^{248}Cm SF decay 2000Ko15

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

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

2000Ko15: Measured Eγ, Iγ, γγ, γγ(θ), and linear polarization using EUROGAM2 array. Subset of results given in 1998No13.

1993Ci01: First article to report excited states in ^{136}Te. Measured Eγ, Iγ, γγ using 10 Compton-suppressed Ge detectors, 2 LEPS detectors and a 50-element BGO array acting as a multiplicity filter. Identified transitions in ^{136}Te using coincidences between the complementary fragments of ^{108,110}Ru.

^{136}Te Levels

Authors of 2000Ko15 state that lifetimes of levels up to 3720 keV are smaller than 10 ns.

E(level)†	J^π‡	Comments
0.0#	0^+	
606.5#	2^+	
1029.9#	4^+	
1382.5#	6^+	
2132.0#	8^+	
2792.2#	10^+	
3187.0#	(12^+)	
3340.0	$(8,9,10^+)$	J^π: $(9^-,10^+)$ proposed by 2000Ko15.
3720.4#	(14^+)	
4794.4	$(14,15,16^+)$	J^π: (15) proposed by 2000Ko15.
5160.3		J^π: $(16,17^-)$ proposed by 2000Ko15.

† From a least-squares fit to Eγ, by evaluator.
‡ From the Adopted Levels. Differences with the J^π assignments proposed by 2000Ko15 are indicated in the comments.
# Band(A): g.s. band.

γ(^{136}Te)

E_γ†	I_γ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	Comments
352.6	79 *2*	1382.5	6^+	1029.9	4^+	E2	A_2=0.070 *1*, A_4=0.001 *1*, linear polarization=+0.09 *3*.
365.9		5160.3		4794.4	$(14,15,16^+)$		
394.8		3187.0	(12^+)	2792.2	10^+	Q	A_2=0.08, A_4=0.001.
423.4	94 *10*	1029.9	4^+	606.5	2^+	E2	A_2=0.06 *1*, A_4=0.01 *1*, linear polarization=+0.09 *2*.
533.4		3720.4	(14^+)	3187.0	(12^+)		
606.5	100	606.5	2^+	0.0	0^+	E2	A_2=0.07 *1*, A_4=0.03 *1*, linear polarization=+0.12 *3*.
660.2	19 *2*	2792.2	10^+	2132.0	8^+	E2	A_2=0.08 *2*, A_4=0.06 *2*, linear polarization=+0.19 *7*.
749.5	37 *4*	2132.0	8^+	1382.5	6^+	E2	A_2=0.096 *4*, A_4=0.012 *4*, linear polarization=+0.09 *6*.
1074.0		4794.4	$(14,15,16^+)$	3720.4	(14^+)		A_2=−0.01 *3*, A_4=0.05 *4*.
1208.0		3340.0	$(8,9,10^+)$	2132.0	8^+		
1439.7		5160.3		3720.4	(14^+)		

† From 2000Ko15.
‡ From 1993Ci01, normalized to Iγ(607γ)=100.
# From γγ(θ) and linear polarization in 2000Ko15.

^{248}Cm SF decay 2000Ko15

Level Scheme

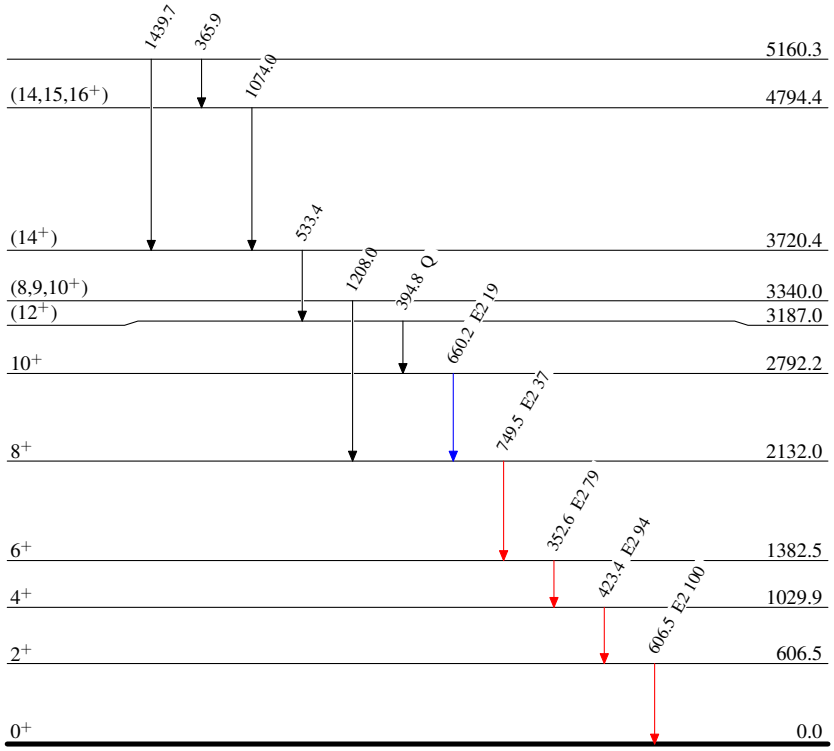
Intensities: Relative I_γ

Legend

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

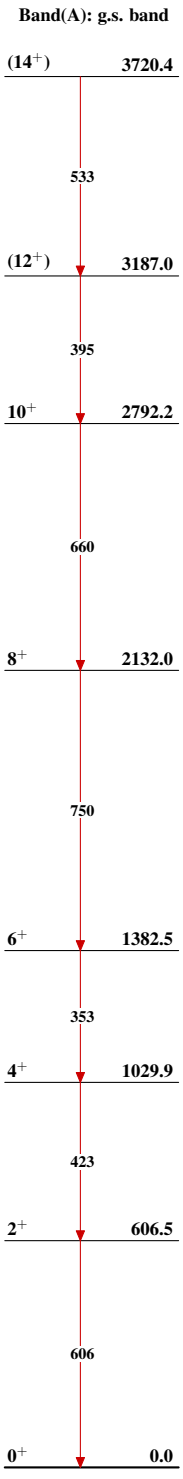
$I_\gamma < 10\% \times I_\gamma^{max}$

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



$^{136}_{52}Te_{84}$

^{248}Cm SF decay 2000Ko15



$^{136}_{52}Te_{84}$