^{122}Sn(p,nγ) 1972El01

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

1972El01: E(p)=6.5 MeV, semi γ, γγ-coin.
1973He10: E(p)=11 MeV, semi γ, g-factor, $T_{1/2}$.

^{122}Sb Levels

The level scheme is that proposed by 1972El01, on the basis of γγ-coin and Eγ sums. The evaluator has added levels at 263.8, 310.9, 396.7, and 586.2 keV on the basis of ^{121}Sb(n,γ) work.

E(level)†	Jπ‡	$T_{1/2}$#	Comments
0.0	2^-		
61.1 *3*	3^+	1.86 μs *8*	g-factor=+0.988 *4* (stroboscopic resonance curves of the 61.1-keV γ transition) (1973He10). $T_{1/2}$: from decay curve of the 61.41-keV γ (1973He10).
77.9 *3*	$(3)^-$		
121.5 *3*	$(1)^+$		
136.9 *4*	$(5)^+$		
166.9 *3*	$(2)^+$		
192.7 *5*	$(4)^-$		
209.6 *4*	$(4)^+$		
255.1 *3*	$(3)^+$		
263.8 *6*	$(5)^-$		
283.0 *20*	$(3)^-$		
310.9 *21*	$(4)^-$		
323.4 *4*	$(2)^+$		
333.5 *4*	$(3)^+$		
392.8 *15*	$(3,4,5)^+$		
396.7 *5*	$(2,3)^+$		
425.7 *21*	$(3,4,5)^-$		
482.6 *21*	$(2,3,4)^+$		
586.1 *21*	$^+$		

† E(levels) are obtained by the energy sums of E(γ's) from 1972El01.
‡ From Adopted Levels.
# From 1973He10.

γ(^{122}Sb)

Eγ†	Ei(level)	J_i^π	E_f	J_f^π	Eγ†	Ei(level)	J_i^π	E_f	J_f^π
x38.3 *3*					121.5 *3*	121.5	$(1)^+$	0.0	2^-
45.4# *3*	166.9	$(2)^+$	121.5	$(1)^+$	141.5 *3*	396.7	$(2,3)^+$	255.1	$(3)^+$
45.4# *3*	255.1	$(3)^+$	209.6	$(4)^+$	148.4‡ *3*	209.6	$(4)^+$	61.1	3^+
x50.0 *3*					166.6 *3*	333.5	$(3)^+$	166.9	$(2)^+$
61.1 *3*	61.1	3^+	0.0	2^-	184.0 *20*	392.8	$(3,4,5)^+$	209.6	$(4)^+$
71.1 *3*	263.8	$(5)^-$	192.7	$(4)^-$	194.4 *3*	255.1	$(3)^+$	61.1	3^+
x75.8 *3*					201.9 *3*	323.4	$(2)^+$	121.5	$(1)^+$
77.9 *3*	77.9	$(3)^-$	0.0	2^-	231.0 *20*	396.7	$(2,3)^+$	166.9	$(2)^+$
88.1 *3*	255.1	$(3)^+$	166.9	$(2)^+$	233.0# *20*	310.9	$(4)^-$	77.9	$(3)^-$
x101.4 *3*					233.0# *20*	425.7	$(3,4,5)^-$	192.7	$(4)^-$
105.7 *3*	166.9	$(2)^+$	61.1	3^+	253.0 *20*	255.1	$(3)^+$	0.0	2^-
114.8 *3*	192.7	$(4)^-$	77.9	$(3)^-$	273.0# *20*	333.5	$(3)^+$	61.1	3^+

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^{122}Sn(p,nγ) 1972El01 (continued)

$\gamma(^{122}Sb)$ (continued)

E_γ †	E_i(level)	J_i^π	E_f	J_f^π	E_γ †	E_i(level)	J_i^π	E_f	J_f^π
273.0# *20*	482.6	$(2,3,4)^+$	209.6	$(4)^+$	331.0# *20*	586.1	$^+$	255.1	$(3)^+$
283.0 *20*	283.0	$(3)^-$	0.0	2^-	^{x}384.0 *20*				
^{x}287.0 *20*					^{x}398.0 *20*				
331.0# *20*	392.8	$(3,4,5)^+$	61.1	3^+	^{x}423.0 *20*				

† From 1972El01.
‡ This γ possibly be a multiplet also placed from 413.8-keV level.
# Multiply placed.
^{x} γ ray not placed in level scheme.

