Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112,1647 (2011)	1-Oct-2009

Q(β^-)=1582 *5*; S(n)=8.38×10^3 *4*; S(p)=7973 *12*; Q(α)=−5694 *21* 2012Wa38
Note: Current evaluation has used the following Q record 1581 5 *8370* 30 7969 *12* −5699 *25* 2003Au03.

^{127}Sb Levels

Cross Reference (XREF) Flags

A	^{127}Sn β^- decay (2.10 h)	D	^{128}Te(t,α)
B	^{127}Sn β^- decay (4.13 min)	E	^{130}Te(p,α)
C	^{128}Te(d,^{3}He)	F	(HI,xnγ)

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0$^{\#}$	7/2$^+$	3.85 d *5*	ABCDEF	%β^-=100 J$^\pi$: L=4 in (d,^{3}He) and (t,α) for ^{127}Sb g.s., L=2 in (d,t) and (^{3}He,α) for the 473 level in ^{127}Te, and the existing of a β^- branch connecting these levels uniquely establishes J^π(^{127}Sb g.s.)=7/2$^+$, and J^π(^{127}Te 473)=5/2$^+$. T$_{1/2}$: weighted av of 3.9 d *1* (1950Sl17), 3.67 d *9* (1957Bo96), 3.89 d *7* (1962Dr01), 92 d *9* (1962Uh01), 3.80 d *8* (1967Ha27), 3.75 d *10* (1967Ta05), 3.91 d *7* (1972Pa13). Others: 3.3 d (1939Ab02), 4.0 d (1946Gr06). Configuration=(π 1g$_{7/2}$).
490.94 *19*	(5/2)$^+$		ABCDE	XREF: C(498)D(502). J$^\pi$: L=2 in (d,^{3}He) and (t,α) and comparison of C^{2}S with values for ^{125,129}Sb. 5/2$^+$ is favored from systematics of odd Sb, and the shell model calculation (2007Ji14) supports 5/2$^+$. Configuration=(π 2d$_{5/2}$).
765.41 *22*	(3/2)$^+$		BCD	XREF: C(776)D(778). J$^\pi$: L=2 in (d,^{3}He) and (t,α). C^{2}S for d$_{5/2}$) is exhausted by the 491 level. 3/2$^+$ is favored from systematics of odd Sb. Configuration=(π 2d$_{3/2}$).
1095.47$^{\#}$ *17*	(11/2$^+$)		A F	J$^\pi$: systematics of odd Sb nuclides.
1110‡ *10*	1/2$^+$		DE	J$^\pi$: L=0 in (t,α).
1114.33‡ *18*	(9/2$^+$)		A	J$^\pi$: systematics of odd Sb nuclides.
1185.8 *3*	1/2$^+$		BCD	XREF: D(1199). J$^\pi$: L=0 in (d,^{3}He). Configuration=(π 3s$_{1/2}$).
1351.6 *3*	(5/2$^+$)		B	J$^\pi$: logft=7.1 from (3/2$^+$), γ to 7/2$^+$, systematics of odd Sb nuclides. Configuration=((^{126}Sn 2$^+$)(π 1g$_{7/2}$).
1471.28 *23*	(7/2$^+$)		AB	J$^\pi$: from systematics of odd Sb nuclides. log $f^{1u}t$>7.7 from (11/2$^-$), γ to 5/2,7/2$^+$,9/2. Configuration=((^{126}Sn 2$^+$)(π 1g$_{7/2}$).
1584.28 *21*	(9/2$^+$)		A	J$^\pi$: from systematics of odd Sb nuclides. log $f^{1u}t$=8.1 from (11/2$^-$), γ to 5/2,7/2$^+$. Configuration=((^{126}Sn 2$^+$)(π 1g$_{7/2}$).
1610 *10*			E	
1700.7 *3*	(1/2$^+$,3/2,5/2)		B	J$^\pi$: log *ft*=6.4 from (3/2$^+$). γ to 3/2$^+$, 5/2$^+$ is favored from systematics.
1712.2 *3*	(7/2)		AB	J$^\pi$: log *ft*=8.37 from (11/2$^-$), log *ft*=6.9 from (3/2$^+$), γ to 5/2$^+$.
1840.37 *19*	(3/2$^+$,5/2)		B	J$^\pi$: log *ft*=6.9 from (3/2$^+$), γ to 3/2$^+$, 5/2$^+$, 7/2$^+$, from systematics of odd Sb nuclides.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{127}Sb Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
1920.19 *21*	(15/2⁻)[b]	11 μs *1*	A	$T_{1/2}$: from (438.2γ)(1095.6γ,1114.3γ)(t) (1974Ap01).
1937.48 *17*	(7/2,9/2,11/2⁺)		A	Jπ: log *ft*>7.2 from (11/2⁻), γ to 7/2⁺, (9/2⁺).
1947.44[#] *25*	(15/2⁺)		F	Jπ: γ to (11/2⁺), transition in yrast (g.s.) band; systematics of level energies in ^{123}Sb,^{125}Sb, and ^{127}Sb.
1955.06 *22*			A	
1990.5 *3*			A	
1994.5? *4*			B	
2003.48[‡] *21*	(9/2,11/2⁺)		A	Jπ: log *ft*=7.98 from (11/2⁺), γ to 7/2⁺, (9/2⁺).
2051.1 *4*	(13/2,15/2⁺)		F	Jπ: γ to 11/2⁺, 2005Po03 suggest (13/2) in (HI,xnγ).
2055.1 *3*	(3/2⁺,5/2⁺)		B	Jπ: log *ft*=5.9 from (3/2⁺), γ to 7/2⁺.
2093.41 *19*	(9/2,11/2⁺)		A	Jπ: log *ft*=6.83 from (11/2⁻), γ to 7/2⁺.
2102.3 *3*	(7/2⁺,9/2⁺)		A	Jπ: log *ft*=8.03 from (11/2⁻), γ to 7/2⁺.
2110.2 *3*			A	
2124.30 *22*	(11/2⁻,13/2,15/2⁺)		A	Jπ: log *ft*=8.2 from (11/2⁻), γ to (15/2⁻).
2140.37 *22*	(11/2⁻,13/2,15/2⁺)		A	Jπ: log *ft*=7.98 from (11/2⁻), γ to (15/2⁻).
2150.4 *4*	(1/2⁺,3/2,5/2)		B	Jπ: log *ft*=6.7 from (3/2⁺), γ to (5/2)⁺.
2150.55 *22*	(9/2,11/2⁺)		A	Jπ: log *ft*=7.13 from (11/2⁻), γ to 7/2⁺.
2160.0 *5*	(7/2⁺,9/2,11/2⁺)		A	
2194.3 *3*			F	Jπ: 2005Po03 suggest (15/2⁻).
2202.1 *3*			A	
2221.54 *22*	(11/2⁻,13/2,15/2⁺)		A	Jπ: log *ft*=7.4 from (11/2⁻), γ to (15/2⁻).
2256.3 *5*	7/2⁺,9/2⁺[a]		A CDE	Jπ: L=4 in (d,^{3}He) and (t,α). 9/2⁺ is favored from C^2S and shell model analysis.
2274.68 *24*	(9/2,11/2,13/2⁺)		A	Jπ: log *ft*=6.78 from (11/2⁻), γ to (9/2⁺).
2304.0 *4*	(7/2⁺,9/2⁺)		A	Jπ: log *ft*=7.82 from (11/2⁻), γ to (5/2)⁺, 7/2⁺.
2304.1 *4*	(1/2⁺,3/2,5/2)		B	Jπ: log *ft*=6.7 from (3/2⁺), γ to (5/2)⁺.
2317.5 *3*	(7/2⁺,9/2,11/2⁺)		A	Jπ: log *ft*=7.7 from (11/2⁻), γ to 7/2⁺.
2324.7[@] *4*		0.165 μs *20*	F	$T_{1/2}$: From fission fragment-γ(t) (2005Po03). Jπ: 2005Po03 suggest (19/2⁻).
2345.66 *21*	(11/2⁻,13/2,15/2⁺)		A	Jπ: log *ft*=7.8 from (11/2⁻), γ to (15/2⁻).
2351.80 *24*			A	
2358.5 *3*	(11/2⁻,13/2)		A	Jπ: log *ft*=6.36 from (11/2⁻), γ to (15/2⁻).
2372.57 *24*	(11/2⁻,13/2,15/2⁺)		A	Jπ: log *ft*=7.8 from (11/2⁻), γ to (15/2⁻).
2378.0 *5*			F	
2378.5[#] *6*			F	Jπ: 2005Po03 suggest (19/2⁺).
2379.1 *5*			F	
2406.3 *3*	(9/2,11/2,13/2⁺)		A	Jπ: log *ft*=6.78 from (11/2⁻), γ to (9/2⁺).
2423[‡] *10*			D	
2447.3 *3*	(9/2,11/2⁺)		A	Jπ: log *ft*=6.63 from (11/2⁻), γ to 7/2⁺.
2455.85 *21*	(9/2,11/2,13/2)		A	Jπ: log *ft*=6.25 from (11/2⁻), γ to 11/2⁺.
2470.0 *5*	(7/2⁺,9/2,11/2⁺)		A	Jπ: log *ft*=7.82 from (11/2⁻), γ to 7/2⁺.
2482.7 *5*	(9/2,11/2,13/2⁺)		A	Jπ: log *ft*=7.1 from (11/2⁻), γ to (9/2⁺).
2485.5[&] *5*			F	
2500.70 *22*	(9/2,11/2,13/2⁺)		A	Jπ: log *ft*=5.98 from (11/2⁻), γ to (9/2⁺).
2513.9 *5*	(7/2⁺,9/2,11/2⁺)		A	Jπ: log *ft*=7.7 from (11/2⁻), γ to 7/2⁺. Jπ: γ to 7/2⁺.
2529.67 *21*	(11/2⁻,13/2)		A	Jπ: log *ft*=6.9 from (11/2⁻), γ to (15/2⁻).
2549[‡] *10*	1/2⁻,3/2⁻		CDE	XREF: C(2530). Jπ: L=1 in (d,^{3}He) and (t,α), From C^2S and shell model analysis 1/2⁻ is favored. Configuration=(π $2p_{1/2}$).
2553.7 *3*	(9/2,11/2,13/2)		A	Jπ: log *ft*=6.77 from (11/2⁻), γ to (11/2⁺).
2586.79 *21*	(9/2⁻,11/2⁻)		A	Jπ: log *ft*=5.54 from (11/2⁻), γ to (9/2⁺).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{127}Sb Levels (continued)

