Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev	NDS 124, 157 (2015)	1-Aug-2014

Q(β^-)=−2585 *4*; S(n)=9394.0 *5*; S(p)=9648.5 *14*; Q(α)=−3476.4 *12* 2012Wa38

^{112}Cd Levels

Cross Reference (XREF) Flags

A	^{112}Ag β^- decay (3.130 h)	I	^{112}Cd(γ,pol γ')	Q	^{110}Cd(t,p)
B	^{112}In ε decay (14.88 min)	J	^{112}Cd(γ,γ')	R	^{113}Cd(pol d,t)
C	Coulomb excitation	K	^{111}Cd(d,pγ)	S	^{112}Cd(α,α')
D	^{110}Pd(α,2nγ)	L	^{112}Cd(pol d,d′)	T	^{111}Cd(d,p)
E	^{112}Cd(n,n′γ)	M	^{112}Cd(d,d′)	U	^{112}Cd(pol p,p′)
F	^{112}Cd(p,p′γ)	N	^{112}Cd(π^-,X)	V	^{112}Cd(p,p′)
G	^{111}Cd(n,γ) E=th:primary	O	^{112}Cd(e,e′)	W	^{114}Cd(p,t)
H	^{111}Cd(n,γ) E=th:secondary	P	^{110}Pd(^{3}He,n)		

E(level)[†]	J$^\pi$	T$_{1/2}$[‡]	XREF	Comments
0.0[#]	0$^+$	stable	ABCDEFGHIJKLMNOPQRSTUVW	XREF: R(618)S(616)T(619).
617.518[#] *3*	2$^+$	6.46 ps *4*	ABCDEFGHIJKLMNO QRSTUVW	J$^\pi$: L(p,p′)=2; 617.52γ E2 to 0$^+$. T$_{1/2}$: from B(E2)↑(617.52γ)=0.486 *3*; weighted average of 0.486 *5* (1985Si01), 0.524 *50* from ^{112}Cd(e,e′) in (1977Gi13), 0.484 *4* (1976Es02), 0.478 *33* (1970St17), 0.524 *21* (1969Mi07), 0.514 *60* (1965Mc05) and 0.546 *39* (1962Ec03). Q: −0.38 *3*; weighted average of −0.37 *4* (1977Gi13), −0.39 *8* (1976Es02), −0.42 *8* (1976Es01), −0.38 *11* (1977Ma41). Others: −0.40 *+13−20* (1971Ha47), −0.15 *7* (1970St17). μ: +0.71 *3*; weighted average of +0.71 *5* (conventional kinematics in 2011Ch33), +0.73 *4* (inverse kinematics in 2011Ch33), 0.60 *12* (1970St17), 0.72 *22* via IMPAC (1974Hu01), 0.74 *22* (1978BrZX) and 0.64 *16* (1980Br01) from $\gamma\gamma(\theta$,H,t). β_2=0.173 *11* (1968Ma34), 0.20 *1* (1968St18) and 0.19 (1967BaZV).
1224.341[@] *7*	0$^+$	4.2 ps *11*	ABCDEFGH JKLM PQ TUV	XREF: J(1223.2)P(1250)Q(1223)T(1228). J$^\pi$: L(p,p′)=0; 606.84γ E2 to 2$^+$; 1223.9ce E0 to 0$^+$. T$_{1/2}$: from B(E2)(W.u.)=51 *13* in 1980Ju05.
1312.390[&] *8*	2$^+$	1.9 ps *3*	ABCDEFGH JKLM QRS UVW	XREF: R(1314)S(1310)W(1313). J$^\pi$: 694.87γ E2+M1 to 2$^+$; 1312.41γ E2 to 0$^+$; L(p,p′)=2; T$_{1/2}$: from B(E2)(↓)=0.0021 *3* in Coulomb excitation (1969Mi07). Other: 1.5 ps *+22−5* from DSAM in ^{112}Cd(n,n′γ) (2007Ga22).
1415.480[#] *25*	4$^+$	0.87 ps *10*	A CDEF H KLM QRS UV	XREF: M(1416)Q(1414)R(1417)S(1414)V(1416). J$^\pi$: 798.04γ E2 to 2$^+$; L(p,p′)=4; band assignment. T$_{1/2}$: from B(E2)↑=0.36 *4*, weighted average of 0.34 *5* (1978Jo07), 0.356 *42* (1965Mc05), and 0.41 *8* (1962Ec03); Others: 0.7 ps *+7−2* from DSAM in ^{112}Cd(n,n′γ) (2007Ga22). B(E4)↑=0.09 *1* W.u. (1992Pi08).
1433.27 *3*	0$^+$	1.9 ns *1*	AB DEFGH JKL Q T V	XREF: B(1431.5)J(1429)Q(1431)T(1436). J$^\pi$: 815.79γ E2 to 2$^+$; 1433.27 E0 to 0$^+$; L(d,p)=0. T$_{1/2}$: from RF-ce(t) in ^{111}Cd(d,pγ) (1979Lu10,1980Ju05).

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				Others: 2.9 ps *9* using B(E2)(W.u.)(120.68γ)=66 *20* and 1.4 ps *3* using B(E2)(W.u.)(815.79γ)=0.017 *4*. Ice(K)(1433.27):Ice(K)(815.79):Ice(K)(208.93): Ice(K)(120.68)= 0.79 *8*: 0.10 *3*: 2.5 *4*: 11 *2* (1980Ju05) and Ice(K)(1433.27):Ice(K)(815.79)=19.0 *17*, Ice(K)(1433.27):Ice(K)(120.68)= 0.051 *7*, Ice(K)(208.93):Ice(K)(815.79)=45 *5* and Ice(K)(208.93):Ice(K)(120.68)=0.13 *2* in 1997Dr03.
