Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 105,223 (2005)	22-Jun-2005

Q(β^-)=−9165 *8*; S(n)=12906 *9*; S(p)=6797 *4*; Q(α)=−3722 *6* 2012Wa38

Note: Current evaluation has used the following Q record $ −9.09E3 18 *12903* 11 *6794* 9 −3719 *8* 2003Au03.

Other reactions:

^{40}Ca(^{40}Ar,π): 1984He04.

Additional information 1.

^{64}Zn(^{16}O,X): 1985GuZZ (deduced GDR characteristics).

Isotope shift and hyperfine structure studies: 1990Bu12 (also 1988Si06), 1987Ea01 (also 1986Ea01), 1987An02 (also 1986An39).

Mass measurement: 2004He32, 1994Ot01, 1990KlZY.

The dataset for ^{54}Fe(^{29}Si,n2pγ) includes following reactions: ^{51}V(^{32}S,p2nγ); ^{52}Cr(^{34}S,α2nγ); ^{54}Fe(^{28}Si,2pγ); ^{54}Fe(^{32}S,α2pγ); ^{56}Fe(^{28}Si,2p2nγ); ^{58}Ni(^{24}Mg,2pγ); ^{66}Zn(^{16}O,2nγ); ^{72}Ge(^{12}C,4nγ); ^{78}Kr(α,2nγ).

^{80}Sr Levels

Cross Reference (XREF) Flags

A	^{80}Y ε decay (30.1 s)	E	^{54}Fe(^{29}Si,n2pγ)
B	^{80}Y ε decay (4.8 s)	F	^{58}Ni(^{28}Si,α2pγ):SD
C	^{81}Zr εp decay (5.5 s)	G	^{58}Ni(^{28}Si,α2pγ)
D	^{24}Mg(^{58}Ni,2pγ)	H	^{78}Kr(^{3}He,n)

E(level)†	J$^\pi$#	$T_{1/2}$‡	XREF	Comments
0.0@	0$^+$	106.3 min *15*	ABCDE GH	%ε+%β^+=100 <r^2>$^{1/2}$=4.255 fm *5* (2004An14). $T_{1/2}$: from 1973Br32. Δ<r^2>(^{88}Sr−^{80}Sr)=0.243 fm^2 *33* (1990Bu12,1988Si06); 0.249 fm^2 *6* (deduced by 1988Si06 from data of 1987Ea01,1986Ea01); 0.294 fm^2 *21* or 0.227 fm^2 *20* (1987An02,1986An39).
385.88@ *8*	2$^+$	34.2 ps *12*	ABCDE G	$T_{1/2}$: from RDM (1990He04). Others: 37 ps *3* (1982Li08), 40 ps *7* (1982HiZT), 44 ps *6* (1974No08), 30 ps *10* (1982De36,$\gamma\gamma$(t) in ^{80}Y ε decay). 2001Ra27 evaluation also adopts 34.2 ps *12*.
980.68@ *10*	4$^+$	2.90 ps *14*	AB DE G	J$^\pi$: ΔJ=2, E2 γ to 2$^+$. $T_{1/2}$: from RDM (1990He04). Other: 3.3 ps *5* (1982Li08).
1.00×10^3 *10*	(0$^+$)		H	J$^\pi$: L(^{3}He,n)=0 (treated as tentative by the evaluator).
1142.13& *8*	(2$^+$)		AB DE G	J$^\pi$: γ to 0$^+$.
1571.06a *10*	(3$^+$)		A DE G	J$^\pi$: ΔJ=1 γ to 2$^+$; γ to 4$^+$.
1653.58 *12*	(2$^+$)		A	J$^\pi$: γ's to 0$^+$ and 4$^+$.
1763.58@ *19*	6$^+$	0.56 ps *6*	A DE G	J$^\pi$: ΔJ=2, E2 γ to 4$^+$. $T_{1/2}$: from RDM and DSA method (1990He04). Other: 1.2 ps *4* or 1.3 ps +22−13 (DSA,1987Da05).
1832.55& *10*	(4$^+$)		A D	J$^\pi$: γ's to 2$^+$ and 4$^+$.
2296.35a *14*	(5$^+$)		A DE G	J$^\pi$: ΔJ=(2) γ to (3$^+$); ΔJ=1 γ to 4$^+$.
2301.13 *13*	(3,4$^+$)		A	J$^\pi$: γ's to 4$^+$ and (2$^+$); possible β feeding from (4$^-$).
2418.86 *12*	(3,4$^+$)		A	J$^\pi$: γ's to 4$^+$ and (2$^+$); possible β feeding from (4$^-$).
2492.54 *13*	(0,1,2)		AB	XREF: A(?). J$^\pi$: γ to (2$^+$); possible β feeding from (1$^-$).
2641.81& *19*	(6$^+$)		D	
2700.42@ *24*	(8$^+$)	0.28 ps *3*	DE G	$T_{1/2}$: from average of 0.28 ps *3* (DSAM,2000Wi01), 0.22 ps *3* (DSA,1987Da05) and 0.33 ps *4* (RDM and DSA method,1990He04).
2836.22d *22*	(4)		A D G	J$^\pi$: ΔJ=(0) γ to 4$^+$.

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Adopted Levels, Gammas (continued)

^{80}Sr Levels (continued)

