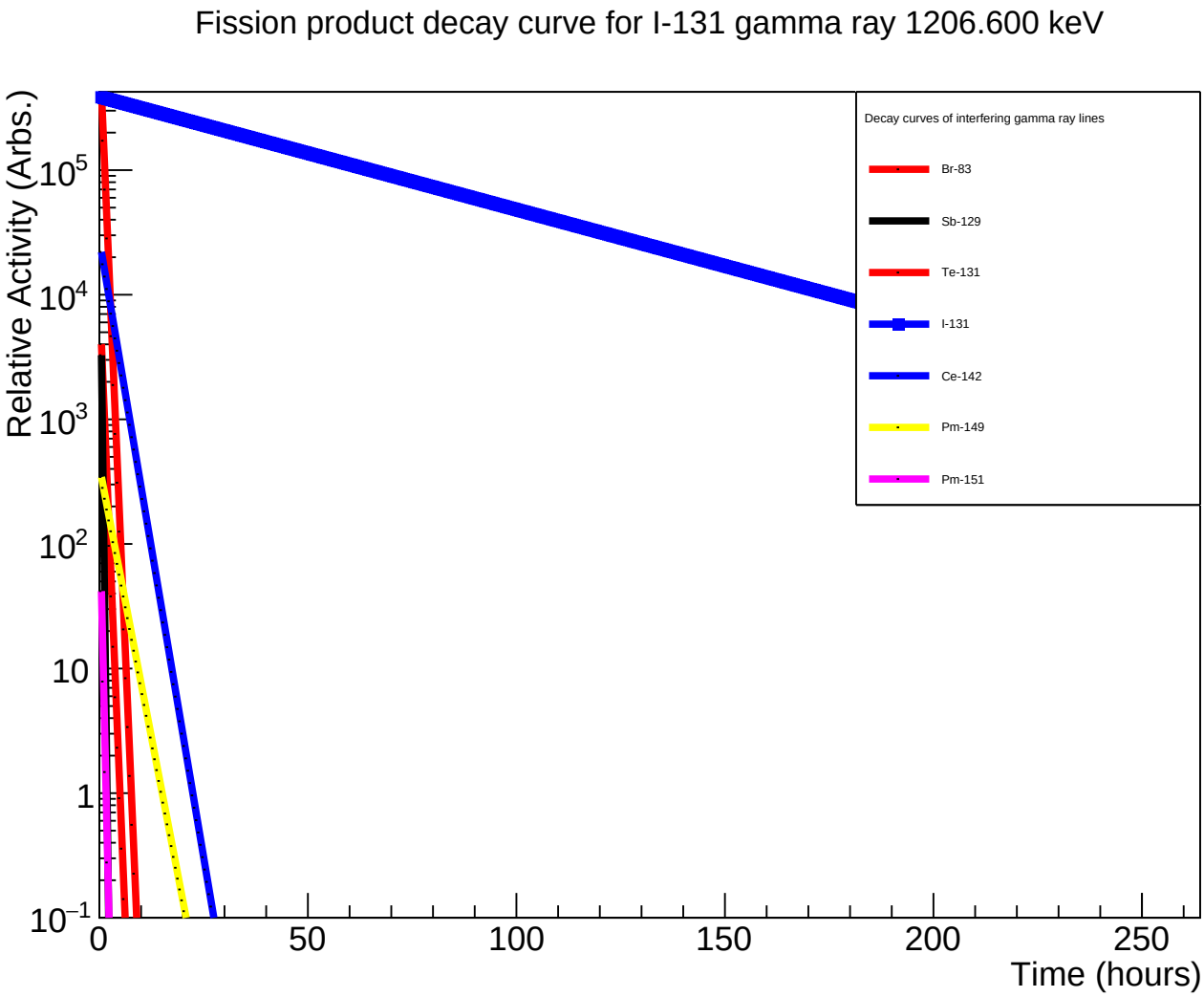


Figure 721: I-131 decay curve for 1206.600 keV gamma ray.

3.722 Te-131 E_γ = 1646.01 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1646.01 keV
Gamma Intensity = 1.20 ± 0.043 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1443: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1444: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1645.000	0.005	0.372	0.003
Sr-91	Y-91	1646.000	0.000	9.630	0.058
Mo-101	Tc-101	1646.400	0.001	0.243	0.052
Xe-138	Cs-138	1646.500	0.001	0.235	0.063
Nd-151	Pm-151	1647.430	0.000	0.207	0.004

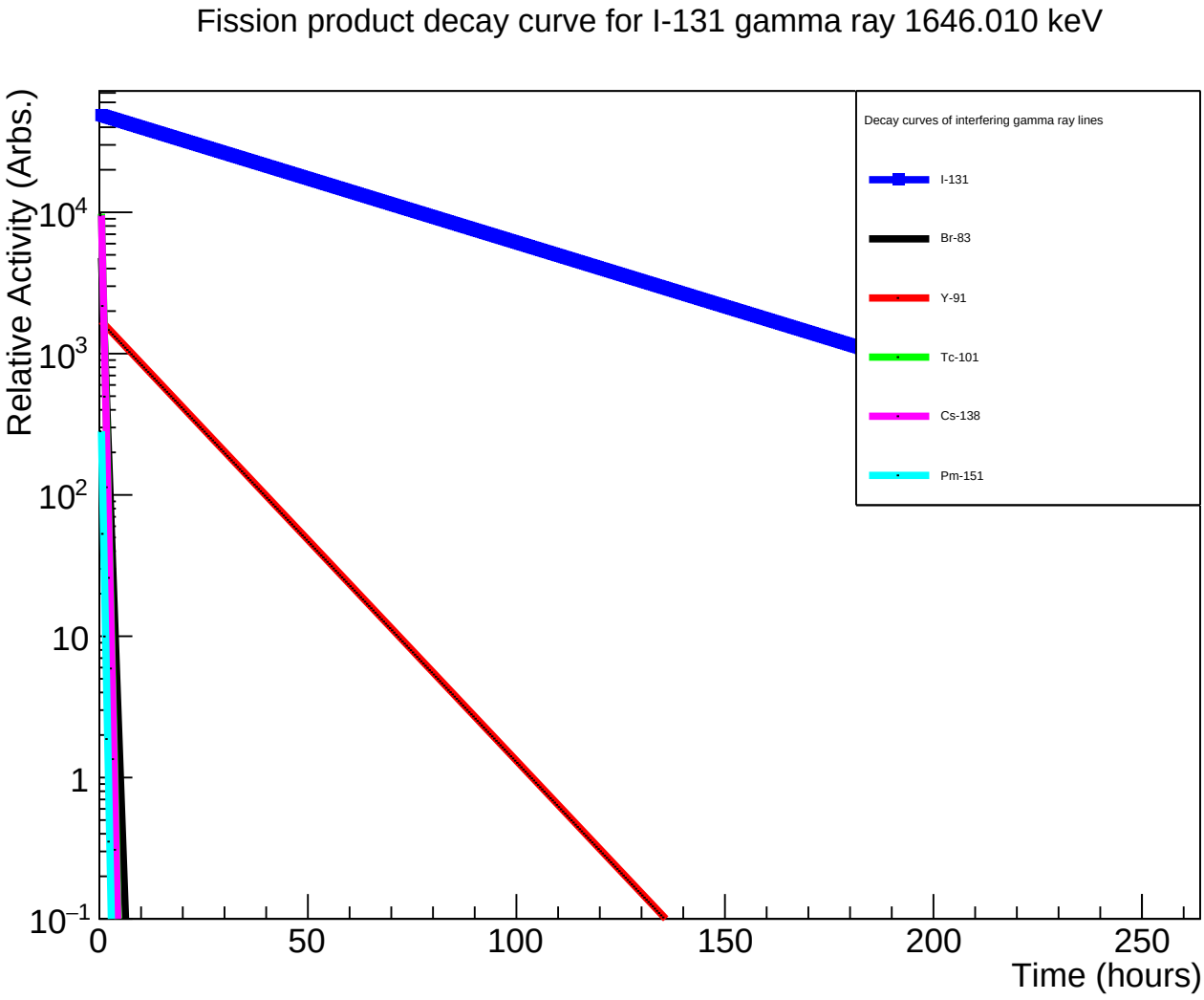


Figure 722: I-131 decay curve for 1646.010 keV gamma ray.

3.723 Te-131 E_γ = 1887.70 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 1887.70 keV
Gamma Intensity = 1.31 ± 0.044 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1445: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1446: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1888.300	0.000	0.243	0.052
Ag-112	Cd-112	1888.800	0.003	3.130	0.000
Xe-138	Cs-138	1887.300	0.001	0.235	0.063
Cs-139	Ba-139	1887.570	0.002	0.155	0.063
La-142	Ce-142	1887.300	0.001	1.518	0.058

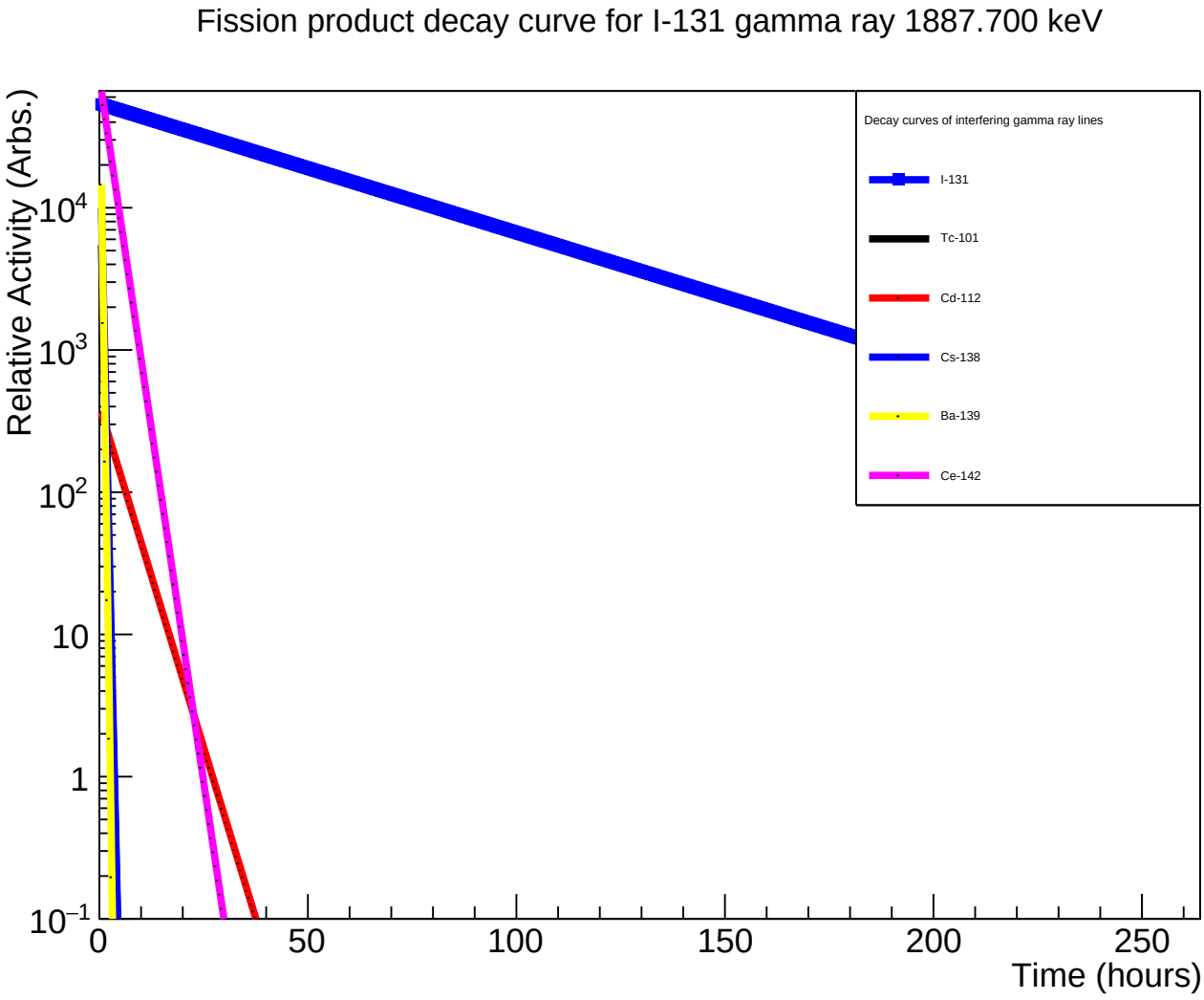


Figure 723: I-131 decay curve for 1887.700 keV gamma ray.

3.724 Te-131 E_γ = 2000.94 keV

Chemical element: Tellurium
Fission product parent: Te-131
Gamma originates in daughter: I-131
Eγ: 2000.94 keV
Gamma Intensity = 1.94 ± 0.050 %
$T_{1/2}$ = 33.250 ± 0.250 hours or 1995.00 ± 15.00 minutes
CFY: 0.412 ± 0.017 %

Table 1447: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1448: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	2002.134	0.019	231.360	0.000
I-132	Xe-132	2002.200	0.011	2.295	0.043

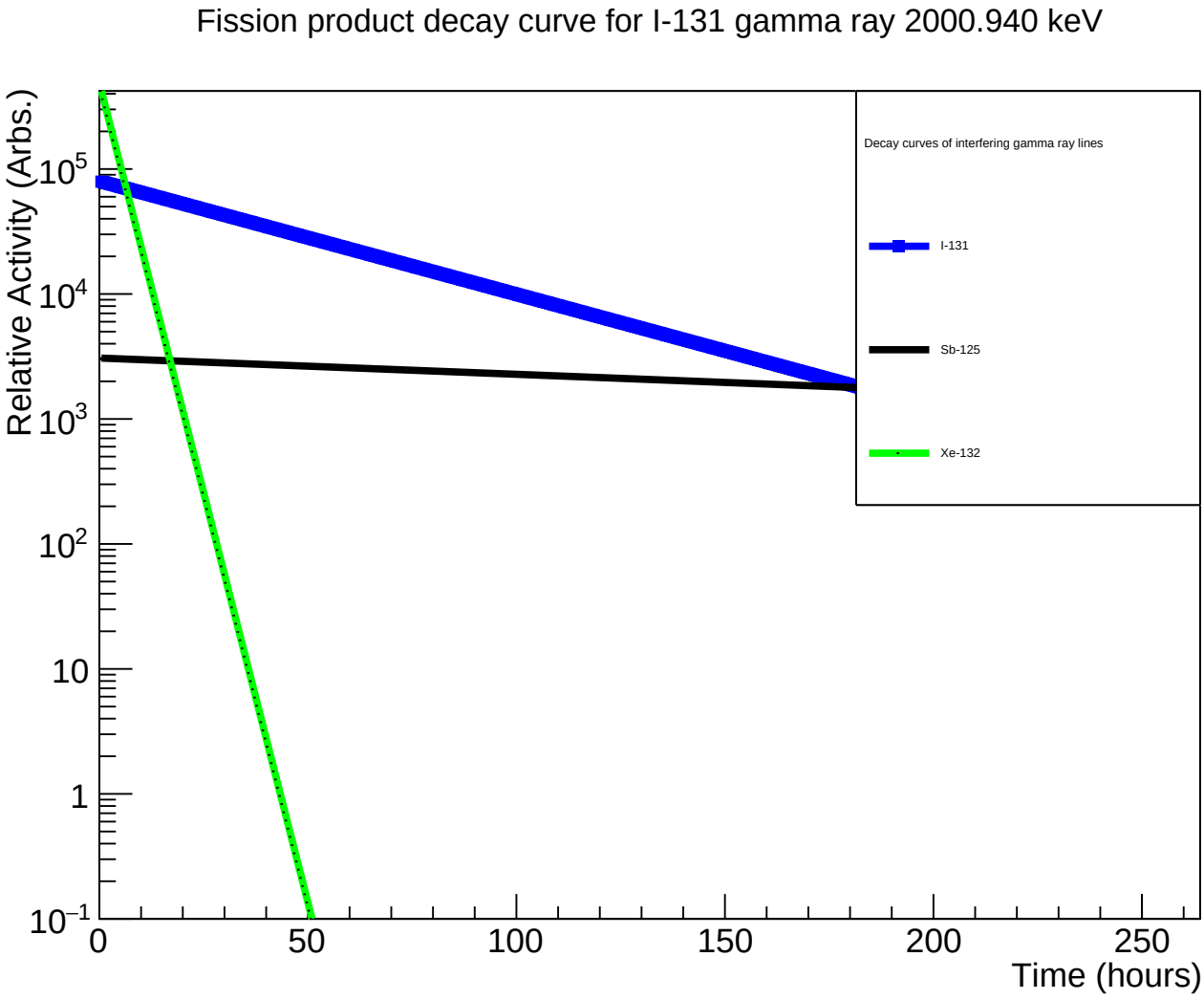


Figure 724: I-131 decay curve for 2000.940 keV gamma ray.

3.725 Te-132 E_γ = 49.72 keV

Chemical element: Tellurium
Fission product parent: Te-132
Gamma originates in daughter: I-132
Eγ: 49.72 keV
Gamma Intensity = 14.96 ± 0.574 %
$T_{1/2}$ = 76.896 ± 0.312 hours or 4613.76 ± 18.72 minutes
CFY: 4.295 ± 0.060 %

Table 1449: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

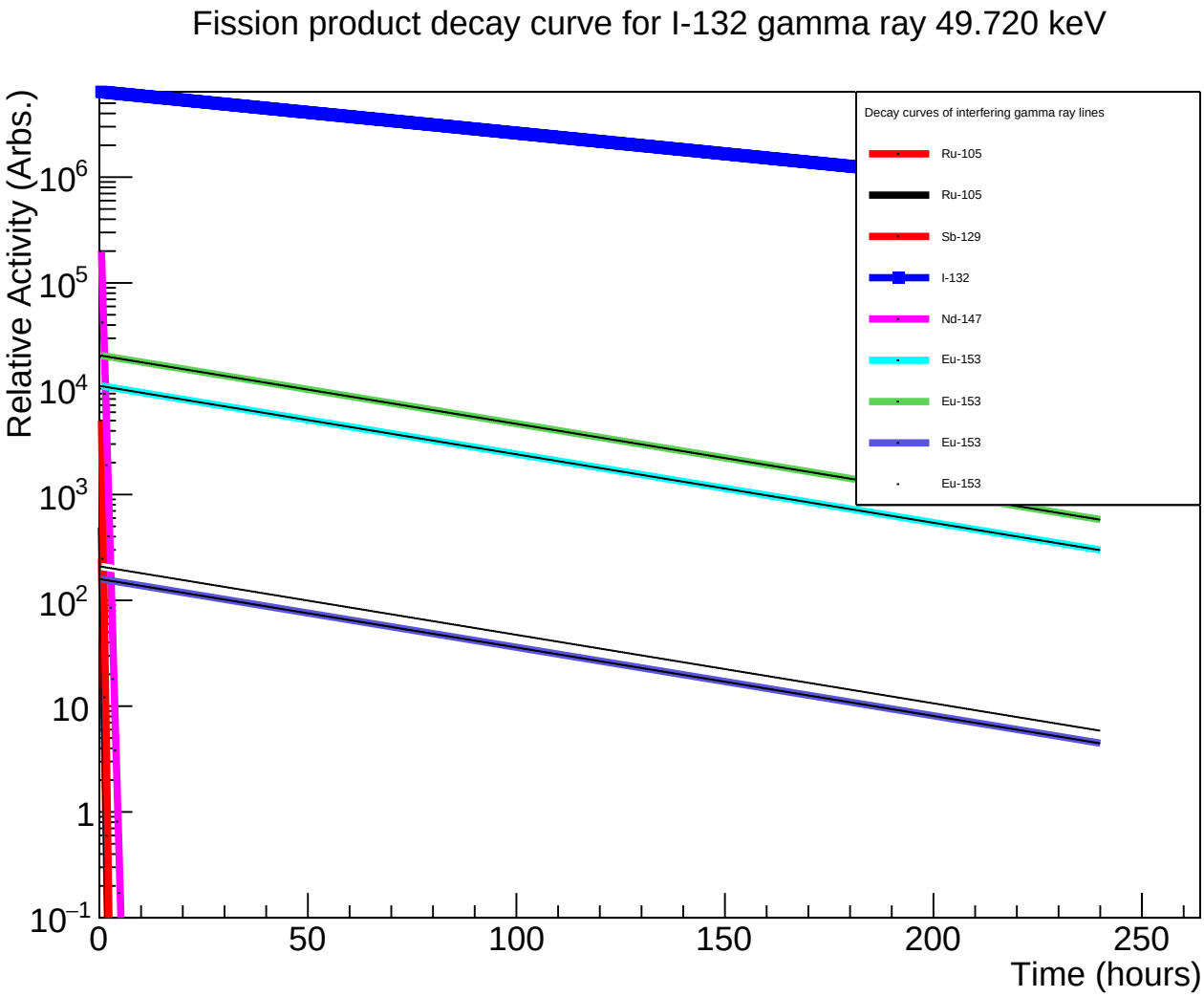


Figure 725: I-132 decay curve for 49.720 keV gamma ray.

Table 1450: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	48.940	0.000	0.127	0.010
Tc-105	Ru-105	51.200	0.001	0.127	0.010
Sn-129	Sb-129	50.200	0.052	0.115	0.002
Pr-147	Nd-147	49.880	0.042	0.223	0.022
Sm-153	Eu-153	48.278	0.007	46.500	0.002
Sm-153	Eu-153	48.308	0.013	46.500	0.002
Sm-153	Eu-153	48.420	0.000	46.500	0.002
Sm-153	Eu-153	48.426	0.000	46.500	0.002
Sm-155	Eu-155	48.278	0.002	0.372	0.000
Sm-155	Eu-155	48.308	0.004	0.372	0.000
Sm-155	Eu-155	48.420	0.000	0.372	0.000
Sm-155	Eu-155	48.426	0.000	0.372	0.000
Sm-156	Eu-156	48.278	0.001	9.400	0.000
Sm-156	Eu-156	48.308	0.003	9.400	0.000
Sm-156	Eu-156	48.420	0.000	9.400	0.000
Sm-156	Eu-156	48.426	0.000	9.400	0.000
Eu-155	Gd-155	48.616	0.012	41666.668	0.000
Eu-155	Gd-155	48.761	0.024	41666.668	0.000
Eu-155	Gd-155	49.071	0.000	41666.668	0.000
Eu-155	Gd-155	49.103	0.000	41666.668	0.000
Eu-155	Gd-155	49.992	0.003	41666.668	0.000
Eu-155	Gd-155	50.024	0.005	41666.668	0.000
Eu-155	Gd-155	50.141	0.000	41666.668	0.000
Eu-155	Gd-155	50.147	0.000	41666.668	0.000
Eu-156	Gd-156	48.616	0.007	364.560	0.000
Eu-156	Gd-156	48.761	0.013	364.560	0.000
Eu-156	Gd-156	49.071	0.000	364.560	0.000
Eu-156	Gd-156	49.103	0.000	364.560	0.000
Eu-156	Gd-156	49.992	0.001	364.560	0.000
Eu-156	Gd-156	50.024	0.003	364.560	0.000
Eu-156	Gd-156	50.141	0.000	364.560	0.000
Eu-156	Gd-156	50.147	0.000	364.560	0.000

3.726 Te-132 E_γ = 111.76 keV

Chemical element: Tellurium
Fission product parent: Te-132
Gamma originates in daughter: I-132
Eγ: 111.76 keV
Gamma Intensity = 1.74 ± 0.074 %
$T_{1/2}$ = 76.896 ± 0.312 hours or 4613.76 ± 18.72 minutes
CFY: 4.295 ± 0.060 %

Table 1451: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1452: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	111.600	0.001	16.749	0.060
Tc-105	Ru-105	112.500	0.003	0.127	0.010
Ru-103	Rh-103	113.191	0.000	941.928	0.030
Sb-125	Te-125	110.895	0.000	24194.445	0.000
I-135	Xe-135	112.780	0.000	6.570	0.063
I-135	Xe-135	113.150	0.000	6.570	0.063
Cs-138	Ba-138	112.600	0.001	0.557	0.067
Ba-141	La-141	112.800	0.010	0.304	0.058
Nd-149	Pm-149	112.520	0.001	1.728	0.011
Nd-151	Pm-151	112.150	0.001	0.207	0.004
Pm-151	Sm-151	113.100	0.000	28.400	0.004

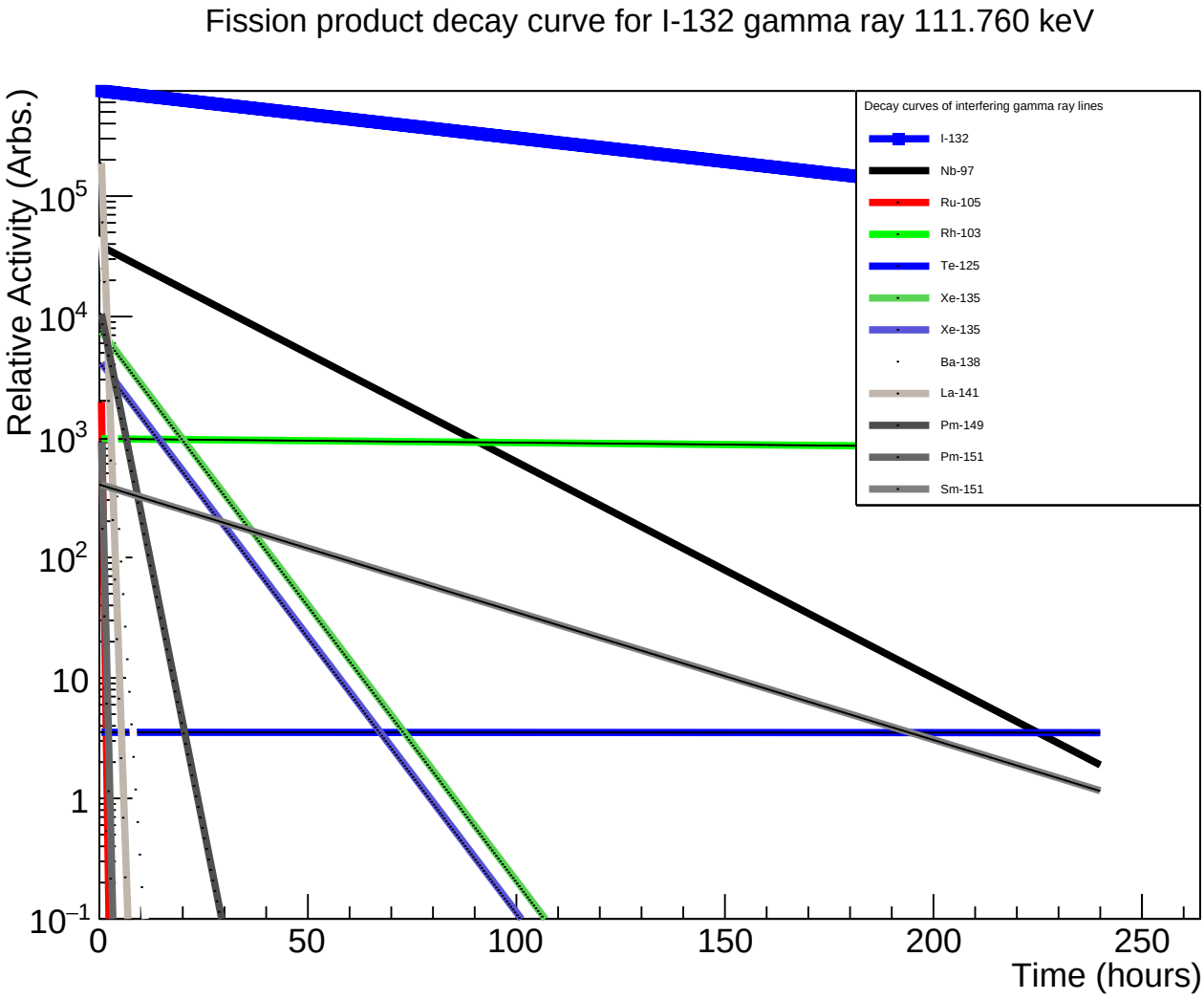


Figure 726: I-132 decay curve for 111.760 keV gamma ray.

3.727 Te-132 E_γ = 116.30 keV

Chemical element: Tellurium
Fission product parent: Te-132
Gamma originates in daughter: I-132
Eγ: 116.30 keV
Gamma Intensity = 1.96 ± 0.085 %
$T_{1/2}$ = 76.896 ± 0.312 hours or 4613.76 ± 18.72 minutes
CFY: 4.295 ± 0.060 %

Table 1453: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1454: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	115.760	0.000	0.243	0.052
Ru-103	Rh-103	114.870	0.000	941.928	0.030
Rh-107	Pd-107	115.650	0.005	0.362	0.001
Sn-128	Sb-128	115.900	0.002	0.984	0.003
Sn-129	Sb-129	117.200	0.019	0.115	0.002
Sb-125	Te-125	116.955	0.003	24194.445	0.000
Nd-149	Pm-149	116.930	0.001	1.728	0.011
Nd-151	Pm-151	116.800	0.390	0.207	0.004

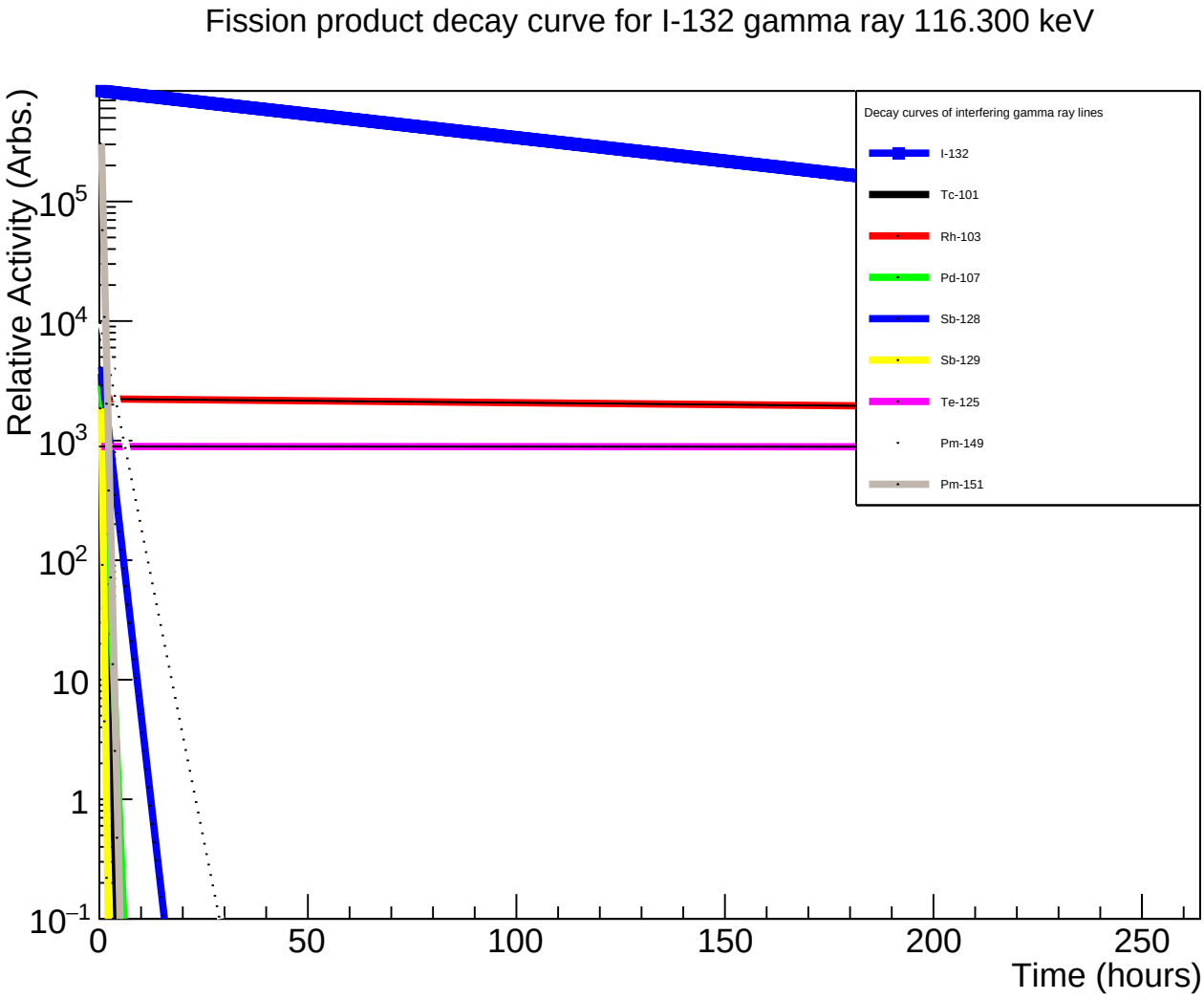


Figure 727: I-132 decay curve for 116.300 keV gamma ray.

3.728 Te-132 E_γ = 228.16 keV

Chemical element: Tellurium
Fission product parent: Te-132
Gamma originates in daughter: I-132
Eγ: 228.16 keV
Gamma Intensity = 88.00 ± 3.478 %
$T_{1/2}$ = 76.896 ± 0.312 hours or 4613.76 ± 18.72 minutes
CFY: 4.295 ± 0.060 %

Table 1455: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1456: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	229.400	0.003	0.127	0.010
Sn-127	Sb-127	228.400	0.002	2.100	0.001
Sb-125	Te-125	227.891	0.001	24194.445	0.000
Sb-128	Te-128	227.300	0.015	9.010	0.000
Cs-138	Ba-138	227.760	0.015	0.557	0.067
Nd-149	Pm-149	226.847	0.002	1.728	0.011
Nd-149	Pm-149	229.566	0.005	1.728	0.011
Pm-151	Sm-151	227.180	0.003	28.400	0.004
Pm-151	Sm-151	227.810	0.000	28.400	0.004
Pm-151	Sm-151	229.010	0.000	28.400	0.004
Sm-155	Eu-155	228.700	0.001	0.372	0.000
Sm-155	Eu-155	229.000	0.000	0.372	0.000

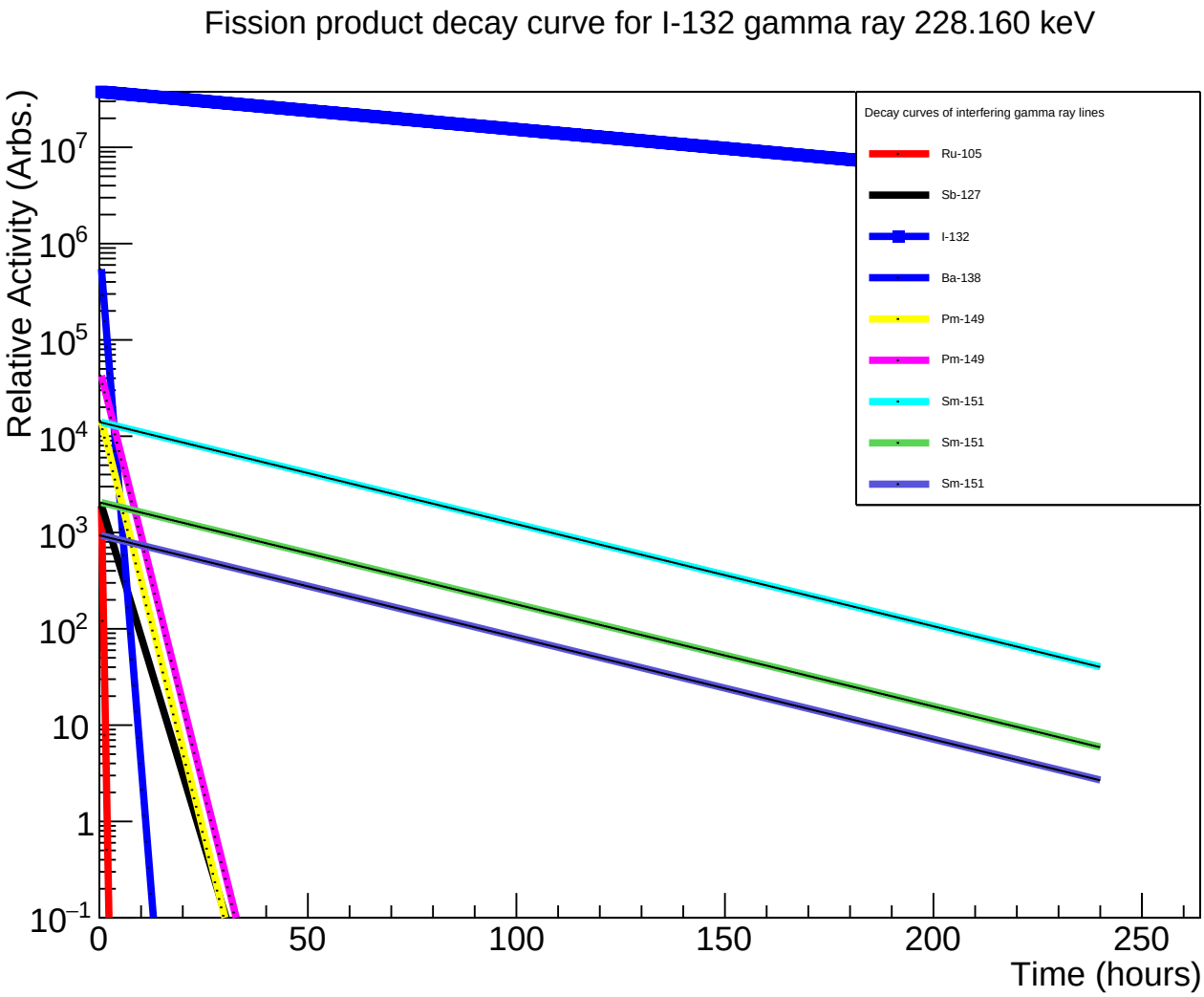


Figure 728: I-132 decay curve for 228.160 keV gamma ray.

3.729 Te-133 E_γ = 312.08 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 312.08 keV
Gamma Intensity = 62.40 ± 1.800 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1457: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1458: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	311.690	0.001	2.840	0.036
Tc-101	Ru-101	311.280	0.002	0.237	0.052
Rh-107	Pd-107	312.210	0.048	0.362	0.001
Pd-109	Ag-109	311.400	0.000	13.701	0.000
Sn-125	Sb-125	311.300	0.000	231.360	0.000
Sn-125	Sb-125	310.960	0.000	0.159	0.000
Cs-139	Ba-139	312.310	0.000	0.155	0.063
Nd-149	Pm-149	310.979	0.005	1.728	0.011
Nd-151	Pm-151	312.630	0.002	0.207	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004

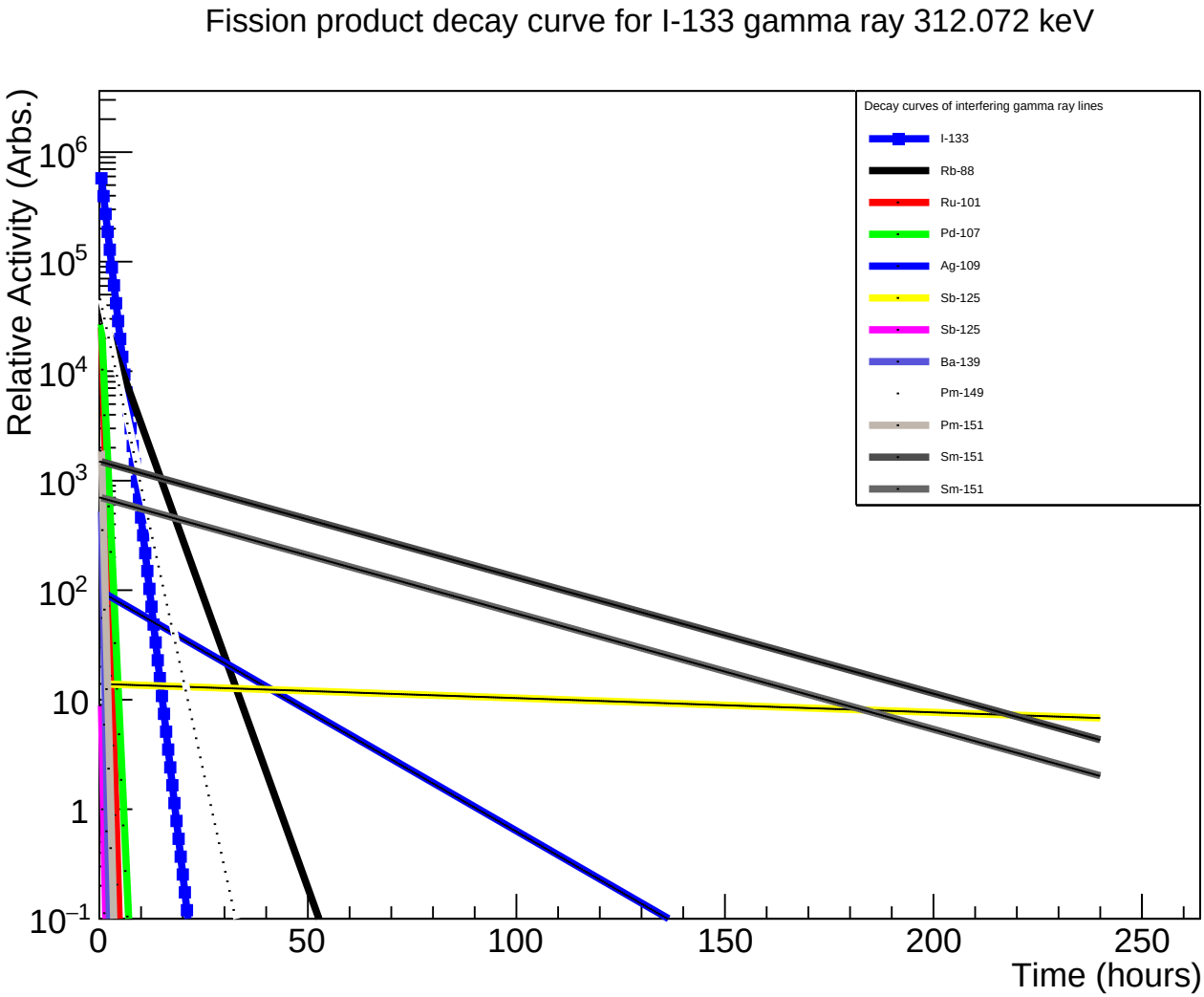


Figure 729: I-133 decay curve for 312.080 keV gamma ray.

3.730 Te-133 E_γ = 407.63 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 407.63 keV
Gamma Intensity = 27.08 ± 0.841 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1459: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1460: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	406.710	0.004	0.124	0.062
Nb-98	Mo-98	408.400	0.000	0.855	0.000
Mo-101	Tc-101	408.690	0.015	0.243	0.052
Tc-104	Ru-104	407.100	0.003	0.305	0.019
Tc-105	Ru-105	407.400	0.003	0.127	0.010
Ru-105	Rh-105	407.600	0.001	4.440	0.010
Sn-127	Sb-127	407.100	0.015	2.100	0.001
Sn-129	Sb-129	409.100	0.023	0.115	0.002
Sb-125	Te-125	408.065	0.002	24194.445	0.000
Xe-135	Cs-135	407.990	0.004	9.140	0.065
Cs-138	Ba-138	408.980	0.047	0.557	0.067
Nd-147	Pm-147	408.520	0.000	263.520	0.022
Nd-151	Pm-151	407.550	0.005	0.207	0.004
Nd-152	Pm-152	406.400	0.000	0.190	0.003
Pm-151	Sm-151	407.030	0.002	28.400	0.004

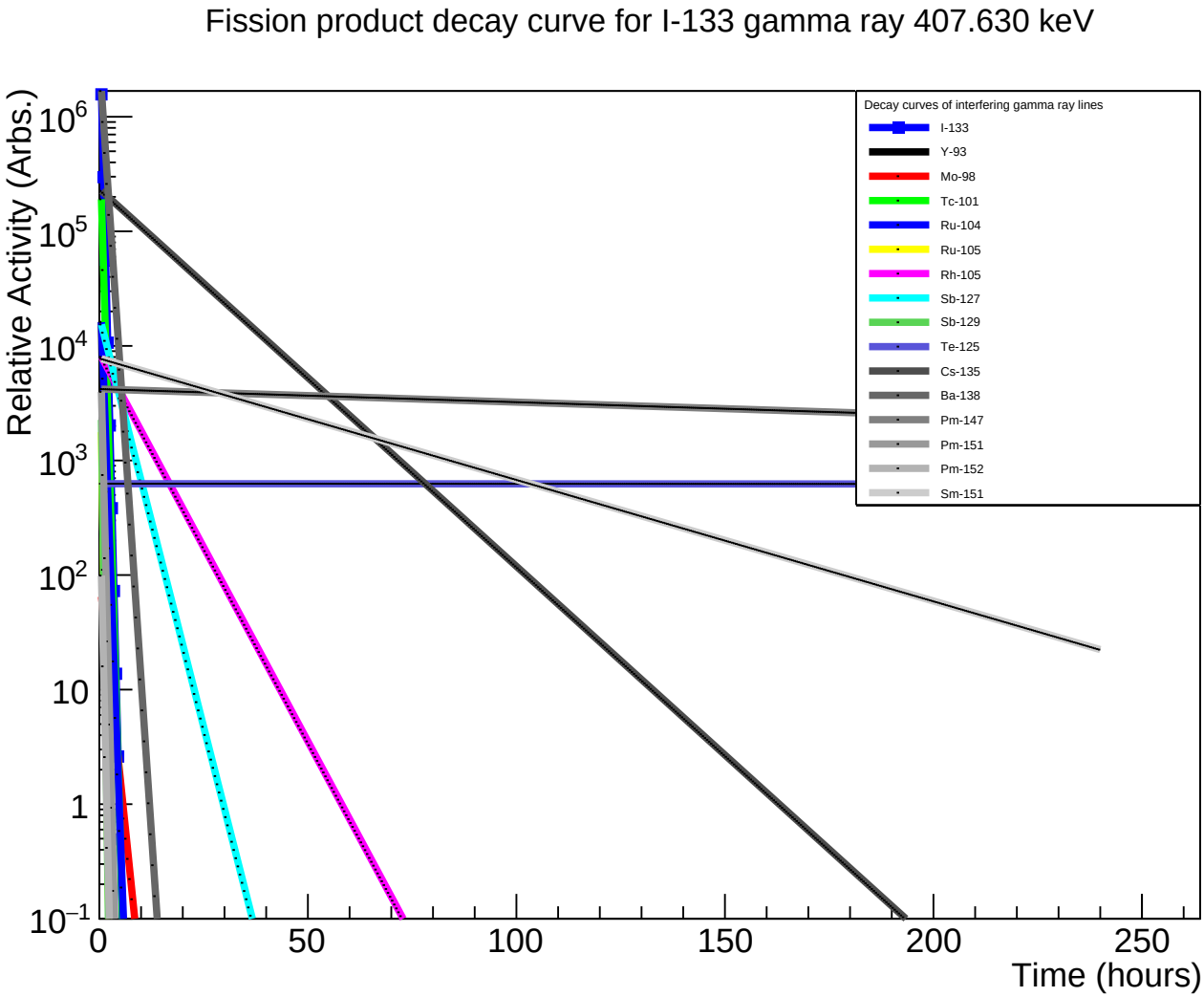


Figure 730: I-133 decay curve for 407.630 keV gamma ray.

3.731 Te-133 E_γ = 719.71 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 719.71 keV
Gamma Intensity = 8.86 ± 0.561 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1461: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1462: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	718.330	0.015	0.124	0.062
Nb-97	Mo-97	719.530	0.001	1.202	0.060
Tc-101	Ru-101	720.020	0.002	0.237	0.052
Rh-107	Pd-107	720.400	0.000	0.362	0.001
Ag-112	Cd-112	718.400	0.002	3.130	0.000
Pr-147	Nd-147	718.900	0.011	0.223	0.022
Nd-149	Pm-149	718.430	0.000	1.728	0.011
Nd-151	Pm-151	719.600	0.000	0.207	0.004
Nd-151	Pm-151	720.300	0.000	0.207	0.004
Pm-151	Sm-151	719.000	0.000	28.400	0.004
Sm-153	Eu-153	719.000	0.000	46.500	0.002

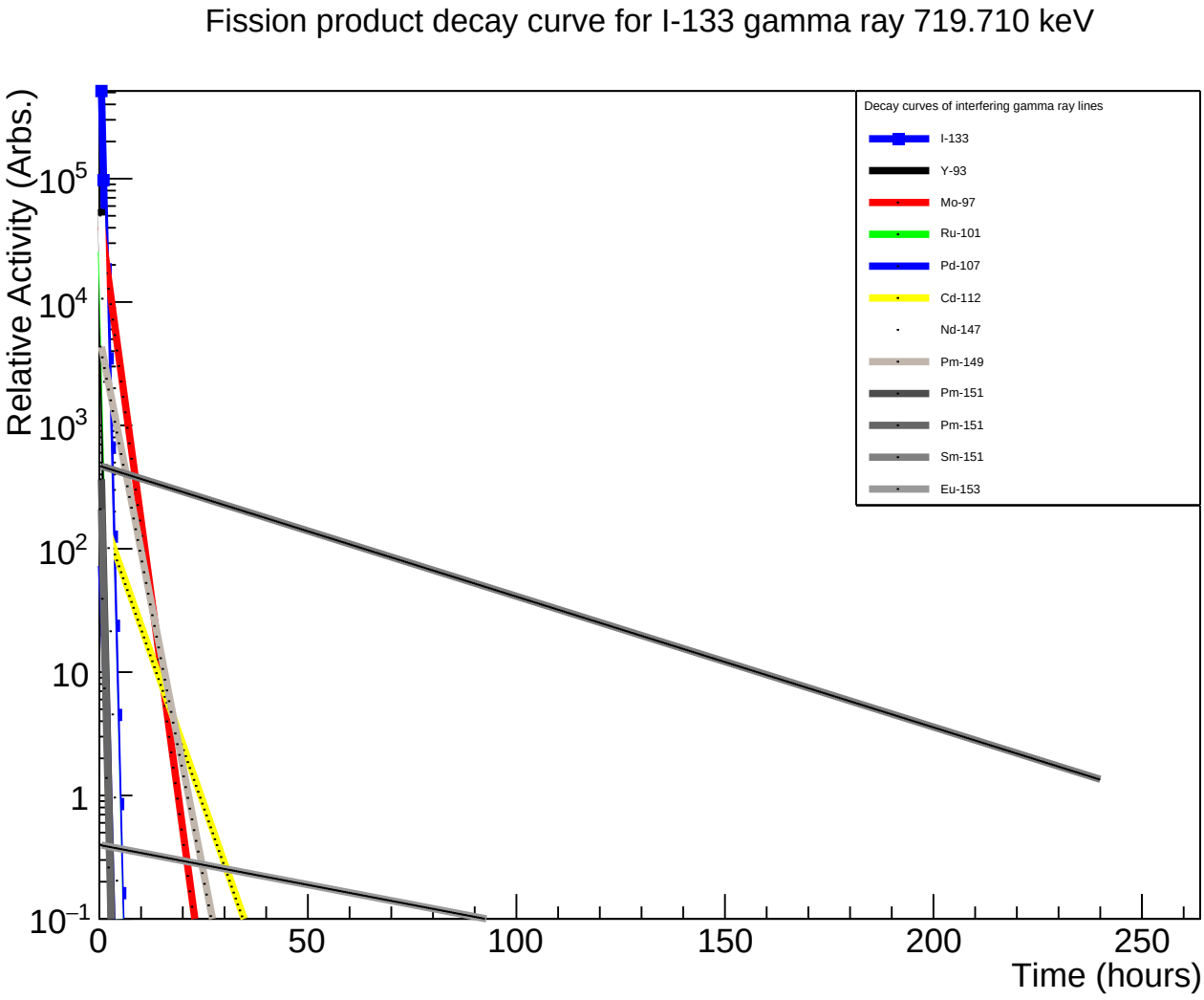


Figure 731: I-133 decay curve for 719.710 keV gamma ray.

3.732 Te-133 E_γ = 786.93 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 786.93 keV
Gamma Intensity = 5.40 ± 0.182 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1463: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1464: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	788.280	0.005	2.840	0.036
Nb-95	Mo-95	786.192	0.000	86.640	0.001
Nb-98	Mo-98	787.363	0.934	0.855	0.000
Sb-128	Te-128	787.600	0.071	0.173	0.003
Sb-129	Te-129	786.600	0.019	4.400	0.005
I-135	Xe-135	785.480	0.002	6.570	0.063
Xe-135	Cs-135	786.900	0.000	0.255	0.011
Cs-139	Ba-139	788.300	0.000	0.155	0.063
Ba-142	La-142	786.600	0.002	0.177	0.058
Ce-143	Pr-143	787.400	0.000	33.039	0.060
Nd-149	Pm-149	786.730	0.000	1.728	0.011
Nd-151	Pm-151	787.200	0.000	0.207	0.004

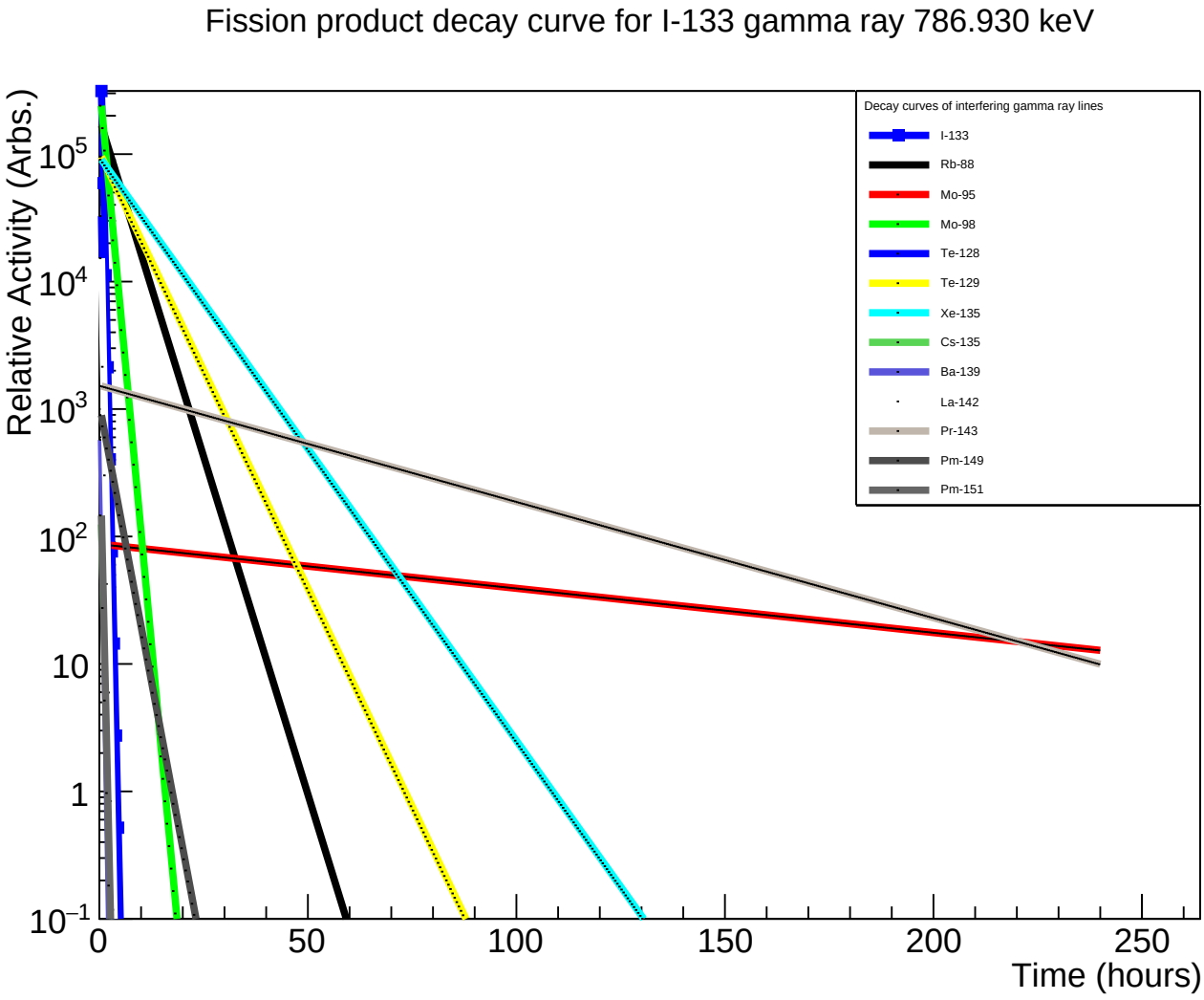


Figure 732: I-133 decay curve for 786.930 keV gamma ray.

3.733 Te-133 E_γ = 844.36 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 844.36 keV
Gamma Intensity = 3.31 ± 0.114 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1465: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1466: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	845.440	0.073	1.272	0.026
Y-92	Zr-92	844.300	0.013	3.540	0.060
Nb-98	Mo-98	843.820	0.001	0.855	0.000
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Sb-128	Te-128	845.800	0.025	9.010	0.000
Sb-128	Te-128	844.000	0.022	0.173	0.003

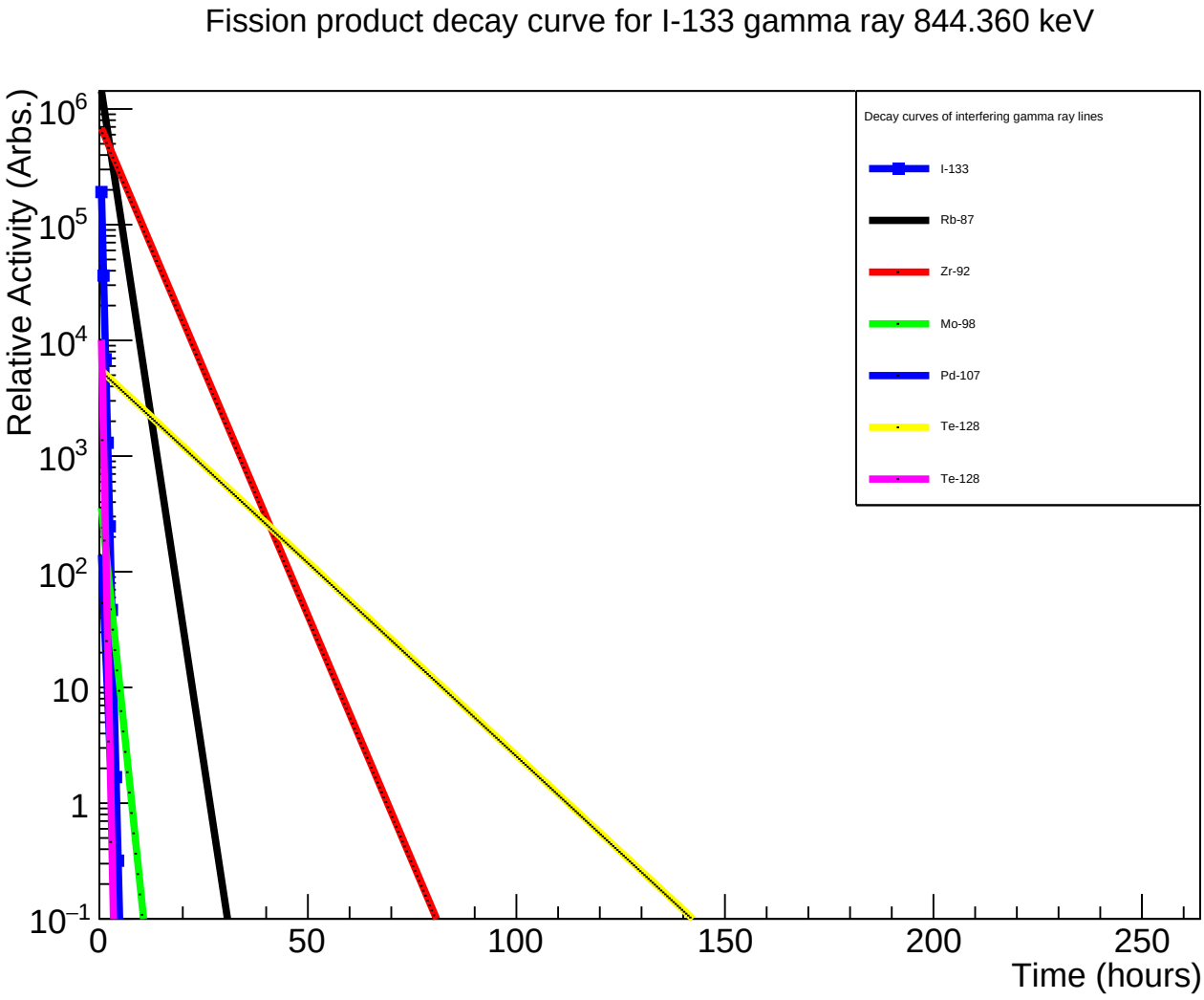


Figure 733: I-133 decay curve for 844.360 keV gamma ray.

3.734 Te-133 E_γ = 930.71 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 930.71 keV
Gamma Intensity = 3.81 ± 0.166 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1467: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1468: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	930.910	0.004	0.124	0.062
Sn-127	Sb-127	929.700	0.003	2.100	0.001
Sn-129	Sb-129	931.200	0.005	0.115	0.002
Ba-141	La-141	929.500	0.007	0.304	0.058
Ba-142	La-142	931.600	0.001	0.177	0.058
Nd-149	Pm-149	929.800	0.000	1.728	0.011
Nd-151	Pm-151	930.400	0.000	0.207	0.004
Pm-149	Sm-149	930.200	0.000	53.080	0.011

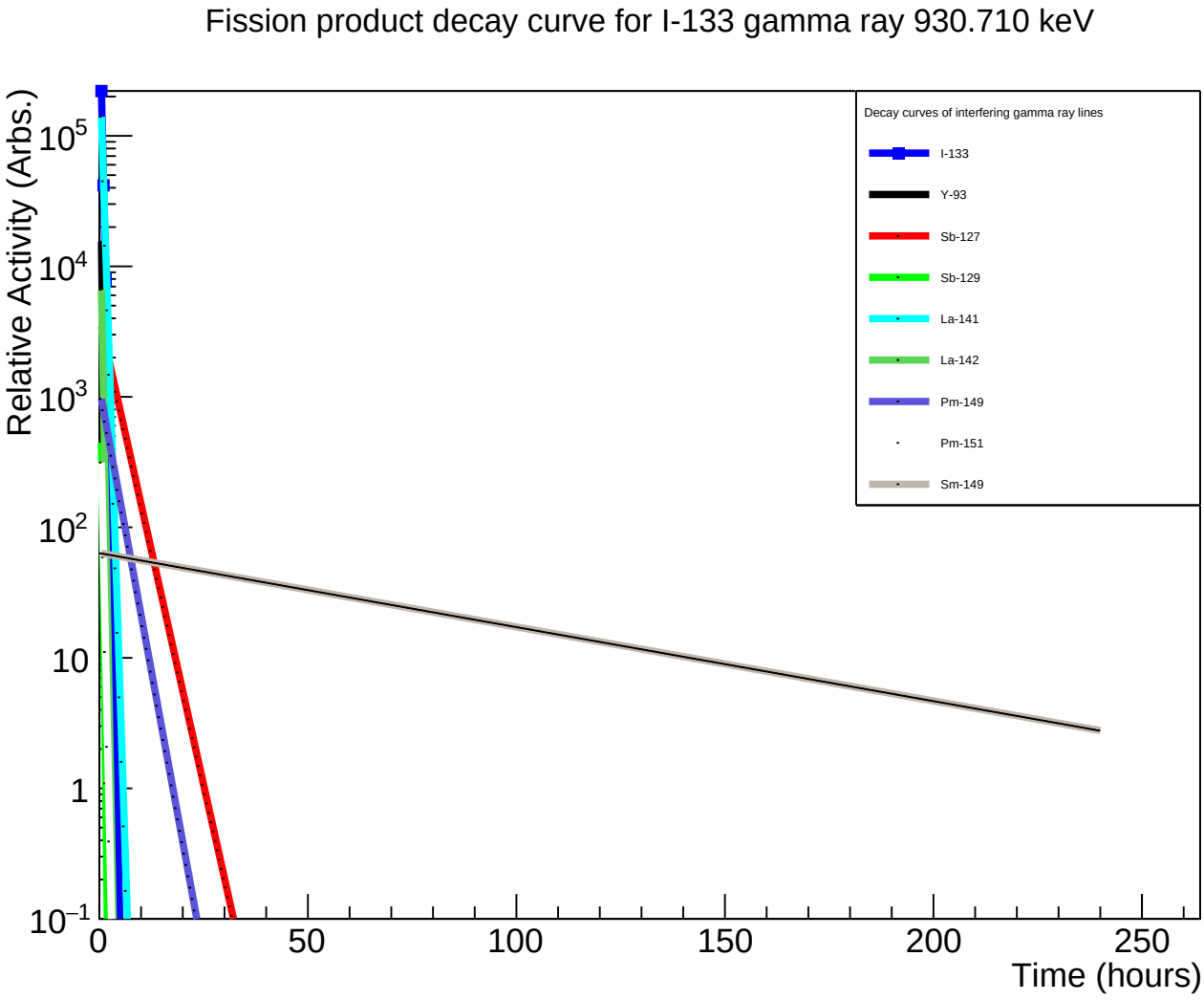


Figure 734: I-133 decay curve for 930.710 keV gamma ray.

3.735 Te-133 E_γ = 997.66 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 997.66 keV
Gamma Intensity = 1.04 ± 0.058 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1469: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1470: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	996.300	0.021	0.855	0.000
Sn-127	Sb-127	997.900	0.019	2.100	0.001
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Sm-155	Eu-155	997.900	0.000	0.372	0.000

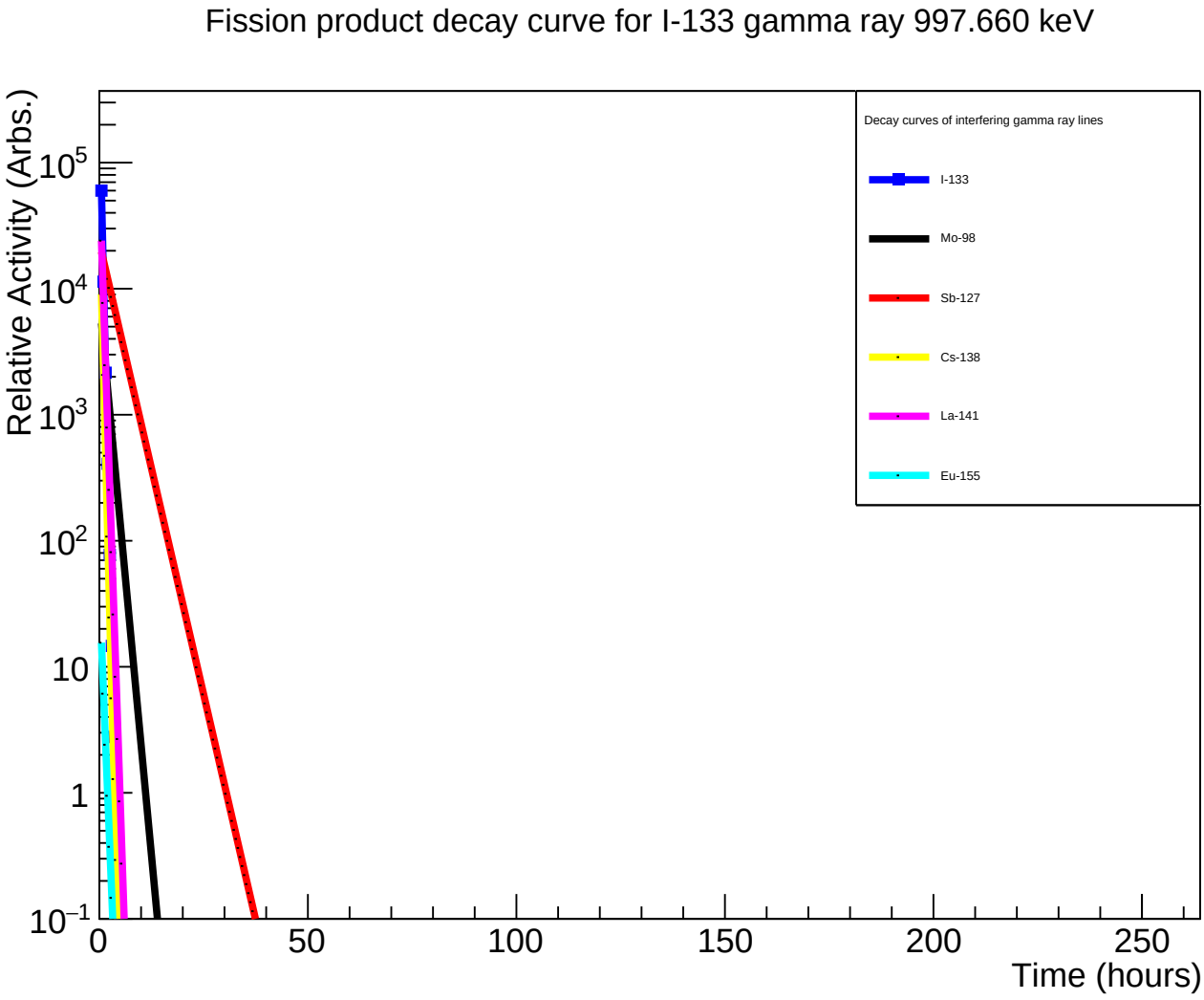


Figure 735: I-133 decay curve for 997.660 keV gamma ray.

3.736 Te-133 E_γ = 1000.72 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1000.72 keV
Gamma Intensity = 3.62 ± 0.122 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1471: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1472: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1001.800	0.001	0.312	0.065
Y-95	Zr-95	1002.100	0.002	0.172	0.064
Mo-99	Tc-99	1001.343	0.000	65.976	0.061
Sb-130	Te-130	1000.200	0.023	0.658	0.008
Ba-142	La-142	1001.200	0.097	0.177	0.058
Nd-151	Pm-151	999.500	0.000	0.207	0.004

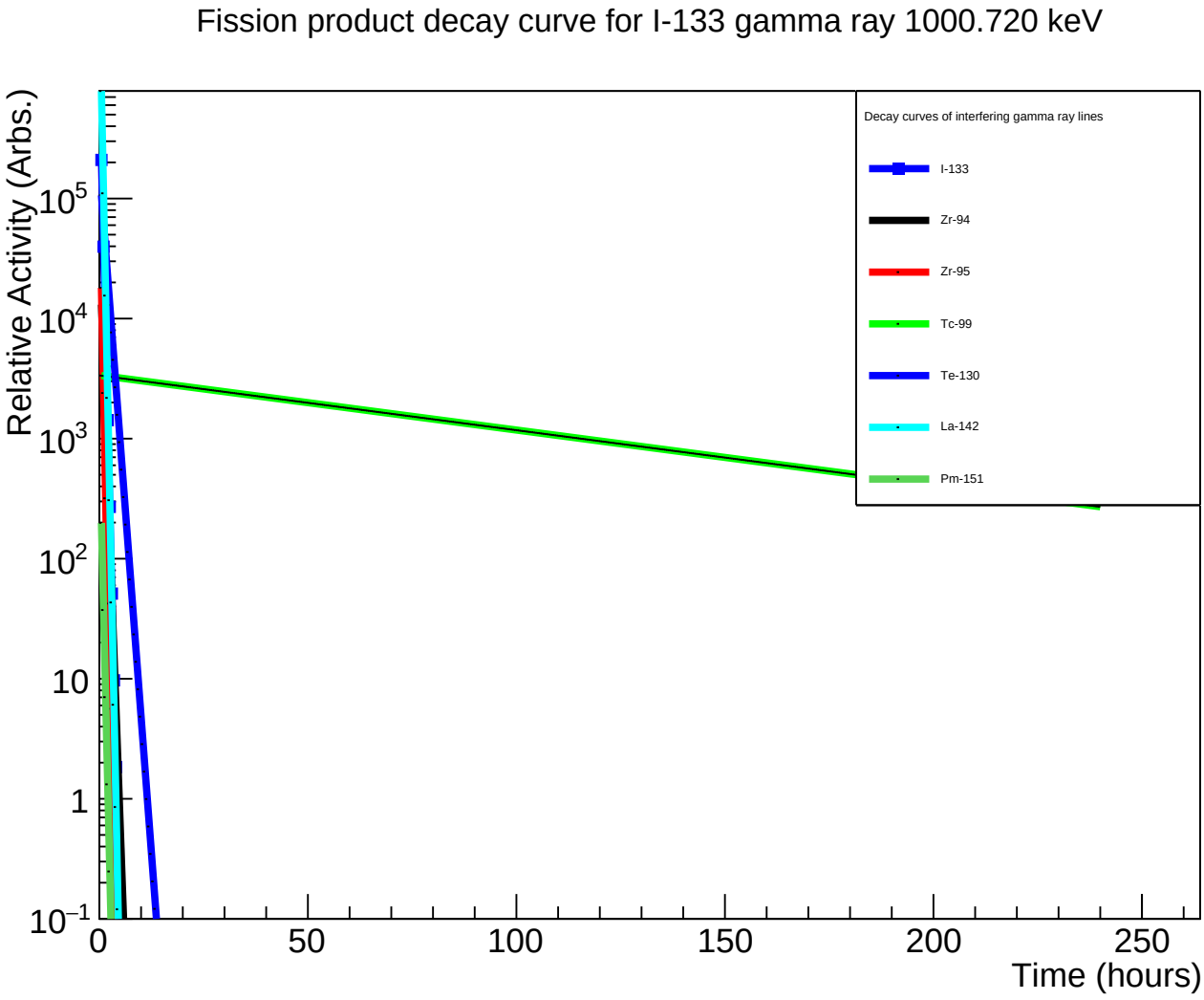


Figure 736: I-133 decay curve for 1000.720 keV gamma ray.

3.737 Te-133 E_γ = 1021.13 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1021.13 keV
Gamma Intensity = 2.81 ± 0.102 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1473: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1474: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1021.200	0.010	16.749	0.060
Mo-101	Tc-101	1020.000	0.004	0.243	0.052
Tc-104	Ru-104	1021.800	0.005	0.305	0.019
Pd-111	Ag-111	1022.000	0.000	0.390	0.000
La-142	Ce-142	1020.800	0.000	1.518	0.058
Nd-149	Pm-149	1021.800	0.000	1.728	0.011
Nd-151	Pm-151	1021.050	0.001	0.207	0.004
Nd-151	Pm-151	1021.050	0.000	0.207	0.004

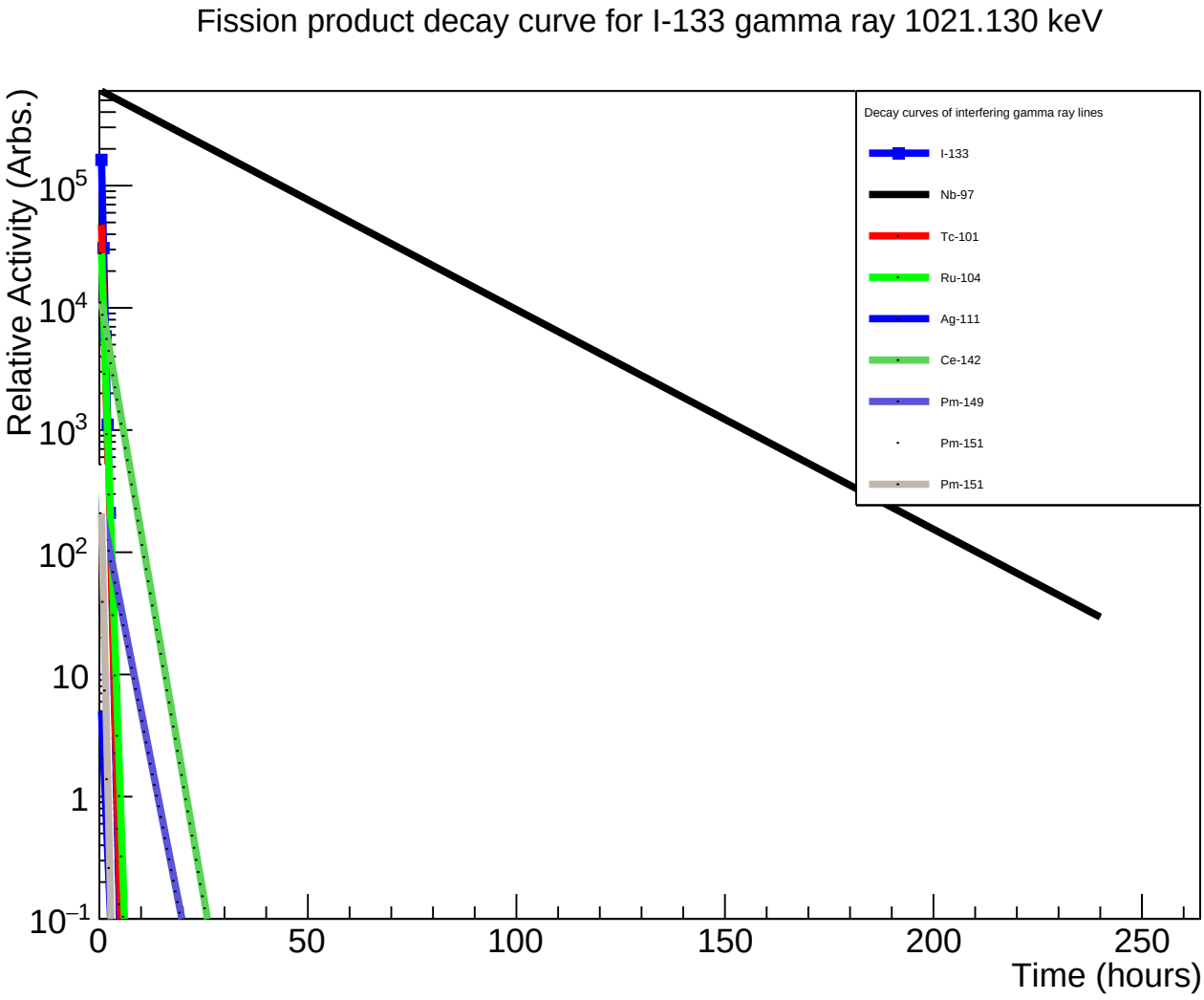


Figure 737: I-133 decay curve for 1021.130 keV gamma ray.

3.738 Te-133 E_γ = 1061.61 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1061.61 keV
Gamma Intensity = 1.19 ± 0.129 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1475: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1476: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1063.100	0.000	1.272	0.026
Nb-98	Mo-98	1061.250	0.002	0.855	0.000
Nb-98	Mo-98	1063.000	0.003	0.855	0.000
Sb-126	Te-126	1061.600	0.005	0.319	0.001
Xe-135	Cs-135	1062.410	0.000	9.140	0.065
Ce-143	Pr-143	1060.220	0.000	33.039	0.060

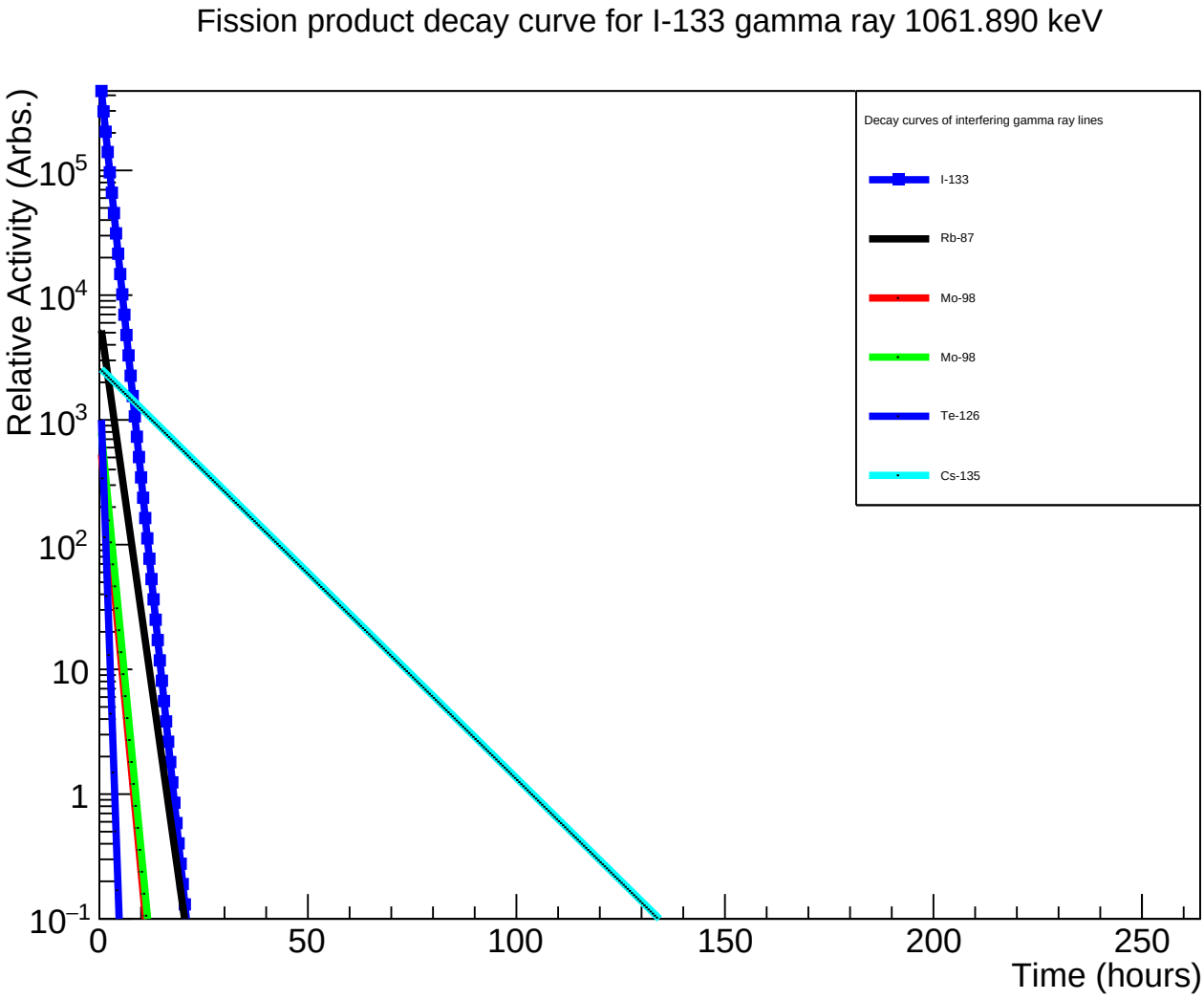


Figure 738: I-133 decay curve for 1061.610 keV gamma ray.

3.739 Te-133 E_γ = 1252.08 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1252.08 keV
Gamma Intensity = 1.44 ± 0.075 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1477: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1478: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1250.670	0.011	2.840	0.036
Mo-101	Tc-101	1251.100	0.047	0.243	0.052
Ru-105	Rh-105	1251.890	0.000	4.440	0.010
Nd-151	Pm-151	1251.600	0.001	0.207	0.004

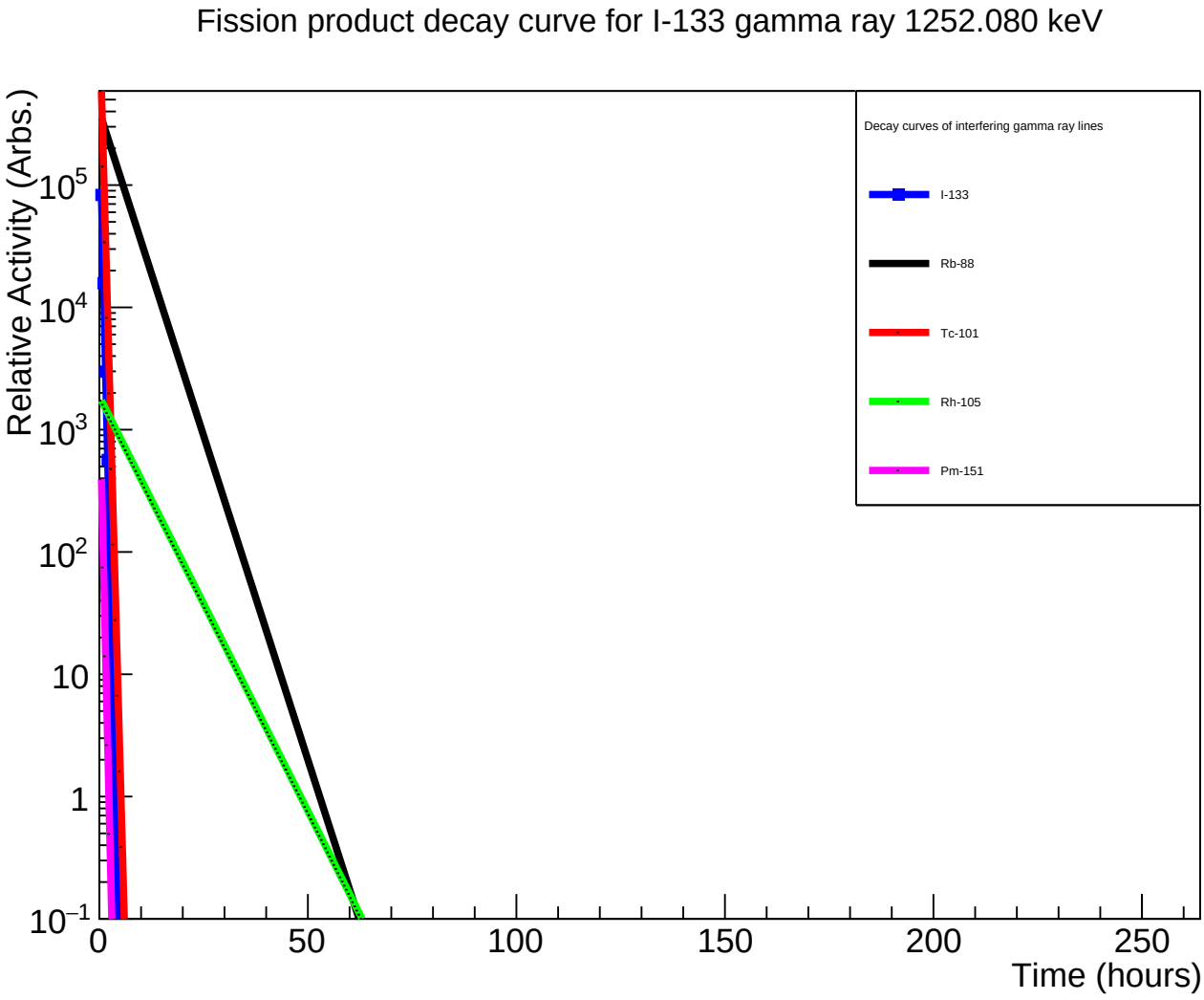


Figure 739: I-133 decay curve for 1252.080 keV gamma ray.

3.740 Te-133 E_γ = 1333.21 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1333.21 keV
Gamma Intensity = 10.67 ± 0.360 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1479: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1480: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1332.500	0.005	0.124	0.062
Sr-93	Y-93	1334.500	0.007	0.124	0.062
Sb-131	Te-131	1331.800	0.008	0.384	0.026
Pr-146	Nd-146	1333.600	0.007	0.403	0.030
Nd-151	Pm-151	1332.300	0.000	0.207	0.004
Nd-151	Pm-151	1333.100	0.001	0.207	0.004

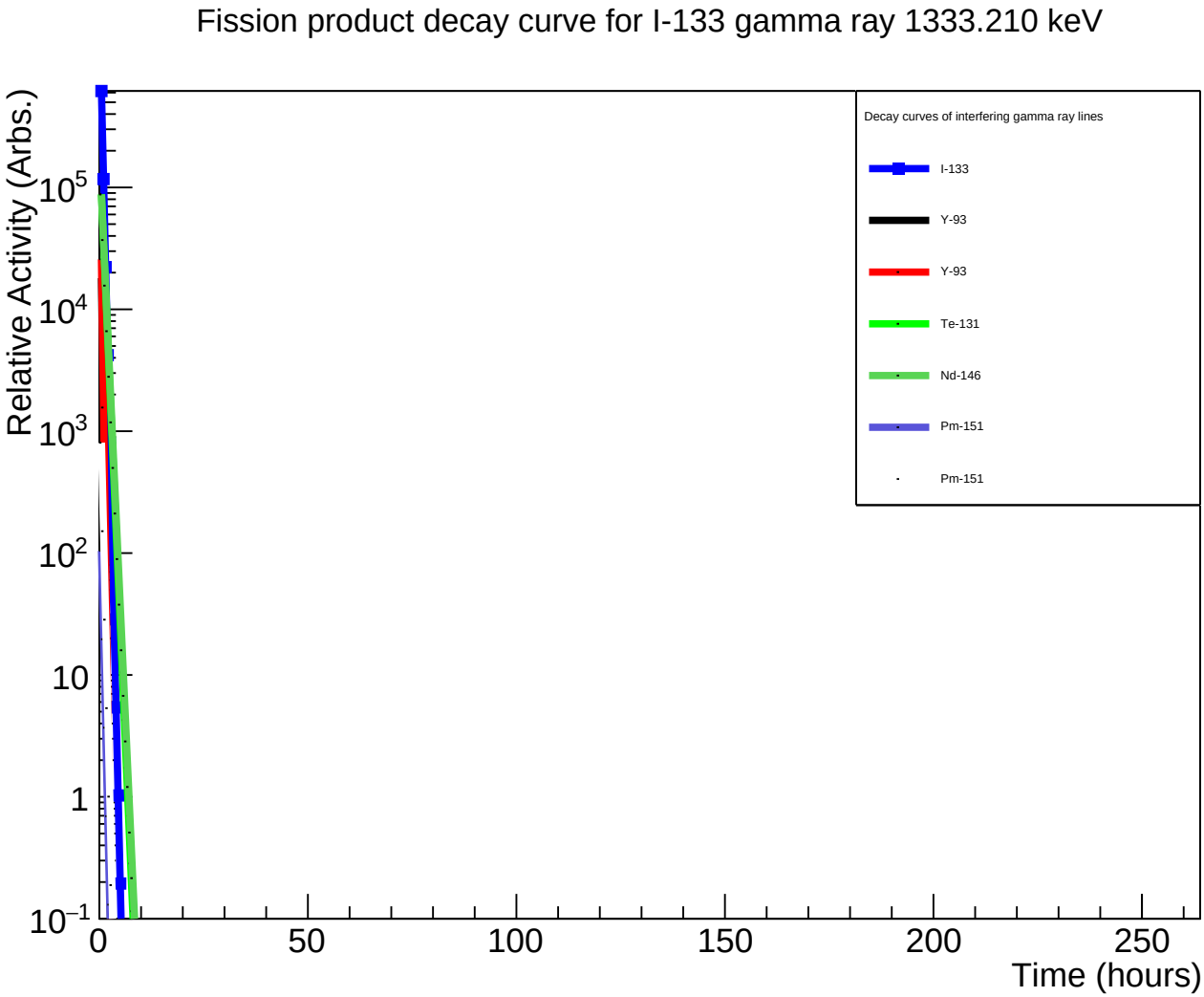


Figure 740: I-133 decay curve for 1333.210 keV gamma ray.

3.741 Te-133 E_γ = 1717.61 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1717.61 keV
Gamma Intensity = 3.18 ± 0.155 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1481: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1482: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1717.000	0.007	0.372	0.003
Nb-98	Mo-98	1718.900	0.001	0.855	0.000
Cs-138	Ba-138	1717.100	0.001	0.557	0.067
Nd-151	Pm-151	1716.920	0.001	0.207	0.004

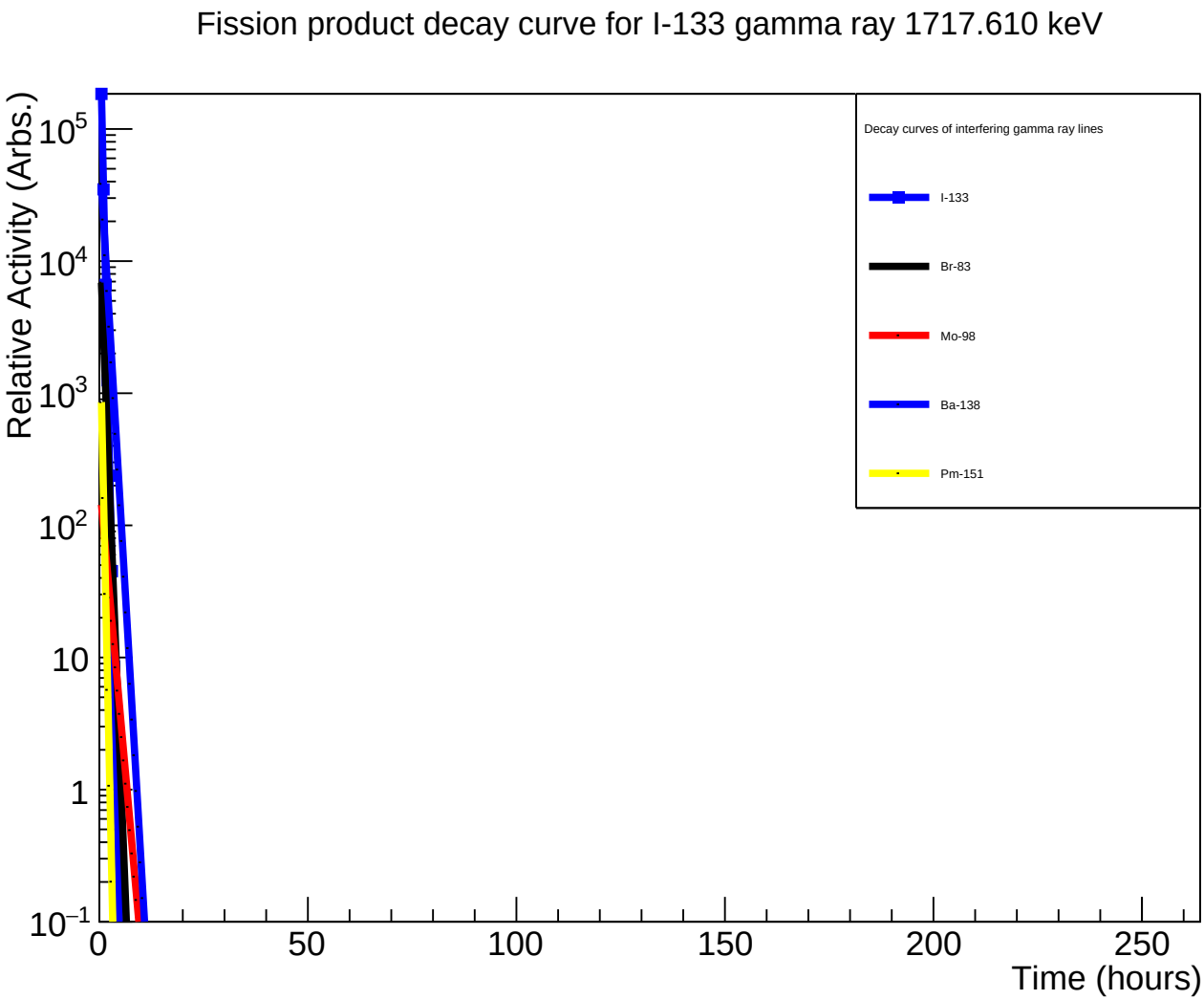


Figure 741: I-133 decay curve for 1717.610 keV gamma ray.

3.742 Te-133 E_γ = 1881.52 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1881.52 keV
Gamma Intensity = 1.22 ± 0.056 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1483: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1484: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1882.260	0.001	0.243	0.052
Tc-105	Ru-105	1882.700	0.002	0.127	0.010
Pr-146	Nd-146	1882.500	0.001	0.403	0.030

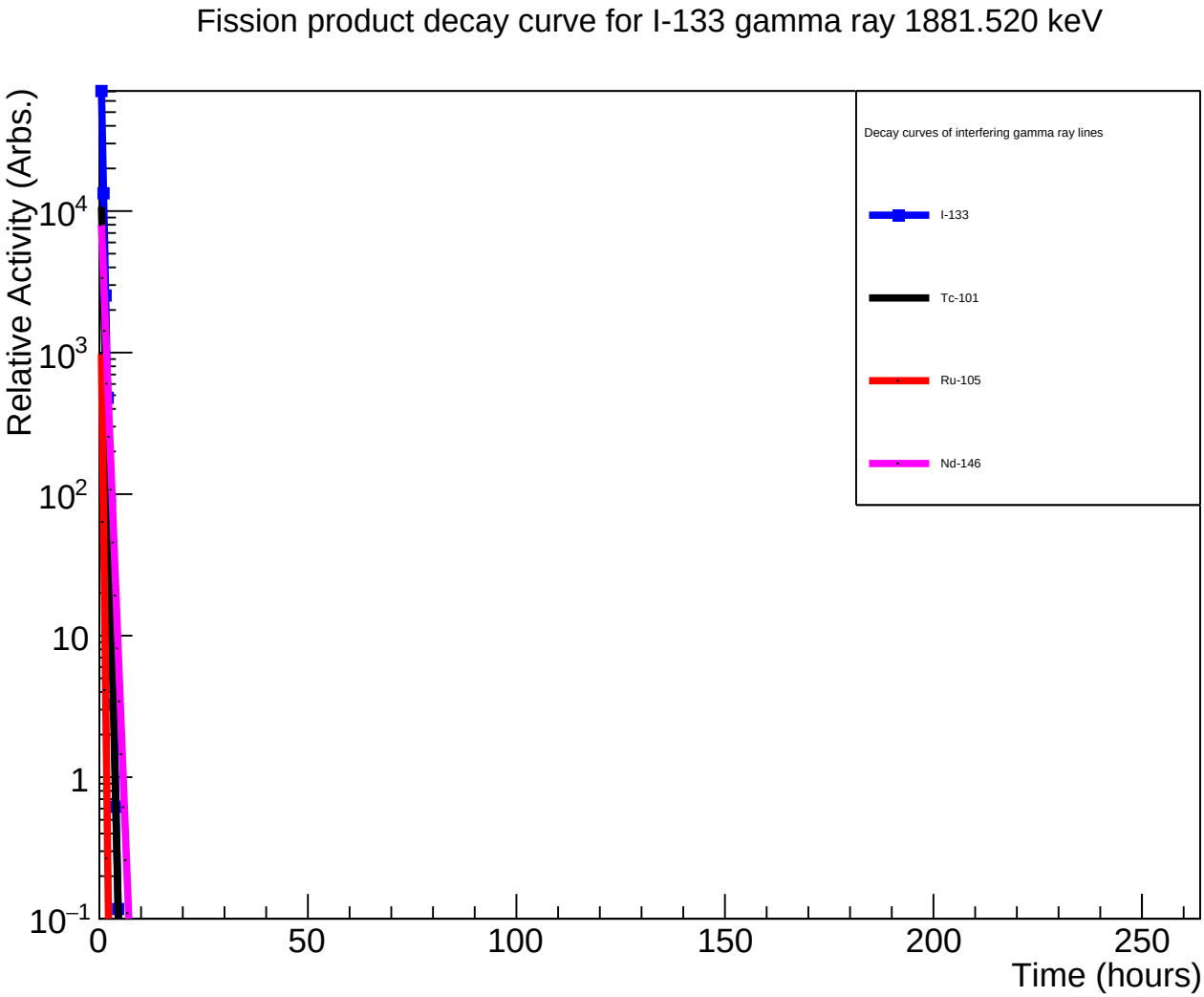


Figure 742: I-133 decay curve for 1881.520 keV gamma ray.

3.743 Te-133 E_γ = 2136.51 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 2136.51 keV
Gamma Intensity = 1.25 ± 0.072 %
$T_{1/2}$ = 0.208 ± 0.005 hours or 12.50 ± 0.30 minutes
CFY: 3.058 ± 0.086 %

Table 1485: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1486: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ba-141	La-141	2136.600	0.000	0.304	0.058
Nd-151	Pm-151	2135.300	0.000	0.207	0.004

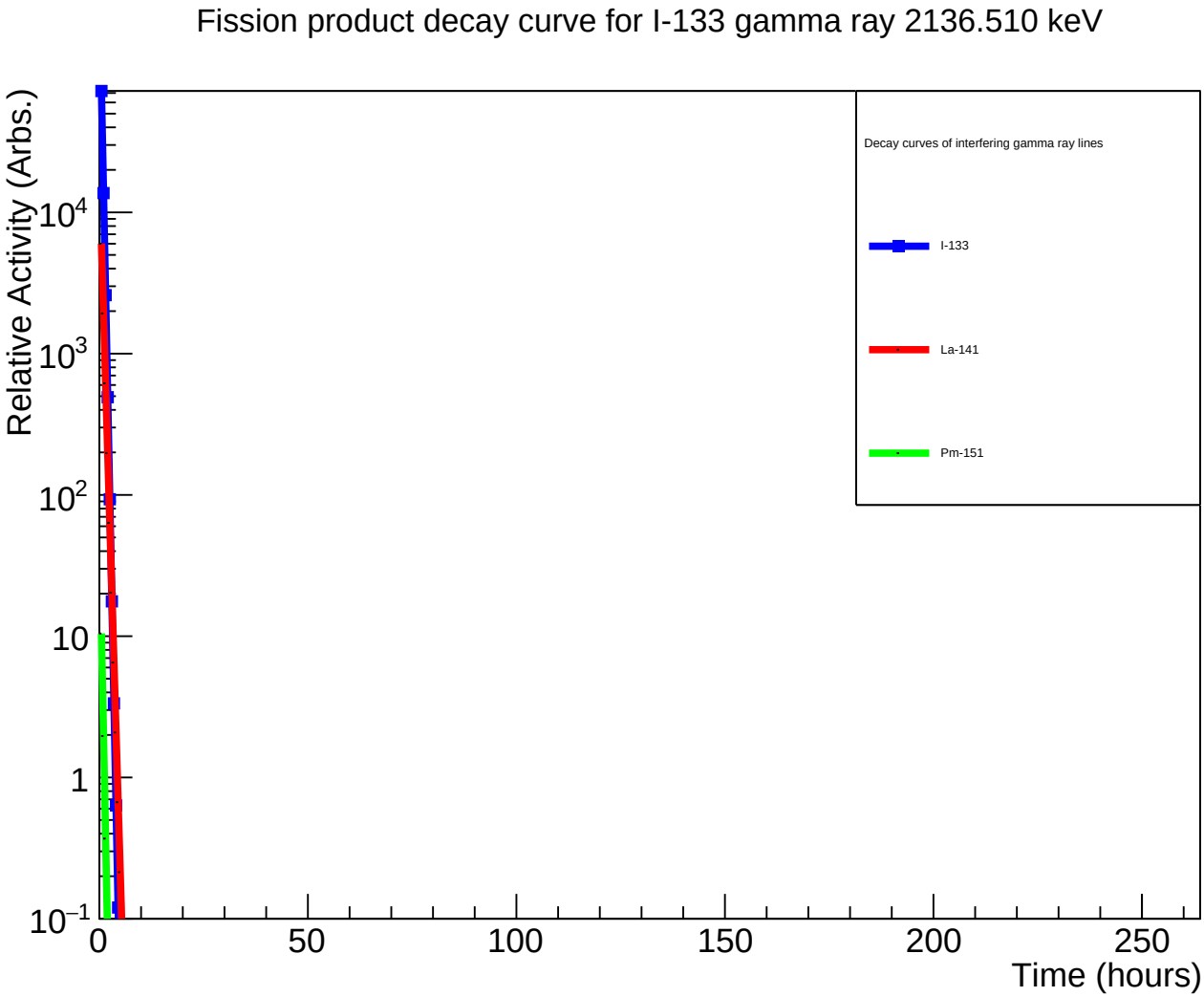


Figure 743: I-133 decay curve for 2136.510 keV gamma ray.

3.744 Te-133 E_γ = 88.06 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 88.06 keV
Gamma Intensity = 1.26 ± 0.117 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1487: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1488: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-99	Ru-99	89.500	0.000	1850000000.000	0.061
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Sn-126	Sb-126	86.938	0.089	2016666624.000	0.001
Sn-126	Sb-126	87.567	0.370	2016666624.000	0.001
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Pr-147	Nd-147	86.690	0.054	0.223	0.022
Pm-151	Sm-151	88.800	0.000	28.400	0.004
Sm-153	Eu-153	89.486	0.002	46.500	0.002
Sm-156	Eu-156	87.600	0.235	9.400	0.000
Eu-156	Gd-156	88.970	0.084	364.560	0.000

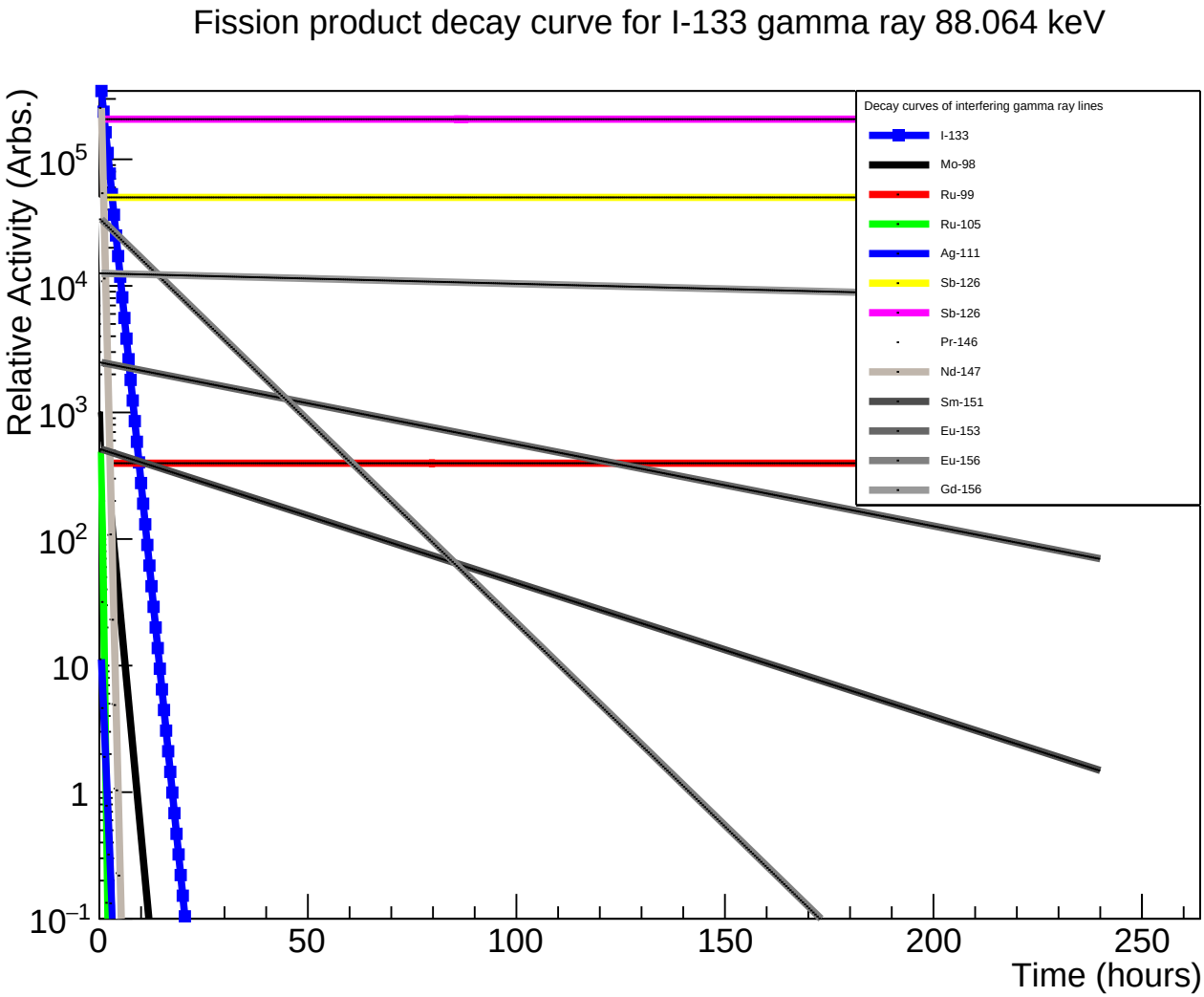


Figure 744: I-133 decay curve for 88.064 keV gamma ray.

3.745 Te-133 E_γ = 94.99 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 94.99 keV
Gamma Intensity = 2.74 ± 0.233 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1489: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1490: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-113	Cd-113	96.200	0.000	5.370	0.000
Nd-149	Pm-149	94.880	0.000	1.728	0.011
Nd-151	Pm-151	94.400	0.000	0.207	0.004
Nd-152	Pm-152	94.100	0.001	0.190	0.003

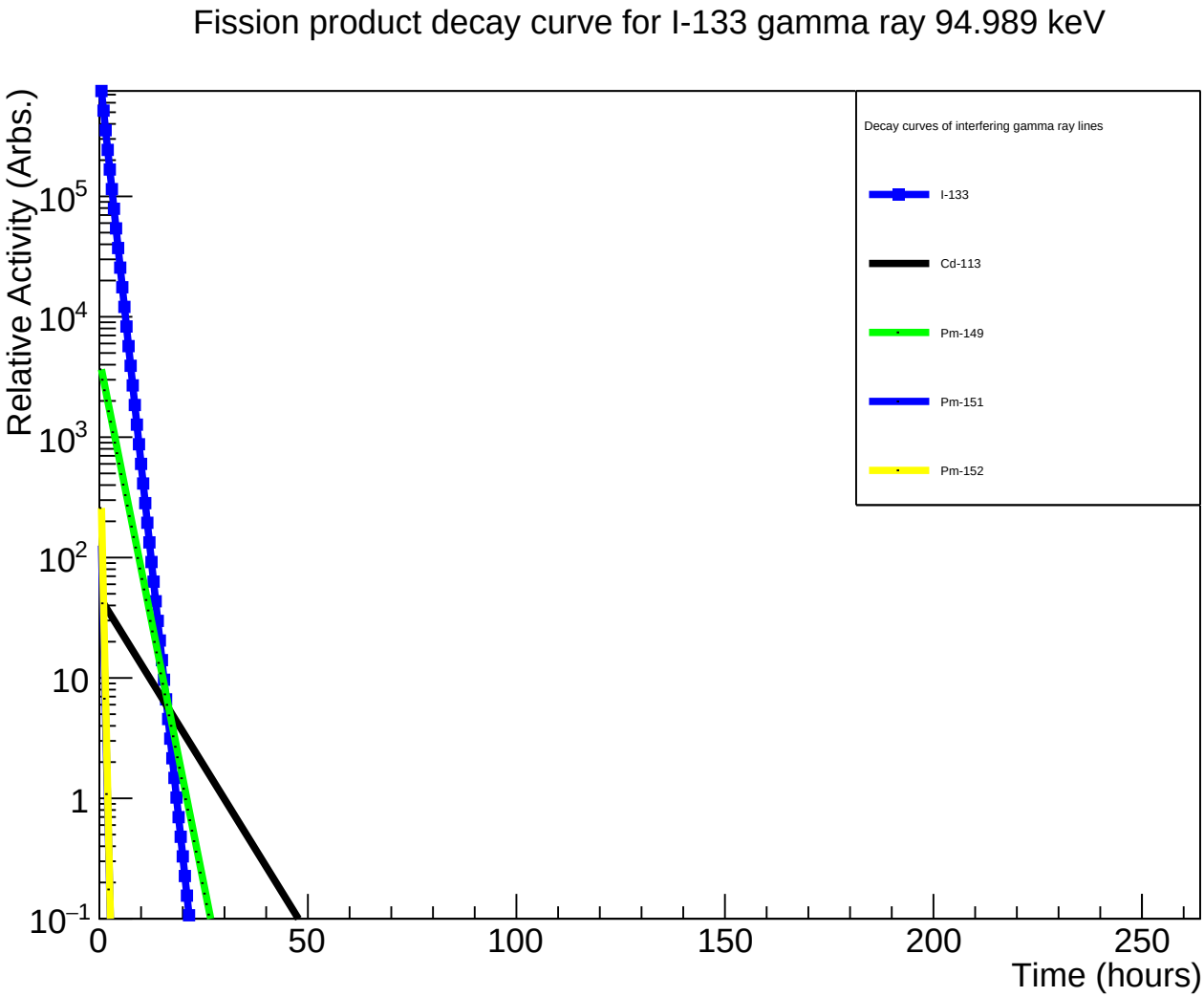


Figure 745: I-133 decay curve for 94.989 keV gamma ray.

3.746 Te-133 E_γ = 169.02 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 169.02 keV
Gamma Intensity = 5.00 ± 0.427 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1491: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1492: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	168.500	0.000	2.840	0.036
Tc-104	Ru-104	170.000	0.003	0.305	0.019
Tc-105	Ru-105	169.200	0.006	0.127	0.010
Pd-111	Ag-111	169.400	0.000	0.390	0.000
Sn-127	Sb-127	169.200	0.020	2.100	0.001
Sn-127	Sb-127	170.300	0.001	2.100	0.001
Pr-147	Nd-147	168.200	0.000	0.223	0.022
Nd-151	Pm-151	167.880	0.001	0.207	0.004
Nd-151	Pm-151	169.200	0.001	0.207	0.004
Pm-151	Sm-151	167.750	0.083	28.400	0.004
Pm-151	Sm-151	168.390	0.009	28.400	0.004
Sm-155	Eu-155	169.100	0.000	0.372	0.000

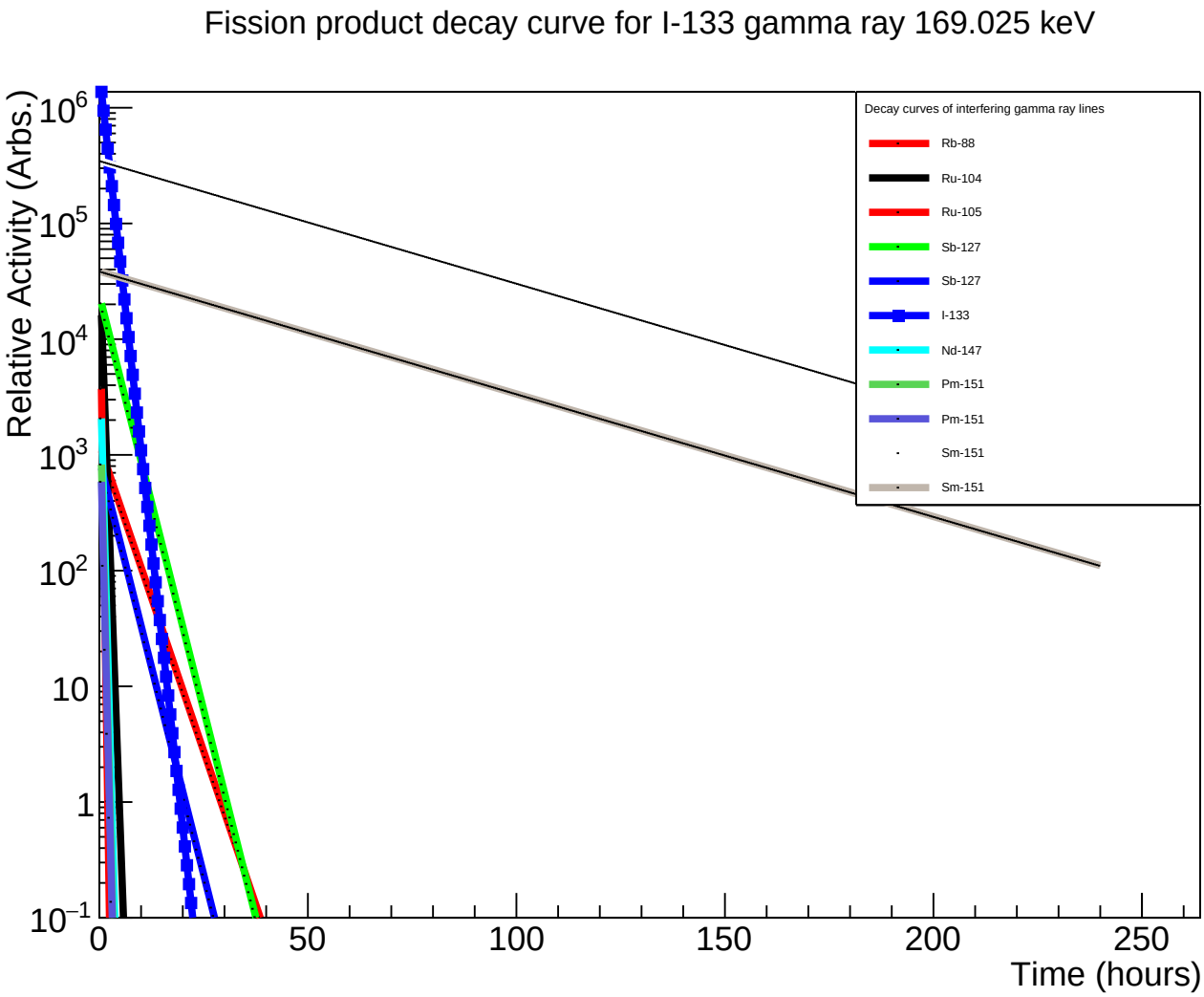


Figure 746: I-133 decay curve for 169.025 keV gamma ray.

3.747 Te-133 E_γ = 213.48 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 213.48 keV
Gamma Intensity = 2.05 ± 0.178 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1493: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1494: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	211.980	0.005	0.243	0.052
Tc-105	Ru-105	212.400	0.004	0.127	0.010
Tc-105	Ru-105	213.600	0.013	0.127	0.010
Sn-127	Sb-127	212.900	0.001	2.100	0.001
Sb-128	Te-128	214.800	0.010	9.010	0.000
Cs-138	Ba-138	212.320	0.002	0.557	0.067
Pr-147	Nd-147	214.600	0.012	0.223	0.022
Nd-149	Pm-149	213.947	0.004	1.728	0.011

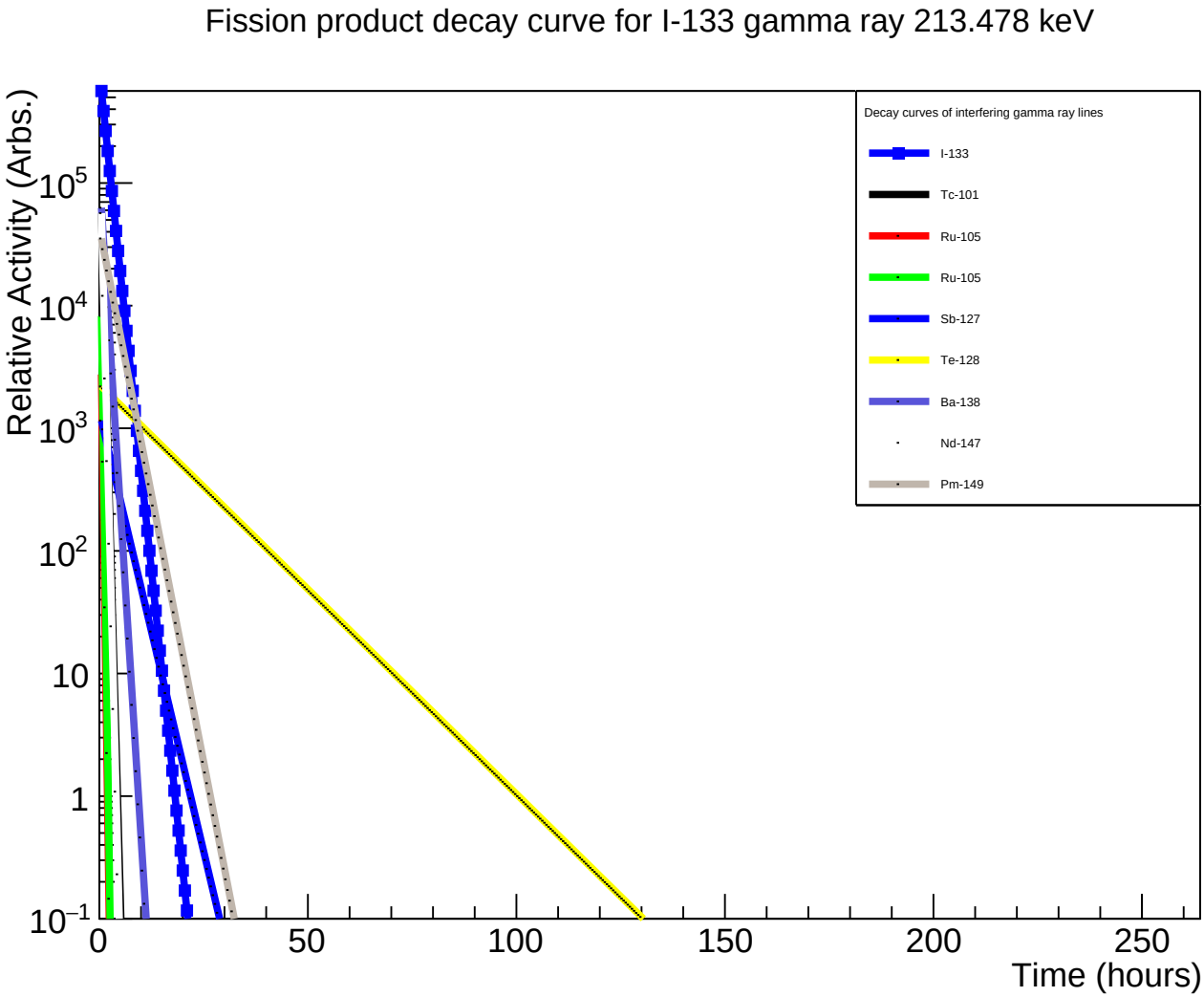


Figure 747: I-133 decay curve for 213.478 keV gamma ray.

3.748 Te-133 E_γ = 261.63 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 261.63 keV
Gamma Intensity = 7.47 ± 0.628 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1495: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1496: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	261.200	0.004	9.630	0.058
Ru-105	Rh-105	262.830	0.066	4.440	0.010
Cd-115	In-115	260.896	0.019	53.460	0.000
Sn-127	Sb-127	262.500	0.023	2.100	0.001
I-132	Xe-132	262.900	0.013	2.295	0.043
Cs-139	Ba-139	260.600	0.000	0.155	0.063
Pr-145	Nd-145	262.886	0.000	5.984	0.039
Pr-145	Nd-145	262.940	0.000	5.984	0.039
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-151	Sm-151	261.400	0.000	28.400	0.004

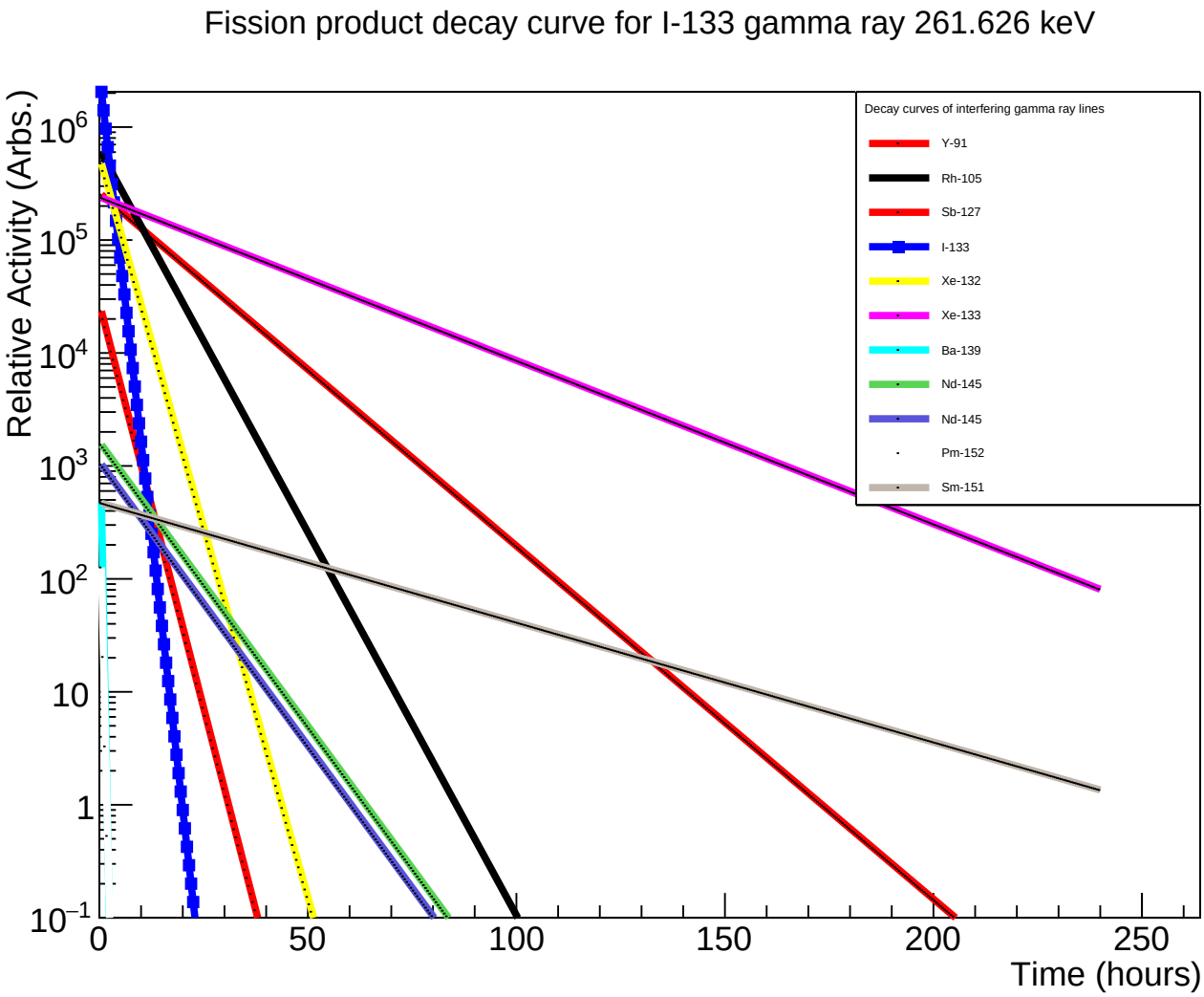


Figure 748: I-133 decay curve for 261.626 keV gamma ray.

3.749 Te-133 E_γ = 312.07 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 312.07 keV
Gamma Intensity = 2.10 ± 0.235 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1497: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1498: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	311.690	0.001	2.840	0.036
Tc-101	Ru-101	311.280	0.002	0.237	0.052
Rh-107	Pd-107	312.210	0.048	0.362	0.001
Pd-109	Ag-109	311.400	0.000	13.701	0.000
Sn-125	Sb-125	311.300	0.000	231.360	0.000
Sn-125	Sb-125	310.960	0.000	0.159	0.000
Cs-139	Ba-139	312.310	0.000	0.155	0.063
Nd-149	Pm-149	310.979	0.005	1.728	0.011
Nd-151	Pm-151	312.630	0.002	0.207	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004
Pm-151	Sm-151	310.800	0.000	28.400	0.004

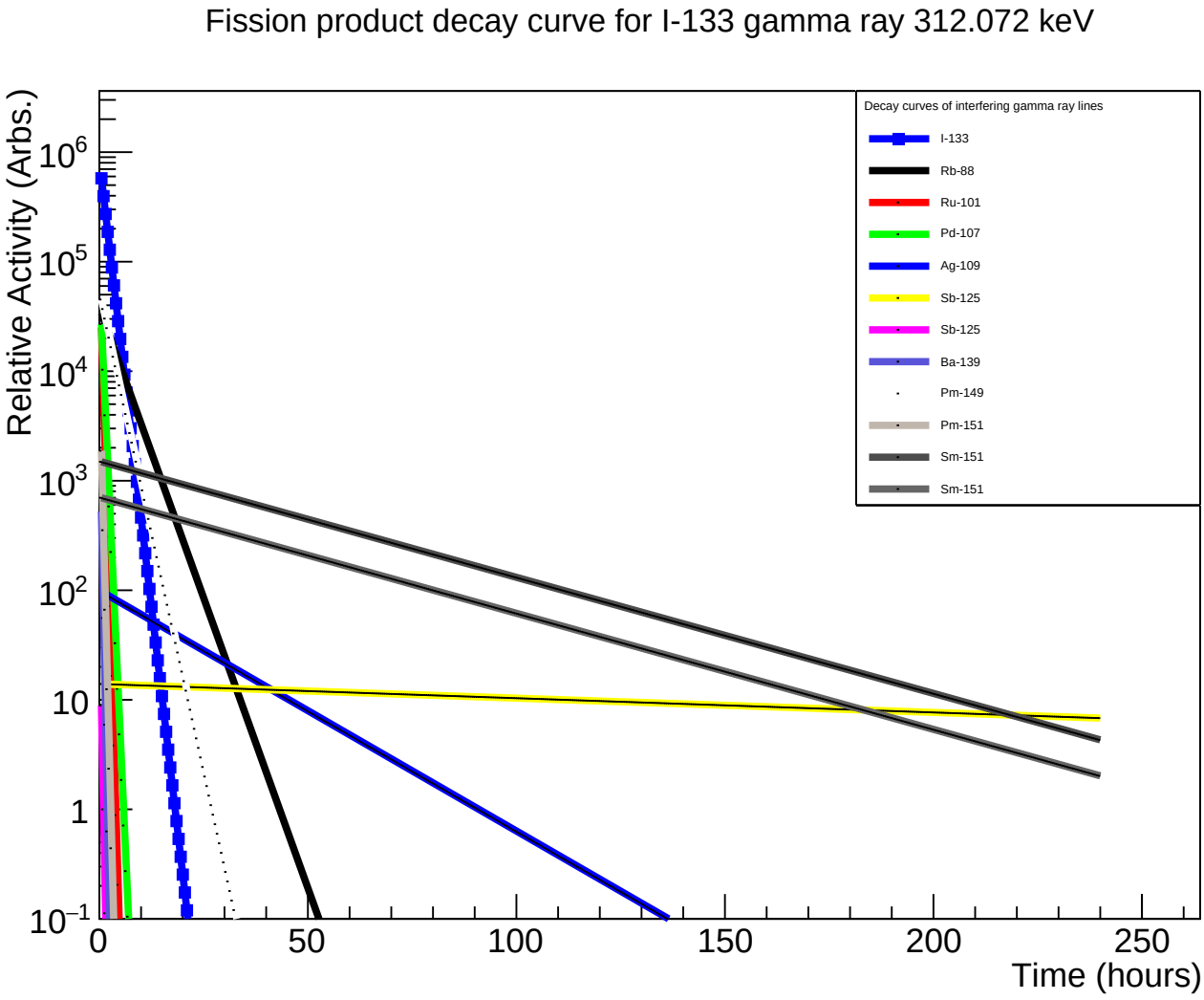


Figure 749: I-133 decay curve for 312.072 keV gamma ray.

3.750 Te-133 E_γ = 334.24 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 334.24 keV
Gamma Intensity = 3.16 ± 0.282 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1499: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1500: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Nb-98	Mo-98	335.258	0.095	0.855	0.000
Mo-101	Tc-101	333.610	0.007	0.243	0.052
Tc-104	Ru-104	333.800	0.006	0.305	0.019
Tc-105	Ru-105	333.280	0.006	0.127	0.010
Tc-105	Ru-105	333.900	0.007	0.127	0.010
Ag-113	Cd-113	333.100	0.006	5.370	0.000
I-135	Xe-135	333.600	0.000	6.570	0.063
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Cs-138	Ba-138	333.860	0.001	0.557	0.067
Ba-142	La-142	335.000	0.015	0.177	0.058
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	332.780	0.007	0.207	0.004
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

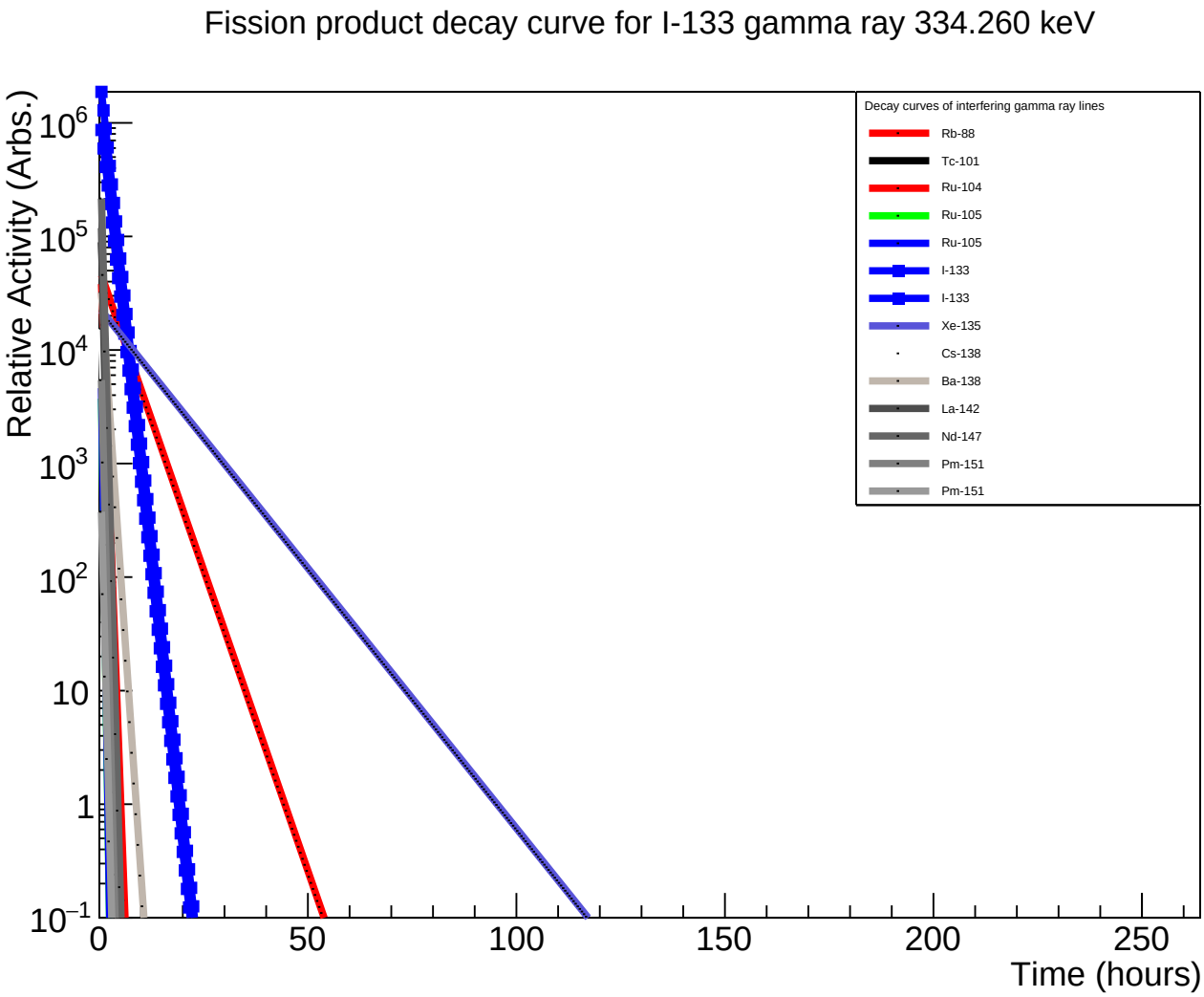


Figure 750: I-133 decay curve for 334.245 keV gamma ray.

3.751 Te-133 E_γ = 334.26 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 334.26 keV
Gamma Intensity = 6.84 ± 0.830 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1501: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1502: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Nb-98	Mo-98	335.258	0.095	0.855	0.000
Mo-101	Tc-101	333.610	0.007	0.243	0.052
Tc-104	Ru-104	333.800	0.006	0.305	0.019
Tc-105	Ru-105	333.280	0.006	0.127	0.010
Tc-105	Ru-105	333.900	0.007	0.127	0.010
Ag-113	Cd-113	333.100	0.006	5.370	0.000
I-135	Xe-135	333.600	0.000	6.570	0.063
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Cs-138	Ba-138	333.860	0.001	0.557	0.067
Ba-142	La-142	335.000	0.015	0.177	0.058
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	332.780	0.007	0.207	0.004
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

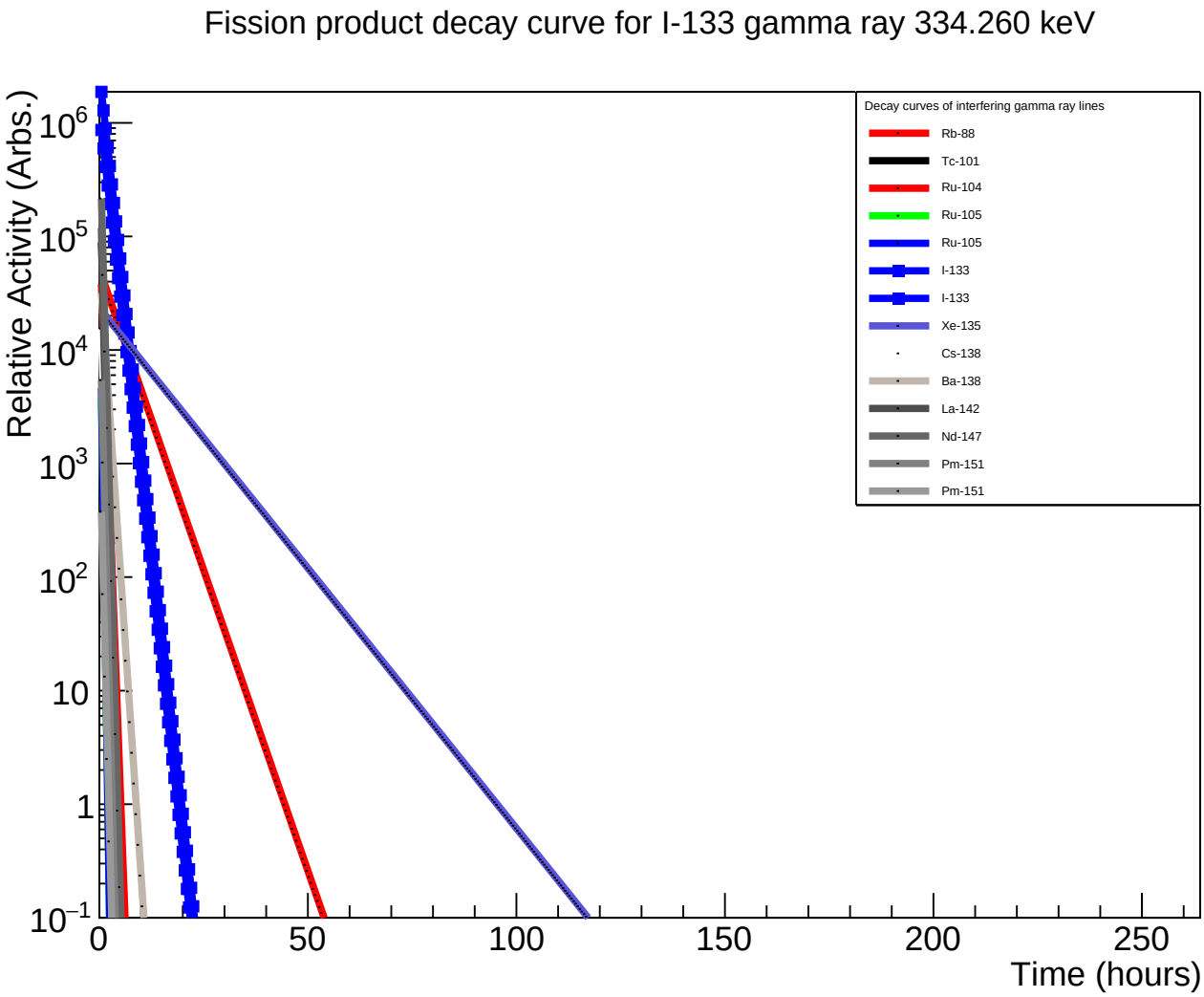


Figure 751: I-133 decay curve for 334.260 keV gamma ray.

3.752 Te-133 E_γ = 429.03 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 429.03 keV
Gamma Intensity = 2.10 ± 0.204 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1503: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1504: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	430.490	0.033	2.710	0.059
Sr-93	Y-93	428.030	0.001	0.124	0.062
Sn-125	Sb-125	430.030	0.000	0.159	0.000
Sb-125	Te-125	427.874	0.296	24194.445	0.000
I-135	Xe-135	429.930	0.003	6.570	0.063
Cs-139	Ba-139	430.200	0.000	0.155	0.063
Nd-151	Pm-151	427.650	0.002	0.207	0.004
Nd-151	Pm-151	430.200	0.000	0.207	0.004
Pm-151	Sm-151	429.100	0.000	28.400	0.004

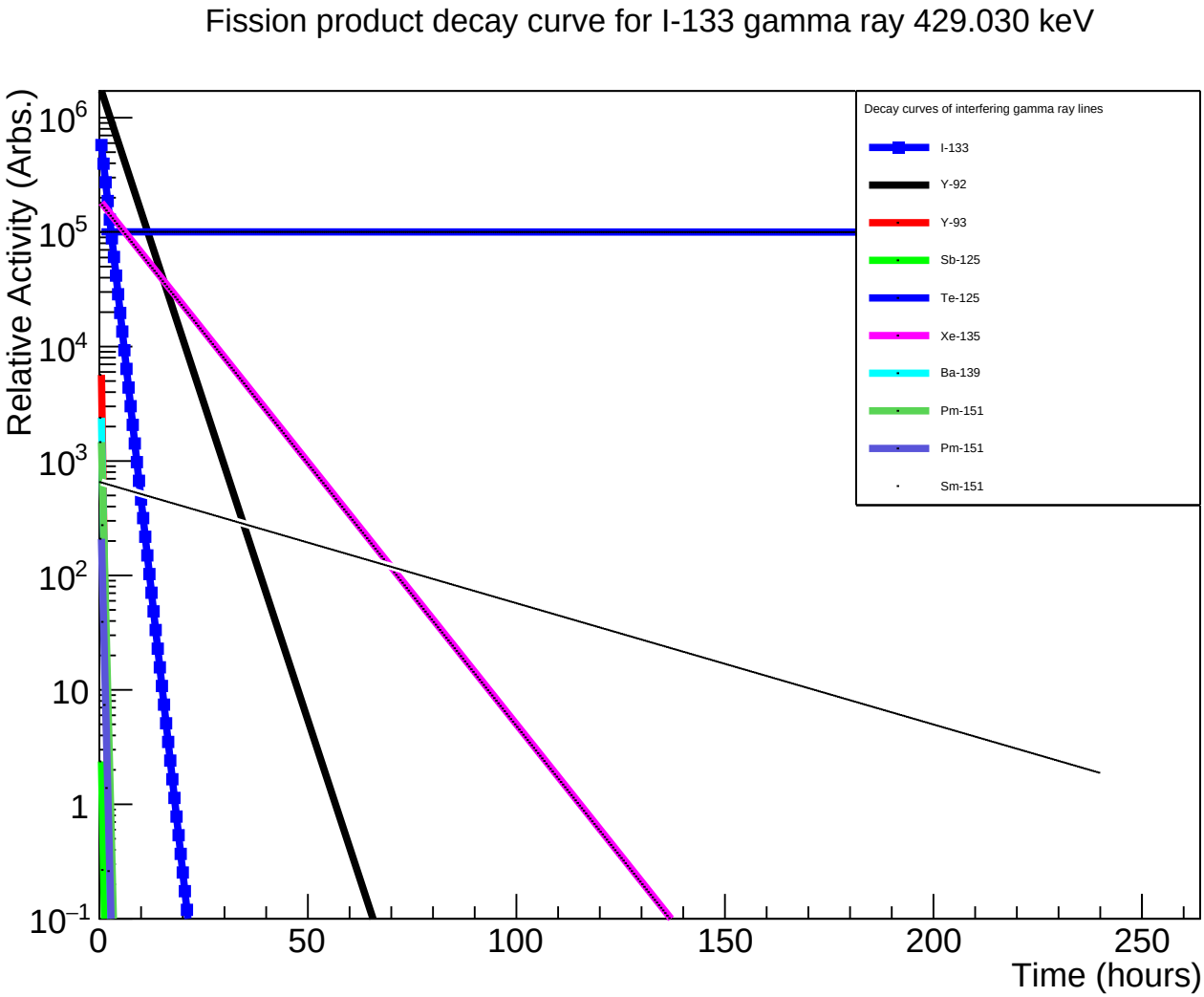


Figure 752: I-133 decay curve for 429.030 keV gamma ray.

3.753 Te-133 E_γ = 435.28 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 435.28 keV
Gamma Intensity = 1.16 ± 0.185 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1505: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1506: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	434.260	0.011	0.855	0.000
Sn-125	Sb-125	434.130	0.000	231.360	0.000
Sn-128	Sb-128	436.700	0.041	0.984	0.003
Xe-138	Cs-138	434.562	0.203	0.235	0.063
Cs-139	Ba-139	434.230	0.000	0.155	0.063
Ba-142	La-142	434.400	0.005	0.177	0.058
La-141	Ce-141	435.000	0.000	3.920	0.058
Nd-149	Pm-149	434.900	0.000	1.728	0.011
Nd-151	Pm-151	435.900	0.000	0.207	0.004
Eu-156	Gd-156	434.400	0.002	364.560	0.000

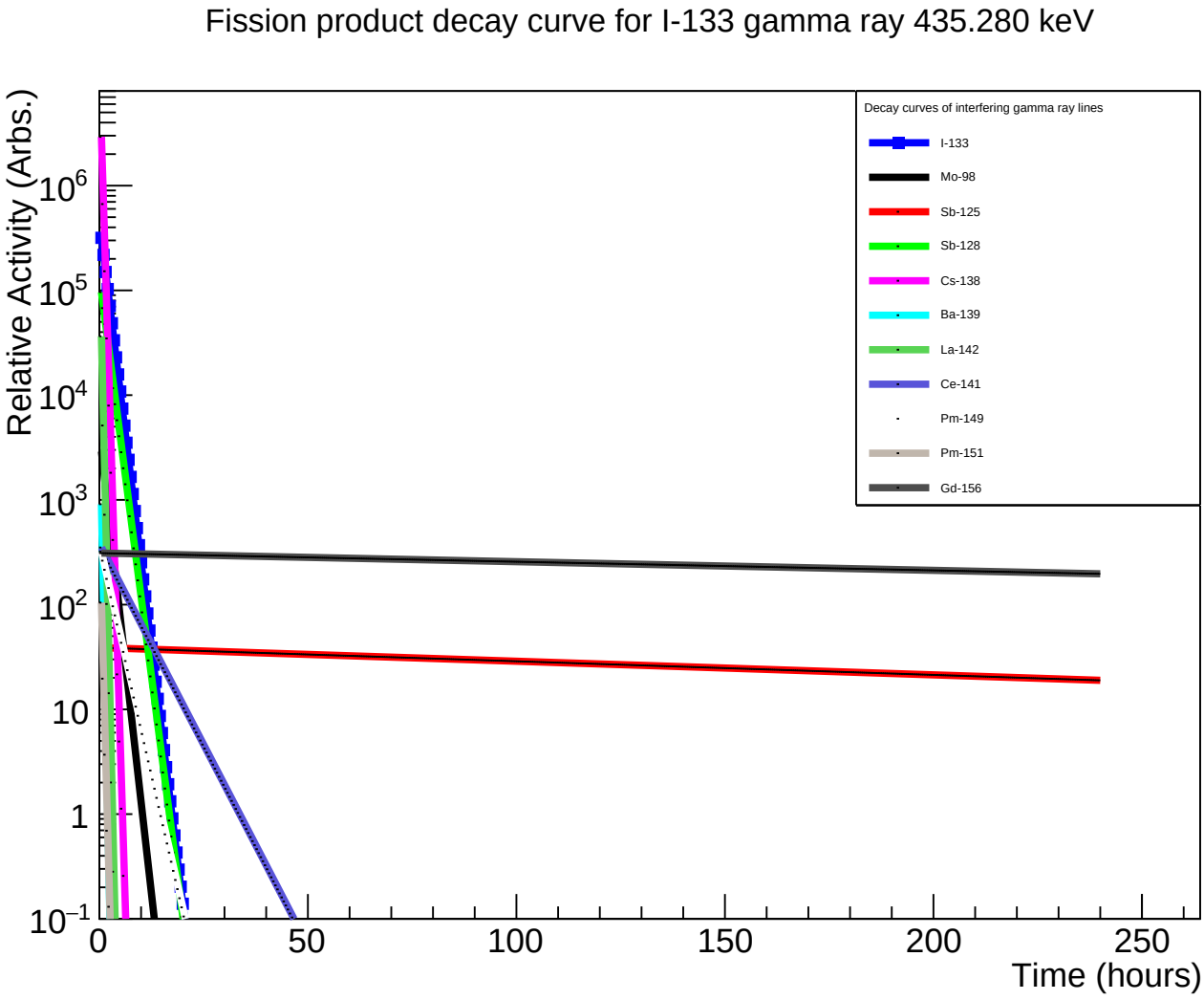


Figure 753: I-133 decay curve for 435.280 keV gamma ray.

3.754 Te-133 E_γ = 444.94 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 444.94 keV
Gamma Intensity = 1.95 ± 0.193 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1507: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1508: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	446.200	0.024	0.124	0.062
Nb-98	Mo-98	443.600	0.000	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Ru-103	Rh-103	443.810	0.003	941.928	0.030
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Sb-125	Te-125	443.555	0.003	24194.445	0.000
Sb-127	Te-127	445.100	0.043	92.400	0.002
Sb-128	Te-128	445.700	0.015	9.010	0.000
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030
Nd-149	Pm-149	443.551	0.011	1.728	0.011
Nd-149	Pm-149	443.700	0.000	1.728	0.011
Nd-151	Pm-151	444.700	0.000	0.207	0.004
Nd-151	Pm-151	445.530	0.001	0.207	0.004
Pm-151	Sm-151	443.800	0.000	28.400	0.004
Pm-151	Sm-151	445.680	0.040	28.400	0.004

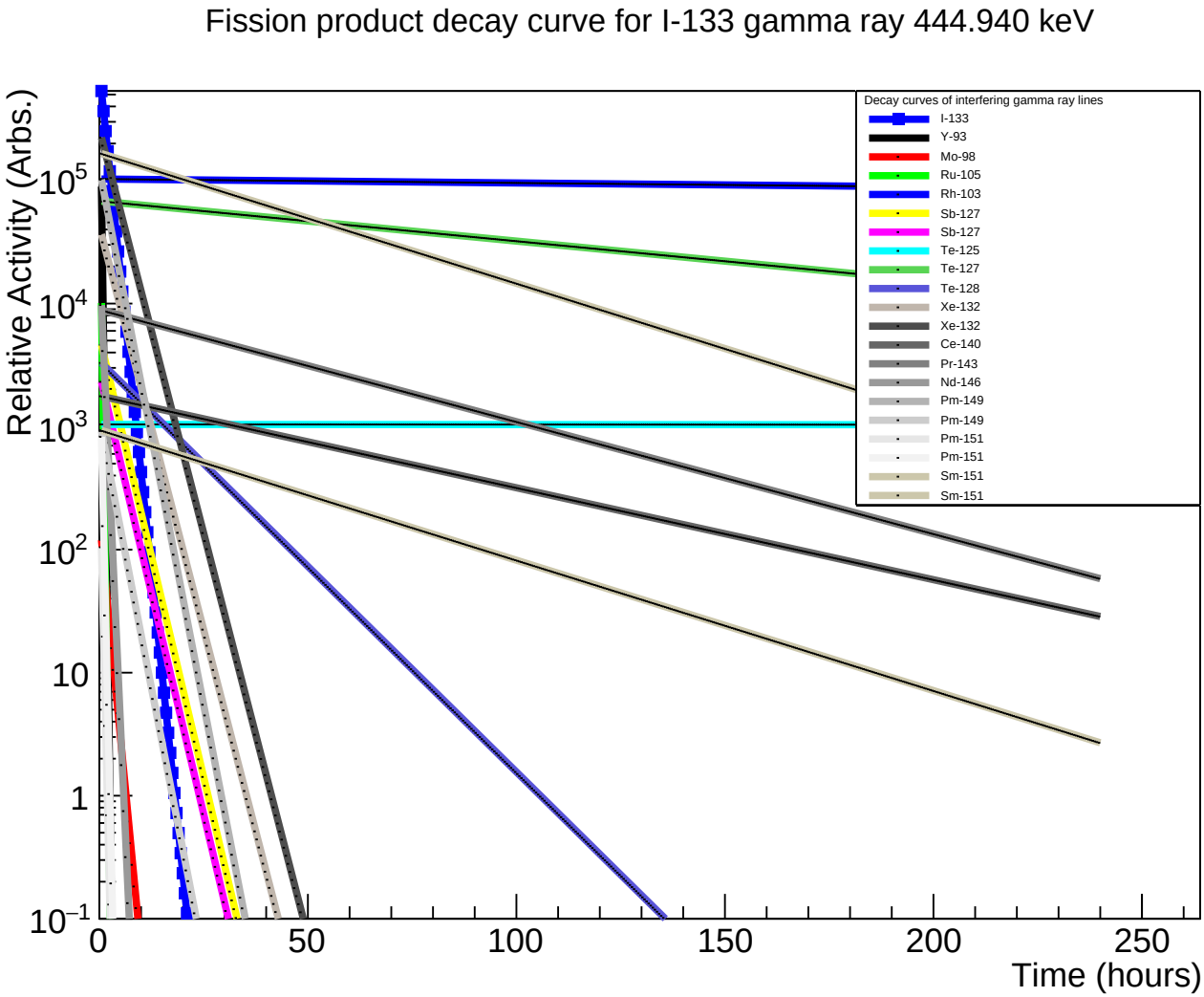


Figure 754: I-133 decay curve for 444.940 keV gamma ray.

3.755 Te-133 E_γ = 462.23 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 462.23 keV
Gamma Intensity = 1.47 ± 0.243 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1509: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1510: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-105	Ru-105	462.800	0.044	0.127	0.010
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Sb-130	Te-130	462.500	0.008	0.658	0.008
Cs-138	Ba-138	462.796	0.307	0.557	0.067
Ba-141	La-141	462.300	0.049	0.304	0.058
Ba-141	La-141	462.900	0.001	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002
Sm-155	Eu-155	460.800	0.001	0.372	0.000

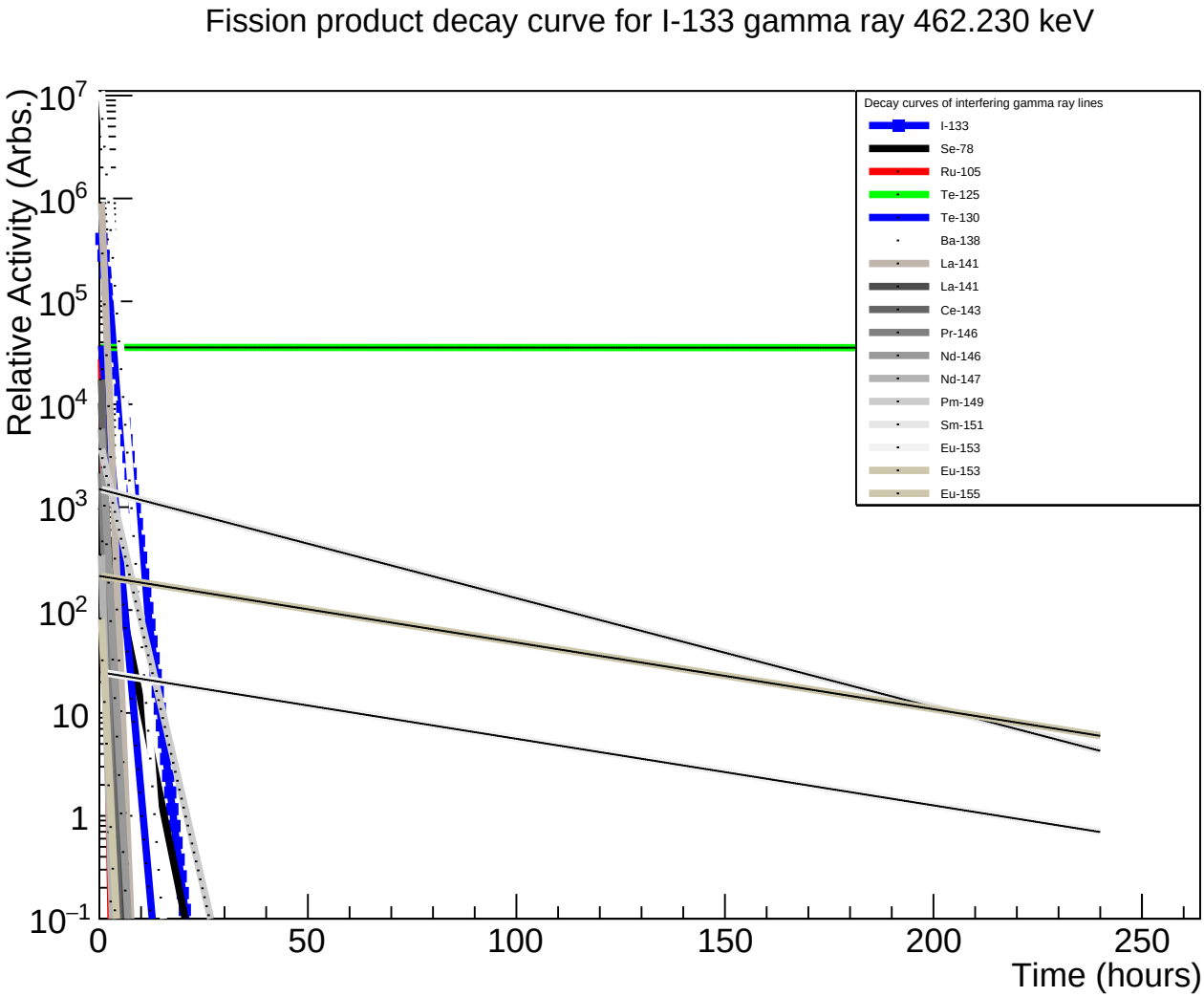


Figure 755: I-133 decay curve for 462.230 keV gamma ray.

3.756 Te-133 E_γ = 574.11 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 574.11 keV
Gamma Intensity = 1.16 ± 0.109 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1511: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1512: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	573.270	0.001	2.840	0.036
Nb-98	Mo-98	575.060	0.002	0.855	0.000
Ru-105	Rh-105	575.070	0.009	4.440	0.010
Xe-135	Cs-135	573.320	0.000	9.140	0.065
Nd-149	Pm-149	575.400	0.000	1.728	0.011
Nd-151	Pm-151	573.000	0.000	0.207	0.004
Pm-151	Sm-151	573.200	0.000	28.400	0.004
Pm-151	Sm-151	574.970	0.001	28.400	0.004
Pm-151	Sm-151	575.100	0.000	28.400	0.004
Sm-153	Eu-153	574.100	0.000	46.500	0.002

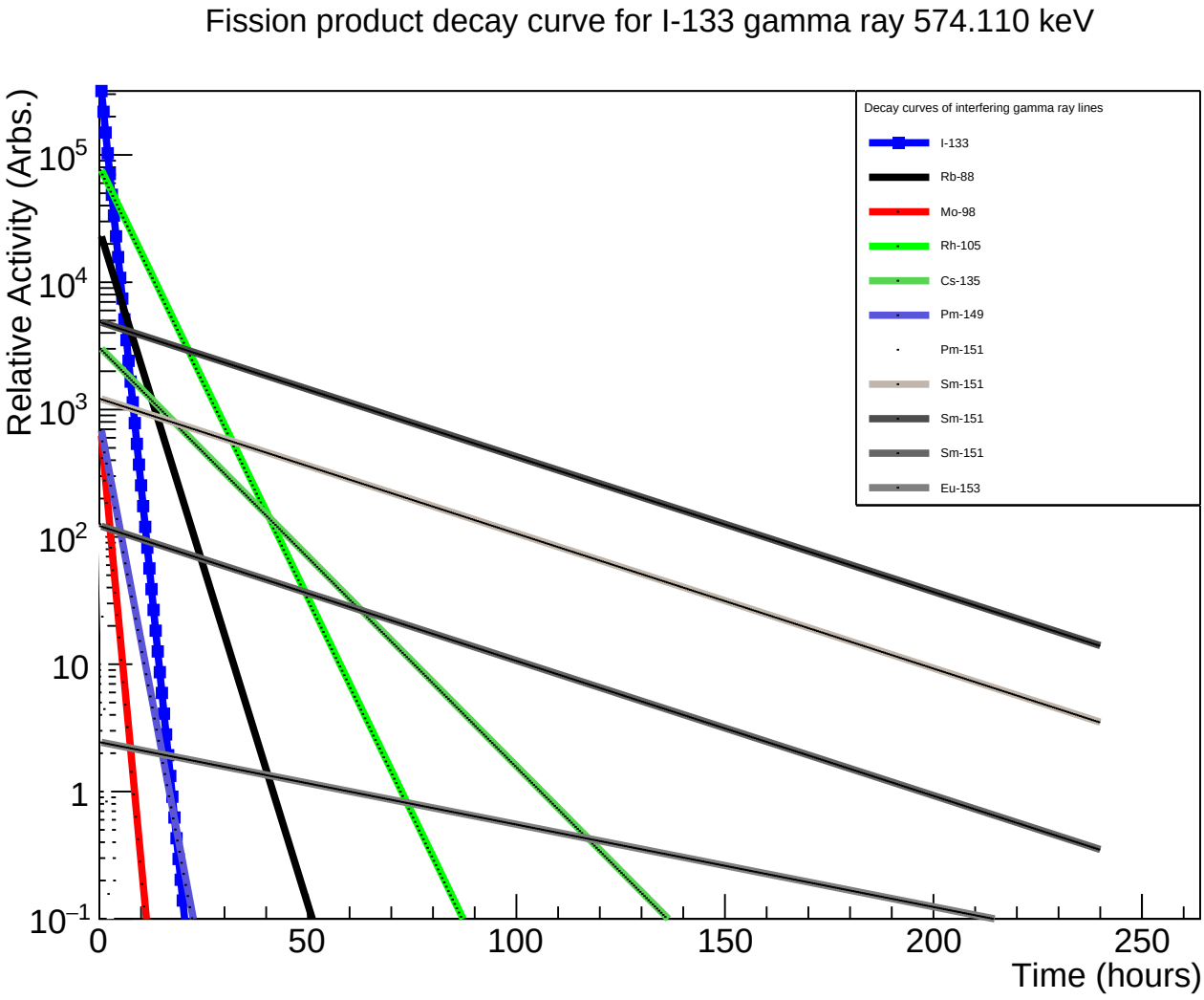


Figure 756: I-133 decay curve for 574.110 keV gamma ray.

3.757 Te-133 E_γ = 605.11 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 605.11 keV
Gamma Intensity = 1.21 ± 0.113 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1513: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1514: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	604.800	0.017	0.529	0.010
Tc-104	Ru-104	605.200	0.007	0.305	0.019
Tc-105	Ru-105	604.600	0.011	0.127	0.010
Cs-139	Ba-139	604.220	0.000	0.155	0.063
Ba-142	La-142	604.300	0.004	0.177	0.058
Pr-145	Nd-145	606.420	0.000	5.984	0.039
Pr-147	Nd-147	604.500	0.005	0.223	0.022
Nd-151	Pm-151	605.800	0.000	0.207	0.004
Pm-151	Sm-151	604.000	0.000	28.400	0.004
Pm-151	Sm-151	605.900	0.000	28.400	0.004
Sm-155	Eu-155	603.800	0.000	0.372	0.000

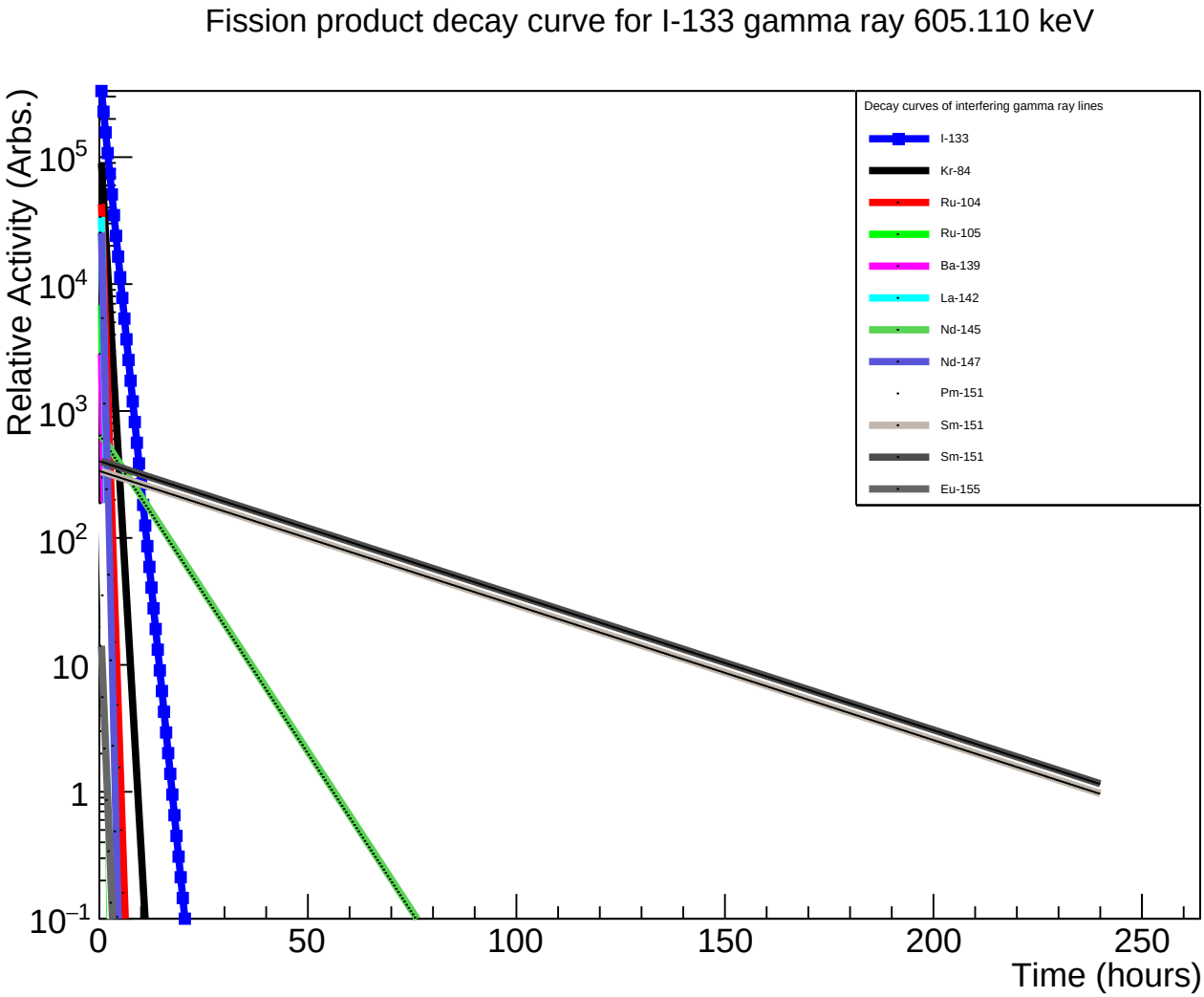


Figure 757: I-133 decay curve for 605.110 keV gamma ray.

3.758 Te-133 E_γ = 647.51 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 647.51 keV
Gamma Intensity = 9.68 ± 1.054 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1515: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1516: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	648.960	0.000	2.400	0.005
Tc-104	Ru-104	648.700	0.002	0.305	0.019
Tc-105	Ru-105	646.300	0.012	0.127	0.010
Tc-105	Ru-105	648.700	0.007	0.127	0.010
Pd-109	Ag-109	647.300	0.000	13.701	0.000
Ag-112	Cd-112	647.500	0.000	3.130	0.000
Sb-130	Te-130	647.700	0.048	0.105	0.010
Xe-138	Cs-138	647.200	0.000	0.235	0.063
Ba-141	La-141	648.100	0.063	0.304	0.058
La-142	Ce-142	646.200	0.001	1.518	0.058
Nd-151	Pm-151	648.400	0.000	0.207	0.004
Sm-155	Eu-155	648.600	0.000	0.372	0.000
Eu-156	Gd-156	646.290	0.063	364.560	0.000

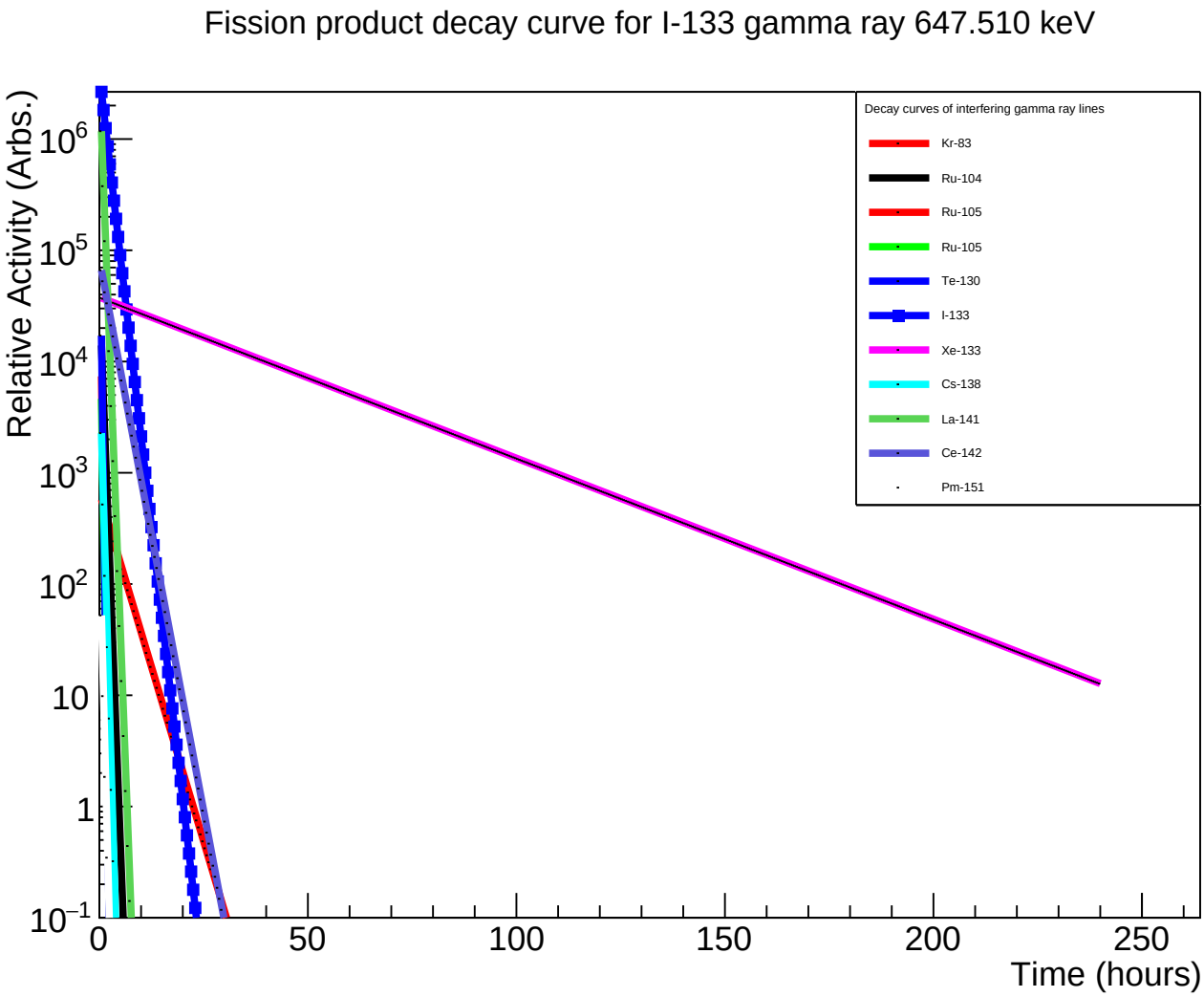


Figure 758: I-133 decay curve for 647.510 keV gamma ray.

3.759 Te-133 E_γ = 702.91 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 702.91 keV
Gamma Intensity = 2.31 ± 0.248 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1517: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1518: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	703.760	0.010	16.749	0.060
Mo-101	Tc-101	701.800	0.004	0.243	0.052
Pd-109	Ag-109	701.900	0.000	13.701	0.000
Sn-127	Sb-127	702.600	0.002	2.100	0.001
Xe-138	Cs-138	703.580	0.001	0.235	0.063
Cs-138	Ba-138	702.920	0.001	0.557	0.067
Nd-149	Pm-149	704.070	0.000	1.728	0.011
Nd-151	Pm-151	702.800	0.000	0.207	0.004
Pm-151	Sm-151	704.240	0.003	28.400	0.004
Sm-153	Eu-153	701.800	0.000	46.500	0.002

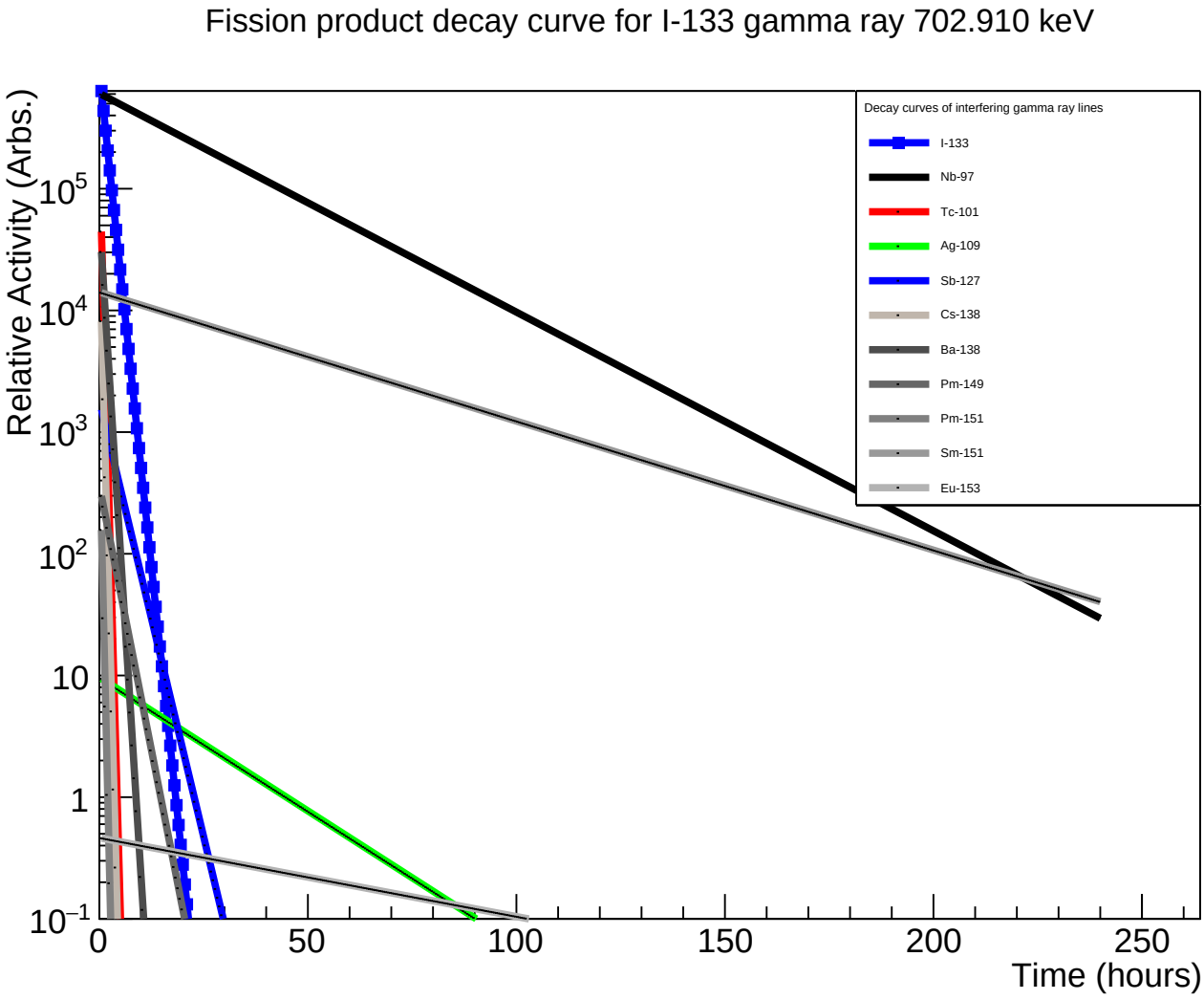


Figure 759: I-133 decay curve for 702.910 keV gamma ray.

3.760 Te-133 E_γ = 734.00 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 734.00 keV
Gamma Intensity = 1.68 ± 0.175 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1519: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1520: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	735.120	0.008	0.372	0.003
Mo-101	Tc-101	732.980	0.003	0.243	0.052
Ag-113	Cd-113	734.000	0.000	5.370	0.000
Xe-138	Cs-138	733.900	0.000	0.235	0.063
Nd-151	Pm-151	734.000	0.001	0.207	0.004

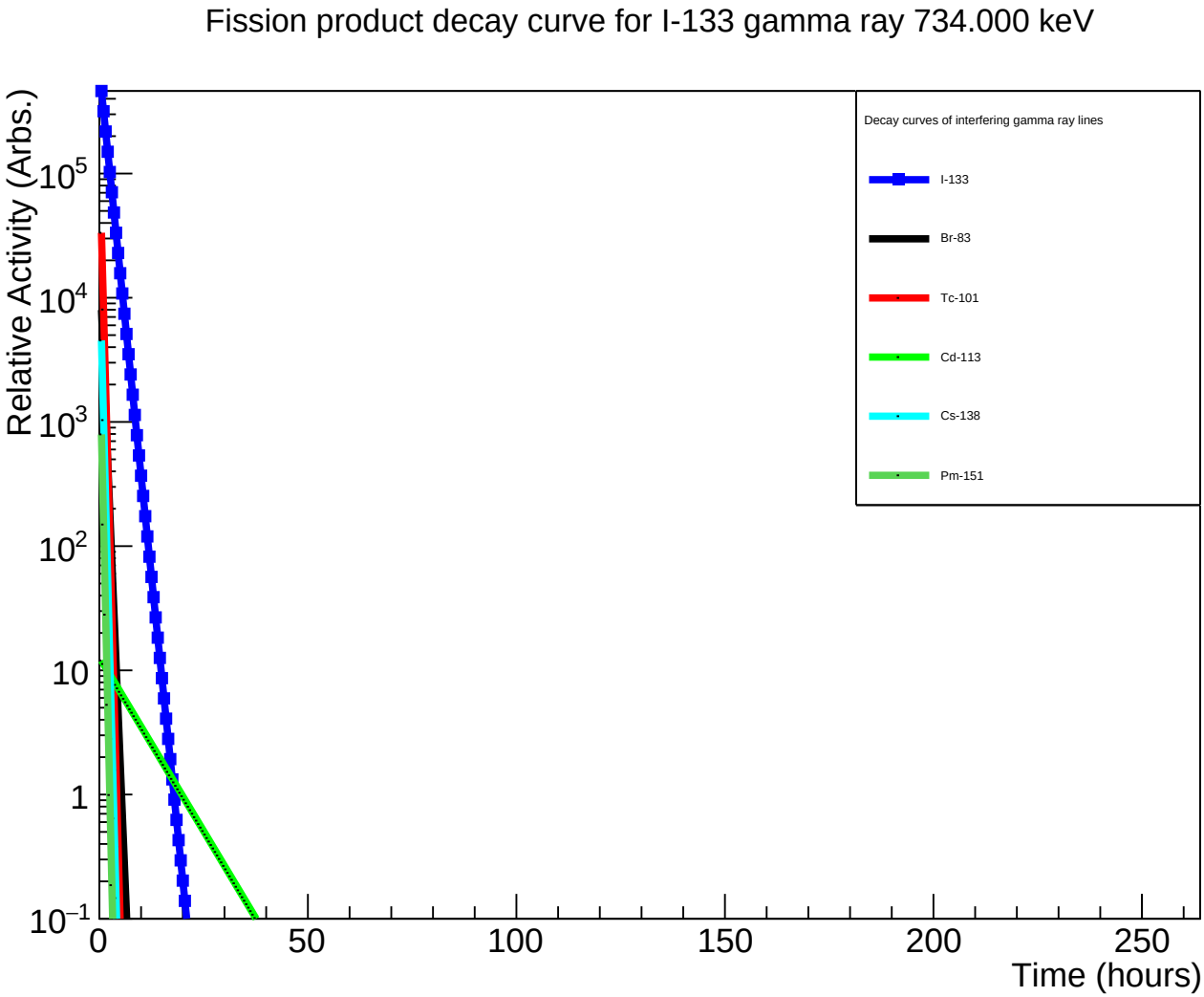


Figure 760: I-133 decay curve for 734.000 keV gamma ray.

3.761 Te-133 E_γ = 779.67 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 779.67 keV
Gamma Intensity = 1.68 ± 0.211 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1521: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1522: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	779.120	0.001	2.840	0.036
Mo-101	Tc-101	778.290	0.010	0.243	0.052
Pd-109	Ag-109	778.300	0.000	13.701	0.000
Sn-125	Sb-125	779.500	0.000	0.159	0.000
I-132	Xe-132	780.000	0.012	2.295	0.043
Ba-141	La-141	778.400	0.001	0.304	0.058
Pr-145	Nd-145	778.770	0.000	5.984	0.039
Pr-145	Nd-145	780.450	0.000	5.984	0.039
Nd-151	Pm-151	780.700	0.000	0.207	0.004

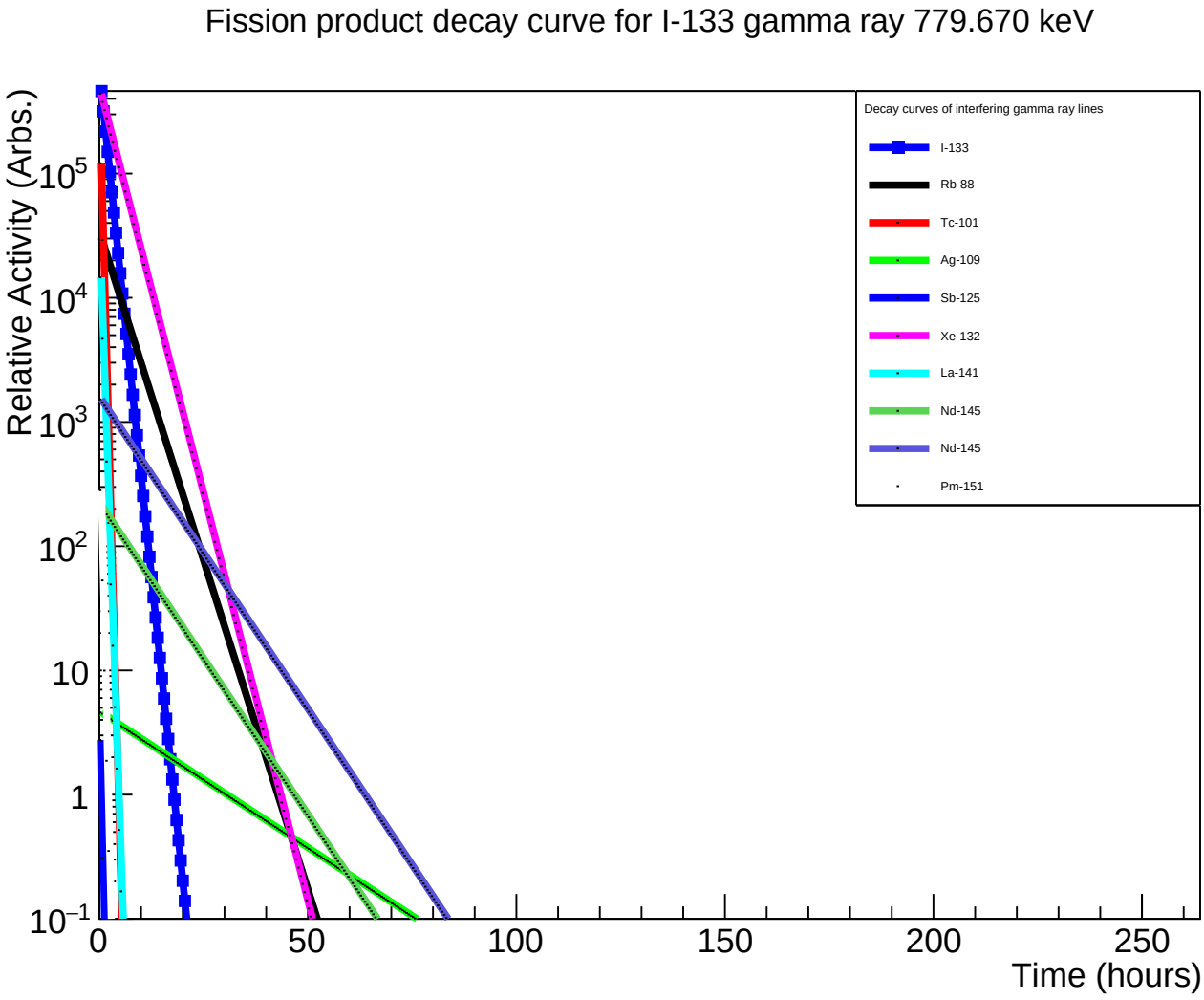


Figure 761: I-133 decay curve for 779.670 keV gamma ray.

3.762 Te-133 E_γ = 800.54 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 800.54 keV
Gamma Intensity = 1.05 ± 0.277 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1523: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1524: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	799.040	0.148	0.372	0.003
Rb-89	Sr-89	801.100	0.000	0.252	0.047
Tc-105	Ru-105	801.000	0.003	0.127	0.010
Sn-125	Sb-125	800.280	0.011	231.360	0.000
Sn-129	Sb-129	801.000	0.021	0.115	0.002
Xe-138	Cs-138	799.600	0.000	0.235	0.063
Ba-141	La-141	801.700	0.001	0.304	0.058
Pr-147	Nd-147	800.400	0.002	0.223	0.022
Nd-151	Pm-151	801.000	0.000	0.207	0.004

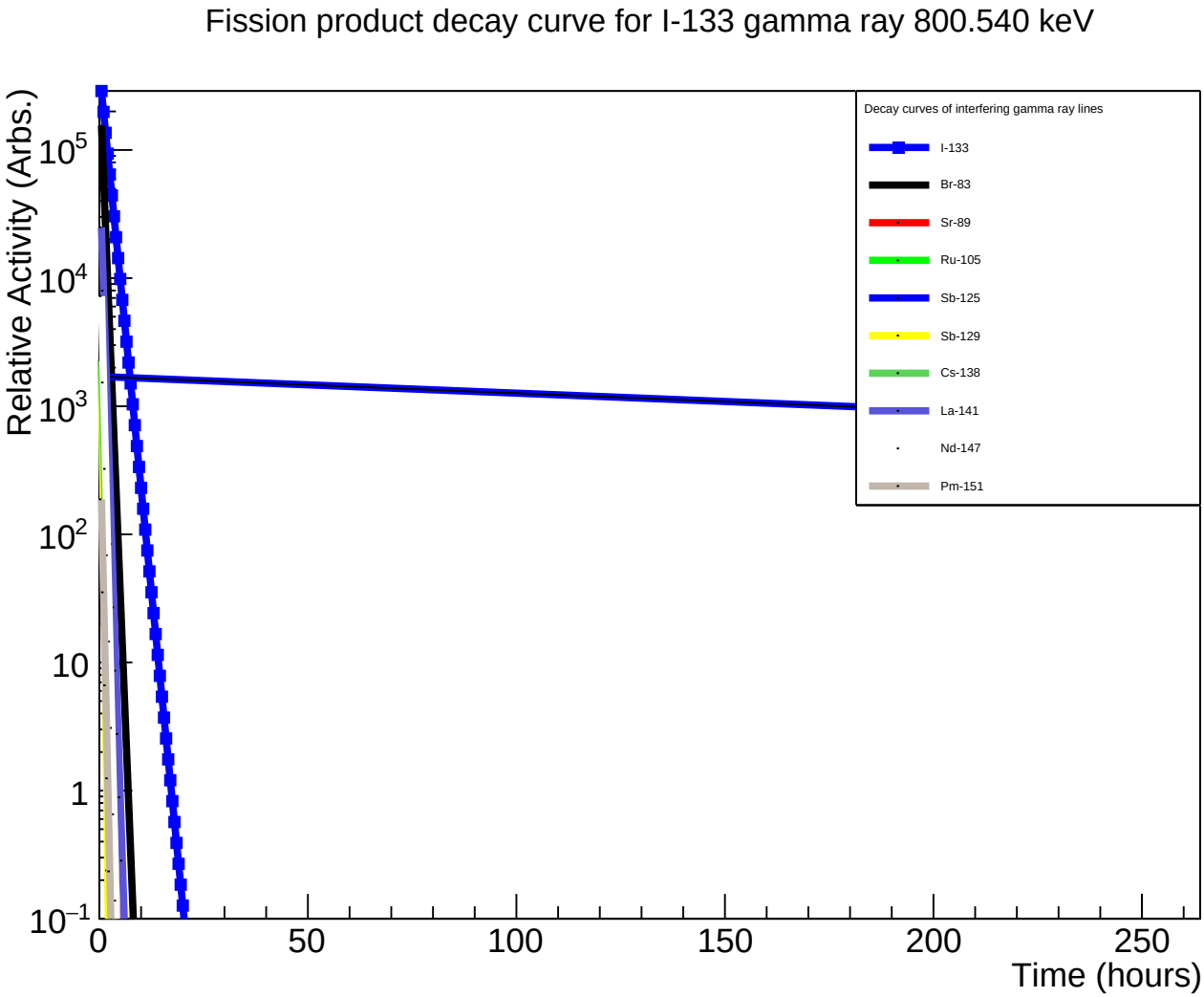


Figure 762: I-133 decay curve for 800.540 keV gamma ray.

3.763 Te-133 E_γ = 863.96 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 863.96 keV
Gamma Intensity = 14.89 ± 1.274 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1525: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1526: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	863.400	0.000	0.362	0.001
Pd-109	Ag-109	862.500	0.000	13.701	0.000
Ag-111	Cd-111	865.100	0.000	178.800	0.000
Sn-127	Sb-127	865.000	0.003	2.100	0.001
Sn-129	Sb-129	862.700	0.012	0.115	0.002
I-132	Xe-132	863.000	0.006	2.295	0.043
I-134	Xe-134	864.000	0.002	0.875	0.078
Pr-144	Nd-144	864.450	0.000	0.288	0.055
Pr-145	Nd-145	864.450	0.000	5.984	0.039
Nd-149	Pm-149	864.900	0.000	1.728	0.011
Nd-149	Pm-149	865.000	0.000	1.728	0.011

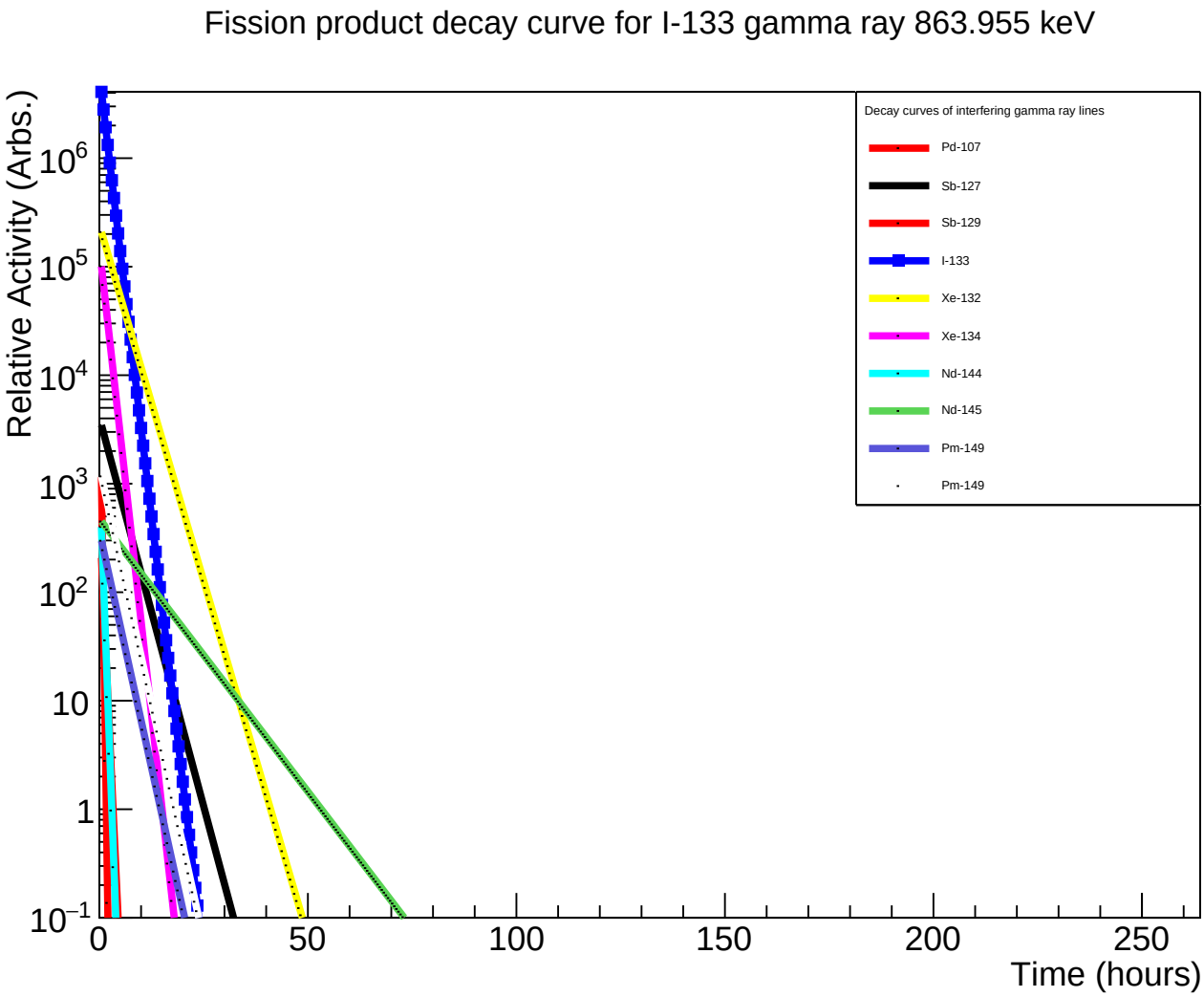


Figure 763: I-133 decay curve for 863.955 keV gamma ray.

3.764 Te-133 E_γ = 882.70 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 882.70 keV
Gamma Intensity = 2.10 ± 0.235 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1527: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1528: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	882.000	0.002	1.512	0.000
Se-83	Br-83	883.610	0.072	0.372	0.003
Br-84	Kr-84	881.600	0.416	0.529	0.010
Br-84	Kr-84	881.600	0.980	0.100	0.000
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Tc-105	Ru-105	883.500	0.001	0.127	0.010
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Sb-130	Te-130	883.300	0.012	0.658	0.008
I-134	Xe-134	884.090	0.651	0.875	0.078
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Ba-141	La-141	881.200	0.001	0.304	0.058
Pr-147	Nd-147	881.500	0.003	0.223	0.022
Pm-149	Sm-149	881.980	0.000	53.080	0.011
Pm-151	Sm-151	883.680	0.000	28.400	0.004

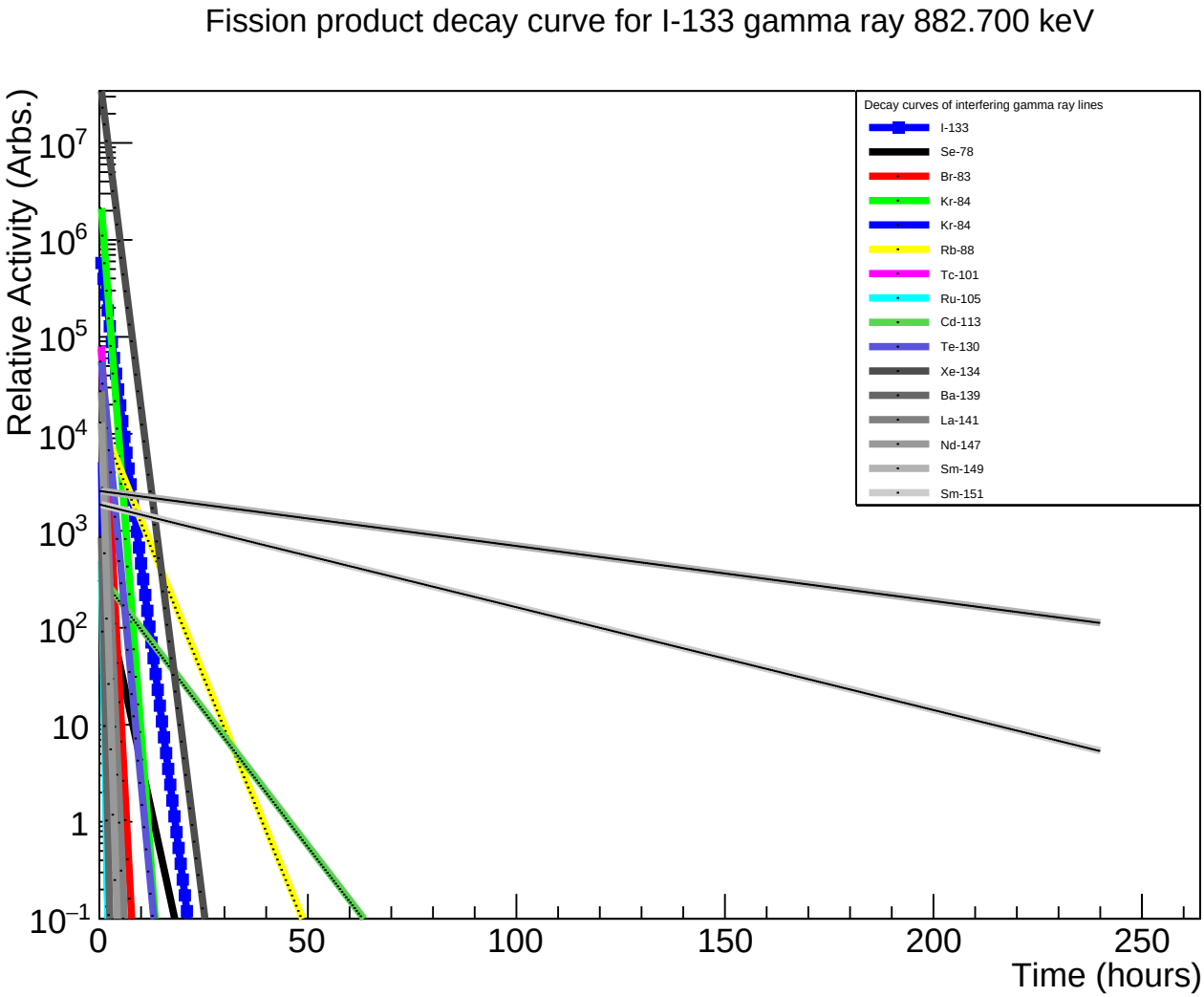


Figure 764: I-133 decay curve for 882.700 keV gamma ray.

3.765 Te-133 E_γ = 884.80 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 884.80 keV
Gamma Intensity = 1.89 ± 0.249 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1529: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1530: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	884.900	0.005	1.512	0.000
Se-83	Br-83	883.610	0.072	0.372	0.003
Nb-98	Mo-98	885.580	0.001	0.855	0.000
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Tc-104	Ru-104	884.400	0.109	0.305	0.019
Tc-105	Ru-105	883.500	0.001	0.127	0.010
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Sb-130	Te-130	883.300	0.012	0.658	0.008
I-132	Xe-132	886.100	0.000	2.295	0.043
I-134	Xe-134	884.090	0.651	0.875	0.078
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Ba-141	La-141	885.200	0.000	0.304	0.058
Pm-151	Sm-151	883.680	0.000	28.400	0.004

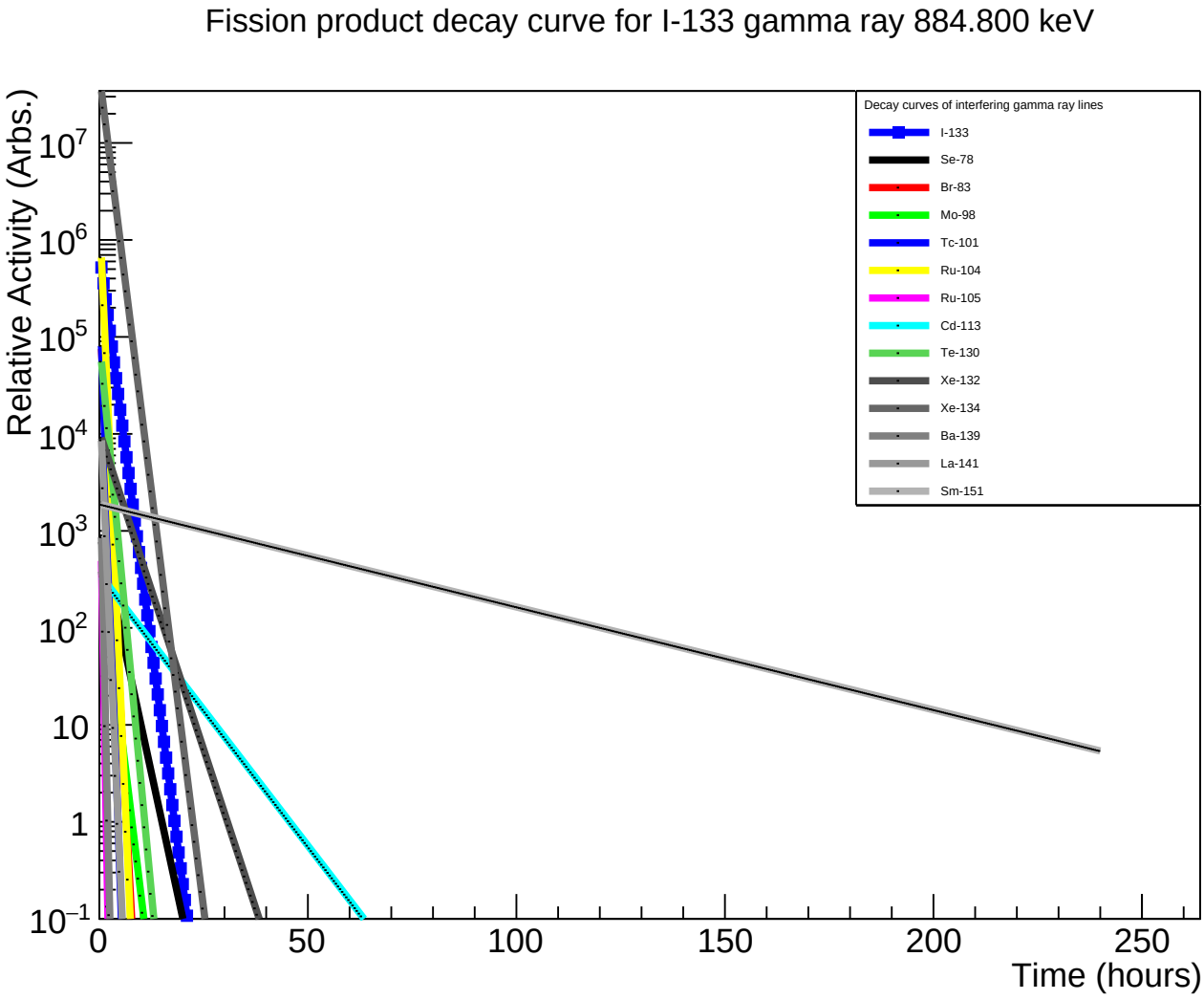


Figure 765: I-133 decay curve for 884.800 keV gamma ray.

3.766 Te-133 E_γ = 912.67 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 912.67 keV
Gamma Intensity = 43.77 ± 3.666 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1531: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1532: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	912.800	0.006	3.540	0.060
Sn-125	Sb-125	912.000	0.000	231.360	0.000
Sn-127	Sb-127	912.400	0.001	2.100	0.001
Xe-138	Cs-138	912.510	0.003	0.235	0.063
Nd-149	Pm-149	911.300	0.000	1.728	0.011
Nd-151	Pm-151	912.500	0.001	0.207	0.004
Nd-151	Pm-151	912.500	0.001	0.207	0.004
Pm-151	Sm-151	911.250	0.000	28.400	0.004

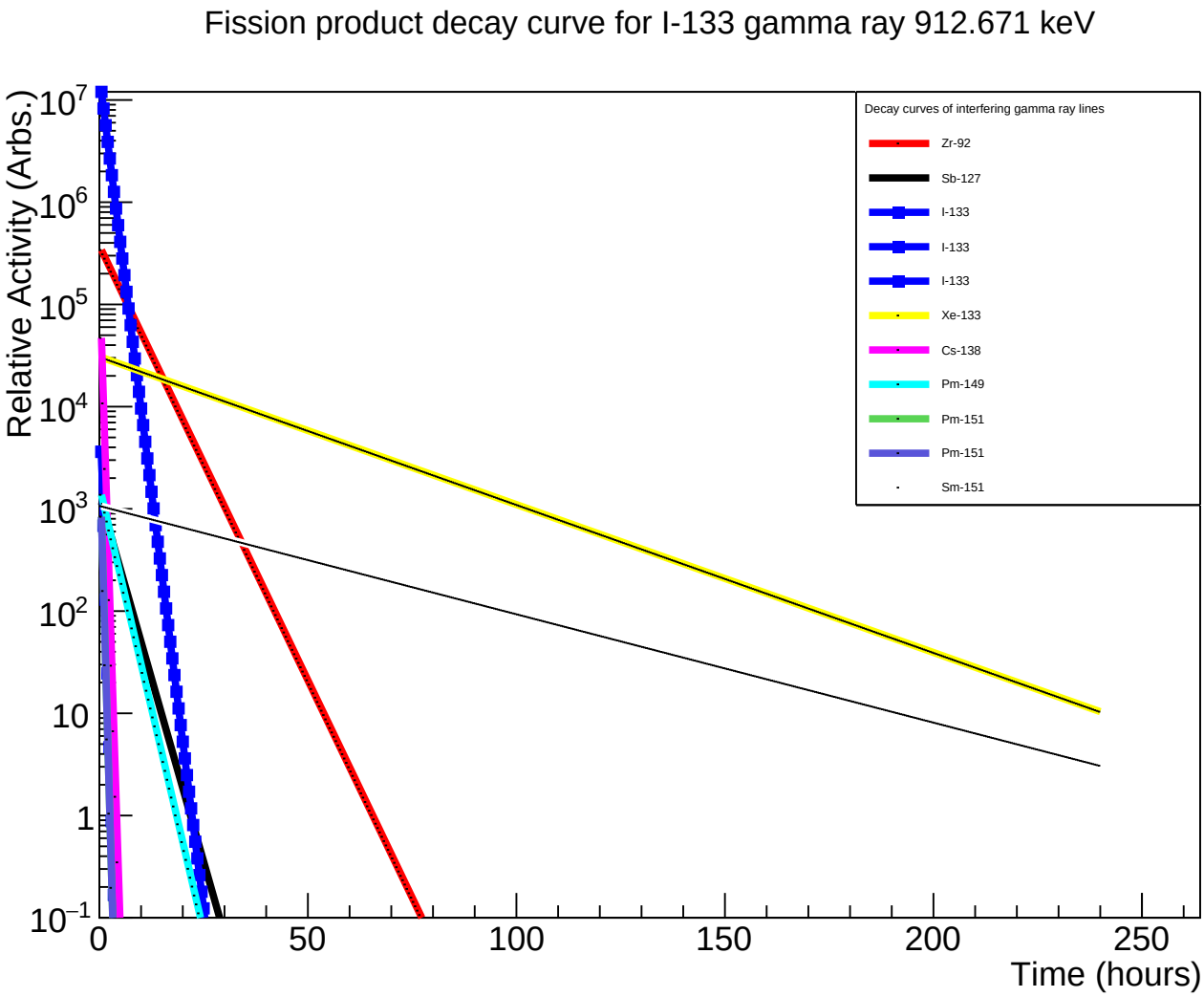


Figure 766: I-133 decay curve for 912.671 keV gamma ray.

3.767 Te-133 E_γ = 914.77 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 914.77 keV
Gamma Intensity = 10.42 ± 0.889 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1533: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1534: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	914.500	0.038	0.127	0.010
Sn-125	Sb-125	915.550	0.041	231.360	0.000
Sb-129	Te-129	914.600	0.202	4.400	0.005
Sb-130	Te-130	914.900	0.018	0.658	0.008
La-142	Ce-142	915.600	0.000	1.518	0.058
Nd-149	Pm-149	915.350	0.000	1.728	0.011
Nd-151	Pm-151	914.280	0.009	0.207	0.004

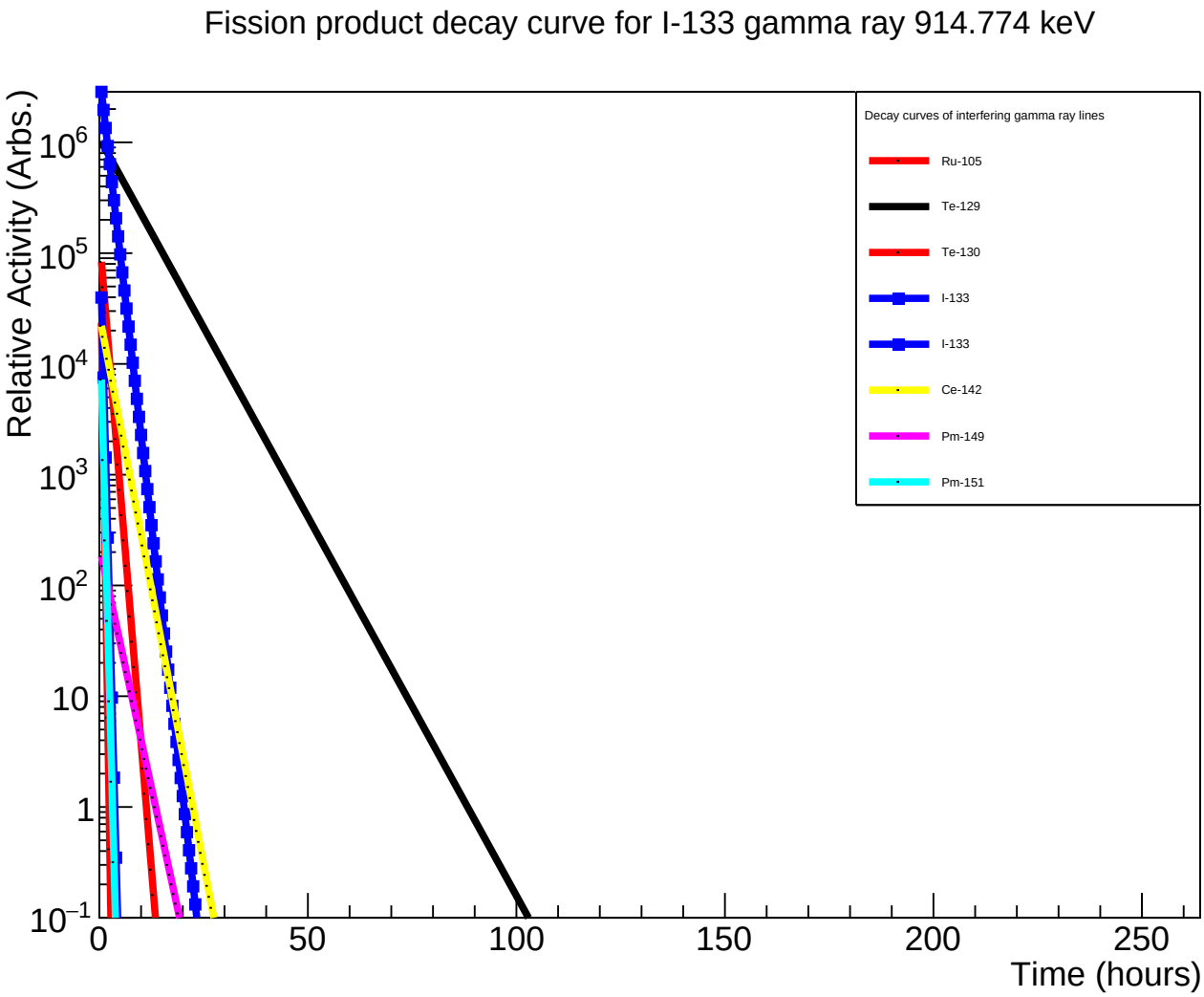


Figure 767: I-133 decay curve for 914.774 keV gamma ray.

3.768 Te-133 E_γ = 978.30 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 978.30 keV
Gamma Intensity = 4.63 ± 0.415 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1535: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1536: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	977.200	0.001	0.305	0.019
Sn-127	Sb-127	979.200	0.072	2.100	0.001
Pr-145	Nd-145	978.969	0.003	5.984	0.039
Nd-149	Pm-149	978.800	0.000	1.728	0.011
Nd-149	Pm-149	979.013	0.001	1.728	0.011
Nd-151	Pm-151	979.650	0.001	0.207	0.004

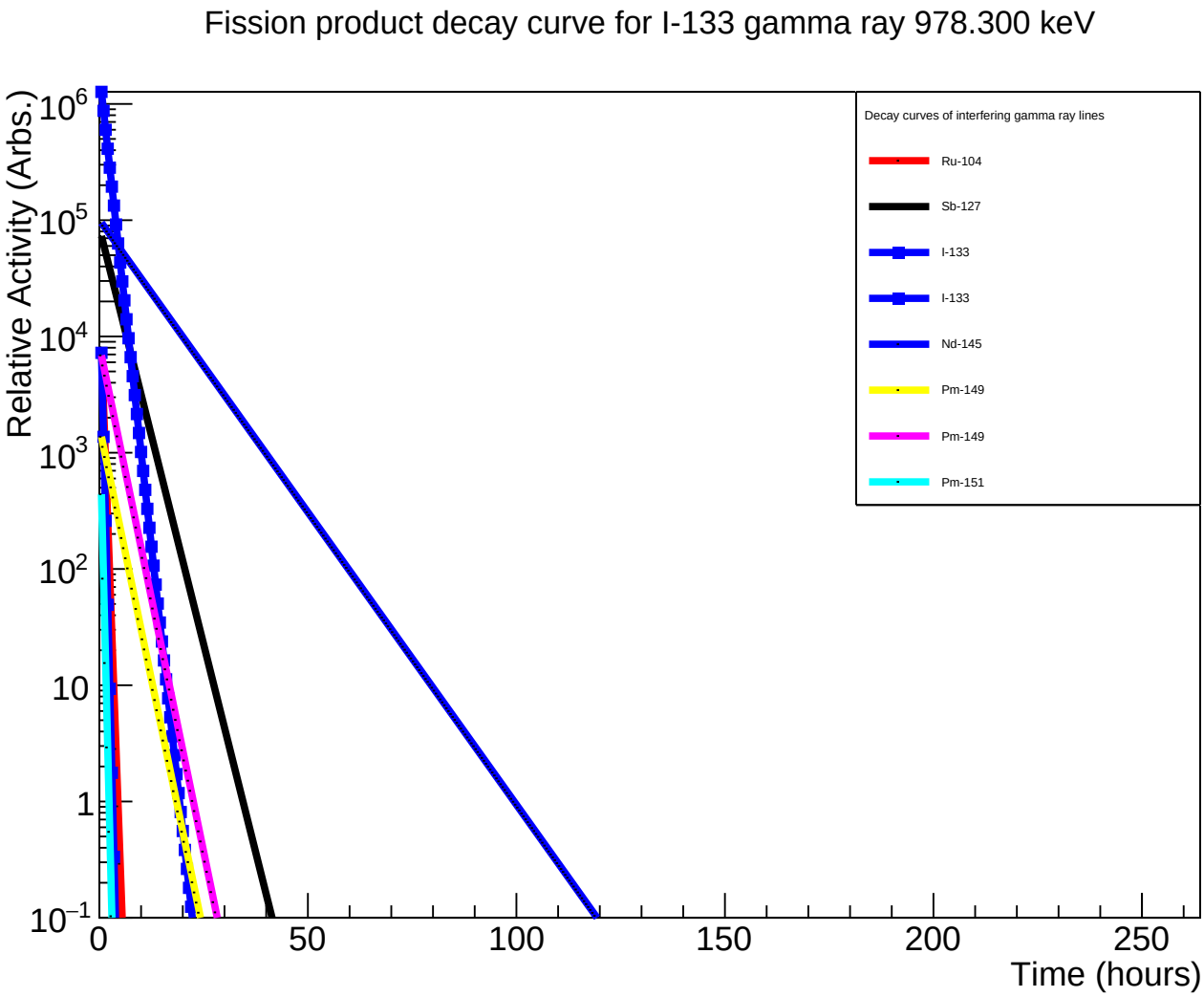


Figure 768: I-133 decay curve for 978.300 keV gamma ray.

3.769 Te-133 E_γ = 980.26 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 980.26 keV
Gamma Intensity = 1.42 ± 0.197 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1537: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1538: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	980.800	0.005	0.305	0.019
Sn-127	Sb-127	979.200	0.072	2.100	0.001
Sn-127	Sb-127	980.300	0.008	2.100	0.001
Ba-141	La-141	981.200	0.002	0.304	0.058
Ba-141	La-141	981.700	0.007	0.304	0.058
Pr-145	Nd-145	978.969	0.003	5.984	0.039
Nd-149	Pm-149	978.800	0.000	1.728	0.011
Nd-149	Pm-149	979.013	0.001	1.728	0.011
Nd-151	Pm-151	979.650	0.001	0.207	0.004

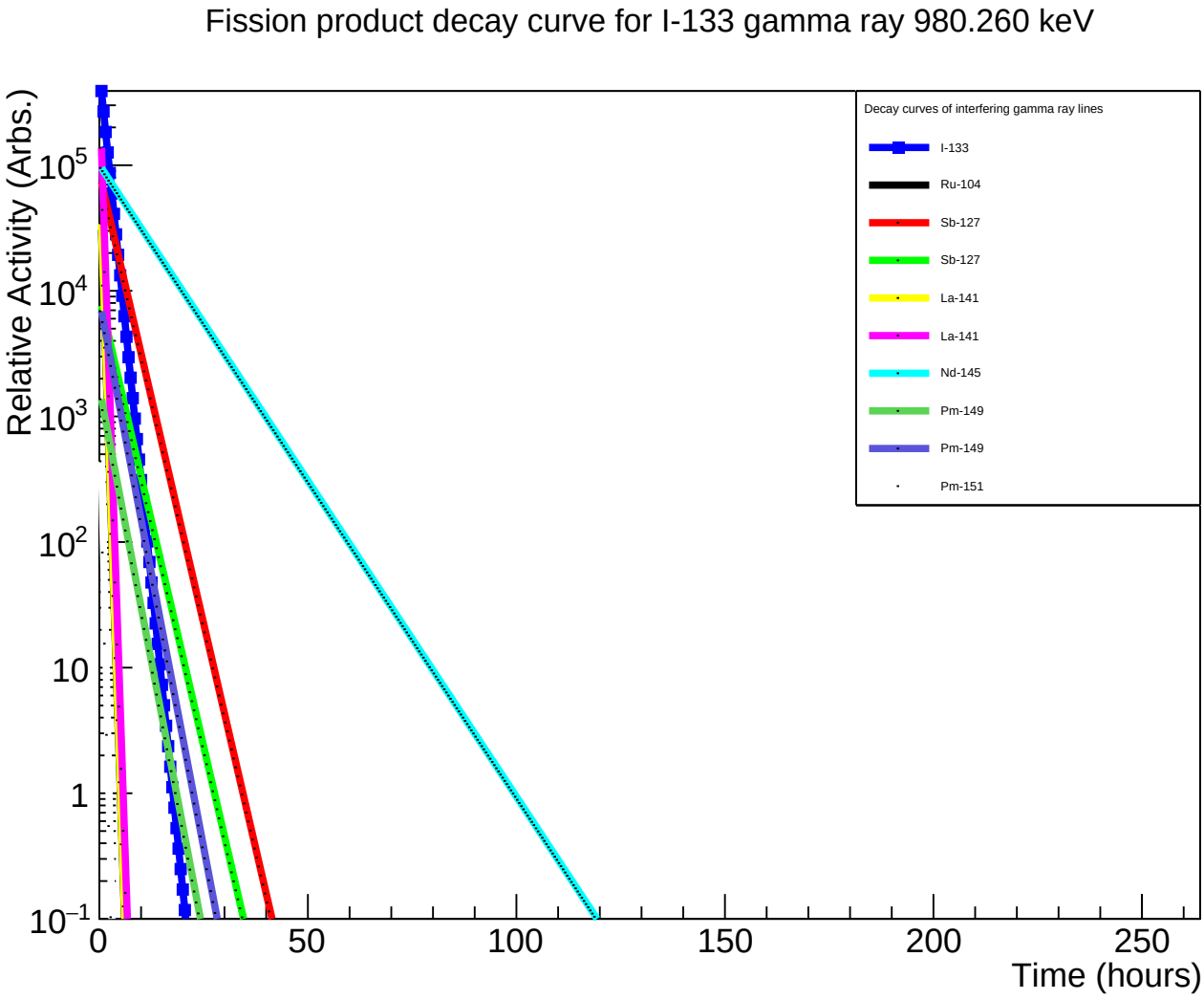


Figure 769: I-133 decay curve for 980.260 keV gamma ray.

3.770 Te-133 E_γ = 1029.88 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1029.88 keV
Gamma Intensity = 1.16 ± 0.185 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1539: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1540: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1031.100	0.002	0.372	0.003
Mo-101	Tc-101	1030.100	0.001	0.243	0.052
Sb-129	Te-129	1030.100	0.127	4.400	0.005
Sb-130	Te-130	1030.700	0.015	0.658	0.008
Ce-143	Pr-143	1031.220	0.000	33.039	0.060
Nd-151	Pm-151	1029.050	0.000	0.207	0.004
Nd-151	Pm-151	1030.500	0.000	0.207	0.004

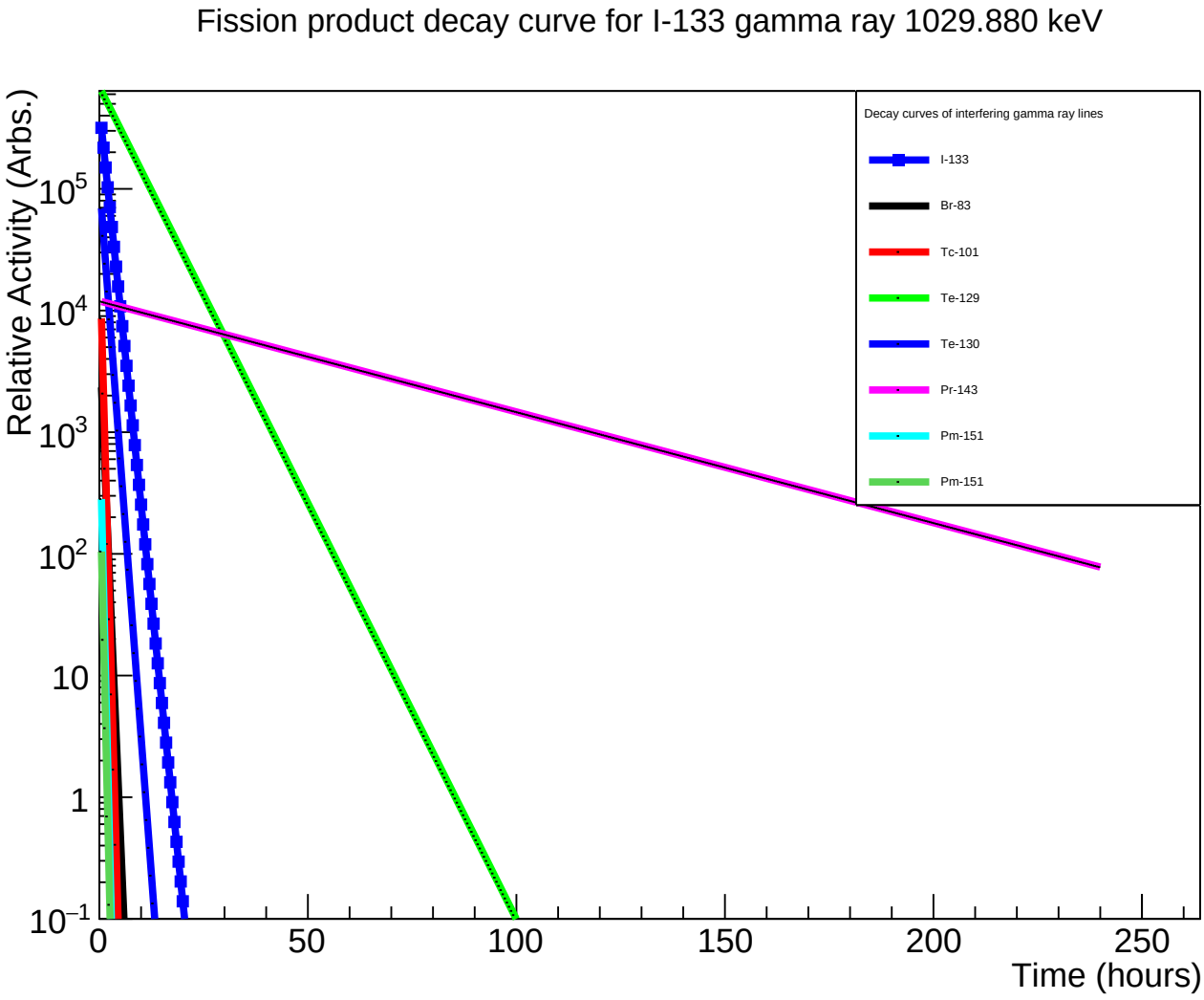


Figure 770: I-133 decay curve for 1029.880 keV gamma ray.

3.771 Te-133 E_γ = 1061.89 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1061.89 keV
Gamma Intensity = 1.58 ± 0.205 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1541: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1542: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	1063.100	0.000	1.272	0.026
Nb-98	Mo-98	1061.250	0.002	0.855	0.000
Nb-98	Mo-98	1063.000	0.003	0.855	0.000
Sb-126	Te-126	1061.600	0.005	0.319	0.001
Xe-135	Cs-135	1062.410	0.000	9.140	0.065

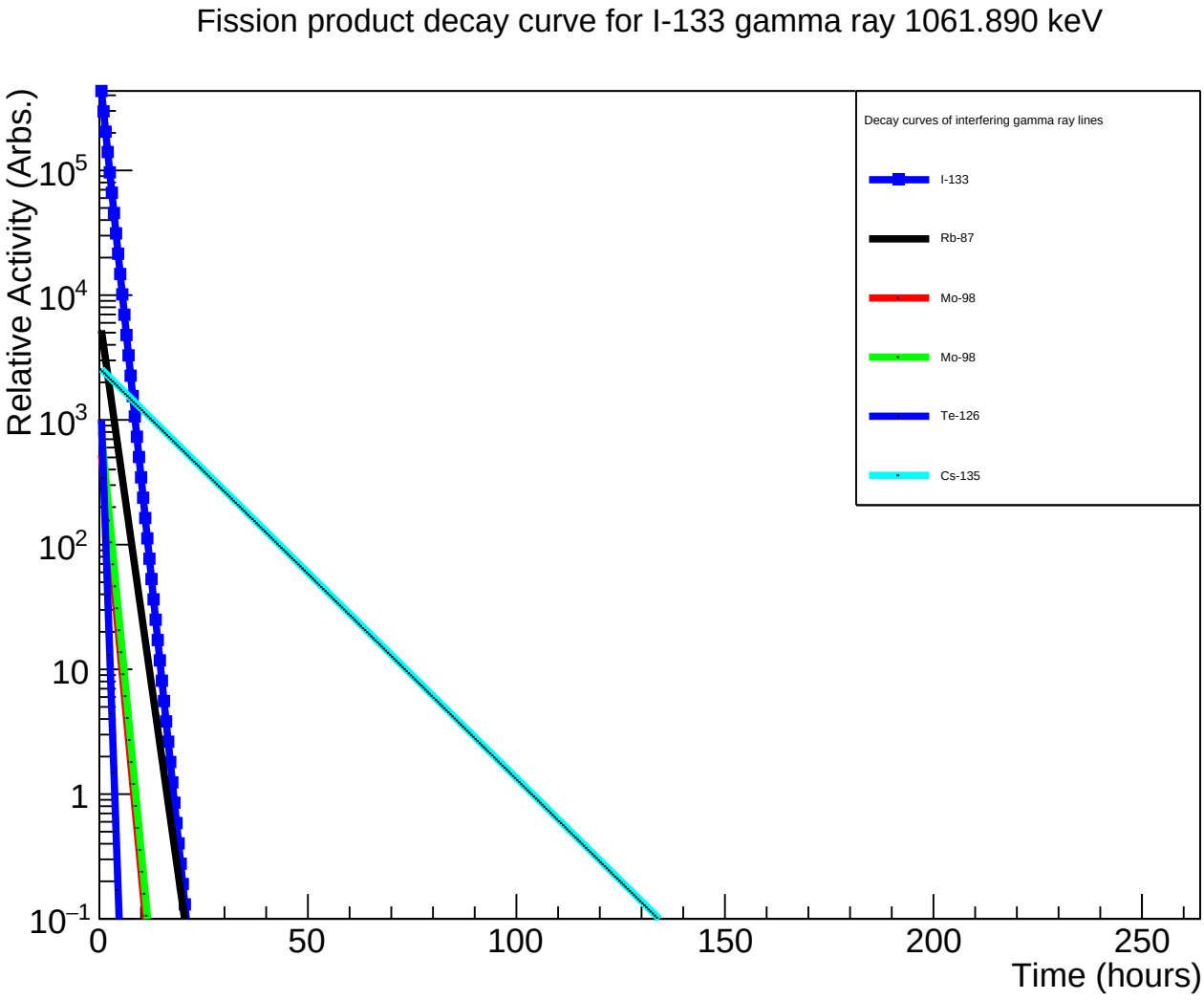


Figure 771: I-133 decay curve for 1061.890 keV gamma ray.

3.772 Te-133 E_γ = 1142.74 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1142.74 keV
Gamma Intensity = 1.26 ± 0.235 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1543: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1544: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1141.330	0.013	2.840	0.036
Sr-92	Y-92	1142.350	0.028	2.710	0.059
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Sb-127	Te-127	1141.600	0.004	92.400	0.002
Sb-130	Te-130	1141.400	0.020	0.658	0.008
Sb-130	Te-130	1142.000	0.056	0.105	0.010
I-132	Xe-132	1143.300	0.014	2.295	0.043
Xe-138	Cs-138	1141.640	0.005	0.235	0.063
La-142	Ce-142	1144.200	0.000	1.518	0.058
Nd-149	Pm-149	1141.770	0.000	1.728	0.011
Nd-149	Pm-149	1141.770	0.000	1.728	0.011

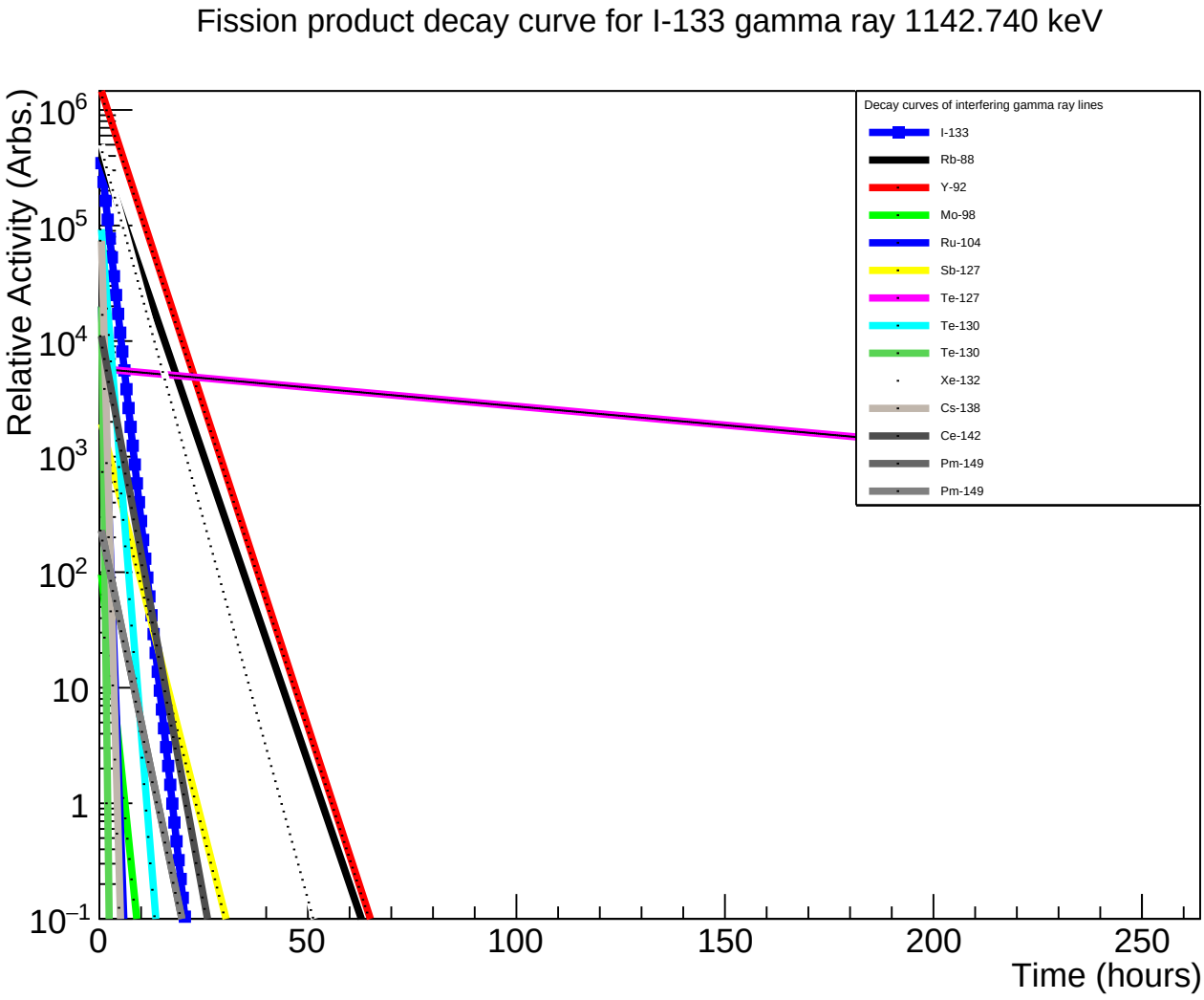


Figure 772: I-133 decay curve for 1142.740 keV gamma ray.

3.773 Te-133 E_γ = 1348.87 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1348.87 keV
Gamma Intensity = 1.42 ± 0.129 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1545: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1546: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	1349.420	0.001	231.360	0.000
Sn-125	Sb-125	1349.370	0.000	0.159	0.000
La-142	Ce-142	1348.700	0.000	1.518	0.058
Nd-151	Pm-151	1349.300	0.000	0.207	0.004

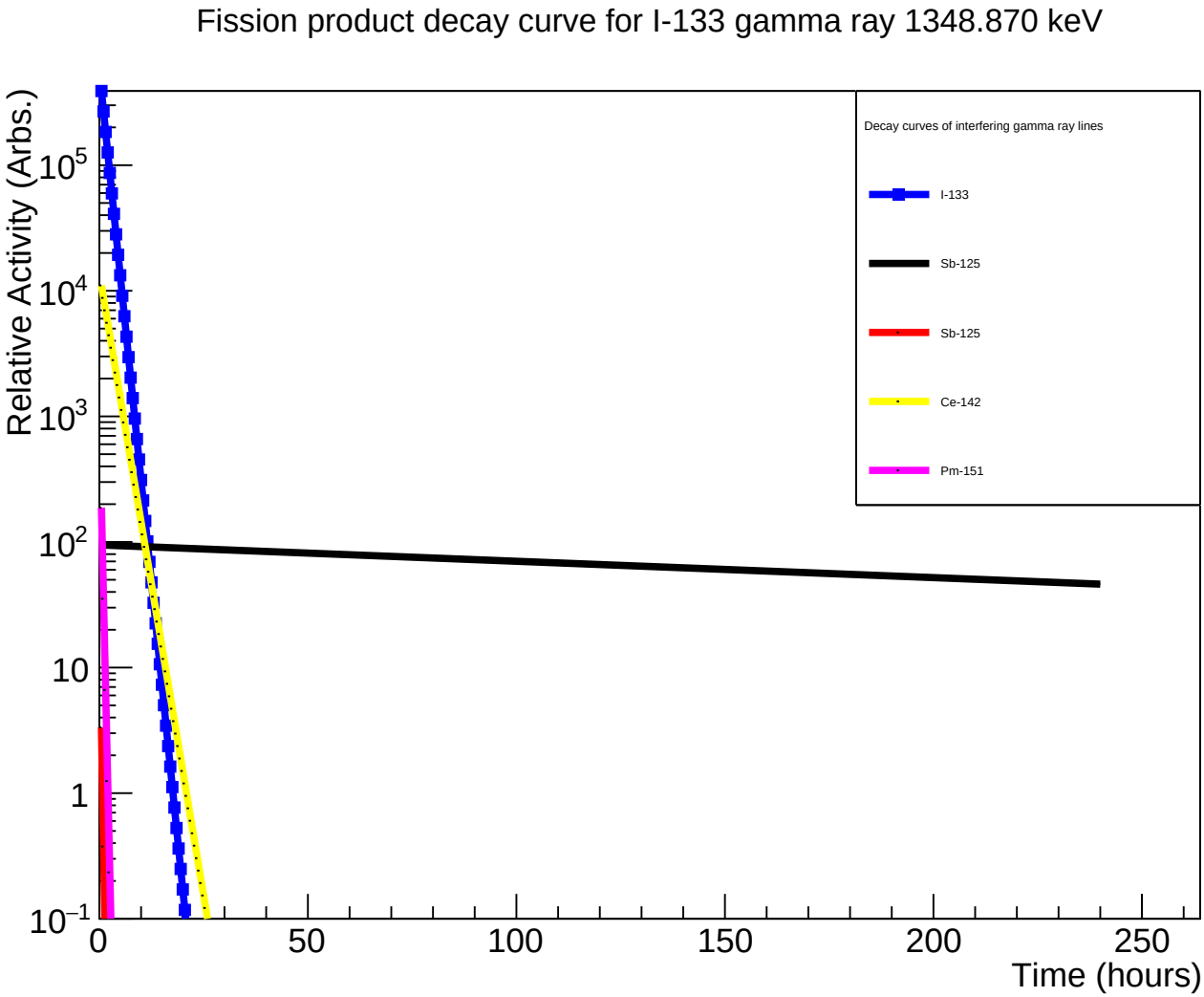


Figure 773: I-133 decay curve for 1348.870 keV gamma ray.

3.774 Te-133 E_γ = 1516.26 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1516.26 keV
Gamma Intensity = 1.21 ± 0.187 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1547: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1548: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-97	Mo-97	1515.660	0.001	1.202	0.060
Nb-98	Mo-98	1515.500	0.001	0.855	0.000
Tc-104	Ru-104	1515.500	0.008	0.305	0.019
Tc-104	Ru-104	1517.400	0.007	0.305	0.019
La-142	Ce-142	1516.300	0.004	1.518	0.058
Pr-146	Nd-146	1515.900	0.003	0.403	0.030

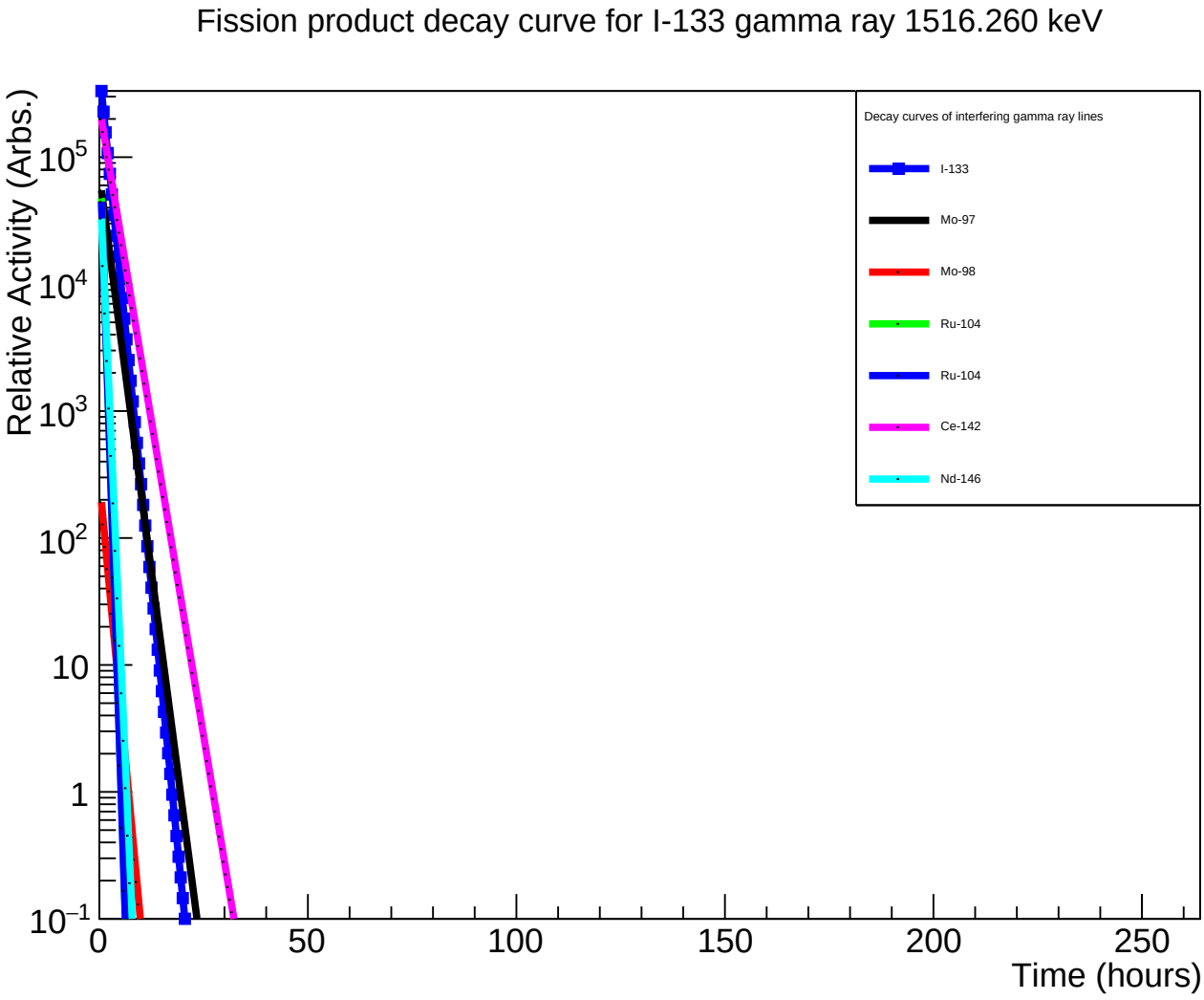


Figure 774: I-133 decay curve for 1516.260 keV gamma ray.

3.775 Te-133 E_γ = 1587.66 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1587.66 keV
Gamma Intensity = 1.37 ± 0.194 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1549: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1550: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1587.900	0.000	0.312	0.065
Ba-141	La-141	1588.600	0.001	0.304	0.058

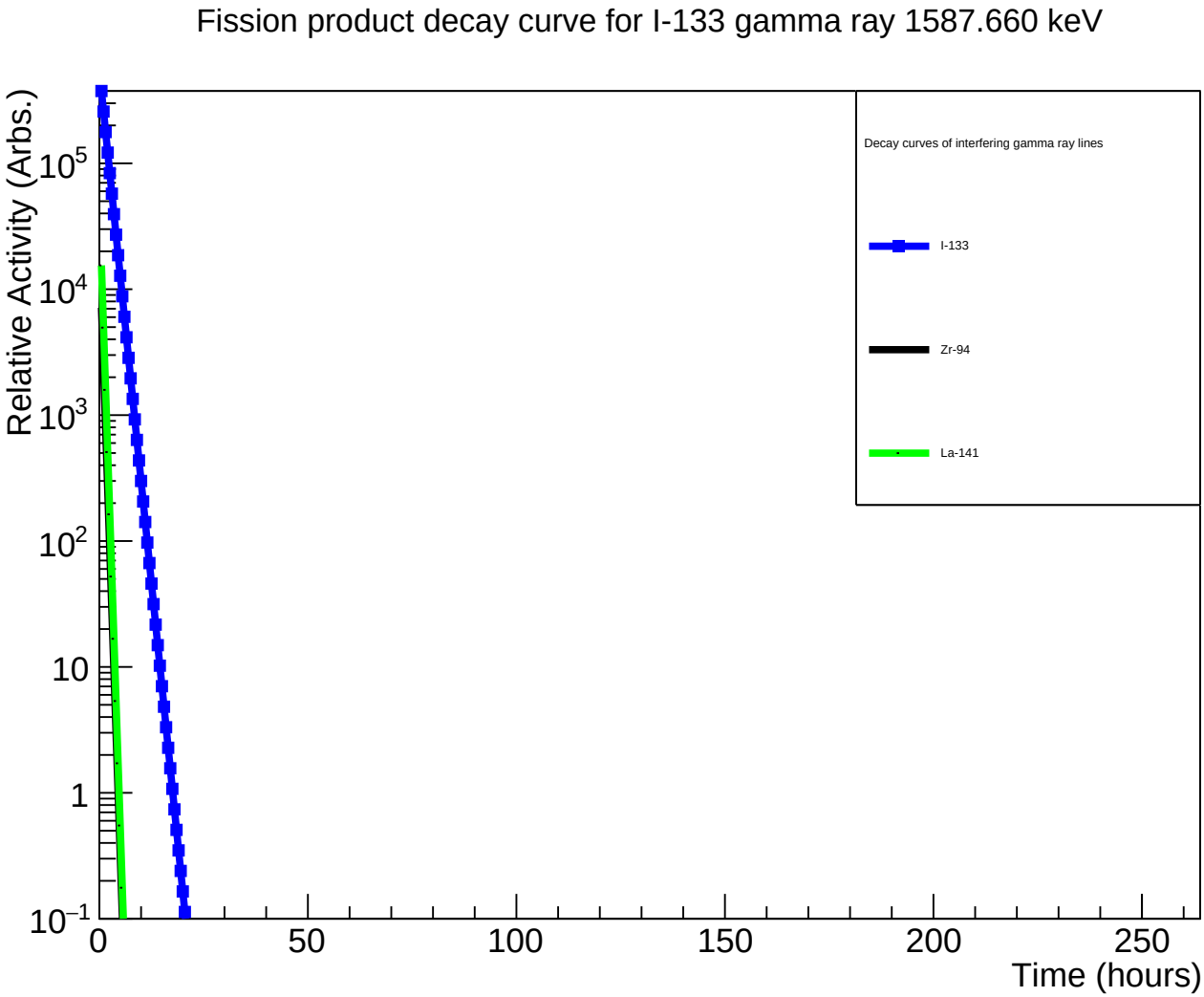


Figure 775: I-133 decay curve for 1587.660 keV gamma ray.

3.776 Te-133 E_γ = 1683.23 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 1683.23 keV
Gamma Intensity = 3.95 ± 0.344 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1551: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1552: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1683.000	0.006	0.172	0.064
Tc-105	Ru-105	1683.900	0.001	0.127	0.010
Ag-112	Cd-112	1683.700	0.000	3.130	0.000
Ba-139	La-139	1683.100	0.000	1.384	0.064
Ba-141	La-141	1682.300	0.017	0.304	0.058
Pr-147	Nd-147	1683.300	0.002	0.223	0.022
Eu-156	Gd-156	1682.100	0.003	364.560	0.000

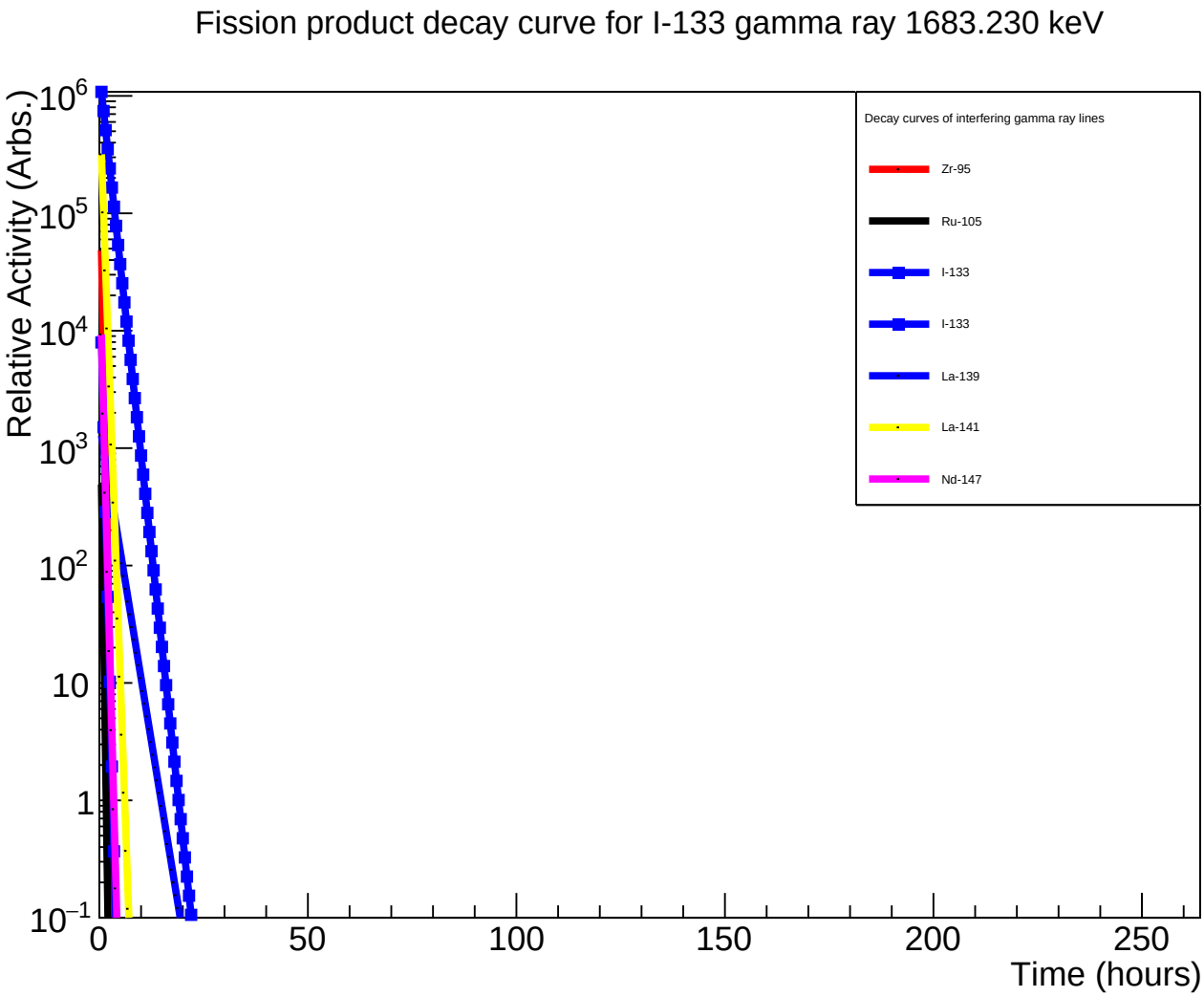


Figure 776: I-133 decay curve for 1683.230 keV gamma ray.

3.777 Te-133 E_γ = 2005.33 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 2005.33 keV
Gamma Intensity = 3.21 ± 0.339 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1553: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1554: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2006.600	0.001	0.855	0.000
Xe-138	Cs-138	2004.750	0.054	0.235	0.063
La-142	Ce-142	2004.200	0.009	1.518	0.058
La-143	Ce-143	2003.910	0.004	0.237	0.059
Pr-146	Nd-146	2005.500	0.002	0.403	0.030

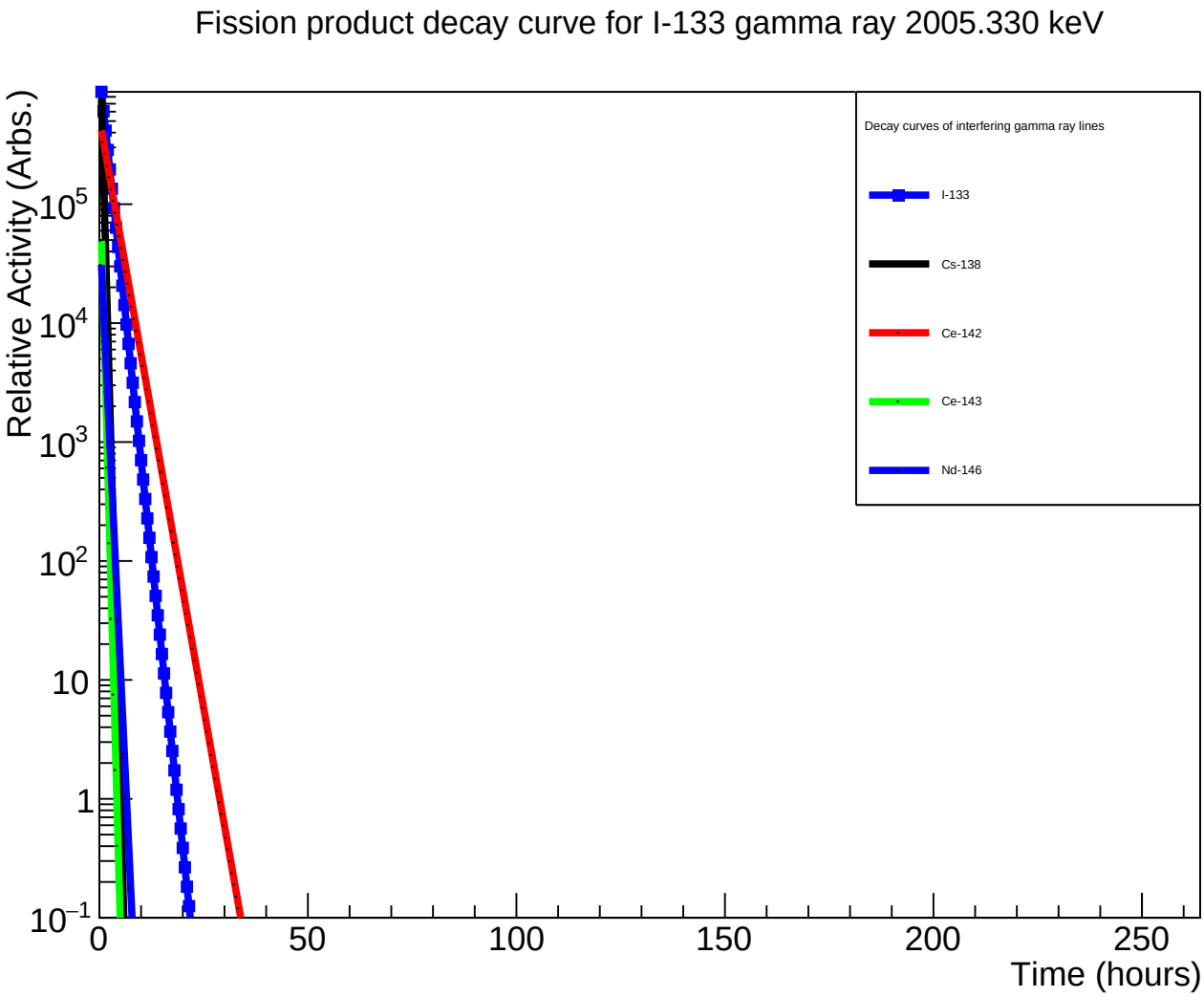


Figure 777: I-133 decay curve for 2005.330 keV gamma ray.

3.778 Te-133 E_γ = 2049.70 keV

Chemical element: Tellurium
Fission product parent: Te-133
Gamma originates in daughter: I-133
Eγ: 2049.70 keV
Gamma Intensity = 1.16 ± 0.142 %
$T_{1/2}$ = 0.923 ± 0.007 hours or 55.40 ± 0.40 minutes
CFY: 3.993 ± 0.112 %

Table 1555: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1556: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
La-141	Ce-141	2049.200	0.000	3.920	0.058
La-142	Ce-142	2050.900	0.005	1.518	0.058

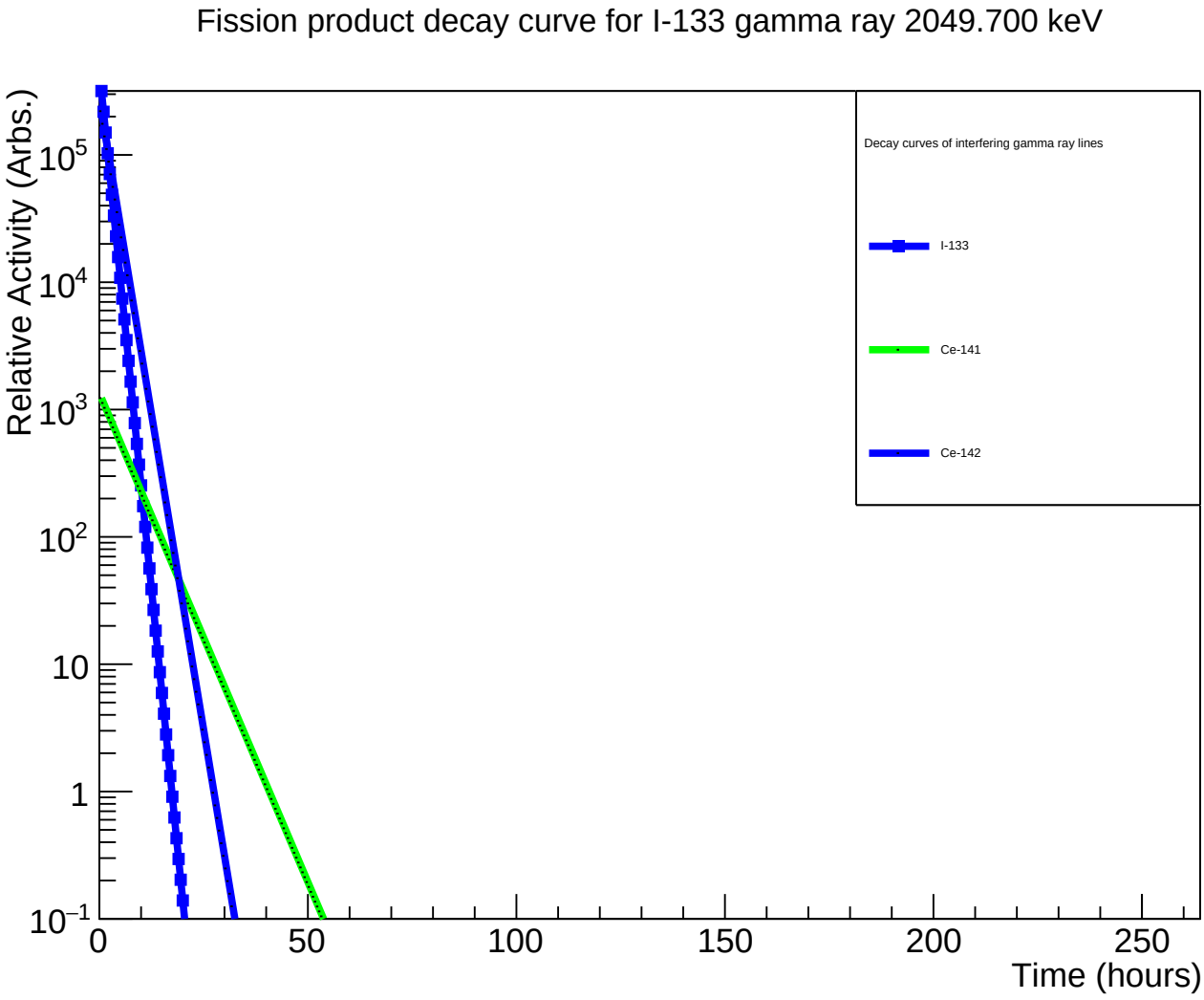


Figure 778: I-133 decay curve for 2049.700 keV gamma ray.

