^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93, 33 (2001)	11-May-2001

1998Sm08, 1998SmZX: E=180 MeV. Measured Eγ, Iγ, $\gamma\gamma\gamma$, $\gamma\gamma(\theta)$, particle-γ coin using GAMMASPHERE array with 92 detectors and MICROBALL array of particle detectors.
Additional information 1.

^{130}Pr Levels

For band assignments, see details in Adopted Levels.

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0+x#	(5+)#	1489.5+x[i] 6	(13−)	3759.9+x[i] 8	(19−)	6724.4+x[f] 9	(24−)
58+x#h	(6−)#	1612.1+x[b] 6	(12−)	3915.5+x[f] 8	(18−)	7077.1+x[g] 10	(25−)
62+x#	(6+)#	1628.6+x& 6	(14+)	3978.8+x[a] 8	(19−)	7163.1+x& 10	(26+)
138.9+x[i] 5	(7−)	1644.6+x[d] 6	(13+)	4109.6+x& 8	(20+)	7177.7+x[b] 10	(26−)
142.9+x 5	(7+)	1685.7+x[c] 6	(12+)	4168.7+x[h] 8	(20−)	7251.2+x[h] 10	(26−)
194.0+x 5	(7+)	1819.1+x[g] 6	(13−)	4186.4+x[g] 8	(19−)	7381.5+x[c] 10	(26+)
239.8+x[d] 5	(5+)	1824.4+x[h] 6	(14−)	4349.4+x[e] 8	(19−)	7628.1+x@ 10	(27+)
246.4+x@ 5	(7+)	1896.1+x[a] 6	(13−)	4382.5+x[b] 8	(20−)	7670.5+x[d] 10	(27+)
262.5+x[h] 5	(8−)	2015.3+x@ 6	(15+)	4479.8+x[c] 8	(20+)	7706.1+x[a] 10	(27−)
336.1+x& 5	(8+)	2192.9+x[i] 7	(15−)	4539.3+x@ 8	(21+)	7867.8+x[i] 10	(27−)
365.6+x[g] 5	(7−)	2198.0+x[b] 7	(14−)	4584.3+x[d] 8	(21+)	8145.3+x[g] 10	(27−)
382.6+x 5	(7−)	2217.1+x[e] 7	(13−)	4620.5+x[i] 8	(21−)	8240.6+x[b] 10	(28−)
384.9+x 5	(6+)	2242.9+x[c] 7	(14+)	4802.5+x[f] 8	(20−)	8372.1+x& 10	(28+)
434.4+x[i] 5	(9−)	2258.0+x[d] 7	(15+)	4811.8+x[a] 8	(21−)	8509.2+x[h] 10	(28−)
446.2+x@ 5	(9+)	2376.8+x& 7	(16+)	5045.0+x& 8	(22+)	8509.4+x[c] 10	(28+)
517.6+x[d] 5	(7+)	2471.4+x[f] 7	(14−)	5074.6+x[g] 8	(21−)	8802.2+x[a] 10	(29−)
532.2+x 5	(7+)	2519.8+x[a] 7	(15−)	5082.0+x[h] 8	(22−)	8846.7+x@ 10	(29+)
577.5+x& 5	(10+)	2552.7+x[g] 7	(15−)	5249.8+x[b] 8	(22−)	8890.6+x[d] 10	(29+)
600.9+x[c] 5	(6+)	2566.1+x[h] 7	(16−)	5260.4+x[e] 8	(21−)	9160.1+x[i] 10	(29−)
641.9+x[h] 5	(10−)	2772.8+x[e] 7	(15−)	5377.4+x[c] 8	(22+)	9275.0+x[g] 10	(29−)
694.3+x[g] 5	(9−)	2798.9+x@ 7	(17+)	5487.9+x@ 8	(23+)	9370.7+x[b] 10	(30−)
706.9+x[b] 5	(8−)	2857.3+x[b] 7	(16−)	5511.0+x[d] 8	(23+)	9656.6+x& 10	(30+)
770.1+x[d] 5	(9+)	2900.6+x[c] 7	(16+)	5591.0+x[i] 8	(23−)	9730.3+x[c] 10	(30+)
803.5+x@ 5	(11+)	2962.1+x[i] 7	(17−)	5711.5+x[a] 8	(23−)	9846.2+x[h] 10	(30−)
865.5+x[c] 5	(8+)	2962.5+x[d] 7	(17+)	5728.1+x[f] 8	(22−)	9966.0+x[a] 10	(31−)
884.8+x[a] 5	(9−)	3117.3+x[f] 7	(16−)	6041.2+x[g] 9	(23−)	10156.6+x@ 10	(31+)
893.2+x[i] 5	(11−)	3213.6+x[a] 7	(17−)	6055.5+x& 9	(24+)	10188.7+x[d] 10	(31+)
1016.9+x& 5	(12+)	3219.2+x& 7	(18+)	6113.0+x[h] 9	(24−)	10526.3+x[i] 10	(31−)
1103.0+x[b] 6	(10−)	3350.3+x[h] 7	(18−)	6181.7+x[b] 9	(24−)	10569.1+x[b] 10	(32−)
1143.9+x[d] 6	(11+)	3350.9+x[g] 7	(17−)	6217.3+x[e] 9	(23−)	11048.6+x[c] 10	(32+)
1171.6+x[h] 6	(12−)	3503.2+x[e] 8	(17−)	6341.1+x[c] 9	(24+)	11204.3+x[a] 10	(33−)
1186.9+x[g] 6	(11−)	3585.0+x[b] 8	(18−)	6511.4+x@ 9	(25+)	11562.9+x[d] 10	(33+)
1229.8+x[c] 6	(10+)	3648.1+x@ 8	(19+)	6540.4+x[d] 9	(25+)	11836.1+x[b] 10	(34−)
1338.0+x@ 6	(13+)	3650.4+x[c] 8	(18+)	6674.4+x[a] 9	(25−)	12411.4+x[c] 10	(34+)
1347.1+x[a] 6	(11−)	3739.5+x[d] 8	(19+)	6676.3+x[i] 9	(25−)		

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^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)

^{130}Pr Levels (continued)

† From least-squares fit to Eγ's, assuming Δ(Eγ)=0.3 keV for each γ ray. The bands #1 and #5 are assumed (evaluator) to be based on 58+x level, and bands #2, #3, #4 and #6 based on 62+x level, as proposed by 1998Pe05.
‡ As proposed by 1998SmZX. These are based on DCO ratios (R(DCO)≈1 for ΔJ=2, quadrupole transitions, and R(DCO)≈0.5 for ΔJ=1 transitions) and band associations. All assignments are given in parentheses (evaluator) since the J$^{\pi}$'s of lower states are not established well.
# From 1998Pe05.
@ Band(A): $\pi h_{11/2}\nu h_{11/2}$, α=1.
& Band(a): $\pi h_{11/2}\nu h_{11/2}$, α=0.
a Band(B): $\pi g_{7/2}\nu h_{11/2}$, α=1.
b Band(b): $\pi g_{7/2}\nu h_{11/2}$, α=0.
c Band(C): 6^+ band.
d Band(D): 5^+ band.
e Band(E): 13^-, α=1.
f Band(e): 13^-, α=0.
g Band(F): 7^- band.
h Band(G): 6^- band, α=0.
i Band(g): 6^- band, α=1.

γ(^{130}Pr)

All DCO data are from 1998SmZX.

