Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov	NDS 107, 2715 (2006)	17-Jul-2006

Q(β^-)=−1375 *6*; S(n)=9230 *10*; S(p)=5467 *5*; Q(α)=−1500 *7* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=−1376 *5*; S(n)=9231 *10*; S(p)=5467 *5*; Q(α)=−1502 *6* 2003Au03
Isotope shift is measured by 1975Ul02, 1978Hu08, 1981Th06.
Charge radii are measured by 1975Ul02, 1978Hu08, 1981Th06.
In the comments for each rotational band the mean-squared deviation Δ of the energy values calculated with use of Variable Moment of Inertia model from the experimental ones is presented.

^{131}Cs Levels

Cross Reference (XREF) Flags

A ^{131}Ba ε decay
B ^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ)
C ^{133}Cs(p,t)

E(level)[†]	J$^\pi$	T$_{1/2}$[‡]	XREF	Comments
0.0[e]	5/2$^+$	9.689 d *16*	ABC	%ε=100 μ=+3.543 *2*; Q=−0.575 *6* (1989Ra17) J$^\pi$: atomic beam (1976Fu06); μ; Q. T$_{1/2}$: from γ(t); weighted average of 9.69 d *5* (1960La06), 9.70 d *3* (1972Em01), 9.688 d *4* (1974Pl04), 9.66 d *5* (1975La16). μ: atomic beam magnetic resonance. Q: optical double resonance and pumping techniques. μ,Q: others: μ=+2.23 *1*, Q=+0.49 *2* from LASER spectroscopy (1981Th06).
78.730[f] *4*	7/2$^+$[&]	9.4 ns *2*	ABC	
123.804 *3*	1/2$^+$[@]	3.75 ns *5*	A	
133.615 *4*	5/2$^+$[@]	8.6 ns *3*	A C	μ=+1.86 *8* (1989Ra17); Q=0.022 *2* (2000De13) μ from DPAC; Q from TDPAC and PAC.
216.086 *4*	3/2$^+$	≤0.2 ns	A C	J$^\pi$: M1+E2 γ's to 1/2$^+$, 5/2$^+$.
274?			C	
373.242 *5*	3/2$^+$	≤0.25 ns	A C	J$^\pi$: M1+E2 γ's to 1/2$^+$, 3/2$^+$, 5/2$^+$.
496.11[e] *6*	9/2$^+$[#]		AB	
585.043 *10*	3/2$^+$,5/2$^+$		A C	E(level): In (p,t), the level is doubtful. J$^\pi$: M1,E2 γ's to 1/2$^+$, 5/2$^+$ and from 3/2$^+$; E2 γ from 7/2$^+$; log *ft*=8.3 from 1/2$^+$.
596.35 *5*	(5/2$^+$,7/2$^+$)		A	J$^\pi$: E2 γ from (7/2$^+$), γ's to 5/2$^+$ and 7/2$^+$.
616.2[f] *3*	11/2$^+$[#]		BC	
620.128 *6*	1/2$^+$	<0.15 ns	A	J$^\pi$: from $\gamma\gamma$(q) analysis; E2 γ to 5/2$^+$, M1 γ to 1/2$^+$, M1+E2 γ's to 3/2$^+$; log *ft*=6.6.
657.62 *6*	7/2$^+$		A C	J$^\pi$: from M3 γ to 1/2$^+$; predominantly L(p,t)=0.
696.487 *9*	3/2$^+$		A C	J$^\pi$: from $\gamma\gamma(\theta)$ in ε decay; M1,E2 γ's to 1/2$^+$, 5/2$^+$.
750	(+)		C	J$^\pi$: from L(p,t)=(2).
764.13 *14*	(3/2$^+$,5/2)$^+$		A C	J$^\pi$: from L(p,t)=2; M1+E2 γ from 3/2$^+$, γ to 5/2$^+$.
775.28[c] *6*	11/2$^-$	10.46 ns *14*	AB	μ=6.3 *9* J$^\pi$: stretched E1 γ to 9/2$^+$; from g-factor, T$_{1/2}$ values and systematics. T$_{1/2}$,μ: from 2000FuZM by TIPAC method.
919.58 *4*	(5/2$^+$)		A C	J$^\pi$: γ's to 1/2$^+$, 3/2$^+$, 7/2$^+$, 9/2$^+$.
1043.99 *6*	7/2$^+$		A C	J$^\pi$: M2 γ to 11/2$^-$,775 and E2 γ to 3/2$^+$,216 levels.
1047.682 *9*	3/2$^+$		A	J$^\pi$: $\gamma\gamma(\theta)$ in ε decay; E2 γ to 7/2$^+$, M1,E2 γ's to 1/2$^+$:5/2$^+$.

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Adopted Levels, Gammas (continued)

^{131}Cs Levels (continued)

E(level)[†]	Jπ	XREF	Comments
1147.32[e] *19*	13/2+[#]	B	
1170.67 *3*	3/2+	A C	Jπ: log *ft*=7.9 from 1/2+; L(p,t)=2; M1,E2 γ's to 3/2+.
1212?		C	
1257.82 *7*	(7/2+)[&]	A C	
1288?		C	
1309.06[c] *18*	15/2−[#]	B	
1314	(7/2+)[&]	C	
1324.1[f] *3*	15/2+[#]	B	
1341.96 *5*	3/2	A	Jπ: log *ft*=6.7 from 1/2+, γ to 1/2+ − 7/2+.
1355	(+)	C	Jπ: from L(p,t)=2.
1383?		C	
1404.44[d] *18*	13/2−	B	Jπ: M1+E2 γ to 11/2−, bandhead of unfavoured (α=+1/2) πh$_{11/2}$ band.
1458?		C	
1498?		C	
1558?		C	
1587	(+)	C	Jπ: from L(p,t)=2.
1617?		C	
1636.1 *6*	15/2−[b]	B	Jπ: M1 γ to 13/2+.
1671	(7/2+)[&]	C	
1708?		C	
1744?		C	
1927.77[e] *23*	17/2+[#]	B	
1948.39[j] *18*	15/2−[a]	B	Jπ: M1+E2 γ to 13/2−.
1972.69[c] *22*	19/2−[#]	B	
2006.3[m] *3*	(15/2−)[b]	B	Jπ: γ's to 11/2−, 13/2−, 15/2−.
2021.78[d] *22*	17/2−[a]	B	Jπ: M1 γ to 15/2−, (E2) γ to 13/2−.
2154.6[f] *3*	19/2+[#]	B	
2222.7[i] *6*	17/2−[a]	B	Jπ: M1 γ to 15/2−.
2343.48[j] *23*	19/2−[#b]	B	
2553.5[k] *5*	17/2+[ab]	B	
2572.4[m] *4*	(19/2−)[a]	B	
2659.85[d] *22*	21/2−[ab]	B	
2675.3[i] *3*	21/2−[ab]	B	
2685.4[k] *5*	19/2+[a]	B	
2733.5[e] *3*	21/2+[#]	B	
2779.4 *4*	21/2+[b]	B	
2815.98[c] *25*	23/2−[#]	B	
2834.0[k] *3*	21/2+[a]	B	Jπ: E2 γ to 17/2+, M1 γ to 19/2+.
2874.1[n] *3*	23/2+[#]	B	Jπ: M1 γ to 21/2+.
3032.6[f] *4*	23/2+[#]	B	
3041.5[g] *4*	25/2+[a]	B	Jπ: M1 γ to 23/2+.
3057.3[k] *4*	23/2+[a]	B	Jπ: M1 γ to 21/2+.
3063.4[j] *4*	(23/2−)[#b]	B	
3162.8[h] *3*	25/2+[a]	B	Jπ: M1 to 23/2+.
3278.7[m] *4*	(23/2−)[ab]	B	
3413.6[k] *4*	25/2+[#ab]	B	
3424.6[i] *4*	(25/2−)[a]	B	
3464.4[l] *3*	25/2−[ab]	B	

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Adopted Levels, Gammas (continued)

^{131}Cs Levels (continued)

