

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 110,1239 (2009)	1-Feb-2008

$Q(\beta^-) = -7249$ 11; $S(n) = 11458$ 11; $S(p) = 2284$ 17; $Q(\alpha) = 303$ 15 [2012Wa38](#)

Note: Current evaluation has used the following Q record $-7.40\text{E}+3$ 8 11416.0 SY2.33E+3 3 250 30 [2003Au03](#).

$\Delta S(n) = 202$ ([2003Au03](#)).

Max $E(p) = 5070$ 70 ([1968Ba53](#)) for ^{111}Te delayed-p emission to ^{110}Sn via ^{111}Sb .

From p bombardment of ^{112}Sn , [1976Ka25](#) observe five γ 's which they assign to ^{111}Sb ; however, four of these γ 's coincide with transitions subsequently assigned to ^{111}Sn . The authors were apparently observing γ 's from (p,pn γ) rather than from (p,2n γ).

The level scheme is from (HI,xn γ).

 ^{111}Sb LevelsCross Reference (XREF) Flags

A ^{111}Te ε decay: 26.2 s
B (HI,xn γ)

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	(5/2 ⁺)	75 s 1	AB	$\% \varepsilon + \% \beta^+ = 100$ J^π : allowed ε transitions ($\log ft \leq 5.5$) to 3/2 ⁺ and 5/2 ⁺ states in ^{111}Sn imply 3/2 ⁺ or 5/2 ⁺ parent. Odd-mass ^{113}Sb - ^{121}Sb g.s. have $J^\pi = 5/2^+$.
487.4 8	(1/2 ⁺)		A	J^π : level not observed in high-spin studies implying spin of <7/2. Assignment of 1/2 ⁺ from systematics of neighboring isotope ^{113}Sb and intensity balance arguments involving the 1392 γ . $J^\pi = 3/2^+$ or 5/2 ⁺ cannot be ruled out.
851.04 [‡] 13	(7/2 ⁺)		AB	J^π : M1,E2 γ to (5/2 ⁺).
880.8 6	(3/2 ⁺)		A	J^π : level not observed in high-spin studies implying spin of <7/2. Assignment of 3/2 ⁺ from systematics of neighboring isotope ^{113}Sb . $J^\pi = 1/2^+$ or 5/2 ⁺ cannot be ruled out.
1147.64 [‡] 13	(9/2 ⁺)		AB	J^π : M1,E2 γ to (7/2 ⁺), E2 γ to (5/2 ⁺).
1268.0 [†] 10	(7/2 ⁺)		A	E(level): existence of level based on assumption of smoothly varying systematics for second 7/2 ⁺ level in neighboring odd-a Sb isotopes.
1398.55 13	(9/2 ⁺)		AB	J^π : M1,E2 γ to (7/2 ⁺), E2 γ to (5/2 ⁺).
1418.37 [‡] 20	(11/2 ⁻)		B	J^π : E1 γ to (9/2 ⁺).
1576.7 7			A	
1711.9 8			A	
1879.9 6			A	
1922.20 15	(11/2 ⁺)		B	J^π : M1,E2 γ to (9/2 ⁺).
1977.92 17	(11/2 ⁺)		B	J^π : M1,E2 γ to (9/2 ⁺).
2026.7 7			A	
2119.7 7			A	
2160.7 7			A	
2220.27 15	(13/2 ⁺)		B	J^π : M1,E2 γ to (11/2 ⁺).
2357.3 6			A	
2406.73 20	(15/2 ⁺)		B	J^π : M1,E2 γ to (13/2 ⁺).
2508.31 ^{&} 25	(13/2 ⁻)		B	J^π : M1,E2 γ to (11/2 ⁻).
2560.70 [‡] 22	(15/2 ⁻)		B	J^π : E2 γ to (11/2 ⁻).
2612.7 7			A	
2749.36 21	(15/2 ⁺)		B	J^π : E2 γ to (11/2 ⁺).
2766.46 ^a 21	(15/2 ⁺)		B	J^π : E2 γ to (11/2 ⁺).
2793.62 24	(17/2 ⁺)		B	J^π : M1,E2 γ to (15/2 ⁺).
2844.33 ^a 20	(15/2 ⁺)		B	
2854.12 20	(17/2 ⁺)		B	J^π : M1,E2 γ to (15/2 ⁺).

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Adopted Levels, Gammas (continued) ^{111}Sb Levels (continued)

