Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103,1 (2004)	31-Jul-2004

Q(β^-)=−3.9×10^2 *3*; S(n)=7.80×10^3 *4*; S(p)=4954 *20*; Q(α)=−744 *22* 2012Wa38

Note: Current evaluation has used the following Q record −3.8E+2 3 *7.80E3 3 4954* 20 −743 22 2003Au03.

The levels for ^{134}La can be grouped in 2 distinct categories, those with a known energy value and those for which only the relative energy is known. The ^{134}Ce ε decay and ^{134}Ce IT decay datasets deal with the first group; the ^{133}Cs(α,3nγ) and ^{124}Sn(^{15}N,5nγ) datasets with the second group; while ^{133}Cs(α,3nγ),^{136}Ba(p,3nγ) dataset with both. The Adopted Levels properties for levels with unknown absolute energy are based on the ^{124}Sn(^{15}N,5nγ) dataset.

^{134}La Levels

Cross Reference (XREF) Flags

A	^{134}Ce ε decay	D	^{133}Cs(α,3nγ)
B	^{134}La IT decay (29 μs)	E	^{124}Sn(^{15}N,5nγ)
C	^{133}Cs(α,3nγ),^{136}Ba(p,3nγ)		

E(level)	J$^\pi$†	$T_{1/2}$	XREF	Comments
0.0	1$^+$	6.45 min *16*	ABC	%ε+%β^+=100 J$^\pi$: log *ft*=5.3 from 0$^+$. $T_{1/2}$: from 1976Ge10, where systematic measurements and comparisons of $T_{1/2}$ values were performed. Others: 6.50 min *25* (1951St03), 6.80 min *20* (1959Gi49), 6.67 min *2* (1968Ab02), 6.82 min *8* (1968Ju02).
31.897 *16*	(2)$^+$‡		A C	
54.601 *14*	(2)$^+$‡		A	
93.690 *17*	(2,3)$^+$		A	J$^\pi$: M1+E2 γ to (2)$^+$, no measurable ε+β^+ decay from 0$^+$.
122.86 *14*			BC	
136.32 *4*	(2,3)$^+$		A	J$^\pi$: M1+E2 γ to (2)$^+$, no measurable ε+β^+ decay from 0$^+$.
162.313 *9*	1$^+$		A	J$^\pi$: log *ft*=7.4 from 0$^+$, M1+E2 γ to 1$^+$.
164.28 *14*			BC	
187.009 *11*	(2)$^+$‡		ABC	
205.28 *4*	(2)$^+$‡		A C	
220.27 *14*			BC	
252.480 *14*	(1)$^+$		A	J$^\pi$: log *ft*≈8.1 from 0$^+$, M1,E2 γ to 1$^+$.
274.72 *14*			BC	
294.264 *12*	(1)$^+$		A	J$^\pi$: log *ft*≈8 from 0$^+$, M1,E2 γ to 1$^+$.
329.3 *6*			BC	
336.44 *17*			BC	
336.44+x		29 μs *4*	BC	%IT=100 Additional information 1. E(level): decays to 336.4 and 329.3 levels by two low-energy, unobserved transitions. $T_{1/2}$: from 1985Mo01.
355.479 *12*	(1)$^+$		A	J$^\pi$: log *ft*≤7.7 from 0$^+$, M1,E2 γ to 1$^+$.
381.7 *6*			C	
382.8 *5*	(3$^+$)		C	J$^\pi$: (M1+E2) γ to (2)$^+$.
467.1 *7*			C	
483.9 *5*	(3$^+$)		C	J$^\pi$: (M1+E2) γ to (2)$^+$.
490.3 *5*			C	
543.9 *5*	(4$^+$)		C	J$^\pi$: (M1+E2) γ to (3$^+$).
570.4 *5*			C	
574.8 *8*			C	
591.48 *21*			C	

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Adopted Levels, Gammas (continued)

^{134}La Levels (continued)

E(level)	J^{π}[†]	XREF	Comments
648.0 *5*	(4^+)	C	J^{π}: (M1+E2) γ to (3^+).
659.7 *7*		C	
715.2 *7*		C	
727.1 *6*		C	
746.4 *3*		C	
762.8 *7*		C	
852.8 *7*		C	
899.8 *6*		C	
919.7 *8*		C	
0.0+y	(6^-)	CDE	Additional information 2.
53.34+y *3*	(7^-)	CDE	
211.47+y[&] *4*	(8^-)	CDE	
240.81+y *4*	(8^-)	CDE	
518.60+y[a] *5*	(9^-)	DE	
668.39+y *5*	(9^+)	CDE	
813.22+y[#] *5*	(10^+)	CDE	
925.62+y *5*	(10^-)	CDE	
953.8+y *3*		DE	
976.17+y[&] *5*	(10^-)	CDE	
1194.64+y[@] *5*	(11^+)	CDE	
1199.38+y[b] *5*	(10^-)	DE	
1233.79+y[a] *5*	(11^-)	CDE	
1411.92+y[g] *5*	(11^+)	CDE	
1532.69+y[#] *5*	(12^+)	CDE	
1574.85+y *10*	(11^+)	DE	
1710.03+y[g] *5*	(12^+)	CDE	
1796.66+y[b] *6*	(11^-)	DE	
1798.11+y *7*	(12^+)	DE	
1812.59+y *7*	(12^-)	DE	
1886.32+y[&] *6*	(12^-)	DE	
1969.00+y[@] *6*	(13^+)	CDE	
2050.76+y[g] *7*	(13^+)	DE	
2132.75+y[a] *10*	(13^-)	CDE	
2168.24+y[e] *6*	(14^+)	DE	
2198.22+y[c] *5*	(12^-)	DE	
2238.82+y[b] *5*	(12^-)	DE	
2368.98+y[d] *5*	(13^-)	DE	
2403.68+y[#] *6*	(14^+)	DE	
2417.92+y[g] *10*	(14^+)	E	
2596.36+y *9*		DE	
2598.11+y[c] *6*	(14^-)	DE	
2640.40+y *8*	(14^+)	DE	
2690.33+y[&] *11*	(14^-)	E	
2779.35+y[f] *7*	(15^+)	DE	
2832.39+y *17*		E	
2849.40+y[@] *6*	(15^+)	DE	
2874.44+y[d] *7*	(15^-)	DE	
3138.97+y[b] *13*		E	
3168.34+y[e] *7*	(16^+)	E	
3279.49+y *10*	(16^+)	E	

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Adopted Levels, Gammas (continued)

^{134}La Levels (continued)

E(level)	Jπ†	XREF	E(level)	Jπ†	XREF	E(level)	Jπ†	XREF
3280.96+y[c] *8*	(16⁻)	DE	4120.35+y[#] *7*	(18⁺)	E	5110.97+y[c] *10*	(20⁻)	E
3284.15+y[#] *6*	(16⁺)	DE	4133.91+y[e] *8*	(18⁺)	E	5144.04+y *16*		E
3351.71+y *10*		E	4306.99+y[c] *8*	(18⁻)	E	5461.72+y *16*		E
3529.09+y *14*		E	4314.83+y *9*	(18)	E	5605.84+y[d] *10*	(21⁻)	E
3775.04+y[@] *7*	(17⁺)	DE	4356.61+y *9*	(18⁺)	E	5713.87+y[@] *9*	(21⁺)	E
3786.41+y *8*	(17⁺)	E	4434.10+y *11*		E	6136.56+y[#] *8*	(22⁺)	E
3789.51+y[d] *8*	(17⁻)	E	4698.20+y[@] *8*	(19⁺)	E	6178.73+y[c] *11*	(22⁻)	E
3824.85+y *7*	(17⁺)	E	4729.69+y[d] *9*	(19⁻)	E	6741.00+y[@] *10*	(23⁺)	E
3831.03+y[f] *7*	(17⁺)	E	4814.88+y[f] *8*	(19⁺)	E	6806.25+y[d] *12*	(23⁻)	E
3884.13+y *9*	(17⁻)	E	4839.04+y *11*		E	7178.96+y[#] *13*	(24⁺)	E
3918.19+y *14*		E	4866.94+y *12*	(19⁺)	E			
4025.70+y *9*	(17⁻)	E	5078.85+y[#] *7*	(20⁺)	E			

† The high-spin assignments follow ^{124}Sn(^{15}N,5nγ) (2001Ba75), where it is assumed that the 668+y level has a J^{π} value of 9^+, and the remaining values are deduced from γ multipolarities and band properties.