E(level)[†]	Jπ	XREF	E(level)[†]	Jπ	XREF	E(level)[†]	Jπ	XREF
3520.9[d] 4	25/2$^-$[ab]	B	3971.4[f] 8	(27/2$^+$)[a]	B	4652.7[k] 5	(31/2$^+$)[ab]	B
3591.8 6	(25/2$^+$)[ab]	B	4010.8[l] 4	29/2$^-$[ab]	B	4716.7[j] 6	(31/2$^-$)[ab]	B
3620.0[l] 4	27/2$^-$[#b]	B	4043.2[m] 5	(27/2$^-$)[a]	B	4733.7[h] 4	33/2$^+$[#a]	B
3667.0[n] 4	(27/2$^+$)[ab]	B	4143.8[k] 5	29/2$^+$[#ab]	B	4856.2[g] 5	(33/2$^+$)	B
3722.2[k] 4	27/2$^+$[#a]	B	4290.6[i] 7	(29/2$^-$)[a]	B	4904.2[l] 5	33/2$^-$[ab]	B
3724.5[c] 3	27/2$^-$[#]	B	4347.2 6	(29/2$^+$)[a]	B	5078.2[k] 6	(33/2$^+$)[#a]	B
3856.0[h] 4	(29/2$^+$)[ab]	B	4386.3[l] 4	31/2$^-$[#a]	B	5264.2[l] 5	(35/2$^-$)[ab]	B
3867.6[g] 4	(29/2$^+$)[b]	B	4623.0[n] 7	(31/2$^+$)[a]	B	5735.1[h] 6	(37/2$^+$)[ab]	B
3870.9[j] 4	(27/2$^-$)[#a]	B	4641.6[c] 5	(31/2$^-$)[a]	B			

[†] From least-squares fit to Eγ′s, resulted normalized χ^2=0.9.
[‡] From γγ(t), ceγ(t), xγ(t) in ^{131}Ba ε decay when not stated.
[#] Stretched E2 γ cascade to bandhead.
[@] From γγ(θ), γ linear polarization measurements (ε decay). π: from transition multipolarities.
[&] From predominantly L(p,t)=0, target J^π=7/2$^+$.
[a] From assignment to band.
[b] From decay pattern.
[c] Band(A): Band based on configuration=π$h_{11/2}$, α=−1/2 ; signature partner of band B; (Δ=30 keV).
[d] Band(B): Band based on configuration=π$h_{11/2}$, α=+1/2 ; signature partner of band A; (Δ=26 keV). Unified band A+B (K=11/2, Δ=152 keV).
[e] Band(C): Band based on configuration=π$d_{5/2}$; (Δ=17 keV).
[f] Band(D): Band based on configuration=π$g_{7/2}$; (Δ=28 keV).
[g] Band(E): Band based on configuration=π$d_{5/2}$/$g_{7/2}$⊗π$(h_{11/2})^2$, ΔJ=2; (Δ=10 keV).
[h] Band(F): Band based on configuration=π$d_{5/2}$/$g_{7/2}$⊗π$(h_{11/2})^2$; (Δ=26 keV).
[i] Band(G): Band based on configuration=π$g_{7/2}$⊗ν$g_{7/2}$⊗ν$h_{11/2}$, α=+1/2; signature partner of band H; (Δ=53 keV). The 2222.9, J=17/2$^-$ level was stated by 2005Ku10.
[j] Band(H): Band based on configuration=π$g_{7/2}$⊗ν$g_{7/2}$⊗ν$h_{11/2}$, α=−1/2; signature partner of band G; (Δ=48 keV). Unified band G+H (K=15/2, Δ=50 keV).
[k] Band(I): Band based on configuration=π$d_{5/2}$/$g_{7/2}$⊗π$(h_{11/2})^2$ configuration=π$g_{7/2}$/$d_{5/2}$⊗(ν$h_{11/2}$)^2; (Δ=101 keV). Magnetic-dipole rotational band #1.
[l] Band(J): Band based on configuration=π$h_{11/2}$⊗(ν$h_{11/2}$)^2 ; (Δ=64 keV). Magnetic-dipole rotational band #2.
[m] Band(K): Possible rotational level sequence on the 15/2$^-$ state. The level sequence was reported by 1997FuZY and its rotational character is supported by calculations (by evaluators) with use of Variable Moment of Inertia model (the mean-squared deviation of calculated level energy values from the experimental ones Δ=9 keV).
[n] Band(L): possible rotational level sequence on the 23/2$^+$ state ; (Δ=9 keV). The level sequence was reported by 1997FuZY.

Adopted Levels, Gammas (continued)

γ(^{131}Cs)

E_i(level)	J_i^π	E_γ[†]	I_γ[#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
78.730	7/2+	78.733 *4*	100	0.0	5/2+	M1+E2	0.060 *11*	1.82	B(M1)(W.u.)=0.00170 *5*; B(E2)(W.u.)=0.64 *24*
123.804	1/2+	123.805 *3*	100	0.0	5/2+	E2		0.89	B(E2)(W.u.)=69.5 *14*
133.615	5/2+	54.889 *5*	4.87 *11*	78.730	7/2+	E2(+M1)	≥4	16.4 *4*	B(M1)(W.u.)<2.1×10^{-5}; B(E2)(W.u.)>62
		133.609 *7*	100.0 *11*	0.0	5/2+	M1+E2	+0.51 *2*	0.459 *4*	B(M1)(W.u.)=0.000369 *17*; B(E2)(W.u.)=3.5 *3* Mult.: possible admixture E0, B(E0)/B(E2)=0.015 *5* (1978Vo11).
216.086	3/2+	82.58 *9*	0.09 *1*	133.615	5/2+	M1,E2		2.7 *11*	B(M1)(W.u.)>4.1×10^{-5}; B(E2)(W.u.)>3.9
		92.284 *3*	2.95 *5*	123.804	1/2+	M1+E2	0.19 *5*	1.19 *3*	B(M1)(W.u.)=0.00339 *10*; B(E2)(W.u.)=9 *5*
		137.36 *4*	0.19 *1*	78.730	7/2+	E2		0.614	B(E2)(W.u.)=2.36 *3*
		216.078 *8*	100.0 *19*	0.0	5/2+	M1+E2	+0.07 *3*	0.107	B(M1)(W.u.)=0.00922 *5*; B(E2)(W.u.)=0.6 *6*
373.242	3/2+	157.151 *9*	1.24 *5*	216.086	3/2+	M1,E2		0.32 *7*	B(M1)(W.u.)>7.8×10^{-5}; B(E2)(W.u.)>2.1
		239.629 *8*	17.3 *4*	133.615	5/2+	M1+E2	−0.25 *10*	0.082 *1*	B(M1)(W.u.)=0.00071 *4*; B(E2)(W.u.)=0.5 *4*
		249.432 *8*	20.6 *7*	123.804	1/2+	M1+E2	+0.63 *6*	0.0749 *3*	B(M1)(W.u.)=0.00057 *4*; B(E2)(W.u.)=2.4 *4*
		294.515 *20*	1.20 *3*	78.730	7/2+	E2		0.0463	B(E2)(W.u.)=0.2122 *3*
		373.246 *11*	100.0 *10*	0.0	5/2+	M1+E2	−0.9 *3*	0.0240 *7*	B(M1)(W.u.)=0.00064 *20*; B(E2)(W.u.)=2.4 *9*
496.11	9/2+	417.55 *25*	5.1 *5*	78.730	7/2+	M1+E2		0.0175 *18*	
		496.35[&] *21*	100 *5*	0.0	5/2+	E2			
585.043	3/2+,5/2+	89.04 *13*	0.31 *4*	496.11	9/2+				
		369.12 *13*	1.4 *3*	216.086	3/2+				
		451.418 *15*	3.41 *8*	133.615	5/2+	M1,E2		0.0142 *17*	
		461.258 *24*	4.7 *8*	123.804	1/2+	M1,E2		0.0134 *16*	
		506.1 *4*	0.16 *4*	78.730	7/2+				
		585.041 *15*	100.0 *8*	0.0	5/2+	M1,E2			
596.35	(5/2+,7/2+)	517.64 *7*	100 *40*	78.730	7/2+				
		596.48 *13*	74 *8*	0.0	5/2+				
616.2	11/2+	538.3[&] *3*	100	78.730	7/2+	E2			
620.128	1/2+	246.885 *12*	1.35 *1*	373.242	3/2+	M1,E2		0.079 *4*	B(M1)(W.u.)>5.8×10^{-5}; B(E2)(W.u.)>0.62
		404.046 *11*	2.80 *2*	216.086	3/2+	M1+E2	+0.8 *3*	0.0195 *7*	B(M1)(W.u.)=3.4×10^{-5} *10*; B(E2)(W.u.)=0.09 *4*
		486.522 *12*	4.47 *3*	133.615	5/2+	E2		0.0102	B(E2)(W.u.)=0.13835 *5*
		496.326 *13*	100	123.804	1/2+	M1		0.0125	B(M1)(W.u.)=0.0010613 *4*
		620.111 *17*	3.07 *2*	0.0	5/2+	E2			B(E2)(W.u.)=0.028248 *4*
657.62	7/2+	72.43 *10*	100 *15*	585.043	3/2+,5/2+	[E2]		5.94 *9*	
		533.67 *15*	15 *4*	123.804	1/2+	M3		0.0895	α(K)exp=0.06 *2*
		657.64 *10*	37 *3*	0.0	5/2+				
696.487	3/2+	323.200 *24*	1.89 *14*	373.242	3/2+				
		480.407 *13*	100.0 *13*	216.086	3/2+	M1+E2	+0.21 *3*	0.0134	
		562.87 *13*	1.12 *21*	133.615	5/2+				
		572.686 *15*	47.7 *9*	123.804	1/2+	M1,E2			
		696.490 *20*	45.0 *13*	0.0	5/2+	M1,E2			
764.13	(3/2+,5/2)+	630.23 *17*	100	133.615	5/2+				
775.28	11/2−	117.69[d] *13*	100 *36*	657.62	7/2+				E_γ: questionable placement on the base of energy