E(level)	J^π	XREF	Comments
3073.75 22	(15/2 ⁻)	B	J^π : E2 γ to (11/2 ⁻).
3226.71 ^a 18	(17/2 ⁺)	B	
3351.99 23	(17/2 ⁻)	B	J^π : M1,E2 γ to (15/2 ⁻).
3381.84 25	(15/2 ⁻)	B	J^π : M1,E2 γ to (13/2 ⁻).
3394.86 ^{&} 24	(15/2 ⁻)	B	
3435.11 ^{&} 22	(19/2 ⁻)	B	
3475.30 24	(19/2 ⁻)	B	J^π : E1 γ to (17/2 ⁺).
3634.3 [‡] 3	(19/2 ⁻)	B	
3673.13 ^a 21	(19/2 ⁺)	B	
3679.6 [‡] 3	(19/2 ⁻)	B	
3734.42 23	(19/2 ⁺)	B	
3742.2 3	(21/2 ⁻)	B	J^π : M1,E2 γ to (19/2 ⁺).
3781.92 ^a 20	(19/2 ⁺)	B	
3800.8 3	(19/2 ⁻)	B	J^π : E2 γ to (15/2 ⁻).
3833.2 3	(19/2 ⁻)	B	J^π : E2 γ to (15/2 ⁻).
3976.8 3	(19/2 ⁻)	B	J^π : E2 γ to (15/2 ⁻).
4158.8 ^{&} 3	(21/2 ⁻)	B	
4224.31 ^a 20	(21/2 ⁺)	B	
4362.1 ^{&} 4	(25/2 ⁻)	B	
4384.7 [‡] 3	(23/2 ⁻)	B	
4434.6 ^{&} 3	(23/2 ⁻)	B	
4534.8 ^{&} 3	(23/2 ⁻)	B	
4634.18 ^a 23	(23/2 ⁺)	B	
4789.3 ^{&} 3	(25/2 ⁻)	B	
4858.6 4	(25/2 ⁻)	B	
4881.2 ^{&} 4	(25/2 ⁻)	B	
4922.3 ^{&} 4	(25/2 ⁻)	B	
4929.09 ^a 25	(25/2 ⁺)	B	
5056.1 [‡] 4	(27/2 ⁻)	B	
5193.6 ^{&} 3	(27/2 ⁻)	B	
5236.6 ^a 3	(27/2 ⁺)	B	
5263.5 4	(⁻)	B	
5417.6 4	(29/2 ⁻)	B	
5507.4 ^{&} 5	(29/2 ⁻)	B	
5578.5 ^a 3	(29/2 ⁺)	B	
5601.8 ^{&} 3	(29/2 ⁻)	B	
5811.4 [‡] 4	(31/2 ⁻)	B	
5915.4 4	(29/2 ⁻)	B	
5948.8 ^a 3	(31/2 ⁺)	B	
6021.8 ^{&} 3	(31/2 ⁻)	B	
6047.7 4	(29/2 ⁻)	B	
6250.0 5	(31/2 ⁻)	B	
6343.8 ^a 3	(33/2 ⁺)	B	
6644.1 [‡] 5	(35/2 ⁻)	B	
6754.8 ^a 3	(35/2 ⁺)	B	
7204.5 ^a 3	(37/2 ⁺)	B	
7556.1 [‡] 5	(39/2 ⁻)	B	
7687.4 ^a 3	(39/2 ⁺)	B	
8204.7 ^a 4	(41/2 ⁺)	B	

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Adopted Levels, Gammas (continued) ^{111}Sb Levels (continued)

E(level)	J^π [†]	XREF	E(level)	J^π [†]	XREF	E(level)	J^π [†]	XREF
8551.4 [‡] 5	(43/2 ⁻)	B	23013? [‡] 5	(79/2 ⁻)	B	11024+x [@]	(55/2)	B
9632.6 [‡] 6	(47/2 ⁻)	B	x	(35/2)	B	12063+y [#]	(59/2)	B
10770.4 [‡] 9	(51/2 ⁻)	B	y		B	12257+x [@]	(59/2)	B
11972.9 [‡] 9	(55/2 ⁻)	B	6250+x [@]	(35/2)	B	13443+y [#]	(63/2)	B
13228.1 [‡] 10	(59/2 ⁻)	B	6642+y [#]	(39/2)	B	13615+x [@]	(63/2)	B
13381.3 9	(59/2 ⁻)	B	7020+x [@]	(39/2)	B	14978+y [#]	(67/2)	B
14590.4 [‡] 11	(63/2 ⁻)	B	7563+y [#]	(43/2)	B	15117+x [@]	(67/2)	B
15013.8 11	63/2 ⁻	B	7886+x [@]	(43/2)	B	16714+y [#]	(71/2)	B
16046.8 [‡] 12	(67/2 ⁻)	B	8561+y [#]	(47/2)	B	16788+x [@]	(71/2)	B
16817.6 12	67/2 ⁻	B	8841+x [@]	(47/2)	B	18639+x [@]	(75/2)	B
17606.8 [‡] 12	(71/2 ⁻)	B	9644+y [#]	(51/2)	B	18682+y [#]	(75/2)	B
19272.3 [‡] 13	(75/2 ⁻)	B	9886+x [@]	(51/2)	B	20676+x [@]	(79/2)	B
21067.4 [‡] 24	(79/2 ⁻)	B	10808+y [#]	(55/2)	B	20861+y [#]	(79/2)	B

[†] J^π are based on the γ multiplicities, decay patterns and rotational band structure.

[‡] Band(A): Band 1 with $\Delta(I) = 2$. Rotational band with frequency of 0.97 MeV.

Band(B): band 2 with $\Delta(I) = 2$.

@ Band(C): band 3 with $\Delta(I) = 2$.

& Band(D): band 4, strongly coupled rotational band.

^a Band(E): band 5, strongly coupled rotational band.

 $\gamma(^{111}\text{Sb})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ [‡]	E_f	J_f^π	Mult. [†]	Comments
487.4	(1/2 ⁺)	487 1	100	0.0	(5/2 ⁺)		
851.04	(7/2 ⁺)	851.1 2	100	0.0	(5/2 ⁺)	M1,E2	
880.8	(3/2 ⁺)	881 1	100	0.0	(5/2 ⁺)		
1147.64	(9/2 ⁺)	296.6 2	4	851.04	(7/2 ⁺)		
		1147.6 2	100	0.0	(5/2 ⁺)	E2	
1268.0?	(7/2 ⁺)	1268 [@] 1	100	0.0	(5/2 ⁺)		I_γ : 1268 γ peak present in 851 γ -gated spectra at only about half the expected intensity, based on intensities of 1176 and 1506 transitions.
1398.55	(9/2 ⁺)	251.1 2	10	1147.64	(9/2 ⁺)	M1,E2	
		547.5 2	25	851.04	(7/2 ⁺)	M1,E2	
		1398.5 2	100	0.0	(5/2 ⁺)	E2	
1418.37	(11/2 ⁻)	270.7 2	100	1147.64	(9/2 ⁺)	E1	
1576.7		727	14 2	851.04	(7/2 ⁺)		
		1576	21 3	0.0	(5/2 ⁺)		
1711.9		831	6 2	880.8	(3/2 ⁺)		
		1712	13 3	0.0	(5/2 ⁺)		
1879.9		999 1	22 5	880.8	(3/2 ⁺)		
		1031 1	22 3	851.04	(7/2 ⁺)		
		1392	25 5	487.4	(1/2 ⁺)		
		1879	6.9 4	0.0	(5/2 ⁺)		
1922.20	(11/2 ⁺)	523.7 2	100	1398.55	(9/2 ⁺)	M1,E2	
		774.6 2	40	1147.64	(9/2 ⁺)	M1,E2	
		1071.3 2	<40	851.04	(7/2 ⁺)		
1977.92	(11/2 ⁺)	830.2 2	100	1147.64	(9/2 ⁺)		
		1126.8 2	100	851.04	(7/2 ⁺)		
2026.7		1176	19 4	851.04	(7/2 ⁺)		

