Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 199,271 (2025)	1-Sep-2024

Q(β^-)=−5815 *6*; S(n)=9288 *5*; S(p)=6642 *4*; Q(α)=−3784 *4* 2021Wa16
S(2n)=22191 *8*, S(2p)=11664 *5* (2021Wa16).

Other Reactions: Fe(^{28}Si,Xγ), E(^{28}Si)=95 MeV; CAESAR detector array (7 in-plane, Compton-suppressed Ge detectors); magnetic field perpendicular to detector plane; measured (unperturbed) DCO to determine alignment parameter σ/J=0.36 *2*; measurements are ongoing to determine hyperfine field of Sr in Fe and lifetime of 221 level, both of which are of relevance to a determination of the g-factor for the 221 level (2001St09, 2002Ro36).

Measured yields of ^{81}Sr for 1000 stopped antiproton on ^{98}Mo: 1.8 *3*. The targets were irradiated at LEAR, CERN with an average proton rate of 10^4 per sec for about six hours. Identified residual ^{81}Sr by γ-spectroscopy (1986Mo20).

^{81}Sr Levels

Cross Reference (XREF) Flags

A	^{81}Y ε decay (70.4 s)	D	^{58}Ni(^{29}Si,α2pγ)
B	^{53}Cr(^{31}P,p2nγ)	E	^{58}Ni(^{30}Si,α2pnγ)
C	^{55}Mn(^{29}Si,p2nγ),	F	^{78}Kr(α,nγ),^{80}Kr(α,3nγ)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	XREF	Comments
0.0[o]	1/2$^-$	22.3 min *4*	ABCDEF	%ε+%β^+=100 μ=+0.543 *4* J$^\pi$: J=1/2 from hyperfine structure (1987Bu11). π=− from comparison of μ with Schmidt diagram. T$_{1/2}$: weighted average of 24.5 min *20* (1971Do01), 26.0 min *15* (1973Br32), 22.15 min *22* (1980Ho28), and 25 min *2* (1982De36). μ: from 2019StZV, 1990Bu12 (collinear fast-beam laser spectroscopy); uncertainty arising from hfs anomaly included; ^{87}Sr standard. Others: +0.542 *4* (1987An02, atomic beam with laser fluorescence spectroscopy), +0.5434 *8* (1990Li28 − fast ion-beam collinear laser spectroscopy). <r^2>$^{1/2}$(charge)=4.255 fm *3* (2013An02). Δ<r^2>(^{80}Sr,^{81}Sr)=−0.011 fm^2 *9* (1996Li25; statistical uncertainty only).
79.20[l] *4*	(5/2)$^-$	0.39 μs *6*	ABCDEF	J$^\pi$: E2, $\Delta\pi$=no 79γ to 1/2$^-$ g.s.; 3/2,5/2 from excit in (α,xγ). T$_{1/2}$: weighted average of 0.326 μs *55* and 0.370 μs *85* from ^{81}Y ε decay, 0.55 μs *10* from ^{78}Kr(α,nγ) (1983Ar16) and 0.44 μs *10* (1989Wu01 − ^{58}Ni(^{28}Si,4pnγ)).
89.02[f] *7*	(7/2$^+$)	6.4 μs *5*	ABCDEF	J$^\pi$: absence of γ to 1/2$^-$ g.s.; level energy systematics for N=43 nuclei favor (7/2$^+$). T$_{1/2}$: from γ(t) (1989Wu01 − produced from ^{58}Ni(^{28}Si,4pnγ)). Other: >1.5 μs from (α,x nγ).
119.76[i] *4*	(1/2$^+$)	24 ns *4*	ABC EF	J$^\pi$: 217γ from (5/2$^+$) has mult. (E2) and linear polarization which excludes a J to J-1 transition; 5/2 unlikely from 119γ excit. π: B(E1)(W.u.) more typical in this mass region than B(M1)(W.u.) for 119γ to 1/2$^-$. T$_{1/2}$: from pulsed beam measurements in (α,nγ).
132.2[g] *4*	(9/2$^+$)	<9 ns	ABCDEF	J$^\pi$: M1+E2, ΔJ=1, 43γ to (7/2$^+$) 89; J(132 level)>J(79 level) from 43γ excit. T$_{1/2}$: from pulsed beam measurements in (α,nγ).
155.21[n] *10*	3/2$^-$	74 ps *20*	ABC EF	J$^\pi$: excit 155γ requires this level to have one of the lowest spins occurring in ^{81}Sr; not J=1/2 or 5/2 from 155γ(θ) in (α,nγ); M1+E2 γ from 5/2$^-$; D(+Q) 155γ to 1/2$^-$ g.s..
203.36 *5*	(5/2$^+$)	1.1 ns *3*	A F	J$^\pi$: D, ΔJ=0, 124γ to (5/2)$^-$ 79; γ to (7/2$^+$); allowed ε decay (log *ft*≈5.6) from (5/2$^+$) ^{81}Y. T$_{1/2}$: from (α,nγ). Other: <3.5 ns (^{81}Y ε decay).

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Adopted Levels, Gammas (continued)

^{81}Sr Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[#]	XREF	Comments
220.82[h] *7*	3/2$^{(+)}$	0.63 ns *20*	ABC EF	J$^{\pi}$: J=3/2 from 221$\gamma(\theta)$ and 221γ excit; M1+E2 γ to (1/2^{+}).
294.9 *4*	(3/2)$^{-}$		F	J$^{\pi}$: M1 294.9γ to 1/2^{-} g.s..
336.22[i] *9*	(5/2^{+})	0.16 ns *5*	ABC EF	J$^{\pi}$: from (α,xnγ). (M1+E2) γ to (3/2^{+}); anisotropy 115γ too large for a 3/2 to 3/2 transition; excit 115γ favors J=5/2.
366.5[m] *3*	(7/2)$^{-}$	53 ps *15*	BCDEF	J$^{\pi}$: M1+E2, ΔJ=1, γ to (5/2)$^{-}$; band assignment.
379.25[o] *22*	5/2^{-}	12 ps *6*	BC EF	J$^{\pi}$: E2, ΔJ=2, γ to 1/2^{-}; band assignment.
535.8 *6*	(5/2^{-})		F	J$^{\pi}$: may be member of a 3/2^{-} band with the 295 level as bandhead.
558.2[h] *3*	7/2$^{(+)}$	17 ps *17*	BC EF	J$^{\pi}$: stretched E2 γ to 3/2$^{(+)}$; γ to (5/2^{+}); band assignment.
611.54 *8*	(7/2^{+})	<7 ns	A F	J$^{\pi}$: D γ to (5/2^{+}); band assignment. T$_{1/2}$: from observation of prompt 408γ-511γ coin and time resolution in ^{81}Y ε decay.
632.6[n] *3*	(7/2)$^{-}$		BC EF	J$^{\pi}$: M1 253.5γ to 5/2^{-} 379; 477γ to 3/2^{-} 155; band assignment.
707.0[l] *4*	(9/2)$^{-}$		BCDEF	J$^{\pi}$: E2 628γ to (5/2)$^{-}$ 79; band assignment.
796.5[i] *4*	(9/2^{+})		BC EF	J$^{\pi}$: D 238γ to 7/2$^{(+)}$ 558; stretched Q intraband 460γ to (5/2^{+}) 336; band assignment.
810.7[f] *6*	(11/2^{+})	2.8 ps *9*	BC EF	J$^{\pi}$: M1+E2 679γ to (9/2^{+}) 132; band assignment.
904.7[g] *6*	(13/2^{+})	4.6 ps *13*	BCDEF	J$^{\pi}$: E2 772γ to (9/2^{+}); band assignment.
999.9[o] *4*	(9/2^{-})		BC EF	J$^{\pi}$: Q 621γ to 5/2^{-} 379; 367γ to (7/2)$^{-}$ 633; band assignment.
1055.4[m] *5*	(11/2)$^{-}$		BCDEF	J$^{\pi}$: E2 γ to (7/2)$^{-}$; D γ to (9/2)$^{-}$; band assignment.
1109.2[h] *5*	(11/2^{+})		BC EF	J$^{\pi}$: Q γ to (7/2)$^{+}$; D γ to (9/2^{+}); band assignment.
1332.6[n] *5*	(11/2^{-})		BC EF	J$^{\pi}$: γ to (7/2)$^{-}$; band assignment.
1470.5[i] *5*	(13/2^{+})	$\geq$0.76 ps	BC EF	J$^{\pi}$: Q γ to (9/2^{+}); band assignment.
1505.6[l] *6*	(13/2^{-})		BCDEF	J$^{\pi}$: Q γ to (9/2)$^{-}$; band assignment.
1739.8[f] *6*	(15/2^{+})		BC EF	J$^{\pi}$: M1+E2 835γ to (13/2^{+}) 905; 929γ to (11/2^{+}) 811; band assignment.
1804.1[o] *6*	(13/2^{-})		BC EF	J$^{\pi}$: 804.2γ to (9/2^{-}) 999.9; band assignment.
1862.2[h] *6*	(15/2^{+})	0.62 ps *14*	BC EF	J$^{\pi}$: stretched E2 intraband 753γ to (11/2^{+}) 1109; band assignment.
1865.4[g] *7*	(17/2^{+})	1.0 ps *3*	BCDEF	J$^{\pi}$: E2 961γ to (13/2^{+}) 905; band assignment. T$_{1/2}$: from (α,nγ). Other: $\geq$0.55 ps from (^{29}Si,p2nγ).
1910.0[m] *11*	(15/2^{-})	$\geq$1.2 ps	BCDEF	J$^{\pi}$: stretched Q 855γ to (11/2)$^{-}$ 1056; band assignment.
2212.6[n] *7*	(15/2^{-})		BC EF	J$^{\pi}$: 880γ to (11/2^{-}) 1333; band assignment.
2324.4[i] *12*	(17/2^{+})	0.30 ps *8*	BC EF	J$^{\pi}$: stretched E2 854γ to (13/2^{+}) 1471; band assignment.
2447.7[l] *7*	(17/2^{-})	0.60 ps *21*	BCDEF	J$^{\pi}$: stretched (E2) 942γ to (13/2^{-}) 1506; band assignment.
2739.6[o] *12*	(17/2^{-})		BC E	J$^{\pi}$: 936γ to (13/2^{-}); band assignment.
2791.3[h] *12*	(19/2^{+})	0.14 ps *4*	BC E	J$^{\pi}$: stretched E2 929γ to (15/2^{+}); band assignment.
2903.9[m] *13*	(19/2^{-})	0.36 ps *10*	BCDE	J$^{\pi}$: stretched E2 intraband 994γ to (15/2^{-}); band assignment.
2962.8[g] *8*	(21/2^{+})	0.22 ps *5*	BCDEF	J$^{\pi}$: stretched E2 1098γ to (17/2^{+}); band assignment.
3145.3[n] *12*	(19/2^{-})		BC E	J$^{\pi}$: γ to (15/2^{-}); band assignment.
3330.2[i] *15*	(21/2^{+})	0.17 ps *5*	BC E	J$^{\pi}$: E2 γ to (17/2^{+}); band assignment.
3406.7 *10*	(21/2^{+})		BC E	J$^{\pi}$: stretched Q 1541γ to (17/2^{+}) 1865; 443γ to (21/2^{+}) 2963.
3495.8[l] *11*	(21/2^{-})	0.38 ps *14*	BCDE	J$^{\pi}$: γ to (17/2^{-}); band assignment.
3713.7[d] *10*	(23/2^{+})	0.40 ps *16*	BC E	J$^{\pi}$: D intraband 306γ to (21/2^{+}) 3407; likely J=23/2 member of (ν 5/2[422])(π g$_{9/2}$)^{2} band (1996Sm07).
3799.6?[o] *16*	(21/2^{-})		B E	XREF: B(3752.8). E(level): differs from that in (^{31}P,p2nγ) because, in that reaction, a 1016.0γ placed in the γ cascade, and here instead a 1060γ adopted from (^{30}Si,α2pnγ) to deexcite this level.
3857.6? *13*	(23/2^{-})		E	
3887.3[h] *16*	(23/2^{+})	0.13 ps *4*	BC E	J$^{\pi}$: E2 1096γ to (19/2^{+}); band assignment.
3977.5[j] *14*	(23/2^{-})	<0.55 ps	BCDE	J$^{\pi}$: stretched E2 1074γ to (19/2^{-}) 2904; from (HI,xnγ) systematics, deexciting γ probably feeds a level with lesser or equal spin.