E(level)[†]	Jπ[#]	$T_{1/2}$[‡]	XREF	Comments
2898.10 *21*	(5)		D G	
2958.27 *19*	(3,4,5$^+$)		A	Jπ: γ to (3$^+$); β feeding from (4$^-$).
3048.06 *25*	(5$^-$)		D	
3058.07 *17*	(3,4,5$^+$)		A	Jπ: γ′s to (3$^+$) and (4$^+$); possible β feeding from (4$^-$).
3094.6 *4*	(3,4,5$^+$)		A	Jπ: γ to (3$^+$); possible β feeding from (4$^-$).
3163.0 *4*	(3,4,5$^+$)		A	Jπ: γ to (3$^+$); possible β feeding from (4$^-$).
3172.58[a] *18*	(7$^+$)	0.8 ps *6*	DE G	
3283.97 *19*	(3$^+$,4,5)		A	Jπ: γ to (4$^+$); possible γ to (5$^+$); β feeding from (4$^-$).
3311.6 *4*	(3,4$^+$)		A	Jπ: γ to (2$^+$); possible β feeding from (4$^-$).
3313.80[c] *22*	(6$^-$)		D	
3377.1 *4*	(3,4,5$^+$)		A	Jπ: γ to (3$^+$); possible β feeding from (4$^-$).
3394.27[d] *19*	(6)		DE G	
3580.81 *25*	(7$^-$)	>21 ps	DE G	
3585.6[&] *3*	(8$^+$)		D	
3602.64[b] *24*	(7$^-$)	>21 ps	DE G	
3697.5 *3*	(3,4,5)		A	Jπ: β feeding from (4$^-$).
3715.2 *3*	(7$^-$)		D	
3765.7[@] *3*	(10$^+$)	0.125 ps *14*	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Others: 0.24 ps *3* (DSA,1987Da05), (0.17 ps *6* (1987Da05), <0.340 ps *14* (DSAM,1990He04,uncorrected for side-feeding).
4056.96[d] *21*	(8)	0.5 ps *+15−5*	DE G	
4157.0[c] *3*	(8$^-$)		D	
4169.5[a] *3*	(9$^+$)	<3.2 ps	DE G	
4379.4[b] *3*	(9$^-$)	0.9 ps *+12−6*	DE G	
4470.7[e] *4*	(9)		D G	
4633.2 *4*	(9$^-$)		D	
4651.3 *5*	(9)		D	
4677.9[&] *8*	(10$^+$)		D	
4897.6[f] *4*			D	
4923.3[d] *3*	(10)	1.2 ps *+15−5*	DE G	
4952.0[@] *4*	(12$^+$)	0.090 ps *11*	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: 0.079 ps *17* (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
5149.8[c] *4*	(10$^-$)		D	
5274.4[a] *3*	(11$^+$)		DE G	
5349.7[b] *4*	(11$^-$)	0.29 ps *4*	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: 0.35 ps *6* (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
5501.2[e] *5*	(11)		D G	
5958.6[d] *4*	(12)	<1.1 ps	DE G	
6022.9[f] *7*			D	
6276.6[@] *4*	(14$^+$)	0.118 ps *14*	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: 0.037 ps *11* (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
6289.0[c] *5*	(12$^-$)		D	
6469.7[b] *4*	(13$^-$)	0.132 ps *25*	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: 0.16 ps *+3−6* (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
6495.4[a] *5*	(13$^+$)		DE G	
6667.6[e] *5*	(13)		D G	
7107.4 *6*			D	
7156.6[d] *4*	(14)		DE G	
7308.3[f] *9*			D	
7631.8[c] *6*	(14$^-$)		D	

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Adopted Levels, Gammas (continued)

^{80}Sr Levels (continued)

E(level)†	Jπ#	$T_{1/2}$‡	XREF	Comments
7730.6[b] 5	(15⁻)	0.083 ps 23	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: <0.27 ps (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
7752.5[@] 5	(16⁺)	0.028 ps 7	DE	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: 0.013 ps 13 (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
7835.2[a] 5	(15⁺)		DE G	
7867.3[a] 5	(15⁺)		D	
7974.8[e] 6	(15)		D G	
8141.6 11			D	
8500.4[d] 5	(16)		DE G	
8715.5[f] 10			D	
9098.9[b] 5	(17⁻)	0.042 ps 21	DE G	$T_{1/2}$: from DSAM in ^{28}Si,α2pγ) (2000Wi01). Other: <0.31 ps (DSA,1987Da05) in ^{54}Fe(^{29}Si,n2pγ),^{58}Ni(^{24}Mg,2pγ).
9322.6 10	(17⁺)		D G	
9331.2[@] 6	(18⁺)	0.040 ps 21	DE G	
9341.9[a] 6	(17⁺)		D	
9418.0[e] 7	(17)		D G	
9487.5 7			D	
9845.5 7			D	
9882.7[d] 7	(18)		DE G	
10538.8[b] 7	(19⁻)	<0.27 ps	DE G	
10879.0[@] 6	(20⁺)		D G	
10957.2[a] 7	(19⁺)		D G	
10963.1[e] 10			D	
11074.2[@] 7	(20⁺)	<0.14 ps	DE G	
11307.9 11			D	
11359.3 9			D	
12072.0[b] 8	(21⁻)		DE G	
12630.3[@] 10	(22)		D G	
12709.2[a] 13	(21⁺)		D	
12814.4 7			D	
13722.6[b] 9	(23⁻)		DE G	
14746.8[@] 12	(24)		D	
15575.8 11	(25⁻)		D G	
x[g]	J≈(18)		F	Additional information 2. Jπ: proposed positive parity (1997De51).
1443.0+x[g] 10	J+2		F	
3054.0+x[g] 15	J+4		F	
4829.1+x[g] 18	J+6		F	
6777.1+x[g] 20	J+8		F	
8895.1+x[g] 23	J+10		F	
11179.1+x[g] 25	J+12		F	
13620+x[g] 3	J+14		F	
16215+x[g] 3	J+16		F	
18958+x[g] 3	J+18		F	
21818+x?[g] 4	J+20		F	
y[h]	J1≈(18)		F	Additional information 3. Jπ: proposed positive parity (1997De51).
1688.0+y[h] 10	J1+2		F	
3509.1+y[h] 15	J1+4		F	

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Adopted Levels, Gammas (continued)

^{80}Sr Levels (continued)

E(level)[†]	J^{π}[#]	XREF	Comments
5459.1+y[h] *18*	J1+6	F	
7549.1+y[h] *20*	J1+8	F	
9805.1+y[h] *23*	J1+10	F	
12169.2+y[h] *25*	J1+12	F	
12231.2+y[h] *25*	J1+12	F	
14743+y[h] *3*	J1+14	F	
z[i]	J2≈(22)	F	Additional information 4. J^{π}: proposed positive parity (1997De51).
1846.0+z[i] *10*	J2+2	F	Possible decay to 3509+y (1997De51).
3885.1+z[i] *15*	J2+4	F	Possible decay to 5459+y (1997De51).
6101.1+z[i] *18*	J2+6	F	
8492.1+z[i] *20*	J2+8	F	
11064.2+z[i] *23*	J2+10	F	
13811.2+z?[i] *25*	J2+12	F	
u[j]	J3≈(20)	F	Additional information 5. J^{π}: proposed positive parity (1997De51).
2140.0+u[j] *10*	J3+2	F	
4432.1+u[j] *15*	J3+4	F	
6891.1+u[j] *18*	J3+6	F	
9512.2+u[j] *20*	J3+8	F	
12275.2+u[j] *23*	J3+10	F	

[†] From least-squares fit to Eγ′s.

[‡] From Doppler-shift attenuation and recoil-distance methods in in-beam γ-ray studies. Values are from 1990He04 for levels from 386 to 2700 and from 1987Da05 for higher levels, unless otherwise stated. Other $T_{1/2}$ data: 2000Wi01, 1982Li08, 1974No08.

[#] From ΔJ=2 suggested by γ(θ) and γγ(θ) (DCO ratios) data. $T_{1/2}$(level) further favors E2 (using RUL for E2 and M2 transitions). Ascending order of spins is generally assumed in (HI,xnγ) reactions.

[@] Band(A): g.s. band.

[&] Band(b): γ band, even spin.

[a] Band(B): γ band, odd spin.

[b] Band(C): side band based on (7^-) state.

[c] Band(D): side band based on (6^-).