1468.822[@] *14*	2+	2.7 ps *5*	ABCDEFGH JKLM QRST VW	XREF: M(1469)Q(1467)R(1470)S(1470)T(1474)V(1469). Jπ: 1468.836γ E2 to 0+; L(p,p′)=2; band member. $T_{1/2}$: from B(E2)↑=0.0055 *10* in Coulomb excitation (1969Mi07); Other: 1.4 ps *+30−6* ^{112}Cd(n,n′γ) (2007Ga22).
1870.68[@] *4*	4+		A DEF	Jπ: 1253.31γ E2 to 2+; 455.14γ M1+E2 to 4+; band member.
1870.96 *5*	0+		AB DEFGH J LM QR T V	XREF: J(1869.7)Q(1873)R(1872)T(1876). Jπ: 1253.49γ E2 to 2+; L(pol d,t)=0.
2005.200[a] *21*	3−	0.26 ps *5*	A CDEF H J LM QRSTUV	XREF: J(2000)Q(2006)S(2003)T(2009). Jπ: 1387.68γ E1 to 2+; L(p,p′)=3. B(E3)=0.0207 (1985De57) in ^{112}Cd(p,p′) and 0.114 *9* (1985Fe05), 0.158 27 (1978Jo07), 0.106 *22* (1965Mc05) and 0.37 *18* (1963Ha20) in Coulomb excitation. β_3=0.164 *11* (1968Ma34), 0.15 *2* (1968St18), 0.049 *5* (1985De57) and 0.147 (1984Pi01) from ^{112}Cd(p,p′), 0.146 (1965Mc05) in Coulomb excitation, 0.15 (1967BaZV) from ^{112}Cd(α,α′).
2064.53[&] *3*	3+	0.47 ps *13*	A DEFGH L R	XREF: L(2064)R(2065). Jπ: 1447.00γ M1+E2 to 2+, 648.91γ M1+E2 to 4+; band member.
2081.64[&] *4*	4+	0.35 ps *10*	DEF H J L QR T V	XREF: J(2082)Q(2085)R(2082). Jπ: 1464.04γ E2 to 2+, 666.15γ M1+E2 to 4+; L(p,p′)=4; band member. B(E4)↑=8.2 *10* W.u. (1992Pi08).
2121.62 *4*	2+	0.51 ps *14*	B DE GH J LM QR T V	XREF: B(2124.7)J(2120.2)L(2122)Q(2123)T(2123). Jπ: 2121.49γ E2 to 0+; L(p,p′)=2;
2156.18 *5*	2+	0.2 ps *2*	AB DE GH J LM QR T V	XREF: J(2155.2)Q(2162)R(2155)T(2159). Jπ: 2156.20γ E2 to 0+; L(p,p′)=2;
2167.76[#] *5*	6+		DE L	XREF: L(2167). Jπ: 752.14γ E2 to 4+; band member.
2231.12 *5*	2+	0.15 ps *14*	A DE GH J LM QR T V	XREF: J(2229.2)R(2230)T(2235). Jπ: 1006.81γ E2 to 0+; L(p,p′)=2;
2300.68 *7*	0+	>623 fs	B E GH J LM QR T V	XREF: J(2295)M(2299)Q(2306)R(2299, 2305)T(2302)V(2299). Jπ: 1683.22γ E2 to 2+; L(p,p′)=0;
2373.19[a] *5*	5−	0.4 ps *+6−2*	DE LM QR TUV	Jπ: 957.72γ E1 to 4+ and 367.9γ E2 to 3−; L(p,p′)=5; band member. β_5=0.048 or 0.044 if two-step contributions through 2+ and 3− states are included (1984Pi01).
2402.98 *5*	3+	0.24 ps *+10−6*	DE GH R	XREF: R(2402). Jπ: 987.89γ M1+E2 to 4+, 1785.48γ to 2+; 6991.18γ from (1+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
2416.00[c] *5*	3−	0.15 ps *3*	A DE H LM R V	XREF: R(2414). Jπ: 946.92γ E1 to 2+; L(p,p′)=3.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)†	Jπ	T1/2‡	XREF	Comments
				B(E3)=0.0019 (1985De57).
				β_3=0.0148 *17* (1985De57), and 0.035 or 0.038 if two-step contributions via the 2^+ and 3^- states are included (1984Pi01).
2418.0 *10*	(1,2+)	1.29 ps *3*	I ST	XREF: S(2420)T(2424). Jπ: 2418γ to 0^+; L(d,p)=(0,1). T1/2: from ^{112}Cd(γ,pol γ′) and by assuming J=1.
2454.51 *8*	4^+	0.35 ps *+9−6*	DE LM QR V	XREF: Q(2457)R(2453). Jπ: 1142.21γ E2 to 2^+, 1038.93γ M1+E2 to 4^+; L(p,p′)=4. B(E4)↑: 8.4 *8* W.u. (1992Pi08).
2493.15 *6*	4^+	0.4 ps *+4−1*	DE H LM QR V	XREF: M(2492)R(2491)V(2492). Jπ: 1875.70γ E2 to 2^+, 1077.60γ M1+E2 to 4^+; L(p,p′)=4. B(E4)↑: 8.2 *9* W.u. (1992Pi08).
2506.36 *7*	$(2)^+$	0.21 ps *3*	A DE H J L QR T	XREF: L(2507)Q(2505)R(2505)T(2507). Jπ: 1888.79γ M1+E2 to 2^+; L(pol d,t)=2.
2506.70 *6*	1^-	36.6 fs *19*	A E GHIJ M UV	XREF: U(2507). Jπ: 2506.70γ E1 to 0^+, 1037.8γ E1 to 2^+ and L(p,p′)=(1); T1/2: from ^{112}Cd(γ,pol γ′). Other: 44 fs *8* in ^{112}Cd(n,n′γ) (2007Ga22).
2532.20 *12*	2^+		D GH L R	XREF: L(2533). Jπ: 1116.83γ to 4^+, 1099.0γ to 0^+; 6862.10γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
2561.27 *16*	$(1,2^+)$		GH	Jπ: 2561.13γ to 0^+, 1248.92γ to 2^+.
