(HI,xnγ) 1985QuZZ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	K. Kitao	NDS 75,99 (1995)	1-Feb-1993

1984Qu02, 1985QuZZ: ^{112}Cd(^{10}B,4nγ) E(^{10}B)=54 MeV, ^{114}Sn(^{7}Li,3nγ) E(^{7}Li)=34 MeV; semi γ, γγ-coin, γ(t), γ(θ), excitation function.
The decay scheme is that proposed by 1985QuZZ.

^{118}I Levels

E(level)†	Jπ#	Comments
0.0	2⁻	
0.0+x		Additional information 1.
104.0+x‡ *20*	7⁻	
129.58 *25*		
222.22 *25*		
226.9+x‡ *21*	8⁻	
247.8 *4*		
412.9 *4*		
451.9+x *21*		
456.6+x‡ *21*	9⁻	
704.8 *5*		
750.9+x‡ *21*	10⁻	
900.7 *5*		
983.2 *6*		
1084.0+x‡ *21*	11⁻	
1106.6 *6*		
1375.5 *6*		
1432.6 *7*		
1447.5+x‡ *21*	12⁻	
1529.2 *6*		
1726.3 *7*		
1772.2 *7*		
1836.9+x‡ *21*	13⁻	
2061.3 *8*		
2252.6+x‡ *22*	(14⁻)	
2401.9 *8*		
2805.9 *8*		

† From a least-squares fit to E(γ′s).
‡ Member negative ΔJ=1 band.
# From γ(θ), and γ-cascades and expected band structure.

γ(^{118}I)

Eγ†	Iγ@	Ei(level)	Jiπ	Ef	Jfπ	Mult.b
57.1# *3*	100.0 *4*	1432.6		1375.5		
82.5 *3*	21.0 *3*	983.2		900.7		
92.6 *3*	38.7 *3*	222.22		129.58		
104‡ *2*		104.0+x	7⁻	0.0+x		
118.4 *5*	*a*	247.8		129.58		
122.9# *3*	100.0& *7*	226.9+x	8⁻	104.0+x	7⁻	M1

Continued on next page (footnotes at end of table)

(HI,xnγ) 1985QuZZ (continued)

γ(^{118}I) (continued)

E_γ[†]	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[b]	δ[b]	Comments
123.4[#] *3*	*a*	1106.6		983.2				
129.6 *3*	100.0 *4*	129.58		0.0	2^-			
165.1 *3*	49.3 *5*	412.9		247.8				
190.6 *3*	48.0 *5*	412.9		222.22				
195.9 *3*	8.0 *4*	900.7		704.8				
222.2 *3*	20.7 *4*	222.22		0.0	2^-			
225.0[#] *3*	43.5[&] *7*	451.9+x		226.9+x	8^-			
229.7[#] *3*	76.9[&] *9*	456.6+x	9^-	226.9+x	8^-	M1+E2	+0.09 *2*	
291.9 *3*	32.8 *4*	704.8		412.9				
294.2[#] *3*	102.2[&] *13*	750.9+x	10^-	456.6+x	9^-	M1+E2		
332.9 *3*	29.1[&] *11*	1084.0+x	11^-	750.9+x	10^-	M1+E2	−0.22 *10*	δ: large and negative A_2 value is due to contamination from another dipole transition (1985QuZZ).
350.8 *3*	*a*	1726.3		1375.5				
363.4[#] *3*	33.4[&] *7*	1447.5+x	12^-	1084.0+x	11^-	M1+E2		
389.5 *3*	19.4[&] *14*	1836.9+x	13^-	1447.5+x	12^-	M1+E2	+0.13 *16*	
392.3 *3*	88.1 *8*	1375.5		983.2				
396.7 *3*	12.3 *6*	1772.2		1375.5				
415.7 *5*		2252.6+x	(14^-)	1836.9+x	13^-	(M1+E2)		Mult.: assumed by authors, no mult was obtained due to the small peak-to-background ratio (1985QuZZ).
487.8 *3*	65.0 *5*	900.7		412.9				
546.0 *3*	*a*	1529.2		983.2				
627.6 *5*	*a*	1084.0+x	11^-	456.6+x	9^-	*c*		
628.7 *3*	56.2 *7*	2061.3		1432.6				
675.6 *3*	*a*	2401.9		1726.3				
696.9 *5*	*a*	1447.5+x	12^-	750.9+x	10^-	*c*		
744.6 *3*	21.3 *8*	2805.9		2061.3				
752.9 *5*		1836.9+x	13^-	1084.0+x	11^-	*c*		

[†] From 1985QuZZ unless otherwise noted.
[‡] From adopted gammas.
[#] Doublet.
[@] From 1985QuZZ. Relative to I(129.6γ)=100, unless otherwise noted.
[&] Relative to I(122.9γ)=100.
[a] No intensity was given by authors.
[b] From γ(θ) (1985QuZZ), unless otherwise noted.
[c] Mult was given by authors as E2, but A_2 and A_4 values were not given.

