

¹⁵⁶Tb

Wilkinson and Hicks published the observation of ¹⁵⁶Tb in the 1950 paper “Radioactive isotopes of the rare earths. III. Terbium and holmium isotopes” ([1950Wi13](#)). Europium targets were bombarded with 19 MeV α -particles from the Berkeley 60-in. cyclotron. Electrons, positrons, γ -rays and X-rays were measured following chemical separation. “ 5.0 ± 0.1 -Hr. Tb¹⁵⁶: In bombardments of europium with 19-MeV α -particles, an activity of half-life 5.0 ± 0.1 hr. measured through nine half-lives was observed in high yield.” We credit Wilkinson and Hicks with the discovery although they incorrectly identified the neighboring nuclei ¹⁵⁵Tb and ¹⁵⁷Tb because subsequently their results were not questioned ([1955Ha52](#), [1957Mi67](#)). The observed half-life corresponds to an isomeric state and the ground state of 5.2 d was reported five years later by Handley and Lyon ([1955Ha52](#)).

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

- [1950Wi13](#) G. Wilkinson and H. G. Hicks, Phys. Rev. **79**, 815 (1950).
[1955Ha52](#) T. H. Handley and W. S. Lyon, Phys. Rev. **99**, 1415 (1955).
[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).

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)”