^{208}Ac α decay (25 ms) 1994Le05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev	NDS 111,141 (2010)	1-Oct-2009

Parent: ^{208}Ac: E=506 *26*; $J^{\pi}=(10^-)$; $T_{1/2}$=25 ms *+9−5*; Q(α)=7730 *50*; %α decay≈90.0

^{208}Ac-$T_{1/2}$: Other: 82 ms *+47−15* (1998LuZV).

^{208}Ac-%α decay: Analogy to E3 decay in ^{204}At suggests %IT≤10. From 1973Ta30 %ε≈1. The α HF of≈2.3 is consistent with this branching.

^{204}Fr Levels

E(level)†	J^{π}†	$T_{1/2}$†
0	(3^+)	1.8 s *3*
41 *7*	(7^+)	1.6 s *+5−3*
316 *7*	(10^-)	0.8 s *2*

† From Adopted Levels.

α radiations

Eα	E(level)	Iα‡	HF†	Comments
7758 *20*	316	100	≈2.3	Eα: Other: 7747 keV *40* (1998LuZV).

† Using $r_0(^{204}Fr)$=1.532 *4* weighted average of 1.533 *4* (^{202}Rn) and 1.527 *8* (^{204}Rn) from 1998Ak04.

‡ For absolute intensity per 100 decays, multiply by ≈0.90.