E(level)†	J$^{\pi}$	XREF	Comments
2630.6 *6*	(9/2,11/2^{+})	A	J$^{\pi}$: log *ft*=6.48 from (11/2^{-}), γ to 7/2^{+}.
2638.5 *3*	(9/2,11/2,13/2)	A	J$^{\pi}$: log *ft*=5.81 from (11/2^{-}), γ to (11/2^{+}).
2663.7 *3*	(9/2,11/2,13/2)	A	J$^{\pi}$: log *ft*=6.4 from (11/2^{-}).
2678.1& *7*		F	
2695.7 *4*	(9/2,11/2^{+})	A	J$^{\pi}$: log *ft*=6.05 from (11/2^{-}), γ to 7/2^{+}. J$^{\pi}$: γ to 7/2^{+}.
2747 *10*	3/2^{-},1/2^{-}	D	J$^{\pi}$: L=1 in (t,α), From C^{2}S and shell model analysis 3/2^{-} is favored. Configuration=(π 2p$_{3/2}$).
2762.18 *24*	(9/2^{-},11/2^{-})	A	J$^{\pi}$: log *ft*=5.68 from (11/2^{-}), γ to (9/2^{+}).
2785.3 *4*	(11/2^{-},13/2)	A	J$^{\pi}$: log *ft*=6.23 from (11/2^{-}), γ to (15/2^{-}).
2790	(1/2^{-},3/2^{-})	C	J$^{\pi}$: L=(1) in (d,^{3}He).
2805.21 *24*	(9/2,11/2^{+})	A	J$^{\pi}$: log *ft*=5.8 from (11/2^{-}), γ to 7/2^{+}. J$^{\pi}$: γ to 7/2^{+}.
2834.3 *5*	(9/2,11/2,13/2^{+})	A	J$^{\pi}$: log *ft*=6.56 from (11/2^{-}), γ to (9/2^{+}).
2846.6 *4*	(9/2^{-})	A	J$^{\pi}$: log *ft*=5.1967from (11/2^{-}), γ to 7/2^{+}.
2863.7@ *5*		F	J$^{\pi}$: 2005Po03 suggest (21/2^{-}).
2866 *10*	5/2^{-},7/2^{-}	D	J$^{\pi}$: L=3 in (t,α).
2867.2 *3*	(9/2^{-},11/2^{-})	A	J$^{\pi}$: log *ft*=5.64 from (11/2^{-}), γ to (9/2^{+}).
2881.1 *5*	(9/2^{+})	A	J$^{\pi}$: log *ft*=6.21 from (11/2^{-}), γ to (5/2^{+}).
3164‡ *10*	7/2^{+},9/2^{+}	DE	J$^{\pi}$: L=4 in (t,α).
3194.3& *8*		F	
3255.6@ *5*		F	J$^{\pi}$: 2005Po03 suggest (23/2^{-}).
3670.6& *10*		F	
3868.2@ *6*		F	J$^{\pi}$: 2005Po03 suggest (25/2^{-}).
4007.0& *11*		F	
4254.8@ *7*		F	J$^{\pi}$: 2005Po03 suggest (27/2^{-}).
4736.1@ *8*		F	J$^{\pi}$: 2005Po03 suggest (29/2^{-}).
5101.5@ *9*		F	J$^{\pi}$: 2005Po03 suggest (31/2^{-}).
5354.3@ *10*		F	J$^{\pi}$: 2005Po03 suggest (33/2^{-}).