2570.21[b] *6*	5^-	>693 fs	DE R	XREF: R(2569). Jπ: 1154.75γ E1 to 4^+ and 565.10γ E2 to 3^-; band member. configuration: possible ν($s_{1/2}$,$h_{11/2}$). The assignment is tentative.
2571.47[@] *6*	6^+	>693 fs	DE LM Q T V	XREF: L(2570)M(2569)Q(2570)T(2570)V(2569). Jπ: 1156.21γ E2 to 4^+ and 403.55γ M1+E2 to 6^+; L(p,p′)=6; band member.
2591.05[c] *5*	4^-	>693 fs	DE H LM R V	XREF: H(2590)L(2589)M(2590)R(2589)V(2590). Jπ: 526.52γ E1 to 3^+, 585.78γ M1+E2 to 3^-; band member.
2632 *5*	$(5)^-$		M V	Jπ: from L(p,p′)=5.
2634.99 *5*	3^+		DE H L R T	XREF: T(2637). Jπ: 629.80γ E1 to 3^-, 1322.59γ M1+E2 to 2^+, 1219.4γ M1+E2 to 4^+.
2650.15 *8*	0^+	0.23 ps *+12−6*	E L P R	XREF: L(2649)P(2640)R(2649). Jπ: 2032.62γ E2 to 2^+, no γ rays were observed to the 0^+ levels; L(pol d,t)=0.
2657 *1*	1^-		LM T V	XREF: L(2653). Jπ: L(p,p′)=1.
2665.64[&] *6*	5^+	>208 fs	DE L	XREF: L(2667). Jπ: 601.01γ E2 to 3^+ and 583.92γ M1+E2 to 4^+; band member.
2668.92 *6*	$(2)^-$	0.21 ps *3*	A DE GH M Q V	XREF: M(2667)Q(2671)V(2667). Jπ: 1356.522γ E1 to 2^+, 663.59γ M1+E2 to 3^-; L(t,p)=(2,6); direct population in ^{111}Cd(n,γ) E=th:primary (J^π=$(1)^+$) makes J^π=3^- unlikely.
2674.00 *10*	2^+	35 fs *3*	A DE GH L R T	XREF: D(2673)G(2673.0)L(2673)R(2673)T(2678). Jπ: 2056.48γ M1+E2 to 2^+ and L(pol d,t)=2.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				configuration: possible $\nu(s_{1/2},d_{3/2})$. The assignment is tentative.
2694.0 *10*	(1)	0.72[e] ps *14*	I	Jπ: 2694γ to 0+; observation in ^{112}Cd(γ,pol γ′).
2711.19 *8*	4+	0.26 ps *+15−7*	DE LM R V	XREF: R(2710). Jπ: 705.95γ E1 to 3−,1295.74γ M1+E2 to 4+; L(p,p′)=4. B(E4)↑: 3.6 *4* W.u. (1992Pi08).
2723.96 *7*	2+	159 fs *24*	A DE H J LM QR T V	XREF: L(2722)M(2724)Q(2718)R(2724)T(2725)V(2724). Jπ: 718.89γ E1 to 3−, 1501γ to 0+; L(p,p′)=2;
2765.72 *5*	2+	34 fs *3*	A E GH LM QR T V	XREF: L(2763)Q(2763)T(2770). Jπ: 2765.7γ E2 to 0+,1296.9γ M1+E2 to 2+; L(p,p′)=2;
2773.08 *8*	(0)+	>693 fs	E L	XREF: L(2775). Jπ: 1460.83γ E2 to 2+.
2791.79 *11*	(4)−	>97 fs	E LM V	XREF: L(2793). Jπ: 786.59γ M1(+E2) to 3−; L(p,p′)=5.
2793.80[a] *6*	7−		DE	Jπ: 420.68γ E2 to 5−, 625.97γ E1 to 6+; band member.
2816.71 *7*	4+	>416 fs	E LM R V	XREF: M(2815)R(2799)V(2815). Jπ: 811.3γ E1 to 3−, 1401.3γ M1+E2 to 4+; L(p,p′)=4. B(E4)↑: 2.6 *3* W.u. (1992Pi08).
2817.74[c] *9*	6−		DE L RST	XREF: L(2819)R(2818)S(2820)T(2822). Jπ: 444.54γ M1+E2 to 5−; band member.
2829.19 *6*	1−	27 fs *3*	A E GHI	Jπ: 2829.20γ E1 to 0+. $T_{1/2}$: Other: 21.0 fs *16* in ^{112}Cd(γ,pol γ′).
2834.27 *7*	0+	>347 fs	E GH J L QR	XREF: J(2832.2)L(2832)Q(2829). Jπ: 2216.74γ E2 to 2+; L(pol d,t)=0.
2840.22 *11*	(4)+	>485 fs	DE LM T V	XREF: L(2835)M(2836)T(2840)V(2836). B(E4)↑: 1.8 *4* W.u. (1992Pi08). Jπ: 1424.73γ M1+E2 to 4+; L(p,p′)=4.
2852.90 *5*	2+	0.44 ps *+21−10*	E H J L R	XREF: J(2850.1)L(2850). Jπ: 2852.87γ E2 to 0+; L(pol d,t)=0.
2866.75 *6*	3−	0.6 ps *+8−2*	A DE H LM Q V	XREF: L(2867)M(2866)Q(2865)V(2866). Jπ: 1451.30γ E1 to 4+; L(p,p′)=3; B(E3)=0.00123 and β_3=0.0122 *11* (1985De57).
2867.48 *6*	(3)+	0.09 ps *+8−3*	A E L R T	XREF: A(2866.0)L(2877)R(2868)T(2875). Jπ: 2249.91γ M1+E2 to 2+; assignment in ^{113}Cd(pol d,t) (1990Bl10).
