

^{177}Tm

^{177}Tm was identified by Rykaczewski et al. as reported in “Investigation of neutron-rich rare-earth nuclei including the new isotopes ^{177}Tm and ^{184}Lu ” in 1989 ([1989Ry04](#)). A stack of tungsten and tantalum foils were bombarded with 9–15 MeV/u ^{136}Xe , ^{186}W , and ^{238}U beams from the GSI UNILAC accelerator. Plastic scintillators and Ge(Li) detectors were used to measure β - and γ -ray spectra, respectively following on-line mass separation. “Taking into account the results from all these experiments the half-life value of ^{177}Tm is determined to be 85^{+10}_{-15}s .” The value was calculated from half-lives of coincident K X-rays and γ -rays of 104.5 keV and 517.5 keV of 95(7) s, 84(11) s and 77(18) s, respectively. The first and last value were later interpreted as decays from the ground state and an isomeric state, respectively ([2019Ko26](#)).

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

- [1989Ry04](#) K. Rykaczewski, K. L. Gippert, N. Kaffrell, R. Kirchner *et al.*, Nucl. Phys. A **499**, 529 (1989).
[2013Fr10](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 520 (2013).
[2019Ko26](#) F. G. Kondev, Nucl. Data Sheets **159**, 1 (2019).

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