Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli	NDS 110,2945 (2009)	1-Dec-2008

Q(β^-)=−6489 *18*; S(n)=8787 *15*; S(p)=5112 *23*; Q(α)=8.4×10^2 *3* 2012Wa38
Note: Current evaluation has used the following Q record −6489 178787 155112 22840 *30* 2009AuZZ,2003Au03.
Additional information 1.
β-strength functions: 1975Ho03.
Theory: IBFM structure calculations (1982Cu03,1984Al19,1985Ar18,1990Hs01,1994Ca23), rotational bands calculations (1996Gr03).

^{119}Xe Levels

Cross Reference (XREF) Flags

A ^{119}Cs ε decay (43.0 s)
B ^{119}Cs ε decay (30.4 s)
C (HI,xnγ)

E(level)†	J$^\pi$‡	T$_{1/2}$	XREF	Comments
0.0[a]	(5/2$^+$)	5.8 min *3*	ABC	%ε+%β^+=100 μ=−0.6542 *15* μ: Corrected for diamagnetism (2005St24). Other value: −0.59 *6*, static low-temperature nuclear orientation (1986ShZM,1989Ra17). %β^+=79 *5*. J$^\pi$: strong ε+β^+ feeding to 7/2$^+$; syst of 5/2[402] state in the neighboring Xe isotopes. T$_{1/2}$: from 1976Be61. Other: 6 min *1* (1965An05).
169.34[@] *7*	(5/2$^+$)		ABC	J$^\pi$: syst of 5/2[413] states in the odd Xe isotopes.
176.08 *5*	(7/2$^-$)	20 ns *4*	ABC	J$^\pi$: E1 γ to (5/2$^+$) and (E2) γ from (11/2$^-$). T$_{1/2}$: from $\gamma\gamma$(t) in (HI,xnγ) (1982Ba31).
197.24 *13*	(5/2$^-$)		ABC	J$^\pi$: E1 γ to (5/2$^+$), No ε+β^+ feeding from 9/2$^+$.
225.13[&] *5*	(7/2$^+$)		ABC	J$^\pi$: M1+(E2) γ to (5/2$^+$), log *ft*=6.3 from 9/2$^+$ rules out 3/2 and 5/2.
243.39[b] *11*	(11/2$^-$)	27 ns *5*	A C	J$^\pi$: γ to (7/2$^-$) and no γ to 5/2$^+$ suggest (9/2$^-$,11/2), and 11/2$^-$ expected band structure. T$_{1/2}$: from $\gamma\gamma$(t) in (HI,xnγ) (1982Ba31).
245.99 *11*	(1/2$^+$)	70 ns	BC	J$^\pi$: E2 γ's to (5/2$^+$) levels, no γ to (7/2$^+$) and expected band structure. T$_{1/2}$: from $\gamma\gamma$(t) in (2001Ge01).
246.42[c] *10*	(9/2$^-$)	<4 ns	A C	J$^\pi$: (M1+E2) γ to (7/2$^-$), no γ to (5/2$^+$) and expected band structure. T$_{1/2}$: from $\gamma\gamma$(t) in (HI,xnγ) (1982Ba31).
257.84[#] *9*	(7/2$^+$)		A C	J$^\pi$: (M1+E2) γ to (5/2$^+$), log *ft*=6.0 from 9/2$^+$ rules out 3/2$^+$ and 5/2$^+$.
314.11 *11*	(3/2$^+$)		B	J$^\pi$: (M1) γ's to (1/2$^+$) and (5/2$^+$).
390.26 *12*	(3/2$^+$,5/2$^+$)		B	J$^\pi$: (M1) γ to (5/2$^+$) and γ to (1/2$^+$).
459.42[@] *11*	(9/2$^+$)		A C	J$^\pi$: (E2) to (5/2$^+$), (M1+E2) γ to (7/2$^+$).
475.91 *11*	(3/2$^+$,5/2$^+$)		B	J$^\pi$: M1 γ to (3/2$^+$) and γ's to (5/2$^+$).
484.33[a] *9*	(9/2$^+$)		A C	J$^\pi$: (M1+E2) γ to (7/2$^+$), E2 γ to (5/2$^+$).
524.37 *11*	(5/2$^+$)		AB	J$^\pi$: E2 γ to (1/2$^+$) and E1 γ to (7/2$^-$).
592.97 *19*	(7/2$^+$)		A	J$^\pi$: M1+E2 γ's to (5/2$^+$) and (7/2$^+$), log *ft*=6.7 from 9/2$^+$ rules out 5/2$^+$.
618.92 *16*	(7/2$^+$)		A	J$^\pi$: E2 γ to (3/2$^+$), log *ft*=6.4 from 9/2$^+$ rules out 3/2$^+$ and 5/2$^+$.
645.11[c] *16*	(13/2$^-$)		A C	J$^\pi$: From expected band structure; log *ft*>6.9 from 9/2$^+$ is consistent with J^π=(13/2$^-$) assignment.
649.41[b] *14*	(15/2$^-$)	≈16 ps	C	T$_{1/2}$: from RDM in (HI,xnγ) (1985ChZY).
661.48 *25*	(7/2$^-$,9/2,11/2$^-$)		A	J$^\pi$: γ's to (11/2$^-$) and (5/2$^-$,7/2$^-$).
667.58 *13*	(7/2$^+$,9/2$^+$)		A	J$^\pi$: (M1) γ to (9/2$^+$), γ's to (5/2$^+$) and (7/2$^+$).
671.64[#] *16*	(11/2$^+$)		A C	

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Adopted Levels, Gammas (continued)

^{119}Xe Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$	XREF	Comments
722.74 *21*	(7/2+,9/2+)		A	Jπ: E2+(M1) γ to (5/2+), log *ft*=6.5 from 9/2+.
731.29 *21*	(7/2+,9/2+)		A	Jπ: (E2,M1) γ to (5/2+), log *ft*=6.8 from 9/2+.
758.73[&] *16*	(11/2+)		A C	
776.5 *3*	(7/2−,9/2,11/2−)		A	Jπ: γ′s to (7/2−) and (11/2−).
816.0 *3*	(7/2−)		A	Jπ: M1+E2 γ to (5/2−), log *ft*=6.7 from 9/2+ rules out 3/2− and 5/2−.
843.7 *4*	(7/2,9/2−)		A	Jπ: γ′s to (5/2−) and (7/2−); log *ft*=6.6 from 9/2+ rules out 3/2− and 5/2.
853.6 *3*			A	
855.0 *3*	(7/2,9/2+)		A	Jπ: γ′s to (5/2+) and (7/2+), log *ft*=6.7 from 9/2+ rules out 3/2+ and 5/2.
860.57 *16*	(7/2+)		A	Jπ: M1+E2 γ to (5/2+), γ′s to (3/2+) and (9/2+), log *ft*=6.4 from 9/2+ rules out 5/2+.
892.07 *22*	(7/2,9/2+)		A	Jπ: γ′s to (5/2+), log *ft*=6.6 from 9/2+ rules out 3/2+ and 5/2.
915.9 *5*			A	
929.02[@] *22*	(13/2+)		A C	Jπ: From expected band structure; log *ft*>7.2 from 9/2+ is consistent with *J*π=(13/2+) assignment.
937.68 *19*	(7/2+,9/2+)		A C	Jπ: M1+E2 γ to (7/2+), log *ft*=6.9 from 9/2+ rules out 5/2+.
941.14 *24*	(7/2+,9/2+)		A	Jπ: M1+E2 γ to (7/2+), log *ft*=6.5 from 9/2+ rules out 5/2+.
968.56 *23*	(7/2,9/2,11/2−)		A	Jπ: γ to (7/2−), log *ft*=6.8 from 9/2+ rules out 3/2− and 5/2.
1003.2[g] *3*	(13/2−)		A C	Jπ: From expected band structure; log *ft*>6.85 from 9/2+ is consistent with *J*π=(13/2−) assignment.
1017.2 *4*	(7/2,9/2,11/2−)		A	Jπ: γ to (7/2−), log *ft*=6.8 from 9/2+ rules out 3/2− and 5/2.
1020.60 *13*	(7/2+,9/2+)		A	Jπ: (M1,E2) γ to (7/2+), log *ft*=6.1 from 9/2+ rules out 5/2+.
1068.96[a] *17*	(13/2+)		A C	Jπ: From expected band structure; log *ft*>6.7 from 9/2+ is consistent with *J*π=(13/2+) assignment.
1071.12 *20*	(3/2+,5/2+)		B	Jπ: M1+E2 γ to (5/2+), γ to (1/2+).
1079.64 *25*	(7/2+,9/2+)		A	Jπ: (E2,M1) γ to (5/2+), log *ft*=6.7 from 9/2+ rules out 3/2+ and 5/2+.
1107.8 *10*	(7/2,9/2,11/2+)		A	Jπ: γ to (7/2+), log *ft*=7.1 from 9/2+ rule out 3/2+ and 5/2.
1202.66[#] *25*	(15/2+)		C	
1217.8 *3*	(7/2,9/2+)		A	Jπ: γ to (5/2+), log *ft*=6.8 from 9/2+ allows only (7/2,9/2+).
1224.43[b] *20*	(19/2−)	≈1.8 ps	C	$T_{1/2}$: from RDM in (HI,xnγ) (1985ChZY).
1229.63[c] *20*	(17/2−)		C	
1286.6 *4*	(7/2,9/2+)		A	Jπ: γ to (5/2+), log *ft*=6.8 from 9/2+ allows only (7/2,9/2+).
1296.08 *22*	(7/2,9/2,11/2+)		A	Jπ: γ to (7/2+), log *ft*=6.6 from 9/2+ rule out 3/2+ and 5/2.
1365.9[f] *3*	(15/2−)		C	
1369.57 *25*	(7/2−,9/2+)		A	Jπ: γ to (5/2+) and γ to (11/2−).
1379.6 *4*	(7/2−,9/2+)		A	Jπ: g to (5/2+) and g to (11/2−).
1396.45[&] *23*	(15/2+)		C	
1461.5 *4*	(7/2,9/2,11/2+)		A	Jπ: γ to (7/2+), log *ft*=7.0 from 9/2+ rule out 3/2+ and 5/2.
1472.99 *15*	(7/2,9/2−)		A	Jπ: γ to (5/2−), log *ft*=5.9 from 9/2+ allows only (7/2,9/2−).
1507.9[@] *3*	(17/2+)		C	
1522.3 *6*	(7/2+)		A	Jπ: γ to 3/2+ and log *ft*=7.2 from 9/2+ allows only (7/2+).
1560.3 *4*	(7/2,9/2,11/2+)		A	Jπ: γ to (7/2+), log *ft*=6.8 from 9/2+ rule out 3/2+ and 5/2.
1562.2[g] *3*	(17/2−)		C	
1584.2 *4*			A	
1593.8 *5*			A	
1632.8 *6*	(7/2−,9/2,11/2)		A	Jπ: γ to (11/2−), log *ft*=6.9 from 9/2+ rules out 13/2 and 15/2−.
1745.31[a] *25*	(17/2+)		C	
1822.9 *7*			A	
1832.7[#] *3*	(19/2+)		C	
1932.63[b] *25*	(23/2−)	≈1.1 ps	C	$T_{1/2}$: from RDM in (HI,xnγ) (1985ChZY).
1934.2[f] *3*	(19/2−)		C	
1951.97[c] *22*	(21/2−)		C	
2019.2 *7*	(7/2,9/2+)		A	Jπ: γ to (5/2+), log *ft*=6.9 from 9/2+ allows only (7/2,9/2+).

