$^{114}Cd(^{48}Ca,6n\gamma)$:1 2009Pa17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich	NDS 113, 2537 (2012)	1-Mar-2012

Additional information 1.

215-MeV ^{48}Ca beam from the 88-in Cyclotron at LBNL. Two stacked thin self-supporting ^{114}Cd foils (enrichment not given) with a total thickness of 1.1 mg/cm^2. γ radiation studied using the Gammasphere array consisting of 102 HPGe detectors. Report Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$. The high-spin behavior is discussed in terms of state-of-the-art cranked Nilsson-Strutinsky calculations.

^{156}Er Levels

E(level)[†]	J^{π}[#]	E(level)[†]	J^{π}[#]
0.0[@]	0^+	5930.2[b] 8	20^+
344.3[@] 3	2^+	6057.4[g] 8	20^-
796.9[@] 5	4^+	6260.2[c] 8	21^-
1303.3[d] 11	3^-	6355.3[e] 8	21^-
1340.3[@] 5	6^+	6436.1[j] 8	21^-
1611.0[d] 6	5^-	6488.4[&] 9	22^+
1630.3[f] 11	2^-	6662.0[b] 9	22^+
1813.4[f] 7	4^-	6739.7[h] 8	22^-
1958.0[@] 6	8^+	6866.5[c] 9	23^-
2028.6[d] 6	7^-	7052.9[j] 9	23^-
2203.5[f] 6	6^-	7108.7[e] 9	23^-
2488.8[e] 6	9^-	7315.0[&] 10	24^+
2600.3[f] 6	8^-	7413.6[h] 9	24^-
2632.0[@] 6	10^+	7443.0[b] 9	24^+
2902.3[g] 7	10^-	7491.6 10	24^+
2922.6[e] 7	11^-	7599.8[c] 10	25^-
3080.4[i] 7	11^-	7648.4[j] 9	25^-
3313.6[&] 7	12^+	7978.9 10	
3383.1[g] 7	12^-	8081.3[&] 10	26^+
3431.3[e] 7	13^-	8100.3[h] 9	26^-
3438.5[@] 8	12^+	8209.9[b] 10	26^+
3672.5[i] 8	13^-	8288.3[c] 11	27^-
3835.6[&] 7	14^+	8323.8 11	
3952.9[g] 7	14^-	8392.8[j] 9	27^-
4034.1[e] 7	15^-	8847.8[a] 10	28^+
4308.9[i] 8	15^-	8866.0[h] 10	28^-
4379.4[&] 7	16^+	8901.2 11	
4592.0[g] 8	16^-	8964.1[&] 10	28^+
4710.5[e] 7	17^-	9067.2[b] 10	28^+
4781.5[b] 8	16^+	9196.7[c] 13	29^-
4999.7[i] 8	17^-	9287.2[j] 9	29^-
5005.6[&] 8	18^+	9646.9[a] 10	30^+
5296.3[g] 8	18^-	9692.4[h] 11	30^-
5337.3[b] 8	18^+	10105.1[c] 14	31^-
5494.7[e] 8	19^-	10181.2[j] 11	31^-
5673.5[c] 8	19^-	10413.6[a] 11	32^+
5715.7[&] 8	20^+	10531.2[h] 12	32^-
5786.8[i] 8	19^-	10925.5[j] 12	33^-

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$^{114}Cd(^{48}Ca,6n\gamma)$:1 2009Pa17 (continued)

^{156}Er Levels (continued)

E(level)[†]	J$^{\pi}$[#]	Comments
11095.9[a] *12*	34^{+}	
11186.1[c] *16*	33^{-}	
11332.0 *12*	34^{+}	
11452.2[h] *12*	34^{-}	
11576.5 *12*	34^{-}	
11816.0 *13*	35^{+}	
11973.6[j] *13*	(35^{-})	
12034.3[a] *13*	36^{+}	
12138.5 *12*	(35^{-})	
12422.0[h] *12*	36^{-}	
13057.1[h] *14*	38^{-}	
13201.4[a] *14*	38^{+}	
13401.3 *14*	38^{+}	
13866.0[a] *15*	40^{+}	
14033.2 *14*	40^{+}	
14420.5[a] *15*	42^{+}	Band termination point. Above this level, the states are presumed (2009Pa17) to include excitations of the ^{146}Gd core. J$^{\pi}$: State represents the full alignment of the ten valence nucleons outside the ^{146}Gd core. Configuration is $(\pi\ h^4_{11/2}\ _{16+})\otimes[(i^2_{13/2}\ _{12+})(\nu\ f_{7/2},h_{9/2})^4_{14+})]_{26+}$.
15477.6[‡] *16*	43$^{(-)}$	
15762.5[‡] *18*	44^{+}	
15812.5[‡] *18*	44^{+}	
15984.6[‡] *19*		
16041.5[‡] *18*	44^{+}	
16373.5[‡] *20*		
16581.5[‡] *16*	44^{+}	

[†] From a least-squares fit by the evaluator to the listed Eγ values.
[‡] Level is expected to involve excitations from the ^{146}Gd core.
[#] Values as reported by 2009Pa17 and based on proposed band structure and γ-decay properties, measured angular distributions consistency of deduced B(M1)/B(E2) and B(E1)/B(E2) ratios.
[@] Band(A): K$^{\pi}$=0^{+} g.s. band. Band crossed by an aligned ($i_{13/2}$) two-quasineutron (AB) éxcitation near hω=0.30 MeV (above J=10).
[&] Band(B): Aligned $i_{13/2}$ two-quasineutron (AB) band.
[a] Band(C): Band based on a 28^{+} level. Proposed extension of Bands(B) and (D), both of which experience band crossings near $\hbar\omega$=0.39 MeV (J$^{\pi}$≈28^{+}). Above $\hbar\omega$≈0.4 MeV, band seems noncollective in nature. Possible weakly deformed oblate triaxial terminating band (2009Pa17).
[b] Band(D): Band based on a 16^{+} level. Band possibly results from the coupling of the aligned $i_{13/2}$ two-quasineutron (AB) band and the γ-vibrational band. Note that a subsequent high-spin study (2011Re06) identifies 12^{+} and 14^{+} levels lying below the 16^{+} level which they associate with this band.
[c] Band(E): Odd-spin negative parity band based on 19^{-}. Band associated with Bands(F) and (f).
[d] Band(F): Odd-spin negative-parity band. Probable octupole-based excitation. Undergoes a backbend near hω=0.2 MeV (J>7).
[e] Band(f): Probable -π prolate two-neutron quasiparticle band. Associated with the band crossing of Band(G).
[f] Band(G): Even-spin negative-parity band. Probable octupole-based excitation. Undergoes a backbend near hω=0.2 MeV (J>8).
[g] Band(H): Probable -π prolate two-neutron quasiparticle band. Associated with the band crossing of Band(G).
[h] Band(I): Probable extension of Band(G).
[i] Band(J): Odd-spin negative-parity band based on 11^{-}.
[j] Band(j): Band associated with Band(I).

