Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 112,1833 (2011)	1-Jan-2011

Q(β^-)=−1.35×10^3 *6*; S(n)=6457.6 *15*; S(p)=6573 *3*; Q(α)=5475.1 *9* 2012Wa38
Note: Current evaluation has used the following Q record −1350 60 *6457.6 15* 6570 3 *5475.1 9* 2011AuZZ,2003Au03.
Additional information 1.
Other reactions: ^{245}Cm(n,γ): measured Eγ, Iγ, fission fragments. Deduce σ (2010Co02).
Calculations, compilations, systematics:
α-decay: 1993Bu09, 1986Po18.
β-decay: 1992So06.
Deformation parameters: 2010Ab23, 1991Pa11, 1982Du16, 1982Eg01, 1981Kr21.
Heavy fragment decay: 1989Si13.
Levels, B(λ): 2010Ab21, 1993Sa05, 1992Bh04, 1990Co26, 1988Ri07.
Pion decay $T_{1/2}$: 1988Io02.
Rotational bands: 1993Gu08, 1991Ah01, 1991Pi05, 1988Ab07, 1988Bh04, 1985Si13, 1985Si23, 1983Pe12, 1981Kr21.
SF isomers, $T_{1/2}$: 2010Ko36, 1992Bh03, 1989Ho24.
Yrast states: 1984Eg01.
^{246}Cm(n,F) (Theory): 2010Pr07.
^{246}Cm β^- (Theory): 2009So02.
Fission (Theory): 2010Sa09, 2009Pa29, 2009So12, 2008Ve05, 2008Sa24, 2008Xu06, 2007Ba18, 2007Po01, 2005De24, 2005Xu01, 2004Mo06, 2004Ro01, 2002Wi17, 2001Mo13, 2001Po31.
Nuclear Structure (Theory): 2008Al13, 2008Pr05, 2008Ch15, 2007Ne02, 2007Pe30, 2006De05, 2006De23, 2006Sh19, 2005La04, 2005Sh42, 2002Gi11, 2002Ma85, 2002Pr01, 2002Re31, 1998Co23.
Alpha particle half-life systematics: 2010Is01, 2010Ni09.
Alpha particle decay (Theory): 2010Wa23, 2010Wa31, 2009De32, 2009Ni06, 2009Zh39, 2008Xu10.
Nuclear moments (Theory): 2010Vr01.

^{246}Cm Levels

Band assignments are from ^{246}Am (25 min) decay. They are from 1976Mu03 and include assignments from other references. The band parameters (Eo in keV, A in keV and B in eV) have been calculated here from the equation E=Eo + AJ(J+1) + B[J(J+1)]^2 using the three (or two) lowest members of the band.
See (d,d′) for B(E3) values of the negative parity bands.

Cross Reference (XREF) Flags

A	^{246}Am β^- decay (39 min)	E	^{246}Cm(d,d′)
B	^{246}Am β^- decay (25.0 min)	F	Coulomb excitation
C	^{246}Bk ε decay	G	^{248}Cm(p,t)
D	^{250}Cf α decay	H	^{248}Cm(^{209}Bi,^{211}Biγ)

E(level)†	J$^\pi$†	$T_{1/2}$	XREF	Comments
0@	0$^+$	4706 y *40*	ABCDEFGH	%SF=0.02615 *7*; %α=99.97385 *7* $T_{1/2}$: from 2007Ko01 Others: 4852 y *76* (1977Po20), 4654 y *40* (1971Mc19), 4820 y *20* (1971Ma32), 4711 y *22* (1969Me01)). %SF: From weighted average of a/SF=3822 *10* (1969Me01), 3833 *32* (1971Ma32); other: 1965Me02.
42.852@ *5*	2$^+$	123 ps *2*	ABCDEFGH	E(level): From ^{250}Cf α decay. J$^\pi$: E2 γ to 0$^+$ g.s. $T_{1/2}$: From B(E2)=14.94 *19* (coul.ex.) and α=1060. The uncertainty in α has not

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Adopted Levels, Gammas (continued)

^{246}Cm Levels (continued)

E(level)[†]	J$^{\pi}$[†]	XREF	Comments
			been included.
141.989[@] *25*	4$^+$	ABCDE GH	J$^{\pi}$: E2 γ to 2$^+$ level; band assignment.
294.89[@] *21*	6$^+$	AB DE H	
500.5[#@] *5*	8$^+$	A H	J$^{\pi}$: γ to 6$^+$ level; band assignment.
753.3[‡@] *6*	(10$^+$)[‡]	H	
841.671[&] *21*	2$^-$	BC	J$^{\pi}$: E1 γ to 2$^+$ level, band assignment.
876.434[&] *23*	3$^-$	BC E	J$^{\pi}$: E1 γ's to 2$^+$ and 4$^+$ level.
923.30[&] *4*	(4)$^-$	AB	J$^{\pi}$: E1 γ to 4$^+$ level; band assignment.
980.6[#&] *5*	(5$^-$)	A E	J$^{\pi}$: natural parity (seen in (d,d′)); band assignment.
1050.1[‡@] *7*	(12$^+$)[‡]	H	
1051.5[#&] *5*	(6$^-$)	A	J$^{\pi}$: γ to 6$^+$ level, possible γ to (4)$^-$ level; band assignment.
1059 *3*		E	
1078.845[a] *21*	1$^-$	BC E	
1104.854[a] *23*	(2)$^-$	BC	J$^{\pi}$: E1 γ to 2$^+$ level; band assignment.
1124.260[b] *25*	2$^+$	BC e	XREF: e(1128). J$^{\pi}$: E1 γ to 2$^+$ level, (E1) γ to 4$^+$ level; band assignment.
1128.012[a] *25*	3$^-$	BC e	XREF: e(1128). J$^{\pi}$: E1 γ to 2$^+$ level, (E1) γ to 4$^+$ level; band assignment.
1128.8[&] *9*	(7$^-$)	A	J$^{\pi}$: γ's to 6$^+$ and 8$^+$ levels; band assignment.
1165.48[b] *4*	(3$^+$)	BC	J$^{\pi}$: (E2) γ to 2$^+$ level, γ to 4$^+$ level; band assignment.
1174.72[c] *7*	0$^+$	B E G	J$^{\pi}$: E0 transition to g.s.
1179.7[#d] *5*	(8$^-$)	A	J$^{\pi}$: γ to 8$^+$ level, multiply placed γ to (6$^-$) level; low log *ft* in (7$^-$) ^{246}Am β^- decay suggests that the neutron remains in configuration=(ν 9/2[734]).
1210.52[c] *5*	2$^+$	B G	J$^{\pi}$: E0+(M1,E2) to 2$^+$; L=(2) in (p,t).
1219.95[b] *11*	(4$^+$)	B e	XREF: e(1221). J$^{\pi}$: γ to 2$^+$ level, possible γ to 6$^+$ level; band assignment.
1221? *2*		e	J$^{\pi}$: natural parity (seen in (d,d′)). 1975Ya13 suggest that the 1221 level is a doublet consisting mostly of the 5$^-$ level of the K^{π}=1$^-$ band plus the 4$^+$ level of the K^{π}=2$^+$ band. However, the rotational parameters give the energy of the 5$^-$ level of the K^{π}=1$^-$ band as 1083.3 *14*.
1249.768[e] *22*	1$^-$	B E	J$^{\pi}$: E1 γ to 2$^+$ level, γ to 0$^+$ g.s.; natural parity (seen in (d,d′)).
1289.3[f] *3*	0$^+$	B	J$^{\pi}$: E0 transition to g.s.
1300.43[e] *4*	(3$^-$)	B E	J$^{\pi}$: γ's to 2$^+$, 4$^+$ and (4)$^-$ levels; natural parity (seen in (d,d′)); band assignment.
1317.56?[f] *5*	(2)$^+$	B	J$^{\pi}$: M1 γ to 2$^+$ level; band assignment.
1340.15 *16*		B E	
1348.856[g] *22*	1$^-$	B	
1366.623[g] *25*	(2$^-$)	B	J$^{\pi}$: (M1) γ to 2$^-$ level; band assignment.
1379.22[f] *7*	(4$^+$)	B	J$^{\pi}$: γ's to 2$^+$ and 4$^+$ levels; band assignment.
1387.1[‡@] *8*	(14$^+$)[‡]	H	
1397[e] *3*	(5$^-$)	E	J$^{\pi}$: natural parity (seen in (d,d′)); band assignment.
1451.88[h] *4*	1$^+$	B	J$^{\pi}$: E1 γ to 2$^-$ level, (M1) γ's to g.s. and 2$^+$ level.
1478.42[h] *4*	(2$^+$)	B E	XREF: E(1471). J$^{\pi}$: γ's to 2$^+$ and 1$^-$ levels; natural parity (seen in (d,d′)); band assignment.
1509.22[h] *6*	(3$^+$)	B	J$^{\pi}$: γ's to 2$^+$ and 4$^+$ levels; band assignment.
1525.920 *25*	3$^-$	B E	J$^{\pi}$: E1 γ to 2$^+$ level; (E2+M1) γ to (4)$^-$ level; natural parity (seen in (d,d′)).
1573.74 *5*	(1$^+$)	B	J$^{\pi}$: (M1) γ to g.s.
1593.692[i] *24*	2$^-$	B	J$^{\pi}$: E1 γ to 2$^+$ level, (M1+E0) γ to 2$^-$ level; band assignment.
1601.22 *3*	(3)$^+$	B	J$^{\pi}$: E1 γ's to 3$^-$ and 2$^-$ levels, γ to (4)$^-$ level.
1604.16[j] *4*	(1$^-$)	B E	XREF: E(1609).

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Adopted Levels, Gammas (continued)

^{246}Cm Levels (continued)