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Adopted Levels, Gammas (continued)

^{119}Xe Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
2026.3 *6*	(7/2,9/2$^+$)	A	J$^{\pi}$: γ to (5/2$^+$), log *ft*=6.5 from 9/2$^+$ allows only (7/2,9/2$^+$).
2066.8 *6*	(7/2,9/2$^+$)	A	J$^{\pi}$: γ to (5/2$^+$), log *ft*=6.4 from 9/2$^+$ allows only (7/2,9/2$^+$).
2108.3[&] *3*	(19/2$^+$)	C	
2176.0[@] *4*	(21/2$^+$)	C	
2241.5[g] *3*	(21/2$^-$)	C	
2348.9 *7*	(7/2,9/2,11/2$^-$)	A	J$^{\pi}$: γ to (7/2$^-$), log *ft*=6.6 from 9/2$^+$ rules out 3/2$^-$ and 5/2.
2399.6 *10*	(7/2,9/2,11/2$^-$)	A	J$^{\pi}$: γ to (7/2$^-$), log *ft*=6.2 from 9/2$^+$ rules out 3/2$^-$ and 5/2.
2456.4[a] *3*	(21/2$^+$)	C	
2536.2[#] *4*	(23/2$^+$)	C	
2618.5[f] *4*	(23/2$^-$)	C	
2686.1 *7*	(7/2,9/2$^+$)	A	J$^{\pi}$: γ to (5/2$^+$), log *ft*=6.3 from 9/2$^+$ allows only (7/2,9/2$^+$).
2752.7[b] *3*	(27/2$^-$)	C	
2783.0[c] *3*	(25/2$^-$)	C	
2783.2[&] *3*	(23/2$^+$)	C	
2846.9 *8*		C	
2902.8[@] *6*	(25/2$^+$)	C	
2983.0[a] *3*	(25/2$^+$)	C	
3026.6[g] *4*	(25/2$^-$)	C	
3214.5[e] *4*	(27/2$^+$)	C	
3236.7[&] *4*	(27/2$^+$)	C	
3314.4[#] *10*	(27/2$^+$)	C	
3388.3[f] *6*	(27/2$^-$)	C	
3534.6[a] *4*	(29/2$^+$)	C	
3617.9 *6*	(29/2$^+$)	C	
3662.5[b] *4*	(31/2$^-$)	C	
3677.2[c] *3*	(29/2$^-$)	C	
3680.2[@] *6*	(29/2$^+$)	C	
3873.3[g] *5*	(29/2$^-$)	C	
3876.2[&] *4*	(31/2$^+$)	C	
3943.8[e] *5*	(31/2$^+$)	C	
4068.1[#] *10*	(31/2$^+$)	C	
4253.9[a] *4*	(33/2$^+$)	C	
4375.1[d] *6*	(33/2$^+$)	C	
4437.7[@] *7*	(33/2$^+$)	C	
4553.5[c] *6*	(33/2$^-$)	C	
4630.5[b] *11*	(35/2$^-$)	C	
4666.6[&] *4*	(35/2$^+$)	C	
4797.0[e] *5*	(35/2$^+$)	C	
4846.3[#] *11*	(35/2$^+$)	C	
5103.9[a] *4*	(37/2$^+$)	C	
5231.6[@] *7*	(37/2$^+$)	C	
5242.3[d] *6*	(37/2$^+$)	C	
5570.0[&] *4*	(39/2$^+$)	C	
5598.5[b] *15*	(39/2$^-$)	C	
5680.7[#] *11*	(39/2$^+$)	C	
5754.6[e] *5*	(39/2$^+$)	C	
6053.9[a] *5*	(41/2$^+$)	C	

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Adopted Levels, Gammas (continued)

^{119}Xe Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
6115.7[@] *9*	(41/2$^+$)	C	7849.8[e] *12*	(47/2$^+$)	C	10672.7[a] *14*	(57/2$^+$)	C
6200.2[d] *6*	(41/2$^+$)	C	8013.8[d] *7*	(49/2$^+$)	C	11071.1[b] *16*	(59/2$^-$)	C
6564.3[&] *6*	(43/2$^+$)	C	8152.5[@] *11*	(49/2$^+$)	C	11309.1[d] *17*	(61/2$^+$)	C
6585.7[b] *15*	(43/2$^-$)	C	8187.8[a] *9*	(49/2$^+$)	C	11310.6[&] *11*	(59/2$^+$)	C
6614.6[#] *10*	(43/2$^+$)	C	8669.3[b] *15*	(51/2$^-$)	C	12042.7[a] *18*	(61/2$^+$)	C
6774.8[e] *7*	(43/2$^+$)	C	8764.7[&] *9*	(51/2$^+$)	C	12400.1[b] *19*	(63/2$^-$)	C
7085.0[a] *7*	(45/2$^+$)	C	8804.6[#] *13*	(51/2$^+$)	C	12721.6[&] *15*	(63/2$^+$)	C
7086.5[@] *10*	(45/2$^+$)	C	9056.0[d] *8*	(53/2$^+$)	C	13816.1[b] *21*	(67/2$^-$)	C
7145.4[d] *6*	(45/2$^+$)	C	9326.9?[@] *15*	(53/2$^+$)	C	15323.1[b] *21*	(71/2$^-$)	C
7591.8[b] *15*	(47/2$^-$)	C	9384.6[a] *10*	(53/2$^+$)	C	16934.6[b] *21*	(75/2$^-$)	C
7618.1 *16*		C	9828.0[b] *16*	(55/2$^-$)	C	18669.1[b] *21*	(79/2$^-$)	C
7630.8[&] *7*	(47/2$^+$)	C	9991.6[&] *10*	(55/2$^+$)	C	20542.2?[b] *24*	(83/2$^-$)	C
7657.2[#] *11*	(47/2$^+$)	C	10183.1[d] *13*	(57/2$^+$)	C			

† From a least-squares fit by the evaluators to the adopted E(γ's).
‡ Assignment from (HI,xnγ) based on DCO ratio and band structures, except as noted.
[#] Band(A): ΔJ=2 *5*/2[413] band built on 7/2$^+$ 258-keV level.
[@] Band(B): ΔJ=2 *5*/2[413] band built on 5/2$^+$ 169-keV level.
[&] Band(C): ΔJ=2 *5*/2[402] band built on 7/2$^+$ 225-keV level.
[a] Band(D): ΔJ=2 *5*/2[402] band built on 5/2$^+$ gs.
[b] Band(E): ΔJ=2 *5*/2[532] band built on 11/2- 243-keV level.
[c] Band(F): ΔJ=2 *5*/2[532] band built on 9/2- 246-keV level.
[d] Band(G): ΔJ=2 band built on 29/2$^+$ 3618-keV level.
[e] Band(H): ΔJ=2 band built on 27/2$^+$ 3214-keV level.
[f] Band(I): ΔJ=2 band built on 15/2- 1365-keV level.
[g] Band(J): ΔJ=2 band built on 13/2- 1002-keV level.

Adopted Levels, Gammas (continued)

