

¹⁴⁵Eu

Hoff et al. from the University of California at Berkeley reported the observation of ¹⁴⁵Eu in the 1951 paper “Neutron deficient europium and gadolinium isotopes” in 1951 ([1951Ho30](#)). Enriched ¹⁴⁷Sm₂O₃ and gadolinium oxide targets were bombarded with 50 MeV and 150 MeV protons, respectively. ¹⁴⁵Eu was then observed in the ¹⁴⁷Sm(p,3n) reaction or in the α decay of ¹⁴⁹Tb. Decay curves and absorption spectra were measured following chemical separation. “Another isotope of europium, Eu¹⁴⁵, was observed as recoil nuclei from the alpha-decay of Tb¹⁴⁹. The terbium was produced in a 150-MeV proton bombardment of gadolinium oxide and isolated using a cation exchange column separation. The Eu¹⁴⁵ has also been produced in a 50-MeV proton bombardment of Sm₂¹⁴⁷O₃”.

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

[1951Ho30](#) R. W. Hoff, J. O. Rasmussen, and S. G. Thompson, Phys. Rev. **83**, 1068 (1951).

[2013Ma01](#) E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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