^{204}Fr α decay (1.6 s) 1992Hu04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Lalkovski	NDS 108,1471 (2007)	1-Aug-2006

Parent: ^{204}Fr: E=47 *11*; $J^{\pi}=(7^+)$; $T_{1/2}$=1.6 s *+5−3*; Q(α)=7171.3 *25*; %α decay=30 *6*
^{204}Fr-E(^{204}Fr) from Q(α)(7077α) − Q(α)(g.s.).
^{204}Fr-$T_{1/2}$(^{204}Fr) from 2005Uu02. Other: 2.6 s *3* (1992Hu04), 2.1 s (1974Ho27) and 3.3 s *2* (1967Va20).
^{204}Fr-%α(^{204}Fr) from 1974Ho27.

^{200}At Levels

E(level)†	J^{π}†	$T_{1/2}$†	Comments
0	(3^+)	43 s *1*	
113 *5*	(7^+)	47 s *1*	Eα=6413 keV *6* (2005Uu02), 6411 keV *2* and 6575 keV *3* (1992Hu04), and 6412 keV *5* (1967Tr06). Probable Configuration=$((\pi\ h_{9/2})^{+1}(\nu\ f_{5/2})^{-1})\ (\pi^{+2}\ \nu^{-6})_{0+}$.

† From Adopted Levels.

α radiations

Eα‡	E(level)	Iα‡#	HF†	Comments
6969 *5*	113	99.3 *2*	3.4 *13*	Eα: Other: 6976 keV *6* (2005Uu02), correlated with Eα=6413 keV *6* depopulating the $J^{\pi}=(7^+)$ state in the daughter nucleus ^{200}At, 6967 keV *5* (1974Ho27) and 6973 keV *5* (1967Va20).
7077 *8*	0	0.7 *2*	1.19×10^3 *56*	

† Using r_0(^{200}At)=1.516 *8* weighted average of 1.533 *4* (^{204}Ra), 1.527 *8* (^{206}Ra), 1.516 *7* (^{202}Rn) and 1.504 *3* (^{204}Rn) from 1998Ak04.
‡ From 1992Hu04.
# For absolute intensity per 100 decays, multiply by 0.30 *6*.