† From least-squares fit to Eγ′s for the levels emitting γ′s.
‡ From ^{128}Te(t,α).
# Band1.
@ Band2.
& Band3.
a L=4 in (d,^{3}He) and (t,α) for 2256 and/or 2274.
b The combination of transition types of E3 and M2 to 1114(9/2^{+}) and 1095(11/2^{+}) levels, respectively, only gives reasonable enhancement or hindrance factors in Weisskopf units. The systematics of the energy levels in odd Sb isotopes also support this level as (15/2^{-}). 1974Ap01 suggest that this isomer is one of a member of configuration=(π g$_{7/2}$)(ν d$_{3/2}$,ν h$_{11/2}$) states.

Adopted Levels, Gammas (continued)

$\gamma(^{127}Sb)$

E_i(level)	J^{π}_i	E_{γ}†	I_{γ}†	E_f	J^{π}_f	Mult.	α@	Comments
490.94	$(5/2)^+$	490.9 *4*	100.0	0.0	$7/2^+$			
765.41	$(3/2)^+$	765.2‡ *3*	100.0‡	0.0	$7/2^+$			
1095.47	$(11/2^+)$	1095.6 *4*	100.0	0.0	$7/2^+$			
1114.33	$(9/2^+)$	1114.3 *4*	100.0	0.0	$7/2^+$			
1185.8	$1/2^+$	419.9‡ *3*	35.71‡	765.41	$(3/2)^+$			
		695.3‡ *3*	100.0‡	490.94	$(5/2)^+$			
1351.6	$(5/2^+)$	1351.6‡ *3*	100.0‡	0.0	$7/2^+$			
1471.28	$(7/2^+)$	357.0 *4*	25 *5*	1114.33	$(9/2^+)$			
		980.3 *4*	100 *20*	490.94	$(5/2)^+$			
		1471.2 *7*	100 *20*	0.0	$7/2^+$			
1584.28	$(9/2^+)$	1093.3 *7*	100 *20*	490.94	$(5/2)^+$			
		1584.3 *4*	47 *5*	0.0	$7/2^+$			
1700.7	$(1/2^+,3/2,5/2)$	1210.2‡ *3*	100.0‡	490.94	$(5/2)^+$			
1712.2	$(7/2)$	1220.5 *4*	100.0	490.94	$(5/2)^+$			
1840.37	$(3/2^+,5/2)$	369.1‡ *3*	3.597‡	1471.28	$(7/2^+)$			
		1075.2‡ *3*	16.55‡	765.41	$(3/2)^+$			
		1349.2‡ *3*	100.0‡	490.94	$(5/2)^+$			
		1840.3‡ *3*	33.09‡	0.0	$7/2^+$			
1920.19	$(15/2^-)$	805.9 *4*	100 *11*	1114.33	$(9/2^+)$	(E3)	0.00509 *8*	B(E3)(W.u.)=0.30 *6* α(K)=0.00431 *6*; α(L)=0.000621 *9*; α(M)=0.0001241 *18*; α(N+..)=2.59×10^{-5} *4* α(N)=2.37×10^{-5} *4*; α(O)=2.23×10^{-6} *4*
		824.7 *4*	74 *14*	1095.47	$(11/2^+)$	(M2)	0.00689 *10*	B(M2)(W.u.)=0.00012 *3* α(K)=0.00595 *9*; α(L)=0.000759 *11*; α(M)=0.0001505 *22*; α(N+..)=3.20×10^{-5} *5* α(N)=2.91×10^{-5} *4*; α(O)=2.88×10^{-6} *4*
1937.48	$(7/2,9/2,11/2^+)$	353.3 *4*	1.1 *4*	1584.28	$(9/2^+)$			
		823.1 *4*	100 *22*	1114.33	$(9/2^+)$			
		1937.3 *5*	0.7 *4*	0.0	$7/2^+$			
1947.44	$(15/2^+)$	852.0# *2*	100.0#	1095.47	$(11/2^+)$			
1955.06		859.5 *4*	100.0	1095.47	$(11/2^+)$			
1990.5		70.3 *3*	100.0	1920.19	$(15/2^-)$			
1994.5?		1503.5‡ *3*	100.0‡	490.94	$(5/2)^+$			
2003.48	$(9/2,11/2^+)$	66.4 *3*	2.7 *6*	1937.48	$(7/2,9/2,11/2^+)$			
		889.0 *4*	6.4 *8*	1114.33	$(9/2^+)$			
		2003.4 *5*	100 *10*	0.0	$7/2^+$			
2051.1	$(13/2,15/2^+)$	955.5# *4*	100.0#	1095.47	$(11/2^+)$			

