

## **<sup>236</sup>Pu**

In 1949, James et al. identified <sup>236</sup>Pu in “Products of helium-ion and deuteron bombardment of U<sup>235</sup> and U<sup>238</sup>” (1949Ja01). Natural uranium and <sup>235</sup>U targets were bombarded with 16 MeV deuterons and 32 MeV  $\alpha$  particles from the Berkeley 60-inch cyclotron. X-rays,  $\gamma$ -rays and  $\alpha$  particles were measured following chemical separation. “Np<sup>236</sup> is a  $\beta$ -particle emitter with a half life of 22 hr. Its daughter, Pu<sup>236</sup>, emits  $\alpha$  particles with a range of 4.3 cm (energy 5.7 mev); it decays with a half life of 2.7 years.”

Adapted from reference (2013Fr02)

- 1949Ja01 R. A. James, A. E. Florin, H. H. Hopkins Jr., and A. Ghiorso, The Transuranium Elements: Research Papers, Book 2, Vol. 14B, paper 22. 8, G. T. Seaborg ed. , p. 1604 (1949).
- 2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

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