

^{208}Ac α decay (95 ms) [1994Le05](#)

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

Parent: ^{208}Ac : $E=0.0$; $J^\pi=(3^+)$; $T_{1/2}=95$ ms $+24-16$; $Q(\alpha)=7730$ 50; $\% \alpha$ decay ≈ 99.0

^{208}Ac - $T_{1/2}$: Other: 199 ms $+121-55$ ([1998LuZV](#)).

Produced in fusion reaction of ^{40}Ar on ^{175}Lu at 5.2-5.6 MeV/A; position-sensitive detectors FWHM=30 keV. Mother-daughter relationships. Level in ^{204}Fr with $T_{1/2}=1.5$ s $+5-3$ and $E_\alpha=7038$ 6 to the ^{204}Fr daughter (compare to 1.7 s 3 and 7031 5 of [1992Hu04](#)).

 ^{204}Fr Levels

<u>E(level)[†]</u>	<u>J^π[†]</u>	<u>T_{1/2}[†]</u>
0	(3 ⁺)	1.8 s 3

[†] From Adopted Levels.

 α radiations

<u>Eα</u>	<u>E(level)</u>	<u>Iα[‡]</u>	<u>HF[†]</u>	<u>Comments</u>
7572 15	0	100	≈ 2	E_α : 7572 α correlated with 7029 α that depopulates the (3 ⁺) state in ^{204}Fr (1997Mi03). Other: 7562 keV 50 (1998LuZV).

[†] Using $r_0(^{204}\text{Fr})=1.532$ 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 ≈ 0.99 .