2881.02[#] *8*	8+		D	Jπ: 713.23γ E2 to 6+; band member.
2882.82 *8*	0+	>693 fs	E L R	Jπ: 1570.51γ E2 to 2+; L(pol d,t)=0.
2893.51 *6*	4+	>416 fs	E LM R V	XREF: L(2892)M(2895)R(2894)V(2895). Jπ: 2276.07γ E2 to 2+, 811.9γ M1+E2 to 4+; L(p,p′)=4. B(E4)↑: 4.7 *5* W.u. (1992Pi08).
2899.02 *5*	(3−,5−)	0.13 ps *3*	DE L	XREF: L(2897). Jπ: 1483.53γ (E1) to 4+.
2921.53[&] *9*	6+		DE L T	XREF: L(2916)T(2901). Jπ: 1505.5γ E2 to 4+; band member;
2924 *29*	0+		R	Jπ: L(pol d, t)=0.
2924.83 *5*	4−	>139 fs	E L	XREF: L(2926). Jπ: 551.63γ M1+E2 to 5− and 919.58γ M1+E2 to 3−;
2928 *5*	(5)−		LM V	XREF: L(2922). Jπ: L(p,p′)=5.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
2931.46 *6*	1^+	17 fs *4*	E GHI R	XREF: G(2930.2)I(2931)R(2931). Jπ: 2931.42γ M1 to 0^+, 2314.12γ M1+E2 to 2^+. $T_{1/2}$: Other: 12.3 fs *7* in ^{112}Cd(γ,pol γ′).
2931.97[b] *8*	6^-		DE L	XREF: L(2932). Jπ: 558.7γ M1+E2 to 5^-; band member;
2935.50[b] *6*	7^-		D	Jπ: 767.65γ E1 to 6^+, 365.38γ E2 to 5^-; band member.
2944.94 *7*	2^+	0.4 ps *+3−1*	E GH LM T V	XREF: L(2942)M(2942)T(2936)V(2942). Jπ: 2944.78γ E2 to 0^+; L(p,p′)=2.
2947.76 *10*	$(2,3)^+$	83 fs *24*	E L R	XREF: L(2946,2949)R(2946). Jπ: 2330.22γ M1+E2 to 2^+.
2961.92 *6*	4^-		E R	Jπ: 588.83γ M1+E2 to 5^-; 956.7γ M1+E2 to 3^-.
2962.0 *7*	2^+		A LM T V	XREF: L(2967)M(2969)T(2965)V(2969). Jπ: 2961.7γ to 0^+, 957.1γ to 3^-; L(p,p′)=2.
2970.02 *10*	$(4,5)^+$		DE	Jπ: 1554.49γ M1+E2 to 4^+, 398.57γ to 6^+.
2972.45 *7*	5^+	0.6 ps *+11−2*	DE	Jπ: 1556.8γ M1+E2 to 4^+, 804.89γ M1+E2 to 6^+.
2980.85 *9*	2^+	0.14 ps *3*	E L QR T	XREF: L(2976,2980)Q(2974)T(2988). Jπ: 2363.274γ M1+E2 to 2^+; L(pol d,t)=2.
3002.06 *6*	3^+	0.19 ps *+12−6*	E R	Jπ: 2384.54γ M1+E2 to 2^+ and 1586.57γ M1+E2 to 4^+.
3011.08 *11*	$(4,5,6)^-$		E L	XREF: L(3022). Jπ: 637.89γ M1+E2 to 5^-.
3027.97 *10*	6^+		DE R	XREF: R(3026). Jπ: 946.39γ E2 to 4^+ and 859.83γ M1+E2 to 6^+.
3046 *5*	1^-		M V	Jπ: L(p,p′)=1.
3049.08 *8*	(4^+)	0.08 ps *+12−3*	E L	XREF: L(3046,3050). Jπ: 1633.39γ to 4^+; $J^\pi=4^+,1^-$ in ^{112}Cd(pol d,d′).
3051.19 *11*	$(5)^+$		E L	XREF: L(3058). Jπ: 1635.70γ M1+E2 to 4^+.
3066.23 *10*	$(2,3)^-$	>207 fs	E G L	XREF: G(3065.4)L(3065). Jπ: 2448.76γ E1 to 2^+; ^{112}Cd(pol d,d′) (1994He22) and ^{112}Cd(n,n′γ) (2001Ga44) support 3^- assignment.
3068.62 *6*	4^+	>555 fs	A E QR t v	XREF: Q(3071)R(3069)t(3071)v(3072). Jπ: 1756.30γ E2 to 2^+, 1653.09γ M1+E2 to 4^+. B(E4)↑: 4.6 *8* W.u. (1992Pi08) (unresolved doublet).
3071.46 *8*	$(4)^+$	>249 fs	E M t v	XREF: M(3072)t(3071)v(3072). Jπ: 1006.9γ to 3^+, 1066.28γ to 3^-; L(p,p′)=4. B(E4)↑: 4.6 *8* W.u. (1992Pi08) (unresolved doublet).
3071.74 *5*	$(1,2^+)$		E	Jπ: 3071.2γ to 0^+, 949.65γ to 2^+.
3075.19 *11*	$(4,5)^+$	0.3 ps *+5−1*	DE L	XREF: D(3075.65)L(3074,3080). Jπ: 1659.70γ M1+E2 to 4^+.
3081.65 *19*	2^+		E L R	XREF: L(3091)R(3085). Jπ: 3081.60γ E2 to 0^+.
3093.02[b] *8*	8^-		D	Jπ: 299.19γ M1+E2 to 7^-; band member.
3102[d] *5*	4^+		LM V	XREF: L(3100). Jπ: L(p,p′)=4. B(E4)↑: 0.68 *13* W.u. (1992Pi08).
3102.15[d] *10*	$(2)^+$	21 fs *6*	E R	XREF: R(3101). Jπ: 3102.10γ to 0^+; L(pol d,t)=2.
