^{248}Cm SF decay 2001Bh06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov and A. Rodionov, F. G. Kondev	NDS 112, 855 (2011)	31-Oct-2010

Parent: ^{248}Cm: E=0.0; $J^\pi=0^+$; $T_{1/2}=3.40\times10^5$ y *4*; %SF decay=8.39 *16*
2001Bh06: ^{248}Cm(SF); measured Eγ, Iγ, γγ. ^{133}Te; deduced levels, J^π, configurations. GAMMASPHERE array.

^{133}Te Levels

Configurations from shell-model calculations by 2001Bh06.

E(level)†	J^π‡	$T_{1/2}$‡	Comments
0	$(3/2^+)$	12.5 min *3*	
334.26# *4*	$(11/2^-)$	55.4 min *4*	E(level): from Adopted Levels. In 2001Bh06, the level energy was put equal to zero in calculations of energies of higher levels (Fig. 3). $T_{1/2}$: from 2001Bh06.
1485.3# *10*	$(15/2^-)$		
1610.3# *13*	$(19/2^-)$	104 ns *10*	$T_{1/2}$: from 2001Bh06.
1804.3# *13*	$(17/2^-)$		
2331.3# *17*	$(21/2^-)$		
3070.3# *19*	$(23/2^-)$		
3522.3 *19*	$(23/2^-)$		Configuration=$\pi(g_{7/2}d_{5/2})\otimes\nu(h^{-1}_{11/2})$.
4004.3@ *20*	$(25/2^+)$		
4313.5@ *21*	$(27/2^+)$		
5689.0 *21*	$(27/2^-)$		
5942.8 *22*	$(29/2^-)$		
6164.8 *24*	$(31/2^-)$		

† From a least-squares fit to Eγ's, ΔEγ=1 keV assumed by evaluators.
‡ From 'Adopted Levels'.
# Band(A): Multiplet of configuration=$\pi(g^2_{7/2})\nu(h^{-1}_{11/2})$.
@ Band(B): Multiplet of configuration=$\pi(g_{7/2}h_{11/2})\nu(h^{-1}_{11/2})$.

γ(^{133}Te)

E_γ†	E_i(level)	J^π_i	E_f	J^π_f	E_γ†	E_i(level)	J^π_i	E_f	J^π_f
125	1610.3	$(19/2^-)$	1485.3	$(15/2^-)$	721	2331.3	$(21/2^-)$	1610.3	$(19/2^-)$
194	1804.3	$(17/2^-)$	1610.3	$(19/2^-)$	739	3070.3	$(23/2^-)$	2331.3	$(21/2^-)$
222	6164.8	$(31/2^-)$	5942.8	$(29/2^-)$	934	4004.3	$(25/2^+)$	3070.3	$(23/2^-)$
254	5942.8	$(29/2^-)$	5689.0	$(27/2^-)$	1151	1485.3	$(15/2^-)$	334.26	$(11/2^-)$
309	4313.5	$(27/2^+)$	4004.3	$(25/2^+)$	1191	3522.3	$(23/2^-)$	2331.3	$(21/2^-)$
319	1804.3	$(17/2^-)$	1485.3	$(15/2^-)$	1629	5942.8	$(29/2^-)$	4313.5	$(27/2^+)$
482	4004.3	$(25/2^+)$	3522.3	$(23/2^-)$	1685	5689.0	$(27/2^-)$	4004.3	$(25/2^+)$

† From fig. 2 of 2001Bh06.

