

$^{252}\text{Cf}$  SF decay [2015Wa28](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. Rodionov and G. Shulyak		NDS 136, 163 (2016)	14-Jul-2016

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

$^{252}\text{Cf}$ - $T_{1/2}$ : from [2012Au07](#).

Includes prompt  $\gamma$ -ray study from  $^9\text{Be}(^{238}\text{U},\text{F}\gamma)$  reaction.

Data from two experiments have been combined by [2015Wa28](#).

- $^{252}\text{Cf}$  SF decay: measured  $E_\gamma$  and  $\gamma\gamma$  using GAMMASPHERE array comprised of 101 Compton-suppressed Ge detectors at LBNL facility.
- $^9\text{Be}(^{238}\text{U},\text{F}\gamma)$ ,  $E=6.2$  MeV/nucleon, measured  $E_\gamma$ ,  $I_\gamma$ , Z- and A- gated  $\gamma\gamma$  coincidences with isotopically identified fission fragments using VAMOS++ and EXOGAM array at GANIL facility.

 $^{146}\text{Pr}$  Levels

E(level)	$J^\pi^\dagger$
0.0	$(2)^-$
87.2 5	$0^-, 1^-, 2^-$

$^\dagger$  From 'Adopted Levels' dataset.

 $\gamma(^{146}\text{Pr})$ 

$E_\gamma^\dagger$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
87.2 $^\ddagger$ 5	87.2	$0^-, 1^-, 2^-$	0.0	$(2)^-$
$^x$ 173.9 $^\ddagger$ 5				
$^x$ 188.9 5				
$^x$ 484.6 $^\ddagger$ 5				

$^\dagger$  Uncertainty is stated as 0.5 keV for strong transitions and as much as 1 keV in prompt  $\gamma$ -spectra, whereas from  $^{252}\text{Cf}$  SF decay, uncertainty is stated as 0.1 keV for strong  $\gamma$  rays and 0.5 for weaker lines. 0.5 keV uncertainty is assigned for each  $\gamma$  ray since no intensities are given.

$^\ddagger$  The  $\gamma$  seen in coincidence with 188.9 $\gamma$ .

$^x$   $\gamma$  ray not placed in level scheme.

---

 $^{252}\text{Cf}$  SF decay 2015Wa28Level Scheme