3102.59 *8*	(4,5)		E L	XREF: L(3104). Jπ: 729.41γ to 5^-, 1687.08γ to 4^+.
3105.50 *5*	$(2)^+$	0.3 ps *+5−1*	E QR	XREF: Q(3108)R(3109). Jπ: L(t,p)=2; 2488.14γ to 2^+,1690.1γ to 4^+.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3109.98 *7*	$(2)^+$	0.13 ps *+6–3*	E G J T	XREF: G(3111.3)J(3110)T(3113). Jπ: 3110.01γ to 0^+; L(d,p)=2.
3130.83 *7*	5^-		A E LM R V	XREF: L(3124,3131)M(3131)R(3128)V(3131). Jπ: 1125.78γ E2 to 3^-; 1715.08γ E1 to 4^+; Other: L(p,p′)=3.
3133.42 *9*	1^-	27 fs *5*	A E GHI Q	Jπ: 3133.21γ E1 to 0^+; Other: L(t,p)=(2). $T_{1/2}$: Other: 10.7 fs *5* in112CD(γ,pol γ′) (2005Ko32).
3135.84 *6*	$(2,3^+)$	0.3 ps *+3–1*	E GH	Jπ: 2518.43γ to 2^+, 1071.26γ to 3^+; 6258.35γ from (1^+) in ^{111}Cd(n,γ) E=th:primary.
3145.28 *8*	$3^+,4^+,5^+$	0.13 ps *+5–3*	E R	XREF: R(3146). Jπ: 1729.82γ M1+E2 to 4^+.
3163.51 *9*	2^+	0.26 ps *+12–7*	E GH	Jπ: 3163.4γ E2 to 0^+, 656.74γ E1 to 1^-.
3165.46 *11*	$4^-,5^-,6^-$		E L	XREF: L(3168). Jπ: 792.27γ M1+E2 to 5^-; Other: (4^+) in ^{112}Cd(pol d,d′) (1994He22).
3169.46 *6*	2^+	146 fs *14*	A E GH	Jπ: 1945.14γ E2 to 0^+, 1164.2γ E1 to 3^-.
3175 *4*	$(3)^-$		Q	Jπ: L(t,p)=3.
3176.47 *8*	8^+		D	Jπ: 604.98γ E2 to 6^+, 295.19γ M1+E2 to 8^+.
3176.83 *13*	$(4)^+$		E	Jπ: 2559.28γ E2 to 2^+.
3178.79 *7*	2^+	104 fs *24*	E LM R T V	XREF: L(3177)M(3176)R(3177)T(3184)V(3176). Jπ: 3178.76γ E2 to 0^+; L(p,p′)=2;
3189.82 *9*	$4^+,5,6^+$	>354 fs	E	Jπ: 1022.09γ to 6^+, 1774.30γ to 4^+.
3190.06 *9*	$0^+,1,2,3^+$	22.2 fs *14*	E GH J L	XREF: G(3189.93)L(3188). Jπ: 2572.51γ to 2^+; 6203.94γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3194.46 *6*	$(2)^+$	0.10 ps *4*	E J R	XREF: J(3193). Jπ: 1189.41γ to 3^-, 2576.72γ to 2^+; L(pol d,t)=2.
3201.32 *10*	5^-	0.5 ps *+5–2*	E	Jπ: 1196.21γ E2 to 3^-; 1785.8γ E1 to 4^+.
3203.25 *10*	$(2,3)^+$	0.12 ps *+9–4*	E R	XREF: R(3204). Jπ: 2585.70γ (M1+E2) to 2^+.
3205.74 *12*	$2^+,3,4$	>111 fs	E	Jπ: 1736.90γ to 2^+; 1790.2γ to 4^+.
3206.48 *8*	$(4)^+$	76 fs *24*	E LM V	XREF: M(3204)V(3204). Jπ: 1084.93γ to 2^+; L(p,p′)=4. B(E4)↑: 1.27 *24* W.u. (1992Pi08).
3206.71 *3*	$2^+,3,4$	0.4 ps *+3–1*	E	Jπ: 1792.1γ to 4^+; 1894.30γ to 2^+.
3230.29 *9*	8^+		D	Jπ: 658.83γ E2 to 6^+; 349.26γ M1+E2 to 8^+.
3231.59 *6*	1^+	35 fs *4*	A E GHI R	XREF: I(3231)R(3230). Jπ: 3231.35γ M1 to the 0^+, 2614.02γ M1+E2 to 2^+. $T_{1/2}$: Other: 26.7 fs *16* in ^{112}Cd(γ,pol γ′).
3239.04[&] *7*	7^+		D	Jπ: 573.31γ E2 to 5^+, 1071.24γ M1+E2 to 6^+; band member.
3242.64 *6*	2^+	0.2 ps *+3–1*	E GH L QR T	XREF: L(3246)T(3240). Jπ: 3242.49γ E2 to the g.s.; L(pol d,t)=2.
3246.86 *8*	$(1,2)^+$	0.16 ps *3*	E J	Jπ: 2629.34γ to 2^+; 4385γ E1 from 1^- in ^{112}Cd(γ,γ′) (1971Mo31).
3247.17 *11*	(6^+)		E M V	XREF: M(3244)V(3244). Jπ: 1831.67γ to 4^+; L(p,p′)=(6).
3248.25[c] *8*	7^-		D	Jπ: 155.21γ M1+E2 to 8^-; 316.19γ M1+E2 to 6^-; band member.
3251.86 *13*	$(0)^+$	<0.8 ps	E R	XREF: R(3252). Jπ: 2634.31γ E2 to 2^+.
3252.55 *12*	$(6,7,8)^-$		D	Jπ: 458.75γ M1(+E2) to 7^-.