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Level Scheme

Intensities: Relative I_γ

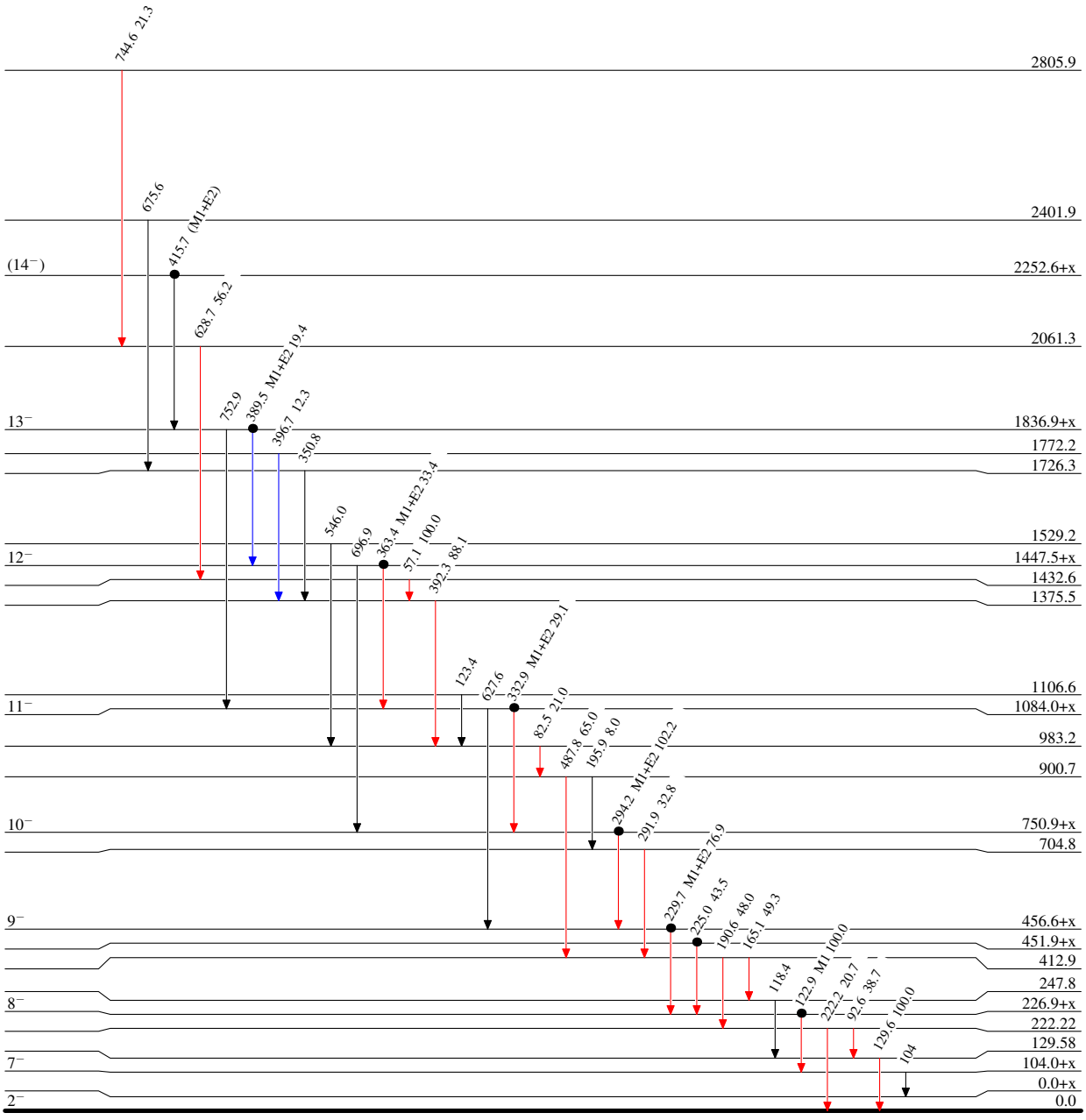
Legend

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

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

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

Coincidence



$^{118}_{53}I_{65}$