^{168}Er(n,n′γ) 1998Be20,1998Be62

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111, 1807 (2010)	15-Jun-2010

Others: 1981Bo40, 1982Bo39, 1984Ke09, 1985Gr04, 1991Be38, 1999DeZX, 2000De59.

1998Be20: fast reactor neutrons; 98.2% ^{168}Er oxide target; Ge detector (FWHM=2.4 keV At 1.3 MeV); measured Eγ, Iγ.

1998Be62: fast reactor neutrons; 98.2% ^{168}Er oxide target; measured γ(θ) (θ=90°, 105°, 115°, 125°, 135°, 142°, 150°), γ linear polarization.

1983Kl07, 1985Ya08 determined that all previously known levels in ^{168}Er with J<7 and E(level)≤2.0 MeV are seen in (n,n′γ) (but finding now out of date).

^{168}Er Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0.0	0^+	1827.96 *5*	3^-	2238.16 *11*	4^+	2493.2 *3*	1^+
79.786 *16*	2^+	1833.8 *5*	0^+	2243.34 *8*	$(3)^+$	2493.95 *20*	3^-
264.070 *21*	4^+	1839.31 *11*	5^+	2245.45 *21*	6^+	2510.71 *24*	1^-
548.74 *3*	6^+	1848.31 *11*	2^+	2254.9 *3*	$(3)^+$	2513.6 *4*	4^-
821.145 *17*	2^+	1892.85 *9*	4^-	2255.3 *3*	6^-	2517.85 *20*	3^+,4^+
895.773 *21*	3^+	1893.03 *6*	2^+	2262.65 *13*	3^-,4^-	2528.5 *3*	$(5)^-$
928.54 *11*		1902.5 *3*	6^+	2267.72 *21*	$(5)^+$	2540.08 *18*	
994.666 *25*	4^+	1905.73 *7*	4^-	2273.18# *17*	(2^+)	2551.27 *21*	$^-$
1094.02 *3*	4^-	1913.79 *6*	3^-	2273.6 *3*	(4^+)	2559.04 *20*	5^-
1117.54 *3*	5^+	1915.50 *12*	3^+	2279.4 *3*	4^+	2561.5 *4*	$4,5^+$
1193.06 *4*	5^-	1930.30 *12*	2^+	2298.16 *21*	4^+,5^+	2629.0 *7*	3^+,$4,5^+$
1217.18 *6*	0^+	1936.39 *9*	1^-	2302.97 *12*	3^-	2629.2 *4*	
1263.81 *6*	6^+	1950.54 *21*	$(6)^-$	2311.10 *14*	$(4)^+$	2643.71 *13*	$1^{(-)}$
1276.30 *4*	2^+	1961.6 *3*	6^+	2323.27 *21*	3^-	2659.9 *4*	4^+,5^+
1311.40 *4*	6^-	1972.29 *8*	2^-	2336.99 *12*	3^-	2663.44 *17*	$(4)^+$
1358.91 *10*	1^-	1982.91 *10*	5^-	2341.77 *24*	1	2672.82 *21*	
1403.71 *3*	2^-	1994.87 *13*	$(3)^+$	2345.20 *9*	3^-	2676.3 *4*	1^+
1411.11 *4*	4^+	1999.16 *5*	3^-	2348.03 *17*	4^-	2683.8? *3*	
1421.69 *11*	0^+	2001.84 *15*	5^-	2361.40 *19*	1^+	2689.0? *4*	
1431.43 *5*	3^-	2002.40 *14*	$(4)^+$	2365.22 *21*	$(5)^-$	2727.88 *21*	
1432.95 *6*	7^+	2022.50 *7*	3^-	2365.3 *3*		2728.42 *22*	1^+
1449.04 *6*	7^-	2030.5 *3*	4^+	2369.9 *5*	5^+	2740.2 *4*	
1493.10 *4*	2^+	2055.81 *11*	4^+	2373.55 *20*	2^+	2740.9 *3*	1^-
1541.51 *4*	3^-	2060.05 *9*	4^-	2382.4 *3*	2^+	2746.6? *3*	
1541.64 *5*	4^-	2080.32 *24*	$(4)^+$	2392.8 *5*	$(4)^-$	2756.0? *6*	
1569.43 *3*	2^-	2089.56 *15*	4^-	2393.52 *9*	2^+	2763.9? *8*	
1574.16 *5*	5^-	2097.39 *17*	4^-	2398.38 *21*	4^+,5^+	2769.4 *4*	$(5)^+$
1605.71 *14*	8^-	2108.78 *21*	5^+	2402.15 *20*		2782.9? *6*	
1615.37 *5*	4^-	2118.60 *21*	$(6)^-$	2402.58 *21*	4^-	2792.0 *4*	1^+
1616.74 *17*	6^+	2129.08 *16*	5^-	2412.4 *4*	4^-	2797.8 *3*	1^+
1633.42 *4*	3^-	2136.78 *8*	1^-	2417.00 *20*	1^-	2817.0? *4*	
1653.52 *4*	3^+	2148.5 *3*	5^-	2423.39 *21*		2826.4 *3*	$1^{(+)}$
1656.29 *6*	4^+	2169.52 *22*	5^+	2425.21 *13*	(2^+)	2833.7 *5*	$1^{(-)}$
1707.67 *4*	5^-	2174.57 *9*	2^+	2440.28 *15*	2^+	2850.5 *4*	1^-
1719.10 *4*	4^-	2177.0 *5*	(2^+)	2440.32 *21*	5^+	2856.6 *6*	(2)
1736.70 *6*	4^+	2185.30 *16*	5^-	2450.97 *21*	$(5)^-$	2863.6? *5*	
1760.95 *11*	$(6)^-$	2186.93 *6*	$(3)^+$	2453.8? *3*	$4,5^+$	2929.2 *5*	$1^{(+)}$
1773.11 *7*	$(6)^-$	2188.5 *5*	$(4)^+$	2456.0 *3*		2946.6 *4*	$1^{(-)}$
1786.15 *6*	1^-	2188.60 *21*	5^+	2458.7 *4*	1	2955.6 *8*	1
1795.55 *21*	$(7)^-$	2193.05 *10*	2^+,3^+	2477.82 *17*	3^-	2969.18 *19*	4^+,5^+
1820.13 *11*	6^-	2200.8 *4*	5^-	2477.92 *15*	$(5)^-$	2974.2 *5*	1^-
1820.47 *21*	5^-	2230.66 *14*	2^-	2484.0 *3*	$(3)^+$	3002.4? *4*	

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

^{168}Er Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
3049.6 *4*	1^+	3182.1 *6*	1^-	3338.2 *6*	(2)	3409.7 *9*	1^+
3095.9 *5*	$1^{(-)}$	3208.0 *8*	$1^{(+)}$	3342.0 *10*	$1^{(+)}$	3439.6 *9*	$1^{(-)}$
3116.4? *5*		3242.6 *8*	1	3358.7 *6*	1^+	3504.2 *9*	1^-
3124.2 *10*	1^+	3300.0 *7*	1	3371.2 *6*	(2)		

† From least-squares fit to Eγ, omitting multiply-placed transitions unless all transitions from a given level are multiply placed. note that, even so, 5 out of 300 Eγ values deviate by At least 3σ from expected values.

‡ Proposed by 1998Be20.

Level omitted from Adopted Levels. the 1009γ doublet feeds a 6^+ level and is known from (n,γ) E=thermal not to deexcite the same level As the 2009.5γ. the 1452γ doublet May deexcite the 2273.5 level instead along with the 2009.5γ, As In Adopted Levels, Gammas.

γ(^{168}Er)

E_γ†	I_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	δ‡	Comments
79.78 *2*	690 *80*	79.786	2^+	0.0	0^+			
99.10[a] *3*	77[a] *9*	1094.02	4^-	994.666	4^+			
99.10[a] *3*	77[a] *9*	1193.06	5^-	1094.02	4^-			
118.40 *22*	11.4 *14*	1311.40	6^-	1193.06	5^-			
184.29 *2*	1.66×10^3 *19*	264.070	4^+	79.786	2^+	Q		A_2=+0.239 *9*, A_4=−0.037 *11*, P_γ=1.73 *+21−10* (1998Be62).
198.23 *2*	530 *60*	1094.02	4^-	895.773	3^+			
205.6 *3*	1.6 *3*	1616.74	6^+	1411.11	4^+			
217.44 *3*	46 *5*	1311.40	6^-	1094.02	4^-	Q		A_2=+0.307 *15*, A_4=−0.115 *21* (1998Be62).
221.70 *12*	4.1 *6*	1117.54	5^+	895.773	3^+			
232.4[@] *3*	1.5 *5*	2060.05	4^-	1827.96	3^-			
[x]241.3 *3*	2.3 *4*							
255.97 *4*	13 *2*	1449.04	7^-	1193.06	5^-			
[x]258.4 *3*	1.7 *3*							
269.21 *12*	5.6 *7*	1263.81	6^+	994.666	4^+			
284.67 *2*	260 *30*	548.74	6^+	264.070	4^+	Q		A_2=+0.307 *15*, A_4=−0.115 *21*, P_γ=2.9 *+11−4* (1998Be62).
294.31[@] *13*	8.6 *11*	1605.71	8^-	1311.40	6^-			
315.45 *13*	5.9 *9*	1432.95	7^+	1117.54	5^+			
[x]331.0 *3*	1.5 *4*							
[x]360.8[@] *4*	1.9 *4*							
365.6 *4*	2.6 *5*	1999.16	3^-	1633.42	3^-			
370.83[a] *17*	2.7[a] *7*	1820.13	6^-	1449.04	7^-			
370.83[a] *17*	2.7[a] *7*	2089.56	4^-	1719.10	4^-			
379.80[@] *10*	24 *3*	928.54		548.74	6^+			A_2=+0.34 *7*, A_4=−0.08 *10* (1998Be62), mult=Q for multiplet.
383.73[a] *14*	4.5[a] *6*	1999.16	3^-	1615.37	4^-			
383.73[a] *14*	4.5[a] *6*	2382.4	2^+	1999.16	3^-			
396.50 *6*	12.2 *15*	1707.67	5^-	1311.40	6^-	D(+Q)	0.00 *4*	A_2=−0.13 *4*, A_4=−0.08 *6* (1998Be62).
416.35 *10*	5 *2*	1411.11	4^+	994.666	4^+			E_γ,I_γ: includes contribution from background G.
422.33 *3*	29 *4*	1615.37	4^-	1193.06	5^-	D+Q	−0.09 *2*	A_2=−0.018 *17*, A_4=+0.03 *3*, P_γ=0.55 *20* (1998Be62).
424.8 *4*	0.44 *17*	2185.30	5^-	1760.95	$(6)^-$			
429.78 *6*	10.7 *14*	1999.16	3^-	1569.43	2^-			

