

$^{121}\text{Sb}(\gamma, \gamma')$ 1973Bo12, 2002Br05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

1973Bo12: bremsstrahlung $E=0.6\text{--}3.0$ MeV, semi γ , $\theta=125^\circ$, deduced Γ .

2002Br05: $E=4.1$ MeV bremsstrahlung. Measured $E\gamma$, $I\gamma$ and scattering cross sections using the bremsstrahlung Nuclear-resonance fluorescence (NRF) facility at 4.3 MeV Dynamitron accelerator and 3 HPGe detectors located at 90, 127 and 150 degrees.

1963Me13: 17-d ^{121}Te source, centrifuge method for recoil energy compensation, scin γ , $\gamma(\theta)$.

1981En03: ^{60}Co source, centrifuge method (preliminary result is given in 1980Mu05).

1981Ca10: bremsstrahlung excitation, natural Sb target, measured cross section and Γ , deduced $T_{1/2}$.

2000Ki15: synchrotron radiation, avalanche photodiode detectors, measured resonance energy.

 ^{121}Sb Levels

E(level) [†]	J ^{π&}	T _{1/2}	$g\Gamma(\gamma_0)^2/\Gamma$ (eV) ^a	Comments
0.0	5/2 ⁺			
37.1298 2	7/2 ⁺	3.47 ns 39		E(level): from 2006Wi04. Other: 37.147 23 (2000Ki15). T _{1/2} : from $\gamma(t)$ (2000Ki15). $g\Gamma(\gamma_0)^2/\Gamma$ (eV): Other: 0.00011 eV 5 (1973Bo12).
509.0 15	3/2 ⁺	1.93 ps 19	0.133×10 ⁻³ 13	T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.9184$ 20 from adopted gammas.
573.0 [#] 15	1/2 ⁺	8.5 ps 10	0.0173×10 ⁻³ 20	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1963Me13. T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.984$ 4 from adopted gammas.
947	9/2 ⁺	>0.15 ps	<0.05×10 ⁻³	E(level): rounded-off value from Adopted Levels. $g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12. T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.105$ 3 from adopted gammas.
1023.5 [‡] 10	7/2 ⁺	0.18 ps 4	3.3×10 ⁻³ 7	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): Weighted average of 0.00385 eV 35 (1981Ca10) and 0.0025 eV 3 (1973Bo12) with external uncertainty.
1035	9/2 ⁺	>0.3×10 ⁻³ ps	<0.08×10 ⁻³	T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$. E(level): rounded-off value from Adopted Levels. $g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12. T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.007$ 3 from adopted gammas.
1142.5 [‡] 10	9/2 ⁺	0.46 ps +15-9	0.88×10 ⁻³ 8	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1981Ca10; other: 0.000.9 eV 2 (1973Bo12). T _{1/2} : from $\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.73$ 8 from adopted gammas.
1385.2 3	+		4.0×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): others: 0.0049 eV 5 (1981Ca10), 0.0046 eV 6 (1973Bo12).

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$^{121}\text{Sb}(\gamma, \gamma')$ **1973Bo12,2002Br05 (continued)** ^{121}Sb Levels (continued)

E(level) [†]	J^π &	$g\Gamma(\gamma_0)^2/\Gamma$ (eV) ^a	Comments
1408 @ 3	1/2 ⁺ , 3/2, 5/2 ⁺	0.19×10 ⁻³ @ 6	
1423 @ 3		0.16×10 ⁻³ @ 8	
1446		<0.04×10 ⁻³	E(level), $g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12; 1979Bo12 report E=1446 5 with $J^\pi=(11/2^-)$ using an early version of the Nuclear Data Sheets. There is a level at 1447.51 with $J^\pi=3/2^+, 5/2^+, 7/2^+$ and the (11/2 ⁻) level is at 1426.88. It isn't clear to which of these levels the authors' width data applies.
1471.2 3	+	<0.2×10 ⁻³	E(level): from Adopted Levels.
1474.4 6	+	<1.0×10 ⁻³	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12. E(level): from Adopted Levels.
1518.9 3	+	3.9×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12.
1590.4 4		2.0×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0043 eV 7 (1973B012).
1628.4 3	+	2.9×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0020 eV 3 (1973Bo12).
1736.3 2	+	7.0×10 ⁻³ 5	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0075 eV 10 (1973B012).
1758.5 4	+	0.40×10 ⁻³ 13	
1810.8 5	1/2 ⁺ , 3/2 ⁺	4.1×10 ⁻³ 4	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0042 eV 8 (1973B012).
1910.6 3		0.64×10 ⁻³ 20	
1927.1 5		0.58×10 ⁻³ 19	
1981.6 4	3/2 ⁺ , 5/2 ⁺	0.43×10 ⁻³ 18	
2016.5 9		0.75×10 ⁻³ 28	
2025.7 7		2.4×10 ⁻³ 7	
2048 @ 3		2.6×10 ⁻³ @ 6	
2063.4 5	+	2.8×10 ⁻³ 7	
2075 5	-	<1.0×10 ⁻³	E(level): from Adopted Levels. This level has been reported only in (p,t) and in (d,d'), (α,α'). $g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1973Bo12.
2093.0 7	-	1.0×10 ⁻³ 3	
2097.9 5	3/2 ⁺ , 5/2 ⁺	1.2×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0022 eV 10 (1973B012).
2114.1 4	+	1.27×10 ⁻³ 25	
2121.3 7		1.0×10 ⁻³ 3	
2140.2 7		1.3×10 ⁻³ 3	
2235.5 3	+	3.8×10 ⁻³ 4	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0048 eV 7 (1973B012).
2255.2 6		0.67×10 ⁻³ 25	
2259.1 3		2.6×10 ⁻³ 3	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0030 eV 7 (1973B012).
2265.9 4	+	1.4×10 ⁻³ 3	
2280.4 6		2.6×10 ⁻³ 7	
2289.8 4	+	0.33×10 ⁻³ 14	
2323.5 4		2.1×10 ⁻³ 5	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0041 eV 10 (1973B012).
2329 @ 3		3.1×10 ⁻³ @ 16	
2371 @ 2		5.0×10 ⁻³ @ 10	
2398.8 3	+	10.9×10 ⁻³ 9	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0076 eV 10 (1973B012).
2435.8 3	+	13.2×10 ⁻³ 13	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0040 eV 10 (1973B012).
2442.0 3		0.78×10 ⁻³ 22	
2447.7 4		0.74×10 ⁻³ 22	
2459.2 6		0.68×10 ⁻³ 25	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0016 eV 7 (1973B012).
2477.0 4	-	0.76×10 ⁻³ 21	
2497.7 3		5.1×10 ⁻³ 5	$g\Gamma(\gamma_0)^2/\Gamma$ (eV): 0.0048 eV 16 (1973B012).
2573.8 7		1.7×10 ⁻³ 4	
2579.2 14		1.4×10 ⁻³ 8	
2585.6 8	+	1.4×10 ⁻³ 4	
2649.0 7	+	0.7×10 ⁻³ 3	

