

$^{249}\text{Cf}(\text{d,t})$ 2008Ka27

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 122, 377 (2014)	1-Sep-2014

E=11.0, 12.0, 13.0, 14.0 MeV. FWHM=15 keV.

Other: 1975Ya11. E=12 MeV. The authors report levels in the range 593 to 1781. The energy agreement with data of 2008Ka27 is good, and the configuration assignments are the same.

 ^{248}Cf Levels

E(level) [†]	J ^π [‡]	Comments
0@	0 ⁺	
44@ 2	2 ⁺ #	
138@ 2	4 ⁺ #	
290@ 2	6 ⁺ #	
490@ 2	8 ⁺	
593& 1	2 ⁻	
630& 1	3 ⁻	
677& 1	4 ⁻	
735& 1	5 ⁻	
779 2		J ^π : assigned by the authors As the possible 10 ⁺ member of the g.s. band; however, the 10 ⁺ member is assigned At E=737.3 In ($^{18}\text{O},\text{xny}$).
806& 1	6 ⁻	
885& 1	7 ⁻	
979& 2	8 ⁻	
1021 2		
1048 2		
1079 2		
1112 2		
1179 2		
1261 ^a 2	8 ⁻	
1293 2		
1319 2		
1351 ^a 2	9 ⁻	
1391 2		
1432 2		
1463 ^b 1	5 ⁻	
1477 ^c 2	2 ⁻	
1509 ^c 1	3 ⁻	
1530 ^b 1	6 ⁻	
1557 ^c 1	4 ⁻	
1577 ^d 1	7 ⁻	
1605 ^b 1	7 ⁻	
1621 ^c 1	5 ⁻	
1640 ^e 1	4 ⁻	
1663 ^d 1	8 ⁻	
1686 ^c 3	6 ⁻	
1698 ^e 2	5 ⁻	
1731 ^b 2	8 ⁻	
1766 ^e 2	6 ⁻	
1781 ^d 3	9 ⁻	

Continued on next page (footnotes at end of table)

$^{249}\text{Cf}(\text{d,t})$ 2008Ka27 (continued) ^{248}Cf Levels (continued)

<u>E(level)[†]</u>	<u>J^{π‡}</u>	<u>E(level)[†]</u>	<u>J^{π‡}</u>	<u>E(level)[†]</u>	<u>J^{π‡}</u>	<u>E(level)[†]</u>	<u>J^{π‡}</u>
1839 ^b 3	(9 ⁻)	2072 ^g 1	4 ⁺	2262 ⁱ 1	(7 ⁻)	2533 1	
1852 ^e 1	7 ⁻	2105 ^h 1	(4 ⁻)	2281 ^k 2	2 ⁺	2557 ^l 1	4 ⁺
1927 ^f 1	5 ⁺	2131 ^g 1	5 ⁺	2314 ^k 2	3 ⁺	2580 1	
1946 ^e 3	8 ⁻	2161 ^h 2	(5 ⁻)	2368 ^k 2	(4 ⁺)	2602 ^m 1	6 ⁺
1968 1		2184 ⁱ 2	6 ⁻	2463 2		2634 ^l 2	(5 ⁺)
1992 ^f 1	6 ⁺	2207 ^g 1	6 ⁺	2492 2		2682 ^m 2	(7 ⁺)
2018 3		2241 ^j 1	7 ⁺	2512 ^l 1	3 ⁺		

[†] The uncertainties given represent the absolute error. The relative uncertainties for the strongly populated levels are 1 keV.

[‡] Except where noted otherwise, the J^π assignments are those of the authors based on a comparison of experimental and calculated values of the cross sections At 90, 120, and 135 degrees.

From Adopted Levels.

@ K^π=0⁺ g.s. band.

& K^π=2⁻ 9/2⁻[734],5/2⁺[622]⊗2⁻ phonon.

^a K^π=8⁻ 9/2⁻[734],7/2⁺[624].

^b K^π=5⁻ 9/2⁻[734],1/2⁺[631].

^c K^π=2⁻ 9/2⁻[734],5/2⁺[622]⊗2⁻ phonon.

^d K^π=7⁻ 9/2⁻[734],5/2⁺[622].

^e K^π=4⁻ 9/2⁻[734],1/2⁺[631].

^f K^π=5⁺ 9/2⁻[734],1/2⁻[501].

^g K^π=4⁺ 9/2⁻[734],1/2⁻[501].

^h K^π=3⁻? 9/2⁻[734],3/2⁺[631].

ⁱ K^π=6⁻ 9/2⁻[734],3/2⁺[631].

^j K^π=7⁺ 9/2⁻[734],5/2⁻[503].

^k K^π=2⁺ 9/2⁻[734],5/2⁻[503].

^l K^π=3⁺ 9/2⁻[734],3/2⁻[501].

^m K^π=6⁺ 9/2⁻[734],3/2⁻[501].