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
444.01 *13*	2.7 *4*	1707.67	5^-	1263.81	6^+			
447.49 *2*	78 *10*	1541.51	3^-	1094.02	4^-	D+Q	−0.28 *+3−4*	A_2=+0.116 *15*, A_4=−0.017 *20*, P_γ=0.71 *+10−11* (1998Be62).
450.7 *4*	0.7 *3*	2186.93	$(3)^+$	1736.70	4^+			
455.22[a] *7*	5.9[a] *9*	1276.30	2^+	821.145	2^+			
455.22[a] *7*	5.9[a] *9*	2089.56	4^-	1633.42	3^-			
457.62 *5*	16.6 *22*	1999.16	3^-	1541.51	3^-			
461.8 *4*	3.2 *5*	1773.11	$(6)^-$	1311.40	6^-			
474.19 *14*	7.5 *10*	2089.56	4^-	1615.37	4^-			
493.1 *4*	2.8 *5*	2200.8	5^-	1707.67	5^-			E_γ,I_γ: includes contribution from background G.
497.78 *6*	10.3 *14*	1615.37	4^-	1117.54	5^+			E_γ,I_γ: includes contribution from background G.
521.16 *17*	3.5 *5*	1615.37	4^-	1094.02	4^-			
527.91 *10*	9.8 *14*	1839.31	5^+	1311.40	6^-			
533.40 *5*	12.2 *16*	2186.93	$(3)^+$	1653.52	3^+			
[x]535.20 *14*	3.9 *6*							
543.65 *5*	35 *5*	1736.70	4^+	1193.06	5^-	D(+Q)	−0.001 *+16−15*	A_2=−0.106 *16*, A_4=−0.057 *23*, P_γ=1.5 *+5−3* (1998Be62).
547.02[a] *7*	22[a] *3*	1541.51	3^-	994.666	4^+			
547.02[a] *7*	22[a] *3*	1541.64	4^-	994.666	4^+			
547.02[a] *7*	22[a] *3*	2089.56	4^-	1541.51	3^-			
556.85[a] *6*	9.7[a] *13*	821.145	2^+	264.070	4^+			
556.85[a] *6*	9.7[a] *13*	1820.47	5^-	1263.81	6^+			
559.50 *2*	74 *10*	1653.52	3^+	1094.02	4^-			
568.80 *3*	25 *4*	1117.54	5^+	548.74	6^+			
579.98 *7*	8.5 *11*	1773.11	$(6)^-$	1193.06	5^-			
582.56 *3*	39 *5*	1403.71	2^-	821.145	2^+			
590.10[a] *19*	3.3[a] *5*	1411.11	4^+	821.145	2^+			
590.10[a] *19*	3.3[a] *5*	1707.67	5^-	1117.54	5^+			
601.55 *2*	11.5 *16*	1719.10	4^-	1117.54	5^+			
613.62 *2*	3.9 *10*	1707.67	5^-	1094.02	4^-			
616.72 *6*	12.8 *17*	1893.03	2^+	1276.30	2^+			
620.02[a] *9*	8.1[a] *11*	1615.37	4^-	994.666	4^+			
620.02[a] *9*	8.1[a] *11*	2030.5	4^+	1411.11	4^+			
631.70 *2*	180 *30*	895.773	3^+	264.070	4^+	D+Q	−12.0 *+16−23*	A_2=−0.087 *9*, A_4=+0.013 *13* (2000De59); P_γ=0.74 *+8−10* (1998Be62). Mult.,δ: from 2000De59.
638.76 *3*	24 *3*	1633.42	3^-	994.666	4^+	D(+Q)	−0.02 *4*	A_2=−0.067 *19*, A_4=+0.03 *3*, P_γ=1.3 *+4−3* (1998Be62).
643.48 *16*	3.2 *5*	1760.95	$(6)^-$	1117.54	5^+			
645.84[a] *5*	19[a] *3*	1193.06	5^-	548.74	6^+			
645.84[a] *5*	19[a] *3*	1541.51	3^-	895.773	3^+			
645.84[a] *5*	19[a] *3*	1541.64	4^-	895.773	3^+			
661.69[a] *19*	2.8[a] *5*	1656.29	4^+	994.666	4^+			
661.69[a] *19*	2.8[a] *5*	2230.66	2^-	1569.43	2^-			
669.4 *2*	1.6 *3*	2302.97	3^-	1633.42	3^-			
671.53[a] *11*	3.0[a] *5*	1493.10	2^+	821.145	2^+			
671.53[a] *11*	3.0[a] *5*	1982.91	5^-	1311.40	6^-			
673.67 *3*	30 *4*	1569.43	2^-	895.773	3^+	D(+Q)	+0.08 *+10−8*	A_2=+0.10 *5*, A_4=−0.08 *8*, P_γ=1.4 *+4−3* (1998Be62).
679.23 *10*	6.4 *9*	1773.11	$(6)^-$	1094.02	4^-			
687.78[a] *22*	2.5[a] *4*	1616.74	6^+	928.54				

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult. ‡	δ ‡	Comments
687.78[a] *22*	2.5[a] *4*	2302.97	3^-	1615.37	4^-			
699.9 *3*	3.0 *10*	1892.85	4^-	1193.06	5^-			
702.73[a] *13*	4.0[a] *6*	1820.13	6^-	1117.54	5^+			
702.73[a] *13*	4.0[a] *6*	1820.47	5^-	1117.54	5^+			
713.2 *2*	8.0 *10*	1707.67	5^-	994.666	4^+			
715.10 *10*	31 *5*	1263.81	6^+	548.74	6^+	D(+Q)		A_2=−0.219 *17*, A_4=−0.187 *23* (1998Be62). δ: −1.7 *+3−9* or −50 *+150−20* (1998Be62).
720.00[a] *3*	54[a] *8*	1541.51	3^-	821.145	2^+			
720.00[a] *3*	54[a] *8*	1615.37	4^-	895.773	3^+			
724.59 *9*	6.6 *10*	1719.10	4^-	994.666	4^+			
730.67 *3*	260 *40*	994.666	4^+	264.070	4^+	D+Q[&]	+13[&] *+16−3*	A_2=−0.125 *8*, A_4=−0.079 *11*, P_γ=0.50 *+5−6* (1998Be62).
733.8 *2*	0.85 *21*	2302.97	3^-	1569.43	2^-			
737.63 *5*	26 *6*	1633.42	3^-	895.773	3^+	D+Q	−0.13 *+6−5*	A_2=+0.17 *3*, A_4=−0.08 *4*, P_γ=0.47 *+18−17* (1998Be62).
741.35 *3*	490 *70*	821.145	2^+	79.786	2^+	D+Q[&]	+26[&] *+27−8*	A_2=−0.029 *8*, A_4=−0.013 *14* (1999DeZX, 2000De59); P_γ=0.76 *+7−8* (1998Be62).
748.29 *3*	81 *11*	1569.43	2^-	821.145	2^+	D(+Q)	−0.02 *+8−5*	A_2=−0.171 *13*, A_4=−0.010 *17*, P_γ=0.77 *11* (1998Be62).
755.3 *4*	1.3 *3*	2177.0	(2^+)	1421.69	0^+			
768.5 *3*	1.0 *4*	1961.6	6^+	1193.06	5^-			
[x]773.6 *4*	1.2 *3*							
[x]778.9 *3*	2.2 *12*							
[x]785.9 *3*	2.9 *10*							
789.82 *9*	11.0 *16*	1982.91	5^-	1193.06	5^-			
[x]795.24 *13*	2.9 *5*							
798.82 *8*	23 *3*	1892.85	4^-	1094.02	4^-			
807.2 *2*	2.8 *4*	2118.60	$(6)^-$	1311.40	6^-			
808.7 *2*	11 *3*	2001.84	5^-	1193.06	5^-			
811.71[a] *6*	50[a] *8*	1633.42	3^-	821.145	2^+			
811.71[a] *6*	50[a] *8*	1905.73	4^-	1094.02	4^-			
815.97 *2*	1000	895.773	3^+	79.786	2^+	D+Q	−7×10[1] *+4−57*	A_2=+0.046 *14*, A_4=+0.047 *20* (2000De59); P_γ=1.16 *+13−11* (1998Be62). Mult.,δ: from 2000De59.
821.15 *2*	460 *70*	821.145	2^+	0.0	0^+	Q		A_2=+0.216 *15*, A_4=−0.063 *20* (1998Be62).
823.7 *2*	16.4 *23*	1719.10	4^-	895.773	3^+			
825.8 *2*	10 *2*	1820.47	5^-	994.666	4^+			
830.0 *2*	71 *10*	1094.02	4^-	264.070	4^+			
833.0[a] *2*	20[a] *3*	1653.52	3^+	821.145	2^+			
833.0[a] *2*	20[a] *3*	1827.96	3^-	994.666	4^+			
833.0[a] *2*	20[a] *3*	1950.54	$(6)^-$	1117.54	5^+			
853.45 *3*	113 *16*	1117.54	5^+	264.070	4^+	D+Q		A_2=+0.012 *9*, A_4=+0.192 *12*, P_γ=1.05 *+14−12* (1998Be62).
862.35 *4*	25 *4*	1411.11	4^+	548.74	6^+			
877.1 *4*	2.0 *4*	2188.60	5^+	1311.40	6^-			
884.20 *5*	9.9 *15*	1432.95	7^+	548.74	6^+			
889.5 *4*	1.3 *4*	1982.91	5^-	1094.02	4^-			
[x]899.0[@] *2*	6.3 *11*							
907.9 *2*	1.7 *5*	2001.84	5^-	1094.02	4^-			

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	δ‡	Comments
x909.96 *20*	1.8 *3*							
914.89 *3*	152 *22*	994.666	4^+	79.786	2^+	Q		A_2=+0.27 *3*, A_4=−0.04 *4*, P_γ=2.7 *+7−3* (1998Be62).
920.6 *3*	4.5 *15*	1915.50	3^+	994.666	4^+			
928.93 *4*	23 *3*	1193.06	5^-	264.070	4^+	D(+Q)	−0.02 *3*	A_2=−0.25 *4*, A_4=+0.01 *6*, P_γ=1.2 *+4−3* (1998Be62).
932.19 *4*	16 *3*	1827.96	3^-	895.773	3^+			
x934.4 *2*	1.8 *3*							
943.9@ *3*	4.1 *7*	2255.3	6^-	1311.40	6^-			
952.59 *13*	5.1 *8*	1848.31	2^+	895.773	3^+			
955.4 *3*	4.2 *6*	2148.5	5^-	1193.06	5^-			
961.8 *2*	9.7 *14*	2055.81	4^+	1094.02	4^-			
966.00 *9*	12.5 *18*	2060.05	4^-	1094.02	4^-			
x969.2 *3*	2.7 *5*							
976.5 *3*	2.0 *4*	2169.52	5^+	1193.06	5^-			
979.9 *2*	6.0 *10*	2097.39	4^-	1117.54	5^+			
x989.1@ *3*	9.9 *15*							
997.3 *2*	2.3 *4*	1893.03	2^+	895.773	3^+			
999.74 *8*	16.2 *23*	1263.81	6^+	264.070	4^+	Q		A_2=+0.29 *3*, A_4=−0.05 *4*, P_γ=1.5 *+9−6* (1998Be62).
1006.9 *2*	4.3 *7*	1827.96	3^-	821.145	2^+			
1009.2a *3*	3.7a *9*	2273.18	(2^+)	1263.81	6^+			
1009.2a *3*	3.7a *9*	2663.44	$(4)^+$	1653.52	3^+			
1012.22 *4*	136 *19*	1276.30	2^+	264.070	4^+	(Q)		A_2=+0.064 *14*, A_4=+0.012 *20* (1998Be62).
1019.8 *4*	2.1 *4*	1915.50	3^+	895.773	3^+			
1025.35 *8*	10.8 *18*	1574.16	5^-	548.74	6^+			
x1027.4@ *3*	1.9 *3*							
1034.6 *2*	2.1 *5*	1930.30	2^+	895.773	3^+			
x1045.5 *3*	2.9 *5*							
x1052.3@ *3*	3.0 *5*							
x1061.6 *4*	2.5 *5*							
1068.0 *2*	4.8 *8*	1616.74	6^+	548.74	6^+			
1076.42 *12*	9.4 *14*	1972.29	2^-	895.773	3^+			
x1082.8 *3*	1.7 *3*							
1086.3 *3*	1.8 *3*	2279.4	4^+	1193.06	5^-			
1094.42@ *15*	9.0 *13*	1915.50	3^+	821.145	2^+			
1105.1 *2*	5.0 *7*	2298.16	4^+,5^+	1193.06	5^-			
1107.5 *2*	14 *2*	1656.29	4^+	548.74	6^+			
1112.5 *2*	4.1 *6*	2727.88		1615.37	4^-			
1137.37 *6*	99 *14*	1217.18	0^+	79.786	2^+			A_2=0.000 *11*, A_4=0.000 *14* (1998Be62).
1144.14 *10*	10.1 *15*	2238.16	4^+	1094.02	4^-			
1146.95 *6*	22 *3*	1411.11	4^+	264.070	4^+			
1151.2 *2*	4.4 *7*	1972.29	2^-	821.145	2^+			
1159.9 *2*	4.2 *7*	2055.81	4^+	895.773	3^+			
1167.36 *4*	71 *10*	1431.43	3^-	264.070	4^+	D+Q	+0.025 *+23−18*	A_2=−0.094 *9*, A_4=+0.004 *13*, P_γ=1.13 *+19−16* (1998Be62).
1173.7 *2*	11.9 *17*	2267.72	$(5)^+$	1094.02	4^-			
1176.5 *2*	3.4 *5*	2440.32	5^+	1263.81	6^+			
x1180.9 *3*	1.4 *3*							
x1185.6 *2*	3.8 *6*							
1196.52 *5*	67 *10*	1276.30	2^+	79.786	2^+	D+Q&	−5.0& *+19−26*	A_2=−0.129 *13*, A_4=−0.018 *20*, P_γ=0.94 *+15−14* (1998Be62).

