^{177}Tl α decay (18 ms) 1999Po09

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

Parent: ^{177}Tl: E=0.0; J^π=(1/2$^+$); $T_{1/2}$=18 ms *5*; Q(α)=7067 *7*; %α decay=73 *13*
^{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 $s_{1/2}$ orbital P emission to 0$^+$ g.s. of ^{176}Hg.

^{173}Au Levels

E(level)	J^π
0.0	(1/2$^+$)

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
6907 *7*	0.0	100	1.8 *6*	Eα=6907 *7* for g.s. to g.s. transition imlies Q(α)=7067 *7* for ^{177}Tl (cf. 7340 *200* from systematics In 1995Au04).

[†] 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)=18 ms *5* (1999Po09) and Q(α)=7067 *7* (from Eα In 1999Po09).
[‡] For absolute intensity per 100 decays, multiply by 0.73 *13*.