^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 117, 1 (2014)	1-Oct-2013

1997Go20: E=≈20 eV to≈1 keV; measured Eγ, Iγ, γ(θ), and linear polarization following average-resonance neutron capture of filtered reactor neutrons.
Others: 1985GoZL, 1987Be48.
All data are from 1997Go20, unless indicated otherwise.

^{148}Sm Levels

E(level)†	Jπ‡	ΣIγ#	Comments
0.0	0^+		
550.255 *8*	2^+	0.377 *25*	
1161.531 *15*	3^-	0.068 *10*	
1180.231 *14*	4^+	0.52 *3*	
1424.45 *3*	0^+		
1454.059 *14*	2^+	0.138 *13*	
1465.137 *11*	1^-		
1594.241 *18*	5^-	0.056 *10*	
1664.223 *15*	2^+	0.166 *14*	
1733.440 *20*	4^+	0.272 *20*	
1894.94 *3*	4^+	0.306 *22*	
1903.773 *18*	3^+	0.356 *25*	Jπ: 3^+; Jπ=3^- ruled out by linear-polarization data.
1905.857 *25*	6^+		
1920.97 *6*	0^+		
1972.480 *21*	2^+	0.105 *12*	
2031.39 *5*	4^-	0.034 *8*	Jπ: 4^-.
2057.93 *5*	2^-		
2095.180 *20*	6^+		
2110.95 *3*	4^+	0.278 *20*	
2128.46 *4*	7^-		
2146.35 *3*	2^+	0.289@ *21*	Jπ: 2^+; Jπ=2^- and 3^+ ruled out by linear-polarization data.
2147.447 *24*	5^+	0.289@ *21*	
2193.93 *5*	6^+		
2204.99 *15*	0^+		
2208.85 *7*	$(1,2^+)$	0.093 *11*	Jπ: 2^+.
2214.36 *5*	5^+	0.062 *10*	Jπ: 5^+.
2228.22 *4*	4^+	0.168 *15*	
2284.37 *13*	$(1,2^+)$		Jπ: 1.
2313.57 *8*	2^+	0.101 *13*	Jπ: 2^+.
2327.09 *5*	4^+	0.44& *3*	Jπ: 4^+.
2327.62 *9*	3^+	0.44& *3*	Jπ: 3^+.
2339.21 *8*	3^-	0.059 *11*	Jπ: 3^-.
2374.31 *6*	$5^+,6^+$		
2381.67 *10*	$3^+,4^+$	0.174 *14*	Jπ: $3^+,4^+$.
2390.45 *6*	3^+	0.143 *13*	Jπ: 3^+.
2392.32 *7*	7^+		
2442.29 *10*	(2^+)	0.061 *10*	Jπ: 2^+.
2467.38 *8*	$3^{(-)}$		Jπ: 3^-; π=− based on small primary-capture Iγ.
2472.48 *16*	1		Jπ: 1.
2489.99 *5*	4^+	0.202 *16*	
2513.50 *18*	1		Jπ: 1.
2524.875 *25*	4^+	0.24 *4*	
2532.51 *6*	$4^-,5^-$		Jπ: (5^-).
2539.82 *17*	3^-	0.071 *11*	Jπ: 3^-.

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^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

^{148}Sm Levels (continued)

E(level)[†]	Jπ[‡]	ΣIγ[#]	Comments
2567.92 *19*	2^+	0.050 *11*	Jπ: 2^+.
2570.72 *6*	$4^{(-)}$		Jπ: 4^-; π=− because of small primary-capture Iγ.
2583.75 *7*	$4^{(-)}$		Jπ: 4^-; π=− because of small primary-capture Iγ.
2633.15 *8*	3^-	0.085 *12*	Jπ: 3^-.
2640.76 *6*	5^+	0.069 *11*	Jπ: 5^+.
2645.50? *15*	4^+,5^+	0.135 *14*	
2673.12 *9*	4^+	0.160 *15*	Jπ: 3^+,4^+.
2683.22 *6*	4^-,5^-	0.154 *15*	
2697.77 *12*	3^+,4^+	0.141 *14*	Jπ: 3^+,4^+.
2701.70 *20*	$4^{(-)}$,(3^-)		Jπ: 4^-,(3^-); π=− because of small primary-capture Iγ.
2704.6 *5*	$(1,2^+)$		Jπ: 1.
2713.27 *6*	3^+,4^+	0.161 *16*	Jπ: 3^+,4^+.
2716.27 *22*	$(4^+,5,6^+)$		
2719.8 *5*	$(3^-,4^-)$		
2723.46 *6*	4^+	0.149 *19*	Jπ: 3^+,4^+.
2727.18 *9*	5^+		Jπ: 5,6.
2753.15 *6*	3^+	0.18 *4*	Jπ: 3^+.
2801.73 *10*	5^+	0.056 *11*	
2806.73 *10*	3^+,4^+	0.105 *13*	Jπ: 3^+,4^+.
2815.46 *9*	4^-	0.072 *12*	
2828.13 *15*			
2830.54 *16*	5^+	0.113[a] *19*	
2835.7? *4*		0.113[a] *19*	
2846.9 *3*	$(3^-,4^-)$		
2861.07 *8*	4^-,5^-	0.300[b] *24*	Jπ: 3^+,4^+.
2862.06 *11*	3^+,4^+	0.300[b] *24*	Jπ: 3^+,4^+.
2891.8 *5*			
2908.13 *22*	3^-,4^-		
2928.74 *13*	$(4,5,6)^+$		
2931.98? *20*			
2941.1 *7*	2^+,3^-	0.043 *10*	Jπ: 2^+,3^-.
2952.7 *9*			
2967.6 *7*	3^+,4^+	0.132 *15*	Jπ: 3^+,4^+.
2980.50 *19*	3^+,4^+	0.111 *5*	Jπ: 3^+,4^+.
2991.78 *16*	3^+,4^+	0.127 *14*	Jπ: 3^+,4^+.
3014.1 *6*	3^-,4^-	0.065 *12*	Jπ: 3^-.
3050.5 *4*			
3063.25 *22*	3^-	0.041 *10*	Jπ: 3^-.
3089.84 *23*	2^+,3^-	0.077 *12*	Jπ: 2^+,3^-.
3107.8 *4*	3^+,4^+	0.123 *14*	Jπ: 3^+,4^+.
3117.3? *10*			
3138.46 *11*	$3^{(-)}$,$4^{(-)}$	0.029 *9*	Jπ: 3^-,4^-; π=− from small primary-capture Iγ.
3153.5 *3*	$^+$		
3164.8 *4*	3^+,4^+	0.142 *21*	Jπ: 3^+,4^+.
3178.0 *15*	$^+$		
3189.8 *8*	2^+,3^-	0.046 *44*	Jπ: 2^+,3^-.
3197.4 *10*	3^-,4^-		
3221.2 *4*		0.068 *18*	
3224.83 *19*			
3276.2 *5*			

