

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108,455 (2007)	30-Sep-2006

$Q(\beta^-) = -1.29 \times 10^4$  syst;  $S(n) = 1.32 \times 10^4$  syst;  $S(p) = 2.9 \times 10^3$  syst;  $Q(\alpha) = 2.1 \times 10^3$  syst 2012Wa38

Note: Current evaluation has used the following Q record -12950 SY13200 SY2730 SY2110 syst 2003Au03.

$\Delta Q_\beta = 640$  keV,  $\Delta S(n) = 640$  keV,  $\Delta S(p) = 640$  keV,  $\Delta Q(\alpha) = 450$  keV from atomic mass systematics (2003Au03).

Assignment: Observation of the band structures of  $^{122}\text{Ce}$  and  $^{122}\text{La}$ , the daughter, and comparison with the band structures of  $^{124-128}\text{Ce}$ .

 $^{122}\text{Ce}$  LevelsCross Reference (XREF) Flags

A  $^{64}\text{Zn}(\alpha^{64}\text{Zn}, \alpha 2n\gamma)$

E(level)	$J^\pi$	XREF	Comments
0.0 <sup>†</sup>	0 <sup>+</sup>	A	$\% \varepsilon + \% \beta^+ = ?$ ; $\% \varepsilon p = ?$ $T_{1/2}$ : not measured.
136.4 <sup>†</sup> 5	(2 <sup>+</sup> )	A	
434.7 <sup>†</sup> 7	(4 <sup>+</sup> )	A	
872.2 <sup>†</sup> 9	(6 <sup>+</sup> )	A	
1428.7 <sup>†</sup> 10	(8 <sup>+</sup> )	A	
2086.7 <sup>†</sup> 15	(10 <sup>+</sup> )	A	
2830.7 <sup>†</sup> 18	(12 <sup>+</sup> )	A	
3642.7? <sup>†</sup> 20	(14 <sup>+</sup> )	A	

<sup>†</sup> Band(A): g.s. band.

 $\gamma(^{122}\text{Ce})$ 

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma$	$I_\gamma$	$E_f$	$J_f^\pi$	Mult.
136.4	(2 <sup>+</sup> )	136.4 5	100	0.0	0 <sup>+</sup>	Q
434.7	(4 <sup>+</sup> )	298.3 5	100	136.4	(2 <sup>+</sup> )	Q
872.2	(6 <sup>+</sup> )	437.5 5	100	434.7	(4 <sup>+</sup> )	Q
1428.7	(8 <sup>+</sup> )	556.5 5	100	872.2	(6 <sup>+</sup> )	Q
2086.7	(10 <sup>+</sup> )	658 1	100	1428.7	(8 <sup>+</sup> )	Q
2830.7	(12 <sup>+</sup> )	744 1	100	2086.7	(10 <sup>+</sup> )	Q
3642.7?	(14 <sup>+</sup> )	812 <sup>†</sup> 1	100	2830.7	(12 <sup>+</sup> )	Q

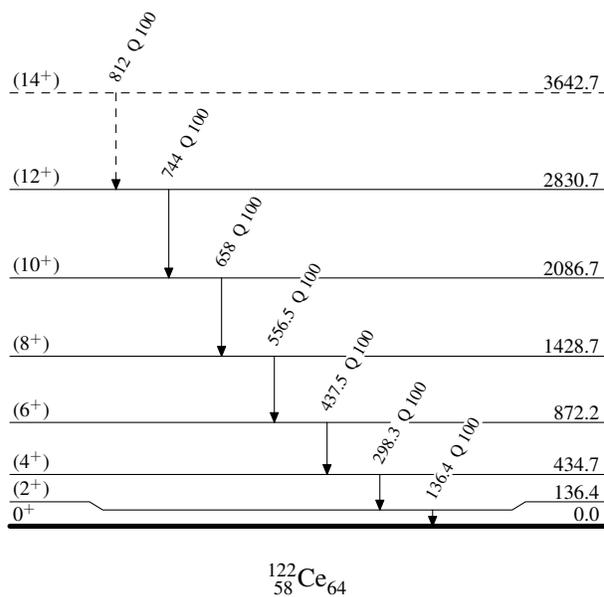
<sup>†</sup> Placement of transition in the level scheme is uncertain.

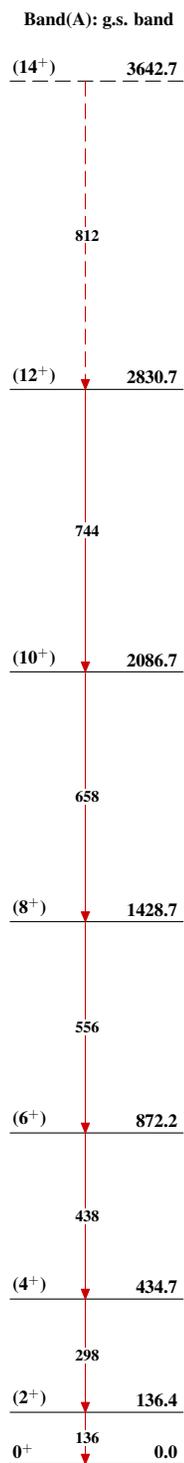
**Adopted Levels, Gammas**

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----►  $\gamma$  Decay (Uncertain)

**Adopted Levels, Gammas** $^{122}_{58}\text{Ce}_{64}$