Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112,1163 (2011)	15-Dec-2010

Q(β^-)=4142 *12*; S(n)=5290 *9*; S(p)=12602 *10*; Q(α)=−5975 *8* 2012Wa38
Note: Current evaluation has used the following Q record 4140 12 *5290* 8 *12601* 10 −5975 8 2003Au03,2009AuZZ.
Q(β^-), S(n), S(p), Q(α): from 2009AuZZ (cf. 4139 *12*, 5288 *8*, 12602 *10*, −5780 *50*, respectively, from 2003Au03).
Q(β^-n)=− 3341 *12* (2009AuZZ) (cf.−3343 *12* (2003Au03)).
For calculation of one-quasiparticle states, see 2010Ro27.

^{93}Sr Levels

E(Z),J(Z) Total absorption γ spectrometry data in ^{93}Rb β^- decay indicate β^- population of level(s) at, or near, this energy. However, the β feeding is very much weaker than implied by the presence of the transitions shown tentatively deexciting this level. Those gammas are probably misplaced; if so, the stated level energy would no longer be meaningful, but some level(s) would exist within maybe 50 keV of this value. Provided only one level is being fed, log $f^{1u}t$<8.5 so J=3/2,5/2,7/2.

Cross Reference (XREF) Flags

- A ^{93}Rb β^- decay
- B ^{94}Rb β^-n decay
- C ^{252}Cf SF decay

E(level)†	J$^\pi$‡	T$_{1/2}$	XREF	Comments
0#	5/2$^+$	7.43 min *3*	ABC	%β^-=100 μ=−0.7926 *12*; Q=+0.258 *11* μ: from fast ion beam collinear LASER spectroscopy (1990Bu12 and 1990Li28); value relative to ^{87}Sr. Q: 2002Ma09; revision of Q=0.264 *25* from 1990Bu12 and 1990Li28, from collinear fast beam LASER spectroscopy. Δ<r^2>: 0.590 *25* relative to ^{88}Sr, from collinear fast beam laser spectroscopy (1990Bu12). <r^2>$^{1/2}$(charge)=4.306 *7* (2004An14). J: from hyperfine structure measurements (1987Bu11). π: from comparison of μ with Schmidt values for J=5/2. T$_{1/2}$: weighted average of 7.43 min *3* (1972He41), 7.41 min *4* (1986Ok03), 7.54 min *6* (1960Fr05) and 7.32 min *10* (1969Ca03). Others: 8.22 min *14* (1972Eh02), 6.95 min *7* (1974Gr29).
213.431 *11*	(9/2)$^+$	4.3 ns *1*	AB	μ=−1.02 *6* (2004Sa69) μ: From g-factor=−0.227 *13* (2004Sa69; TDPAC) if hyperfine field for Sr in Fe is −23.83 *7* tesla and J(213 level)=9/2; note that J=9/2 is highly tentative, however. J$^\pi$: E2 213γ to 5/2$^+$ g.s.; 1566γ from (11/2$^-$) 1780; log *ft*≥7.4, log $f^{1u}t$>8.5 from 5/2$^-$; 2558γ from 2771 level (for which J^π=(7/2$^-$) or higher). However, g-factor is similar to that calculated and/or observed for low-lying 3/2$^+$ states in neighboring nuclides (2004Sa69), and authors assume J=3/2; if J^π(213)=3/2$^+$, either the 1566γ and 2558γ are misplaced in β^- decay or J^π(1780)=(11/2$^-$) is incorrect. T$_{1/2}$: from 2004Sa69 in β^- decay. Others: 4.6 ns *3* (1986Ka20), 4.6 ns *5* (1983Ka41), 4.6 ns *3* (1970MaZC) and 5 ns *1* (1982Ka03), all from β^- decay.
432.604 *24*	(5/2,7/2,9/2)$^+$	<0.3 ns	AB	J$^\pi$: M1,E2 433γ to 5/2$^+$; M1,E2 219γ to (9/2)$^+$ 213. T$_{1/2}$: from β^- decay.
986.12# *5*	(9/2$^+$)		ABC	

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Adopted Levels, Gammas (continued)

^{93}Sr Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
1142.55 *4*	(5/2$^+$,7/2,9/2$^+$)	AB	J$^{\pi}$: 1143γ to 5/2$^+$ g.s.; 929γ to (9/2)$^+$ 213.
1148.20 *6*	(5/2$^+$,7/2,9/2$^+$)	AB	J$^{\pi}$: 1148γ to 5/2$^+$ g.s.; 934γ to (9/2)$^+$ 213.
1238.24[&] *7*	(7/2$^+$)	ABC	
1385.31 *6*		AB	
1529.32 *10*		AB	
1562.96 *9*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 1350γ to (9/2)$^+$ 213; 1563γ to 5/2$^+$ g.s.
1779.79[@] *7*	(11/2$^-$)	A C	J$^{\pi}$: 794γ to (9/2$^+$) 986; configuration assignment.
1808.44 *6*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 822γ to (9/2$^+$) 986; 1809γ to 5/2$^+$ g.s.
1869.64 *7*		A	
1910.86 *9*		A	
2045.57 *8*		A	
2054.02 *9*		A	
2072.2[&] *4*	(11/2$^+$)	C	J$^{\pi}$: intraband 834γ to (7/2$^+$) 1238; 292γ to (11/2$^-$) 1780.
2117.46 *11*		A	J$^{\pi}$: log *ft*=7.8, log $f^{1u}t$>8.5 from 5/2$^-$.
2141.07 *11*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: log *ft*=7.4, log $f^{1u}t$>8.5 from 5/2$^-$; 1928γ to (9/2)$^+$ 213.
2168.6[#] *4*	(13/2$^+$)	C	
2273.00 *12*		A	J$^{\pi}$: 1287γ to (9/2$^+$) 986, 1035γ to (7/2$^+$) 1238, so J=(5/2 to 11/2).
2292.87 *7*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 1307γ to (9/2$^+$) 986; 2293γ to 5/2$^+$ g.s.
2319.10 *8*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 1333γ to (9/2$^+$) 986; log *ft*=7.4, log $f^{1u}t$>8.5 from 5/2$^-$.
2351.51 *11*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 1365γ to (9/2$^+$) 986; log *ft*=7.7, log $f^{1u}t$>8.5 from 5/2$^-$.
2456.44 *19*		A	
2459.78 *13*		A	J$^{\pi}$: 1473γ to (9/2$^+$) 986.
2530.4 *10*		C	J$^{\pi}$: 751γ to (11/2$^-$) 1780.
2553.80 *10*		A	J$^{\pi}$: 1316γ to (7/2$^+$) 1238.
2621.39 *14*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 1635γ to (9/2$^+$) 986; log *ft*=7.2 from 5/2$^-$.
2737.44 *17*		A	J$^{\pi}$: 2524γ to (9/2)$^+$ 213.
2770.70 *13*	(≥7/2)	A	J$^{\pi}$: 991γ to (11/2$^-$) 1780, so J^{π}=(7/2$^-$,9/2,11/2,13/2,15/2$^-$).
2773.99 *25*		A	
2782.21 *11*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: log *ft*=7.4, log $f^{1u}t$>8.5 from 5/2$^-$; 2569γ to (9/2)$^+$ 213.
2869.07 *11*		A	J$^{\pi}$: 2869γ to 5/2$^+$ g.s.; log *ft*=7.0, log $f^{1u}t$>8.5 from 5/2$^-$.
2886.46 *9*		A	J$^{\pi}$: 2886γ to 5/2$^+$ g.s.
2954.3 *8*	(9/2,11/2,13/2)	C	J$^{\pi}$: 1175γ to (11/2$^-$) 1780; 882γ to (11/2$^+$) 2072.
2979.90 *10*	3/2,5/2,7/2	A	J$^{\pi}$: log *ft*=6.7, log $f^{1u}t$<8.5 from 5/2$^-$.
3100.2[@] *8*	(15/2$^-$)	C	
3198.14 *15*		A	
3233.01 *14*	(7/2$^-$,9/2$^+$)	A	J$^{\pi}$: 1453γ to (11/2$^-$) 1780; log *ft*=7.3 from 5/2$^-$.
3256.40 *12*	(5/2$^+$,7/2,9/2$^+$)	A	J$^{\pi}$: 2270γ to (9/2$^+$) 986; log *ft*=7.2 from 5/2$^-$.
3283.2[#] *12*	(17/2$^+$)	C	
3307.7[&] *12*	(15/2$^+$)	C	
3404.40 *21*	(5/2$^+$,7/2)	A	J$^{\pi}$: 2418γ to (9/2$^+$) 986; log *ft*=6.8, log $f^{1u}t$<8.5 from 5/2$^-$.
3481.5 *12*		C	J$^{\pi}$: 1409γ to (11/2$^+$) 2072.
3603.18 *11*	(5/2$^+$,7/2)	A	J$^{\pi}$: 3390γ to (9/2)$^+$ 213; log *ft*=6.5, log $f^{1u}t$<8.5 from 5/2$^-$.
3623.70 *16*		A	J$^{\pi}$: log *ft*=6.8 from 5/2$^-$.
3772.0 *10*		C	J$^{\pi}$: 1992γ to (11/2$^-$) 1780.
3789.19 *14*	3/2,5/2,7/2	A	J$^{\pi}$: log *ft*=6.5, log $f^{1u}t$<8.5 from J^{π}=5/2$^-$; 3789γ to 5/2$^+$ g.s.
3803.73 *9*	3/2$^-$,5/2$^-$,7/2$^-$	A	J$^{\pi}$: log *ft*=5.7 from J^{π}=5/2$^-$.
3847.62 *8*	(7/2)$^-$	A	J$^{\pi}$: log *ft*=5.7 from J^{π}=5/2$^-$; 2861γ to (9/2$^+$) 986.
3866.87 *12*	(5/2$^+$,7/2)	A	J$^{\pi}$: log *ft*=6.1, log $f^{1u}t$<8.5 from J^{π}=5/2$^-$; 2880γ to (9/2$^+$) 986.
3867.40 *8*	(7/2)$^-$	A	J$^{\pi}$: log *ft*=5.6 from J^{π}=5/2$^-$; 2087γ to (11/2$^-$) 1780.
3869.9 *10*		C	J$^{\pi}$: 2090γ to (11/2$^-$) 1780.
3876.82 *10*	(5/2$^+$,7/2)	A	J$^{\pi}$: log *ft*=6.0, log $f^{1u}t$<8.5 from J^{π}=5/2$^-$; 2890γ to (9/2$^+$) 986.
3880.9[#] *16*	(21/2$^+$)	C	

