Adopted Levels, Gammas

History Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. Negret, A. A. Sonzogni	ENSDF	31-Mar-2011

Q(β^-)=3507 *7*; S(n)=6831 *8*; S(p)=13515 *8*; Q(α)=−6311.4 *25* 2012Wa38
Note: Current evaluation has used the following Q record 3510 8 *6828* 10 *13512* 11 −6309 7 2011AuZZ.
S(2n)=12118 *8*, S(2p)=24652 *8* (2011AuZZ).
α: Additional information 1.

^{94}Sr Levels

Cross Reference (XREF) Flags

- A ^{94}Rb β^- decay
- B ^{95}Rb β^-n decay
- C ^{248}Cm SF decay
- D ^{252}Cf SF decay

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0‡	0$^+$	75.3 s *2*	ABCD	%β^-=100 T$_{1/2}$: from 1986Ok03. Others: 75.1 s *4* (1983Ok07), 76.7 s *9* (1979En02), 78.9 s *10* (1976KiZK), 75.3 s *7* (1974Gr29), 74.1 s *3* (1973Gr14), 78.9 s *8* (1973Ta09). <r^2>$^{1/2}$=4.324 fm *8* (2004An14).
836.9‡ *1*	2$^+$	6.9† ps *28*	ABCD	J$^\pi$: E2 γ to 0$^+$.
1926.28 *14*	(3$^-$)	≤4.9† ps	ABCD	J$^\pi$: (E1) γ to 2$^+$, no γ to 0$^+$.
2146.00‡ *14*	4$^+$	≤4.2† ps	ABCD	J$^\pi$: E2 γ to 2$^+$, member of g.s. cascade.
2271.22 *16*	(2$^+$)		A	J$^\pi$: log *ft*=7.16 in β^- decay of 3$^{(-)}$ parent, γ's to 0$^+$ and 2$^+$.
2414.11 *18*	(3$^-$)	4.2† ps *14*	AB D	J$^\pi$: (E1) γ to 2$^+$, no γ to 0$^+$.
2603.94 *14*	(4$^-$)#	≤7.6† ps	ABCD	J$^\pi$: (E1) G to 3$^{(-)}$.
2614.1 *4*	(2,3,4)#		AB	
2649.78 *15*	4$^{(+)}$#	≤4.2† ps	ABCD	
2703.94 *16*	(2,3,4)#		AB	
2710.6 *4*	(2,3,4)#		AB	
2739.19 *16*	(4$^-$)#	≤5.5† ps	ABC	
2788.1?			D	
2851.27 *17*	(2,3,4)#		A	
2856.89 *15*	(5)$^-$	25† ps *11*	A CD	J$^\pi$: assignment adopted from 2009Rz01 based on E1 γ to 4$^+$. 1980Ju03 (94Rb β^- decay makes the (4$^+$) assignment based on log *ft*=7.21 from 3$^{(-)}$ parent.
2921.8 *4*	(2$^+$)		A	J$^\pi$: log *ft*=7.4 in β^- decay of 3$^{(-)}$ parent, γ to 0$^+$ level.
2929.81 *16*	(2,3,4)#		AB	
2965.0 *5*	(2,3,4)#		A	
2972.07 *16*	(5$^-$)	≤6.2† ps	A CD	J$^\pi$: Q γ to 3$^{(-)}$ and D+Q γ to 4$^+$ reported in 2009Rz01; Based on log *ft*=7.34 in β^- decay from 3$^{(-)}$ parent J$^\pi$ should be (2,3,4).
2981.1 *5*	(2,3,4)#		A	
3047.38 *19*	(2,3,4)#		A	
3077.70 *15*	2$^+$		A	J$^\pi$: γ's to 0$^+$ and 4$^+$.
3155.3‡	6$^+$		CD	J$^\pi$: E2 G to 4$^+$, member of g.s. cascade.
3262.34 *21*	(2,3,4)#		A	

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Adopted Levels, Gammas (continued)

^{94}Sr Levels (continued)