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Adopted Levels, Gammas (continued)

$\gamma(^{111}\text{Sb})$ (continued)						
$E_i(\text{level})$	J_i^π	E_γ	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. [†]
2026.7		2027	8.5 9	0.0	(5/2 ⁺)	
2119.7		1269	30 15	851.04	(7/2 ⁺)	
		2120	17 3	0.0	(5/2 ⁺)	
2160.7		1310	4 1	851.04	(7/2 ⁺)	
		2161	15 2	0.0	(5/2 ⁺)	
2220.27	(13/2 ⁺)	242.2 2	<4.1	1977.92	(11/2 ⁺)	
		298.1 2	29.1	1922.20	(11/2 ⁺)	M1,E2
		821.8 2	10.4	1398.55	(9/2 ⁺)	E2
		1072.5 2	100	1147.64	(9/2 ⁺)	E2
2357.3		1477	10 1	880.8	(3/2 ⁺)	
		1506	18.1 5	851.04	(7/2 ⁺)	
		2357	18 2	0.0	(5/2 ⁺)	
2406.73	(15/2 ⁺)	186.6 2	100	2220.27	(13/2 ⁺)	M1,E2
2508.31	(13/2 ⁻)	1090.0 2	100	1418.37	(11/2 ⁻)	M1,E2
2560.70	(15/2 ⁻)	1142.3 2	100	1418.37	(11/2 ⁻)	E2
2612.7		1762	19 3	851.04	(7/2 ⁺)	
		2613	6 1	0.0	(5/2 ⁺)	
2749.36	(15/2 ⁺)	827.5 2	100	1922.20	(11/2 ⁺)	E2
2766.46	(15/2 ⁺)	844.1 2	100	1922.20	(11/2 ⁺)	
2793.62	(17/2 ⁺)	387.0 2	100	2406.73	(15/2 ⁺)	M1,E2
2844.33	(15/2 ⁺)	624.0 2	100	2220.27	(13/2 ⁺)	
2854.12	(17/2 ⁺)	447.5 2	100	2406.73	(15/2 ⁺)	M1,E2
3073.75	(15/2 ⁻)	565.5 2	<100	2508.31	(13/2 ⁻)	
		1655.5 2	100	1418.37	(11/2 ⁻)	E2
3226.71	(17/2 ⁺)	382.3 2	4	2844.33	(15/2 ⁺)	
		460.1 2	66.6	2766.46	(15/2 ⁺)	M1,E2
		477.7 2	66.6	2749.36	(15/2 ⁺)	M1,E2
		1006.2 2	100	2220.27	(13/2 ⁺)	E2
3351.99	(17/2 ⁻)	278.5 2	<25	3073.75	(15/2 ⁻)	
		791.6 2	100	2560.70	(15/2 ⁻)	M1,E2
3381.84	(15/2 ⁻)	820.8 2	100	2560.70	(15/2 ⁻)	
		1963.3 2	<100	1418.37	(11/2 ⁻)	E2
3394.86	(15/2 ⁻)	834.9 2	100	2560.70	(15/2 ⁻)	
		1976.4 2	100	1418.37	(11/2 ⁻)	
3435.11	(19/2 ⁻)	361.3 2	10	3073.75	(15/2 ⁻)	
		581.0 2	100	2854.12	(17/2 ⁺)	E1
		641.6 2	40	2793.62	(17/2 ⁺)	E1
3475.30	(19/2 ⁻)	40.0 [#]		3435.11	(19/2 ⁻)	
		123.4 2	100	3351.99	(17/2 ⁻)	M1,E2
		621.1 2	100	2854.12	(17/2 ⁺)	
3634.3	(19/2 ⁻)	560.5 2	100	3073.75	(15/2 ⁻)	E2
3673.13	(19/2 ⁺)	446.0 2	66.6	3226.71	(17/2 ⁺)	
		819.3 2	100	2854.12	(17/2 ⁺)	
3679.6	(19/2 ⁻)	1118.8 2	100	2560.70	(15/2 ⁻)	E2
3734.42	(19/2 ⁺)	1327.6 2	100	2406.73	(15/2 ⁺)	E2
3742.2	(21/2 ⁻)	266.9 2	100	3475.30	(19/2 ⁻)	M1,E2
3781.92	(19/2 ⁺)	555.5 2	100	3226.71	(17/2 ⁺)	
		927.7 2	100	2854.12	(17/2 ⁺)	
		937.6 2	<100	2844.33	(15/2 ⁺)	
3800.8	(19/2 ⁻)	418.5 2	<66.6	3381.84	(15/2 ⁻)	E2
		451.9 5	100	3351.99	(17/2 ⁻)	E2
3833.2	(19/2 ⁻)	439.0 2	<100	3394.86	(15/2 ⁻)	
		1271.9 2	100	2560.70	(15/2 ⁻)	E2
3976.8	(19/2 ⁻)	1416.0 2	100	2560.70	(15/2 ⁻)	E2
4158.8	(21/2 ⁻)	182.1 2	<100	3976.8	(19/2 ⁻)	M1,E2