E$_\gamma$ †	I$_\gamma$ †	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
58‡		58+x	(6^-)	0+x	(5^+)	
62‡		62+x	(6^+)	0+x	(5^+)	
69		600.9+x	(6^+)	532.2+x	(7^+)	
80.8	>17	138.9+x	(7^-)	58+x	(6^-)	R(DCO)=0.36 *1*.
83		600.9+x	(6^+)	517.6+x	(7^+)	
89.7	15.6 *6*	336.1+x	(8^+)	246.4+x	(7^+)	
103.1	1.2 *3*	365.6+x	(7^-)	262.5+x	(8^-)	R(DCO)=0.80 *7*.
110.1	19.4 *7*	446.2+x	(9^+)	336.1+x	(8^+)	R(DCO)=0.42 *2*.
123.5	17.2 *25*	262.5+x	(8^-)	138.9+x	(7^-)	R(DCO)=0.47 *6*.
131.2	19.7 *7*	577.5+x	(10^+)	446.2+x	(9^+)	R(DCO)=0.40 *1*.
142.1	3.06 *16*	336.1+x	(8^+)	194.0+x	(7^+)	R(DCO)=0.71 *7*.
145		384.9+x	(6^+)	239.8+x	(5^+)	
172.0	18.0 *6*	434.4+x	(9^-)	262.5+x	(8^-)	R(DCO)=0.50 *4*.
177.9	0.85 *7*	884.8+x	(9^-)	706.9+x	(8^-)	
181.3	1.92 *16*	517.6+x	(7^+)	336.1+x	(8^+)	
184.4	>15.5	246.4+x	(7^+)	62+x	(6^+)	R(DCO)=0.63 *6*.
192.3	1.13 *6*	770.1+x	(9^+)	577.5+x	(10^+)	R(DCO)=0.85 *6*.
193.2	3.72 *17*	336.1+x	(8^+)	142.9+x	(7^+)	R(DCO)=0.63 *6*.
196.3	1.96 *17*	532.2+x	(7^+)	336.1+x	(8^+)	
204.5	2.1 *3*	262.5+x	(8^-)	58+x	(6^-)	
207.5	12.9 *4*	641.9+x	(10^-)	434.4+x	(9^-)	R(DCO)=0.54 *3*.
213.4	12.6 *4*	1016.9+x	(12^+)	803.5+x	(11^+)	R(DCO)=0.61 *3*.
215.9	0.29 *8*	600.9+x	(6^+)	384.9+x	(6^+)	
218.2	0.94 *6*	1103.0+x	(10^-)	884.8+x	(9^-)	
226.0	16.7 *5*	803.5+x	(11^+)	577.5+x	(10^+)	R(DCO)=0.59 *2*.
226.6	3.0 *7*	365.6+x	(7^-)	138.9+x	(7^-)	R(DCO)=0.85 *6*.
237.9	1.13 *6*	770.1+x	(9^+)	532.2+x	(7^+)	R(DCO)=0.91 *6*.
241.3	2.44 *11*	577.5+x	(10^+)	336.1+x	(8^+)	

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^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)

$\gamma(^{130}Pr)$ (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
243.7	0.6 *9*	382.6+x	(7$^-$)	138.9+x	(7$^-$)	
244.1	0.74 *4*	1347.1+x	(11$^-$)	1103.0+x	(10$^-$)	
251.3	9.0 *3*	893.2+x	(11$^-$)	641.9+x	(10$^-$)	R(DCO)=0.68 *1*.
252.4	1.17 *7*	770.1+x	(9$^+$)	517.6+x	(7$^+$)	R(DCO)=0.80 *5*=4.
254.3	1.73 *9*	2471.4+x	(14$^-$)	2217.1+x	(13$^-$)	
264.5	0.76 *7*	865.5+x	(8$^+$)	600.9+x	(6$^+$)	R(DCO)=0.94 *9*.
265.0	0.41 *3*	1612.1+x	(12$^-$)	1347.1+x	(11$^-$)	
274.1	3.87 *19*	336.1+x	(8$^+$)	62+x	(6$^+$)	R(DCO)=1.17 *9*.
277.8	0.66 *10*	517.6+x	(7$^+$)	239.8+x	(5$^+$)	
278.4	6.00 *20*	1171.6+x	(12$^-$)	893.2+x	(11$^-$)	R(DCO)=0.51 *3*.
283.9	0.40 *3*	1896.1+x	(13$^-$)	1612.1+x	(12$^-$)	
290.6	4.88 *16*	1628.6+x	(14$^+$)	1338.0+x	(13$^+$)	R(DCO)=0.56 *4*.
292.5	0.41 *6*	532.2+x	(7$^+$)	239.8+x	(5$^+$)	
295.5	4.16 *18*	434.4+x	(9$^-$)	138.9+x	(7$^-$)	R(DCO)=0.66 *4*.
301.4	0.61 *5*	2772.8+x	(15$^-$)	2471.4+x	(14$^-$)	
302.1	0.30 *3*	2198.0+x	(14$^-$)	1896.1+x	(13$^-$)	
307.6	1.4 *4*	365.6+x	(7$^-$)	58+x	(6$^-$)	R(DCO)=0.72 *8*.
311.7	0.65 *4*	694.3+x	(9$^-$)	382.6+x	(7$^-$)	R(DCO)=0.99 *8*.
317.9	4.63 *15*	1489.5+x	(13$^-$)	1171.6+x	(12$^-$)	R(DCO)=0.54 *3*.
321.1	8.8 *3*	1338.0+x	(13$^+$)	1016.9+x	(12$^+$)	R(DCO)=0.56 *3*.
321.3	0.47 *4*	2519.8+x	(15$^-$)	2198.0+x	(14$^-$)	
328.7	2.03 *13*	694.3+x	(9$^-$)	365.6+x	(7$^-$)	R(DCO)=1.04 *7*.
333.3	0.52 *5*	865.5+x	(8$^+$)	532.2+x	(7$^+$)	R(DCO)=0.65 *5*.
335.0	3.38 *11*	1824.4+x	(14$^-$)	1489.5+x	(13$^-$)	R(DCO)=0.74 *6*.
336.0	0.38 *3*	2857.3+x	(16$^-$)	2519.8+x	(15$^-$)	
344.5	0.73 *4*	3117.3+x	(16$^-$)	2772.8+x	(15$^-$)	
347.9	0.30 *3*	865.5+x	(8$^+$)	517.6+x	(7$^+$)	
355.6	0.34 *3*	3213.6+x	(17$^-$)	2857.3+x	(16$^-$)	
357.3	4.04 *15*	803.5+x	(11$^+$)	446.2+x	(9$^+$)	R(DCO)=0.75 *6*.
361.5	2.80 *10*	2376.8+x	(16$^+$)	2015.3+x	(15$^+$)	R(DCO)=0.50 *5*.
364.3	1.59 *9*	1229.8+x	(10$^+$)	865.5+x	(8$^+$)	R(DCO)=1.04 *11*.
368.4	2.54 *9*	2192.9+x	(15$^-$)	1824.4+x	(14$^-$)	R(DCO)=0.70 *6*.
370.8#	0.35 *10*	706.9+x	(8$^-$)	336.1+x	(8$^+$)	
373.2	2.06 *8*	2566.1+x	(16$^-$)	2192.9+x	(15$^-$)	R(DCO)=0.79 *3*.
373.8	5.90 *21*	1143.9+x	(11$^+$)	770.1+x	(9$^+$)	R(DCO)=1.00 *3*.
379.4	5.81 *21*	641.9+x	(10$^-$)	262.5+x	(8$^-$)	R(DCO)=1.40 *7*.
385.9	0.60 *3*	3503.2+x	(17$^-$)	3117.3+x	(16$^-$)	
386.7	4.50 *15*	2015.3+x	(15$^+$)	1628.6+x	(14$^+$)	R(DCO)=0.55 *4*.
388.2	1.57 *6*	3350.3+x	(18$^-$)	2962.1+x	(17$^-$)	R(DCO)=0.48 *4*.
396.0	1.95 *7*	2962.1+x	(17$^-$)	2566.1+x	(16$^-$)	R(DCO)=0.79 *8*.
408.8	0.85 *5*	4168.7+x	(20$^-$)	3759.9+x	(19$^-$)	
409.6	1.11 *5*	3759.9+x	(19$^-$)	3350.3+x	(18$^-$)	R(DCO)=0.48 *7*.
412.3	0.67 *4*	3915.5+x	(18$^-$)	3503.2+x	(17$^-$)	
420.3	1.92 *8*	3219.2+x	(18$^+$)	2798.9+x	(17$^+$)	R(DCO)=0.59 *7*.
422.1	2.62 *10*	2798.9+x	(17$^+$)	2376.8+x	(16$^+$)	R(DCO)=0.55 *5*.
428.9	2.45 *10*	3648.1+x	(19$^+$)	3219.2+x	(18$^+$)	R(DCO)=0.48 *4*.
429.7	0.21 *6*	4539.3+x	(21$^+$)	4109.6+x	(20$^+$)	
431.8	0.51 *5*	694.3+x	(9$^-$)	262.5+x	(8$^-$)	R(DCO)=0.91 *12*.
433.9	0.70 *4*	4349.4+x	(19$^-$)	3915.5+x	(18$^-$)	
434.2	2.80 *14*	770.1+x	(9$^+$)	336.1+x	(8$^+$)	R(DCO)=0.79 *4*.
439.4	8.2 *3*	1016.9+x	(12$^+$)	577.5+x	(10$^+$)	R(DCO)=0.87 *3*.
443.0	1.40 *6*	5487.9+x	(23$^+$)	5045.0+x	(22$^+$)	
451.8	0.98 *5*	4620.5+x	(21$^-$)	4168.7+x	(20$^-$)	
453.1	0.75 *4*	4802.5+x	(20$^-$)	4349.4+x	(19$^-$)	
455.6#		517.6+x	(7$^+$)	62+x	(6$^+$)	