E(level)	J^π	$T_{1/2}$	XREF	Comments
3310.73 *21*	$(5^-)^{\#}$		A C	J^π: adopted from 2009Rz01 based on (Q) γ to $3^{(-)}$; from the log *ft*=7.28 in the β^- decay from $3^{(-)}$ parent the spin should be (2,3,4).
3338.42 *17*	$(2,3,4)^{\#}$		A	
3340.9? *3*	$(2,3,4)^{\#}$		A	
3438.61 *24*	$(2,3,4)^{\#}$	≤9.7† ps	AB	
3485.41? *24*	$(2,3,4)^{\#}$		A	
3580.35? *25*	$(2,3,4)^{\#}$		A	
3705.4	(6^+)		C	J^π: G to 4^+.
3724.7? *3*	$(2,3,4)^{\#}$		A	
3768.9 *7*	$(2,3,4)^{\#}$		A	
3793.1	(6^-)		C	J^π: D G to 6^+, G to 4^-.
3815.7? *8*	$(2,3,4)^{\#}$		A	
3922.8	$(7)^-$		CD	J^π: E1 G to 6^+.
3948.63 *19*	$(2,3,4)^{\#}$	≤4.2† ps	A	
3953.3? *10*	$(2,3,4)^{\#}$		A	
3968.9 *10*	$(2,3,4)^{\#}$		A	
3982.5 *10*	$(2,3,4)^{\#}$		A	
4024.2? *10*	$(2,3,4)^{\#}$		A	
4034.5	(7^-)		C	J^π: G to 6^+ and 5^-.
4066.4? *10*	$(2,3,4)^{\#}$		A	
4087.1? *10*	$(2,3,4)^{\#}$		A	
4117.4? *5*	$(2,3,4)^{\#}$		A	
4142.5? *10*	$(2,3,4)^{\#}$		A	
4168.2 *4*	$(2,3,4)^{\#}$		A	
4198.49 *23*	$(2,3,4)^{\#}$		A	
4211.0? *10*	$(2,3,4)^{\#}$		A	
4268.4? *10*	$(2,3,4)^{\#}$		A	
4281.65? *23*	$(2,3,4)^{\#}$		A	
4308.4? *10*	$(2,3,4)^{\#}$		A	
4361.0 *5*	$(2,3,4)^{\#}$		A	
4366.8? *10*	$(2,3,4)^{\#}$		A	
4382.8	(8^-)		CD	J^π: D G to $(7)^-$.
4481.1 *7*	$(2,3,4)^{\#}$		A	
4631.6	(8^-)		CD	
4653.5? *6*	(2,3,4)		A	
4673.7 *4*	$(2,3,4)^{\#}$		A	
4838.4 *3*	$(2,3,4)^{\#}$		A	
4857.4	(9^-)		CD	
5213.0? *10*	$(2,3,4)^{\#}$		A	
5223.2? *10*	$(2,3,4)^{\#}$		A	
5267.3? *10*	$(2,3,4)^{\#}$		A	
5289.1 *4*	$(2,3,4)^{\#}$		A	
5312.9? *10*	$(2,3,4)^{\#}$		A	
5402.4? *8*	$(2,3,4)^{\#}$		A	
5735.4? *10*	$(2,3,4)^{\#}$		A	

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Adopted Levels, Gammas (continued)

^{94}Sr Levels (continued)

E(level)	J^{π}	XREF
5739.7	$(10^+,11^-)$	CD
5828.2? *9*	(2,3,4)#	A
5831.1? *5*	(2,3,4)#	A
6063.7? *10*	(2,3,4)#	A

† From ^{94}Rb β^- decay.
‡ Band(A): Ground-state band.
# From log *ft*=6.7-8.1 in β^- decay of $3^{(-)}$ parent.

Adopted Levels, Gammas (continued)

γ(^{94}Sr)

