
 ^{160}Ta α decay (1.7 s) [1996Pa01](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich	NDS 113,2537 (2012)	1-Mar-2012

Parent: ^{160}Ta : E=x; $J^\pi=(2)^-$; $T_{1/2}=1.7$ s 4; $Q(\alpha)=5451$ 5; % α decay=?

^{160}Ta -E: [Additional information 1](#).

^{160}Ta - J^π : [Additional information 2](#).

^{160}Ta - $T_{1/2}$: [Additional information 3](#).

^{160}Ta - $Q(\alpha)$: [Additional information 4](#).

[Additional information 5](#).

The evaluator has assumed that this activity is different from the previously established 1.55-S ^{160}Ta activity. This is based on the observation that the study of [1996Pa01](#) shows two α activities in ^{160}Ta , which having a distinct α group which correlates with a different ^{156}Lu α group, although with comparable half-lives. Since the $E(\alpha)$ value associated with this activity implies a $Q(\alpha)$ value close to that given by [2011AuZZ](#), the evaluator has assumed that this activity corresponds to the ^{160}Ta g.s. (or at least that it lies below the 1.55-S activity).

[1996Pa01](#): Source material produced in $^{58}\text{Ni}+^{102}\text{Pd}$ reactions. Reaction products separated using a recoil mass separator and detected in a double-sided Si-strip detector. Measured $T_{1/2}$ and $E(\alpha)$.

 ^{156}Lu Levels

E(level)	J^π	Comments
0	$(2)^-$	E(level): The final state for this α transition is not established. The evaluator has assumed that it is the g.s. J^π : From adopted values.

 α radiations

E_α	E(level)	I_α	Comments
5315 5	0	100	E_α : From 1996Pa01 . If this transition connects the two ground states, then $Q(\alpha)$ is computed to be 5449 5. I_α : Only one α transition is assumed to be associated with the decay of this state.