^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	11-Jul-2022

1995Ku14: E=160 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$(DCO) using the ESSA30 spectrometer comprised of 28 Compton-suppressed Ge detectors.

2003Pa39: measured Eγ, Iγ, $\gamma\gamma$. The g.s. band and $K^\pi=8^+$ band extended to higher spins. The authors state that full details are to be published (c.f. Reference 10 in paper).

Additional information 1.

1994KaZZ: E=164 MeV. Measured level lifetimes by RDDS method. The details of this study are not available.

All data are from 1995Ku14, except those for nine high-spin states above 7800. Full details of data from 2003Pa39 are to be published as stated by the authors in their reference 10.

^{182}Os Levels

Labels for quasineutron orbitals:
A: 9/2[624], α=+1/2.
B: 9/2[624], α=−1/2.
C: 7/2[633], α=+1/2.
D: 7/2[633], α=−1/2.
E: 7/2[514], α=+1/2.
F: 7/2[514], α=−1/2.
G: 1/2[521], α=+1/2.
H: 1/2[521], α=−1/2.

E(level)†	Jπ#	$T_{1/2}$	E(level)†	Jπ#	E(level)†	Jπ#
0[l]	0+		2112.1[h] 4	8+	3071.8[b] 5	13−
126.7[l] 2	2+		2181.4[a] 4	7−	3071.9[a] 5	11−
399.8[l] 3	4+		2192.9[b] 4	9−	3072.8[h] 5	14+
793.6[l] 3	6+		2220.3[j] 6	10−	3133.2[f] 6	(12−)
890.83[m] 24	2+		2235.1[f] 4	(8−)	3265.3[j] 6	14−
1038.8[m] 3	3+		2245.2[i] 5	9+	3291.0[g] 5	14+
1189.9[m] 3	4+		2345.9[l] 5	12+	3303.5[i] 5	15+
1277.5[l] 4	8+		2371.3[&] 4	8−	3319.8[l] 5	16+
1399.5[m] 3	5+		2374.5[h] 4	10+	3330.3[&] 5	12−
1471.7[b] 3	3−		2380.5[e] 4	9−	3337.9[e] 6	13−
1588.1[m] 4	6+		2418.9[c] 5	10−	3488.8[c] 5	14−
1653.8[b] 3	5−		2449.5[k] 6	11−	3573.9[k] 6	15−
1734.7[e] 4	5−		2525.8[i] 5	11+	3616.1[a] 6	13−
1756.0[c] 4	6−		2583.2[a] 5	9−	3617.3[h] 5	16+
1801.0[&] 4	4−		2591.1[b] 5	11−	3639.4[b] 6	15−
1811.7[l] 4	10+		2652.1[f] 5	(10−)	3669.8[f] 7	(14−)
1831.3‡[j] 5	8−	0.78[@] ms 7	2670.9[h] 5	12+	3840.1[i] 5	17+
1853.0[m] 4	7+		2700.6[j] 6	12−	3849.7[g] 5	16+
1878.1[b] 4	7−		2803.3[g] 5	12+	3856.8[l] 6	18+
1891.6[f] 4	(6−)		2818.7[&] 5	10−	3899.9[&] 6	14−
1895.1[a] 4	5−		2824.0[e] 5	11−	3904.3[j] 7	16−
2014.1[k] 6	9−		2840.5[l] 5	14+	3905.7[e] 6	15−
2016.1[e] 4	7−		2869.1[i] 5	13+	4070.3[c] 6	16−
2024.8[&] 4	6−		2907.4[c] 5	12−	4185.8[a] 6	15−
2034.9[c] 4	8−		2972.9[k] 6	13−	4237.8[k] 7	17−

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^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

^{182}Os Levels (continued)

E(level)†	Jπ#	E(level)†	Jπ#	E(level)†	Jπ#	E(level)†	Jπ#
4255.7?[f] 7	(16⁻)	5011.9[b] 6	19⁻	5987.1[l] 8	24⁺	7820[i] 2	27⁺
4274.9[h] 6	18⁺	5024.0[h] 6	20⁺	6016.3[i] 8	23⁺	8266[h] 2	28⁺
4293.3[b] 6	17⁻	5128.1[&] 7	18⁻	6048.3[a] 8	21⁻	8698.5[e] 9	(29⁻)
4355.8[d] 7	(17⁻)	5141.9[g] 7	20⁺	6220.3[k] 9	23⁻	8802[i] 2	29⁺
4467.4[e] 6	17⁻	5192.1[l] 7	22⁺	6258.5[e] 7	(23⁻)	8819.3[l] 10	30⁺
4467.5[g] 6	18⁺	5204.2[i] 7	21⁺	6583.7[h] 8	24⁺	9191[h] 2	30⁺
4475.7[i] 6	19⁺	5246.9[j] 8	20⁻	6592.5[j] 13	24⁻	9691.0[e] 9	(31⁻)
4480.1[l] 7	20⁺	5256.8[c] 7	20⁻	6766.6[a] 9	23⁻	9815?[i] 2	(31⁺)
4481.3[&] 6	16⁻	5384.2[a] 7	19⁻	6859.8[l] 8	26⁺	9912.5[l] 10	32⁺
4599.1[j] 7	18⁻	5504.9[d] 8	(21⁻)	6896.1[i] 8	25⁺	10177?[h] 2	(32⁺)
4638.7[c] 7	18⁻	5588.3[k] 8	21⁻	6928.1[k] 9	25⁻	10852?[i] 2	(33⁺)
4767.1[a] 7	17⁻	5607.1[e] 6	(21⁻)	6978.5[e] 8	(25⁻)	11070.5[l] 14	34⁺
4907.1[d] 7	(19⁻)	5726.0[b] 7	21⁻	7398.3[h] 8	26⁺	12265[l] 2	36⁺
4941.7[k] 8	19⁻	5809.6[h] 7	22⁺	7793.0[e] 8	(27⁻)	13482?[l] 2	(38⁺)
5008.2[e] 6	19⁻	5859.5[j] 8	22⁻	7803.9[l] 9	28⁺		

† From least-squares fit to Eγ data, assuming Δ(Eγ)=0.3 keV for Eγ quoted to a tenth of a keV and 1 keV for Eγ quoted to nearest keV.

‡ %IT=100.

As proposed by 1995Ku14 (and by 2003Pa39 for high-lying states) based on their γγ(θ)(DCO) data and band associations for long cascades of γ transitions. The assignments are consistent with those in Adopted Levels, except that many are given in parentheses there.

@ From Adopted Levels.

& Band(A): K^π=2⁻,3⁻; α=0. Configuration=π(1/2[541]⊗5/2[402])(K=3) + ν(9/2[624]⊗5/2[512] (K=2) from consistency of averaged g_K=0.9 *2* and B(M1)/B(E2) ratios. Band crossing near J=14 at a rotational frequency of ≈0.28 MeV.

a Band(a): K^π=2⁻,3⁻; α=1. Configuration=π(1/2[541]⊗5/2[402])(K=3) + ν(9/2[624]⊗5/2[512] (K=2) from consistency of averaged g_K=0.9 *2* and B(M1)/B(E2) ratios. Band crossing near J=14 at a rotational frequency of ≈0.28 MeV.

b Band(B): Band based on 3⁻,α=1. At low spins, possible K=2⁻,3⁻ octupole vibrations. At higher spins, configuration=ν(7/2[514]⊗9/2[624]) or ν(1/2[521]⊗9/2[624]) with possible admixture (≤10%) of π(9/2[514]⊗5/2[402]). Upbend occurs near J=19 at a rotational frequency of ≈0.36 MeV.

c Band(b): Band based on 6⁻,α=0. At low spins, possible K=2⁻,3⁻ octupole vibrations. At higher spins, configuration=ν(7/2[514]⊗9/2[624]) or ν(1/2[521]⊗9/2[624]) with possible admixture (≤10%) of π(9/2[514]⊗5/2[402]) (K^π=2⁻). Upbend occurs near J=14 at a rotational frequency of ≈0.28 MeV.

d Band(C): Band based on (17⁻), α=1.

e Band(D): Band based on 5⁻,α=1. At low spins, possible K=2⁻,3⁻ octupole vibrations. At higher spins, possible configuration=ν(9/2[624]⊗5/2[512]). Band crossing occurs near J=15 at a rotational frequency of ≈0.28 MeV; which is due to possible βc crossing.

f Band(d): Band based on (6⁻),α=0. At low spins, possible K=2⁻,3⁻ octupole vibrations. At higher spins, possible configuration=ν(9/2[624]⊗5/2[512]).

g Band(E): Band based on 12⁺, α=0.

h Band(F): BC configuration, α=0. At low spins, the band starts as a tilted-axis band; with increasing spin the configuration becomes BC. Upbend near J=22 at a rotational frequency of ≈0.38 MeV caused by AD crossing.

i Band(f): AC configuration, α=1. At low spins, the band starts as a tilted-axis band; with increasing spin the configuration becomes BC.

j Band(G): ν(9/2[624]⊗7/2[514]), α=0. No signature splitting. Band crossing near J=18 at a rotational frequency of ≈0.30 MeV which can be caused by AD and BC crossings.

