^{177}Tl α decay (0.23 ms) 1999Po09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Tuli	ENSDF	15-Aug-2015

Parent: ^{177}Tl: E=807 *18*; J^{π}=(11/2$^-$); $T_{1/2}$=0.23 ms *4*; Q(α)=7067 *7*; %α decay=49 *8*
^{177}Tl-Q(α): From 2012Wa38.
^{177}Tl-%α decay: From 1999Po09.
^{177}Tl parent properties are taken from 1999Po09. parent J^{π} is based on observed $h_{11/2}$ orbital P emission to 0^+ g.s. of ^{176}Hg.

^{173}Au Levels

E(level)	J^{π}	Comments
214 *23*	(11/2$^-$)	E(level): from Eα=6907 *7* and 7487 *13* for α decay from g.s. and E=807 *18* level of ^{177}Tl, respectively (1999Po09).

α radiations

Eα	E(level)	Iα[‡]	HF[†]
7487 *13*	214	100	2.4 *6*

[†] If r_0=1.55 (based on $r_0(^{172}Pt)$=1.55 *3*, $r_0(^{174}Pt)$=1.545 *10* In 1998Ak04 and $r_0(^{172}Hg)\approx$1.56, $r_0(^{174}Hg)\approx$1.54 from extrapolation of values In 1998Ak04), $T_{1/2}$(177TL)=0.23 ms *4* (1999Po09) and Q(α)=7067 *7* (from Eα In 1999Po09).
[‡] For absolute intensity per 100 decays, multiply by 0.49 *8*.