[†] From a least-squares fit to the Eγ data.

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^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

^{148}Sm Levels (continued)

‡ Adopted values. Supporting assignments from this reaction based on γ(θ), primary capture Iγ/E$_\gamma^5$, and linear-polarization data are given in comments.
# Sum of primary transitions to this level.
@ Sum of primary transitions to the 2146 and 2148 levels.
& Sum of primary transitions to the 2327 and 2328 levels.
a Sum of primary transitions to the 2831 and 2836 levels.
b Sum of primary transitions to the 2861 and 2862 levels.

γ(^{148}Sm)

E$_\gamma$	I$_\gamma$ †	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
189.63 *7*	0.064 *12*	2095.180	6$^+$	1905.857	6$^+$
222.56 *6*	0.262 *17*	2128.46	7$^-$	1905.857	6$^+$
241.70 *10*	0.176 *14*	2147.447	5$^+$	1905.857	6$^+$
263.96 *20*	0.059 *12*	2392.32	7$^+$	2128.46	7$^-$
288.10 *7*	0.334 *17*	2193.93	6$^+$	1905.857	6$^+$
308.29 *11*	0.127 *10*	1972.480	2$^+$	1664.223	2$^+$
309.93 *9*	0.116 *10*	2524.875	4$^+$	2214.36	5$^+$
311.61 *5*	0.492 *15*	1905.857	6$^+$	1594.241	5$^-$
x375.1 *3*	0.032 *10*				
377.50 *8*	0.176 *12*	2110.95	4$^+$	1733.440	4$^+$
414.026& *21*	11.9& *3*	1594.241	5$^-$	1180.231	4$^+$
414.026& *21*	11.9& *3*	2147.447	5$^+$	1733.440	4$^+$
423.57 *13*	0.094 *11*	2570.72	4$^{(-)}$	2147.447	5$^+$
432.71 *3*	2.45 *6*	1594.241	5$^-$	1161.531	3$^-$
449.66 *9*	0.23 *9*	1903.773	3$^+$	1454.059	2$^+$
468.44 *6*	0.363 *15*	2374.31	5$^+$,6$^+$	1905.857	6$^+$
486.45 *6*	0.294 *14*	2392.32	7$^+$	1905.857	6$^+$
495.02& *7*	0.314& *14*	2228.22	4$^+$	1733.440	4$^+$
495.07& *7*	0.314& *14*	2723.46	4$^+$	2228.22	4$^+$
501.21 *6*	0.524 *25*	2095.180	6$^+$	1594.241	5$^-$
516.71 *16*	0.260 *12*	2110.95	4$^+$	1594.241	5$^-$
534.24 *4*	0.99 *3*	2128.46	7$^-$	1594.241	5$^-$
550.273 *9*	100	550.255	2$^+$	0.0	0$^+$
553.17& *3*	5.18& *13*	2147.447	5$^+$	1594.241	5$^-$
553.22& *3*	5.18& *13*	1733.440	4$^+$	1180.231	4$^+$
571.96 *3*	3.33 *8*	1733.440	4$^+$	1161.531	3$^-$
587.34 *19*	0.049 *9*	2815.46	4$^-$	2228.22	4$^+$
592.82 *8*	0.196 *11*	2057.93	2$^-$	1465.137	1$^-$
599.58 *9*	0.242 *20*	2193.93	6$^+$	1594.241	5$^-$
611.272 *16*	21.9 *6*	1161.531	3$^-$	550.255	2$^+$
619.03& *9*	0.227& *14*	2524.875	4$^+$	1905.857	6$^+$
619.83& *9*	0.227& *14*	2214.36	5$^+$	1594.241	5$^-$
629.975 *14*	43.4 *11*	1180.231	4$^+$	550.255	2$^+$
654.20 *19*	0.055 *9*	2801.73	5$^+$	2147.447	5$^+$
657.02 *8*	0.257 *12*	2110.95	4$^+$	1454.059	2$^+$
666.96a *10*	0.147 *10*	2570.72	4$^{(-)}$	1903.773	3$^+$
683.01 *25*	0.034 *8*	2830.54	5$^+$	2147.447	5$^+$
x708.13 *10*	0.172 *12*				
714.72 *5*	1.21 *24*	1894.94	4$^+$	1180.231	4$^+$
723.58 *5*	0.514 *23*	1903.773	3$^+$	1180.231	4$^+$
725.65 *3*	3.49 *9*	1905.857	6$^+$	1180.231	4$^+$