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Adopted Levels, Gammas (continued) $\gamma(^{111}\text{Sb})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. [†]
4158.8	(21/2 ⁻)	723.8 2	100	3435.11	(19/2 ⁻)	
4224.31	(21/2 ⁺)	442.6 2	100	3781.92	(19/2 ⁺)	
		489.8 2	<66.6	3734.42	(19/2 ⁺)	
		551.2 2	100	3673.13	(19/2 ⁺)	
		997.6 2	86	3226.71	(17/2 ⁺)	E2
4362.1	(25/2 ⁻)	619.9 2	100	3742.2	(21/2 ⁻)	
4384.7	(23/2 ⁻)	551.6 2	100	3833.2	(19/2 ⁻)	E2
		704.9 2	57.1	3679.6	(19/2 ⁻)	E2
4434.6	(23/2 ⁻)	275.5 2	100	4158.8	(21/2 ⁻)	M1,E2
		457.7 2	<33.3	3976.8	(19/2 ⁻)	
4534.8	(23/2 ⁻)	1059.5 2	100	3475.30	(19/2 ⁻)	
4634.18	(23/2 ⁺)	410.0 2	100	4224.31	(21/2 ⁺)	M1,E2
		960.9 2	25	3673.13	(19/2 ⁺)	
4789.3	(25/2 ⁻)	354.6 2	100	4434.6	(23/2 ⁻)	M1,E2
		630.8 2	<33.3	4158.8	(21/2 ⁻)	
4858.6	(25/2 ⁻)	1116.4 2	100	3742.2	(21/2 ⁻)	E2
4881.2	(25/2 ⁻)	346.4 2	100	4534.8	(23/2 ⁻)	
4922.3	(25/2 ⁻)	560.2 2	100	4362.1	(25/2 ⁻)	
4929.09	(25/2 ⁺)	294.9 2	100	4634.18	(23/2 ⁺)	M1,E2
		704.8 2	15.3	4224.31	(21/2 ⁺)	
5056.1	(27/2 ⁻)	671.4 2	100	4384.7	(23/2 ⁻)	E2
5193.6	(27/2 ⁻)	404.5 2	100	4789.3	(25/2 ⁻)	
		758.8 2	<33.3	4434.6	(23/2 ⁻)	
5236.6	(27/2 ⁺)	307.5 2	100	4929.09	(25/2 ⁺)	M1,E2
		602.4 2	<14.2	4634.18	(23/2 ⁺)	
5263.5	(⁻)	382.3 2	100	4881.2	(25/2 ⁻)	
5417.6	(29/2 ⁻)	1055.5 2	100	4362.1	(25/2 ⁻)	
5507.4	(29/2 ⁻)	585.1 2	100	4922.3	(25/2 ⁻)	E2
5578.5	(29/2 ⁺)	341.9 2	100	5236.6	(27/2 ⁺)	M1,E2
		649.4 2	15.3	4929.09	(25/2 ⁺)	
5601.8	(29/2 ⁻)	408.3 2	100	5193.6	(27/2 ⁻)	
		812.6 2	<66.6	4789.3	(25/2 ⁻)	
5811.4	(31/2 ⁻)	755.3 2	100	5056.1	(27/2 ⁻)	E2
5915.4	(29/2 ⁻)	1034.2 2	100	4881.2	(25/2 ⁻)	
5948.8	(31/2 ⁺)	370.4 2	100	5578.5	(29/2 ⁺)	M1,E2
		712.1 2	18.1	5236.6	(27/2 ⁺)	
6021.8	(31/2 ⁻)	420.2 2	100	5601.8	(29/2 ⁻)	
		827.9 2	100	5193.6	(27/2 ⁻)	
6047.7	(29/2 ⁻)	1189.1 2	100	4858.6	(25/2 ⁻)	
6250.0	(31/2 ⁻)	334.6 2	100	5915.4	(29/2 ⁻)	
6343.8	(33/2 ⁺)	395.1 2	100	5948.8	(31/2 ⁺)	M1,E2
		765.3 2	20	5578.5	(29/2 ⁺)	
6644.1	(35/2 ⁻)	832.7 2	100	5811.4	(31/2 ⁻)	
6754.8	(35/2 ⁺)	411.2 2	100	6343.8	(33/2 ⁺)	M1,E2
		805.9 2	28.5	5948.8	(31/2 ⁺)	
7204.5	(37/2 ⁺)	450.0 2	100	6754.8	(35/2 ⁺)	
		860.8 2	<40	6343.8	(33/2 ⁺)	
7556.1	(39/2 ⁻)	912.0 2	100	6644.1	(35/2 ⁻)	
7687.4	(39/2 ⁺)	482.6 2	100	7204.5	(37/2 ⁺)	
		932.3 2	66.6	6754.8	(35/2 ⁺)	
8204.7	(41/2 ⁺)	516.7 2	100	7687.4	(39/2 ⁺)	
		1000.7 2	<100	7204.5	(37/2 ⁺)	
8551.4	(43/2 ⁻)	995.3 2	100	7556.1	(39/2 ⁻)	E2
9632.6	(47/2 ⁻)	1081.2 2	100	8551.4	(43/2 ⁻)	
10770.4	(51/2 ⁻)	1137.8 7	100	9632.6	(47/2 ⁻)	

