

¹⁴⁷Eu

Hoff et al. from the University of California at Berkeley reported the observation of ¹⁴⁷Eu in the 1951 paper “Neutron deficient europium and gadolinium isotopes” in 1951 ([1951Ho30](#)). Enriched ¹⁴⁷Sm targets were bombarded with 8.5 MeV protons producing ¹⁴⁷Eu in (p,n) charge exchange reactions. Decay curves and absorption spectra were measured. The decay of ¹⁴⁷Eu was studied following chemical separation. “The decay of europium isotopes with mass numbers 147 and 148 was observed after proton bombardments of enriched samarium isotopes. The (p,n) reaction is probably virtually the only nuclear reaction induced by 8.5-MeV protons on samarium.”. The observed half-lives was 24(2) days. Previous tentative assignments of 54 d ([1950Wi64](#)) and 53 d ([1951MaZV](#)) half-lives to ¹⁴⁷Eu were incorrect.

Adapted from reference ([2013Ma01](#))

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[1951Ho30](#) R. W. Hoff, J. O. Rasmussen, and S. G. Thompson, Phys. Rev. **83**, 1068 (1951).
[1951MaZV](#) J. A. Marinsky and L. E. Glendenin, Radiochemical Studies: The Fission Products, Book 3, Part V, McGraw-Hill, p. 1969 (1951).
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