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^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)

$\gamma(^{130}Pr)$ (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
455.9	1.63 *9*	1685.7+x	(12^+)	1229.8+x	(10^+)	R(DCO)=0.87 *7*.
455.9	1.65 *7*	6511.4+x	(25^+)	6055.5+x	(24^+)	
458.0	0.96 *5*	5260.4+x	(21^-)	4802.5+x	(20^-)	
458.8	6.57 *23*	893.2+x	(11^-)	434.4+x	(9^-)	R(DCO)=1.14 *12*.
460.5#	0.38 *11*	706.9+x	(8^-)	246.4+x	(7^+)	
461.5	1.21 *6*	4109.6+x	(20^+)	3648.1+x	(19^+)	R(DCO)=0.56 *6*.
461.5	0.99 *5*	5082.0+x	(22^-)	4620.5+x	(21^-)	
462.3	0.40 *3*	1347.1+x	(11^-)	884.8+x	(9^-)	
467.7	1.63 *7*	5728.1+x	(22^-)	5260.4+x	(21^-)	
489.2	0.58 *3*	6217.3+x	(23^-)	5728.1+x	(22^-)	
492.6	2.42 *11*	1186.9+x	(11^-)	694.3+x	(9^-)	R(DCO)=1.07 *9*.
500.7	6.81 *23*	1644.6+x	(13^+)	1143.9+x	(11^+)	R(DCO)=1.06 *5*.
505.6	1.22 *5*	5045.0+x	(22^+)	4539.3+x	(21^+)	
507.1	0.54 *3*	6724.4+x	(24^-)	6217.3+x	(23^-)	
509.0	0.85 *4*	5591.0+x	(23^-)	5082.0+x	(22^-)	
509.1	0.73 *4*	1612.1+x	(12^-)	1103.0+x	(10^-)	
521.9	1.00 *5*	6113.0+x	(24^-)	5591.0+x	(23^-)	
529.7	7.52 *25*	1171.6+x	(12^-)	641.9+x	(10^-)	R(DCO)=0.96 *6*.
534.5	5.21 *17*	1338.0+x	(13^+)	803.5+x	(11^+)	R(DCO)=0.94 *12*.
548.9	1.09 *6*	1896.1+x	(13^-)	1347.1+x	(11^-)	
557.2	1.49 *7*	2242.9+x	(14^+)	1685.7+x	(12^+)	R(DCO)=1.08 *9*.
566.4	1.41 *7*	1143.9+x	(11^+)	577.5+x	(10^+)	R(DCO)=0.41 *4*.
567.5	1.15 *6*	6055.5+x	(24^+)	5487.9+x	(23^+)	
586.1	0.86 *5*	2198.0+x	(14^-)	1612.1+x	(12^-)	
596.3	7.72 *25*	1489.5+x	(13^-)	893.2+x	(11^-)	R(DCO)=1.20 *7*.
611.7	10.3 *3*	1628.6+x	(14^+)	1016.9+x	(12^+)	R(DCO)=0.92 *5*.
613.3	6.73 *23*	2258.0+x	(15^+)	1644.6+x	(13^+)	R(DCO)=0.98 *4*.
623.4	1.11 *6*	2519.8+x	(15^-)	1896.1+x	(13^-)	
632.2	2.29 *10*	1819.1+x	(13^-)	1186.9+x	(11^-)	R(DCO)=0.97 *8*.
652.8	7.20 *23*	1824.4+x	(14^-)	1171.6+x	(12^-)	R(DCO)=0.87 *5*.
657.7	1.42 *6*	2900.6+x	(16^+)	2242.9+x	(14^+)	R(DCO)=0.62 *5*.
660.2	0.85 *5*	2857.3+x	(16^-)	2198.0+x	(14^-)	
677.3	5.59 *18*	2015.3+x	(15^+)	1338.0+x	(13^+)	R(DCO)=1.07 *8*.
694.5	1.18 *6*	3213.6+x	(17^-)	2519.8+x	(15^-)	
703.4	6.11 *20*	2192.9+x	(15^-)	1489.5+x	(13^-)	R(DCO)=1.14 *7*.
704.5	5.01 *17*	2962.5+x	(17^+)	2258.0+x	(15^+)	R(DCO)=0.99 *5*.
727.7	0.76 *5*	3585.0+x	(18^-)	2857.3+x	(16^-)	
730.4	0.82 *5*	3503.2+x	(17^-)	2772.8+x	(15^-)	
733.6	1.68 *7*	2552.7+x	(15^-)	1819.1+x	(13^-)	R(DCO)=1.03 *11*.
741.7	5.94 *20*	2566.1+x	(16^-)	1824.4+x	(14^-)	R(DCO)=1.09 *7*.
748.2	6.92 *22*	2376.8+x	(16^+)	1628.6+x	(14^+)	R(DCO)=1.06 *6*.
749.8	1.29 *6*	3650.4+x	(18^+)	2900.6+x	(16^+)	R(DCO)=0.78 *6*.
765.2	0.74 *5*	3978.8+x	(19^-)	3213.6+x	(17^-)	
769.2	4.50 *15*	2962.1+x	(17^-)	2192.9+x	(15^-)	R(DCO)=0.98 *8*.
777.0	3.82 *13*	3739.5+x	(19^+)	2962.5+x	(17^+)	R(DCO)=0.94 *6*.
783.6	5.05 *17*	2798.9+x	(17^+)	2015.3+x	(15^+)	R(DCO)=0.94 *7*.
784.2	4.15 *15*	3350.3+x	(18^-)	2566.1+x	(16^-)	R(DCO)=0.98 *8*.
797.5	0.52 *4*	4382.5+x	(20^-)	3585.0+x	(18^-)	
797.8	2.93 *11*	3759.9+x	(19^-)	2962.1+x	(17^-)	R(DCO)=1.30 *8*.
798.1	0.39 *3*	3915.5+x	(18^-)	3117.3+x	(16^-)	
798.2	1.29 *6*	3350.9+x	(17^-)	2552.7+x	(15^-)	R(DCO)=1.10 *9*.
818.4	2.62 *10*	4168.7+x	(20^-)	3350.3+x	(18^-)	R(DCO)=1.10 *7*.
829.4	1.27 *6*	4479.8+x	(20^+)	3650.4+x	(18^+)	
833.0	0.95 *5*	4811.8+x	(21^-)	3978.8+x	(19^-)	
835.5	1.15 *6*	4186.4+x	(19^-)	3350.9+x	(17^-)	R(DCO)=0.80 *8*.

