

¹⁴⁸Ho

In the 1979 paper “Identification of ¹⁴⁸Ho and ¹⁴⁹Ho” Toth et al. reported the discovery of ¹⁴⁸Ho (1979To01). A ¹⁰B beam was accelerated up to 101 MeV by the Texas A&M isochronous cyclotron and bombarded an enriched ¹⁴⁴Sm target. A helium gas-jet system transported the reaction products to a counting station where γ -ray singles and coincidences were recorded with large-volume Ge(Li) detectors. “The 9-s isotope, ¹⁴⁸Ho, was identified mainly through a 1688-keV γ -ray which: (1) was in coincidence with dysprosium K x rays, (2) increased dramatically in intensity when the ¹⁰B bombarding energy was raised from 85 to 96 MeV, and (3) remained constant (over the same range) in intensity relative to that of the 620-keV γ ray known to belong to ¹⁴⁸Dy decay.” The observed half-life corresponds to an isomeric decay and the ground state half-life (2.2 ± 1.1 s) was reported by Nolte et al. three years later (1982No08).

Adapted from reference (2013Fr10)

- 1979To01 K. S. Toth, C. R. Bingham, D. R. Zolnowski, S. E. Cala *et al.*, Phys. Rev. C **19**, 482 (1979).
1982No08 E. Nolte, S. Z. Gui, G. Colombo, G. Korschinek, and K. Eskola, Z. Phys. A **306**, 223 (1982).
2013Fr10 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 520 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”