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^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

^{182}Os Levels (continued)

[k] Band(g): ν(9/2[624]⊗7/2[514]), α=1. No signature splitting.
[l] Band(H): g.s., Yrast band. Pronounced crossing near J=10 at a rotational frequency of ≈0.26 MeV, where it changes to AB configuration.
[m] Band(I): γ-band.

γ(^{182}Os)

All data are from 1995Ku14, except those for nine high-spin states above 7800. Full details of data from 2003Pa39 are to be published as stated by the authors in their reference 10.
DCO values correspond to gates on well known ΔJ=2, E2 transitions, unless otherwise stated. R_{DCO}=Iγ at 79°(101°) [E2 gate at 36°(144°)] / Iγ at 36°(144°) [E2 gate at 79°(101°)]; typical values for R_{DCO} are 1 for stretched ΔJ=2 quadrupole and unstretched ΔJ=0 dipole transitions, and 2 for stretched ΔJ=1 dipole or unstretched ΔJ=0 quadrupole transitions.

E_γ	I_γ	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	Comments
94.0	0.7 *3*	1895.1	5^-	1801.0	4^-		
102.2	2.2 *4*	1756.0	6^-	1653.8	5^-	(D+Q)	DCO=2.0 *16*
122.2	2.5 *5*	1878.1	7^-	1756.0	6^-	(D+Q)	DCO=2.6 *21*
126.9	36 *4*	126.7	2^+	0	0^+		
129.6	2.3 *4*	2024.8	6^-	1895.1	5^-		
133.0	0.85 *25*	2245.2	9^+	2112.1	8^+		
151.5	1.0 *3*	2525.8	11^+	2374.5	10^+	(D+Q)	DCO=1.32 *20*
156.8[&]	2.9[&] *6*	2034.9	8^-	1878.1	7^-	(D+Q)	DCO=1.52 *25*
156.8[&]	1.4[&] *4*	2181.4	7^-	2024.8	6^-	(D+Q)	DCO=1.52 *25*
158.0	2.3 *5*	2192.9	9^-	2034.9	8^-	(D+Q)	DCO=1.3 *3*
172.2	0.62 *20*	2591.1	11^-	2418.9	10^-	(D+Q)	DCO=2.1 *11*
182.4	3.4 *6*	1653.8	5^-	1471.7	3^-		
182.7	17.2 *26*	2014.1	9^-	1831.3	8^-	D	DCO=2.8 *6*
189.9	3.5 *6*	2371.3	8^-	2181.4	7^-	(D+Q)	DCO=1.38 *18*
198.1	2.3 *5*	2869.1	13^+	2670.9	12^+	(D+Q)	DCO=1.18 *15*
206.2	10.6 *10*	2220.3	10^-	2014.1	9^-	D	DCO=1.04 *14* DCO for ΔJ=1, dipole gated transition.
211.8	3.5 *6*	2583.2	9^-	2371.3	8^-	(D+Q)	DCO=1.24 *16*
223.0	1.6 *4*	3840.1	17^+	3617.3	16^+		
223.9	1.1 *3*	2024.8	6^-	1801.0	4^-		
224.3	1.6 *3*	1878.1	7^-	1653.8	5^-		
226.0	1.8 *4*	2418.9	10^-	2192.9	9^-		
229.1	7.9 *8*	2449.5	11^-	2220.3	10^-	(D+Q)	DCO=1.05 *15* DCO for ΔJ=1, dipole gated transition.
230.5	1.2 *3*	3303.5	15^+	3072.8	14^+		
232.4	2.5 *4*	3072.8	14^+	2840.5	14^+		
235.4	3.4 *6*	2818.7	10^-	2583.2	9^-	(D+Q)	DCO=1.26 *16*
251.1	6.2 *7*	2700.6	12^-	2449.5	11^-		
253.0	3.8 *7*	3071.9	11^-	2818.7	10^-	(D+Q)	DCO=1.50 *21*
254.4	1.0 *3*	1653.8	5^-	1399.5	5^+		
258.8	2.4 *6*	3330.3	12^-	3071.9	11^-		
268.6	0.93 *25*	4907.1	(19^-)	4638.7	18^-	D	DCO=1.78 *22*
272.4	4.8 *5*	2972.9	13^-	2700.6	12^-		
273.4	86 *5*	399.8	4^+	126.7	2^+		
279.1	4.1 *7*	2034.9	8^-	1756.0	6^-	Q	DCO=1.10 *9*
280.6	2.0 *4*	2525.8	11^+	2245.2	9^+		
281.4	1.6 *3*	2016.1	7^-	1734.7	5^-		
283.1	0.78 *24*	4638.7	18^-	4355.8	(17^-)	D	DCO=1.81 *21*
283.3	3.0 *5*	3899.9	14^-	3616.1	13^-		

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^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