^{114}Cd(^{48}Ca,6nγ):1 2009Pa17 (continued)

γ(^{156}Er)

Where A_4=0 is listed, this indicates that it was set to zero in the angular-distribution fit.

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	Comments
118.3 6	<1	3431.3	13⁻	3313.6	12⁺	E1	A_2=−0.3 2; A_4=0
ˣ163 1	<1					(D)	A_2=−0.1 1; A_4=0
176.1 6	<1	6436.1	21⁻	6260.2	21⁻		
186.0 6	<1	7052.9	23⁻	6866.5	23⁻		
ˣ191 1	<1					(D)	A_2=−0.08 4; A_4=0
202.5 6	<1	6260.2	21⁻	6057.4	20⁻		
218.3 6	2.2 2	12034.3	36⁺	11816.0	35⁺	M1+E2	A_2=−0.21 3; A_4=+0.03 4
234.6 6	<1	7648.4	25⁻	7413.6	24⁻		
ˣ243 1	<1					(M1+E2)	A_2=−0.6 1; A_4=0.0 1
ˣ266 1	<1					(E2)	A_2=+0.20 5; A_4=−0.06 6
270.4 6	2.9 3	2902.3	10⁻	2632.0	10⁺	E1	A_2=+0.3 1; A_4=0.0 1 Mult.: ΔJ=0 transition.
ˣ282 1	<1					(E2)	A_2=+0.16 8; A_4=+0.05 11
283.4 6	<1	12422.0	36⁻	12138.5	(35⁻)		
289.8 6	<1	3672.5	13⁻	3383.1	12⁻		
290.4 3	18 1	2922.6	11⁻	2632.0	10⁺	E1	A_2=−0.10 3; A_4=+0.03 4
292.4 6	<1	8392.8	27⁻	8100.3	26⁻		
301.8 6	5.2 5	2902.3	10⁻	2600.3	8⁻	E2	A_2=+0.15 6; A_4=−0.08 8
306.7 6	<1	6662.0	22⁺	6355.3	21⁻		
344.3 3	100	344.3	2⁺	0.0	0⁺	E2	A_2=+0.16 3; A_4=+0.02 4
345 1	<1	8323.8		7978.9			
356.3 6	<1	4308.9	15⁻	3952.9	14⁻		
359.5 6	<1	9646.9	30⁺	9287.2	29⁻	E1	A_2=−0.05 8; A_4=0
369.8 6	<1	7108.7	23⁻	6739.7	22⁻		
376.6 6	<1	5673.5	19⁻	5296.3	18⁻		
378.5 6	<1	6436.1	21⁻	6057.4	20⁻		
384.5 6	<1	6739.7	22⁻	6355.3	21⁻		
387.4 6	<1	14420.5	42⁺	14033.2	40⁺		
390.0 6	<1	2203.5	6⁻	1813.4	4⁻	E2	A_2=+0.46 5; A_4=−0.02 6
396.7 6	2.1 2	2600.3	8⁻	2203.5	6⁻		
397.5 6	1.1 1	3835.6	14⁺	3438.5	12⁺		
407.8 6	<1	4999.7	17⁻	4592.0	16⁻		
413.7 6	7.0 7	2902.3	10⁻	2488.8	9⁻		
417.3 6	2.0 2	2028.6	7⁻	1611.0	5⁻		
421.5 6	<1	9287.2	29⁻	8866.0	28⁻		
433.6 3	31 2	2922.6	11⁻	2488.8	9⁻	E2	A_2=+0.29 3; A_4=+0.01 4
435.1 6	<1	5930.2	20⁺	5494.7	19⁻		
447.9 6	2.2 2	3080.4	11⁻	2632.0	10⁺		
452.6 3	82 4	796.9	4⁺	344.3	2⁺	E2	A_2=+0.25 3; A_4=0.02 4
460.8 6	7.2 7	2488.8	9⁻	2028.6	7⁻	E2	A_2=+0.5 1; A_4=0.0 1
460.9 6	1.6 2	3383.1	12⁻	2922.6	11⁻		
479.6 6	<1	6739.7	22⁻	6260.2	21⁻		
480.9 6	9.7 10	3383.1	12⁻	2902.3	10⁻	E2	A_2=+0.38 6; A_4=0
487.1 6	<1	7978.9		7491.6	24⁺		
488.8 6	<1	10181.2	31⁻	9692.4	30⁻		
490.8 6	<1	5786.8	19⁻	5296.3	18⁻		
507 1	<1	15984.6		15477.6	43⁽⁻⁾		
508.4 3	42 2	3431.3	13⁻	2922.6	11⁻	E2	A_2=+0.31 3; A_4=0
522.0 6	<1	3952.9	14⁻	3431.3	13⁻		
522.2 3	15 1	3835.6	14⁺	3313.6	12⁺	E2	A_2=+0.43 3; A_4=+0.01 4
530.6 3	31 2	2488.8	9⁻	1958.0	8⁺	E1	A_2=−0.12 3; A_4=+0.06 4
536.1 6	<1	7978.9		7443.0	24⁺		

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^{114}Cd(^{48}Ca,6nγ):1 2009Pa17 (continued)

