

¹⁶³Hf

In 1982, ¹⁶³Hf was discovered by Schrewe et al. in “Decay studies of the new isotopes ^{162,163}Hf” (1982Sc15). ²⁴Mg beams accelerated to 105–133 MeV by the Chalk River MP tandem accelerator bombarded enriched ¹⁴²Nd targets and ¹⁶²Hf was produced in (3n) evaporation reactions. Recoils were transported to a measuring station with a He-jet and β -delayed γ -spectra were measured with intrinsic Ge and Ge(Li) detectors. “The 71 keV line was therefore assigned to the decay of ¹⁶³Hf, the 174 keV line to the decay of ¹⁶²Hf. In addition to these two lines, further γ -ray lines from ^{163,162}Hf decays are summarized in [the tables]. Half-life determination was possible for most of these γ rays, and yielded a mean half-life of $T_{1/2} = (37.6 \pm 0.8)$ s for ¹⁶²Hf and $T_{1/2} = (40.0 \pm 0.6)$ s for ¹⁶³Hf.”

Adapted from reference (2012Gr19)

1982Sc15 U. J. Schrewe, E. Hagberg, H. Schmeing, J. C. Hardy *et al.*, Phys. Rev. C **25**, 3091 (1982).

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

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