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$^{121}\text{Sb}(\gamma, \gamma')$ **1973Bo12,2002Br05** (continued) ^{121}Sb Levels (continued)

E(level) [†]	J ^π &	$g\Gamma(\gamma_0)^2/\Gamma$ (eV) ^a	Comments
2663.0 7		3.1×10^{-3} 8	
2668.1 7		1.1×10^{-3} 3	
2678.1 4		3.3×10^{-3} 4	
2690.4 3	3/2 ⁺ , 5/2 ⁺	9.6×10^{-3} 8	
2698.8 8		1.0×10^{-3} 3	
2713.5 4		3.3×10^{-3} 4	
2721.4 6		1.1×10^{-3} 3	
2725.8 12		0.9×10^{-3} 3	
2733.0 9			E(level): Authors' value of 2723.0 is possibly a misprint.
2740.4 10		2.6×10^{-3} 12	
2745.0 9		0.9×10^{-3} 3	
2775.1 6		0.55×10^{-3} 24	
2783.7 7		0.53×10^{-3} 24	
2798.8 6		2.3×10^{-3} 7	
2810.0 7		0.8×10^{-3} 3	
2828.2 5		4.6×10^{-3} 14	
2835.6 8		2.8×10^{-3} 11	
2843.6 3		8.2×10^{-3} 8	
2860.1 5		0.53×10^{-3} 21	
2865.2 6		4.1×10^{-3} 19	
2873.4 9		2.1×10^{-3} 11	
2911.6 11		1.4×10^{-3} 8	
2917.3 6		1.4×10^{-3} 3	
2931.5 6		2.6×10^{-3} 6	
2937.4 4	1/2 ⁺ , 3/2 ⁺	3.4×10^{-3} 5	
2947.3 12		1.3×10^{-3} 8	
2964.0 7		1.5×10^{-3} 4	
2973.6 3		6.9×10^{-3} 7	
2994.1 3		4.1×10^{-3} 5	
3024.6 6		3.7×10^{-3} 13	
3033.1 10		3.8×10^{-3} 15	
3050.4 3		8.1×10^{-3} 7	
3064.1 6		1.6×10^{-3} 3	
3072.9 5		2.9×10^{-3} 4	
3082.7 8		1.0×10^{-3} 3	
3098.7 3		10.5×10^{-3} 9	
3105.9 12		1.6×10^{-3} 10	
3116.0 6		2.7×10^{-3} 9	
3122.9 4		4.1×10^{-3} 5	
3132.0 7		0.9×10^{-3} 3	
3148.8 7		2.6×10^{-3} 7	
3151.7 8		2.1×10^{-3} 7	
3159.5 3		9.6×10^{-3} 9	
3186.9 4		3.4×10^{-3} 6	
3193.7 4		6.2×10^{-3} 8	
3206.6 4		7.5×10^{-3} 11	
3210.1 5		1.7×10^{-3} 7	
3232.5 3		10.9×10^{-3} 9	
3252.1 7		3.2×10^{-3} 8	
3259.9 7		0.7×10^{-3} 3	
3290.3 9		6.5×10^{-3} 14	

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$^{121}\text{Sb}(\gamma, \gamma')$ **1973Bo12,2002Br05 (continued)** ^{121}Sb Levels (continued)