γ(^{182}Os) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
285.5	1.1 *3*	4355.8	(17$^-$)	4070.3	16$^-$	D	DCO=1.75 *20*
286[@]	6.5[@] *21*	3616.1	13$^-$	3330.3	12$^-$		
286[@]	6.5[@] *21*	4185.8	15$^-$	3899.9	14$^-$		
286.2	1.7 *5*	2181.4	7$^-$	1895.1	5$^-$		
292.3	3.2 *5*	3265.3	14$^-$	2972.9	13$^-$		
295.5	2.4 *6*	4481.3	16$^-$	4185.8	15$^-$		
308.6	2.5 *5*	3573.9	15$^-$	3265.3	14$^-$		
314.8	7.8 *9*	2192.9	9$^-$	1878.1	7$^-$		
316.1	0.40 *14*	2907.4	12$^-$	2591.1	11$^-$		
324.8	1.6 *3*	2670.9	12$^+$	2345.9	12$^+$		
330.5	2.6 *5*	3904.3	16$^-$	3573.9	15$^-$		
343.2	1.6 *3*	2235.1	(8$^-$)	1891.6	(6$^-$)	Q	DCO=0.92 *10*
343.3	6.1 *9*	2869.1	13$^+$	2525.8	11$^+$	Q	DCO=1.15 *12*
346.5	3.7 *6*	2371.3	8$^-$	2024.8	6$^-$	Q	DCO=1.04 *15*
360.5[†]		1399.5	5$^+$	1038.8	3$^+$		
364.5	5.0 *8*	2380.5	9$^-$	2016.1	7$^-$	Q	DCO=0.97 *13*
382.0	0.51 *15*	2235.1	(8$^-$)	1853.0	7$^+$	D	DCO=2.1 *6*
384.2	6.3 *10*	2418.9	10$^-$	2034.9	8$^-$	Q	DCO=1.01 *12*
389.0	7.9 *13*	2220.3	10$^-$	1831.3	8$^-$	Q	DCO=1.02 *9*
393.8	93 *5*	793.6	6$^+$	399.8	4$^+$		
398.1	9.1 *13*	2591.1	11$^-$	2192.9	9$^-$	Q	DCO=1.08 *6*
401.0		1801.0	4$^-$	1399.5	5$^+$		
401.8[&]	5.0[&] *9*	2583.2	9$^-$	2181.4	7$^-$	Q	DCO=0.98 *18*
401.8[&]	3.0[&] *6*	3072.8	14$^+$	2670.9	12$^+$		
416.9	0.54 *19*	3488.8	14$^-$	3071.8	13$^-$		
417.0	2.4 *4*	2652.1	(10$^-$)	2235.1	(8$^-$)		
428.3	1.0 *5*	2016.1	7$^-$	1588.1	6$^+$		
432.9	1.8 *4*	1471.7	3$^-$	1038.8	3$^+$		
434.4	7.6 *13*	3303.5	15$^+$	2869.1	13$^+$	Q	DCO=0.85 *11*
435.4	9.9 *10*	2449.5	11$^-$	2014.1	9$^-$	Q	DCO=0.90 *9*
443.4	6.6 *11*	2824.0	11$^-$	2380.5	9$^-$	Q	DCO=0.98 *8*
447.4	4.7 *6*	2818.7	10$^-$	2371.3	8$^-$	Q	DCO=1.18 *25*
450.2	1.6 *3*	3291.0	14$^+$	2840.5	14$^+$		
453.8		1853.0	7$^+$	1399.5	5$^+$		
457.6	1.4 *3*	2803.3	12$^+$	2345.9	12$^+$		
463.8	1.8 *4*	1653.8	5$^-$	1189.9	4$^+$		
479.4	44 *4*	3319.8	16$^+$	2840.5	14$^+$	Q	DCO=1.00 *4*
480.4	12.0 *21*	2700.6	12$^-$	2220.3	10$^-$	Q	DCO=0.92 *13*
480.7	6.7 *10*	3071.8	13$^-$	2591.1	11$^-$	Q	DCO=0.90 *10*
481.1	1.2 *3*	3133.2	(12$^-$)	2652.1	(10$^-$)	Q	DCO=0.91 *14*
484.0	80 *6*	1277.5	8$^+$	793.6	6$^+$		
487.8	2.5 *5*	3291.0	14$^+$	2803.3	12$^+$	Q	DCO=1.09 *23*
488.8[&]	4.7[&] *8*	2907.4	12$^-$	2418.9	10$^-$	Q	DCO=1.11 *10*
488.8[&]	7.7[&] *12*	3071.9	11$^-$	2583.2	9$^-$	Q	DCO=1.06 *17*
491.7	0.61 *19*	1891.6	(6$^-$)	1399.5	5$^+$		
494.5	53 *4*	2840.5	14$^+$	2345.9	12$^+$	Q	DCO=1.02 *3*
511.7	2.5 *5*	3330.3	12$^-$	2818.7	10$^-$		
513.7	6.0 *9*	3337.9	13$^-$	2824.0	11$^-$	Q	DCO=0.98 *14*
523.3	12.5 *25*	2972.9	13$^-$	2449.5	11$^-$	Q	DCO=1.01 *10*
530.0	1.5 *3*	3849.7	16$^+$	3319.8	16$^+$		
534.2[@]	145[@] *9*	1811.7	10$^+$	1277.5	8$^+$	Q	DCO=0.99 *3* DCO is for doublet.
534.2[@]	145[@] *9*	2345.9	12$^+$	1811.7	10$^+$	Q	DCO=0.99 *3* DCO for doublet.

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^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

γ(^{182}Os) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
536.5	6.2 *10*	3840.1	17^+	3303.5	15^+	Q	DCO=1.01 *12*
536.6	0.85 *30*	3669.8	(14^-)	3133.2	(12^-)		
537.1	30 *3*	3856.8	18^+	3319.8	16^+	Q	DCO=0.98 *4*
540.7	2.4 *4*	5008.2	19^-	4467.4	17^-		
543.8	8.8 *13*	3616.1	13^-	3071.9	11^-	Q	DCO=1.10 *15*
544.6	7.1 *9*	3617.3	16^+	3072.8	14^+	Q	DCO=1.15 *12*
551.2	1.6 *3*	4907.1	(19^-)	4355.8	(17^-)	Q	DCO=1.23 *39*
553.8		1831.3	8^-	1277.5	8^+		E_γ: isomeric transition.
558.6	3.8 *6*	3849.7	16^+	3291.0	14^+	Q	DCO=0.98 *21*
561.6	2.9 *5*	4467.4	17^-	3905.7	15^-	Q	DCO=1.11 *24*
562.8	2.5 *4*	2374.5	10^+	1811.7	10^+		
564.7	14.0 *22*	3265.3	14^-	2700.6	12^-	Q	DCO=0.89 *14*
567.7[&]	5.9[&] *9*	3639.4	15^-	3071.8	13^-		
567.7[&]	3.8[&] *6*	3905.7	15^-	3337.9	13^-		
568.3	2.2 *4*	4638.7	18^-	4070.3	16^-		
569.8	7.8 *15*	4185.8	15^-	3616.1	13^-	Q	DCO=1.11 *22* I_γ,DCO: for 570.0+569.8.
570.0	7.8 *15*	3899.9	14^-	3330.3	12^-	Q	DCO=1.11 *22* I_γ,DCO: for 570.0+569.8.
580.5	2.0 *6*	1471.7	3^-	890.83	2^+		
581.3[@]	5.5[@] *13*	4481.3	16^-	3899.9	14^-	Q	DCO=0.98 *18* DCO for doublet.
581.3[@]	5.5[@] *13*	4767.1	17^-	4185.8	15^-	Q	DCO=0.98 *18* DCO for doublet.
581.5[@]	6.2[@] *7*	3488.8	14^-	2907.4	12^-	Q	DCO=1.00 *16* DCO for doublet.
581.5[@]	6.2[@] *7*	4070.3	16^-	3488.8	14^-	Q	DCO=1.00 *16* DCO for doublet.
585.9[a]	0.59 *16*	4255.7?	(16^-)	3669.8	(14^-)		
595.3	0.93 *28*	5607.1	(21^-)	5011.9	19^-		
597.8	2.5 *5*	5504.9	(21^-)	4907.1	(19^-)	Q	DCO=1.5 *5*
598.7	1.9 *6*	5607.1	(21^-)	5008.2	19^-	Q	DCO=1.1 *3*
599[†]	0.9 *3*	1878.1	7^-	1277.5	8^+		
601.2	14.5 *27*	3573.9	15^-	2972.9	13^-	Q	DCO=1.06 *15*
610.7	1.3 *3*	4467.5	18^+	3856.8	18^+		
611.4	2.1 *6*	1801.0	4^-	1189.9	4^+		
612.6	5.5 *9*	5859.5	22^-	5246.9	20^-		
617.1	3.0 *9*	5384.2	19^-	4767.1	17^-		
617.8	4.6 *7*	4467.5	18^+	3849.7	16^+	Q	DCO=0.98 *10*
618.1	1.8 *4*	5256.8	20^-	4638.7	18^-		
623.3	20.1 *20*	4480.1	20^+	3856.8	18^+	Q	DCO=1.05 *7*
632.0	2.7 *6*	6220.3	23^-	5588.3	21^-		
635.6	6.0 *10*	4475.7	19^+	3840.1	17^+	Q	DCO=1.02 *12*
638.9	13.6 *19*	3904.3	16^-	3265.3	14^-	Q	DCO=0.94 *14*
646.6	3.2 *7*	5588.3	21^-	4941.7	19^-		
646.8	5.6 *9*	5128.1	18^-	4481.3	16^-		
647.8	8.0 *11*	5246.9	20^-	4599.1	18^-		
651.4	1.6 *3*	6258.5	(23^-)	5607.1	(21^-)	Q	DCO=0.96 *15*
654.0	4.3 *6*	4293.3	17^-	3639.4	15^-		
657.6	6.1 *10*	4274.9	18^+	3617.3	16^+	Q	DCO=1.12 *16*
663.9	13.9 *26*	4237.8	17^-	3573.9	15^-	Q	DCO=0.85 *15*
664.1	2.0 *6*	6048.3	21^-	5384.2	19^-		
674.4	3.6 *8*	5141.9	20^+	4467.5	18^+	Q	DCO=0.89 *20* E_γ: 674.7 in level-scheme figure 5 of 1995Ku14.

