the surface of the target. The electroplating method worked beautifully and it gave a very high yield which, of course, was very important for handling such a rare product as the einsteinium target material. So that was one technique that we just happened to have available to us at the crucial moment.

The other technique that we worked hard on, and that we also needed for this experiment, was the ion exchange separation on the Dowex 50 column. It was Greg's idea to use alphahydroxyisobutyric acid as the eluant. We tried many different eluants and we tried all kinds of conditions. I believe that Greg and I ran an average of three ion exchange columns a day, testing different techniques, over a period of many months in order to be sure that when we started a separation we would know exactly what was going to happen. In fact we knew to one drop where each element would appear. When I first came to Berkeley, there were frequent surprises where sometimes curium, for example, would come off at drop 150 and sometimes it would come off after about 150 liters of eluant. Such an uncertainty, of course, was quite impossible to live with when dealing with an experiment as difficult as the mendelevium experiment. But we really had that down cold; we refined every little detail of the technique of ion exchange columns, and as a result of that we were able to tell exactly where the interesting activities would appear. In fact we got so good at it that I remember working up one of these plutonium samples that had been in the Materials Testing Reactor where one had many curies of fission products and curium and other heavier elements. After we ran the first ion exchange Dowex 50 column to separate out the uninteresting americium and curium from the interesting heavier things, we wanted to separate the really heavy elements one from the other in a second Dowex 50 column, but there was so little curium left after the first pass, we had to put some back in as a