γ(^{156}Er) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
539.2 *6*	<1	7648.4	25⁻	7108.7	23⁻		
543.6 *3*	69 *4*	1340.3	6⁺	796.9	4⁺	E2	A_2=+0.36 *3*; A_4=−0.02 *4*
543.8 *3*	14 *1*	4379.4	16⁺	3835.6	14⁺	[E2]	
547.2 *6*	<1	7413.6	24⁻	6866.5	23⁻		
554.4 *6*	2.1 *2*	14420.5	42⁺	13866.0	40⁺	E2	A_2=+0.46 *3*; A_4=0 A_2,A_4 values for the 554.4,556.0 doublet.
556.0 *6*	8.6 *9*	5337.3	18⁺	4781.5	16⁺	E2	A_2=+0.46 *3*; A_4=0 A_2,A_4 values for the 554.4,556.0 doublet.
557.3 *6*	<1	4592.0	16⁻	4034.1	15⁻		
562.9 *6*	<1	6057.4	20⁻	5494.7	19⁻		
569.8 *3*	12 *1*	3952.9	14⁻	3383.1	12⁻	E2	A_2=+0.36 *3*; A_4=0
572.0 *6*	<1	2600.3	8⁻	2028.6	7⁻		
577.5 *6*	<1	8901.2		8323.8			
579.8 *6*	1.1 *1*	9646.9	30⁺	9067.2	28⁺		
585.9 *6*	<1	5296.3	18⁻	4710.5	17⁻		
587.1 *6*	<1	6260.2	21⁻	5673.5	19⁻		
589.9 *6*	<1	8081.3	26⁺	7491.6	24⁺		
591.6[@] *6*	2.8[@] *3*	3080.4	11⁻	2488.8	9⁻		
591.6[@] *6*	2.8[@] *3*	3672.5	13⁻	3080.4	11⁻		
592.1 *6*	<1	2203.5	6⁻	1611.0	5⁻		
593.0 *6*	8.4 *8*	5930.2	20⁺	5337.3	18⁺		
595.8 *6*	5.0 *5*	7648.4	25⁻	7052.9	23⁻		
602.5 *3*	39 *2*	4034.1	15⁻	3431.3	13⁻	E2	A_2=+0.3 *1*; A_4=0
605.9 *6*	2.7 *3*	6866.5	23⁻	6260.2	21⁻		
611 *1*	<1	16373.5		15762.5	44⁺		
617.4 *6*	5.2 *5*	7052.9	23⁻	6436.1	21⁻		
617.5 *3*	53 *3*	1958.0	8⁺	1340.3	6⁺	E2	A_2=+0.37 *3*; A_4=0.00 *4*
626.3 *3*	14 *1*	5005.6	18⁺	4379.4	16⁺	E2	A_2=+0.41 *3*; A_4=−0.03 *4*
626.9 *6*	1.7 *2*	5337.3	18⁺	4710.5	17⁻		
632.0 *6*	<1	14033.2	40⁺	13401.3	38⁺		
635.1 *6*	<1	13057.1	38⁻	12422.0	36⁻		
636.2 *6*	3.3 *3*	4308.9	15⁻	3672.5	13⁻		
637.4 *6*	<1	8847.8	28⁺	8209.9	26⁺		
639.4 *6*	8.9 *9*	4592.0	16⁻	3952.9	14⁻	E2	A_2=+0.35 *6*; A_4=0
641.7 *6*	<1	2600.3	8⁻	1958.0	8⁺		
649.8 *6*	3.5 *4*	6436.1	21⁻	5786.8	19⁻		
651.1 *6*	<1	11576.5	34⁻	10925.5	33⁻		
664.4 *6*	3.4 *3*	13866.0	40⁺	13201.4	38⁺	E2	A_2=+0.40 *3*; A_4=+0.03 *4*
673.6 *6*	<1	5673.5	19⁻	4999.7	17⁻		
673.9 *6*	6.1 *6*	7413.6	24⁻	6739.7	22⁻		
674.1 *3*	47 *2*	2632.0	10⁺	1958.0	8⁺	E2	A_2=+0.36 *3*; A_4=−0.01 *4*
676.4 *3*	22 *1*	4710.5	17⁻	4034.1	15⁻		
681.6 *6*	<1	6355.3	21⁻	5673.5	19⁻		
681.8 *3*	20 *1*	3313.6	12⁺	2632.0	10⁺	E2	A_2=+0.43 *3*; A_4=−0.02 *4*
682.4 *6*	3.3 *3*	11095.9	34⁺	10413.6	32⁺		
682.9 *6*	3.0 *3*	6739.7	22⁻	6057.4	20⁻		
683.0 *6*	<1	9646.9	30⁺	8964.1	28⁺		
686.8 *6*	5.9 *6*	8100.3	26⁻	7413.6	24⁻		
688.5 *6*	1.7 *2*	8288.3	27⁻	7599.8	25⁻		
688.6 *3*	12 *1*	2028.6	7⁻	1340.3	6⁺		
691.0 *6*	2.7 *3*	4999.7	17⁻	4308.9	15⁻		
702.2 *6*	<1	12034.3	36⁺	11332.0	34⁺		
703.7 *6*	6.8 *7*	5296.3	18⁻	4592.0	16⁻		
710.2 *3*	13 *1*	5715.7	20⁺	5005.6	18⁺	E2	A_2=+0.17 *3*; A_4=−0.09 *5*
720.1 *6*	3.2 *3*	11816.0	35⁺	11095.9	34⁺	M1+E2	A_2=+0.12 *3*; A_4=+0.04 *4*

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^{114}Cd(^{48}Ca,6nγ):1 2009Pa17 (continued)

γ(^{156}Er) (continued)