[d] Band(E): side band based on (4).

[e] Band(F): side band based on (9).

[f] Band(G): Side band.

[g] Band(H): SD-1 band (1997De51,1999Le56,2003Le08). Q(transition)=3.42 *+26−23* (1999Le56,2003Le08), 2.7 *+7−6* (1997De51). Configuration=$\nu 5^1 \pi 5^0$. Percent population=1.17 (2003Le08).

[h] Band(I): SD-2 band (1997De51,2003Le08). Q(transition)=3.63 *+17−15* (2003Le08), 2.2 *+6−5* (1997De51). Configuration=$\nu 5^1 \pi 5^0$. Percent population=0.52 (2003Le08).

[i] Band(J): SD-3 band (1997De51,2003Le08). Q(transition)=4.1 *6* (2003Le08), 3.6 *+20−11* (1997De51). Configuration=$\nu 5^1 \pi 5^0$ (?). Percent population=0.36 (2003Le08). The lowest tentative 1712γ reported by 1997De51 is not reported by 2003Le08, and is omitted here.

[j] Band(K): SD-4 band (1997De51,2003Le08). Q(transition)=4.9 *6* (2003Le08), 2.8 *+11−8* (1997De51). Configuration=$\nu 5^1 \pi 5^1$. Percent population=0.13 (2003Le08).

Adopted Levels, Gammas (continued)

γ(^{80}Sr)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
385.88	2^+	385.9 *1*	100	0.0	0^+	E2		B(E2)(W.u.)=94 *4*
980.68	4^+	594.8 *1*	100	385.88	2^+	E2		B(E2)(W.u.)=128 *7*
1142.13	(2^+)	756.2 *1*	35.2 *14*	385.88	2^+			
		1142.1 *1*	100 *3*	0.0	0^+			
1571.06	(3^+)	428.9 *1*	19 *2*	1142.13	(2^+)			
		590.2 *3*	4 *2*	980.68	4^+			
		1185.2 *1*	100 *3*	385.88	2^+	D+Q	+0.45 *8*	
1653.58	(2^+)	673.1 *2*	53 *12*	980.68	4^+			
		1267.6 *2*	100 *12*	385.88	2^+			
		1653.6 *2*	41 *12*	0.0	0^+			
1763.58	6^+	782.7 *2*	100	980.68	4^+	E2		B(E2)(W.u.)=168 *18*
1832.55	(4^+)	690.3 *2*	79 *5*	1142.13	(2^+)			
		851.8 *1*	100 *8*	980.68	4^+			
		1446.7 *1*	36 *5*	385.88	2^+			
2296.35	(5^+)	463.4 *3*	12.5 *13*	1832.55	(4^+)			
		725.3 *2*	83 *5*	1571.06	(3^+)	(Q)		I_γ: value of 190 *11* from ^{80}Y ε decay is not included in averaging.
		1315.7 *2*	100.0 *25*	980.68	4^+	D+Q	+0.38 *6*	
2301.13	$(3,4^+)$	647.7 *2*	64 *9*	1653.58	(2^+)			
		1320.4 *1*	100 *9*	980.68	4^+			
2418.86	$(3,4^+)$	586.4[#] *3*	20 *13*	1832.55	(4^+)			
		765.3[#] *2*	53 *7*	1653.58	(2^+)			
		847.7 *2*	67 *7*	1571.06	(3^+)			
		1276.6 *3*	107 *20*	1142.13	(2^+)			
		1438.2 *1*	100 *7*	980.68	4^+			
2492.54	(0,1,2)	1350.4 *1*	100	1142.13	(2^+)			
2641.81	(6^+)	809.3 *2*	100	1832.55	(4^+)			
2700.42	(8^+)	936.8 *2*	100	1763.58	6^+	E2		B(E2)(W.u.)=137 *15*
2836.22	(4)	1855.6 *4*	100	980.68	4^+			
2898.10	(5)	1917.4 *3*	100	980.68	4^+	D		
2958.27	$(3,4,5^+)$	1387.2 *2*	100	1571.06	(3^+)			
3048.06	(5^-)	2068.3 *4*	100	980.68	4^+	D		
3058.07	$(3,4,5^+)$	1225.5 *2*	50 *20*	1832.55	(4^+)			
		1487.0 *2*	100 *10*	1571.06	(3^+)			
3094.6	$(3,4,5^+)$	1523.5 *3*	100	1571.06	(3^+)			
3163.0	$(3,4,5^+)$	1591.9 *3*	100	1571.06	(3^+)			
3172.58	(7^+)	530.8 *2*	19 *5*	2641.81	(6^+)			
		876.6 *2*	100.0 *25*	2296.35	(5^+)	(E2)		B(E2)(W.u.)=60 *+180−25*
		1408.8 *5*		1763.58	6^+			
3283.97	$(3^+,4,5)$	325.7 *2*	73 *18*	2958.27	$(3,4,5^+)$			
		987.4[#] *2*	55 *9*	2296.35	(5^+)			
		1451.4 *2*	100 *9*	1832.55	(4^+)			
3311.6	$(3,4^+)$	1658.0 *3*	100	1653.58	(2^+)			
3313.80	(6^-)	266.2 *2*	65 *4*	3048.06	(5^-)			
		1017.2 *2*	100 *4*	2296.35	(5^+)			
3377.1	$(3,4,5^+)$	1544.7[#] *3*	100 *50*	1832.55	(4^+)			
		1806.0 *3*	100 *50*	1571.06	(3^+)			
3394.27	(6)	496.0 *2*	45.2 *24*	2898.10	(5)			
		558.1 *2*	21.4 *24*	2836.22	(4)			
		1097.3 *3*	100 *7*	2296.35	(5^+)	D		
3580.81	(7^-)	683.1 *3*	16.9 *14*	2898.10	(5)			
		1817.0 *3*	100 *3*	1763.58	6^+	D		
3585.6	(8^+)	943.8 *2*	100	2641.81	(6^+)			
3602.64	(7^-)	902.1 *3*	18.0 *20*	2700.42	(8^+)	D+Q		

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Adopted Levels, Gammas (continued)

