^{206}Ac α decay (33 ms) 1998Es02,1998LuZV

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

Parent: ^{206}Ac: E=200 *70*; J^{π}=(10$^-$); $T_{1/2}$=33 ms *+22−9*; Q(α)=7960 *60*; %α decay≈100

^{206}Ac-E: From 2021Ko07.

1998Es02(recommended): ^{175}Lu(^{36}Ar,5n) reaction; Target: 320 μg/cm^2; Beam: 199 MeV; Detectors: Gas-filled recoil separator (RITU), position sensitive PIPS detector; Measured: recoil-α_1-α_2-α_3 coin, Eα, $T_{1/2}$. The assignment to the J^{π}=(10$^-$) state in ^{206}Ac is based on six events Eα_1 (^{206}Ac) − Eα_2 (^{202}Fr,10$^-$) − Eα_3 (^{198}At,10$^-$).

^{202}Fr Levels

E(level)[†]	J^{π}[†]	$T_{1/2}$[†]
257 *6*	(10$^-$)	286 ms *13*

[†] From Adopted Levels.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
7750 *20*	257	100	≈2.2	Eα: From 1998Es02. Other: 7772 keV *50* (1998LuZV).

[†] Using r_0(^{202}Fr)=1.532 *4*, weighted average of 1.525 *14* (^{200}Rn) and 1.529 *4* (^{202}Rn) from 2020Si16. No information on r_0(^{202}Ra) and r_0(^{204}Ra) is available in 2020Si16.

[‡] For absolute intensity per 100 decays, multiply by ≈1.0.