# $^{171}$Ho

In 1989, the first observation of $^{171}$Ho was reported in "Identification of the neutron-rich isotope $^{174}$Er" by Chasteler et al. (1989Ch05). Natural tungsten targets were bombarded with a 8.5 MeV/u $^{176}$Yb beam from the Berkeley SuperHILAC and $^{171}$Ho was produced in multi-nucleon transfer reactions. X-, $\beta$- and $\gamma$-rays were measured with silicon, plastic scintillator, and germanium detector at the OASIS mass separation facility. "Based on our measurements of the Er x rays in coincidence with the $\beta^-$ particles and the $^{171}$Er transitions, we can unambiguously assign the 49(5) s to the $\beta^-$ decay of $^{171}$Ho and eliminate the $^{171m}$Er alternative interpretation." A month later Rykaczewski et al. assigned a 47(5) s half-life to either $^{171}$Ho or $^{171m}$Er (1989Ry04).

Adapted from reference (2013Fr10)


1989Ch05 R. M. Chasteler, J. M. Nitschke, R. B. Firestone, K. S. Vierinen *et al.*, Z. Phys. A **332**, 239 (1989).

1989Ry04 K. Rykaczewski, K. L. Gippert, N. Kaffrell, R. Kirchner *et al.*, Nucl. Phys. A **499**, 529 (1989).

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"