

old bottle with about 2 grams was found in the stockroom. Bernie and I, with the help of Docia McKenna and Marge Nervik, began studies which eventually led to performing several hundred column elutions over the next few months. For about the first month we had only those 2 grams, so we had to recover and reuse the eluant solutions. Effects of α -But concentration, pH, temperature, column dimensions, loading technique, flow rate and drop size were among the variables we studied until we had a system which allowed us to separate a few atoms of Md and to predict to the exact drop when those atoms would elute. We only had 5 fission counters to use for the peaks of the 101 and 100 elution as well as for the valley before, between and after the peaks. An additional problem was that Es was the last actinide we could use to calibrate our elutions, thus we had to rely on the rare earth analogs of Fm and Md - Er and Tm. Obviously, we solved our problems or we would not be celebrating this anniversary for another year or more.

One of my strongest memories of element 101 is not related directly to the discovery experiments, but rather to the repeat experiments that we did about 6 months later. At that time Otto Hahn had come to the United States on a visit as a result of an invitation by Glenn Seaborg and E.O. Lawrence. Hahn was giving a seminar in the chemistry department, and Glenn mentioned to him that element 101 was being rediscovered that night. He expressed an interest in watching some of the experiment so we were told he would probably come around for a few minutes. Hahn came, watched and poked into everything and stayed and stayed. Lawrence and Seaborg were getting a little tired and suggested leaving, but Hahn said he wished to watch some of the decays. He was like a 5-year-old kid in his curiosity, and it was very impressive to see such an eminent scientist still excited about an experiment. This was quite an