E(level) [†]	J ^π &	$g\Gamma(\gamma_0)^2/\Gamma$ (eV) ^a	Comments
3302.7 6		1.7×10^{-3} 10	
3313.7 5		10×10^{-3} 4	
3345.8 8		4.2×10^{-3} 13	
3351.7 7		1.7×10^{-3} 6	
3363.6 4		3.8×10^{-3} 6	
3384.9 6		1.7×10^{-3} 5	
3451.068 4	(3/2 ⁺ , 5/2 ⁺)	1.0×10^{-3} 2	E(level): 1981En03 use a Doppler-shifted 3451 γ in ^{56}Fe from ^{56}Co source to excite the 3451 level. $E_\gamma=3451.119$ 4 (2004He14), the resonance energy is 2 eV and the recoil correction is 53 eV. $g\Gamma(\gamma_0)^2/\Gamma$ (eV): from 1981En03 . $T_{1/2}$: from $g\Gamma(\gamma_0)^2/\Gamma$ and $\Gamma(\gamma_0)/\Gamma=0.63$ 4 one gets $T_{1/2}=0.18$ g ps 4. J^π : γ' s to 7/2 ⁺ , 1/2 ⁺ .
3474.2 4		6.7×10^{-3} 13	
3485.8 5		3.5×10^{-3} 9	
3495.6 8		1.2×10^{-3} 4	
3503.2 6		1.6×10^{-3} 5	
3512.7 11		1.1×10^{-3} 5	
3517.0 11		6.1×10^{-3} 15	
3521.3 5		3.7×10^{-3} 7	
3544.9 7		3.6×10^{-3} 8	
3570.2 13		1.2×10^{-3} 5	
3575.0 7		3.2×10^{-3} 7	
3580.7 4		6.9×10^{-3} 9	
3587.6 10		1.5×10^{-3} 5	
3614.5 6		3.1×10^{-3} 7	
3621.4 11		1.1×10^{-3} 5	
3642.0 7		1.8×10^{-3} 6	
3648.5 8		1.1×10^{-3} 5	
3672.6 11		2.1×10^{-3} 7	
3677.3 10		4.2×10^{-3} 14	
3706.3 7		1.9×10^{-3} 6	
3731.7 5		5.0×10^{-3} 16	
3748.9 5		4.8×10^{-3} 15	
3755.6 7		3.2×10^{-3} 15	
3759.4 9		1.1×10^{-3} 5	
3771.8 8		1.8×10^{-3} 7	
3781.3 5		3.0×10^{-3} 7	
3787.3 7		2.0×10^{-3} 7	
3792.6 8		3.3×10^{-3} 14	
3804.3 10		1.6×10^{-3} 7	
3812.9 6		4.6×10^{-3} 20	
3838.1 9		3.5×10^{-3} 18	
3844.6 8		1.7×10^{-3} 7	
3849.1 7		2.1×10^{-3} 7	
3854.2 7		2.1×10^{-3} 7	
3858.1 7		2.0×10^{-3} 7	
3863.8 6		2.8×10^{-3} 9	
3867.0 8		2.2×10^{-3} 8	
3870.1 8		2.1×10^{-3} 8	

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$^{121}\text{Sb}(\gamma, \gamma')$ [1973Bo12](#), [2002Br05](#) (continued) ^{121}Sb Levels (continued)

<u>E(level)[†]</u>	<u>$g\Gamma(\gamma_0)^2/\Gamma$ (eV)^a</u>	<u>E(level)[†]</u>	<u>$g\Gamma(\gamma_0)^2/\Gamma$ (eV)^a</u>
3894.0 9	2.3×10^{-3} 9	3923.4 7	3.6×10^{-3} 12
3899.6 10	2.1×10^{-3} 9	3929.1 8	3.9×10^{-3} 12
3905.2 6	4.9×10^{-3} 13	3933.3 9	3.1×10^{-3} 12
3909.4 11	2.2×10^{-3} 10	3940.9 7	3.6×10^{-3} 13
3916.0 8	2.9×10^{-3} 10	3972.7 11	6.9×10^{-3} 26

[†] E(levels) are from [2002Br05](#), unless otherwise noted.

[‡] From [1981Ca10](#).

From Adopted Levels (rounded-off value).

@ From [1973Bo12](#).

& From Adopted Levels.

^a In the equation of $\Gamma(\gamma_0)^2/\Gamma$, $\Gamma(\gamma_0)$ is the decay Γ to g.s. and $g=(2J+1)/(2J(\text{g.s.})+1)$. Presented values are from [2002Br05](#), except where noted otherwise.