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Adopted Levels, Gammas (continued) $\gamma(^{111}\text{Sb})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	$I_\gamma^\ddagger$	E_f	J_f^π
11972.9	(55/2 ⁻)	1202.5 2	100	10770.4	(51/2 ⁻)
13228.1	(59/2 ⁻)	1255.2 3	100	11972.9	(55/2 ⁻)
13381.3	(59/2 ⁻)	1408.4 2	100	11972.9	(55/2 ⁻)
14590.4	(63/2 ⁻)	1362.3 4	100	13228.1	(59/2 ⁻)
15013.8	63/2 ⁻	1632.5 5	100	13381.3	(59/2 ⁻)
16046.8	(67/2 ⁻)	1456.4 5	100	14590.4	(63/2 ⁻)
16817.6	67/2 ⁻	1803.8 6	100	15013.8	63/2 ⁻
17606.8	(71/2 ⁻)	1560.0 4	100	16046.8	(67/2 ⁻)
19272.3	(75/2 ⁻)	1665.5 5	100	17606.8	(71/2 ⁻)
21067.4	(79/2 ⁻)	1795 2	100	19272.3	(75/2 ⁻)
23013?	(79/2 ⁻)	1946 4	100	21067.4	(79/2 ⁻)
6250+x	(35/2)	x		6250.0	(31/2 ⁻)
6642+y	(39/2)	y		6644.1	(35/2 ⁻)
7020+x	(39/2)	770.3 2	100	6250+x	(35/2)
7563+y	(43/2)	920.9 2	100	6642+y	(39/2)
7886+x	(43/2)	865.7 2	100	7020+x	(39/2)
8561+y	(47/2)	998.1 2	100	7563+y	(43/2)
8841+x	(47/2)	955.1 2	100	7886+x	(43/2)
9644+y	(51/2)	1082.9 2	100	8561+y	(47/2)
9886+x	(51/2)	1045.3 3	100	8841+x	(47/2)
10808+y	(55/2)	1164.1 2	100	9644+y	(51/2)
11024+x	(55/2)	1138.4 3	100	9886+x	(51/2)
12063+y	(59/2)	1254.7 3	100	10808+y	(55/2)
12257+x	(59/2)	1233.0 3	100	11024+x	(55/2)
13443+y	(63/2)	1380.1 3	100	12063+y	(59/2)
13615+x	(63/2)	1358.4 4	100	12257+x	(59/2)
14978+y	(67/2)	1535.4 4	100	13443+y	(63/2)
15117+x	(67/2)	1502.2 4	100	13615+x	(63/2)
16714+y	(71/2)	1736.3 6	100	14978+y	(67/2)
16788+x	(71/2)	1671.4 6	100	15117+x	(67/2)
18639+x	(75/2)	1851.3 7	100	16788+x	(71/2)
18682+y	(75/2)	1968 1	100	16714+y	(71/2)
20676+x	(79/2)	2037 3	100	18639+x	(75/2)
20861+y	(79/2)	2179 @ 2	100	18682+y	(75/2)

[†] From DCO ratios, stretched Q assumed to have mult=E2.

[‡] Renormalize to $I_\gamma=100$ for strongest γ from each level.

From E(level) difference. Transition not observed but required by $\gamma\gamma$.

@ Placement of transition in the level scheme is uncertain.

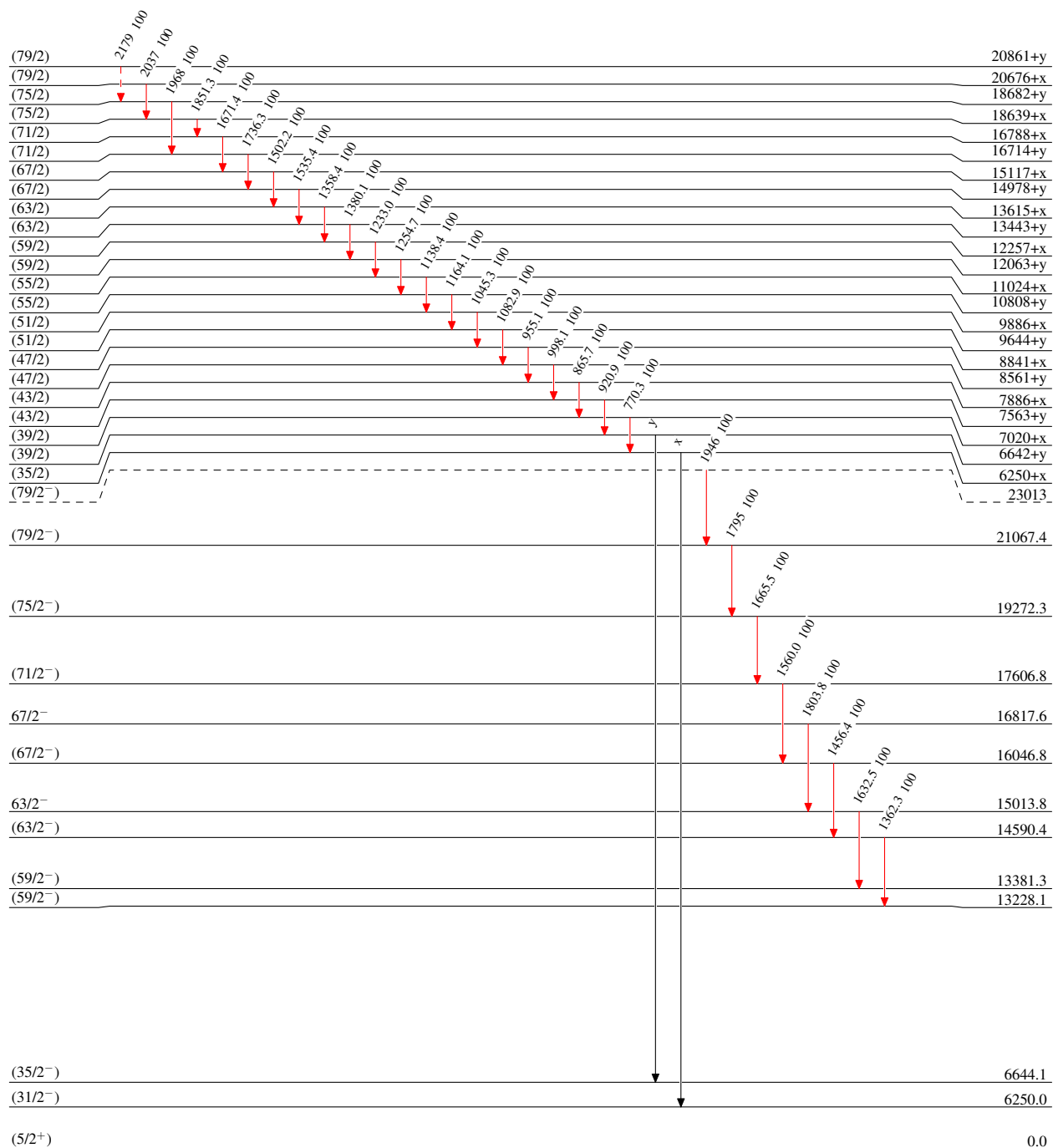
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Type not specified