Continued on next page (footnotes at end of table)

^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	δ‡	Comments
1201.5 *3*	8 *2*	2097.39	4^-	895.773	3^+			E_γ,I_γ: includes contribution from background G.
1212.20 *15*	6.6 *10*	1760.95	$(6)^-$	548.74	6^+			
1219.6 *2*	2.4 *6*	2336.99	3^-	1117.54	5^+			
1222.9 *2*	2.9 *5*	2440.28	2^+	1217.18	0^+			
1229.03 *5*	59 *8*	1493.10	2^+	264.070	4^+			A_2=+0.084 *11*, A_4=+0.031 *15*, P_γ=1.29 *+27−21* (1998Be62); authors assign mult=Q, inconsistent with γ(θ).
1234.72 *15*	5.4 *10*	2055.81	4^+	821.145	2^+			
1243.2 *2*	2.9 *5*	2336.99	3^-	1094.02	4^-			
1246.8 *2*	2.8 *5*	1795.55	$(7)^-$	548.74	6^+			
1260.2[@] *3*	5.9 *10*	2254.9	$(3)^+$	994.666	4^+			
1268.2 *2*	3.3 *5*	2262.65	3^-,4^-	994.666	4^+			
1271.2 *2*	4.1 *6*	2365.22	$(5)^-$	1094.02	4^-			
1273.7 *3*	4 *2*	2169.52	5^+	895.773	3^+			
1275.9[a] *5*	60[a] *10*	1276.30	2^+	0.0	0^+			
1275.9[a] *5*	60[a] *10*	2369.9	5^+	1094.02	4^-			
1275.9[a] *5*	60[a] *10*	2392.8	$(4)^-$	1117.54	5^+			
1277.5[a] *5*	65[a] *15*	1541.51	3^-	264.070	4^+			
1277.5[a] *5*	65[a] *15*	1541.64	4^-	264.070	4^+			
1279.0 *5*	70 *20*	1358.91	1^-	79.786	2^+	D(+Q)	−0.15 *15*	A_2=+0.002 *2*, A_4=−0.002 *2* (1998Be62).
1283.5 *2*	1.8 *4*	2477.92	$(5)^-$	1193.06	5^-			
1297.3 *3*	4.8 *7*	2193.05	2^+,3^+	895.773	3^+			
1298.8 *5*	1.5 *5*	2392.8	$(4)^-$	1094.02	4^-			
[x]1307.6 *3*	0.68 *18*							
1310.11 *5*	19 *3*	1574.16	5^-	264.070	4^+	D(+Q)	−0.01 *3*	A_2=−0.25 *4*, A_4=0.00 *6*, P_γ=1.4 *+6−4* (1998Be62).
1323.93 *4*	120 *17*	1403.71	2^-	79.786	2^+	D(+Q)	+0.05 *+11−6*	A_2=+0.206 *15*, A_4=+0.002 *20*, P_γ=0.52 *+7−9* (1998Be62).
1328.6 *2*	2.9 *4*	2323.27	3^-	994.666	4^+			
1331.41 *5*	29 *4*	1411.11	4^+	79.786	2^+	Q		A_2=+0.299 *21*, A_4=−0.06 *3*, P_γ=1.9 *+10−5* (1998Be62).
1341.90[a] *10*	56[a] *8*	1421.69	0^+	79.786	2^+			A_2=−0.002 *12*, A_4=−0.011 *16*, P_γ=1.05 *+28−23* (1998Be62).
1341.90[a] *10*	56[a] *8*	2336.99	3^-	994.666	4^+			
1351.7[a] *2*	67[a] *10*	1431.43	3^-	79.786	2^+	D(+Q)	−0.02 *3*	A_2=−0.195 *13*, A_4=+0.009 *20*, P_γ=1.67 *+36−23* (1998Be62).
1351.7[a] *2*	67[a] *10*	1616.74	6^+	264.070	4^+			
1353.7[a] *3*	5.0[a] *2*	1902.5	6^+	548.74	6^+			
1353.7[a] *3*	5.0[a] *2*	2348.03	4^-	994.666	4^+			
1358.91 *10*	43 *6*	1358.91	1^-	0.0	0^+	D		A_2=−0.040 *14*, A_4=+0.021 *20*, P_γ=1.4 *+4−3* (1998Be62).
1366.75 *15*	6.0 *10*	2262.65	3^-,4^-	895.773	3^+			
[x]1368.4 *3*	1.8 *5*							
1371.90 *10*	12.6 *18*	2193.05	2^+,3^+	821.145	2^+			
1392.22 *6*	32 *5*	1656.29	4^+	264.070	4^+	D+Q	+0.40 *10*	A_2=+0.436 *18*, A_4=+0.007 *24*, P_γ=2.1 *+12−6* (1998Be62).
1397.3[a] *3*	4.0[a] *7*	2392.8	$(4)^-$	994.666	4^+			
1397.3[a] *3*	4.0[a] *7*	2513.6	4^-	1117.54	5^+			
[x]1406.4[@] *2*	3.1 *5*							
1409.0[a] *2*	9.4[a] *14*	2230.66	2^-	821.145	2^+			
1409.0[a] *2*	9.4[a] *14*	2672.82		1263.81	6^+			

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult. ‡	δ ‡	Comments
1413.31 *5*	58 *8*	1493.10	2^+	79.786	2^+	D+Q	+0.7 *4*	A_2=+0.362 *16*, A_4=+0.011 *20*, P_γ=1.30 *+32−24* (1998Be62).
1417.7 *4*	2.5 *4*	2412.4	4^-	994.666	4^+			
1422.5 *2*	3.1 *5*	2540.08		1117.54	5^+			
1432.9[a] *2*	6.0[a] *11*	2254.9	$(3)^+$	821.145	2^+			
1432.9[a] *2*	6.0[a] *11*	2528.5	$(5)^-$	1094.02	4^-			
[x]1439.3 *4*	1.0 *3*							
1441.6 *2*	5.1 *8*	2559.04	5^-	1117.54	5^+			I_γ: too large relative to I(1563γ) for all Iγ to belong with this placement; possibly deexcites the 2337 and/or 2263 level also, As In Adopted Levels, Gammas.
1445.8[@] *2*	2.6 *10*	2440.28	2^+	994.666	4^+			
1448.9[@] *2*	4.4 *10*	2345.20	3^-	895.773	3^+			
1452.1[a] *2*	6.0[a] *9*	2273.18	(2^+)	821.145	2^+			
1452.1[a] *2*	6.0[a] *9*	2348.03	4^-	895.773	3^+			
1456.3 *2*	4.0 *6*	2450.97	$(5)^-$	994.666	4^+			
1470.4 *3*	0.8 *2*	2663.44	$(4)^+$	1193.06	5^-			
1472.6 *2*	2.3 *4*	1736.70	4^+	264.070	4^+			
[x]1477.6 *2*	3.7 *6*							
1481.7 *2*	2.1 *4*	2302.97	3^-	821.145	2^+			
1484.6 *2*	2.2 *4*	2477.92	$(5)^-$	994.666	4^+			
1493.10 *10*	10.5 *15*	1493.10	2^+	0.0	0^+			
1498.1 *2*	4.6 *8*	2393.52	2^+	895.773	3^+			
1502.6 *2*	3.8 *6*	2398.38	4^+,5^+	895.773	3^+			
1506.8 *2*	4.7 *7*	2402.58	4^-	895.773	3^+			
[x]1511.5[@] *8*	1.9 *4*							
1516.10[a] *12*	6.7[a] *10*	2336.99	3^-	821.145	2^+			
1516.10[a] *12*	6.7[a] *10*	2412.4	4^-	895.773	3^+			
1519.0 *8*	1.5 *5*	2513.6	4^-	994.666	4^+			
1524.18 *10*	8.7 *13*	2345.20	3^-	821.145	2^+			
[x]1527.32 *15*	4.4 *7*							
1530.1 *3*	1.1 *5*	2425.21	(2^+)	895.773	3^+			
1533.8 *3*	2.1 *4*	2528.5	$(5)^-$	994.666	4^+			
1541.6[@] *6*	1.3 *3*	2659.9	4^+,5^+	1117.54	5^+			probably also deexcites 1541.5 level As In Adopted Levels, Gammas.
1552.4 *2*	5.4 *8*	2373.55	2^+	821.145	2^+			
1556.6 *2*	6.1 *10*	2551.27	−	994.666	4^+			
1560.2 *3*	2.8 *7*	2456.0		895.773	3^+			
1563.4 *6*	0.7 *2*	2559.04	5^-	994.666	4^+			
1569.4 *2*	2.8 *7*	2663.44	$(4)^+$	1094.02	4^-			
1572.41 *10*	4.4 *7*	2393.52	2^+	821.145	2^+			
[x]1576.4 *2*	2.6 *6*							
1581.0[a] *2*	5.6[a] *8*	2129.08	5^-	548.74	6^+			
1581.0[a] *2*	5.6[a] *8*	2402.15		821.145	2^+			
[x]1589.6 *3*	2.0 *4*							
[x]1598.6 *3*	1.8 *4*							
1603.8 *2*	2.3 *5*	2425.21	(2^+)	821.145	2^+			
1617.8 *4*	2.5 *5*	2513.6	4^-	895.773	3^+			
[x]1629.7 *7*	1.6 *3*							
1636.8 *3*	1.8 *3*	2185.30	5^-	548.74	6^+			
1639.8 *4*	1.0 *3*	2188.60	5^+	548.74	6^+			
1644.4 *4*	1.5 *4*	2540.08		895.773	3^+			
1649.71 *5*	19 *3*	1913.79	3^-	264.070	4^+	D(+Q)	+0.02 *4*	A_2=−0.09 *3*, A_4=−0.05 *4* (1998Be62).
[x]1652.2 *2*	1.9 *5*							

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
x1657.5[@] 2	3.7 7							
1662.8 3	1.6 4	2484.0	(3)$^+$	821.145	2$^+$			
1665.5[@] 4	1.9 4	2659.9	4$^+$,5$^+$	994.666	4$^+$			
1672.8 2	5.9 9	2493.95	3$^-$	821.145	2$^+$			
1675.4 4	2.5 4	2769.4	(5)$^+$	1094.02	4$^-$			
x1683.3 3	2.5 4							
x1692.3 4	2.6 4							
1696.7[a] 2	5.2[a] 8	2245.45	6$^+$	548.74	6$^+$			
1696.7[a] 2	5.2[a] 8	2517.85	3$^+$,4$^+$	821.145	2$^+$			
1706.35 6	40 6	1786.15	1$^-$	79.786	2$^+$	D+Q	−5 4	A_2=+0.03 3, A_4=+0.08 4, −0.06≥δ≥−10 (1998Be62).
x1717.8 3	1.1 3							
1730.88 15	7.2 14	1994.87	(3)$^+$	264.070	4$^+$			
1733.2[a] 7	2.0[a] 8	2629.0	3$^+$,4,5$^+$	895.773	3$^+$			
1733.2[a] 7	2.0[a] 8	2727.88		994.666	4$^+$			
1738.25 15	9.3 14	2002.40	(4)$^+$	264.070	4$^+$			
1745.5 4	1.8 5	2740.2		994.666	4$^+$			
x1750.1 3	6.0 15							
1754.0 5	4.0 10	1833.8	0$^+$	79.786	2$^+$			
1758.51 12	8.7 15	2022.50	3$^-$	264.070	4$^+$			
x1763.0[@] 5	6.0 10							
1766.4 3	11.4 20	2030.5	4$^+$	264.070	4$^+$	D+Q		A_2=+0.14 6, A_4=−0.22 8 (1998Be62); δ=−0.28 +11−10 or +1.7 +4−3.
1768.4 3	20 5	1848.31	2$^+$	79.786	2$^+$	D+Q		A_2=+0.08 5, A_4=+0.10 7 (1998Be62); δ=−0.18 +10−9 or +4.1 +23−12.
1786.17 10	26 4	1786.15	1$^-$	0.0	0$^+$	D		A_2=−0.10 3, A_4=+0.08 4 (1998Be62).
1813.25 10	31 4	1893.03	2$^+$	79.786	2$^+$	D+Q		A_2=+0.19 3, A_4=−0.01 4 (1998Be62); δ=+0.03 +11−7 or +2.1 4.
1816.2 3	5.0 10	2080.32	(4)$^+$	264.070	4$^+$			
1833.7[a] 2	33[a] 5	1913.79	3$^-$	79.786	2$^+$			
1833.7[a] 2	33[a] 5	2097.39	4$^-$	264.070	4$^+$			
1835.6 3	18 3	1915.50	3$^+$	79.786	2$^+$			
1844.7 2	3.5 6	2108.78	5$^+$	264.070	4$^+$			
1848.2 2	22 5	1848.31	2$^+$	0.0	0$^+$	Q		A_2=+0.26 5, A_4=−0.08 7 (1998Be62).
1850.5 2	18 3	1930.30	2$^+$	79.786	2$^+$			
1856.5 2	2.7 4	1936.39	1$^-$	79.786	2$^+$			
x1862.3 3	1.4 3							
1865.00 15	6.0 8	2129.08	5$^-$	264.070	4$^+$			
1873.1 3	1.0 3	2969.18	4$^+$,5$^+$	1094.02	4$^-$			
x1885.7 4	1.0 3							
1892.55 10	20 3	1972.29	2$^-$	79.786	2$^+$	D(+Q)	−0.02 +12−8	A_2=+0.17 5, A_4=−0.04 7 (1998Be62).
x1909.6[@] 5	3.8 7							
1914.9[@] 2	18 3	1994.87	(3)$^+$	79.786	2$^+$			
1921.0 2	6.7 7	2185.30	5$^-$	264.070	4$^+$			
1922.9 3	5.5 8	2002.40	(4)$^+$	79.786	2$^+$			
1924.6 3	1.5 5	2188.60	5$^+$	264.070	4$^+$			
1930.2 2	14.6 21	1930.30	2$^+$	0.0	0$^+$	Q		A_2=+0.24 4, A_4=−0.12 6 (1998Be62).
1936.40 10	31 4	1936.39	1$^-$	0.0	0$^+$	D		A_2=−0.18 3, A_4=+0.01 4 (1998Be62).
x1938.7 3	3.0 10							
1942.66 8	22 3	2022.50	3$^-$	79.786	2$^+$	D(+Q)	−0.06 6	A_2=−0.24 4, A_4=−0.02 5 (1998Be62).
x1948.6 3	1.0 4							
x1955.1 4	1.8 4							
x1964.4 3	2.2 4							
x1969.8 3	1.5 3							