$^{131}_{55}Cs_{76}$-4

Adopted Levels, Gammas (continued)

γ(^{131}Cs) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
									relations only; mult.=D,E2 from RUL is inconsistent with ΔJ^π=2, yes.
775.28	11/2$^-$	159.0 *5*		616.2	11/2$^+$				
		279.17 *2*	56 *27*	496.11	9/2$^+$	E1		0.0132	B(E1)(W.u.)=7.88×10^{-7} *11*
919.58	(5/2$^+$)	423.69 *25*	22 *3*	496.11	9/2$^+$				
		546.28 *9*	39 *4*	373.242	3/2$^+$				
		703.44 *8*	79 *5*	216.086	3/2$^+$				
		785.92 *9*	26 *8*	133.615	5/2$^+$				
		795.85 *8*	7.9 *11*	123.804	1/2$^+$				
		840.9 *4*	21 *11*	78.730	7/2$^+$				
		919.60 *9*	100 *5*	0.0	5/2$^+$				
1043.99	7/2$^+$	268.71 *2*	100 *26*	775.28	11/2$^-$	M2		0.281	
		458.96 *10*	63 *5*	585.043	3/2$^+$,5/2$^+$	E2		0.0120	
		827.79 *12*	40 *4*	216.086	3/2$^+$				
1047.682	3/2$^+$	128.09 *14*	1.07 *7*	919.58	(5/2$^+$)				
		351.196 *24*	7.1 *4*	696.487	3/2$^+$	M1,E2		0.282 *17*	α(K)exp=0.024 *3*
		390.05 *17*	0.15 *4*	657.62	7/2$^+$				
		427.570 *17*	7.29 *7*	620.128	1/2$^+$	M1,E2		0.0164 *18*	α(K)exp=0.0156 *16*
		462.68 *5*	3.6 *7*	585.043	3/2$^+$,5/2$^+$	M1,E2		0.0133 *16*	α(K)exp=0.013 *2*
		674.43 *2*	10.11 *7*	373.242	3/2$^+$	M1,E2			α(K)exp=0.0041 *9*
		831.62 *3*	17.43 *14*	216.086	3/2$^+$	M1+E2	−0.31 +*21*−*46*		α(K)exp=0.0032 *4*
		914.07 *2*	3.54 *4*	133.615	5/2$^+$	M1,E2			α(K)exp=0.0027 *4*
		923.87 *2*	55.4 *7*	123.804	1/2$^+$	M1,E2			α(K)exp=0.00197 *22*
		968.94 *3*	2.79 *11*	78.730	7/2$^+$	E2			α(K)exp=0.0018 *3*
		1047.60 *3*	100.0 *25*	0.0	5/2$^+$	M1,E2			
1147.32	13/2$^+$	530.9 *4*	7.4 *14*	616.2	11/2$^+$				
		651.25[&] *21*	100 *5*	496.11	9/2$^+$	E2			
1170.67	3/2$^+$	406.11 *21*	23 *10*	764.13	(3/2$^+$,5/2)$^+$	M1+E2		0.0189 *18*	
		474.2 *3*	2.6 *7*	696.487	3/2$^+$				
		550.39 *15*	2.4 *6*	620.128	1/2$^+$				
		797.45 *6*	39.9 *16*	373.242	3/2$^+$	M1,E2			
		954.61 *3*	35.8 *5*	216.086	3/2$^+$	M1,E2			
		1037.0 *4*	0.52 *16*	133.615	5/2$^+$				
		1046.4 *3*	100 *8*	123.804	1/2$^+$				
		1170.53 *11*	1.8 *3*	0.0	5/2$^+$				
1257.82	(7/2$^+$)	599.94 *11*	24 *3*	657.62	7/2$^+$				
		661.60 *8*	100 *14*	596.35	(5/2$^+$,7/2$^+$)	E2			
		884.58 *20*	34 *4*	373.242	3/2$^+$				
1309.06	15/2$^-$	533.70[&] *21*	100	775.28	11/2$^-$	E2			
1324.1	15/2$^+$	707.90 *21*	100	616.2	11/2$^+$	E2			
1341.96	3/2	297.83 *15*	100 *12*	1043.99	7/2$^+$				
		745.57 *6*	34 *4*	596.35	(5/2$^+$,7/2$^+$)				
		757.0 *2*	13 *4*	585.043	3/2$^+$,5/2$^+$				

Adopted Levels, Gammas (continued)

γ(^{131}Cs) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [#]	E_f	J_f^π	Mult.[‡]	δ[‡]
1341.96	3/2	1125.97 *16*	71 *13*	216.086	$3/2^+$		
		1208.43 *12*	46 *5*	133.615	$5/2^+$		
		1218.30 *15*	13 *4*	123.804	$1/2^+$		
		1341.88 *15*	28 *4*	0.0	$5/2^+$		
1404.44	$13/2^-$	629.25 *21*	100	775.28	$11/2^-$	M1+E2	≈−0.3
1636.1	$15/2^-$	232.3 *7*	100	1404.44	$13/2^-$	M1	
1927.77	$17/2^+$	603.8 *5*	14.9 *16*	1324.1	$15/2^+$	M1	
		780.45[&] *21*	100 *5*	1147.32	$13/2^+$	E2	
1948.39	$15/2^-$	543.95 *2*	100 *10*	1404.44	$13/2^-$	M1+E2	≈−0.2
		639.5[@] *7*	26 *5*	1309.06	$15/2^-$	(M1)	
1972.69	$19/2^-$	663.40[&] *21*	100	1309.06	$15/2^-$	E2	
2006.3	$(15/2^-)$	602.0 *5*		1404.44	$13/2^-$		
		697.0 *5*		1309.06	$15/2^-$		
		1231.0 *5*		775.28	$11/2^-$		
2021.78	$17/2^-$	617.1[&] *4*	31 *7*	1404.44	$13/2^-$	(E2)	
		713.07 *26*	100 *9*	1309.06	$15/2^-$	M1	
2154.6	$19/2^+$	226.6 *7*	2.4 *5*	1927.77	$17/2^+$	(M1)	
		830.37[&] *26*	100 *5*	1324.1	$15/2^+$	E2	
2222.7	$17/2^-$	274.5 *7*	100	1948.39	$15/2^-$	M1	
2343.48	$19/2^-$	120.9 *7*	10 *2*	2222.7	$17/2^-$	(M1)	
		322.0 *5*		2021.78	$17/2^-$		
		370.9[@] *4*	24 *4*	1972.69	$19/2^-$	(M1)	
		395.22[&] *26*	100 *10*	1948.39	$15/2^-$	E2	
		416.0 *5*		1927.77	$17/2^+$		
		708.0 *7*	34 *6*	1636.1	$15/2^-$	(E2)	
2553.5	$17/2^+$	626.1[@] *7*	100 *18*	1927.77	$17/2^+$		
		1229.4 *6*	55 *9*	1324.1	$15/2^+$	(M1)	
2572.4	$(19/2^-)$	566.0 *5*		2006.3	$(15/2^-)$		
		600.0 *5*		1972.69	$19/2^-$		
		1263.0 *5*		1309.06	$15/2^-$		
2659.85	$21/2^-$	638.07[&] *2*	25 *5*	2021.78	$17/2^-$	(E2)	
		686.7 *4*	100 *11*	1972.69	$19/2^-$	M1	
2675.3	$21/2^-$	332.22 *26*	100 *19*	2343.48	$19/2^-$	M1	
		653.0 *5*		2021.78	$17/2^-$		
		702.0 *4*	42 *8*	1972.69	$19/2^-$	(M1)	
2685.4	$19/2^+$	132.0 *4*	100	2553.5	$17/2^+$	M1	
2733.5	$21/2^+$	578.93 *26*	14.1 *29*	2154.6	$19/2^+$	M1	
		805.59[&] *26*	100 *5*	1927.77	$17/2^+$	E2	
2779.4	$21/2^+$	851.8 *3*	100	1927.77	$17/2^+$	(E2)	
2815.98	$23/2^-$	156.0[c] *7*	6.0[c] *13*	2659.85	$21/2^-$	M1	
		843.29[&] *26*	100 *5*	1972.69	$19/2^-$	E2	