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Adopted Levels, Gammas (continued)

^{93}Sr Levels (continued)

E(level)[†]	J^{π}[‡]	XREF	Comments
3890.64 *10*	3/2⁻,5/2⁻,7/2⁻	A	J^{π}: log *ft*=5.5 from J^{π}=5/2⁻.
3934.66 *12*	(5/2⁺,7/2)	A	J^{π}: log *ft*=5.9, log $f^{1u}t$<8.5 from J^{π}=5/2⁻; 3722γ to (9/2)⁺ 213.
3954.94 *8*	3/2,5/2,7/2	A	J^{π}: log *ft*=5.9, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4017.60 *15*	3/2,5/2,7/2	A	J^{π}: log *ft*=6.3, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4037.86 *10*	3/2,5/2,7/2	A	J^{π}: log *ft*=5.8, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4037.9 *10*		C	J^{π}: 2258γ to (11/2⁻) 1780.
4041.9 *3*		A	J^{π}: 2262γ to (11/2⁻) 1780.
4097.43 *12*	(7/2⁻)	A	J^{π}: log *ft*=5.8, log $f^{1u}t$<8.5 from J^{π}=5/2⁻; 3884γ to (9/2)⁺ 213.
4156.4 *10*		C	J^{π}: 2377γ to (11/2⁻) 1780.
4336.12 *24*	3/2,5/2,7/2	A	J^{π}: log *ft*=6.4, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4461.10 *15*	3/2,5/2,7/2	A	J^{π}: log *ft*=6.0, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4470.8 *16*		C	
4509.26 *12*	3/2⁽⁻⁾,5/2,7/2	A	J^{π}: log *ft*=6.2, log $f^{1u}t$<8.5 from J^{π}=5/2⁻; 662γ to (7/2)⁻ 3848.
4577.6 *3*	3/2,5/2,7/2	A	J^{π}: log *ft*=6.1, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4596.8[&] *16*	(19/2⁺)	C	1289γ to (15/2⁺) 3308.
4620.20 *16*	3/2⁻,5/2⁻,7/2⁻	A	J^{π}: log *ft*=5.7, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4714.64 *13*	3/2,5/2,7/2	A	J^{π}: log *ft*=5.8, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4790.38 *25*	3/2,5/2,7/2	A	J^{π}: log *ft*=6.1, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
4797.0[#] *19*	(25/2⁺)	C	916γ to (21/2⁺) 3881.
4913.09 *13*	(7/2)⁻	A	J^{π}: log *ft*=5.5 from J^{π}=5/2⁻; 3133γ to (11/2⁻) 1780.
4991.28 *14*	(7/2)⁻	A	J^{π}: log *ft*=5.8, log $f^{1u}t$<8.5 from J^{π}=5/2⁻; 3212γ to (11/2⁻) 1780.
5012.24 *14*	3/2,5/2,7/2	A	J^{π}: log *ft*=5.9, log $f^{1u}t$<8.5 from J^{π}=5/2⁻.
5333.9 *19*		C	
5384.67 *12*	3/2⁻,5/2⁻,7/2⁻	A	J^{π}: log *ft*=5.2 from J^{π}=5/2⁻.
5395.5 *4*	(5/2⁻,7/2⁻)	A	J^{π}: log *ft*≈5.8 from J^{π}=5/2⁻; 4157γ to (7/2⁺) 1238.
5413.6 *3*	3/2⁽⁻⁾ to 7/2⁽⁻⁾	A	J^{π}: log *ft*=5.6 2 from J^{π}=5/2⁻.
5601.3? *9*		A	
5631.2? *9*		A	
5775.5? *4*		A	
6000.51? *16*		A	
6096.7? *3*		A	
6260.73? *21*		A	
6272.70? *21*		A	
6277.40? *22*		A	
6707.42? *22*		A	

[†] From least-squares fit to Eγ, except as noted; transitions with uncertain placement are omitted from the fit unless all transitions deexciting a given level are of this character, and 1 keV uncertainty is assumed for transitions for which the authors failed to state an uncertainty. Note that additional levels exist in the vicinity of 4250 keV and 5200 keV as evidenced by the β^- strength distribution deduced from absorption γ spectrometry (see ^{93}Rb β^- decay); these are not included here because specific energies have not been determined. Tentative E(level) values proposed for n-emitting levels in ^{93}Rb β^-n decay (E=5300-6600) have also been omitted here.

[‡] Values given without comment are very tentative suggestions from 2003Hw01 in ^{252}Cf SF decay; they are based on the correspondence between level energies in ^{93}Sr and the yrast levels of ^{94}Sr which suggests a weak stretched or 'stretched-minus-one' coupling of a $d_{5/2}$ neutron hole to levels in a ^{94}Sr core. Note that a number of J^{π} values shown here depend critically on tentative assignments of (9/2)⁺ and (11/2⁻) to the 213 and 1780 levels, respectively.

[#] Band(A): 5/2⁺ yrast band. Possible (stretched) coupling of $(\nu\ d_{5/2})^{-1}$ to ^{94}Sr core.

[@] Band(B): (11/2⁻) band. Possible coupling of $(\nu\ d_{5/2})^{-1}$ to octupole state in ^{94}Sr core.

[&] Band(C): (7/2⁺) band. Possible (stretched-1) coupling of $(\nu\ d_{5/2})^{-1}$ to ^{94}Sr core.

Adopted Levels, Gammas (continued)

$\gamma(^{93}Sr)$

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f	Mult. ‡	α @	Comments
213.431	(9/2)+	213.429 *11*	100	0	5/2+	E2	0.0639	B(E2)(W.u.)=11.2 *3* δ(M1,E2)>2.4 from α(K)exp in β^- decay.
432.604	(5/2,7/2,9/2)+	219.16 *6*	15.8 *9*	213.431	(9/2)+	M1,E2	0.039 *19*	
		432.61 *3*	100.0 *5*	0	5/2+	M1,E2	0.0047 *11*	
986.12	(9/2+)	986.05 *6*	100	0	5/2+			
1142.55	(5/2+,7/2,9/2+)	709.95 *5*	100 *7*	432.604	(5/2,7/2,9/2)+			
		929.04 *9*	7.9 *6*	213.431	(9/2)+			
		1142.58 *12*	5.9 *5*	0	5/2+			
1148.20	(5/2+,7/2,9/2+)	934.70 *10*	20.9 *16*	213.431	(9/2)+			
		1148.18 *8*	100 *6*	0	5/2+			
1238.24	(7/2+)	1238.30 *8*	100	0	5/2+			
1385.31		1385.21 *8*	100	0	5/2+			
1529.32		1096.71 *9*	100	432.604	(5/2,7/2,9/2)+			
1562.96	(5/2+,7/2,9/2+)	1349.67 *21*	14.0 *17*	213.431	(9/2)+			
		1562.91 *11*	100 *7*	0	5/2+			
1779.79	(11/2−)	793.65 *6*	100 *5*	986.12	(9/2+)			
		1566.2 *9*	5.5 *26*	213.431	(9/2)+			γ absent in ^{252}Cf SF decay even though it should have been strong enough to have been detected in that experiment.
1808.44	(5/2+,7/2,9/2+)	822.41 *22*	6.0 *11*	986.12	(9/2+)			
		1808.50 *10*	100 *5*	0	5/2+			
1869.64		1437.10 *16*	22.0 *19*	432.604	(5/2,7/2,9/2)+			
		1869.69 *11*	100 *6*	0	5/2+			
1910.86		768.36 *23*	10.0 *17*	1142.55	(5/2+,7/2,9/2+)			
		1910.72 *12*	100 *6*	0	5/2+			
2045.57		1059.4 *3*	3.8 *7*	986.12	(9/2+)			
		1612.87 *11*	100 *6*	432.604	(5/2,7/2,9/2)+			
2054.02		905.6 *3*	4.9 *10*	1148.20	(5/2+,7/2,9/2+)			
		2054.06 *12*	100 *5*	0	5/2+			
2072.2	(11/2+)	292.4#	100#	1779.79	(11/2−)			
		833.9#	55#	1238.24	(7/2+)			
2117.46		1684.76 *13*	100	432.604	(5/2,7/2,9/2)+			
2141.07	(5/2+,7/2,9/2+)	1927.64 *12*	100	213.431	(9/2)+			
2168.6	(13/2+)	388.8#	16#	1779.79	(11/2−)			
		1182.5#	100#	986.12	(9/2+)			
2273.00		1035.1 *5*	35 *11*	1238.24	(7/2+)			
		1130.12 *16*	100 *11*	1142.55	(5/2+,7/2,9/2+)			
		1287.0 *5*	58 *18*	986.12	(9/2+)			
2292.87	(5/2+,7/2,9/2+)	1054.7 *3*	11.1 *23*	1238.24	(7/2+)			
		1150.38 *13*	87 *8*	1142.55	(5/2+,7/2,9/2+)			

$^{93}_{38}Sr_{55}$-4

γ(^{93}Sr) (continued)