Eγ[†]	Iγ[‡]	Ei(level)	J^π_i	Ef	J^π_f	Mult.[#]	Comments
731.7 6	8.8 9	6662.0	22+	5930.2	20+	E2	A_2=+0.36 4; A_4=0
733.3 6	2.4 2	7599.8	25−	6866.5	23−		
744.2[@] 6	7.8[@] 8	8392.8	27−	7648.4	25−	E2	A_2=+0.33 4; A_4=+0.01 5 Note: γ is doubly placed.
744.2[@] 6	7.8[@] 8	10925.5	33−	10181.2	31−	E2	A_2=+0.33 4; A_4=+0.01 5 Note: γ is doubly placed.
745.7 6	<1	9646.9	30+	8901.2			
747.0 6	5.0 5	4781.5	16+	4034.1	15−		
752.0 6	<1	7108.7	23−	6355.3	21−		
760.8 6	4.2 4	6057.4	20−	5296.3	18−		
765.5 6	2.1 3	6260.2	21−	5494.7	19−		
766.0 6	3.0 3	8866.0	28−	8100.3	26−		
766.5 6	5.0 5	8209.9	26+	7443.0	24+		
766.7[&] 6	4.5[&] 5	8081.3	26+	7315.0	24+	E2	A_2=+0.40 3; A_4=−0.03 4
766.7[&] 6	2.8[&] 3	8847.8	28+	8081.3	26+		
766.7[&] 6	3.4[&] 3	10413.6	32+	9646.9	30+		
772.9 6	8.9 9	6488.4	22+	5715.7	20+	E2	A_2=+0.43 3; A_4=−0.05 4
780.9 6	5.8 6	7443.0	24+	6662.0	22+		
783.9 3	16 1	5494.7	19−	4710.5	17−		
787.5 6	3.3 3	5786.8	19−	4999.7	17−		
793.0[&] 6	<1[&]	7052.9	23−	6260.2	21−		
793.0[&] 6	1.1[&] 1	8392.8	27−	7599.8	25−		
798.9 6	2.2 2	9646.9	30+	8847.8	28+	E2	A_2=+0.49 4; A_4=0
806.8 6	1.4 1	3438.5	12+	2632.0	10+		
813.5 6	<1	1611.0	5−	796.9	4+		
826.4 6	4.4 4	9692.4	30−	8866.0	28−		
826.9 6	5.6 6	7315.0	24+	6488.4	22+	E2	A_2=+0.48 3; A_4=0
831.9 6	<1	14033.2	40+	13201.4	38+		
838.8 6	2.1 2	10531.2	32−	9692.4	30−		
845.7 6	<1	12422.0	36−	11576.5	34−		
857.4 6	2.2 2	9067.2	28+	8209.9	26+		
859.7 6	3.3 3	6355.3	21−	5494.7	19−		
863.5 6	2.2 2	2203.5	6−	1340.3	6+		
882.9 6	3.3 3	8964.1	28+	8081.3	26+	E2	A_2=+0.39 3; A_4=0
894.0[@] 6	7.2[@] 7	9287.2	29−	8392.8	27−		
894.0[@] 6	7.2[@] 7	10181.2	31−	9287.2	29−		
908.4[@] 6	<1[@]	9196.7	29−	8288.3	27−		
908.4[@] 6	<1[@]	10105.1	31−	9196.7	29−		
918.4 6	<1	11332.0	34+	10413.6	32+		
920.9 6	<1	11452.2	34−	10531.2	32−		
924.8 6	<1	5930.2	20+	5005.6	18+		
938.4 6	3.4 3	12034.3	36+	11095.9	34+	E2	A_2=+0.40 4; A_4=+0.06 5
946.4 6	<1	4781.5	16+	3835.6	14+		
957.9 6	<1	5337.3	18+	4379.4	16+		
959 1	<1	1303.3	3−	344.3	2+		Eγ: Value from the authors′ level scheme. γ not listed in their table of γ-ray properties.
964.0 6	1.1 1	5673.5	19−	4710.5	17−		
965.3 6	<1	4999.7	17−	4034.1	15−		
969.8 6	<1	12422.0	36−	11452.2	34−		
1003.1 6	1.1 1	7491.6	24+	6488.4	22+		
1016.4 6	<1	1813.4	4−	796.9	4+		
1045.5 6	<1	11576.5	34−	10531.2	32−		
1048.1 6	<1	11973.6	(35−)	10925.5	33−		

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^{114}Cd(^{48}Ca,6nγ):1 2009Pa17 (continued)

γ(^{156}Er) (continued)

E_γ †	I_γ ‡	E_i(level)	J^π_i	E_f	J^π_f	Mult.#	Comments
1057.1 *6*	<1	15477.6	$43^{(-)}$	14420.5	42^+	(E1)	A_2=−0.34 *5*; A_4=+0.09 *7*
1076.2 *6*	<1	5786.8	19^-	4710.5	17^-		
1081.0 *6*	<1	11186.1	33^-	10105.1	31^-		
1167.1 *6*	3.3 *3*	13201.4	38^+	12034.3	36^+	E2	A_2=+0.38 *3*; A_4=−0.02 *4*
1212.9 *6*	<1	12138.5	(35^-)	10925.5	33^-		
1286 *1*	<1	1630.3	2^-	344.3	2^+		E_γ: Value from the authors′ level scheme. γ not listed in their table of γ-ray properties.
1342 *1*	<1	15762.5	44^+	14420.5	42^+	E2	A_2=+0.21 *6*; A_4=+0.07 *8*
1367.0 *6*	<1	13401.3	38^+	12034.3	36^+	E2	A_2=+0.28 *9*; A_4=+0.03 *11*
1392 *1*	<1	15812.5	44^+	14420.5	42^+	E2	A_2=+0.5 *2*; A_4=0
1621 *1*	<1	16041.5	44^+	14420.5	42^+	E2	A_2=+0.3 *1*; A_4=0
2161 *1*	<1	16581.5	44^+	14420.5	42^+	E2	A_2=+0.4 *1*; A_4=0

† The listed uncertainties are derived from a general statement by the authors and are as follows: for Iγ>10, ΔEγ=0.3 keV; for weaker transitions, ΔEγ=0.6 keV. For Eγ values quoted to only the nearest 1 keV, ΔEγ=1.0 keV.

‡ The listed uncertainties are estimated (2009Pa17) to be less than 5% for strong transitions (Iγ>10%) and less than 10% for the weaker transitions. For those γ′s for which 2009Pa17 list no Iγ values, the values are <1.

From γ(θ) values, including considerations from other studies, where the electric or magnetic character was determined explicitly.

@ Multiply placed with undivided intensity.

& Multiply placed with intensity suitably divided.

x γ ray not placed in level scheme.