$^{121}\text{Sb}(\gamma, \gamma')$ **1973Bo12,2002Br05 (continued)**

$\gamma(^{121}\text{Sb})$									
E_γ	$I_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	δ	$\alpha^@$	Comments
37 [†]	[†]	37.1298	7/2 ⁺	0.0	5/2 ⁺				
70 [†]	2.0 [†] 7	573.0	1/2 ⁺	509.0	3/2 ⁺				
469 [†]	100 [†]	509.0	3/2 ⁺	37.1298	7/2 ⁺				
509 [†]	$\approx 10^\dagger$	509.0	3/2 ⁺	0.0	5/2 ⁺	M1+E2	0.29 9	0.00820 13	$\alpha=0.00820$ 13; $\alpha(\text{K})=0.00711$ 11; $\alpha(\text{L})=0.000880$ 13; $\alpha(\text{M})=0.0001737$ 25; $\alpha(\text{N}+..)=3.69\times 10^{-5}$ $\alpha(\text{N})=3.35\times 10^{-5}$ 5; $\alpha(\text{O})=3.32\times 10^{-6}$ 5 δ : from 1963Me13 . However, adopted value is 0.137 11.
576 [†]	100 [†]	573.0	1/2 ⁺	0.0	5/2 ⁺				
1385.2 3		1385.2	+	0.0	5/2 ⁺				
1518.9 3		1518.9	+	0.0	5/2 ⁺				
1590.4 4		1590.4		0.0	5/2 ⁺				
1628.4 3		1628.4	+	0.0	5/2 ⁺				
1736.3 2		1736.3	+	0.0	5/2 ⁺				
1758.5 4		1758.5	+	0.0	5/2 ⁺				
1810.8 5		1810.8	1/2 ⁺ , 3/2 ⁺	0.0	5/2 ⁺				
1910.6 3		1910.6		0.0	5/2 ⁺				
1927.1 5		1927.1		0.0	5/2 ⁺				
1933 ^{&}	16 [#]	3451.068	(3/2 ⁺ , 5/2 ⁺)	1518.9	+				
1981.6 4		1981.6	3/2 ⁺ , 5/2 ⁺	0.0	5/2 ⁺				
1988.9 8	92 31	2025.7		37.1298	7/2 ⁺				
2016.5 9		2016.5		0.0	5/2 ⁺				
2025.7 7	100	2025.7		0.0	5/2 ⁺				
2025.7 7	94 26	2063.4	+	37.1298	7/2 ⁺				
2063.4 5	100	2063.4	+	0.0	5/2 ⁺				
2093.0 7		2093.0	-	0.0	5/2 ⁺				
2097.9 5		2097.9	3/2 ⁺ , 5/2 ⁺	0.0	5/2 ⁺				
2114.1 4		2114.1	+	0.0	5/2 ⁺				
2121.3 7		2121.3		0.0	5/2 ⁺				
2140.2 7		2140.2		0.0	5/2 ⁺				
2235.5 3		2235.5	+	0.0	5/2 ⁺				
2243.1 7	93 28	2280.4		37.1298	7/2 ⁺				
2255.2 6		2255.2		0.0	5/2 ⁺				
2259.1 3		2259.1		0.0	5/2 ⁺				
2265.9 4		2265.9	+	0.0	5/2 ⁺				
2280.4 6	100	2280.4		0.0	5/2 ⁺				
2286.3 5	81 24	2323.5		37.1298	7/2 ⁺				
2289.8 4		2289.8	+	0.0	5/2 ⁺				
2323.5 4	100	2323.5		0.0	5/2 ⁺				
2361.7 3	45 4	2398.8	+	37.1298	7/2 ⁺				
2398.8 3	100	2398.8	+	0.0	5/2 ⁺				
2398.8 3	153 10	2435.8	+	37.1298	7/2 ⁺				

$\gamma(^{121}\text{Sb})$ (continued)