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f
2292.87	(5/2+,7/2,9/2+)	1306.92 *19*	21.5 *26*	986.12	(9/2+)
		2292.80 *13*	100 *6*	0	5/2+
2319.10	(5/2+,7/2,9/2+)	1332.97 *8*	100 *10*	986.12	(9/2+)
		1886.6 *3*	13.6 *21*	432.604	(5/2,7/2,9/2)+
2351.51	(5/2+,7/2,9/2+)	1365.36 *11*	100 *7*	986.12	(9/2+)
		1919.0 *4*	33 *6*	432.604	(5/2,7/2,9/2)+
2456.44		163.4 *3*	94 *21*	2292.87	(5/2+,7/2,9/2+)
		2023.9 *4*	100 *21*	432.604	(5/2,7/2,9/2)+
2459.78		1473.2 *6*	23 *8*	986.12	(9/2+)
		2026.88 *25*	100 *13*	432.604	(5/2,7/2,9/2)+
2530.4		750.6#	100#	1779.79	(11/2−)
2553.80		1315.64 *10*	100 *7*	1238.24	(7/2+)
		1405.37 *22*	26 *3*	1148.20	(5/2+,7/2,9/2+)
2621.39	(5/2+,7/2,9/2+)	1479.1 *3*	16 *3*	1142.55	(5/2+,7/2,9/2+)
		1635.20 *15*	100 *8*	986.12	(9/2+)
2737.44		2523.7 *5*	100	213.431	(9/2)+
2770.70	(≥7/2)	901.08 *18*	89 *11*	1869.64	
		990.9 *3*	92 *18*	1779.79	(11/2−)
		2557.5 *4*	100 *17*	213.431	(9/2)+
2773.99		1388.7 *6*	100	1385.31	
2782.21	(5/2+,7/2,9/2+)	1397.7 *5*	9 *3*	1385.31	
		2349.58 *17*	100 *9*	432.604	(5/2,7/2,9/2)+
		2568.59 *20*	63 *5*	213.431	(9/2)+
2869.07		595.87 *13*	50 *7*	2273.00	
		1726.3 *4*	18 *4*	1142.55	(5/2+,7/2,9/2+)
		2869.23 *18*	100 *8*	0	5/2+
2886.46		1501.18 *12*	100 *7*	1385.31	
		1738.4 *9*	30 *20*	1148.20	(5/2+,7/2,9/2+)
		2886.3 *3*	95 *10*	0	5/2+
2954.3	(9/2,11/2,13/2)	882.1#	100#	2072.2	(11/2+)
		1174.5#	30#	1779.79	(11/2−)
2979.90	3/2,5/2,7/2	1594.61 *12*	100 *6*	1385.31	
		2766.48 *17*	69 *5*	213.431	(9/2)+
3100.2	(15/2−)	931.6#	100#	2168.6	(13/2+)
		1320.4#	93#	1779.79	(11/2−)
3198.14		1812.76 *21*	100	1385.31	
3233.01	(7/2−,9/2+)	776.4 *4*	56 *19*	2456.44	
		1115.77 *22*	100 *15*	2117.46	
		1452.7 *7*	54 *20*	1779.79	(11/2−)
3256.40	(5/2+,7/2,9/2+)	2270.20 *12*	100	986.12	(9/2+)

$^{93}_{38}Sr_{55}$-5

Adopted Levels, Gammas (continued)

$\gamma(^{93}Sr)$ (continued)

E_i(level)	J^{π}_i	E_γ[†]	I_γ[†]	E_f	J^{π}_f
3283.2	$(17/2^+)$	1114.6[#]	100[#]	2168.6	$(13/2^+)$
3307.7	$(15/2^+)$	1235.5[#]	100[#]	2072.2	$(11/2^+)$
3404.40	$(5/2^+,7/2)$	1841.6 *7*	25 *7*	1562.96	$(5/2^+,7/2,9/2^+)$
		2256.2 *9*	21 *16*	1148.20	$(5/2^+,7/2,9/2^+)$
		2418.22 *22*	100 *10*	986.12	$(9/2^+)$
3481.5		1409.3[#]	100[#]	2072.2	$(11/2^+)$
3603.18	$(5/2^+,7/2)$	404.99 *18*	11.1 *18*	3198.14	
		1284.0 *4*	31 *7*	2319.10	$(5/2^+,7/2,9/2^+)$
		2454.97 *22*	100 *11*	1148.20	$(5/2^+,7/2,9/2^+)$
		3389.8 *9*	13 *4*	213.431	$(9/2)^+$
3623.70		1164.36 *25*	59 *9*	2459.78	
		1167.1 *5*	30 *8*	2456.44	
		1578.0 *3*	100 *14*	2045.57	
		1753.6 *4*	61 *13*	1869.64	
3772.0		1992.2[#]	100[#]	1779.79	$(11/2^-)$
3789.19	3/2,5/2,7/2	1470.13 *22*	100 *11*	2319.10	$(5/2^+,7/2,9/2^+)$
		1743.2 *5*	59 *17*	2045.57	
		2403.5 *6*	34 *8*	1385.31	
		2646.6 *6*	92 *28*	1142.55	$(5/2^+,7/2,9/2^+)$
		3789.3 *3*	80 *10*	0	$5/2^+$
3803.73	$3/2^-,5/2^-,7/2^-$	1531.1 *7*	4.1 *12*	2273.00	
		1892.70 *24*	11.1 *13*	1910.86	
		1933.9 *3*	16.4 *26*	1869.64	
		2661.08 *22*	19.8 *19*	1142.55	$(5/2^+,7/2,9/2^+)$
		3370.97 *16*	72 *4*	432.604	$(5/2,7/2,9/2)^+$
		3803.98 *19*	100 *6*	0	$5/2^+$
3847.62	$(7/2)^-$	867.74 *16*	6.6 *8*	2979.90	3/2,5/2,7/2
		1978.28 *15*	72 *5*	1869.64	
		2461.98 *19*	43 *4*	1385.31	
		2704.97 *17*	92 *6*	1142.55	$(5/2^+,7/2,9/2^+)$
		2861.34 *15*	100 *6*	986.12	$(9/2^+)$
3866.87	$(5/2^+,7/2)$	610.1 *4*	32 *6*	3256.40	$(5/2^+,7/2,9/2^+)$
		1547.78 *15*	51 *4*	2319.10	$(5/2^+,7/2,9/2^+)$
		2724.60 *25*	100 *16*	1142.55	$(5/2^+,7/2,9/2^+)$
		2880.48 *22*	68 *6*	986.12	$(9/2^+)$
3867.40	$(7/2)^-$	981.1 *3*	5.1 *11*	2886.46	
		1515.8 *3*	3.6 *7*	2351.51	$(5/2^+,7/2,9/2^+)$
		1574.71 *22*	4.8 *5*	2292.87	$(5/2^+,7/2,9/2^+)$
		1749.61 *19*	9.8 *9*	2117.46	
		1821.86 *13*	22.3 *15*	2045.57	
		1956.4 *3*	6.8 *9*	1910.86	

$^{93}_{38}Sr_{55}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{93}Sr)$ (continued)

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f
3867.40	(7/2)⁻	1997.8 *6*	2.3 *7*	1869.64	
		2058.78 *17*	13.6 *11*	1808.44	(5/2⁺,7/2,9/2⁺)
		2087.4 *3*	6.8 *9*	1779.79	(11/2⁻)
		3867.60 *17*	100 *5*	0	5/2⁺
3869.9		2090.1#	100#	1779.79	(11/2⁻)
3876.82	(5/2⁺,7/2)	1736.3 *13*	26 *13*	2141.07	(5/2⁺,7/2,9/2⁺)
		1831.10 *22*	51 *6*	2045.57	
		2068.36 *24*	35 *4*	1808.44	(5/2⁺,7/2,9/2⁺)
		2491.20 *22*	96 *10*	1385.31	
		2638.1 *4*	69 *9*	1238.24	(7/2⁺)
		2734.0 *10*	14 *6*	1142.55	(5/2⁺,7/2,9/2⁺)
		2890.4 *3*	100 *9*	986.12	(9/2⁺)
		3876.7 *3*	51 *6*	0	5/2⁺
3880.9	(21/2⁺)	597.7#	100#	3283.2	(17/2⁺)
3890.64	3/2⁻,5/2⁻,7/2⁻	1120.0 *4*	2.0 *6*	2770.70	(≥7/2)
		1836.4 *6*	8 *5*	2054.02	
		2327.5 *3*	3.1 *5*	1562.96	(5/2⁺,7/2,9/2⁺)
		2505.20 *15*	22.0 *14*	1385.31	
		3458.19 *16*	100 *5*	432.604	(5/2,7/2,9/2)⁺
		3890.5 *3*	5.6 *6*	0	5/2⁺
3934.66	(5/2⁺,7/2)	1793.62 *18*	27.5 *25*	2141.07	(5/2⁺,7/2,9/2⁺)
		3502.6 *4*	55 *9*	432.604	(5/2,7/2,9/2)⁺
		3721.6 *4*	15.5 *25*	213.431	(9/2)⁺
		3934.34 *18*	100 *5*	0	5/2⁺
3954.94	3/2,5/2,7/2	351.74 *11*	10.9 *11*	3603.18	(5/2⁺,7/2)
		721.99 *17*	8.3 *11*	3233.01	(7/2⁻,9/2⁺)
		1068.51 *11*	100 *9*	2886.46	
		1494.85 *15*	38 *3*	2459.78	
		1662.16 *15*	60 *5*	2292.87	(5/2⁺,7/2,9/2⁺)
		1900.94 *12*	76 *5*	2054.02	
		2812.6 *5*	18 *4*	1142.55	(5/2⁺,7/2,9/2⁺)
		3954.2 *12*	6 *3*	0	5/2⁺
4017.60	3/2,5/2,7/2	2147.6 *3*	70 *9*	1869.64	
		2875.3 *6*	25 *6*	1142.55	(5/2⁺,7/2,9/2⁺)
		3585.4 *5*	26 *5*	432.604	(5/2,7/2,9/2)⁺
		4017.55 *21*	100 *7*	0	5/2⁺
4037.86	3/2,5/2,7/2	1483.96 *24*	9.3 *13*	2553.80	
		1983.2 *9*	7 *3*	2054.02	
		1991.8 *3*	17.8 *24*	2045.57	
		2168.24 *14*	47 *3*	1869.64	
		2229.44 *12*	100 *6*	1808.44	(5/2⁺,7/2,9/2⁺)