E_i(level)	J_i^π	E_γ[‡]	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
836.9	2^+	836.9 *1*	100	0.0	0^+	E2		0.000888 *13*	α(K)=0.000785 *11*; α(L)=8.63×10^{-5} *12*; α(M)=1.448×10^{-5} *21* α(O)=1.160×10^{-7} *17*; α(N+..)=1.93×10^{-6} B(E2)(W.u.)=8 *4* Mult.: From γγ(θ) and B(E2)=8.4.
1926.28	(3^-)	1089.4 *2*	100	836.9	2^+	(E1)		0.000212 *3*	α(K)=0.000188 *3*; α(L)=2.01×10^{-5} *3*; α(M)=3.36×10^{-6} *5*; α(N)=4.23×10^{-7} *6* α(O)=2.77×10^{-8} *4*; α(N+..)=4.50×10^{-7} *7*
2146.00	4^+	1309.1 *2*	100	836.9	2^+	E2		0.000349 *5*	α(K)=0.000283 *4*; α(L)=3.06×10^{-5} *5*; α(M)=5.13×10^{-6} *8*; α(N)=6.44×10^{-7} *9* α(O)=4.20×10^{-8} *6*; α(N+..)=3.01×10^{-5} *5*
2271.22	(2^+)	1434.4 *2*	20.8 *17*	836.9	2^+				
		2271.4 *5*	100 *13*	0.0	0^+				
2414.11	(3^-)	1577.5 *2*	100	836.9	2^+	(E1+M2)	−0.02 *2*	0.000419 *6*	α(K)=9.89×10^{-5} *15*; α(L)=1.050×10^{-5} *16*; α(M)=1.76×10^{-6} *3*; α(N)=2.21×10^{-7} *4* α(O)=1.459×10^{-8} *22*; α(N+..)=0.000308 *5* B(E1)(W.u.)=(2.0×10^{-5} *7*); B(M2)(W.u.)=(0.015 *+30−15*)
2603.94	(4^-)	458.0 *1*	14.6 *13*	2146.00	4^+				
		677.7 *1*	100 *4*	1926.28	(3^-)	(M1+E2)	−0.54 *24*	0.001308 *19*	α(K)=0.001158 *17*; α(L)=0.0001256 *18*; α(M)=2.11×10^{-5} *3* α(O)=1.742×10^{-7} *25*; α(N+..)=2.83×10^{-6}
		1766.8[#] *4*	3.6 *5*	836.9	2^+				
2614.1	(2,3,4)	1777.2 *3*	100	836.9	2^+				
2649.78	$4^{(+)}$	503.8 *1*	100 *4*	2146.00	4^+	(M1+E2)	−0.35 *8*	0.00269 *6*	α(K)=0.00238 *6*; α(L)=0.000261 *7*; α(M)=4.39×10^{-5} *11*; α(N)=5.50×10^{-6} *13*; α(O)=3.57×10^{-7} *8* α(N+..)=5.86×10^{-6} *14*
		723.7 *2*	27 *5*	1926.28	(3^-)				
		1812.74 *24*	89 *6*	836.9	2^+	(E2)		0.000386 *6*	α(K)=0.0001485 *21*; α(L)=1.588×10^{-5} *23*; α(M)=2.66×10^{-6} *4* α(O)=2.20×10^{-8} *3*; α(N+..)=0.000219 Mult.: measured to be Q in ^{248}Cm SF decay.
2703.94	(2,3,4)	558.0 *1*	5.8 *6*	2146.00	4^+				
		1866.9 *3*	100 *9*	836.9	2^+				
2710.6	(2,3,4)	1873.7 *3*	100	836.9	2^+				
2739.19	(4^-)	812.9 *1*	100 *7*	1926.28	(3^-)				
		1902.2 *3*	8.5 *11*	836.9	2^+				
2788.1?		374.0[#]	100	2414.11	(3^-)				
2851.27	(2,3,4)	925.0 *1*	60 *5*	1926.28	(3^-)				
		2014.0 *4*	100 *12*	836.9	2^+				
2856.89	$(5)^-$	117.7 *2*	14 *3*	2739.19	(4^-)				
		207.14[#] *9*	29 *4*	2649.78	$4^{(+)}$				

$^{94}_{38}Sr_{56}$-4

Adopted Levels, Gammas (continued)