E_γ	$I_\gamma^{\ddagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$I_\gamma^{\ddagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
2435.8 3	100	2435.8	+	0.0	5/2 ⁺	2895.2 9	33 15	2931.5		37.1298	7/2 ⁺
2442.0 3		2442.0		0.0	5/2 ⁺	2911.6 11	100	2911.6		0.0	5/2 ⁺
2447.7 4		2447.7		0.0	5/2 ⁺	2911.6 11	89 54	2947.3		37.1298	7/2 ⁺
2459.2 6		2459.2		0.0	5/2 ⁺	2917.3 6		2917.3		0.0	5/2 ⁺
2477.0 4		2477.0	-	0.0	5/2 ⁺	2931.5 6	100	2931.5		0.0	5/2 ⁺
2497.7 3		2497.7		0.0	5/2 ⁺	2937.4 4		2937.4	1/2 ⁺ , 3/2 ⁺	0.0	5/2 ⁺
2541.6 6	98 52	2579.2		37.1298	7/2 ⁺	2943	20 [#] 3	3451.068	(3/2 ⁺ , 5/2 ⁺)	509.0	3/2 ⁺
2573.8 7		2573.8		0.0	5/2 ⁺	2947.3 12	100	2947.3		0.0	5/2 ⁺
2579.2 14	100	2579.2		0.0	5/2 ⁺	2964.0 7		2964.0		0.0	5/2 ⁺
2585.6 8		2585.6	+	0.0	5/2 ⁺	2973.6 3		2973.6		0.0	5/2 ⁺
2626.1 5	151 38	2663.0		37.1298	7/2 ⁺	2994.1 3		2994.1		0.0	5/2 ⁺
2649.0 7		2649.0	+	0.0	5/2 ⁺	3024.6 6		3024.6		0.0	5/2 ⁺
2653.5 6	23 4	2690.4	3/2 ⁺ , 5/2 ⁺	37.1298	7/2 ⁺	3033.1 10		3033.1		0.0	5/2 ⁺
2663.0 7	100	2663.0		0.0	5/2 ⁺	3050.4 3		3050.4		0.0	5/2 ⁺
2668.1 7		2668.1		0.0	5/2 ⁺	3064.1 6		3064.1		0.0	5/2 ⁺
2678.1 4		2678.1		0.0	5/2 ⁺	3068.9 9	1.9×10 ² 11	3105.9		37.1298	7/2 ⁺
2690.4 3	100	2690.4	3/2 ⁺ , 5/2 ⁺	0.0	5/2 ⁺	3072.9 5		3072.9		0.0	5/2 ⁺
2698.8 8		2698.8		0.0	5/2 ⁺	3078.2 10	42 18	3116.0		37.1298	7/2 ⁺
2703.8 6	226 82	2740.4		37.1298	7/2 ⁺	3082.7 8		3082.7		0.0	5/2 ⁺
2713.5 4		2713.5		0.0	5/2 ⁺	3098.7 3		3098.7		0.0	5/2 ⁺
2721.4 6		2721.4		0.0	5/2 ⁺	3105.9 12	100	3105.9		0.0	5/2 ⁺
2725.8 12		2725.8		0.0	5/2 ⁺	3116.0 6	100	3116.0		0.0	5/2 ⁺
2733.0 9		2733.0		0.0	5/2 ⁺	3122.9 4		3122.9		0.0	5/2 ⁺
2740.4 10	100	2740.4		0.0	5/2 ⁺	3132.0 7		3132.0		0.0	5/2 ⁺
2745.0 9		2745.0		0.0	5/2 ⁺	3148.8 7		3148.8		0.0	5/2 ⁺
2761.2 9	63 26	2798.8		37.1298	7/2 ⁺	3151.7 8		3151.7		0.0	5/2 ⁺
2775.1 6		2775.1		0.0	5/2 ⁺	3159.5 3		3159.5		0.0	5/2 ⁺
2783.7 7		2783.7		0.0	5/2 ⁺	3186.9 4		3186.9		0.0	5/2 ⁺
2791.9 9	47 20	2828.2		37.1298	7/2 ⁺	3193.7 4		3193.7		0.0	5/2 ⁺
2798.8 6	100	2798.8		0.0	5/2 ⁺	3206.6 4		3206.6		0.0	5/2 ⁺
2798.8 6	121 44	2835.6		37.1298	7/2 ⁺	3210.1 5		3210.1		0.0	5/2 ⁺
2806.2 7	10 4	2843.6		37.1298	7/2 ⁺	3215.0 7	47 18	3252.1		37.1298	7/2 ⁺
2810.0 7		2810.0		0.0	5/2 ⁺	3232.5 3		3232.5		0.0	5/2 ⁺
2828.2 5	100	2828.2		0.0	5/2 ⁺	3252.1 7	100	3252.1		0.0	5/2 ⁺
2828.2 5	4.2×10 ² 17	2865.2		37.1298	7/2 ⁺	3252.1 7	55 14	3290.3		37.1298	7/2 ⁺
2835.6 8	100	2835.6		0.0	5/2 ⁺	3259.9 7		3259.9		0.0	5/2 ⁺
2835.6 8	166 77	2873.4		37.1298	7/2 ⁺	3265.9 5	137 76	3302.7		37.1298	7/2 ⁺
2843.6 3	100	2843.6		0.0	5/2 ⁺	3277.1 3	6.0×10 ² 18	3313.7		37.1298	7/2 ⁺
2860.1 5		2860.1		0.0	5/2 ⁺	3290.3 9	100	3290.3		0.0	5/2 ⁺
2865.2 6	100	2865.2		0.0	5/2 ⁺	3302.7 6	100	3302.7		0.0	5/2 ⁺
2873.4 9	100	2873.4		0.0	5/2 ⁺	3308.5 12	59 29	3345.8		37.1298	7/2 ⁺
2873.4 9	147 79	2911.6		37.1298	7/2 ⁺	3313.7 5	100	3313.7		0.0	5/2 ⁺
2879	21 [#] 2	3451.068	(3/2 ⁺ , 5/2 ⁺)	573.0	1/2 ⁺	3345.8 8	100	3345.8		0.0	5/2 ⁺

$\gamma(^{121}\text{Sb})$ (continued)