3254.21 *7*	$(0^+,1,2)$	0.2 ps *+8–1*	E GH	Jπ: 1942.01γ to 2^+; 6140.26γ from (1^+) in

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				^{111}Cd(n,γ) E=th:primary.
3254.30 *8*	(3,4)$^+$	57 fs *17*	E	Jπ: 1249.01γ E1 to 3$^-$ and 1838.89γ M1+E2 to 4$^+$.
3258.01 *11*	(3,4$^+$)		E	Jπ: 1252.8γ to 3$^-$; assignment in ^{113}Cd(pol d,t).
3266.54 *11*	4$^+$	0.19 ps *5*	E LM R V	XREF: L(3265)M(3265)R(3259)V(3265). Jπ: 1851.04γ to 4$^+$; L(p,p′)=4. B(E4)↑: 2.5 *5* W.u. (1992Pi08).
3269.50 *8*	2$^+$,3,4,5$^-$	0.17 ps *+21−7*	E	Jπ: 1264.25γ to 3$^-$, 1854.04γ to 4$^+$.
3290.40 *12*	(2$^+$)		E	Jπ: 1419.43γ to 0$^+$.
3291.13 *7*	2$^+$,3,4,5$^-$	0.2 ps *+5−1*	E LM Q V	XREF: L(3293)M(3292)Q(3302)V(3292). Jπ: 1875.7γ to 4$^+$, 1285.95γ to 3$^-$.
3291.17 *9*	7$^-$		D	Jπ: 917.73γ E2 to 5$^-$, 1123.96γ E1 to 6$^+$.
3297.01 *8*	(2,3)$^+$	0.38 ps *+24−11*	E R	XREF: R(3296). Jπ: 2679.46γ to 2$^+$, 1881.5γ to 4$^+$; L(pol d,t)=2.
3300.99 *16*	(1)	0.10 ps *+12−4*	E I	Jπ: 3300.94γ to 0$^+$; population in ^{112}Cd(γ,pol γ′). $T_{1/2}$: Other: 40.6 fs *22* in ^{112}Cd(γ,pol γ′).
3303.24 *11*	(2,3)$^+$	173 fs *24*	A E GH T	XREF: T(3304). Jπ: 2685.78γ to 2$^+$; 886.99γ to 3$^-$; L(d,p)=2.
3312.24 *6*	(1$^-$,2)	76 fs *17*	E J L R	XREF: J(3309)L(3309). Jπ: 2694.56γ to 2$^+$; 1306.97γ to 3$^-$; 4323γ from 1$^-$ in ^{112}Cd(γ,γ′).
3318.09[a] *8*	9$^-$		D	Jπ: 524.28γ E2 to 7$^-$; band member.
3319.83 *6*	1$^-$,2,3,4$^+$	0.17 ps *3*	E	Jπ: 2702.24γ to 2$^+$ and 1314.6γ to 3$^-$.
3322.40 *10*	10$^+$		D	Jπ: 441.45γ E2 to 8$^+$; band member.
3325.96 *11*	(3)$^-$		E V	B(E3)↑=0.00045 (1985De57) β_3=0.0073 *20* (1985De57) XREF: V(3326). Jπ: 734.91γ to 4$^-$; L(p,p′)=3.
3329.17 *11*	(5$^-$)		E LM V	XREF: M(3327)V(3327). Jπ: 1913.67γ to 4$^+$; L(p,p′)=(5).
3332.11 *8*	2$^+$,3,4,5$^-$	0.12 ps *3*	E QR	XREF: Q(3335)R(3330). Jπ: 1326.83γ to 3$^-$, 1916.72γ to 4$^+$.
3332.46 *10*	1,2,3,4$^+$	97 fs *24*	E	Jπ: 2714.91γ to 2$^+$.
3336.03 *10*	(2)$^+$	0.10 ps *3*	E R	XREF: R(3340). Jπ: 2718.48γ to 2$^+$; L(pol d,t)=2.
3341.86 *10*	(3)$^+$	37 fs *4*	E T V	XREF: T(3344)V(3344). Jπ: 2724.31γ E2+M1 to 2$^+$. Note, that L(p,p′)=3.
3353.36 *10*	0$^+$	0.13 ps *4*	E L R	XREF: L(3350)R(3352). Jπ: 2735.81γ to 2$^+$; L(pol d,t)=0.
3363.55 *7*	2$^+$	0.24 ps *+10−6*	E G LM QR V	XREF: L(3366)M(3359)Q(3365)R(3361)V(3359). Jπ: 3363.67γ E2 to 0$^+$; L(p,p′)=2.
3363.99 *13*	2$^+$,3,4,5,6$^+$	0.2 ps *+7−1*	E	Jπ: 909.48γ to 4$^+$.
3369.62 *7*	2$^+$,3,4$^+$	35 fs *3*	A E L	XREF: L(3372). Jπ: 2752.08γ to 2$^+$, 1952.9γ to 4$^+$.
3375.45 *12*	(6,7,8)		D	Jπ: 439.95γ D to 7$^-$.
3375.50 *9*	(1)	52 fs *8*	E I	Jπ: 3375.40γ to 0$^+$, 2758.02 to 2$^+$; population in ^{112}Cd(γ,pol γ′). $T_{1/2}$: Other: 87 fs *13* in ^{112}Cd(γ,pol γ′).
3376.46 *11*	7$^-$		D	Jπ: 283.40γ M1+E2 to 8$^-$; 444.53γ M1+E2 to 6$^-$.
3378.52 *8*	(2)$^+$	0.4 ps *+3−1*	E G L R	XREF: L(3380)R(3381). Jπ: 1909.63γ to 2$^+$; L(pol d,t)=2.
3383.71 *9*	0$^+$ to 4$^+$	97 fs *17*	E	Jπ: 2766.05γ to 2$^+$.
3392.78 *12*	1,2$^+$	>693 fs	E	Jπ: 3392.72γ to 0$^+$.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
3393.39 *4*	0^+ to 4^+	>970 fs	E	Jπ: 2775.83γ to 2^+.