E(level)[†]	Jπ[†]	XREF	Comments
			Jπ: γ's to 0+ g.s. and 2+ level; natural parity (seen in (d,d′)); band assignment.
1621.486[i] *25*	3−	B E	Jπ: E1 γ to 4+ level, E1,E2 γ to 2+.
1628.92? *7*		B	Jπ: γ's to 2+ and 4+ levels.
1633.53[j] *3*	(2)−	B	Jπ: E1 γ to 2+ level, (M1) γ's to 1− and (2)− levels; band assignment.
1659.19 *9*	(1−)	B E	XREF: E(1652). Jπ: (M1,E2) γ to (2)− level, γ to 0+ g.s.; natural parity (seen in (d,d′)).
1661.64[k] *4*	(1+)	B	Jπ: (M1) γ's to 0+ g.s. and 2+ level.
1670.99[j] *3*	(3−)	B E	Jπ: natural parity (seen in (d,d′)); band assignment.
1680.79[k] *5*	2+	B	Jπ: γ's to 0+ g.s. and 4+ levels, (M1) γ to 2+ level.
1712.37[k] *5*	(3+)	B	Jπ: γ's to 2+ and 4+ levels; band assignment.
1760.2[‡@] *8*	(16+)[‡]	H	
1780.80 *3*	2+	B E	XREF: E(1786). Jπ: M1+E0 γ to 2+ level.
1821.75 *6*		B	
1836.73 *6*	(2+,1−)	B E	Jπ: γ's to 0+ and 3− levels; natural parity (seen in (d,d′)).
1856.59 *6*	(3+)	B	Jπ: γ's to 2+ and 4+ levels suggests 2+,3,4+; level not seen in (d,d′) suggests a level with unnatural parity, *i.e.* 3+.
1870.19 *5*	1,2+	B	Jπ: γ's to 0+ and 2+ levels.
1875.52 *11*	1,2+	B	Jπ: γ's to 0+ and 2+ levels.
1886.76 *4*	(1+)	B	Jπ: (M1+E0) γ to 1+ level.
1898.07 *9*	(2+)	B	Jπ: γ's to 0+ and 4+ levels.
1901.31 *6*	2+,3	B	Jπ: γ's to 2+ and 4+ levels; log $f^{1u}t$=8.3 from 2(−) ^{246}Am rules out 4+.
1906.11 *14*	2+,3,4+	B	Jπ: γ's to 2+ and 4+ levels.
1909.31 *6*	1−,2+	B E	Jπ: γ's to 0+ and 2+ levels suggests 1,2+; natural parity (seen in (d,d′)).
1924.56 *4*	1,2+	B	Jπ: γ's to 0+ and 2+ levels.
1947.07 *7*	2+,3,4+	B	Jπ: γ's to 2+ and 4+ levels.
1965 *4*		E	
1983.34 *13*	(1+,2+)	B	Jπ: γ's to 0+ g.s. and 3+ level; possible γ to 3− level would rule out 1+.
2032.50 *7*	1,2+	B	Jπ: γ's to 0+ and 2+ level.
2146.04 *5*	1,2+	B	Jπ: γ's to 0+ g.s. and 2+ level.
2165.1[‡@] *9*	(18+)[‡]	H	
2171.40 *7*	2+,3	B	Jπ: γ's to 2+ and 4+ levels; log $f^{1u}t$=7.1 from 2(−) ^{246}Am rules out 4+.
2598.1[‡@] *9*	(20+)[‡]	H	
3056.0[‡@] *10*	(22+)[‡]	H	
3535.1[‡@] *10*	(24+)[‡]	H	
4033.2[‡@] *11*	(26+)[‡]	H	

[†] From ^{246}Am β− decay (25.0 min), unless otherwise specified.
[‡] From ^{248}Cm(^{209}Bi,^{211}Biγ). Jπ assignment based on rotational structure.
[#] From ^{246}Am β− decay (39 min).
[@] Band(A): Kπ=0+ g.s. rotational band. A=7.1595 *13*, B=−2.95 *5*.
[&] Band(B): Kπ=2− band. Eo=807.23 *6*, A=5.715 *17*, B=4.4 *7*.
[a] Band(C): Kπ=1− band. Eo=1062.67 *5*, A=8.617 *18*, B=−264.3 *14*.
[b] Band(D): Kπ=2+ band. Eo=1082.77 *12*, A=6.94 *3*, B=−4.0 *13*.
[c] Band(E): Second Kπ=0+ band. Eo=1174.74 *7*, A=5.965 *15*.
[d] Band(F): ν 7/2[624]+ν 9/2[734].
[e] Band(G): Kπ=0− band. Eo=1239.63 *2*, A=5.068 *5*.
[f] Band(H): Third Kπ=0+ band. Eo=1289.3, A=4.804, B=−15.4.
[g] Band(I): Second Kπ=1− band. Eo=1339.97 *3*, A=4.443 *8*.

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Adopted Levels, Gammas (continued)

^{246}Cm Levels (continued)

[h] Band(J): $K^{\pi}=1^{+}$ band. Eo=1436.83 *8*, A=7.83 *4*, B=−149 *3*.
[i] Band(K): Second $K^{\pi}=2^{-}$ band. Eo=1565.88 *2*, A=4.635 *5*.
[j] Band(L): Third $K^{\pi}=1^{-}$ band. Eo=1588.18 *6*, A=8.215 *24*, B=−109.3 *18*.
[k] Band(M): Second $K^{\pi}=1^{+}$ band. Eo=1652.64 *7*, A=4.41 *4*, B=47 *3*.

Adopted Levels, Gammas (continued)

γ(^{246}Cm)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[&]	$I_{(\gamma+ce)}$	Comments
42.852	2^+	42.852 *5*	100	0	0^+	E2	1060		B(E2)(W.u.)=327 *12* E_γ,Mult.: from ^{250}Cf α decay.
141.989	4^+	99.2 *2*	100.0	42.852	2^+	E2[#]	19.4 *4*		
294.89	6^+	152.9 *2*	100.0	141.989	4^+	[E2]	2.88		
500.5	8^+	205[‡] *1*	100	294.89	6^+				
753.3	(10^+)	252.8[@]		500.5	8^+				
841.671	2^-	798.80 *4*	100.0	42.852	2^+	E1			
876.434	3^-	34.8[#] *1*	≈0.2[#]	841.671	2^-	[M1,E2]			
		734.41 *4*	65.4 *20*	141.989	4^+	E1			
		833.60 *4*	100 *3*	42.852	2^+	E1			
923.30	$(4)^-$	(46.87)	≈0.09	876.434	3^-	[M1,E2]			
		(81.63)	≈1.6	841.671	2^-	[E2]	48.4		
		781.28 *6*	100 *8*	141.989	4^+	[E1]			
980.6	(5^-)	685.1[‡b] *3*	≈100[‡]	294.89	6^+				
		838.5[‡b] *3*	≈100[‡]	141.989	4^+				
1050.1	(12^+)	296.8[@]		753.3	(10^+)				
1051.5	(6^-)	127.4[a‡b] *5*	≈24[a‡]	923.30	$(4)^-$				
		756.0[‡] *3*	100[‡] *8*	294.89	6^+				
1078.845	1^-	237.23 *4*	0.52 *3*	841.671	2^-	[M1,E2]			
		1036.00 *4*	45.7 *14*	42.852	2^+	E1[#]			
		1078.86 *4*	100 *4*	0	0^+	E1[#]			
1104.854	$(2)^-$	263.17 *5*	0.195 *13*	841.671	2^-	[M1,E2]	1.2 *9*		
		962.9 *4*	0.003 *3*	141.989	4^+	[M2]	0.1366		
		1062.04 *4*	100.0 *21*	42.852	2^+	E1[#]			
1124.260	2^+	982.73 *15*	5.1[#] *15*	141.989	4^+	[E2]	0.01427		
		1081.40 *6*	100 *15*	42.852	2^+	(E2)[#]	0.01190		
		1124.29 *4*	76 *3*	0	0^+	E2	0.01107		
1128.012	3^-	251.50 *10*	0.18 *4*	876.434	3^-	[M1,E2]			
		986.03 *4*	62.7 *20*	141.989	4^+	(E1)			
		1085.15 *6*	100 *3*	42.852	2^+	E1			
1128.8	(7^-)	629[‡] *1*	50[‡] *10*	500.5	8^+				
		834[‡] *1*	≈100[‡]	294.89	6^+				
1165.48	(3^+)	289.3[a] *2*	4.8[a] *13*	876.434	3^-	[E1]	0.0470		
		1023.44 *7*	40 *5*	141.989	4^+	[E2]	0.01321		
		1122.64 *6*	100 *5*	42.852	2^+	(E2)	0.01110		
1174.72	0^+	1131.88 *7*	100 *12*	42.852	2^+	[E2]	0.01093		
		1174.72		0	0^+	E0		0.99 *4*	

Adopted Levels, Gammas (continued)

γ(^{246}Cm) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ	α[&]	$I_{(\gamma+ce)}$
1179.7	(8⁻)	127.4[a‡] *5*	≈6[a‡]	1051.5	(6⁻)				
		679[‡] *1*	100[‡]	500.5	8⁺				
1210.52	2⁺	1167.74 *5*	100 *6*	42.852	2⁺	E0+(M1,E2)		0.023 *13*	
		1210.35 *9*	45 *7*	0	0⁺	[E2]			
1219.95	(4⁺)	925.0[b] *3*	1.0×10² *4*	294.89	6⁺	[E2]		0.01602	
		1177.2 *2*	41 *11*	42.852	2⁺	[E2]		0.01016	
1249.768	1⁻	171.02 *11*	33 *14*	1078.845	1⁻	[M1,E2]			
		373.36 *5*	14.0 *9*	876.434	3⁻	[E2]		0.1251	
		407.99 *6*	6.8 *7*	841.671	2⁻	[M1,E2]			
		1206.96 *4*	100 *4*	42.852	2⁺	E1			
		1249.79 *4*	100 *4*	0	0⁺	[E1]			
1289.3	0⁺	1289.4		0	0⁺	E0			100
1300.43	(3⁻)	377.2 *2*	7 *3*	923.30	(4)⁻	[M1,E2]			
		423.4[a] *5*	10[a] *5*	876.434	3⁻	[M1,E2]			
		1158.47 *6*	32 *3*	141.989	4⁺	[E1]			
		1257.62 *6*	100 *7*	42.852	2⁺	[E1]			
1317.56?	(2)⁺	1274.72 *4*	100.0	42.852	2⁺	M1		0.0285	
1340.15		1198.19[b] *6*	100 *5*	141.989	4⁺				
		1297.34[b] *9*	34 *4*	42.852	2⁺				
1348.856	1⁻	244.03 *3*	66.7 *25*	1104.854	(2)⁻	(M1)		2.53	
		270.07 *3*	100 *4*	1078.845	1⁻	M1+E2	0.5 *2*	1.60 *21*	
		472.33 *5*	3.57 *17*	876.434	3⁻	[E2]		0.0676	
		507.10 *5*	6.6 *3*	841.671	2⁻	(E2)		0.0569	
		1306.8[b] *2*	0.61 *10*	42.852	2⁺	[E1]			
		1348.81 *4*	11.7 *5*	0	0⁺	E1			
1366.623	(2⁻)	238.64 *3*	94 *5*	1128.012	3⁻	[M1,E2]		1.6 *11*	
		261.73 *5*	100 *4*	1104.854	(2)⁻	[M1,E2]		1.2 *9*	
		287.78 *3*	83 *3*	1078.845	1⁻	(M1)		1.601	
		443.25 *18*	2.2 *7*	923.30	(4)⁻	[E2]		0.0792	
		524.92 *4*	46.8 *18*	841.671	2⁻	(M1)		0.309	
		1323.77 *8*	16 *4*	42.852	2⁺	[E1]			
1379.22	(4⁺)	1237.2 *2*	39 *6*	141.989	4⁺	[M1,E2]		0.020 *11*	
		1336.38[a] *7*	100[a] *7*	42.852	2⁺	[E2]			
1387.1	(14⁺)	337.0[@]		1050.1	(12⁺)				
1451.88	1⁺	277.0 *2*	4.4 *17*	1174.72	0⁺	[M1]		1.78	
		327.81 *17*	6.6 *22*	1124.260	2⁺	[M1,E2]			
		609.98 *9*	98 *17*	841.671	2⁻	E1		0.01055	
		1409.12 *8*	74 *4*	42.852	2⁺	(M1)		0.0218	
		1451.91 *4*	100 *5*	0	0⁺	(M1)		0.0202	

$^{246}_{96}Cm_{150}$-6

Adopted Levels, Gammas (continued)