Legend

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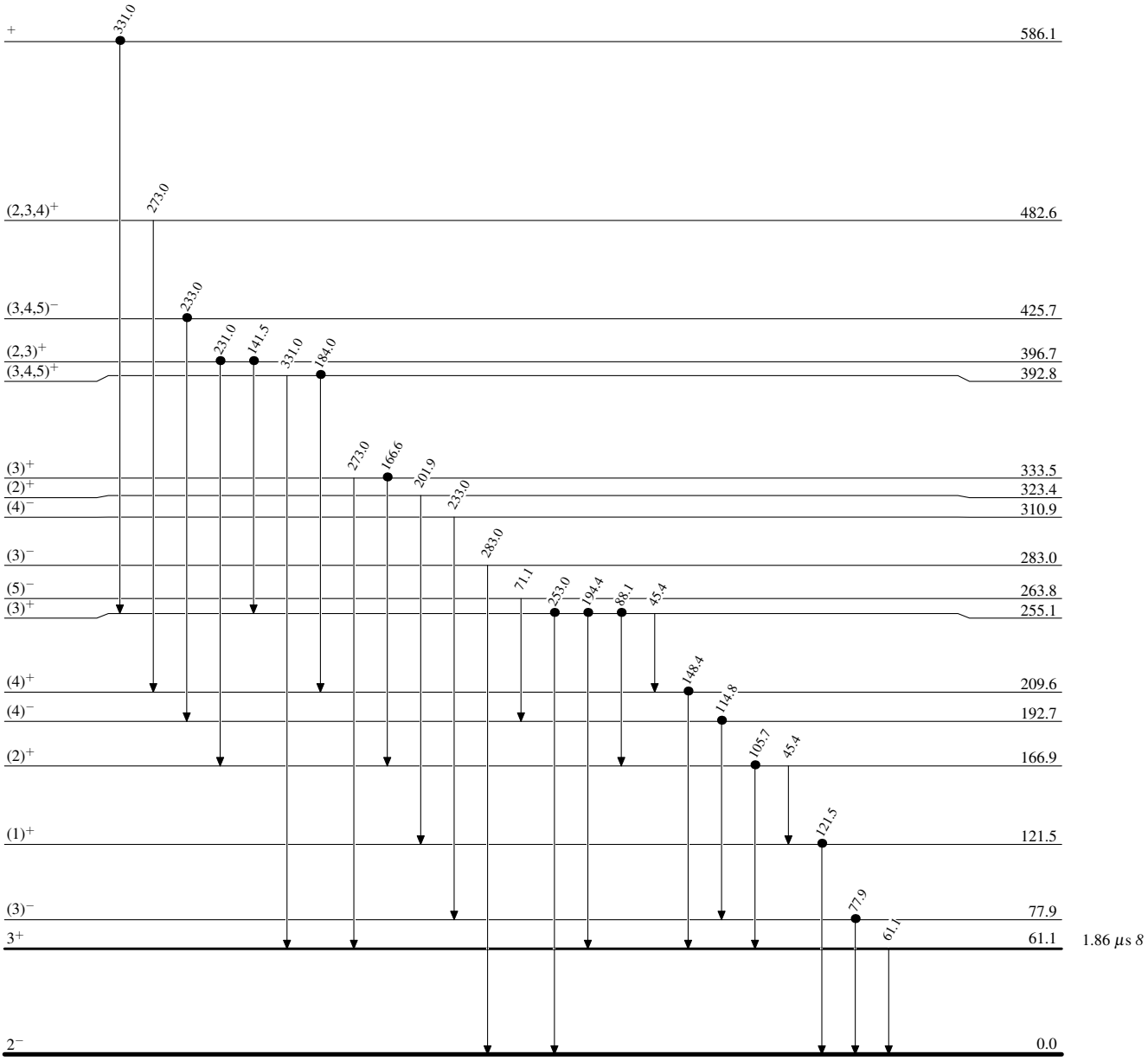
Level Scheme

● Coincidence



$^{122}_{51}Sb_{71}$