γ(^{80}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
3602.64	(7$^-$)	1839.0 *2*	100 *4*	1763.58	6$^+$	D	
3697.5	(3,4,5)	413.6[#] *2*	19 *13*	3283.97	(3$^+$,4,5)		
		534.3[#] *2*	12 *6*	3163.0	(3,4,5$^+$)		
		861.2 *3*	38 *13*	2836.22	(4)		
		1278.7 *3*	100 *19*	2418.86	(3,4$^+$)		
		1396.3[#] *3*	25 *6*	2301.13	(3,4$^+$)		
3715.2	(7$^-$)	401.2 *2*	63 *5*	3313.80	(6$^-$)		
		666.6 *3*	100 *5*	3048.06	(5$^-$)		
3765.7	(10$^+$)	1065.4 *2*	100	2700.42	(8$^+$)	E2	B(E2)(W.u.)=161 *18*
4056.96	(8)	662.3 *2*	100 *4*	3394.27	(6)	E2	B(E2)(W.u.)>60
		884.7 *2*	95 *3*	3172.58	(7$^+$)	D	
4157.0	(8$^-$)	441.0 *3*	24 *3*	3715.2	(7$^-$)		
		843.6 *2*	100 *3*	3313.80	(6$^-$)		
4169.5	(9$^+$)	997.0 *3*	100	3172.58	(7$^+$)	E2	B(E2)(W.u.)>9
4379.4	(9$^-$)	776.7 *2*	100 *4*	3602.64	(7$^-$)	[E2]	B(E2)(W.u.)=50 *+100−30*
		798.8 *3*	87.7 *18*	3580.81	(7$^-$)	(E2)	B(E2)(W.u.)=36 *+72−21*
		1678.1[#] *6*	45 *11*	2700.42	(8$^+$)		
4470.7	(9)	1770.5 *3*	100	2700.42	(8$^+$)		
4633.2	(9$^-$)	918.0 *2*	100	3715.2	(7$^-$)		
4651.3	(9)	1950.8 *4*	100	2700.42	(8$^+$)		
4677.9	(10$^+$)	1092.3 *7*	100	3585.6	(8$^+$)		
4897.6		1132.4 *3*	100 *5*	3765.7	(10$^+$)		
		2195.7 *5*	32.6 *23*	2700.42	(8$^+$)		
4923.3	(10)	754.0 *3*	23.6 *14*	4169.5	(9$^+$)		
		866.3 *2*	100 *3*	4056.96	(8)	(E2)	B(E2)(W.u.)=38 *+27−17*
4952.0	(12$^+$)	1186.3 *2*	100	3765.7	(10$^+$)	E2	B(E2)(W.u.)=131 *16*
5149.8	(10$^-$)	992.8 *3*	100	4157.0	(8$^-$)		
5274.4	(11$^+$)	1104.9 *2*	100 *4*	4169.5	(9$^+$)	Q	
		1508.7 *3*	44 *6*	3765.7	(10$^+$)		
5349.7	(11$^-$)	970.3 *2*	100	4379.4	(9$^-$)	E2	B(E2)(W.u.)=111 *16*
5501.2	(11)	1030.8 *4*	100 *14*	4470.7	(9)	Q	
		1734.6 *6*	100 *14*	3765.7	(10$^+$)	Q	
5958.6	(12)	1035.3 *2*	100	4923.3	(10)	E2	B(E2)(W.u.)>21
6022.9		1125.3 *5*	100	4897.6			
6276.6	(14$^+$)	1324.6 *2*	100	4952.0	(12$^+$)	(E2)	B(E2)(W.u.)=57 *7*
6289.0	(12$^-$)	1139.2 *2*	100	5149.8	(10$^-$)		
6469.7	(13$^-$)	1120.0 *2*	100	5349.7	(11$^-$)	E2	B(E2)(W.u.)=119 *23*
6495.4	(13$^+$)	1221.0 *3*	100	5274.4	(11$^+$)	Q	
6667.6	(13)	1166.4 *2*	100	5501.2	(11)	Q	
7107.4		2155.4 *4*	100	4952.0	(12$^+$)		
7156.6	(14)	1198.0 *2*	100	5958.6	(12)	Q	
7308.3		1285.4 *6*	100	6022.9			
7631.8	(14$^-$)	1342.8 *3*	100	6289.0	(12$^-$)		
7730.6	(15$^-$)	1260.8 *2*	100	6469.7	(13$^-$)	E2	B(E2)(W.u.)=100 *30*
7752.5	(16$^+$)	1475.9 *2*	100	6276.6	(14$^+$)	E2	B(E2)(W.u.)=140 *40*
7835.2	(15$^+$)	1340.0 *3*	100	6495.4	(13$^+$)		
7867.3	(15$^+$)	1371.7 *3*	100	6495.4	(13$^+$)		
7974.8	(15)	1307.2 *3*	100	6667.6	(13)		
8141.6		1865 *1*	100	6276.6	(14$^+$)		
8500.4	(16)	1343.7 *2*	100	7156.6	(14)		
8715.5		1407.2 *4*	100	7308.3			
9098.9	(17$^-$)	1368.3 *2*	100	7730.6	(15$^-$)	E2	B(E2)(W.u.)=140 *+140−50*
9322.6	(17$^+$)	1592.0 *8*	100	7730.6	(15$^-$)		
9331.2	(18$^+$)	1578.7 *3*	100	7752.5	(16$^+$)	E2	B(E2)(W.u.)=70 *+80−25*
9341.9	(17$^+$)	1474.1 *4*	100 *14*	7867.3	(15$^+$)		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

