Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 113,715 (2012)	31-May-2011

Q(β^-)=3435 *8*; S(n)=6219 *10*; S(p)=7618 *10*; Q(α)=105 *8* 2012Wa38
Note: Current evaluation has used the following Q record 3434 8 *6221* 107615 10105 8 2011AuZZ.
2003Au03: Q(β^-)=3425 keV 15, S(n)=6224 keV 16, S(p)=7653 keV 16, Q(α)=89 keV 16.
Measured yield in 10-25 MeV n-induced fission of ^{238}U: 2000Lh02.
Atomic mass measurements: 2006Sa56, 2004Cl07.
Calculated level energies, magnetic and quadrupole moments: 2007Ji14.
^{238}U fission. Measured Q(β^-) for ^{143}La decay. Total absorption spectrometer: 2008ShZT.

^{143}La Levels

Cross Reference (XREF) Flags

A ^{143}Ba β^- decay
B ^{252}Cf SF decay

E(level)[†]	J$^\pi$[†#]	$T_{1/2}$	XREF	Comments
0.0	$(7/2)^+$	14.2 min *1*	AB	%β^-=100 J$^\pi$: E1-M1 cascade from 1010.1 $(5/2)^-$ level, log *ft*=7.7 to $9/2^-$, γ ray from $(5/2)^-$. $T_{1/2}$: weighted average of 14.14 min *16* (1981Ya06), 14.23 min *14* (1977Bj01), 14.0 min *1* (1961Fr06).
29.811 *12*	$(3/2)^+$		AB	J$^\pi$: γ ray to $(7/2)^+$ is E2, γ ray from $(5/2)^-$.
208.347 *15*	$3/2^+$,$5/2^+$		A	J$^\pi$: γ ray to $(3/2)^+$ is [M1]; γ ray to $(7/2)^+$ is M1,E2.
211.482 *7*	$(5/2)^+$	0.69 ns *7*	AB	J$^\pi$: γ ray to $(7/2)^+$ is M1+(E2); γ ray to $(3/2)^+$; not 7/2 ($\gamma\gamma(\theta)$).
291.276[@] *13*	$(5/2)^+$		AB	J$^\pi$: γ ray to $(7/2)^+$ is E2+M1, γ ray to $(3/2)^+$, $\gamma\gamma(\theta)$.
424.93 *4*			AB	
461.99 *5*			A	
465.903 *13*	$(5/2)^+$		AB	J$^\pi$: γ ray to $(5/2)^+$ is M1,E2; $\gamma\gamma(\theta)$.
642.900 *15*	$^+$		AB	J$^\pi$: γ ray to $(5/2)^+$ is M1,E2.
666.98 *4*			A	
699.33 *3*			A	
789.4[‡@] *3*	$(9/2^+)^‡$		B	
830.67 *3*			A	
883.91 *4*			A	
924.945 *16*	$(5/2)^-$		AB	J$^\pi$: γ ray to $(7/2)^+$ is E1; γ ray to $(3/2)^+$.
956.22 *15*			A	
973.08 *4*			A	
1010.273 *11*	$(5/2)^-$		AB	J$^\pi$: log *ft*=5.2 via $5/2^-$ parent, strong γ rays to $(7/2)^+$ and $(3/2)^+$.
1055.85 *10*			A	
1067.39 *3*			A	
1110.30 *5*			A	
1215.27 *10*			A	
1225.38 *9*			A	
1291.49 *7*			A	
1303.00 *7*			A	
1324.9[‡a] *4*	$(11/2^+)^‡$		B	
1359.2[‡&] *4*	$(11/2^-)^‡$		B	
1365.40 *23*			A	
1407.936 *12*	$(5/2)^-$		AB	J$^\pi$: log *ft*=5.3 via $5/2^-$ parent; γ ray to $(3/2)^+$; $\gamma\gamma(\theta)$.
1448.83? *17*			A	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{143}La Levels (continued)

E(level)[†]	J$^{\pi}$[†#]	XREF	Comments
1453.0[‡@] *4*	(13/2$^+$)[‡]	B	
1497.89 *8*		A	
1503.26 *18*		A	
1559.36 *16*		A	
1565.19 *10*		A	
1568.75 *10*		A	
1633.5 *4*		A	
1757.80? *10*		A	
1762.71 *18*		A	
1778.8[‡a] *4*	(15/2$^+$)[‡]	B	
1857.6[‡&] *4*	(15/2$^-$)[‡]	B	
1958.1 *3*		A	
1983.1 *4*		A	
2143.2[‡@] *4*	(17/2$^+$)[‡]	B	
2194.5 *5*		A	
2223.6 *3*		A	
2291.94 *8*	(3/2)$^-$	A	J$^{\pi}$: log *ft*=5.3 via 5/2$^-$ parent, no γ ray to (7/2)$^+$.
2295.6 *3*		A	
2307.03 *15*		A	
2326.97 *8*		A	
2347.25 *7*	(5/2)$^-$	A	J$^{\pi}$: log *ft*=5.3 via 5/2$^-$ parent, similar Iγ for γ's to (7/2)$^+$ and 3/2$^+$.
2371.38 *22*		A	
2373.9[‡a] *5*	(19/2$^+$)[‡]	B	
2379.2 *3*		A	
2472.8[‡&] *4*	(19/2$^-$)[‡]	B	
2533.11 *4*		A	
2798.4[‡@] *5*	(21/2$^+$)[‡]	B	
3014.9[‡a] *6*	(23/2$^+$)[‡]	B	
3118.4[‡&] *5*	(23/2$^-$)[‡]	B	
3217.6[‡b] *6*	(25/2$^-$)[‡]	B	
3628.8[‡a] *6*	(27/2$^+$)[‡]	B	
3832.0[‡b] *7*	(29/2$^-$)[‡]	B	
4350.0[‡b] *8*	(33/2$^-$)[‡]	B	

[†] From ^{143}Ba β^- decay (1988Fa03), unless otherwise specified.
[‡] From ^{252}Cf SF decay (2009Lu04, 2007Wa20).
[#] J^{π} assignments to levels with J≥9/2 are from ^{252}Cf SF decay, based on band structure and systematics of B(E1)/B(E2) ratios of γ-ray reduced transition probabilities.
[@] Band(A): Band based on (5/2)$^+$.
[&] Band(B): Band based on (11/2$^-$).
[a] Band(C): Band based on (11/2$^+$).
[b] Band(D): Band based on (25/2$^-$).

