^{118}Sn(^{10}B,3nγ),^{114}Cd(^{14}N,3nγ) 1979Ga02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Katakura	NDS 112, 495 (2011)	1-Jan-2010

1979Ga02: ^{118}Sn(^{10}B,3nγ) E=41 MeV, ^{114}Cd(^{14}N,3nγ) E=56 MeV, enriched target, semi γ, $\gamma\gamma$-coin, I$\gamma(\theta)$, excitation function.

^{125}Cs Levels

E(level)†	J$^\pi$‡	$T_{1/2}$	Comments
0.0	1/2$^{(+)}$		
77.0 *3*	3/2$^{(+)}$		
84.7 *3*	5/2$^{(+)}$		
253.0# *3*	(7/2$^+$)		
266.0& *8*	(11/2$^-$)	0.90 ms *3*	$T_{1/2}$: From Adopted Levels.
540.0@ *13*	(9/2$^+$)		
631.0& *8*	(15/2$^-$)		
683.0# *5*	(11/2$^+$)		
849.0@ *15*	(11/2$^+$)		
1195.0@ *15*	(13/2$^+$)		
1203.0& *9*	(19/2$^-$)		
1278.1 *9*	(17/2$^-$)		
1293.2# *6*	(15/2$^+$)		
1572.0@ *16*	(15/2$^+$)		
1752.9 *10*	(19/2$^-$)		
1898.5 *10*	(21/2$^-$)		
1962.5& *10*	(23/2$^-$)		
2054.9# *6*	(19/2$^+$)		
2396.6 *12*			Additional information 1. From Adopted Levels.
2423.8 *10*	(23/2$^-$)		
2518.3 *3*			From Adopted Levels.
2698.9 *5*			From Adopted Levels.
2832.0& *10*	(27/2$^-$)		
2945.3 *6*			From Adopted Levels.
3208.3? *10*			
3256.9 *6*			From Adopted Levels.

† From a least-squares fit by evaluators to Eγ's.
‡ From Adopted Levels.
# Band(A): Configuration=(π $g_{7/2}$)(3/2[422]).
@ Band(B): Configuration=(π $g_{9/2}$)$^{-1}$(9/2[404]).
& Band(C): Configuration=(π $h_{11/2}$) and Configuration=((π $h_{11/2}$)(ν $h_{11/2}$)$^{+2}$).

γ(^{125}Cs)

E$_\gamma$†	I$_\gamma$@	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
(13)		266.0	(11/2$^-$)	253.0	(7/2$^+$)	E$_\gamma$: From adopted level energy difference.
77.1 *3*	>100	77.0	3/2$^{(+)}$	0.0	1/2$^{(+)}$	
84.6 *3*	>140	84.7	5/2$^{(+)}$	0.0	1/2$^{(+)}$	
121.7‡ *3*	10	2518.3		2396.6		A_2=−0.30 *6* (1979Ga02).

Continued on next page (footnotes at end of table)

^{118}Sn(^{10}B,3nγ),^{114}Cd(^{14}N,3nγ) 1979Ga02 (continued)

γ(^{125}Cs) (continued)

E_γ[†]	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
168.2 *3*	136	253.0	(7/2$^+$)	84.7	5/2$^{(+)}$		
176.0 *3*	100	253.0	(7/2$^+$)	77.0	3/2$^{(+)}$		
180.6[‡] *3*	11	2698.9		2518.3			A_2=−0.46 *8* (1979Ga02).
189[&]		266.0	(11/2$^-$)	77.0	3/2$^{(+)}$		
246.4[‡] *3*	10	2945.3		2698.9			A_2=−0.34 *4* (1979Ga02).
274		540.0	(9/2$^+$)	266.0	(11/2$^-$)	(D)	Mult.: 1979Ga02 suggest to be E1 from I_{90}/I_{150} value, even though the value was not reported.
309		849.0	(11/2$^+$)	540.0	(9/2$^+$)		
311.6[‡] *3*	13	3256.9		2945.3			A_2=−0.44 *5* (1979Ga02).
346		1195.0	(13/2$^+$)	849.0	(11/2$^+$)		
365.0 *3*	191	631.0	(15/2$^-$)	266.0	(11/2$^-$)	Q	A_2=+0.31 *6*, A_4=+0.01 *5* (1979Ga02).
377		1572.0	(15/2$^+$)	1195.0	(13/2$^+$)		
430.0 *3*	32	683.0	(11/2$^+$)	253.0	(7/2$^+$)	Q	A_2=+0.24 *4*, A_4=+0.04 *6* (1979Ga02).
474.8 *3*	15	1752.9	(19/2$^-$)	1278.1	(17/2$^-$)		A_2=−0.48 *8*, A_2=+0.27 *9* (1979Ga02).
572.0 *3*	103	1203.0	(19/2$^-$)	631.0	(15/2$^-$)	Q	A_2=+0.34 *7*, A_4=+0.07 *8* (1979Ga02).
610.2 *3*	19	1293.2	(15/2$^+$)	683.0	(11/2$^+$)		A_2=+0.25 *7*, A_4=+0.11 *9* (1979Ga02).
647.1 *3*	57	1278.1	(17/2$^-$)	631.0	(15/2$^-$)		A_2=−0.62 *5*, A_4=+0.05 *7* (1979Ga02).
655[&]		1195.0	(13/2$^+$)	540.0	(9/2$^+$)		
670.9 *3*	9	2423.8	(23/2$^-$)	1752.9	(19/2$^-$)	(Q)	A_2=+0.17 *11* (1979Ga02).
695.5 *3*	24	1898.5	(21/2$^-$)	1203.0	(19/2$^-$)		A_2=−0.53 *10*, A_4=+0.13 *13* (1979Ga02).
723[&]		1572.0	(15/2$^+$)	849.0	(11/2$^+$)		
759.5 *3*	38	1962.5	(23/2$^-$)	1203.0	(19/2$^-$)		A_2=+0.29 *5*, A_4=−0.06 *7* (1979Ga02);
761.7 *3*	10	2054.9	(19/2$^+$)	1293.2	(15/2$^+$)		A_2=+0.26 *10*, A_4=−0.08 *13* (1979Ga02).
784.5[&] *3*	5	3208.3?		2423.8	(23/2$^-$)		
869.5 *3*	15	2832.0	(27/2$^-$)	1962.5	(23/2$^-$)	(Q)	A_2=+0.21 *7*, A_4=−0.06 *10* (1979Ga02).