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^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult. ‡	Comments
1976.4 *3*	1.0 *3*	2969.18	4^+,5^+	994.666	4^+		
1979.39 *11*	7.8 *11*	2243.34	$(3)^+$	264.070	4^+		
x1986.8 *3*	3.1 *6*						
2000.6 *4*	2.4 *5*	2080.32	$(4)^+$	79.786	2^+		
2009.5 *3*	2.6 *5*	2273.6	(4^+)	264.070	4^+		
x2035.1 *3*	1.4 *3*						
x2037.8 *3*	1.8 *3*						
2047.02 *13*	7.6 *11*	2311.10	$(4)^+$	264.070	4^+	D+Q	A_2=+0.26 *8*, A_4=+0.01 *11* (1998Be62); δ=−0.15 *+11−12* or +1.3 *3*.
2057.0 *2*	7.5 *12*	2136.78	1^-	79.786	2^+		
x2059.4 *2*	4.4 *6*						
2094.77 *8*	19 *3*	2174.57	2^+	79.786	2^+		A_2=+0.27 *4*, A_4=+0.12 *5* (1998Be62).
2108.7 *5*	2.0 *5*	2188.5	$(4)^+$	79.786	2^+		
x2124.8 *4*	1.7 *4*						
2129.4 *5*	2.4 *4*	2393.52	2^+	264.070	4^+		
x2133.9 *2*	3.0 *6*						
2136.76 *8*	10.6 *17*	2136.78	1^-	0.0	0^+	D	A_2=−0.10 *5*, A_4=+0.01 *7* (1998Be62).
x2151.0 *5*	2.0 *5*						
x2156.31 *9*	9.7 *15*						
2159.3 *2*	3.0 *10*	2423.39		264.070	4^+		
2163.42 *10*	10.1 *15*	2243.34	$(3)^+$	79.786	2^+		
x2170.7 *3*	2.5 *5*						
2177.0[b] *4*	2.0 *5*	2177.0	(2^+)	0.0	0^+		
2189.7 *3*	2.8 *5*	2453.8?	$4,5^+$	264.070	4^+		
x2193.2 *3*	6.0 *9*						
x2197.8 *5*	3.5 *6*						
x2204.3 *4*	4.4 *7*						
2214.0 *3*	2.3 *4*	2477.82	3^-	264.070	4^+		
x2223.28[#]							
x2226.4 *7*	2.0 *5*						
x2235.24 *11*	6.2 *9*						
x2243.0 *5*	4.1 *6*						
x2249.0 *9*	1.2 *3*						
2256.8 *2*	10.5 *15*	2336.99	3^-	79.786	2^+		
2262.0 *3*	3.6 *6*	2341.77	1	79.786	2^+		
x2270.0[@] *5*	11.8 *10*						
2281.5 *5*	1.5 *5*	2361.40	1^+	79.786	2^+		
2285.5 *3*	6.5 *8*	2365.3		79.786	2^+		
2297.4 *4*	3.0 *5*	2561.5	$4,5^+$	264.070	4^+		
2303.8[@] *5*	3.4 *5*	2382.4	2^+	79.786	2^+		
x2309.2 *3*	1.3 *3*						
2313.2 *2*	14 *2*	2393.52	2^+	79.786	2^+		
x2320.0[@] *5*	3.1 *5*						
2337.2 *2*	7.9 *12*	2417.00	1^-	79.786	2^+		
2341.7 *4*	5.4 *10*	2341.77	1	0.0	0^+		
2345.6 *4*	4.0 *10*	2425.21	(2^+)	79.786	2^+		
x2347.4 *4*	4.0 *10*						
x2351.0 *10*	1.5 *6*						
2361.4 *2*	7.1 *10*	2361.40	1^+	0.0	0^+		
2365.1 *4*	2.0 *6*	2629.2		264.070	4^+		
x2372.8 *3*	2.0 *4*						
2378.6 *7*	0.6 *3*	2458.7	1	79.786	2^+		
2382.0 *3*	2.5 *4*	2382.4	2^+	0.0	0^+		
x2386.9 *2*	2.6 *5*						
2393.5[b] *5*	1.0 *5*	2393.52	2^+	0.0	0^+		

Continued on next page (footnotes at end of table)

^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
2397.9 *2*	4.4 *7*	2477.82	3^-	79.786	2^+
2404.7 *8*	2.7 *4*	2484.0	$(3)^+$	79.786	2^+
x2411.1 *4*	3.2 *5*				
2414.4[a] *5*	3.5[a] *5*	2417.00	1^-	0.0	0^+
2414.4[a] *5*	3.5[a] *5*	2493.2	1^+	79.786	2^+
2414.4[a] *5*	3.5[a] *5*	2493.95	3^-	79.786	2^+
2420.7 *4*	3.8 *6*	2969.18	$4^+,5^+$	548.74	6^+
2425.1 *2*	1.7 *5*	2425.21	(2^+)	0.0	0^+
2430.9 *3*	2.5 *5*	2510.71	1^-	79.786	2^+
x2436.4 *4*	2.0 *4*				
x2442.0 *8*	1.0 *5*				
x2455.8 *3*	4.0 *6*				
2458.8 *5*	4.9 *8*	2458.7	1	0.0	0^+
x2461.7 *3*	1.1 *3*				
x2468.4 *4*	1.1 *4*				
x2480.3 *4*	2.1 *4*				
x2487.8 *4*	1.9 *3*				
2493.2 *3*	4.0 *6*	2493.2	1^+	0.0	0^+
2510.7 *4*	1.0 *5*	2510.71	1^-	0.0	0^+
x2525.6[@] *4*	9.0 *9*				
x2535.7 *11*	2.4 *5*				
x2552.0 *3*	4.7 *7*				
2564.0 *2*	2.0 *3*	2643.71	$1^{(-)}$	79.786	2^+
x2575.6 *2*	4.2 *7*				
x2578.9 *4*	1.5 *5*				
x2587.9 *4*	2.9 *5*				
2596.5 *4*	1.8 *3*	2676.3	1^+	79.786	2^+
x2600.2 *3*	4.4 *7*				
2604.0 *3*	2.5 *5*	2683.8?		79.786	2^+
2608.9 *5*	2.0 *5*	2689.0?		79.786	2^+
x2626.4 *4*	4.1 *7*				
x2632.2 *3*	3.1 *5*				
2643.62 *16*	8.5 *12*	2643.71	$1^{(-)}$	0.0	0^+
2648.4 *3*	2.5 *4*	2728.42	1^+	79.786	2^+
2661.2[@] *3*	5.3 *8*	2740.9	1^-	79.786	2^+
2666.8 *3*	3.7 *6*	2746.6?		79.786	2^+
2678.1[a] *4*	3.9[a] *6*	2676.3	1^+	0.0	0^+
2678.1[a] *4*	3.9[a] *6*	2756.0?		79.786	2^+
2684.0[a] *4*	3.0[a] *5*	2683.8?		0.0	0^+
2684.0[a] *4*	3.0[a] *5*	2763.9?		79.786	2^+
2689.3 *5*	1.4 *3*	2689.0?		0.0	0^+
x2698.0 *7*	1.6 *3*				
2703.1 *6*	1.1 *3*	2782.9?		79.786	2^+
x2709.4 *4*	3.2 *5*				
2719.9[b] *8*	0.7 *3*	2797.8	1^+	79.786	2^+
2728.6 *3*	2.0 *5*	2728.42	1^+	0.0	0^+
x2732.5 *4*	0.7 *3*				
2737.0 *9*	0.8 *4*	2817.0?		79.786	2^+
2740.5 *5*	2.7 *5*	2740.9	1^-	0.0	0^+
2745.7 *5*	1.2 *4*	2826.4	$1^{(+)}$	79.786	2^+
2756.0 *6*	1.5 *3*	2756.0?		0.0	0^+
2763.9 *8*	0.9 *3*	2763.9?		0.0	0^+
2776.8 *6*	2.5 *5*	2856.6	(2)	79.786	2^+
2783.0[a] *5*	0.7[a] *3*	2782.9?		0.0	0^+
2783.0[a] *5*	0.7[a] *3*	2863.6?		79.786	2^+
2792.0 *4*	1.2 *3*	2792.0	1^+	0.0	0^+
2797.8 *3*	4.6 *7*	2797.8	1^+	0.0	0^+
x2808.9 *7*	1.5 *4*				
2817.0 *4*	1.0 *3*	2817.0?		0.0	0^+
x2821.6 *3*	3.1 *5*				
2826.7 *3*	3.7 *6*	2826.4	$1^{(+)}$	0.0	0^+
2833.7 *5*	2.3 *4*	2833.7	$1^{(-)}$	0.0	0^+
2850.5[a] *4*	5.5[a] *8*	2850.5	1^-	0.0	0^+
2850.5[a] *4*	5.5[a] *8*	2929.2	$1^{(+)}$	79.786	2^+
2853.0 *7*	2.0 *4*	3116.4?		264.070	4^+
2863.6 *5*	1.2 *3*	2863.6?		0.0	0^+
2866.7 *5*	1.3 *3*	2946.6	$1^{(-)}$	79.786	2^+
x2881.4 *8*	2.0 *4*				
x2911.7 *6*	1.5 *3*				
2922.6 *5*	1.5 *3*	3002.4?		79.786	2^+
2929.2 *5*	2.1 *4*	2929.2	$1^{(+)}$	0.0	0^+
2946.7 *6*	1.4 *3*	2946.6	$1^{(-)}$	0.0	0^+
2955.6 *8*	1.8 *4*	2955.6	1	0.0	0^+
2969.8 *5*	1.9 *4*	3049.6	1^+	79.786	2^+
2974.2 *5*	1.6 *3*	2974.2	1^-	0.0	0^+
x2981.9 *5*	1.3 *3*				
x2985.4 *5*	0.7 *3*				
3002.3 *4*	1.1 *3*	3002.4?		0.0	0^+
3015.1 *7*	0.8 *3*	3095.9	$1^{(-)}$	79.786	2^+
3036.5 *7*	0.8 *3*	3116.4?		79.786	2^+
3049.5 *7*	1.8 *4*	3049.6	1^+	0.0	0^+
3096.6 *6*	1.3 *3*	3095.9	$1^{(-)}$	0.0	0^+
3102.3 *6*	1.5 *3*	3182.1	1^-	79.786	2^+
3115.4 *9*	1.2 *3*	3116.4?		0.0	0^+
3124.2 *10*	0.9 *3*	3124.2	1^+	0.0	0^+
3208.0 *8*	1.0 *3*	3208.0	$1^{(+)}$	0.0	0^+
3242.6 *8*	1.7 *4*	3242.6	1	0.0	0^+
x3251.8 *9*	1.3 *3*				
3258.4 *6*	0.9 *3*	3338.2	(2)	79.786	2^+
3291.9 *9*	0.9 *3*	3371.2	(2)	79.786	2^+
3300.0 *7*	1.3 *3*	3300.0	1	0.0	0^+
3338.0 *10*	0.8 *4*	3338.2	(2)	0.0	0^+
3342.0 *10*	1.4 *4*	3342.0	$1^{(+)}$	0.0	0^+
x3348.2 *5*	0.7 *3*				
3358.7 *6*	1.2 *3*	3358.7	1^+	0.0	0^+
3370.9 *7*	0.8 *3*	3371.2	(2)	0.0	0^+
3409.7 *9*	1.0 *3*	3409.7	1^+	0.0	0^+
3424.4 *9*	0.8 *3*	3504.2	1^-	79.786	2^+
3439.6 *9*	0.7 *3*	3439.6	$1^{(-)}$	0.0	0^+

Continued on next page (footnotes at end of table)

^{168}Er(n,n′γ) 1998Be20,1998Be62 (continued)

γ(^{168}Er) (continued)

† From 1998Be20.
‡ Based on γ(θ) and/or γ linear polarization (P_γ). from 1998Be62, except As noted.
# Contaminated by background G.
@ Multiplet.
& From 1991Be38.
a Multiply placed with undivided intensity.
b Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