E_γ	$I_\gamma^\ddagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$I_\gamma^\ddagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
3351.7 7		3351.7		0.0	5/2 ⁺	3748.9 5	100	3748.9		0.0	5/2 ⁺
3363.6 4		3363.6		0.0	5/2 ⁺	3755.6 7	100	3755.6		0.0	5/2 ⁺
3384.9 6		3384.9		0.0	5/2 ⁺	3755.6 7	68 39	3792.6		37.1298	7/2 ⁺
3414	11 [#] 1	3451.068	(3/2 ⁺ , 5/2 ⁺)	37.1298	7/2 ⁺	3759.4 9		3759.4		0.0	5/2 ⁺
3437.1 8	23 11	3474.2		37.1298	7/2 ⁺	3771.8 8		3771.8		0.0	5/2 ⁺
3452	100 [#]	3451.068	(3/2 ⁺ , 5/2 ⁺)	0.0	5/2 ⁺	3775.1 7	163 68	3812.9		37.1298	7/2 ⁺
3474.2 4	100	3474.2		0.0	5/2 ⁺	3781.3 5		3781.3		0.0	5/2 ⁺
3480.5 9	63 29	3517.0		37.1298	7/2 ⁺	3787.3 7		3787.3		0.0	5/2 ⁺
3485.8 5		3485.8		0.0	5/2 ⁺	3792.6 8	100	3792.6		0.0	5/2 ⁺
3495.6 8		3495.6		0.0	5/2 ⁺	3800.4 9	119 64	3838.1		37.1298	7/2 ⁺
3503.2 6		3503.2		0.0	5/2 ⁺	3804.3 10		3804.3		0.0	5/2 ⁺
3512.7 11		3512.7		0.0	5/2 ⁺	3812.9 6	100	3812.9		0.0	5/2 ⁺
3517.0 11	100	3517.0		0.0	5/2 ⁺	3838.1 9	100	3838.1		0.0	5/2 ⁺
3521.3 5		3521.3		0.0	5/2 ⁺	3844.6 8		3844.6		0.0	5/2 ⁺
3544.9 7		3544.9		0.0	5/2 ⁺	3849.1 7		3849.1		0.0	5/2 ⁺
3570.2 13		3570.2		0.0	5/2 ⁺	3854.2 7		3854.2		0.0	5/2 ⁺
3575.0 7		3575.0		0.0	5/2 ⁺	3858.1 7		3858.1		0.0	5/2 ⁺
3580.7 4		3580.7		0.0	5/2 ⁺	3863.8 6		3863.8		0.0	5/2 ⁺
3587.6 10		3587.6		0.0	5/2 ⁺	3867.0 8		3867.0		0.0	5/2 ⁺
3614.5 6		3614.5		0.0	5/2 ⁺	3870.1 8		3870.1		0.0	5/2 ⁺
3621.4 11		3621.4		0.0	5/2 ⁺	3894.0 9		3894.0		0.0	5/2 ⁺
3638.9 8	66 27	3677.3		37.1298	7/2 ⁺	3899.6 10		3899.6		0.0	5/2 ⁺
3642.0 7		3642.0		0.0	5/2 ⁺	3905.2 6		3905.2		0.0	5/2 ⁺
3648.5 8		3648.5		0.0	5/2 ⁺	3909.4 11		3909.4		0.0	5/2 ⁺
3672.6 11		3672.6		0.0	5/2 ⁺	3916.0 8		3916.0		0.0	5/2 ⁺
3677.3 10	100	3677.3		0.0	5/2 ⁺	3923.4 7		3923.4		0.0	5/2 ⁺
3693.7 9	96 34	3731.7		37.1298	7/2 ⁺	3929.1 8		3929.1		0.0	5/2 ⁺
3706.3 7		3706.3		0.0	5/2 ⁺	3933.3 9		3933.3		0.0	5/2 ⁺
3712.1 9	79 32	3748.9		37.1298	7/2 ⁺	3940.9 7		3940.9		0.0	5/2 ⁺
3719.2 11	114 64	3755.6		37.1298	7/2 ⁺	3972.7 11		3972.7		0.0	5/2 ⁺
3731.7 5	100	3731.7		0.0	5/2 ⁺						

† From [1963Me13](#).‡ From Γ_1/Γ_0 ([2002Br05](#)), except where noted otherwise.# From [1981En03](#).@ Total theoretical internal conversion coefficients, calculated using the BrIcc code ([2008Ki07](#)) with Frozen orbital approximation based on γ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

& Placement of transition in the level scheme is uncertain.