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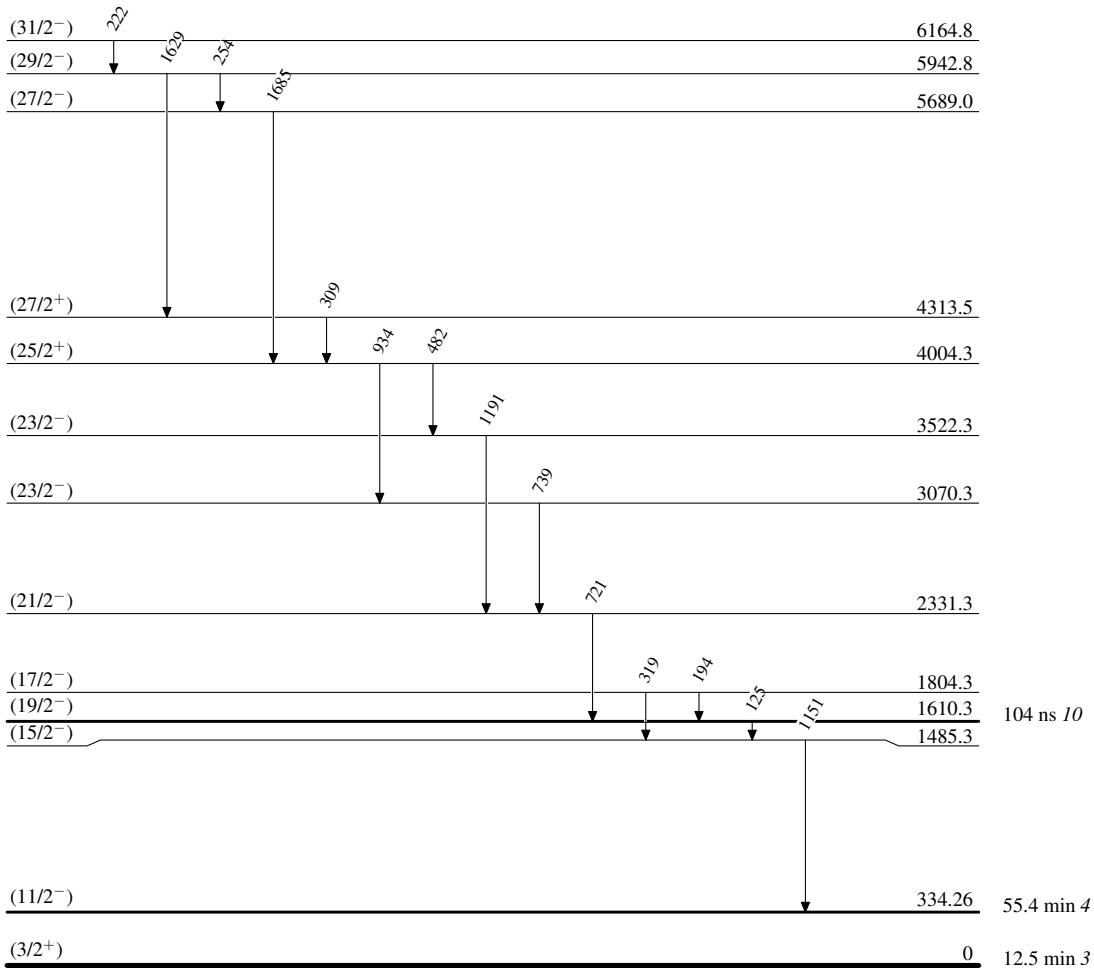
Level Scheme



$^{133}_{52}Te_{81}$

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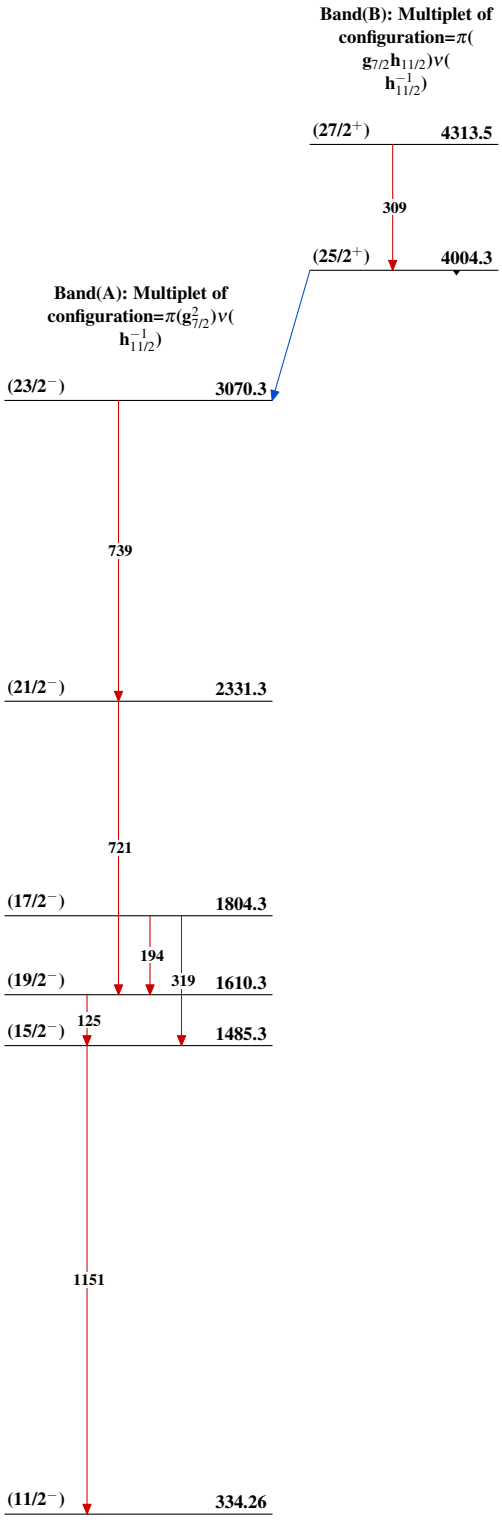

$^{133}_{52}Te_{81}$