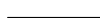
- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ γ Decay (Uncertain)

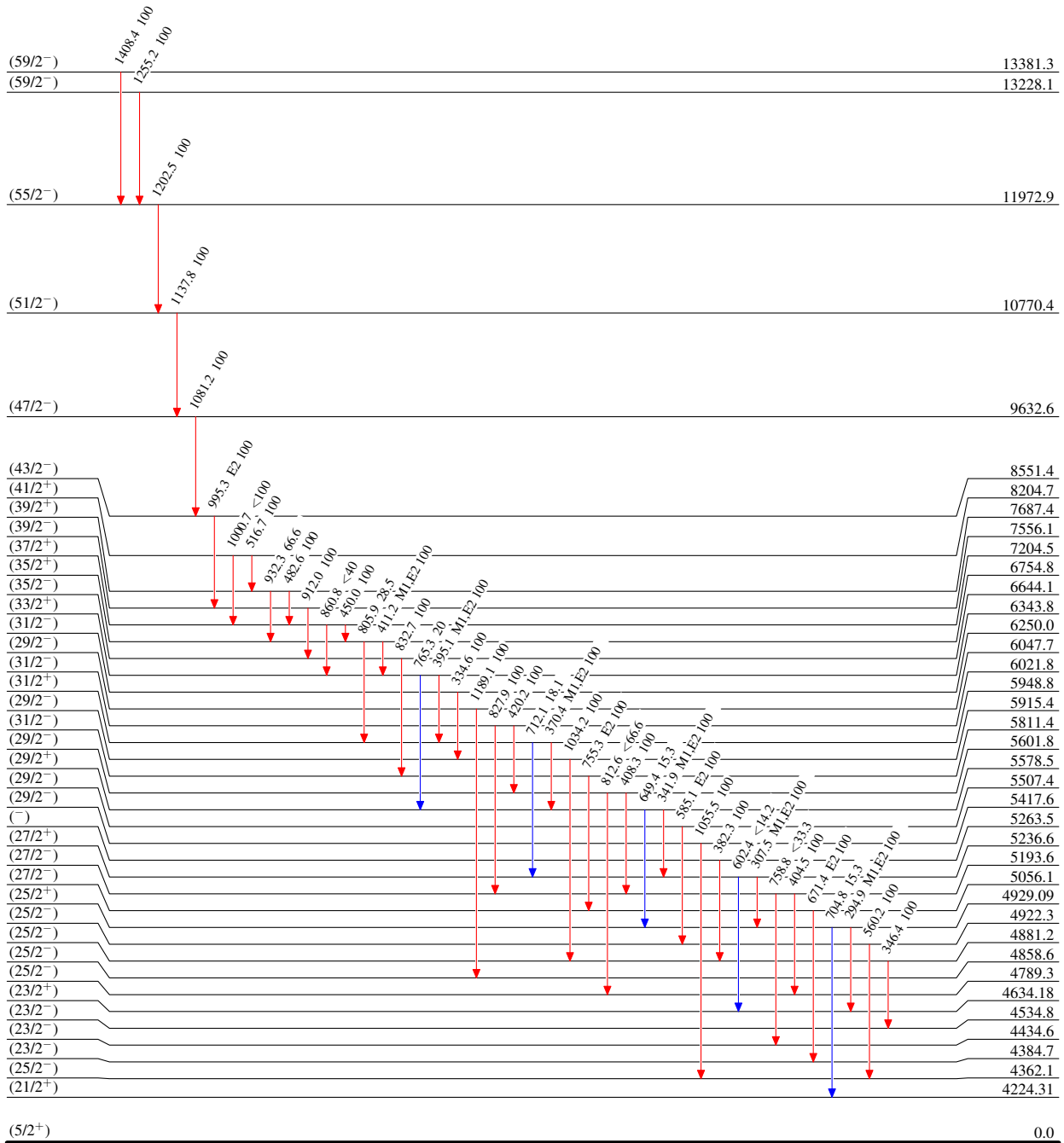


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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