$^{93}_{38}Sr_{55}$-7

$\gamma(^{93}Sr)$ (continued)

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f
4037.86	3/2,5/2,7/2	2799.9 *4*	16 *3*	1238.24	$(7/2^+)$
4037.9		2258.1#	100#	1779.79	$(11/2^-)$
4041.9		1690.9 *7*	43 *15*	2351.51	$(5/2^+,7/2,9/2^+)$
		2262.0 *3*	100 *14*	1779.79	$(11/2^-)$
4097.43	$(7/2^-)$	473.8 *6*	5.1 *22*	3623.70	
		1359.92 *16*	37 *3*	2737.44	
		1745.7 *5*	22 *6*	2351.51	$(5/2^+,7/2,9/2^+)$
		2954.93 *24*	83 *10*	1142.55	$(5/2^+,7/2,9/2^+)$
		3664.75 *19*	100 *7*	432.604	$(5/2,7/2,9/2)^+$
		3883.95 *22*	82 *6*	213.431	$(9/2)^+$
4156.4		2376.6#	100#	1779.79	$(11/2^-)$
4336.12	3/2,5/2,7/2	1138.0 *3*	100 *16*	3198.14	
		2773.2 *4*	60 *10*	1562.96	$(5/2^+,7/2,9/2^+)$
4461.10	3/2,5/2,7/2	1204.9 *7*	16 *7*	3256.40	$(5/2^+,7/2,9/2^+)$
		2550.06 *22*	86 *8*	1910.86	
		2652.62 *22*	100 *10*	1808.44	$(5/2^+,7/2,9/2^+)$
		4461.4 *4*	25 *3*	0	$5/2^+$
4470.8		989.3#	100#	3481.5	
4509.26	$3/2^{(-)},5/2,7/2$	661.64 *11*	100 *19*	3847.62	$(7/2)^-$
		3366.6 *3*	81 *10*	1142.55	$(5/2^+,7/2,9/2^+)$
4577.6	3/2,5/2,7/2	1803.6 *3*	91 *13*	2773.99	
		2258.4 *4*	100 *20*	2319.10	$(5/2^+,7/2,9/2^+)$
4596.8	$(19/2^+)$	1289.1#	100#	3307.7	$(15/2^+)$
4620.20	$3/2^-,5/2^-,7/2^-$	602.6 *4*	37 *7*	4017.60	3/2,5/2,7/2
		831.2 *3*	13 *3*	3789.19	3/2,5/2,7/2
		1838.0 *4*	100 *37*	2782.21	$(5/2^+,7/2,9/2^+)$
		1882.9 *4*	22 *4*	2737.44	
		3477.39 *24*	57 *5*	1142.55	$(5/2^+,7/2,9/2^+)$
4714.64	3/2,5/2,7/2	205.2 *6*	35 *18*	4509.26	$3/2^{(-)},5/2,7/2$
		910.91 *14*	48 *5*	3803.73	$3/2^-,5/2^-,7/2^-$
		3572.05 *25*	100 *9*	1142.55	$(5/2^+,7/2,9/2^+)$
		4281.9 *3*	57 *5*	432.604	$(5/2,7/2,9/2)^+$
4790.38	3/2,5/2,7/2	1533.8 *3*	100 *15*	3256.40	$(5/2^+,7/2,9/2^+)$
		2170.4 *16*	37 *37*	2621.39	$(5/2^+,7/2,9/2^+)$
		2334.0 *5*	46 *10*	2456.44	
		3642.4 *6*	69 *15*	1148.20	$(5/2^+,7/2,9/2^+)$
4797.0	$(25/2^+)$	916.1#	100#	3880.9	$(21/2^+)$
4913.09	$(7/2)^-$	2043.82 *17*	94 *7*	2869.07	
		2359.45 *16*	100 *7*	2553.80	
		2620.2 *6*	26 *6*	2292.87	$(5/2^+,7/2,9/2^+)$

γ(^{93}Sr) (continued)

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f
4913.09	(7/2)$^-$	3104.1 *8*	22 *7*	1808.44	(5/2$^+$,7/2,9/2$^+$)
		3133.1 *8*	27 *8*	1779.79	(11/2$^-$)
		3770.4 *3*	55 *6*	1142.55	(5/2$^+$,7/2,9/2$^+$)
4991.28	(7/2)$^-$	1100.63 *12*	100 *9*	3890.64	3/2$^-$,5/2$^-$,7/2$^-$
		1202.4 *7*	26 *12*	3789.19	3/2,5/2,7/2
		3211.6 *6*	62 *13*	1779.79	(11/2$^-$)
		3848.7 *7*	59 *13*	1142.55	(5/2$^+$,7/2,9/2$^+$)
		4004.5 *8*	43 *11*	986.12	(9/2$^+$)
5012.24	3/2,5/2,7/2	1077.60 *17*	28 *3*	3934.66	(5/2$^+$,7/2)
		1208.55 *19*	96 *12*	3803.73	3/2$^-$,5/2$^-$,7/2$^-$
		1222.7 *4*	43 *10*	3789.19	3/2,5/2,7/2
		2958.1 *6*	100 *26*	2054.02	
5333.9		863.1#	100#	4470.8	
5384.67	3/2$^-$,5/2$^-$,7/2$^-$	1507.77 *14*	68 *5*	3876.82	(5/2$^+$,7/2)
		2602.38 *22*	100 *9*	2782.21	(5/2$^+$,7/2,9/2$^+$)
		2614.1 *3*	37 *5*	2770.70	(≥7/2)
		3821.9 *4*	28 *4*	1562.96	(5/2$^+$,7/2,9/2$^+$)
		4242.1 *5*	22 *3*	1142.55	(5/2$^+$,7/2,9/2$^+$)
5395.5	(5/2$^-$,7/2$^-$)	2624.8 *5*	96 *20*	2770.70	(≥7/2)
		4009.9 *12*	55 *20*	1385.31	
		4156.6 *6*	100 *20*	1238.24	(7/2$^+$)
		5396.7 *9*	31 *7*	0	5/2$^+$
5413.6	3/2$^{(-)}$ to 7/2$^{(-)}$	3296.1 *10*	21 *9*	2117.46	
		3544.0 *8*	47 *16*	1869.64	
		4271.23& *19*	100 *7*	1142.55	(5/2$^+$,7/2,9/2$^+$)
5601.3?		3547.2& *9*	100	2054.02	
5631.2?		2398.3& *3*	63 *9*	3233.01	(7/2$^-$,9/2$^+$)
		3172.1& *4*	100 *14*	2459.78	
		3338.0& *4*	70 *12*	2292.87	(5/2$^+$,7/2,9/2$^+$)
		4645.0 *9*	23 *7*	986.12	(9/2$^+$)
5775.5?		1439.6& *5*	88 *29*	4336.12	3/2,5/2,7/2
		1908.1& *6*	95 *31*	3867.40	(7/2)$^-$
		4627.0& *5*	100 *14*	1148.20	(5/2$^+$,7/2,9/2$^+$)
6000.51?		1491.25& *24*	29 *4*	4509.26	3/2$^{(-)}$,5/2,7/2
		2377.0& *3*	32 *5*	3623.70	
		3113.85& *24*	100 *9*	2886.46	
		3226.4& *3*	71 *7*	2773.99	
		4615.4& *9*	10 *3*	1385.31	

$^{93}_{38}Sr_{55}$-9

Adopted Levels, Gammas (continued)

$\gamma(^{93}Sr)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f
6096.7?		2206.2[&] 3	100 14	3890.64	$3/2^-,5/2^-,7/2^-$
		4947.5[&] 6	38 7	1148.20	$(5/2^+,7/2,9/2^+)$
		4953.9[&] 11	20 5	1142.55	$(5/2^+,7/2,9/2^+)$
6260.73?		3027.6[&] 11	28 12	3233.01	$(7/2^-,9/2^+)$
		3486.9[&] 7	39 10	2773.99	
		3706.6[&] 7	42 10	2553.80	
		3941.7[&] 4	64 13	2319.10	$(5/2^+,7/2,9/2^+)$
		4481.2[&] 6	34 6	1779.79	$(11/2^-)$
		4875.1[&] 3	100 8	1385.31	
6272.70?		859.05[&] 18	18.3 23	5413.6	$3/2^{(-)}$ to $7/2^{(-)}$
		3403.56[&] 18	100 6	2869.07	
6277.40?		2386.72[&] 23	100 11	3890.64	$3/2^-,5/2^-,7/2^-$
		2674.2[&] 4	47 9	3603.18	$(5/2^+,7/2)$
6707.42?		2903.6[&] 3	100 12	3803.73	$3/2^-,5/2^-,7/2^-$
		4250.9[&] 7	22 5	2456.44	
		4387.9[&] 4	52 6	2319.10	$(5/2^+,7/2,9/2^+)$
		4899.4[&] 5	22 3	1808.44	$(5/2^+,7/2,9/2^+)$

† From β^- decay, except as noted.
‡ From α(K)exp in ^{93}Rb β^- decay.
\# From ^{252}Cf SF decay.
@ 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.