$\gamma(^{119}Xe)$

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	α[a]	Comments
169.34	(5/2$^+$)	169.3 *1*	100	0.0	(5/2$^+$)	M1+(E2)[@]	0.198 *3*	
176.08	(7/2$^-$)	176.05 *5*	100	0.0	(5/2$^+$)	E1[@]	0.044 *7*	B(E1)(W.u.)=2.5×10^{-6} *5*
197.24	(5/2$^-$)	197.39[‡] *16*	100[‡]	0.0	(5/2$^+$)	E1[@]		
225.13	(7/2$^+$)	225.13 *5*	100	0.0	(5/2$^+$)	M1+(E2)[@]	0.097 *11*	
243.39	(11/2$^-$)	67.3 *1*	100	176.08	(7/2$^-$)	E2	7.41 *14*	B(E2)(W.u.)=51 *10* Mult.: Q from $\gamma(\theta)$ in (HI,xnγ); RUL excludes mult=M2; (E2) from α(L)exp in (2001Ge01).
245.99	(1/2$^+$)	76.4[‡] *2*	8.4[‡] *4*	169.34	(5/2$^+$)	E2[@]	4.73 *8*	
		246.2[‡] *2*	100[‡] *1*	0.0	(5/2$^+$)	E2[@]	0.0798 *12*	
246.42	(9/2$^-$)	70.3 *1*	100	176.08	(7/2$^-$)	(M1+E2)	4.3 *21*	Mult.: D+Q from $\gamma(\theta)$ in (HI,xnγ); level scheme requires $\Delta\pi$=no; (M1)from α(L)exp in (2001Ge01).
257.84	(7/2$^+$)	88.6 *1*	4.4 *4*	169.34	(5/2$^+$)	(M1+E2)	2.0 *9*	
		257.9 *2*	100 *9*	0.0	(5/2$^+$)	(M1+E2)[@]	0.064 *4*	
314.11	(3/2$^+$)	68.0[‡] *2*	32[‡] *1*	245.99	(1/2$^+$)	(M1)[@]	2.48 *23*	
		144.7[‡] *3*	3.0[‡] *1*	169.34	(5/2$^+$)	M1[@]	0.290 *5*	
		314.3[‡] *2*	100[‡] *1*	0.0	(5/2$^+$)	M1+E2[@]	0.0361 *6*	
390.26	(3/2$^+$,5/2$^+$)	144.3[‡] *3*	14[‡] *6*	245.99	(1/2$^+$)	[@]		
		220.8[‡] *2*	29[‡] *3*	169.34	(5/2$^+$)	(M1)[@]	0.0916 *13*	
		390.4[‡] *3*	100[‡] *1*	0.0	(5/2$^+$)	M1,E2[@]	0.0196 *12*	
459.42	(9/2$^+$)	201.9 *2*	84 *4*	257.84	(7/2$^+$)	(M1+E2)[@]	0.136 *20*	
		234.4 *2*	60 *6*	225.13	(7/2$^+$)	M1+(E2)[@]	0.087 *8*	
		290.0 *5*	61 *6*	169.34	(5/2$^+$)	(E2)	0.047 *7*	
		458.9 *2*	100 *5*	0.0	(5/2$^+$)	(E2)	0.012 *2*	
475.91	(3/2$^+$,5/2$^+$)	85.5[‡] *2*	5[‡] *2*	390.26	(3/2$^+$,5/2$^+$)	M1[@]	1.28 *3*	
		161.8[‡] *2*	12[‡] *5*	314.11	(3/2$^+$)	M1[@]	0.213 *4*	
		250.7[‡] *3*	42[‡] *4*	225.13	(7/2$^+$)	(M1,E2)[@]	0.070 *5*	
		306.6[‡] *2*	7[‡] *2*	169.34	(5/2$^+$)	[@]		
		476.1[‡] *2*	100[‡] *2*	0.0	(5/2$^+$)	M1,E2[@]	0.0114 *12*	
484.33	(9/2$^+$)	259.4 *1*	100 *12*	225.13	(7/2$^+$)	(M1+E2)[@]		
		484.5 *10*	48 *4*	0.0	(5/2$^+$)	E2[@]		I_γ: from ^{119}Cs ε decay (43.0 s). Other: 53 *7* in (HI,xnγ).
524.37	(5/2$^+$)	134.2[‡] *2*	100[‡] *7*	390.26	(3/2$^+$,5/2$^+$)	(M1)[@]	0.358	
		278.3[‡] *3*	11[‡] *2*	245.99	(1/2$^+$)	E2[@]	0.0533	
		299.3[‡] *2*	33[‡] *2*	225.13	(7/2$^+$)	M1,E2[@]	0.0416 *9*	
		348.3[‡] *3*	17[‡] *6*	176.08	(7/2$^-$)	E1[@]	0.00709 *10*	

$^{119}_{54}Xe_{65}$-5

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	α[a]	Comments
524.37	(5/2$^+$)	354.7[‡] *3*	12[‡] *6*	169.34	(5/2$^+$)	[@]		
		524.5[‡] *3*	13[‡] *6*	0.0	(5/2$^+$)	[@]		
592.97	(7/2$^+$)	367.1[‡] *3*	32[‡] *12*	225.13	(7/2$^+$)	M1+E2[@]	0.0232 *11*	
		592.4[‡] *3*	100[‡] *12*	0.0	(5/2$^+$)	M1+E2[@]	0.0065 *9*	
618.92	(7/2$^+$)	94.6[‡] *3*	28[‡] *3*	524.37	(5/2$^+$)	[@]		
		304.8[‡] *3*	100[‡] *4*	314.11	(3/2$^+$)	E2[@]	0.0394 *7*	
		393.7[‡] *3*	77[‡] *2*	225.13	(7/2$^+$)	M1,E2[@]	0.0191 *12*	
		449.1[‡]	4[‡] *1*	169.34	(5/2$^+$)	[@]		
645.11	(13/2$^-$)	398.7 *2*	87 *5*	246.42	(9/2$^-$)	(E2)		
		401.7 *2*	100 *7*	243.39	(11/2$^-$)	(M1+E2)		
649.41	(15/2$^-$)	406.0 *1*	100	243.39	(11/2$^-$)	(E2)		B(E2)(W.u.)≈92
661.48	(7/2$^-$,9/2,11/2$^-$)	414.7 *4*	36 *9*	246.42	(9/2$^-$)			
		417.5	76 *8*	243.39	(11/2$^-$)			
		464.5 *3*	100 *18*	197.24	(5/2$^-$)			
667.58	(7/2$^+$,9/2$^+$)	208.2[‡] *2*	24[‡] *2*	459.42	(9/2$^+$)	(M1)[@]	0.1073	
		410.1[‡] *3*	10[‡] *1*	257.84	(7/2$^+$)	[@]		
		442.3[‡] *3*	100[‡] *9*	225.13	(7/2$^+$)	M1+E2[@]	0.0139 *12*	
		498.1[‡] *3*	6[‡] *2*	169.34	(5/2$^+$)	E2+(M1)[@]	0.0102 *11*	
		667.4[‡] *3*	18.5[‡] *1*	0.0	(5/2$^+$)	M1+(E2)[@]	0.0048 *7*	
671.64	(11/2$^+$)	212.1[&] *2*	25 *1*	459.42	(9/2$^+$)	(M1+E2)		
		413.8 *2*	100 *5*	257.84	(7/2$^+$)	(E2)		
722.74	(7/2$^+$,9/2$^+$)	332.9[‡]	9[‡] *7*	390.26	(3/2$^+$,5/2$^+$)	[@]		
		553.3[‡] *3*	47[‡] *1*	169.34	(5/2$^+$)	E2+(M1)[@]	0.0077 *10*	
		722.8[‡] *3*	100[‡] *2*	0.0	(5/2$^+$)	[@]		
731.29	(7/2$^+$,9/2$^+$)	341.4[‡]	32[‡] *1*	390.26	(3/2$^+$,5/2$^+$)	[@]		
		561.7[‡] *3*	46[‡] *2*	169.34	(5/2$^+$)	[@]		
		731.5[‡] *3*	100[‡] *4*	0.0	(5/2$^+$)	(E2,M1)[@]	0.0039 *6*	
758.73	(11/2$^+$)	273.5 *5*	59 *6*	484.33	(9/2$^+$)	M1+E2[@]		
		533.4 *2*	100 *5*	225.13	(7/2$^+$)			
776.5	(7/2$^-$,9/2,11/2$^-$)	530.3[‡]	72[‡] *5*	246.42	(9/2$^-$)	[@]		
		600.4[‡] *3*	100[‡] *6*	176.08	(7/2$^-$)	[@]		
816.0	(7/2$^-$)	618.9[‡] *3*	100[‡] *2*	197.24	(5/2$^-$)	M1+E2[@]	0.0058 *8*	
		639.7[‡] *4*	46[‡] *2*	176.08	(7/2$^-$)	[@]		
843.7	(7/2,9/2$^-$)	646.5[‡] *3*	100[‡] *4*	197.24	(5/2$^-$)	[@]		

$^{119}_{54}Xe_{65}$-6

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	α[a]	Comments
843.7	(7/2,9/2$^-$)	666.9[‡]	90[‡] *3*	176.08	(7/2$^-$)	[@]		
853.6		677.5[‡] *3*	100[‡] *7*	176.08	(7/2$^-$)	[@]		
855.0	(7/2,9/2$^+$)	629.8[‡] *3*	100[‡] *3*	225.13	(7/2$^+$)	[@]		
		686.2[‡]	74[‡] *2*	169.34	(5/2$^+$)	[@]		
860.57	(7/2$^+$)	376.2[‡] *3*	22[‡] *1*	484.33	(9/2$^+$)	[@]		
		384.7[‡] *3*	100[‡] *2*	475.91	(3/2$^+$,5/2$^+$)	M1+E2[@]	0.0204 *12*	
		546.6[‡] *3*	26[‡] *1*	314.11	(3/2$^+$)	[@]		
		635.3[‡] *3*	31[‡] *2*	225.13	(7/2$^+$)	[@]		
892.07	(7/2,9/2$^+$)	722.8[‡] *3*	100[‡] *10*	169.34	(5/2$^+$)	[@]		
		892.0[‡] *3*	42[‡] *2*	0.0	(5/2$^+$)	[@]		
915.9		718.7[‡] *4*	100[‡] *10*	197.24	(5/2$^-$)	[@]		
929.02	(13/2$^+$)	469.6 *2*	100	459.42	(9/2$^+$)	(E2)		
937.68	(7/2$^+$,9/2$^+$)	343.4[‡] *3*	43[‡] *1*	592.97	(7/2$^+$)	[@]		Not seen in (HI, xng).
		453.9 *2*	100 *42*	484.33	(9/2$^+$)			Not seen in (Cs ε DECAY).
		713.3 *10*	94 *19*	225.13	(7/2$^+$)	M1+E2[@]	0.0042 *6*	
941.14	(7/2$^+$,9/2$^+$)	715.7[‡] *4*	100[‡] *3*	225.13	(7/2$^+$)	M1+E2[@]		
		941.3[‡] *3*	75[‡] *2*	0.0	(5/2$^+$)	[@]		
968.56	(7/2,9/2,11/2$^-$)	771.4[‡] *3*	100[‡] *3*	197.24	(5/2$^-$)	[@]		
		792.4[‡] *3*	87[‡] *3*	176.08	(7/2$^-$)	[@]		
1003.2	(13/2$^-$)	757.6[‡]	100[‡] *4*	246.42	(9/2$^-$)	[@]		Not seen in (HI, xng).
		759.9 *3*	74 *4*	243.39	(11/2$^-$)	(M1+E2)		Energy and Iγ from 2001Ge01.
1017.2	(7/2,9/2,11/2$^-$)	820.0[‡] *3*	100[‡] *3*	197.24	(5/2$^-$)	[@]		
		840.8[‡]	56[‡] *2*	176.08	(7/2$^-$)	[@]		
1020.60	(7/2$^+$,9/2$^+$)	401.6[‡] *3*	11[‡] *4*	618.92	(7/2$^+$)	[@]		
		536.3[‡] *3*	56[‡] *1*	484.33	(9/2$^+$)	[@]		
		762.8[‡] *3*	100[‡] *1*	257.84	(7/2$^+$)	(M1,E2)[@]	0.0035 *5*	
		795.1[‡] *3*	43[‡] *1*	225.13	(7/2$^+$)	[@]		
		844.3[‡] *3*	34[‡] *2*	176.08	(7/2$^-$)	[@]		
		851.6[‡] *3*	45[‡] *2*	169.34	(5/2$^+$)	[@]		
		1021.0[‡] *4*	43[‡] *1*	0.0	(5/2$^+$)	[@]		
1068.96	(13/2$^+$)	309.7 *2*	57 *6*	758.73	(11/2$^+$)			
		585.1 *2*	100 *5*	484.33	(9/2$^+$)	(E2)		
1071.12	(3/2$^+$,5/2$^+$)	756.7[‡]	65[‡] *28*	314.11	(3/2$^+$)	[@]		
		825.0[‡] *3*	93[‡] *4*	245.99	(1/2$^+$)	[@]		