γ(^{80}Sr) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	Comments
9341.9	(17$^+$)	1507.4 *5*	64 *14*	7835.2	(15$^+$)		
9418.0	(17)	1443.2 *4*	100	7974.8	(15)		
9487.5		1735.0 *5*	100	7752.5	(16$^+$)		
9845.5		2092.9 *5*	100	7752.5	(16$^+$)		
9882.7	(18)	1382.3 *5*	100	8500.4	(16)		
10538.8	(19$^-$)	1439.9 *4*	100	9098.9	(17$^-$)	(E2)	B(E2)(W.u.)>16
10879.0	(20$^+$)	1547.8 *3*	100	9331.2	(18$^+$)	Q	
10957.2	(19$^+$)	1542#		9418.0	(17)		
		1615.3 *4*	100	9341.9	(17$^+$)		
10963.1		1545.1 *6*	100	9418.0	(17)		
11074.2	(20$^+$)	1742.9 *4*	100	9331.2	(18$^+$)	[E2]	B(E2)(W.u.)>12 E_γ: from 2003Si06 in ^{24}Mg(^{58}Ni,2pγ). Others: 1736.3 *6* (1987Da05), 1739 (2000Wi01).
11307.9		1976.6 *9*	100	9331.2	(18$^+$)		
11359.3		2028.0 *7*	100	9331.2	(18$^+$)		
12072.0	(21$^-$)	1533.2 *5*	100	10538.8	(19$^-$)	(Q)	
12630.3	(22)	1751.2 *7*	100	10879.0	(20$^+$)		
12709.2	(21$^+$)	1752 *1*	100	10957.2	(19$^+$)		
12814.4		1740.2 *5*	100 *30*	11074.2	(20$^+$)		
		1935.4 *6*	60 *10*	10879.0	(20$^+$)		
13722.6	(23$^-$)	1650.6 *4*	100	12072.0	(21$^-$)		
14746.8	(24)	2116.5 *7*	100	12630.3	(22)		
15575.8	(25$^-$)	1853.2 *5*	100	13722.6	(23$^-$)		
1443.0+x	J+2	1443 *1*		x	J≈(18)		
3054.0+x	J+4	1611 *1*		1443.0+x	J+2		
4829.1+x	J+6	1775 *1*		3054.0+x	J+4		
6777.1+x	J+8	1948 *1*		4829.1+x	J+6		
8895.1+x	J+10	2118 *1*		6777.1+x	J+8		
11179.1+x	J+12	2284 *1*		8895.1+x	J+10		
13620+x	J+14	2441 *1*		11179.1+x	J+12		
16215+x	J+16	2595 *1*		13620+x	J+14		
18958+x	J+18	2743 *1*		16215+x	J+16		
21818+x?	J+20	2860#		18958+x	J+18		
1688.0+y	J1+2	1688 *1*		y	J1≈(18)		
3509.1+y	J1+4	1821 *1*		1688.0+y	J1+2		
5459.1+y	J1+6	1950 *1*		3509.1+y	J1+4		
7549.1+y	J1+8	2090 *1*		5459.1+y	J1+6		
9805.1+y	J1+10	2256 *1*		7549.1+y	J1+8		
12169.2+y	J1+12	2364 *1*		9805.1+y	J1+10		
12231.2+y	J1+12	2426 *1*		9805.1+y	J1+10		
14743+y	J1+14	2574 *1*		12169.2+y	J1+12		
1846.0+z	J2+2	1846 *1*		z	J2≈(22)		
3885.1+z	J2+4	2039 *1*		1846.0+z	J2+2		
6101.1+z	J2+6	2216 *1*		3885.1+z	J2+4		
8492.1+z	J2+8	2391 *1*		6101.1+z	J2+6		
11064.2+z	J2+10	2572 *1*		8492.1+z	J2+8		
13811.2+z?	J2+12	2747#		11064.2+z	J2+10		
2140.0+u	J3+2	2140 *1*		u	J3≈(20)		
4432.1+u	J3+4	2292 *1*		2140.0+u	J3+2		
6891.1+u	J3+6	2459 *1*		4432.1+u	J3+4		
9512.2+u	J3+8	2621 *1*		6891.1+u	J3+6		
12275.2+u	J3+10	2763 *1*		9512.2+u	J3+8		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{80}Sr)$ (continued)

† Weighted averages from (HI,xnγ) and ^{80}Y ε decay.
‡ From $\gamma(\theta)$ and $T_{1/2}$(level) in (HI,xnγ). Mult=D+Q is most likely M1+E2 as suggested by comparison with RUL for E2 and M2 transitions. Mult=E2 is suggested for many other transitions by 1987Da05 on the basis of consistency with DCO ratios in (HI,xnγ), but in evaluator's opinion these assignments are not unique.
# Placement of transition in the level scheme is uncertain.

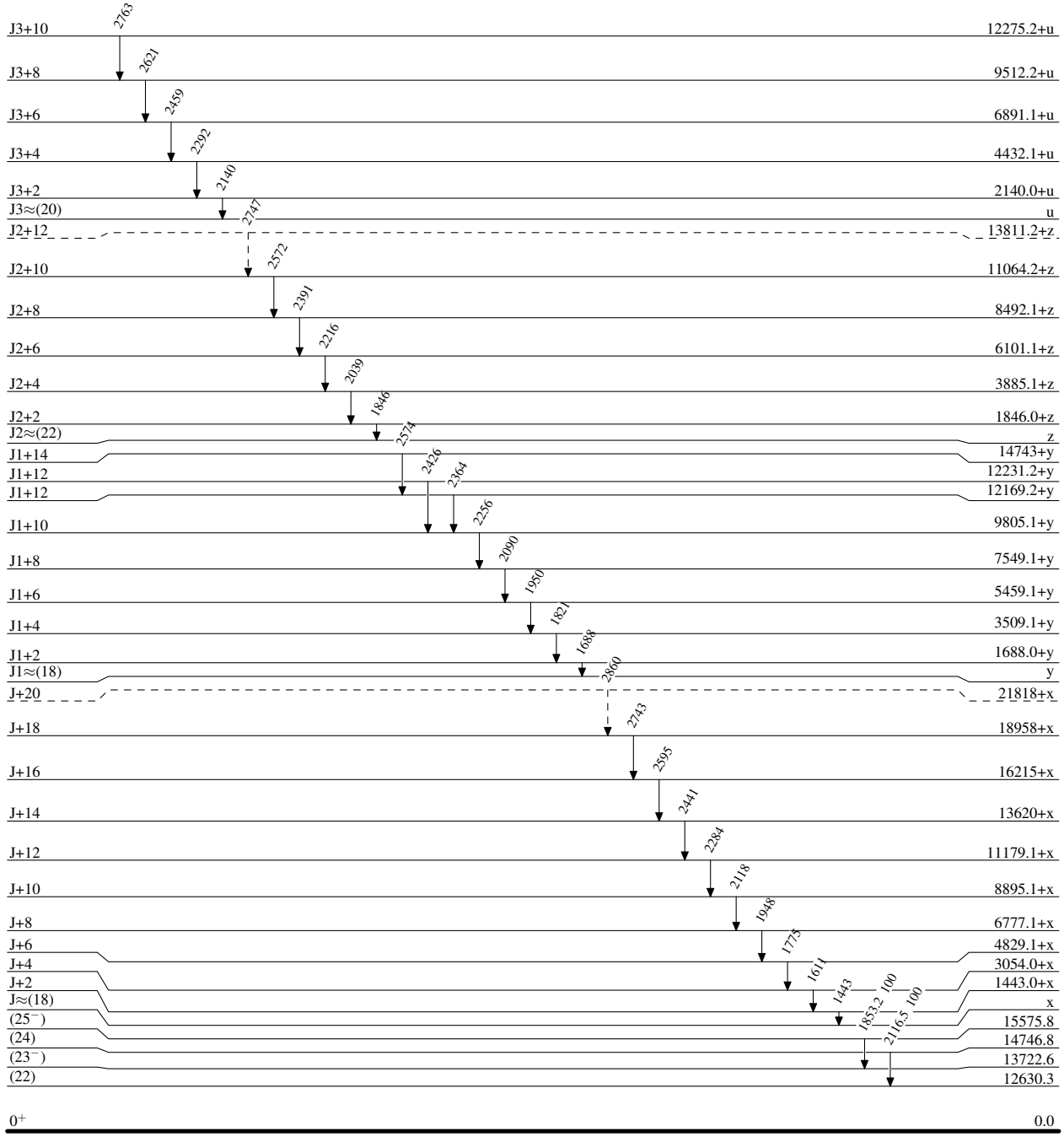
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{80}_{38}Sr_{42}$