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Adopted Levels, Gammas (continued)

^{81}Sr Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[#]	XREF	Comments
4044.0? *17*	(23/2$^-$)		E	
4059.0?[m] *15*	(23/2$^-$)		E	
4107.2[g] *9*	(25/2$^+$)	0.17 ps *4*	BCDE	J$^{\pi}$: stretched E2 1144.6γ to (21/2$^+$); (M1) γ to (23/2$^+$); band assignment.
4143.6[n] *16*	(23/2$^-$)		B E	
4473.3[i] *18*	(25/2$^+$)	0.09 ps *3*	BC E	J$^{\pi}$: stretched E2 1143γ to (21/2$^+$); band assignment.
4551.3[k] *13*	(25/2$^-$)	<0.55 ps	BCDE	J$^{\pi}$: stretched E2 1055γ to (21/2$^-$); band assignment.
4730.2?[l] *15*	(25/2$^-$)		E	
4752.8[d] *11*	(27/2$^+$)	0.21 ps *3*	BC E	J$^{\pi}$: stretched E2 1038.6γ to (23/2$^+$); D+(Q) γ to (25/2$^+$).
4934.4?[o] *19*	(25/2$^-$)		B	XREF: B(4810.8). E(level): differs from that in (^{31}P,p2nγ) because, in that reaction, instead of 1016.0γ from 21/2$^-$ and 1058.0 from 25/2$^-$ in the γ cascade 1060γ and 1134.8γ (instead of from 29/2$^-$ for the latter) are adopted here, respectively, from (^{30}Si,α2pnγ).
4998.1[e] *14*	(27/2$^-$)		DE	J$^{\pi}$: stretched Q 1021γ to (23/2$^-$) 3978; 446γ to (25/2$^-$) 4551;
5084.4[h] *19*	(27/2$^+$)	<0.21 ps	BC E	J$^{\pi}$: γ to (23/2$^+$); band assignment.
5102.5[j] *17*	(27/2$^-$)		B DE	
5174.4 *19*	(27/2$^+$)		BC E	XREF: the γ which deexcites this level was seen in (^{29}Si,p2nγ), but was placed differently there. Sharp cut off of cascade Iγ above this level in (^{30}Si,α2pnγ) suggests that this level may be isomeric (1996Sm07).
5242.4[g] *12*	(29/2$^+$)	<0.35 ps	BCDE	J$^{\pi}$: D γ to (27/2$^+$); γ to (25/2$^+$); band assignment; $\Delta\pi$=no from level scheme.
5248.6[n] *19*	(27/2$^-$)		B E	
5264.0?[m] *18*	(27/2$^-$)		E	
5705.3[k] *17*	(29/2$^-$)		B DE	
5752.6[i] *21*	(29/2$^+$)	<0.07 ps	BC E	J$^{\pi}$: γ to (25/2$^+$); band assignment.
6002.1[d] *13*	(31/2$^+$)	<0.28 ps	BC E	J$^{\pi}$: E2 γ to (27/2$^+$); band assignment.
6068.4?[o] *21*	(29/2$^-$)		B	XREF: B(5945.6). E(level): differs from that in (^{31}P,p2nγ) because γ cascade from 33/2$^-$ to 29/2$^-$ to 25/2$^-$ to 21/2$^-$ of that reaction assigned from (29/2$^-$) to (25/2$^-$) to (21/2$^-$) to (17/2$^-$) in the adopted dataset.
6114.4?[l] *18*	(29/2$^-$)		E	
6134.1[e] *17*	(31/2$^-$)		DE	
6265.6 *21*			E	J$^{\pi}$: 31/2$^+$ proposed by authors in 1996Sm07. 1181.2γ to (27/2$^+$), DCO ratio: 0.76 *14* (1996Sm07) – possibly contaminated by nearby transition.
6357.5[j] *20*	(31/2$^-$)		B DE	XREF: deexcitation γ also present in (^{29}Si, p2nγ) but level energy differs due to wrongly placed γ lower in cascade.
6465.0?[ch] *21*	(31/2$^+$)[c]		B	
6484.3[g] *13*	(33/2$^+$)		B DE	
6520.0?[m] *21*	(31/2$^-$)		E	
6792.6 *24*	(33/2$^+$)		E	
6989.3[k] *20*	(33/2$^-$)		B DE	
7135.7 *23*	(33/2$^+$)		E	
7184.2[i] *23*	(33/2$^+$)		B E	
7402.1[e] *20*	(35/2$^-$)		DE	
7448.9[d] *14*	(35/2$^+$)		B E	
7642.1?[l] *21*	(33/2$^-$)		E	
7760.5[j] *22*	(35/2$^-$)		B DE	
7860.4[g] *15*	(37/2$^+$)		B DE	
7935.3?[ch] *24*	(35/2$^+$)[c]		B	

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Adopted Levels, Gammas (continued)

^{81}Sr Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
8403.3[k] 22	(37/2$^-$)	B DE	
8673.7? 25	(37/2$^+$)	E	
8771.5[i] 25	(37/2$^+$)	B E	
8822.1[e] 23	(39/2$^-$)	DE	
9249.5[j] 25	(39/2$^-$)	DE	E=9333 in (^{31}P,p2nγ) for J=39/2 band member because, in that reaction, the 1488γ (which separates the 1581γ and the 1402γ) was not included in the relevant γ cascade.
9313.5?[l] 23	(37/2$^-$)	E	
9405.4[g] 18	(41/2$^+$)	B DE	
9475?[ch] 3	(39/2$^+$)[c]	B	
9929.3[k] 24	(41/2$^-$)	B DE	
10396.1[e] 25	(43/2$^-$)	DE	
10482[i] 3	(41/2$^+$)	E	
10829[j] 3	(43/2$^-$)	DE	XREF: E(9333); deexciting γ seen, but placed differently, in (^{31}P,p2nγ).
11257.4[g] 21	(45/2$^+$)	DE	
11614[k] 3	(45/2$^-$)	DE	
12114[e] 3	(47/2$^-$)	DE	
12376?[i] 3	(45/2$^+$)	E	
12525[j] 3	(47/2$^-$)	DE	
13427.5[g] 23	(49/2$^+$)	DE	
13486[k] 3	(49/2$^-$)	DE	
14010[e] 3	(51/2$^-$)	DE	
14424[j] 3	(51/2$^-$)	D	
15576[k] 3	(53/2$^-$)	DE	
15924.5[g] 25	(53/2$^+$)	D	
16176[e] 3	(55/2$^-$)	DE	
16794[j] 4	(55/2$^-$)	D	
17956[k] 4	(57/2$^-$)	D	
18720[e] 4	(59/2$^-$)	DE	
x[@]	J1≈(31/2)	D	Additional information 1.
1215.0+x[@] 10	J1+2	D	
2586.0+x[@] 15	J1+4	D	
2591.4+x[a] 20	J1+4	D	
4105.7+x[@] 17	J1+6	D	
4119.4+x[a] 17	J1+6	D	
5785.4+x[@] 17	J1+8	D	
5796.7+x[a] 17	J1+8	D	
7625.1+x[@] 18	J1+10	D	
7679.7+x[a] 20	J1+10	D	
9613.1+x[@] 21	J1+12	D	
9714.8+x[a] 23	J1+12	D	
11753.1+x[@] 23	J1+14	D	
11918.8+x[a] 25	J1+14	D	
14047+x[@] 3	J1+16	D	
14288+x[a] 3	J1+16	D	
16488+x[@] 3	J1+18	D	
16823+x[a] 3	J1+18	D	

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Adopted Levels, Gammas (continued)

^{81}Sr Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
19052+x[@] *3*	J1+20	D	
19519+x[a] *3*	J1+20	D	
21713+x[@] *3*	J1+22	D	
22364+x?[a] *4*	J1+22	D	
24460+x[@] *4*	J1+24	D	
y[&]	J2≈(33/2)	D	Additional information 2.
1646.0+y[&] *10*	J2+2	D	
3420.0+y[&] *15*	J2+4	D	
5346.1+y[&] *18*	J2+6	D	
7430.1+y[&] *20*	J2+8	D	
9670.1+y[&] *23*	J2+10	D	
12068.2+y[&] *25*	J2+12	D	
14608+y[&] *3*	J2+14	D	
17305+y[&] *3*	J2+16	D	
z[b]	J3≈(41/2)	D	Additional information 3.
1940.0+z[b] *10*	J3+2	D	
4042.1+z[b] *15*	J3+4	D	
6302.1+z[b] *18*	J3+6	D	
8711.1+z[b] *20*	J3+8	D	
11253.2+z[b] *23*	J3+10	D	
13852.2+z?[b] *25*	J3+12	D	

[†] From a least-squares fit to Eγ, allowing 1 keV uncertainty in Eγ whenever ΔE is unknown (SD-band levels excluded).
[‡] Values which are assigned without comment are based on band structure deduced in (^{29}Si,α2pγ) and/or (^{31}P,p2nγ) and/or (^{30}Si,α2pnγ), combined with γ multipolarity information deduced from measured DCO ratios (SD-band levels).
[#] From DSAM in (α,nγ) for E(level)<1400, and from DSAM in (^{29}Si,p2nγ) for E(level)≥1400, except as noted.
[@] Band(A): SD-1 band (2003Le08,1995Ch56,1999Le56). Q(transition)=3.30 *+18−16* (1999Le56), 3.08 *+16−15* (2003Le08), 3.5 *+8−7* (1997De51, reanalysis of data of 1995Ch56). Configuration: $\nu 5^1\pi 5^0$ (2003Le08). Percent population=1.02 (2003Le08), ≈1.5 (1995Ch56). Probable (π,α)=(−,+1/2) corresponding to configuration: $((\nu\ 1/2[550])^{-1}$). Predicted β_2=0.50 (1995Ch56).
[&] Band(B): SD-2 band (2003Le08,1995Ch56). Q(transition)=3.30 *+27−21* (2003Le08), 3.8 *+7−5* (1997De51, reanalyzed data of 1995Ch56). Configuration: $\nu 5^1\pi 5^0$ (2003Le08). Percent population=0.63 (2003Le08), ≈1.0 (1995Ch56). Probable (π,α)=(+,−1/2) corresponding to configuration: $((\nu\ 1/2[431])^{-1}$). Predicted β_2=0.55 (1995Ch56).
[a] Band(C): SD-3 band (2003Le08,1995Ch56). Percent population=0.40 (2003Le08), ≈0.6 (1995Ch56). Probable (π,α)=(+,+1/2) corresponding to configuration: $((\nu\ 5/2[422])^{-1}$). Predicted β_2=0.55 (1995Ch56).
[b] Band(D): SD-4 band (2003Le08,1995Ch56). Percent population=0.29 (2003Le08), ≈0.6 (1995Ch56).
[c] Assuming the 1288γ placement given in (^{30}Si,α2pnγ) and (^{31}P,p2nγ); in (^{19}F,2pnγ), the 1288γ was placed between the 1381 and 1197 cascading gammas, thereby altering the energy for all J≥31/2 members of the 1/2[431] α=−1/2 band. The level is shown here as tentative because the members of the 1540.0γ-1470.3γ-1380.6γ cascade, placed above the 27/2$^+$ 5083 level in (^{31}P,p2nγ) and also present in (^{30}Si,α2pnγ), could not be fitted into a self-consistent level scheme in the (^{30}Si,α2pnγ) study.
[d] Band(E): α=−1/2, $(\nu\ 5/2[422])(\pi\ g_{9/2})^2$ band. Yrast following crossing of 1-quasineutron band at ħω≈0.50 MeV.
[e] Band(F): Possible π=−, α=−1/2, 5-quasiparticle band. Feeds into ν 5/2[303] α=−1/2 band. No signature partner is observed. Postulated to contain the simultaneous alignment of a pair of quasineutrons and a pair of quasiprotons (1996Sm07), resulting in increased deformation.
[f] Band(g): ν 5/2[422], α=−1/2 (1996Sm07). See comment on signature partner band.
[g] Band(G): ν 5/2[422], α=+1/2 (1996Sm07). Decoupled yrast band.

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Adopted Levels, Gammas (continued)

^{81}Sr Levels (continued)

[h] Band(h): ν 1/2[431], α=−1/2 band (1996Sm07). See comment on signature partner band.
[i] Band(H): ν 1/2[431], α=+1/2 band (1996Sm07). Intruder state from $d_{5/2}$ subshell. Band parameters: A=29.2, B=−38, a=+0.059 (J=1/2 through 11/2).
[j] Band(i): α=−1/2, 3-quasiparticle Eab band (1996Sm07). (π 5/2[303]) + aligned pair of quasiprotons.
[k] Band(I): α=+1/2, 3−quasiparticle Fab band (1996Sm07). (π 5/2[303]) + aligned pair of quasiprotons.
[l] Band(J): ν 5/2[303], α=+1/2 band (1996Sm07).
[m] Band(j): ν 5/2[303], α=−1/2 band (1996Sm07).
[n] Band(k): ν 1/2[301], α=−1/2 band (1996Sm07). See comment on signature partner band.
[o] Band(K): ν 1/2[301], α=+1/2 band (1996Sm07). Band parameters: A=46.2, B=−220, a=−0.039 (J=1/2 through 11/2).