$\gamma(^{94}Sr)$ (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ	E_f	J_f^π	Mult.[†]	α	Comments
2856.89	$(5)^-$	253.0 *1*	95 *4*	2603.94	(4^-)			
		710.76 *2*	100 *8*	2146.00	4^+	E1	0.000500 *7*	α(K)=0.000444 *7*; α(L)=4.77×10^{-5} *7*; α(M)=7.99×10^{-6} *12*; α(N)=1.002×10^{-6} *14* α(O)=6.52×10^{-8} *10*; α(N+..)=1.068×10^{-6} *15* B(E1)(W.u.)=1.5×10^{-5} *7*
2921.8	(2^+)	2084.7 *4*	100 *10*	836.9	2^+			
		2922.3 *7*	24.4 *24*	0.0	0^+			
2929.81	(2,3,4)	783.8 *1*	27.4 *17*	2146.00	4^+			
		2093.0 *4*	100 *9*	836.9	2^+			
2965.0	(2,3,4)	2128.1 *4*	100	836.9	2^+			
2972.07	(5^-)	826.1 *1*	100 *8*	2146.00	4^+	D+Q		
		1045.7 *2*	82 *6*	1926.28	(3^-)	Q		
2981.1	(2,3,4)	2144.2 *4*	100	836.9	2^+			
3047.38	(2,3,4)	633.7 *2*	7.5 *10*	2414.11	(3^-)			
		1120.8 *2*	10.5 *10*	1926.28	(3^-)			
		2209.9 *4*	100 *10*	836.9	2^+			
3077.70	2^+	806.5 *1*	22 *8*	2271.22	(2^+)			
		931.6 *1*	50 *3*	2146.00	4^+			
		1151.7 *2*	100 *9*	1926.28	(3^-)			
		3076.6[#] *9*	41 *5*	0.0	0^+			
3155.3	6^+	183.5 *2*	15.6 *17*	2972.07	(5^-)			
		299.2	100 *11*	2856.89	$(5)^-$	D		
		1009.7	67 *6*	2146.00	4^+	E2	0.000566 *8*	α(K)=0.000501 *7*; α(L)=5.46×10^{-5} *8*; α(M)=9.16×10^{-6} *13*; α(N)=1.148×10^{-6} *16* α(O)=7.42×10^{-8} *11*; α(N+..)=1.222×10^{-6} *18*
3262.34	(2,3,4)	658.5 *2*	21 *3*	2603.94	(4^-)			
		1336.0 *3*	30 *3*	1926.28	(3^-)			
		2424.9 *5*	100 *10*	836.9	2^+			
3310.73	(5^-)	660.7 *4*	44 *6*	2649.78	$4^{(+)}$			
		1384.40 *24*	100 *6*	1926.28	(3^-)	(Q)		
		2474.2[#] *5*	25 *3*	836.9	2^+			
3338.42	(2,3,4)	734.5 *1*	55 *8*	2603.94	(4^-)			
		2501.0 *5*	100 *11*	836.9	2^+			
3340.9?	(2,3,4)	601.7 *2*	100	2739.19	(4^-)			
3438.61	(2,3,4)	1292.6 *2*	100	2146.00	4^+			
3485.41?	(2,3,4)	1339.4[#] *2*	100	2146.00	4^+			
3580.35?	(2,3,4)	976.4[#] *2*	100	2603.94	(4^-)			
3705.4	(6^+)	1559.4 *4*	100	2146.00	4^+			
3724.7?	(2,3,4)	1453.5[#] *2*	100	2271.22	(2^+)			

$^{94}_{38}Sr_{56}$-5

Adopted Levels, Gammas (continued)

γ(^{94}Sr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ	E_f	J_f^π	Mult.[†]	α	Comments
3768.9	(2,3,4)	2931.9 *7*	100	836.9	2^+			
3793.1	(6^-)	482.3 *4*	60 *8*	3310.73	(5^-)			
		637.5 *4*	100 *12*	3155.3	6^+	D		
		1189.0	100 *12*	2603.94	(4^-)			
3815.7?	(2,3,4)	2978.7[#] *8*	100	836.9	2^+			
3922.8	$(7)^-$	130.0 *2*	44 *4*	3793.1	(6^-)			
		217.5 *4*	8 *3*	3705.4	(6^+)			
		767.3 *4*	100.0	3155.3	6^+	E1	0.000425 *6*	α(K)=0.000377 *6*; α(L)=4.04×10^{-5} *6*; α(M)=6.77×10^{-6} *10*; α(N)=8.50×10^{-7} *12* α(O)=5.54×10^{-8} *8*; α(N+..)=9.06×10^{-7} *13*
		951.0[#] *4*	18 *3*	2972.07	(5^-)			
		1066.1 *4*	12 *3*	2856.89	$(5)^-$			
3948.63	(2,3,4)	1244.9 *2*	23.5 *23*	2703.94	(2,3,4)			
		1345.0	15.2	2603.94	(4^-)			
		1534.3 *2*	50 *4*	2414.11	(3^-)			
		2022.3 *4*	100 *11*	1926.28	(3^-)			
3953.3?	(2,3,4)	3116.3[#] *10*	100	836.9	2^+			
3968.9	(2,3,4)	3131.9 *10*	100	836.9	2^+			
3982.5	(2,3,4)	3145.5 *10*	100	836.9	2^+			
4024.2?	(2,3,4)	3187.2[#] *10*	100	836.9	2^+			
4034.5	(7^-)	878.8 *4*	100 *13*	3155.3	6^+	D+Q		
		1177.5 *4*	41 *6*	2856.89	$(5)^-$			
4066.4?	(2,3,4)	3229.4[#] *10*	100	836.9	2^+			
4087.1?	(2,3,4)	3250.1[#] *10*	100	836.9	2^+			
4117.4?	(2,3,4)	1703.3[#] *4*	100	2414.11	(3^-)			
4142.5?	(2,3,4)	3305.5[#] *10*	100	836.9	2^+			
4168.2	(2,3,4)	1755.8 *8*	100 *25*	2414.11	(3^-)			
		2241.5 *4*	60 *8*	1926.28	(3^-)			
4198.49	(2,3,4)	1594.5 *2*	22.7 *20*	2603.94	(4^-)			
		2272.2 *5*	100 *20*	1926.28	(3^-)			
		3362.2 *10*	15.3 *20*	836.9	2^+			
4211.0?	(2,3,4)	3374.0[#] *10*	100	836.9	2^+			
4268.4?	(2,3,4)	3431.4[#] *10*	100	836.9	2^+			
4281.65?	(2,3,4)	1632.0[#] *2*	100 *9*	2649.78	$4^{(+)}$			
		2354.4[#] *5*	62 *6*	1926.28	(3^-)			
4308.4?	(2,3,4)	3471.4[#] *10*	100	836.9	2^+			
4361.0	(2,3,4)	1757.0 *4*	100	2603.94	(4^-)			