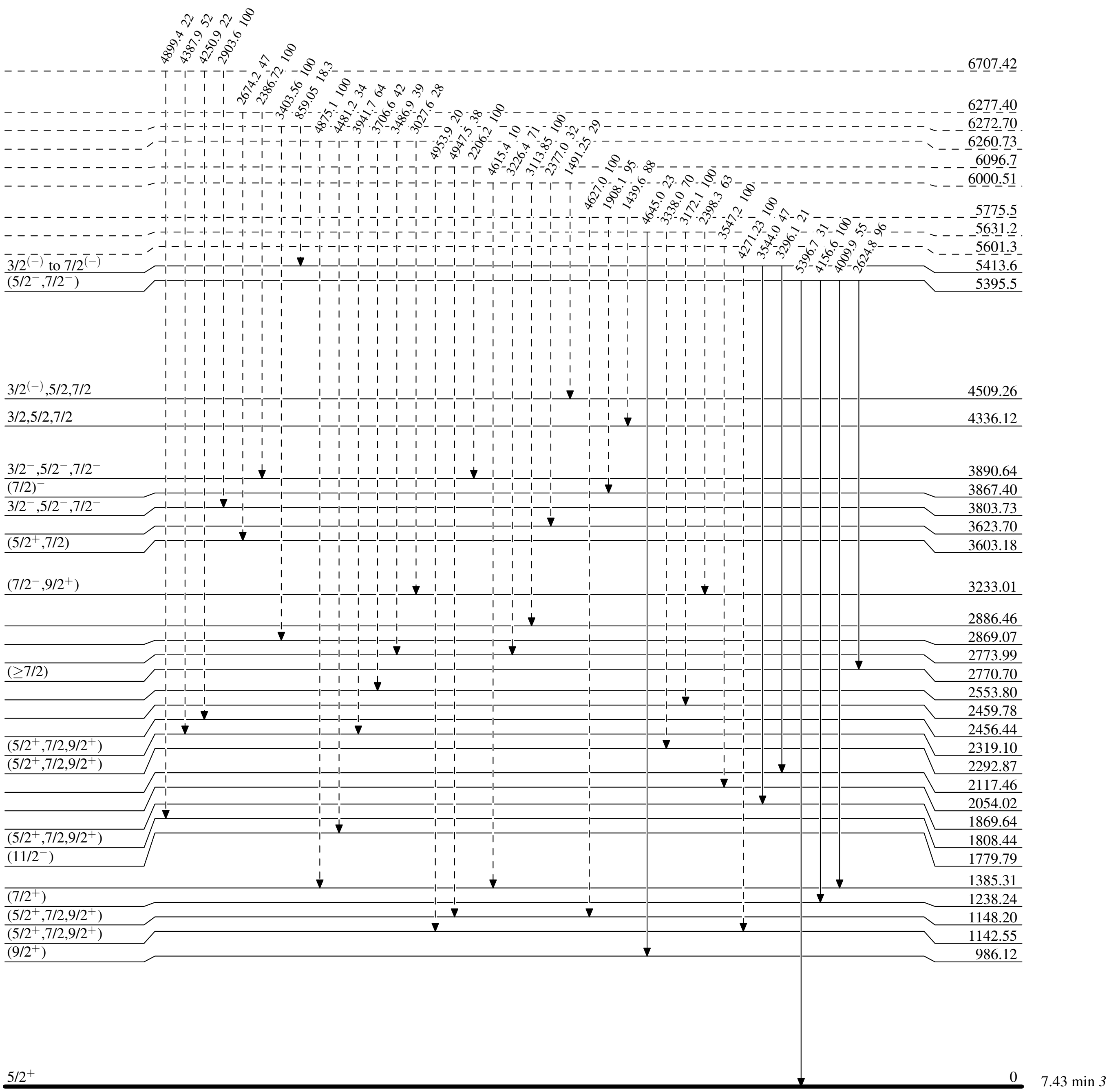
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

- - - - - -► γ Decay (Uncertain)

