

## **<sup>157</sup>Yb**

The discovery of <sup>157</sup>Yb was reported in “Production of rare-earth  $\alpha$  emitters with energetic <sup>3</sup>He particles; new isotopes: <sup>151</sup>Er, <sup>156</sup>Yb, and <sup>157</sup>Yb” by Toth et al. in 1970 ([1970To16](#)). Erbium oxide targets enriched in <sup>162</sup>Er were bombarded with a 102.1 MeV <sup>3</sup>He beam from the Oak Ridge isochronous cyclotron (ORIC). <sup>157</sup>Yb was produced in (8n) reactions. Recoils were transported to a Si(Au) detector with a helium gas transport system where  $\alpha$ -decay spectra were measured. “The only calculated curve that was consistent with the 4.50-MeV data points was the one for a (<sup>3</sup>He,8n) reaction. There is a strong indication then that the 4.50-MeV  $\alpha$  group is due to the decay of <sup>157</sup>Yb.”

Adapted from reference ([2013Fr10](#))

[1970To16](#) K. S. Toth, R. L. Hahn, M. A. Ijaz, and W. M. Sample, Phys. Rev. C **2**, 1480 (1970).

[2013Fr10](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 520 (2013).

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