$^{94}_{38}Sr_{56}$-6

Adopted Levels, Gammas (continued)

γ(^{94}Sr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ	E_f	J_f^π	Mult.[†]
4366.8?	(2,3,4)	3529.8[#] *10*	100	836.9	2^+	
4382.8	(8^-)	459.9 *4*	100	3922.8	$(7)^-$	D
4481.1	(2,3,4)	2554.8 *6*	100	1926.28	(3^-)	
4631.6	(8^-)	249.6 *2*	33 *7*	4382.8	(8^-)	
		598.1 *4*	78 *11*	4034.5	(7^-)	
		709.6 *4*	100 *16*	3922.8	$(7)^-$	
4653.5?	(2,3,4)	2507.5[#] *5*	100	2146.00	4^+	
4673.7	(2,3,4)	1934.5 *4*	15 *4*	2739.19	(4^-)	
		3836.4 *10*	100 *10*	836.9	2^+	
4838.4	(2,3,4)	2098.9 *4*	69 *7*	2739.19	(4^-)	
		2189.0 *4*	76 *7*	2649.78	$4^{(+)}$	
		2692.1 *6*	100 *11*	2146.00	4^+	
4857.4	(9^-)	226.6 *2*	100 *10*	4631.6	(8^-)	
		475.7 *4*	80 *10*	4382.8	(8^-)	
4857.4	(9^-)	935.6 *4*	24 *4*	3922.8	$(7)^-$	
5213.0?	(2,3,4)	3286.7[#] *10*	100	1926.28	(3^-)	
5223.2?	(2,3,4)	3296.9[#] *10*	100	1926.28	(3^-)	
5267.3?	(2,3,4)	3341.0[#] *10*	100	1926.28	(3^-)	
5289.1	(2,3,4)	2317.1 *5*	100 *11*	2972.07	(5^-)	
		2684.9 *6*	81 *7*	2603.94	(4^-)	
5312.9?	(2,3,4)	3386.6[#] *10*	100	1926.28	(3^-)	
5402.4?	(2,3,4)	2798.4[#] *7*	100	2603.94	(4^-)	
5735.4?	(2,3,4)	3809.0[#] *10*	100	1926.28	(3^-)	
5739.7	$(10^+,11^-)$	882.2 *4*	100	4857.4	(9^-)	
5828.2?	(2,3,4)	3224.9[#] *15*	$9.\times10^1$ *4*	2603.94	(4^-)	
		3681.8[#] *10*	100	2146.00	4^+	
5831.1?	(2,3,4)	4994.0[#] *5*	100	836.9	2^+	
6063.7?	(2,3,4)	3917.6[#] *10*	100	2146.00	4^+	

[†] From angular correlations studied in ^{94}Rb β^- decay, and ^{248}Cm SF Decay unless stated otherwise.
[‡] The gamma energies and the BRs are calculated as weighted average from ^{94}Rb β^- decay and ^{248}Cm SF Decay, where available.
[#] Placement of transition in the level scheme is uncertain.