3.779 Te-134 E_γ = 79.44 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 79.44 keV
Gamma Intensity = 20.95 ± 0.819 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1557: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1558: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	80.920	0.037	0.243	0.052
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
I-131	Xe-131	80.185	0.026	192.605	0.029
Xe-133	Cs-133	79.623	0.003	125.832	0.067
Ba-142	La-142	79.800	0.000	0.177	0.058
Ce-144	Pr-144	80.120	0.014	6833.333	0.055
Pr-147	Nd-147	77.970	0.099	0.223	0.022
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	78.650	0.003	0.372	0.000
Sm-155	Eu-155	80.000	0.000	0.372	0.000

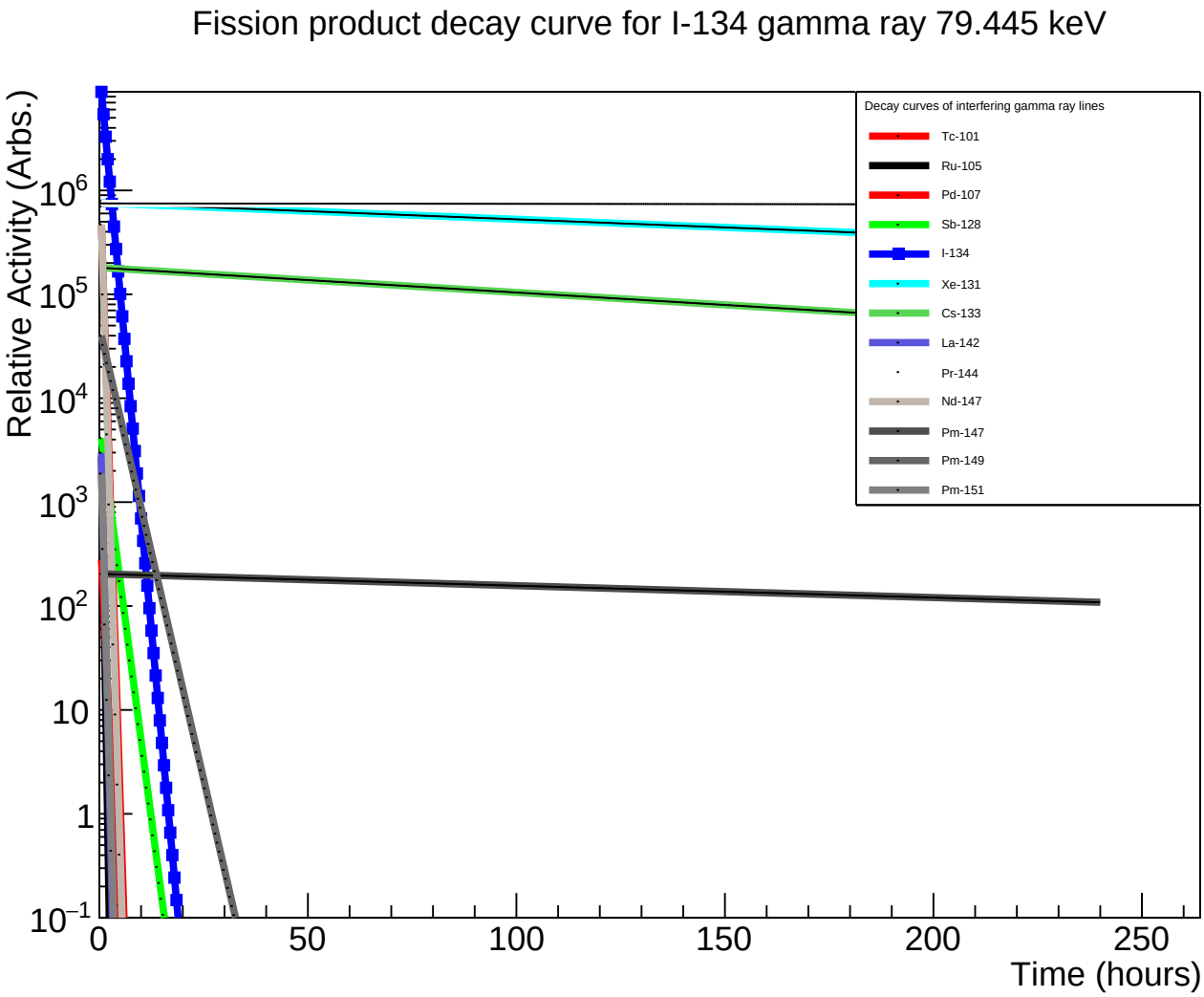


Figure 779: I-134 decay curve for 79.445 keV gamma ray.

3.780 Te-134 E_γ = 180.89 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 180.89 keV
Gamma Intensity = 18.29 ± 0.771 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1559: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1560: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	181.068	0.061	65.976	0.061
Tc-101	Ru-101	179.600	0.006	0.237	0.052
Sn-127	Sb-127	181.100	0.002	2.100	0.001
Sb-129	Te-129	180.800	0.026	4.400	0.005
Sb-130	Te-130	182.330	0.650	0.658	0.008
Sb-130	Te-130	182.330	0.410	0.105	0.010
Ba-141	La-141	180.800	0.005	0.304	0.058

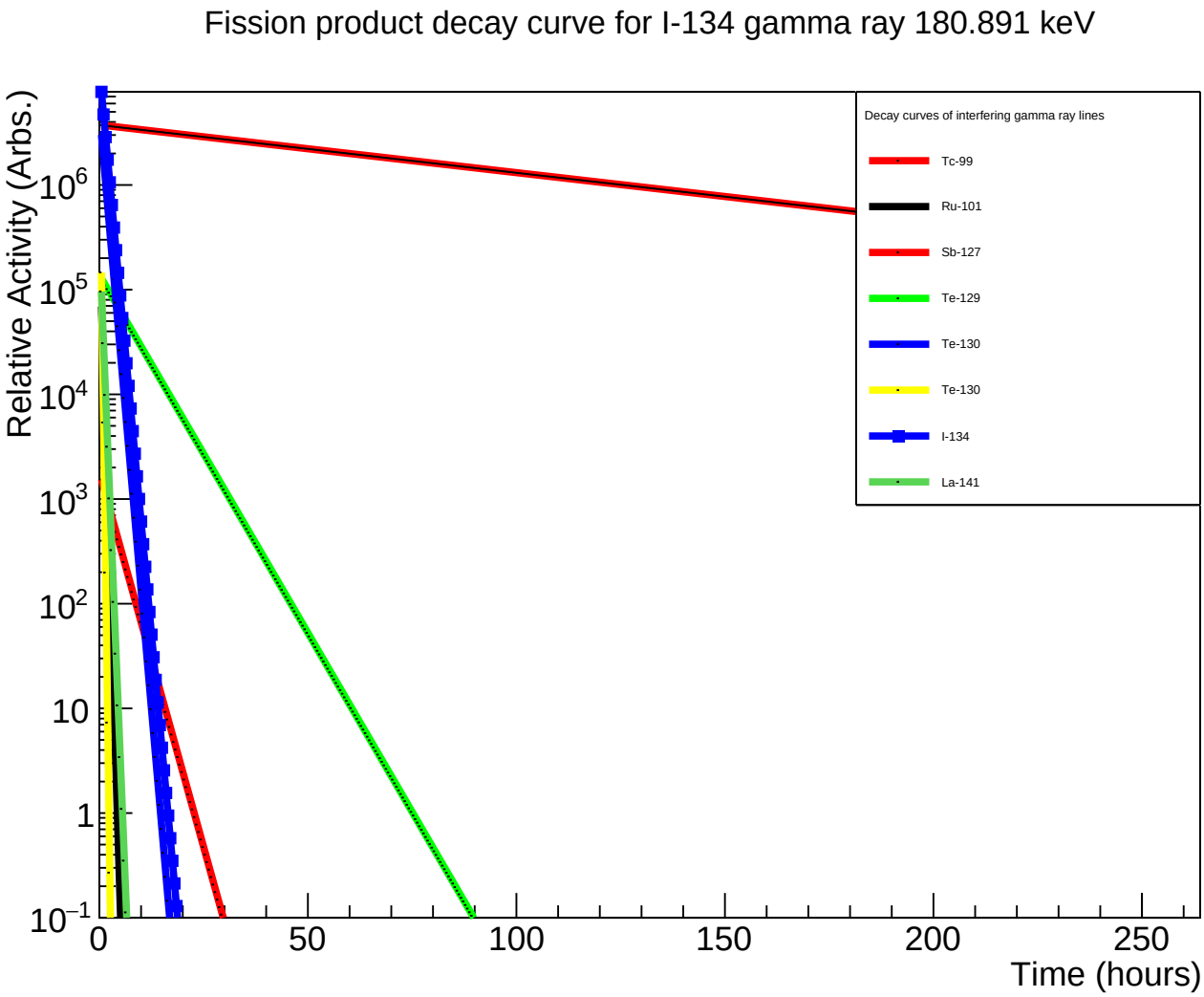


Figure 780: I-134 decay curve for 180.891 keV gamma ray.

3.781 Te-134 E_γ = 201.24 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 201.24 keV
Gamma Intensity = 8.85 ± 0.380 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1561: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1562: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	202.500	0.000	16.749	0.060
Pd-111	Ag-111	202.200	0.000	0.390	0.000
Xe-135	Cs-135	200.190	0.000	9.140	0.065
Nd-152	Pm-152	200.500	0.000	0.190	0.003
Pm-151	Sm-151	201.960	0.009	28.400	0.004

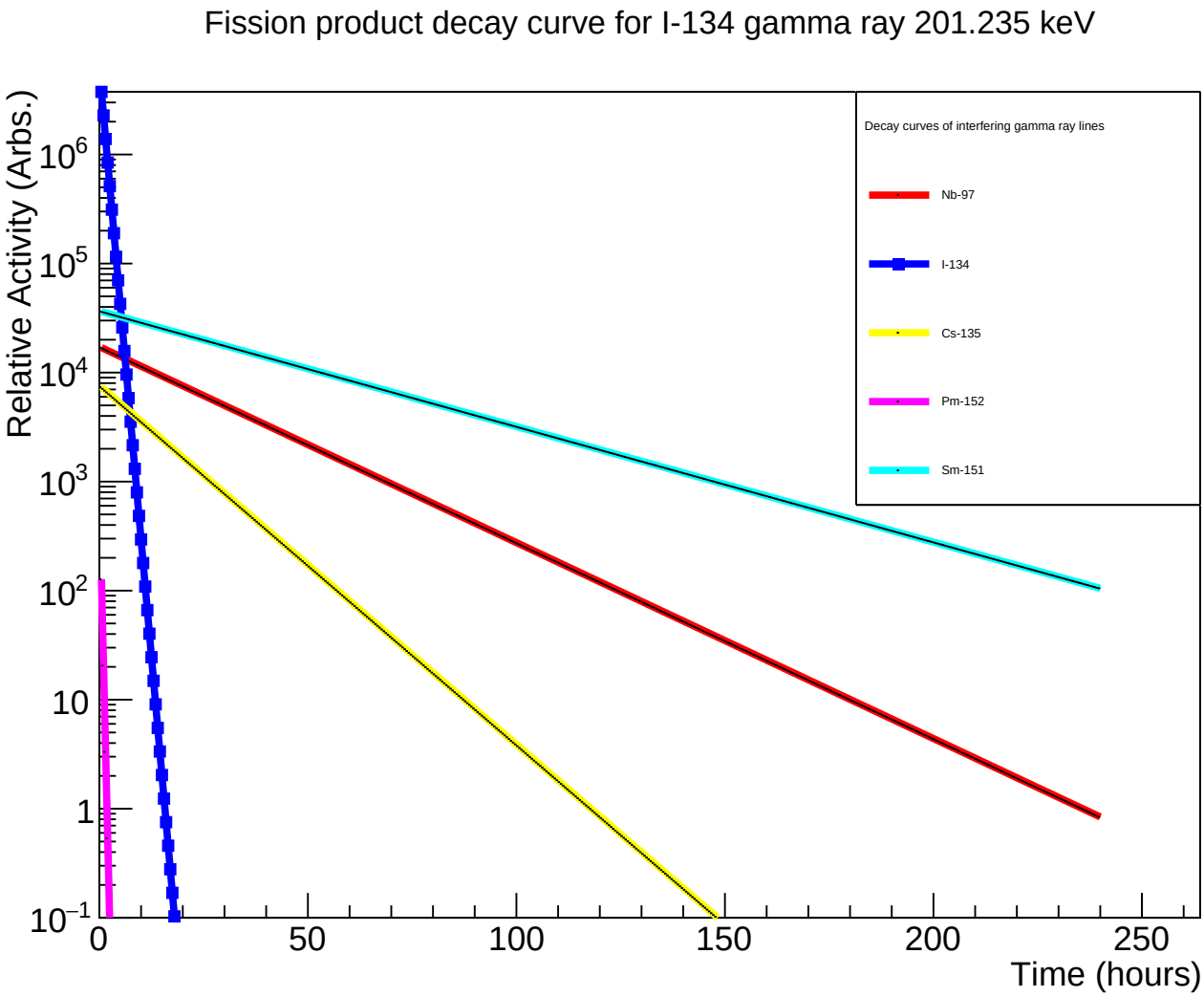


Figure 781: I-134 decay curve for 201.235 keV gamma ray.

3.782 Te-134 E_γ = 210.46 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 210.46 keV
Gamma Intensity = 22.71 ± 1.331 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1563: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1564: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	211.660	0.038	0.188	0.043
Sn-127	Sb-127	211.500	0.001	2.100	0.001
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Ce-146	Pr-146	210.460	0.049	0.225	0.030
Nd-149	Pm-149	211.309	0.259	1.728	0.011
Nd-151	Pm-151	211.360	0.001	0.207	0.004
Pm-151	Sm-151	209.000	0.017	28.400	0.004

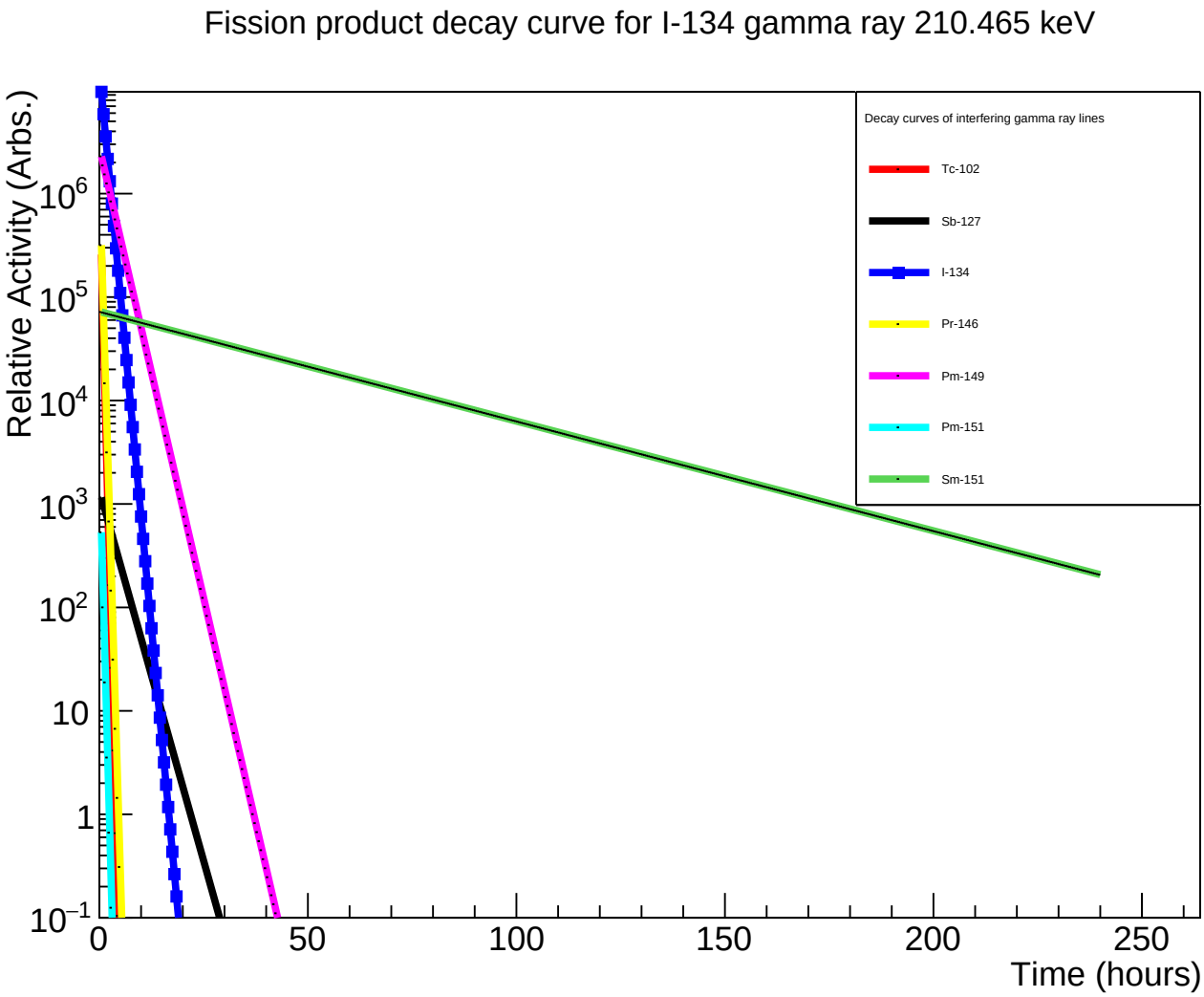


Figure 782: I-134 decay curve for 210.465 keV gamma ray.

3.783 Te-134 E_γ = 277.95 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 277.95 keV
Gamma Intensity = 21.24 ± 1.056 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1565: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1566: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	277.300	0.960	1.467	0.000
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Rh-107	Pd-107	277.580	0.017	0.362	0.001
Pd-111	Ag-111	279.000	0.000	0.390	0.000
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Sn-125	Sb-125	278.560	0.000	0.159	0.000
Sn-127	Sb-127	279.300	0.006	2.100	0.001
I-132	Xe-132	278.400	0.001	2.295	0.043
Ba-141	La-141	276.950	0.234	0.304	0.058
Nd-149	Pm-149	276.960	0.003	1.728	0.011
Nd-152	Pm-152	278.560	0.290	0.190	0.003
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004

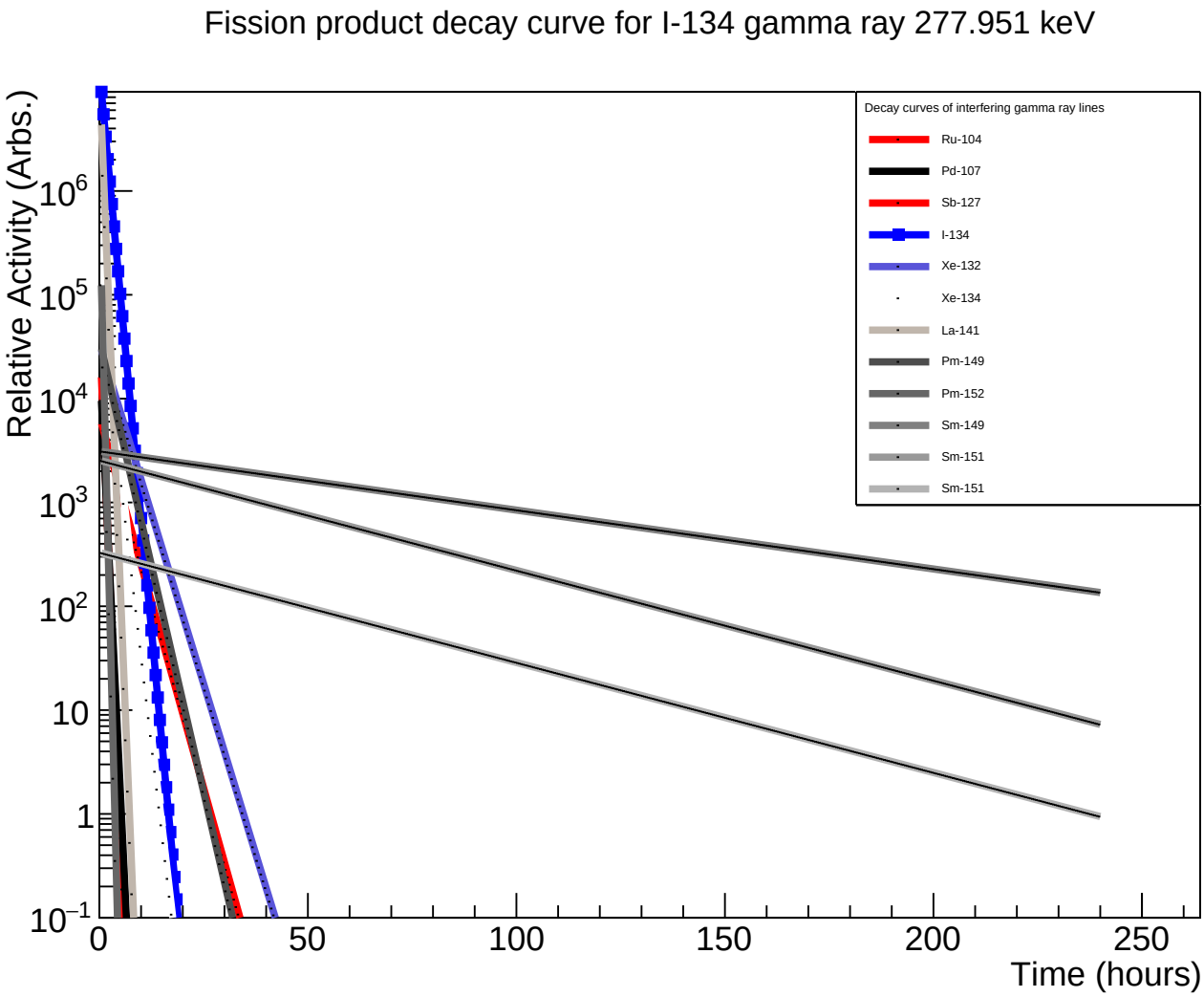


Figure 783: I-134 decay curve for 277.951 keV gamma ray.

3.784 Te-134 E_γ = 435.06 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 435.06 keV
Gamma Intensity = 18.88 ± 1.022 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1567: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1568: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	434.260	0.011	0.855	0.000
Sn-125	Sb-125	434.130	0.000	231.360	0.000
I-135	Xe-135	433.741	0.006	6.570	0.063
Xe-138	Cs-138	434.562	0.203	0.235	0.063
Cs-139	Ba-139	434.230	0.000	0.155	0.063
Ba-142	La-142	434.400	0.005	0.177	0.058
La-141	Ce-141	435.000	0.000	3.920	0.058
Nd-149	Pm-149	434.900	0.000	1.728	0.011
Nd-151	Pm-151	435.900	0.000	0.207	0.004
Eu-156	Gd-156	434.400	0.002	364.560	0.000

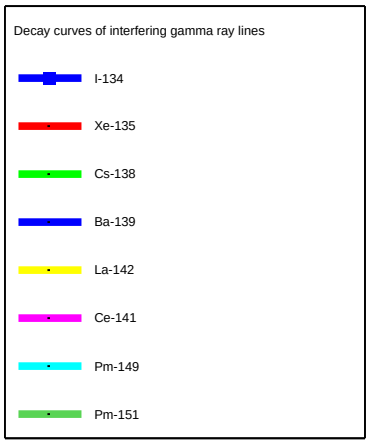


Figure 784: I-134 decay curve for 435.060 keV gamma ray.

3.785 Te-134 E_γ = 461.00 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 461.00 keV
Gamma Intensity = 9.74 ± 0.646 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1569: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1570: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-104	Ru-104	459.600	0.001	0.305	0.019
Sb-128	Te-128	459.500	0.015	9.010	0.000
Ba-141	La-141	462.300	0.049	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Nd-151	Pm-151	459.800	0.000	0.207	0.004
Nd-151	Pm-151	460.590	0.010	0.207	0.004
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-155	Eu-155	460.800	0.001	0.372	0.000

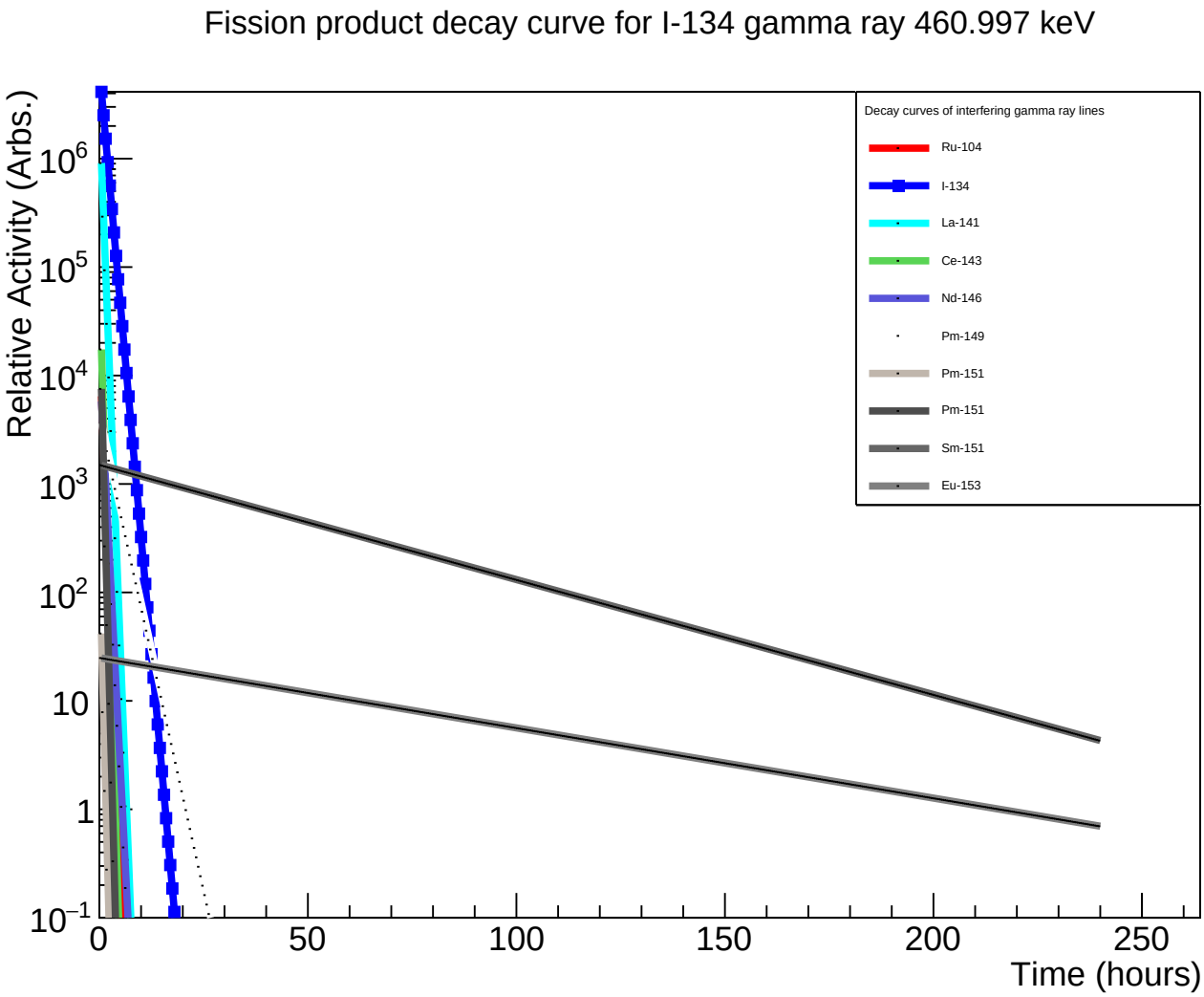


Figure 785: I-134 decay curve for 460.997 keV gamma ray.

3.786 Te-134 E_γ = 464.64 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 464.64 keV
Gamma Intensity = 4.72 ± 0.322 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1571: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1572: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	465.500	0.001	0.855	0.000
Tc-105	Ru-105	464.500	0.008	0.127	0.010
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-151	Pm-151	465.600	0.000	0.207	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	463.600	0.000	46.500	0.002

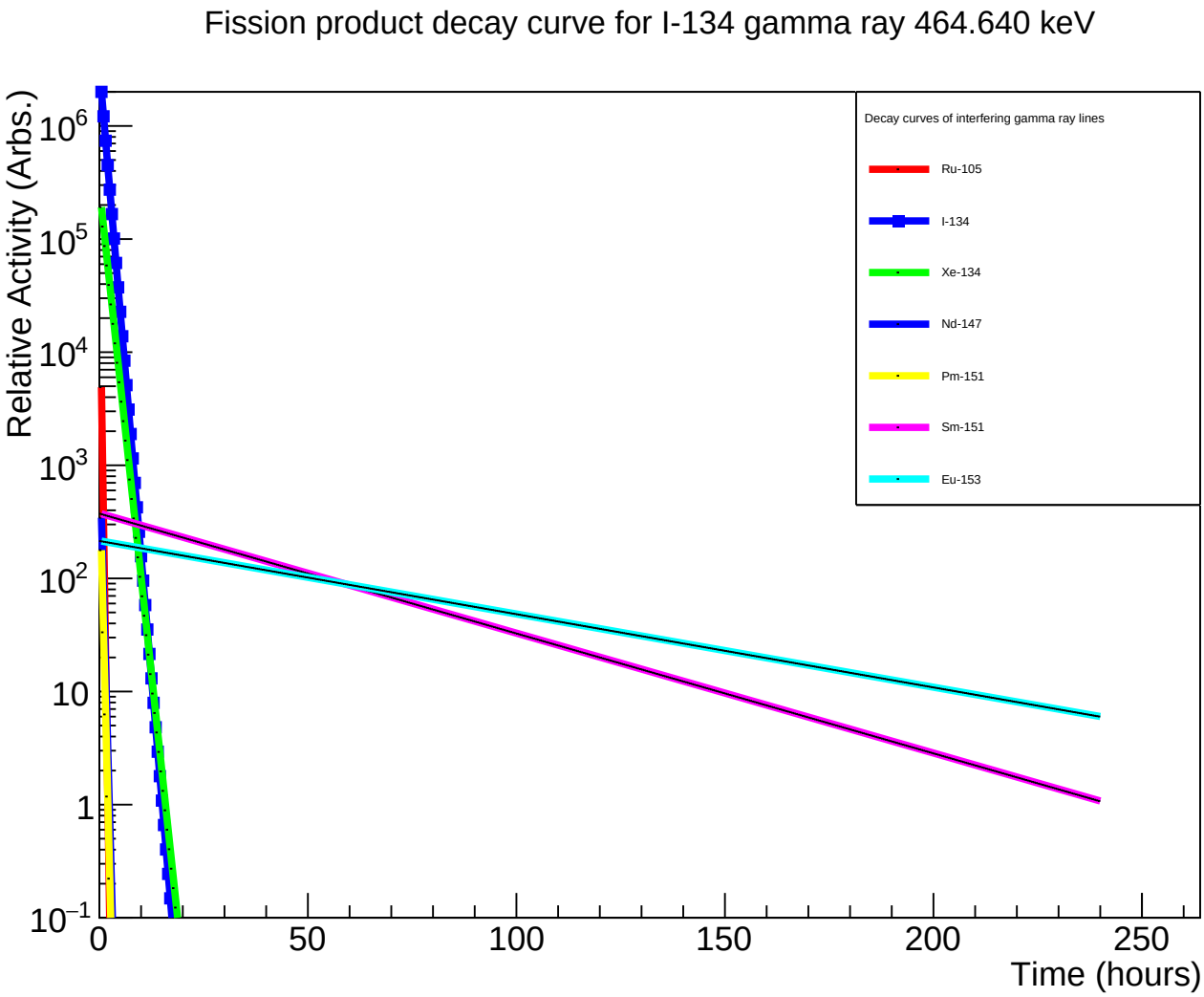


Figure 786: I-134 decay curve for 464.640 keV gamma ray.

3.787 Te-134 E_γ = 565.99 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 565.99 keV
Gamma Intensity = 18.58 ± 1.018 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1573: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1574: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	566.030	0.002	0.308	0.002
Mo-101	Tc-101	566.620	0.008	0.243	0.052
Tc-104	Ru-104	565.500	0.001	0.305	0.019
Tc-105	Ru-105	565.100	0.013	0.127	0.010
Sn-127	Sb-127	565.800	0.001	2.100	0.001
Pm-151	Sm-151	565.000	0.004	28.400	0.004

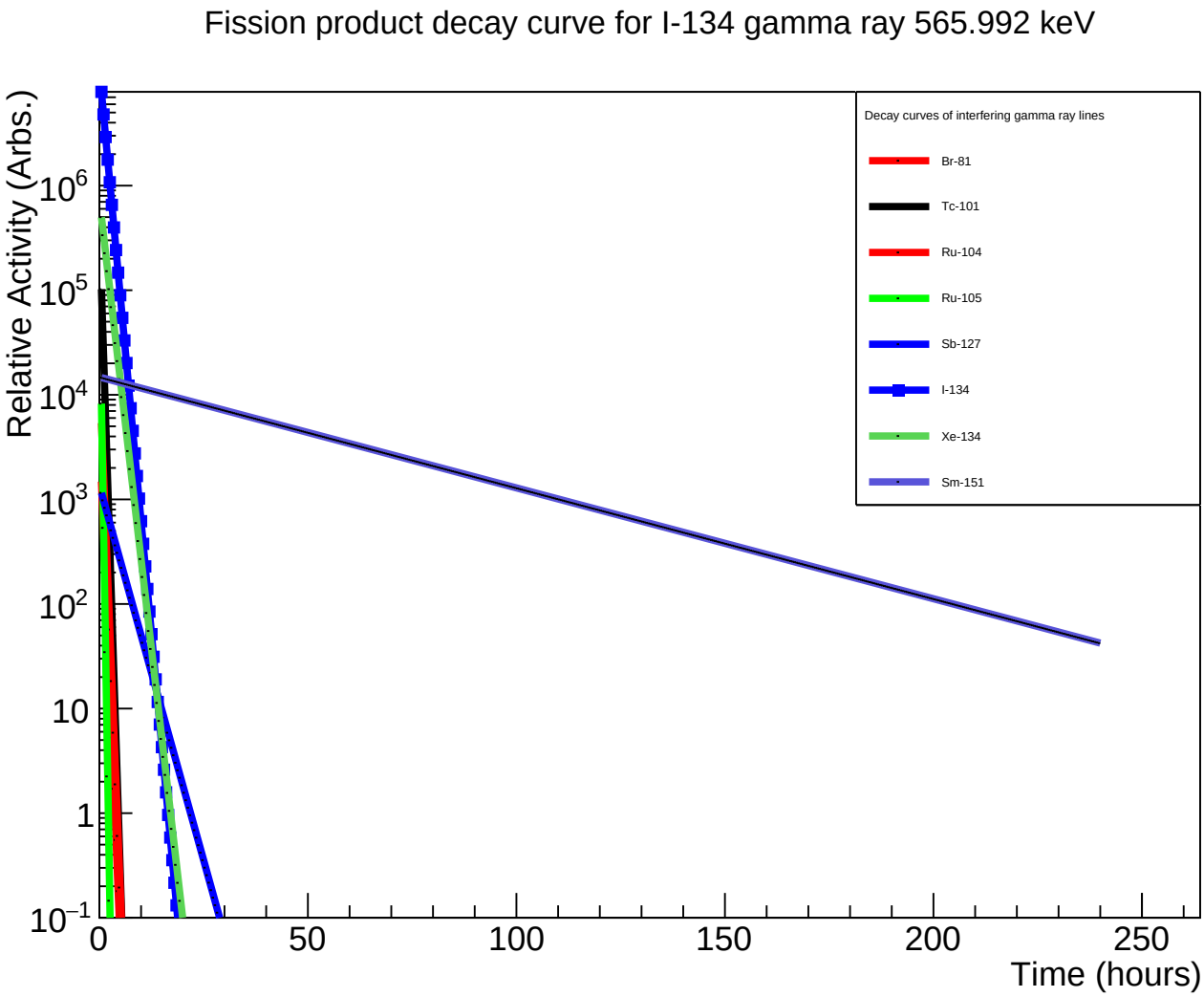


Figure 787: I-134 decay curve for 565.992 keV gamma ray.

3.788 Te-134 E_γ = 636.26 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 636.26 keV
Gamma Intensity = 1.68 ± 0.211 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1575: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1576: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Sb-125	Te-125	635.950	0.112	24194.445	0.000
Sb-128	Te-128	636.200	0.360	9.010	0.000
Sb-130	Te-130	635.700	0.016	0.658	0.008
I-131	Xe-131	636.989	0.072	192.605	0.029
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-151	Pm-151	636.400	0.000	0.207	0.004
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Pm-149	Sm-149	636.500	0.000	53.080	0.011
Pm-151	Sm-151	636.200	0.014	28.400	0.004
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Sm-153	Eu-153	636.500	0.000	46.500	0.002

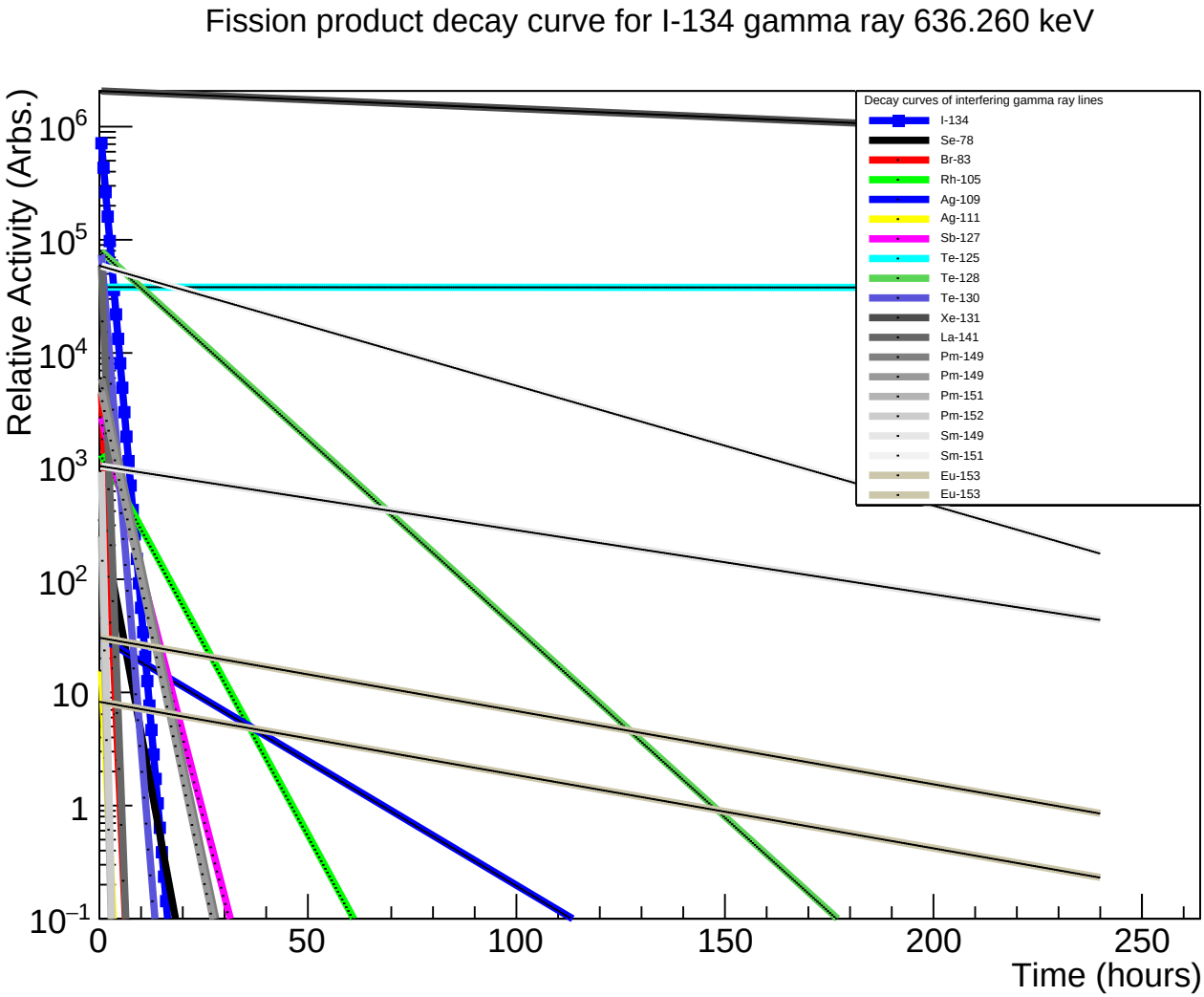


Figure 788: I-134 decay curve for 636.260 keV gamma ray.

3.789 Te-134 E_γ = 665.85 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 665.85 keV
Gamma Intensity = 1.18 ± 0.180 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1577: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1578: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	664.800	0.033	0.372	0.003
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Sb-126	Te-126	666.100	0.857	0.319	0.001
Sb-128	Te-128	667.100	0.025	9.010	0.000
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Ce-143	Pr-143	664.571	0.057	33.039	0.060
Pr-147	Nd-147	664.500	0.002	0.223	0.022
Nd-149	Pm-149	665.220	0.000	1.728	0.011
Nd-151	Pm-151	665.210	0.001	0.207	0.004
Pm-149	Sm-149	664.400	0.000	53.080	0.011
Sm-155	Eu-155	665.000	0.000	0.372	0.000

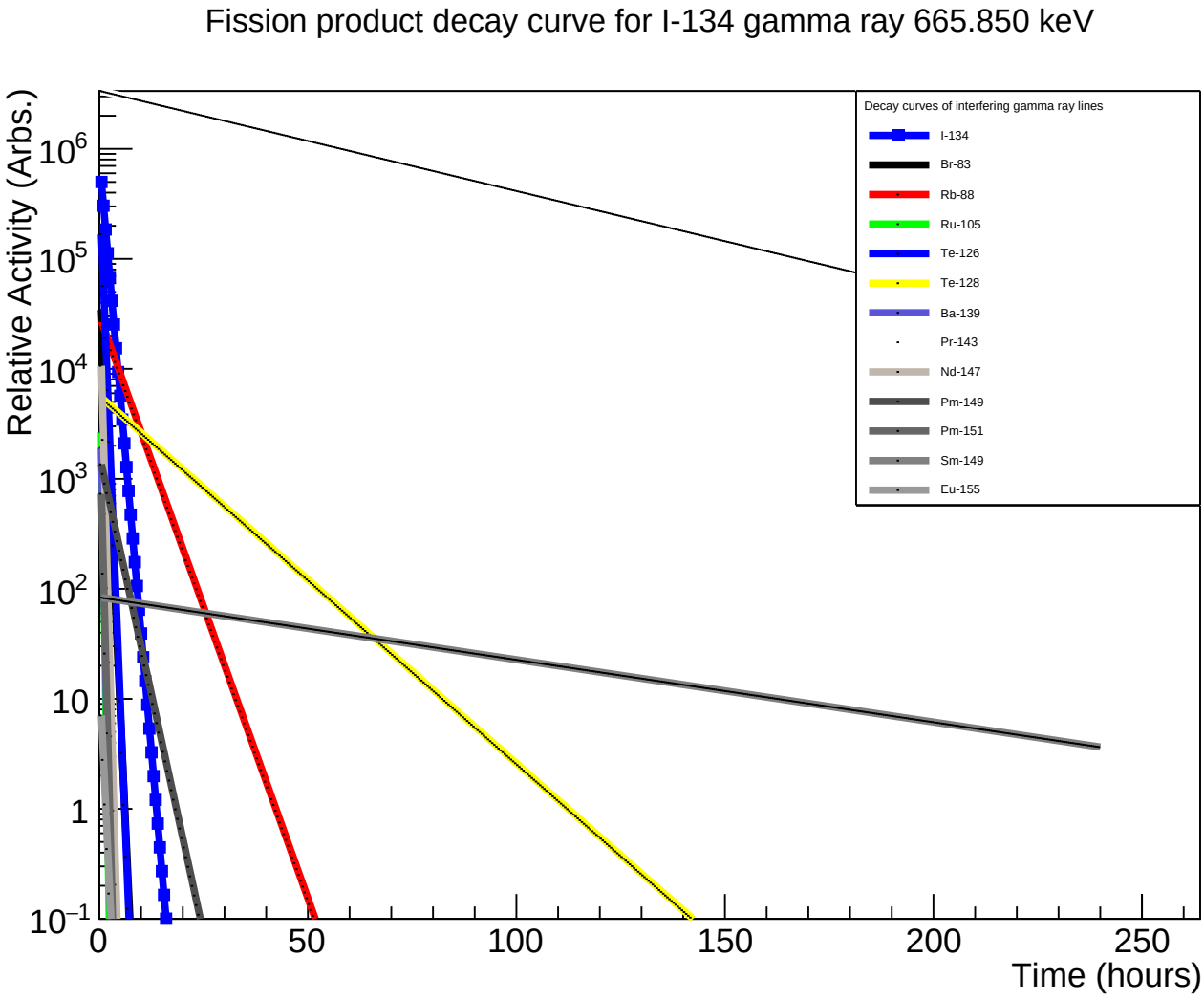


Figure 789: I-134 decay curve for 665.850 keV gamma ray.

3.790 Te-134 E_γ = 712.97 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 712.97 keV
Gamma Intensity = 4.72 ± 0.604 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1579: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1580: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	712.110	0.031	0.372	0.003
Y-93	Zr-93	714.400	0.000	10.180	0.063
Nb-98	Mo-98	713.817	0.092	0.855	0.000
Mo-101	Tc-101	713.040	0.033	0.243	0.052
Tc-105	Ru-105	713.800	0.006	0.127	0.010
Ba-142	La-142	714.400	0.000	0.177	0.058
Pr-145	Nd-145	713.224	0.000	5.984	0.039
Nd-149	Pm-149	712.590	0.001	1.728	0.011
Pm-151	Sm-151	712.000	0.001	28.400	0.004
Pm-151	Sm-151	713.400	0.000	28.400	0.004
Sm-155	Eu-155	713.400	0.000	0.372	0.000

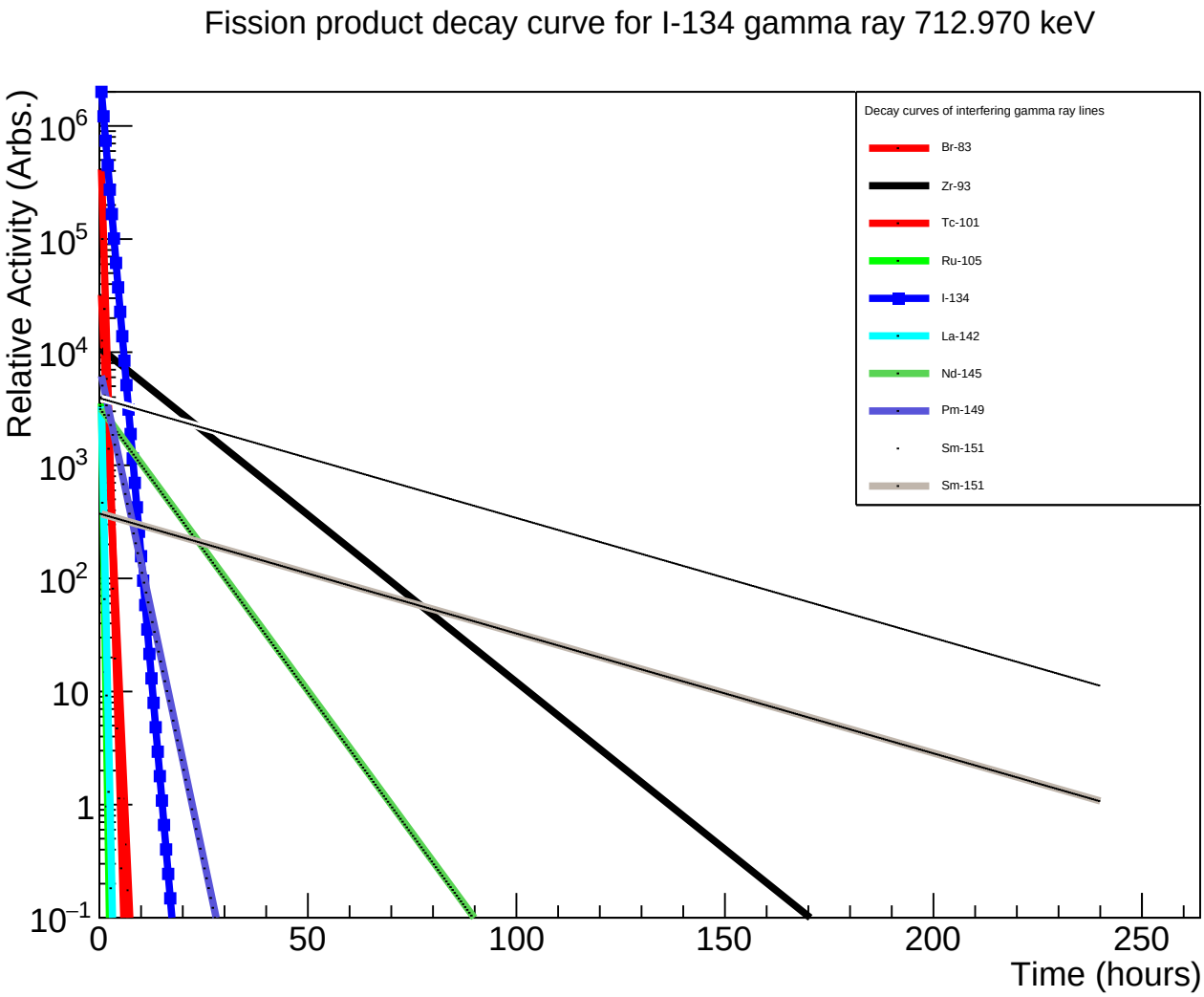


Figure 790: I-134 decay curve for 712.970 keV gamma ray.

3.791 Te-134 E_γ = 742.59 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 742.59 keV
Gamma Intensity = 15.34 ± 0.722 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1581: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1582: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	741.340	0.000	2.840	0.036
Pd-111	Ag-111	742.600	0.000	0.390	0.000
Sb-128	Te-128	743.300	1.000	9.010	0.000
Sb-128	Te-128	743.240	0.964	0.173	0.003
Pr-143	Nd-143	742.100	0.000	325.680	0.060
Nd-149	Pm-149	743.500	0.000	1.728	0.011
Nd-151	Pm-151	741.700	0.000	0.207	0.004
Nd-151	Pm-151	744.000	0.000	0.207	0.004

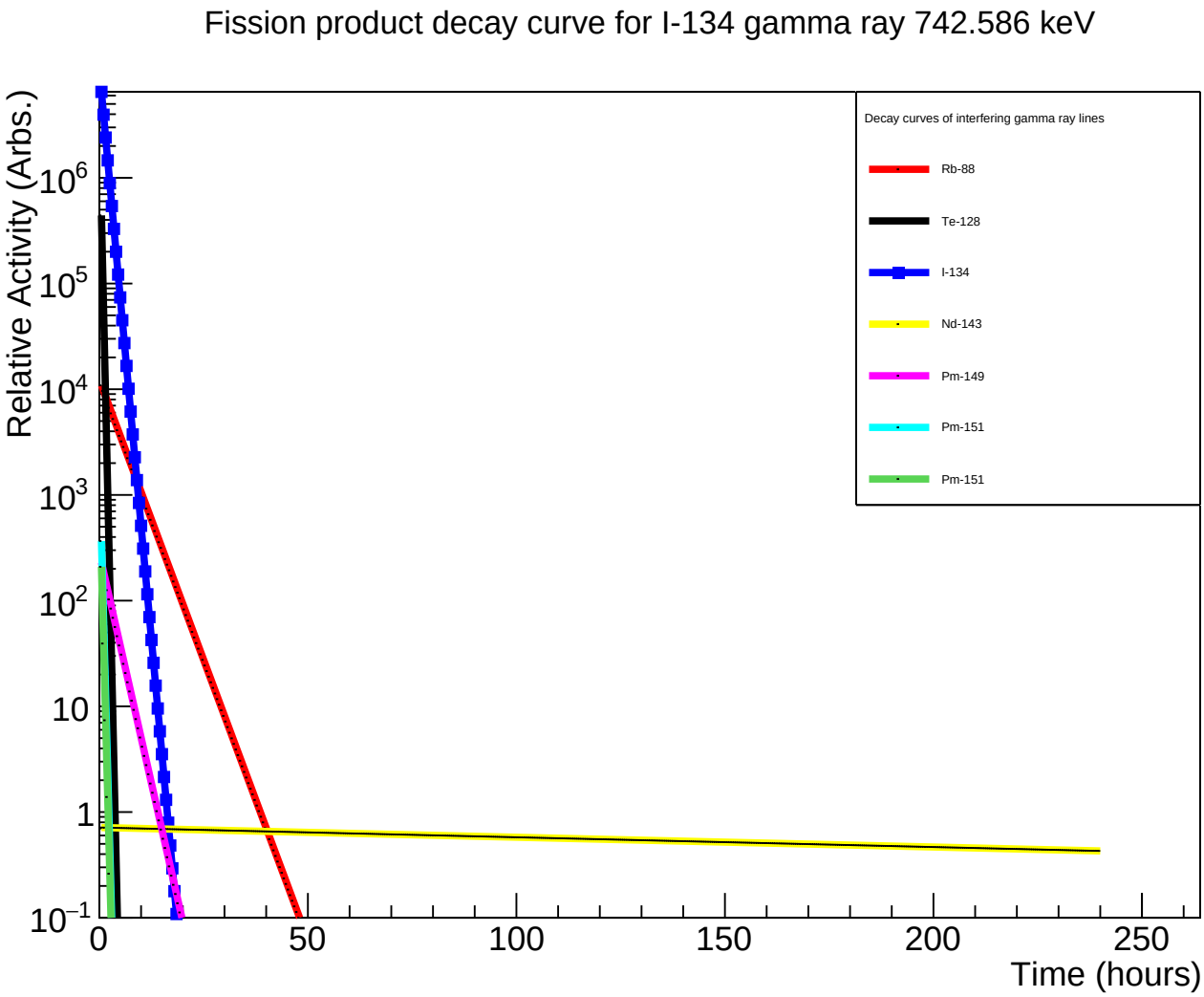


Figure 791: I-134 decay curve for 742.586 keV gamma ray.

3.792 Te-134 E_γ = 767.20 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 767.20 keV
Gamma Intensity = 29.50 ± 1.426 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1583: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1584: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	766.760	0.002	0.252	0.047
Nb-95	Mo-95	765.803	0.998	839.784	0.065
I-133	Xe-133	768.382	0.005	20.800	0.067
Cs-138	Ba-138	766.100	0.001	0.557	0.067
La-143	Ce-143	766.400	0.002	0.237	0.059
Ce-143	Pr-143	767.700	0.000	33.039	0.060
Pr-146	Nd-146	766.400	0.000	0.403	0.030
Nd-149	Pm-149	768.172	0.001	1.728	0.011
Nd-151	Pm-151	767.890	0.003	0.207	0.004
Sm-155	Eu-155	768.400	0.000	0.372	0.000
Eu-156	Gd-156	768.560	0.001	364.560	0.000

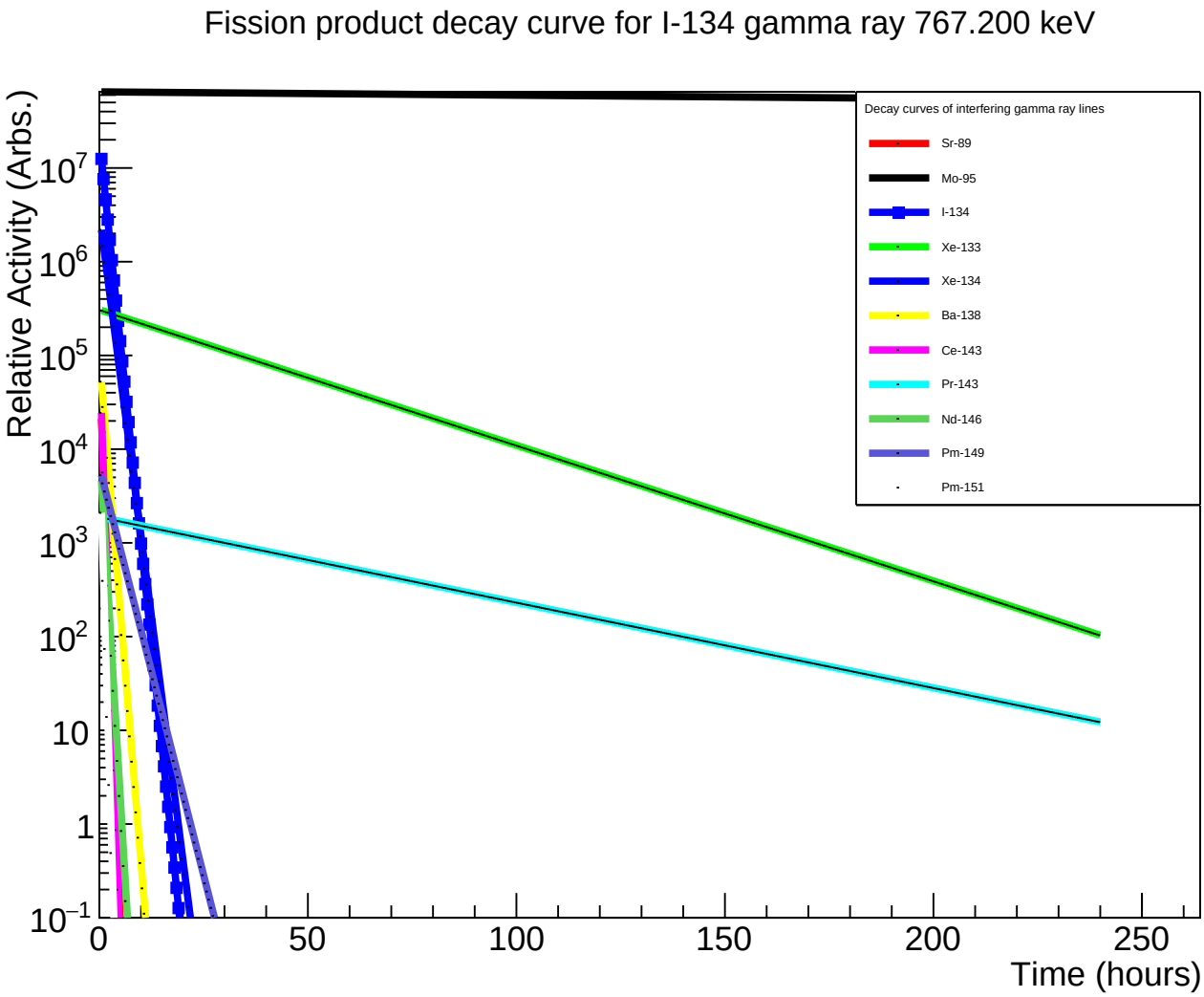


Figure 792: I-134 decay curve for 767.200 keV gamma ray.

3.793 Te-134 E_γ = 844.06 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 844.06 keV
Gamma Intensity = 1.18 ± 0.297 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1585: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1586: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	842.600	0.011	1.512	0.000
Kr-87	Rb-87	845.440	0.073	1.272	0.026
Y-92	Zr-92	844.300	0.013	3.540	0.060
Nb-98	Mo-98	843.820	0.001	0.855	0.000
Tc-101	Ru-101	842.730	0.002	0.237	0.052
Rh-107	Pd-107	845.400	0.000	0.362	0.001
Ag-112	Cd-112	842.800	0.000	3.130	0.000
Sb-128	Te-128	844.000	0.022	0.173	0.003
Nd-149	Pm-149	842.847	0.001	1.728	0.011

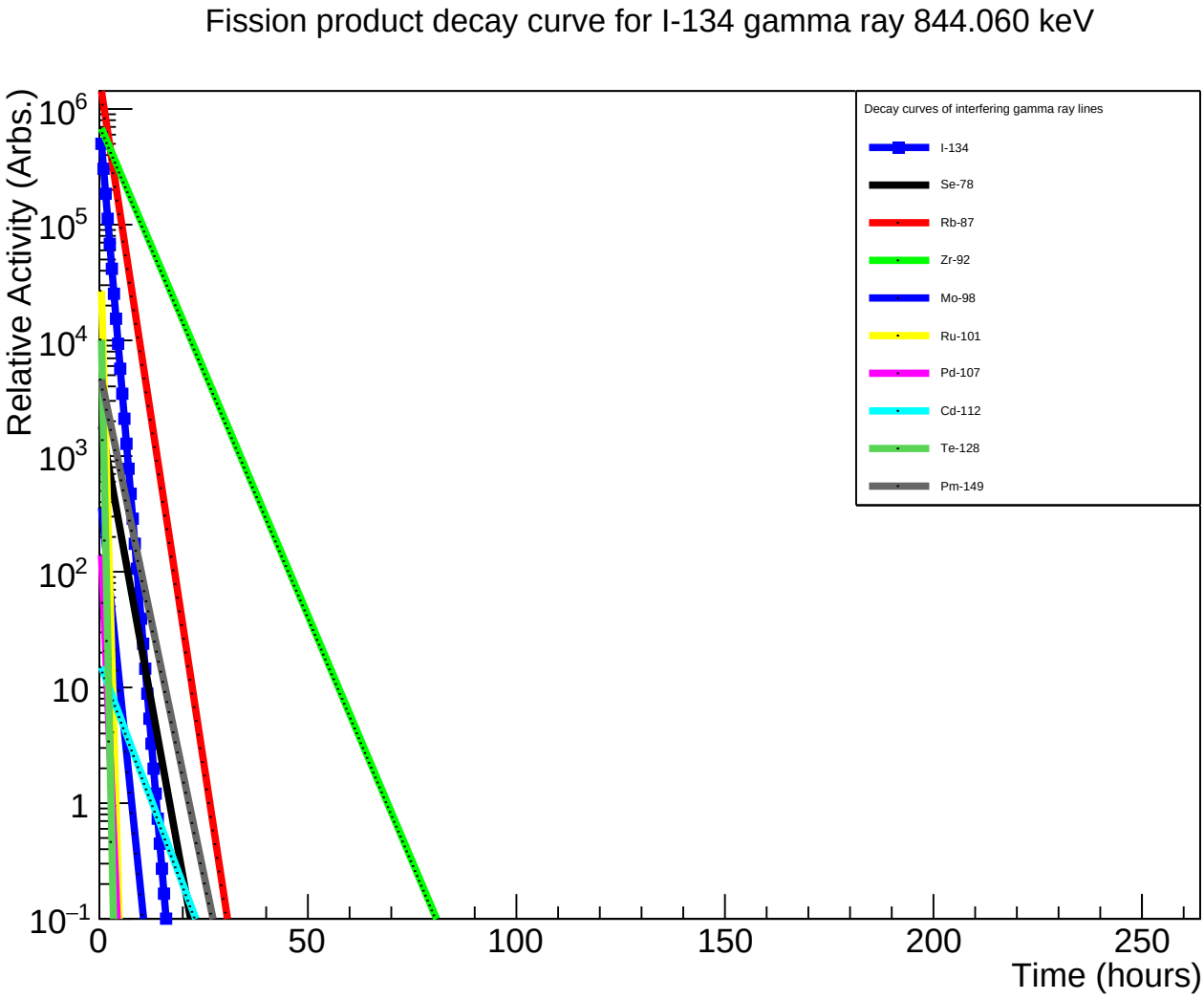


Figure 793: I-134 decay curve for 844.060 keV gamma ray.

3.794 Te-134 E_γ = 925.55 keV

Chemical element: Tellurium
Fission product parent: Te-134
Gamma originates in daughter: I-134
Eγ: 925.55 keV
Gamma Intensity = 1.48 ± 0.153 %
$T_{1/2}$ = 0.697 ± 0.013 hours or 41.80 ± 0.80 minutes
CFY: 6.972 ± 0.195 %

Table 1587: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1588: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	925.800	0.039	9.630	0.058
Sb-127	Te-127	924.400	0.005	92.400	0.002
Sb-130	Te-130	926.000	0.004	0.658	0.008
Cs-139	Ba-139	924.960	0.001	0.155	0.063
La-140	Ce-140	925.189	0.069	40.285	0.062
Nd-151	Pm-151	924.400	0.000	0.207	0.004
Nd-151	Pm-151	925.500	0.001	0.207	0.004
Nd-151	Pm-151	925.500	0.000	0.207	0.004
Pm-151	Sm-151	926.100	0.000	28.400	0.004

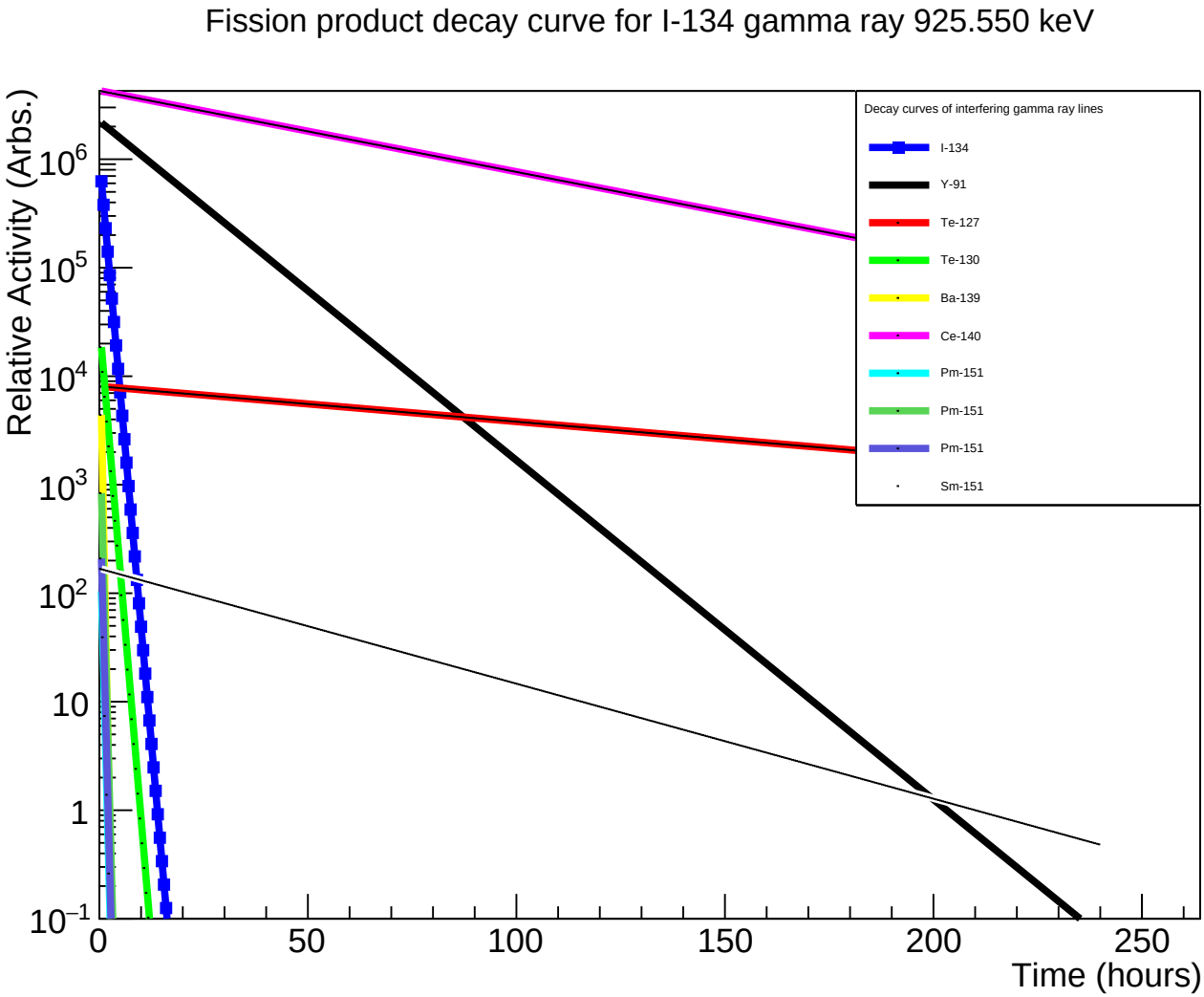


Figure 794: I-134 decay curve for 925.550 keV gamma ray.

3.795 I-129 E_γ = 39.58 keV

Chemical element: Iodine
Fission product parent: I-129
Gamma originates in daughter: Xe-129
Eγ: 39.58 keV
Gamma Intensity = 7.51 ± 0.230 %
$T_{1/2}$ = 137500000256.000 ± 3500000000.000 hours or 8250000015360.00 ± 210000000000.00 minutes
CFY: 0.543 ± 0.005 %

Table 1589: Decay chain of fission product chain A = 129

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-129	Tin-129	0.000	0.000
Tin-129	Antimony-129	0.037	0.001
Antimony-129	Tellurium-129	4.400	0.010
Tellurium-129	Iodine-129	1.160	0.003
Iodine-129	Xenon-129	137500000256.000	3500000000.000

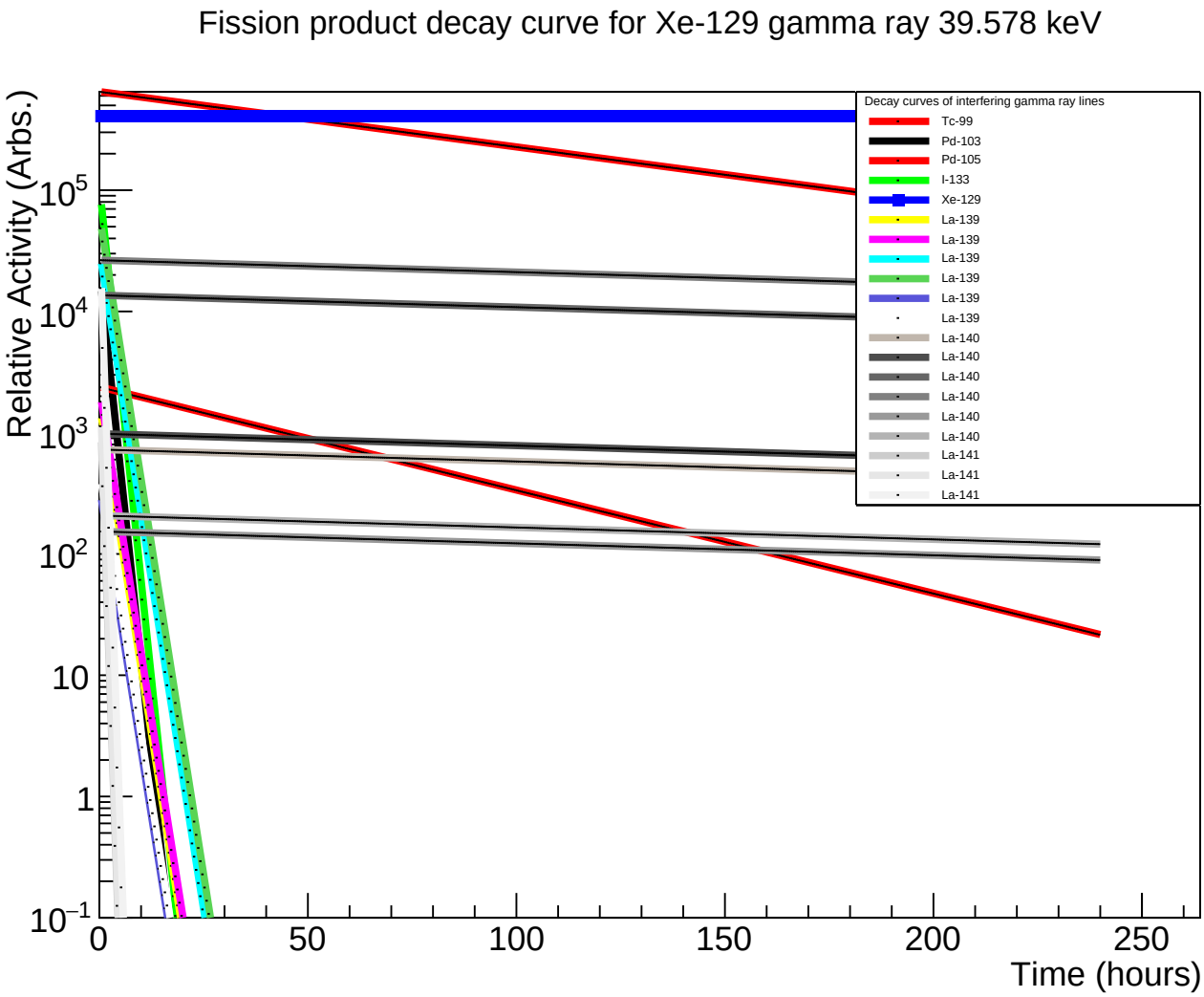


Figure 795: Xe-129 decay curve for 39.578 keV gamma ray.

Table 1590: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	40.583	0.011	65.976	0.061
Rh-103	Pd-103	39.755	0.001	0.935	0.030
Rh-105	Pd-105	38.720	0.000	35.360	0.010
Te-133	I-133	39.900	0.003	0.923	0.040
Ba-139	La-139	38.078	0.000	1.384	0.064
Ba-139	La-139	38.096	0.000	1.384	0.064
Ba-139	La-139	38.718	0.000	1.384	0.064
Ba-139	La-139	38.736	0.001	1.384	0.064
Ba-139	La-139	38.826	0.000	1.384	0.064
Ba-139	La-139	38.829	0.000	1.384	0.064
Ba-140	La-140	38.078	0.000	306.065	0.062
Ba-140	La-140	38.096	0.000	306.065	0.062
Ba-140	La-140	38.718	0.000	306.065	0.062
Ba-140	La-140	38.736	0.000	306.065	0.062
Ba-140	La-140	38.826	0.000	306.065	0.062
Ba-140	La-140	38.829	0.000	306.065	0.062
Ba-141	La-141	38.078	0.000	0.304	0.058
Ba-141	La-141	38.096	0.000	0.304	0.058
Ba-141	La-141	38.718	0.001	0.304	0.058
Ba-141	La-141	38.736	0.002	0.304	0.058
Ba-141	La-141	38.826	0.000	0.304	0.058
Ba-141	La-141	38.829	0.000	0.304	0.058
Ba-142	La-142	38.078	0.000	0.177	0.058
Ba-142	La-142	38.096	0.000	0.177	0.058
Ba-142	La-142	38.718	0.002	0.177	0.058
Ba-142	La-142	38.736	0.004	0.177	0.058
Ba-142	La-142	38.826	0.000	0.177	0.058
Ba-142	La-142	38.829	0.000	0.177	0.058
La-140	Ce-140	39.196	0.001	40.285	0.062
La-140	Ce-140	39.285	0.002	40.285	0.062
La-140	Ce-140	39.550	0.000	40.285	0.062
La-140	Ce-140	39.570	0.000	40.285	0.062
La-140	Ce-140	40.227	0.000	40.285	0.062
La-140	Ce-140	40.247	0.000	40.285	0.062
La-140	Ce-140	40.340	0.000	40.285	0.062
La-140	Ce-140	40.344	0.000	40.285	0.062
La-142	Ce-142	39.196	0.000	1.518	0.058
La-142	Ce-142	39.285	0.000	1.518	0.058
La-142	Ce-142	39.550	0.000	1.518	0.058

3.796 I-131 E_γ = 80.18 keV

Chemical element: Iodine
Fission product parent: I-131
Gamma originates in daughter: Xe-131
Eγ: 80.18 keV
Gamma Intensity = 2.62 ± 0.036 %
$T_{1/2}$ = 192.605 ± 0.014 hours or 11556.29 ± 0.86 minutes
CFY: 2.891 ± 0.029 %

Table 1591: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1592: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	80.920	0.037	0.243	0.052
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Ru-105	Rh-105	81.200	0.001	4.440	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
Sb-125	Te-125	81.020	0.000	24194.445	0.000
Te-133	I-133	81.610	0.003	0.923	0.040
Te-134	I-134	79.445	0.209	0.697	0.070
Xe-133	Cs-133	79.623	0.003	125.832	0.067
Xe-133	Cs-133	80.997	0.380	125.832	0.067
Ba-142	La-142	79.800	0.000	0.177	0.058
Ce-144	Pr-144	80.120	0.014	6833.333	0.055
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	80.000	0.000	0.372	0.000

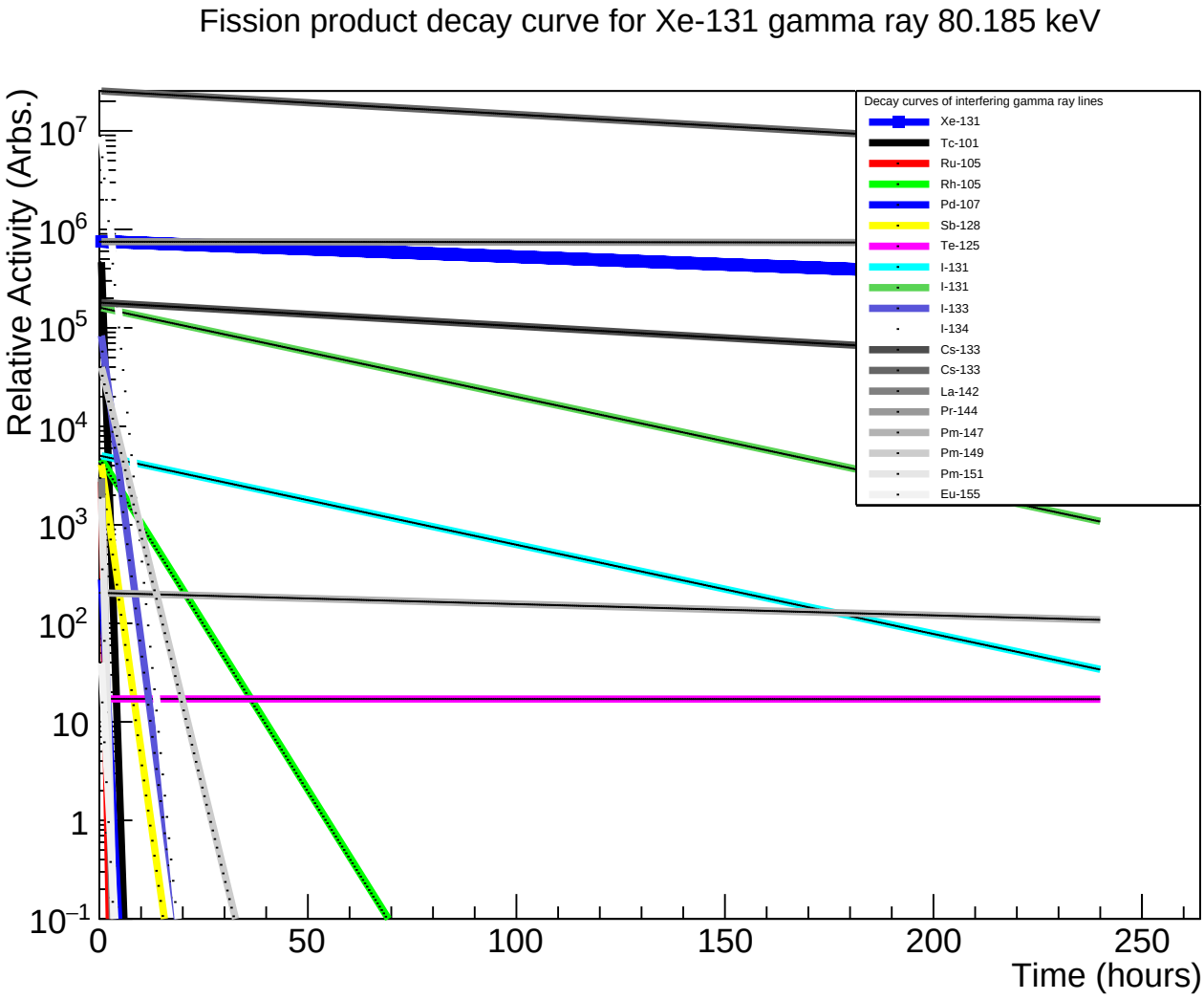


Figure 796: Xe-131 decay curve for 80.185 keV gamma ray.

3.797 I-131 E_γ = 284.30 keV

Chemical element: Iodine
Fission product parent: I-131
Gamma originates in daughter: Xe-131
Eγ: 284.30 keV
Gamma Intensity = 6.12 ± 0.062 %
$T_{1/2}$ = 192.605 ± 0.014 hours or 11556.29 ± 0.86 minutes
CFY: 2.891 ± 0.029 %

Table 1593: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1594: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Sn-127	Sb-127	284.300	0.027	2.100	0.001
Sb-130	Te-130	285.480	0.035	0.658	0.008
Te-133	I-133	284.800	0.002	0.923	0.040
Cs-137	Ba-137	283.500	0.000	263611.125	0.062
Ba-142	La-142	283.500	0.003	0.177	0.058
Nd-151	Pm-151	284.700	0.000	0.207	0.004
Pm-151	Sm-151	285.000	0.000	28.400	0.004

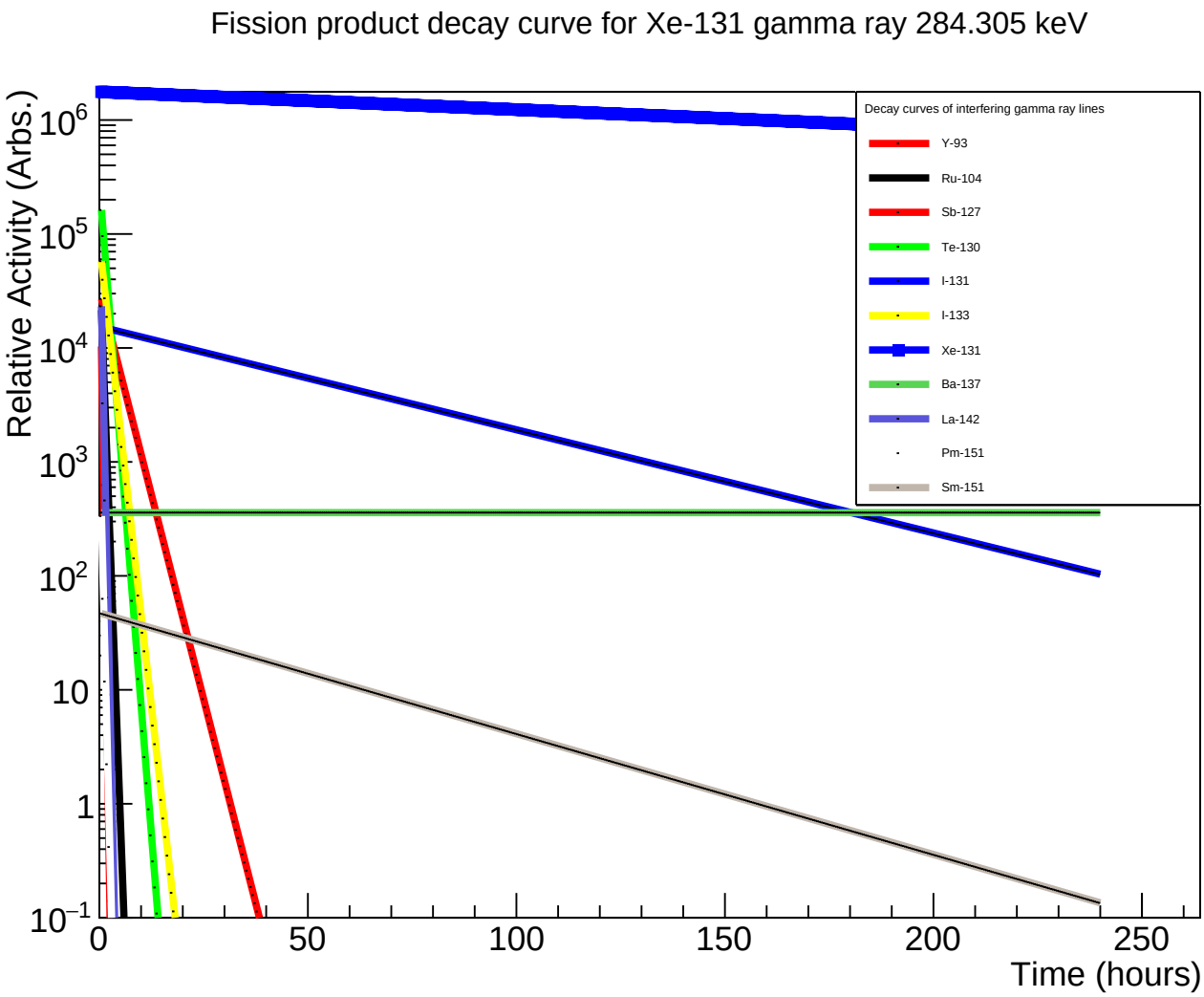


Figure 797: Xe-131 decay curve for 284.305 keV gamma ray.

3.798 I-131 E_γ = 364.49 keV

Chemical element: Iodine
Fission product parent: I-131
Gamma originates in daughter: Xe-131
Eγ: 364.49 keV
Gamma Intensity = 81.50 ± 0.759 %
$T_{1/2}$ = 192.605 ± 0.014 hours or 11556.29 ± 0.86 minutes
CFY: 2.891 ± 0.029 %

Table 1595: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1596: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	364.500	0.019	0.150	0.000
Kr-88	Rb-88	363.500	0.000	2.840	0.036
Ag-113	Cd-113	364.400	0.001	5.370	0.000
Cd-115	In-115	363.950	0.000	53.460	0.000
Sn-125	Sb-125	363.500	0.000	231.360	0.000
Sn-127	Sb-127	365.500	0.002	2.100	0.001
Sb-129	Te-129	363.000	0.004	4.400	0.005
Te-133	I-133	363.060	0.005	0.923	0.040
Cs-138	Ba-138	363.930	0.002	0.557	0.067
Cs-138	Ba-138	365.290	0.002	0.557	0.067
Ba-141	La-141	364.500	0.006	0.304	0.058
Ba-142	La-142	363.960	0.047	0.177	0.058
Pr-145	Nd-145	364.810	0.000	5.984	0.039
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

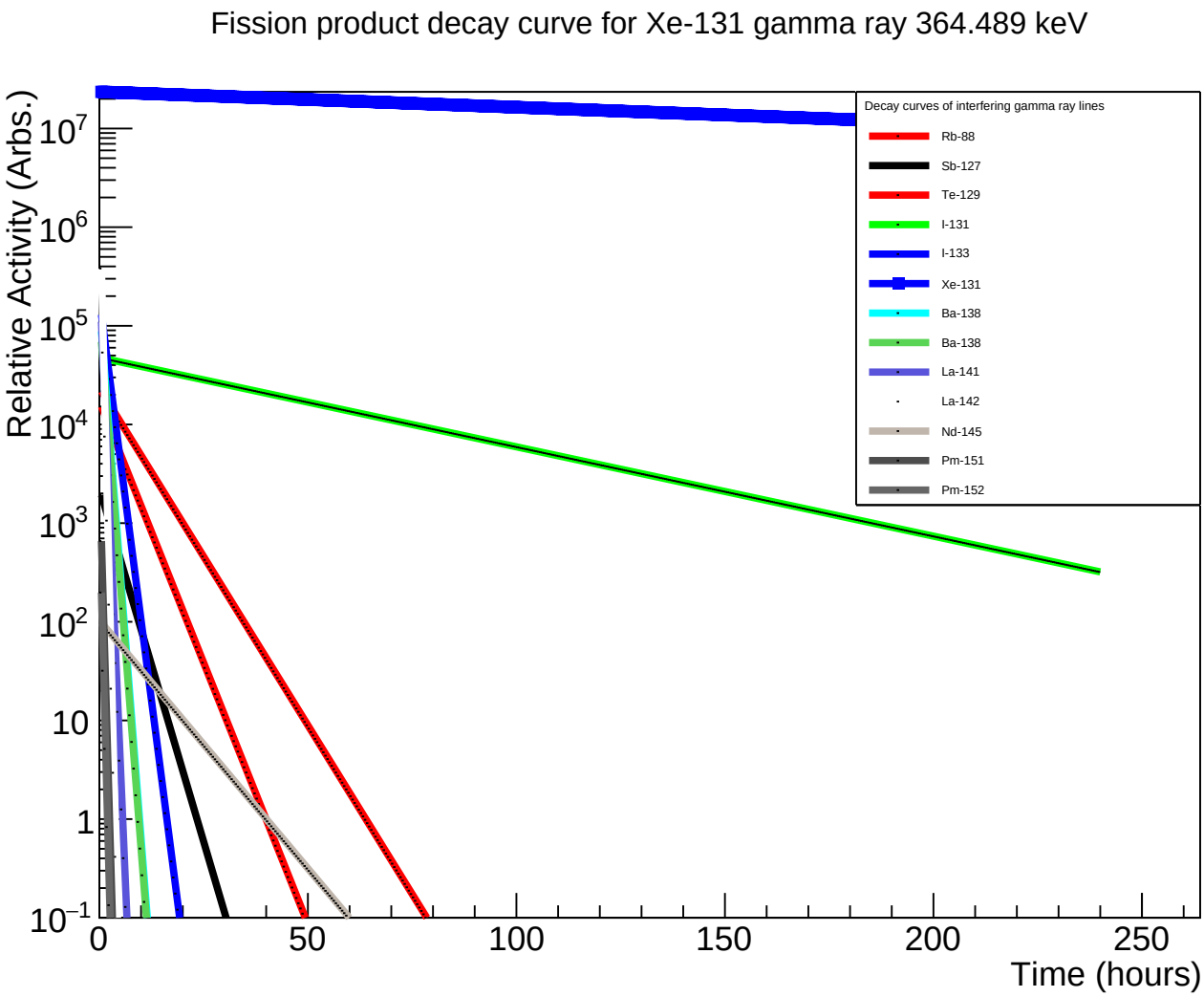


Figure 798: Xe-131 decay curve for 364.489 keV gamma ray.

3.799 I-131 E_γ = 636.99 keV

Chemical element: Iodine
Fission product parent: I-131
Gamma originates in daughter: Xe-131
Eγ: 636.99 keV
Gamma Intensity = 7.16 ± 0.100 %
$T_{1/2}$ = 192.605 ± 0.014 hours or 11556.29 ± 0.86 minutes
CFY: 2.891 ± 0.029 %

Table 1597: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1598: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Sb-125	Te-125	635.950	0.112	24194.445	0.000
Sb-127	Te-127	637.800	0.004	92.400	0.002
Sb-128	Te-128	636.200	0.360	9.010	0.000
Sb-130	Te-130	635.700	0.016	0.658	0.008
Te-133	I-133	636.500	0.002	0.923	0.040
Te-134	I-134	636.260	0.017	0.697	0.070
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-151	Pm-151	636.400	0.000	0.207	0.004
Pm-149	Sm-149	636.500	0.000	53.080	0.011
Pm-151	Sm-151	636.200	0.014	28.400	0.004
Sm-153	Eu-153	636.500	0.000	46.500	0.002

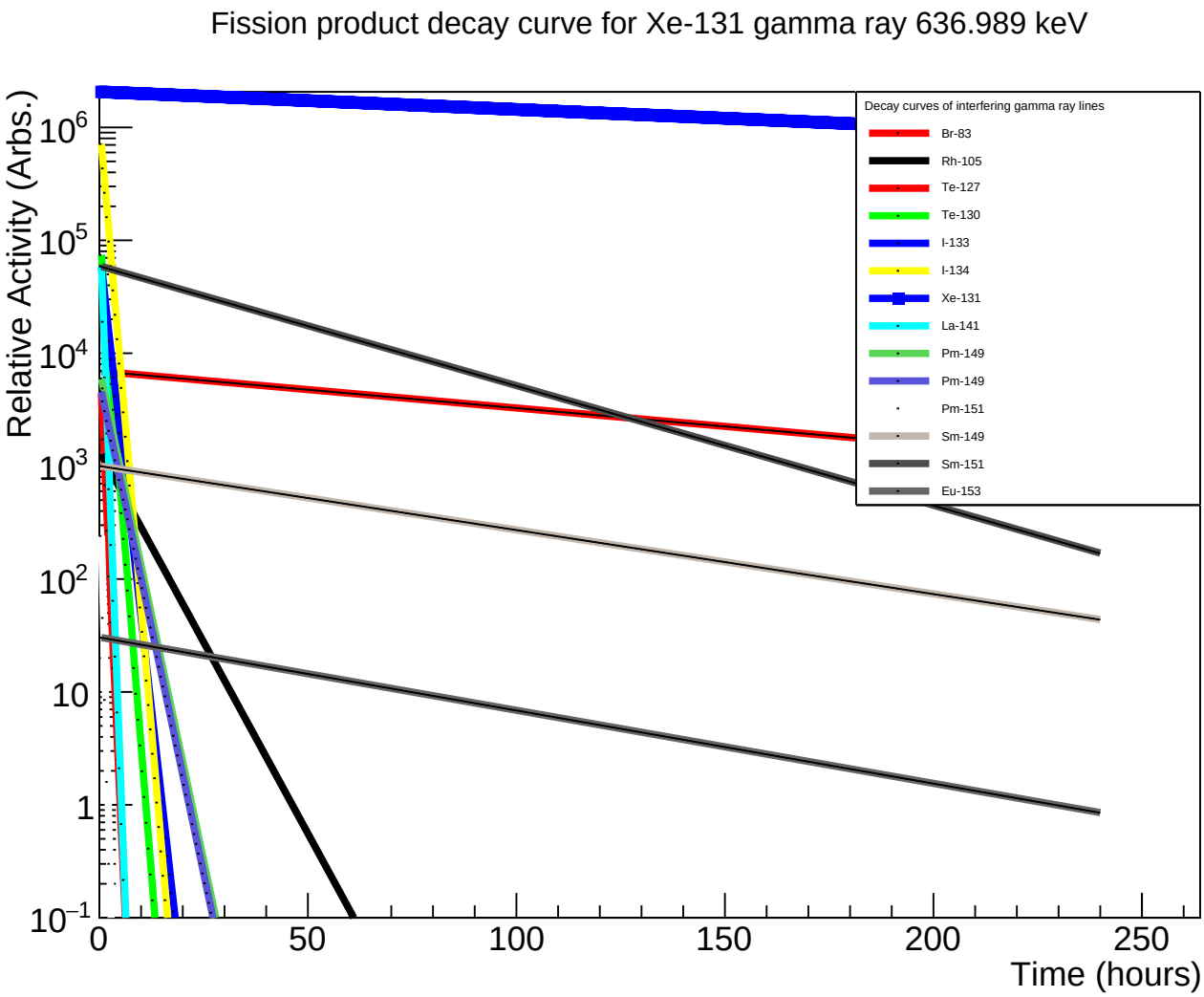


Figure 799: Xe-131 decay curve for 636.989 keV gamma ray.

3.800 I-131 E_γ = 722.91 keV

Chemical element: Iodine
Fission product parent: I-131
Gamma originates in daughter: Xe-131
Eγ: 722.91 keV
Gamma Intensity = 1.77 ± 0.027 %
$T_{1/2}$ = 192.605 ± 0.014 hours or 11556.29 ± 0.86 minutes
CFY: 2.891 ± 0.029 %

Table 1599: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1600: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	722.400	0.001	1.512	0.000
As-79	Se-79	723.600	0.001	0.150	0.000
Zr-95	Nb-95	724.192	0.443	1536.768	0.065
Nb-98	Mo-98	722.626	0.738	0.855	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Ru-105	Rh-105	724.300	0.473	4.440	0.010
Pd-109	Ag-109	724.400	0.000	13.701	0.000
Sb-127	Te-127	722.200	0.019	92.400	0.002
Te-129	I-129	722.500	0.000	1.160	0.005
Te-133	I-133	722.000	0.000	0.208	0.031
Te-133	I-133	723.500	0.003	0.923	0.040
Te-133	I-133	724.000	0.001	0.923	0.040
Ce-143	Pr-143	721.929	0.054	33.039	0.060
Nd-151	Pm-151	724.280	0.001	0.207	0.004
Nd-151	Pm-151	724.280	0.002	0.207	0.004
Eu-156	Gd-156	723.470	0.054	364.560	0.000

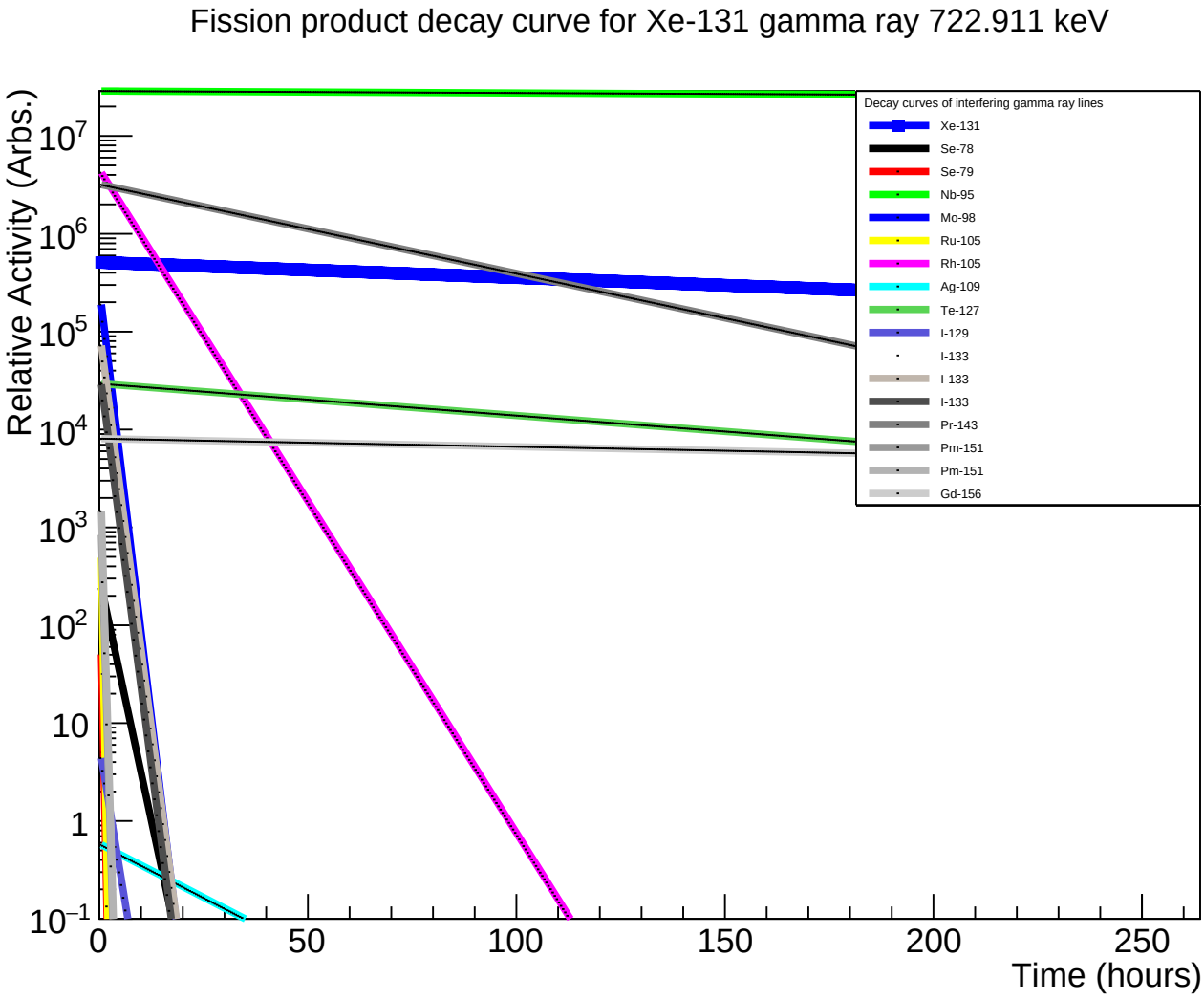


Figure 800: Xe-131 decay curve for 722.911 keV gamma ray.

3.801 I-132 E_γ = 262.90 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 262.90 keV
Gamma Intensity = 1.28 ± 0.099 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1601: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1602: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	262.830	0.066	4.440	0.010
Sn-127	Sb-127	262.500	0.023	2.100	0.001
Sn-129	Sb-129	264.300	0.007	0.115	0.002
Te-131	I-131	261.400	0.000	33.250	0.004
Te-133	I-133	261.626	0.075	0.923	0.040
Pr-145	Nd-145	262.886	0.000	5.984	0.039
Pr-145	Nd-145	262.940	0.000	5.984	0.039
Nd-149	Pm-149	263.400	0.000	1.728	0.011
Nd-151	Pm-151	263.560	0.008	0.207	0.004
Nd-152	Pm-152	261.400	0.000	0.190	0.003
Pm-149	Sm-149	263.230	0.000	53.080	0.011
Pm-151	Sm-151	261.400	0.000	28.400	0.004

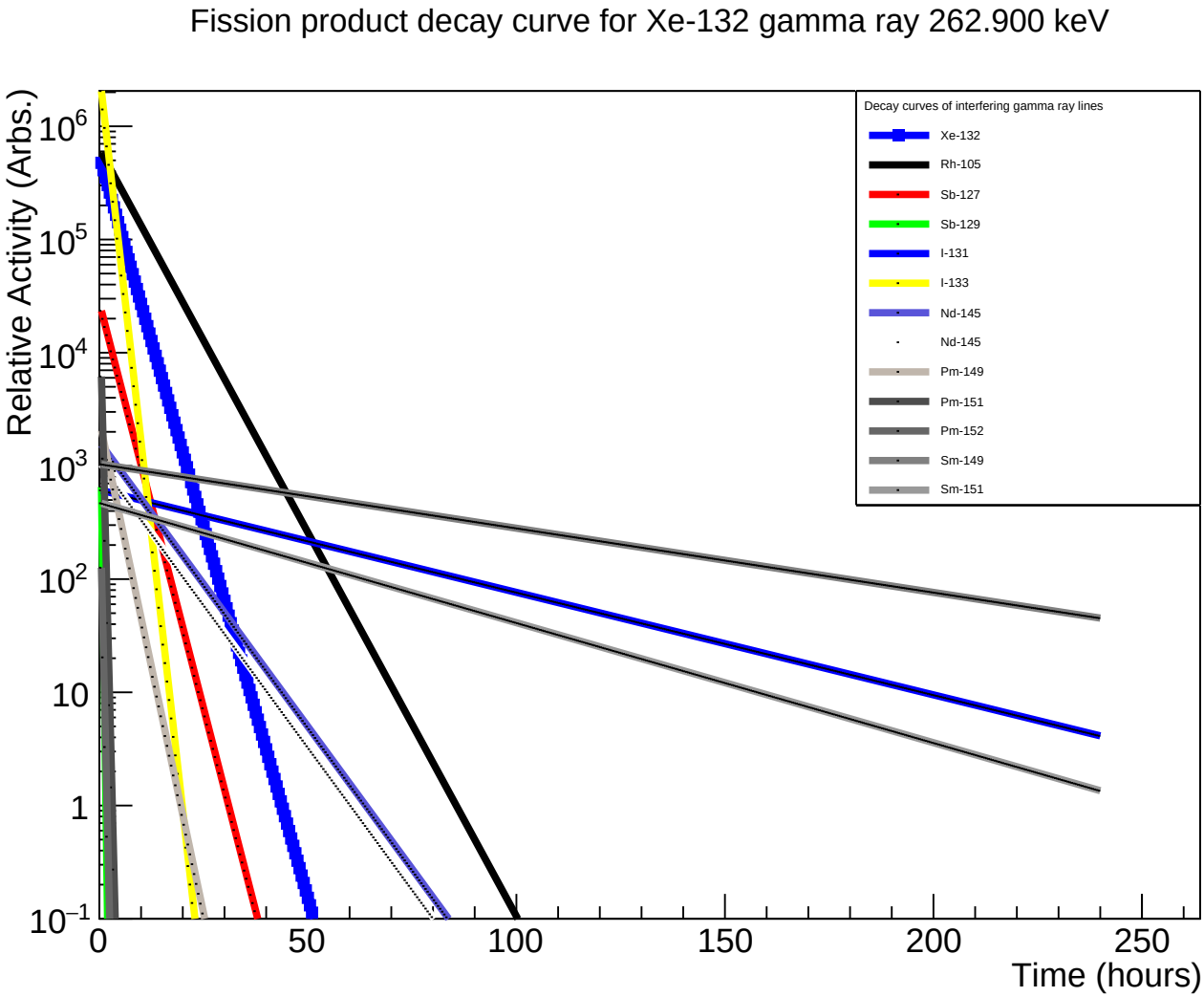


Figure 801: Xe-132 decay curve for 262.900 keV gamma ray.

3.802 I-132 E_γ = 505.79 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 505.79 keV
Gamma Intensity = 4.94 ± 0.197 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1603: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1604: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	506.700	0.000	9.630	0.058
Mo-101	Tc-101	505.050	0.004	0.243	0.052
Mo-101	Tc-101	505.920	0.116	0.243	0.052
Sn-129	Sb-129	505.500	0.083	0.115	0.002
Sb-130	Te-130	506.700	0.020	0.658	0.008
Te-133	I-133	507.200	0.004	0.923	0.040
Cs-139	Ba-139	505.400	0.000	0.155	0.063
Pr-145	Nd-145	504.650	0.000	5.984	0.039
Pm-149	Sm-149	506.100	0.000	53.080	0.011
Pm-151	Sm-151	507.270	0.000	28.400	0.004

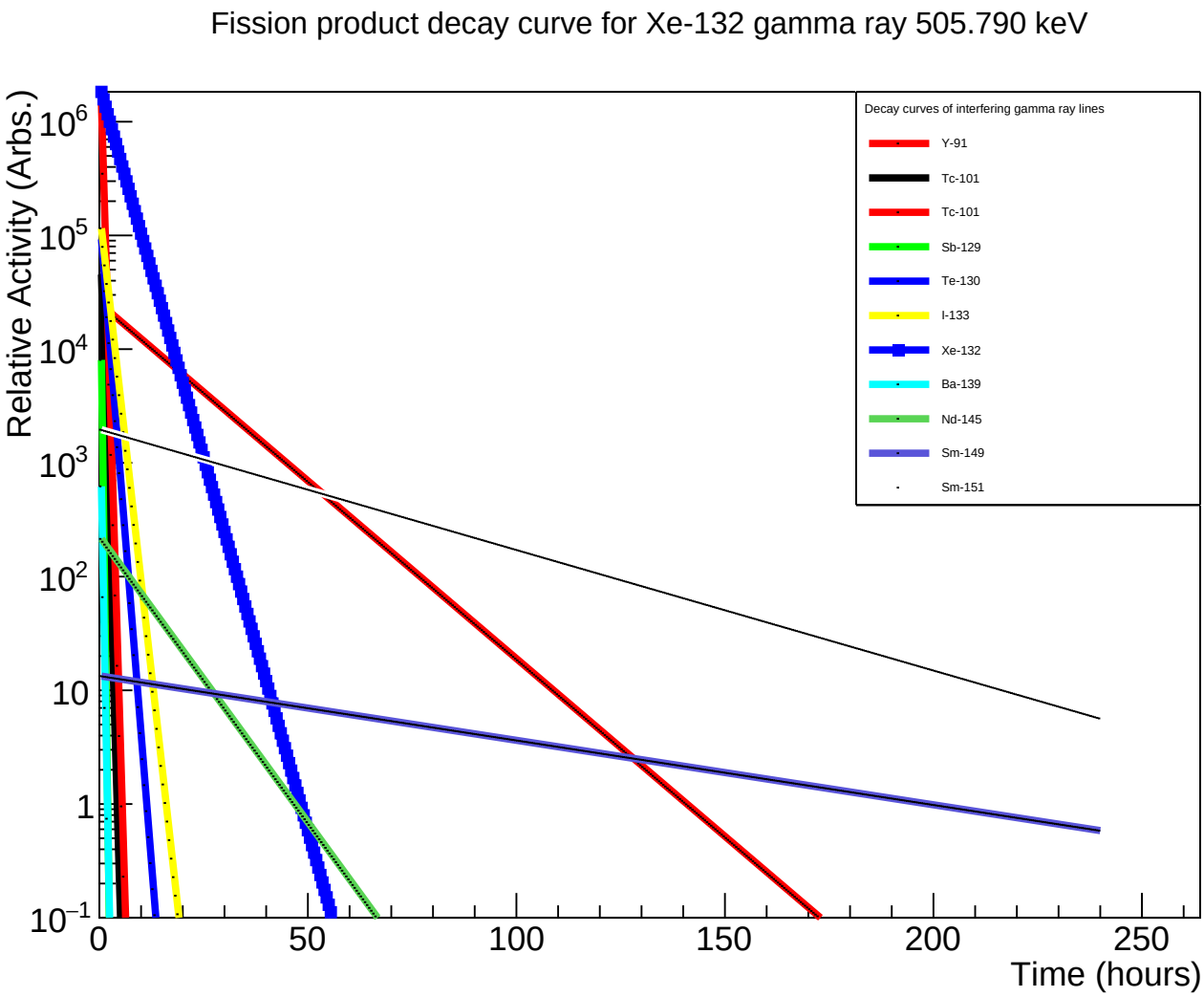


Figure 802: Xe-132 decay curve for 505.790 keV gamma ray.

3.803 I-132 E_γ = 522.65 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 522.65 keV
Gamma Intensity = 15.99 ± 0.494 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1605: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1606: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	523.830	0.002	0.243	0.052
Rh-107	Pd-107	521.200	0.000	0.362	0.001
Ag-111	Cd-111	522.400	0.000	178.800	0.000
Sb-129	Te-129	523.800	0.016	4.400	0.005
Ba-141	La-141	522.300	0.004	0.304	0.058
Ce-143	Pr-143	523.000	0.000	33.039	0.060
Nd-151	Pm-151	522.100	0.000	0.207	0.004
Sm-153	Eu-153	521.300	0.000	46.500	0.002
Sm-155	Eu-155	522.540	0.001	0.372	0.000

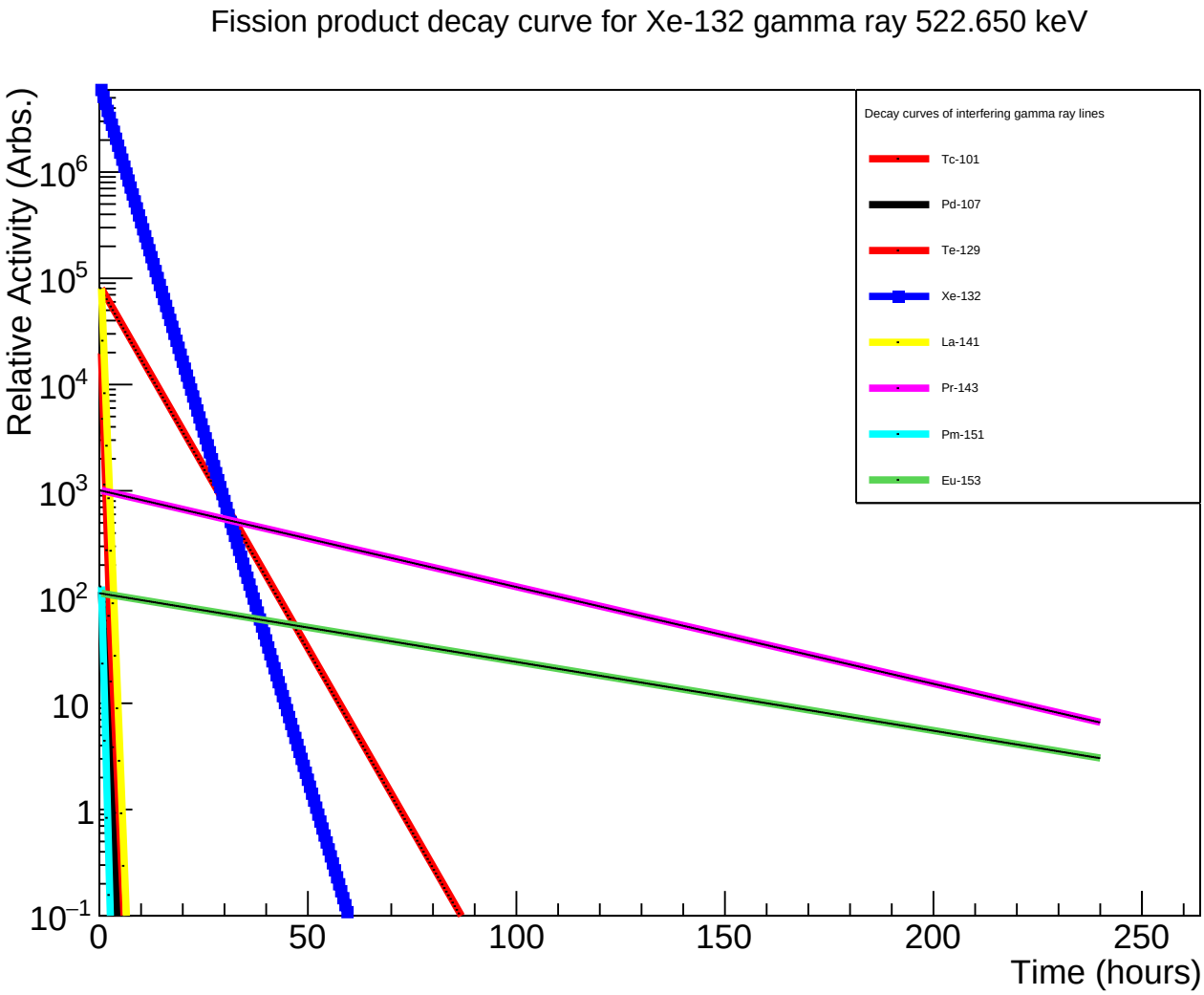


Figure 803: Xe-132 decay curve for 522.650 keV gamma ray.

3.804 I-132 E_γ = 547.20 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 547.20 keV
Gamma Intensity = 1.14 ± 0.079 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1607: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1608: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	545.810	0.004	0.124	0.062
Pd-111	Ag-111	547.000	0.004	0.390	0.000
Te-131	I-131	546.700	0.000	33.250	0.004
Te-133	I-133	546.290	0.005	0.208	0.031
Cs-138	Ba-138	547.001	0.108	0.557	0.067
La-141	Ce-141	547.100	0.000	3.920	0.058
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-149	Pm-149	547.100	0.000	1.728	0.011
Nd-149	Pm-149	547.400	0.000	1.728	0.011
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Nd-152	Pm-152	547.700	0.001	0.190	0.003
Pm-149	Sm-149	547.170	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

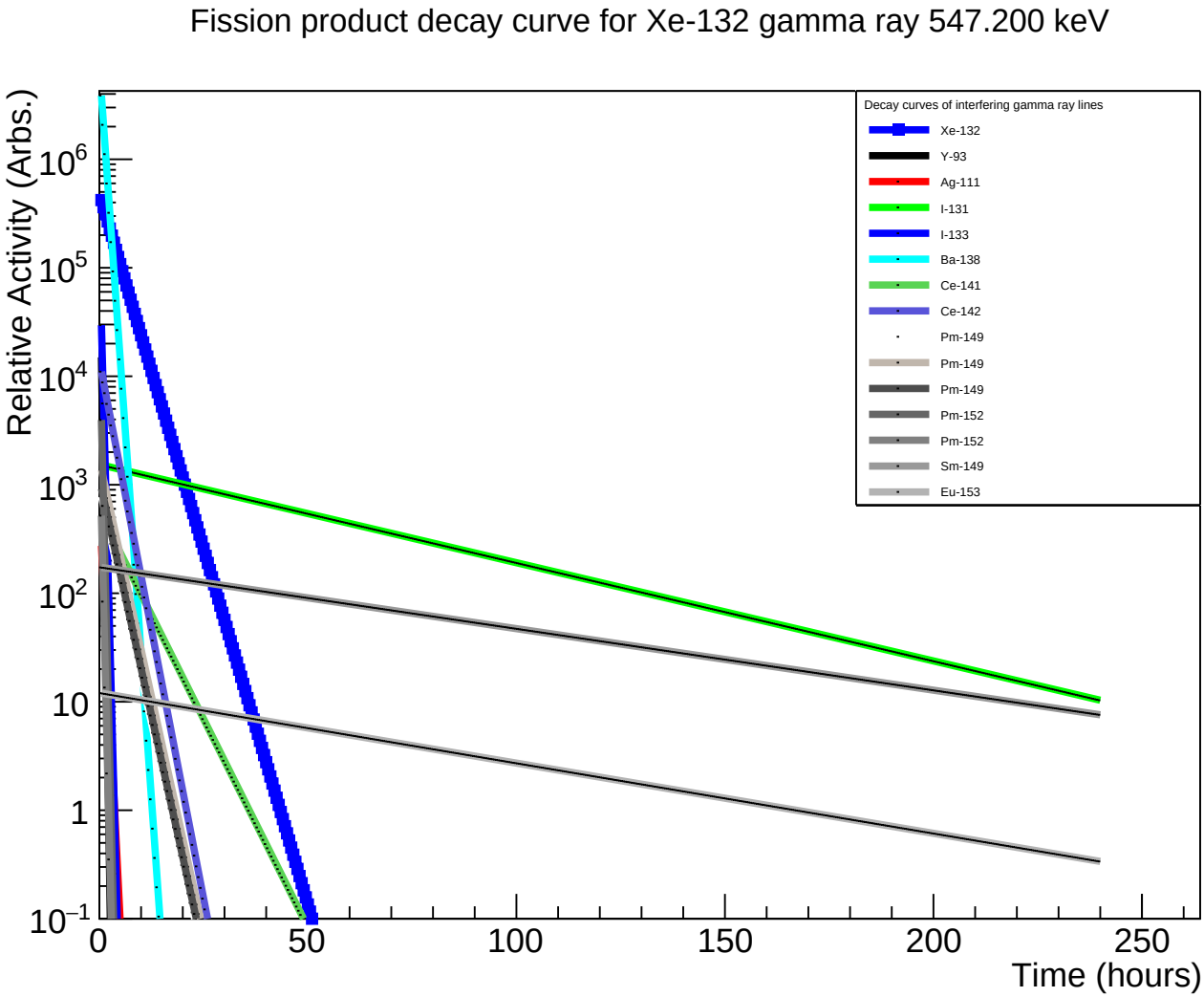


Figure 804: Xe-132 decay curve for 547.200 keV gamma ray.

3.805 I-132 E_γ = 621.20 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 621.20 keV
Gamma Intensity = 1.58 ± 0.197 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1609: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1610: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	621.630	0.006	0.372	0.003
Sr-91	Y-91	620.100	0.018	9.630	0.058
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Mo-99	Tc-99	621.771	0.000	65.976	0.061
Tc-101	Ru-101	621.990	0.001	0.237	0.052
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Ag-111	Cd-111	622.000	0.000	178.800	0.000
Sn-127	Sb-127	621.900	0.005	2.100	0.001
Sb-126	Te-126	620.000	0.015	0.319	0.001
Sb-131	Te-131	619.780	0.016	0.384	0.026
Te-133	I-133	620.000	0.000	0.208	0.031
Te-133	I-133	621.300	0.005	0.923	0.040
Xe-138	Cs-138	619.700	0.000	0.235	0.063
Cs-139	Ba-139	619.700	0.000	0.155	0.063
Ba-142	La-142	620.300	0.000	0.177	0.058
La-143	Ce-143	620.300	0.023	0.237	0.059
La-143	Ce-143	621.400	0.015	0.237	0.059
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

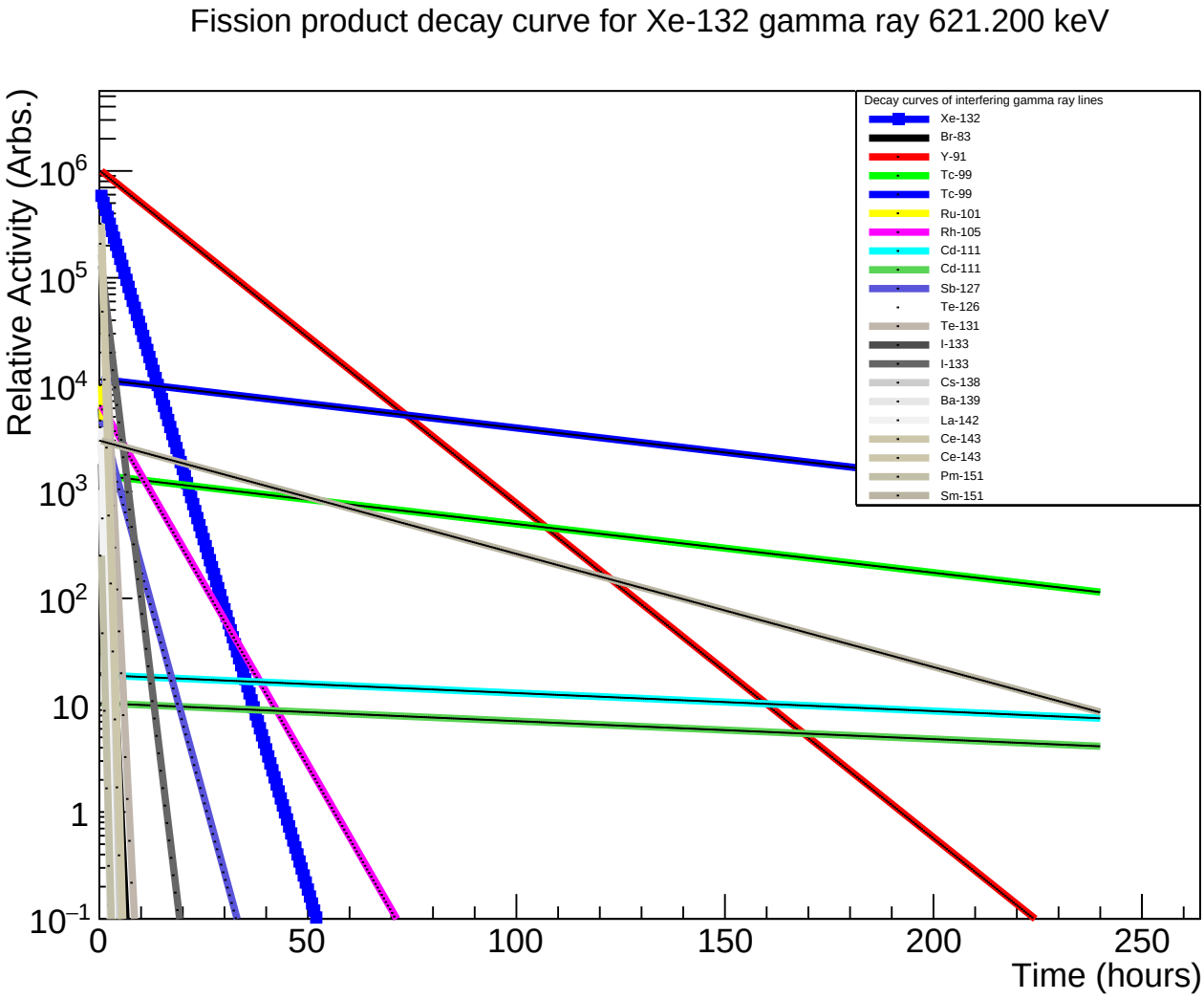


Figure 805: Xe-132 decay curve for 621.200 keV gamma ray.

3.806 I-132 E_γ = 630.19 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 630.19 keV
Gamma Intensity = 13.32 ± 0.395 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1611: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1612: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	631.300	0.006	9.630	0.058
Sr-93	Y-93	630.970	0.002	0.124	0.062
Nb-98	Mo-98	631.400	0.000	0.855	0.000
Tc-104	Ru-104	630.000	0.004	0.305	0.019
Tc-104	Ru-104	630.300	0.009	0.305	0.019
Tc-105	Ru-105	631.000	0.002	0.127	0.010
Ag-112	Cd-112	629.200	0.000	3.130	0.000
Sn-127	Sb-127	631.600	0.005	2.100	0.001
Sb-128	Te-128	628.700	0.310	9.010	0.000
Te-133	I-133	629.000	0.003	0.923	0.040
Pr-147	Nd-147	631.600	0.006	0.223	0.022
Nd-149	Pm-149	630.237	0.002	1.728	0.011
Nd-151	Pm-151	629.740	0.001	0.207	0.004
Sm-153	Eu-153	630.500	0.000	46.500	0.002
Sm-155	Eu-155	631.200	0.000	0.372	0.000

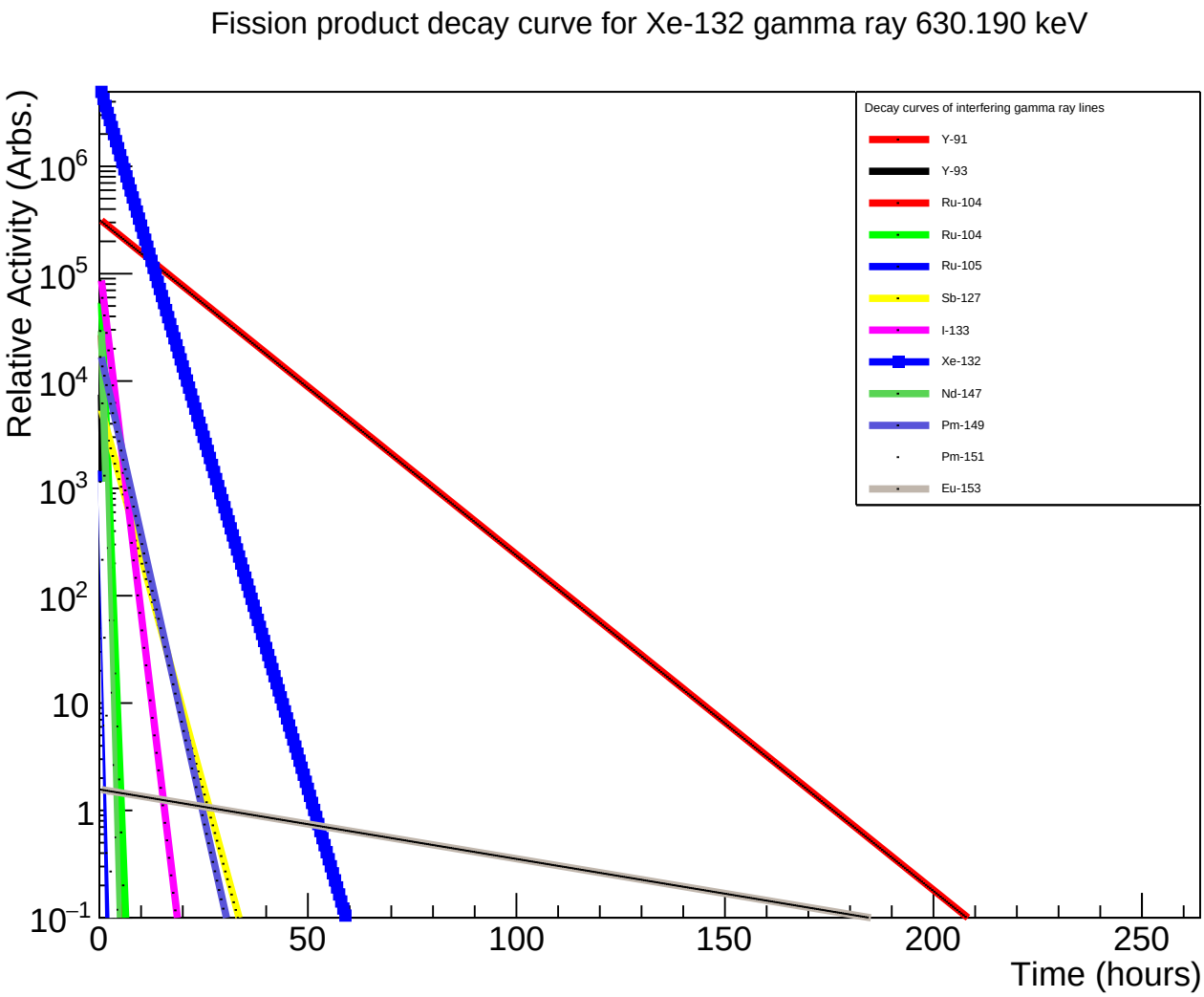


Figure 806: Xe-132 decay curve for 630.190 keV gamma ray.

3.807 I-132 E_γ = 650.50 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 650.50 keV
Gamma Intensity = 2.57 ± 0.197 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1613: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1614: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	649.790	0.000	0.308	0.002
Sr-92	Y-92	650.800	0.004	2.710	0.059
Sr-93	Y-93	650.560	0.002	0.124	0.062
Mo-101	Tc-101	650.900	0.000	0.243	0.052
Ru-103	Rh-103	651.690	0.000	941.928	0.030
Pd-111	Ag-111	650.400	0.006	0.390	0.000
Sn-127	Sb-127	649.100	0.008	2.100	0.001
Te-127	I-127	651.000	0.000	2616.000	0.000
Cs-139	Ba-139	651.080	0.000	0.155	0.063
Ba-142	La-142	649.300	0.001	0.177	0.058
Nd-147	Pm-147	649.040	0.000	263.520	0.022
Nd-149	Pm-149	651.000	0.001	1.728	0.011
Nd-151	Pm-151	650.800	0.000	0.207	0.004

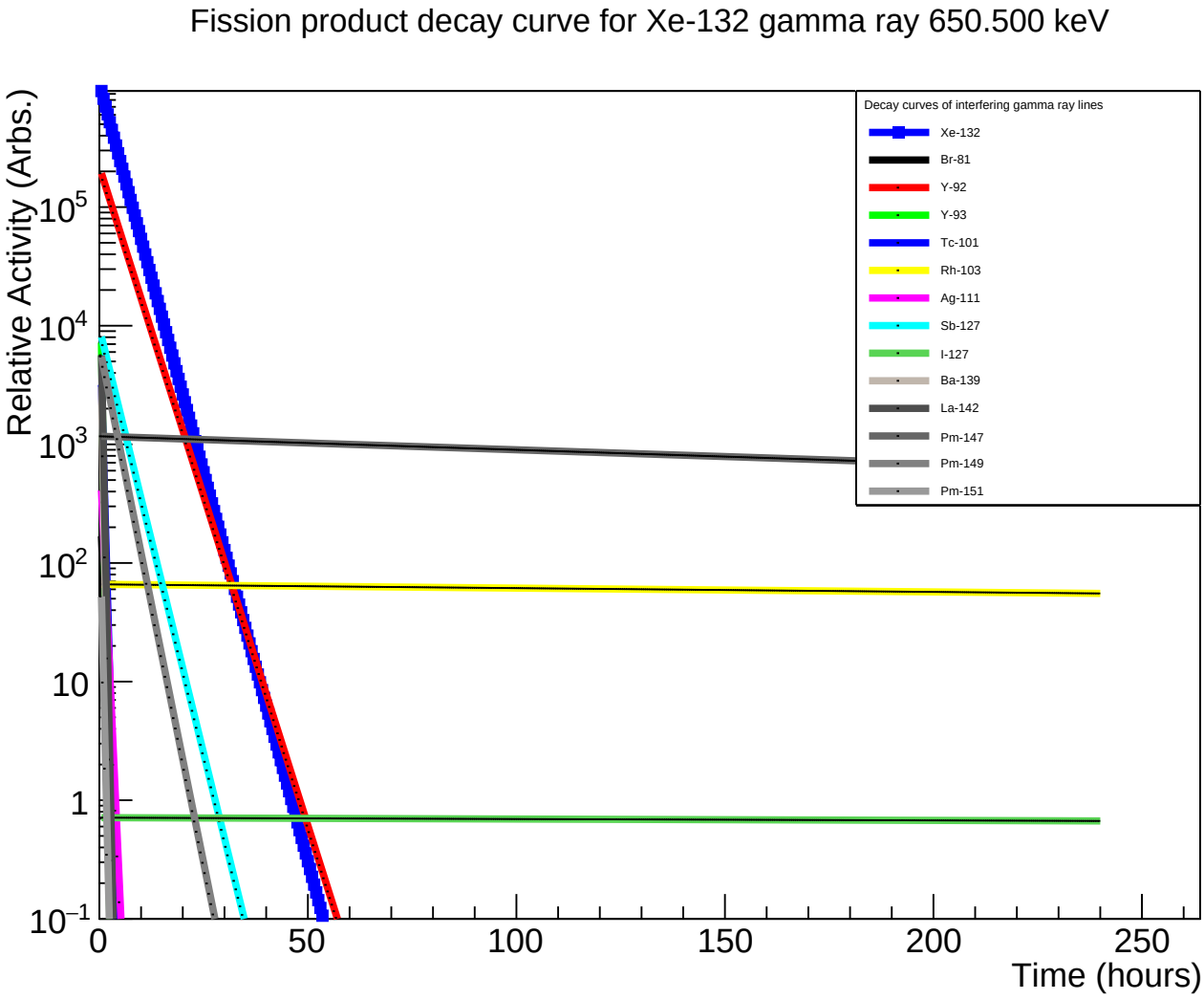


Figure 807: Xe-132 decay curve for 650.500 keV gamma ray.

3.808 I-132 E_γ = 667.71 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 667.71 keV
Gamma Intensity = 98.70 ± 9.870 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1615: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1616: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	668.000	0.003	0.305	0.019
Sn-127	Sb-127	668.600	0.002	2.100	0.001
Sb-127	Te-127	667.500	0.007	92.400	0.002
Sb-128	Te-128	667.100	0.025	9.010	0.000
Sb-130	Te-130	669.200	0.011	0.658	0.008
Sb-131	Te-131	669.000	0.019	0.384	0.026
Te-133	I-133	667.000	0.002	0.208	0.031
Cs-139	Ba-139	668.970	0.000	0.155	0.063
Nd-151	Pm-151	668.100	0.000	0.207	0.004
Pm-151	Sm-151	668.500	0.000	28.400	0.004
Pm-151	Sm-151	668.700	0.004	28.400	0.004
Pm-151	Sm-151	669.200	0.003	28.400	0.004

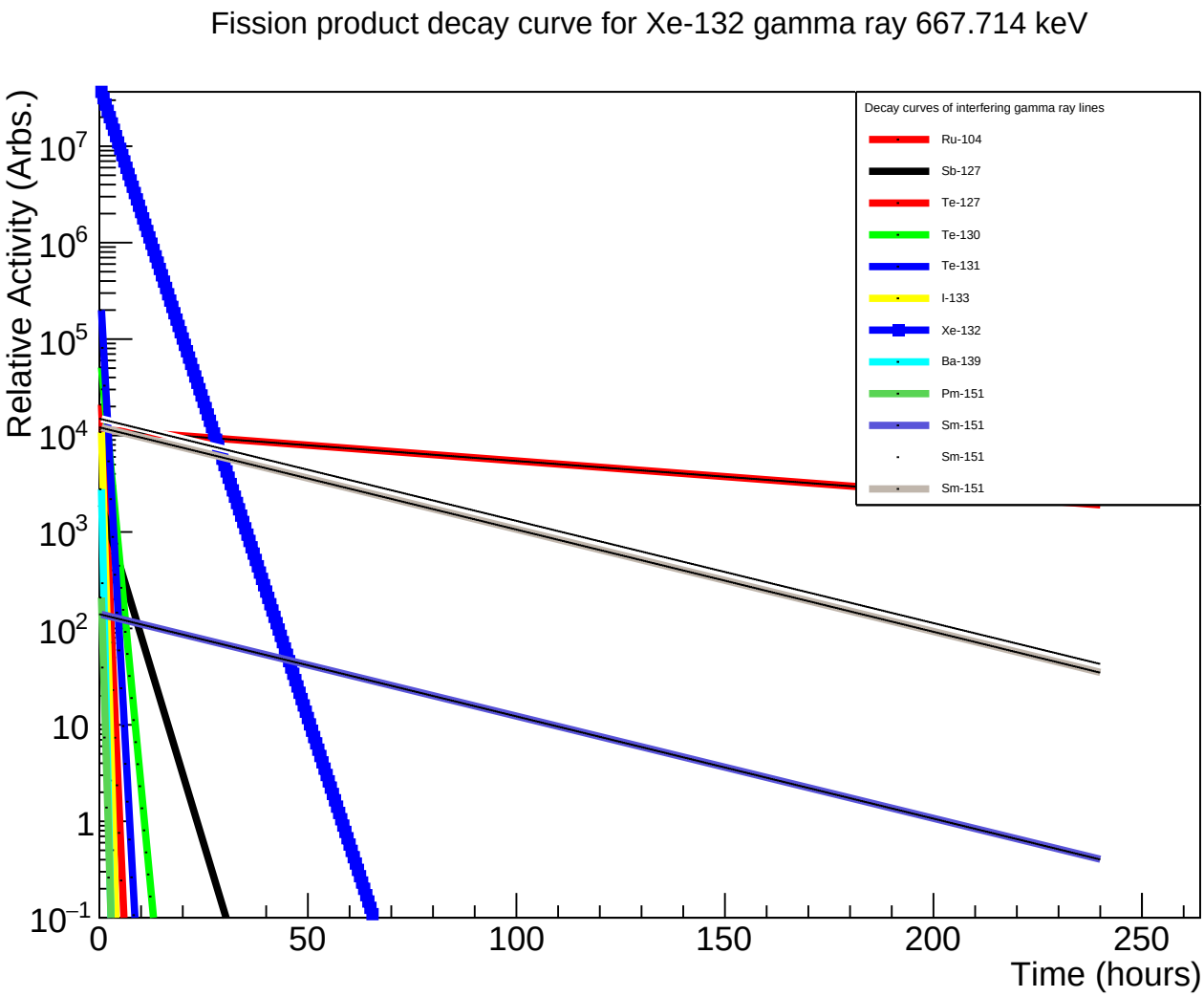


Figure 808: Xe-132 decay curve for 667.714 keV gamma ray.

3.809 I-132 E_γ = 669.80 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 669.80 keV
Gamma Intensity = 4.64 ± 0.592 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1617: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1618: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	670.900	0.003	0.372	0.003
Rh-107	Pd-107	670.050	0.022	0.362	0.001
Sn-127	Sb-127	668.600	0.002	2.100	0.001
Sb-129	Te-129	669.800	0.008	4.400	0.005
Sb-130	Te-130	669.200	0.011	0.658	0.008
Sb-131	Te-131	669.000	0.019	0.384	0.026
Cs-139	Ba-139	668.970	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	668.500	0.000	28.400	0.004
Pm-151	Sm-151	668.700	0.004	28.400	0.004
Pm-151	Sm-151	669.200	0.003	28.400	0.004
Pm-151	Sm-151	671.280	0.009	28.400	0.004

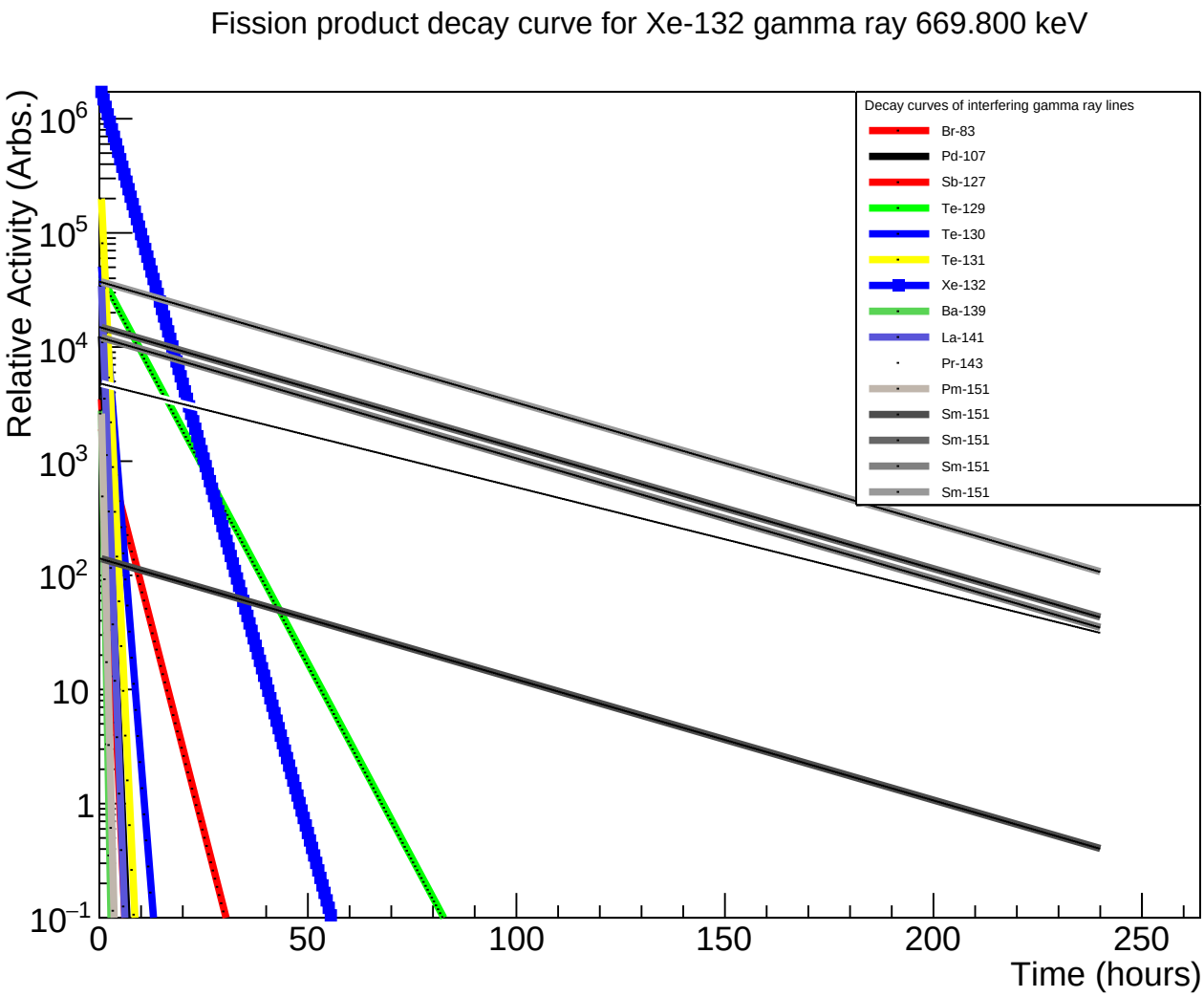


Figure 809: Xe-132 decay curve for 669.800 keV gamma ray.

3.810 I-132 E_γ = 671.40 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 671.40 keV
Gamma Intensity = 3.45 ± 0.987 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1619: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1620: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	670.900	0.003	0.372	0.003
Nb-98	Mo-98	672.590	0.006	0.855	0.000
Rh-107	Pd-107	670.050	0.022	0.362	0.001
Ag-113	Cd-113	672.300	0.009	5.370	0.000
Sb-125	Te-125	671.441	0.018	24194.445	0.000
Te-129	I-129	671.840	0.000	806.400	0.001
Cs-139	Ba-139	672.210	0.000	0.155	0.063
Ba-141	La-141	670.300	0.002	0.304	0.058
Ce-143	Pr-143	670.120	0.000	33.039	0.060
Nd-149	Pm-149	671.560	0.000	1.728	0.011
Nd-151	Pm-151	670.390	0.003	0.207	0.004
Pm-151	Sm-151	671.280	0.009	28.400	0.004

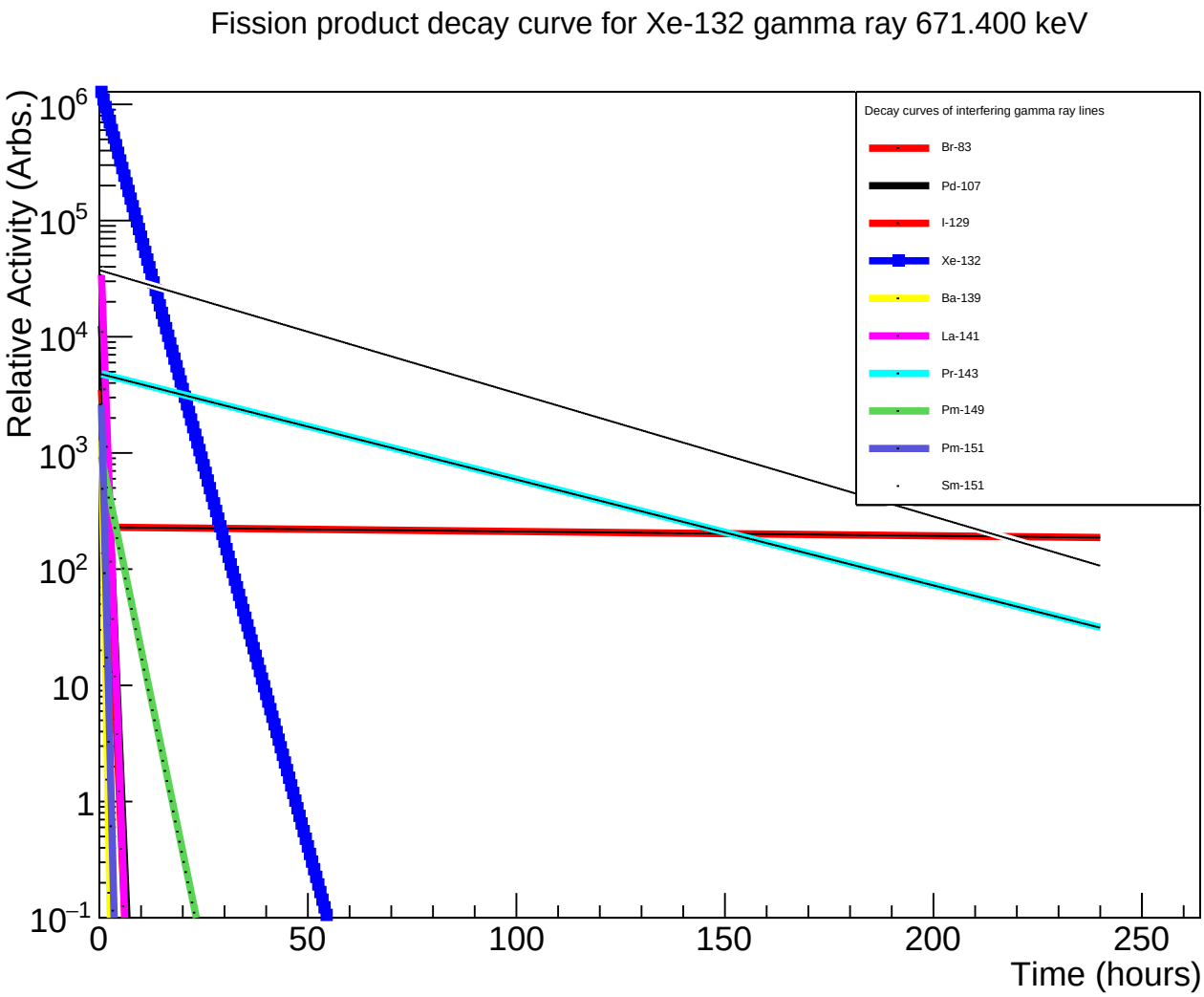


Figure 810: Xe-132 decay curve for 671.400 keV gamma ray.

3.811 I-132 E_γ = 727.00 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 727.00 keV
Gamma Intensity = 2.17 ± 0.592 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1621: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1622: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	726.830	0.001	0.855	0.000
Mo-101	Tc-101	728.190	0.001	0.243	0.052
Sb-128	Te-128	727.600	0.040	9.010	0.000
Sb-131	Te-131	726.300	0.041	0.384	0.026
Te-131	I-131	727.000	0.005	0.417	0.025
Te-133	I-133	727.000	0.000	0.208	0.031
Cs-139	Ba-139	728.380	0.000	0.155	0.063
Pr-146	Nd-146	727.300	0.006	0.403	0.030
Nd-149	Pm-149	726.822	0.000	1.728	0.011
Nd-149	Pm-149	727.880	0.000	1.728	0.011
Nd-151	Pm-151	727.500	0.000	0.207	0.004
Pm-151	Sm-151	727.000	0.000	28.400	0.004

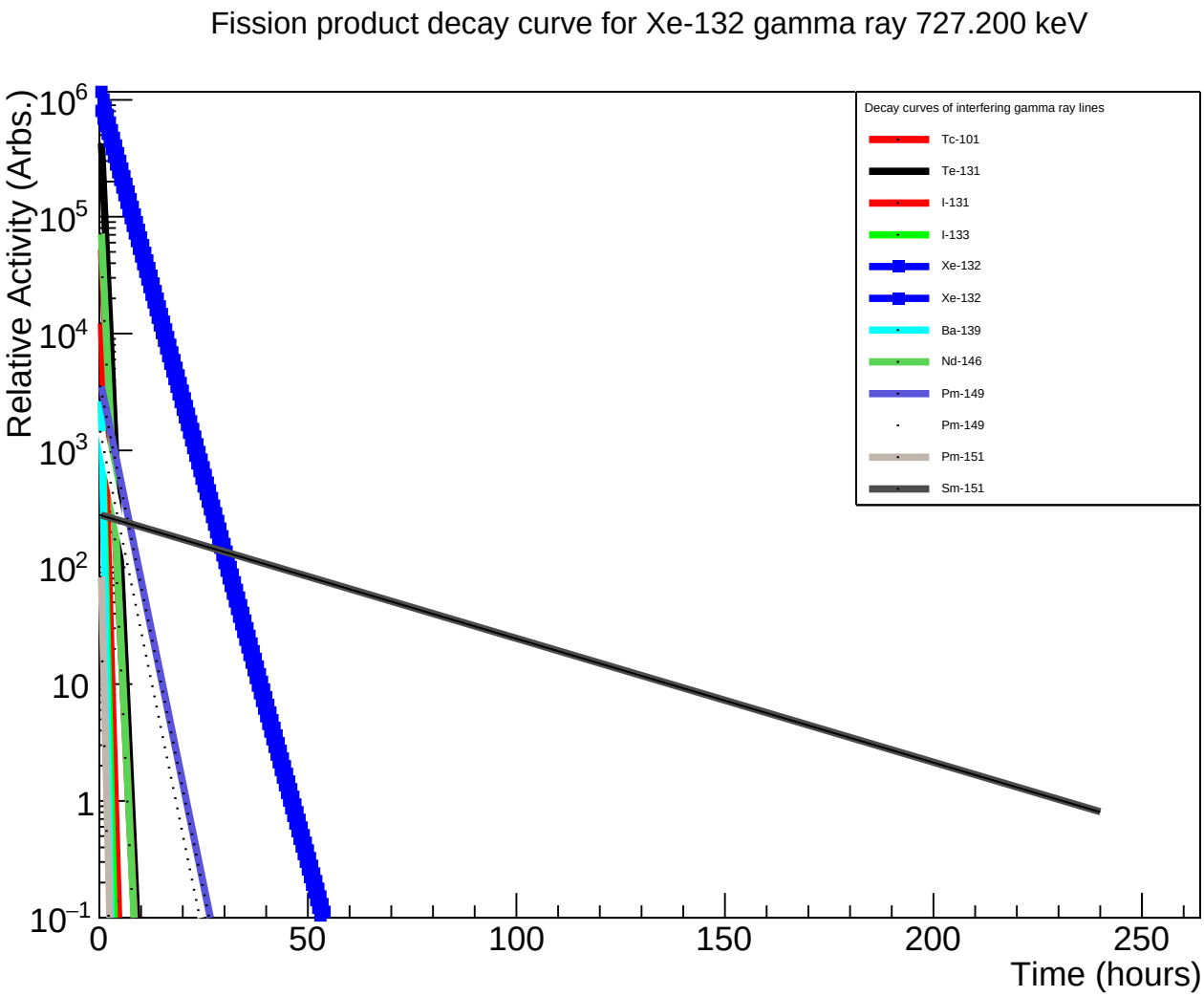


Figure 811: Xe-132 decay curve for 727.000 keV gamma ray.

3.812 I-132 E_γ = 727.20 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 727.20 keV
Gamma Intensity = 3.16 ± 0.592 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1623: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1624: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	726.830	0.001	0.855	0.000
Mo-101	Tc-101	728.190	0.001	0.243	0.052
Sb-128	Te-128	727.600	0.040	9.010	0.000
Sb-131	Te-131	726.300	0.041	0.384	0.026
Te-131	I-131	727.000	0.005	0.417	0.025
Te-133	I-133	727.000	0.000	0.208	0.031
Cs-139	Ba-139	728.380	0.000	0.155	0.063
Pr-146	Nd-146	727.300	0.006	0.403	0.030
Nd-149	Pm-149	726.822	0.000	1.728	0.011
Nd-149	Pm-149	727.880	0.000	1.728	0.011
Nd-151	Pm-151	727.500	0.000	0.207	0.004
Pm-151	Sm-151	727.000	0.000	28.400	0.004

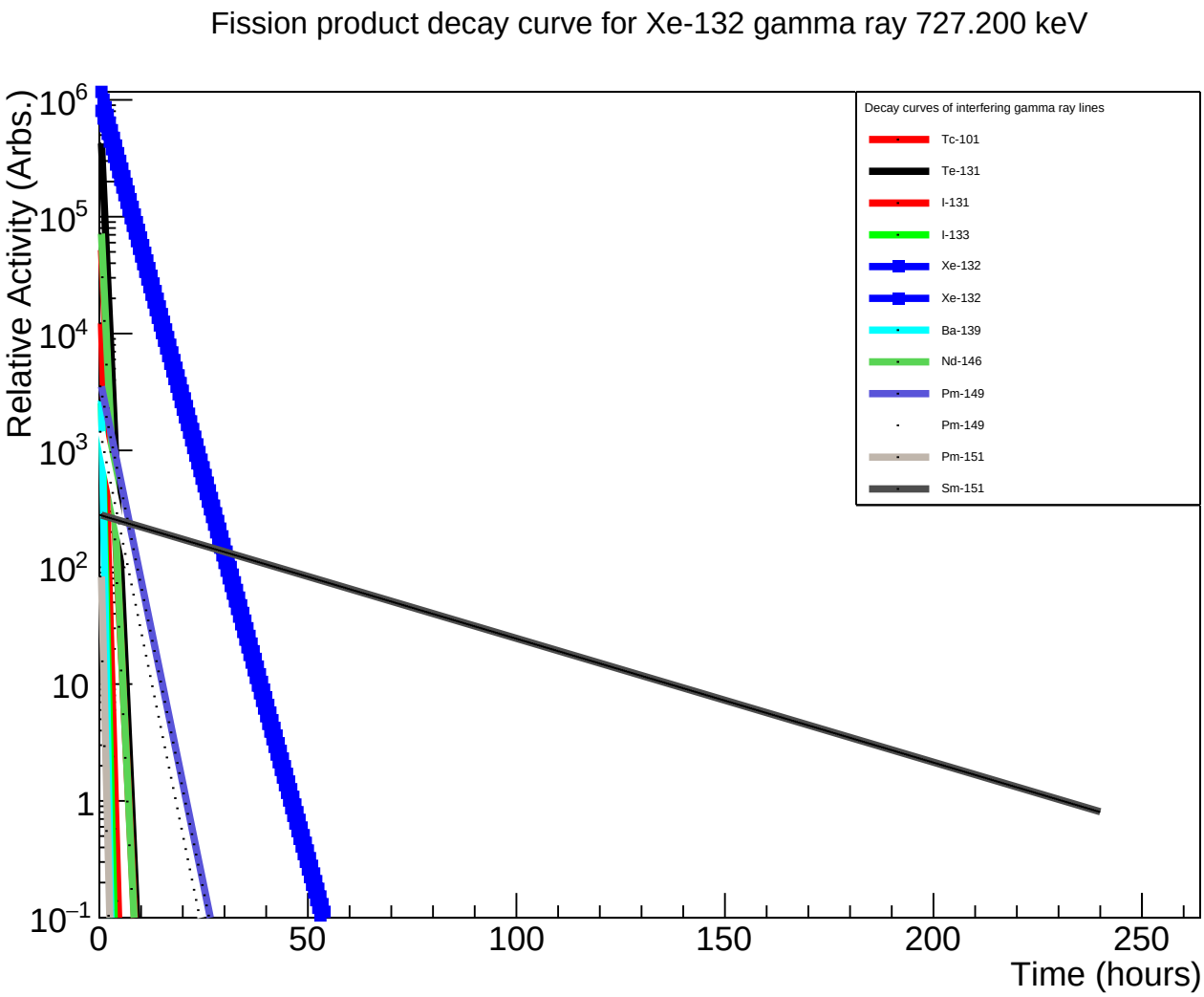


Figure 812: Xe-132 decay curve for 727.200 keV gamma ray.

3.813 I-132 E_γ = 728.40 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 728.40 keV
Gamma Intensity = 1.58 ± 0.395 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1625: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1626: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	728.190	0.001	0.243	0.052
Sb-128	Te-128	727.600	0.040	9.010	0.000
Te-129	I-129	729.570	0.000	1.160	0.005
Te-129	I-129	729.570	0.007	806.400	0.001
Te-131	I-131	727.000	0.005	0.417	0.025
Te-133	I-133	727.000	0.000	0.208	0.031
Cs-139	Ba-139	728.380	0.000	0.155	0.063
Ce-143	Pr-143	729.870	0.000	33.039	0.060
Pr-146	Nd-146	727.300	0.006	0.403	0.030
Nd-149	Pm-149	727.880	0.000	1.728	0.011
Nd-151	Pm-151	727.500	0.000	0.207	0.004
Pm-151	Sm-151	727.000	0.000	28.400	0.004

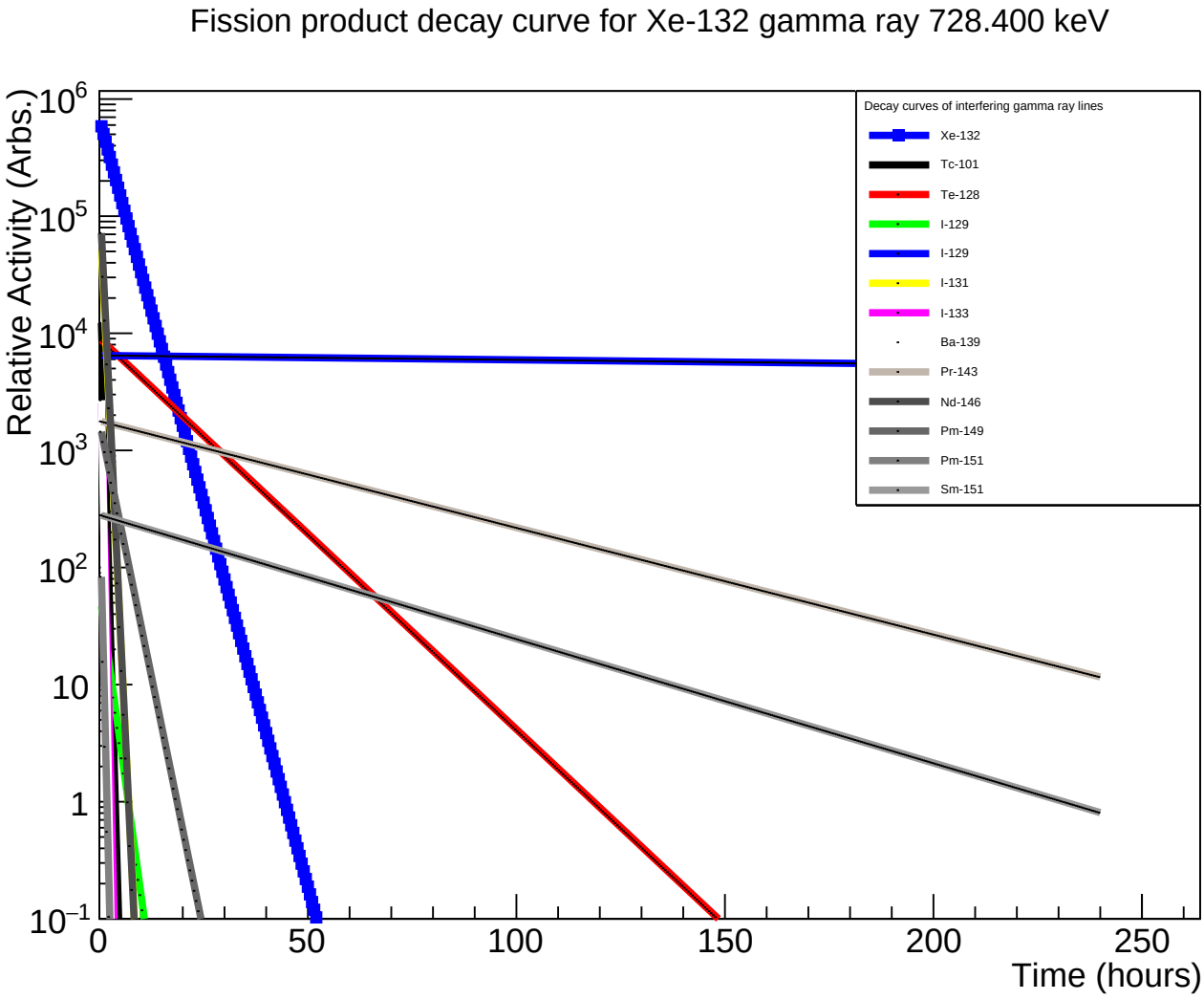


Figure 813: Xe-132 decay curve for 728.400 keV gamma ray.

3.814 I-132 E_γ = 772.60 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 772.60 keV
Gamma Intensity = 75.60 ± 1.283 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1627: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1628: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	771.190	0.012	0.124	0.062
Nb-98	Mo-98	773.700	0.001	0.855	0.000
Pd-111	Ag-111	773.000	0.000	0.390	0.000
Sn-127	Sb-127	773.700	0.004	2.100	0.001
Sb-128	Te-128	773.700	0.015	9.010	0.000
Sb-129	Te-129	773.400	0.028	4.400	0.005
Te-129	I-129	773.540	0.000	1.160	0.005
Te-129	I-129	771.800	0.000	806.400	0.001
Te-131	I-131	773.670	0.368	33.250	0.004
Te-131	I-131	774.100	0.005	33.250	0.004
Cs-138	Ba-138	773.310	0.002	0.557	0.067
Cs-139	Ba-139	773.500	0.000	0.155	0.063
Ba-142	La-142	771.900	0.001	0.177	0.058
Pr-146	Nd-146	772.300	0.000	0.403	0.030
Nd-151	Pm-151	773.620	0.001	0.207	0.004
Nd-151	Pm-151	773.620	0.003	0.207	0.004
Pm-151	Sm-151	772.760	0.009	28.400	0.004

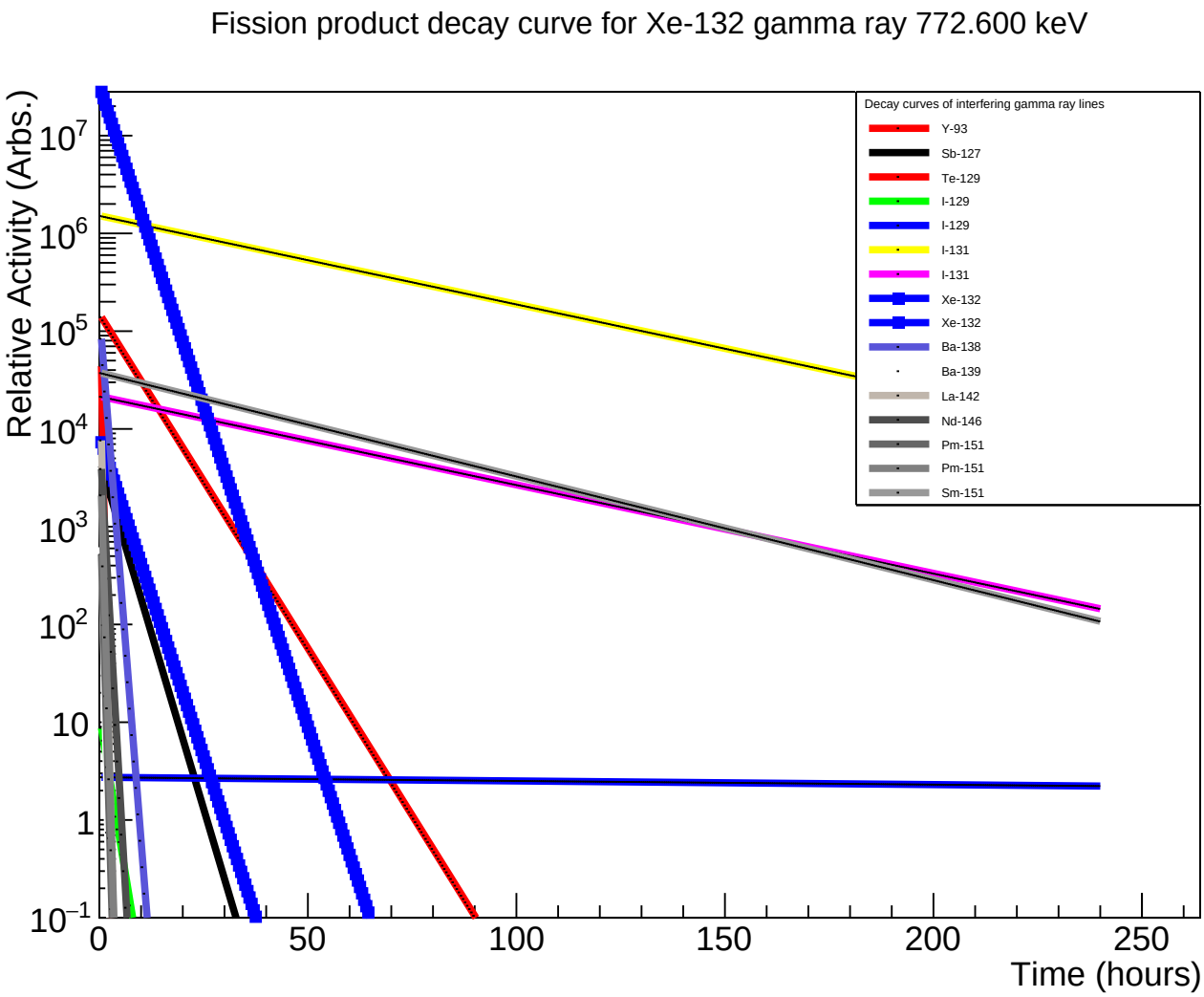


Figure 814: Xe-132 decay curve for 772.600 keV gamma ray.

3.815 I-132 E_γ = 780.00 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 780.00 keV
Gamma Intensity = 1.18 ± 0.040 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1629: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1630: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	779.120	0.001	2.840	0.036
Pd-109	Ag-109	781.400	0.000	13.701	0.000
Sn-125	Sb-125	779.500	0.000	0.159	0.000
Te-133	I-133	779.670	0.017	0.923	0.040
Pr-145	Nd-145	778.770	0.000	5.984	0.039
Pr-145	Nd-145	780.450	0.000	5.984	0.039
Nd-149	Pm-149	781.400	0.000	1.728	0.011
Nd-151	Pm-151	780.700	0.000	0.207	0.004

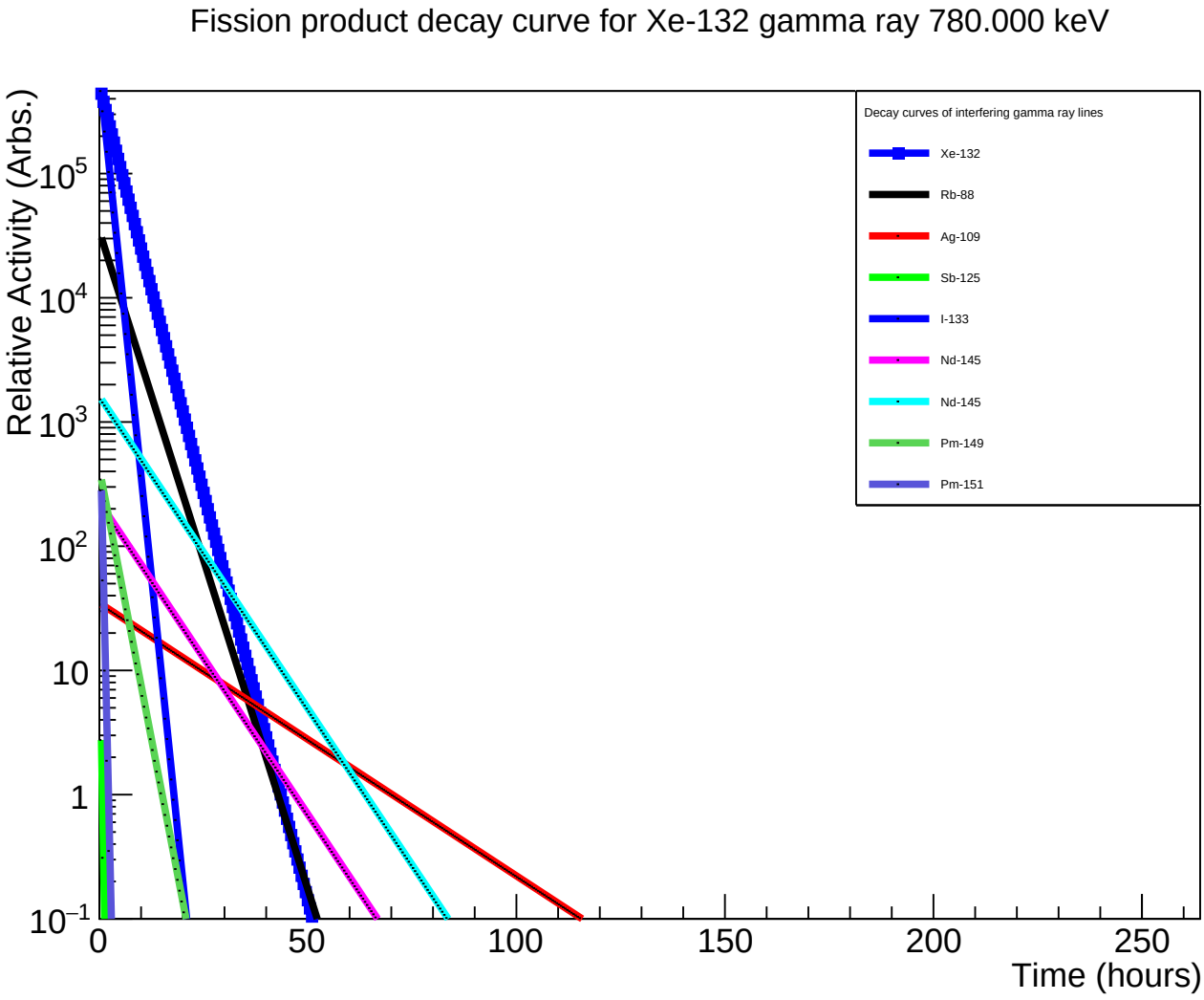


Figure 815: Xe-132 decay curve for 780.000 keV gamma ray.

3.816 I-132 E_γ = 809.50 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 809.50 keV
Gamma Intensity = 2.57 ± 0.296 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1631: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1632: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	808.500	0.000	0.390	0.000
Ag-113	Cd-113	809.900	0.000	5.370	0.000
Ce-143	Pr-143	809.980	0.000	33.039	0.060
Nd-149	Pm-149	808.843	0.002	1.728	0.011
Nd-149	Pm-149	809.600	0.000	1.728	0.011
Nd-151	Pm-151	809.230	0.002	0.207	0.004
Pm-149	Sm-149	808.110	0.000	53.080	0.011

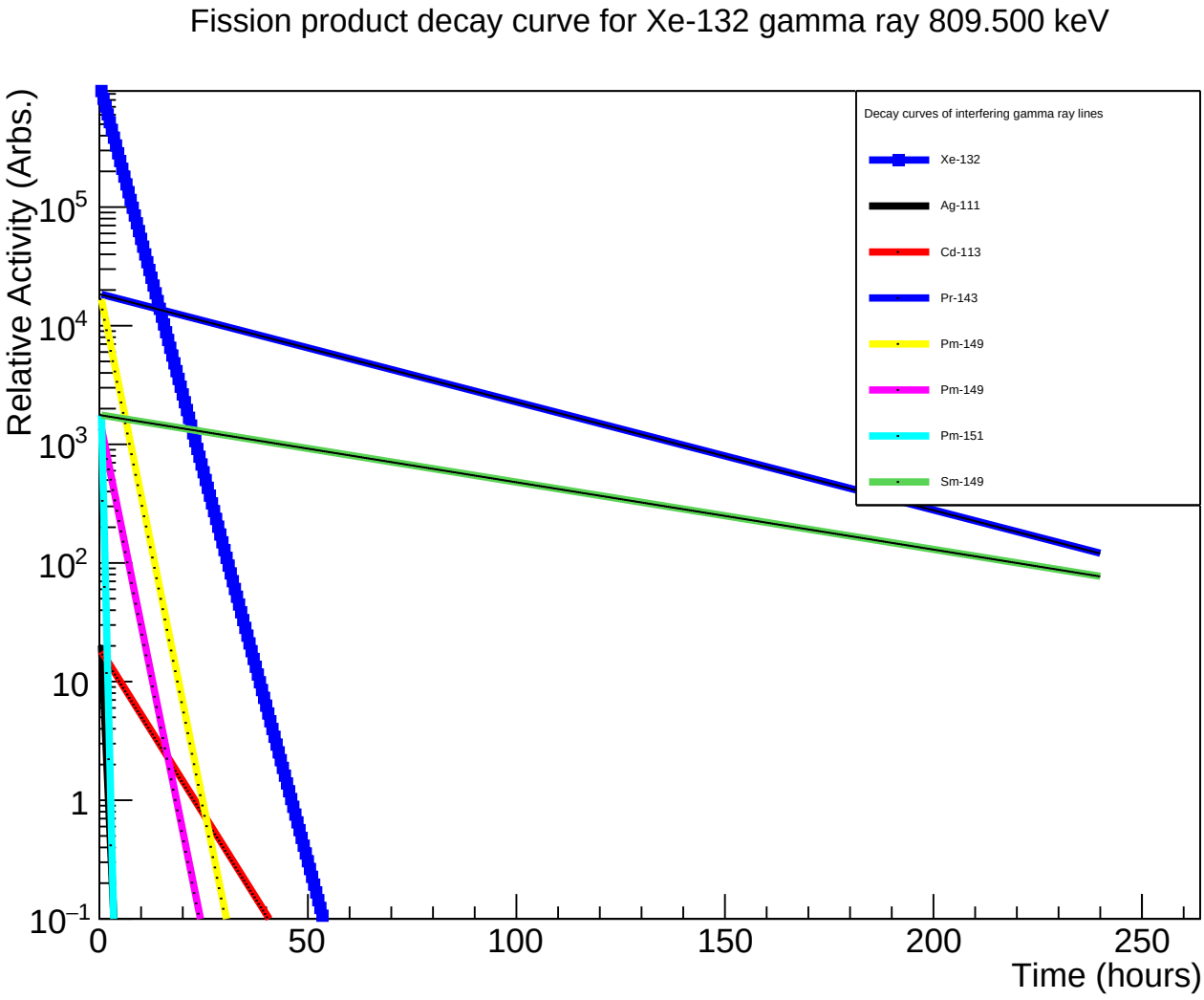


Figure 816: Xe-132 decay curve for 809.500 keV gamma ray.

3.817 I-132 E_γ = 812.00 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 812.00 keV
Gamma Intensity = 5.53 ± 0.395 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1633: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1634: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	812.000	0.004	0.372	0.003
Tc-101	Ru-101	811.130	0.001	0.237	0.052
Sb-129	Te-129	812.800	0.433	4.400	0.005
Te-133	I-133	813.400	0.001	0.208	0.031
Xe-135	Cs-135	812.630	0.001	9.140	0.065
Cs-138	Ba-138	813.000	0.001	0.557	0.067
Nd-149	Pm-149	813.190	0.000	1.728	0.011
Nd-151	Pm-151	812.600	0.001	0.207	0.004
Pm-149	Sm-149	812.920	0.000	53.080	0.011
Pm-151	Sm-151	811.800	0.001	28.400	0.004
Eu-156	Gd-156	811.770	0.097	364.560	0.000

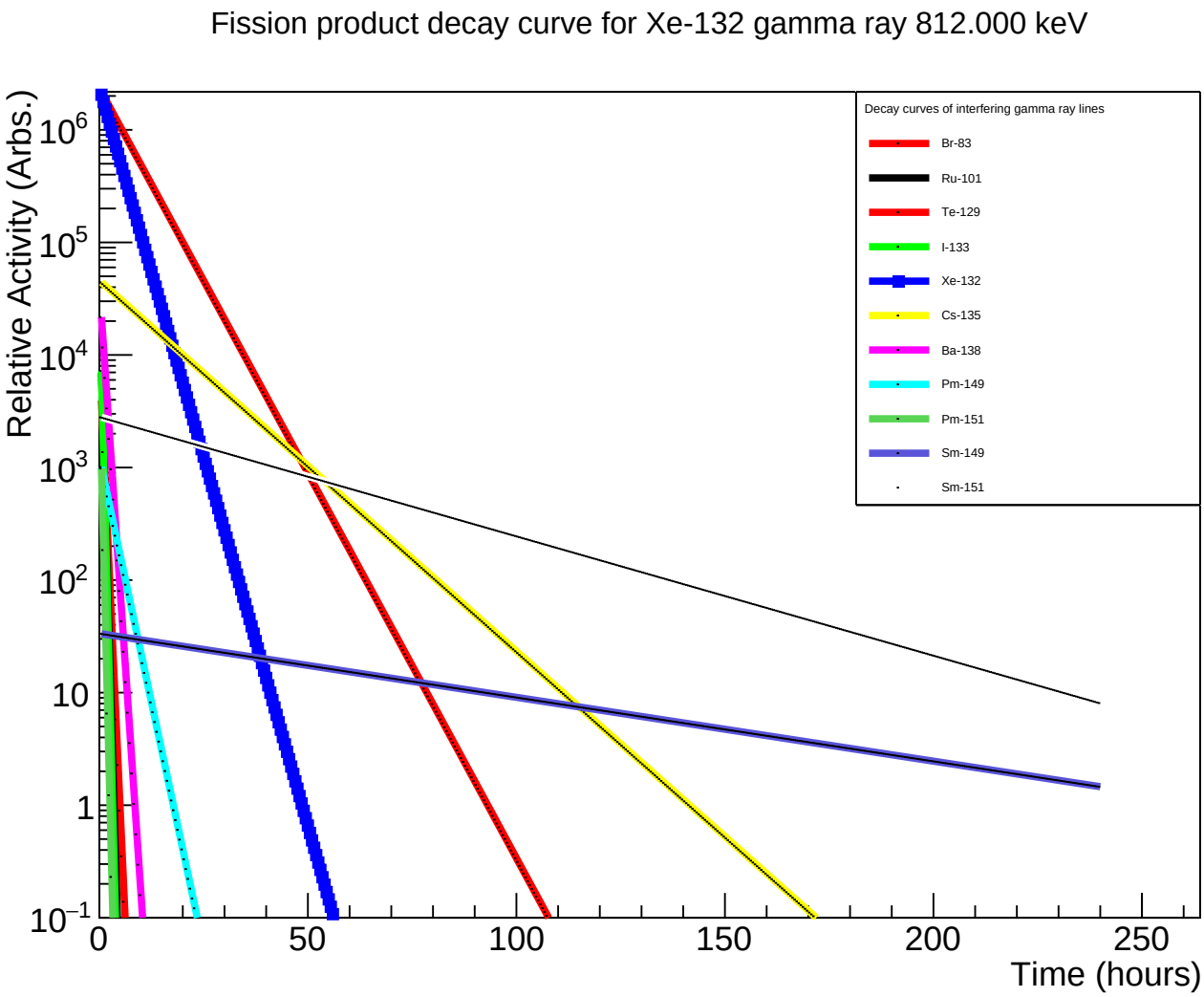


Figure 817: Xe-132 decay curve for 812.000 keV gamma ray.

3.818 I-132 E_γ = 876.60 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 876.60 keV
Gamma Intensity = 1.04 ± 0.040 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1635: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1636: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	875.730	0.245	0.124	0.062
Nb-98	Mo-98	878.070	0.007	0.855	0.000
Mo-101	Tc-101	877.390	0.032	0.243	0.052
Ru-105	Rh-105	875.850	0.025	4.440	0.010
Sb-128	Te-128	878.000	0.035	9.010	0.000
Sb-129	Te-129	876.200	0.026	4.400	0.005
Ba-141	La-141	876.300	0.037	0.304	0.058
Nd-149	Pm-149	877.900	0.000	1.728	0.011
Nd-151	Pm-151	876.390	0.004	0.207	0.004
Pm-151	Sm-151	877.700	0.001	28.400	0.004

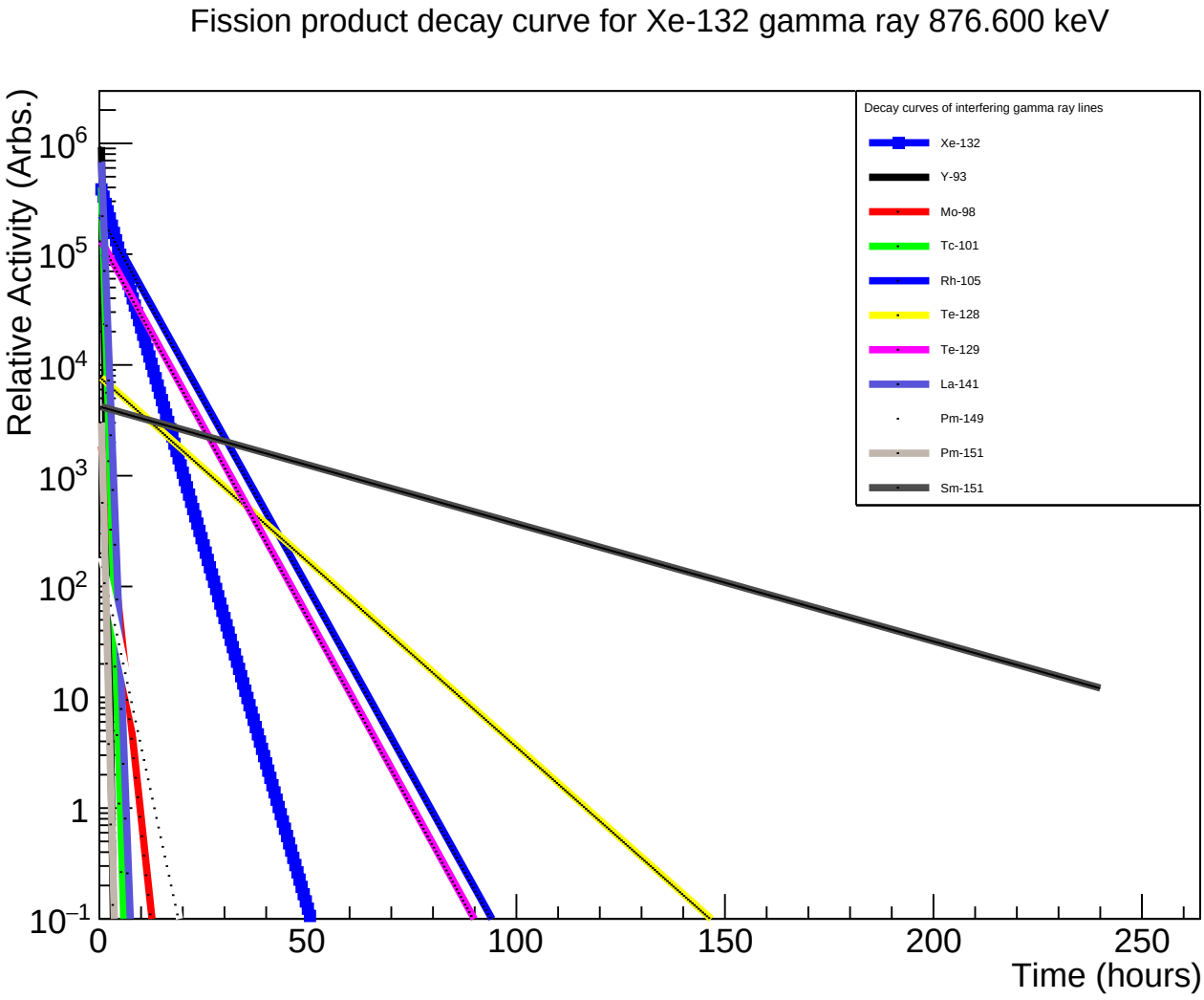


Figure 818: Xe-132 decay curve for 876.600 keV gamma ray.

3.819 I-132 E_γ = 954.55 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 954.55 keV
Gamma Intensity = 17.57 ± 0.494 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1637: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1638: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	955.700	0.001	0.529	0.010
Sr-92	Y-92	953.310	0.035	2.710	0.059
Y-95	Zr-95	954.000	0.158	0.172	0.064
Pd-111	Ag-111	955.500	0.000	0.390	0.000
Xe-138	Cs-138	953.100	0.000	0.235	0.063
Cs-139	Ba-139	955.190	0.000	0.155	0.063
Pr-146	Nd-146	954.000	0.000	0.403	0.030
Nd-151	Pm-151	954.400	0.000	0.207	0.004
Pm-151	Sm-151	953.410	0.001	28.400	0.004

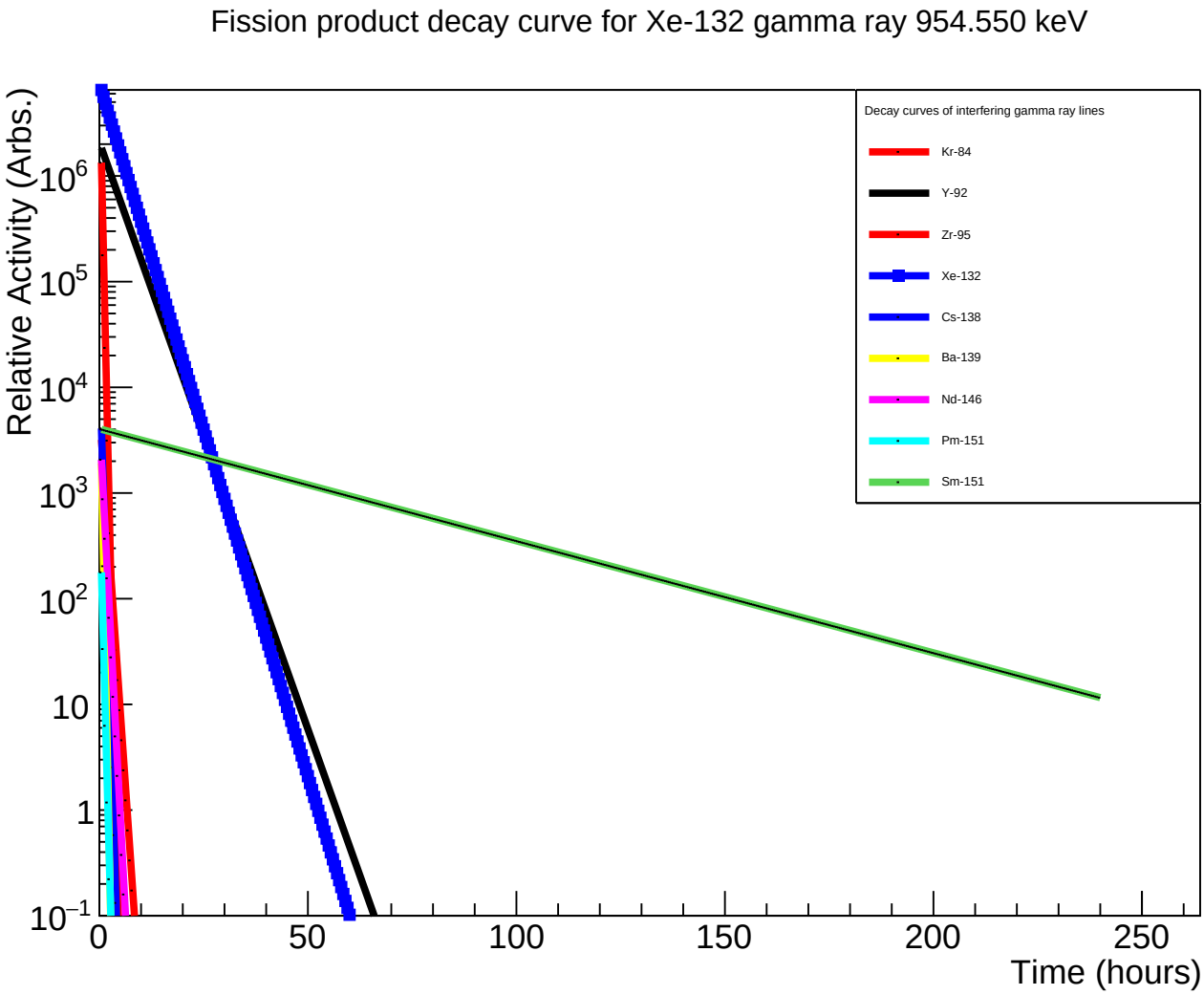


Figure 819: Xe-132 decay curve for 954.550 keV gamma ray.

3.820 I-132 E_γ = 1136.00 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1136.00 keV
Gamma Intensity = 3.01 ± 0.138 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1639: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1640: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1136.770	0.002	0.124	0.062
Sn-125	Sb-125	1137.500	0.000	231.360	0.000
Sn-127	Sb-127	1134.500	0.001	2.100	0.001
Te-133	I-133	1137.000	0.001	0.208	0.031
Te-133	I-133	1134.880	0.003	0.923	0.040
Te-133	I-133	1137.300	0.003	0.923	0.040
Ba-141	La-141	1136.800	0.000	0.304	0.058
Pr-147	Nd-147	1136.700	0.014	0.223	0.022
Nd-149	Pm-149	1135.940	0.000	1.728	0.011
Nd-151	Pm-151	1136.580	0.002	0.207	0.004

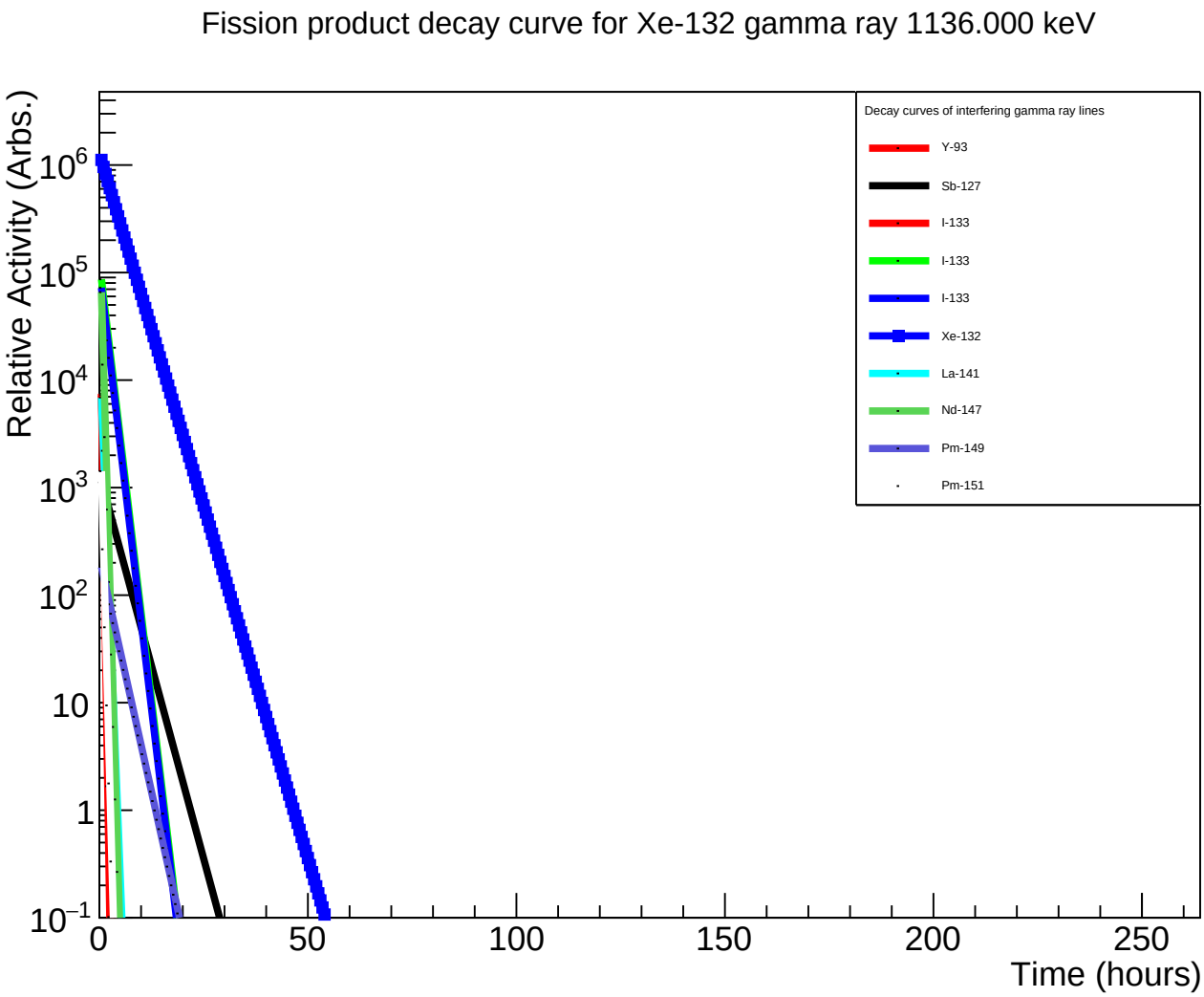


Figure 820: Xe-132 decay curve for 1136.000 keV gamma ray.

3.821 I-132 E_γ = 1143.30 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1143.30 keV
Gamma Intensity = 1.35 ± 0.059 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1641: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1642: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	1142.350	0.028	2.710	0.059
Nb-98	Mo-98	1142.200	0.000	0.855	0.000
Tc-104	Ru-104	1142.300	0.003	0.305	0.019
Tc-104	Ru-104	1144.700	0.004	0.305	0.019
Sn-127	Sb-127	1142.000	0.002	2.100	0.001
Sb-130	Te-130	1142.000	0.056	0.105	0.010
Te-133	I-133	1142.740	0.013	0.923	0.040
La-142	Ce-142	1144.200	0.000	1.518	0.058

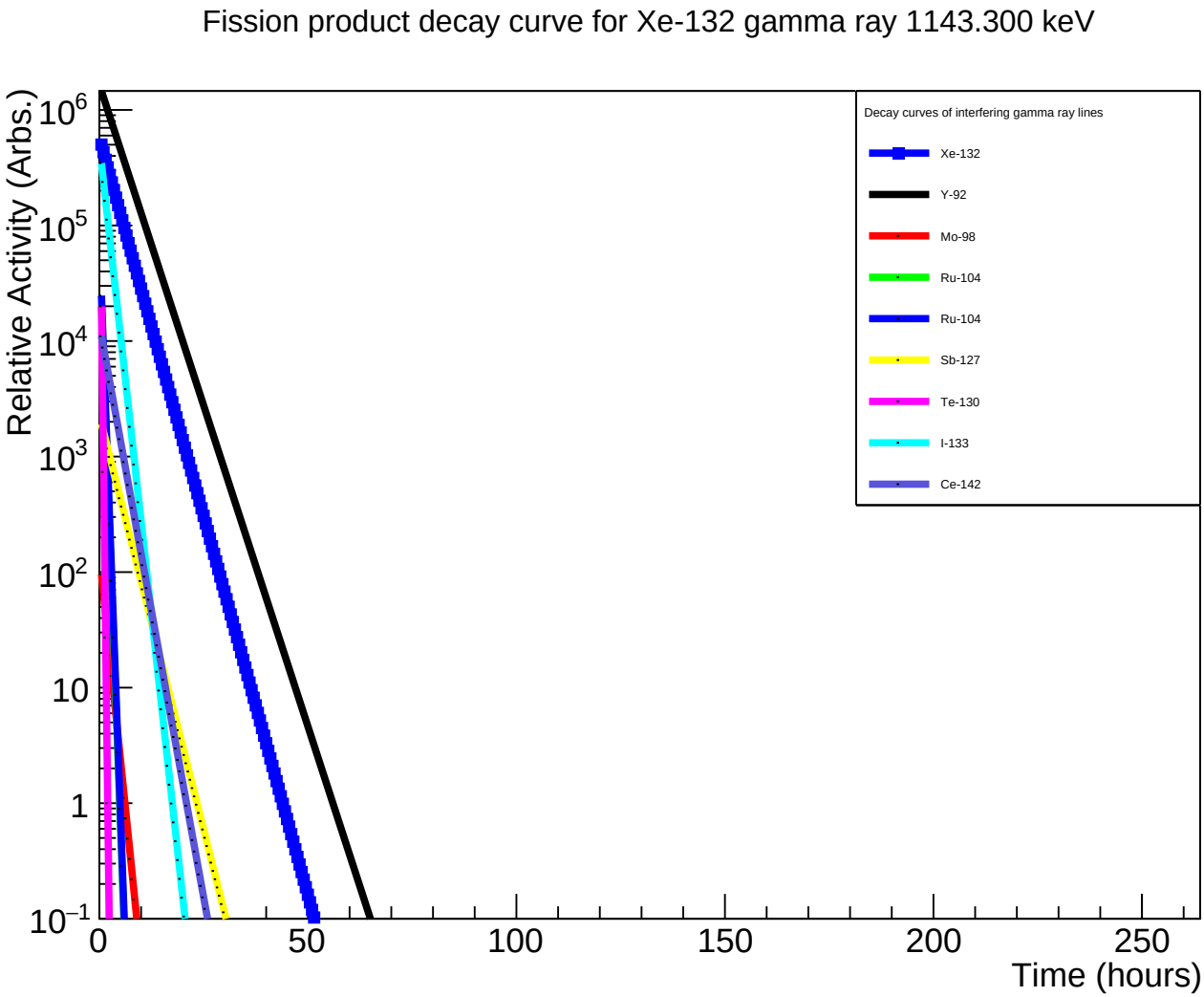


Figure 821: Xe-132 decay curve for 1143.300 keV gamma ray.

3.822 I-132 E_γ = 1172.90 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1172.90 keV
Gamma Intensity = 1.09 ± 0.069 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1643: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1644: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1173.750	0.006	0.172	0.064
Ru-105	Rh-105	1172.580	0.000	4.440	0.010
Sn-125	Sb-125	1173.300	0.002	231.360	0.000
Te-133	I-133	1174.000	0.004	0.923	0.040
Ba-141	La-141	1173.100	0.002	0.304	0.058
La-143	Ce-143	1172.000	0.001	0.237	0.059
Nd-149	Pm-149	1171.970	0.000	1.728	0.011
Nd-149	Pm-149	1172.760	0.000	1.728	0.011
Nd-151	Pm-151	1172.530	0.001	0.207	0.004

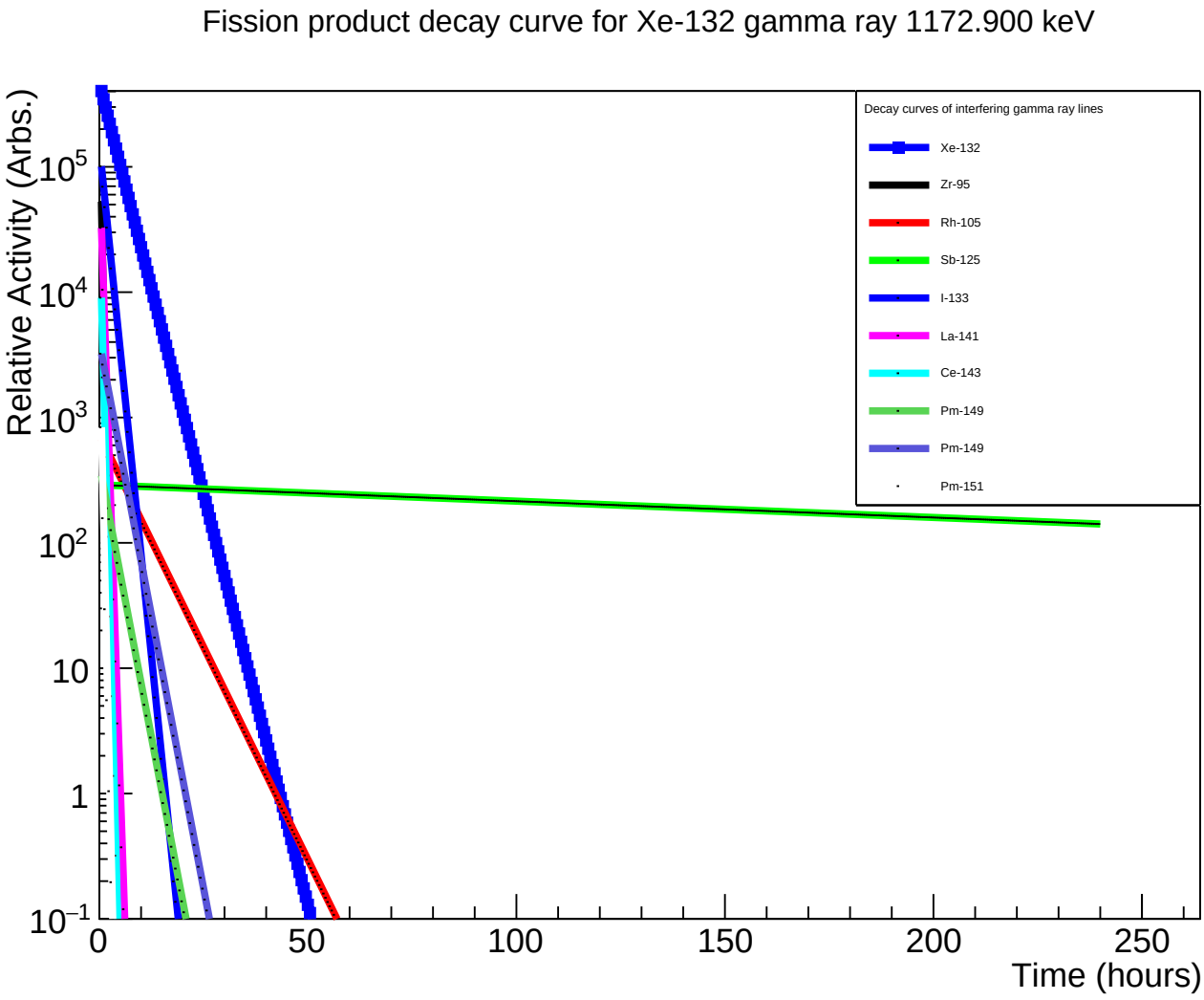


Figure 822: Xe-132 decay curve for 1172.900 keV gamma ray.

3.823 I-132 E_γ = 1290.80 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1290.80 keV
Gamma Intensity = 1.13 ± 0.049 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1645: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1646: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1290.600	0.001	1.512	0.000
Nb-98	Mo-98	1289.980	0.001	0.855	0.000
Nb-98	Mo-98	1291.400	0.001	0.855	0.000
Mo-101	Tc-101	1290.700	0.001	0.243	0.052
Sn-127	Sb-127	1292.100	0.008	2.100	0.001
Sb-127	Te-127	1290.300	0.004	92.400	0.002
Sb-130	Te-130	1292.300	0.037	0.658	0.008
Te-129	I-129	1291.500	0.000	1.160	0.005
Te-133	I-133	1290.000	0.000	0.208	0.031
Nd-149	Pm-149	1290.110	0.000	1.728	0.011

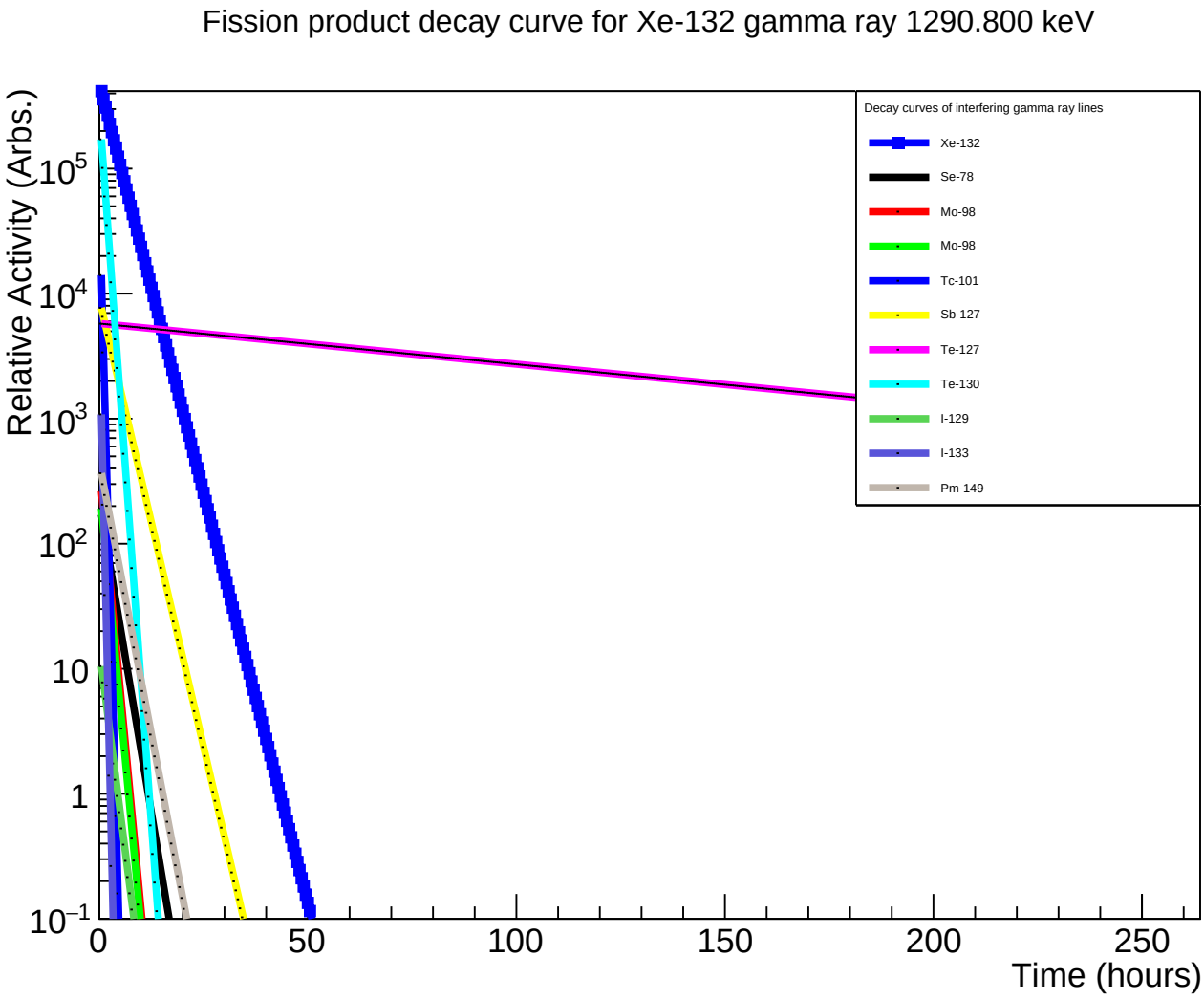


Figure 823: Xe-132 decay curve for 1290.800 keV gamma ray.

3.824 I-132 E_γ = 1295.10 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1295.10 keV
Gamma Intensity = 1.88 ± 0.069 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1647: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1648: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1293.800	0.017	0.372	0.003
Y-95	Zr-95	1293.600	0.002	0.172	0.064
Te-131	I-131	1294.340	0.005	0.417	0.025
Nd-151	Pm-151	1293.610	0.003	0.207	0.004
Nd-151	Pm-151	1296.400	0.001	0.207	0.004

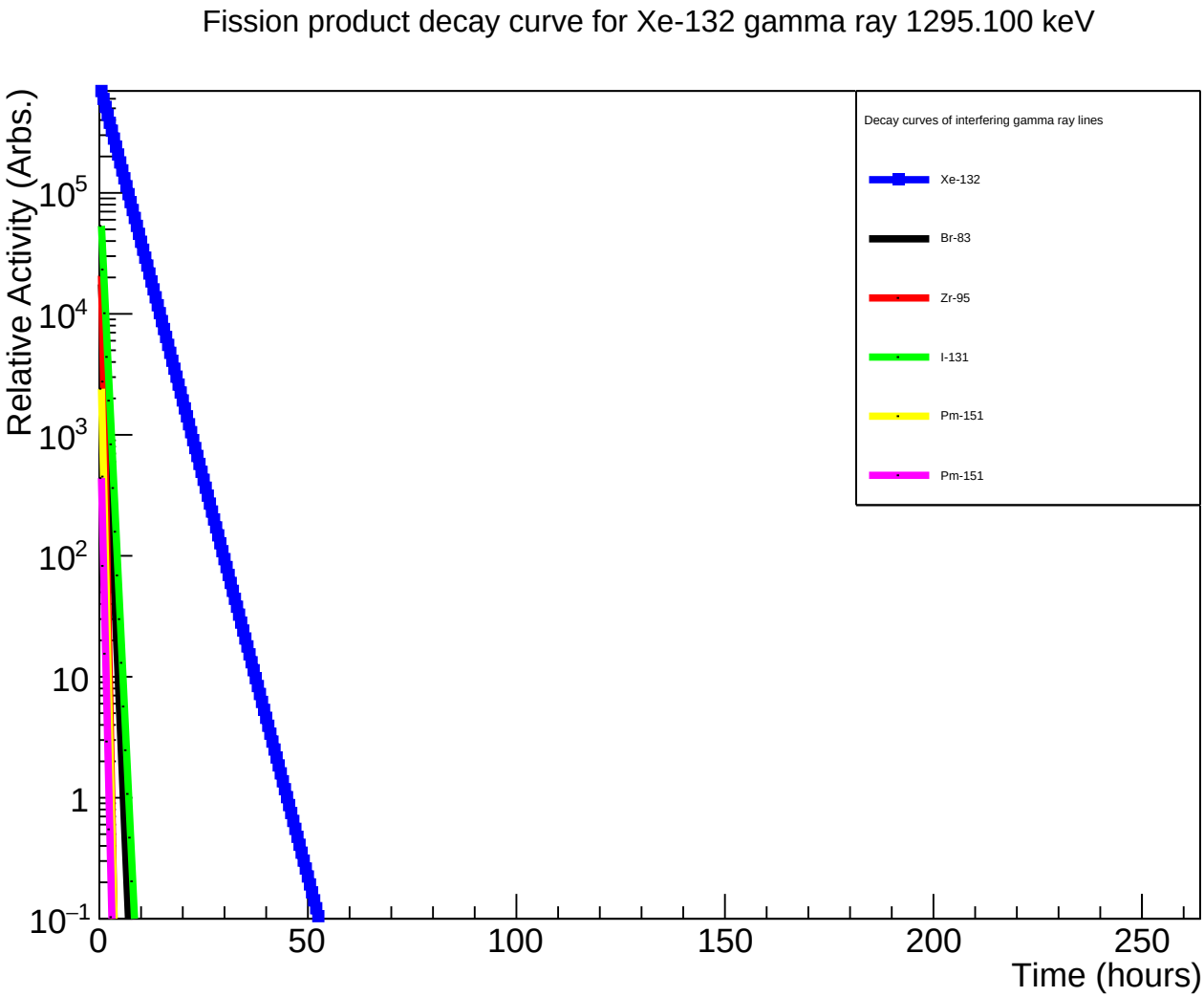


Figure 824: Xe-132 decay curve for 1295.100 keV gamma ray.

3.825 I-132 E_γ = 1372.07 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1372.07 keV
Gamma Intensity = 2.47 ± 0.099 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1649: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1650: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1373.500	0.048	1.512	0.000
Tc-105	Ru-105	1370.800	0.007	0.127	0.010
Te-133	I-133	1371.700	0.000	0.208	0.031
Te-133	I-133	1372.300	0.003	0.923	0.040
Ba-141	La-141	1373.100	0.001	0.304	0.058
La-142	Ce-142	1372.900	0.000	1.518	0.058
Nd-151	Pm-151	1371.400	0.000	0.207	0.004

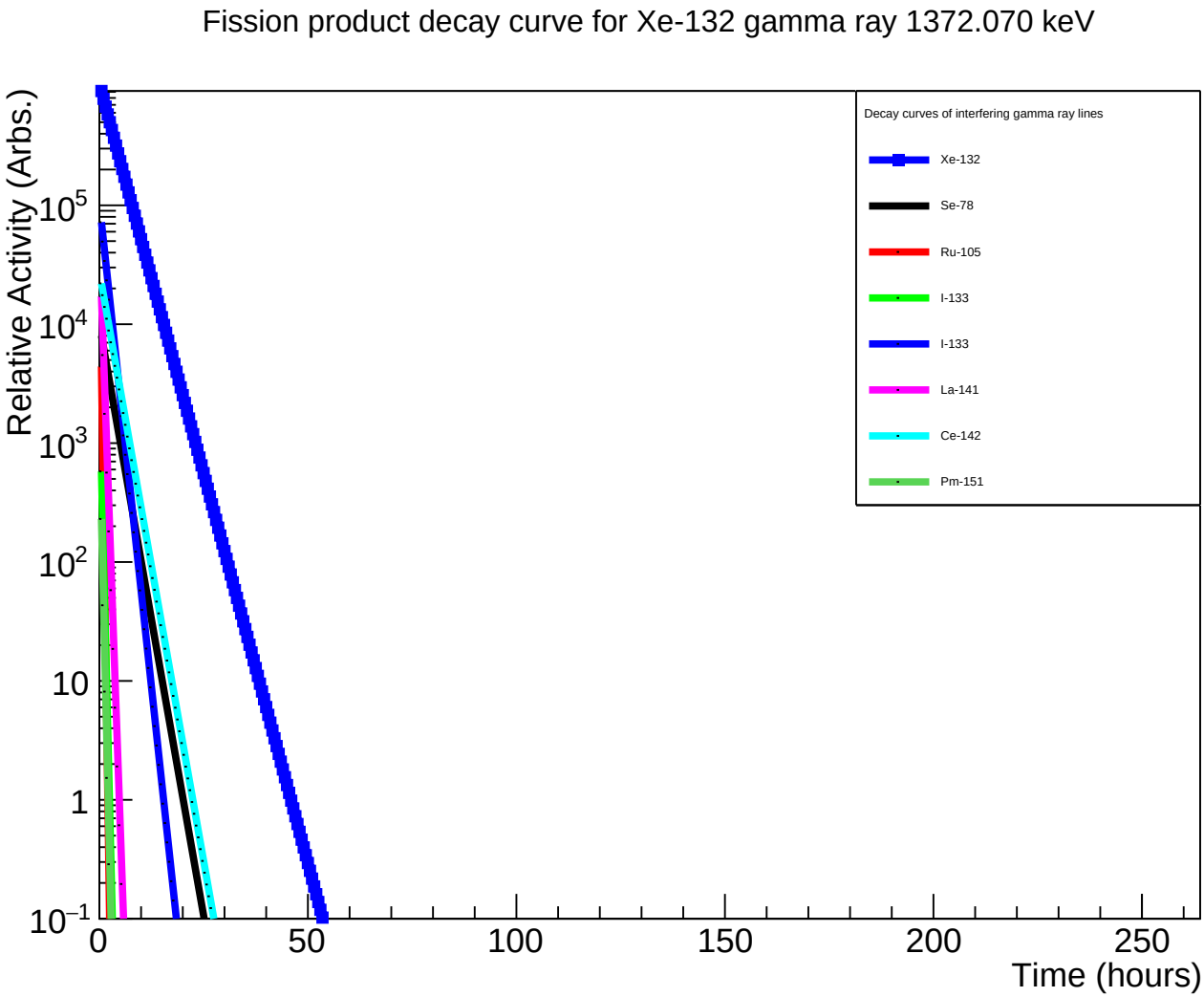


Figure 825: Xe-132 decay curve for 1372.070 keV gamma ray.

3.826 I-132 E_γ = 1398.57 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1398.57 keV
Gamma Intensity = 7.01 ± 0.197 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1651: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1652: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1399.830	0.001	0.855	0.000
Ag-112	Cd-112	1397.400	0.000	3.130	0.000
Sb-131	Te-131	1398.900	0.014	0.384	0.026
Pr-147	Nd-147	1398.000	0.001	0.223	0.022

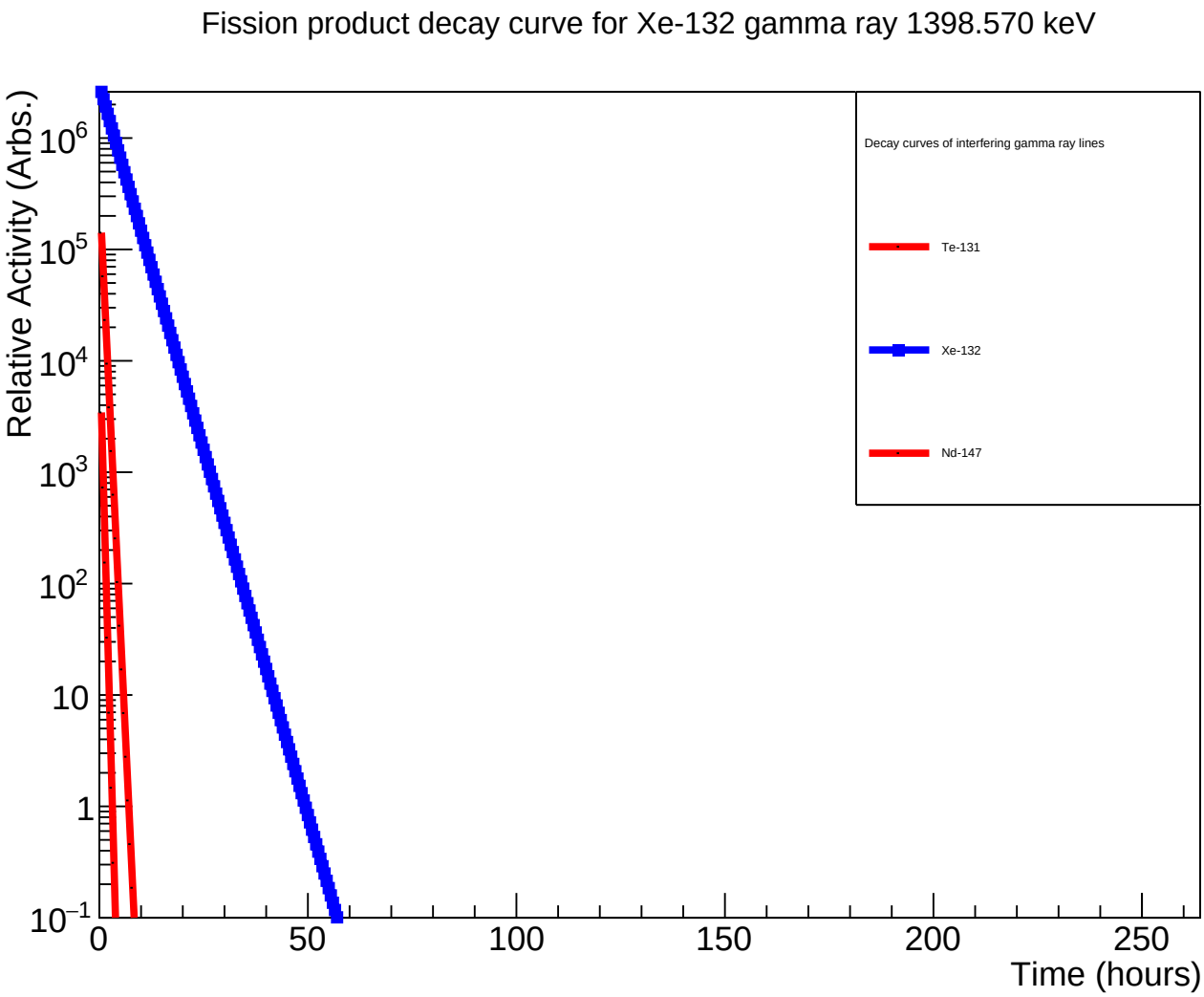


Figure 826: Xe-132 decay curve for 1398.570 keV gamma ray.

3.827 I-132 E_γ = 1442.56 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1442.56 keV
Gamma Intensity = 1.40 ± 0.049 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1653: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1654: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1442.600	0.001	0.855	0.000
Ru-105	Rh-105	1441.200	0.000	4.440	0.010
Sb-130	Te-130	1443.700	0.025	0.658	0.008
Nd-151	Pm-151	1442.400	0.000	0.207	0.004

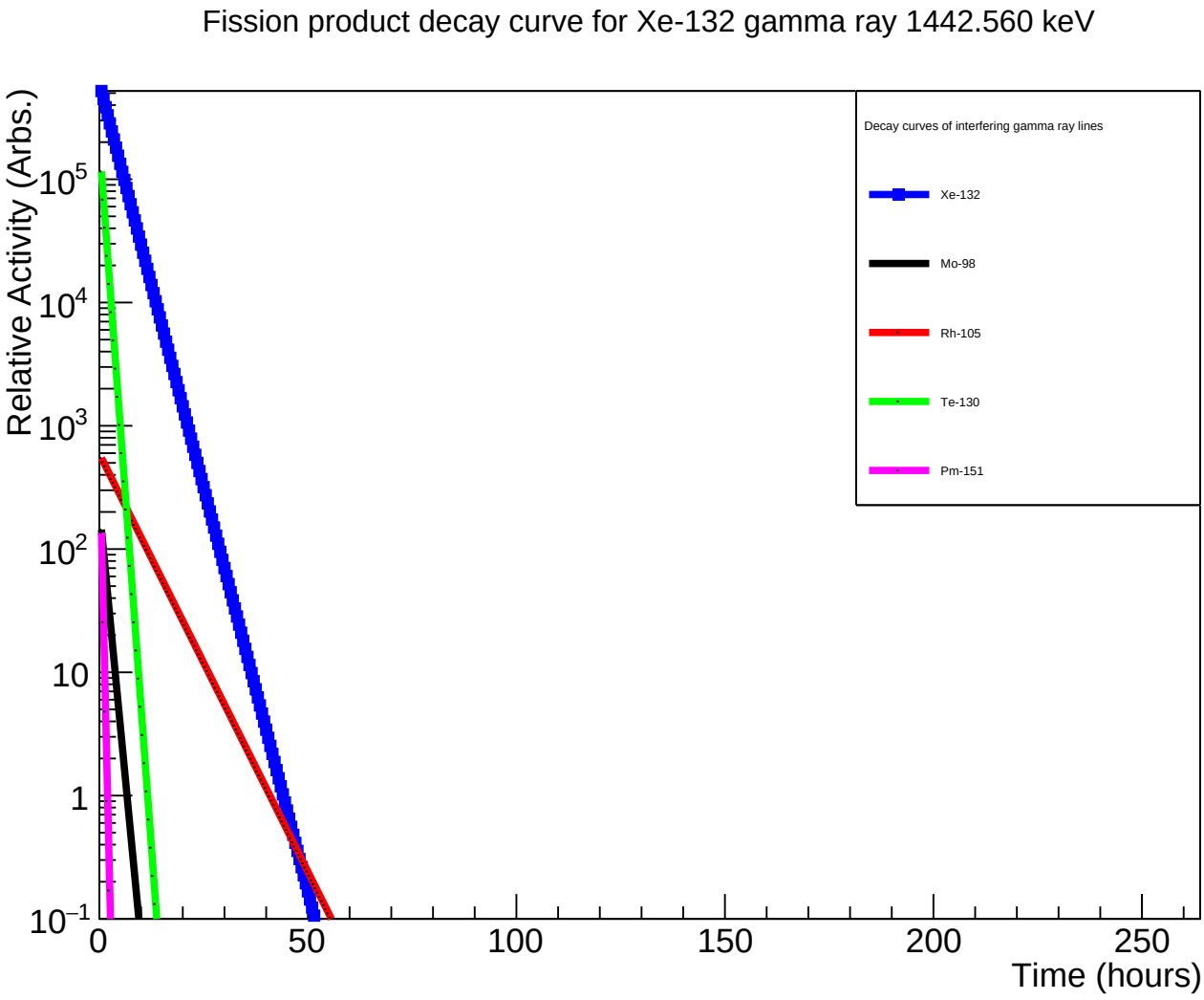


Figure 827: Xe-132 decay curve for 1442.560 keV gamma ray.

3.828 I-132 E_γ = 1921.08 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 1921.08 keV
Gamma Intensity = 1.23 ± 0.059 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1655: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1656: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1921.000	0.008	1.512	0.000
Mo-101	Tc-101	1921.400	0.001	0.243	0.052
Ba-139	La-139	1920.600	0.000	1.384	0.064
Pr-146	Nd-146	1920.900	0.001	0.403	0.030

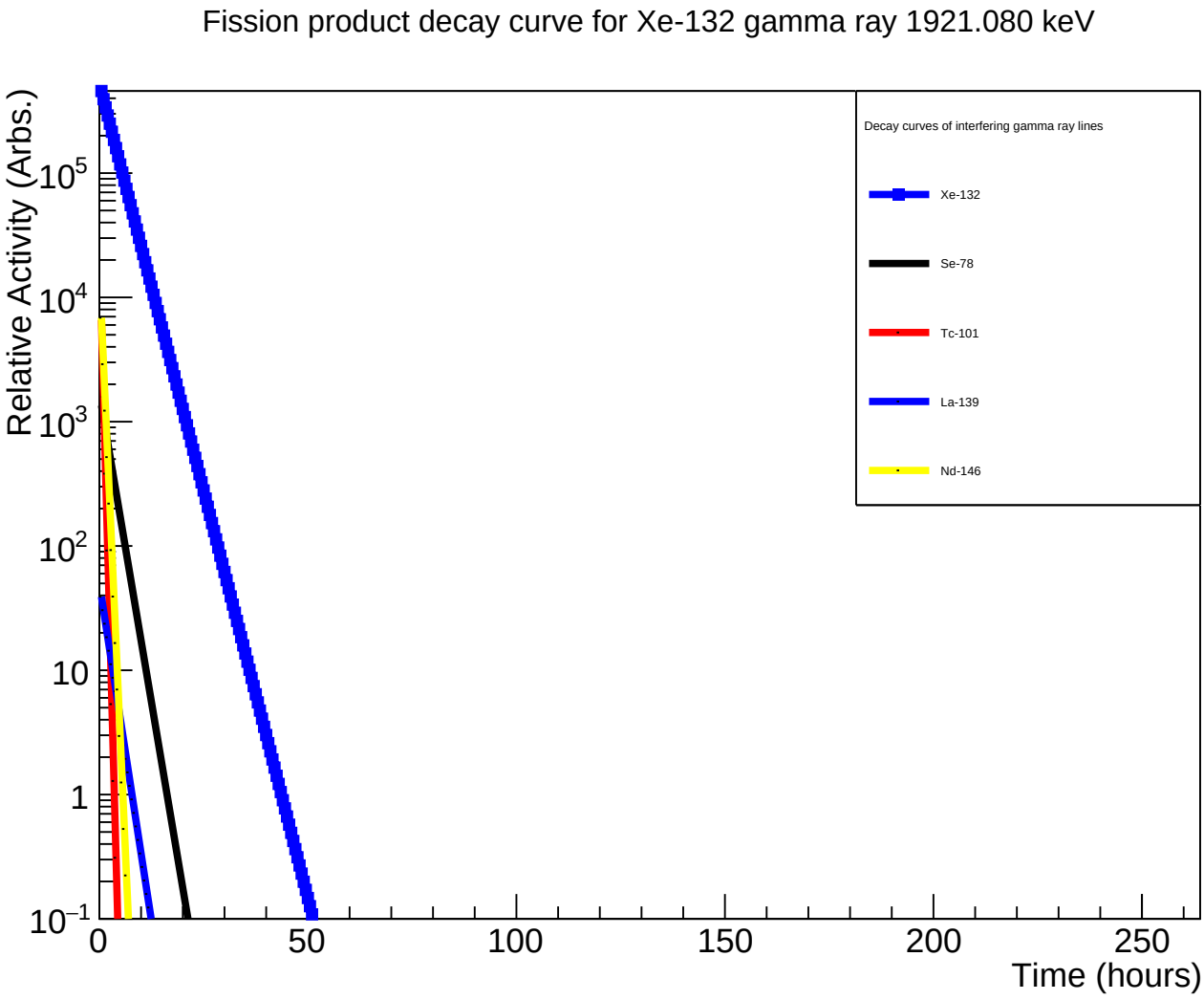


Figure 828: Xe-132 decay curve for 1921.080 keV gamma ray.

3.829 I-132 E_γ = 2002.20 keV

Chemical element: Iodine
Fission product parent: I-132
Gamma originates in daughter: Xe-132
Eγ: 2002.20 keV
Gamma Intensity = 1.14 ± 0.079 %
$T_{1/2}$ = 2.295 ± 0.013 hours or 137.70 ± 0.78 minutes
CFY: 4.312 ± 2.760 %

Table 1657: Decay chain of fission product chain A = 132

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Indium-132	Tin-132	0.000	0.000
Tin-132	Antimony-132	0.011	0.000
Antimony-132	Tellurium-132	0.046	0.001
Tellurium-132	Iodine-132	76.896	0.312
Iodine-132	Xenon-132	1.387	0.015

Table 1658: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	2002.134	0.019	231.360	0.000
Sn-127	Sb-127	2003.400	0.053	2.100	0.001
Te-131	I-131	2000.940	0.019	33.250	0.004
Cs-139	Ba-139	2003.400	0.000	0.155	0.063

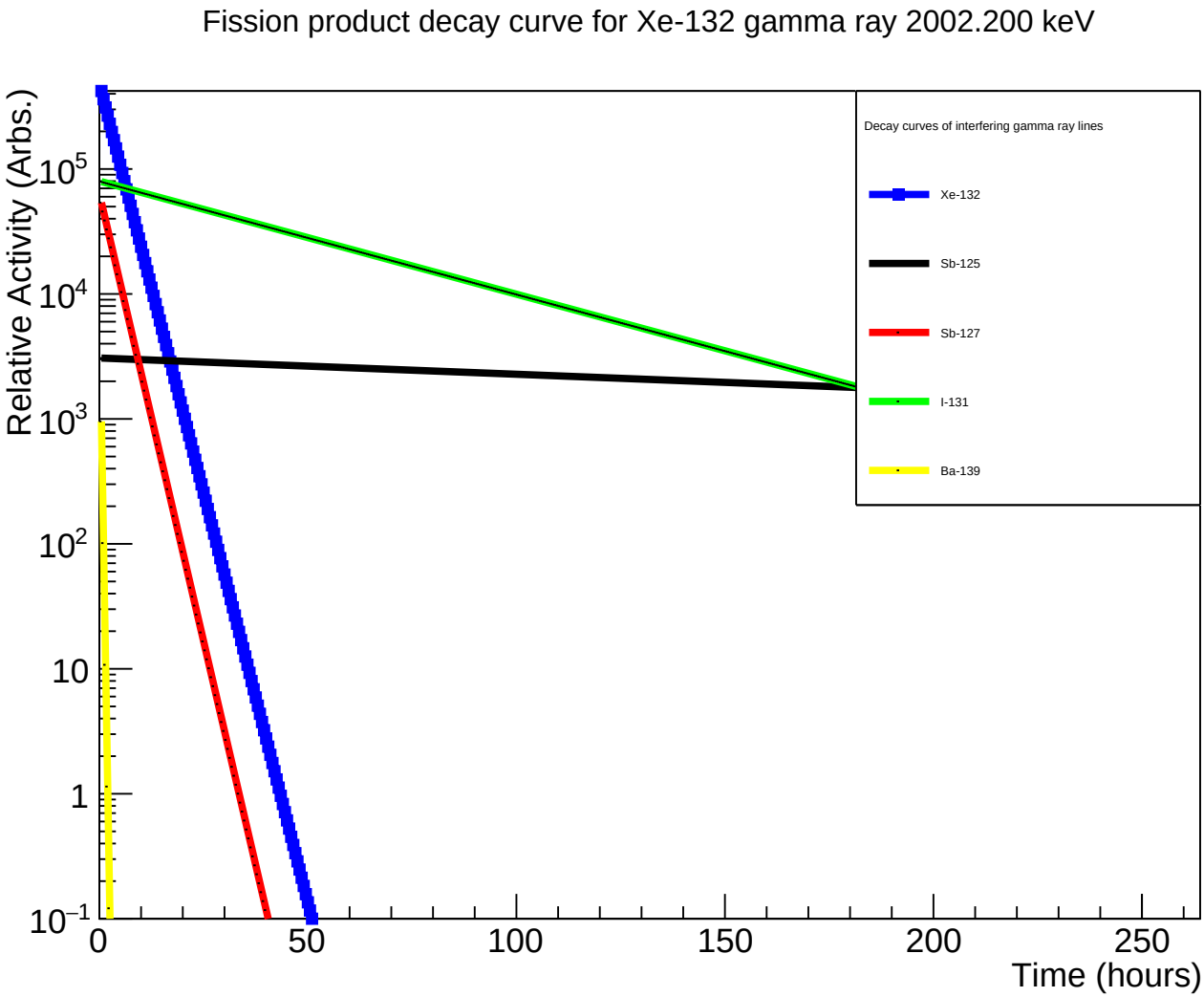


Figure 829: Xe-132 decay curve for 2002.200 keV gamma ray.

3.830 I-133 E_γ = 510.53 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 510.53 keV
Gamma Intensity = 1.83 ± 0.061 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1659: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1660: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	510.060	0.427	0.372	0.003
Kr-87	Rb-87	510.780	0.001	1.272	0.026
Nb-98	Mo-98	512.000	0.006	0.855	0.000
Mo-101	Tc-101	510.210	0.002	0.243	0.052
Tc-104	Ru-104	511.600	0.001	0.305	0.019
Rh-107	Pd-107	511.700	0.000	0.362	0.001
Pd-111	Ag-111	509.100	0.004	0.390	0.000
Ag-111	Cd-111	509.400	0.000	178.800	0.000
Sn-127	Sb-127	509.700	0.008	2.100	0.001
Ba-141	La-141	510.300	0.001	0.304	0.058
Nd-149	Pm-149	510.300	0.001	1.728	0.011
Pm-151	Sm-151	510.100	0.000	28.400	0.004
Sm-153	Eu-153	509.150	0.000	46.500	0.002
Sm-155	Eu-155	510.200	0.000	0.372	0.000

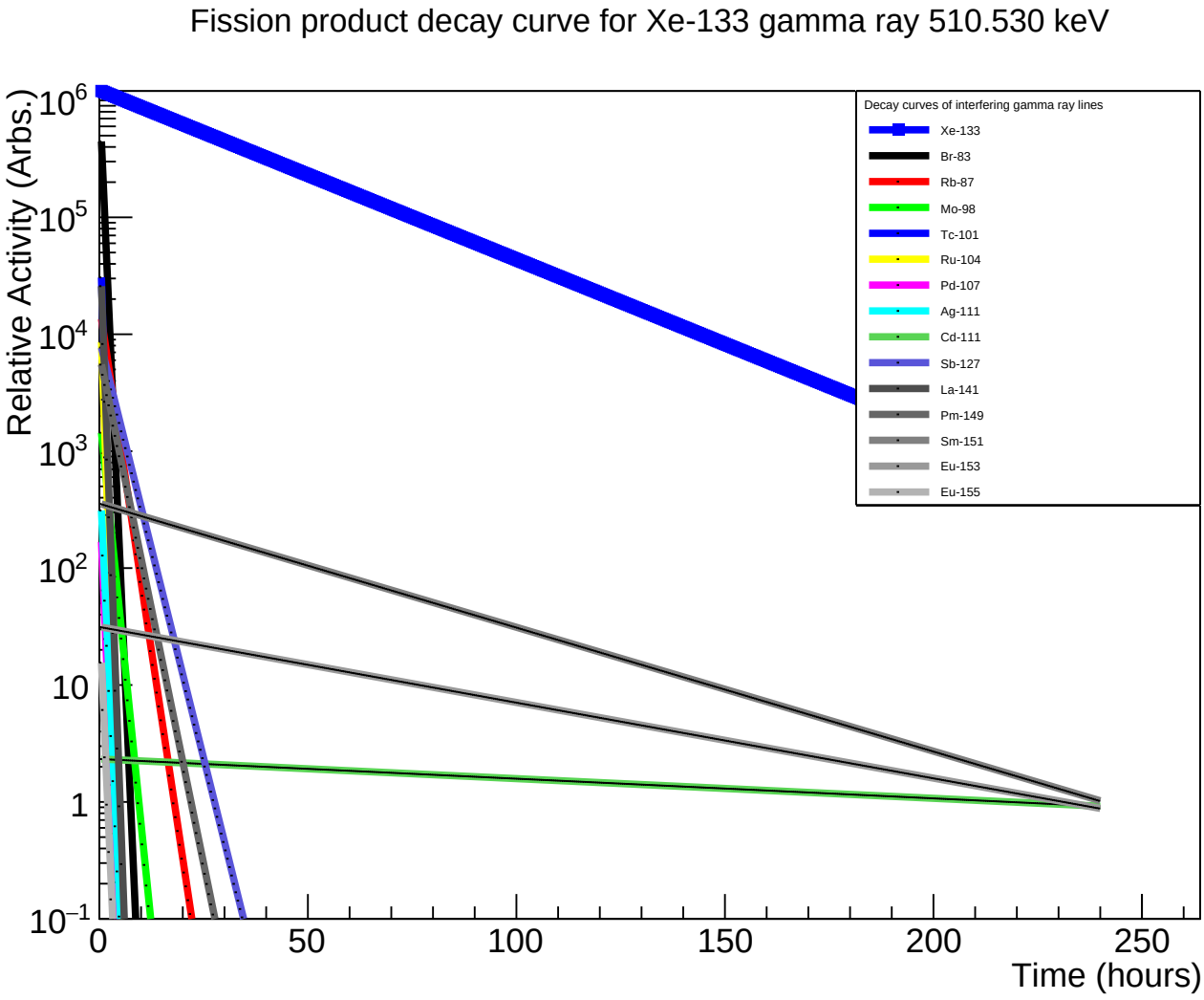


Figure 830: Xe-133 decay curve for 510.530 keV gamma ray.

3.831 I-133 E_γ = 529.87 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 529.87 keV
Gamma Intensity = 87.00 ± 2.651 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1661: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1662: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	529.640	0.012	2.400	0.005
Nb-98	Mo-98	530.420	0.001	0.855	0.000
Mo-99	Tc-99	528.788	0.001	65.976	0.061
Tc-104	Ru-104	530.500	0.156	0.305	0.019
Sn-127	Sb-127	528.500	0.001	2.100	0.001
Sn-127	Sb-127	530.600	0.001	2.100	0.001
Te-131	I-131	530.700	0.001	33.250	0.004
Xe-138	Cs-138	530.070	0.003	0.235	0.063
La-142	Ce-142	529.400	0.000	1.518	0.058
Nd-147	Pm-147	531.016	0.134	263.520	0.022
Pm-149	Sm-149	528.600	0.000	53.080	0.011

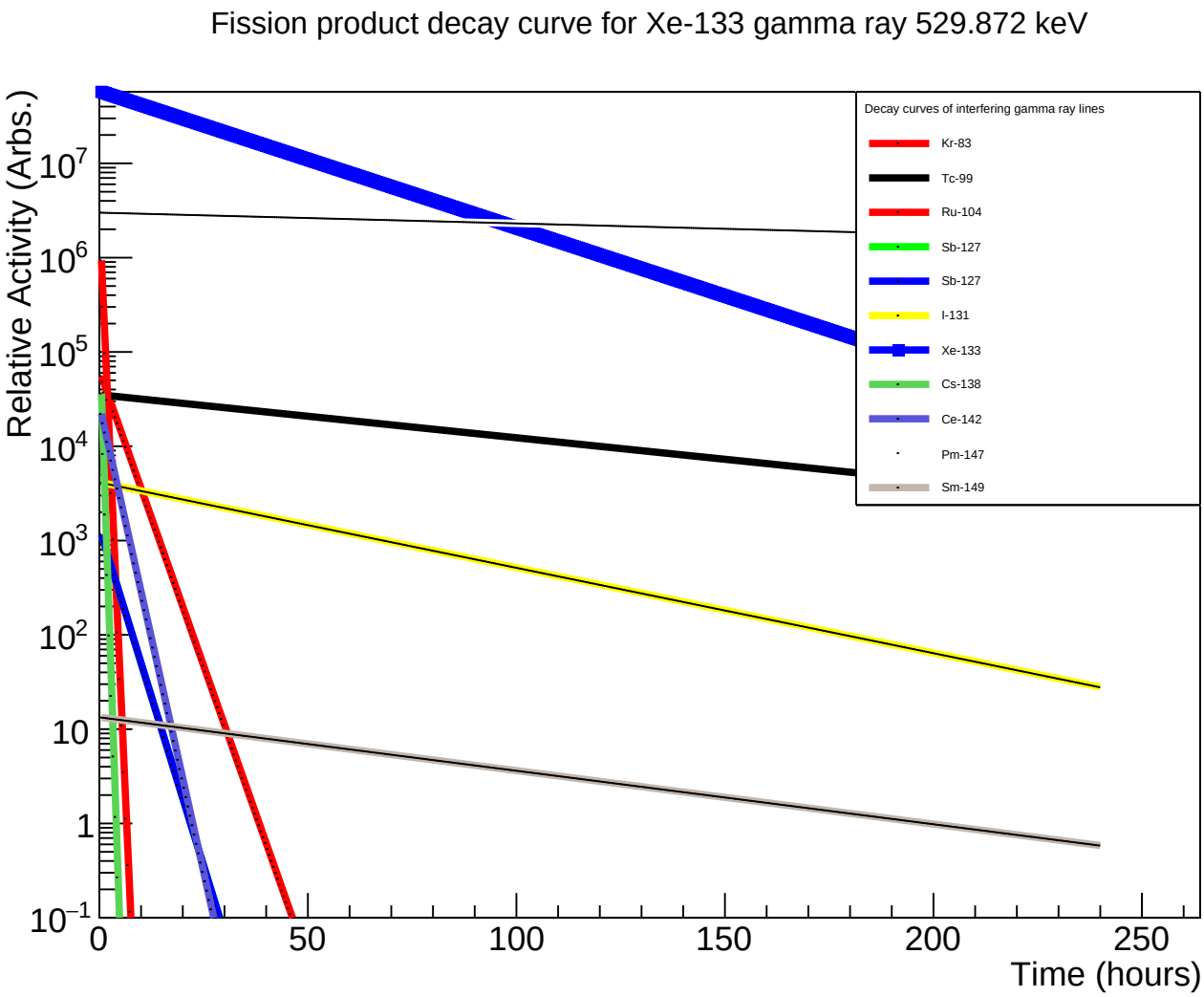


Figure 831: Xe-133 decay curve for 529.872 keV gamma ray.

3.832 I-133 E_γ = 706.58 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 706.58 keV
Gamma Intensity = 1.51 ± 0.049 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1663: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1664: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	706.200	0.004	0.372	0.003
Zr-97	Nb-97	707.400	0.000	16.749	0.060
Nb-98	Mo-98	705.500	0.000	0.855	0.000
Mo-101	Tc-101	707.800	0.001	0.243	0.052
Ru-105	Rh-105	707.000	0.000	4.440	0.010
Pd-109	Ag-109	707.000	0.000	13.701	0.000
Cd-115	In-115	705.180	0.000	53.460	0.000
Te-129	I-129	705.520	0.000	806.400	0.001
Pr-145	Nd-145	707.949	0.000	5.984	0.039
Pr-147	Nd-147	706.800	0.005	0.223	0.022
Nd-151	Pm-151	705.850	0.001	0.207	0.004
Sm-153	Eu-153	706.800	0.000	46.500	0.002
Eu-156	Gd-156	707.100	0.001	364.560	0.000

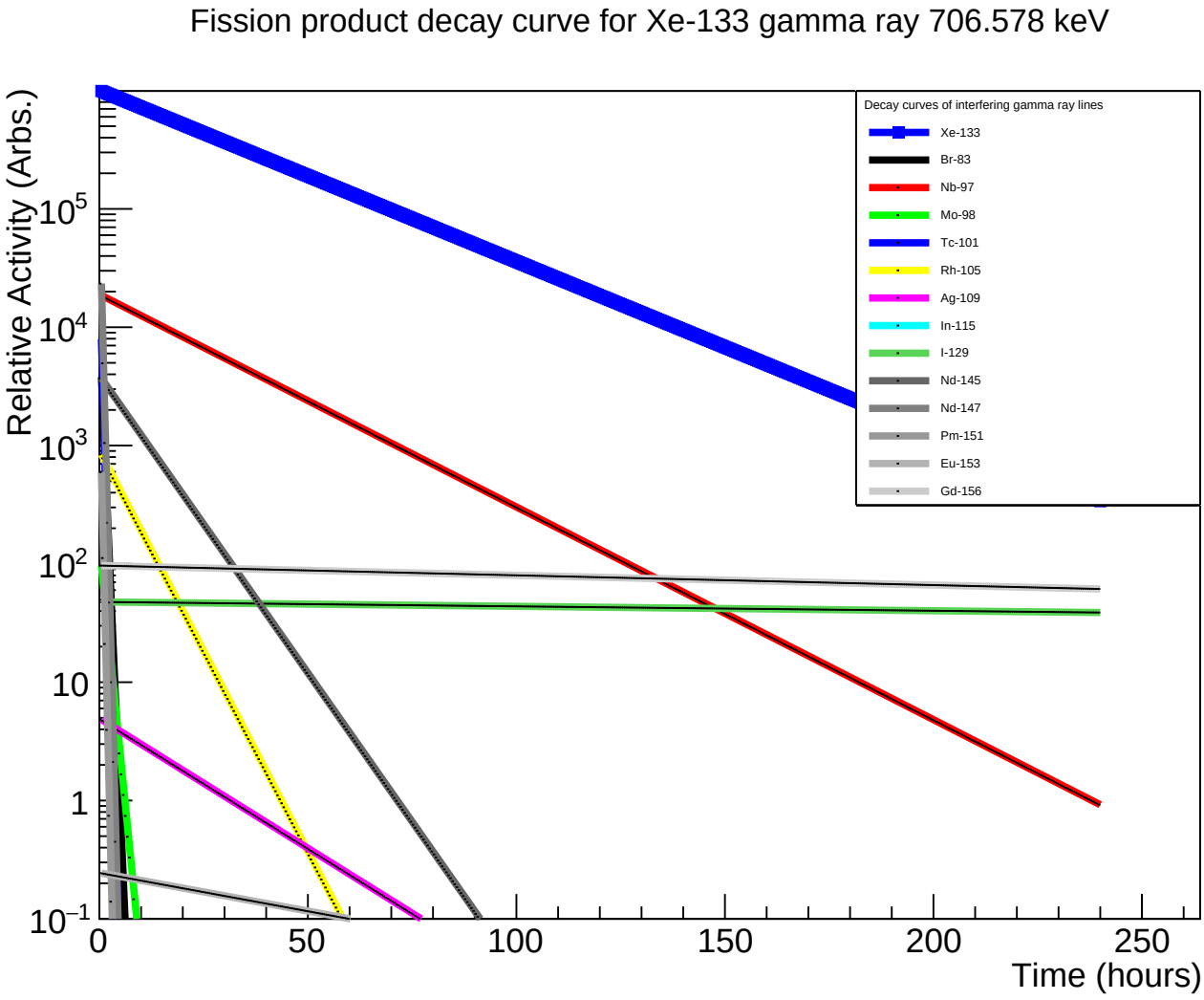


Figure 832: Xe-133 decay curve for 706.578 keV gamma ray.

3.833 I-133 E_γ = 856.28 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 856.28 keV
Gamma Intensity = 1.24 ± 0.045 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1665: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1666: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	854.890	0.004	16.749	0.060
Nb-97	Mo-97	857.460	0.000	1.202	0.060
Cd-115	In-115	856.245	0.000	53.460	0.000
Sb-130	Te-130	855.700	0.016	0.658	0.008
Te-131	I-131	856.080	0.001	0.417	0.025
Te-131	I-131	856.050	0.006	33.250	0.004
Cs-138	Ba-138	855.600	0.000	0.557	0.067
Pm-151	Sm-151	856.200	0.000	28.400	0.004

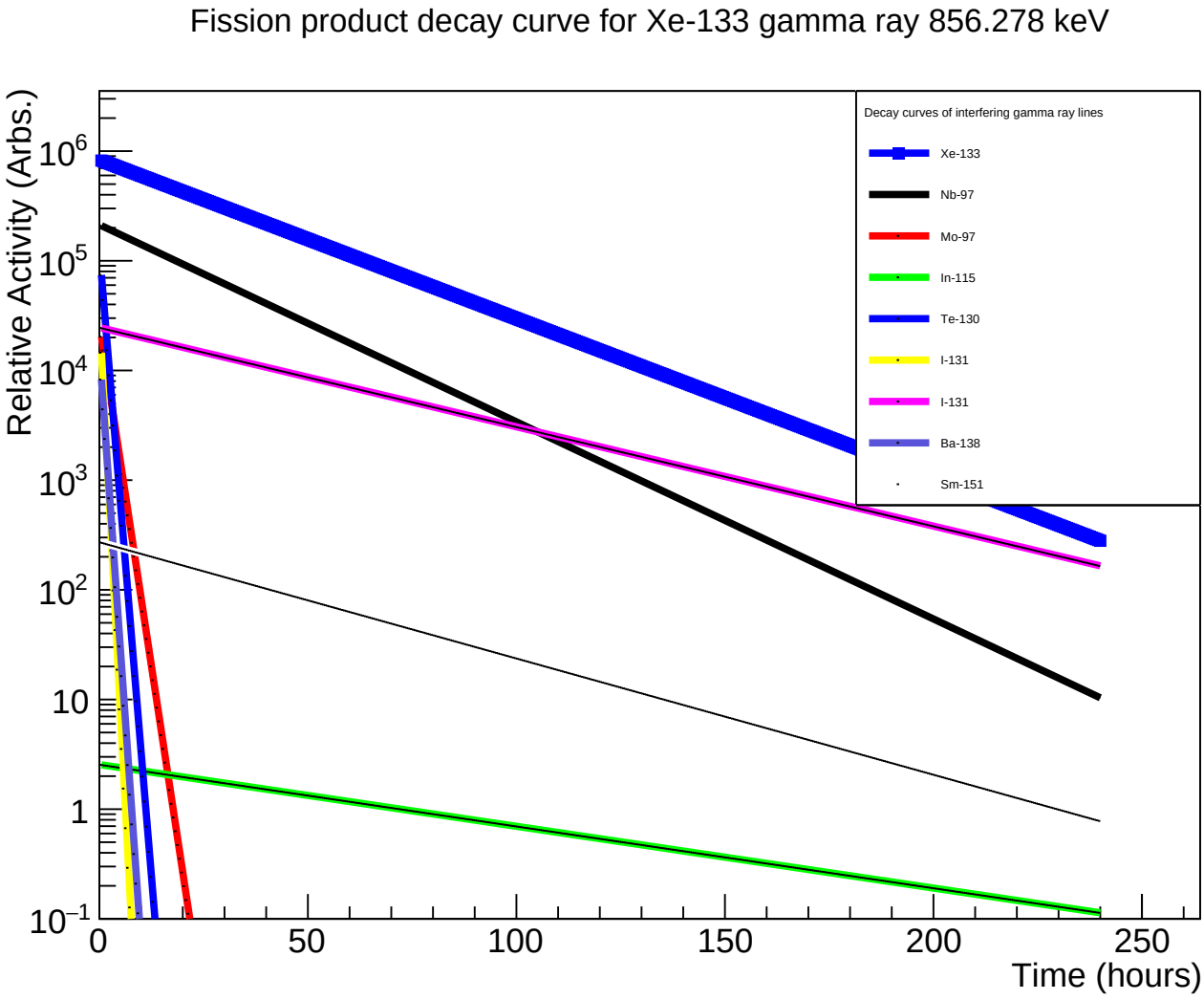


Figure 833: Xe-133 decay curve for 856.278 keV gamma ray.

3.834 I-133 E_γ = 875.33 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 875.33 keV
Gamma Intensity = 4.51 ± 0.141 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1667: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1668: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	875.730	0.245	0.124	0.062
Ru-105	Rh-105	875.850	0.025	4.440	0.010
Sb-129	Te-129	876.200	0.026	4.400	0.005
Ba-141	La-141	876.300	0.037	0.304	0.058
Nd-149	Pm-149	874.000	0.000	1.728	0.011
Nd-151	Pm-151	874.500	0.001	0.207	0.004
Nd-151	Pm-151	876.390	0.004	0.207	0.004

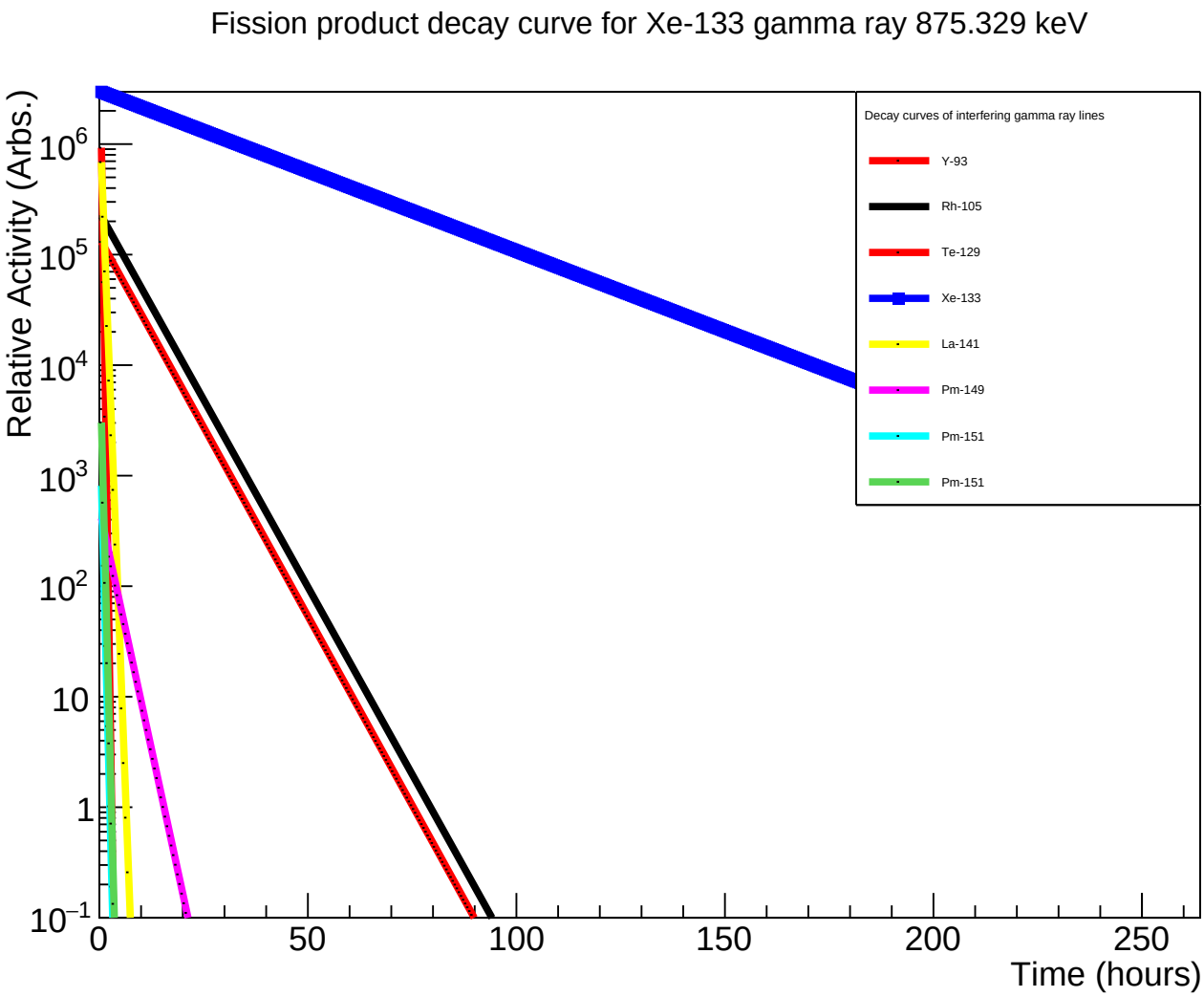


Figure 834: Xe-133 decay curve for 875.329 keV gamma ray.

3.835 I-133 E_γ = 1236.44 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 1236.44 keV
Gamma Intensity = 1.51 ± 0.049 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1669: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1670: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1237.400	0.000	10.180	0.063
Y-94	Zr-94	1236.600	0.001	0.312	0.065
Sn-127	Sb-127	1237.400	0.001	2.100	0.001
Sb-129	Te-129	1237.400	0.003	4.400	0.005
Te-131	I-131	1237.320	0.006	33.250	0.004
Ba-141	La-141	1236.000	0.002	0.304	0.058
Pr-146	Nd-146	1235.100	0.004	0.403	0.030

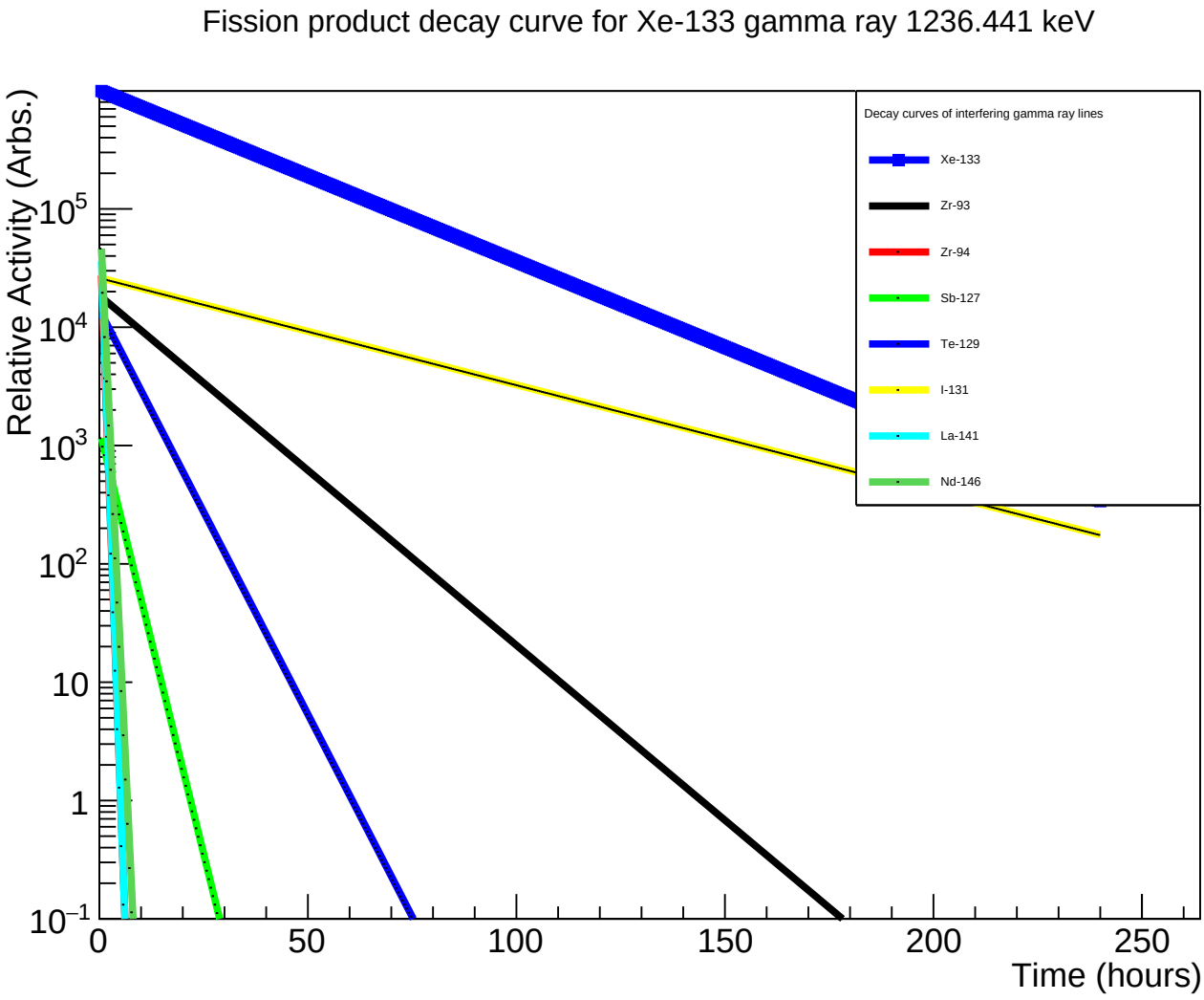


Figure 835: Xe-133 decay curve for 1236.441 keV gamma ray.