Continued on next page (footnotes at end of table)

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)

γ(^{130}Pr) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	Comments
842.4	5.03 *17*	3219.2+x	(18^+)	2376.8+x	(16^+)	R(DCO)=0.91 *7*.
844.8	2.91 *10*	4584.3+x	(21^+)	3739.5+x	(19^+)	R(DCO)=1.48 *7*.
846.2	0.72 *5*	4349.4+x	(19^-)	3503.2+x	(17^-)	
849.2	4.14 *14*	3648.1+x	(19^+)	2798.9+x	(17^+)	R(DCO)=1.03 *9*.
860.6	2.81 *10*	4620.5+x	(21^-)	3759.9+x	(19^-)	R(DCO)=1.23 *9*.
867.2	0.70 *4*	5249.8+x	(22^-)	4382.5+x	(20^-)	
879.1[#]	1.59 *9*	2217.1+x	(13^-)	1338.0+x	(13^+)	
887.0	0.73 *4*	4802.5+x	(20^-)	3915.5+x	(18^-)	
888.2	0.77 *5*	5074.6+x	(21^-)	4186.4+x	(19^-)	
890.4	1.97 *11*	4109.6+x	(20^+)	3219.2+x	(18^+)	R(DCO)=0.88 *6*.
891.3	4.16 *16*	4539.3+x	(21^+)	3648.1+x	(19^+)	R(DCO)=1.11 *7*.
897.6	1.12 *5*	5377.4+x	(22^+)	4479.8+x	(20^+)	
899.7	0.77 *4*	5711.5+x	(23^-)	4811.8+x	(21^-)	
903.6	0.86 *4*	5487.9+x	(23^+)	4584.3+x	(21^+)	
911.0	0.60 *4*	5260.4+x	(21^-)	4349.4+x	(19^-)	
913.3	2.22 *9*	5082.0+x	(22^-)	4168.7+x	(20^-)	
925.7	0.65 *4*	5728.1+x	(22^-)	4802.5+x	(20^-)	
926.7	1.99 *7*	5511.0+x	(23^+)	4584.3+x	(21^+)	R(DCO)=1.45 *9*.
931.9	0.55 *4*	6181.7+x	(24^-)	5249.8+x	(22^-)	
935.4	2.36 *9*	5045.0+x	(22^+)	4109.6+x	(20^+)	
948.6	2.33 *9*	5487.9+x	(23^+)	4539.3+x	(21^+)	R(DCO)=1.21 *9*.
956.9	0.73 *4*	6217.3+x	(23^-)	5260.4+x	(21^-)	
962.9	0.52 *4*	6674.4+x	(25^-)	5711.5+x	(23^-)	
963.7	0.72 *4*	6341.1+x	(24^+)	5377.4+x	(22^+)	
966.6	0.59 *4*	6041.2+x	(23^-)	5074.6+x	(21^-)	
970.5	1.61 *7*	5591.0+x	(23^-)	4620.5+x	(21^-)	
996.0	0.43 *3*	7177.7+x	(26^-)	6181.7+x	(24^-)	
996.2	0.66 *4*	6724.4+x	(24^-)	5728.1+x	(22^-)	
1000.3	0.78 *4*	6511.4+x	(25^+)	5511.0+x	(23^+)	
1010.5	1.76 *7*	6055.5+x	(24^+)	5045.0+x	(22^+)	
1023.4	2.46 *9*	6511.4+x	(25^+)	5487.9+x	(23^+)	
1029.4	1.16 *5*	6540.4+x	(25^+)	5511.0+x	(23^+)	
1031.0	1.77 *7*	6113.0+x	(24^-)	5082.0+x	(22^-)	
1031.7	0.41 *4*	7706.1+x	(27^-)	6674.4+x	(25^-)	
1035.9	0.55 *4*	7077.1+x	(25^-)	6041.2+x	(23^-)	
1040.4	0.68 *4*	7381.5+x	(26^+)	6341.1+x	(24^+)	
1062.9	0.51 *3*	8240.6+x	(28^-)	7177.7+x	(26^-)	
1068.2	0.41 *3*	8145.3+x	(27^-)	7077.1+x	(25^-)	
1085.3	1.46 *6*	6676.3+x	(25^-)	5591.0+x	(23^-)	
1096.1	0.54 *3*	8802.2+x	(29^-)	7706.1+x	(27^-)	
1107.6	1.36 *6*	7163.1+x	(26^+)	6055.5+x	(24^+)	
1116.7	1.90 *8*	7628.1+x	(27^+)	6511.4+x	(25^+)	
1127.9	0.54 *3*	8509.4+x	(28^+)	7381.5+x	(26^+)	
1129.7	0.36 *3*	9275.0+x	(29^-)	8145.3+x	(27^-)	
1130.0	0.83 *4*	7670.5+x	(27^+)	6540.4+x	(25^+)	
1130.1	0.41 *3*	9370.7+x	(30^-)	8240.6+x	(28^-)	
1133.4[#]	1.02 *7*	2471.4+x	(14^-)	1338.0+x	(13^+)	
1138.2	1.23 *6*	7251.2+x	(26^-)	6113.0+x	(24^-)	
1163.7	0.38 *3*	9966.0+x	(31^-)	8802.2+x	(29^-)	
1191.5	1.08 *5*	7867.8+x	(27^-)	6676.3+x	(25^-)	
1198.4	0.34 *2*	10569.1+x	(32^-)	9370.7+x	(30^-)	
1209.0	1.01 *5*	8372.1+x	(28^+)	7163.1+x	(26^+)	
1218.6	1.20 *6*	8846.7+x	(29^+)	7628.1+x	(27^+)	
1220.1	0.41 *3*	8890.6+x	(29^+)	7670.5+x	(27^+)	
1220.9	0.40 *3*	9730.3+x	(30^+)	8509.4+x	(28^+)	

Continued on next page (footnotes at end of table)

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)