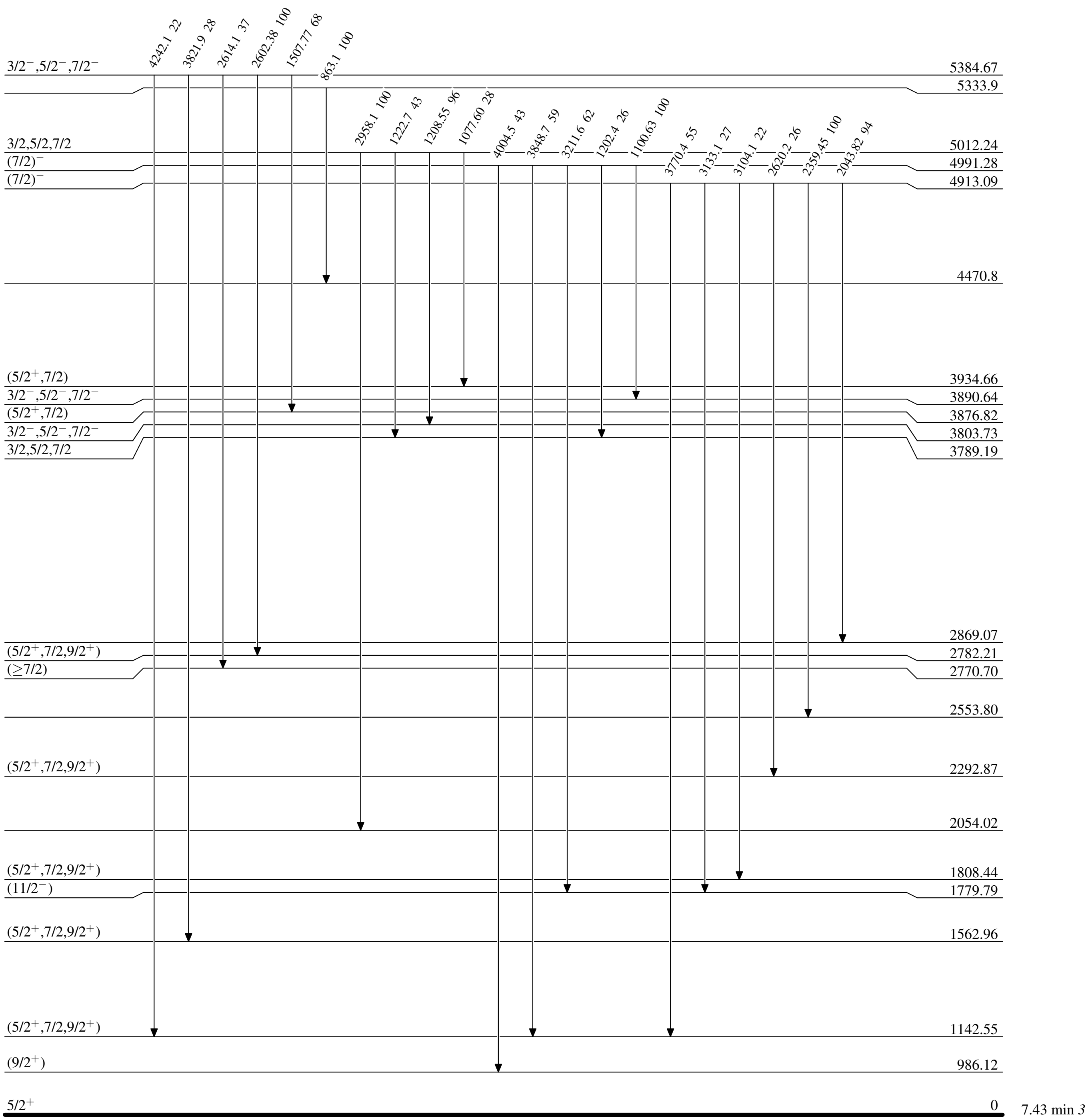


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

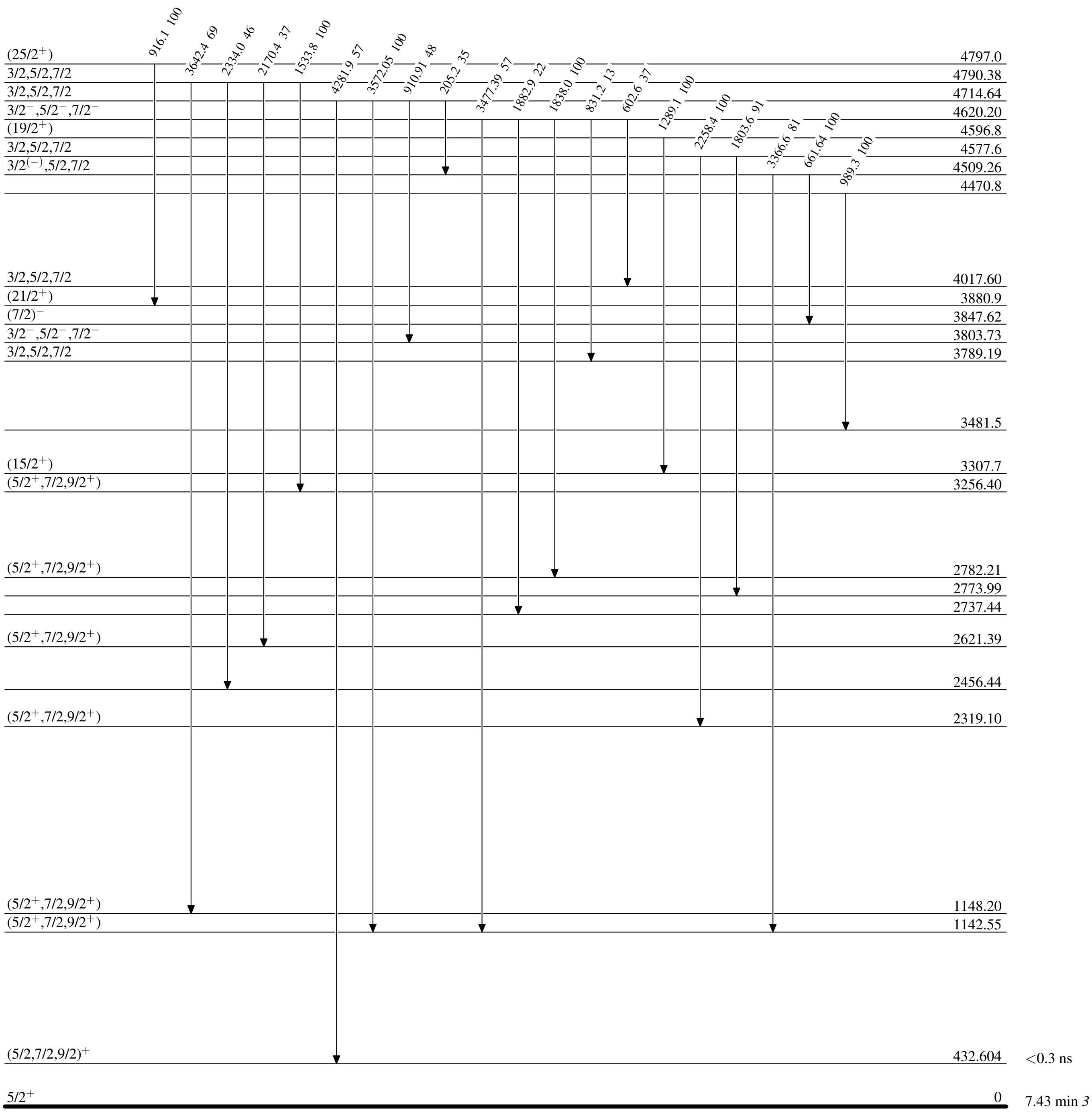


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

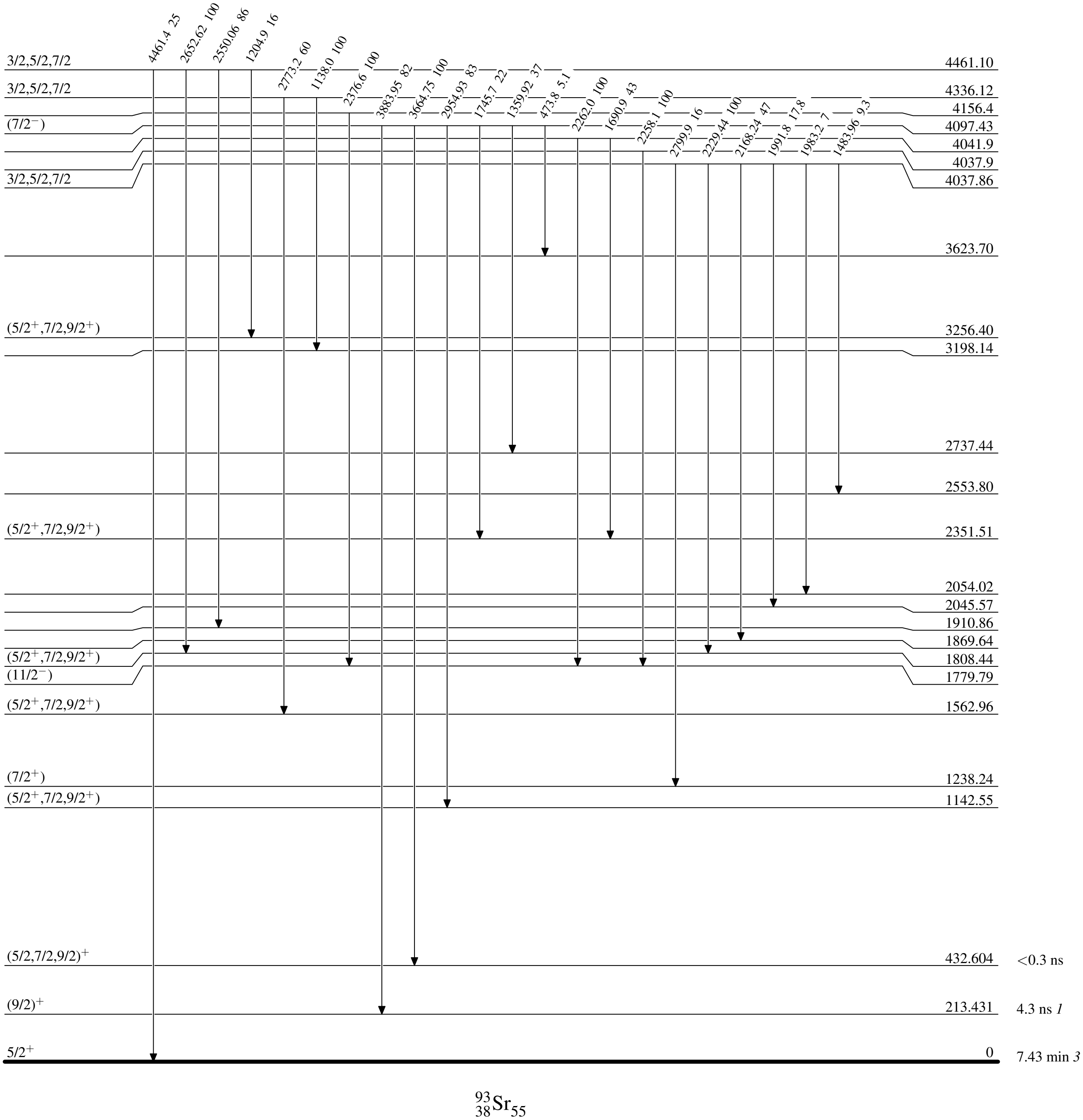


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

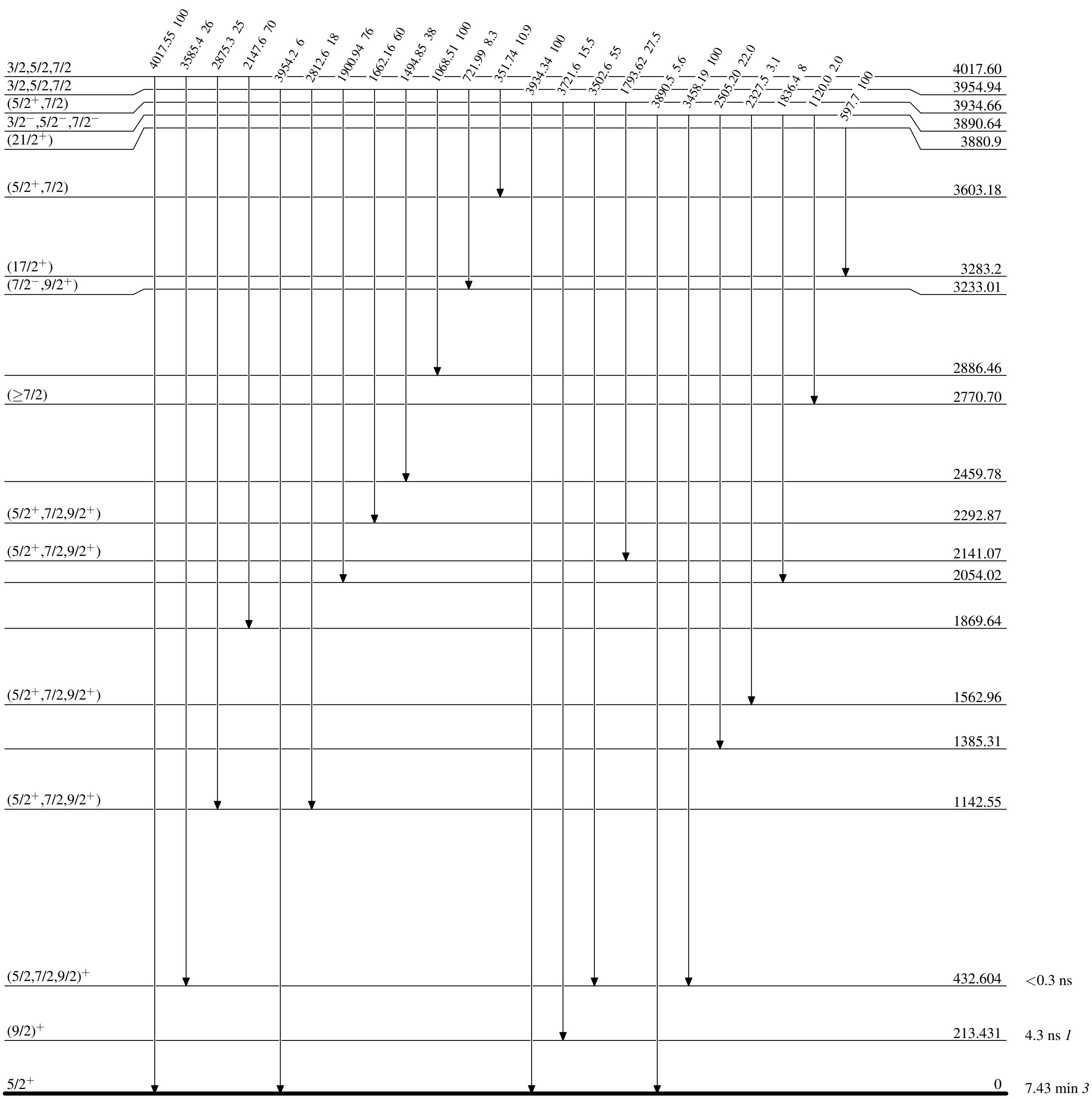
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intentsities: Relative photon branching from each level