$^{119}_{54}Xe_{65}$-7

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	α[a]	Comments
1071.12	(3/2$^+$,5/2$^+$)	902.0[‡] *3*	100[‡] *4*	169.34	(5/2$^+$)	(M1,E2)[@]	0.0024 *4*	
		1071.0[‡] *4*	65[‡] *14*	0.0	(5/2$^+$)	M1+E2[@]	0.00161 *22*	
1079.64	(7/2$^+$,9/2$^+$)	854.3[‡] *3*	100[‡] *2*	225.13	(7/2$^+$)	(E2,M1)[@]	0.0027 *4*	
		1080.0[‡] *4*	16[‡] *2*	0.0	(5/2$^+$)	[@]		
1107.8	(7/2,9/2,11/2$^+$)	850.0[‡]	100[‡] *2*	257.84	(7/2$^+$)	[@]		
1202.66	(15/2$^+$)	530.9 *2*	100	671.64	(11/2$^+$)	(E2)		
1217.8	(7/2,9/2$^+$)	992.5[‡] *3*	100[‡] *2*	225.13	(7/2$^+$)	[@]		
		1218.2[‡] *5*	13[‡] *4*	0.0	(5/2$^+$)	[@]		
1224.43	(19/2$^-$)	575.0 *2*	100	649.41	(15/2$^-$)	(E2)		B(E2)(W.u.)≈143
1229.63	(17/2$^-$)	579.9 *5*	48 *5*	649.41	(15/2$^-$)	(M1+E2)		
		584.5 *2*	100 *5*	645.11	(13/2$^-$)	(E2)		
1286.6	(7/2,9/2$^+$)	1028.7[‡] *4*	94[‡] *6*	257.84	(7/2$^+$)	[@]		
		1117.7[‡]	100[‡] *5*	169.34	(5/2$^+$)	[@]		
1296.08	(7/2,9/2,11/2$^+$)	811.7[‡] *3*	93[‡] *3*	484.33	(9/2$^+$)	[@]		
		1071.0[‡] *3*	100[‡] *17*	225.13	(7/2$^+$)	[@]		
1365.9	(15/2$^-$)	716.6 *4*	26 *4*	649.41	(15/2$^-$)			
		720.8 *3*	100 *9*	645.11	(13/2$^-$)	(M1+E2)		
1369.57	(7/2$^-$,9/2$^+$)	1122.6[‡]	94[‡] *4*	246.42	(9/2$^-$)	[@]		
		1124.2[‡] *4*	43[‡] *6*	245.99	(1/2$^+$)	[@]		
		1193.4[‡] *4*	100[‡] *5*	176.08	(7/2$^-$)	[@]		
		1199.5[‡] *5*	66[‡] *4*	169.34	(5/2$^+$)	[@]		
1379.6	(7/2$^-$,9/2$^+$)	1132.2[‡]	59[‡] *5*	246.42	(9/2$^-$)	[@]		
		1136.4[‡] *4*	100[‡] *5*	243.39	(11/2$^-$)	[@]		
		1379.6[‡]	78[‡] *6*	0.0	(5/2$^+$)	[@]		
1396.45	(15/2$^+$)	327.4 *5*	13.2 *16*	1068.96	(13/2$^+$)	(M1+E2)		
		637.9 *2*	100 *5*	758.73	(11/2$^+$)	(E2)		
1461.5	(7/2,9/2,11/2$^+$)	1236.4[‡] *4*	100[‡] *4*	225.13	(7/2$^+$)	[@]		
1472.99	(7/2,9/2$^-$)	988.6[‡] *3*	62[‡] *1*	484.33	(9/2$^+$)	[@]		
		1013.5[‡] *4*	51[‡] *1*	459.42	(9/2$^+$)	[@]		
		1226.3[‡] *4*	50[‡] *2*	246.42	(9/2$^-$)	[@]		
		1248.1[‡] *4*	65[‡] *2*	225.13	(7/2$^+$)	[@]		
		1275.7[‡] *4*	13[‡] *1*	197.24	(5/2$^-$)	[@]		
		1296.8[‡] *4*	100[‡] *1*	176.08	(7/2$^-$)	[@]		
		1473.3[‡] *4*	32[‡] *2*	0.0	(5/2$^+$)	[@]		

$^{119}_{54}Xe_{65}$-8

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	Comments
1507.9	(17/2$^+$)	578.9 *2*	100	929.02	(13/2$^+$)	(E2)	
1522.3	(7/2$^+$)	1208.2[‡] *5*	100[‡] *33*	314.11	(3/2$^+$)	@	
1560.3	(7/2,9/2,11/2$^+$)	1335.2[‡] *4*	100[‡] *4*	225.13	(7/2$^+$)	@	
1562.2	(17/2$^-$)	559.3 *4*	69 *8*	1003.2	(13/2$^-$)	(E2)	
		912.7 *3*	100 *12*	649.41	(15/2$^-$)	(M1+E2)	
1584.2		1359.1[‡] *4*	100[‡] *9*	225.13	(7/2$^+$)	@	
1593.8		1368.7[‡] *5*	100[‡] *6*	225.13	(7/2$^+$)	@	
1632.8	(7/2$^-$,9/2,11/2)	1389.4[‡] *5*	100[‡] *4*	243.39	(11/2$^-$)	@	
1745.31	(17/2$^+$)	347.8[b] *10*	23 *6*	1396.45	(15/2$^+$)		
		676.3 *2*	100 *5*	1068.96	(13/2$^+$)	(E2)	
1822.9		1625.6[‡] *6*	100[‡] *7*	197.24	(5/2$^-$)	@	
1832.7	(19/2$^+$)	629.9 *2*	100	1202.66	(15/2$^+$)	(E2)	
1932.63	(23/2$^-$)	708.2 *2*	100	1224.43	(19/2$^-$)	(E2)	B(E2)(W.u.)≈83
1934.2	(19/2$^-$)	568.5 *4*	94 *12*	1365.9	(15/2$^-$)	(E2)	
		704.5 *4*	100 *12*	1229.63	(17/2$^-$)	(M1+E2)	
		709.7 *4*	47 *6*	1224.43	(19/2$^-$)		
1951.97	(21/2$^-$)	722.3 *2*	100 *5*	1229.63	(17/2$^-$)	(E2)	
		727.6 *2*	53 *5*	1224.43	(19/2$^-$)	(M1+E2)	
2019.2	(7/2,9/2$^+$)	1793.9[‡]	100[‡] *12*	225.13	(7/2$^+$)	@	
		2019.4[‡]	57[‡] *16*	0.0	(5/2$^+$)	@	
2026.3	(7/2,9/2$^+$)	1801.2[‡] *6*	100[‡] *3*	225.13	(7/2$^+$)	@	
		2026.2[‡]	25[‡] *4*	0.0	(5/2$^+$)	@	
2066.8	(7/2,9/2$^+$)	1808.7[‡] *7*	66[‡] *3*	257.84	(7/2$^+$)	@	
		2067.4[‡]	100[‡] *9*	0.0	(5/2$^+$)	@	
2108.3	(19/2$^+$)	712.0 *2*	100	1396.45	(15/2$^+$)	(E2)	
2176.0	(21/2$^+$)	668.1 *2*	100	1507.9	(17/2$^+$)	(E2)	
2241.5	(21/2$^-$)	679.4 *3*	100 *9*	1562.2	(17/2$^-$)	(E2)	
		1016.7 *4*	53 *6*	1224.43	(19/2$^-$)	(M1+E2)	
2348.9	(7/2,9/2,11/2$^-$)	2172.8[‡] *7*	100[‡] *10*	176.08	(7/2$^-$)	@	
2399.6	(7/2,9/2,11/2$^-$)	2223.5[‡]	100[‡] *4*	176.08	(7/2$^-$)	@	
2456.4	(21/2$^+$)	711.0 *2*	100	1745.31	(17/2$^+$)	(E2)	
2536.2	(23/2$^+$)	703.4 *2*	100	1832.7	(19/2$^+$)	(E2)	
2618.5	(23/2$^-$)	665.5 *4*	20 *3*	1951.97	(21/2$^-$)	(M1+E2)	
		686.4 *3*	100 *10*	1932.63	(23/2$^-$)	(E2)	
2686.1	(7/2,9/2$^+$)	2461.1[‡]	100[‡] *10*	225.13	(7/2$^+$)	@	
		2686.0[‡]	54[‡] *9*	0.0	(5/2$^+$)	@	
2752.7	(27/2$^-$)	819.8 *2*	100	1932.63	(23/2$^-$)	(E2)	