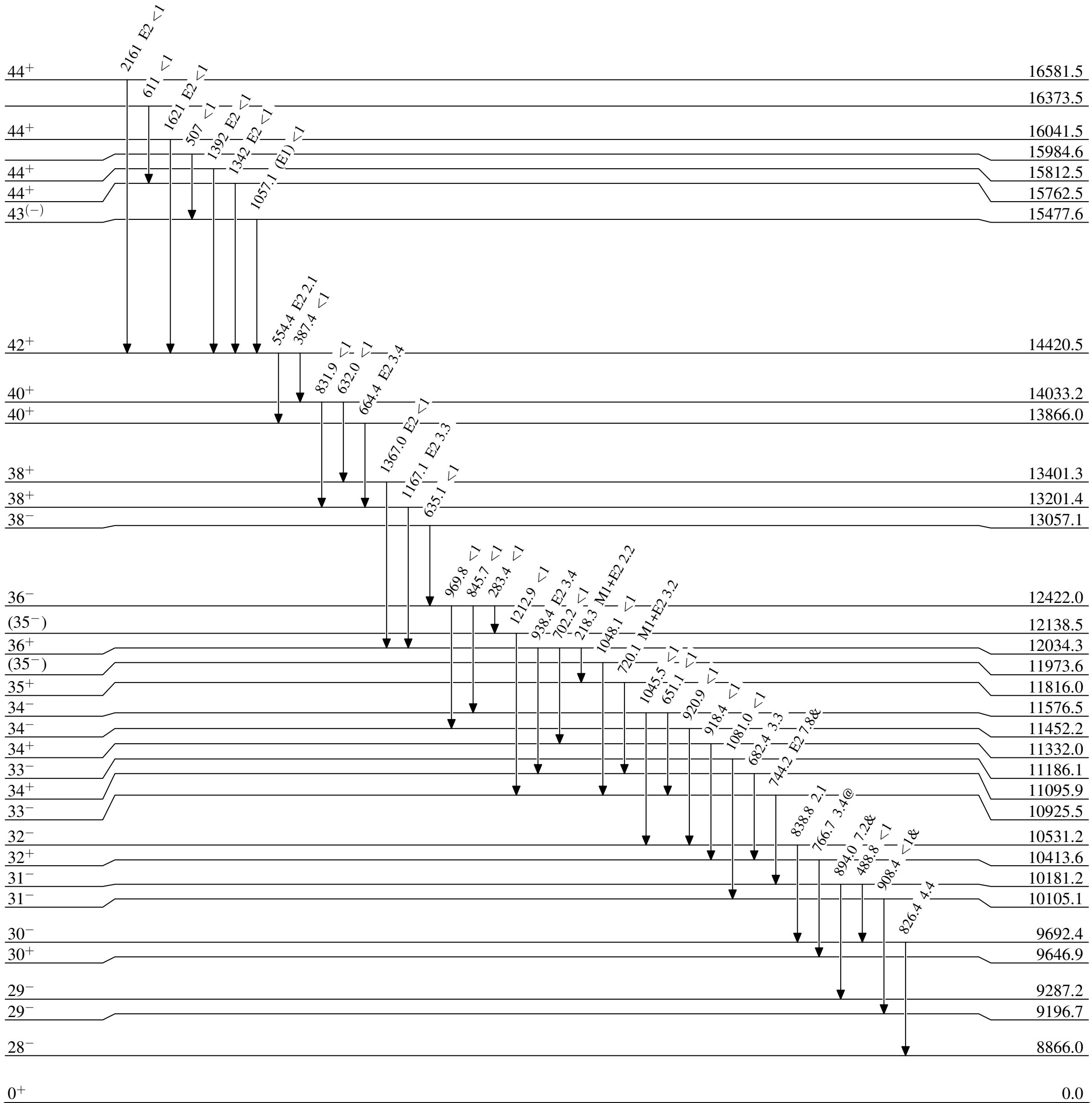
^{114}Cd(^{48}Ca,6nγ):1 2009Pa17

Level Scheme

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

Legend

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



$^{156}_{68}Er_{88}$

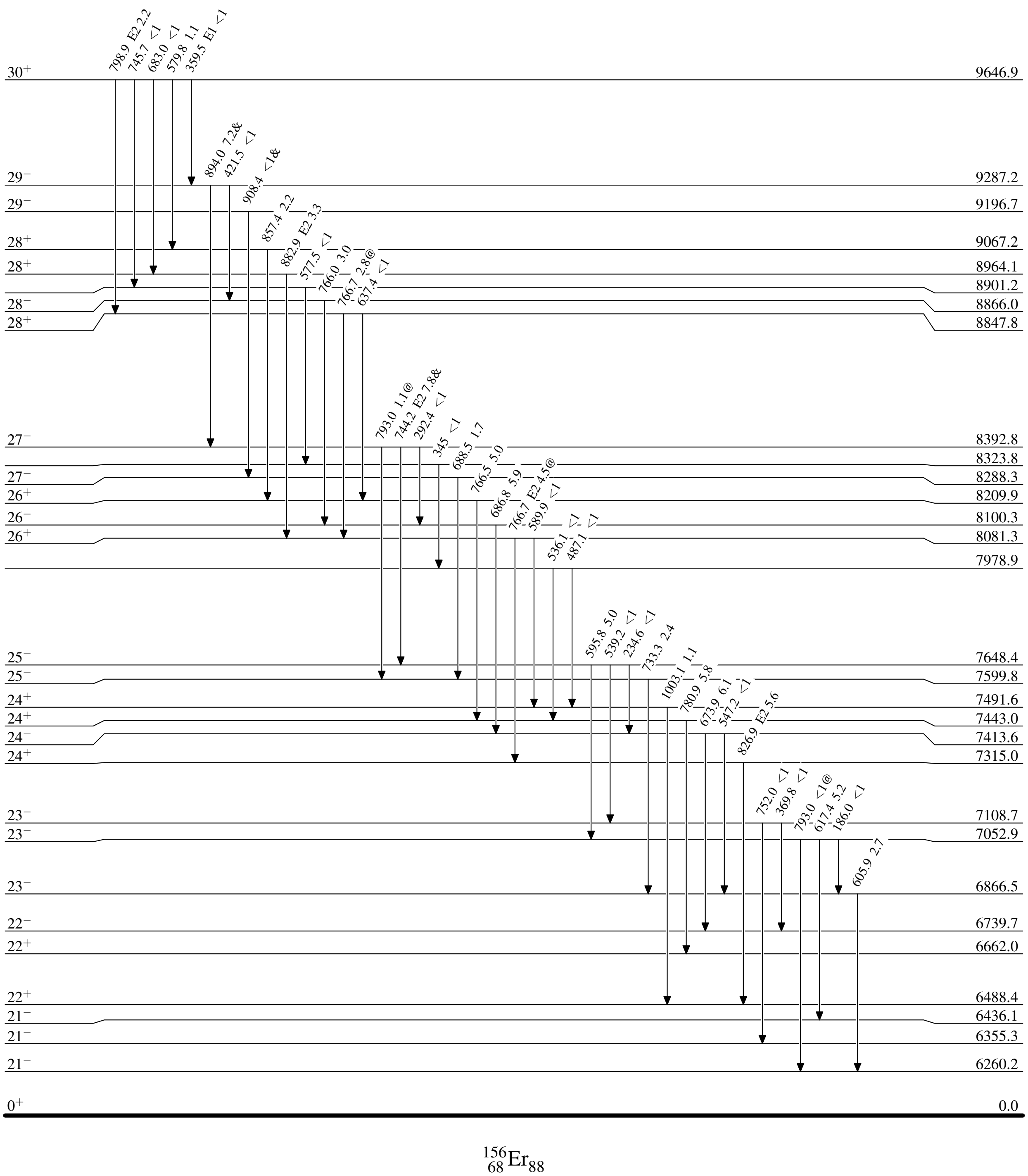
^{114}Cd(^{48}Ca,6nγ):1 2009Pa17

Level Scheme (continued)