γ(^{246}Cm) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ	α&
1478.42	(2$^+$)	228.71 *7*	100 *20*	1249.768	1$^-$	[E1]		0.0789
		267.3[a] *5*	13[a] *7*	1210.52	2$^+$	[M1,E2]		
		636.72[a] *12*	32[a] *8*	841.671	2$^-$	[E1]		
		1336.38[a] *7*	49[a] *4*	141.989	4$^+$	[E2]		
		1435.59 *6*	69 *7*	42.852	2$^+$	[M1,E2]		
1509.22	(3$^+$)	289.3[a] *2*	18[a] *5*	1219.95	(4$^+$)	[M1,E2]		
		343.93[ab] *4*	100[a] *4*	1165.48	(3$^+$)	[M1,E2]		
		381.0[a] *3*	5.8[a] *20*	1128.012	3$^-$	[E1]		0.0264
		1367.9 *2*	61 *11*	141.989	4$^+$	[M1,E2]		
		1466.33 *6*	29 *4*	42.852	2$^+$	[M1,E2]		
		1509.0[b] *4*	2.9 *15*	0	0$^+$	[M3]		0.0681
1525.920	3$^-$	306.0 *3*	0.21 *13*	1219.95	(4$^+$)	[E1]		0.0417
		360.39 *4*	9.7 *4*	1165.48	(3$^+$)	[E1]		0.0296
		398.14 *12*	1.40 *22*	1128.012	3$^-$	[M1,E2]		
		401.68 *3*	45.3 *13*	1124.260	2$^+$	E1		0.0237
		421.08 *5*	3.8 *3*	1104.854	(2)$^-$	[M1,E2]		
		446.8 *5*	0.21 *17*	1078.845	1$^-$	[E2]		0.0776
		602.54 *6*	39.8 *22*	923.30	(4)$^-$	(E2+M1)	3.4 *10*	0.052 *12*
		649.48 *4*	62.7 *22*	876.434	3$^-$	(E2+M1)	2.1 *2*	0.059 *5*
		684.28 *5*	100 *4*	841.671	2$^-$	(E2+M1)	1.3 *2*	0.075 *10*
		1383.94 *17*	0.93 *17*	141.989	4$^+$	[E1]		
		1483.09 *9*	3.5 *3*	42.852	2$^+$	[E1]		
1573.74	(1$^+$)	1530.7 *5*	51 *11*	42.852	2$^+$	(M1)		0.01756
		1573.74 *5*	100 *5*	0	0$^+$	(M1)		0.01634
1593.692	2$^-$	227.4[b] *2*	1.8 *6*	1366.623	(2$^-$)	[M1,E2]		
		244.9 *2*	0.8 *5*	1348.856	1$^-$	[M1,E2]		
		293.37[a] *15*	0.55[a] *16*	1300.43	(3$^-$)	[M1,E2]		
		343.93[a] *4*	3.15[a] *13*	1249.768	1$^-$	[M1,E2]		
		465.61 *5*	3.12 *25*	1128.012	3$^-$	[M1,E2]		
		469.71 *8*	1.24 *16*	1124.260	2$^+$	[E1]		0.01735
		488.82 *4*	11.2 *5*	1104.854	(2)$^-$	M1		0.374
		514.79 *4*	10.5 *5*	1078.845	1$^-$	(M1)		0.325
		670.1 *2*	1.0 *4*	923.30	(4)$^-$	[E2]		0.0306
		717.24 *5*	30.9 *13*	876.434	3$^-$	(M1)		0.1330
		752.06 *4*	100 *4*	841.671	2$^-$	(M1+E0)		0.179 *8*
		1550.94 *9*	33 *3*	42.852	2$^+$	E1		
1601.22	(3)$^+$	381.0[a] *3*	0.23[a] *8*	1219.95	(4$^+$)	[M1,E2]		0.4 *4*
		476.89 *5*	3.32 *24*	1124.260	2$^+$	(M1)		0.400
		677.86 *6*	7.0 *6*	923.30	(4)$^-$	[E1]		
		724.79 *4*	33.2 *12*	876.434	3$^-$	E1		

$^{246}_{96}Cm_{150}$-7

Adopted Levels, Gammas (continued)

γ(^{246}Cm) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ	α&
1601.22	$(3)^+$	759.59 *4*	100 *3*	841.671	2^-	E1		
		1459.32 *6*	1.47 *16*	141.989	4^+	[M1,E2]		0.013 *7*
		1558.35 *10*	2.6 *3*	42.852	2^+	[M1,E2]		0.011 *6*
1604.16	(1^-)	354.45 *6*	6.3 *10*	1249.768	1^-	[M1,E2]		
		1561.30 *5*	93 *4*	42.852	2^+	[E1]		
		1604.14 *5*	100 *4*	0	0^+	[E1]		
1621.486	3^-	321.07 *4*	7.9 *6*	1300.43	(3^-)	[M1,E2]		
		456.11 *6*	5.9 *8*	1165.48	(3^+)	[E1]		0.0184
		493.46 *4*	45.7 *16*	1128.012	3^-	M1		0.365
		516.60 *13*	4.2 *11*	1104.854	$(2)^-$	[M1,E2]		
		698.27 *5*	49 *4*	923.30	$(4)^-$	(M1)		0.1430
		745.05 *4*	100 *4*	876.434	3^-	(M1+E0)		0.18 *2*
		779.76 *8*	28 *5*	841.671	2^-	(M1)		0.1063
		1479.43 *4*	97 *4*	141.989	4^+	E1		
		1578.62 *5*	32.8 *13*	42.852	2^+	[E1]		
1628.92?		1486.90[b] *7*	40 *30*	141.989	4^+			
		1586.1[b] *2*	100 *50*	42.852	2^+			
1633.53	$(2)^-$	267.3[a] *5*	1.0[a] *5*	1366.623	(2^-)			
		293.37[a] *15*	0.86[a] *24*	1340.15				
		383.73 *6*	3.6 *4*	1249.768	1^-	(M1)		0.781
		423.4[a] *5*	0.8[a] *4*	1210.52	2^+			
		505.61[a] *13*	2.3[a] *4*	1128.012	3^-			
		528.69 *7*	2.9 *3*	1104.854	$(2)^-$	(M1)		0.327
		554.68 *6*	2.8 *3*	1078.845	1^-	(M1,E2)		
		791.5 *2*	12.4 *24*	841.671	2^-			
		1590.68 *5*	100 *7*	42.852	2^+	E1		
1659.19	(1^-)	554.4 *2*	100 *8*	1104.854	$(2)^-$	(M1,E2)		
		1616.3 *2*	13 *4*	42.852	2^+	[E1]		
		1659.18 *10*	57 *5*	0	0^+	[E1]		
1661.64	(1^+)	451.2[a] *2*	1.1[a] *5*	1210.52	2^+	[M1,E2]		
		487.2 *3*	4.1 *9*	1174.72	0^+	[M1]		0.378
		820.7[b] *3*	1.6 *10*	841.671	2^-	[E1]		
		1618.80 *4*	51.0 *20*	42.852	2^+	(M1)		0.01519
		1661.63 *5*	100 *4*	0	0^+	(M1)		0.01421
1670.99	(3^-)	451.2[a] *2*	1.1[a] *5*	1219.95	(4^+)	[E1]		0.0188
		505.61[a] *13*	5.4[a] *10*	1165.48	(3^+)	[E1]		0.01504
		542.92 *5*	17.8 *23*	1128.012	3^-	(M1+E2)	0.6 *4*	0.22 *6*
		566.12 *5*	19.1 *12*	1104.854	$(2)^-$	(M1)		0.252
		747.74 *8*	11.1 *23*	923.30	$(4)^-$	[M1,E2]		
		829.37 *8*	8.0 *16*	841.671	2^-	[M1,E2]		

$^{246}_{96}Cm_{150}$-8

Adopted Levels, Gammas (continued)

γ(^{246}Cm) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[&]
1670.99	(3⁻)	1529.00 *7*	100 *5*	141.989	4⁺	(E1)	
		1628.17 *5*	24.6 *13*	42.852	2⁺	(E1)	
1680.79	2⁺	461.2[b] *2*	2.0 *8*	1219.95	(4⁺)	[E2]	0.0717
		1538.9 *2*	0.8 *3*	141.989	4⁺	[E2]	
		1637.95 *5*	100 *13*	42.852	2⁺	(M1)	0.01474
		1680.69 *18*	0.66 *13*	0	0⁺	[E2]	
1712.37	(3⁺)	1570.46 *7*	98 *8*	141.989	4⁺	[M1,E2]	
		1669.50 *5*	100 *7*	42.852	2⁺	[M1,E2]	
1760.2	(16⁺)	373.1[@]		1387.1	(14⁺)		
1780.80	2⁺	414.16 *6*	9.3 *12*	1366.623	(2⁻)	[E1]	0.0223
		656.35 *14*	10.4 *25*	1124.260	2⁺	M1+E0	0.9 *3*
		904.42 *5*	51.3 *20*	876.434	3⁻	(E1)	
		939.15 *5*	69 *5*	841.671	2⁻	(E1)	
		1737.94 *5*	100 *7*	42.852	2⁺	(M1)	0.01267
		1780.5 *2*	3.6 *9*	0	0⁺	[E2]	
1821.75		1778.92 *6*	100 *6*	42.852	2⁺		
		1821.70 *12*	6.6 *14*	0	0⁺		
1836.73	(2⁺,1⁻)	960.2 *3*	100 *40*	876.434	3⁻		
		1794.7 *4*	6.8 *23*	42.852	2⁺		
		1836.71 *6*	86 *9*	0	0⁺		
1856.59	(3⁺)	347.26[b] *4*	100 *6*	1509.22	(3⁺)		
		636.72[ab] *12*	49[a] *12*	1219.95	(4⁺)	[M1,E2]	
		732.5[a] *2*	63[a] *18*	1124.260	2⁺	[M1,E2]	
		1714.61 *9*	9.0 *10*	141.989	4⁺		
		1813.73 *6*	11.3 *11*	42.852	2⁺		
1870.19	1,2⁺	580.9[a] *3*	44[a] *12*	1289.3	0⁺		
		1827.39 *5*	100 *8*	42.852	2⁺		
		1869.81 *15*	5.2 *11*	0	0⁺		
1875.52	1,2⁺	751.0 *3*	100 *36*	1124.260	2⁺		
		1832.6 *3*	1.4 *7*	42.852	2⁺		
		1875.56 *12*	2.4 *6*	0	0⁺		
1886.76	(1⁺)	434.92 *13*	48 *15*	1451.88	1⁺	(M1+E0)	1.2 *2*
		1045.08 *6*	100 *17*	841.671	2⁻	[E1]	
		1843.86 *5*	49 *5*	42.852	2⁺	[M1,E2]	
		1886.80 *5*	68 *5*	0	0⁺	[M1]	0.01034
1898.07	(2⁺)	732.5[a] *2*	1.0×10^{3}[a] *3*	1165.48	(3⁺)	[M1,E2]	
		1756.1 *2*	93 *15*	141.989	4⁺	[E2]	
		1855.34 *12*	100 *33*	42.852	2⁺	[M1,E2]	
		1897.8 *2*	30 *7*	0	0⁺	[E2]	
1901.31	2⁺,3	1759.30 *5*	100 *9*	141.989	4⁺		

$^{246}_{96}Cm_{150}$-9

Adopted Levels, Gammas (continued)