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^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

γ(^{148}Sm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
734.08 *15*	0.102 *9*	2640.76	5^+	1905.857	6^+
742.4[‡] *3*	0.149 *12*	1903.773	3^+	1161.531	3^-
756.61 *11*	0.126 *9*	2489.99	4^+	1733.440	4^+
778.19 *11*	0.112 *9*	2442.29	(2^+)	1664.223	2^+
780.09 *10*	0.166 *20*	2374.31	$5^+,6^+$	1594.241	5^-
788.22 *7*	0.292 *15*	2683.22	$4^-,5^-$	1894.94	4^+
817.82 *22*	0.068 *13*	2928.74	$(4,5,6)^+$	2110.95	4^+
869.86 *4*	2.83 *8*	2031.39	4^-	1161.531	3^-
874.19 *3*	0.463 *17*	1424.45	0^+	550.255	2^+
885.6 *8*	0.101 *15*	2339.21	3^-	1454.059	2^+
896.39 *5*	0.81 *3*	2057.93	2^-	1161.531	3^-
903.815 *19*	2.71 *7*	1454.059	2^+	550.255	2^+
914.916[&] *15*	1.95[&] *5*	1465.137	1^-	550.255	2^+
914.916[&] *15*	1.95[&] *5*	2095.180	6^+	1180.231	4^+
930.68[&] *3*	1.73[&] *5*	2110.95	4^+	1180.231	4^+
930.68[&] *3*	1.73[&] *5*	2524.875	4^+	1594.241	5^-
936.38[a] *10*	0.166 *16*	2967.6	$3^+,4^+$	2031.39	4^-
938.27 *5*	0.49 *3*	2532.51	$4^-,5^-$	1594.241	5^-
949.48 *10*	0.302 *15*	2110.95	4^+	1161.531	3^-
967.98[a] *7*	0.93 *5*	2147.447	5^+	1180.231	4^+
976.49 *10*	0.246 *13*	2570.72	$4^{(-)}$	1594.241	5^-
979.78 *6*	0.529 *18*	2713.27	$3^+,4^+$	1733.440	4^+
985.16 *20*	0.098 *11*	2146.35	2^+	1161.531	3^-
989.50 *6*	0.410 *17*	2583.75	$4^{(-)}$	1594.241	5^-
[x]996.33 *14*	0.212 *14*				
1013.73 *8*	0.512 *24*	2193.93	6^+	1180.231	4^+
1033.99 *6*	1.49 *4*	2214.36	5^+	1180.231	4^+
1035.85 *8*	0.33 *3*	2489.99	4^+	1454.059	2^+
1047.66 *14*	0.542 *29*	2228.22	4^+	1180.231	4^+
1051.25 *14*	0.162 *13*	2645.50?	$4^+,5^+$	1594.241	5^-
1066.56 *5*	0.691 *22*	2228.22	4^+	1161.531	3^-
1073.32 *16*	0.211 *14*	2806.73	$3^+,4^+$	1733.440	4^+
1082.02 *14*	0.170 *13*	2815.46	4^-	1733.440	4^+
1089.20 *17*	0.183 *13*	2683.22	$4^-,5^-$	1594.241	5^-
[x]1102.59 *14*	0.173 *13*				
1107.5 *3*	0.28 *3*	2701.70	$4^{(-)},(3^-)$	1594.241	5^-
1113.98 *2*	1.98 *5*	1664.223	2^+	550.255	2^+
[x]1125.6 *4*	0.058 *12*				
1128.04[&] *15*	0.206[&] *14*	2861.07	$4^-,5^-$	1733.440	4^+
1128.04[&] *15*	0.206[&] *14*	2862.06	$3^+,4^+$	1733.440	4^+
1132.78 *11*	0.274 *18*	2727.18	5^+	1594.241	5^-
1146.86 *4*	1.42 *4*	2327.09	4^+	1180.231	4^+
1152.20 *15*	0.268 *24*	2313.57	2^+	1161.531	3^-
1159.15 *20*	0.156 *23*	2339.21	3^-	1180.231	4^+
1166.08 *17*	0.106 *15*	2327.62	3^+	1161.531	3^-
[x]1177.3[&] *4*	0.044[&] *24*				
1177.6[&#] *4*	0.044[&] *24*	2339.21	3^-	1161.531	3^-
1183.19 *6*	0.60 *3*	1733.440	4^+	550.255	2^+
[x]1209.24 *23*	0.127 *13*				
1219.32 *17*	0.186 *18*	2673.12	4^+	1454.059	2^+
1220.78 *25*	0.115 *18*	2815.46	4^-	1594.241	5^-
1228.69[a] *19*	0.124 *15*	2390.45	3^+	1161.531	3^-
1233.88 *14*	0.156 *15*	2828.13		1594.241	5^-

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^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

