# $^{191}$Tl

Vandlik et al. from Dubna observed $^{191}$Tl and published their results in the 1974 paper "Investigation of the decay $^{191}$Tl→$^{191}$Hg→$^{191}$Au" (1974Va19). A lead target was bombarded with 660 MeV protons forming $^{191}$Tl in spallation reactions. Conversion electron- and $\gamma$-ray spectra were measured following chemical and mass separation. "We cannot identify definitely the $^{191}$Tl level to which the observed 5.22-minute activity belongs. It is more probable, however, that it belongs to the ground state." An earlier reported 10-min half-life (1960Ch05) could not be confirmed and it was suspected that the data were contaminated by the 11.4 min half-life of $^{192}$Tl (1961An03). The observed level corresponds to an isomeric state and the half-life of the ground state has not been measured yet.

Adapted from reference (2013Fr04)


1960Ch05 K. F. Chackett and G. A. Chackett, J. Inorg. Nucl. Chem. **13**, 1 (1960).

1961An03 G. Andersson, I. B. Haller, and R. Ringh, J. Inorg. Nucl. Chem. **17**, 15 (1961).

1974Va19 J. Vandlik, N. G. Zaitseva, Z. Mate, I. Mahunka *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **38**, 26 (1974).

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



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