

## <sup>150</sup>Gd

Rasmussen et al. observed <sup>150</sup>Gd at the University of California at Berkeley in 1953 as described in the paper “Alpha-radioactivity in the 82-neutron region” ([1953Ra02](#)). Eu<sub>2</sub>O<sub>3</sub> was bombarded with 19 MeV deuterons and <sup>150</sup>Gd was formed in the reaction <sup>151</sup>Eu(d,3n). Resulting  $\alpha$ -activities were measured with an ionization chamber following chemical separation. “The mass assignment of this alpha-activity to Gd<sup>150</sup> should be considered tentative, since the assignment is based principally on semi-empirical considerations of the probable expected alpha-decay energy for Gd<sup>150</sup>. Decay measurements over a one-year period show the activity to have a half-life of greater than two years, ruling out the possibility that this activity could arise from 155 day Gd<sup>151</sup>.” We credit Rasmussen et al. with the discovery because their  $\alpha$  energy measurement was correct (2.70(15) MeV) and the assignment was later accepted by Ogawa et al. ([1965Og01](#)).

Adapted from reference ([2013Ma01](#))

- [1953Ra02](#) J. O. Rasmussen Jr., S. G. Thompson, and A. Ghiorso, Phys. Rev. **89**, 33 (1953).  
[1965Og01](#) I. Ogawa, T. Doke, M. Miyajima, and A. Nakamoto, Nucl. Phys. **66**, 119 (1965).  
[2013Ma01](#) E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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