Continued on next page (footnotes at end of table)

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

γ(^{182}Os) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
694.8	12.1 *21*	4599.1	18^-	3904.3	16^-	Q	DCO=0.95 *17*
703.9	4.2 *8*	4941.7	19^-	4237.8	17^-	Q	DCO=0.89 *21*
705.2	3.5 *8*	1895.1	5^-	1189.9	4^+		
707.8	1.5 *5*	6928.1	25^-	6220.3	23^-		
712.0	14.6 *18*	5192.1	22^+	4480.1	20^+	Q	DCO=0.93 *10*
714.1	1.6 *4*	5726.0	21^-	5011.9	19^-		
718.3	1.4 *6*	6766.6	23^-	6048.3	21^-		
718.8	3.3 *8*	5011.9	19^-	4293.3	17^-		
720.0	1.3 *3*	6978.5	(25^-)	6258.5	(23^-)		
726.9	8.9 *11*	3072.8	14^+	2345.9	12^+	Q	DCO=1.08 *20*
728.5	3.1 *6*	5204.2	21^+	4475.7	19^+	Q	DCO=0.95 *14*
733	1.9 *5*	6592.5	24^-	5859.5	22^-		
738.6	0.85 *30*	2016.1	7^-	1277.5	8^+		
749.1	3.5 *6*	5024.0	20^+	4274.9	18^+	Q	DCO=1.06 *14*
762.6	1.5 *4*	1801.0	4^-	1038.8	3^+		
764.0		890.83	2^+	126.7	2^+		
774.1	1.9 *4*	6583.7	24^+	5809.6	22^+	Q	DCO=1.09 *18*
776.8	3.8 *6*	3617.3	16^+	2840.5	14^+	Q	DCO=0.89 *13*
785.6		5809.6	22^+	5024.0	20^+		E_γ: from level-scheme figure 5 of 1995Ku14, not listed in authors′ table 3 of Eγ and Iγ.
790.1	3.8 *10*	1189.9	4^+	399.8	4^+		
794.7[†]		1588.1	6^+	793.6	6^+		
795.0	7.8 *9*	5987.1	24^+	5192.1	22^+	Q	DCO=0.91 *10*
812.1	1.6 *4*	6016.3	23^+	5204.2	21^+	Q	DCO=1.02 *17*
814.5	1.2 *3*	7793.0	(27^-)	6978.5	(25^-)		
814.6	0.8 *3*	7398.3	26^+	6583.7	24^+	Q	DCO=1.12 *16*
834.6	2.6 *7*	2112.1	8^+	1277.5	8^+		
859.2	4.3 *7*	2670.9	12^+	1811.7	10^+	Q	DCO=1.15 *19*
860.1	3.8 *7*	1653.8	5^-	793.6	6^+		
868[‡]		8266	28^+	7398.3	26^+		
872.7	5.6 *8*	6859.8	26^+	5987.1	24^+	Q	DCO=0.83 *13*
879.8	0.9 *3*	6896.1	25^+	6016.3	23^+	Q	DCO=0.85 *19*
890.6		890.83	2^+	0	0^+		
905.5	0.9 *3*	8698.5	(29^-)	7793.0	(27^-)		
912.2		1038.8	3^+	126.7	2^+		
924[‡]		7820	27^+	6896.1	25^+		
925[‡]		9191	30^+	8266	28^+		
944.1	3.9 *7*	7803.9	28^+	6859.8	26^+	Q	DCO=0.99 *15*
945.0	0.78 *28*	3291.0	14^+	2345.9	12^+		
955.2	1.6 *3*	4274.9	18^+	3319.8	16^+		
958.0	0.23 *9*	2235.1	(8^-)	1277.5	8^+		
962.7	0.70 *25*	1756.0	6^-	793.6	6^+		
982[‡]		8802	29^+	7820	27^+		
986[‡a]		10177?	(32^+)	9191	30^+		
991.5	1.6 *6*	2803.3	12^+	1811.7	10^+		
992.5	0.58 *19*	9691.0	(31^-)	8698.5	(29^-)		
999.4		1399.5	5^+	399.8	4^+		
1009.4	2.3 *9*	3849.7	16^+	2840.5	14^+		
1013[‡a]		9815?	(31^+)	8802	29^+		
1015.4	2.2 *4*	8819.3	30^+	7803.9	28^+		
1037[‡a]		10852?	(33^+)	9815?	(31^+)		
1059.1[†]		1853.0	7^+	793.6	6^+		
1063.3	2.4 *5*	1189.9	4^+	126.7	2^+		
1072.6	0.6 *3*	1471.7	3^-	399.8	4^+		

Continued on next page (footnotes at end of table)

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)

$\gamma(^{182}Os)$ (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
1084.4	1.2 *4*	1878.1	7^-	793.6	6^+	1194‡		12265	36^+	11070.5	34^+
1093.2	1.3 *4*	9912.5	32^+	8819.3	30^+	1217‡*a*		13482?	(38^+)	12265	36^+
1097.0	2.6 *7*	2374.5	10^+	1277.5	8^+	1222.4	1.9 *6*	2016.1	7^-	793.6	6^+
1101.6	1.8 *5*	1895.1	5^-	793.6	6^+	1253.9	5.4 *10*	1653.8	5^-	399.8	4^+
1102.7	0.9 *3*	2380.5	9^-	1277.5	8^+	1318.4		2112.1	8^+	793.6	6^+
1158	0.78 *27*	11070.5	34^+	9912.5	32^+	1334.8	0.7 *4*	1734.7	5^-	399.8	4^+
1188.3†		1588.1	6^+	399.8	4^+	1495.1		1895.1	5^-	399.8	4^+

† Transition not shown in level-scheme figure 5 of 1995Ku14.
‡ From 2003Pa39.
# From $\gamma\gamma(\theta)$(DCO) data from 1995Ku14. The mult=Q indicate $\Delta J=2$, stretched quadrupole (most likely E2) and mult=D or D+Q $\Delta J=1$, dipole or dipole+quadrupole (most likely M1 and M1+E2) transitions.
@ Multiply placed with undivided intensity.
& Multiply placed with intensity suitably divided.
a Placement of transition in the level scheme is uncertain.

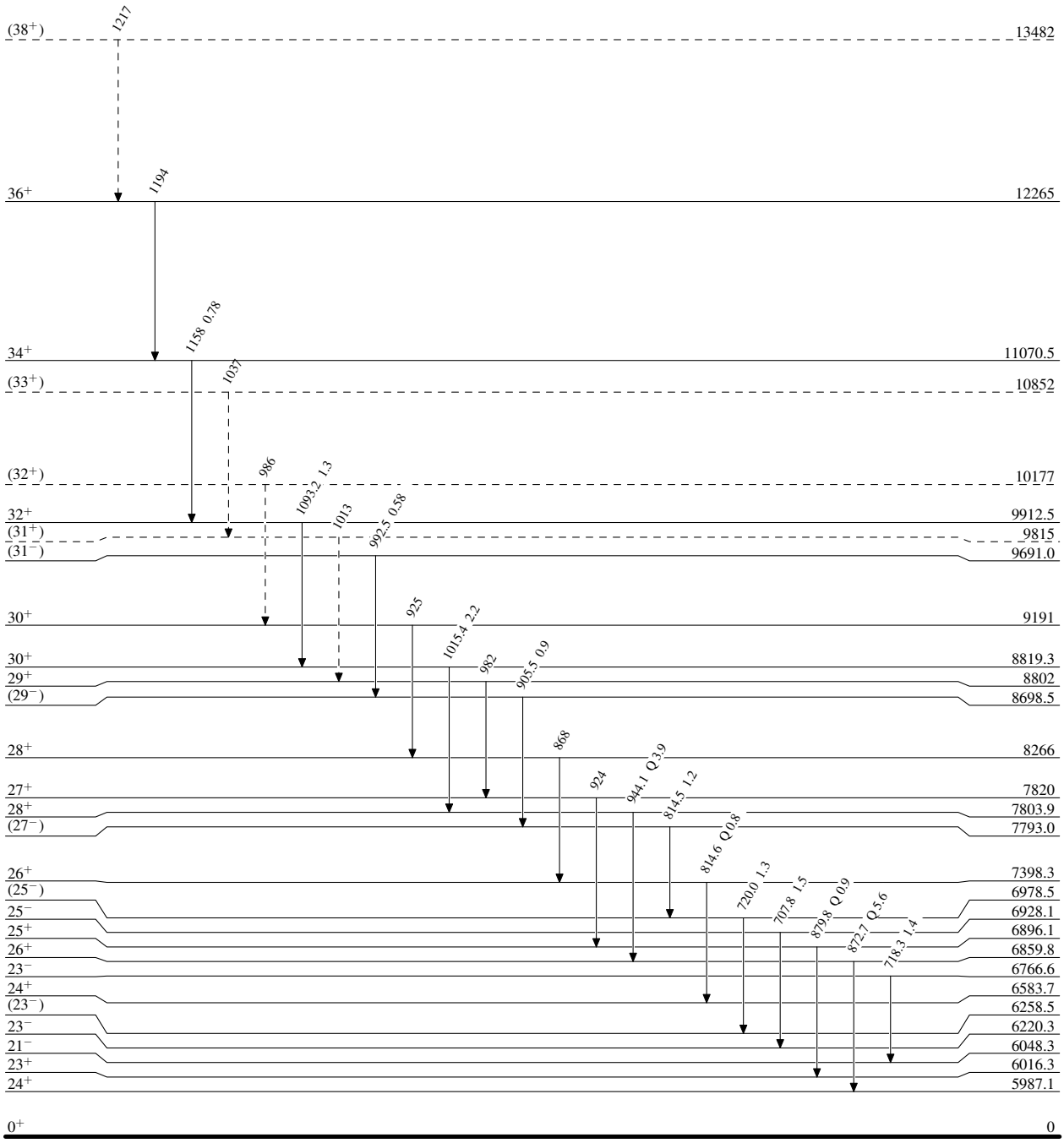
^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme

Intensities: Relative I_γ

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)

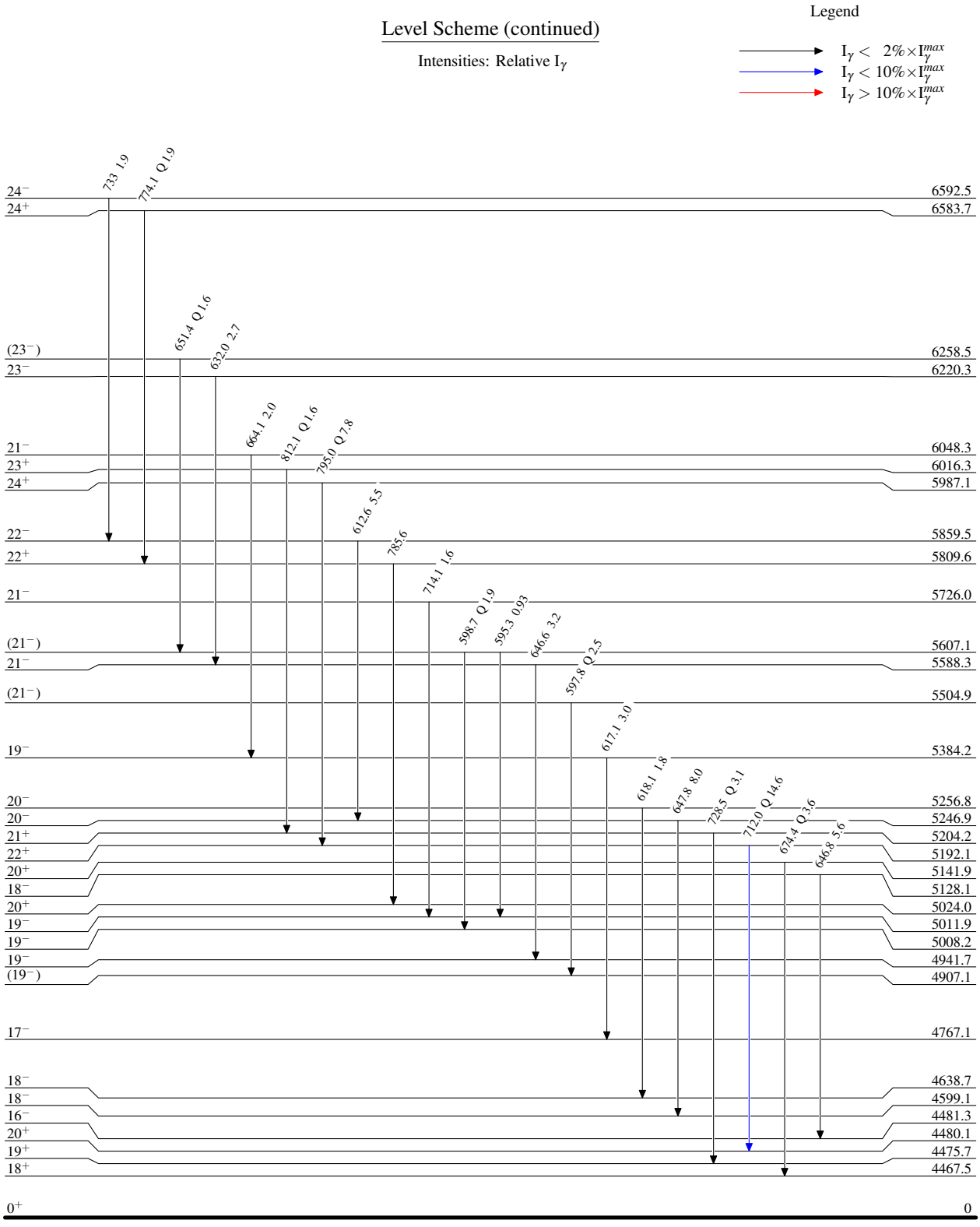


$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme (continued)