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

Legend

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



^{114}Cd(^{48}Ca,6nγ):1 2009Pa17

Level Scheme (continued)

Intensities: Relative I_γ

& Multiply placed: undivided intensity given

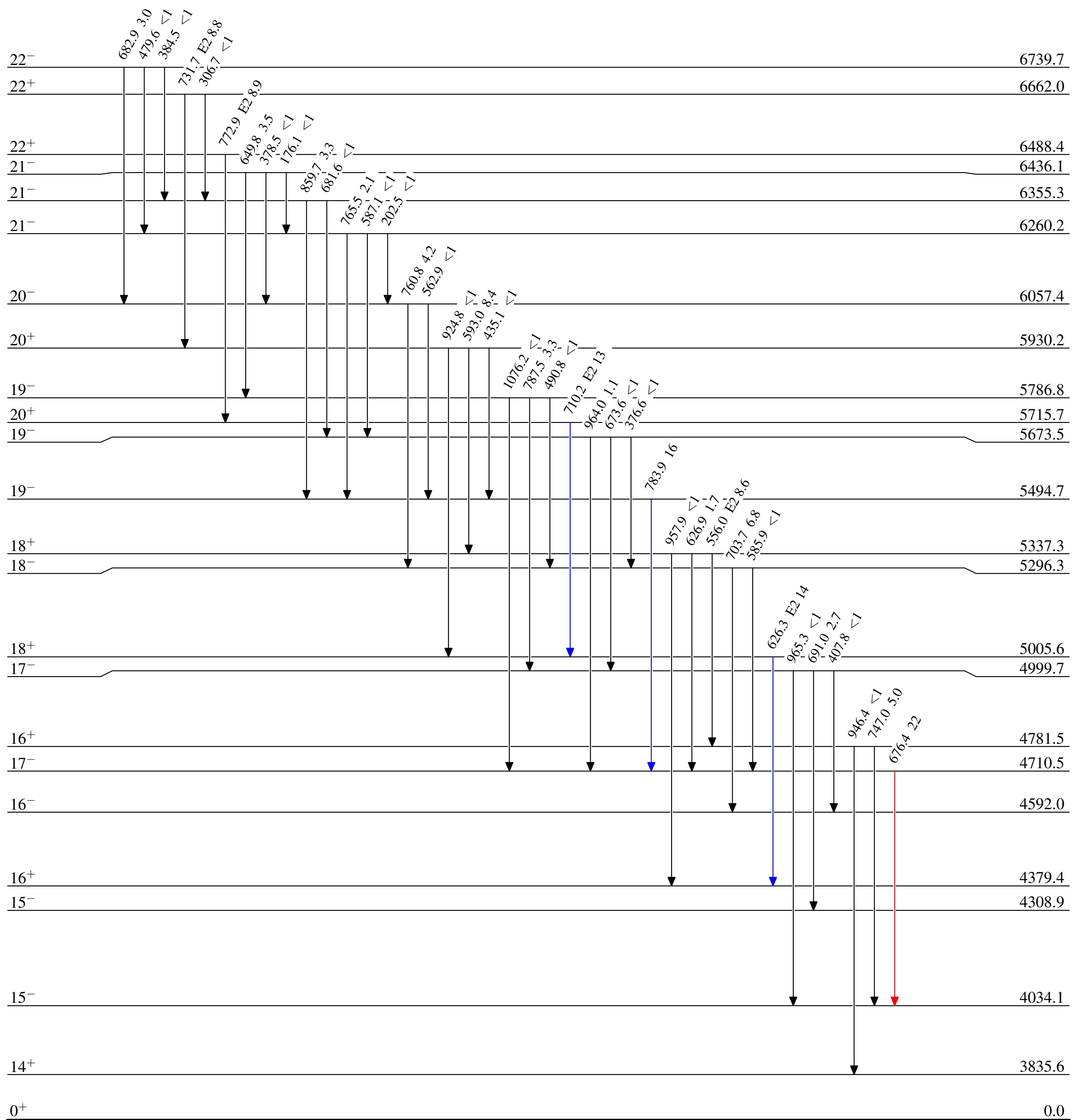
@ Multiply placed: intensity suitably divided

