^{180}Tl

^{180}Tl was identified in 1987 by Lazarev et al. in "Observation of delayed nuclear fission in the region of ^{180}Hg" (1987La23). The Dubna U-400 cyclotron was used to bombard an enriched ^{144}Sm target with a 230 MeV ^{40}Ca beam. ^{180}Tl was produced in the fusion evaporation reaction ^{144}Sm(^{40}Ca,1p3n) and β-delayed fission fragments were measured with mica fission fragment detectors surrounding the rotating cylindrical target. "...an examination of the data of [the table] in the light of the radioactive properties of the residual nuclei formed after particle emission from the compound system ^{184}Pb with the initial excitation energy $E^* \sim (40-75)$ MeV leads to the assumption that fission with $T_{1/2}$ = 0.7 s occurs in the decay chain ^{180}Tl $\rightarrow$ ^{180}Hg*."

Adapted from reference (2013Fr04)

1987La23 Yu. A. Lazarev, Yu. Ts. Oganessian, I. V. Shirokovsky, S. P. Tretyakova *et al.*, Europhys. Lett. **4**, 893 (1987).

2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"