

So many things happened during the three years I worked with Stan, Al and Bernie. It was long hours, with quick transitions between many projects and fast trips to the M.T.R. in Idaho. But it was even more a time of learning from three amazing teachers. A particular memory was one trip to the M.T.R. to process the irradiated californium sample from the "Mike" shot debris. We were trying to "rediscover" element 100 so its formation could be published. Bernie and I opened the aluminum rabbit under the water in the reactor pit and discovered it was empty - no little quartz capsule with the Cf and, hopefully, the Fm.

The day before we had cleaned the trench of debris and, in doing so, had found a small quartz capsule which we stored in a bucket in the trench in case anyone came looking for their lost experiment. Stan looked at this capsule and proclaimed it our Cf sample! In fact, I doubt he had seen the Cf capsule when Bernie and I prepared it 3 months earlier. Based on Stan's certainty, the capsule was returned to the reactor for several days reactivation. Meanwhile the four of us went to Sun Valley to ski and to avoid being in touch with Glenn who was more nervous about such things. We returned, betting on whether the capsule was, indeed, the Cf sample or, maybe, cobalt - in which case we might spread ^{60}Co around. Of course, Stan's chemical intuition (or luck) held and we could report the formation of element 100.

In the experiments to make element 101, my primary responsibility involved the chemical separation for which we developed alpha-hydroxyisobutyrate as an eluant from columns of cation exchange resin. We needed something better than citrate or lactate to separate a few atoms of Md from Fm. It seemed to me that α -But (our shorthand for α -hydroxyisobutyrate) might give us better separations. Stan agreed and called to campus, where an