γ(^{148}Sm) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
x1235.97 *21*	0.095 *13*				
x1258.41& *10*	0.203& *13*				
1258.41&a *10*	0.203& *13*	2991.78	$3^+,4^+$	1733.440	4^+
1262.0 *3*	0.068 *13*	2442.29	(2^+)	1180.231	4^+
1266.60 *10*	0.242 *14*	2861.07	$4^-,5^-$	1594.241	5^-
1305.75 *10*	0.144 *13*	2467.38	$3^{(-)}$	1161.531	3^-
1309.73 *15*	0.265 *15*	2489.99	4^+	1180.231	4^+
1328.51 *9*	0.56 *4*	2489.99	4^+	1161.531	3^-
1344.67& *3*	3.06& *8*	1894.94	4^+	550.255	2^+
1344.67& *3*	3.06& *8*	2524.875	4^+	1180.231	4^+
1353.509 *17*	3.33 *8*	1903.773	3^+	550.255	2^+
1362.67 *17*	0.142 *13*	2524.875	4^+	1161.531	3^-
1370.71& *6*	0.212& *14*	1920.97	0^+	550.255	2^+
1370.74&a *13*	0.212& *14*	2532.51	$4^-,5^-$	1161.531	3^-
1378.31 *23*	0.238 *24*	2539.82	3^-	1161.531	3^-
1399.02 *22*	0.154 *13*	3063.25	3^-	1664.223	2^+
1409.05 *8*	0.452 *19*	2570.72	$4^{(-)}$	1161.531	3^-
1422.216 *20*	1.18 *3*	1972.480	2^+	550.255	2^+
1454.039 *20*	2.57 *7*	1454.059	2^+	0.0	0^+
1460.65 *6*	0.602 *21*	2640.76	5^+	1180.231	4^+
1465.101 *13*	1.81 *5*	1465.137	1^-	0.0	0^+
x1469.6 *3*	0.082 *14*				
1471.61 *16*	0.154 *14*	2633.15	3^-	1161.531	3^-
1477.3 *4*	0.055 *11*	2931.98?		1454.059	2^+
1492.79 *10*	0.283 *15*	2673.12	4^+	1180.231	4^+
1503.02 *11*	0.255 *15*	2683.22	$4^-,5^-$	1180.231	4^+
1517.81 *22*	0.094 *13*	2697.77	$3^+,4^+$	1180.231	4^+
1533.55 *19*	0.156 *13*	2713.27	$3^+,4^+$	1180.231	4^+
1536.03& *22*	0.22& *3*	2697.77	$3^+,4^+$	1161.531	3^-
1536.03& *22*	0.22& *3*	2716.27	$(4^+,5,6^+)$	1180.231	4^+
1540.13 *25*	0.19 *3*	2701.70	$4^{(-)},(3^-)$	1161.531	3^-
1543.27 *10*	0.39 *3*	2723.46	4^+	1180.231	4^+
1547.15 *13*	0.280 *22*	2727.18	5^+	1180.231	4^+
1560.72 *6*	0.68 *3*	2110.95	4^+	550.255	2^+
1596.08 *3*	0.94 *3*	2146.35	2^+	550.255	2^+
1621.51 *11*	0.216 *14*	2801.73	5^+	1180.231	4^+
1626.38 *18*	0.153 *14*	2806.73	$3^+,4^+$	1180.231	4^+
1635.35 *18*	0.148 *14*	2815.46	4^-	1180.231	4^+
1645.7 *3*	0.122 *15*	2806.73	$3^+,4^+$	1161.531	3^-
1650.35 *20*	0.126 *14*	2830.54	5^+	1180.231	4^+
1654.72 *15*	0.17 *3*	2204.99	0^+	550.255	2^+
1658.58 *7*	0.512 *20*	2208.85	$(1,2^+)$	550.255	2^+
1664.20 *2*	0.84 *3*	1664.223	2^+	0.0	0^+
x1668.4 *4*	0.080 *14*				
1674.2 *4*	0.172 *15*	2835.7?		1161.531	3^-
1677.79 *13*	0.91 *9*	2228.22	4^+	550.255	2^+
1681.02 *22*	0.109 *22*	2861.07	$4^-,5^-$	1180.231	4^+
1682.91 *25*	0.132 *25*	2862.06	$3^+,4^+$	1180.231	4^+
1685.2 *3*	0.111 *20*	2846.9	$(3^-,4^-)$	1161.531	3^-
x1690.6 *4*	0.055 *14*				
x1692.9 *3*	0.085 *15*				
x1704.8 *4*	0.066 *14*				
1734.04 *19*	0.086 *14*	2284.37	$(1,2^+)$	550.255	2^+
x1741.2 *3*	0.081 *14*				

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^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