From ENSDF

$^{127}_{51}Sb_{76}$-4

γ(^{127}Sb) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
2055.1	(3/2+,5/2+)	342.3‡ *3*	8.609‡	1712.2	(7/2)
		354.8‡ *3*	7.285‡	1700.7	(1/2+,3/2,5/2)
		1564.3‡ *3*	100.0‡	490.94	(5/2)+
2093.41	(9/2,11/2+)	155.6 *4*	3.2 *6*	1937.48	(7/2,9/2,11/2+)
		509.0 *4*	20 *5*	1584.28	(9/2+)
		979.2 *4*	100 *21*	1114.33	(9/2+)
		997.9 *4*	27 *3*	1095.47	(11/2+)
		2093.3 *5*	1.1 *6*	0.0	7/2+
2102.3	(7/2+,9/2+)	1610.8 *4*	31 *8*	490.94	(5/2)+
		2102.4 *5*	100 *8*	0.0	7/2+
2110.2		119.7 *4*	100 *11*	1990.5	
		190.1 *4*	26 *4*	1920.19	(15/2−)
2124.30	(11/2−,13/2,15/2+)	169.2 *4*	100 *10*	1955.06	
		204.1 *4*	11.3 *19*	1920.19	(15/2−)
2140.37	(11/2−,13/2,15/2+)	202.8 *4*	100 *10*	1937.48	(7/2,9/2,11/2+)
		220.4 *4*	40 *5*	1920.19	(15/2−)
		1044.9 *4*	35 *5*	1095.47	(11/2+)
2150.4	(1/2+,3/2,5/2)	1659.4‡ *3*	100.0‡	490.94	(5/2)+
2150.55	(9/2,11/2+)	212.9 *4*	5.8 *20*	1937.48	(7/2,9/2,11/2+)
		565.8 *7*	6 *4*	1584.28	(9/2+)
		1036.1 *4*	100 *10*	1114.33	(9/2+)
		1055.5 *4*	12 *4*	1095.47	(11/2+)
		2150.3 *5*	1.7 *18*	0.0	7/2+
2160.0	(7/2+,9/2,11/2+)	1064.6 *7*	100 *20*	1095.47	(11/2+)
		2160.0 *5*	80 *10*	0.0	7/2+
2194.3		143.2# *2*	33# *9*	2051.1	(13/2,15/2+)
		246.9# *2*	100# *15*	1947.44	(15/2+)
2202.1		211.5 *4*	21 *8*	1990.5	
		282.0 *4*	100 *8*	1920.19	(15/2−)
2221.54	(11/2−,13/2,15/2+)	97.2 *3*	17 *3*	2124.30	(11/2−,13/2,15/2+)
		284.3 *4*	100 *10*	1937.48	(7/2,9/2,11/2+)
		301.7& *4*	4.3 *15*	1920.19	(15/2−)
2256.3	7/2+,9/2+	1142.0 *4*	100.0	1114.33	(9/2+)
2274.68	(9/2,11/2,13/2+)	271.5 *4*	4.8 *16*	2003.48	(9/2,11/2+)
		1160.4 *4*	100 *21*	1114.33	(9/2+)
		1179.2 *4*	20.6 *16*	1095.47	(11/2+)
2304.0	(7/2+,9/2+)	1812.8 *5*	1.0×10^2 *4*	490.94	(5/2)+
		2304.2 *5*	1.0×10^2 *4*	0.0	7/2+
2304.1	(1/2+,3/2,5/2)	1813.1‡ *3*	100.0‡	490.94	(5/2)+

$^{127}_{51}Sb_{76}$-5

γ(^{127}Sb) (continued)

E_i(level)	J^π_i	E_γ†	I_γ†	E_f	J^π_f
2317.5	(7/2+,9/2,11/2+)	215.0 *7*	7 *4*	2102.3	(7/2+,9/2+)
		2317.4 *5*	100 *11*	0.0	7/2+
2324.7		130.4# *2*	100.0#	2194.3	
2345.66	(11/2−,13/2,15/2+)	124.0 *4*	6 *3*	2221.54	(11/2−,13/2,15/2+)
		143.7 *4*	39 *3*	2202.1	
		205.2 *4*	18 *3*	2140.37	(11/2−,13/2,15/2+)
		235.3 *4*	21 *3*	2110.2	
		390.5 *4*	100 *9*	1955.06	
		425.7 *4*	18 *3*	1920.19	(15/2−)
2351.80		348.4 *4*	100 *8*	2003.48	(9/2,11/2+)
		396.9 *4*	69 *8*	1955.06	
		1237.4 *4*	23 *8*	1114.33	(9/2+)
2358.5	(11/2−,13/2)	438.2 *4*	100.0	1920.19	(15/2−)
2372.57	(11/2−,13/2,15/2+)	170.3 *4*	3 *4*	2202.1	
		248.6 *4*	3.3 *17*	2124.30	(11/2−,13/2,15/2+)
		262.5 *4*	100 *10*	2110.2	
		452.1 *4*	16.4 *17*	1920.19	(15/2−)
2378.0		183.7# *4*	100.0#	2194.3	
2378.5		431.1# *5*	100.0#	1947.44	(15/2+)
2379.1		328.0# *3*	100.0#	2051.1	(13/2,15/2+)
2406.3	(9/2,11/2,13/2+)	184.7 *4*	100 *21*	2221.54	(11/2−,13/2,15/2+)
		468.7 *4*	41 *4*	1937.48	(7/2,9/2,11/2+)
		1292.1 *4*	69 *7*	1114.33	(9/2+)
		1310.5& *4*	7 *4*	1095.47	(11/2+)
2447.3	(9/2,11/2+)	509.7 *4*	100 *20*	1937.48	(7/2,9/2,11/2+)
		976.1 *7*	100 *20*	1471.28	(7/2+)
		2447.5 *5*	45 *5*	0.0	7/2+
2455.85	(9/2,11/2,13/2)	104.1 *4*	12.5 *25*	2351.80	
		110.1 *4*	25.0 *25*	2345.66	(11/2−,13/2,15/2+)
		234.3 *4*	35.0 *25*	2221.54	(11/2−,13/2,15/2+)
		331.7 *4*	30.0 *25*	2124.30	(11/2−,13/2,15/2+)
		362.7 *4*	27.5 *25*	2093.41	(9/2,11/2+)
		500.7 *4*	100 *10*	1955.06	
		518.2 *4*	12.5 *25*	1937.48	(7/2,9/2,11/2+)
		1360.3 *4*	10.0 *25*	1095.47	(11/2+)
2470.0	(7/2+,9/2,11/2+)	2470.0 *5*	100.0	0.0	7/2+
2482.7	(9/2,11/2,13/2+)	1368.4 *4*	100.0	1114.33	(9/2+)
2485.5		160.8# *3*	100.0#	2324.7	
2500.70	(9/2,11/2,13/2+)	141.9 *4*	18.3 *17*	2358.5	(11/2−,13/2)
		279.3 *4*	25 *4*	2221.54	(11/2−,13/2,15/2+)

