

^{248}Cm SF decay **1997Ho11**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 110, 1 (2009)	20-Nov-2008

Parent: ^{248}Cm : $E=0$; $J^\pi=0^+$; $T_{1/2}=3.48\times 10^5$ y 6; %SF decay=8.39 16

1997Ho11: Measured E_γ , I_γ , $\gamma\gamma$, $\gamma\gamma(\theta)$ (DCO) using EUROAM II array 52 escape-suppressed Ge detectors, 24 Clovers, and four LEPS. Same information is given in level-scheme figure 1 of **2000HoZX**.

 ^{151}Ce Levels

<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>
0 [#]	(5/2 ⁺) [‡]	409.7 [#] 3	(13/2 ⁺)	1104.6 [#] 5	(21/2 ⁺)	2036.6 [#] 6	(29/2 ⁺)
75.3 [#] 2	(7/2 ⁺)	573.6 [#] 4	(15/2 ⁺)	1348.8 [#] 5	(23/2 ⁺)	2581.8 [#] 7	(33/2 ⁺)
166.0 [#] 2	(9/2 ⁺)	724.8 [#] 4	(17/2 ⁺)	1543.2 [#] 6	(25/2 ⁺)		
285.8 [#] 3	(11/2 ⁺)	930.5 [#] 4	(19/2 ⁺)	1823.4 [#] 6	(27/2 ⁺)		

[†] From least-squares fit to E_γ 's, assuming $\Delta(E_\gamma)=0.3$ keV for each γ ray.

[‡] possible 5/2[642] state from $\nu_{13/2}$ orbital as suggested by systematics of N=93 isotones (**1997Ho11**).

[#] Band(A): $\nu_{5/2}[642]$ band (?). Tentative assignment, the band shows signature splitting.

