

There are a couple of comments which should be made here concerning the rare earthlike properties of these two elements. Our hypothesis that they should have a stable (III) oxidation state and greatly resemble the rare earth elements in their chemical properties proved to be so true that for a time it appeared to be most unfortunate. The better part of a year was spent in trying to separate chemically the two elements from each other and from the rare earth elements but without success, and although we felt entirely confident, on the basis of their radioactive properties and the methods of production, that isotopes of elements 95 and 96 had been produced, the chemical proof remained to be demonstrated. The elements remained unnamed during this period of futile attempts at separation, although one of our group insisted on referring to them by the names "pandemonium" and "delirium" in recognition of our difficulties. However, they were finally separated and completely identified chemically, and, in fact, their present names were eventually proposed on the basis of their chemical properties but with a more serious basis. The name "americium" (symbol Am) was suggested for element 95, thus naming it after the Americas by analogy with the naming of its rare earth homologue europium after Europe, and the name "curium" (symbol Cm) was suggested for element 96 after Pierre and Marie Curie by analogy with the naming of its homologue gadolinium after Gadolin. These names and symbols will be used here and were used in the preceding slides.

Americium was first isolated by Cunningham (15) in the form of a pure compound in the fall of 1945 at the wartime Metallurgical Laboratory, and a photograph is shown on the next slide (Figure 10). It can be prepared in milligram amounts by the neutron bombardment of plutonium according to