Intensities: Relative I_γ

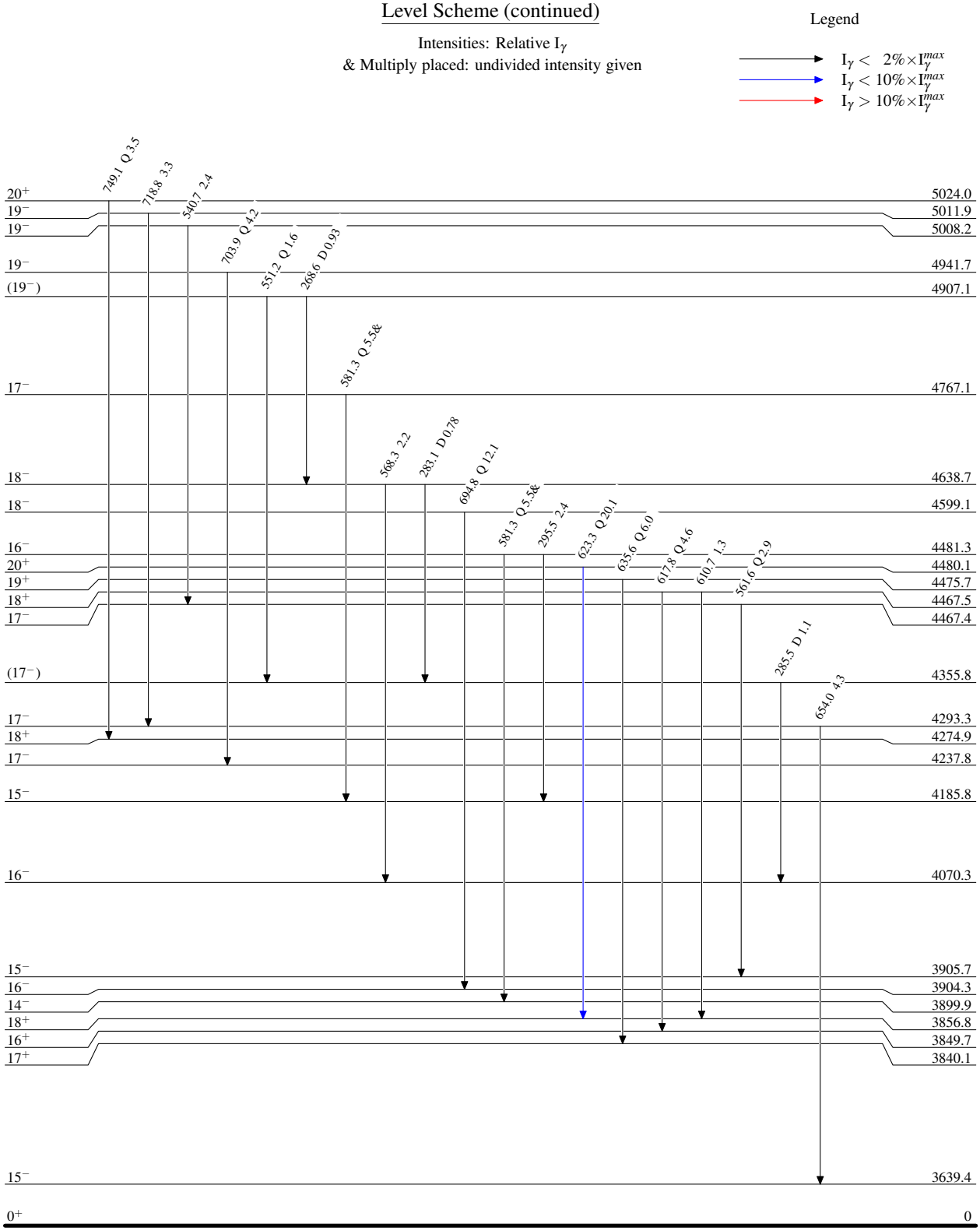


$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given



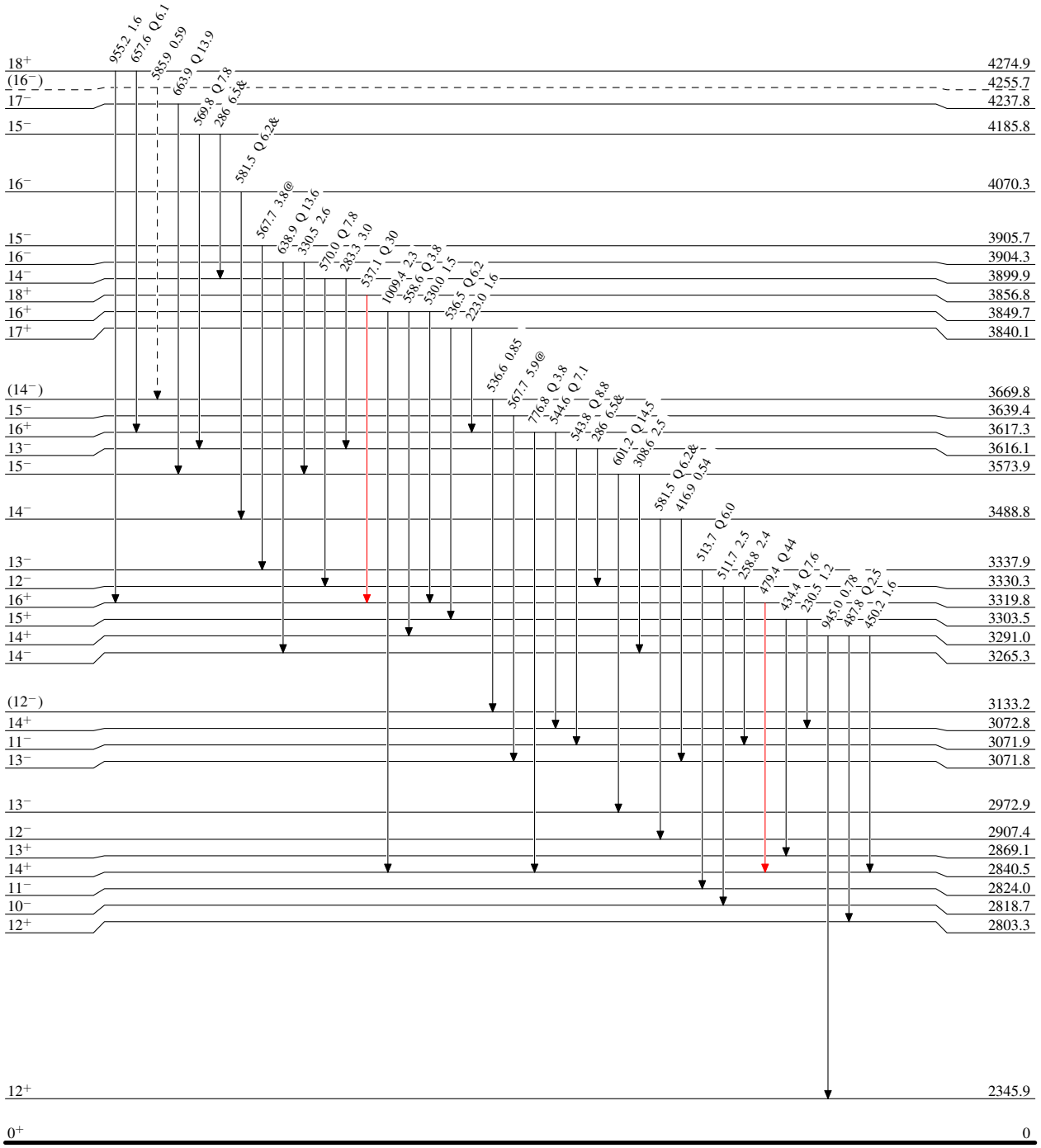
$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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)



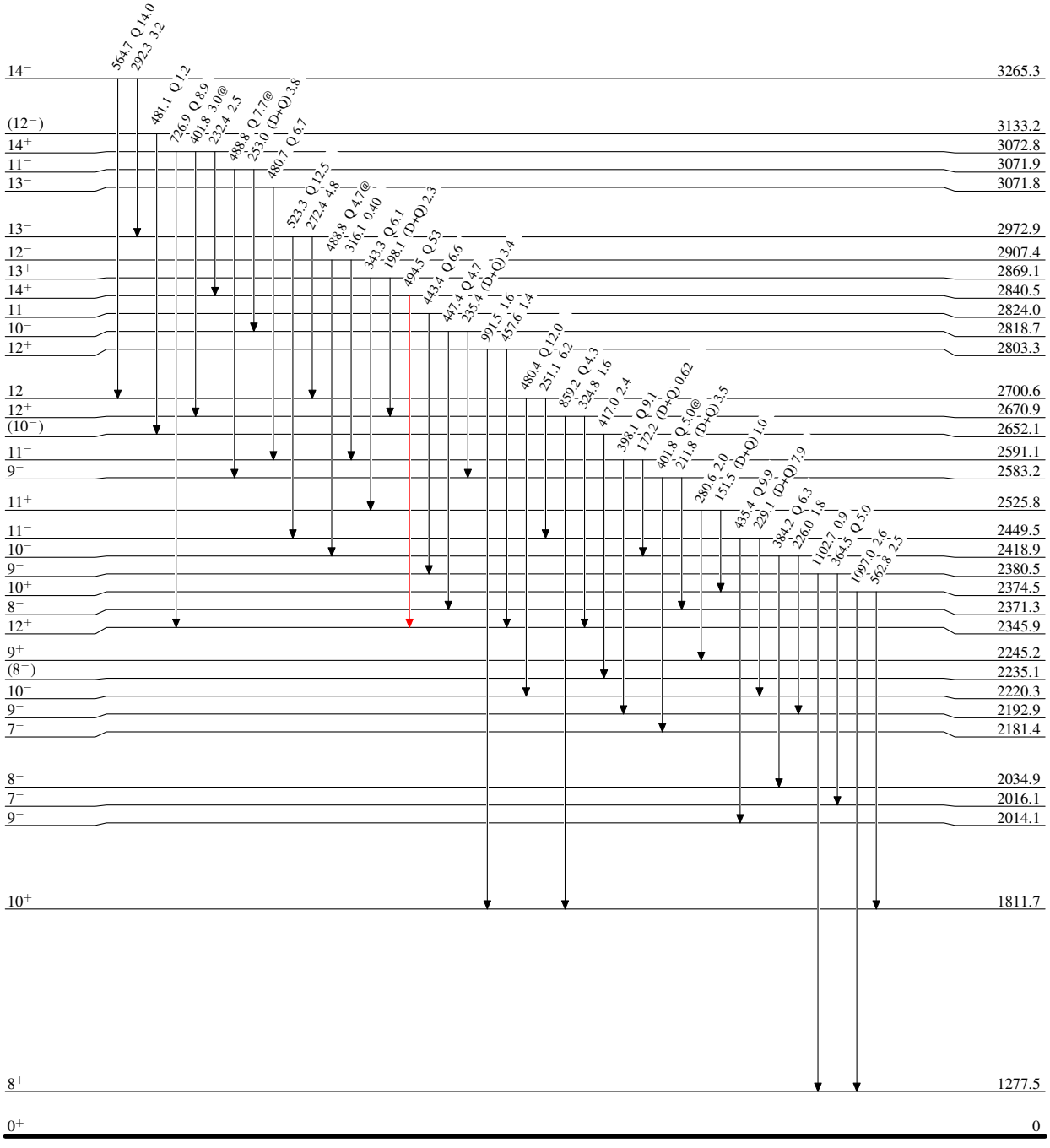
$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