[†] From 1979Ga02.
[‡] Placement taken from Adopted Levels, gammas. This superseded the placement of 1979Ga02.
[#] From $\gamma(\theta)$, unless otherwise noted.
[@] Relative to I(176.0γ)=100, unless otherwise noted.
[&] Placement of transition in the level scheme is uncertain.

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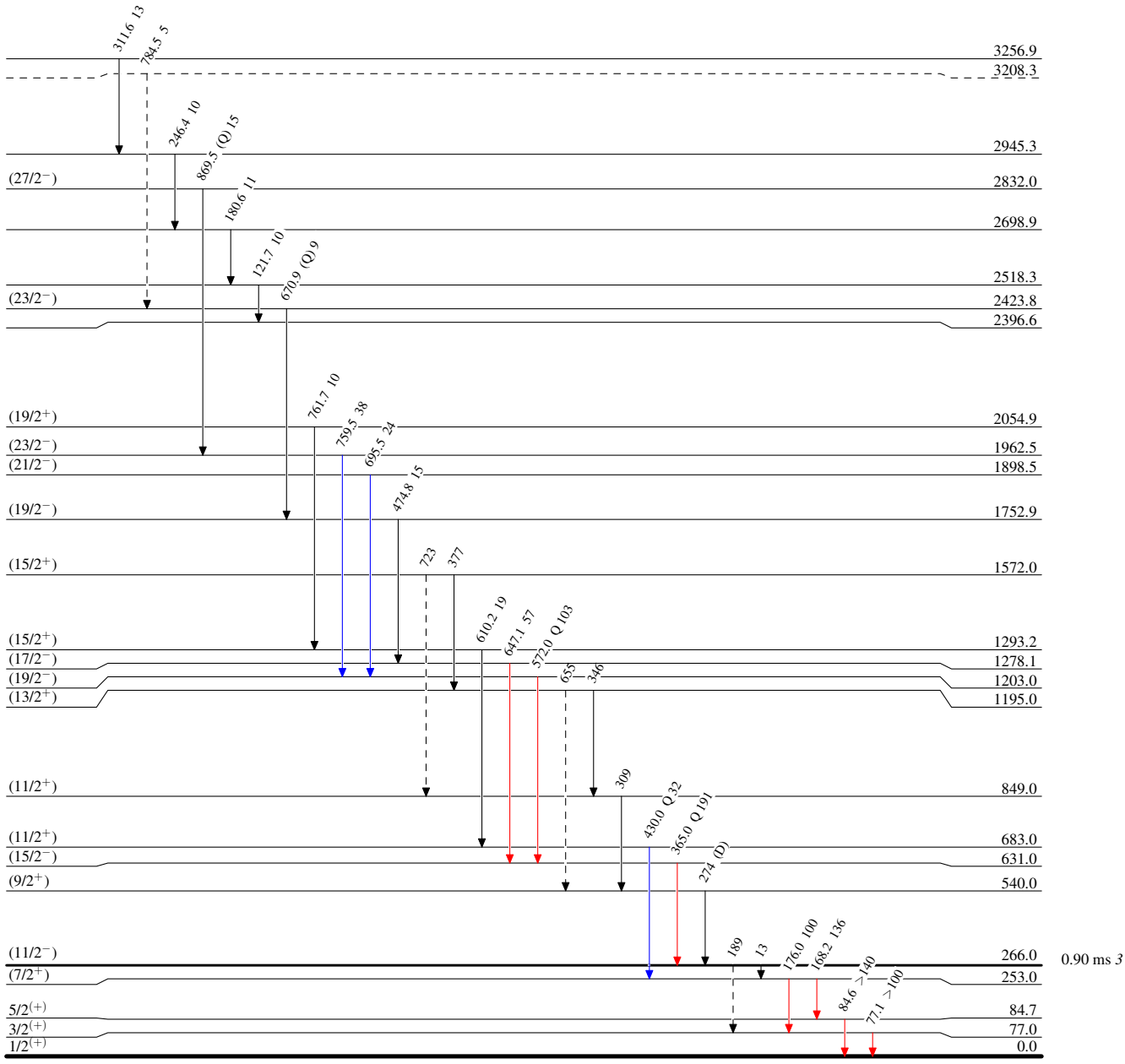
Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{125}_{55}Cs_{70}$