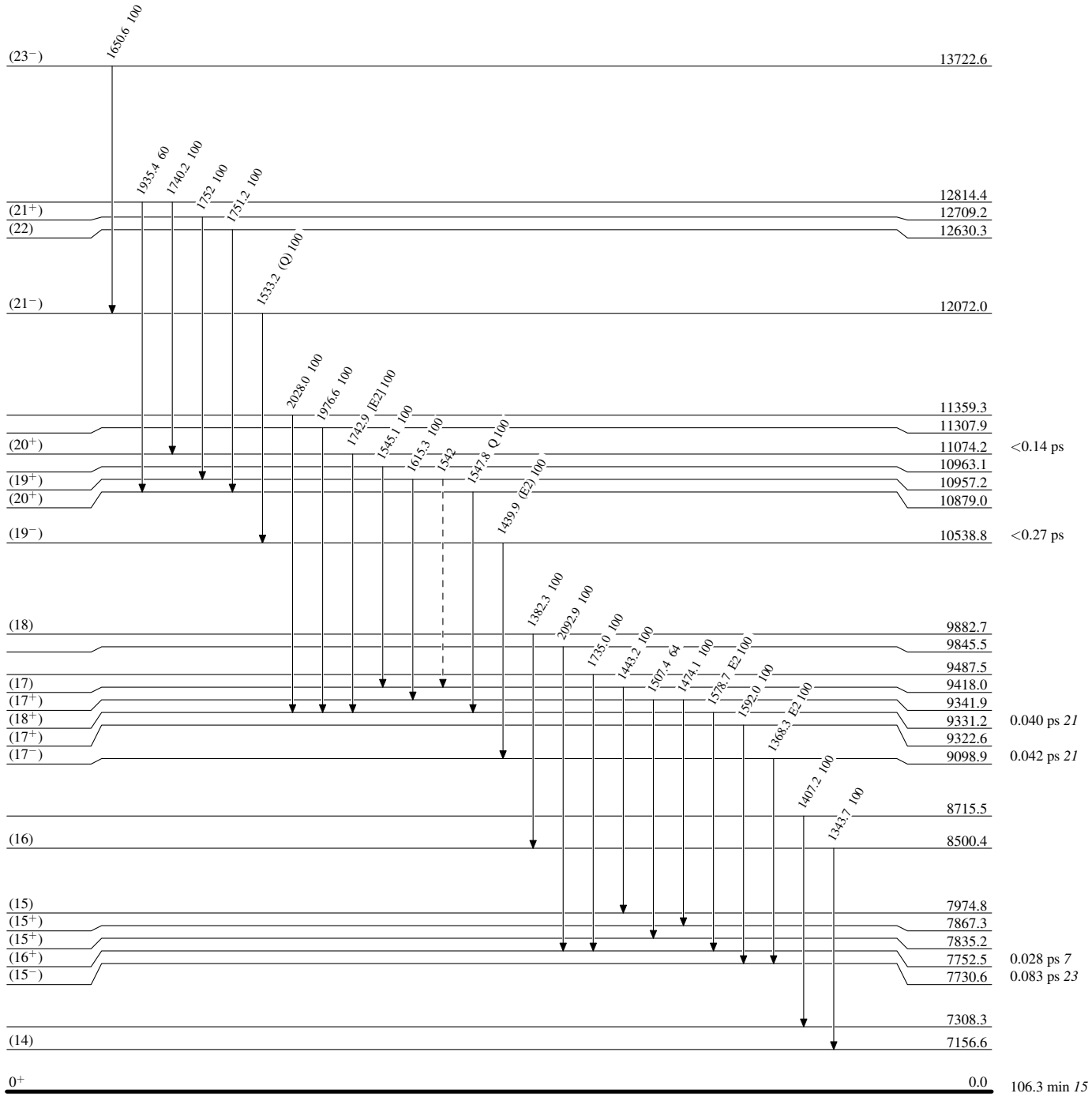
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{80}_{38}Sr_{42}$

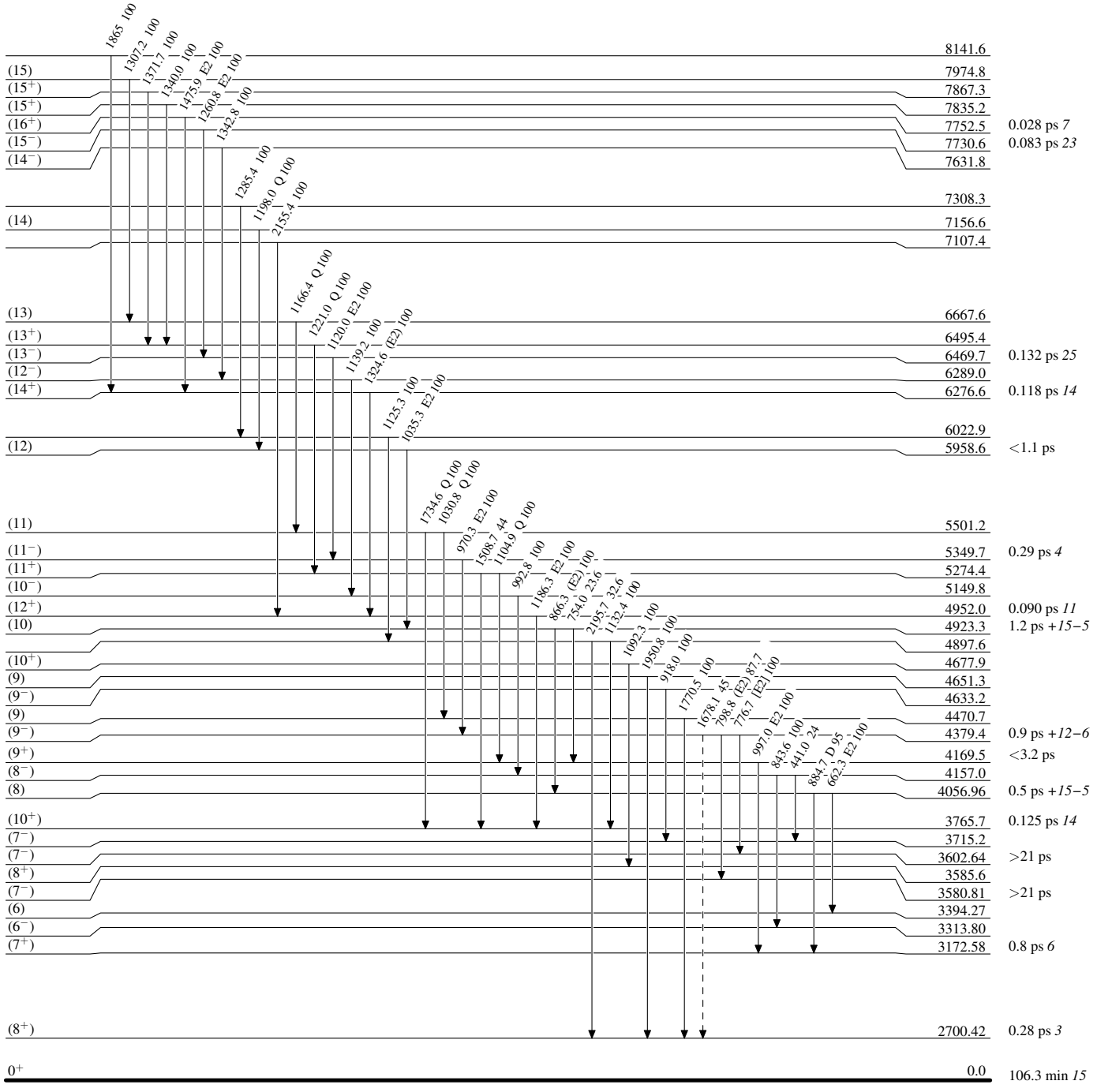
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)