‡ M1+E2 γ to 1^+, no measurable $\varepsilon+\beta^+$ decay from 0^+.

[#] Band(A): $\pi h_{11/2}\nu h_{11/2}$, α=0.

[@] Band(a): $\pi h_{11/2}\nu h_{11/2}$, α=1.

[&] Band(B): band based on 8^-, α=0.

[a] Band(b): band based on 8^-, α=1.

[b] Band(C): band based on 10^-.

[c] Band(D): $\pi h_{11/2}\nu g(_{7/2}h^2_{11/2})$, α=0.

[d] Band(d): $\pi h_{11/2}\nu(g_{7/2}h^2_{11/2})$, α=1.

[e] Band(E): $\pi g_{7/2}\nu(g_{7/2}h^2_{11/2})$, α=0.

[f] Band(e): $\pi g_{7/2}\nu(g_{7/2}h^2_{11/2})$, α=1.

[g] Band(F): Chiral doublet partner of $\pi h_{11/2}\nu h_{11/2}$.

Adopted Levels, Gammas (continued)

γ(^{134}La)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	$\alpha^{\ddagger}$	Comments
31.897	$(2)^+$	31.89 *10*	100	0.0	1^+	M1+E2	0.17 *3*		
54.601	$(2)^+$	22.70 *10*	27 *5*	31.897	$(2)^+$	M1+E2	0.124 *17*		
		54.65 *6*	100 *14*	0.0	1^+	M1+E2		12 *7*	α(K)=5.6 *2*; α(L)=5 *5*; α(M)=1.2 *11*; α(N+..)=0.3 *3*
93.690	$(2,3)^+$	39.08 *9*	100 *21*	54.601	$(2)^+$	M1+E2	0.14 *5*		
		61.88 *14*	11 *4*	31.897	$(2)^+$	M1+E2		8 *4*	α(K)=4.1 *4*; α(L)=3 *3*; α(M)=0.7 *6*; α(N+..)=0.17 *15*
		93.47 *16*	6.6 *18*	0.0	1^+	[M1,E2]		1.9 *7*	α(K)=1.32 *18*; α(L)=0.5 *4*; α(M)=0.11 *8*; α(N+..)=0.028 *20*
122.86		122.9 *2*	100	0.0	1^+				
136.32	$(2,3)^+$	104.53 *8*	100	31.897	$(2)^+$	M1,E2		1.3 *4*	α(K)=0.95 *13*; α(L)=0.31 *20*; α(M)=0.07 *5*; α(N+..)=0.018 *12*
162.313	1^+	68.55 *16*	0.33 *11*	93.690	$(2,3)^+$	[M1,E2]		5.6 *24*	α(K)=3.1 *4*; α(L)=1.9 *16*; α(M)=0.4 *4*; α(N+..)=0.11 *9*
		130.414 *15*	91 *7*	31.897	$(2)^+$	M1+E2	0.04 *+8−4*	0.517 *4*	α(K)=0.441 *1*; α(L)=0.0597 *17*; α(M)=0.0123 *4*; α(N+..)=0.00341 *10*
		162.306 *10*	100 *7*	0.0	1^+	M1+E2	0.60 *4*	0.303 *2*	α(K)=0.247 *1*; α(L)=0.0438 *12*; α(M)=0.0092 *3*; α(N+..)=0.00251 *7*
164.28		41.4		122.86					
		164.3 *2*	100 *20*	0.0	1^+				
187.009	$(2)^+$	187.013 *12*	100	0.0	1^+	M1,E2		0.208 *18*	α(K)=0.167 *4*; α(L)=0.032 *11*; α(M)=0.0068 *24*; α(N+..)=0.0018 *6*
205.28	$(2)^+$	173.38	11.905	31.897	$(2)^+$	M1+E2		0.26 *3*	α(K)=0.209 *9*; α(L)=0.042 *16*; α(M)=0.009 *4*; α(N+..)=0.0024 *9*
		205.27 *6*	100 *12*	0.0	1^+	M1+E2		0.156 *9*	α(K)=0.126; α(L)=0.023 *7*; α(M)=0.0049 *15*; α(N+..)=0.0013 *4*
220.27		56.0 *5*	7×10^1 *4*	164.28					
		97.4 *2*	10×10^1 *3*	122.86		(M1+E2)		1.7 *6*	α(K)=1.17 *16*; α(L)=0.4 *3*; α(M)=0.09 *7*; α(N+..)=0.024 *16*
		220.2 *2*	10×10^1 *3*	0.0	1^+				
252.480	$(1)^+$	90.18 *6*	14.1 *13*	162.313	1^+	M1,E2		2.2 *8*	α(K)=1.46 *21*; α(L)=0.6 *4*; α(M)=0.12 *9*; α(N+..)=0.033 *24*
		116.19 *4*	6.9 *7*	136.32	$(2,3)^+$	M1,E2		0.95 *24*	α(K)=0.69 *9*; α(L)=0.20 *12*; α(M)=0.04 *3*; α(N+..)=0.011 *7*
		158.785 *10*	100 *7*	93.690	$(2,3)^+$	M1,E2		0.35 *5*	α(K)=0.271 *17*; α(L)=0.059 *25*; α(M)=0.013 *6*; α(N+..)=0.0034 *15*
		197.891 *25*	35 *3*	54.601	$(2)^+$	M1,E2		0.174 *12*	α(K)=0.141 *1*; α(L)=0.026 *8*; α(M)=0.0056 *18*; α(N+..)=0.0015 *5*
		220.56 *5*	11.8 *15*	31.897	$(2)^+$	M1,E2		0.125 *4*	α(K)=0.102 *2*; α(L)=0.018 *5*; α(M)=0.0038 *10*; α(N+..)=0.00103 *25*
		252.54 *7*	9.5 *13*	0.0	1^+	[M1,E2]		0.083 *1*	α(K)=0.069 *4*; α(L)=0.0115 *19*; α(M)=0.0024 *5*; α(N+..)=0.00065 *11*
274.72		110.4 *2*	15 *5*	164.28					
		151.9 *2*	21 *4*	122.86					

$^{134}_{57}La_{77}$-4

Adopted Levels, Gammas (continued)

