

¹⁵⁸Ho

¹⁵⁸Ho was first observed by Dneprovskii in 1960 as reported in “New isotopes of holmium and erbium” (1960Dn01). Tantalum targets were bombarded with 660 MeV protons from the Dubna synchrocyclotron and ¹⁵⁸Ho was populated by β -decay from ¹⁵⁸Er produced in the reaction. Conversion electrons were measured with a magnetic beta-spectrograph following chemical separation. “Upon isolation of the daughter holmium isotope from the erbium fraction 2 hr after the latter was isolated from tantalum, the intensity of lines corresponding to γ transitions had dropped one-half within (27 \pm 2) min. From the facts accumulated, we may ascertain the presence of the decay chain Er $\xrightarrow{2.4hr}$ Ho $\xrightarrow{27min}$ Dy.” This half-life corresponds to an isomeric state and the ground state with a half-life of 11.5(5) min was first reported a year later by Schepers (1962Sc10).

Adapted from reference (2013Fr10)

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Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”