$\gamma(^{130}Pr)$ (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
1238.3	0.33 *2*	11204.3+x	(33^-)	9966.0+x	(31^-)	1309.9	0.81 *4*	10156.6+x	(31^+)	8846.7+x	(29^+)
1258.0	0.79 *4*	8509.2+x	(28^-)	7251.2+x	(26^-)	1318.3	0.34 *2*	11048.6+x	(32^+)	9730.3+x	(30^+)
1267.0	0.31 *2*	11836.1+x	(34^-)	10569.1+x	(32^-)	1337.0	0.57 *3*	9846.2+x	(30^-)	8509.2+x	(28^-)
1284.5	0.74 *4*	9656.6+x	(30^+)	8372.1+x	(28^+)	1362.8	0.29 *2*	12411.4+x	(34^+)	11048.6+x	(32^+)
1292.3	0.66 *4*	9160.1+x	(29^-)	7867.8+x	(27^-)	1366.1	0.50 *3*	10526.3+x	(31^-)	9160.1+x	(29^-)
1298.1	0.49 *3*	10188.7+x	(31^+)	8890.6+x	(29^+)	1374.2	0.32 *2*	11562.9+x	(33^+)	10188.7+x	(31^+)

† From 1998SmZX.
‡ From 1998Pe05.
# Placement of transition in the level scheme is uncertain.