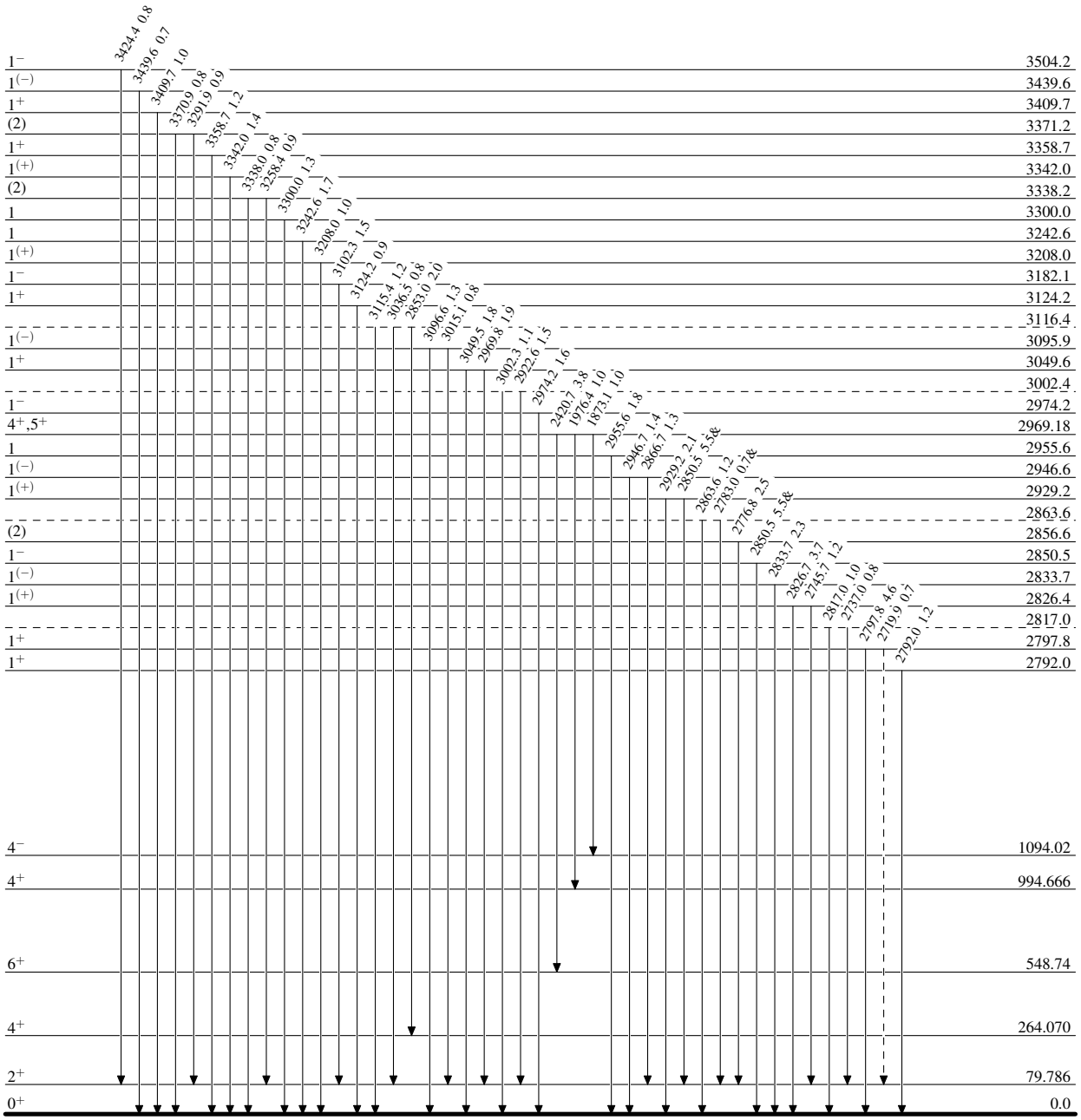
^{168}Er(n,n′γ) 1998Be20,1998Be62

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)

Level Scheme

Intensities: Relative I_γ
& Multiply placed: undivided intensity given



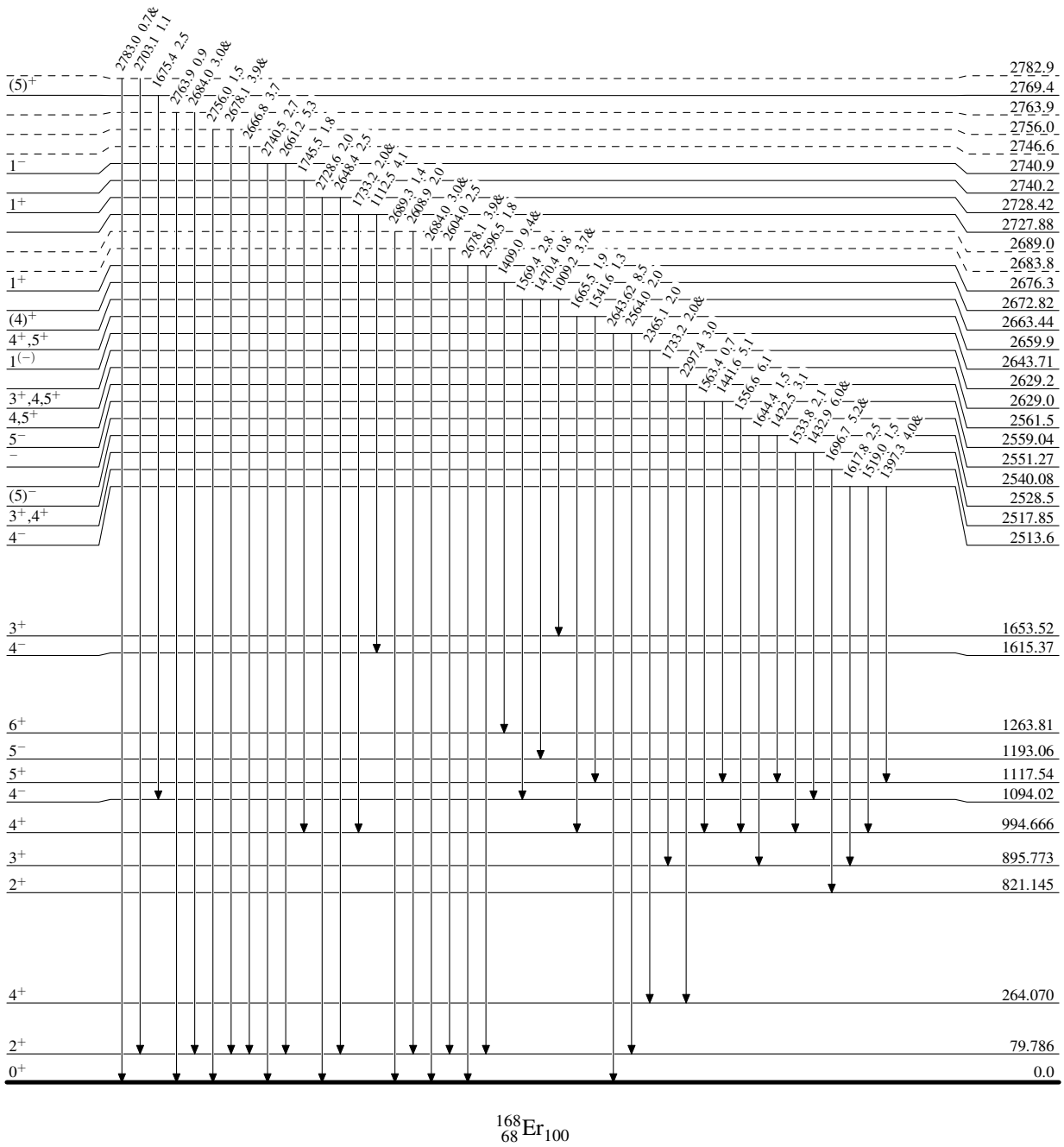
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



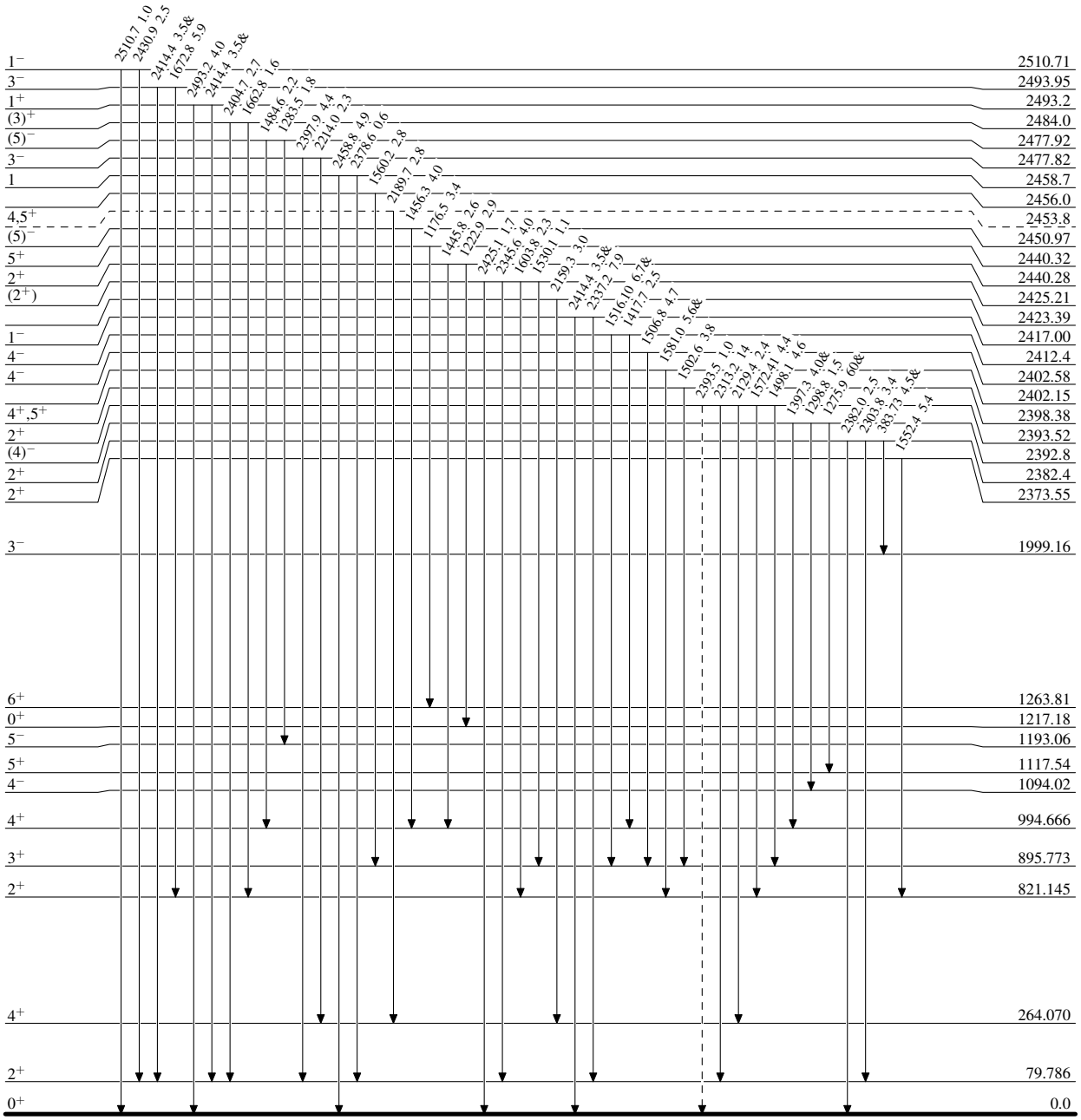
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

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)



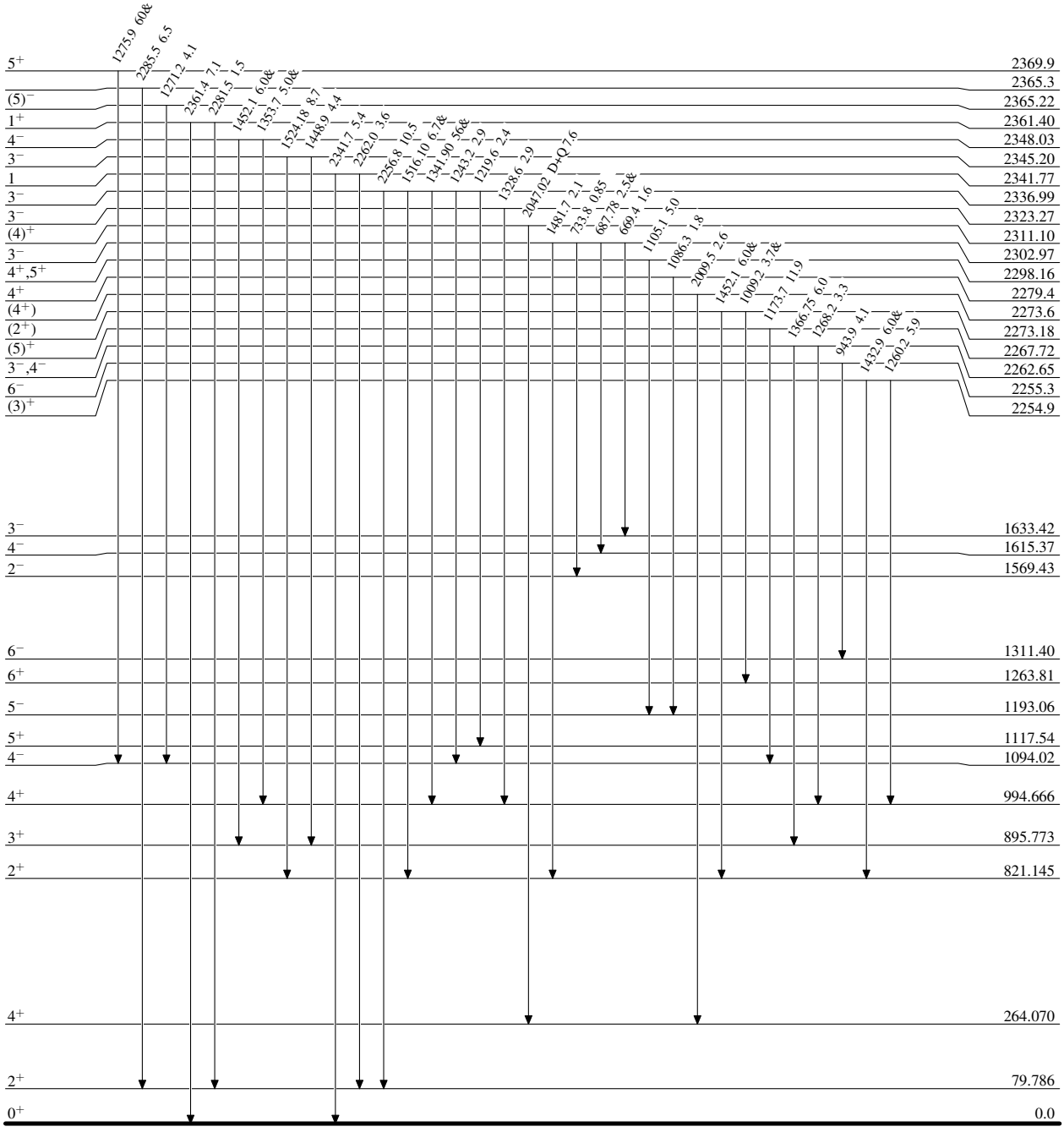
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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