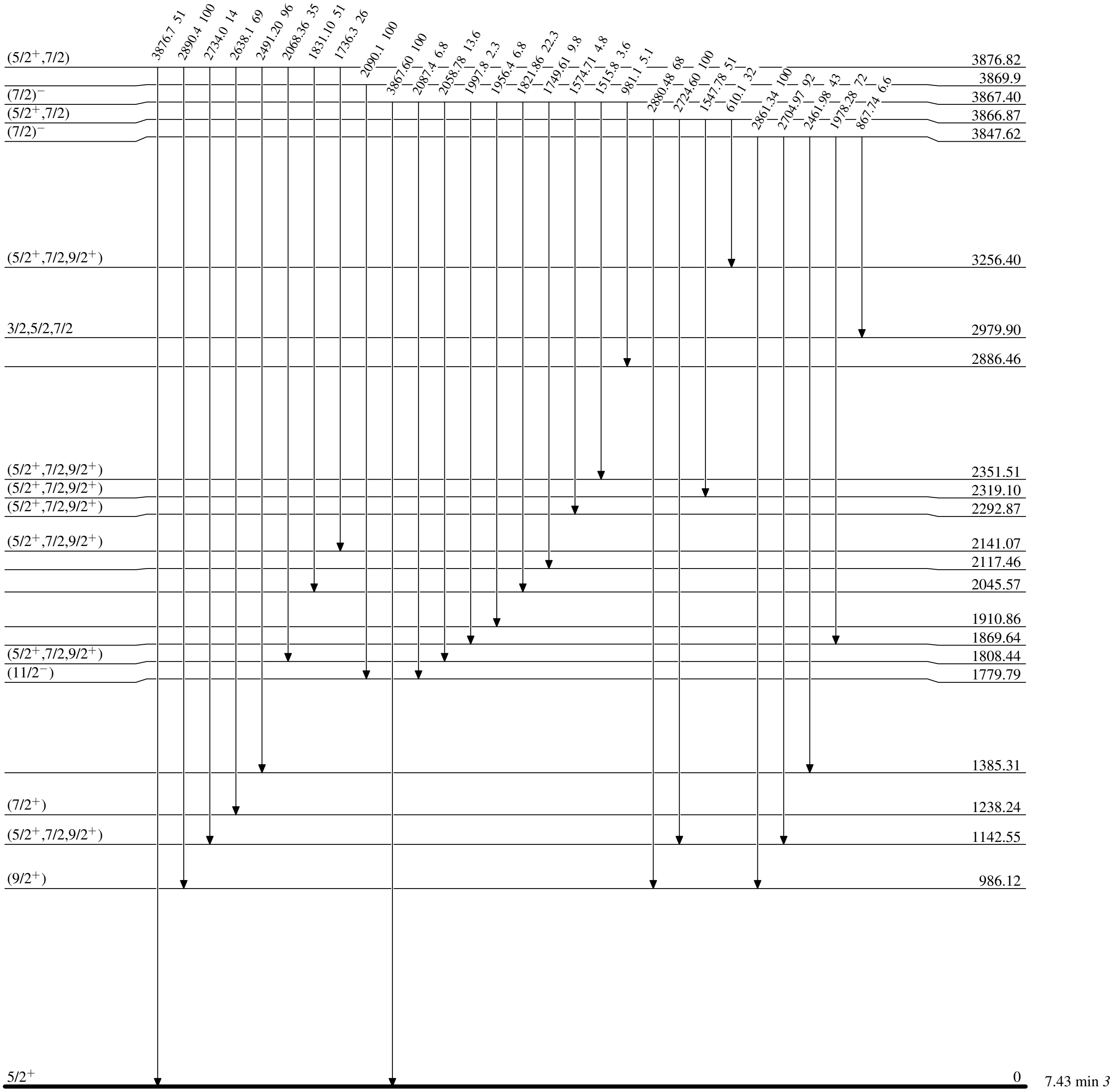


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

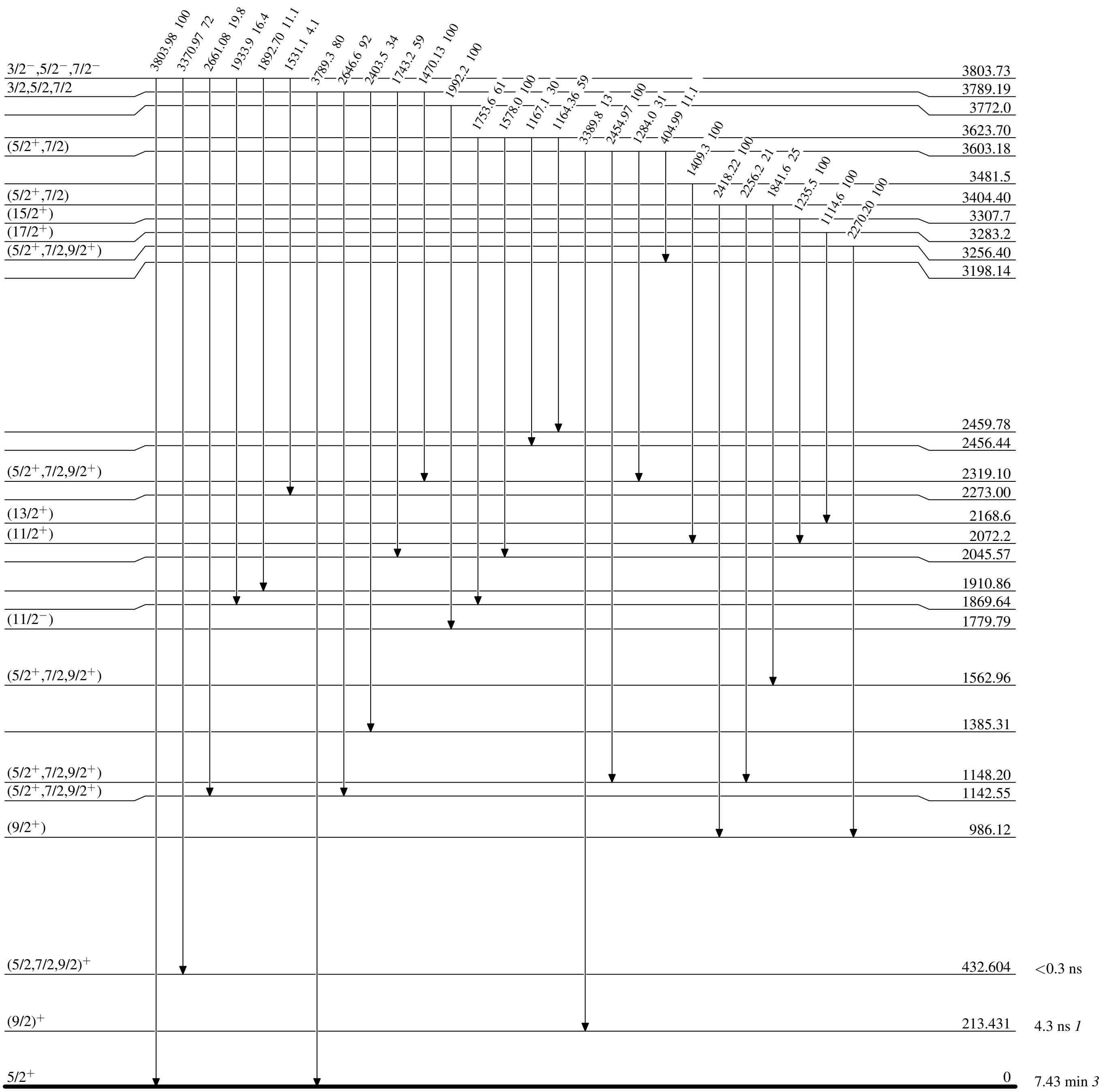


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

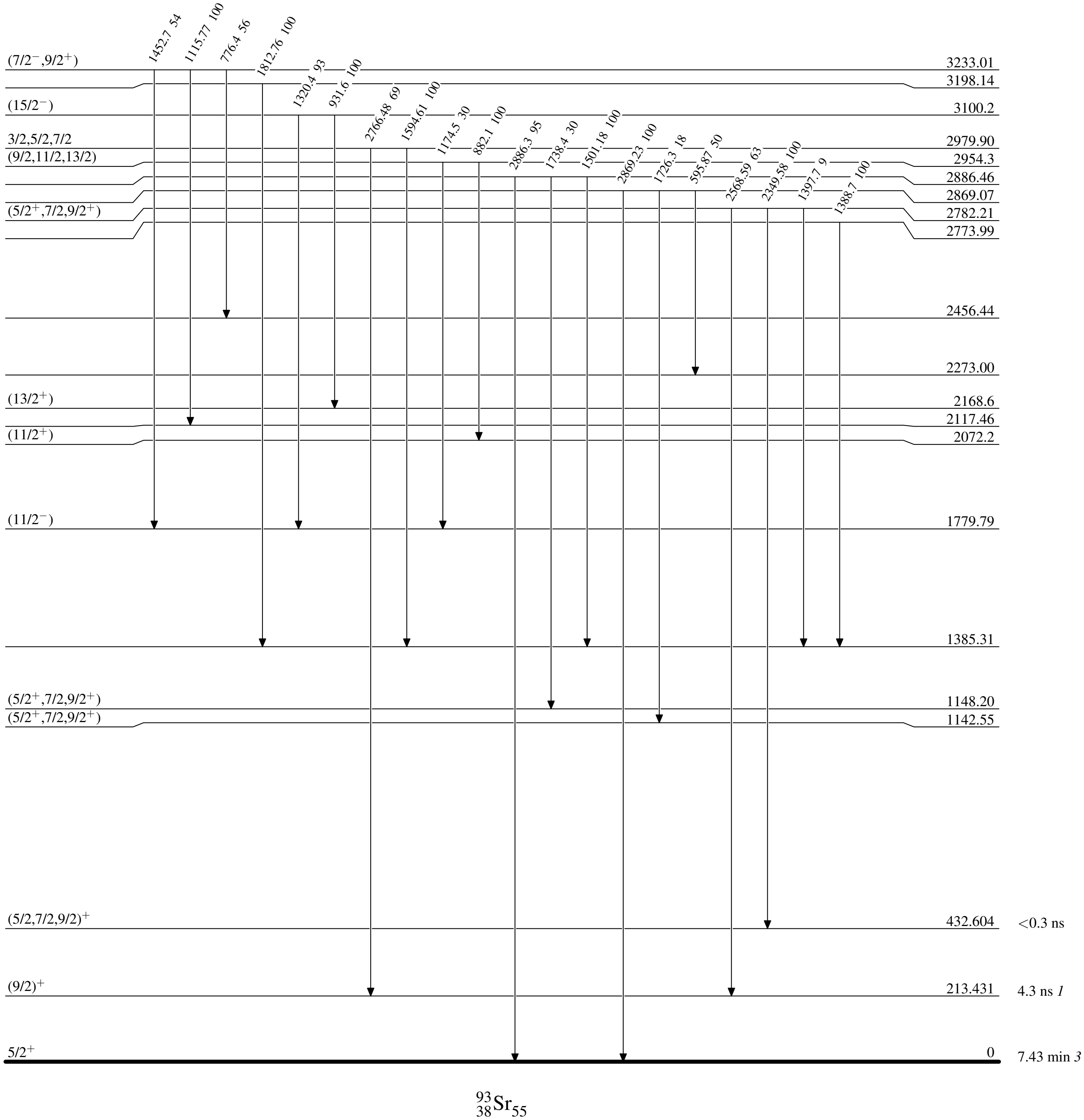


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

Level Scheme (continued)