γ(^{246}Cm) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
1901.31	2^+,3	1858.7 *2*	3.6 *6*	42.852	2^+
1906.11	2^+,3,4^+	1764.2 *2*	95 *21*	141.989	4^+
		1863.19 *18*	100 *16*	42.852	2^+
1909.31	1^-,2^+	1866.48 *6*	100 *15*	42.852	2^+
		1909.27 *9*	29 *3*	0	0^+
1924.56	1,2^+	1881.70 *5*	91 *9*	42.852	2^+
		1924.56 *5*	100 *9*	0	0^+
1947.07	2^+,3,4^+	325.61 *8*	100 *17*	1621.486	3^-
		1804.8 *2*	15 *4*	141.989	4^+
		1904.26 *10*	20 *3*	42.852	2^+
1983.34	(1^+,2^+)	271.1 *2*	41 *21*	1712.37	(3^+)
		361.85[b] *9*	100 *13*	1621.486	3^-
		1940.43 *18*	4.5 *9*	42.852	2^+
		1983.2 *3*	2.4 *9*	0	0^+
2032.50	1,2^+	370.81[b] *13*	50 *12*	1661.64	(1^+)
		580.9[a] *3*	1.0×10^2[a] *3*	1451.88	1^+
		1989.63 *8*	12.4 *24*	42.852	2^+
		2032.49 *11*	12 *5*	0	0^+
2146.04	1,2^+	2103.18 *7*	51 *5*	42.852	2^+
		2146.05 *7*	100 *6*	0	0^+
2165.1	(18^+)	404.9[@]		1760.2	(16^+)
2171.40	2^+,3	577.9[b] *3*	1.0×10^2 *3*	1593.692	2^-
		2029.39 *8*	13.8 *15*	141.989	4^+
		2128.57 *9*	15.3 *15*	42.852	2^+
2598.1	(20^+)	433.0[@]		2165.1	(18^+)
3056.0	(22^+)	457.9[@]		2598.1	(20^+)
3535.1	(24^+)	479.1[@]		3056.0	(22^+)
4033.2	(26^+)	498.1[@]		3535.1	(24^+)

† From ^{246}Am(25.0 min) β^- decay, unless otherwise specified.
‡ From ^{246}Am (39 min) β^- decay.
# From ^{246}Bk ε decay.
@ From ^{248}Cm(^{209}Bi,^{211}Biγ).
& 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.
[a] Multiply placed with undivided intensity.
[b] Placement of transition in the level scheme is uncertain.

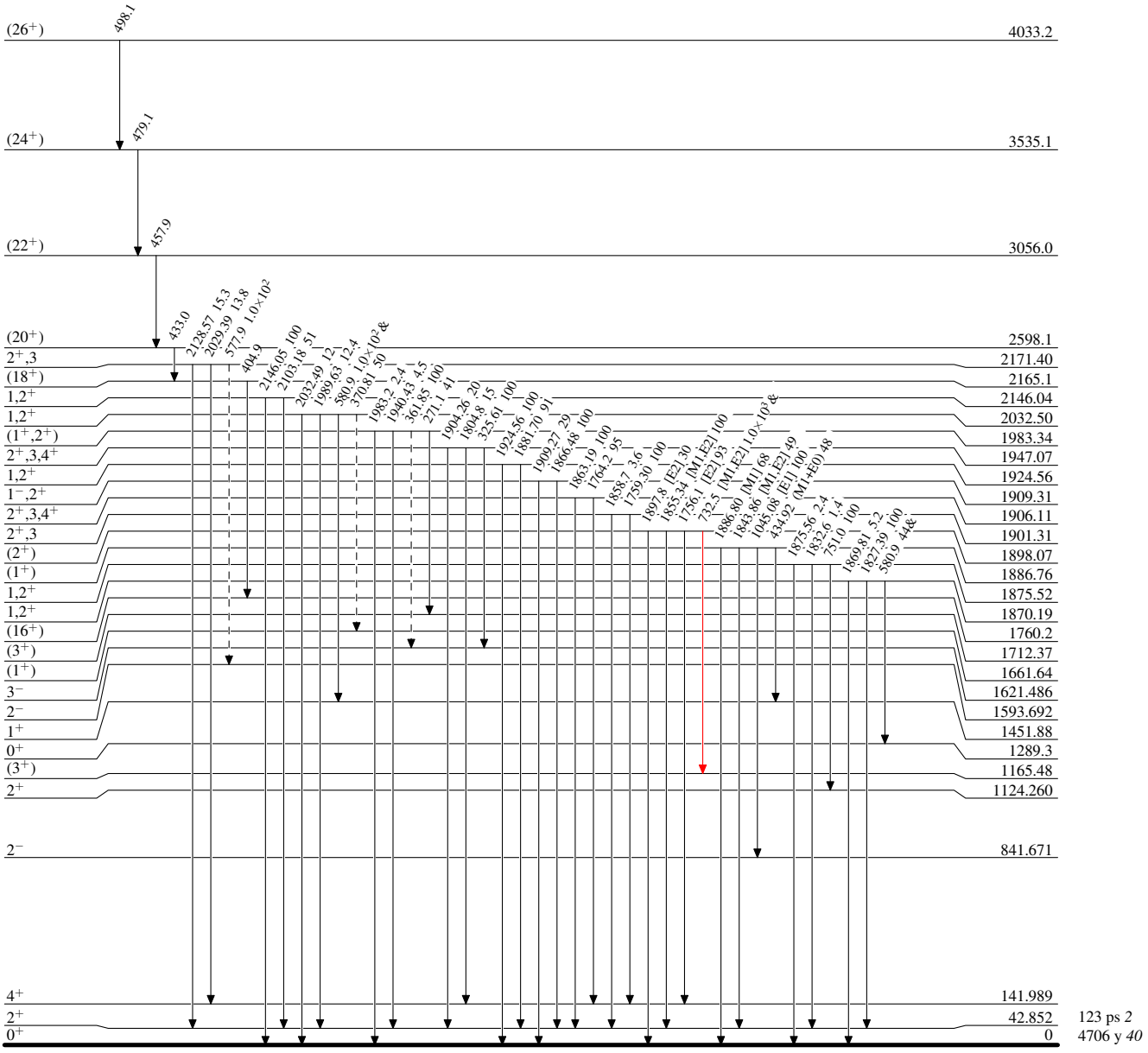
$^{246}_{96}Cm_{150}$-10

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified
& Multiply placed: undivided intensity given

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)