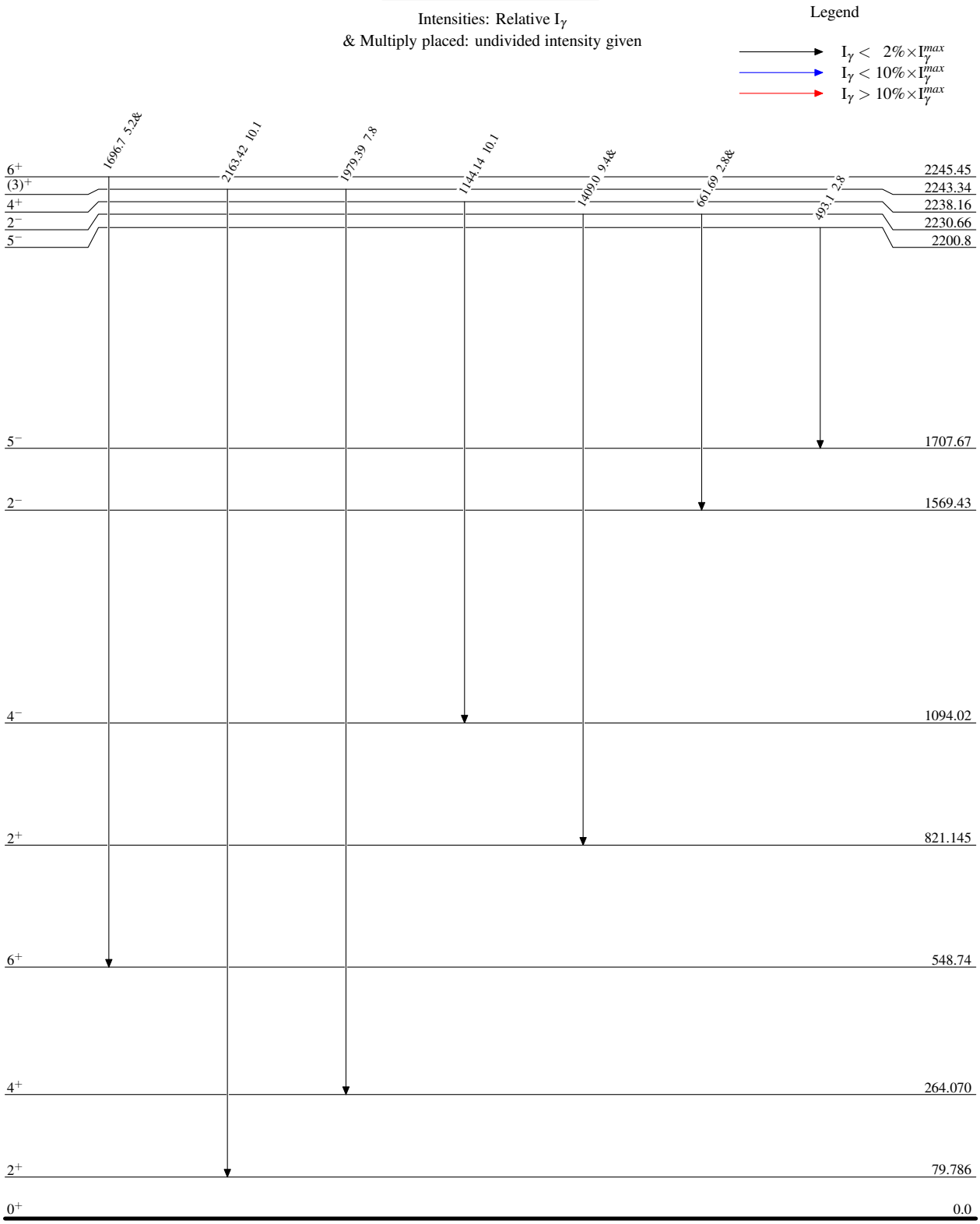


$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

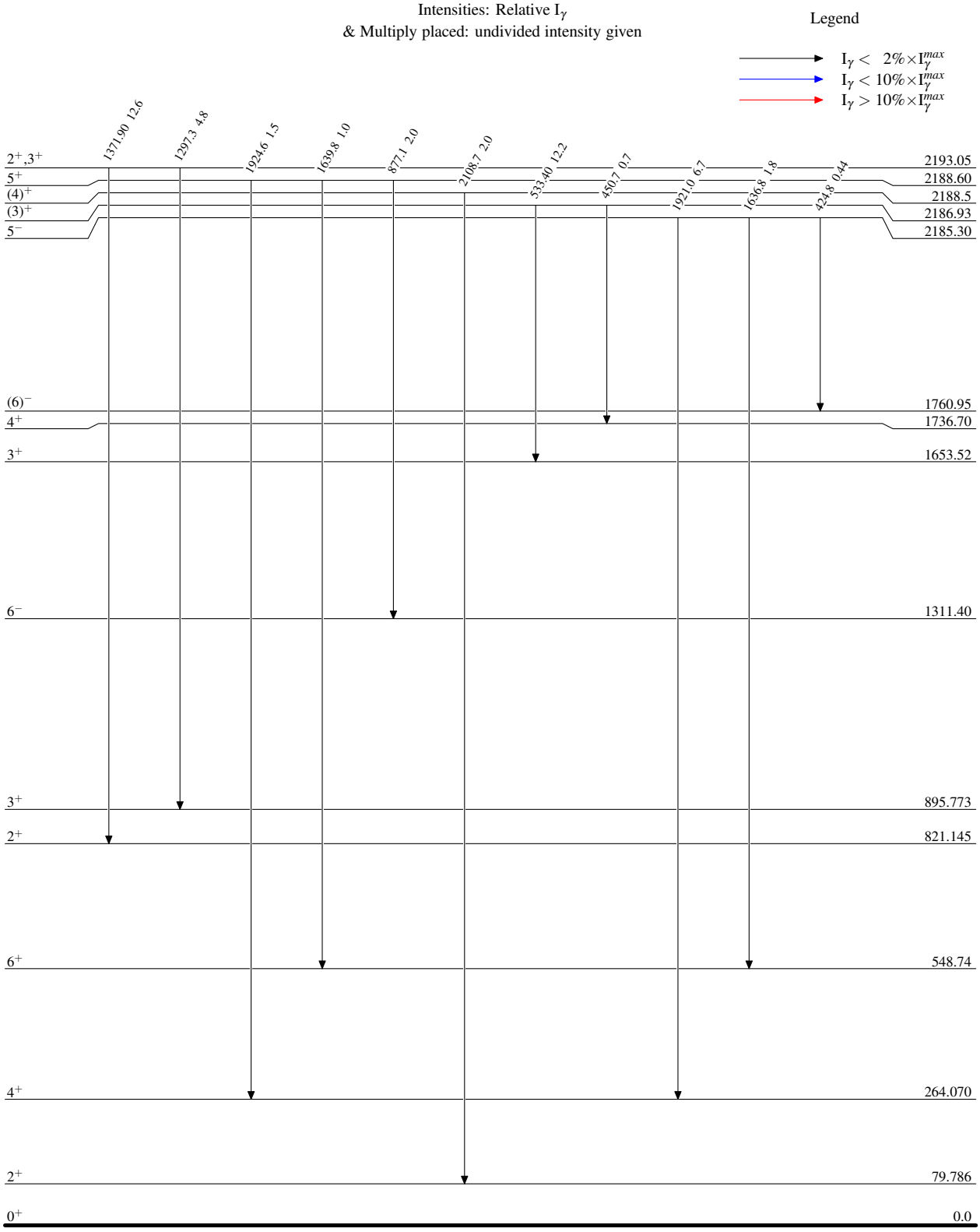


$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

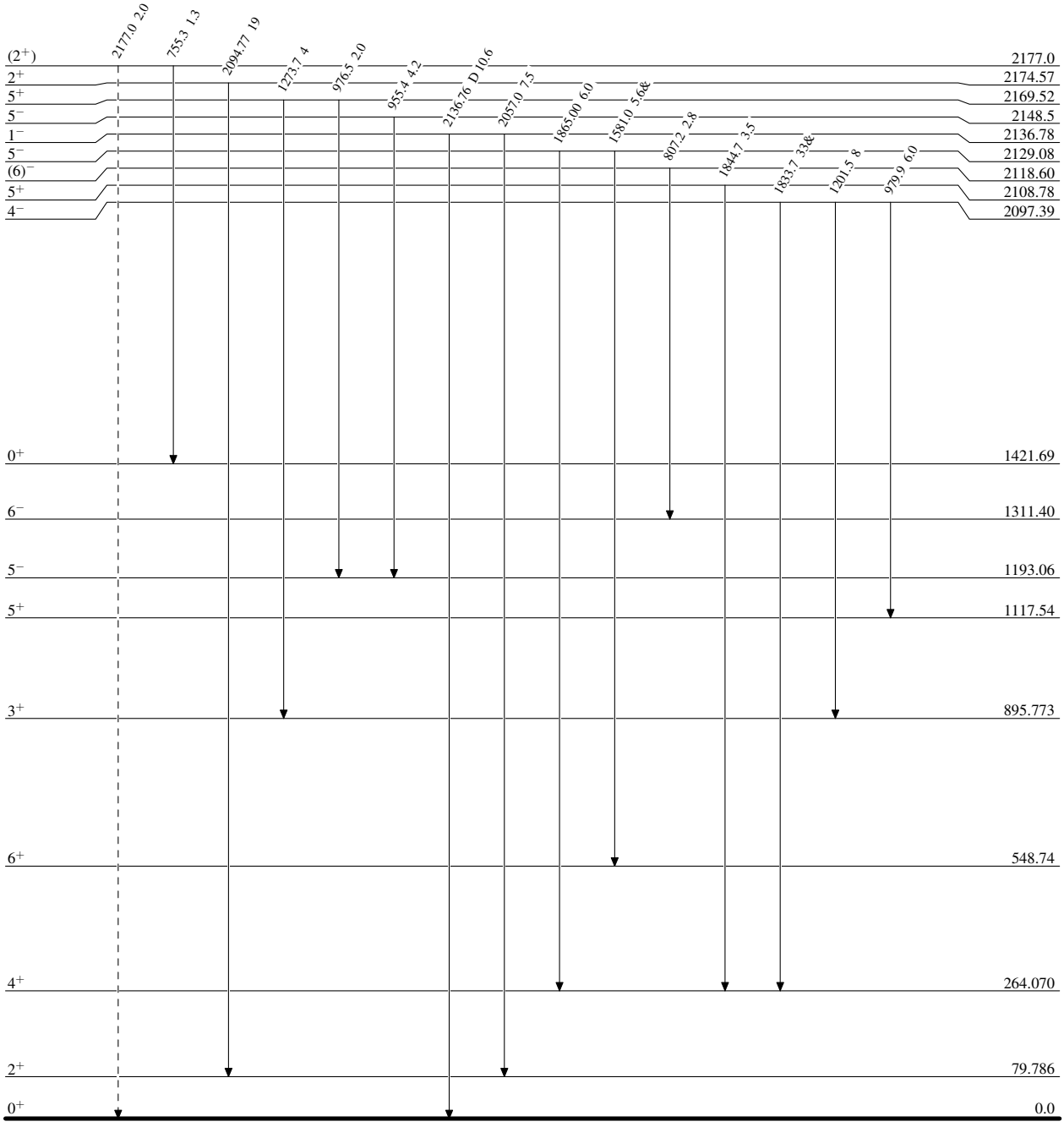


^{168}Er(n,n′γ) 1998Be20,1998Be62

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)



