

## <sup>150</sup>Lu

<sup>150</sup>Lu was first identified by Sellin et al. in their paper “Proton spectroscopy beyond the drip line near A=150” in 1993 ([1993Se04](#)). An isotopically enriched <sup>96</sup>Ru target was bombarded with 300 and 311 MeV <sup>58</sup>Ni beams and <sup>150</sup>Lu was populated in (p3n) fusion evaporation reactions. Recoil products were separated with the Daresbury recoil separator and implanted in a double-sided silicon strip detector where subsequent  $\alpha$ -particle and proton-decays were measured. “The assignment of this proton transition to the p3n evaporation channel from <sup>154</sup>Hf\* is also consistent with the observed yield and we therefore identify the 1.26-MeV peak as proton emission from <sup>150</sup>Lu.” Earlier reports of a half-life of  $\leq 10$  ms ([1984HoZN](#)) and a proton decay energy of 1262.7(36) keV ([1989HoZE](#)) were only reported in conference proceedings.

Adapted from reference ([2012Gr19](#))

- [1984HoZN](#) S. Hofmann, Y. K. Agarwal, P. Armbruster, F. P. Hessberger *et al.*, Proc. Intern. Conf. Atomic Masses and Fundamental Constants, 7th, Darmstadt-Seeheim, p. 184 (1984).
- [1989HoZE](#) S. Hofmann, BOOK Particle Emission from Nuclei, Vol. 2, p. 25, CRC Press, Price (1989).
- [1993Se04](#) P. J. Sellin, P. J. Woods, T. Davinson, N. J. Davis *et al.*, Phys. Rev. C **47**, 1933 (1993).
- [2012Gr19](#) J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

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