

¹⁵⁷Tb

¹⁵⁷Tb was first observed in 1960 by Naumann et al. as reported in “Preparation of long-live terbium-157 and terbium 158” (1960Na12). Dysprosium oxide enriched in ¹⁵⁶Dy was bombarded with neutrons in the materials testing reactor. ¹⁵⁷Tb was identified with a mass spectrometer at Berkeley following chemical separation. “Mass-spectrometric investigation of the terbium fraction revealed the existence of mass peaks at 157, 158, 159 and 160, indicating the preparation of new long-lived isotopes terbium-157 and -158 in addition to the stable terbium-159 and the 76-day terbium-160.” Previously only limits of <30 min or >100 y (1953Ha81), <10 min or >5 y (1955Ha52) and <4 h or >10 y (1960To10). Also, an earlier report of a 4.7(1) d half-life (1950Wi13) was incorrect.

Adapted from reference (2013Ma01)

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