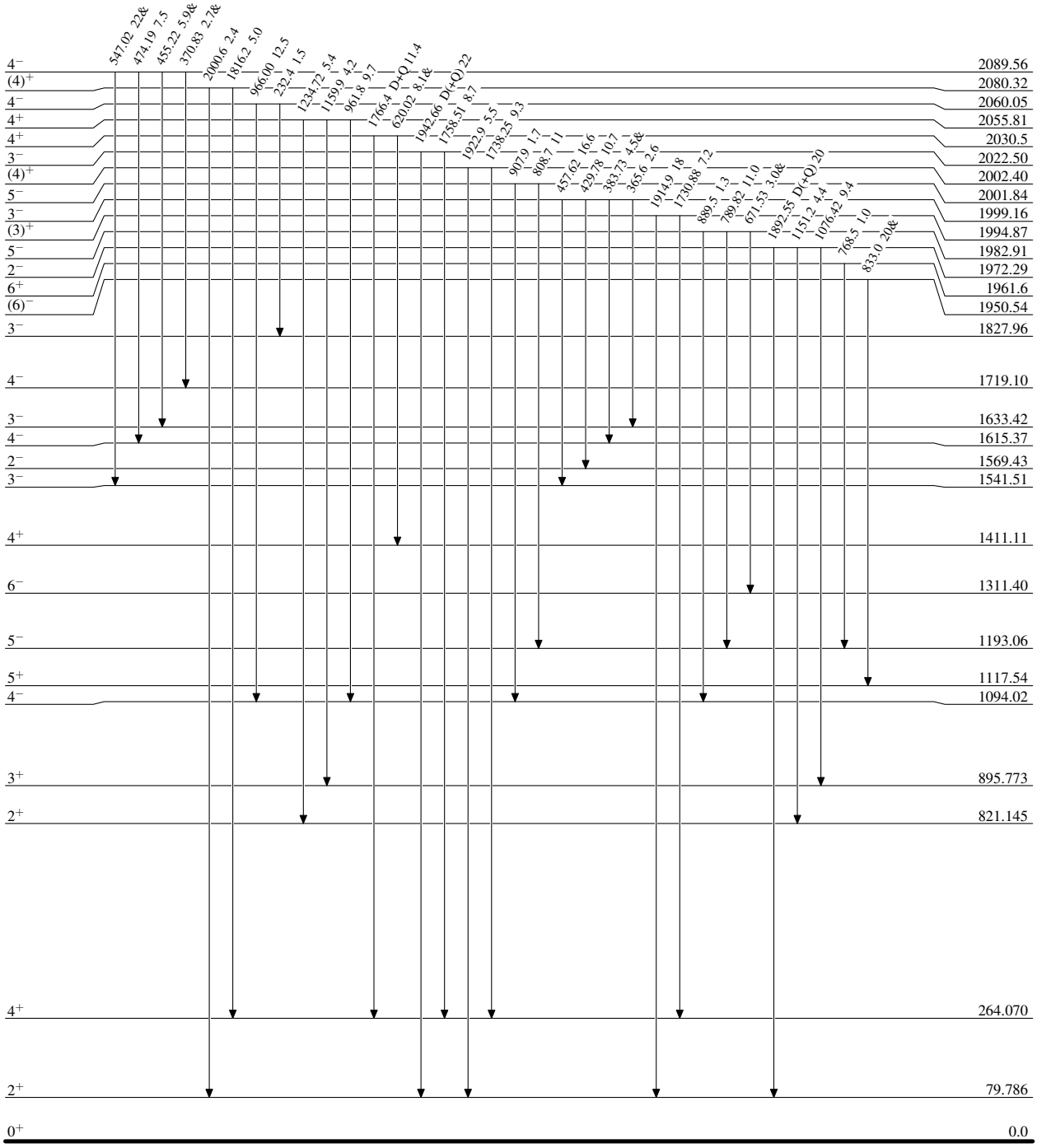
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



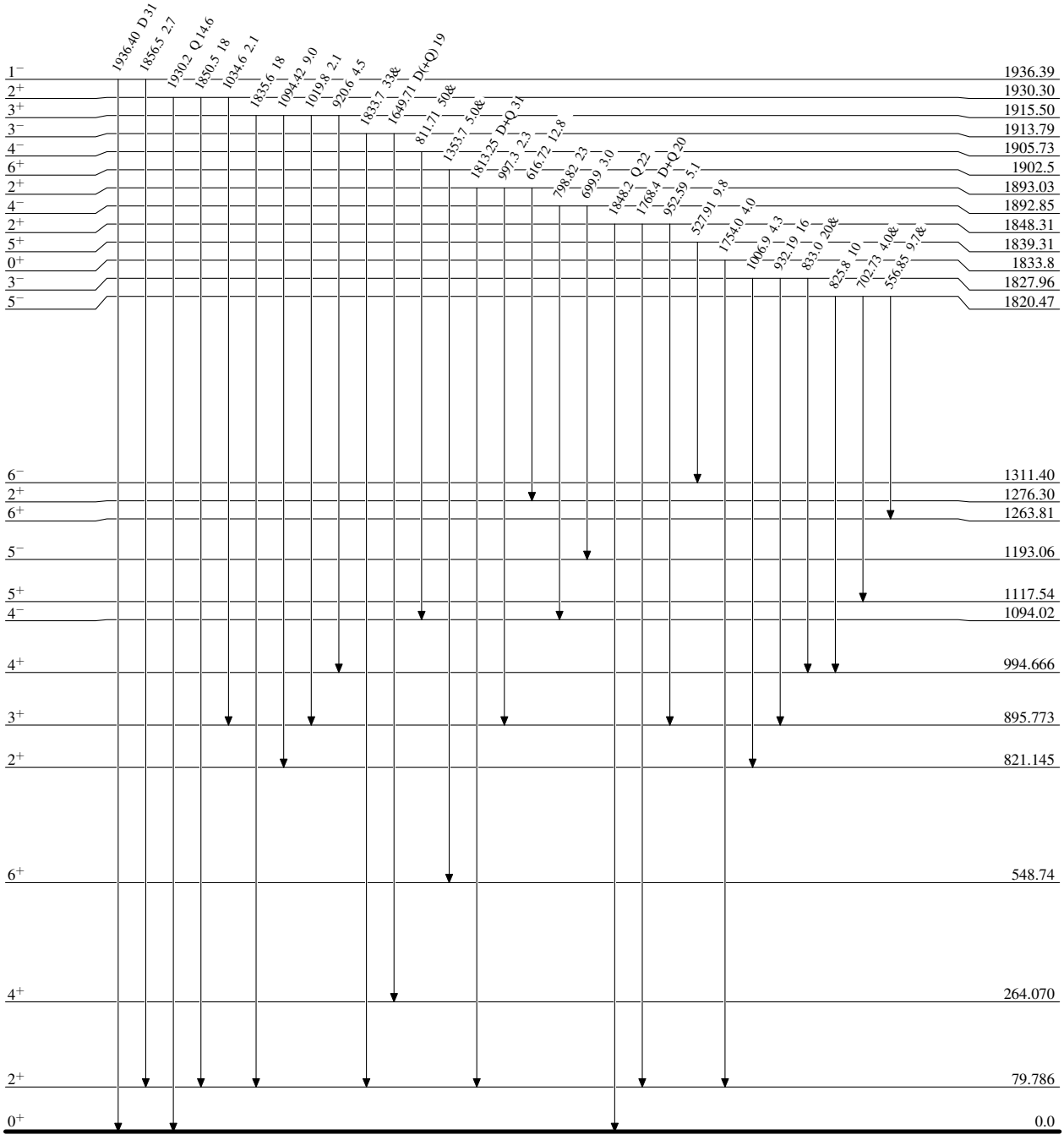
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



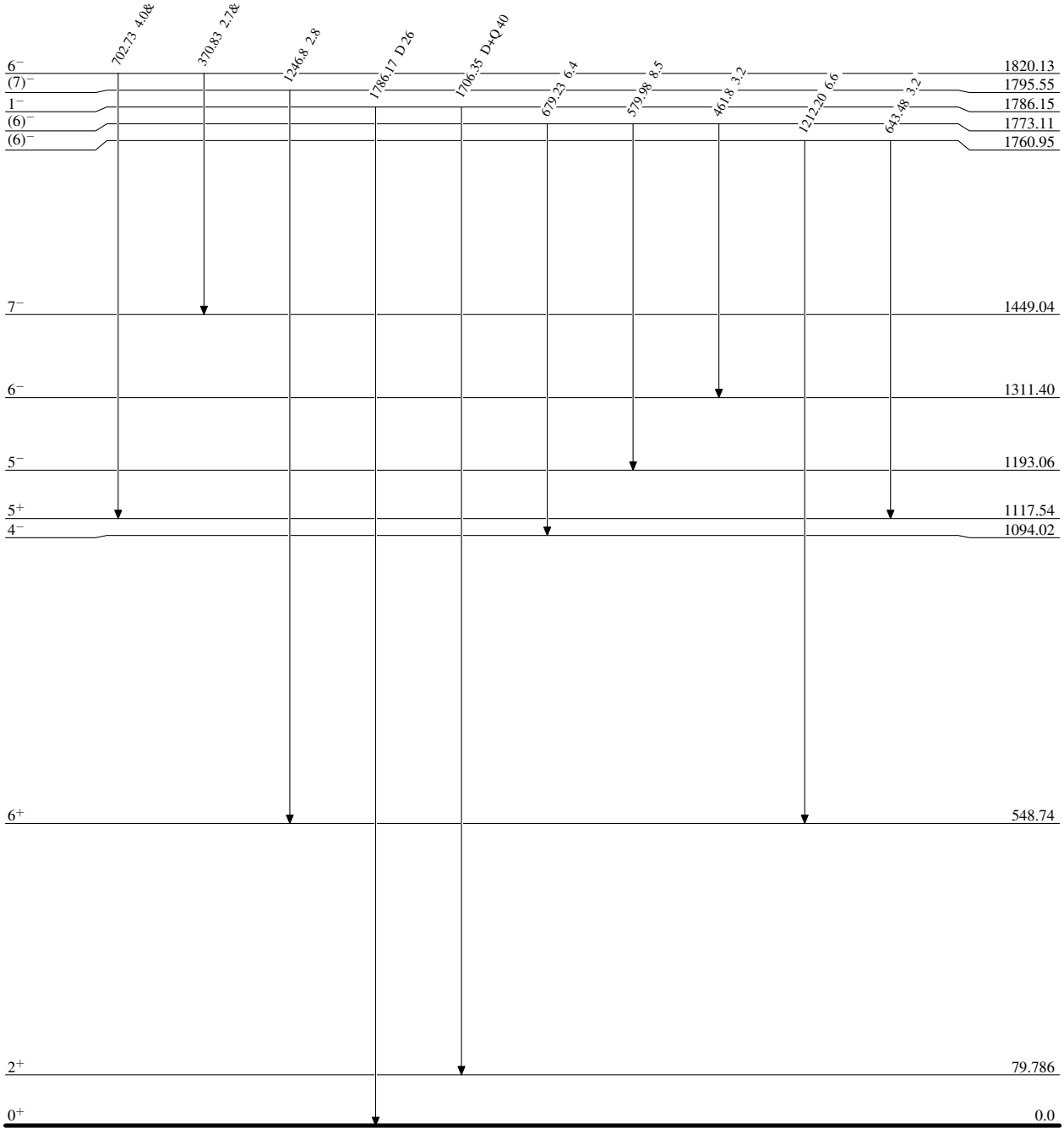
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



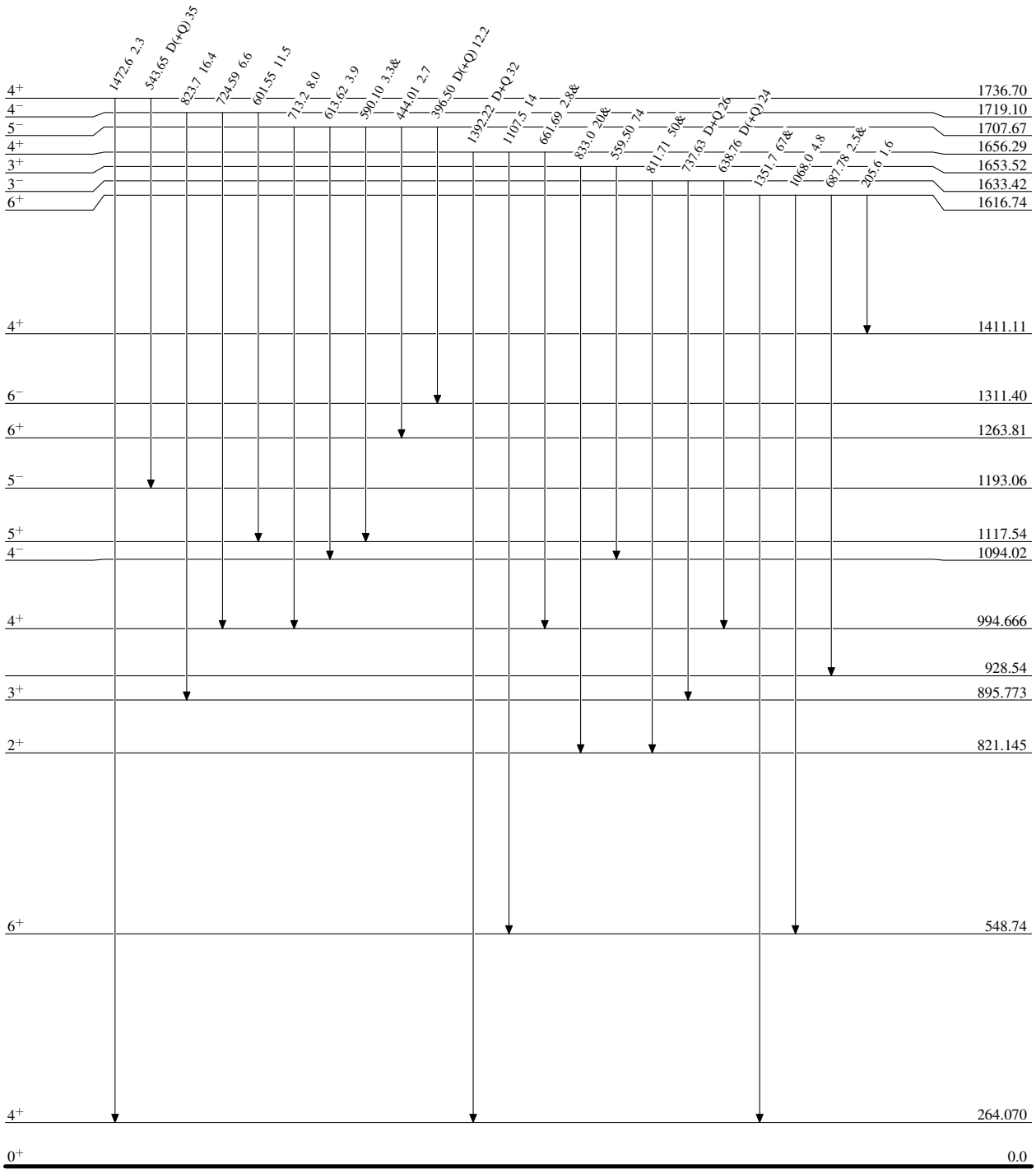
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