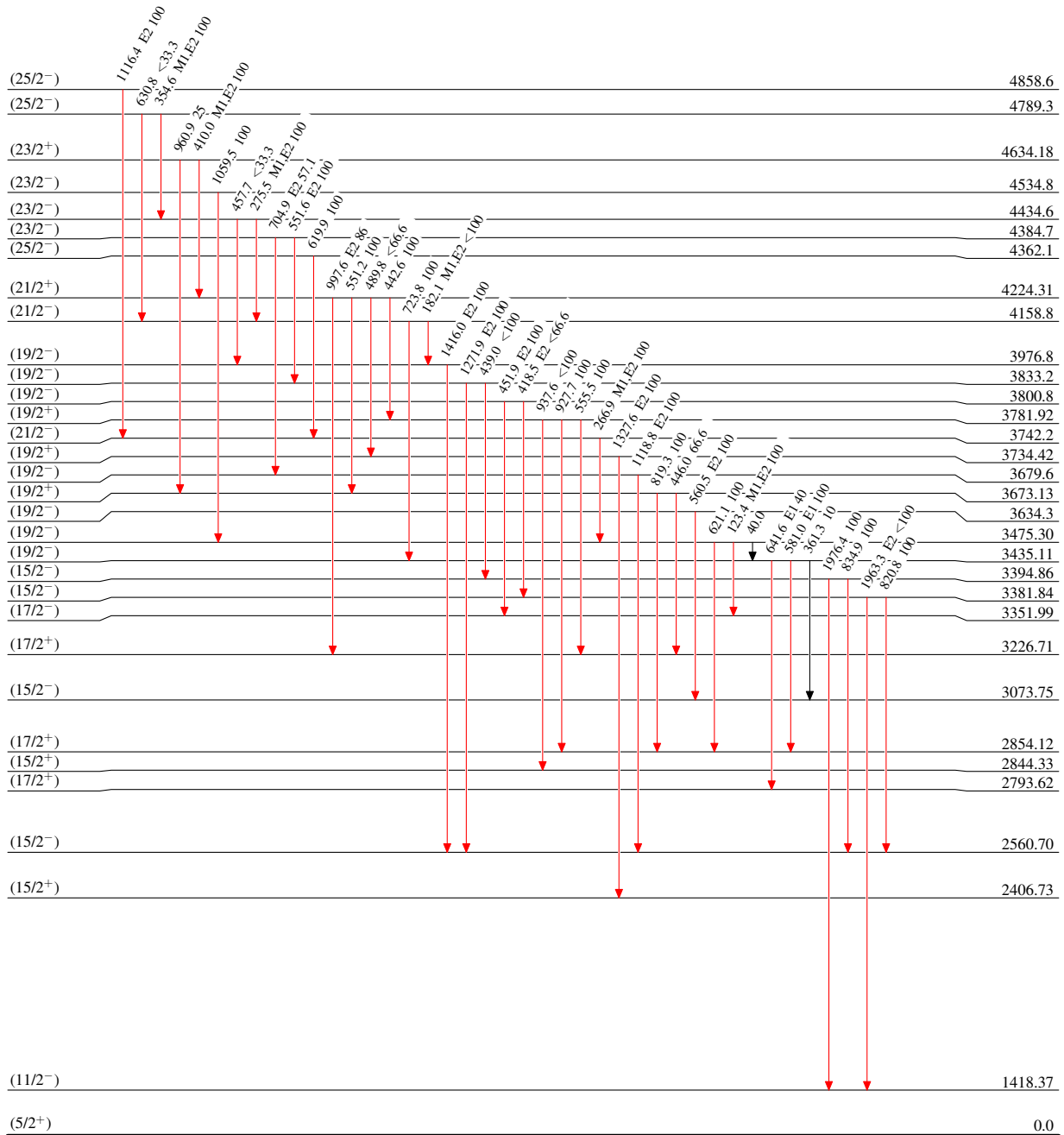
75 s 1

Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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