Adopted Levels, Gammas (continued)

γ(^{143}La)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[@]	α[†]	$I_{(\gamma+ce)}$	Comments
29.811	$(3/2)^+$	29.85 *5*	100	0.0	$(7/2)^+$	E2		243		α(L)=190 *3*; α(M)=42.3 *7*; α(N+..)=10.11 *17* α(N)=8.89 *15*; α(O)=1.221 *20*; α(P)=0.000784 *11*
208.347	$3/2^+,5/2^+$	178.51 *2*	100 *1*	29.811	$(3/2)^+$	(M1)		0.213		α(K)=0.182 *3*; α(L)=0.0244 *4*; α(M)=0.00508 *8*; α(N+..)=0.001312 *19* α(N)=0.001116 *16*; α(O)=0.000182 *3*; α(P)=1.416×10^{-5} *20*
		208.35 *2*	36 *1*	0.0	$(7/2)^+$	M1,E2		0.147 *8*		α(K)=0.1197 *17*; α(L)=0.022 *6*; α(M)=0.0047 *14*; α(N+..)=0.0012 *4* α(N)=0.0010 *3*; α(O)=0.00016 *4*; α(P)=8.4×10^{-6} *9*
211.482	$(5/2)^+$	(3.1 *1*)		208.347	$3/2^+,5/2^+$				47 *12*	Eγ: 207.071 *32* in 1979Sc11. Eγ: from level energy difference.
		181.62 *3*	3.1	29.811	$(3/2)^+$	(M1)		0.203		B(M1)(W.u.)=0.000101 *13* α(K)=0.1739 *25*; α(L)=0.0233 *4*; α(M)=0.00484 *7*; α(N+..)=0.001250 *18* α(N)=0.001064 *15*; α(O)=0.0001731 *25*; α(P)=1.351×10^{-5} *19*
		211.475 *7*	100	0.0	$(7/2)^+$	M1+(E2)	+0.07 *3*	0.1343		B(M1)(W.u.)=0.0020 *3*; B(E2)(W.u.)=(0.13 *12*) α(K)=0.1149 *16*; α(L)=0.01539 *23*; α(M)=0.00320 *5*; α(N+..)=0.000826 *12* α(N)=0.000703 *11*; α(O)=0.0001143 *17*; α(P)=8.90×10^{-6} *13* Eγ: from 1979Bo19.
291.276	$(5/2)^+$	261.47 *3*	20.6 *2*	29.811	$(3/2)^+$	M1,E2		0.0745 *19*		α(K)=0.062 *4*; α(L)=0.0102 *16*; α(M)=0.0021 *4*; α(N+..)=0.00054 *9* α(N)=0.00047 *8*; α(O)=7.3×10^{-5} *9*; α(P)=4.4×10^{-6} *7*
		291.287 *20*	100 *1*	0.0	$(7/2)^+$	M1+E2	0.99	0.0544		α(K)=0.0453 *7*; α(L)=0.00718 *10*; α(M)=0.001511 *22*; α(N+..)=0.000384 *6* α(N)=0.000329 *5*; α(O)=5.18×10^{-5} *8*; α(P)=3.28×10^{-6} *5* Eγ: from 1979Bo19.
424.93		133.7 *1*	4.2 *11*	291.276	$(5/2)^+$					
		424.85 *5*	100 *5*	0.0	$(7/2)^+$					
461.99		250.4 *1*	21.8 *16*	211.482	$(5/2)^+$					
		432.15 *5*	100 *5*	29.811	$(3/2)^+$					
		462.2 *1*	30.7 *16*	0.0	$(7/2)^+$					
465.903	$(5/2)^+$	174.6 *1*	5.5 *2*	291.276	$(5/2)^+$					
		254.39 *2*	100 *1*	211.482	$(5/2)^+$	M1,E2		0.0808 *15*		α(K)=0.067 *4*; α(L)=0.0111 *19*;

$^{143}_{57}La_{86}$-3

Adopted Levels, Gammas (continued)

γ(^{143}La) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
								α(M)=0.0024 *5*; α(N+..)=0.00060 *10* α(N)=0.00051 *9*; α(O)=8.0×10^{-5} *11*; α(P)=4.8×10^{-6} *7*
465.903	(5/2)$^+$	257.5 *1*	5.7 *2*	208.347	3/2$^+$,5/2$^+$			
		435.99 *3*	74 *3*	29.811	(3/2)$^+$			
		465.87 *3*	58 *1*	0.0	(7/2)$^+$			
642.900	$^+$	176.89 *2*	43.7 *5*	465.903	(5/2)$^+$	M1,E2	0.24 *3*	α(K)=0.195 *9*; α(L)=0.039 *15*; α(M)=0.008 *4*; α(N+..)=0.0021 *8* α(N)=0.0018 *7*; α(O)=0.00028 *9*; α(P)=1.34×10^{-5} *12*
		217.7 *1*	3.5 *2*	424.93				
		351.9 *1*	4.6 *4*	291.276	(5/2)$^+$			
		431.20 *4*	100 *4*	211.482	(5/2)$^+$	M1,E2	0.018 *3*	α(K)=0.0154 *25*; α(L)=0.00221 *12*; α(M)=0.000461 *22*; α(N+..)=0.000118 *7* α(N)=0.000101 *6*; α(O)=1.61×10^{-5} *12*; α(P)=1.14×10^{-6} *23* E$_\gamma$: 431.384 *13* from 1979Bo19.
		613.69 *4*	28.2 *8*	29.811	(3/2)$^+$			
		642.77 *5*	38.7 *18*	0.0	(7/2)$^+$			
666.98		637.12 *8*	33.8 *24*	29.811	(3/2)$^+$			
		667.00 *4*	100 *1*	0.0	(7/2)$^+$			
699.33		233.5 *1*	6.9 *6*	465.903	(5/2)$^+$			
		408.11 *5*	46.2 *12*	291.276	(5/2)$^+$			
		488.3 *1*	11.3 *9*	211.482	(5/2)$^+$			
		490.9 *3*	1.7 *6*	208.347	3/2$^+$,5/2$^+$			
		669.38 *4*	100 *1*	29.811	(3/2)$^+$			
		699.4 *2*	16.2 *17*	0.0	(7/2)$^+$			
789.4	(9/2$^+$)	364.6[&]	12[&]	424.93				
		498.1[&]	100[&]	291.276	(5/2)$^+$			
830.67		364.81 *7*	38.8 *14*	465.903	(5/2)$^+$			
		619.23 *4*	100 *3*	211.482	(5/2)$^+$			
		621.5 *1*	34.8 *23*	208.347	3/2$^+$,5/2$^+$			
		800.7 *2*	95 *20*	29.811	(3/2)$^+$			
		830.4 *4*	13.5 *6*	0.0	(7/2)$^+$			
883.91		854.01 *4*	100 *1*	29.811	(3/2)$^+$			
		884.11 *6*	20 *4*	0.0	(7/2)$^+$			
924.945	(5/2)$^-$	281.34 *5*	5.6 *1*	642.900	$^+$			
		459.05 *8*	6.0 *4*	465.903	(5/2)$^+$			
		633.70 *3*	20.4 *3*	291.276	(5/2)$^+$			
		713.41 *6*	9.0 *5*	211.482	(5/2)$^+$			
		895.18 *3*	82 *1*	29.811	(3/2)$^+$			
		925.04 *3*	100 *1*	0.0	(7/2)$^+$	E1	0.000931 *13*	α(K)=0.000806 *12*; α(L)=9.98×10^{-5} *14*; α(M)=2.05×10^{-5} *3*; α(N+..)=5.30×10^{-6} *8* α(N)=4.51×10^{-6} *7*; α(O)=7.34×10^{-7} *11*; α(P)=5.78×10^{-8} *8*