Adopted Levels, Gammas (continued)

$\gamma(^{81}Sr)$

Additional information 4.

E_i(level)	J_i^π	E_γ †	I_γ &	E_f	J_f^π	Mult.[d]	δ[d]	α[f]	Comments
79.20	$(5/2)^-$	79.20 *4*	100	0.0	$1/2^-$	E2		2.386 *34*	B(E2)(W.u.)=6.6 *+10−8* α(K)=1.953 *28*; α(L)=0.364 *5*; α(M)=0.0615 *9* α(N)=0.00697 *10*; α(O)=0.0002410 *34* Mult.: α(K)exp=2.3 *6* in ^{81}Y ε decay (which implies δ(E2,M1)>2.4 and $\Delta\pi$=no); intensity balance at the 79 level in (α,xnγ) rules out E1 and M1. Compatible with $\gamma(\theta)$ in (α,xnγ).
89.02	$(7/2^+)$	(9.82)	100	79.20	$(5/2)^-$	[E1]		10.24 *14*	B(E1)(W.u.)=5.30×10^{-6} *+48−42* α(L)=8.68 *12*; α(M)=1.410 *20* α(N)=0.1498 *21*; α(O)=0.00513 *7* E_γ: from level energy difference; γ not observed. Mult.: B(M1)(W.u.)=2.0×10^{-4} *2* is atypical for this mass region.
119.76	$(1/2^+)$	119.76 *4*	100	0.0	$1/2^-$	(E1)		0.0597 *8*	B(E1)(W.u.)=8.3×10^{-6} *+17−12* α(K)=0.0528 *7*; α(L)=0.00582 *8*; α(M)=0.000970 *14* α(N)=0.0001195 *17*; α(O)=7.22×10^{-6} *10* Mult.: authors of 1983Ar16 ((α,nγ),(α,3nγ)) from the $\gamma(\theta)$ data consider B(E1)(W.u.)=8.3×10^{-6} 14 more likely in this mass region than B(M1)(W.u.)=5.0×10^{-4} *9*.
132.2	$(9/2^+)$	43.2[@] *4*	100	89.02	$(7/2^+)$	M1+E2	−0.08 *3*	1.89 *12*	α(K)exp=1.5 *3* (2005Ka39) α(K)=1.64 *9*; α(L)=0.211 *29*; α(M)=0.036 *5* α(N)=0.0043 *5*; α(O)=0.000246 *11* Mult.,δ: D+Q, δ=−0.08 *3* from (α,nγ); M1(+E2), $\delta\leq$0.14 from α(K)exp in ^{81}Y ε decay.
155.21	$3/2^-$	155.20 *10*	100	0.0	$1/2^-$	(M1+E2)	+0.1 *1*	0.051 *4*	B(M1)(W.u.)=0.075 *+30−18* α(K)=0.045 *4*; α(L)=0.0051 *5*; α(M)=0.00086 *9* α(N)=0.000107 *11*; α(O)=6.8×10^{-6} *5* Mult.: D(+Q) from (α,nγ); adopted $\Delta\pi$=no.
203.36	$(5/2^+)$	114.34 *4*	10.3 *3*	89.02	$(7/2^+)$				I_γ: from ^{81}Y ε decay.
		124.16 *3*	100.0 *8*	79.20	$(5/2)^-$	(E1)		0.0537 *8*	B(E1)(W.u.)=1.5×10^{-4} *+6−3* α(K)=0.0475 *7*; α(L)=0.00523 *7*; α(M)=0.000872 *12* α(N)=0.0001075 *15*; α(O)=6.51×10^{-6} *9* I_γ: from ^{81}Y ε decay. Mult.: D in (α,nγ); adopted $\Delta\pi$=(yes) and RUL.
220.82	$3/2^{(+)}$	101.05 *5*	81 *5*	119.76	$(1/2^+)$	M1+E2	−0.5 *2*	0.32 *11*	α(K)=0.28 *9*; α(L)=0.039 *15*; α(M)=0.0066 *25* α(N)=7.8×10^{-4} *29*; α(O)=3.8×10^{-5} *11* B(M1)(W.u.)=0.011 *+5−3* I_γ: weighted average of 82 *5* from ^{81}Y ε decay and 80 *8* from

From ENSDF

$^{81}_{38}Sr_{43}$-7

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	δ[d]	α[f]	Comments
									(^{29}Si,p2nγ). Other Iγ: 32 in (α,nγ). δ: −0.5 *2* from (α,nγ); abs(δ)<0.5 if B(E2)(W.u.)<300. B(E2)(W.u.)=3.2×10^2 *+28−19* exceeds RUL=300.
220.82	3/2$^{(+)}$	221.0[@] *4*	100 *7*	0.0	1/2$^-$	(E1)		0.01002 *15*	α(K)=0.00887 *13*; α(L)=0.000967 *14*; α(M)=0.0001617 *24* α(N)=2.011×10^{-5} *30*; α(O)=1.260×10^{-6} *19* B(E1)(W.u.)=2.6×10^{-5} *+13−6* Mult.: D from (^{29}Si,p2nγ); pure E1 or highly mixed (δ=−1.3 *4*) M1+E2 from (α,nγ); Δπ=(yes) from level scheme.
294.9	(3/2)$^-$	294.9[@] *4*	100	0.0	1/2$^-$	M1		0.00939 *14*	α(K)=0.00830 *12*; α(L)=0.000919 *13*; α(M)=0.0001546 *22* α(N)=1.940×10^{-5} *28*; α(O)=1.257×10^{-6} *18*
336.22	(5/2$^+$)	115.39 *6*	100[a] *9*	220.82	3/2$^{(+)}$	(M1+E2)	−0.2 *1*	0.128 *22*	α(K)=0.112 *18*; α(L)=0.0135 *29*; α(M)=0.0023 *5* α(N)=0.00028 *6*; α(O)=1.67×10^{-5} *23* B(M1)(W.u.)=0.065 *+29−17*; B(E2)(W.u.)=2.4×10^2 *+35−18* B(E2)(W.u.)=2.4×10^2 *+35−18* upper bound exceeds RUL=300.
		216.7[@] *4*	<39	119.76	(1/2$^+$)	(E2)		0.0605 *9*	α(K)=0.0526 *8*; α(L)=0.00662 *10*; α(M)=0.001112 *17* α(N)=0.0001344 *21*; α(O)=7.27×10^{-6} *11* Iγ: limit from ^{81}Y ε decay. However, Iγ=200 *20* in (^{29}Si,p2nγ) and 125 *32* (for possible doublet) in (α,xnγ).
366.5	(7/2)$^-$	277.5[@] *4*	56 *5*	89.02	(7/2$^+$)	[E1]		0.00527 *8*	B(E1)(W.u.)=1.13×10^{-4} *+44−26* α(K)=0.00467 *7*; α(L)=0.000508 *7*; α(M)=8.50×10^{-5} *12* α(N)=1.059×10^{-5} *15*; α(O)=6.70×10^{-7} *10* Iγ: consistent with Iγ=51 in (α,xnγ); however, Iγ=150 *3* in (^{30}Si,α2pnγ).
		287.3[@] *4*	100 *5*	79.20	(5/2)$^-$	M1+E2	+2.2 *8*	0.0203 *21*	B(M1)(W.u.)=0.0019 *+22−8*; B(E2)(W.u.)=137 *+49−43* α(K)=0.0177 *18*; α(L)=0.00212 *23*; α(M)=0.00036 *4* α(N)=4.4×10^{-5} *5*; α(O)=2.52×10^{-6} *24*
379.25	5/2$^-$	224.3[@] *4*	103 *13*	155.21	3/2$^-$	M1+E2	+0.13 *8*	0.0193 *9*	B(M1)(W.u.)=0.07 *+6−3*; B(E2)(W.u.)<95 α(K)=0.0171 *8*; α(L)=0.00192 *11*; α(M)=0.000322 *18* α(N)=4.03×10^{-5} *21*; α(O)=2.58×10^{-6} *11* Other Iγ: 94 from (α,xnγ).
		300.0[@] *4*	20	79.20	(5/2)$^-$				Iγ: from (α,xnγ).
		379.4[@] *4*	100 *20*	0.0	1/2$^-$	E2		0.00876 *13*	B(E2)(W.u.)=1.3×10^2 *+11−5* α(K)=0.00770 *11*; α(L)=0.000896 *13*; α(M)=0.0001504 *22* α(N)=1.852×10^{-5} *27*; α(O)=1.106×10^{-6} *16*
535.8	(5/2$^-$)	240.9[@] *4*	100	294.9	(3/2)$^-$	(D)			
558.2	7/2$^{(+)}$	221.9[@] *4*	15 *3*	336.22	(5/2$^+$)				Iγ: from (^{29}Si,p2nγ); Iγ=26 in (α,nγ).
		337.4[@] *4*	100 *9*	220.82	3/2$^{(+)}$	E2		0.01293 *19*	α(K)=0.01134 *17*; α(L)=0.001336 *19*; α(M)=0.0002244 *33* α(N)=2.75×10^{-5} *4*; α(O)=1.619×10^{-6} *24*

From ENSDF

$^{81}_{38}Sr_{43}$-8

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	δ[d]	α[f]	Comments
611.54	(7/2$^+$)	408.18 *6*	100.0 *24*	203.36	(5/2$^+$)	(M1)		0.00424 *6*	α(K)=0.00375 *5*; α(L)=0.000412 *6*; α(M)=6.92×10^{-5} *10* α(N)=8.70×10^{-6} *12*; α(O)=5.67×10^{-7} *8* I_γ: from ^{81}Y ε decay.
		479.3		132.2	(9/2$^+$)				E_γ: from level energy difference in ε decay. Weak branch.
632.6	(7/2)$^-$	253.5[@] *4*	32 *9*	379.25	5/2$^-$	M1		0.01373 *20*	α(K)=0.01213 *18*; α(L)=0.001349 *20*; α(M)=0.0002271 *33* α(N)=2.85×10^{-5} *4*; α(O)=1.840×10^{-6} *27*
		477.0[@] *4*	100 *15*	155.21	3/2$^-$				
707.0	(9/2)$^-$	339.8[‡]	4.4 *18*	366.5	(7/2)$^-$				I_γ: weighted average of 3.8 *13* from (^{29}Si,p2nγ) and 10 *4* from (^{30}Si,α2pnγ).
		627.7[@] *4*	100 *6*	79.20	(5/2)$^-$	E2		1.90×10^{-3} *3*	α(K)=0.001674 *24*; α(L)=0.0001870 *26*; α(M)=3.14×10^{-5} *4* α(N)=3.91×10^{-6} *6*; α(O)=2.456×10^{-7} *35*
796.5	(9/2$^+$)	238.1[‡]	17 *3*	558.2	7/2$^{(+)}$	(M1)		0.01611 *23*	α(K)=0.01422 *20*; α(L)=0.001585 *22*; α(M)=0.000267 *4* α(N)=3.34×10^{-5} *5*; α(O)=2.159×10^{-6} *30* Mult.: D from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
		460.3[@] *4*	100[b] *6*	336.22	(5/2$^+$)	(E2)		0.00473 *7*	α(K)=0.00417 *6*; α(L)=0.000476 *7*; α(M)=7.99×10^{-5} *11* α(N)=9.89×10^{-6} *14*; α(O)=6.04×10^{-7} *9* Mult.: Q from γ(θ) in (α,nγ) for intraband γ, Δπ=no from level scheme.
810.7	(11/2$^+$)	678.6[@] *4*	100	132.2	(9/2$^+$)	M1+E2	−0.41 *−6+2*	1.34×10^{-3} *2*	B(M1)(W.u.)=0.022 *+10−5*; B(E2)(W.u.)=10 *+6−2* α(K)=0.001183 *18*; α(L)=0.0001288 *20*; α(M)=2.164×10^{-5} *34* α(N)=2.72×10^{-6} *4*; α(O)=1.773×10^{-7} *27*
904.7	(13/2$^+$)	772.3[@] *4*	100	132.2	(9/2$^+$)	E2		1.09×10^{-3} *2*	B(E2)(W.u.)=22 *+8−5* α(K)=0.000962 *14*; α(L)=0.0001061 *15*; α(M)=1.781×10^{-5} *25* α(N)=2.226×10^{-6} *31*; α(O)=1.418×10^{-7} *20* E_γ: other: 772.4 *5* from (^{29}Si,p2nγ).
999.9	(9/2$^-$)	367.2[@] *4*	<14	632.6	(7/2)$^-$				other Iγ: 19 in (α,nγ).
		620.8[@] *4*	100 *22*	379.25	5/2$^-$	(E2)		1.96×10^{-3} *3*	α(K)=0.001726 *24*; α(L)=0.0001930 *27*; α(M)=3.24×10^{-5} *5* α(N)=4.03×10^{-6} *6*; α(O)=2.53×10^{-7} *4* Mult.: Q from γ(θ) in (α,nγ) for intraband γ, Δπ=no from level scheme.
1055.4	(11/2)$^-$	347.7	<2.4	707.0	(9/2)$^-$	(M1)		0.00625 *9*	α(K)=0.00553 *8*; α(L)=0.000610 *9*; α(M)=0.0001025 *14*

