

^{174}Tm

^{174}Tm was first observed by Wille and Fink in 1960 as reported in “Activation cross sections for 14.8-Mev neutrons and some new radioactive nuclides in the rare earth region” (1960Wi10). An ytterbium target enriched in ^{174}Yb was irradiated with neutrons produced in the $^3\text{H}(\text{d},\text{n})^4\text{He}$ reaction from the University of Arkansas Cockcroft-Walton accelerator. Decay curves were measured with an aluminum-walled, methane-flow beta-proportional counter and γ -spectra were measured with a Na(Tl) detector. “From 98.4% enriched Yb^{174} , the 2.0-min activity was not found, but a new 5.5 ± 0.5 min half-life was observed, probably due to Tm^{174} from the (n,p) reaction.”

Adapted from reference (2013Fr10)

1960Wi10 R. G. Wille and R. W. Fink, Phys. Rev. **118**, 242 (1960).

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

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