$^{127}_{51}Sb_{76}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{127}Sb)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π
2500.70	(9/2,11/2,13/2$^+$)	360.6 *4*	8.3 *17*	2140.37	(11/2$^-$,13/2,15/2$^+$)
		407.1 *4*	67 *7*	2093.41	(9/2,11/2$^+$)
		545.4 *4*	100 *10*	1955.06	
		563.4 *4*	7 *4*	1937.48	(7/2,9/2,11/2$^+$)
		916.5 *4*	52 *5*	1584.28	(9/2$^+$)
2513.9	(7/2$^+$,9/2,11/2$^+$)	2513.9 *5*	100.0	0.0	7/2$^+$
2529.67	(11/2$^-$,13/2)	156.9 *4*	13.2 *19*	2372.57	(11/2$^-$,13/2,15/2$^+$)
		178.0 *4*	5.7 *19*	2351.80	
		184.0 *4*	23 *4*	2345.66	(11/2$^-$,13/2,15/2$^+$)
		255.3 *4*	5.7 *19*	2274.68	(9/2,11/2,13/2$^+$)
		378.9 *4*	9.4 *19*	2150.55	(9/2,11/2$^+$)
		405.0 *4*	23 *4*	2124.30	(11/2$^-$,13/2,15/2$^+$)
		592.3 *4*	100 *10*	1937.48	(7/2,9/2,11/2$^+$)
		609.5 *4*	15.1 *19*	1920.19	(15/2$^-$)
		1434.4 *4*	15.1 *19*	1095.47	(11/2$^+$)
2553.7	(9/2,11/2,13/2)	181.1 *4*	57 *15*	2372.57	(11/2$^-$,13/2,15/2$^+$)
		208.0 *4*	57 *15*	2345.66	(11/2$^-$,13/2,15/2$^+$)
		616.1 *4*	86 *15*	1937.48	(7/2,9/2,11/2$^+$)
		1458.4 *7*	1.0×10^2 *3*	1095.47	(11/2$^+$)
2586.79	(9/2$^-$,11/2$^-$)	228.4 *4*	6.0 *12*	2358.5	(11/2$^-$,13/2)
		365.5 *4*	6.0 *12*	2221.54	(11/2$^-$,13/2,15/2$^+$)
		446.3 *4*	7.1 *24*	2140.37	(11/2$^-$,13/2,15/2$^+$)
		493.2 *4*	98 *10*	2093.41	(9/2,11/2$^+$)
		583.3 *4*	100 *10*	2003.48	(9/2,11/2$^+$)
		631.6 *7*	17 *4*	1955.06	
		649.1 *4*	25.0 *24*	1937.48	(7/2,9/2,11/2$^+$)
		1002.6 *4*	55 *6*	1584.28	(9/2$^+$)
		1472.5 *4*	39 *9*	1114.33	(9/2$^+$)
2630.6	(9/2,11/2$^+$)	528.5 *7*	13 *9*	2102.3	(7/2$^+$,9/2$^+$)
		1159.2 *7*	100 *21*	1471.28	(7/2$^+$)
2638.5	(9/2,11/2,13/2)	232.2 *4*	39 *4*	2406.3	(9/2,11/2,13/2$^+$)
		266.2 *4*	100 *11*	2372.57	(11/2$^-$,13/2,15/2$^+$)
		292.9 *4*	59 *6*	2345.66	(11/2$^-$,13/2,15/2$^+$)
		513.9 *4*	13 *4*	2124.30	(11/2$^-$,13/2,15/2$^+$)
		1542.7[&] *4*	3.6 *18*	1095.47	(11/2$^+$)
2663.7	(9/2,11/2,13/2)	539.6 *4*	40 *14*	2124.30	(11/2$^-$,13/2,15/2$^+$)
		570.1 *4*	100 *14*	2093.41	(9/2,11/2$^+$)
		708.7 *4*	33 *7*	1955.06	
2678.1		192.6[#] *4*	100.0[#]	2485.5	
2695.7	(9/2,11/2$^+$)	195.0[&] *4*	4.7 *24*	2500.70	(9/2,11/2,13/2$^+$)
		1600.0 *4*	9.3 *24*	1095.47	(11/2$^+$)

$^{127}_{51}Sb_{76}$-7

$\gamma(^{127}Sb)$ (continued)

E_i(level)	J^π_i	E_γ†	I_γ†	E_f	J^π_f
2695.7	(9/2,11/2+)	2695.9 5	100 10	0.0	7/2+
2762.18	(9/2−,11/2−)	305.9& 4	7 4	2455.85	(9/2,11/2,13/2)
		444.7 4	44 8	2317.5	(7/2+,9/2,11/2+)
		621.9 4	44 4	2140.37	(11/2−,13/2,15/2+)
		668.6& 4	19 4	2093.41	(9/2,11/2+)
		759.1 7	15 4	2003.48	(9/2,11/2+)
		1647.8 4	100 12	1114.33	(9/2+)
		1666.5 4	48 4	1095.47	(11/2+)
2785.3	(11/2−,13/2)	634.9 7	78 23	2150.55	(9/2,11/2+)
		847.6& 7	56 12	1937.48	(7/2,9/2,11/2+)
		865.0 4	100 12	1920.19	(15/2−)
2805.21	(9/2,11/2+)	487.5 4	100 9	2317.5	(7/2+,9/2,11/2+)
		530.6 7	25 17	2274.68	(9/2,11/2,13/2+)
		702.6 4	33 9	2102.3	(7/2+,9/2+)
		1709.9 4	58 9	1095.47	(11/2+)
		2805.7 5	83 9	0.0	7/2+
2834.3	(9/2,11/2,13/2+)	898.8& 7	100 20	1937.48	(7/2,9/2,11/2+)
		1720.0 4	100 20	1114.33	(9/2+)
2846.6	(9/2−)	1134.5 4	12 4	1712.2	(7/2)
		1750.7 7	20 8	1095.47	(11/2+)
		2846.4 5	100 12	0.0	7/2+
2863.7		538.9# 3	100.0#	2324.7	
2867.2	(9/2−,11/2−)	773.7 4	100 9	2093.41	(9/2,11/2+)
		912.4 4	27 9	1955.06	
		929.7 4	82 9	1937.48	(7/2,9/2,11/2+)
		1752.8 7	64 19	1114.33	(9/2+)
2881.1	(9/2+)	2389.5& 5	43 15	490.94	(5/2)+
		2881.1 5	100 15	0.0	7/2+
3194.3		516.2# 5	100.0#	2678.1	
3255.6		391.8# 4	1.0×10^2# 3	2863.7	
		931.0# 5	42# 11	2324.7	
3670.6		476.3# 5	100.0#	3194.3	
3868.2		612.6# 4	100.0#	3255.6	
4007.0		336.4# 5	100.0#	3670.6	
4254.8		386.6# 4	87# 25	3868.2	
		999.3# 5	1.0×10^2# 3	3255.6	
4736.1		481.3# 4	100.00#	4254.8	

$^{127}_{51}Sb_{76}$-8

Adopted Levels, Gammas (continued)

$\gamma(^{127}Sb)$ (continued)

E_i(level)	E_γ †	I_γ †	E_f
5101.5	365.4# *4*	100.00#	4736.1
5354.3	252.8# *4*	100.00#	5101.5