$^{143}_{57}La_{86}$-4

Adopted Levels, Gammas (continued)

γ(^{143}La) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
956.22		744.7 *2*	100 *11*	211.482	$(5/2)^+$			
		747.9 *2*	74 *10*	208.347	$3/2^+,5/2^+$			
973.08		507.4 *1*	7.8 *19*	465.903	$(5/2)^+$			
		548.0 *2*	22.6 *7*	424.93				
		681.6 *2*	38.5 *19*	291.276	$(5/2)^+$			
		973.07 *5*	100 *4*	0.0	$(7/2)^+$			
1010.273	$(5/2)^-$	310.87 *6*	2.4 *1*	699.33				
		367.56 *3*	13.4 *1*	642.900	$^+$	E1	0.00714 *10*	α(K)=0.00614 *9*; α(L)=0.000788 *11*; α(M)=0.0001626 *23*; α(N+..)=4.17×10^{-5} *6* α(N)=3.56×10^{-5} *5*; α(O)=5.74×10^{-6} *8*; α(P)=4.27×10^{-7} *6*
		544.41 *4*	7.8 *1*	465.903	$(5/2)^+$			
		718.97 *2*	28.0 *3*	291.276	$(5/2)^+$			
		798.79 *2*	100 *2*	211.482	$(5/2)^+$	E1	0.001244 *18*	α(K)=0.001075 *15*; α(L)=0.0001340 *19*; α(M)=2.76×10^{-5} *4*; α(N+..)=7.11×10^{-6} α(N)=6.05×10^{-6} *9*; α(O)=9.84×10^{-7} *14*; α(P)=7.69×10^{-8} *11*
		802.8 *2*	0.8 *2*	208.347	$3/2^+,5/2^+$			
		980.45 *2*	74.2 *8*	29.811	$(3/2)^+$			
		1010.29 *2*	61.3 *13*	0.0	$(7/2)^+$			
1055.85		356.5 *1*	43 *5*	699.33				
		848.2 *4*	84 *9*	208.347	$3/2^+,5/2^+$			
		1055.4 *4*	100 *9*	0.0	$(7/2)^+$			
1067.39		601.5 *1*	34.9 *12*	465.903	$(5/2)^+$			
		855.88 *6*	56.5 *18*	211.482	$(5/2)^+$			
		859.08 *4*	100 *6*	208.347	$3/2^+,5/2^+$			
		1037.56 *7*	47.5 *12*	29.811	$(3/2)^+$			
		1067.36 *5*	55.5 *6*	0.0	$(7/2)^+$			
1110.30		644.07 *9*	62.6 *35*	465.903	$(5/2)^+$			
		819.3 *3*	32.2 *18*	291.276	$(5/2)^+$			
		1110.2 *1*	100 *1*	0.0	$(7/2)^+$			
1215.27		572.4 *1*	100 *16*	642.900	$^+$			
		1003.3 *4*	44 *16*	211.482	$(5/2)^+$			
1225.38		759.5 *2*	50.9 *35*	465.903	$(5/2)^+$			
		1013.9 *1*	100 *6*	211.482	$(5/2)^+$			
		1016.5 *4*	22.8 *18*	208.347	$3/2^+,5/2^+$			
1291.49		318.8 *1*	1.6 *2*	973.08				
		827.0 *4*	9.3 *5*	465.903	$(5/2)^+$			
		999.7 *3*	7.7 *9*	291.276	$(5/2)^+$			
		1080.2 *4*	5.0 *4*	211.482	$(5/2)^+$			
		1082.5 *4*	5.4 *4*	208.347	$3/2^+,5/2^+$			
		1261.2 *2*	16.5 *4*	29.811	$(3/2)^+$			
		1291.2 *1*	100 *5*	0.0	$(7/2)^+$			

$^{143}_{57}La_{86}$-5

Adopted Levels, Gammas (continued)

γ(^{143}La) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
1303.00		472.3 *1*	13 *4*	830.67				
		603.8 *1*	100 *4*	699.33				
		659.9 *2*	77 *6*	642.900	$^+$			
		840.5 *4*	28 *4*	461.99				
		1091.3 *4*	22 *13*	211.482	$(5/2)^+$			
1324.9	$(11/2^+)$	535.5[&]	100[&]	789.4	$(9/2^+)$			
1359.2	$(11/2^-)$	569.8[&]	100[&]	789.4	$(9/2^+)$			
1365.40		899.8 *5*	16 *5*	465.903	$(5/2)^+$			
		1153.9 *3*	100 *10*	211.482	$(5/2)^+$			
		1156.8 *5*	16 *3*	208.347	$3/2^+,5/2^+$			
1407.936	$(5/2)^-$	297.61 *6*	5.8 *1*	1110.30				
		397.676 *8*	21.4 *2*	1010.273	$(5/2)^-$	M1,E2	0.023 *3*	α(K)=0.019 *3*; α(L)=0.00279 *9*; α(M)=0.000583 *13*; α(N+..)=0.000149 *5* α(N)=0.000127 *4*; α(O)=2.03×10^{-5} *10*; α(P)=1.4×10^{-6} *3* E_γ: from 1979Bo19.
		434.75 *7*	3.7 *2*	973.08				
		482.86 *4*	11.1 *2*	924.945	$(5/2)^-$			
		577.17 *4*	13.9 *4*	830.67				
		741.6 *2*	2.7 *1*	666.98				
		764.8 *1*	23.4 *4*	642.900	$^+$			
		941.8 *2*	0.7 *1*	465.903	$(5/2)^+$			
		1116.65 *3*	28.7 *2*	291.276	$(5/2)^+$			
		1196.38 *6*	100 *1*	211.482	$(5/2)^+$			
		1377.6 *4*	3.8 *2*	29.811	$(3/2)^+$			
1448.83?		806.2 *2*	100 *22*	642.900	$^+$			
		1239.6 *4*	11 *4*	208.347	$3/2^+,5/2^+$			
		1448.5 *5*	13 *2*	0.0	$(7/2)^+$			
1453.0	$(13/2^+)$	93.9[&*a*]	<1[&]	1359.2	$(11/2^-)$			
		128.1[&]	3.3[&]	1324.9	$(11/2^+)$	(M1+E2)	0.68 *15*	α(K)=0.51 *6*; α(L)=0.13 *8*; α(M)=0.029 *16*; α(N+..)=0.007 *4* α(N)=0.006 *4*; α(O)=0.0009 *5*; α(P)=3.39×10^{-5} *18*
		663.6[&]	100[&]	789.4	$(9/2^+)$			
1497.89		387.3 *1*	45 *13*	1110.30				
		525.1 *1*	100 *16*	973.08				
		830.9 *4*	94 *6*	666.98				
		1206.7 *4*	100 *23*	291.276	$(5/2)^+$			
1503.26		1291.8 *4*	4.9 *3*	211.482	$(5/2)^+$			
		1294.9 *2*	100 *5*	208.347	$3/2^+,5/2^+$			
1559.36		916.9 *3*	100 *27*	642.900	$^+$			
		1134.6 *5*	32 *9*	424.93				
		1268.1 *4*	68 *14*	291.276	$(5/2)^+$			
1565.19		454.8 *1*	50 *11*	1110.30				