Legend

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

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

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



$^{156}_{68}Er_{88}$

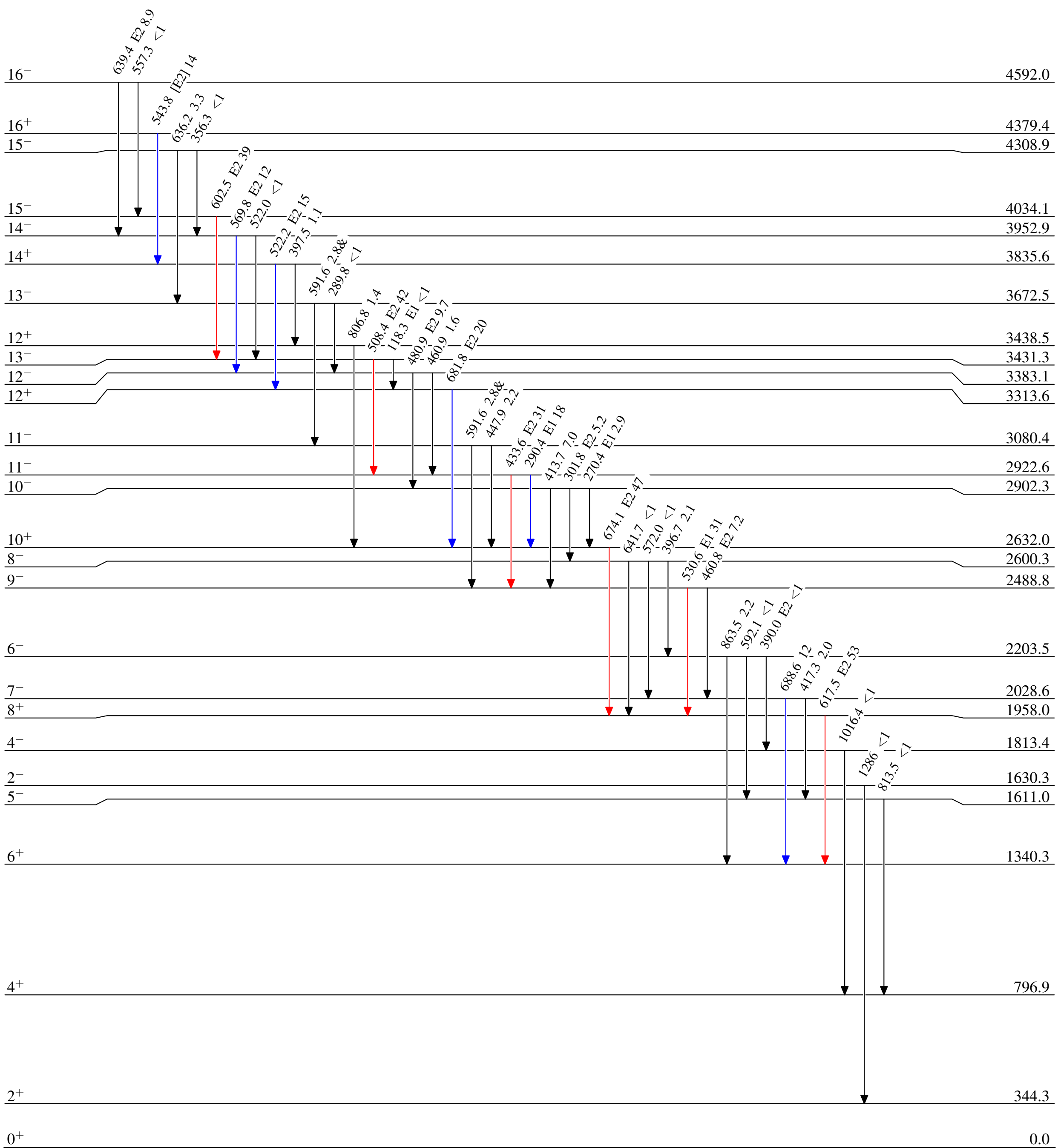
^{114}Cd(^{48}Ca,6nγ):1 2009Pa17

Level Scheme (continued)

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

Legend

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



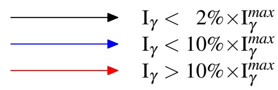
$^{156}_{68}Er_{88}$

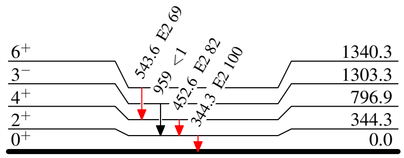
^{114}Cd(^{48}Ca,6nγ):1 2009Pa17

Level Scheme (continued)

