

$^{250}\text{Cf}(\text{d},\text{d}')$ 1980Ah01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Y. Akovali	NDS 94,131 (2001)	1-Aug-2001

$E(\text{d})=15$ MeV; scattered deuterons were detected At $\sigma(\theta)$ At 90° , 125° , 140° (1980Ah01).

B(EL) values were deduced by 1980Ah01 from measured inelastic differential cross sections: $B(\text{EL})=[(d\sigma/d\Omega)/N\sigma(\text{DWBA})][[(3/4\pi)\text{ZeR}^L]^2]$. The B(EL) values for ^{246}Cm and ^{248}Cm were used to deduced the normalization factor, N.

 ^{250}Cf Levels

J(H,I,J) assignments are tentative (1980Ah01).

E(level) [†]	J π [‡]	Comments
0 [#]	0 ⁺	
43 [#] 1	2 ⁺	B(E2) \uparrow =16.0 16
141 [#] 1	4 ⁺	
296 [#] 1	6 ⁺	
907 [@] 1	3 ⁻	B(E3) \uparrow =20.2 20
1009 [@] 2	5 ⁻	
1033 ^{&} 1	2 ⁺	B(E2) \uparrow =0.11 1
1123 ^{&} 1	4 ⁺	
1175 ^a 2	1 ⁻	
1211 ^a 1	3 ⁻	B(E3) \uparrow =19.3 19
1247 2	3 ⁻	K,J π =2,3 ⁻ is assigned by 1980Ah01.
1272 2		
1296 ^b 2	2 ⁺	
1313 ^a 2	5 ⁻	
1335 2	(3 ⁻)	B(E3) \uparrow =4.6 5 K,J π =0,3 ⁻ octupole state was tentatively assigned by 1980Ah01.
1429 1	(3 ⁻)	B(E3) \uparrow =13.3 13 K,J π =3,3 ⁻ octupole-state assignment was tentatively suggested by 1980Ah01.
1541 2	(5 ⁻)	K,J π =(3,5 ⁻) was suggested by 1980Ah01.
1570 2		
1626 3		
1735 2		
1915 3		
2015 3		

[†] Measurements of 1980Ah01.

[‡] Assignments made by 1980Ah01. They were based on measured (d,d') differential cross sections and angular distributions; the previous assignments from ^{254}Es g.s. and isomeric state's ε decay data were confirmed.

[#] Band(A): K=0 g.s. band.

[@] Band(B): K=2 octupole-vibrational band.

[&] Band(C): K=2 γ -vibrational band.

^a Band(D): K=1 octupole-vibrational band.

^b Band(E): K=0.

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		Band(D): K=1 octupole-vibrational band		Band(E): K=0	
		<u>5⁻</u>	<u>1313</u>	<u>2⁺</u>	<u>1296</u>
			<u>3⁻</u>	<u>1211</u>	
			<u>1⁻</u>	<u>1175</u>	
		Band(C): K=2 γ -vibrational band			
			<u>4⁺</u>	<u>1123</u>	
		Band(B): K=2 octupole-vibrational band		<u>2⁺</u>	<u>1033</u>
		<u>5⁻</u>	<u>1009</u>		
			<u>3⁻</u>	<u>907</u>	
		Band(A): K=0 g.s. band			
		<u>6⁺</u>	<u>296</u>		
			<u>4⁺</u>	<u>141</u>	
			<u>2⁺</u>	<u>43</u>	
			<u>0⁺</u>	<u>0</u>	