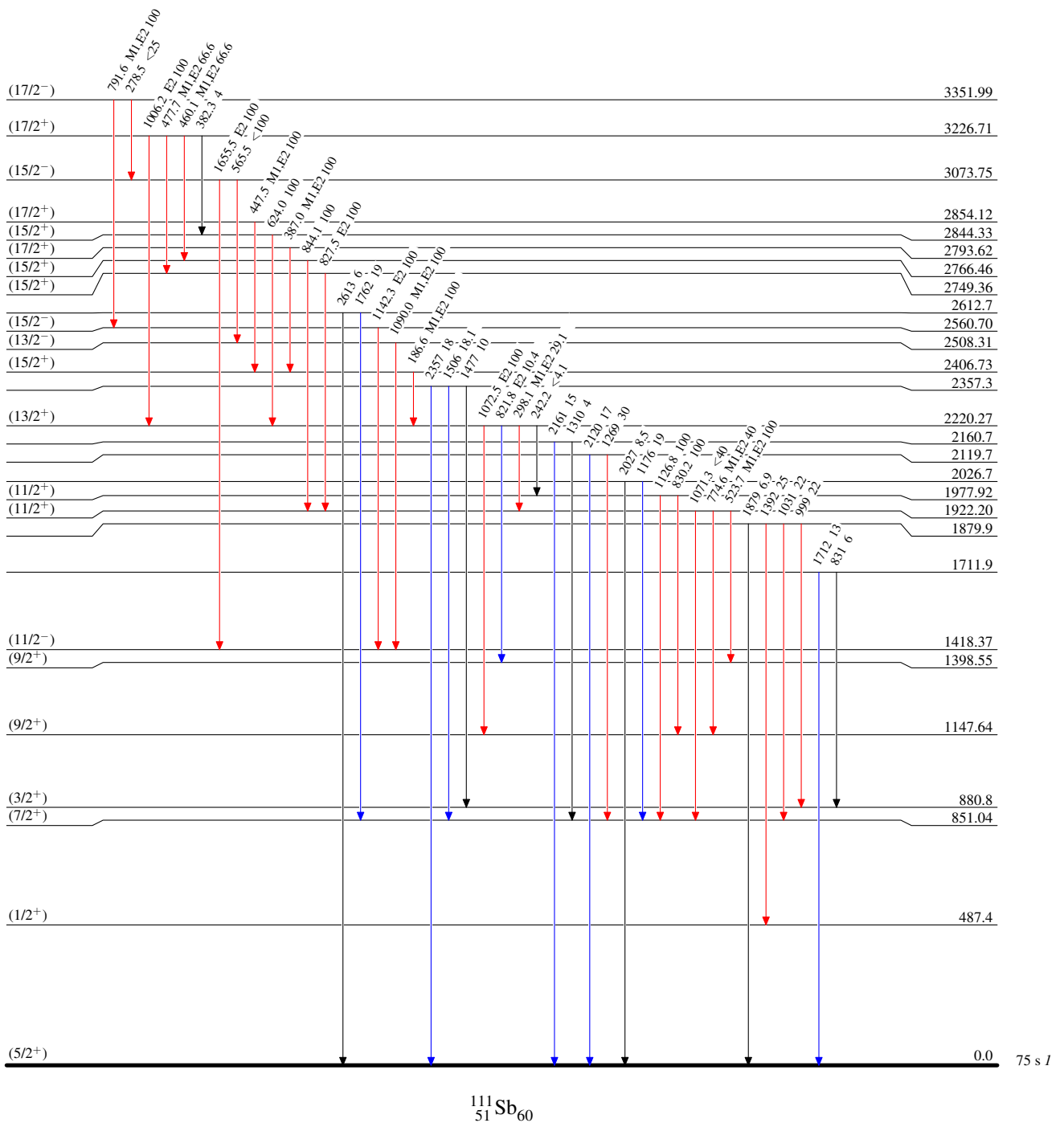
75 s 1

Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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



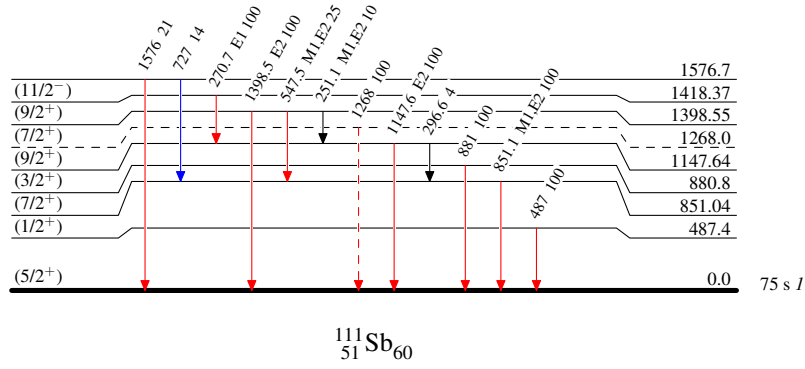
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

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)



Adopted Levels, Gammas**Band(B): Band 2 with $\Delta(I) = 2$**

(79/2)	20861+y
(75/2)	18682+y
(71/2)	16714+y
(67/2)	14978+y
(63/2)	13443+y
(59/2)	12063+y
(55/2)	10808+y
(51/2)	9644+y
(47/2)	8561+y
(43/2)	7563+y
(39/2)	6642+y

Band(C): Band 3 with $\Delta(I) = 2$

(79/2)	20676+x
(75/2)	18639+x
(71/2)	16788+x
(67/2)	15117+x
(63/2)	13615+x
(59/2)	12257+x
(55/2)	11024+x
(51/2)	9886+x
(47/2)	8841+x
(43/2)	7886+x
(39/2)	7020+x
(35/2)	6250+x

Band(A): Band 1 with $\Delta(I) = 2$

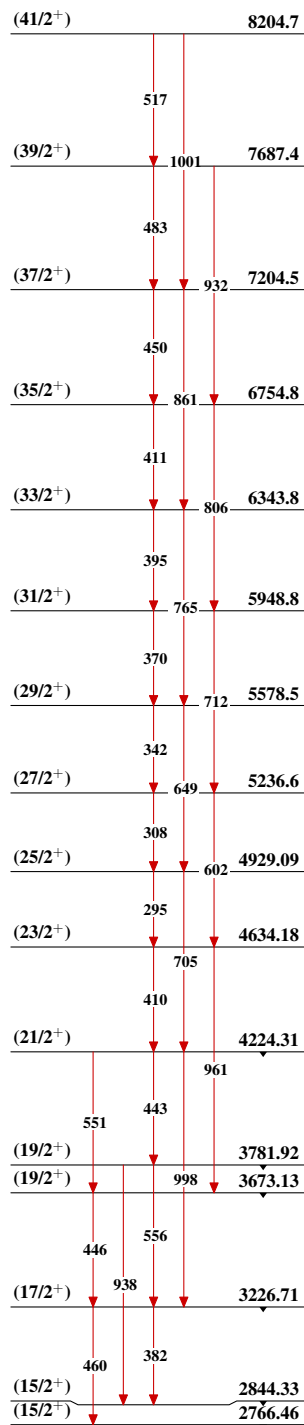
(79/2 ⁻)	23013
(79/2 ⁻)	21067.4
(75/2 ⁻)	19272.3
(71/2 ⁻)	17606.8
(67/2 ⁻)	16046.8
(63/2 ⁻)	14590.4
(59/2 ⁻)	13228.1
(55/2 ⁻)	11972.9
(51/2 ⁻)	10770.4
(47/2 ⁻)	9632.6
(43/2 ⁻)	8551.4
(39/2 ⁻)	7556.1
(35/2 ⁻)	6644.1
(31/2 ⁻)	5811.4
(27/2 ⁻)	5056.1
(23/2 ⁻)	4384.7
(19/2 ⁻)	3679.6
(19/2 ⁻)	3634.3
(15/2 ⁻)	2560.70
(11/2 ⁻)	1418.37
(9/2 ⁺)	1147.64
(7/2 ⁺)	851.04

Band(D): Band 4, strongly coupled rotational band

(31/2 ⁻)	6021.8
(29/2 ⁻)	5601.8
(29/2 ⁻)	5507.4
(27/2 ⁻)	5193.6
(25/2 ⁻)	4922.3
(25/2 ⁻)	4881.2
(25/2 ⁻)	4789.3
(23/2 ⁻)	4534.8
(23/2 ⁻)	4434.6
(25/2 ⁻)	4362.1
(21/2 ⁻)	4158.8
(19/2 ⁻)	3435.11
(15/2 ⁻)	3394.86
(13/2 ⁻)	2508.31

Adopted Levels, Gammas (continued)

**Band(E): Band 5, strongly coupled
rotational band**

 $^{111}_{51}\text{Sb}_{60}$