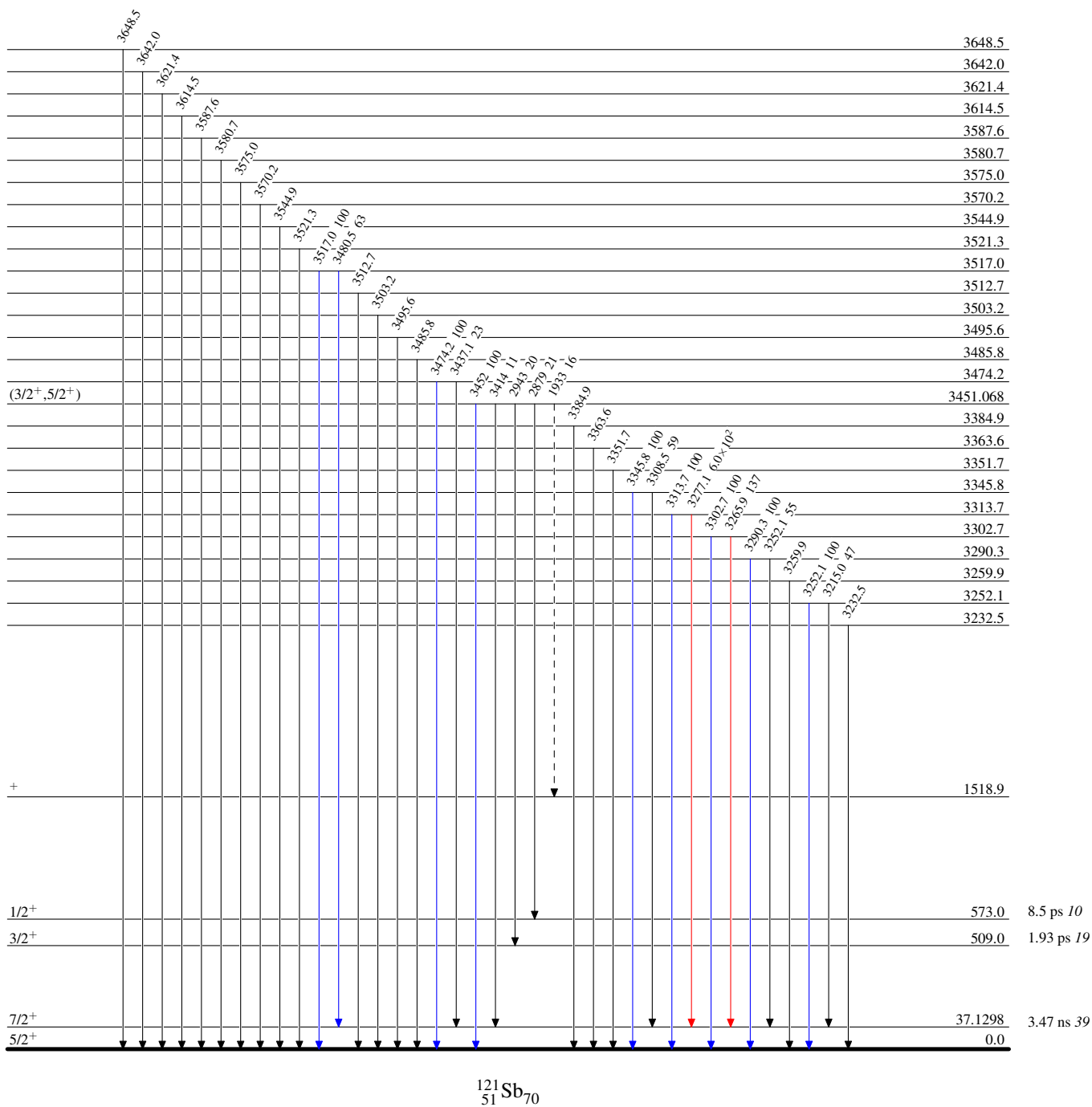
$^{121}\text{Sb}(\gamma, \gamma')$ 1973Bo12,2002Br05

Legend

Level Scheme (continued)

Intensities: Type not specified

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



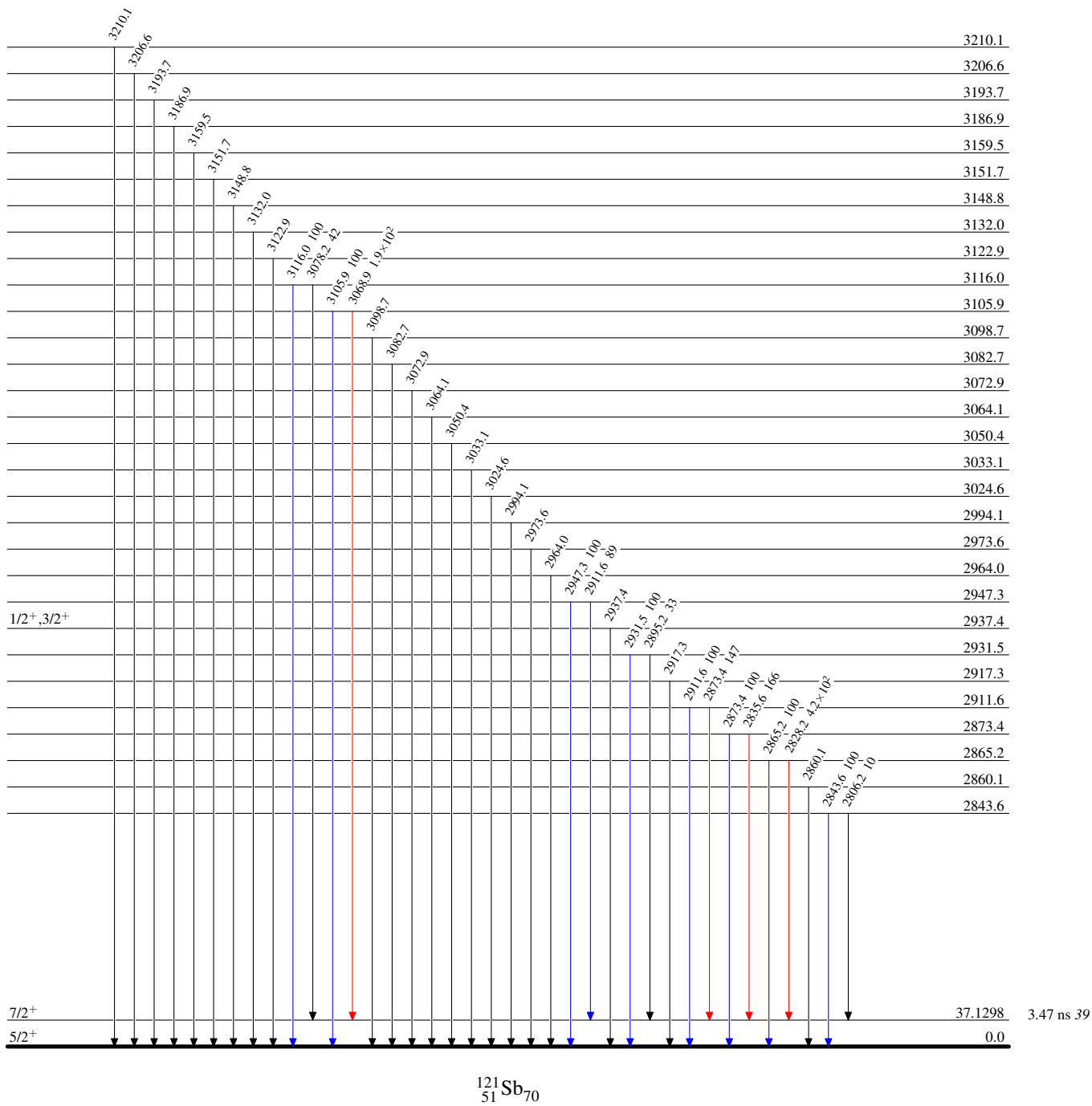
$^{121}\text{Sb}(\gamma, \gamma')$ 1973Bo12,2002Br05

