

¹⁶⁶Lu

¹⁶⁶Lu was observed by Arlt et al. as reported in the 1969 paper “The new neutron-deficient isotopes ¹⁶⁹Hf, ¹⁶⁷Hf, ¹⁶⁶Hf, and ¹⁶⁶Lu and the decay scheme of ¹⁶⁹Hf” (1969Ar23). Protons were accelerated to 660 MeV by the Dubna synchrocyclotron and bombarded Ta₂O₅ targets to form hafnium isotopes in the Ta(p,2pxn) reaction which subsequently decayed to lutetium isotopes. Gamma-ray spectra were measured with NaI(Tl) and Ge(Li) detectors in singles and coincidences following chemical separation. “The 102, 228, and 338 keV γ rays decayed with a 3.3 ± 0.2 min half-life. This activity is derived from the activity decaying with $T=5.8\pm 0.2$ min, i.e. from ¹⁶⁶Hf, so we may suppose that it arises from the decay of ¹⁶⁶Lu.”

Adapted from reference (2012Gr19)

1969Ar23 R. Arlt, Z. Malek, G. Musiol, G. Pfrepper, and H. Strusny, Bull. Acad. Sci. USSR, Phys. Ser. **33**, 1133 (1970).

2012Gr19 J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

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