$^{143}_{57}La_{86}$-6

Adopted Levels, Gammas (continued)

γ(^{143}La) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π
1565.19		734.9 *2*	61 *3*	830.67	
		898.1 *3*	100 *5*	666.98	
1568.75		595.5 *1*	100 *7*	973.08	
		685.3 *2*	85 *5*	883.91	
		1278.4 *4*	61 *5*	291.276	$(5/2)^+$
1633.5		1171.7 *5*	73 *15*	461.99	
		1424.8 *5*	20 *5*	208.347	$3/2^+,5/2^+$
		1604 *1*	100 *5*	29.811	$(3/2)^+$
1757.80?		647.49 *9*	100 *4*	1110.30	
		1333.1 *4*	14.8 *12*	424.93	
1762.71		695.4 *2*	69 *8*	1067.39	
		1300.6 *5*	28 *8*	461.99	
		1550.8 *5*	100 *6*	211.482	$(5/2)^+$
1778.8	$(15/2^+)$	325.8[&]	100[&]	1453.0	$(13/2^+)$
		453.9[&]	49.0[&]	1324.9	$(11/2^+)$
1857.6	$(15/2^-)$	404.7[&]	70.2[&]	1453.0	$(13/2^+)$
		498.4[&]	100[&]	1359.2	$(11/2^-)$
1958.1		890.6 *4*	53 *13*	1067.39	
		1033.2 *4*	100 *5*	924.945	$(5/2)^-$
1983.1		1340.5 *4*	100 *8*	642.900	$^+$
		1691.4 *5*	13.5 *54*	291.276	$(5/2)^+$
2143.2	$(17/2^+)$	285.5[&*a*]	<1[&]	1857.6	$(15/2^-)$
		364.5[&]	1.3[&]	1778.8	$(15/2^+)$
		690.2[&]	100[&]	1453.0	$(13/2^+)$
2194.5		1527.5 *5*	100	666.98	
2223.6		2016 *2*	100 *8*	208.347	$3/2^+,5/2^+$
		2223.6 *3*	42 *8*	0.0	$(7/2)^+$
2291.94	$(3/2)^-$	732.8 *2*	17.0 *11*	1559.36	
		883.8 *5*	14.8 *74*	1407.936	$(5/2)^-$
		989.1 *3*	11.5 *19*	1303.00	
		1000.5 *4*	9.6 *15*	1291.49	
		1066.1 *5*	26 *1*	1225.38	
		1318.8 *3*	15.6 *11*	973.08	
		1365.3 *4*	62.6 *11*	924.945	$(5/2)^-$
		1408.1 *2*	100 *4*	883.91	
		1591.2 *5*	14.8 *11*	699.33	
		1625.2 *5*	15.6 *11*	666.98	
		2000.7 *1*	55.6 *37*	291.276	$(5/2)^+$
		2262.4 *3*	18.5 *37*	29.811	$(3/2)^+$
2295.6		1285.5 *4*	50 *6*	1010.273	$(5/2)^-$
2295.6		1322.4 *4*	100 *6*	973.08	
2307.03		1296.0 *4*	38.7 *19*	1010.273	$(5/2)^-$
		1332.8 *3*	100 *7*	973.08	
		1476.6 *3*	41.5 *28*	830.67	
		1640.1 *4*	9.4 *19*	666.98	
		1665.4 *3*	18.9 *19*	642.900	$^+$
		2307.0 *5*	28 *9*	0.0	$(7/2)^+$
2326.97		1353.4 *5*	8.5 *18*	973.08	
		1402.9 *4*	34.1 *14*	924.945	$(5/2)^-$
		1443.1 *2*	100 *1*	883.91	
		1496.9 *5*	10.8 *9*	830.67	
		1658.0 *4*	12.1 *9*	666.98	
		1683.7 *3*	17.9 *14*	642.900	$^+$
		2115.8 *3*	17.9 *45*	211.482	$(5/2)^+$
		2297.2 *1*	90 *9*	29.811	$(3/2)^+$
2347.25	$(5/2)^-$	1373.9 *4*	3.1 *5*	973.08	
		1421.9 *2*	15.4 *26*	924.945	$(5/2)^-$
		1462.8 *3*	23.6 *8*	883.91	
		1516.4 *5*	6.7 *5*	830.67	
		2056.1 *1*	100 *5*	291.276	$(5/2)^+$
		2135.5 *3*	10.3 *26*	211.482	$(5/2)^+$
		2347.3 *1*	72 *5*	0.0	$(7/2)^+$
2371.38		2159.9 *3*	100 *20*	211.482	$(5/2)^+$
		2163.0 *3*	100 *20*	208.347	$3/2^+,5/2^+$
2373.9	$(19/2^+)$	230.6[&]	8.2[&]	2143.2	$(17/2^+)$
		595.1[&]	100[&]	1778.8	$(15/2^+)$
2379.2		1311.7 *5*	38 *8*	1067.39	
		1679.9 *3*	100 *8*	699.33	
2472.8	$(19/2^-)$	329.5[&]	25.9[&]	2143.2	$(17/2^+)$
		615.2[&]	100[&]	1857.6	$(15/2^-)$
2533.11		1649.19 *1*	100	883.91	
2798.4	$(21/2^+)$	325.7[&]	26.5[&]	2472.8	$(19/2^-)$
		424.4[&]	25.5[&]	2373.9	$(19/2^+)$
		655.3[&]	100[&]	2143.2	$(17/2^+)$
3014.9	$(23/2^+)$	641.0[&]	100[&]	2373.9	$(19/2^+)$
3118.4	$(23/2^-)$	645.6[&]	100[&]	2472.8	$(19/2^-)$
3217.6	$(25/2^-)$	202.7[&]	100[&]	3014.9	$(23/2^+)$
3628.8	$(27/2^+)$	613.9[&]	100[&]	3014.9	$(23/2^+)$
3832.0	$(29/2^-)$	614.4[&]	100[&]	3217.6	$(25/2^-)$
4350.0	$(33/2^-)$	518.0[&]	100[&]	3832.0	$(29/2^-)$

$^{143}_{57}La_{86}$-7

$\gamma(^{143}La)$ (continued)