γ(^{134}La) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α‡	Comments
274.72		274.7 *2*	100 *10*	0.0	1^+			
294.264	$(1)^+$	107.34 *4*	11.3 *7*	187.009	$(2)^+$	M1+E2	1.2 *4*	α(K)=0.88 *12*; α(L)=0.27 *18*; α(M)=0.06 *4*; α(N+..)=0.016 *10*
		131.93 *5*	32 *3*	162.313	1^+	M1,E2	0.63 *13*	α(K)=0.47 *5*; α(L)=0.12 *7*; α(M)=0.026 *14*; α(N+..)=0.007 *4*
		200.60 *8*	3.0 *4*	93.690	$(2,3)^+$	[M1,E2]	0.167 *10*	α(K)=0.135 *1*; α(L)=0.025 *8*; α(M)=0.0053 *17*; α(N+..)=0.0014 *5*
		239.65 *2*	24.3 *19*	54.601	$(2)^+$	M1,E2	0.097	α(K)=0.080 *3*; α(L)=0.014 *3*; α(M)=0.0029 *6*; α(N+..)=0.00078 *15*
		262.26 *10*	6.3 *9*	31.897	$(2)^+$	[M1,E2]	0.074 *2*	α(K)=0.062 *4*; α(L)=0.0102 *15*; α(M)=0.0021 *4*; α(N+..)=0.00058 *9*
		294.264 *15*	100 *7*	0.0	1^+	M1,E2	0.053 *3*	α(K)=0.044 *4*; α(L)=0.0070 *7*; α(M)=0.00147 *15*; α(N+..)=0.00040 *4*
329.3		54.6 *5*	100	274.72				
336.44		61.7 *5*	22 *11*	274.72				
		116.1 *2*	100 *21*	220.27				
		149.6 *5*	11 *5*	187.009	$(2)^+$			
		172.2 *2*	25 *8*	164.28				
355.479	$(1)^+$	61.30 *10*	2.3 *7*	294.264	$(1)^+$	(M1+E2)	8 *4*	α(K)=4.2 *4*; α(L)=3 *3*; α(M)=0.7 *6*; α(N+..)=0.18 *16*
		102.998 *10*	29 *3*	252.480	$(1)^+$	(M1+E2)	1.4 *4*	α(K)=0.99 *13*; α(L)=0.33 *21*; α(M)=0.07 *5*; α(N+..)=0.019 *13*
		150.20 *4*	4.3 *5*	205.28	$(2)^+$	M1,E2	0.41 *7*	α(K)=0.32 *2*; α(L)=0.07 *4*; α(M)=0.016 *8*; α(N+..)=0.0042 *19*
		168.453 *25*	13.9 *10*	187.009	$(2)^+$	M1,E2	0.29 *4*	α(K)=0.227 *11*; α(L)=0.047 *19*; α(M)=0.010 *4*; α(N+..)=0.0027 *11*
		193.157 *12*	46 *3*	162.313	1^+	M1,E2	0.188 *14*	α(K)=0.151 *2*; α(L)=0.029 *9*; α(M)=0.0061 *20*; α(N+..)=0.0016 *5*
		262.26 *10*	≤3.864	93.690	$(2,3)^+$			
		300.884 *15*	100 *8*	54.601	$(2)^+$	M1,E2	0.050 *4*	α(K)=0.042 *4*; α(L)=0.0065 *6*; α(M)=0.00137 *13*; α(N+..)=0.00037 *3*
		323.59 *5*	17.7 *18*	31.897	$(2)^+$	M1,E2	0.041 *4*	α(K)=0.034 *4*; α(L)=0.0052 *3*; α(M)=0.00109 *7*; α(N+..)=0.00030 *1*
		355.54 *5*	10.0 *10*	0.0	1^+	M1,E2	0.031 *4*	α(K)=0.026 *4*; α(L)=0.00391 *5*; α(M)=0.00082 *2*; α(N+..)=0.00022
381.7		258.8 *5*	100	122.86				
382.8	(3^+)	177.6 *5*	100	205.28	$(2)^+$	(M1+E2)	0.24 *3*	α(K)=0.194 *7*; α(L)=0.039 *14*; α(M)=0.008 *3*; α(N+..)=0.0022 *8*
467.1		84.3 *5*	100	382.8	(3^+)			
483.9	(3^+)	278.6 *5*	100	205.28	$(2)^+$	(M1+E2)	0.062 *3*	α(K)=0.052 *4*; α(L)=0.0083 *10*; α(M)=0.00175 *23*; α(N+..)=0.00047 *6*
490.3		107.5 *2*	100	382.8	(3^+)			
543.9	(4^+)	161.1 *2*	100	382.8	(3^+)	(M1+E2)	0.33 *5*	α(K)=0.260 *15*; α(L)=0.056 *23*; α(M)=0.012 *5*; α(N+..)=0.0032 *14*
570.4		86.4 *5*	7×10^1 *3*	483.9	(3^+)			
		187.6 *5*	10×10^1 *5*	382.8	(3^+)			
574.8		245.5 *5*	100	329.3		(M1+E2)	0.091	α(K)=0.075 *4*; α(L)=0.0126 *23*; α(M)=0.0027 *6*; α(N+..)=0.00072 *13*
591.48		386.2 *2*	100	205.28	$(2)^+$			
648.0	(4^+)	265.2 *2*	100	382.8	(3^+)	(M1+E2)	0.072 *2*	α(K)=0.060 *4*; α(L)=0.0098 *14*; α(M)=0.0021 *4*; α(N+..)=0.00056 *8*
659.7		115.8 *5*	100	543.9	(4^+)			
715.2		332.4 *5*	100	382.8	(3^+)			
727.1		183.2 *2*	100	543.9	(4^+)	(E2)	0.241	α(K)=0.182 *6*; α(L)=0.0466 *14*; α(M)=0.0100 *3*; α(N+..)=0.00266 *8*
746.4		410.0 *2*	100	336.44		(E2)	0.0181	α(K)=0.0150 *5*; α(L)=0.00247 *8*; α(M)=0.00052 *2*; α(N+..)=0.00014 *1*

$^{134}_{57}La_{77}$-5

Adopted Levels, Gammas (continued)