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Adopted Levels, Gammas (continued)

γ(^{131}Cs) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [#]	E_f	J_f^π	Mult.[‡]
2834.0	21/2$^+$	148.7 *4*	31 *6*	2685.4	19/2$^+$	M1
		680.0 *5*		2154.6	19/2$^+$	
		906.15 *26*	100 *11*	1927.77	17/2$^+$	E2
2874.1	23/2$^+$	95.3 *7*	8.2 *17*	2779.4	21/2$^+$	(M1)
		140.50 *21*	100 *10*	2733.5	21/2$^+$	M1
		719.59 *26*	19 *4*	2154.6	19/2$^+$	E2
3032.6	23/2$^+$	299.0 *5*		2733.5	21/2$^+$	
		878.07 *26*	100 *11*	2154.6	19/2$^+$	E2
3041.5	25/2$^+$	167.07 *26*	100	2874.1	23/2$^+$	M1
3057.3	23/2$^+$	223.71 *26*	100 *9*	2834.0	21/2$^+$	M1
		278.3 *7*	30 *5*	2779.4	21/2$^+$	(M1)
		902.2 *4*	41 *8*	2154.6	19/2$^+$	(E2)
3063.4	(23/2$^-$)	388.2 *4*	100 *19*	2675.3	21/2$^-$	(M1)
		720.1[&] *4*	70 *15*	2343.48	19/2$^-$	(E2)
3162.8	25/2$^+$	288.78 *26*	100 *10*	2874.1	23/2$^+$	M1
		347.0 *4*	17 *3*	2815.98	23/2$^-$	(E1)
3278.7	(23/2$^-$)	463.0 *5*		2815.98	23/2$^-$	
		706.0 *5*		2572.4	(19/2$^-$)	
		1306.0 *5*		1972.69	19/2$^-$	
3413.6	25/2$^+$	356.71 *26*	100 *11*	3057.3	23/2$^+$	M1
		380.8 *7*	20 *4*	3032.6	23/2$^+$	M1
		579.0 *5*		2834.0	21/2$^+$	E2
3424.6	(25/2$^-$)	361.1 *4*	66 *14*	3063.4	(23/2$^-$)	(M1)
		749.15[&] *26*	100 *20*	2675.3	21/2$^-$	(E2)
3464.4	25/2$^-$	401.1 *7*	11.6 *23*	3063.4	(23/2$^-$)	(M1)
		648.44 *26*	100 *21*	2815.98	23/2$^-$	M1
		804.71[&] *26*	16.3 *23*	2659.85	21/2$^-$	
3520.9	25/2$^-$	704.8[c] *7*	30[c] *6*	2815.98	23/2$^-$	(M1)
		861.0[&] *5*	100 *9*	2659.85	21/2$^-$	(E2)
3591.8	(25/2$^+$)	550.0 *5*		3041.5	25/2$^+$	
3620.0	27/2$^-$	99.3 *7*	2.6 *5*	3520.9	25/2$^-$	(M1)
		156.0[c] *7*	5.8[c] *11*	3464.4	25/2$^-$	M1
		804.07[&] *26*	100 *5*	2815.98	23/2$^-$	E2
3667.0	(27/2$^+$)	625.0 *5*		3041.5	25/2$^+$	
		793.0 *5*		2874.1	23/2$^+$	
3722.2	27/2$^+$	308.85 *26*	100 *10*	3413.6	25/2$^+$	M1
		664.3[&] *4*	33 *6*	3057.3	23/2$^+$	E2
3724.5	27/2$^-$	203.4 *4*	52 *11*	3520.9	25/2$^-$	M1
		261.3 *7*	20 *5*	3464.4	25/2$^-$	(M1)
		908.37[&] *26*	100 *11*	2815.98	23/2$^-$	E2
3856.0	(29/2$^+$)	189.0 *5*		3667.0	(27/2$^+$)	

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Adopted Levels, Gammas (continued)

γ(^{131}Cs) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[#]	E_f	J_f^π	Mult.[‡]
3856.0	(29/2$^+$)	693.5[&] *3*	100 *20*	3162.8	25/2$^+$	(E2)
		814.4 *4*	68 *14*	3041.5	25/2$^+$	(E2)
3867.6	(29/2$^+$)	200.0 *5*		3667.0	(27/2$^+$)	
		704.8[c] *4*	29[c] *6*	3162.8	25/2$^+$	(E2)
		826.2 *3*	100 *11*	3041.5	25/2$^+$	(E2)
3870.9	(27/2$^-$)	446.2 *4*	27 *4*	3424.6	(25/2$^-$)	(M1)
		807.7 *4*	100 *20*	3063.4	(23/2$^-$)	(E2)
3971.4	(27/2$^+$)	938.8[&] *7*	100	3032.6	23/2$^+$	(E2)
4010.8	29/2$^-$	286.15 *26*	48 *5*	3724.5	27/2$^-$	M1
		390.93 *26*	100 *5*	3620.0	27/2$^-$	M1
4043.2	(27/2$^-$)	319.0 *5*		3724.5	27/2$^-$	
		1227.0 *5*		2815.98	23/2$^-$	
4143.8	29/2$^+$	421.71 *26*	100 *10*	3722.2	27/2$^+$	M1
		730.1 *4*	20 *4*	3413.6	25/2$^+$	(E2)
4290.6	(29/2$^-$)	420.0 *47*	22 *4*	3870.9	(27/2$^-$)	(M1)
		866.5[&] *3*	100 *22*	3424.6	(25/2$^-$)	(E2)
4347.2	(29/2$^+$)	480.0 *5*		3867.6	(29/2$^+$)	
		755.0 *5*		3591.8	(25/2$^+$)	
4386.3	31/2$^-$	375.5 *3*	100 *10*	4010.8	29/2$^-$	M1
		766.29[&] *26*	28 *6*	3620.0	27/2$^-$	E2
4623.0	(31/2$^+$)	956.0 *5*		3667.0	(27/2$^+$)	
4641.6	(31/2$^-$)	917.1[&] *4*	100	3724.5	27/2$^-$	(E2)
4652.7	(31/2$^+$)	509.2 *4*	67 *13*	4143.8	29/2$^+$	(M1)
		930.4[&] *6*	100 *20*	3722.2	27/2$^+$	(E2)
4716.7	(31/2$^-$)	426.0[b] *5*		4290.6	(29/2$^-$)	
		846.0[&] *5*		3870.9	(27/2$^-$)	
4733.7	33/2$^+$	865.63 *25*	45 *9*	3867.6	(29/2$^+$)	(E2)
		877.85[&] *26*	100 *20*	3856.0	(29/2$^+$)	E2
4856.2	(33/2$^+$)	988.6 *3*	100	3867.6	(29/2$^+$)	(E2)
4904.2	33/2$^-$	517.8 *3*	100 *21*	4386.3	31/2$^-$	M1
		893.8[&] *7*	21 *4*	4010.8	29/2$^-$	(E2)
5078.2	(33/2$^+$)	426.0[b] *5*		4652.7	(31/2$^+$)	(M1)
		934.0[&] *5*		4143.8	29/2$^+$	E2
5264.2	(35/2$^-$)	359.9 *7*	69 *13*	4904.2	33/2$^-$	(M1)
		877.9[&] *3*	100 *21*	4386.3	31/2$^-$	(E2)
5735.1	(37/2$^+$)	1001.4[&] *4*	100	4733.7	33/2$^+$	(E2)

[†] Weighted average of all available data.
[‡] From α(exp), γγ(θ).
[#] Relative photon branching from each level.
[@] Transition connects levels with ΔJ=0.
[&] Stretched E2 transition in ΔJ=2 cascade.
[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] Multiply placed.
[c] Multiply placed with intensity suitably divided.
[d] Placement of transition in the level scheme is uncertain.