γ(^{148}Sm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
1743.3[‡@]	0.16 *2*	3197.4	3^-,4^-	1454.059	2^+
1746.59 *22*	0.116 *18*	2908.13	3^-,4^-	1161.531	3^-
1748.48 *16*	0.17 *3*	2928.74	$(4,5,6)^+$	1180.231	4^+
1763.26 *8*	0.50 *3*	2313.57	2^+	550.255	2^+
1777.35 *10*	0.94 *4*	2327.62	3^+	550.255	2^+
[x]1780.67 *25*	0.096 *15*				
1788.90 *9*	0.523 *20*	2339.21	3^-	550.255	2^+
[x]1796.47 *25*	0.108 *14*				
1800.26 *19*	0.142 *14*	2980.50	3^+,4^+	1180.231	4^+
1810.94 *25*	0.125 *14*	2991.78	3^+,4^+	1180.231	4^+
[x]1813.7 *3*	0.207 *20*				
[x]1822.61 *19*	0.282 *19*				
1831.40 *10*	0.589 *24*	2381.67	3^+,4^+	550.255	2^+
1840.18 *6*	0.89 *4*	2390.45	3^+	550.255	2^+
[x]1858.1 *3*	0.105 *17*				
[x]1879.35 *25*	0.134 *14*				
1888.7 *4*	0.100 *15*	3050.5		1161.531	3^-
1909.4 *4*	0.075 *14*	3089.84	2^+,3^-	1180.231	4^+
1917.25 *12*	0.339 *18*	2467.38	$3^{(-)}$	550.255	2^+
1922.28 *25*	0.113 *14*	2472.48	1	550.255	2^+
1928.4 *3*	0.096 *15*	3089.84	2^+,3^-	1161.531	3^-
[x]1947.9[‡] *4*	0.16 *3*				
[x]1966.96 *19*	0.142 *14*				
[x]1970.8 *7*	0.042 *12*				
1973.3 *3*	0.138 *14*	3153.5	$^+$	1180.231	4^+
1976.91 *10*	0.276 *18*	3138.46	$3^{(-)}$,$4^{(-)}$	1161.531	3^-
1989.52 *25*	0.174 *17*	2539.82	3^-	550.255	2^+
2003.3 *4*	0.090 *16*	3164.8	3^+,4^+	1161.531	3^-
[x]2006.2 *6*	0.075 *25*				
2017.65 *19*	0.220 *18*	2567.92	2^+	550.255	2^+
[x]2023.4 *6*	0.057 *14*				
2041.0 *4*	0.081 *15*	3221.2		1180.231	4^+
2044.58 *19*	0.196 *17*	3224.83		1180.231	4^+
2082.88 *9*	0.708 *26*	2633.15	3^-	550.255	2^+
[x]2086.0 *6*	0.099 *16*				
2132.67[a] *14*	0.308 *18*	2683.22	4^-,5^-	550.255	2^+
2147.47 *16*	0.40 *3*	2697.77	3^+,4^+	550.255	2^+
[x]2155.7 *3*	0.153 *15*				
2169.5 *5*	0.126 *18*	2719.8	$(3^-,4^-)$	550.255	2^+
2174.27 *20*	0.307 *20*	2723.46	4^+	550.255	2^+
[x]2188.2 *3*	0.142 *18*				
2202.88 *6*	0.82 *3*	2753.15	3^+	550.255	2^+
2208.9 *3*	0.125 *20*	2208.85	$(1,2^+)$	0.0	0^+
[x]2213.2 *5*	0.088 *20*				
[x]2241.9 *7*	0.096 *17*				
2256.36 *16*	0.284 *20*	2806.73	3^+,4^+	550.255	2^+
[x]2268.7 *8*	0.053 *15*				
2284.41 *18*	0.183 *17*	2284.37	$(1,2^+)$	0.0	0^+
[x]2287.3 *8*	0.052 *15*				
2297.0 *5*	0.055 *15*	2846.9	$(3^-,4^-)$	550.255	2^+
[x]2304.2 *8*	0.082 *16*				
2312.13 *21*	0.242 *18*	2862.06	3^+,4^+	550.255	2^+
[x]2317.2 *6*	0.109 *17*				
[x]2329.5 *6*	0.094 *16*				
[x]2334.6 *4*	0.186 *19*				

Continued on next page (footnotes at end of table)

^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20 (continued)

γ(^{148}Sm) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
2341.5 *5*	0.128 *15*	2891.8		550.255	2^+
x2350.2 *6*	0.100 *18*				
x2360.7 *11*	0.068 *17*				
x2368.4 *13*	0.049 *17*				
2381.89 *22*	0.213 *18*	2931.98?		550.255	2^+
2390.8 *7*	0.087 *17*	2941.1	$2^+,3^-$	550.255	2^+
2402.4 *9*	0.087 *17*	2952.7		550.255	2^+
2417.3 *7*	0.082 *16*	2967.6	$3^+,4^+$	550.255	2^+
x2421.1 *8*	0.064 *16*				
x2430.9 *7*	0.074 *15*				
x2434.8 *5*	0.112 *16*				
2441.88& *20*	0.450& *25*	2442.29	(2^+)	0.0	0^+
2441.88& *20*	0.450& *25*	2991.78	$3^+,4^+$	550.255	2^+
x2451.2 *8*	0.058 *16*				
x2456.4 *6*	0.083 *16*				
2463.8 *6*	0.083 *16*	3014.1	$3^-,4^-$	550.255	2^+
2472.41 *20*	0.080 *16*	2472.48	1	0.0	0^+
x2485.8 *5*	0.095 *18*				
2500.6 *5*	0.076 *17*	3050.5		550.255	2^+
2513.48 *18*	0.120 *16*	2513.50	1	0.0	0^+
x2528.7 *9*	0.078 *17*				
x2533.1 *15*	0.033 *14*				
2539.6 *6*	0.079 *17*	3089.84	$2^+,3^-$	550.255	2^+
2557.5 *4*	0.156 *17*	3107.8	$3^+,4^+$	550.255	2^+
2567.0 *10*	0.069 *6*	3117.3?		550.255	2^+
x2578.8 *8*	0.065 *16*				
2627.7 *15*	0.037 *15*	3178.0	$^+$	550.255	2^+
2639.5 *8*	0.055 *14*	3189.8	$2^+,3^-$	550.255	2^+
x2652.5 *8*	0.078 *16*				
x2700.2 *9*	0.075 *16*				
2704.6 *5*	0.053 *16*	2704.6	$(1,2^+)$	0.0	0^+
2725.9 *5*	0.116 *16*	3276.2		550.255	2^+
x4842.7 *7*	0.053 *10*				
x4855.6 *5*	0.143 *15*				
x4872.1 *7*	0.060 *10*				
x4878.6 *4*	0.174 *17*				
x4937.4 *9*	0.060 *11*				
x4995.1 *10*	0.054 *15*				
x5012.8 *5*	0.109 *13*				
x5038.8 *8*	0.127 *14*				

