^{248}Cm SF decay 1999Da13

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 152, 331 (2018)	1-Apr-2018

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

Measured Eγ, Iγ, γγ using EUROGAM II array consisting of 52 Compton-suppressed Ge detectors (24 of which were four-crystal Clover detectors) and four LEPS detectors. γ data reported for levels above 6^+, 1892 keV isomer. Subset of results given in 1999DaZV.

^{136}Xe Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0.0#	0^+	2261.6@ *3*	6^+	3830.2& *5*	(9^-)	5952.0 *11*	(12^+)
1313.027# *10*	2^+	2866.8# *3*	(8^+)	4381.0 *11*	(8^+)	6173.0 *15*	(13^+)
1694.387# *15*	4^+	3229.4@ *4*	(8^+)	4857.7& *5*	(11^-)		
1891.708# *18*	6^+	3484.5@ *4*	(10^+)	5142.2& *6*	(13^-)		

† From a least-squares fit to Eγ, by evaluator.
‡ As given by 1999Da13. For levels above 1892 keV isomer, they are based on Shell Model calculations and systematics of N=82 nuclei, while for levels below they are from the Adopted Levels.
# Band(A): $\pi g7/2^4$ multiplet.
@ Band(B): $\pi g7/2^3 d5/2$ multiplet.
& Band(C): $\pi g7/2^3 h11/2$ multiplet.

γ(^{136}Xe)

Eγ†	Iγ‡	Ei(level)	Jiπ	Ef	Jfπ	Eγ†	Iγ‡	Ei(level)	Jiπ	Ef	Jfπ
197.32# *1*		1891.708	6^+	1694.387	4^+	967.8 *3*	67	3229.4	(8^+)	2261.6	6^+
221.0 *10*	3	6173.0	(13^+)	5952.0	(12^+)	975.1 *3*	75	2866.8	(8^+)	1891.708	6^+
255.0 *3*	40	3484.5	(10^+)	3229.4	(8^+)	1094.3 *10*	5	5952.0	(12^+)	4857.7	(11^-)
284.5 *3*	11	5142.2	(13^-)	4857.7	(11^-)	1151.6 *10*	6	4381.0	(8^+)	3229.4	(8^+)
369.8 *3*	100	2261.6	6^+	1891.708	6^+	1313.02# *1*		1313.027	2^+	0.0	0^+
381.36# *1*		1694.387	4^+	1313.027	2^+	1373.2 *3*	14	4857.7	(11^-)	3484.5	(10^+)
600.8 *3*	11	3830.2	(9^-)	3229.4	(8^+)	1657.8 *10*	4	5142.2	(13^-)	3484.5	(10^+)
617.8 *3*	25	3484.5	(10^+)	2866.8	(8^+)						

† Evaluator assumes Δ(Eγ)=0.3 keV for Iγ ≥ 10 and 1 keV for Iγ < 10, based on a general statement by 1999Da13.
‡ 1999Da13 provide a general statement that the intensity uncertainty is less than 20%.
# From the Adopted Values, with value rounded to the nearest 0.01 keV.