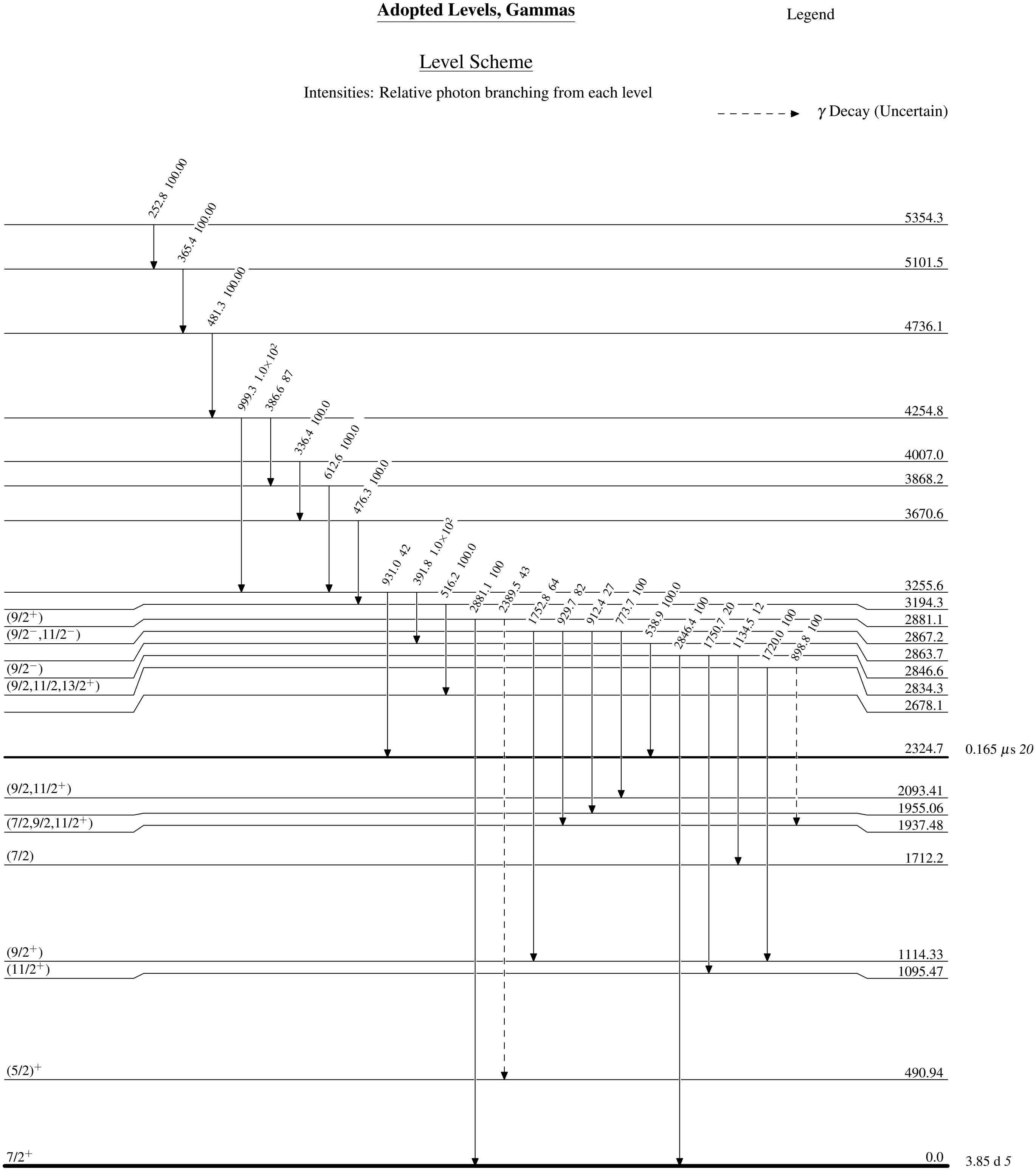
† From ^{127}Sn β^- decay (2.10 h), unless otherwise noted.
‡ From ^{127}Sn β^- decay (4.13 m).
\# From (HI,xnγ).
@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
& Placement of transition in the level scheme is uncertain.

