^{248}Cm SF decay 2002Sa02,1997Da15,1996Zh21

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2004

Parent: ^{248}Cm: E=0.0; $J^\pi=0^+$; $T_{1/2}=3.48\times10^5$ y *6*; %SF decay=?

2002Sa02: GAMMASPHERE at ANL.
1997Da15, 1996Zh21: earlier works using Eurogam II array.

^{134}Te Levels

E(level)†	Jπ‡	$T_{1/2}$	Comments
0	0^+		
1279.40 *18*	2^+		
1576.51 *24*	4^+		
1692.1 *3*	6^+	164 ns *1*	$T_{1/2}$: from 1995Om01.
2398.4 *3*	6^+		
2465.24 *18*	2^+		
2554.93 *25*	4^+		
2683.32 *23*	(3^+)		
2727.5 *3*	5^+		
4014.2 *3*	9^-		
4300.1 *4*	(7^-)		
4557.6 *3*	(8^+)		
4563.7 *3*	(8^-)		
5080.0 *4*	(9^+)		
5622.1 *4*	(10^+)		
5658.5 *4*	(10^-)		
5804.7 *4*	(12^+)	18 ns *2*	$T_{1/2}$: from 2002Sa02.
5822.9 *4*	(11^-)		
5987.4 *4*			
6010.4 *5*	(13^+)		
6099.7 *4*	(11^-)		
6710.2 *6*			
7051.0 *5*	(14^+)		
7567.0 *7*	(15^+)		
7723.1 *8*			

† From least-squares fit to Eγ.
‡ From 2002Sa02, based on γ energy and intensity pattern, Shell Model calculations.

γ(^{134}Te)

Eγ†	Iγ‡	E_i(level)	J_i^π	E_f	J_f^π	Eγ†	Iγ‡	E_i(level)	J_i^π	E_f	J_f^π
115.7 *2*	196	1692.1	6^+	1576.51	4^+	441.1 *2*	2	6099.7	(11^-)	5658.5	(10^-)
128.4 *2*	6	2683.32	(3^+)	2554.93	4^+	516.0 *4*	1	7567.0	(15^+)	7051.0	(14^+)
156.1 *4*	1	7723.1		7567.0	(15^+)	516.3 *2*	20	5080.0	(9^+)	4563.7	(8^-)
172.7 *2*	3	2727.5	5^+	2554.93	4^+	522.5 *2*	13	5080.0	(9^+)	4557.6	(8^+)
182.6 *2*	14	5804.7	(12^+)	5622.1	(10^+)	542.1 *2*	15	5622.1	(10^+)	5080.0	(9^+)
205.7 *2*	13	6010.4	(13^+)	5804.7	(12^+)	549.3 *2*	40	4563.7	(8^-)	4014.2	9^-
218.5 *4*	1	2683.32	(3^+)	2465.24	2^+	706.3 *2*	92	2398.4	6^+	1692.1	6^+
257.4 *2*	2	4557.6	(8^+)	4300.1	(7^-)	907.4 *2*	2	5987.4		5080.0	(9^+)
263.7 *2*	2	4563.7	(8^-)	4300.1	(7^-)	978.5 *2*	64	2554.93	4^+	1576.51	4^+
297.1 *2*	884	1576.51	4^+	1279.40	2^+	1040.6 *2*	3	7051.0	(14^+)	6010.4	(13^+)
329.3 *2*	33	2727.5	5^+	2398.4	6^+	1051.7 *4*	1	6710.2		5658.5	(10^-)
365.1 *4*	1	5987.4		5622.1	(10^+)	1064.4 *2*	24	5622.1	(10^+)	4557.6	(8^+)

Continued on next page (footnotes at end of table)

^{248}Cm SF decay 2002Sa02,1997Da15,1996Zh21 (continued)

$\gamma(^{134}Te)$ (continued)

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π
1150.8 *2*	37	2727.5	5^+	1576.51	4^+	1808.7 *2*	3	5822.9	(11^-)	4014.2	9^-
1185.9 *4*	1	2465.24	2^+	1279.40	2^+	1901.7 *2*	6	4300.1	(7^-)	2398.4	6^+
1279.3 *2*	1000	1279.40	2^+	0	0^+	2085.5 *2*	2	6099.7	(11^-)	4014.2	9^-
1403.8 *2*	21	2683.32	(3^+)	1279.40	2^+	2322.0 *2*	104	4014.2	9^-	1692.1	6^+
1607.9 *2*	4	5622.1	(10^+)	4014.2	9^-	2465.3 *2*	11	2465.24	2^+	0	0^+
1615.6 *2*	18	4014.2	9^-	2398.4	6^+	2865.6 *2*	69	4557.6	(8^+)	1692.1	6^+
1644.3 *2*	12	5658.5	(10^-)	4014.2	9^-	2871.8 *2*	17	4563.7	(8^-)	1692.1	6^+

† Following 2002Sa02 statement: "For all but the weakest lines, energy errors are estimated to be about 0.2 keV", the lines with Iγ=1 where assigned a $\Delta E\gamma$=0.4 keV, while the more intense ones a $\Delta E\gamma$=0.2 keV.