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Level Scheme

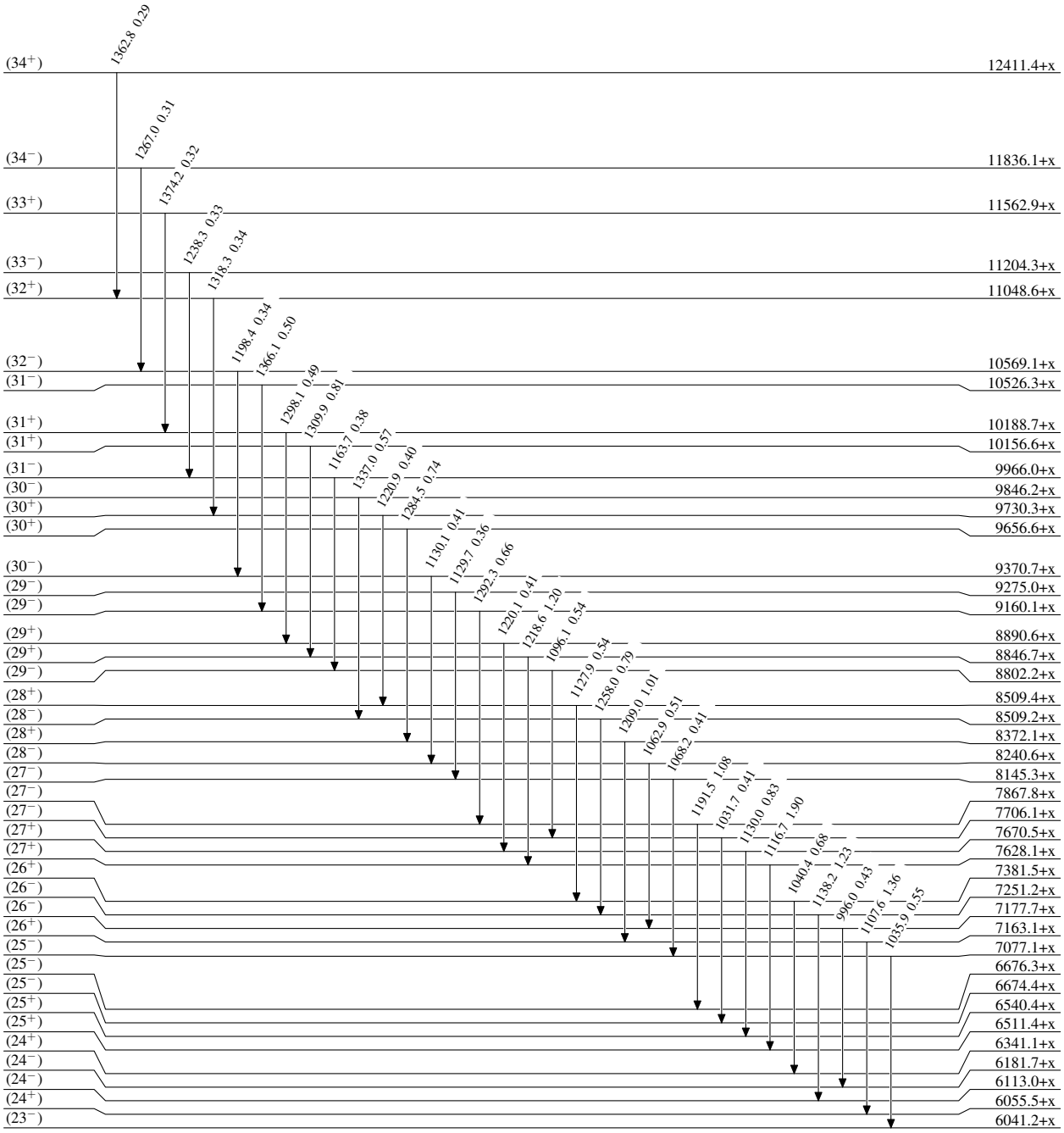
Intensities: Relative I_γ

Legend

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

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

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

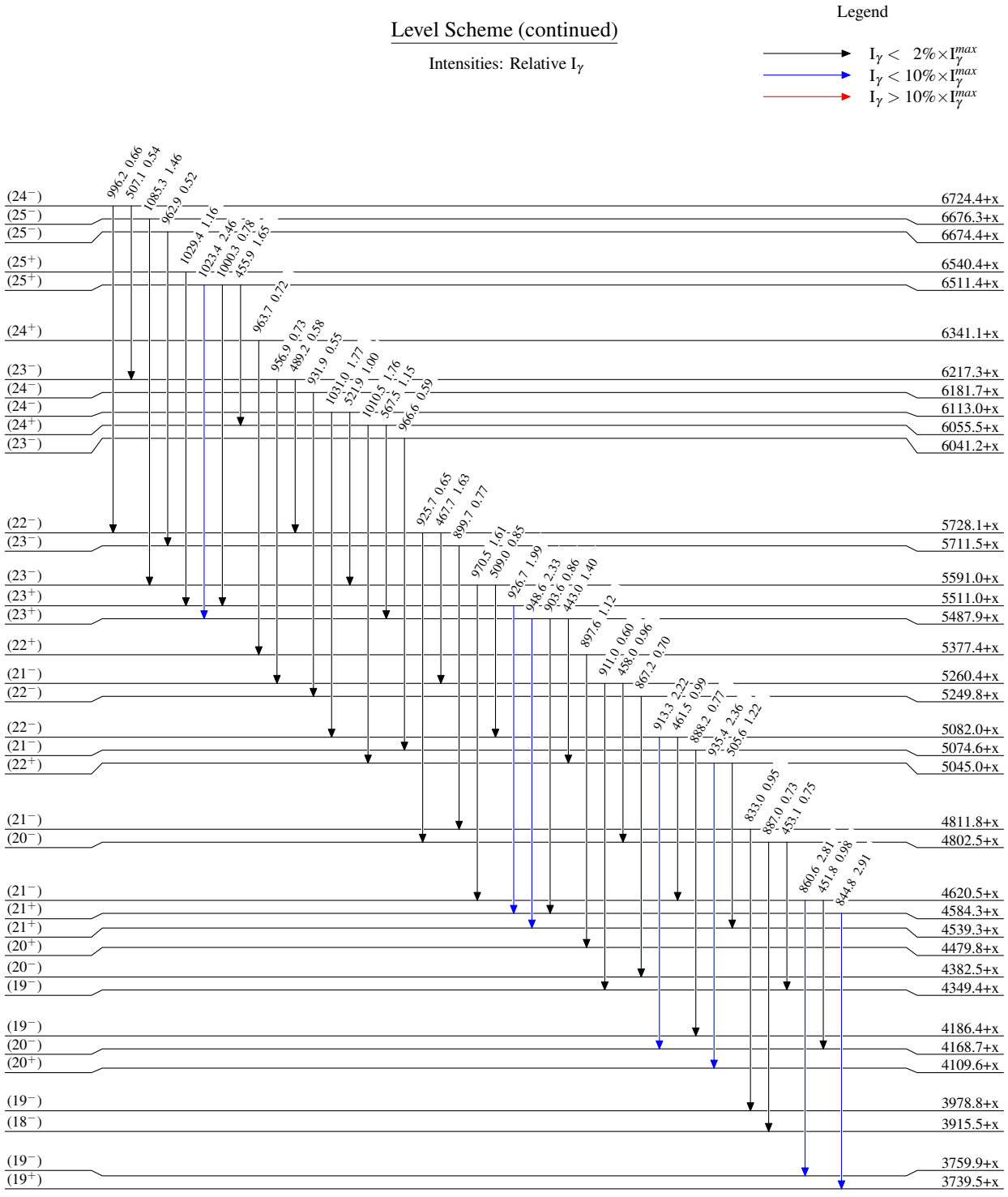


$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Level Scheme (continued)

Intensities: Relative I_γ



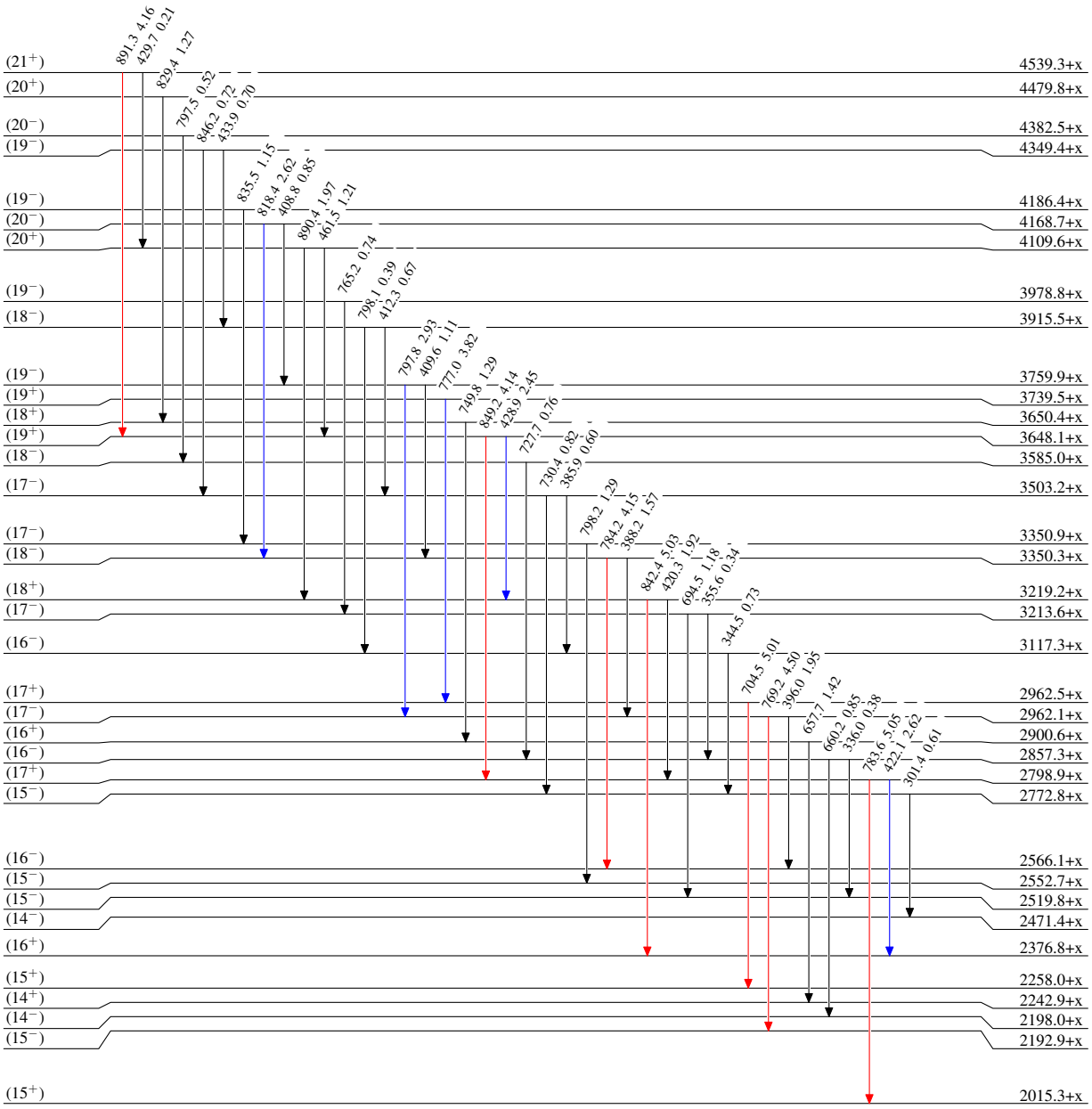
$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Level Scheme (continued)