$^{119}_{54}Xe_{65}$-9

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.#
2783.0	(25/2$^-$)	831.3 *2*	100 *5*	1951.97	(21/2$^-$)	(E2)
		850.3 *5*	50 *5*	1932.63	(23/2$^-$)	(M1+E2)
2783.2	(23/2$^+$)	675.1 *2*	100	2108.3	(19/2$^+$)	(E2)
2846.9		894.9 *10*	40 *8*	1951.97	(21/2$^-$)	
		914.3 *10*	100 *12*	1932.63	(23/2$^-$)	
2902.8	(25/2$^+$)	727.0 *5*	100	2176.0	(21/2$^+$)	(E2)
2983.0	(25/2$^+$)	199.9 *5*	36 *4*	2783.2	(23/2$^+$)	(M1+E2)
		526.6 *2*	100 *5*	2456.4	(21/2$^+$)	
		806 *1*	<19	2176.0	(21/2$^+$)	
3026.6	(25/2$^-$)	785.1 *3*	100 *9*	2241.5	(21/2$^-$)	(E2)
		1094.1 *4*	46 *4*	1932.63	(23/2$^-$)	(M1+E2)
3214.5	(27/2$^+$)	678.2 *2*	100	2536.2	(23/2$^+$)	(E2)
3236.7	(27/2$^+$)	253.6 *5*	61 *6*	2983.0	(25/2$^+$)	
		453.6 *2*	100 *5*	2783.2	(23/2$^+$)	(E2)
3314.4	(27/2$^+$)	778 *1*	100	2536.2	(23/2$^+$)	(E2)
3388.3	(27/2$^-$)	769.8 *4*	100 *6*	2618.5	(23/2$^-$)	(E2)
3534.6	(29/2$^+$)	297.6 *5*	58 *5*	3236.7	(27/2$^+$)	(M1+E2)
		551.6 *2*	100 *5*	2983.0	(25/2$^+$)	
3617.9	(29/2$^+$)	403 *1*	16 *3*	3214.5	(27/2$^+$)	(M1+E2)
		716 *1*	100 *10*	2902.8	(25/2$^+$)	(E2)
3662.5	(31/2$^-$)	909.8 *2*	100	2752.7	(27/2$^-$)	(E2)
3677.2	(29/2$^-$)	894.4 *2*	100 *5*	2783.0	(25/2$^-$)	(E2)
		924.2 *2*	46 *5*	2752.7	(27/2$^-$)	(M1+E2)
3680.2	(29/2$^+$)	777.4 *2*	100	2902.8	(25/2$^+$)	(E2)
3873.3	(29/2$^-$)	846.7 *3*	100 *14*	3026.6	(25/2$^-$)	(E2)
3876.2	(31/2$^+$)	342.1 *5*	23 *2*	3534.6	(29/2$^+$)	
		639.7 *2*	100 *5*	3236.7	(27/2$^+$)	(E2)
3943.8	(31/2$^+$)	729.2 *2*	100	3214.5	(27/2$^+$)	(E2)
4068.1	(31/2$^+$)	753.7 *2*	100	3314.4	(27/2$^+$)	(E2)
4253.9	(33/2$^+$)	378.1 *5*	39 *4*	3876.2	(31/2$^+$)	(M1+E2)
		719.1 *2*	100 *5*	3534.6	(29/2$^+$)	
4375.1	(33/2$^+$)	431.5 *5*	26 *3*	3943.8	(31/2$^+$)	(M1+E2)
		757.3 *5*	100 *10*	3617.9	(29/2$^+$)	(E2)
4437.7	(33/2$^+$)	757.5 *2*	100	3680.2	(29/2$^+$)	
4553.5	(33/2$^-$)	876.3 *5*	100	3677.2	(29/2$^-$)	
4630.5	(35/2$^-$)	968 *1*	100	3662.5	(31/2$^-$)	(E2)
4666.6	(35/2$^+$)	412.2 *5*	33 *4*	4253.9	(33/2$^+$)	(M1+E2)
		790.6 *2*	100 *5*	3876.2	(31/2$^+$)	(E2)
4797.0	(35/2$^+$)	853.0 *2*	100	3943.8	(31/2$^+$)	(E2)
4846.3	(35/2$^+$)	778 *1*	100	4068.1	(31/2$^+$)	(E2)
5103.9	(37/2$^+$)	438 *1*	<16	4666.6	(35/2$^+$)	
		849.9 *2*	100 *5*	4253.9	(33/2$^+$)	

$^{119}_{54}Xe_{65}$-10

Adopted Levels, Gammas (continued)

γ(^{119}Xe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	Comments
5231.6	(37/2$^+$)	793.9 *2*	100	4437.7	(33/2$^+$)		
5242.3	(37/2$^+$)	445.0 *5*	18 *2*	4797.0	(35/2$^+$)	(M1+E2)	
		867.3 *2*	100 *5*	4375.1	(33/2$^+$)		
5570.0	(39/2$^+$)	465 *1*	<19	5103.9	(37/2$^+$)		E_γ: 456 by authors may be a misprint.
		903.6 *2*	100 *5*	4666.6	(35/2$^+$)		
5598.5	(39/2$^-$)	968 *1*	100	4630.5	(35/2$^-$)	(E2)	
5680.7	(39/2$^+$)	834.4 *5*	100	4846.3	(35/2$^+$)	(E2)	
5754.6	(39/2$^+$)	957.6 *2*	100	4797.0	(35/2$^+$)	(E2)	
6053.9	(41/2$^+$)	484 *1*	<19	5570.0	(39/2$^+$)		
		950.0 *2*	100 *5*	5103.9	(37/2$^+$)		
6115.7	(41/2$^+$)	884.1 *5*	100	5231.6	(37/2$^+$)		
6200.2	(41/2$^+$)	445[b] *1*		5754.6	(39/2$^+$)		
		957.9 *2*	100 *5*	5242.3	(37/2$^+$)	(E2)	
6564.3	(43/2$^+$)	994.8 *5*	100	5570.0	(39/2$^+$)		
6585.7	(43/2$^-$)	987.2 *2*	100	5598.5	(39/2$^-$)	(E2)	
6614.6	(43/2$^+$)	933.8 *5*	100	5680.7	(39/2$^+$)	(E2)	
6774.8	(43/2$^+$)	1019.7 *5*	100	5754.6	(39/2$^+$)	(E2)	
7085.0	(45/2$^+$)	1031.1 *5*	100	6053.9	(41/2$^+$)		
7086.5	(45/2$^+$)	970.8 *5*	100	6115.7	(41/2$^+$)		
7145.4	(45/2$^+$)	945.2 *2*	100	6200.2	(41/2$^+$)	(E2)	
7591.8	(47/2$^-$)	1006.1 *2*	100	6585.7	(43/2$^-$)	(E2)	
7618.1		1032.4 *5*	100	6585.7	(43/2$^-$)		
7630.8	(47/2$^+$)	854 *1*	<34	6774.8	(43/2$^+$)		
		1016 *1*	50 *5*	6614.6	(43/2$^+$)		
		1067.0 *5*	100 *10*	6564.3	(43/2$^+$)		
7657.2	(47/2$^+$)	1042.6 *5*	100	6614.6	(43/2$^+$)	(E2)	
7849.8	(47/2$^+$)	1075 *1*	100	6774.8	(43/2$^+$)	(E2)	
8013.8	(49/2$^+$)	868.4 *2*	100	7145.4	(45/2$^+$)		
8152.5	(49/2$^+$)	1066.0 *5*	100	7086.5	(45/2$^+$)		
8187.8	(49/2$^+$)	1102.8 *5*	100	7085.0	(45/2$^+$)		
8669.3	(51/2$^-$)	1077.5 *2*	100	7591.8	(47/2$^-$)	(E2)	
8764.7	(51/2$^+$)	1133.9 *5*	100	7630.8	(47/2$^+$)		
8804.6	(51/2$^+$)	1147.4 *5*	100	7657.2	(47/2$^+$)	(E2)	
9056.0	(53/2$^+$)	1042.2 *5*	100	8013.8	(49/2$^+$)		
9326.9?	(53/2$^+$)	1174[b] *1*	100	8152.5	(49/2$^+$)		
9384.6	(53/2$^+$)	1196.8 *5*	100	8187.8	(49/2$^+$)		
9828.0	(55/2$^-$)	1158.7 *2*	100	8669.3	(51/2$^-$)	(E2)	
9991.6	(55/2$^+$)	1226.9 *5*	100	8764.7	(51/2$^+$)		
10183.1	(57/2$^+$)	1127 *1*	100	9056.0	(53/2$^+$)		
10672.7	(57/2$^+$)	1288 *1*	100	9384.6	(53/2$^+$)		
11071.1	(59/2$^-$)	1243.1 *2*	100	9828.0	(55/2$^-$)	(E2)	

$^{119}_{54}Xe_{65}$-11

Adopted Levels, Gammas (continued)

$\gamma(^{119}Xe)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.#	E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
11309.1	$(61/2^+)$	1126 *1*	100	10183.1	$(57/2^+)$		13816.1	$(67/2^-)$	1416 *1*	100	12400.1	$(63/2^-)$
11310.6	$(59/2^+)$	1319.0 *5*	100	9991.6	$(55/2^+)$		15323.1	$(71/2^-)$	1506.9 *2*	100	13816.1	$(67/2^-)$
12042.7	$(61/2^+)$	1370 *1*	100	10672.7	$(57/2^+)$		16934.6	$(75/2^-)$	1611.5 *2*	100	15323.1	$(71/2^-)$
12400.1	$(63/2^-)$	1329 *1*	100	11071.1	$(59/2^-)$	(E2)	18669.1	$(79/2^-)$	1734.5 *2*	100	16934.6	$(75/2^-)$
12721.6	$(63/2^+)$	1411 *1*	100	11310.6	$(59/2^+)$		20542.2?	$(83/2^-)$	1873[b] *1*	100	18669.1	$(79/2^-)$

† From (HI,xnγ), except as noted.
‡ From (^{119}Cs ε decay).
# From assignments in (HI,xnγ) based on DCO ratios and band structure, except as noted.
@ From α (2001Ge01).
& Not reported in ^{119}Cs ε decay (43.0 s, 30.4 s).
[a] 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.
[b] Placement of transition in the level scheme is uncertain.