γ(^{134}La) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α‡	Comments
762.8		380.0 *5*	100	382.8	(3$^+$)			
852.8		282.4 *5*	100	570.4				
899.8		625.1 *5*	100	274.72				
919.7		260.0 *2*	100	659.7				
53.34+y	(7$^-$)	53.35 *3*	100	0.0+y	(6$^-$)	M1+E2†	14 *7*	α(K)=5.89 *12*; α(L)=6 *6*; α(M)=1.3 *12*; α(N+..)=0.3 *3*
211.47+y	(8$^-$)	158.10 *3*	100	53.34+y	(7$^-$)	M1(+E2)	0.35 *5*	α(K)=0.275 *18*; α(L)=0.06 *3*; α(M)=0.013 *6*; α(N+..)=0.0034 *15*
240.81+y	(8$^-$)	187.51 *3*	100	53.34+y	(7$^-$)	M1(+E2)	0.206 *17*	α(K)=0.165 *4*; α(L)=0.032 *11*; α(M)=0.0068 *24*; α(N+..)=0.0018 *6*
518.60+y	(9$^-$)	278.02 *5*	9.5 *4*	240.81+y	(8$^-$)			
		307.10 *3*	100 *3*	211.47+y	(8$^-$)			
668.39+y	(9$^+$)	149.65 *4*	5.34 *17*	518.60+y	(9$^-$)			
		427.49 *3*	100 *3*	240.81+y	(8$^-$)			
		456.92 *3*	42.8 *14*	211.47+y	(8$^-$)			
813.22+y	(10$^+$)	144.67 *3*	100	668.39+y	(9$^+$)	(M1+E2)†	0.47 *8*	α(K)=0.36 *3*; α(L)=0.08 *4*; α(M)=0.018 *9*; α(N+..)=0.0048 *23*
925.62+y	(10$^-$)	684.85 *4*	100	240.81+y	(8$^-$)	(E2)†	0.00460	α(K)=0.00387 *12*; α(L)=0.00055 *2*
953.8+y		742.3 *3*	100	211.47+y	(8$^-$)			
976.17+y	(10$^-$)	457.54 *5*	60 *3*	518.60+y	(9$^-$)			
		735.52 *12*	16.6 *11*	240.81+y	(8$^-$)			
		764.71 *4*	100 *4*	211.47+y	(8$^-$)	(E2)†	0.00353	α(K)=0.00298 *9*; α(L)=0.00041 *1*
1194.64+y	(11$^+$)	381.28 *3*	100	813.22+y	(10$^+$)	(M1+E2)†	0.026 *4*	α(K)=0.022 *3*; α(L)=0.00317 *5*; α(M)=0.00066; α(N+..)=0.00018
1199.38+y	(10$^-$)	680.76 *4*	100	518.60+y	(9$^-$)			
1233.79+y	(11$^-$)	257.57 *3*	44.8 *14*	976.17+y	(10$^-$)	(M1+E2)†	0.079 *2*	α(K)=0.065 *4*; α(L)=0.0108 *17*; α(M)=0.0023 *4*; α(N+..)=0.00061 *10*
		715.35 *3*	100 *3*	518.60+y	(9$^-$)	(E2)†	0.00413	α(K)=0.00348 *11*; α(L)=0.00049 *2*
1411.92+y	(11$^+$)	598.67 *4*	100 *4*	813.22+y	(10$^+$)			
		743.49 *6*	64 *3*	668.39+y	(9$^+$)			
1532.69+y	(12$^+$)	120.69 *3*	15.2 *5*	1411.92+y	(11$^+$)			
		338.07 *3*	100 *3*	1194.64+y	(11$^+$)	(M1+E2)†	0.036 *4*	α(K)=0.030 *4*; α(L)=0.00455 *15*; α(M)=0.00095 *4*; α(N+..)=0.00026 *1*
		719.46 *3*	97 *3*	813.22+y	(10$^+$)	(E2)†	0.00408	α(K)=0.00344 *11*; α(L)=0.00048 *2*
1574.85+y	(11$^+$)	761.66 *10*	100	813.22+y	(10$^+$)			
1710.03+y	(12$^+$)	298.19 *4*	17.6 *6*	1411.92+y	(11$^+$)			
		476.29 *4*	33.9 *11*	1233.79+y	(11$^-$)			
		515.40 *3*	100 *3*	1194.64+y	(11$^+$)			
1796.66+y	(11$^-$)	597.42 *5*	100	1199.38+y	(10$^-$)			
1798.11+y	(12$^+$)	603.47 *5*	100	1194.64+y	(11$^+$)			
1812.59+y	(12$^-$)	887.24 *6*	100	925.62+y	(10$^-$)			
1886.32+y	(12$^-$)	652.26 *6*	100 *5*	1233.79+y	(11$^-$)			
		910.30 *8*	76 *5*	976.17+y	(10$^-$)			
1969.00+y	(13$^+$)	436.33 *3*	100 *3*	1532.69+y	(12$^+$)	(M1+E2)†	0.018 *3*	α(K)=0.0150 *25*; α(L)=0.00215 *13*; α(M)=0.00045 *2*; α(N+..)=0.00012 *1*
		774.38 *6*	18.5 *7*	1194.64+y	(11$^+$)			
2050.76+y	(13$^+$)	340.85 *5*	100 *5*	1710.03+y	(12$^+$)			

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Adopted Levels, Gammas (continued)

γ(^{134}La) (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
2050.76+y	(13$^+$)	475.99 *15*	29 *3*	1574.85+y	(11$^+$)	3775.04+y	(17$^+$)	925.78 *10*	39.6 *24*	2849.40+y	(15$^+$)
		855.71 *9*	60 *4*	1194.64+y	(11$^+$)	3786.41+y	(17$^+$)	502.25 *4*	100	3284.15+y	(16$^+$)
2132.75+y	(13$^-$)	246.78 *19*	15 *3*	1886.32+y	(12$^-$)	3789.51+y	(17$^-$)	508.57 *3*	100 *3*	3280.96+y	(16$^-$)
		898.85 *10*	100 *7*	1233.79+y	(11$^-$)			914.61 *18*	4.8 *6*	2874.44+y	(15$^-$)
2168.24+y	(14$^+$)	458.27 *3*	100	1710.03+y	(12$^+$)	3824.85+y	(17$^+$)	656.34 *6*	100 *5*	3168.34+y	(16$^+$)
2198.22+y	(12$^-$)	964.43 *3*	100 *4*	1233.79+y	(11$^-$)			1046.25 *9*	80 *5*	2779.35+y	(15$^+$)
		998.76 *6*	33.8 *15*	1199.38+y	(10$^-$)	3831.03+y	(17$^+$)	662.55 *6*	100 *4*	3168.34+y	(16$^+$)
		1002.06 *17*	11.0 *7*	1194.64+y	(11$^+$)			1051.77 *9*	48 *3*	2779.35+y	(15$^+$)
		1222.41 *11*	12.5 *7*	976.17+y	(10$^-$)	3884.13+y	(17$^-$)	603.17 *5*	100	3280.96+y	(16$^-$)
		1272.27 *12*	10.7 *7*	925.62+y	(10$^-$)	3918.19+y		637.22 *12*	100	3280.96+y	(16$^-$)
2238.82+y	(12$^-$)	352.40 *4*	43.2 *19*	1886.32+y	(12$^-$)	4025.70+y	(17$^-$)	744.66 *6*	100 *4*	3280.96+y	(16$^-$)
		442.31 *5*	35.7 *14*	1796.66+y	(11$^-$)			1151.55 *12*	38 *3*	2874.44+y	(15$^-$)
		1005.27 *4*	100 *4*	1233.79+y	(11$^-$)	4120.35+y	(18$^+$)	289.25 *4*	51.2 *20*	3831.03+y	(17$^+$)
		1039.19 *7*	37.1 *14*	1199.38+y	(10$^-$)			295.52 *6*	25.9 *15*	3824.85+y	(17$^+$)
		1043.09 *10*	24.9 *14*	1194.64+y	(11$^+$)			345.47 *8*	16.4 *10*	3775.04+y	(17$^+$)
		1263.07 *16*	12.2 *9*	976.17+y	(10$^-$)			836.21 *4*	100 *3*	3284.15+y	(16$^+$)
		1312.99 *10*	18.8 *9*	925.62+y	(10$^-$)			841.43 *13*	19.4 *15*	3279.49+y	(16$^+$)
2368.98+y	(13$^-$)	130.14 *3*	81 *3*	2238.82+y	(12$^-$)	4133.91+y	(18$^+$)	965.59 *4*	100	3168.34+y	(16$^+$)
		170.70 *3*	100 *3*	2198.22+y	(12$^-$)	4306.99+y	(18$^-$)	517.49 *3*	100 *3*	3789.51+y	(17$^-$)
		556.75 *7*	14.9 *5*	1812.59+y	(12$^-$)			1025.96 *8*	18.2 *10*	3280.96+y	(16$^-$)
2403.68+y	(14$^+$)	434.45 *4*	80 *3*	1969.00+y	(13$^+$)	4314.83+y	(18)	539.79 *5*	100	3775.04+y	(17$^+$)
		870.84 *4*	100 *3*	1532.69+y	(12$^+$)	4356.61+y	(18$^+$)	570.20 *5*	100	3786.41+y	(17$^+$)
2417.92+y	(14$^+$)	707.89 *8*	100	1710.03+y	(12$^+$)	4434.10+y		644.59 *8*	100	3789.51+y	(17$^-$)
2596.36+y		545.60 *6*	100	2050.76+y	(13$^+$)	4698.20+y	(19$^+$)	577.78 *5*	100 *4*	4120.35+y	(18$^+$)
2598.11+y	(14$^-$)	229.14 *3*	100	2368.98+y	(13$^-$)			923.03 *15*	30.1 *24*	3775.04+y	(17$^+$)
2640.40+y	(14$^+$)	671.40 *5*	100	1969.00+y	(13$^+$)	4729.69+y	(19$^-$)	422.70 *3*	100	4306.99+y	(18$^-$)
2690.33+y	(14$^-$)	804.00 *9*	100	1886.32+y	(12$^-$)	4814.88+y	(19$^+$)	984.07 *10*	100 *6*	3831.03+y	(17$^+$)
2779.35+y	(15$^+$)	611.05 *4*	100	2168.24+y	(14$^+$)			990.86 *14*	72 *6*	3824.85+y	(17$^+$)
2832.39+y		1019.80 *15*	100	1812.59+y	(12$^-$)			1038.57 *12*	84 *6*	3775.04+y	(17$^+$)
2849.40+y	(15$^+$)	445.68 *3*	100 *3*	2403.68+y	(14$^+$)	4839.04+y		705.13 *8*	100	4133.91+y	(18$^+$)
		881.04 *6*	40.6 *21*	1969.00+y	(13$^+$)	4866.94+y	(19$^+$)	733.03 *9*	100	4133.91+y	(18$^+$)
2874.44+y	(15$^-$)	276.33 *3*	100	2598.11+y	(14$^-$)	5078.85+y	(20$^+$)	263.91 *5*	24.8 *14*	4814.88+y	(19$^+$)
3138.97+y		900.14 *12*	100	2238.82+y	(12$^-$)			379.77 *20*	10.1 *18*	4698.20+y	(19$^+$)
3168.34+y	(16$^+$)	388.48 *6*	15.8 *7*	2779.35+y	(15$^+$)			947.4[#] *4*	5.0 *9*	4133.91+y	(18$^+$)
		1000.21 *4*	100 *3*	2168.24+y	(14$^+$)			958.55 *4*	100 *3*	4120.35+y	(18$^+$)
3279.49+y	(16$^+$)	1111.52 *9*	100	2168.24+y	(14$^+$)	5110.97+y	(20$^-$)	381.28 *3*	100	4729.69+y	(19$^-$)
3280.96+y	(16$^-$)	406.52 *3*	100	2874.44+y	(15$^-$)	5144.04+y		1023.68 *14*	100	4120.35+y	(18$^+$)
3284.15+y	(16$^+$)	434.97 *4*	100 *5*	2849.40+y	(15$^+$)	5461.72+y		1327.81 *14*	100	4133.91+y	(18$^+$)
		879.71 *6*	45 *3*	2403.68+y	(14$^+$)	5605.84+y	(21$^-$)	494.87 *3*	100	5110.97+y	(20$^-$)
3351.71+y		948.02 *8*	100	2403.68+y	(14$^+$)	5713.87+y	(21$^+$)	635.17 *6*	100 *4*	5078.85+y	(20$^+$)
3529.09+y		1125.40 *12*	100	2403.68+y	(14$^+$)			1015.59 *9*	64 *3*	4698.20+y	(19$^+$)
3775.04+y	(17$^+$)	490.75 *4*	100 *4*	3284.15+y	(16$^+$)	6136.56+y	(22$^+$)	1057.66 *4*	100	5078.85+y	(20$^+$)