$^{80}_{38}Sr_{42}$

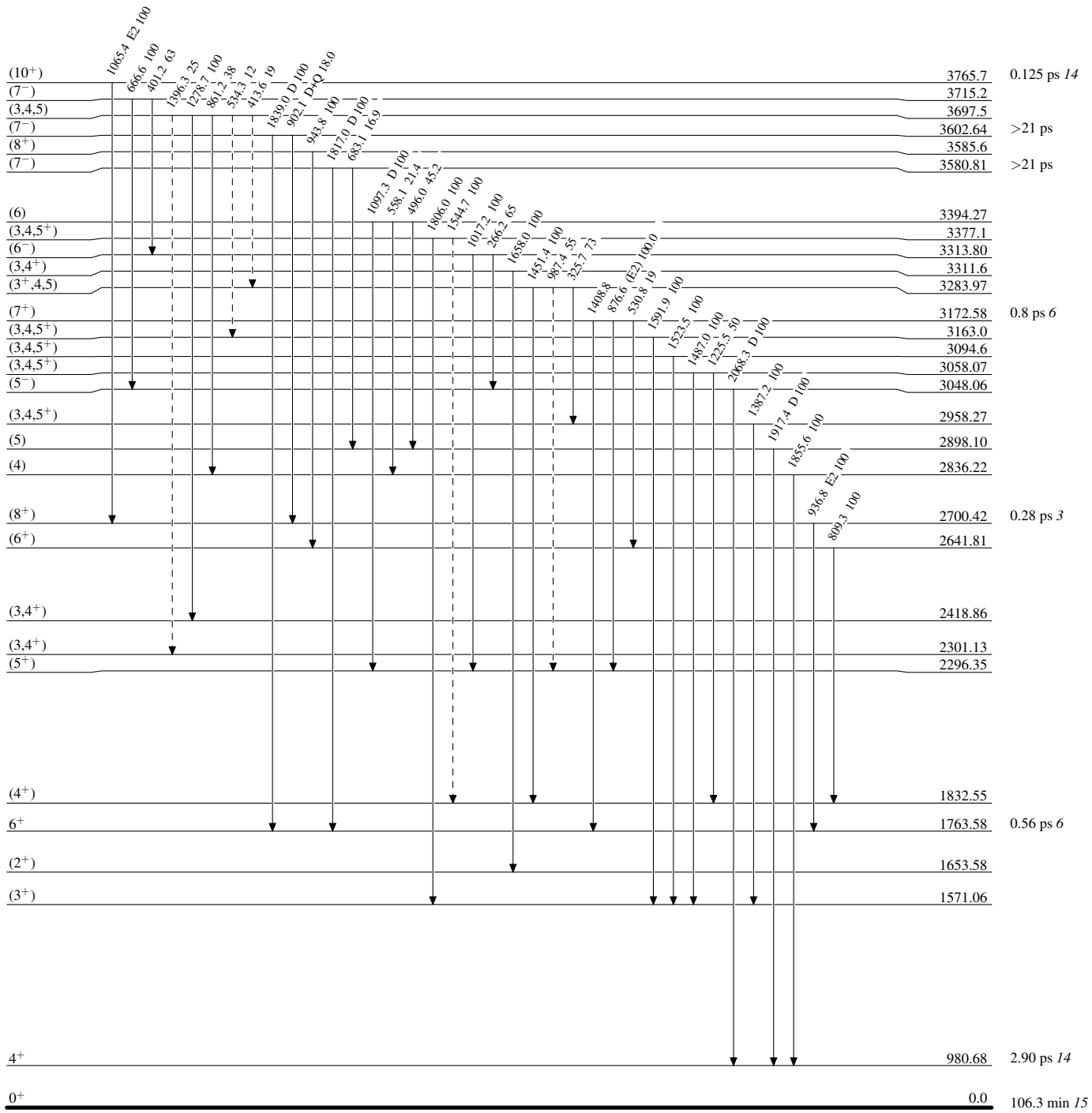
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{80}_{38}Sr_{42}$

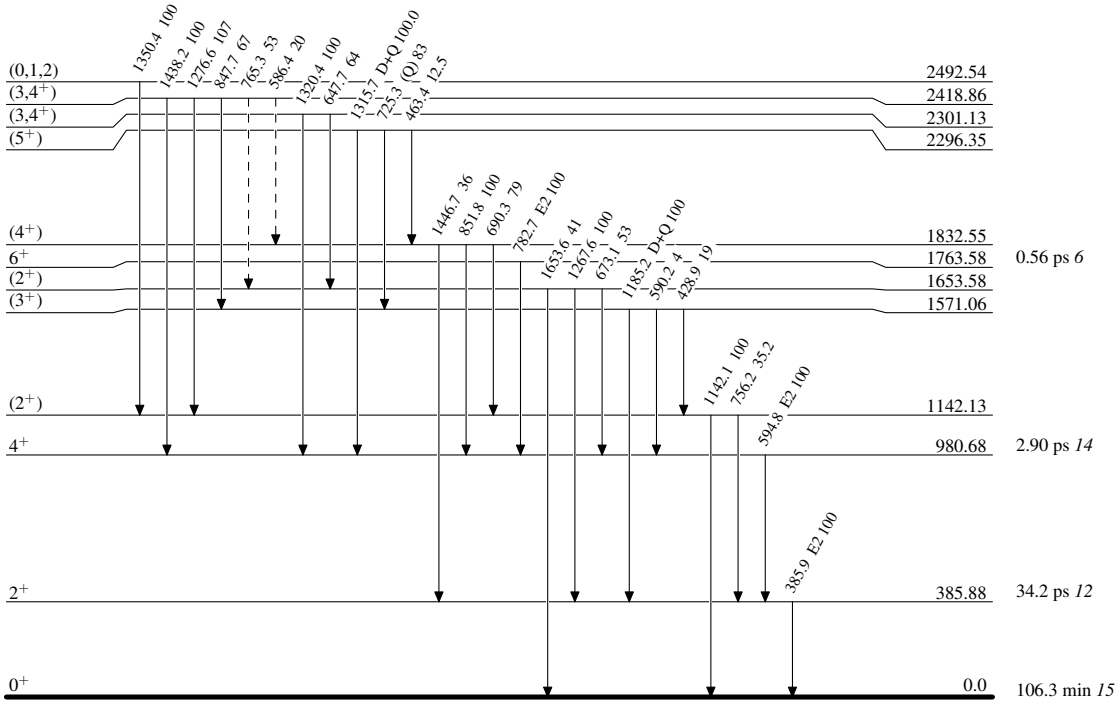
Adopted Levels, Gammas

Legend

Level Scheme (continued)