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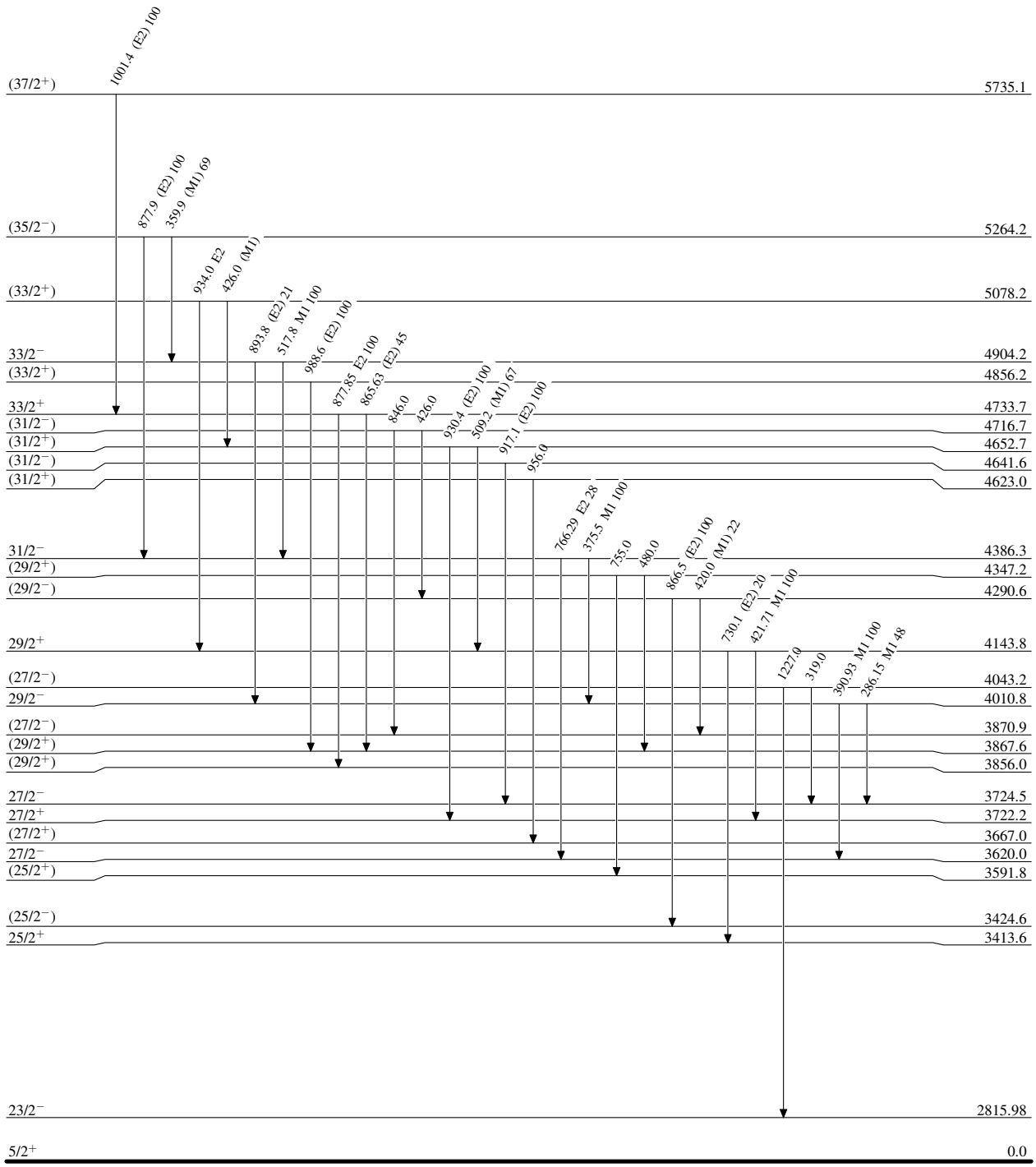
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



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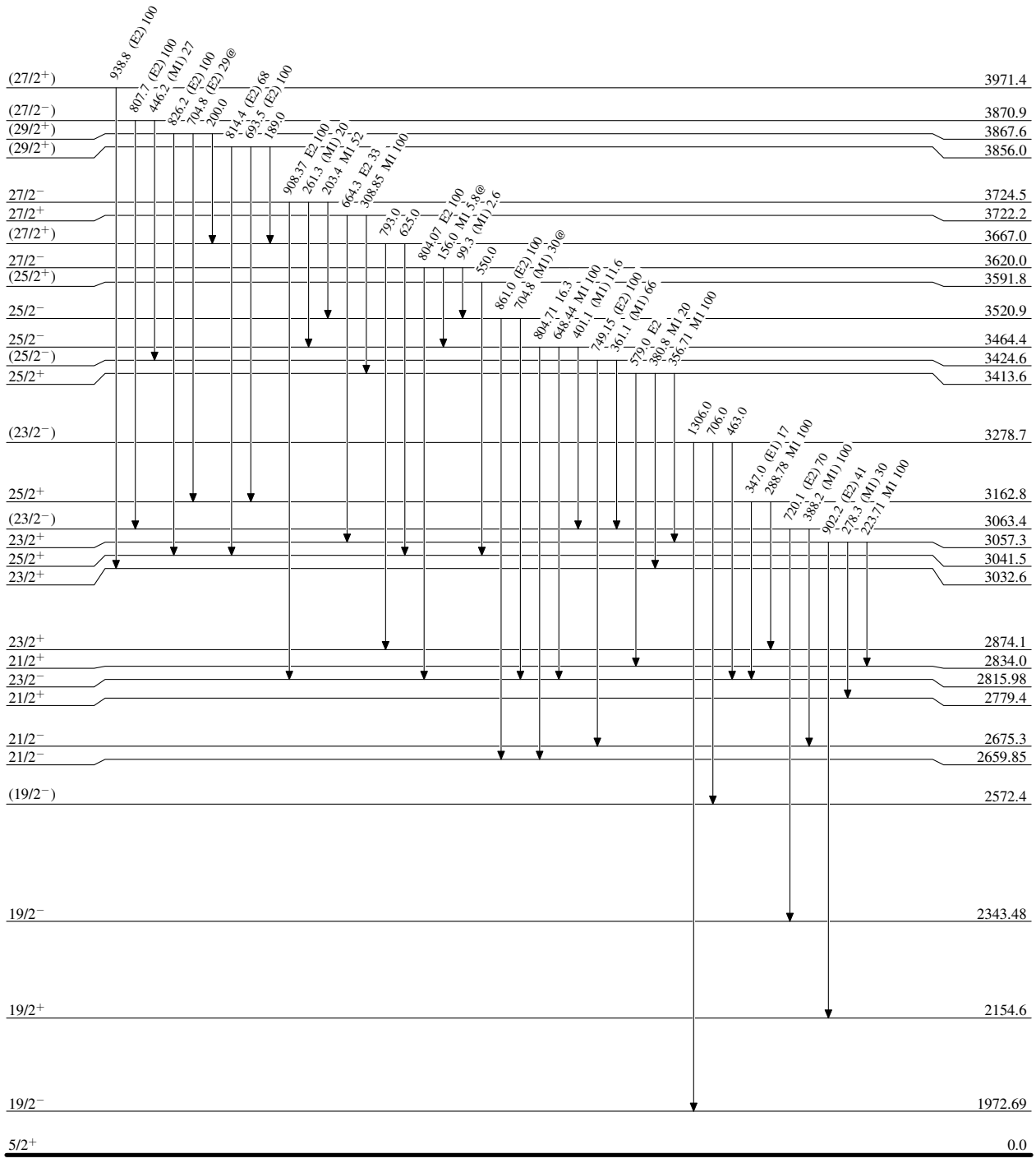
Adopted Levels, Gammas