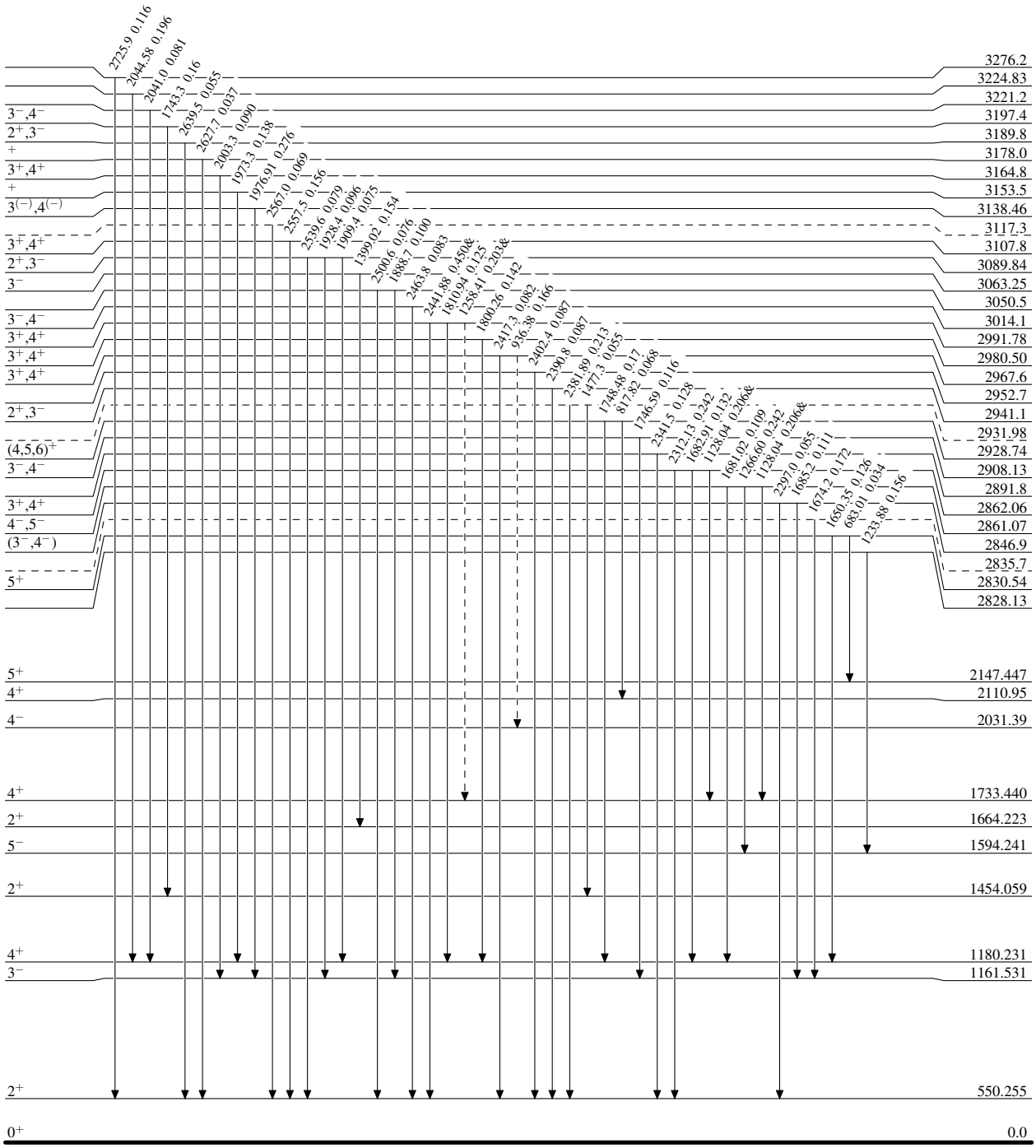
† Relative intensity.
‡ Multiplet.
# Assumed by the evaluator. 1172.6 *4* (1997Go20) is considered to be a typographical error.
@ Assumed by the evaluator. 1943.3 (1997Go20) is considered to be a typographical error.
& Multiply placed with undivided intensity.
a Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20

Level Scheme

Intensities: Relative I_γ
& 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)