Intensities: Relative I_γ

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



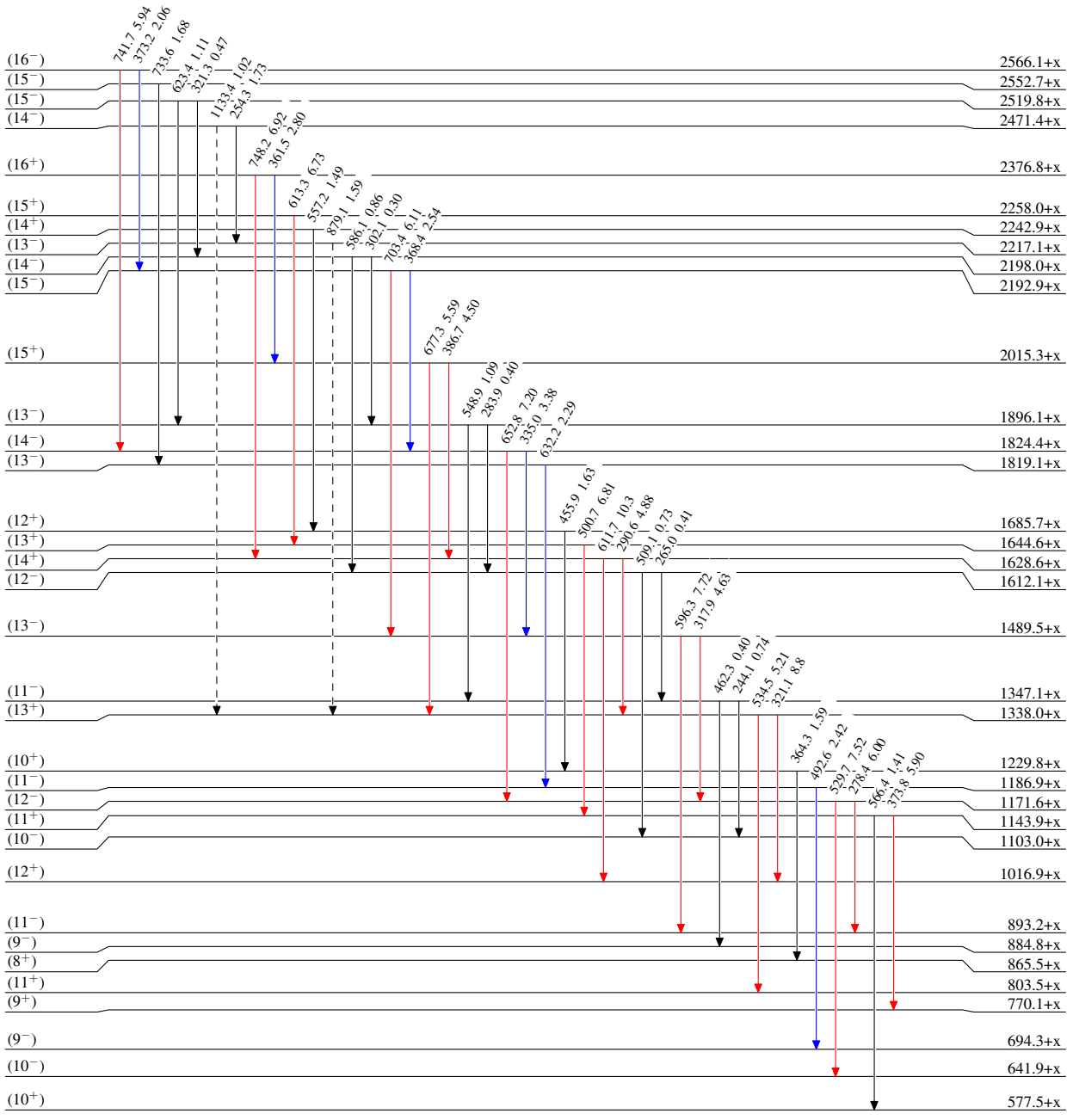
$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Level Scheme (continued)

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)



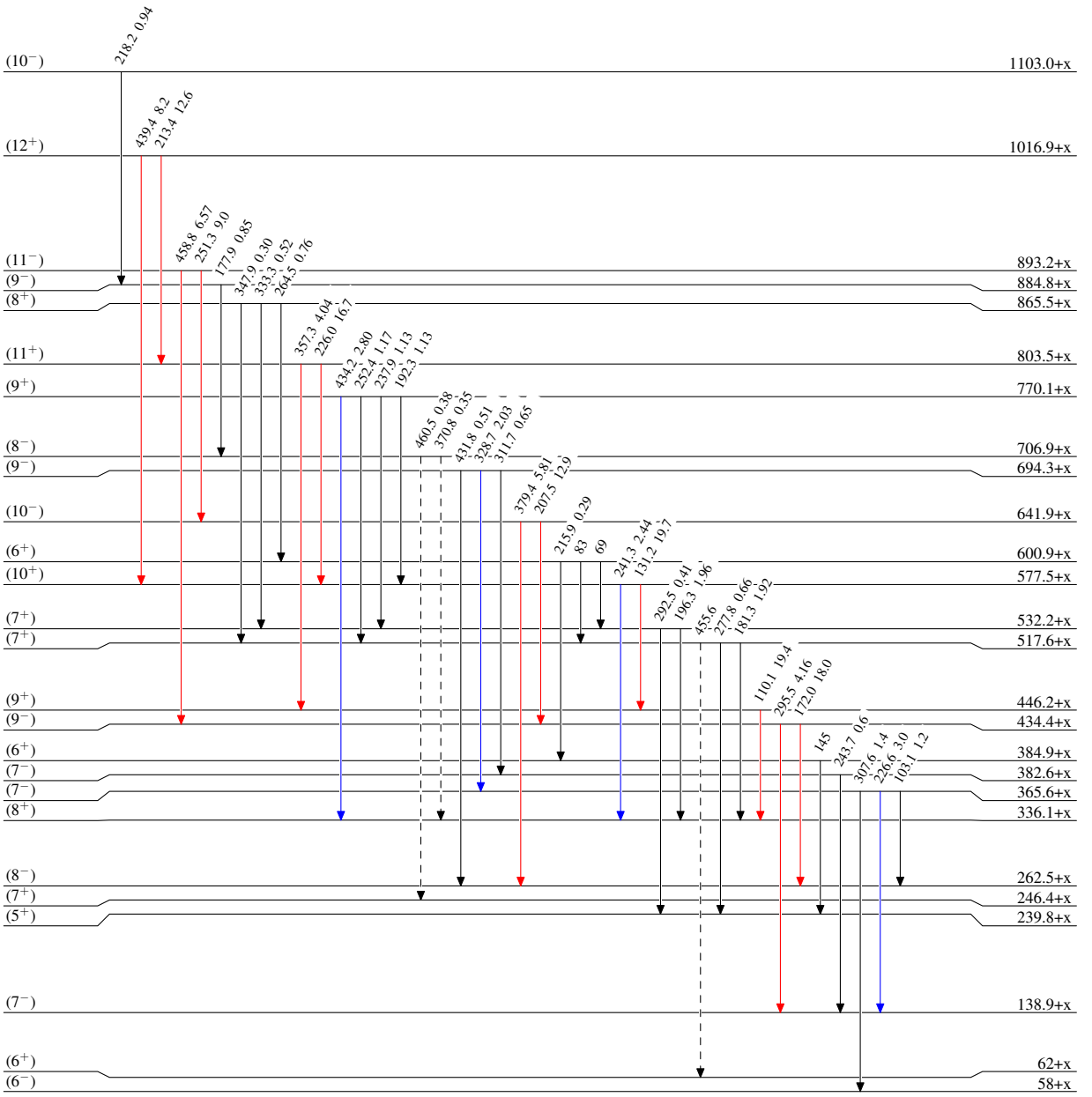
$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

Level Scheme (continued)

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)

