

## <sup>152</sup>Eu

The first detection of <sup>152</sup>Eu was reported in 1938 by Pool and Quill in “Radioactivity induced in the rare earth elements by fast neutrons” (1938Po05). Fast and slow neutrons were produced with 6.3 MeV deuterons from the University of Michigan cyclotron. Decay curves were measured with a Wulf string electrometer. “The 9.2-hr. period is assigned to Eu<sup>152</sup> instead of to Eu<sup>154</sup> since this period is strongly produced by fast neutron bombardment.” This half-life corresponds to an isomer and a ground state half-life (~5 y) was reported 9 years later by Inghram et al. (1947In07). Previously a 9.2(1) h half-life was assigned to either <sup>152</sup>Eu or <sup>154</sup>Eu (1935Ma03).

Adapted from reference (2013Ma01)

- 1935Ma03 J. K. Marsh and S. Sugden, *Nature* **136**, 102 (1935).  
1938Po05 M. L. Pool and L. L. Quill, *Phys. Rev.* **53**, 437 (1938).  
1947In07 M. G. Inghram, R. J. Hayden, and D. C. Hess Jr., *Phys. Rev.* **71**, 643 (1947).  
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