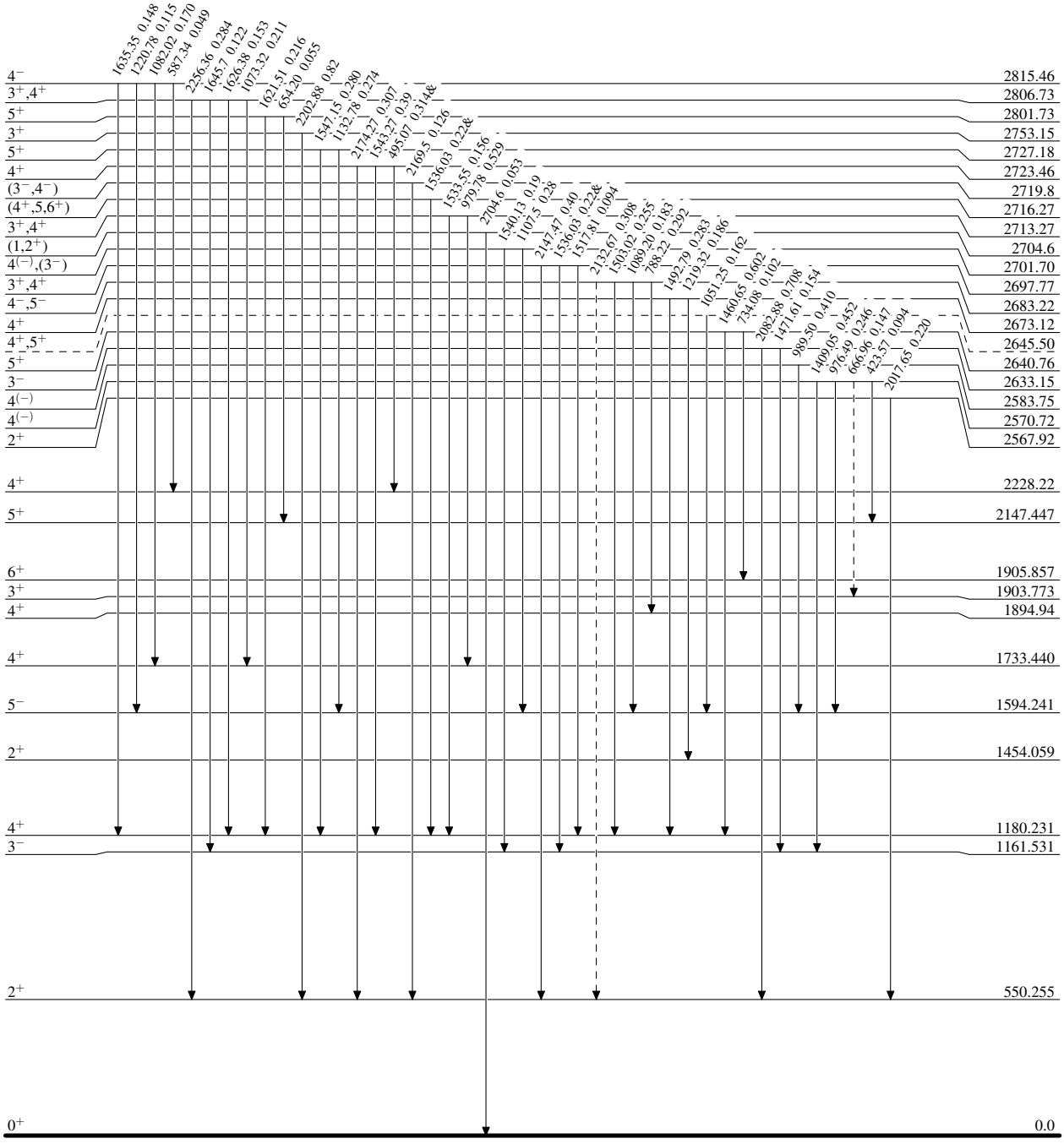
$^{148}_{62}Sm_{86}$

^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20

Level Scheme (continued)

Intensities: Relative I_γ
& 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)