$^{94}_{38}Sr_{56}$-7

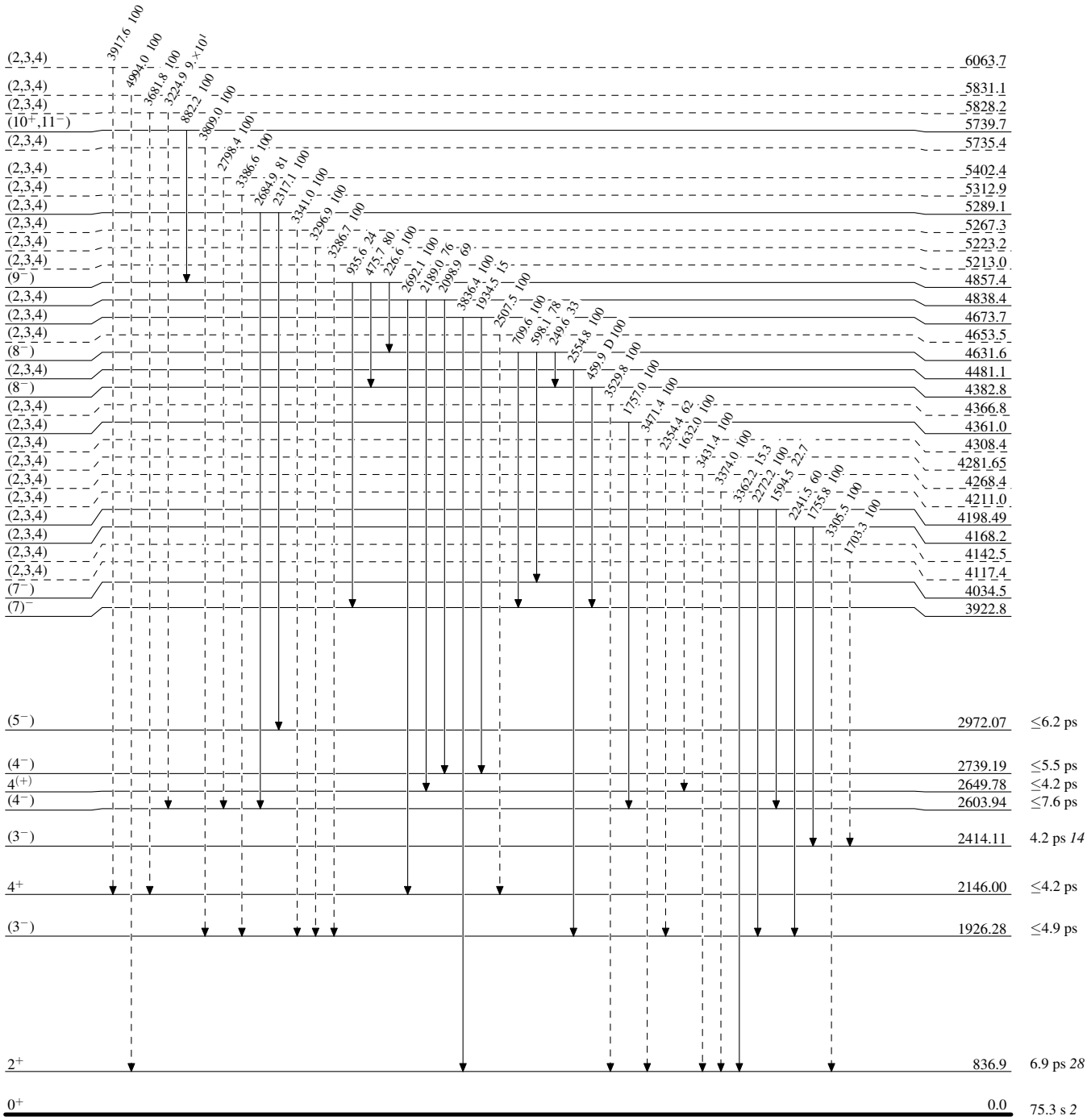
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{94}_{38}Sr_{56}$