From ENSDF

$^{81}_{38}Sr_{43}$-9

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	α[f]	Comments
								α(N)=1.287×10^{-5} *18*; α(O)=8.36×10^{-7} *12* E_γ: from (^{31}P,p2nγ). Mult.: D from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
1055.4	(11/2)$^-$	689.1[@] *4*	100 *5*	366.5	(7/2)$^-$	E2	1.47×10^{-3} *2*	α(K)=0.001297 *18*; α(L)=0.0001441 *20*; α(M)=2.418×10^{-5} *34* α(N)=3.02×10^{-6} *4*; α(O)=1.908×10^{-7} *27*
1109.2	(11/2$^+$)	311.9[‡]	<4.1	796.5	(9/2$^+$)	(M1)	0.00817 *11*	α(K)=0.00722 *10*; α(L)=0.000799 *11*; α(M)=0.0001343 *19* α(N)=1.686×10^{-5} *24*; α(O)=1.093×10^{-6} *15* Mult.: D from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
		551.1[@] *4*	100 *7*	558.2	7/2$^{(+)}$	(E2)	0.00275 *4*	α(K)=0.002425 *34*; α(L)=0.000273 *4*; α(M)=4.59×10^{-5} *7* α(N)=5.70×10^{-6} *8*; α(O)=3.54×10^{-7} *5* Mult.: Q from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
1332.6	(11/2$^-$)	333.2[‡]		999.9	(9/2$^-$)			
		700.0[@] *4*	*c*	632.6	(7/2)$^-$			
1470.5	(13/2$^+$)	361.1[‡]		1109.2	(11/2$^+$)			
		674.0[@] *4*	*c*	796.5	(9/2$^+$)	(E2)	1.56×10^{-3} *2*	B(E2)(W.u.)<260 α(K)=0.001377 *19*; α(L)=0.0001532 *22*; α(M)=2.57×10^{-5} *4* α(N)=3.21×10^{-6} *5*; α(O)=2.024×10^{-7} *29* Mult.: Q from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
1505.6	(13/2$^-$)	798.6[@] *4*	100	707.0	(9/2)$^-$	(E2)	9.99×10^{-4} *14*	α(K)=0.000883 *12*; α(L)=9.73×10^{-5} *14*; α(M)=1.633×10^{-5} *23* α(N)=2.041×10^{-6} *29*; α(O)=1.303×10^{-7} *18* Mult.: Q from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
1739.8	(15/2$^+$)	835.0[@] *4*	100	904.7	(13/2$^+$)	M1+E2	0.00086 *4*	α(K)=0.000760 *31*; α(L)=8.3×10^{-5} *4*; α(M)=1.39×10^{-5} *7* α(N)=1.74×10^{-6} *8*; α(O)=1.13×10^{-7} *4* I_γ: from (α,xnγ).
		929.3[@] *4*	40	810.7	(11/2$^+$)			I_γ: from (α,xnγ). May include contribution from 929.1γ which deexcites the 2791 level in other (HI,xnγ) reactions.
1804.1	(13/2$^-$)	804.2[@] *4*	100	999.9	(9/2$^-$)			
1862.2	(15/2$^+$)	753.0[@] *4*	100	1109.2	(11/2$^+$)	E2	1.16×10^{-3} *2*	B(E2)(W.u.)=1.8×10^2 *+5−3* α(K)=0.001027 *14*; α(L)=0.0001135 *16*; α(M)=1.904×10^{-5} *27* α(N)=2.378×10^{-6} *33*; α(O)=1.513×10^{-7} *21* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
1865.4	(17/2$^+$)	960.7 *4*	100	904.7	(13/2$^+$)	E2	6.36×10^{-4} *9*	B(E2)(W.u.)=33 *+14−8* α(K)=0.000563 *8*; α(L)=6.14×10^{-5} *9*; α(M)=1.031×10^{-5} *14* α(N)=1.291×10^{-6} *18*; α(O)=8.33×10^{-8} *12* E_γ: weighted average of 960.6 *4* from (α,xnγ) and 960.9 *5* from (^{29}Si,p2nγ).

From ENSDF

$^{81}_{38}Sr_{43}$-10

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	α[f]	Comments
1910.0	(15/2$^-$)	855	100	1055.4	(11/2)$^-$	(E2)	8.42×10^{-4} *12*	α(K)=0.000745 *10*; α(L)=8.18×10^{-5} *11*; α(M)=1.372×10^{-5} *19* α(N)=1.717×10^{-6} *24*; α(O)=1.100×10^{-7} *15* E_γ: from (^{29}Si,α2pγ). E=855.3 *4* for doublet in (α,xnγ); Eγ=854.5 in (^{30}Si,α2pnγ). Mult.: Q from (^{29}Si,p2nγ) for intraband γ, Δπ=no from level scheme.
2212.6	(15/2$^-$)	880.0[@] *4*	100	1332.6	(11/2$^-$)			
2324.4	(17/2$^+$)	853.9[‡]	100	1470.5	(13/2$^+$)	E2	8.45×10^{-4} *12*	B(E2)(W.u.)=2.0×10^2 *+8−4* α(K)=0.000747 *10*; α(L)=8.20×10^{-5} *11*; α(M)=1.377×10^{-5} *19* α(N)=1.722×10^{-6} *24*; α(O)=1.104×10^{-7} *15* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
2447.7	(17/2$^-$)	942.0[@] *4*	100	1505.6	(13/2$^-$)	(E2)	6.66×10^{-4} *9*	B(E2)(W.u.)=61 *+33−16* α(K)=0.000589 *8*; α(L)=6.44×10^{-5} *9*; α(M)=1.081×10^{-5} *15* α(N)=1.353×10^{-6} *19*; α(O)=8.72×10^{-8} *12* Mult.: (Q) fro m (^{29}Si,p2nγ); not M2 from RUL.
2739.6	(17/2$^-$)	935.5[‡]	100	1804.1	(13/2$^-$)			
2791.3	(19/2$^+$)	929.1[‡]	100	1862.2	(15/2$^+$)	E2	6.88×10^{-4} *10*	α(K)=0.000609 *9*; α(L)=6.66×10^{-5} *9*; α(M)=1.117×10^{-5} *16* α(N)=1.399×10^{-6} *20*; α(O)=9.01×10^{-8} *13* A comparable 929.3γ placed from 1740 level in (α,nγ). Mult.: Q from (^{29}Si,p2nγ). For (E2), BE2W=2.8E2 *+11−6* upper bound exceeds RUL=300.
2903.9	(19/2$^-$)	994.3	100	1910.0	(15/2$^-$)	E2	5.86×10^{-4} *8*	B(E2)(W.u.)=78 *+29−17* α(K)=0.000519 *7*; α(L)=5.66×10^{-5} *8*; α(M)=9.50×10^{-6} *13* α(N)=1.190×10^{-6} *17*; α(O)=7.69×10^{-8} *11* E_γ: average of 993.5 (^{31}P,p2nγ), 993.8 (^{30}Si,α2pnγ), and 995.6 (^{29}Si,α2pγ). Mult.: Q from (^{29}Si,p2nγ) for intraband γ, M2 rule out by RUL.
2962.8	(21/2$^+$)	1097.5 *4*	100	1865.4	(17/2$^+$)	E2	4.68×10^{-4} *7*	B(E2)(W.u.)=78 *+23−15* α(K)=0.000415 *6*; α(L)=4.50×10^{-5} *6*; α(M)=7.55×10^{-6} *11* α(N)=9.47×10^{-7} *13*; α(O)=6.14×10^{-8} *9* E_γ: from (α,xnγ). Other: 1097.5 *5* from (^{29}Si,p2nγ). Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
3145.3	(19/2$^-$)	932.6[‡]	100	2212.6	(15/2$^-$)			
3330.2	(21/2$^+$)	1005.8[‡]	100	2324.4	(17/2$^+$)	E2	5.71×10^{-4} *8*	B(E2)(W.u.)=1.6×10^2 *+7−4* α(K)=0.000505 *7*; α(L)=5.51×10^{-5} *8*; α(M)=9.24×10^{-6} *13* α(N)=1.158×10^{-6} *16*; α(O)=7.49×10^{-8} *10* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
3406.7	(21/2$^+$)	443.3[‡]		2962.8	(21/2$^+$)			
		1541[‡]	*c*	1865.4	(17/2$^+$)	(E2)	3.29×10^{-4} *5*	α(K)=0.0002032 *28*; α(L)=2.182×10^{-5} *31*; α(M)=3.66×10^{-6} *5*

From ENSDF

$^{81}_{38}Sr_{43}$-11

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	δ[d]	α[f]	Comments
									α(N)=4.60×10^{-7} *6*; α(O)=3.02×10^{-8} *4*; α(IPF)=0.0001002 *14* Mult.: Q from (^{29}Si,p2nγ); Δπ=(no) level scheme.
3495.8	(21/2$^-$)	1047.7[‡]	100	2447.7	(17/2$^-$)	[E2]		5.20×10^{-4} *7*	α(K)=0.000460 *6*; α(L)=5.01×10^{-5} *7*; α(M)=8.40×10^{-6} *12* α(N)=1.053×10^{-6} *15*; α(O)=6.82×10^{-8} *10* B(E2)(W.u.)=57 *+33−15*
3713.7	(23/2$^+$)	306.2[‡]	11.7[b] *9*	3406.7	(21/2$^+$)	(M1)		0.00855 *12*	B(M1)(W.u.)=0.20 *+13−6* α(K)=0.00756 *11*; α(L)=0.000836 *12*; α(M)=0.0001407 *20* α(N)=1.765×10^{-5} *25*; α(O)=1.145×10^{-6} *16* Mult.: D from (^{29}Si,p2nγ); Δπ=(no) from level scheme. Other Iγ: I(306γ):I(751γ)=25 *6*:100 *21* in (^{29}Si,p2nγ).
		750.5[‡]	100[b] *5*	2962.8	(21/2$^+$)	(M1+E2)	0.3 *1*	1.05×10^{-3} *2*	B(M1)(W.u.)=0.11 *+7−3*; B(E2)(W.u.)=21 *+22−12* α(K)=0.000932 *14*; α(L)=0.0001011 *16*; α(M)=1.698×10^{-5} *27* α(N)=2.135×10^{-6} *34*; α(O)=1.398×10^{-7} *21* Mult.,δ: D+Q from (^{29}Si,p2nγ); Δπ=(no) from level scheme.
3799.6?	(21/2$^-$)	1060[‡g]	100	2739.6	(17/2$^-$)				
3857.6?	(23/2$^-$)	953.4[‡g]	100	2903.9	(19/2$^-$)				
3887.3	(23/2$^+$)	1096.0[‡]	100	2791.3	(19/2$^+$)	E2		4.70×10^{-4} *7*	B(E2)(W.u.)=1.3×10^2 *+6−3* α(K)=0.000416 *6*; α(L)=4.52×10^{-5} *6*; α(M)=7.58×10^{-6} *11* α(N)=9.50×10^{-7} *13*; α(O)=6.16×10^{-8} *9* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
3977.5	(23/2$^-$)	1074[#] *1*	100	2903.9	(19/2$^-$)	E2		4.91×10^{-4} *7*	α(K)=0.000435 *6*; α(L)=4.73×10^{-5} *7*; α(M)=7.94×10^{-6} *11* α(N)=9.95×10^{-7} *14*; α(O)=6.45×10^{-8} *9* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
4044.0?	(23/2$^-$)	899.2[‡g]	100	3145.3	(19/2$^-$)				
4059.0?	(23/2$^-$)	1155[‡g]	100	2903.9	(19/2$^-$)				
4107.2	(25/2$^+$)	392.7[‡]	13.6[b] *6*	3713.7	(23/2$^+$)	(M1)		0.00465 *7*	B(M1)(W.u.)=0.26 *+8−5* α(K)=0.00412 *6*; α(L)=0.000452 *6*; α(M)=7.61×10^{-5} *11* α(N)=9.55×10^{-6} *13*; α(O)=6.22×10^{-7} *9* other Iγ: 10.6 *28* from (^{29}Si,p2nγ). Mult.: D from (^{29}Si,p2nγ); Δπ=(no) from level scheme.
		1144.6[#] *5*	100[b] *5*	2962.8	(21/2$^+$)	E2		4.29×10^{-4} *6*	B(E2)(W.u.)=72 *+22−14* α(K)=0.000378 *5*; α(L)=4.09×10^{-5} *6*; α(M)=6.87×10^{-6} *10* α(N)=8.62×10^{-7} *12*; α(O)=5.60×10^{-8} *8*; α(IPF)=2.47×10^{-6} *5* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.

