

¹⁵⁶Yb

The discovery of ¹⁵⁶Yb was reported in “Production of rare-earth α emitters with energetic ³He particles; new isotopes: ¹⁵¹Er, ¹⁵⁶Yb, and ¹⁵⁷Yb” by Toth et al. in 1970 ([1970To16](#)). Erbium oxide targets enriched in ¹⁶²Er were bombarded with a 102.1 MeV ³He beam from the Oak Ridge isochronous cyclotron (ORIC). ¹⁵⁶Yb was produced in (9n) reactions. Recoils were transported to a Si(Au) detector with a helium gas transport system where α -decay spectra were measured. “Least-squares analysis indicated a genetic relationship between two radioactive components, one with a half-life of 24 ± 1 sec and the other with a 9.8-sec half-life. Because this latter value is that of ¹⁵²Er, the parent-daughter relationship establishes the existence of a new ytterbium nuclide, ¹⁵⁶Yb”

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).

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)”