

¹⁶³Gd

“A new isotope ¹⁶³Gd; comments on the decay of ¹⁶²Gd” was published in 1982 by Gehrke et al. documenting the observation of ¹⁶³Gd at the Idaho National Engineering Laboratory in Idaho Falls ([1982Ge07](#)). ¹⁶³Gd was produced in spontaneous fission of ²⁵²Cf and γ -ray spectra were measured with a Ge(Li) spectrometer following chemical separation. “A new isotope, ¹⁶³Gd, has been identified which was produced in the spontaneous fission of ²⁵²Cf. The half-life of this isotope was measured to be (68 ± 3) s and eleven γ rays have been assigned to its decay. The assignment of this activity to ¹⁶³Gd is based on the presence of these γ rays in the gadolinium fraction, which was chemically separated from mixed fission products, and the observation of the growth and decay curve associated with γ rays from 19.5-min ¹⁶³Tb, the daughter activity.”

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

[1982Ge07](#) R. J. Gehrke, R. C. Greenwood, J. D. Baker, and D. H. Meikrantz, *Radiochim. Acta* **31**, 1 (1982).

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

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”