

## <sup>170</sup>Ho

<sup>170</sup>Ho was first observed by Wille and Fink in 1960 as reported in “Activation cross sections for 14.8-Mev neutrons and some new radioactive nuclides in the rare earth region” (1960Wi10). An erbium oxide target enriched in <sup>170</sup>Er was irradiated with neutrons produced in the <sup>3</sup>H(d,n)<sup>4</sup>He reaction from the University of Arkansas Cockcroft-Walton accelerator. Decay curves were measured with an aluminum-walled, methane-flow beta-proportional counter. “Therefore, it seems likely that the 40-sec activity is Ho<sup>170</sup> from the Er<sup>170</sup>(n,p) reaction and the 4.4-min period is Dy<sup>167</sup> from the Er<sup>170</sup>(n,α) reaction.” This measured half-life for <sup>170</sup>Ho corresponds to an isomeric state and the ground state (2.9 min) was reported nine years later by Schussler and Pinston (1969Sc01).

Adapted from reference (2013Fr10)

- 1960Wi10 R. G. Wille and R. W. Fink, Phys. Rev. **118**, 242 (1960).  
1969Sc01 F. Schussler and J. A. Pinston, Nucl. Phys. A **123**, 348 (1969).  
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