‡ Intensities accurate to within 20% (2002Sa02).

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Level Scheme

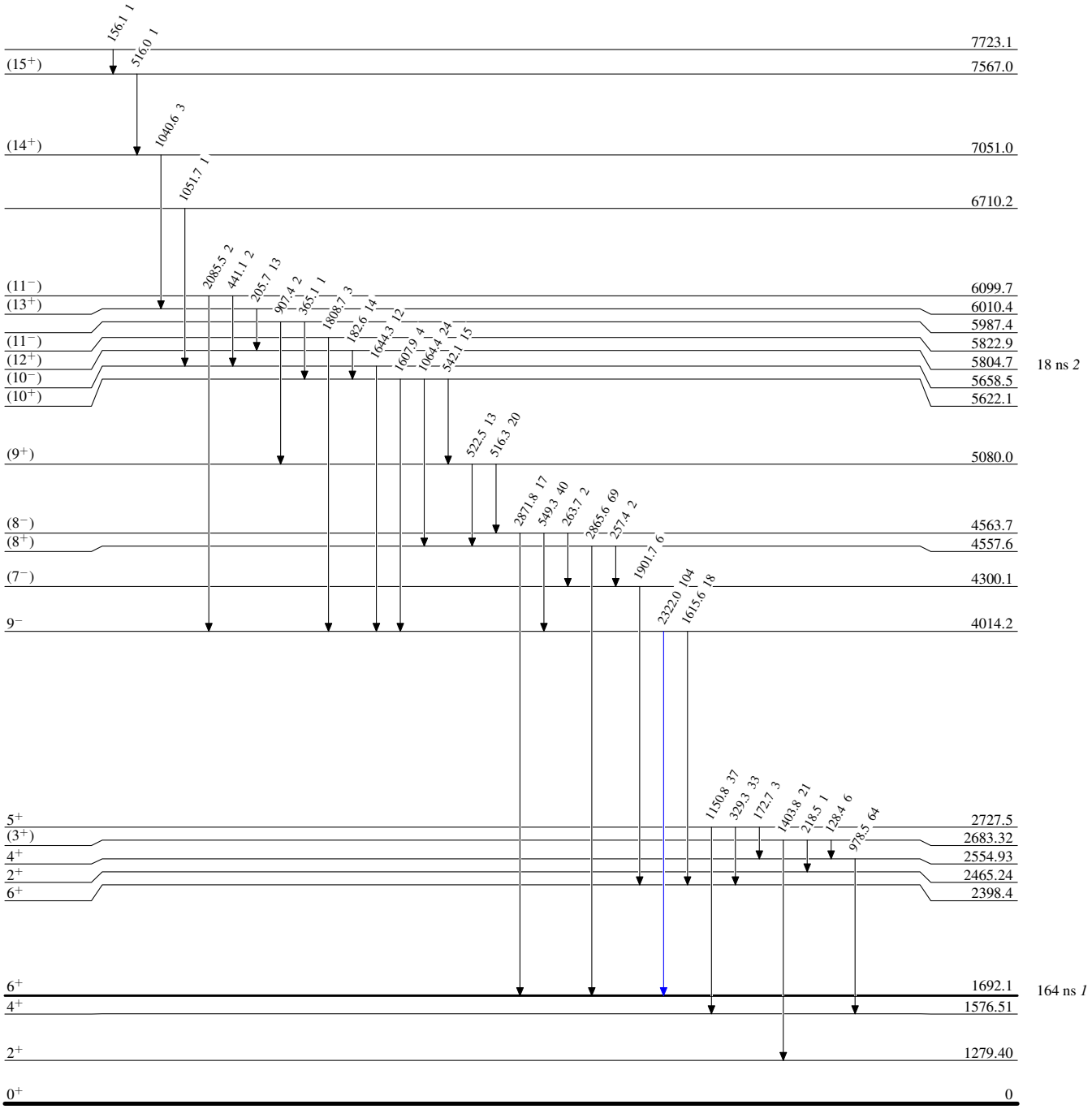
Intensities: Type not specified

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

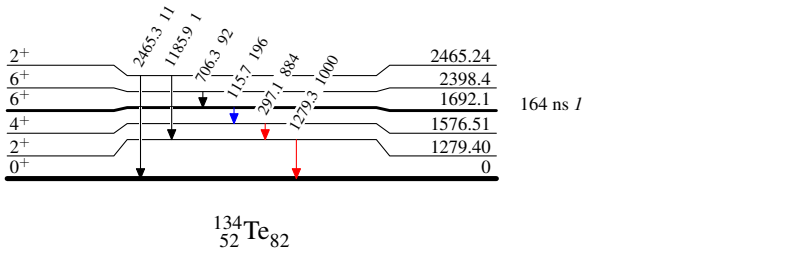


$^{134}_{52}Te_{82}$

^{248}Cm SF decay 2002Sa02,1997Da15,1996Zh21

Level Scheme (continued)

Intensities: Type not specified



$^{134}_{52}Te_{82}$