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Adopted Levels, Gammas (continued)

$\gamma(^{134}La)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
6178.73+y	(22^-)	572.89 *4*	100	5605.84+y	(21^-)
6741.00+y	(23^+)	604.35 *5*	10×10^{1} *3*	6136.56+y	(22^+)
		1028.19 *18*	45 *5*	5713.87+y	(21^+)
6806.25+y	(23^-)	627.52 *5*	100	6178.73+y	(22^-)
7178.96+y	(24^+)	1042.39 *10*	100	6136.56+y	(22^+)

† From $^{133}Cs(\alpha,3n\gamma)$,$^{136}Ba(p,3n\gamma)$.

‡ 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.

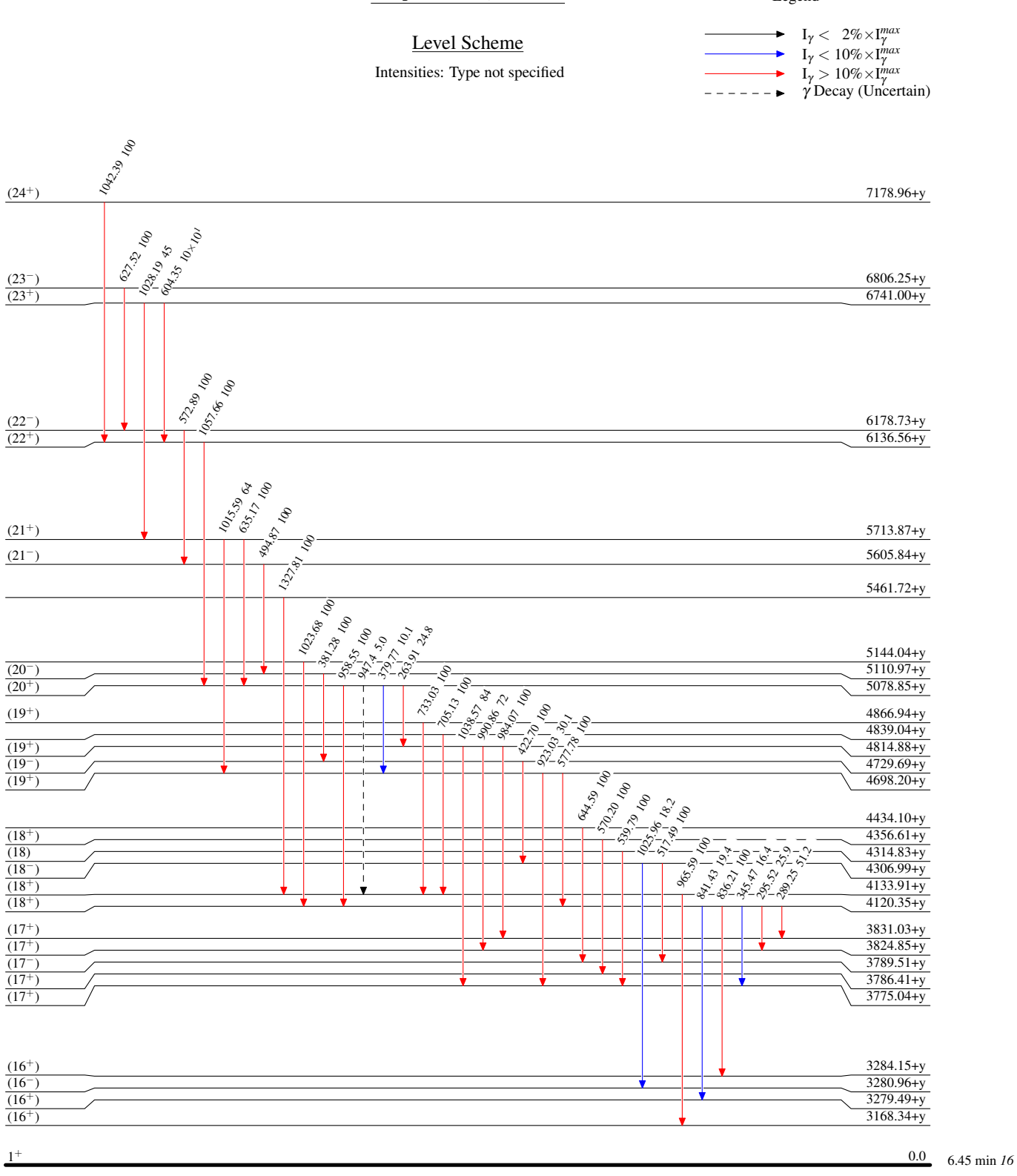
Placement of transition in the level scheme is uncertain.