From ENSDF

$^{81}_{38}Sr_{43}$-12

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	δ[d]	α[f]	Comments
4143.6	(23/2$^-$)	998.3[‡]	100	3145.3	(19/2$^-$)				
4473.3	(25/2$^+$)	1143.1[‡]	100	3330.2	(21/2$^+$)	E2		4.30×10^{-4} *6*	B(E2)(W.u.)=1.6×10^2 *+8−4* α(K)=0.000379 *5*; α(L)=4.11×10^{-5} *6*; α(M)=6.89×10^{-6} *10* α(N)=8.65×10^{-7} *12*; α(O)=5.62×10^{-8} *8*; α(IPF)=2.376×10^{-6} *33* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
4551.3	(25/2$^-$)	1055[#] *1*	100	3495.8	(21/2$^-$)	E2		5.12×10^{-4} *7*	α(K)=0.000453 *6*; α(L)=4.93×10^{-5} *7*; α(M)=8.27×10^{-6} *12* α(N)=1.037×10^{-6} *15*; α(O)=6.71×10^{-8} *10* Mult.: Q from DCO in (^{30}Si,α2pnγ); not M2 from RUL.
4730.2?	(25/2$^-$)	1234.1[‡g]	100	3495.8	(21/2$^-$)				
4752.8	(27/2$^+$)	645.3[‡]	100[b] *4*	4107.2	(25/2$^+$)	(M1+E2)	0.1 *1*	1.46×10^{-3} *2*	B(M1)(W.u.)=0.216 *+49−40* α(K)=0.001296 *20*; α(L)=0.0001407 *22*; α(M)=2.36×10^{-5} *4* α(N)=2.97×10^{-6} *5*; α(O)=1.948×10^{-7} *29* Mult.,δ: D(+Q) from (^{29}Si,p2nγ); intraband transition.
		1038.6[‡]	79[b] *4*	3713.7	(23/2$^+$)	E2		5.30×10^{-4} *7*	B(E2)(W.u.)=47 *+8−6* α(K)=0.000470 *7*; α(L)=5.11×10^{-5} *7*; α(M)=8.57×10^{-6} *12* α(N)=1.075×10^{-6} *15*; α(O)=6.96×10^{-8} *10* Mult.: Q from (^{29}Si,p2nγ); not M2 from RUL.
4934.4?	(25/2$^-$)	1134.8[g]	100	3799.6?	(21/2$^-$)				E_γ: from (^{31}P,p2nγ).
4998.1	(27/2$^-$)	446.4[‡]	37[b] *4*	4551.3	(25/2$^-$)				
		954.1[‡]	7.7[b] *13*	4044.0?	(23/2$^-$)				
		1021[#] *1*	100[b] *4*	3977.5	(23/2$^-$)	(E2)		5.52×10^{-4} *8*	α(K)=0.000488 *7*; α(L)=5.32×10^{-5} *8*; α(M)=8.92×10^{-6} *13* α(N)=1.118×10^{-6} *16*; α(O)=7.23×10^{-8} *10* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
		1140.4[‡g]		3857.6?	(23/2$^-$)				
5084.4	(27/2$^+$)	1197.1[‡]	100	3887.3	(23/2$^+$)				Other Eγ: 1194 from (^{29}Si,p2nγ). Mult.: DCO from (^{29}Si,p2nγ) is higher than expected for Q transition.
5102.5	(27/2$^-$)	1125[#] *1*	100	3977.5	(23/2$^-$)	(E2)		4.44×10^{-4} *6*	α(K)=0.000392 *6*; α(L)=4.26×10^{-5} *6*; α(M)=7.14×10^{-6} *10* α(N)=8.96×10^{-7} *13*; α(O)=5.82×10^{-8} *8*; α(IPF)=1.45×10^{-6} *5* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ, Δπ=no from level scheme.
5174.4	(27/2$^+$)	1287.1[‡]	100	3887.3	(23/2$^+$)	(Q)			Mult.: from DCO ratio in (^{30}Si,α2pnγ).
5242.4	(29/2$^+$)	489.3[‡]	100 *38*	4752.8	(27/2$^+$)	(M1)		0.00276 *4*	α(K)=0.002443 *34*; α(L)=0.000267 *4*; α(M)=4.49×10^{-5} *6*

From ENSDF

$^{81}_{38}Sr_{43}$-13

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	α[f]	Comments
								α(N)=5.64×10^{-6} *8*; α(O)=3.68×10^{-7} *5* Mult.: D intraband γ from (^{29}Si,p2nγ).
5242.4	(29/2$^+$)	1136[#] *1*	<25	4107.2	(25/2$^+$)			Other Iγ: 159 *15* in (^{30}Si,α2pnγ) for possibly contaminated γ.
5248.6	(27/2$^-$)	1105[‡]	100	4143.6	(23/2$^-$)			
5264.0?	(27/2$^-$)	1205[‡g]	100	4059.0?	(23/2$^-$)			
5705.3	(29/2$^-$)	1154[#] *1*	100	4551.3	(25/2$^-$)	(E2)	4.22×10^{-4} *6*	α(K)=0.000371 *5*; α(L)=4.02×10^{-5} *6*; α(M)=6.75×10^{-6} *10* α(N)=8.47×10^{-7} *12*; α(O)=5.50×10^{-8} *8*; α(IPF)=3.12×10^{-6} *9* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
5752.6	(29/2$^+$)	1279.3[‡]	100	4473.3	(25/2$^+$)	(E2)	3.58×10^{-4} *5*	α(K)=0.000297 *4*; α(L)=3.21×10^{-5} *4*; α(M)=5.38×10^{-6} *8* α(N)=6.76×10^{-7} *9*; α(O)=4.41×10^{-8} *6*; α(IPF)=2.271×10^{-5} *32* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
6002.1	(31/2$^+$)	759.9[‡]	14[b] *5*	5242.4	(29/2$^+$)	(D)		Mult.: from DCO ratio in (^{30}Si,α2pnγ).
		1249.0[‡]	100[bc] *11*	4752.8	(27/2$^+$)	E2	3.69×10^{-4} *5*	α(K)=0.000313 *4*; α(L)=3.38×10^{-5} *5*; α(M)=5.67×10^{-6} *8* α(N)=7.12×10^{-7} *10*; α(O)=4.64×10^{-8} *6*; α(IPF)=1.643×10^{-5} *23* Mult.: Q from (^{29}Si,p2nγ) for intraband transition; M2 ruled out by RUL.
6068.4?	(29/2$^-$)	1134.0[g]	100	4934.4?	(25/2$^-$)			E_γ: from (^{31}P,p2nγ).
6114.4?	(29/2$^-$)	1384.2[‡g]	100	4730.2?	(25/2$^-$)			
6134.1	(31/2$^-$)	1136[#] *1*	100	4998.1	(27/2$^-$)	(E2)	4.36×10^{-4} *6*	α(K)=0.000384 *5*; α(L)=4.16×10^{-5} *6*; α(M)=6.99×10^{-6} *10* α(N)=8.77×10^{-7} *12*; α(O)=5.69×10^{-8} *8*; α(IPF)=1.97×10^{-6} *6* E_γ: other: 1134.3 (^{30}Si,α2pnγ). Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
6265.6		1181.2[‡]	100	5084.4	(27/2$^+$)			
6357.5	(31/2$^-$)	1255[#] *1*	100	5102.5	(27/2$^-$)	(E2)	3.67×10^{-4} *5*	α(K)=0.000310 *4*; α(L)=3.34×10^{-5} *5*; α(M)=5.61×10^{-6} *8* α(N)=7.05×10^{-7} *10*; α(O)=4.59×10^{-8} *6*; α(IPF)=1.762×10^{-5} *32* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
6465.0?	(31/2$^+$)	1380.6[g]	100	5084.4	(27/2$^+$)			E_γ: from (^{31}P,p2nγ).
6484.3	(33/2$^+$)	482.1[‡]	40.0[b] *19*	6002.1	(31/2$^+$)	D		Mult.: from DCO ratio in (^{30}Si,α2pnγ).
		1242[#] *1*	100[b] *12*	5242.4	(29/2$^+$)			
6520.0?	(31/2$^-$)	1256[‡g]	100	5264.0?	(27/2$^-$)			
6792.6	(33/2$^+$)	527[‡]	100	6265.6				
6989.3	(33/2$^-$)	1284[#] *1*	100	5705.3	(29/2$^-$)			
7135.7	(33/2$^+$)	1383[‡]	100	5752.6	(29/2$^+$)			

From ENSDF

$^{81}_{38}Sr_{43}$-14

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	α[f]	Comments
7184.2	(33/2$^+$)	1431.5[‡]	100	5752.6	(29/2$^+$)			
7402.1	(35/2$^-$)	1268[#] *1*	100	6134.1	(31/2$^-$)	(E2)	3.62×10^{-4} *5*	α(K)=0.000303 *4*; α(L)=3.27×10^{-5} *5*; α(M)=5.49×10^{-6} *8* α(N)=6.89×10^{-7} *10*; α(O)=4.49×10^{-8} *6*; α(IPF)=2.030×10^{-5} *35* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
7448.9	(35/2$^+$)	964.9[‡]	75[b] *6*	6484.3	(33/2$^+$)			
		1446.6[‡]	100[b] *12*	6002.1	(31/2$^+$)	(E2)	3.26×10^{-4} *5*	α(K)=0.0002305 *32*; α(L)=2.480×10^{-5} *35*; α(M)=4.16×10^{-6} *6* α(N)=5.23×10^{-7} *7*; α(O)=3.42×10^{-8} *5*; α(IPF)=6.58×10^{-5} *9* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
7642.1?	(33/2$^-$)	1527.7[‡g]	100	6114.4?	(29/2$^-$)			
7760.5	(35/2$^-$)	1403[#] *1*	100	6357.5	(31/2$^-$)	(E2)	3.30×10^{-4} *5*	α(K)=0.0002453 *35*; α(L)=2.64×10^{-5} *4*; α(M)=4.43×10^{-6} *6* α(N)=5.57×10^{-7} *8*; α(O)=3.64×10^{-8} *5*; α(IPF)=5.27×10^{-5} *8* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
7860.4	(37/2$^+$)	411.6[‡]	12.0[b] *13*	7448.9	(35/2$^+$)	D		Mult.: from DCO ratio in (^{30}Si,α2pnγ).
		1376[#] *1*	100[b] *7*	6484.3	(33/2$^+$)	(E2)	3.34×10^{-4} *5*	α(K)=0.000255 *4*; α(L)=2.75×10^{-5} *4*; α(M)=4.61×10^{-6} *6* α(N)=5.80×10^{-7} *8*; α(O)=3.79×10^{-8} *5*; α(IPF)=4.55×10^{-5} *7* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ; Δπ=no from level scheme.
7935.3?	(35/2$^+$)	1470.3[g]	100	6465.0?	(31/2$^+$)			E_γ: from (^{31}P,p2nγ).
8403.3	(37/2$^-$)	1414[#] *1*	100	6989.3	(33/2$^-$)			Other Eγ: 1416.4 in (^{30}Si,α2pnγ).
8673.7?	(37/2$^+$)	1538[‡g]	100	7135.7	(33/2$^+$)			
8771.5	(37/2$^+$)	1587.3[‡]	100	7184.2	(33/2$^+$)	(E2)[e]	3.35×10^{-4} *5*	α(K)=0.0001917 *27*; α(L)=2.057×10^{-5} *29*; α(M)=3.45×10^{-6} *5* α(N)=4.34×10^{-7} *6*; α(O)=2.85×10^{-8} *4*; α(IPF)=0.0001193 *17* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
8822.1	(39/2$^-$)	1420[#] *1*	100	7402.1	(35/2$^-$)	(E2)[e]	3.28×10^{-4} *5*	α(K)=0.0002394 *34*; α(L)=2.58×10^{-5} *4*; α(M)=4.32×10^{-6} *6* α(N)=5.43×10^{-7} *8*; α(O)=3.55×10^{-8} *5*; α(IPF)=5.76×10^{-5} *9* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
9249.5	(39/2$^-$)	1489[#] *1*	100	7760.5	(35/2$^-$)	(E2)[e]	3.26×10^{-4} *5*	α(K)=0.0002175 *31*; α(L)=2.338×10^{-5} *33*; α(M)=3.92×10^{-6} *6* α(N)=4.93×10^{-7} *7*; α(O)=3.23×10^{-8} *5*; α(IPF)=8.03×10^{-5} *12* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
9313.5?	(37/2$^-$)	1671.4[‡g]	100	7642.1?	(33/2$^-$)			
9405.4	(41/2$^+$)	1545[#] *1*	100	7860.4	(37/2$^+$)	(E2)[e]	3.30×10^{-4} *5*	α(K)=0.0002021 *28*; α(L)=2.171×10^{-5} *31*; α(M)=3.64×10^{-6} *5* α(N)=4.58×10^{-7} *6*; α(O)=3.00×10^{-8} *4*; α(IPF)=0.0001018 *15* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
9475?	(39/2$^+$)	1540.0[g]	100	7935.3?	(35/2$^+$)			E_γ: from (^{31}P,p2nγ).