3.836 I-133 E_γ = 1298.22 keV

Chemical element: Iodine
Fission product parent: I-133
Gamma originates in daughter: Xe-133
Eγ: 1298.22 keV
Gamma Intensity = 2.35 ± 0.075 %
$T_{1/2}$ = 20.800 ± 0.100 hours or 1248.00 ± 6.00 minutes
CFY: 6.697 ± 4.286 %

Table 1671: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1672: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1299.150	0.052	0.372	0.003
Kr-88	Rb-88	1298.780	0.001	2.840	0.036
Te-131	I-131	1297.980	0.000	0.417	0.025
Nd-149	Pm-149	1298.320	0.000	1.728	0.011
Nd-151	Pm-151	1297.610	0.002	0.207	0.004

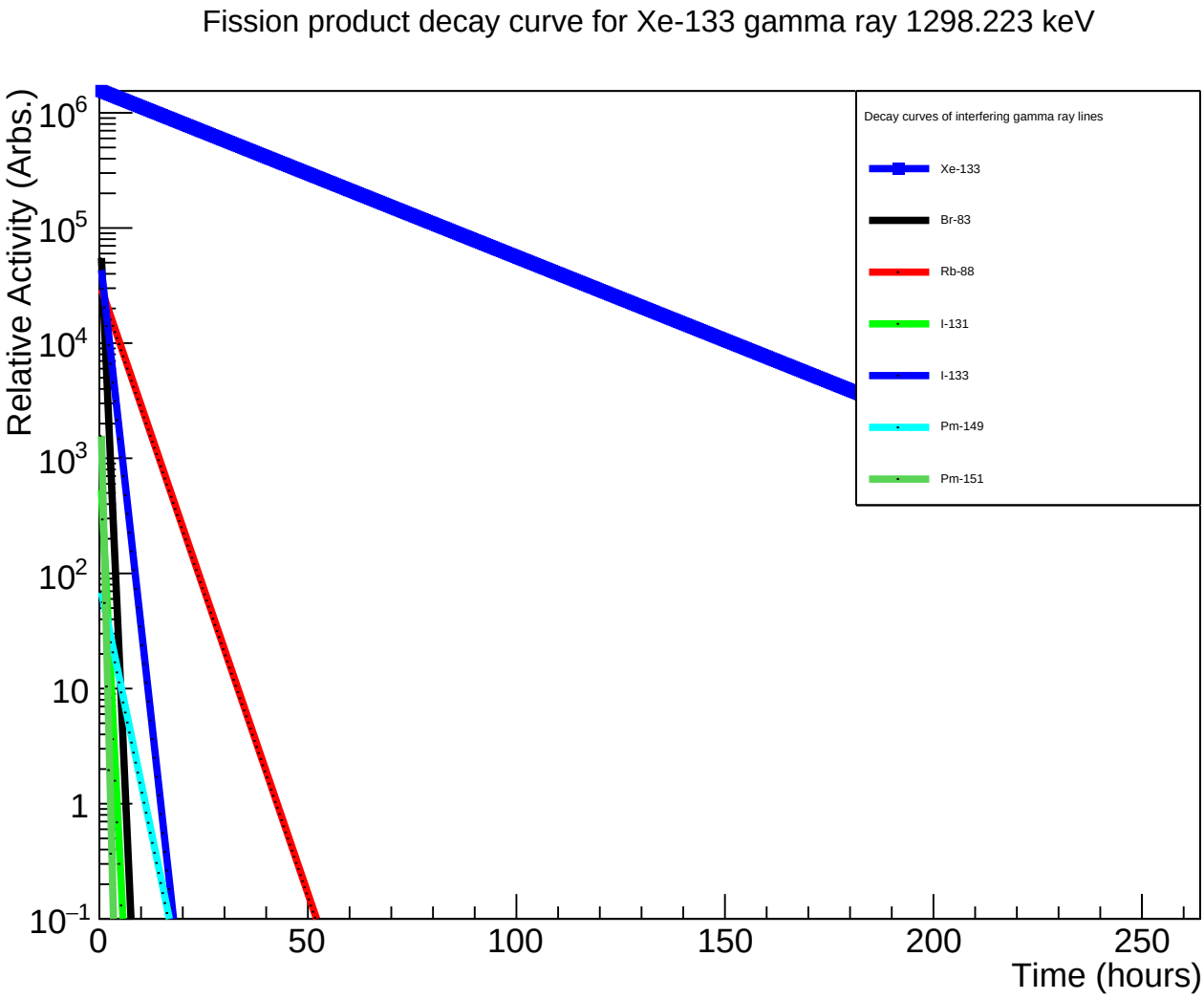


Figure 836: Xe-133 decay curve for 1298.223 keV gamma ray.

3.837 I-134 E_γ = 135.40 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 135.40 keV
Gamma Intensity = 4.31 ± 0.298 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1673: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1674: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	136.020	0.002	0.188	0.043
Tc-104	Ru-104	135.300	0.002	0.305	0.019
Pd-109	Ag-109	134.200	0.000	13.701	0.000
Sb-131	Te-131	134.600	0.025	0.384	0.026
Te-131	I-131	134.860	0.007	33.250	0.004
Te-133	I-133	136.640	0.001	0.923	0.040
Pm-151	Sm-151	134.220	0.000	28.400	0.004
Pm-151	Sm-151	134.900	0.000	28.400	0.004

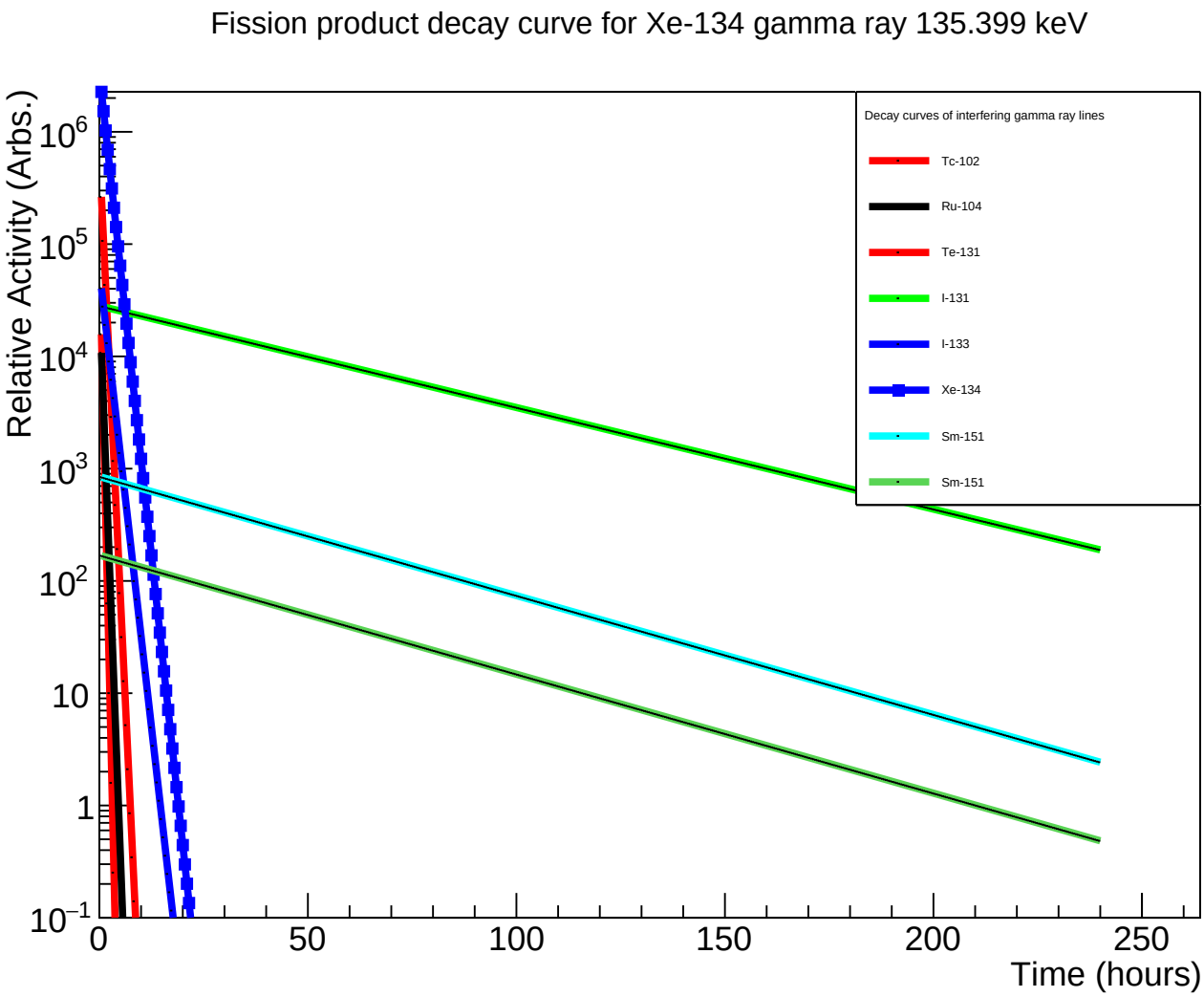


Figure 837: Xe-134 decay curve for 135.399 keV gamma ray.

3.838 I-134 E_γ = 235.47 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 235.47 keV
Gamma Intensity = 2.13 ± 0.158 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1675: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1676: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-95	Mo-95	235.690	0.248	86.640	0.001
Sn-127	Sb-127	234.300	0.005	2.100	0.001
Sn-127	Sb-127	235.300	0.003	2.100	0.001
Sn-129	Sb-129	236.700	0.028	0.115	0.002
Te-131	I-131	235.000	0.000	33.250	0.004
Te-133	I-133	235.000	0.002	0.923	0.040
Ba-141	La-141	234.900	0.001	0.304	0.058
Pm-151	Sm-151	236.200	0.001	28.400	0.004
Pm-151	Sm-151	236.600	0.002	28.400	0.004
Pm-151	Sm-151	236.700	0.002	28.400	0.004

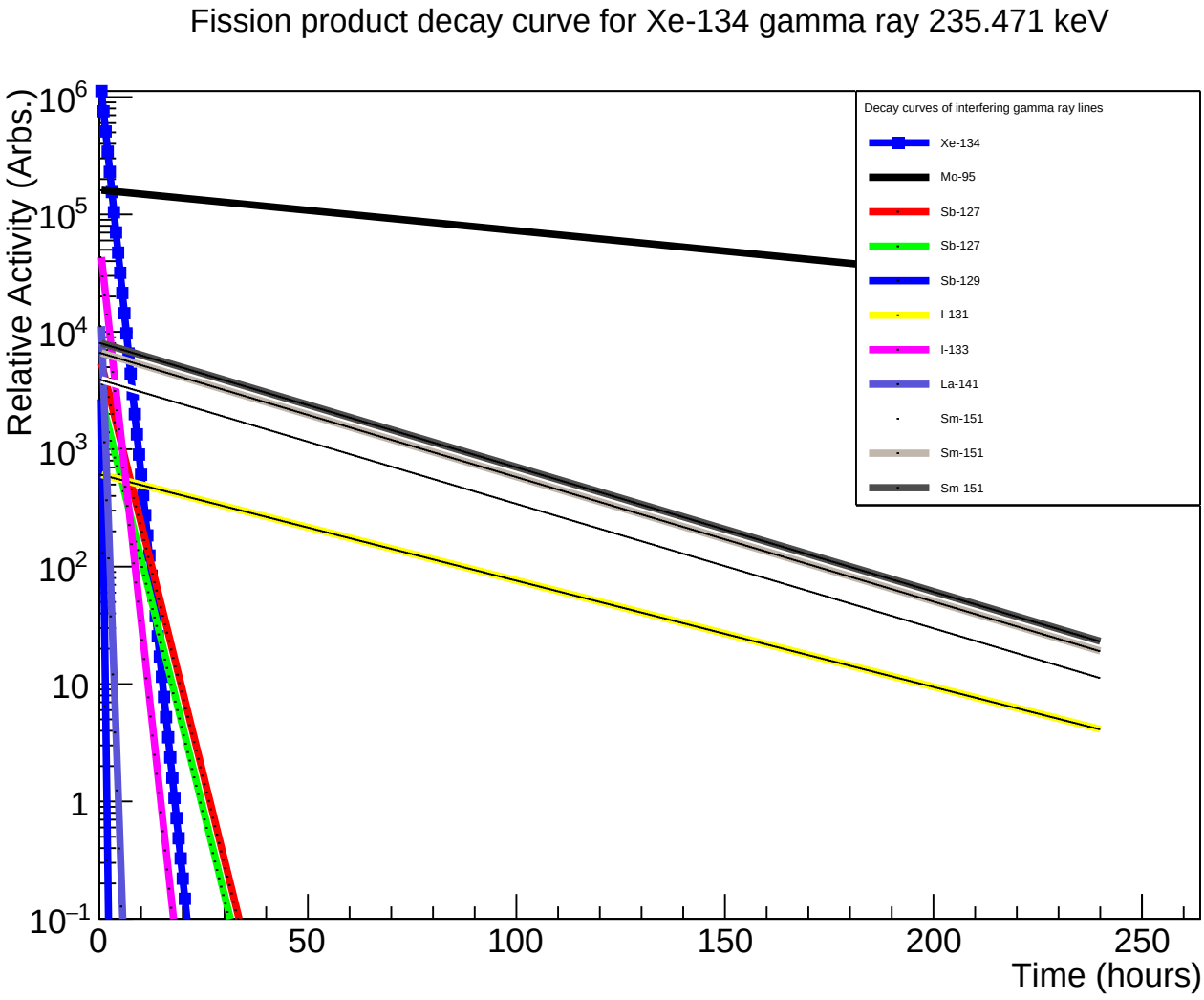


Figure 838: Xe-134 decay curve for 235.471 keV gamma ray.

3.839 I-134 E_γ = 405.45 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 405.45 keV
Gamma Intensity = 7.37 ± 0.236 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1677: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1678: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	406.710	0.004	0.124	0.062
Pd-111	Ag-111	404.800	0.001	0.390	0.000
Sn-127	Sb-127	405.000	0.005	2.100	0.001
Sn-128	Sb-128	404.400	0.059	0.984	0.003
Sb-128	Te-128	404.300	0.010	9.010	0.000
Sb-129	Te-129	405.000	0.014	4.400	0.005
Sb-130	Te-130	405.200	0.005	0.105	0.010
Te-133	I-133	404.850	0.003	0.208	0.031
Te-133	I-133	406.000	0.004	0.923	0.040
Cs-139	Ba-139	404.610	0.000	0.155	0.063
Nd-152	Pm-152	406.400	0.000	0.190	0.003
Pm-151	Sm-151	404.740	0.001	28.400	0.004

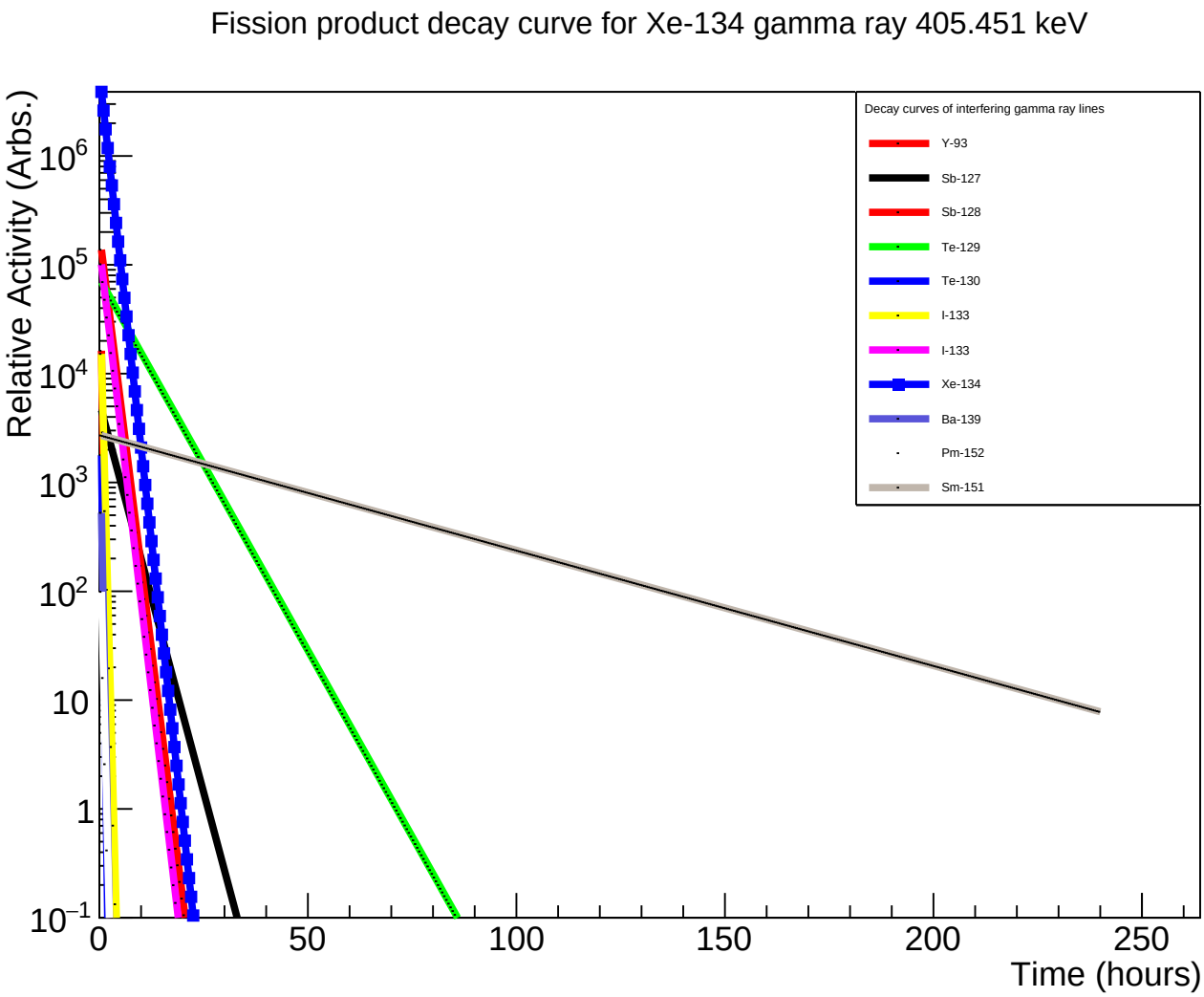


Figure 839: Xe-134 decay curve for 405.451 keV gamma ray.

3.840 I-134 E_γ = 433.35 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 433.35 keV
Gamma Intensity = 4.15 ± 0.163 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1679: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1680: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	432.000	0.015	0.150	0.000
Se-83	Br-83	433.000	0.002	0.372	0.003
Sr-93	Y-93	432.670	0.015	0.124	0.062
Y-95	Zr-95	432.000	0.016	0.172	0.064
Nb-98	Mo-98	434.260	0.011	0.855	0.000
Sn-125	Sb-125	434.130	0.000	231.360	0.000
Te-131	I-131	432.400	0.006	33.250	0.004
Xe-138	Cs-138	434.562	0.203	0.235	0.063
Cs-139	Ba-139	434.230	0.000	0.155	0.063
Ba-142	La-142	432.300	0.010	0.177	0.058
Ba-142	La-142	434.400	0.005	0.177	0.058
La-140	Ce-140	432.493	0.029	40.285	0.062
La-142	Ce-142	433.300	0.004	1.518	0.058
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011
Eu-156	Gd-156	434.400	0.002	364.560	0.000

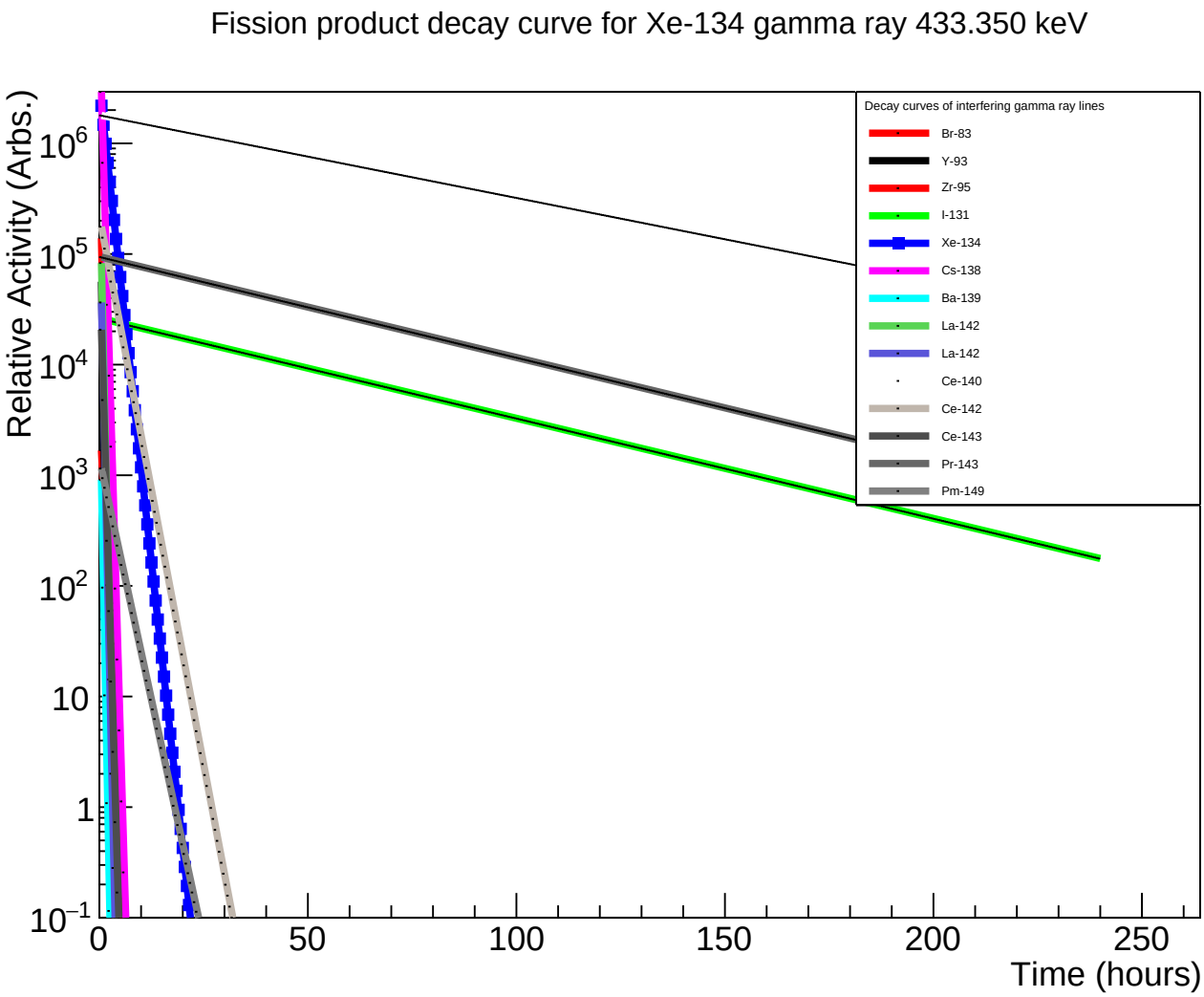


Figure 840: Xe-134 decay curve for 433.350 keV gamma ray.

3.841 I-134 E_γ = 458.92 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 458.92 keV
Gamma Intensity = 1.31 ± 0.062 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1681: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1682: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	457.600	0.000	65.976	0.061
Tc-104	Ru-104	459.600	0.001	0.305	0.019
Sb-128	Te-128	459.500	0.015	9.010	0.000
Te-129	I-129	459.600	0.077	1.160	0.005
Te-129	I-129	459.600	0.000	806.400	0.001
Te-133	I-133	458.000	0.001	0.923	0.040
Ba-141	La-141	457.800	0.050	0.304	0.058
Nd-151	Pm-151	459.800	0.000	0.207	0.004
Pm-151	Sm-151	457.500	0.000	28.400	0.004

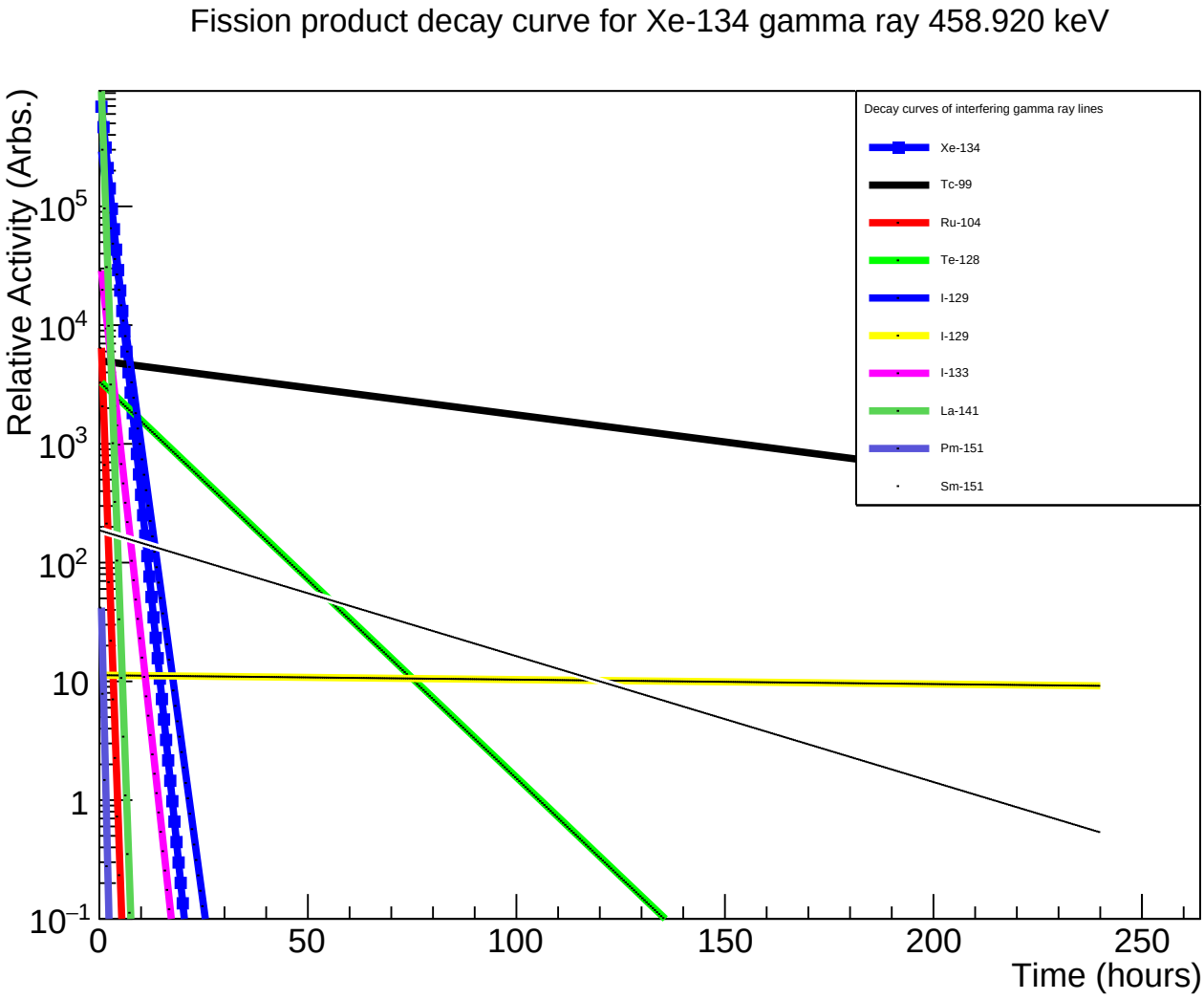


Figure 841: Xe-134 decay curve for 458.920 keV gamma ray.

3.842 I-134 E_γ = 488.88 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 488.88 keV
Gamma Intensity = 1.45 ± 0.064 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1683: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1684: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-101	Ru-101	489.100	0.000	0.237	0.052
Ru-105	Rh-105	489.480	0.005	4.440	0.010
Sn-127	Sb-127	487.500	0.005	2.100	0.001
Sb-125	Te-125	489.730	0.000	24194.445	0.000
Te-129	I-129	487.390	0.014	1.160	0.005
Te-129	I-129	487.390	0.000	806.400	0.001
Te-133	I-133	488.000	0.001	0.208	0.031
Te-133	I-133	487.400	0.005	0.923	0.040
Ba-142	La-142	488.300	0.001	0.177	0.058
Ce-143	Pr-143	490.368	0.022	33.039	0.060
Nd-147	Pm-147	489.240	0.002	263.520	0.022
Nd-151	Pm-151	488.180	0.001	0.207	0.004
Pm-151	Sm-151	490.260	0.001	28.400	0.004
Sm-153	Eu-153	487.750	0.000	46.500	0.002
Eu-156	Gd-156	490.340	0.002	364.560	0.000

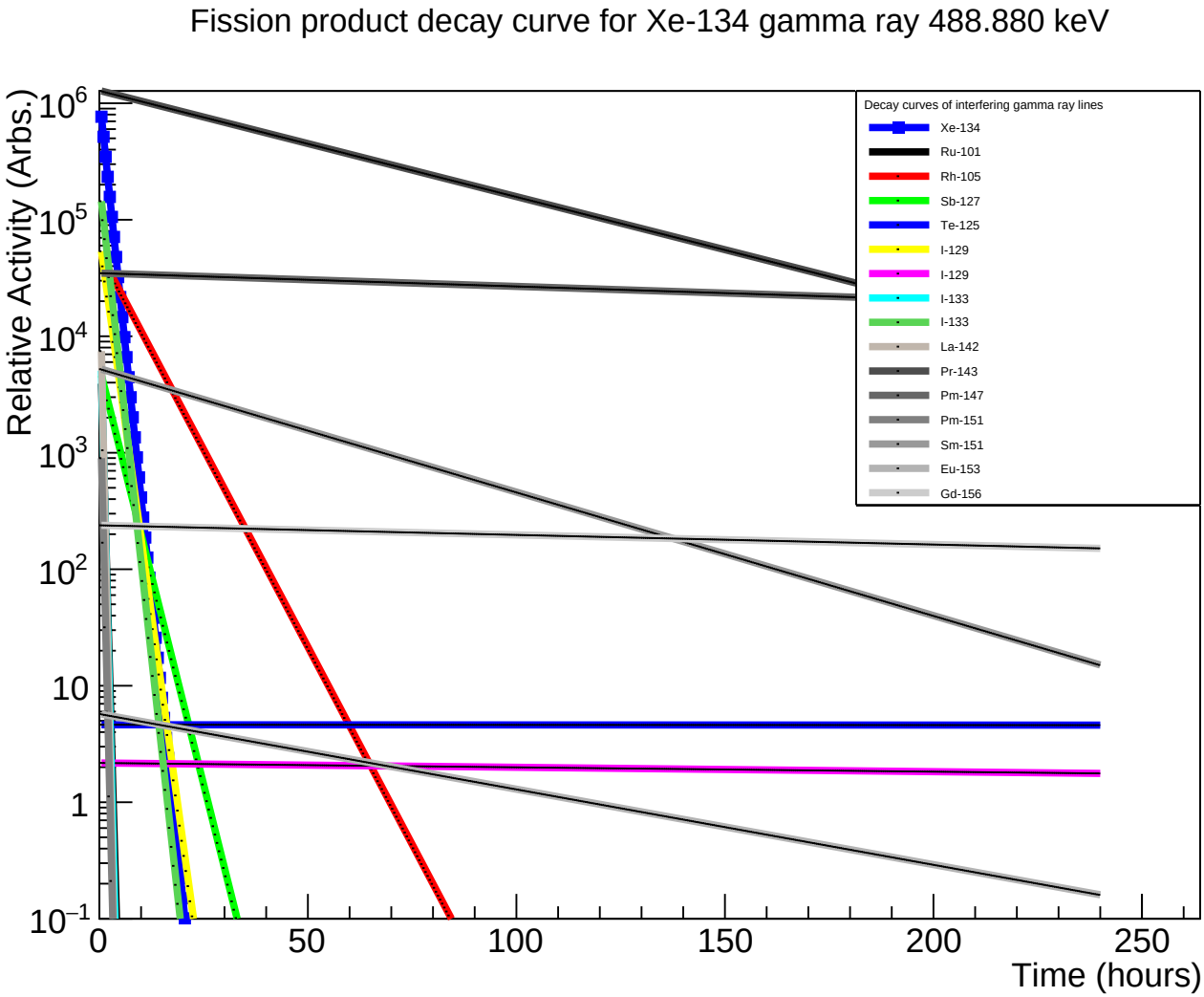


Figure 842: Xe-134 decay curve for 488.880 keV gamma ray.

3.843 I-134 E_γ = 514.40 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 514.40 keV
Gamma Intensity = 2.24 ± 0.096 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1685: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1686: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	513.997	0.004	94166.664	0.003
Zr-97	Nb-97	513.410	0.005	16.749	0.060
Nb-98	Mo-98	514.780	0.002	0.855	0.000
Mo-101	Tc-101	514.100	0.008	0.243	0.052
Mo-101	Tc-101	515.420	0.008	0.243	0.052
Ru-103	Rh-103	514.365	0.000	941.928	0.030
Ru-105	Rh-105	513.730	0.002	4.440	0.010
Sn-127	Sb-127	513.900	0.003	2.100	0.001
Cs-139	Ba-139	515.860	0.001	0.155	0.063
La-142	Ce-142	514.700	0.001	1.518	0.058
Nd-149	Pm-149	515.750	0.000	1.728	0.011

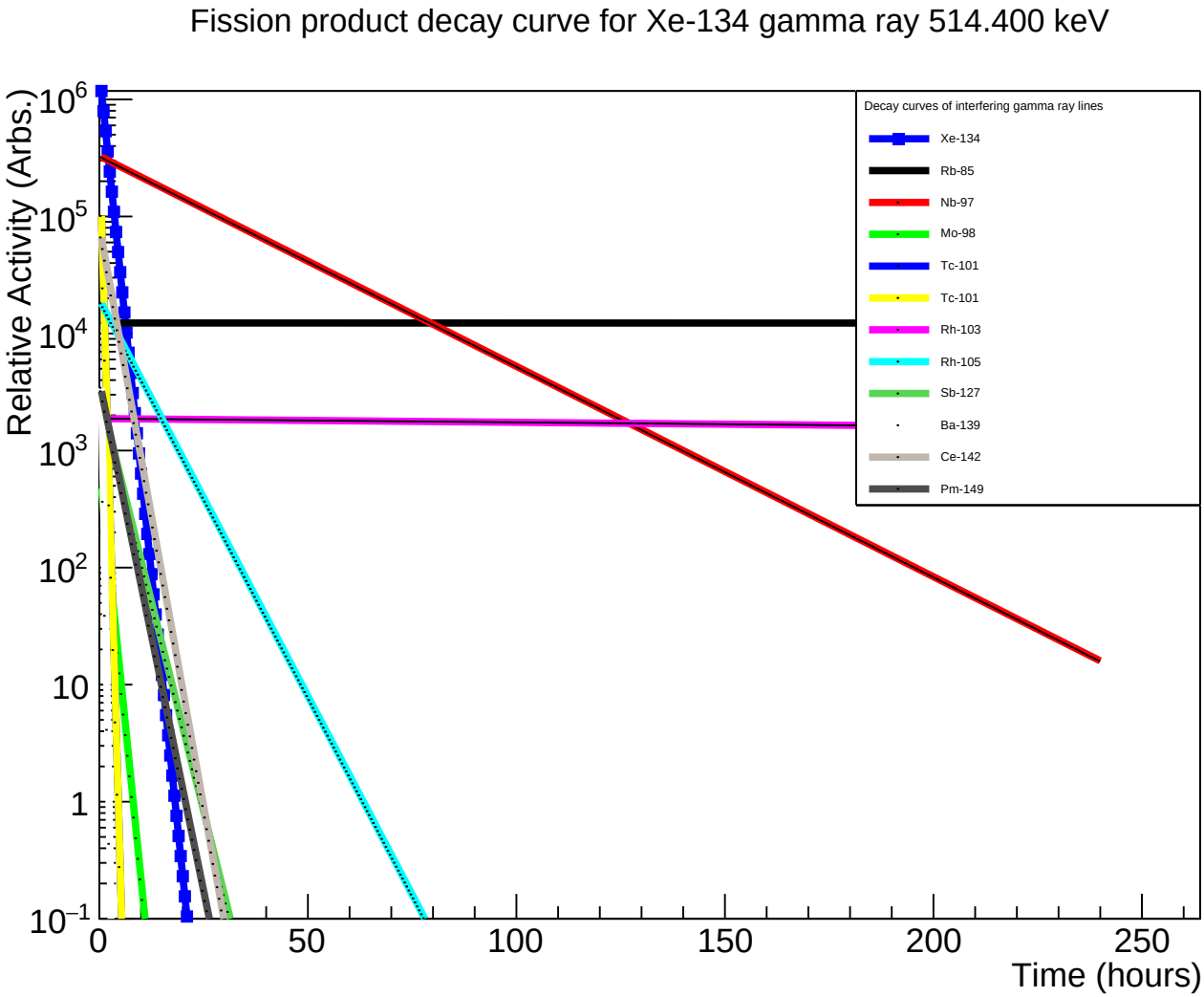


Figure 843: Xe-134 decay curve for 514.400 keV gamma ray.

3.844 I-134 E_γ = 540.83 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 540.83 keV
Gamma Intensity = 7.66 ± 0.240 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1687: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1688: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	541.890	0.007	0.124	0.062
Mo-101	Tc-101	540.100	0.001	0.243	0.052
Tc-105	Ru-105	540.700	0.003	0.127	0.010
Pd-111	Ag-111	540.700	0.000	0.390	0.000
Sn-123	Sb-123	541.950	0.000	0.668	0.000
Sn-127	Sb-127	539.600	0.002	2.100	0.001
Te-131	I-131	541.400	0.001	33.250	0.004
Te-133	I-133	540.300	0.003	0.923	0.040
Xe-138	Cs-138	540.800	0.000	0.235	0.063
Ba-141	La-141	541.600	0.001	0.304	0.058
Nd-147	Pm-147	541.830	0.000	263.520	0.022
Nd-149	Pm-149	540.509	0.066	1.728	0.011
Nd-151	Pm-151	540.600	0.000	0.207	0.004
Nd-151	Pm-151	542.060	0.005	0.207	0.004

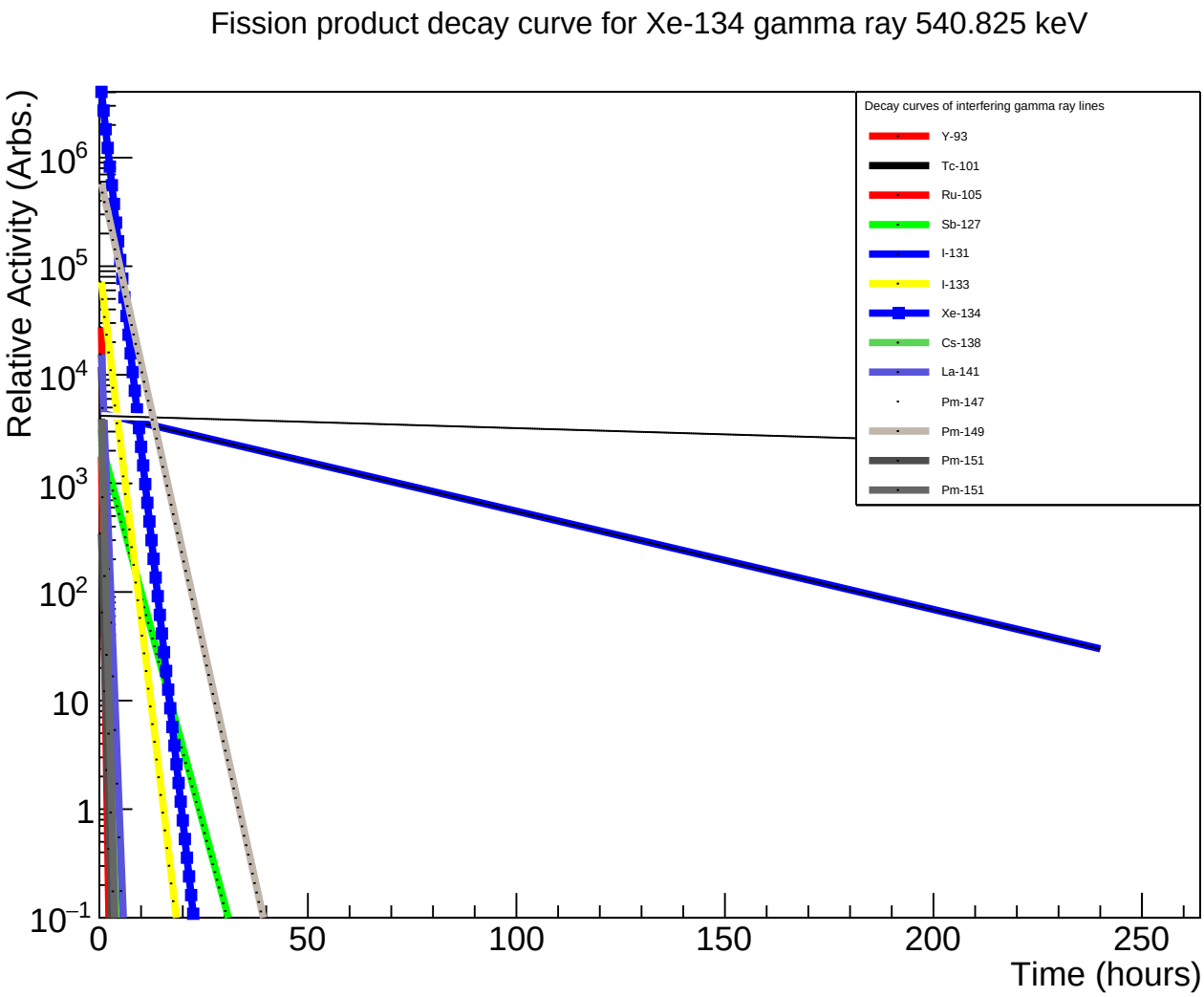


Figure 844: Xe-134 decay curve for 540.825 keV gamma ray.

3.845 I-134 E_γ = 595.36 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 595.36 keV
Gamma Intensity = 11.10 ± 0.436 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1689: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1690: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	596.000	0.000	0.252	0.047
Sr-93	Y-93	596.150	0.013	0.124	0.062
Nb-98	Mo-98	594.660	0.001	0.855	0.000
Cd-115	In-115	595.375	0.000	53.460	0.000
Sb-128	Te-128	594.300	0.010	9.010	0.000
Sb-128	Te-128	594.100	0.033	0.173	0.003
Sb-130	Te-130	595.500	0.010	0.658	0.008
Cs-138	Ba-138	596.200	0.000	0.557	0.067
Cs-139	Ba-139	594.020	0.001	0.155	0.063
Ce-143	Pr-143	594.500	0.000	33.039	0.060
Nd-147	Pm-147	594.800	0.003	263.520	0.022
Nd-149	Pm-149	594.400	0.000	1.728	0.011
Nd-151	Pm-151	596.640	0.004	0.207	0.004
Sm-153	Eu-153	596.700	0.000	46.500	0.002

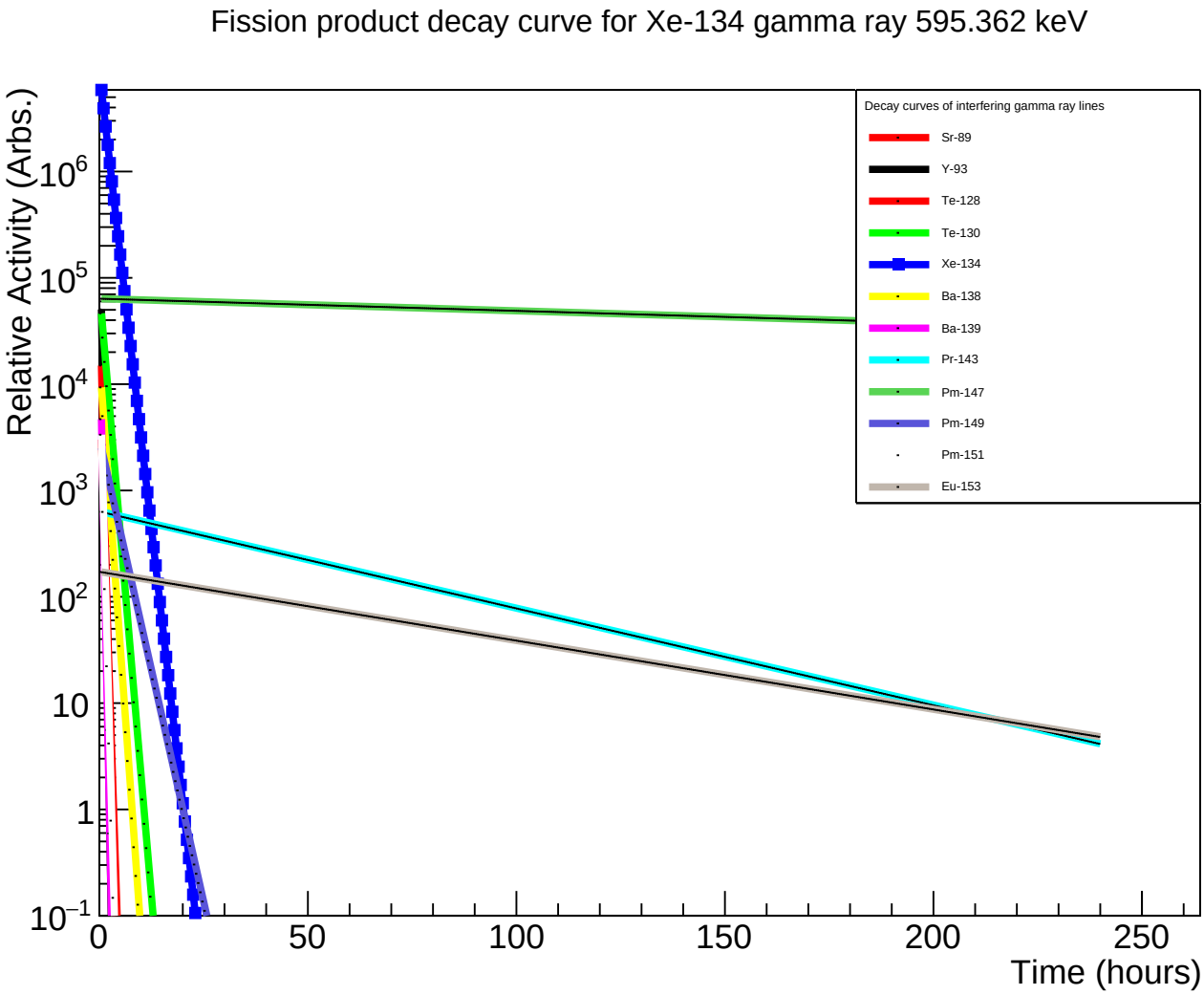


Figure 845: Xe-134 decay curve for 595.362 keV gamma ray.

3.846 I-134 E_γ = 621.79 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 621.79 keV
Gamma Intensity = 10.62 ± 0.432 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1691: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1692: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	621.630	0.006	0.372	0.003
Mo-99	Tc-99	621.771	0.000	65.976	0.061
Tc-101	Ru-101	621.990	0.001	0.237	0.052
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Pd-111	Ag-111	623.200	0.003	0.390	0.000
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Ag-111	Cd-111	622.000	0.000	178.800	0.000
Sn-127	Sb-127	621.900	0.005	2.100	0.001
Te-133	I-133	621.300	0.005	0.923	0.040
Ba-142	La-142	620.300	0.000	0.177	0.058
Ba-142	La-142	622.800	0.001	0.177	0.058
La-143	Ce-143	620.300	0.023	0.237	0.059
La-143	Ce-143	621.400	0.015	0.237	0.059
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

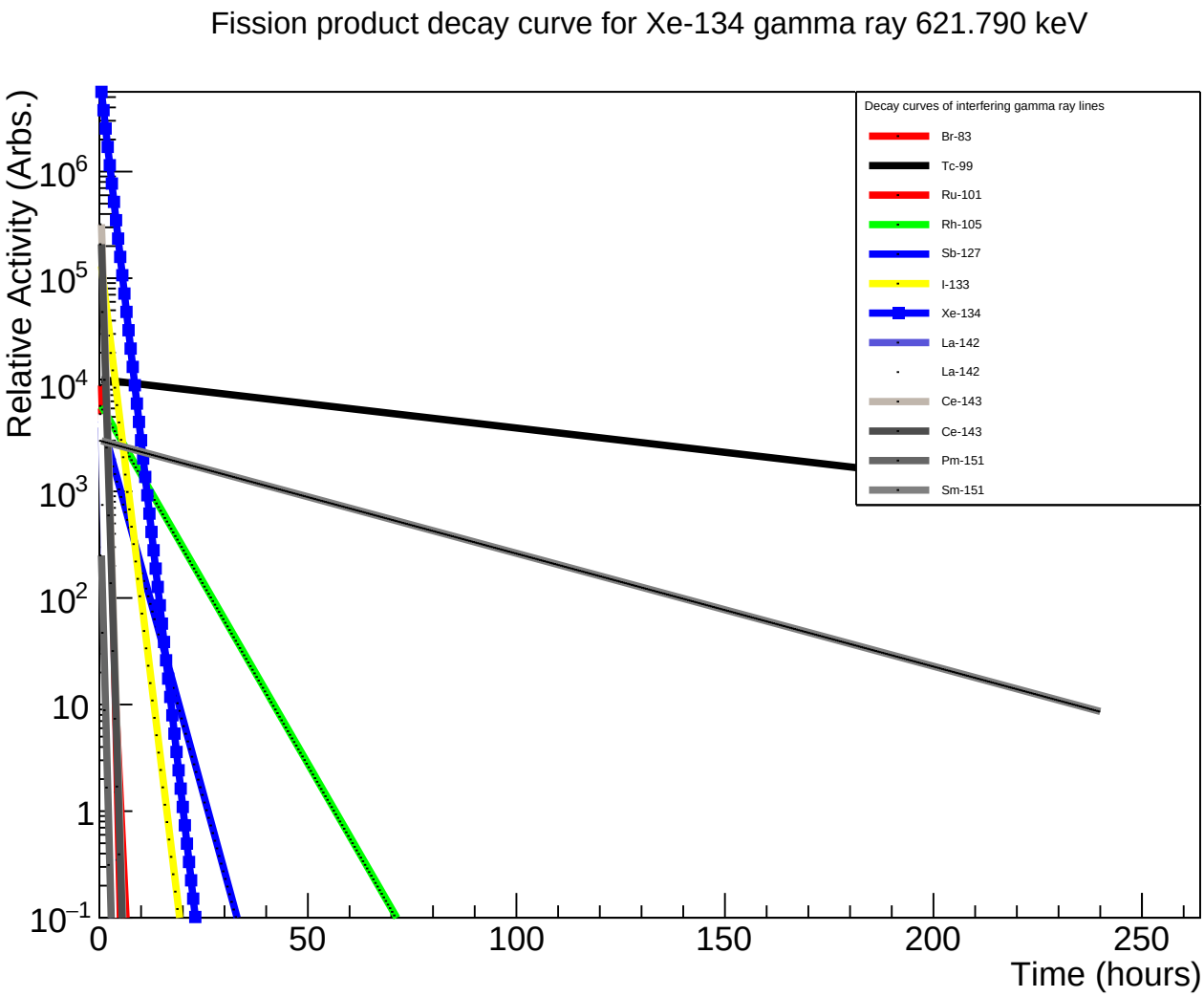


Figure 846: Xe-134 decay curve for 621.790 keV gamma ray.

3.847 I-134 E_γ = 627.96 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 627.96 keV
Gamma Intensity = 2.22 ± 0.140 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1693: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1694: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	626.800	0.000	9.630	0.058
Tc-101	Ru-101	627.000	0.004	0.237	0.052
Tc-104	Ru-104	627.000	0.002	0.305	0.019
Ag-112	Cd-112	629.200	0.000	3.130	0.000
Sb-128	Te-128	628.700	0.310	9.010	0.000
Sb-130	Te-130	626.700	0.028	0.658	0.008
Te-127	I-127	628.600	0.000	2616.000	0.000
Te-133	I-133	629.000	0.003	0.923	0.040
Cs-139	Ba-139	627.240	0.015	0.155	0.063
Pr-147	Nd-147	627.600	0.003	0.223	0.022

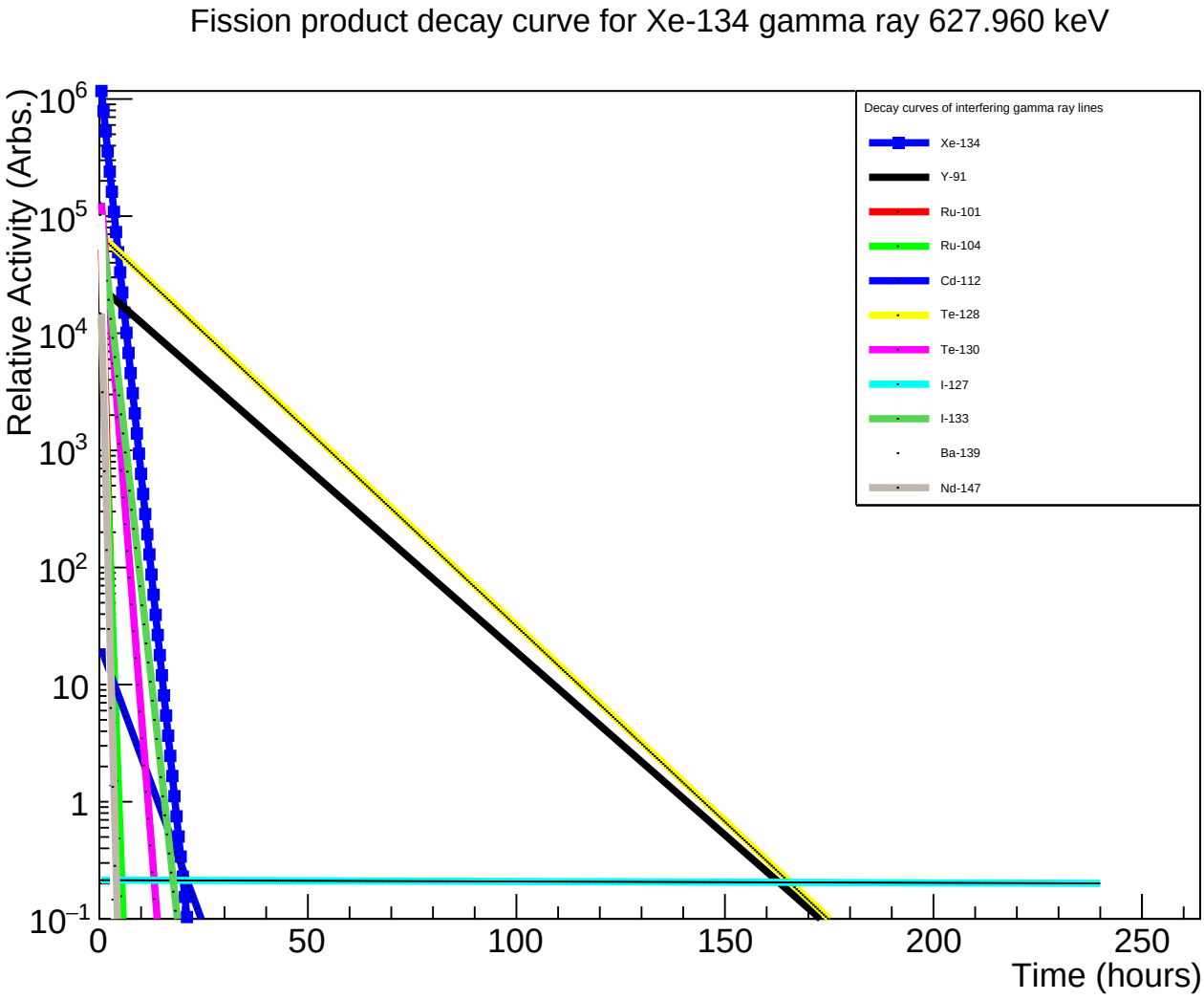


Figure 847: Xe-134 decay curve for 627.960 keV gamma ray.

3.848 I-134 E_γ = 677.34 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 677.34 keV
Gamma Intensity = 7.94 ± 0.324 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1695: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1696: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	677.340	0.002	2.840	0.036
Nb-98	Mo-98	676.870	0.001	0.855	0.000
Mo-101	Tc-101	675.900	0.000	0.243	0.052
Ru-105	Rh-105	676.360	0.157	4.440	0.010
La-141	Ce-141	676.800	0.000	3.920	0.058
La-142	Ce-142	677.000	0.000	1.518	0.058
Nd-149	Pm-149	678.100	0.000	1.728	0.011
Nd-151	Pm-151	676.800	0.001	0.207	0.004
Nd-151	Pm-151	677.880	0.024	0.207	0.004
Pm-151	Sm-151	678.300	0.000	28.400	0.004
Sm-153	Eu-153	677.000	0.000	46.500	0.002
Sm-155	Eu-155	677.200	0.000	0.372	0.000

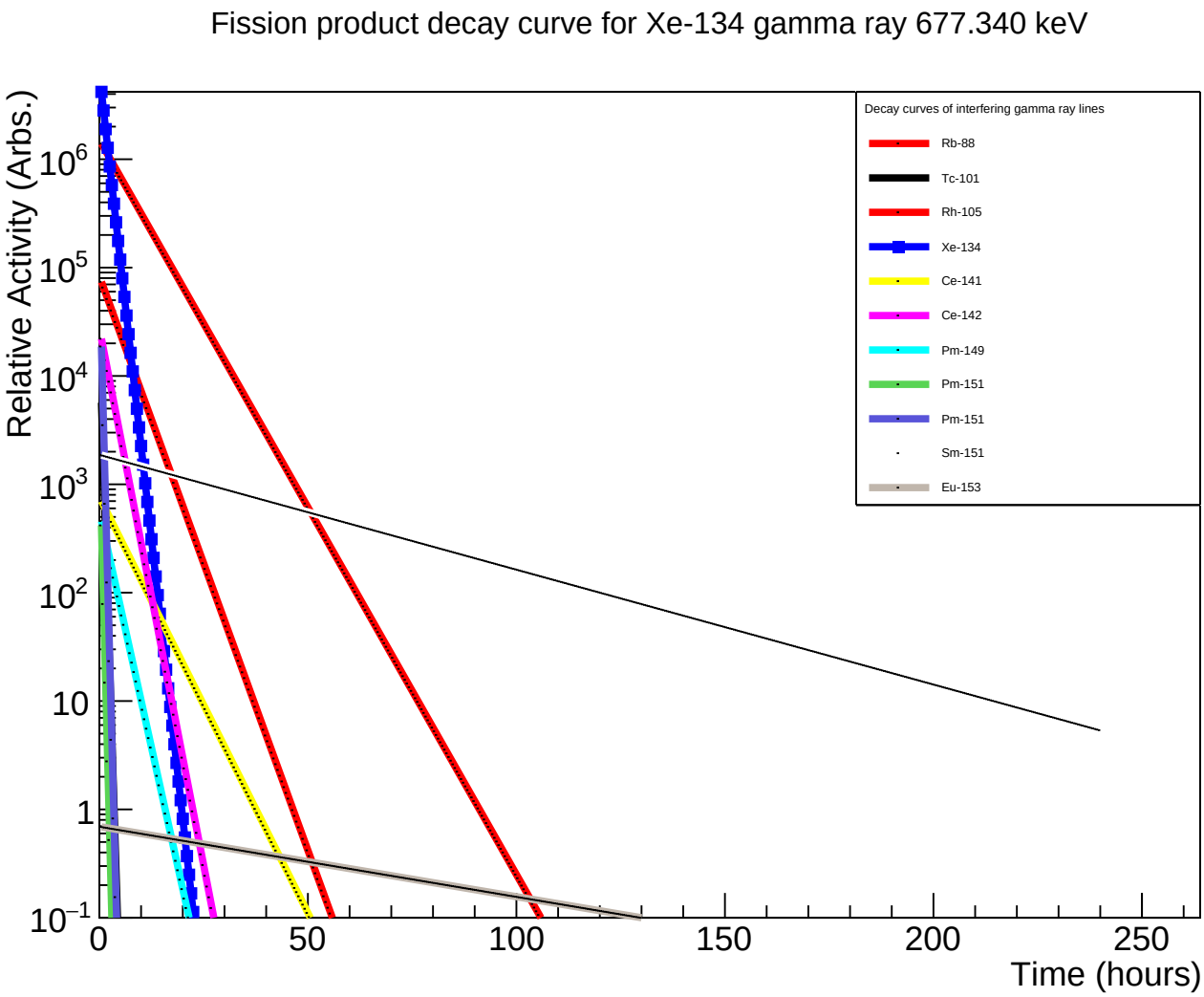


Figure 848: Xe-134 decay curve for 677.340 keV gamma ray.

3.849 I-134 E_γ = 730.74 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 730.74 keV
Gamma Intensity = 1.83 ± 0.084 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1697: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1698: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	731.600	0.000	4.480	0.013
Kr-88	Rb-88	731.010	0.000	2.840	0.036
Sb-130	Te-130	732.000	0.220	0.658	0.008
Te-129	I-129	729.570	0.000	1.160	0.005
Te-129	I-129	729.570	0.007	806.400	0.001
Te-133	I-133	731.880	0.006	0.923	0.040
Xe-135	Cs-135	731.520	0.001	9.140	0.065
Ce-143	Pr-143	729.870	0.000	33.039	0.060
Nd-151	Pm-151	731.900	0.000	0.207	0.004

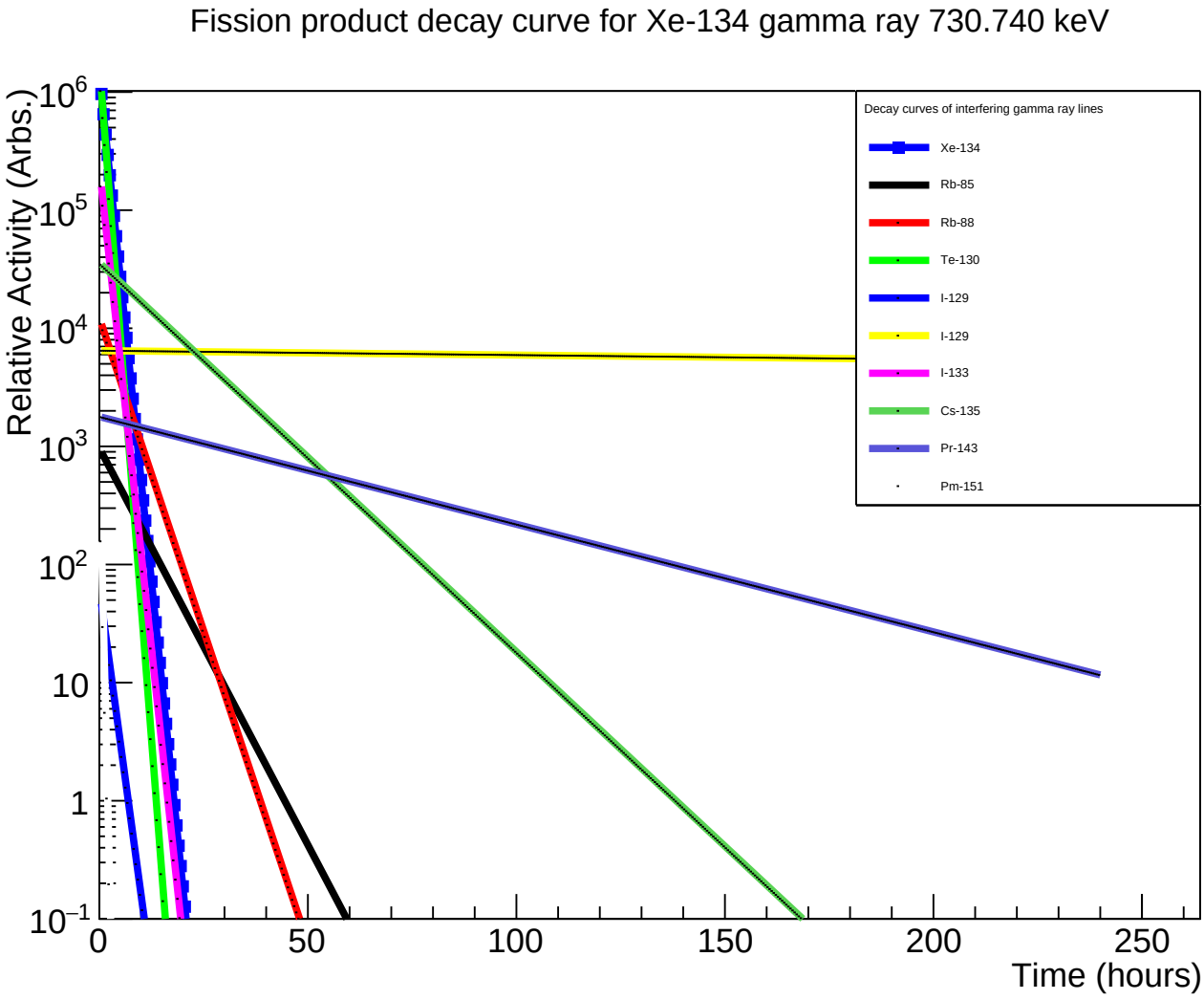


Figure 849: Xe-134 decay curve for 730.740 keV gamma ray.

3.850 I-134 E_γ = 766.68 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 766.68 keV
Gamma Intensity = 4.15 ± 0.147 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1699: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1700: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	766.760	0.002	0.252	0.047
Nb-95	Mo-95	765.803	0.998	839.784	0.065
Cs-138	Ba-138	766.100	0.001	0.557	0.067
La-143	Ce-143	766.400	0.002	0.237	0.059
Ce-143	Pr-143	767.700	0.000	33.039	0.060
Pr-146	Nd-146	766.400	0.000	0.403	0.030
Nd-149	Pm-149	768.172	0.001	1.728	0.011
Nd-151	Pm-151	765.400	0.002	0.207	0.004
Nd-151	Pm-151	767.890	0.003	0.207	0.004

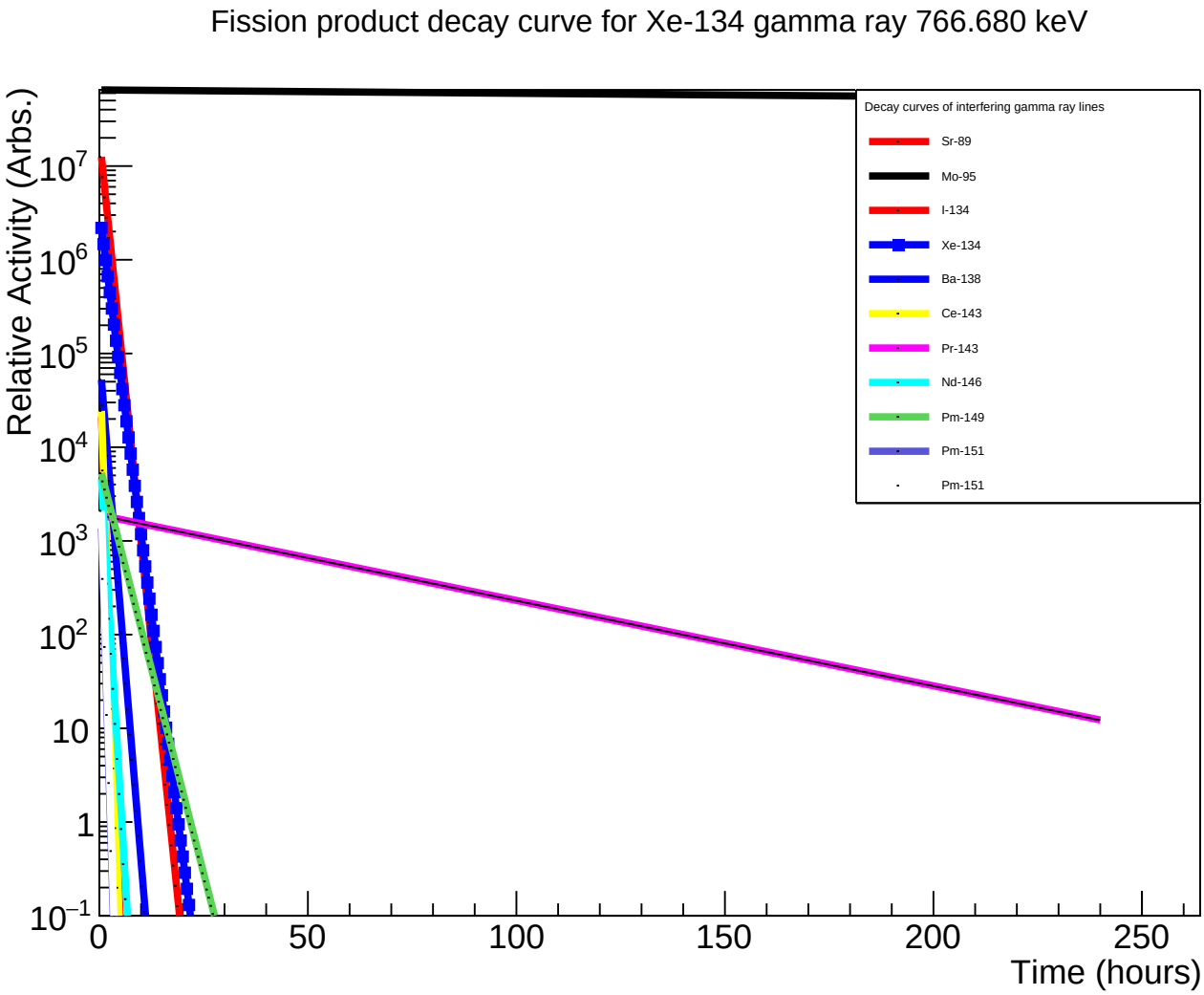


Figure 850: Xe-134 decay curve for 766.680 keV gamma ray.

3.851 I-134 E_γ = 847.03 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 847.03 keV
Gamma Intensity = 95.70 ± 2.627 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1701: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1702: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	847.240	0.001	0.243	0.052
Ru-105	Rh-105	845.910	0.006	4.440	0.010
Ru-105	Rh-105	846.900	0.000	4.440	0.010
Sn-127	Sb-127	847.600	0.002	2.100	0.001
Sb-128	Te-128	845.800	0.025	9.010	0.000
Ba-141	La-141	846.600	0.001	0.304	0.058
Pr-145	Nd-145	848.237	0.001	5.984	0.039
Pr-147	Nd-147	846.900	0.008	0.223	0.022
Nd-151	Pm-151	847.120	0.001	0.207	0.004
Nd-151	Pm-151	848.000	0.000	0.207	0.004

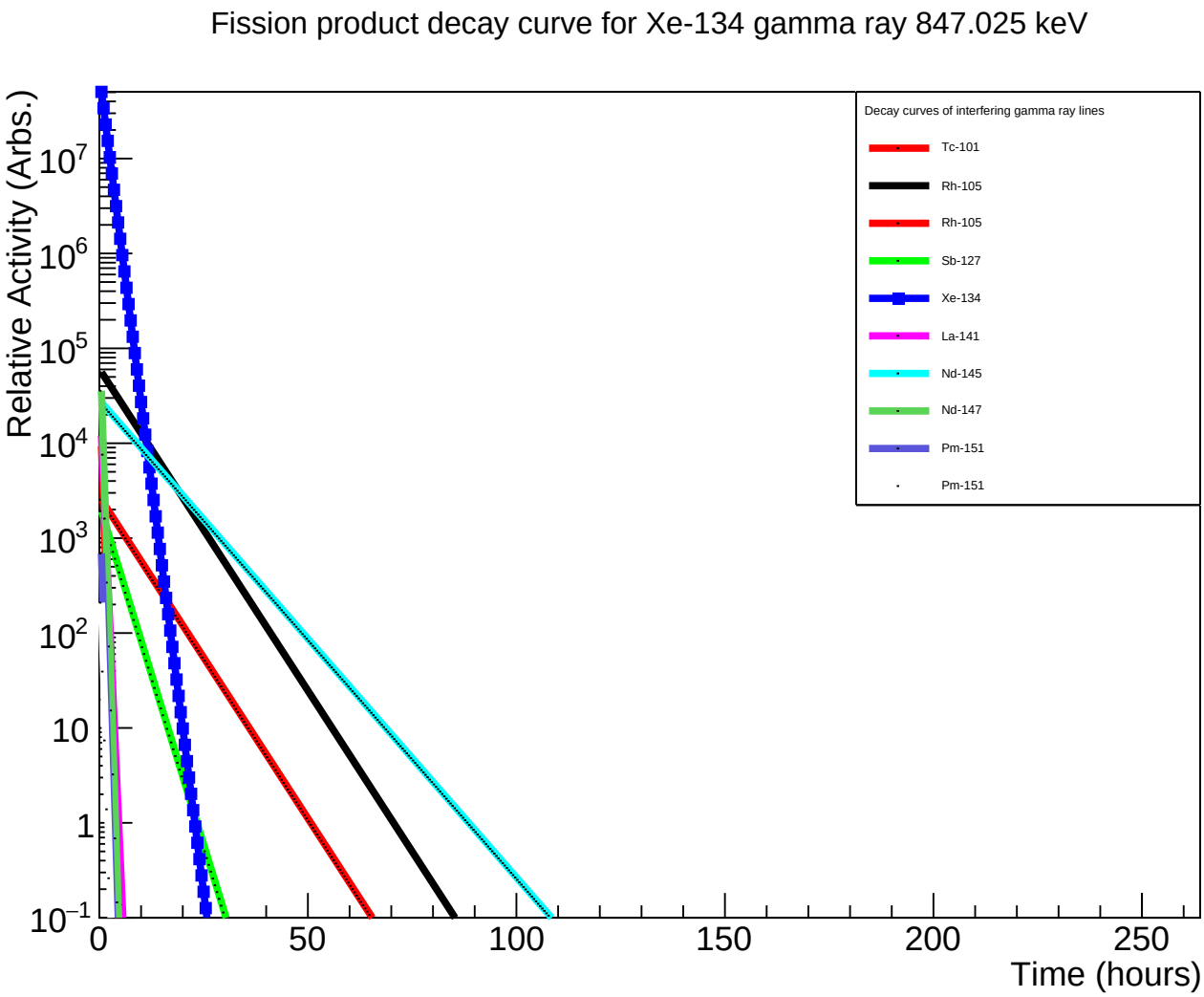


Figure 851: Xe-134 decay curve for 847.025 keV gamma ray.

3.852 I-134 E_γ = 857.29 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 857.29 keV
Gamma Intensity = 6.70 ± 0.229 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1703: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1704: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	858.470	0.007	0.124	0.062
Nb-97	Mo-97	857.460	0.000	1.202	0.060
Cd-115	In-115	856.245	0.000	53.460	0.000
Te-131	I-131	856.080	0.001	0.417	0.025
Te-131	I-131	856.050	0.006	33.250	0.004
Cs-139	Ba-139	858.400	0.000	0.155	0.063
Nd-151	Pm-151	858.300	0.001	0.207	0.004
Pm-151	Sm-151	856.200	0.000	28.400	0.004
Eu-156	Gd-156	858.360	0.002	364.560	0.000

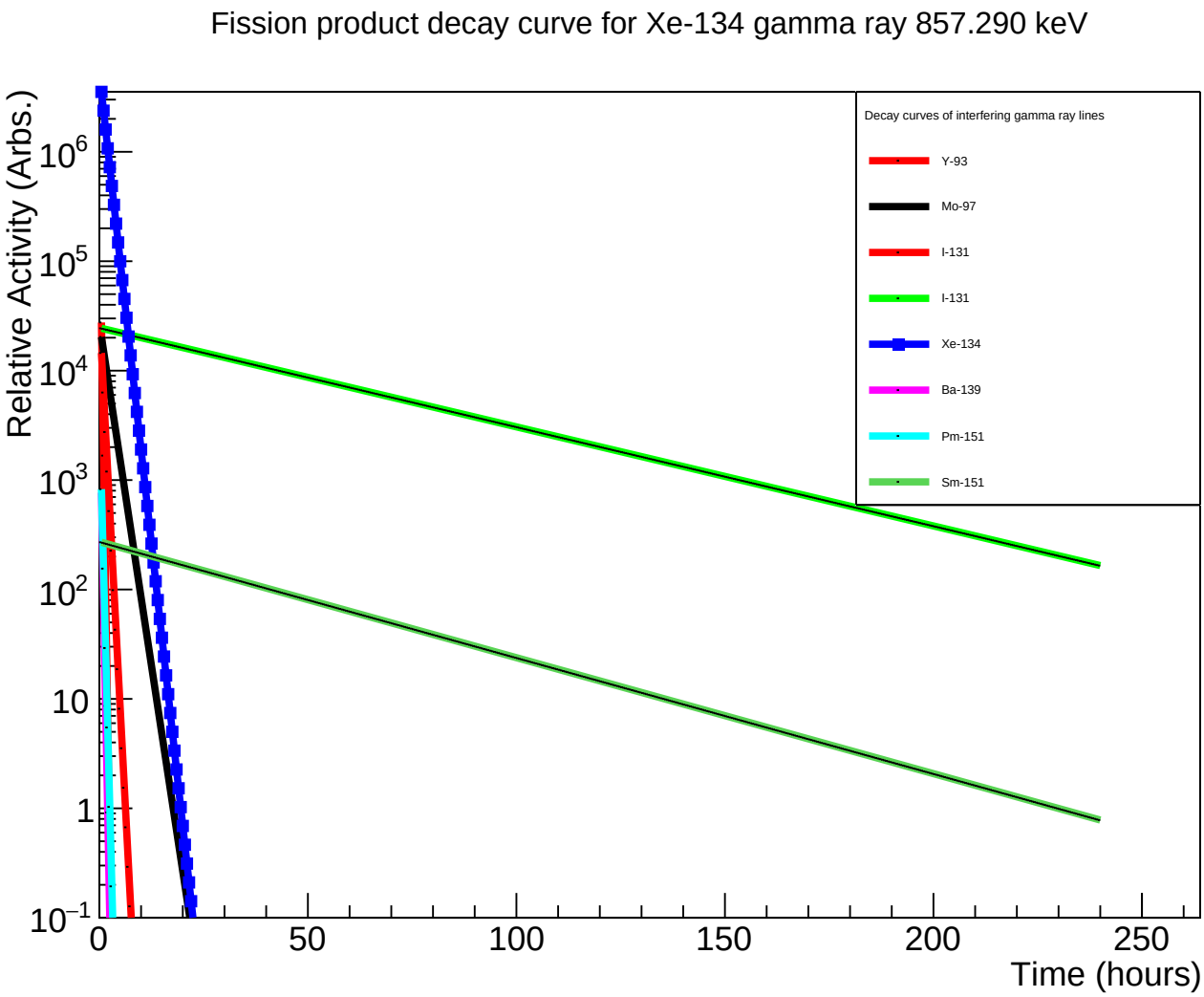


Figure 852: Xe-134 decay curve for 857.290 keV gamma ray.

3.853 I-134 E_γ = 884.09 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 884.09 keV
Gamma Intensity = 65.08 ± 2.272 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1705: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1706: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	884.900	0.005	1.512	0.000
Se-83	Br-83	883.610	0.072	0.372	0.003
Kr-88	Rb-88	883.060	0.000	2.840	0.036
Nb-98	Mo-98	885.580	0.001	0.855	0.000
Mo-101	Tc-101	883.390	0.006	0.243	0.052
Tc-104	Ru-104	884.400	0.109	0.305	0.019
Tc-105	Ru-105	883.500	0.001	0.127	0.010
Ag-113	Cd-113	883.600	0.003	5.370	0.000
Sb-130	Te-130	883.300	0.012	0.658	0.008
Te-133	I-133	884.290	0.007	0.208	0.031
Te-133	I-133	882.700	0.021	0.923	0.040
Te-133	I-133	884.800	0.019	0.923	0.040
Cs-139	Ba-139	883.500	0.000	0.155	0.063
Ba-141	La-141	885.200	0.000	0.304	0.058
Pm-151	Sm-151	883.680	0.000	28.400	0.004

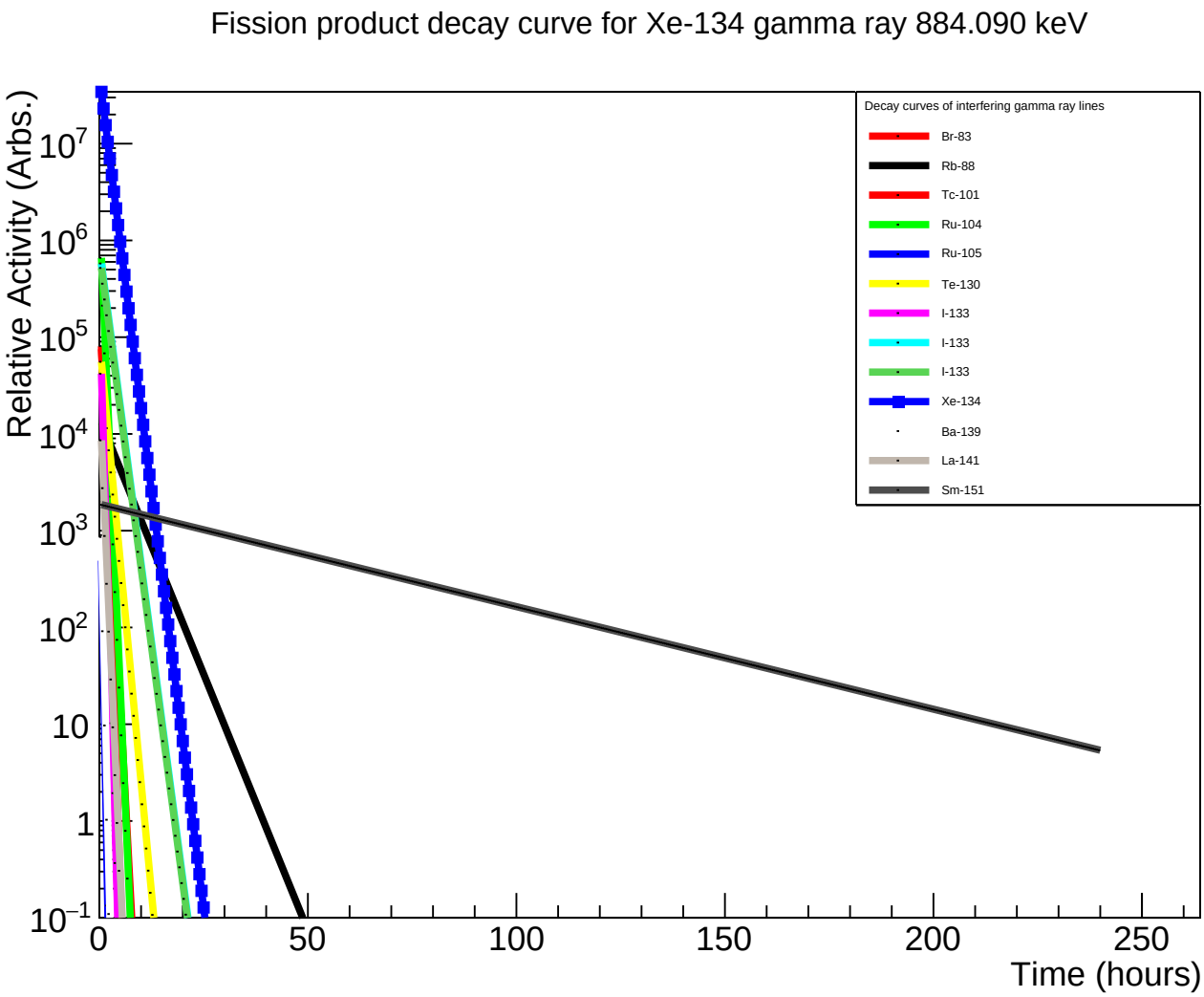


Figure 853: Xe-134 decay curve for 884.090 keV gamma ray.

3.854 I-134 E_γ = 947.86 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 947.86 keV
Gamma Intensity = 4.01 ± 0.145 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1707: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1708: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	947.500	0.004	0.529	0.010
Kr-87	Rb-87	946.690	0.001	1.272	0.026
Rb-89	Sr-89	947.730	0.100	0.252	0.047
Y-93	Zr-93	947.100	0.021	10.180	0.063
Ag-112	Cd-112	947.300	0.001	3.130	0.000
Te-131	I-131	948.542	0.023	0.417	0.025
Te-133	I-133	949.200	0.006	0.923	0.040
Xe-138	Cs-138	946.630	0.001	0.235	0.063
Cs-139	Ba-139	946.460	0.001	0.155	0.063
Ba-142	La-142	949.100	0.106	0.177	0.058
La-142	Ce-142	946.900	0.001	1.518	0.058
La-143	Ce-143	948.600	0.001	0.237	0.059
Pr-147	Nd-147	949.300	0.002	0.223	0.022
Nd-151	Pm-151	949.050	0.001	0.207	0.004
Pm-151	Sm-151	948.720	0.004	28.400	0.004
Eu-156	Gd-156	947.460	0.003	364.560	0.000

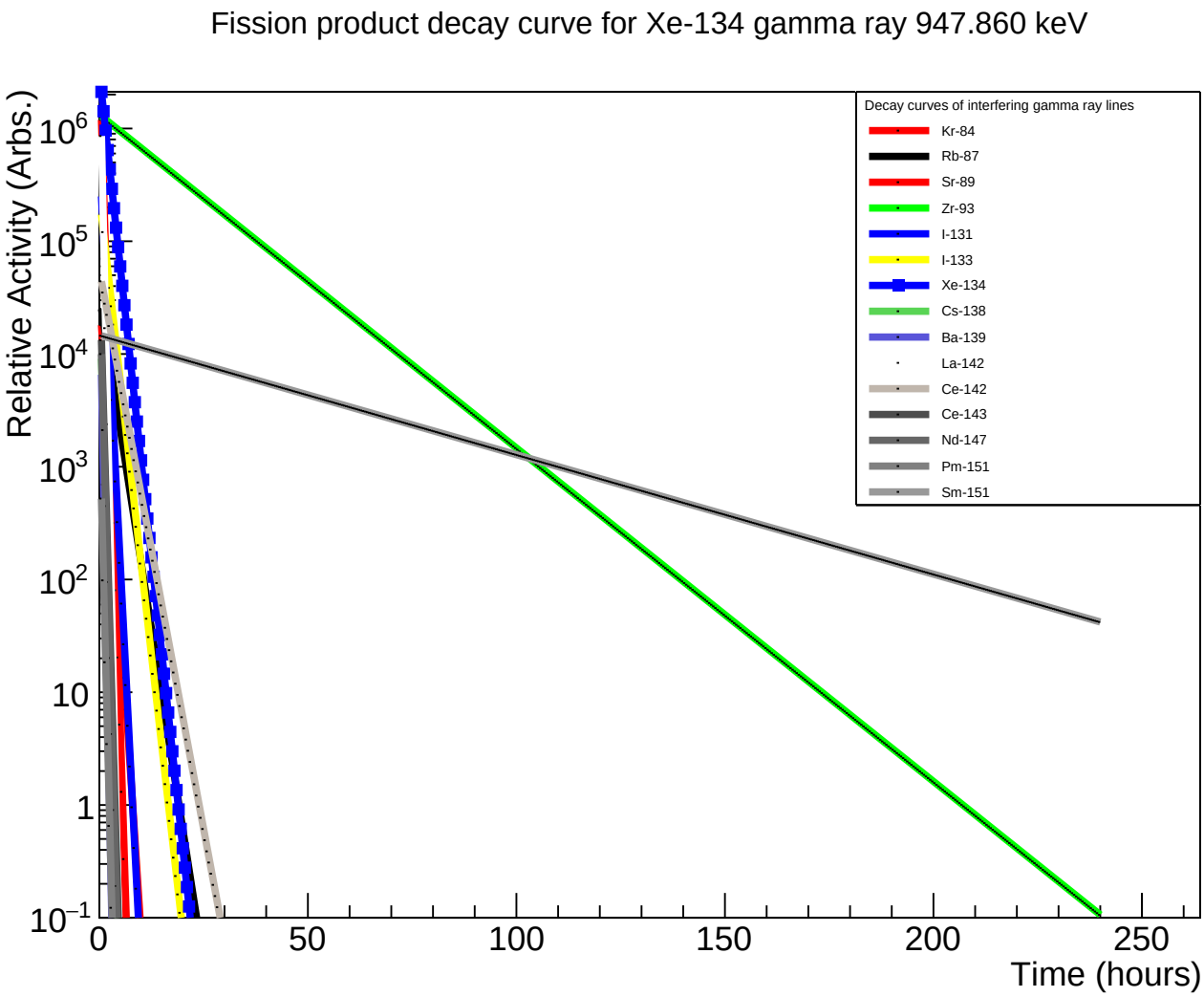


Figure 854: Xe-134 decay curve for 947.860 keV gamma ray.

3.855 I-134 E_γ = 974.67 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 974.67 keV
Gamma Intensity = 4.79 ± 0.212 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1709: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1710: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	975.400	0.001	0.252	0.047
Sr-91	Y-91	973.900	0.000	9.630	0.058
Nb-98	Mo-98	975.020	0.001	0.855	0.000
Sn-127	Sb-127	976.100	0.008	2.100	0.001
Ba-141	La-141	974.900	0.000	0.304	0.058
Nd-151	Pm-151	973.230	0.002	0.207	0.004

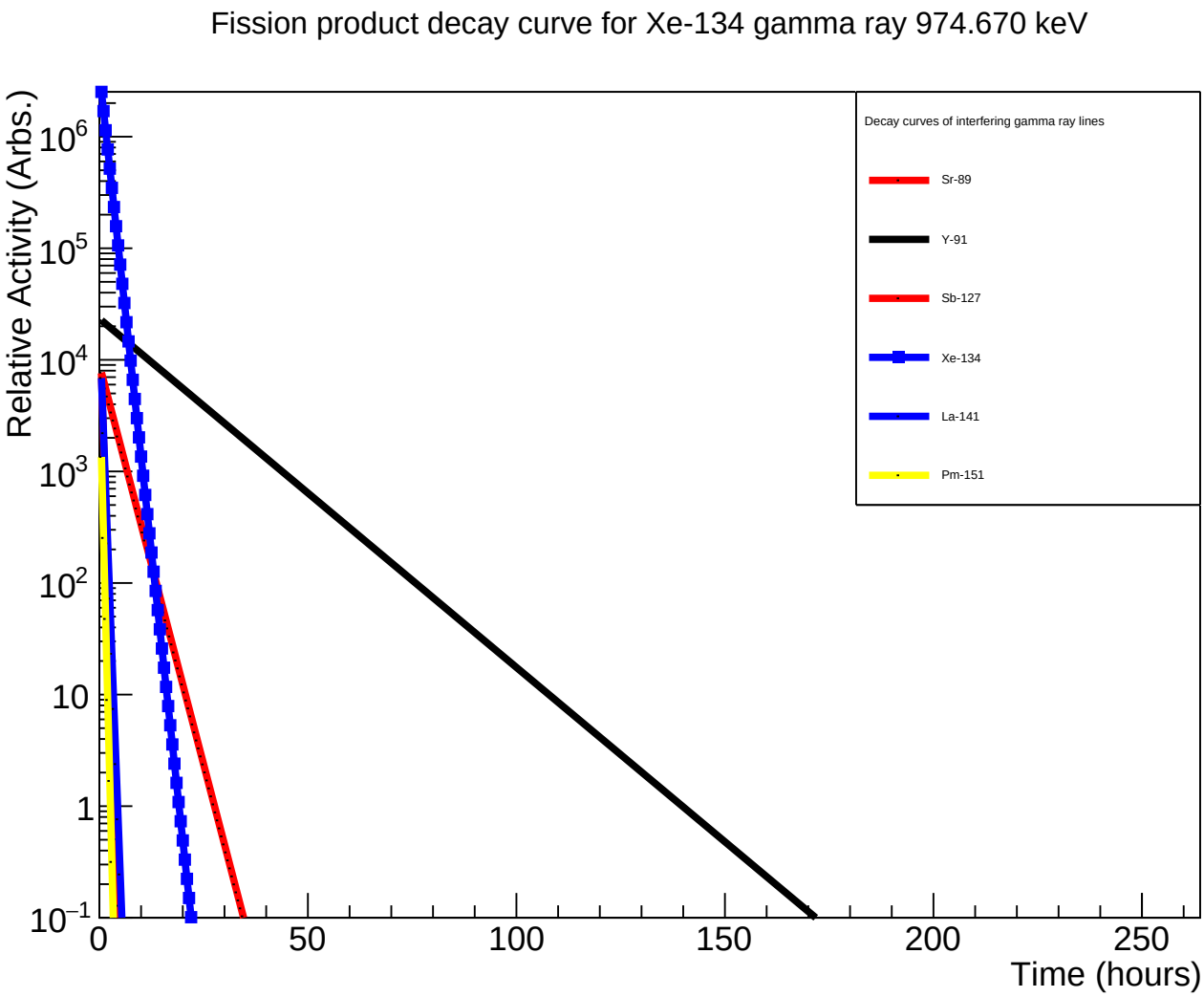


Figure 855: Xe-134 decay curve for 974.670 keV gamma ray.

3.856 I-134 E_γ = 1040.25 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1040.25 keV
Gamma Intensity = 2.03 ± 0.149 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1711: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1712: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1039.590	0.005	2.840	0.036
Sr-93	Y-93	1040.630	0.032	0.124	0.062
Sb-128	Te-128	1040.900	0.010	0.173	0.003
Cs-138	Ba-138	1041.400	0.001	0.557	0.067
Cs-139	Ba-139	1040.930	0.000	0.155	0.063
Ba-141	La-141	1039.900	0.001	0.304	0.058
Ba-142	La-142	1040.000	0.001	0.177	0.058
La-142	Ce-142	1039.400	0.001	1.518	0.058
Nd-149	Pm-149	1040.700	0.000	1.728	0.011
Nd-151	Pm-151	1040.400	0.001	0.207	0.004
Eu-156	Gd-156	1040.440	0.005	364.560	0.000

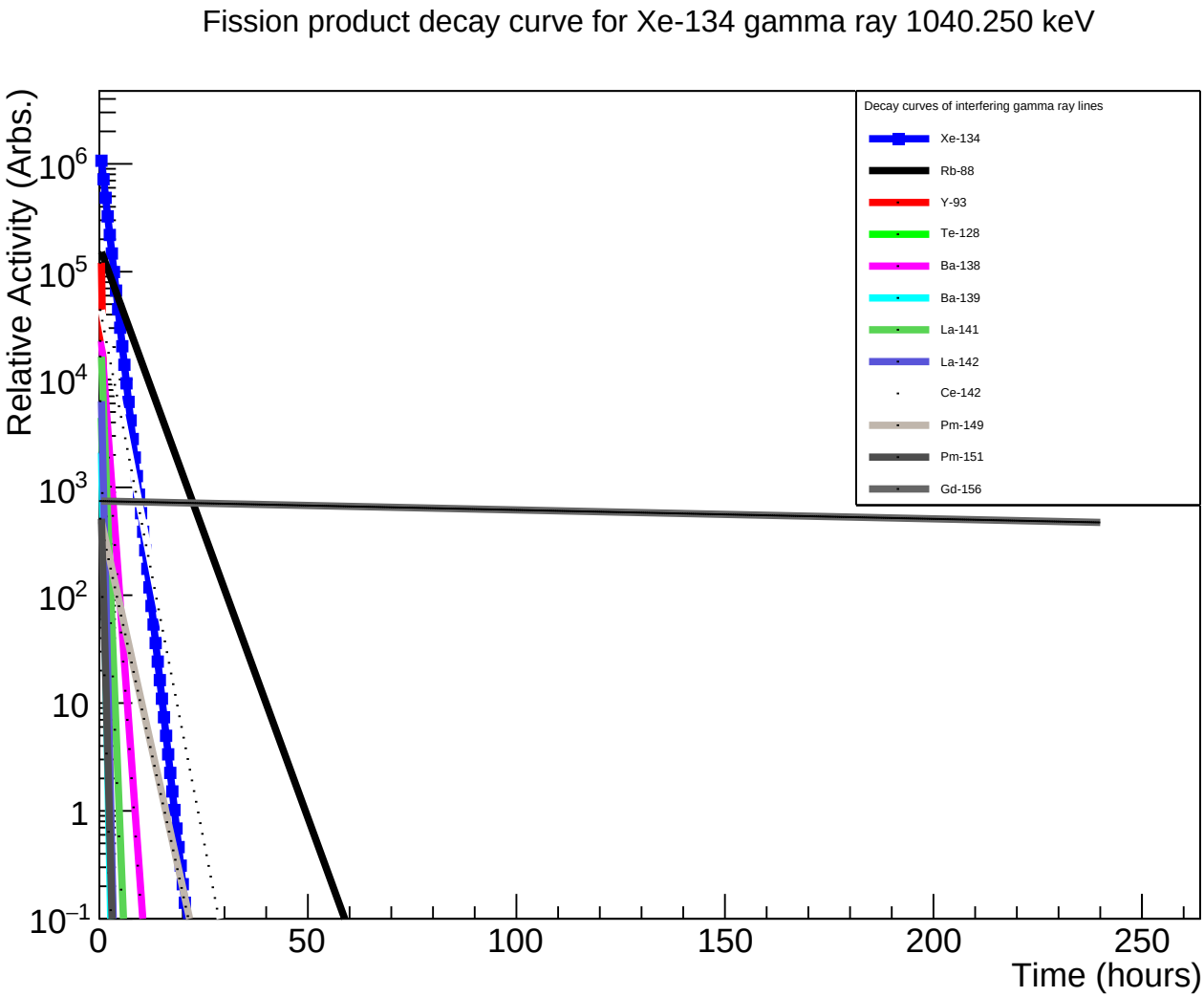


Figure 856: Xe-134 decay curve for 1040.250 keV gamma ray.

3.857 I-134 E_γ = 1072.55 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1072.55 keV
Gamma Intensity = 14.93 ± 0.555 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1713: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1714: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	1072.300	0.000	33.250	0.004
La-142	Ce-142	1072.200	0.001	1.518	0.058
Nd-151	Pm-151	1073.100	0.001	0.207	0.004
Nd-151	Pm-151	1074.000	0.000	0.207	0.004

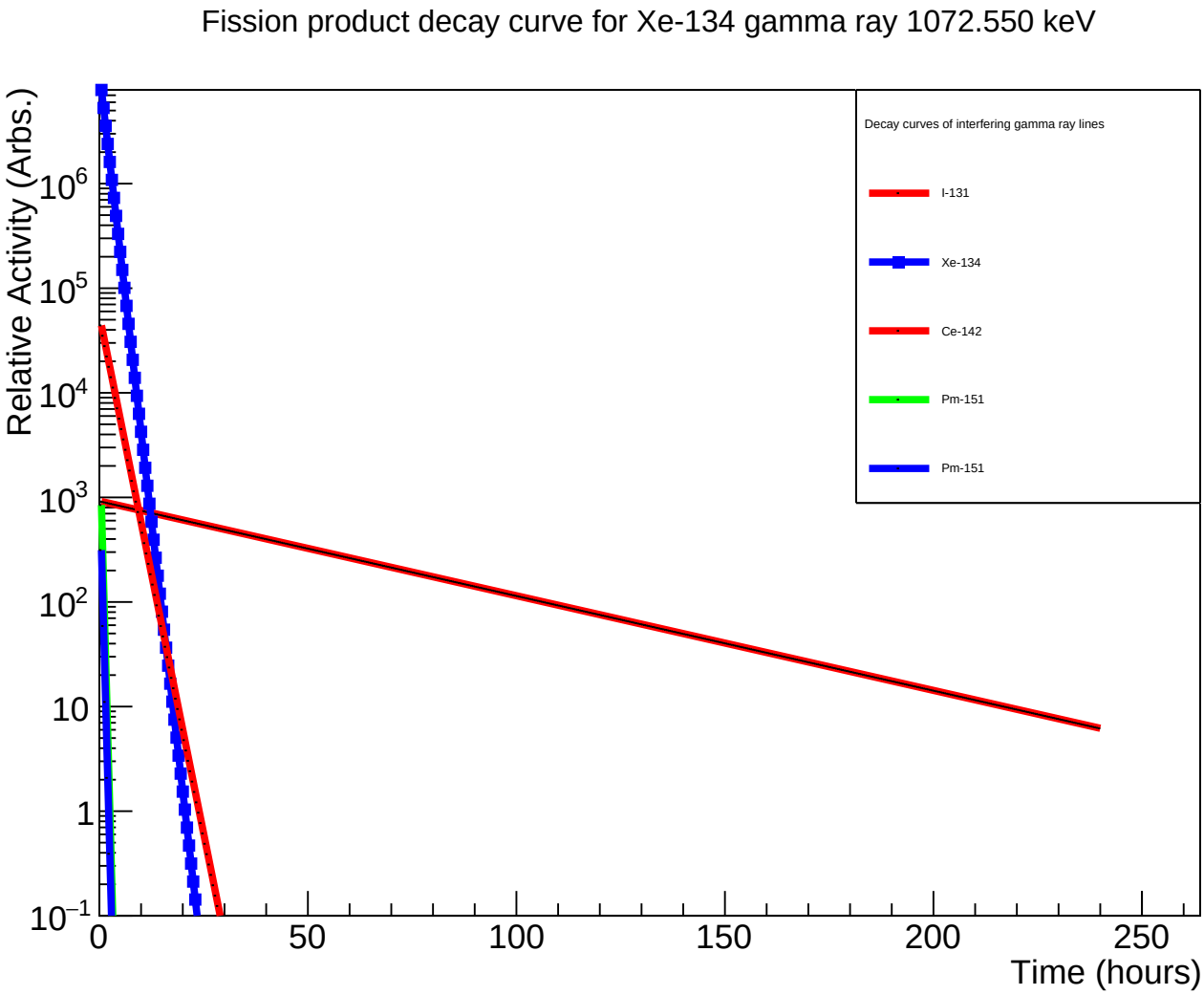


Figure 857: Xe-134 decay curve for 1072.550 keV gamma ray.

3.858 I-134 E_γ = 1136.16 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1136.16 keV
Gamma Intensity = 9.09 ± 0.599 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1715: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1716: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1136.770	0.002	0.124	0.062
Sn-125	Sb-125	1137.500	0.000	231.360	0.000
Sb-130	Te-130	1137.600	0.003	0.658	0.008
Te-133	I-133	1137.000	0.001	0.208	0.031
Te-133	I-133	1134.880	0.003	0.923	0.040
Te-133	I-133	1137.300	0.003	0.923	0.040
Ba-141	La-141	1136.800	0.000	0.304	0.058
Pr-147	Nd-147	1136.700	0.014	0.223	0.022
Nd-149	Pm-149	1135.940	0.000	1.728	0.011
Nd-151	Pm-151	1136.580	0.002	0.207	0.004

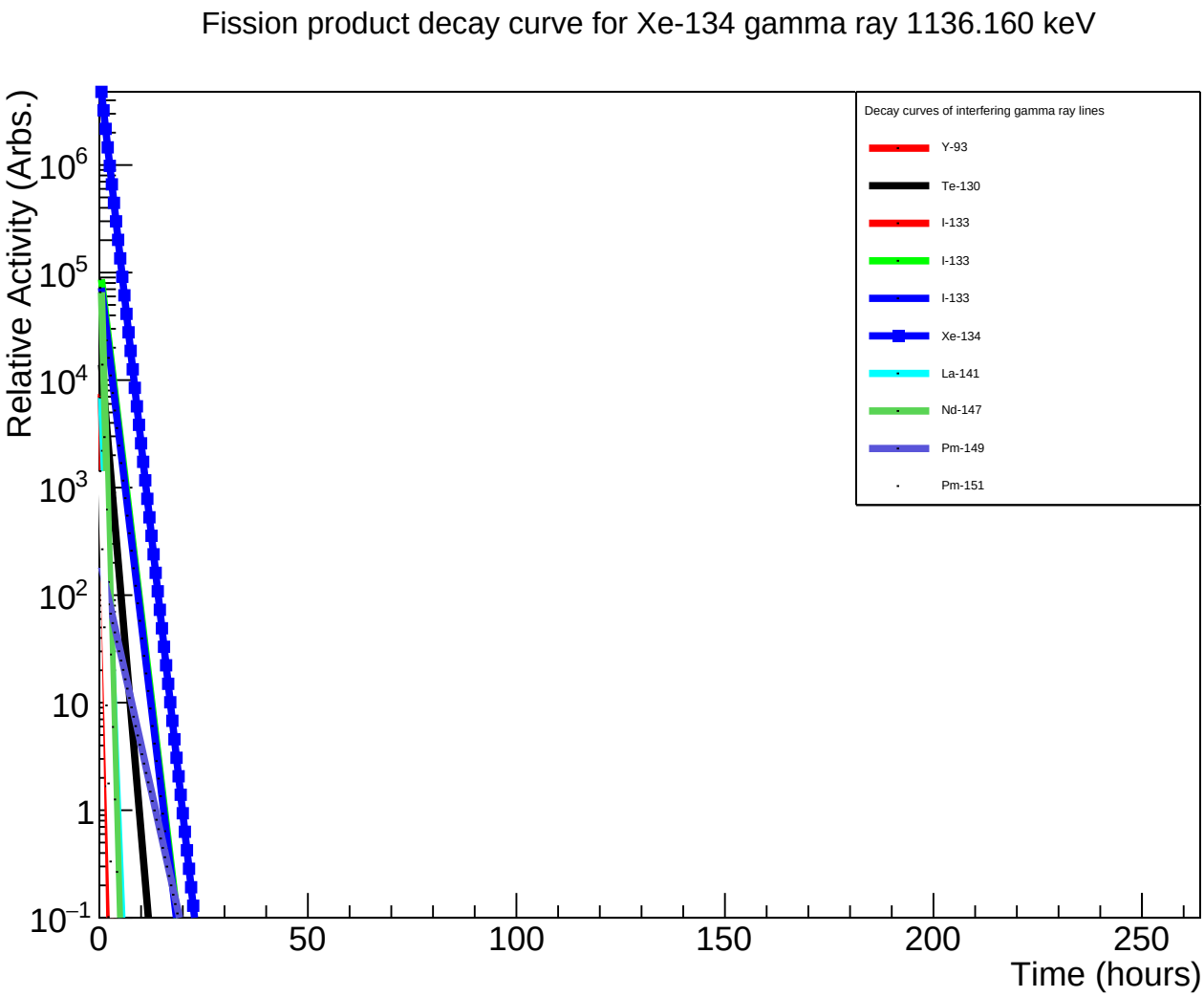


Figure 858: Xe-134 decay curve for 1136.160 keV gamma ray.

3.859 I-134 E_γ = 1455.24 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1455.24 keV
Gamma Intensity = 2.30 ± 0.196 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1717: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1718: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-131	Te-131	1455.100	0.005	0.384	0.026
Te-133	I-133	1455.240	0.001	0.208	0.031
Te-133	I-133	1455.000	0.007	0.923	0.040
Ba-141	La-141	1455.900	0.001	0.304	0.058
La-142	Ce-142	1455.100	0.001	1.518	0.058
Nd-149	Pm-149	1454.290	0.000	1.728	0.011

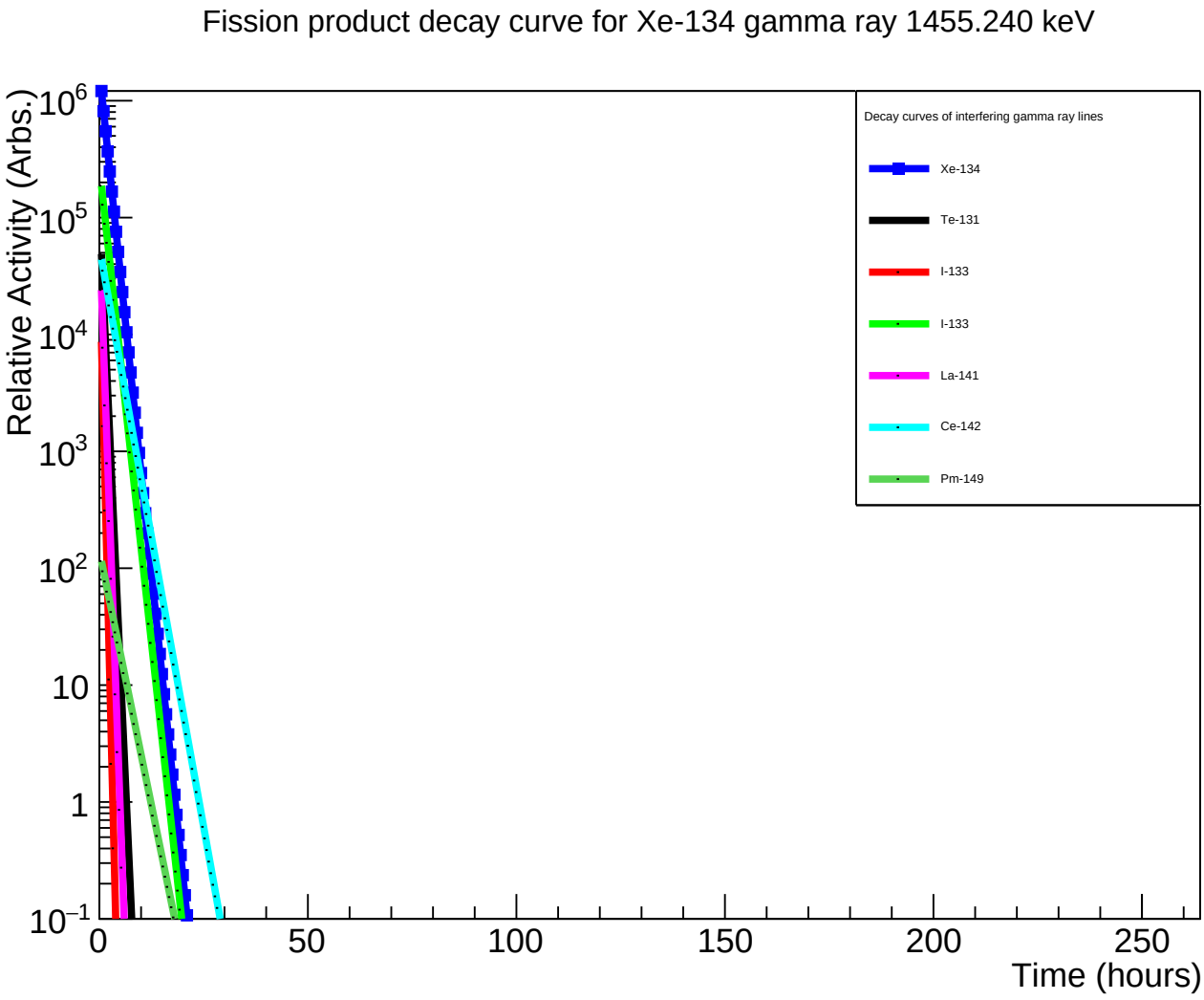


Figure 859: Xe-134 decay curve for 1455.240 keV gamma ray.

3.860 I-134 E_γ = 1613.80 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1613.80 keV
Gamma Intensity = 4.31 ± 0.208 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1719: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1720: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1615.000	0.001	0.243	0.052
Tc-104	Ru-104	1612.400	0.058	0.305	0.019
Ag-112	Cd-112	1613.600	0.028	3.130	0.000
Xe-138	Cs-138	1614.570	0.002	0.235	0.063
Cs-138	Ba-138	1614.090	0.001	0.557	0.067
Pr-146	Nd-146	1614.100	0.001	0.403	0.030

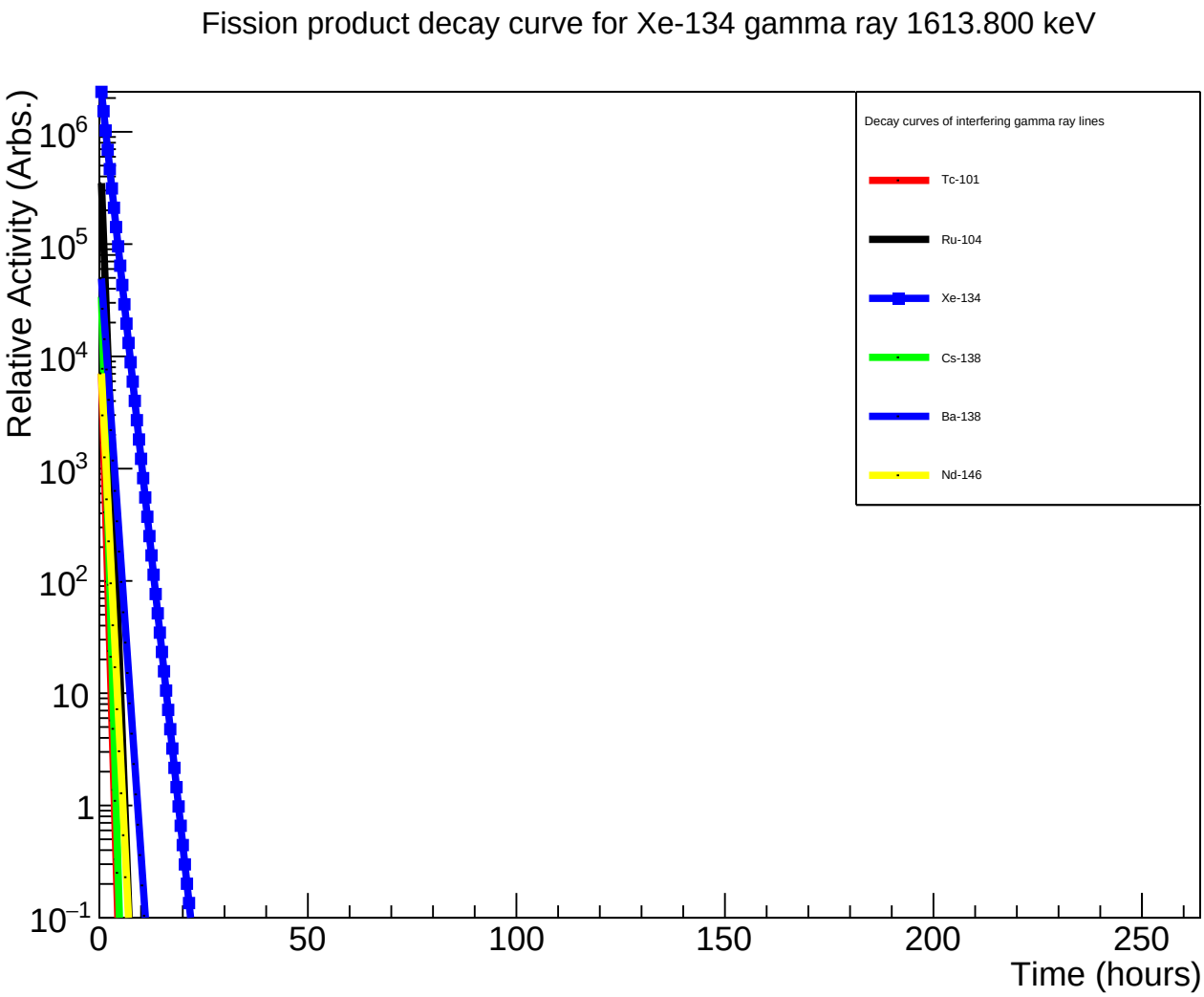


Figure 860: Xe-134 decay curve for 1613.800 keV gamma ray.

3.861 I-134 E_γ = 1741.49 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1741.49 keV
Gamma Intensity = 2.56 ± 0.161 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1721: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1722: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1741.200	0.016	0.529	0.010
Kr-87	Rb-87	1740.520	0.020	1.272	0.026
Sr-93	Y-93	1742.100	0.001	0.124	0.062
Te-133	I-133	1741.570	0.001	0.208	0.031
Ba-141	La-141	1740.600	0.003	0.304	0.058
La-143	Ce-143	1740.700	0.001	0.237	0.059
Nd-151	Pm-151	1742.400	0.000	0.207	0.004

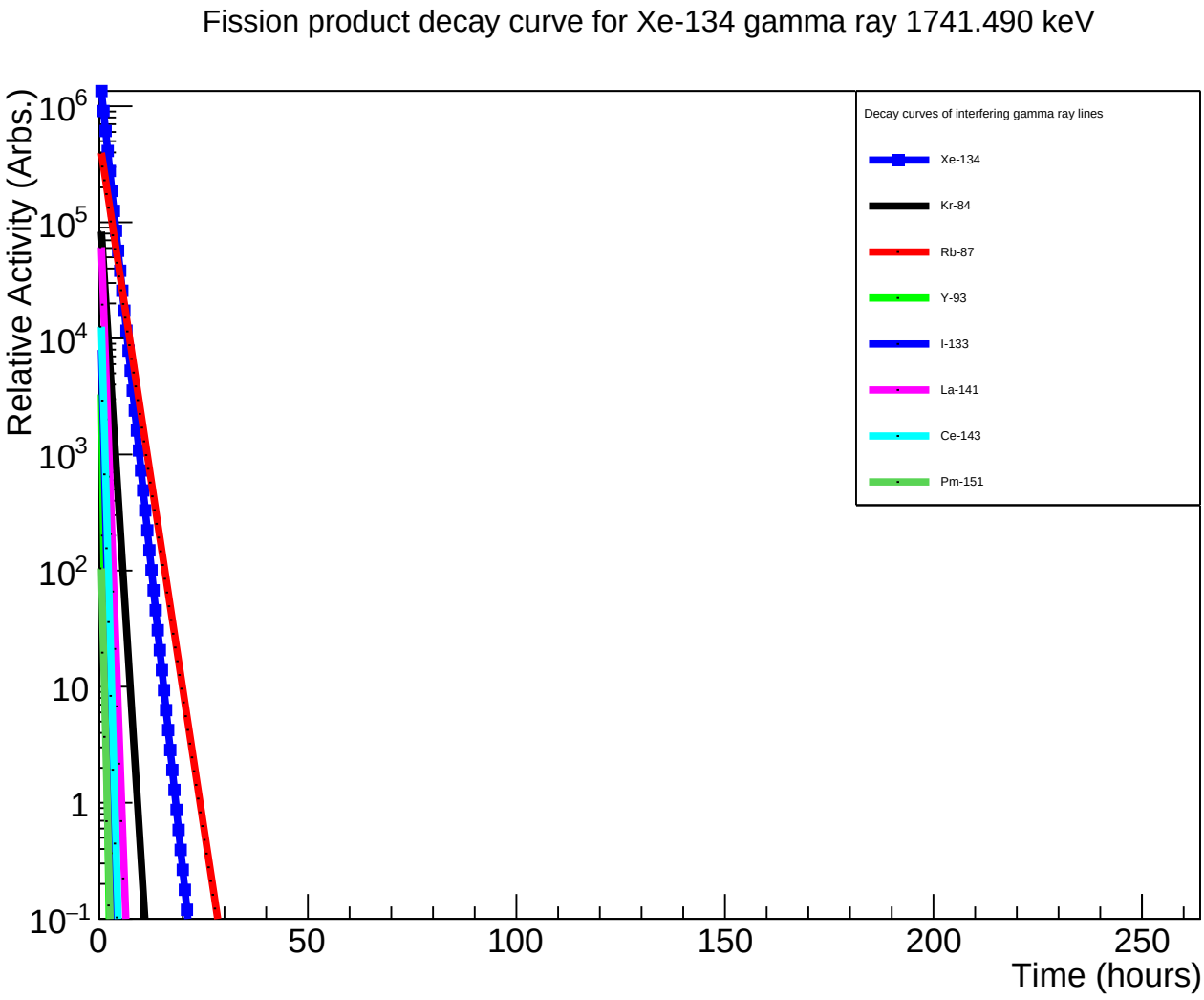


Figure 861: Xe-134 decay curve for 1741.490 keV gamma ray.

3.862 I-134 E_γ = 1806.84 keV

Chemical element: Iodine
Fission product parent: I-134
Gamma originates in daughter: Xe-134
Eγ: 1806.84 keV
Gamma Intensity = 5.55 ± 0.218 %
$T_{1/2}$ = 0.875 ± 0.003 hours or 52.50 ± 0.20 minutes
CFY: 7.830 ± 0.470 %

Table 1723: Decay chain of fission product chain A = 134

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-134	Antimony-134	0.000	0.000
Antimony-134	Tellurium-134	0.003	0.000
Tellurium-134	Iodine-134	0.697	0.013
Iodine-134	Xenon-134	0.875	0.003
Xenon-134	Cesium-134	0.000	0.000
Cesium-134	Barium-134	2.912	0.002

Table 1724: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1807.800	0.000	0.529	0.010
Y-95	Zr-95	1805.600	0.014	0.172	0.064
Sn-125	Sb-125	1806.690	0.001	231.360	0.000
Te-133	I-133	1806.900	0.003	0.208	0.031
Cs-138	Ba-138	1806.650	0.001	0.557	0.067
Nd-151	Pm-151	1807.000	0.001	0.207	0.004

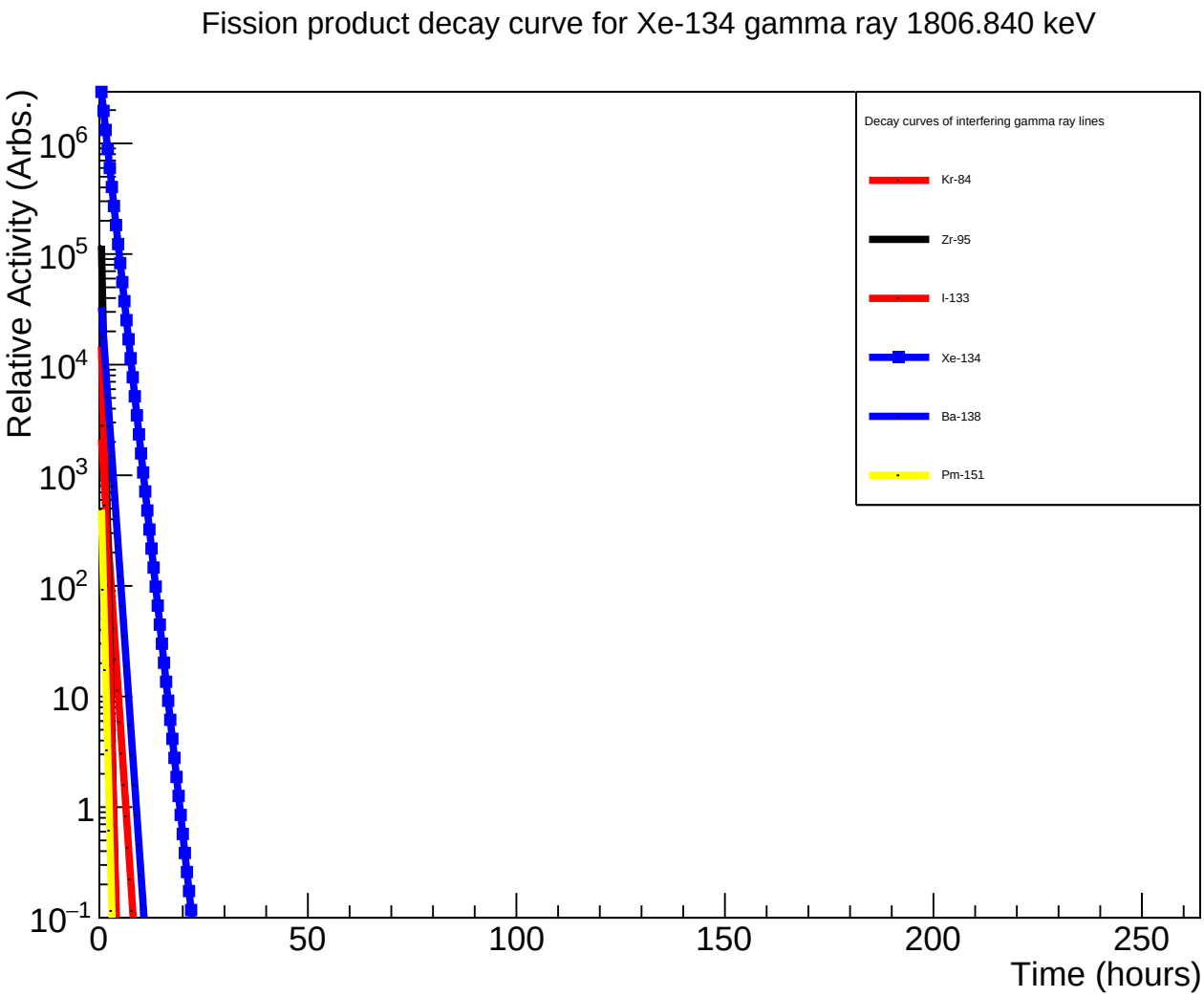


Figure 862: Xe-134 decay curve for 1806.840 keV gamma ray.

3.863 I-135 E_γ = 220.50 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 220.50 keV
Gamma Intensity = 1.75 ± 0.062 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1725: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1726: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	221.800	0.001	0.243	0.052
Rh-107	Pd-107	219.400	0.001	0.362	0.001
Sn-127	Sb-127	220.400	0.003	2.100	0.001
Te-131	I-131	221.570	0.000	0.417	0.025
Te-133	I-133	221.100	0.002	0.923	0.040
Ba-142	La-142	220.200	0.001	0.177	0.058
Sm-155	Eu-155	220.100	0.000	0.372	0.000

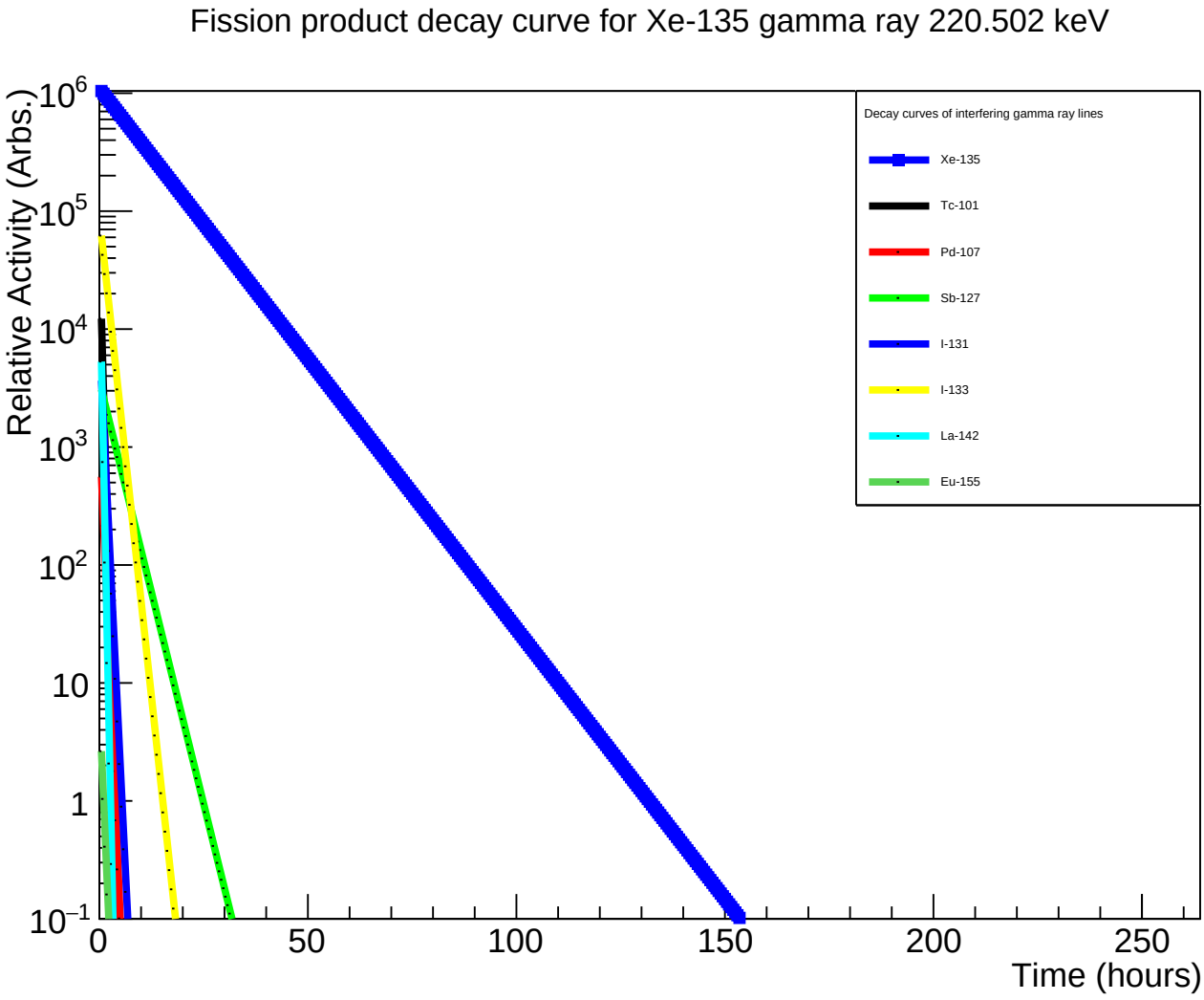


Figure 863: Xe-135 decay curve for 220.502 keV gamma ray.

3.864 I-135 E_γ = 288.45 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 288.45 keV
Gamma Intensity = 3.10 ± 0.113 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1727: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1728: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	289.760	0.006	0.252	0.047
Rh-107	Pd-107	288.280	0.007	0.362	0.001
Pd-111	Ag-111	289.800	0.001	0.390	0.000
Nd-149	Pm-149	287.700	0.000	1.728	0.011
Nd-149	Pm-149	288.194	0.007	1.728	0.011
Sm-155	Eu-155	287.100	0.000	0.372	0.000

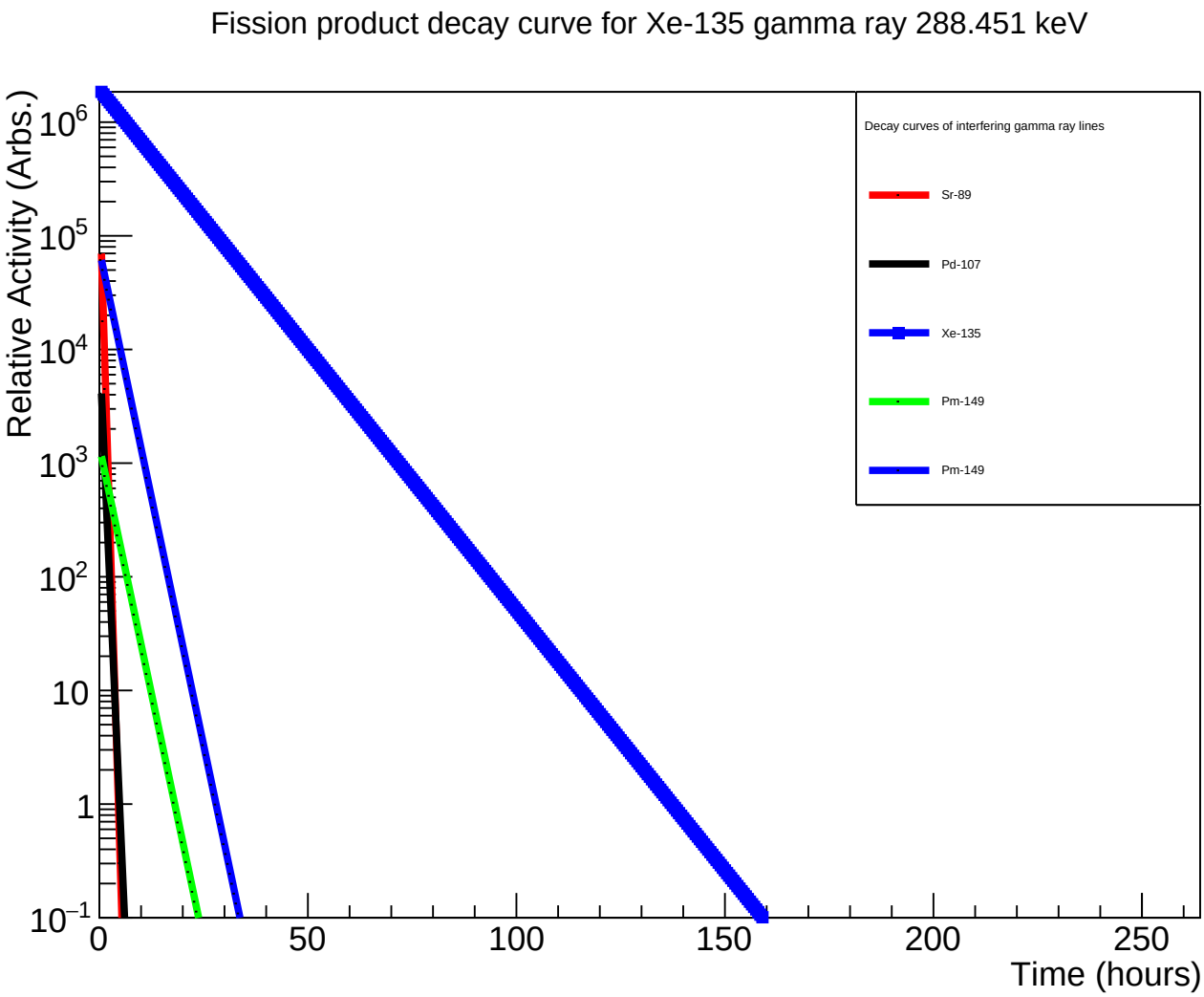


Figure 864: Xe-135 decay curve for 288.451 keV gamma ray.

3.865 I-135 E_γ = 417.63 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 417.63 keV
Gamma Intensity = 3.53 ± 0.114 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1729: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1730: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	416.200	0.000	0.296	0.036
Tc-105	Ru-105	418.700	0.004	0.127	0.010
Pd-111	Ag-111	418.000	0.000	0.390	0.000
Te-127	I-127	417.900	0.010	9.350	0.002
Te-131	I-131	417.400	0.003	33.250	0.004
Te-133	I-133	418.400	0.000	0.208	0.031
Cs-139	Ba-139	416.490	0.000	0.155	0.063
Ba-140	La-140	418.440	0.000	306.065	0.062
Ba-141	La-141	418.800	0.001	0.304	0.058
Ba-142	La-142	417.800	0.004	0.177	0.058
Ce-143	Pr-143	416.570	0.000	33.039	0.060
Nd-151	Pm-151	418.400	0.001	0.207	0.004
Pm-151	Sm-151	416.800	0.000	28.400	0.004

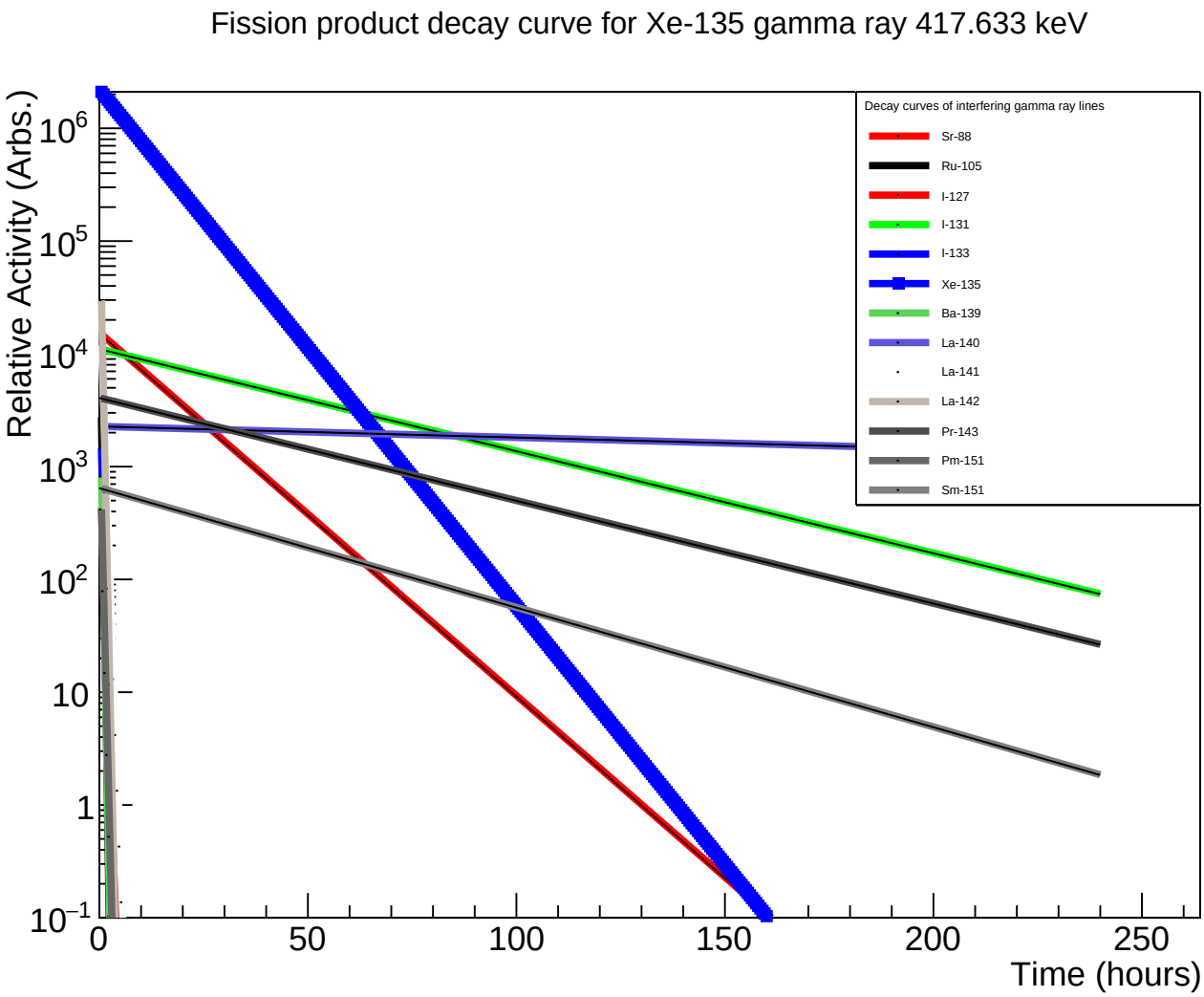


Figure 865: Xe-135 decay curve for 417.633 keV gamma ray.

3.866 I-135 E_γ = 546.56 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 546.56 keV
Gamma Intensity = 7.15 ± 0.240 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1731: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1732: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	545.300	0.030	1.512	0.000
Sr-93	Y-93	545.810	0.004	0.124	0.062
Pd-111	Ag-111	547.000	0.004	0.390	0.000
Sn-127	Sb-127	545.400	0.023	2.100	0.001
Te-131	I-131	546.700	0.000	33.250	0.004
Te-133	I-133	546.290	0.005	0.208	0.031
Cs-138	Ba-138	547.001	0.108	0.557	0.067
La-141	Ce-141	547.100	0.000	3.920	0.058
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	545.500	0.000	1.728	0.011
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-149	Pm-149	547.100	0.000	1.728	0.011
Nd-149	Pm-149	547.400	0.000	1.728	0.011
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Nd-152	Pm-152	547.700	0.001	0.190	0.003
Pm-149	Sm-149	547.170	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

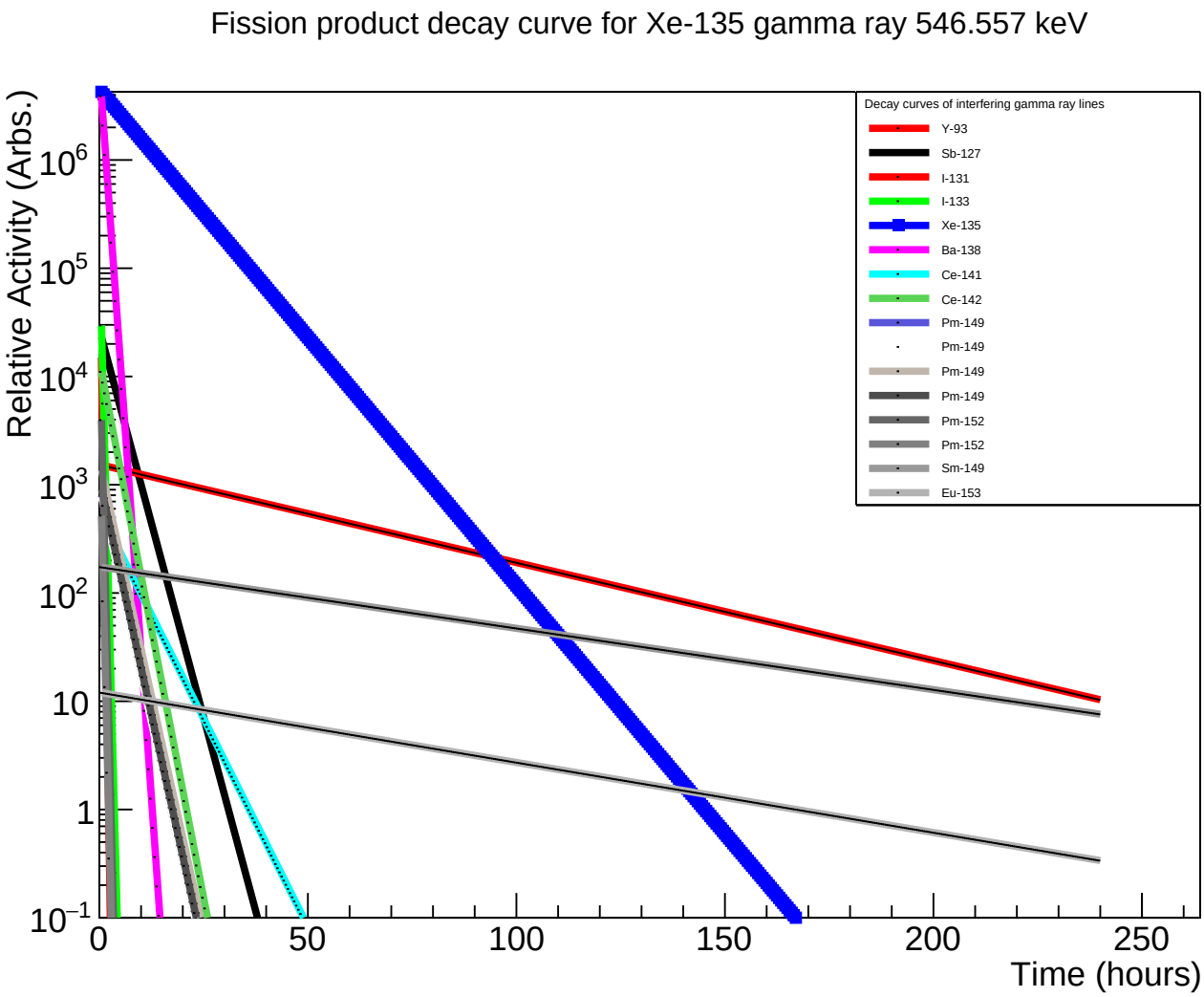


Figure 866: Xe-135 decay curve for 546.557 keV gamma ray.

3.867 I-135 E_γ = 836.80 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 836.80 keV
Gamma Intensity = 6.69 ± 0.227 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1733: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1734: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	836.520	0.133	0.372	0.003
Kr-87	Rb-87	836.370	0.008	1.272	0.026
Rh-107	Pd-107	836.500	0.000	0.362	0.001
Pd-111	Ag-111	835.700	0.003	0.390	0.000
Sb-128	Te-128	835.800	0.010	9.010	0.000
Nd-149	Pm-149	837.400	0.000	1.728	0.011
Nd-151	Pm-151	837.500	0.000	0.207	0.004
Pm-149	Sm-149	835.550	0.000	53.080	0.011
Eu-156	Gd-156	836.520	0.001	364.560	0.000

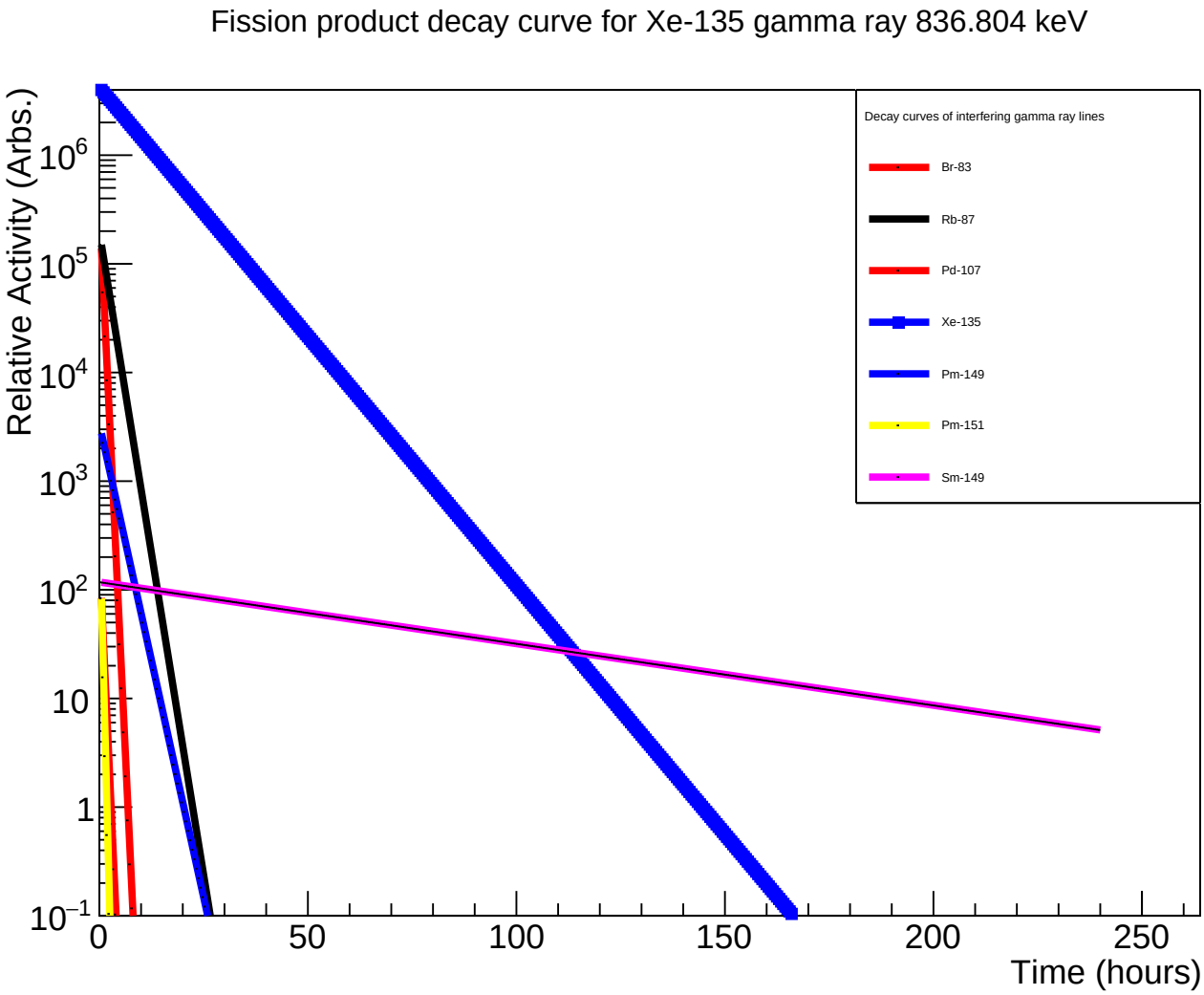


Figure 867: Xe-135 decay curve for 836.804 keV gamma ray.

3.868 I-135 E_γ = 972.62 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 972.62 keV
Gamma Intensity = 1.21 ± 0.048 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1735: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1736: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	973.900	0.000	9.630	0.058
Y-92	Zr-92	972.300	0.001	3.540	0.060
Zr-97	Nb-97	971.340	0.003	16.749	0.060
Sb-128	Te-128	972.300	0.010	9.010	0.000
Te-133	I-133	972.640	0.005	0.923	0.040
Cs-139	Ba-139	973.000	0.000	0.155	0.063
Nd-149	Pm-149	971.770	0.000	1.728	0.011
Nd-151	Pm-151	973.230	0.002	0.207	0.004

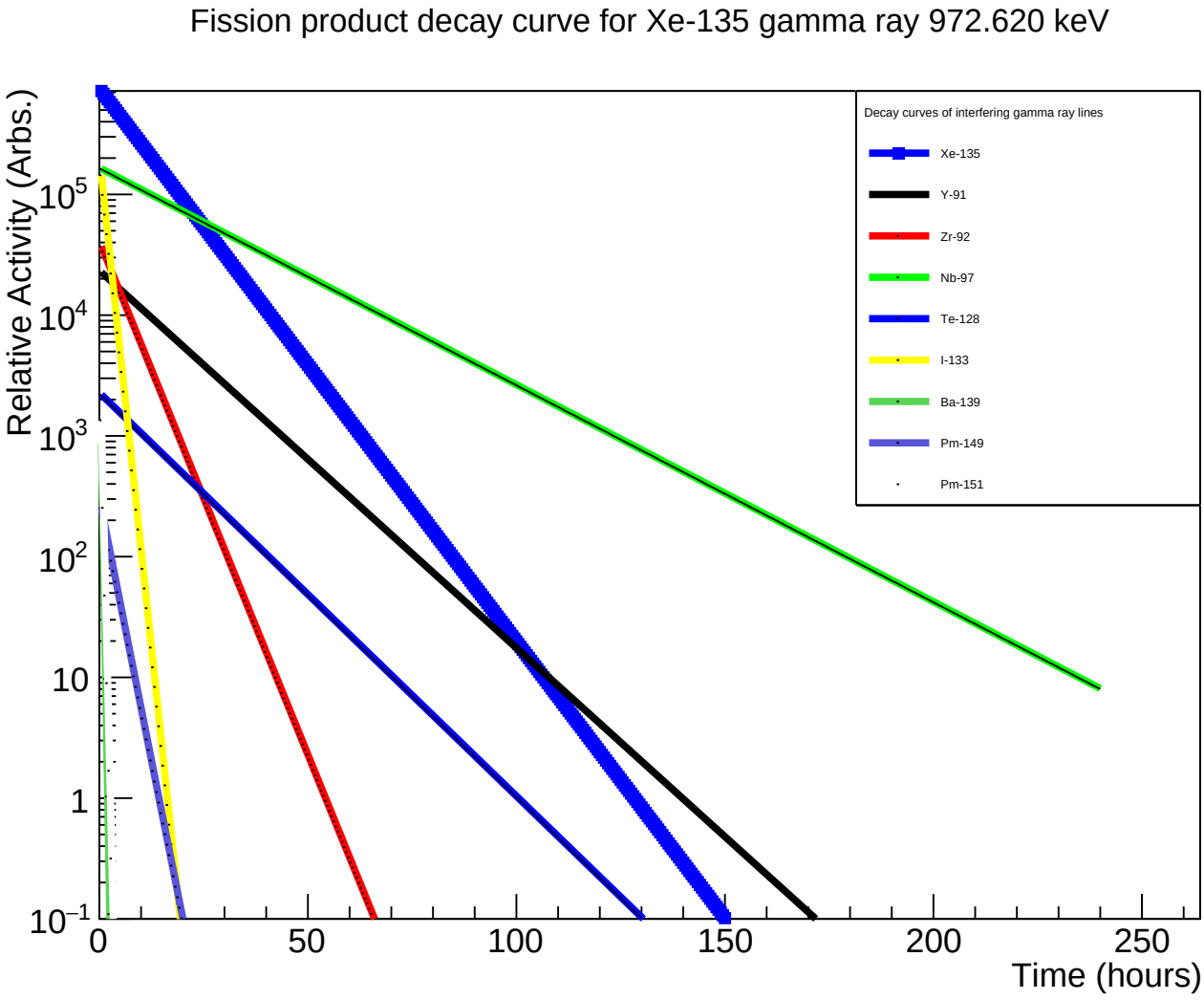


Figure 868: Xe-135 decay curve for 972.620 keV gamma ray.

3.869 I-135 E_γ = 1038.76 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1038.76 keV
Gamma Intensity = 7.95 ± 0.264 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1737: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1738: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1039.590	0.005	2.840	0.036
Ag-112	Cd-112	1037.900	0.001	3.130	0.000
Ba-141	La-141	1039.900	0.001	0.304	0.058
Ba-142	La-142	1040.000	0.001	0.177	0.058
La-142	Ce-142	1039.400	0.001	1.518	0.058

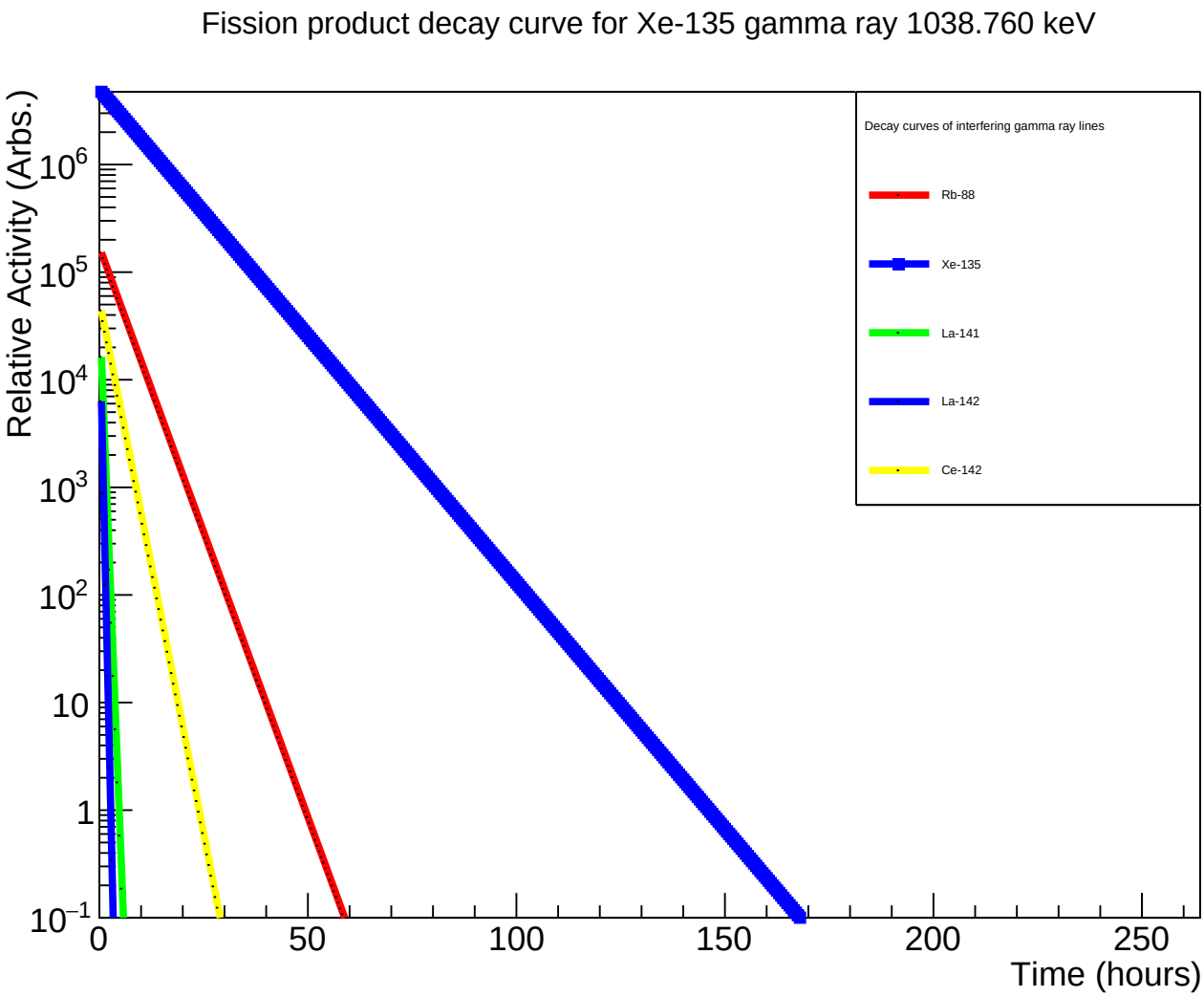


Figure 869: Xe-135 decay curve for 1038.760 keV gamma ray.

3.870 I-135 E_γ = 1101.58 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1101.58 keV
Gamma Intensity = 1.61 ± 0.057 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1739: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1740: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1102.660	0.005	0.855	0.000
Rh-107	Pd-107	1101.900	0.000	0.362	0.001
Sn-129	Sb-129	1101.000	0.007	0.115	0.002
Sb-128	Te-128	1101.800	0.004	0.173	0.003
Sb-130	Te-130	1102.800	0.037	0.105	0.010
Xe-138	Cs-138	1102.240	0.001	0.235	0.063
La-142	Ce-142	1100.700	0.000	1.518	0.058
Pr-147	Nd-147	1101.400	0.006	0.223	0.022
Nd-149	Pm-149	1100.770	0.000	1.728	0.011
Eu-156	Gd-156	1101.800	0.000	364.560	0.000

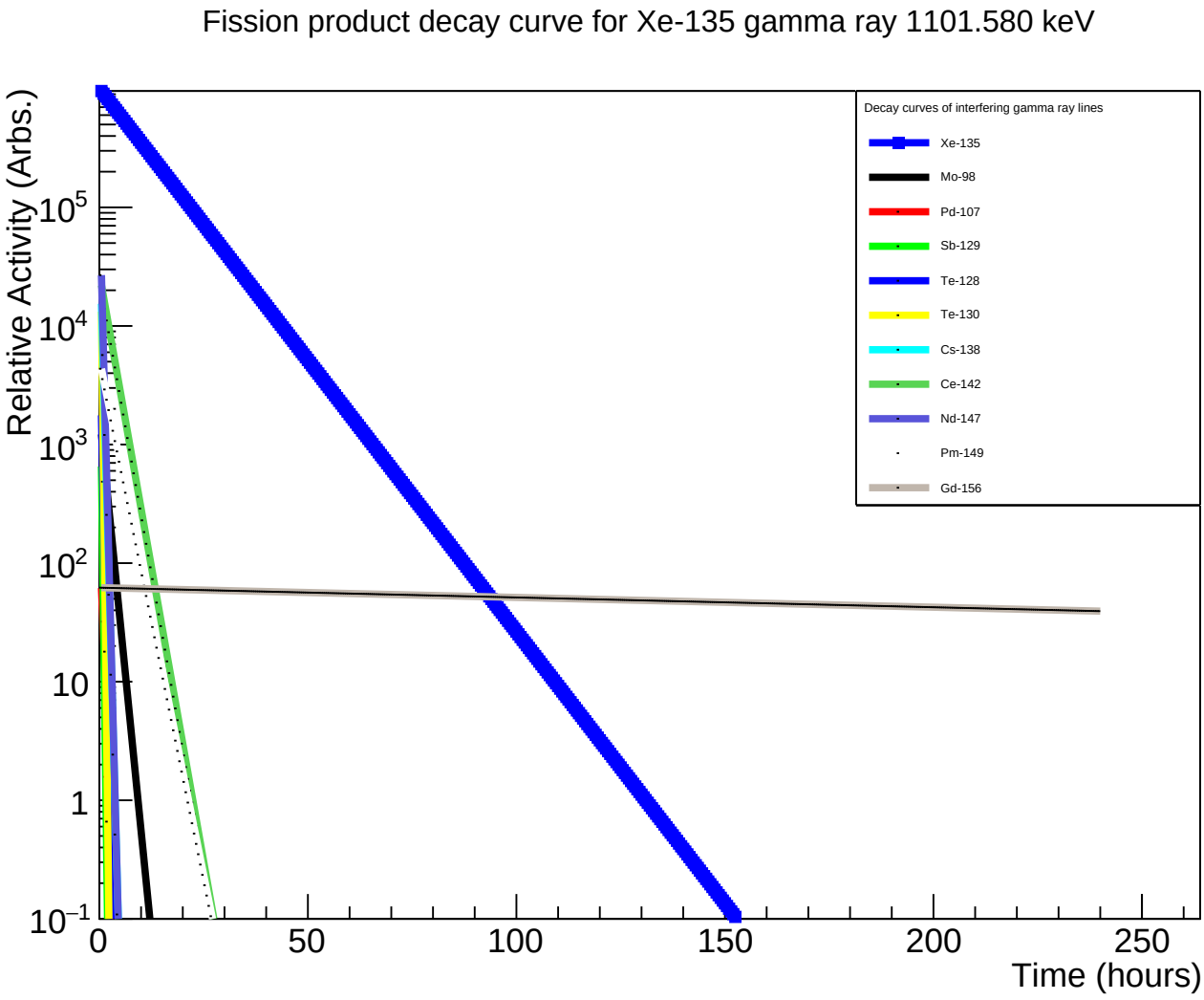


Figure 870: Xe-135 decay curve for 1101.580 keV gamma ray.

3.871 I-135 E_γ = 1124.00 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1124.00 keV
Gamma Intensity = 3.62 ± 0.117 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1741: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1742: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-131	Te-131	1123.630	0.089	0.384	0.026
Te-131	I-131	1125.460	0.110	33.250	0.004
Te-133	I-133	1123.900	0.001	0.208	0.031
Ba-142	La-142	1122.900	0.004	0.177	0.058
La-143	Ce-143	1122.730	0.004	0.237	0.059
Nd-149	Pm-149	1123.470	0.000	1.728	0.011
Nd-149	Pm-149	1125.320	0.000	1.728	0.011
Nd-151	Pm-151	1122.630	0.041	0.207	0.004
Nd-151	Pm-151	1123.500	0.000	0.207	0.004
Nd-151	Pm-151	1125.400	0.000	0.207	0.004

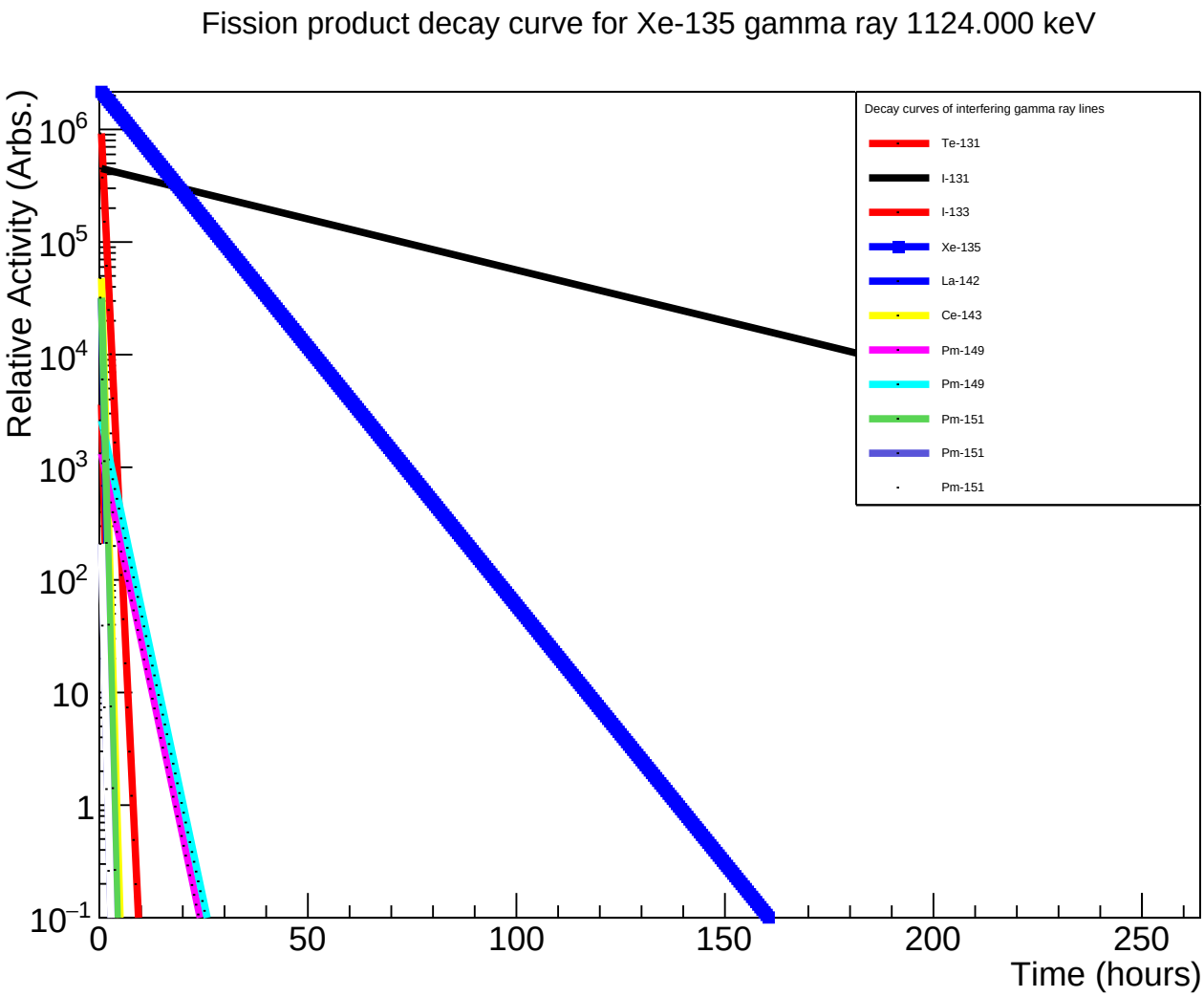


Figure 871: Xe-135 decay curve for 1124.000 keV gamma ray.

3.872 I-135 E_γ = 1131.51 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1131.51 keV
Gamma Intensity = 22.59 ± 0.723 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1743: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1744: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-92	Zr-92	1132.400	0.002	3.540	0.060
Sb-130	Te-130	1131.900	0.013	0.105	0.010
La-142	Ce-142	1130.600	0.005	1.518	0.058
Nd-151	Pm-151	1131.600	0.001	0.207	0.004
Nd-151	Pm-151	1132.550	0.001	0.207	0.004
Sm-155	Eu-155	1132.000	0.000	0.372	0.000

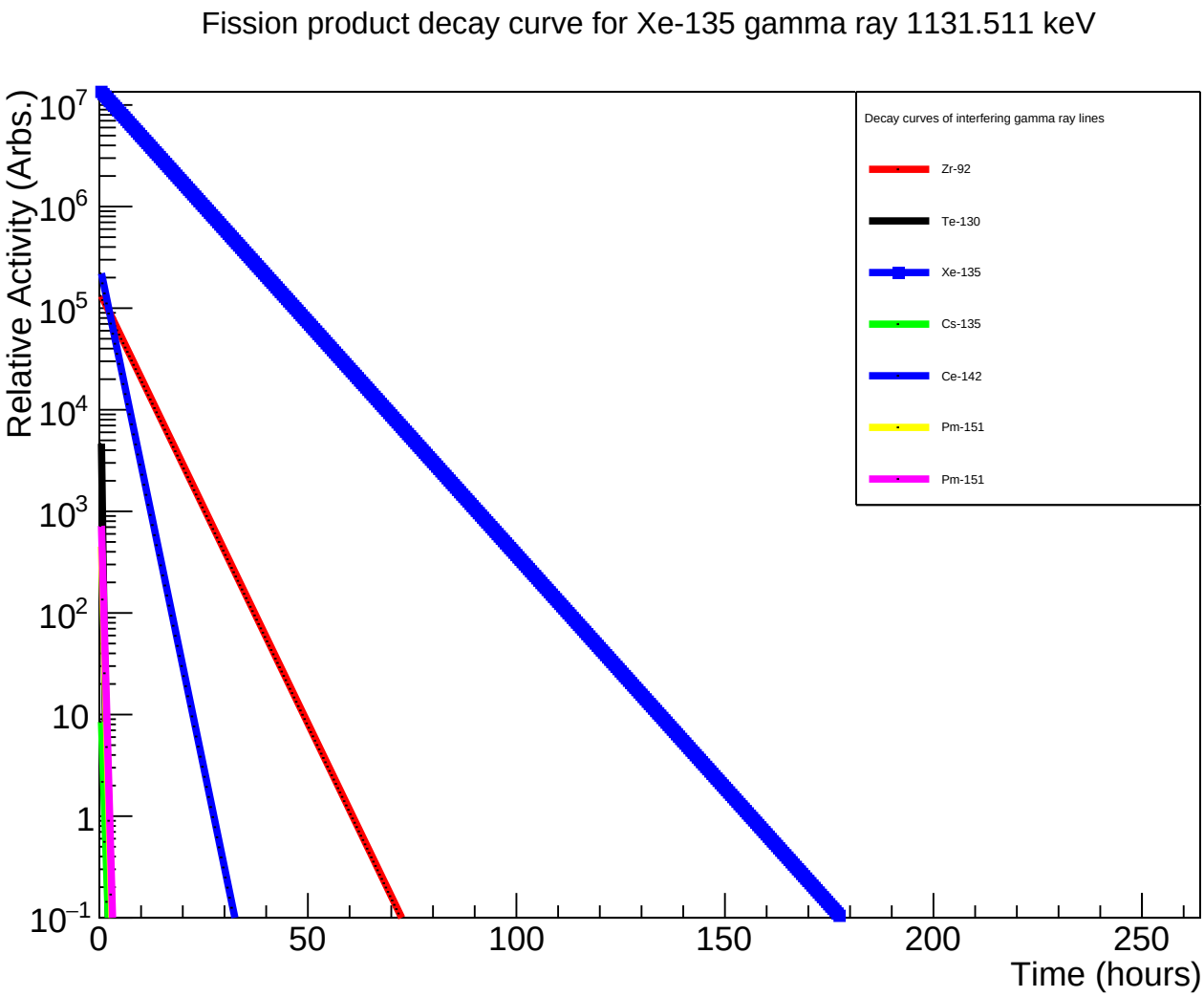


Figure 872: Xe-135 decay curve for 1131.511 keV gamma ray.

3.873 I-135 E_γ = 1260.41 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1260.41 keV
Gamma Intensity = 28.70 ± 0.916 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1745: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1746: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1259.400	0.009	0.372	0.003
Sr-93	Y-93	1261.300	0.001	0.124	0.062
Mo-101	Tc-101	1260.210	0.001	0.243	0.052
Sn-125	Sb-125	1259.350	0.000	231.360	0.000
Sb-128	Te-128	1259.500	0.010	9.010	0.000
Sb-129	Te-129	1261.300	0.007	4.400	0.005
Te-129	I-129	1260.630	0.000	1.160	0.005
La-143	Ce-143	1259.400	0.001	0.237	0.059
Pr-147	Nd-147	1261.100	0.082	0.223	0.022
Nd-149	Pm-149	1259.620	0.000	1.728	0.011
Nd-151	Pm-151	1260.860	0.000	0.207	0.004

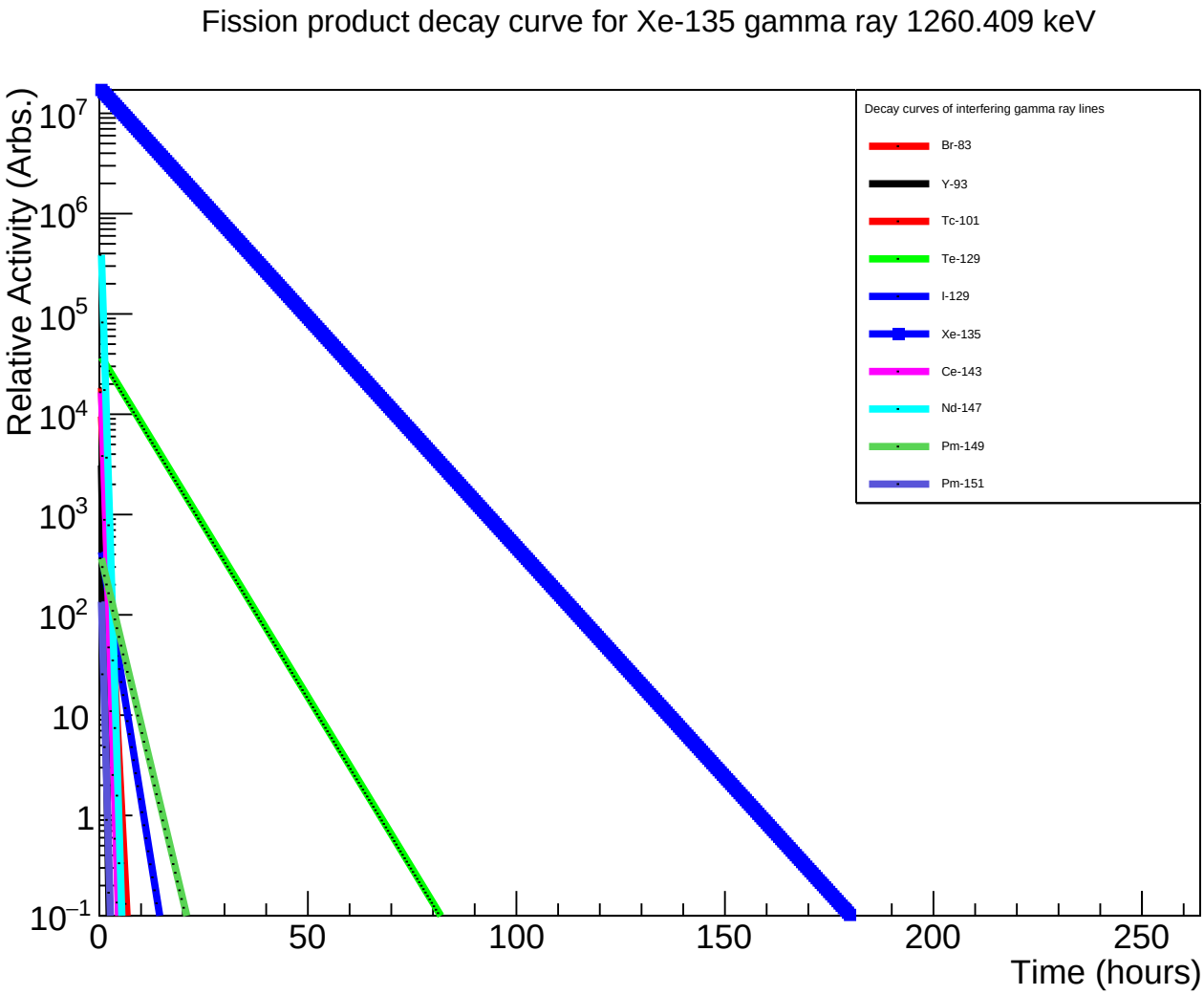


Figure 873: Xe-135 decay curve for 1260.409 keV gamma ray.

3.874 I-135 E_γ = 1457.56 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1457.56 keV
Gamma Intensity = 8.67 ± 0.278 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1747: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1748: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	1459.000	0.006	0.390	0.000
Sn-127	Sb-127	1458.400	0.003	2.100	0.001
Te-133	I-133	1458.900	0.002	0.923	0.040
Nd-151	Pm-151	1457.600	0.000	0.207	0.004

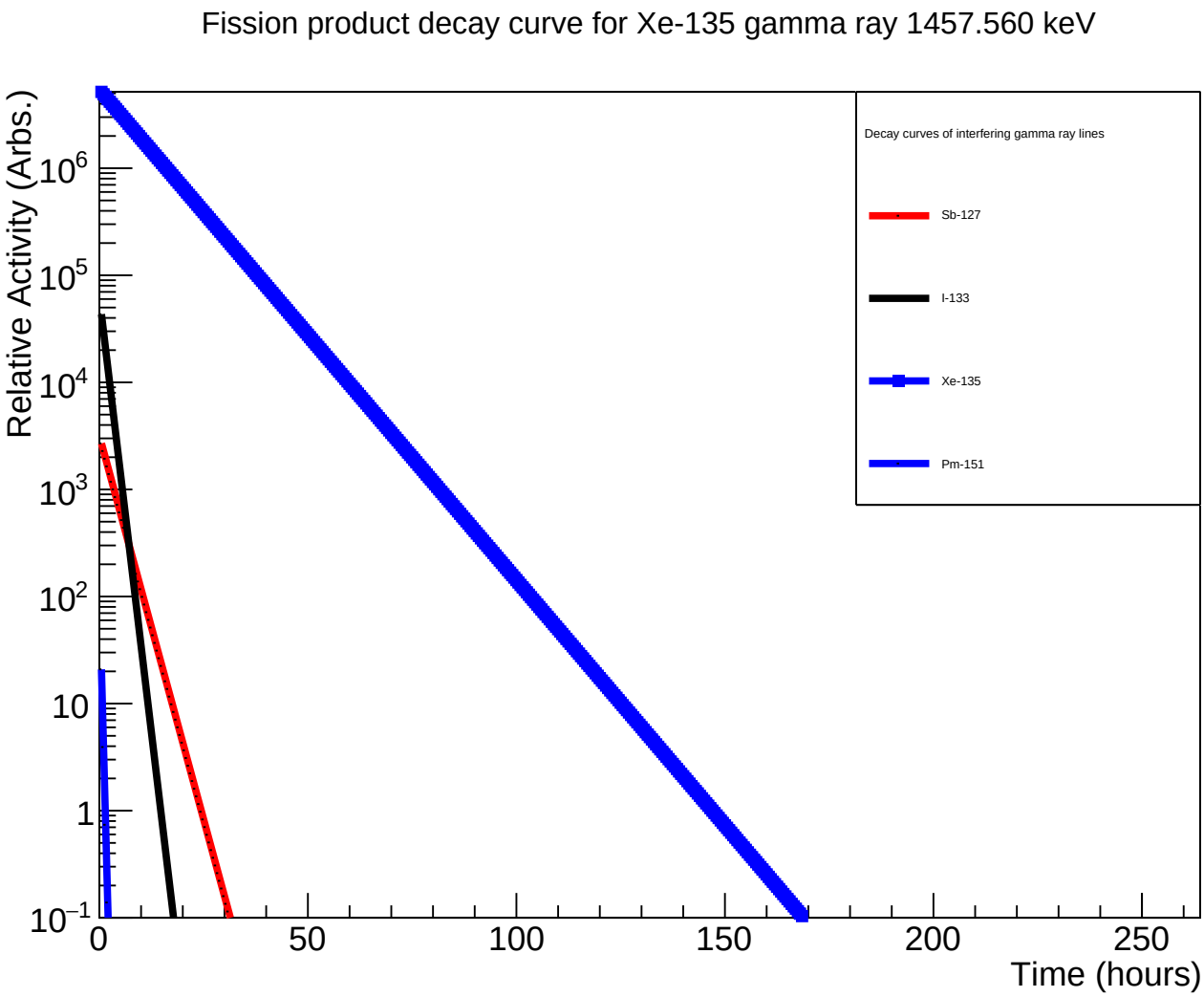


Figure 874: Xe-135 decay curve for 1457.560 keV gamma ray.

3.875 I-135 E_γ = 1502.79 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1502.79 keV
Gamma Intensity = 1.08 ± 0.043 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1749: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1750: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ag-112	Cd-112	1503.900	0.002	3.130	0.000
Te-133	I-133	1502.800	0.000	0.208	0.031
Ba-141	La-141	1501.400	0.004	0.304	0.058
Nd-151	Pm-151	1501.800	0.000	0.207	0.004

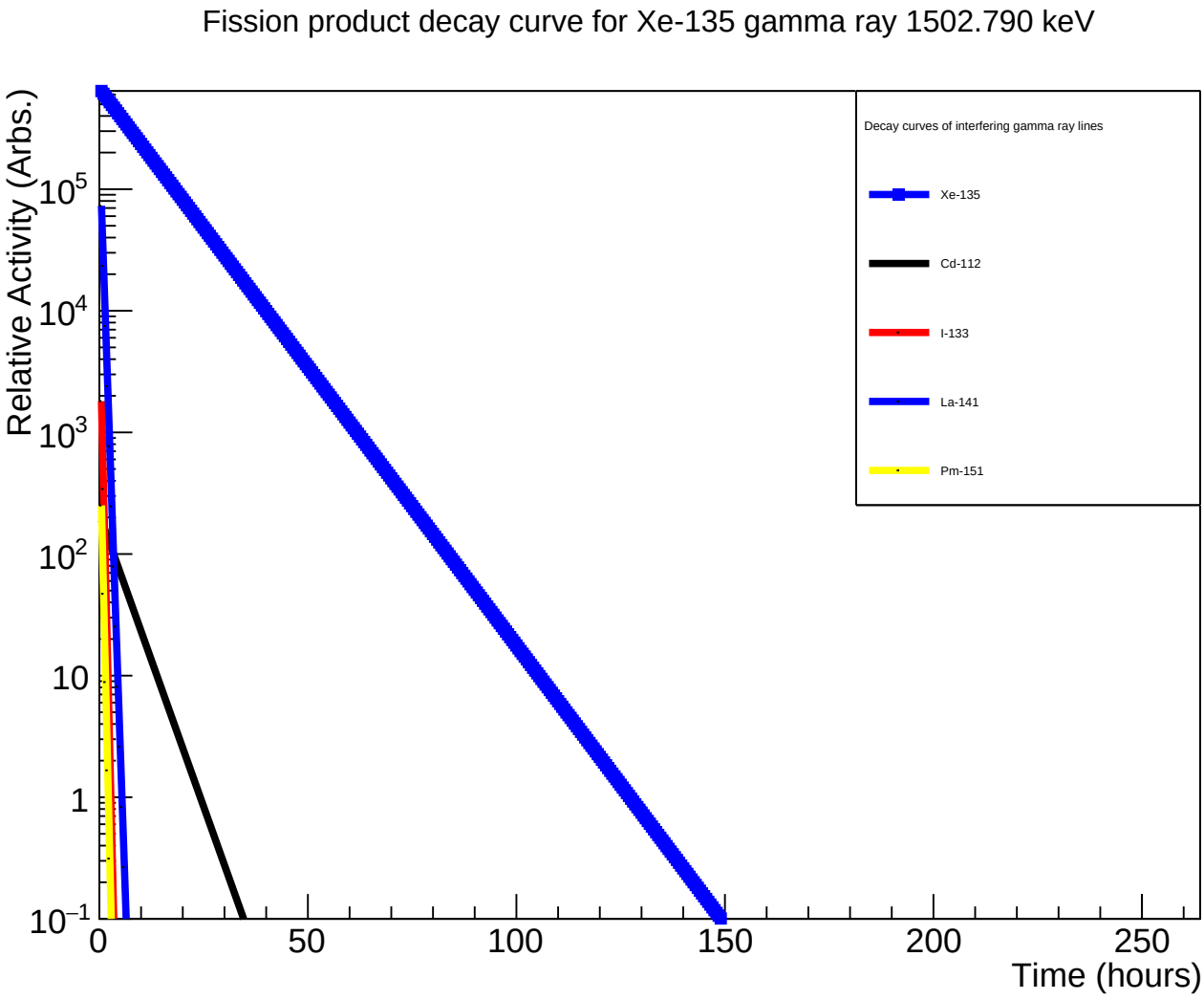


Figure 875: Xe-135 decay curve for 1502.790 keV gamma ray.

3.876 I-135 E_γ = 1566.41 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1566.41 keV
Gamma Intensity = 1.29 ± 0.050 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1751: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1752: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nd-151	Pm-151	1566.410	0.001	0.207	0.004

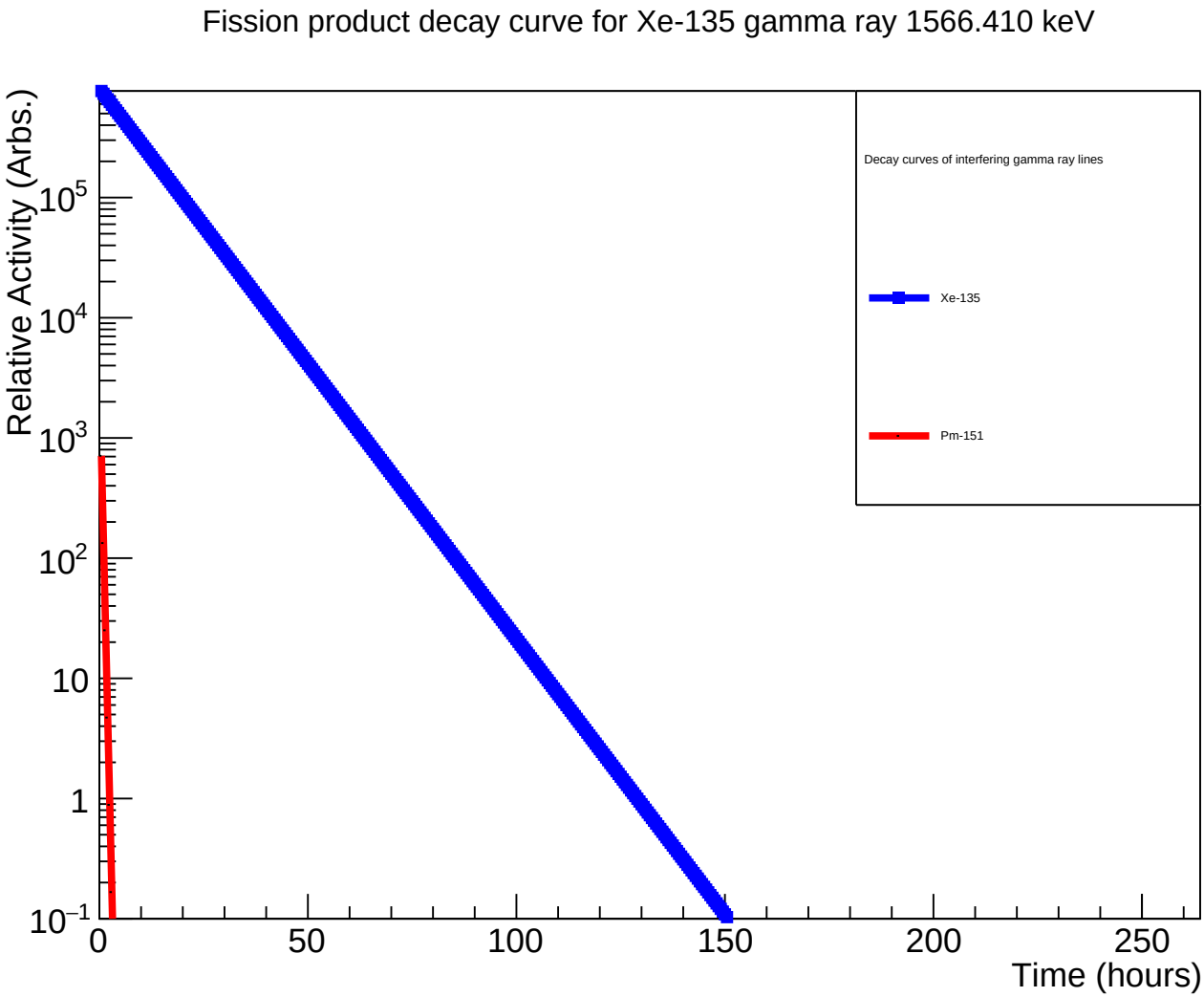


Figure 876: Xe-135 decay curve for 1566.410 keV gamma ray.

3.877 I-135 E_γ = 1678.03 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1678.03 keV
Gamma Intensity = 9.56 ± 0.361 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1753: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1754: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1676.800	0.078	0.305	0.019
Cs-139	Ba-139	1677.440	0.001	0.155	0.063
Nd-151	Pm-151	1678.400	0.000	0.207	0.004

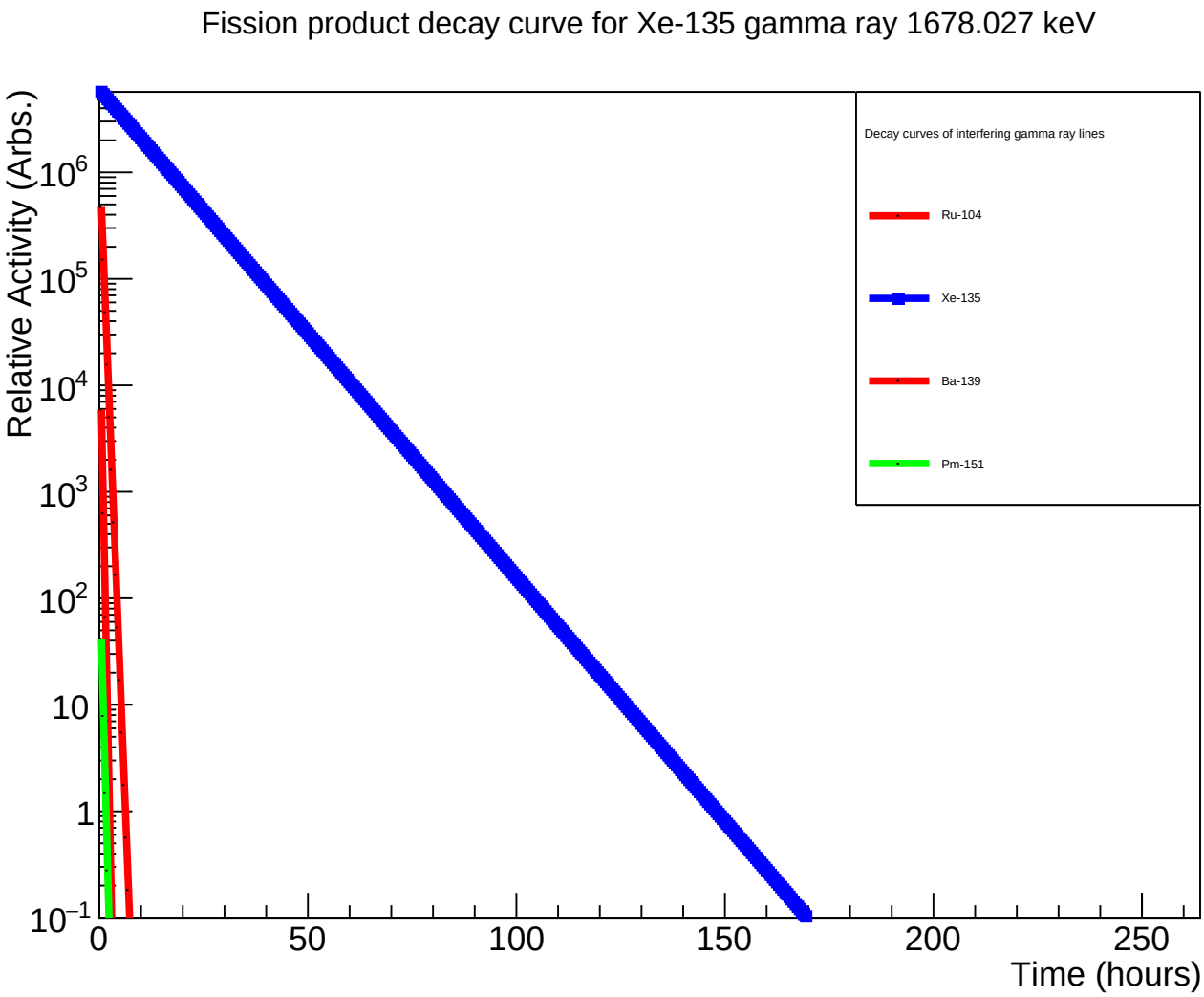


Figure 877: Xe-135 decay curve for 1678.027 keV gamma ray.

3.878 I-135 E_γ = 1706.46 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1706.46 keV
Gamma Intensity = 4.10 ± 0.172 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1755: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1756: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1706.590	0.011	0.124	0.062
Sb-128	Te-128	1707.900	0.003	9.010	0.000
Te-133	I-133	1706.000	0.001	0.208	0.031
La-143	Ce-143	1707.700	0.003	0.237	0.059

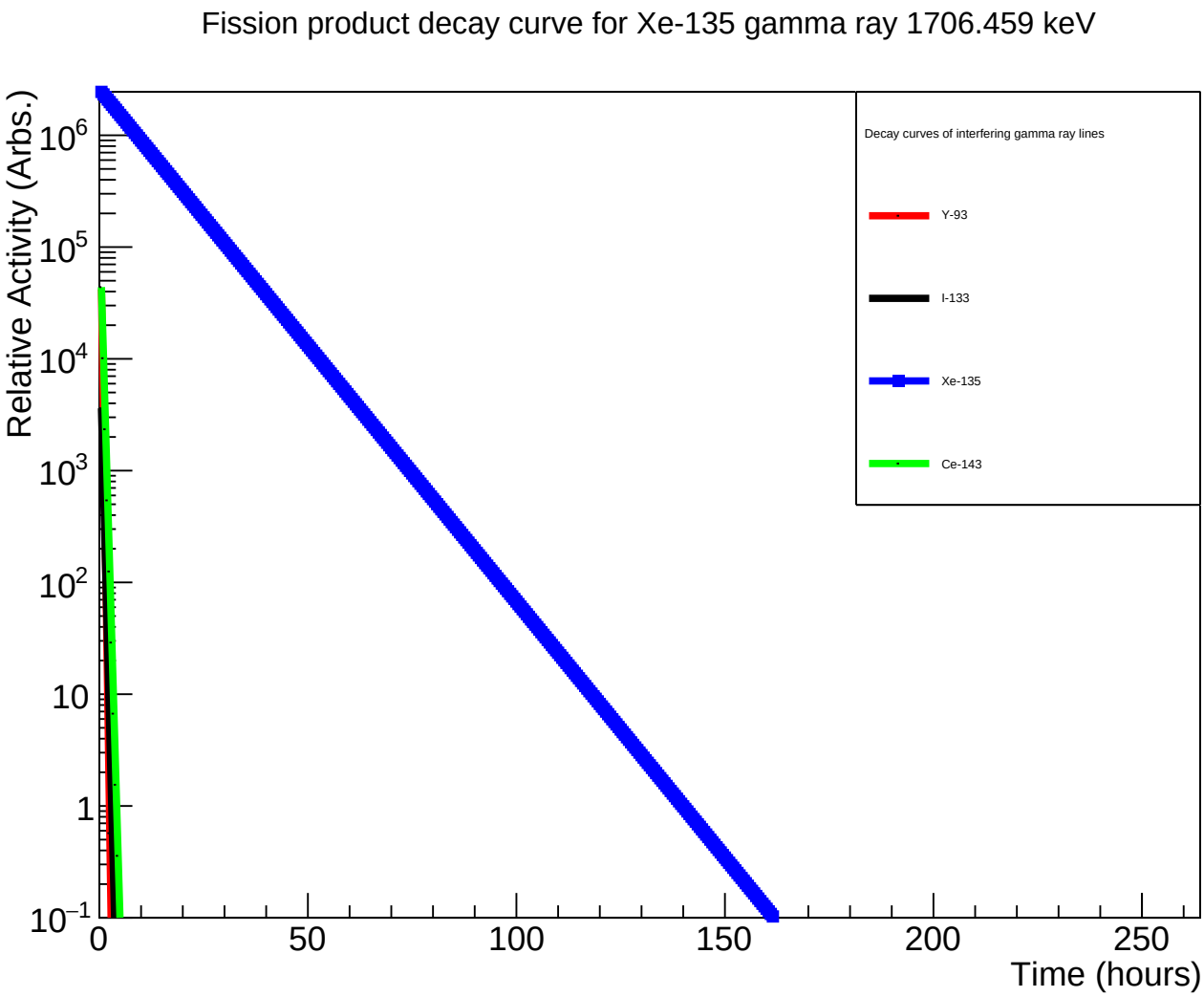


Figure 878: Xe-135 decay curve for 1706.459 keV gamma ray.

3.879 I-135 E_γ = 1791.20 keV

Chemical element: Iodine
Fission product parent: I-135
Gamma originates in daughter: Xe-135
Eγ: 1791.20 keV
Gamma Intensity = 7.72 ± 0.244 %
$T_{1/2}$ = 6.570 ± 0.020 hours or 394.20 ± 1.20 minutes
CFY: 6.282 ± 0.088 %

Table 1757: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1758: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1791.900	0.010	1.512	0.000
Nb-98	Mo-98	1792.050	0.002	0.855	0.000

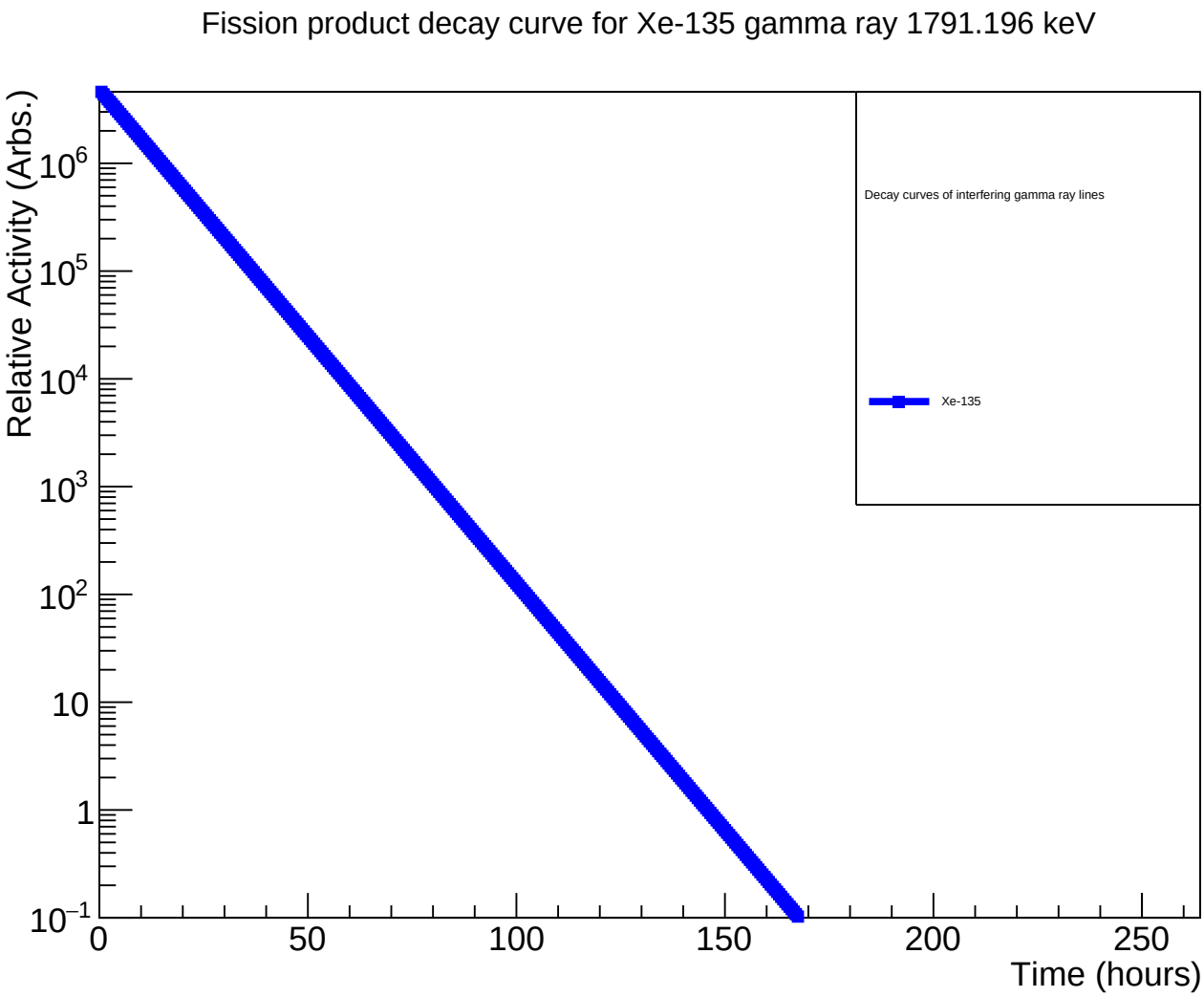


Figure 879: Xe-135 decay curve for 1791.196 keV gamma ray.

3.880 Xe-131 E_γ = 163.93 keV

Chemical element: Xenon
Fission product parent: Xe-131
Gamma originates in daughter: Cs-131
Eγ: 163.93 keV
Gamma Intensity = 1.94 ± 0.000 %
$T_{1/2}$ = 284.160 ± 0.960 hours or 17049.60 ± 57.60 minutes
CFY: 0.040 ± 0.001 %

Table 1759: Decay chain of fission product chain A = 131

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-131	Tellurium-131	0.384	0.001
Tellurium-131	Iodine-131	0.417	0.002
Iodine-131	Xenon-131	192.605	0.014
Xenon-131	Cesium-131	284.160	0.960
Cesium-131	Barium-131	232.536	0.384

Table 1760: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	162.530	0.000	0.855	0.000
Tc-104	Ru-104	163.200	0.004	0.305	0.019
Tc-105	Ru-105	164.800	0.003	0.127	0.010
Ru-105	Rh-105	163.460	0.002	4.440	0.010
Te-133	I-133	164.400	0.009	0.923	0.040
I-134	Xe-134	162.480	0.003	0.875	0.078
I-135	Xe-135	162.650	0.000	6.570	0.063
Ba-140	La-140	162.660	0.062	306.065	0.062
Ba-141	La-141	163.000	0.003	0.304	0.058
Nd-151	Pm-151	163.600	0.000	0.207	0.004
Pm-151	Sm-151	162.940	0.009	28.400	0.004
Pm-151	Sm-151	163.580	0.016	28.400	0.004

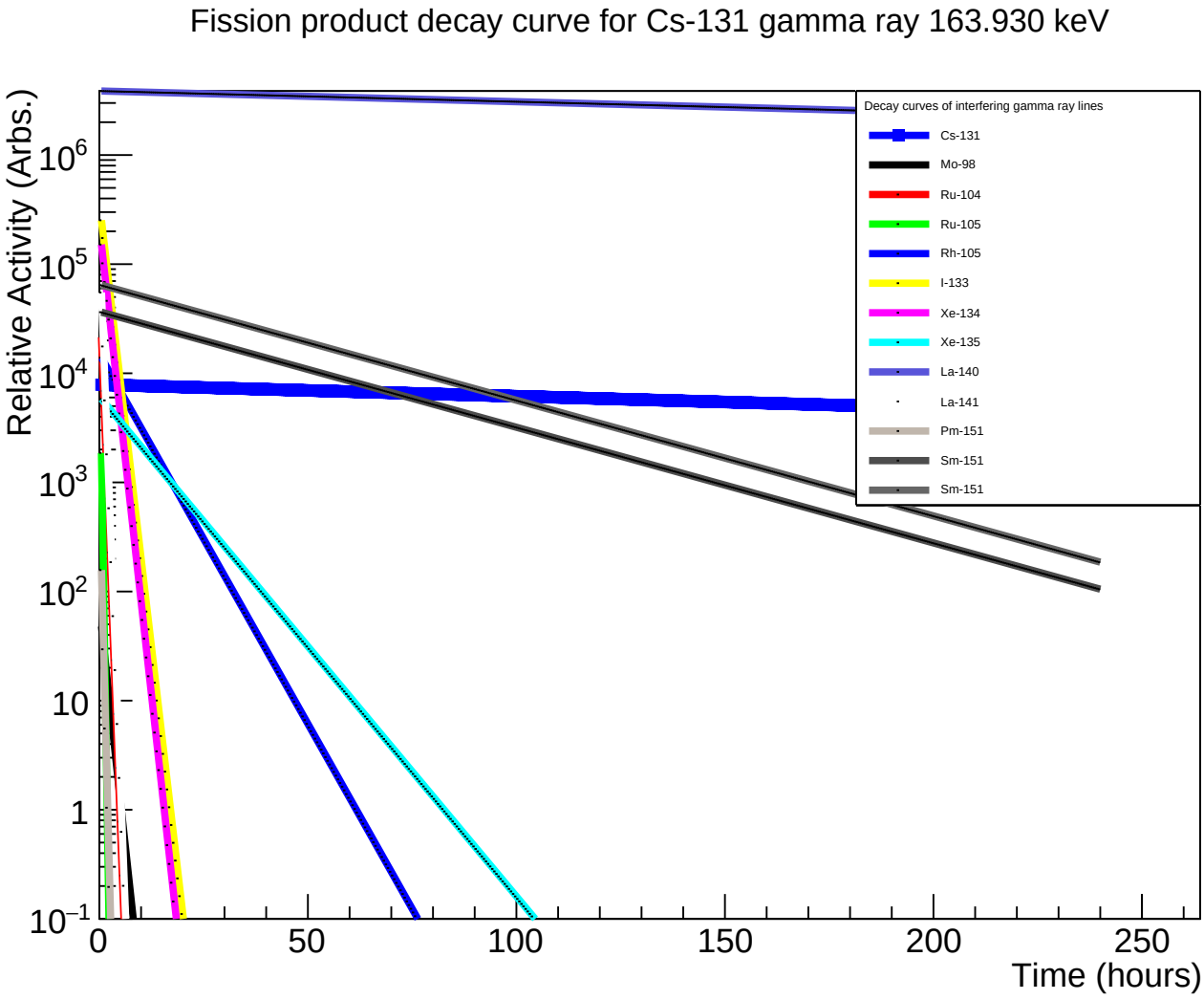


Figure 880: Cs-131 decay curve for 163.930 keV gamma ray.

3.881 Xe-133 E_γ = 81.00 keV

Chemical element: Xenon
Fission product parent: Xe-133
Gamma originates in daughter: Cs-133
Eγ: 81.00 keV
Gamma Intensity = 38.00 ± 0.700 %
$T_{1/2}$ = 125.832 ± 0.024 hours or 7549.92 ± 1.44 minutes
CFY: 6.699 ± 4.287 %

Table 1761: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1762: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	80.920	0.037	0.243	0.052
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Ru-105	Rh-105	81.200	0.001	4.440	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
Sb-125	Te-125	81.020	0.000	24194.445	0.000
Te-131	I-131	81.140	0.039	33.250	0.004
I-131	Xe-131	80.185	0.026	192.605	0.029
Ba-142	La-142	79.800	0.000	0.177	0.058
Ce-144	Pr-144	80.120	0.014	6833.333	0.055
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	80.000	0.000	0.372	0.000

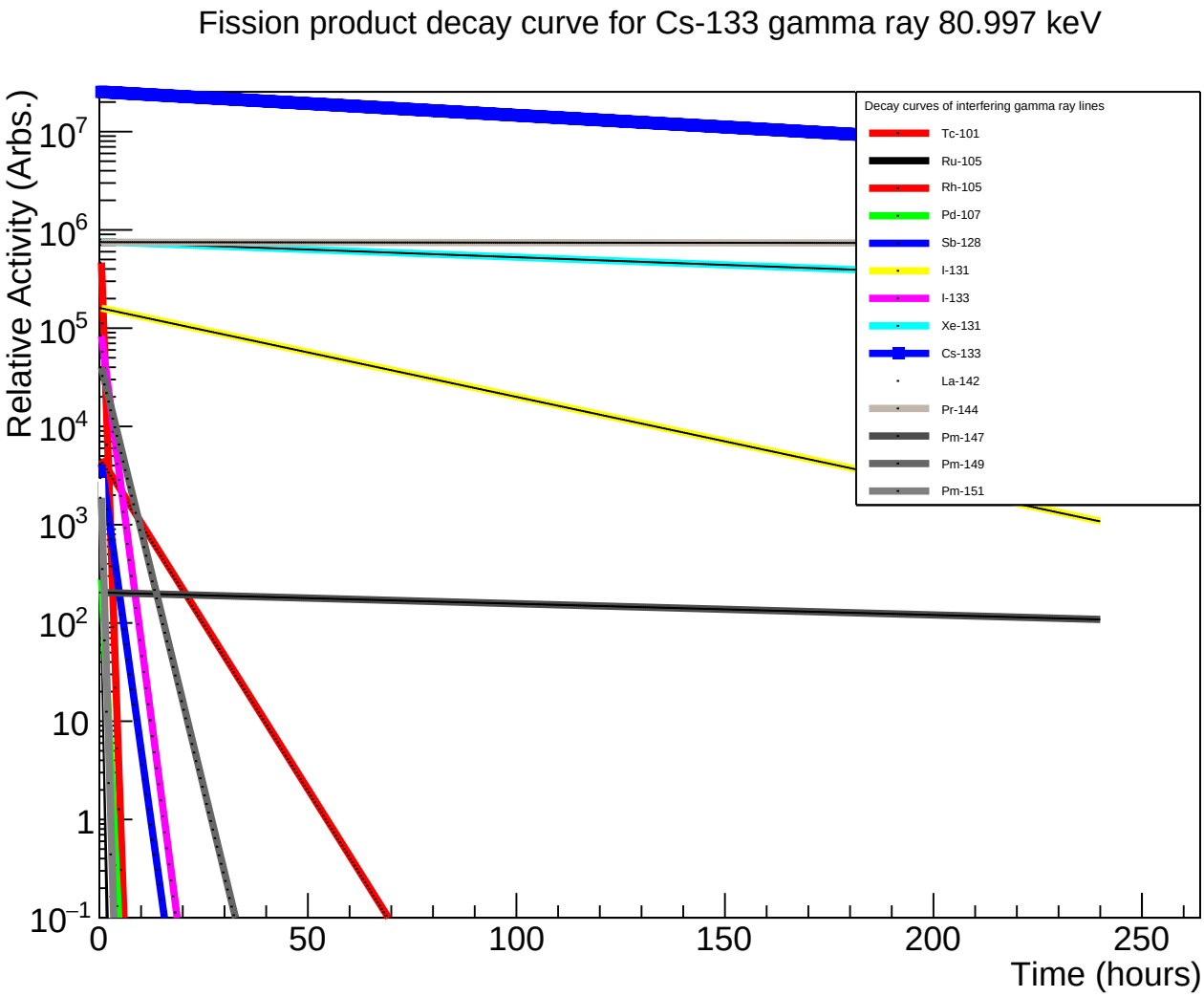


Figure 881: Cs-133 decay curve for 80.997 keV gamma ray.

3.882 Xe-133 E_γ = 233.22 keV

Chemical element: Xenon
Fission product parent: Xe-133
Gamma originates in daughter: Cs-133
Eγ: 233.22 keV
Gamma Intensity = 10.16 ± 0.008 %
$T_{1/2}$ = 52.560 ± 0.240 hours or 3153.60 ± 14.40 minutes
CFY: 0.195 ± 0.125 %

Table 1763: Decay chain of fission product chain A = 133

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Tin-133	Antimony-133	0.000	0.000
Antimony-133	Tellurium-133	0.042	0.002
Tellurium-133	Iodine-133	0.208	0.005
Iodine-133	Xenon-133	0.002	0.001
Xenon-133	Cesium-133	125.832	0.024

Table 1764: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	232.800	0.000	6.007	0.054
Tc-101	Ru-101	233.700	0.003	0.237	0.052
Rh-107	Pd-107	232.370	0.002	0.362	0.001
Sn-127	Sb-127	232.200	0.008	2.100	0.001
Sn-127	Sb-127	234.300	0.005	2.100	0.001
Sn-129	Sb-129	232.500	0.007	0.115	0.002
Te-131	I-131	232.300	0.001	33.250	0.004
I-131	Xe-131	232.180	0.000	192.605	0.029
I-132	Xe-132	234.300	0.000	2.295	0.043
Cs-139	Ba-139	233.450	0.000	0.155	0.063
Nd-151	Pm-151	232.920	0.000	0.207	0.004
Pm-151	Sm-151	232.430	0.010	28.400	0.004
Pm-151	Sm-151	232.700	0.001	28.400	0.004

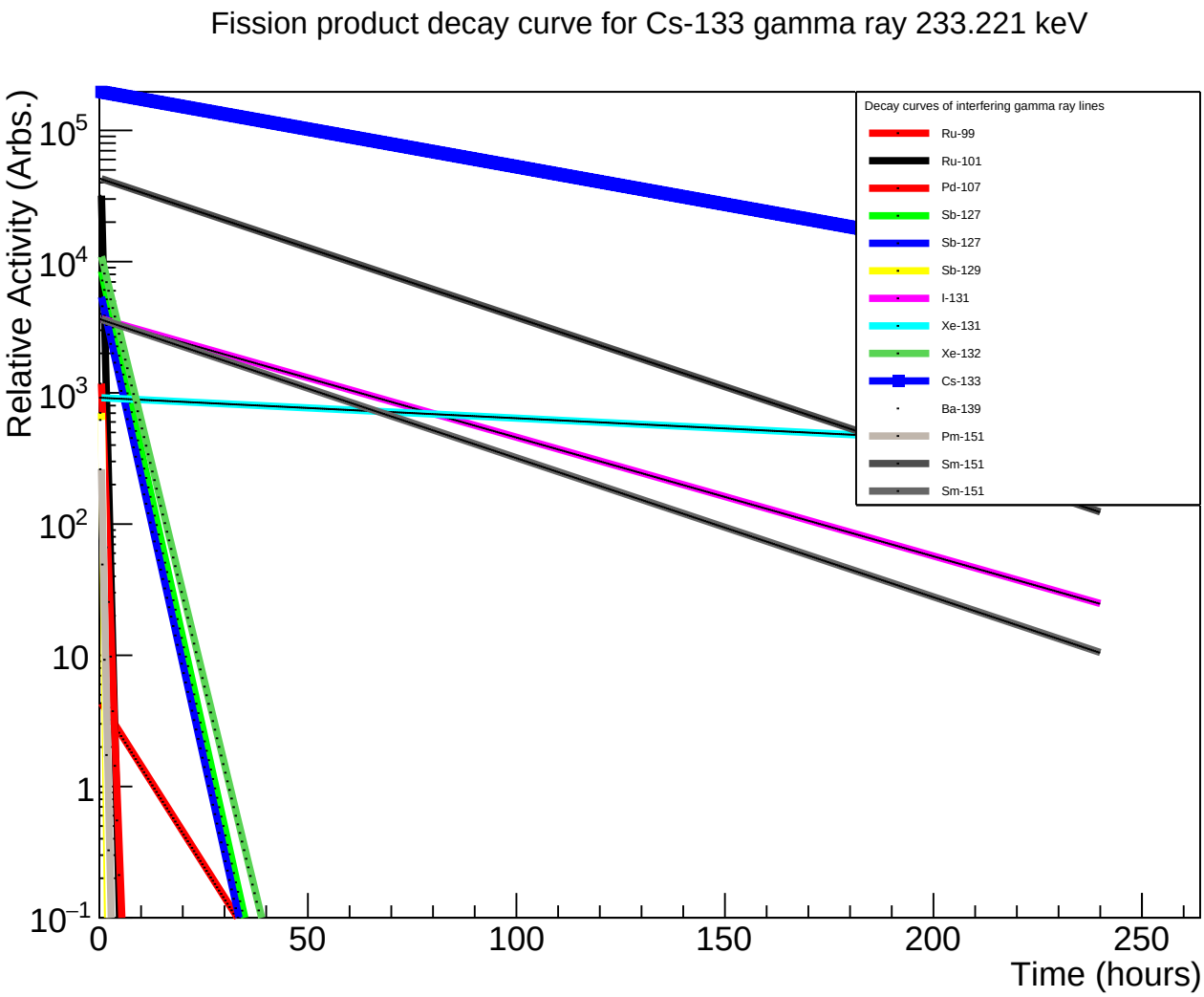


Figure 882: Cs-133 decay curve for 233.221 keV gamma ray.

3.883 Xe-135 E_γ = 249.79 keV

Chemical element: Xenon
Fission product parent: Xe-135
Gamma originates in daughter: Cs-135
Eγ: 249.79 keV
Gamma Intensity = 90.00 ± 3.000 %
$T_{1/2}$ = 9.140 ± 0.020 hours or 548.40 ± 1.20 minutes
CFY: 6.538 ± 0.046 %

Table 1765: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1766: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	249.030	0.000	65.976	0.061
Sn-127	Sb-127	248.600	0.001	2.100	0.001
Sb-128	Te-128	249.700	0.006	9.010	0.000
Te-129	I-129	250.620	0.004	1.160	0.005
Te-129	I-129	250.620	0.000	806.400	0.001
Te-133	I-133	248.900	0.000	0.923	0.040
I-132	Xe-132	250.800	0.000	2.295	0.043
Cs-139	Ba-139	249.890	0.000	0.155	0.063
Ce-146	Pr-146	250.890	0.025	0.225	0.030
Pr-147	Nd-147	249.200	0.014	0.223	0.022
Nd-149	Pm-149	250.826	0.000	1.728	0.011
Nd-151	Pm-151	249.290	0.003	0.207	0.004
Nd-152	Pm-152	250.150	0.183	0.190	0.003
Nd-152	Pm-152	250.300	0.001	0.190	0.003
Pm-151	Sm-151	250.500	0.000	28.400	0.004

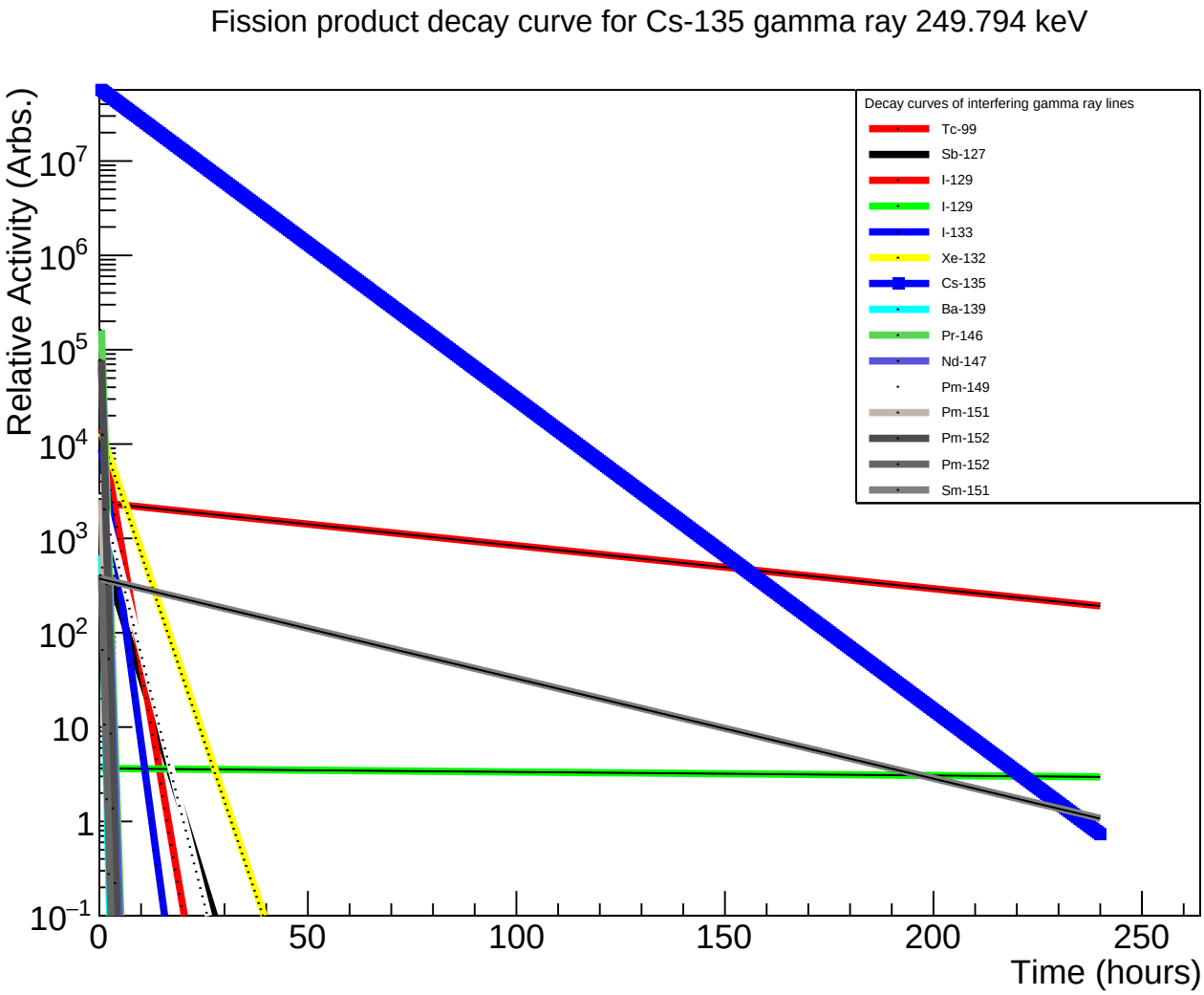


Figure 883: Cs-135 decay curve for 249.794 keV gamma ray.

3.884 Xe-135 E_γ = 608.18 keV

Chemical element: Xenon
Fission product parent: Xe-135
Gamma originates in daughter: Cs-135
Eγ: 608.18 keV
Gamma Intensity = 2.90 ± 0.132 %
$T_{1/2}$ = 9.140 ± 0.020 hours or 548.40 ± 1.20 minutes
CFY: 6.538 ± 0.046 %

Table 1767: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1768: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	609.220	0.029	0.372	0.003
Mo-101	Tc-101	606.800	0.001	0.243	0.052
Mo-101	Tc-101	608.340	0.010	0.243	0.052
Tc-104	Ru-104	609.500	0.020	0.305	0.019
Tc-105	Ru-105	608.500	0.024	0.127	0.010
Ag-112	Cd-112	606.700	0.031	3.130	0.000
Sn-127	Sb-127	609.500	0.003	2.100	0.001
Sb-125	Te-125	606.713	0.050	24194.445	0.000
Te-131	I-131	609.400	0.001	33.250	0.004
Te-133	I-133	607.300	0.002	0.923	0.040
Ba-141	La-141	609.000	0.004	0.304	0.058
Pm-151	Sm-151	609.250	0.000	28.400	0.004
Sm-153	Eu-153	609.500	0.000	46.500	0.002

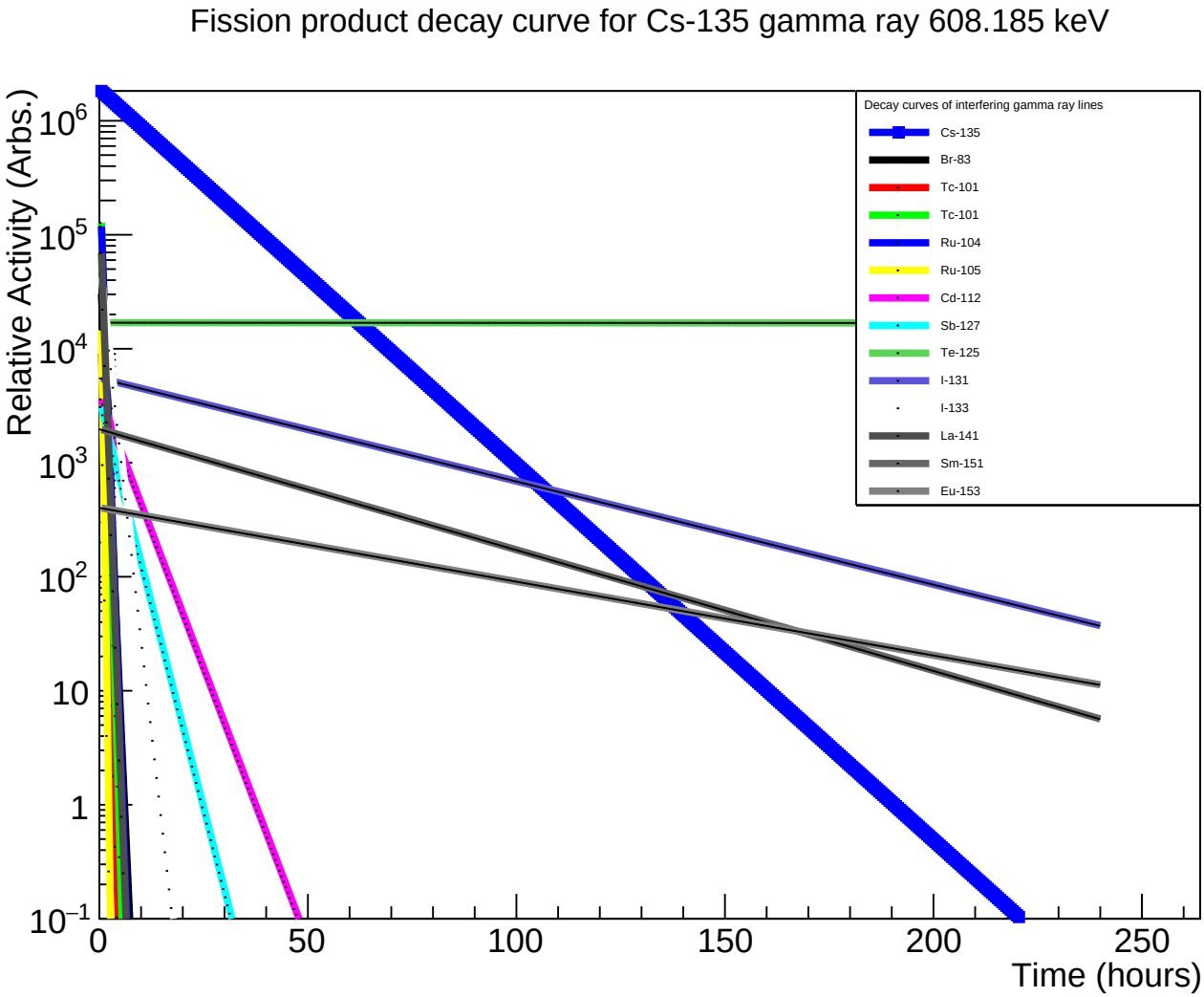


Figure 884: Cs-135 decay curve for 608.185 keV gamma ray.

3.885 Xe-135 E_γ = 526.56 keV

Chemical element: Xenon
Fission product parent: Xe-135
Gamma originates in daughter: Cs-135
Eγ: 526.56 keV
Gamma Intensity = 80.60 ± 0.274 %
$T_{1/2}$ = 0.255 ± 0.001 hours or 15.29 ± 0.05 minutes
CFY: 1.102 ± 0.015 %

Table 1769: Decay chain of fission product chain A = 135

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Antimony-135	Tellurium-135	0.000	0.000
Tellurium-135	Iodine-135	0.005	0.000
Iodine-135	Xenon-135	6.570	0.020
Xenon-135	Cesium-135	9.140	0.020
Cesium-135	Barium-135	0.883	0.033
Barium-135	Lanthanum-135	28.700	0.200

Table 1770: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	527.200	0.004	0.305	0.019
Cd-115	In-115	527.901	0.275	53.460	0.000
Sb-128	Te-128	526.500	0.450	9.010	0.000
Te-133	I-133	525.840	0.002	0.208	0.031
Te-133	I-133	525.630	0.003	0.923	0.040
Ba-141	La-141	527.600	0.005	0.304	0.058
La-143	Ce-143	527.300	0.001	0.237	0.059
Ce-146	Pr-146	526.830	0.001	0.225	0.030
Nd-149	Pm-149	527.600	0.000	1.728	0.011
Nd-151	Pm-151	527.600	0.000	0.207	0.004
Nd-152	Pm-152	526.300	0.001	0.190	0.003

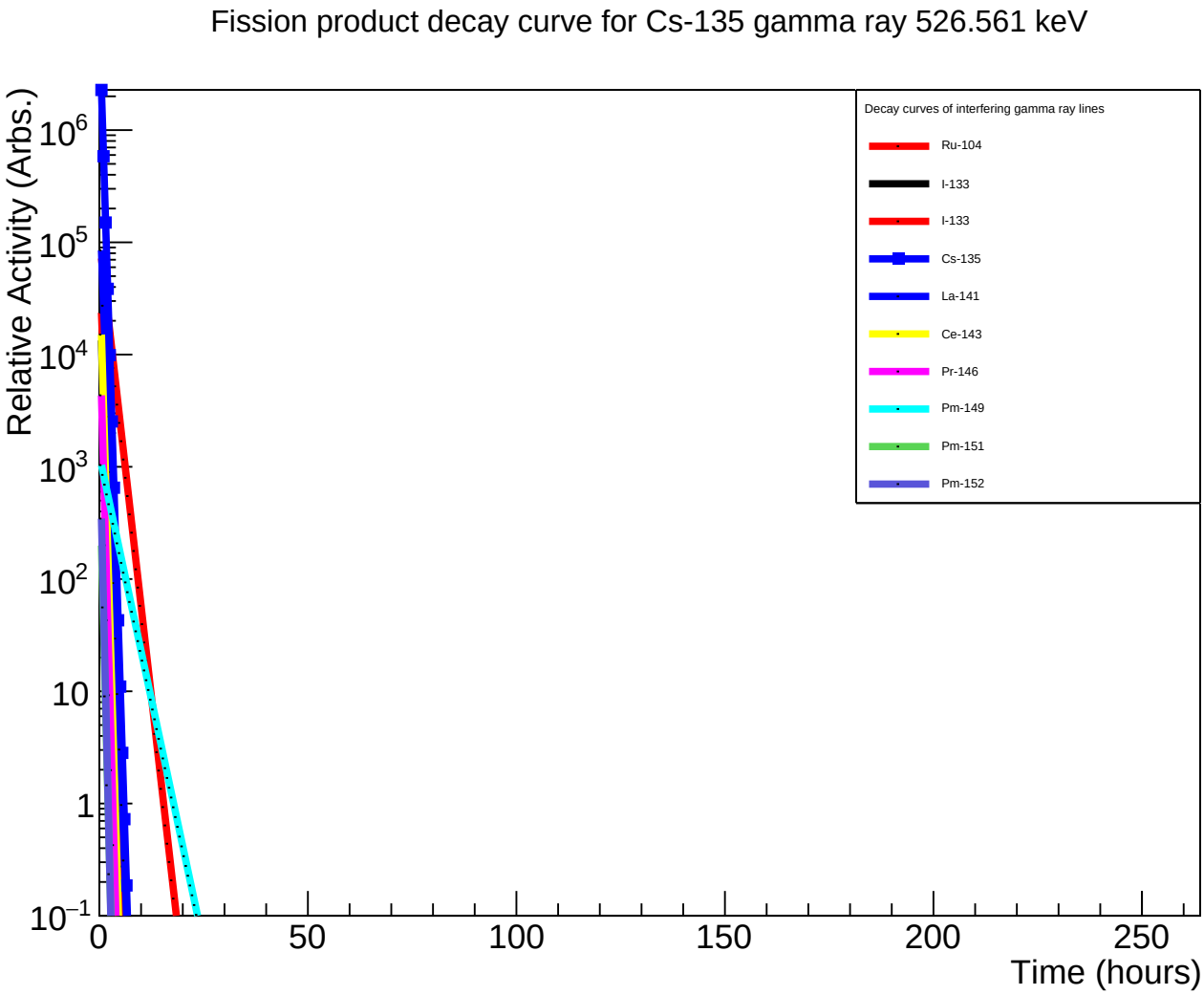


Figure 885: Cs-135 decay curve for 526.561 keV gamma ray.

3.886 Xe-138 E_γ = 153.86 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 153.86 keV
Gamma Intensity = 5.95 ± 0.243 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1771: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1772: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	153.400	0.003	0.305	0.019
Sn-128	Sb-128	152.700	0.065	0.984	0.003
Sb-127	Te-127	154.300	0.001	92.400	0.002
Sb-128	Te-128	152.600	0.005	9.010	0.000
Ba-142	La-142	153.100	0.001	0.177	0.058
Ba-142	La-142	154.600	0.005	0.177	0.058
Nd-147	Pm-147	154.700	0.000	263.520	0.022
Nd-149	Pm-149	155.100	0.000	1.728	0.011

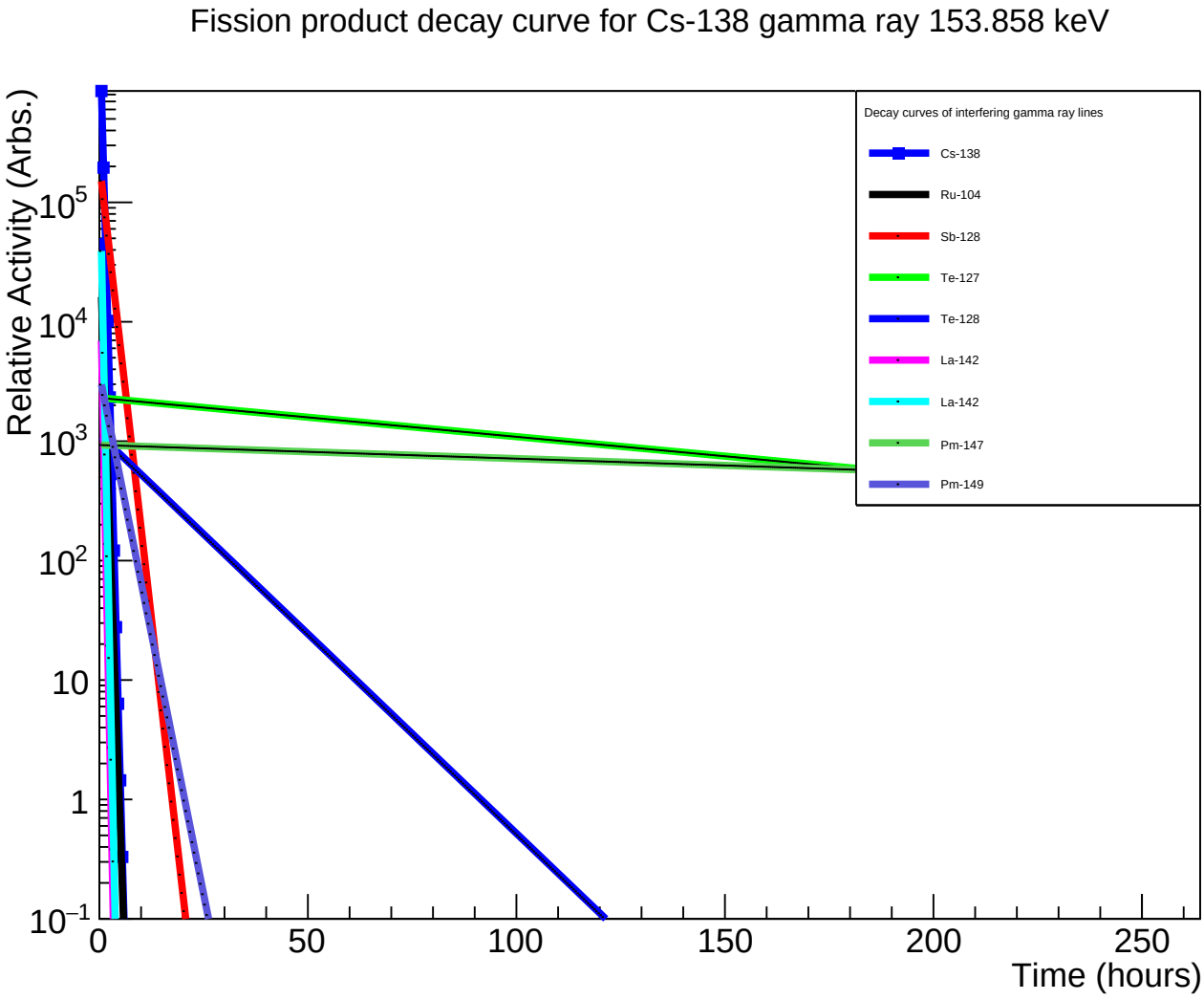


Figure 886: Cs-138 decay curve for 153.858 keV gamma ray.

3.887 Xe-138 E_γ = 242.56 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 242.56 keV
Gamma Intensity = 3.50 ± 0.137 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1773: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1774: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	241.560	0.029	2.710	0.059
Mo-99	Tc-99	242.290	0.000	65.976	0.061
Tc-105	Ru-105	242.450	0.001	0.127	0.010
Ru-103	Rh-103	241.875	0.000	941.928	0.030
Sn-129	Sb-129	241.600	0.009	0.115	0.002
Te-129	I-129	242.200	0.000	1.160	0.005
Te-129	I-129	242.200	0.000	806.400	0.001
Te-133	I-133	242.000	0.000	0.208	0.031
Ba-141	La-141	242.700	0.001	0.304	0.058
Ba-142	La-142	242.900	0.002	0.177	0.058
La-140	Ce-140	241.933	0.004	40.285	0.062
Pr-145	Nd-145	242.910	0.000	5.984	0.039
Pm-149	Sm-149	242.100	0.000	53.080	0.011
Sm-156	Eu-156	244.000	0.021	9.400	0.000

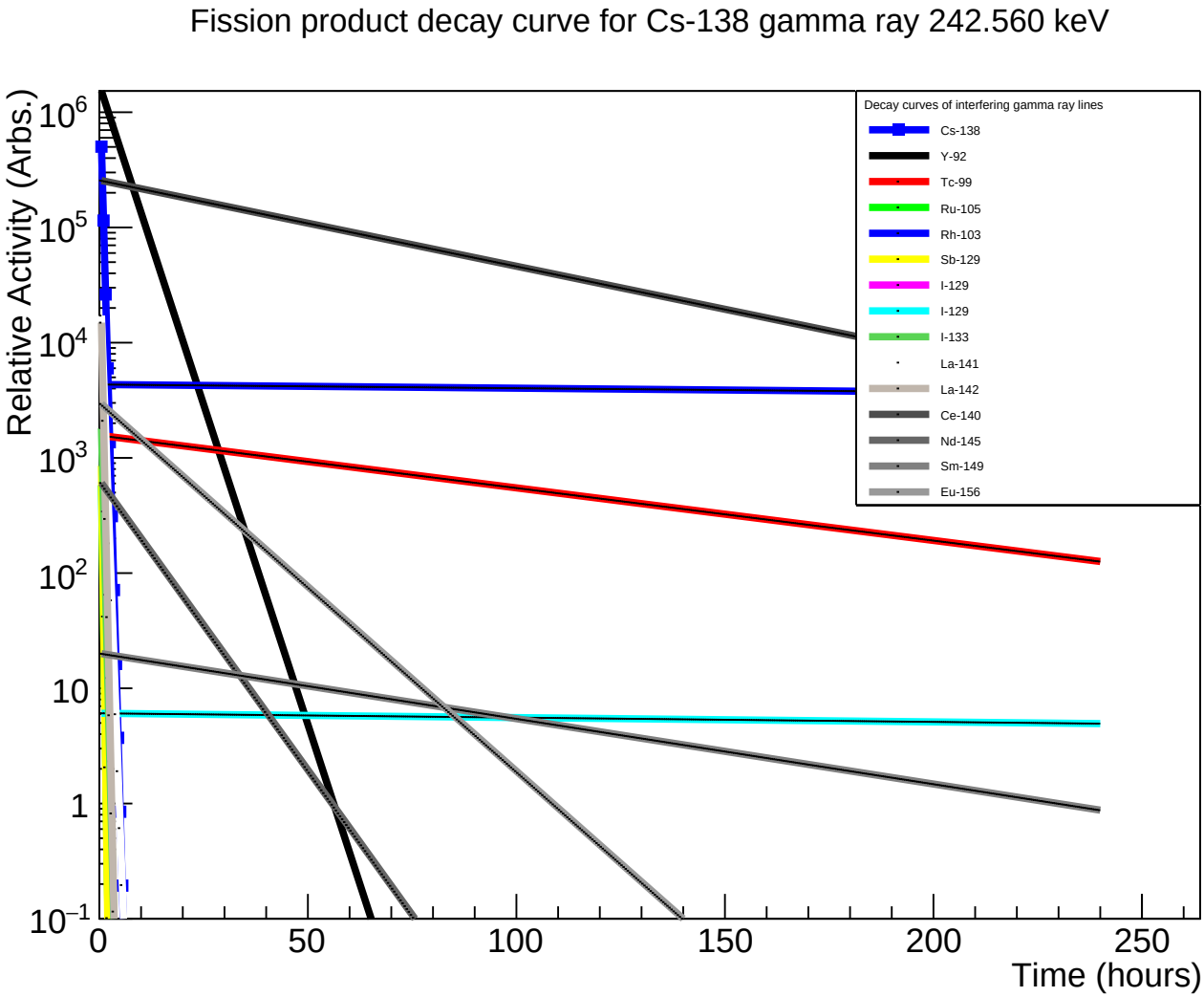


Figure 887: Cs-138 decay curve for 242.560 keV gamma ray.

3.888 Xe-138 E_γ = 258.41 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 258.41 keV
Gamma Intensity = 31.50 ± 1.268 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1775: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1776: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	259.000	0.004	0.855	0.000
Ag-113	Cd-113	258.800	0.016	5.370	0.000
Sn-125	Sb-125	258.250	0.000	231.360	0.000
Sb-130	Te-130	258.000	0.039	0.658	0.008
Te-133	I-133	257.790	0.004	0.923	0.040
Te-134	I-134	259.800	0.004	0.697	0.070
Ba-142	La-142	257.500	0.001	0.177	0.058
Nd-149	Pm-149	258.067	0.004	1.728	0.011
Nd-151	Pm-151	258.000	0.000	0.207	0.004
Pm-151	Sm-151	258.110	0.006	28.400	0.004

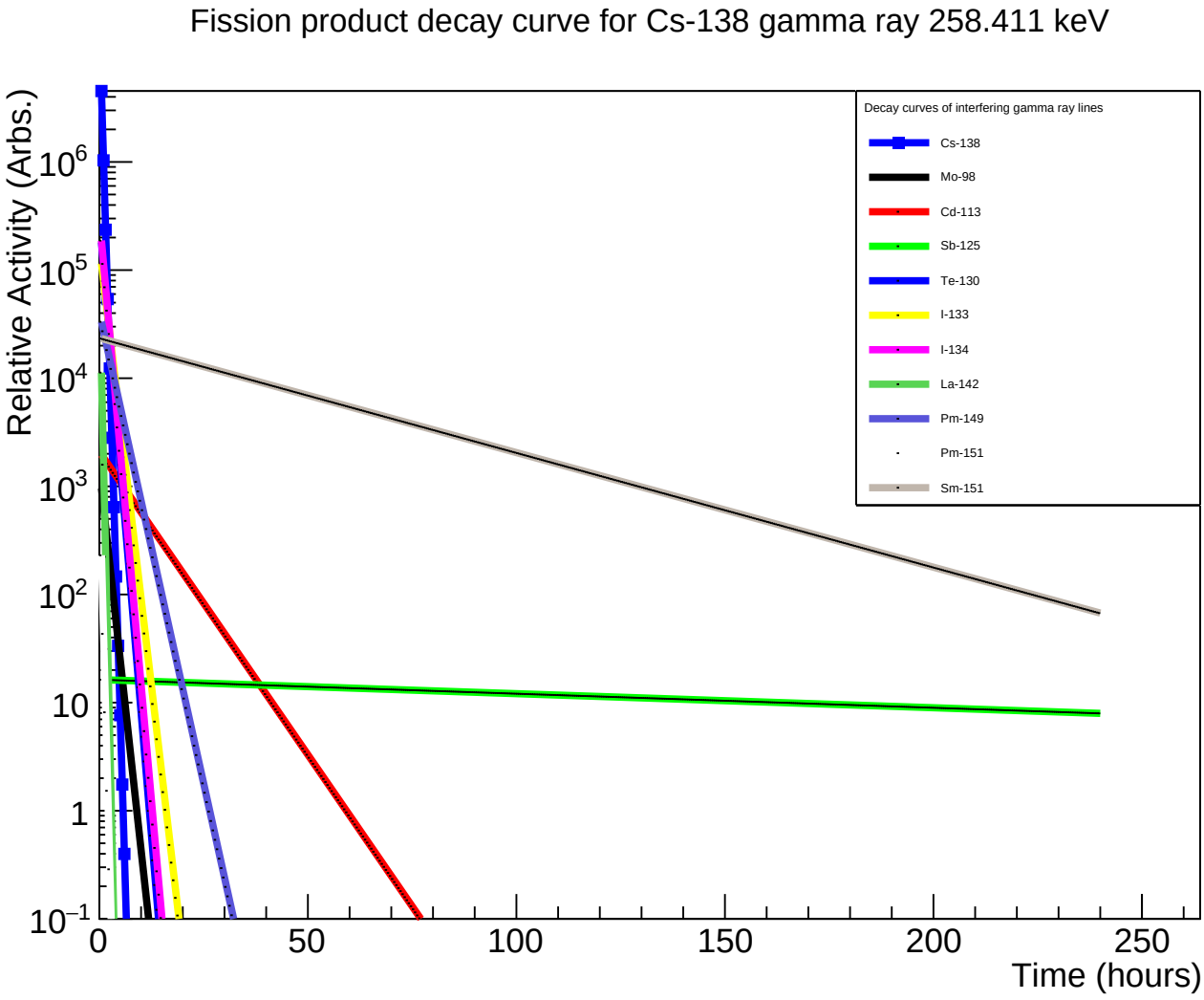


Figure 888: Cs-138 decay curve for 258.411 keV gamma ray.

3.889 Xe-138 E_γ = 396.51 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 396.51 keV
Gamma Intensity = 6.30 ± 0.254 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1777: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1778: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	396.200	0.003	0.172	0.064
Tc-105	Ru-105	397.600	0.003	0.127	0.010
Pd-109	Ag-109	395.600	0.000	13.701	0.000
Sn-127	Sb-127	396.900	0.003	2.100	0.001
Te-133	I-133	396.970	0.007	0.923	0.040
Cs-139	Ba-139	396.900	0.000	0.155	0.063
La-140	Ce-140	397.520	0.001	40.285	0.062
Nd-149	Pm-149	396.760	0.001	1.728	0.011
Pm-151	Sm-151	395.630	0.000	28.400	0.004

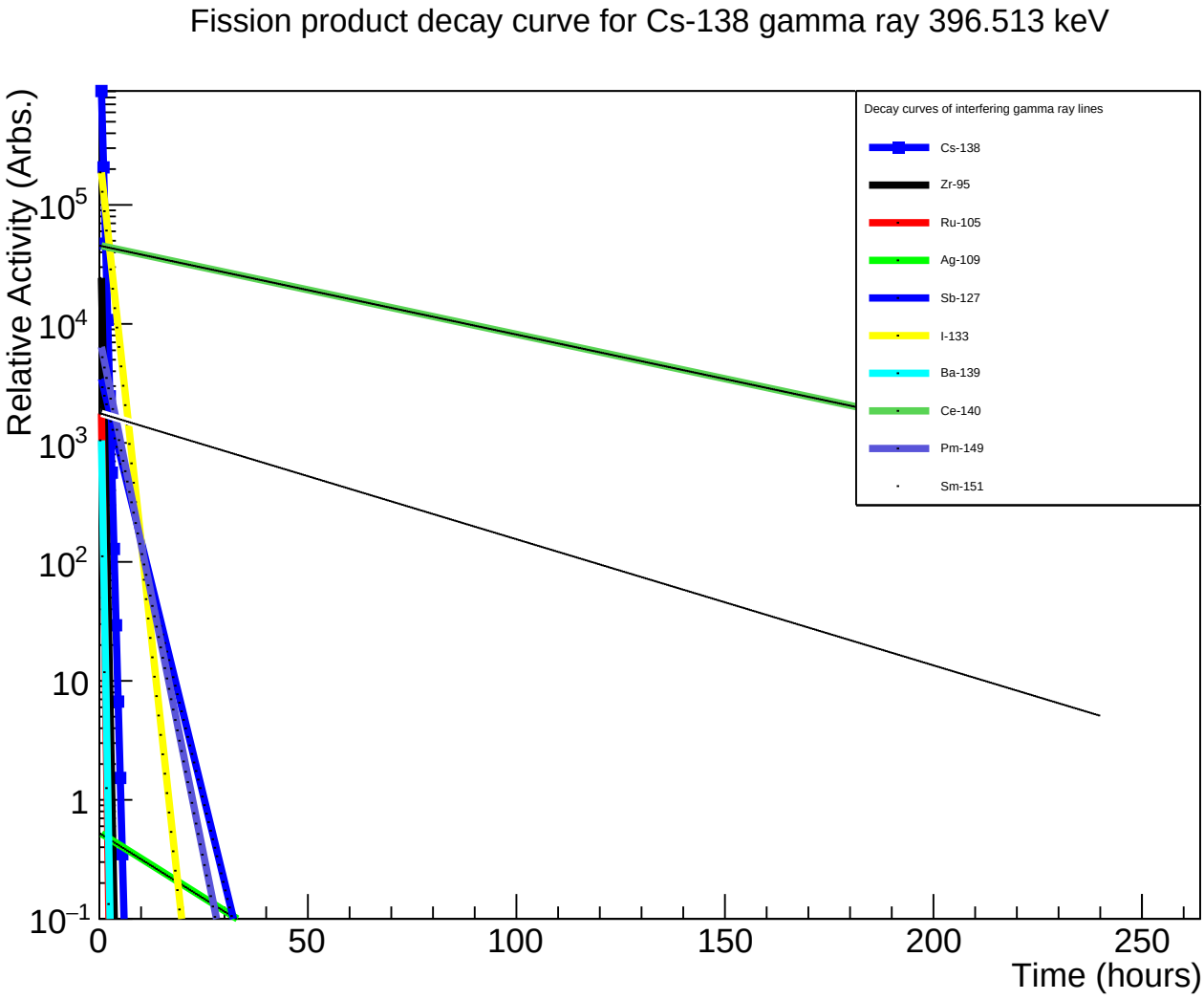


Figure 889: Cs-138 decay curve for 396.513 keV gamma ray.

3.890 Xe-138 E_γ = 401.36 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 401.36 keV
Gamma Intensity = 2.17 ± 0.121 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1779: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1780: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	402.300	0.001	0.150	0.000
Kr-87	Rb-87	402.587	0.496	1.272	0.026
Zr-97	Nb-97	400.420	0.002	16.749	0.060
Nb-98	Mo-98	401.990	0.002	0.855	0.000
Ag-112	Cd-112	402.000	0.000	3.130	0.000
Sb-125	Te-125	401.950	0.000	24194.445	0.000
Te-131	I-131	402.360	0.000	0.417	0.025
Cs-139	Ba-139	401.080	0.000	0.155	0.063
Pr-145	Nd-145	402.101	0.000	5.984	0.039
Nd-151	Pm-151	402.330	0.003	0.207	0.004
Pm-151	Sm-151	400.500	0.000	28.400	0.004

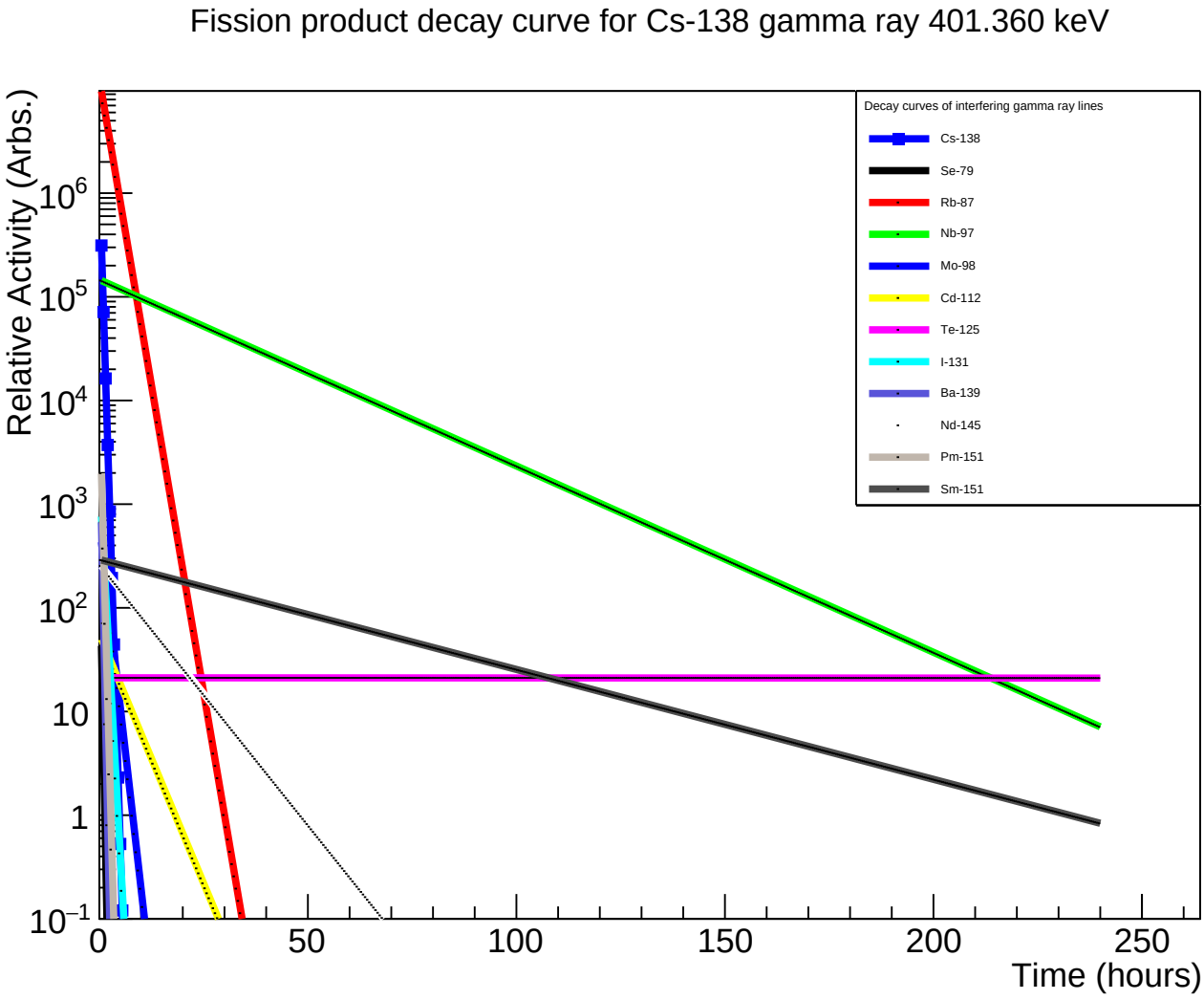


Figure 890: Cs-138 decay curve for 401.360 keV gamma ray.

3.891 Xe-138 E_γ = 434.56 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 434.56 keV
Gamma Intensity = 20.32 ± 0.819 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1781: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1782: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	434.260	0.011	0.855	0.000
Sn-125	Sb-125	434.130	0.000	231.360	0.000
Te-133	I-133	435.280	0.012	0.923	0.040
Te-134	I-134	435.060	0.189	0.697	0.070
I-134	Xe-134	433.350	0.042	0.875	0.078
I-135	Xe-135	433.741	0.006	6.570	0.063
Cs-139	Ba-139	434.230	0.000	0.155	0.063
Ba-142	La-142	434.400	0.005	0.177	0.058
La-141	Ce-141	435.000	0.000	3.920	0.058
La-142	Ce-142	433.300	0.004	1.518	0.058
Nd-149	Pm-149	434.900	0.000	1.728	0.011
Nd-151	Pm-151	435.900	0.000	0.207	0.004
Eu-156	Gd-156	434.400	0.002	364.560	0.000

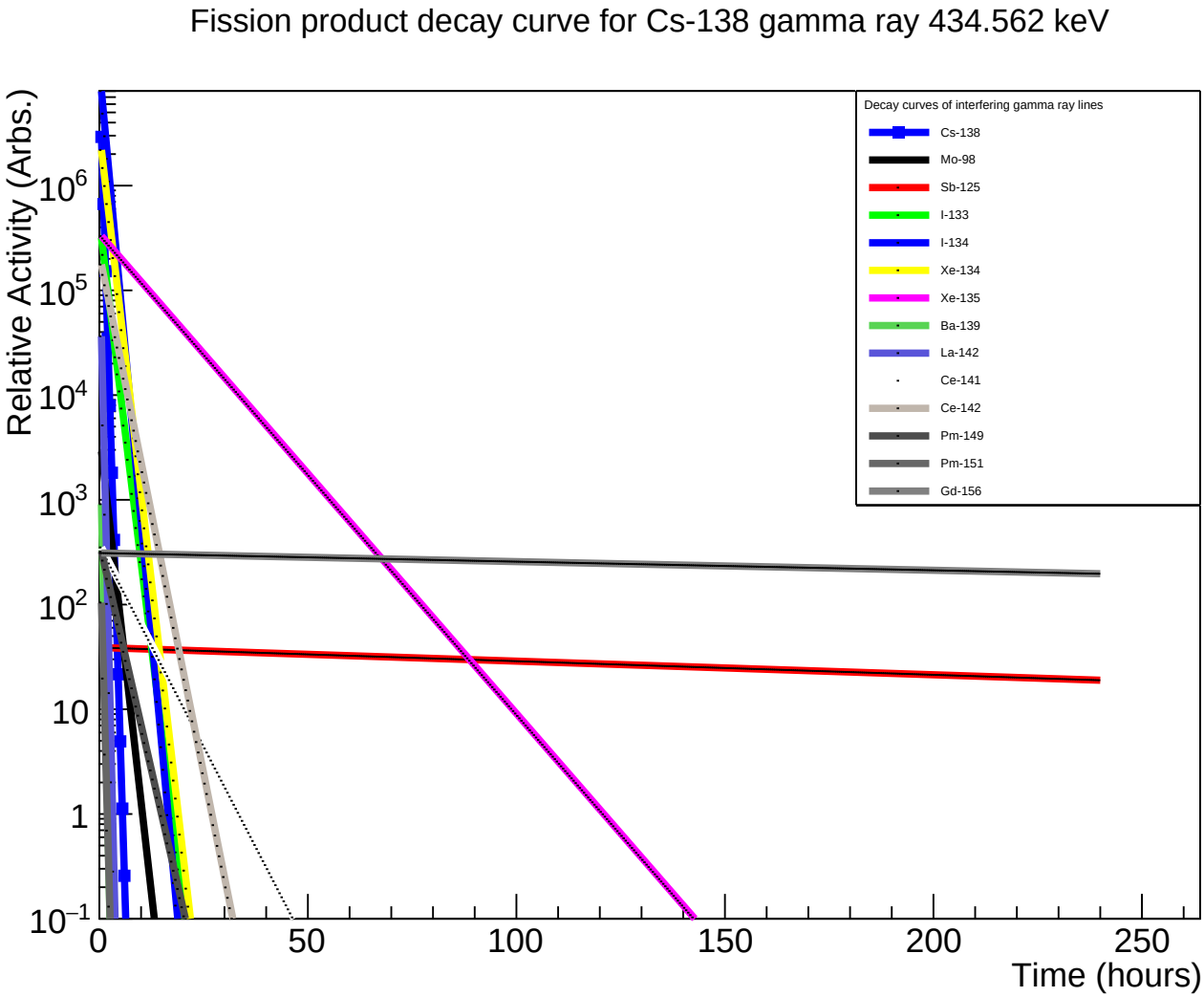


Figure 891: Cs-138 decay curve for 434.562 keV gamma ray.

3.892 Xe-138 E_γ = 1114.29 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 1114.29 keV
Gamma Intensity = 1.47 ± 0.086 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1783: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1784: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	1114.300	0.380	2.100	0.001
Te-131	I-131	1114.100	0.000	33.250	0.004
Ba-142	La-142	1114.400	0.001	0.177	0.058
La-142	Ce-142	1112.900	0.000	1.518	0.058
Nd-151	Pm-151	1115.400	0.001	0.207	0.004
Eu-156	Gd-156	1115.780	0.001	364.560	0.000

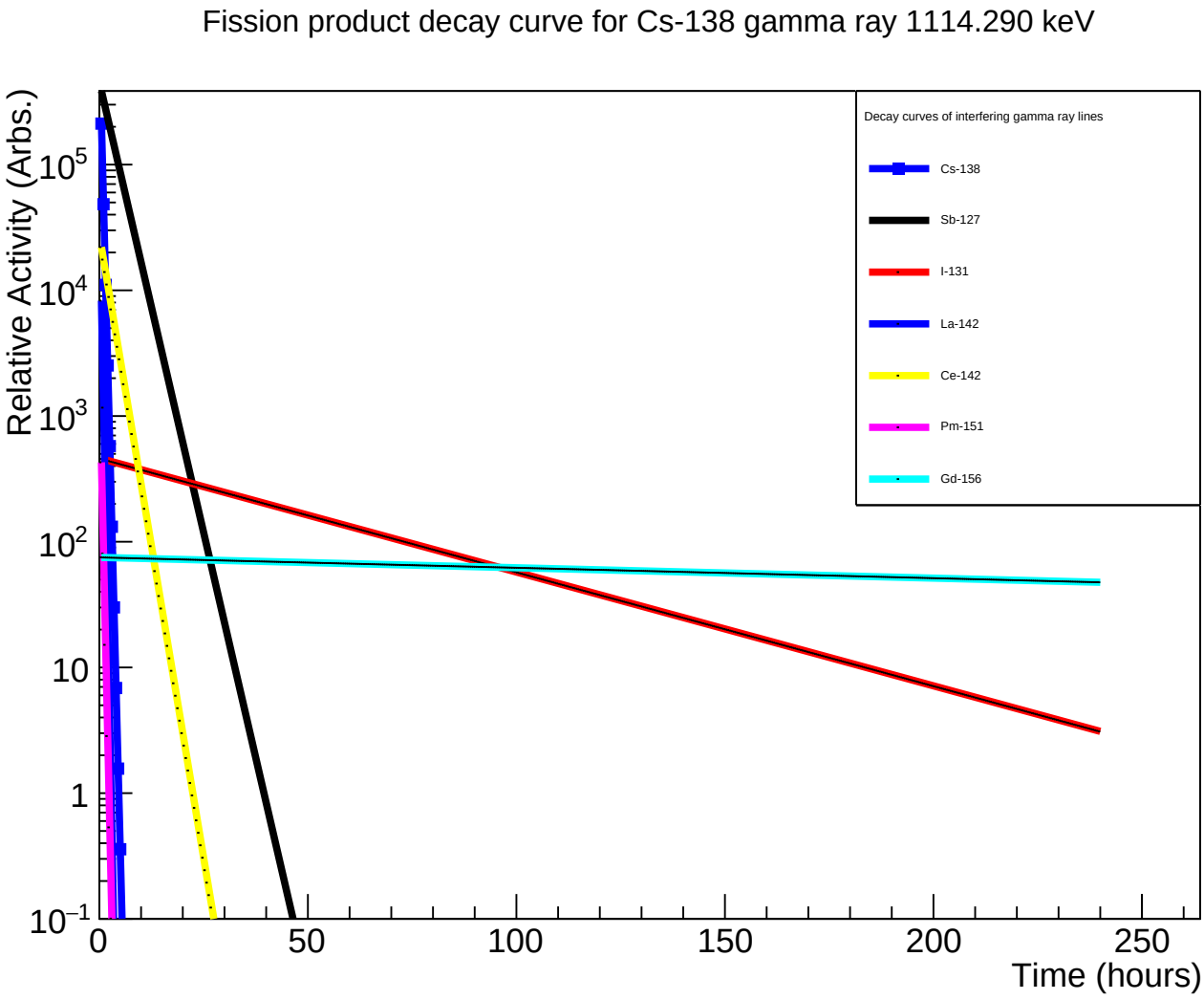


Figure 892: Cs-138 decay curve for 1114.290 keV gamma ray.