$^{134}_{57}La_{77}$-8

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

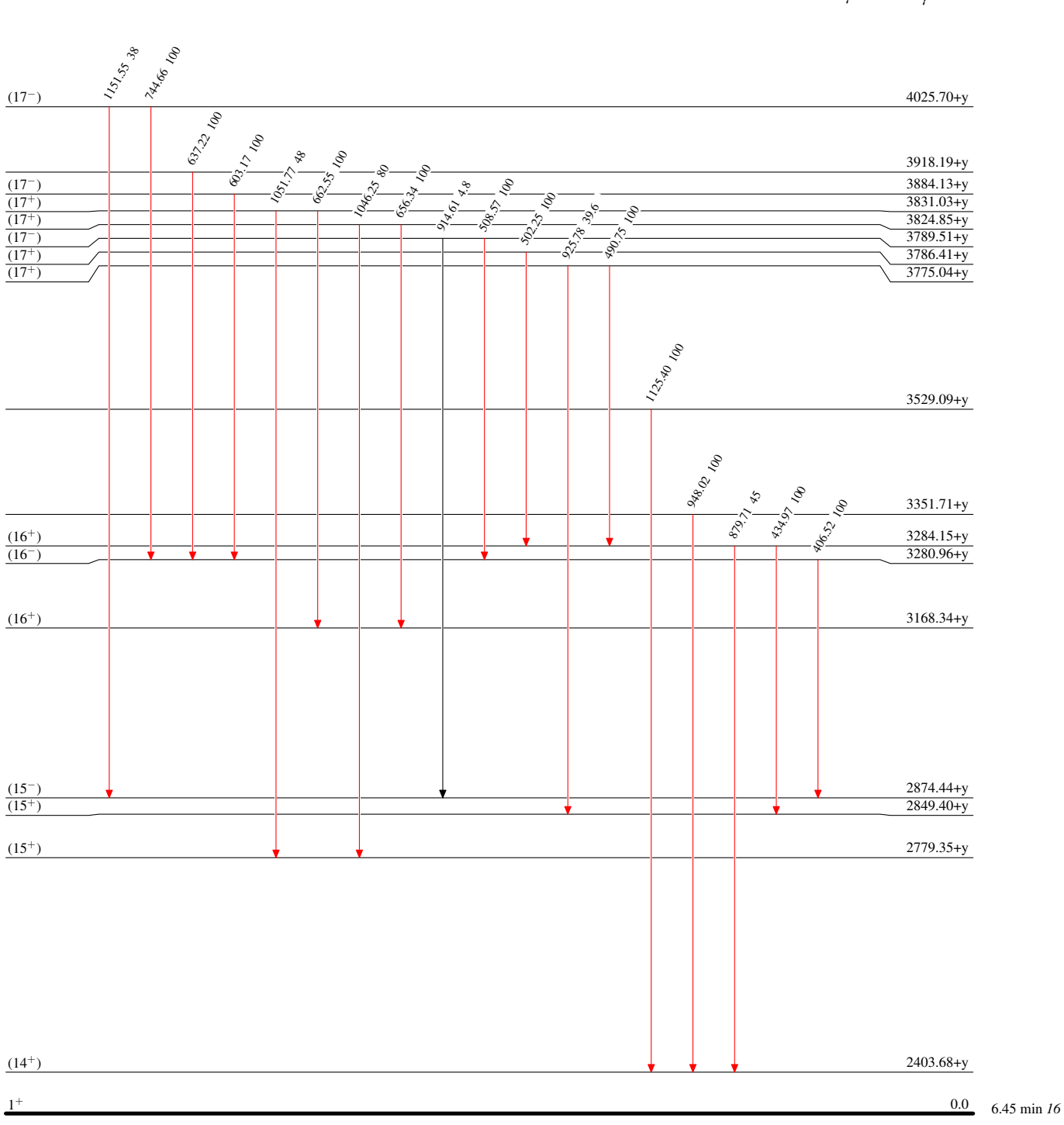


$^{134}_{57}La_{77}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

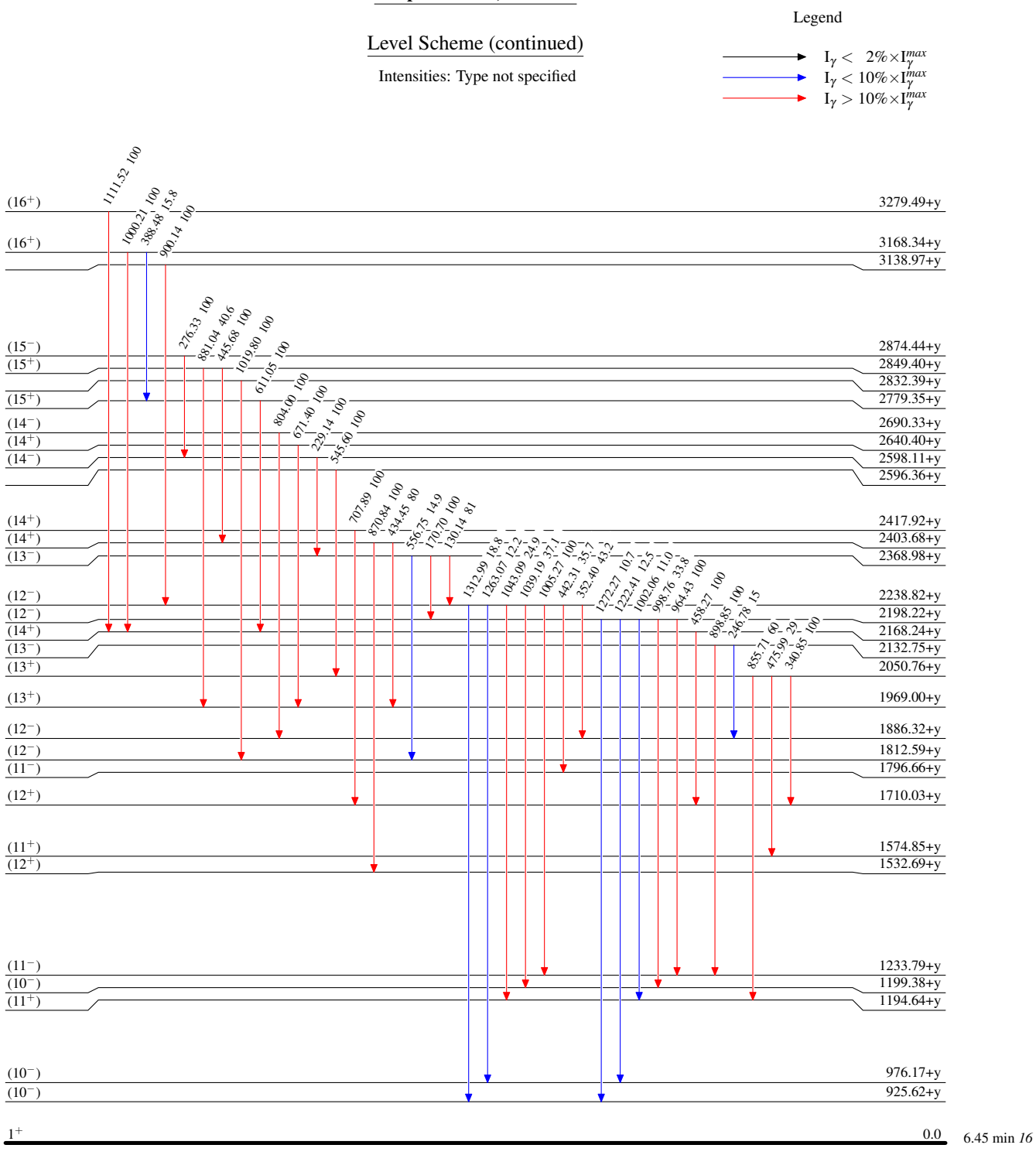


$^{134}_{57}La_{77}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

