

^{252}Cf SF decay **2000Zh04,2005Fo09**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 1471 (2010)	1-May-2009

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

Prompt γ rays from ^{252}Cf SF decay.

2000Zh04: Measured E_γ , I_γ , $\gamma\gamma$ using GAMMASPHERE array with 72 Compton suppressed Ge detectors.

2005Fo09: Measured E_γ , I_γ , $\gamma\gamma$ of prompt γ rays from ^{252}Cf SF decay, using GAMMASPHERE array with 102 Compton-suppresses Ge detectors. Same group.

 ^{113}Pd Levels

$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$
0.0	(5/2 ⁺)	715.9 ^a 3	(11/2 ⁺)	1836.8 [@] 6		2671.4 [#] 6	(27/2 ⁻)
81.0 3	(9/2 ⁻)	1031.3 ^{&} 4	(13/2 ⁺)	1841.9 [#] 6	(23/2 ⁻)	2707.3 ^a 6	(23/2 ⁺)
166.1 [#] 5	(11/2 ⁻)	1110.9 4		1851.3 [@] 6		2772.4 [@] 6	(27/2 ⁺)
189.8 ^a 3	(7/2 ⁺)	1119.7 [#]	(19/2 ⁻)	2030.1 ^a 6	(19/2 ⁺)	3000.5 ^{&} 7	(25/2 ⁺)
454.5 ^{&} 3	(9/2 ⁺)	1345.6 ^a 5	(15/2 ⁺)	2286.5 [@] 6	(23/2 ⁺)	3408.3 [@] 7	(31/2 ⁺)
549.2 [#]	(15/2 ⁻)	1678.3 ^{&} 5	(17/2 ⁺)	2342.2 ^{&} 6	(21/2 ⁺)	3562.6 [#] 7	(31/2 ⁻)

[†] From least-squares fit to γ energies.

[‡] From syst. and Band assignments.

[#] Band(A): $\nu h_{11/2}$, $\alpha=-1/2$ band.

[@] Band(B): band 2.

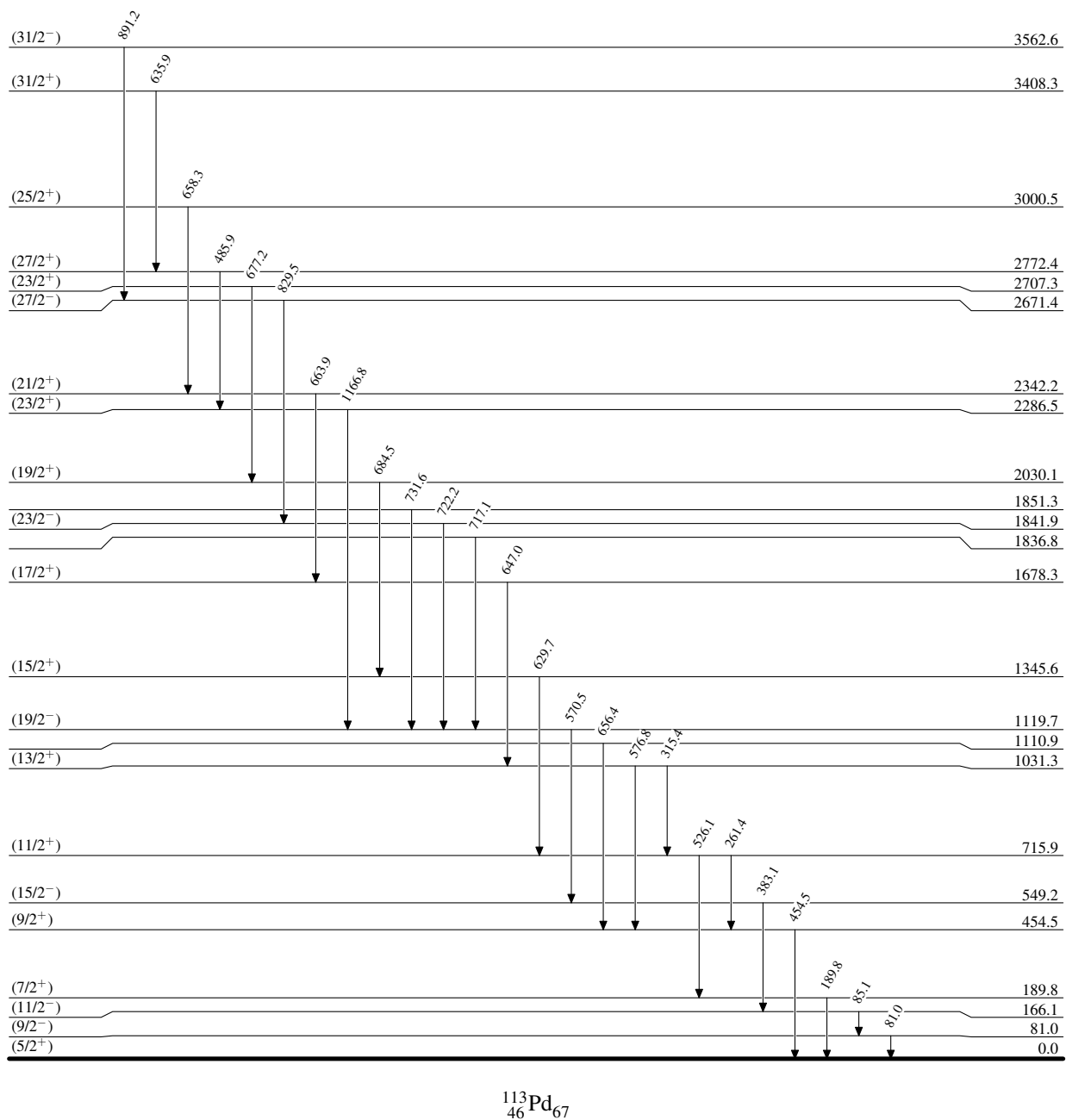
[&] Band(C): band 3.