$^{119}_{54}Xe_{65}$-12

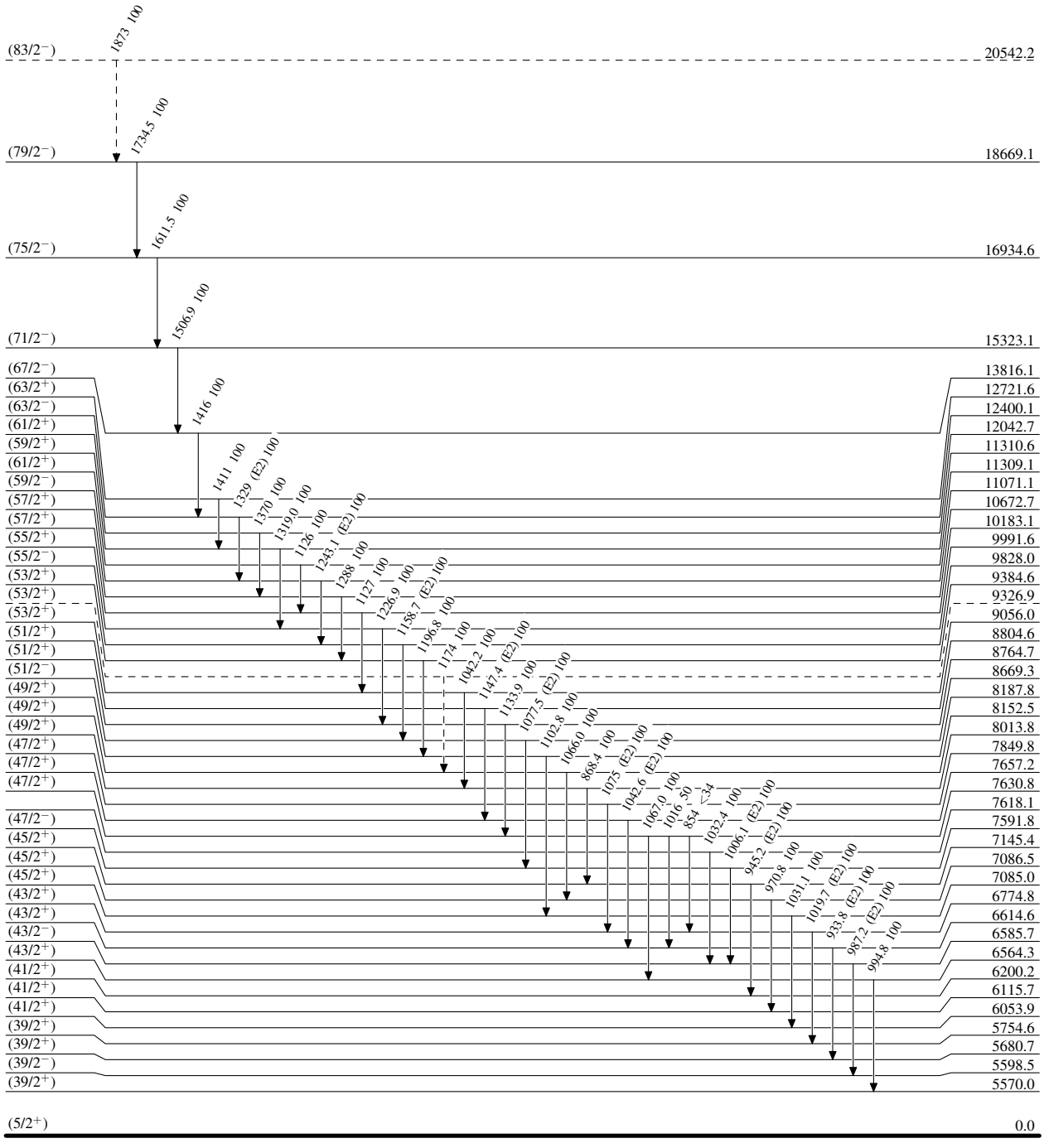
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{119}_{54}Xe_{65}$

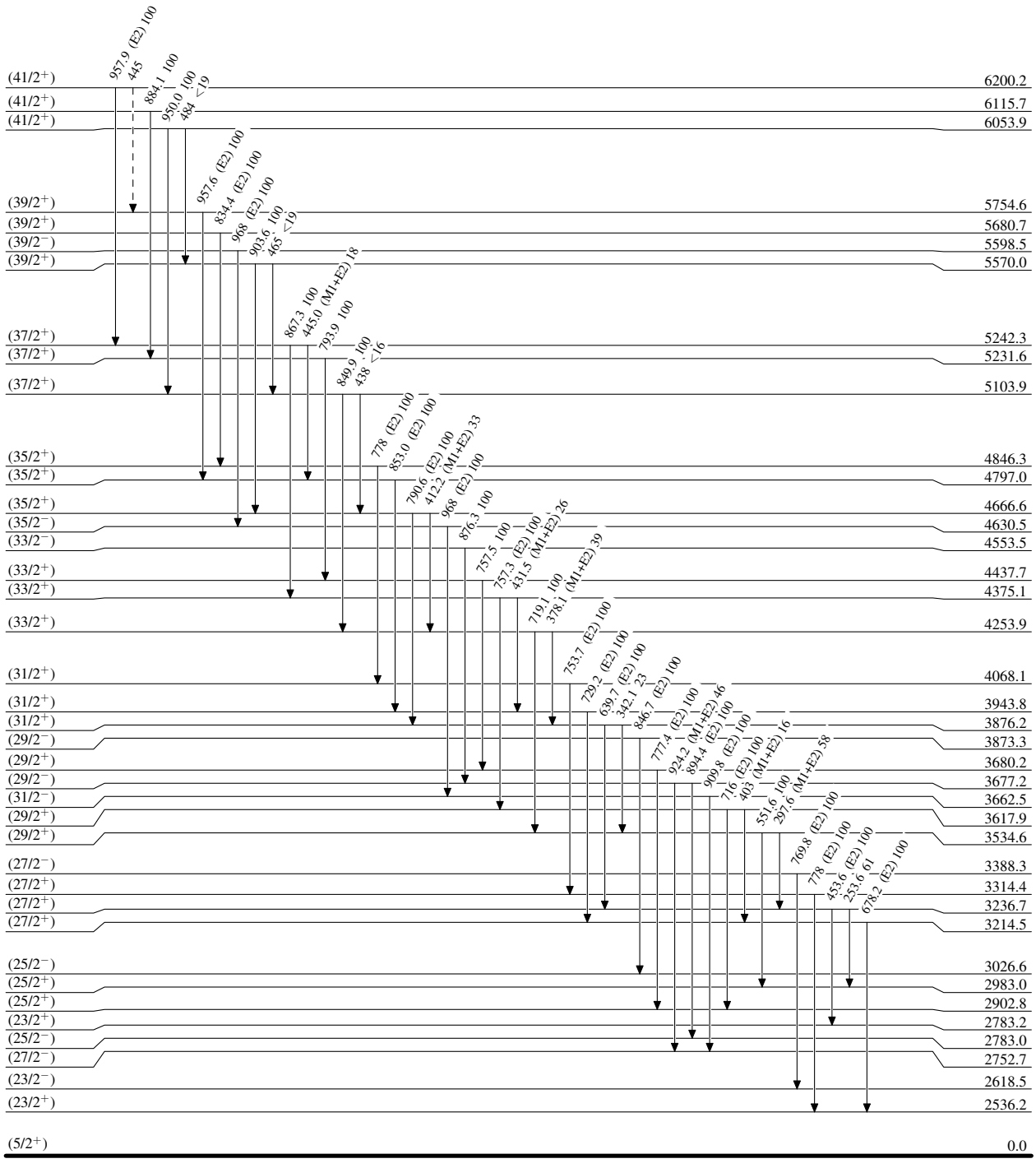
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{119}_{54}Xe_{65}$

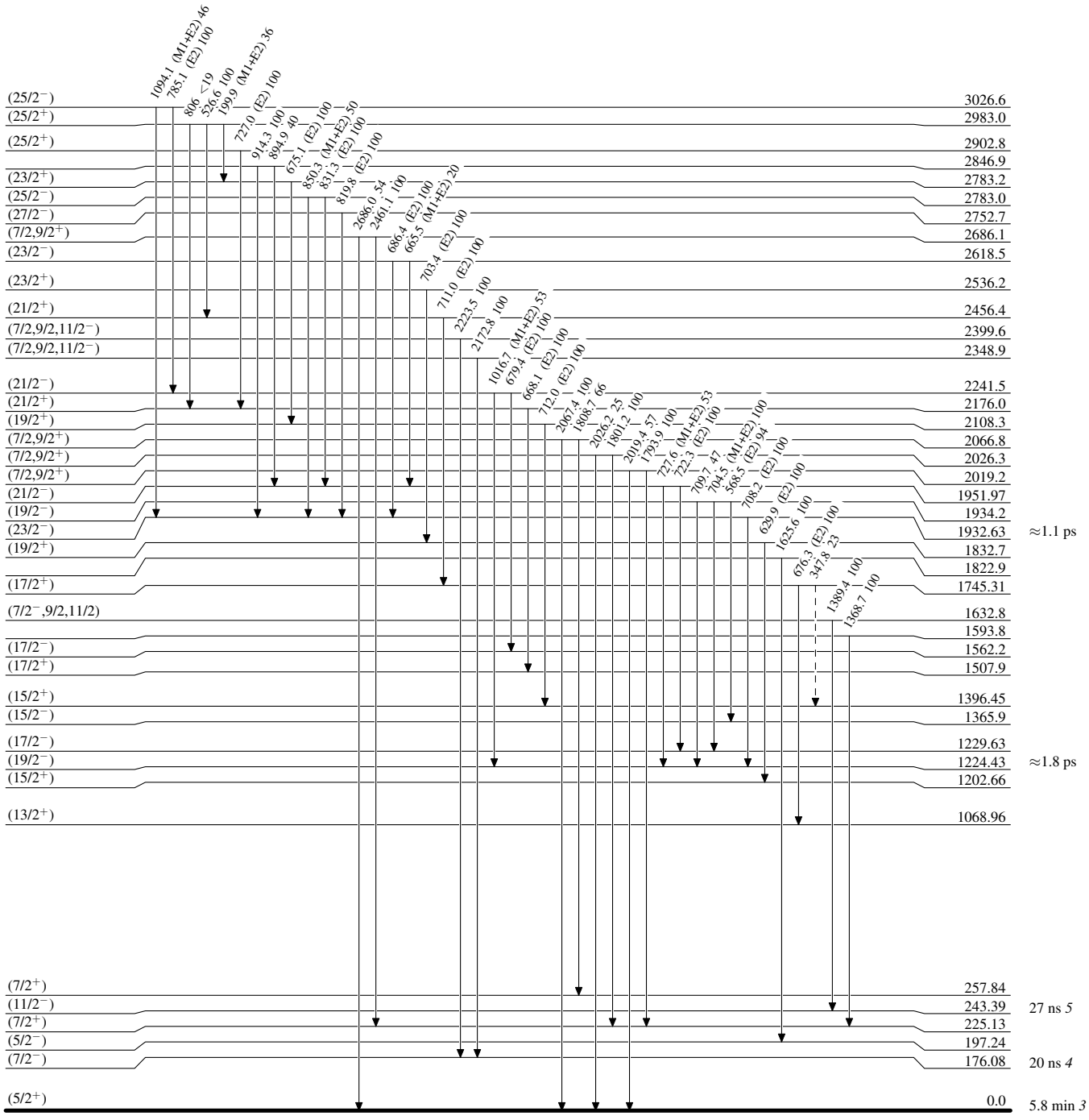
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