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Level Scheme

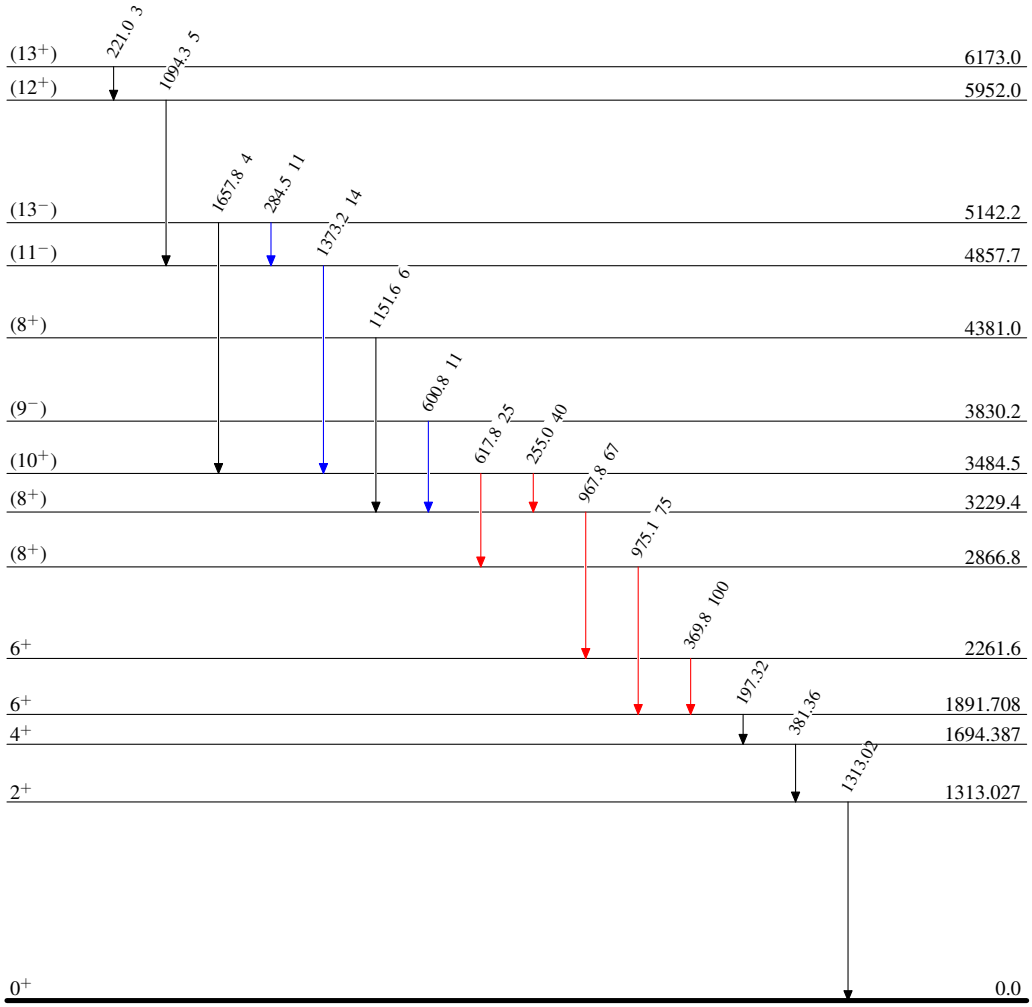
Intensities: Relative I_γ

Legend

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

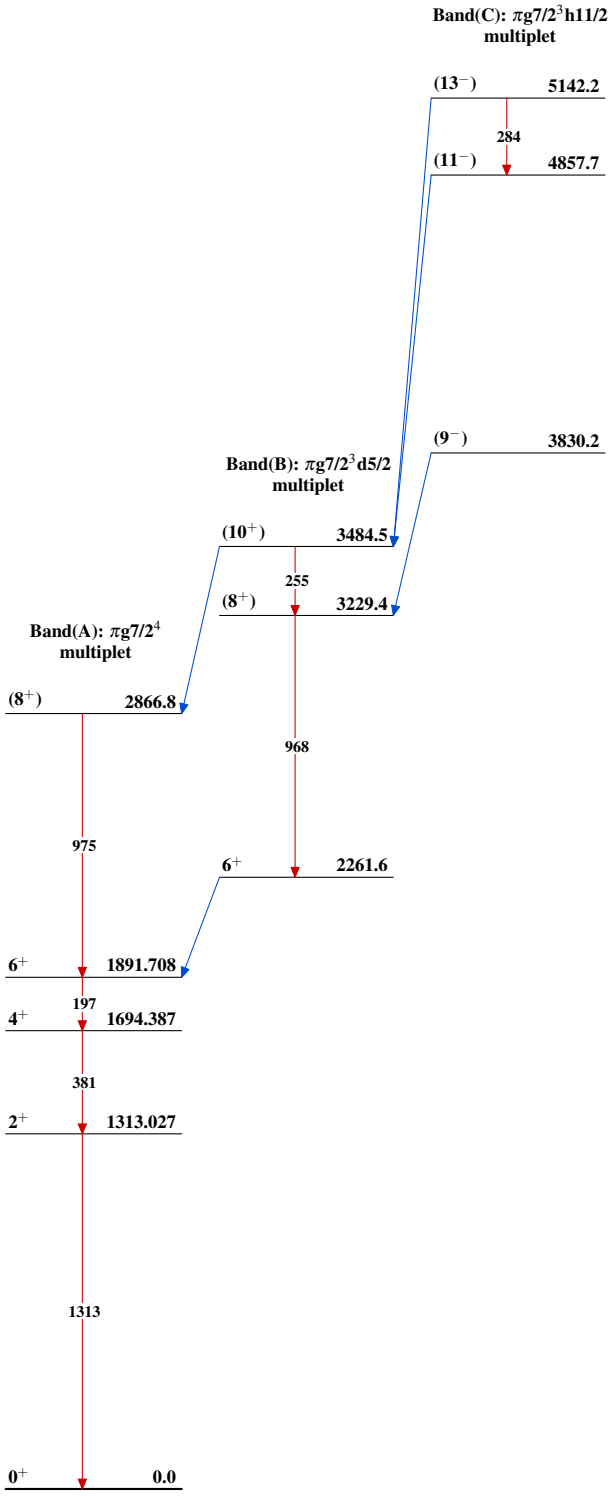
$I_\gamma < 10\% \times I_\gamma^{max}$

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



$^{136}_{54}Xe_{82}$

^{248}Cm SF decay 1999Da13



$^{136}_{54}Xe_{82}$