

¹⁵³Tb

“Nuclear spectroscopy of neutron-deficient rare earths (Tb through Hf)” was published in 1957 by Mihelich et al. describing the observation of ¹⁵³Tb ([1957Mi67](#)). Different enriched rare earth elements were irradiated with 12–22 MeV protons from the ORNL 86-inch cyclotron. The resulting activities were measured with a conversion electron spectrograph and a scintillation counter following chemical separation. “^{Tb}¹⁵³(62 hr)→^{Gd}¹⁵³: The presence of this activity is established by observation of the daughter activity, ^{Gd}¹⁵³, which decays to levels in ^{Eu}¹⁵³. This conclusion is consistent with the yields from various mass-enriched targets” A previously reported half-life of 5.1 d ([1948Wi02](#), [1950Wi13](#)) was incorrect.

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

- [1948Wi02](#) G. Wilkinson and H. G. Hicks, Phys. Rev. **74**, 1733 (1948).
[1950Wi13](#) G. Wilkinson and H. G. Hicks, Phys. Rev. **79**, 815 (1950).
[1957Mi67](#) J. W. Mihelich, B. Harmatz, and T. H. Handley, Phys. Rev. **108**, 989 (1957).
[2013Ma01](#) E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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