

## <sup>143</sup>Gd

Kosanke et al. observed <sup>143</sup>Gd in the 1975 paper “An improved and modular helium-jet recoil-transport system for the study of short-lived nuclei” (1975Ko09). A samarium target was bombarded with a 70 MeV triton beam from the MSU sector-focused cyclotron and <sup>143</sup>Gd was formed in the reaction <sup>144</sup>Sm(<sup>3</sup>H,4n). Gamma-ray spectra were measured with two Ge(Li) detectors in combination with a helium-jet transport system. “An example of the use of this coincidence arrangement is given in [the figure], which shows some  $\gamma$ -ray spectra from the decays of 39-s <sup>143g</sup>Gd and 112-s <sup>143m</sup>Gd.” Previously an upper half-life limit of 1 min was reported (1968Ke14).

Adapted from reference (2013Ma01)

- 1968Ke14 K. A. Keller and H. Munzel, *Radiochim. Acta* **9**, 176 (1968).  
1975Ko09 K. L. Kosanke, M. D. Edmiston, R. A. Warner, R. B. Firestone, and W. C. McHarris, *Nucl. Instrum. Methods* **124**, 365 (1975).  
2013Ma01 E. May and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 1 (2013).

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