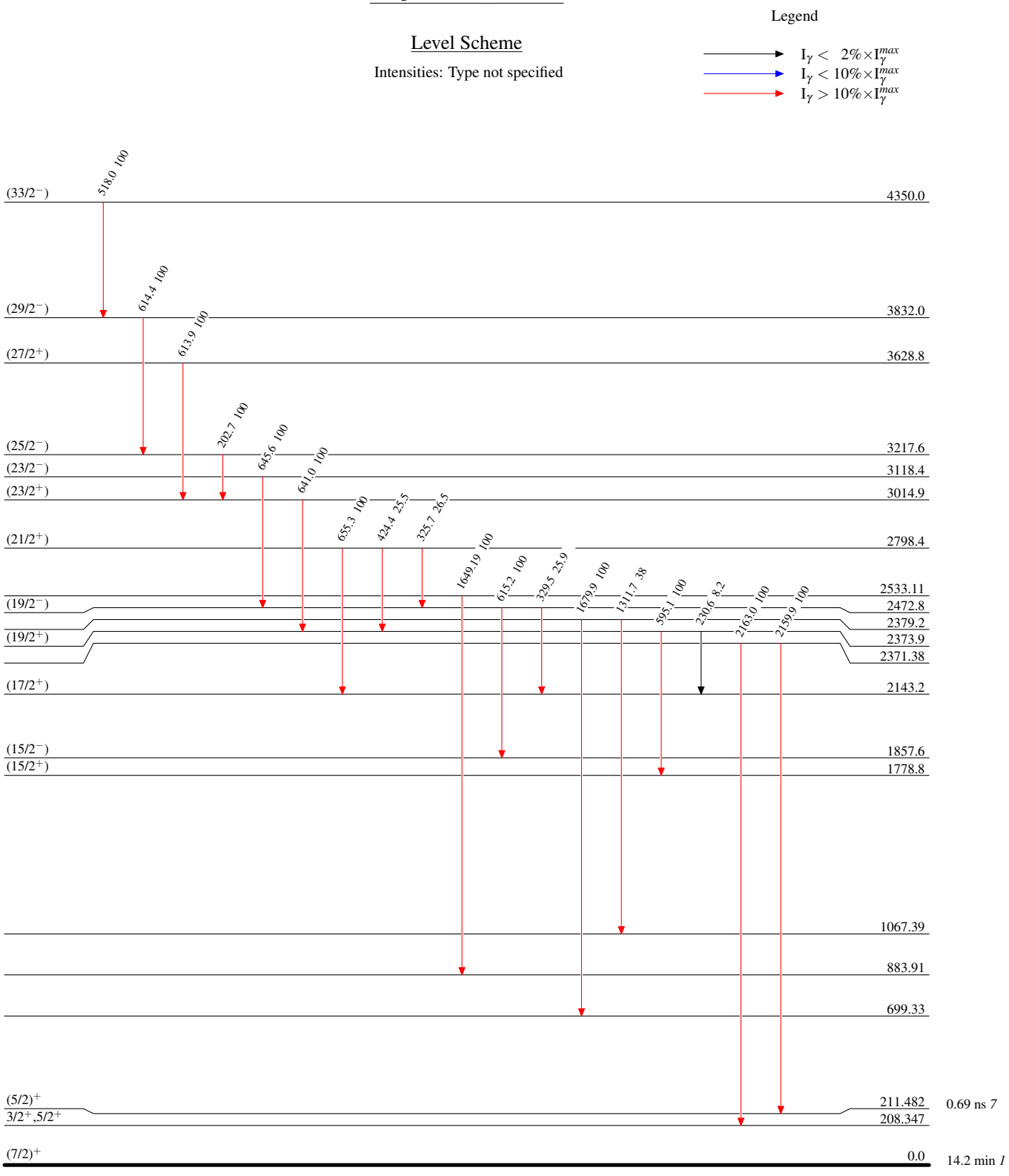
† Additional information 1.
‡ From ^{143}Ba β^- decay (1988Fa03), unless otherwise specified.
# From ce data in β^- decay.
@ From $\gamma\gamma(\theta)$ in β^- decay.
& From ^{252}Cf SF decay (2009Lu04, 2007Wa20).
a Placement of transition in the level scheme is uncertain.