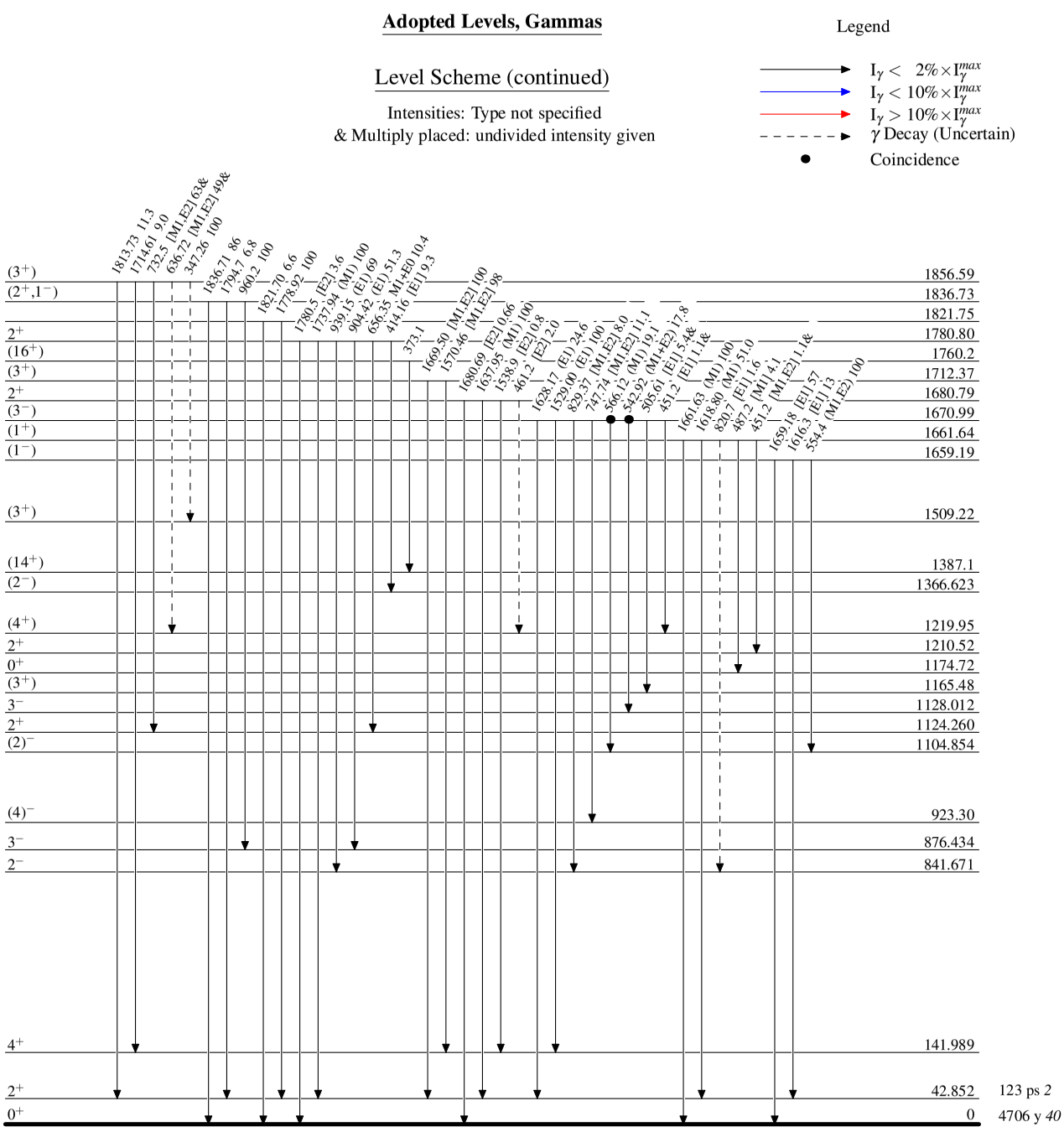


$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

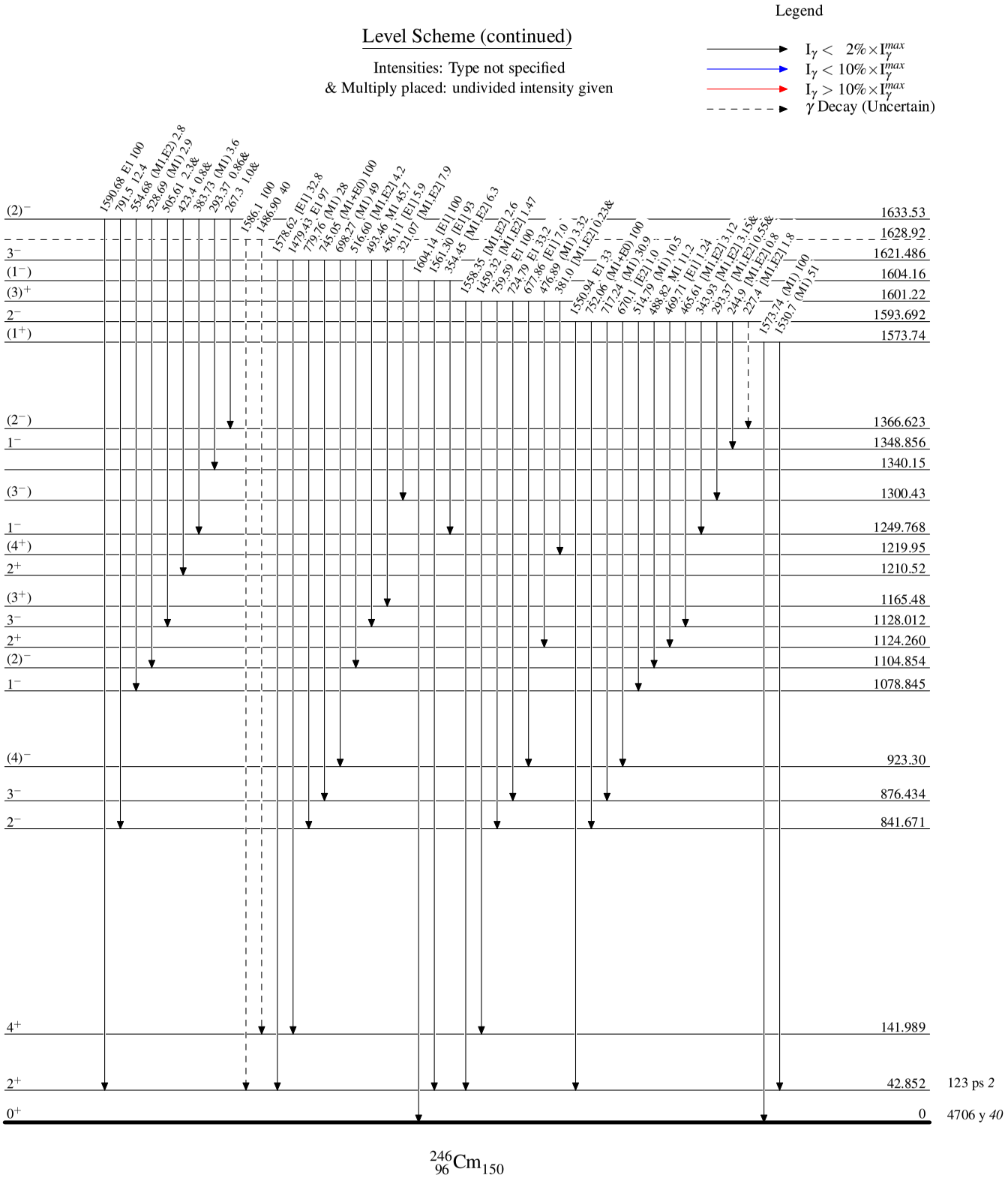


$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

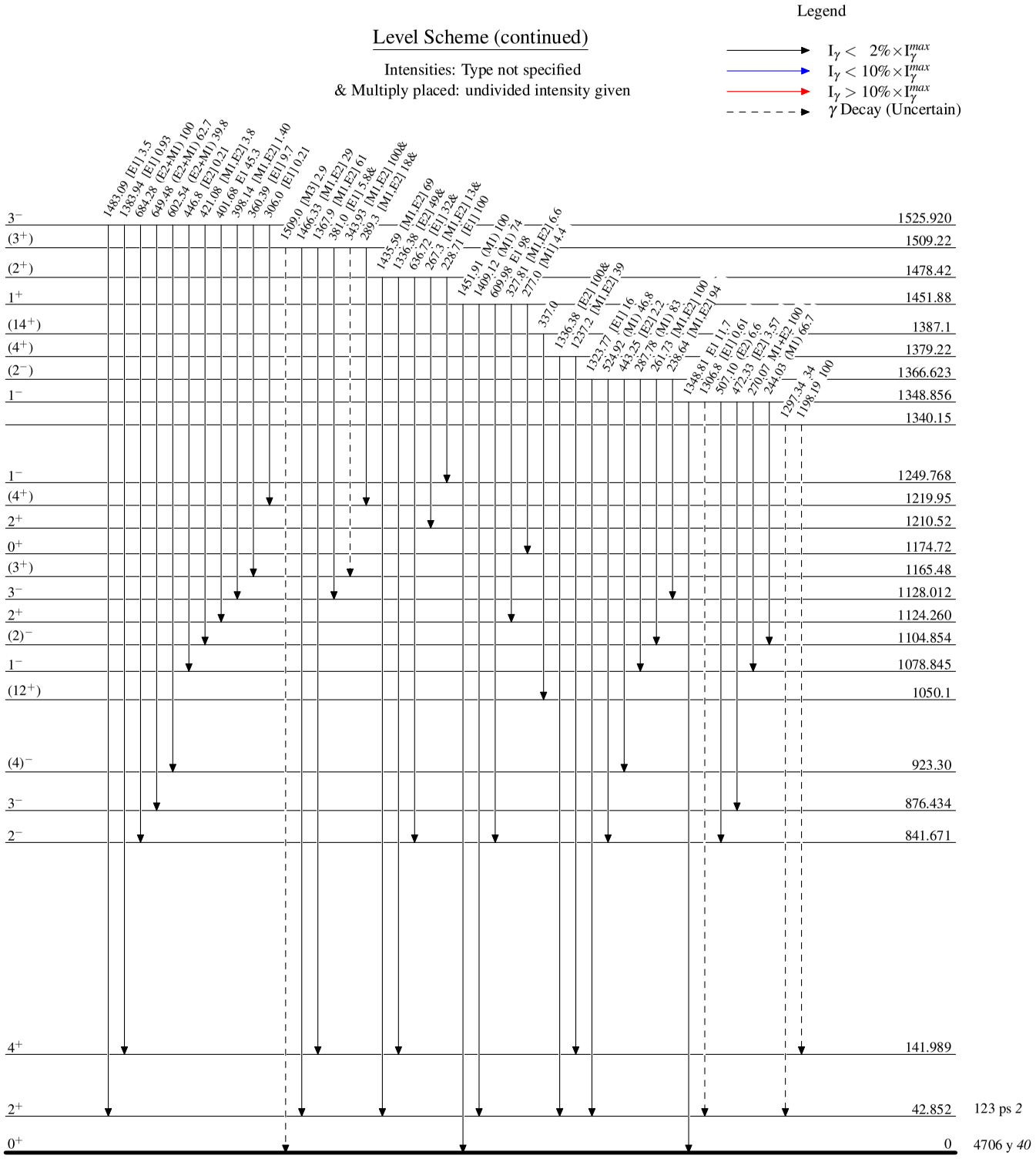


$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

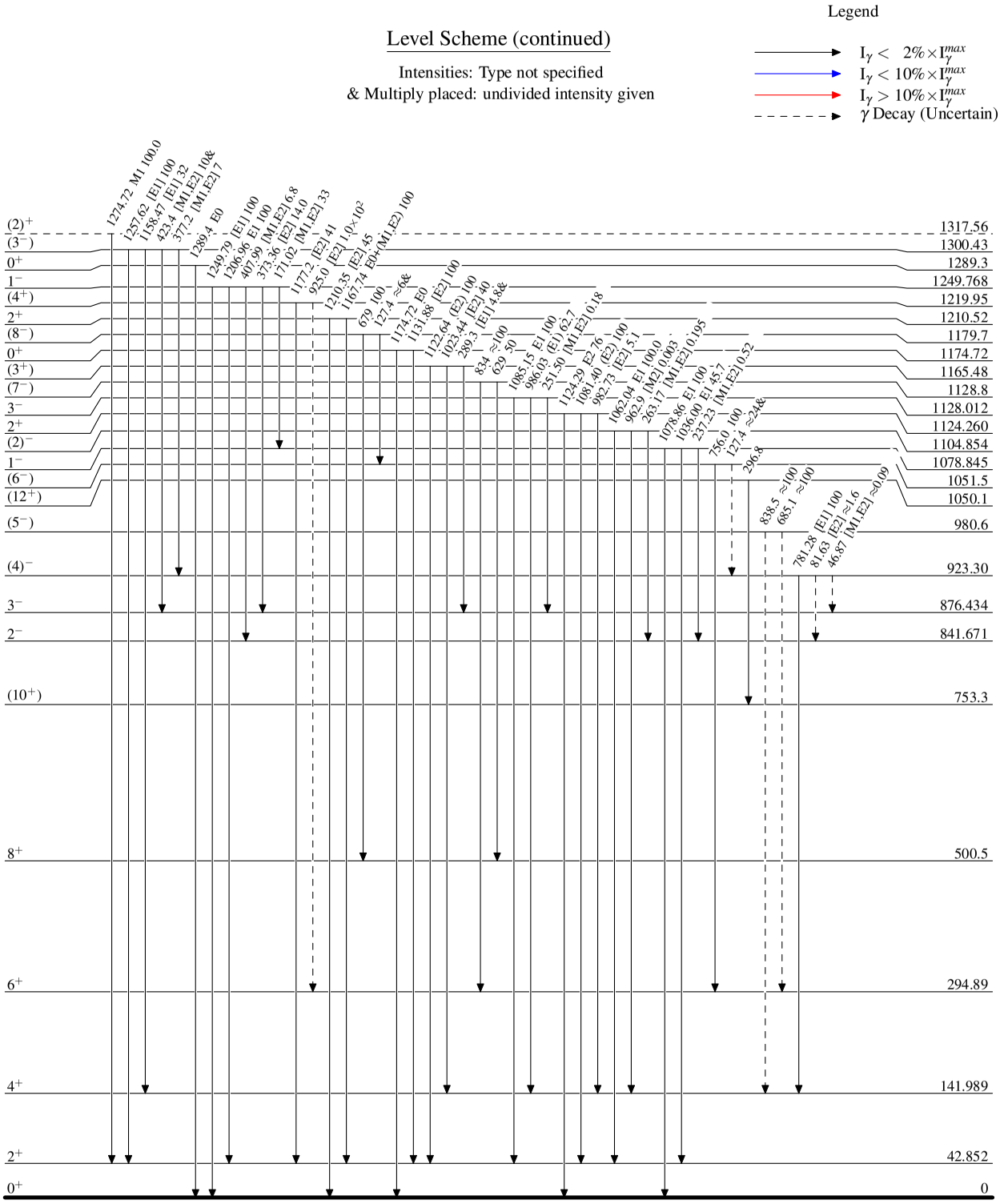


$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

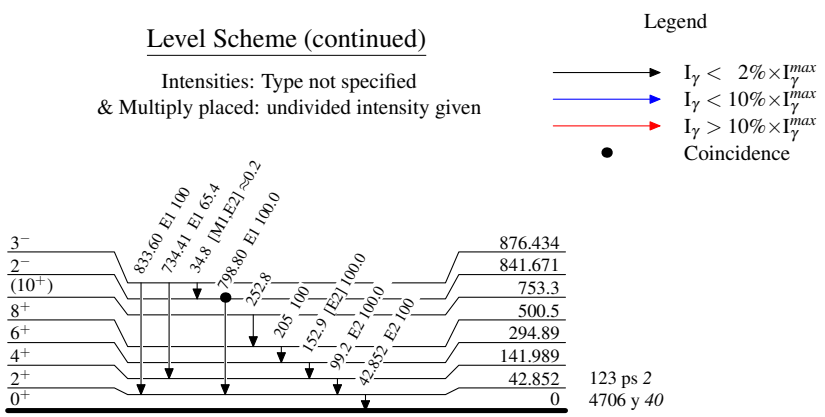


$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

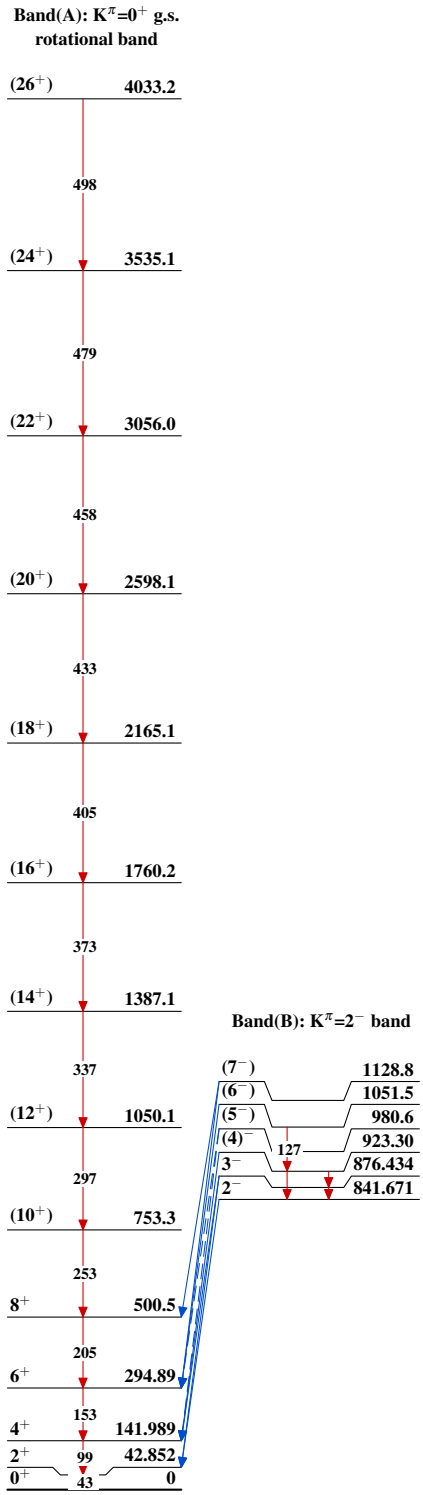
Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given