3.893 Xe-138 E_γ = 1768.26 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 1768.26 keV
Gamma Intensity = 16.73 ± 0.679 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1785: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1786: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1768.220	0.001	0.243	0.052
Cs-139	Ba-139	1768.190	0.000	0.155	0.063
La-142	Ce-142	1768.200	0.002	1.518	0.058
Nd-151	Pm-151	1767.450	0.000	0.207	0.004

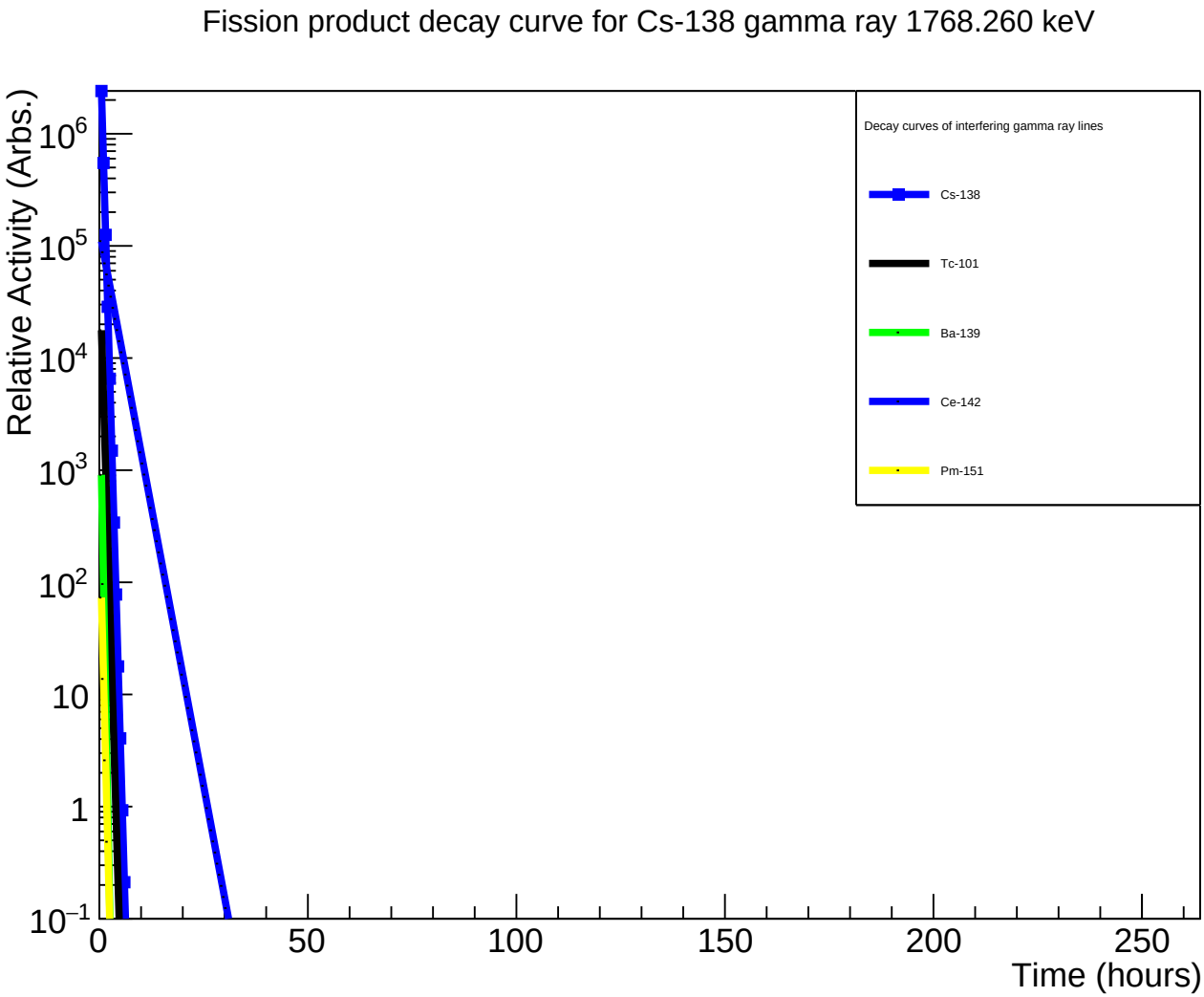


Figure 893: Cs-138 decay curve for 1768.260 keV gamma ray.

3.894 Xe-138 E_γ = 1850.86 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 1850.86 keV
Gamma Intensity = 1.42 ± 0.069 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1787: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1788: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1851.610	0.003	16.749	0.060
Cs-139	Ba-139	1850.700	0.000	0.155	0.063
Ba-141	La-141	1851.900	0.001	0.304	0.058

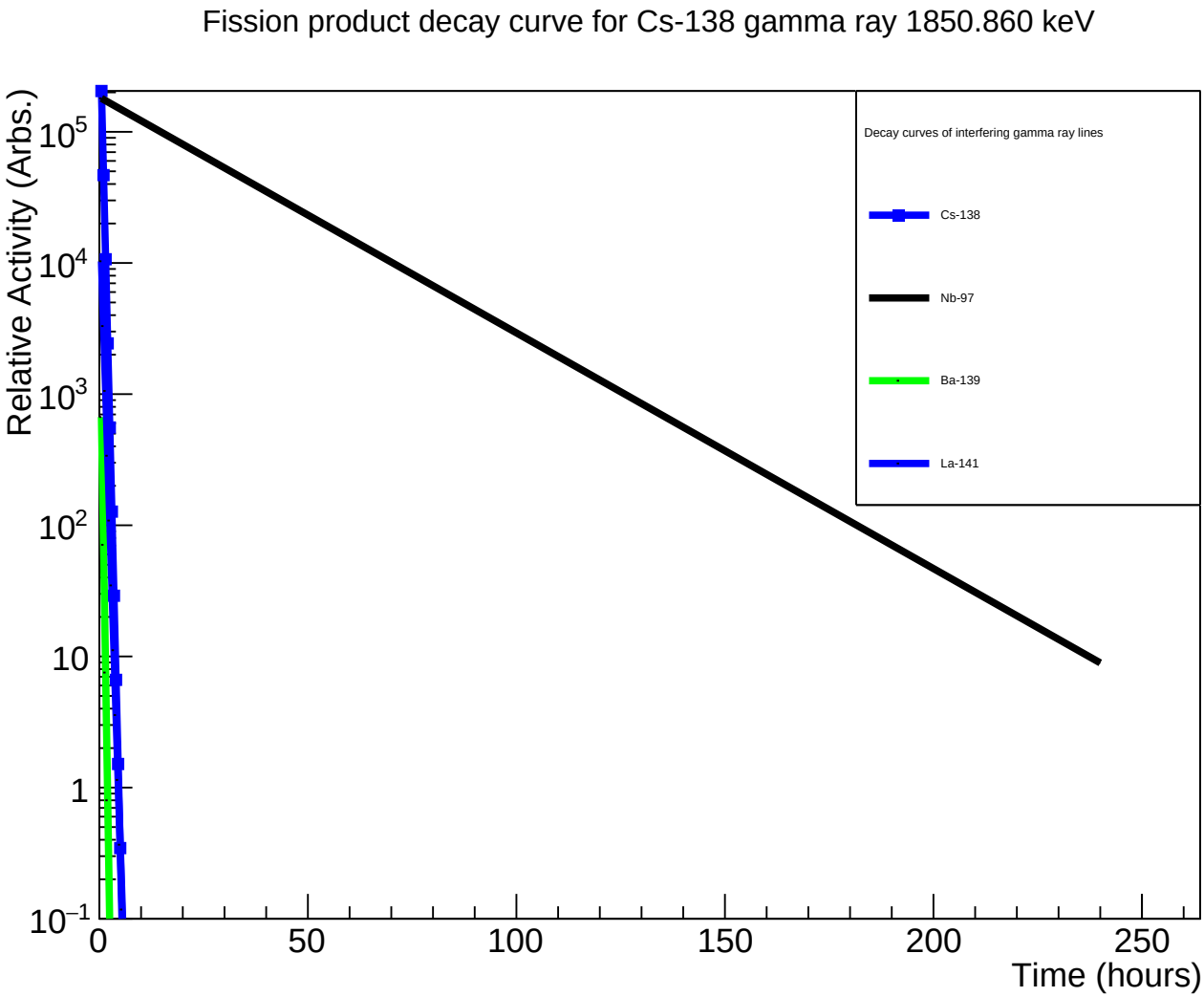


Figure 894: Cs-138 decay curve for 1850.860 keV gamma ray.

3.895 Xe-138 E_γ = 2004.75 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 2004.75 keV
Gamma Intensity = 5.36 ± 0.225 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1789: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1790: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	2003.400	0.053	2.100	0.001
Te-133	I-133	2005.330	0.032	0.923	0.040
Cs-139	Ba-139	2003.400	0.000	0.155	0.063
La-142	Ce-142	2004.200	0.009	1.518	0.058
La-143	Ce-143	2003.910	0.004	0.237	0.059
Pr-146	Nd-146	2005.500	0.002	0.403	0.030

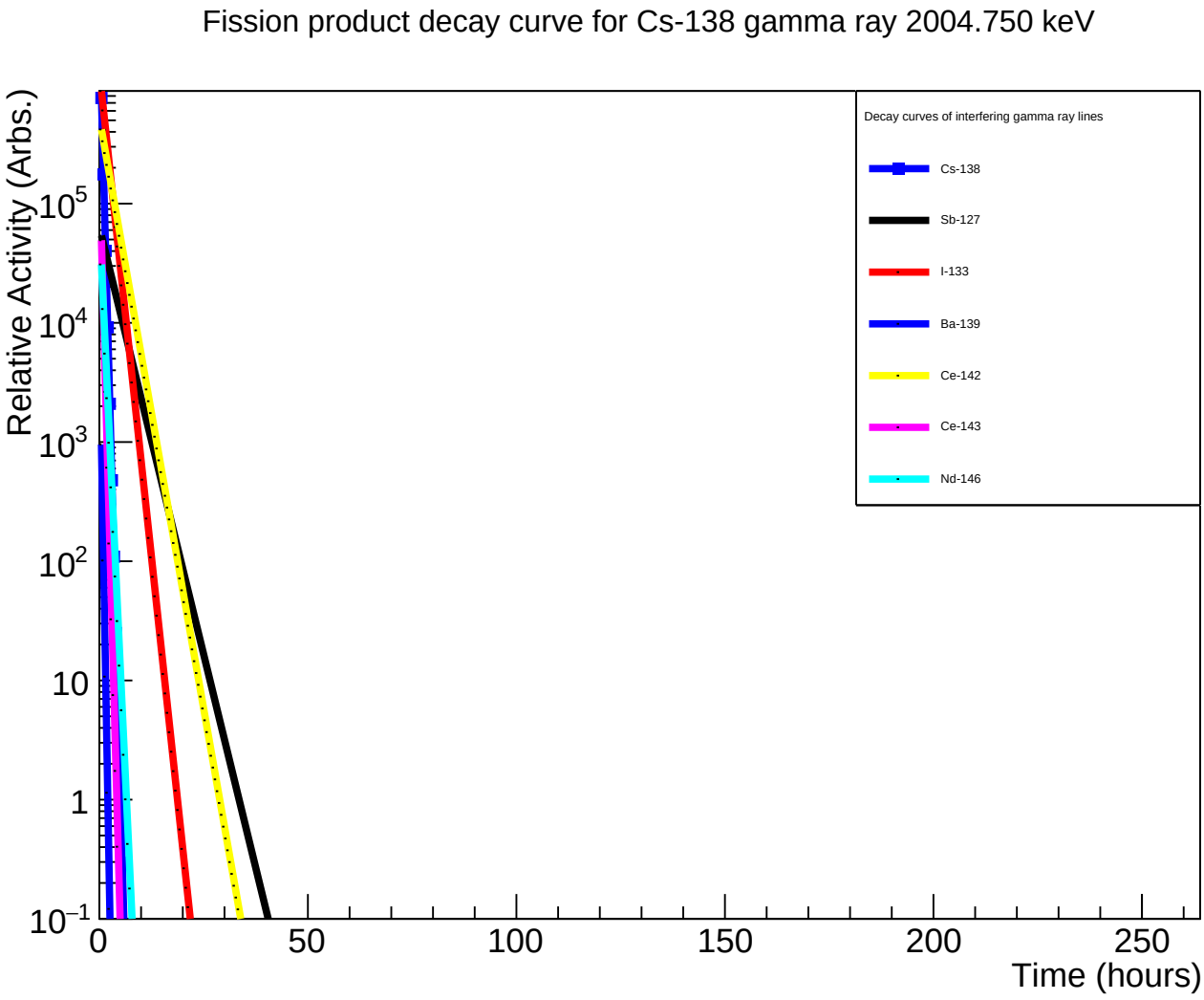


Figure 895: Cs-138 decay curve for 2004.750 keV gamma ray.

3.896 Xe-138 E_γ = 2015.82 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 2015.82 keV
Gamma Intensity = 12.25 ± 0.497 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1791: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1792: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	2016.000	0.000	9.630	0.058
Tc-104	Ru-104	2015.700	0.018	0.305	0.019
Sb-131	Te-131	2016.500	0.007	0.384	0.026
Te-133	I-133	2016.000	0.000	0.923	0.040

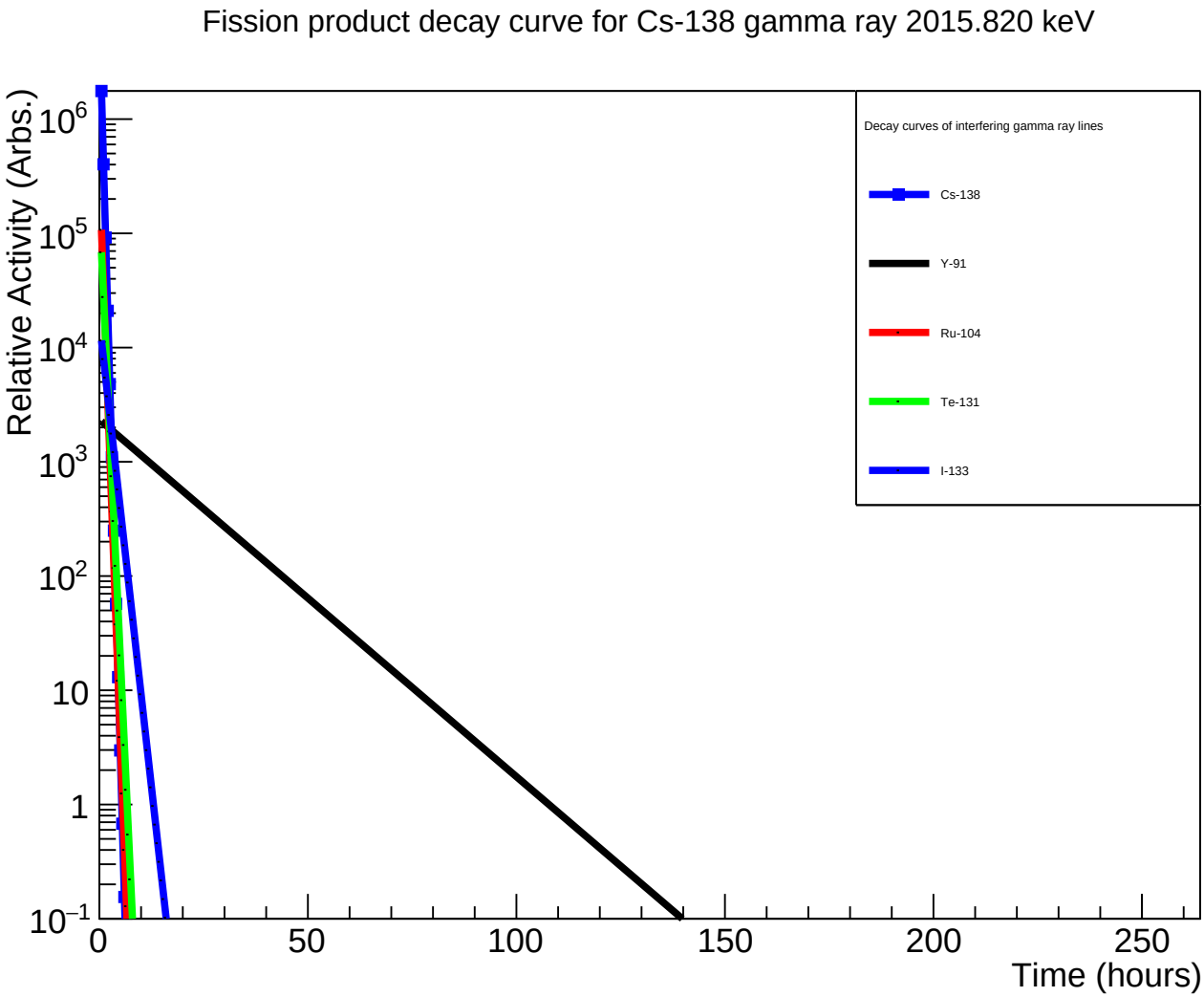


Figure 896: Cs-138 decay curve for 2015.820 keV gamma ray.

3.897 Xe-138 E_γ = 2079.17 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 2079.17 keV
Gamma Intensity = 1.44 ± 0.067 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1793: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1794: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2079.300	0.001	0.208	0.031
Cs-139	Ba-139	2079.330	0.000	0.155	0.063
Ba-141	La-141	2078.900	0.000	0.304	0.058

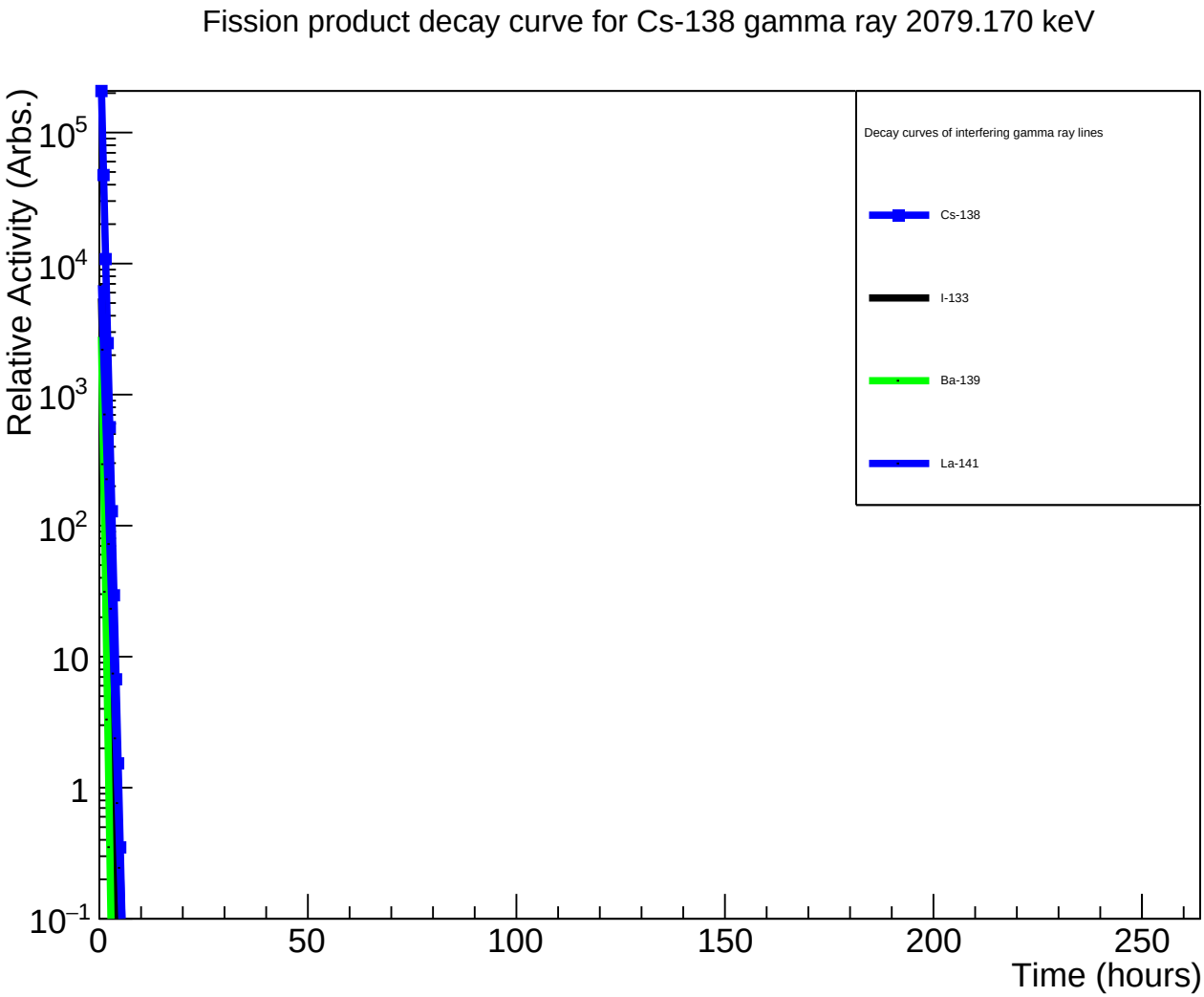


Figure 897: Cs-138 decay curve for 2079.170 keV gamma ray.

3.898 Xe-138 E_γ = 2252.26 keV

Chemical element: Xenon
Fission product parent: Xe-138
Gamma originates in daughter: Cs-138
Eγ: 2252.26 keV
Gamma Intensity = 2.29 ± 0.104 %
$T_{1/2}$ = 0.235 ± 0.001 hours or 14.08 ± 0.08 minutes
CFY: 6.297 ± 0.088 %

Table 1795: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1796: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	2252.000	0.001	0.172	0.064
Y-95	Zr-95	2253.600	0.005	0.172	0.064
Pr-146	Nd-146	2252.190	0.010	0.403	0.030

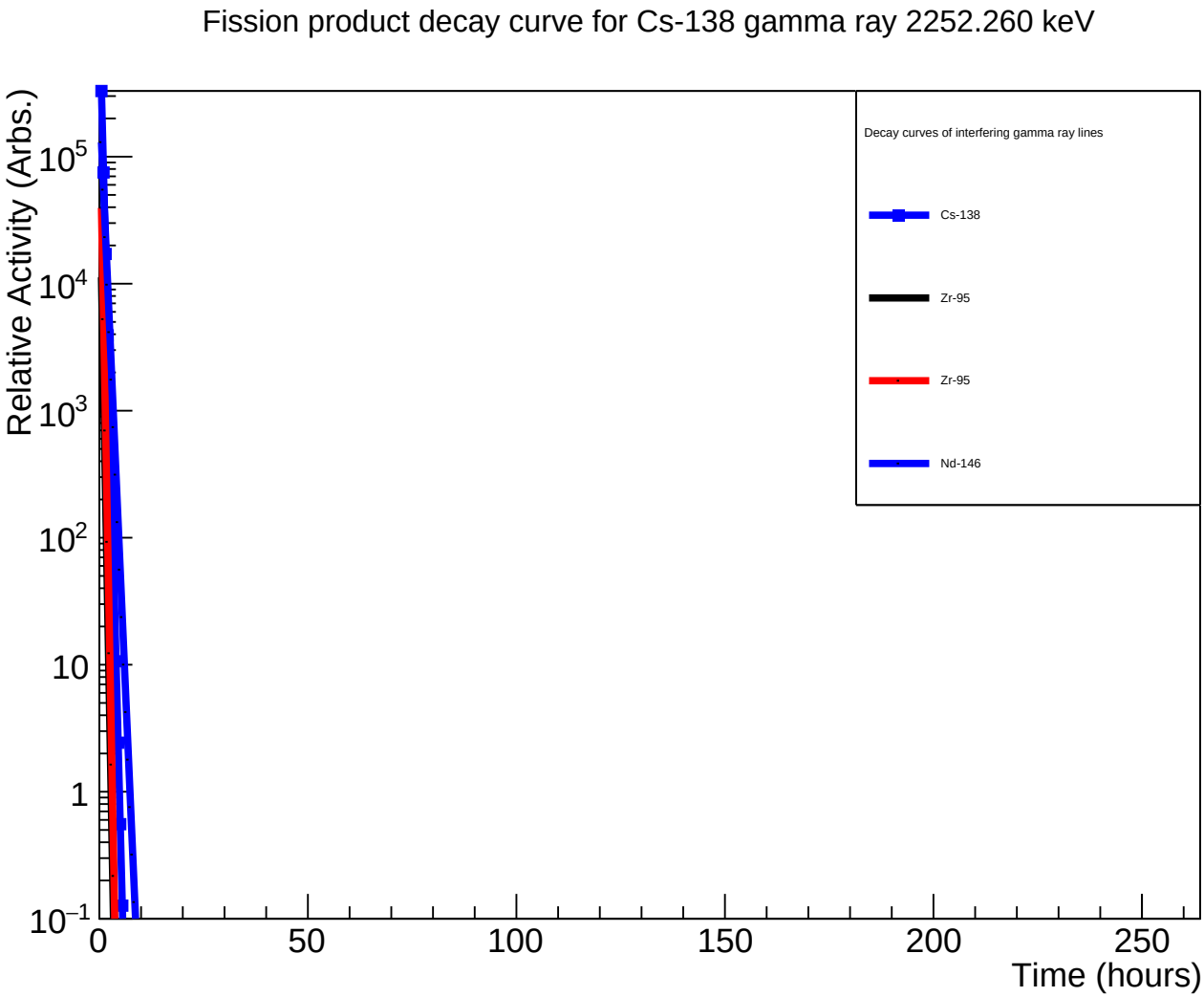


Figure 898: Cs-138 decay curve for 2252.260 keV gamma ray.

3.899 Cs-138 E_γ = 138.10 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 138.10 keV
Gamma Intensity = 1.49 ± 0.084 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1797: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1798: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	138.446	0.042	0.127	0.010
Ru-105	Rh-105	139.330	0.000	4.440	0.010
Te-131	I-131	137.600	0.001	33.250	0.004
Te-133	I-133	136.640	0.001	0.923	0.040
Te-134	I-134	137.000	0.001	0.697	0.070
I-132	Xe-132	136.700	0.002	2.295	0.043
I-134	Xe-134	139.030	0.008	0.875	0.078
Nd-149	Pm-149	137.050	0.001	1.728	0.011
Nd-149	Pm-149	139.210	0.005	1.728	0.011
Nd-151	Pm-151	138.890	0.070	0.207	0.004
Pm-151	Sm-151	138.380	0.000	28.400	0.004
Pm-151	Sm-151	138.900	0.000	28.400	0.004
Pm-151	Sm-151	139.280	0.005	28.400	0.004
Sm-155	Eu-155	138.300	0.001	0.372	0.000
Eu-156	Gd-156	138.700	0.000	364.560	0.000

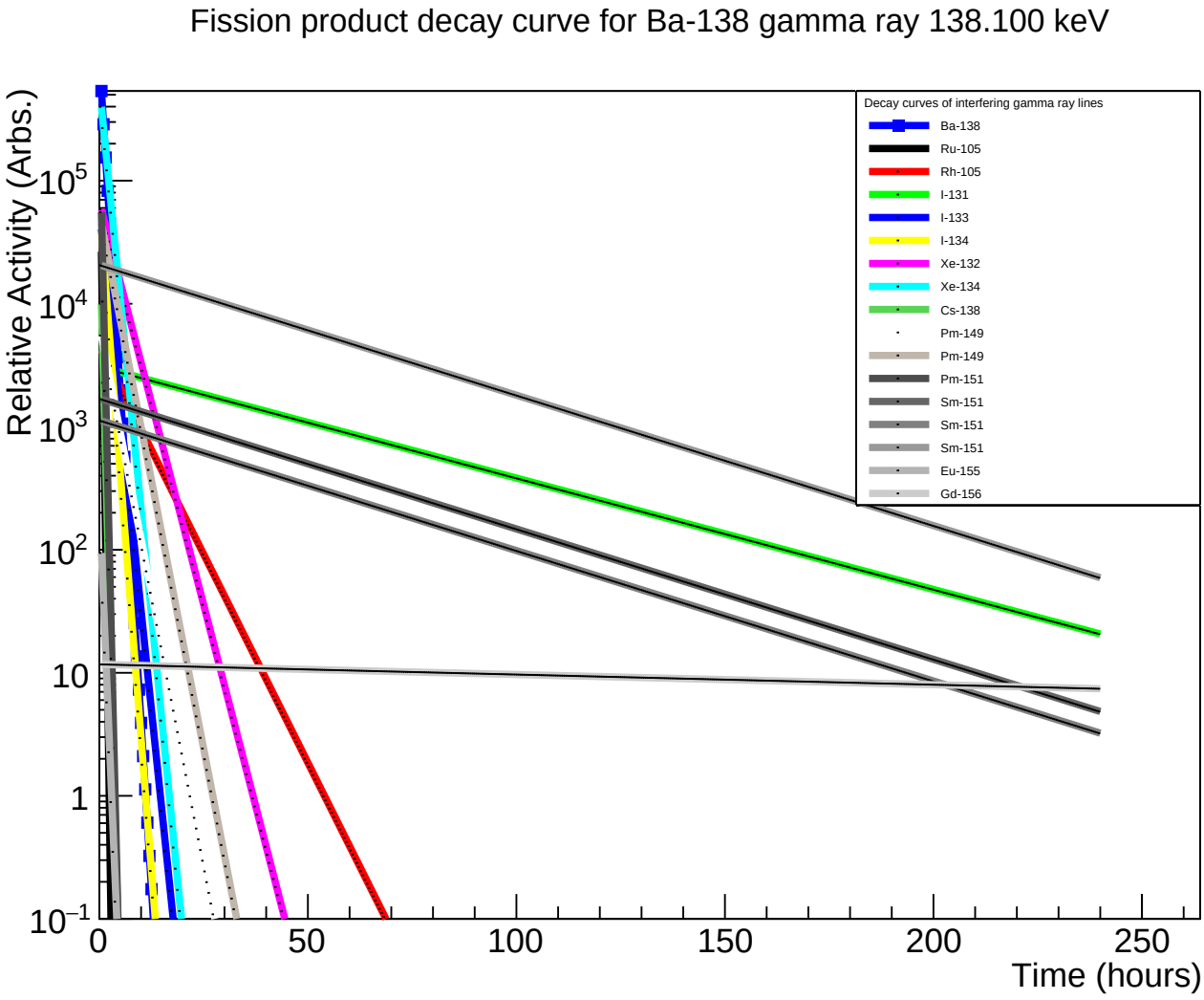


Figure 899: Ba-138 decay curve for 138.100 keV gamma ray.

3.900 Cs-138 E_γ = 227.76 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 227.76 keV
Gamma Intensity = 1.51 ± 0.039 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1799: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1800: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	228.400	0.002	2.100	0.001
Sb-125	Te-125	227.891	0.001	24194.445	0.000
Sb-128	Te-128	227.300	0.015	9.010	0.000
Te-131	I-131	227.700	0.000	33.250	0.004
Te-132	I-132	228.160	0.880	76.896	0.043
Nd-149	Pm-149	226.847	0.002	1.728	0.011
Pm-151	Sm-151	227.180	0.003	28.400	0.004
Pm-151	Sm-151	227.810	0.000	28.400	0.004
Pm-151	Sm-151	229.010	0.000	28.400	0.004
Sm-155	Eu-155	228.700	0.001	0.372	0.000
Sm-155	Eu-155	229.000	0.000	0.372	0.000

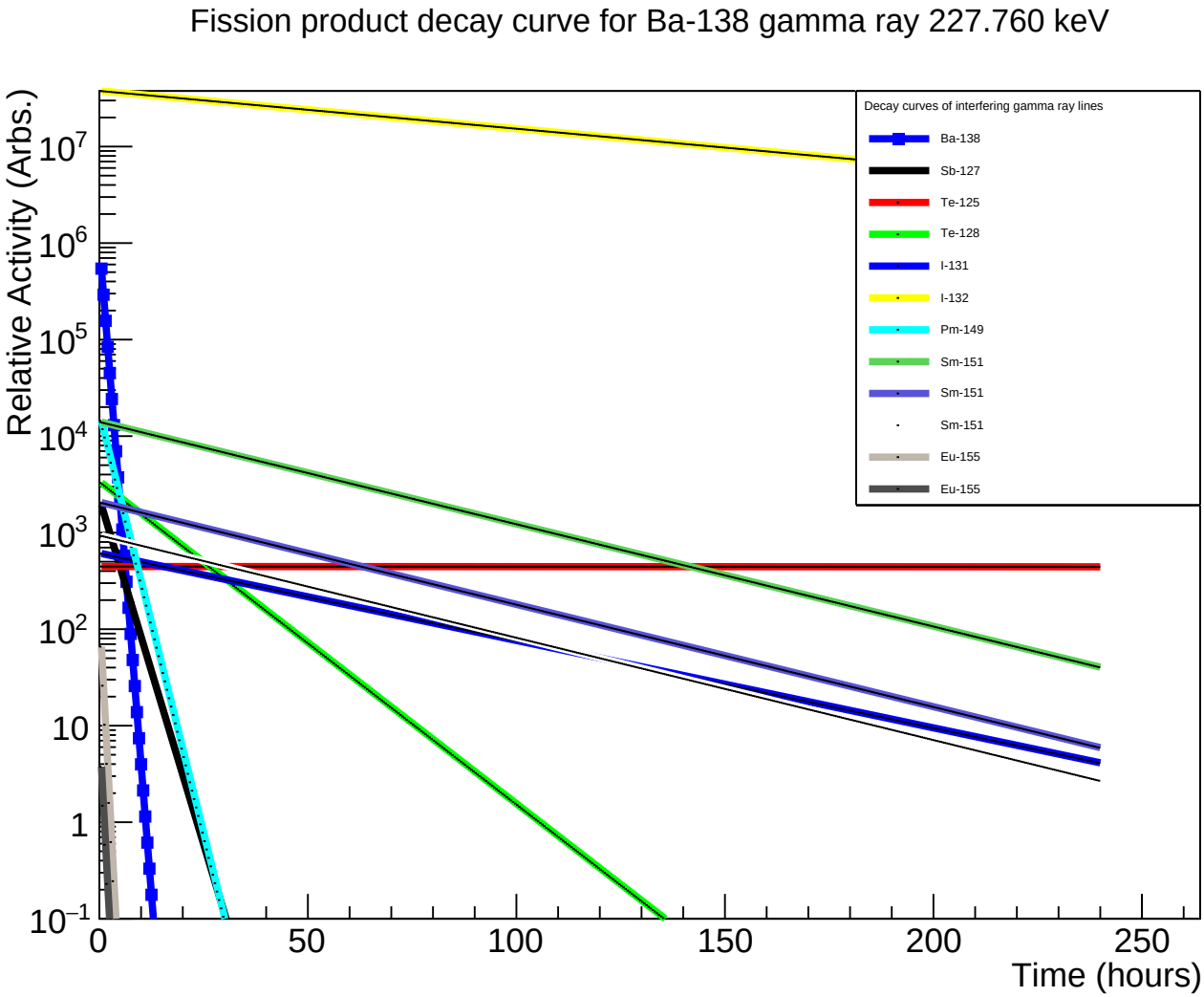


Figure 900: Ba-138 decay curve for 227.760 keV gamma ray.

3.901 Cs-138 E_γ = 408.98 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 408.98 keV
Gamma Intensity = 4.66 ± 0.093 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1801: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1802: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	408.400	0.000	0.855	0.000
Mo-99	Tc-99	410.270	0.000	65.976	0.061
Mo-101	Tc-101	408.690	0.015	0.243	0.052
Ru-105	Rh-105	407.600	0.001	4.440	0.010
Sn-129	Sb-129	409.100	0.023	0.115	0.002
Sb-125	Te-125	408.065	0.002	24194.445	0.000
Te-131	I-131	408.200	0.001	33.250	0.004
Te-133	I-133	407.630	0.271	0.208	0.031
Te-133	I-133	410.400	0.009	0.208	0.031
Xe-135	Cs-135	407.990	0.004	9.140	0.065
Nd-147	Pm-147	408.520	0.000	263.520	0.022
Nd-147	Pm-147	410.480	0.001	263.520	0.022
Nd-151	Pm-151	407.550	0.005	0.207	0.004

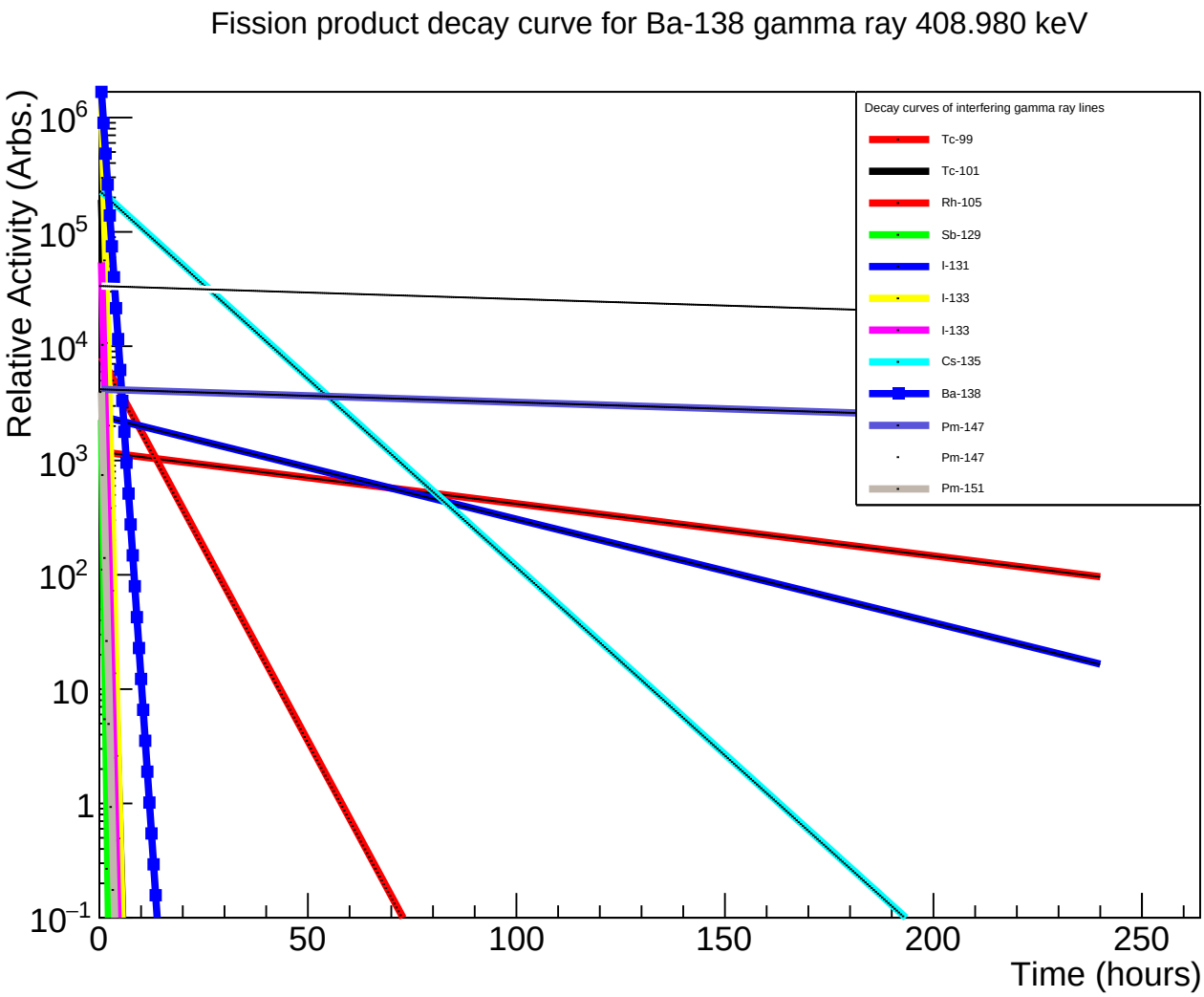


Figure 901: Ba-138 decay curve for 408.980 keV gamma ray.

3.902 Cs-138 E_γ = 462.80 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 462.80 keV
Gamma Intensity = 30.75 ± 0.622 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1803: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1804: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-105	Ru-105	462.800	0.044	0.127	0.010
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Sb-130	Te-130	462.500	0.008	0.658	0.008
Te-129	I-129	462.040	0.000	1.160	0.005
Te-131	I-131	462.920	0.018	33.250	0.004
Te-133	I-133	461.300	0.006	0.208	0.031
Te-133	I-133	462.230	0.015	0.923	0.040
Te-133	I-133	464.000	0.003	0.923	0.040
Ba-141	La-141	462.300	0.049	0.304	0.058
Ba-141	La-141	462.900	0.001	0.304	0.058
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002

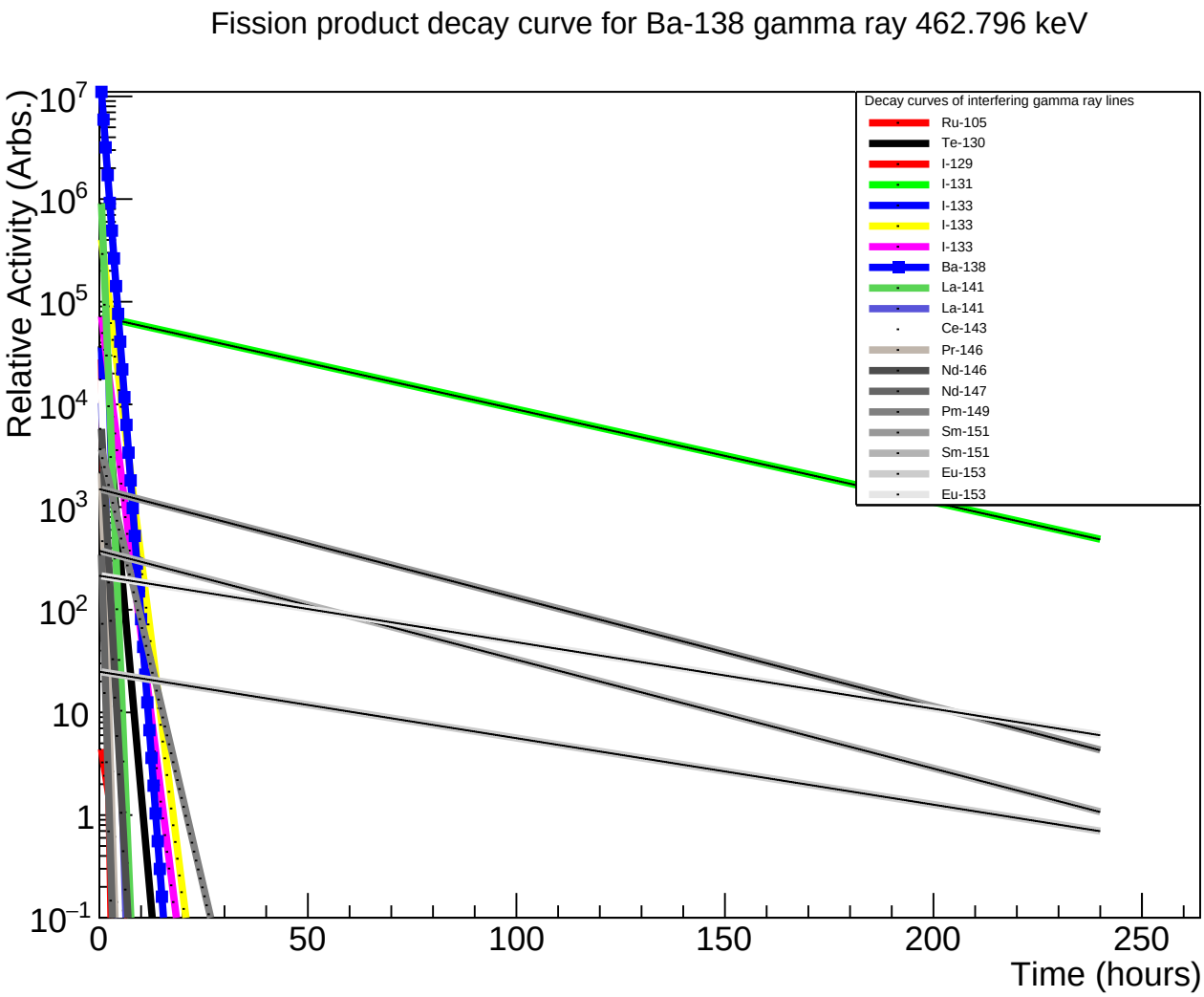


Figure 902: Ba-138 decay curve for 462.796 keV gamma ray.

3.903 Cs-138 E_γ = 547.00 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 547.00 keV
Gamma Intensity = 10.76 ± 0.233 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1805: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1806: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	545.810	0.004	0.124	0.062
Pd-111	Ag-111	547.000	0.004	0.390	0.000
Te-131	I-131	546.700	0.000	33.250	0.004
Te-133	I-133	546.290	0.005	0.208	0.031
I-132	Xe-132	547.200	0.011	2.295	0.043
I-135	Xe-135	546.557	0.071	6.570	0.063
La-141	Ce-141	547.100	0.000	3.920	0.058
La-142	Ce-142	546.000	0.000	1.518	0.058
Nd-149	Pm-149	546.500	0.000	1.728	0.011
Nd-149	Pm-149	547.100	0.000	1.728	0.011
Nd-149	Pm-149	547.400	0.000	1.728	0.011
Nd-152	Pm-152	545.700	0.009	0.190	0.003
Nd-152	Pm-152	547.700	0.001	0.190	0.003
Pm-149	Sm-149	547.170	0.000	53.080	0.011
Sm-153	Eu-153	545.750	0.000	46.500	0.002

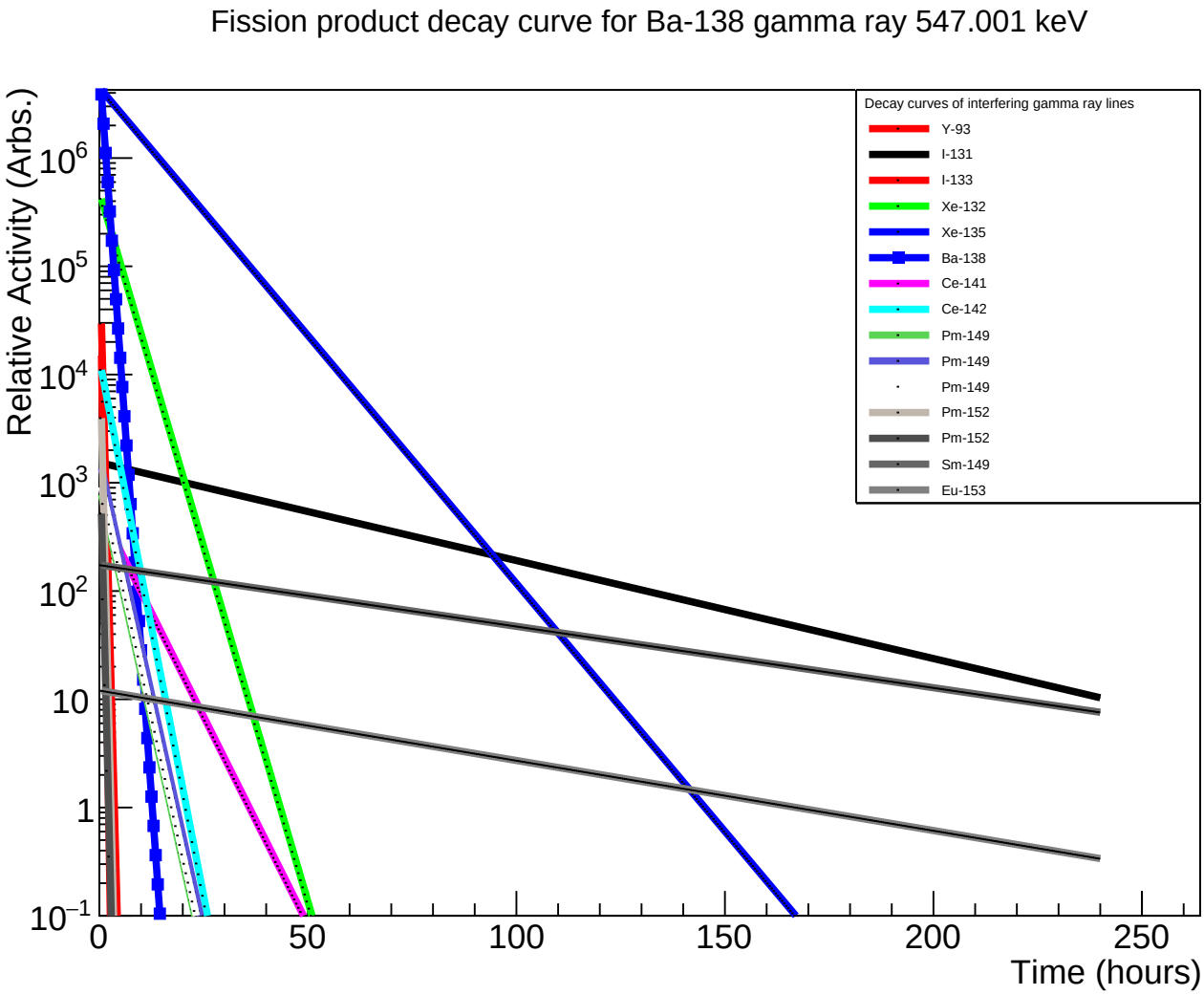


Figure 903: Ba-138 decay curve for 547.001 keV gamma ray.

3.904 Cs-138 E_γ = 871.80 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 871.80 keV
Gamma Intensity = 5.11 ± 0.131 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1807: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1808: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	871.080	0.017	0.243	0.052
Te-131	I-131	872.300	0.001	33.250	0.004
Nd-149	Pm-149	871.375	0.000	1.728	0.011
Nd-151	Pm-151	870.700	0.001	0.207	0.004
Nd-151	Pm-151	870.700	0.001	0.207	0.004
Nd-151	Pm-151	872.500	0.000	0.207	0.004
Nd-151	Pm-151	873.100	0.000	0.207	0.004
Eu-156	Gd-156	872.390	0.000	364.560	0.000

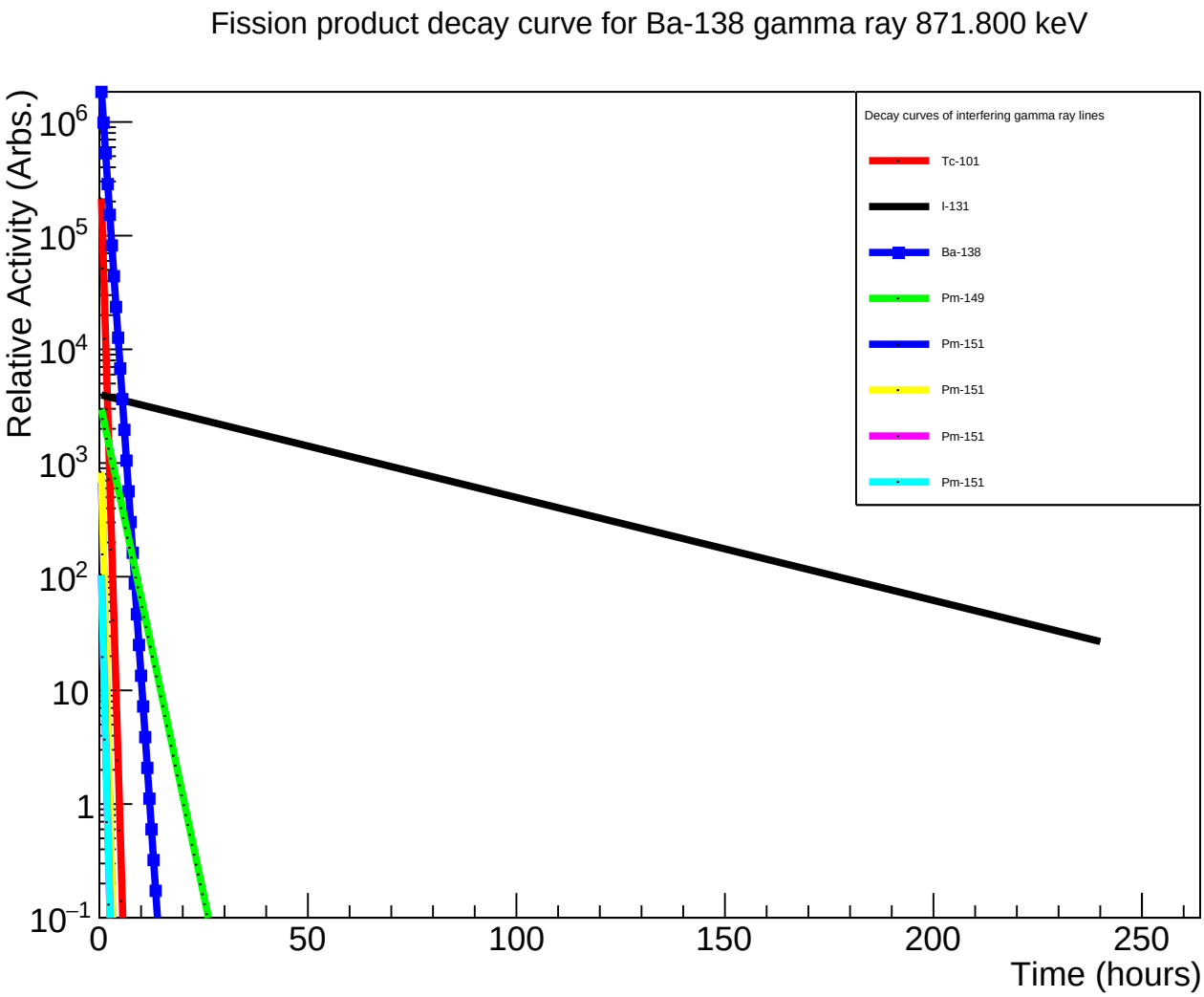


Figure 904: Ba-138 decay curve for 871.800 keV gamma ray.

3.905 Cs-138 E_γ = 1009.78 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 1009.78 keV
Gamma Intensity = 29.83 ± 0.622 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1809: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1810: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1009.300	0.000	0.855	0.000
Mo-101	Tc-101	1011.050	0.009	0.243	0.052
Tc-105	Ru-105	1008.400	0.018	0.127	0.010
Pd-109	Ag-109	1010.000	0.000	13.701	0.000
I-132	Xe-132	1009.000	0.000	2.295	0.043
Ba-141	La-141	1008.400	0.001	0.304	0.058
Pr-145	Nd-145	1011.000	0.000	5.984	0.039
Nd-151	Pm-151	1008.600	0.000	0.207	0.004
Nd-151	Pm-151	1010.800	0.000	0.207	0.004

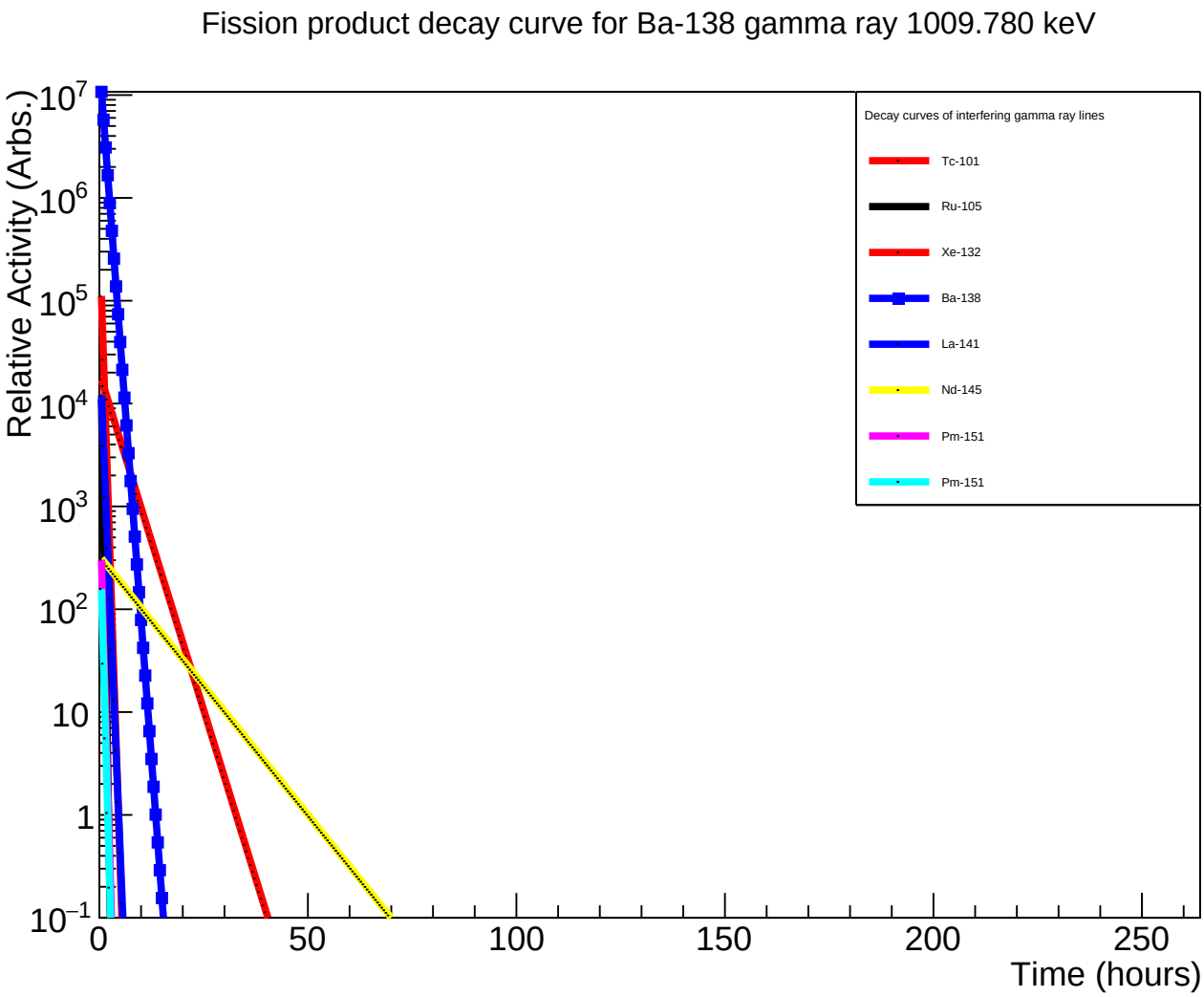


Figure 905: Ba-138 decay curve for 1009.780 keV gamma ray.

3.906 Cs-138 E_γ = 1147.22 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 1147.22 keV
Gamma Intensity = 1.24 ± 0.069 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1811: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1812: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1147.970	0.026	16.749	0.060
Rh-107	Pd-107	1148.500	0.000	0.362	0.001
Sb-129	Te-129	1147.200	0.000	4.400	0.005
Sb-130	Te-130	1146.200	0.006	0.658	0.008
Te-131	I-131	1146.960	0.050	0.417	0.025
Te-131	I-131	1148.510	0.001	0.417	0.025
I-132	Xe-132	1147.800	0.003	2.295	0.043
Ba-141	La-141	1147.000	0.000	0.304	0.058
Ba-142	La-142	1148.700	0.005	0.177	0.058
La-143	Ce-143	1146.100	0.009	0.237	0.059
La-143	Ce-143	1148.500	0.012	0.237	0.059
Nd-151	Pm-151	1145.900	0.001	0.207	0.004
Nd-151	Pm-151	1147.800	0.000	0.207	0.004

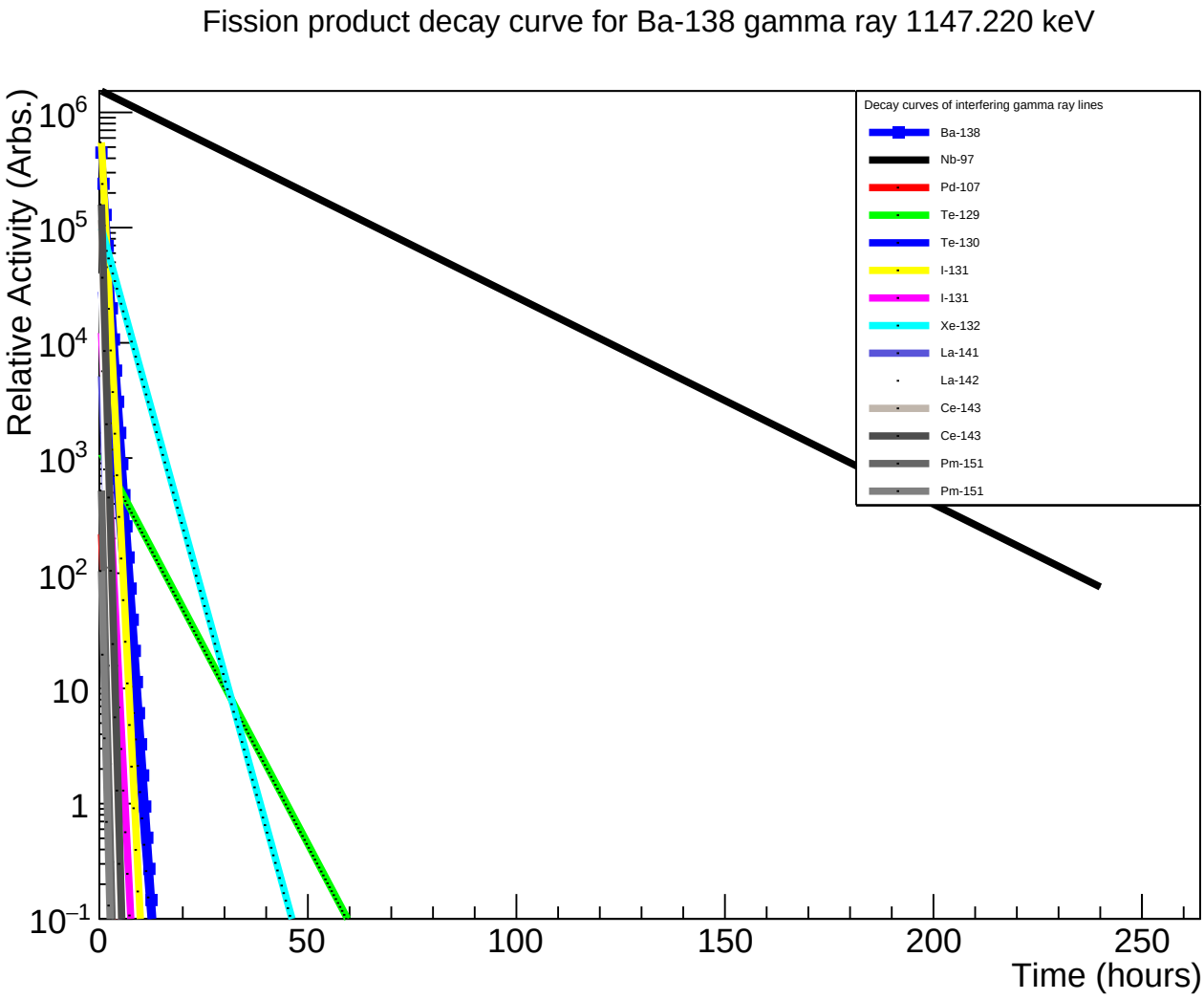


Figure 906: Ba-138 decay curve for 1147.220 keV gamma ray.

3.907 Cs-138 E_γ = 1343.59 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 1343.59 keV
Gamma Intensity = 1.14 ± 0.054 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1813: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1814: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1343.900	0.007	0.305	0.019
I-135	Xe-135	1343.660	0.001	6.570	0.063

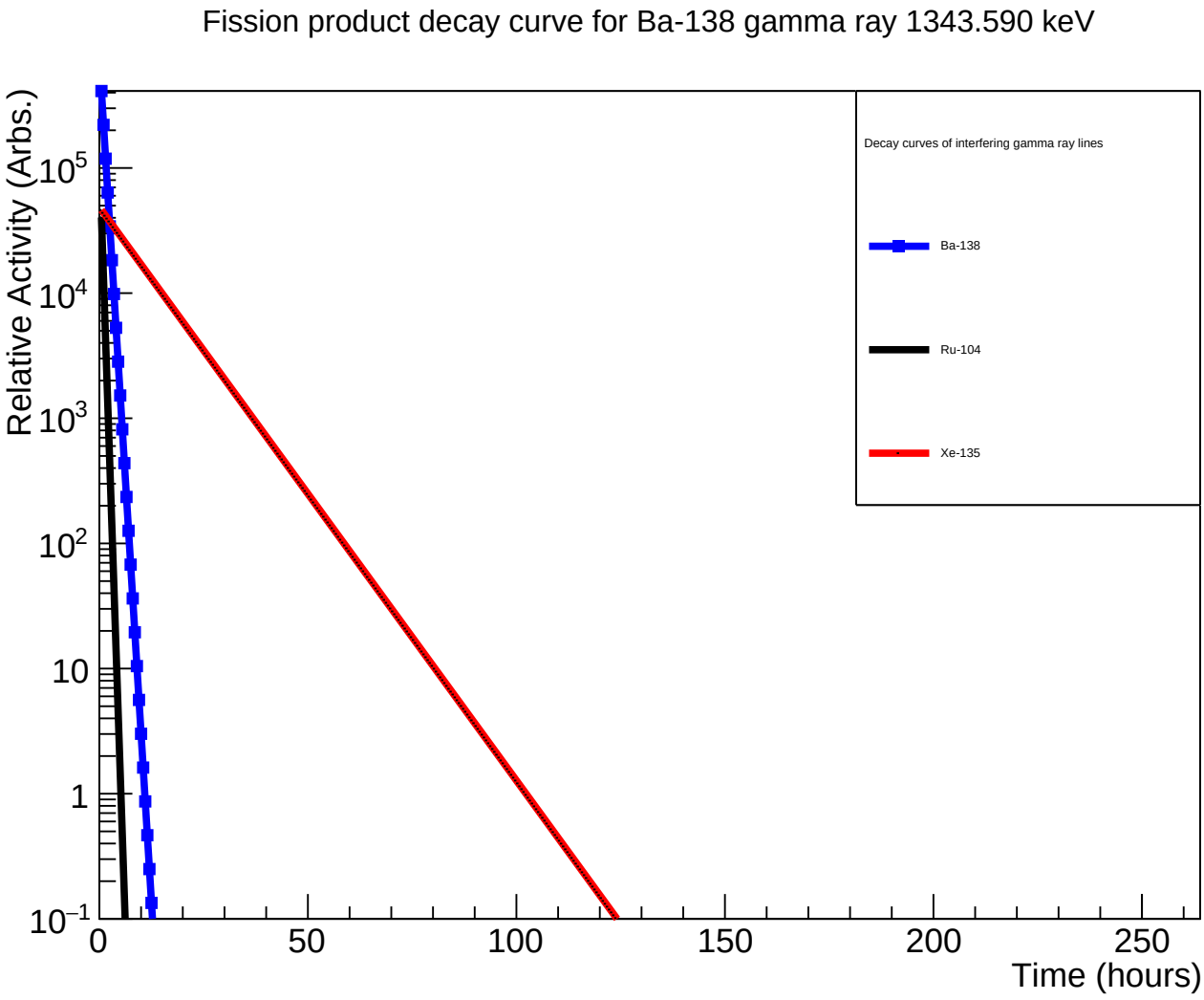


Figure 907: Ba-138 decay curve for 1343.590 keV gamma ray.

3.908 Cs-138 E_γ = 1435.86 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 1435.86 keV
Gamma Intensity = 76.30 ± 1.555 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1815: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1816: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1436.000	0.009	0.372	0.003
Nb-98	Mo-98	1436.420	0.025	0.855	0.000
Mo-101	Tc-101	1435.100	0.001	0.243	0.052
Tc-104	Ru-104	1436.300	0.004	0.305	0.019
Sn-127	Sb-127	1434.400	0.003	2.100	0.001
Sb-129	Te-129	1436.100	0.003	4.400	0.005
Ba-141	La-141	1436.600	0.009	0.304	0.058
Pr-146	Nd-146	1436.000	0.002	0.403	0.030
Nd-151	Pm-151	1434.400	0.000	0.207	0.004

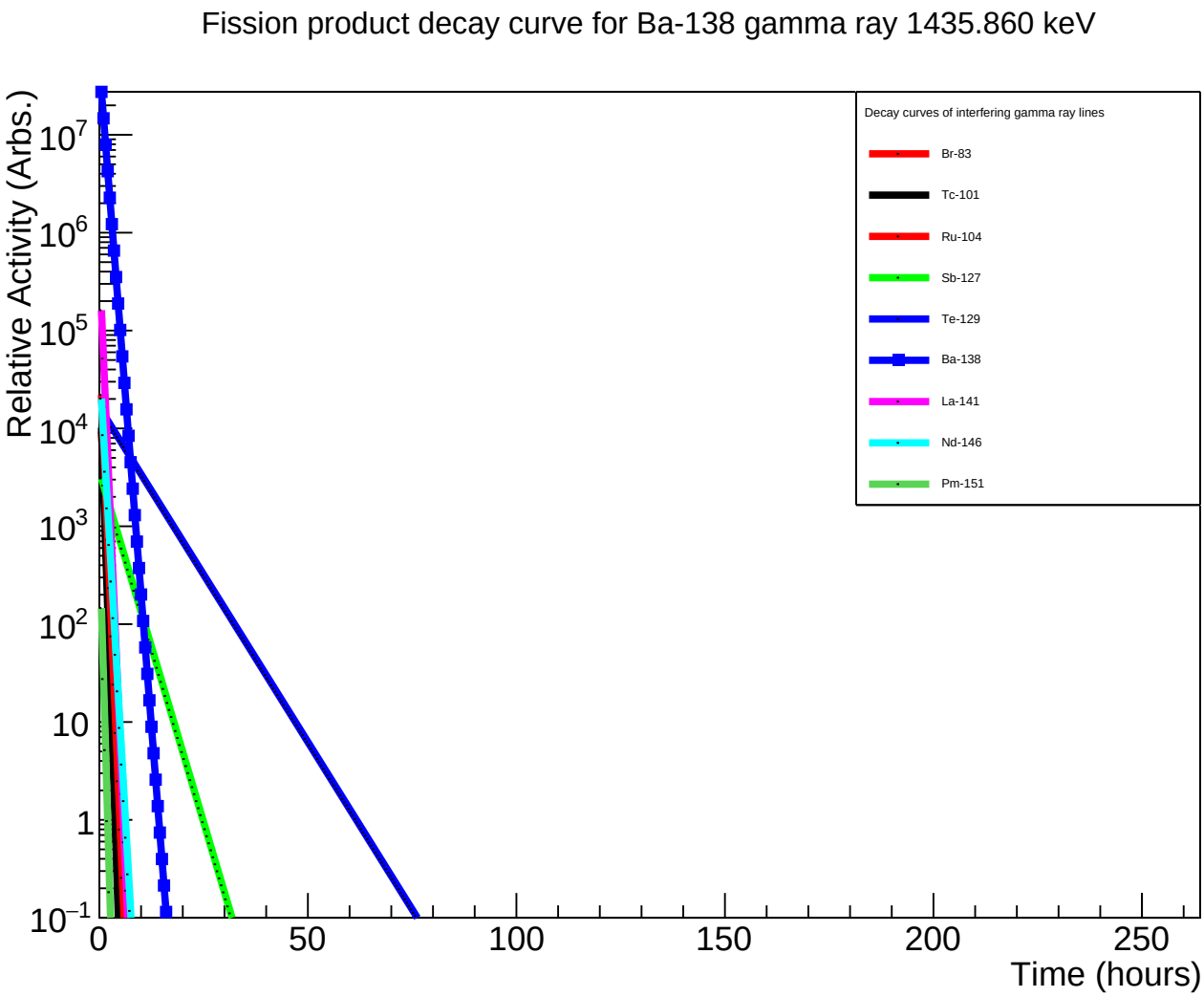


Figure 908: Ba-138 decay curve for 1435.860 keV gamma ray.

3.909 Cs-138 E_γ = 2218.00 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 2218.00 keV
Gamma Intensity = 15.18 ± 0.311 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1817: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1818: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	2218.500	0.001	0.529	0.010
Ba-141	La-141	2217.300	0.001	0.304	0.058
Pr-146	Nd-146	2217.900	0.001	0.403	0.030

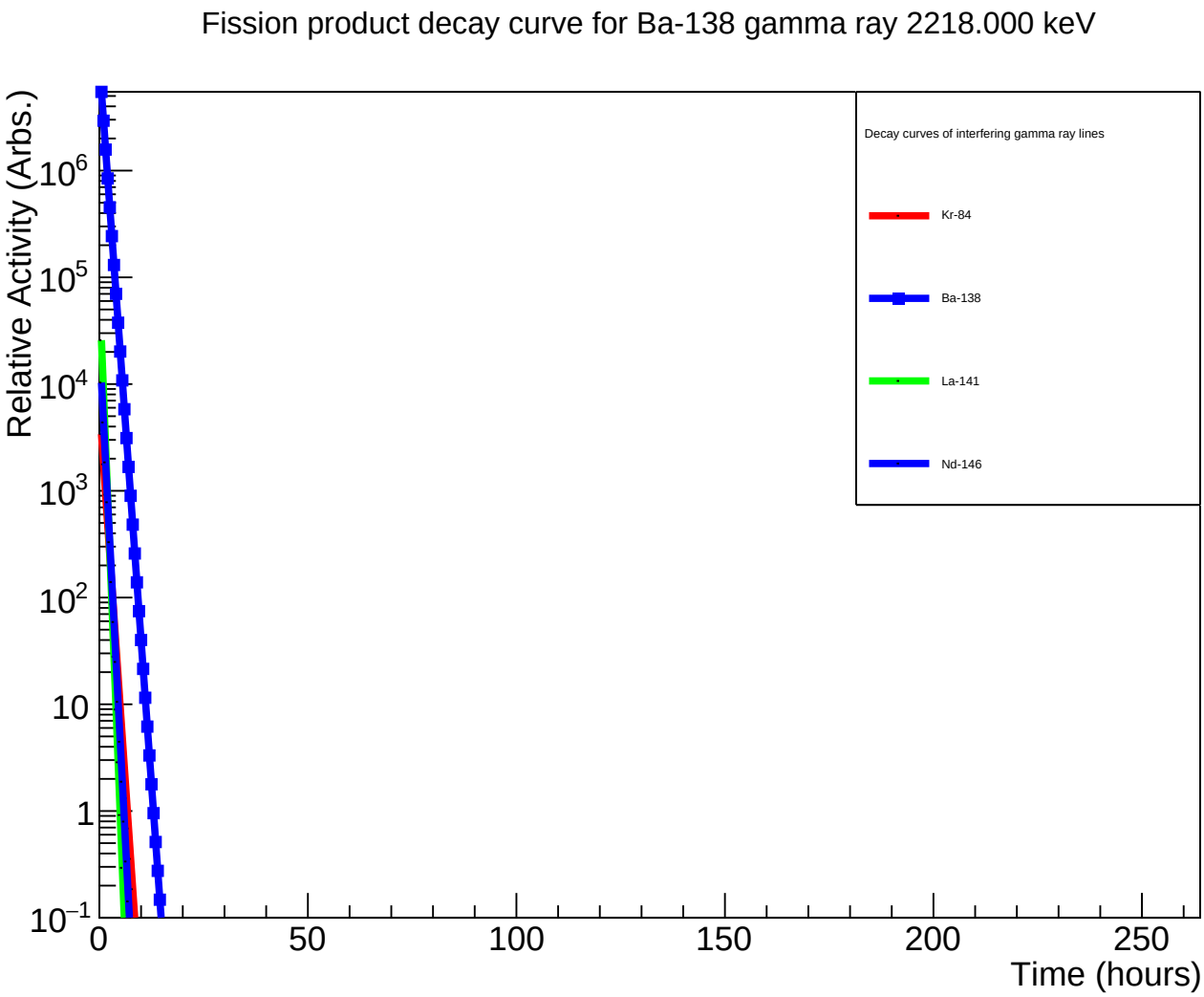


Figure 909: Ba-138 decay curve for 2218.000 keV gamma ray.

3.910 Cs-138 E_γ = 2639.59 keV

Chemical element: Cesium
Fission product parent: Cs-138
Gamma originates in daughter: Ba-138
Eγ: 2639.59 keV
Gamma Intensity = 7.63 ± 0.231 %
$T_{1/2}$ = 0.557 ± 0.003 hours or 33.41 ± 0.18 minutes
CFY: 6.708 ± 0.047 %

Table 1819: Decay chain of fission product chain A = 138

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Iodine-138	Xenon-138	0.002	0.000
Xenon-138	Cesium-138	0.235	0.001
Cesium-138	Barium-138	0.557	0.003

Table 1820: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

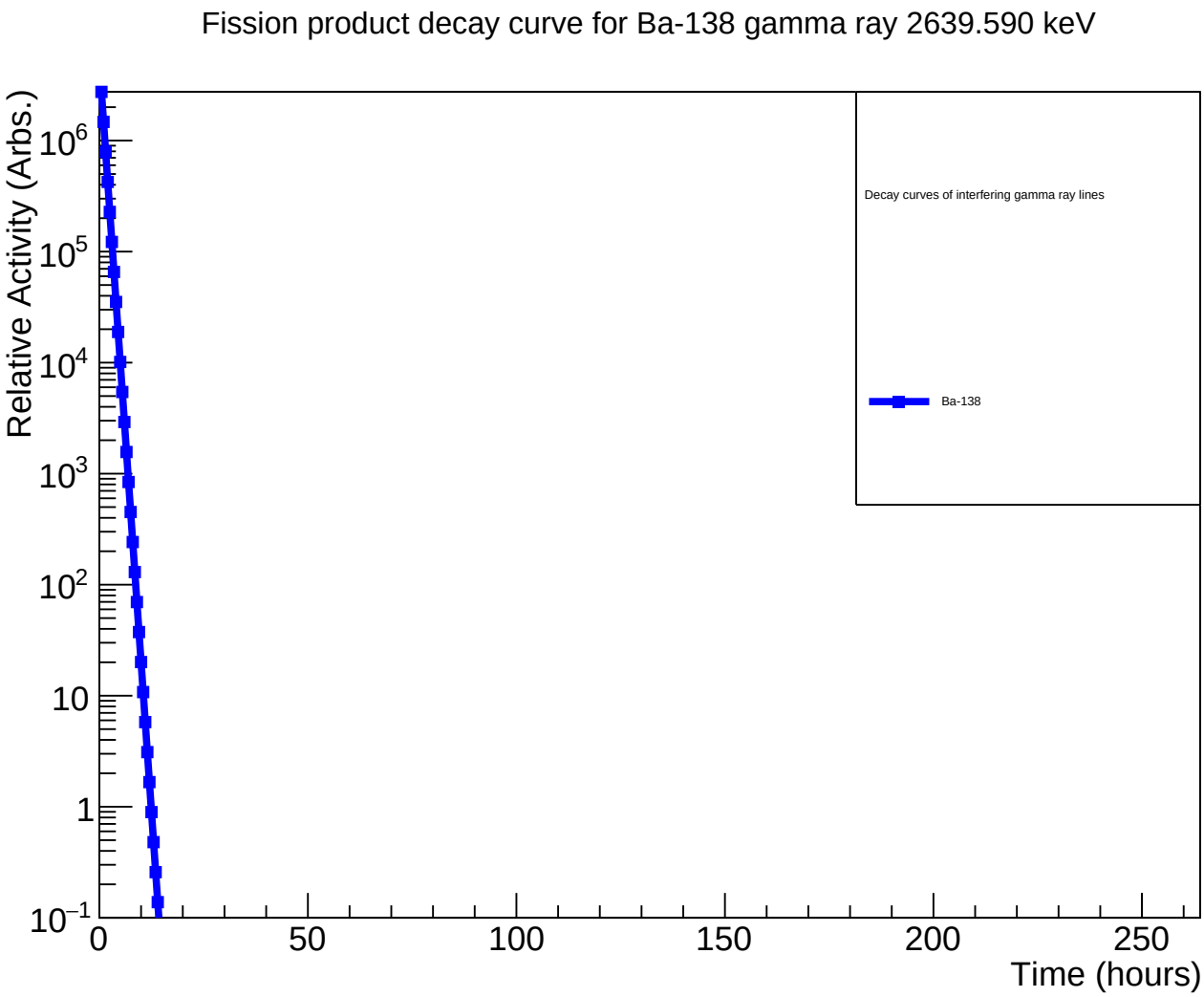


Figure 910: Ba-138 decay curve for 2639.590 keV gamma ray.

3.911 Cs-139 E_γ = 627.24 keV

Chemical element: Cesium
Fission product parent: Cs-139
Gamma originates in daughter: Ba-139
Eγ: 627.24 keV
Gamma Intensity = 1.52 ± 0.310 %
$T_{1/2}$ = 0.155 ± 0.001 hours or 9.27 ± 0.05 minutes
CFY: 6.345 ± 0.063 %

Table 1821: Decay chain of fission product chain A = 139

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-139	Cesium-139	0.011	0.000
Cesium-139	Barium-139	0.155	0.001
Barium-139	Lanthanum-139	1.384	0.005

Table 1822: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	626.800	0.000	9.630	0.058
Tc-101	Ru-101	627.000	0.004	0.237	0.052
Tc-104	Ru-104	627.000	0.002	0.305	0.019
Sb-128	Te-128	628.700	0.310	9.010	0.000
Sb-130	Te-130	626.700	0.028	0.658	0.008
Te-127	I-127	628.600	0.000	2616.000	0.000
I-134	Xe-134	627.960	0.022	0.875	0.078
Pr-147	Nd-147	627.600	0.003	0.223	0.022
Eu-156	Gd-156	626.000	0.000	364.560	0.000

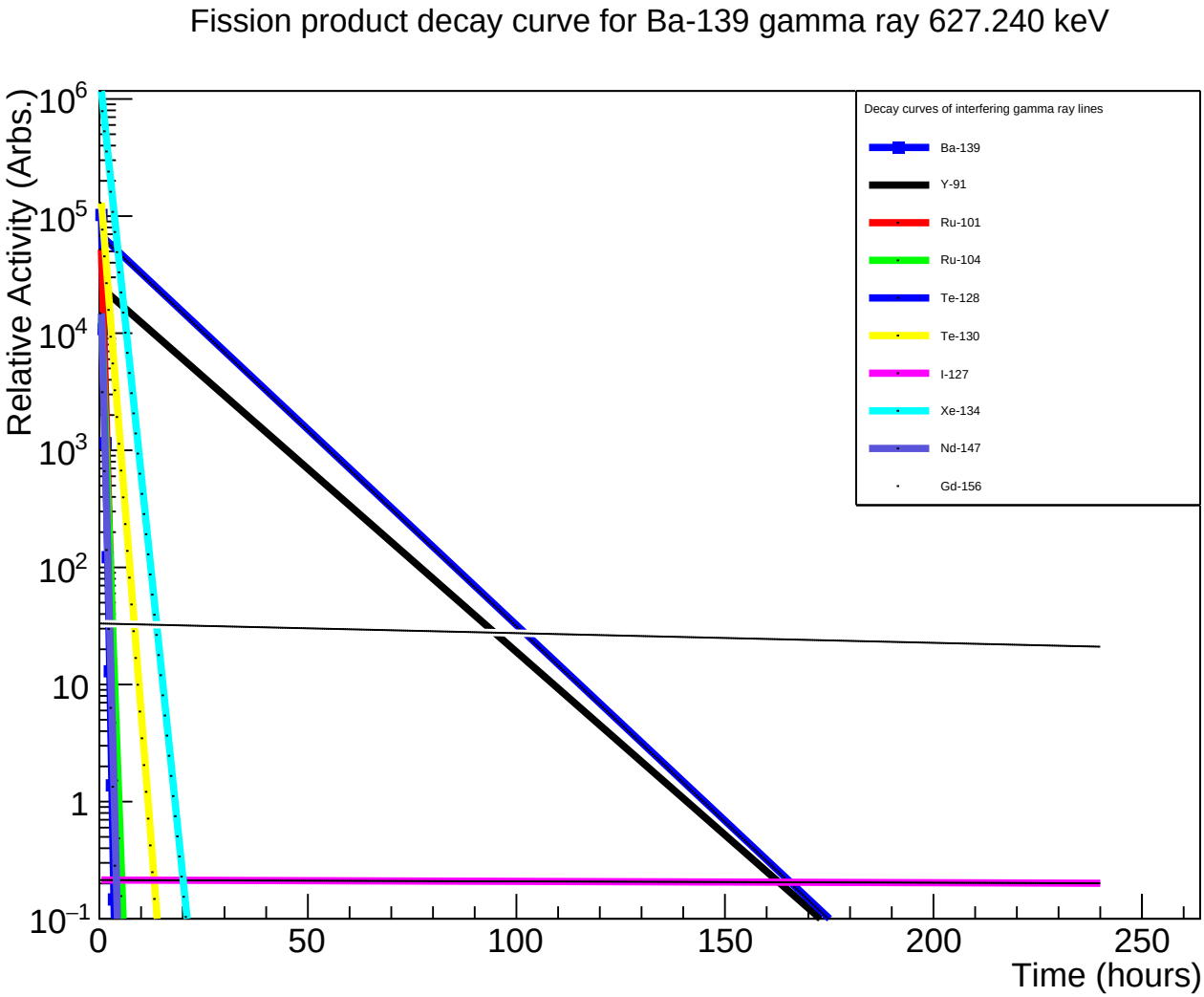


Figure 911: Ba-139 decay curve for 627.240 keV gamma ray.

3.912 Cs-139 E_γ = 1283.23 keV

Chemical element: Cesium
Fission product parent: Cs-139
Gamma originates in daughter: Ba-139
Eγ: 1283.23 keV
Gamma Intensity = 7.10 ± 1.450 %
$T_{1/2}$ = 0.155 ± 0.001 hours or 9.27 ± 0.05 minutes
CFY: 6.345 ± 0.063 %

Table 1823: Decay chain of fission product chain A = 139

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-139	Cesium-139	0.011	0.000
Cesium-139	Barium-139	0.155	0.001
Barium-139	Lanthanum-139	1.384	0.005

Table 1824: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1282.780	0.000	0.855	0.000
Tc-104	Ru-104	1281.800	0.020	0.305	0.019
Ag-112	Cd-112	1282.900	0.000	3.130	0.000
Sb-131	Te-131	1284.700	0.010	0.384	0.026
Te-129	I-129	1281.960	0.000	806.400	0.001
Ba-142	La-142	1283.600	0.001	0.177	0.058
La-142	Ce-142	1283.200	0.000	1.518	0.058
Nd-149	Pm-149	1284.490	0.000	1.728	0.011
Nd-151	Pm-151	1282.200	0.000	0.207	0.004

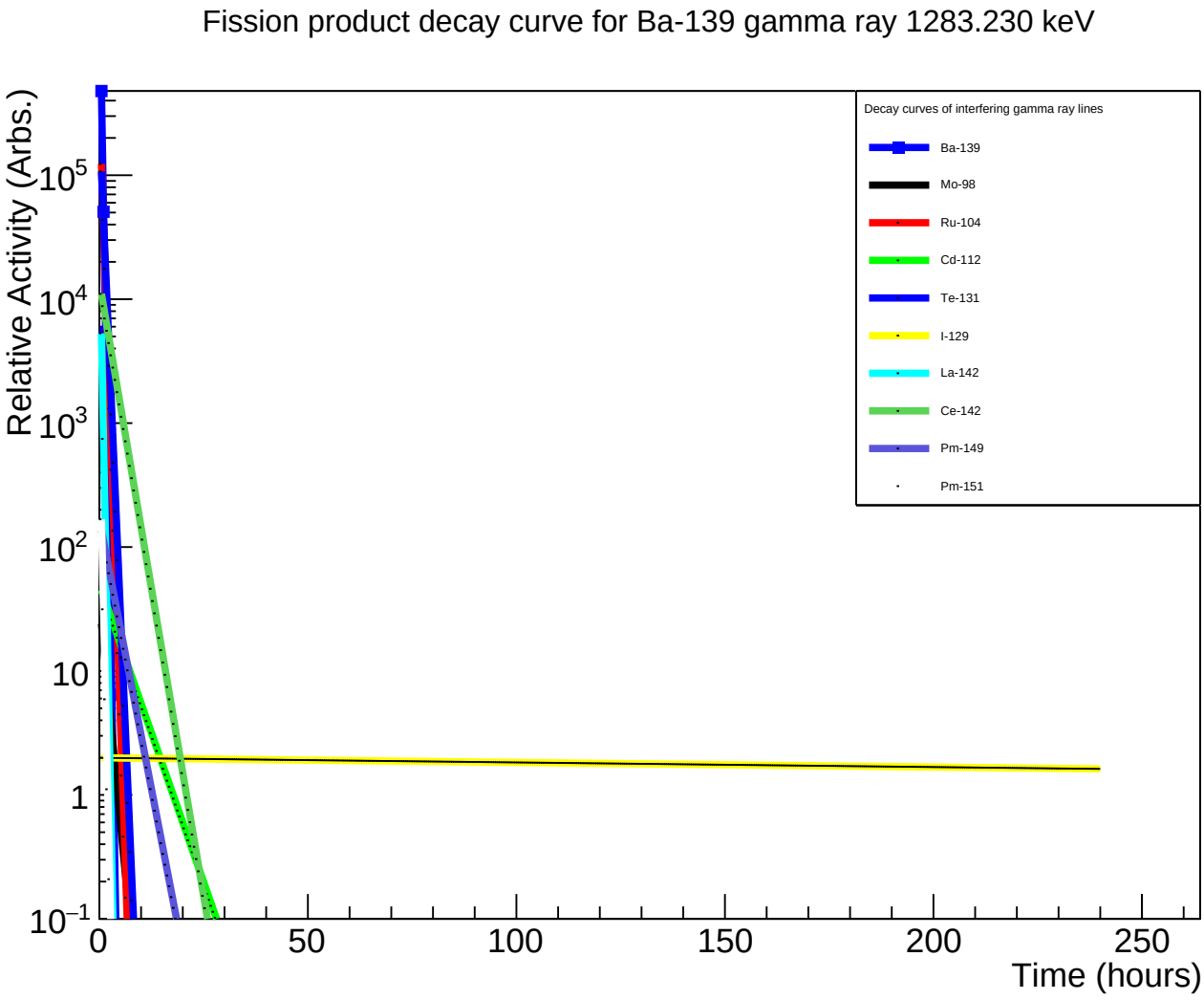


Figure 912: Ba-139 decay curve for 1283.230 keV gamma ray.

3.913 Ba-139 E_γ = 165.86 keV

Chemical element: Barium
Fission product parent: Ba-139
Gamma originates in daughter: La-139
Eγ: 165.86 keV
Gamma Intensity = 23.76 ± 0.250 %
$T_{1/2}$ = 1.384 ± 0.005 hours or 83.06 ± 0.28 minutes
CFY: 6.413 ± 0.045 %

Table 1825: Decay chain of fission product chain A = 139

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-139	Cesium-139	0.011	0.000
Cesium-139	Barium-139	0.155	0.001
Barium-139	Lanthanum-139	1.384	0.005

Table 1826: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	165.980	0.031	2.840	0.036
Sr-93	Y-93	166.600	0.006	0.124	0.062
Tc-105	Ru-105	164.800	0.003	0.127	0.010
Pd-111	Ag-111	166.000	0.000	0.390	0.000
Te-133	I-133	164.400	0.009	0.923	0.040
I-135	Xe-135	165.740	0.000	6.570	0.063
Nd-151	Pm-151	165.990	0.001	0.207	0.004
Sm-153	Eu-153	166.555	0.000	46.500	0.002
Sm-155	Eu-155	167.160	0.000	0.372	0.000
Sm-156	Eu-156	165.800	0.127	9.400	0.000

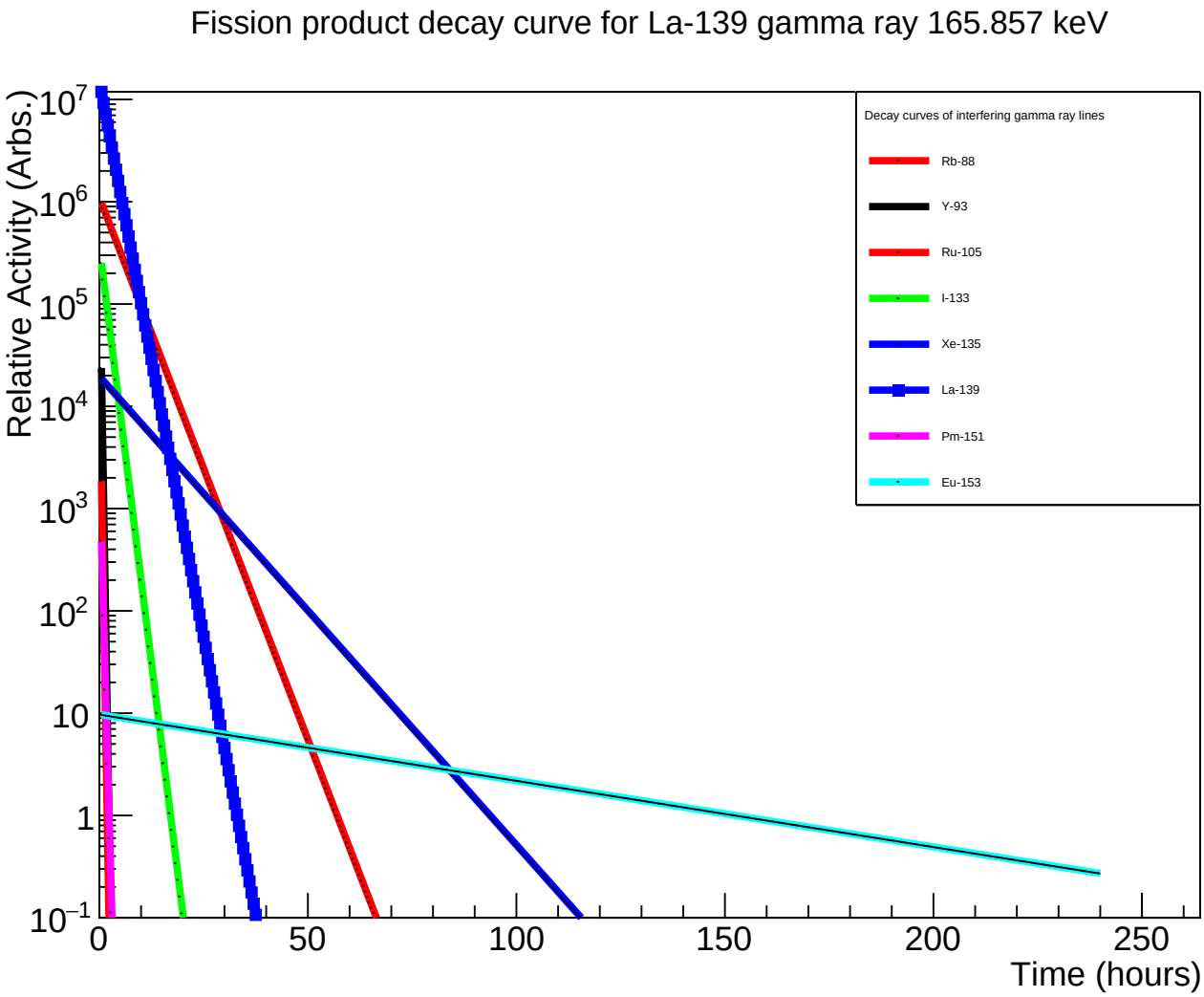


Figure 913: La-139 decay curve for 165.857 keV gamma ray.

3.914 Ba-140 E_γ = 13.85 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 13.85 keV
Gamma Intensity = 1.22 ± 0.171 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1827: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

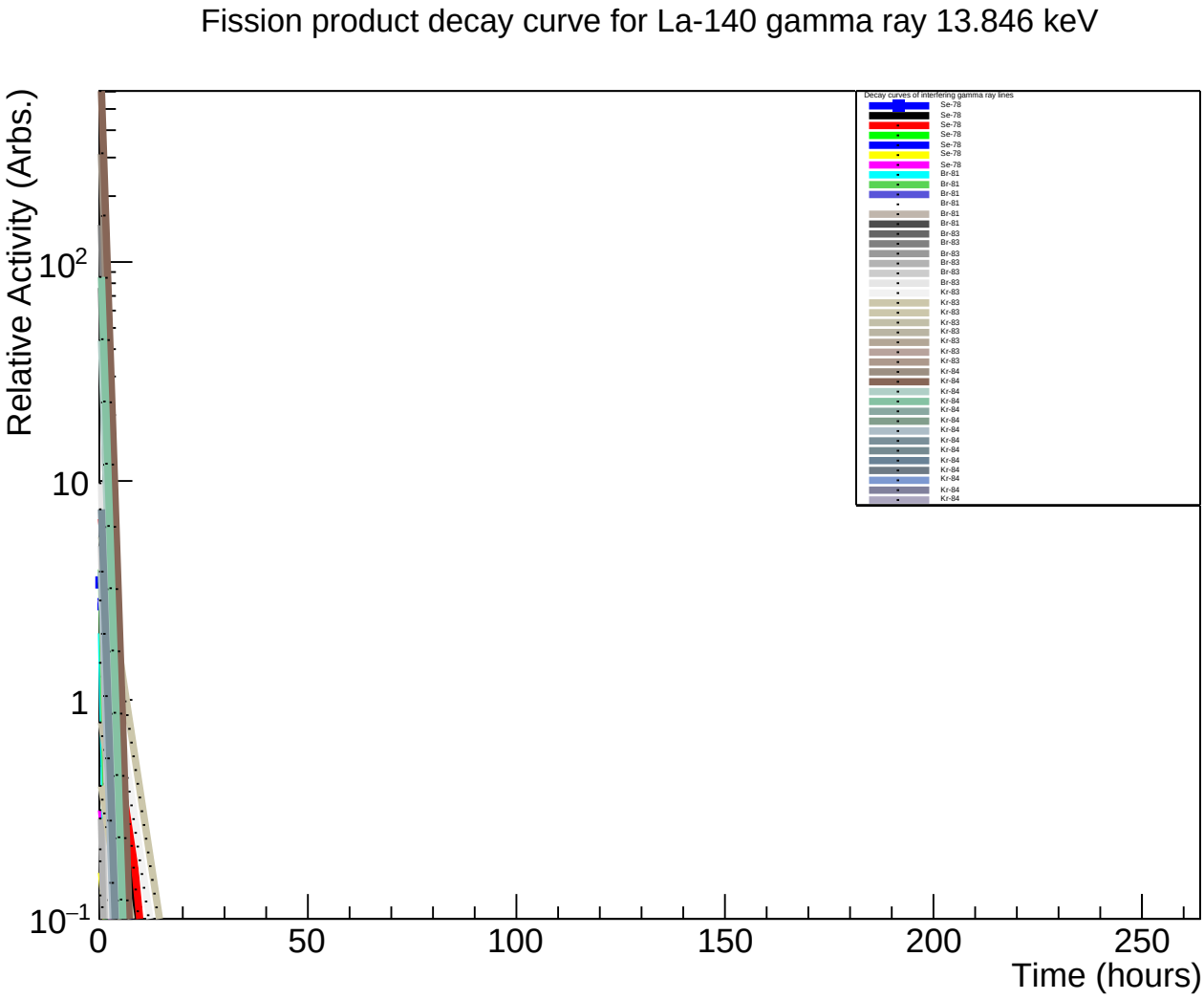


Figure 914: La-140 decay curve for 13.846 keV gamma ray.

Table 1828: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	12.449	0.000	1.512	0.000
As-78	Se-78	12.455	0.000	1.512	0.000
As-78	Se-78	12.554	0.000	1.512	0.000
As-78	Se-78	12.555	0.000	1.512	0.000
As-78	Se-78	12.609	0.000	1.512	0.000
As-78	Se-78	12.610	0.000	1.512	0.000
Se-81	Br-81	13.243	0.000	0.308	0.002
Se-81	Br-81	13.250	0.000	0.308	0.002
Se-81	Br-81	13.355	0.000	0.308	0.002
Se-81	Br-81	13.356	0.000	0.308	0.002
Se-81	Br-81	13.423	0.000	0.308	0.002
Se-81	Br-81	13.424	0.000	0.308	0.002
Se-83	Br-83	13.243	0.000	0.372	0.003
Se-83	Br-83	13.250	0.000	0.372	0.003
Se-83	Br-83	13.355	0.000	0.372	0.003
Se-83	Br-83	13.356	0.000	0.372	0.003
Se-83	Br-83	13.423	0.000	0.372	0.003
Se-83	Br-83	13.424	0.000	0.372	0.003
Br-83	Kr-83	12.552	0.000	2.400	0.005
Br-83	Kr-83	12.607	0.000	2.400	0.005
Br-83	Kr-83	14.065	0.000	2.400	0.005
Br-83	Kr-83	14.073	0.000	2.400	0.005
Br-83	Kr-83	14.185	0.000	2.400	0.005
Br-83	Kr-83	14.186	0.000	2.400	0.005
Br-83	Kr-83	14.267	0.000	2.400	0.005
Br-83	Kr-83	14.267	0.000	2.400	0.005
Br-84	Kr-84	12.552	0.000	0.529	0.010
Br-84	Kr-84	12.607	0.000	0.529	0.010
Br-84	Kr-84	14.065	0.000	0.529	0.010
Br-84	Kr-84	14.073	0.000	0.529	0.010
Br-84	Kr-84	14.185	0.000	0.529	0.010
Br-84	Kr-84	14.186	0.000	0.529	0.010
Br-84	Kr-84	14.267	0.000	0.529	0.010
Br-84	Kr-84	14.267	0.000	0.529	0.010
Br-84	Kr-84	12.552	0.000	0.100	0.000
Br-84	Kr-84	12.607	0.001	0.100	0.000
Br-84	Kr-84	14.065	0.000	0.100	0.000
Br-84	Kr-84	14.073	0.000	0.100	0.000
Br-84	Kr-84	14.185	0.000	0.100	0.000
Br-84	Kr-84	14.186	0.000	0.100	0.000

3.915 Ba-140 E_γ = 29.97 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 29.97 keV
Gamma Intensity = 14.10 ± 0.434 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1829: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

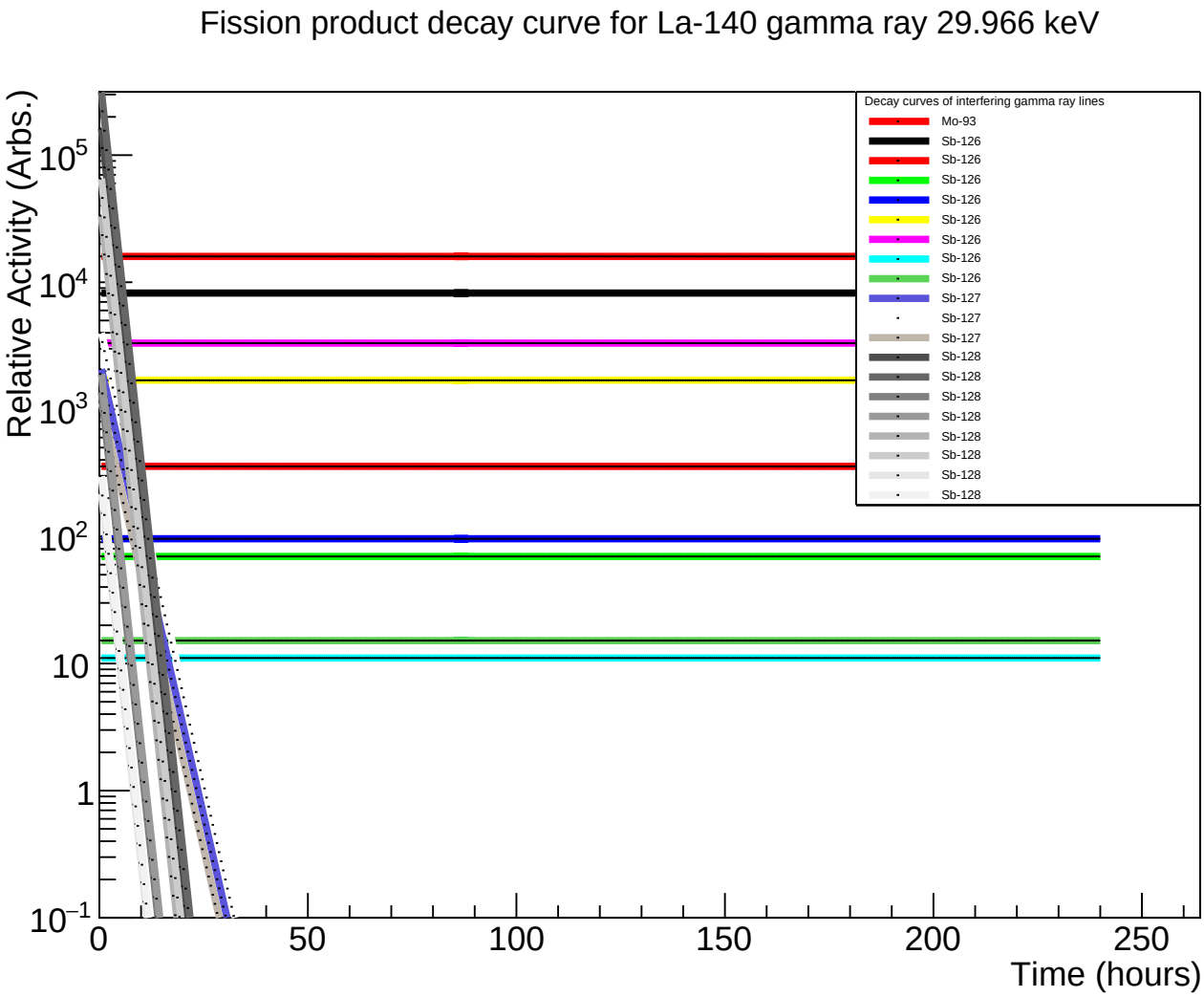


Figure 915: La-140 decay curve for 29.966 keV gamma ray.

Table 1830: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-93	Mo-93	30.770	0.000	141388.891	0.060
In-115	Sn-115	28.474	0.000	4.486	0.000
In-115	Sn-115	28.680	0.000	4.486	0.000
In-115	Sn-115	28.689	0.000	4.486	0.000
In-115	Sn-115	29.080	0.000	4.486	0.000
In-115	Sn-115	29.088	0.000	4.486	0.000
In-115	Sn-115	29.150	0.000	4.486	0.000
In-115	Sn-115	29.152	0.000	4.486	0.000
Sn-123	Sb-123	29.679	0.005	0.668	0.000
Sn-123	Sb-123	29.726	0.010	0.668	0.000
Sn-123	Sb-123	30.393	0.003	0.668	0.000
Sn-125	Sb-125	29.670	0.000	231.360	0.000
Sn-125	Sb-125	29.717	0.000	231.360	0.000
Sn-125	Sb-125	29.931	0.000	231.360	0.000
Sn-125	Sb-125	29.941	0.000	231.360	0.000
Sn-125	Sb-125	30.362	0.000	231.360	0.000
Sn-125	Sb-125	30.371	0.000	231.360	0.000
Sn-125	Sb-125	30.437	0.000	231.360	0.000
Sn-125	Sb-125	30.438	0.000	231.360	0.000
Sn-125	Sb-125	29.670	0.001	0.159	0.000
Sn-125	Sb-125	29.717	0.002	0.159	0.000
Sn-125	Sb-125	29.931	0.000	0.159	0.000
Sn-125	Sb-125	29.941	0.000	0.159	0.000
Sn-125	Sb-125	30.362	0.000	0.159	0.000
Sn-125	Sb-125	30.371	0.000	0.159	0.000
Sn-125	Sb-125	30.437	0.000	0.159	0.000
Sn-125	Sb-125	30.438	0.000	0.159	0.000
Sn-126	Sb-126	29.670	0.015	2016666624.000	0.001
Sn-126	Sb-126	29.717	0.028	2016666624.000	0.001
Sn-126	Sb-126	29.931	0.000	2016666624.000	0.001
Sn-126	Sb-126	29.941	0.000	2016666624.000	0.001
Sn-126	Sb-126	30.362	0.003	2016666624.000	0.001
Sn-126	Sb-126	30.371	0.006	2016666624.000	0.001
Sn-126	Sb-126	30.437	0.000	2016666624.000	0.001
Sn-126	Sb-126	30.438	0.000	2016666624.000	0.001
Sn-127	Sb-127	29.679	0.002	2.100	0.001
Sn-127	Sb-127	29.726	0.004	2.100	0.001
Sn-127	Sb-127	30.393	0.001	2.100	0.001
Sn-128	Sb-128	29.670	0.069	0.984	0.003
Sn-128	Sb-128	29.717	0.135	0.984	0.003

3.916 Ba-140 E_γ = 162.66 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 162.66 keV
Gamma Intensity = 6.22 ± 0.092 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1831: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1832: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	162.530	0.000	0.855	0.000
Mo-99	Tc-99	162.370	0.000	65.976	0.061
Tc-104	Ru-104	163.200	0.004	0.305	0.019
Tc-105	Ru-105	162.300	0.006	0.127	0.010
Ru-105	Rh-105	163.460	0.002	4.440	0.010
I-134	Xe-134	162.480	0.003	0.875	0.078
I-135	Xe-135	162.650	0.000	6.570	0.063
Xe-131	Cs-131	163.930	0.019	284.160	0.000
Nd-151	Pm-151	163.600	0.000	0.207	0.004
Pm-151	Sm-151	162.940	0.009	28.400	0.004
Pm-151	Sm-151	163.580	0.016	28.400	0.004

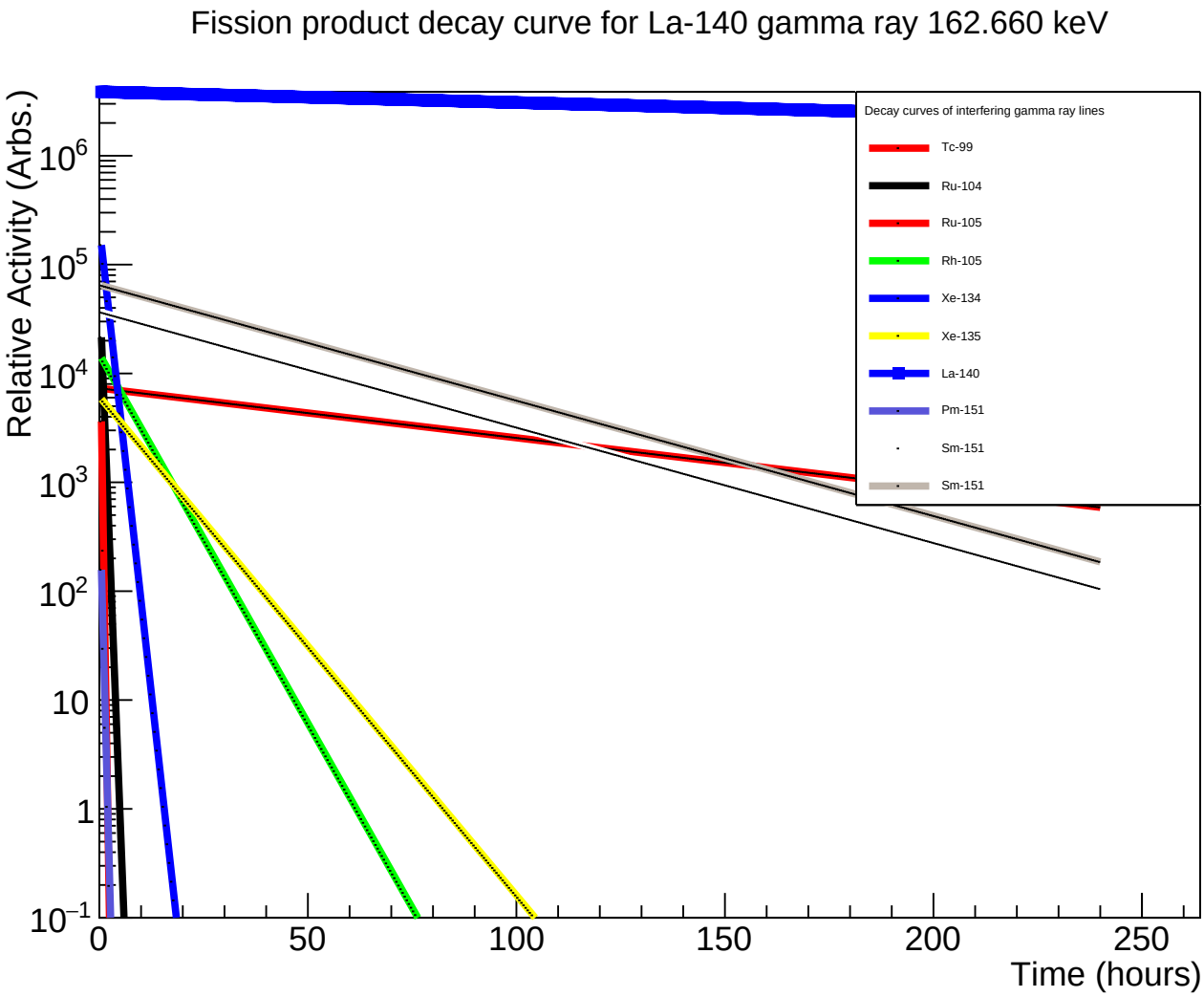


Figure 916: La-140 decay curve for 162.660 keV gamma ray.

3.917 Ba-140 E_γ = 304.85 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 304.85 keV
Gamma Intensity = 4.29 ± 0.062 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1833: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1834: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	304.870	0.140	4.480	0.013
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Tc-105	Ru-105	304.500	0.011	0.127	0.010
Tc-105	Ru-105	305.500	0.011	0.127	0.010
Rh-105	Pd-105	306.311	0.053	35.360	0.010
Sn-127	Sb-127	305.900	0.001	2.100	0.001
Te-131	I-131	303.900	0.000	33.250	0.004
I-135	Xe-135	304.910	0.000	6.570	0.063
I-135	Xe-135	305.830	0.001	6.570	0.063
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Pm-149	Sm-149	305.220	0.000	53.080	0.011

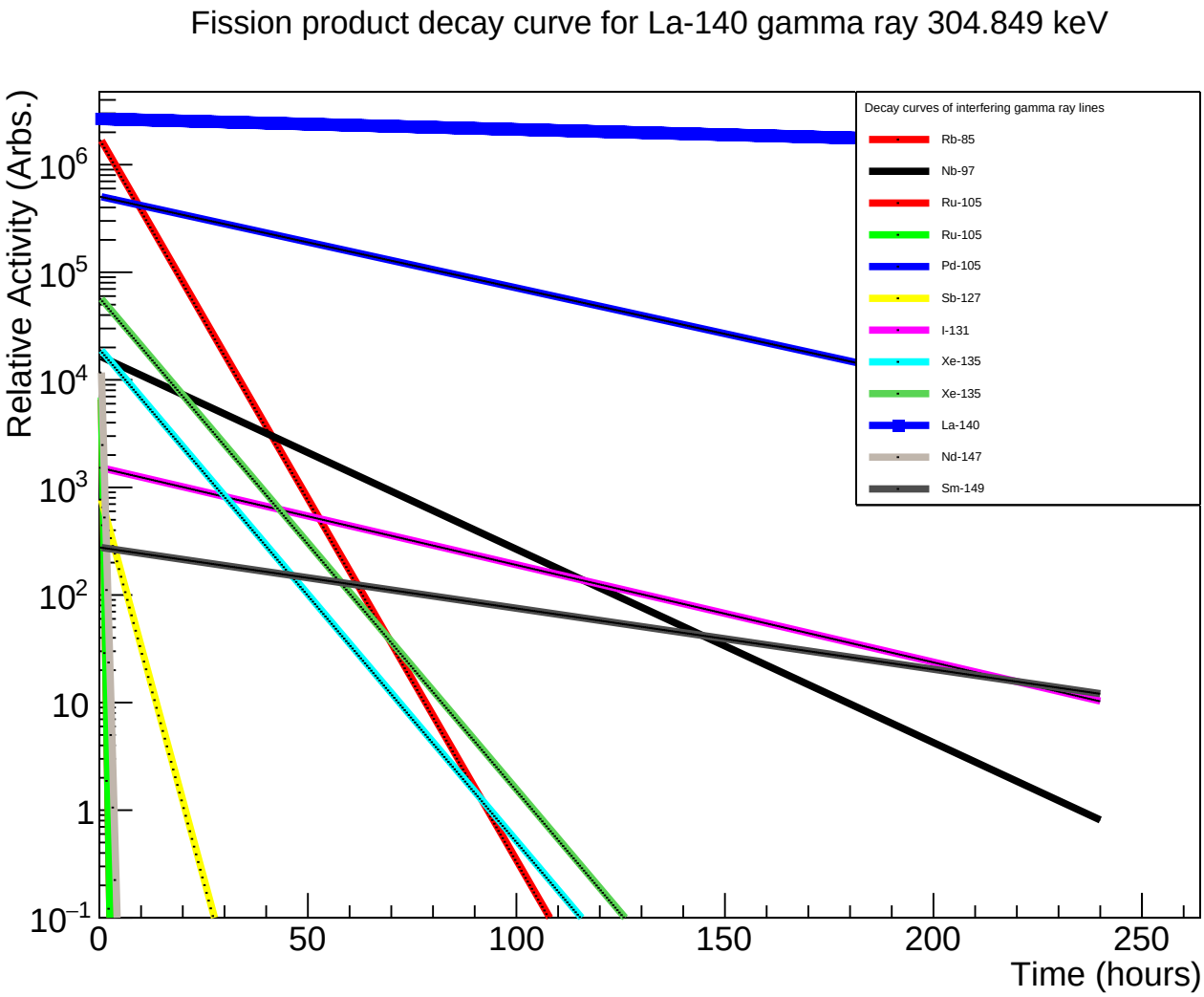


Figure 917: La-140 decay curve for 304.849 keV gamma ray.

3.918 Ba-140 E_γ = 423.72 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 423.72 keV
Gamma Intensity = 3.15 ± 0.046 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1835: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1836: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	424.000	1.000	0.100	0.000
Sr-93	Y-93	424.700	0.003	0.124	0.062
Pd-109	Ag-109	423.900	0.000	13.701	0.000
Sn-129	Sb-129	423.000	0.018	0.115	0.002
I-133	Xe-133	422.910	0.003	20.800	0.067
Nd-149	Pm-149	423.553	0.074	1.728	0.011
Nd-149	Pm-149	425.220	0.003	1.728	0.011
Nd-151	Pm-151	422.600	0.004	0.207	0.004
Nd-151	Pm-151	423.560	0.001	0.207	0.004
Nd-151	Pm-151	423.560	0.059	0.207	0.004
Pm-151	Sm-151	424.550	0.000	28.400	0.004
Sm-153	Eu-153	424.400	0.000	46.500	0.002

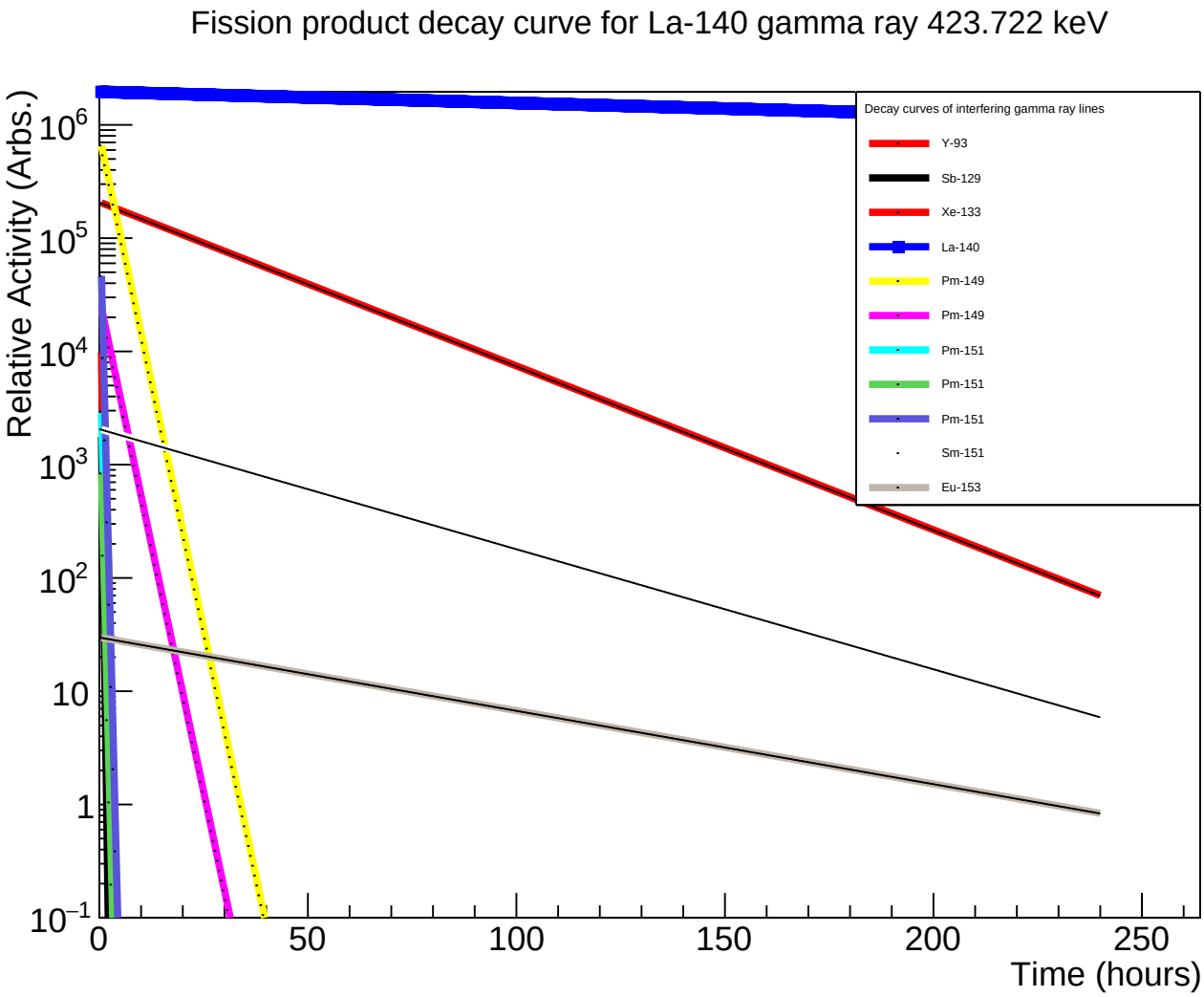


Figure 918: La-140 decay curve for 423.722 keV gamma ray.

3.919 Ba-140 E_γ = 437.58 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 437.58 keV
Gamma Intensity = 1.93 ± 0.020 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1837: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1838: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	439.000	0.003	0.127	0.010
Pd-111	Ag-111	438.500	0.001	0.390	0.000
Sn-127	Sb-127	438.200	0.061	2.100	0.001
Sn-128	Sb-128	436.700	0.041	0.984	0.003
Te-131	I-131	438.300	0.000	0.417	0.025
I-133	Xe-133	438.870	0.000	20.800	0.067
La-142	Ce-142	439.000	0.000	1.518	0.058
Ce-143	Pr-143	438.430	0.000	33.039	0.060
Sm-153	Eu-153	436.900	0.000	46.500	0.002

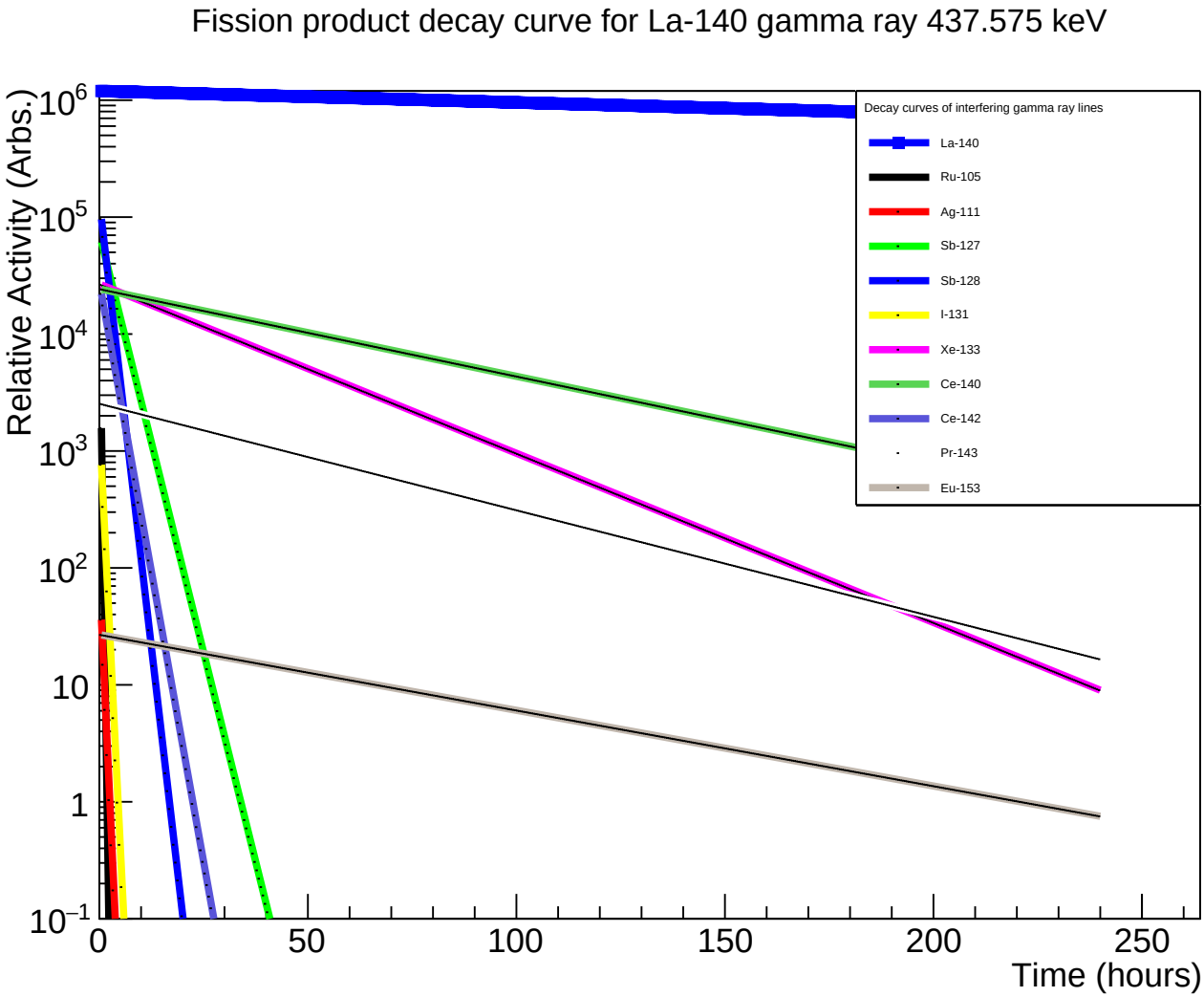


Figure 919: La-140 decay curve for 437.575 keV gamma ray.

3.920 Ba-140 E_γ = 537.26 keV

Chemical element: Barium
Fission product parent: Ba-140
Gamma originates in daughter: La-140
Eγ: 537.26 keV
Gamma Intensity = 24.39 ± 0.220 %
$T_{1/2}$ = 306.065 ± 0.055 hours or 18363.88 ± 3.31 minutes
CFY: 6.214 ± 0.062 %

Table 1839: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1840: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	538.200	0.000	0.308	0.002
Mo-99	Tc-99	537.790	0.000	65.976	0.061
Tc-105	Ru-105	535.800	0.001	0.127	0.010
Tc-105	Ru-105	538.500	0.003	0.127	0.010
Ag-112	Cd-112	536.400	0.001	3.130	0.000
Sb-125	Te-125	538.620	0.000	24194.445	0.000
I-133	Xe-133	537.730	0.000	20.800	0.067
Xe-138	Cs-138	537.760	0.001	0.235	0.063
Cs-139	Ba-139	538.350	0.000	0.155	0.063
La-142	Ce-142	538.300	0.000	1.518	0.058
Nd-149	Pm-149	536.600	0.000	1.728	0.011
Pm-149	Sm-149	535.900	0.000	53.080	0.011
Pm-151	Sm-151	537.650	0.000	28.400	0.004

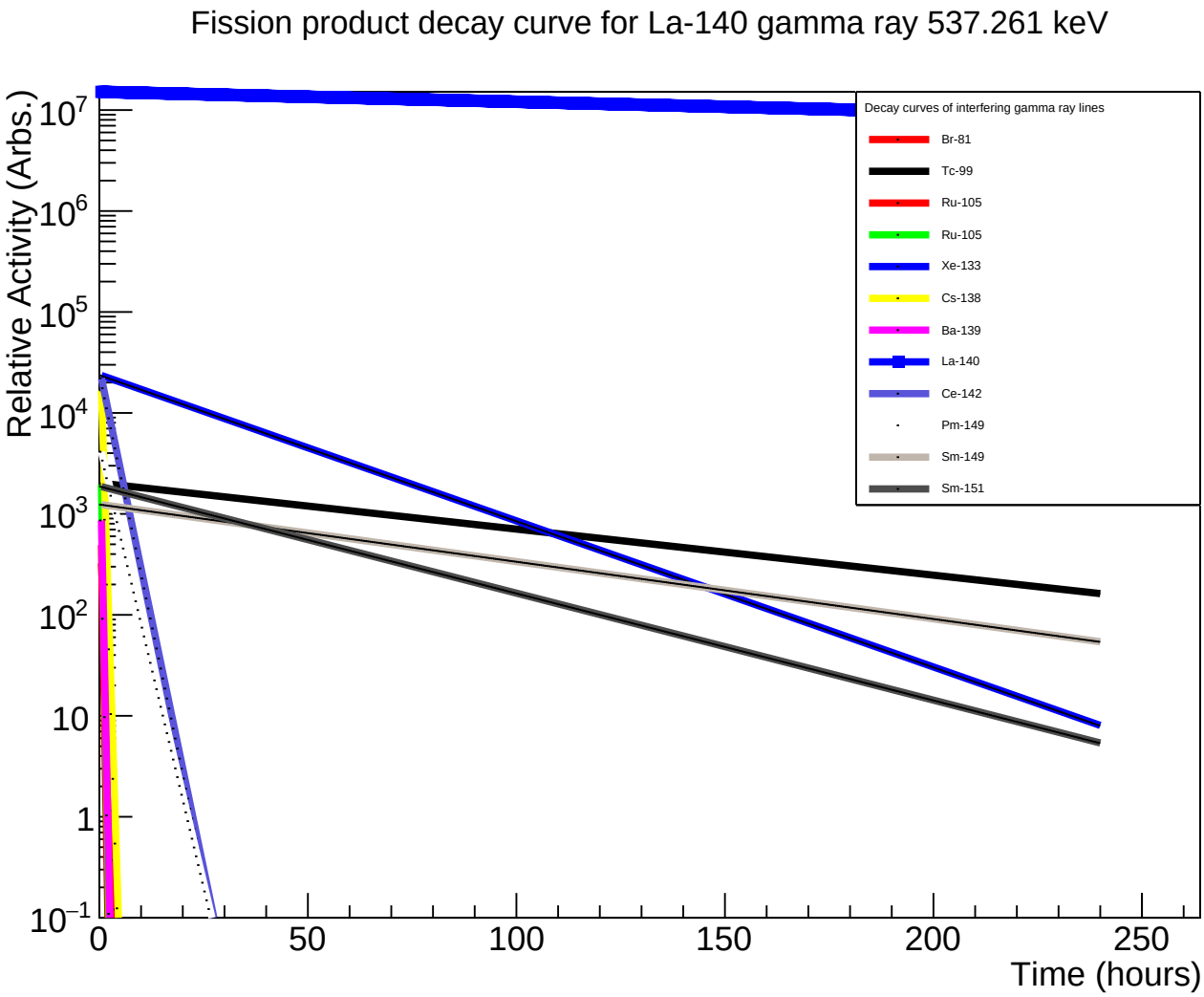


Figure 920: La-140 decay curve for 537.261 keV gamma ray.

3.921 Ba-141 E_γ = 112.80 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 112.80 keV
Gamma Intensity = 1.01 ± 0.113 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1841: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1842: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	111.600	0.001	16.749	0.060
Tc-105	Ru-105	112.500	0.003	0.127	0.010
Tc-105	Ru-105	113.360	0.009	0.127	0.010
Ru-103	Rh-103	113.191	0.000	941.928	0.030
Te-131	I-131	111.900	0.000	33.250	0.004
Te-131	I-131	113.500	0.000	33.250	0.004
Te-132	I-132	111.760	0.017	76.896	0.043
Te-133	I-133	112.260	0.001	0.923	0.040
I-135	Xe-135	112.780	0.000	6.570	0.063
I-135	Xe-135	113.150	0.000	6.570	0.063
Cs-138	Ba-138	112.600	0.001	0.557	0.067
Nd-149	Pm-149	112.520	0.001	1.728	0.011
Nd-151	Pm-151	112.150	0.001	0.207	0.004
Nd-151	Pm-151	113.880	0.001	0.207	0.004
Pm-151	Sm-151	113.100	0.000	28.400	0.004

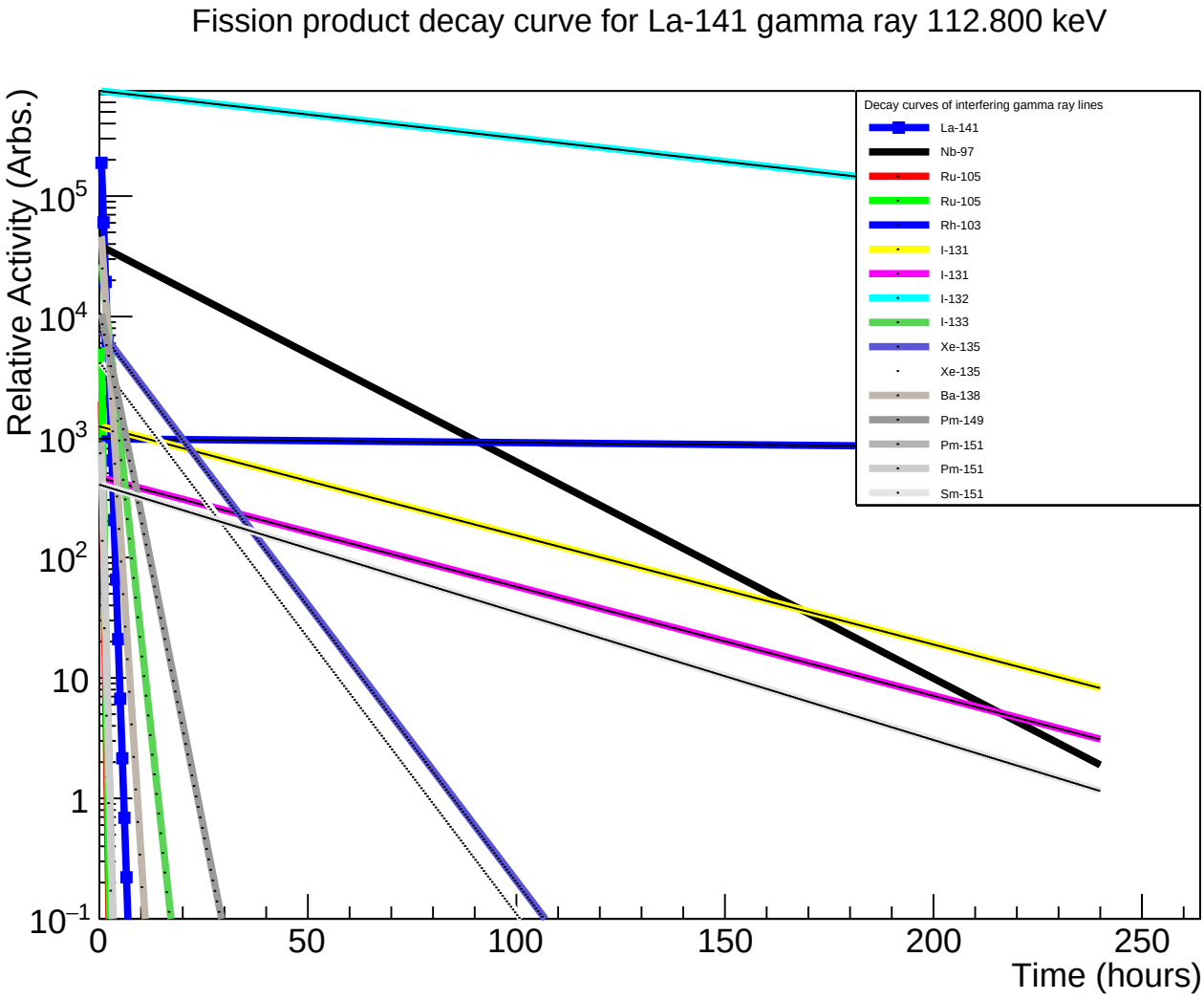


Figure 921: La-141 decay curve for 112.800 keV gamma ray.

3.922 Ba-141 E_γ = 190.33 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 190.33 keV
Gamma Intensity = 46.00 ± 3.302 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1843: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1844: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	190.000	0.002	0.372	0.003
Nb-98	Mo-98	189.000	0.002	0.855	0.000
Sn-127	Sb-127	190.100	0.006	2.100	0.001
Te-131	I-131	189.760	0.005	33.250	0.004
Te-131	I-131	190.520	0.001	33.250	0.004
Te-133	I-133	190.500	0.001	0.208	0.031
Cs-139	Ba-139	188.880	0.000	0.155	0.063
Pr-146	Nd-146	191.200	0.000	0.403	0.030
Nd-147	Pm-147	191.000	0.000	263.520	0.022
Eu-156	Gd-156	190.160	0.000	364.560	0.000

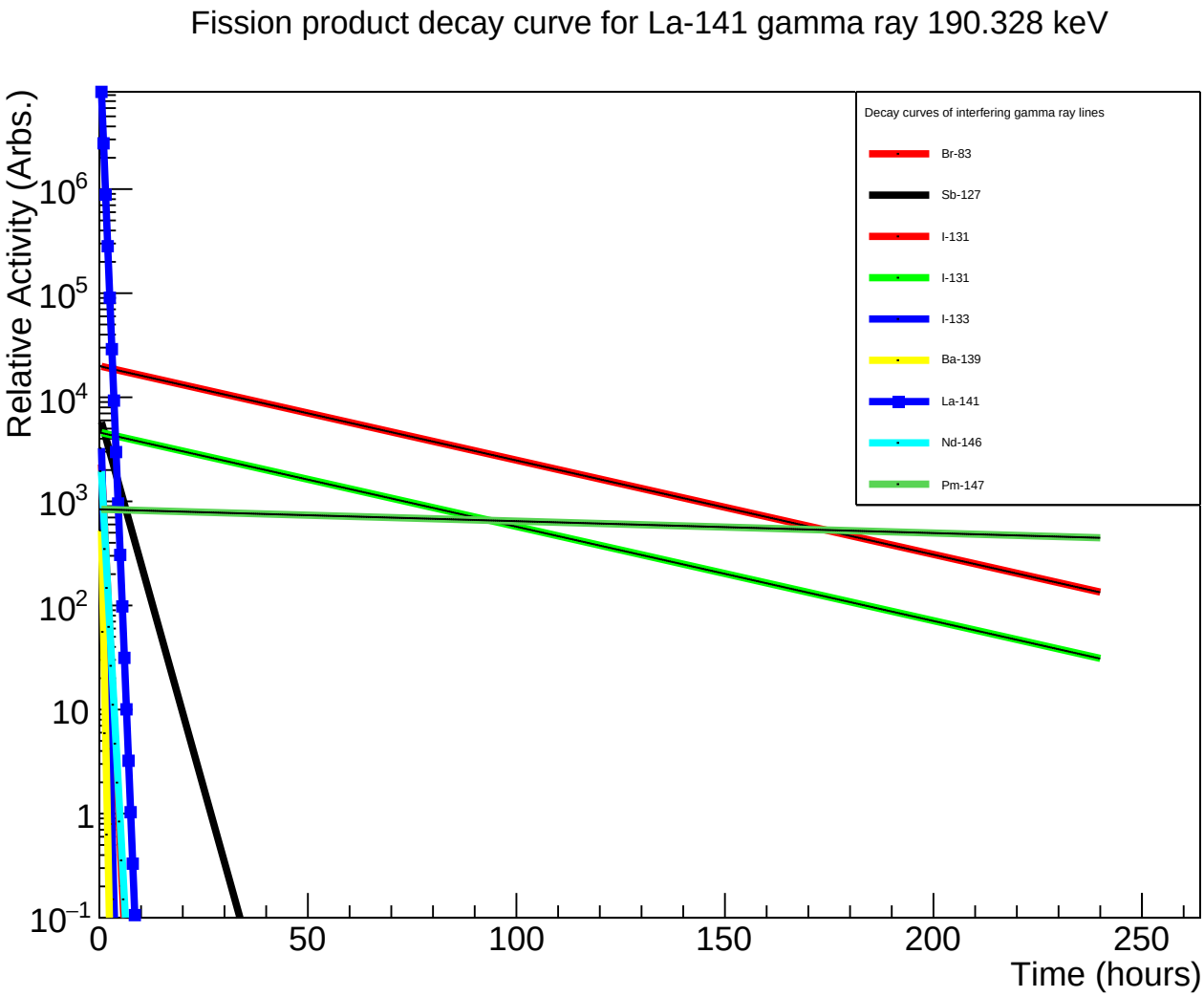


Figure 922: La-141 decay curve for 190.328 keV gamma ray.

3.923 Ba-141 E_γ = 276.95 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 276.95 keV
Gamma Intensity = 23.41 ± 1.676 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1845: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1846: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	277.300	0.960	1.467	0.000
Se-81	Br-81	275.930	0.007	0.308	0.002
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Rh-107	Pd-107	277.580	0.017	0.362	0.001
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Te-129	I-129	278.430	0.006	1.160	0.005
Te-129	I-129	278.430	0.000	806.400	0.001
Te-131	I-131	278.170	0.001	0.417	0.025
Te-133	I-133	278.000	0.005	0.923	0.040
Te-134	I-134	277.951	0.212	0.697	0.070
I-132	Xe-132	278.400	0.001	2.295	0.043
Nd-149	Pm-149	276.960	0.003	1.728	0.011
Nd-151	Pm-151	275.520	0.002	0.207	0.004
Nd-152	Pm-152	276.100	0.001	0.190	0.003
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004

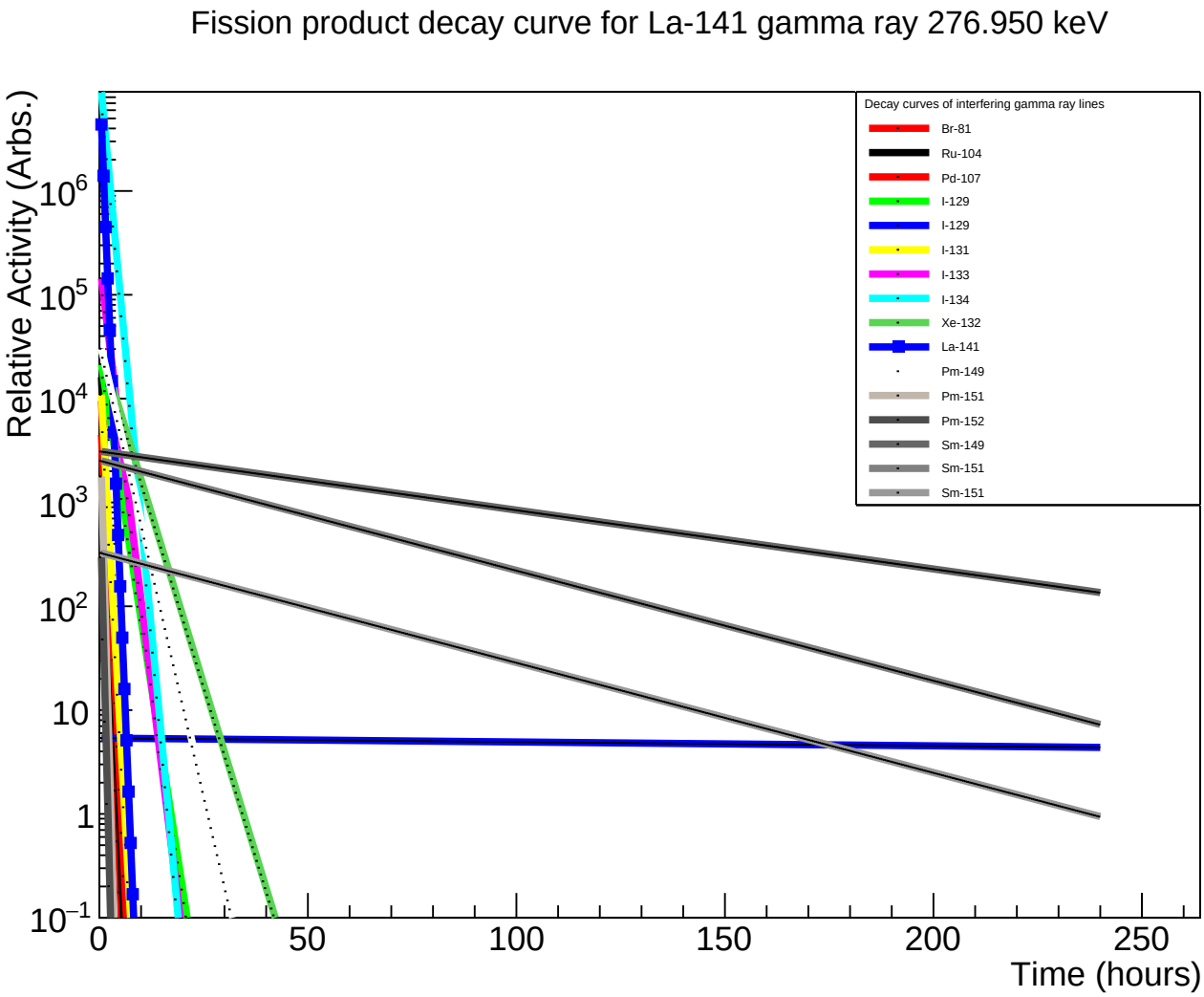


Figure 923: La-141 decay curve for 276.950 keV gamma ray.

3.924 Ba-141 E_γ = 304.19 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 304.19 keV
Gamma Intensity = 25.44 ± 1.834 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1847: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1848: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	304.870	0.140	4.480	0.013
Zr-97	Nb-97	305.100	0.000	16.749	0.060
Tc-105	Ru-105	303.200	0.012	0.127	0.010
Tc-105	Ru-105	304.500	0.011	0.127	0.010
Tc-105	Ru-105	305.500	0.011	0.127	0.010
Rh-107	Pd-107	302.770	0.660	0.362	0.001
Sb-130	Te-130	303.300	0.058	0.658	0.008
Te-131	I-131	302.700	0.000	33.250	0.004
Te-131	I-131	303.900	0.000	33.250	0.004
I-135	Xe-135	304.910	0.000	6.570	0.063
Xe-133	Cs-133	302.853	0.000	125.832	0.067
Pr-145	Nd-145	303.192	0.000	5.984	0.039
Pr-147	Nd-147	304.600	0.002	0.223	0.022
Nd-152	Pm-152	302.900	0.001	0.190	0.003
Pm-149	Sm-149	305.220	0.000	53.080	0.011
Pm-151	Sm-151	302.800	0.000	28.400	0.004

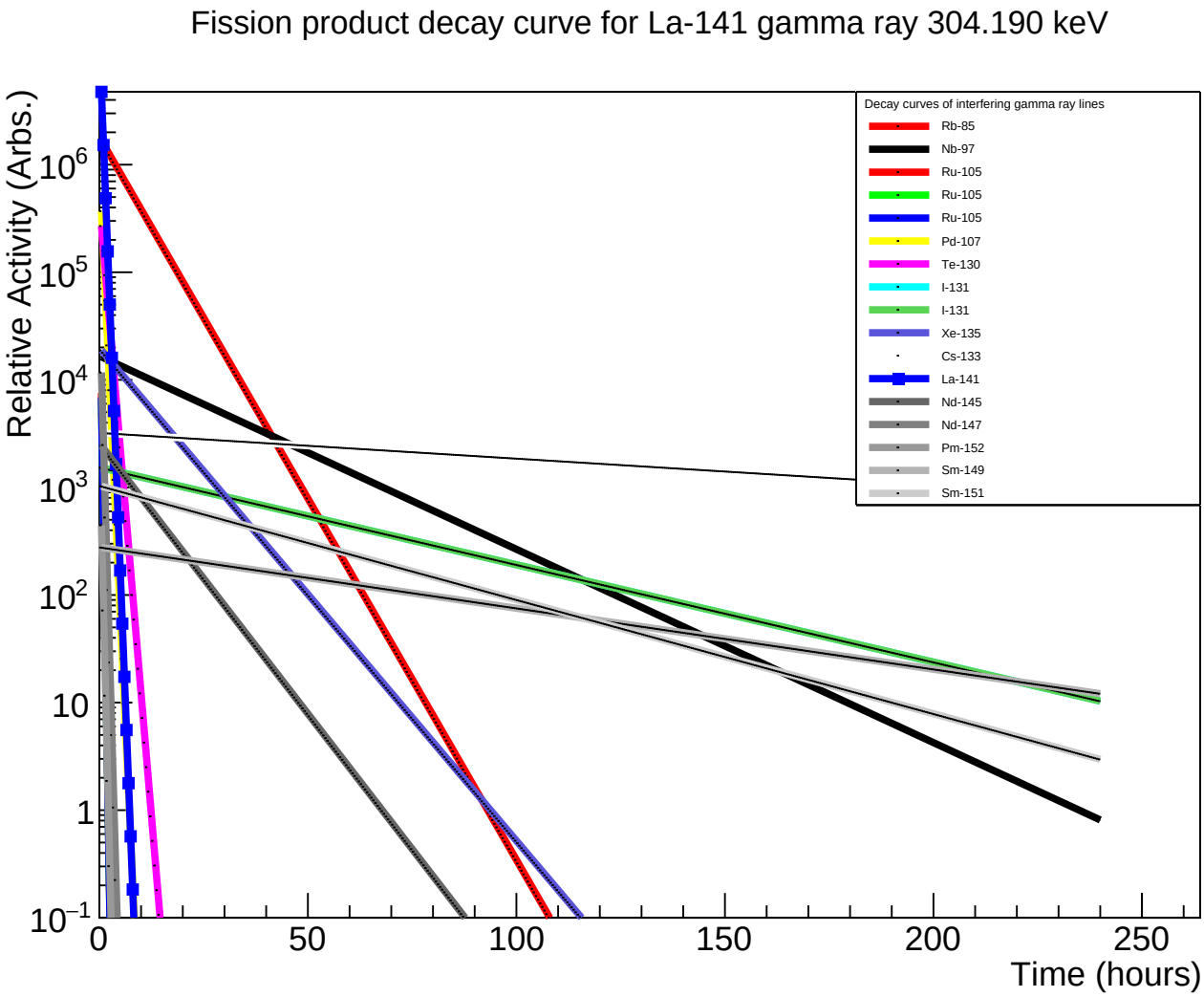


Figure 924: La-141 decay curve for 304.190 keV gamma ray.

3.925 Ba-141 E_γ = 343.67 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 343.67 keV
Gamma Intensity = 14.44 ± 1.029 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1849: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1850: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	342.900	0.001	0.124	0.062
Ru-105	Rh-105	343.300	0.000	4.440	0.010
Ag-112	Cd-112	342.300	0.000	3.130	0.000
Cd-115	In-115	344.200	0.000	53.460	0.000
Te-129	I-129	342.540	0.000	1.160	0.005
Te-129	I-129	342.880	0.000	1.160	0.005
Te-131	I-131	342.945	0.007	0.417	0.025
Te-131	I-131	342.920	0.004	33.250	0.004
Te-133	I-133	343.900	0.001	0.208	0.031
Te-133	I-133	342.800	0.005	0.923	0.040
Te-133	I-133	344.400	0.007	0.923	0.040
I-132	Xe-132	343.700	0.001	2.295	0.043
I-135	Xe-135	342.520	0.000	6.570	0.063
Nd-149	Pm-149	342.810	0.001	1.728	0.011
Nd-151	Pm-151	344.990	0.000	0.207	0.004
Pm-151	Sm-151	344.900	0.021	28.400	0.004

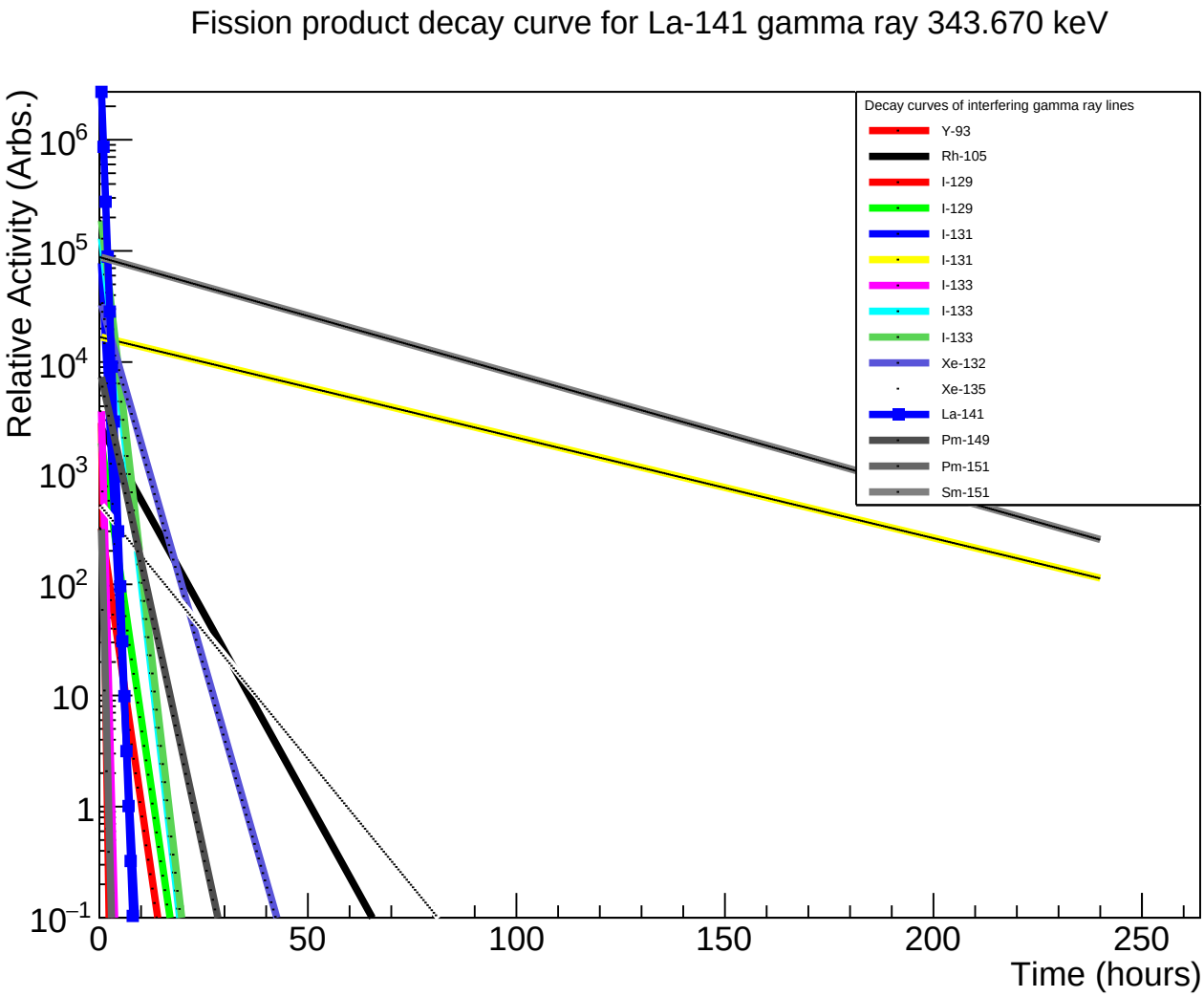


Figure 925: La-141 decay curve for 343.670 keV gamma ray.

3.926 Ba-141 E_γ = 390.00 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 390.00 keV
Gamma Intensity = 1.33 ± 0.098 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1851: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1852: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	391.000	0.001	1.512	0.000
Se-83	Br-83	389.200	0.006	0.372	0.003
Kr-88	Rb-88	390.543	0.006	2.840	0.036
Kr-88	Rb-88	391.200	0.001	2.840	0.036
Pd-109	Ag-109	390.600	0.000	13.701	0.000
Pd-111	Ag-111	391.200	0.000	0.390	0.000
Sn-127	Sb-127	390.500	0.013	2.100	0.001
Ce-143	Pr-143	389.640	0.000	33.039	0.060
Pr-147	Nd-147	388.800	0.014	0.223	0.022
Nd-149	Pm-149	390.900	0.000	1.728	0.011
Nd-151	Pm-151	391.130	0.000	0.207	0.004
Pm-151	Sm-151	390.670	0.001	28.400	0.004

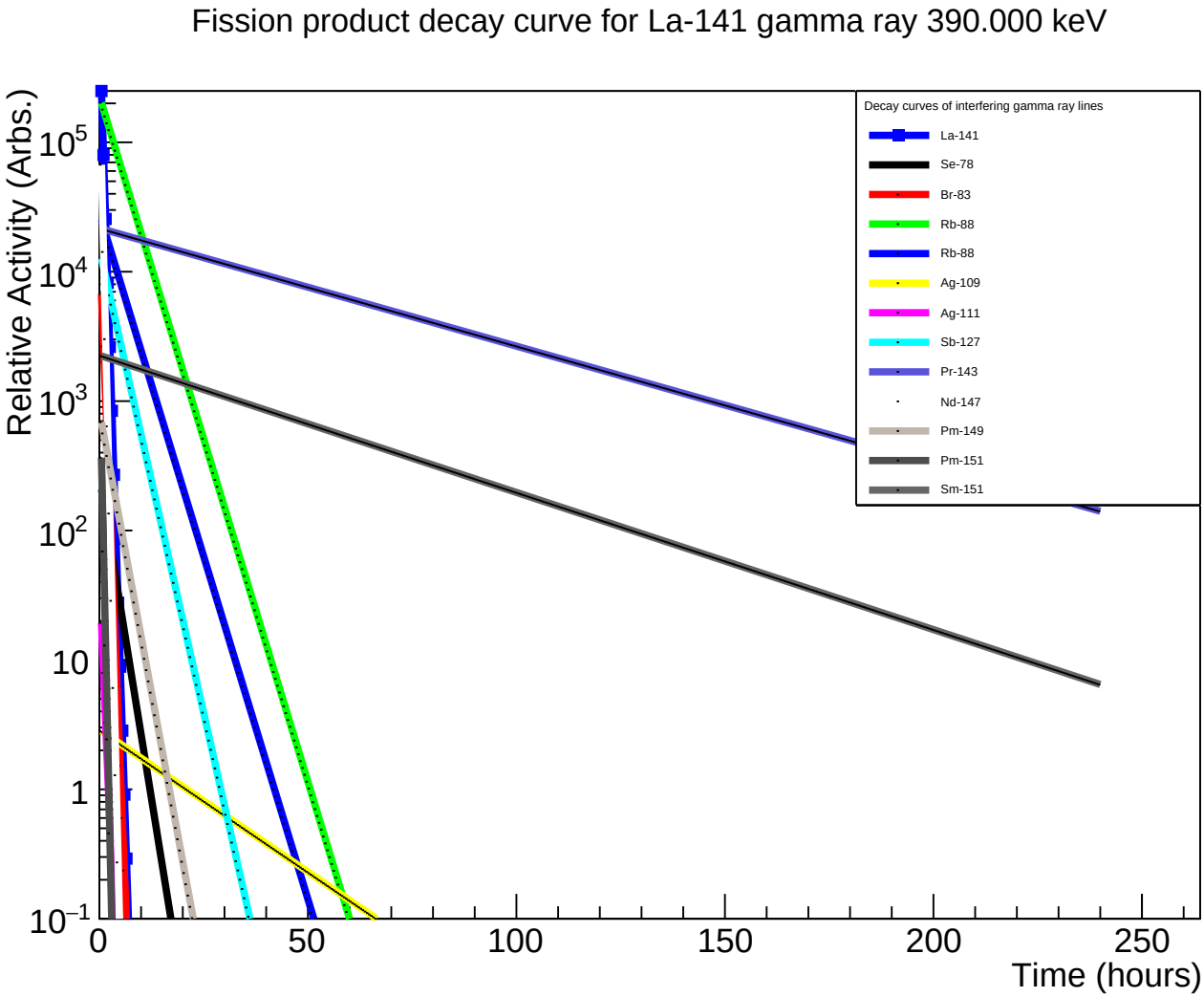


Figure 926: La-141 decay curve for 390.000 keV gamma ray.

3.927 Ba-141 E_γ = 457.80 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 457.80 keV
Gamma Intensity = 5.01 ± 0.355 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1853: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1854: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	457.410	0.035	0.372	0.003
Mo-99	Tc-99	457.600	0.000	65.976	0.061
Sb-131	Te-131	456.700	0.007	0.384	0.026
Te-133	I-133	458.000	0.001	0.923	0.040
I-134	Xe-134	458.920	0.013	0.875	0.078
Nd-151	Pm-151	456.680	0.001	0.207	0.004
Pm-151	Sm-151	457.500	0.000	28.400	0.004

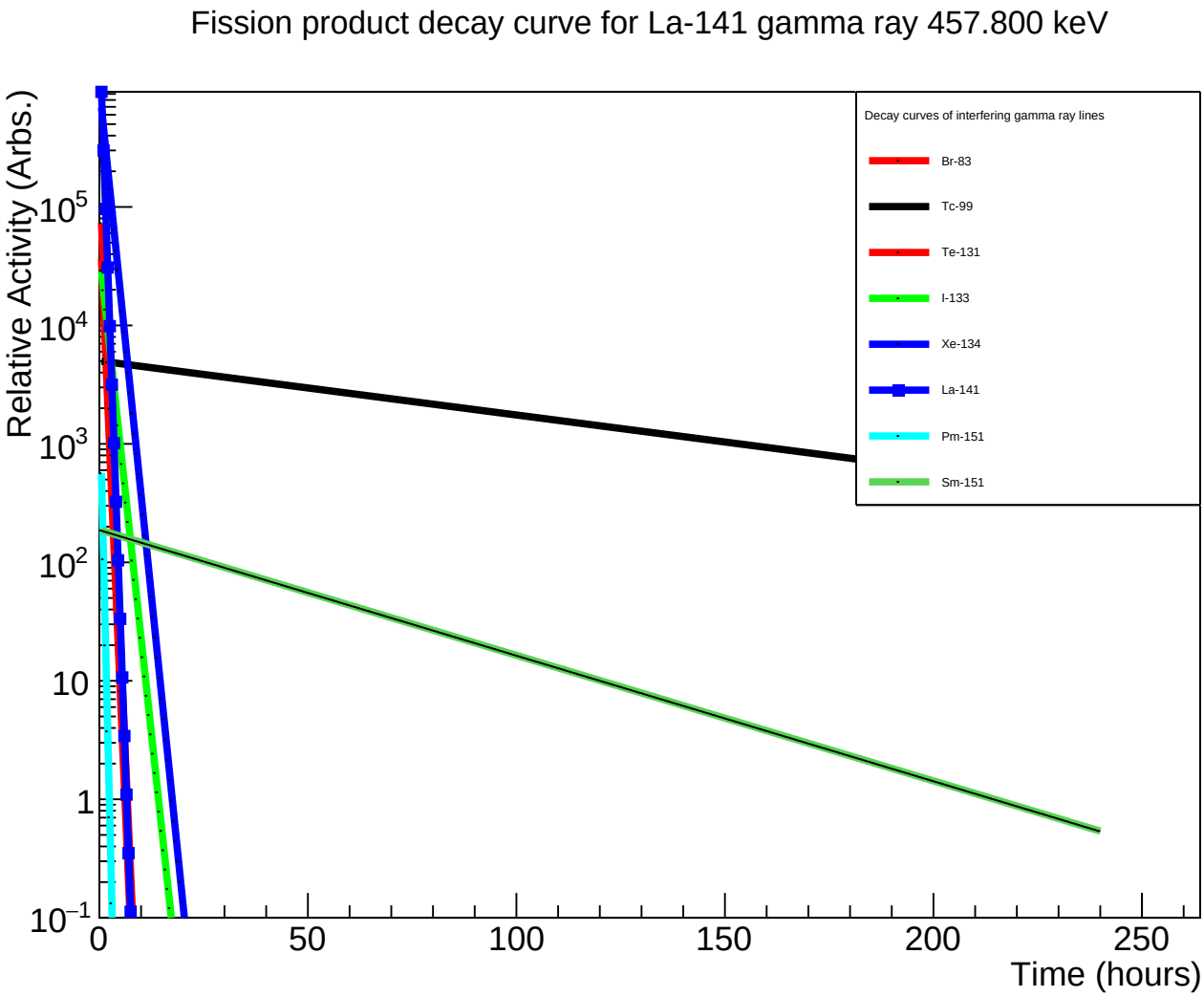


Figure 927: La-141 decay curve for 457.800 keV gamma ray.

3.928 Ba-141 E_γ = 462.30 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 462.30 keV
Gamma Intensity = 4.88 ± 0.347 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1855: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1856: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	462.200	0.006	1.512	0.000
Tc-105	Ru-105	462.800	0.044	0.127	0.010
Sb-125	Te-125	463.365	0.105	24194.445	0.000
Sb-130	Te-130	462.500	0.008	0.658	0.008
Te-129	I-129	462.040	0.000	1.160	0.005
Te-131	I-131	462.920	0.018	33.250	0.004
Te-133	I-133	461.300	0.006	0.208	0.031
Te-133	I-133	462.230	0.015	0.923	0.040
Te-134	I-134	460.997	0.097	0.697	0.070
Cs-138	Ba-138	462.796	0.307	0.557	0.067
La-143	Ce-143	462.300	0.001	0.237	0.059
Ce-146	Pr-146	462.700	0.000	0.225	0.030
Pr-146	Nd-146	461.600	0.000	0.403	0.030
Pr-147	Nd-147	463.500	0.000	0.223	0.022
Nd-149	Pm-149	462.340	0.000	1.728	0.011
Pm-151	Sm-151	462.240	0.000	28.400	0.004
Pm-151	Sm-151	463.800	0.000	28.400	0.004
Sm-153	Eu-153	462.000	0.000	46.500	0.002
Sm-153	Eu-153	463.600	0.000	46.500	0.002
Sm-155	Eu-155	460.800	0.001	0.372	0.000

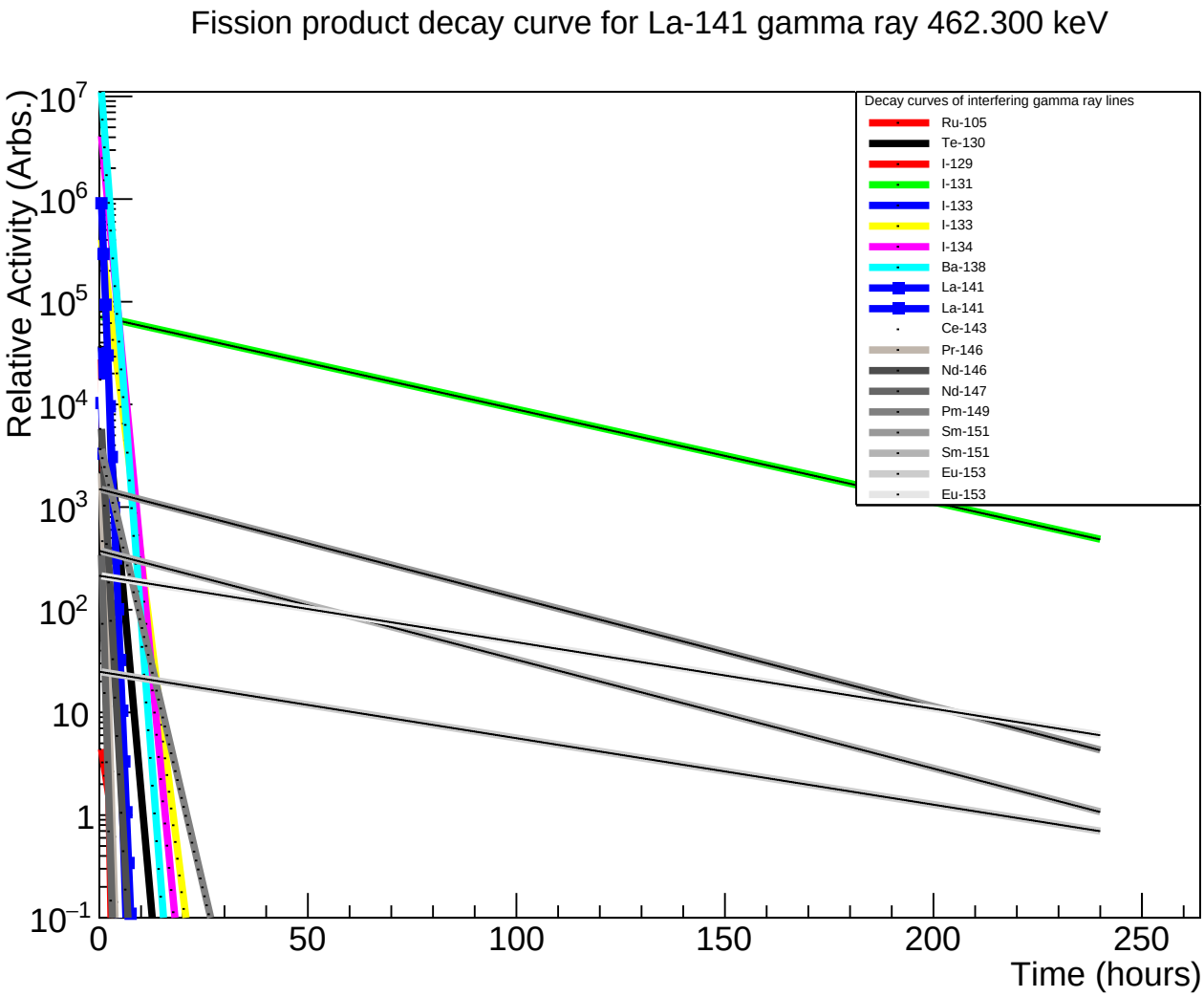


Figure 928: La-141 decay curve for 462.300 keV gamma ray.

3.929 Ba-141 E_γ = 467.50 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 467.50 keV
Gamma Intensity = 5.70 ± 0.415 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1857: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1858: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	468.800	0.001	1.512	0.000
Rb-89	Sr-89	466.620	0.001	0.252	0.047
Nb-98	Mo-98	467.000	0.000	0.855	0.000
Tc-105	Ru-105	466.300	0.015	0.127	0.010
Sn-127	Sb-127	468.700	0.005	2.100	0.001
Sb-130	Te-130	468.000	0.180	0.658	0.008
Sb-130	Te-130	468.000	0.031	0.105	0.010
Te-131	I-131	468.160	0.003	33.250	0.004
Cs-139	Ba-139	466.700	0.000	0.155	0.063
Ce-146	Pr-146	468.020	0.008	0.225	0.030
Pr-145	Nd-145	467.030	0.000	5.984	0.039
Pr-147	Nd-147	466.800	0.019	0.223	0.022
Pm-151	Sm-151	467.200	0.000	28.400	0.004

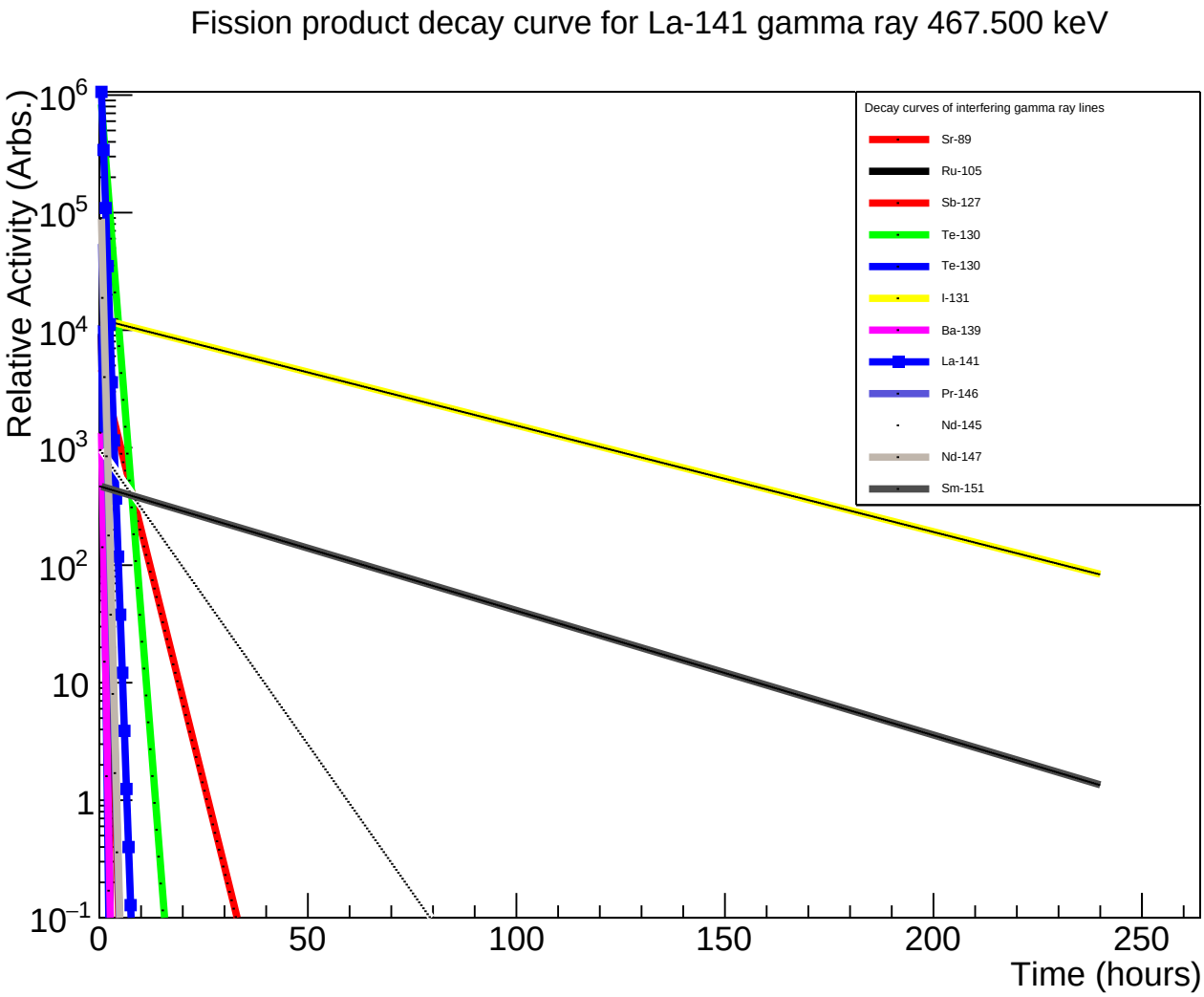


Figure 929: La-141 decay curve for 467.500 keV gamma ray.

3.930 Ba-141 E_γ = 625.40 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 625.40 keV
Gamma Intensity = 3.59 ± 0.251 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1859: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1860: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	626.800	0.000	9.630	0.058
Mo-101	Tc-101	625.300	0.001	0.243	0.052
Pd-111	Ag-111	624.000	0.000	0.390	0.000
Ag-113	Cd-113	624.000	0.000	5.370	0.000
Sb-127	Te-127	624.000	0.001	92.400	0.002
Sb-130	Te-130	626.700	0.028	0.658	0.008
Sb-131	Te-131	625.650	0.024	0.384	0.026
Te-129	I-129	624.340	0.001	1.160	0.005
Pr-144	Nd-144	624.700	0.000	0.288	0.055
Nd-151	Pm-151	625.600	0.000	0.207	0.004
Eu-156	Gd-156	626.000	0.000	364.560	0.000

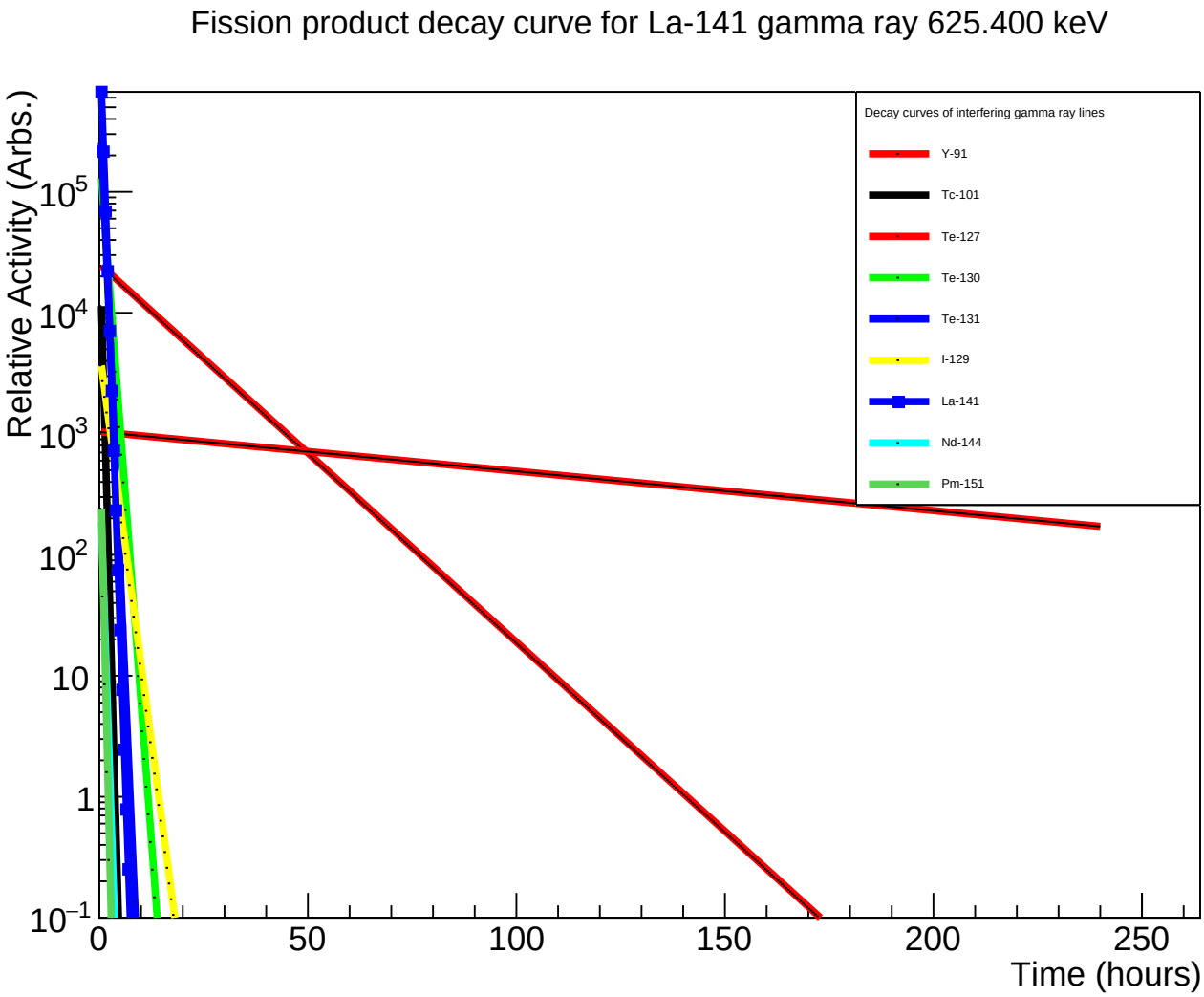


Figure 930: La-141 decay curve for 625.400 keV gamma ray.

3.931 Ba-141 E_γ = 648.10 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 648.10 keV
Gamma Intensity = 6.30 ± 0.450 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1861: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1862: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	648.960	0.000	2.400	0.005
Tc-104	Ru-104	648.700	0.002	0.305	0.019
Tc-105	Ru-105	648.700	0.007	0.127	0.010
Pd-109	Ag-109	647.300	0.000	13.701	0.000
Ag-112	Cd-112	647.500	0.000	3.130	0.000
Sn-127	Sb-127	649.100	0.008	2.100	0.001
Sb-130	Te-130	647.700	0.048	0.105	0.010
Te-133	I-133	647.510	0.097	0.923	0.040
I-133	Xe-133	648.760	0.001	20.800	0.067
Xe-138	Cs-138	647.200	0.000	0.235	0.063
Nd-147	Pm-147	649.040	0.000	263.520	0.022
Nd-151	Pm-151	648.400	0.000	0.207	0.004
Sm-155	Eu-155	648.600	0.000	0.372	0.000

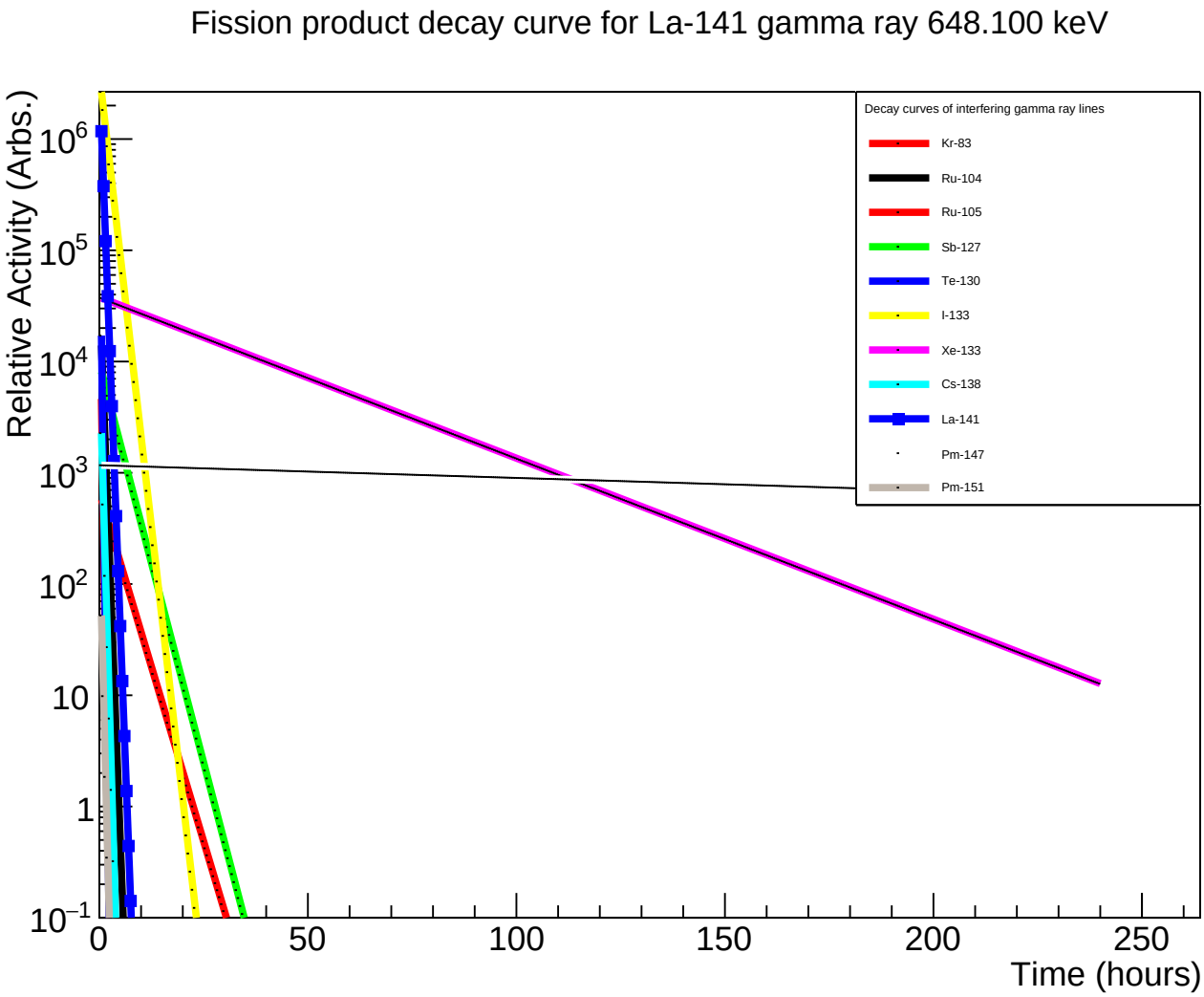


Figure 931: La-141 decay curve for 648.100 keV gamma ray.

3.932 Ba-141 E_γ = 739.20 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 739.20 keV
Gamma Intensity = 4.83 ± 0.344 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1863: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1864: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	739.500	0.123	65.976	0.061
Mo-101	Tc-101	739.540	0.003	0.243	0.052
Tc-105	Ru-105	739.300	0.016	0.127	0.010
Ru-105	Rh-105	738.270	0.001	4.440	0.010
Te-131	I-131	738.800	0.001	33.250	0.004
Te-133	I-133	739.790	0.006	0.923	0.040
I-134	Xe-134	739.180	0.007	0.875	0.078
Nd-149	Pm-149	740.570	0.000	1.728	0.011
Nd-151	Pm-151	739.200	0.015	0.207	0.004

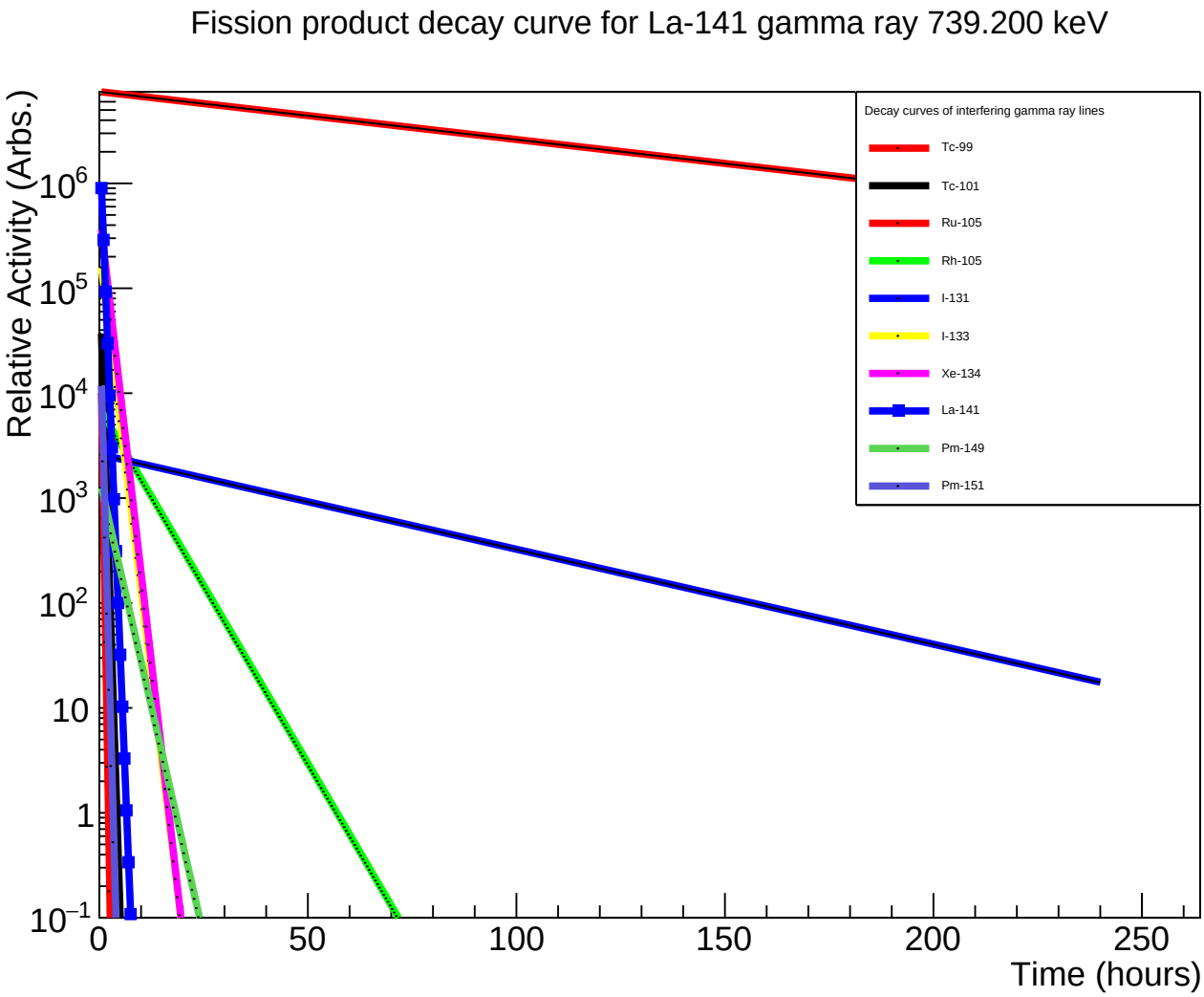


Figure 932: La-141 decay curve for 739.200 keV gamma ray.

3.933 Ba-141 E_γ = 831.70 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 831.70 keV
Gamma Intensity = 1.61 ± 0.131 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1865: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1866: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	833.000	0.000	0.390	0.000
I-132	Xe-132	831.300	0.000	2.295	0.043
Cs-139	Ba-139	832.200	0.000	0.155	0.063
Nd-149	Pm-149	832.090	0.000	1.728	0.011
Pm-149	Sm-149	830.530	0.000	53.080	0.011

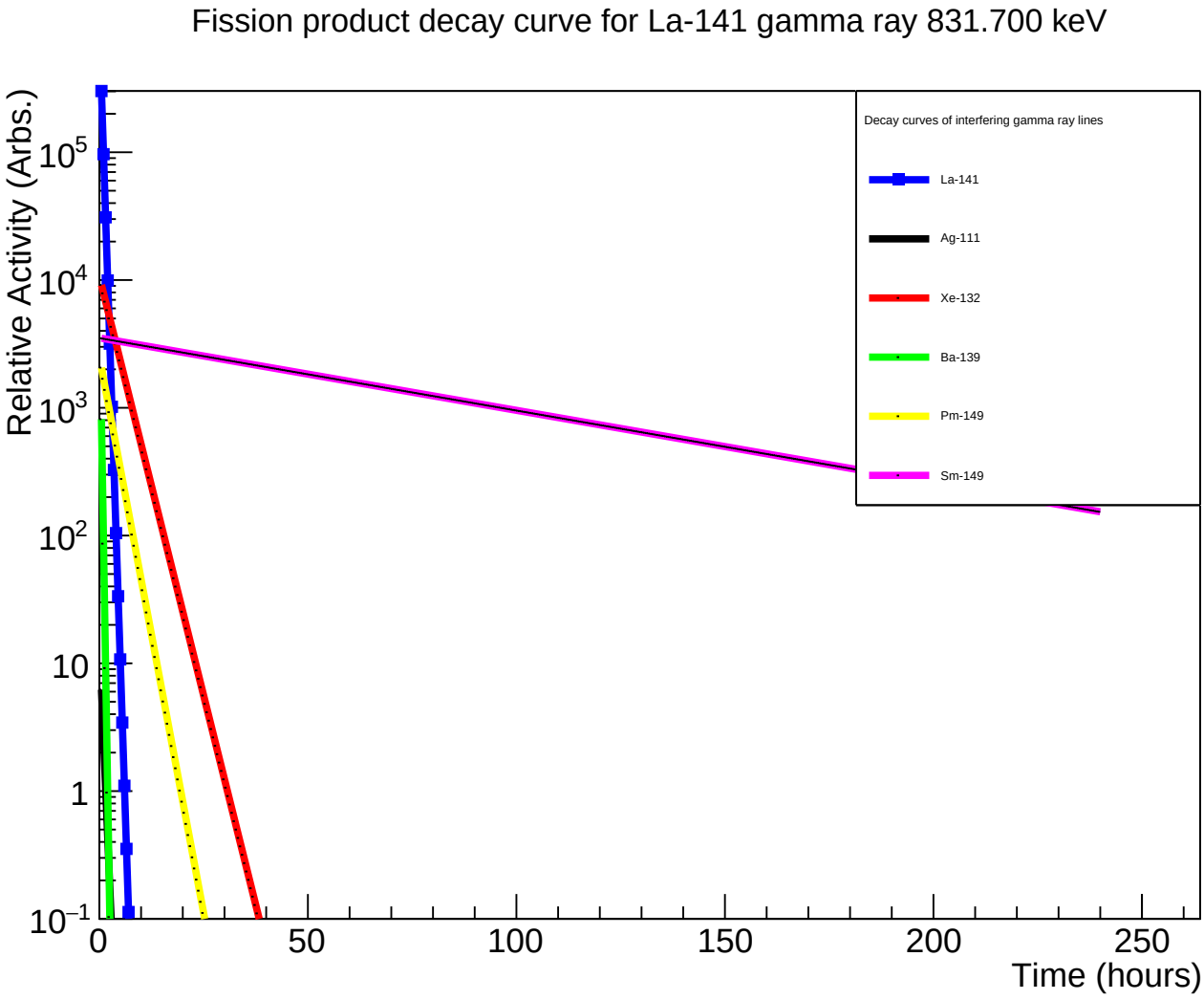


Figure 933: La-141 decay curve for 831.700 keV gamma ray.

3.934 Ba-141 E_γ = 876.30 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 876.30 keV
Gamma Intensity = 3.68 ± 0.270 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1867: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1868: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	875.730	0.245	0.124	0.062
Mo-101	Tc-101	877.390	0.032	0.243	0.052
Ru-105	Rh-105	875.850	0.025	4.440	0.010
Sb-129	Te-129	876.200	0.026	4.400	0.005
I-132	Xe-132	876.600	0.010	2.295	0.043
I-133	Xe-133	875.329	0.045	20.800	0.067
Nd-151	Pm-151	876.390	0.004	0.207	0.004
Pm-151	Sm-151	877.700	0.001	28.400	0.004

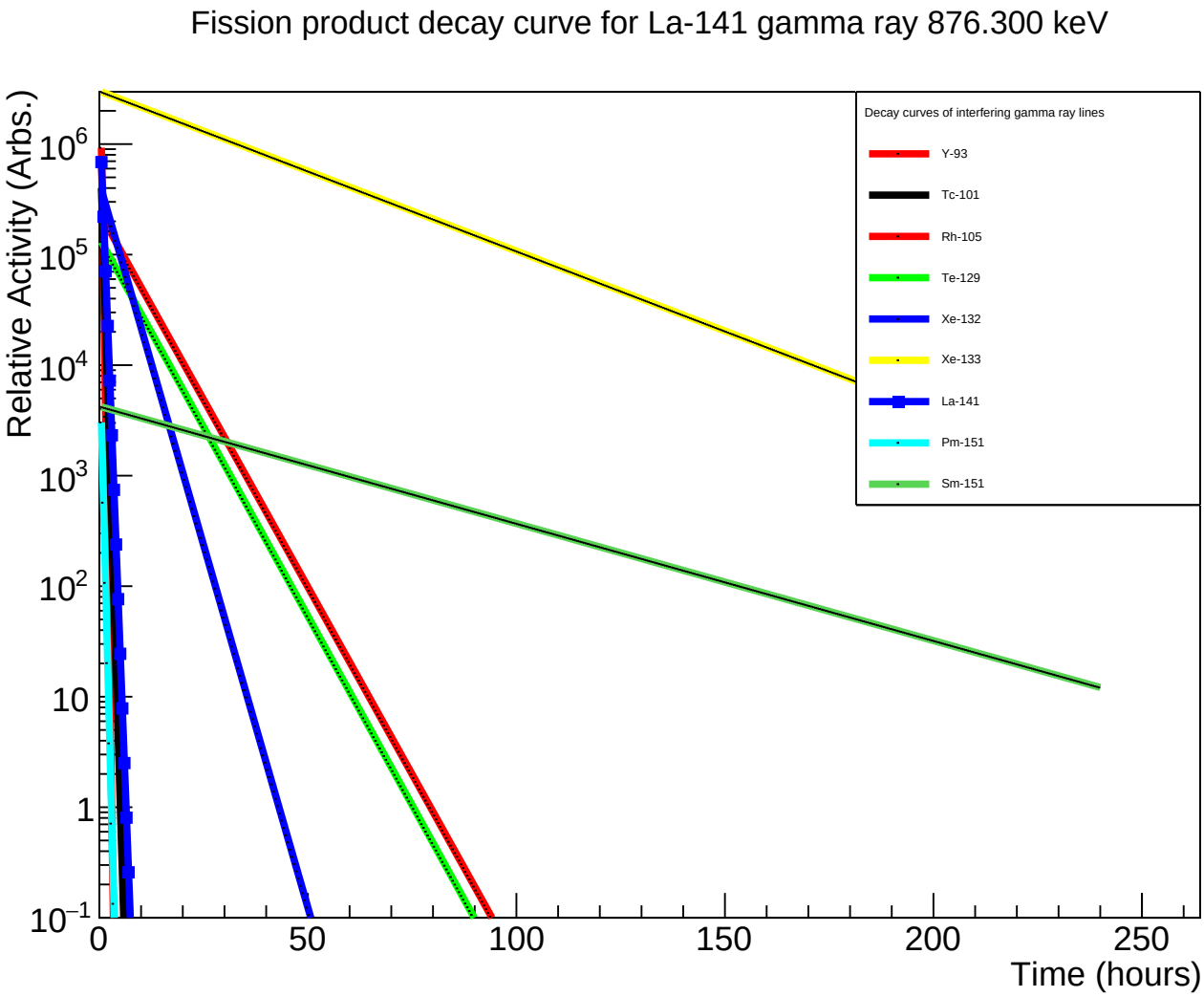


Figure 934: La-141 decay curve for 876.300 keV gamma ray.

3.935 Ba-141 E_γ = 1160.80 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 1160.80 keV
Gamma Intensity = 1.10 ± 0.085 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1869: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1870: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1161.800	0.007	0.312	0.065
Mo-101	Tc-101	1160.980	0.040	0.243	0.052
Sn-127	Sb-127	1160.400	0.024	2.100	0.001
Sn-129	Sb-129	1161.310	0.520	0.115	0.002
I-135	Xe-135	1159.900	0.001	6.570	0.063
Xe-138	Cs-138	1160.960	0.001	0.235	0.063
Cs-139	Ba-139	1159.300	0.000	0.155	0.063
La-142	Ce-142	1160.200	0.017	1.518	0.058
Ce-143	Pr-143	1160.580	0.000	33.039	0.060
Pr-145	Nd-145	1161.040	0.000	5.984	0.039
Nd-151	Pm-151	1159.400	0.001	0.207	0.004
Sm-155	Eu-155	1159.700	0.000	0.372	0.000

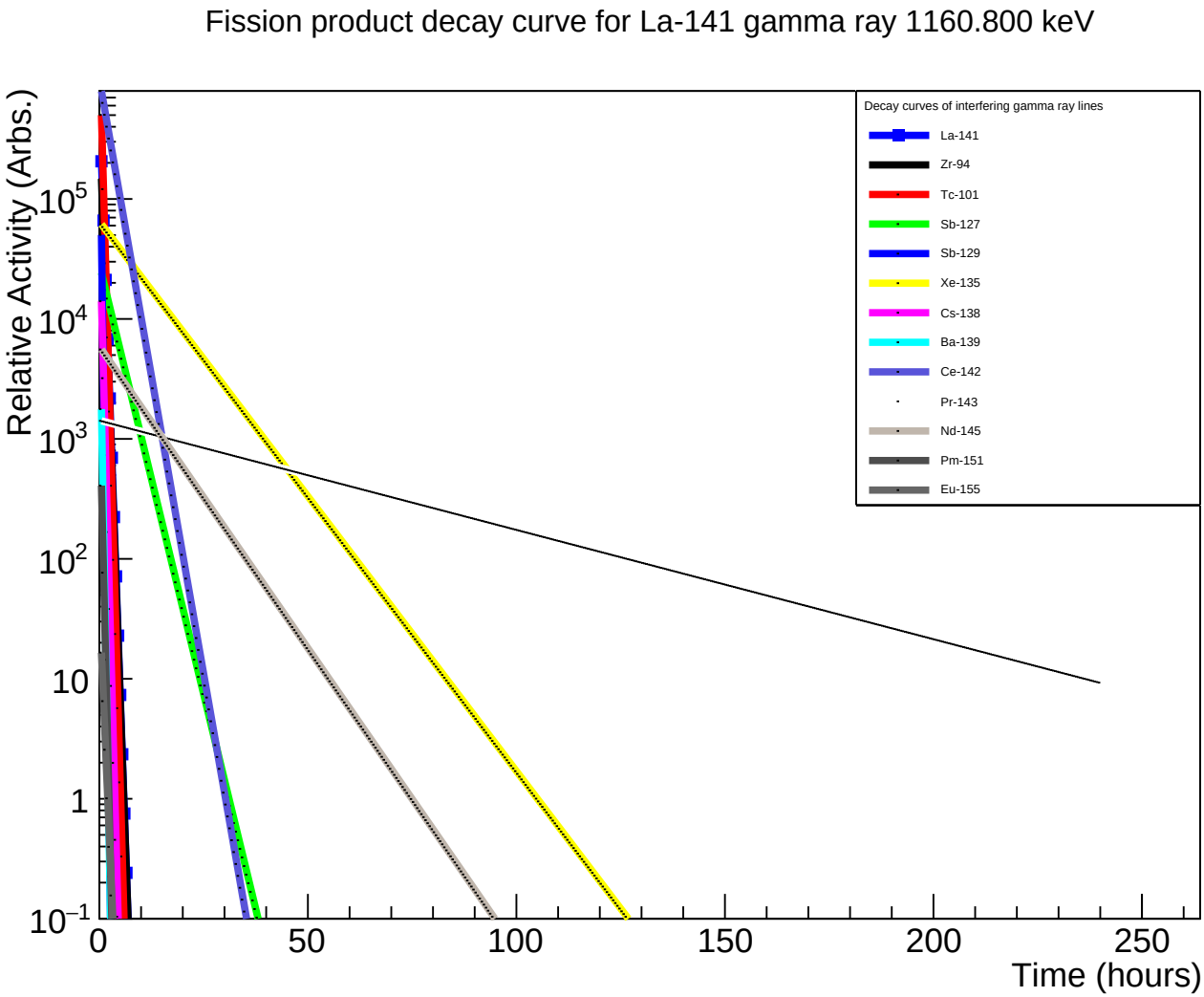


Figure 935: La-141 decay curve for 1160.800 keV gamma ray.

3.936 Ba-141 E_γ = 1197.30 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 1197.30 keV
Gamma Intensity = 4.78 ± 0.341 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1871: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1872: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1196.230	0.010	0.124	0.062
Sn-125	Sb-125	1198.700	0.000	231.360	0.000
Te-131	I-131	1198.300	0.000	0.417	0.025
Te-133	I-133	1198.000	0.002	0.923	0.040
Nd-149	Pm-149	1197.840	0.000	1.728	0.011
Sm-155	Eu-155	1197.700	0.000	0.372	0.000

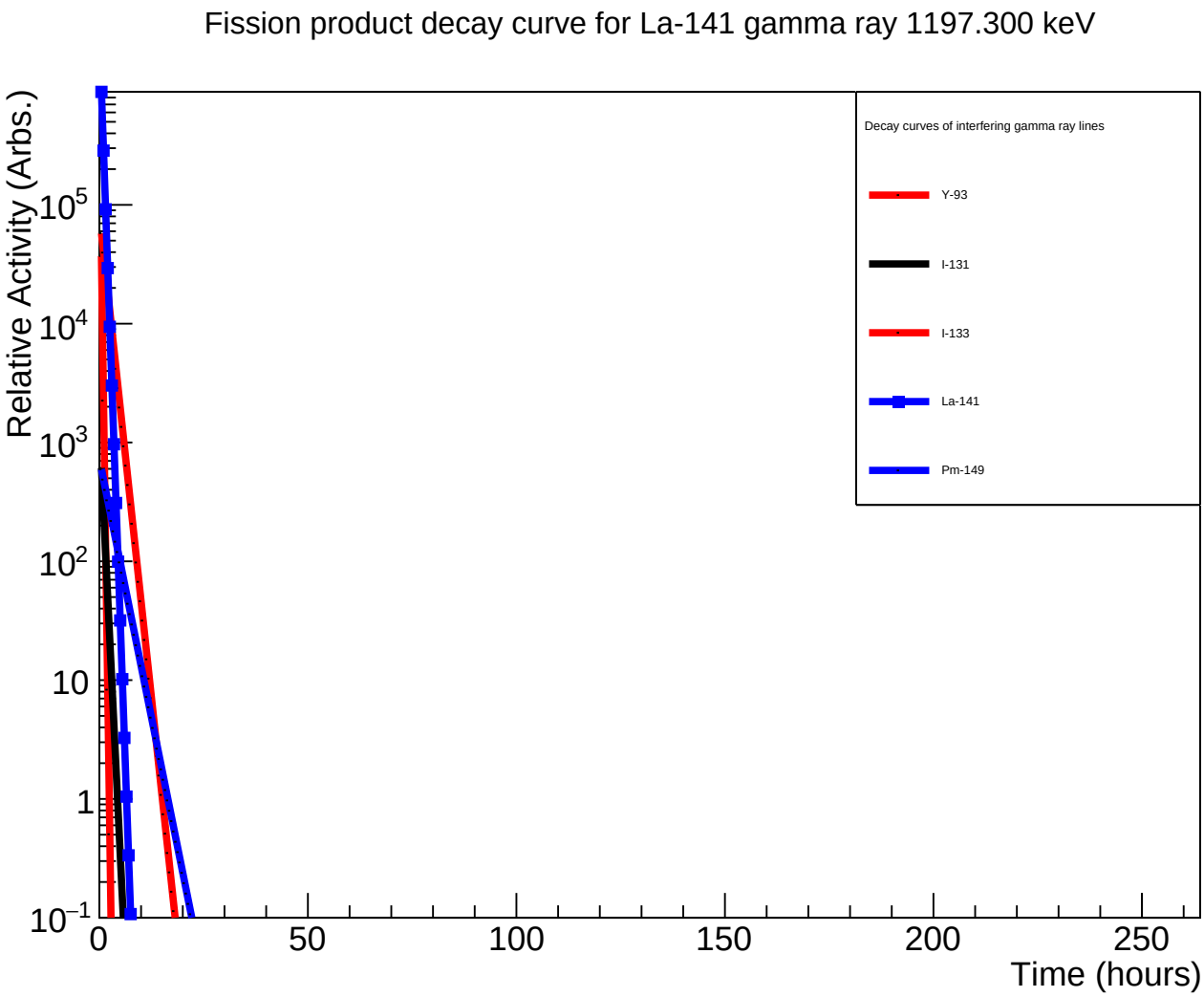


Figure 936: La-141 decay curve for 1197.300 keV gamma ray.

3.937 Ba-141 E_γ = 1682.30 keV

Chemical element: Barium
Fission product parent: Ba-141
Gamma originates in daughter: La-141
Eγ: 1682.30 keV
Gamma Intensity = 1.70 ± 0.144 %
$T_{1/2}$ = 0.304 ± 0.001 hours or 18.27 ± 0.07 minutes
CFY: 5.828 ± 0.163 %

Table 1873: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1874: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	1683.000	0.006	0.172	0.064
Ag-112	Cd-112	1683.700	0.000	3.130	0.000
Te-133	I-133	1682.900	0.001	0.208	0.031
Te-133	I-133	1683.230	0.039	0.923	0.040
Pr-147	Nd-147	1683.300	0.002	0.223	0.022
Eu-156	Gd-156	1682.100	0.003	364.560	0.000

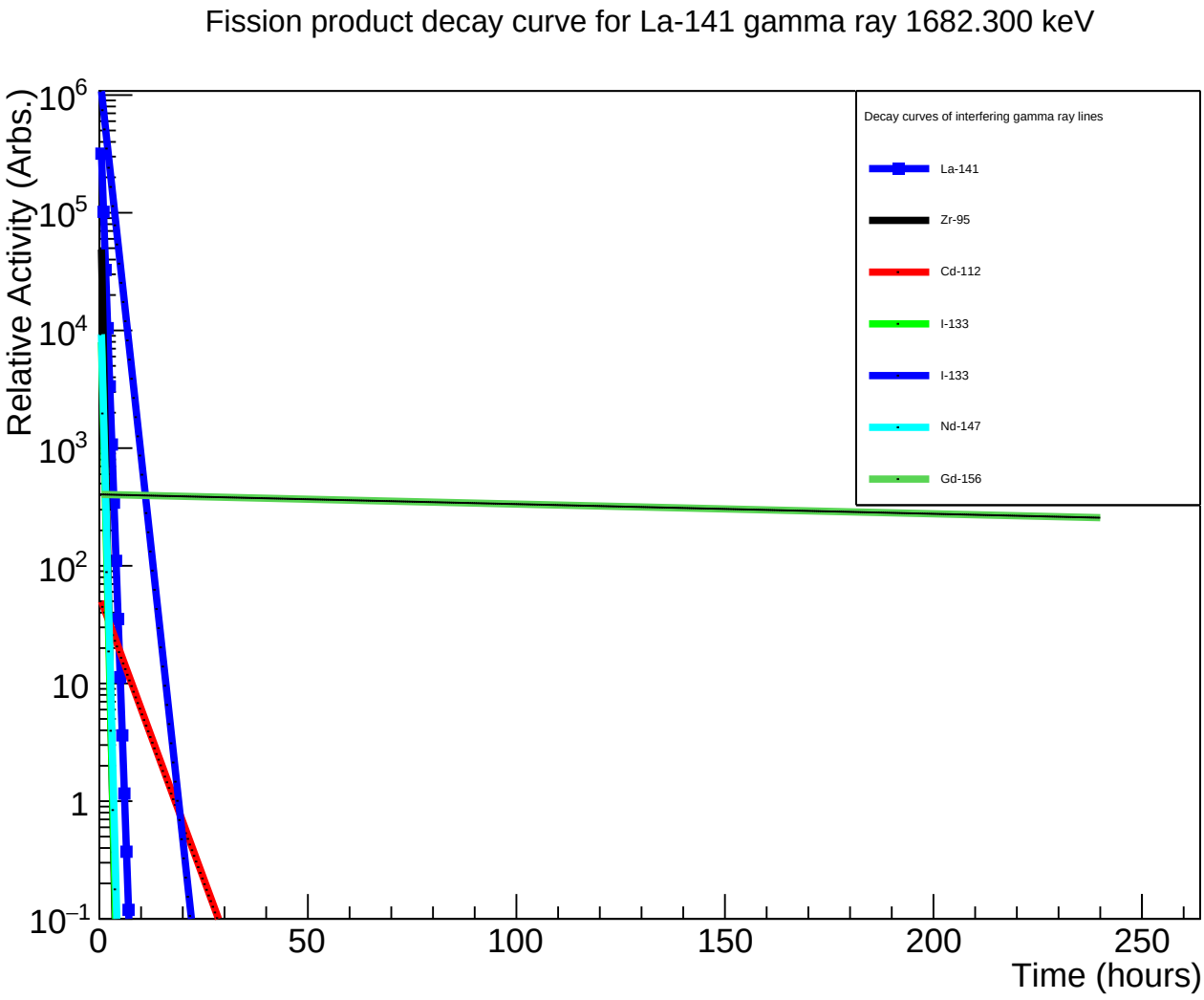


Figure 937: La-141 decay curve for 1682.300 keV gamma ray.

3.938 Ba-142 E_γ = 77.59 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 77.59 keV
Gamma Intensity = 9.47 ± 0.429 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1875: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1876: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-129	Sb-129	77.300	0.078	0.115	0.002
Te-129	I-129	76.100	0.000	806.400	0.001
Te-131	I-131	78.570	0.000	33.250	0.004
Te-134	I-134	76.830	0.003	0.697	0.070
Pr-147	Nd-147	77.970	0.099	0.223	0.022
Nd-149	Pm-149	77.097	0.006	1.728	0.011
Pm-151	Sm-151	76.220	0.002	28.400	0.004
Sm-155	Eu-155	78.650	0.003	0.372	0.000

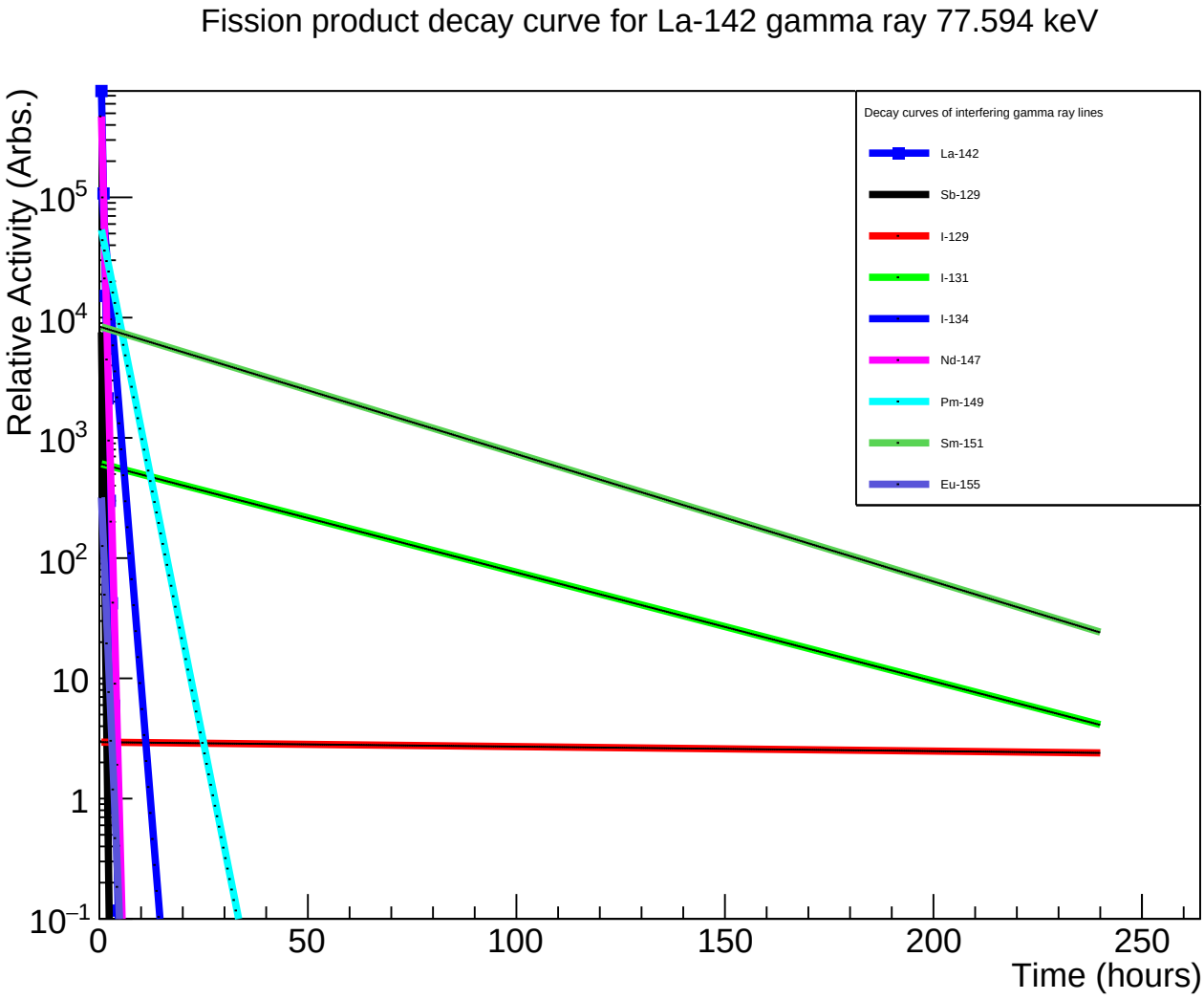


Figure 938: La-142 decay curve for 77.594 keV gamma ray.

3.939 Ba-142 E_γ = 177.00 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 177.00 keV
Gamma Intensity = 1.72 ± 0.065 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1877: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1878: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	178.260	0.000	0.308	0.002
Kr-88	Rb-88	176.710	0.000	2.840	0.036
Nb-98	Mo-98	177.400	0.000	0.855	0.000
Tc-104	Ru-104	176.800	0.006	0.305	0.019
Sn-127	Sb-127	178.000	0.001	2.100	0.001
Sb-125	Te-125	176.314	0.068	24194.445	0.000
Te-131	I-131	177.200	0.001	33.250	0.004
Te-133	I-133	176.900	0.002	0.923	0.040
Te-133	I-133	177.190	0.002	0.923	0.040
Te-133	I-133	178.100	0.003	0.923	0.040
I-131	Xe-131	177.214	0.003	192.605	0.029
Nd-149	Pm-149	176.270	0.000	1.728	0.011
Nd-149	Pm-149	177.818	0.002	1.728	0.011
Nd-151	Pm-151	176.090	0.003	0.207	0.004
Nd-152	Pm-152	176.600	0.000	0.190	0.003
Pm-151	Sm-151	176.520	0.009	28.400	0.004
Pm-151	Sm-151	177.160	0.038	28.400	0.004
Sm-155	Eu-155	178.300	0.000	0.372	0.000

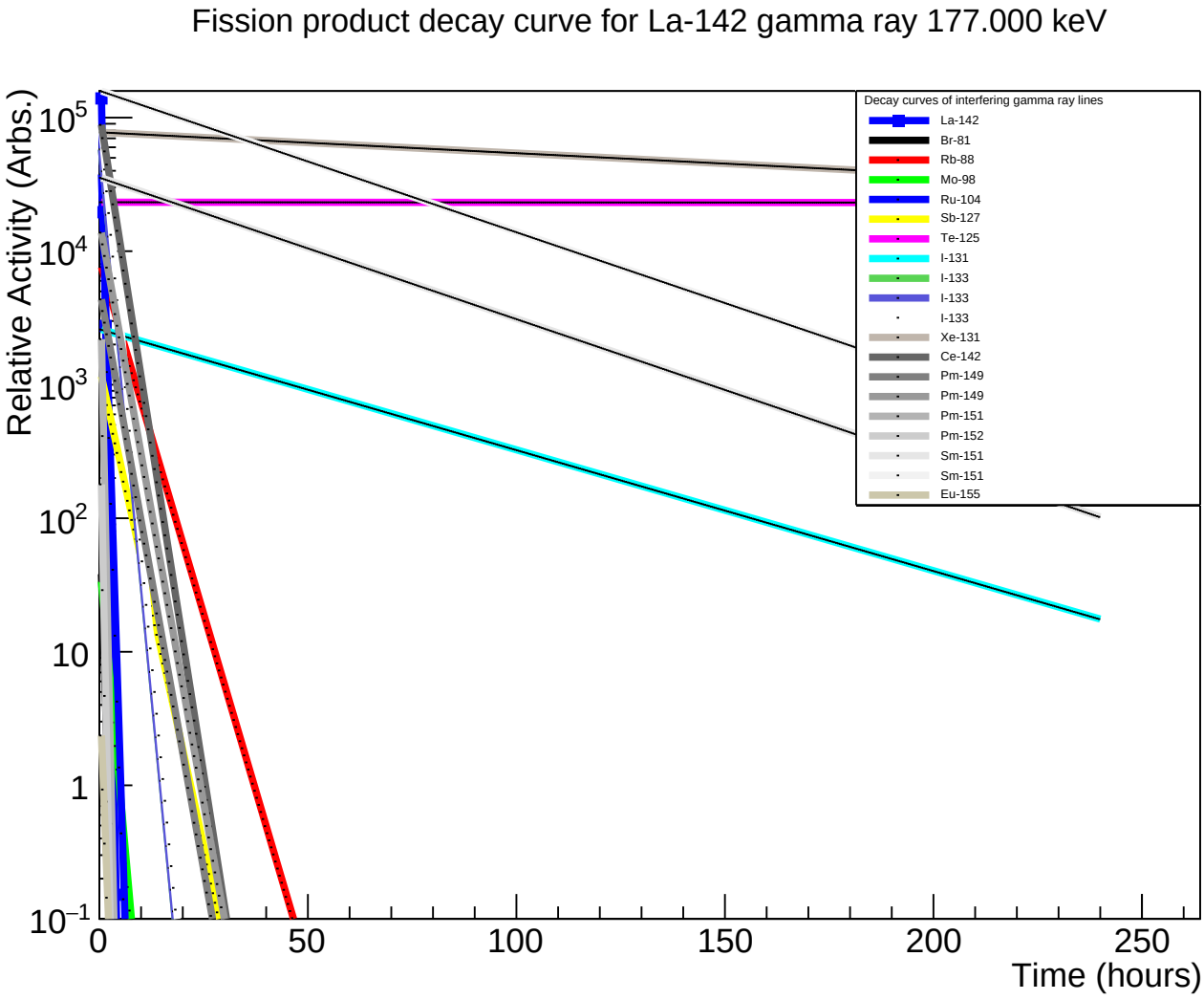


Figure 939: La-142 decay curve for 177.000 keV gamma ray.

3.940 Ba-142 E_γ = 231.61 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 231.61 keV
Gamma Intensity = 12.12 ± 0.432 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1879: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1880: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	230.200	0.003	0.529	0.010
Tc-99	Ru-99	232.800	0.000	6.007	0.054
Rh-107	Pd-107	232.370	0.002	0.362	0.001
Pd-111	Ag-111	230.300	0.000	0.390	0.000
Cd-115	In-115	231.443	0.007	53.460	0.000
Sn-127	Sb-127	232.200	0.008	2.100	0.001
Sn-129	Sb-129	232.500	0.007	0.115	0.002
Te-131	I-131	230.650	0.002	33.250	0.004
Te-131	I-131	232.300	0.001	33.250	0.004
Te-133	I-133	230.900	0.000	0.208	0.031
I-131	Xe-131	232.180	0.000	192.605	0.029
Cs-139	Ba-139	230.760	0.000	0.155	0.063
Ce-143	Pr-143	231.550	0.021	33.039	0.060
Nd-151	Pm-151	232.920	0.000	0.207	0.004
Pm-151	Sm-151	232.430	0.010	28.400	0.004
Pm-151	Sm-151	232.700	0.001	28.400	0.004

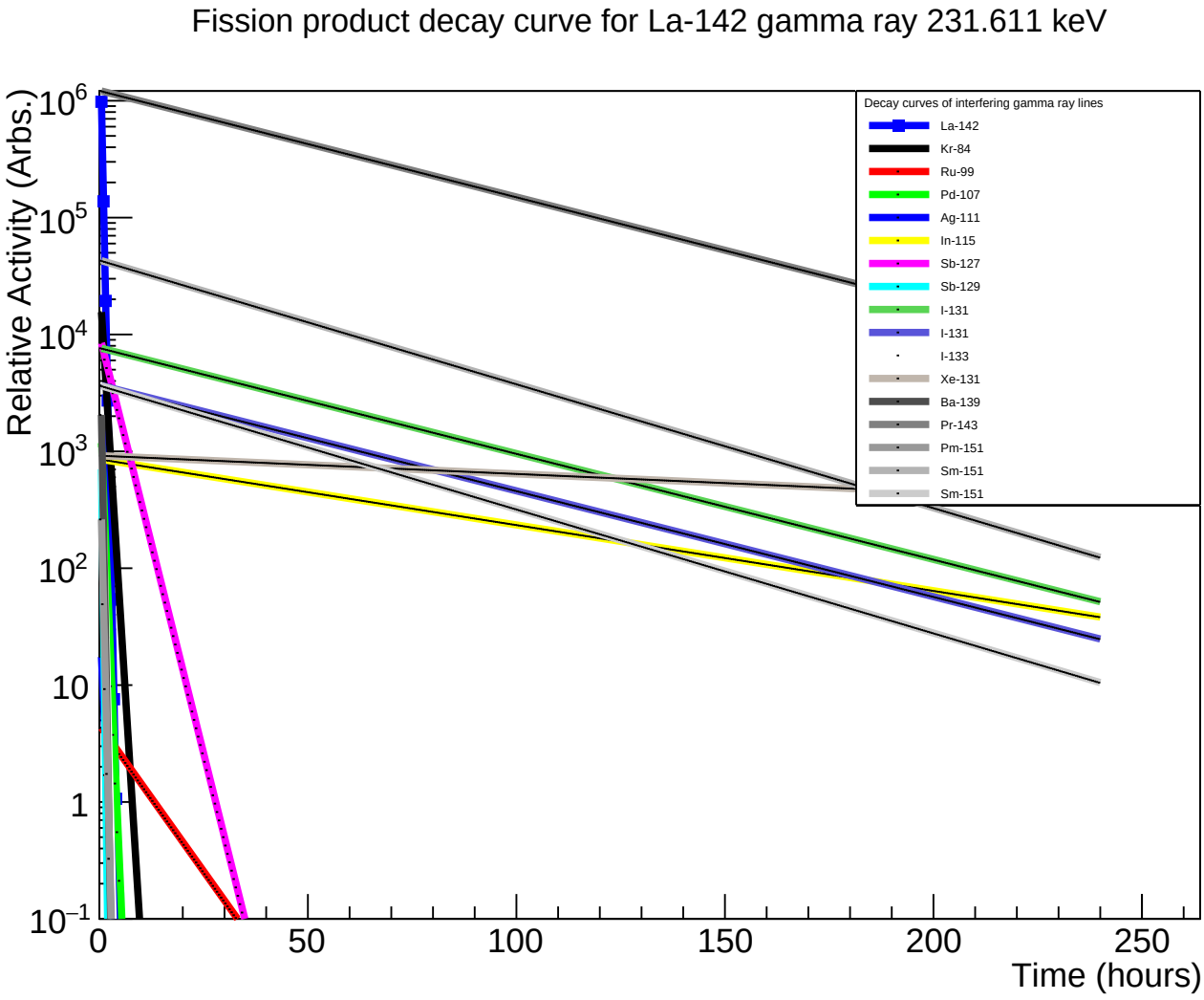


Figure 940: La-142 decay curve for 231.611 keV gamma ray.

3.941 Ba-142 E_γ = 255.30 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 255.30 keV
Gamma Intensity = 20.50 ± 0.763 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1881: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1882: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	254.170	0.011	16.749	0.060
Nb-98	Mo-98	254.050	0.000	0.855	0.000
Ru-105	Rh-105	254.880	0.001	4.440	0.010
Sn-127	Sb-127	255.300	0.001	2.100	0.001
Te-131	I-131	255.440	0.003	33.250	0.004
I-132	Xe-132	255.100	0.002	2.295	0.043
I-135	Xe-135	254.740	0.000	6.570	0.063
Nd-149	Pm-149	254.228	0.001	1.728	0.011
Nd-151	Pm-151	255.680	0.148	0.207	0.004
Pm-149	Sm-149	254.570	0.000	53.080	0.011
Pm-151	Sm-151	254.280	0.002	28.400	0.004

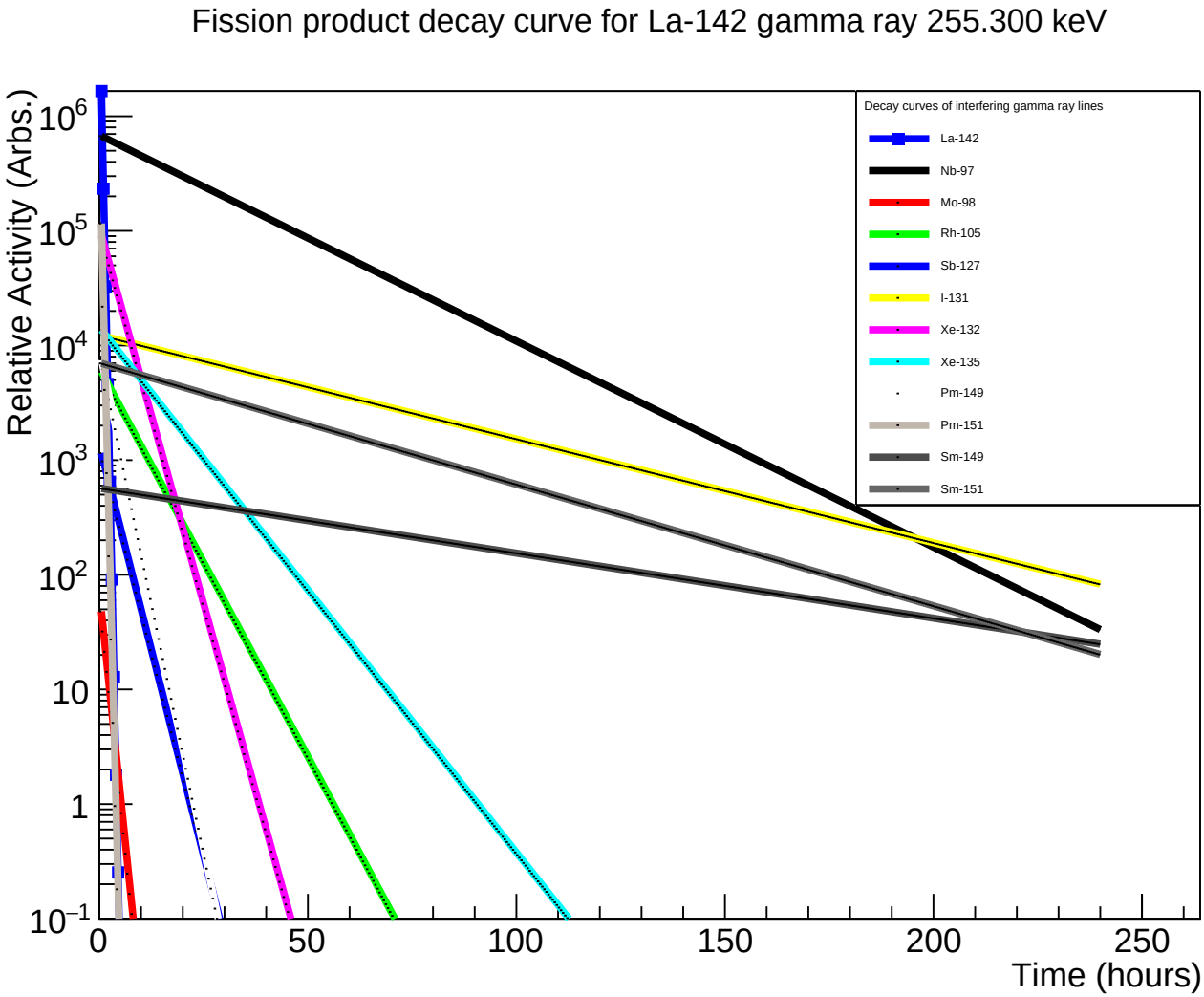


Figure 941: La-142 decay curve for 255.300 keV gamma ray.

3.942 Ba-142 E_γ = 286.30 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 286.30 keV
Gamma Intensity = 1.11 ± 0.088 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1883: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1884: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Ru-105	Rh-105	286.300	0.000	4.440	0.010
Pd-109	Ag-109	286.300	0.000	13.701	0.000
Sn-125	Sb-125	286.200	0.000	231.360	0.000
Sn-129	Sb-129	286.300	0.014	0.115	0.002
Sb-130	Te-130	285.480	0.035	0.658	0.008
Te-133	I-133	284.800	0.002	0.923	0.040
I-132	Xe-132	284.900	0.007	2.295	0.043
Nd-149	Pm-149	287.700	0.000	1.728	0.011
Pm-149	Sm-149	285.950	0.031	53.080	0.011
Pm-151	Sm-151	285.000	0.000	28.400	0.004
Sm-155	Eu-155	287.100	0.000	0.372	0.000

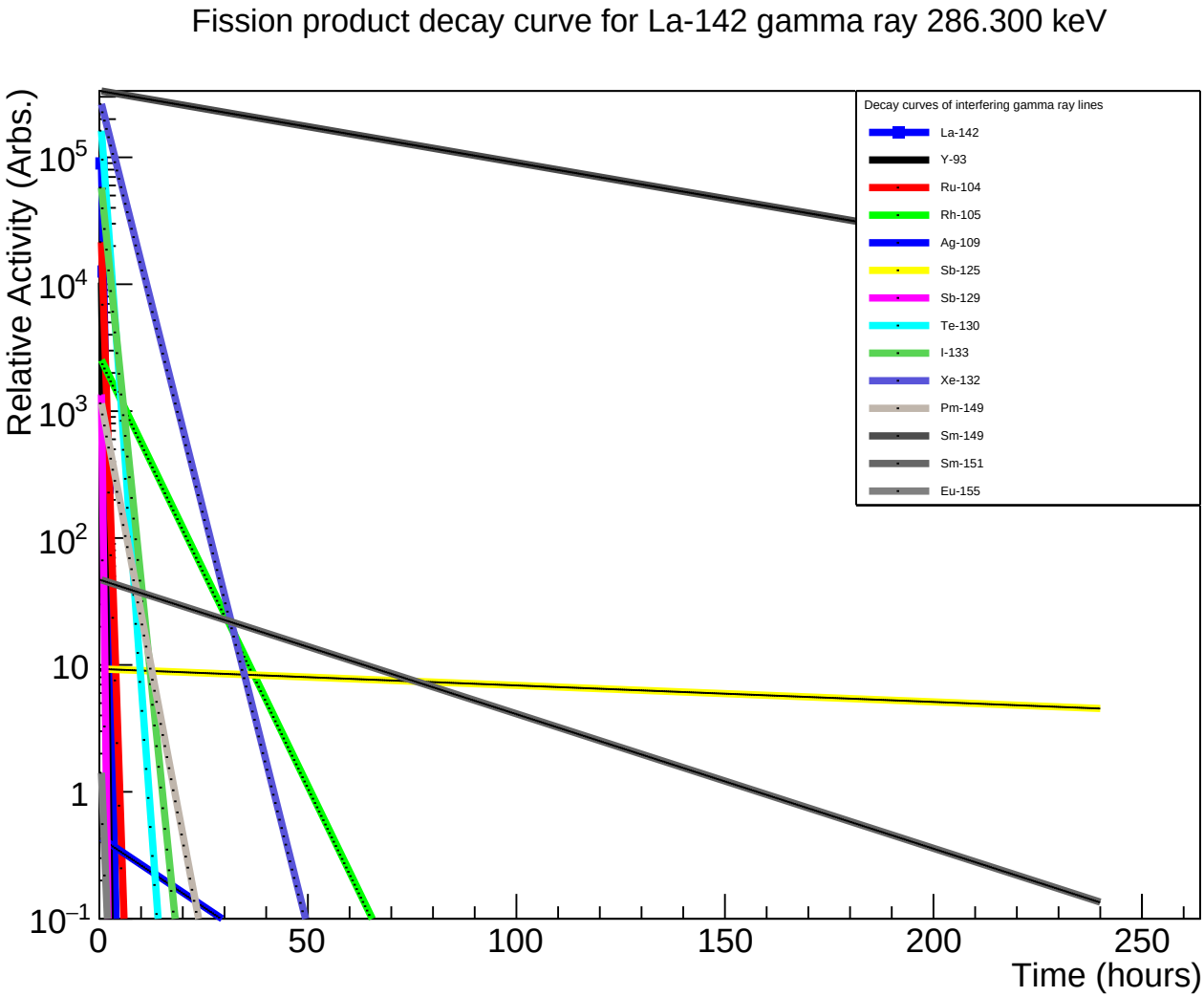


Figure 942: La-142 decay curve for 286.300 keV gamma ray.

3.943 Ba-142 E_γ = 309.20 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 309.20 keV
Gamma Intensity = 2.58 ± 0.112 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1885: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1886: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	308.200	0.001	0.312	0.065
Tc-105	Ru-105	309.510	0.005	0.127	0.010
Pd-109	Ag-109	309.100	0.000	13.701	0.000
Pd-111	Ag-111	308.400	0.000	0.390	0.000
Sb-127	Te-127	310.000	0.003	92.400	0.002
Te-131	I-131	309.470	0.004	33.250	0.004
Te-133	I-133	307.900	0.003	0.923	0.040
I-132	Xe-132	310.100	0.002	2.295	0.043
Nd-151	Pm-151	310.400	0.000	0.207	0.004
Pm-151	Sm-151	308.970	0.001	28.400	0.004

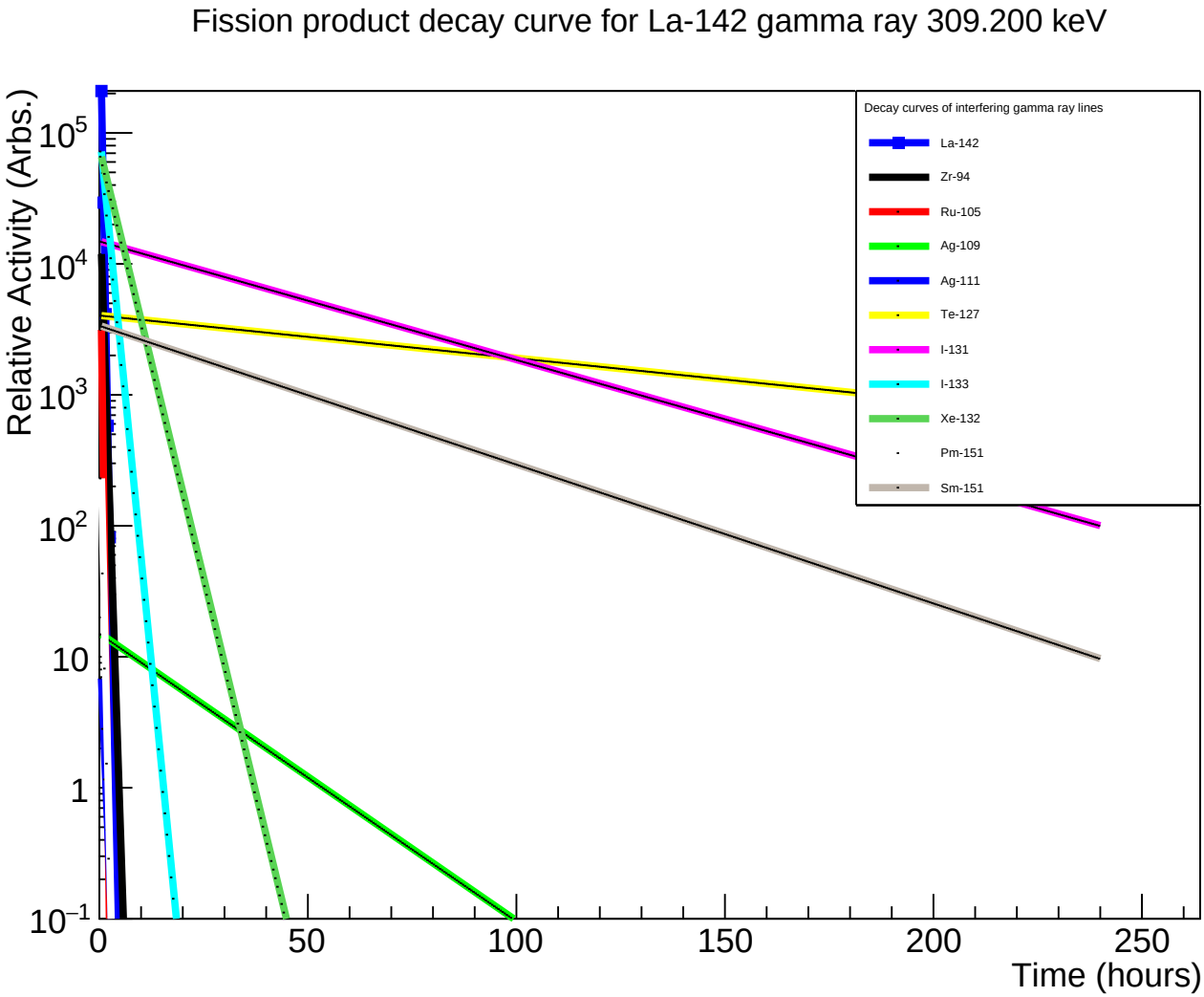


Figure 943: La-142 decay curve for 309.200 keV gamma ray.

3.944 Ba-142 E_γ = 335.00 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 335.00 keV
Gamma Intensity = 1.47 ± 0.045 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1887: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1888: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Nb-98	Mo-98	335.258	0.095	0.855	0.000
Mo-101	Tc-101	333.610	0.007	0.243	0.052
Tc-104	Ru-104	333.800	0.006	0.305	0.019
Tc-105	Ru-105	333.900	0.007	0.127	0.010
In-115	Sn-115	336.241	0.458	4.486	0.000
Te-131	I-131	334.270	0.092	33.250	0.004
Te-131	I-131	335.440	0.001	33.250	0.004
Te-133	I-133	334.245	0.032	0.923	0.040
Te-133	I-133	334.260	0.068	0.923	0.040
I-135	Xe-135	333.600	0.000	6.570	0.063
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Cs-138	Ba-138	333.860	0.001	0.557	0.067
Pr-147	Nd-147	335.700	0.045	0.223	0.022
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

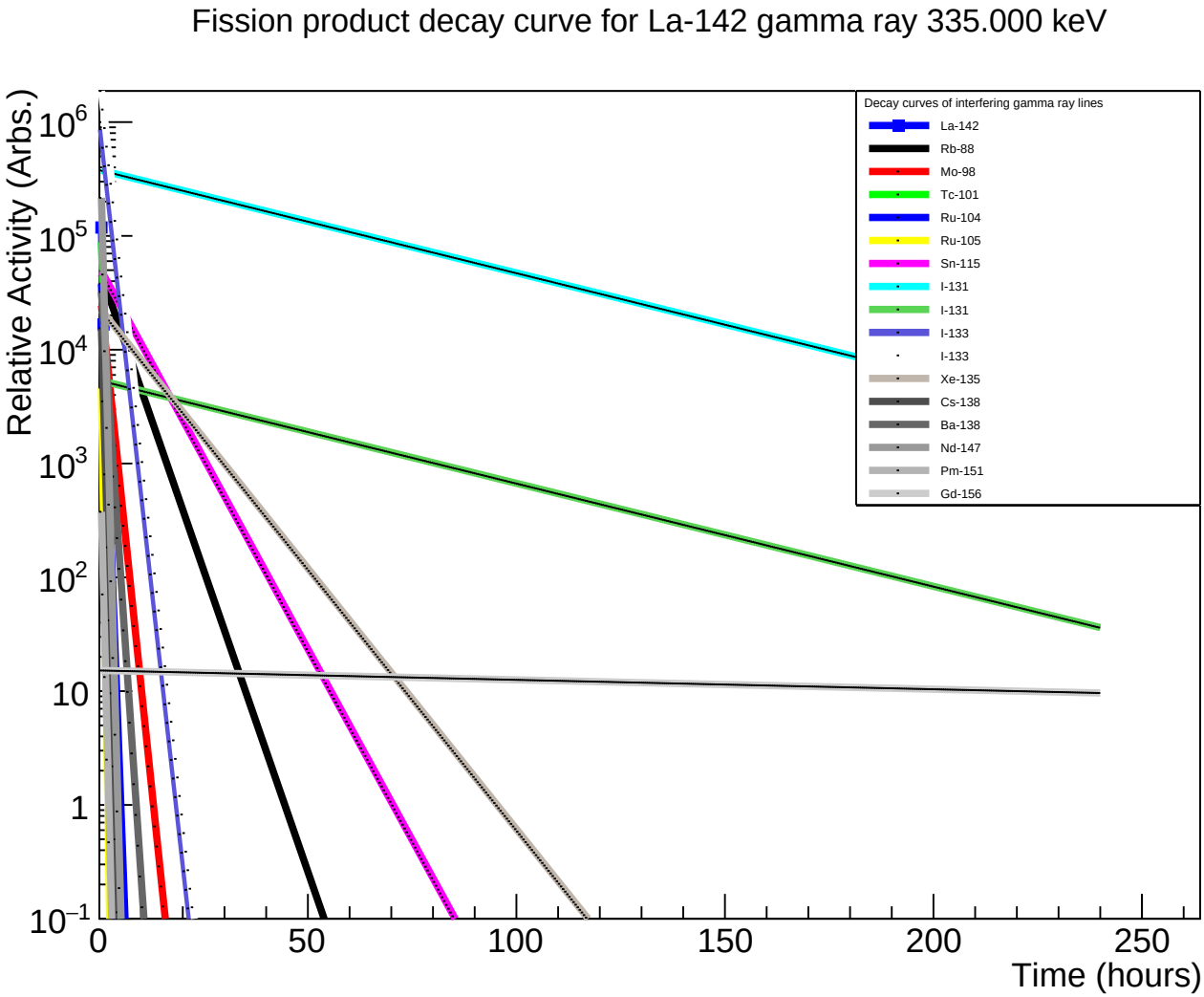


Figure 944: La-142 decay curve for 335.000 keV gamma ray.

3.945 Ba-142 E_γ = 363.96 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 363.96 keV
Gamma Intensity = 4.72 ± 0.199 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1889: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1890: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	364.500	0.019	0.150	0.000
Kr-85	Rb-85	362.810	0.000	94166.664	0.003
Kr-88	Rb-88	363.500	0.000	2.840	0.036
Ag-113	Cd-113	364.400	0.001	5.370	0.000
Cd-115	In-115	363.950	0.000	53.460	0.000
Sn-125	Sb-125	363.500	0.000	231.360	0.000
Sn-127	Sb-127	362.700	0.004	2.100	0.001
Sb-129	Te-129	363.000	0.004	4.400	0.005
Te-131	I-131	364.980	0.012	33.250	0.004
Te-133	I-133	363.060	0.005	0.923	0.040
I-131	Xe-131	364.489	0.815	192.605	0.029
I-132	Xe-132	363.340	0.005	2.295	0.043
Cs-138	Ba-138	363.930	0.002	0.557	0.067
Cs-138	Ba-138	365.290	0.002	0.557	0.067
Pr-145	Nd-145	364.810	0.000	5.984	0.039
Nd-151	Pm-151	362.700	0.000	0.207	0.004
Nd-151	Pm-151	365.350	0.001	0.207	0.004
Nd-152	Pm-152	365.400	0.000	0.190	0.003

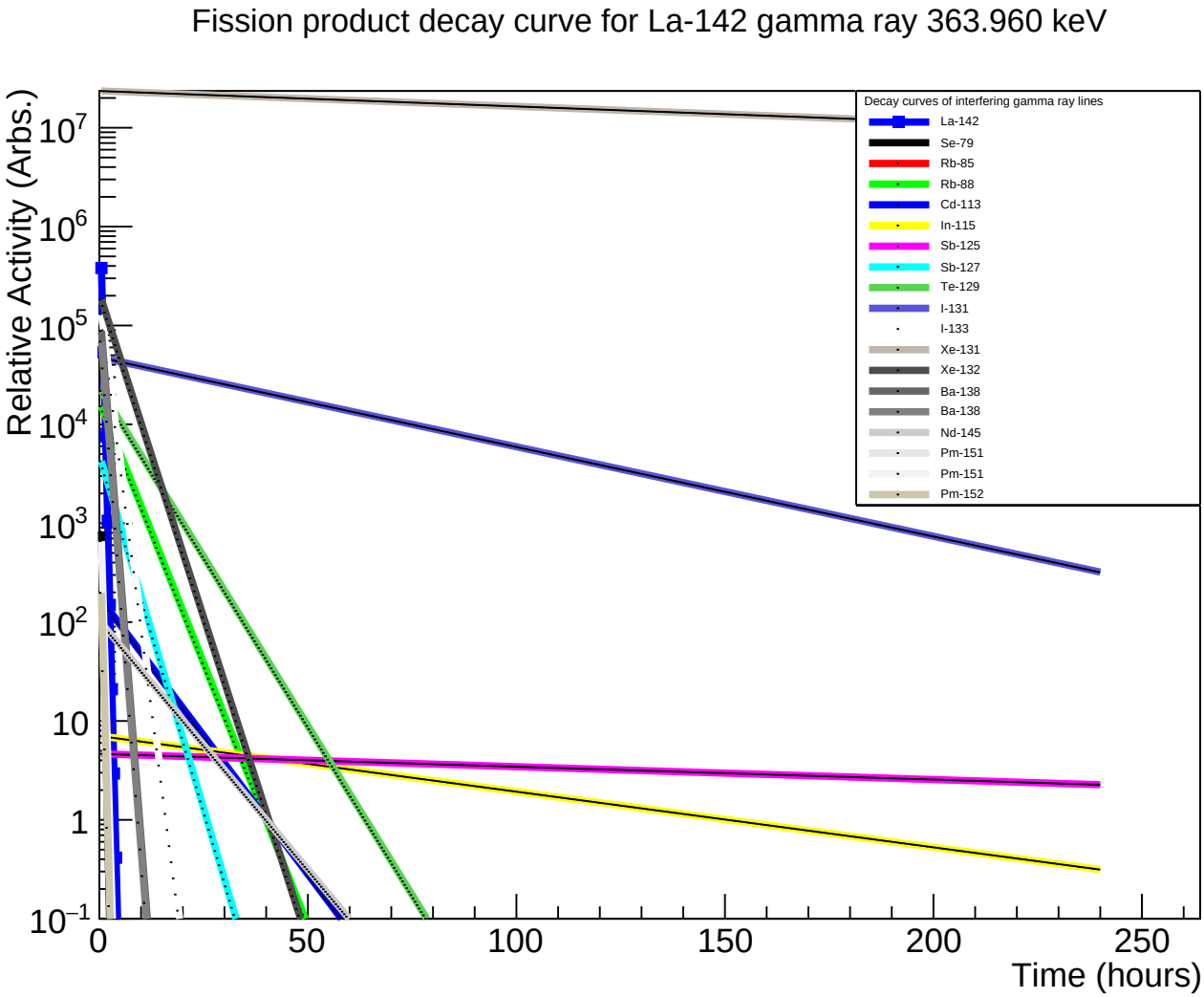


Figure 945: La-142 decay curve for 363.960 keV gamma ray.

3.946 Ba-142 E_γ = 425.04 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 425.04 keV
Gamma Intensity = 5.72 ± 0.196 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1891: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1892: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	424.000	1.000	0.100	0.000
Sr-93	Y-93	424.700	0.003	0.124	0.062
Pd-109	Ag-109	423.900	0.000	13.701	0.000
Sn-127	Sb-127	425.700	0.002	2.100	0.001
Nd-149	Pm-149	423.553	0.074	1.728	0.011
Nd-149	Pm-149	425.220	0.003	1.728	0.011
Nd-151	Pm-151	423.560	0.001	0.207	0.004
Nd-151	Pm-151	423.560	0.059	0.207	0.004
Nd-151	Pm-151	426.470	0.004	0.207	0.004
Pm-151	Sm-151	424.550	0.000	28.400	0.004
Pm-151	Sm-151	425.600	0.000	28.400	0.004
Sm-153	Eu-153	424.400	0.000	46.500	0.002
Sm-155	Eu-155	426.200	0.000	0.372	0.000

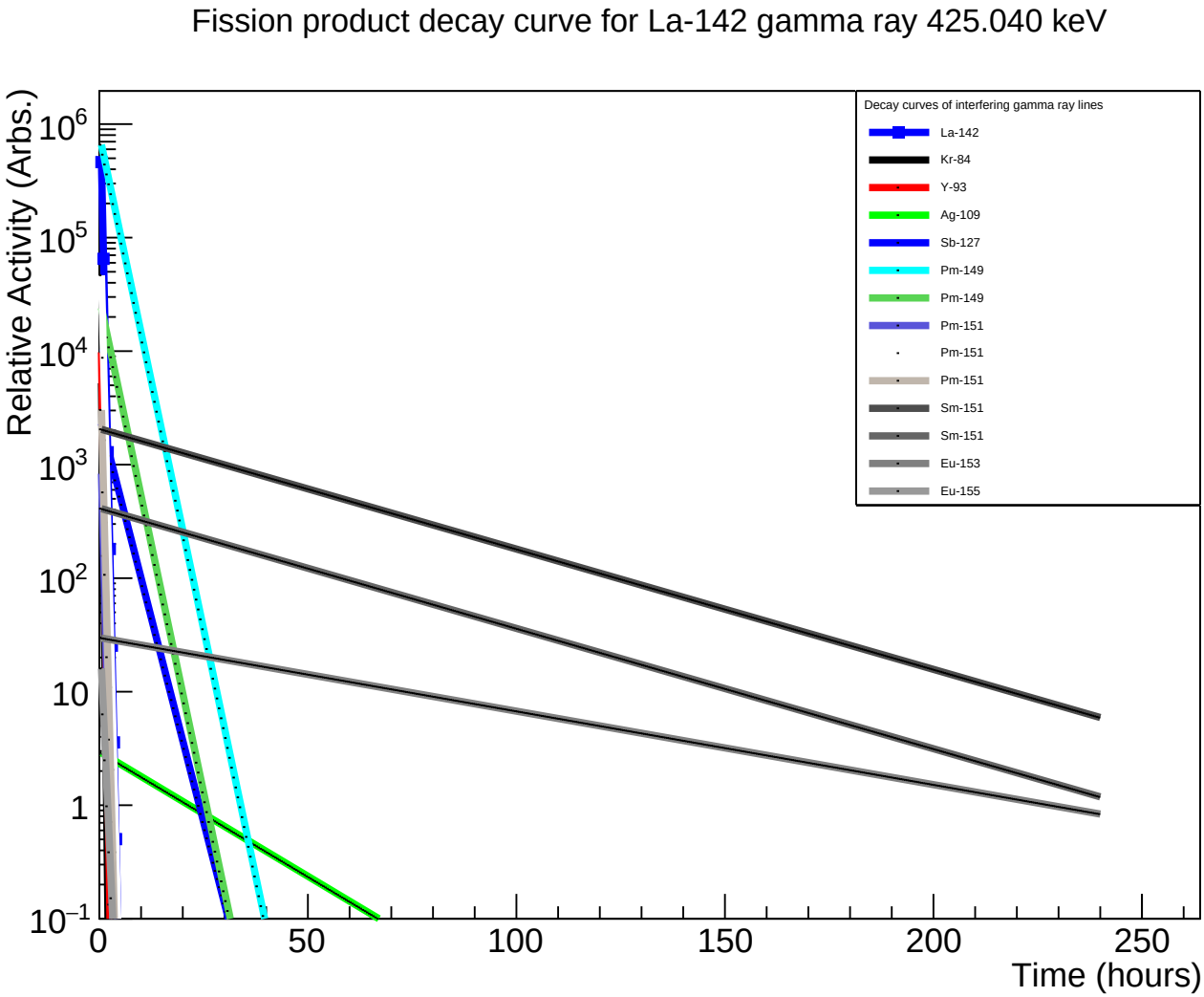


Figure 946: La-142 decay curve for 425.040 keV gamma ray.

3.947 Ba-142 E_γ = 432.30 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 432.30 keV
Gamma Intensity = 1.03 ± 0.087 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1893: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1894: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	432.000	0.015	0.150	0.000
Se-83	Br-83	433.000	0.002	0.372	0.003
Sr-93	Y-93	432.670	0.015	0.124	0.062
Y-95	Zr-95	432.000	0.016	0.172	0.064
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Te-131	I-131	432.400	0.006	33.250	0.004
Te-133	I-133	431.610	0.001	0.208	0.031
I-132	Xe-132	431.800	0.005	2.295	0.043
I-134	Xe-134	433.350	0.042	0.875	0.078
I-135	Xe-135	433.741	0.006	6.570	0.063
La-140	Ce-140	432.493	0.029	40.285	0.062
La-143	Ce-143	433.000	0.002	0.237	0.059
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011

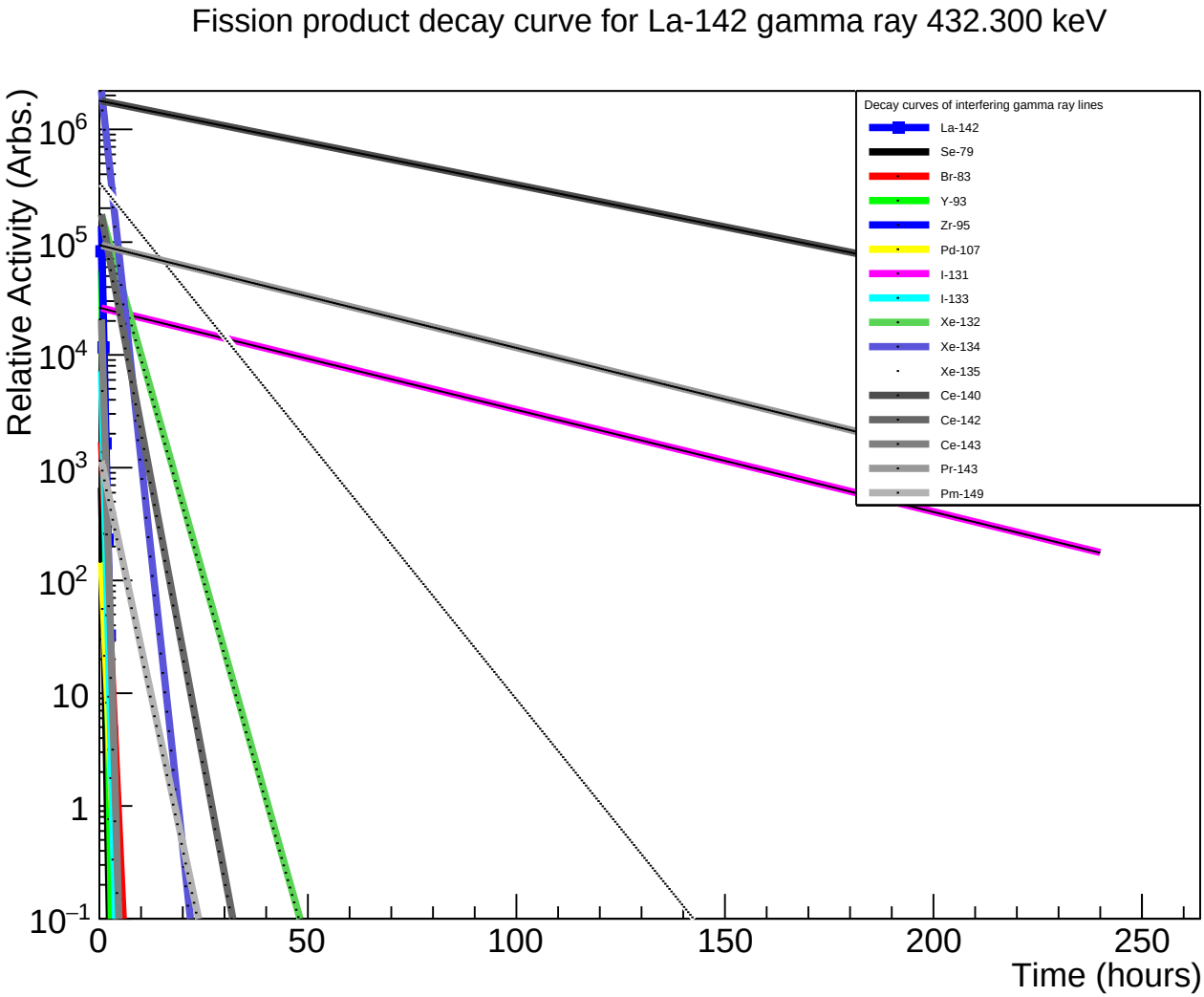


Figure 947: La-142 decay curve for 432.300 keV gamma ray.