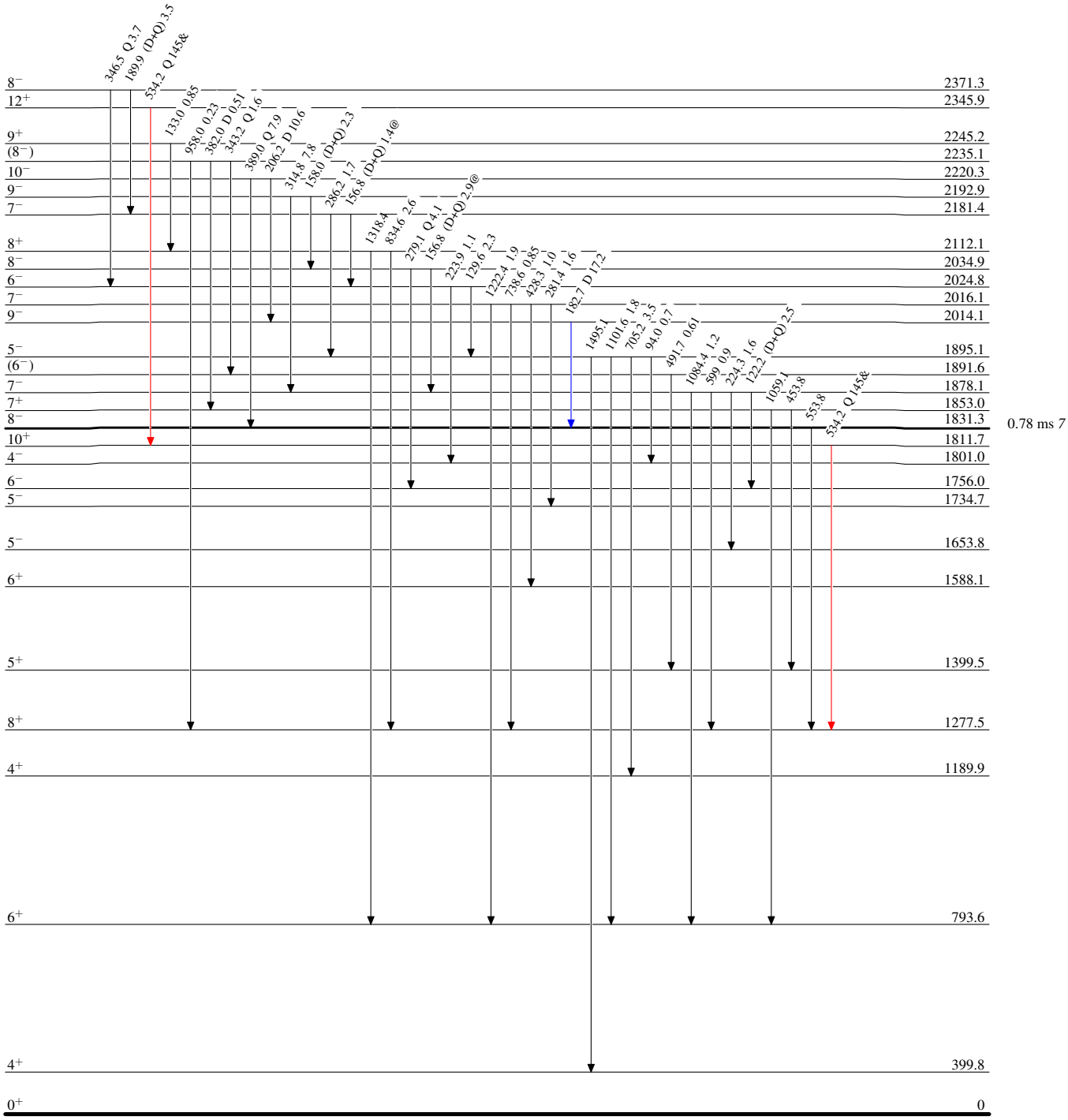
$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

