

^{220}Pa α decay (0.23 μs) [2021Ma66](#)

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	C. Morse	NDS 209,409 (2026)	5-Aug-2025

Parent: ^{220}Pa : $E=139\ 42$; $J^\pi=(3^-)$; $T_{1/2}=0.23\ \mu\text{s} +11-6$; $Q(\alpha)=9704\ 11$; $\% \alpha$ decay=100

^{220}Pa -E: Based on difference between observed Q_α and Q_α^{gs} ([2021Wa16](#)).

^{220}Pa - $J^\pi, T_{1/2}$: From [2021Ma66](#).

^{220}Pa - $Q(\alpha)$: From [2021Wa16](#).

^{220}Pa - $\% \alpha$ decay: Only α decay has been observed ([2021Ma66](#)).

[2021Ma66](#): ^{220}Pa produced at HIRFL by impinging an ^{40}Ar beam on a ^{187}Re target. Measured $E_\alpha, T_{1/2}$.

 ^{216}Ac Levels

<u>E(level)</u>	<u>J^π</u>	<u>$T_{1/2}$</u>	<u>Comments</u>
0	(1 $^-$)	0.374 ms 22	$J^\pi, T_{1/2}$: From Adopted Levels.

 α radiations

<u>E_α</u>	<u>E(level)</u>	<u>Comments</u>
9664 40	0	E_α : From 2021Ma66 .