²⁵²Cf SF decay 2015Wa28

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

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

²⁵²Cf-T_{1/2}: from 2012Au07.

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

Data from two experiments have been combined by 2015Wa28.

- 1. ²⁵²Cf SF decay: measured $E\gamma$ and $\gamma\gamma$ using GAMMASPHERE array comprised of 101 Compton-suppressed Ge detectors at LBNL facility.
- 2. ${}^{9}Be({}^{238}U,F\gamma)$, E=6.2 MeV/nucleon, measured E γ , I γ , Z- and A- gated $\gamma\gamma$ coincidences with isotopically identified fission fragments using VAMOS++ and EXOGAM array at GANIL facility.

¹⁴⁶Pr Levels

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

[†] From 'Adopted Levels' dataset.

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

E_{γ}^{\dagger}	E _i (level)	\mathbf{J}_i^{π}	$\mathbf{E}_f = \mathbf{J}_f^{\pi}$
•••=	87.2	0-,1-,2-	0.0 (2)-
^x 173.9 [‡] 5			
^x 188.9 5			
^x 484.6 [‡] 5			

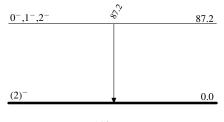
[†] Uncertainty is stated as 0.5 keV for strong transitions and as much as 1 keV in prompt γ -spectra, whereas from ²⁵²Cf SF decay, uncertainty is stated as 0.1 keV for strong γ rays and 0.5 for weaker lines. 0.5 keV uncertainty is assigned for each γ ray since no intensities are given.

[‡] The γ seen in coincidence with 188.9 γ .

^{*x*} γ ray not placed in level scheme.

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Level Scheme



¹⁴⁶₅₉Pr₈₇