^{113}In(α,nγ): high spin 1997Fa18

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 717 (2010)	1-Dec-2009

E(α)=14.5,16 MeV.
Measured: Eγ, Iγ, $\gamma\gamma$, excit, ce. supermagnetic lens spectrometer, Si.
The α(K)exp were normalized using the 719γ and 1160γ in ^{117}Sb taken as E2.

^{116}Sb Levels

E(level)	J$^\pi$[†]	Comments
0	3$^+$	J$^\pi$: from Adopted Levels.
383 *40*	8$^-$	E(level): from Adopted Levels.
1158	7$^+$	
1351[‡]	7$^-$	
1451[‡]	8$^-$	
1570[#]	(8$^+$)	
1626[@]	(8$^+$)	
1666[‡]	9$^-$	
1950[@]	(9$^+$)	
1961[#]	(9$^+$)	
1983[‡]	10$^-$	
2315[@]	(8$^+$)	
2335[‡]	11$^-$	
2366[#]	(10$^+$)	
2690[@]	(11$^+$)	
2717[‡]	12$^-$	
2789[#]	(11$^+$)	

[†] Spins have been determined from ce.
[‡] Band(A): negative parity Band with ΔJ=1 based on 7$^-$.
[#] Band(B): Positive parity Band with ΔJ=1 based on 7$^+$, Configuration=((π g$_{7/2}$)$^{-1}$(ν d$_{5/2}$)).
[@] Band(C): negative parity Band with ΔJ=1 based on (8$^+$), Configuration=((π g$_{7/2}$)$^{-1}$(ν D7/2)).

γ(^{116}Sb)

E$_\gamma$[†]	I$_\gamma$[‡]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
100	26 *2*	1451	8$^-$	1351	7$^-$		
192	37 *2*	1351	7$^-$	1158	7$^+$	E1	α(K)exp=0.027 *3*
215	38 *2*	1666	9$^-$	1451	8$^-$	M1,E2	α(K)exp=0.083 *3*
274	5 *1*	1626	(8$^+$)	1351	7$^-$	E1	α(K)exp=0.015 *7*
317	16 *2*	1983	10$^-$	1666	9$^-$		
324	19 *2*	1950	(9$^+$)	1626	(8$^+$)	M1,E2	α(K)exp=0.022 *5*
352	13 *3*	2335	11$^-$	1983	10$^-$		
365	11 *2*	2315	(8$^+$)	1950	(9$^+$)		
374	7 *2*	2690	(11$^+$)	2315	(8$^+$)		
382	3 *1*	2717	12$^-$	2335	11$^-$		
391	20 *1*	1961	(9$^+$)	1570	(8$^+$)		
405	7 *3*	2366	(10$^+$)	1961	(9$^+$)		
411	35 *10*	1570	(8$^+$)	1158	7$^+$		

Continued on next page (footnotes at end of table)

^{113}In(α,nγ): high spin 1997Fa18 (continued)

$\gamma(^{116}Sb)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
423	6 *4*	2789	(11^+)	2366	(10^+)		
467	15 *2*	1626	(8^+)	1158	7^+	M1,E2	α(K)exp=0.0077 *9*
669	19 *1*	2335	11^-	1666	9^-	E2,(M1)	α(K)exp=0.0026 *7*
689	≤3	2315	(8^+)	1626	(8^+)		
734	≤3	2717	12^-	1983	10^-		
775		1158	7^+	383	8^-		
796	3 *1*	2366	(10^+)	1570	(8^+)		
802	6 *2*	1961	(9^+)	1158	7^+		
829	3 *1*	2789	(11^+)	1961	(9^+)		

[†] Rounded-off values, see 1991Ga15 for more precise values.
[‡] Taken at E(α)=16 MeV.