Level Scheme (continued)

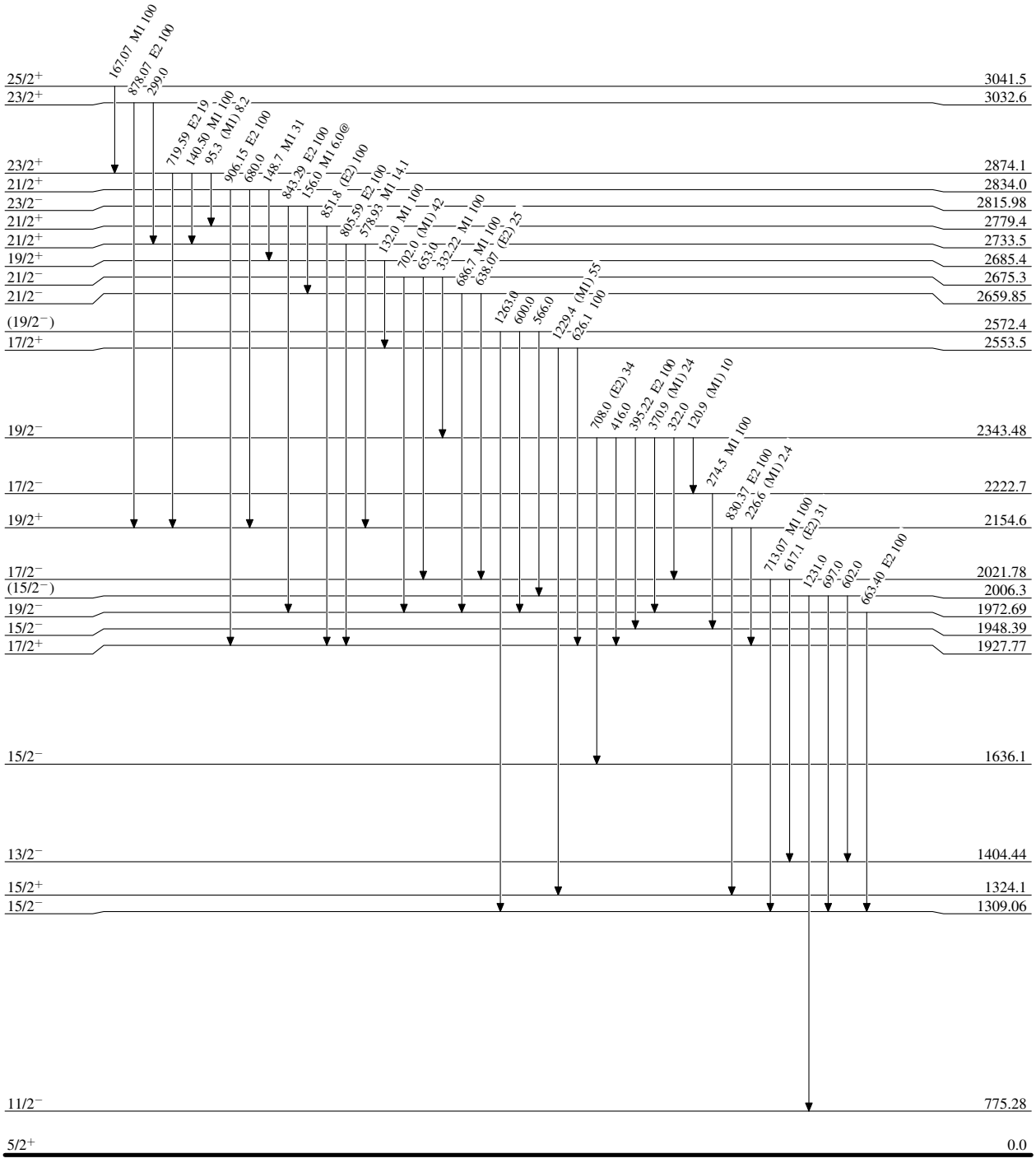
Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



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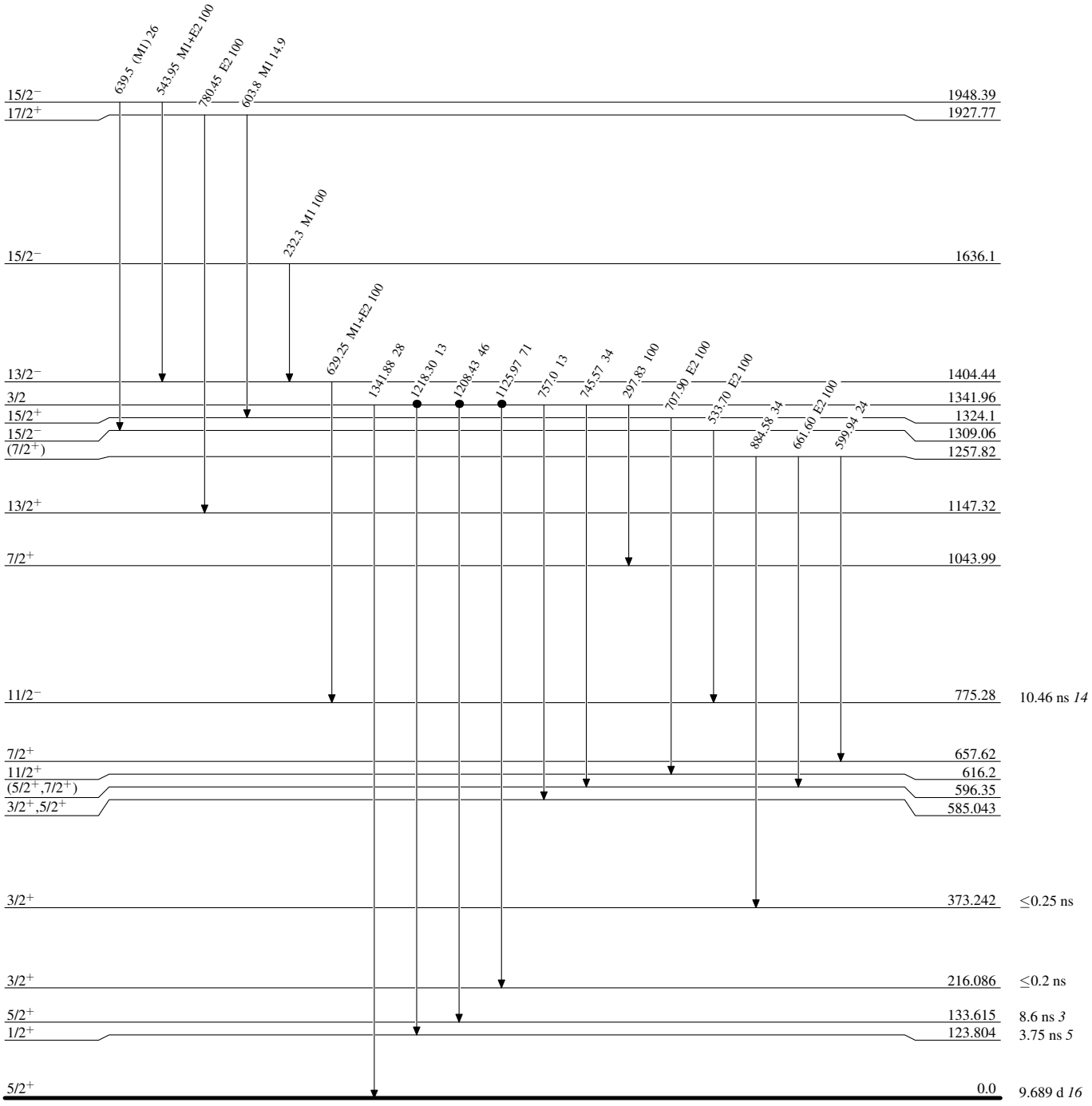
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