$^{127}_{51}Sb_{76}$-9

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

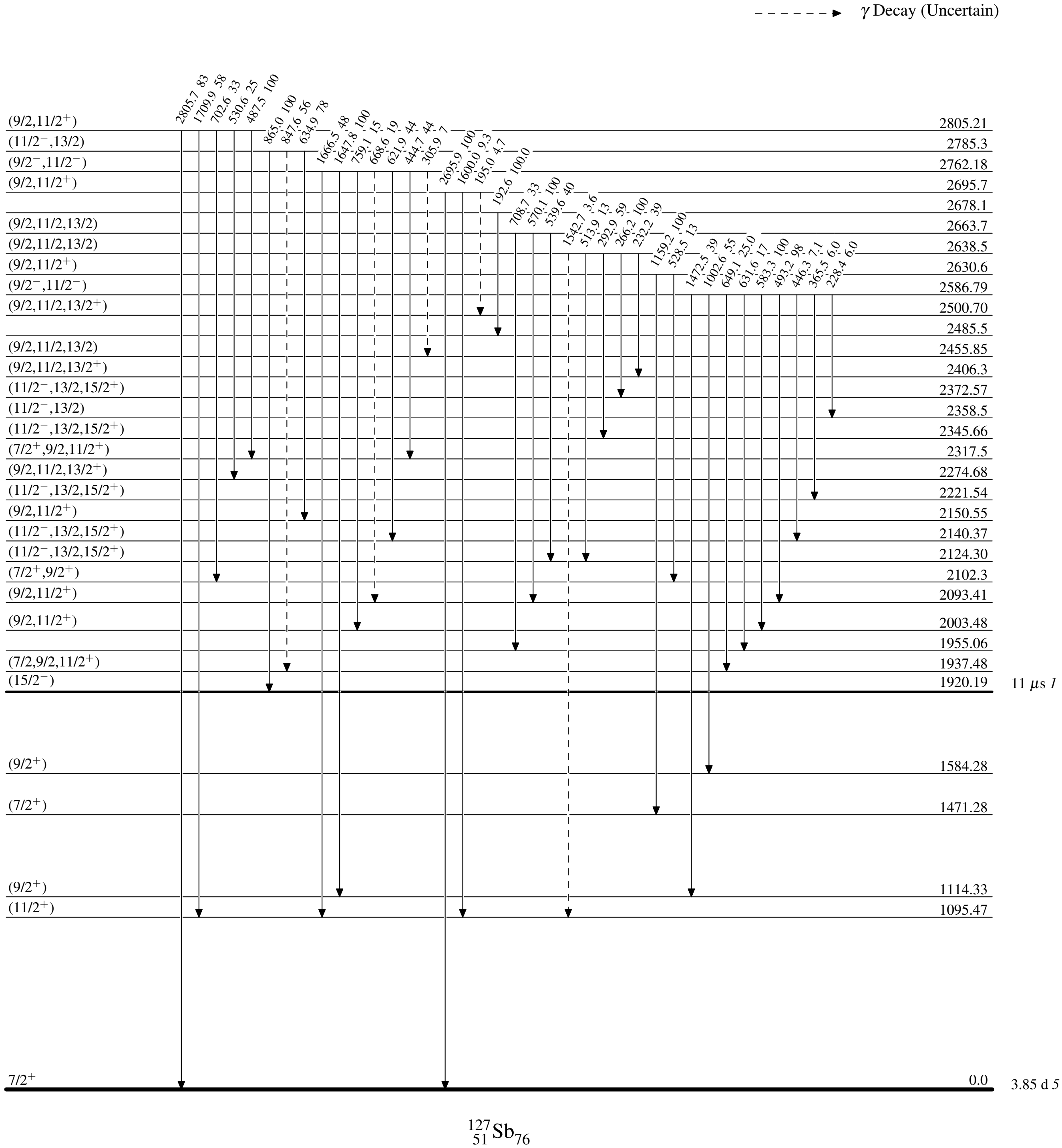


$^{127}_{51}Sb_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

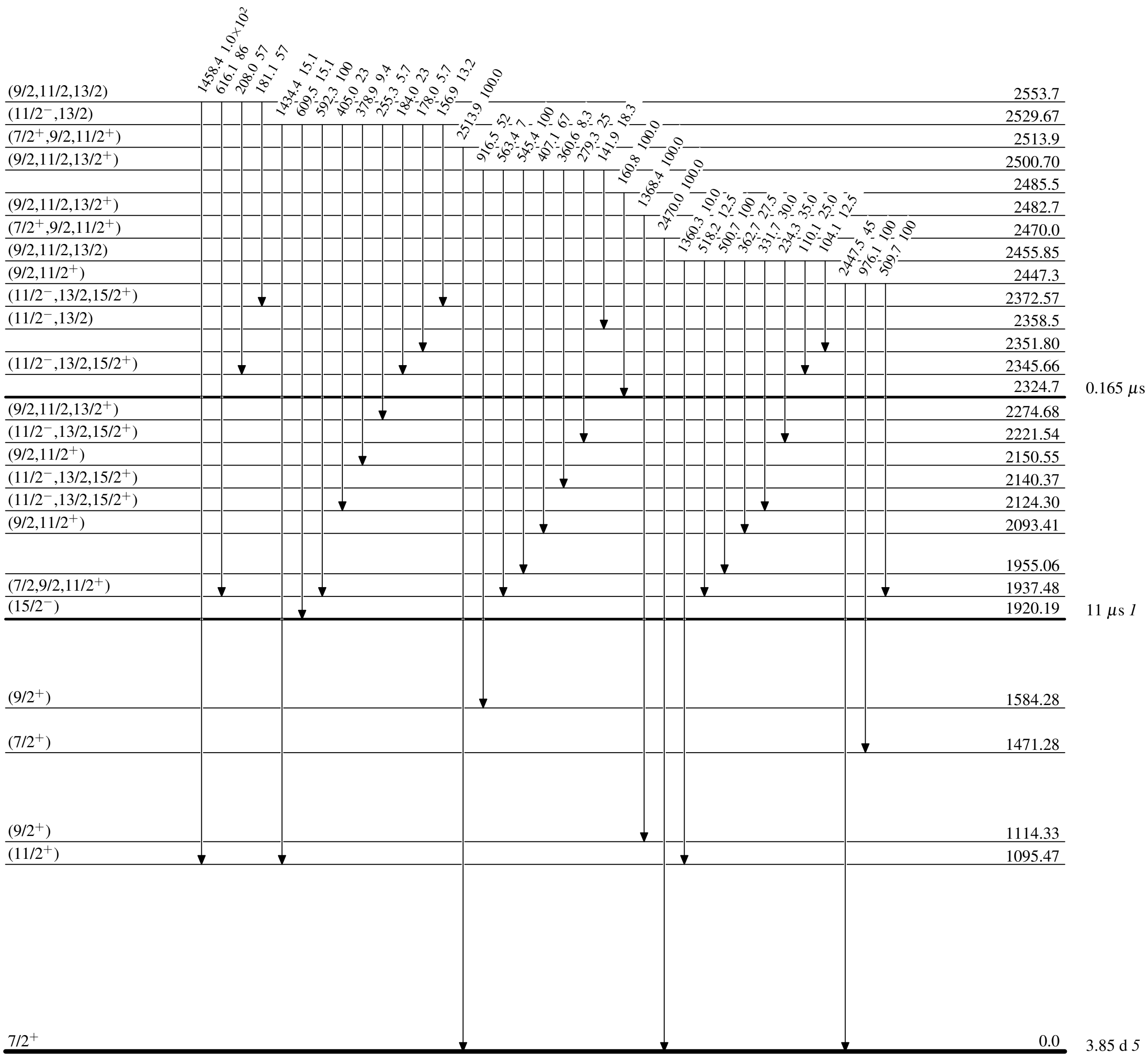
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