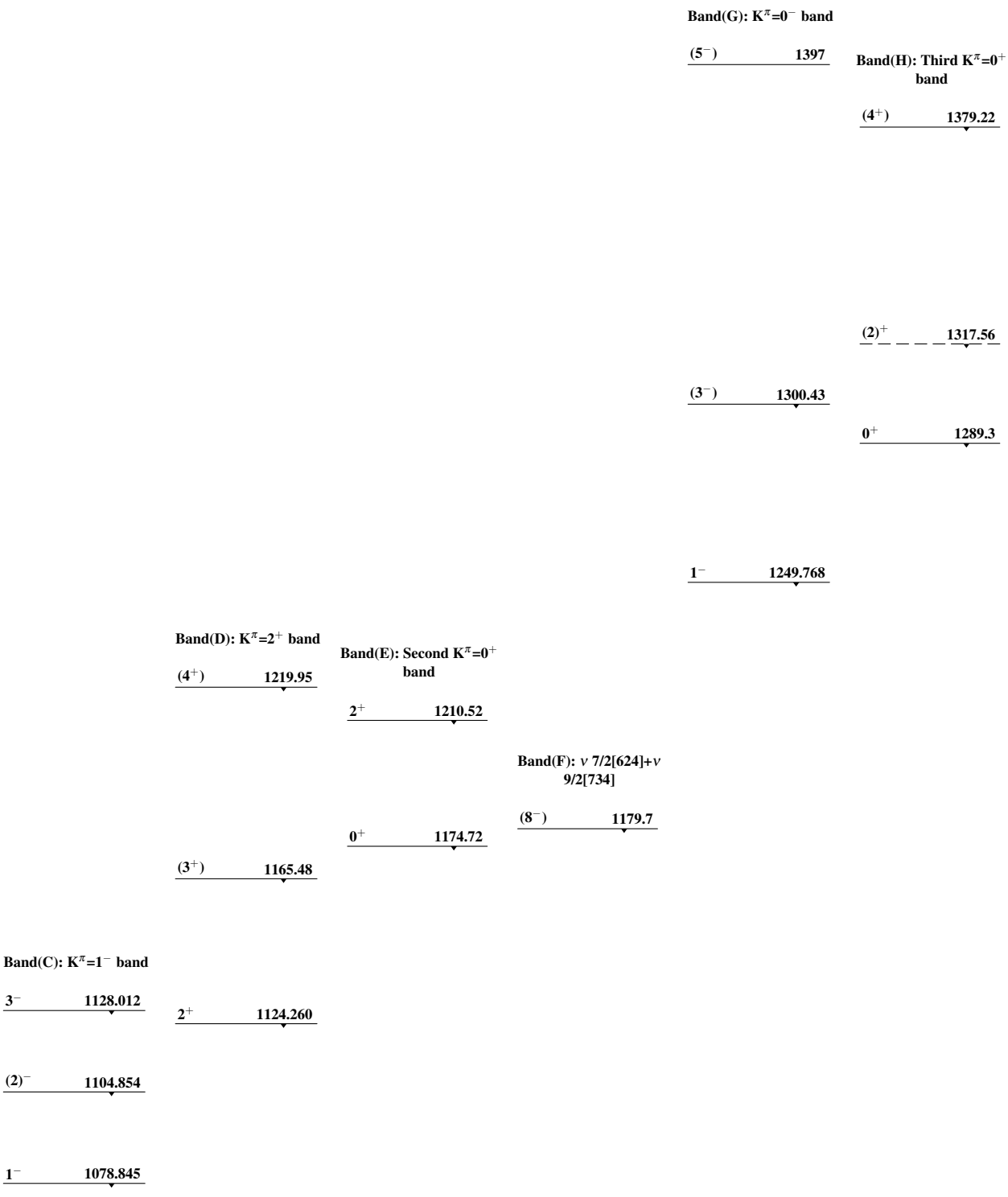
$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas



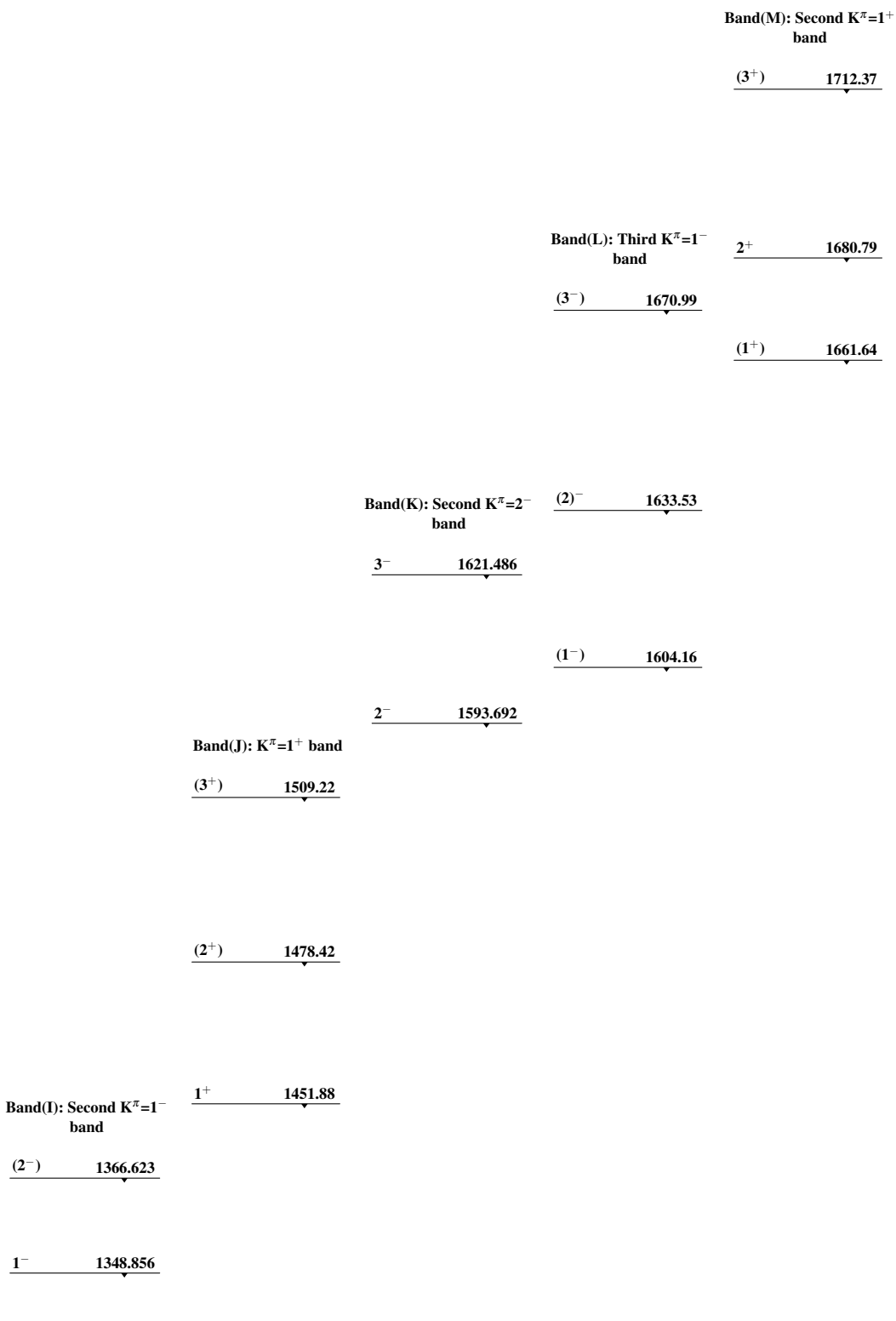
$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas (continued)



$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas (continued)



$^{246}_{96}Cm_{150}$

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 122, 377 (2014)	1-Sep-2014

Q(β^-)=−687 *SY*; S(n)=6212 *5*; S(p)=7050 *SY*; Q(α)=5161.73 *25* 2012Wa38
The systematics uncertainties are 71 and 100 keV for Q(β^-) and S(p), respectively.

^{248}Cm Levels

Cross Reference (XREF) Flags

A ^{252}Cf α decay
B ^{248}Bk ε decay
C Coulomb excitation
D ^{248}Cm(α,α'),(d,d′)
E ^{246}Cm(t,p)

E(level)[&]	J$^\pi$[a]	T$_{1/2}$[c]	XREF	Comments
0.0[†]	0$^+$	3.48×10^5 y *6*	ABCDE	%α=91.61 *16*; %SF=8.39 *16* T$_{1/2}$: recommended by 1989Ho24 from a weighted average of 3.52 *4* (1969Me01), 3.60 *4* (1971Ma32), and 3.40 *3* (1971Mc19) In units of 10×10^5 y. T$_{1/2}$(SF)=4.15×10^6 *3* is recommended by 2000Ho27 from a weighted average of 4.22 *12* (1969Me01), 4.20 *5* (1971Ma32), and 4.11 *3* (1971Mc19) In units of 10×10^6 years. %α,%SF: from the adopted values for T$_{1/2}$ and T$_{1/2}$(SF).
43.40[†] *3*	2$^+$[b]	122.5 ps *25*	A CDE	J$^\pi$: HF=3.4 In α decay. T$_{1/2}$: other: T$_{1/2}$=126 ps *10* In ^{252}Cf α decay (1970To08).
143.80[†] *21*	4$^+$[b]	80 ps *+14−19*	A CD	J$^\pi$: HF=62 *30* In α decay.
298.9[†] *3*	6$^+$[b]	34 ps *+11−3*	A CD	
506.4[†] *4*	8$^+$[b]	16.0 ps *+31−23*	A CD	
762.8[†] *4*	10$^+$[b]	7.5 ps *+7−6*	C	
1050[#] *2*	(2$^+$)	1.23 ps *+18−16*	CD	
1050[‡] *2*	1$^-$		D	
1064.1[†] *4*	12$^+$[b]	3.71 ps *+22−18*	C	
1084[@]	0$^+$		C E	J$^\pi$: L=0 in ^{248}Cm(t,p) reaction. From the strong population of the 0$^+$ level in (t,p) reaction, 1977Fl06 proposed that the level is a two-particle two-hole-pair vibrational state.
1095[‡] *2*	3$^-$		CD	B(E3)↑=0.41 *10*
1131[@] *3*	2$^+$		CD	
1144[#] *2*	4$^+$		CD	
1172[‡] *3*	5$^-$		CD	
1222[@] *3*	4$^+$		CD	
1236 *2*	(3$^-$)		D	B(E3)↑≈0.15
1284.4[#] *8*	6$^+$		C	
1295.1[‡] *5*	7$^-$		C	
1305 *3*	(3$^-$)		D	
1319 *3*			D	
1358 *3*			D	
1399 *3*			D	
1406.2[†] *5*	14$^+$[b]	1.75 ps *+9−7*	C	
1440 *3*			D	
1452.3[#] *6*	8$^+$		C	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{248}Cm Levels (continued)