From ENSDF

$^{81}_{38}Sr_{43}$-15

Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[&]	E_f	J_f^π	Mult.[d]	α[f]	Comments
9929.3	(41/2⁻)	1526[#] *1*	100	8403.3	(37/2⁻)	(E2)[e]	3.28×10⁻⁴ *5*	α(K)=0.0002072 *29*; α(L)=2.225×10⁻⁵ *31*; α(M)=3.73×10⁻⁶ *5* α(N)=4.69×10⁻⁷ *7*; α(O)=3.08×10⁻⁸ *4*; α(IPF)=9.42×10⁻⁵ *14* Mult.: (Q) from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
10396.1	(43/2⁻)	1574[#] *1*	100	8822.1	(39/2⁻)	(E2)[e]	3.33×10⁻⁴ *5*	α(K)=0.0001949 *27*; α(L)=2.091×10⁻⁵ *29*; α(M)=3.51×10⁻⁶ *5* α(N)=4.41×10⁻⁷ *6*; α(O)=2.89×10⁻⁸ *4*; α(IPF)=0.0001137 *16* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
10482	(41/2⁺)	1711[‡]	100	8771.5	(37/2⁺)			
10829	(43/2⁻)	1579[#] *1*	100	9249.5	(39/2⁻)	(E2)[e]	3.34×10⁻⁴ *5*	α(K)=0.0001936 *27*; α(L)=2.078×10⁻⁵ *29*; α(M)=3.49×10⁻⁶ *5* α(N)=4.38×10⁻⁷ *6*; α(O)=2.88×10⁻⁸ *4*; α(IPF)=0.0001158 *17* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
11257.4	(45/2⁺)	1852[#] *1*	100	9405.4	(41/2⁺)	(E2)[e]	3.98×10⁻⁴ *6*	α(K)=0.0001426 *20*; α(L)=1.525×10⁻⁵ *21*; α(M)=2.56×10⁻⁶ *4* α(N)=3.22×10⁻⁷ *5*; α(O)=2.118×10⁻⁸ *30*; α(IPF)=0.0002371 *34* Mult.: from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
11614	(45/2⁻)	1685[#] *1*	100	9929.3	(41/2⁻)			
12114	(47/2⁻)	1718[#] *1*	100	10396.1	(43/2⁻)			
12376?	(45/2⁺)	1893[‡g]	100	10482	(41/2⁺)			
12525	(47/2⁻)	1696[#] *1*	100	10829	(43/2⁻)			Other Eγ: 1693.3 in (^{30}Si,α2pnγ).
13427.5	(49/2⁺)	2170[#] *1*	100	11257.4	(45/2⁺)			
13486	(49/2⁻)	1872[#] *1*	100	11614	(45/2⁻)			
14010	(51/2⁻)	1896[#] *1*	100	12114	(47/2⁻)	(E2)[e]	4.12×10⁻⁴ *6*	α(K)=0.0001365 *19*; α(L)=1.458×10⁻⁵ *20*; α(M)=2.446×10⁻⁶ *34* α(N)=3.08×10⁻⁷ *4*; α(O)=2.027×10⁻⁸ *28*; α(IPF)=0.000258 *4* Mult.: Q from DCO ratio in (^{30}Si,α2pnγ) for intraband γ.
14424	(51/2⁻)	1899[#] *1*	100	12525	(47/2⁻)			
15576	(53/2⁻)	2090[#] *1*	100	13486	(49/2⁻)			
15924.5	(53/2⁺)	2497[#] *1*	100	13427.5	(49/2⁺)			
16176	(55/2⁻)	2166[#] *1*	100	14010	(51/2⁻)			
16794	(55/2⁻)	2370[#] *1*	100	14424	(51/2⁻)			
17956	(57/2⁻)	2380[#] *1*	100	15576	(53/2⁻)			
18720	(59/2⁻)	2544[#] *1*	100	16176	(55/2⁻)			
1215.0+x	J1+2	1215 *1*	0.65 *10*	x	J1≈(31/2)			
2586.0+x	J1+4	1371 *1*	0.95 *10*	1215.0+x	J1+2			
4105.7+x	J1+6	1520 *1*	1.25 *15*	2586.0+x	J1+4			
4119.4+x	J1+6	1528 *1*		2591.4+x	J1+4			
		1533 *1*		2586.0+x	J1+4			
5785.4+x	J1+8	1666 *1*		4119.4+x	J1+6			
		1680 *1*	1.10 *10*	4105.7+x	J1+6			

From ENSDF

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Adopted Levels, Gammas (continued)

γ(^{81}Sr) (continued)

E_i(level)	J_i^π	E_γ †	I_γ &	E_f	J_f^π	E_i(level)	J_i^π	E_γ †	I_γ &	E_f	J_f^π
5796.7+x	J1+8	1677 *1*		4119.4+x	J1+6	22364+x?	J1+22	2845 [g]		19519+x	J1+20
		1691 *1*		4105.7+x	J1+6	24460+x	J1+24	2747 *1*	0.10 *5*	21713+x	J1+22
7625.1+x	J1+10	1828 *1*		5796.7+x	J1+8	1646.0+y	J2+2	1646 *1*		y	J2≈(33/2)
		1840 *1*	1.45 *15*	5785.4+x	J1+8	3420.0+y	J2+4	1774 *1*	0.95 *15*	1646.0+y	J2+2
7679.7+x	J1+10	1883 *1*	0.60 *20*	5796.7+x	J1+8	5346.1+y	J2+6	1926 *1*	0.90 *15*	3420.0+y	J2+4
9613.1+x	J1+12	1988 *1*	1.50 *15*	7625.1+x	J1+10	7430.1+y	J2+8	2084 *1*	1.20 *20*	5346.1+y	J2+6
9714.8+x	J1+12	2035 *1*	0.80 *20*	7679.7+x	J1+10	9670.1+y	J2+10	2240 *1*	0.80 *20*	7430.1+y	J2+8
11753.1+x	J1+14	2140 *1*	1.70 *15*	9613.1+x	J1+12	12068.2+y	J2+12	2398 *1*	0.75 *20*	9670.1+y	J2+10
11918.8+x	J1+14	2204 *1*	0.50 *15*	9714.8+x	J1+12	14608+y	J2+14	2540 *1*	0.45 *20*	12068.2+y	J2+12
14047+x	J1+16	2294 *1*	1.60 *15*	11753.1+x	J1+14	17305+y	J2+16	2697 *1*		14608+y	J2+14
14288+x	J1+16	2369 *1*	0.50 *15*	11918.8+x	J1+14	1940.0+z	J3+2	1940 *1*	0.50 *20*	z	J3≈(41/2)
16488+x	J1+18	2441 *1*	1.15 *15*	14047+x	J1+16	4042.1+z	J3+4	2102 *1*	0.70 *20*	1940.0+z	J3+2
16823+x	J1+18	2535 *1*	0.45 *15*	14288+x	J1+16	6302.1+z	J3+6	2260 *1*	0.55 *20*	4042.1+z	J3+4
19052+x	J1+20	2564 *1*	0.80 *10*	16488+x	J1+18	8711.1+z	J3+8	2409 *1*	0.95 *20*	6302.1+z	J3+6
19519+x	J1+20	2696 *1*	0.20 *10*	16823+x	J1+18	11253.2+z	J3+10	2542 *1*	0.55 *20*	8711.1+z	J3+8
21713+x	J1+22	2661 *1*	0.20 *10*	19052+x	J1+20	13852.2+z?	J3+12	2599 [g]		11253.2+z	J3+10

† For SD band gammas, values are from 2003Le08 in ^{58}Ni(^{29}Si,α2pγ). For all other gammas, Eγ is from ^{81}Y ε decay unless noted to the contrary.
‡ From (^{30}Si,α2pnγ).
# From (^{29}Si,α2pγ); ΔEγ≈1 keV or less. Evaluator has assigned ΔEγ=1 keV.
@ From (α,xnγ).
& For the SD band gammas, values are from the intensity pattern shown in fig. 3 of 1995Ch56 (^{29}Si,α2pγ), and they represent (approximately) percent intensities of the ^{81}Sr channel in the reaction used. For all other gammas, Iγ is relative photon branching; data are from (^{29}Si,p2nγ), unless noted to the contrary.
[a] From ^{81}Y ε decay.
[b] From (^{30}Si,α2pnγ).
[c] Based on transition line width in level scheme drawing, this γ is the strongest one deexciting its parent level.
[d] From γ(θ) and/or γ polarization data in (α,nγ), unless noted otherwise.
[e] Δπ=no from level scheme.
[f] Additional information 5.
[g] Placement of transition in the level scheme is uncertain.

From ENSDF

$^{81}_{38}Sr_{43}$-17

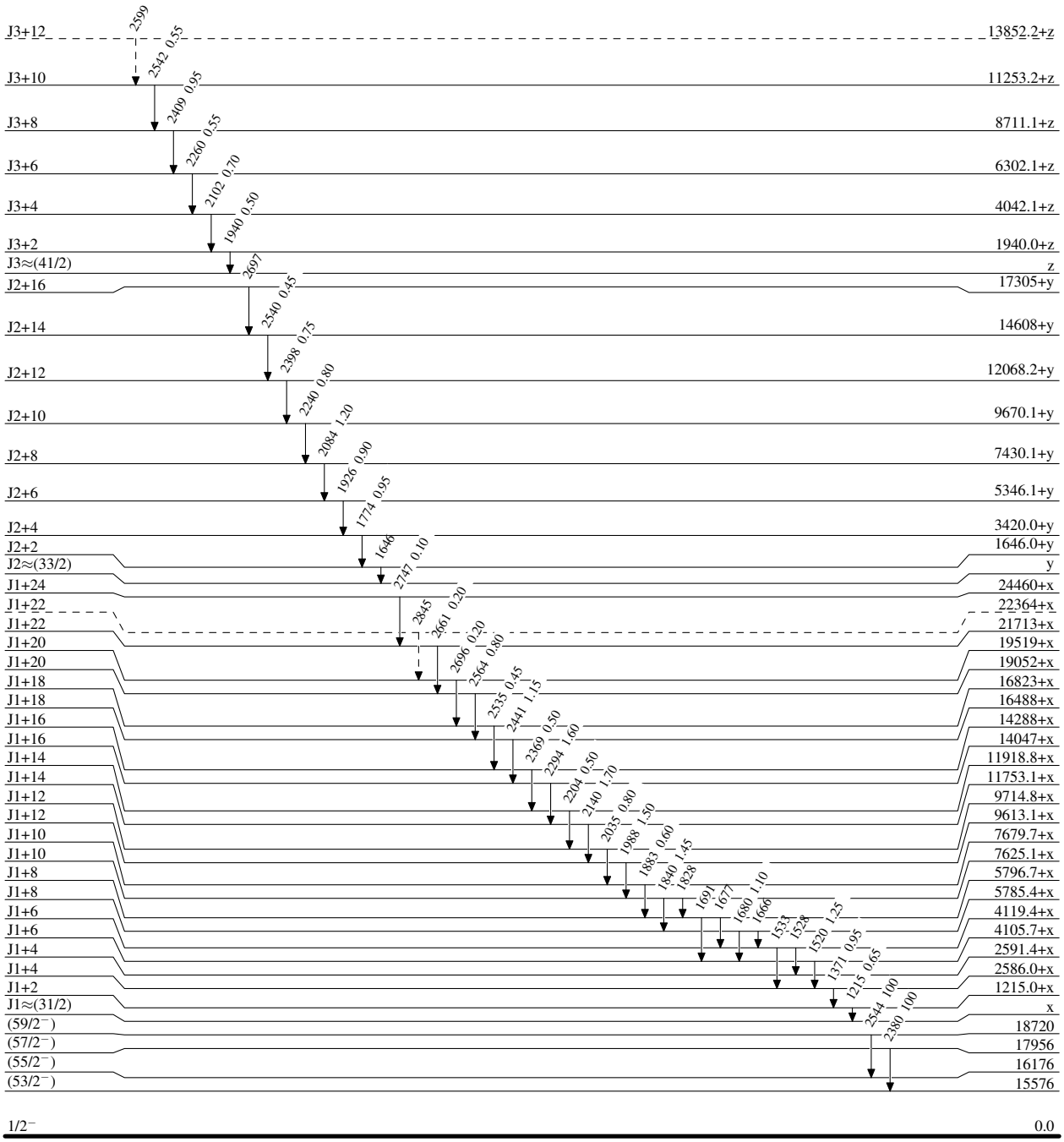
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{81}_{38}Sr_{43}$