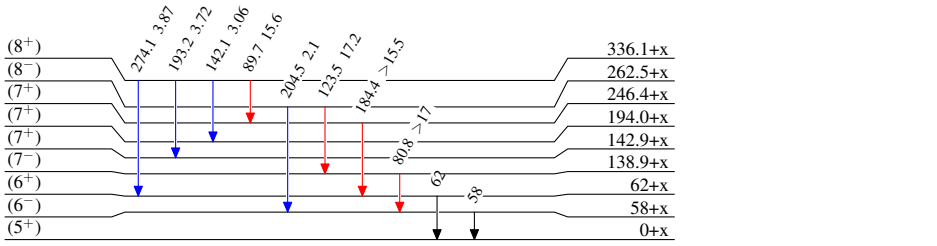


$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX

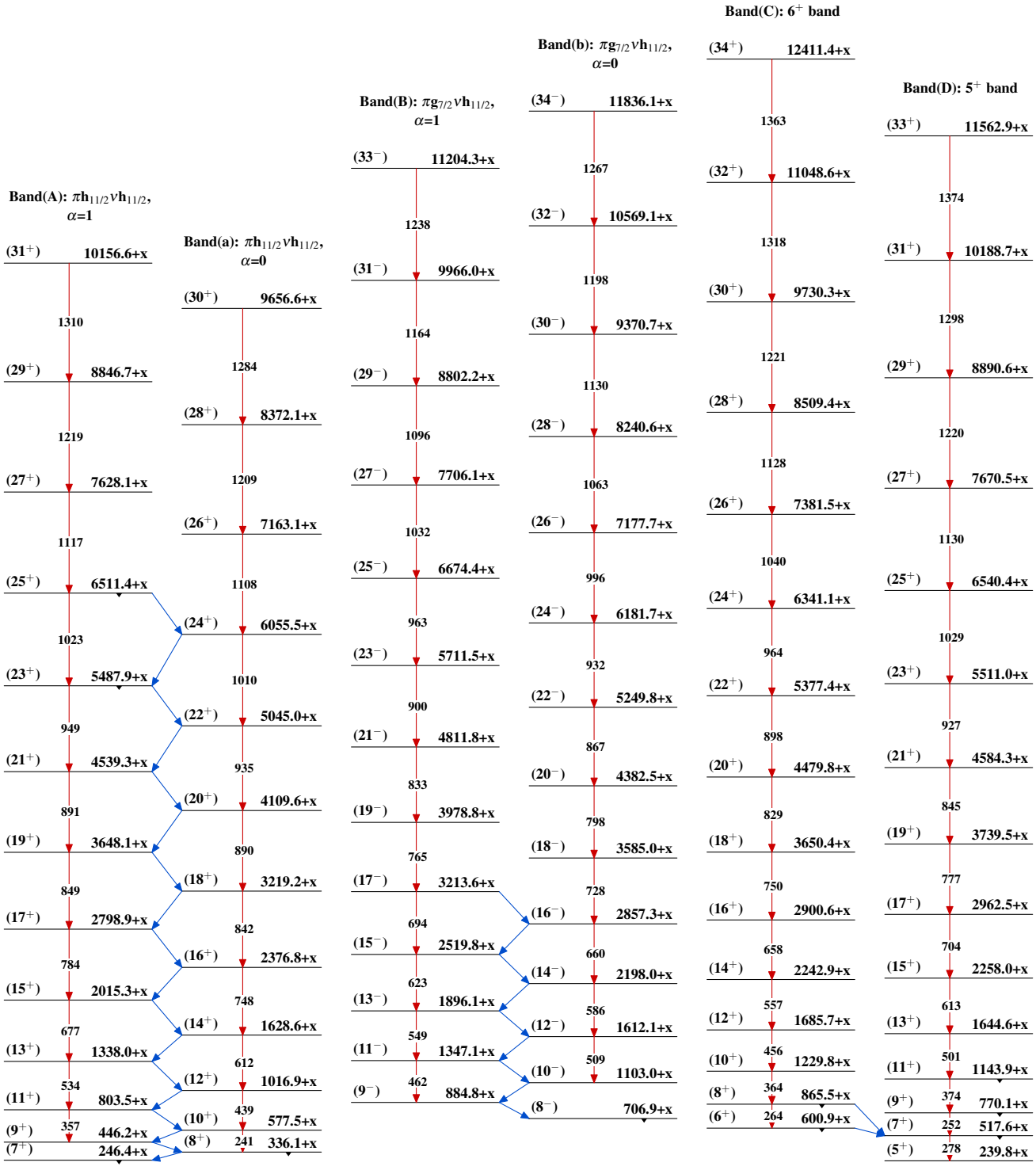
Level Scheme (continued)

Intensities: Relative I_γ



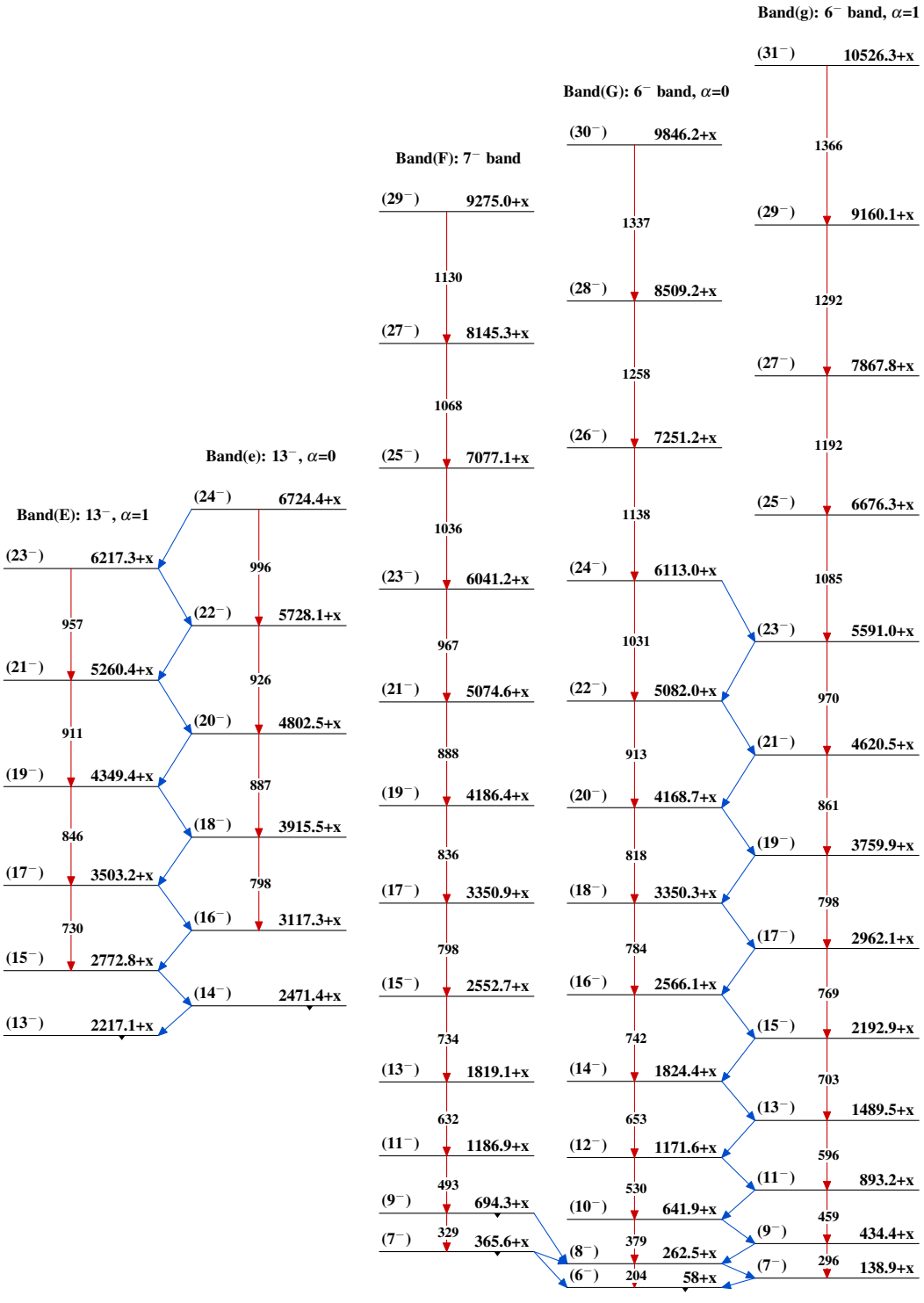
$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX



$^{130}_{59}Pr_{71}$

^{94}Mo(^{40}Ca,3pnγ) 1998Sm08,1998SmZX (continued)



$^{130}_{59}Pr_{71}$