● Coincidence



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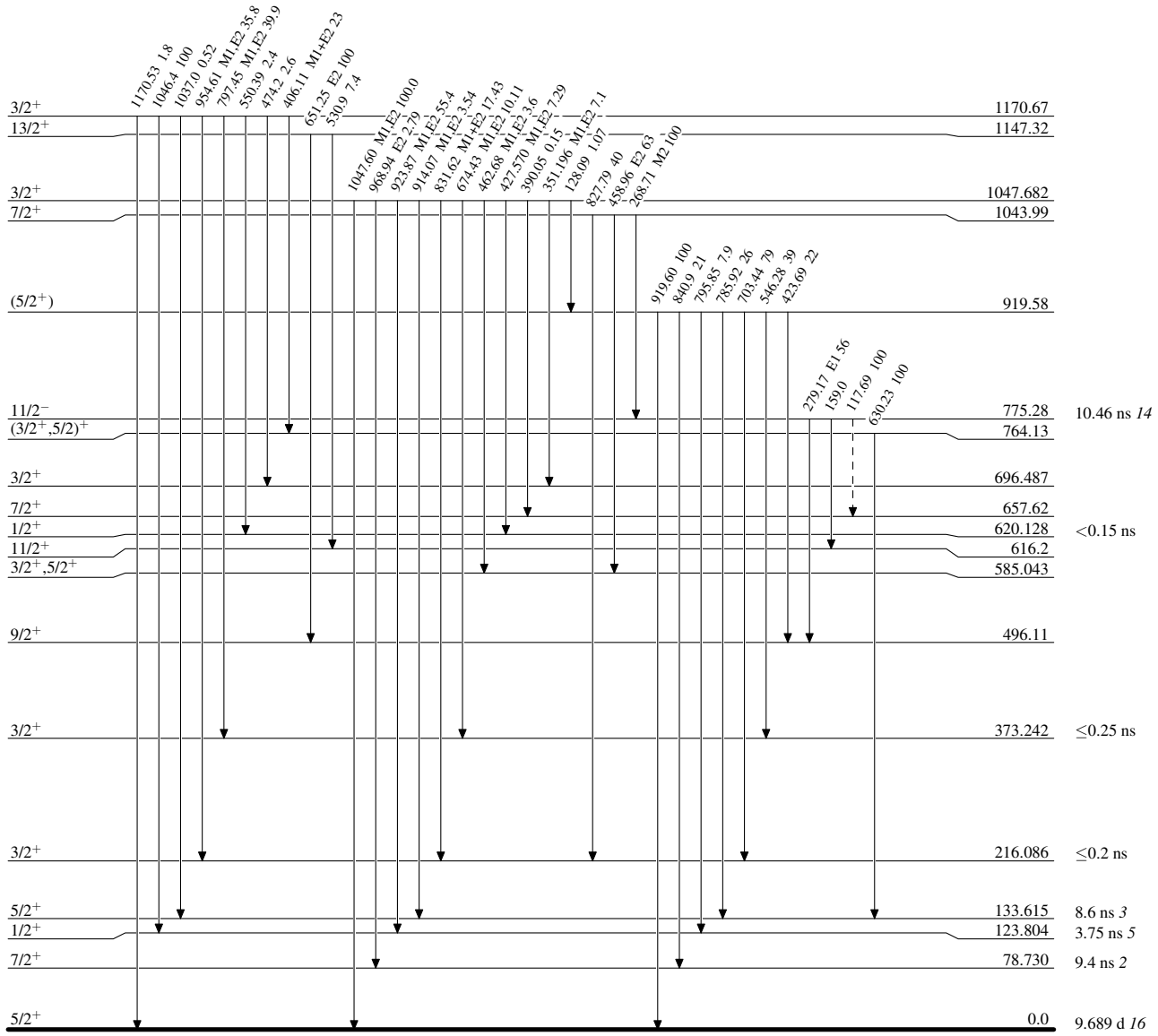
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

γ Decay (Uncertain)



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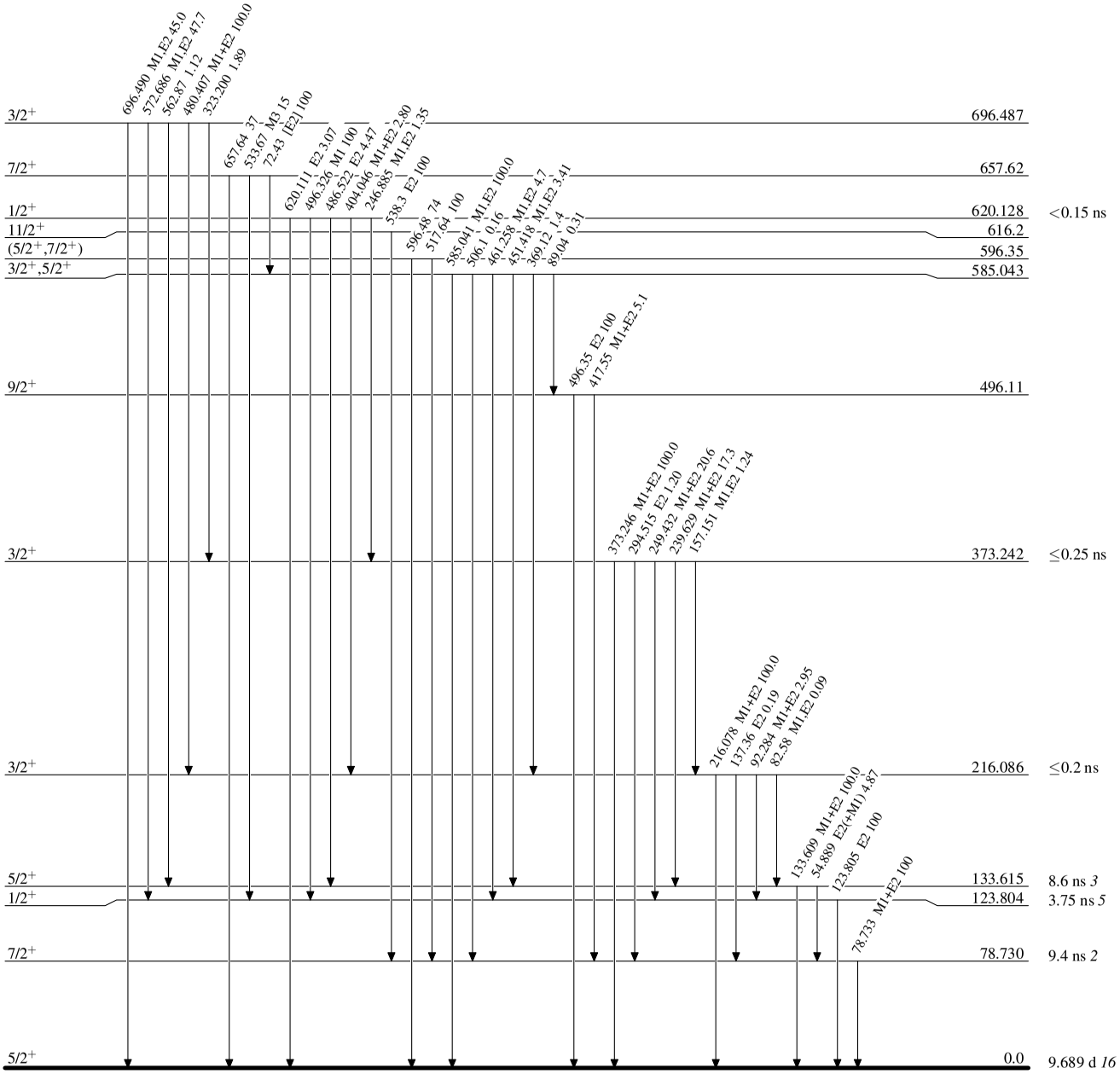
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