3.948 Ba-142 E_γ = 599.80 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 599.80 keV
Gamma Intensity = 1.84 ± 0.058 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1895: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1896: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	600.600	0.001	16.749	0.060
Sb-125	Te-125	600.597	0.176	24194.445	0.000
I-132	Xe-132	600.000	0.003	2.295	0.043
Nd-151	Pm-151	600.800	0.000	0.207	0.004
Pm-151	Sm-151	599.100	0.000	28.400	0.004
Sm-153	Eu-153	598.300	0.000	46.500	0.002
Eu-156	Gd-156	599.470	0.021	364.560	0.000

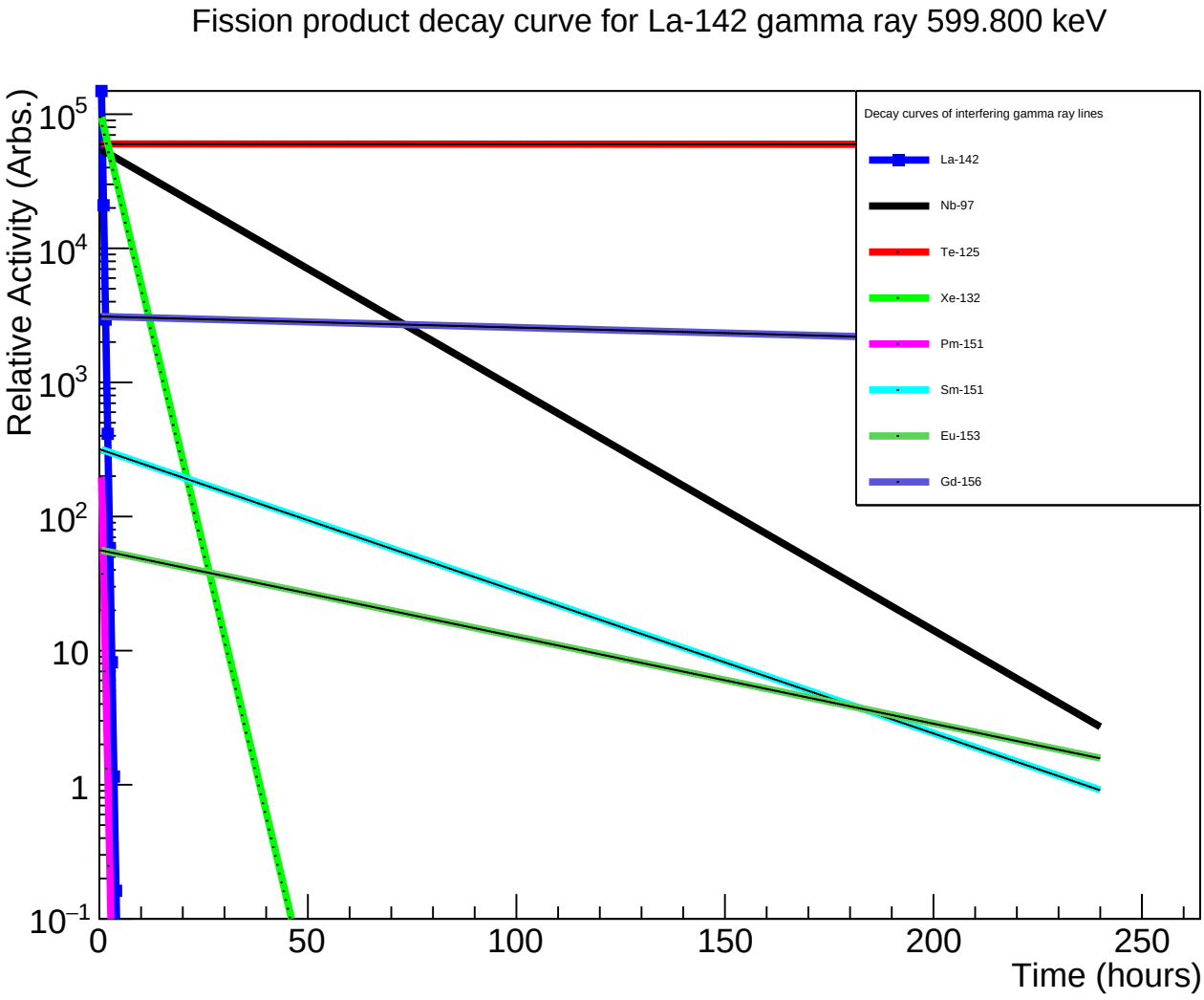


Figure 948: La-142 decay curve for 599.800 keV gamma ray.

3.949 Ba-142 E_γ = 840.40 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 840.40 keV
Gamma Intensity = 3.61 ± 0.162 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1897: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1898: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	841.500	0.002	1.512	0.000
Sn-125	Sb-125	840.830	0.001	0.159	0.000
Sb-130	Te-130	839.520	1.000	0.658	0.008
Sb-130	Te-130	839.520	1.000	0.105	0.010
Pr-146	Nd-146	839.500	0.000	0.403	0.030
Nd-149	Pm-149	839.240	0.000	1.728	0.011
Nd-151	Pm-151	841.070	0.002	0.207	0.004
Nd-151	Pm-151	841.070	0.008	0.207	0.004
Eu-156	Gd-156	839.000	0.000	364.560	0.000
Eu-156	Gd-156	841.160	0.002	364.560	0.000

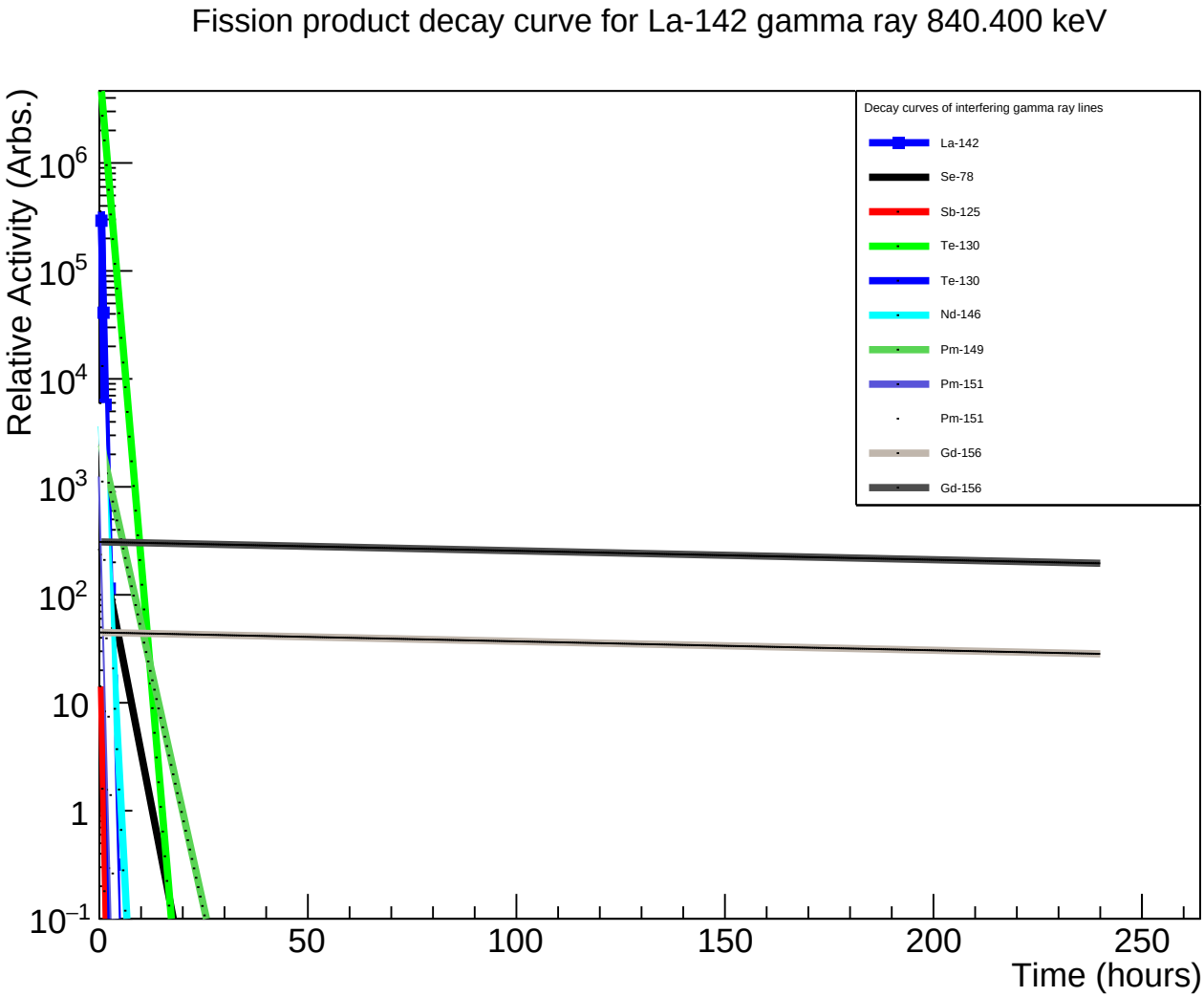


Figure 949: La-142 decay curve for 840.400 keV gamma ray.

3.950 Ba-142 E_γ = 895.20 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 895.20 keV
Gamma Intensity = 13.86 ± 0.562 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1899: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1900: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	894.020	0.000	1.272	0.026
Mo-101	Tc-101	894.400	0.001	0.243	0.052
Mo-101	Tc-101	895.890	0.002	0.243	0.052
Tc-105	Ru-105	896.000	0.016	0.127	0.010
Ag-113	Cd-113	896.100	0.001	5.370	0.000
Te-133	I-133	896.700	0.000	0.208	0.031
Te-134	I-134	896.020	0.004	0.697	0.070
Nd-149	Pm-149	896.650	0.000	1.728	0.011
Pm-151	Sm-151	894.100	0.000	28.400	0.004

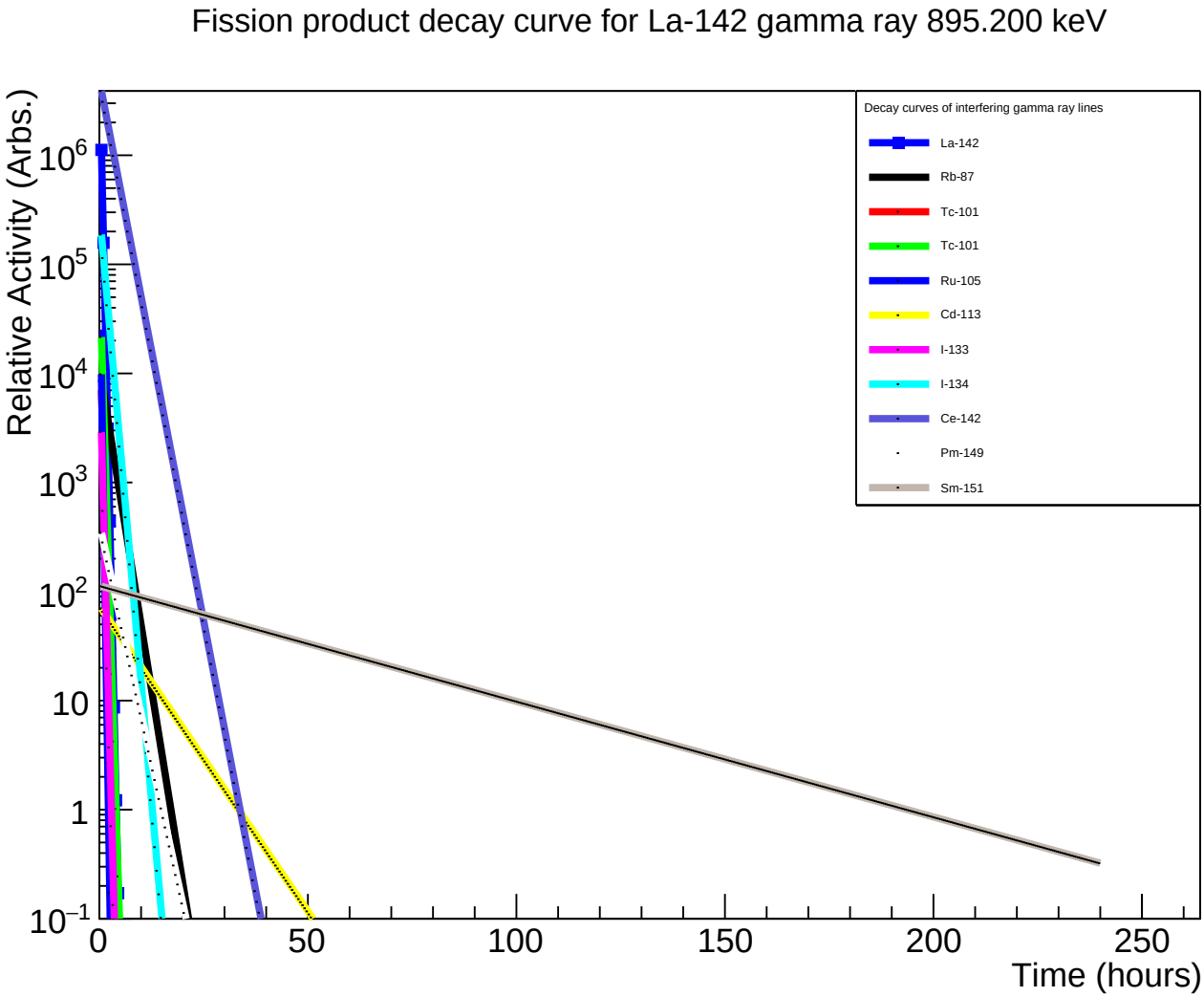


Figure 950: La-142 decay curve for 895.200 keV gamma ray.

3.951 Ba-142 E_γ = 949.10 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 949.10 keV
Gamma Intensity = 10.60 ± 0.409 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1901: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1902: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	950.490	0.000	2.840	0.036
Rb-89	Sr-89	947.730	0.100	0.252	0.047
Pd-111	Ag-111	950.000	0.000	0.390	0.000
Sb-130	Te-130	949.800	0.010	0.105	0.010
Te-131	I-131	948.542	0.023	0.417	0.025
Te-133	I-133	949.200	0.006	0.923	0.040
I-134	Xe-134	947.860	0.040	0.875	0.078
La-143	Ce-143	948.600	0.001	0.237	0.059
Pr-147	Nd-147	949.300	0.002	0.223	0.022
Nd-151	Pm-151	949.050	0.001	0.207	0.004
Pm-151	Sm-151	948.720	0.004	28.400	0.004

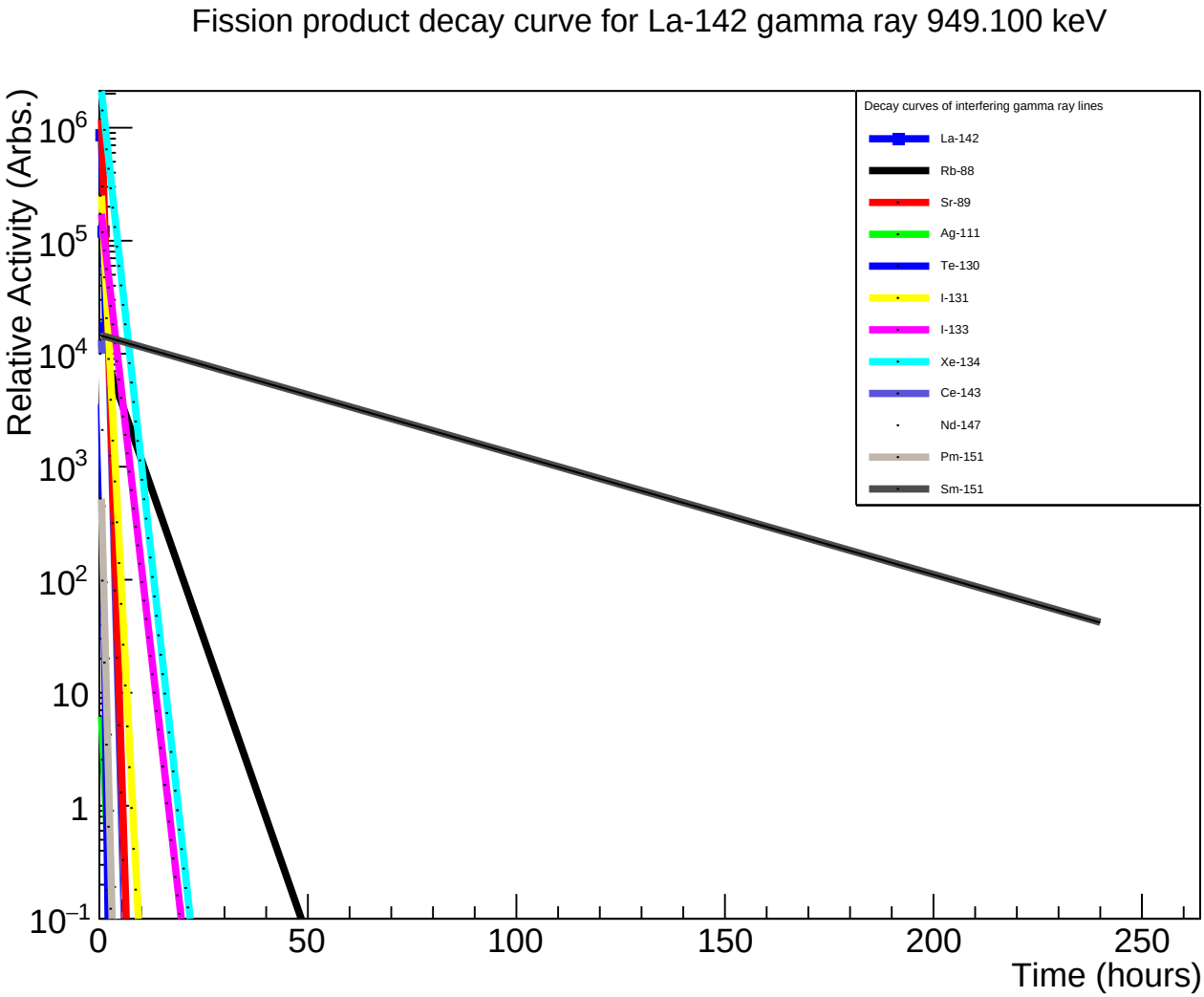


Figure 951: La-142 decay curve for 949.100 keV gamma ray.

3.952 Ba-142 E_γ = 1001.20 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1001.20 keV
Gamma Intensity = 9.72 ± 0.376 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1903: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1904: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	1001.800	0.001	0.312	0.065
Y-95	Zr-95	1002.100	0.002	0.172	0.064
Mo-99	Tc-99	1001.343	0.000	65.976	0.061
Pd-111	Ag-111	1002.300	0.001	0.390	0.000
Sn-127	Sb-127	1002.600	0.017	2.100	0.001
Sb-130	Te-130	1000.200	0.023	0.658	0.008
Te-133	I-133	1000.720	0.036	0.208	0.031
I-132	Xe-132	1002.500	0.001	2.295	0.043
Sm-155	Eu-155	1002.700	0.000	0.372	0.000

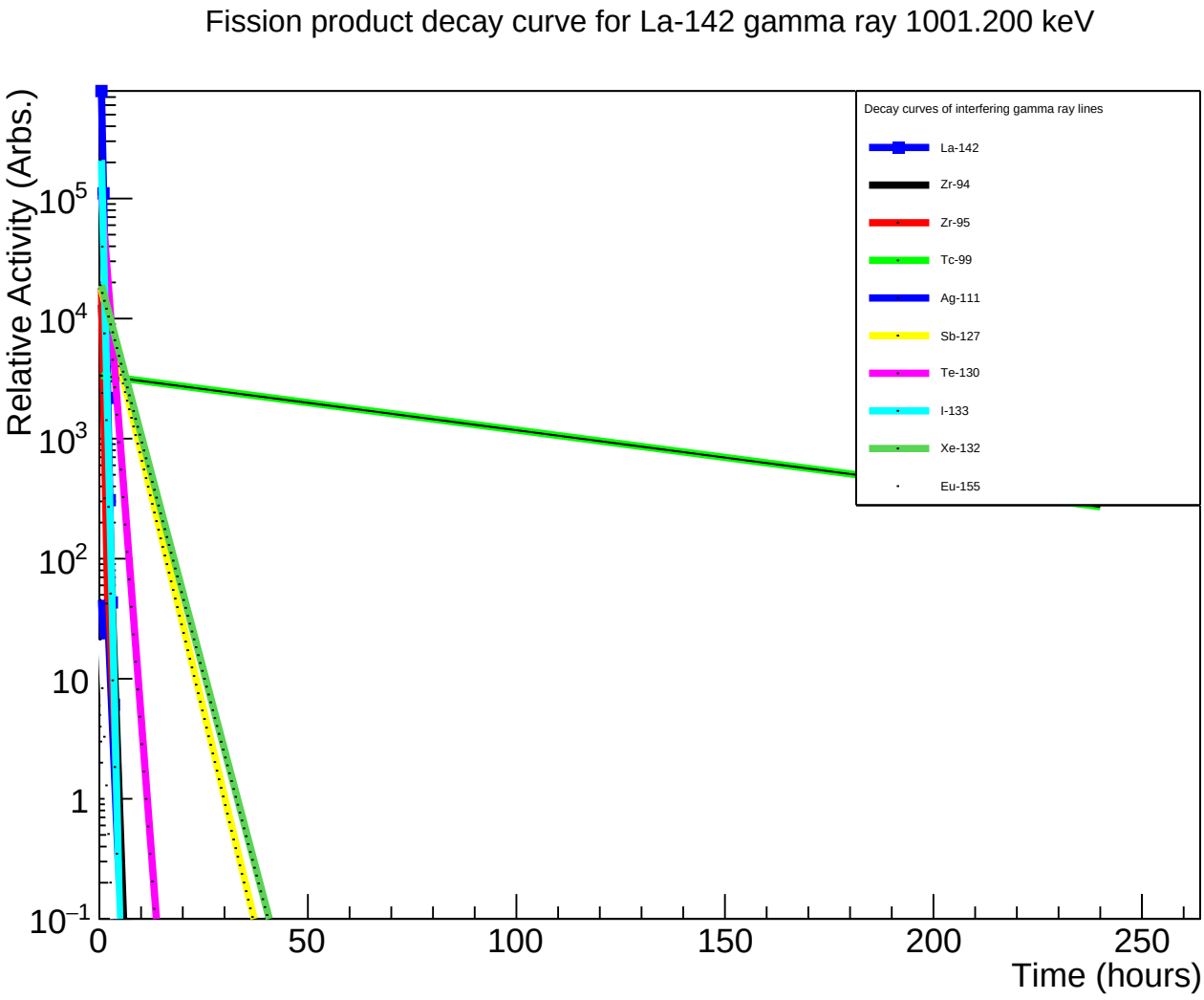


Figure 952: La-142 decay curve for 1001.200 keV gamma ray.

3.953 Ba-142 E_γ = 1078.70 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1078.70 keV
Gamma Intensity = 11.46 ± 0.469 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1905: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1906: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1079.800	0.016	1.512	0.000
Sr-93	Y-93	1077.860	0.002	0.124	0.062
Sb-128	Te-128	1078.600	0.020	9.010	0.000
Te-133	I-133	1078.130	0.002	0.923	0.040
Te-133	I-133	1079.630	0.005	0.923	0.040
Nd-149	Pm-149	1078.760	0.001	1.728	0.011
Nd-151	Pm-151	1079.500	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.002	0.207	0.004
Eu-156	Gd-156	1079.160	0.046	364.560	0.000

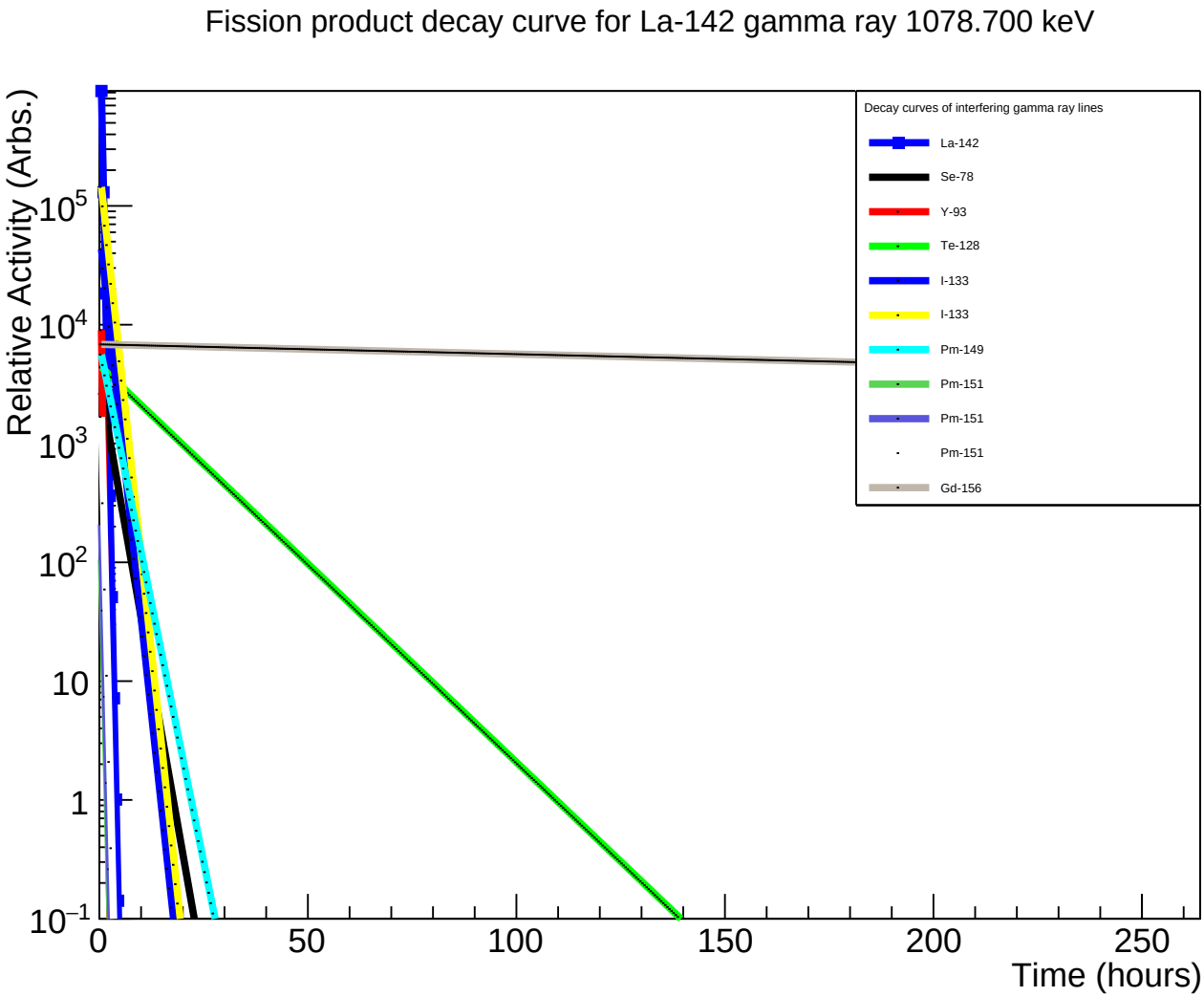


Figure 953: La-142 decay curve for 1078.700 keV gamma ray.

3.954 Ba-142 E_γ = 1094.10 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1094.10 keV
Gamma Intensity = 2.81 ± 0.148 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1907: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1908: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1093.000	0.003	0.372	0.003
Sr-93	Y-93	1094.000	0.018	0.124	0.062
Tc-104	Ru-104	1092.900	0.005	0.305	0.019
Ru-105	Rh-105	1094.000	0.000	4.440	0.010
Sn-125	Sb-125	1093.270	0.000	0.159	0.000
Sn-127	Sb-127	1093.300	0.038	2.100	0.001
Sn-127	Sb-127	1095.600	0.194	2.100	0.001
Xe-138	Cs-138	1093.870	0.004	0.235	0.063
La-143	Ce-143	1093.600	0.001	0.237	0.059
Pr-145	Nd-145	1093.778	0.000	5.984	0.039

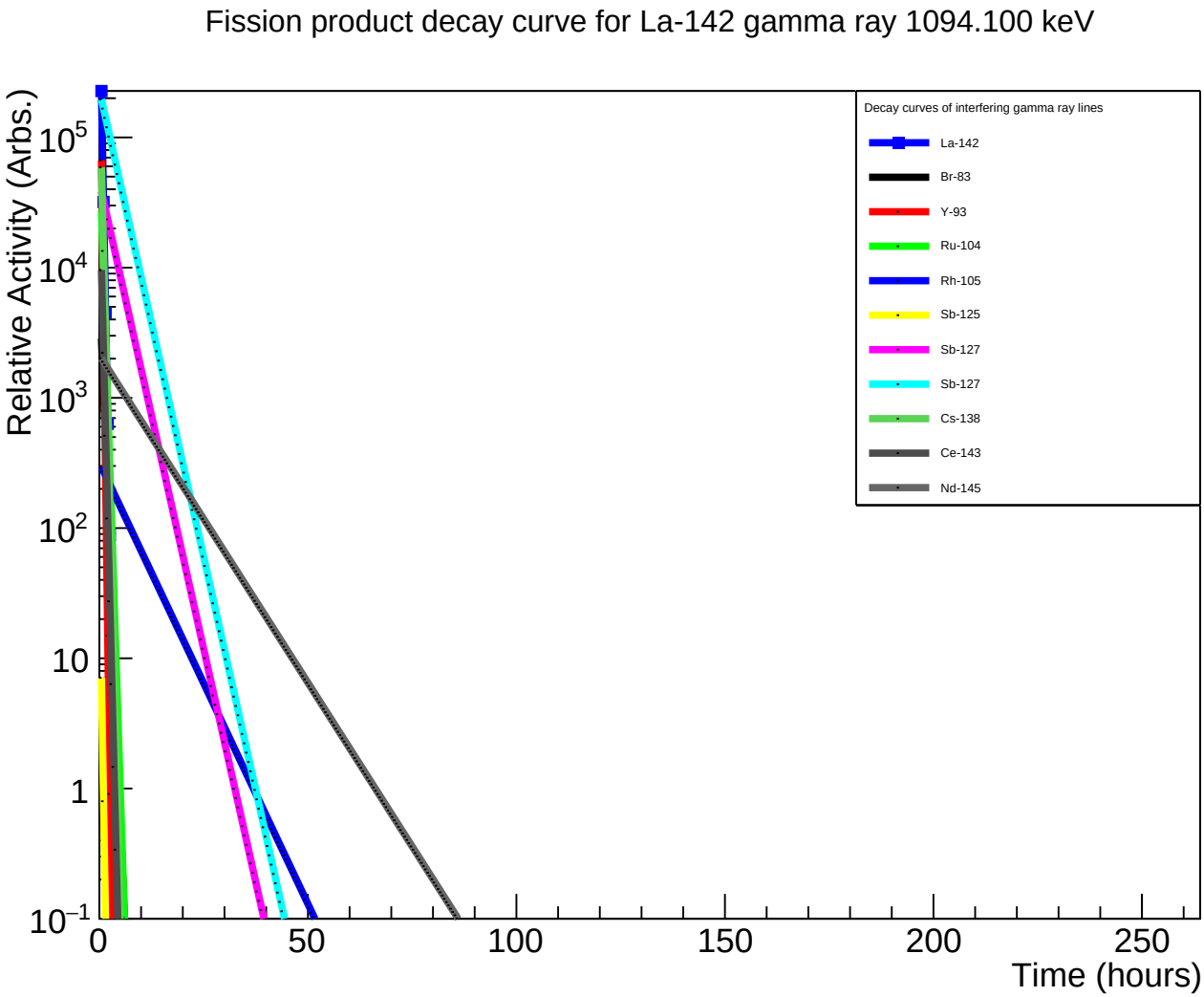


Figure 954: La-142 decay curve for 1094.100 keV gamma ray.

3.955 Ba-142 E_γ = 1126.80 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1126.80 keV
Gamma Intensity = 1.50 ± 0.131 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1909: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1910: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1128.000	0.003	0.305	0.019
Ag-112	Cd-112	1125.900	0.002	3.130	0.000
Ag-113	Cd-113	1126.100	0.001	5.370	0.000
Te-131	I-131	1125.460	0.110	33.250	0.004
Te-131	I-131	1127.960	0.009	33.250	0.004
I-132	Xe-132	1126.500	0.001	2.295	0.043
Nd-149	Pm-149	1125.320	0.000	1.728	0.011
Nd-151	Pm-151	1125.400	0.000	0.207	0.004
Nd-151	Pm-151	1127.110	0.002	0.207	0.004

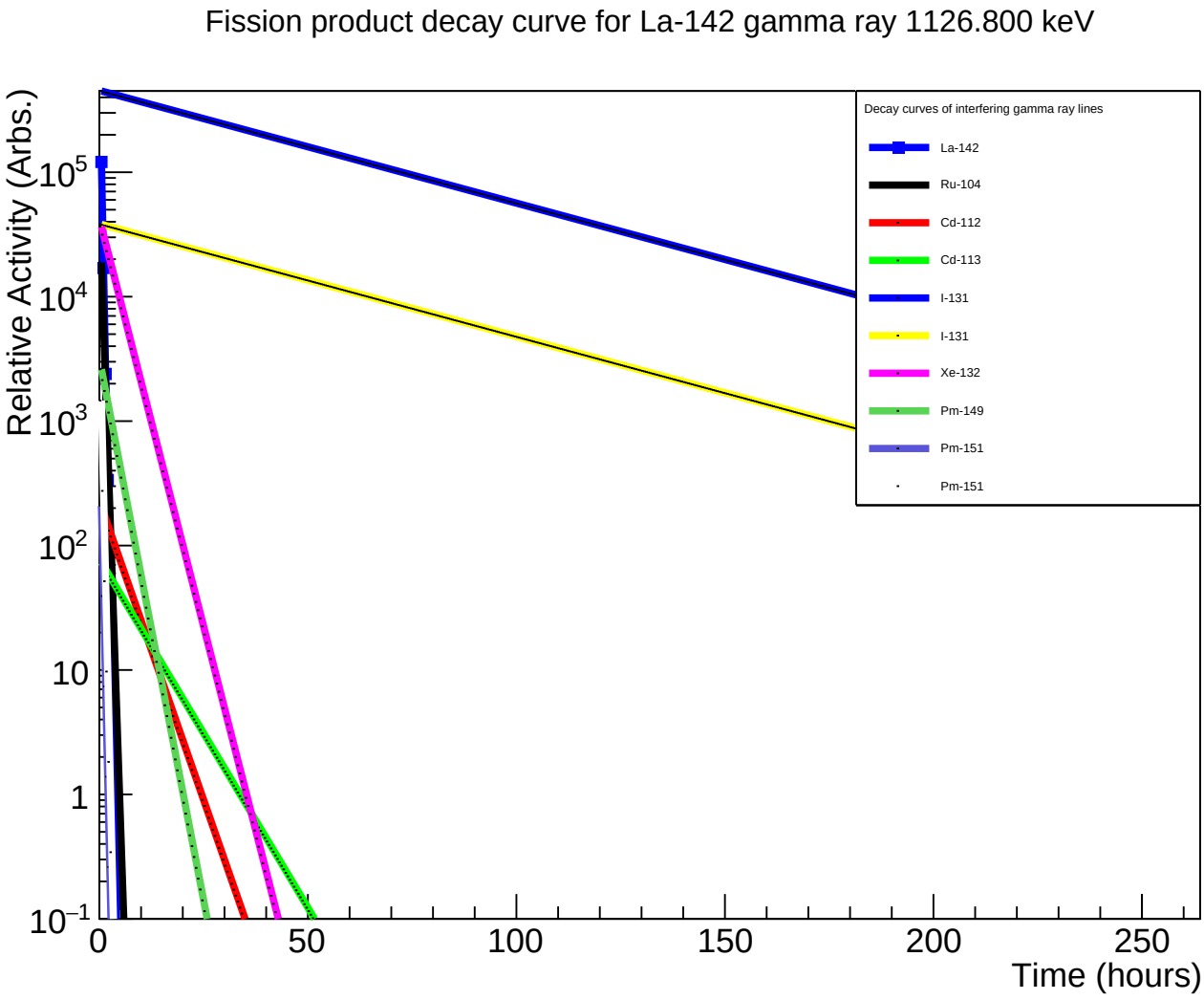


Figure 955: La-142 decay curve for 1126.800 keV gamma ray.

3.956 Ba-142 E_γ = 1202.40 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1202.40 keV
Gamma Intensity = 5.53 ± 0.261 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1911: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1912: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1203.300	0.001	10.180	0.063
Tc-104	Ru-104	1201.600	0.004	0.305	0.019
Tc-105	Ru-105	1201.600	0.012	0.127	0.010
Te-129	I-129	1203.590	0.000	806.400	0.001
Cs-138	Ba-138	1203.690	0.004	0.557	0.067
La-143	Ce-143	1201.300	0.003	0.237	0.059
Nd-149	Pm-149	1202.290	0.000	1.728	0.011
Nd-151	Pm-151	1201.030	0.000	0.207	0.004
Nd-151	Pm-151	1201.030	0.002	0.207	0.004

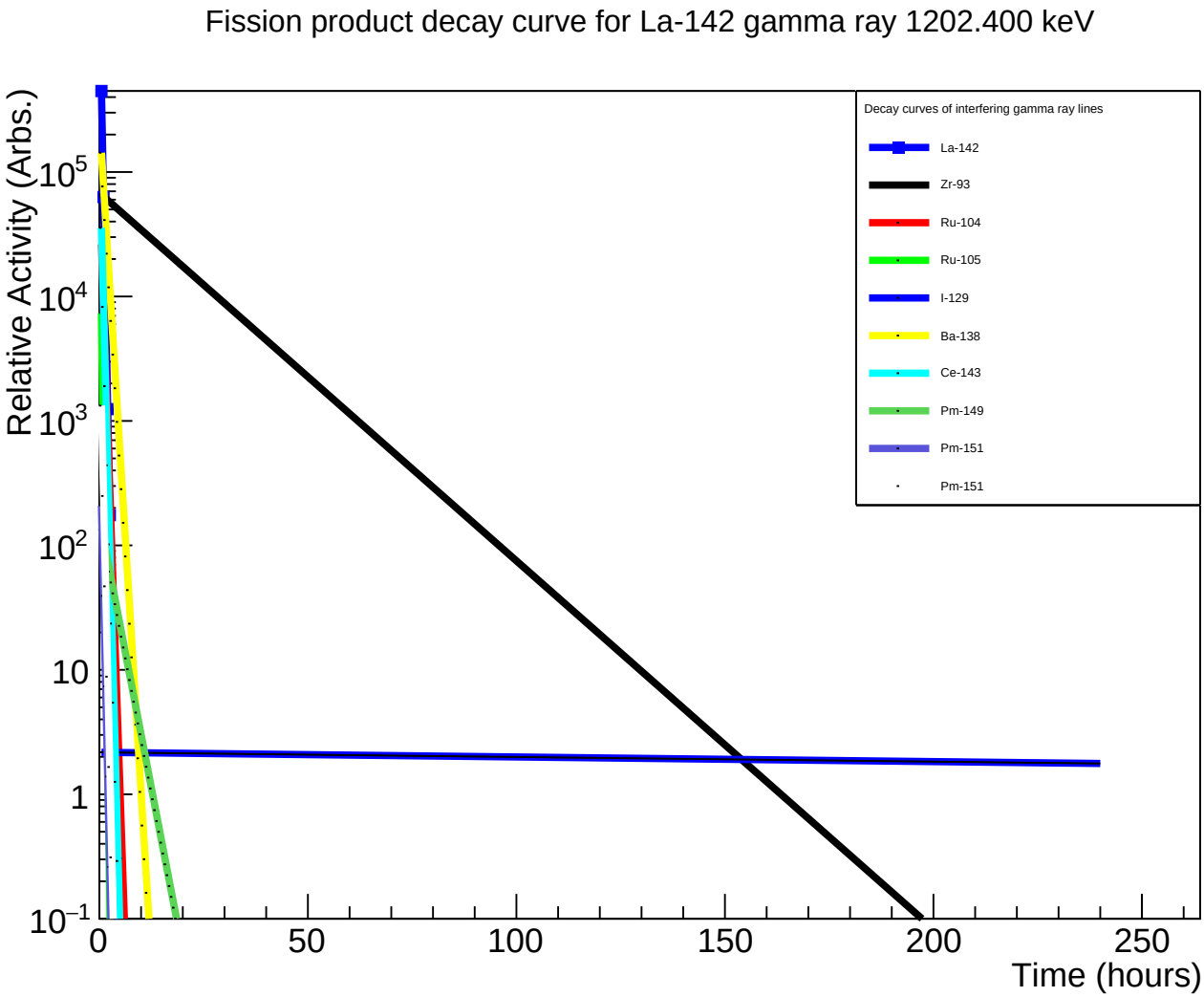


Figure 956: La-142 decay curve for 1202.400 keV gamma ray.

3.957 Ba-142 E_γ = 1204.30 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1204.30 keV
Gamma Intensity = 14.23 ± 0.474 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1913: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1914: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-91	Zr-91	1204.770	0.003	1404.240	0.058
Y-93	Zr-93	1203.300	0.001	10.180	0.063
Nb-98	Mo-98	1204.150	0.001	0.855	0.000
Te-129	I-129	1203.590	0.000	806.400	0.001
Te-133	I-133	1204.200	0.002	0.923	0.040
Xe-138	Cs-138	1204.500	0.000	0.235	0.063
Cs-138	Ba-138	1203.690	0.004	0.557	0.067

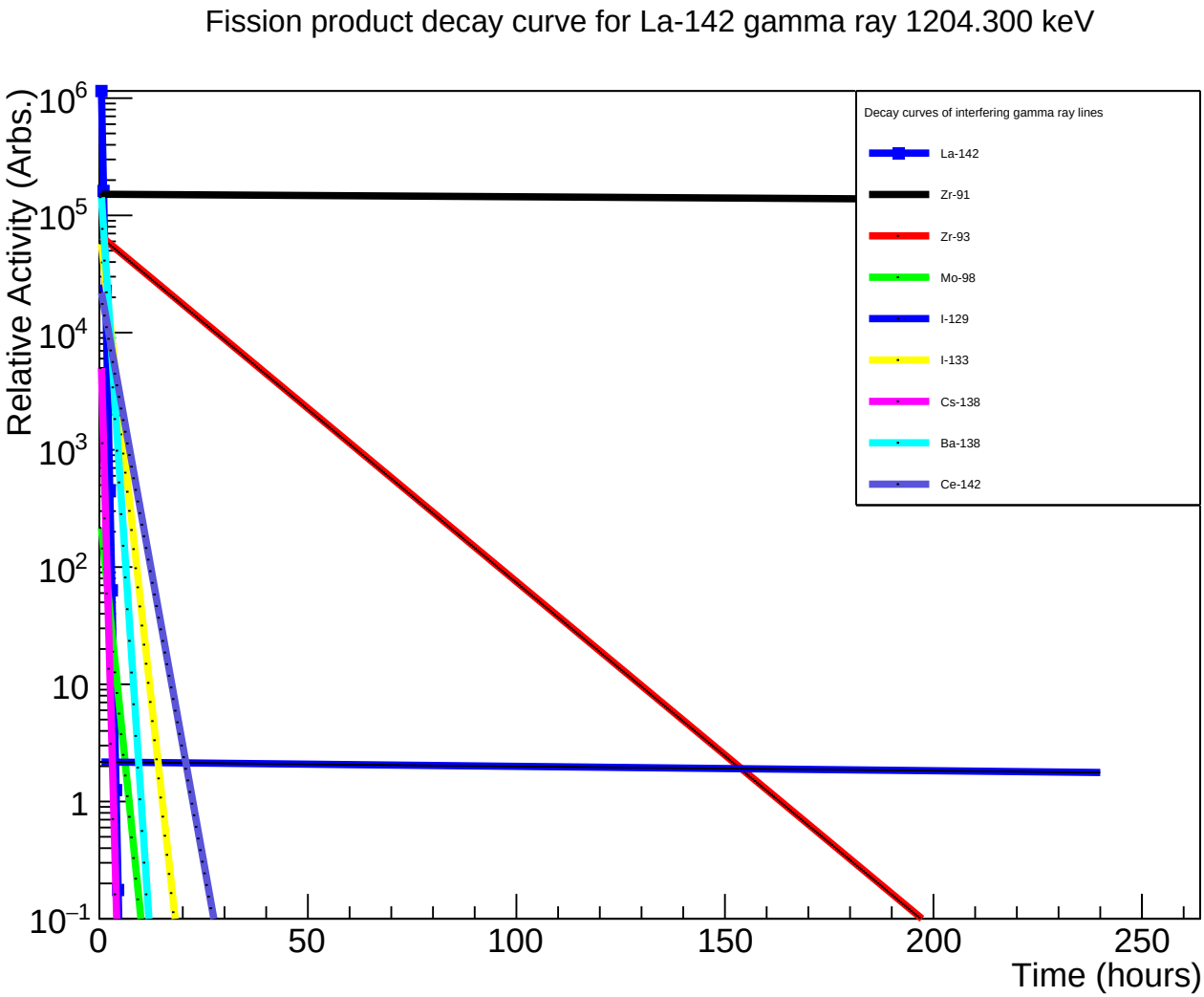


Figure 957: La-142 decay curve for 1204.300 keV gamma ray.

3.958 Ba-142 E_γ = 1380.20 keV

Chemical element: Barium
Fission product parent: Ba-142
Gamma originates in daughter: La-142
Eγ: 1380.20 keV
Gamma Intensity = 3.40 ± 0.192 %
$T_{1/2}$ = 0.177 ± 0.003 hours or 10.60 ± 0.20 minutes
CFY: 5.752 ± 0.115 %

Table 1915: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1916: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1381.200	0.008	1.512	0.000
Sr-93	Y-93	1378.980	0.004	0.124	0.062
Mo-101	Tc-101	1380.400	0.001	0.243	0.052
Tc-104	Ru-104	1380.500	0.017	0.305	0.019
Xe-138	Cs-138	1381.400	0.001	0.235	0.063
Nd-149	Pm-149	1381.420	0.000	1.728	0.011
Nd-151	Pm-151	1379.120	0.000	0.207	0.004
Nd-151	Pm-151	1379.120	0.001	0.207	0.004

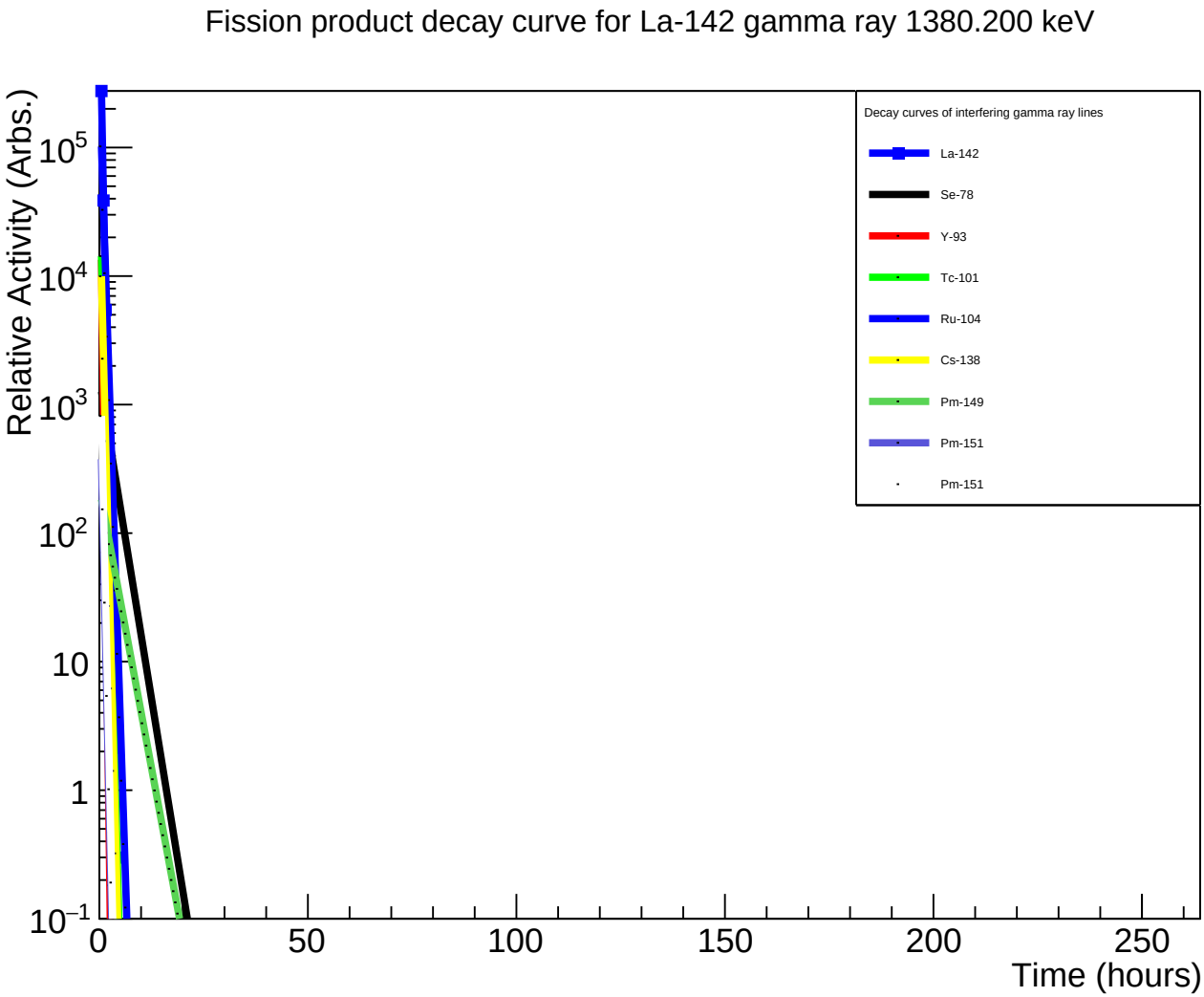


Figure 958: La-142 decay curve for 1380.200 keV gamma ray.

3.959 La-140 E_γ = 328.76 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 328.76 keV
Gamma Intensity = 20.32 ± 0.287 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1917: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1918: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	329.500	0.006	0.372	0.003
Mo-101	Tc-101	327.700	0.002	0.243	0.052
Cd-115	In-115	328.380	0.000	53.460	0.000
Xe-138	Cs-138	329.400	0.000	0.235	0.063
Pr-147	Nd-147	328.800	0.039	0.223	0.022
Nd-149	Pm-149	329.180	0.000	1.728	0.011
Pm-149	Sm-149	327.530	0.000	53.080	0.011
Pm-151	Sm-151	329.000	0.000	28.400	0.004
Pm-151	Sm-151	329.750	0.002	28.400	0.004

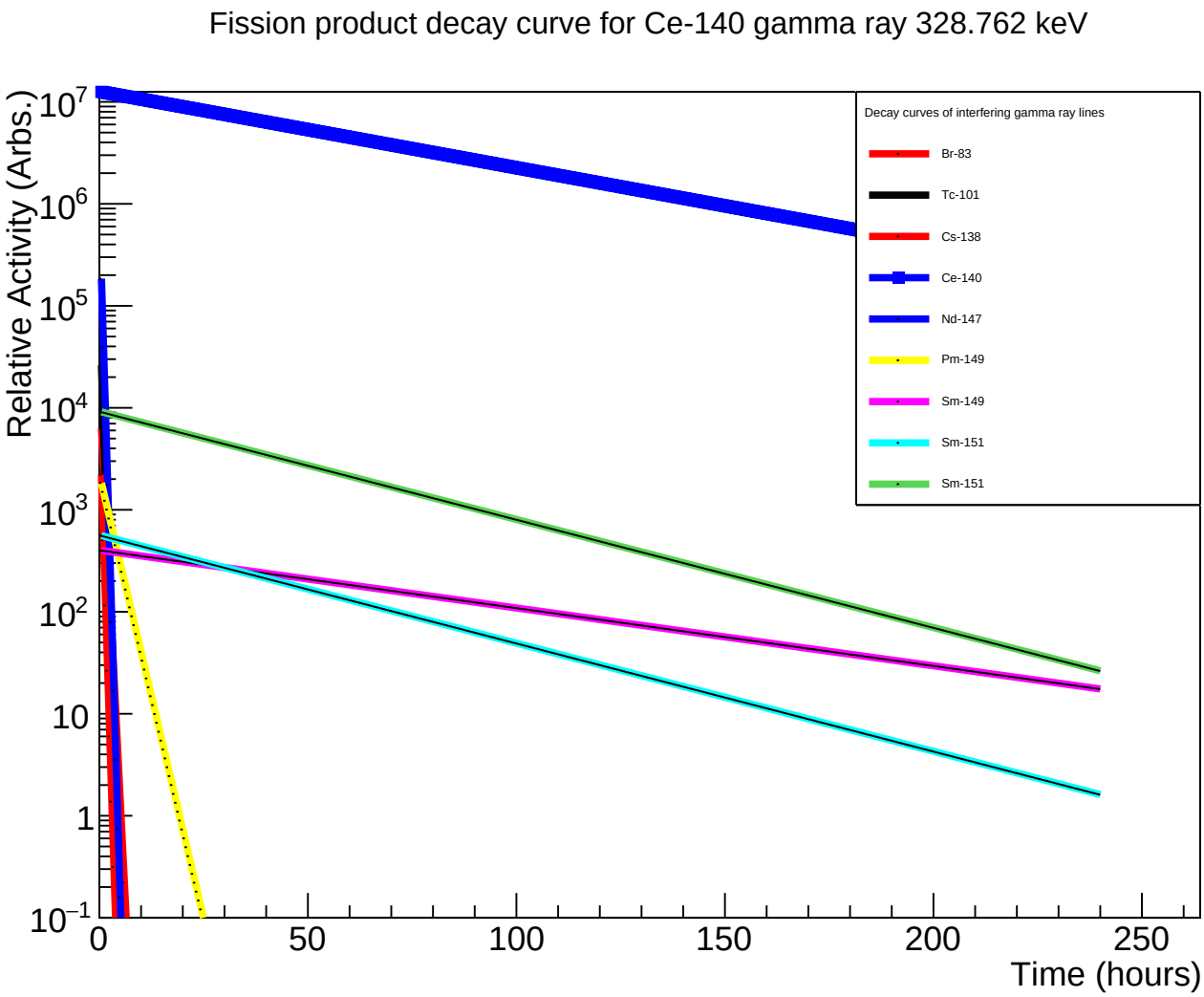


Figure 959: Ce-140 decay curve for 328.762 keV gamma ray.

3.960 La-140 E_γ = 432.49 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 432.49 keV
Gamma Intensity = 2.90 ± 0.029 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1919: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1920: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	432.000	0.015	0.150	0.000
Se-83	Br-83	433.000	0.002	0.372	0.003
Sr-93	Y-93	432.670	0.015	0.124	0.062
Y-95	Zr-95	432.000	0.016	0.172	0.064
Rh-107	Pd-107	431.700	0.000	0.362	0.001
Te-131	I-131	432.400	0.006	33.250	0.004
Te-133	I-133	431.610	0.001	0.208	0.031
I-132	Xe-132	431.800	0.005	2.295	0.043
I-134	Xe-134	433.350	0.042	0.875	0.078
I-135	Xe-135	433.741	0.006	6.570	0.063
Ba-142	La-142	432.300	0.010	0.177	0.058
Ce-143	Pr-143	432.999	0.002	33.039	0.060
Nd-149	Pm-149	432.660	0.000	1.728	0.011

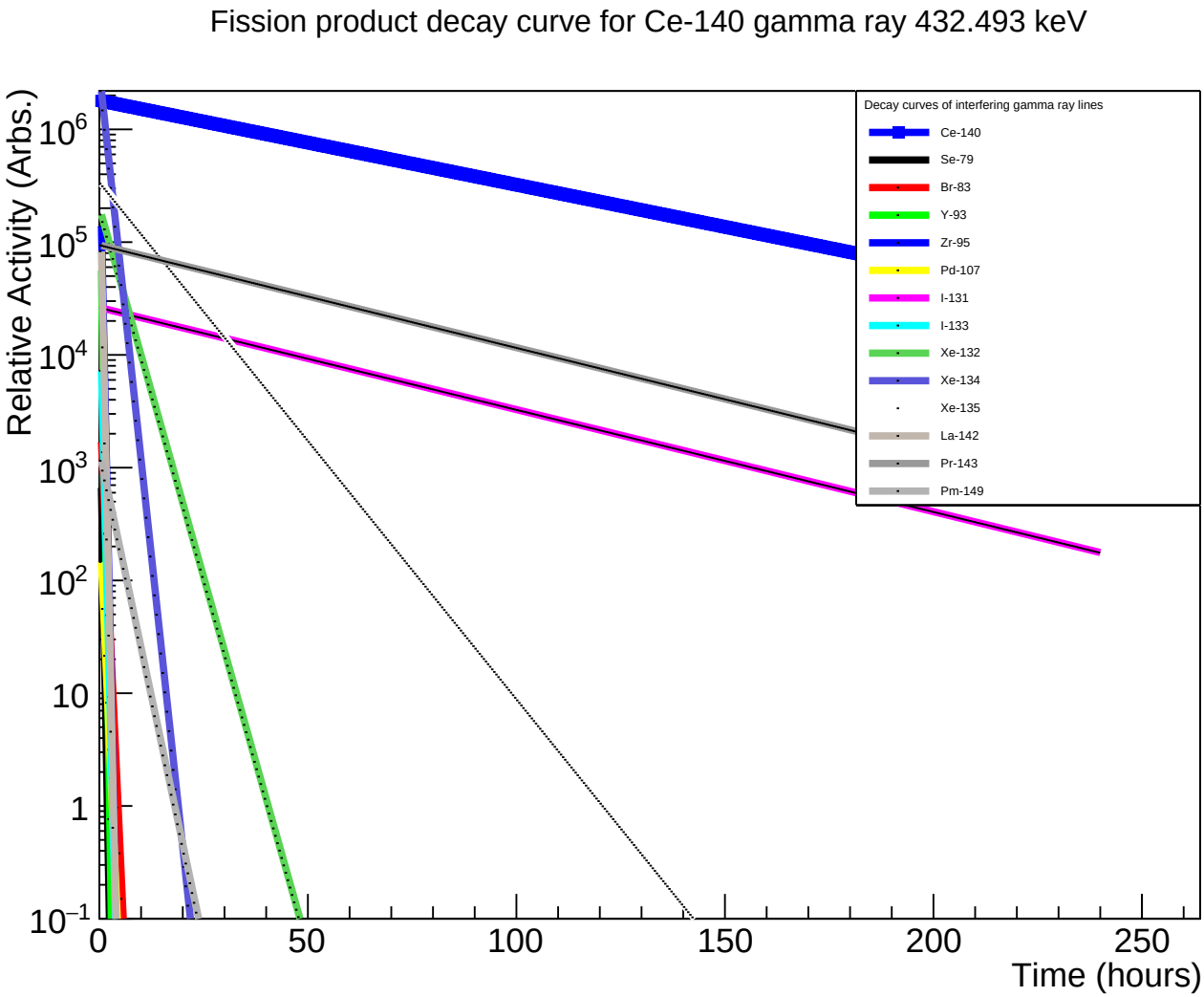


Figure 960: Ce-140 decay curve for 432.493 keV gamma ray.

3.961 La-140 E_γ = 487.02 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 487.02 keV
Gamma Intensity = 45.51 ± 0.574 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1921: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1922: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	485.700	0.012	0.372	0.003
Se-83	Br-83	485.720	0.024	0.372	0.003
Sr-91	Y-91	486.500	0.001	9.630	0.058
Sr-93	Y-93	486.700	0.001	0.124	0.062
Pd-111	Ag-111	485.800	0.000	0.390	0.000
Sn-127	Sb-127	487.500	0.005	2.100	0.001
Te-129	I-129	487.390	0.014	1.160	0.005
Te-129	I-129	487.390	0.000	806.400	0.001
Te-133	I-133	488.000	0.001	0.208	0.031
Te-133	I-133	487.400	0.005	0.923	0.040
I-132	Xe-132	488.000	0.008	2.295	0.043
Ba-141	La-141	486.700	0.001	0.304	0.058
Ba-142	La-142	488.300	0.001	0.177	0.058
Nd-151	Pm-151	486.980	0.001	0.207	0.004
Nd-151	Pm-151	488.180	0.001	0.207	0.004
Pm-151	Sm-151	487.100	0.000	28.400	0.004
Sm-153	Eu-153	487.750	0.000	46.500	0.002

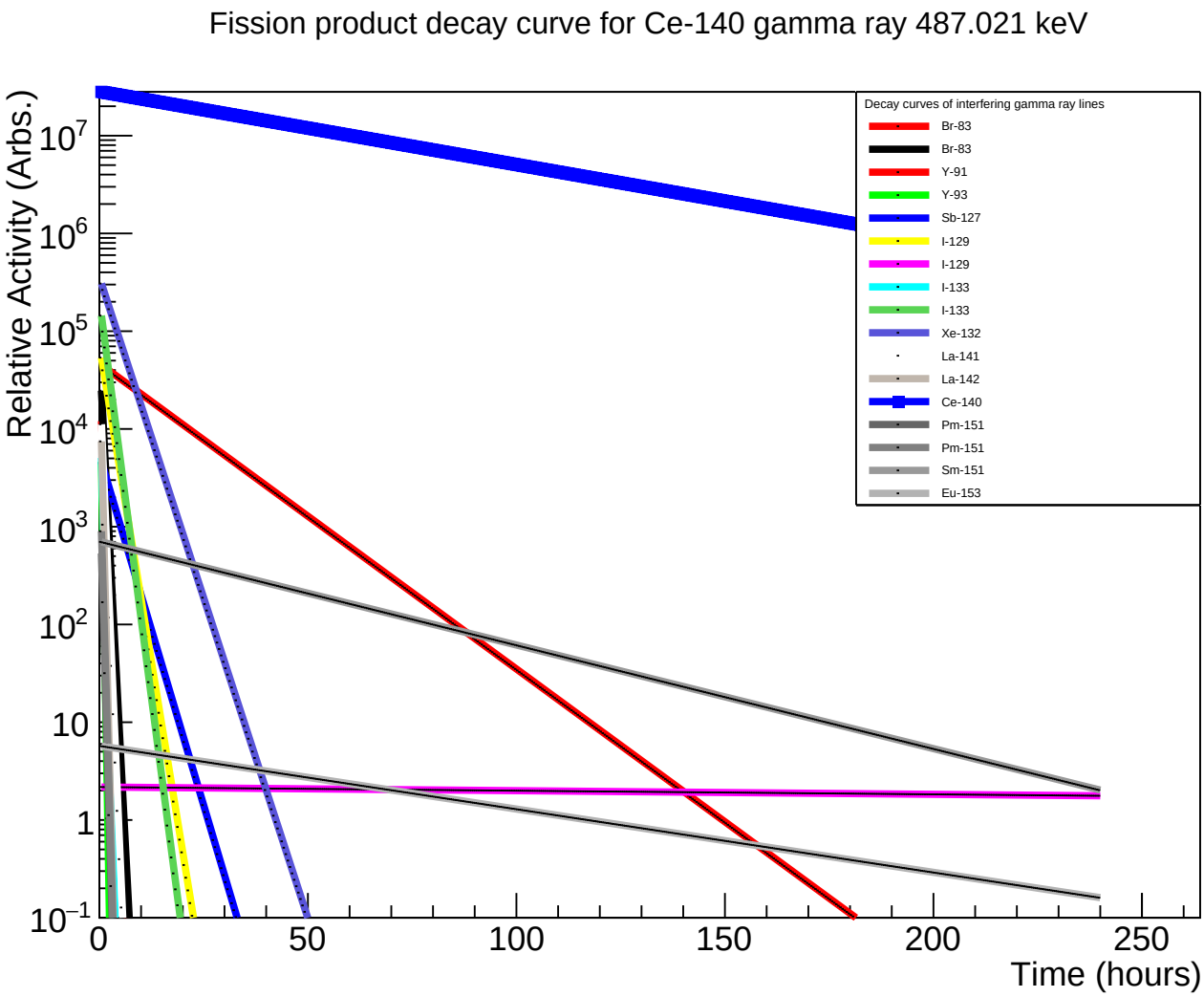


Figure 961: Ce-140 decay curve for 487.021 keV gamma ray.

3.962 La-140 E_γ = 751.64 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 751.64 keV
Gamma Intensity = 4.33 ± 0.038 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1923: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1924: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	752.600	0.014	0.312	0.065
Nb-98	Mo-98	753.000	0.000	0.855	0.000
Ag-112	Cd-112	751.800	0.000	3.130	0.000
Nd-151	Pm-151	751.000	0.000	0.207	0.004
Nd-151	Pm-151	753.000	0.001	0.207	0.004
Pm-151	Sm-151	752.820	0.013	28.400	0.004

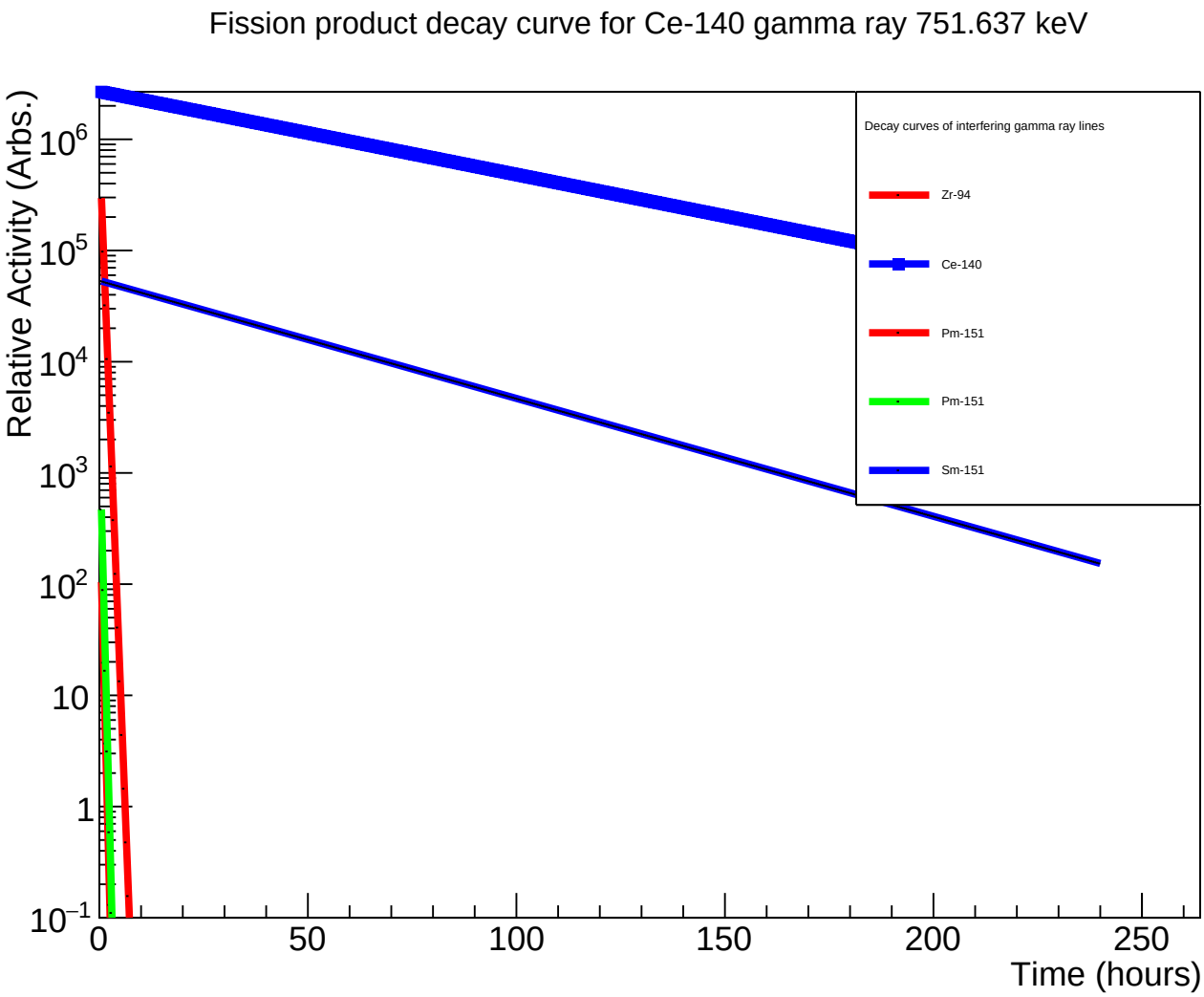


Figure 962: Ce-140 decay curve for 751.637 keV gamma ray.

3.963 La-140 E_γ = 815.77 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 815.77 keV
Gamma Intensity = 23.28 ± 0.192 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1925: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1926: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	814.800	0.000	0.855	0.000
Nb-98	Mo-98	815.500	0.000	0.855	0.000
Mo-101	Tc-101	815.290	0.002	0.243	0.052
Pd-111	Ag-111	816.500	0.000	0.390	0.000
Ag-112	Cd-112	815.800	0.001	3.130	0.000
Sb-127	Te-127	817.000	0.004	92.400	0.002
Sb-130	Te-130	816.300	0.120	0.105	0.010
Te-129	I-129	817.000	0.000	1.160	0.005
Te-129	I-129	817.040	0.001	806.400	0.001
Te-133	I-133	816.340	0.007	0.923	0.040
I-134	Xe-134	816.380	0.006	0.875	0.078
Xe-138	Cs-138	816.060	0.001	0.235	0.063
Pr-146	Nd-146	816.500	0.000	0.403	0.030
Pr-147	Nd-147	814.900	0.001	0.223	0.022
Nd-151	Pm-151	815.400	0.000	0.207	0.004

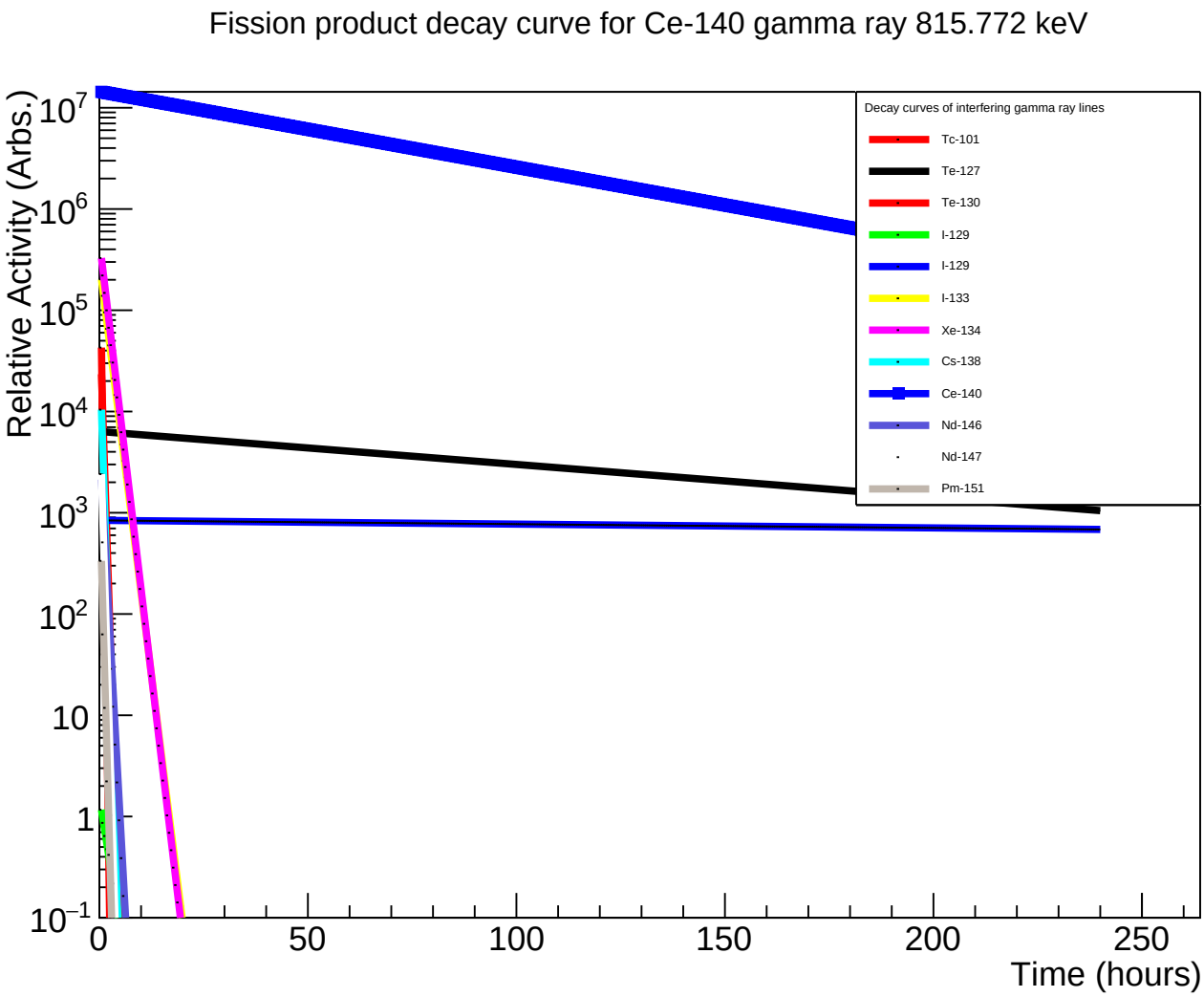


Figure 963: Ce-140 decay curve for 815.772 keV gamma ray.

3.964 La-140 E_γ = 867.85 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 867.85 keV
Gamma Intensity = 5.50 ± 0.067 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1927: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1928: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	866.640	0.082	0.372	0.003
Ag-111	Cd-111	867.000	0.000	178.800	0.000
Ba-141	La-141	867.800	0.001	0.304	0.058
Nd-151	Pm-151	866.400	0.000	0.207	0.004
Nd-151	Pm-151	866.400	0.001	0.207	0.004
Nd-151	Pm-151	867.600	0.001	0.207	0.004
Pm-151	Sm-151	867.100	0.000	28.400	0.004
Eu-156	Gd-156	867.010	0.013	364.560	0.000

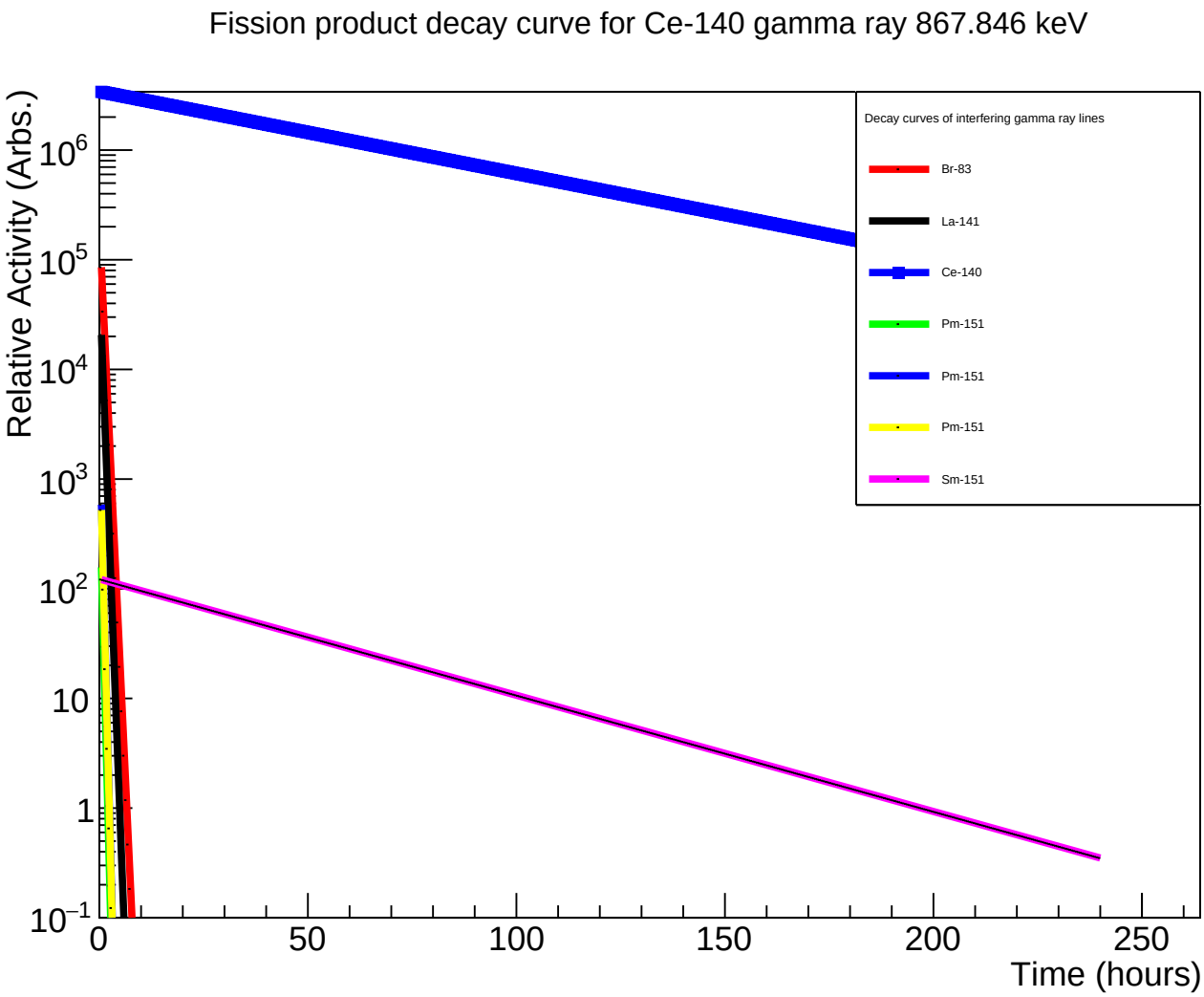


Figure 964: Ce-140 decay curve for 867.846 keV gamma ray.

3.965 La-140 E_γ = 919.55 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 919.55 keV
Gamma Intensity = 2.66 ± 0.029 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1929: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1930: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	918.740	0.560	0.312	0.065
Tc-104	Ru-104	919.000	0.001	0.305	0.019
Ag-112	Cd-112	918.700	0.001	3.130	0.000
Sb-130	Te-130	920.800	0.040	0.105	0.010
Te-129	I-129	918.290	0.000	1.160	0.005
Te-131	I-131	920.620	0.012	33.250	0.004
Pr-145	Nd-145	920.710	0.001	5.984	0.039
Nd-149	Pm-149	920.300	0.000	1.728	0.011
Nd-151	Pm-151	919.930	0.001	0.207	0.004
Pm-151	Sm-151	919.300	0.000	28.400	0.004

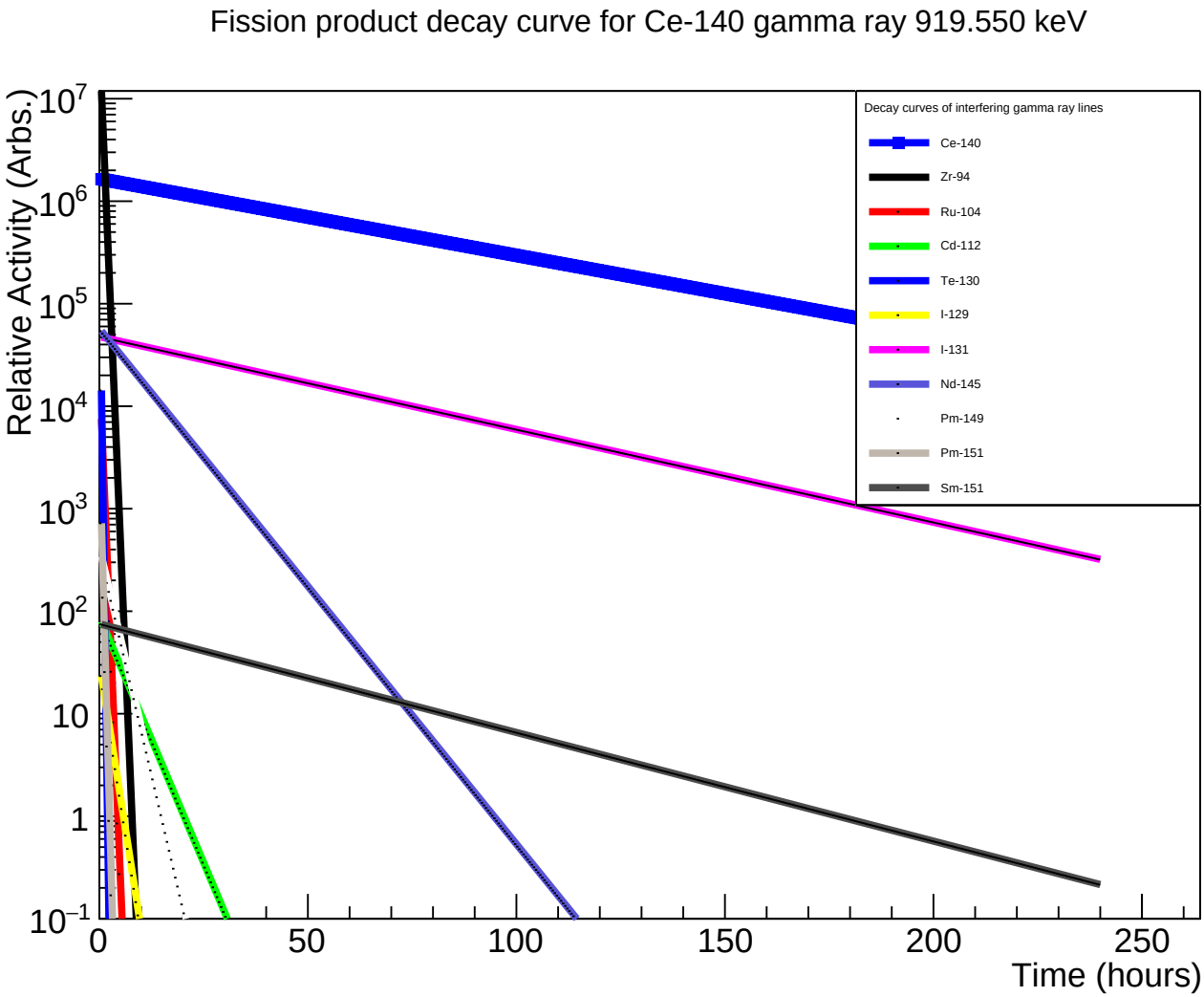


Figure 965: Ce-140 decay curve for 919.550 keV gamma ray.

3.966 La-140 E_γ = 925.19 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 925.19 keV
Gamma Intensity = 6.90 ± 0.067 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1931: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1932: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	925.800	0.039	9.630	0.058
Sb-127	Te-127	924.400	0.005	92.400	0.002
Sb-130	Te-130	926.000	0.004	0.658	0.008
Te-134	I-134	925.550	0.015	0.697	0.070
Cs-139	Ba-139	924.960	0.001	0.155	0.063
Nd-149	Pm-149	923.874	0.001	1.728	0.011
Nd-151	Pm-151	924.400	0.000	0.207	0.004
Nd-151	Pm-151	925.500	0.001	0.207	0.004
Nd-151	Pm-151	925.500	0.000	0.207	0.004
Pm-151	Sm-151	926.100	0.000	28.400	0.004

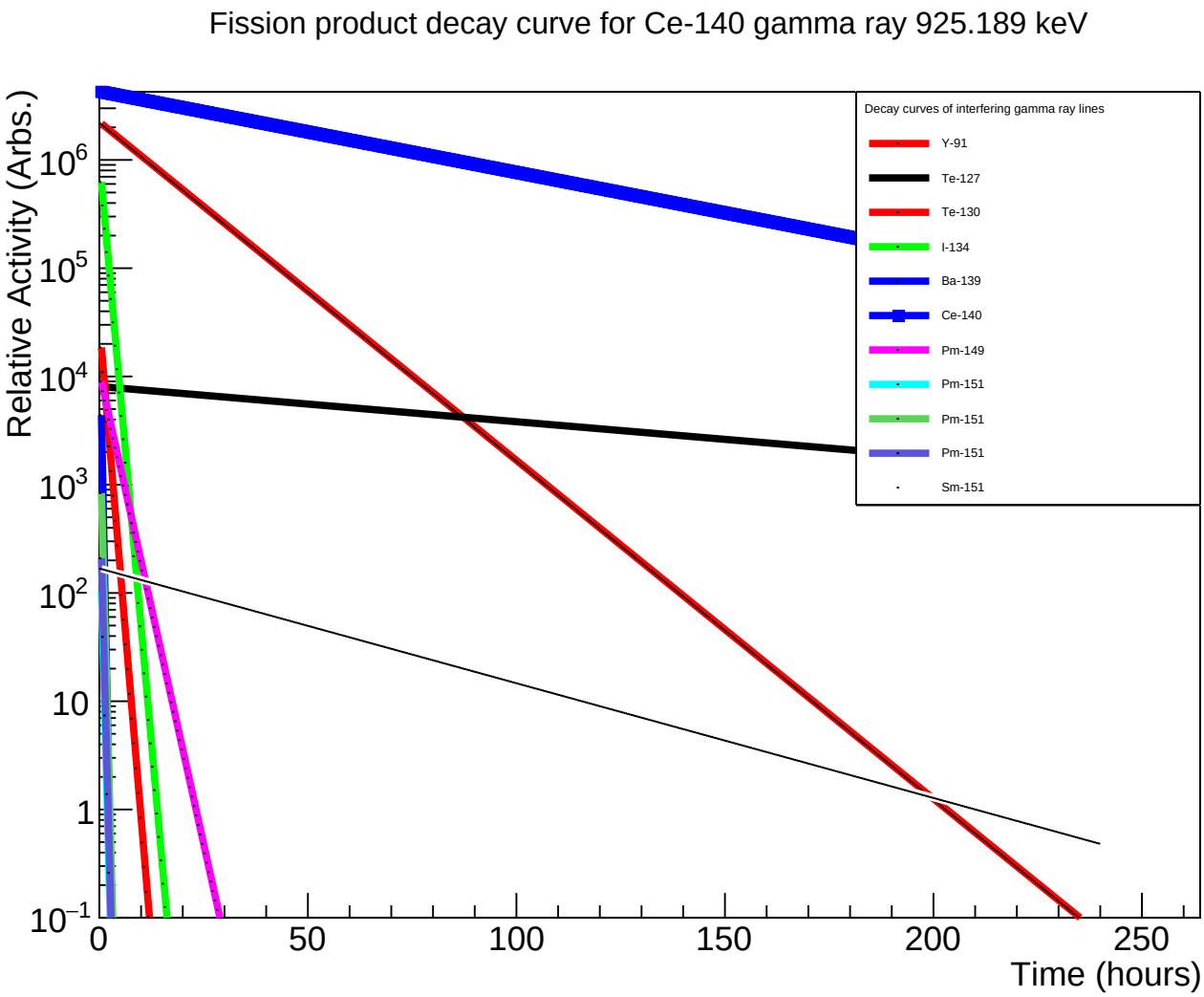


Figure 966: Ce-140 decay curve for 925.189 keV gamma ray.

3.967 La-140 E_γ = 1596.21 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 1596.21 keV
Gamma Intensity = 95.40 ± 0.080 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1933: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1934: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1594.800	0.000	0.243	0.052
Tc-104	Ru-104	1596.700	0.042	0.305	0.019
Ba-139	La-139	1595.300	0.000	1.384	0.064

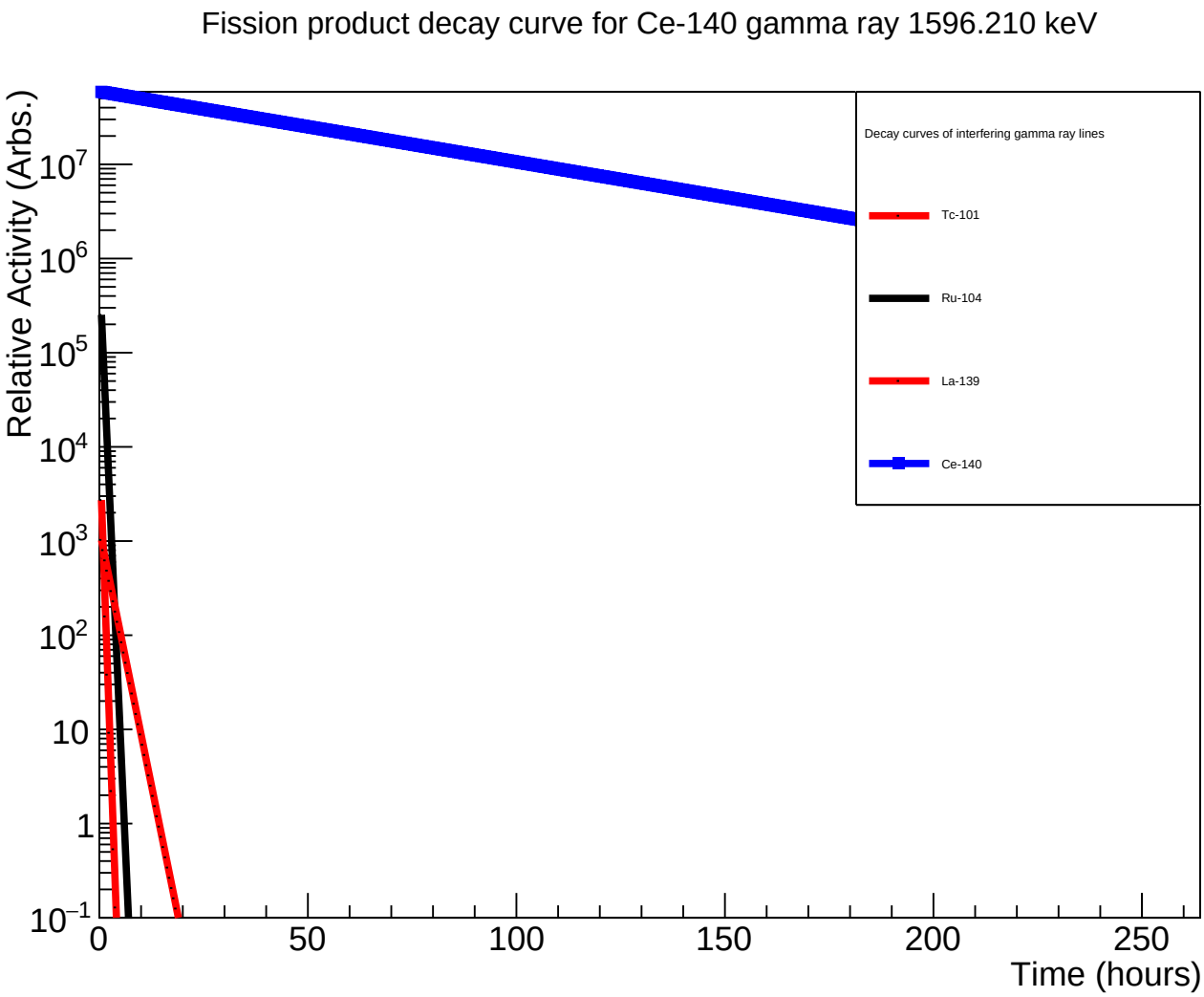


Figure 967: Ce-140 decay curve for 1596.210 keV gamma ray.

3.968 La-140 E_γ = 2521.40 keV

Chemical element: Lanthanum
Fission product parent: La-140
Gamma originates in daughter: Ce-140
Eγ: 2521.40 keV
Gamma Intensity = 3.46 ± 0.038 %
$T_{1/2}$ = 40.285 ± 0.003 hours or 2417.11 ± 0.17 minutes
CFY: 6.220 ± 0.062 %

Table 1935: Decay chain of fission product chain A = 140

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-140	Cesium-140	0.004	0.000
Cesium-140	Barium-140	0.018	0.000
Barium-140	Lanthanum-140	306.065	0.055
Lanthanum-140	Cerium-140	40.285	0.003

Table 1936: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

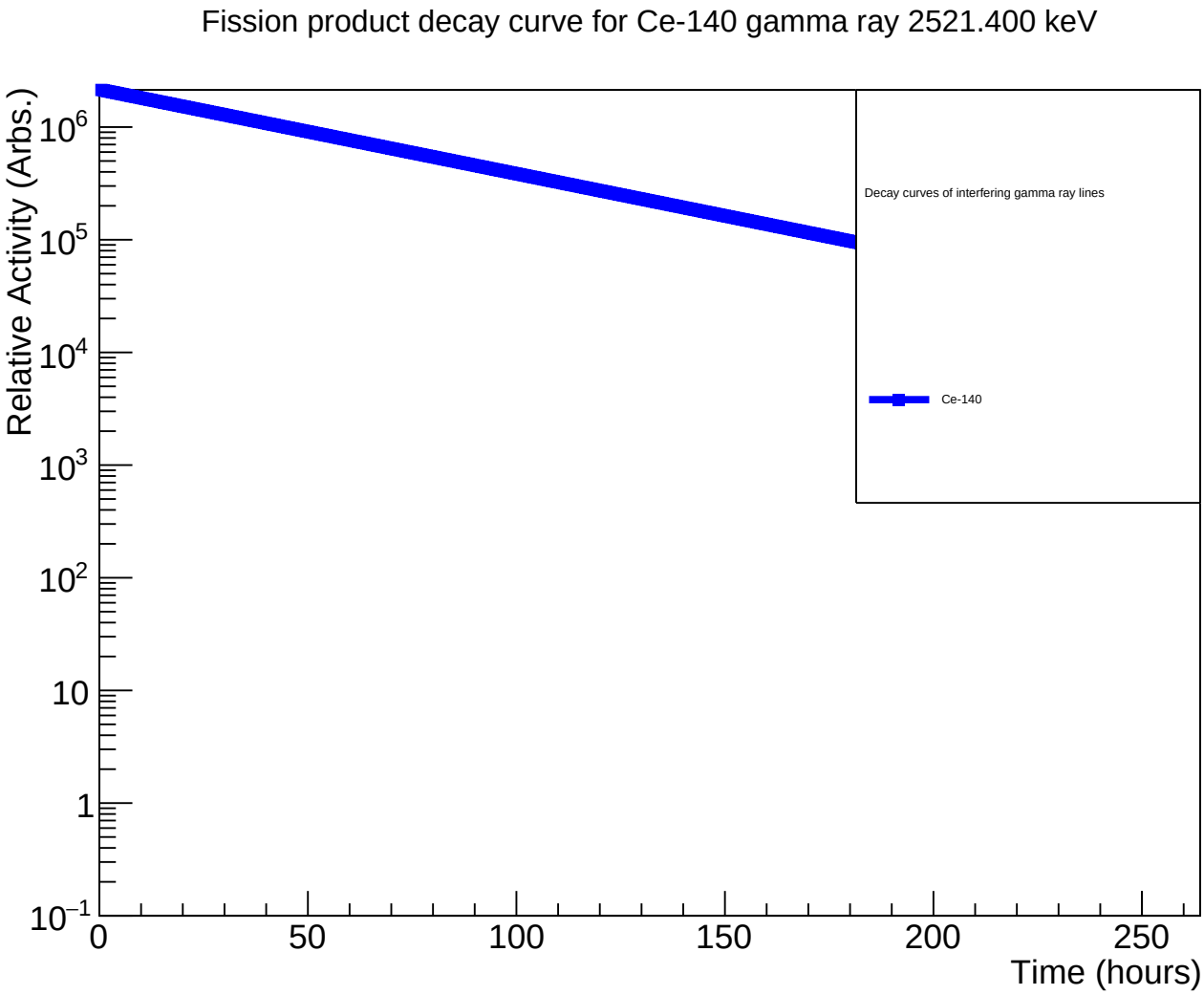


Figure 968: Ce-140 decay curve for 2521.400 keV gamma ray.

3.969 La-141 E_γ = 1354.52 keV

Chemical element: Lanthanum
Fission product parent: La-141
Gamma originates in daughter: Ce-141
Eγ: 1354.52 keV
Gamma Intensity = 1.64 ± 0.070 %
$T_{1/2}$ = 3.920 ± 0.030 hours or 235.20 ± 1.80 minutes
CFY: 5.847 ± 0.117 %

Table 1937: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1938: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1353.500	0.000	9.630	0.058
Mo-101	Tc-101	1355.890	0.017	0.243	0.052
Sb-128	Te-128	1354.600	0.006	0.173	0.003
Cs-139	Ba-139	1353.920	0.000	0.155	0.063

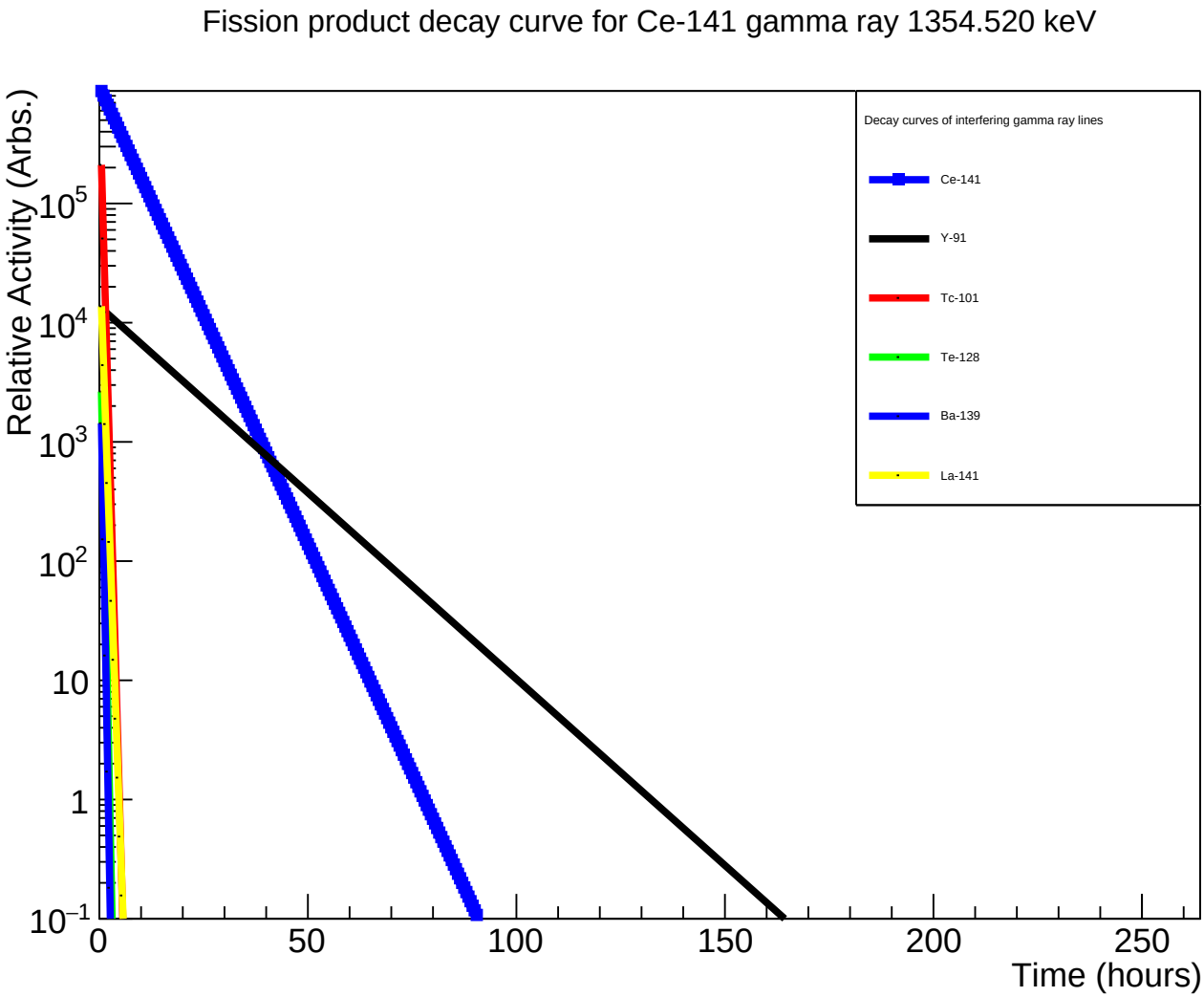


Figure 969: Ce-141 decay curve for 1354.520 keV gamma ray.

3.970 La-142 E_γ = 578.09 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 578.09 keV
Gamma Intensity = 1.33 ± 0.049 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1939: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1940: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	579.040	0.000	2.840	0.036
Tc-105	Ru-105	577.900	0.029	0.127	0.010
Ru-105	Rh-105	577.000	0.000	4.440	0.010
Sn-129	Sb-129	577.900	0.018	0.115	0.002
Pr-147	Nd-147	577.900	0.137	0.223	0.022
Nd-149	Pm-149	579.280	0.001	1.728	0.011
Nd-151	Pm-151	577.360	0.004	0.207	0.004
Nd-152	Pm-152	576.700	0.004	0.190	0.003
Sm-153	Eu-153	578.750	0.000	46.500	0.002

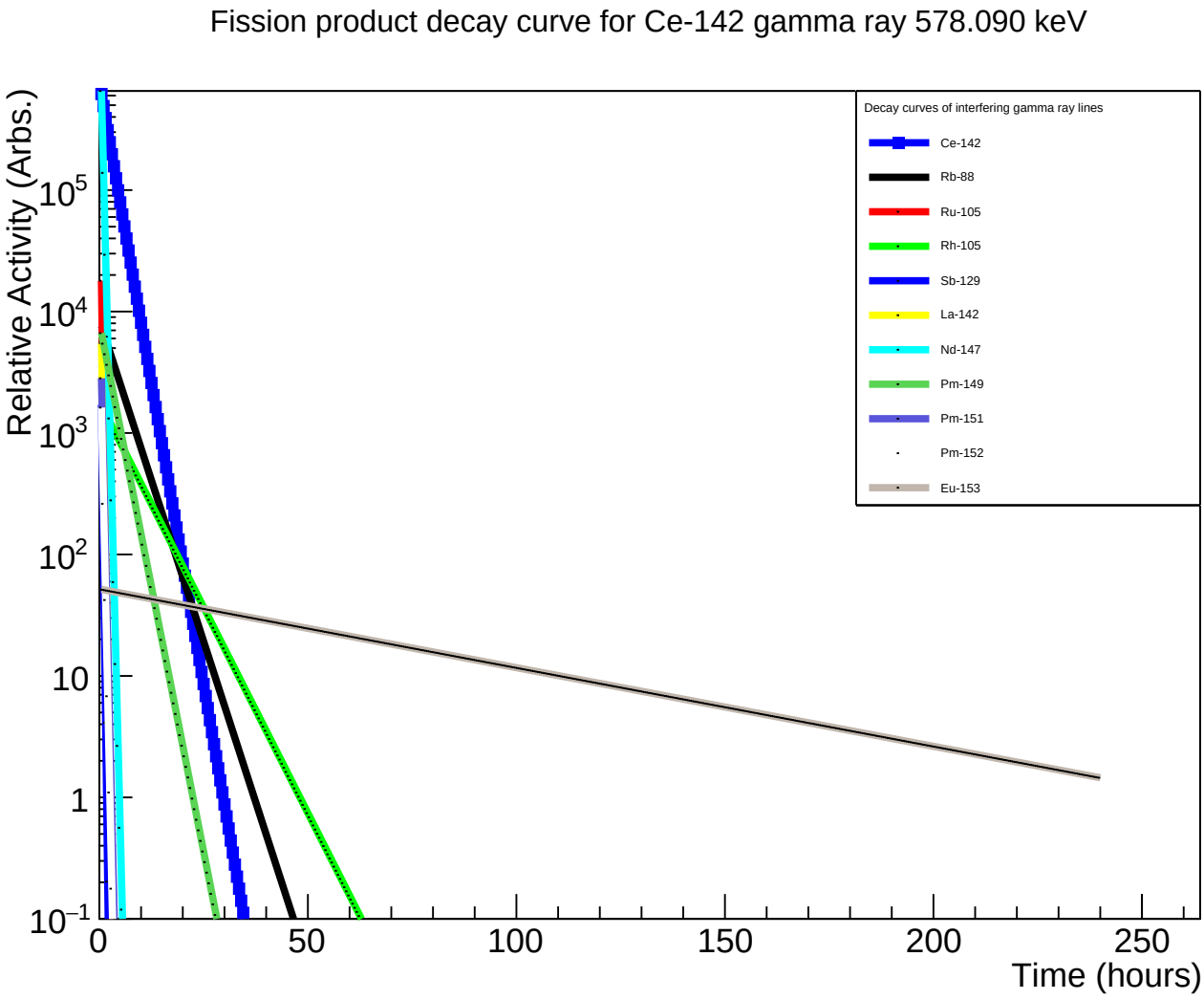


Figure 970: Ce-142 decay curve for 578.090 keV gamma ray.

3.971 La-142 E_γ = 641.28 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 641.28 keV
Gamma Intensity = 47.40 ± 0.500 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1941: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1942: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	642.710	0.012	0.243	0.052
Tc-105	Ru-105	640.200	0.026	0.127	0.010
Pd-111	Ag-111	641.700	0.001	0.390	0.000
Sb-131	Te-131	642.300	0.235	0.384	0.026
Te-133	I-133	642.330	0.008	0.923	0.040
I-131	Xe-131	642.719	0.002	192.605	0.029
Ba-141	La-141	641.500	0.004	0.304	0.058
Pr-147	Nd-147	641.400	0.156	0.223	0.022

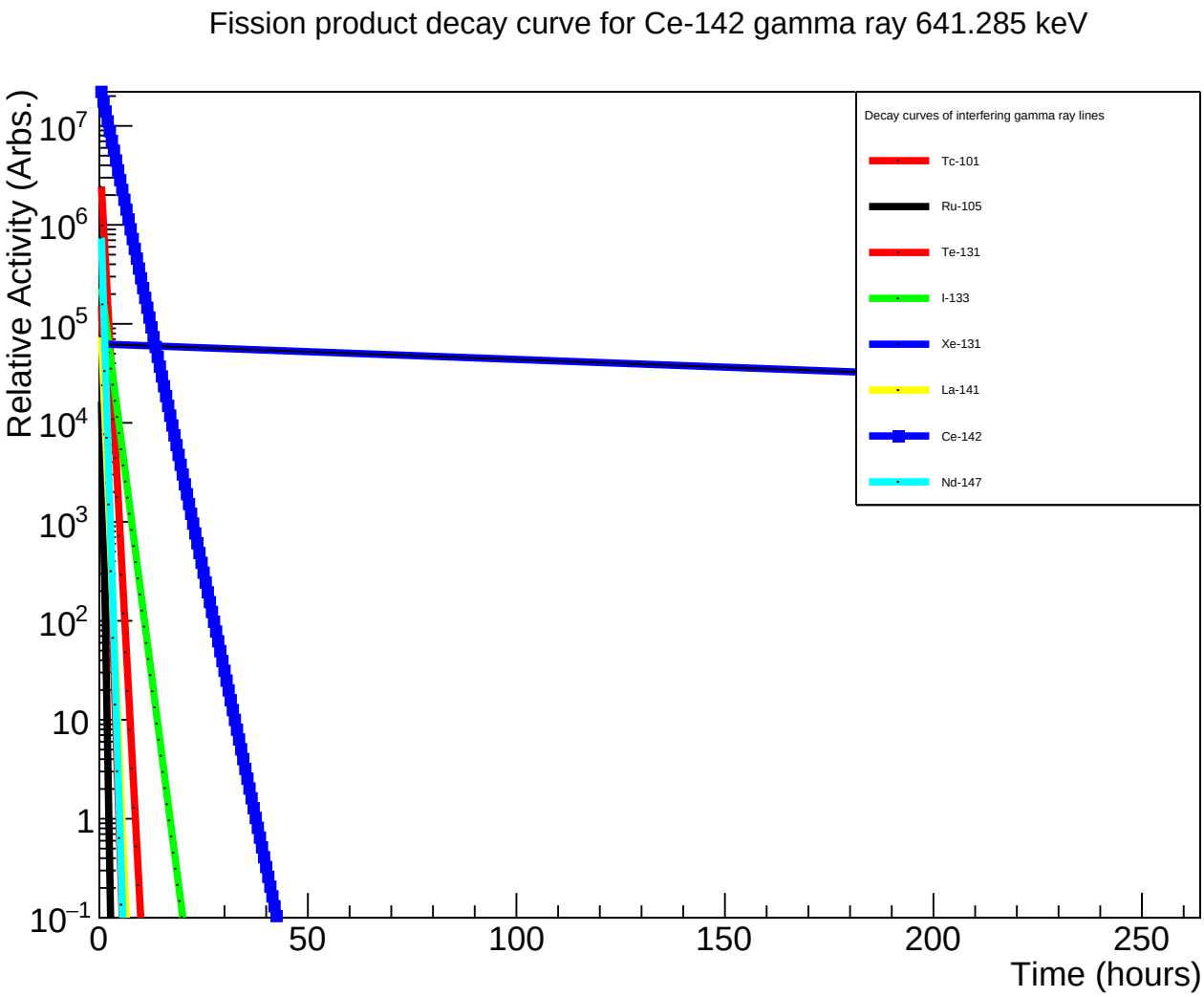


Figure 971: Ce-142 decay curve for 641.285 keV gamma ray.

3.972 La-142 E_γ = 861.60 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 861.60 keV
Gamma Intensity = 1.66 ± 0.051 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1943: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1944: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	862.327	0.007	2.840	0.036
Nb-98	Mo-98	862.400	0.001	0.855	0.000
Mo-99	Tc-99	861.200	0.000	65.976	0.061
Pd-109	Ag-109	862.500	0.000	13.701	0.000
Ag-112	Cd-112	861.600	0.002	3.130	0.000
Sn-129	Sb-129	862.700	0.012	0.115	0.002
Sb-128	Te-128	860.800	0.004	9.010	0.000
Sb-130	Te-130	861.600	0.004	0.105	0.010
Te-133	I-133	860.200	0.001	0.208	0.031
I-132	Xe-132	863.000	0.006	2.295	0.043
Nd-149	Pm-149	861.540	0.000	1.728	0.011
Sm-155	Eu-155	861.100	0.000	0.372	0.000

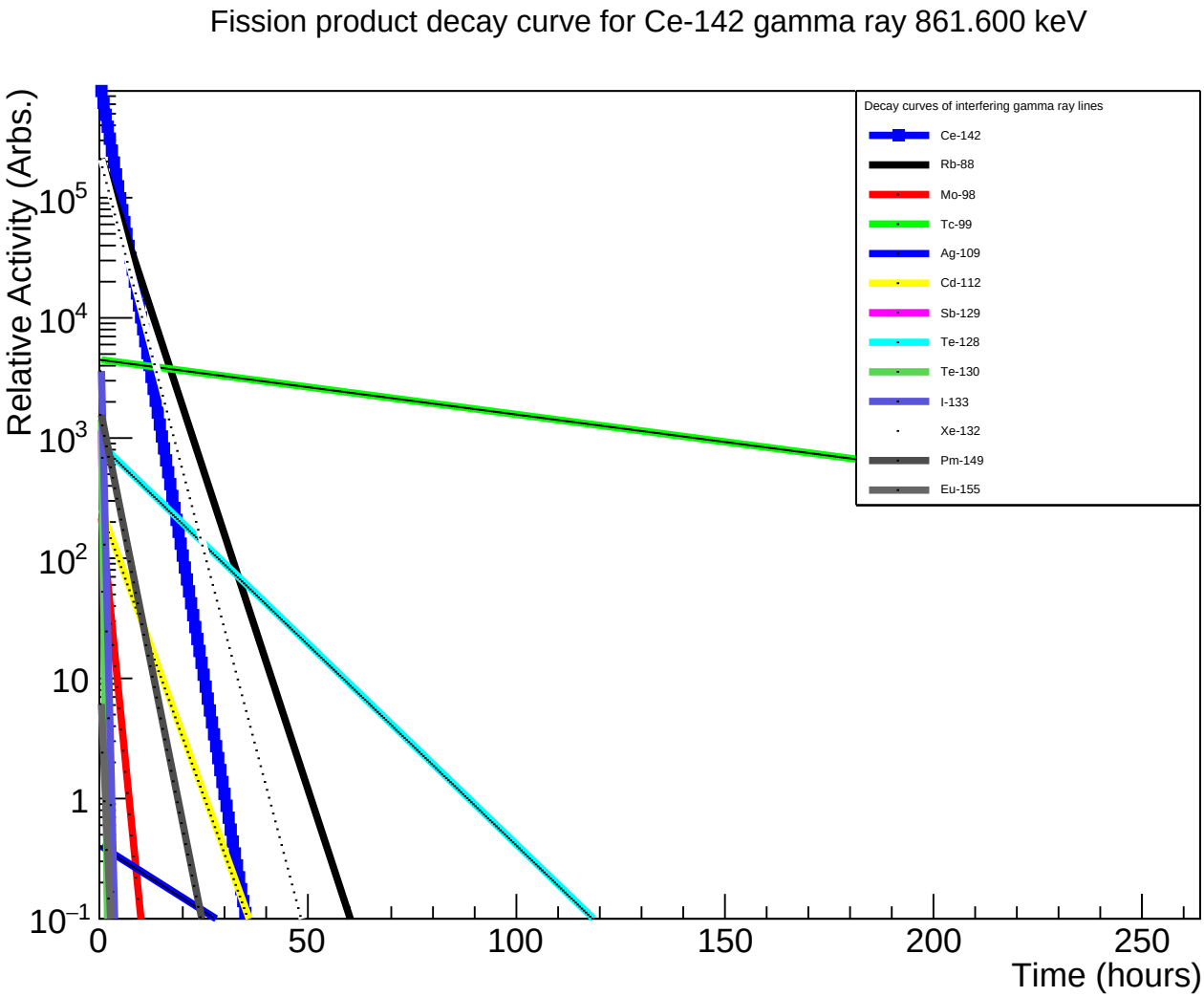


Figure 972: Ce-142 decay curve for 861.600 keV gamma ray.

3.973 La-142 E_γ = 894.90 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 894.90 keV
Gamma Intensity = 8.34 ± 0.167 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1945: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1946: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-87	Rb-87	894.020	0.000	1.272	0.026
Mo-101	Tc-101	894.400	0.001	0.243	0.052
Mo-101	Tc-101	895.890	0.002	0.243	0.052
Tc-105	Ru-105	896.000	0.016	0.127	0.010
Ag-113	Cd-113	896.100	0.001	5.370	0.000
Sn-125	Sb-125	893.400	0.003	231.360	0.000
Te-134	I-134	896.020	0.004	0.697	0.070
Pm-151	Sm-151	894.100	0.000	28.400	0.004

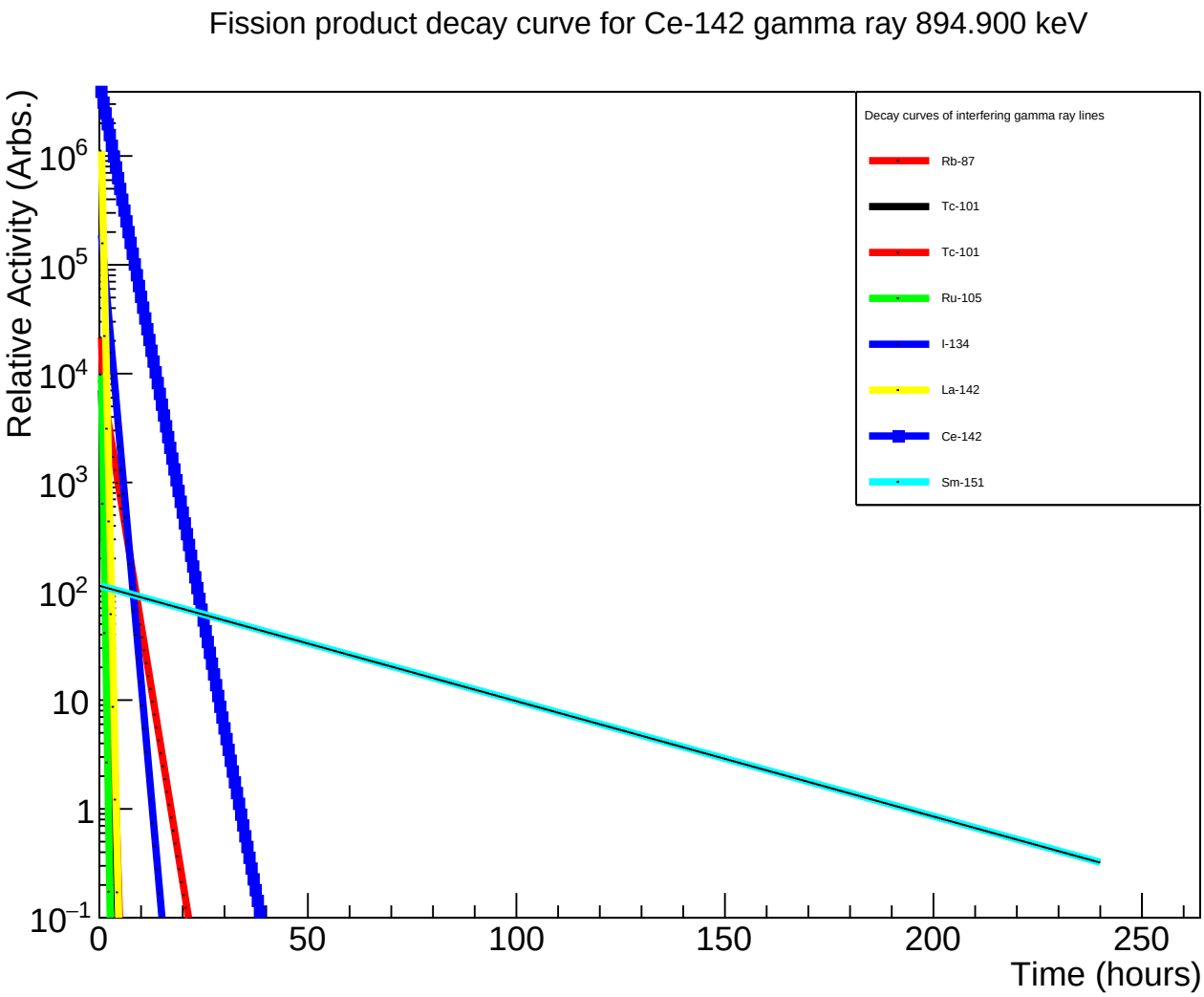


Figure 973: Ce-142 decay curve for 894.900 keV gamma ray.

3.974 La-142 E_γ = 1011.40 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1011.40 keV
Gamma Intensity = 3.93 ± 0.103 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1947: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1948: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1011.050	0.009	0.243	0.052
Mo-101	Tc-101	1012.470	0.130	0.243	0.052
Pd-109	Ag-109	1010.000	0.000	13.701	0.000
Ba-141	La-141	1012.500	0.001	0.304	0.058
Pr-145	Nd-145	1011.000	0.000	5.984	0.039
Pr-145	Nd-145	1012.745	0.000	5.984	0.039
Pr-146	Nd-146	1012.700	0.001	0.403	0.030
Nd-151	Pm-151	1010.800	0.000	0.207	0.004
Nd-151	Pm-151	1012.700	0.000	0.207	0.004
Pm-151	Sm-151	1012.200	0.000	28.400	0.004
Eu-156	Gd-156	1011.870	0.003	364.560	0.000

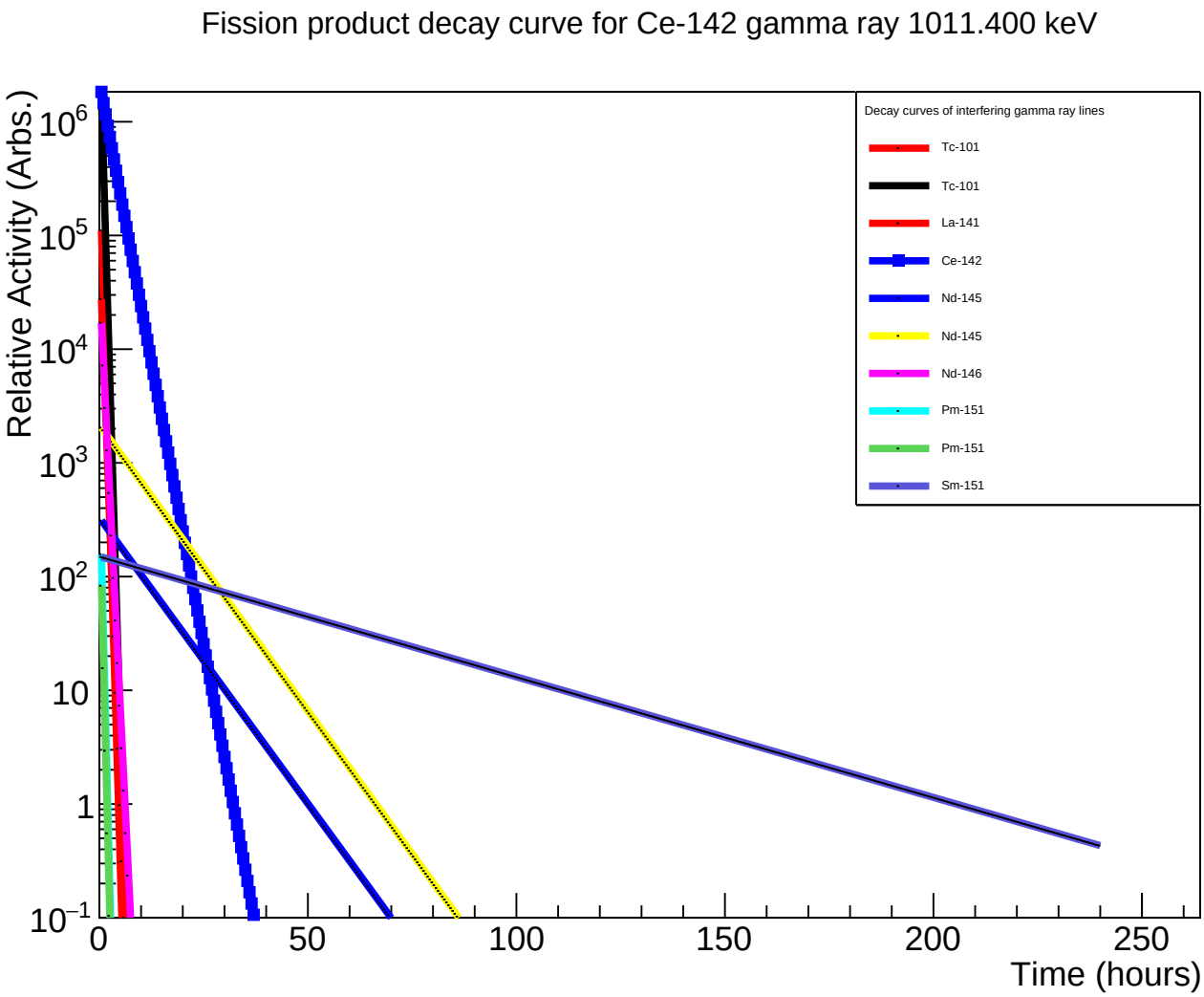


Figure 974: Ce-142 decay curve for 1011.400 keV gamma ray.

3.975 La-142 E_γ = 1043.70 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1043.70 keV
Gamma Intensity = 2.70 ± 0.055 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1949: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1950: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	1044.900	0.003	2.100	0.001
Ba-139	La-139	1042.900	0.000	1.384	0.064
Nd-151	Pm-151	1044.300	0.000	0.207	0.004
Nd-151	Pm-151	1045.000	0.000	0.207	0.004

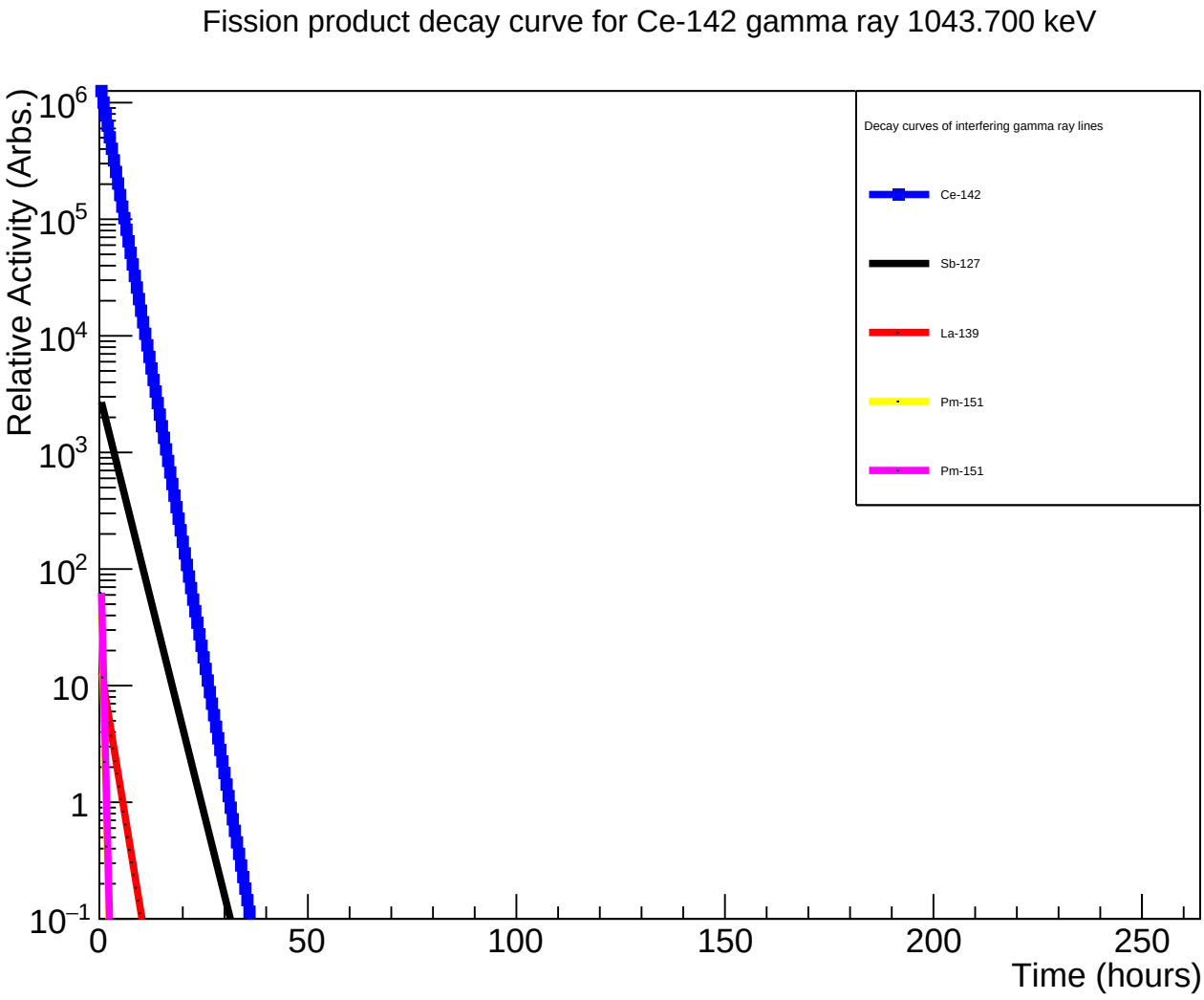


Figure 975: Ce-142 decay curve for 1043.700 keV gamma ray.

3.976 La-142 E_γ = 1160.20 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1160.20 keV
Gamma Intensity = 1.71 ± 0.051 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1951: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1952: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1160.980	0.040	0.243	0.052
Sn-127	Sb-127	1159.200	0.009	2.100	0.001
Sn-127	Sb-127	1160.400	0.024	2.100	0.001
Sn-129	Sb-129	1161.310	0.520	0.115	0.002
I-134	Xe-134	1159.100	0.003	0.875	0.078
I-135	Xe-135	1159.900	0.001	6.570	0.063
Xe-138	Cs-138	1160.960	0.001	0.235	0.063
Cs-139	Ba-139	1159.300	0.000	0.155	0.063
Ba-141	La-141	1160.800	0.011	0.304	0.058
Ce-143	Pr-143	1160.580	0.000	33.039	0.060
Pr-145	Nd-145	1161.040	0.000	5.984	0.039
Nd-151	Pm-151	1159.400	0.001	0.207	0.004
Sm-155	Eu-155	1159.700	0.000	0.372	0.000

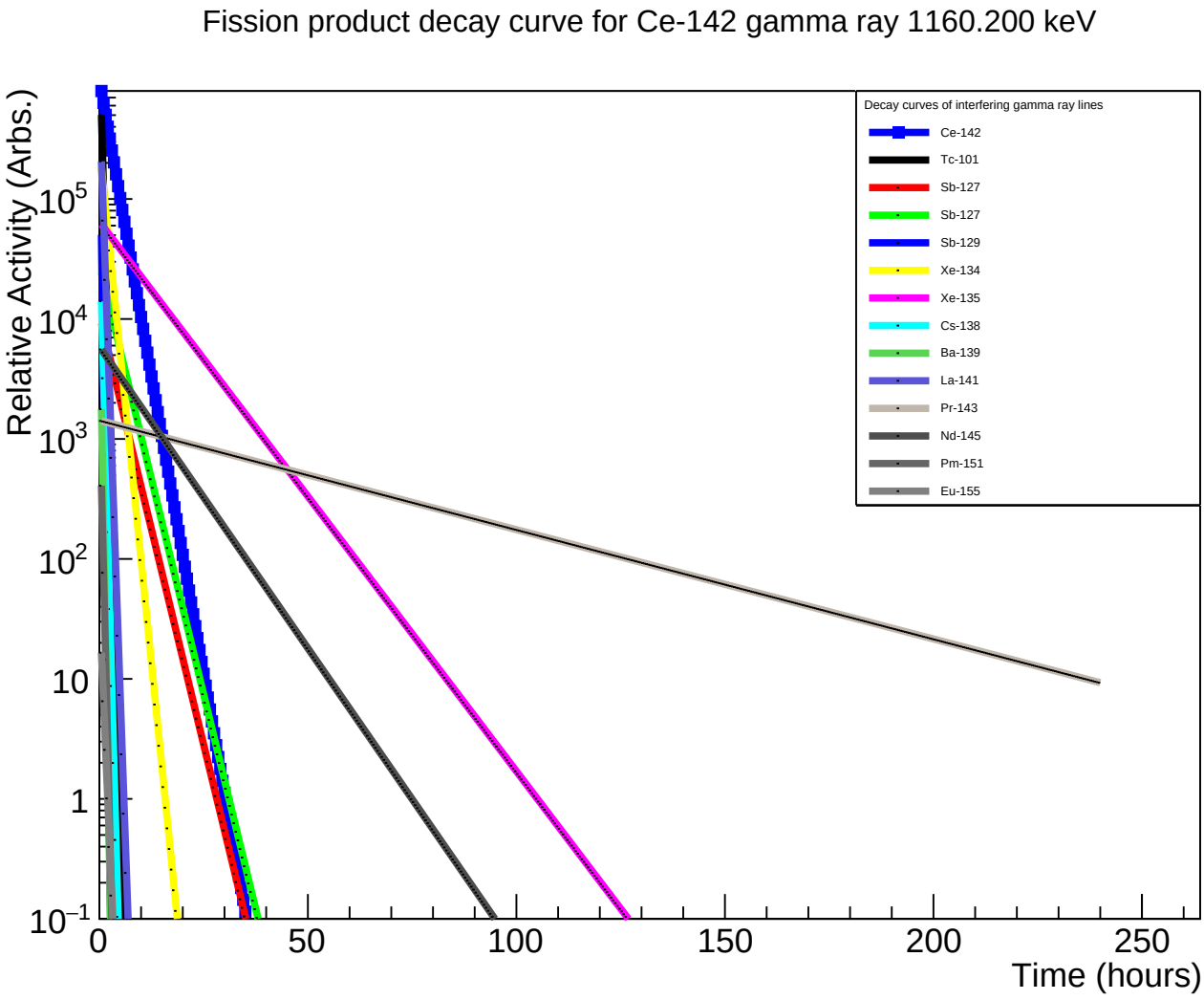


Figure 976: Ce-142 decay curve for 1160.200 keV gamma ray.

3.977 La-142 E_γ = 1233.10 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1233.10 keV
Gamma Intensity = 1.90 ± 0.051 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1953: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1954: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	1234.000	0.000	0.252	0.047
Y-94	Zr-94	1232.600	0.003	0.312	0.065
Sb-131	Te-131	1233.760	0.023	0.384	0.026
Te-129	I-129	1232.820	0.000	1.160	0.005
Ba-141	La-141	1233.200	0.000	0.304	0.058
Nd-149	Pm-149	1234.120	0.000	1.728	0.011
Nd-151	Pm-151	1232.600	0.001	0.207	0.004
Nd-151	Pm-151	1234.100	0.000	0.207	0.004

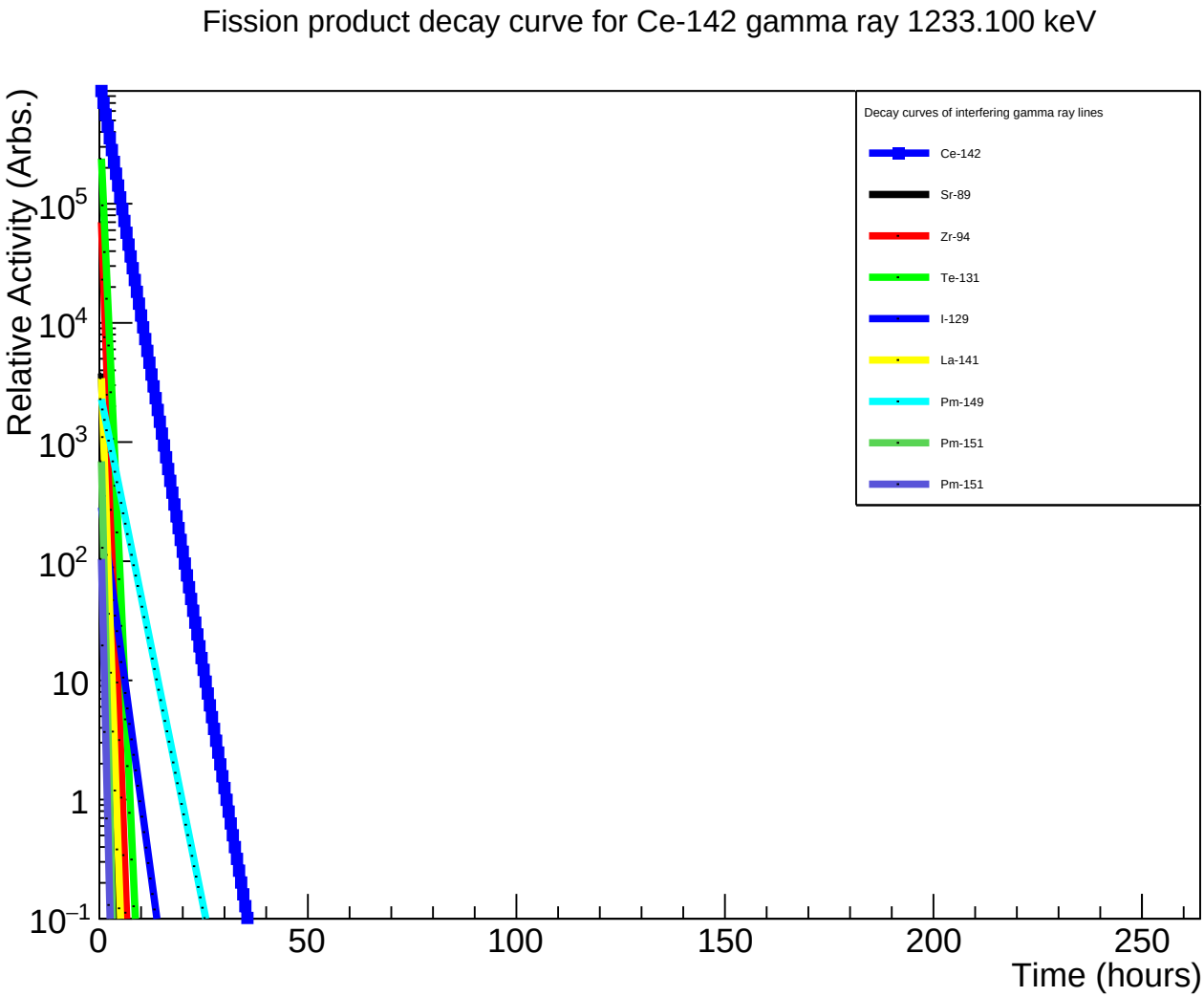


Figure 977: Ce-142 decay curve for 1233.100 keV gamma ray.

3.978 La-142 E_γ = 1363.00 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1363.00 keV
Gamma Intensity = 2.13 ± 0.052 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1955: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1956: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1362.680	0.010	16.749	0.060
Tc-104	Ru-104	1363.300	0.002	0.305	0.019
Xe-138	Cs-138	1361.900	0.000	0.235	0.063
Nd-151	Pm-151	1362.780	0.003	0.207	0.004

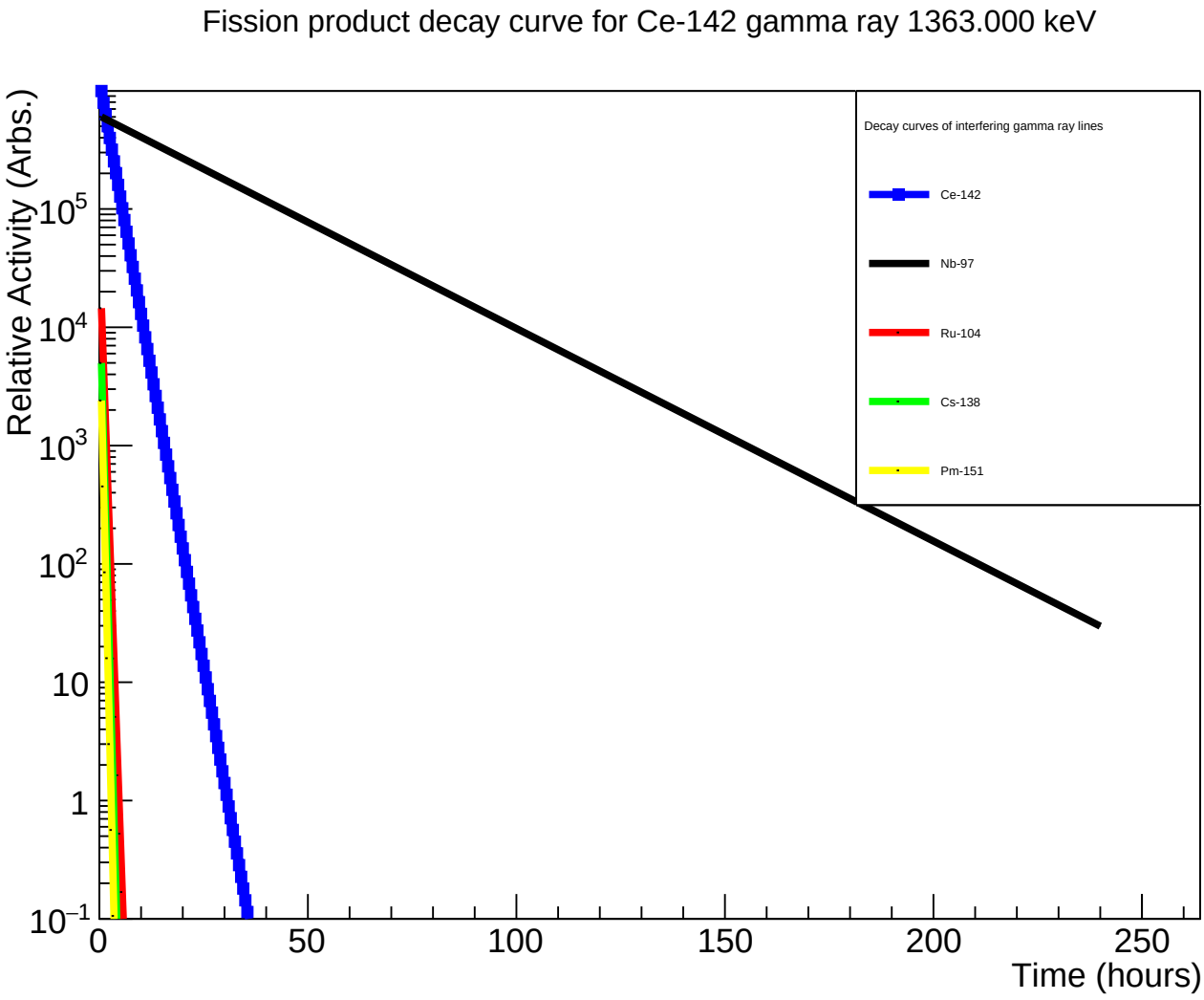


Figure 978: Ce-142 decay curve for 1363.000 keV gamma ray.

3.979 La-142 E_γ = 1545.80 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1545.80 keV
Gamma Intensity = 2.99 ± 0.146 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1957: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1958: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1545.900	0.001	9.630	0.058
Nb-98	Mo-98	1546.030	0.039	0.855	0.000
Cs-139	Ba-139	1546.630	0.000	0.155	0.063
Ba-141	La-141	1547.100	0.000	0.304	0.058

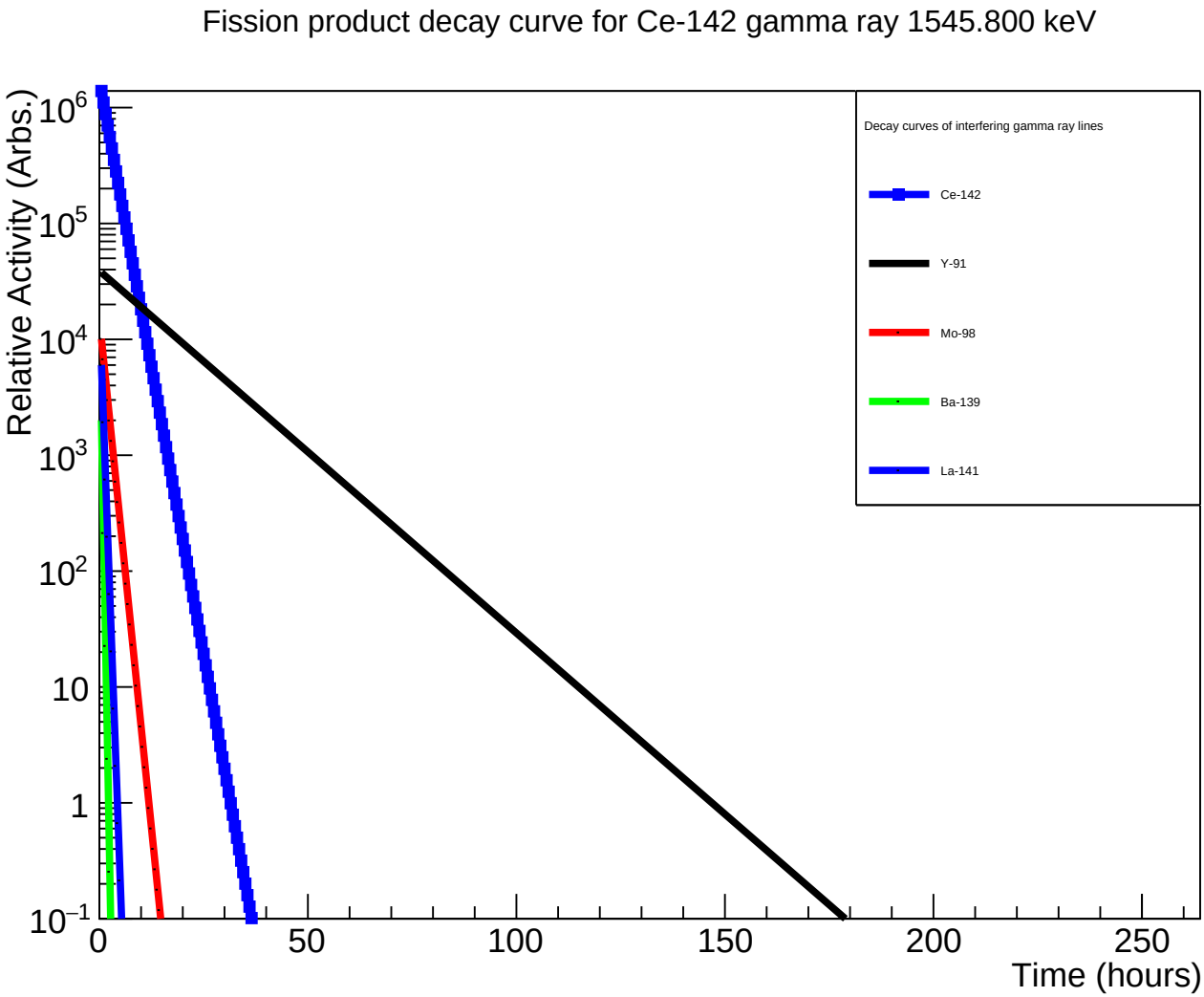


Figure 979: Ce-142 decay curve for 1545.800 keV gamma ray.

3.980 La-142 E_γ = 1722.70 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1722.70 keV
Gamma Intensity = 1.52 ± 0.050 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1959: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1960: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	1724.000	0.002	9.630	0.058
Y-95	Zr-95	1721.400	0.003	0.172	0.064
Mo-101	Tc-101	1722.100	0.000	0.243	0.052
Tc-104	Ru-104	1722.700	0.007	0.305	0.019
Ru-105	Rh-105	1721.360	0.000	4.440	0.010
Sb-131	Te-131	1721.800	0.024	0.384	0.026
Te-133	I-133	1722.000	0.001	0.208	0.031
Cs-139	Ba-139	1722.550	0.001	0.155	0.063

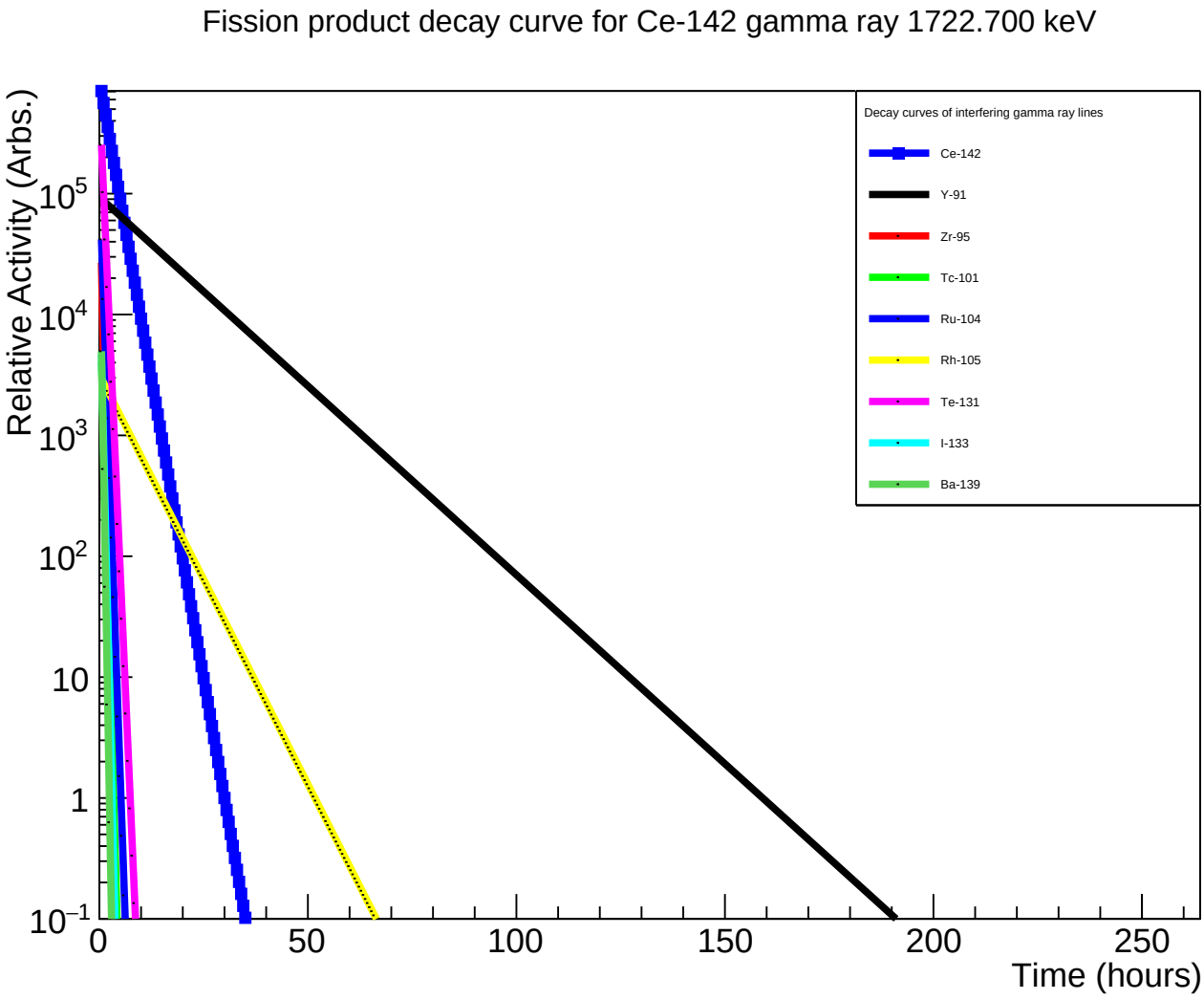


Figure 980: Ce-142 decay curve for 1722.700 keV gamma ray.

3.981 La-142 E_γ = 1756.40 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1756.40 keV
Gamma Intensity = 2.70 ± 0.055 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1961: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1962: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	1754.900	0.004	0.243	0.052
Sb-131	Te-131	1756.100	0.011	0.384	0.026
Te-133	I-133	1754.900	0.000	0.208	0.031
I-132	Xe-132	1757.400	0.003	2.295	0.043
Nd-151	Pm-151	1756.820	0.000	0.207	0.004

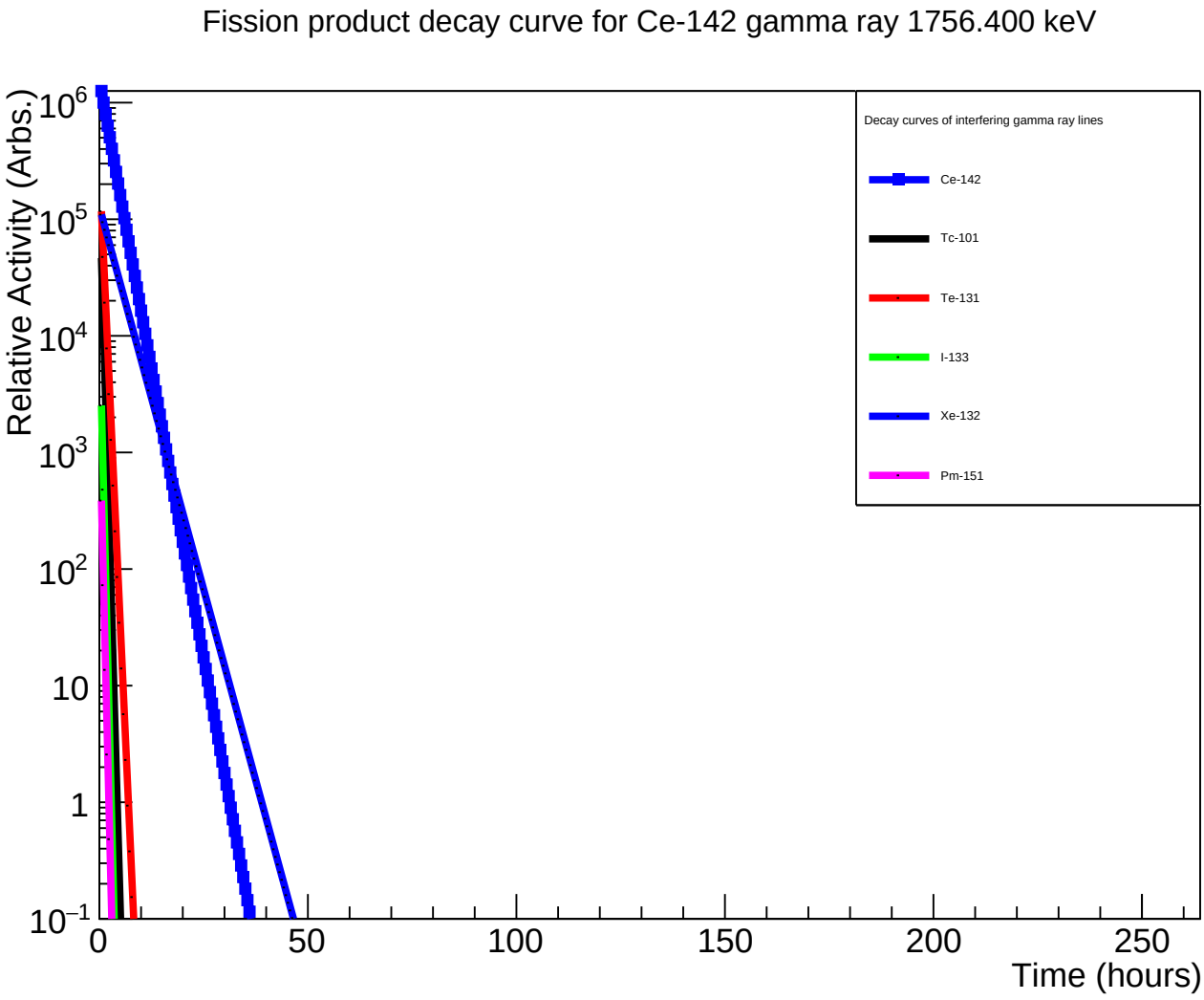


Figure 981: Ce-142 decay curve for 1756.400 keV gamma ray.

3.982 La-142 E_γ = 1901.30 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 1901.30 keV
Gamma Intensity = 7.16 ± 0.161 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1963: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1964: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pr-146	Nd-146	1902.400	0.001	0.403	0.030

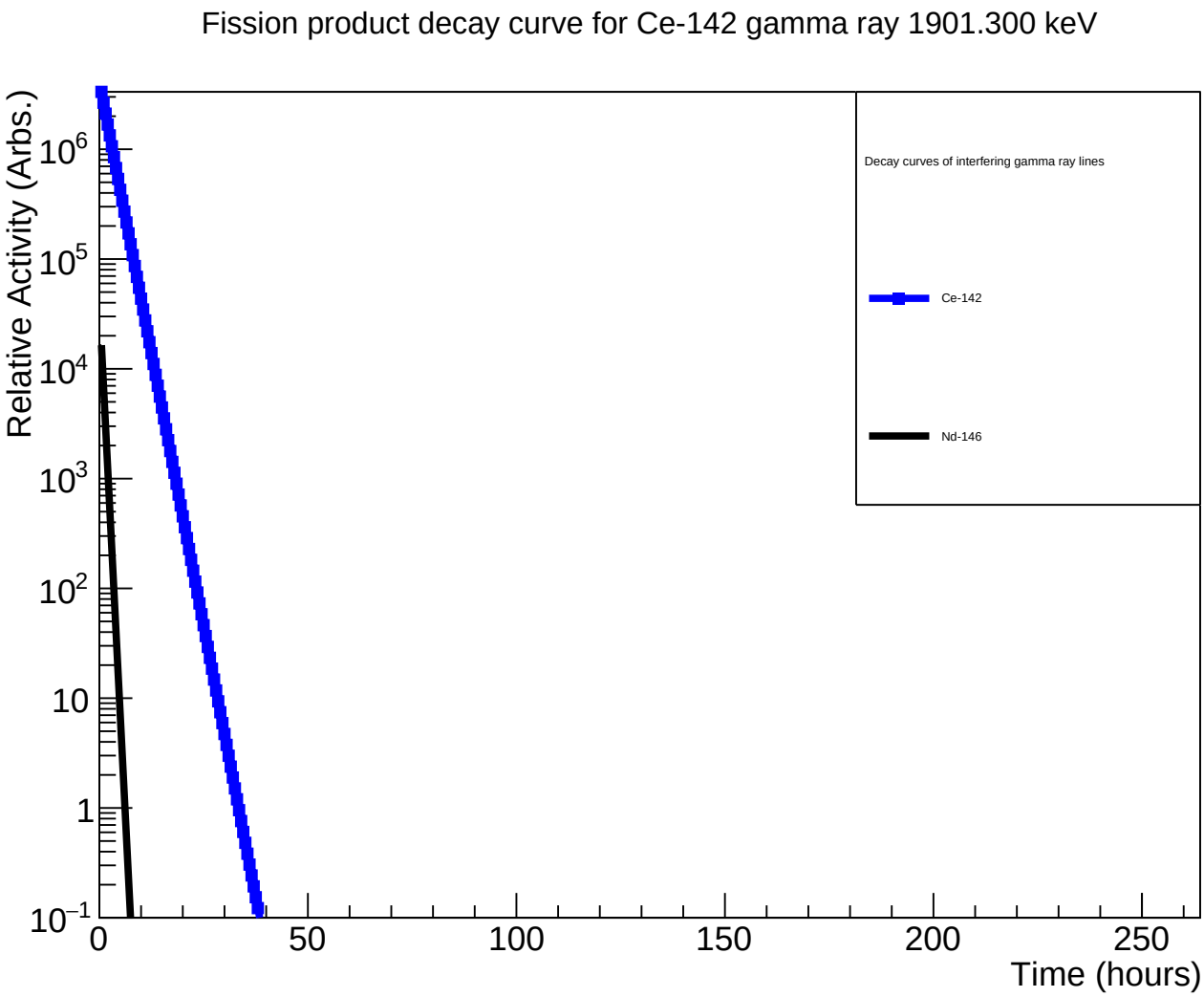


Figure 982: Ce-142 decay curve for 1901.300 keV gamma ray.

3.983 La-142 E_γ = 2055.20 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2055.20 keV
Gamma Intensity = 2.18 ± 0.098 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1965: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1966: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2055.500	0.001	0.855	0.000
Tc-105	Ru-105	2053.900	0.015	0.127	0.010
Ag-112	Cd-112	2056.500	0.006	3.130	0.000

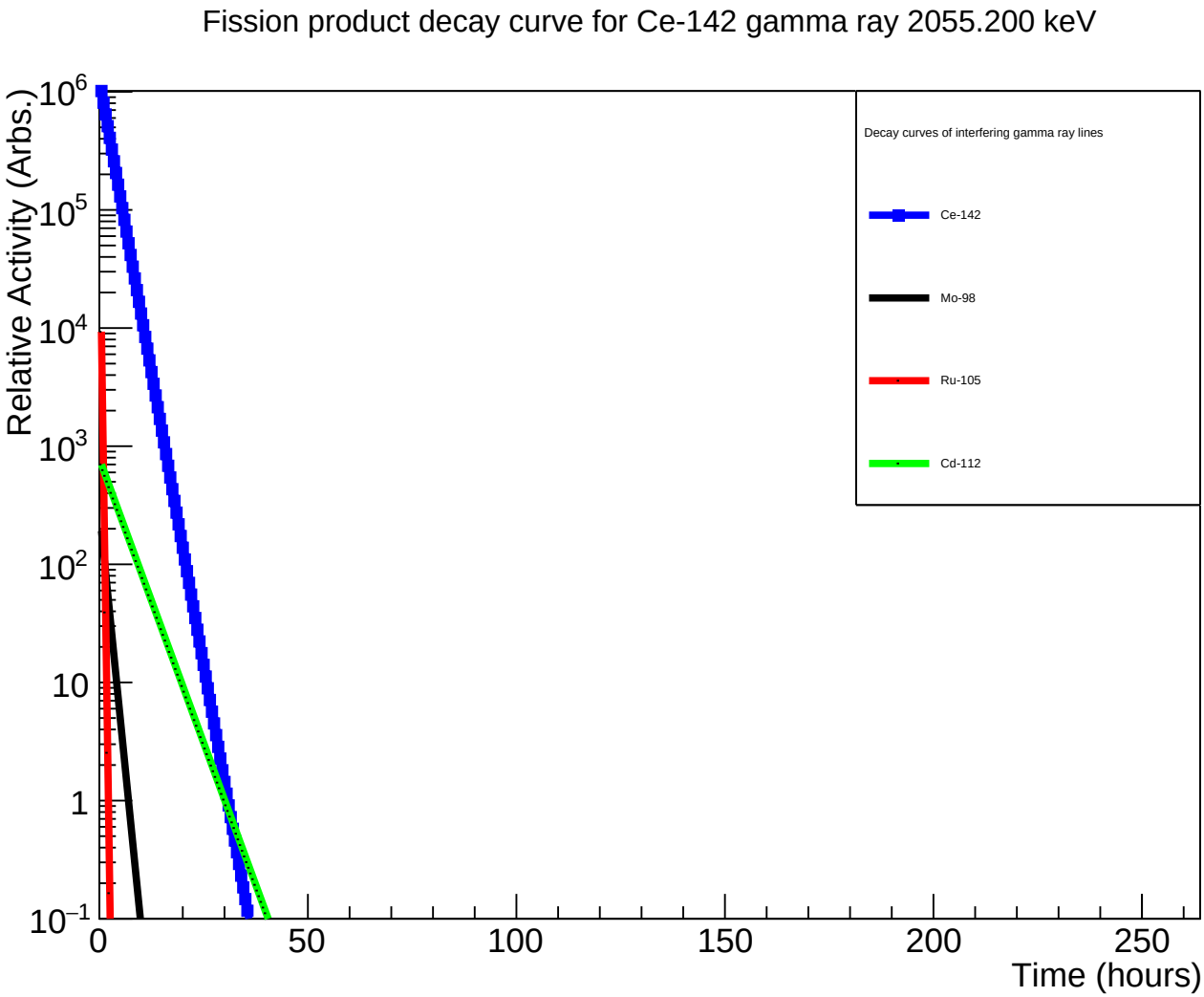


Figure 983: Ce-142 decay curve for 2055.200 keV gamma ray.

3.984 La-142 E_γ = 2100.40 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2100.40 keV
Gamma Intensity = 1.04 ± 0.095 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1967: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1968: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cs-139	Ba-139	2100.130	0.000	0.155	0.063

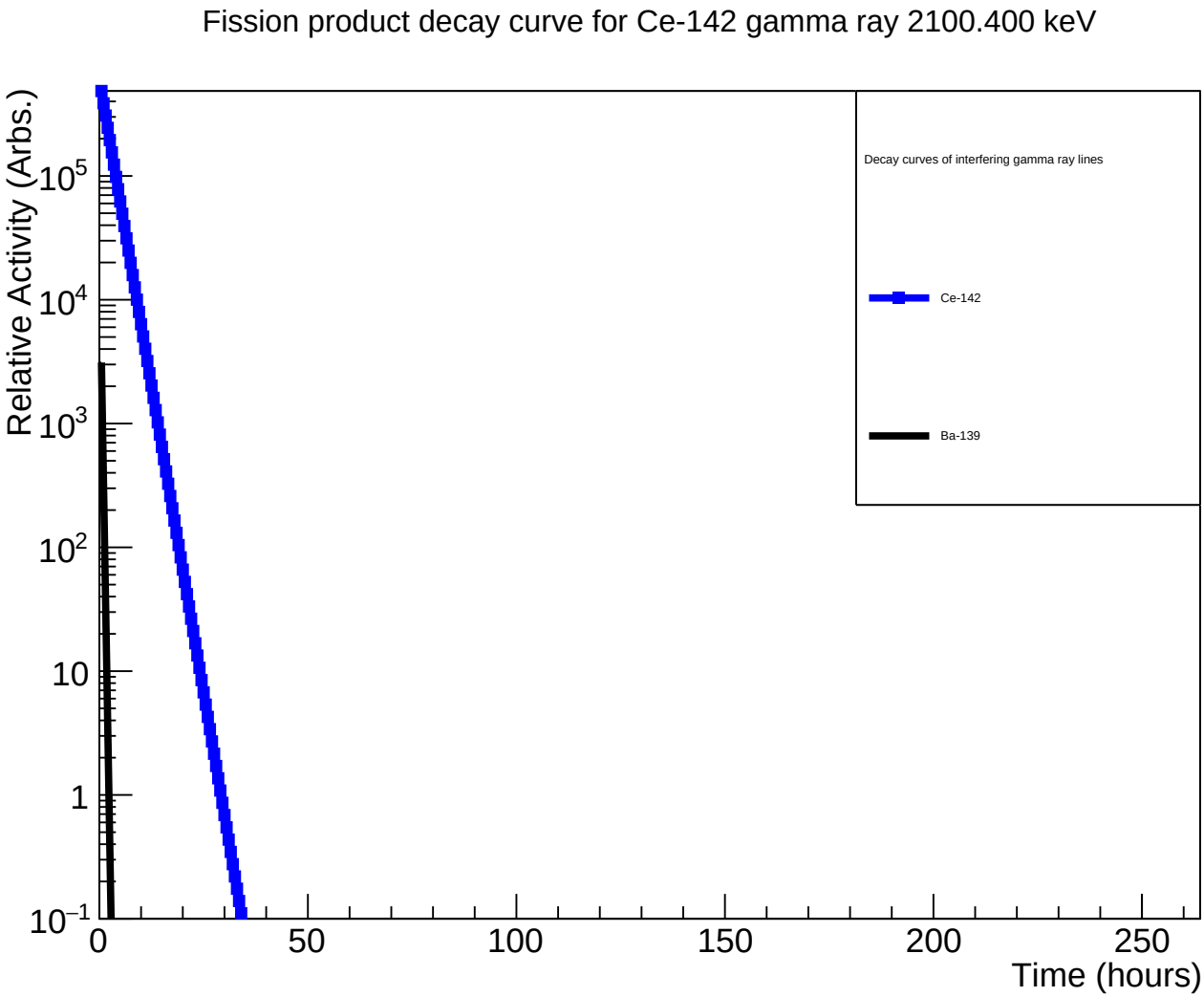


Figure 984: Ce-142 decay curve for 2100.400 keV gamma ray.

3.985 La-142 E_γ = 2187.20 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2187.20 keV
Gamma Intensity = 3.70 ± 0.103 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1969: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1970: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	2187.800	0.004	1.512	0.000
Kr-88	Rb-88	2186.500	0.003	2.840	0.036
Y-90	Zr-90	2186.242	0.000	64.000	0.058
I-132	Xe-132	2187.000	0.000	2.295	0.043
Nd-151	Pm-151	2186.200	0.000	0.207	0.004
Eu-156	Gd-156	2186.710	0.035	364.560	0.000

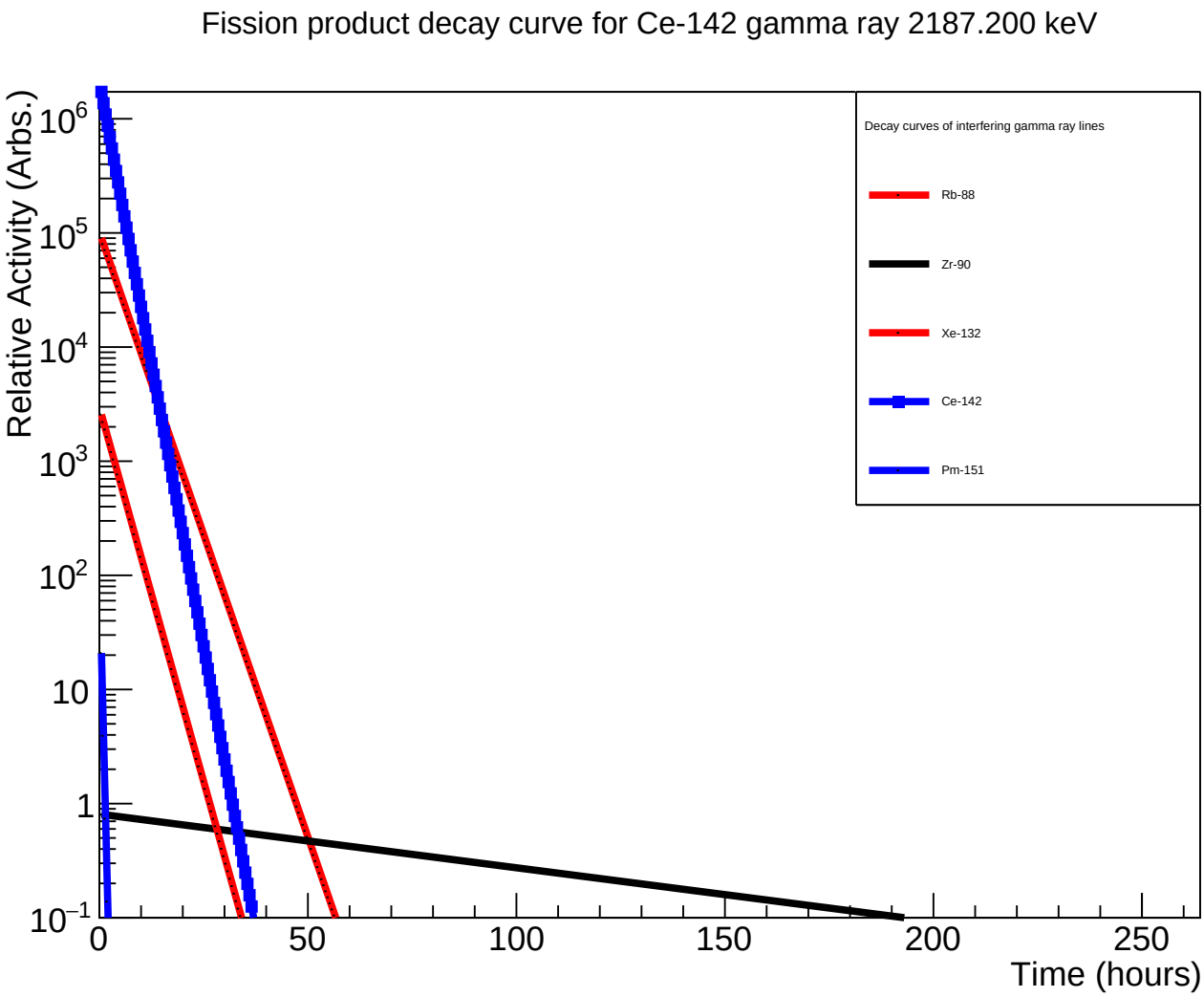


Figure 985: Ce-142 decay curve for 2187.200 keV gamma ray.

3.986 La-142 E_γ = 2397.80 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2397.80 keV
Gamma Intensity = 13.27 ± 0.317 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1971: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1972: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-131	Te-131	2398.600	0.011	0.384	0.026

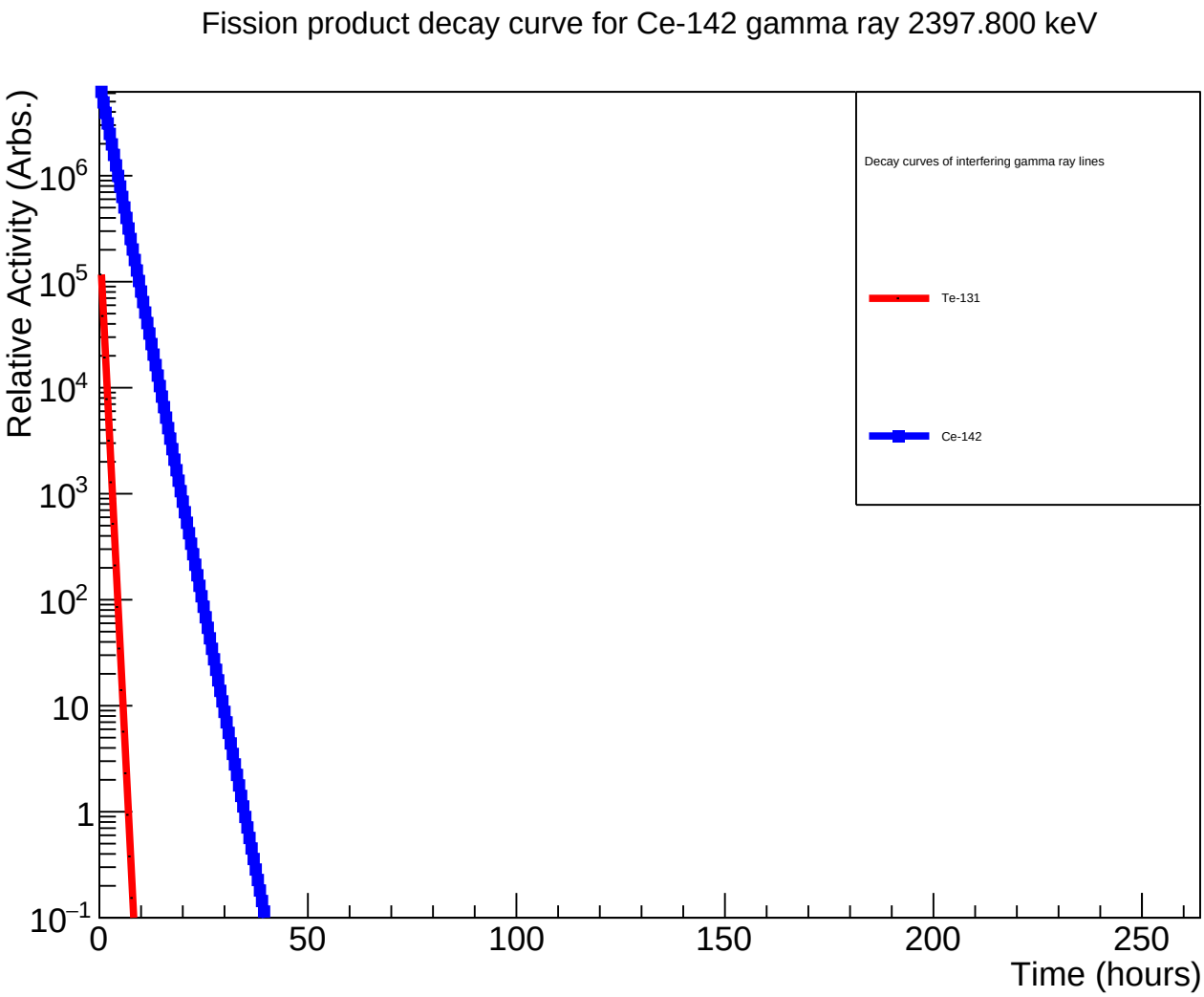


Figure 986: Ce-142 decay curve for 2397.800 keV gamma ray.

3.987 La-142 E_γ = 2542.70 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2542.70 keV
Gamma Intensity = 10.00 ± 0.259 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1973: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1974: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2543.840	0.030	0.124	0.062
Te-133	I-133	2541.800	0.005	0.208	0.031

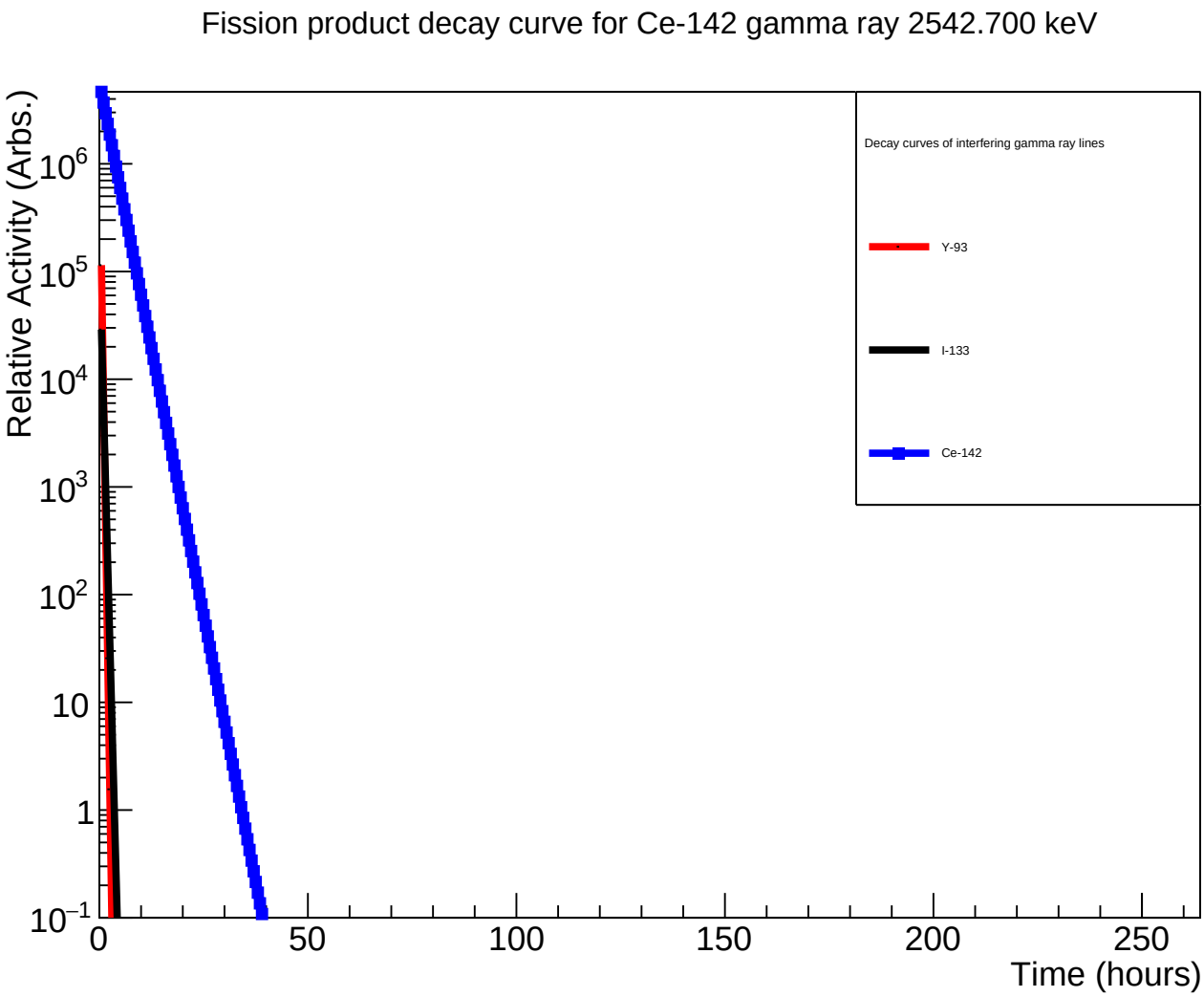


Figure 987: Ce-142 decay curve for 2542.700 keV gamma ray.

3.988 La-142 E_γ = 2666.80 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2666.80 keV
Gamma Intensity = 1.80 ± 0.097 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1975: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1976: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	2667.750	0.001	0.855	0.000

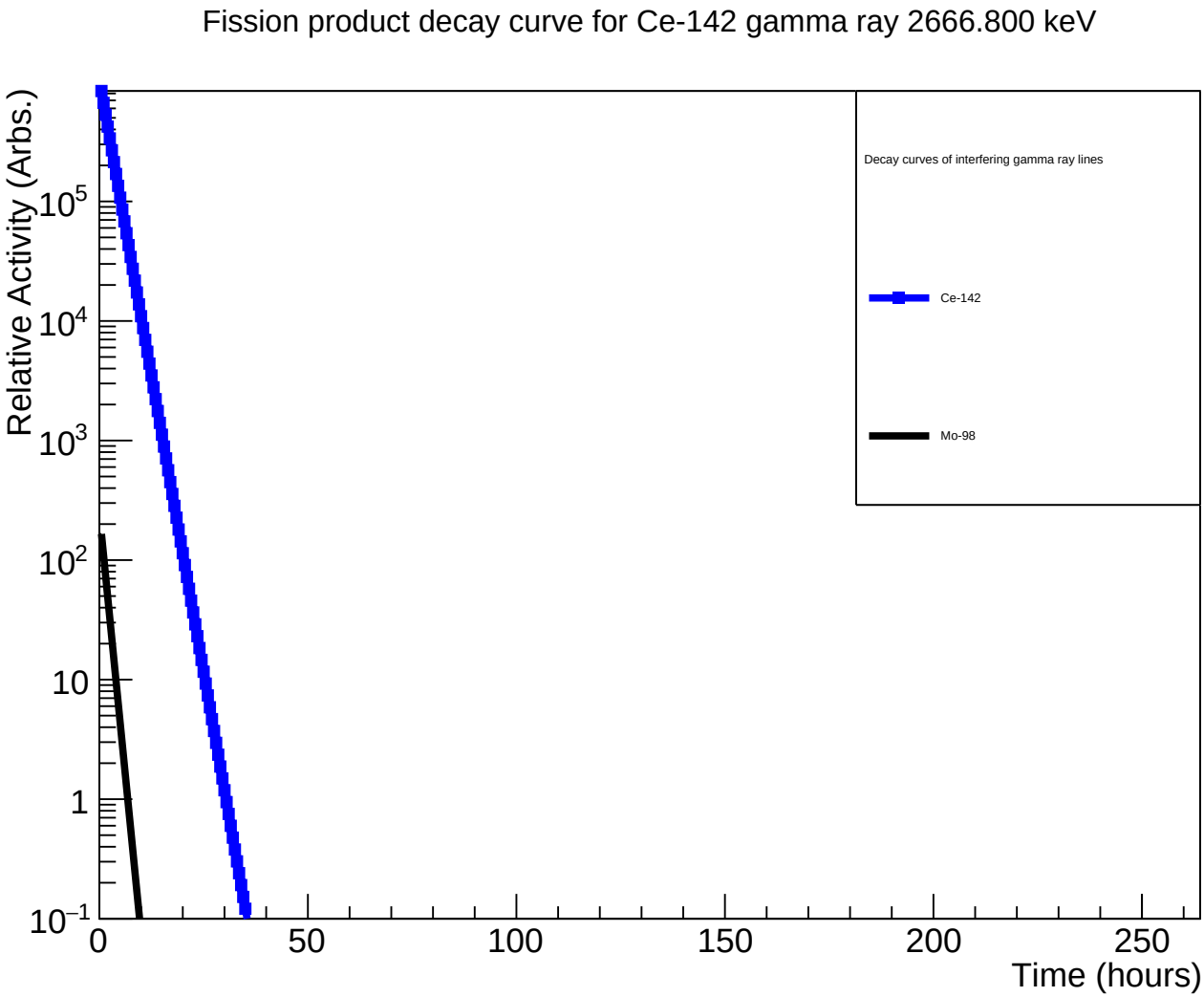


Figure 988: Ce-142 decay curve for 2666.800 keV gamma ray.

3.989 La-142 E_γ = 2971.00 keV

Chemical element: Lanthanum
Fission product parent: La-142
Gamma originates in daughter: Ce-142
Eγ: 2971.00 keV
Gamma Intensity = 3.13 ± 0.146 %
$T_{1/2}$ = 1.518 ± 0.008 hours or 91.10 ± 0.50 minutes
CFY: 5.849 ± 0.082 %

Table 1977: Decay chain of fission product chain A = 142

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-142	Barium-142	0.000	0.000
Barium-142	Lanthanum-142	0.177	0.003
Lanthanum-142	Cerium-142	1.518	0.008

Table 1978: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

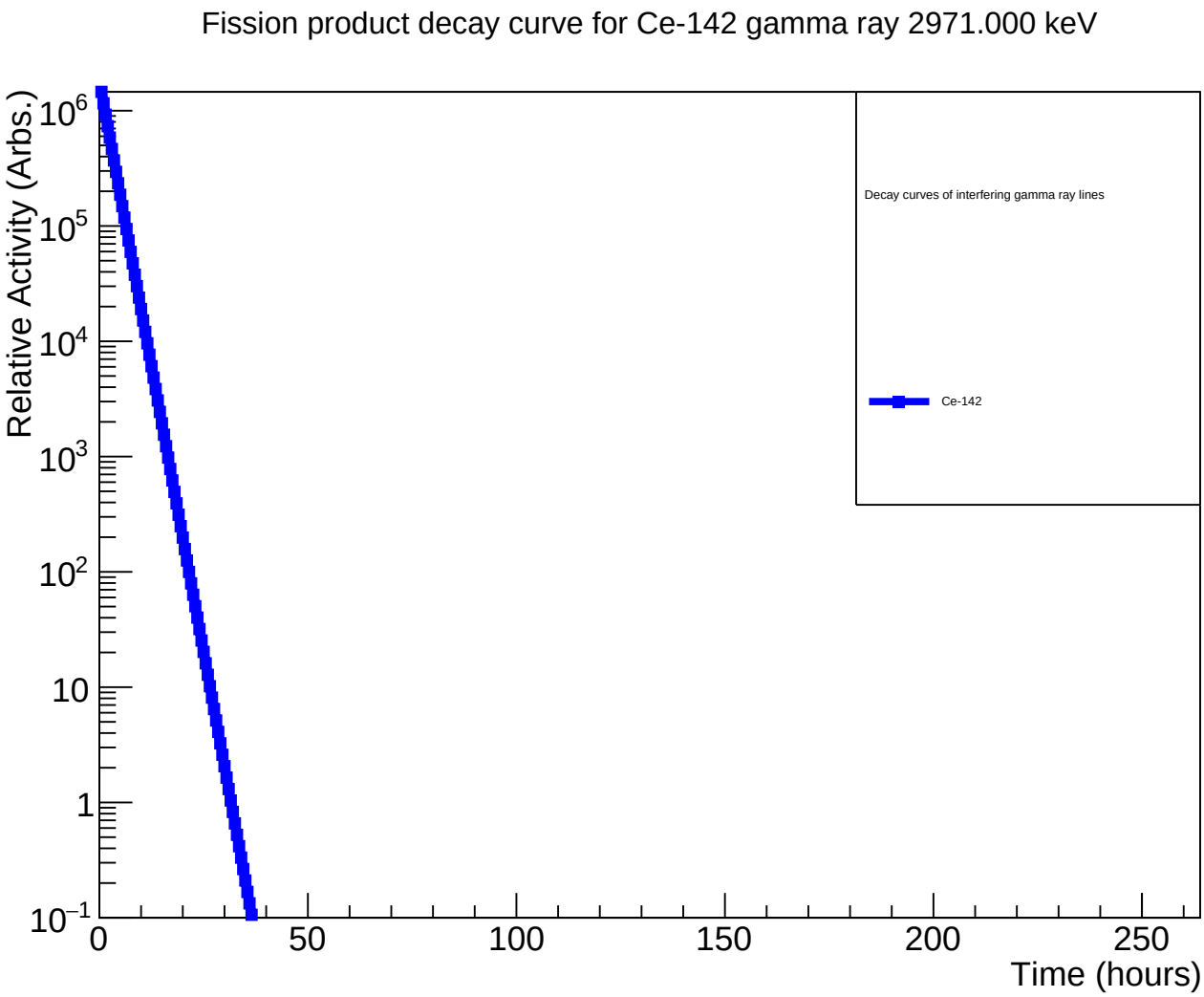


Figure 989: Ce-142 decay curve for 2971.000 keV gamma ray.

3.990 La-143 E_γ = 620.30 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 620.30 keV
Gamma Intensity = 2.34 ± 0.120 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1979: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1980: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	621.630	0.006	0.372	0.003
Sr-91	Y-91	620.100	0.018	9.630	0.058
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Mo-99	Tc-99	621.771	0.000	65.976	0.061
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	619.300	0.000	178.800	0.000
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Sb-126	Te-126	620.000	0.015	0.319	0.001
Sb-131	Te-131	619.780	0.016	0.384	0.026
Te-133	I-133	620.000	0.000	0.208	0.031
Te-133	I-133	621.300	0.005	0.923	0.040
I-132	Xe-132	620.900	0.004	2.295	0.043
I-132	Xe-132	621.200	0.016	2.295	0.043
I-134	Xe-134	621.790	0.106	0.875	0.078
Xe-138	Cs-138	619.700	0.000	0.235	0.063
Cs-139	Ba-139	619.700	0.000	0.155	0.063
Ba-142	La-142	620.300	0.000	0.177	0.058
Nd-151	Pm-151	619.010	0.003	0.207	0.004
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

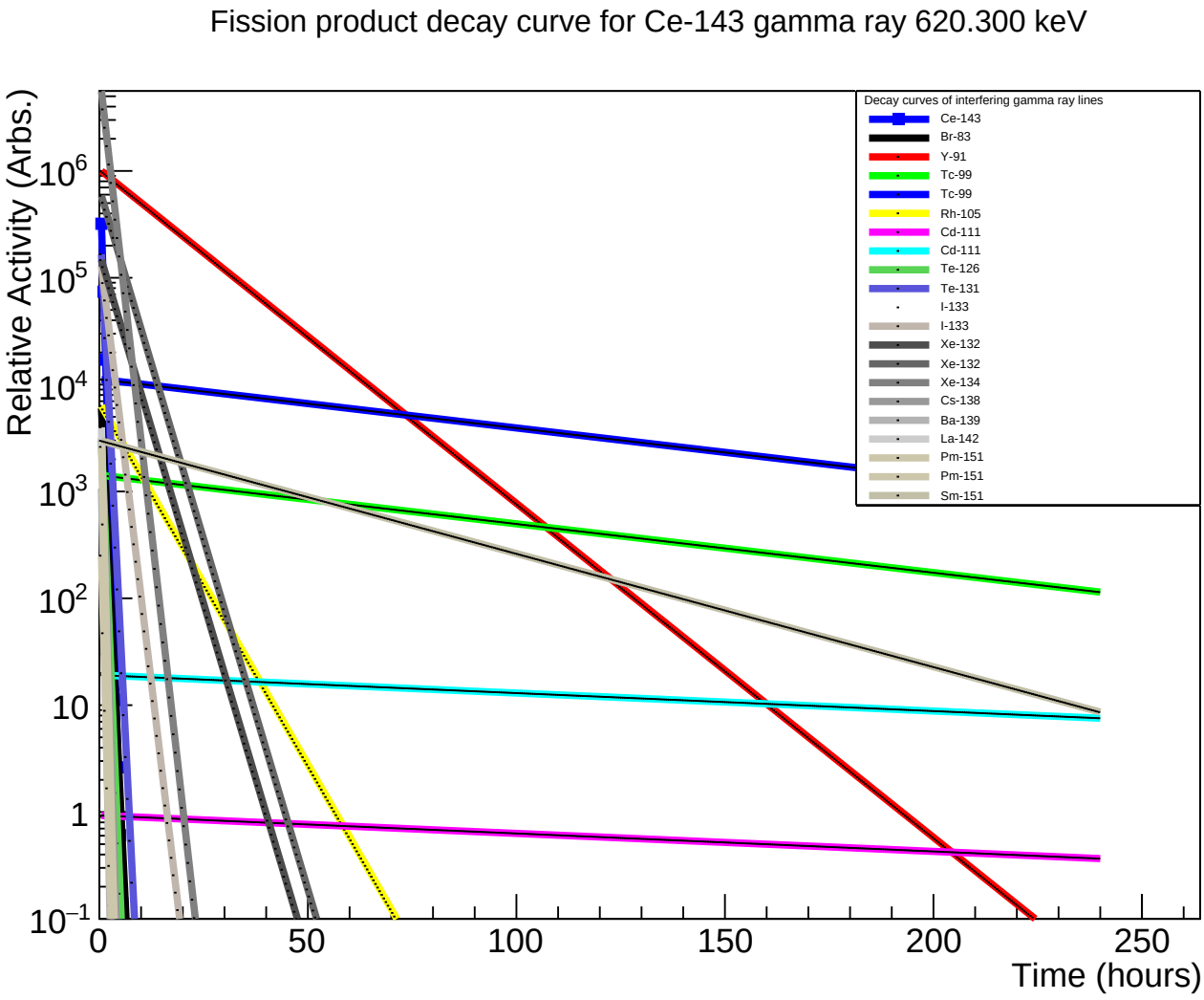


Figure 990: Ce-143 decay curve for 620.300 keV gamma ray.

3.991 La-143 E_γ = 621.40 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 621.40 keV
Gamma Intensity = 1.52 ± 0.080 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1981: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1982: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	621.630	0.006	0.372	0.003
Sr-91	Y-91	620.100	0.018	9.630	0.058
Mo-99	Tc-99	620.030	0.000	65.976	0.061
Mo-99	Tc-99	621.771	0.000	65.976	0.061
Tc-101	Ru-101	621.990	0.001	0.237	0.052
Ru-105	Rh-105	621.040	0.001	4.440	0.010
Ag-111	Cd-111	620.300	0.000	178.800	0.000
Ag-111	Cd-111	622.000	0.000	178.800	0.000
Sn-127	Sb-127	621.900	0.005	2.100	0.001
Sb-126	Te-126	620.000	0.015	0.319	0.001
Te-133	I-133	620.000	0.000	0.208	0.031
Te-133	I-133	621.300	0.005	0.923	0.040
I-132	Xe-132	620.900	0.004	2.295	0.043
I-132	Xe-132	621.200	0.016	2.295	0.043
I-134	Xe-134	621.790	0.106	0.875	0.078
Ba-142	La-142	620.300	0.000	0.177	0.058
Ba-142	La-142	622.800	0.001	0.177	0.058
Nd-151	Pm-151	621.300	0.000	0.207	0.004
Pm-151	Sm-151	620.600	0.001	28.400	0.004

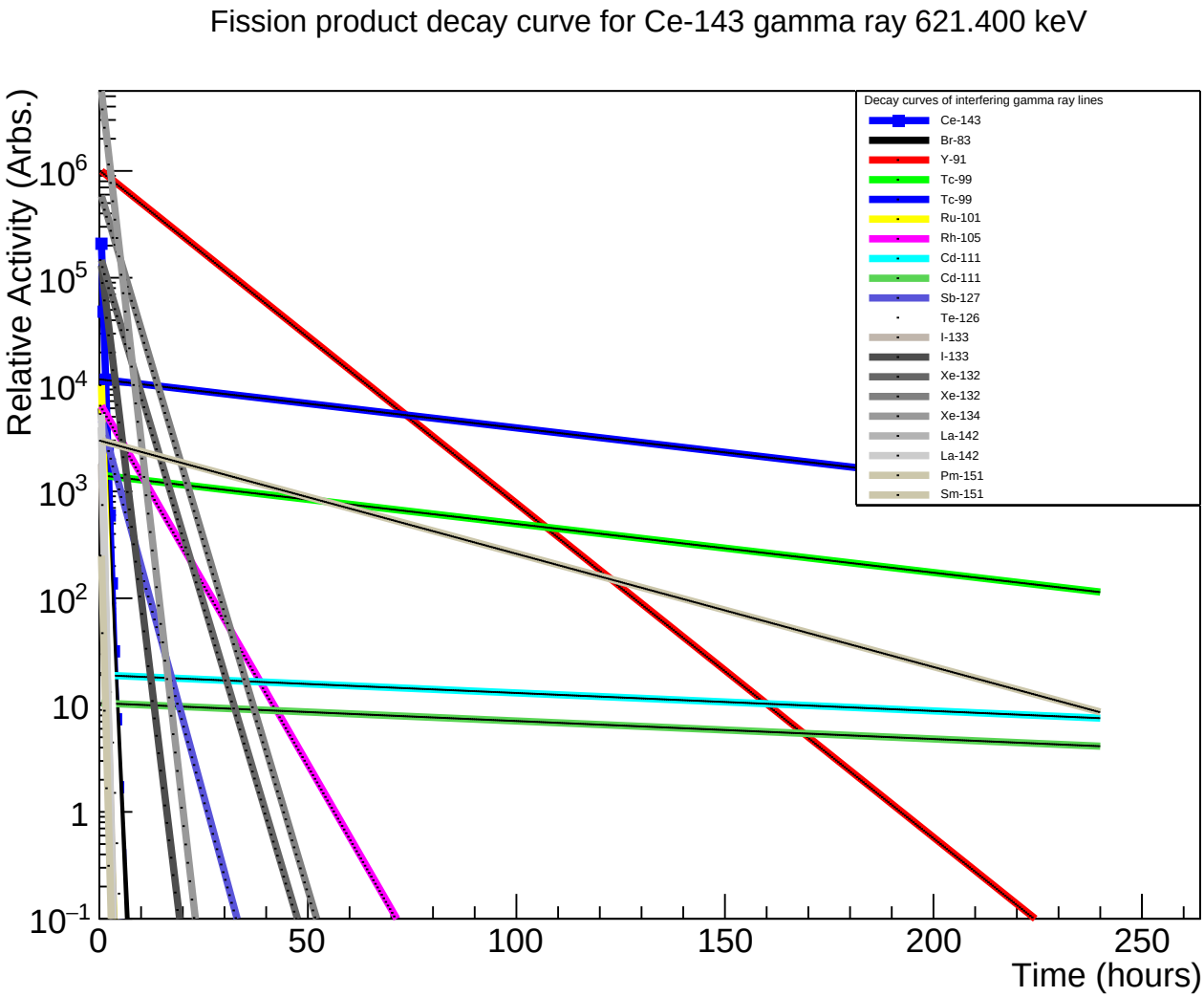


Figure 991: Ce-143 decay curve for 621.400 keV gamma ray.

3.992 La-143 E_γ = 643.75 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 643.75 keV
Gamma Intensity = 1.55 ± 0.080 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1983: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1984: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	644.847	0.056	0.855	0.000
Mo-101	Tc-101	642.710	0.012	0.243	0.052
Tc-105	Ru-105	644.000	0.007	0.127	0.010
Rh-107	Pd-107	643.900	0.000	0.362	0.001
Sn-125	Sb-125	642.960	0.002	0.159	0.000
Sb-131	Te-131	642.300	0.235	0.384	0.026
Te-133	I-133	642.330	0.008	0.923	0.040
I-131	Xe-131	642.719	0.002	192.605	0.029
Nd-151	Pm-151	643.110	0.001	0.207	0.004

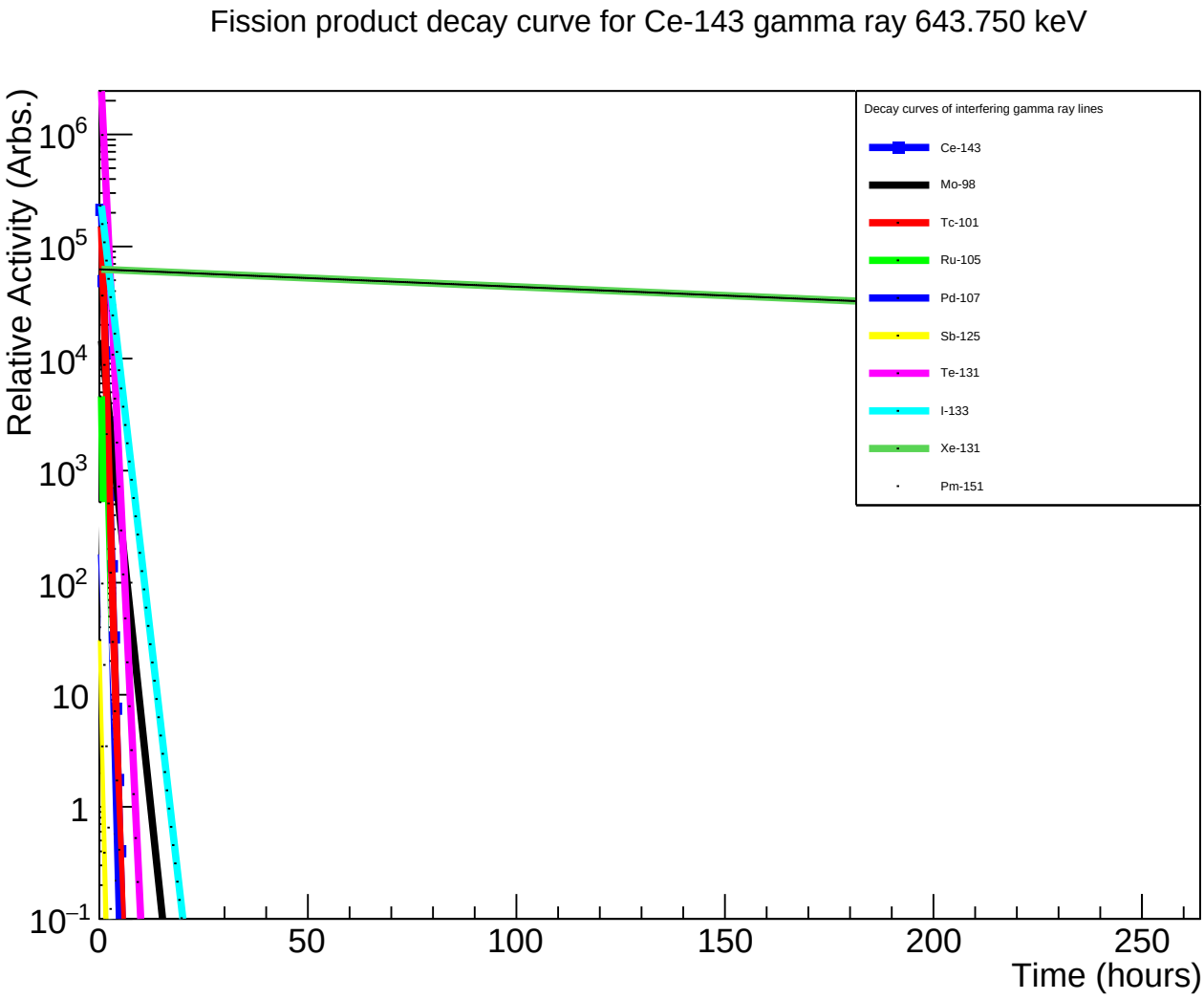


Figure 992: Ce-143 decay curve for 643.750 keV gamma ray.

3.993 La-143 E_γ = 798.14 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 798.14 keV
Gamma Intensity = 1.18 ± 0.060 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1985: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1986: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	799.040	0.148	0.372	0.003
Kr-88	Rb-88	798.650	0.000	2.840	0.036
Nb-98	Mo-98	797.880	0.006	0.855	0.000
Mo-101	Tc-101	798.000	0.001	0.243	0.052
Ag-112	Cd-112	797.900	0.005	3.130	0.000
I-135	Xe-135	797.710	0.002	6.570	0.063
Xe-138	Cs-138	799.600	0.000	0.235	0.063
Cs-138	Ba-138	797.700	0.001	0.557	0.067
Cs-139	Ba-139	798.010	0.000	0.155	0.063
Nd-151	Pm-151	797.530	0.047	0.207	0.004
Nd-151	Pm-151	798.200	0.001	0.207	0.004
Eu-156	Gd-156	797.730	0.001	364.560	0.000

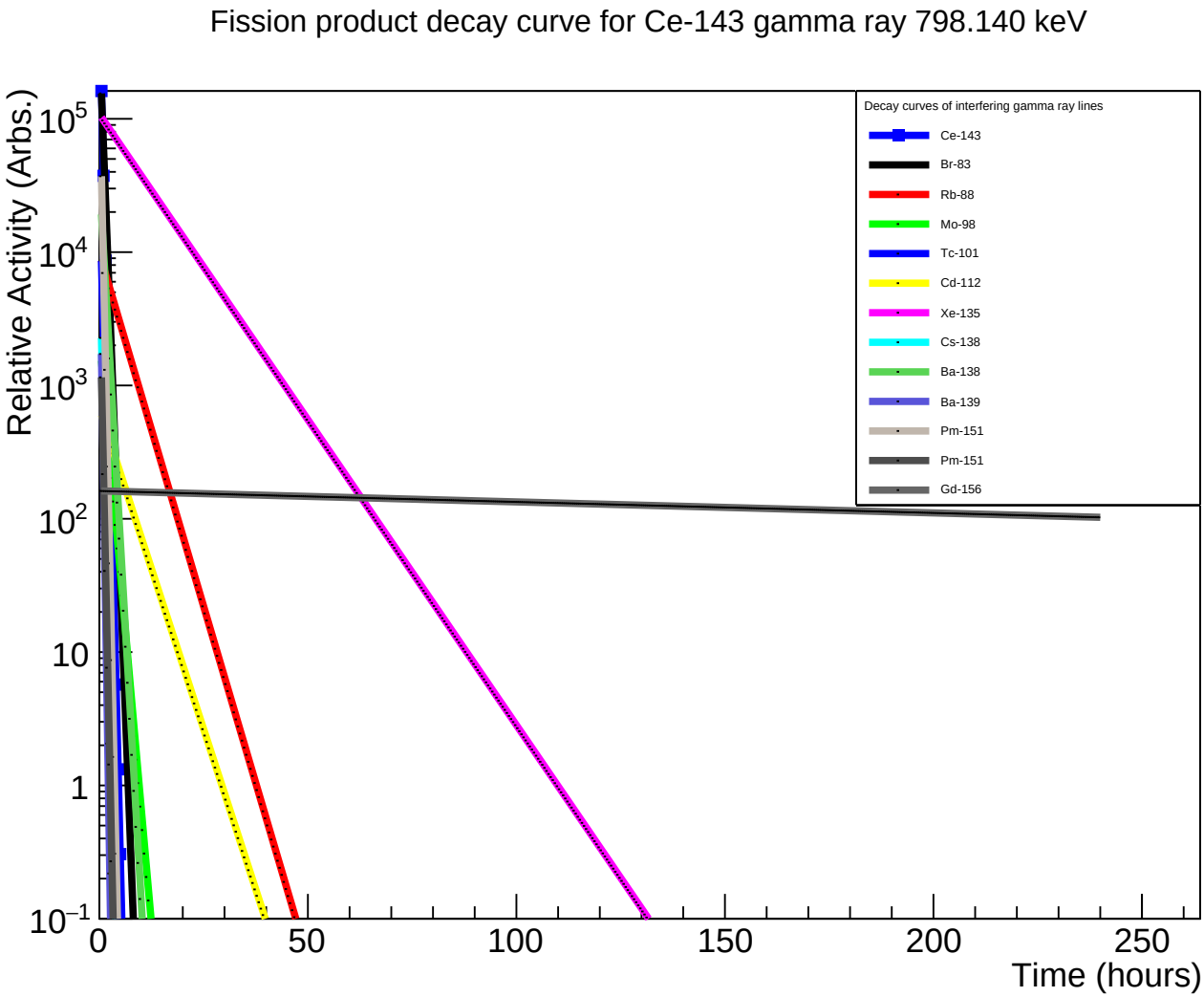


Figure 993: Ce-143 decay curve for 798.140 keV gamma ray.

3.994 La-143 E_γ = 1148.50 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 1148.50 keV
Gamma Intensity = 1.16 ± 0.060 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1987: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1988: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	1147.970	0.026	16.749	0.060
Rh-107	Pd-107	1148.500	0.000	0.362	0.001
Sb-129	Te-129	1147.200	0.000	4.400	0.005
Te-131	I-131	1148.510	0.001	0.417	0.025
Te-131	I-131	1148.900	0.001	0.417	0.025
Te-131	I-131	1148.890	0.017	33.250	0.004
I-132	Xe-132	1147.800	0.003	2.295	0.043
Cs-138	Ba-138	1147.220	0.012	0.557	0.067
Ba-141	La-141	1147.000	0.000	0.304	0.058
Ba-142	La-142	1148.700	0.005	0.177	0.058
Pr-146	Nd-146	1148.900	0.002	0.403	0.030
Nd-151	Pm-151	1147.800	0.000	0.207	0.004

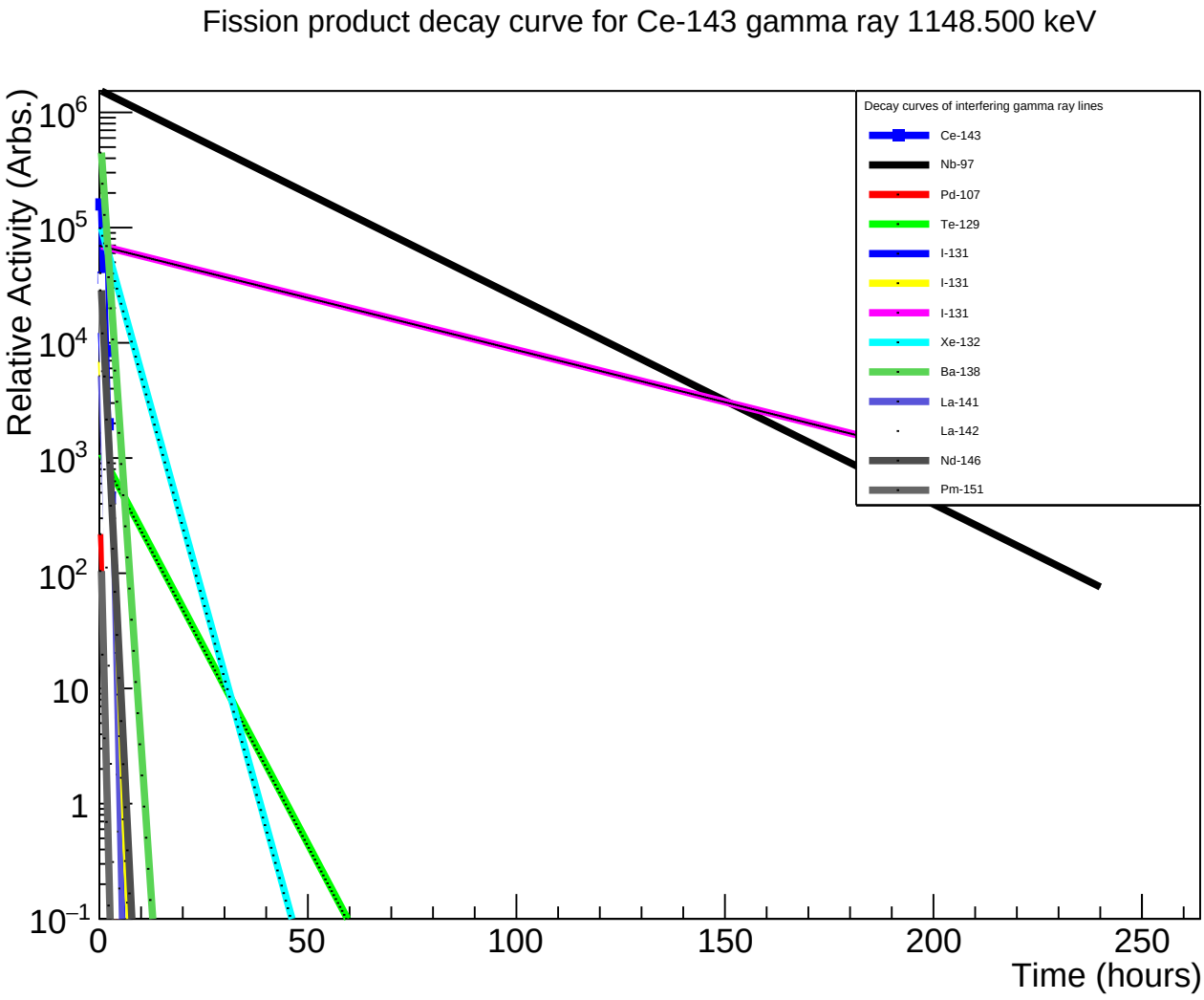


Figure 994: Ce-143 decay curve for 1148.500 keV gamma ray.

3.995 La-143 E_γ = 1961.44 keV

Chemical element: Lanthanum
Fission product parent: La-143
Gamma originates in daughter: Ce-143
Eγ: 1961.44 keV
Gamma Intensity = 1.01 ± 0.050 %
$T_{1/2}$ = 0.237 ± 0.002 hours or 14.20 ± 0.10 minutes
CFY: 5.924 ± 0.166 %

Table 1989: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1990: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

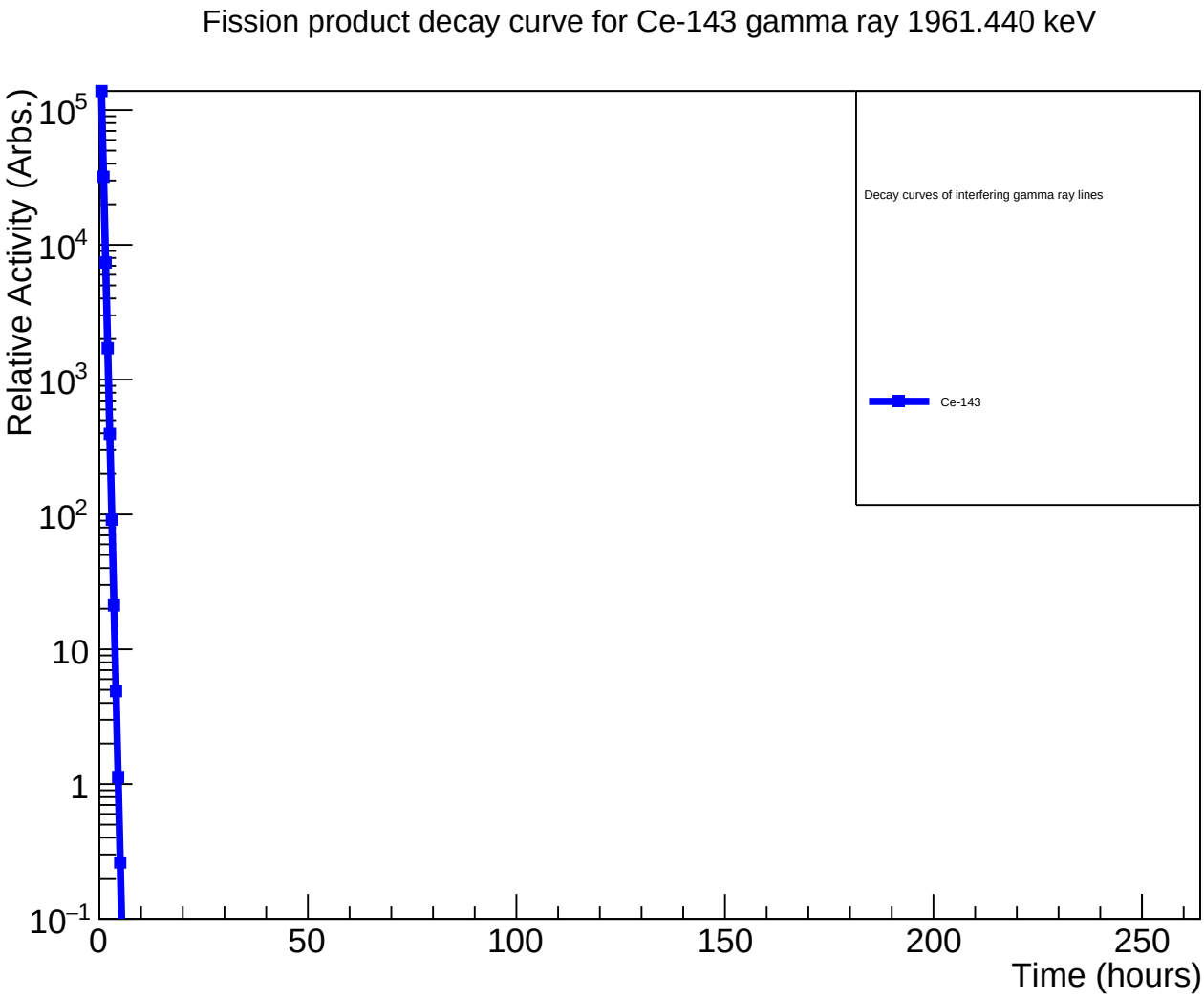


Figure 995: Ce-143 decay curve for 1961.440 keV gamma ray.

3.996 Ce-141 E_γ = 145.44 keV

Chemical element: Cerium
Fission product parent: Ce-141
Gamma originates in daughter: Pr-141
Eγ: 145.44 keV
Gamma Intensity = 48.29 ± 0.200 %
$T_{1/2}$ = 780.192 ± 0.024 hours or 46811.52 ± 1.44 minutes
CFY: 5.847 ± 0.058 %

Table 1991: Decay chain of fission product chain A = 141

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Xenon-141	Cesium-141	0.000	0.000
Cesium-141	Barium-141	0.007	0.000
Barium-141	Lanthanum-141	0.304	0.001
Lanthanum-141	Cerium-141	3.920	0.030
Cerium-141	Praseodymium-141	780.192	0.024

Table 1992: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	146.600	0.001	0.855	0.000
Pd-109	Ag-109	145.100	0.000	13.701	0.000
Te-127	I-127	145.200	0.000	9.350	0.002
Pr-146	Nd-146	146.400	0.000	0.403	0.030
Pm-151	Sm-151	146.200	0.000	28.400	0.004
Eu-155	Gd-155	146.071	0.001	41666.668	0.000

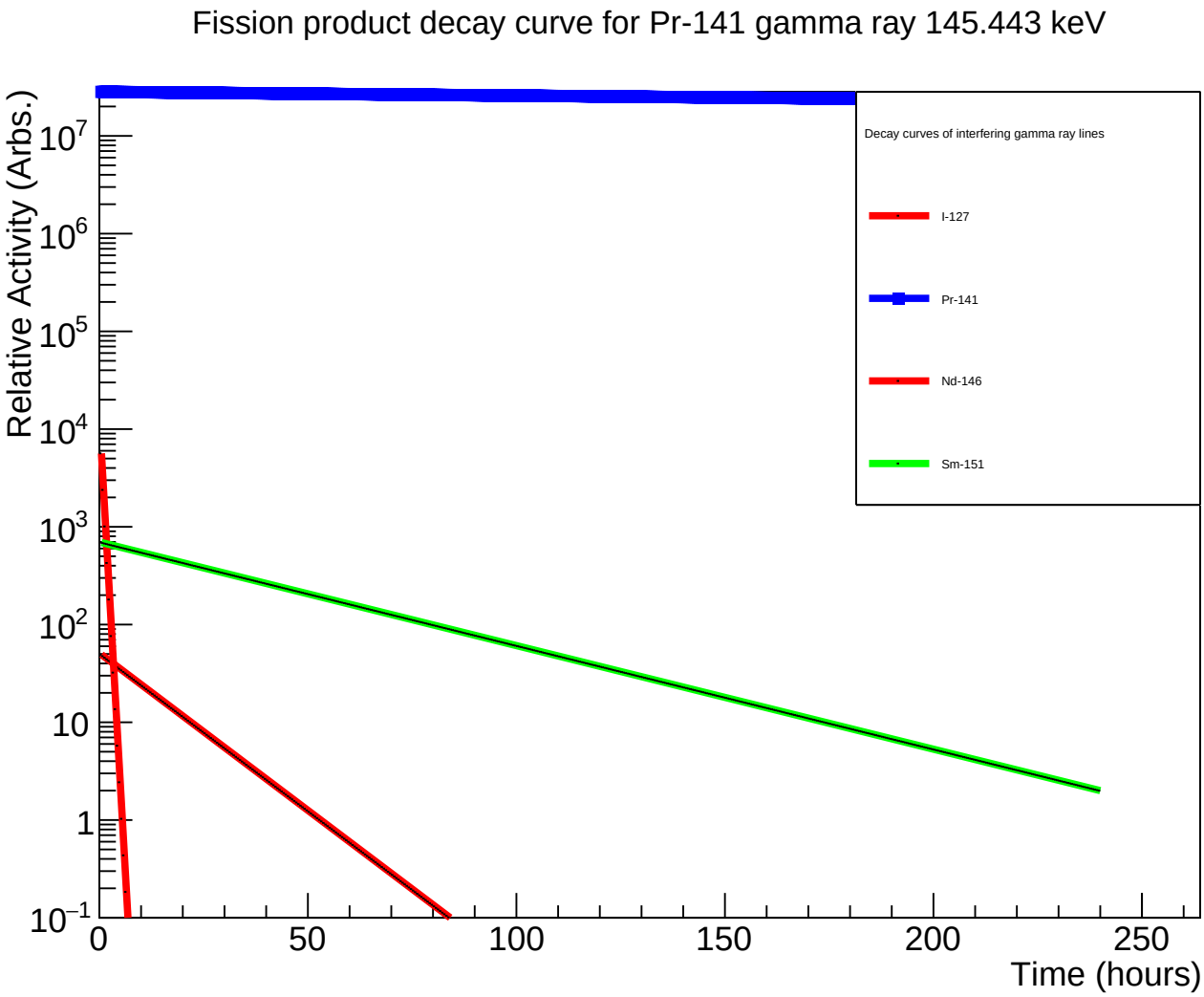


Figure 996: Pr-141 decay curve for 145.443 keV gamma ray.

3.997 Ce-143 E_γ = 57.36 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 57.36 keV
Gamma Intensity = 11.73 ± 0.360 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 1993: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1994: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-127	I-127	57.630	0.000	9.350	0.002
Te-127	I-127	57.630	0.005	2616.000	0.000
Nd-149	Pm-149	58.526	0.014	1.728	0.011
Nd-151	Pm-151	58.280	0.004	0.207	0.004
Eu-155	Gd-155	57.989	0.001	41666.668	0.000

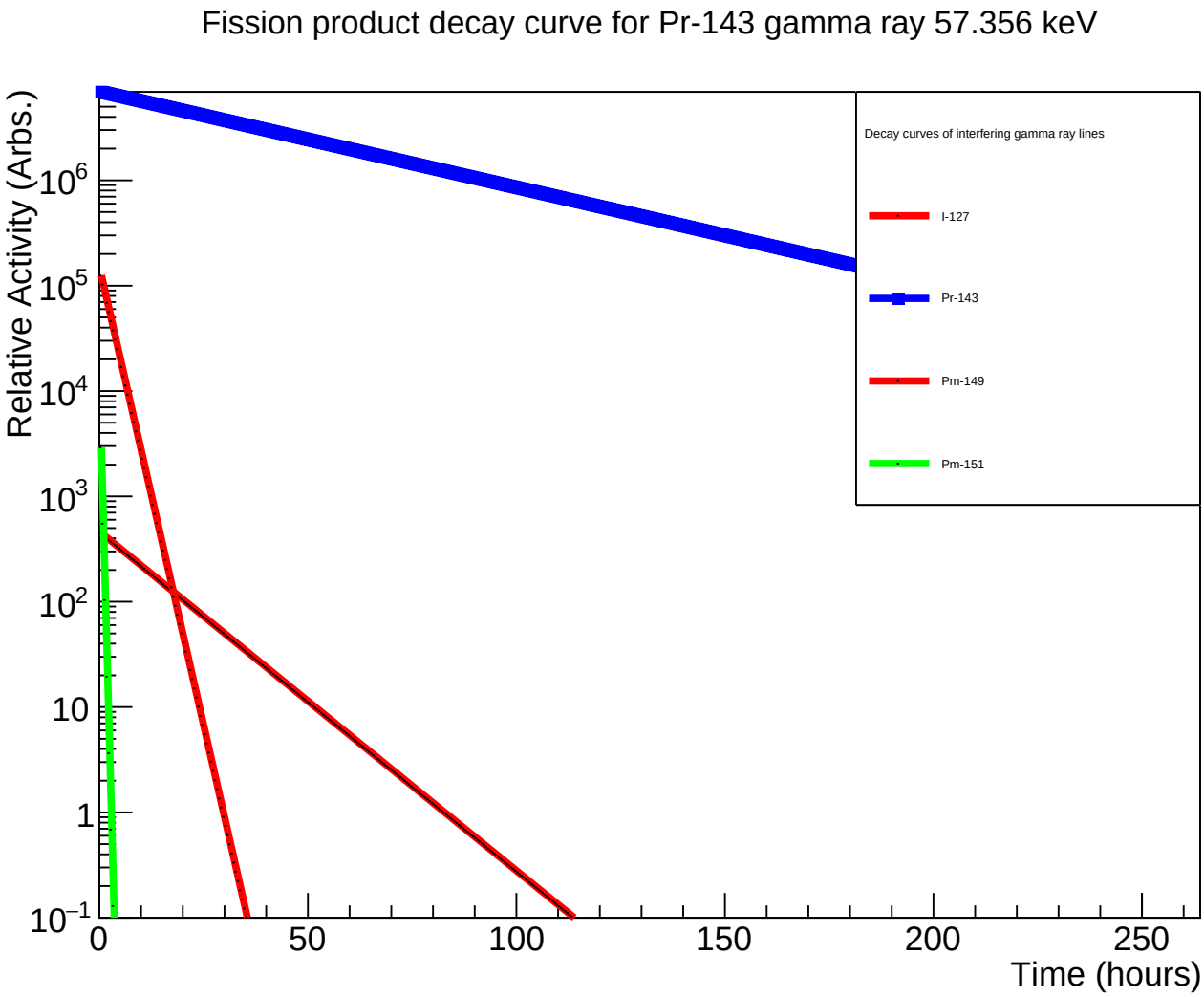


Figure 997: Pr-143 decay curve for 57.356 keV gamma ray.

3.998 Ce-143 E_γ = 231.55 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 231.55 keV
Gamma Intensity = 2.05 ± 0.047 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 1995: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1996: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	230.200	0.003	0.529	0.010
Tc-99	Ru-99	232.800	0.000	6.007	0.054
Rh-107	Pd-107	232.370	0.002	0.362	0.001
Pd-111	Ag-111	230.300	0.000	0.390	0.000
Cd-115	In-115	231.443	0.007	53.460	0.000
Sn-127	Sb-127	232.200	0.008	2.100	0.001
Sn-129	Sb-129	232.500	0.007	0.115	0.002
Te-131	I-131	230.650	0.002	33.250	0.004
Te-131	I-131	232.300	0.001	33.250	0.004
Te-133	I-133	230.900	0.000	0.208	0.031
Te-133	I-133	230.100	0.003	0.923	0.040
I-131	Xe-131	232.180	0.000	192.605	0.029
Cs-139	Ba-139	230.760	0.000	0.155	0.063
Ba-142	La-142	231.611	0.121	0.177	0.058
Nd-151	Pm-151	232.920	0.000	0.207	0.004
Pm-151	Sm-151	232.430	0.010	28.400	0.004
Pm-151	Sm-151	232.700	0.001	28.400	0.004

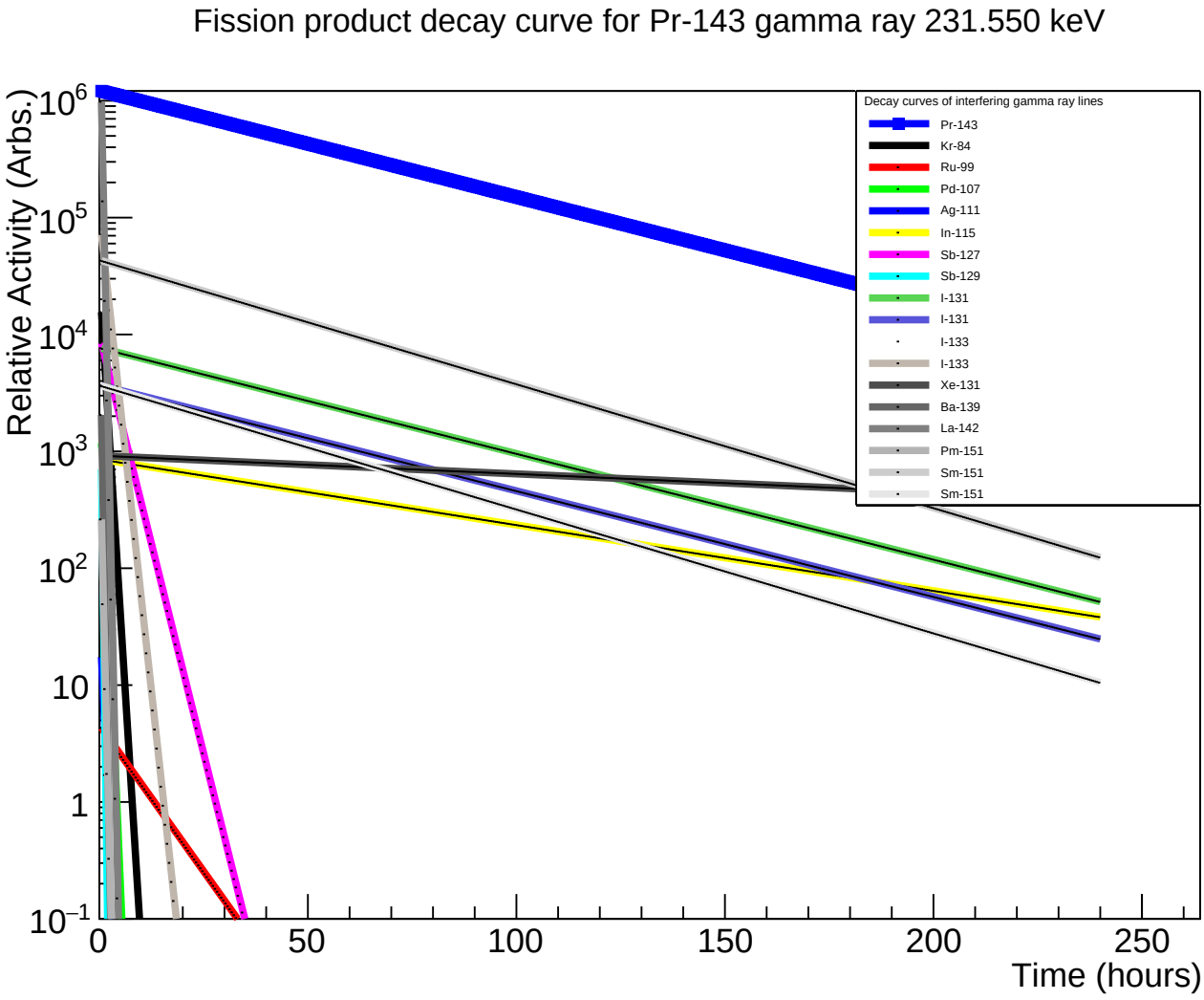


Figure 998: Pr-143 decay curve for 231.550 keV gamma ray.

3.999 Ce-143 E_γ = 293.27 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 293.27 keV
Gamma Intensity = 42.80 ± 0.420 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 1997: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 1998: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	293.900	0.040	1.467	0.000
Ru-103	Rh-103	292.700	0.000	941.928	0.030
Sn-127	Sb-127	292.900	0.013	2.100	0.001
Sb-127	Te-127	293.300	0.003	92.400	0.002
Te-131	I-131	294.750	0.000	0.417	0.025
Nd-151	Pm-151	292.150	0.001	0.207	0.004
Nd-152	Pm-152	294.470	0.033	0.190	0.003
Pm-151	Sm-151	292.400	0.000	28.400	0.004

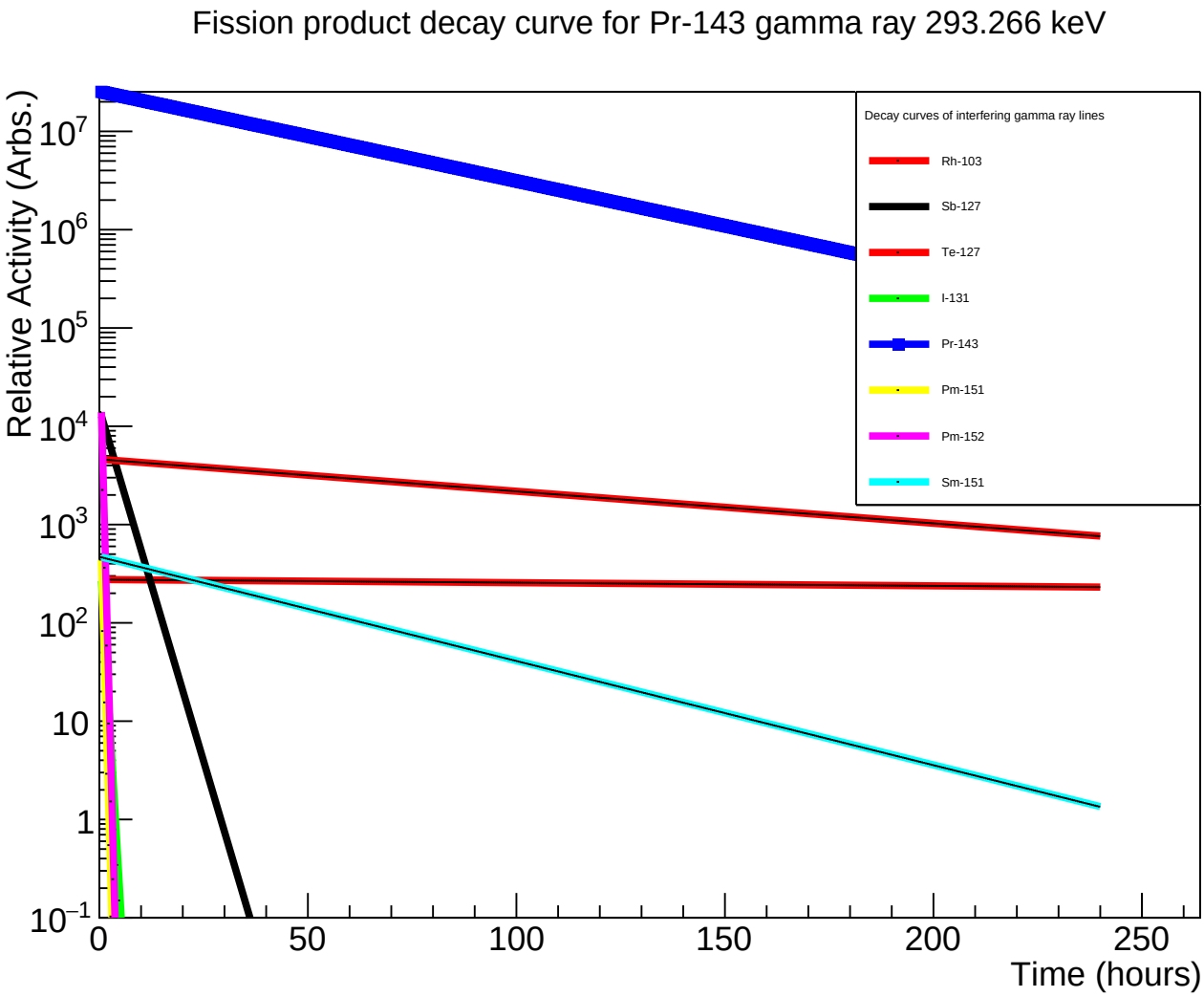


Figure 999: Pr-143 decay curve for 293.266 keV gamma ray.

3.1000 Ce-143 E_γ = 350.62 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 350.62 keV
Gamma Intensity = 3.23 ± 0.040 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 1999: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 2000: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	351.100	0.002	1.512	0.000
Kr-88	Rb-88	350.040	0.000	2.840	0.036
Nb-98	Mo-98	350.780	0.000	0.855	0.000
Nb-98	Mo-98	350.920	0.004	0.855	0.000
Tc-104	Ru-104	349.300	0.025	0.305	0.019
Ru-105	Rh-105	349.960	0.003	4.440	0.010
Ru-105	Rh-105	350.180	0.010	4.440	0.010
Sn-125	Sb-125	350.950	0.003	231.360	0.000
Te-131	I-131	351.480	0.000	0.417	0.025
Te-131	I-131	351.300	0.002	33.250	0.004
I-134	Xe-134	351.080	0.004	0.875	0.078
Ba-141	La-141	349.500	0.002	0.304	0.058
La-142	Ce-142	350.300	0.000	1.518	0.058
Nd-149	Pm-149	349.231	0.014	1.728	0.011
Nd-149	Pm-149	351.632	0.012	1.728	0.011
Nd-152	Pm-152	350.000	0.000	0.190	0.003
Pm-149	Sm-149	350.000	0.000	53.080	0.011
Pm-149	Sm-149	350.710	0.000	53.080	0.011
Pm-151	Sm-151	349.810	0.001	28.400	0.004

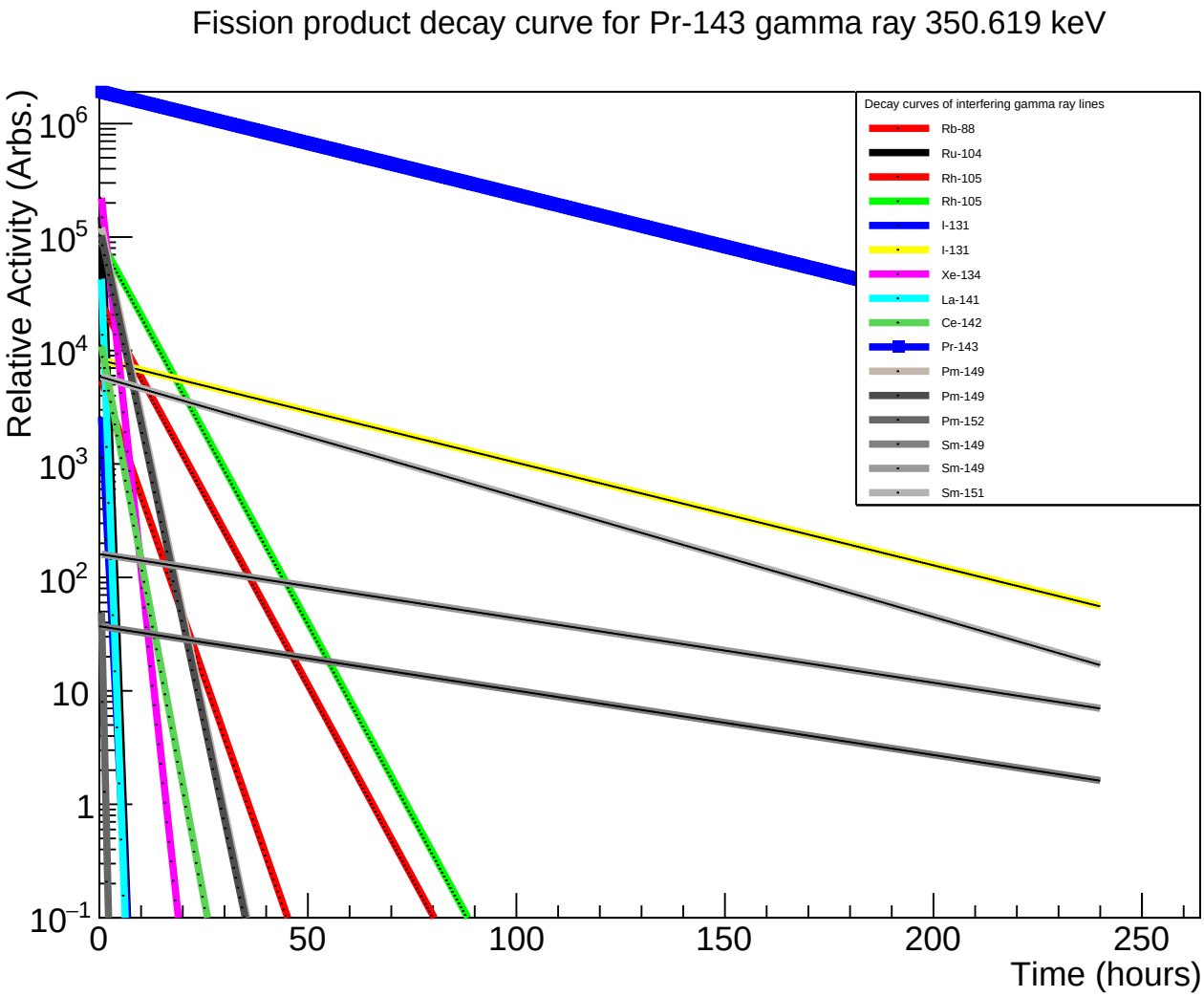


Figure 1000: Pr-143 decay curve for 350.619 keV gamma ray.

3.1001 Ce-143 E_γ = 490.37 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 490.37 keV
Gamma Intensity = 2.16 ± 0.029 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 2001: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 2002: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-92	Y-92	491.270	0.003	2.710	0.059
Mo-101	Tc-101	491.500	0.001	0.243	0.052
Tc-101	Ru-101	489.100	0.000	0.237	0.052
Tc-105	Ru-105	490.600	0.024	0.127	0.010
Ru-105	Rh-105	489.480	0.005	4.440	0.010
Sn-127	Sb-127	490.900	0.053	2.100	0.001
Sb-125	Te-125	489.730	0.000	24194.445	0.000
Sb-125	Te-125	491.290	0.000	24194.445	0.000
I-134	Xe-134	488.880	0.015	0.875	0.078
Pr-147	Nd-147	491.400	0.005	0.223	0.022
Nd-147	Pm-147	489.240	0.002	263.520	0.022
Nd-151	Pm-151	490.780	0.001	0.207	0.004
Pm-151	Sm-151	490.260	0.001	28.400	0.004
Eu-156	Gd-156	490.340	0.002	364.560	0.000

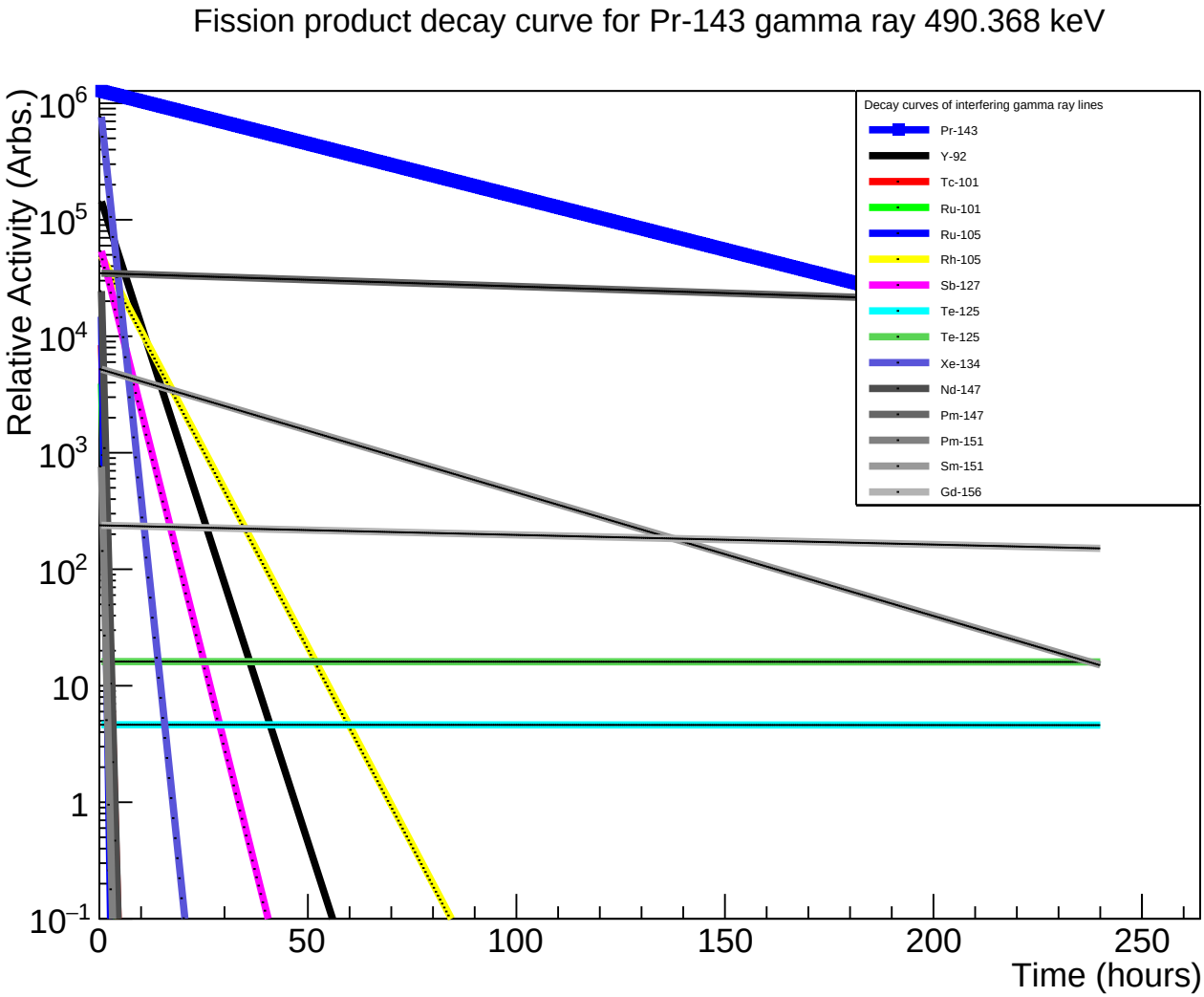


Figure 1001: Pr-143 decay curve for 490.368 keV gamma ray.

3.1002 Ce-143 E_γ = 664.57 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 664.57 keV
Gamma Intensity = 5.69 ± 0.068 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 2003: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 2004: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	664.800	0.033	0.372	0.003
Kr-88	Rb-88	665.940	0.001	2.840	0.036
Sr-93	Y-93	663.580	0.016	0.124	0.062
Tc-105	Ru-105	664.600	0.004	0.127	0.010
Ag-112	Cd-112	663.500	0.000	3.130	0.000
Te-131	I-131	665.050	0.042	33.250	0.004
Te-133	I-133	663.200	0.001	0.923	0.040
Te-134	I-134	665.850	0.012	0.697	0.070
Cs-139	Ba-139	666.070	0.000	0.155	0.063
Pr-147	Nd-147	664.500	0.002	0.223	0.022
Nd-149	Pm-149	665.220	0.000	1.728	0.011
Nd-151	Pm-151	665.210	0.001	0.207	0.004
Pm-149	Sm-149	664.400	0.000	53.080	0.011
Pm-151	Sm-151	663.500	0.001	28.400	0.004
Sm-155	Eu-155	664.000	0.001	0.372	0.000
Sm-155	Eu-155	665.000	0.000	0.372	0.000

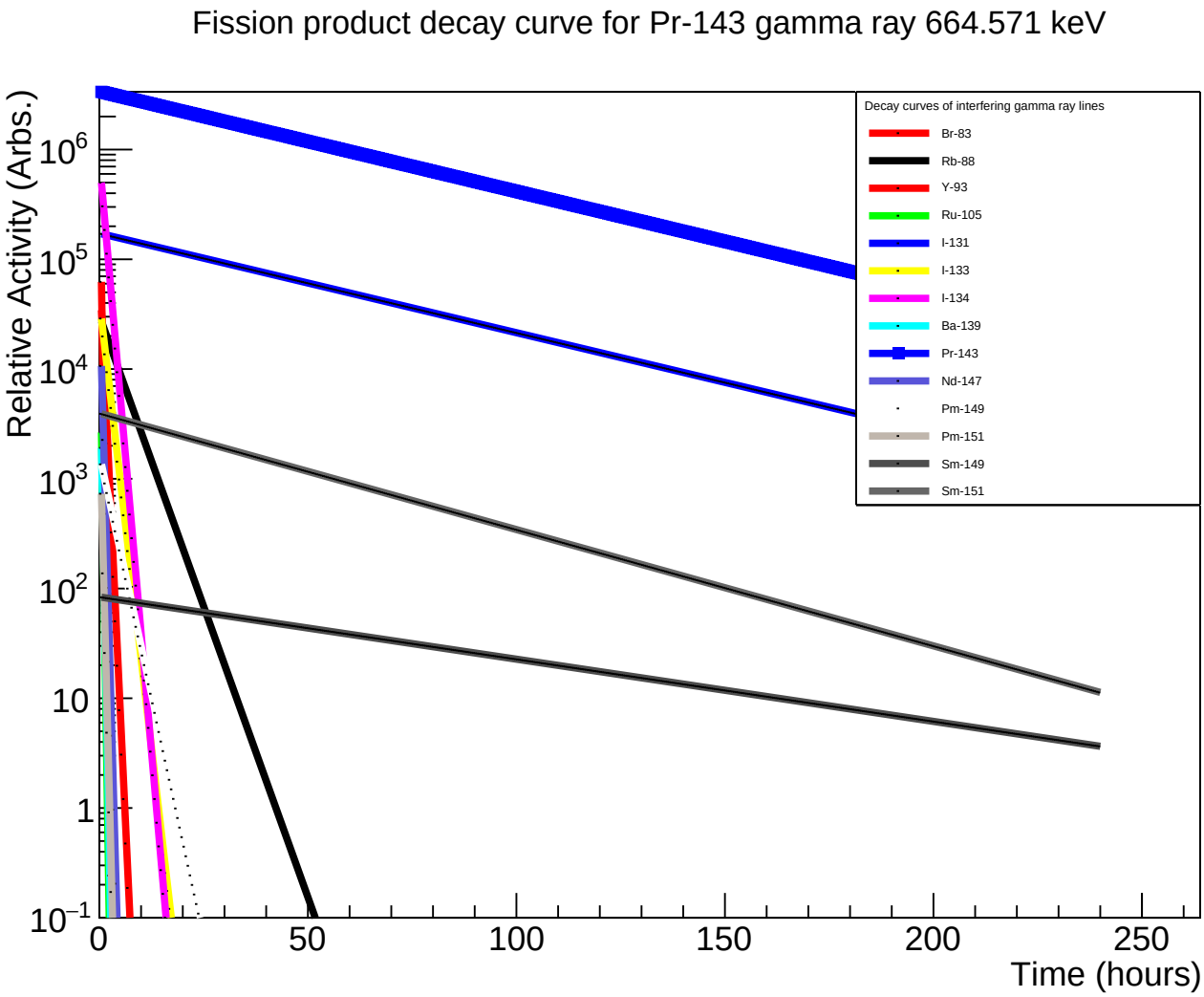


Figure 1002: Pr-143 decay curve for 664.571 keV gamma ray.

3.1003 Ce-143 E_γ = 721.93 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 721.93 keV
Gamma Intensity = 5.39 ± 0.066 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 2005: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 2006: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	722.400	0.001	1.512	0.000
Nb-98	Mo-98	722.626	0.738	0.855	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Sb-127	Te-127	722.200	0.019	92.400	0.002
Te-129	I-129	722.500	0.000	1.160	0.005
Te-133	I-133	722.000	0.000	0.208	0.031
I-131	Xe-131	722.911	0.018	192.605	0.029

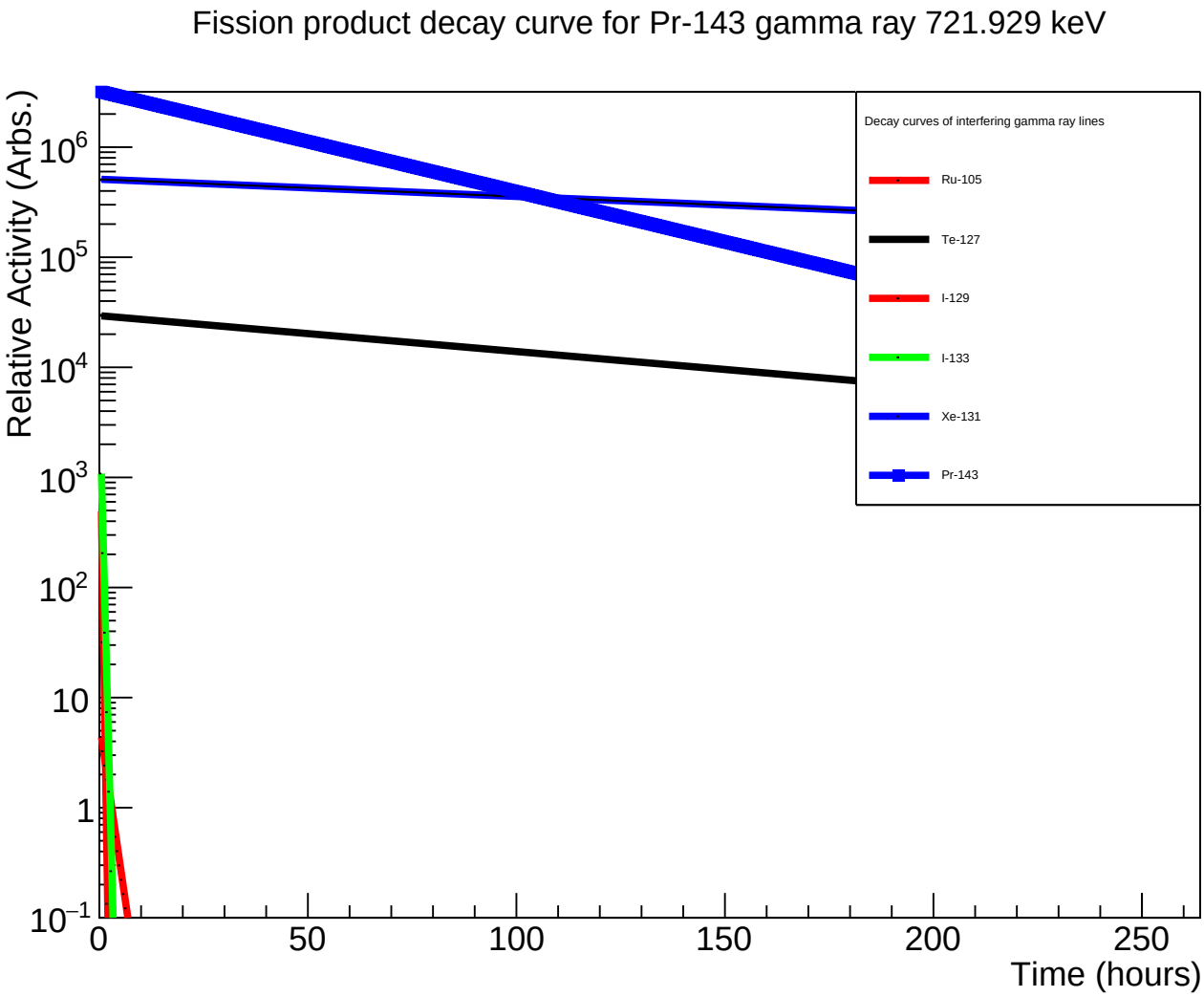


Figure 1003: Pr-143 decay curve for 721.929 keV gamma ray.

3.1004 Ce-143 E_γ = 880.46 keV

Chemical element: Cerium
Fission product parent: Ce-143
Gamma originates in daughter: Pr-143
Eγ: 880.46 keV
Gamma Intensity = 1.03 ± 0.013 %
$T_{1/2}$ = 33.039 ± 0.006 hours or 1982.34 ± 0.36 minutes
CFY: 5.956 ± 0.083 %

Table 2007: Decay chain of fission product chain A = 143

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Cesium-143	Barium-143	0.000	0.000
Barium-143	Lanthanum-143	0.004	0.000
Lanthanum-143	Cerium-143	0.237	0.002
Cerium-143	Praseodymium-143	33.039	0.006
Praseodymium-143	Neodymium-143	325.680	0.480

Table 2008: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	881.600	0.416	0.529	0.010
Br-84	Kr-84	881.600	0.980	0.100	0.000
Kr-88	Rb-88	879.510	0.000	2.840	0.036
Sr-91	Y-91	879.700	0.002	9.630	0.058
Te-131	I-131	881.150	0.000	0.417	0.025
Te-131	I-131	881.600	0.000	33.250	0.004
Te-133	I-133	880.700	0.001	0.208	0.031
Cs-138	Ba-138	880.800	0.001	0.557	0.067
Ba-141	La-141	880.800	0.000	0.304	0.058
Ba-141	La-141	881.200	0.001	0.304	0.058
Pr-147	Nd-147	881.500	0.003	0.223	0.022
Nd-151	Pm-151	881.140	0.001	0.207	0.004
Sm-155	Eu-155	880.000	0.000	0.372	0.000

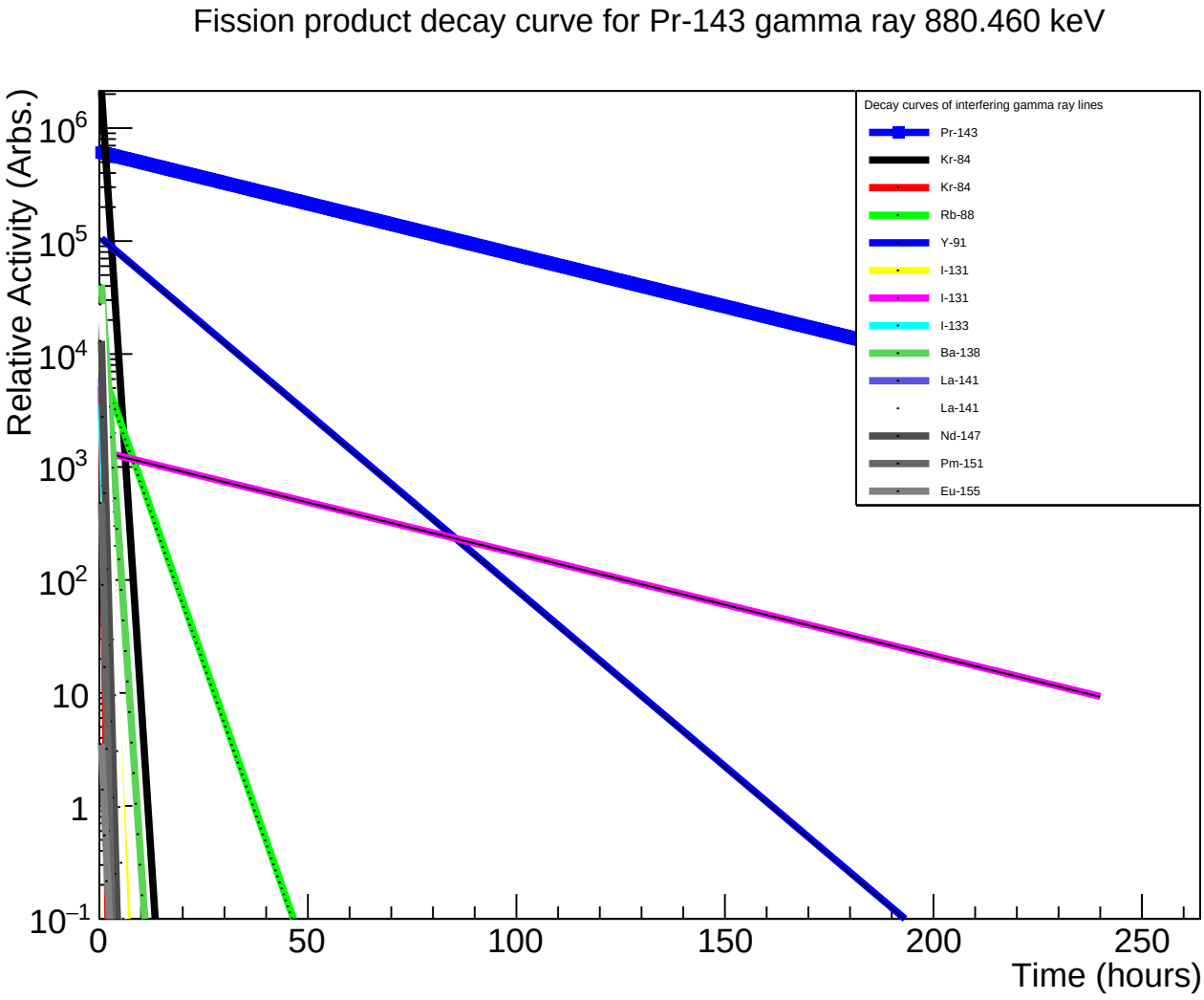


Figure 1004: Pr-143 decay curve for 880.460 keV gamma ray.

3.1005 Ce-144 E_γ = 80.12 keV

Chemical element: Cerium
Fission product parent: Ce-144
Gamma originates in daughter: Pr-144
Eγ: 80.12 keV
Gamma Intensity = 1.36 ± 0.059 %
$T_{1/2}$ = 6833.333 ± 1.200 hours or 410000.01 ± 72.00 minutes
CFY: 5.500 ± 0.038 %

Table 2009: Decay chain of fission product chain A = 144

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-144	Cerium-144	0.011	0.000
Cerium-144	Praseodymium-144	6833.333	1.200
Praseodymium-144	Neodymium-144	0.288	0.001

Table 2010: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	80.920	0.037	0.243	0.052
Tc-105	Ru-105	80.640	0.004	0.127	0.010
Ru-105	Rh-105	81.200	0.001	4.440	0.010
Rh-107	Pd-107	80.060	0.001	0.362	0.001
Sn-128	Sb-128	80.900	0.002	0.984	0.003
Sb-125	Te-125	81.020	0.000	24194.445	0.000
Te-131	I-131	79.190	0.001	33.250	0.004
Te-131	I-131	81.140	0.039	33.250	0.004
Te-133	I-133	81.610	0.003	0.923	0.040
Te-134	I-134	79.445	0.209	0.697	0.070
I-131	Xe-131	80.185	0.026	192.605	0.029
Xe-133	Cs-133	79.623	0.003	125.832	0.067
Xe-133	Cs-133	80.997	0.380	125.832	0.067
Ba-142	La-142	79.800	0.000	0.177	0.058
Nd-147	Pm-147	80.820	0.000	263.520	0.022
Nd-149	Pm-149	80.305	0.005	1.728	0.011
Nd-151	Pm-151	80.740	0.002	0.207	0.004
Sm-155	Eu-155	78.650	0.003	0.372	0.000
Sm-155	Eu-155	80.000	0.000	0.372	0.000

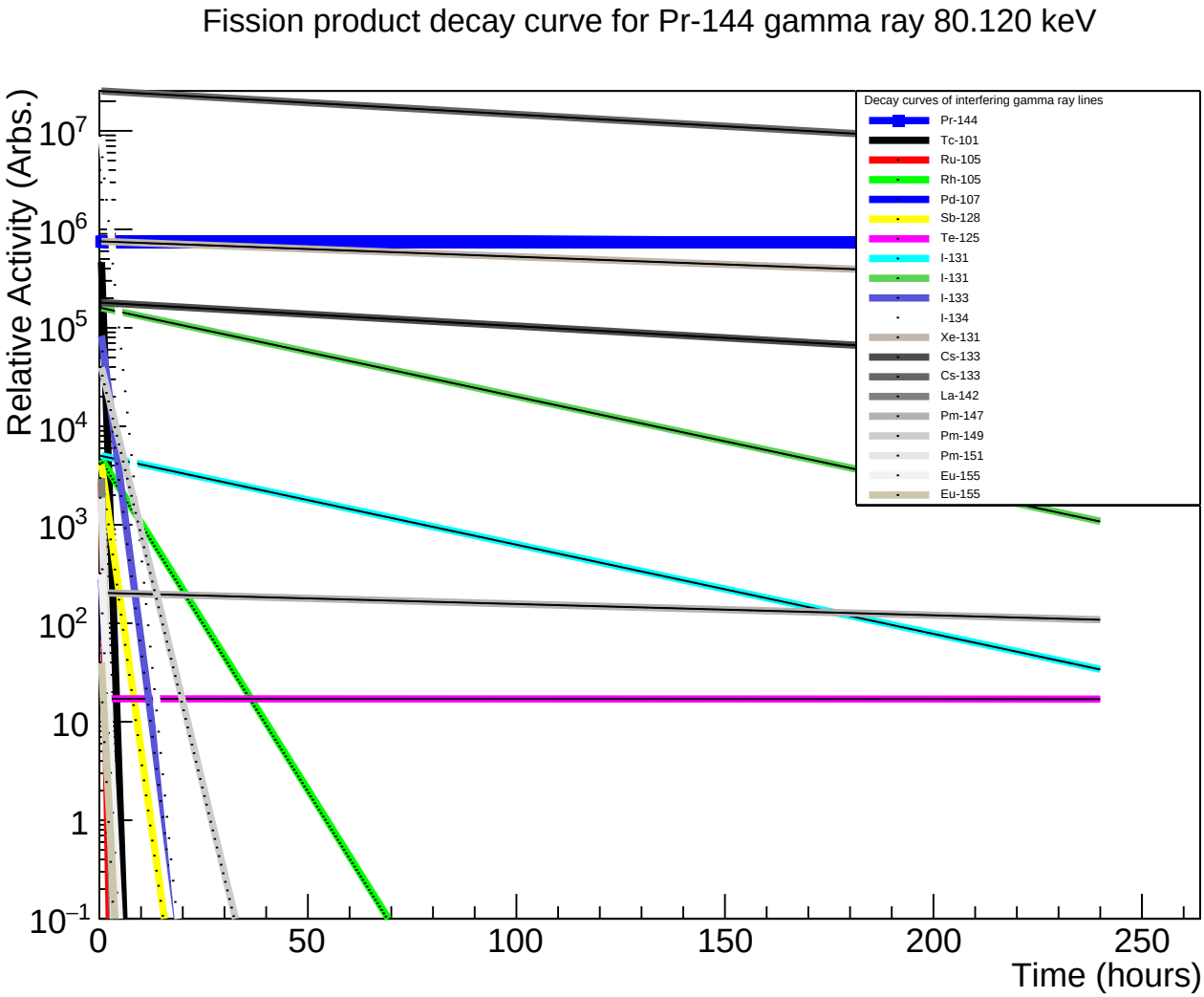


Figure 1005: Pr-144 decay curve for 80.120 keV gamma ray.