E(level)[&]	J$^{\pi}$[a]	T$_{1/2}$[c]	XREF	Comments
1465.9[‡] *5*	9$^-$		C	
1466.1[@] *4*	8$^+$		C	
1469 *4*			D	
1484 *2*	(3$^-$)		D	B(E3)↑≈0.10
1514 *3*			D	
1552 *4*			D	
1651 *4*			D	
1651.8[@] *5*	10$^+$		C	
1669.3[#] *5*	10$^+$		C	
1682.4[‡] *5*	11$^-$		C	
1784.0[†] *5*	16$^+$[b]	1.43 ps *+9−11*	C	
1880.2[@] *5*	12$^+$		C	
1883 *3*			D	
1929.1[#] *5*	12$^+$		C	
1938 *4*			D	
1942.1[‡] *5*	13$^-$		C	
1969 *4*			D	
2000 *4*			D	
2150.1[@] *5*	14$^+$		C	
2192.7[†] *5*	18$^+$[b]	0.87 ps *+9−7*	C	
2229.5[#] *5*	14$^+$		C	
2242.1[‡] *5*	15$^-$		C	
2460.6[@] *6*	16$^+$		C	
2566.8[#] *5*	16$^+$		C	
2578.2[‡] *5*	17$^-$		C	
2627.1[†] *5*	20$^+$[b]	0.76 ps *+11−8*	C	
2808.6[@] *8*	18$^+$		C	
2937.2[#] *6*	18$^+$		C	
2947.2[‡] *6*	19$^-$		C	
3083.5[†] *6*	22$^+$[b]	0.44 ps *4*	C	
3190.1[@] *9*	20$^+$		C	
3331.7[#] *6*	20$^+$		C	
3347.2[‡] *7*	21$^-$		C	
3559.6[†] *6*	24$^+$[b]	0.41 ps *+9−6*	C	
3601.9[@] *11*	22$^+$		C	
3738.3[#] *7*	22$^+$		C	
3775.2[‡] *8*	23$^-$		C	
4041.0[@] *12*	24$^+$		C	
4055.4[†] *7*	26$^+$[b]	0.32 ps *+9−6*	C	
4158.1[#] *9*	24$^+$		C	
4229.6[‡] *9*	25$^-$		C	
4572.4[†] *8*	28$^+$[b]	0.27 ps *+18−9*	C	
4599.5[#] *10*	26$^+$		C	
4709.5[‡] *10*	27$^-$		C	
5114.0[†] *10*	30$^+$		C	
5216.1[‡] *12*	29$^-$		C	
5680.7?[†] *11*	(32$^+$)		C	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{248}Cm Levels (continued)

† Band(A): $K^\pi=0^+$ g.s. band.
‡ Band(B): $K^\pi=1^-$ octupole-vibrational band.
# Band(C): $K^\pi=2^+$ γ-vibrational band.
@ Band(D): $K^\pi=0^+$ band.
& No decay from the lower members of the $K^\pi=1^-$ octupole-vibrational band up to 5^-, or from the $K^\pi=2^+$ γ-vibrational and $K^\pi=0^+$ bands up to 6^+ has been observed. Also, the 6^+ member of the $K^\pi=0^+$ band has not been seen In any dataset.
[a] From assignments to bands. Confirming arguments are given where available.
[b] E2 γ to level with J=J−2.
[c] Values for the excited levels are from B(E2) In Coulomb excitation.

γ(^{248}Cm)

B(E2)(W.u.): the B(E2)(W.u.) values have been calculated directly from the B(E2) values As given In the Coulomb excitation dataset.

E_i(level)	J_i^π	E_γ†	I_γ‡	E_f	J_f^π	Mult.#	α&	Comments
43.40	2^+	43.399 *25*		0.0	0^+	E2	1000 *15*	B(E2)(W.u.)=324 *4*
143.80	4^+	100.4 *2*		43.40	2^+	E2	18.4 *3*	B(E2)(W.u.)=380 *+120−50*
298.9	6^+	155.1 *2*		143.80	4^+	E2	2.71 *4*	B(E2)(W.u.)=550 *+40−140*
506.4	8^+	207.4 *2*		298.9	6^+	E2	0.858 *12*	B(E2)(W.u.)=540 *90*
762.8	10^+	256.4 *2*		506.4	8^+	E2	0.401 *6*	B(E2)(W.u.)=530 *50*
1064.1	12^+	301.3 *2*		762.8	10^+	E2	0.236 *4*	B(E2)(W.u.)=540 *30*
1295.1	7^-	789.0 *5*	@	506.4	8^+			
		996.4 *5*	@	298.9	6^+			
1406.2	14^+	342.0 *3*		1064.1	12^+	E2	0.1608 *23*	B(E2)(W.u.)=640 *30*
1452.3	8^+	167.9 *5*	≤76	1284.4	6^+			
		946.1 *5*	≤100	506.4	8^+			
1465.9	9^-	171.2 *5*	22 *5*	1295.1	7^-			
		703.1 *4*	100 *8*	762.8	10^+			
		959.0 *5*	5.1 *47*	506.4	8^+			
1466.1	8^+	1167.3 *4*		298.9	6^+			
1651.8	10^+	185.9 *4*	100 *21*	1466.1	8^+			
		1145.4 *4*	44 *19*	506.4	8^+			
1669.3	10^+	217.1 *5*	<52	1452.3	8^+			I_γ: the authors report Iγ:Iγ(907γ)=22 *30*:100 *33*.
		906.6 *4*	100 *33*	762.8	10^+			
1682.4	11^-	216.4 *4*	16 *7*	1466.1	8^+			
		618.3 *3*	100 *10*	1064.1	12^+			
		919.6 *4*	≤15	762.8	10^+			
1784.0	16^+	377.8 *2*		1406.2	14^+	E2	0.1210 *17*	B(E2)(W.u.)=500 *40*
1880.2	12^+	228.4 *4*	100 *9*	1651.8	10^+			
		1117.4 *5*	10 *5*	762.8	10^+			
1929.1	12^+	259.9 *4*	47 *12*	1669.3	10^+			
		865.2 *4*	100 *14*	1064.1	12^+			
1942.1	13^-	259.6 *3*	39 *5*	1682.4	11^-			
		535.9 *3*	100 *6*	1406.2	14^+			
		877.9 *4*	9 *4*	1064.1	12^+			
2150.1	14^+	270.0 *5*	100 *3*	1880.2	12^+			
		1085.5 *5*	6.3 *56*	1064.1	12^+			
2192.7	18^+	408.6 *2*		1784.0	16^+	E2	0.0978 *14*	B(E2)(W.u.)=560 *50*
2229.5	14^+	300.8 *4*	100 *60*	1929.1	12^+			
		822.9 *4*	93 *15*	1406.2	14^+			

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Adopted Levels, Gammas (continued)

γ(^{248}Cm) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[&]	Comments
2242.1	15^-	300.0 *3*	89 *24*	1942.1	13^-			
		458.1 *3*	100 *7*	1784.0	16^+			
		835.9 *4*	7 *3*	1406.2	14^+			
2460.6	16^+	310.2 *5*	100 *12*	2150.1	14^+			
		1054.7 *5*	<13	1406.2	14^+			
2566.8	16^+	337.4 *3*	100 *4*	2229.5	14^+			
		782.7 *4*	26.4 *24*	1784.0	16^+			
2578.2	17^-	336.2 *3*	100 *4*	2242.1	15^-			
		385.7 *3*	26.4 *24*	2192.7	18^+			
		794.3 *4*	9.2 *22*	1784.0	16^+			
2627.1	20^+	434.4 *2*		2192.7	18^+	E2	0.0834 *12*	B(E2)(W.u.)=480 *60*
2808.6	18^+	348.0 *5*		2460.6	16^+			
2937.2	18^+	370.3 *3*	100 *12*	2566.8	16^+			
		744.6 *4*	31 *10*	2192.7	18^+			
2947.2	19^-	320.1 *5*	9 *3*	2627.1	20^+			
		369.4 *4*	100 *6*	2578.2	17^-			
		754.0 *5*	7 *3*	2192.7	18^+			
3083.5	22^+	456.4 *2*		2627.1	20^+	E2	0.0735 *11*	B(E2)(W.u.)=660 *+60−50*
3190.1	20^+	381.5 *5*		2808.6	18^+			
3331.7	20^+	394.6 *4*	100 *20*	2937.2	18^+			
		704.5 *5*	≤18	2627.1	20^+			
3347.2	21^-	263.5[a] *5*	≤12	3083.5	22^+			
		400.0 *4*	100 *11*	2947.2	19^-			
		719.6[a] *5*	≤10	2627.1	20^+			
3559.6	24^+	476.1 *2*		3083.5	22^+	E2	0.0662 *10*	B(E2)(W.u.)=570 *100*
3601.9	22^+	411.8 *5*		3190.1	20^+			
3738.3	22^+	406.6 *4*		3331.7	20^+			
3775.2	23^-	428.0 *4*		3347.2	21^-			
4041.0	24^+	439.1 *5*		3601.9	22^+			
4055.4	26^+	495.8 *3*		3559.6	24^+	E2	0.0601 *9*	B(E2)(W.u.)=610 *+140−130*
4158.1	24^+	419.8 *5*		3738.3	22^+			
4229.6	25^-	454.4 *4*		3775.2	23^-			
4572.4	28^+	517.0 *4*		4055.4	26^+	E2	0.0544 *8*	B(E2)(W.u.)=580 *+290−130*
4599.5	26^+	441.4 *5*		4158.1	24^+			
4709.5	27^-	479.9 *5*		4229.6	25^-			
5114.0	30^+	541.6 *5*		4572.4	28^+			
5216.1	29^-	506.6 *5*		4709.5	27^-			
5680.7?	(32^+)	566.7[a] *5*		5114.0	30^+			

[†] Eγ for the levels up to 8^+ are weighted averages of values from ^{252}Cf α decay and Coulomb excitation. Values for the higher levels are from Coulomb excitation.

[‡] From branching ratios As given In Coulomb excitation.

[#] From Coulomb excitation.

[@] Iγ(789γ):Iγ(996γ)= ≤5.0 *48*:≤100 *20*.