3393.45 *10*	$(1,2^+)$		A E GH Q	XREF: Q(3393). Jπ: 3392.72γ to 0^+, 2775.78 to 2^+.
3393.60 *7*	1^- to 5^-	0.2 ps *+3−1*	E	Jπ: 3392.72γ to 3^-.
3398.88@ *8*	8^+		D	Jπ: 827.54γ E2 to 6^+; 517.99γ M1+E2 to 8^+; band member.
3400.35 *10*	0^+ to 4^+		E	Jπ: 2087.94γ to 2^+.
3402.93 *10*	$1^+,2^+,3^+$	>527 fs	E R	XREF: R(3402). Jπ: 2785.37γ M1+E2 to 2^+.
3422.55 *9*	$(4)^+$		E LM QR V	XREF: L(3417,3422)M(3417)Q(3415)V(3417). Jπ: 1953.71γ to 2^+; L(p,p′)=4. B(E4)↑: 3.1 *4* W.u. (1992Pi08).
3425.60 *5*	0^+ to 4^+	0.09 ps *3*	E	Jπ: 2113.19γ to 2^+.
3426.32 *14*	0^+ to 4^+	33 fs *+17−10*	E	Jπ: 2113.19γ to 2^+.
3428.87 *7*	2^+	0.08 ps *+5−3*	E GH	Jπ: 2811.2γ M1+E2 to 2^+, 3428.71γ E2 to 0^+.
3429.6 *3*			E	
3429.98 *16*	(5,6,7)		D	Jπ: 1262.21γ d(+Q) to 6^+.
3433.73 *11*	$(2^+$ to $6^+)$	0.11 ps *+6−3*	E R	XREF: R(3433). Jπ: 2018.23γ to 4^+.
3451.97 *8*	(0^+)		E	Jπ: 945.26γ to 1^-.
3452 *5*	$6^{(+)}$		M V	Jπ: L(p,p′)=6.
3452.47 *7*	2^+	0.2 ps *+4−1*	E GH	XREF: G(3451.9). Jπ: 3452.1γ to 0^+, 2037.4γ to 4^+.
3453.8 *3*	0^+ to 4^+		E	Jπ: 1985.0γ to 2^+.
3455.48 *9*	$0^+,1,2$	0.3 ps *+3−1*	E GH L	XREF: L(3457). Jπ: 2837.85γ to 2^+; 5938.41γ from (1^+) in ^{111}Cd(n,γ) E=th:primary 1997Dr03.
3470.3 *12*	0^+ to 4^+		A	Jπ: 2852.7γ to 2^+.
3471.32 *22*	2^+ to 6^+		E	Jπ: 2055.8γ to 4^+.
3478.58 *7*	$0^+,1,2^+$	0.2 ps *+7−1*	E GH	Jπ: 2166.06γ to 2^+; 5914.9γ from (1^+) in ^{111}Cd(n,γ) E=th:primary 1997Dr03.
3478.7 *9*	0^+ to 4^+		A	Jπ: 1322.0 to 2^+.
3487 *5*	(6^+)		V	Jπ: from L(p,p′)=(6).
3487.55 *10*	$(4)^+$	83 fs *17*	E V	XREF: V(3489). Jπ: 2869.99γ E2 to 2^+; 4^+ in ^{112}Cd(p,p′);
3489.85 *6*	$2^+,3,4^+$	68 fs *13*	E L	XREF: L(3492). Jπ: 1368.12γ to 2^+; 2074.36γ to 4^+.
3493.92 *13*	(6,7)		D	Jπ: 1326.15γ D(+Q) to 6^+.
3500.45 *8*	0^+ to 3^+	0.15 ps *3*	E GH	Jπ: 2882.85γ to 2^+; 5893.51γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3511.6 *3*	3^- to 7^-	>485 fs	E	Jπ: 1138.4γ to 5^-.
3512.97 *10*	$(1,2,3)^+$	0.10 ps *3*	E G	Jπ: 2895.23γ M1+E2 to 2^+.
3522.51 *10*	0^+ to 4^+	33 fs *3*	E	Jπ: 2904.95γ to 2^+.
3528.92c *9*	7^-		D	Jπ: 593.45γ M1+E2 to 7^-; band member.
3530.90 *5*			E	
3531.32 *7*	4^+	76 fs *24*	E LM V	XREF: L(3543). Jπ: 2913.77γ M1+E2 to 2^+; L(p,p′)=4. B(E4)↑: 0.00 *1* W.u. (1992Pi08).
3540.24 *9*	$1,2^+$	15.3 fs *21*	E GH	Jπ: 3539.8γ to 0^+, 2922.72γ to 2^+.
3542.84& *10*	8^+		D	Jπ: 1375.02γ E2 to 6^+; band member.
3556.88 *10*	$(1,2^+)$	48 fs *4*	E G I	Jπ: 3556.78γ to 0^+. $T_{1/2}$: Other: 0.52 ps *13* in ^{112}Cd(γ,pol γ′) (2005Ko32).
3557.33 *10*	$(3)^-$	0.07 ps *3*	E H LM V	XREF: L(3560)M(3557)V(3557). Jπ: 2939.77γ to 2^+; L(p,p′)=3.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3568.05 *6*	2^+	62 fs *10*	E GHI	Jπ: 3568.00γ E2 to 0^+; $T_{1/2}$: Other: 60 fs *15* in ^{112}Cd(γ,pol γ′).
3571.05[b] *10*	9^-		D	Jπ: 777.36γ E2 to 7^-; 252.88γ M1+E2 to 9^-; band member.
3572.28 *20*	$(1,2^+)$		GH	Jπ: 3572.37γ to 0^+.
3574.49 *9*	0^+ to 4^+	≤2.5 ps	E	Jπ: 2956.96γ to 2^+.
3577.2 *3*	0^+ to 4^+		E	Jπ: 2264.8γ to 2^+.