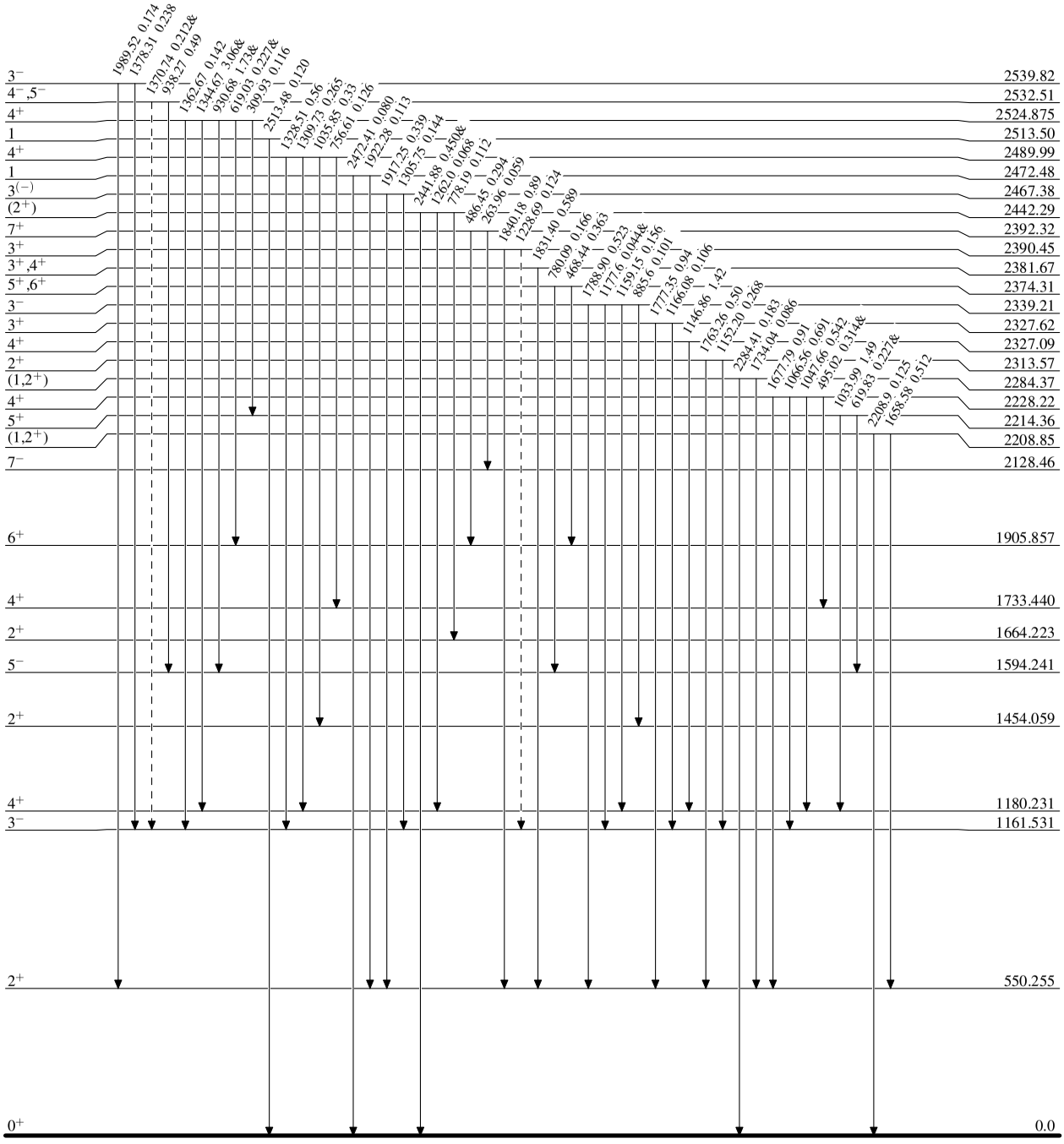
$^{148}_{62}Sm_{86}$

^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20

Level Scheme (continued)

Intensities: Relative I_γ
& 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)



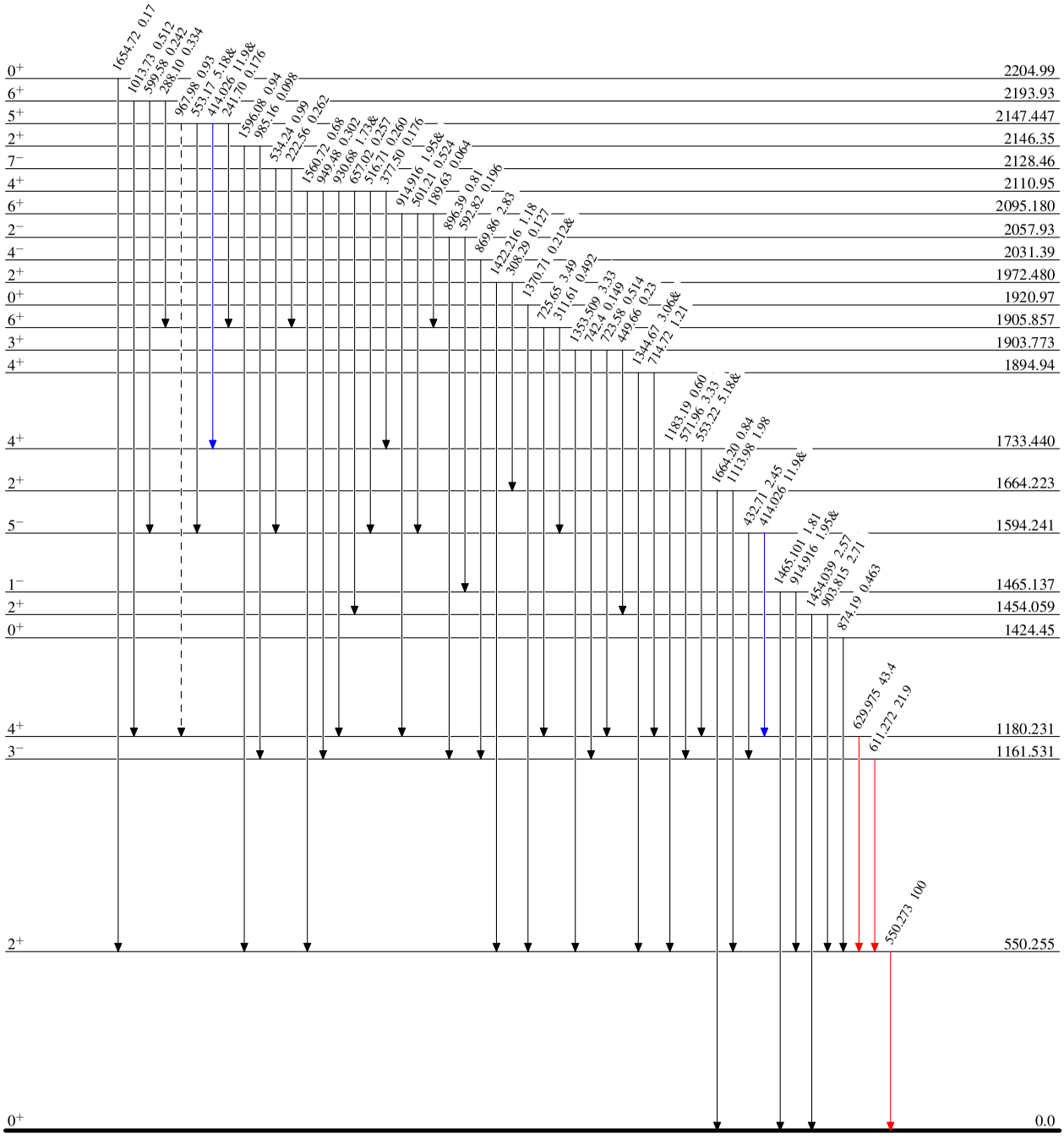
$^{148}_{62}Sm_{86}$

^{147}Sm(n,γ) E=0.020-1.0 keV 1997Go20

Level Scheme (continued)

Intensities: Relative I_γ
& 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)



$^{148}_{62}Sm_{86}$