3.1006 Ce-144 E_γ = 133.51 keV

Chemical element: Cerium
Fission product parent: Ce-144
Gamma originates in daughter: Pr-144
Eγ: 133.51 keV
Gamma Intensity = 11.09 ± 0.195 %
$T_{1/2}$ = 6833.333 ± 1.200 hours or 410000.01 ± 72.00 minutes
CFY: 5.500 ± 0.038 %

Table 2011: Decay chain of fission product chain A = 144

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-144	Cerium-144	0.011	0.000
Cerium-144	Praseodymium-144	6833.333	1.200
Praseodymium-144	Neodymium-144	0.288	0.001

Table 2012: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	134.200	0.000	13.701	0.000
Sb-125	Te-125	132.810	0.000	24194.445	0.000
Sb-131	Te-131	134.600	0.025	0.384	0.026
Te-131	I-131	134.860	0.007	33.250	0.004
Ba-140	La-140	132.687	0.002	306.065	0.062
Pm-151	Sm-151	134.220	0.000	28.400	0.004
Pm-151	Sm-151	134.900	0.000	28.400	0.004

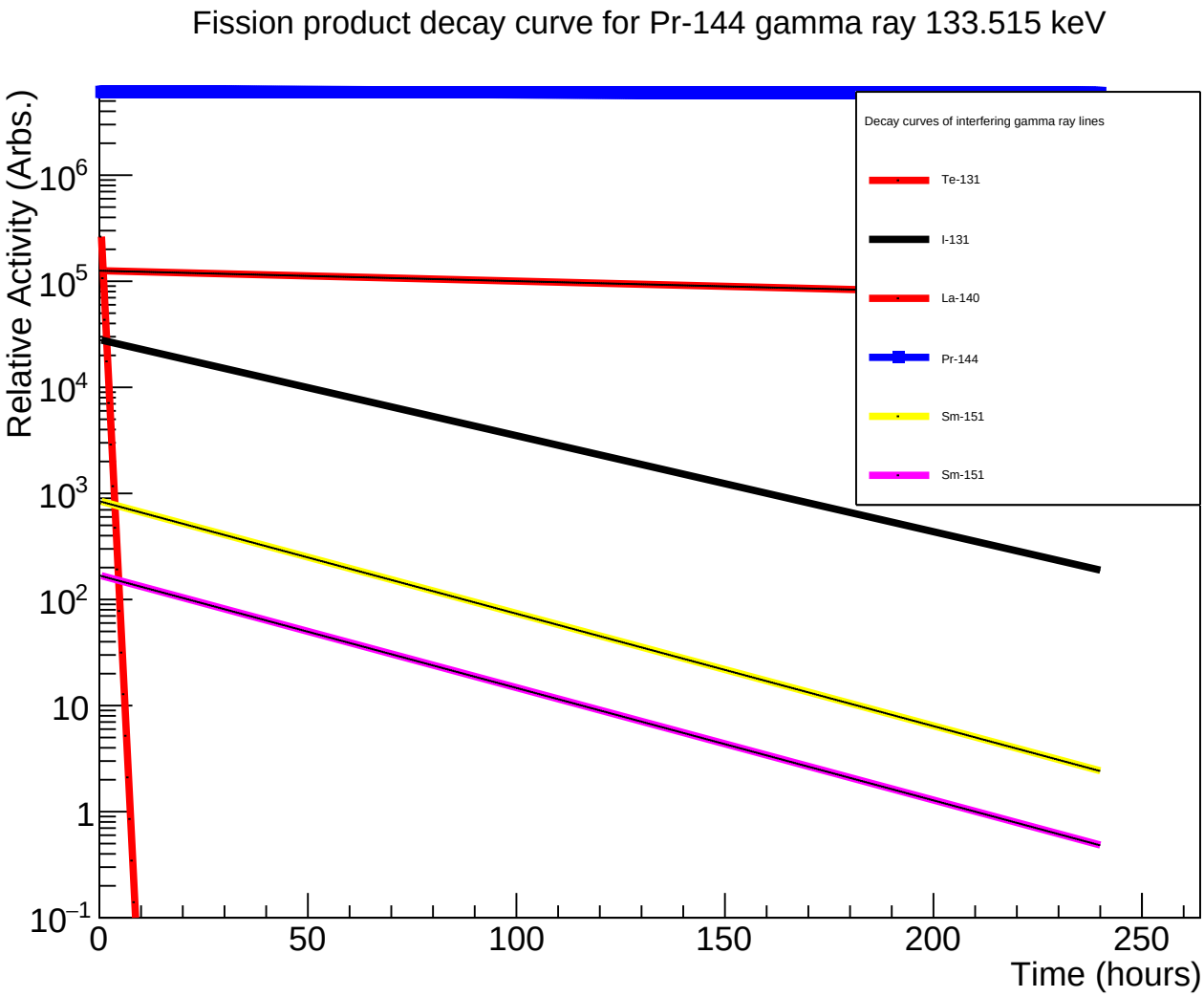


Figure 1006: Pr-144 decay curve for 133.515 keV gamma ray.

3.1007 Ce-146 E_γ = 35.05 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 35.05 keV
Gamma Intensity = 1.12 ± 0.060 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2013: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

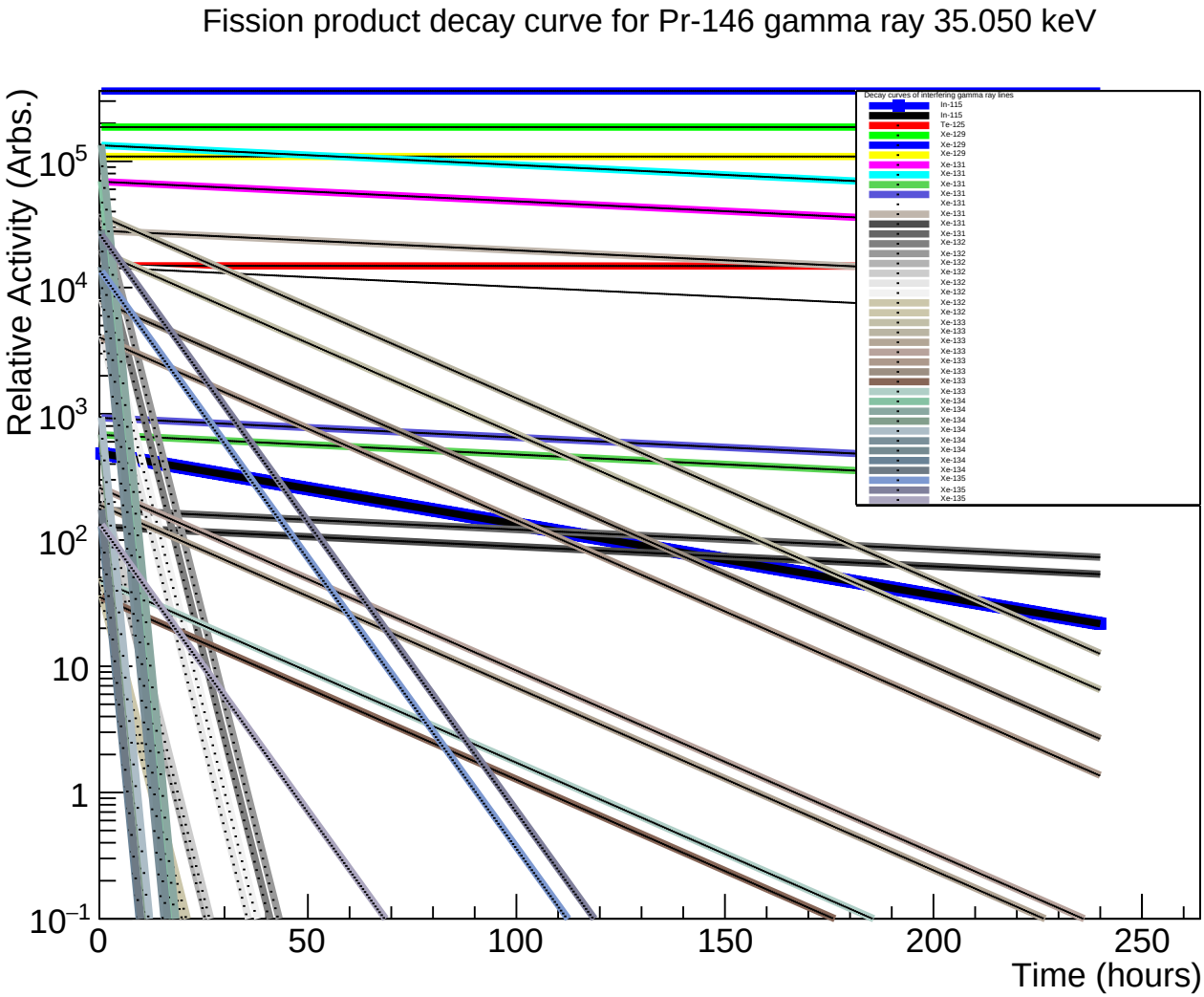


Figure 1007: Pr-146 decay curve for 35.050 keV gamma ray.

Table 2014: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Cd-115	In-115	35.570	0.004	53.460	0.000
Sb-125	Te-125	35.489	0.044	24194.445	0.000
I-129	Xe-129	33.562	0.034	137500000256.000	0.005
I-129	Xe-129	33.624	0.066	137500000256.000	0.005
I-129	Xe-129	34.419	0.020	137500000256.000	0.005
I-131	Xe-131	33.567	0.002	192.605	0.029
I-131	Xe-131	33.629	0.005	192.605	0.029
I-131	Xe-131	33.865	0.000	192.605	0.029
I-131	Xe-131	33.879	0.000	192.605	0.029
I-131	Xe-131	34.395	0.001	192.605	0.029
I-131	Xe-131	34.408	0.001	192.605	0.029
I-131	Xe-131	34.486	0.000	192.605	0.029
I-131	Xe-131	34.488	0.000	192.605	0.029
I-132	Xe-132	33.567	0.001	2.295	0.043
I-132	Xe-132	33.629	0.001	2.295	0.043
I-132	Xe-132	33.865	0.000	2.295	0.043
I-132	Xe-132	33.879	0.000	2.295	0.043
I-132	Xe-132	34.395	0.000	2.295	0.043
I-132	Xe-132	34.408	0.000	2.295	0.043
I-132	Xe-132	34.486	0.000	2.295	0.043
I-132	Xe-132	34.488	0.000	2.295	0.043
I-133	Xe-133	33.567	0.000	20.800	0.067
I-133	Xe-133	33.629	0.001	20.800	0.067
I-133	Xe-133	33.865	0.000	20.800	0.067
I-133	Xe-133	33.879	0.000	20.800	0.067
I-133	Xe-133	34.395	0.000	20.800	0.067
I-133	Xe-133	34.408	0.000	20.800	0.067
I-133	Xe-133	34.486	0.000	20.800	0.067
I-133	Xe-133	34.488	0.000	20.800	0.067
I-134	Xe-134	33.567	0.001	0.875	0.078
I-134	Xe-134	33.629	0.003	0.875	0.078
I-134	Xe-134	33.865	0.000	0.875	0.078
I-134	Xe-134	33.879	0.000	0.875	0.078
I-134	Xe-134	34.395	0.000	0.875	0.078
I-134	Xe-134	34.408	0.001	0.875	0.078
I-134	Xe-134	34.486	0.000	0.875	0.078
I-134	Xe-134	34.488	0.000	0.875	0.078
I-135	Xe-135	33.567	0.000	6.570	0.063
I-135	Xe-135	33.629	0.000	6.570	0.063
I-135	Xe-135	33.865	0.000	6.570	0.063

3.1008 Ce-146 E_γ = 98.55 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 98.55 keV
Gamma Intensity = 3.20 ± 0.288 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2015: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2016: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	97.200	0.005	2.100	0.001
Te-131	I-131	98.300	0.000	33.250	0.004
Te-131	I-131	100.000	0.001	33.250	0.004
Te-133	I-133	97.800	0.001	0.923	0.040
Ba-140	La-140	99.490	0.000	306.065	0.062
Pr-147	Nd-147	99.900	0.005	0.223	0.022
Nd-151	Pm-151	97.870	0.000	0.207	0.004
Pm-151	Sm-151	98.050	0.004	28.400	0.004
Pm-151	Sm-151	98.740	0.001	28.400	0.004
Pm-151	Sm-151	100.020	0.025	28.400	0.004
Sm-153	Eu-153	97.431	0.008	46.500	0.002

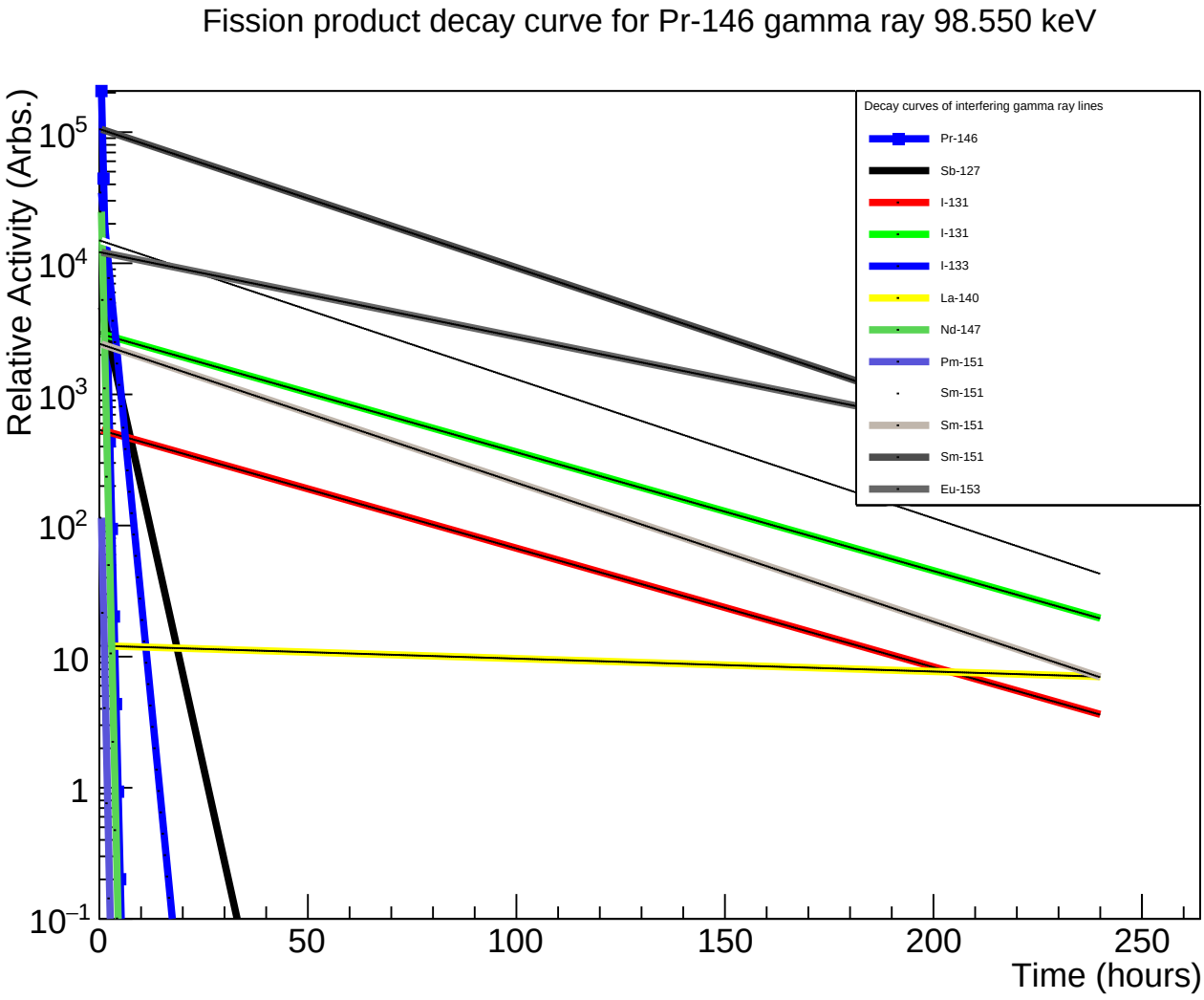


Figure 1008: Pr-146 decay curve for 98.550 keV gamma ray.

3.1009 Ce-146 E_γ = 100.88 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 100.88 keV
Gamma Intensity = 2.53 ± 0.176 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2017: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2018: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	101.400	0.000	0.390	0.000
Te-131	I-131	100.000	0.001	33.250	0.004
Te-131	I-131	101.600	0.002	33.250	0.004
Te-131	I-131	102.060	0.077	33.250	0.004
Te-134	I-134	101.420	0.004	0.697	0.070
Ba-140	La-140	99.490	0.000	306.065	0.062
Pr-147	Nd-147	99.900	0.005	0.223	0.022
Nd-151	Pm-151	100.100	0.000	0.207	0.004
Pm-151	Sm-151	100.020	0.025	28.400	0.004
Pm-151	Sm-151	100.600	0.000	28.400	0.004
Pm-151	Sm-151	101.930	0.013	28.400	0.004

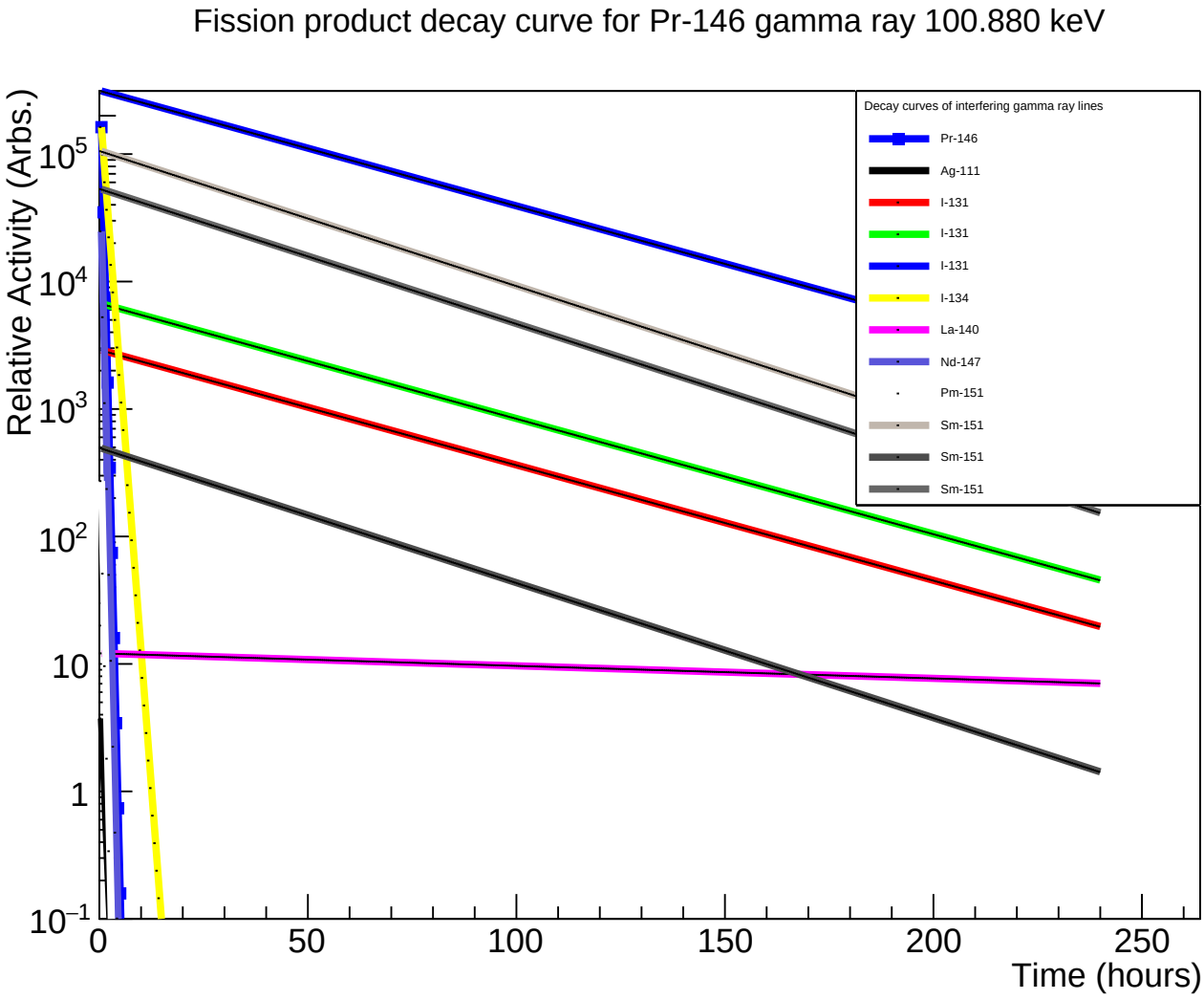


Figure 1009: Pr-146 decay curve for 100.880 keV gamma ray.

3.1010 Ce-146 E_γ = 133.52 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 133.52 keV
Gamma Intensity = 8.15 ± 0.425 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2019: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2020: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	134.200	0.000	13.701	0.000
Sb-125	Te-125	132.810	0.000	24194.445	0.000
Sb-131	Te-131	134.600	0.025	0.384	0.026
Te-131	I-131	134.860	0.007	33.250	0.004
Ba-140	La-140	132.687	0.002	306.065	0.062
Pm-151	Sm-151	134.220	0.000	28.400	0.004
Pm-151	Sm-151	134.900	0.000	28.400	0.004

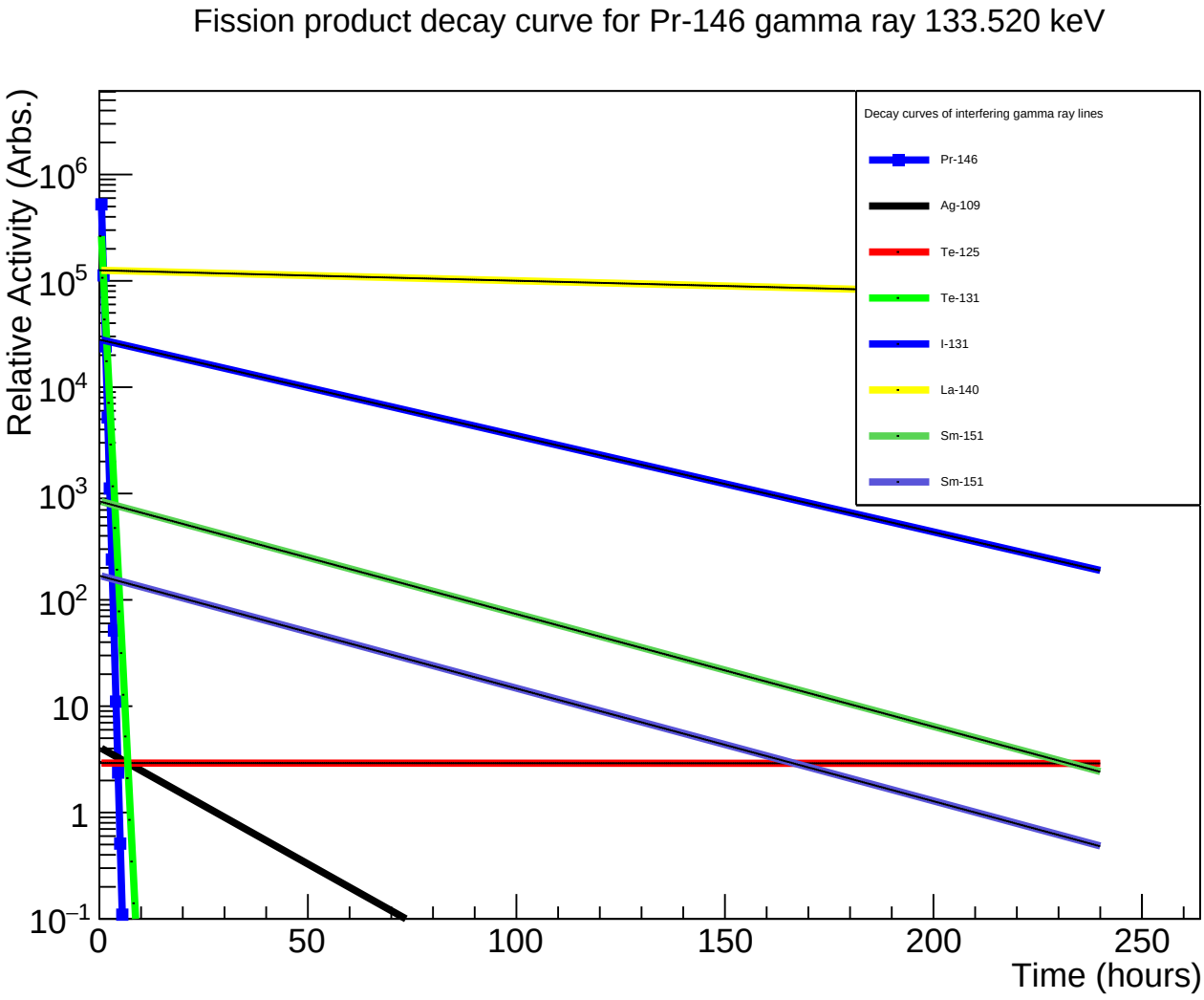


Figure 1010: Pr-146 decay curve for 133.520 keV gamma ray.

3.1011 Ce-146 E_γ = 141.29 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 141.29 keV
Gamma Intensity = 3.26 ± 0.180 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2021: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2022: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	140.511	0.045	65.976	0.061
Tc-99	Ru-99	140.511	0.890	6.007	0.054
Tc-99	Ru-99	142.630	0.000	6.007	0.054
Tc-105	Ru-105	142.700	0.004	0.127	0.010
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Te-131	I-131	141.200	0.000	0.417	0.025
Pr-147	Nd-147	141.000	0.013	0.223	0.022
Nd-149	Pm-149	141.060	0.000	1.728	0.011
Pm-151	Sm-151	141.700	0.000	28.400	0.004
Sm-155	Eu-155	141.411	0.020	0.372	0.000

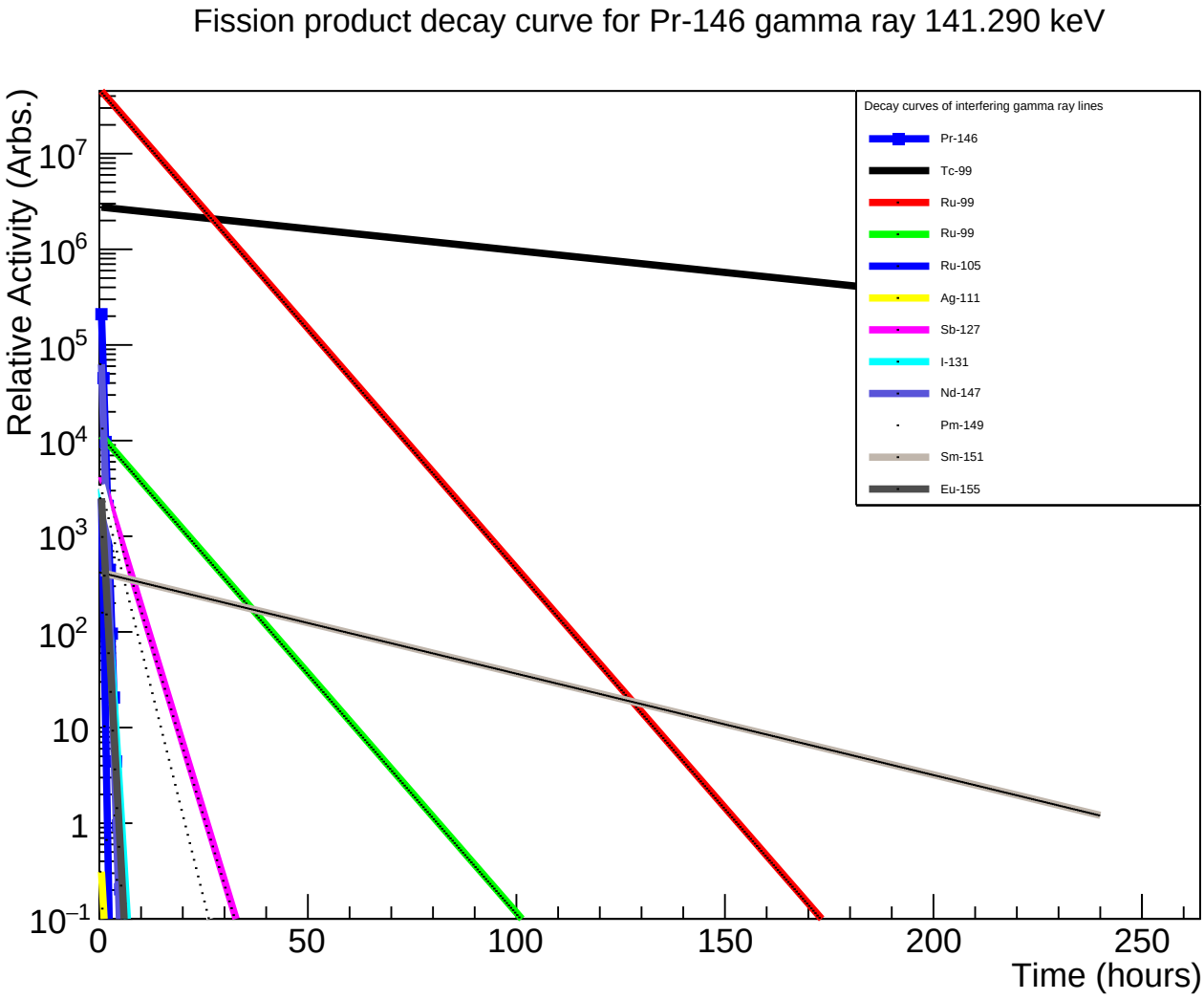


Figure 1011: Pr-146 decay curve for 141.290 keV gamma ray.

3.1012 Ce-146 E_γ = 210.46 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 210.46 keV
Gamma Intensity = 4.95 ± 0.245 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2023: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2024: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-102	Tc-102	211.660	0.038	0.188	0.043
Sn-127	Sb-127	211.500	0.001	2.100	0.001
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Te-129	I-129	208.960	0.002	1.160	0.005
Te-129	I-129	210.660	0.000	1.160	0.005
Te-129	I-129	208.960	0.000	806.400	0.001
Te-131	I-131	211.900	0.000	33.250	0.004
Te-134	I-134	210.465	0.227	0.697	0.070
Nd-149	Pm-149	211.309	0.259	1.728	0.011
Nd-151	Pm-151	211.360	0.001	0.207	0.004
Pm-151	Sm-151	209.000	0.017	28.400	0.004

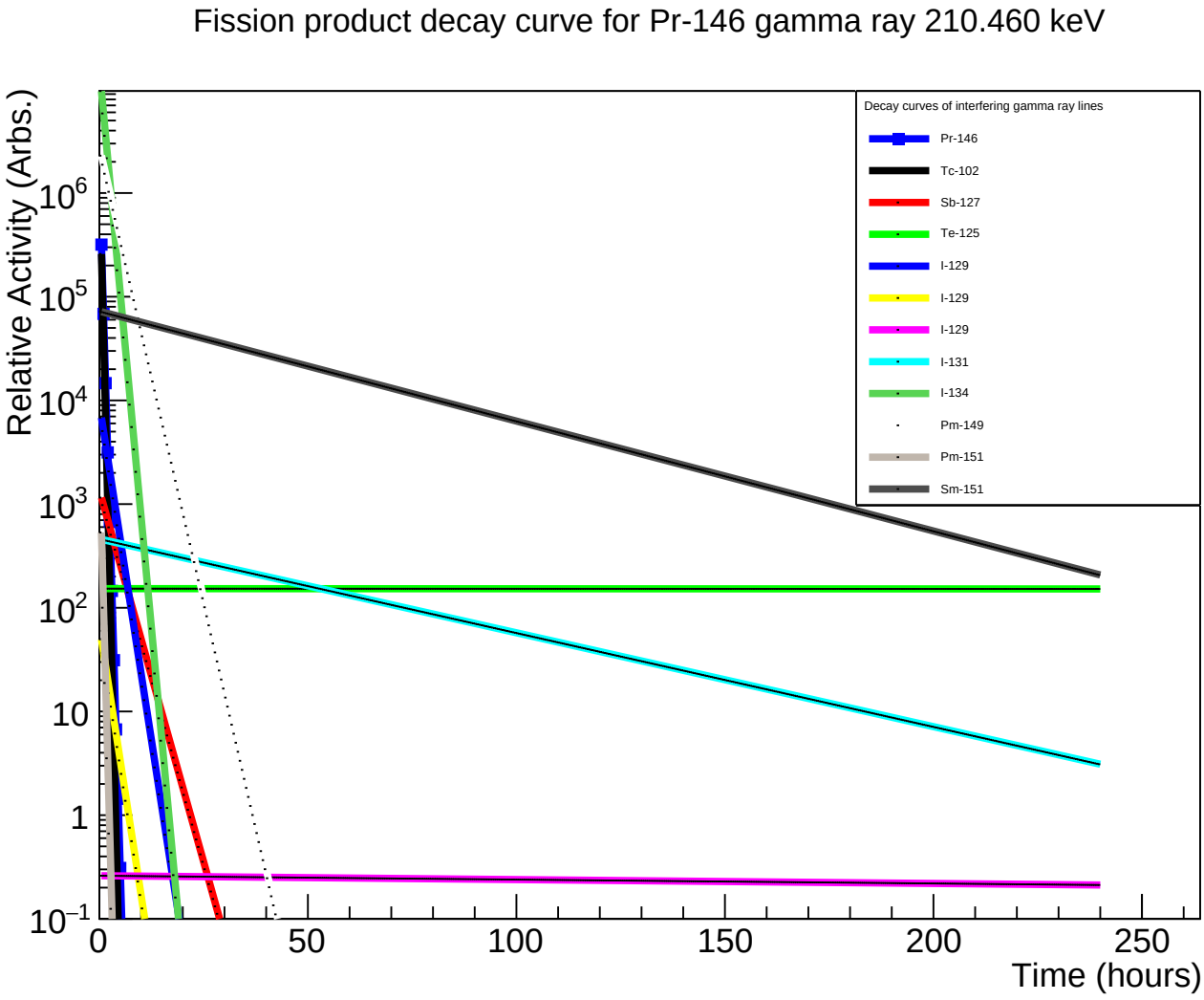


Figure 1012: Pr-146 decay curve for 210.460 keV gamma ray.

3.1013 Ce-146 E_γ = 218.23 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 218.23 keV
Gamma Intensity = 20.79 ± 1.195 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2025: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2026: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	218.900	0.002	16.749	0.060
Tc-104	Ru-104	219.000	0.004	0.305	0.019
Tc-105	Ru-105	218.180	0.003	0.127	0.010
Rh-107	Pd-107	219.400	0.001	0.362	0.001
Ag-113	Cd-113	217.200	0.000	5.370	0.000
I-134	Xe-134	217.000	0.002	0.875	0.078
Sm-156	Eu-156	219.000	0.005	9.400	0.000

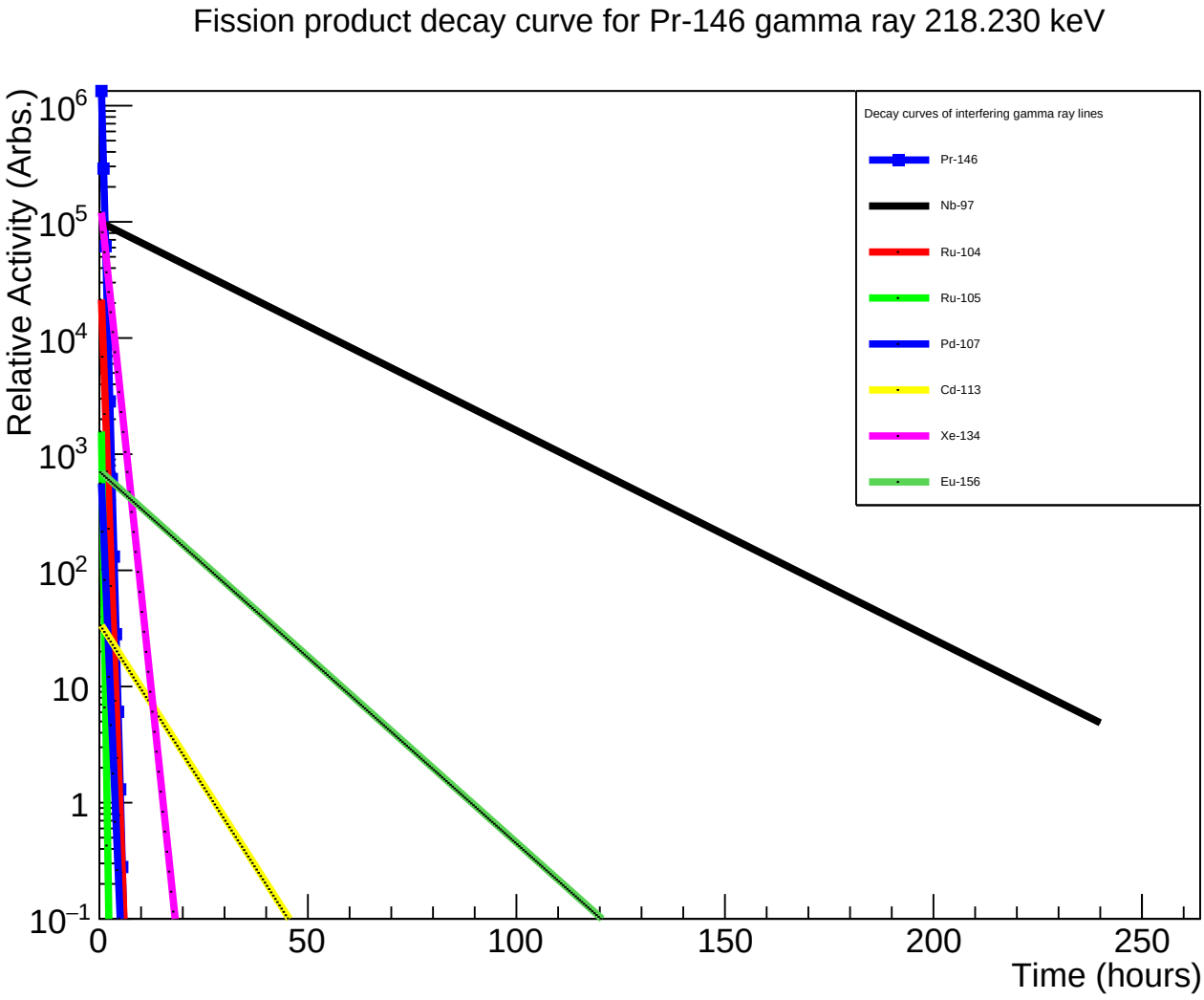


Figure 1013: Pr-146 decay curve for 218.230 keV gamma ray.

3.1014 Ce-146 E_γ = 250.89 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 250.89 keV
Gamma Intensity = 2.53 ± 0.123 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2027: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2028: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	252.000	0.058	0.127	0.010
Cd-115	In-115	252.000	0.000	53.460	0.000
Sb-128	Te-128	249.700	0.006	9.010	0.000
Te-129	I-129	250.620	0.004	1.160	0.005
Te-129	I-129	250.620	0.000	806.400	0.001
Te-133	I-133	251.400	0.000	0.208	0.031
Te-133	I-133	251.510	0.003	0.923	0.040
I-132	Xe-132	250.800	0.000	2.295	0.043
Xe-135	Cs-135	249.794	0.900	9.140	0.065
Cs-139	Ba-139	249.890	0.000	0.155	0.063
Nd-149	Pm-149	250.826	0.000	1.728	0.011
Nd-151	Pm-151	252.230	0.001	0.207	0.004
Nd-152	Pm-152	250.150	0.183	0.190	0.003
Nd-152	Pm-152	250.300	0.001	0.190	0.003
Pm-151	Sm-151	250.500	0.000	28.400	0.004

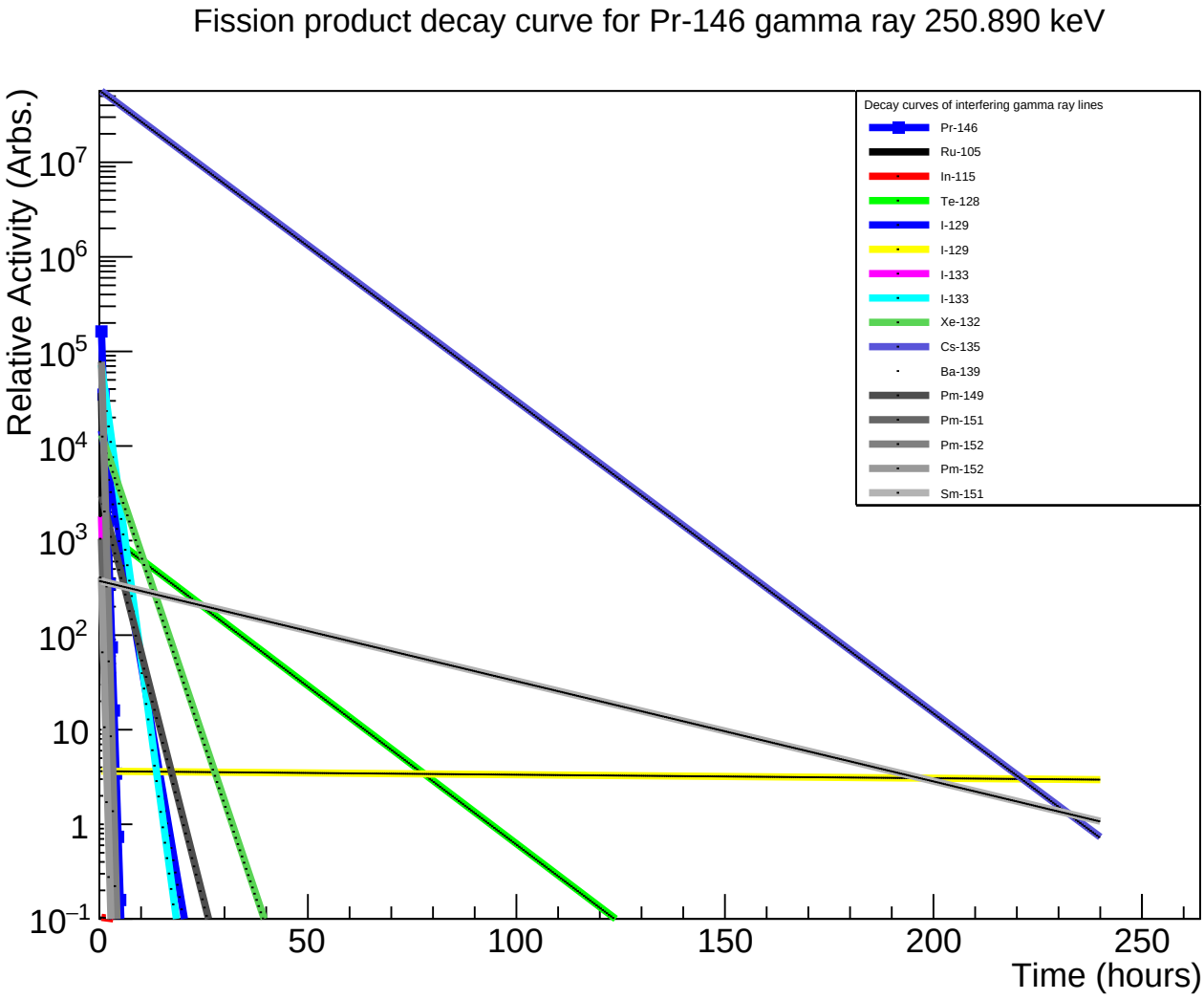


Figure 1014: Pr-146 decay curve for 250.890 keV gamma ray.

3.1015 Ce-146 E_γ = 264.56 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 264.56 keV
Gamma Intensity = 8.99 ± 0.483 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2029: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2030: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	266.060	0.003	0.362	0.001
Sn-129	Sb-129	264.300	0.007	0.115	0.002
I-135	Xe-135	264.260	0.002	6.570	0.063
Pr-147	Nd-147	264.600	0.005	0.223	0.022
Nd-149	Pm-149	263.400	0.000	1.728	0.011
Nd-151	Pm-151	263.560	0.008	0.207	0.004
Pm-149	Sm-149	263.230	0.000	53.080	0.011

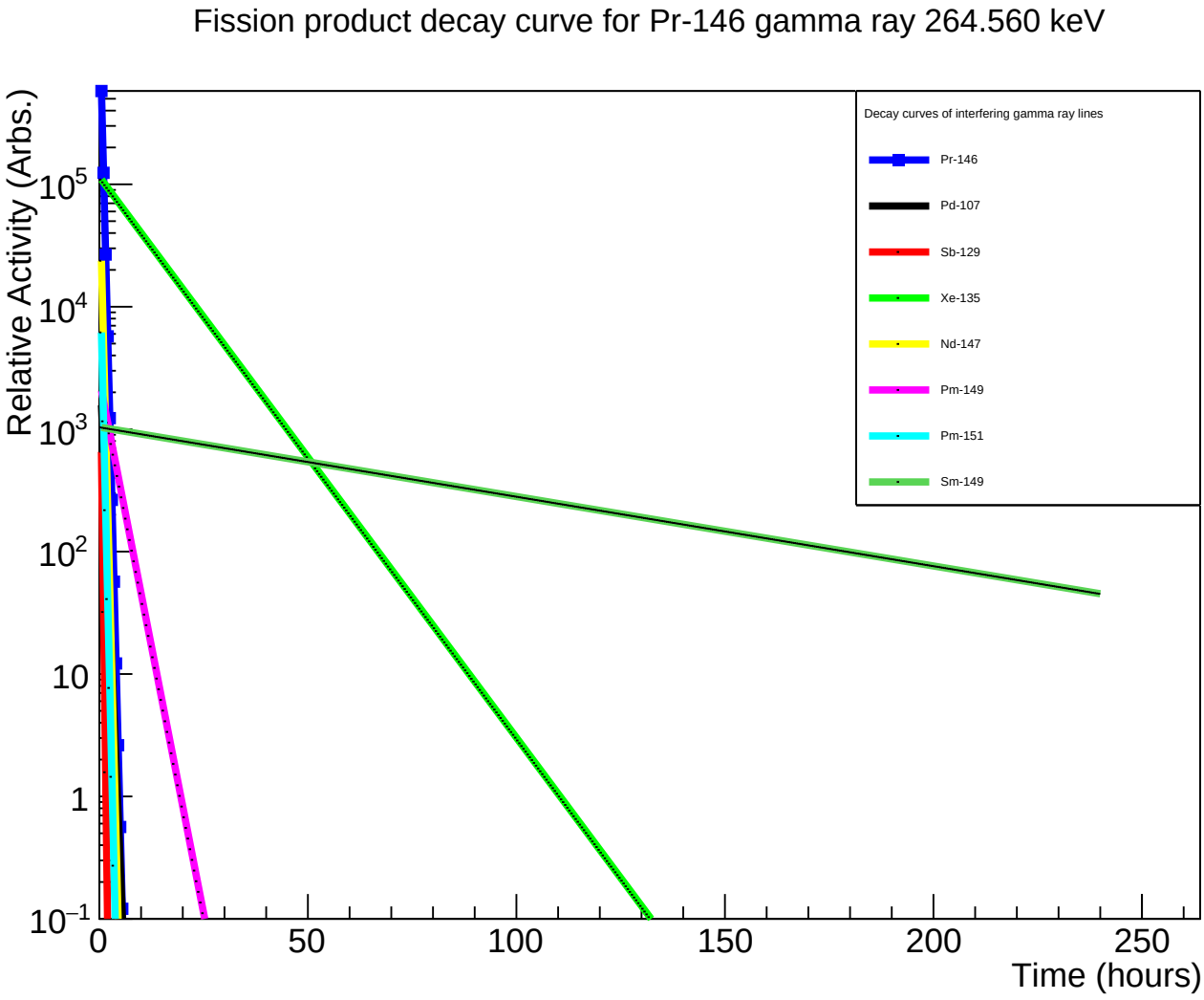


Figure 1015: Pr-146 decay curve for 264.560 keV gamma ray.

3.1016 Ce-146 E_γ = 316.74 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 316.74 keV
Gamma Intensity = 56.20 ± 3.018 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2031: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2032: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	318.000	0.002	0.243	0.052
Ru-103	Rh-103	317.720	0.000	941.928	0.030
Ru-105	Rh-105	316.440	0.111	4.440	0.010
Pd-111	Ag-111	316.800	0.000	0.390	0.000
Ag-113	Cd-113	316.300	0.013	5.370	0.000
Sb-128	Te-128	317.700	0.030	9.010	0.000
I-131	Xe-131	318.088	0.001	192.605	0.029
I-132	Xe-132	316.700	0.001	2.295	0.043
La-142	Ce-142	318.000	0.000	1.518	0.058
Nd-149	Pm-149	318.200	0.000	1.728	0.011
Nd-151	Pm-151	316.560	0.000	0.207	0.004
Eu-156	Gd-156	317.300	0.001	364.560	0.000

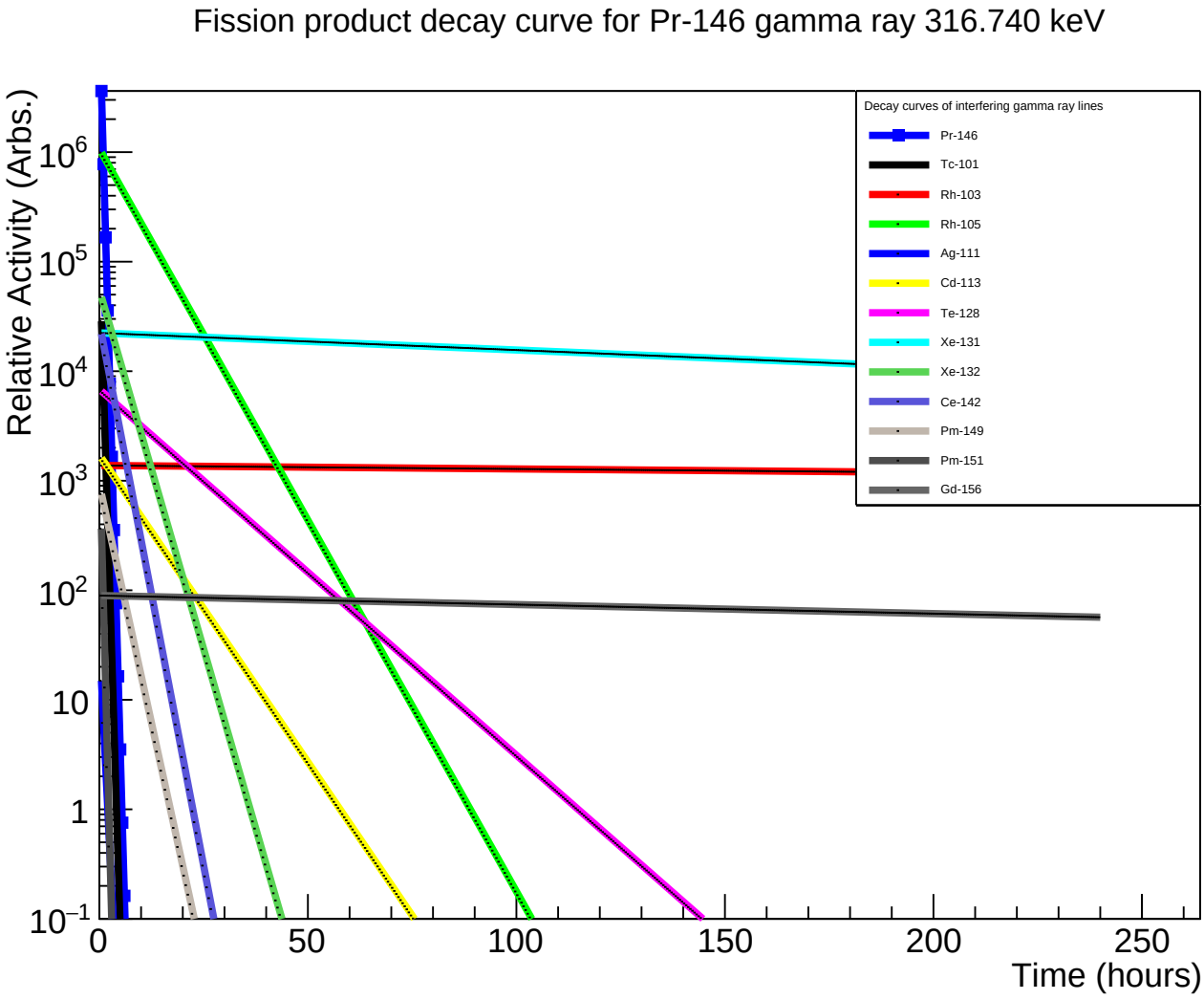


Figure 1016: Pr-146 decay curve for 316.740 keV gamma ray.

3.1017 Ce-146 E_γ = 351.49 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 351.49 keV
Gamma Intensity = 2.30 ± 0.121 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2033: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2034: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	351.100	0.002	1.512	0.000
Kr-88	Rb-88	350.040	0.000	2.840	0.036
Sr-92	Y-92	352.500	0.001	2.710	0.059
Nb-98	Mo-98	350.780	0.000	0.855	0.000
Nb-98	Mo-98	350.920	0.004	0.855	0.000
Mo-101	Tc-101	352.970	0.001	0.243	0.052
Ru-105	Rh-105	350.180	0.010	4.440	0.010
Pd-111	Ag-111	352.200	0.000	0.390	0.000
Sn-125	Sb-125	350.950	0.003	231.360	0.000
Sn-129	Sb-129	352.500	0.014	0.115	0.002
Te-131	I-131	351.480	0.000	0.417	0.025
Te-131	I-131	351.300	0.002	33.250	0.004
I-134	Xe-134	351.080	0.004	0.875	0.078
La-142	Ce-142	350.300	0.000	1.518	0.058
Pr-145	Nd-145	352.481	0.000	5.984	0.039
Nd-149	Pm-149	351.632	0.012	1.728	0.011
Nd-149	Pm-149	352.780	0.001	1.728	0.011
Nd-152	Pm-152	350.000	0.000	0.190	0.003
Pm-149	Sm-149	350.000	0.000	53.080	0.011
Pm-149	Sm-149	350.710	0.000	53.080	0.011
Pm-151	Sm-151	352.300	0.000	28.400	0.004

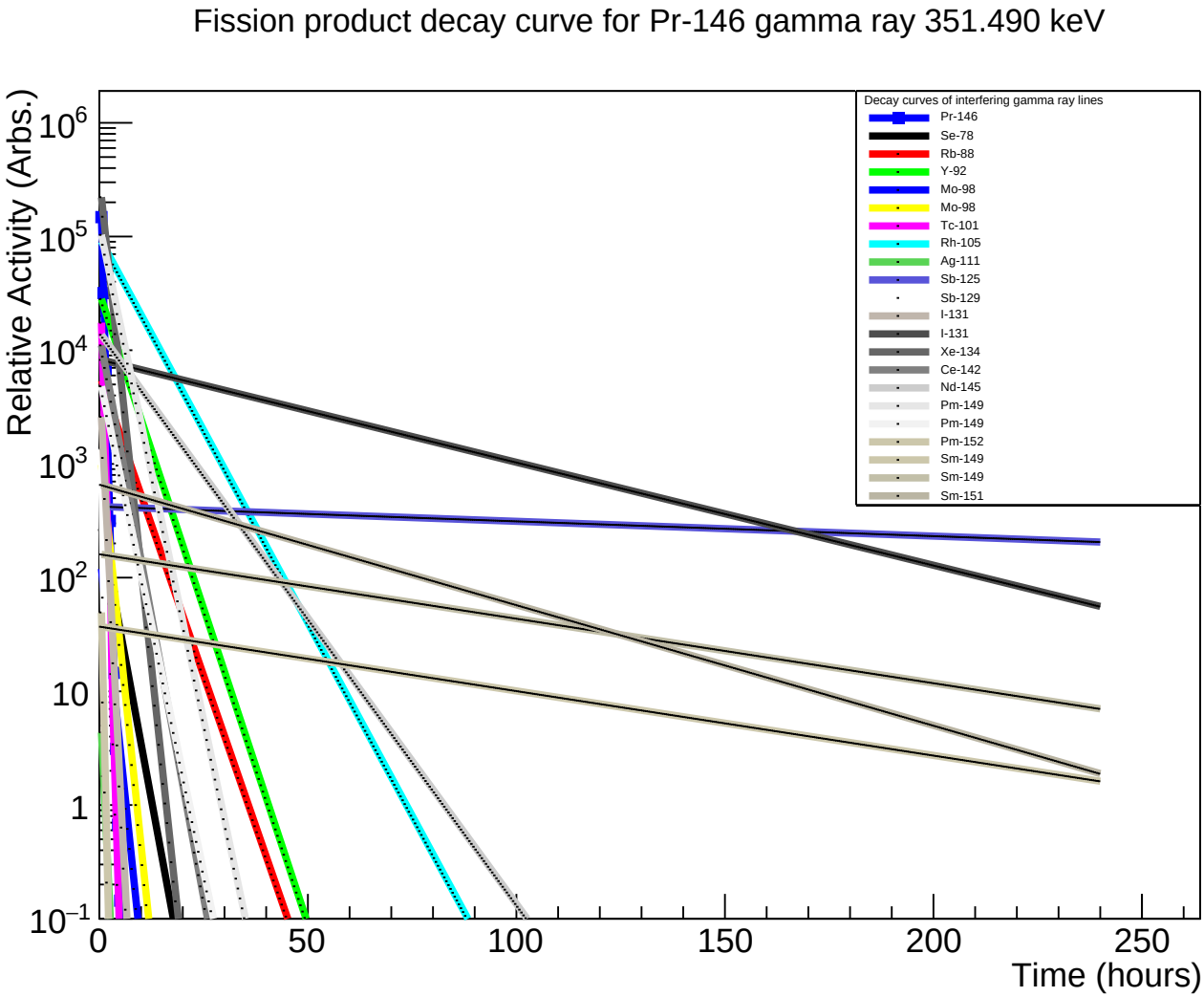


Figure 1017: Pr-146 decay curve for 351.490 keV gamma ray.

3.1018 Ce-146 E_γ = 415.71 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 415.71 keV
Gamma Intensity = 1.29 ± 0.062 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2035: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2036: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	415.200	0.016	0.372	0.003
Rb-88	Sr-88	416.200	0.000	0.296	0.036
Nb-98	Mo-98	415.500	0.000	0.855	0.000
Tc-105	Ru-105	415.000	0.002	0.127	0.010
Pd-109	Ag-109	415.200	0.000	13.701	0.000
Pd-111	Ag-111	415.500	0.001	0.390	0.000
Sb-126	Te-126	414.500	0.857	0.319	0.001
Te-129	I-129	415.880	0.000	1.160	0.005
Te-133	I-133	415.000	0.001	0.923	0.040
I-132	Xe-132	416.800	0.005	2.295	0.043
I-135	Xe-135	414.830	0.003	6.570	0.063
Cs-139	Ba-139	416.490	0.000	0.155	0.063
Nd-151	Pm-151	414.630	0.002	0.207	0.004
Nd-151	Pm-151	415.200	0.000	0.207	0.004
Pm-151	Sm-151	415.700	0.000	28.400	0.004
Pm-151	Sm-151	416.800	0.000	28.400	0.004

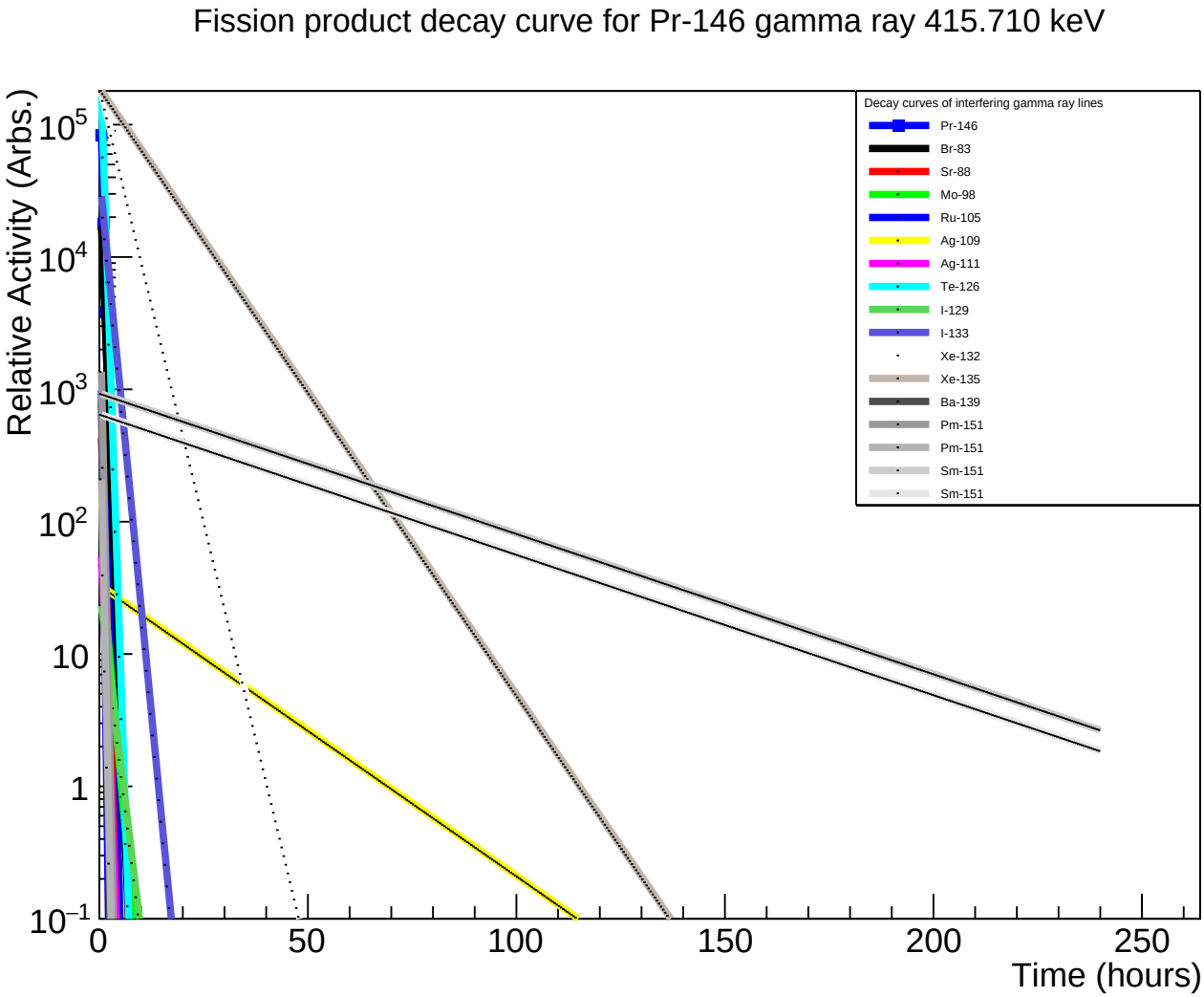


Figure 1018: Pr-146 decay curve for 415.710 keV gamma ray.

3.1019 Ce-146 E_γ = 503.00 keV

Chemical element: Cerium
Fission product parent: Ce-146
Gamma originates in daughter: Pr-146
Eγ: 503.00 keV
Gamma Intensity = 1.01 ± 0.060 %
$T_{1/2}$ = 0.225 ± 0.002 hours or 13.52 ± 0.13 minutes
CFY: 2.993 ± 0.042 %

Table 2037: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2038: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	503.700	0.004	1.512	0.000
Sb-125	Te-125	503.100	0.000	24194.445	0.000
Sb-127	Te-127	502.800	0.008	92.400	0.002
Sb-130	Te-130	502.600	0.019	0.105	0.010
I-131	Xe-131	503.004	0.004	192.605	0.029
Pr-147	Nd-147	503.500	0.004	0.223	0.022
Nd-151	Pm-151	503.800	0.000	0.207	0.004
Pm-151	Sm-151	503.700	0.000	28.400	0.004

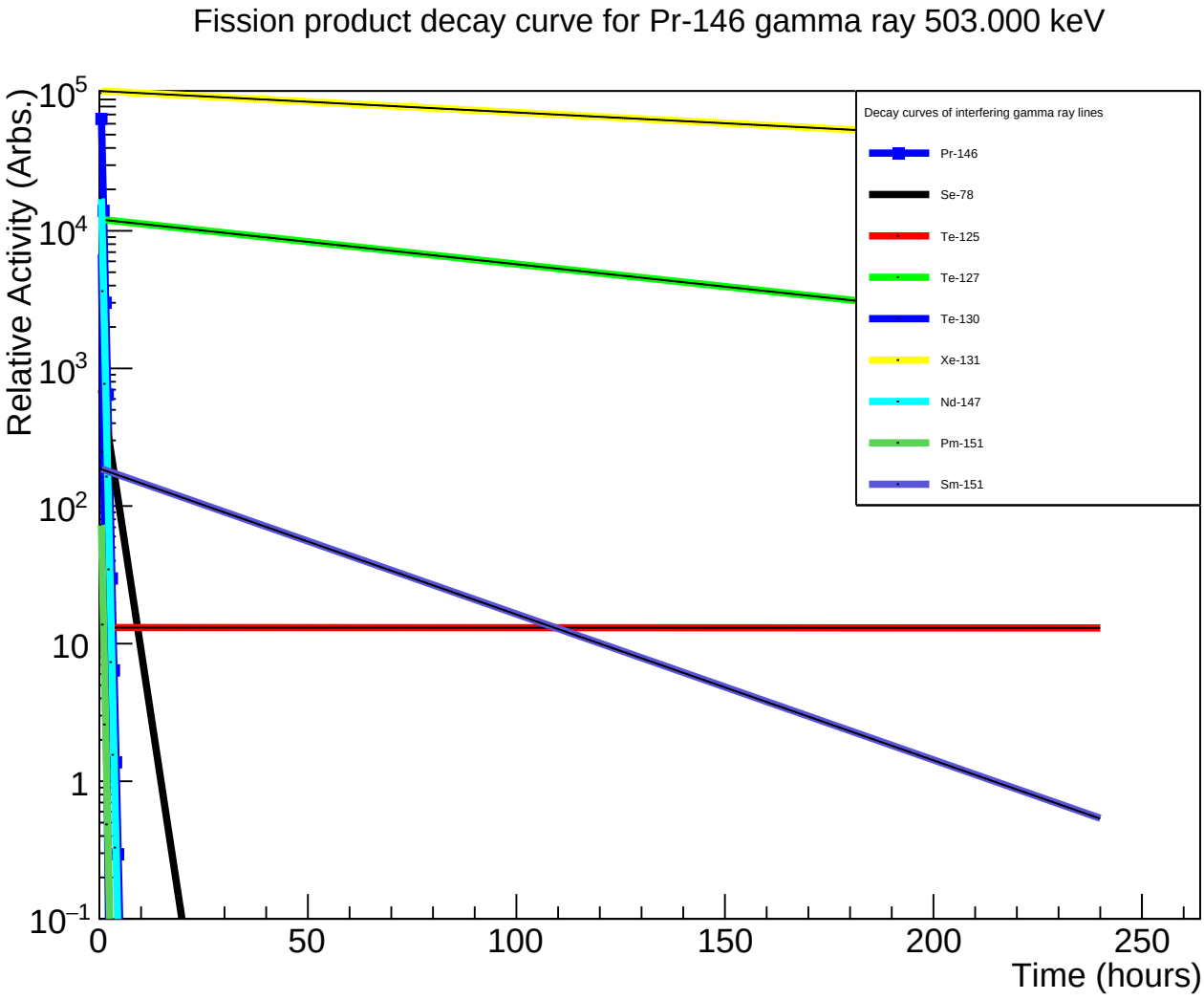


Figure 1019: Pr-146 decay curve for 503.000 keV gamma ray.

3.1020 Pr-144 E_γ = 696.51 keV

Chemical element: Praseodymium
Fission product parent: Pr-144
Gamma originates in daughter: Nd-144
Eγ: 696.51 keV
Gamma Intensity = 1.34 ± 0.014 %
$T_{1/2}$ = 0.288 ± 0.001 hours or 17.28 ± 0.05 minutes
CFY: 5.500 ± 0.027 %

Table 2039: Decay chain of fission product chain A = 144

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-144	Cerium-144	0.011	0.000
Cerium-144	Praseodymium-144	6833.333	1.200
Praseodymium-144	Neodymium-144	0.288	0.001

Table 2040: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	696.500	0.000	0.855	0.000
Nb-98	Mo-98	697.380	0.003	0.855	0.000
Mo-101	Tc-101	695.560	0.067	0.243	0.052
Tc-105	Ru-105	698.000	0.016	0.127	0.010
Rh-107	Pd-107	696.700	0.000	0.362	0.001
Sn-129	Sb-129	695.100	0.042	0.115	0.002
Sb-130	Te-130	697.400	0.044	0.105	0.010
Te-129	I-129	695.880	0.031	806.400	0.001
Te-131	I-131	696.190	0.002	0.417	0.025
Te-131	I-131	695.620	0.004	33.250	0.004
Xe-138	Cs-138	697.600	0.000	0.235	0.063
Nd-149	Pm-149	696.264	0.002	1.728	0.011
Nd-151	Pm-151	695.700	0.000	0.207	0.004

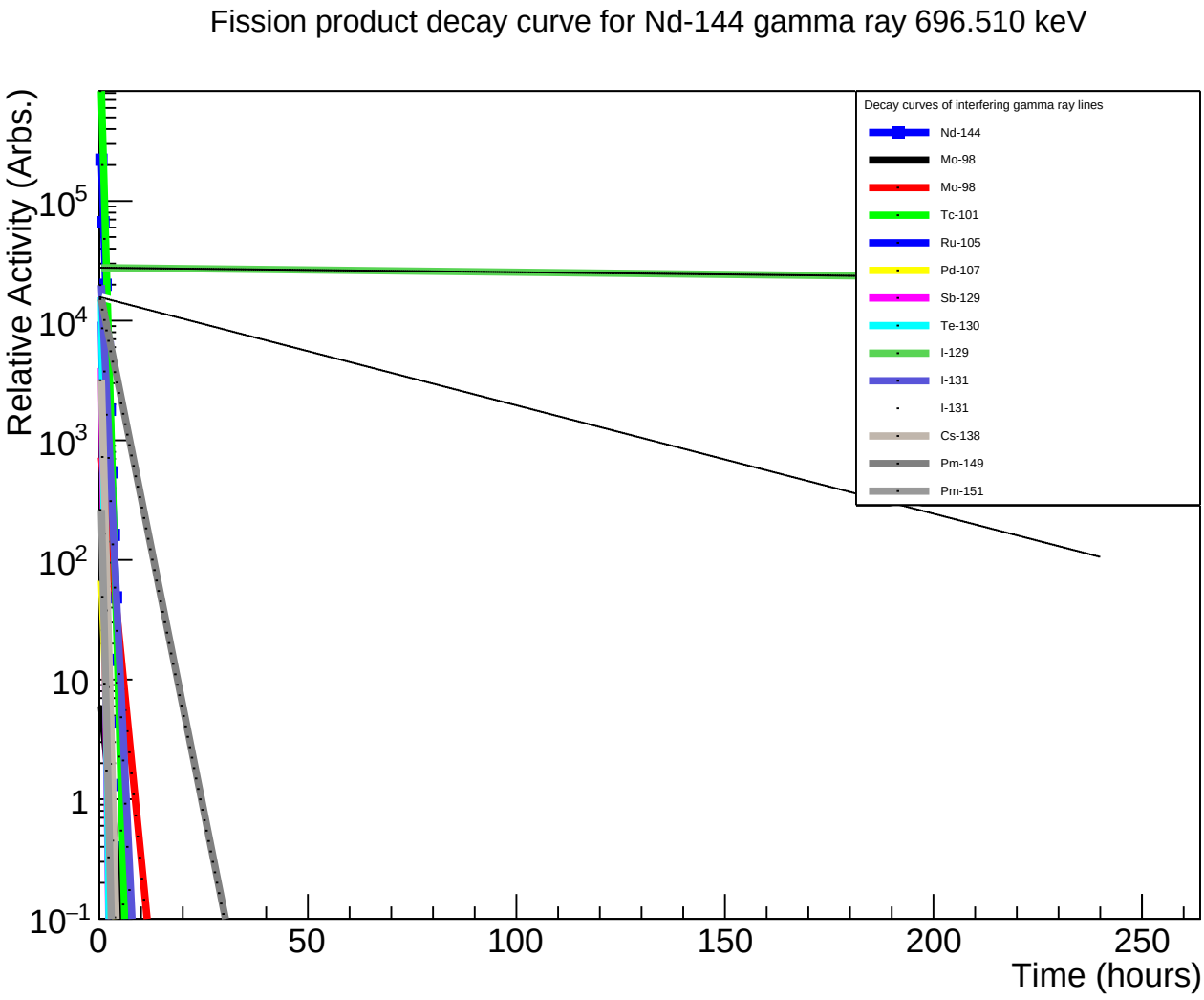


Figure 1020: Nd-144 decay curve for 696.510 keV gamma ray.

3.1021 Pr-146 E_γ = 453.88 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 453.88 keV
Gamma Intensity = 48.00 ± 2.830 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2041: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2042: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	455.040	0.008	0.855	0.000
Mo-101	Tc-101	452.500	0.001	0.243	0.052
Pd-109	Ag-109	454.300	0.000	13.701	0.000
Sb-128	Te-128	454.500	0.015	9.010	0.000
Sb-129	Te-129	453.500	0.008	4.400	0.005
Te-133	I-133	452.900	0.001	0.208	0.031
Xe-135	Cs-135	454.200	0.000	9.140	0.065
Cs-139	Ba-139	454.660	0.001	0.155	0.063
La-142	Ce-142	453.700	0.001	1.518	0.058
La-143	Ce-143	454.030	0.006	0.237	0.059
Nd-151	Pm-151	454.600	0.000	0.207	0.004
Pm-151	Sm-151	454.400	0.000	28.400	0.004

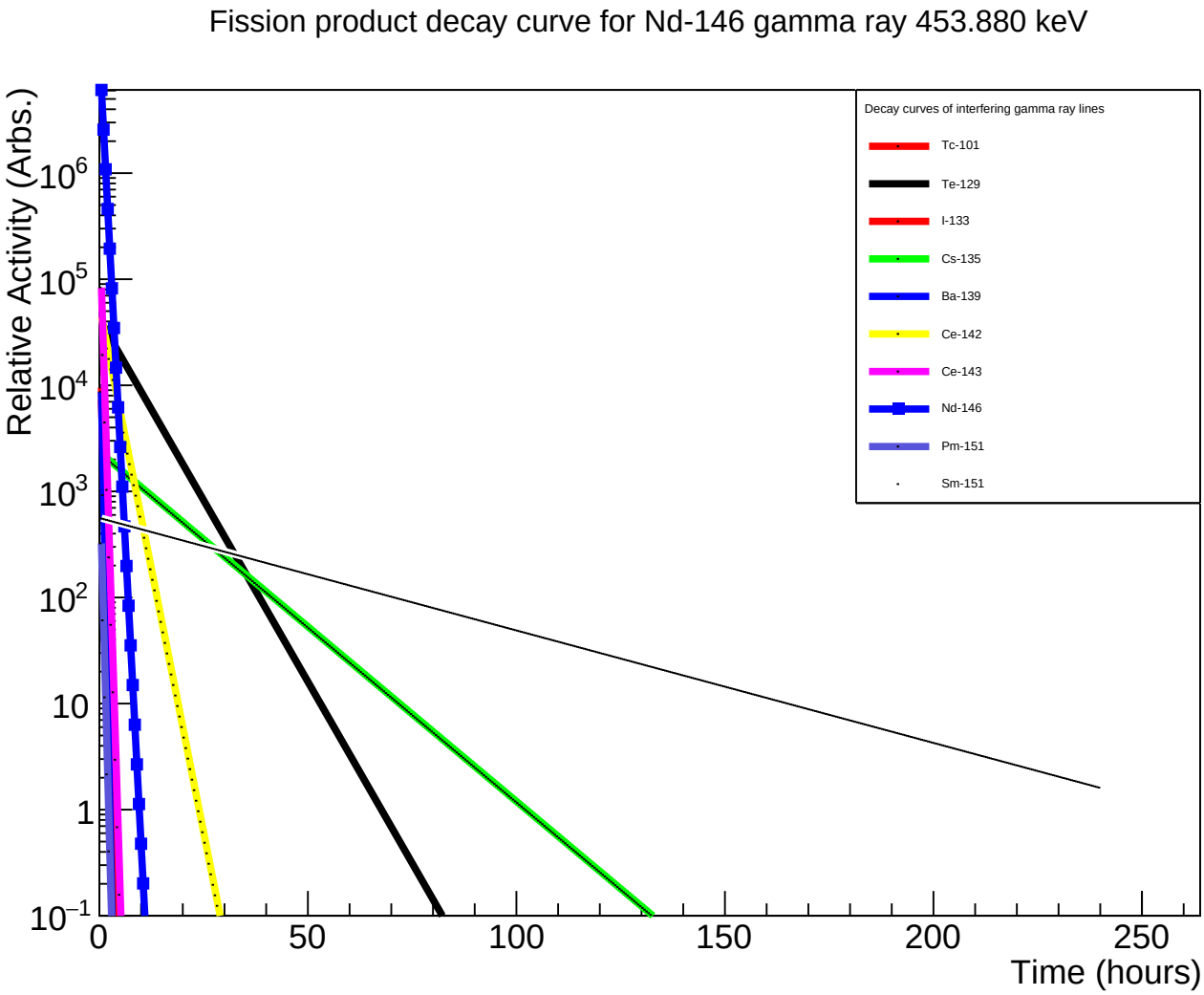


Figure 1021: Nd-146 decay curve for 453.880 keV gamma ray.

3.1022 Pr-146 E_γ = 601.74 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 601.74 keV
Gamma Intensity = 2.98 ± 0.171 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2043: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2044: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	603.210	0.000	2.840	0.036
Zr-97	Nb-97	600.600	0.001	16.749	0.060
Zr-97	Nb-97	602.370	0.014	16.749	0.060
Mo-101	Tc-101	602.980	0.001	0.243	0.052
Pd-109	Ag-109	602.500	0.000	13.701	0.000
Pd-111	Ag-111	603.100	0.000	0.390	0.000
Sb-125	Te-125	600.597	0.176	24194.445	0.000
Sb-128	Te-128	603.000	0.017	9.010	0.000
Te-131	I-131	602.039	0.042	0.417	0.025
Te-131	I-131	602.090	0.003	33.250	0.004
Te-133	I-133	601.500	0.001	0.923	0.040
Te-133	I-133	602.100	0.000	0.923	0.040
Cs-139	Ba-139	601.480	0.001	0.155	0.063
Nd-151	Pm-151	600.800	0.000	0.207	0.004
Nd-151	Pm-151	602.400	0.000	0.207	0.004
Pm-151	Sm-151	603.000	0.000	28.400	0.004

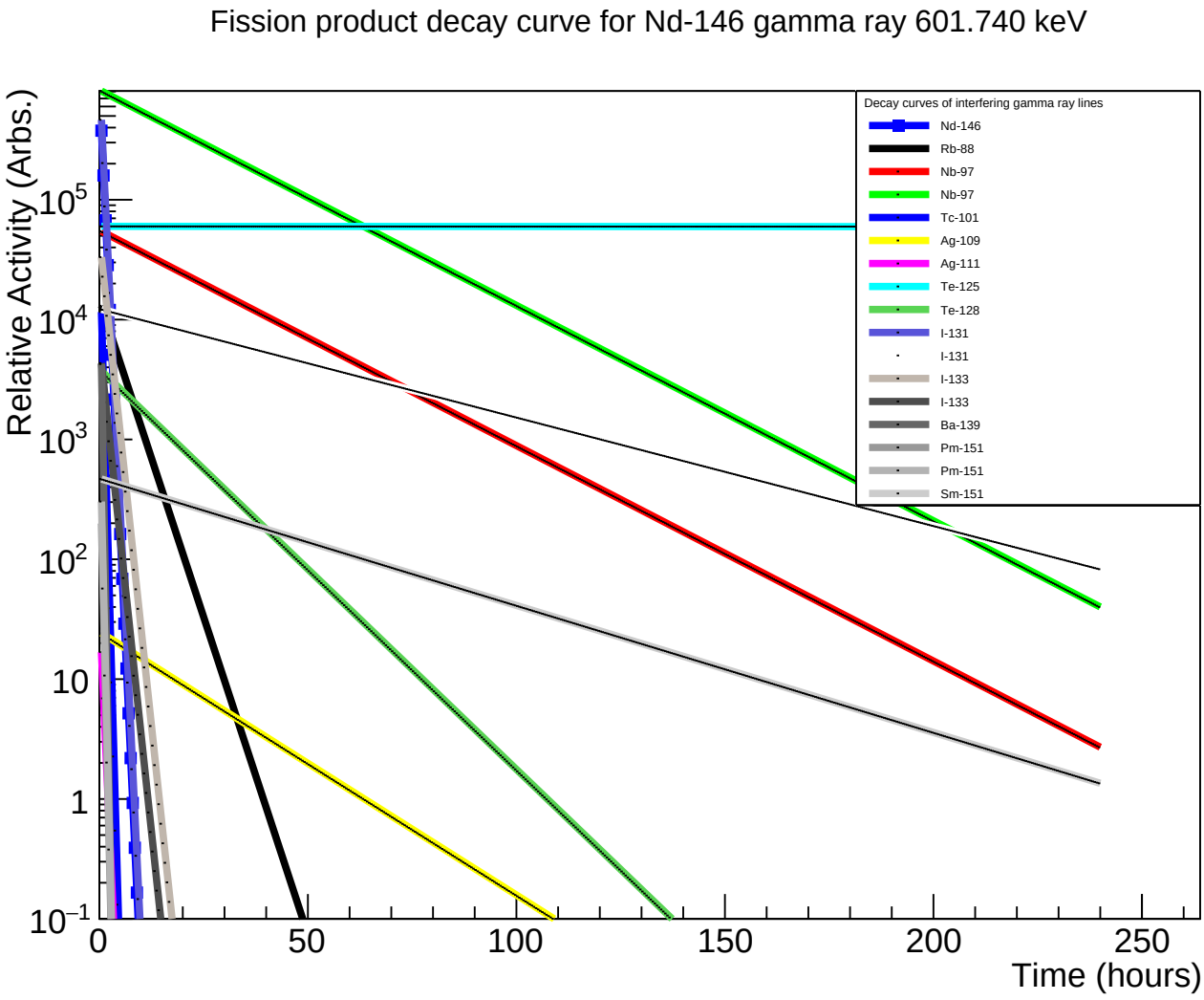


Figure 1022: Nd-146 decay curve for 601.740 keV gamma ray.

3.1023 Pr-146 E_γ = 735.72 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 735.72 keV
Gamma Intensity = 7.49 ± 0.450 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2045: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2046: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	735.120	0.008	0.372	0.003
Br-84	Kr-84	736.500	0.013	0.529	0.010
Pd-109	Ag-109	736.700	0.000	13.701	0.000
Sb-129	Te-129	737.100	0.004	4.400	0.005
Cs-139	Ba-139	735.680	0.001	0.155	0.063
Nd-149	Pm-149	736.180	0.000	1.728	0.011
Nd-151	Pm-151	736.230	0.059	0.207	0.004
Pm-151	Sm-151	736.120	0.005	28.400	0.004

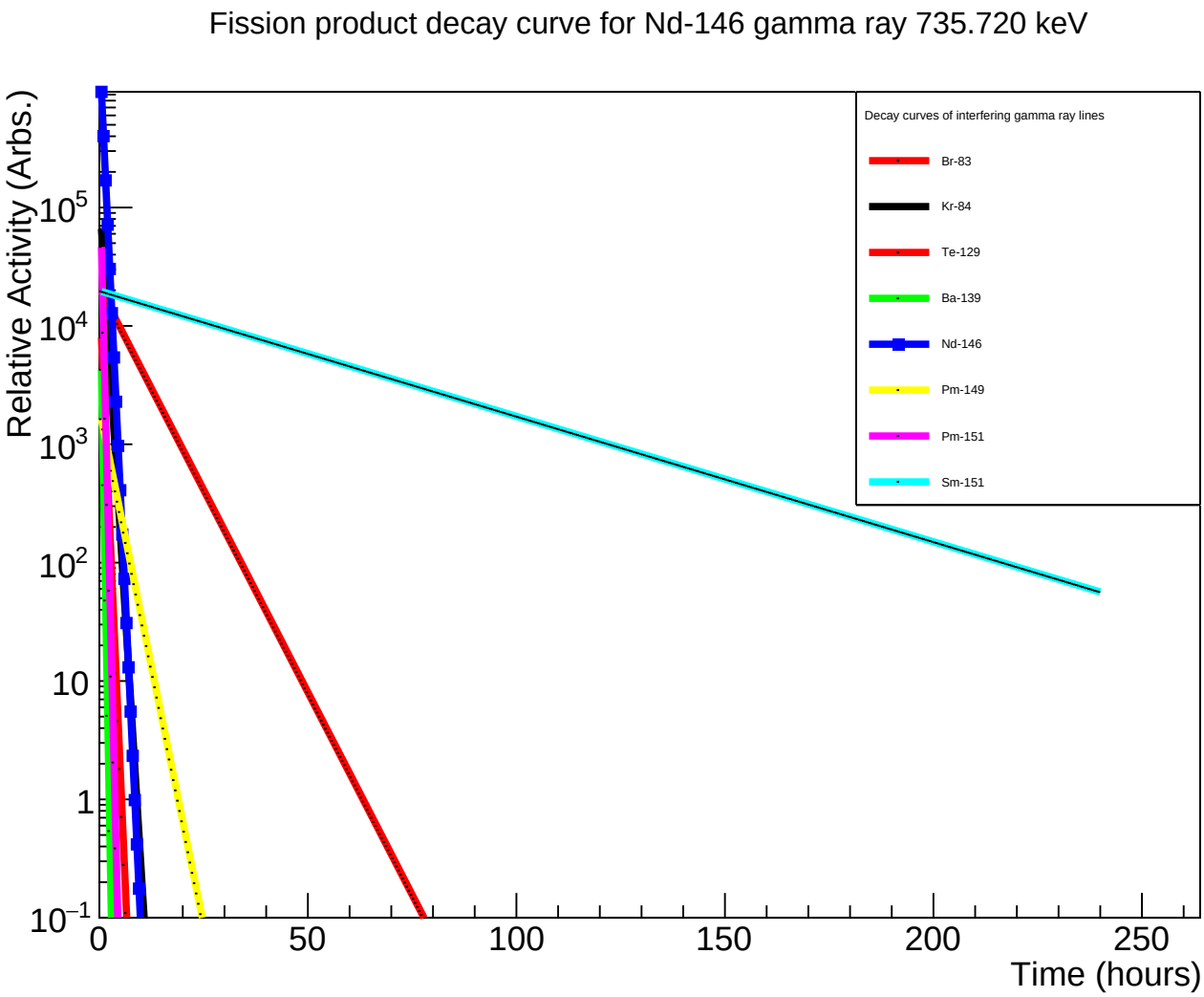


Figure 1023: Nd-146 decay curve for 735.720 keV gamma ray.

3.1024 Pr-146 E_γ = 788.90 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 788.90 keV
Gamma Intensity = 6.29 ± 0.389 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2047: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2048: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	789.100	0.000	0.308	0.002
Br-83	Kr-83	790.100	0.000	2.400	0.005
Kr-88	Rb-88	788.280	0.005	2.840	0.036
Kr-88	Rb-88	790.320	0.001	2.840	0.036
Sr-93	Y-93	788.680	0.008	0.124	0.062
Rh-107	Pd-107	789.900	0.001	0.362	0.001
Sb-128	Te-128	787.600	0.071	0.173	0.003
Te-133	I-133	789.700	0.004	0.923	0.040
I-133	Xe-133	789.590	0.001	20.800	0.067
Cs-139	Ba-139	788.300	0.000	0.155	0.063
La-143	Ce-143	789.300	0.003	0.237	0.059
Ce-143	Pr-143	787.400	0.000	33.039	0.060
Nd-151	Pm-151	789.950	0.001	0.207	0.004
Nd-151	Pm-151	789.950	0.001	0.207	0.004

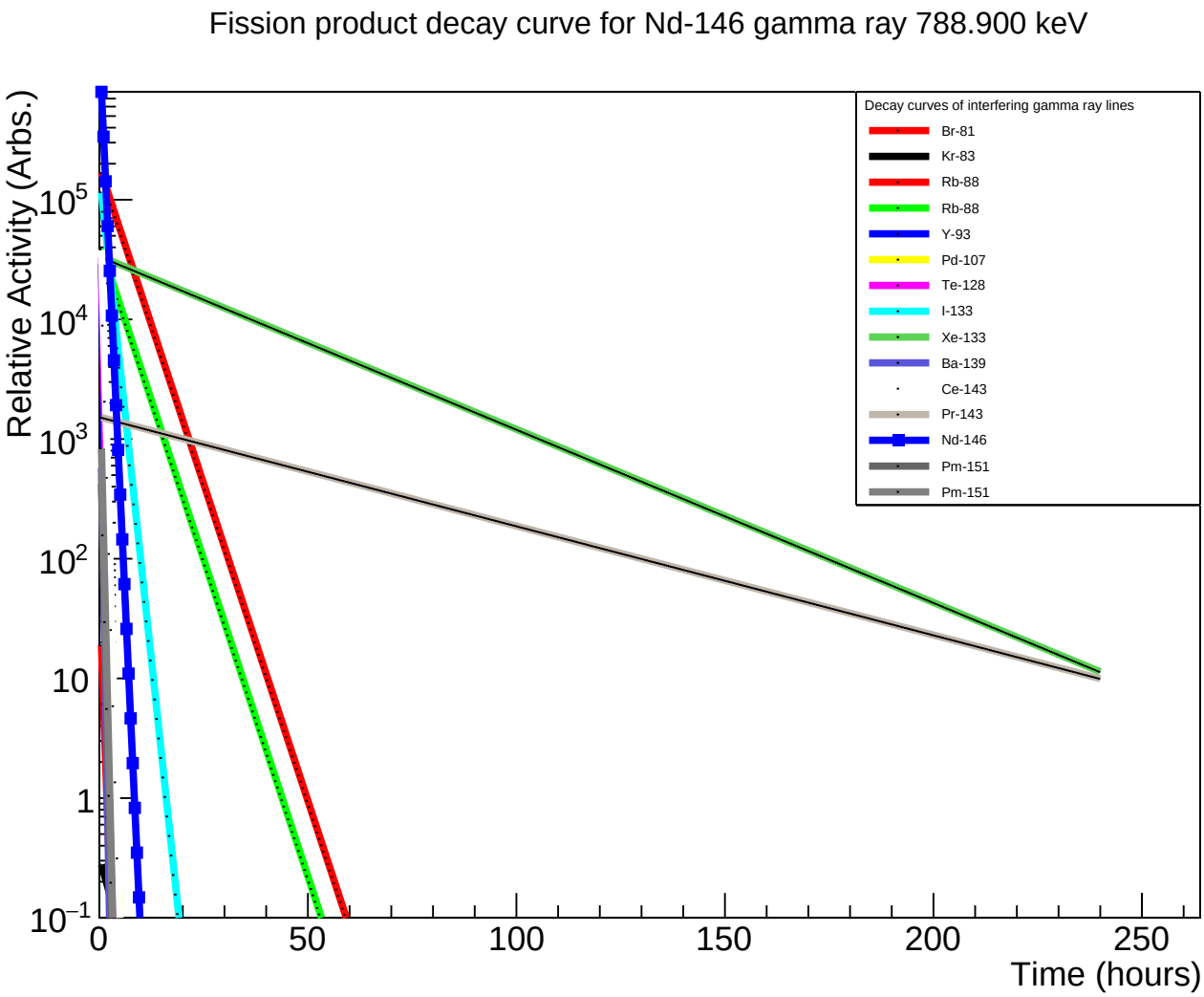


Figure 1024: Nd-146 decay curve for 788.900 keV gamma ray.

3.1025 Pr-146 E_γ = 922.92 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 922.92 keV
Gamma Intensity = 2.33 ± 0.136 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2049: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2050: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	922.700	0.003	0.124	0.062
Nb-98	Mo-98	922.300	0.001	0.855	0.000
Sb-127	Te-127	924.400	0.005	92.400	0.002
Te-131	I-131	923.400	0.001	33.250	0.004
Te-133	I-133	922.000	0.001	0.208	0.031
I-134	Xe-134	922.600	0.001	0.875	0.078
Nd-149	Pm-149	923.874	0.001	1.728	0.011
Nd-151	Pm-151	924.400	0.000	0.207	0.004
Pm-151	Sm-151	922.100	0.000	28.400	0.004
Sm-155	Eu-155	923.000	0.000	0.372	0.000

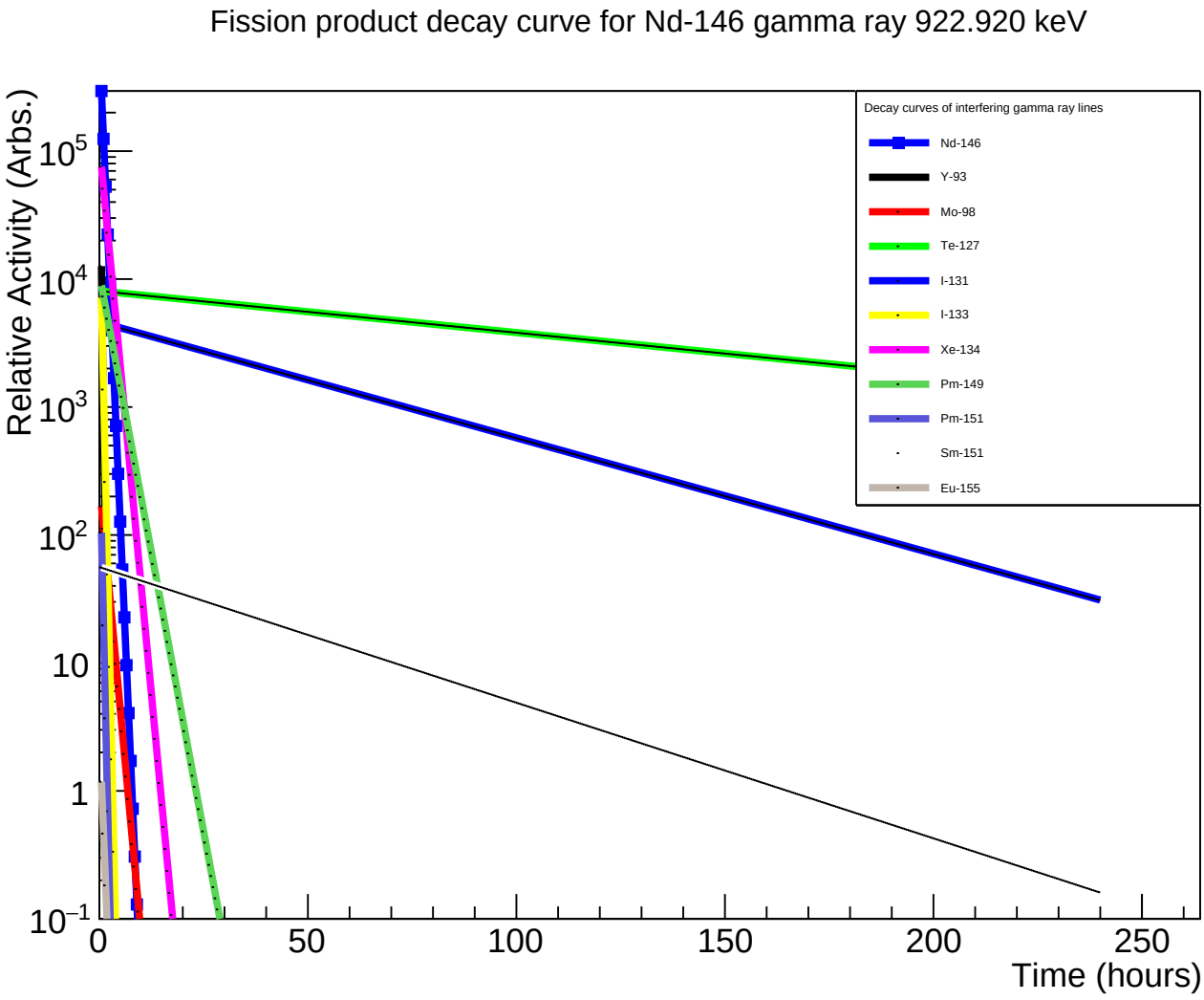


Figure 1025: Nd-146 decay curve for 922.920 keV gamma ray.

3.1026 Pr-146 E_γ = 1016.78 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 1016.78 keV
Gamma Intensity = 1.23 ± 0.073 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2051: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2052: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1015.900	0.062	0.529	0.010
Br-84	Kr-84	1016.000	0.010	0.100	0.000
Mo-99	Tc-99	1017.000	0.000	65.976	0.061
Ru-105	Rh-105	1017.470	0.003	4.440	0.010
Sn-125	Sb-125	1017.400	0.003	231.360	0.000
Sn-125	Sb-125	1017.570	0.001	0.159	0.000
Sb-130	Te-130	1017.500	0.300	0.105	0.010
Te-133	I-133	1015.300	0.001	0.208	0.031
Nd-149	Pm-149	1016.100	0.000	1.728	0.011
Nd-151	Pm-151	1016.400	0.025	0.207	0.004
Sm-155	Eu-155	1018.000	0.000	0.372	0.000

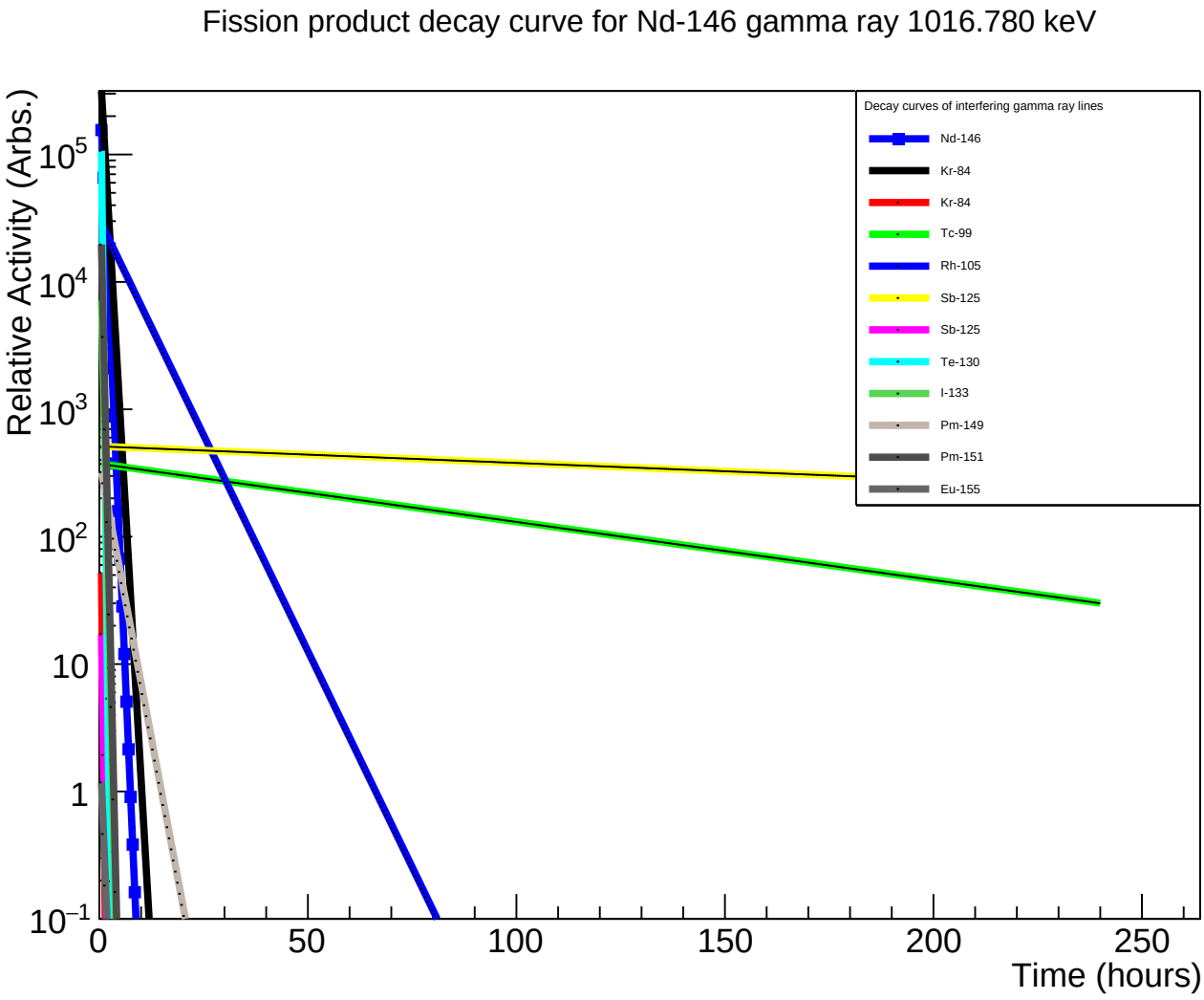


Figure 1026: Nd-146 decay curve for 1016.780 keV gamma ray.

3.1027 Pr-146 E_γ = 1376.71 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 1376.71 keV
Gamma Intensity = 4.37 ± 0.276 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2053: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2054: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1377.500	0.001	0.855	0.000
Mo-101	Tc-101	1377.950	0.002	0.243	0.052
Tc-104	Ru-104	1376.100	0.004	0.305	0.019
Ru-105	Rh-105	1377.060	0.001	4.440	0.010
Sb-127	Te-127	1377.900	0.001	92.400	0.002
Te-131	I-131	1376.800	0.000	33.250	0.004
Ba-141	La-141	1376.800	0.008	0.304	0.058

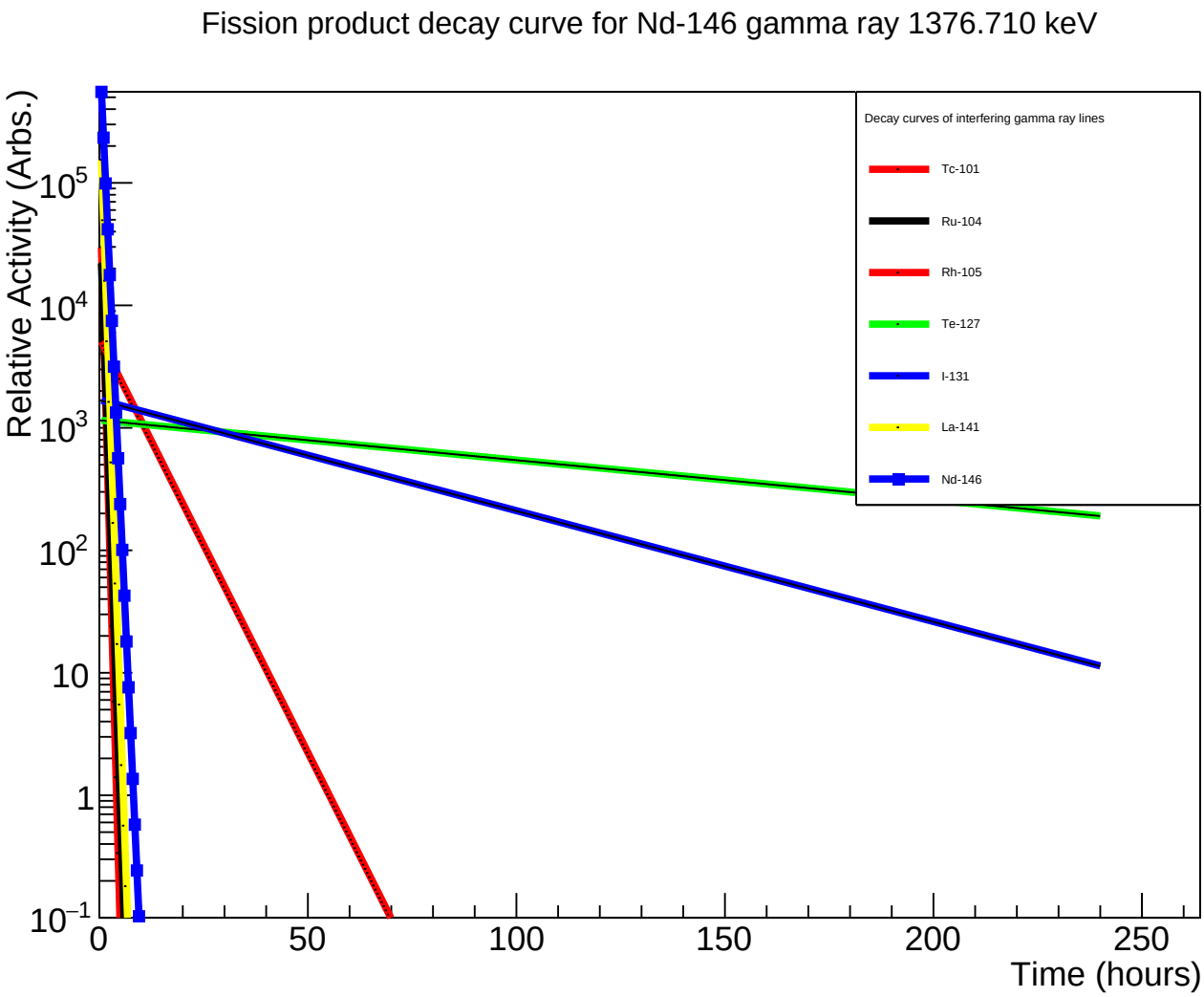


Figure 1027: Nd-146 decay curve for 1376.710 keV gamma ray.

3.1028 Pr-146 E_γ = 1451.82 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 1451.82 keV
Gamma Intensity = 2.28 ± 0.135 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2055: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2056: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1450.500	0.003	10.180	0.063
Mo-101	Tc-101	1451.100	0.001	0.243	0.052
Ag-112	Cd-112	1451.400	0.002	3.130	0.000
La-143	Ce-143	1453.000	0.001	0.237	0.059
Nd-151	Pm-151	1451.500	0.000	0.207	0.004

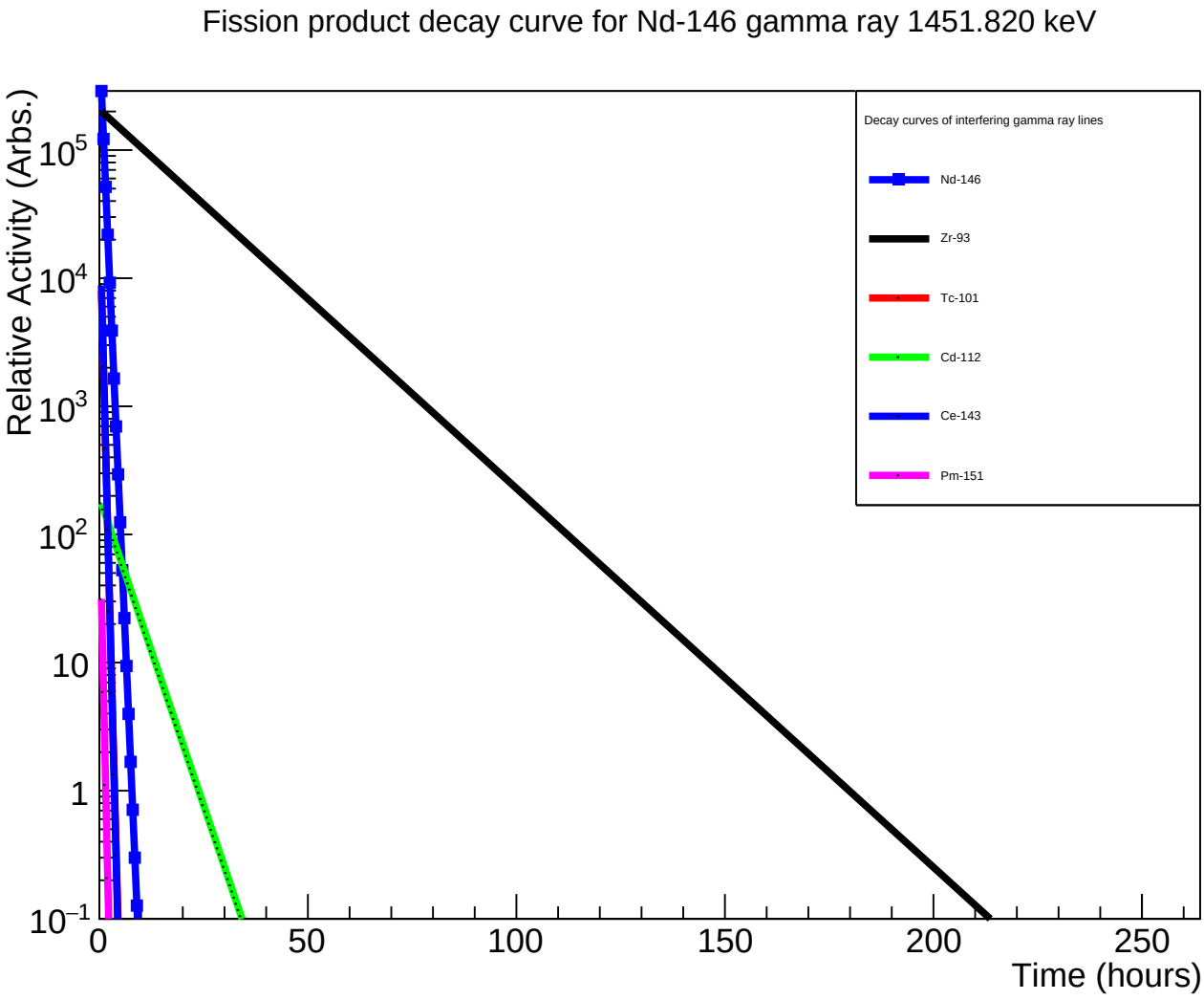


Figure 1028: Nd-146 decay curve for 1451.820 keV gamma ray.

3.1029 Pr-146 E_γ = 1470.63 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 1470.63 keV
Gamma Intensity = 1.19 ± 0.073 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2057: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2058: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1469.500	0.005	0.124	0.062
Y-93	Zr-93	1470.100	0.001	10.180	0.063
Sn-127	Sb-127	1471.200	0.008	2.100	0.001
Sb-131	Te-131	1470.300	0.016	0.384	0.026
I-134	Xe-134	1470.000	0.008	0.875	0.078
Nd-151	Pm-151	1470.800	0.000	0.207	0.004

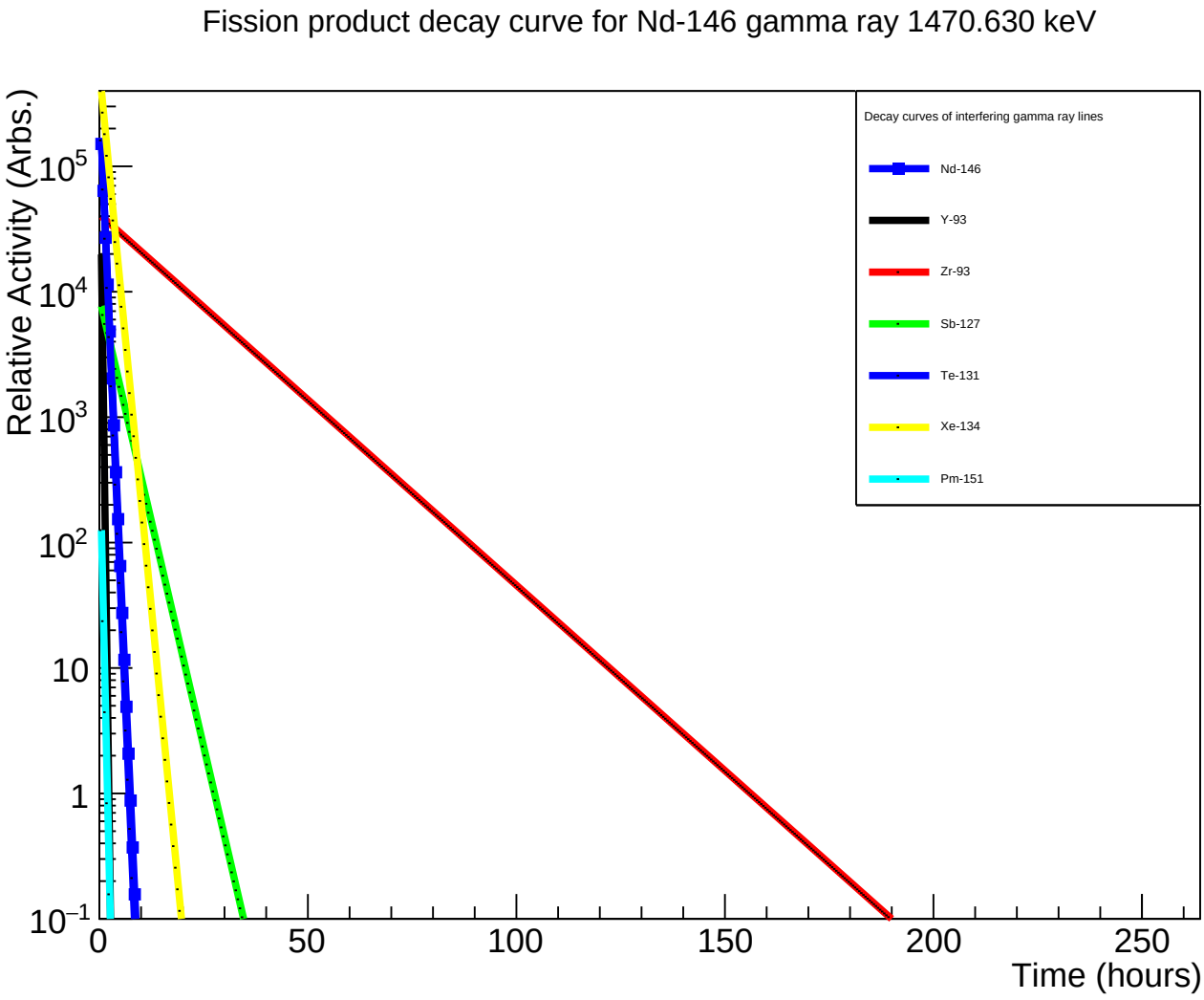


Figure 1029: Nd-146 decay curve for 1470.630 keV gamma ray.

3.1030 Pr-146 E_γ = 1524.73 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 1524.73 keV
Gamma Intensity = 15.60 ± 0.910 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2059: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2060: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-129	Te-129	1525.900	0.004	4.400	0.005
Ba-141	La-141	1525.700	0.001	0.304	0.058
La-142	Ce-142	1524.600	0.005	1.518	0.058

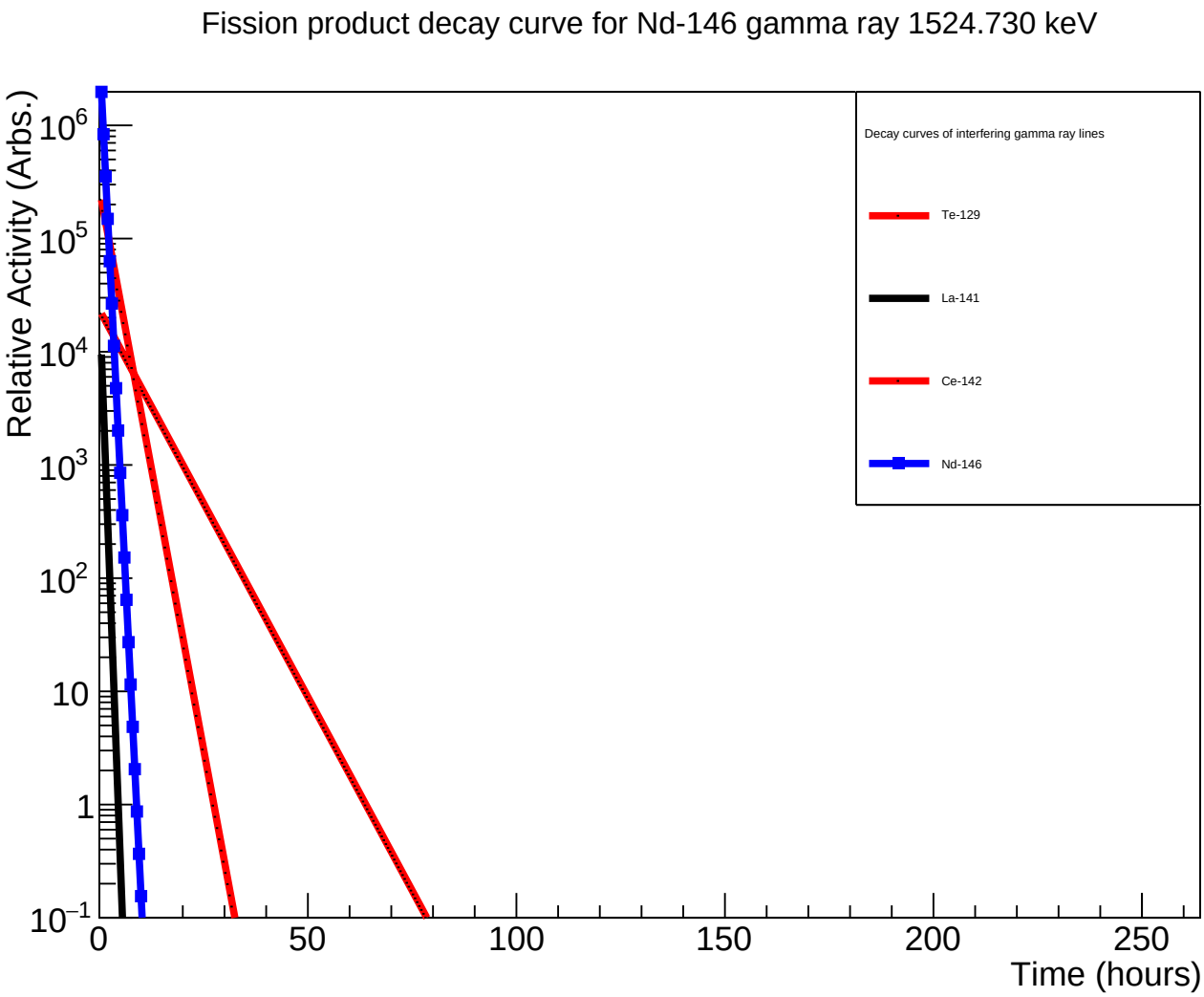


Figure 1030: Nd-146 decay curve for 1524.730 keV gamma ray.

3.1031 Pr-146 E_γ = 2252.19 keV

Chemical element: Praseodymium
Fission product parent: Pr-146
Gamma originates in daughter: Nd-146
Eγ: 2252.19 keV
Gamma Intensity = 1.03 ± 0.062 %
$T_{1/2}$ = 0.403 ± 0.003 hours or 24.15 ± 0.18 minutes
CFY: 2.997 ± 0.021 %

Table 2061: Decay chain of fission product chain A = 146

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Lanthanum-146	Cerium-146	0.002	0.000
Cerium-146	Praseodymium-146	0.225	0.002
Praseodymium-146	Neodymium-146	0.403	0.003

Table 2062: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-95	Zr-95	2252.000	0.001	0.172	0.064
Y-95	Zr-95	2253.600	0.005	0.172	0.064
Xe-138	Cs-138	2252.260	0.023	0.235	0.063

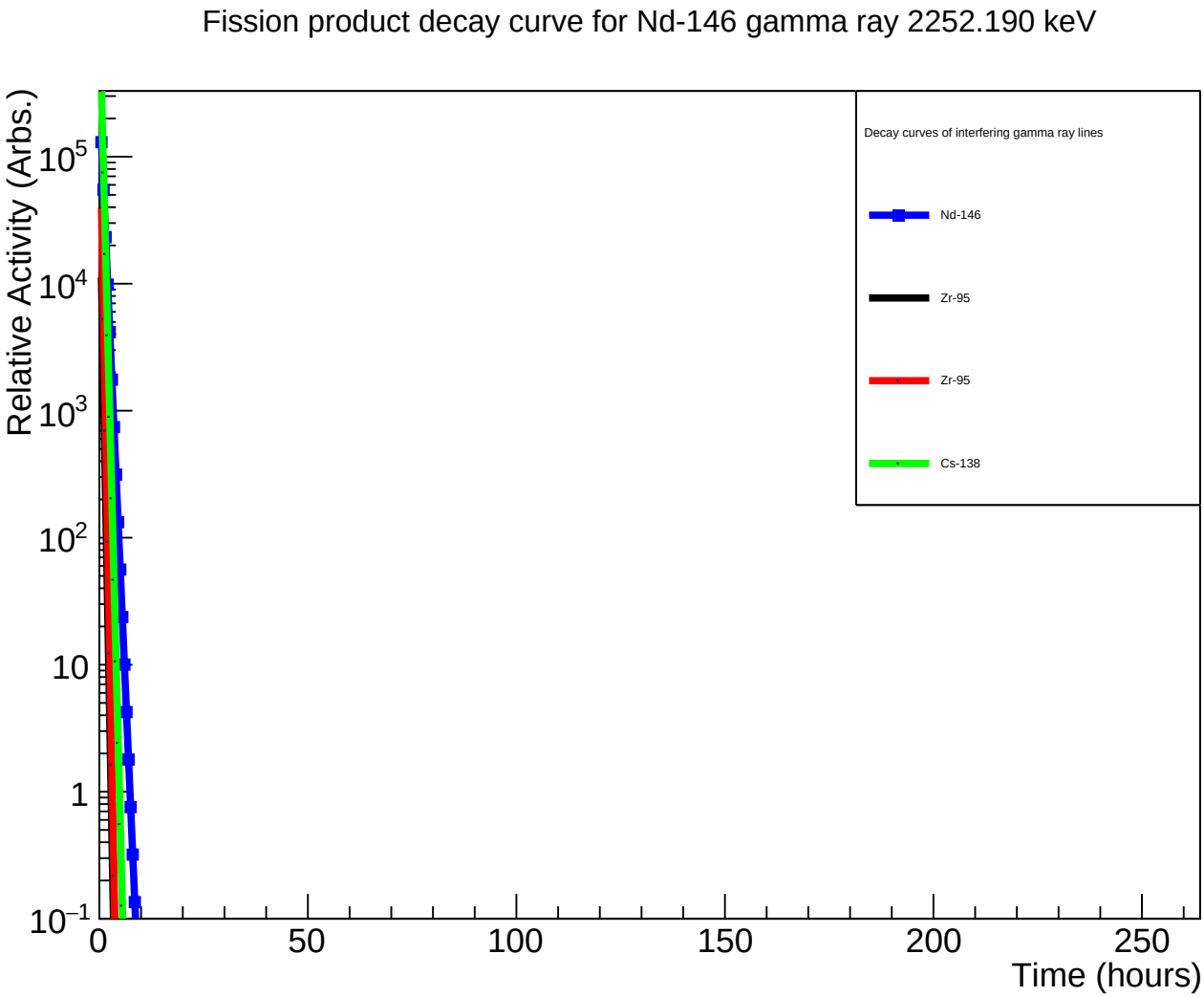


Figure 1031: Nd-146 decay curve for 2252.190 keV gamma ray.

3.1032 Pr-147 E_γ = 49.88 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 49.88 keV
Gamma Intensity = 4.19 ± 0.309 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2063: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2064: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	48.940	0.000	0.127	0.010
Tc-105	Ru-105	51.200	0.001	0.127	0.010
Sn-129	Sb-129	50.200	0.052	0.115	0.002
Te-131	I-131	51.000	0.000	33.250	0.004
Te-132	I-132	49.720	0.150	76.896	0.043
Te-133	I-133	50.000	0.001	0.923	0.040
Sm-153	Eu-153	48.420	0.000	46.500	0.002
Sm-153	Eu-153	48.426	0.000	46.500	0.002
Sm-155	Eu-155	48.420	0.000	0.372	0.000
Sm-155	Eu-155	48.426	0.000	0.372	0.000
Sm-156	Eu-156	48.420	0.000	9.400	0.000
Sm-156	Eu-156	48.426	0.000	9.400	0.000
Eu-155	Gd-155	48.616	0.012	41666.668	0.000
Eu-155	Gd-155	48.761	0.024	41666.668	0.000
Eu-155	Gd-155	49.071	0.000	41666.668	0.000
Eu-155	Gd-155	49.103	0.000	41666.668	0.000
Eu-155	Gd-155	49.992	0.003	41666.668	0.000
Eu-155	Gd-155	50.024	0.005	41666.668	0.000
Eu-155	Gd-155	50.141	0.000	41666.668	0.000
Eu-155	Gd-155	50.147	0.000	41666.668	0.000
Eu-156	Gd-156	48.616	0.007	364.560	0.000
Eu-156	Gd-156	48.761	0.013	364.560	0.000
Eu-156	Gd-156	49.071	0.000	364.560	0.000
Eu-156	Gd-156	49.103	0.000	364.560	0.000
Eu-156	Gd-156	49.992	0.001	364.560	0.000
Eu-156	Gd-156	50.024	0.003	364.560	0.000
Eu-156	Gd-156	50.141	0.000	364.560	0.000
Eu-156	Gd-156	50.147	0.000	364.560	0.000

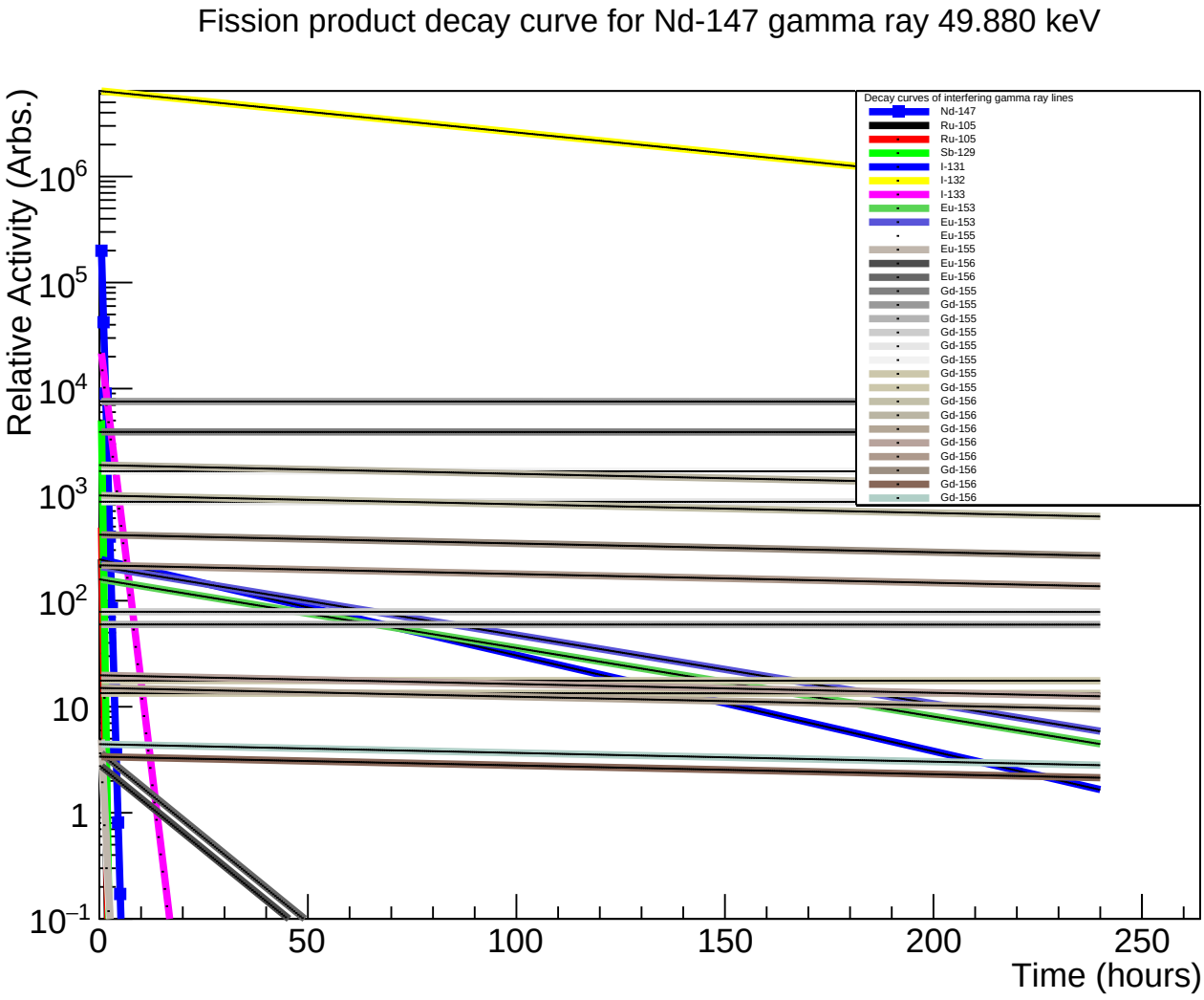


Figure 1032: Nd-147 decay curve for 49.880 keV gamma ray.

3.1033 Pr-147 E_γ = 77.97 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 77.97 keV
Gamma Intensity = 9.91 ± 0.768 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2065: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2066: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-129	Sb-129	77.300	0.078	0.115	0.002
Te-131	I-131	78.570	0.000	33.250	0.004
Te-131	I-131	79.190	0.001	33.250	0.004
Te-134	I-134	76.830	0.003	0.697	0.070
Te-134	I-134	79.445	0.209	0.697	0.070
Ba-142	La-142	77.594	0.095	0.177	0.058
Nd-149	Pm-149	77.097	0.006	1.728	0.011
Sm-155	Eu-155	78.650	0.003	0.372	0.000

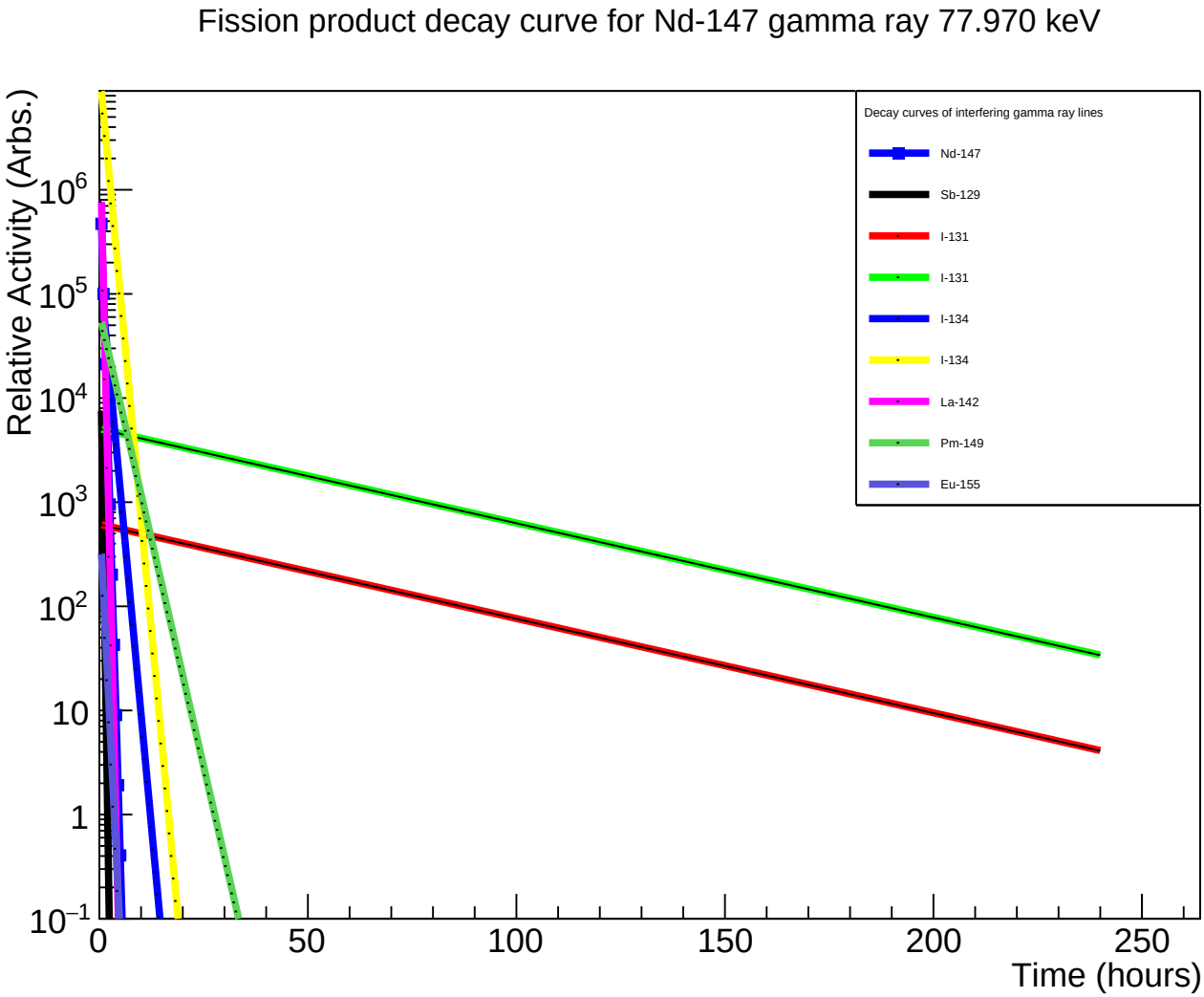


Figure 1033: Nd-147 decay curve for 77.970 keV gamma ray.

3.1034 Pr-147 E_γ = 86.69 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 86.69 keV
Gamma Intensity = 5.35 ± 0.388 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2067: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2068: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Sn-126	Sb-126	86.938	0.089	2016666624.000	0.001
Sn-126	Sb-126	87.567	0.370	2016666624.000	0.001
Te-131	I-131	86.430	0.001	33.250	0.004
Te-133	I-133	86.900	0.000	0.923	0.040
Te-133	I-133	88.064	0.013	0.923	0.040
I-131	Xe-131	85.900	0.000	192.605	0.029
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Nd-151	Pm-151	86.080	0.001	0.207	0.004
Sm-156	Eu-156	87.600	0.235	9.400	0.000
Eu-155	Gd-155	86.059	0.002	41666.668	0.000
Eu-155	Gd-155	86.548	0.307	41666.668	0.000

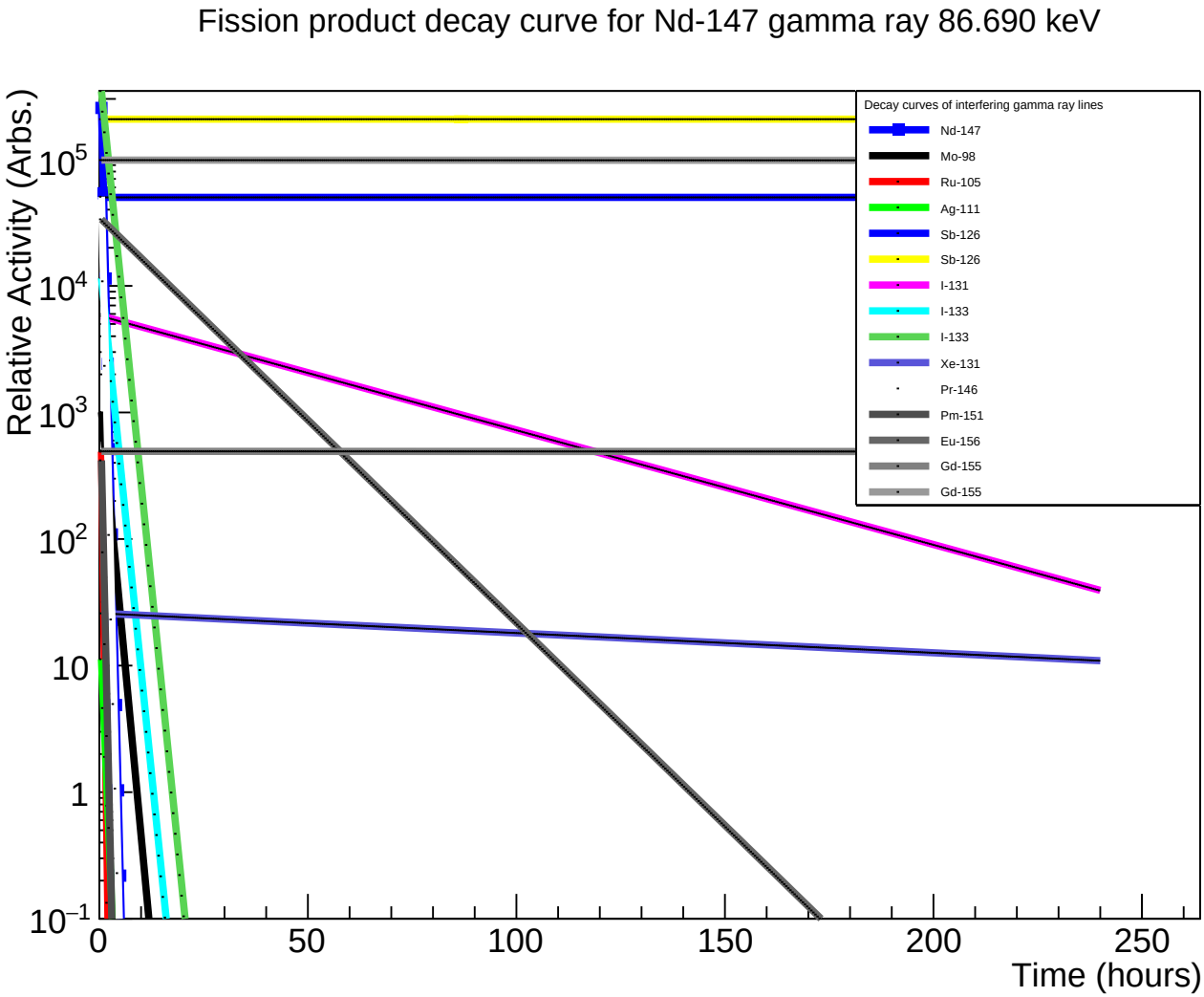


Figure 1034: Nd-147 decay curve for 86.690 keV gamma ray.

3.1035 Pr-147 E_γ = 127.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 127.80 keV
Gamma Intensity = 7.23 ± 0.408 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2069: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2070: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	128.550	0.000	2.400	0.005
Tc-101	Ru-101	127.220	0.026	0.237	0.052
Te-131	I-131	127.400	0.000	33.250	0.004
Nd-149	Pm-149	126.630	0.001	1.728	0.011
Pm-151	Sm-151	126.800	0.000	28.400	0.004

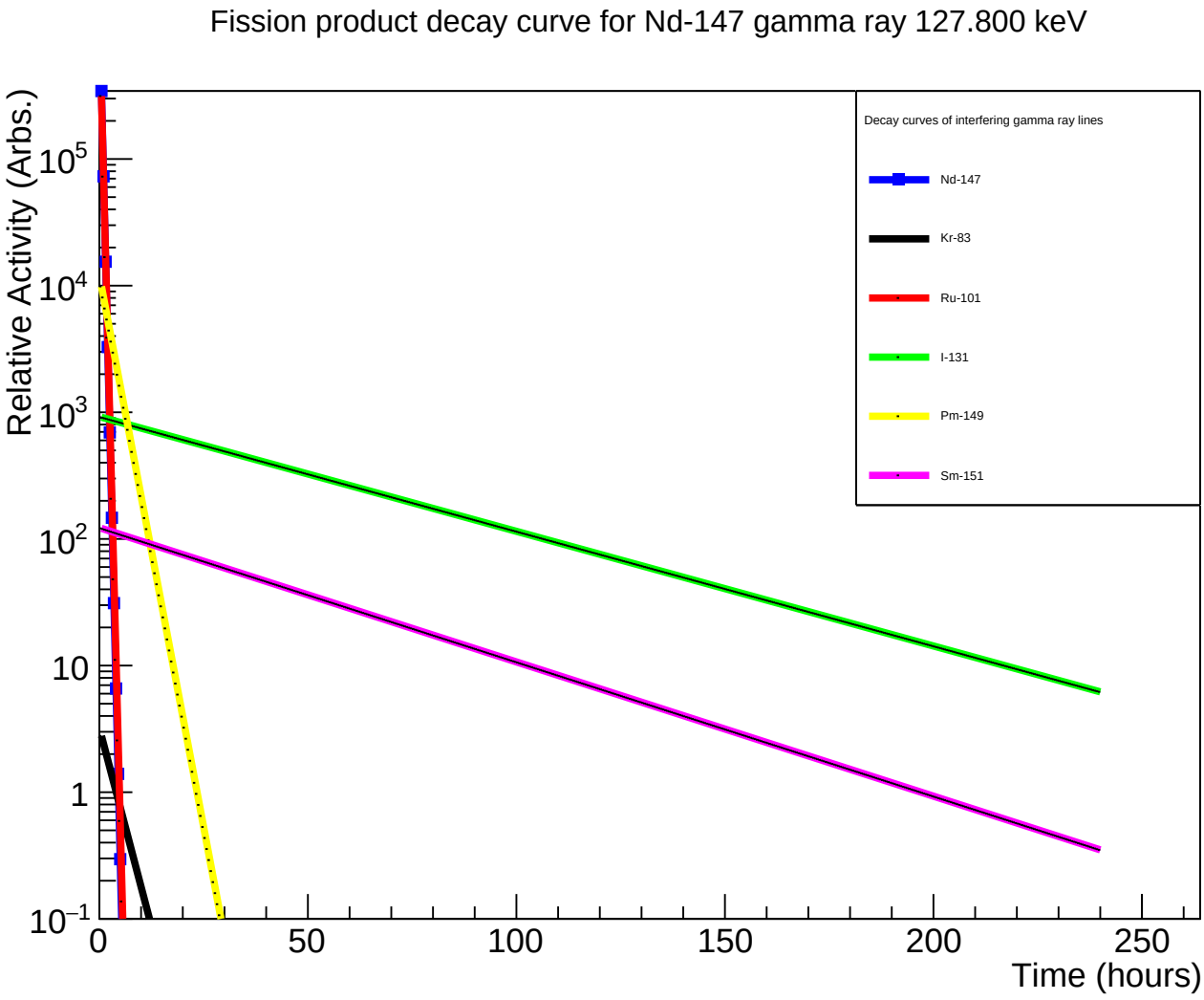


Figure 1035: Nd-147 decay curve for 127.800 keV gamma ray.

3.1036 Pr-147 E_γ = 141.00 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 141.00 keV
Gamma Intensity = 1.32 ± 0.087 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2071: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2072: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	140.511	0.045	65.976	0.061
Tc-99	Ru-99	140.511	0.890	6.007	0.054
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Te-131	I-131	141.200	0.000	0.417	0.025
Ce-143	Pr-143	139.742	0.001	33.039	0.060
Ce-146	Pr-146	141.290	0.033	0.225	0.030
Nd-149	Pm-149	141.060	0.000	1.728	0.011
Pm-151	Sm-151	141.700	0.000	28.400	0.004
Sm-155	Eu-155	141.411	0.020	0.372	0.000

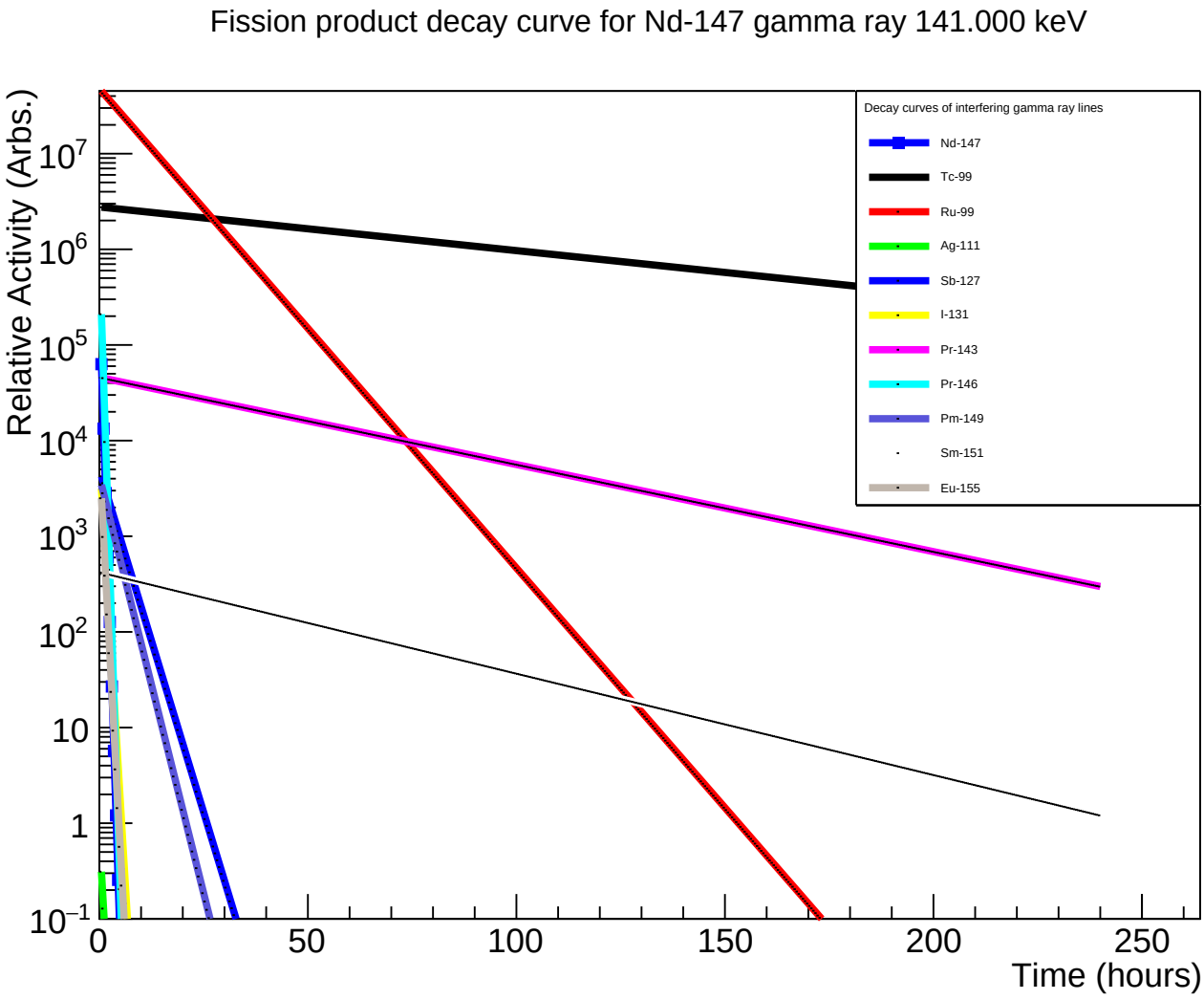


Figure 1036: Nd-147 decay curve for 141.000 keV gamma ray.

3.1037 Pr-147 E_γ = 186.50 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 186.50 keV
Gamma Intensity = 1.11 ± 0.092 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2073: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2074: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nd-149	Pm-149	185.489	0.001	1.728	0.011
Pm-151	Sm-151	186.590	0.002	28.400	0.004

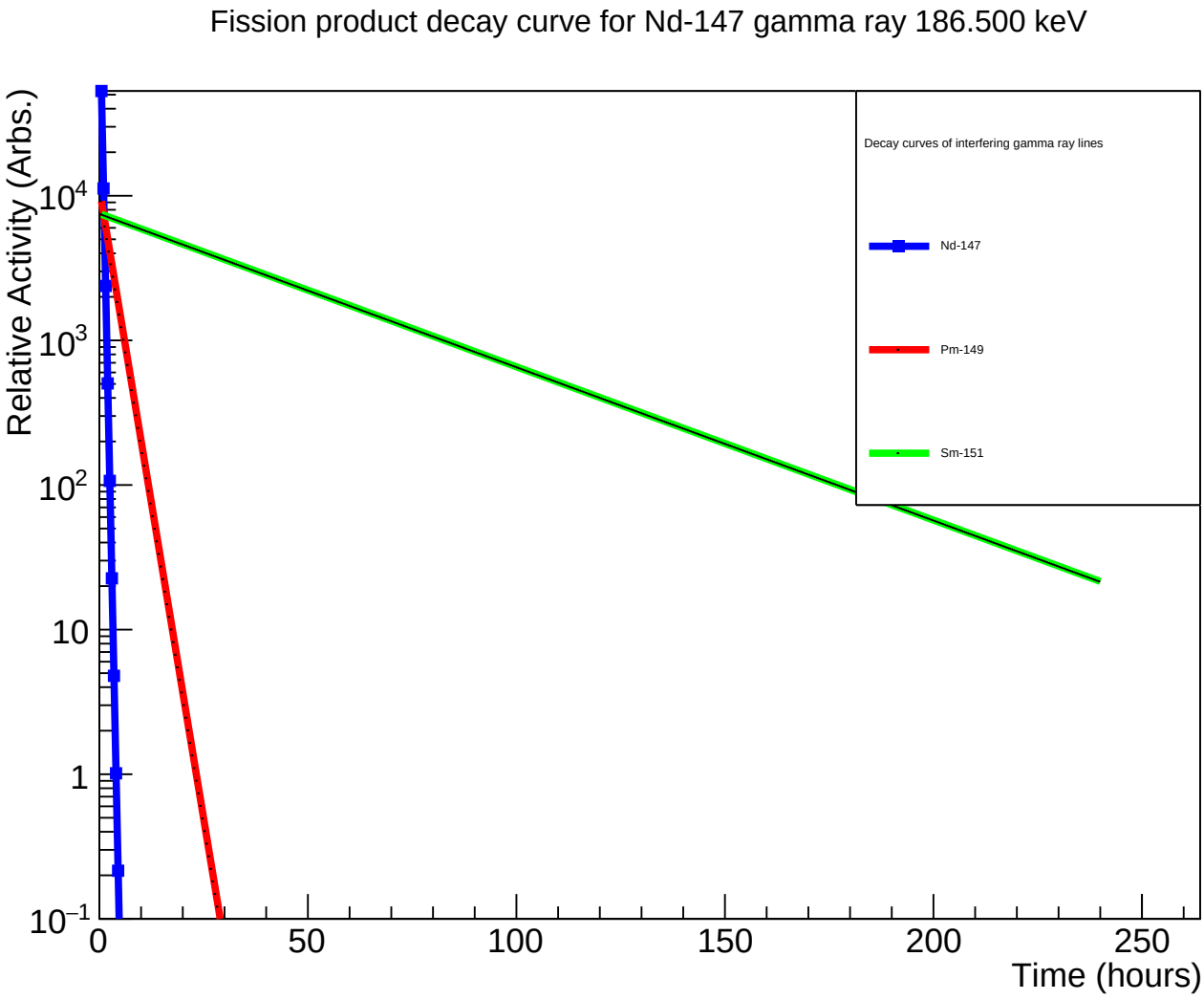


Figure 1037: Nd-147 decay curve for 186.500 keV gamma ray.

3.1038 Pr-147 E_γ = 214.60 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 214.60 keV
Gamma Intensity = 1.19 ± 0.092 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2075: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2076: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	213.600	0.013	0.127	0.010
Sn-127	Sb-127	215.000	0.001	2.100	0.001
Sb-128	Te-128	214.800	0.010	9.010	0.000
Te-127	I-127	215.100	0.000	9.350	0.002
Te-131	I-131	213.980	0.004	33.250	0.004
Te-133	I-133	213.478	0.021	0.923	0.040
Te-133	I-133	214.000	0.002	0.923	0.040
Ba-142	La-142	215.700	0.001	0.177	0.058
Nd-149	Pm-149	213.947	0.004	1.728	0.011
Pm-151	Sm-151	215.300	0.000	28.400	0.004
Eu-156	Gd-156	215.700	0.000	364.560	0.000

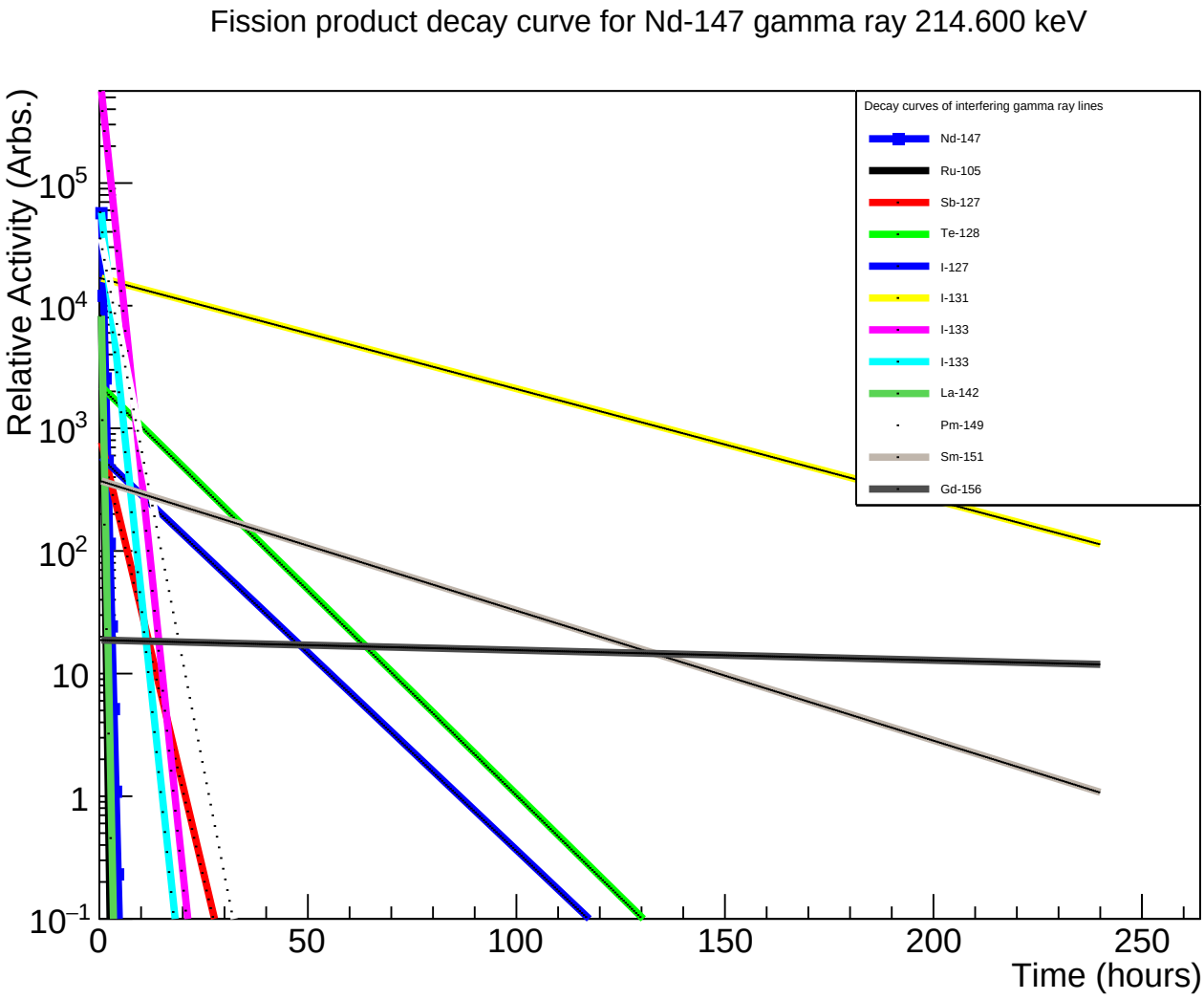


Figure 1038: Nd-147 decay curve for 214.600 keV gamma ray.

3.1039 Pr-147 E_γ = 249.20 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 249.20 keV
Gamma Intensity = 1.37 ± 0.087 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2077: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2078: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	249.030	0.000	65.976	0.061
Sn-127	Sb-127	248.600	0.001	2.100	0.001
Sb-128	Te-128	249.700	0.006	9.010	0.000
Te-129	I-129	250.620	0.004	1.160	0.005
Te-129	I-129	250.620	0.000	806.400	0.001
Te-133	I-133	248.900	0.000	0.923	0.040
Xe-135	Cs-135	249.794	0.900	9.140	0.065
Cs-139	Ba-139	249.890	0.000	0.155	0.063
Nd-151	Pm-151	249.290	0.003	0.207	0.004
Nd-152	Pm-152	250.150	0.183	0.190	0.003
Nd-152	Pm-152	250.300	0.001	0.190	0.003
Pm-151	Sm-151	247.800	0.000	28.400	0.004
Pm-151	Sm-151	250.500	0.000	28.400	0.004

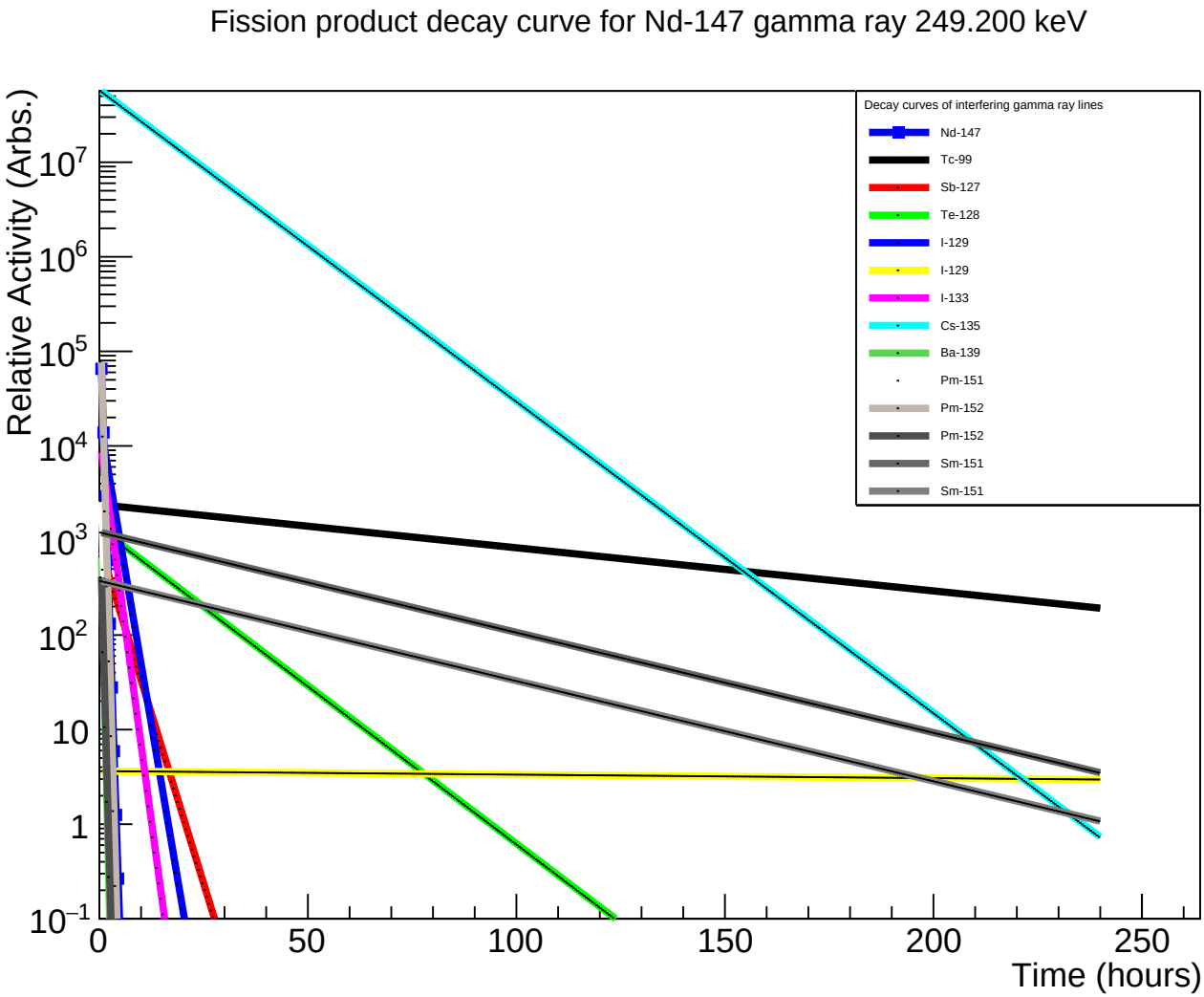


Figure 1039: Nd-147 decay curve for 249.200 keV gamma ray.

3.1040 Pr-147 E_γ = 314.70 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 314.70 keV
Gamma Intensity = 17.50 ± 0.982 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2079: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2080: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	315.000	0.000	0.855	0.000
Tc-104	Ru-104	314.700	0.002	0.305	0.019
Tc-105	Ru-105	314.700	0.007	0.127	0.010
Sb-125	Te-125	314.950	0.000	24194.445	0.000
Sb-128	Te-128	314.100	0.610	9.010	0.000
Sb-128	Te-128	314.000	0.887	0.173	0.003
Te-133	I-133	314.240	0.004	0.923	0.040
Nd-152	Pm-152	314.400	0.001	0.190	0.003
Pm-151	Sm-151	314.920	0.001	28.400	0.004
Pm-151	Sm-151	315.100	0.000	28.400	0.004

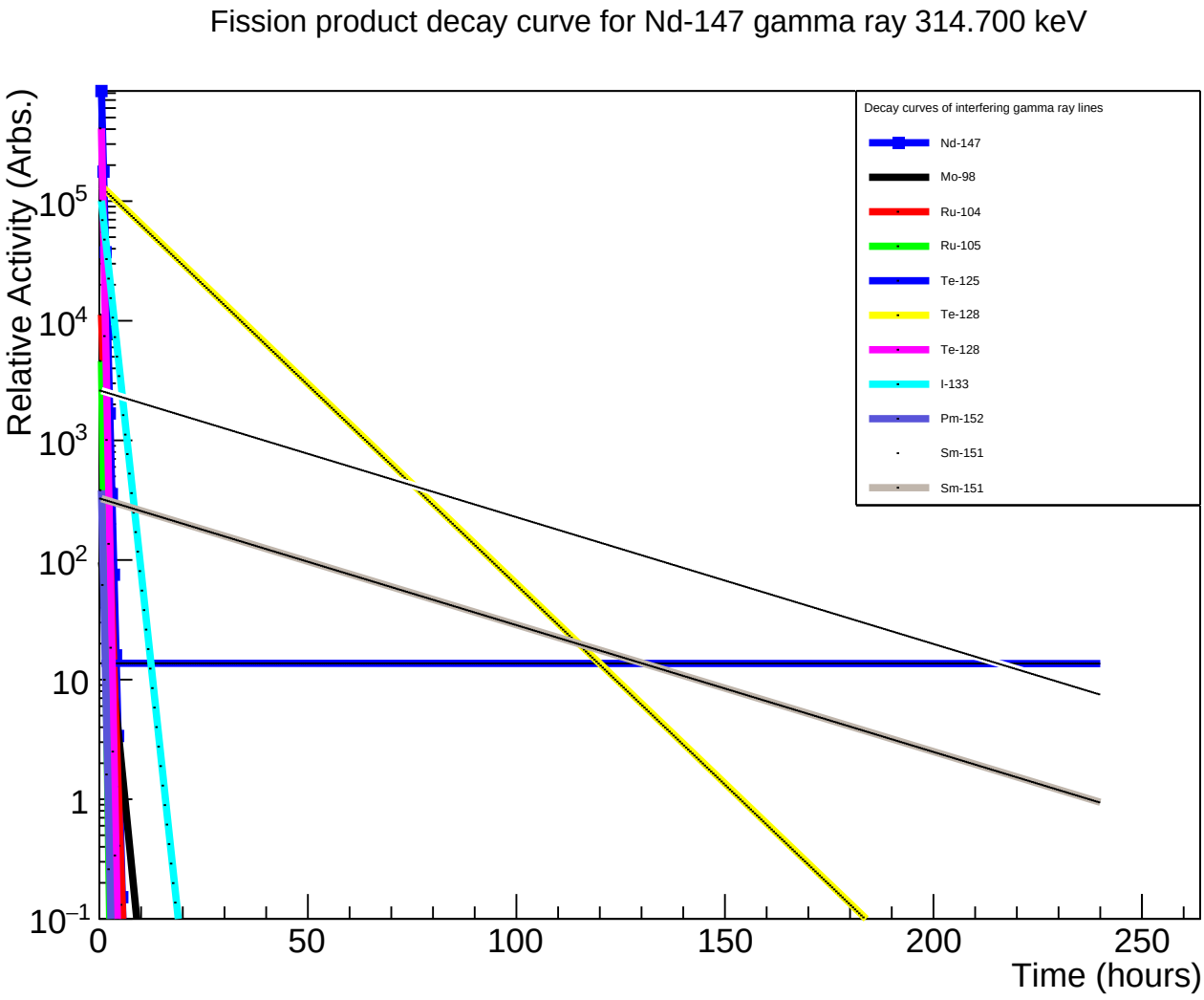


Figure 1040: Nd-147 decay curve for 314.700 keV gamma ray.

3.1041 Pr-147 E_γ = 328.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 328.80 keV
Gamma Intensity = 3.88 ± 0.253 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2081: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2082: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	329.500	0.006	0.372	0.003
Mo-101	Tc-101	327.700	0.002	0.243	0.052
Cd-115	In-115	328.380	0.000	53.460	0.000
Xe-138	Cs-138	329.400	0.000	0.235	0.063
La-140	Ce-140	328.762	0.203	40.285	0.062
Nd-149	Pm-149	329.180	0.000	1.728	0.011
Pm-149	Sm-149	327.530	0.000	53.080	0.011
Pm-151	Sm-151	329.000	0.000	28.400	0.004
Pm-151	Sm-151	329.750	0.002	28.400	0.004

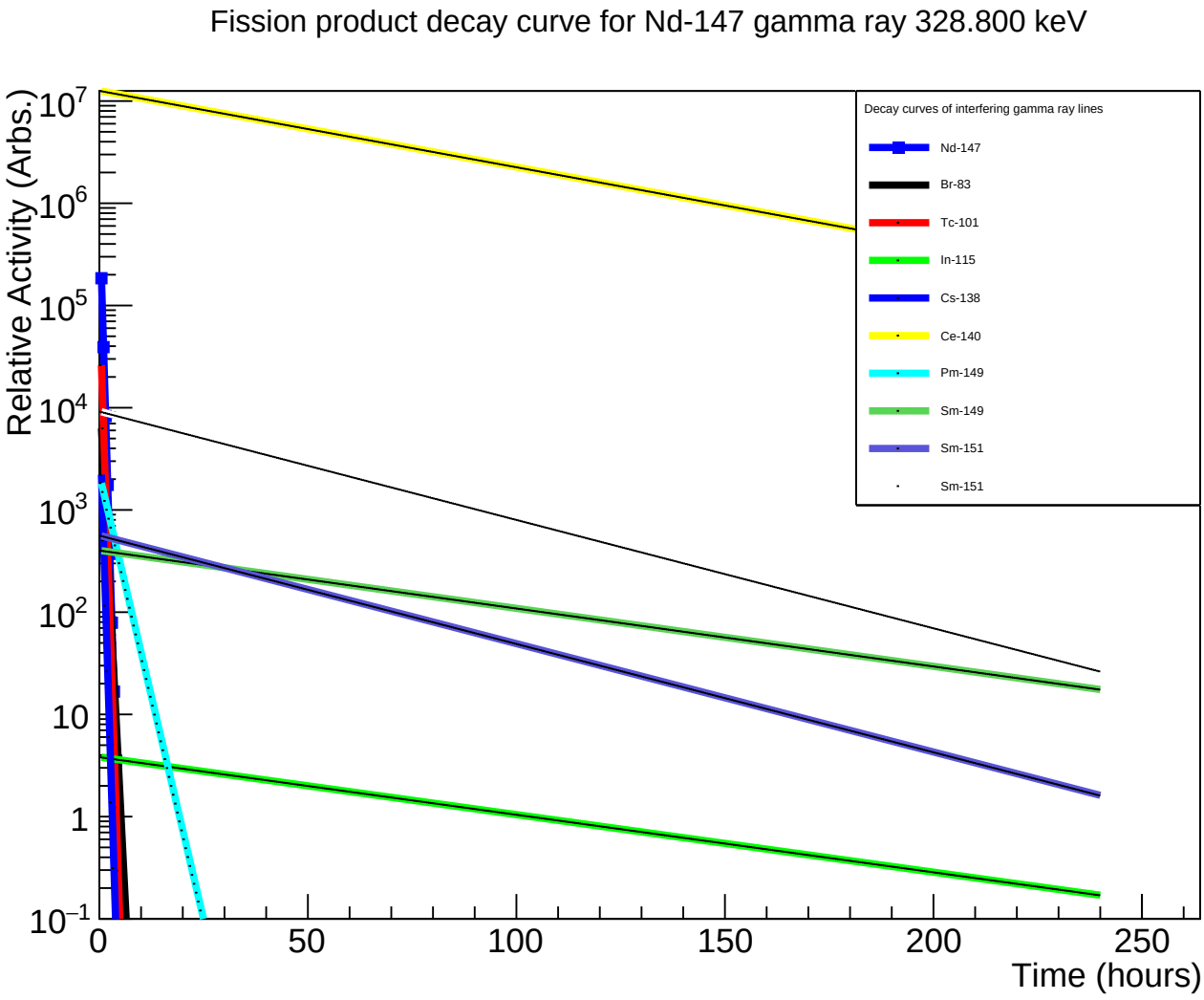


Figure 1041: Nd-147 decay curve for 328.800 keV gamma ray.

3.1042 Pr-147 E_γ = 335.70 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 335.70 keV
Gamma Intensity = 4.54 ± 0.260 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2083: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2084: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	334.710	0.001	2.840	0.036
Nb-98	Mo-98	335.258	0.095	0.855	0.000
In-115	Sn-115	336.241	0.458	4.486	0.000
Te-131	I-131	334.270	0.092	33.250	0.004
Te-131	I-131	335.440	0.001	33.250	0.004
Te-133	I-133	334.245	0.032	0.923	0.040
Te-133	I-133	334.260	0.068	0.923	0.040
Xe-138	Cs-138	335.280	0.001	0.235	0.063
Ba-142	La-142	335.000	0.015	0.177	0.058
Nd-151	Pm-151	334.650	0.000	0.207	0.004
Nd-151	Pm-151	337.120	0.000	0.207	0.004
Eu-156	Gd-156	335.690	0.000	364.560	0.000

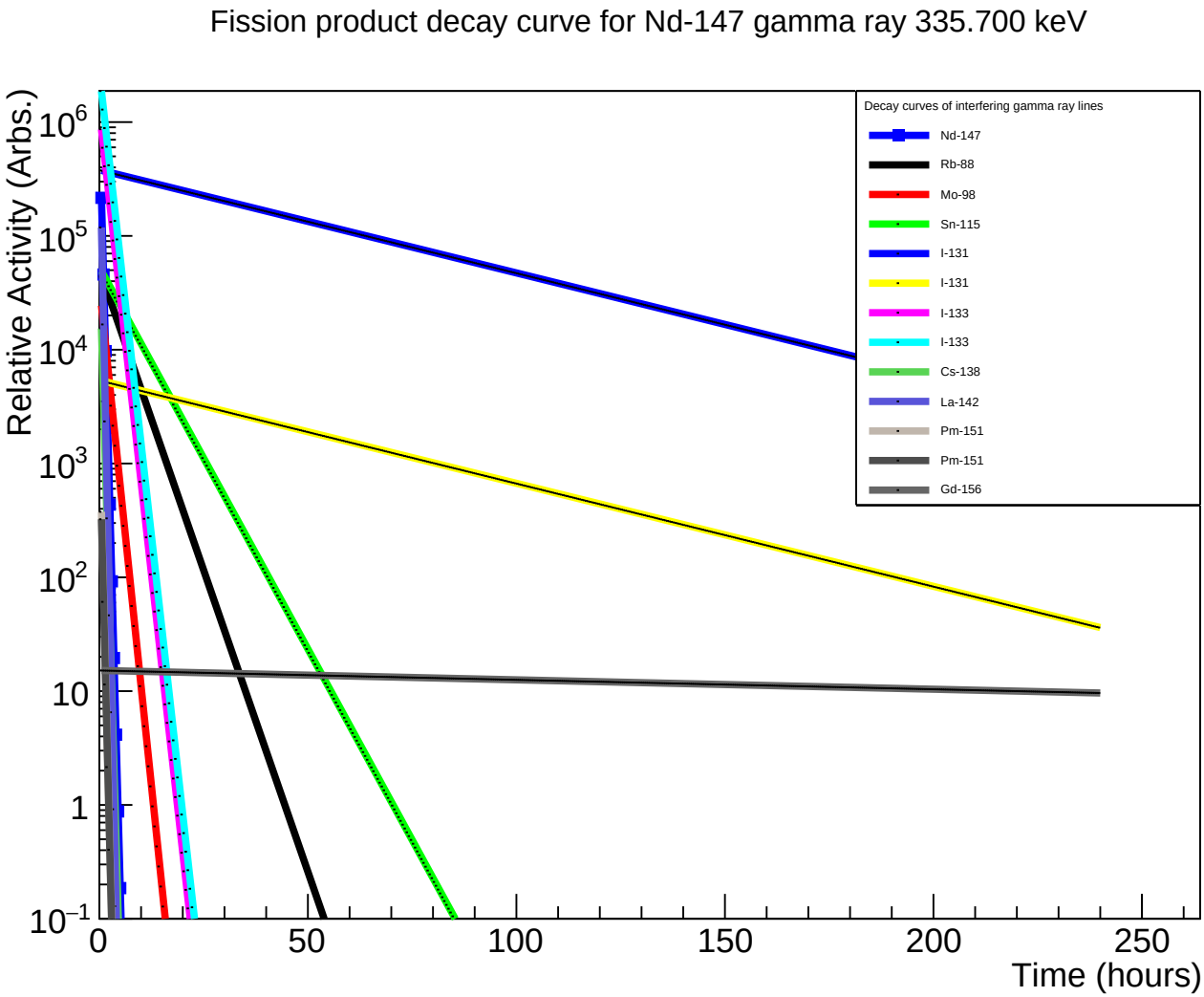


Figure 1042: Nd-147 decay curve for 335.700 keV gamma ray.

3.1043 Pr-147 E_γ = 388.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 388.80 keV
Gamma Intensity = 1.41 ± 0.108 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2085: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2086: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	389.200	0.006	0.372	0.003
I-132	Xe-132	387.900	0.009	2.295	0.043
Ba-141	La-141	390.000	0.013	0.304	0.058
Ce-143	Pr-143	389.640	0.000	33.039	0.060

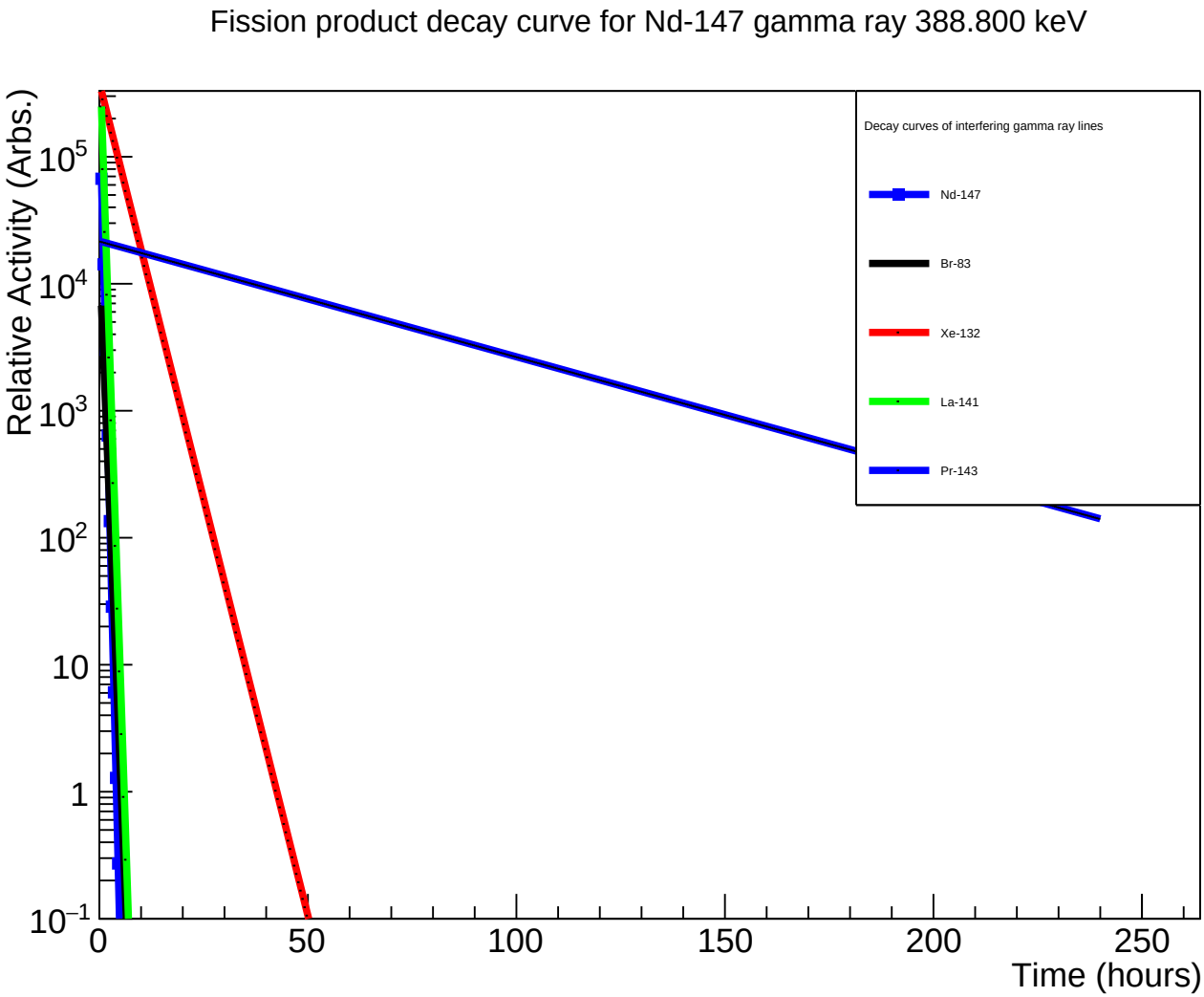


Figure 1043: Nd-147 decay curve for 388.800 keV gamma ray.

3.1044 Pr-147 E_γ = 466.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 466.80 keV
Gamma Intensity = 1.87 ± 0.119 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2087: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2088: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	466.620	0.001	0.252	0.047
Nb-98	Mo-98	465.500	0.001	0.855	0.000
Nb-98	Mo-98	467.000	0.000	0.855	0.000
Tc-105	Ru-105	466.300	0.015	0.127	0.010
Sb-130	Te-130	468.000	0.180	0.658	0.008
Sb-130	Te-130	468.000	0.031	0.105	0.010
Te-131	I-131	468.160	0.003	33.250	0.004
I-134	Xe-134	465.500	0.004	0.875	0.078
Cs-139	Ba-139	466.700	0.000	0.155	0.063
Ba-140	La-140	467.500	0.000	306.065	0.062
Ba-141	La-141	467.500	0.057	0.304	0.058
Ce-146	Pr-146	468.020	0.008	0.225	0.030
Nd-151	Pm-151	465.600	0.000	0.207	0.004
Pm-151	Sm-151	467.200	0.000	28.400	0.004

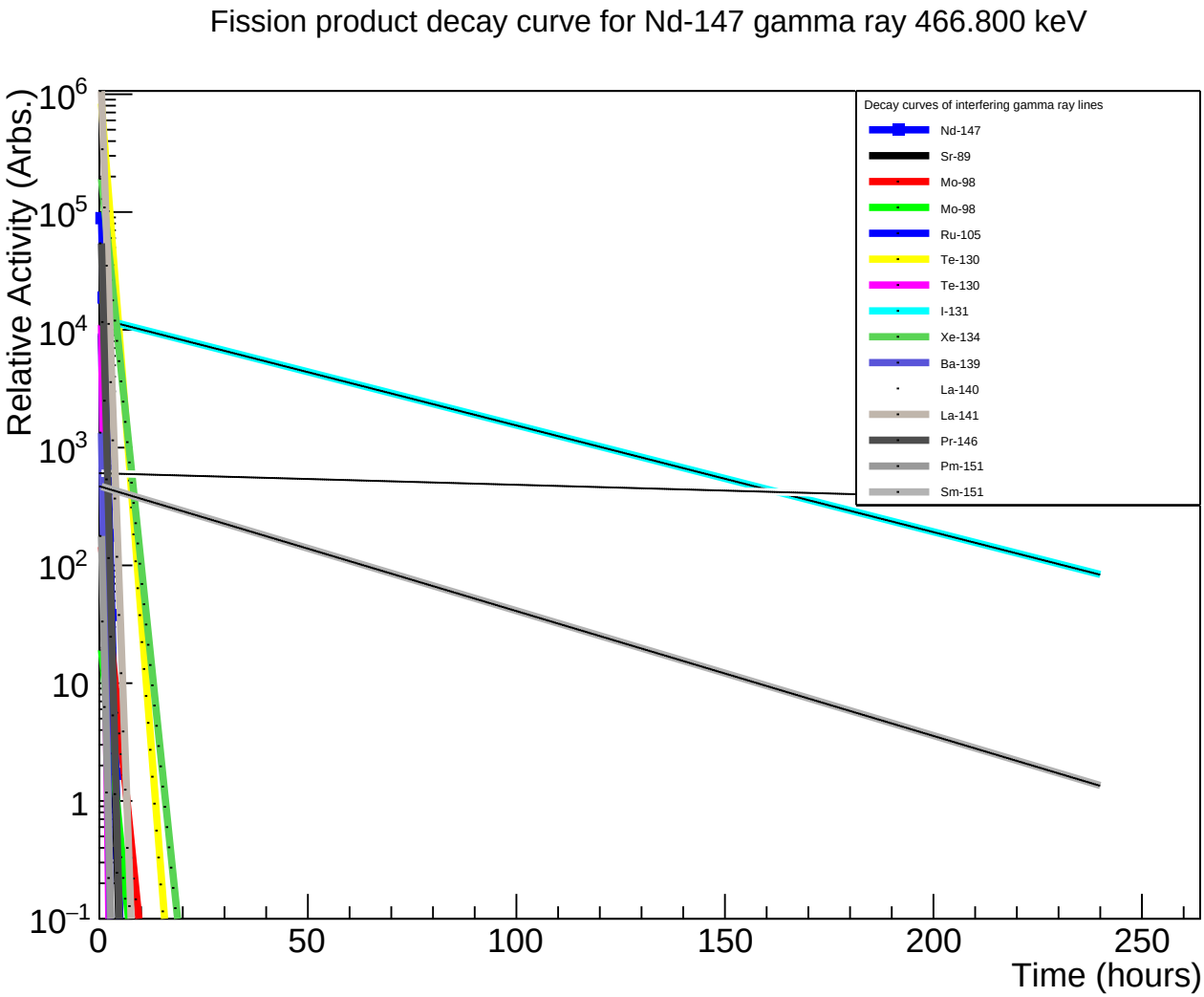


Figure 1044: Nd-147 decay curve for 466.800 keV gamma ray.

3.1045 Pr-147 E_γ = 477.90 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 477.90 keV
Gamma Intensity = 4.55 ± 0.254 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2089: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2090: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	478.700	0.008	0.127	0.010
Pd-111	Ag-111	476.700	0.001	0.390	0.000
Pd-111	Ag-111	478.900	0.000	0.390	0.000
Te-133	I-133	477.770	0.004	0.208	0.031
Te-133	I-133	478.620	0.009	0.923	0.040
I-132	Xe-132	478.200	0.002	2.295	0.043
La-143	Ce-143	476.600	0.001	0.237	0.059
Nd-151	Pm-151	476.500	0.000	0.207	0.004
Nd-151	Pm-151	479.300	0.000	0.207	0.004
Pm-151	Sm-151	477.750	0.001	28.400	0.004

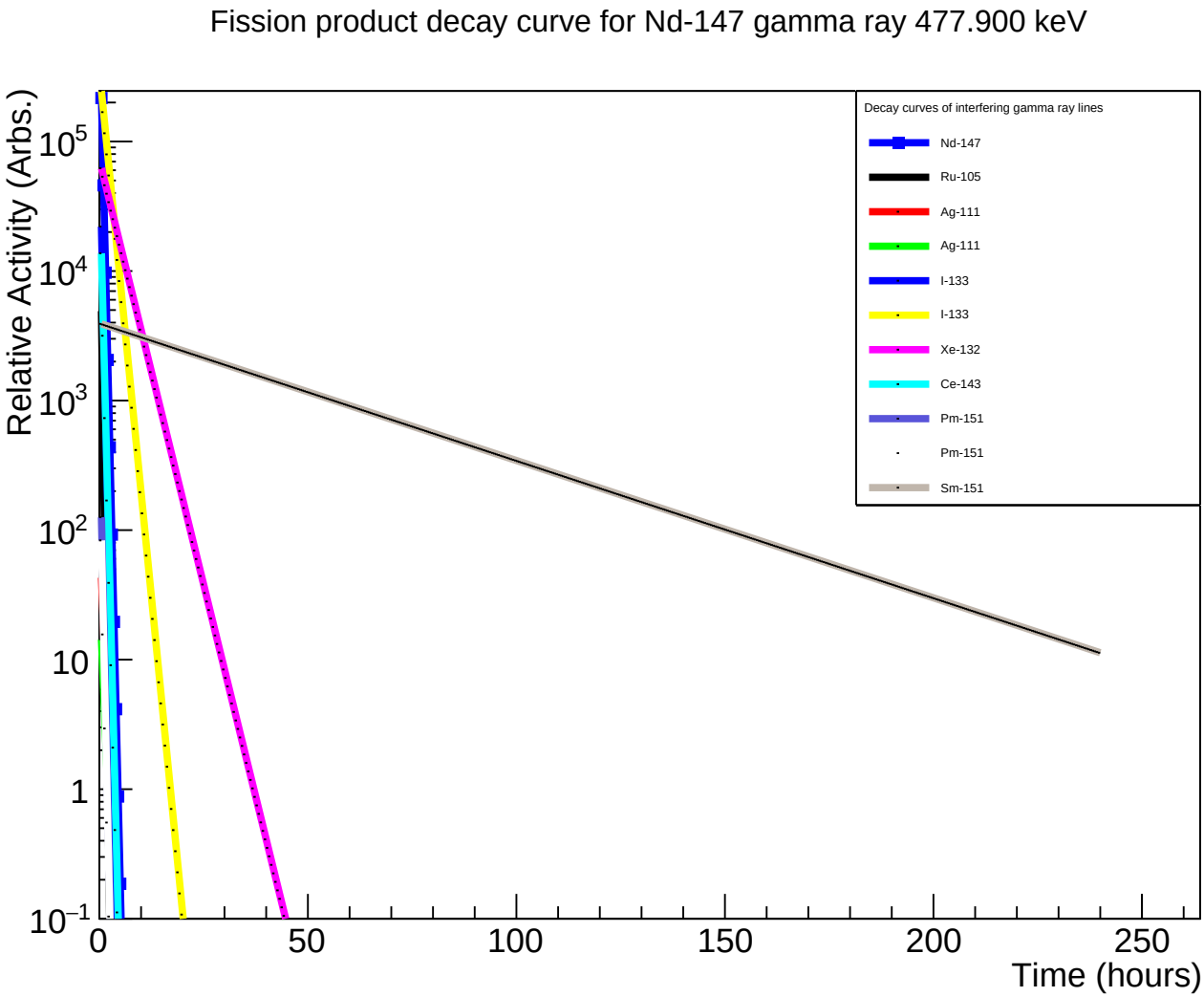


Figure 1045: Nd-147 decay curve for 477.900 keV gamma ray.

3.1046 Pr-147 E_γ = 516.70 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 516.70 keV
Gamma Intensity = 1.69 ± 0.111 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2091: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2092: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	517.000	0.000	2.840	0.036
Mo-101	Tc-101	515.420	0.008	0.243	0.052
Tc-101	Ru-101	516.130	0.001	0.237	0.052
Pd-111	Ag-111	516.400	0.000	0.390	0.000
Sn-127	Sb-127	518.200	0.002	2.100	0.001
Cs-138	Ba-138	516.740	0.004	0.557	0.067
Cs-139	Ba-139	515.860	0.001	0.155	0.063
Nd-149	Pm-149	515.750	0.000	1.728	0.011
Nd-151	Pm-151	516.210	0.001	0.207	0.004
Nd-151	Pm-151	518.000	0.001	0.207	0.004
Pm-151	Sm-151	516.250	0.002	28.400	0.004

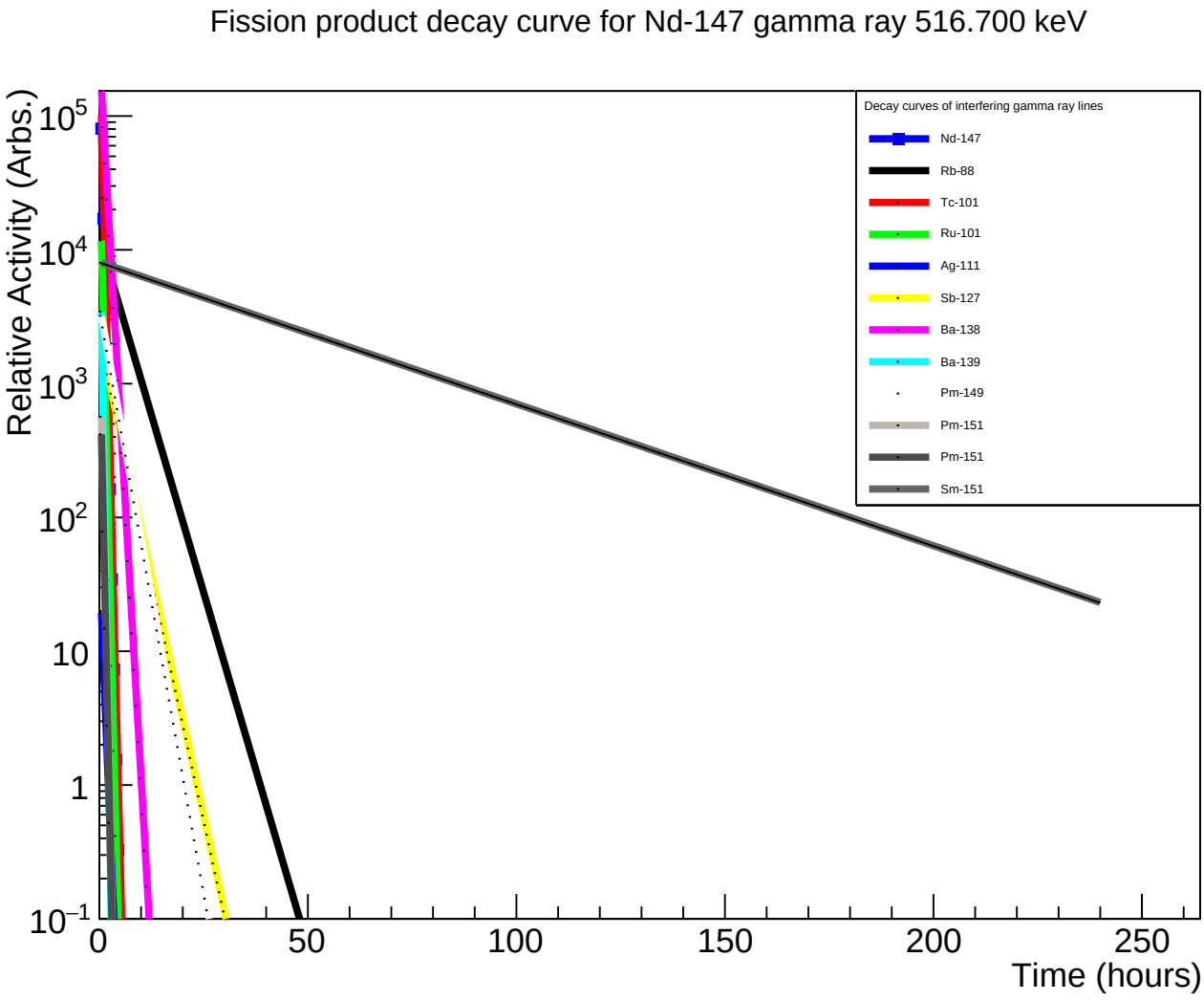


Figure 1046: Nd-147 decay curve for 516.700 keV gamma ray.

3.1047 Pr-147 E_γ = 554.70 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 554.70 keV
Gamma Intensity = 5.78 ± 0.327 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2093: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2094: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	553.200	0.034	0.372	0.003
Y-91	Zr-91	555.570	0.950	0.829	0.034
Y-95	Zr-95	555.500	0.005	0.172	0.064
Nb-98	Mo-98	555.300	0.000	0.855	0.000
Tc-104	Ru-104	553.800	0.003	0.305	0.019
Rh-107	Pd-107	554.400	0.001	0.362	0.001
Te-133	I-133	553.700	0.001	0.208	0.031
Te-133	I-133	555.000	0.001	0.923	0.040
I-133	Xe-133	554.500	0.000	20.800	0.067
I-133	Xe-133	556.170	0.000	20.800	0.067
Xe-138	Cs-138	555.950	0.001	0.235	0.063
Nd-149	Pm-149	555.880	0.006	1.728	0.011
Pm-151	Sm-151	554.200	0.000	28.400	0.004
Sm-153	Eu-153	554.940	0.000	46.500	0.002
Eu-156	Gd-156	554.660	0.000	364.560	0.000

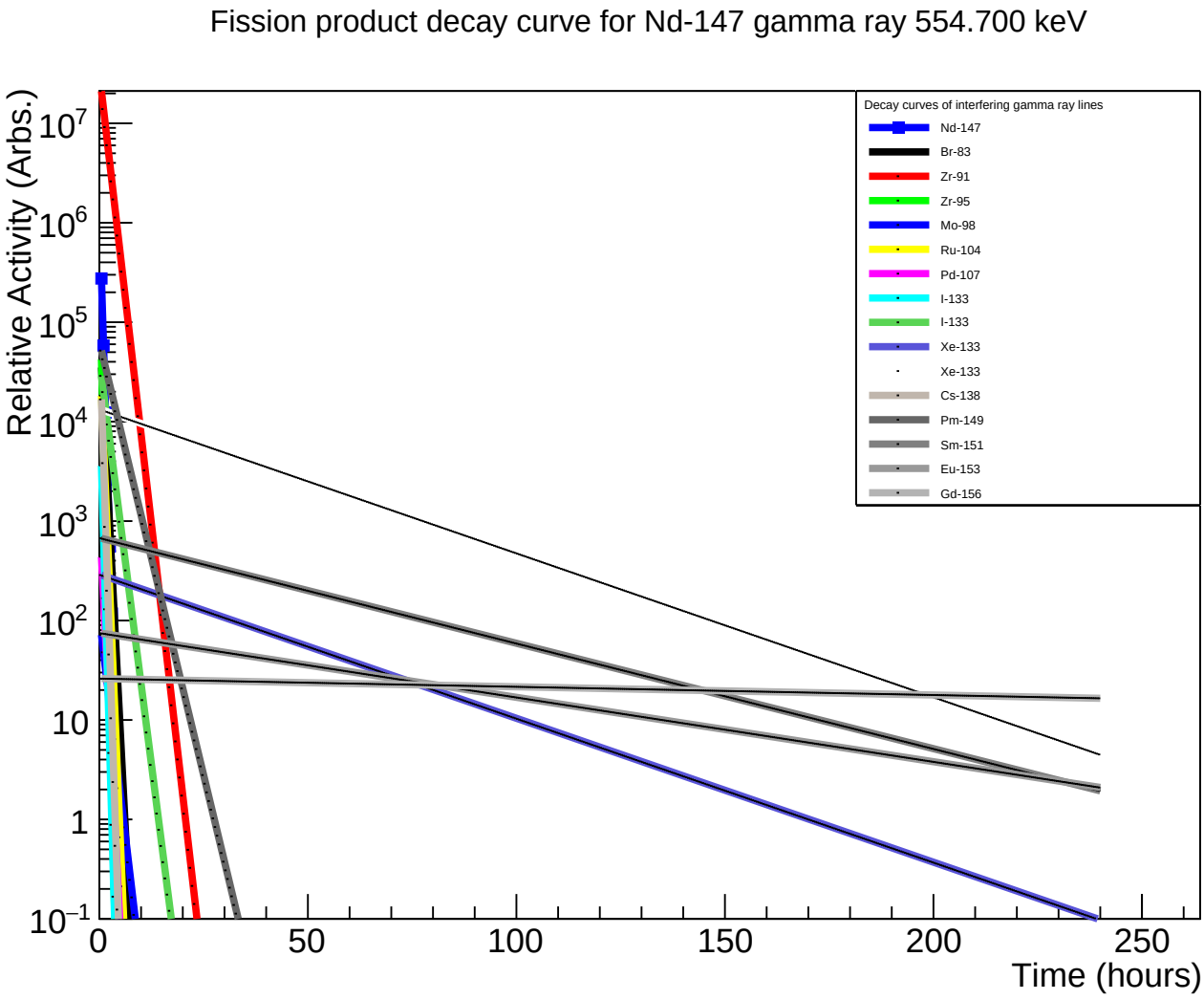


Figure 1047: Nd-147 decay curve for 554.700 keV gamma ray.

3.1048 Pr-147 E_γ = 577.90 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 577.90 keV
Gamma Intensity = 13.74 ± 0.808 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2095: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2096: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	579.040	0.000	2.840	0.036
Tc-105	Ru-105	577.900	0.029	0.127	0.010
Ru-105	Rh-105	577.000	0.000	4.440	0.010
Sn-129	Sb-129	577.900	0.018	0.115	0.002
Ba-142	La-142	577.700	0.001	0.177	0.058
La-142	Ce-142	578.090	0.013	1.518	0.058
Nd-149	Pm-149	579.280	0.001	1.728	0.011
Nd-151	Pm-151	577.360	0.004	0.207	0.004
Nd-152	Pm-152	576.700	0.004	0.190	0.003
Sm-153	Eu-153	578.750	0.000	46.500	0.002

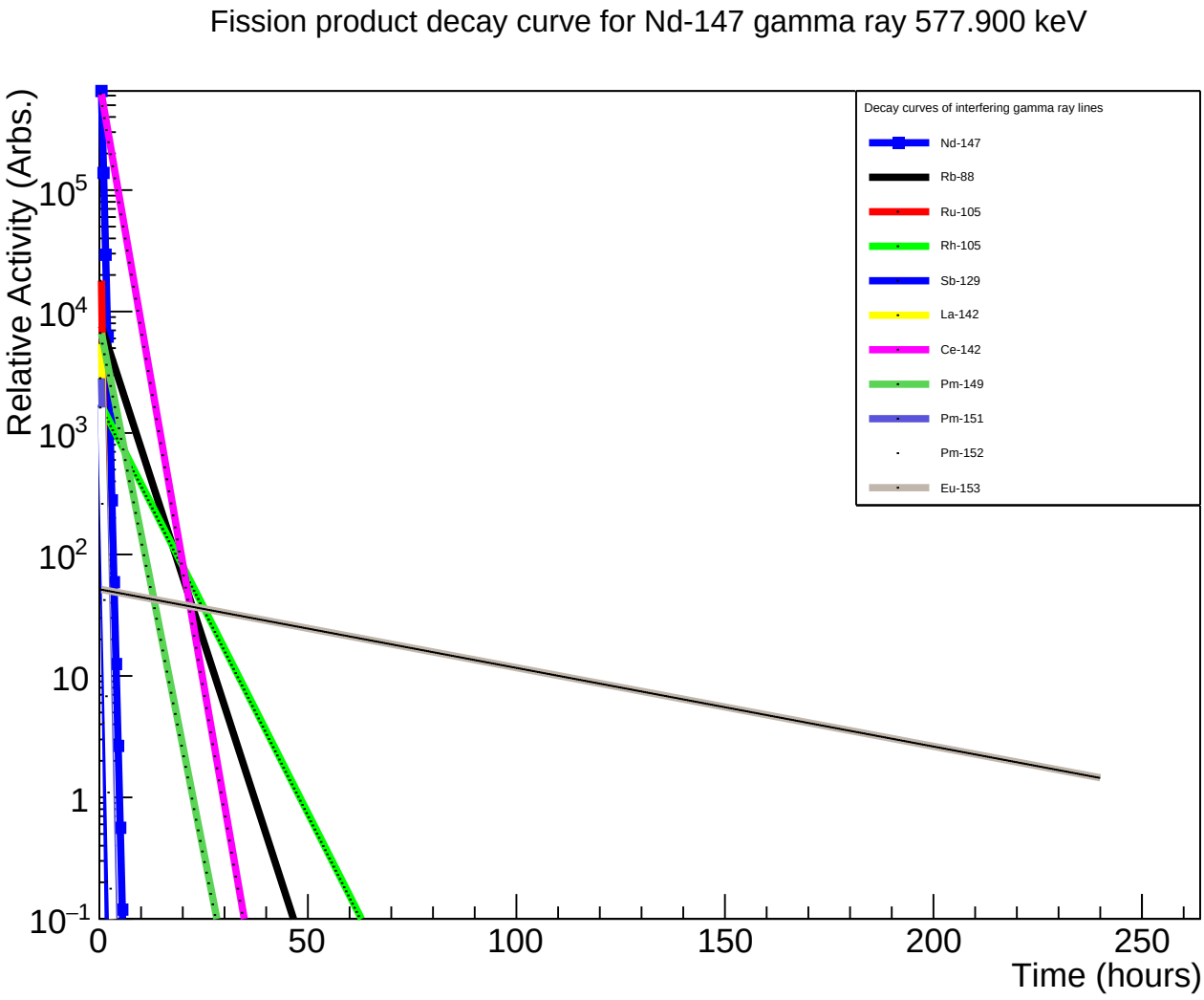


Figure 1048: Nd-147 decay curve for 577.900 keV gamma ray.

3.1049 Pr-147 E_γ = 641.40 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 641.40 keV
Gamma Intensity = 15.62 ± 0.895 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2097: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2098: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	642.710	0.012	0.243	0.052
Tc-105	Ru-105	640.200	0.026	0.127	0.010
Pd-111	Ag-111	641.700	0.001	0.390	0.000
Sb-131	Te-131	642.300	0.235	0.384	0.026
Te-133	I-133	642.330	0.008	0.923	0.040
I-131	Xe-131	642.719	0.002	192.605	0.029
Ba-141	La-141	641.500	0.004	0.304	0.058
La-142	Ce-142	641.285	0.474	1.518	0.058

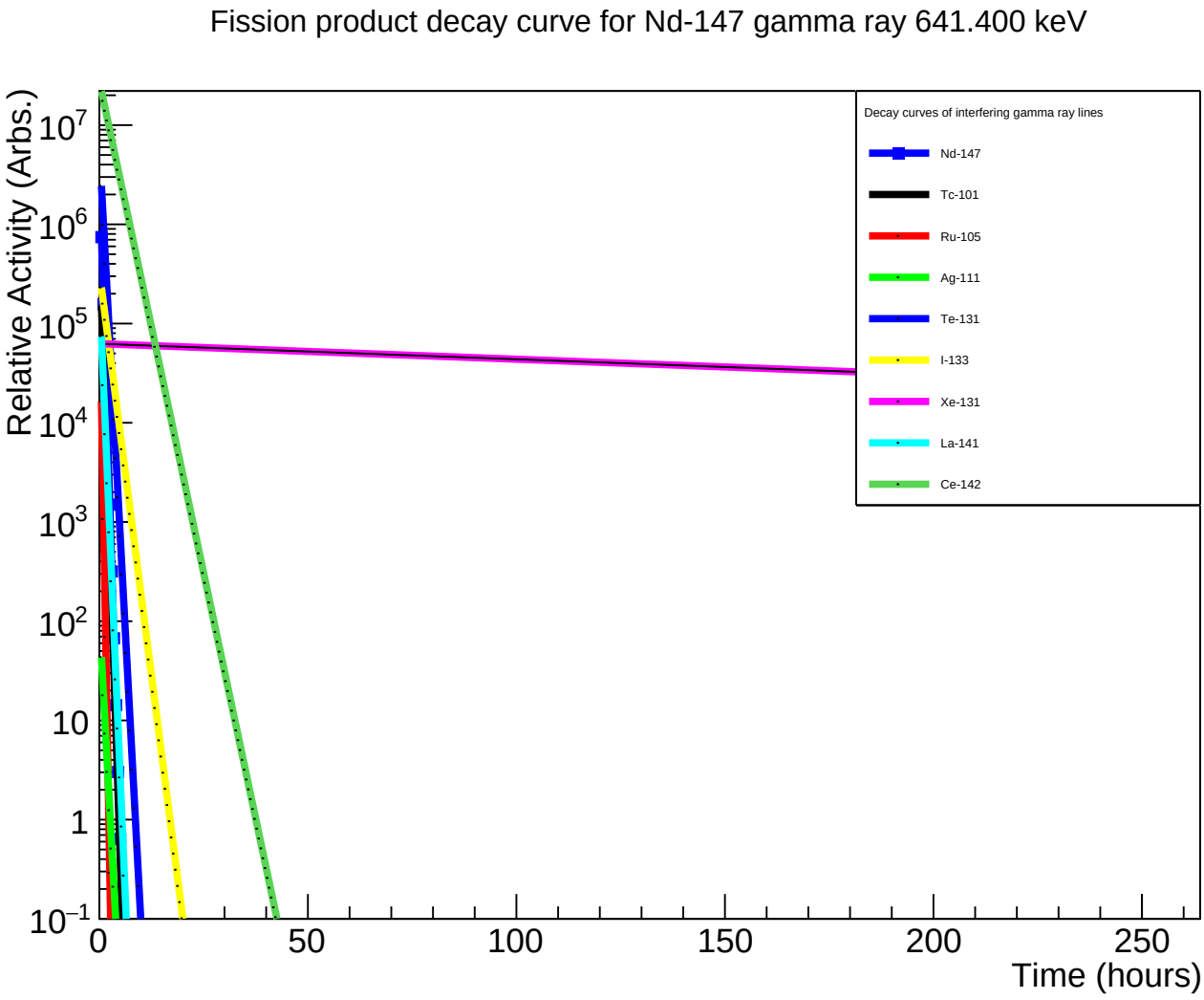


Figure 1049: Nd-147 decay curve for 641.400 keV gamma ray.

3.1050 Pr-147 E_γ = 718.90 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 718.90 keV
Gamma Intensity = 1.06 ± 0.074 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2099: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2100: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	718.030	0.150	0.372	0.003
Sr-93	Y-93	718.330	0.015	0.124	0.062
Nb-97	Mo-97	719.530	0.001	1.202	0.060
Nb-98	Mo-98	717.500	0.003	0.855	0.000
Tc-101	Ru-101	720.020	0.002	0.237	0.052
Rh-107	Pd-107	720.400	0.000	0.362	0.001
Ag-112	Cd-112	718.400	0.002	3.130	0.000
Te-133	I-133	717.800	0.001	0.208	0.031
Te-133	I-133	719.600	0.000	0.208	0.031
Te-133	I-133	719.710	0.089	0.208	0.031
Te-133	I-133	720.300	0.001	0.208	0.031
Te-133	I-133	718.900	0.008	0.923	0.040
Cs-138	Ba-138	717.700	0.000	0.557	0.067
Nd-149	Pm-149	718.430	0.000	1.728	0.011
Nd-151	Pm-151	717.600	0.001	0.207	0.004
Nd-151	Pm-151	719.600	0.000	0.207	0.004
Nd-151	Pm-151	720.300	0.000	0.207	0.004
Pm-151	Sm-151	717.720	0.041	28.400	0.004
Pm-151	Sm-151	719.000	0.000	28.400	0.004
Sm-153	Eu-153	719.000	0.000	46.500	0.002

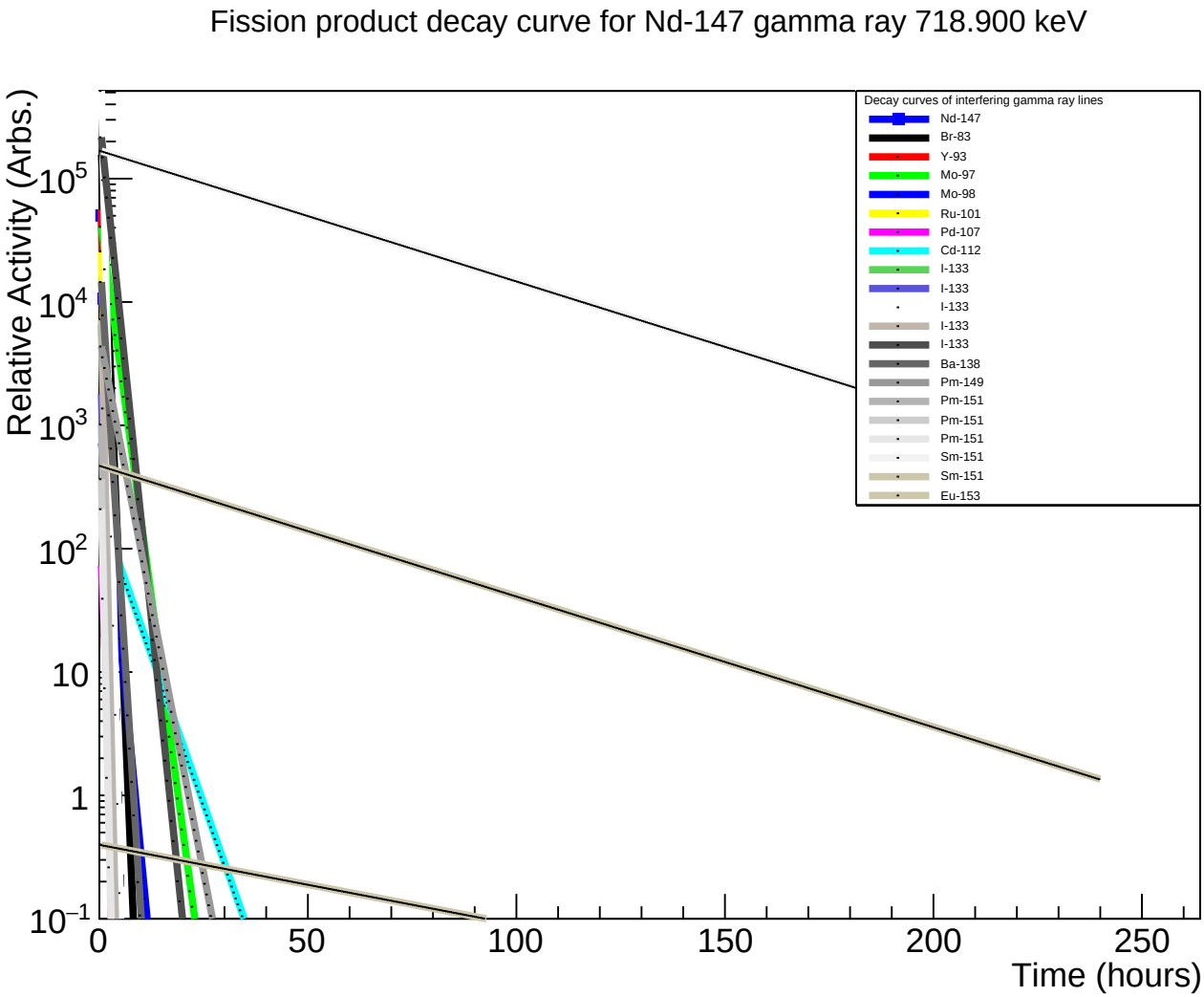


Figure 1050: Nd-147 decay curve for 718.900 keV gamma ray.

3.1051 Pr-147 E_γ = 793.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 793.80 keV
Gamma Intensity = 1.34 ± 0.087 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2101: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2102: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-91	Y-91	793.600	0.001	9.630	0.058
Sr-93	Y-93	795.290	0.002	0.124	0.062
Tc-104	Ru-104	792.500	0.025	0.305	0.019
Pd-111	Ag-111	793.800	0.000	0.390	0.000
Sb-130	Te-130	793.400	1.000	0.658	0.008
Sb-130	Te-130	793.400	0.860	0.105	0.010
Te-129	I-129	794.600	0.000	806.400	0.001
Te-131	I-131	793.750	0.134	33.250	0.004
Te-133	I-133	794.700	0.010	0.923	0.040
Xe-138	Cs-138	792.900	0.000	0.235	0.063
Cs-139	Ba-139	793.280	0.001	0.155	0.063
La-142	Ce-142	793.100	0.000	1.518	0.058
Nd-149	Pm-149	793.430	0.000	1.728	0.011
Nd-151	Pm-151	792.400	0.000	0.207	0.004
Pm-151	Sm-151	792.800	0.000	28.400	0.004

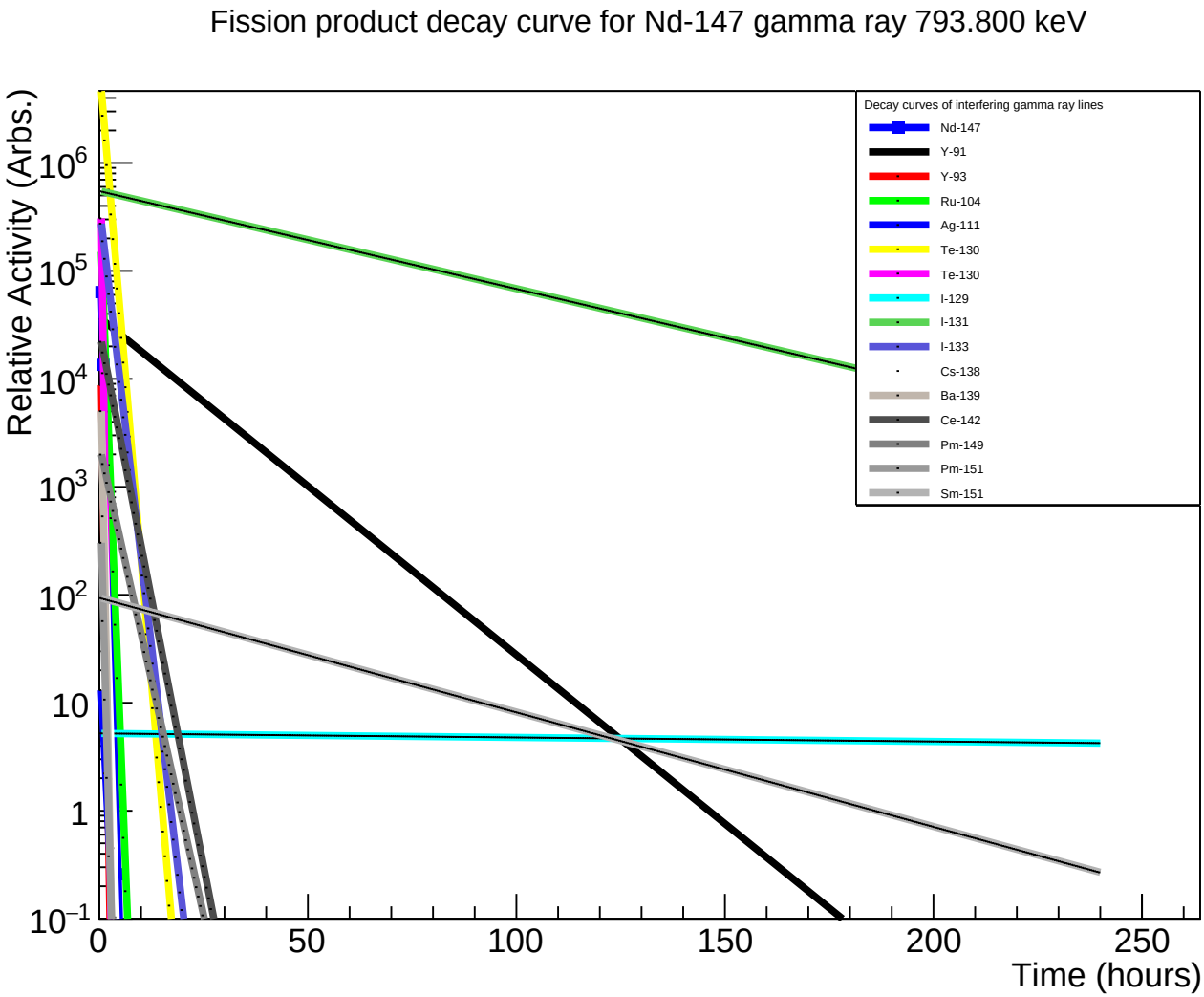


Figure 1051: Nd-147 decay curve for 793.800 keV gamma ray.

3.1052 Pr-147 E_γ = 942.30 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 942.30 keV
Gamma Intensity = 1.05 ± 0.071 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2103: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2104: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	943.300	0.005	0.372	0.003
Se-83	Br-83	943.400	0.009	0.372	0.003
Cd-115	In-115	941.420	0.000	53.460	0.000
Sb-130	Te-130	942.200	0.028	0.105	0.010
Sb-131	Te-131	943.410	0.471	0.384	0.026
Te-131	I-131	941.270	0.008	33.250	0.004
Te-133	I-133	942.200	0.003	0.208	0.031
Te-133	I-133	943.000	0.001	0.208	0.031
Xe-138	Cs-138	941.250	0.002	0.235	0.063
Ba-141	La-141	943.200	0.008	0.304	0.058
La-143	Ce-143	942.900	0.000	0.237	0.059
Nd-149	Pm-149	942.970	0.000	1.728	0.011
Nd-151	Pm-151	943.170	0.004	0.207	0.004

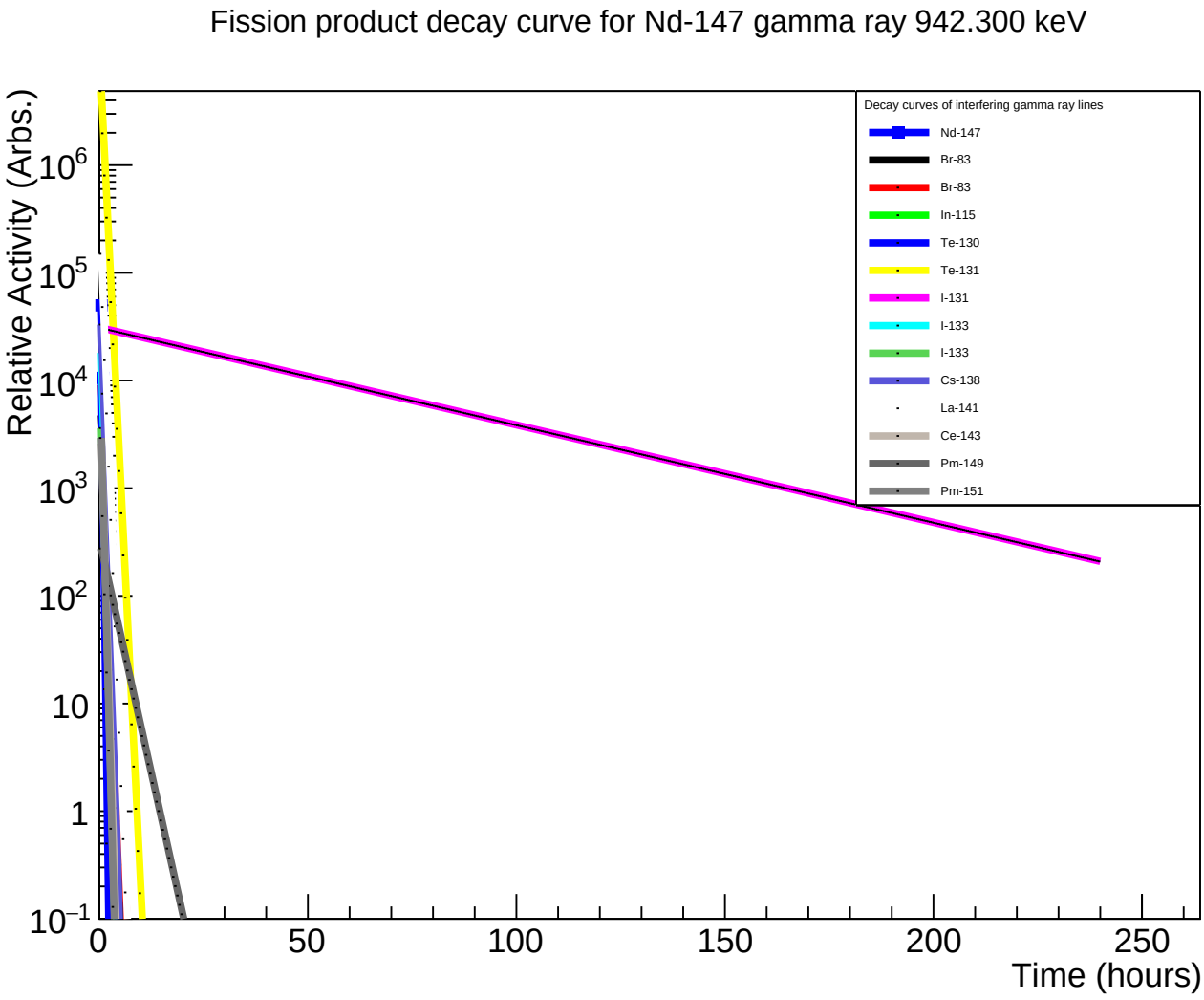


Figure 1052: Nd-147 decay curve for 942.300 keV gamma ray.

3.1053 Pr-147 E_γ = 996.00 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 996.00 keV
Gamma Intensity = 1.48 ± 0.095 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2105: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2106: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	995.930	0.013	0.372	0.003
Nb-98	Mo-98	996.300	0.021	0.855	0.000
Te-131	I-131	997.250	0.033	0.417	0.025
Te-131	I-131	995.100	0.001	33.250	0.004
Te-133	I-133	995.090	0.007	0.208	0.031
Te-133	I-133	995.090	0.005	0.923	0.040
Te-133	I-133	996.100	0.004	0.923	0.040
I-132	Xe-132	995.800	0.000	2.295	0.043
I-135	Xe-135	995.090	0.002	6.570	0.063
Xe-138	Cs-138	996.800	0.001	0.235	0.063
Ba-141	La-141	996.800	0.001	0.304	0.058
Nd-151	Pm-151	994.640	0.001	0.207	0.004

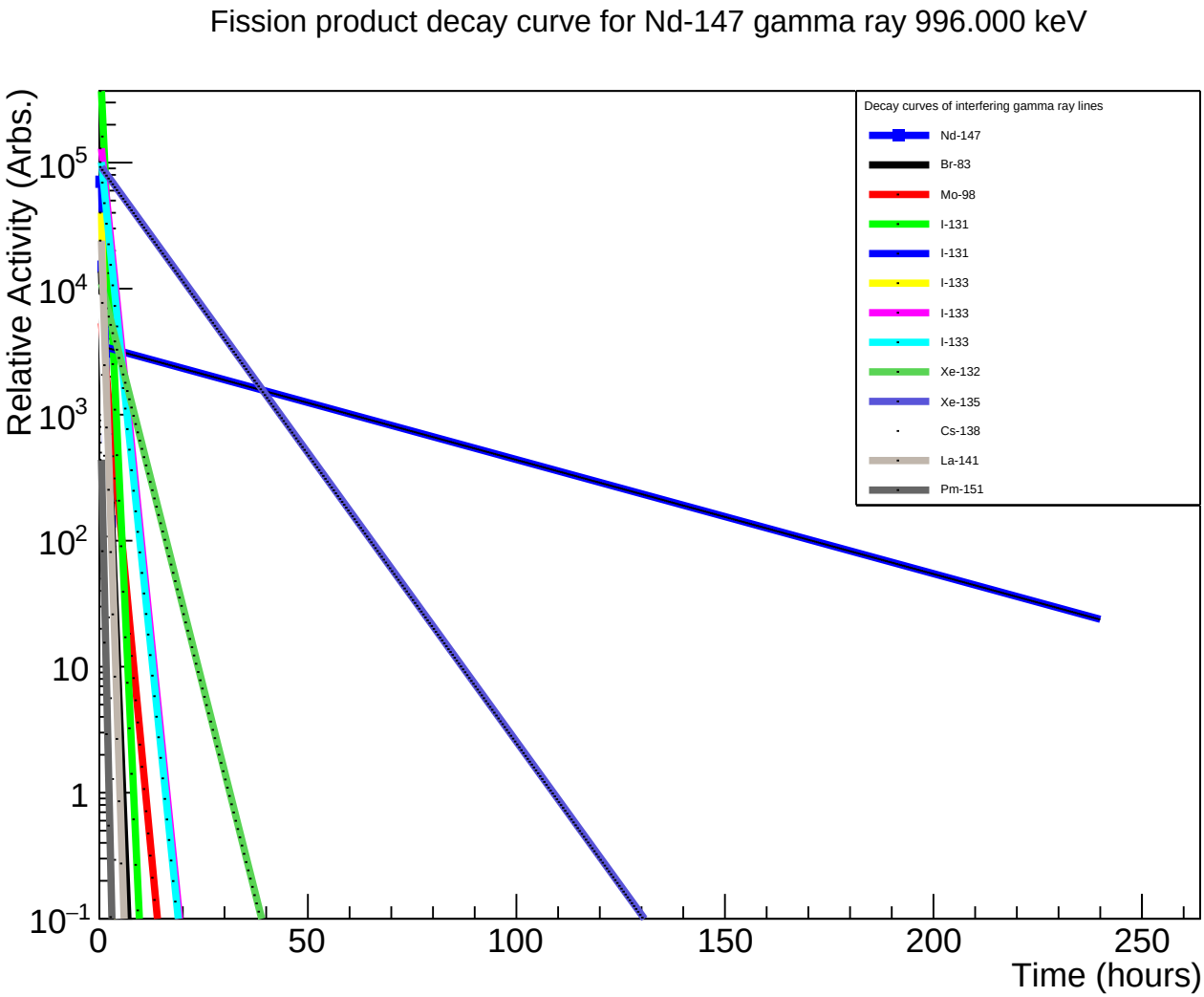


Figure 1053: Nd-147 decay curve for 996.000 keV gamma ray.

3.1054 Pr-147 E_γ = 1136.70 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 1136.70 keV
Gamma Intensity = 1.38 ± 0.087 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2107: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2108: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1136.770	0.002	0.124	0.062
Sn-125	Sb-125	1137.500	0.000	231.360	0.000
Sb-130	Te-130	1137.600	0.003	0.658	0.008
Te-133	I-133	1137.000	0.001	0.208	0.031
Te-133	I-133	1137.300	0.003	0.923	0.040
I-132	Xe-132	1136.000	0.030	2.295	0.043
I-134	Xe-134	1136.160	0.091	0.875	0.078
Ba-141	La-141	1136.800	0.000	0.304	0.058
Nd-149	Pm-149	1135.940	0.000	1.728	0.011
Nd-151	Pm-151	1136.580	0.002	0.207	0.004

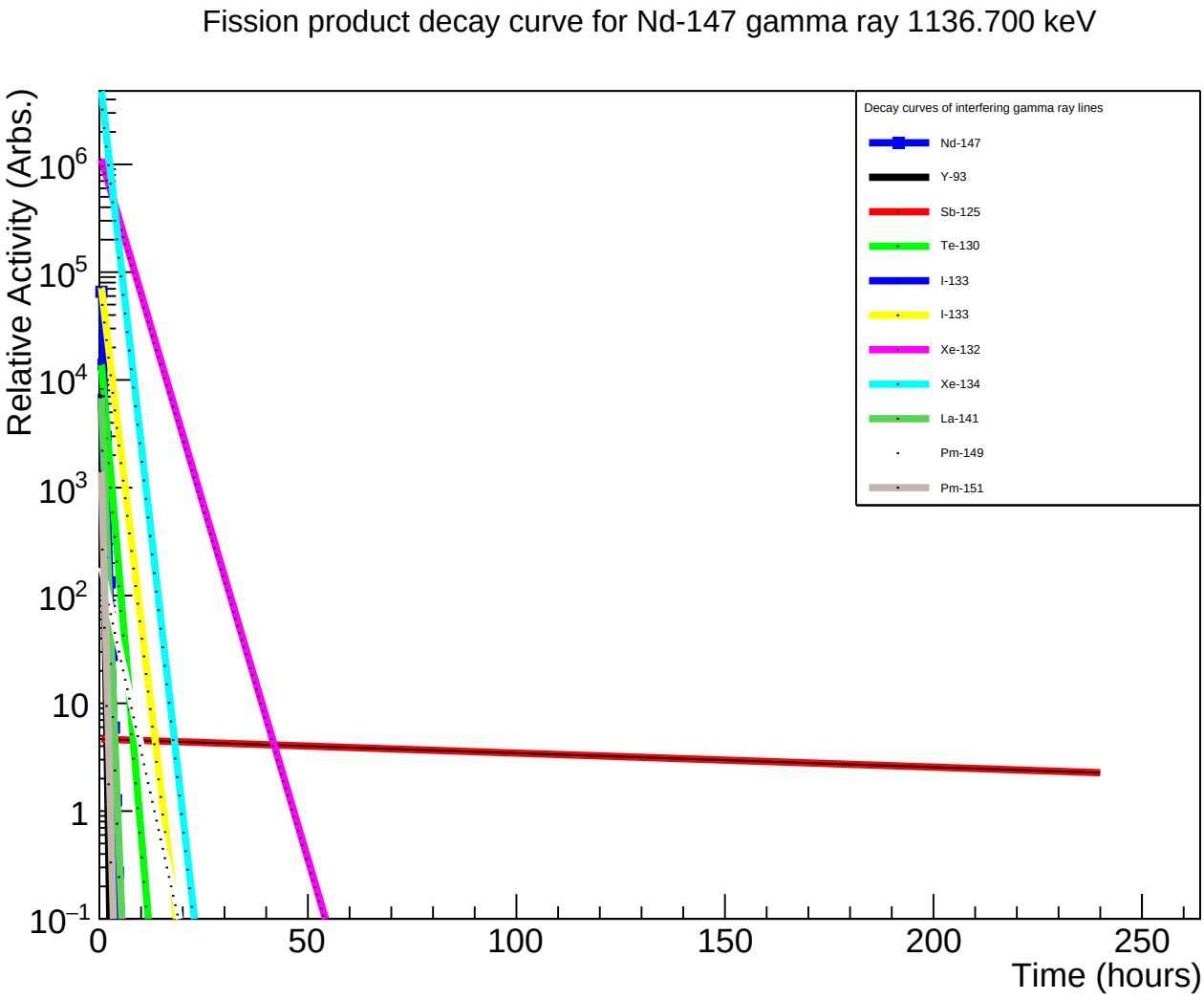


Figure 1054: Nd-147 decay curve for 1136.700 keV gamma ray.

3.1055 Pr-147 E_γ = 1182.80 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 1182.80 keV
Gamma Intensity = 1.03 ± 0.077 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2109: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2110: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-93	Zr-93	1183.500	0.000	10.180	0.063
Nb-98	Mo-98	1183.600	0.000	0.855	0.000
Mo-101	Tc-101	1184.190	0.002	0.243	0.052
Sb-128	Te-128	1181.600	0.045	9.010	0.000
Te-129	I-129	1181.960	0.000	1.160	0.005
Te-131	I-131	1181.400	0.000	33.250	0.004
I-134	Xe-134	1183.200	0.001	0.875	0.078
Nd-151	Pm-151	1184.200	0.001	0.207	0.004

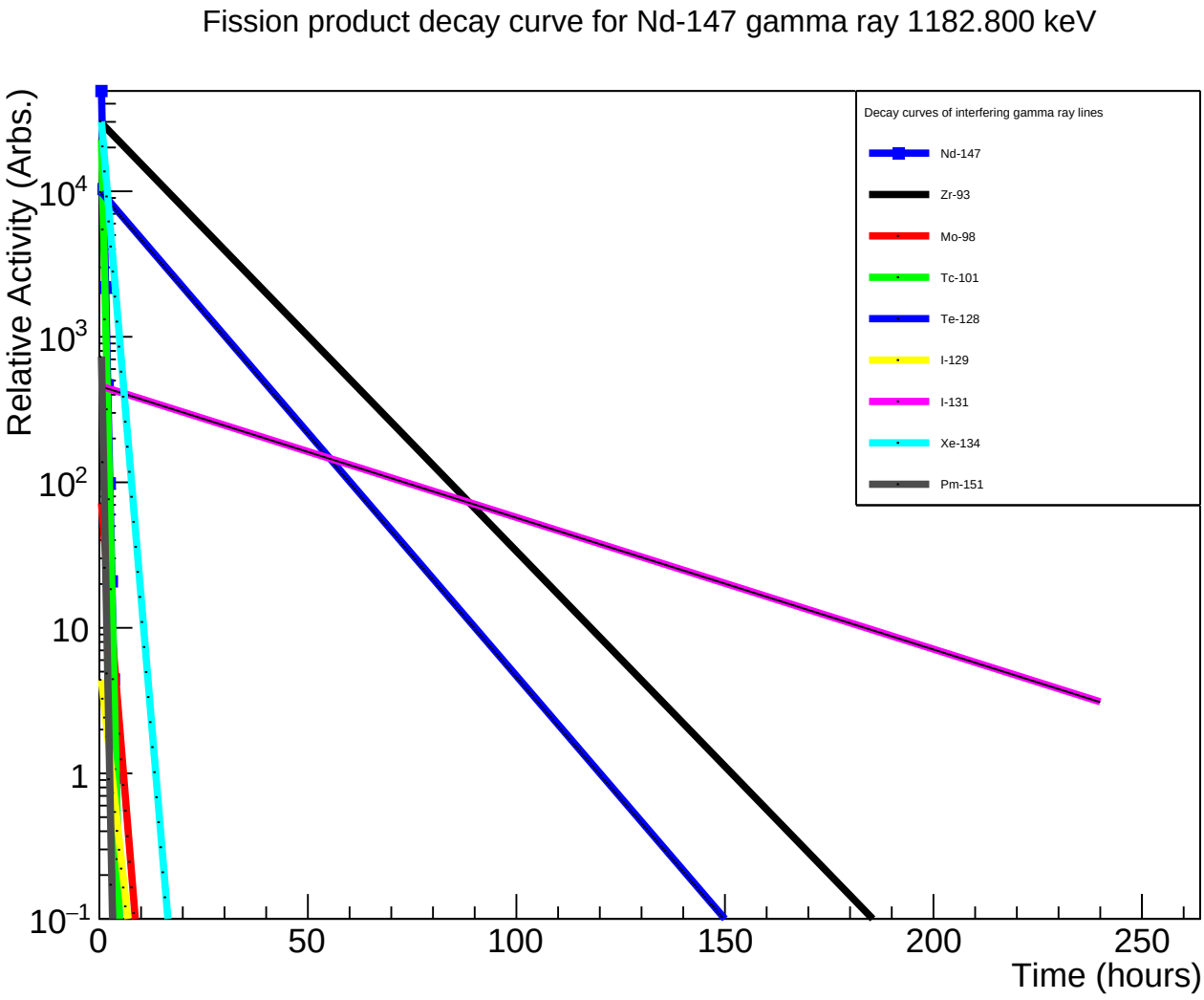


Figure 1055: Nd-147 decay curve for 1182.800 keV gamma ray.

3.1056 Pr-147 E_γ = 1261.10 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 1261.10 keV
Gamma Intensity = 8.16 ± 0.324 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2111: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2112: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1261.300	0.001	0.124	0.062
Mo-101	Tc-101	1260.210	0.001	0.243	0.052
Sb-129	Te-129	1261.300	0.007	4.400	0.005
Te-129	I-129	1260.630	0.000	1.160	0.005
I-135	Xe-135	1260.409	0.287	6.570	0.063
Nd-149	Pm-149	1259.620	0.000	1.728	0.011
Nd-151	Pm-151	1260.860	0.000	0.207	0.004
Sm-155	Eu-155	1262.400	0.000	0.372	0.000

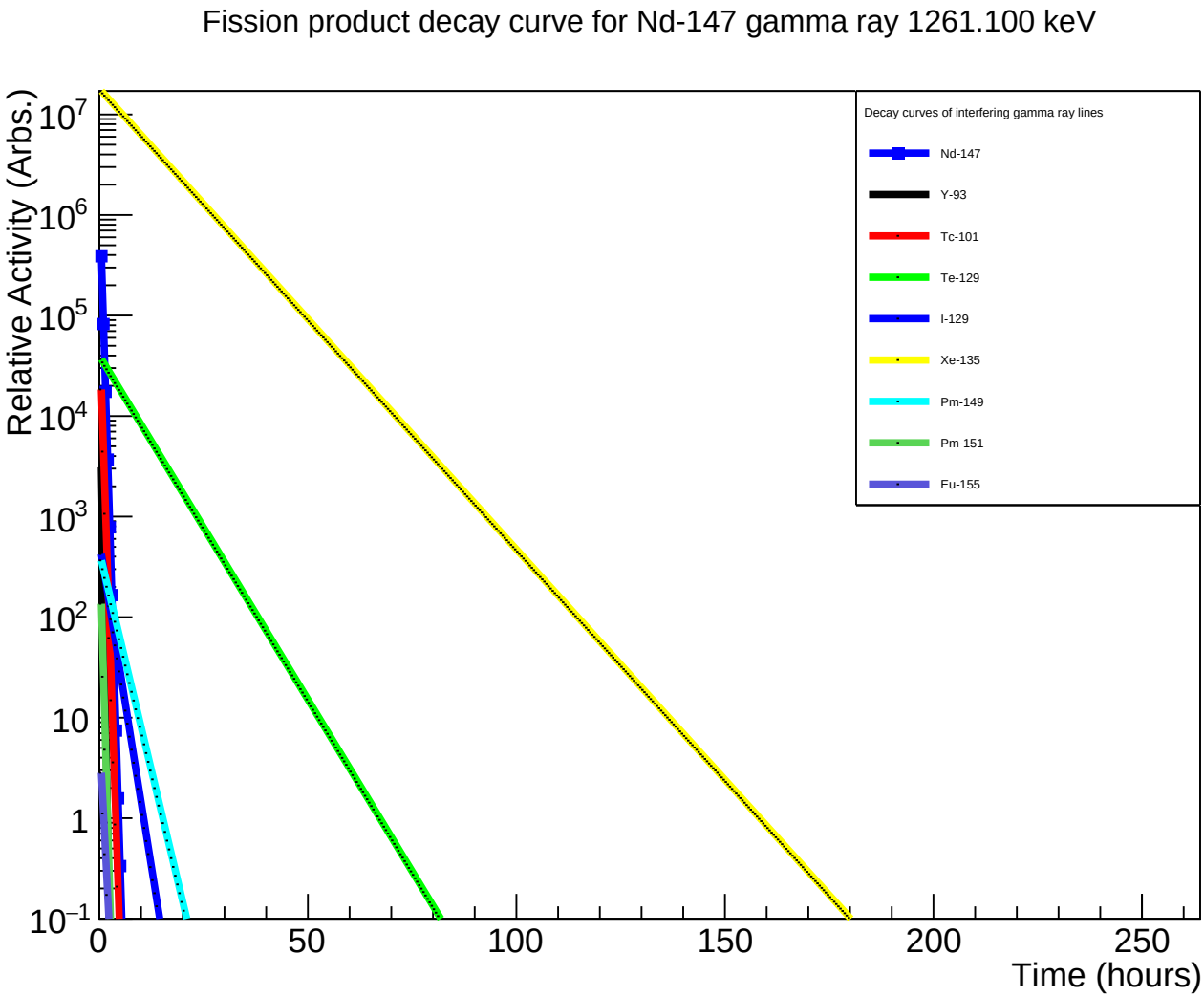


Figure 1056: Nd-147 decay curve for 1261.100 keV gamma ray.

3.1057 Pr-147 E_γ = 1264.20 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 1264.20 keV
Gamma Intensity = 1.22 ± 0.079 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2113: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2114: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1263.360	0.001	0.855	0.000
Te-129	I-129	1264.160	0.000	1.160	0.005
Te-131	I-131	1265.200	0.000	0.417	0.025
I-132	Xe-132	1263.600	0.000	2.295	0.043
Cs-138	Ba-138	1264.940	0.001	0.557	0.067
Ba-141	La-141	1264.000	0.009	0.304	0.058
La-142	Ce-142	1264.700	0.001	1.518	0.058
Nd-149	Pm-149	1264.020	0.000	1.728	0.011
Nd-151	Pm-151	1264.300	0.000	0.207	0.004

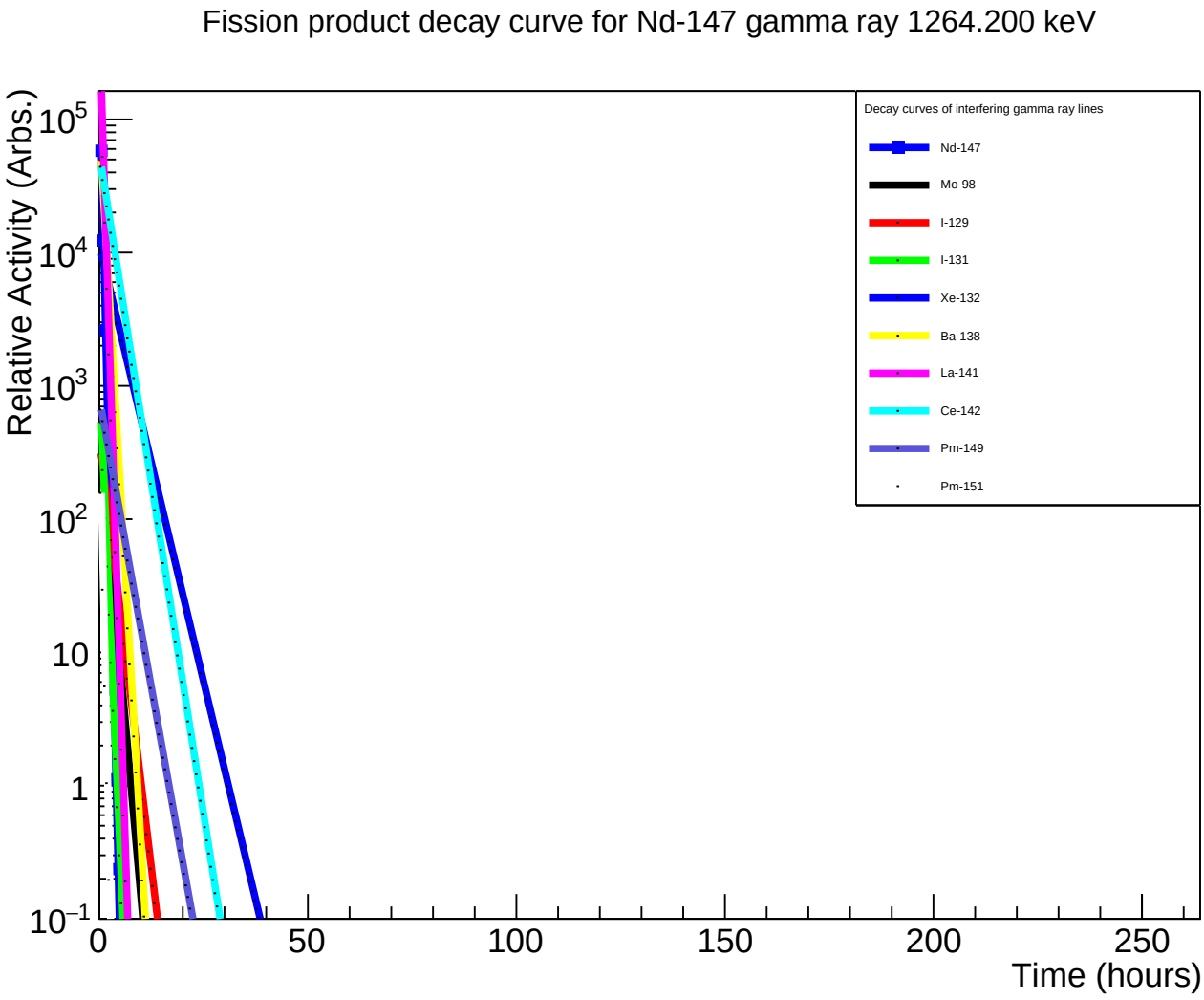


Figure 1057: Nd-147 decay curve for 1264.200 keV gamma ray.

3.1058 Pr-147 E_γ = 1300.40 keV

Chemical element: Praseodymium
Fission product parent: Pr-147
Gamma originates in daughter: Nd-147
Eγ: 1300.40 keV
Gamma Intensity = 2.46 ± 0.296 %
$T_{1/2}$ = 0.223 ± 0.005 hours or 13.40 ± 0.30 minutes
CFY: 2.247 ± 0.517 %

Table 2115: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2116: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1299.150	0.052	0.372	0.003
Sb-129	Te-129	1300.000	0.003	4.400	0.005
Te-133	I-133	1299.200	0.002	0.923	0.040
La-143	Ce-143	1299.900	0.000	0.237	0.059
Sm-155	Eu-155	1301.200	0.001	0.372	0.000

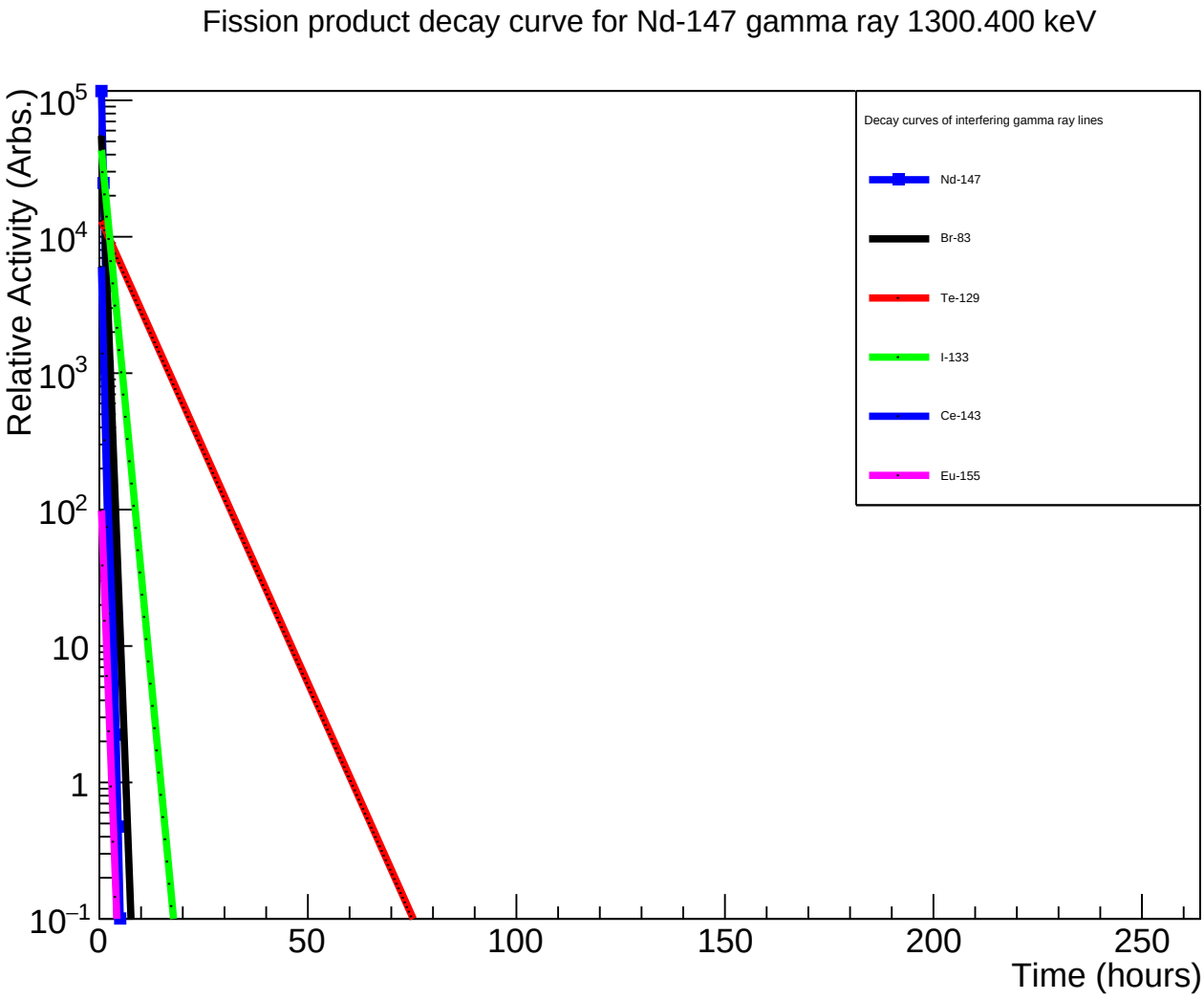


Figure 1058: Nd-147 decay curve for 1300.400 keV gamma ray.

3.1059 Nd-147 E_γ = 91.11 keV

Chemical element: Neodymium
Fission product parent: Nd-147
Gamma originates in daughter: Pm-147
Eγ: 91.11 keV
Gamma Intensity = 28.08 ± 0.535 %
$T_{1/2}$ = 263.520 ± 0.240 hours or 15811.20 ± 14.40 minutes
CFY: 2.247 ± 0.032 %

Table 2117: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2118: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	92.330	0.002	0.923	0.040
Pr-145	Nd-145	91.100	0.000	5.984	0.039
Pm-151	Sm-151	91.700	0.000	28.400	0.004
Sm-155	Eu-155	90.100	0.000	0.372	0.000

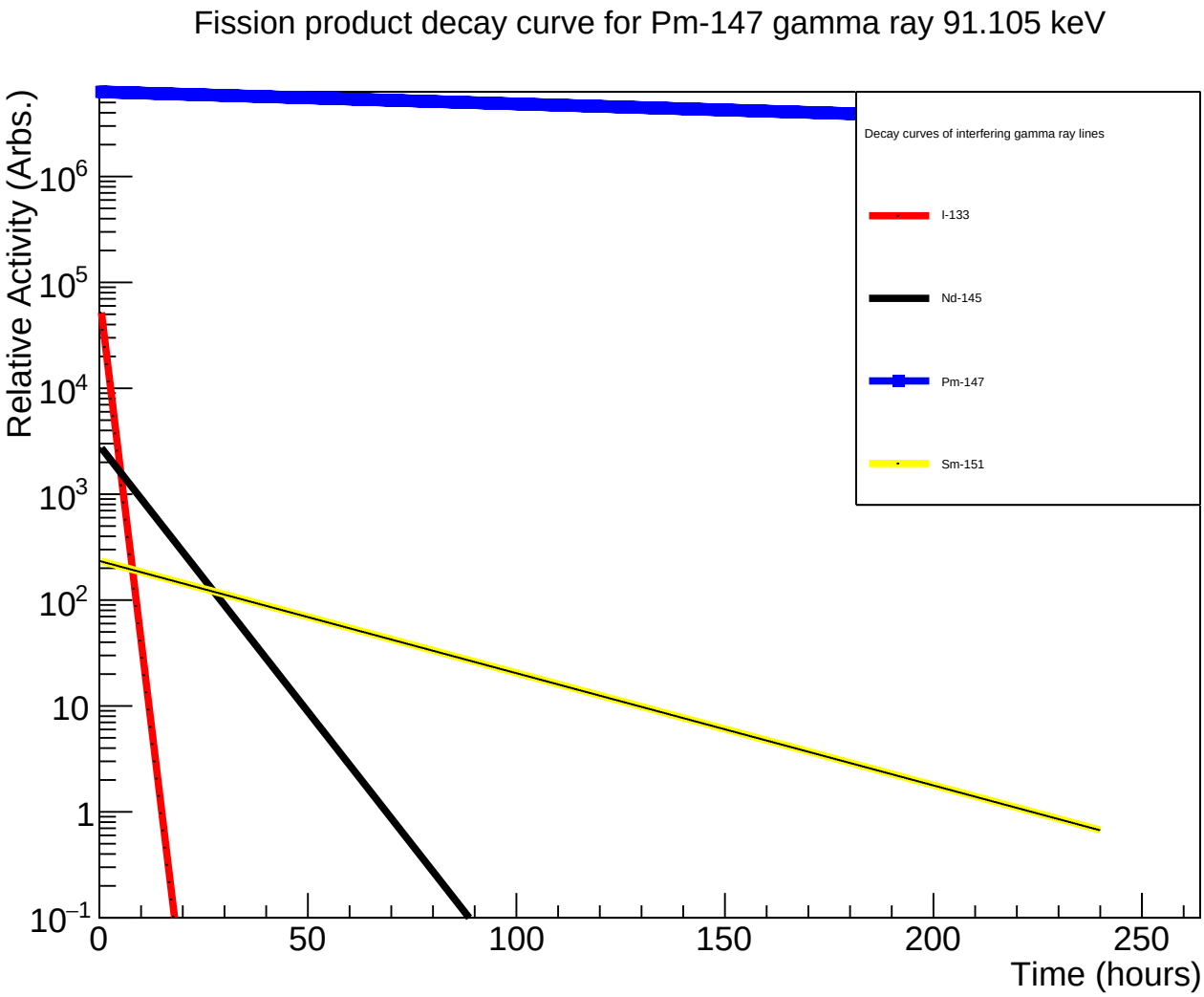


Figure 1059: Pm-147 decay curve for 91.105 keV gamma ray.

3.1060 Nd-147 E_γ = 319.41 keV

Chemical element: Neodymium
Fission product parent: Nd-147
Gamma originates in daughter: Pm-147
Eγ: 319.41 keV
Gamma Intensity = 2.13 ± 0.015 %
$T_{1/2}$ = 263.520 ± 0.240 hours or 15811.20 ± 14.40 minutes
CFY: 2.247 ± 0.032 %

Table 2119: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2120: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	318.000	0.002	0.243	0.052
Rh-105	Pd-105	319.231	0.191	35.360	0.010
Te-129	I-129	320.640	0.000	806.400	0.001
Te-133	I-133	318.800	0.002	0.923	0.040
I-131	Xe-131	318.088	0.001	192.605	0.029
I-134	Xe-134	319.810	0.005	0.875	0.078
La-142	Ce-142	318.000	0.000	1.518	0.058
Pr-145	Nd-145	318.666	0.000	5.984	0.039

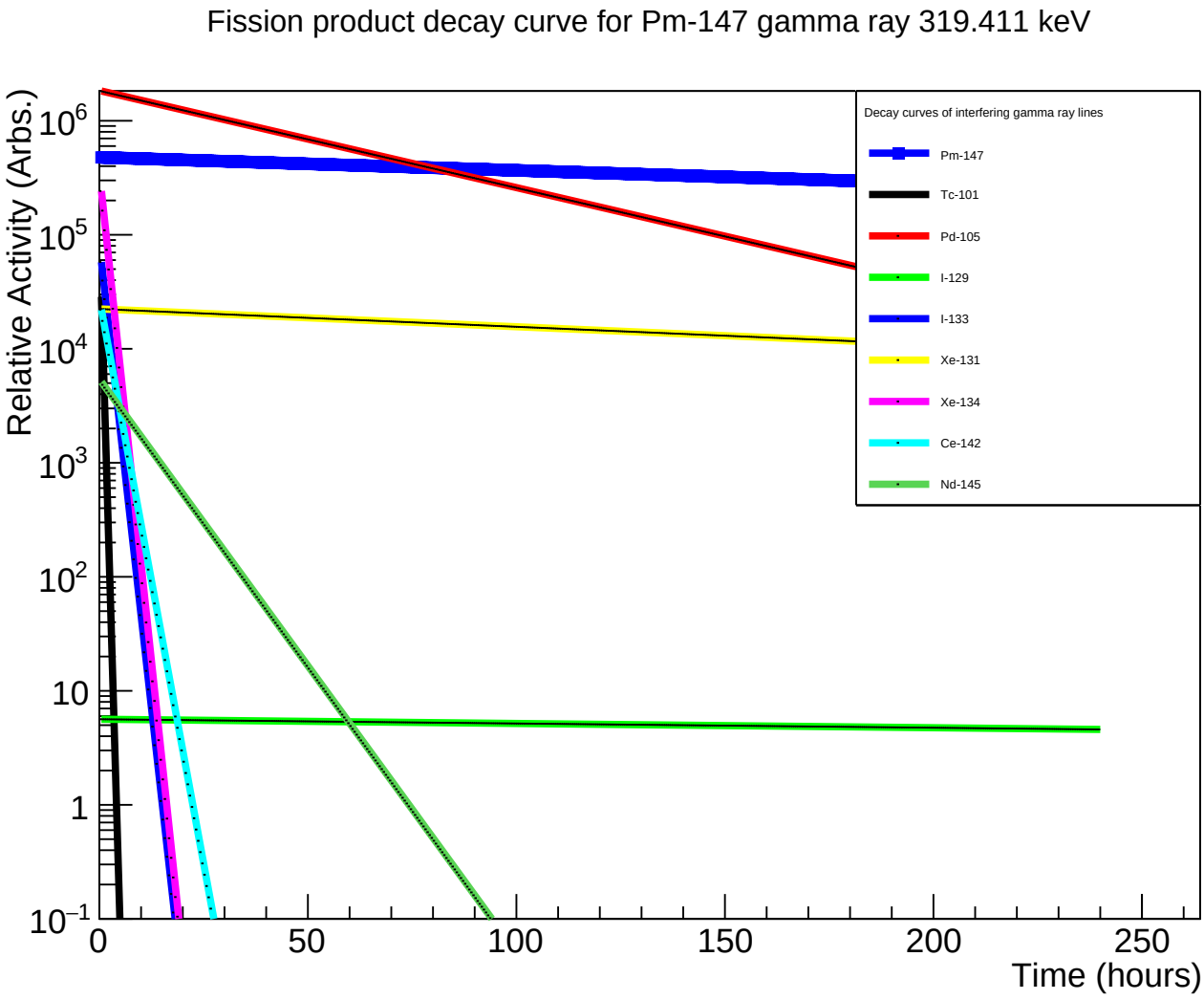


Figure 1060: Pm-147 decay curve for 319.411 keV gamma ray.

