^{209}Th

The discovery of ^{209}Th was reported by Ikezoe et al. in the 1996 paper "α decay of a new isotope ^{209}Th" (1996Ik01). A ^{182}W target was bombarded with a 171 MeV ^{32}S beam from the JAERI-tandem accelerator producing ^{209}Th in (5n) fusion-evaporation reactions. Residues were separated in flight with the JAERI-RMS recoil mass separator and implanted into a position sensitive strip detector which also recorded subsequent α decay. "We conclude that the observed two decay chains listed in [the table] correspond to the α decays from new isotope ^{209}Th." The measured half-life was 3.8^{+69}_{-15} ms and probably corresponds to anu isomeric state. The ground state has not yet been observed.

Adapted from reference (2013Fr03)

1996Ik01 H. Ikezoe, T. Ikuta, S. Hamada, Y. Nagame *et al.*, Phys. Rev. C **54**, 2043 (1996).

2013Fr03 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).

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