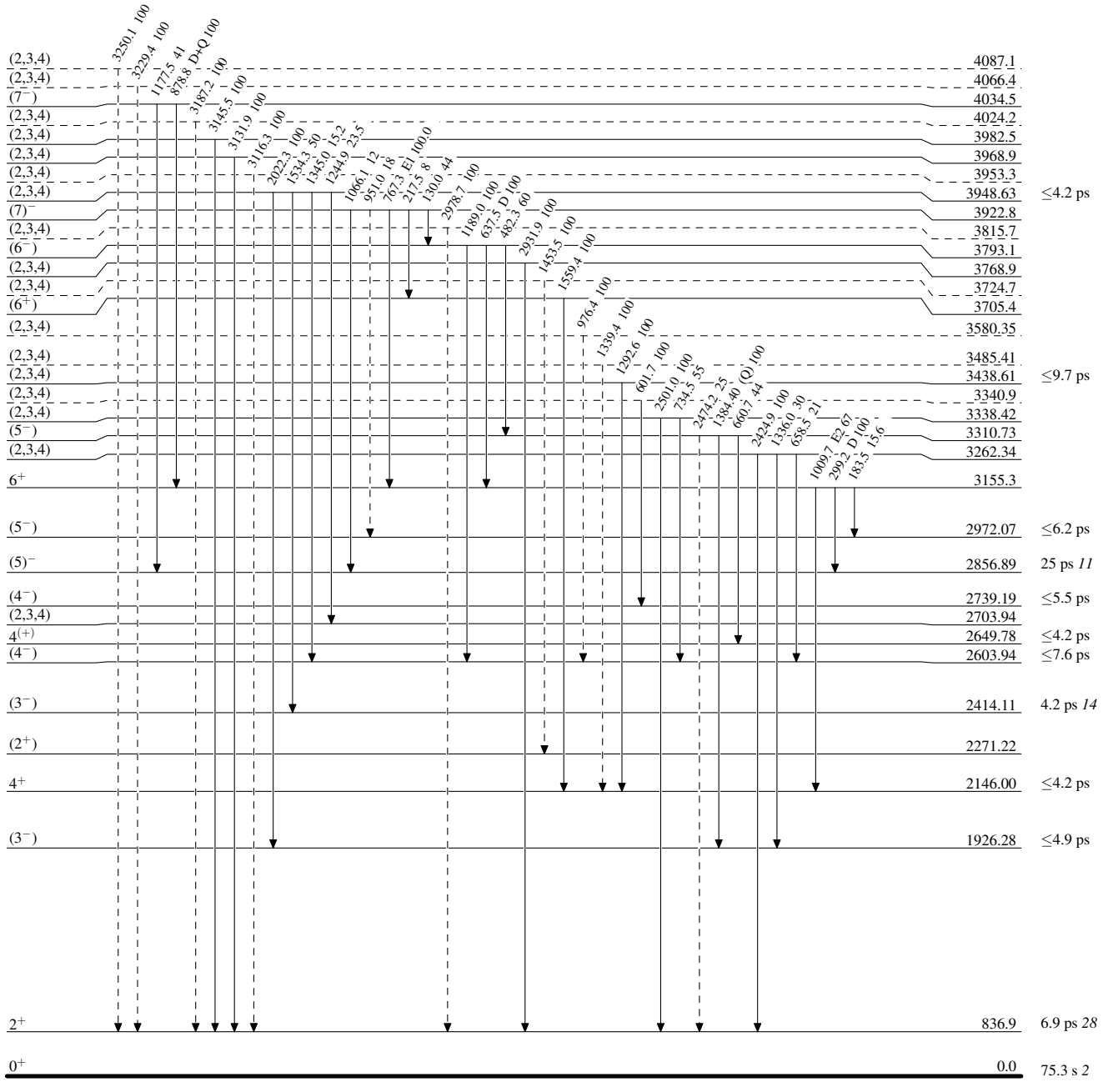
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{94}_{38}Sr_{56}$

