^{186}Tl

Hamilton et al. announced the discovery of ^{186}Tl in the 1975 article "Crossing of near-spherical and deformed bands in ^{186,188}Hg and new isotopes ^{186,188}Tl" (1975Ha27). The Oak Ridge isochronous cyclotron accelerated ^{16}O to 143−145 MeV to bombard a tantalum target to produce ^{186}Tl in the (9n) fusion-evaporation reaction. Conversion electrons and γ-rays were measured with Si(Li) and Ge(Li) detectors. "We have identified the new isotopes ^{186,188}Tl with $T_{1/2}^{186}=4.5^{+1.0}_{-1.5}$ and 28±2 sec and $T_{1/2}^{188}$=71±1 sec, respectively." A year earlier Hamilton et al. had reported a 48(3) s half-life in a first overview of the UNISOR program (1974Ha10). These half-lives for ^{186}Tl correspond to isomeric decays and the half-life of the ground state ($3.4^{+0.5}_{-0.4}$) s was measured forty-five years later by Stryjczyk et al. (2020St11).

Adapted from reference (2013Fr04)

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