

## <sup>147</sup>Gd

<sup>147</sup>Gd was first observed in 1957 by Shirley et al. as reported in the paper “Conversion-electron and photon spectra of Gd<sup>147</sup> and Gd<sup>149</sup>” ([1957Sh46](#)). An enriched <sup>147</sup>Sm<sub>2</sub>O<sub>3</sub> target was bombarded with alpha particles from the Berkeley 60-inch cyclotron. Conversion electron spectra were measured with four permanent-magnet 180° spectrographs following chemical separation. “A new gadolinium isotope decaying by electron capture with a 29-hour half-life was found. Its mass number was determined to be 147 by examination of its excitation function for its production by alpha particle bombardment of Sm<sub>2</sub><sup>147</sup>O<sub>3</sub>.”

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

[1957Sh46](#) V. S. Shirley, W. G. Smith, and J. O. Rasmussen, Nucl. Phys. **4**, 395 (1957).

[2013Ma01](#) E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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