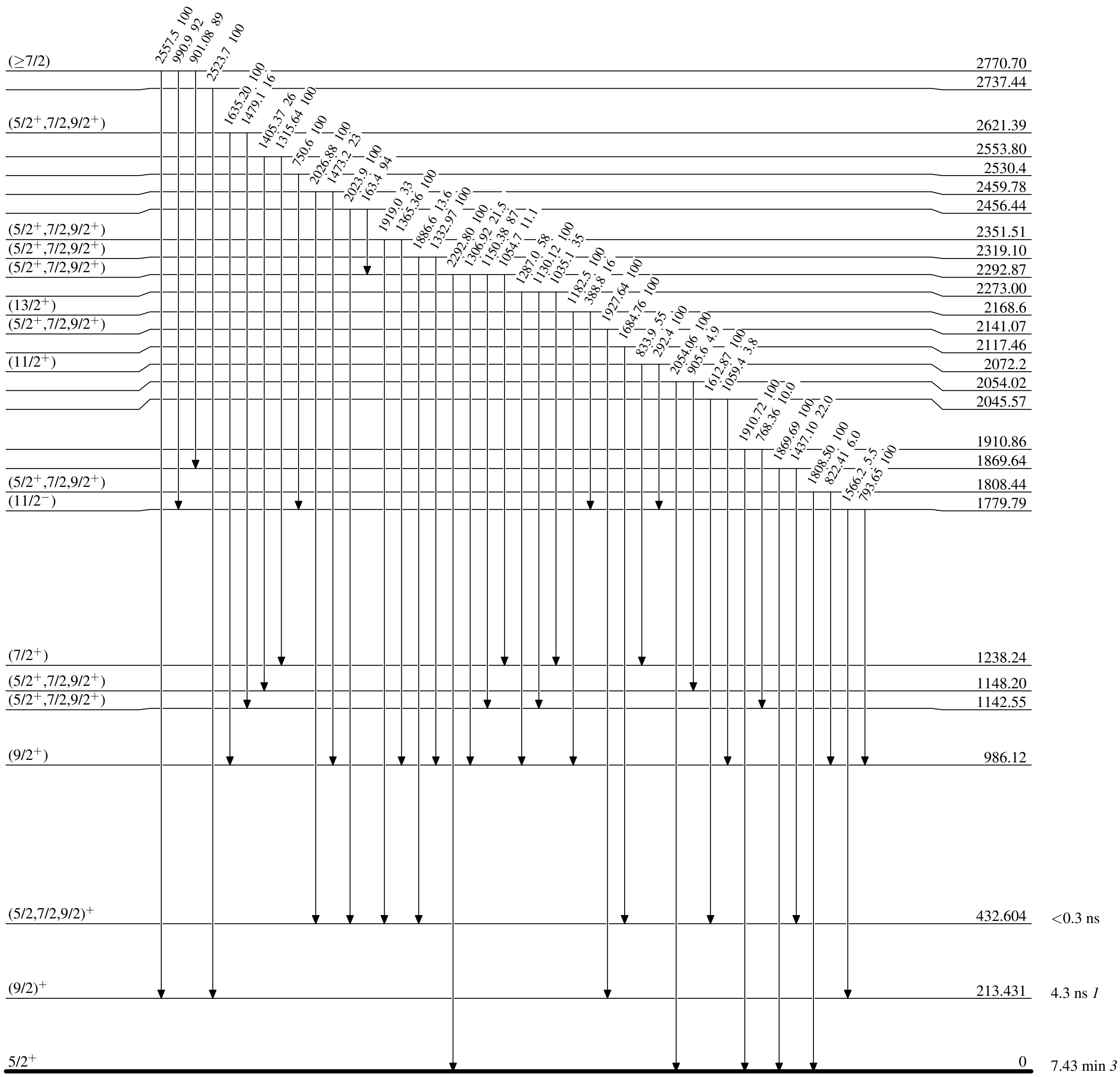
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

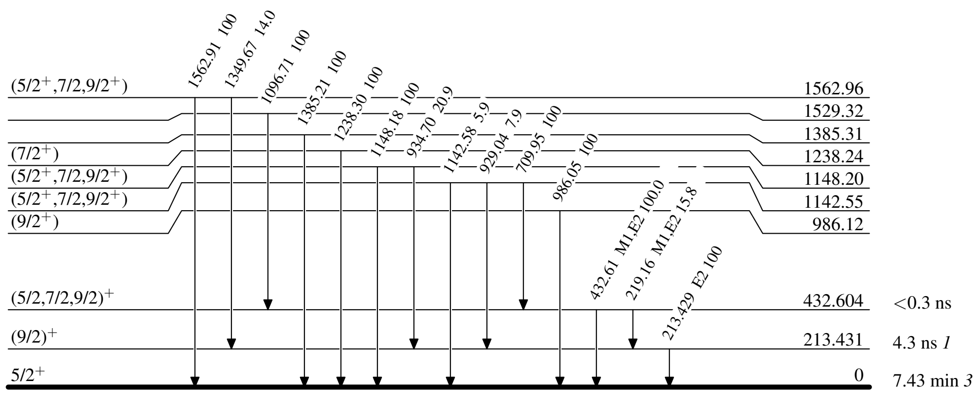


$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas

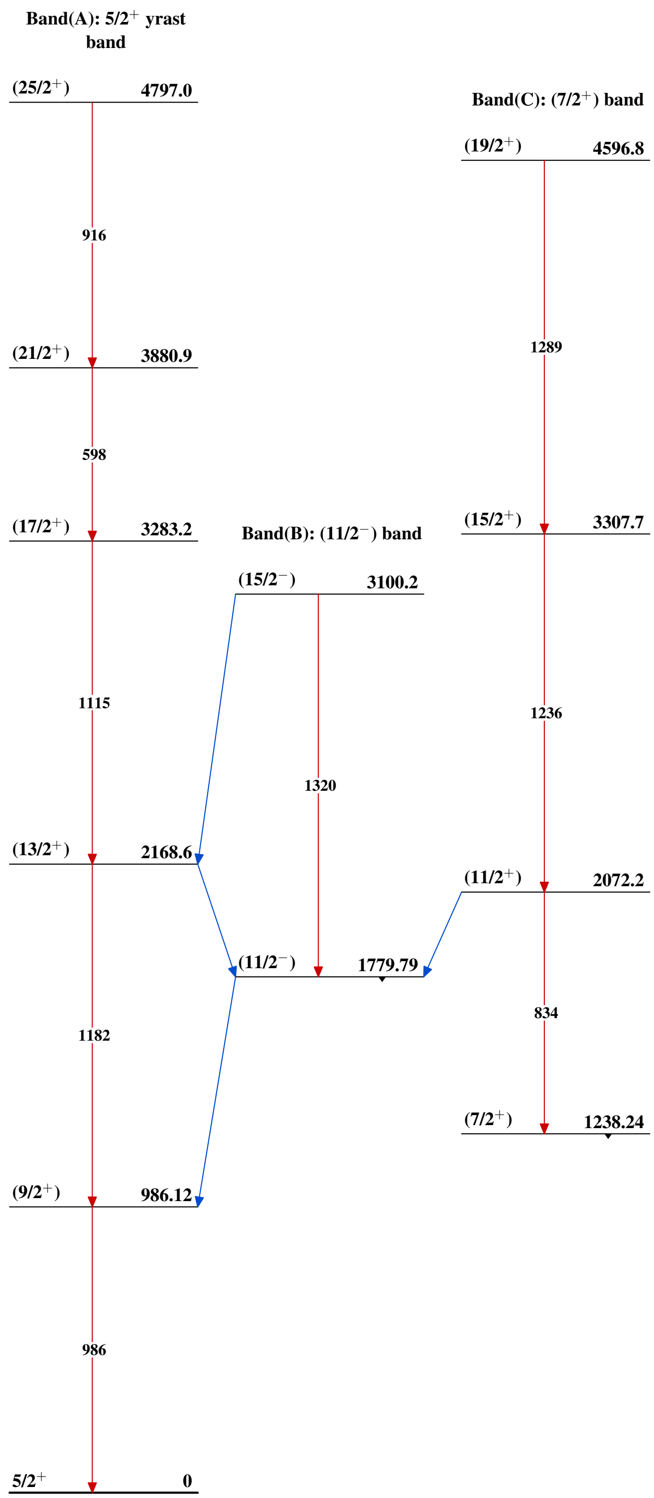
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{93}_{38}Sr_{55}$

Adopted Levels, Gammas



$^{93}_{38}Sr_{55}$