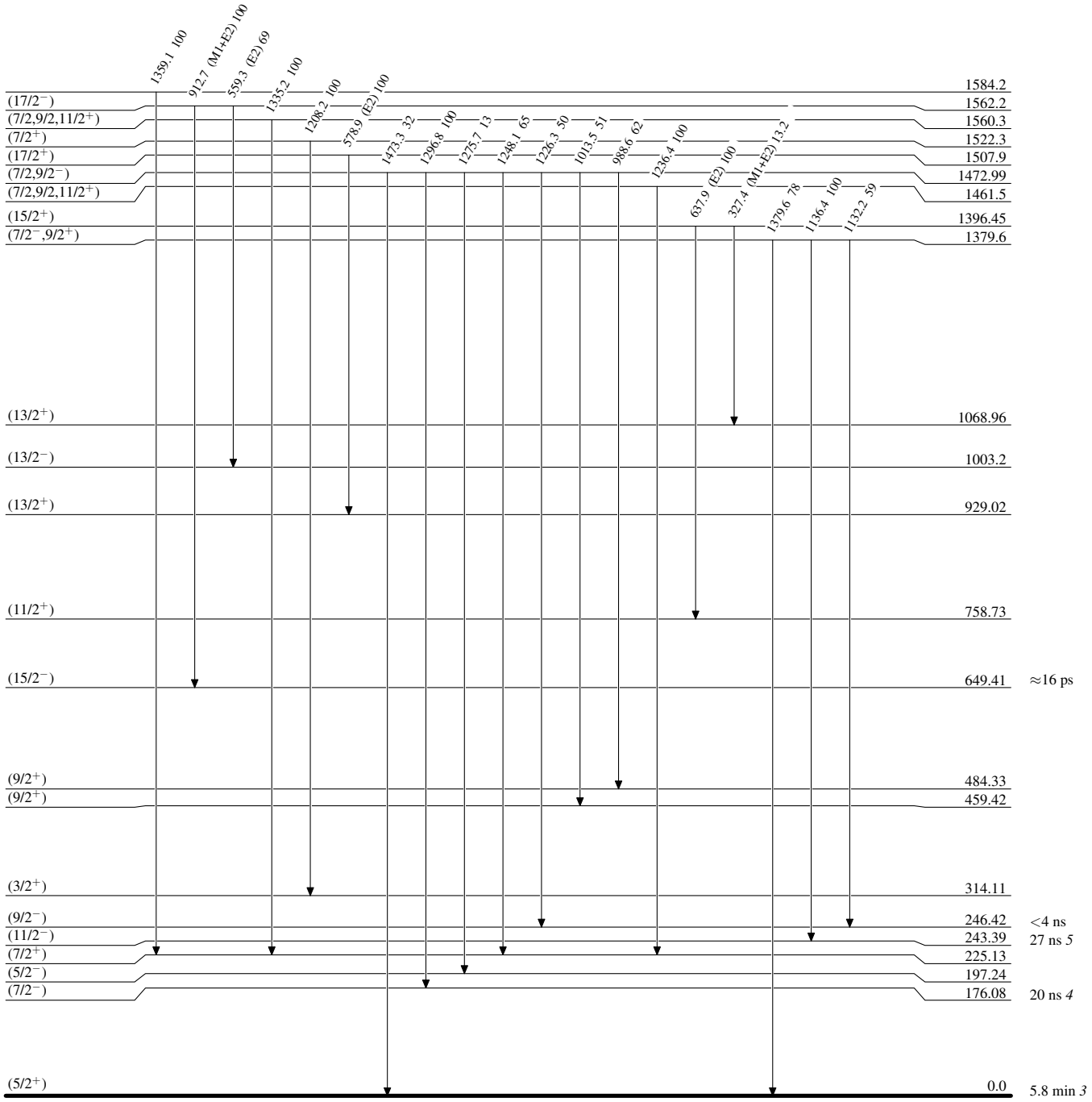


$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

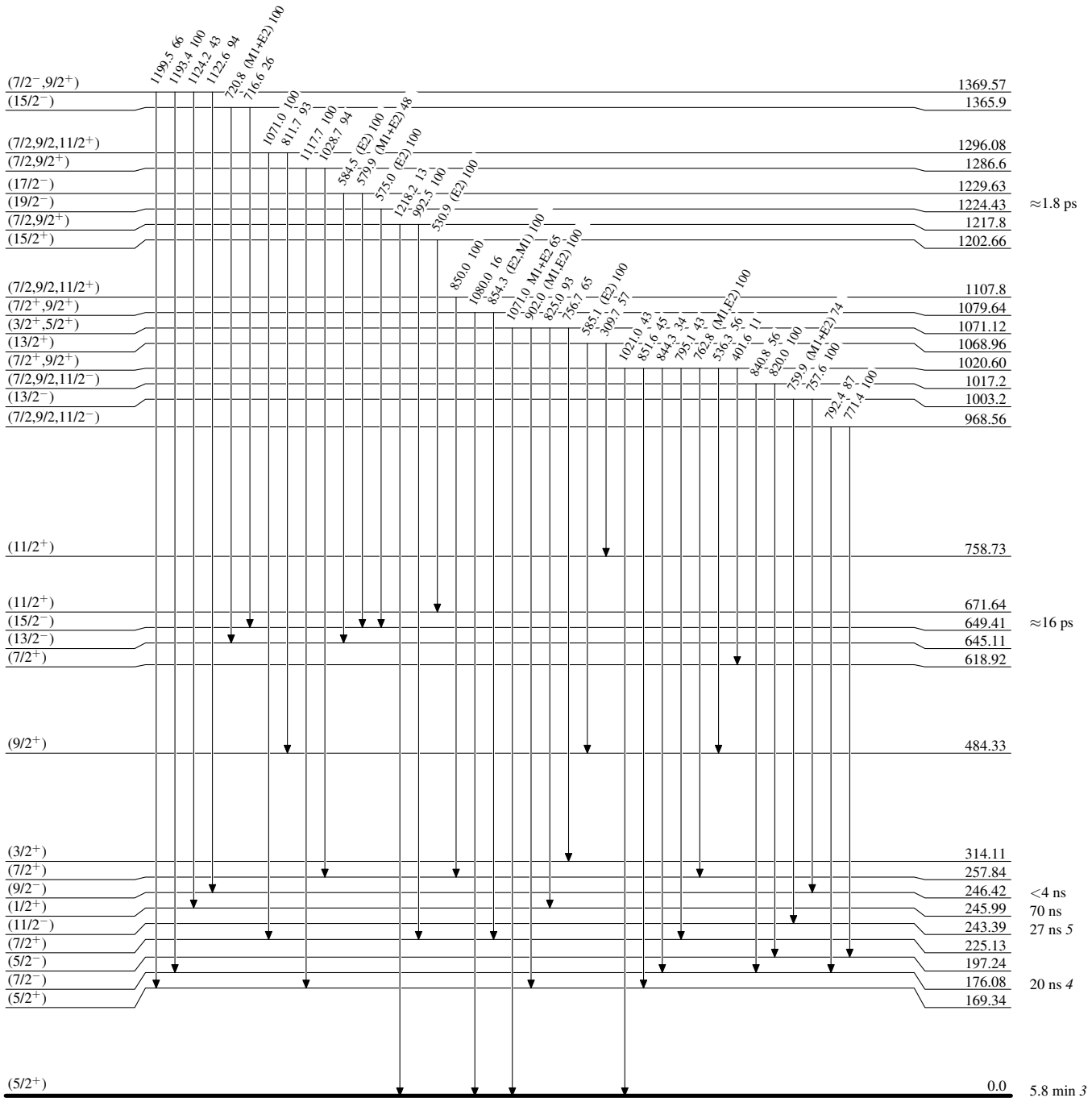


$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

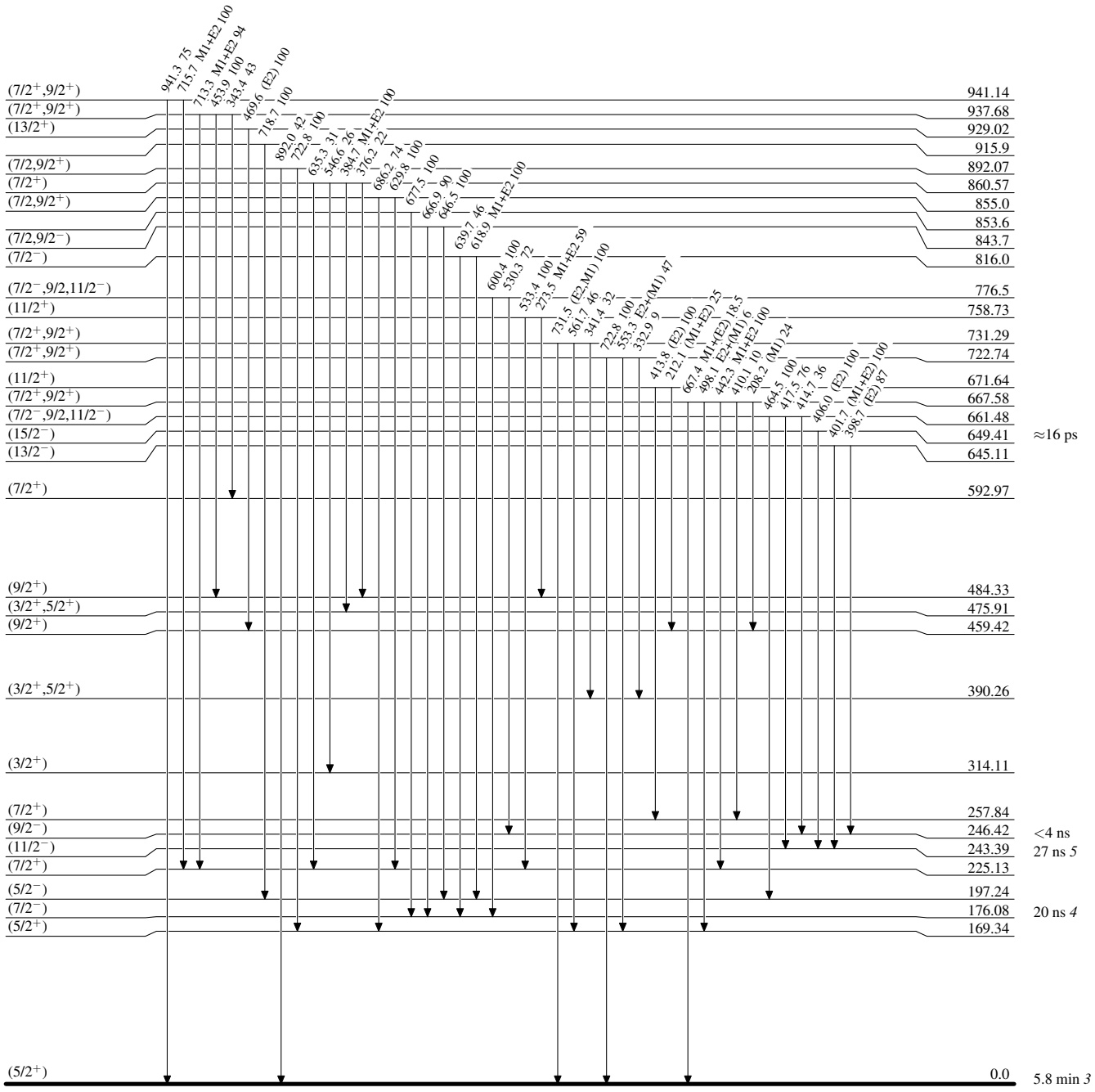


$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