Level Scheme (continued)

Intensities: Type not specified

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$



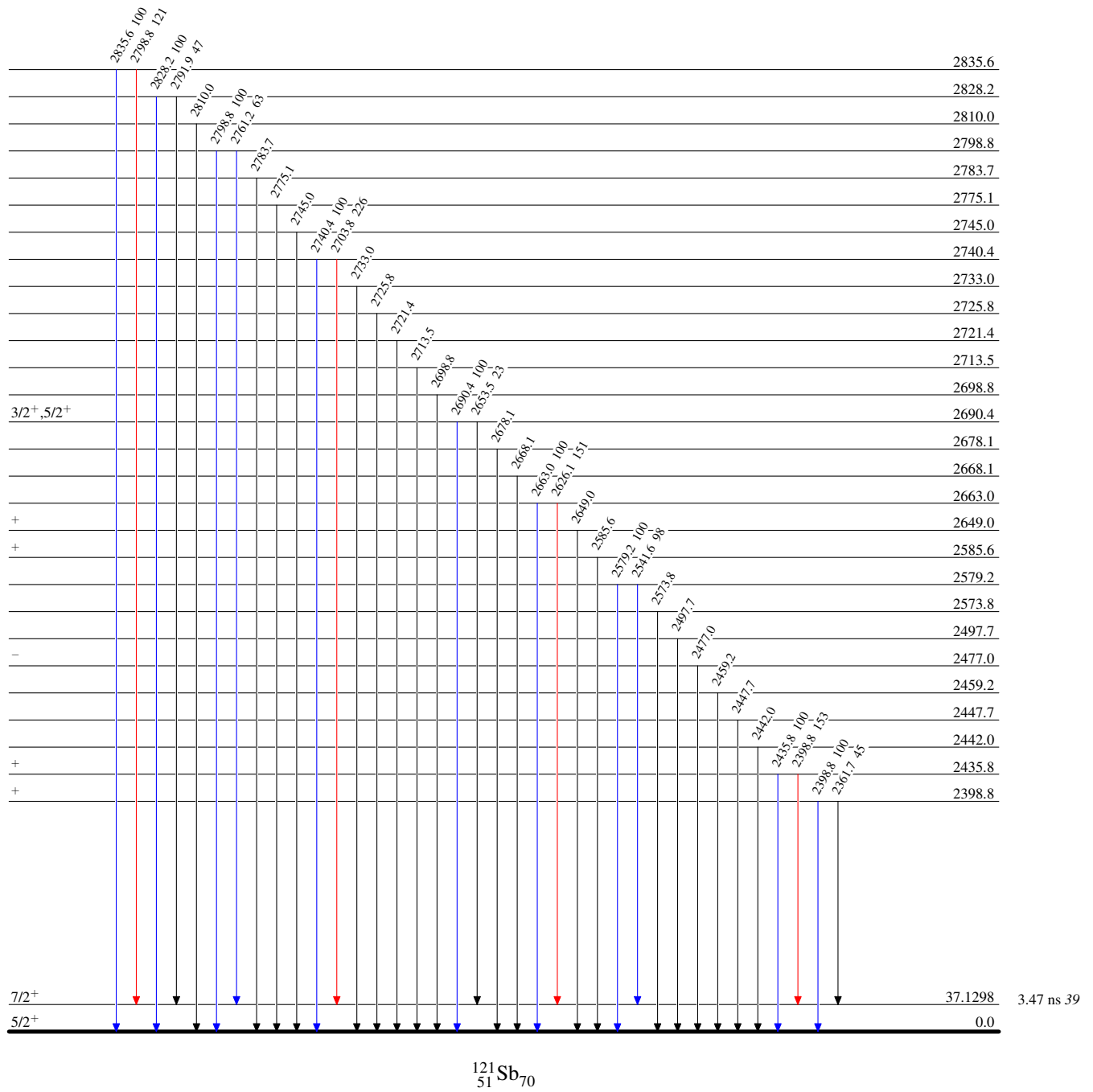
$^{121}\text{Sb}(\gamma, \gamma')$ 1973Bo12,2002Br05

Level Scheme (continued)

Intensities: Type not specified

Legend

- $\rightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
- $\rightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
- $\rightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$



$^{121}\text{Sb}(\gamma, \gamma')$ 1973Bo12,2002Br05

Level Scheme (continued)

Intensities: Type not specified

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