3.1061 Nd-147 E_γ = 439.89 keV

Chemical element: Neodymium
Fission product parent: Nd-147
Gamma originates in daughter: Pm-147
Eγ: 439.89 keV
Gamma Intensity = 1.28 ± 0.009 %
$T_{1/2}$ = 263.520 ± 0.240 hours or 15811.20 ± 14.40 minutes
CFY: 2.247 ± 0.032 %

Table 2121: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2122: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	439.200	0.000	0.296	0.036
Sr-93	Y-93	440.800	0.002	0.124	0.062
Tc-105	Ru-105	439.000	0.003	0.127	0.010
Pd-111	Ag-111	438.500	0.001	0.390	0.000
Sb-127	Te-127	441.000	0.007	92.400	0.002
I-133	Xe-133	438.870	0.000	20.800	0.067
Ba-141	La-141	441.100	0.000	0.304	0.058
La-140	Ce-140	438.500	0.000	40.285	0.062
La-142	Ce-142	439.000	0.000	1.518	0.058
Ce-143	Pr-143	438.430	0.000	33.039	0.060
Pm-151	Sm-151	440.850	0.015	28.400	0.004

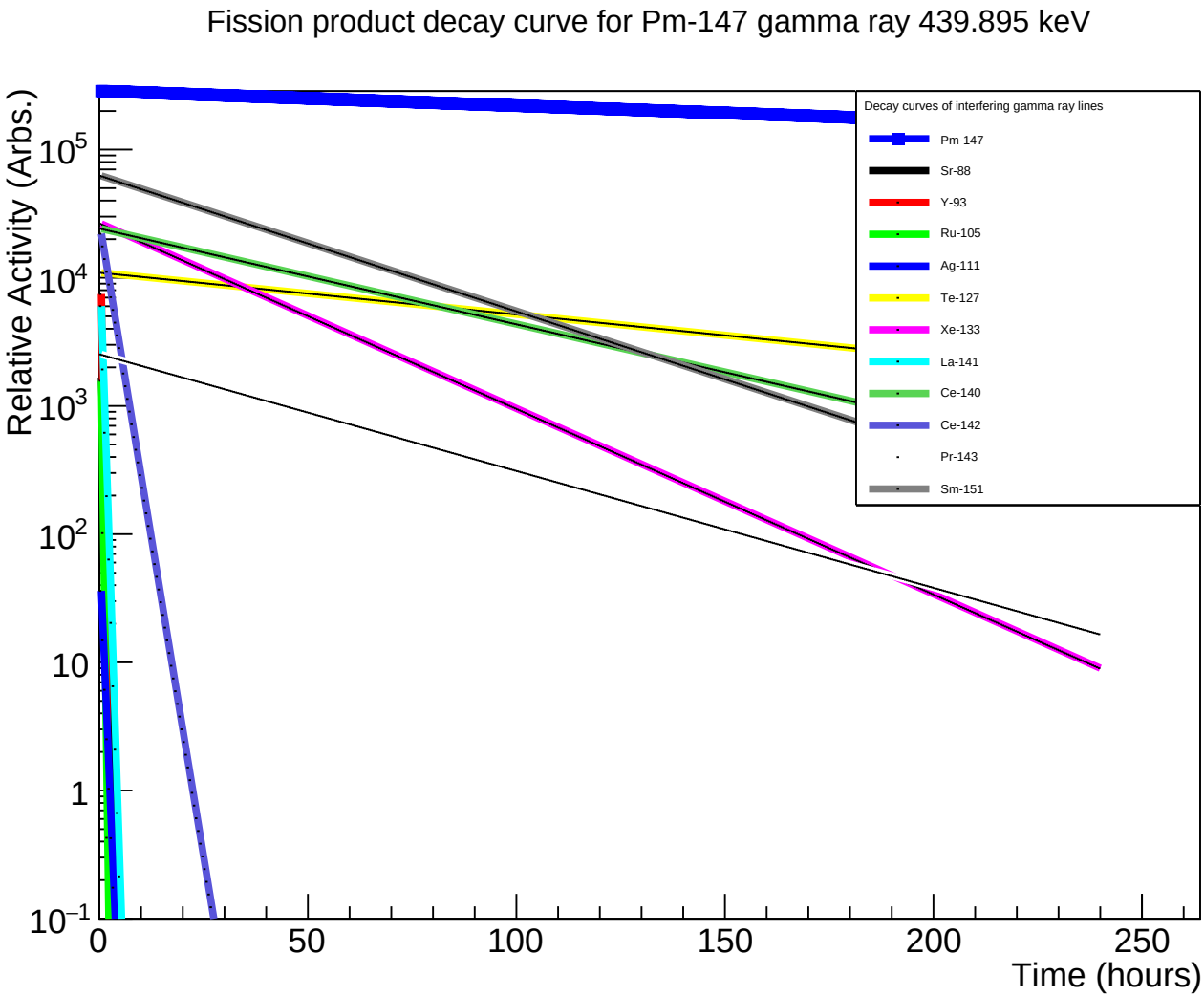


Figure 1061: Pm-147 decay curve for 439.895 keV gamma ray.

3.1062 Nd-147 E_γ = 531.02 keV

Chemical element: Neodymium
Fission product parent: Nd-147
Gamma originates in daughter: Pm-147
Eγ: 531.02 keV
Gamma Intensity = 13.37 ± 1.070 %
$T_{1/2}$ = 263.520 ± 0.240 hours or 15811.20 ± 14.40 minutes
CFY: 2.247 ± 0.032 %

Table 2123: Decay chain of fission product chain A = 147

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Barium-147	Lanthanum-147	0.000	0.000
Lanthanum-147	Cerium-147	0.001	0.000
Cerium-147	Praseodymium-147	0.016	0.000
Praseodymium-147	Neodymium-147	0.223	0.005
Neodymium-147	Promethium-147	263.520	0.240
Promethium-147	Samarium-147	23000.000	1.753

Table 2124: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-83	Kr-83	529.640	0.012	2.400	0.005
Nb-98	Mo-98	530.420	0.001	0.855	0.000
Tc-101	Ru-101	531.420	0.010	0.237	0.052
Tc-104	Ru-104	530.500	0.156	0.305	0.019
Sn-127	Sb-127	530.600	0.001	2.100	0.001
Te-129	I-129	531.830	0.001	1.160	0.005
Te-131	I-131	530.700	0.001	33.250	0.004
Te-133	I-133	532.400	0.008	0.923	0.040
I-133	Xe-133	529.872	0.870	20.800	0.067
I-135	Xe-135	530.800	0.000	6.570	0.063
Xe-138	Cs-138	530.070	0.003	0.235	0.063
Cs-139	Ba-139	531.980	0.002	0.155	0.063
La-142	Ce-142	531.600	0.001	1.518	0.058
Pm-149	Sm-149	531.610	0.000	53.080	0.011
Pm-151	Sm-151	532.500	0.000	28.400	0.004
Sm-153	Eu-153	531.400	0.001	46.500	0.002

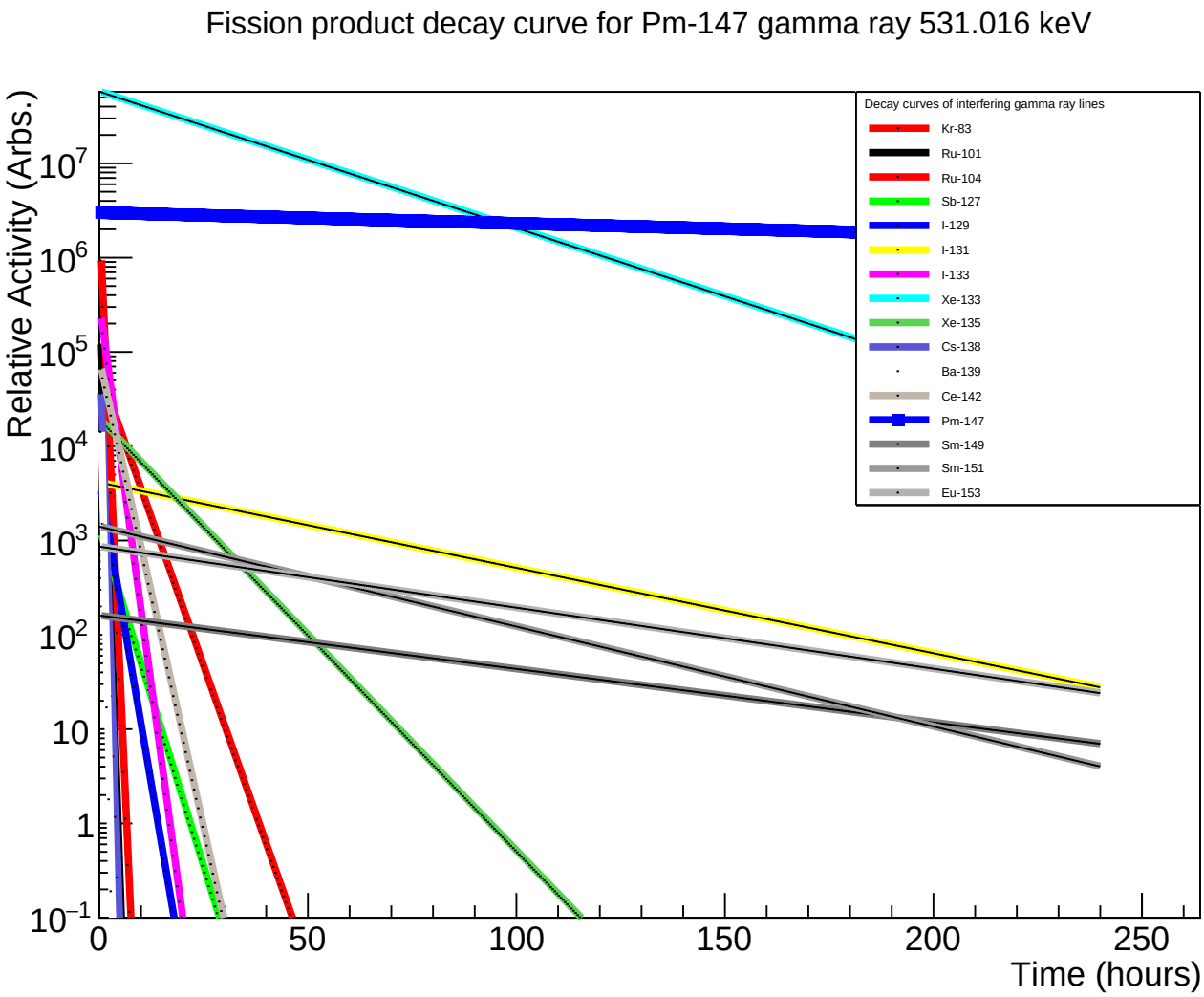


Figure 1062: Pm-147 decay curve for 531.016 keV gamma ray.

3.1063 Nd-149 E_γ = 58.53 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 58.53 keV
Gamma Intensity = 1.42 ± 0.059 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2125: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2126: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-127	I-127	57.630	0.000	9.350	0.002
Te-127	I-127	57.630	0.005	2616.000	0.000
Ce-143	Pr-143	57.356	0.117	33.039	0.060
Pr-144	Nd-144	59.030	0.001	0.120	0.000
Pm-151	Sm-151	59.930	0.000	28.400	0.004
Eu-155	Gd-155	57.989	0.001	41666.668	0.000
Eu-155	Gd-155	60.009	0.012	41666.668	0.000

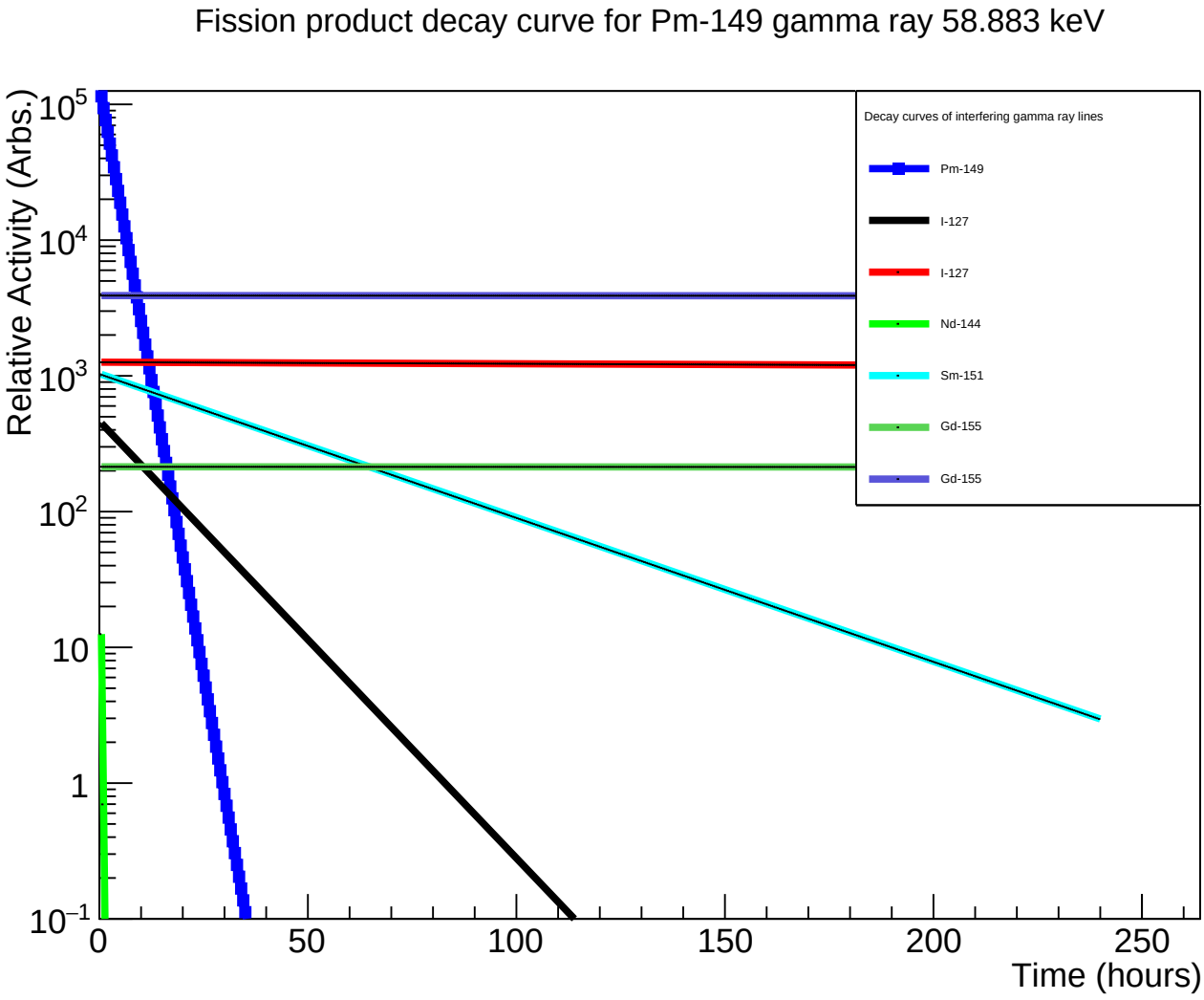


Figure 1063: Pm-149 decay curve for 58.526 keV gamma ray.

3.1064 Nd-149 E_γ = 58.88 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 58.88 keV
Gamma Intensity = 1.30 ± 0.213 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2127: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2128: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-127	I-127	57.630	0.000	9.350	0.002
Te-127	I-127	57.630	0.005	2616.000	0.000
Pr-144	Nd-144	59.030	0.001	0.120	0.000
Pm-151	Sm-151	59.930	0.000	28.400	0.004
Eu-155	Gd-155	57.989	0.001	41666.668	0.000
Eu-155	Gd-155	60.009	0.012	41666.668	0.000

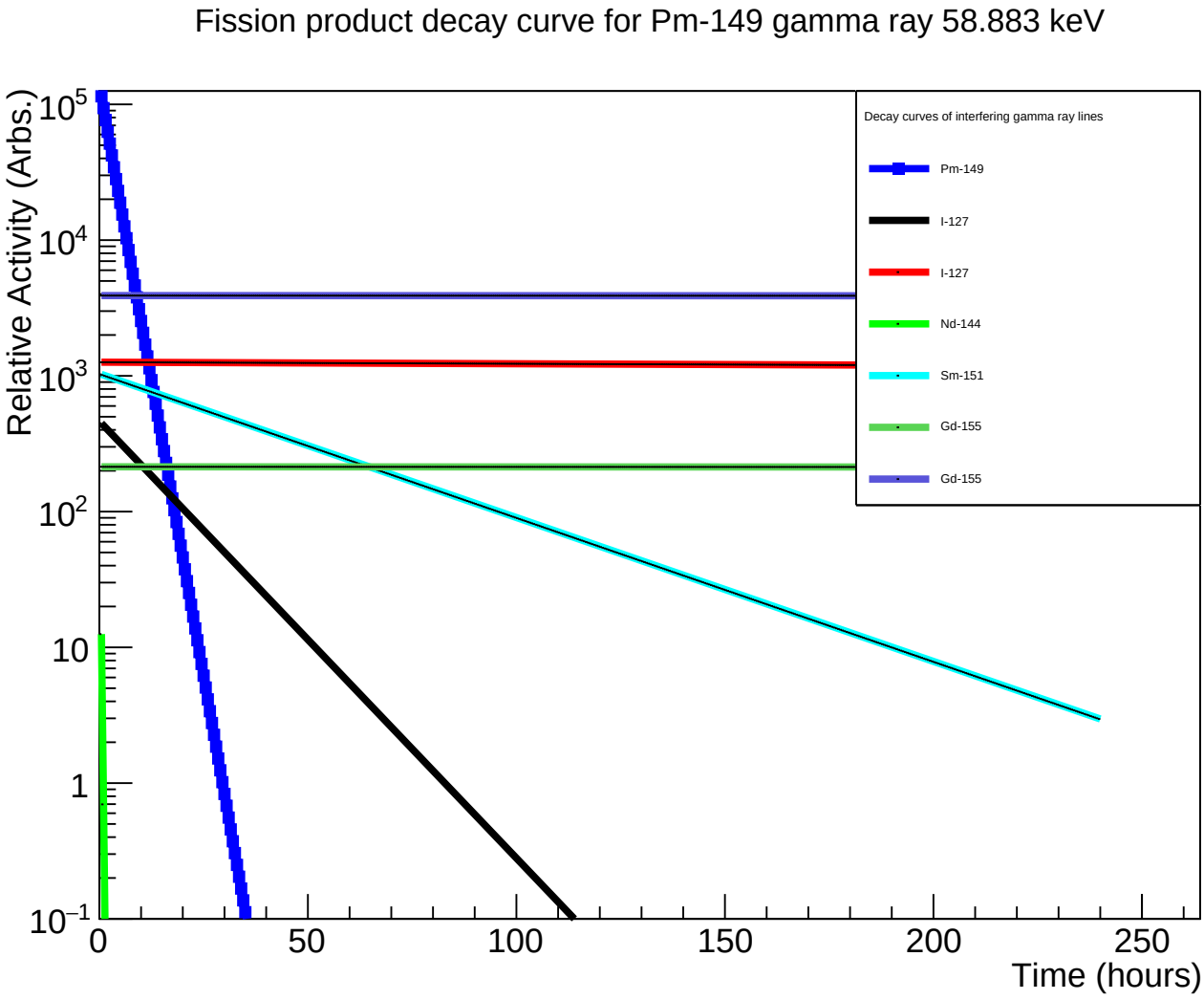


Figure 1064: Pm-149 decay curve for 58.883 keV gamma ray.

3.1065 Nd-149 E_γ = 74.32 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 74.32 keV
Gamma Intensity = 1.11 ± 0.237 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2129: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2130: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	75.300	0.022	0.127	0.010
Sn-128	Sb-128	75.100	0.277	0.984	0.003
Te-131	I-131	73.320	0.000	33.250	0.004
Sm-153	Eu-153	75.422	0.002	46.500	0.002

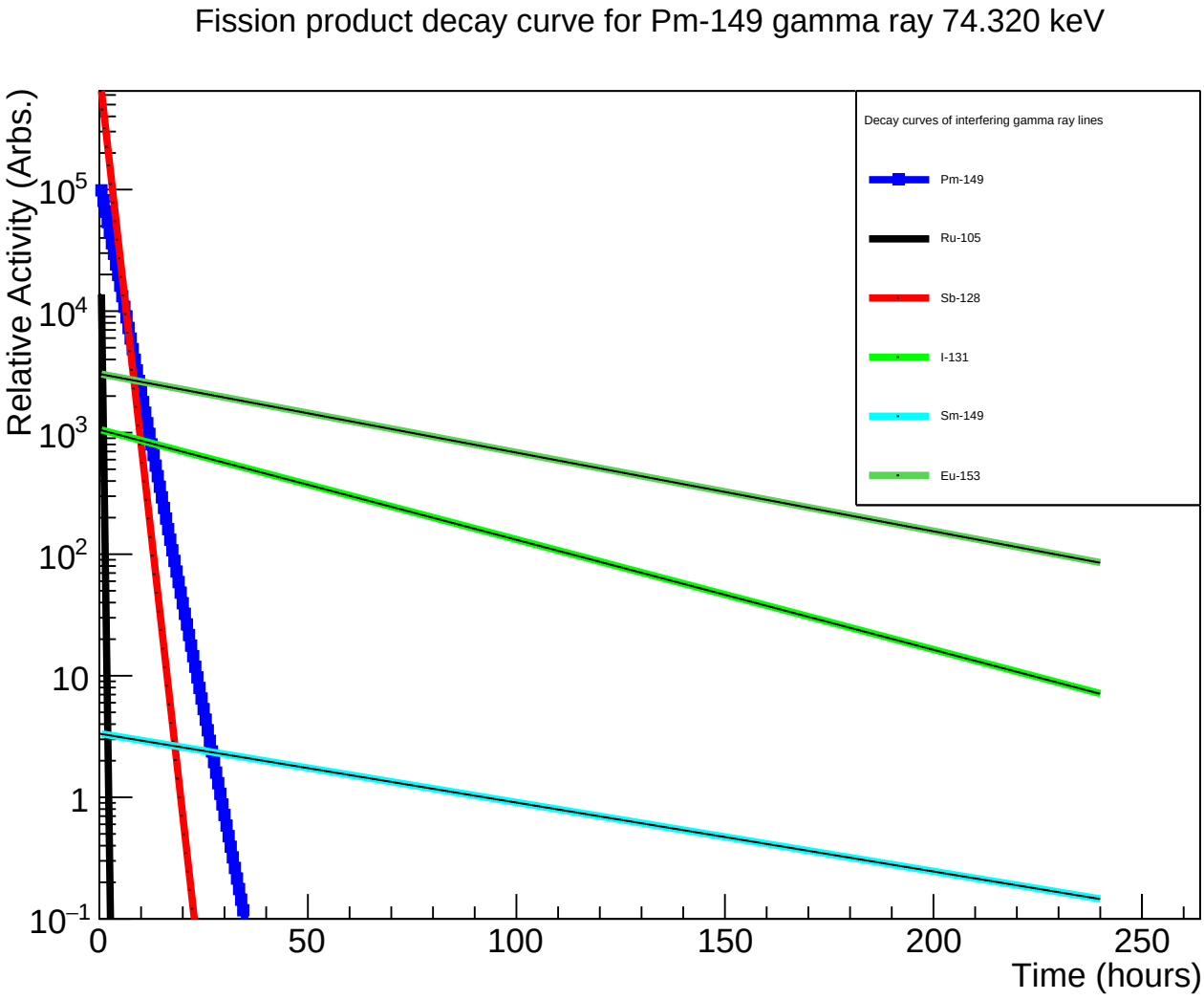


Figure 1065: Pm-149 decay curve for 74.320 keV gamma ray.

3.1066 Nd-149 E_γ = 97.00 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 97.00 keV
Gamma Intensity = 1.45 ± 0.118 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2131: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2132: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	96.600	0.000	0.362	0.001
Ag-111	Cd-111	96.750	0.001	178.800	0.000
Ag-113	Cd-113	96.200	0.000	5.370	0.000
Sn-127	Sb-127	97.200	0.005	2.100	0.001
Te-131	I-131	98.300	0.000	33.250	0.004
Te-133	I-133	97.800	0.001	0.923	0.040
Pm-151	Sm-151	98.050	0.004	28.400	0.004
Sm-153	Eu-153	96.882	0.000	46.500	0.002
Sm-153	Eu-153	97.431	0.008	46.500	0.002

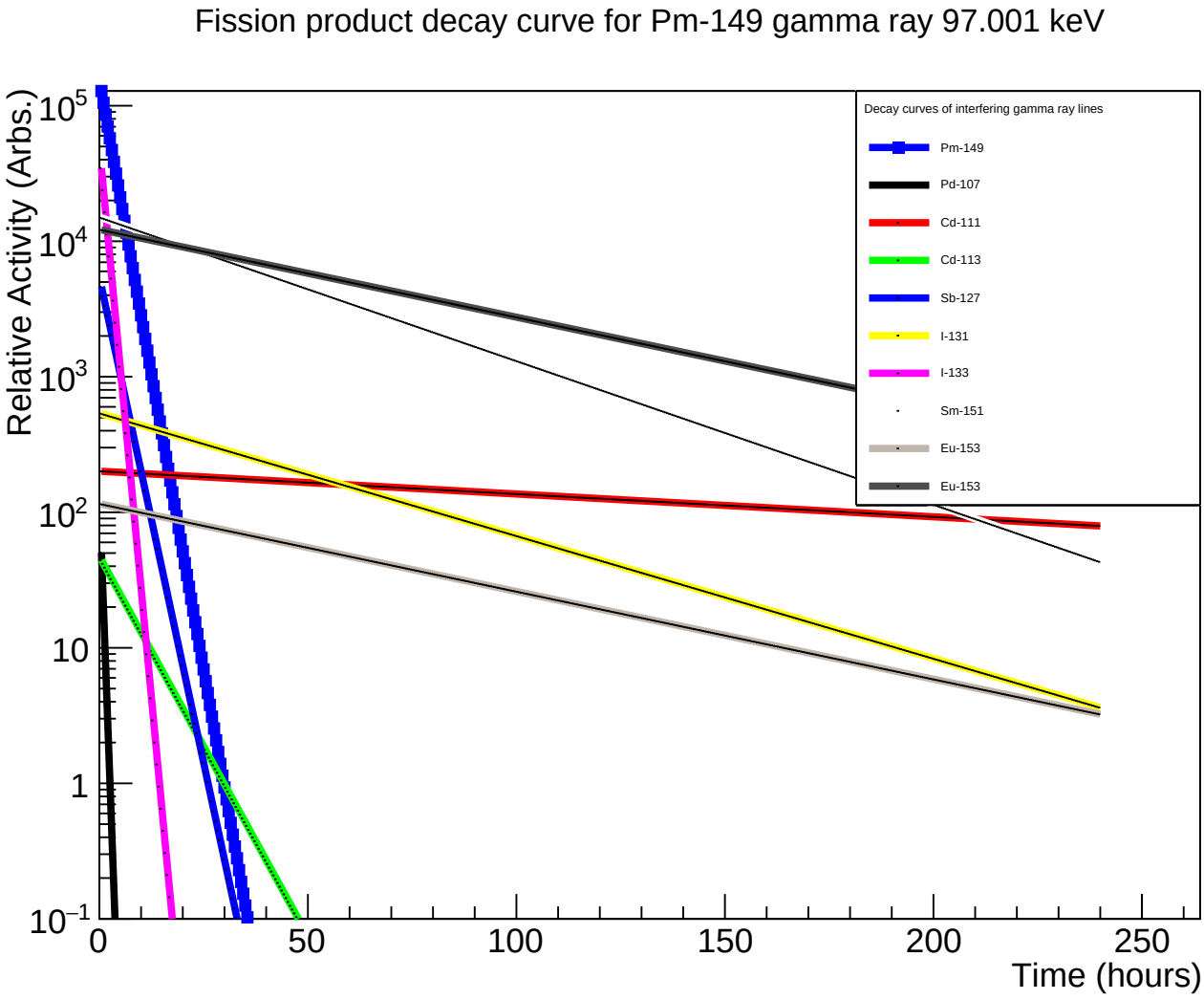


Figure 1066: Pm-149 decay curve for 97.001 keV gamma ray.

3.1067 Nd-149 E_γ = 114.31 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 114.31 keV
Gamma Intensity = 19.17 ± 1.492 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2133: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2134: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	115.760	0.000	0.243	0.052
Tc-105	Ru-105	113.360	0.009	0.127	0.010
Ru-103	Rh-103	113.191	0.000	941.928	0.030
Ru-103	Rh-103	114.870	0.000	941.928	0.030
Rh-107	Pd-107	115.650	0.005	0.362	0.001
Te-129	I-129	115.300	0.000	806.400	0.001
Te-131	I-131	113.500	0.000	33.250	0.004
I-135	Xe-135	113.150	0.000	6.570	0.063
Ba-140	La-140	113.510	0.000	306.065	0.062
Ba-141	La-141	113.900	0.001	0.304	0.058
Pm-151	Sm-151	113.100	0.000	28.400	0.004

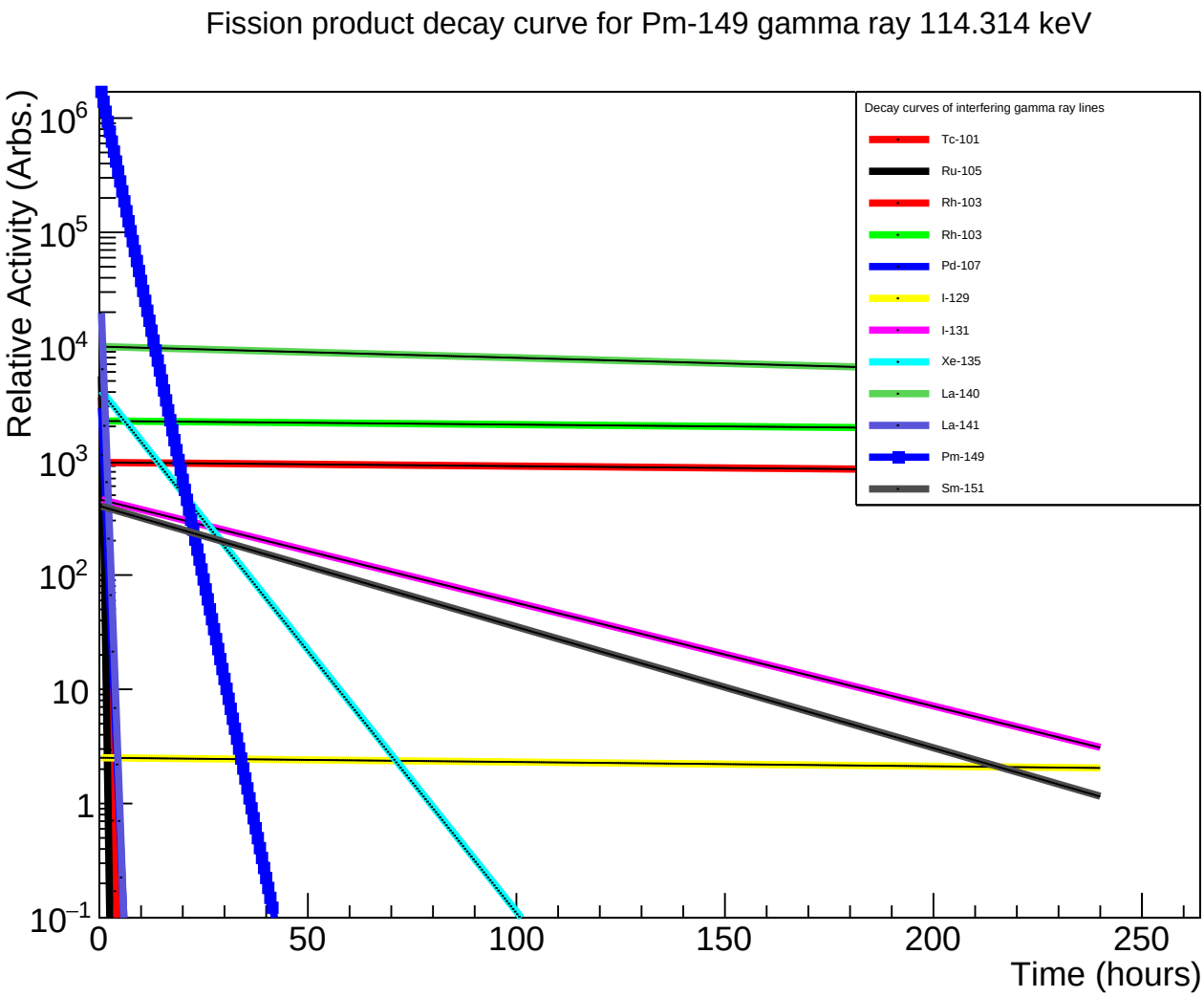


Figure 1067: Pm-149 decay curve for 114.314 keV gamma ray.

3.1068 Nd-149 E_γ = 155.87 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 155.87 keV
Gamma Intensity = 5.93 ± 0.309 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2135: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2136: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	156.600	0.001	1.512	0.000
Sn-127	Sb-127	155.600	0.002	2.100	0.001
Sn-127	Sb-127	156.900	0.003	2.100	0.001
Te-131	I-131	155.900	0.000	33.250	0.004
Ba-142	La-142	154.600	0.005	0.177	0.058
Pm-151	Sm-151	155.500	0.000	28.400	0.004
Pm-151	Sm-151	156.180	0.001	28.400	0.004

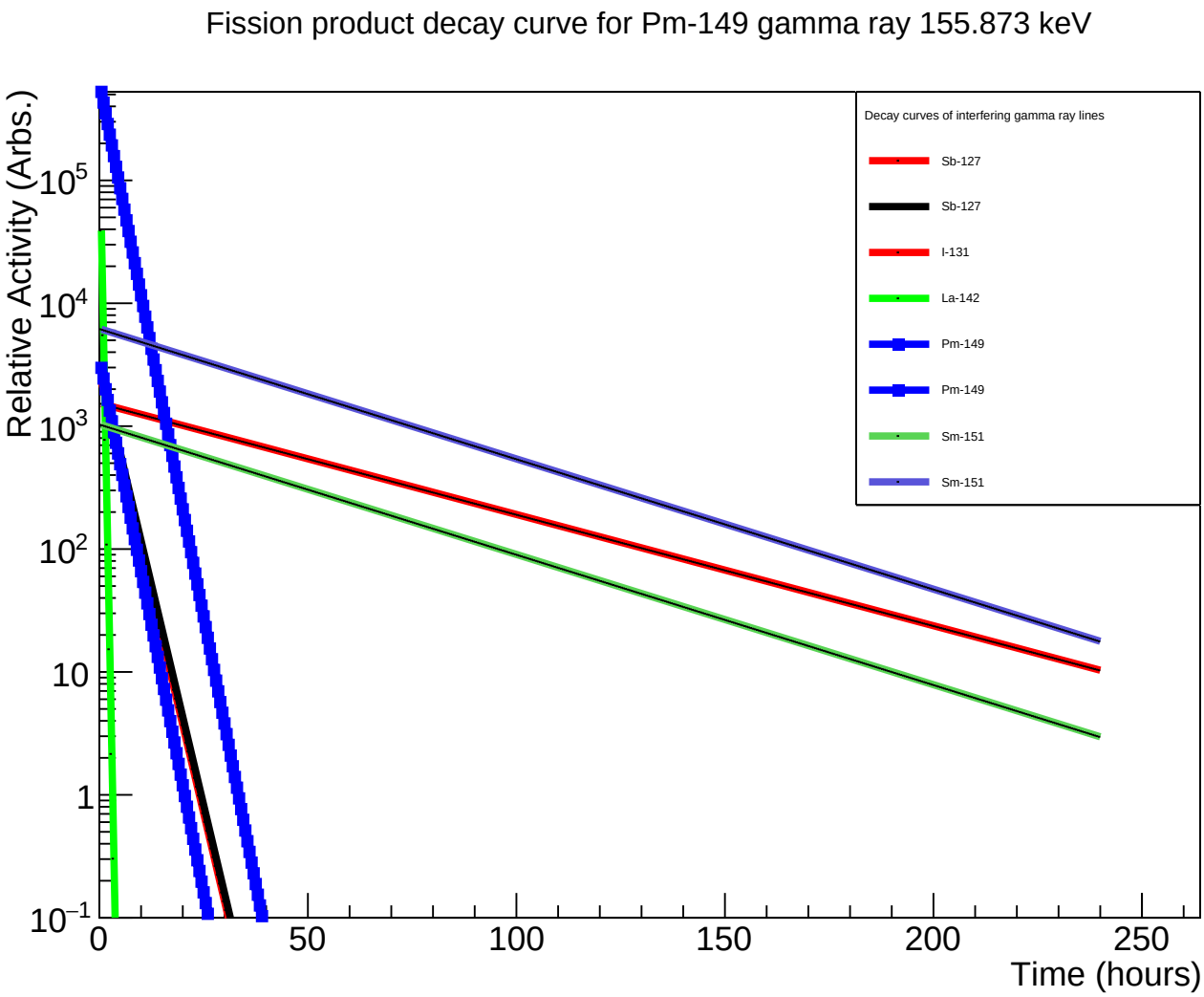


Figure 1068: Pm-149 decay curve for 155.873 keV gamma ray.

3.1069 Nd-149 E_γ = 188.64 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 188.64 keV
Gamma Intensity = 1.79 ± 0.104 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2137: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2138: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	190.000	0.002	0.372	0.003
Nb-98	Mo-98	189.000	0.002	0.855	0.000
Sn-127	Sb-127	190.100	0.006	2.100	0.001
Te-131	I-131	188.130	0.002	33.250	0.004
Te-131	I-131	189.760	0.005	33.250	0.004
I-134	Xe-134	188.470	0.008	0.875	0.078
Cs-139	Ba-139	188.880	0.000	0.155	0.063

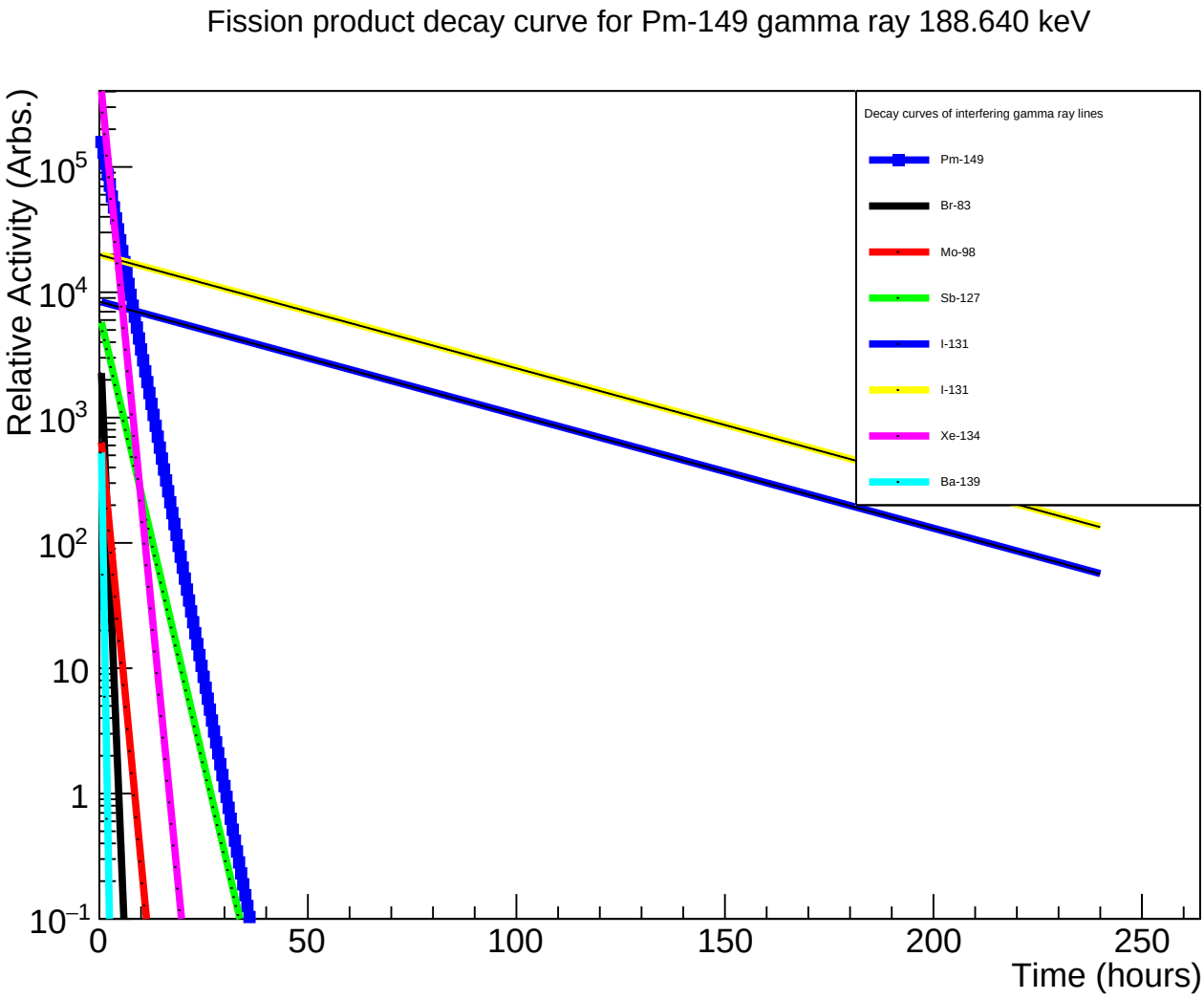


Figure 1069: Pm-149 decay curve for 188.640 keV gamma ray.

3.1070 Nd-149 E_γ = 198.93 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 198.93 keV
Gamma Intensity = 1.39 ± 0.068 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2139: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2140: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	198.700	0.000	0.362	0.001
Sb-125	Te-125	198.654	0.000	24194.445	0.000
Te-133	I-133	199.600	0.000	0.208	0.031
Te-133	I-133	198.180	0.002	0.923	0.040
Xe-135	Cs-135	200.190	0.000	9.140	0.065
Ce-143	Pr-143	197.600	0.000	33.039	0.060
Eu-156	Gd-156	199.214	0.007	364.560	0.000

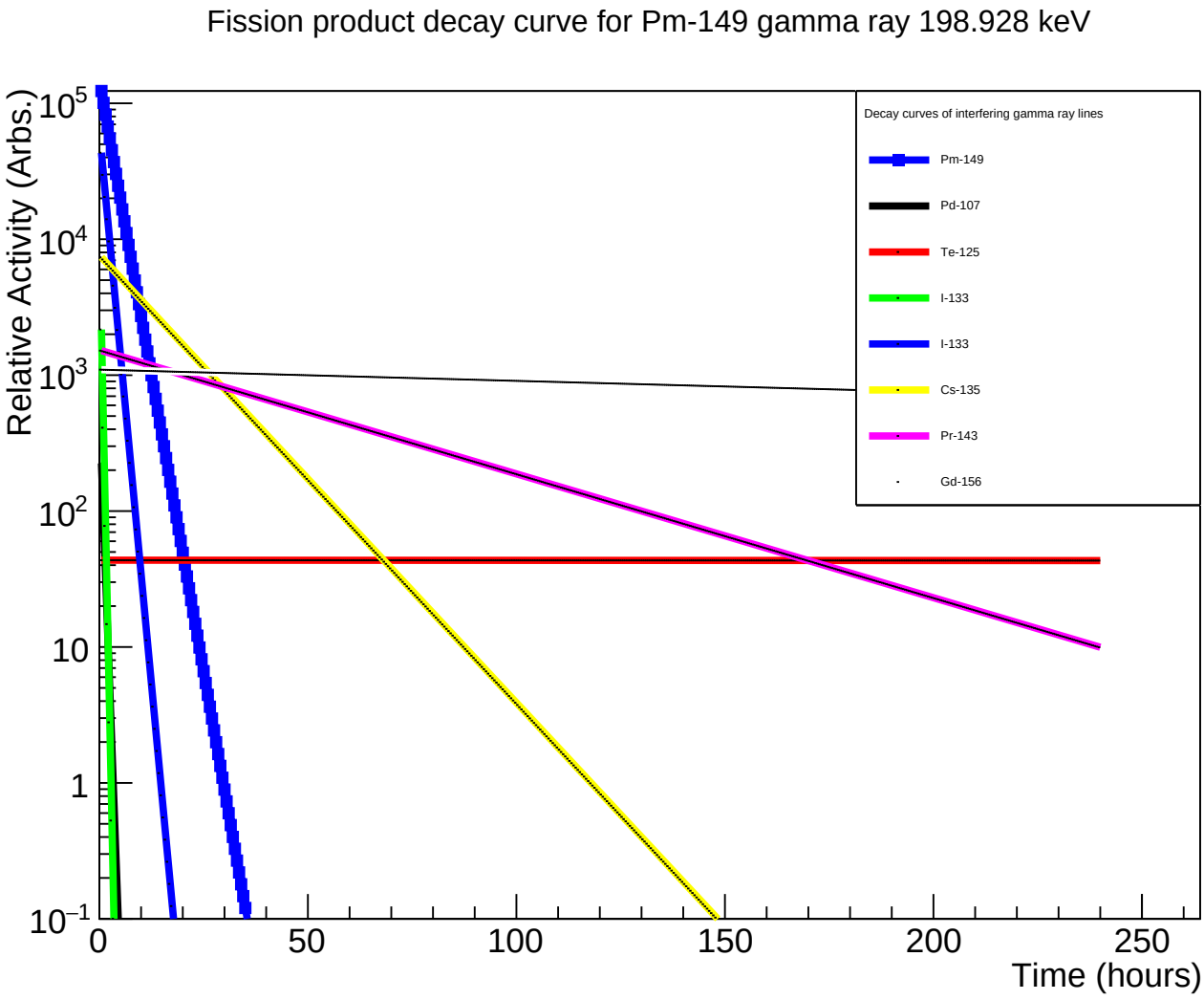


Figure 1070: Pm-149 decay curve for 198.928 keV gamma ray.

3.1071 Nd-149 E_γ = 208.15 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 208.15 keV
Gamma Intensity = 2.55 ± 0.099 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2141: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2142: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	208.300	0.019	0.372	0.003
Tc-105	Ru-105	208.900	0.013	0.127	0.010
Sn-127	Sb-127	208.000	0.002	2.100	0.001
Sb-125	Te-125	208.077	0.002	24194.445	0.000
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Te-129	I-129	208.960	0.002	1.160	0.005
Te-129	I-129	208.960	0.000	806.400	0.001
Te-131	I-131	207.500	0.000	33.250	0.004
Te-133	I-133	207.400	0.000	0.208	0.031
Pm-151	Sm-151	206.700	0.000	28.400	0.004
Pm-151	Sm-151	207.000	0.000	28.400	0.004
Pm-151	Sm-151	209.000	0.017	28.400	0.004

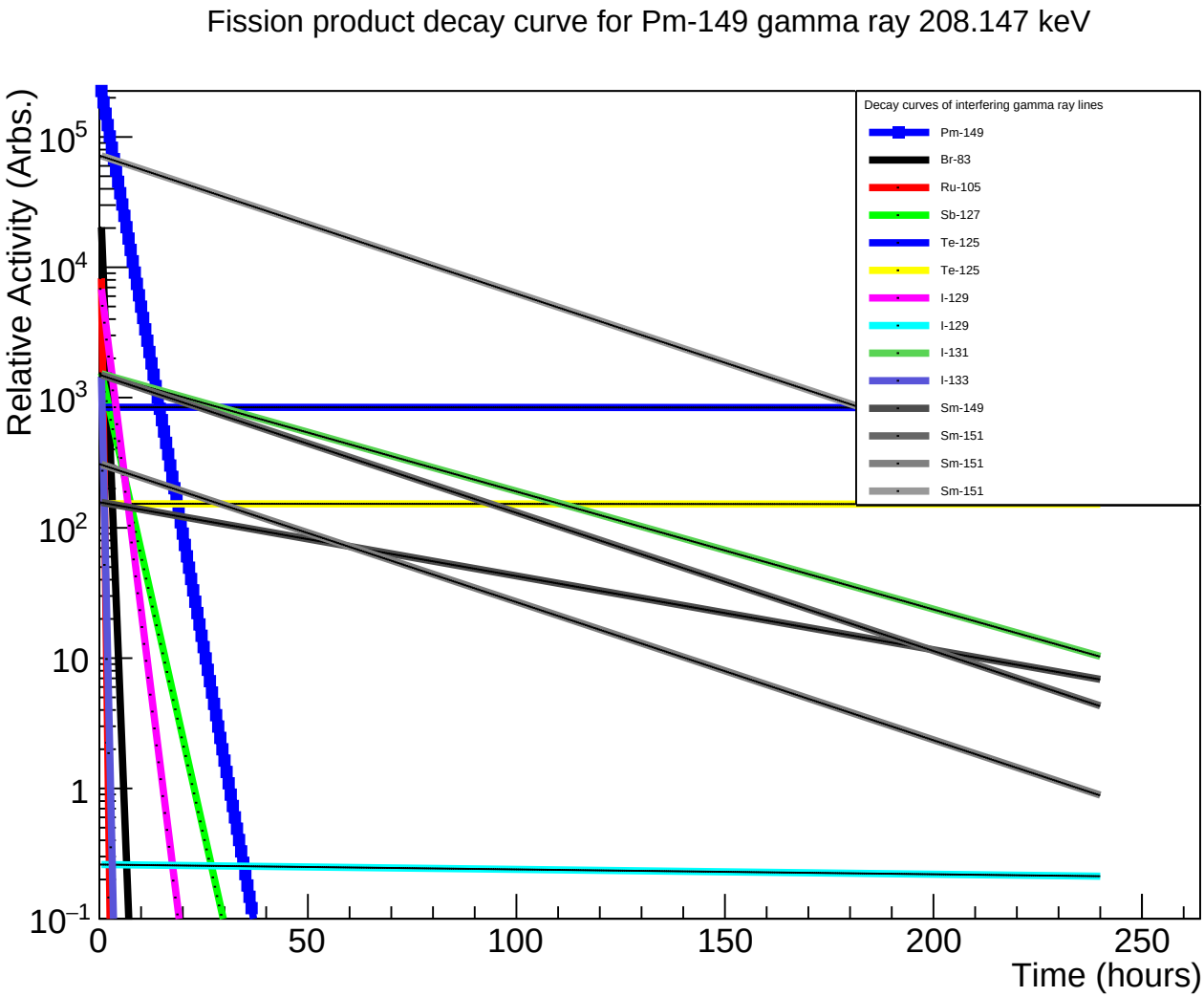


Figure 1071: Pm-149 decay curve for 208.147 keV gamma ray.

3.1072 Nd-149 E_γ = 211.31 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 211.31 keV
Gamma Intensity = 25.90 ± 1.440 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2143: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2144: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-101	Tc-101	211.980	0.005	0.243	0.052
Mo-102	Tc-102	211.660	0.038	0.188	0.043
Tc-105	Ru-105	212.400	0.004	0.127	0.010
Sn-127	Sb-127	211.500	0.001	2.100	0.001
Te-129	I-129	210.660	0.000	1.160	0.005
Te-131	I-131	211.900	0.000	33.250	0.004
Te-134	I-134	210.465	0.227	0.697	0.070
Cs-138	Ba-138	212.320	0.002	0.557	0.067
Ce-146	Pr-146	210.460	0.049	0.225	0.030

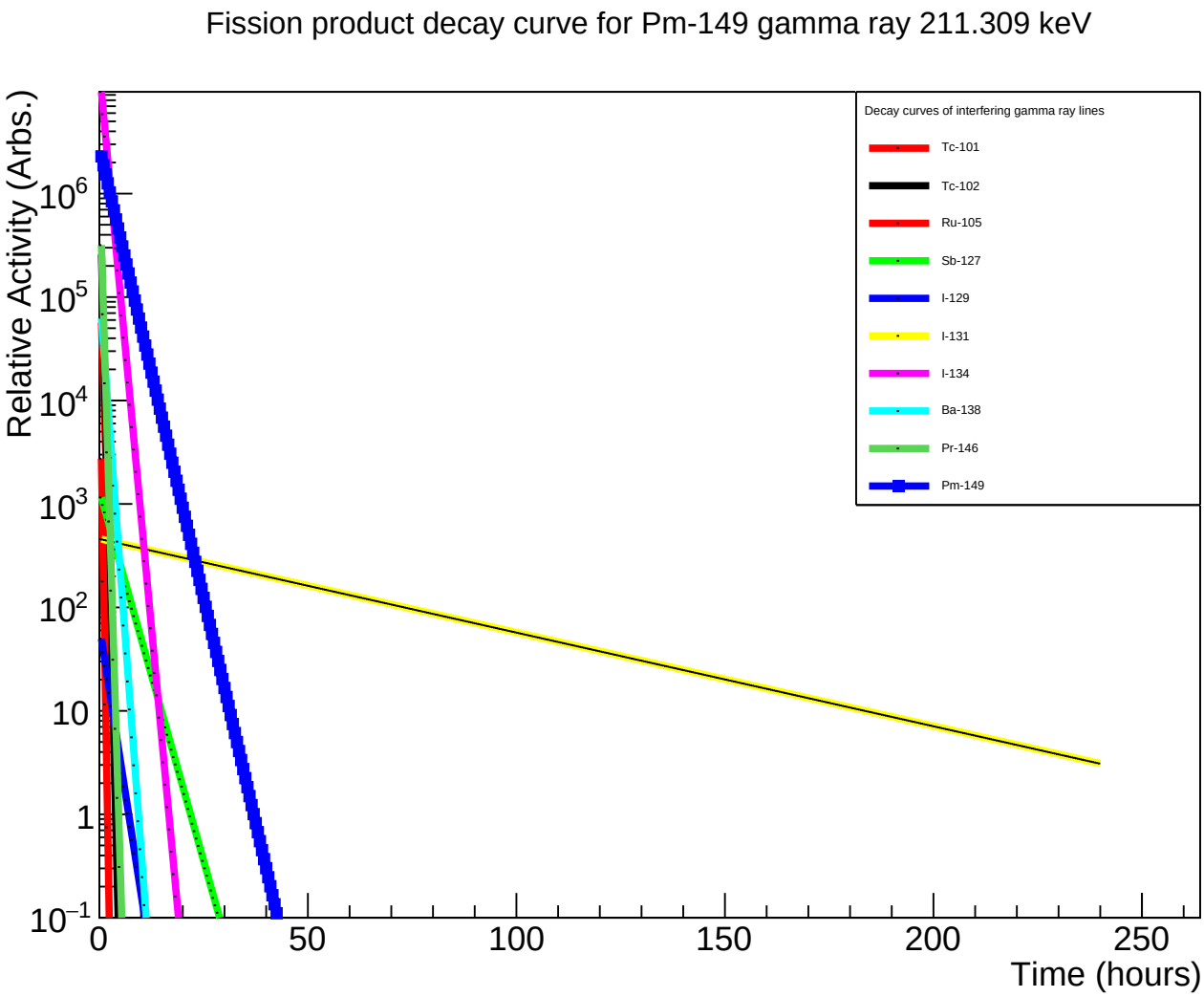


Figure 1072: Pm-149 decay curve for 211.309 keV gamma ray.

3.1073 Nd-149 E_γ = 240.22 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 240.22 keV
Gamma Intensity = 3.94 ± 0.217 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2145: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2146: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	240.710	0.003	2.840	0.036
Sr-92	Y-92	241.560	0.029	2.710	0.059
Sn-129	Sb-129	241.600	0.009	0.115	0.002
Te-131	I-131	240.930	0.073	33.250	0.004
Te-133	I-133	240.900	0.003	0.923	0.040
Pm-151	Sm-151	240.090	0.038	28.400	0.004

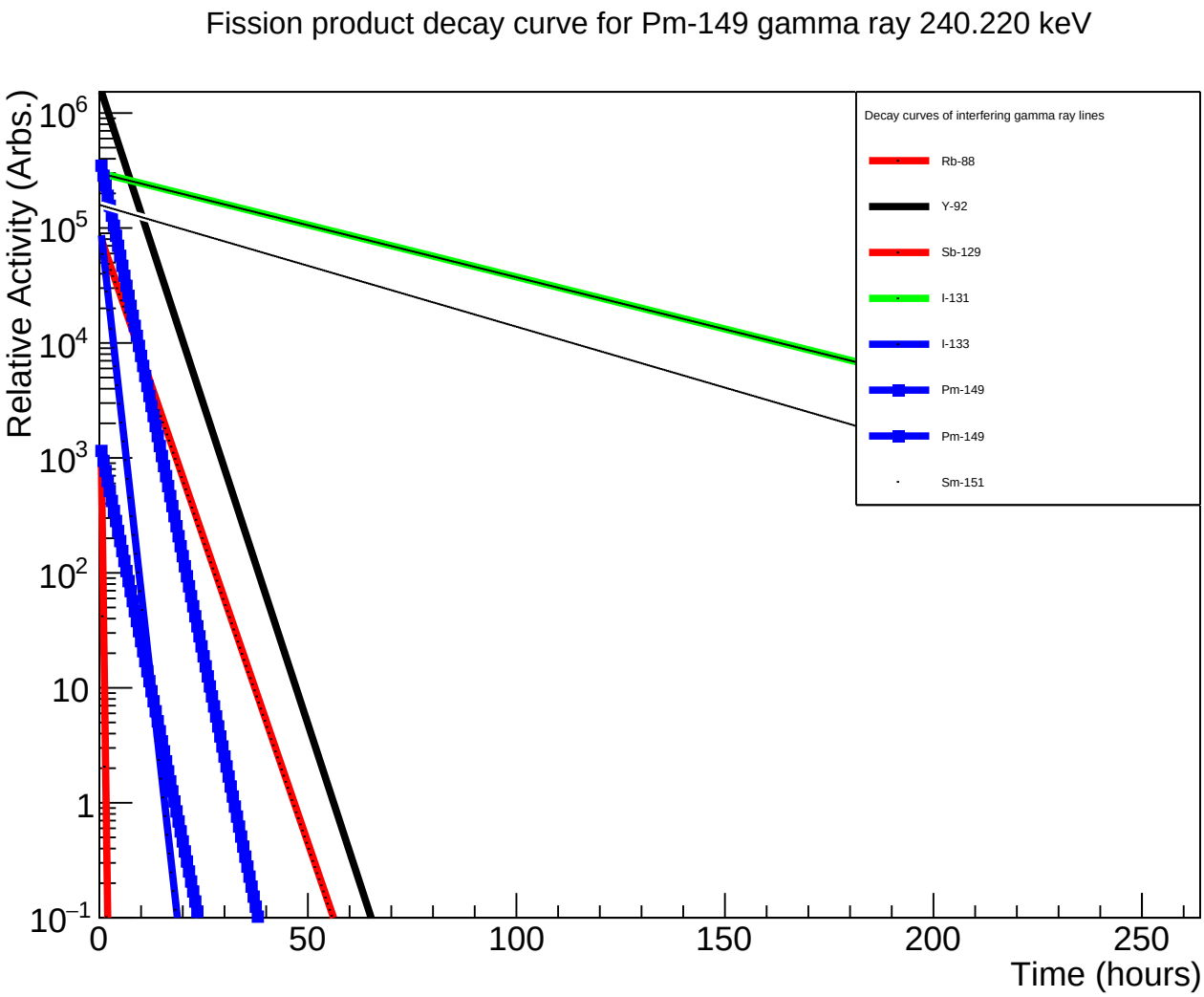


Figure 1073: Pm-149 decay curve for 240.220 keV gamma ray.

3.1074 Nd-149 E_γ = 267.69 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 267.69 keV
Gamma Intensity = 6.03 ± 0.280 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2147: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2148: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	268.240	0.000	2.840	0.036
Y-93	Zr-93	266.900	0.073	10.180	0.063
Mo-102	Tc-102	266.600	0.001	0.188	0.043
Cd-115	In-115	266.985	0.001	53.460	0.000
Sn-127	Sb-127	266.200	0.021	2.100	0.001
Sn-129	Sb-129	266.500	0.025	0.115	0.002
Sb-129	Te-129	268.600	0.003	4.400	0.005
Te-131	I-131	267.200	0.000	33.250	0.004
I-133	Xe-133	267.173	0.001	20.800	0.067
Cs-139	Ba-139	267.600	0.000	0.155	0.063
La-140	Ce-140	266.543	0.005	40.285	0.062
Sm-156	Eu-156	268.500	0.024	9.400	0.000

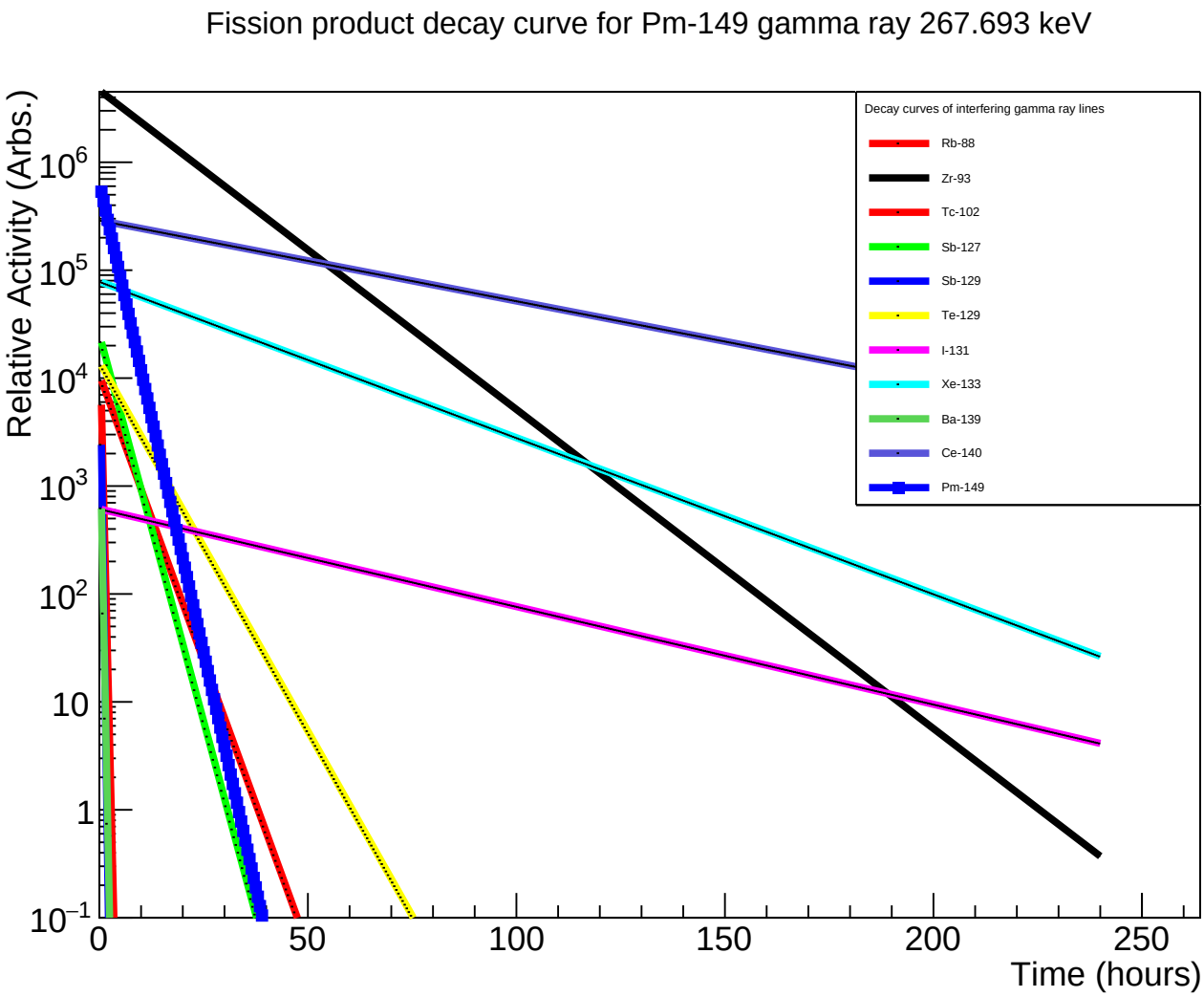


Figure 1074: Pm-149 decay curve for 267.693 keV gamma ray.

3.1075 Nd-149 E_γ = 270.17 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 270.17 keV
Gamma Intensity = 10.72 ± 0.503 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2149: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2150: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-125	Sb-125	270.600	0.001	231.360	0.000
Sn-127	Sb-127	271.500	0.001	2.100	0.001
Te-129	I-129	270.370	0.000	1.160	0.005
Te-131	I-131	269.200	0.001	33.250	0.004
Ba-142	La-142	269.500	0.009	0.177	0.058
Pm-151	Sm-151	270.720	0.001	28.400	0.004

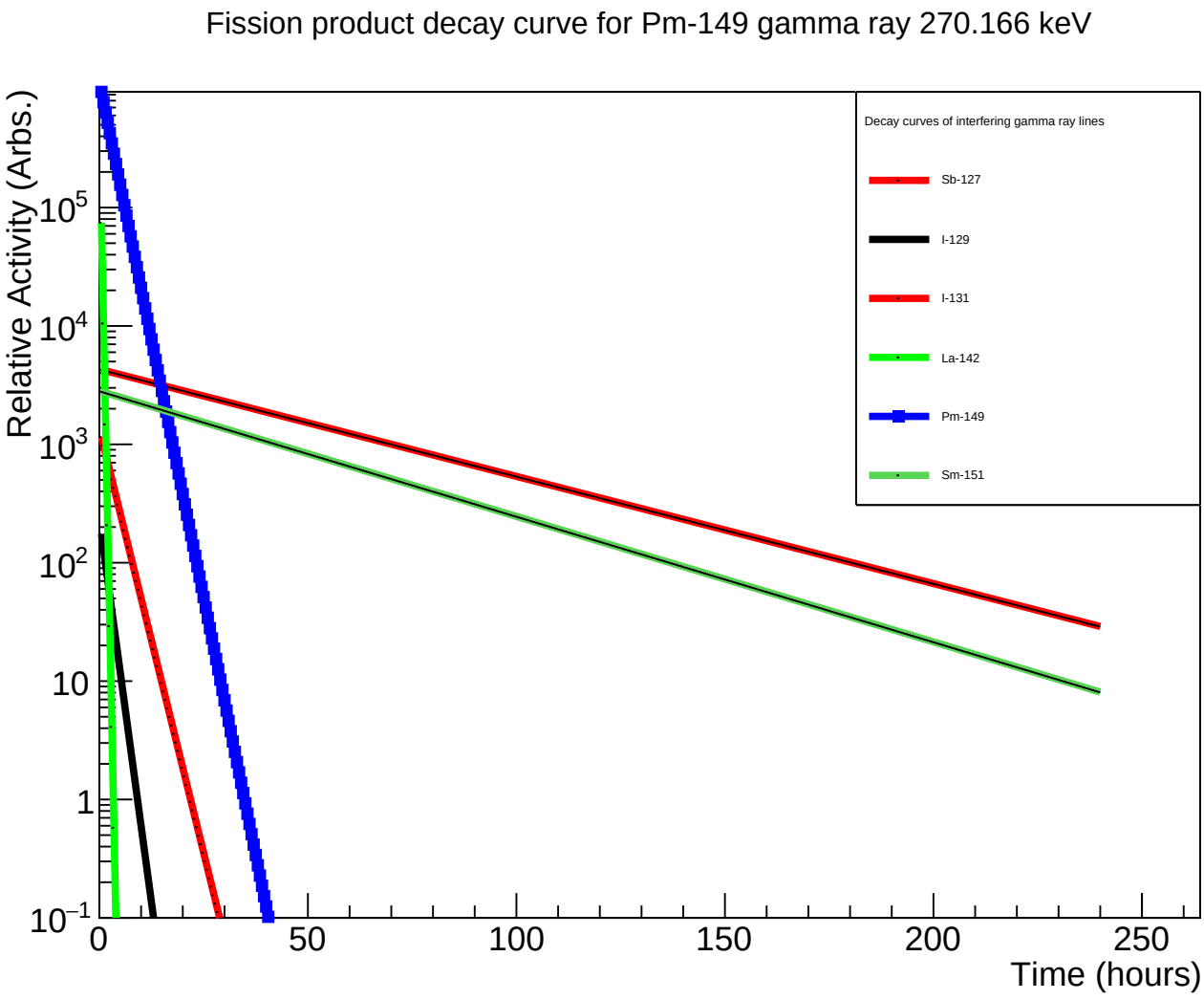


Figure 1075: Pm-149 decay curve for 270.166 keV gamma ray.

3.1076 Nd-149 E_γ = 326.55 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 326.55 keV
Gamma Intensity = 4.56 ± 0.204 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2151: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2152: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	326.430	0.000	0.855	0.000
Mo-101	Tc-101	327.700	0.002	0.243	0.052
Ru-105	Rh-105	326.140	0.011	4.440	0.010
Sb-131	Te-131	326.200	0.012	0.384	0.026
Te-133	I-133	326.000	0.003	0.923	0.040
I-131	Xe-131	325.789	0.003	192.605	0.029
I-135	Xe-135	326.000	0.000	6.570	0.063
Xe-138	Cs-138	325.300	0.000	0.235	0.063
Pm-151	Sm-151	325.200	0.000	28.400	0.004
Pm-151	Sm-151	325.800	0.001	28.400	0.004

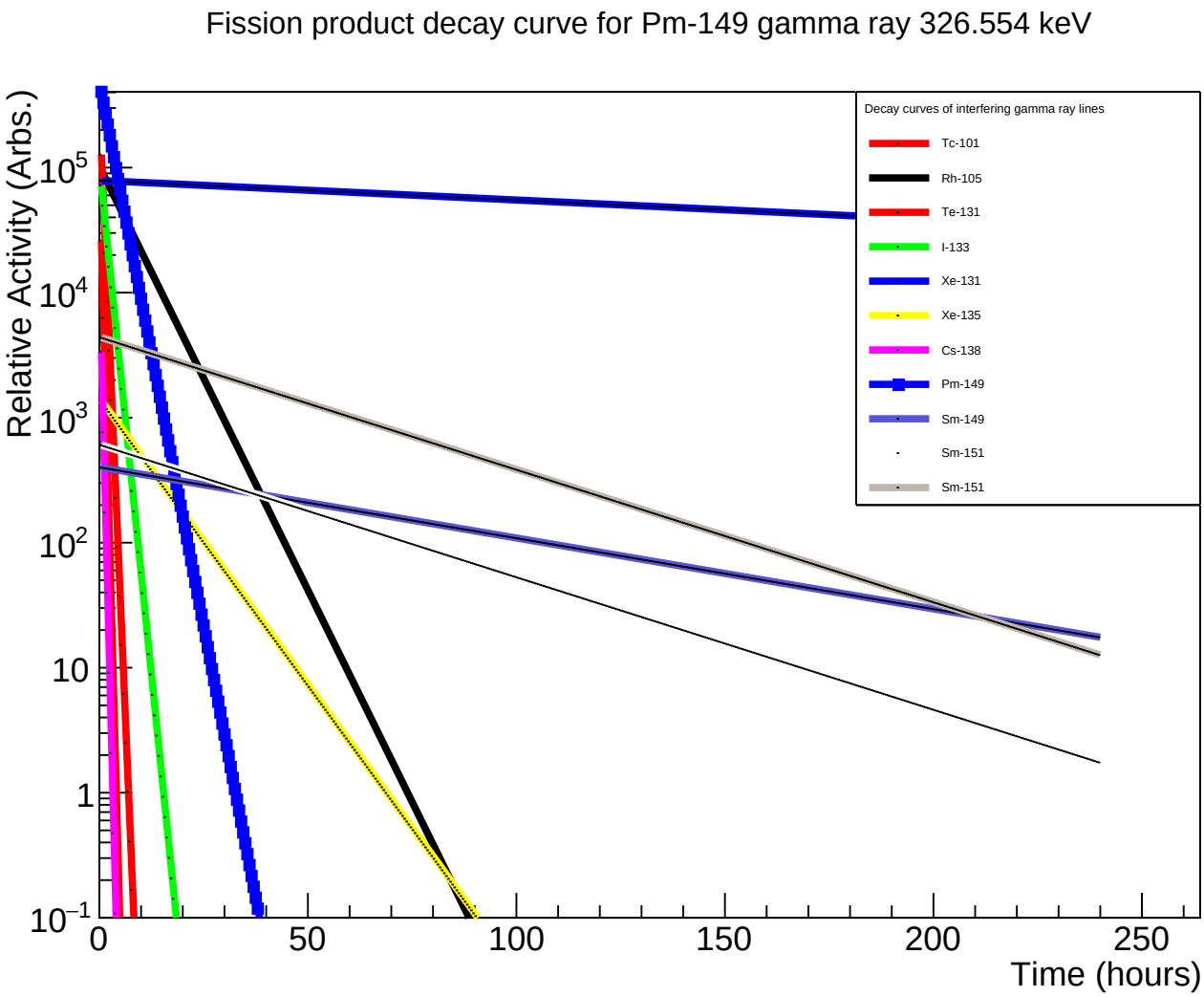


Figure 1076: Pm-149 decay curve for 326.554 keV gamma ray.

3.1077 Nd-149 E_γ = 349.23 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 349.23 keV
Gamma Intensity = 1.38 ± 0.064 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2153: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2154: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	350.040	0.000	2.840	0.036
Nb-98	Mo-98	347.940	0.002	0.855	0.000
Tc-104	Ru-104	349.100	0.001	0.305	0.019
Tc-104	Ru-104	349.300	0.025	0.305	0.019
Ru-105	Rh-105	349.960	0.003	4.440	0.010
Ru-105	Rh-105	350.180	0.010	4.440	0.010
Rh-107	Pd-107	348.210	0.023	0.362	0.001
Sn-127	Sb-127	348.400	0.005	2.100	0.001
Sb-130	Te-130	348.500	0.051	0.105	0.010
Ba-141	La-141	349.500	0.002	0.304	0.058
La-142	Ce-142	350.300	0.000	1.518	0.058
Ce-143	Pr-143	350.619	0.032	33.039	0.060
Pm-151	Sm-151	348.800	0.000	28.400	0.004
Pm-151	Sm-151	349.810	0.001	28.400	0.004
Eu-156	Gd-156	348.270	0.000	364.560	0.000

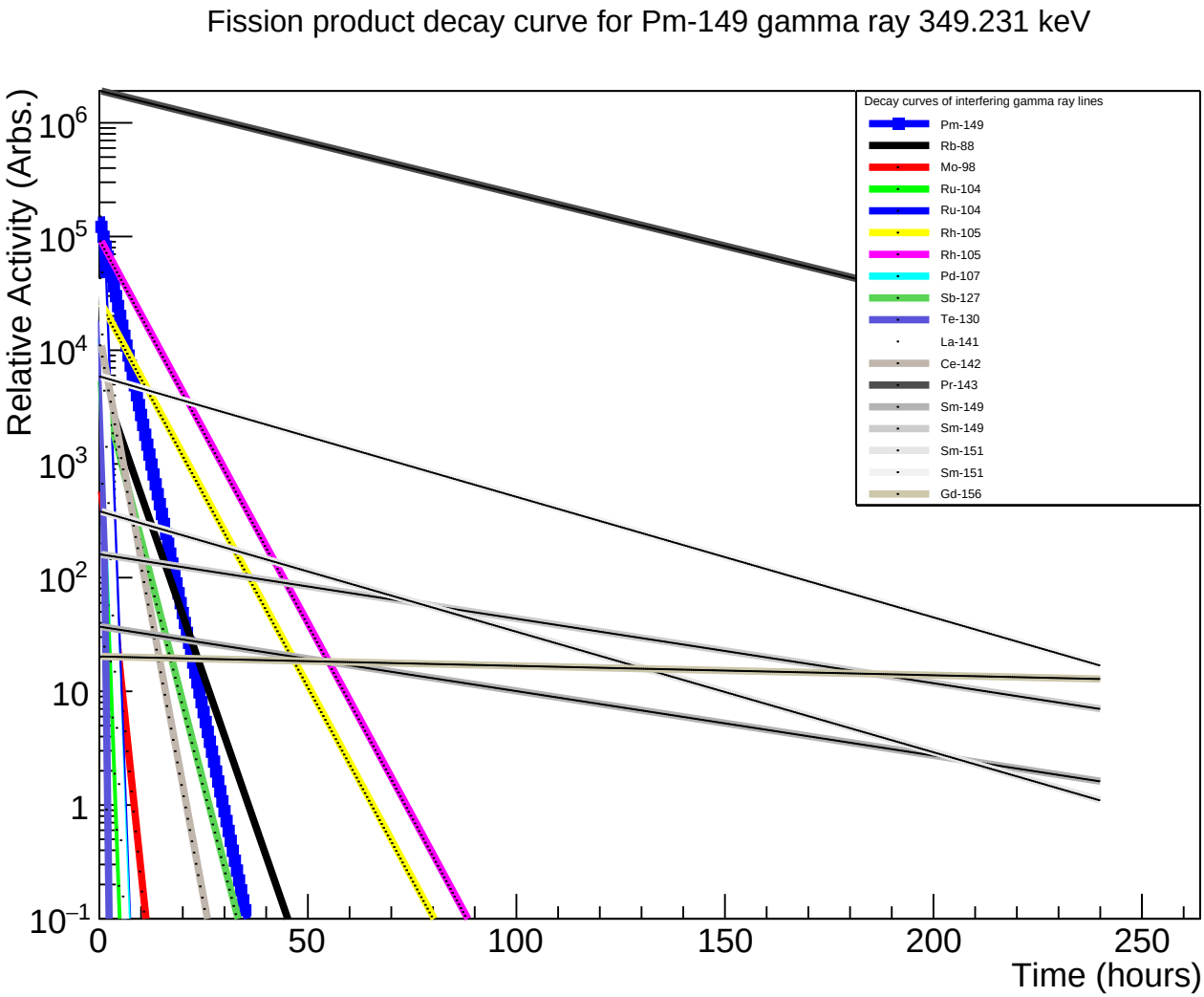


Figure 1077: Pm-149 decay curve for 349.231 keV gamma ray.

3.1078 Nd-149 E_γ = 351.63 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 351.63 keV
Gamma Intensity = 1.17 ± 0.048 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2155: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2156: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	351.100	0.002	1.512	0.000
Sr-92	Y-92	352.500	0.001	2.710	0.059
Nb-98	Mo-98	350.780	0.000	0.855	0.000
Nb-98	Mo-98	350.920	0.004	0.855	0.000
Mo-101	Tc-101	352.970	0.001	0.243	0.052
Tc-105	Ru-105	353.000	0.006	0.127	0.010
Ru-105	Rh-105	350.180	0.010	4.440	0.010
Pd-111	Ag-111	352.200	0.000	0.390	0.000
Sn-125	Sb-125	350.950	0.003	231.360	0.000
Sn-129	Sb-129	352.500	0.014	0.115	0.002
Te-131	I-131	351.480	0.000	0.417	0.025
Te-131	I-131	351.300	0.002	33.250	0.004
I-134	Xe-134	351.080	0.004	0.875	0.078
La-142	Ce-142	350.300	0.000	1.518	0.058
Ce-143	Pr-143	350.619	0.032	33.039	0.060
Ce-146	Pr-146	351.490	0.023	0.225	0.030
Pr-145	Nd-145	352.481	0.000	5.984	0.039
Pm-151	Sm-151	352.300	0.000	28.400	0.004

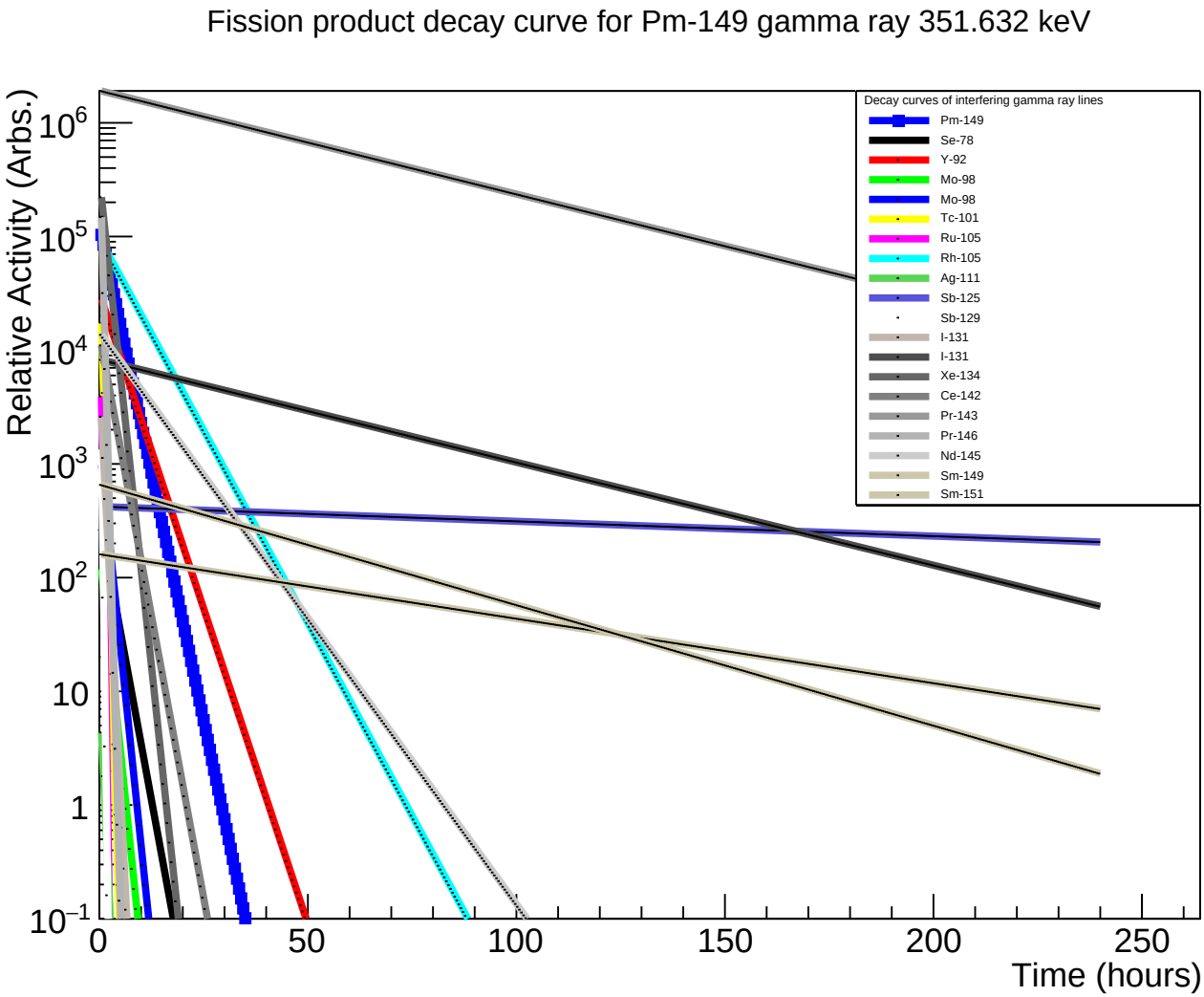


Figure 1078: Pm-149 decay curve for 351.632 keV gamma ray.

3.1079 Nd-149 E_γ = 423.55 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 423.55 keV
Gamma Intensity = 7.43 ± 0.483 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2157: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2158: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	424.000	1.000	0.100	0.000
Sr-93	Y-93	424.700	0.003	0.124	0.062
Pd-109	Ag-109	423.900	0.000	13.701	0.000
Sn-129	Sb-129	423.000	0.018	0.115	0.002
I-133	Xe-133	422.910	0.003	20.800	0.067
Ba-140	La-140	423.722	0.032	306.065	0.062
Ba-142	La-142	425.040	0.057	0.177	0.058
Pm-151	Sm-151	424.550	0.000	28.400	0.004
Sm-153	Eu-153	424.400	0.000	46.500	0.002

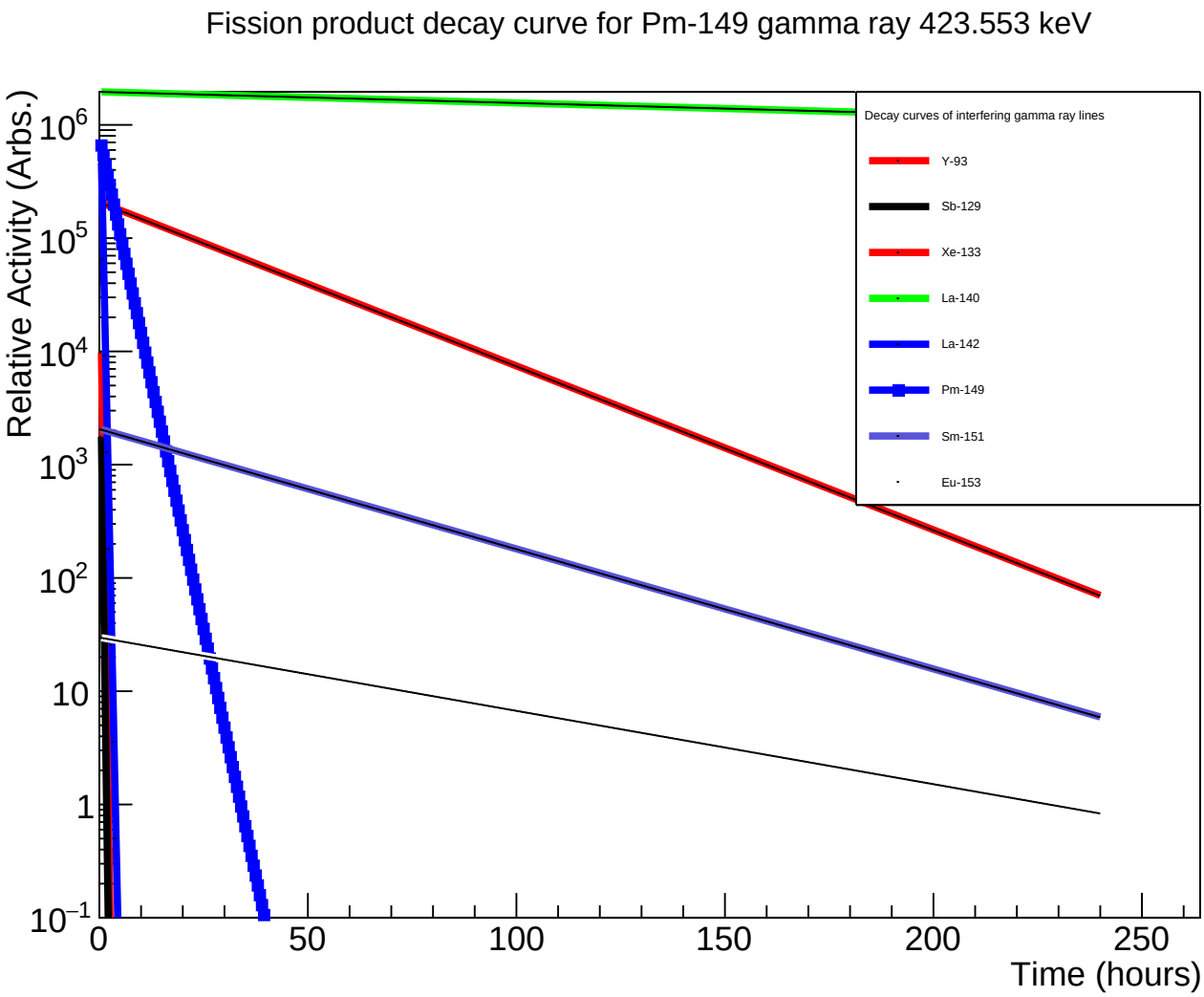


Figure 1079: Pm-149 decay curve for 423.553 keV gamma ray.

3.1080 Nd-149 E_γ = 443.55 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 443.55 keV
Gamma Intensity = 1.15 ± 0.068 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2159: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2160: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	442.400	0.003	0.372	0.003
Se-83	Br-83	442.500	0.008	0.372	0.003
Nb-98	Mo-98	443.600	0.000	0.855	0.000
Ru-103	Rh-103	443.810	0.003	941.928	0.030
Rh-105	Pd-105	442.417	0.000	35.360	0.010
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sb-125	Te-125	443.555	0.003	24194.445	0.000
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
Pm-151	Sm-151	443.800	0.000	28.400	0.004
Sm-153	Eu-153	443.200	0.000	46.500	0.002

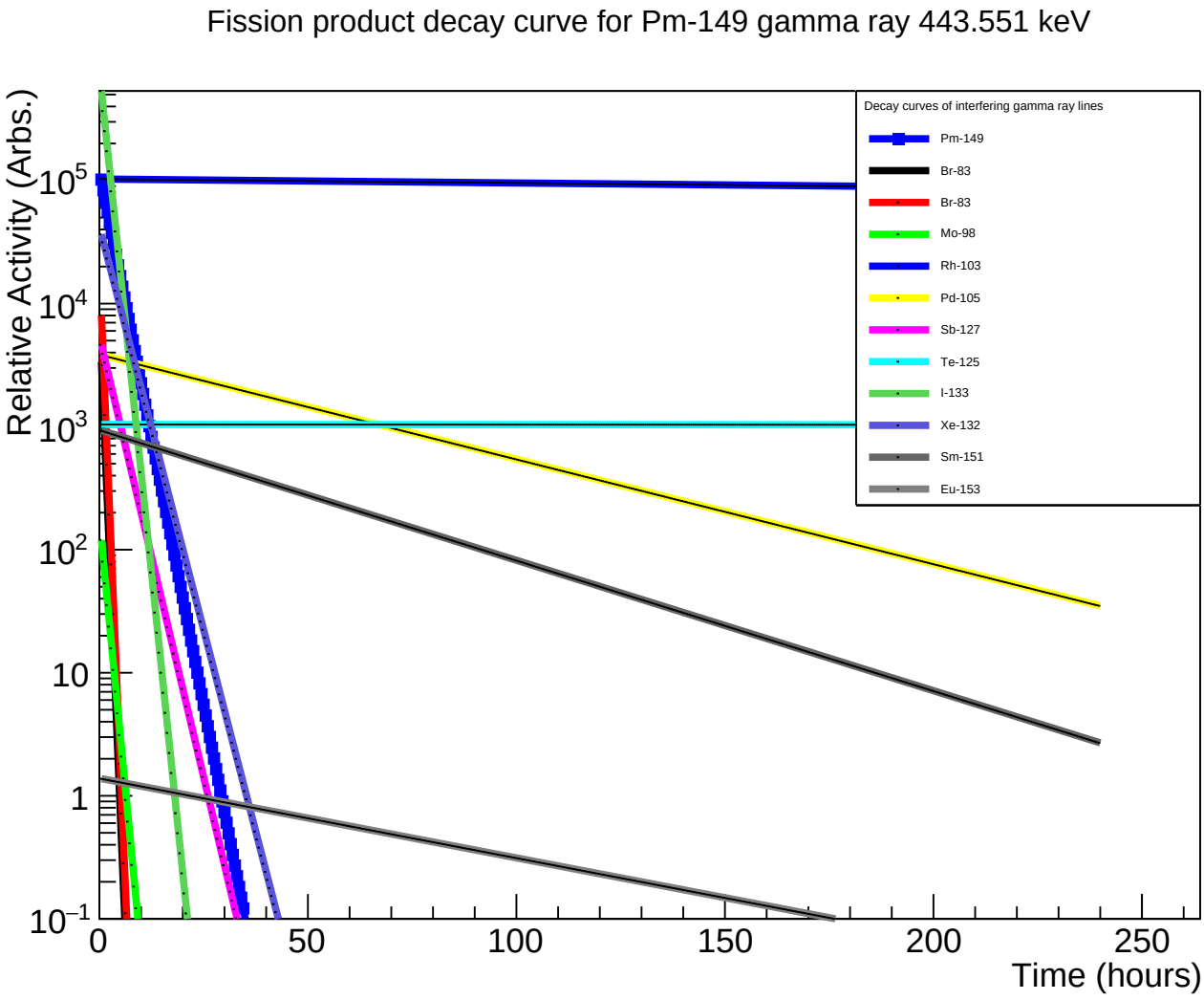


Figure 1080: Pm-149 decay curve for 443.551 keV gamma ray.

3.1081 Nd-149 E_γ = 540.51 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 540.51 keV
Gamma Intensity = 6.58 ± 0.345 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2161: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2162: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	541.890	0.007	0.124	0.062
Mo-101	Tc-101	540.100	0.001	0.243	0.052
Tc-105	Ru-105	540.700	0.003	0.127	0.010
Ru-105	Rh-105	539.290	0.001	4.440	0.010
Pd-111	Ag-111	540.700	0.000	0.390	0.000
Sn-123	Sb-123	541.950	0.000	0.668	0.000
Sn-127	Sb-127	539.600	0.002	2.100	0.001
Te-131	I-131	541.400	0.001	33.250	0.004
Te-133	I-133	540.300	0.003	0.923	0.040
I-132	Xe-132	539.700	0.002	2.295	0.043
I-134	Xe-134	540.825	0.077	0.875	0.078
Xe-138	Cs-138	540.800	0.000	0.235	0.063
Ba-141	La-141	541.600	0.001	0.304	0.058
Sm-153	Eu-153	539.100	0.000	46.500	0.002

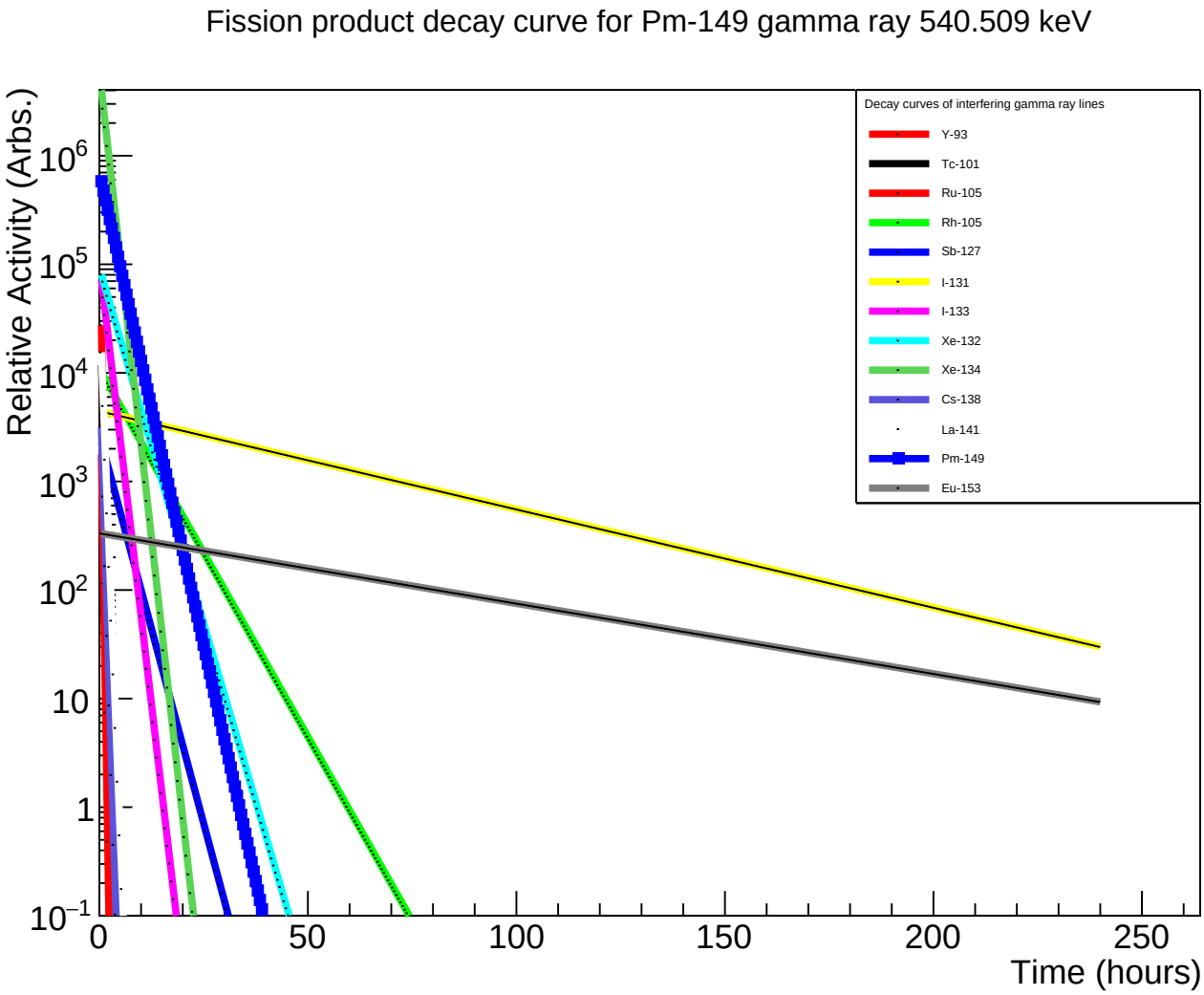


Figure 1081: Pm-149 decay curve for 540.509 keV gamma ray.

3.1082 Nd-149 E_γ = 654.83 keV

Chemical element: Neodymium
Fission product parent: Nd-149
Gamma originates in daughter: Pm-149
Eγ: 654.83 keV
Gamma Intensity = 7.95 ± 0.495 %
$T_{1/2}$ = 1.728 ± 0.001 hours or 103.68 ± 0.06 minutes
CFY: 1.082 ± 0.030 %

Table 2163: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2164: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	656.210	0.021	4.440	0.010
Sb-128	Te-128	654.200	0.170	9.010	0.000
Sb-129	Te-129	654.300	0.030	4.400	0.005
Sb-130	Te-130	654.700	0.020	0.658	0.008
Te-131	I-131	654.260	0.015	0.417	0.025
Te-133	I-133	653.980	0.003	0.208	0.031
I-135	Xe-135	656.090	0.001	6.570	0.063
Xe-135	Cs-135	654.432	0.000	9.140	0.065
Xe-138	Cs-138	654.080	0.001	0.235	0.063
Ba-141	La-141	655.300	0.000	0.304	0.058
Ba-142	La-142	654.600	0.001	0.177	0.058
Pr-147	Nd-147	656.100	0.002	0.223	0.022
Pm-151	Sm-151	654.250	0.002	28.400	0.004
Pm-151	Sm-151	655.600	0.000	28.400	0.004

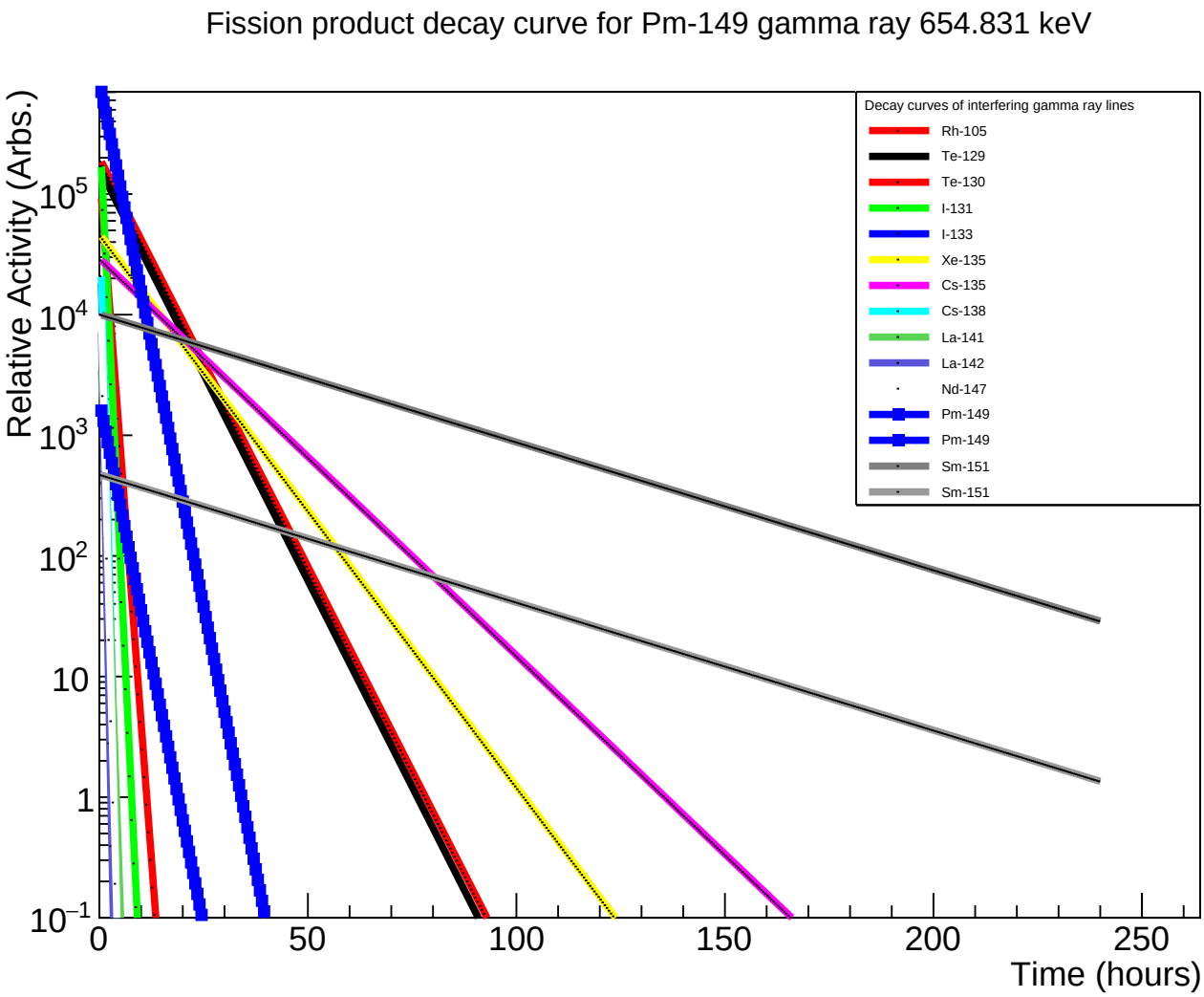


Figure 1082: Pm-149 decay curve for 654.831 keV gamma ray.

3.1083 Nd-151 E_γ = 68.98 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 68.98 keV
Gamma Intensity = 1.26 ± 0.093 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2165: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2166: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	70.430	0.008	0.390	0.000
Sn-127	Sb-127	70.300	0.004	2.100	0.001
Sn-129	Sb-129	67.600	0.052	0.115	0.002
Sn-129	Sb-129	69.800	0.078	0.115	0.002
Xe-138	Cs-138	68.300	0.000	0.235	0.063
Ba-141	La-141	67.800	0.000	0.304	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	69.700	0.003	0.177	0.058
La-140	Ce-140	68.916	0.001	40.285	0.062
Sm-153	Eu-153	68.256	0.000	46.500	0.002
Sm-153	Eu-153	69.673	0.047	46.500	0.002

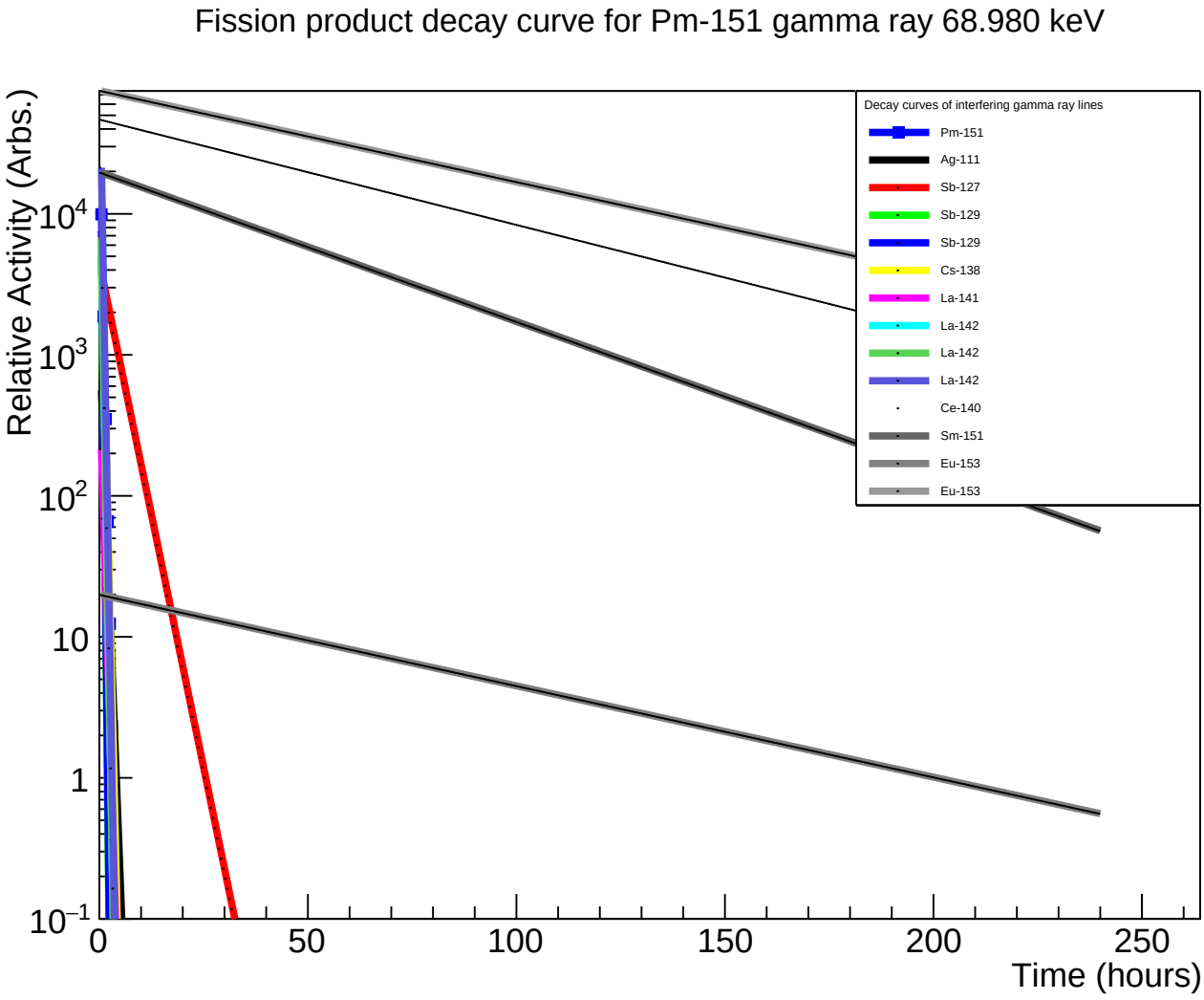


Figure 1083: Pm-151 decay curve for 68.980 keV gamma ray.

3.1084 Nd-151 E_γ = 85.12 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 85.12 keV
Gamma Intensity = 2.05 ± 0.134 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2167: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2168: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	86.430	0.001	33.250	0.004
I-131	Xe-131	85.900	0.000	192.605	0.029
Ba-142	La-142	84.000	0.000	0.177	0.058
Sm-155	Eu-155	84.100	0.000	0.372	0.000
Eu-155	Gd-155	86.059	0.002	41666.668	0.000
Eu-155	Gd-155	86.548	0.307	41666.668	0.000

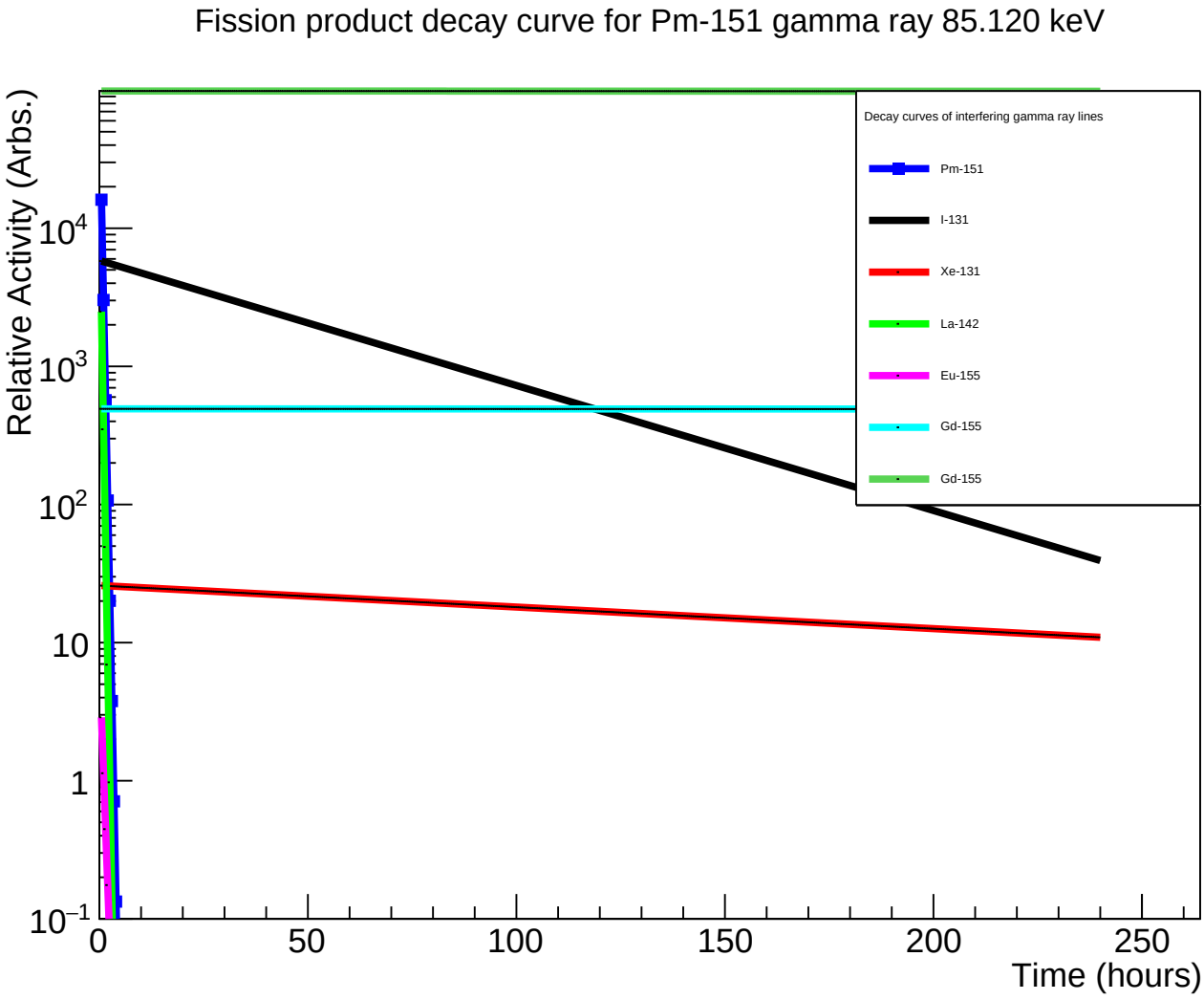


Figure 1084: Pm-151 decay curve for 85.120 keV gamma ray.

3.1085 Nd-151 E_γ = 89.96 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 89.96 keV
Gamma Intensity = 1.53 ± 0.106 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2169: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2170: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	89.500	0.000	1850000000.000	0.061
Tc-99	Ru-99	89.600	0.000	6.007	0.054
Pr-145	Nd-145	91.100	0.000	5.984	0.039
Sm-153	Eu-153	89.486	0.002	46.500	0.002
Sm-155	Eu-155	90.100	0.000	0.372	0.000
Eu-156	Gd-156	88.970	0.084	364.560	0.000

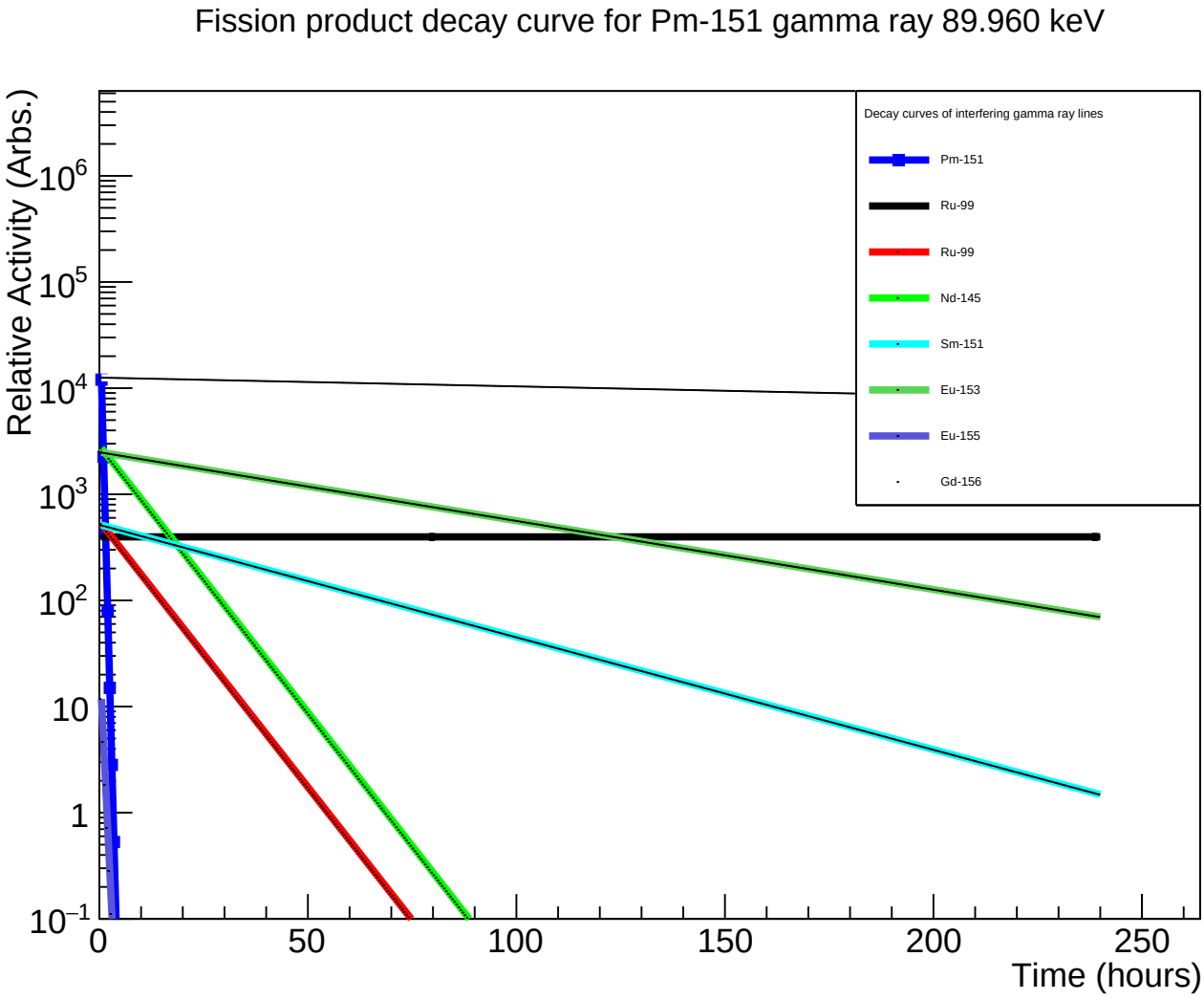


Figure 1085: Pm-151 decay curve for 89.960 keV gamma ray.

3.1086 Nd-151 E_γ = 116.80 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 116.80 keV
Gamma Intensity = 38.97 ± 2.404 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2171: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2172: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-89	Sr-89	118.300	0.000	0.252	0.047
Mo-101	Tc-101	115.760	0.000	0.243	0.052
Rh-107	Pd-107	115.650	0.005	0.362	0.001
Sn-128	Sb-128	115.900	0.002	0.984	0.003
Sn-129	Sb-129	117.200	0.019	0.115	0.002
Sb-125	Te-125	116.955	0.003	24194.445	0.000
Te-129	I-129	115.300	0.000	806.400	0.001
Te-132	I-132	116.300	0.020	76.896	0.043
Te-133	I-133	116.440	0.003	0.923	0.040
Sm-153	Eu-153	118.112	0.000	46.500	0.002

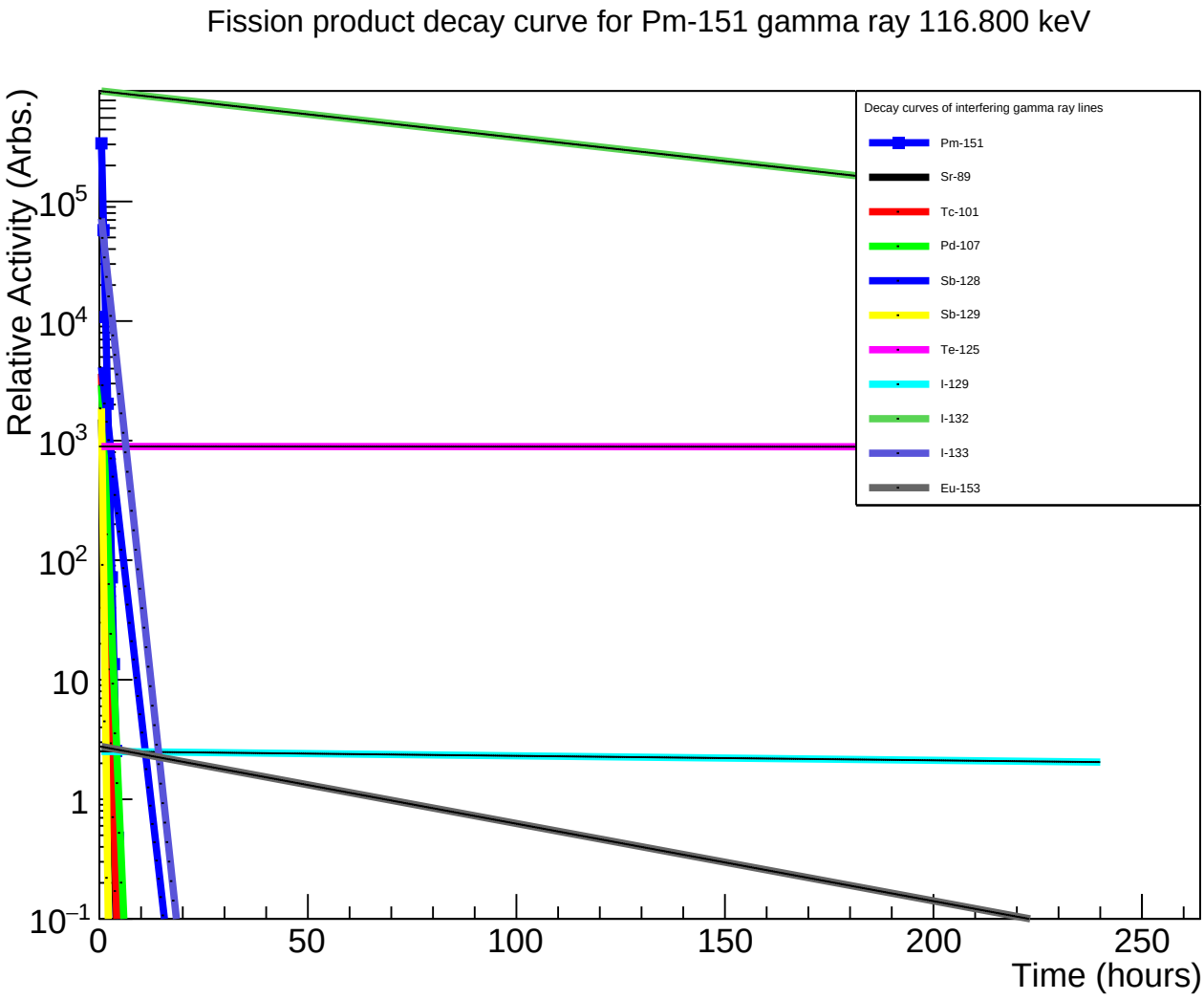


Figure 1086: Pm-151 decay curve for 116.800 keV gamma ray.

3.1087 Nd-151 E_γ = 138.89 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 138.89 keV
Gamma Intensity = 7.05 ± 0.474 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2173: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2174: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-105	Ru-105	138.446	0.042	0.127	0.010
Ru-105	Rh-105	139.330	0.000	4.440	0.010
Te-131	I-131	137.600	0.001	33.250	0.004
I-134	Xe-134	139.030	0.008	0.875	0.078
Cs-138	Ba-138	138.100	0.015	0.557	0.067
Ce-143	Pr-143	139.742	0.001	33.039	0.060
Sm-155	Eu-155	138.300	0.001	0.372	0.000
Eu-156	Gd-156	138.700	0.000	364.560	0.000

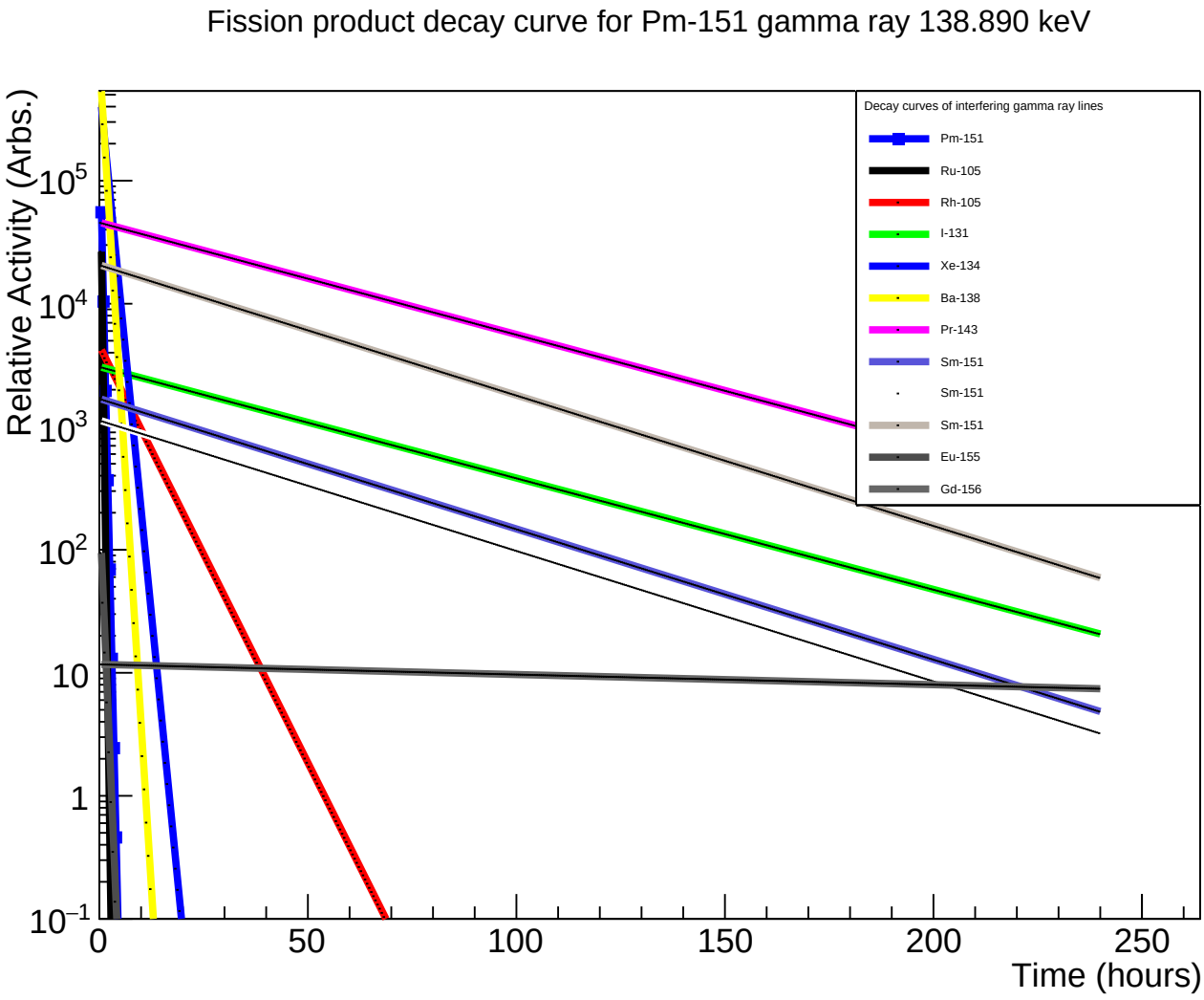


Figure 1087: Pm-151 decay curve for 138.890 keV gamma ray.

3.1088 Nd-151 E_γ = 170.76 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 170.76 keV
Gamma Intensity = 2.87 ± 0.203 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2175: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2176: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	170.000	0.003	0.305	0.019
Pd-111	Ag-111	169.400	0.000	0.390	0.000
Sn-123	Sb-123	171.200	0.000	0.668	0.000
Sn-127	Sb-127	170.300	0.001	2.100	0.001
Te-127	I-127	172.100	0.000	9.350	0.002
Te-131	I-131	169.700	0.000	33.250	0.004
Te-133	I-133	170.910	0.001	0.208	0.031

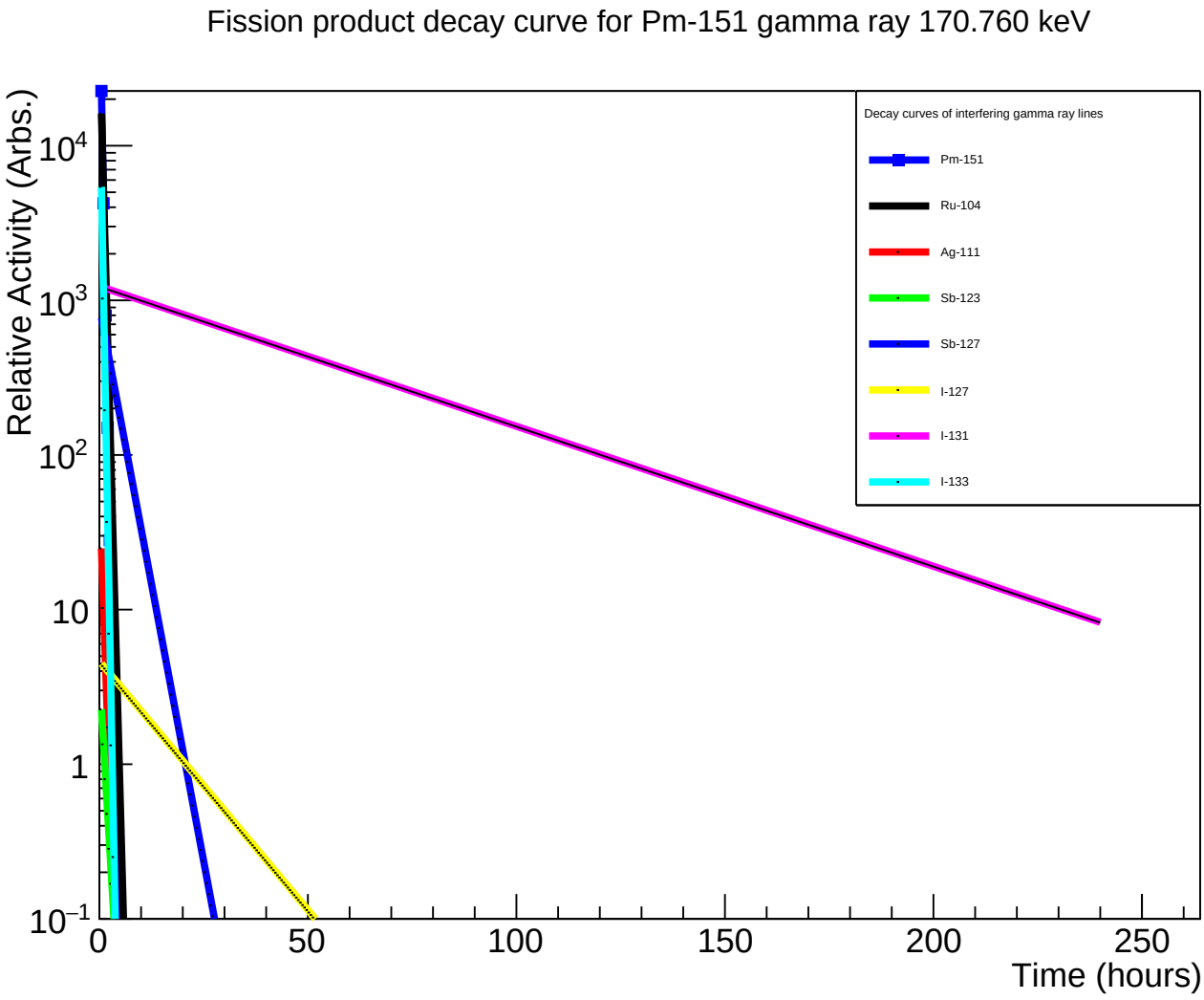


Figure 1088: Pm-151 decay curve for 170.760 keV gamma ray.

3.1089 Nd-151 E_γ = 175.07 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 175.07 keV
Gamma Intensity = 6.33 ± 0.436 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2177: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2178: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	174.200	0.002	1.512	0.000
Rh-107	Pd-107	175.300	0.001	0.362	0.001
Sb-125	Te-125	176.314	0.068	24194.445	0.000
Ce-146	Pr-146	173.840	0.002	0.225	0.030

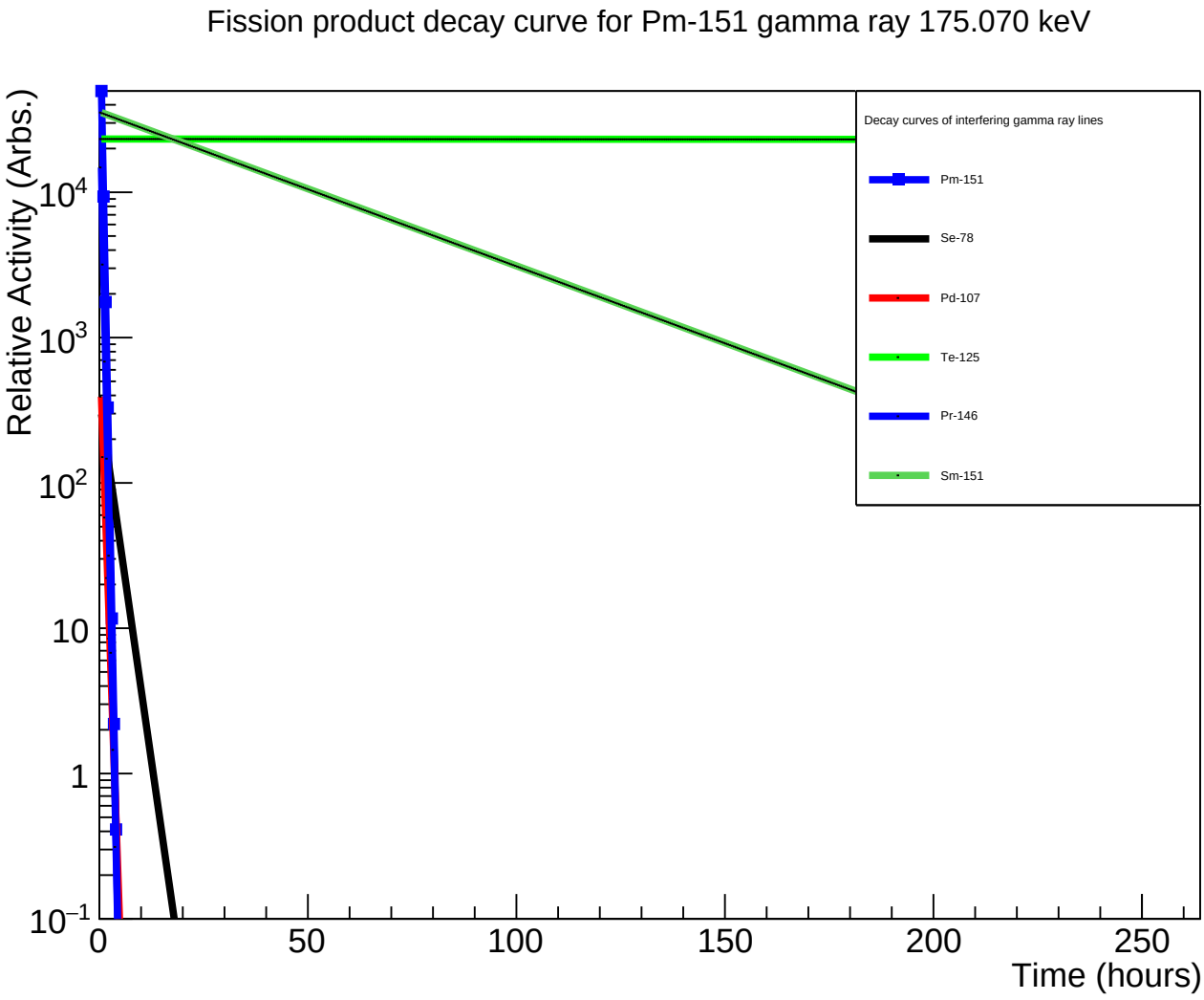


Figure 1089: Pm-151 decay curve for 175.070 keV gamma ray.

3.1090 Nd-151 E_γ = 255.68 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 255.68 keV
Gamma Intensity = 14.76 ± 0.927 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2179: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2180: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ru-105	Rh-105	254.880	0.001	4.440	0.010
Sn-127	Sb-127	255.300	0.001	2.100	0.001
Te-131	I-131	255.440	0.003	33.250	0.004
I-132	Xe-132	255.100	0.002	2.295	0.043
I-135	Xe-135	254.740	0.000	6.570	0.063
Ba-141	La-141	255.100	0.000	0.304	0.058
Ba-142	La-142	255.300	0.205	0.177	0.058
Pm-149	Sm-149	254.570	0.000	53.080	0.011

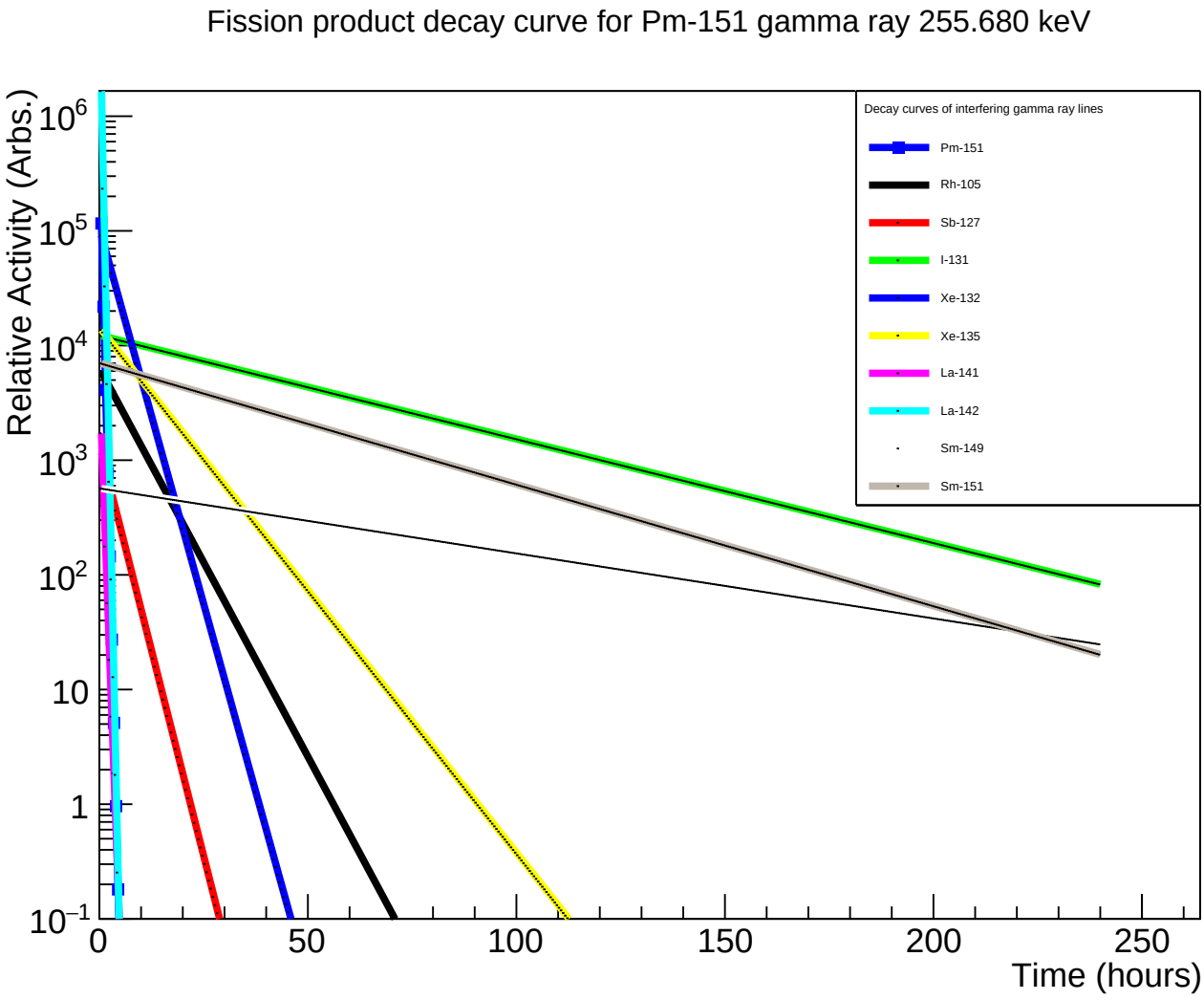


Figure 1090: Pm-151 decay curve for 255.680 keV gamma ray.

3.1091 Nd-151 E_γ = 300.58 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 300.58 keV
Gamma Intensity = 1.82 ± 0.122 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2181: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2182: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	299.600	0.000	0.855	0.000
Tc-105	Ru-105	300.300	0.005	0.127	0.010
Tc-105	Ru-105	301.000	0.012	0.127	0.010
Sn-127	Sb-127	301.700	0.001	2.100	0.001
Sb-131	Te-131	301.300	0.024	0.384	0.026
Te-131	I-131	299.940	0.000	0.417	0.025
Te-133	I-133	302.000	0.000	0.208	0.031
I-132	Xe-132	302.000	0.000	2.295	0.043

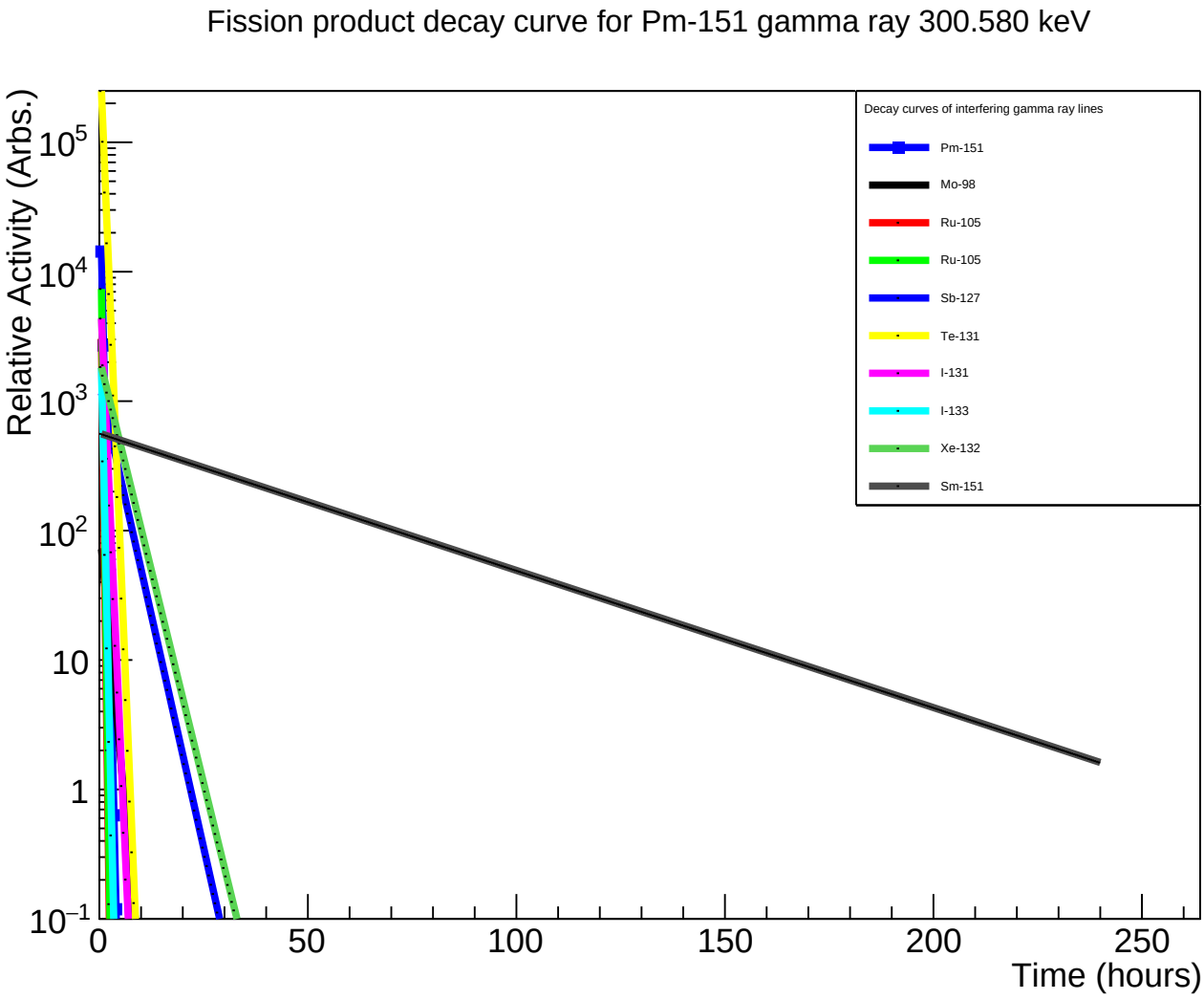


Figure 1091: Pm-151 decay curve for 300.580 keV gamma ray.

3.1092 Nd-151 E_γ = 423.56 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 423.56 keV
Gamma Intensity = 5.92 ± 0.376 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2183: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2184: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	424.000	1.000	0.100	0.000
Sr-93	Y-93	424.700	0.003	0.124	0.062
Pd-109	Ag-109	423.900	0.000	13.701	0.000
Sn-129	Sb-129	423.000	0.018	0.115	0.002
I-133	Xe-133	422.910	0.003	20.800	0.067
Ba-140	La-140	423.722	0.032	306.065	0.062
Ba-142	La-142	425.040	0.057	0.177	0.058
Sm-153	Eu-153	424.400	0.000	46.500	0.002

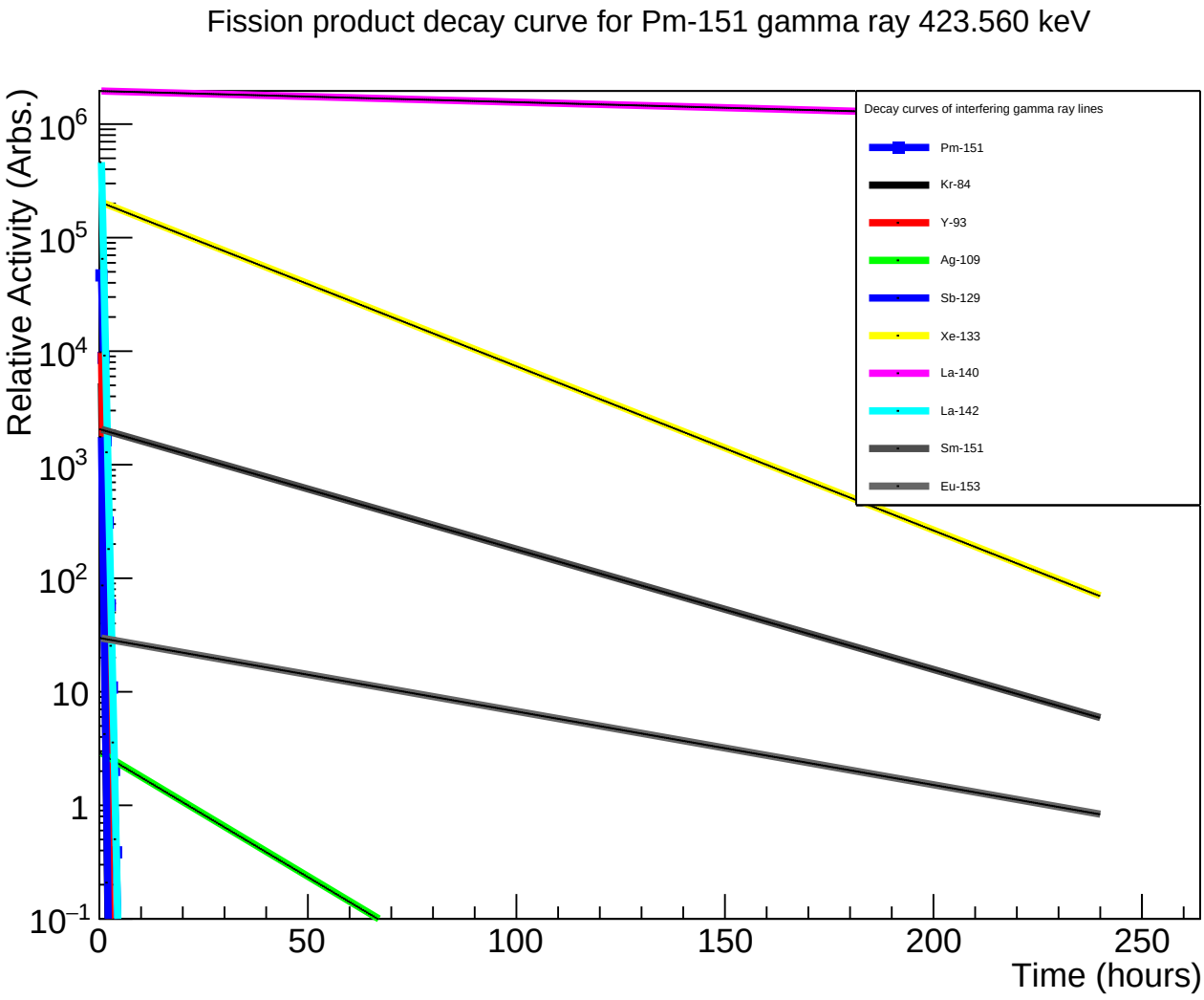


Figure 1092: Pm-151 decay curve for 423.560 keV gamma ray.

3.1093 Nd-151 E_γ = 585.22 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 585.22 keV
Gamma Intensity = 1.30 ± 0.132 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2185: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2186: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	586.500	0.004	0.124	0.062
Nb-98	Mo-98	585.400	0.000	0.855	0.000
Tc-104	Ru-104	584.000	0.006	0.305	0.019
Tc-104	Ru-104	585.100	0.002	0.305	0.019
Ag-112	Cd-112	585.400	0.000	3.130	0.000
Ag-113	Cd-113	584.000	0.002	5.370	0.000
Ag-113	Cd-113	585.000	0.000	5.370	0.000
Sb-127	Te-127	584.200	0.003	92.400	0.002
Te-131	I-131	586.300	0.019	33.250	0.004
Te-133	I-133	586.710	0.006	0.208	0.031
Te-133	I-133	586.400	0.003	0.923	0.040
Xe-138	Cs-138	586.000	0.000	0.235	0.063
Sm-153	Eu-153	584.550	0.000	46.500	0.002
Eu-156	Gd-156	585.900	0.001	364.560	0.000
Eu-156	Gd-156	585.900	0.000	364.560	0.000

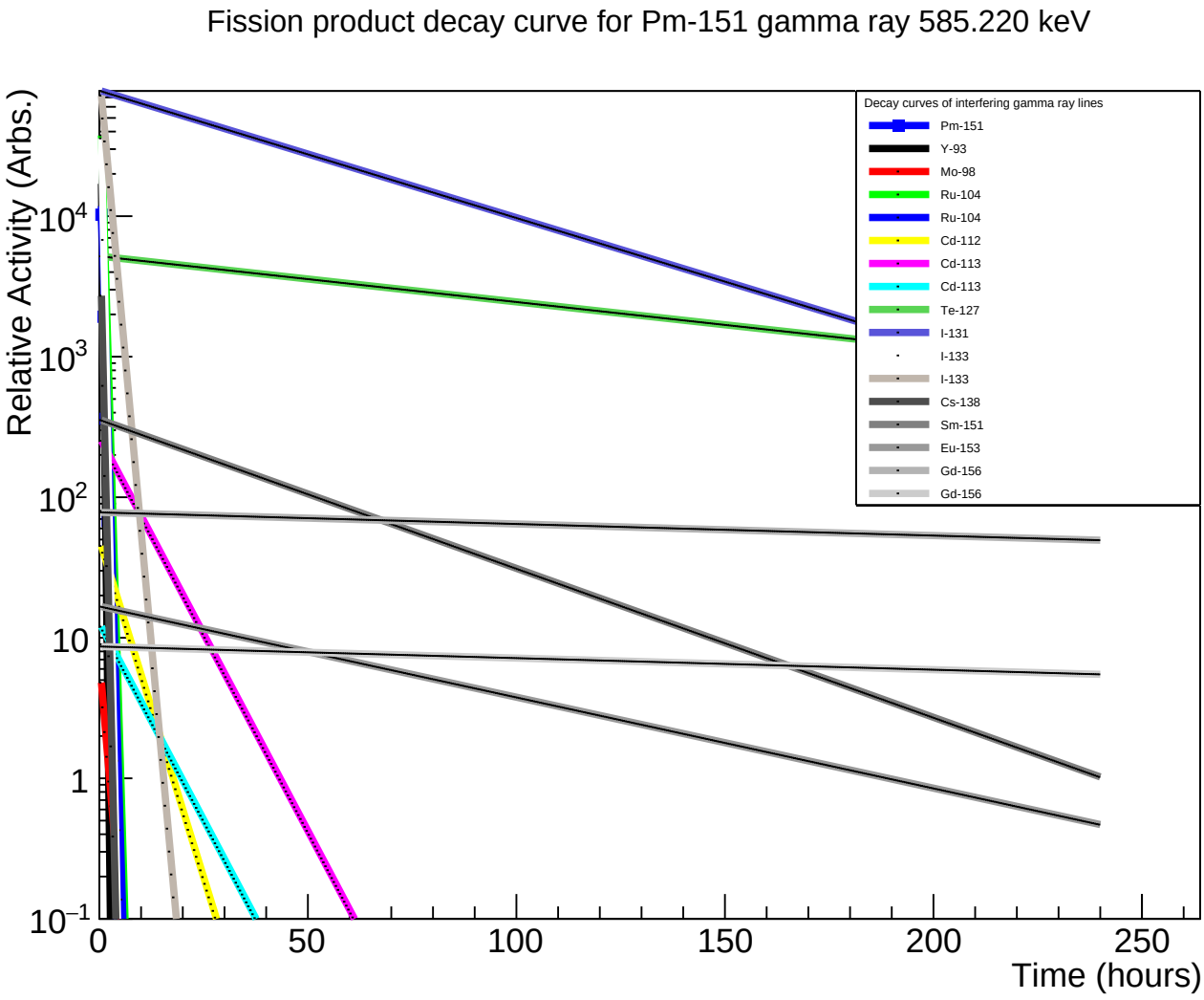


Figure 1093: Pm-151 decay curve for 585.220 keV gamma ray.

3.1094 Nd-151 E_γ = 677.88 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 677.88 keV
Gamma Intensity = 2.38 ± 0.153 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2187: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2188: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	677.340	0.002	2.840	0.036
Nb-98	Mo-98	676.870	0.001	0.855	0.000
I-133	Xe-133	678.650	0.000	20.800	0.067
I-134	Xe-134	677.340	0.079	0.875	0.078
I-135	Xe-135	679.220	0.001	6.570	0.063
La-141	Ce-141	676.800	0.000	3.920	0.058
La-142	Ce-142	677.000	0.000	1.518	0.058
Sm-153	Eu-153	677.000	0.000	46.500	0.002
Sm-155	Eu-155	677.200	0.000	0.372	0.000

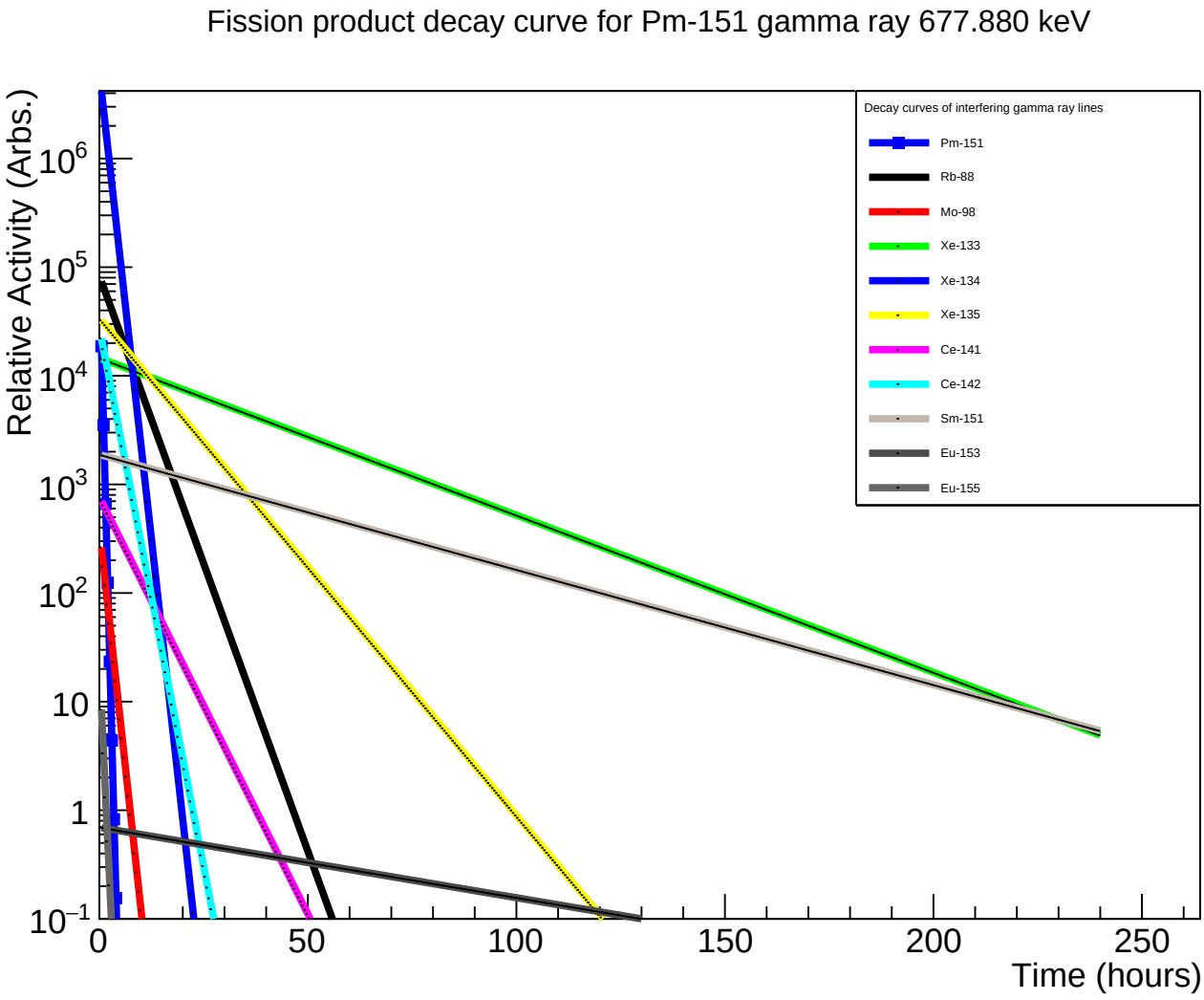


Figure 1094: Pm-151 decay curve for 677.880 keV gamma ray.

3.1095 Nd-151 E_γ = 736.23 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 736.23 keV
Gamma Intensity = 5.92 ± 0.380 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2189: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2190: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	735.120	0.008	0.372	0.003
Br-84	Kr-84	736.500	0.013	0.529	0.010
Mo-101	Tc-101	737.300	0.000	0.243	0.052
Pd-109	Ag-109	736.700	0.000	13.701	0.000
Sb-129	Te-129	737.100	0.004	4.400	0.005
Cs-139	Ba-139	735.680	0.001	0.155	0.063
Cs-139	Ba-139	737.600	0.000	0.155	0.063
Pr-146	Nd-146	735.720	0.075	0.403	0.030

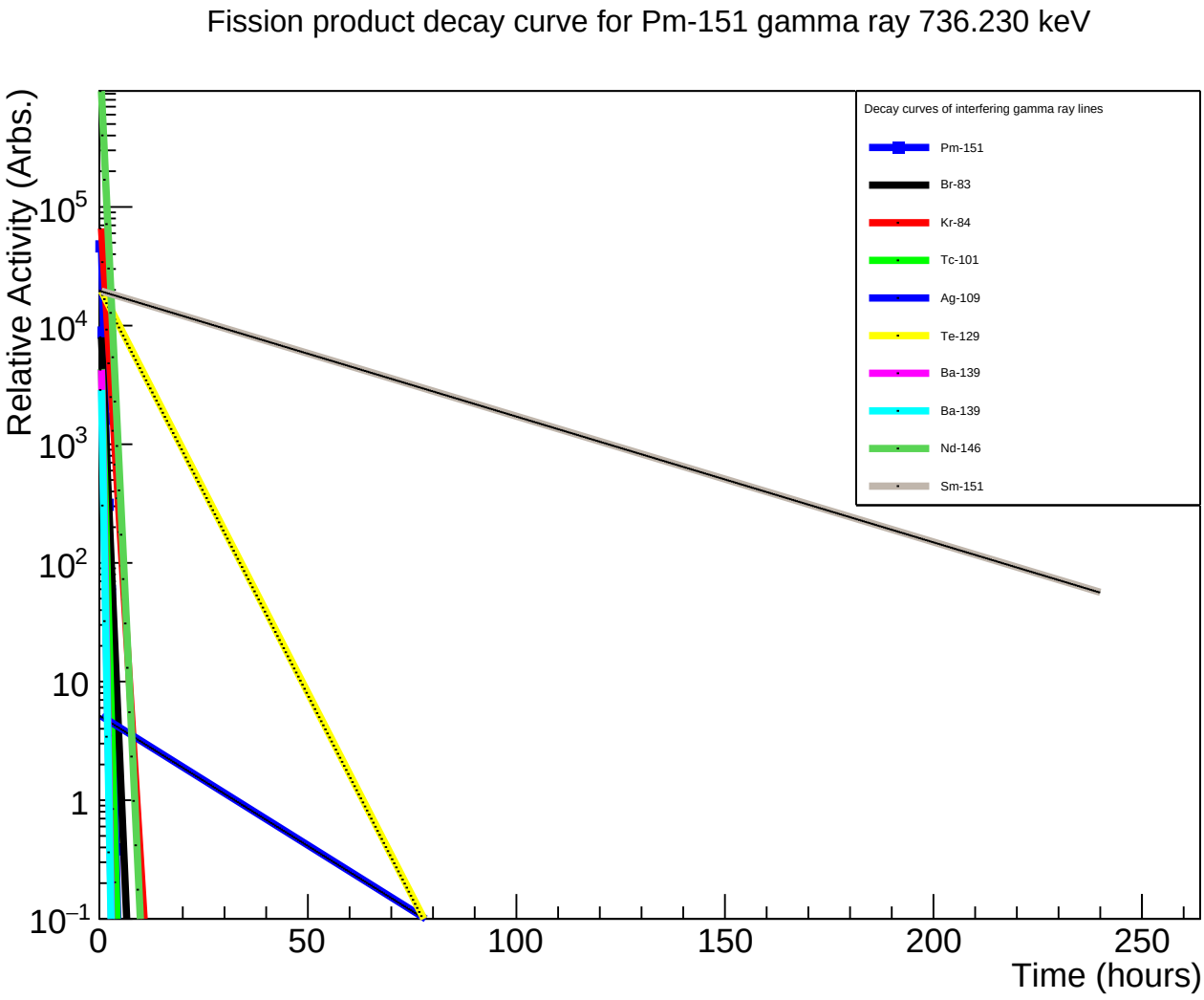


Figure 1095: Pm-151 decay curve for 736.230 keV gamma ray.

3.1096 Nd-151 E_γ = 739.20 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 739.20 keV
Gamma Intensity = 1.52 ± 0.100 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2191: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2192: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	739.500	0.123	65.976	0.061
Mo-101	Tc-101	739.540	0.003	0.243	0.052
Tc-105	Ru-105	739.300	0.016	0.127	0.010
Ru-105	Rh-105	738.270	0.001	4.440	0.010
Te-131	I-131	738.800	0.001	33.250	0.004
Te-133	I-133	739.790	0.006	0.923	0.040
I-134	Xe-134	739.180	0.007	0.875	0.078
Ba-141	La-141	739.200	0.048	0.304	0.058

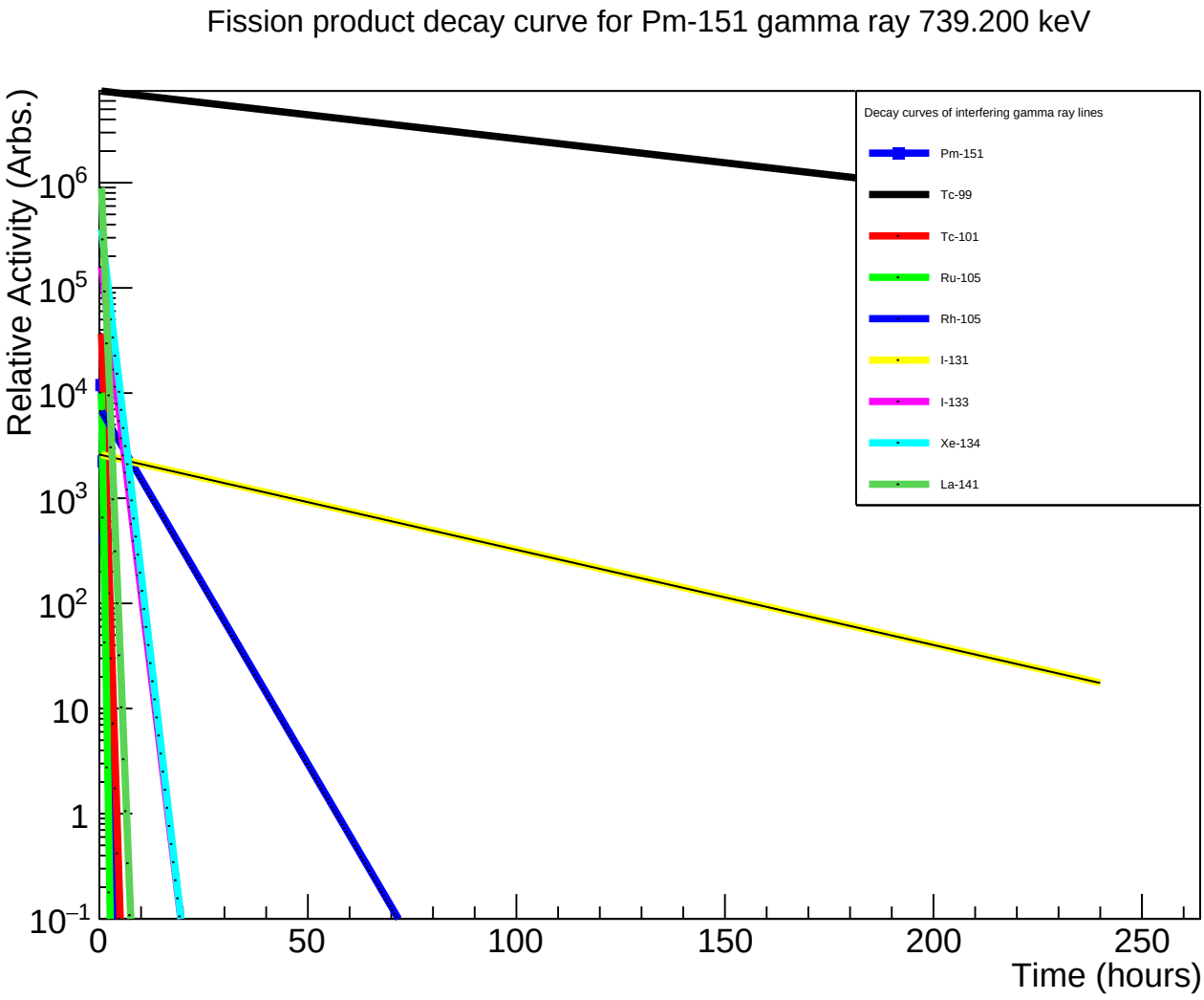


Figure 1096: Pm-151 decay curve for 739.200 keV gamma ray.

3.1097 Nd-151 E_γ = 755.57 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 755.57 keV
Gamma Intensity = 1.17 ± 0.075 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2193: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2194: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	756.900	0.001	1.512	0.000
Zr-95	Nb-95	756.725	0.544	1536.768	0.065
Tc-105	Ru-105	757.000	0.012	0.127	0.010
Ag-111	Cd-111	754.600	0.000	178.800	0.000
Te-133	I-133	756.800	0.003	0.923	0.040
Xe-138	Cs-138	755.000	0.000	0.235	0.063
Cs-138	Ba-138	754.500	0.000	0.557	0.067

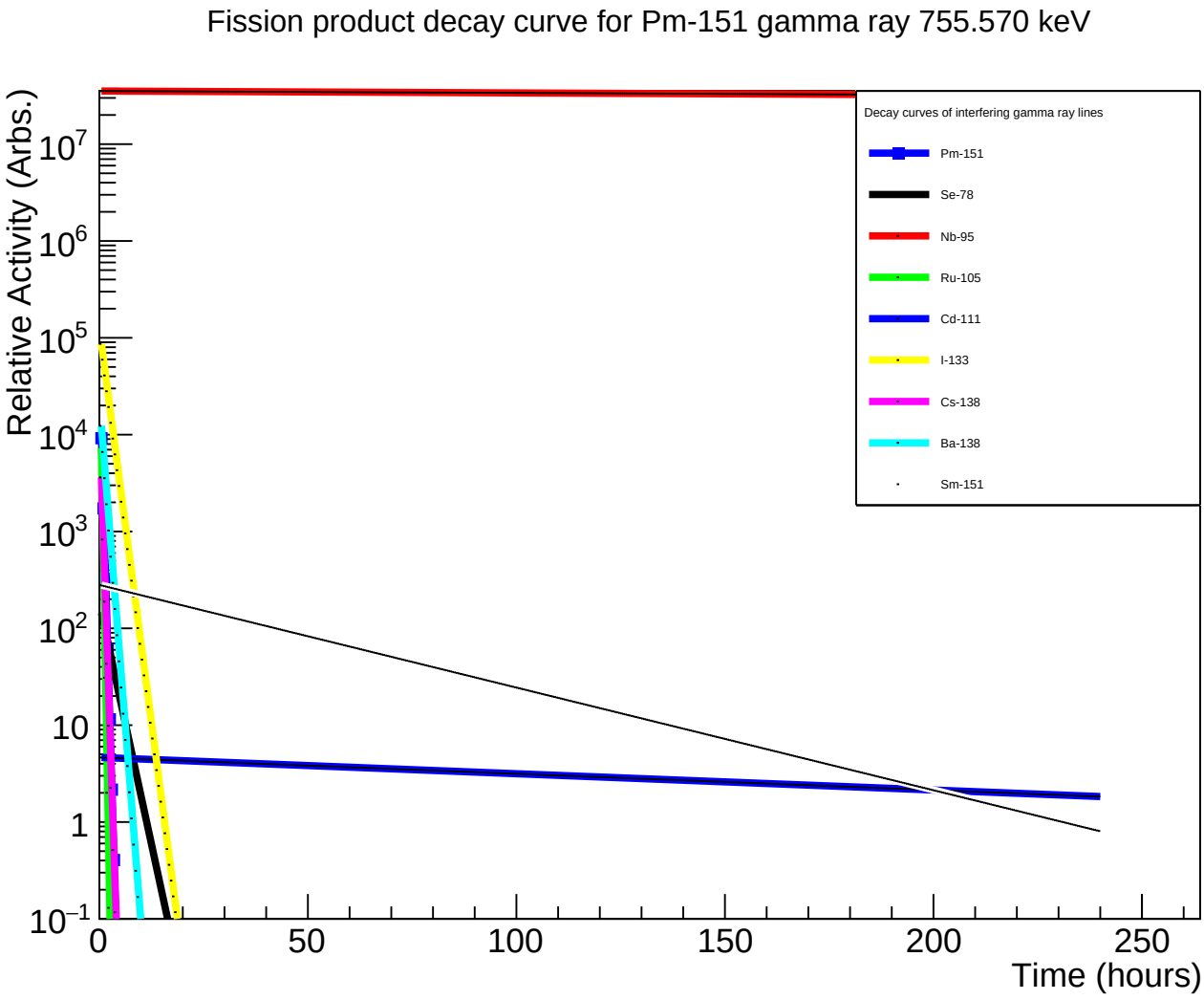


Figure 1097: Pm-151 decay curve for 755.570 keV gamma ray.

3.1098 Nd-151 E_γ = 797.53 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 797.53 keV
Gamma Intensity = 4.72 ± 0.303 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2195: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2196: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	798.650	0.000	2.840	0.036
Nb-98	Mo-98	797.880	0.006	0.855	0.000
Mo-101	Tc-101	798.000	0.001	0.243	0.052
Ag-112	Cd-112	797.900	0.005	3.130	0.000
I-135	Xe-135	797.710	0.002	6.570	0.063
Cs-138	Ba-138	797.700	0.001	0.557	0.067
Cs-139	Ba-139	798.010	0.000	0.155	0.063
La-143	Ce-143	798.140	0.012	0.237	0.059
Eu-156	Gd-156	797.730	0.001	364.560	0.000

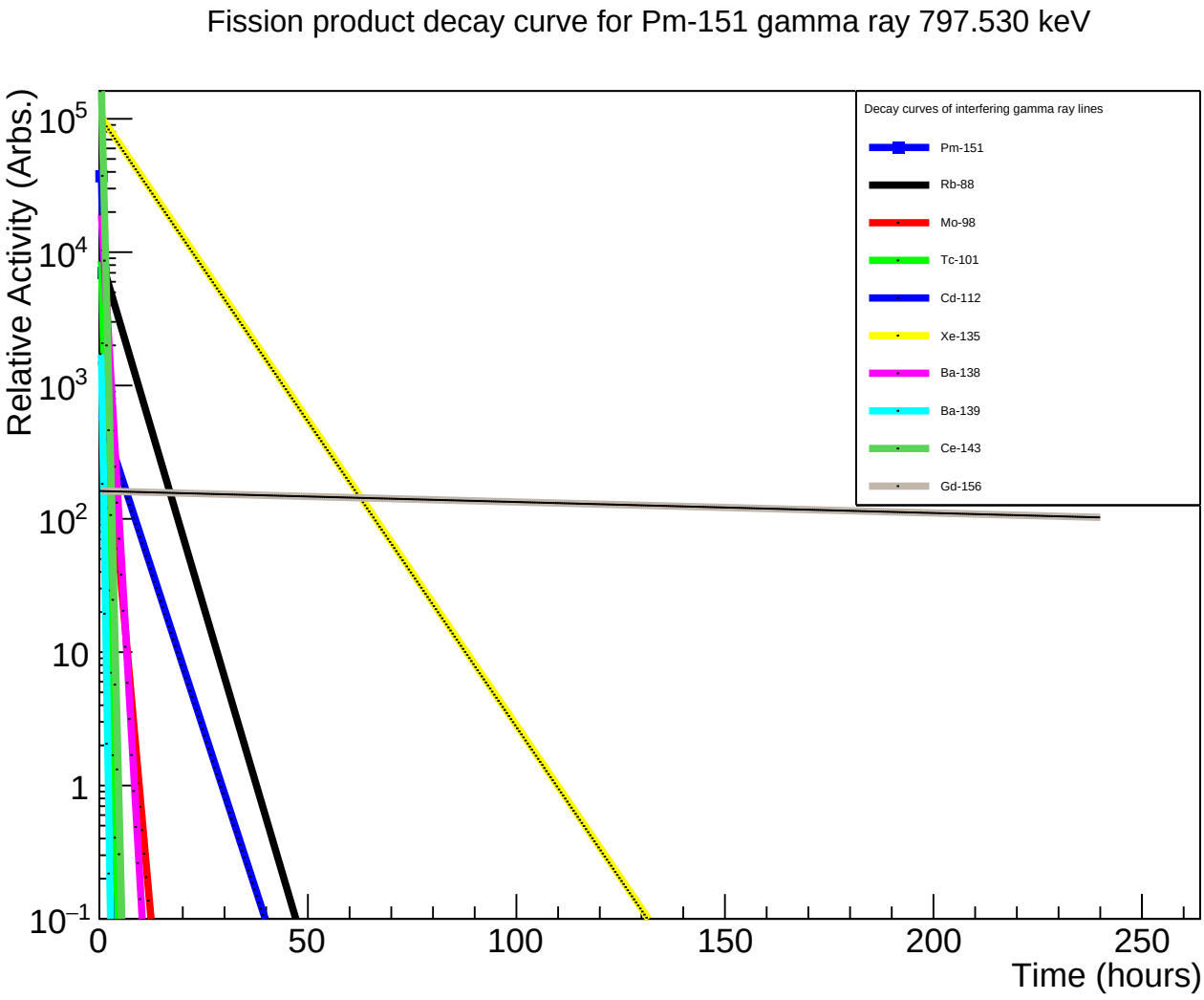


Figure 1098: Pm-151 decay curve for 797.530 keV gamma ray.

3.1099 Nd-151 E_γ = 1016.40 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 1016.40 keV
Gamma Intensity = 2.50 ± 0.160 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2197: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2198: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1015.900	0.062	0.529	0.010
Br-84	Kr-84	1016.000	0.010	0.100	0.000
Mo-99	Tc-99	1017.000	0.000	65.976	0.061
Ru-105	Rh-105	1017.470	0.003	4.440	0.010
Pd-111	Ag-111	1015.000	0.000	0.390	0.000
Sn-125	Sb-125	1017.400	0.003	231.360	0.000
Sn-125	Sb-125	1017.570	0.001	0.159	0.000
Sb-130	Te-130	1017.500	0.300	0.105	0.010
Te-133	I-133	1015.300	0.001	0.208	0.031
Te-133	I-133	1015.100	0.001	0.923	0.040
Pr-146	Nd-146	1016.780	0.012	0.403	0.030

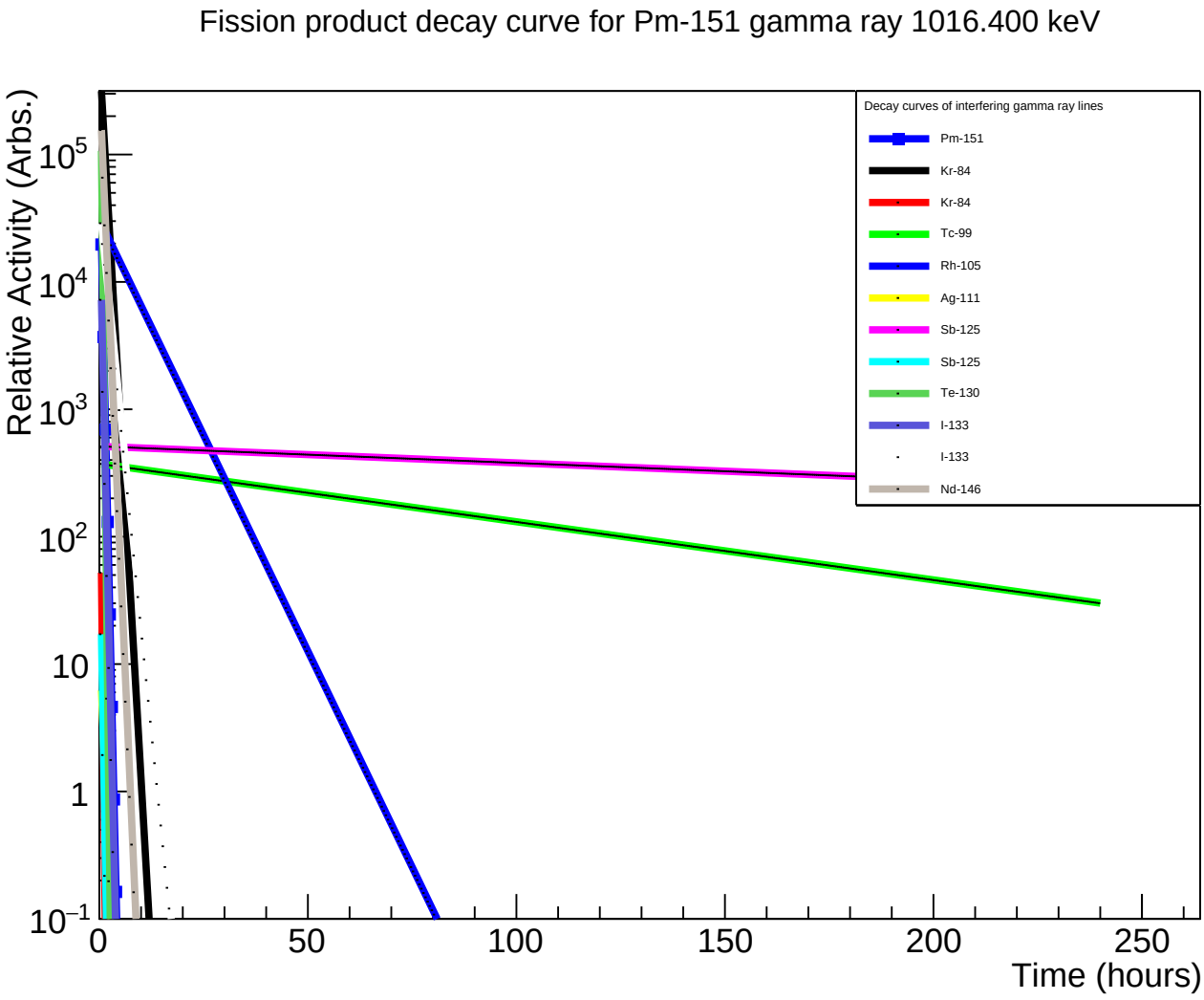


Figure 1099: Pm-151 decay curve for 1016.400 keV gamma ray.

3.1100 Nd-151 E_γ = 1122.63 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 1122.63 keV
Gamma Intensity = 4.08 ± 0.258 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2199: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2200: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1122.480	0.040	0.124	0.062
Nb-98	Mo-98	1121.600	0.001	0.855	0.000
Nb-98	Mo-98	1122.320	0.002	0.855	0.000
Sb-131	Te-131	1123.630	0.089	0.384	0.026
Te-133	I-133	1123.900	0.001	0.208	0.031
I-135	Xe-135	1124.000	0.036	6.570	0.063
Ba-142	La-142	1122.900	0.004	0.177	0.058
La-142	Ce-142	1121.200	0.000	1.518	0.058
La-143	Ce-143	1122.730	0.004	0.237	0.059

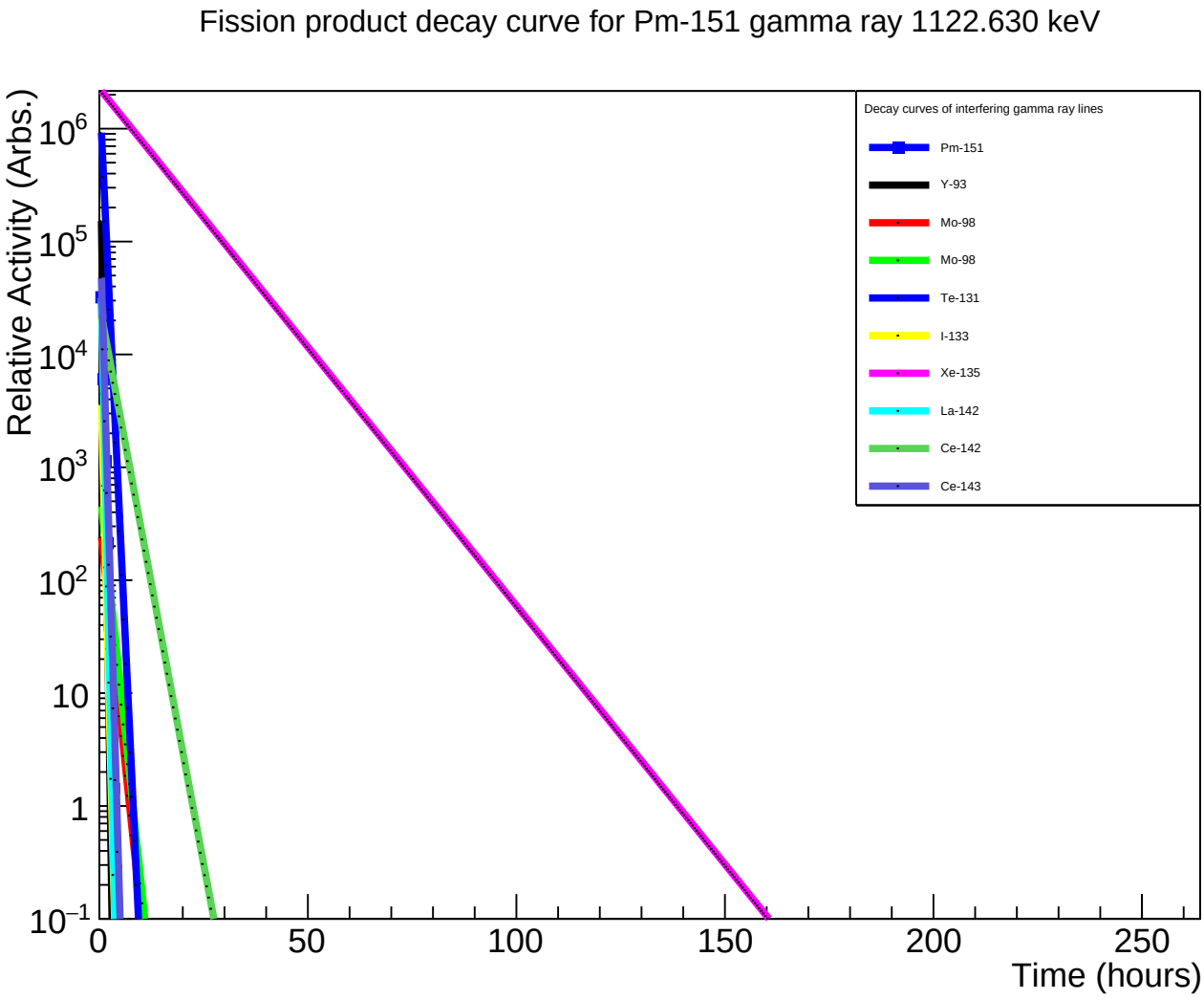


Figure 1100: Pm-151 decay curve for 1122.630 keV gamma ray.

3.1101 Nd-151 E_γ = 1180.89 keV

Chemical element: Neodymium
Fission product parent: Nd-151
Gamma originates in daughter: Pm-151
Eγ: 1180.89 keV
Gamma Intensity = 13.30 ± 0.843 %
$T_{1/2}$ = 0.207 ± 0.001 hours or 12.44 ± 0.07 minutes
CFY: 0.418 ± 0.017 %

Table 2201: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2202: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	1179.510	0.010	2.840	0.036
Sr-93	Y-93	1180.760	0.002	0.124	0.062
Ag-113	Cd-113	1180.800	0.000	5.370	0.000
Sb-128	Te-128	1181.600	0.045	9.010	0.000
Te-129	I-129	1181.960	0.000	1.160	0.005
Te-131	I-131	1181.400	0.000	33.250	0.004
Pr-144	Nd-144	1182.000	0.000	0.288	0.055

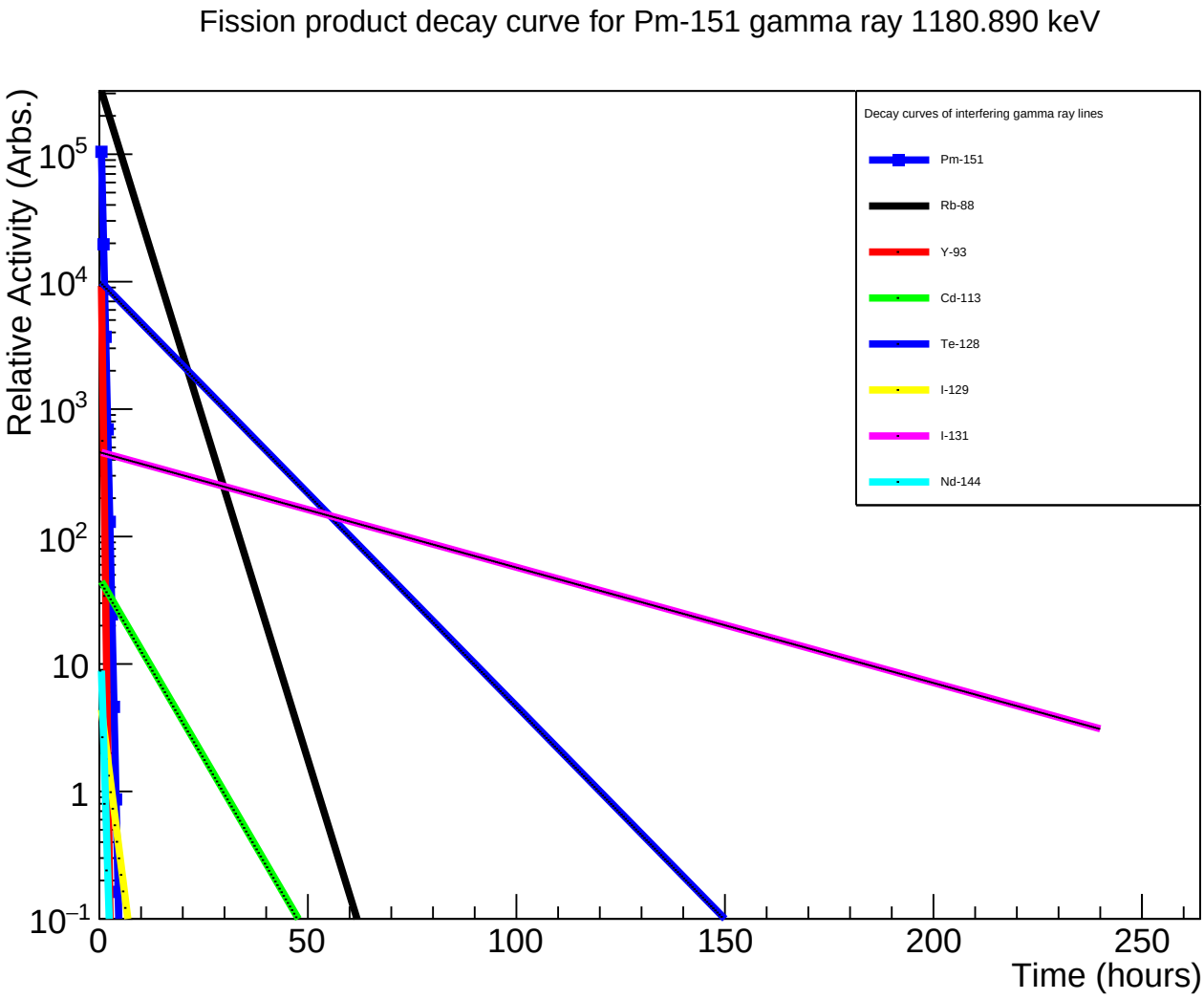


Figure 1101: Pm-151 decay curve for 1180.890 keV gamma ray.

3.1102 Nd-152 E_γ = 16.09 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 16.09 keV
Gamma Intensity = 4.84 ± 0.627 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2203: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

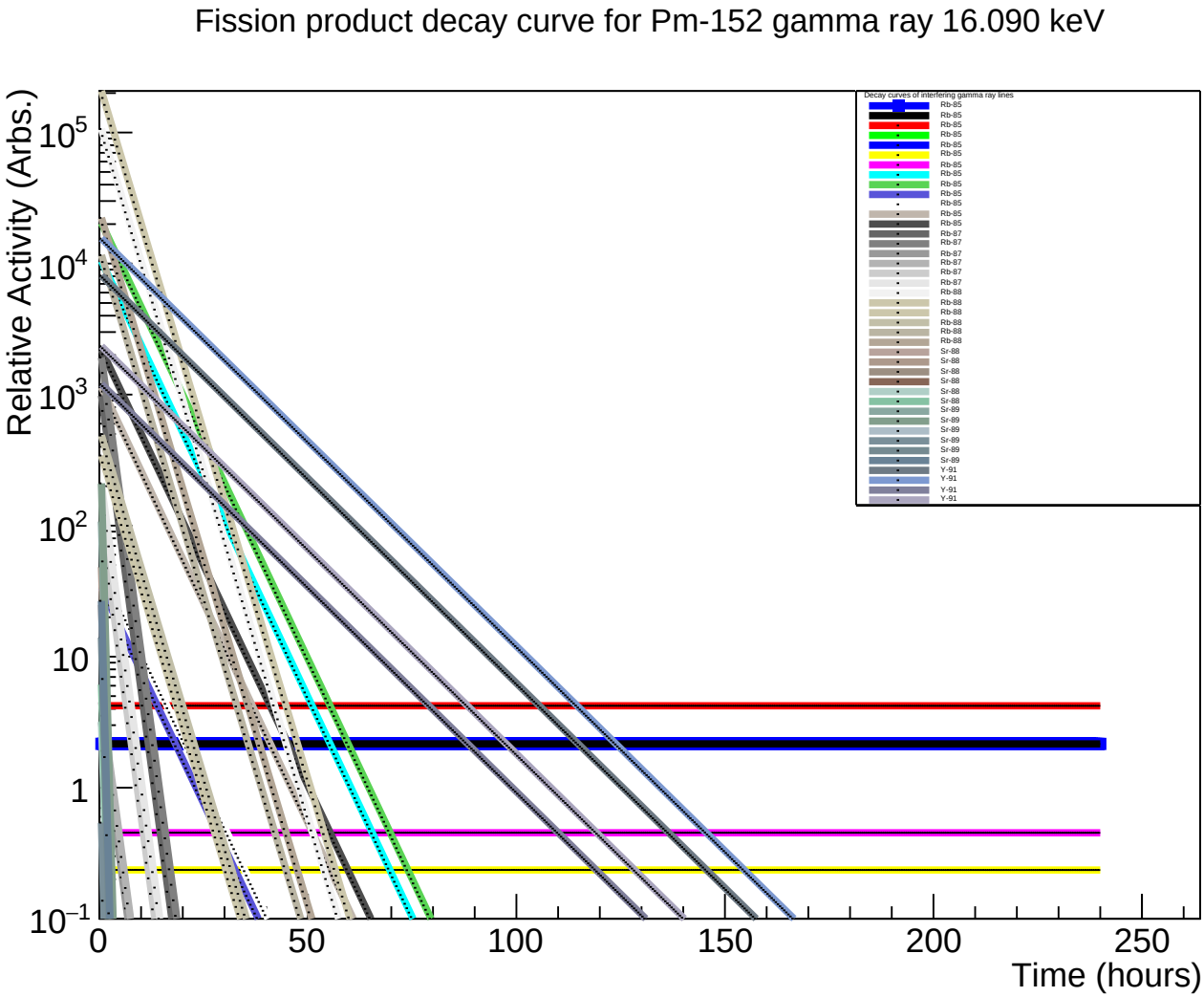


Figure 1102: Pm-152 decay curve for 16.090 keV gamma ray.

Table 2204: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-85	Rb-85	14.912	0.000	94166.664	0.003
Kr-85	Rb-85	14.922	0.000	94166.664	0.003
Kr-85	Rb-85	15.040	0.000	94166.664	0.003
Kr-85	Rb-85	15.041	0.000	94166.664	0.003
Kr-85	Rb-85	15.138	0.000	94166.664	0.003
Kr-85	Rb-85	15.139	0.000	94166.664	0.003
Kr-85	Rb-85	14.912	0.001	4.480	0.013
Kr-85	Rb-85	14.922	0.002	4.480	0.013
Kr-85	Rb-85	15.040	0.000	4.480	0.013
Kr-85	Rb-85	15.041	0.000	4.480	0.013
Kr-85	Rb-85	15.138	0.000	4.480	0.013
Kr-85	Rb-85	15.139	0.000	4.480	0.013
Kr-87	Rb-87	14.912	0.000	1.272	0.026
Kr-87	Rb-87	14.922	0.000	1.272	0.026
Kr-87	Rb-87	15.040	0.000	1.272	0.026
Kr-87	Rb-87	15.041	0.000	1.272	0.026
Kr-87	Rb-87	15.138	0.000	1.272	0.026
Kr-87	Rb-87	15.139	0.000	1.272	0.026
Kr-88	Rb-88	14.912	0.003	2.840	0.036
Kr-88	Rb-88	14.922	0.007	2.840	0.036
Kr-88	Rb-88	15.040	0.000	2.840	0.036
Kr-88	Rb-88	15.041	0.000	2.840	0.036
Kr-88	Rb-88	15.138	0.000	2.840	0.036
Kr-88	Rb-88	15.139	0.001	2.840	0.036
Rb-88	Sr-88	15.787	0.000	0.296	0.036
Rb-88	Sr-88	15.797	0.000	0.296	0.036
Rb-88	Sr-88	15.922	0.000	0.296	0.036
Rb-88	Sr-88	15.924	0.000	0.296	0.036
Rb-88	Sr-88	16.038	0.000	0.296	0.036
Rb-88	Sr-88	16.040	0.000	0.296	0.036
Rb-89	Sr-89	15.787	0.000	0.252	0.047
Rb-89	Sr-89	15.797	0.000	0.252	0.047
Rb-89	Sr-89	15.922	0.000	0.252	0.047
Rb-89	Sr-89	15.924	0.000	0.252	0.047
Rb-89	Sr-89	16.038	0.000	0.252	0.047
Rb-89	Sr-89	16.040	0.000	0.252	0.047
Sr-91	Y-91	14.840	0.000	9.630	0.058
Sr-91	Y-91	14.918	0.000	9.630	0.058
Sr-91	Y-91	16.688	0.000	9.630	0.058
Sr-91	Y-91	16.700	0.000	9.630	0.058

3.1103 Nd-152 E_γ = 44.44 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 44.44 keV
Gamma Intensity = 6.18 ± 0.924 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2205: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

Table 2206: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	44.700	0.000	13.701	0.000
Sn-128	Sb-128	45.700	0.130	0.984	0.003
Ba-140	La-140	43.800	0.000	306.065	0.062
Pr-143	Nd-143	43.344	0.000	325.680	0.060
Pr-143	Nd-143	43.367	0.000	325.680	0.060
Pr-143	Nd-143	43.468	0.000	325.680	0.060
Pr-143	Nd-143	43.472	0.000	325.680	0.060
Pr-144	Nd-144	43.344	0.000	0.288	0.055
Pr-144	Nd-144	43.367	0.000	0.288	0.055
Pr-144	Nd-144	43.468	0.000	0.288	0.055
Pr-144	Nd-144	43.472	0.000	0.288	0.055
Pr-144	Nd-144	43.344	0.000	0.120	0.000
Pr-144	Nd-144	43.367	0.000	0.120	0.000
Pr-144	Nd-144	43.468	0.000	0.120	0.000
Pr-144	Nd-144	43.472	0.000	0.120	0.000
Pr-145	Nd-145	43.335	0.000	5.984	0.039
Pr-146	Nd-146	43.344	0.000	0.403	0.030
Pr-146	Nd-146	43.367	0.000	0.403	0.030
Pr-146	Nd-146	43.468	0.000	0.403	0.030
Pr-146	Nd-146	43.472	0.000	0.403	0.030
Pr-147	Nd-147	43.335	0.023	0.223	0.022

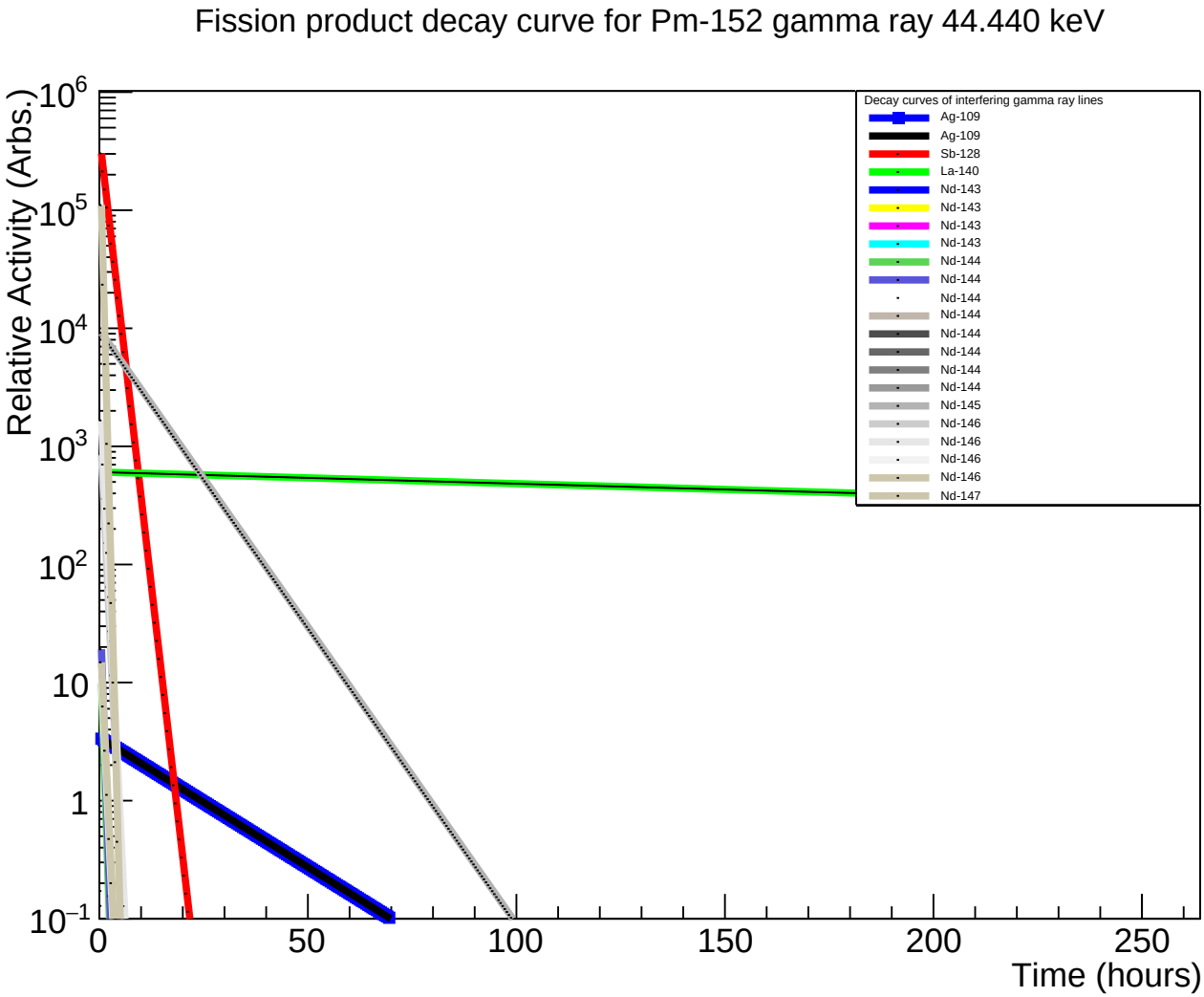


Figure 1103: Pm-152 decay curve for 44.440 keV gamma ray.

3.1104 Nd-152 E_γ = 250.15 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 250.15 keV
Gamma Intensity = 18.27 ± 2.081 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2207: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

Table 2208: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	249.030	0.000	65.976	0.061
Sb-128	Te-128	249.700	0.006	9.010	0.000
Te-129	I-129	250.620	0.004	1.160	0.005
Te-129	I-129	250.620	0.000	806.400	0.001
Te-133	I-133	251.400	0.000	0.208	0.031
Te-133	I-133	248.900	0.000	0.923	0.040
Te-133	I-133	251.510	0.003	0.923	0.040
I-132	Xe-132	250.800	0.000	2.295	0.043
Xe-135	Cs-135	249.794	0.900	9.140	0.065
Cs-139	Ba-139	249.890	0.000	0.155	0.063
Ce-146	Pr-146	250.890	0.025	0.225	0.030
Pr-147	Nd-147	249.200	0.014	0.223	0.022
Pm-151	Sm-151	250.500	0.000	28.400	0.004

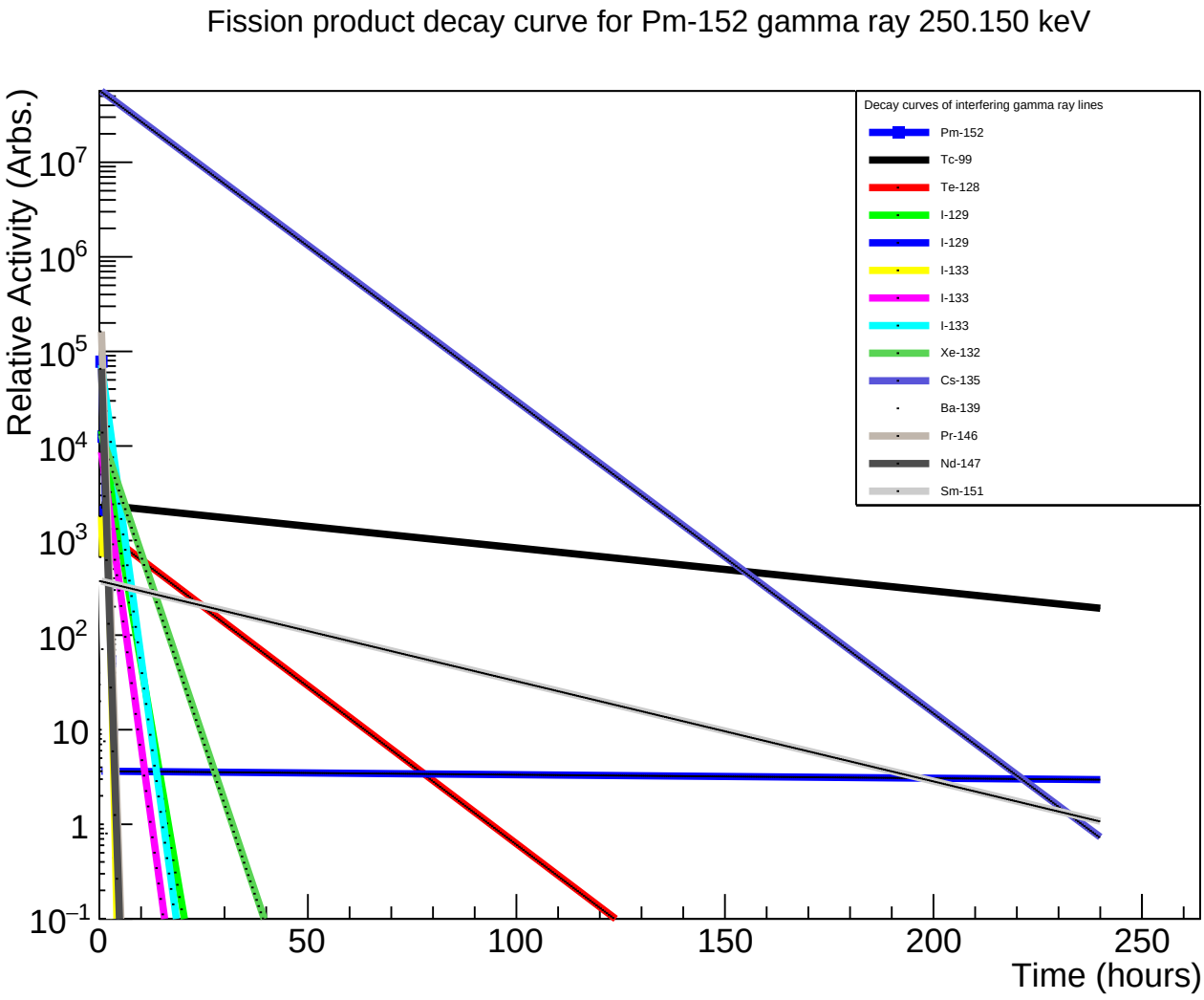


Figure 1104: Pm-152 decay curve for 250.150 keV gamma ray.

3.1105 Nd-152 E_γ = 278.56 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 278.56 keV
Gamma Intensity = 29.00 ± 3.468 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2209: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

Table 2210: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	277.300	0.960	1.467	0.000
Tc-104	Ru-104	277.100	0.003	0.305	0.019
Rh-107	Pd-107	277.580	0.017	0.362	0.001
Pd-111	Ag-111	279.000	0.000	0.390	0.000
Ag-111	Cd-111	278.300	0.000	178.800	0.000
Sn-125	Sb-125	278.560	0.000	0.159	0.000
Sn-127	Sb-127	279.300	0.006	2.100	0.001
Te-129	I-129	278.430	0.006	1.160	0.005
Te-129	I-129	278.430	0.000	806.400	0.001
Te-131	I-131	278.170	0.001	0.417	0.025
Te-131	I-131	278.560	0.017	33.250	0.004
Te-133	I-133	278.000	0.005	0.923	0.040
Te-134	I-134	277.951	0.212	0.697	0.070
I-132	Xe-132	278.400	0.001	2.295	0.043
I-134	Xe-134	278.800	0.001	0.875	0.078
Pm-149	Sm-149	277.090	0.000	53.080	0.011
Pm-151	Sm-151	277.620	0.001	28.400	0.004
Pm-151	Sm-151	278.200	0.000	28.400	0.004
Sm-155	Eu-155	280.000	0.000	0.372	0.000

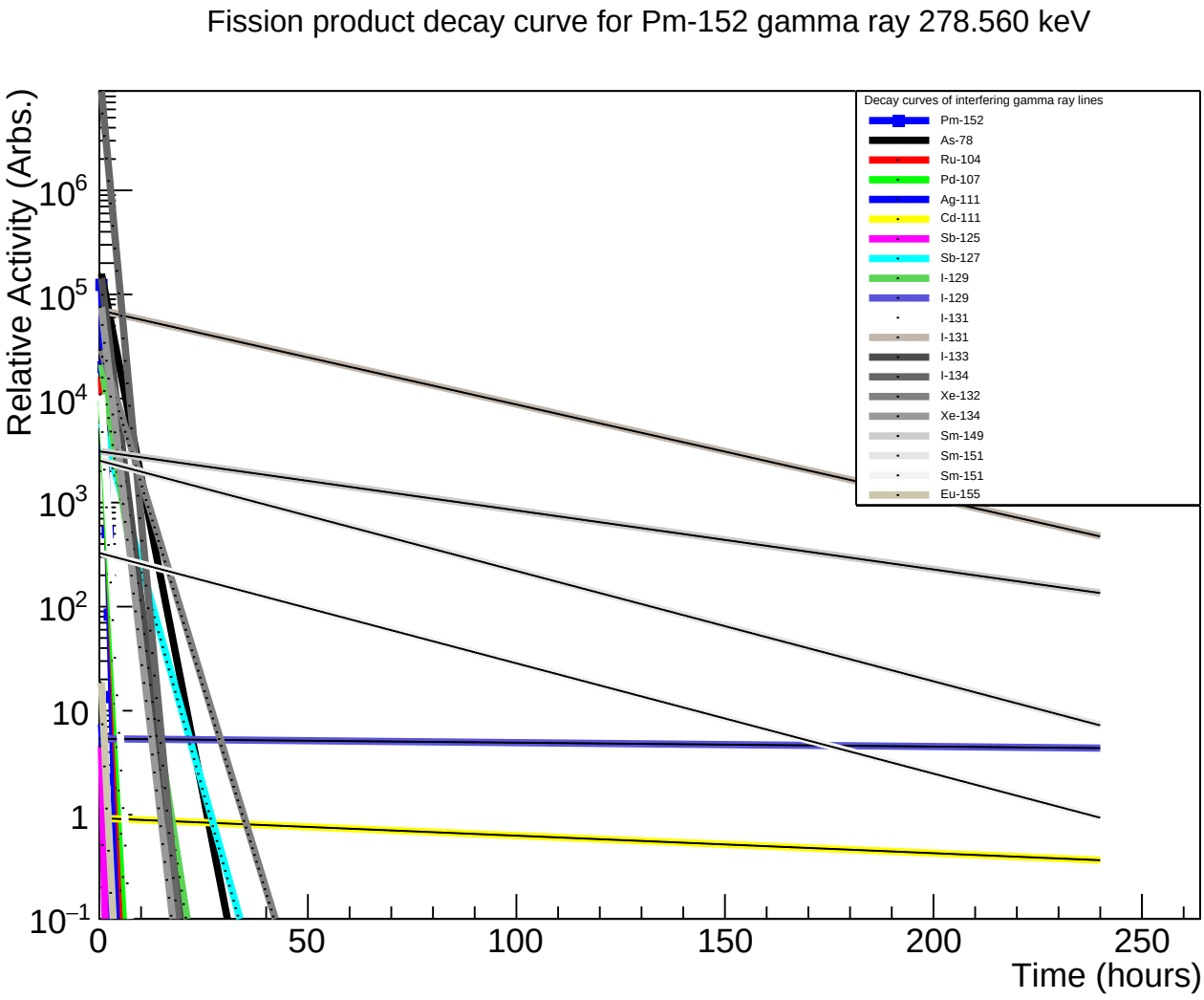


Figure 1105: Pm-152 decay curve for 278.560 keV gamma ray.

3.1106 Nd-152 E_γ = 294.47 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 294.47 keV
Gamma Intensity = 3.28 ± 0.381 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2211: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

Table 2212: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Ge-78	As-78	293.900	0.040	1.467	0.000
Tc-101	Ru-101	295.170	0.000	0.237	0.052
Tc-104	Ru-104	294.900	0.006	0.305	0.019
Ru-103	Rh-103	294.964	0.003	941.928	0.030
Sb-127	Te-127	293.300	0.003	92.400	0.002
Sb-129	Te-129	295.500	0.010	4.400	0.005
Sb-131	Te-131	295.700	0.016	0.384	0.026
Te-131	I-131	294.750	0.000	0.417	0.025
Te-133	I-133	294.820	0.002	0.923	0.040
I-131	Xe-131	295.800	0.000	192.605	0.029
Ce-143	Pr-143	293.266	0.428	33.039	0.060
Pm-151	Sm-151	294.800	0.000	28.400	0.004
Pm-151	Sm-151	295.200	0.000	28.400	0.004

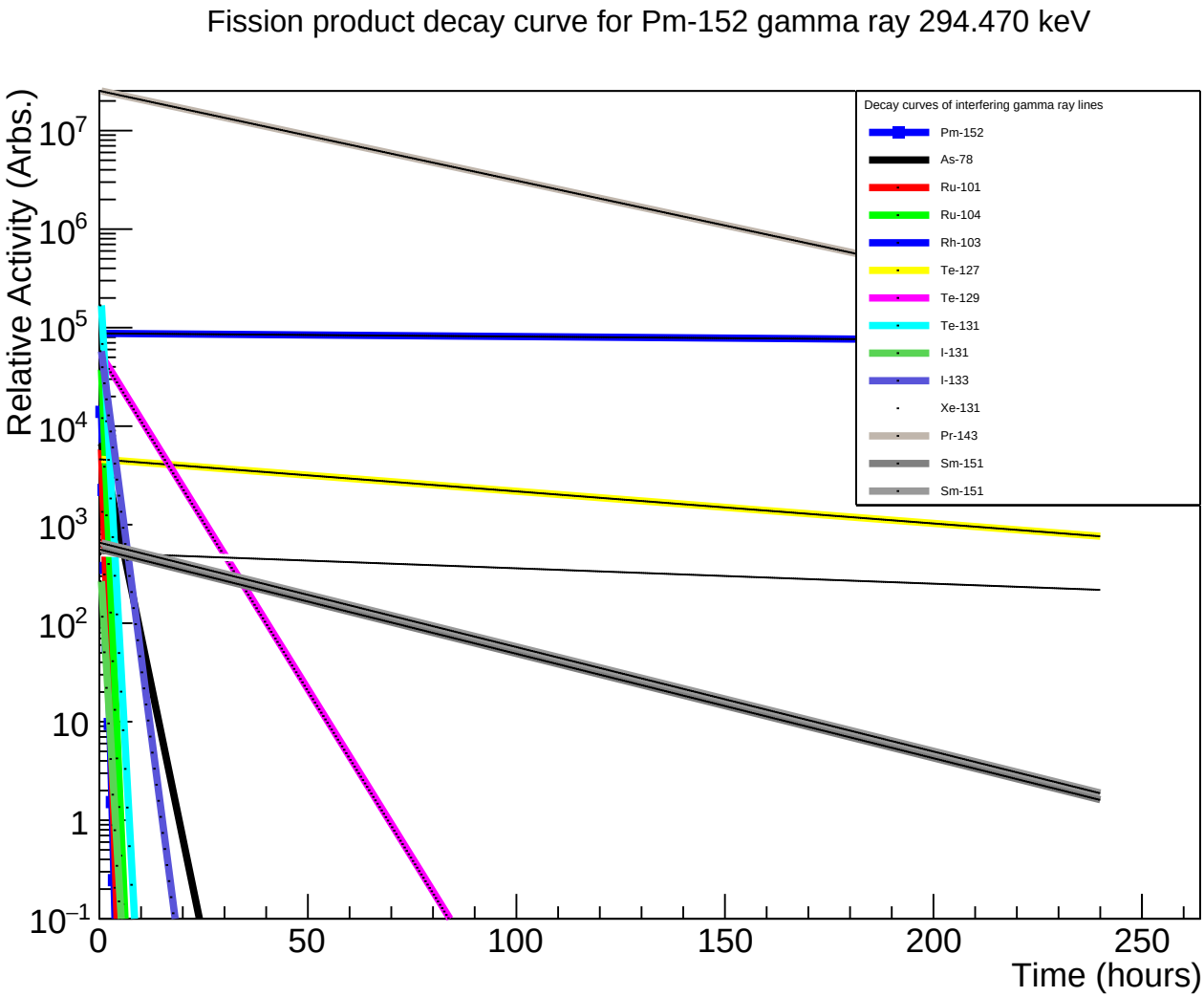


Figure 1106: Pm-152 decay curve for 294.470 keV gamma ray.

3.1107 Nd-152 E_γ = 592.50 keV

Chemical element: Neodymium
Fission product parent: Nd-152
Gamma originates in daughter: Pm-152
Eγ: 592.50 keV
Gamma Intensity = 1.10 ± 0.143 %
$T_{1/2}$ = 0.190 ± 0.003 hours or 11.40 ± 0.20 minutes
CFY: 0.264 ± 0.011 %

Table 2213: Decay chain of fission product chain A = 152

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-152	Neodymium-152	0.001	0.000
Neodymium-152	Promethium-152	0.190	0.003
Promethium-152	Samarium-152	0.069	0.001

Table 2214: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	593.410	0.007	0.372	0.003
Sr-91	Y-91	593.100	0.001	9.630	0.058
Sr-93	Y-93	593.810	0.011	0.124	0.062
Ru-105	Rh-105	591.200	0.001	4.440	0.010
Sn-127	Sb-127	592.300	0.020	2.100	0.001
Te-127	I-127	593.300	0.000	2616.000	0.000
Te-133	I-133	593.000	0.002	0.208	0.031
I-132	Xe-132	591.100	0.001	2.295	0.043
Pm-151	Sm-151	593.600	0.000	28.400	0.004

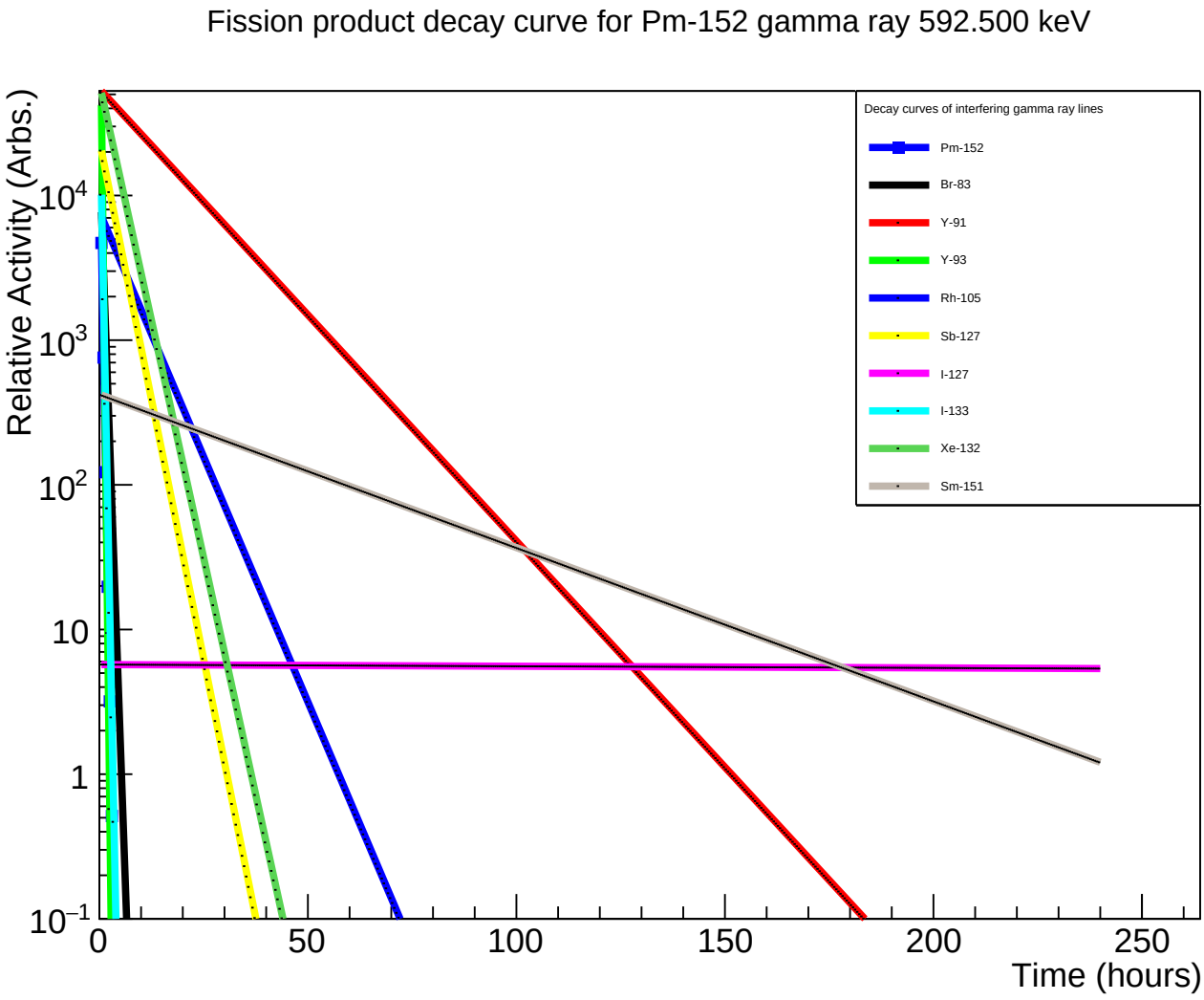


Figure 1107: Pm-152 decay curve for 592.500 keV gamma ray.

3.1108 Pm-149 E_γ = 285.95 keV

Chemical element: Promethium
Fission product parent: Pm-149
Gamma originates in daughter: Sm-149
Eγ: 285.95 keV
Gamma Intensity = 3.10 ± 0.200 %
$T_{1/2}$ = 53.080 ± 0.050 hours or 3184.80 ± 3.00 minutes
CFY: 1.082 ± 0.022 %

Table 2215: Decay chain of fission product chain A = 149

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-149	Neodymium-149	0.038	0.001
Neodymium-149	Promethium-149	1.728	0.001
Promethium-149	Samarium-149	53.080	0.050

Table 2216: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	285.650	0.003	0.124	0.062
Tc-104	Ru-104	285.500	0.004	0.305	0.019
Ru-105	Rh-105	286.300	0.000	4.440	0.010
Pd-109	Ag-109	286.300	0.000	13.701	0.000
Sn-125	Sb-125	286.200	0.000	231.360	0.000
Sn-129	Sb-129	286.300	0.014	0.115	0.002
Sb-130	Te-130	285.480	0.035	0.658	0.008
Te-133	I-133	284.800	0.002	0.923	0.040
I-132	Xe-132	284.900	0.007	2.295	0.043
Ba-142	La-142	286.300	0.011	0.177	0.058
Nd-151	Pm-151	284.700	0.000	0.207	0.004
Sm-155	Eu-155	287.100	0.000	0.372	0.000

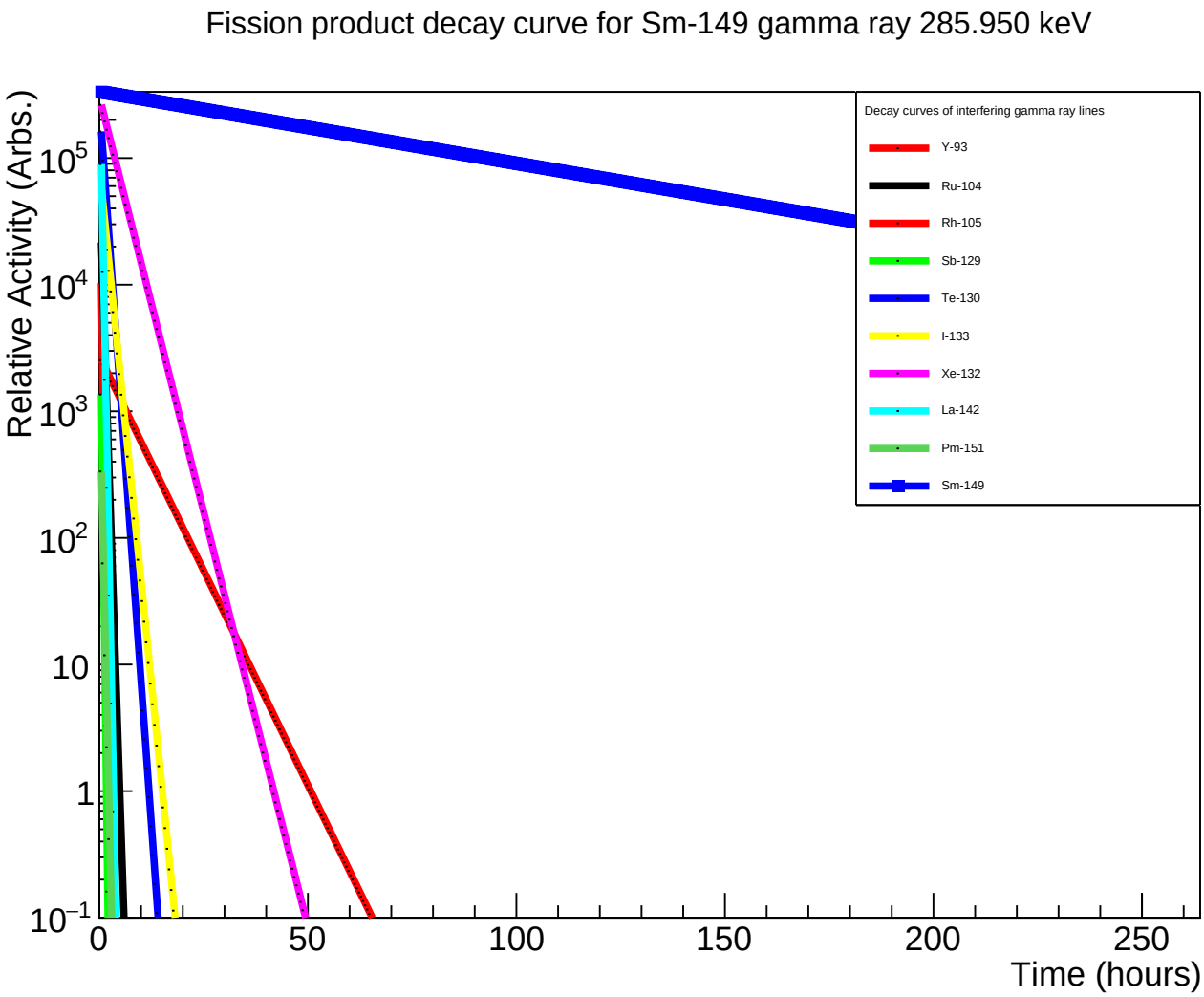


Figure 1108: Sm-149 decay curve for 285.950 keV gamma ray.

3.1109 Pm-151 E_γ = 64.88 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 64.88 keV
Gamma Intensity = 1.89 ± 0.175 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2217: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2218: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-126	Sb-126	64.281	0.096	2016666624.000	0.001
Te-131	I-131	65.050	0.000	33.250	0.004
Ba-142	La-142	63.600	0.001	0.177	0.058
La-140	Ce-140	64.135	0.000	40.285	0.062
Nd-149	Pm-149	65.230	0.000	1.728	0.011
Nd-149	Pm-149	65.420	0.000	1.728	0.011
Sm-155	Eu-155	64.500	0.000	0.372	0.000
Sm-156	Eu-156	65.000	0.023	9.400	0.000

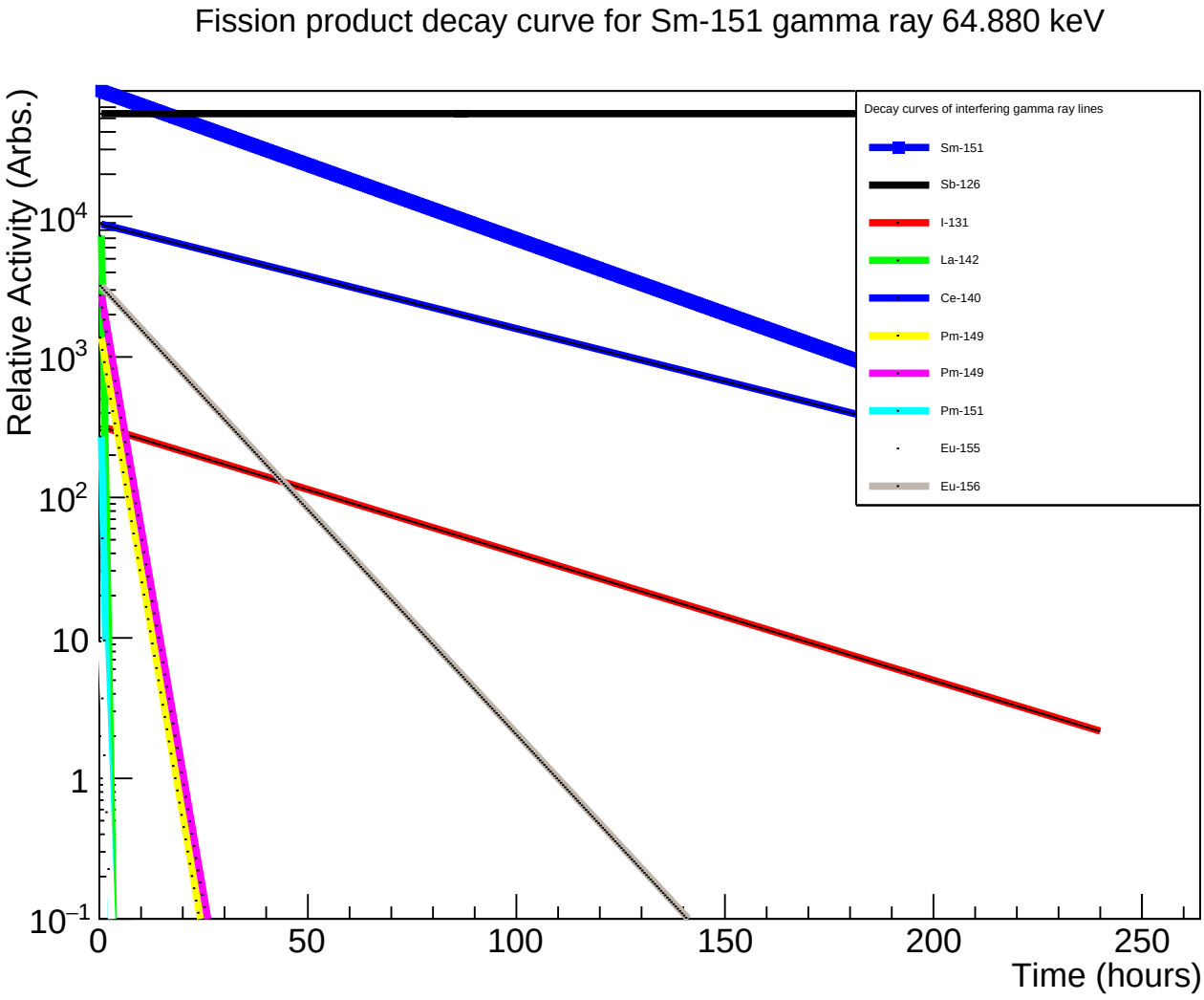


Figure 1109: Sm-151 decay curve for 64.880 keV gamma ray.

3.1110 Pm-151 E_γ = 65.83 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 65.83 keV
Gamma Intensity = 1.15 ± 0.101 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2219: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2220: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-127	Sb-127	66.400	0.001	2.100	0.001
Te-131	I-131	65.050	0.000	33.250	0.004
Te-133	I-133	67.220	0.001	0.208	0.031
Pr-145	Nd-145	67.100	0.000	5.984	0.039
Nd-149	Pm-149	65.230	0.000	1.728	0.011
Nd-149	Pm-149	65.420	0.000	1.728	0.011
Nd-149	Pm-149	67.200	0.000	1.728	0.011
Sm-155	Eu-155	64.500	0.000	0.372	0.000
Sm-156	Eu-156	65.000	0.023	9.400	0.000

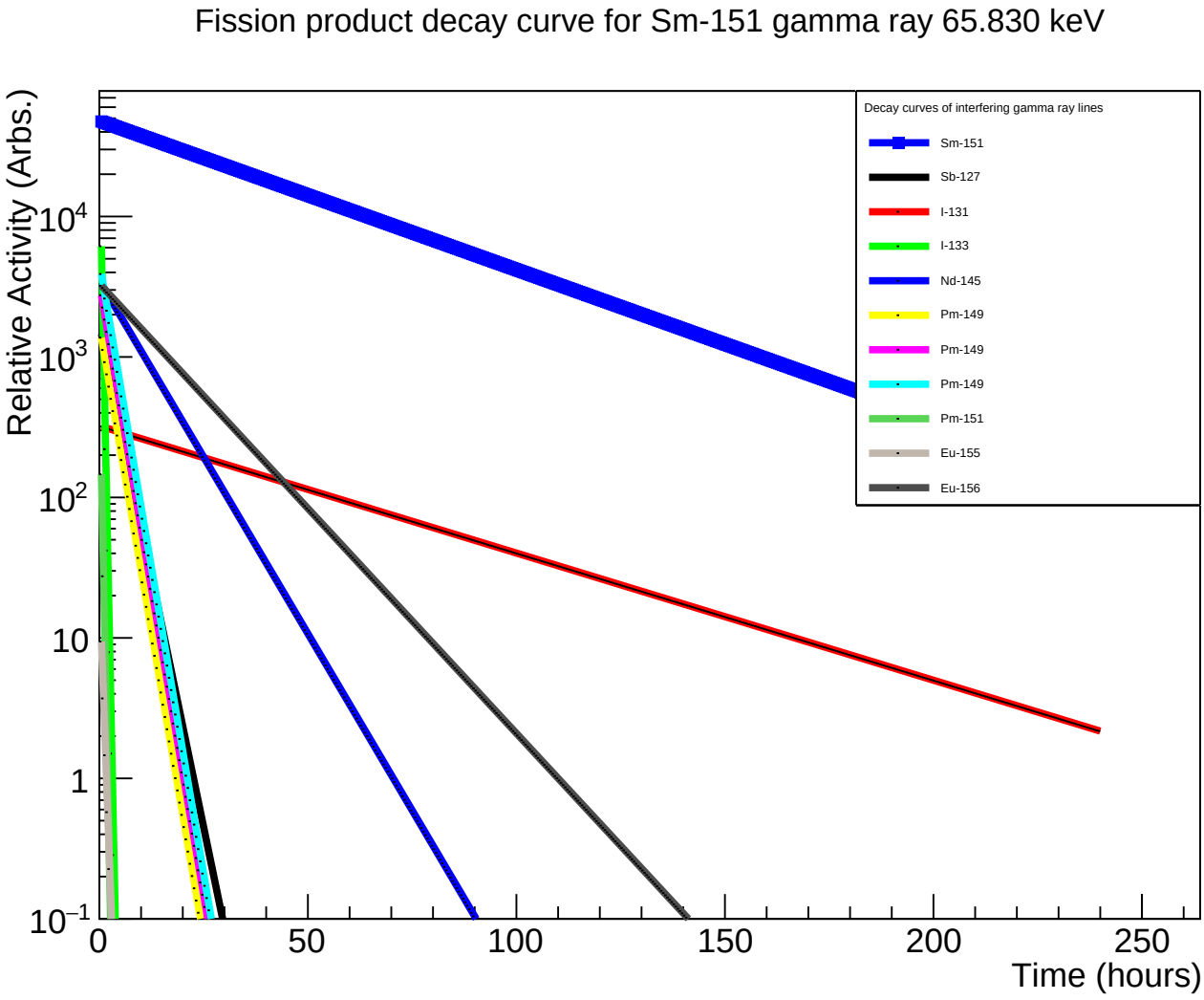


Figure 1110: Sm-151 decay curve for 65.830 keV gamma ray.

3.1111 Pm-151 E_γ = 100.02 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 100.02 keV
Gamma Intensity = 2.54 ± 0.187 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2221: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2222: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	101.400	0.000	0.390	0.000
Te-131	I-131	100.000	0.001	33.250	0.004
Te-134	I-134	101.420	0.004	0.697	0.070
Ba-140	La-140	99.490	0.000	306.065	0.062
Ce-144	Pr-144	99.961	0.000	6833.333	0.055
Ce-146	Pr-146	98.550	0.032	0.225	0.030
Ce-146	Pr-146	100.880	0.025	0.225	0.030
Pr-147	Nd-147	99.900	0.005	0.223	0.022

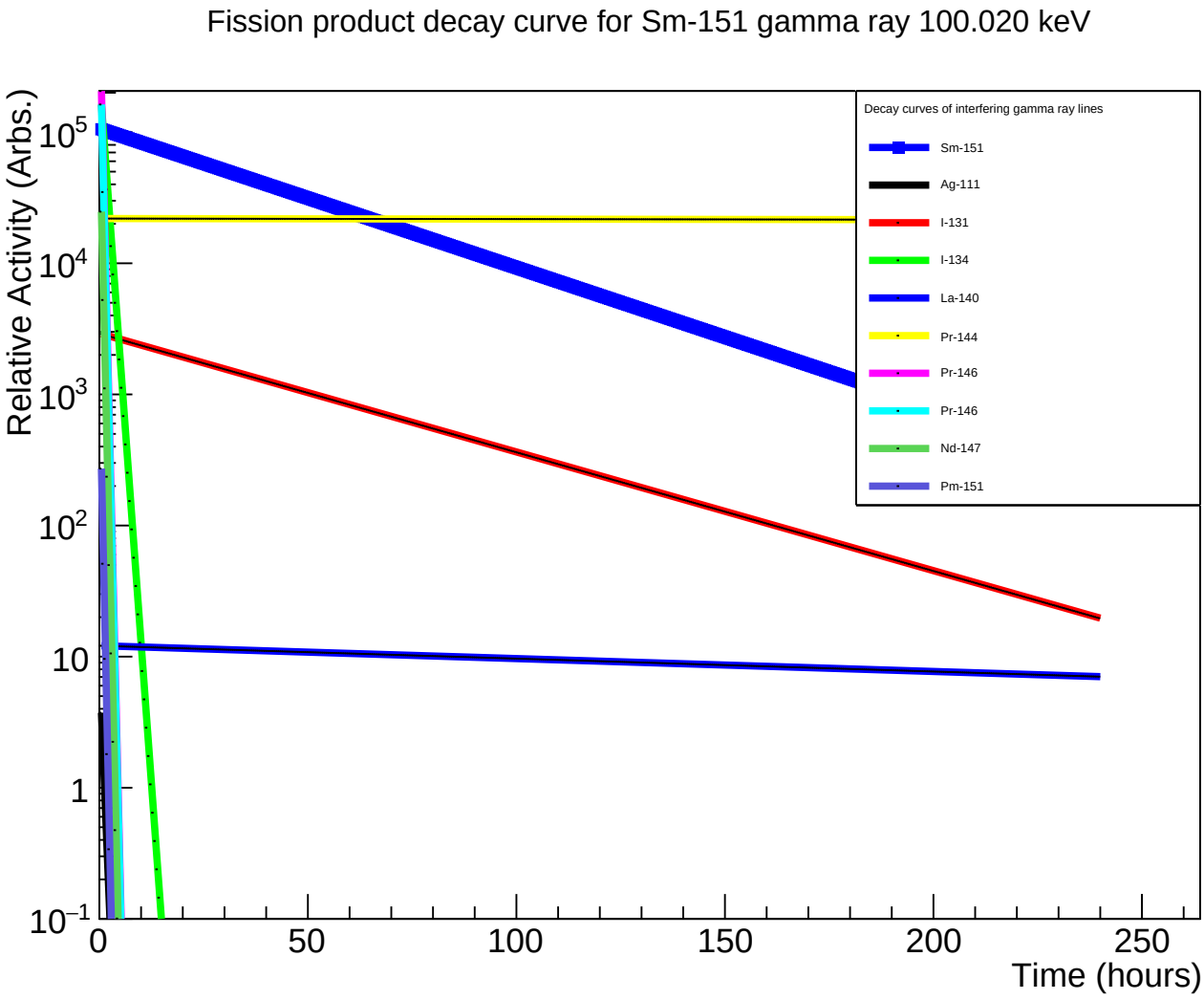


Figure 1111: Sm-151 decay curve for 100.020 keV gamma ray.

3.1112 Pm-151 E_γ = 101.93 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 101.93 keV
Gamma Intensity = 1.28 ± 0.104 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2223: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2224: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	102.400	0.000	0.362	0.001
Pd-111	Ag-111	101.400	0.000	0.390	0.000
Sb-128	Te-128	102.800	0.004	9.010	0.000
Te-131	I-131	101.600	0.002	33.250	0.004
Te-131	I-131	102.060	0.077	33.250	0.004
Te-131	I-131	103.300	0.000	33.250	0.004
Te-134	I-134	101.420	0.004	0.697	0.070
Ce-146	Pr-146	100.880	0.025	0.225	0.030
Sm-153	Eu-153	103.180	0.292	46.500	0.002
Sm-156	Eu-156	103.000	0.018	9.400	0.000

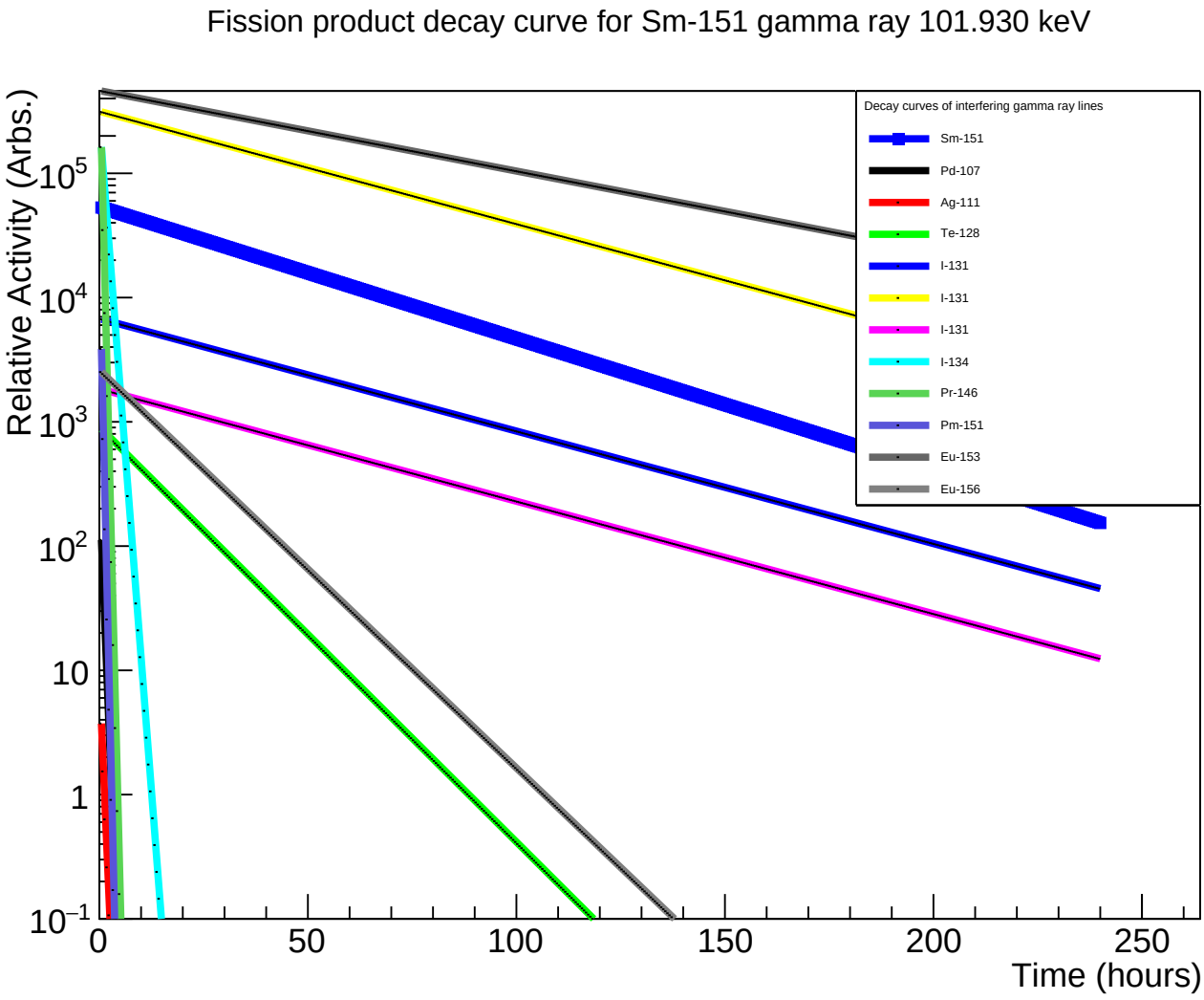


Figure 1112: Sm-151 decay curve for 101.930 keV gamma ray.

3.1113 Pm-151 E_γ = 104.84 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 104.84 keV
Gamma Intensity = 3.51 ± 0.265 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2225: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2226: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	103.900	0.000	13.701	0.000
Sn-127	Sb-127	104.100	0.002	2.100	0.001
Te-129	I-129	105.500	0.001	806.400	0.001
Te-131	I-131	105.000	0.000	33.250	0.004
La-142	Ce-142	105.900	0.001	1.518	0.058
Ce-146	Pr-146	106.170	0.006	0.225	0.030
Sm-155	Eu-155	104.320	0.746	0.372	0.000
Eu-155	Gd-155	105.308	0.211	41666.668	0.000

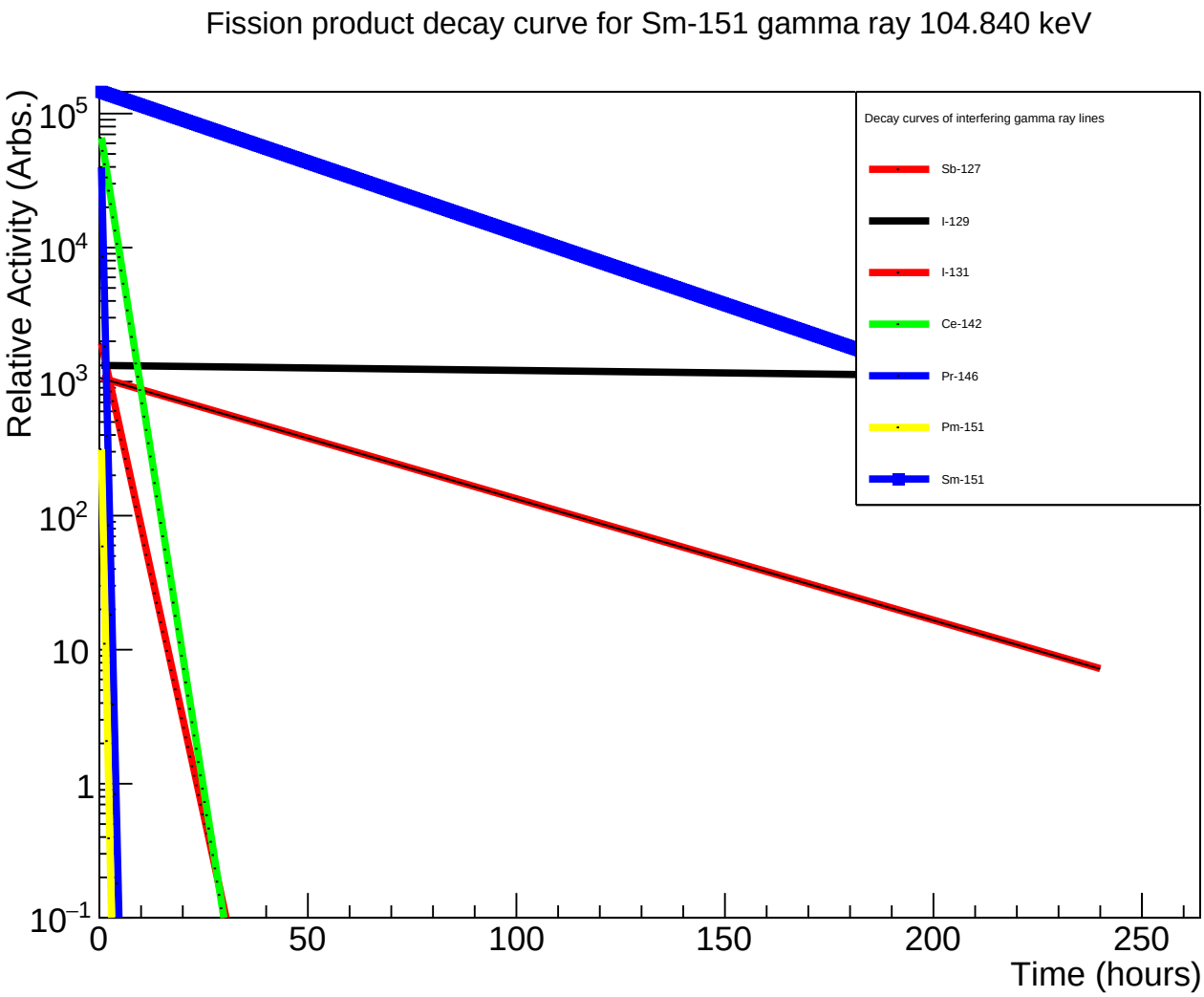


Figure 1113: Sm-151 decay curve for 104.840 keV gamma ray.

3.1114 Pm-151 E_γ = 163.58 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 163.58 keV
Gamma Intensity = 1.55 ± 0.129 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2227: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2228: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	162.530	0.000	0.855	0.000
Mo-99	Tc-99	162.370	0.000	65.976	0.061
Tc-104	Ru-104	163.200	0.004	0.305	0.019
Tc-105	Ru-105	162.300	0.006	0.127	0.010
Tc-105	Ru-105	164.800	0.003	0.127	0.010
Ru-105	Rh-105	163.460	0.002	4.440	0.010
Te-133	I-133	164.400	0.009	0.923	0.040
I-134	Xe-134	162.480	0.003	0.875	0.078
I-135	Xe-135	162.650	0.000	6.570	0.063
Xe-131	Cs-131	163.930	0.019	284.160	0.000
Ba-140	La-140	162.660	0.062	306.065	0.062
Ba-141	La-141	163.000	0.003	0.304	0.058
Ba-142	La-142	162.300	0.001	0.177	0.058

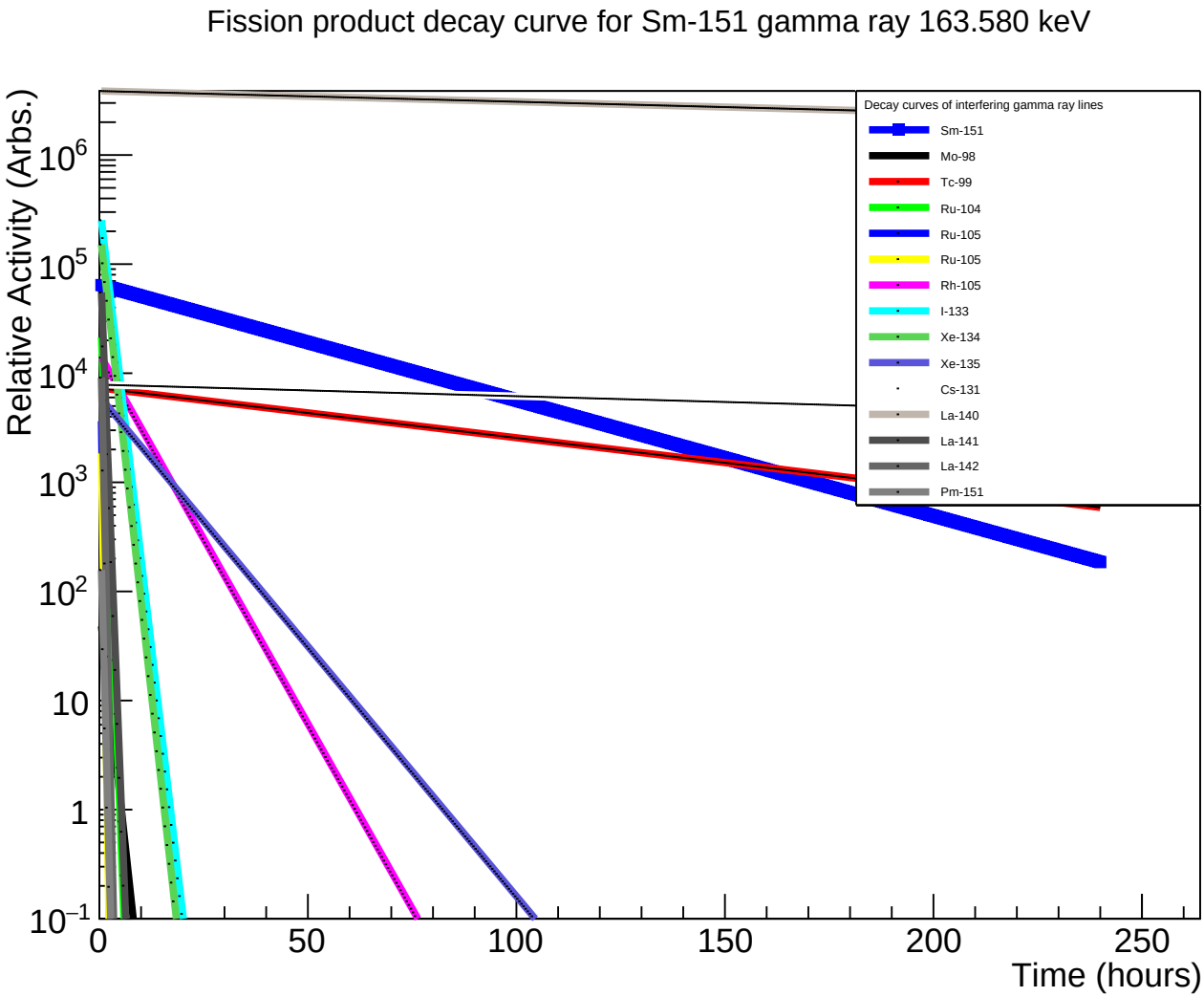


Figure 1114: Sm-151 decay curve for 163.580 keV gamma ray.

3.1115 Pm-151 E_γ = 167.75 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 167.75 keV
Gamma Intensity = 8.33 ± 0.560 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2229: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2230: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	168.500	0.000	2.840	0.036
Sr-93	Y-93	166.600	0.006	0.124	0.062
Tc-105	Ru-105	169.200	0.006	0.127	0.010
Sn-127	Sb-127	169.200	0.020	2.100	0.001
Te-133	I-133	169.025	0.050	0.923	0.040
Pr-147	Nd-147	168.200	0.000	0.223	0.022
Sm-153	Eu-153	166.555	0.000	46.500	0.002
Sm-155	Eu-155	167.160	0.000	0.372	0.000
Sm-155	Eu-155	169.100	0.000	0.372	0.000

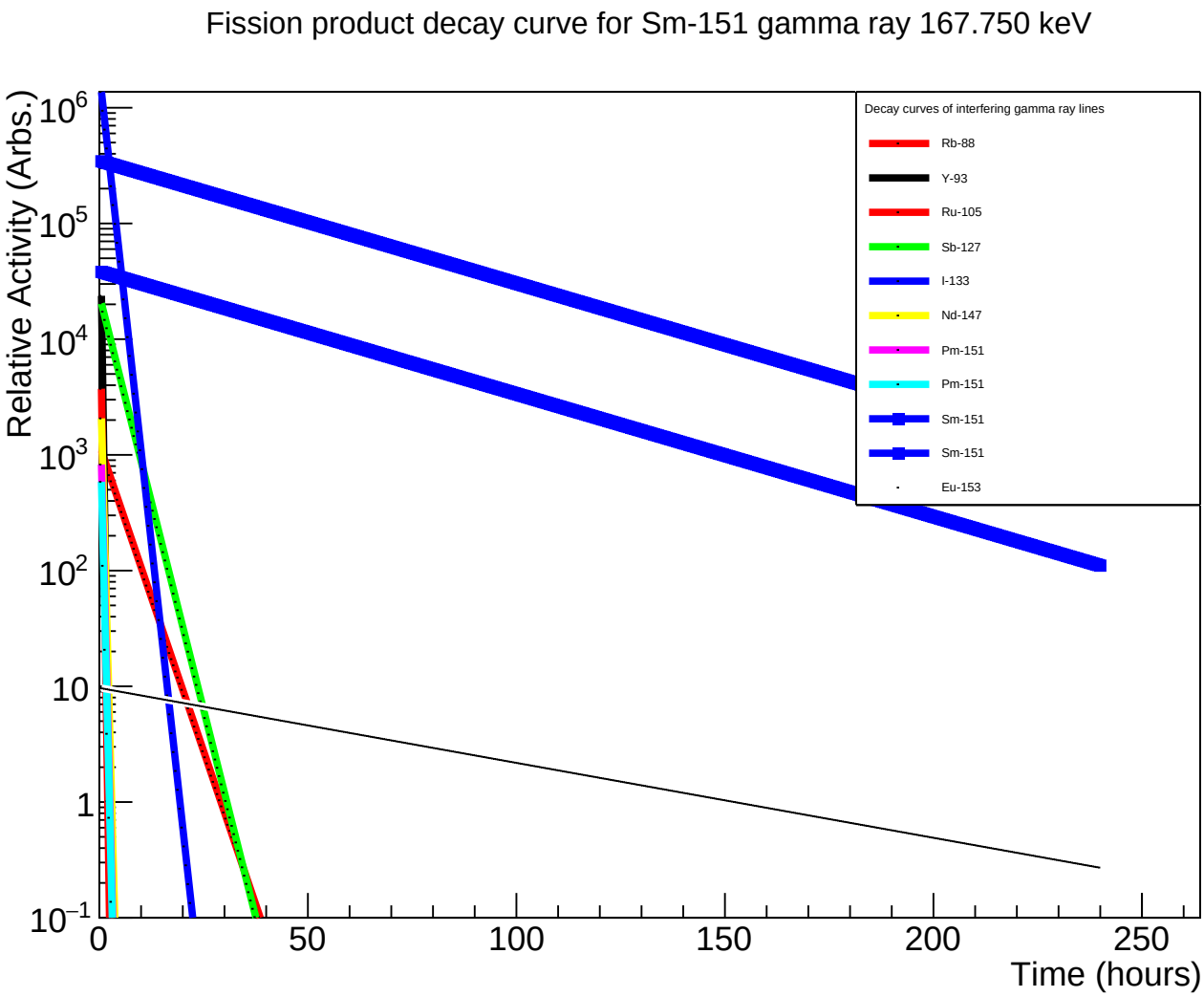


Figure 1115: Sm-151 decay curve for 167.750 keV gamma ray.

3.1116 Pm-151 E_γ = 177.16 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 177.16 keV
Gamma Intensity = 3.82 ± 0.272 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2231: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2232: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	178.260	0.000	0.308	0.002
Kr-88	Rb-88	176.710	0.000	2.840	0.036
Nb-98	Mo-98	177.400	0.000	0.855	0.000
Tc-104	Ru-104	176.800	0.006	0.305	0.019
Sn-127	Sb-127	178.000	0.001	2.100	0.001
Sb-125	Te-125	176.314	0.068	24194.445	0.000
Te-131	I-131	177.200	0.001	33.250	0.004
Te-133	I-133	176.900	0.002	0.923	0.040
Te-133	I-133	177.190	0.002	0.923	0.040
Te-133	I-133	178.100	0.003	0.923	0.040
I-131	Xe-131	177.214	0.003	192.605	0.029
Ba-142	La-142	177.000	0.017	0.177	0.058
La-142	Ce-142	178.300	0.002	1.518	0.058
Nd-149	Pm-149	176.270	0.000	1.728	0.011
Nd-149	Pm-149	177.818	0.002	1.728	0.011
Nd-152	Pm-152	176.600	0.000	0.190	0.003
Sm-155	Eu-155	178.300	0.000	0.372	0.000

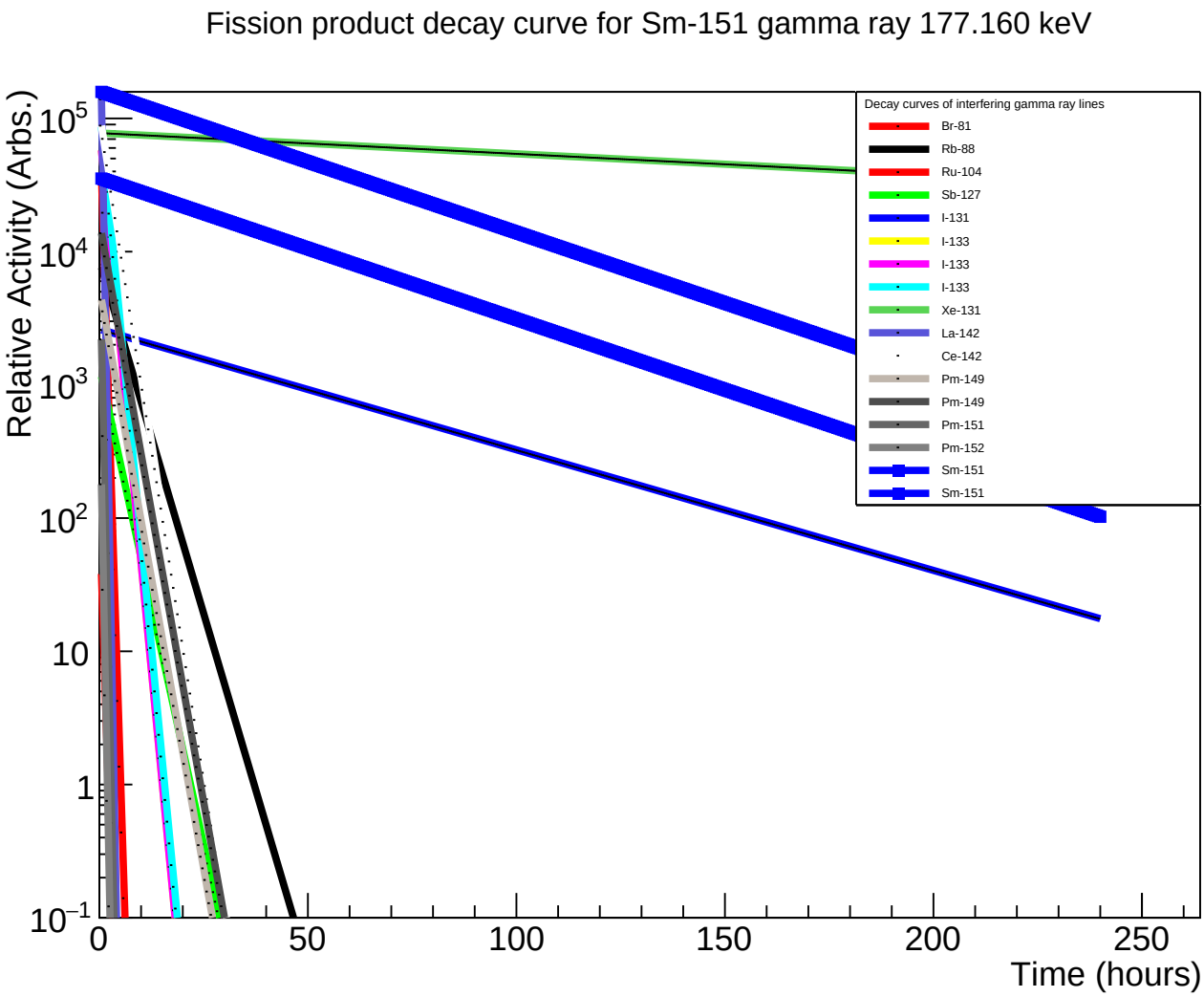


Figure 1116: Sm-151 decay curve for 177.160 keV gamma ray.