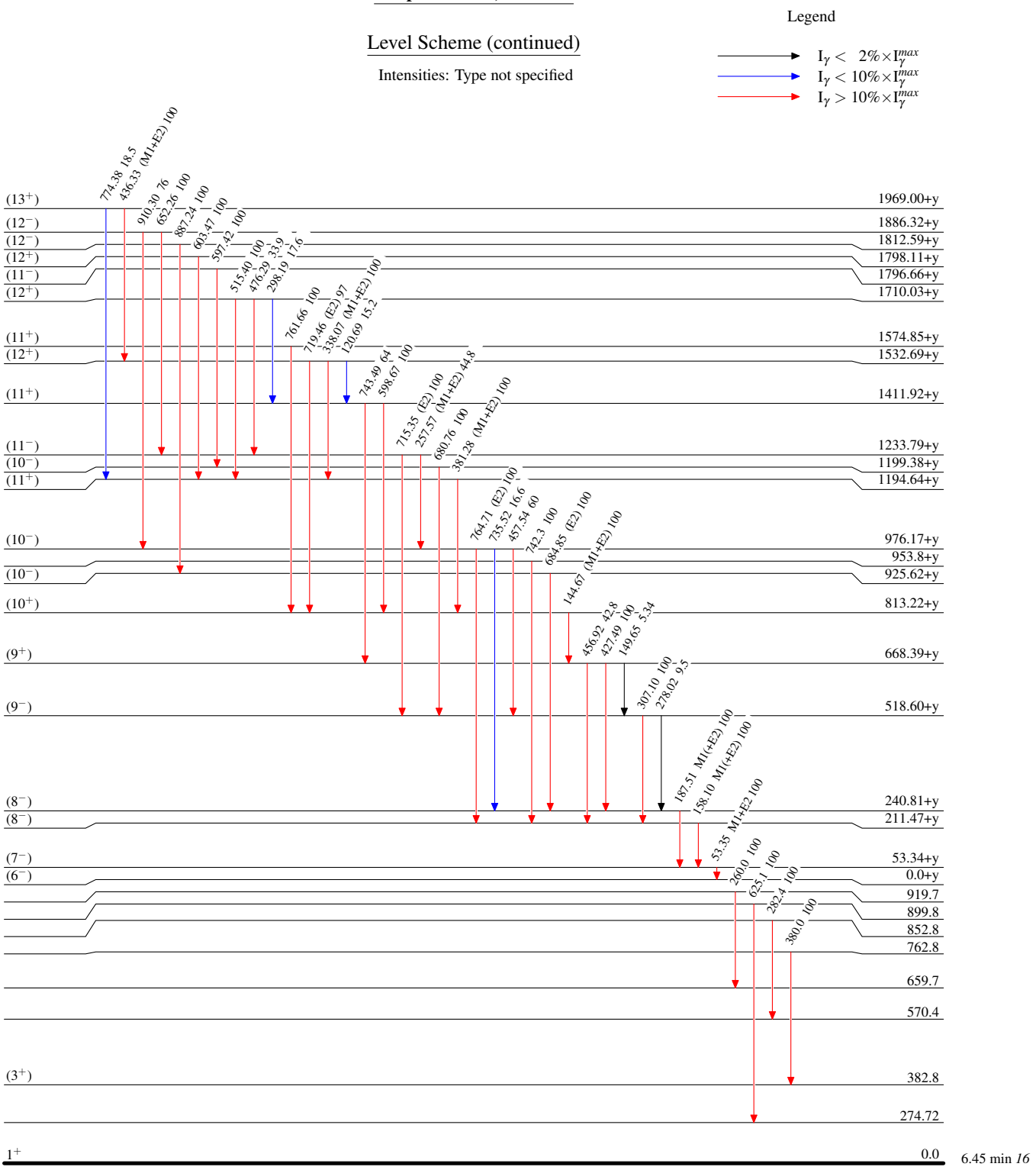


$^{134}_{57}La_{77}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

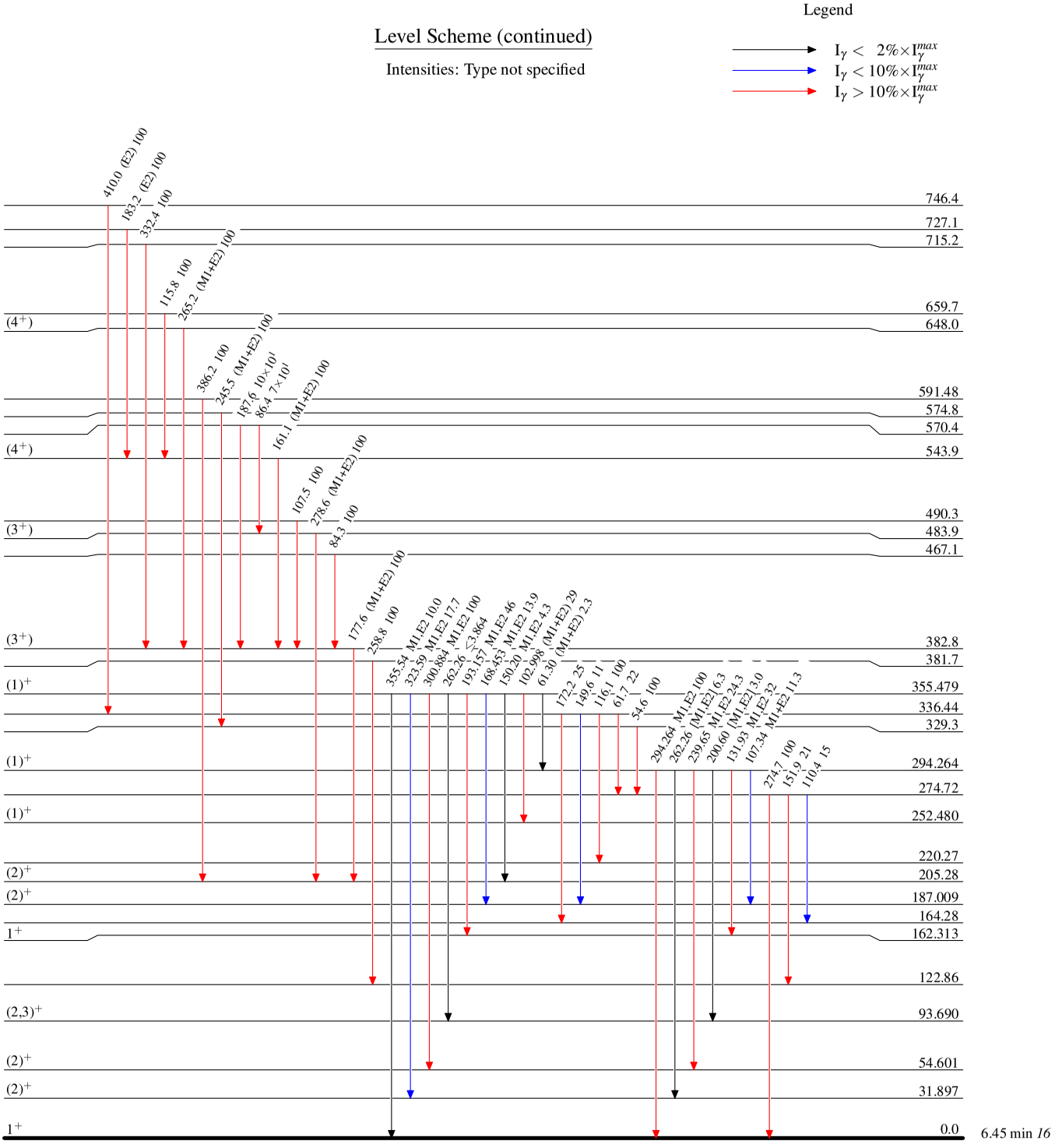


$^{134}_{57}La_{77}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

