^{226}Pa α decay (1.8 min)　　　1964Mc21

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, M. S. Basunia, Jun Chen et al. ,	NDS 192,315 (2023)	25-Sep-2023

Parent: ^{226}Pa: E=0; T$_{1/2}$=1.8 min *2*; Q(α)=6987 *10*; %α decay=74 *5*

^{226}Pa-T$_{1/2}$: measured by 1951Me10 (from α-decay curve, earlier value was 1.70 min *15* in 1949Me54 from Eα and half-life correlations).

^{226}Pa-J$^{\pi}$: 0 or 3 from Ω_p=3/2 and Ω_n=3/2 orbitals in theoretical calculations (2019Mo01); 1$^-$ (2021Ko07) from systematics.

^{226}Pa-Q(α): From 2021Wa16.

^{226}Pa-%α decay: %α=74 *5* from measured %ε+%β^+=26 *5* (1964Mc21).

For a review of α decay from oriented nuclei, see 1992Wo14.

^{222}Ac Levels

E(level)[†]	J$^{\pi}$	T$_{1/2}$	Comments
0	1$^-$	4.9 s *5*	J$^{\pi}$,T$_{1/2}$: from the Adopted Levels.
40 *14*			
137 *14*			

[†] From Eα and Q(α) values.

α radiations

Eα[†]	E(level)	Iα[†#]	HF[‡]
6729 *10*	137	1	89
6824 *10*	40	46	4.6
6864 *10*	0	52	5.8

[†] Measured by 1964Mc21. Original energies have been increased by 6 keV because of a change in the calibration energy of the ^{227}Pa α from 6460 to 6465.8 *3*, recommended by 1991Ry01. The α intensities are stated as approximate values by 1964Mc21, and these add to 99, instead of expected 100. Other measurements: 1951Me10, 1968Ha14, 1988Hu08.

[‡] The nuclear radius parameter r$_0$(^{222}Fr)=1.5348 *30* is deduced from interpolation (or unweighted average) of radius parameters of the adjacent even-even nuclides (2020Si16).

[#] For absolute intensity per 100 decays, multiply by 0.74 *5*.