

^{154}Yb

“Alpha-decay properties of some thulium and ytterbium isotopes near the 82-neutron shell” by Macfarlane announced the discovery of ^{154}Yb in 1964 ([1964Ma45](#)). Samarium oxide (enriched in ^{144}Sm) and neodymium oxide (enriched in ^{142}Nd) were bombarded with 106–151 MeV ^{16}O and 131–195 MeV ^{20}Ne beams from the Berkeley heavy-ion linear accelerator Hilac, respectively. ^{154}Yb was formed in (xn) fusion evaporation reactions and identified by measuring excitation functions and α -decay spectra. “One of the Yb alpha emitters has an alpha-particle energy of 5.33 MeV and decays with a half-life of 0.39 sec... This result strongly suggests that this new nuclide is probably Yb 154 .”

Adapted from reference ([2013Fr10](#))

[1964Ma45](#) R. D. Macfarlane, Phys. Rev. **136**, B941 (1964).

[2013Fr10](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 520 (2013).

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