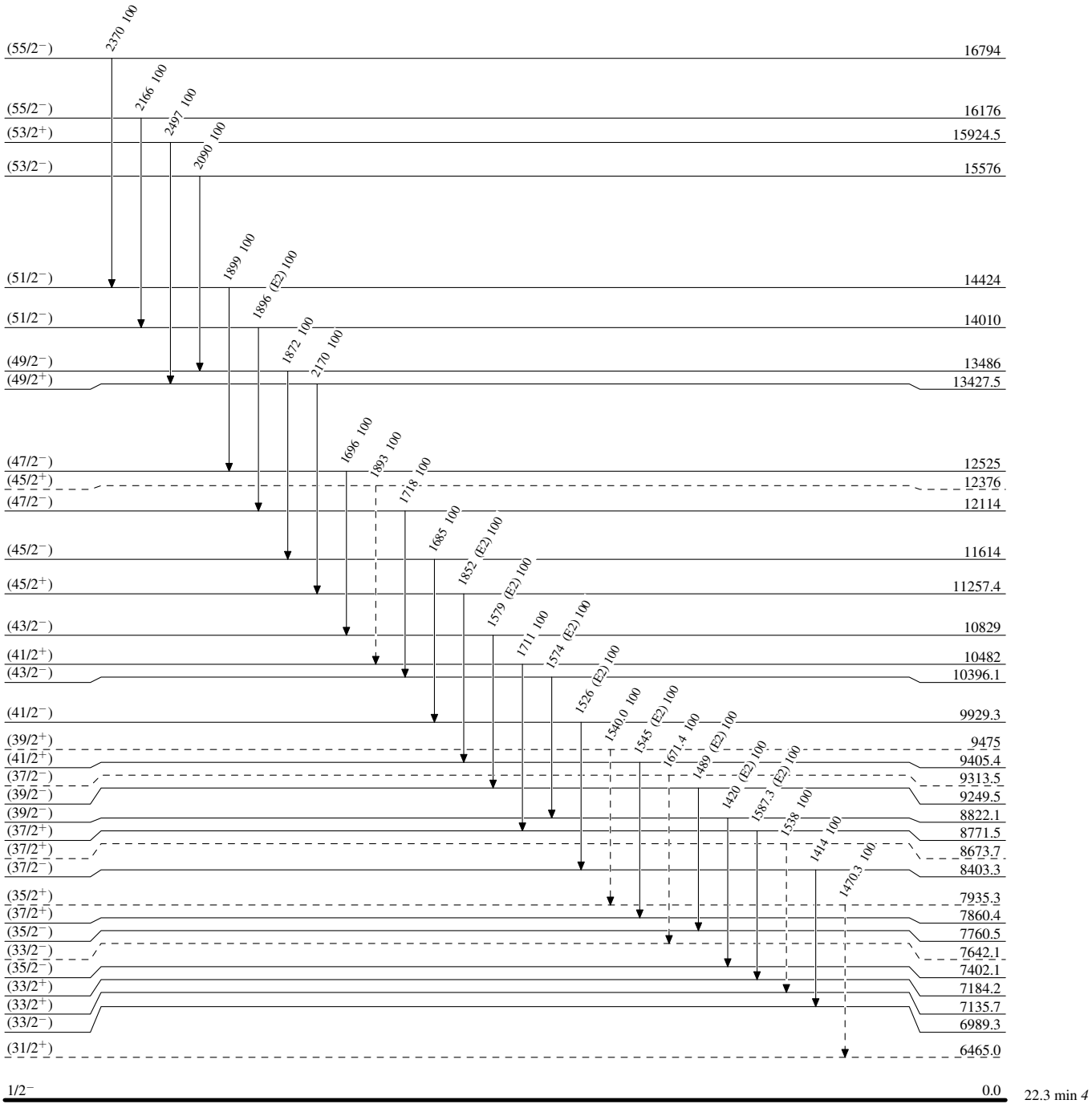
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{81}_{38}Sr_{43}$

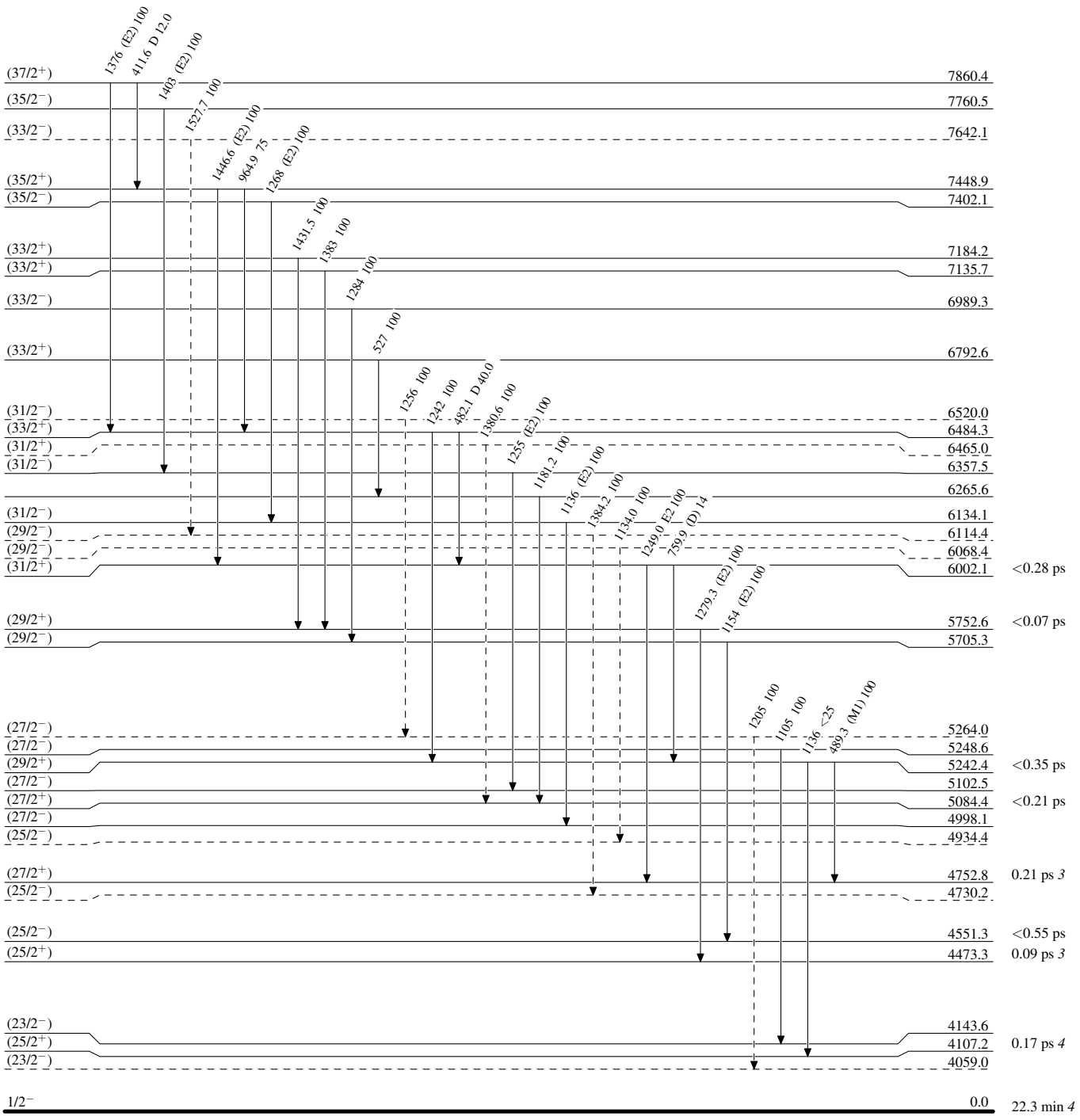
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{81}_{38}Sr_{43}$

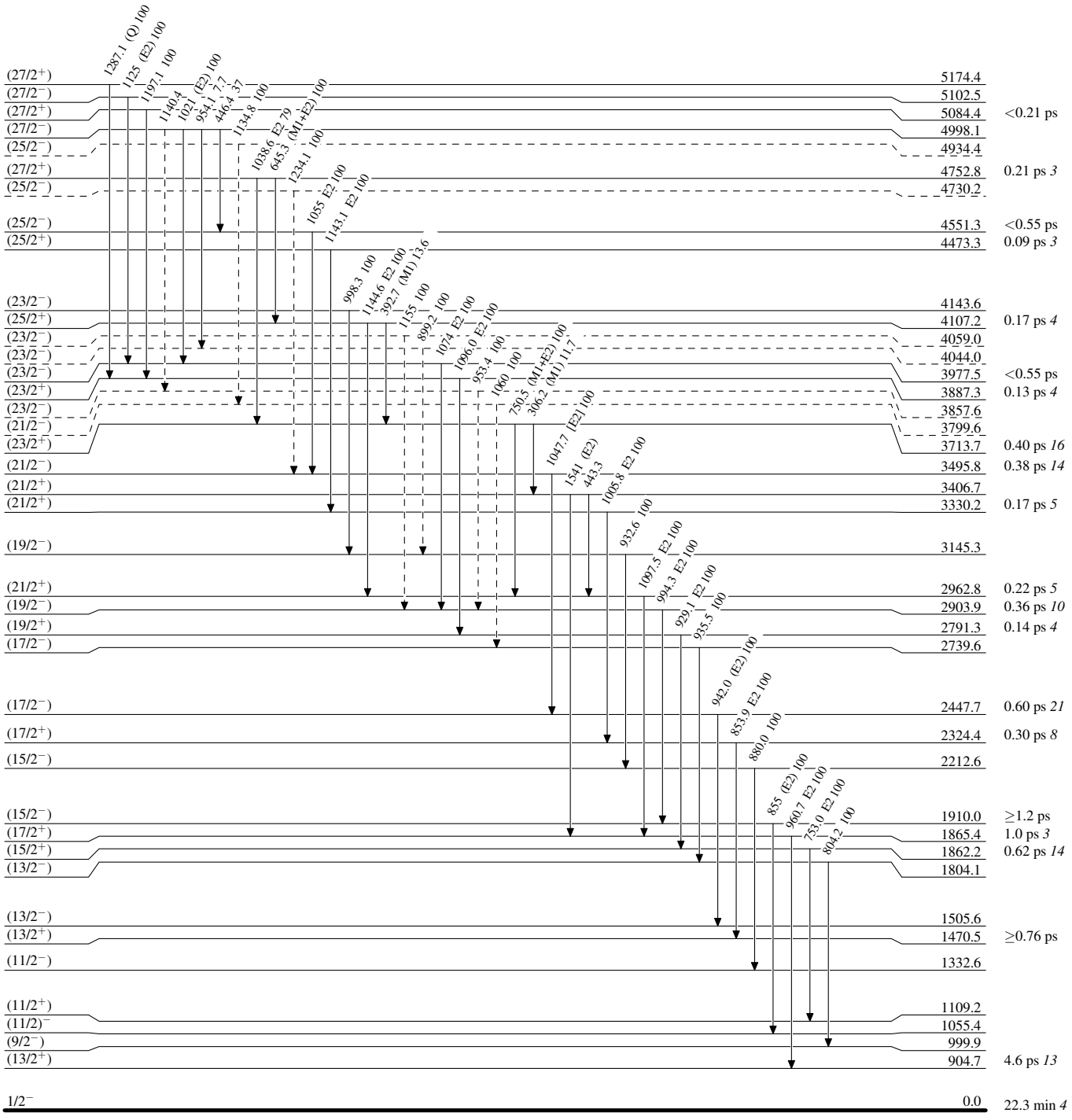
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{81}_{38}Sr_{43}$

