

$^{252}\text{Cf}$  SF decay 2006Hw01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

Parent:  $^{252}\text{Cf}$ :  $E=0.0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=2.645$  y 8; %SF decay=?

The  $\gamma$ - $\gamma$  measurements were done with the Gammasphere facility with 72 Ge detectors,

Measured  $T_{1/2}$ .

Three  $\gamma$  previously assigned to  $^{104}\text{Zr}$  by 1970Jo20 have not been confirmed. 144.1 $\gamma$  with  $T_{1/2}=7$  ns 2 also assigned to Z=41 by 1971Ho29, 238 $\gamma$  with  $T_{1/2}=5.0$  ns 7, 251.6 $\gamma$  with  $T_{1/2}=4.0$  ns 4.

 $^{104}\text{Zr}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0	$0^+$		
140.3	$(2^+)$	2.0 ns 3	$B(E2)\uparrow=0.40$ 6; $\beta_2=0.47$ 7
452.8	$(4^+)$		
926.1	$(6^+)$		

 $\gamma(^{104}\text{Zr})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
140.3	140.3	$(2^+)$	0.0	$0^+$
312.5	452.8	$(4^+)$	140.3	$(2^+)$
473.3	926.1	$(6^+)$	452.8	$(4^+)$

 $^{252}\text{Cf}$  SF decay 2006Hw01Level Scheme