$^{143}_{57}La_{86}$-8

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

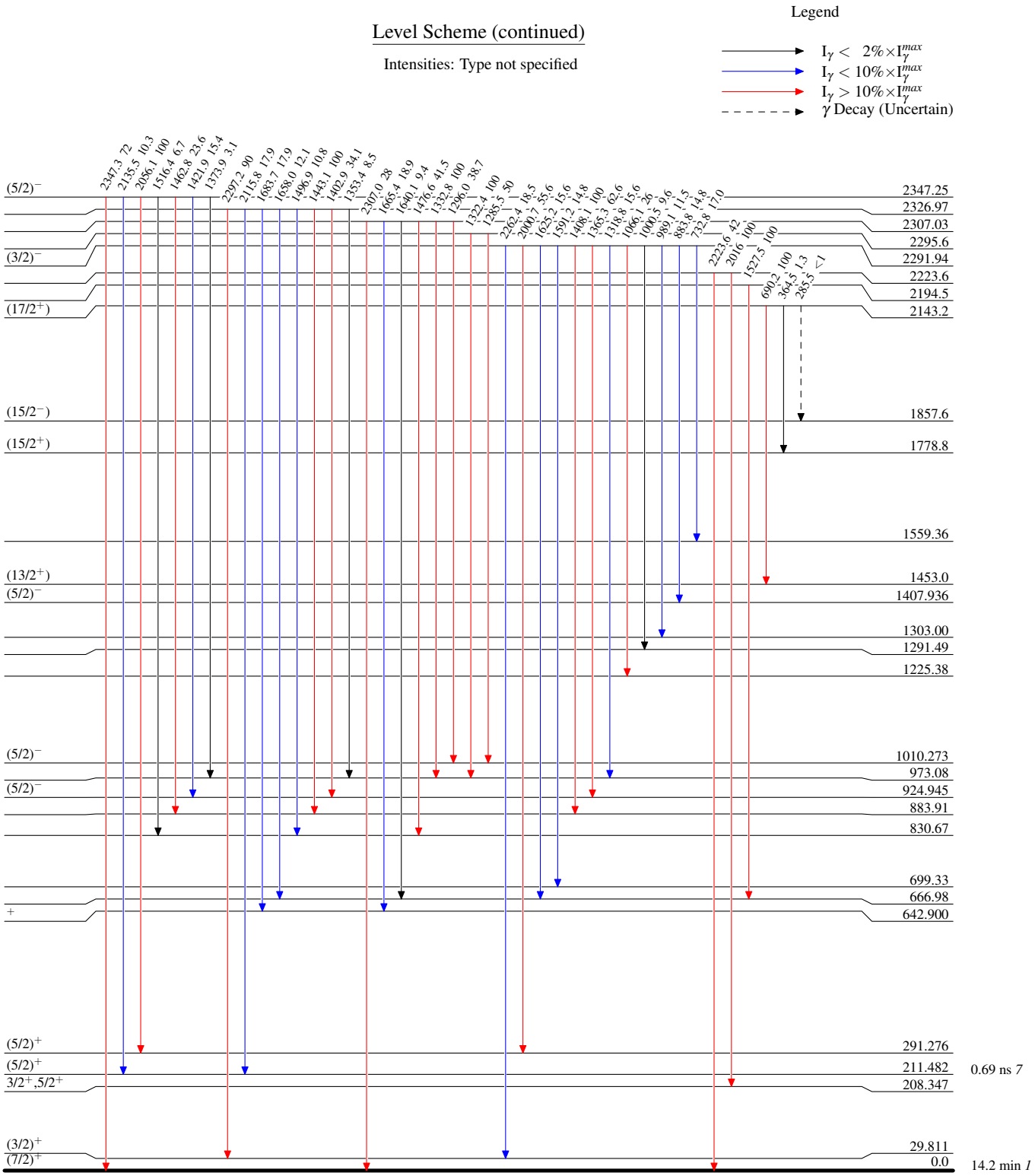


$^{143}_{57}La_{86}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified



$^{143}_{57}La_{86}$

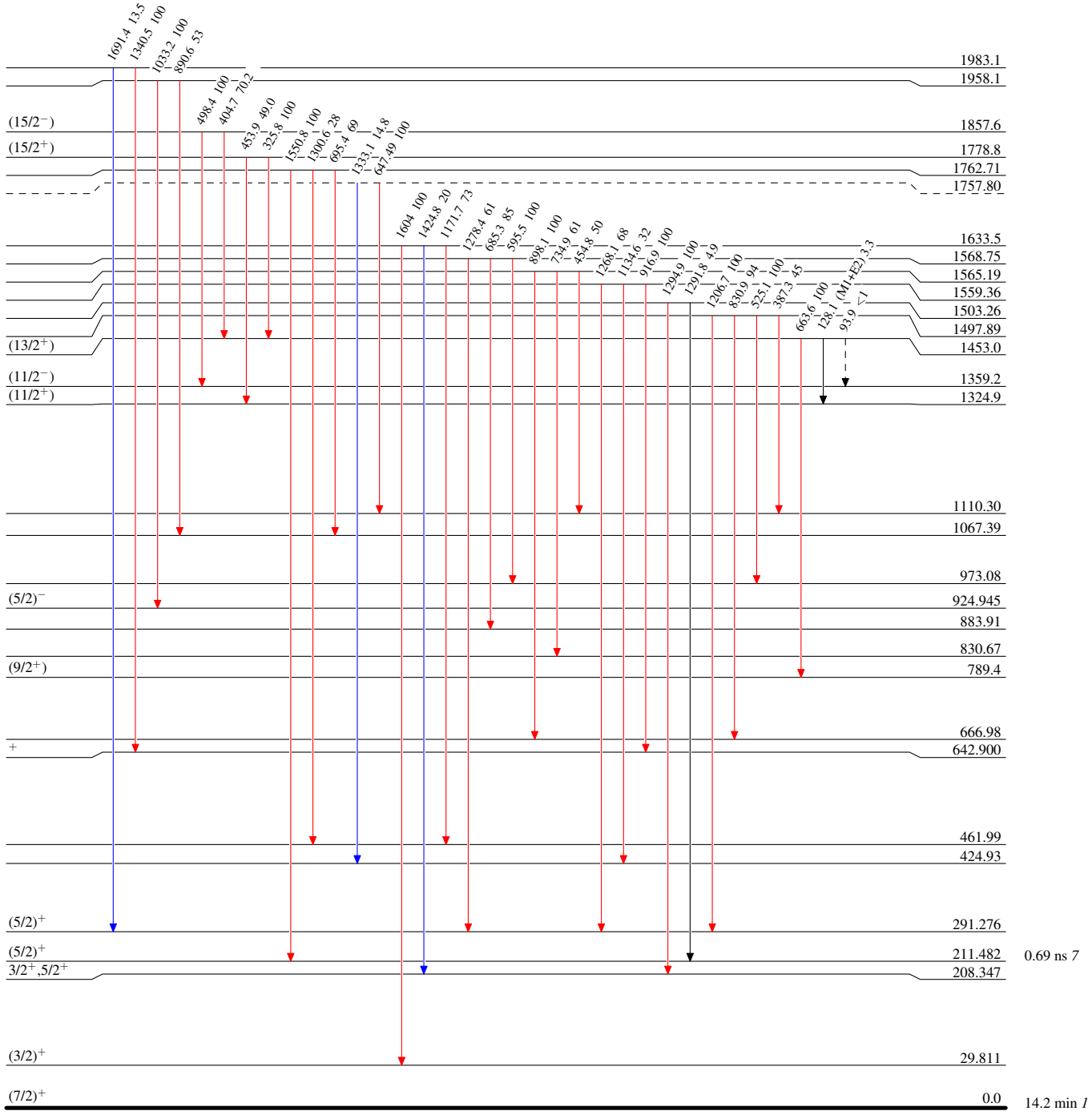
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)

