

^{217}Ac α decay (8 ns)

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	M. S. Basunia	NDS 181, 475 (2022)	1-Jan-2022

Parent: ^{217}Ac : E=1498.1 4; $J^\pi=19/2^-$; $T_{1/2}=8$ ns 2; $Q(\alpha)=9832$ 10; $\% \alpha$ decay<0.59

^{217}Ac -E: [1985De14](#) show a doublet parent of 1498 (19/2⁻) and 1529 (21/2⁻), which are 1498.1 and 1528.4, respectively, in [2018Ko01](#) (A=217 evaluation).

^{217}Ac - $T_{1/2}$: From [1973No02](#). Also quoted in [1985De14](#).

^{217}Ac - $Q(\alpha)$: From [2021Wa16](#).

^{217}Ac - $\% \alpha$ decay: From ≤ 0.46 13 ([1985De14](#)).

 ^{213}Fr Levels

<u>E(level)</u>	<u>J^π</u>	<u>$T_{1/2}$</u>	<u>Comments</u>
0.0	9/2 ⁻	34.17 s 6	$J^\pi, T_{1/2}$: From Adopted Levels.

 α radiations

<u>$E\alpha$</u>	<u>E(level)</u>	<u>$I\alpha^\ddagger$</u>	<u>HF[†]</u>	<u>Comments</u>
11137 15	0.0	100	<2.7×10 ⁴	$E\alpha$: From 1985De14 (peaks at 9.65 and 10.54 MeV, measured by 1973No09 were used as calibration points). Other: 11130 (1973No09). $I\alpha$: α intensity per 100 α decays from the level.

[†] Using $r_0(^{213}\text{Fr})=1.5460$ 27, unweighted average of $r_0(^{212}\text{Rn})=1.5433$ 36 and $r_0(^{214}\text{Ra})=1.5487$ 30 ([2020Si16](#)). Assuming $\% \alpha$ branching=0.30 30 of ^{217}Ac .

[‡] For absolute intensity per 100 decays, multiply by <0.0059.