

pressures below 10,600 atms., provided that they contain at least 4.5 a/o Al. The Pu-Zn and Pu-Ce figures, in the upper part of the slide, show that all of the alloys studied in these systems transform below 11,000 atms. Extrapolation of these data shows that delta phase containing at least 10.8 a/o Zn or 14.8 a/o Ce in solid solution would not be expected to transform.

The compressibilities of the Pu-Zn and Pu-Ce alloys increase linearly with increasing zinc or cerium contents at the approximate rate of 0.5×10^{-6} atm.⁻¹ per atomic per cent. The compressibilities of the Pu-Al alloys decrease linearly with increasing aluminum content at the approximate rate of 0.1×10^{-6} atm.⁻¹ per atomic per cent. We do not have a good value for the compressibility of pure delta plutonium at room temperature but extrapolation of our data gives a value near 3×10^{-6} atm.⁻¹

We have also made some experiments with delta-stabilized Pu-In alloys at high pressures but the results, so far, have not been meaningful because the alloys have not been homogeneous.