The SF half-life of 95-m for ^{259}Md is unusually long compared to those for the even-even isotopes. For example, ^{258}Fm which has the same number of neutrons has a half-life of only 0.380 ms. The hindrance due to the odd proton, 7/2-(514), in Md is apparently sufficient to lengthen the half-life for ^{259}Md by more than 10^7 relative to ^{258}Fm. Such hindrances due to specific odd-proton or odd-neutron single particle states have been known for some time and have been discussed in detail by Randrup et al.[10] The hindrance is typically of the order of 10^5, but can be as small as 10 and as large as 10^{10}. If the 101st proton provides ^{260}Md with the same hindrance relative to ^{259}Fm (1.5 s) as for ^{259}Md relative to ^{258}Fm, then its SF half-life would be of the order of 200 d. It would then be expected to decay predominantly by beta or e.c. emission with a half-life of a few hours, depending on the decay energy, as discussed earlier. This would provide a means for studying the SF decay of the very short-lived ^{260}No daughter which has the same number of neutrons as ^{258}Fm and afford another assessment of the effect on the fission process of protons beyond Z = 100. ^{256}Cf, also having 158 neutrons but only 98 protons, shows an asymmetric mass distribution and "normal" total kinetic energy in contrast to the SF of ^{258}Fm. (See Figs. 5 and 6.)

There is no neutron analogue for ^{261}Md in the Fm isotopes from which to scale its possible fission half-life, but if we use the reduction in half-life of ^{258}Fm relative to ^{256}Fm of 4×10^{-8} for the addition of two neutrons, to scale the 95-m half-life of ^{259}Md, then a half-life of 0.2 ms might be expected for ^{261}Md. Using the reduction in half-life between ^{257}Fm and ^{259}Fm would give a still shorter estimate of only 2 μs for ^{261}Md so studying its SF properties will be extremely difficult. However, ^{262}Md, which might have an SF half-life from 0.5 ms to 0.7s could furnish a still more neutron-rich