3.1117 Pm-151 E_γ = 209.00 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 209.00 keV
Gamma Intensity = 1.73 ± 0.132 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2233: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2234: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	208.300	0.019	0.372	0.003
Tc-105	Ru-105	208.900	0.013	0.127	0.010
Sn-127	Sb-127	208.000	0.002	2.100	0.001
Sb-125	Te-125	208.077	0.002	24194.445	0.000
Sb-125	Te-125	209.320	0.000	24194.445	0.000
Te-129	I-129	208.960	0.002	1.160	0.005
Te-129	I-129	208.960	0.000	806.400	0.001
Te-131	I-131	207.500	0.000	33.250	0.004
Te-134	I-134	210.465	0.227	0.697	0.070
Ce-146	Pr-146	210.460	0.049	0.225	0.030
Nd-149	Pm-149	208.147	0.025	1.728	0.011

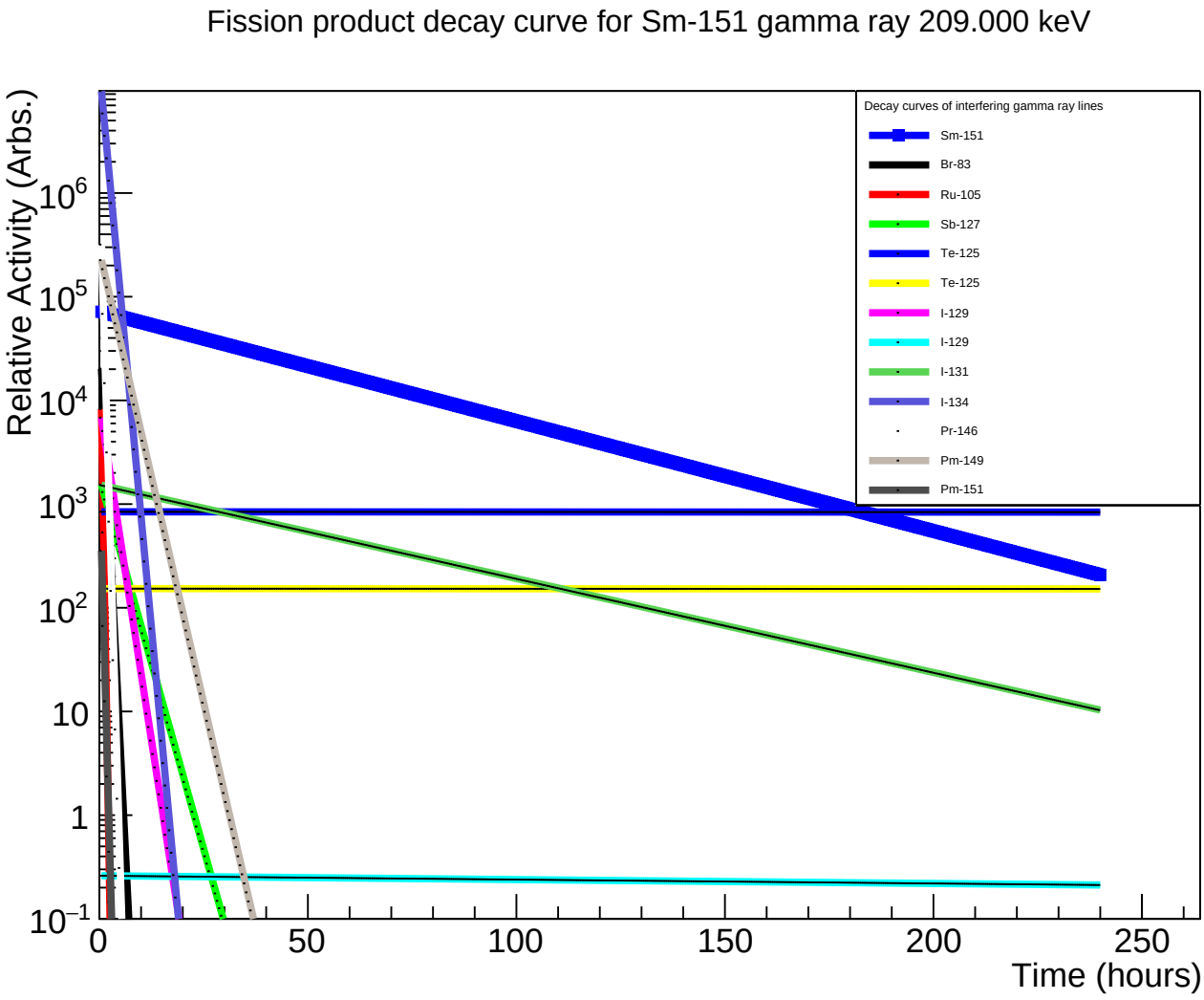


Figure 1117: Sm-151 decay curve for 209.000 keV gamma ray.

3.1118 Pm-151 E_γ = 232.43 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 232.43 keV
Gamma Intensity = 1.04 ± 0.099 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2235: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2236: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	232.800	0.000	6.007	0.054
Tc-101	Ru-101	233.700	0.003	0.237	0.052
Rh-107	Pd-107	232.370	0.002	0.362	0.001
Cd-115	In-115	231.443	0.007	53.460	0.000
Sn-127	Sb-127	232.200	0.008	2.100	0.001
Sn-129	Sb-129	232.500	0.007	0.115	0.002
Te-131	I-131	232.300	0.001	33.250	0.004
I-131	Xe-131	232.180	0.000	192.605	0.029
Xe-133	Cs-133	233.221	0.102	52.560	0.002
Cs-139	Ba-139	233.450	0.000	0.155	0.063
Ba-142	La-142	231.611	0.121	0.177	0.058
Ce-143	Pr-143	231.550	0.021	33.039	0.060

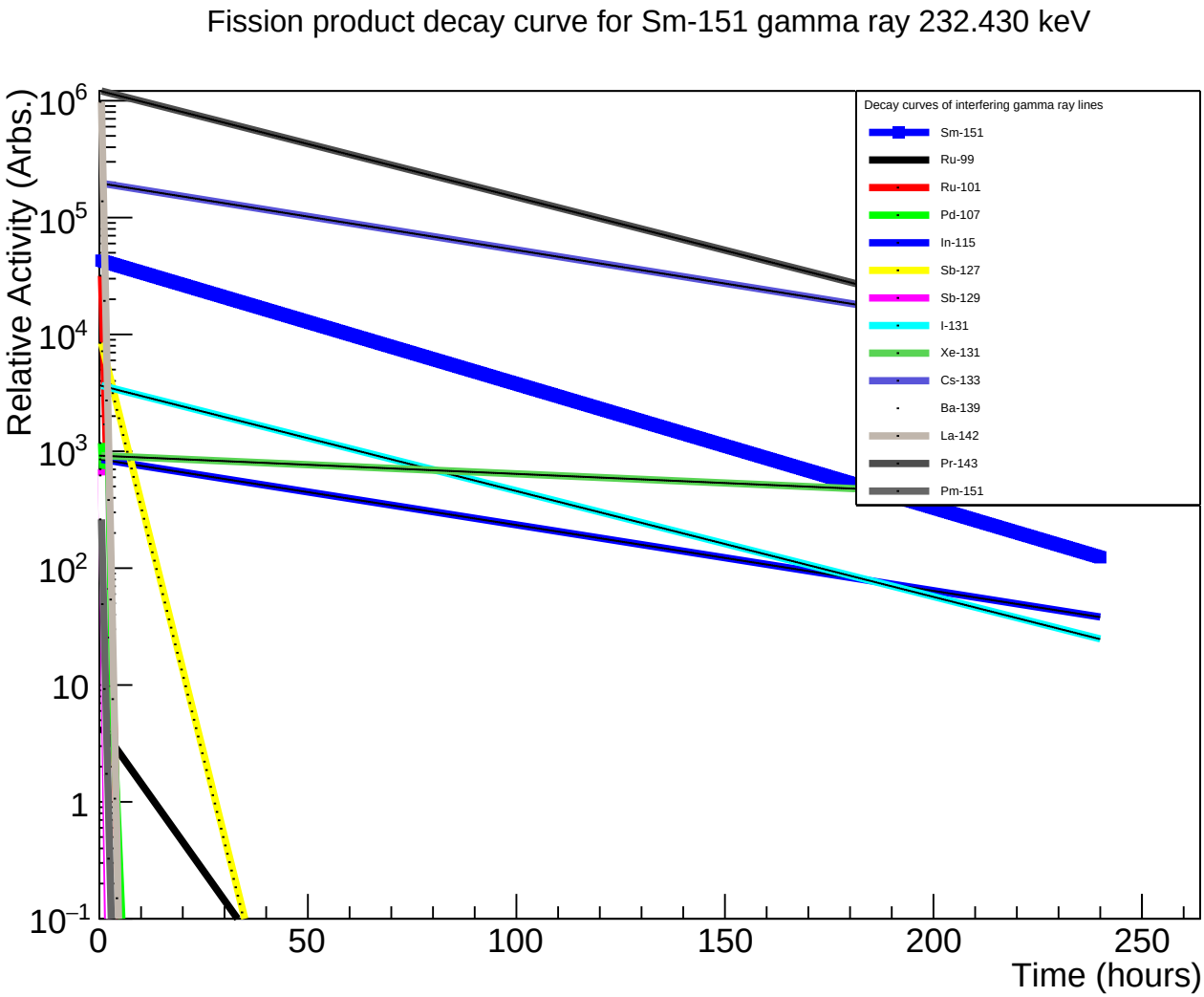


Figure 1118: Sm-151 decay curve for 232.430 keV gamma ray.

3.1119 Pm-151 E_γ = 240.09 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 240.09 keV
Gamma Intensity = 3.82 ± 0.272 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2237: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2238: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	240.710	0.003	2.840	0.036
Sr-92	Y-92	241.560	0.029	2.710	0.059
Sn-129	Sb-129	238.700	0.021	0.115	0.002
Te-131	I-131	240.930	0.073	33.250	0.004
Te-133	I-133	240.900	0.003	0.923	0.040
Nd-147	Pm-147	240.500	0.000	263.520	0.022
Nd-149	Pm-149	238.611	0.009	1.728	0.011
Nd-149	Pm-149	239.600	0.000	1.728	0.011
Nd-149	Pm-149	240.220	0.039	1.728	0.011
Nd-152	Pm-152	240.500	0.001	0.190	0.003

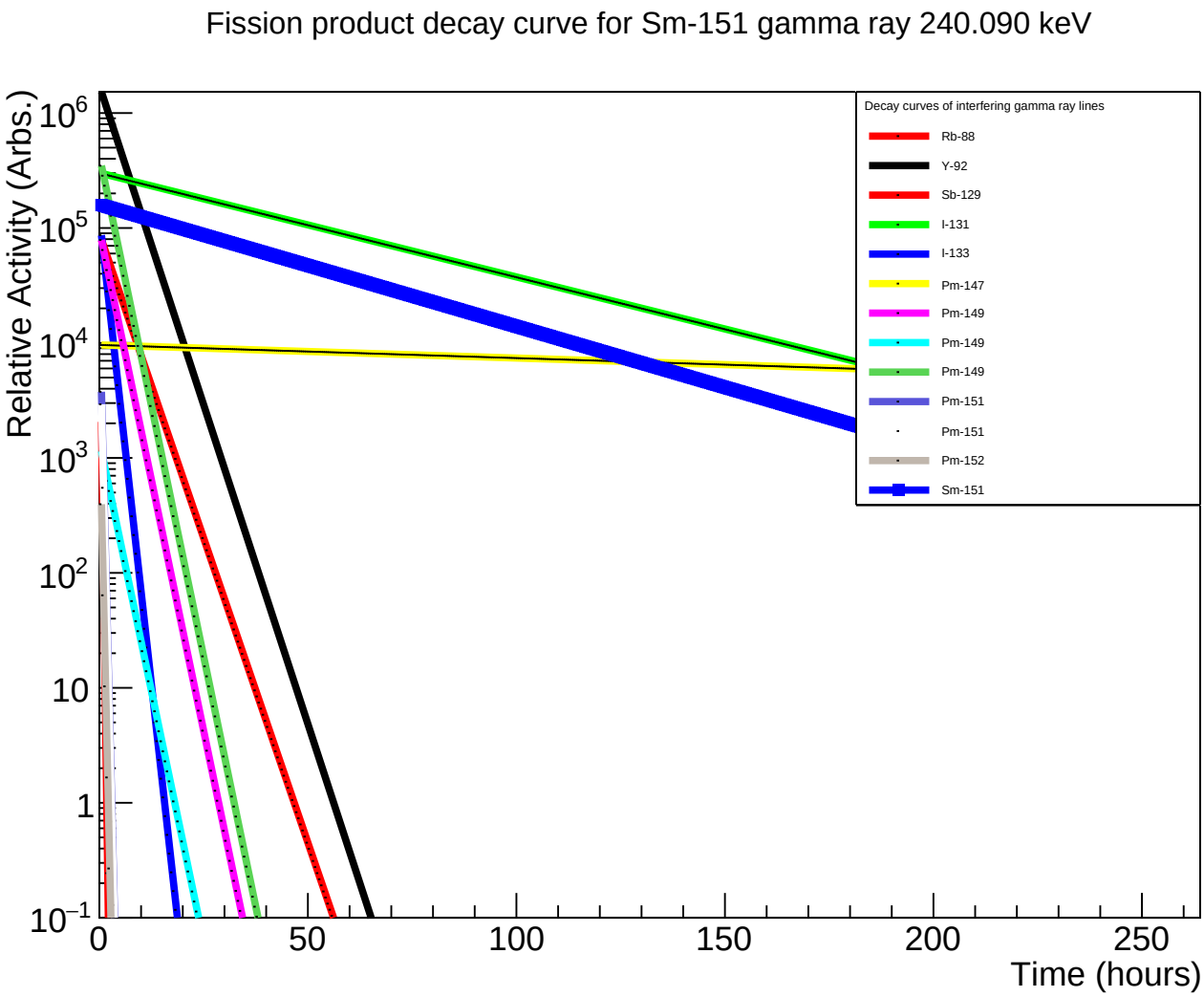


Figure 1119: Sm-151 decay curve for 240.090 keV gamma ray.

3.1120 Pm-151 E_γ = 275.21 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 275.21 keV
Gamma Intensity = 6.75 ± 0.525 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2239: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2240: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	275.930	0.007	0.308	0.002
Sr-91	Y-91	274.700	0.010	9.630	0.058
Mo-101	Tc-101	274.970	0.001	0.243	0.052
Sb-131	Te-131	274.260	0.012	0.384	0.026
Te-131	I-131	274.680	0.000	0.417	0.025
Ba-140	La-140	275.180	0.000	306.065	0.062
Nd-147	Pm-147	275.374	0.009	263.520	0.022
Nd-149	Pm-149	275.437	0.007	1.728	0.011
Nd-152	Pm-152	276.100	0.001	0.190	0.003

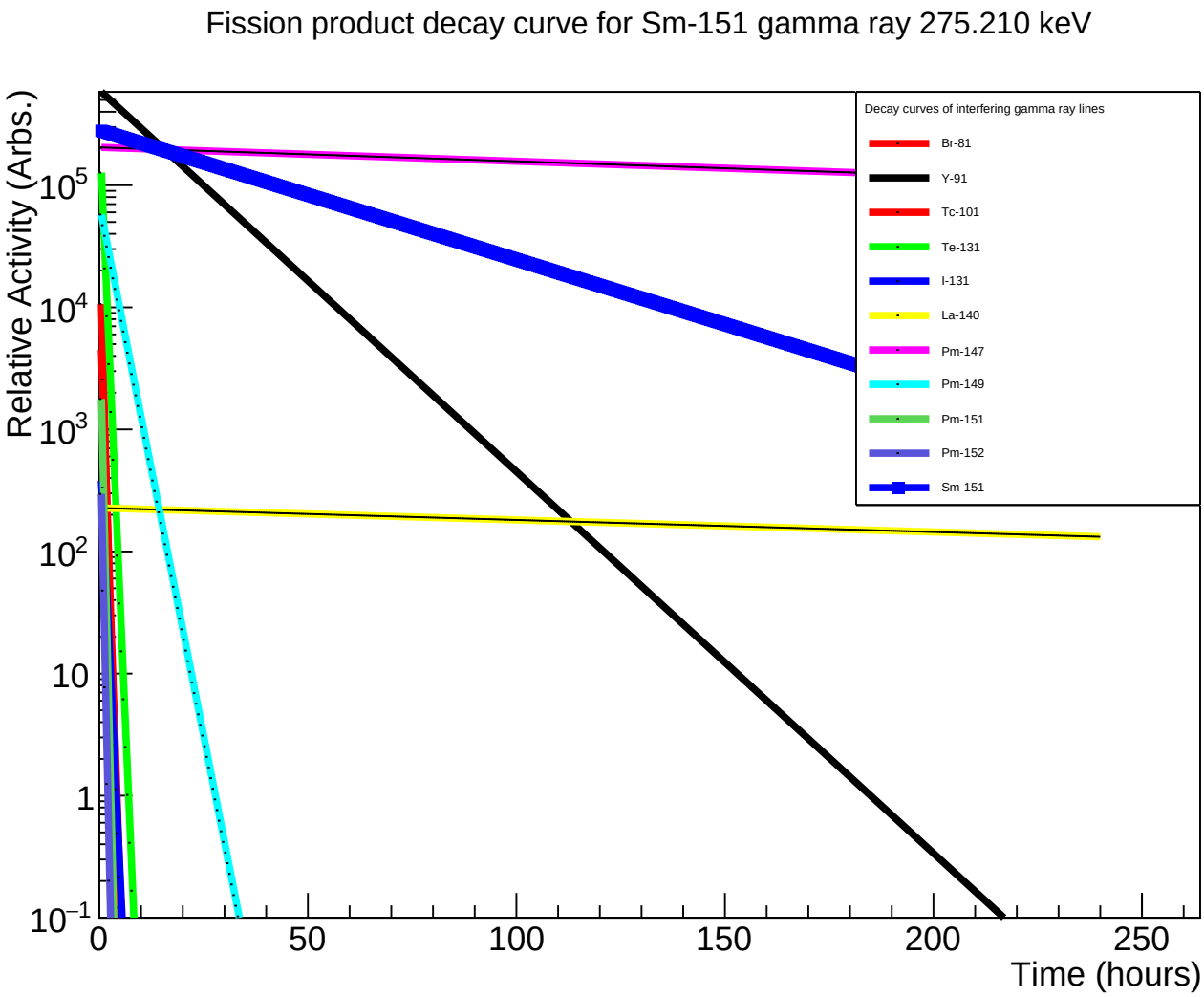


Figure 1120: Sm-151 decay curve for 275.210 keV gamma ray.

3.1121 Pm-151 E_γ = 323.94 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 323.94 keV
Gamma Intensity = 1.21 ± 0.102 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2241: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2242: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-131	Te-131	323.800	0.012	0.384	0.026
Te-133	I-133	324.300	0.000	0.208	0.031
I-131	Xe-131	324.651	0.000	192.605	0.029
Xe-138	Cs-138	325.300	0.000	0.235	0.063
Cs-138	Ba-138	324.900	0.003	0.557	0.067
La-141	Ce-141	324.600	0.000	3.920	0.058

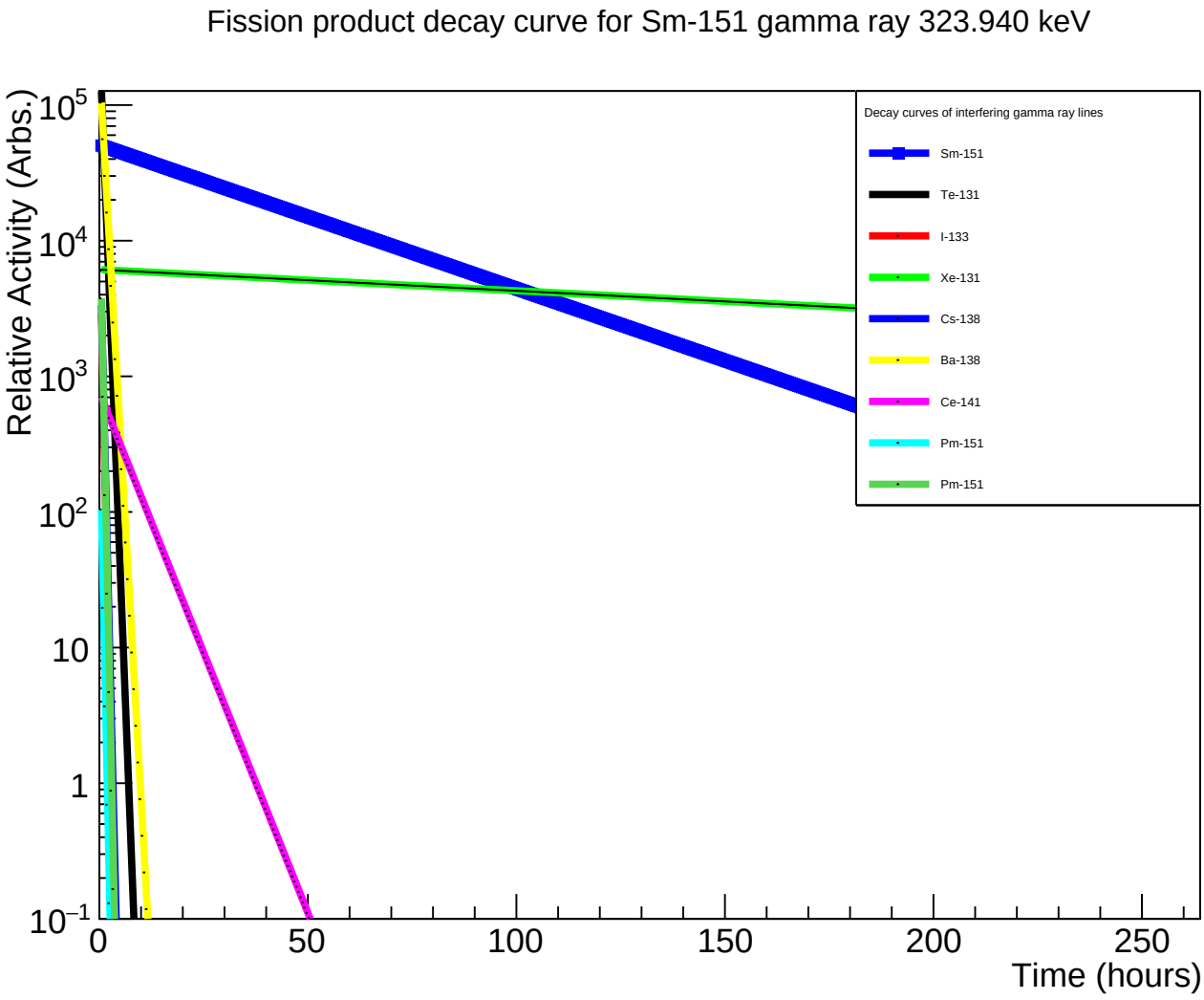


Figure 1121: Sm-151 decay curve for 323.940 keV gamma ray.

3.1122 Pm-151 E_γ = 340.08 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 340.08 keV
Gamma Intensity = 22.50 ± 0.900 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2243: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2244: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	340.160	0.005	0.372	0.003
Br-84	Kr-84	339.800	0.001	0.529	0.010
Rb-88	Sr-88	338.950	0.001	0.296	0.036
Ru-105	Rh-105	339.400	0.000	4.440	0.010
Ag-113	Cd-113	339.400	0.006	5.370	0.000
Te-133	I-133	341.000	0.000	0.208	0.031
Cs-139	Ba-139	339.400	0.000	0.155	0.063
Ba-142	La-142	340.500	0.000	0.177	0.058
La-142	Ce-142	339.500	0.001	1.518	0.058
Nd-152	Pm-152	340.500	0.001	0.190	0.003

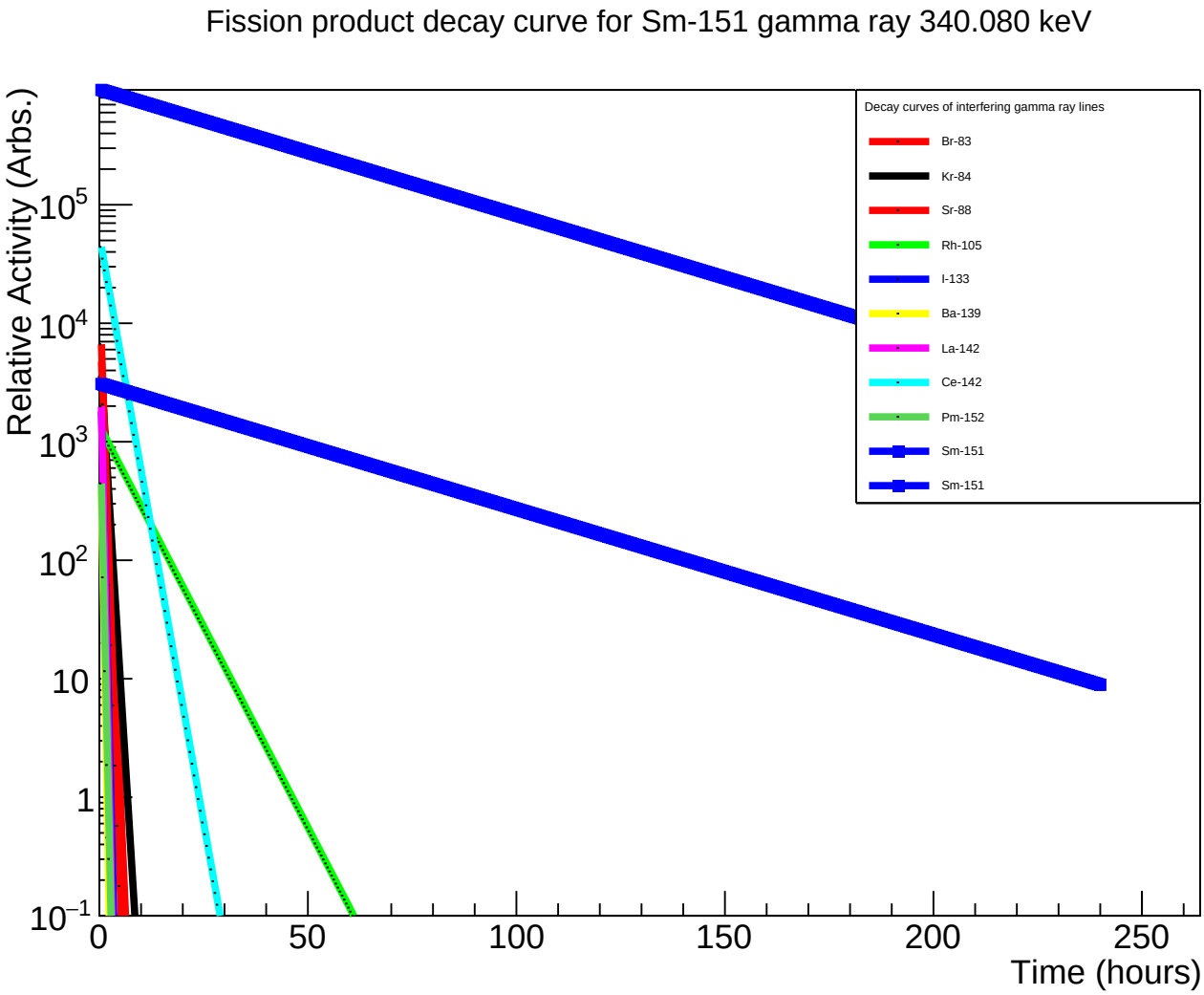


Figure 1122: Sm-151 decay curve for 340.080 keV gamma ray.

3.1123 Pm-151 E_γ = 344.90 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 344.90 keV
Gamma Intensity = 2.12 ± 0.141 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2245: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2246: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	345.530	0.001	0.855	0.000
Cd-115	In-115	344.200	0.000	53.460	0.000
Te-131	I-131	345.900	0.001	33.250	0.004
Te-133	I-133	343.900	0.001	0.208	0.031
Te-133	I-133	344.400	0.007	0.923	0.040
Te-133	I-133	345.600	0.002	0.923	0.040
I-132	Xe-132	343.700	0.001	2.295	0.043
I-133	Xe-133	345.430	0.001	20.800	0.067
Ba-141	La-141	343.670	0.144	0.304	0.058

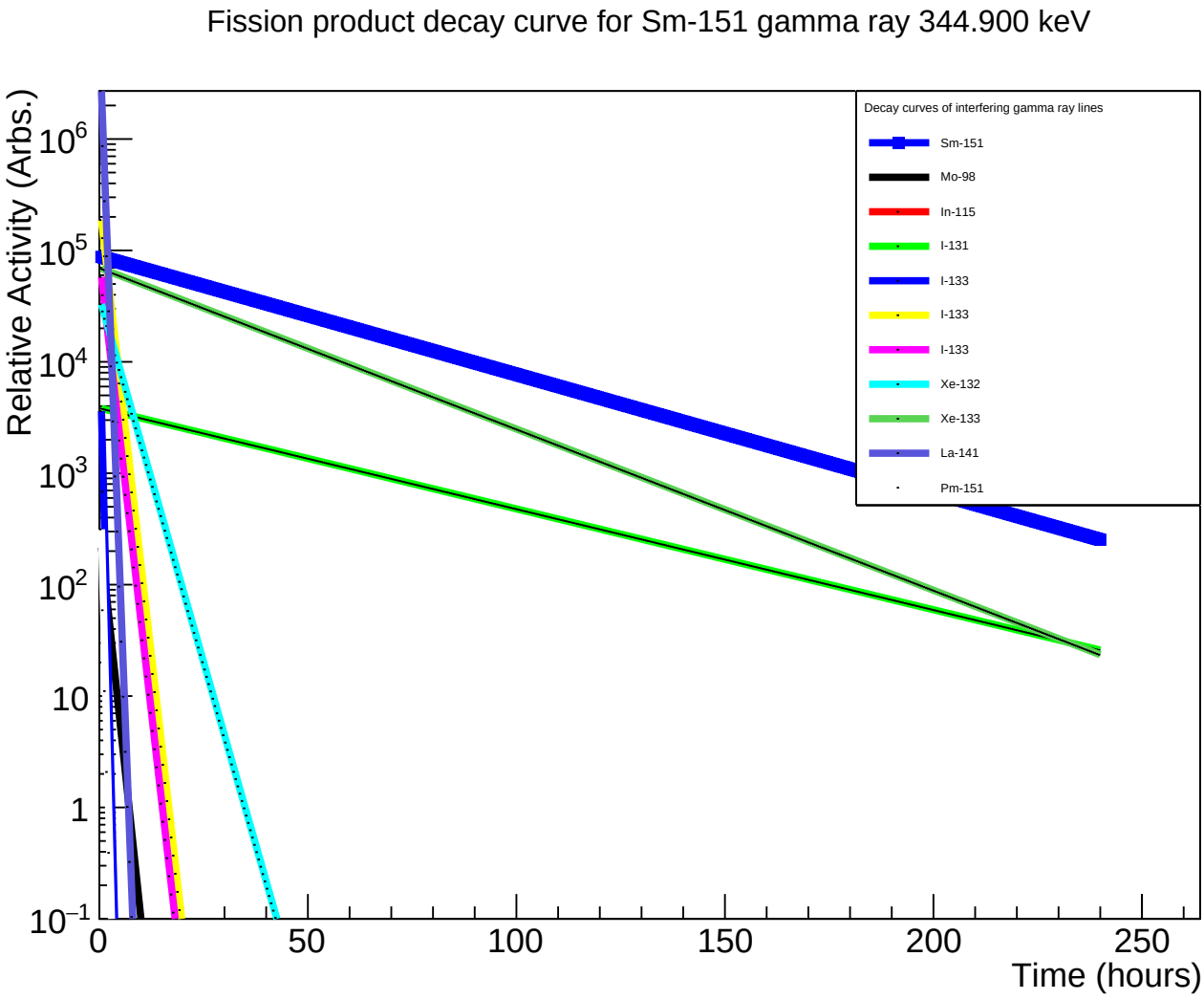


Figure 1123: Sm-151 decay curve for 344.900 keV gamma ray.

3.1124 Pm-151 E_γ = 440.85 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 440.85 keV
Gamma Intensity = 1.51 ± 0.108 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2247: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2248: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	440.800	0.002	0.124	0.062
Mo-101	Tc-101	442.000	0.001	0.243	0.052
Tc-105	Ru-105	441.900	0.018	0.127	0.010
Sb-127	Te-127	441.000	0.007	92.400	0.002
Ba-141	La-141	441.100	0.000	0.304	0.058
Nd-147	Pm-147	439.895	0.013	263.520	0.022
Nd-149	Pm-149	439.600	0.000	1.728	0.011
Nd-149	Pm-149	441.470	0.000	1.728	0.011

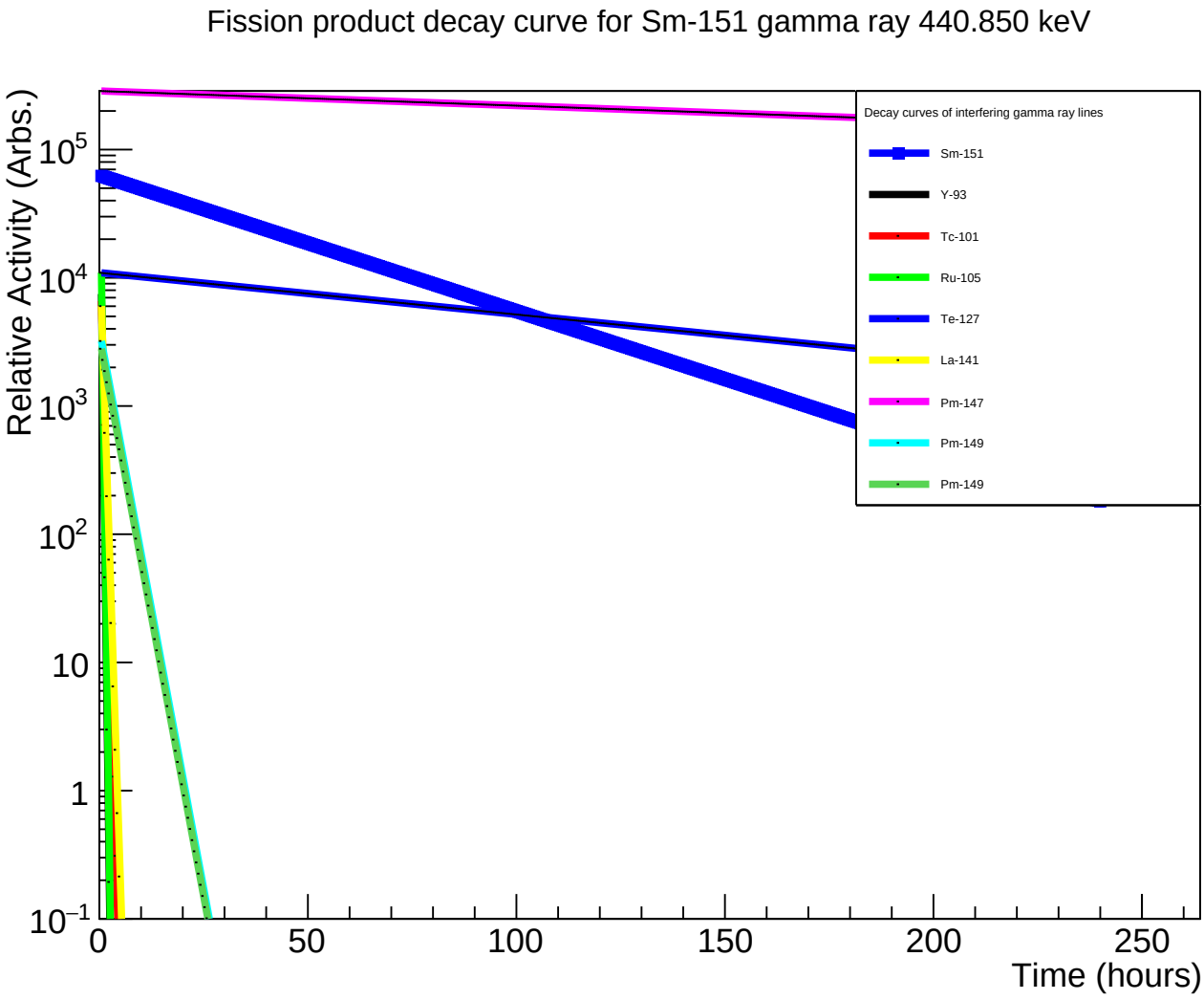


Figure 1124: Sm-151 decay curve for 440.850 keV gamma ray.

3.1125 Pm-151 E_γ = 445.68 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 445.68 keV
Gamma Intensity = 4.00 ± 0.276 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2249: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2250: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-79	Se-79	446.800	0.003	0.150	0.000
Br-84	Kr-84	447.000	0.030	0.100	0.000
Sr-93	Y-93	446.200	0.024	0.124	0.062
Nb-98	Mo-98	446.910	0.004	0.855	0.000
Tc-105	Ru-105	445.900	0.016	0.127	0.010
Sn-127	Sb-127	444.700	0.005	2.100	0.001
Sn-127	Sb-127	446.300	0.002	2.100	0.001
Sb-127	Te-127	445.100	0.043	92.400	0.002
Sb-128	Te-128	445.700	0.015	9.010	0.000
Te-133	I-133	444.940	0.019	0.923	0.040
I-132	Xe-132	445.000	0.001	2.295	0.043
I-132	Xe-132	446.200	0.006	2.295	0.043
La-140	Ce-140	445.500	0.000	40.285	0.062
Ce-143	Pr-143	446.020	0.000	33.039	0.060
Pr-146	Nd-146	446.400	0.001	0.403	0.030

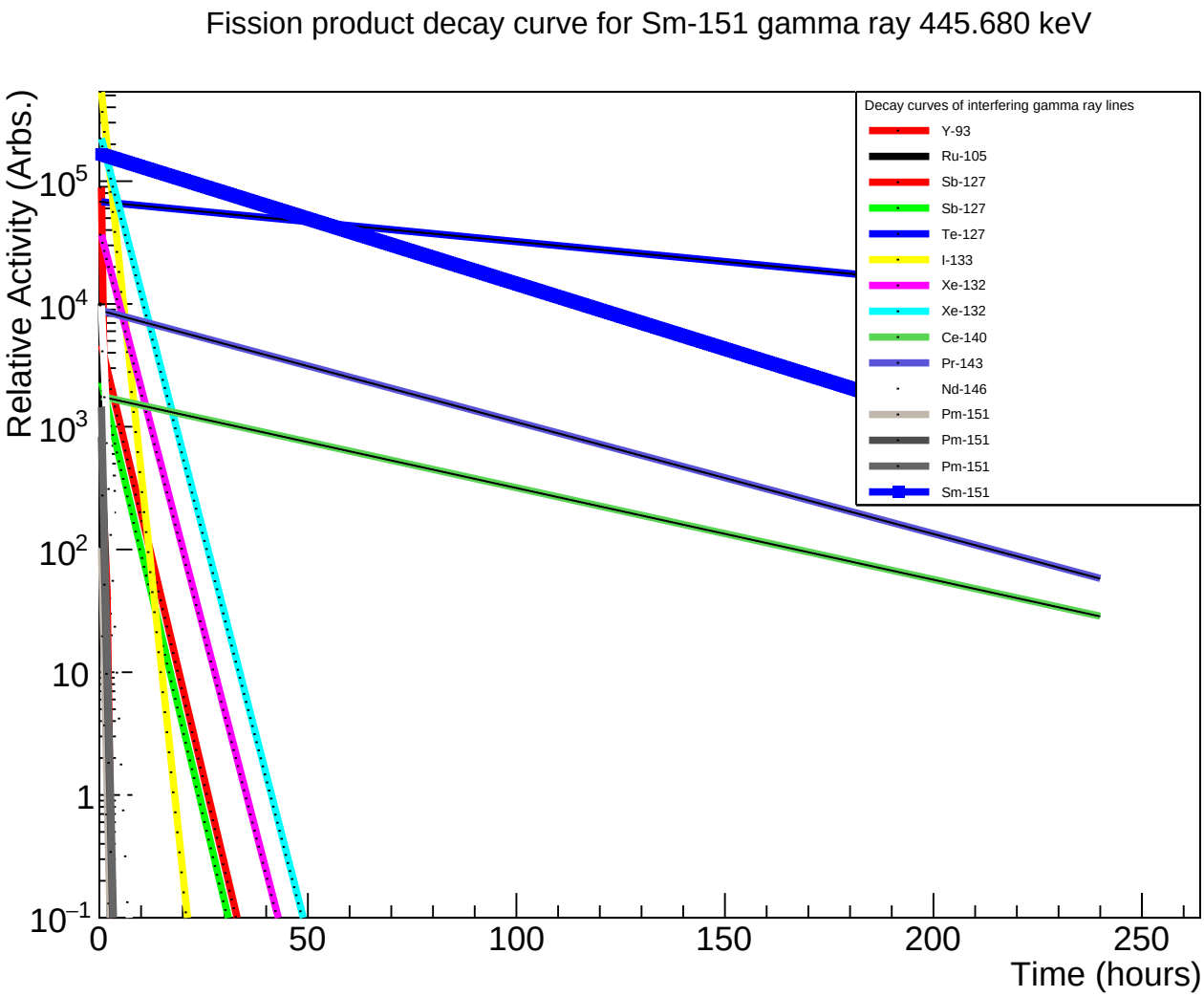


Figure 1125: Sm-151 decay curve for 445.680 keV gamma ray.

3.1126 Pm-151 E_γ = 636.20 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 636.20 keV
Gamma Intensity = 1.42 ± 0.106 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2251: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2252: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	637.100	0.002	1.512	0.000
Se-83	Br-83	636.000	0.004	0.372	0.003
Ru-105	Rh-105	635.500	0.000	4.440	0.010
Pd-109	Ag-109	636.300	0.000	13.701	0.000
Pd-111	Ag-111	635.000	0.000	0.390	0.000
Sn-127	Sb-127	634.900	0.003	2.100	0.001
Sb-125	Te-125	635.950	0.112	24194.445	0.000
Sb-128	Te-128	636.200	0.360	9.010	0.000
Sb-130	Te-130	635.700	0.016	0.658	0.008
Te-133	I-133	636.500	0.002	0.923	0.040
Te-134	I-134	636.260	0.017	0.697	0.070
I-131	Xe-131	636.989	0.072	192.605	0.029
Ba-141	La-141	636.200	0.003	0.304	0.058
Nd-149	Pm-149	635.700	0.001	1.728	0.011
Nd-149	Pm-149	636.200	0.001	1.728	0.011
Nd-152	Pm-152	635.000	0.002	0.190	0.003
Sm-153	Eu-153	634.800	0.000	46.500	0.002
Sm-153	Eu-153	636.500	0.000	46.500	0.002

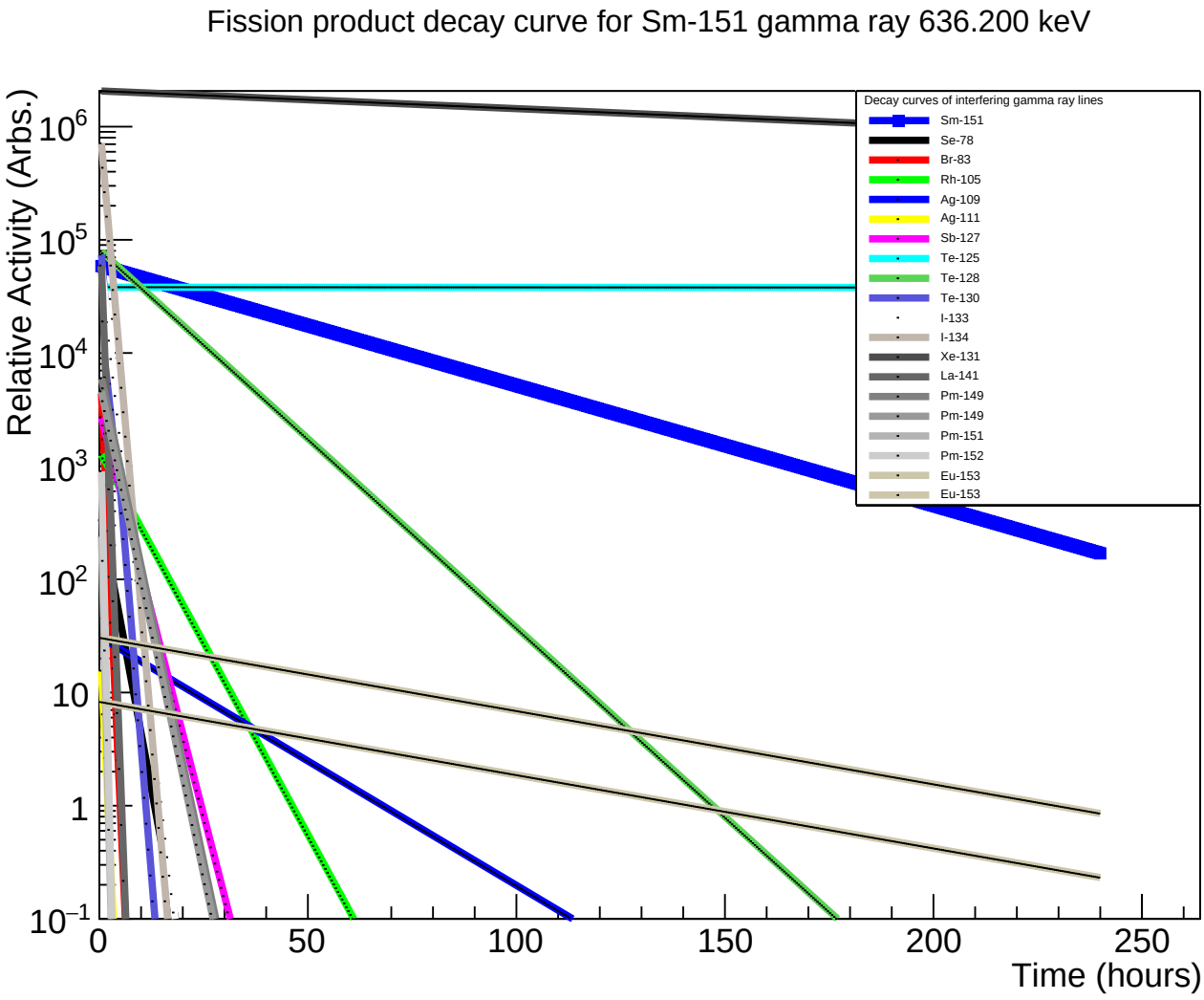


Figure 1126: Sm-151 decay curve for 636.200 keV gamma ray.

3.1127 Pm-151 E_γ = 717.72 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 717.72 keV
Gamma Intensity = 4.05 ± 0.277 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2253: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2254: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	718.030	0.150	0.372	0.003
Sr-93	Y-93	716.800	0.003	0.124	0.062
Sr-93	Y-93	718.330	0.015	0.124	0.062
Nb-98	Mo-98	717.500	0.003	0.855	0.000
Tc-105	Ru-105	716.600	0.006	0.127	0.010
Ag-112	Cd-112	718.400	0.002	3.130	0.000
Te-133	I-133	717.800	0.001	0.208	0.031
Te-133	I-133	718.900	0.008	0.923	0.040
Cs-138	Ba-138	717.700	0.000	0.557	0.067
Pr-147	Nd-147	718.900	0.011	0.223	0.022
Nd-149	Pm-149	718.430	0.000	1.728	0.011
Sm-153	Eu-153	719.000	0.000	46.500	0.002

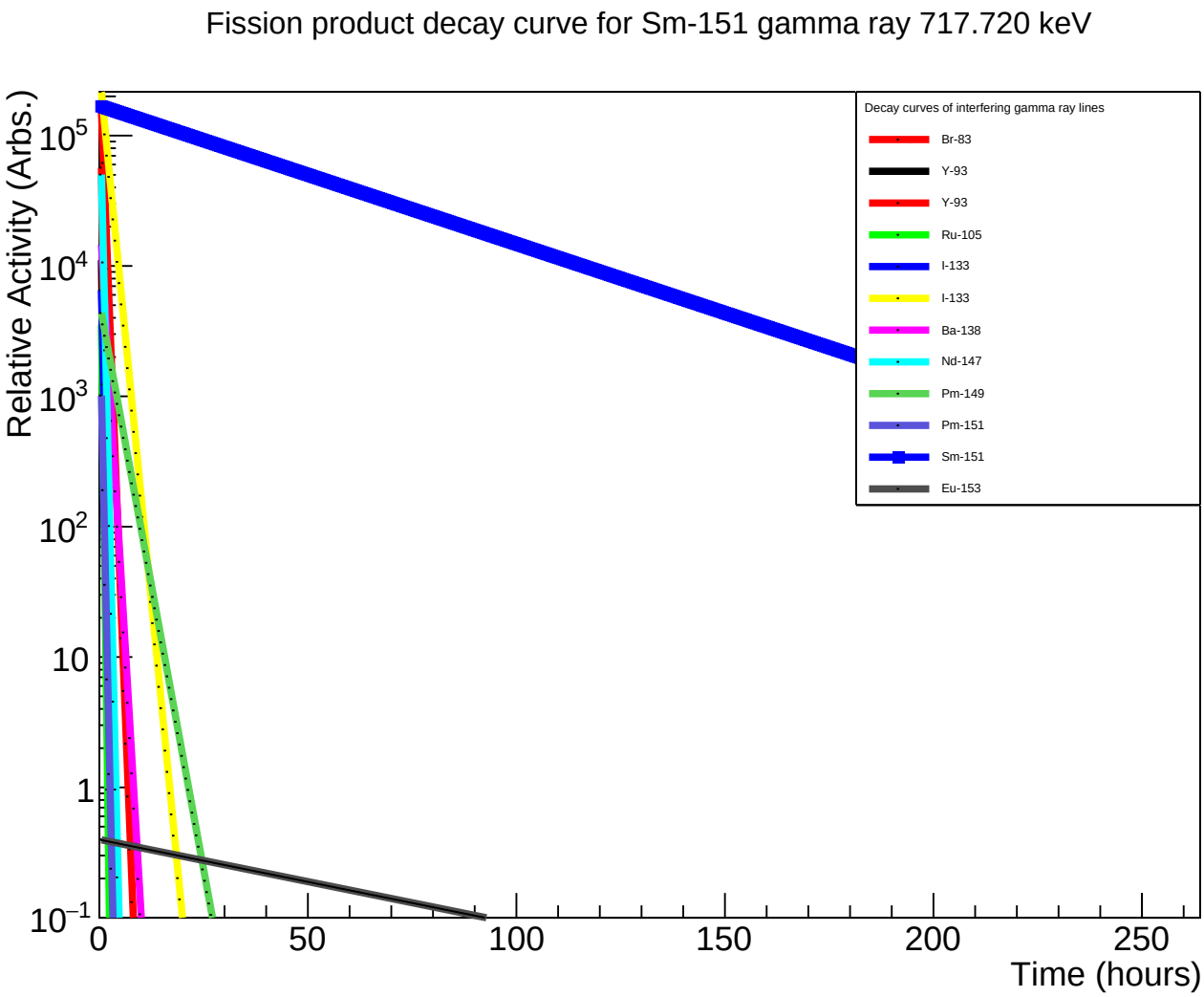


Figure 1127: Sm-151 decay curve for 717.720 keV gamma ray.

3.1128 Pm-151 E_γ = 752.82 keV

Chemical element: Promethium
Fission product parent: Pm-151
Gamma originates in daughter: Sm-151
Eγ: 752.82 keV
Gamma Intensity = 1.28 ± 0.104 %
$T_{1/2}$ = 28.400 ± 0.040 hours or 1704.00 ± 2.40 minutes
CFY: 0.419 ± 0.008 %

Table 2255: Decay chain of fission product chain A = 151

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Praseodymium-151	Neodymium-151	0.005	0.000
Neodymium-151	Promethium-151	0.207	0.001
Promethium-151	Samarium-151	28.400	0.040
Samarium-151	Europium-151	788888.875	70000.000

Table 2256: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Y-94	Zr-94	752.600	0.014	0.312	0.065
Nb-98	Mo-98	753.000	0.000	0.855	0.000
Nb-98	Mo-98	753.190	0.001	0.855	0.000
Rh-107	Pd-107	753.800	0.000	0.362	0.001
Ag-112	Cd-112	751.800	0.000	3.130	0.000
Sb-128	Te-128	754.000	1.000	9.010	0.000
Sb-128	Te-128	753.900	0.964	0.173	0.003
Te-133	I-133	753.300	0.003	0.923	0.040
Ba-141	La-141	753.800	0.000	0.304	0.058
La-140	Ce-140	751.637	0.043	40.285	0.062
Nd-149	Pm-149	754.291	0.000	1.728	0.011

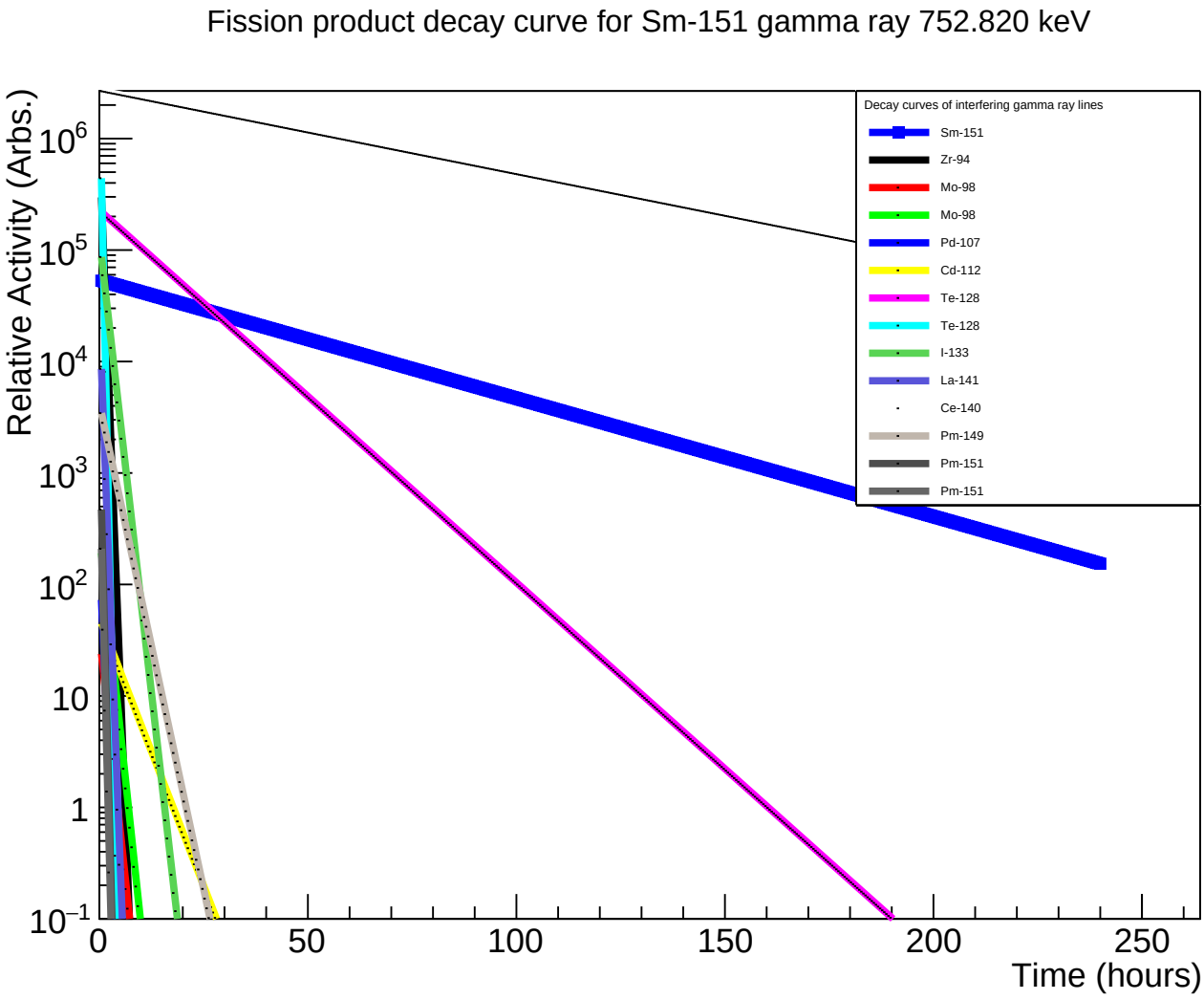


Figure 1128: Sm-151 decay curve for 752.820 keV gamma ray.

3.1129 Sm-153 E_γ = 69.67 keV

Chemical element: Samarium
Fission product parent: Sm-153
Gamma originates in daughter: Eu-153
Eγ: 69.67 keV
Gamma Intensity = 4.73 ± 0.048 %
$T_{1/2}$ = 46.500 ± 0.210 hours or 2790.00 ± 12.60 minutes
CFY: 0.158 ± 0.006 %

Table 2257: Decay chain of fission product chain A = 153

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Neodymium-153	Promethium-153	0.009	0.000
Promethium-153	Samarium-153	0.087	0.000
Samarium-153	Europium-153	46.500	0.210

Table 2258: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-111	Ag-111	70.430	0.008	0.390	0.000
Sn-127	Sb-127	70.300	0.004	2.100	0.001
Sn-129	Sb-129	69.800	0.078	0.115	0.002
Xe-138	Cs-138	68.300	0.000	0.235	0.063
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	68.300	0.001	0.177	0.058
Ba-142	La-142	69.700	0.003	0.177	0.058
La-140	Ce-140	68.916	0.001	40.285	0.062
Nd-149	Pm-149	69.510	0.001	1.728	0.011
Nd-151	Pm-151	68.980	0.013	0.207	0.004
Pm-151	Sm-151	69.700	0.005	28.400	0.004

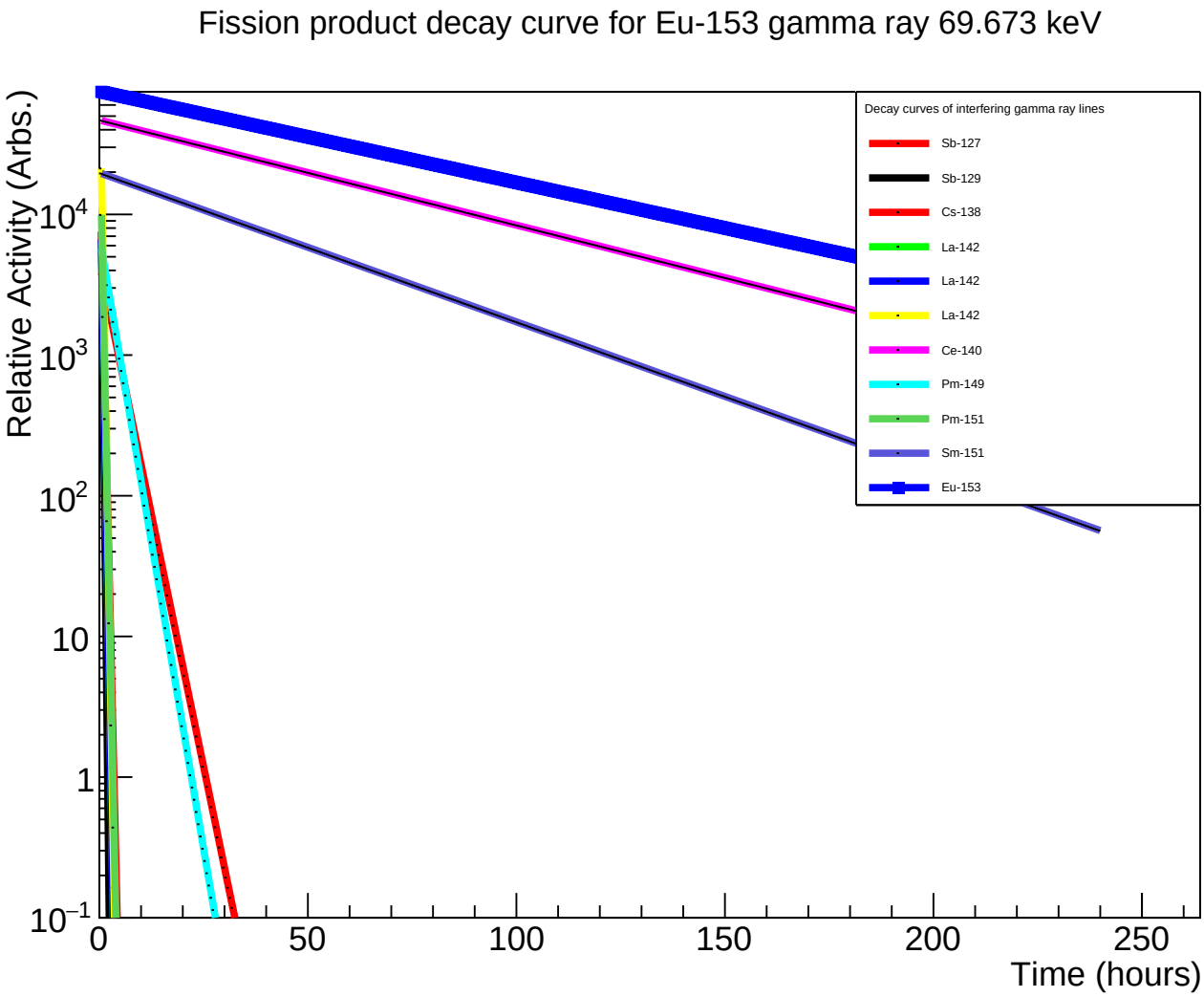


Figure 1129: Eu-153 decay curve for 69.673 keV gamma ray.

3.1130 Sm-153 E_γ = 103.18 keV

Chemical element: Samarium
Fission product parent: Sm-153
Gamma originates in daughter: Eu-153
Eγ: 103.18 keV
Gamma Intensity = 29.25 ± 0.220 %
$T_{1/2}$ = 46.500 ± 0.210 hours or 2790.00 ± 12.60 minutes
CFY: 0.158 ± 0.006 %

Table 2259: Decay chain of fission product chain A = 153

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Neodymium-153	Promethium-153	0.009	0.000
Promethium-153	Samarium-153	0.087	0.000
Samarium-153	Europium-153	46.500	0.210

Table 2260: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	102.400	0.000	0.362	0.001
Pd-109	Ag-109	103.900	0.000	13.701	0.000
Sn-127	Sb-127	104.100	0.002	2.100	0.001
Sb-128	Te-128	102.800	0.004	9.010	0.000
Te-131	I-131	102.060	0.077	33.250	0.004
Te-131	I-131	103.300	0.000	33.250	0.004
Nd-151	Pm-151	102.450	0.005	0.207	0.004
Pm-151	Sm-151	101.930	0.013	28.400	0.004
Pm-151	Sm-151	102.700	0.000	28.400	0.004

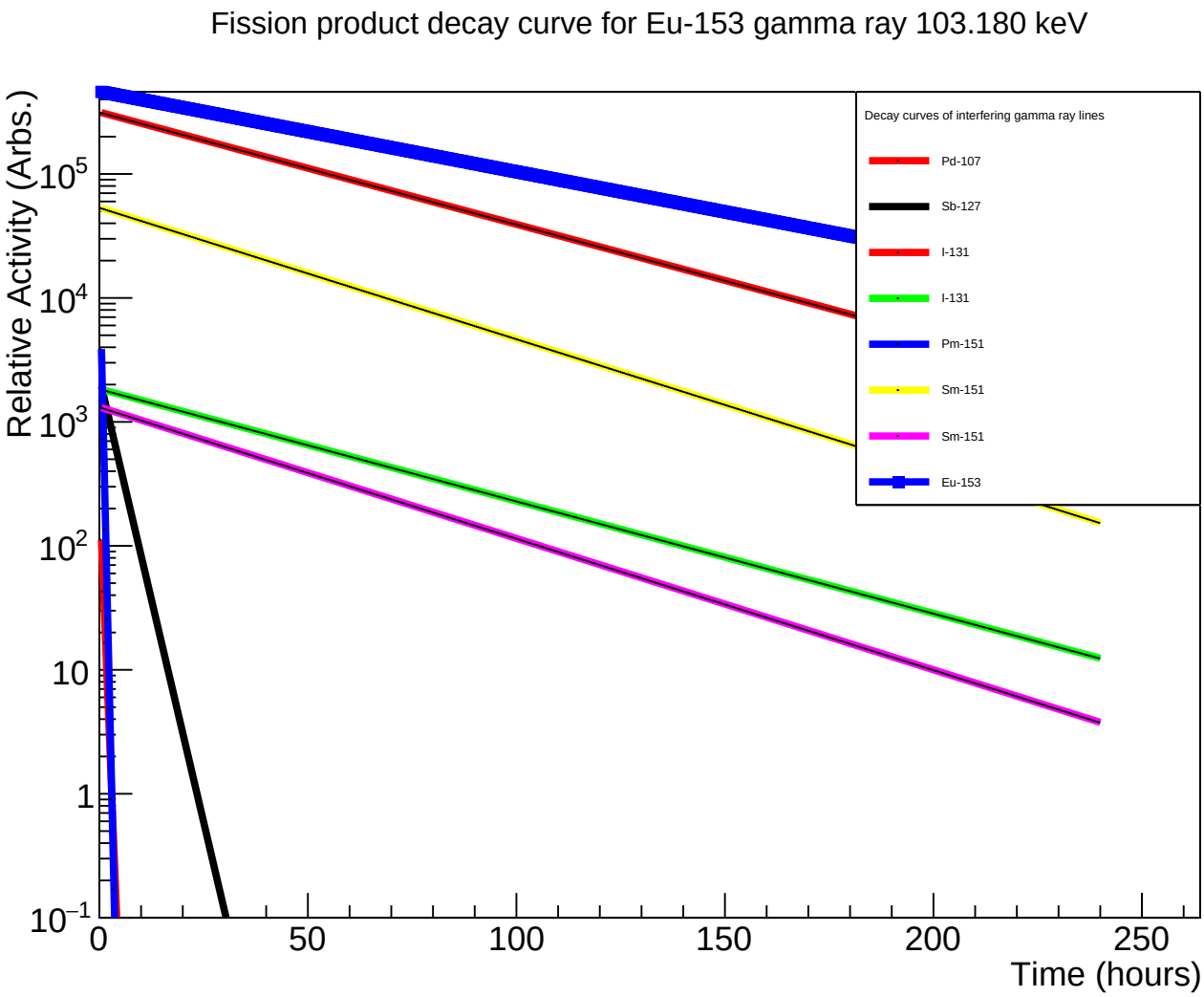


Figure 1130: Eu-153 decay curve for 103.180 keV gamma ray.

3.1131 Sm-155 E_γ = 104.32 keV

Chemical element: Samarium
Fission product parent: Sm-155
Gamma originates in daughter: Eu-155
Eγ: 104.32 keV
Gamma Intensity = 74.60 ± 1.907 %
$T_{1/2}$ = 0.372 ± 0.003 hours or 22.30 ± 0.20 minutes
CFY: 0.032 ± 0.003 %

Table 2261: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2262: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	103.900	0.000	13.701	0.000
Sn-127	Sb-127	104.100	0.002	2.100	0.001
Te-129	I-129	105.500	0.001	806.400	0.001
Te-131	I-131	103.300	0.000	33.250	0.004
Te-131	I-131	105.000	0.000	33.250	0.004
Nd-151	Pm-151	104.900	0.000	0.207	0.004
Pm-151	Sm-151	104.840	0.035	28.400	0.004

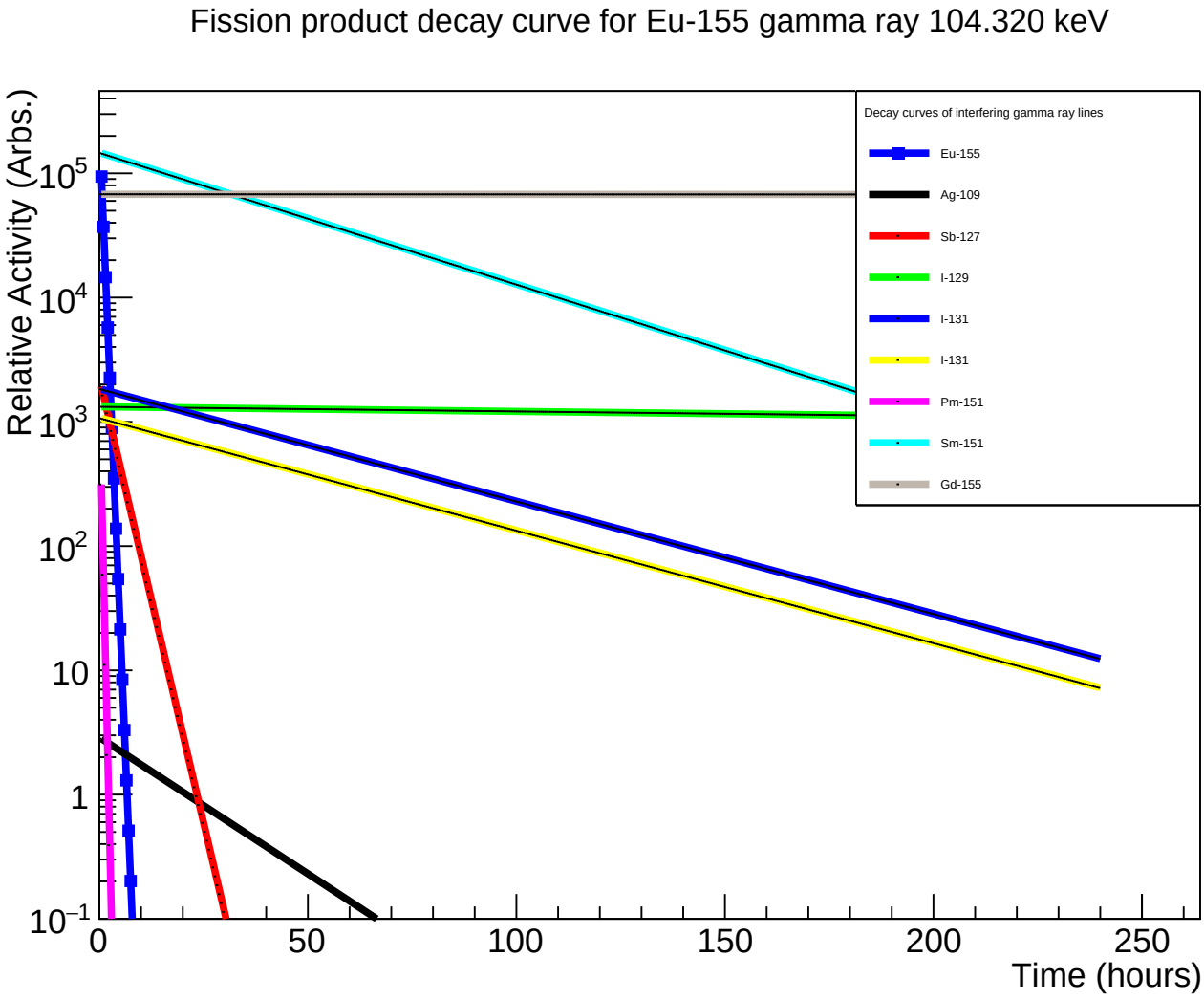


Figure 1131: Eu-155 decay curve for 104.320 keV gamma ray.

3.1132 Sm-155 E_γ = 141.41 keV

Chemical element: Samarium
Fission product parent: Sm-155
Gamma originates in daughter: Eu-155
Eγ: 141.41 keV
Gamma Intensity = 1.98 ± 0.075 %
$T_{1/2}$ = 0.372 ± 0.003 hours or 22.30 ± 0.20 minutes
CFY: 0.032 ± 0.003 %

Table 2263: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2264: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Mo-99	Tc-99	140.511	0.045	65.976	0.061
Tc-99	Ru-99	140.511	0.890	6.007	0.054
Tc-99	Ru-99	142.630	0.000	6.007	0.054
Tc-105	Ru-105	142.700	0.004	0.127	0.010
Pd-111	Ag-111	141.800	0.000	0.390	0.000
Sn-127	Sb-127	141.900	0.004	2.100	0.001
Te-131	I-131	141.200	0.000	0.417	0.025
Ce-146	Pr-146	141.290	0.033	0.225	0.030
Pr-147	Nd-147	141.000	0.013	0.223	0.022
Nd-149	Pm-149	141.060	0.000	1.728	0.011
Pm-151	Sm-151	141.700	0.000	28.400	0.004

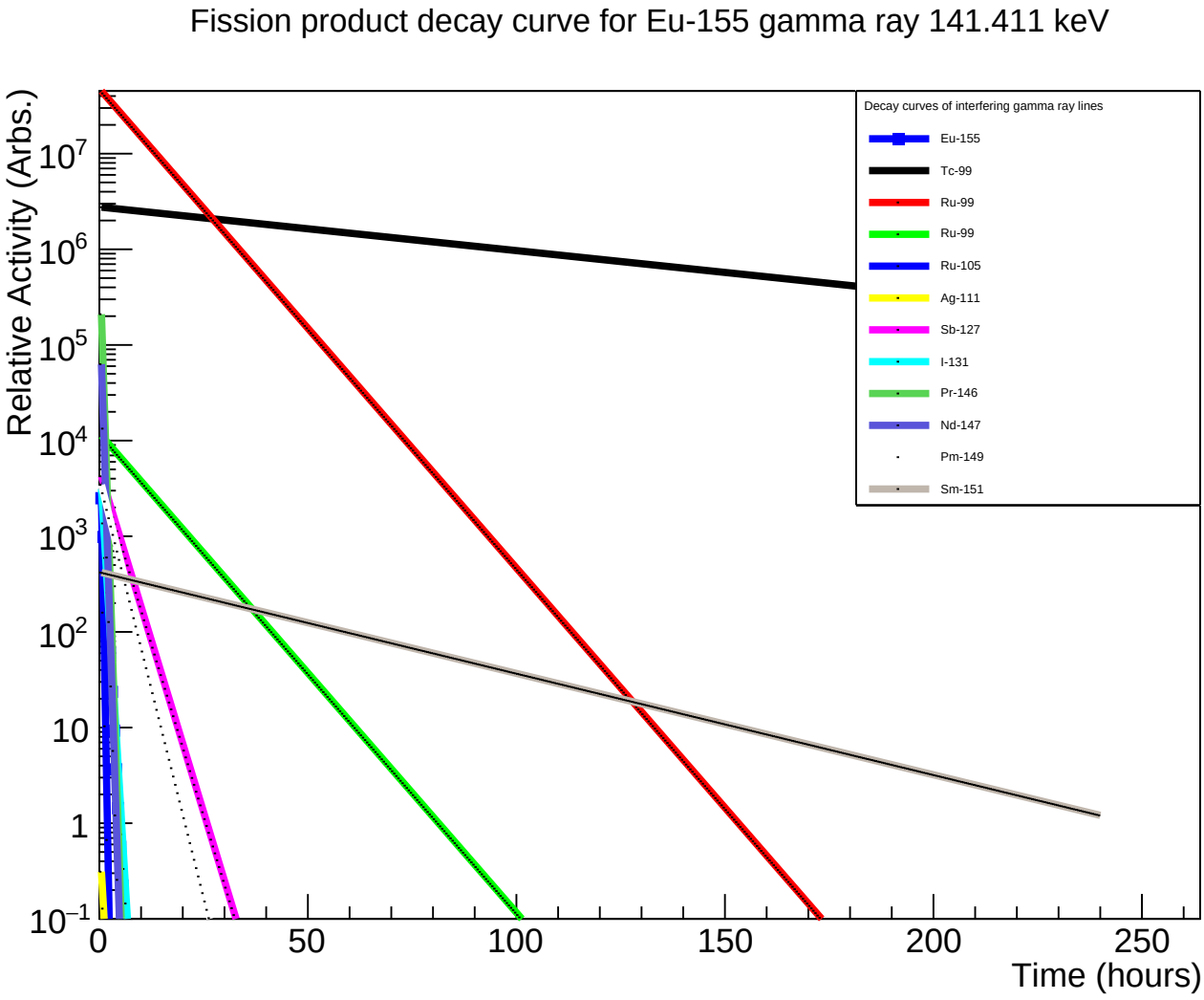


Figure 1132: Eu-155 decay curve for 141.411 keV gamma ray.

3.1133 Sm-155 E_γ = 245.73 keV

Chemical element: Samarium
Fission product parent: Sm-155
Gamma originates in daughter: Eu-155
Eγ: 245.73 keV
Gamma Intensity = 3.73 ± 0.020 %
$T_{1/2}$ = 0.372 ± 0.003 hours or 22.30 ± 0.20 minutes
CFY: 0.032 ± 0.003 %

Table 2265: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2266: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	245.500	0.004	0.305	0.019
Tc-105	Ru-105	246.200	0.006	0.127	0.010
Ru-105	Rh-105	245.210	0.000	4.440	0.010
Ag-111	Cd-111	245.400	0.013	178.800	0.000
Ag-112	Cd-112	244.800	0.000	3.130	0.000
Sb-129	Te-129	244.500	0.005	4.400	0.005
Te-133	I-133	244.380	0.003	0.923	0.040
I-133	Xe-133	245.950	0.000	20.800	0.067
Ce-146	Pr-146	245.500	0.003	0.225	0.030
Nd-149	Pm-149	245.500	0.002	1.728	0.011
Nd-149	Pm-149	245.720	0.008	1.728	0.011
Pm-151	Sm-151	247.100	0.000	28.400	0.004
Eu-156	Gd-156	244.700	0.000	364.560	0.000

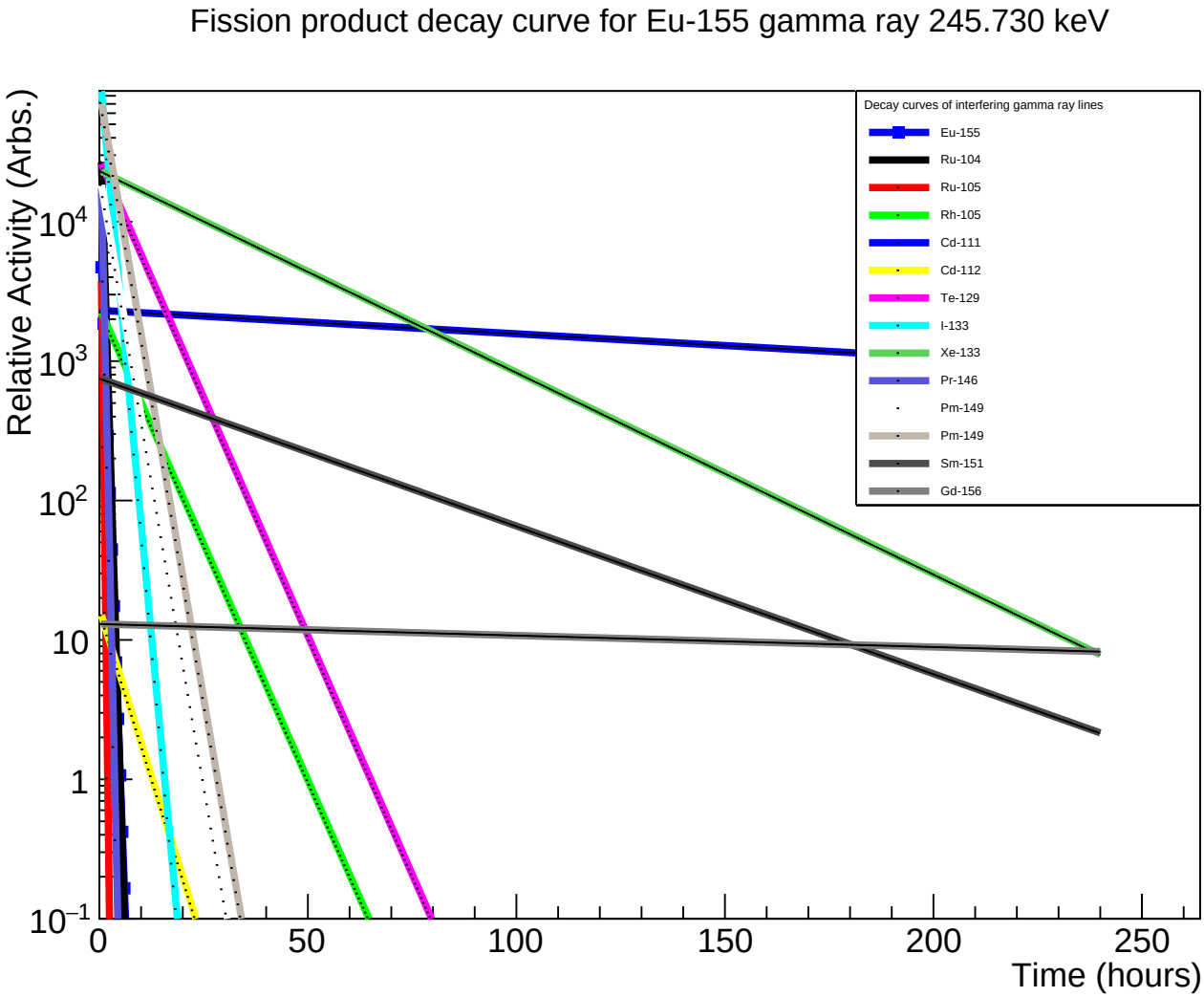


Figure 1133: Eu-155 decay curve for 245.730 keV gamma ray.

3.1134 Sm-156 E_γ = 22.60 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 22.60 keV
Gamma Intensity = 2.72 ± 0.655 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2267: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

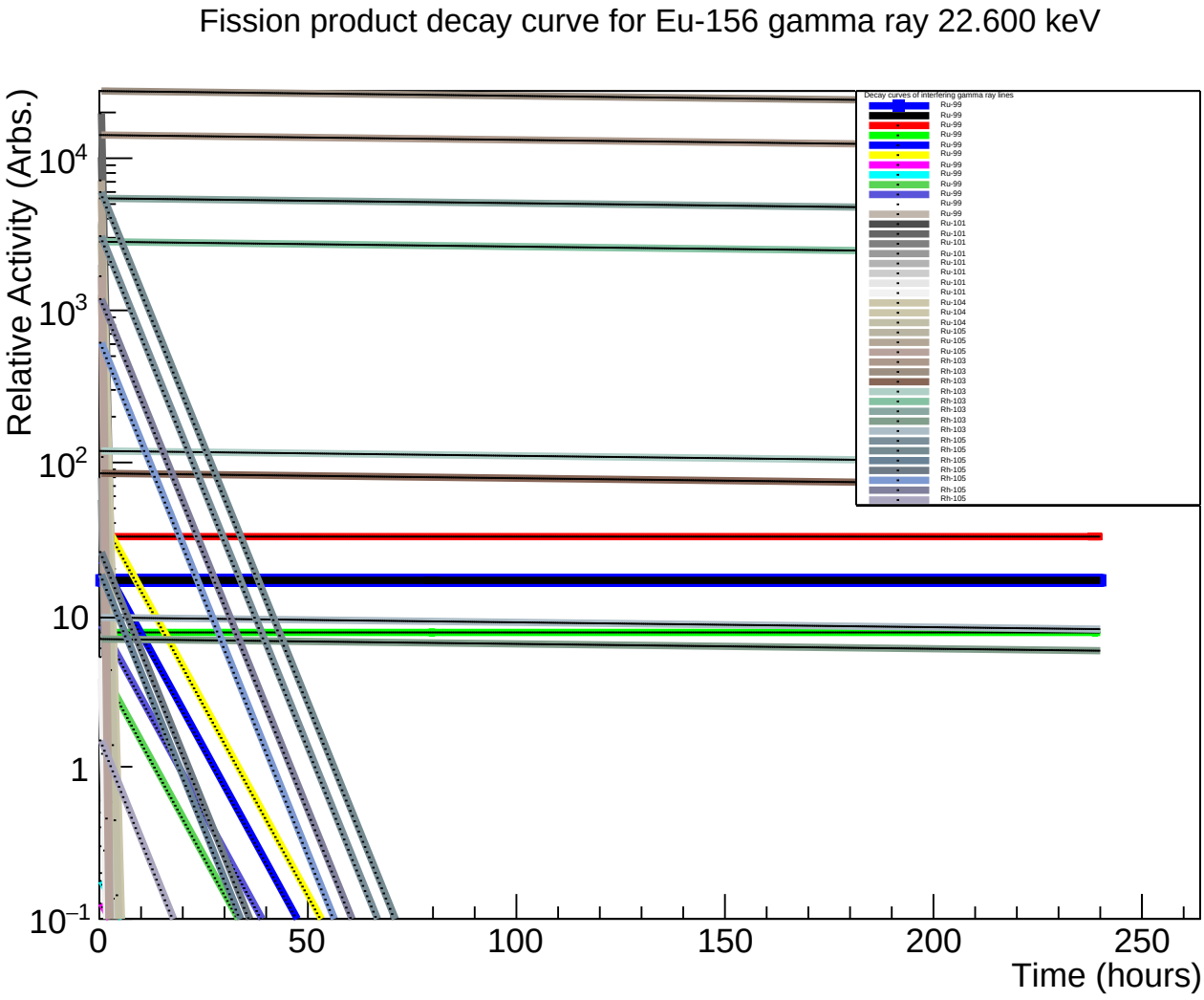


Figure 1134: Eu-156 decay curve for 22.600 keV gamma ray.

Table 2268: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	21.634	0.000	1850000000.000	0.061
Tc-99	Ru-99	21.657	0.000	1850000000.000	0.061
Tc-99	Ru-99	22.074	0.000	1850000000.000	0.061
Tc-99	Ru-99	21.605	0.000	6.007	0.054
Tc-99	Ru-99	21.628	0.000	6.007	0.054
Tc-99	Ru-99	21.792	0.000	6.007	0.054
Tc-99	Ru-99	21.797	0.000	6.007	0.054
Tc-99	Ru-99	22.033	0.000	6.007	0.054
Tc-99	Ru-99	22.036	0.000	6.007	0.054
Tc-99	Ru-99	22.078	0.000	6.007	0.054
Tc-99	Ru-99	22.078	0.000	6.007	0.054
Tc-101	Ru-101	21.605	0.001	0.237	0.052
Tc-101	Ru-101	21.628	0.002	0.237	0.052
Tc-101	Ru-101	21.792	0.000	0.237	0.052
Tc-101	Ru-101	21.797	0.000	0.237	0.052
Tc-101	Ru-101	22.033	0.000	0.237	0.052
Tc-101	Ru-101	22.036	0.000	0.237	0.052
Tc-101	Ru-101	22.078	0.000	0.237	0.052
Tc-101	Ru-101	22.078	0.000	0.237	0.052
Tc-104	Ru-104	21.634	0.000	0.305	0.019
Tc-104	Ru-104	21.657	0.001	0.305	0.019
Tc-104	Ru-104	22.074	0.000	0.305	0.019
Tc-105	Ru-105	21.634	0.006	0.127	0.010
Tc-105	Ru-105	21.657	0.011	0.127	0.010
Tc-105	Ru-105	22.074	0.003	0.127	0.010
Ru-103	Rh-103	22.671	0.000	941.928	0.030
Ru-103	Rh-103	22.696	0.001	941.928	0.030
Ru-103	Rh-103	22.868	0.000	941.928	0.030
Ru-103	Rh-103	22.873	0.000	941.928	0.030
Ru-103	Rh-103	23.132	0.000	941.928	0.030
Ru-103	Rh-103	23.136	0.000	941.928	0.030
Ru-103	Rh-103	23.181	0.000	941.928	0.030
Ru-103	Rh-103	23.181	0.000	941.928	0.030
Ru-105	Rh-105	22.671	0.000	4.440	0.010
Ru-105	Rh-105	22.696	0.001	4.440	0.010
Ru-105	Rh-105	22.868	0.000	4.440	0.010
Ru-105	Rh-105	22.873	0.000	4.440	0.010
Ru-105	Rh-105	23.132	0.000	4.440	0.010
Ru-105	Rh-105	23.136	0.000	4.440	0.010
Ru-105	Rh-105	23.181	0.000	4.440	0.010

3.1135 Sm-156 E_γ = 38.10 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 38.10 keV
Gamma Intensity = 1.47 ± 1.470 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2269: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

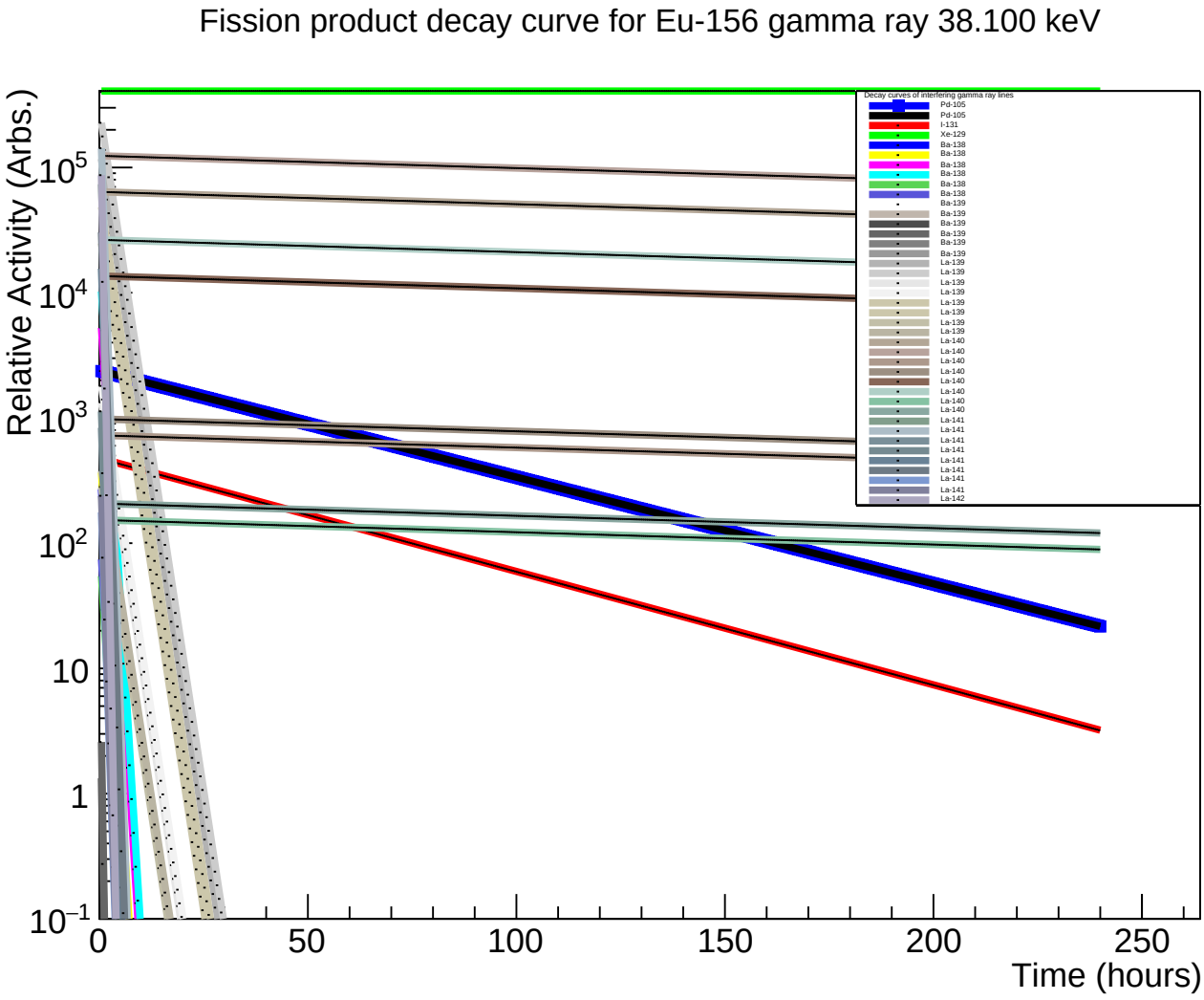


Figure 1135: Eu-156 decay curve for 38.100 keV gamma ray.

Table 2270: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-105	Pd-105	38.720	0.000	35.360	0.010
Te-131	I-131	36.830	0.000	33.250	0.004
I-129	Xe-129	39.578	0.075	137500000256.000	0.005
Cs-138	Ba-138	36.642	0.000	0.557	0.067
Cs-138	Ba-138	36.659	0.000	0.557	0.067
Cs-138	Ba-138	37.245	0.000	0.557	0.067
Cs-138	Ba-138	37.261	0.000	0.557	0.067
Cs-138	Ba-138	37.347	0.000	0.557	0.067
Cs-138	Ba-138	37.349	0.000	0.557	0.067
Cs-139	Ba-139	36.642	0.000	0.155	0.063
Cs-139	Ba-139	36.659	0.000	0.155	0.063
Cs-139	Ba-139	37.245	0.000	0.155	0.063
Cs-139	Ba-139	37.261	0.000	0.155	0.063
Cs-139	Ba-139	37.347	0.000	0.155	0.063
Cs-139	Ba-139	37.349	0.000	0.155	0.063
Ba-139	La-139	37.738	0.002	1.384	0.064
Ba-139	La-139	37.820	0.005	1.384	0.064
Ba-139	La-139	38.078	0.000	1.384	0.064
Ba-139	La-139	38.096	0.000	1.384	0.064
Ba-139	La-139	38.718	0.000	1.384	0.064
Ba-139	La-139	38.736	0.001	1.384	0.064
Ba-139	La-139	38.826	0.000	1.384	0.064
Ba-139	La-139	38.829	0.000	1.384	0.064
Ba-140	La-140	37.738	0.001	306.065	0.062
Ba-140	La-140	37.820	0.002	306.065	0.062
Ba-140	La-140	38.078	0.000	306.065	0.062
Ba-140	La-140	38.096	0.000	306.065	0.062
Ba-140	La-140	38.718	0.000	306.065	0.062
Ba-140	La-140	38.736	0.000	306.065	0.062
Ba-140	La-140	38.826	0.000	306.065	0.062
Ba-140	La-140	38.829	0.000	306.065	0.062
Ba-141	La-141	37.738	0.004	0.304	0.058
Ba-141	La-141	37.820	0.008	0.304	0.058
Ba-141	La-141	38.078	0.000	0.304	0.058
Ba-141	La-141	38.096	0.000	0.304	0.058
Ba-141	La-141	38.718	0.001	0.304	0.058
Ba-141	La-141	38.736	0.002	0.304	0.058
Ba-141	La-141	38.826	0.000	0.304	0.058
Ba-141	La-141	38.829	0.000	0.304	0.058
Ba-142	La-142	37.738	0.011	0.177	0.058

3.1136 Sm-156 E_γ = 65.00 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 65.00 keV
Gamma Intensity = 2.25 ± 0.345 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2271: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2272: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-126	Sb-126	64.281	0.096	2016666624.000	0.001
Sn-127	Sb-127	66.400	0.001	2.100	0.001
Te-131	I-131	65.050	0.000	33.250	0.004
Ba-142	La-142	63.600	0.001	0.177	0.058
La-140	Ce-140	64.135	0.000	40.285	0.062
Nd-149	Pm-149	65.230	0.000	1.728	0.011
Nd-149	Pm-149	65.420	0.000	1.728	0.011
Nd-151	Pm-151	63.810	0.000	0.207	0.004
Pm-151	Sm-151	64.880	0.019	28.400	0.004
Pm-151	Sm-151	65.830	0.011	28.400	0.004

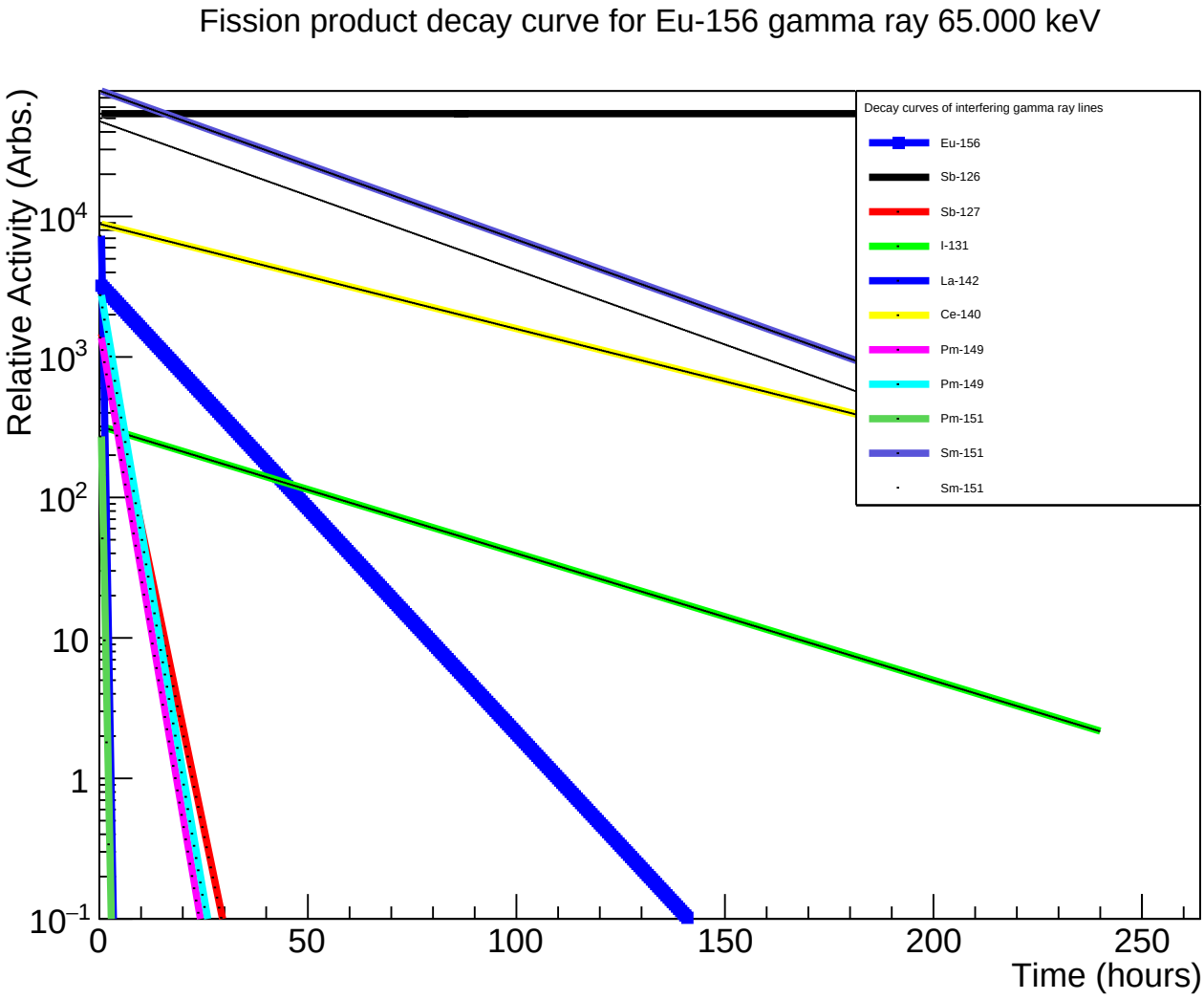


Figure 1136: Eu-156 decay curve for 65.000 keV gamma ray.

3.1137 Sm-156 E_γ = 87.60 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 87.60 keV
Gamma Intensity = 23.52 ± 7.747 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2273: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2274: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Sn-126	Sb-126	86.938	0.089	2016666624.000	0.001
Sn-126	Sb-126	87.567	0.370	2016666624.000	0.001
Te-127	I-127	88.260	0.001	2616.000	0.000
Te-131	I-131	86.430	0.001	33.250	0.004
Te-133	I-133	86.900	0.000	0.923	0.040
Te-133	I-133	88.064	0.013	0.923	0.040
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Pr-147	Nd-147	86.690	0.054	0.223	0.022
Pm-151	Sm-151	88.800	0.000	28.400	0.004
Eu-155	Gd-155	86.548	0.307	41666.668	0.000

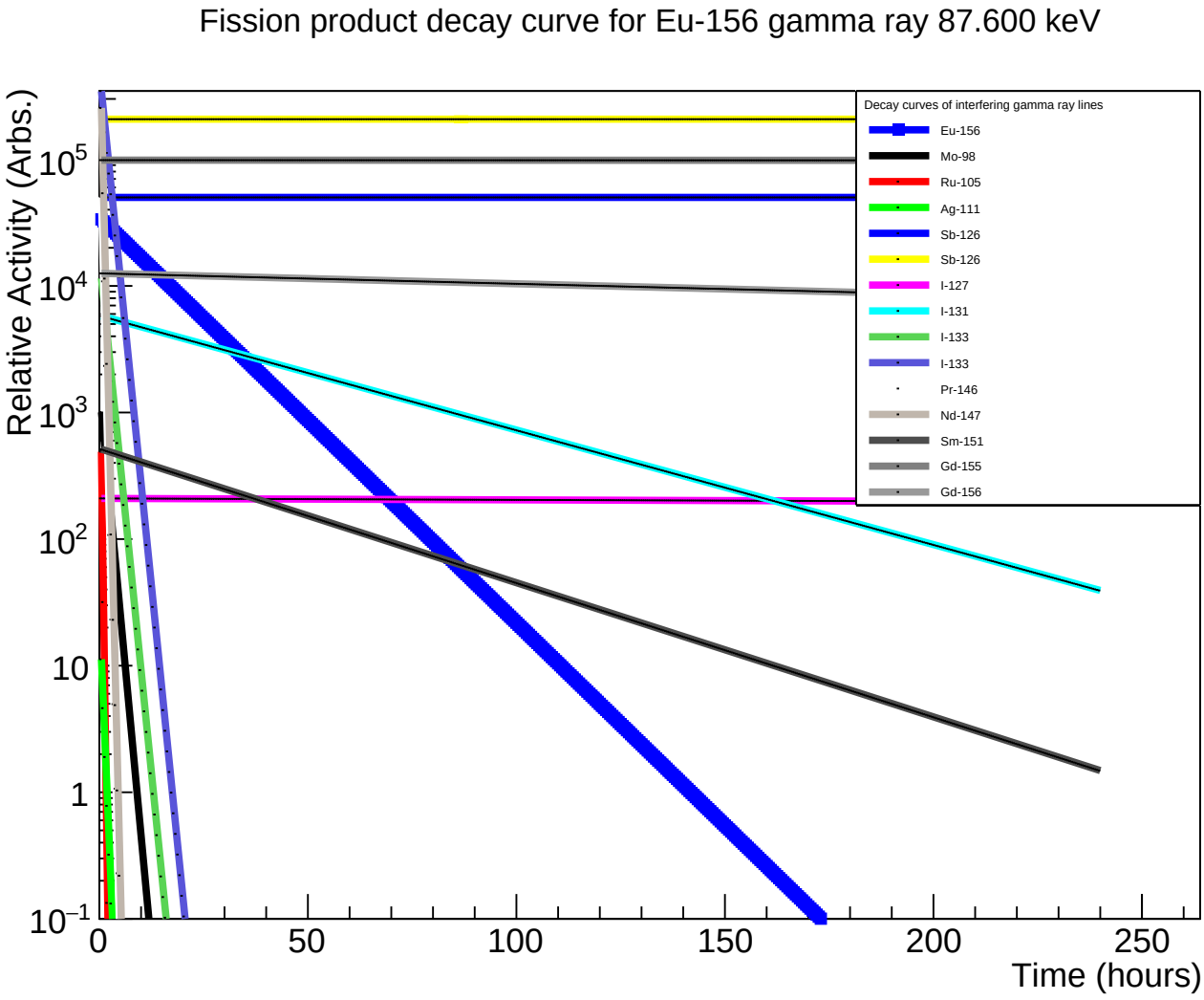


Figure 1137: Eu-156 decay curve for 87.600 keV gamma ray.

3.1138 Sm-156 E_γ = 103.00 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 103.00 keV
Gamma Intensity = 1.76 ± 0.270 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2275: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2276: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rh-107	Pd-107	102.400	0.000	0.362	0.001
Pd-109	Ag-109	103.900	0.000	13.701	0.000
Sn-127	Sb-127	104.100	0.002	2.100	0.001
Sb-128	Te-128	102.800	0.004	9.010	0.000
Te-131	I-131	101.600	0.002	33.250	0.004
Te-131	I-131	102.060	0.077	33.250	0.004
Te-131	I-131	103.300	0.000	33.250	0.004
Nd-151	Pm-151	102.450	0.005	0.207	0.004
Pm-151	Sm-151	101.930	0.013	28.400	0.004
Pm-151	Sm-151	102.700	0.000	28.400	0.004

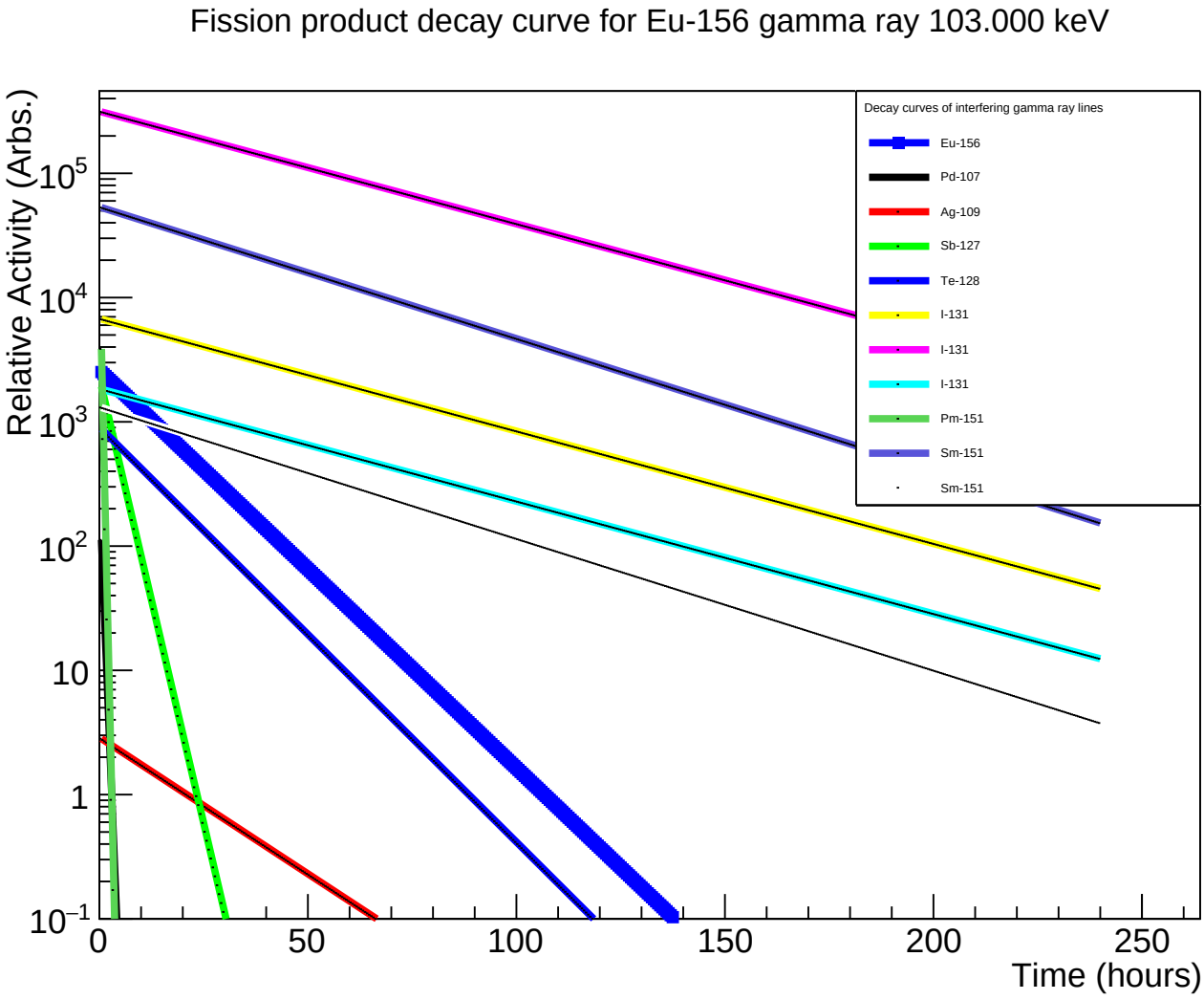


Figure 1138: Eu-156 decay curve for 103.000 keV gamma ray.

3.1139 Sm-156 E_γ = 165.80 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 165.80 keV
Gamma Intensity = 12.74 ± 2.765 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2277: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2278: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	165.980	0.031	2.840	0.036
Sr-93	Y-93	166.600	0.006	0.124	0.062
Tc-105	Ru-105	164.800	0.003	0.127	0.010
Pd-111	Ag-111	166.000	0.000	0.390	0.000
Te-133	I-133	164.400	0.009	0.923	0.040
I-135	Xe-135	165.740	0.000	6.570	0.063
Ba-139	La-139	165.857	0.238	1.384	0.064
Nd-151	Pm-151	165.990	0.001	0.207	0.004

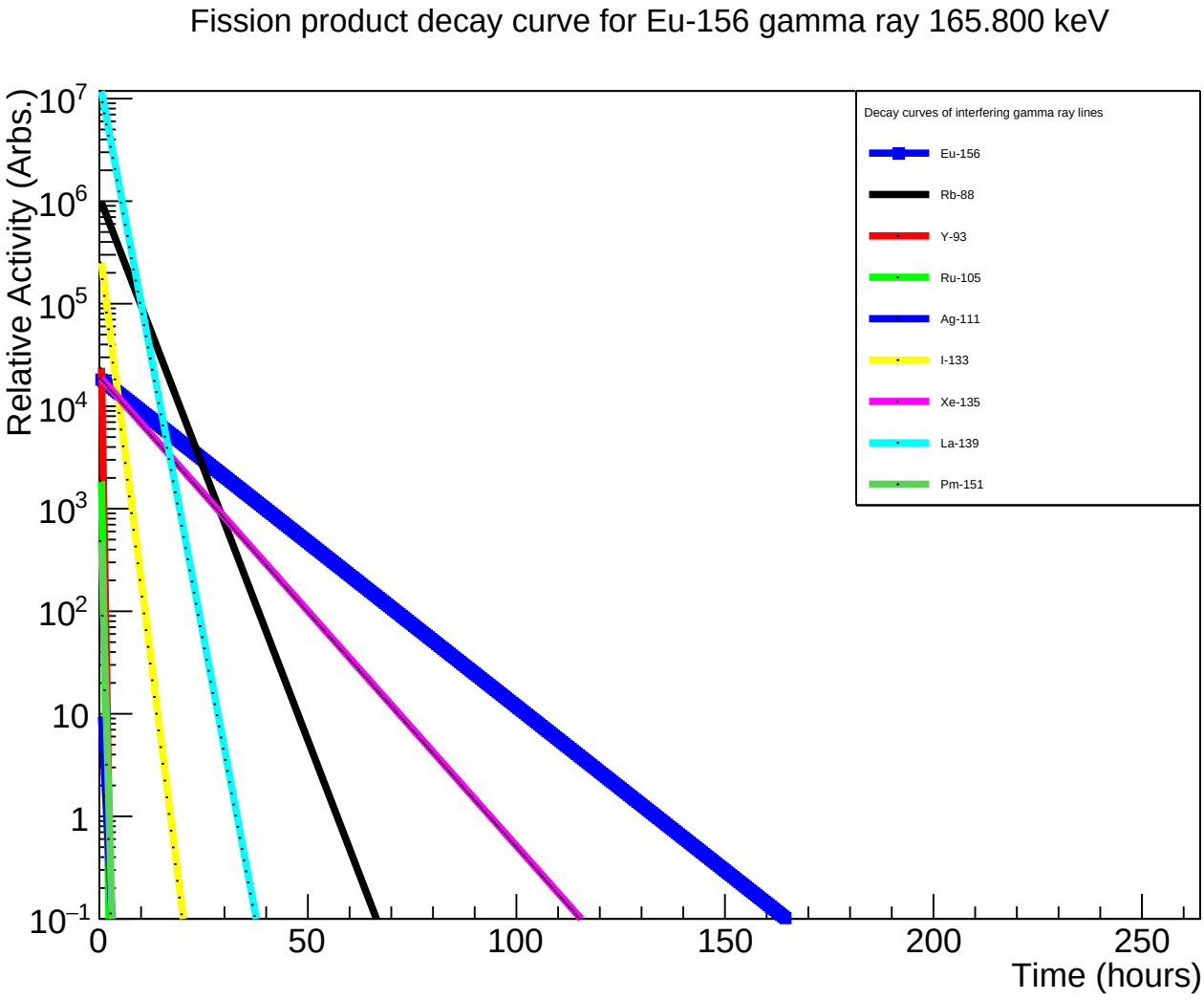


Figure 1139: Eu-156 decay curve for 165.800 keV gamma ray.

3.1140 Sm-156 E_γ = 204.00 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 204.00 keV
Gamma Intensity = 20.58 ± 3.710 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2279: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2280: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	202.500	0.000	16.749	0.060
Nb-95	Mo-95	204.116	0.000	839.784	0.065
Nb-95	Mo-95	204.116	0.023	86.640	0.001
Sn-127	Sb-127	202.800	0.008	2.100	0.001
Sn-127	Sb-127	204.100	0.002	2.100	0.001
Sn-127	Sb-127	205.200	0.002	2.100	0.001
Sb-125	Te-125	204.138	0.003	24194.445	0.000
Sb-128	Te-128	204.400	0.010	9.010	0.000
Te-127	I-127	202.900	0.001	9.350	0.002
Te-131	I-131	203.400	0.000	33.250	0.004
I-133	Xe-133	203.700	0.000	20.800	0.067
Pr-147	Nd-147	202.800	0.003	0.223	0.022
Pm-151	Sm-151	204.170	0.001	28.400	0.004

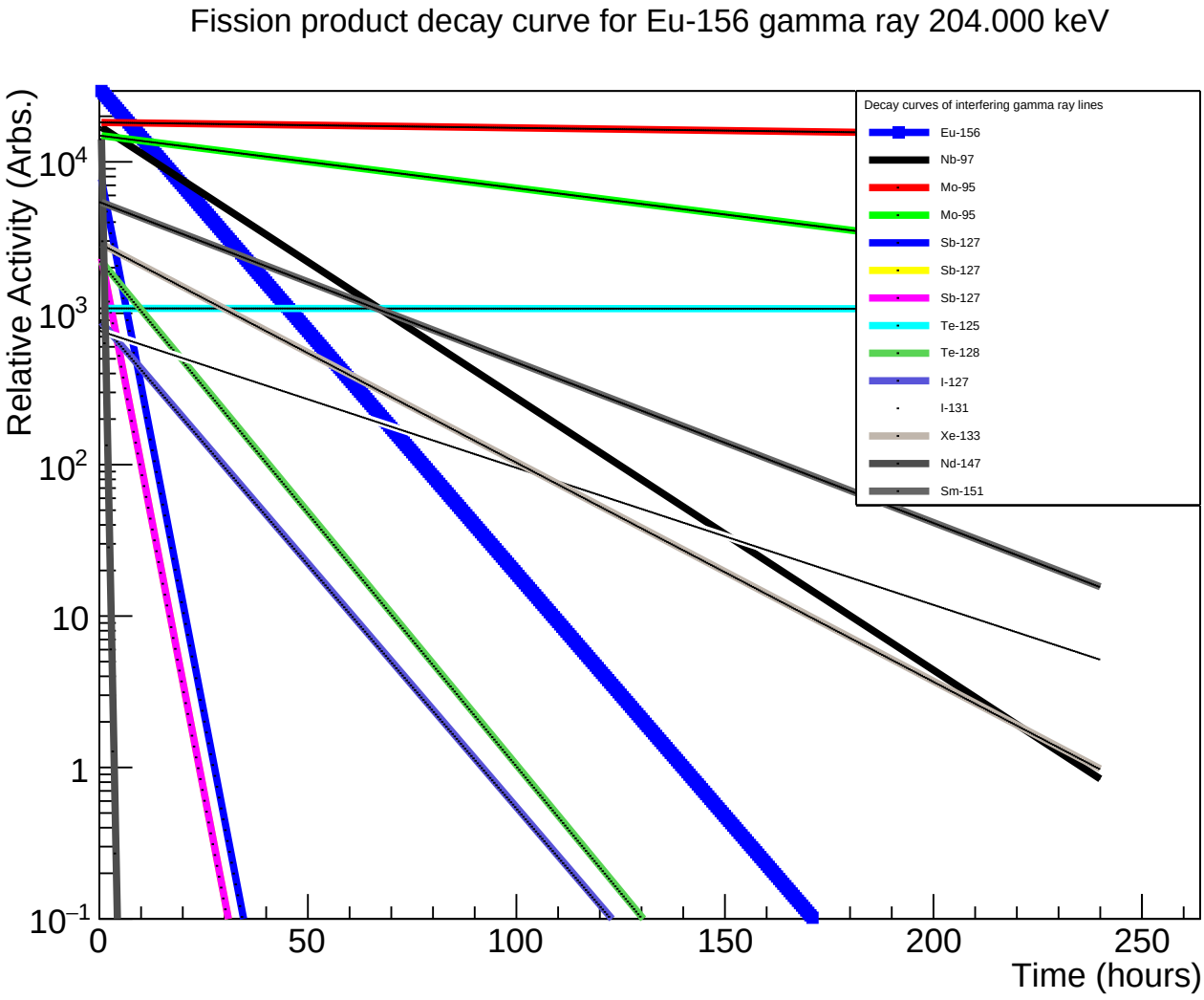


Figure 1140: Eu-156 decay curve for 204.000 keV gamma ray.

3.1141 Sm-156 E_γ = 244.00 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 244.00 keV
Gamma Intensity = 2.06 ± 0.845 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2281: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2282: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	245.500	0.004	0.305	0.019
Ru-105	Rh-105	245.210	0.000	4.440	0.010
Ag-111	Cd-111	245.400	0.013	178.800	0.000
Ag-112	Cd-112	244.800	0.000	3.130	0.000
Sb-129	Te-129	244.500	0.005	4.400	0.005
Te-133	I-133	244.380	0.003	0.923	0.040
Xe-138	Cs-138	242.560	0.035	0.235	0.063
Ba-141	La-141	242.700	0.001	0.304	0.058
Ba-142	La-142	242.900	0.002	0.177	0.058
Ce-146	Pr-146	245.500	0.003	0.225	0.030
Pr-145	Nd-145	242.910	0.000	5.984	0.039
Nd-149	Pm-149	245.500	0.002	1.728	0.011

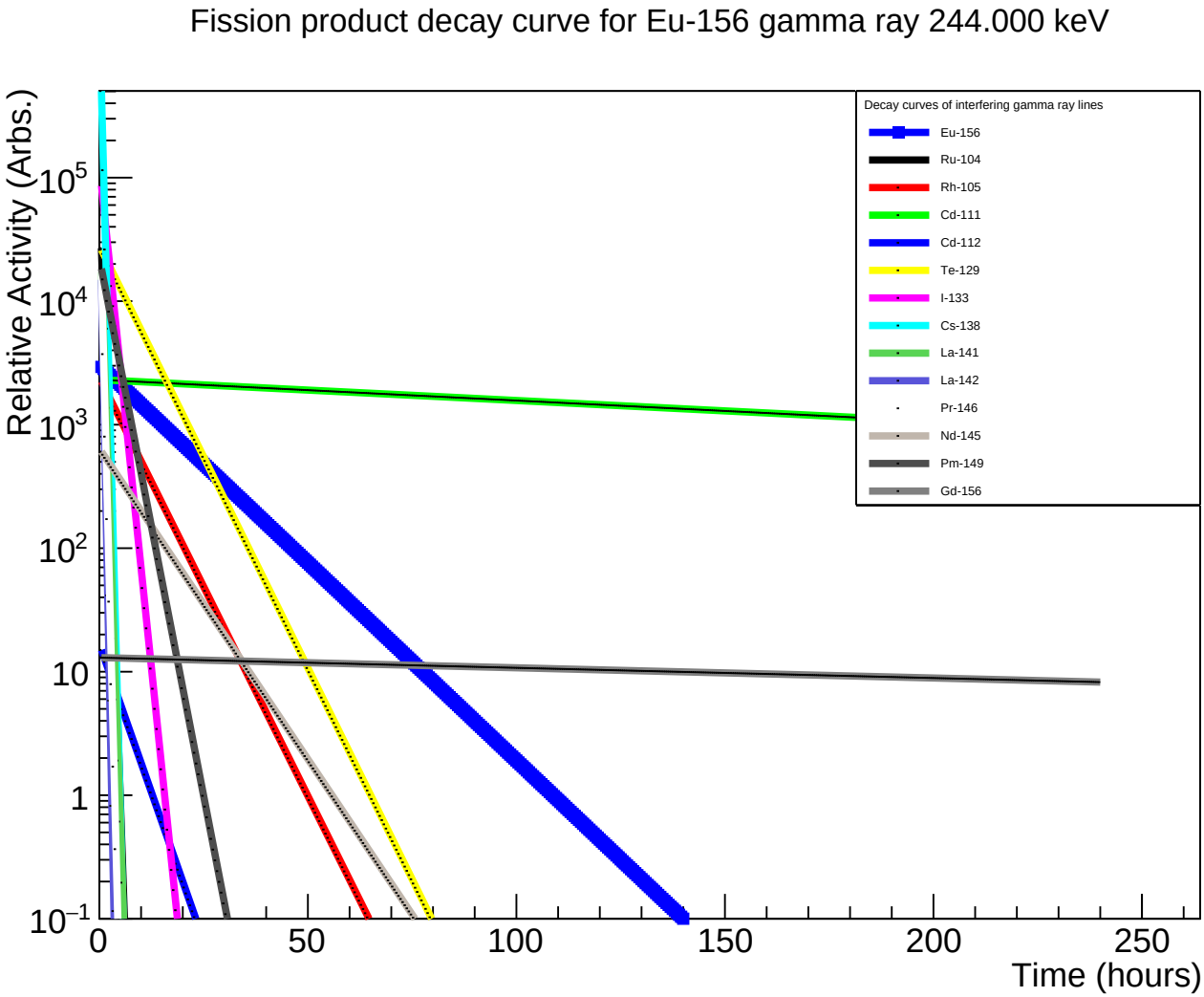


Figure 1141: Eu-156 decay curve for 244.000 keV gamma ray.

3.1142 Sm-156 E_γ = 268.50 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 268.50 keV
Gamma Intensity = 2.35 ± 0.863 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2283: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2284: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Kr-88	Rb-88	268.240	0.000	2.840	0.036
Sb-129	Te-129	268.600	0.003	4.400	0.005
Te-131	I-131	267.200	0.000	33.250	0.004
Te-131	I-131	269.200	0.001	33.250	0.004
I-133	Xe-133	267.173	0.001	20.800	0.067
Cs-139	Ba-139	267.600	0.000	0.155	0.063
Ba-142	La-142	269.500	0.009	0.177	0.058
Nd-149	Pm-149	267.693	0.060	1.728	0.011
Nd-151	Pm-151	268.670	0.002	0.207	0.004
Nd-152	Pm-152	269.400	0.003	0.190	0.003

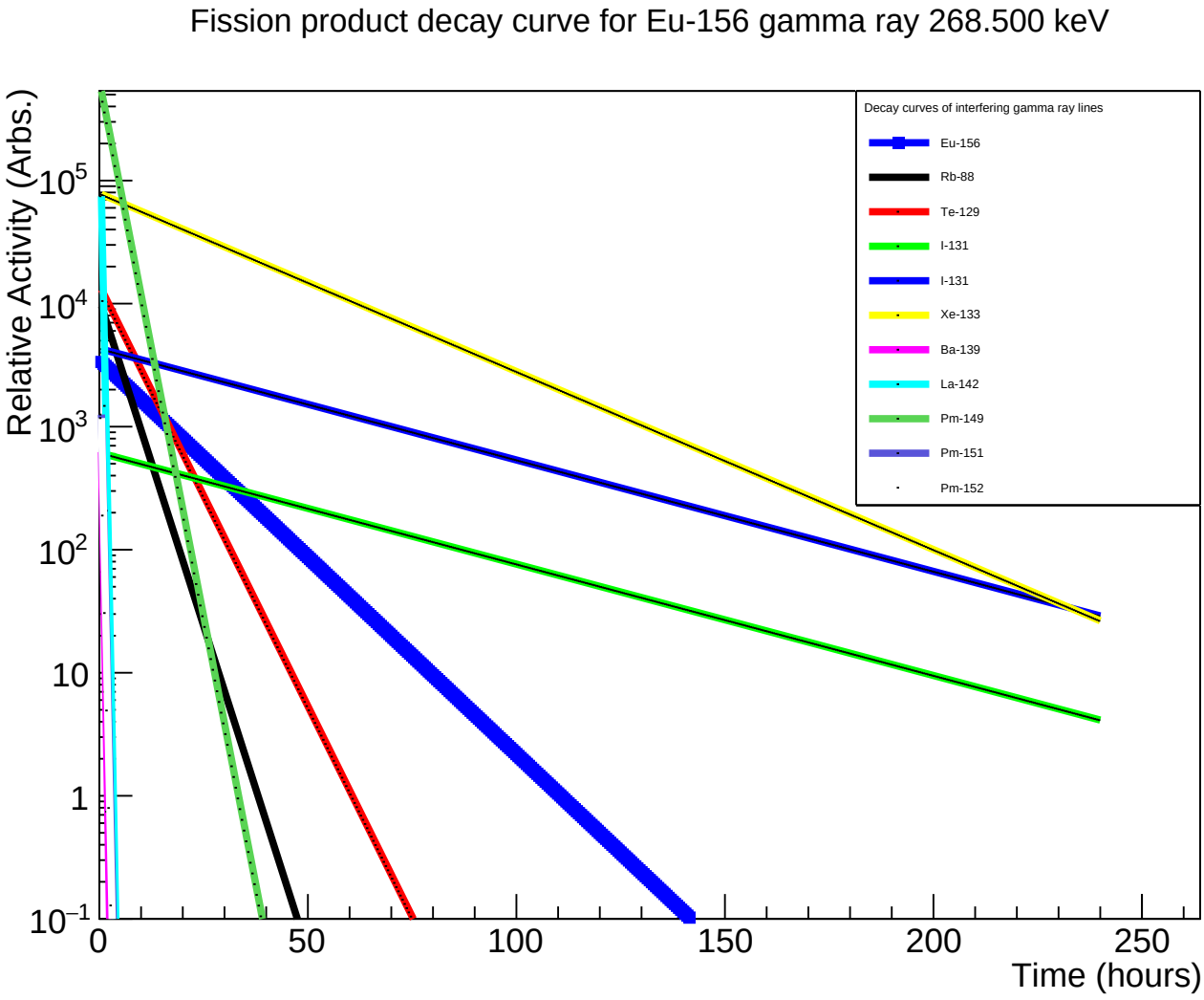


Figure 1142: Eu-156 decay curve for 268.500 keV gamma ray.

3.1143 Sm-156 E_γ = 291.00 keV

Chemical element: Samarium
Fission product parent: Sm-156
Gamma originates in daughter: Eu-156
Eγ: 291.00 keV
Gamma Intensity = 2.74 ± 1.066 %
$T_{1/2}$ = 9.400 ± 0.200 hours or 564.00 ± 12.00 minutes
CFY: 0.015 ± 0.001 %

Table 2285: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2286: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-81	Br-81	290.000	0.000	0.308	0.002
Se-81	Br-81	290.040	0.006	0.308	0.002
Rb-89	Sr-89	289.760	0.006	0.252	0.047
Pd-111	Ag-111	289.800	0.001	0.390	0.000
Sb-127	Te-127	290.800	0.020	92.400	0.002
Te-131	I-131	290.300	0.001	33.250	0.004
I-135	Xe-135	290.270	0.003	6.570	0.063
Nd-149	Pm-149	290.374	0.001	1.728	0.011
Nd-151	Pm-151	292.150	0.001	0.207	0.004
Pm-151	Sm-151	290.750	0.008	28.400	0.004
Pm-151	Sm-151	292.400	0.000	28.400	0.004

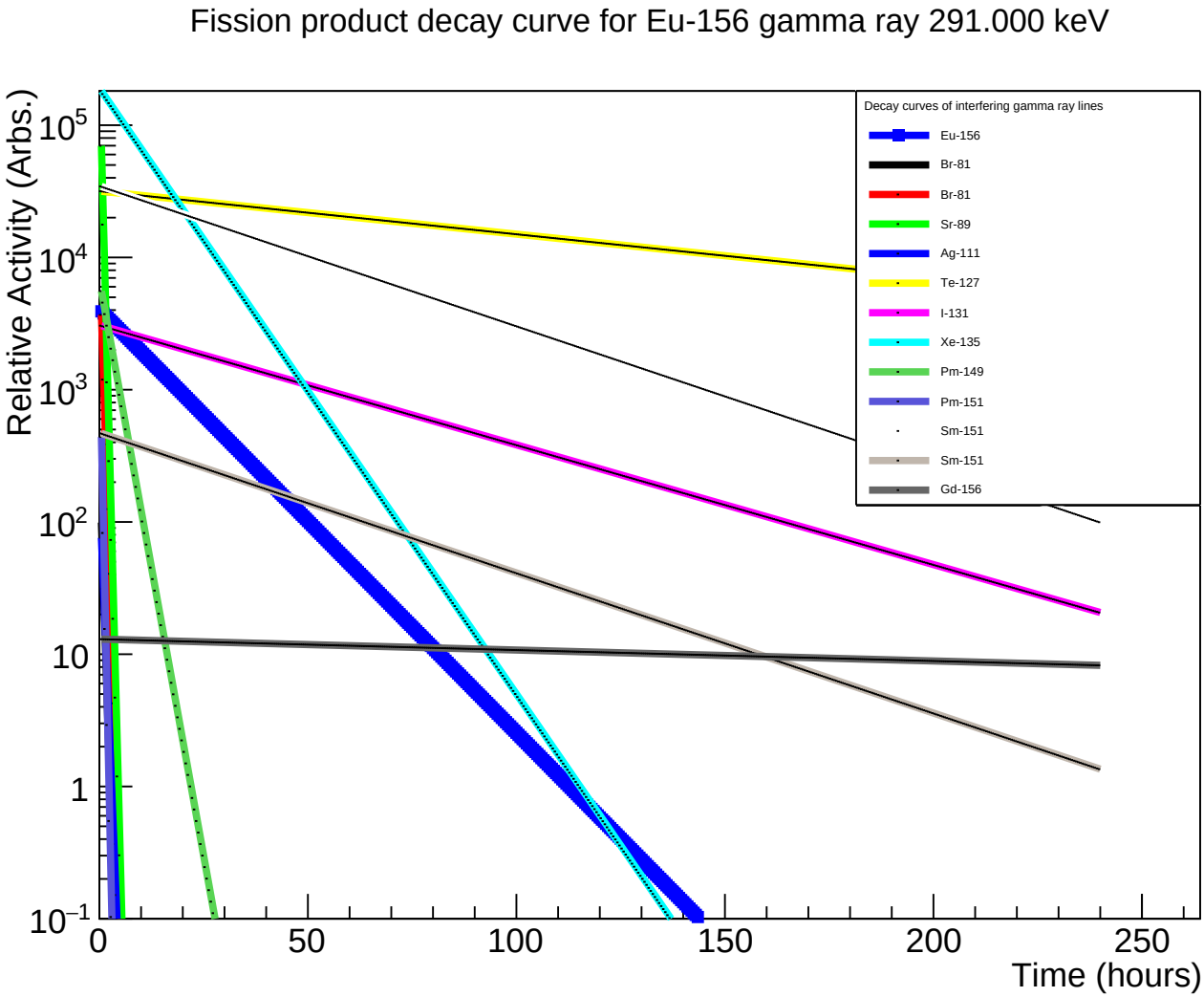


Figure 1143: Eu-156 decay curve for 291.000 keV gamma ray.

3.1144 Eu-155 E_γ = 45.30 keV

Chemical element: Europium
Fission product parent: Eu-155
Gamma originates in daughter: Gd-155
Eγ: 45.30 keV
Gamma Intensity = 1.31 ± 0.039 %
$T_{1/2}$ = 41666.668 ± 122.724 hours or 2500000.08 ± 7363.44 minutes
CFY: 0.032 ± 0.001 %

Table 2287: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

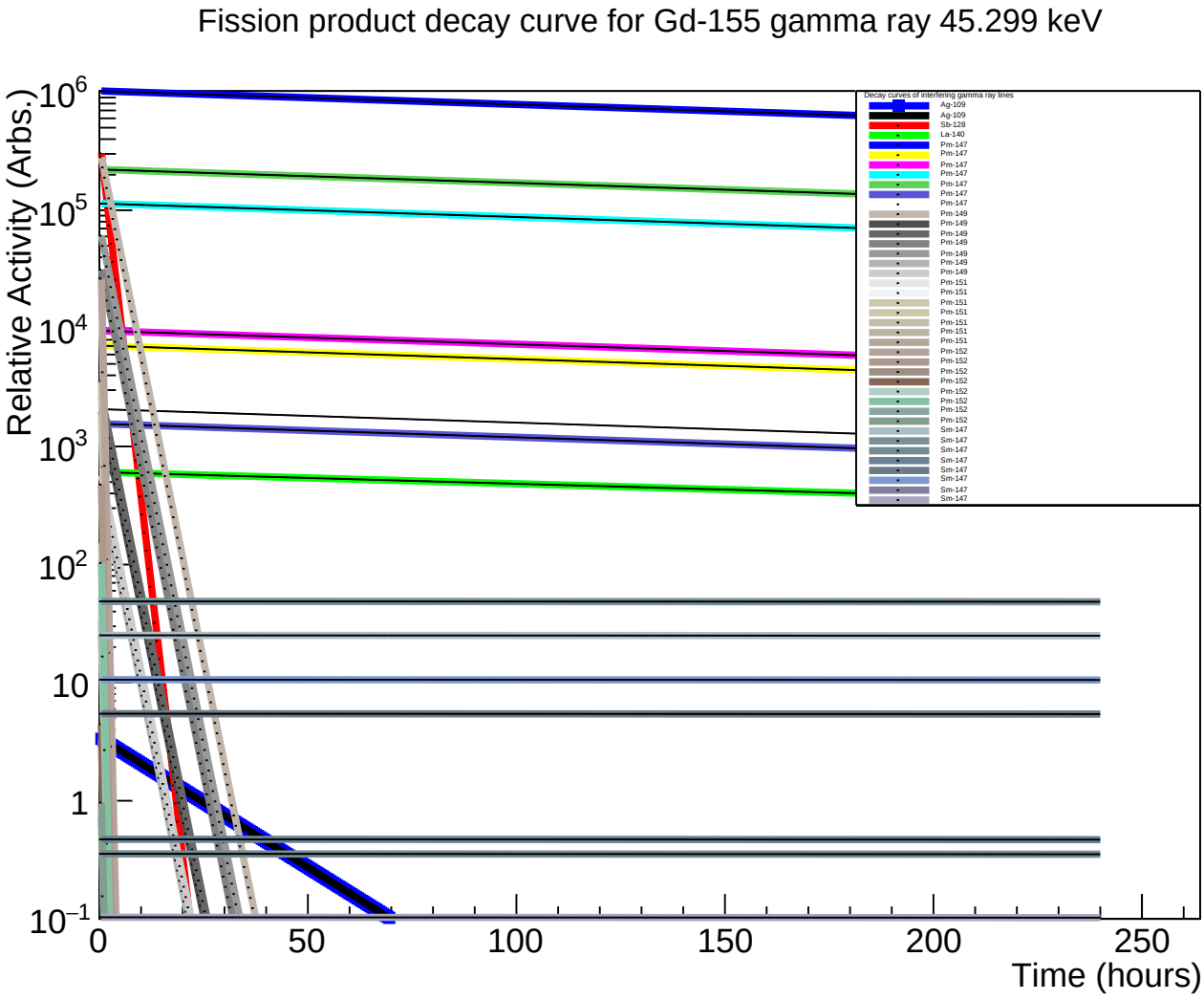


Figure 1144: Gd-155 decay curve for 45.299 keV gamma ray.

Table 2288: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	44.700	0.000	13.701	0.000
Sn-128	Sb-128	45.700	0.130	0.984	0.003
Ba-140	La-140	43.800	0.000	306.065	0.062
Nd-147	Pm-147	43.872	0.046	263.520	0.022
Nd-147	Pm-147	44.159	0.000	263.520	0.022
Nd-147	Pm-147	44.184	0.000	263.520	0.022
Nd-147	Pm-147	44.954	0.005	263.520	0.022
Nd-147	Pm-147	44.979	0.010	263.520	0.022
Nd-147	Pm-147	45.084	0.000	263.520	0.022
Nd-147	Pm-147	45.088	0.000	263.520	0.022
Nd-149	Pm-149	43.872	0.032	1.728	0.011
Nd-149	Pm-149	44.159	0.000	1.728	0.011
Nd-149	Pm-149	44.184	0.000	1.728	0.011
Nd-149	Pm-149	44.954	0.004	1.728	0.011
Nd-149	Pm-149	44.979	0.007	1.728	0.011
Nd-149	Pm-149	45.084	0.000	1.728	0.011
Nd-149	Pm-149	45.088	0.000	1.728	0.011
Nd-151	Pm-151	43.872	0.021	0.207	0.004
Nd-151	Pm-151	44.159	0.000	0.207	0.004
Nd-151	Pm-151	44.184	0.000	0.207	0.004
Nd-151	Pm-151	44.954	0.002	0.207	0.004
Nd-151	Pm-151	44.979	0.005	0.207	0.004
Nd-151	Pm-151	45.084	0.000	0.207	0.004
Nd-151	Pm-151	45.088	0.000	0.207	0.004
Nd-152	Pm-152	44.440	0.062	0.190	0.003
Nd-152	Pm-152	43.872	0.001	0.190	0.003
Nd-152	Pm-152	44.159	0.000	0.190	0.003
Nd-152	Pm-152	44.184	0.000	0.190	0.003
Nd-152	Pm-152	44.954	0.000	0.190	0.003
Nd-152	Pm-152	44.979	0.000	0.190	0.003
Nd-152	Pm-152	45.084	0.000	0.190	0.003
Nd-152	Pm-152	45.088	0.000	0.190	0.003
Pm-147	Sm-147	45.344	0.000	23000.000	0.022
Pm-147	Sm-147	45.468	0.000	23000.000	0.022
Pm-147	Sm-147	45.763	0.000	23000.000	0.022
Pm-147	Sm-147	45.790	0.000	23000.000	0.022
Pm-147	Sm-147	46.599	0.000	23000.000	0.022
Pm-147	Sm-147	46.626	0.000	23000.000	0.022
Pm-147	Sm-147	46.735	0.000	23000.000	0.022
Pm-147	Sm-147	46.739	0.000	23000.000	0.022

3.1145 Eu-155 E_γ = 60.01 keV

Chemical element: Europium
Fission product parent: Eu-155
Gamma originates in daughter: Gd-155
Eγ: 60.01 keV
Gamma Intensity = 1.22 ± 0.039 %
$T_{1/2}$ = 41666.668 ± 122.724 hours or 2500000.08 ± 7363.44 minutes
CFY: 0.032 ± 0.001 %

Table 2289: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2290: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sb-127	Te-127	61.100	0.014	92.400	0.002
Pr-144	Nd-144	59.030	0.001	0.120	0.000
Nd-149	Pm-149	58.526	0.014	1.728	0.011
Nd-149	Pm-149	58.883	0.013	1.728	0.011
Pm-151	Sm-151	59.930	0.000	28.400	0.004
Pm-151	Sm-151	61.000	0.000	28.400	0.004

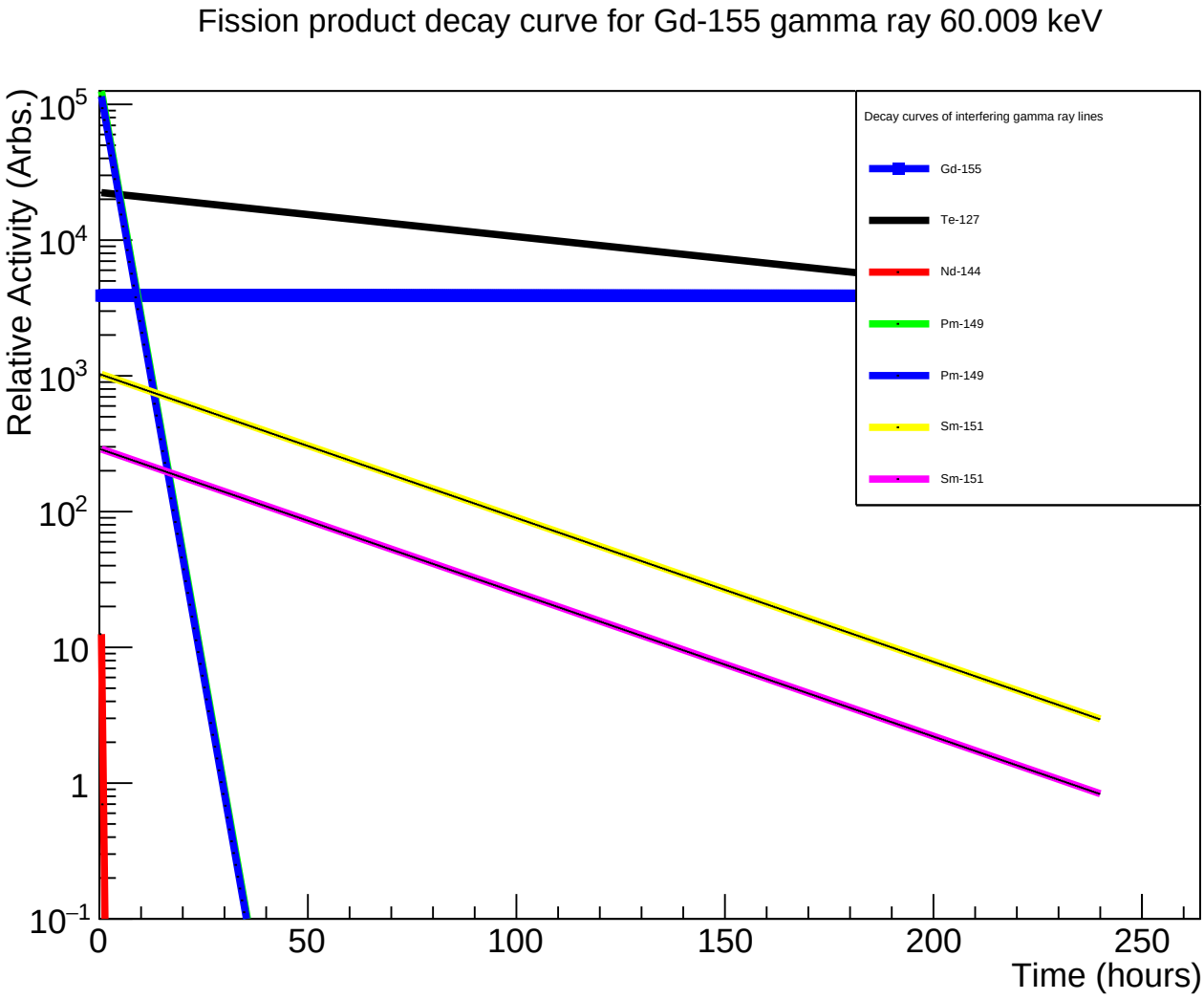


Figure 1145: Gd-155 decay curve for 60.009 keV gamma ray.

3.1146 Eu-155 E_γ = 86.55 keV

Chemical element: Europium
Fission product parent: Eu-155
Gamma originates in daughter: Gd-155
Eγ: 86.55 keV
Gamma Intensity = 30.70 ± 0.300 %
$T_{1/2}$ = 41666.668 ± 122.724 hours or 2500000.08 ± 7363.44 minutes
CFY: 0.032 ± 0.001 %

Table 2291: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2292: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	86.650	0.004	0.855	0.000
Tc-105	Ru-105	87.400	0.001	0.127	0.010
Pd-111	Ag-111	87.000	0.000	0.390	0.000
Sn-126	Sb-126	86.938	0.089	2016666624.000	0.001
Sn-126	Sb-126	87.567	0.370	2016666624.000	0.001
Te-131	I-131	86.430	0.001	33.250	0.004
Te-133	I-133	86.900	0.000	0.923	0.040
I-131	Xe-131	85.900	0.000	192.605	0.029
Ce-146	Pr-146	87.190	0.008	0.225	0.030
Pr-147	Nd-147	86.690	0.054	0.223	0.022
Nd-151	Pm-151	85.120	0.020	0.207	0.004
Nd-151	Pm-151	86.080	0.001	0.207	0.004
Sm-156	Eu-156	87.600	0.235	9.400	0.000

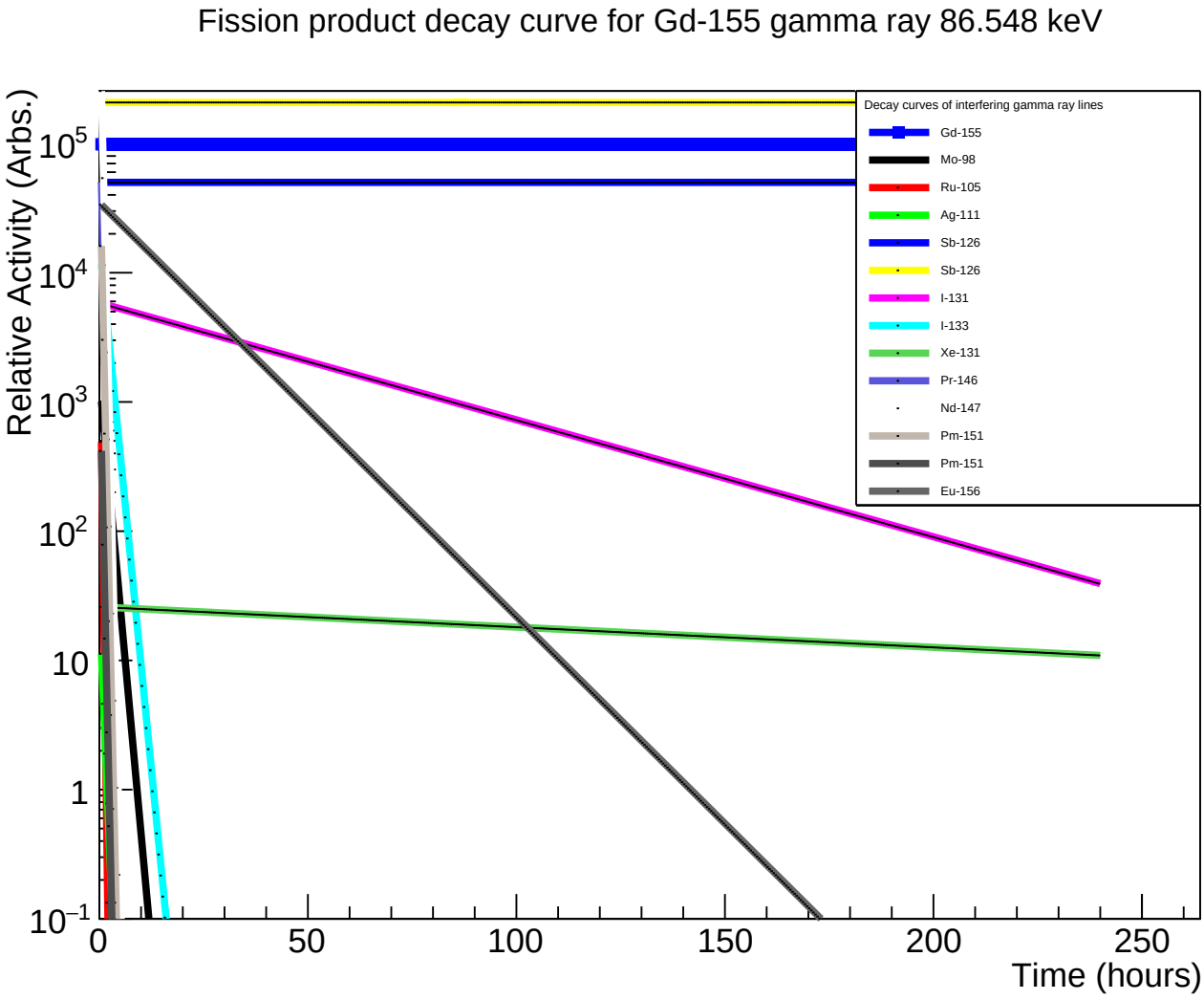


Figure 1146: Gd-155 decay curve for 86.548 keV gamma ray.

3.1147 Eu-155 E_γ = 105.31 keV

Chemical element: Europium
Fission product parent: Eu-155
Gamma originates in daughter: Gd-155
Eγ: 105.31 keV
Gamma Intensity = 21.12 ± 0.477 %
$T_{1/2}$ = 41666.668 ± 122.724 hours or 2500000.08 ± 7363.44 minutes
CFY: 0.032 ± 0.001 %

Table 2293: Decay chain of fission product chain A = 155

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Samarium-155	Europium-155	0.372	0.003
Europium-155	Gadolinium-155	41666.668	122.724

Table 2294: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Pd-109	Ag-109	103.900	0.000	13.701	0.000
Sn-127	Sb-127	104.100	0.002	2.100	0.001
Te-129	I-129	105.500	0.001	806.400	0.001
Te-131	I-131	105.000	0.000	33.250	0.004
La-142	Ce-142	105.900	0.001	1.518	0.058
Ce-146	Pr-146	106.170	0.006	0.225	0.030
Nd-151	Pm-151	104.900	0.000	0.207	0.004
Pm-151	Sm-151	104.840	0.035	28.400	0.004

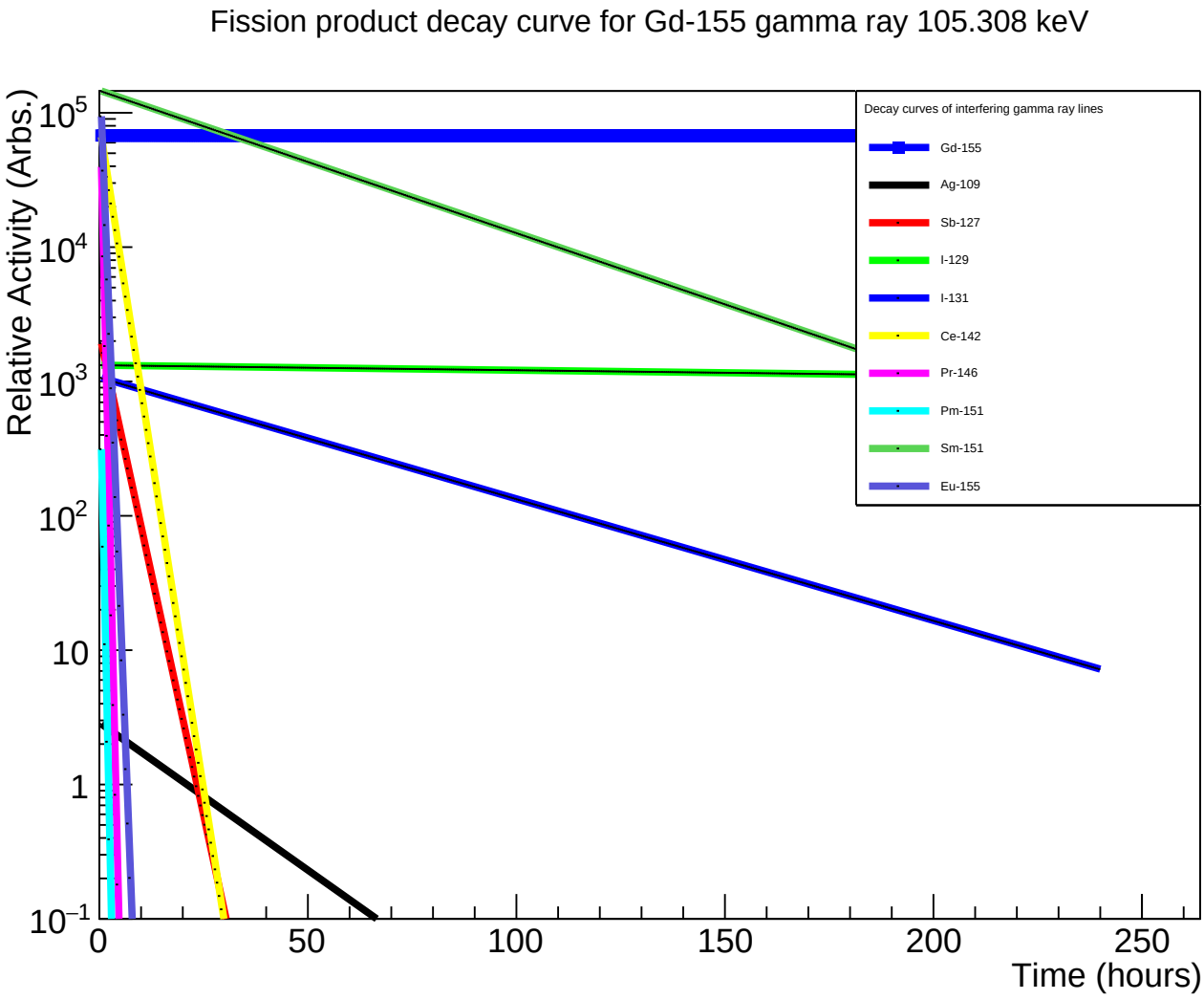


Figure 1147: Gd-155 decay curve for 105.308 keV gamma ray.

3.1148 Eu-156 E_γ = 88.97 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 88.97 keV
Gamma Intensity = 8.44 ± 1.116 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2295: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2296: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-99	Ru-99	89.500	0.000	1850000000.000	0.061
Tc-99	Ru-99	89.600	0.000	6.007	0.054
Sn-126	Sb-126	87.567	0.370	2016666624.000	0.001
Te-127	I-127	88.260	0.001	2616.000	0.000
Te-133	I-133	88.064	0.013	0.923	0.040
Nd-149	Pm-149	90.120	0.001	1.728	0.011
Nd-151	Pm-151	89.960	0.015	0.207	0.004
Pm-151	Sm-151	88.800	0.000	28.400	0.004
Sm-153	Eu-153	89.486	0.002	46.500	0.002
Sm-155	Eu-155	90.100	0.000	0.372	0.000

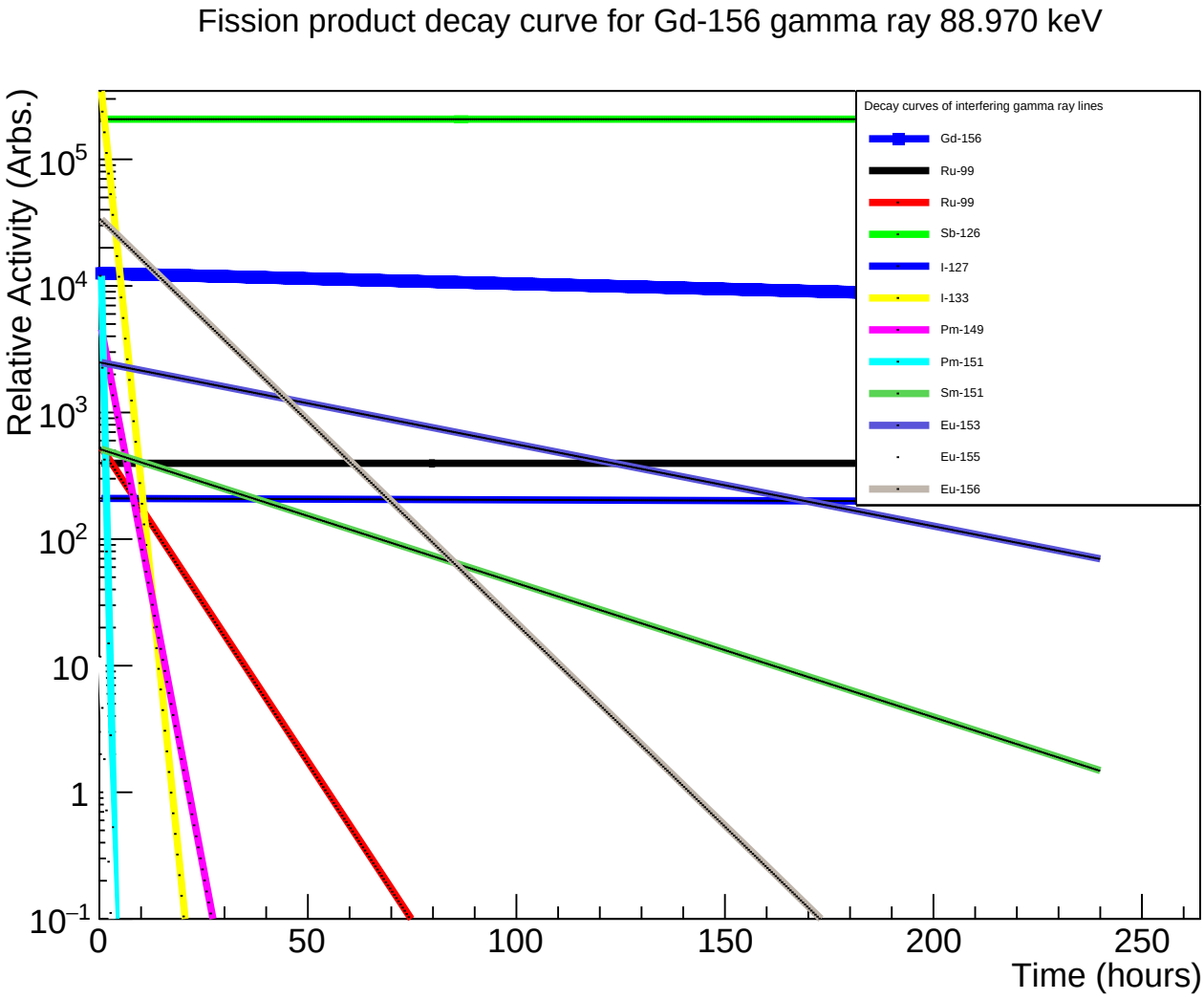


Figure 1148: Gd-156 decay curve for 88.970 keV gamma ray.

3.1149 Eu-156 E_γ = 599.47 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 599.47 keV
Gamma Intensity = 2.08 ± 0.172 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2297: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2298: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Zr-97	Nb-97	600.600	0.001	16.749	0.060
Sb-125	Te-125	600.597	0.176	24194.445	0.000
I-132	Xe-132	600.000	0.003	2.295	0.043
Cs-139	Ba-139	598.170	0.000	0.155	0.063
Ba-141	La-141	599.400	0.003	0.304	0.058
Ba-142	La-142	599.800	0.018	0.177	0.058
Nd-149	Pm-149	598.060	0.000	1.728	0.011
Nd-151	Pm-151	600.800	0.000	0.207	0.004
Pm-151	Sm-151	598.000	0.000	28.400	0.004
Pm-151	Sm-151	599.100	0.000	28.400	0.004
Sm-153	Eu-153	598.300	0.000	46.500	0.002

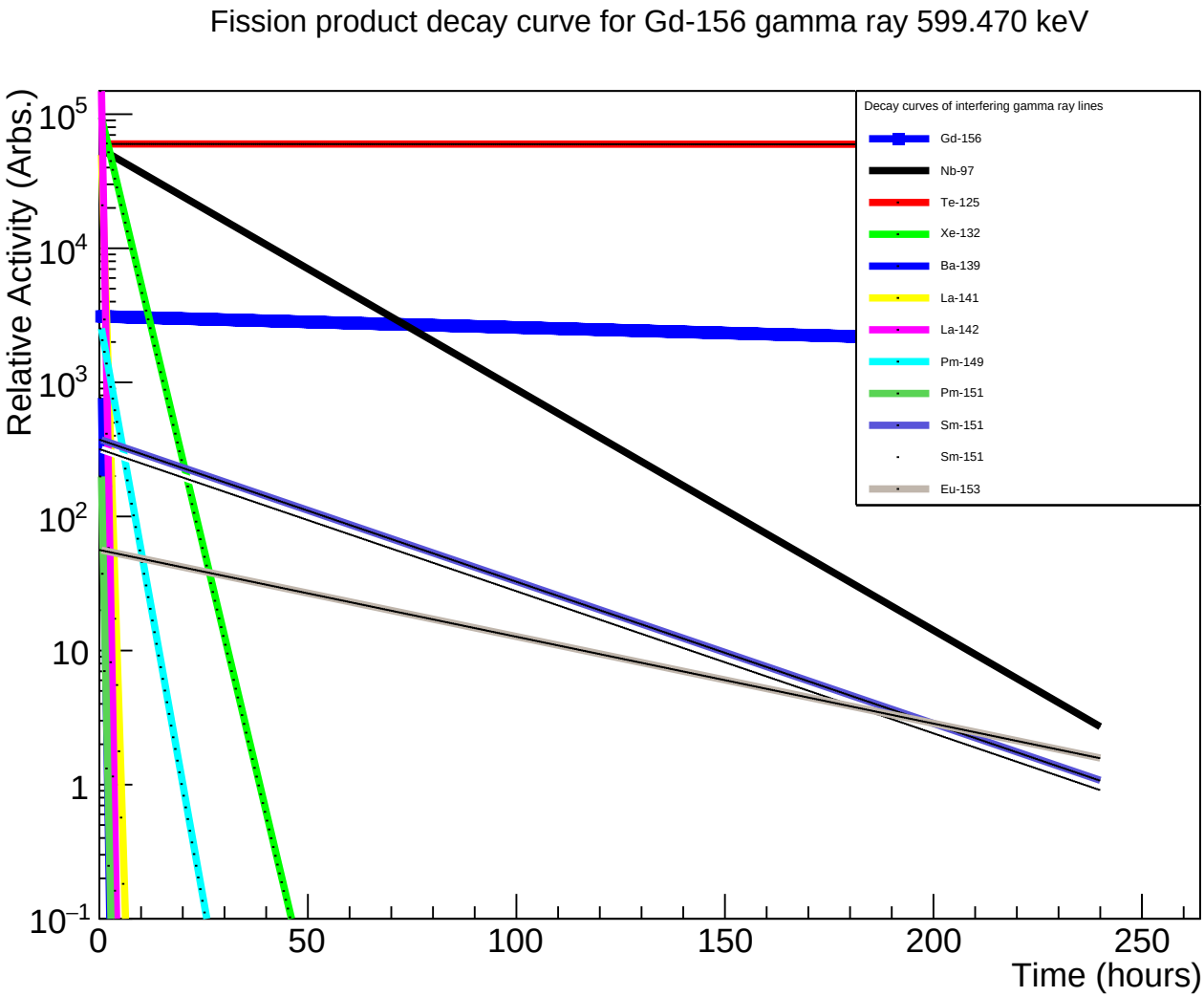


Figure 1149: Gd-156 decay curve for 599.470 keV gamma ray.

3.1150 Eu-156 E_γ = 646.29 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 646.29 keV
Gamma Intensity = 6.28 ± 0.519 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2299: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2300: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	644.847	0.056	0.855	0.000
Tc-105	Ru-105	646.300	0.012	0.127	0.010
Pd-109	Ag-109	647.300	0.000	13.701	0.000
Ag-112	Cd-112	647.500	0.000	3.130	0.000
Sb-130	Te-130	647.700	0.048	0.105	0.010
Te-133	I-133	645.600	0.004	0.208	0.031
Te-133	I-133	647.510	0.097	0.923	0.040
Te-134	I-134	645.400	0.009	0.697	0.070
Xe-138	Cs-138	647.200	0.000	0.235	0.063
La-142	Ce-142	646.200	0.001	1.518	0.058

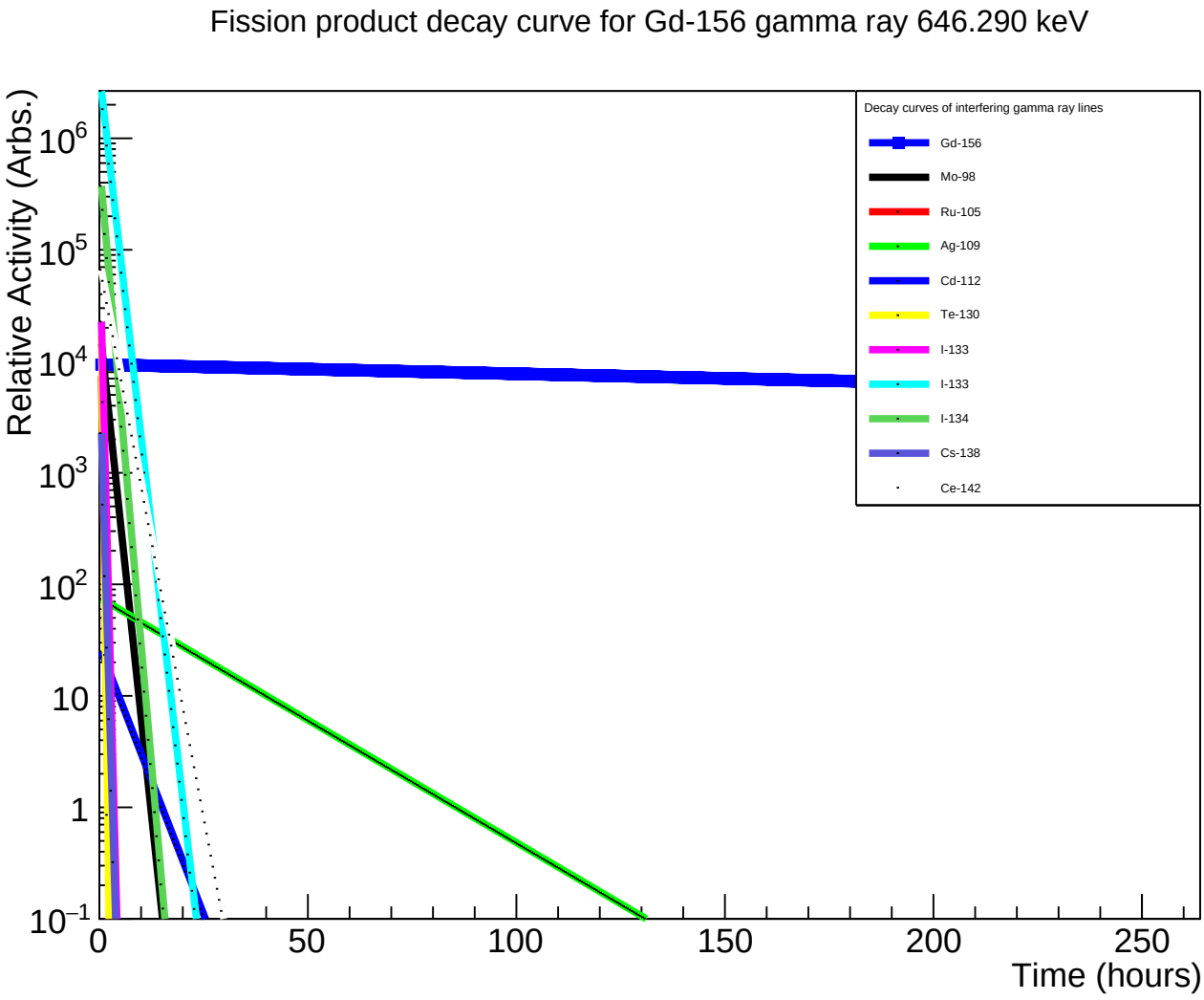


Figure 1150: Gd-156 decay curve for 646.290 keV gamma ray.

3.1151 Eu-156 E_γ = 723.47 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 723.47 keV
Gamma Intensity = 5.42 ± 0.448 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2301: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2302: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	722.400	0.001	1.512	0.000
As-79	Se-79	723.600	0.001	0.150	0.000
Zr-95	Nb-95	724.192	0.443	1536.768	0.065
Nb-98	Mo-98	722.626	0.738	0.855	0.000
Tc-105	Ru-105	722.800	0.001	0.127	0.010
Ru-105	Rh-105	724.300	0.473	4.440	0.010
Pd-109	Ag-109	724.400	0.000	13.701	0.000
Sb-127	Te-127	722.200	0.019	92.400	0.002
Te-129	I-129	722.500	0.000	1.160	0.005
Te-133	I-133	722.000	0.000	0.208	0.031
Te-133	I-133	723.500	0.003	0.923	0.040
Te-133	I-133	724.000	0.001	0.923	0.040
I-131	Xe-131	722.911	0.018	192.605	0.029
Nd-151	Pm-151	724.280	0.001	0.207	0.004
Nd-151	Pm-151	724.280	0.002	0.207	0.004

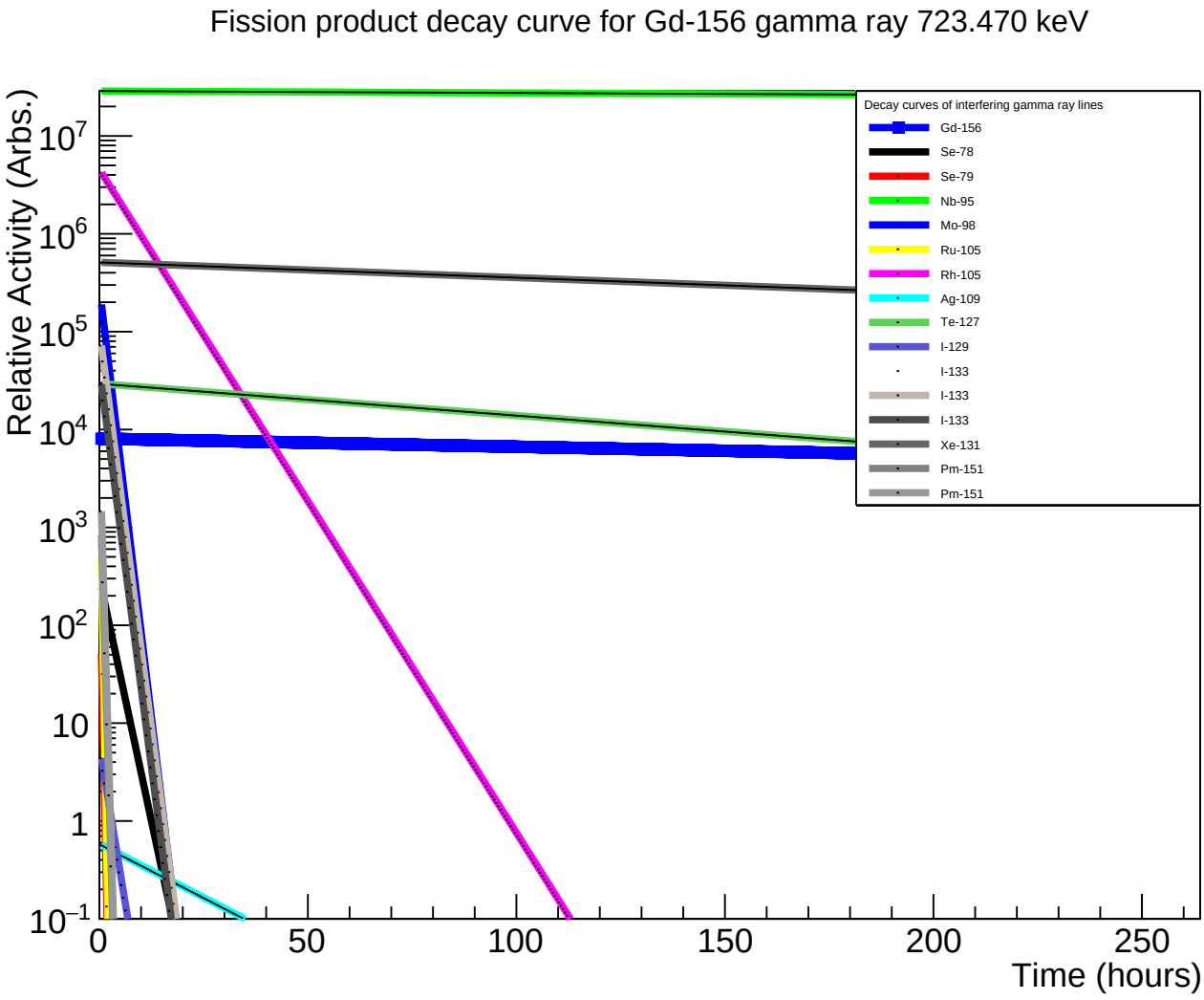


Figure 1151: Gd-156 decay curve for 723.470 keV gamma ray.

3.1152 Eu-156 E_γ = 811.77 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 811.77 keV
Gamma Intensity = 9.70 ± 0.801 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2303: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2304: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	812.000	0.004	0.372	0.003
Tc-101	Ru-101	811.130	0.001	0.237	0.052
Sb-129	Te-129	812.800	0.433	4.400	0.005
I-132	Xe-132	812.000	0.055	2.295	0.043
Xe-135	Cs-135	812.630	0.001	9.140	0.065
Cs-138	Ba-138	813.000	0.001	0.557	0.067
Nd-149	Pm-149	813.190	0.000	1.728	0.011
Nd-151	Pm-151	812.600	0.001	0.207	0.004
Pm-149	Sm-149	812.920	0.000	53.080	0.011
Pm-151	Sm-151	811.800	0.001	28.400	0.004

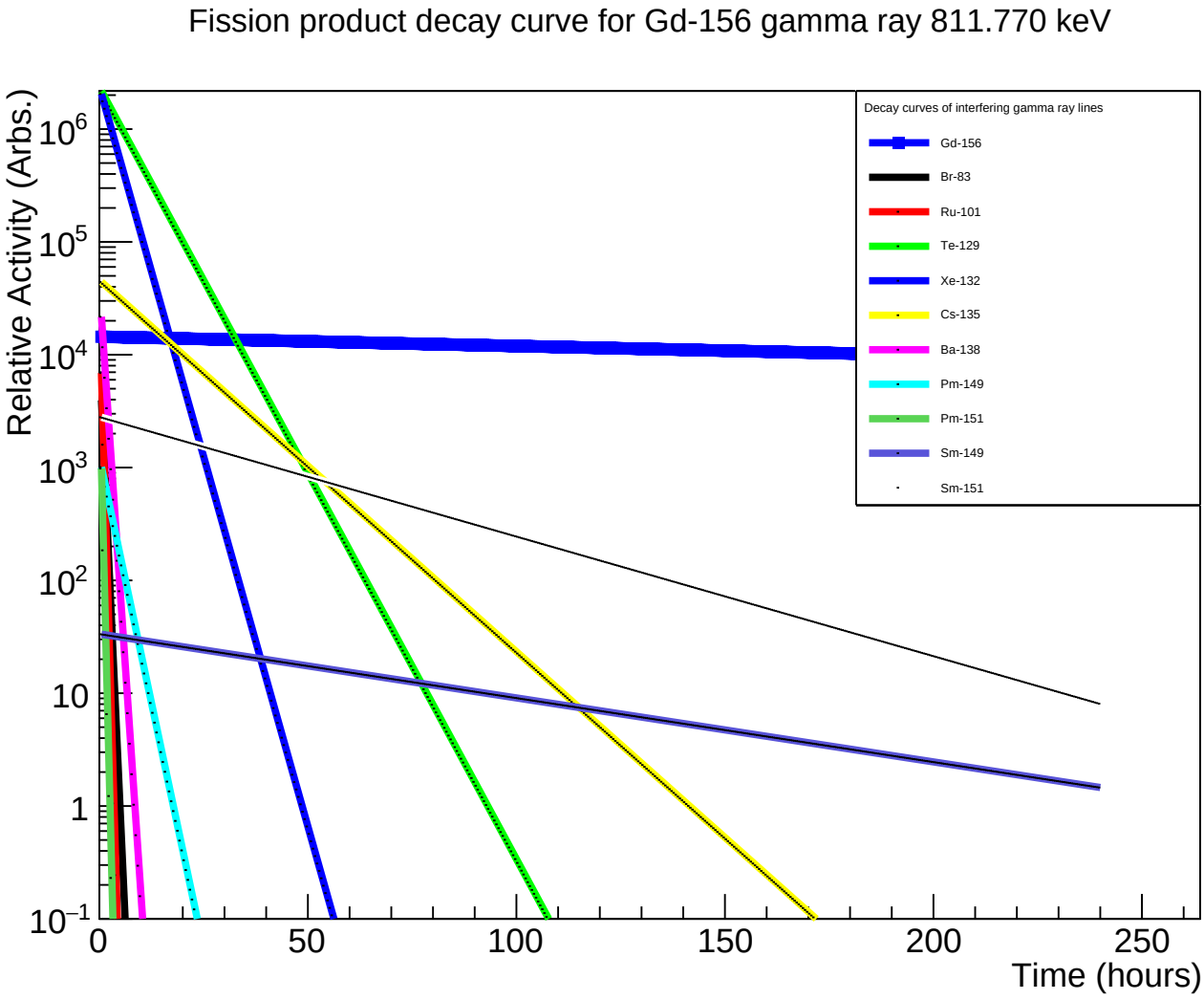


Figure 1152: Gd-156 decay curve for 811.770 keV gamma ray.

3.1153 Eu-156 E_γ = 867.01 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 867.01 keV
Gamma Intensity = 1.33 ± 0.110 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2305: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2306: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	866.640	0.082	0.372	0.003
Ag-111	Cd-111	867.000	0.000	178.800	0.000
Sb-131	Te-131	866.000	0.005	0.384	0.026
I-132	Xe-132	866.000	0.001	2.295	0.043
Xe-138	Cs-138	865.820	0.003	0.235	0.063
Ba-141	La-141	867.800	0.001	0.304	0.058
La-140	Ce-140	867.846	0.055	40.285	0.062
Nd-151	Pm-151	865.900	0.000	0.207	0.004
Nd-151	Pm-151	866.400	0.000	0.207	0.004
Nd-151	Pm-151	866.400	0.001	0.207	0.004
Nd-151	Pm-151	867.600	0.001	0.207	0.004
Pm-151	Sm-151	867.100	0.000	28.400	0.004

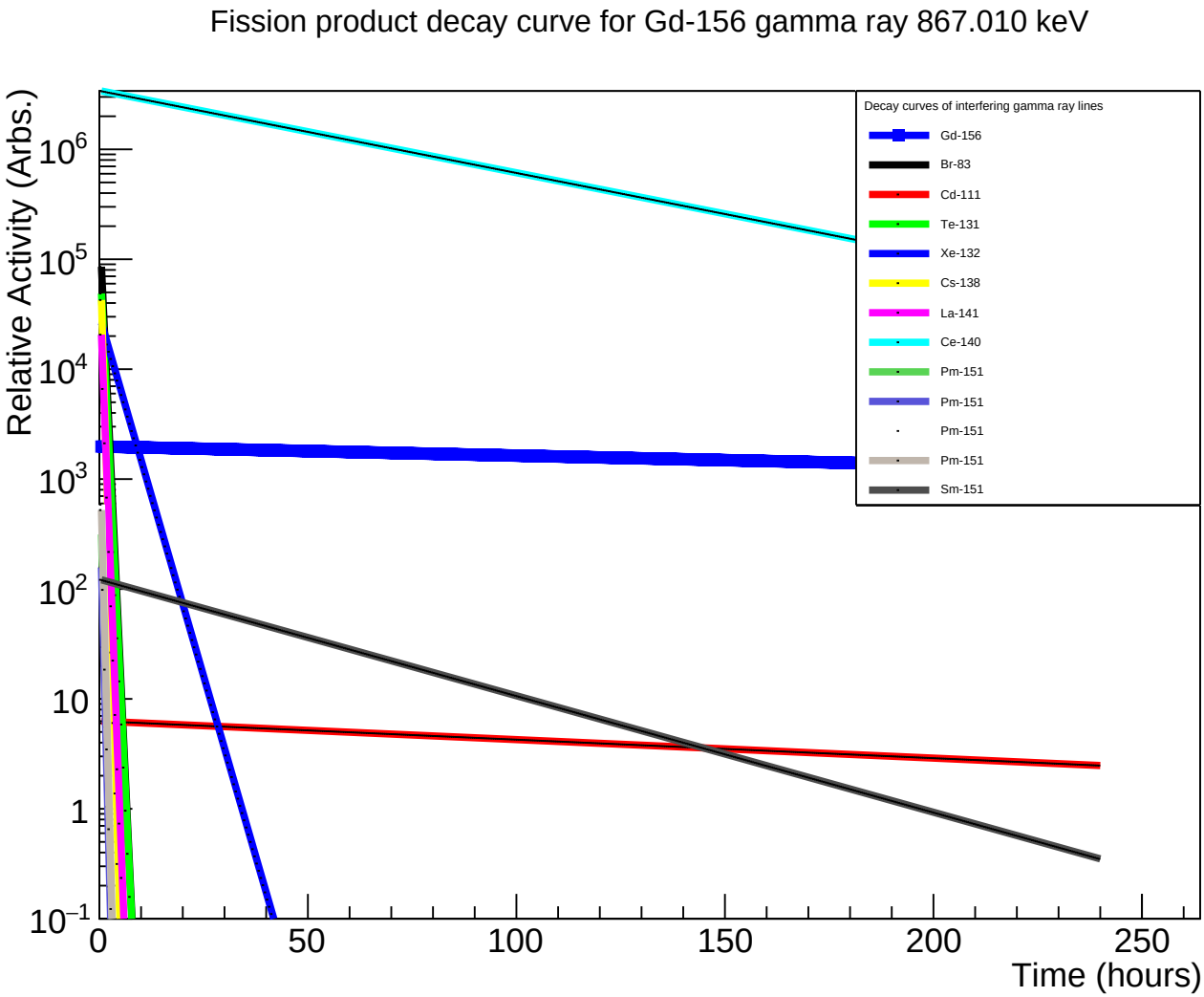


Figure 1153: Gd-156 decay curve for 867.010 keV gamma ray.

3.1154 Eu-156 E_γ = 944.35 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 944.35 keV
Gamma Intensity = 1.33 ± 0.110 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2307: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2308: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	943.300	0.005	0.372	0.003
Se-83	Br-83	943.400	0.009	0.372	0.003
Kr-88	Rb-88	944.920	0.003	2.840	0.036
Nb-98	Mo-98	944.600	0.000	0.855	0.000
Mo-101	Tc-101	943.980	0.001	0.243	0.052
Sb-131	Te-131	943.410	0.471	0.384	0.026
Te-133	I-133	943.000	0.001	0.208	0.031
Te-133	I-133	945.200	0.006	0.923	0.040
Ba-141	La-141	943.200	0.008	0.304	0.058
La-143	Ce-143	942.900	0.000	0.237	0.059
Nd-149	Pm-149	942.970	0.000	1.728	0.011
Nd-149	Pm-149	945.800	0.000	1.728	0.011
Nd-151	Pm-151	943.170	0.004	0.207	0.004
Nd-151	Pm-151	945.500	0.000	0.207	0.004

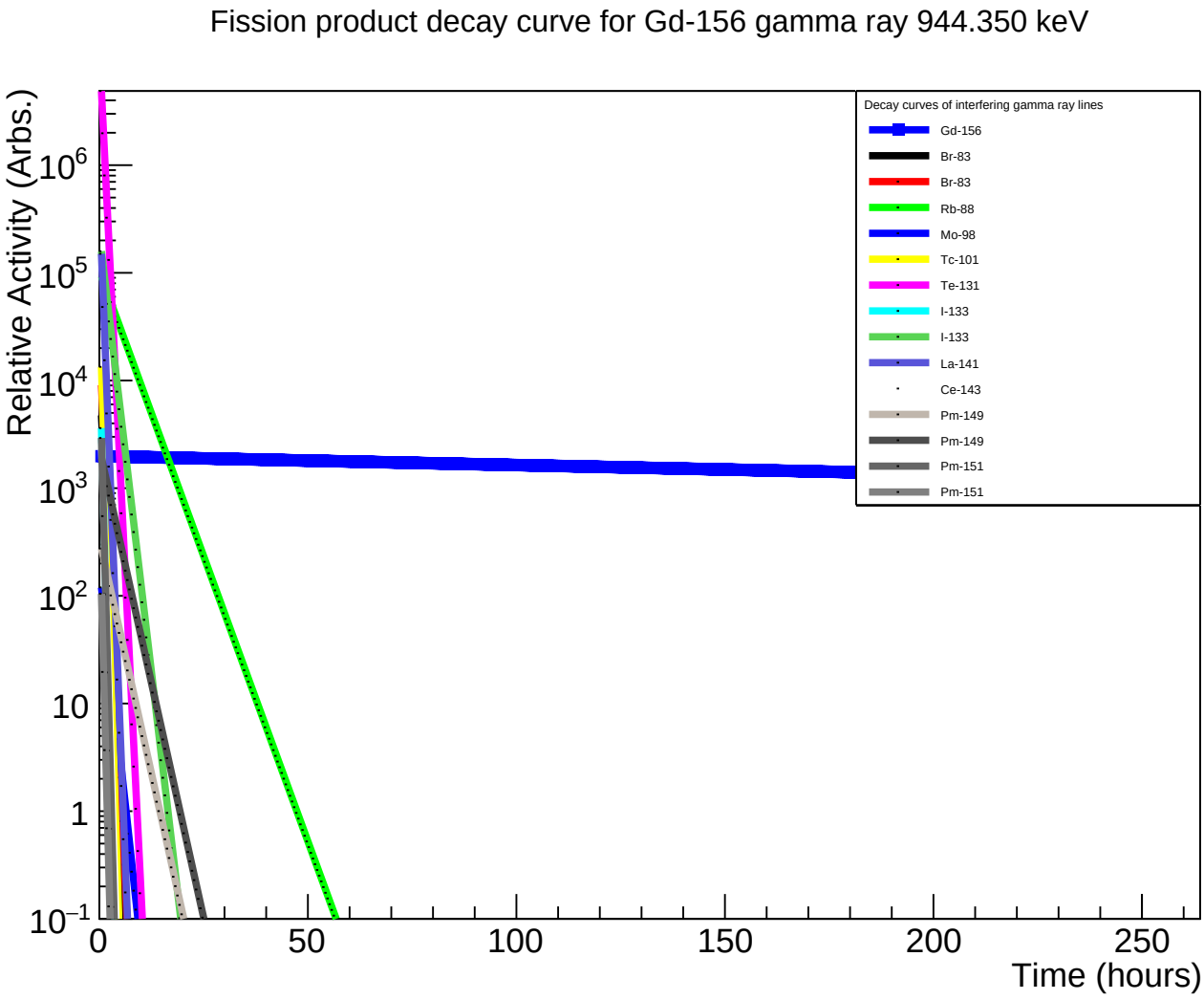


Figure 1154: Gd-156 decay curve for 944.350 keV gamma ray.

3.1155 Eu-156 E_γ = 960.50 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 960.50 keV
Gamma Intensity = 1.45 ± 0.123 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2309: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2310: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	959.000	0.005	1.512	0.000
Kr-88	Rb-88	961.830	0.001	2.840	0.036
Nb-98	Mo-98	959.800	0.001	0.855	0.000
Mo-99	Tc-99	960.754	0.001	65.976	0.061
I-135	Xe-135	960.290	0.000	6.570	0.063
I-135	Xe-135	961.430	0.001	6.570	0.063
Ba-141	La-141	959.000	0.001	0.304	0.058
Nd-151	Pm-151	960.500	0.001	0.207	0.004
Pm-151	Sm-151	959.700	0.001	28.400	0.004

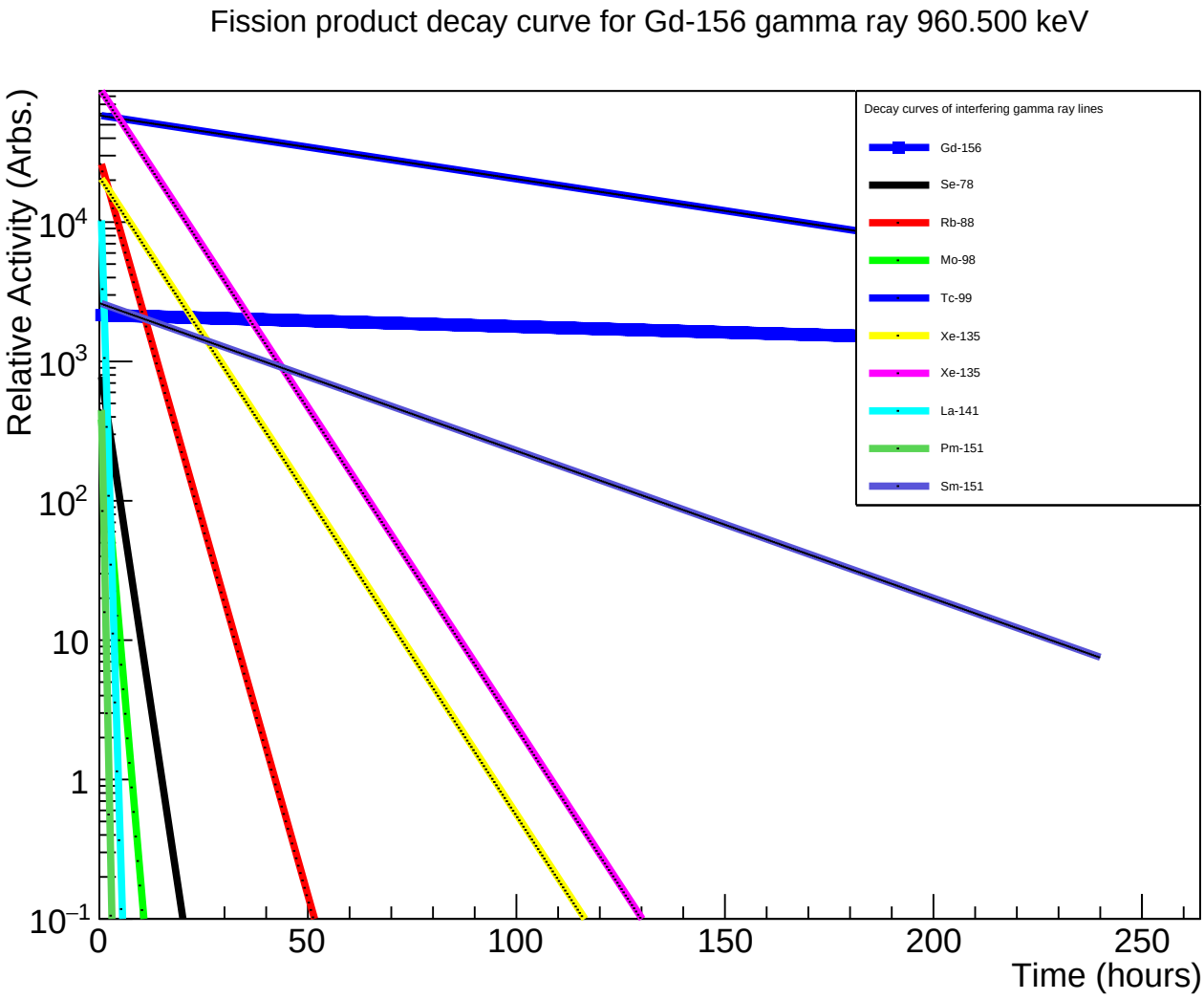


Figure 1155: Gd-156 decay curve for 960.500 keV gamma ray.

3.1156 Eu-156 E_γ = 1065.14 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1065.14 keV
Gamma Intensity = 4.92 ± 0.406 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2311: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2312: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Se-83	Br-83	1064.110	0.055	0.372	0.003
Sr-93	Y-93	1064.370	0.004	0.124	0.062
Y-94	Zr-94	1066.500	0.001	0.312	0.065
Mo-101	Tc-101	1064.590	0.003	0.243	0.052
Mo-101	Tc-101	1065.900	0.002	0.243	0.052
Ag-112	Cd-112	1063.700	0.001	3.130	0.000
Sn-127	Sb-127	1064.600	0.004	2.100	0.001
Cs-139	Ba-139	1063.700	0.000	0.155	0.063
Ba-141	La-141	1066.600	0.001	0.304	0.058
La-143	Ce-143	1064.100	0.001	0.237	0.059
Nd-151	Pm-151	1064.000	0.001	0.207	0.004
Nd-151	Pm-151	1066.570	0.000	0.207	0.004
Nd-151	Pm-151	1066.570	0.002	0.207	0.004

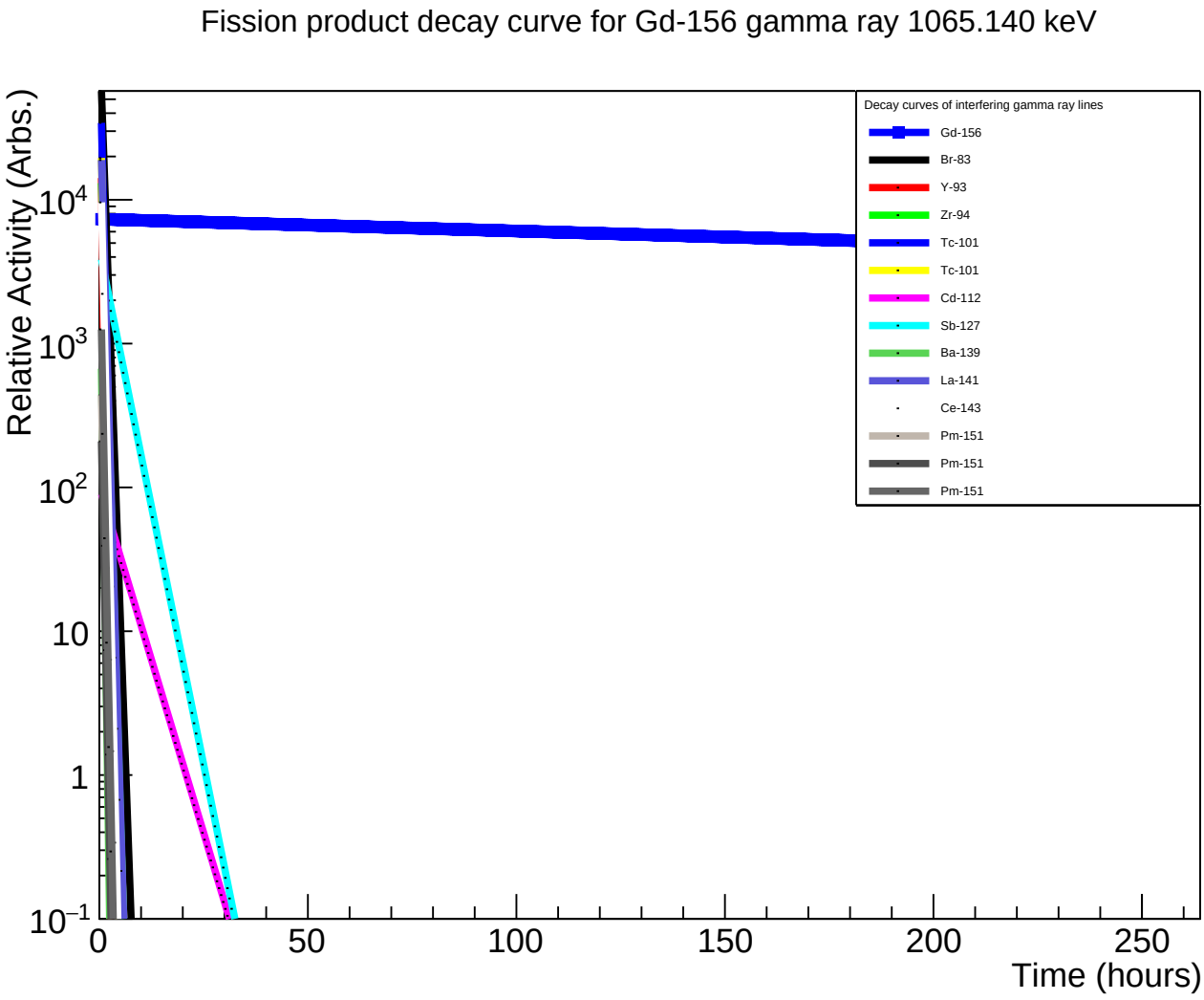


Figure 1156: Gd-156 decay curve for 1065.140 keV gamma ray.

3.1157 Eu-156 E_γ = 1079.16 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1079.16 keV
Gamma Intensity = 4.59 ± 0.379 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2313: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2314: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	1079.800	0.016	1.512	0.000
Sr-93	Y-93	1077.860	0.002	0.124	0.062
Sb-128	Te-128	1078.600	0.020	9.010	0.000
Te-133	I-133	1078.130	0.002	0.923	0.040
Te-133	I-133	1079.630	0.005	0.923	0.040
Ba-142	La-142	1078.700	0.115	0.177	0.058
Nd-149	Pm-149	1078.760	0.001	1.728	0.011
Nd-151	Pm-151	1079.500	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.000	0.207	0.004
Nd-151	Pm-151	1080.090	0.002	0.207	0.004

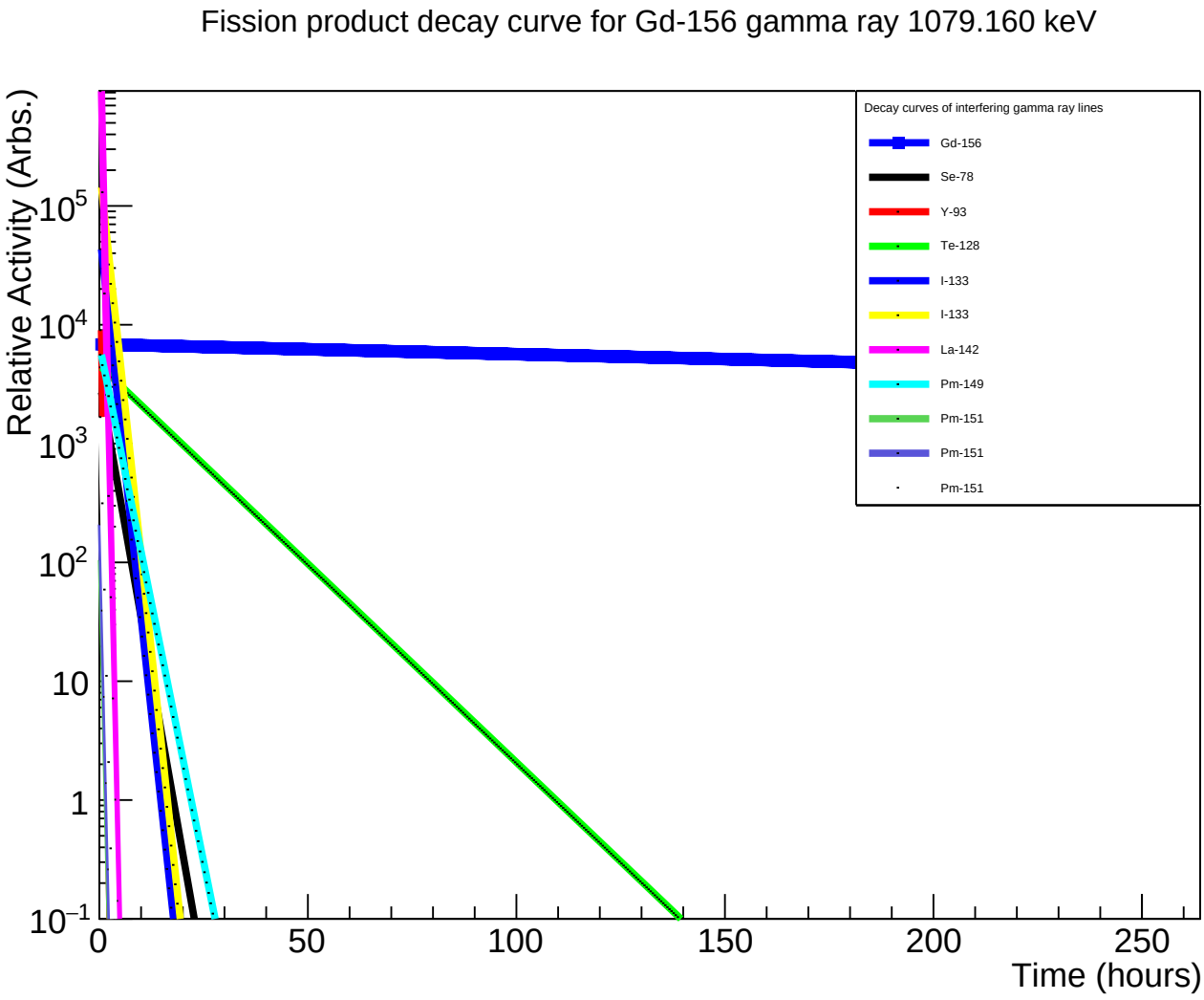


Figure 1157: Gd-156 decay curve for 1079.160 keV gamma ray.

3.1158 Eu-156 E_γ = 1153.67 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1153.67 keV
Gamma Intensity = 6.79 ± 0.563 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2315: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2316: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Xe-138	Cs-138	1153.600	0.000	0.235	0.063
Pr-147	Nd-147	1154.600	0.002	0.223	0.022

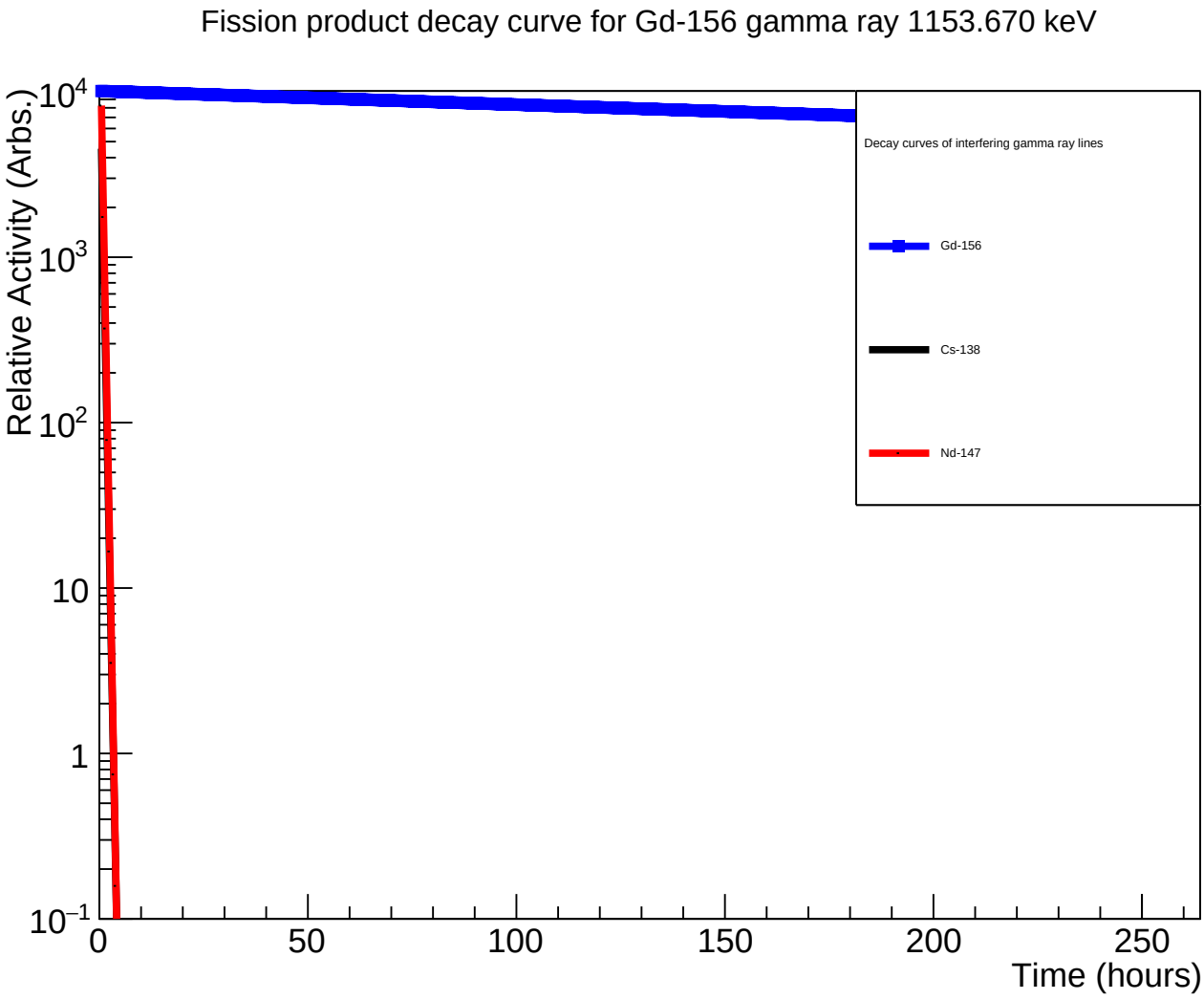


Figure 1158: Gd-156 decay curve for 1153.670 keV gamma ray.

3.1159 Eu-156 E_γ = 1154.08 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1154.08 keV
Gamma Intensity = 4.73 ± 0.392 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2317: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2318: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sn-129	Sb-129	1155.500	0.088	0.115	0.002
Sb-127	Te-127	1155.200	0.000	92.400	0.002
Xe-138	Cs-138	1153.600	0.000	0.235	0.063
Pr-147	Nd-147	1154.600	0.002	0.223	0.022

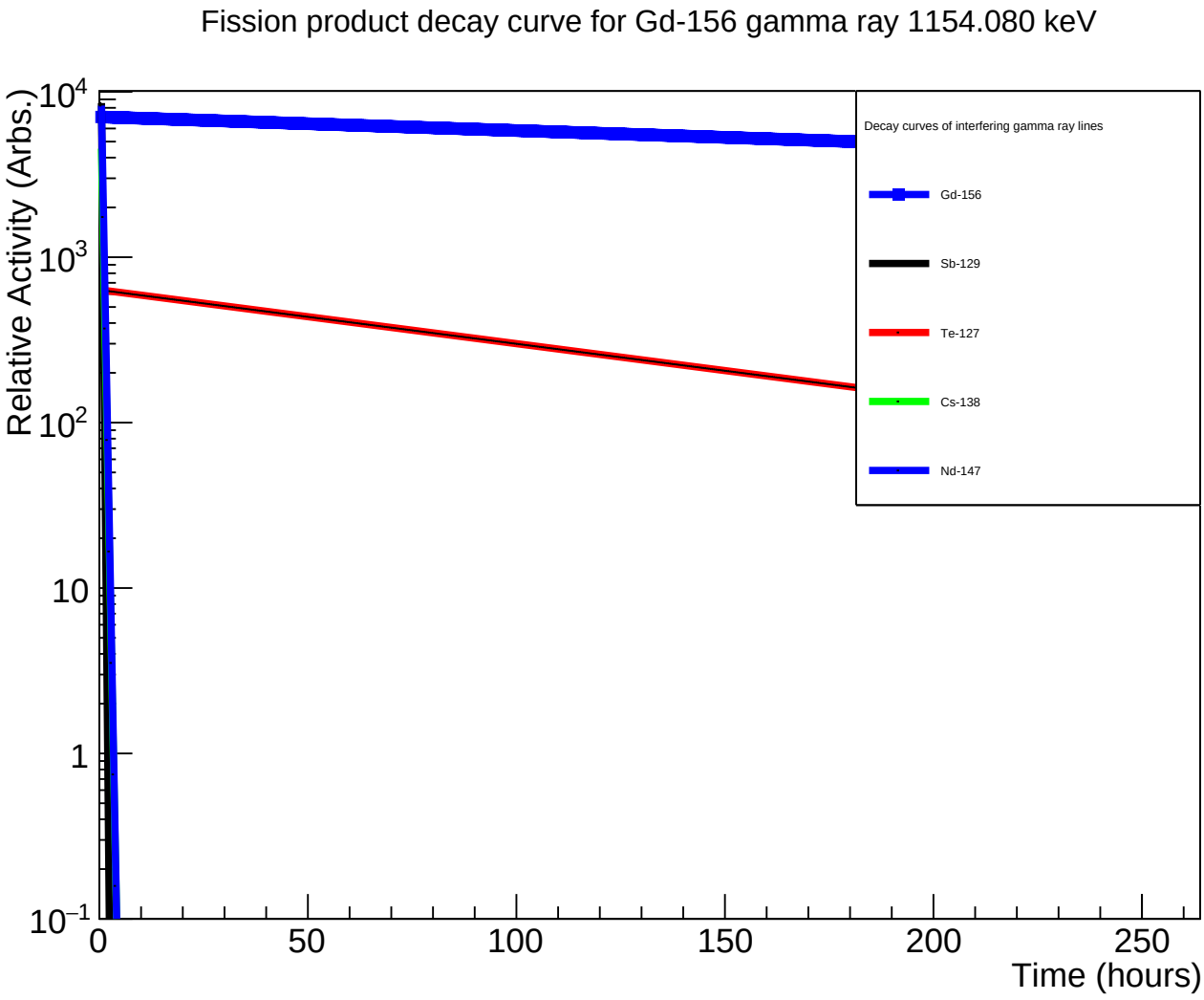


Figure 1159: Gd-156 decay curve for 1154.080 keV gamma ray.

3.1160 Eu-156 E_γ = 1230.71 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1230.71 keV
Gamma Intensity = 7.98 ± 0.659 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2319: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2320: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Nb-98	Mo-98	1230.150	0.014	0.855	0.000
Ru-105	Rh-105	1229.500	0.000	4.440	0.010
Te-133	I-133	1229.600	0.002	0.923	0.040
Ba-142	La-142	1230.200	0.001	0.177	0.058
La-142	Ce-142	1231.300	0.000	1.518	0.058
Pr-147	Nd-147	1230.400	0.002	0.223	0.022

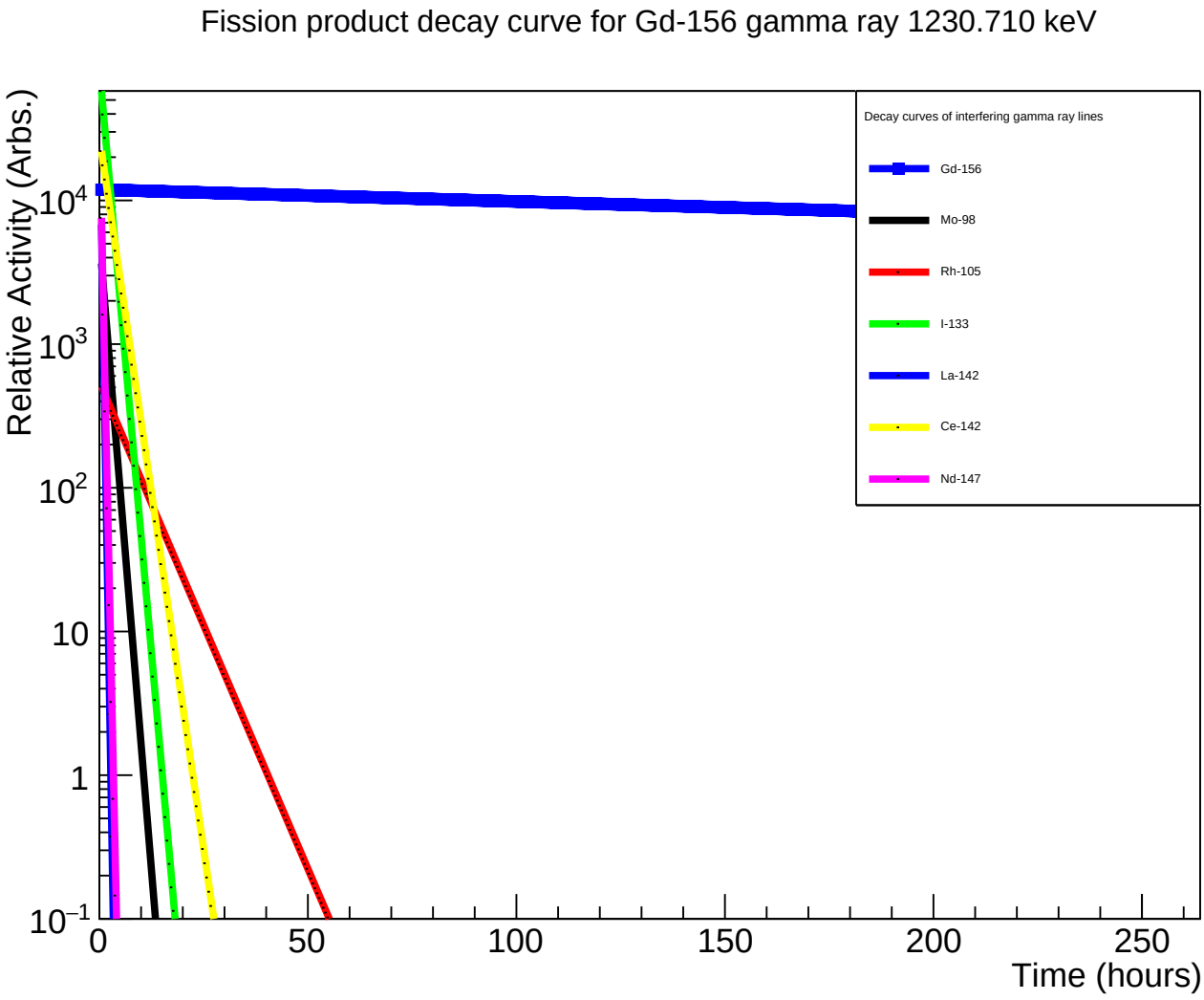


Figure 1160: Gd-156 decay curve for 1230.710 keV gamma ray.

3.1161 Eu-156 E_γ = 1242.42 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1242.42 keV
Gamma Intensity = 6.60 ± 0.545 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2321: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2322: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1243.410	0.008	0.124	0.062
Te-133	I-133	1243.900	0.001	0.208	0.031
I-132	Xe-132	1242.600	0.000	2.295	0.043
I-134	Xe-134	1243.800	0.001	0.875	0.078
Cs-139	Ba-139	1240.930	0.000	0.155	0.063
La-142	Ce-142	1242.000	0.002	1.518	0.058
La-143	Ce-143	1243.300	0.001	0.237	0.059
Pr-146	Nd-146	1243.300	0.006	0.403	0.030

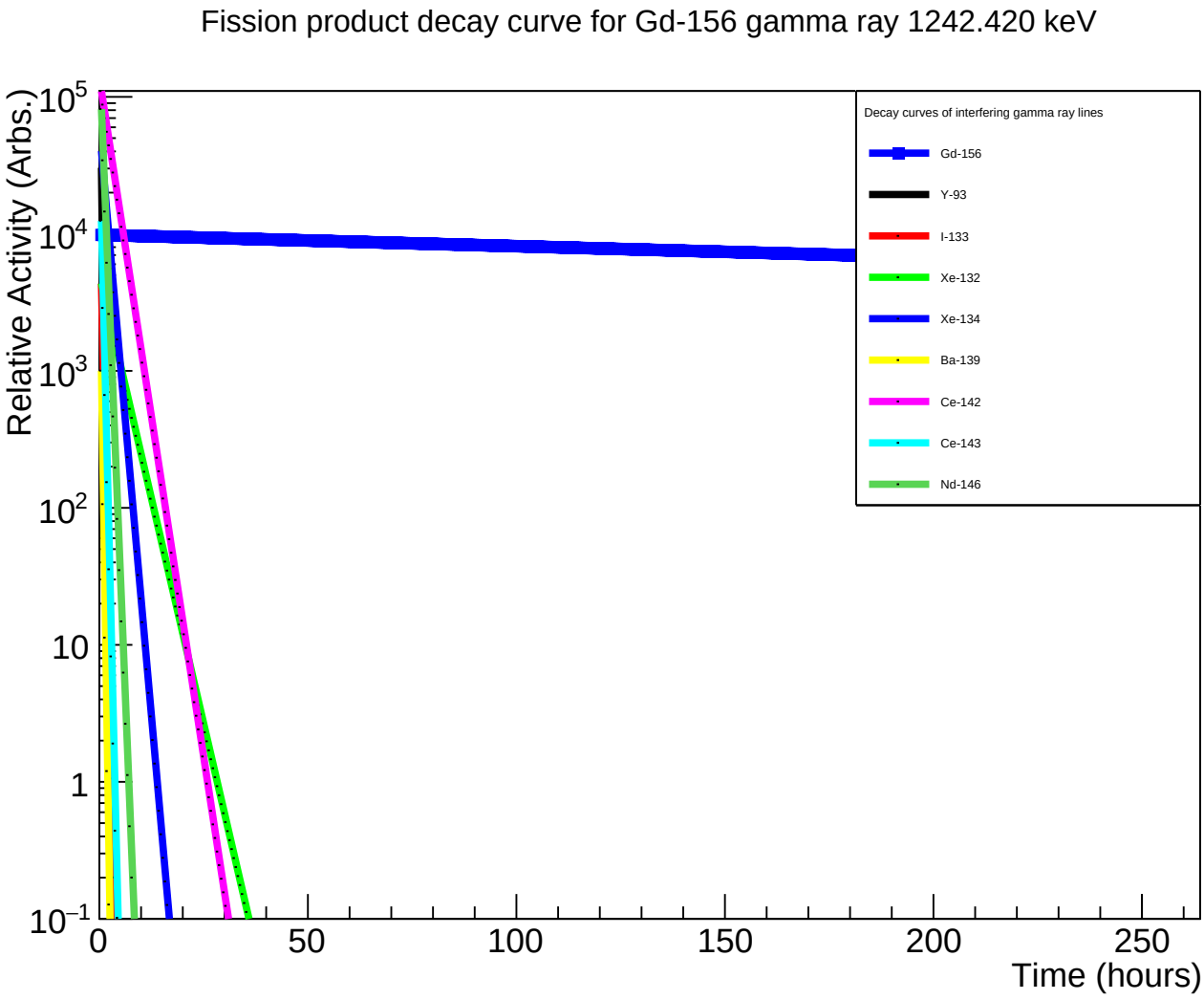


Figure 1161: Gd-156 decay curve for 1242.420 keV gamma ray.

3.1162 Eu-156 E_γ = 1277.43 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1277.43 keV
Gamma Intensity = 2.89 ± 0.238 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2323: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2324: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	1277.990	0.009	0.124	0.062
Zr-97	Nb-97	1276.070	0.009	16.749	0.060
Te-131	I-131	1277.440	0.001	0.417	0.025
Ba-141	La-141	1278.000	0.007	0.304	0.058
Nd-151	Pm-151	1276.900	0.000	0.207	0.004

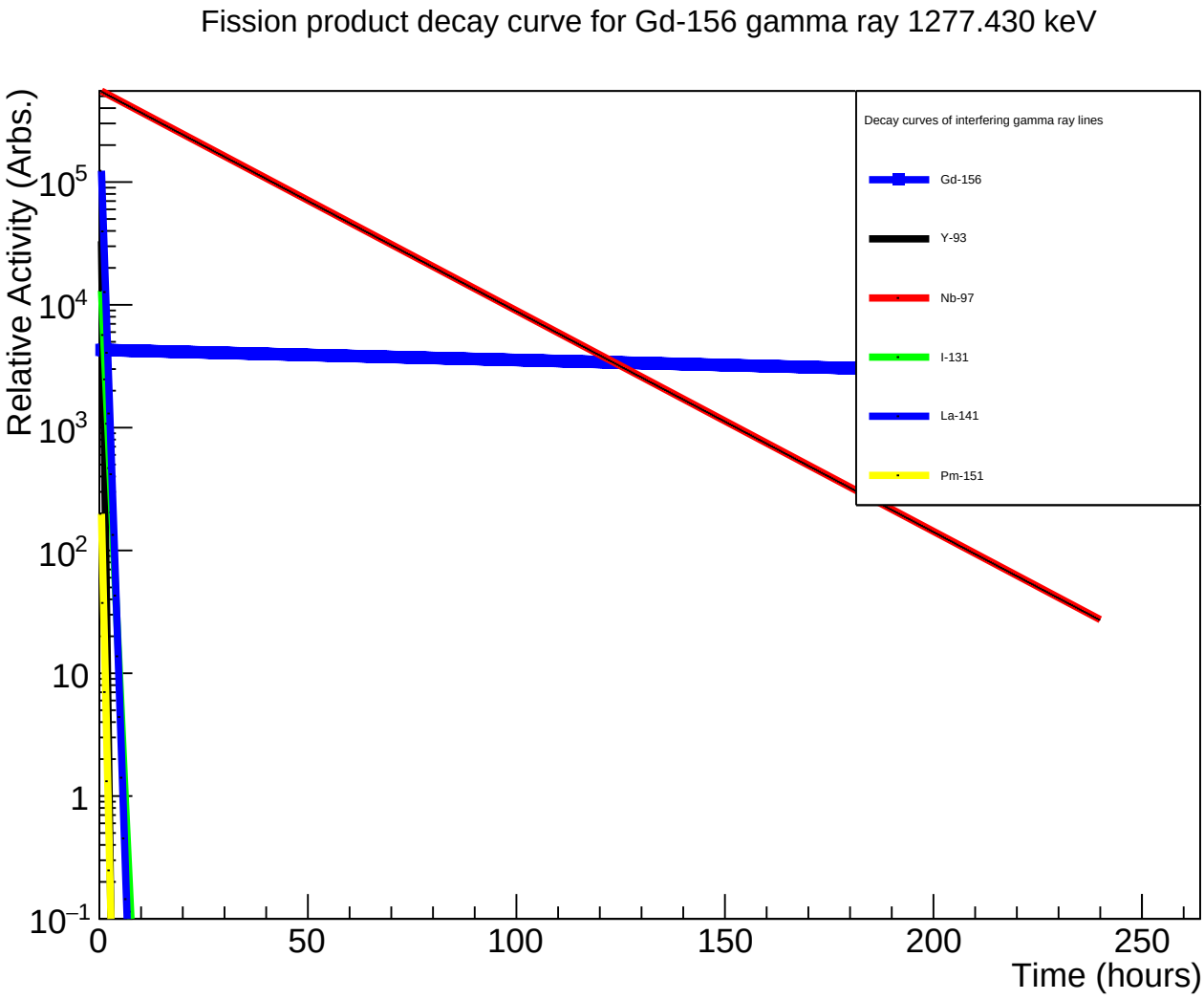


Figure 1162: Gd-156 decay curve for 1277.430 keV gamma ray.

3.1163 Eu-156 E_γ = 1366.41 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1366.41 keV
Gamma Intensity = 1.57 ± 0.130 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2325: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2326: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Rb-88	Sr-88	1366.260	0.001	0.296	0.036
Tc-105	Ru-105	1366.300	0.032	0.127	0.010
I-135	Xe-135	1367.890	0.006	6.570	0.063
Nd-151	Pm-151	1366.100	0.000	0.207	0.004

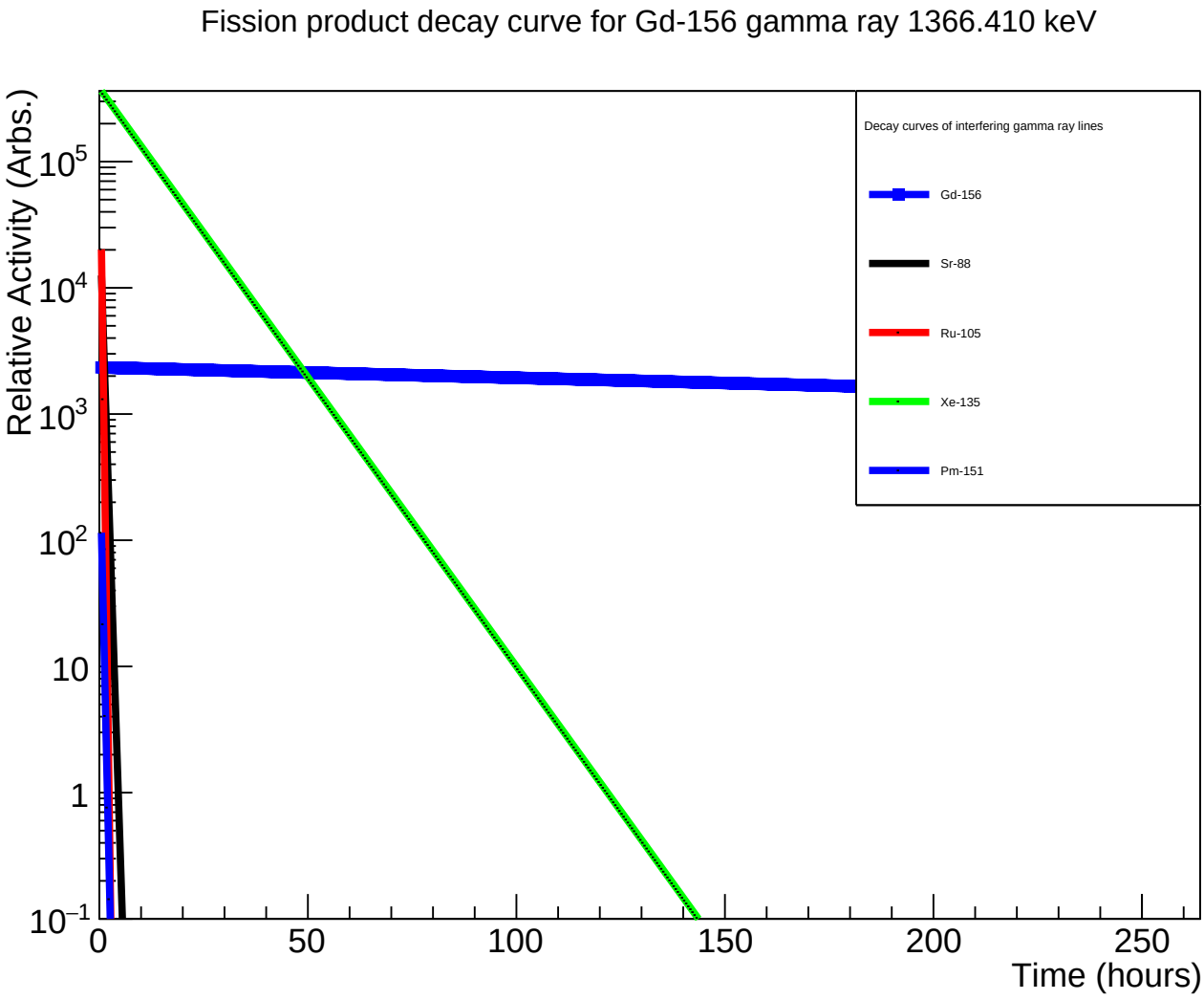


Figure 1163: Gd-156 decay curve for 1366.410 keV gamma ray.

3.1164 Eu-156 E_γ = 1877.03 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1877.03 keV
Gamma Intensity = 1.51 ± 0.125 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2327: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2328: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Br-84	Kr-84	1877.500	0.011	0.529	0.010
Nb-98	Mo-98	1877.300	0.000	0.855	0.000
Cs-139	Ba-139	1877.450	0.003	0.155	0.063
La-140	Ce-140	1877.290	0.000	40.285	0.062
La-143	Ce-143	1876.500	0.003	0.237	0.059
La-143	Ce-143	1878.400	0.002	0.237	0.059
Nd-151	Pm-151	1877.600	0.000	0.207	0.004

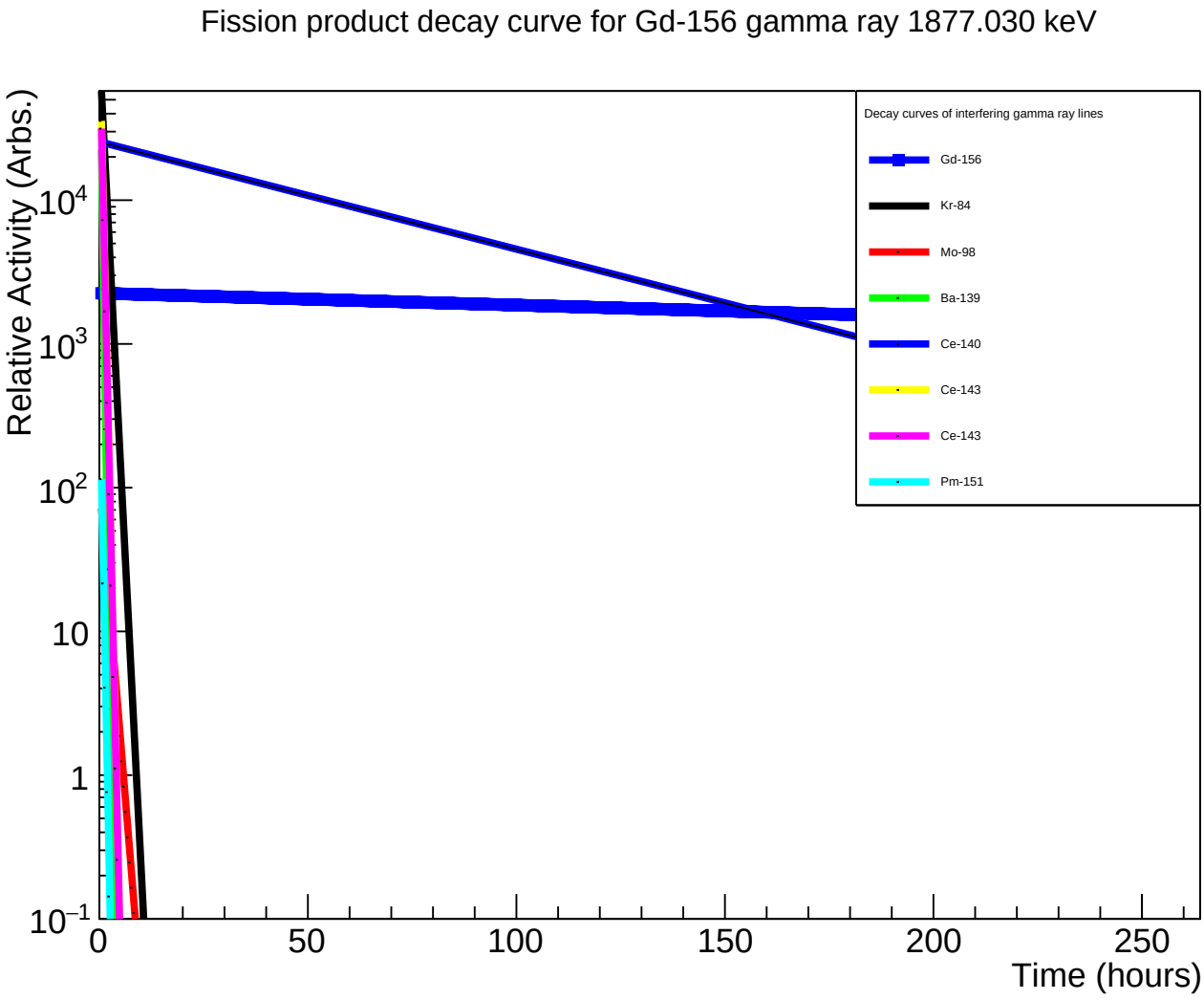


Figure 1164: Gd-156 decay curve for 1877.030 keV gamma ray.

3.1165 Eu-156 E_γ = 1937.71 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1937.71 keV
Gamma Intensity = 1.94 ± 0.161 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2329: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2330: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Tc-104	Ru-104	1937.300	0.002	0.305	0.019
Sn-127	Sb-127	1937.300	0.001	2.100	0.001
Te-133	I-133	1938.000	0.000	0.208	0.031
La-143	Ce-143	1937.850	0.003	0.237	0.059
Nd-151	Pm-151	1938.000	0.000	0.207	0.004

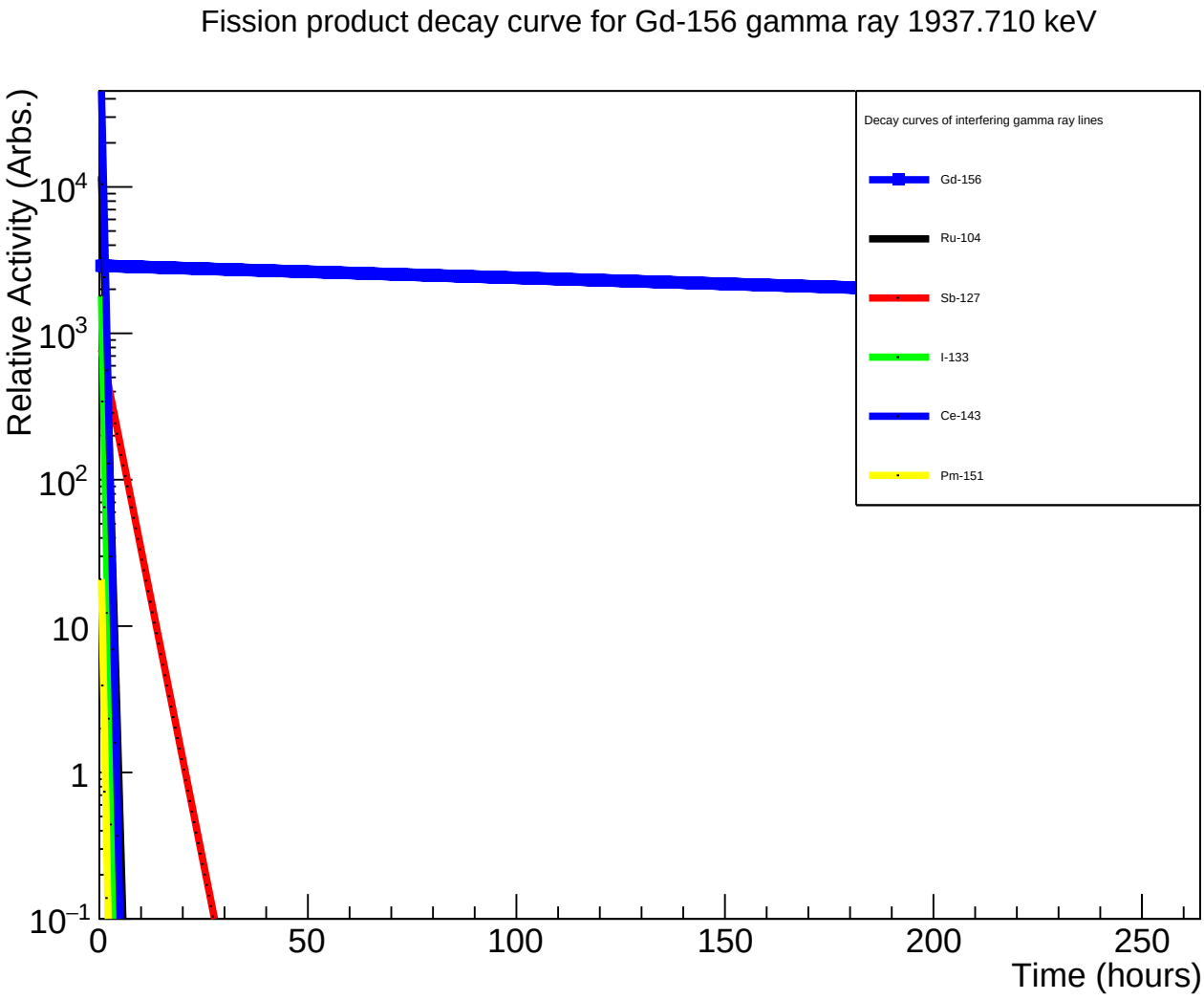


Figure 1165: Gd-156 decay curve for 1937.710 keV gamma ray.

3.1166 Eu-156 E_γ = 1965.95 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 1965.95 keV
Gamma Intensity = 3.87 ± 0.320 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2331: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2332: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)

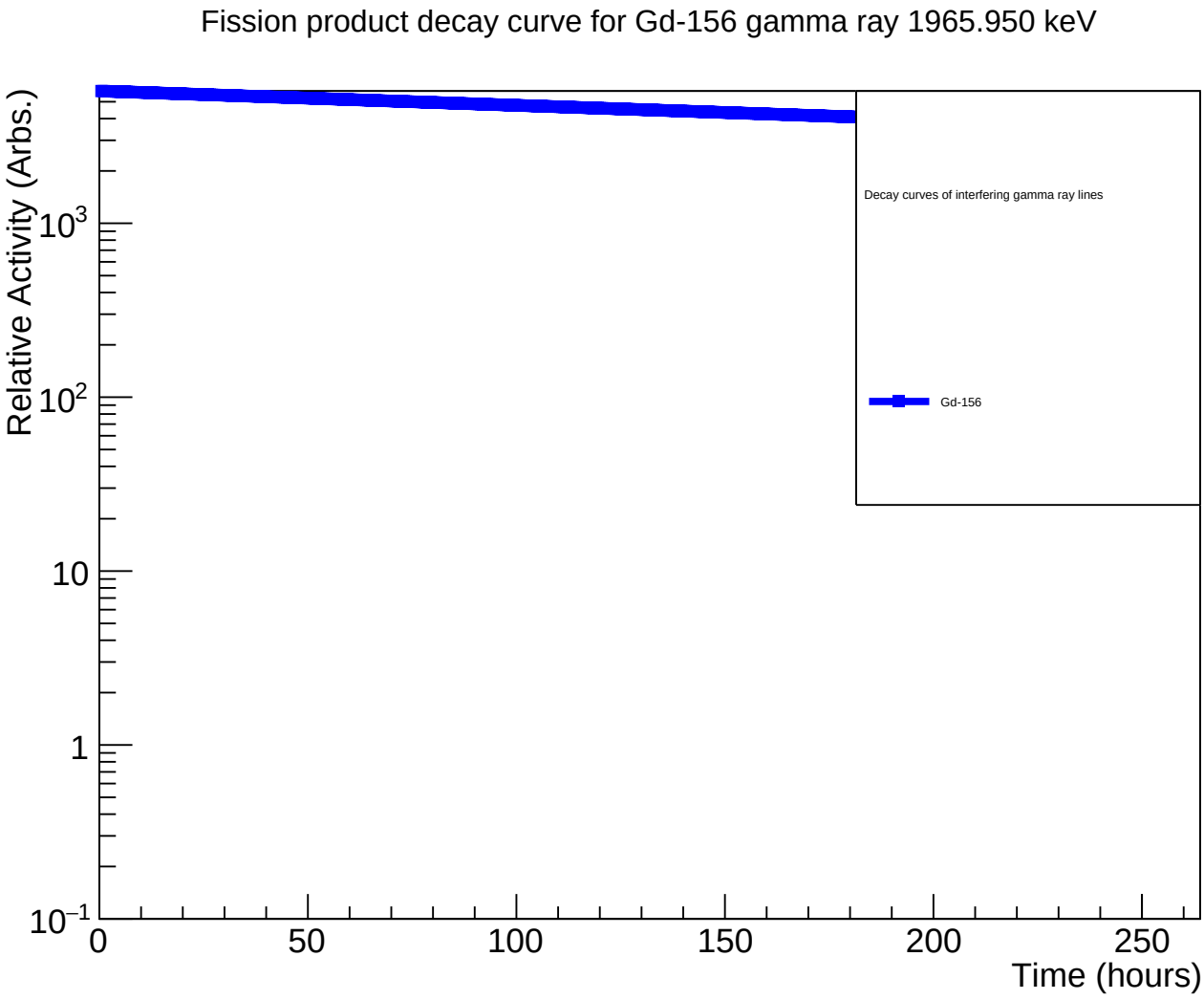


Figure 1166: Gd-156 decay curve for 1965.950 keV gamma ray.

3.1167 Eu-156 E_γ = 2026.65 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 2026.65 keV
Gamma Intensity = 3.27 ± 0.270 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2333: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2334: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-133	I-133	2025.600	0.001	0.208	0.031
Ba-141	La-141	2026.200	0.005	0.304	0.058
La-142	Ce-142	2025.500	0.010	1.518	0.058

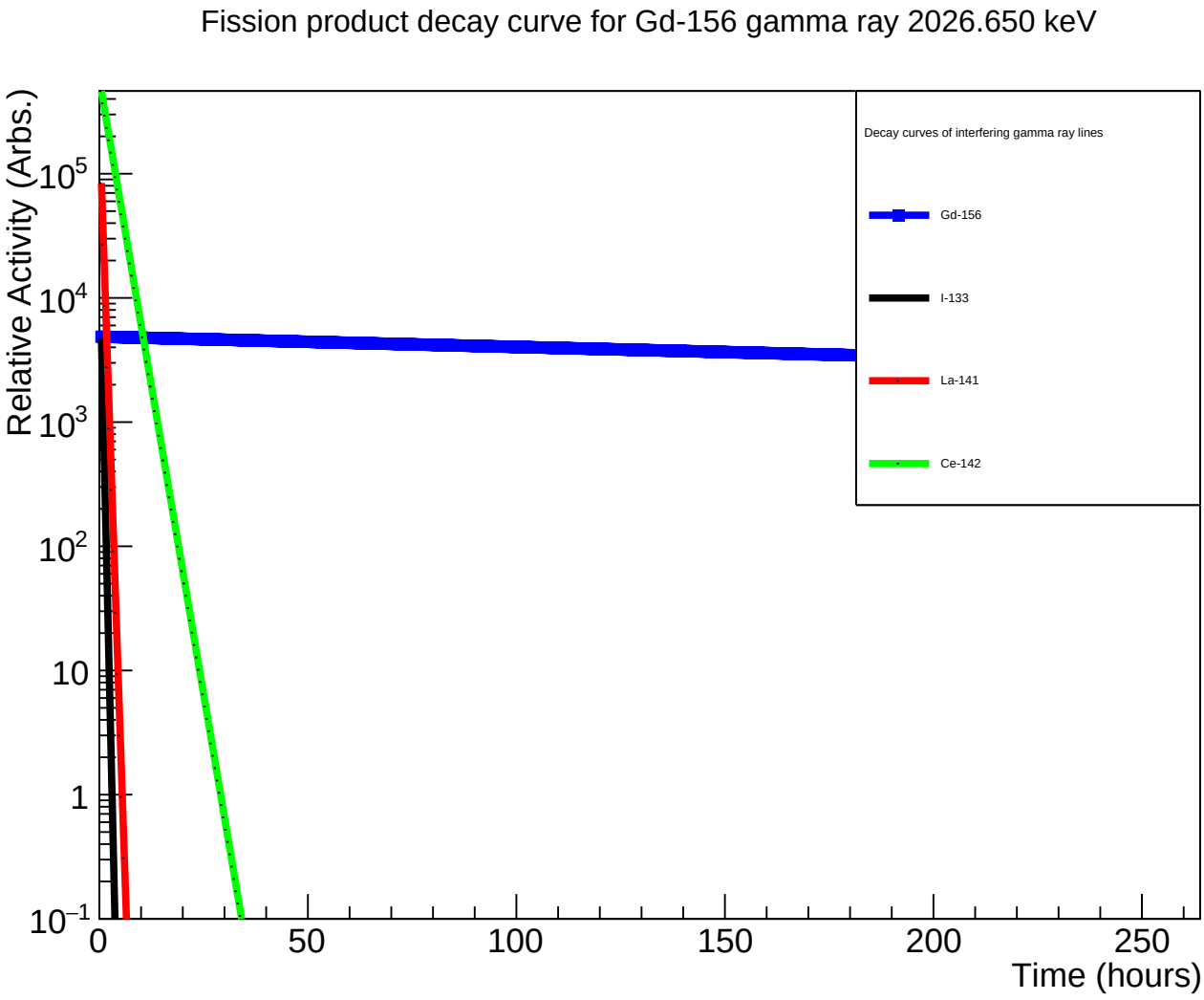


Figure 1167: Gd-156 decay curve for 2026.650 keV gamma ray.

3.1168 Eu-156 E_γ = 2097.70 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 2097.70 keV
Gamma Intensity = 3.81 ± 0.315 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2335: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2336: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
La-142	Ce-142	2096.600	0.000	1.518	0.058
Pr-146	Nd-146	2098.300	0.001	0.403	0.030

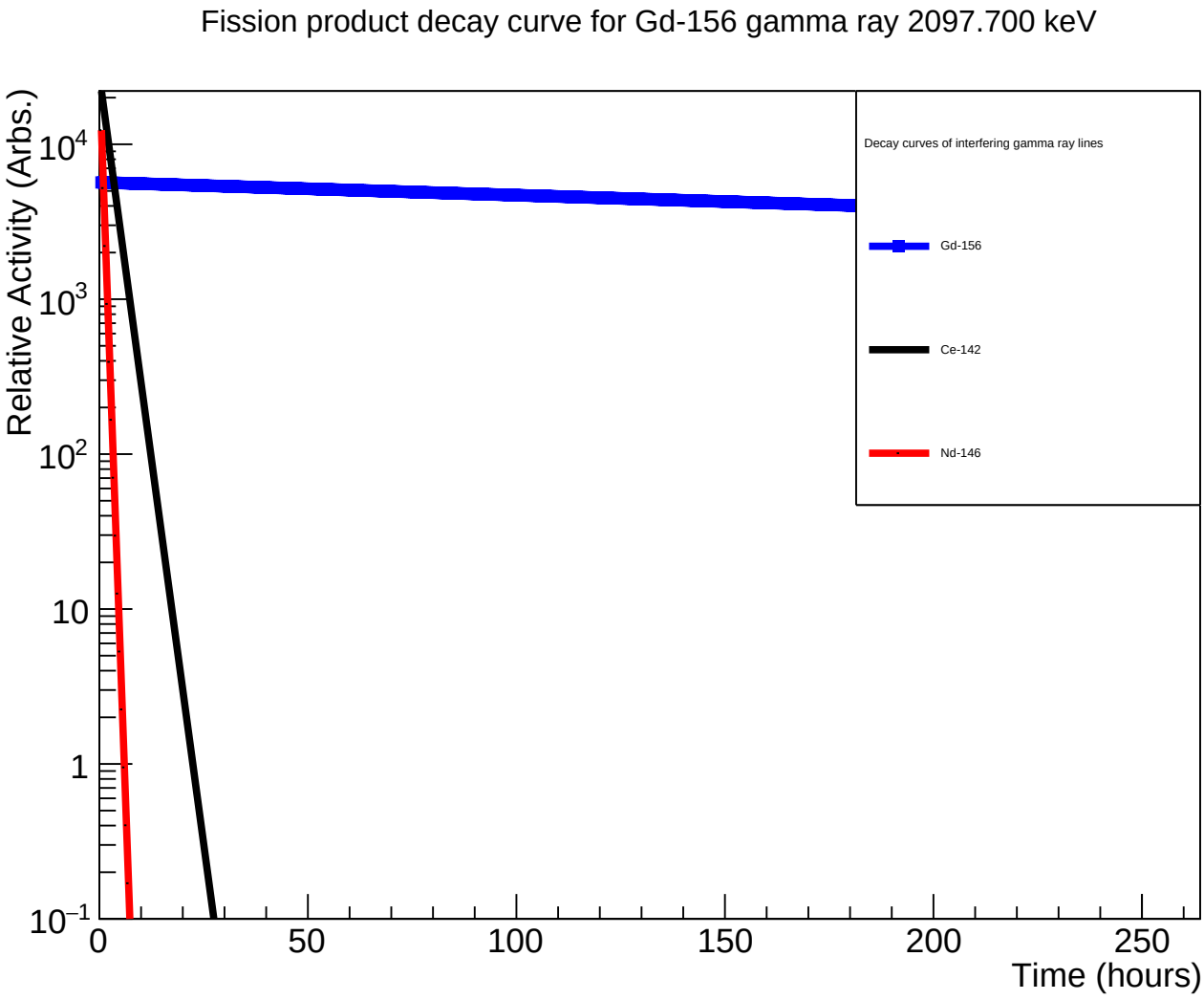


Figure 1168: Gd-156 decay curve for 2097.700 keV gamma ray.

3.1169 Eu-156 E_γ = 2180.91 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 2180.91 keV
Gamma Intensity = 2.14 ± 0.177 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2337: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2338: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Sr-93	Y-93	2179.490	0.003	0.124	0.062
Tc-104	Ru-104	2181.900	0.004	0.305	0.019
Te-133	I-133	2180.900	0.000	0.208	0.031
La-142	Ce-142	2180.900	0.005	1.518	0.058

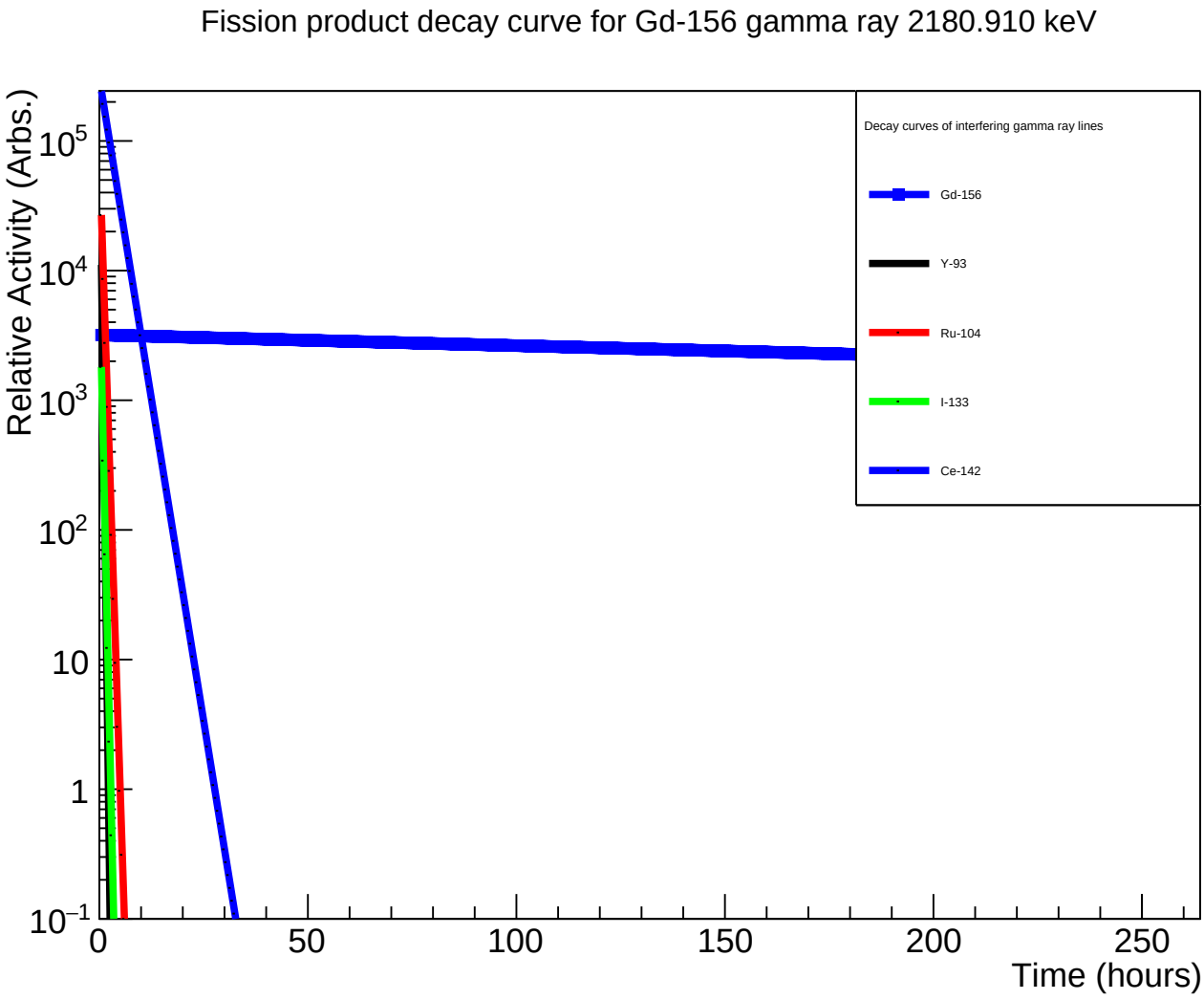


Figure 1169: Gd-156 decay curve for 2180.910 keV gamma ray.

3.1170 Eu-156 E_γ = 2186.71 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 2186.71 keV
Gamma Intensity = 3.49 ± 0.288 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2339: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2340: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
As-78	Se-78	2187.800	0.004	1.512	0.000
Kr-88	Rb-88	2186.500	0.003	2.840	0.036
Y-90	Zr-90	2186.242	0.000	64.000	0.058
I-132	Xe-132	2187.000	0.000	2.295	0.043
La-142	Ce-142	2187.200	0.037	1.518	0.058
Pr-144	Nd-144	2185.662	0.007	0.288	0.055
Nd-151	Pm-151	2186.200	0.000	0.207	0.004

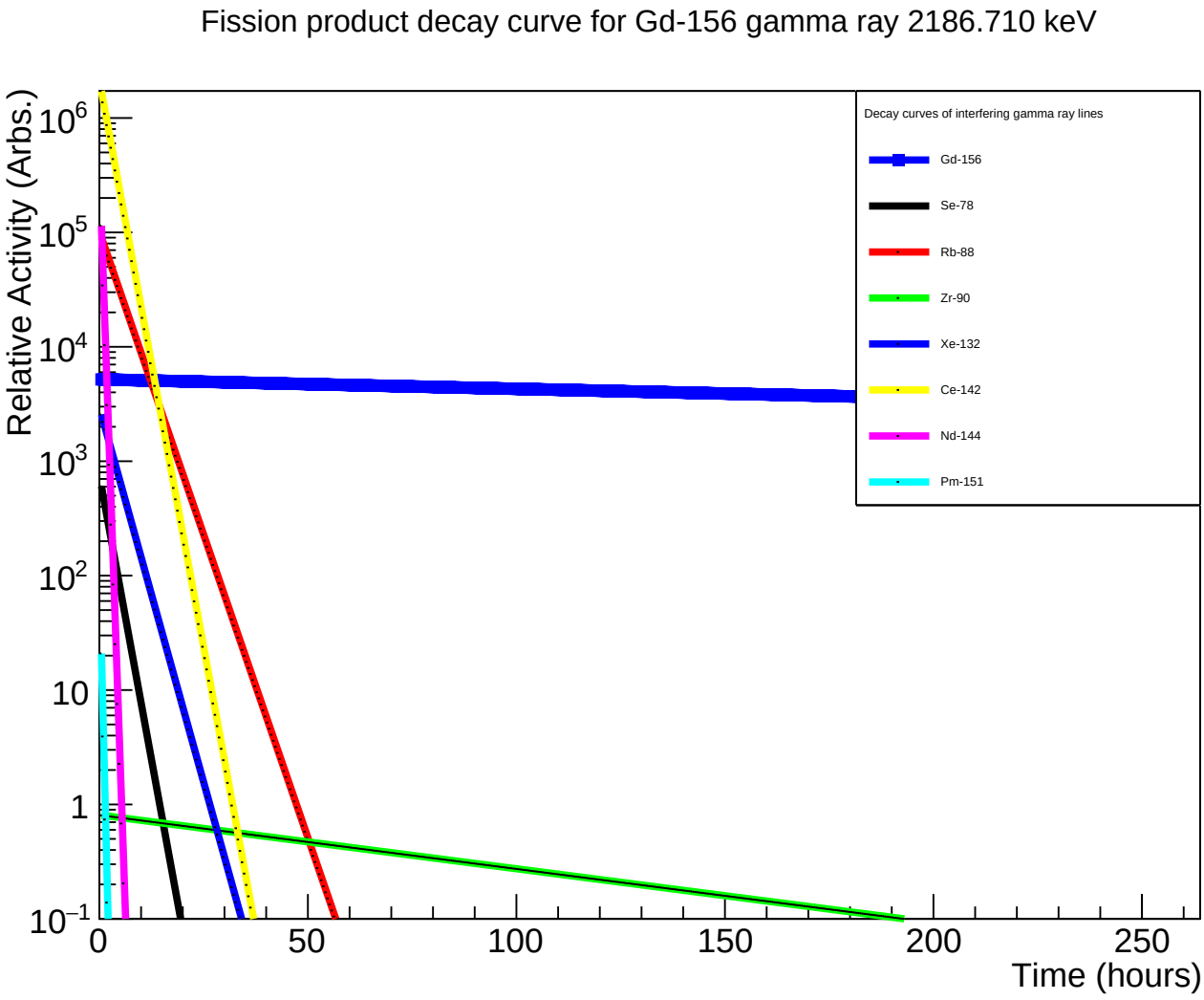


Figure 1170: Gd-156 decay curve for 2186.710 keV gamma ray.

3.1171 Eu-156 E_γ = 2269.90 keV

Chemical element: Europium
Fission product parent: Eu-156
Gamma originates in daughter: Gd-156
Eγ: 2269.90 keV
Gamma Intensity = 1.03 ± 0.085 %
$T_{1/2}$ = 364.560 ± 1.920 hours or 21873.60 ± 115.20 minutes
CFY: 0.015 ± 0.001 %

Table 2341: Decay chain of fission product chain A = 156

Parent	Daughter	Parent Half-life (hours)	Unc (hours)
Promethium-156	Samarium-156	0.007	0.000
Samarium-156	Europium-156	9.400	0.200
Europium-156	Gadolinium-156	364.560	1.920

Table 2342: Summary of candidate interference lines

Parent Isotope	Daughter Isotope	Eγ (keV)	BR (%)	Half-Life (hours)	CFY (%)
Te-131	I-131	2270.650	0.004	33.250	0.004
Cs-139	Ba-139	2269.500	0.000	0.155	0.063
Ba-141	La-141	2269.000	0.000	0.304	0.058
Nd-151	Pm-151	2268.500	0.000	0.207	0.004

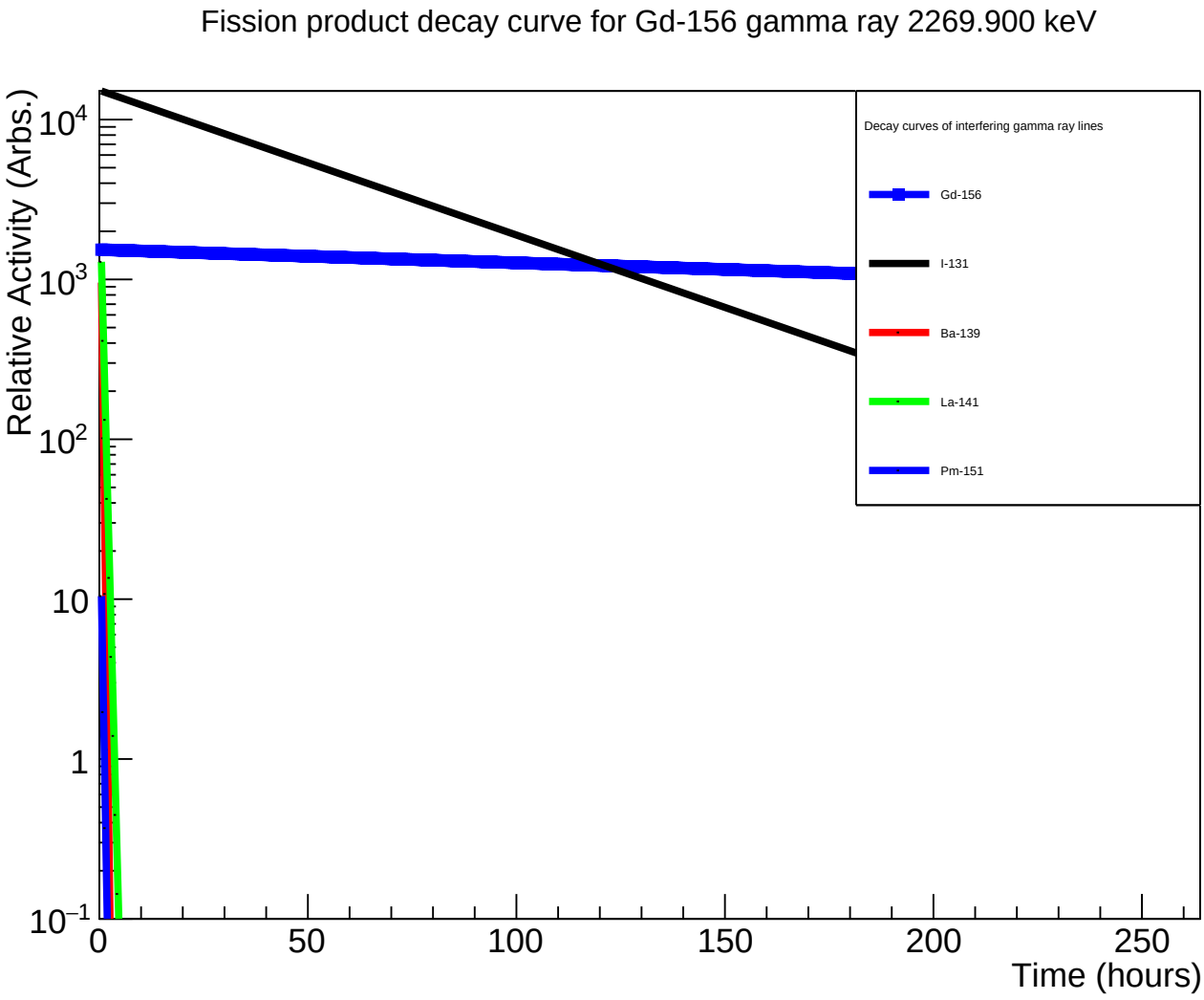


Figure 1171: Gd-156 decay curve for 2269.900 keV gamma ray.

A Appendix

A.1 Bilibliography