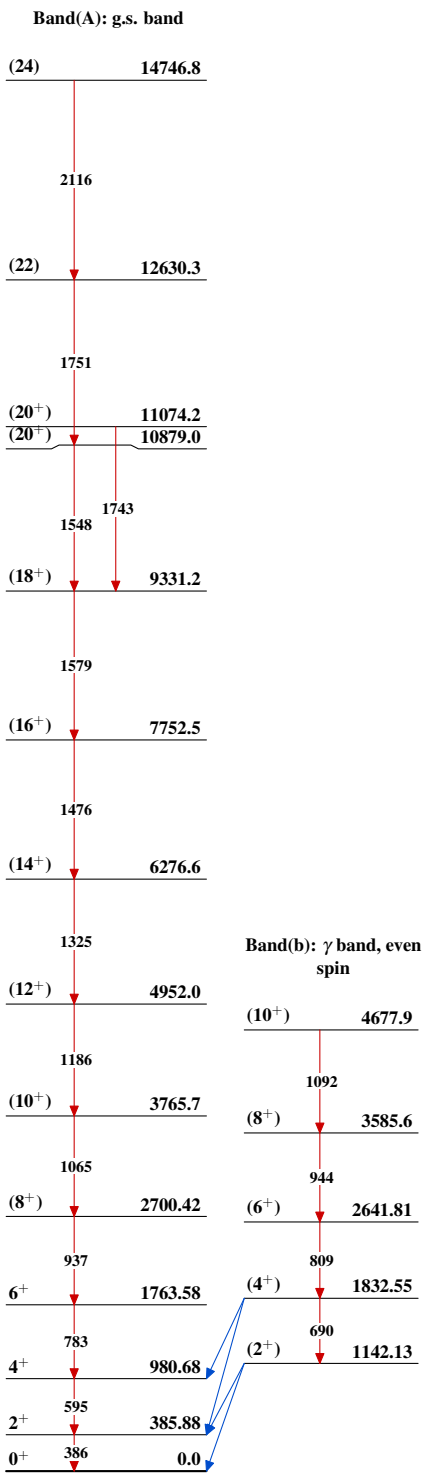
Intensities: Relative photon branching from each level

γ Decay (Uncertain)



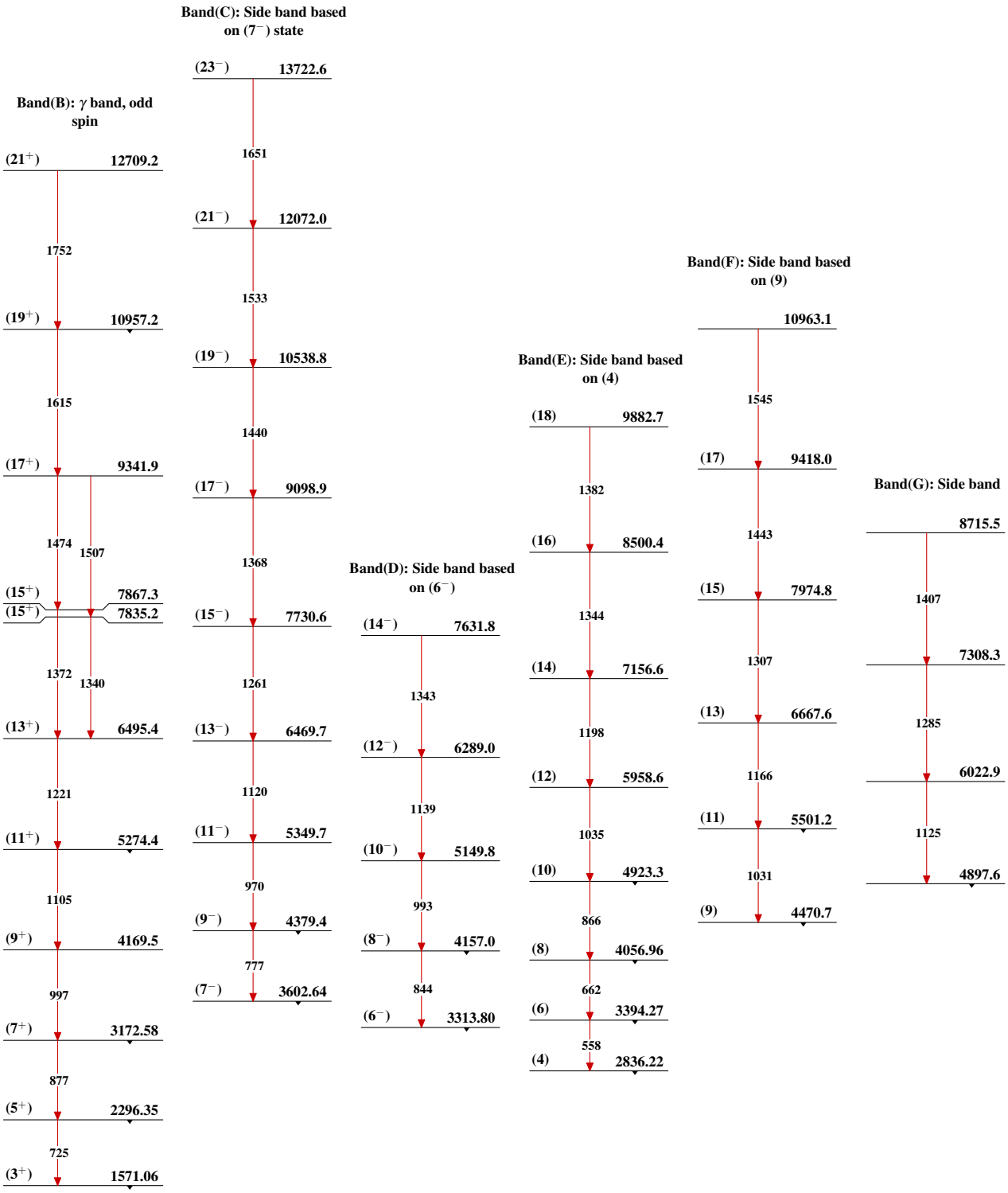
$^{80}_{38}Sr_{42}$

Adopted Levels, Gammas



$^{80}_{38}Sr_{42}$

Adopted Levels, Gammas (continued)



Adopted Levels, Gammas (continued)