^a Band(D): band 4.

 $\gamma(^{113}\text{Pd})$

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
81.0	81.0	(9/2 ⁻)	0.0	(5/2 ⁺)	647.0 3	1678.3	(17/2 ⁺)	1031.3	(13/2 ⁺)
85.1	166.1	(11/2 ⁻)	81.0	(9/2 ⁻)	656.4 3	1110.9		454.5	(9/2 ⁺)
189.8 3	189.8	(7/2 ⁺)	0.0	(5/2 ⁺)	658.3 3	3000.5	(25/2 ⁺)	2342.2	(21/2 ⁺)
261.4 3	715.9	(11/2 ⁺)	454.5	(9/2 ⁺)	663.9 3	2342.2	(21/2 ⁺)	1678.3	(17/2 ⁺)
315.4 3	1031.3	(13/2 ⁺)	715.9	(11/2 ⁺)	677.2 3	2707.3	(23/2 ⁺)	2030.1	(19/2 ⁺)
383.1 3	549.2	(15/2 ⁻)	166.1	(11/2 ⁻)	684.5 3	2030.1	(19/2 ⁺)	1345.6	(15/2 ⁺)
454.5 3	454.5	(9/2 ⁺)	0.0	(5/2 ⁺)	717.1 3	1836.8		1119.7	(19/2 ⁻)
485.9 3	2772.4	(27/2 ⁺)	2286.5	(23/2 ⁺)	722.2 3	1841.9	(23/2 ⁻)	1119.7	(19/2 ⁻)
526.1 3	715.9	(11/2 ⁺)	189.8	(7/2 ⁺)	731.6 3	1851.3		1119.7	(19/2 ⁻)
570.5 3	1119.7	(19/2 ⁻)	549.2	(15/2 ⁻)	829.5 3	2671.4	(27/2 ⁻)	1841.9	(23/2 ⁻)
576.8 3	1031.3	(13/2 ⁺)	454.5	(9/2 ⁺)	891.2 3	3562.6	(31/2 ⁻)	2671.4	(27/2 ⁻)
629.7 3	1345.6	(15/2 ⁺)	715.9	(11/2 ⁺)	1166.8 3	2286.5	(23/2 ⁺)	1119.7	(19/2 ⁻)
635.9 3	3408.3	(31/2 ⁺)	2772.4	(27/2 ⁺)					

[†] ΔE not given in the paper, estimated 0.3 by evaluator.

^{252}Cf SF decay 2000Zh04,2005Fo09Level Scheme $^{113}_{46}\text{Pd}_{67}$

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