^{234}Pu

The discovery of ^{234}Pu was described in the 1949 paper "Products of the deuteron and helium-ion bombardments of U^{233}" by Hyde et al. (1949Hy04). ^{233}U targets were bombarded with 44 MeV α particles from the Berkeley 60-in. cyclotron. Alpha-particle absorption and decay spectra were measured following chemical separation. "By measuring the α spectrum of the plutonium fraction in a multichannel differential pulse analyzer at frequent intervals and plotting the specific decay of the 6.0-mev peak, values of 12.5 and 5.1 hr were obtained for the half life. The α half life may be taken as roughly 8$\pm$4 hr. This previously unknown plutonium isotope was tentatively identified as Pu^{234} by establishing the presence of its U^{230} daughter in the uranium fraction."

Adapted from reference (2013Fr02)

1949Hy04 E. K. Hyde, M. H. Studier, and A. Ghiorso, The Transuranium Elements: Research Papers, Book 2, Vol. 14B, paper 22. 15, G. T. Seaborg ed. , p. 1622 (1949).

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