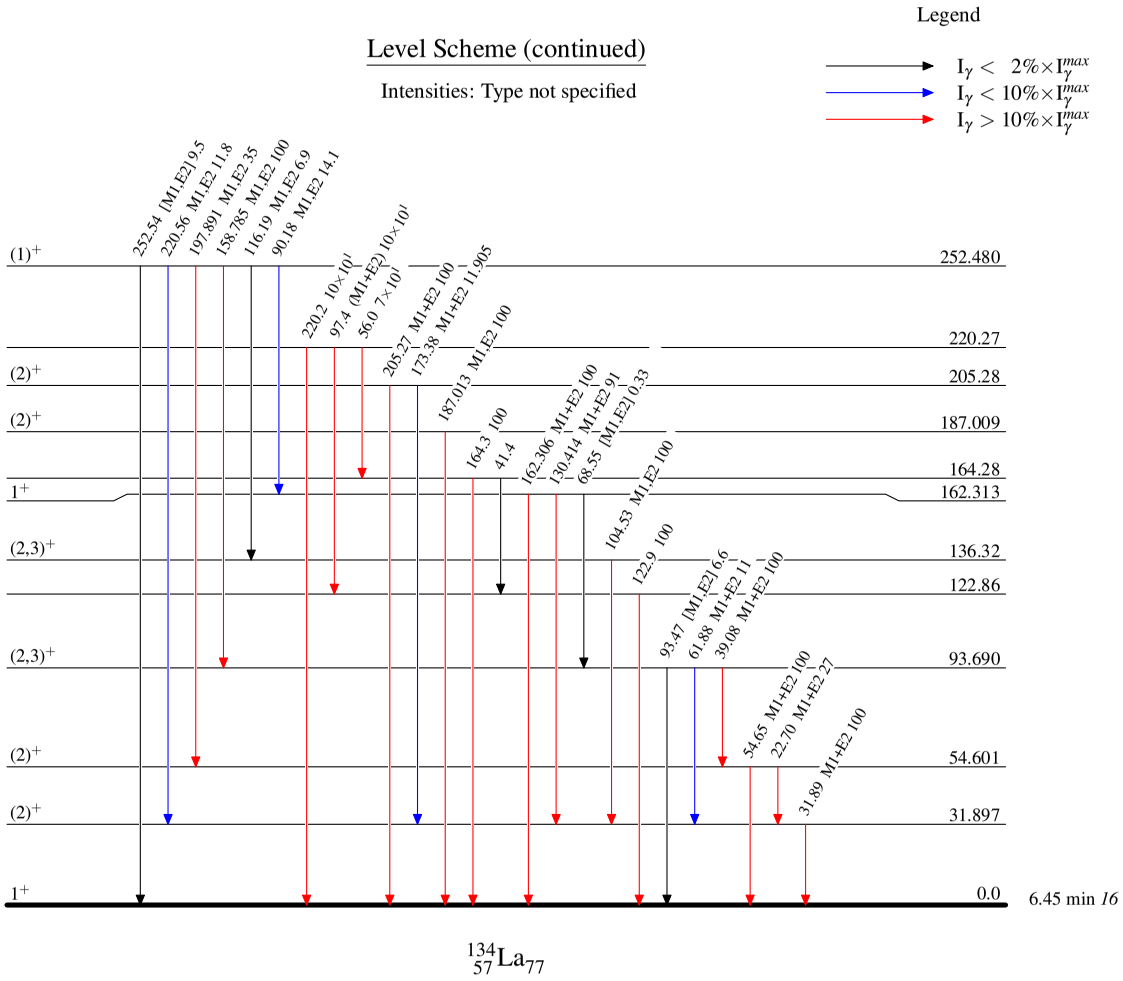


$^{134}_{57}La_{77}$

Adopted Levels, Gammas

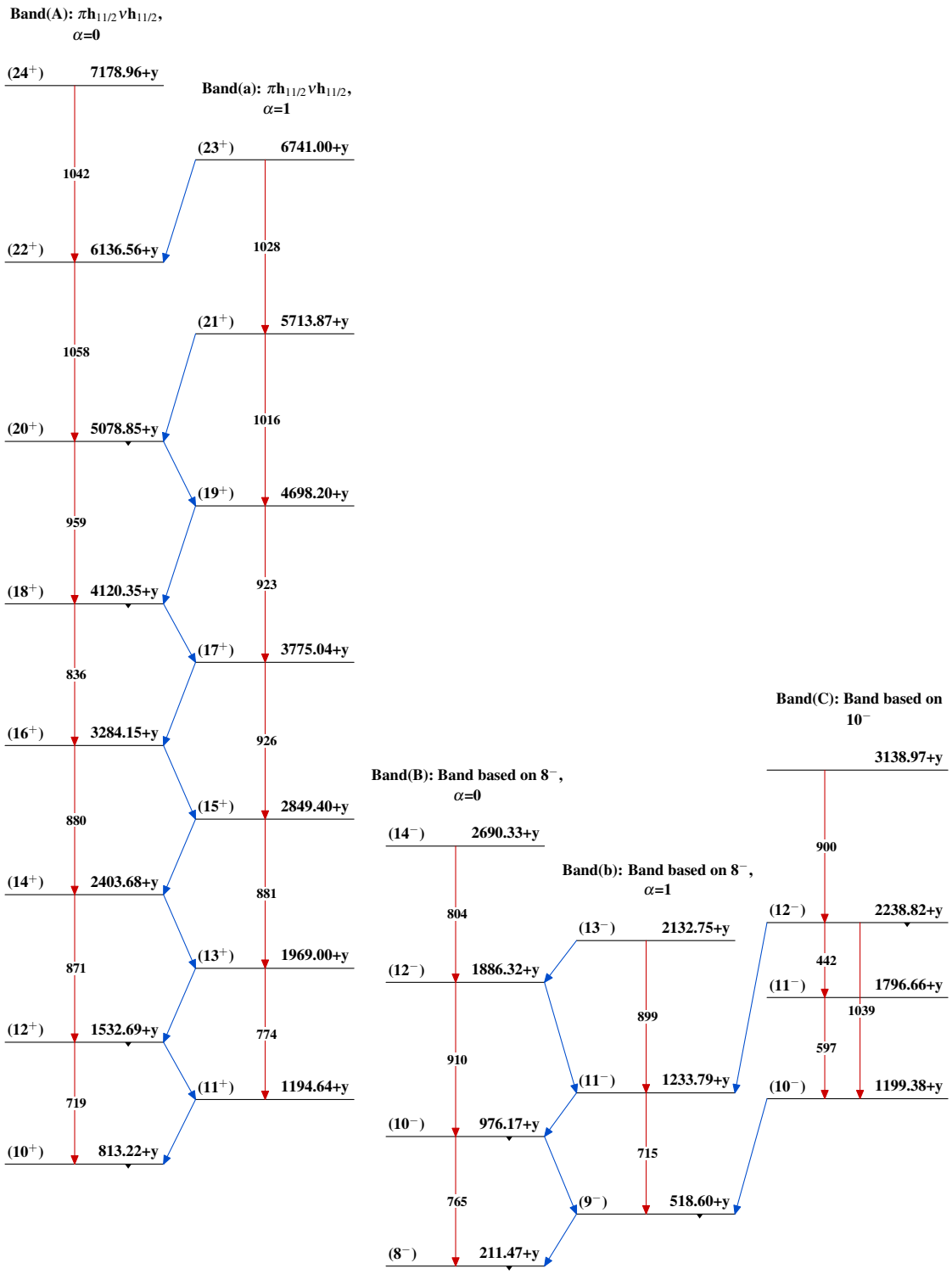
Level Scheme (continued)

Intensities: Type not specified



$^{134}_{57}La_{77}$

Adopted Levels, Gammas



$^{134}_{57}La_{77}$

Adopted Levels, Gammas (continued)