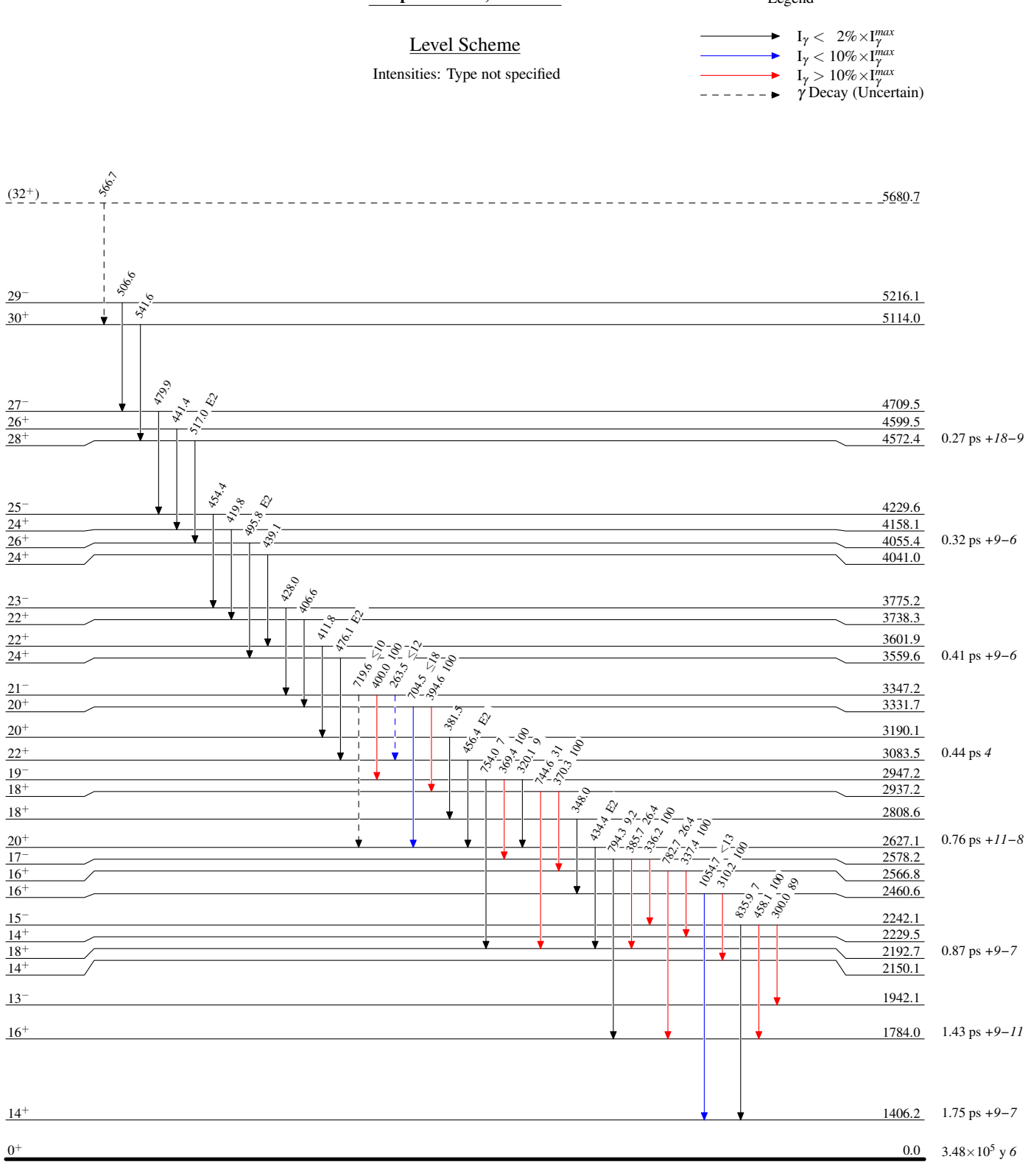
[&] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

[a] Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

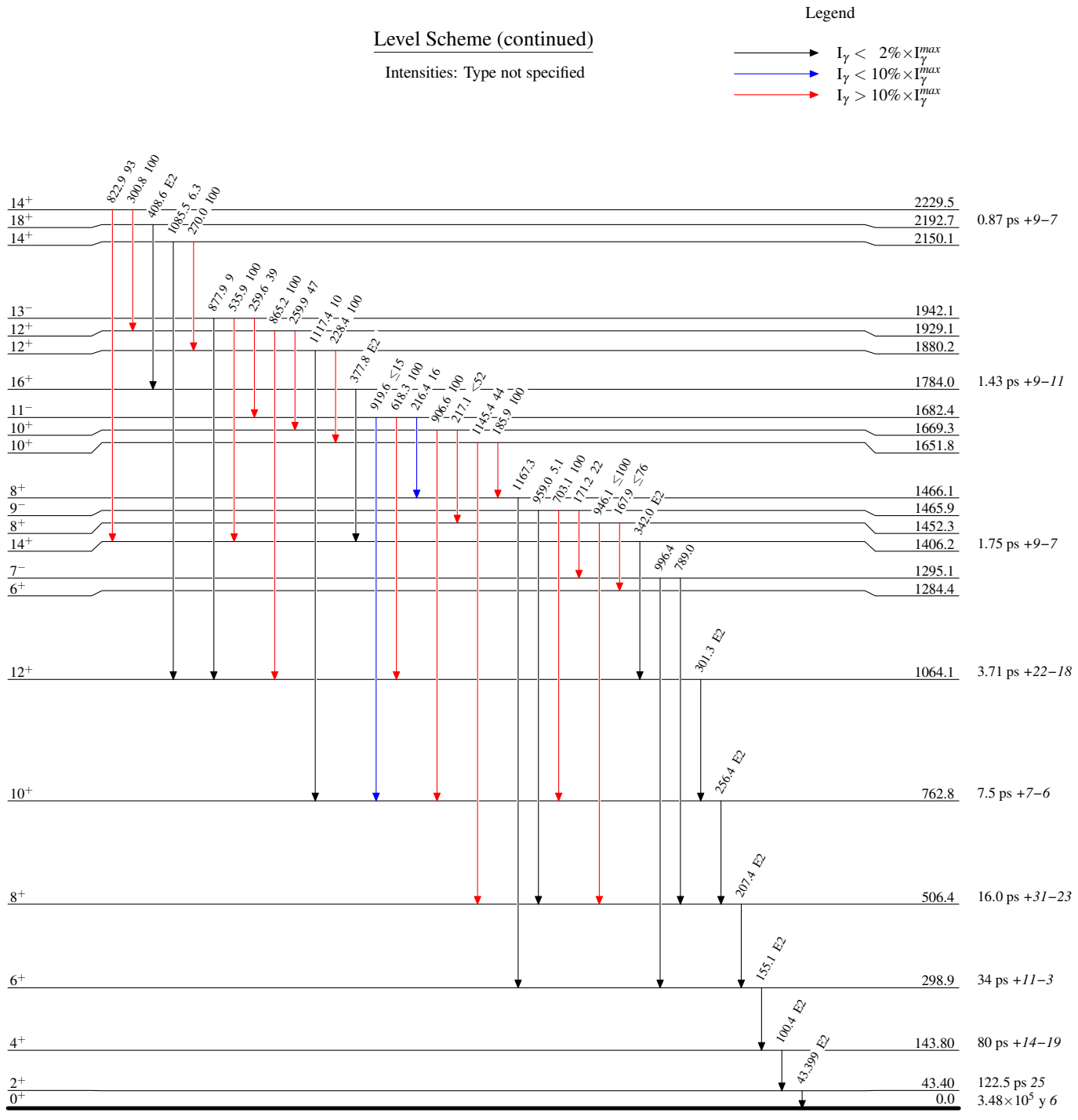


$^{248}_{96}Cm_{152}$

Adopted Levels, Gammas

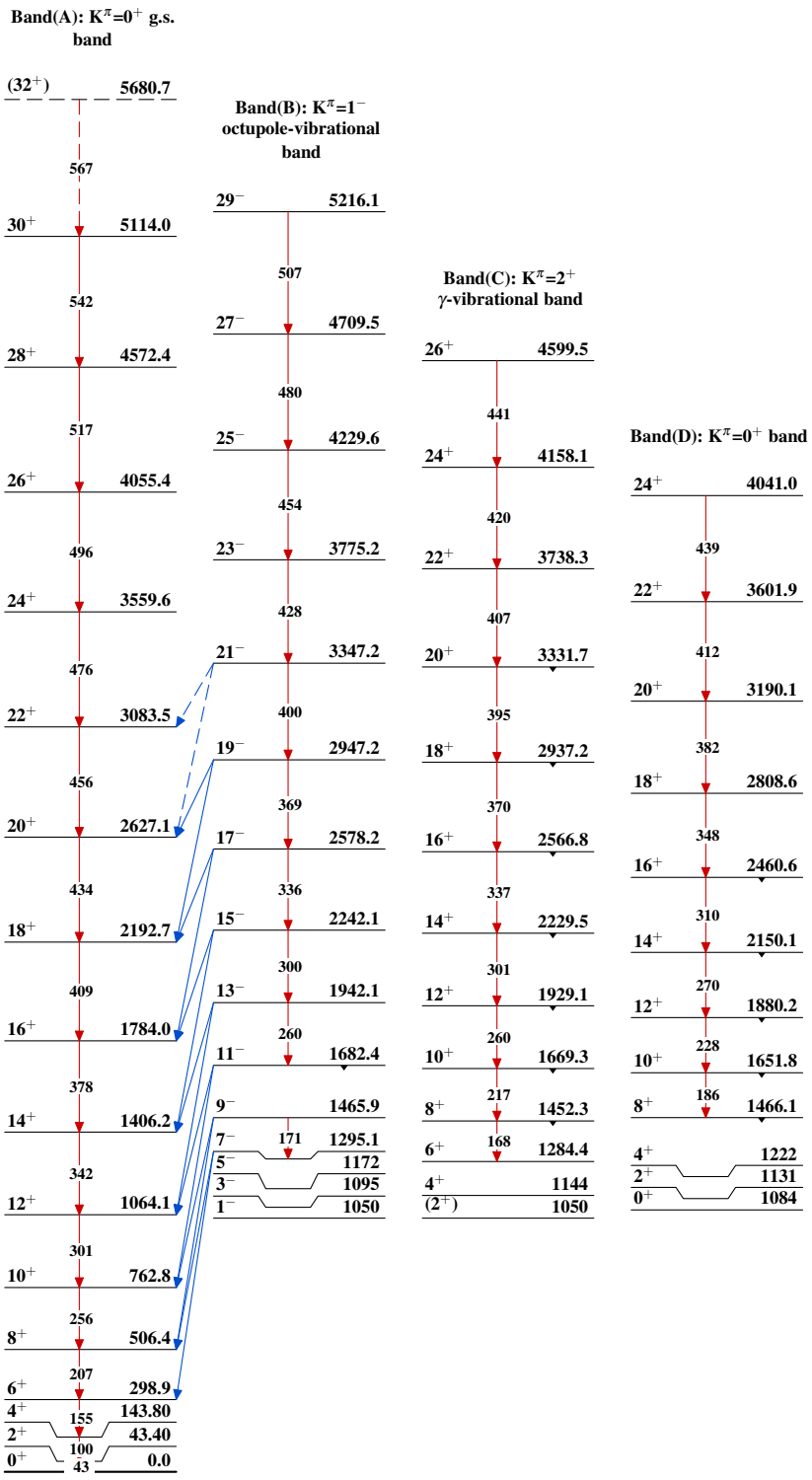
Level Scheme (continued)

Intensities: Type not specified



$^{248}_{96}Cm_{152}$

Adopted Levels, Gammas



$^{248}_{96}Cm_{152}$