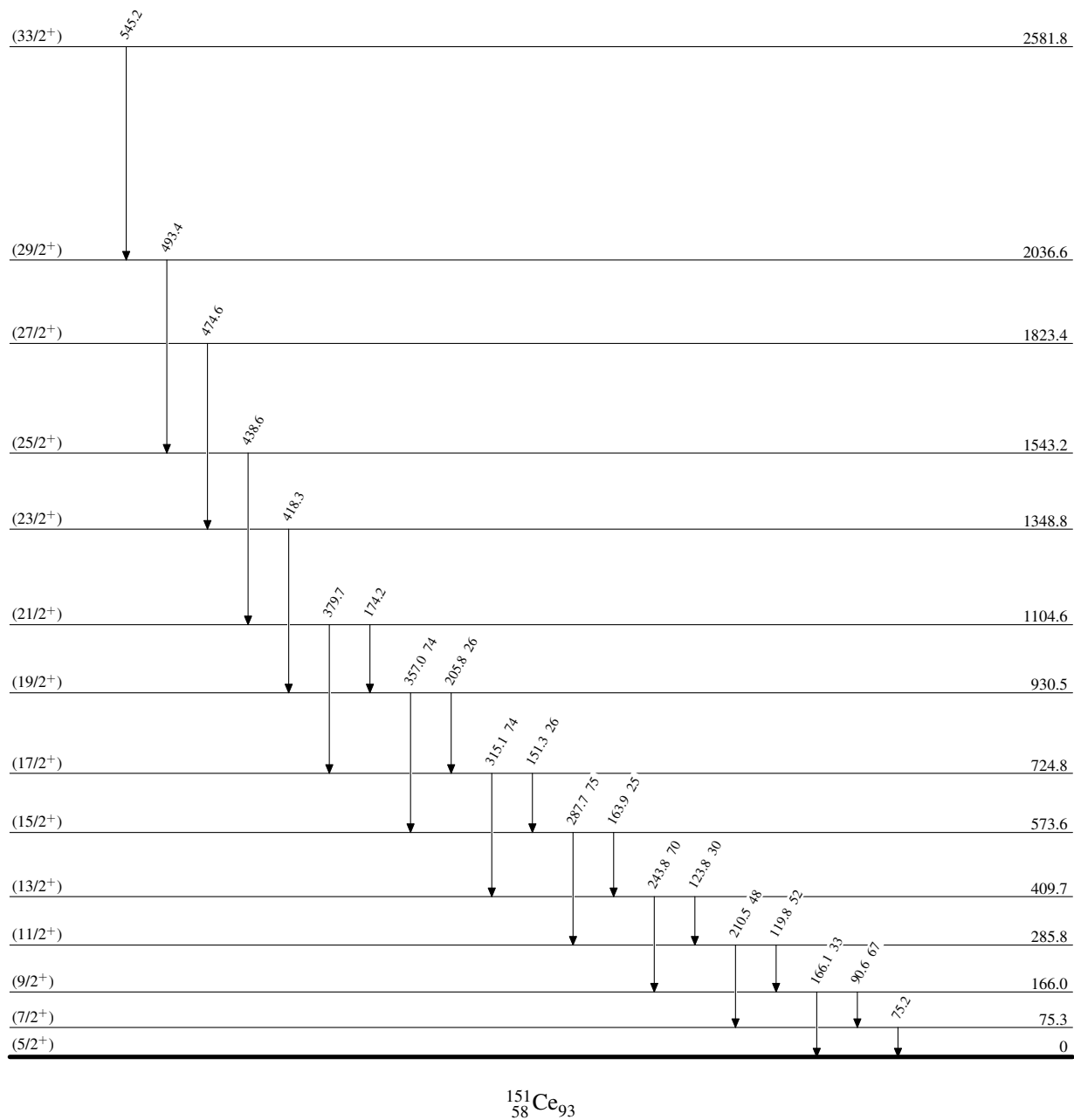
 $\gamma(^{151}\text{Ce})$

<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ</u>	<u>I_γ</u>	<u>E_f</u>	<u>J_f^π</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ</u>	<u>I_γ</u>	<u>E_f</u>	<u>J_f^π</u>
75.3	(7/2 ⁺)	75.2		0	(5/2 ⁺)	724.8	(17/2 ⁺)	315.1	74 2	409.7	(13/2 ⁺)
166.0	(9/2 ⁺)	90.6	67 3	75.3	(7/2 ⁺)	930.5	(19/2 ⁺)	205.8	26 5	724.8	(17/2 ⁺)
		166.1	33 3	0	(5/2 ⁺)			357.0	74 5	573.6	(15/2 ⁺)
285.8	(11/2 ⁺)	119.8	52 4	166.0	(9/2 ⁺)	1104.6	(21/2 ⁺)	174.2		930.5	(19/2 ⁺)
		210.5	48 4	75.3	(7/2 ⁺)			379.7		724.8	(17/2 ⁺)
409.7	(13/2 ⁺)	123.8	30 2	285.8	(11/2 ⁺)	1348.8	(23/2 ⁺)	418.3		930.5	(19/2 ⁺)
		243.8	70 2	166.0	(9/2 ⁺)	1543.2	(25/2 ⁺)	438.6		1104.6	(21/2 ⁺)
573.6	(15/2 ⁺)	163.9	25 4	409.7	(13/2 ⁺)	1823.4	(27/2 ⁺)	474.6		1348.8	(23/2 ⁺)
		287.7	75 4	285.8	(11/2 ⁺)	2036.6	(29/2 ⁺)	493.4		1543.2	(25/2 ⁺)
724.8	(17/2 ⁺)	151.3	26 2	573.6	(15/2 ⁺)	2581.8	(33/2 ⁺)	545.2		2036.6	(29/2 ⁺)

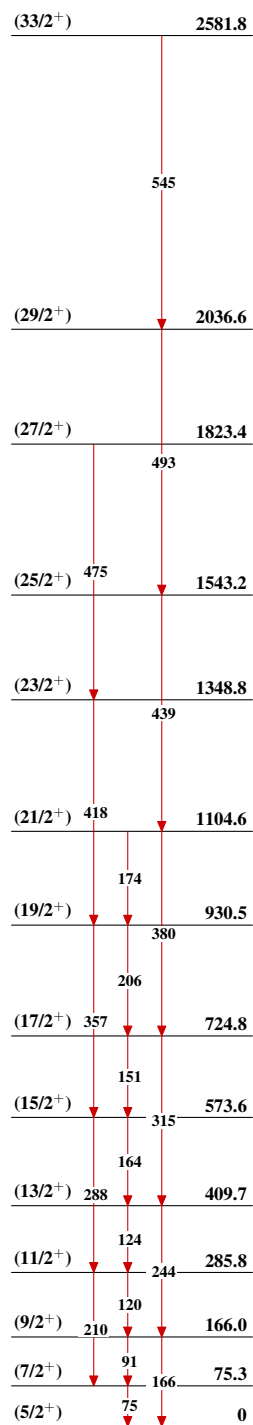
^{248}Cm SF decay $^{1997}\text{Ho11}$

Level Scheme

Intensities: % photon branching from each level



 ^{248}Cm SF decay 1997Ho11

Band(A): $\nu 5/2[642]$ band (?) $^{151}_{58}\text{Ce}_{93}$