

^{252}Cf SF decay 2010Hw03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 132, 1 (2016)	4-Dec-2015

Parent: ^{252}Cf : E=0.0; $J^\pi=0^+$; $T_{1/2}=2.645$ y 8; %SF decay=?

[Additional information 1.](#)

Measured E_γ and $\gamma\gamma$ using GAMMASPHERE array comprised of 101 Compton-suppressed Ge detectors.

 ^{157}Sm Levels

E(level) [†]	J^π [‡]
0.0	(3/2 ⁻)
52.4 3	(5/2 ⁻)
216.0 [#] 5	(7/2 ⁺)
489.6 [#] 6	
838.2 [#] 6	
1260.3 [#] 7	
1753.5 [#] 8	
2314.2 [#] 8	

[†] From least-squares fit to the γ -ray energies.

[‡] Quoted by 2010Hw03 from ^{157}Pm β^- decay.

[#] Band(A): γ cascade based on (7/2⁺).

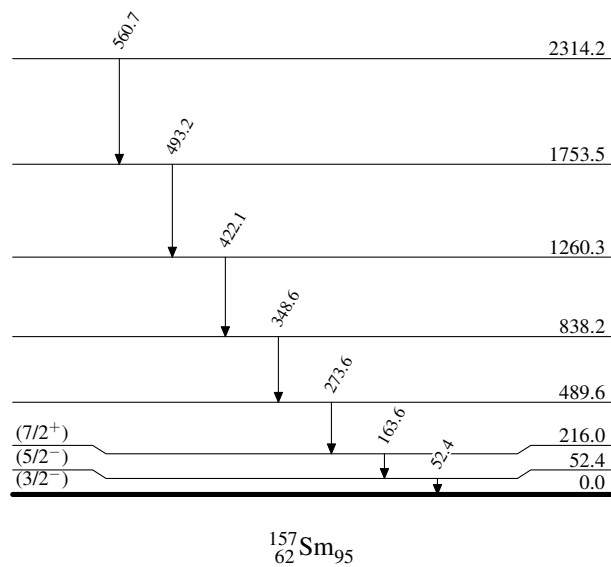
 $\gamma(^{157}\text{Sm})$

E_γ [†]	E_i (level)	J_i^π	E_f	J_f^π
52.4 3	52.4	(5/2 ⁻)	0.0	(3/2 ⁻)
163.6 3	216.0	(7/2 ⁺)	52.4	(5/2 ⁻)
273.6 3	489.6		216.0	(7/2 ⁺)
348.6 3	838.2		489.6	
422.1 3	1260.3		838.2	
493.2 3	1753.5		1260.3	
560.7 3	2314.2		1753.5	

[†] Uncertainty of 0.3 keV assigned based on an e-mail reply of Sept 12, 2010 from the first author of 2010Hw03.

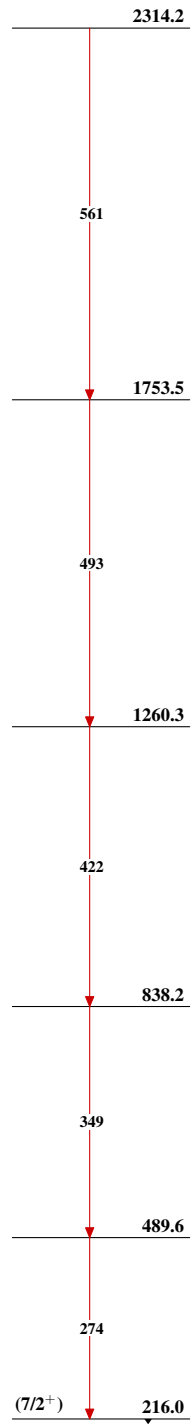
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Level Scheme



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Band(A): γ cascade
based on $(7/2^+)$



$^{157}_{62}\text{Sm}_{95}$