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Level Scheme

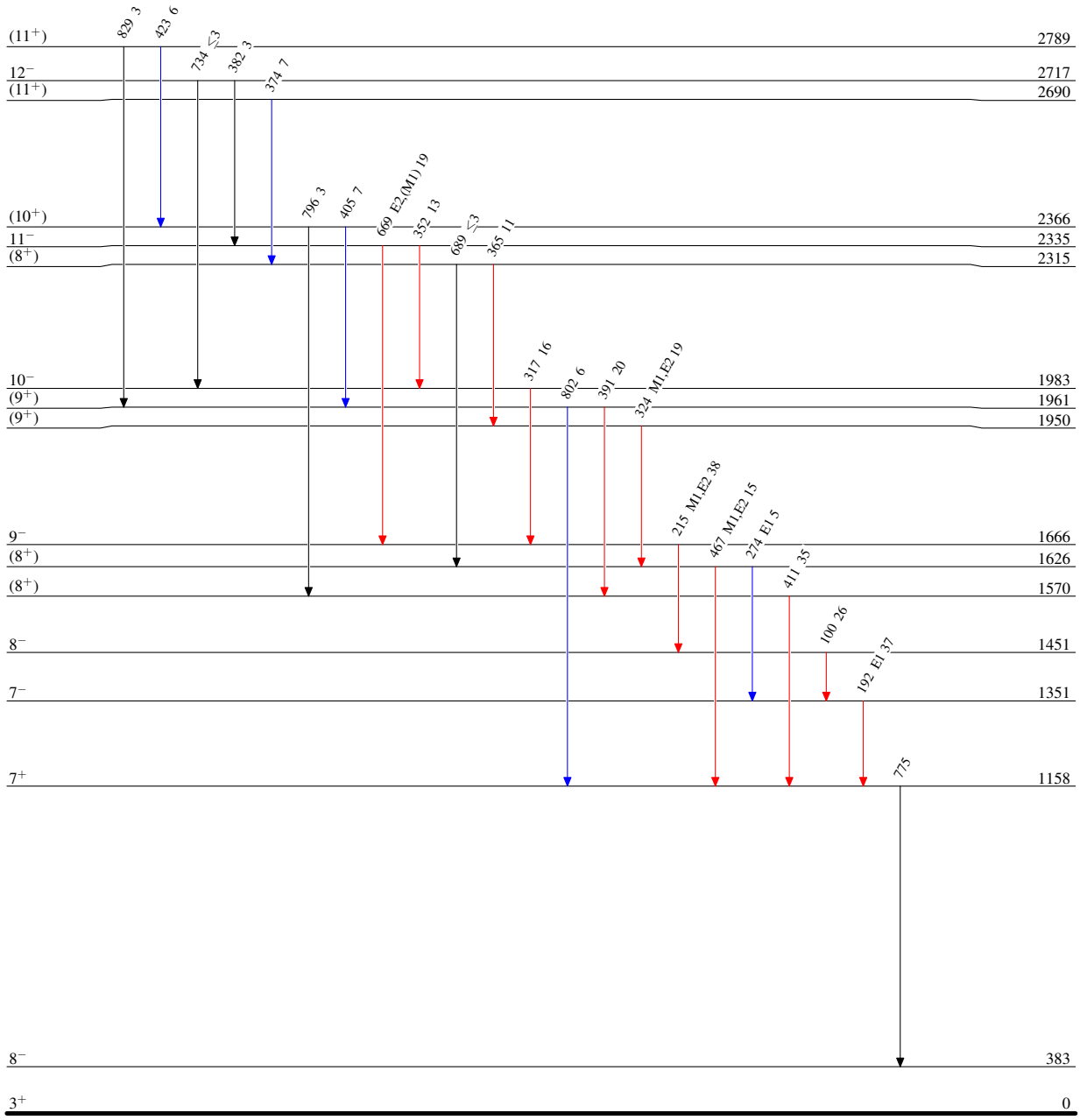
Intensities: Relative I_γ

Legend

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