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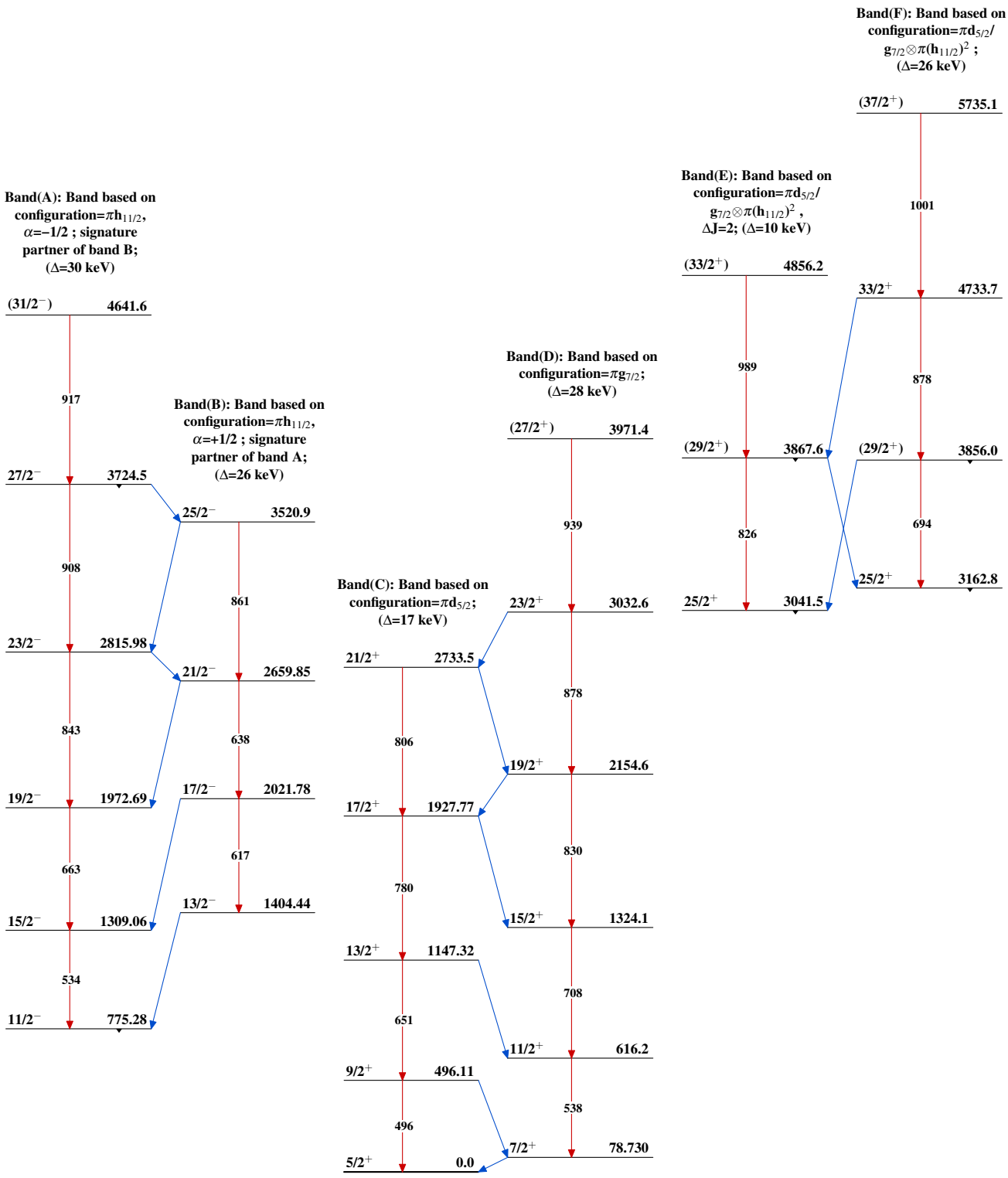
Adopted Levels, Gammas



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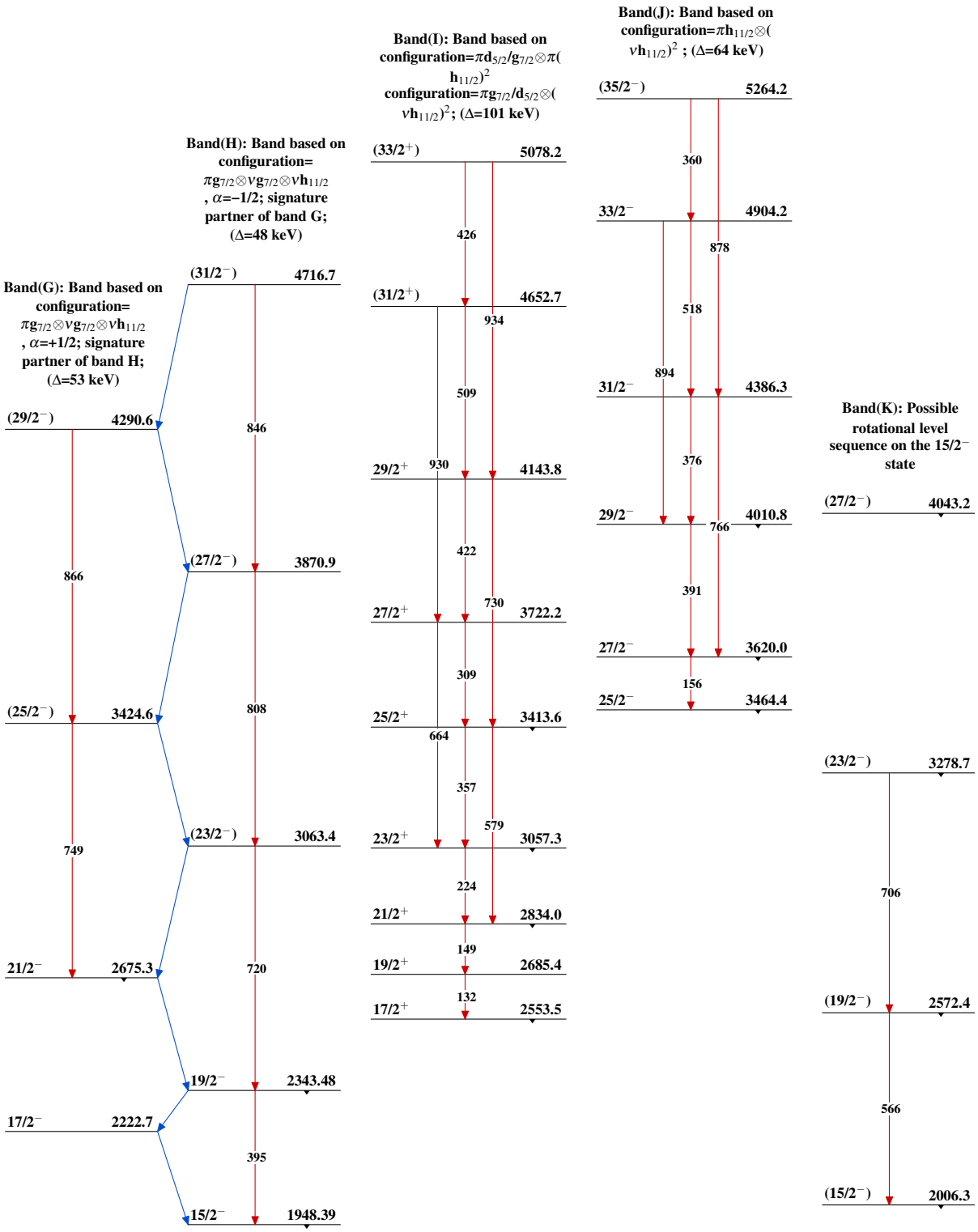
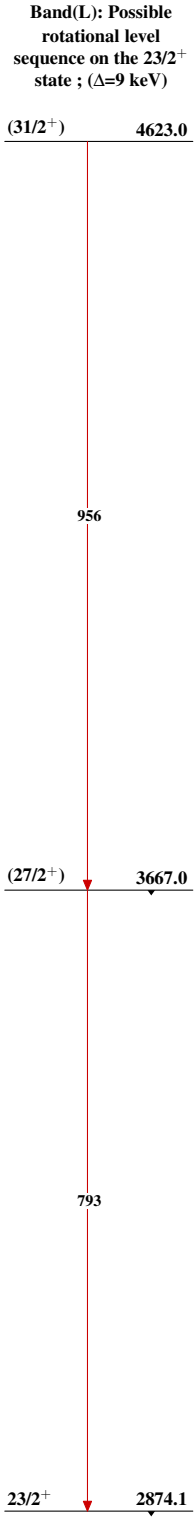
Adopted Levels, Gammas (continued)



Adopted Levels, Gammas (continued)



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