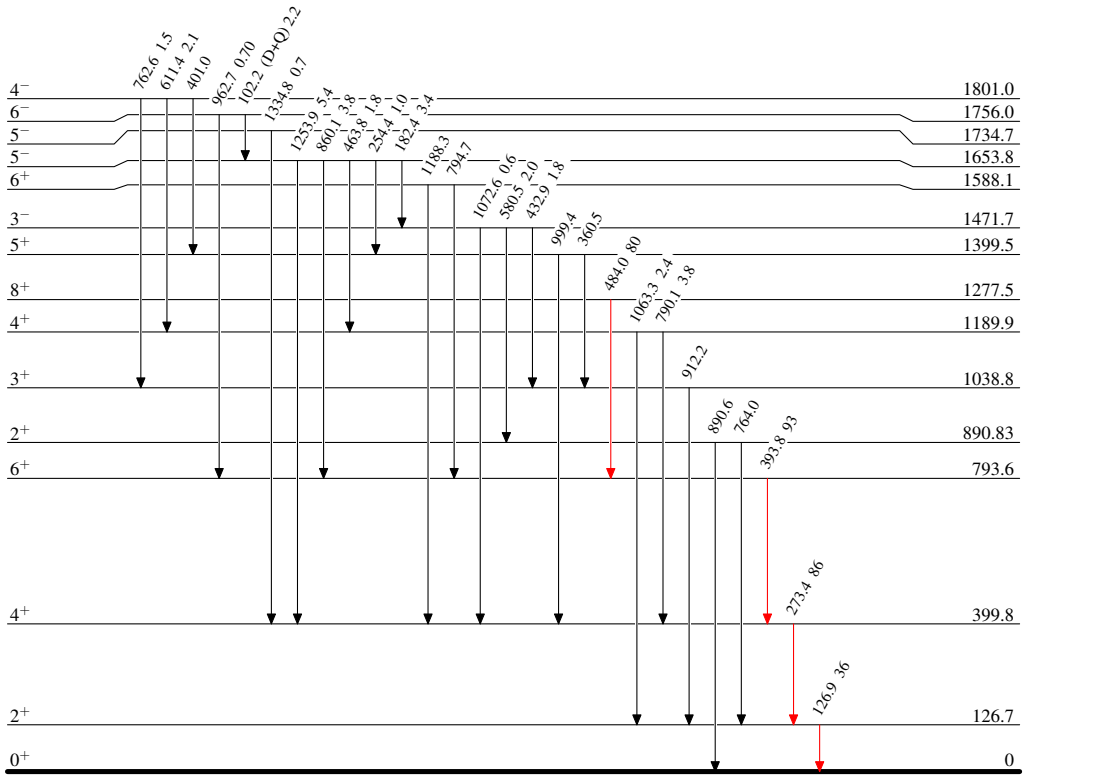


$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

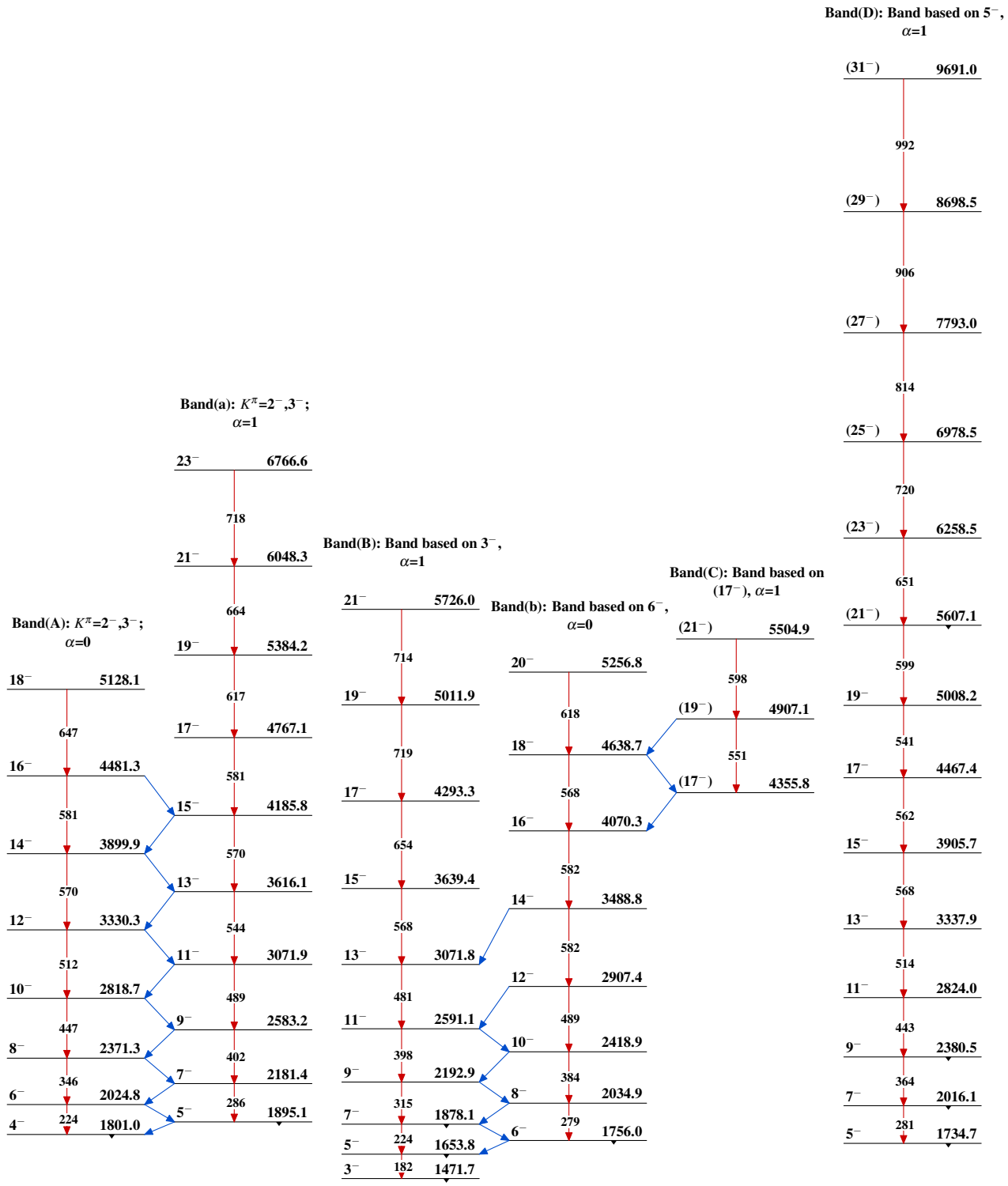
Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



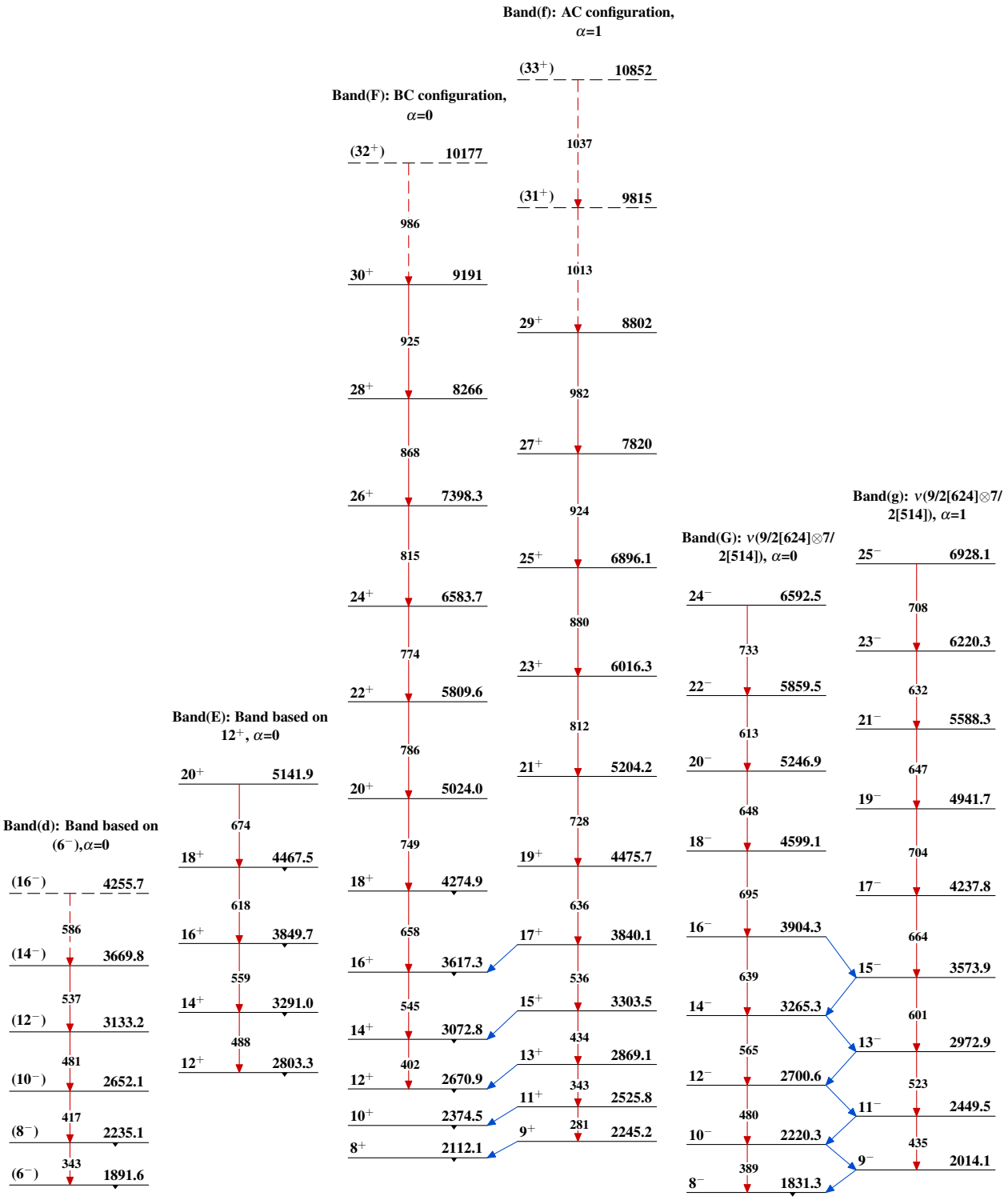
$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39

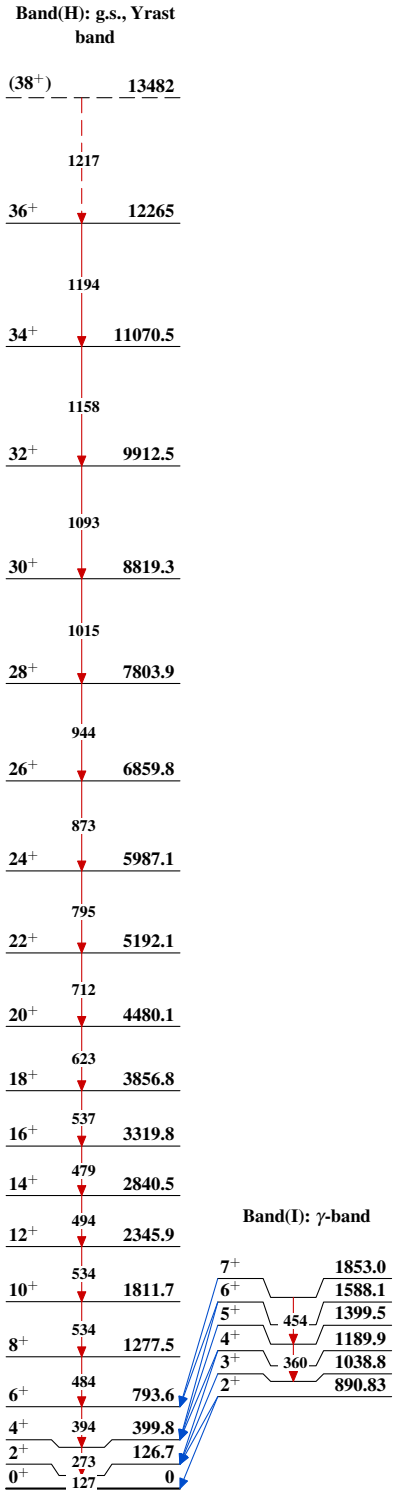


$^{182}_{76}Os_{106}$

^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)



^{150}Nd(^{36}S,4nγ):prompt γ 1995Ku14,2003Pa39 (continued)



$^{182}_{76}Os_{106}$