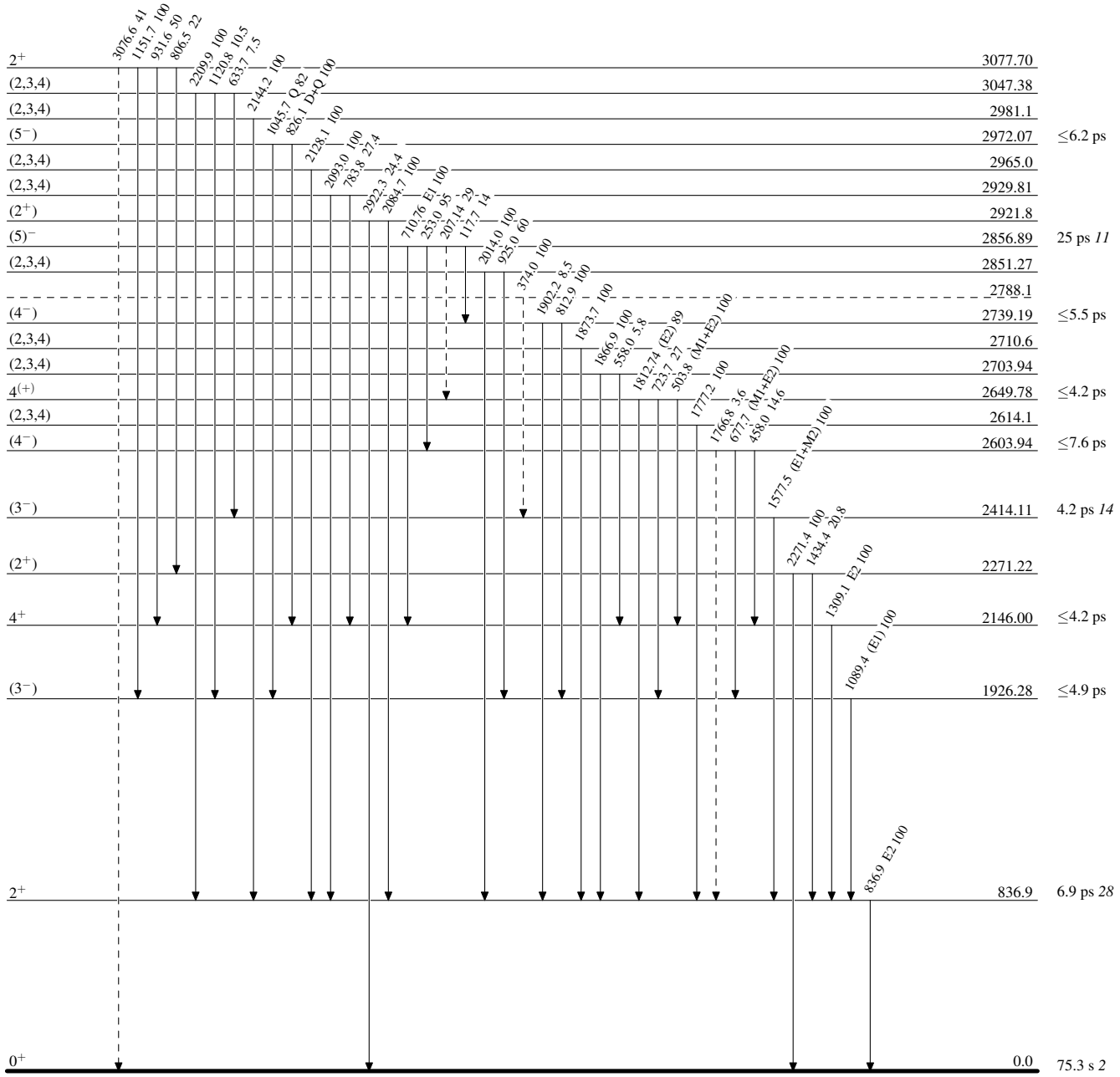
Adopted Levels, Gammas

Legend

Level Scheme (continued)

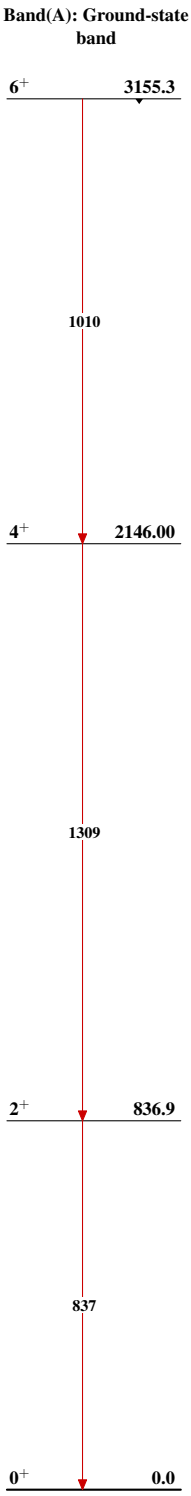
Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{94}_{38}Sr_{56}$

Adopted Levels, Gammas



$^{94}_{38}Sr_{56}$