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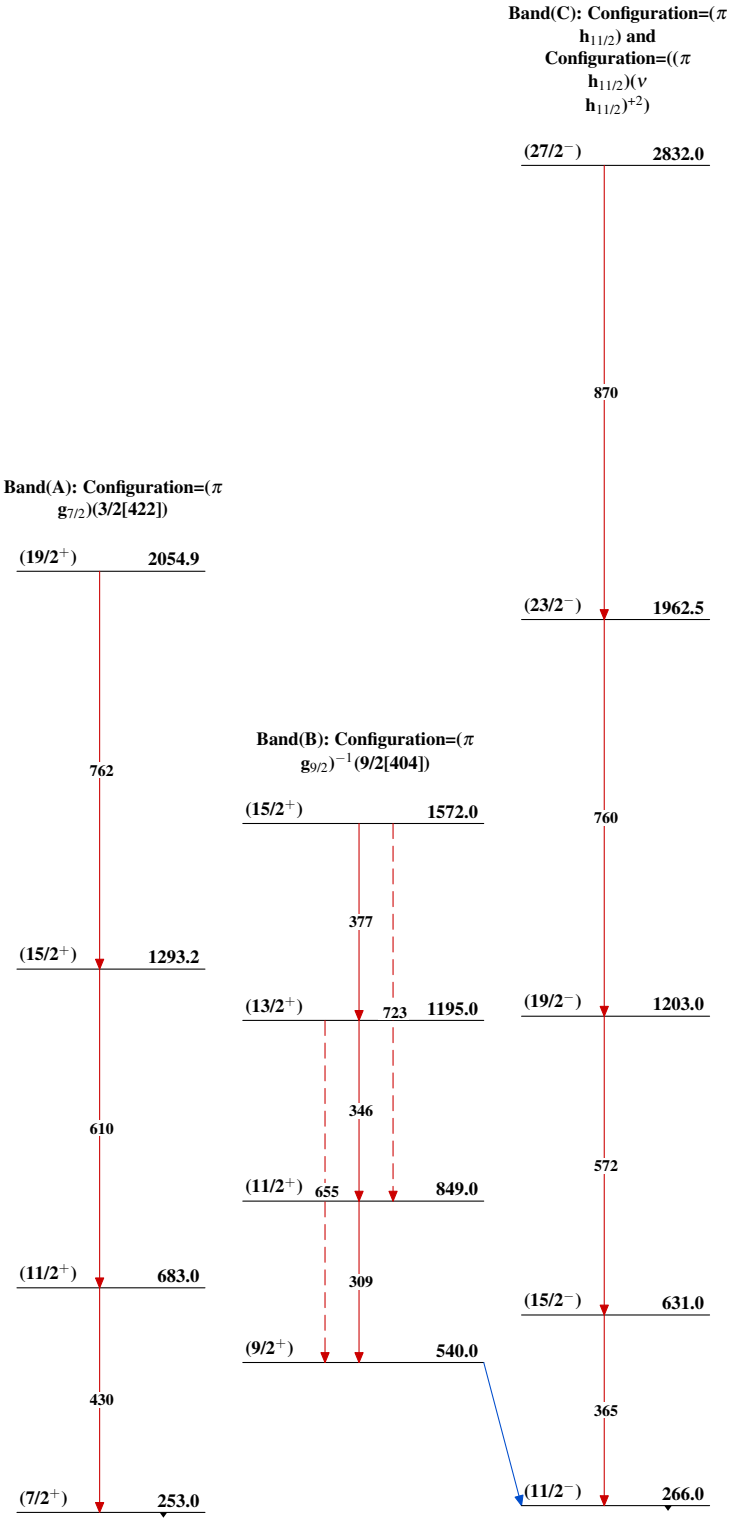

$^{125}_{55}Cs_{70}$