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

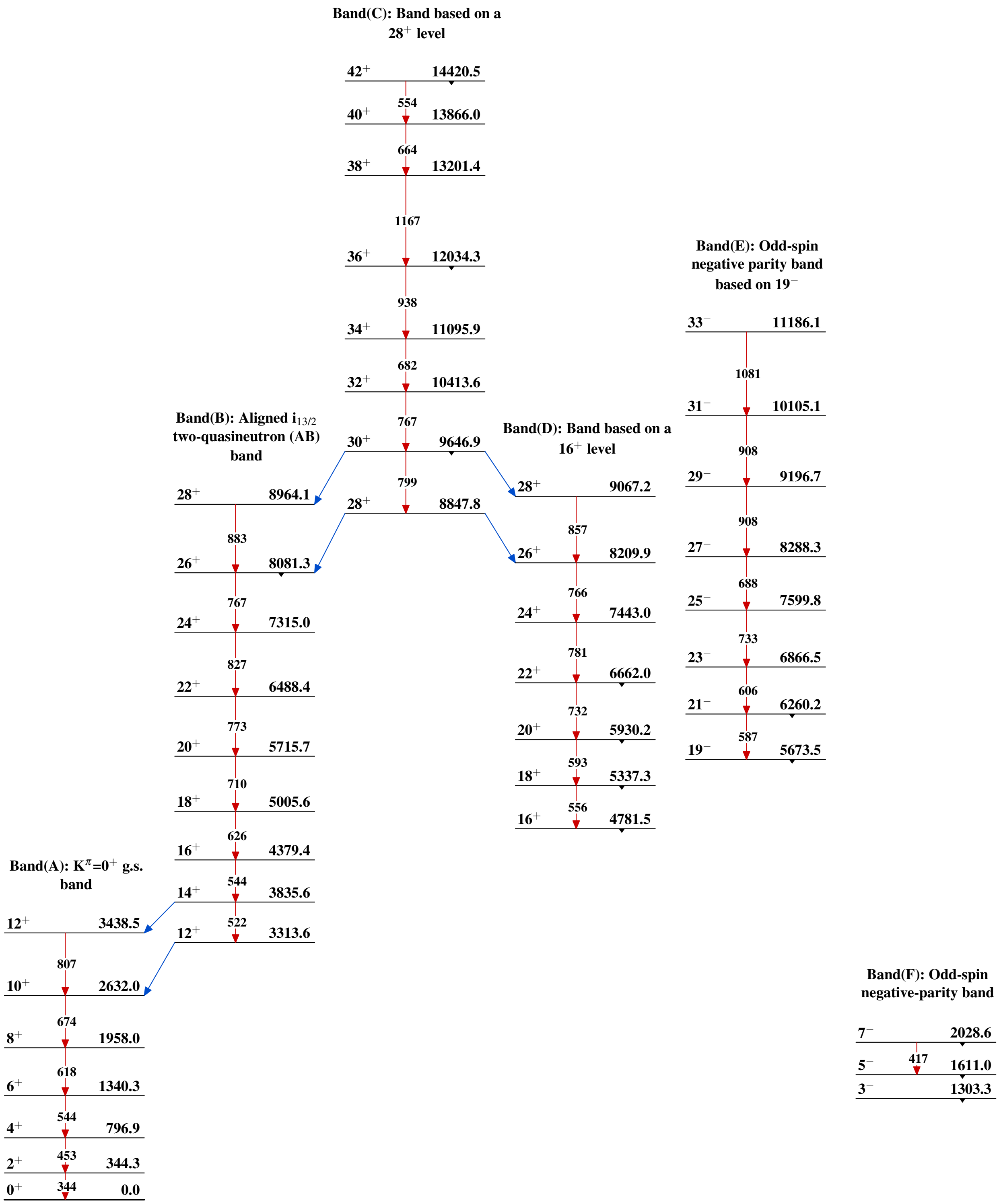
Legend





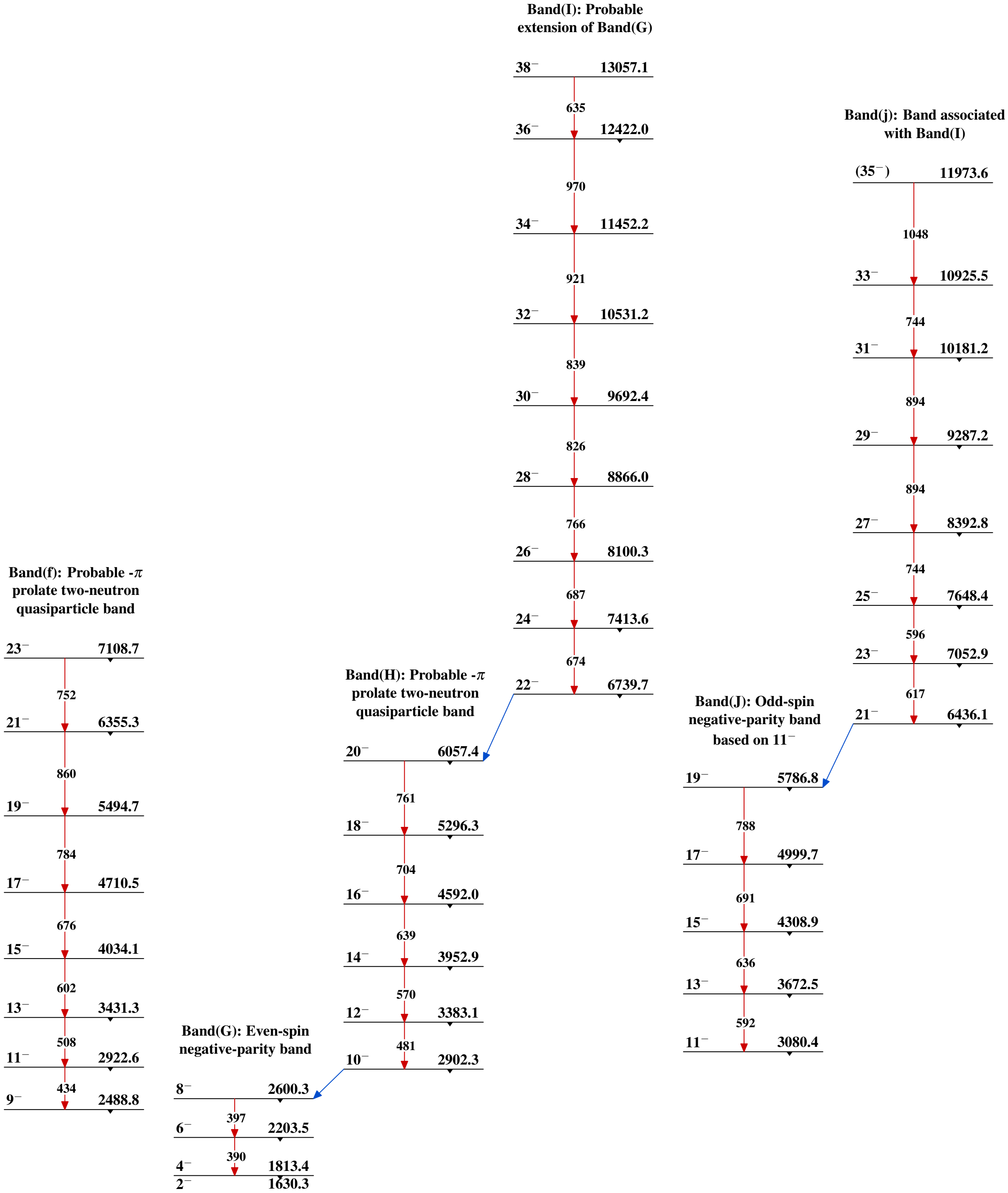
$^{156}_{68}Er_{88}$

$^{114}Cd(^{48}Ca,6n\gamma)$:1 2009Pa17



$^{156}_{68}Er_{88}$

$^{114}Cd(^{48}Ca,6n\gamma)$:1 2009Pa17 (continued)



$^{156}_{68}Er_{88}$