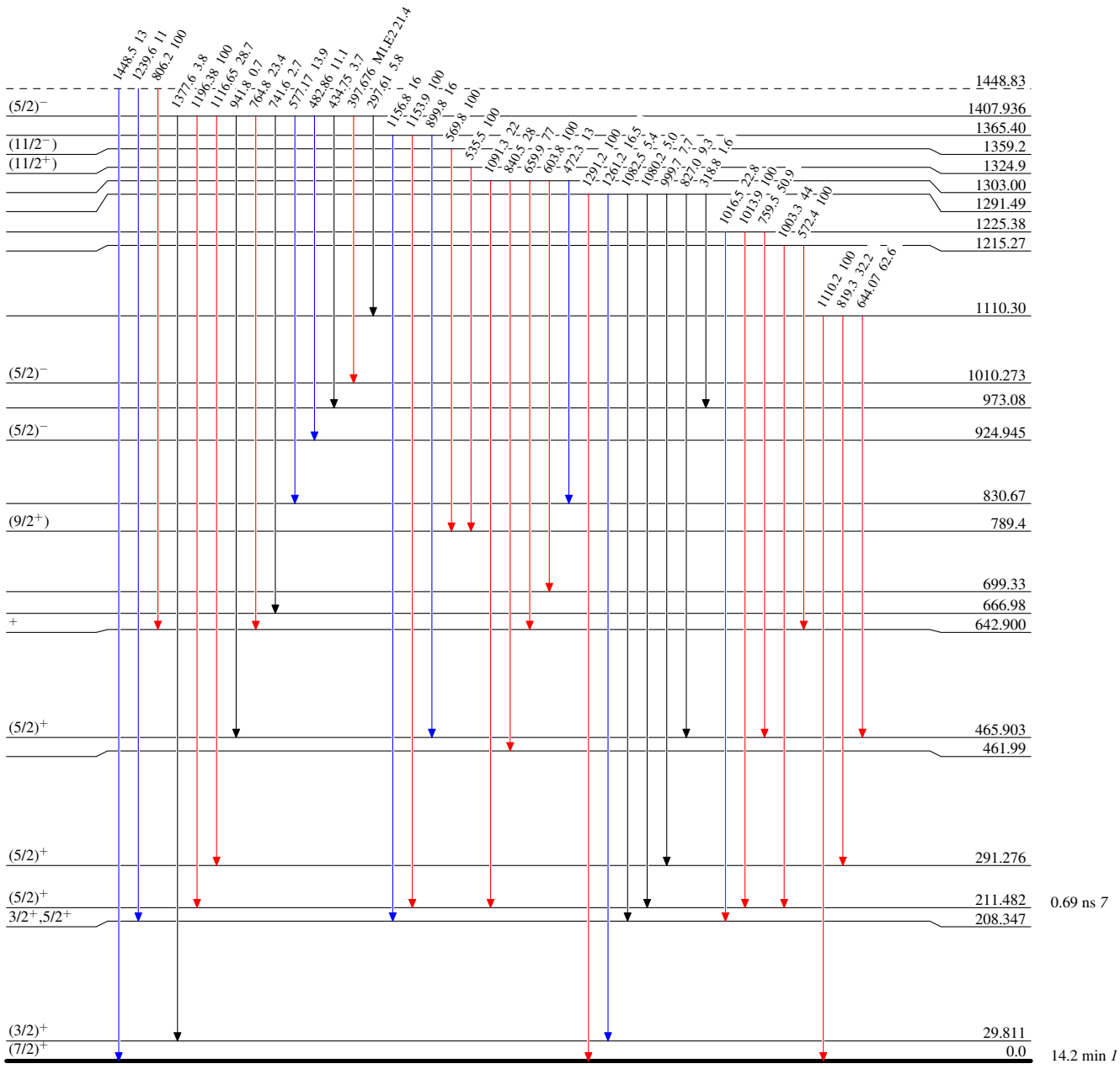


$^{143}_{57}La_{86}$

Adopted Levels, Gammas

Level Scheme (continued)

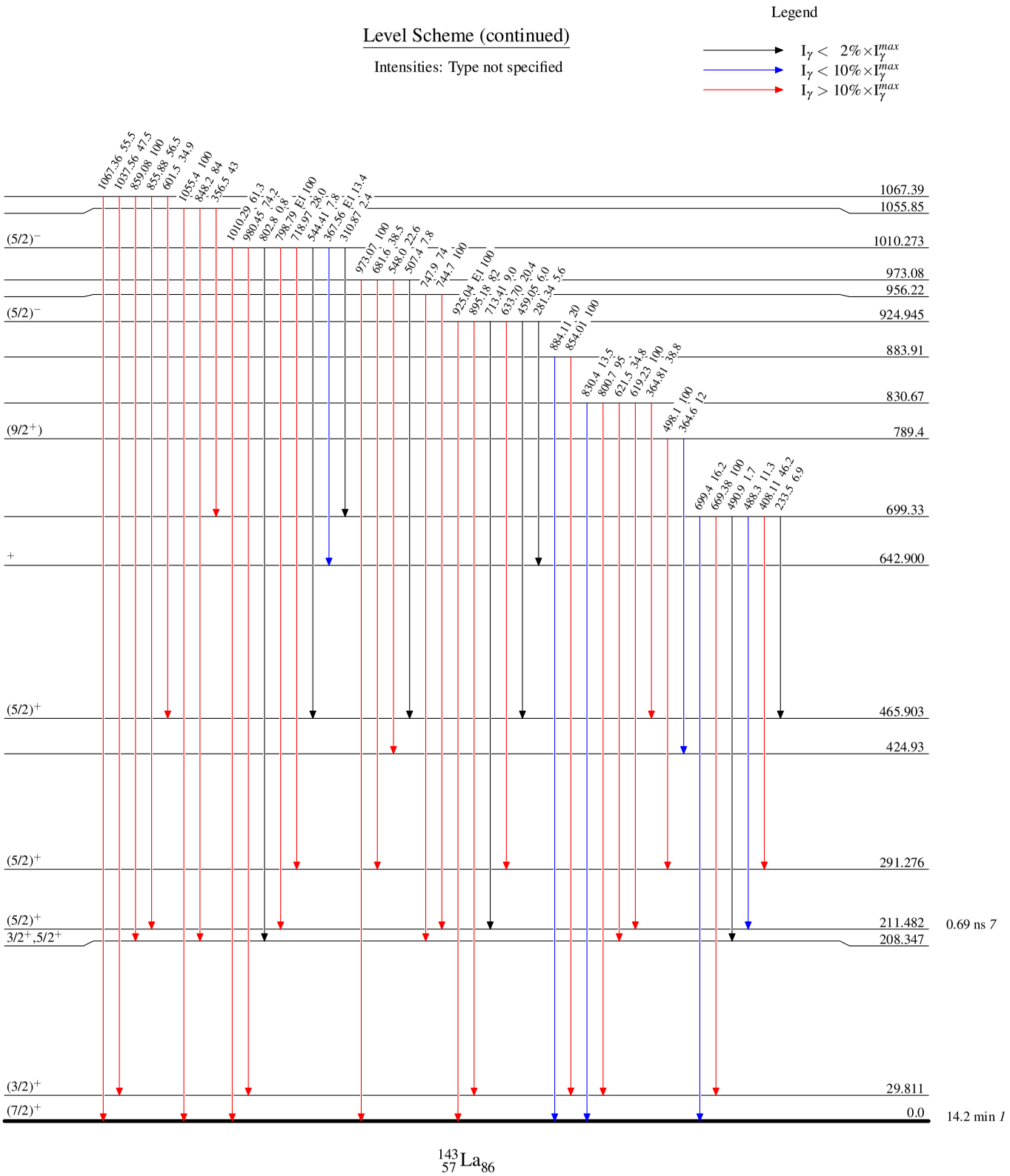
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