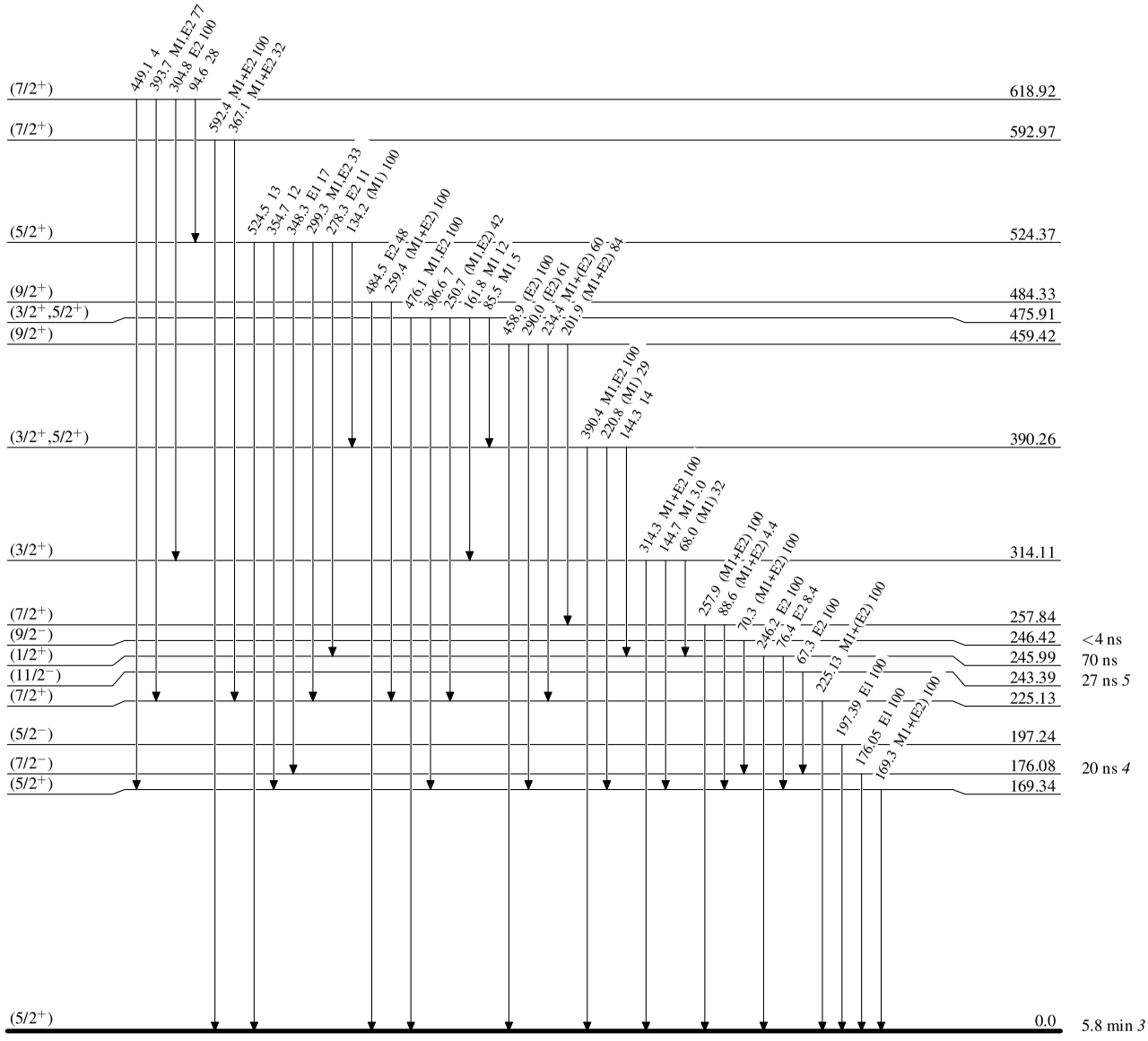


$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas

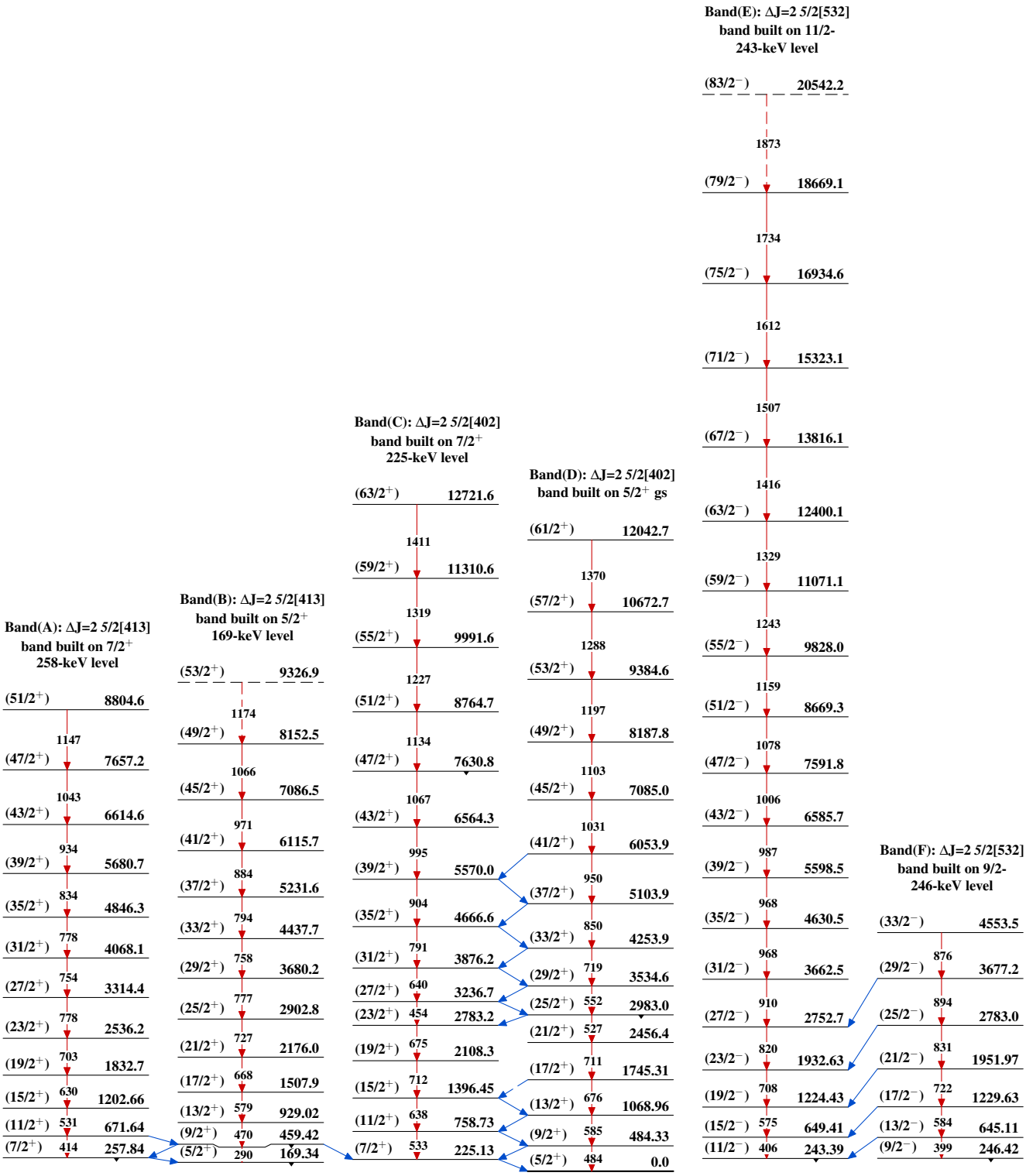
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas



$^{119}_{54}Xe_{65}$

Adopted Levels, Gammas (continued)