^{187}Tl

In the 1976 paper "Observation of α-decay in thallium nuclei, including the new isotopes ^{184}Tl and ^{185}Tl" by Toth et al. reported first evidence of ^{187}Tl (1976To06). The Oak Ridge isochronous cyclotron accelerated ^{14}N to 168 MeV which then impinged on ^{180}W and ^{182}W targets. ^{187}Tl was produced in fusion-evaporation reactions and identified in the UNISOR isotope separator facility. "Two isomers exist in ^{187}Tl, with half-lives of about 18 and 40 s. We observed α-decay only for the 18 s species." The reference to two known isomers in the quote refers to unpublished results. Internal transitions from this isomeric state populating the ground state were observed a year later by Schmidt et al. (1977Sc03) listing an approximate half-life for the ground satte of 50 s.

Adapted from reference (2013Fr04)

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1977Sc03 A. G. Schmidt, R. L. Mlekodaj, E. L. Robinson, F. T. Avignone *et al.*, Phys. Lett. B **66**, 133 (1977).

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