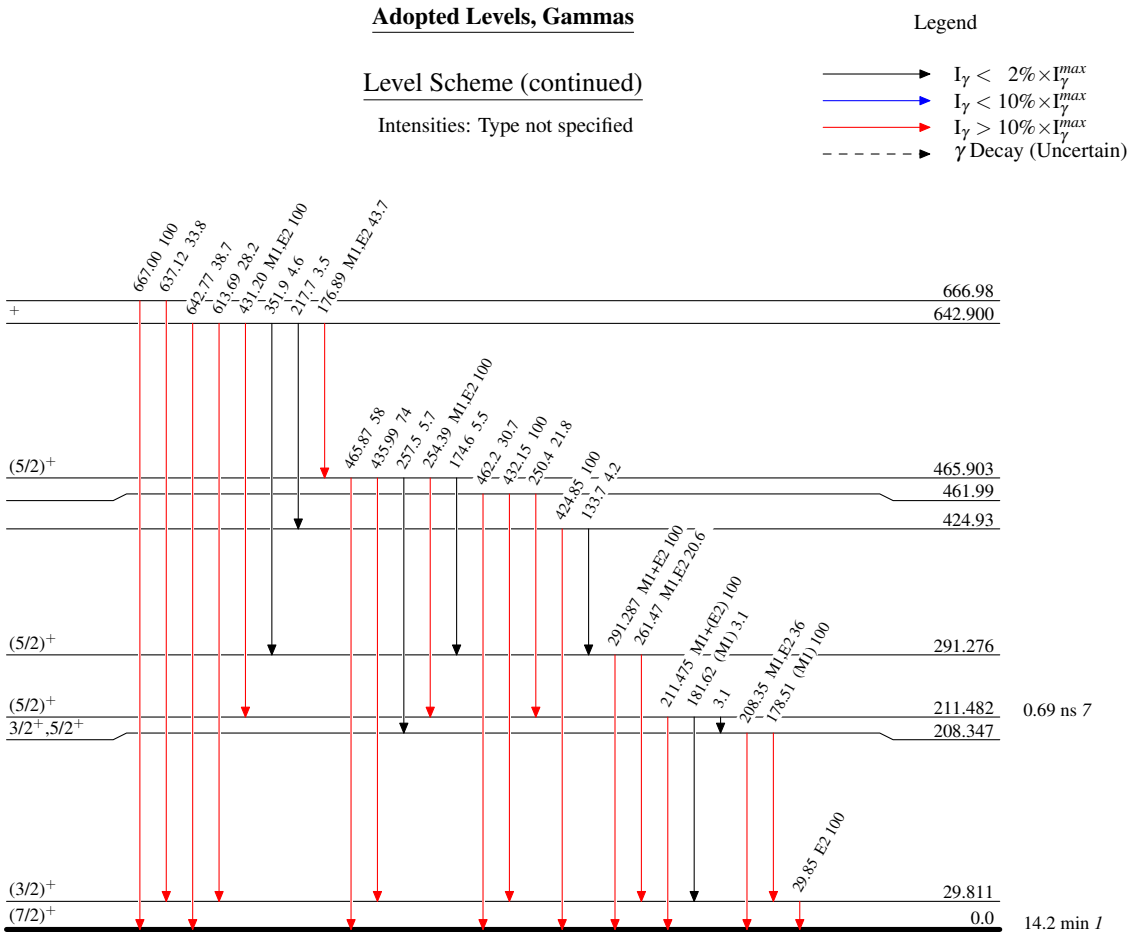


$^{143}_{57}La_{86}$

Adopted Levels, Gammas

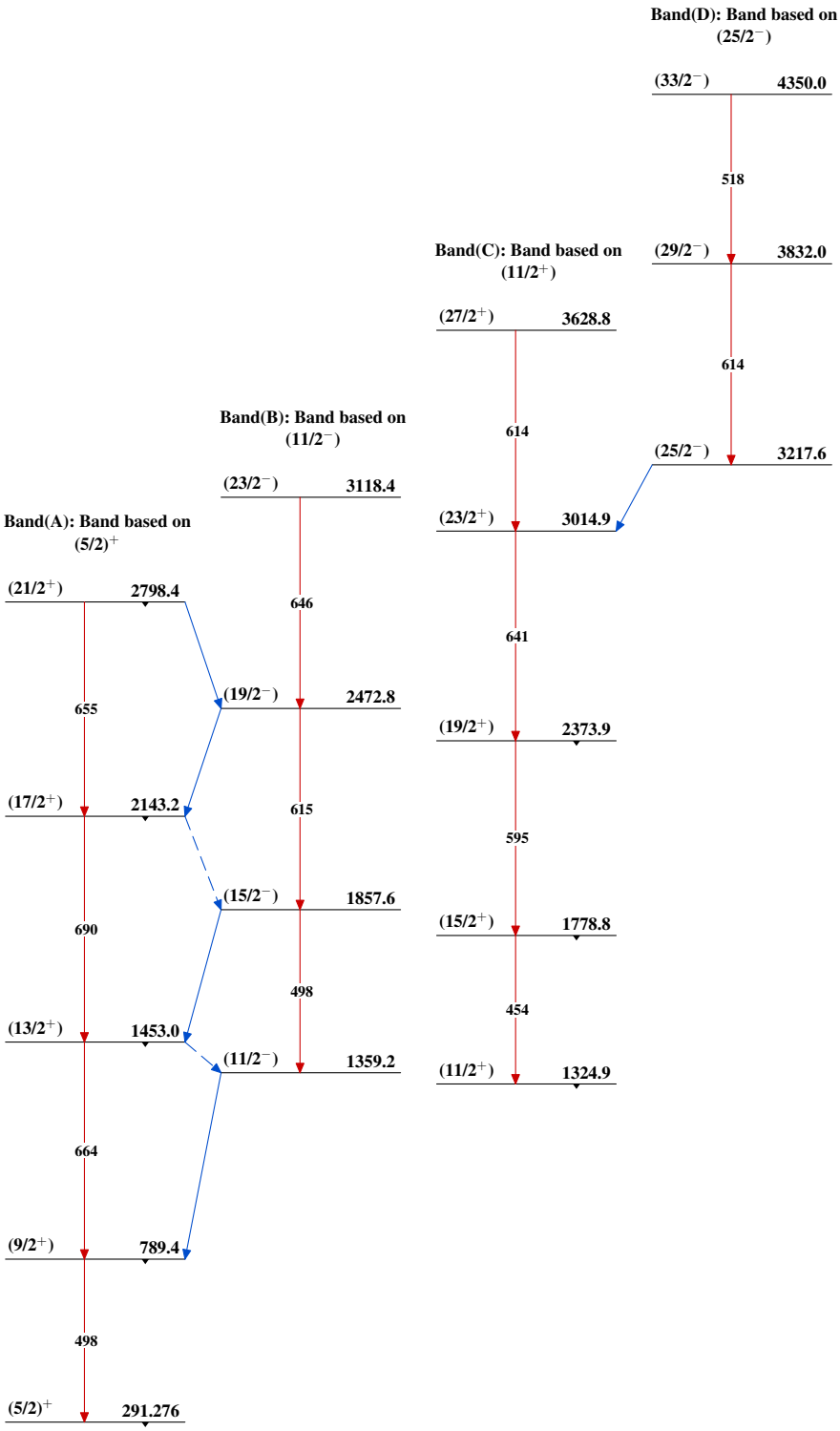
Level Scheme (continued)

Intensities: Type not specified



$^{143}_{57}La_{86}$

Adopted Levels, Gammas



$^{143}_{57}La_{86}$