^{136}Ce(n,γ): E≈2 keV 1981KoZW

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 108,2173 (2007)	1-Oct-2006

Measured: G.

^{137}Ce Levels

E(level)	J^{π}†	Comments
0.0	$3/2^+$	
160.4 *1*	$(1/2)^+$	
1271.7 *4*	3/2	
1577.2 *2*	(1/2)	
1643.0 *3*	(1/2)	
1728.1 *4*	(1/2)	
2061.1 *3*	(1/2)	
2135.8 *12*	$3/2^{(+)}$	
(x+7481.54)	$1/2^+,1/2^-,3/2^-$	E(level): x=E(n)≈2 keV. J^{π}: the captured neutrons with E(n)≈2 keV may bring only the orbital angular moment L=0 or L=1. Therefore, the big group of excited resonances may have only $J^{\pi}=1/2,3/2^-$.

† Adopted values.

$\gamma(^{137}Ce)$

E_{γ}†	I_{γ}	E_i(level)	J_i^{π}	E_f	J_f^{π}
5345.7 *12*	0.11 *2*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
5420.4 *3*	0.12 *3*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
5753.4 *4*	0.46 *4*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
5838.5 *3*	0.08 *3*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
5904.3 *2*	0.14 *4*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
6209.8 *4*	0.59 *4*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		
7321.3 *1*	0.28 *3*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$	160.4	$(1/2)^+$
7480.7 *4*	0.26 *3*	(x+7481.54)	$1/2^+,1/2^-,3/2^-$		

† From thermal n-capture.

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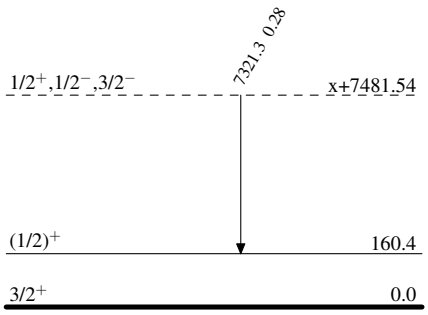
Level Scheme

Intensities: Relative I_γ



$^{137}_{58}Ce_{79}$