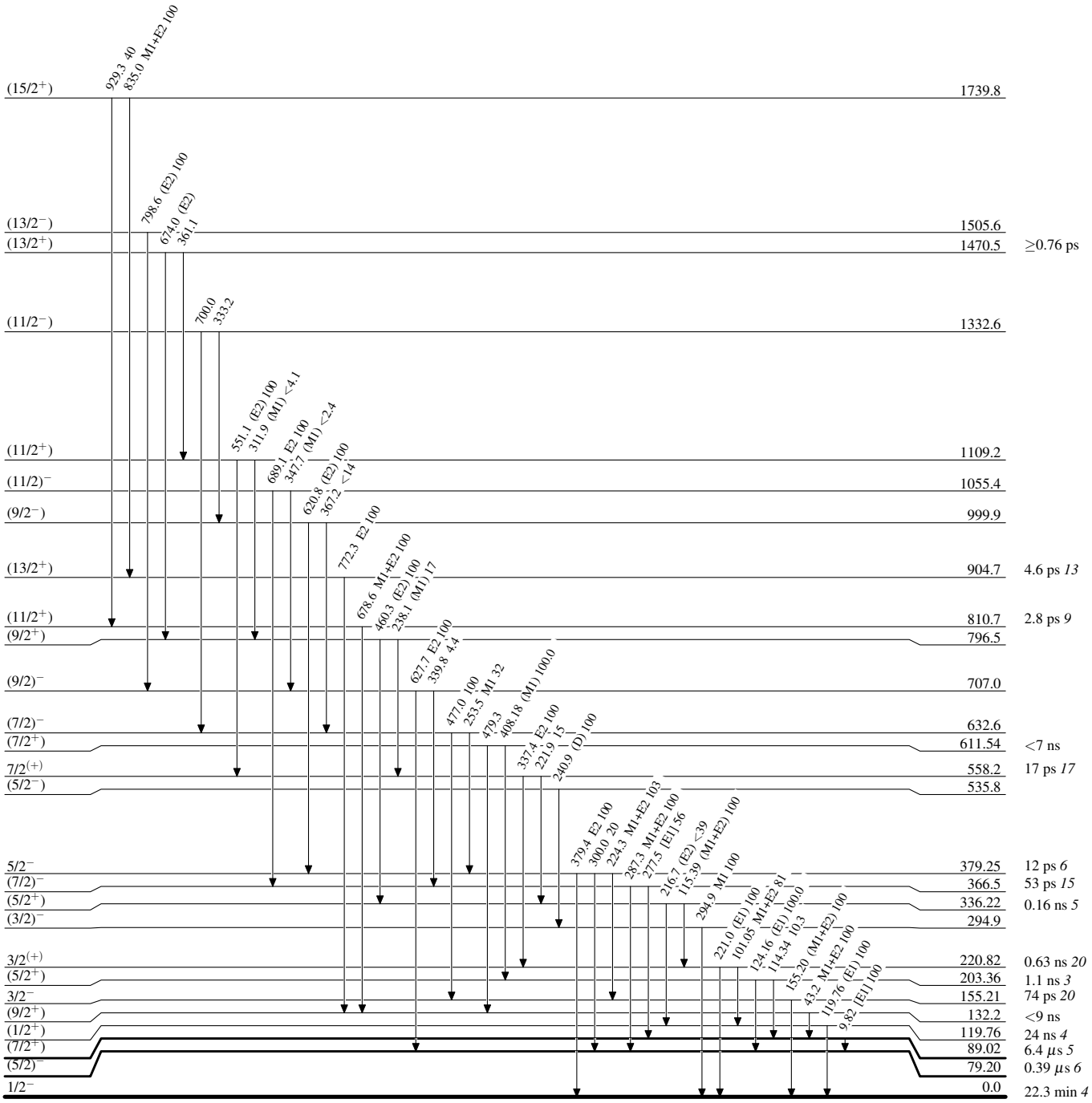
Adopted Levels, Gammas

Legend

Level Scheme (continued)

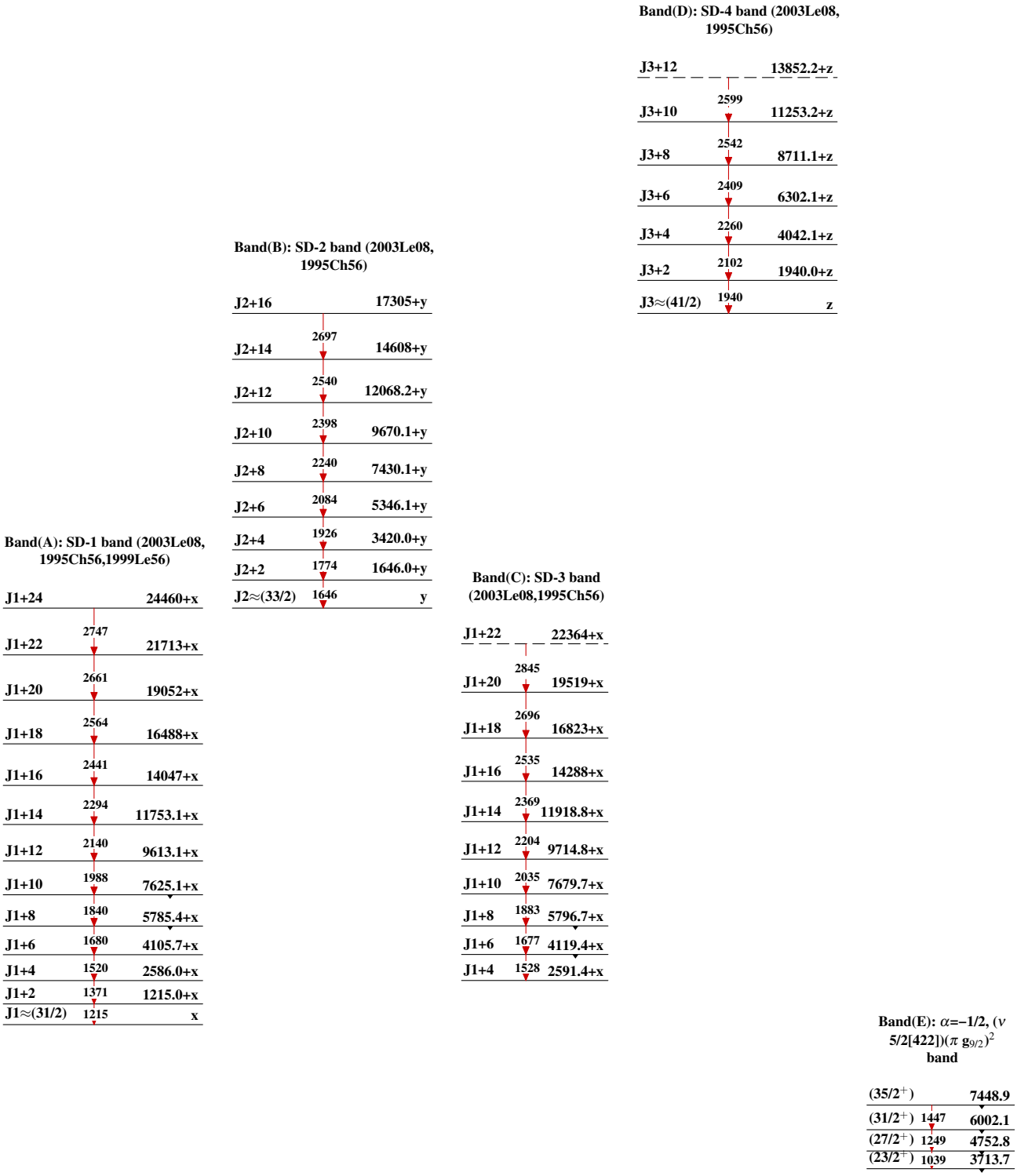
Intensities: Relative photon branching from each level

γ Decay (Uncertain)

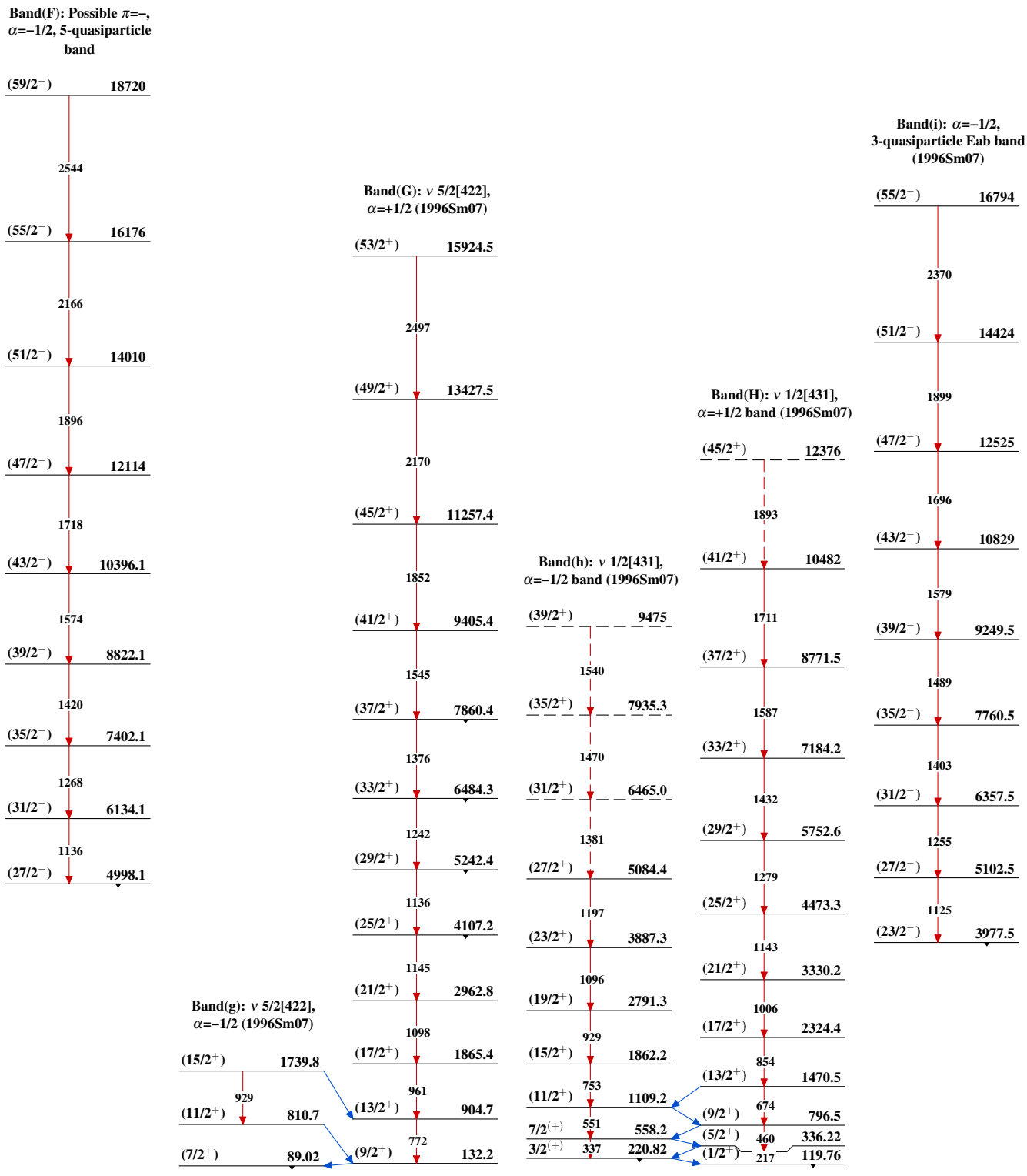


$^{81}_{38}Sr_{43}$

Adopted Levels, Gammas



Adopted Levels, Gammas (continued)



$^{81}_{38}Sr_{43}$

Adopted Levels, Gammas (continued)