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

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



$^{116}_{51}Sb_{65}$

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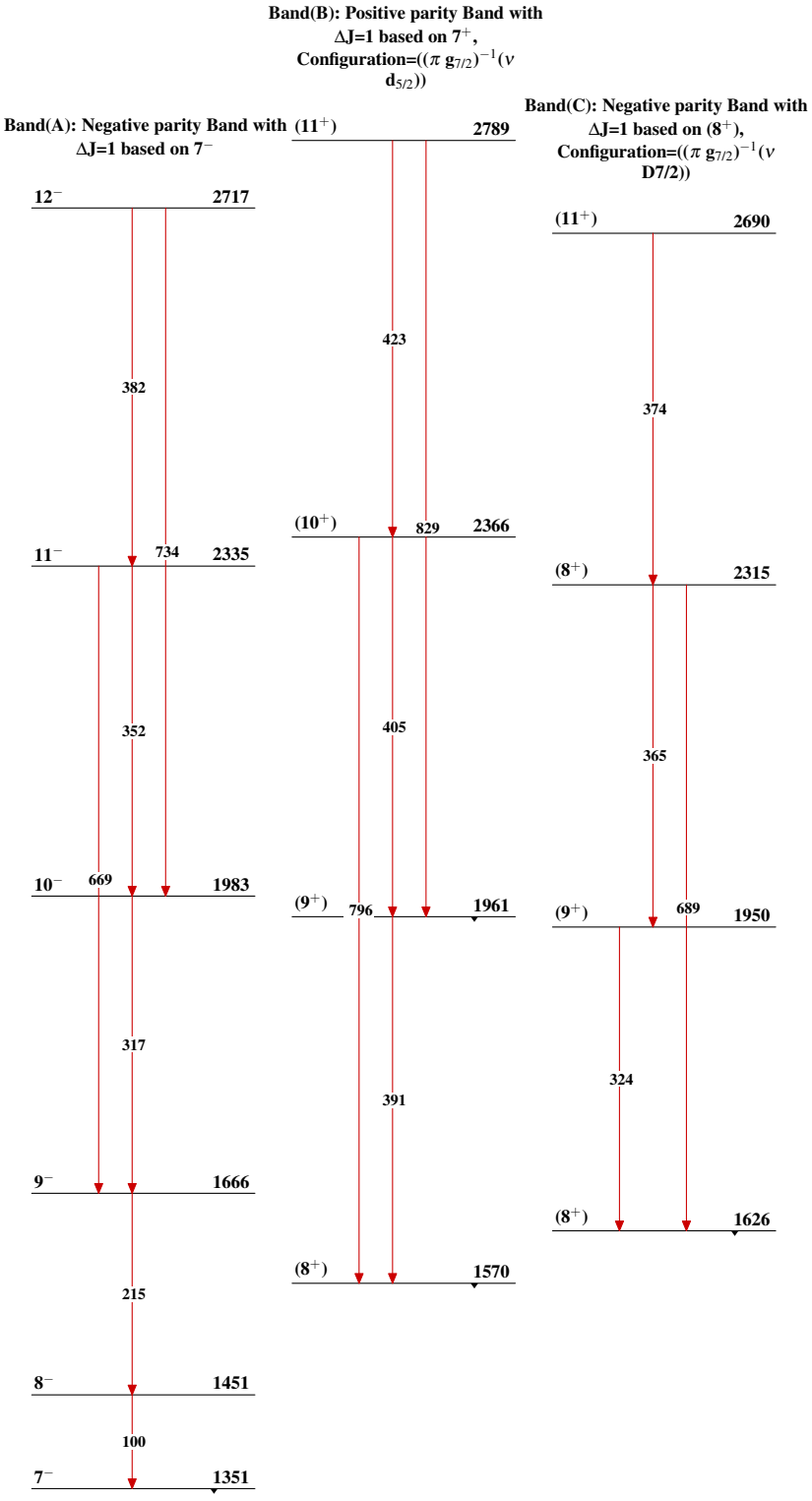

$^{116}_{51}Sb_{65}$