^{183}Tl

^{183}Tl was first observed in 1980 by Schrewe et al. in "Alpha decay of neutron-deficient isotopes with $78 \leq Z \leq 83$ including the new isotopes ^{183,184}Pb and ^{188}Bi" (1980Sc09). A 6.25 MeV/nucleon ^{48}Ti beam from the GSI UNILAC accelerator impinged on an enriched ^{142}Nd target. ^{183}Tl was formed in the fusion evaporation reaction ^{142}Nd(^{48}Ti,1p6n) and stopped in a FEBIAD ion source. Following reionization and mass separation, the ions were implanted into a carbon foil and their α-decay was recorded. "In addition to the known alpha line of ^{183}Au and of ^{183}Hg and its alpha decay daughter ^{179}Pt, new high-energy alpha lines were observed. They were assigned to ^{183}Tl confirming earlier unpublished data, and to the new isotope ^{183}Pb." The measured half-life of 60(15) ms corresponds to an isomeric state. The unpublished data mentioned in the quote referred to an unpublished thesis (1978MaYF). The ground state was first observed nineteen years later by Batchelder et al. (1999Ba45).

Adapted from reference (2013Fr04)

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