

^{204}Fr α decay (2.31 s) [2013Ja06](#),[2005Uu02](#),[1992Hu04](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

Parent: ^{204}Fr : E=50 4; $J^\pi=(7^+)$; $T_{1/2}=2.31$ s +15-14; $Q(\alpha)=7170.3$ 24; % α decay=90 2

^{204}Fr -E: From [2021Ko07](#).

^{204}Fr - $T_{1/2}$: Weighted average of 2.6 s 3 ([2013Ja06](#)), 1.6 s +5-3 ([2005Uu02](#)), 2.6 s 3 ([1992Hu04](#)) and 2.1 s 3 ([1974Ho27](#)); Other: 3.3 s 2 ([1967Va20](#)).

^{204}Fr -% α (^{204}Fr) from [1995BiZZ](#); Other: 30% 6 in [1974Ho27](#).

 ^{200}At Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [†]
0	(3 ⁺)	43.1 s 8
112.9 29	(7 ⁺)	47 s 1

[†] From Adopted Levels.

 α radiations

$E\alpha$ [‡]	E(level)	$I\alpha$ ^{‡#}	HF [†]	Comments
6969 5	112.9	99.3 2	1.67 13	$E\alpha$: Others: 6969 keV 5 (2013Ja06), 6976 keV 6 (2005Uu02), correlated with $E\alpha=6413$ keV 6 depopulating the $J^\pi=(7^+)$ state in the daughter nucleus ^{200}At , 6975 keV 7 (1995Le04), 6966 keV 3 (1982Bo04), 6967 keV 5 (1974Ho27) and 6973 keV 5 (1967Va20).
7077 8	0	0.7 2	5.9×10^2 18	

[†] Using $r_0(^{200}\text{At})=1.517$ 6 unweighted average of 1.525 14 (^{200}Rn), 1.5287 42 (^{202}Rn), 1.5106 49 (^{198}Po) and 1.5026 13 (^{200}Po) from [2020Si16](#).

[‡] From [1992Hu04](#).

[#] For absolute intensity per 100 decays, multiply by 0.90 2.