^{160}Tb

The discovery of ^{160}Tb was reported by Bothe at the Institut für Physik am Kaiser Wilhelm Institut für Medizinische Forschung in Heidelberg in the 1943 paper "Eine langlebige Terbium-Aktivität" (1943Bo04). A terbium oxide sample was irradiated with thermal neutrons produced by deuteron bombardment of beryllium. Decay curves and absorption spectra were measured. "Nach den bisherigen Messungen, die sich über 6 Monate erstrecken, beträgt die Halbwertszeit 72±3 d... Da nur die Reaktion $Tb^{159}(n,\gamma)Tb^{160}$ in Frage kommt, gehört die neue Aktivität dem Tb^{160} an." [According the measurements up to now, which lasted for 6 months, the half-life is 72±3 d... Because only the reaction $Tb^{159}(n,\gamma)Tb^{160}$ is possible, this activity belongs to Tb^{160}.] Previously assigned half-lives of 3.9 h (1936He02) and 3.3 h (1938Po05) were incorrect. Sugden had reported a 3.9(1) h half-life without a mass assignment (1935Su01).

Adapted from reference (2013Ma01)

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Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"