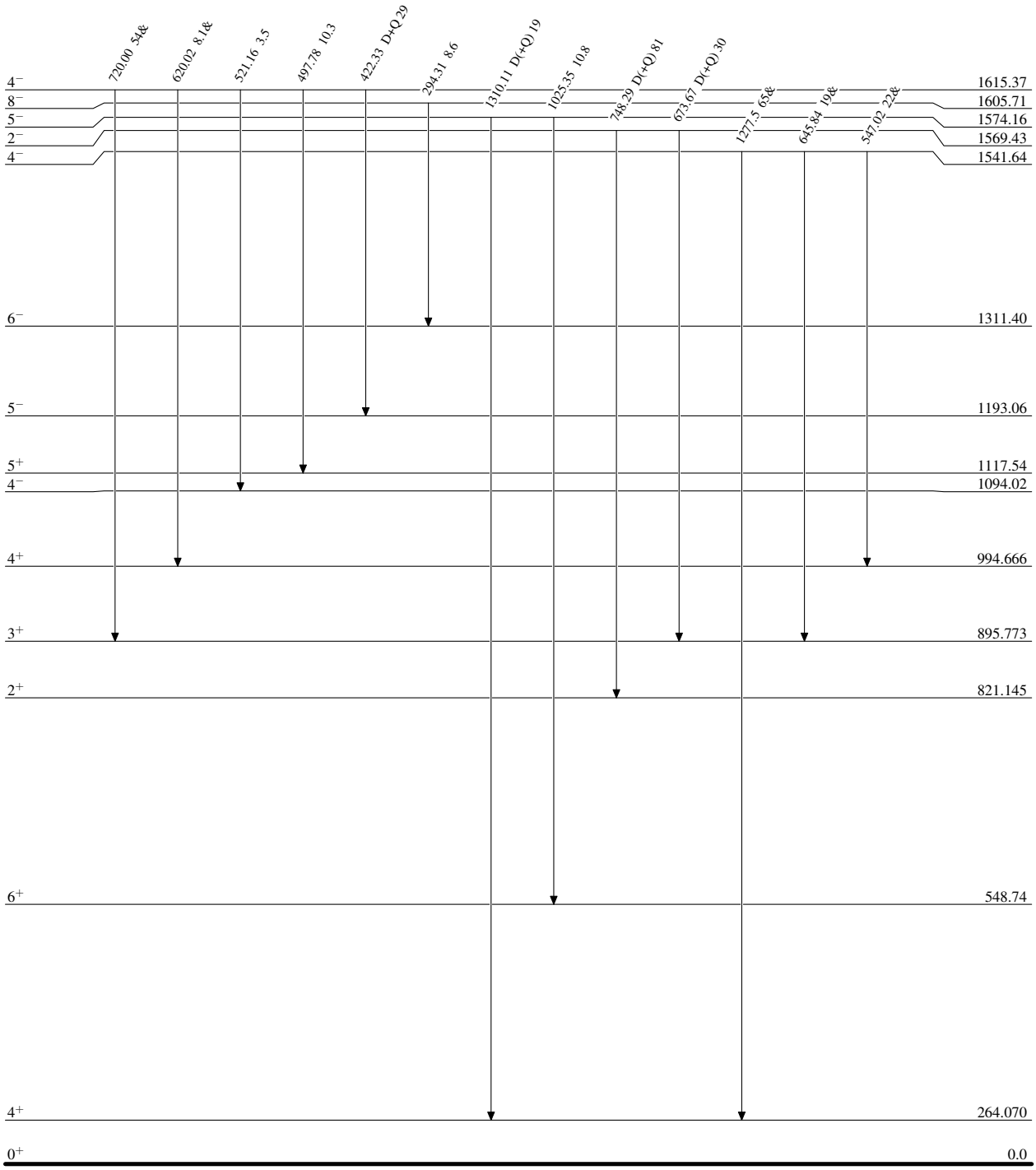
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



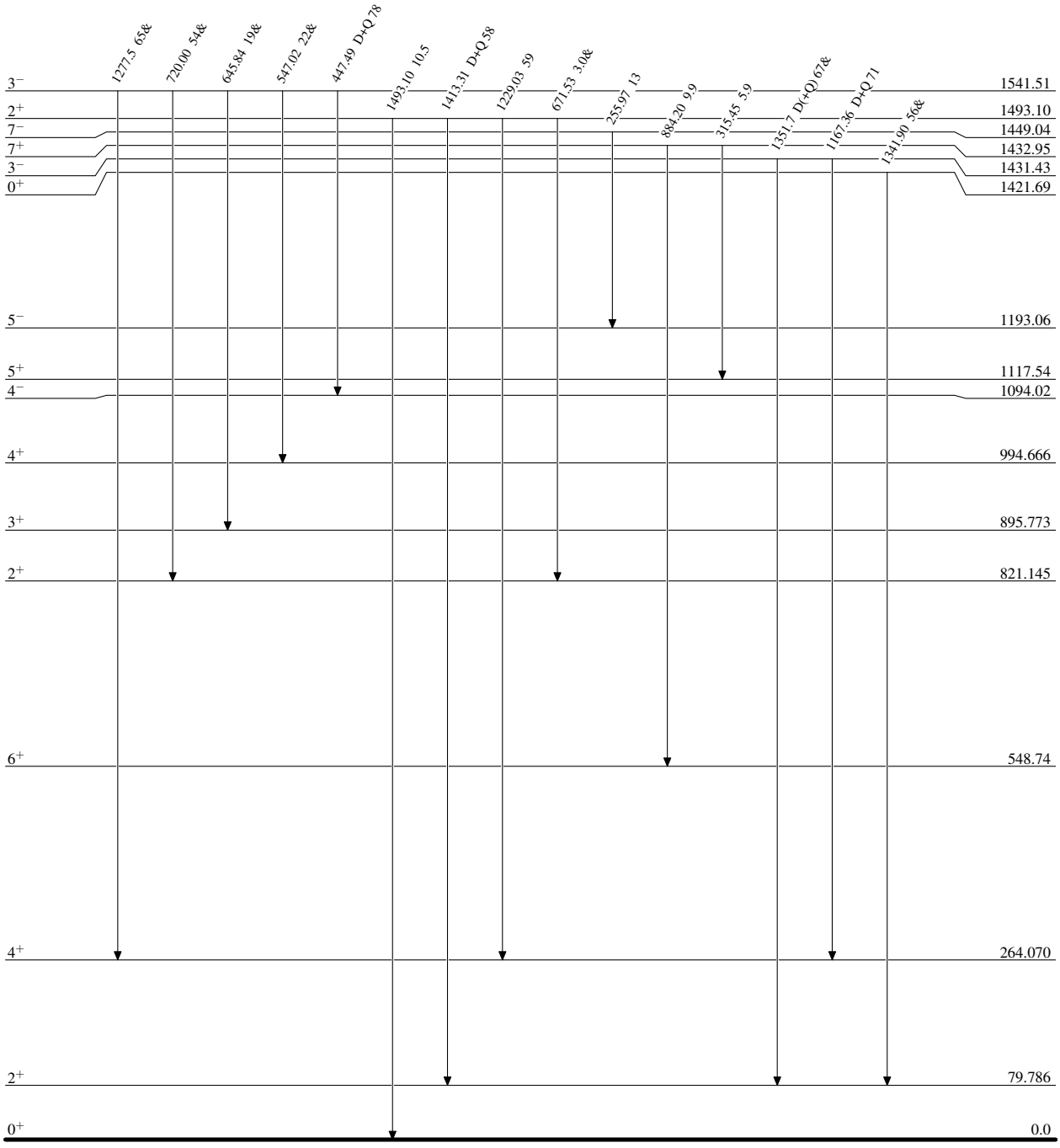
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



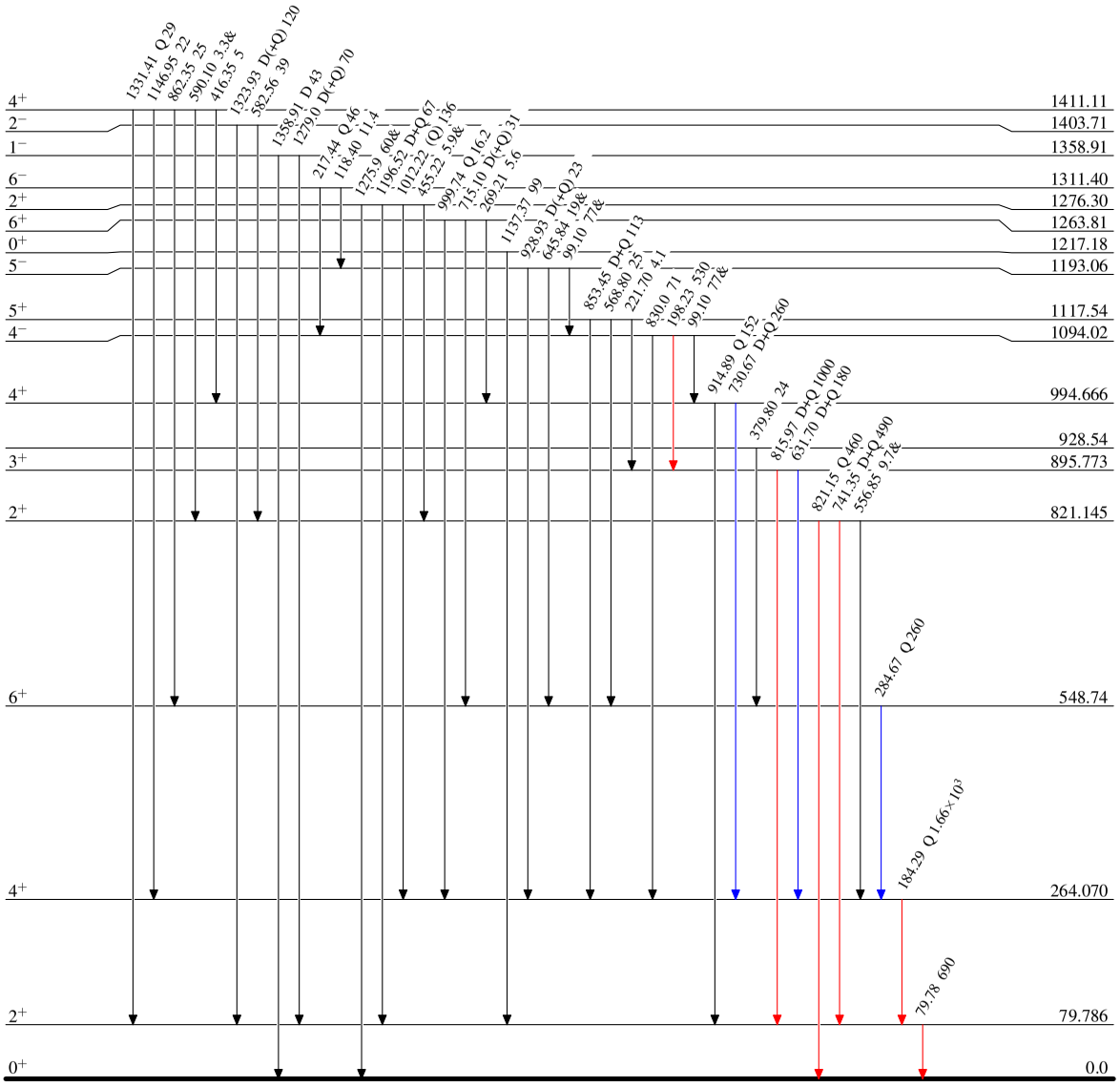
$^{168}_{68}Er_{100}$

^{168}Er(n,n′γ) 1998Be20,1998Be62

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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



$^{168}_{68}Er_{100}$