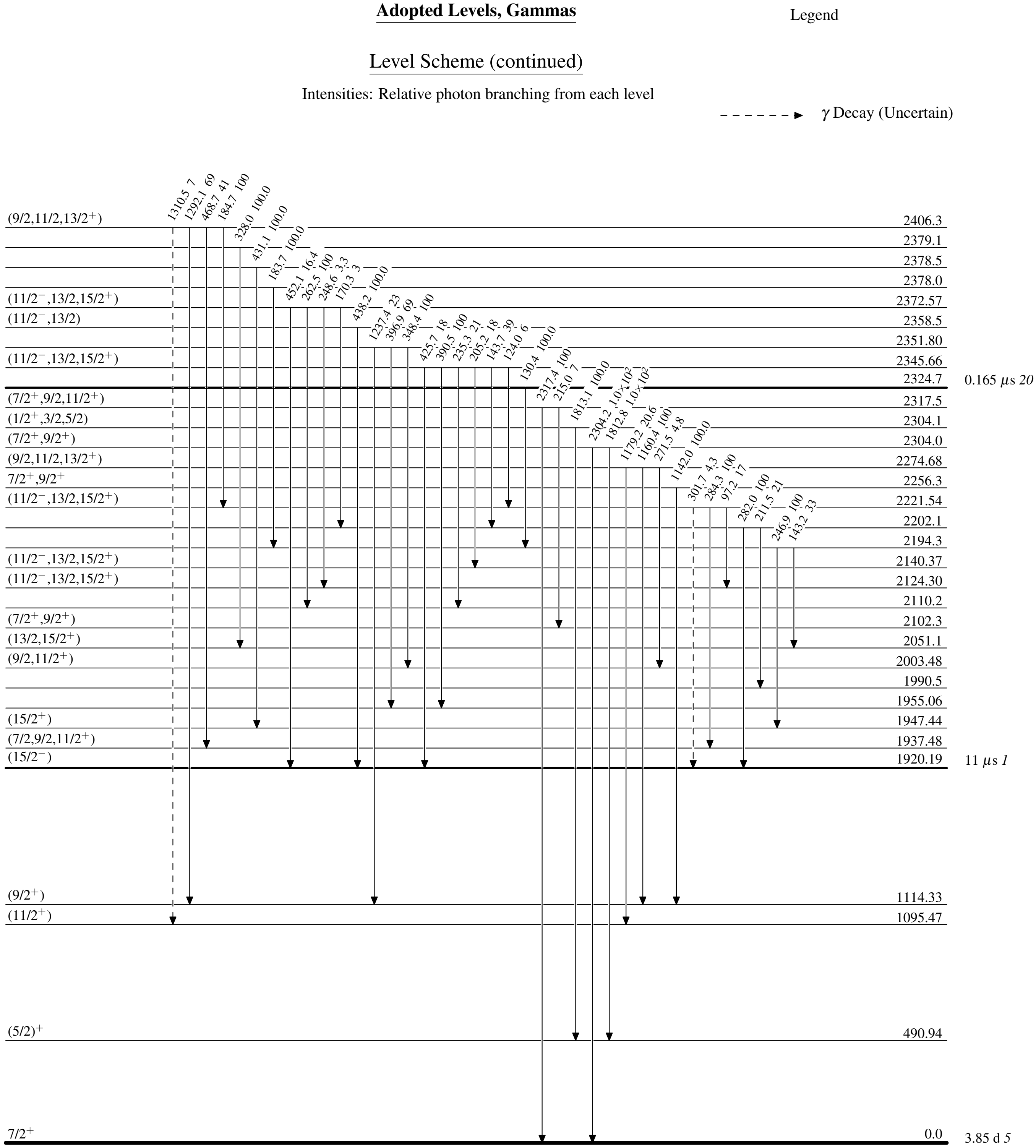


$^{127}_{51}Sb_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

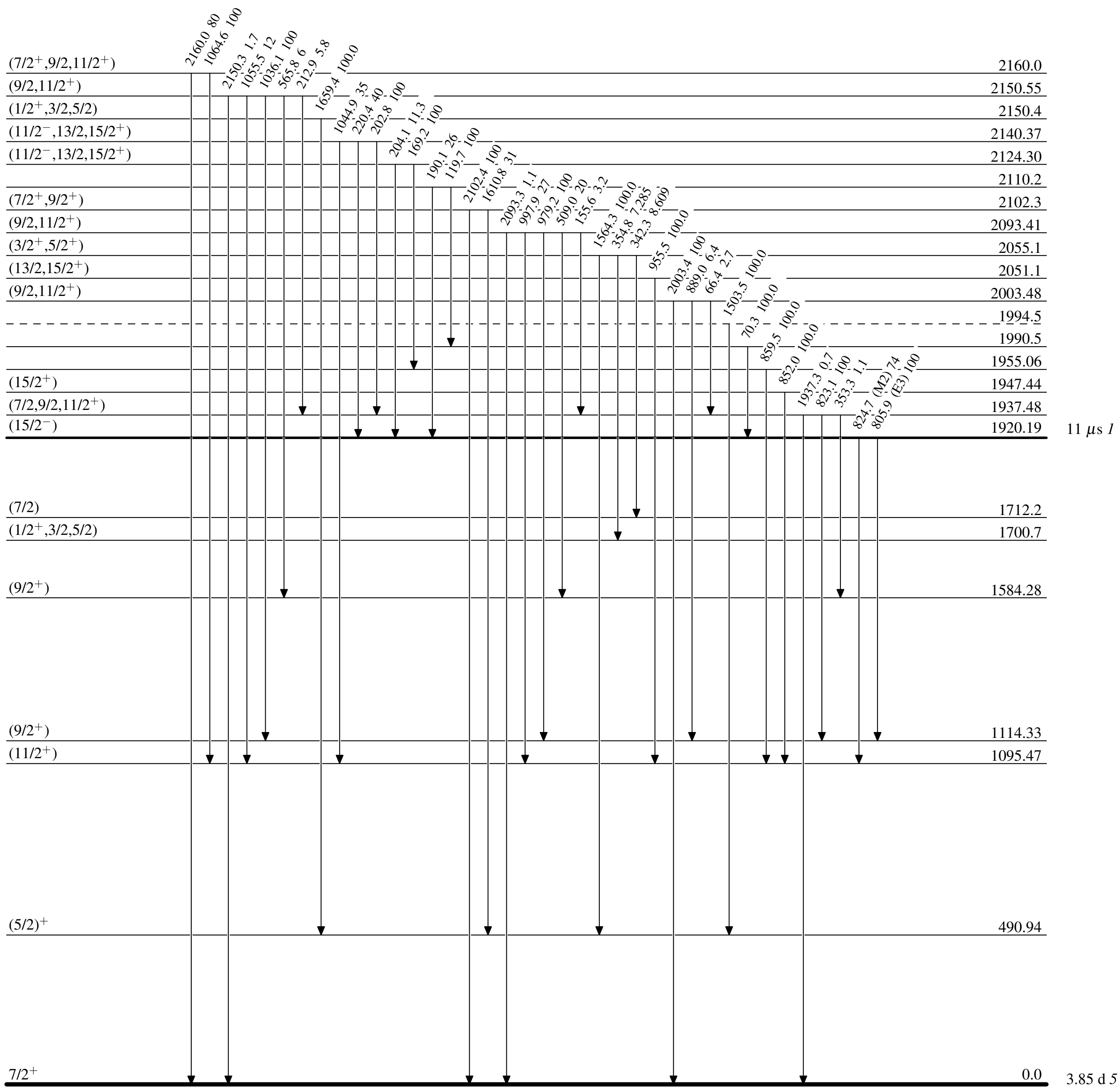


$^{127}_{51}Sb_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

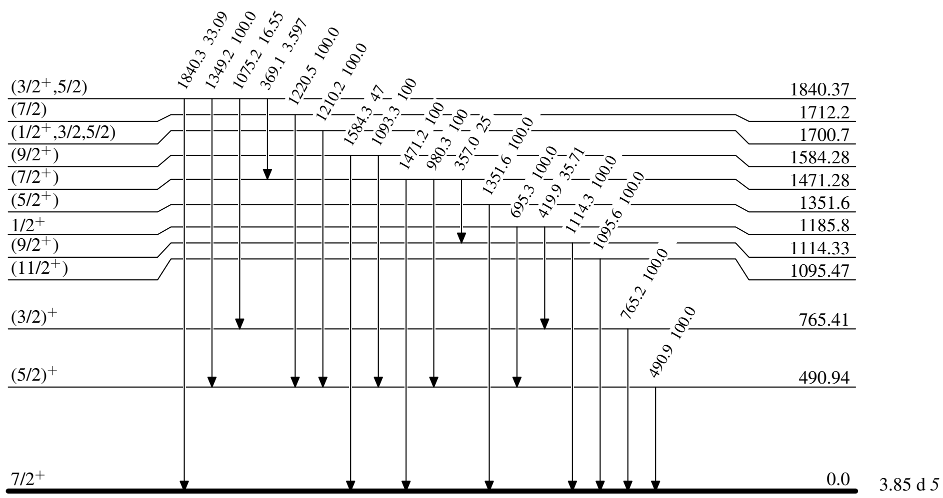
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{127}_{51}Sb_{76}$