3577.55 *11*	2^+		GH	Jπ: 3577.53γ to 0^+, 2352.94γ to 4^+.
3579.44 *7*	0^+ to 4^+	0.13 ps *3*	E	Jπ: 2961.69γ to 2^+.
3583.80 *24*	5,6,7		D	Jπ: 1416.03γ D(+Q) to 6^+.
3586 *5*	3^-		M V	Jπ: L(p,p′)=L(d,d′)=3;
3594.64 *9*	$1,2^+$	76 fs *14*	E I L	XREF: L(3590). Jπ: 3594.49γ to 0^+, 2977.24γ to 2^+. $T_{1/2}$: Also: 0.153 ps *25* in ^{112}Cd(γ,pol γ′) (2005Ko32).
3598.81 *10*	$1^+,2^+,3^+$	31 fs *8*	E	Jπ: 2981.25γ M1+E2 to 2^+.
3608.91 *10*	$0^+,1,2,3^+$	0.12 ps *3*	E G	Jπ: 2991.30γ to 2^+; 5784.3γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3613.26 *10*	$1^+,2^+,3^+$	0.10 ps *+6−3*	E	Jπ: 2995.85γ M1+E2 to 2^+.
3618.48 *14*	3^-	0.06 ps *+6−2*	E LM V	XREF: L(3616)M(3614)V(3614). Jπ: 2202.7γ to 4^+, 3000.83γ to 2^+; L(p,p′)=3.
3622.18 *11*	0^+ to 4^+	0.033 ps *10*	E	Jπ: 3004.62γ to 2^+;
3627.6 *3*	2^+ to 6^+		E L	XREF: L(3625). Jπ: 2212.1γ to 4^+; (6^+) in ^{112}Cd(pol d,d′) (1994He22).
3646.54 *10*	$0^+,1,2,3^+$	0.24 ps *+8−5*	E G	Jπ: 3028.88γ to 2^+; 5746.95γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3652.18 *9*	$1,2^+$	0.12 ps *4*	E G	Jπ: 3652.07γ to 0^+, 3034.60γ to 2^+.
3658.74 *11*	8^-		D	Jπ: 410.55γ M1+E2 to 7^-; 340.50γ M1+E2 to 9^-.
3665.78 *10*	3^-	132 fs *24*	E LM V	XREF: M(3664)V(3664). Jπ: 3048.22γ to 2^+; L(p,p′)=3;
3676.73 *8*	0^+ to 4^+	0.09 ps *3*	E	Jπ: 3059.00γ to 2^+.
3682.83 *12*	$1,2^+$	32 fs *8*	E I	Jπ: 3682.76γ to 0^+. $T_{1/2}$: Other: 88 fs *14* in ^{112}Cd(γ,pol γ′).
3684.02[#] *12*	10^+		D	Jπ: 802.98γ E2 to 8^+.
3685.55 *15*	$6^-,7^-,8^-$		D	Jπ: 309.09γ M1+E2 to (7^-).
3687.93 *10*	$(1,2^+)$	0.13 ps *5*	E	Jπ: 3687.86γ to 0^+.
3690.68 *13*	$(4)^+$	0.10 ps *+11−4*	E LM V	XREF: L(3691)M(3691)V(3691). Jπ: 3073.12γ to 2^+; L(p,p′)=4. B(E4)↑: 2.2 *4* W.u. (1992Pi08).
3696.15 *11*	$0^+,1,2,3^+$		GH	Jπ: 2383.81γ to 2^+; 5423.9γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3697.74 *12*	$1^-,2,3,4^+$	0.3 ps *+10−1*	E L	XREF: L(3700). Jπ: 3080.13γ to 2^+; 1692.8γ to 3^-; (5^-) in ^{112}Cd(pol d,d′) (1994He22).
3703.81 *10*	$1,2^+$	22 fs *4*	E I	Jπ: 3703.74γ to 0^+. $T_{1/2}$: Other: 65 fs *6* in ^{112}Cd(γ,pol γ′) (2005Ko32).
3707.45 *9*	$1^-,2,3^+$	36 fs *8*	E GH	Jπ: 3090.04γ to 2^+; 840.71γ to 3^-; 5686.66γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3719.75 *20*	$(2^+,3^+)$		E G L	Jπ: 2305.1γ to 4^+; 5674.88γ from (1^+) in ^{111}Cd(n,γ) E=th:primary.
3723.25 *17*	$0^+,1,2,3^+$	16 fs *+12−8*	E G	Jπ: 3105.13γ to 2^+; 5670.24γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3731.95 *10*	0^+ to 4^+	0.125 ps *+9−4*	E	Jπ: 3114.39γ to 2^+.

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Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3736.5 *3*	8^+		D	Jπ: 1165.0γ E2 to 6^+.
3739.55 *10*	$(1,2,3)^+$	66 fs *20*	E L	XREF: L(3740). Jπ: 3121.99γ M1+E2 to 2^+.
3743.76 *10*	$(1,2,3)^+$	54 fs *8*	E G	Jπ: 3126.22γ M1+E2 to 2^+; 5650.8γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3746.8 *3*	$(4)^+$		E M V	XREF: M(3748)V(3748). Jπ: 2331.3γ to 4^+; L(p,p′)=4. B(E4)↑: 1.0 *3* W.u. (1992Pi08).
3754.09 *11*	2^+ to 6^+	>416 fs	E	Jπ: 2338.58γ to 4^+.
3755.46 *13*	(2^+)	28 fs *9*	E L	Jπ: 3755.39γ to 0^+.
3763.95 *10*	$(4)^+$	104 fs *14*	E M V	XREF: M(3764)V(3764). Jπ: 3146.38γ to 2^+; L(p,p′)=4 (1992Pi08). B(E4)↑: 0.68 *16* W.u. (1992Pi08).
3770.47 *10*	0^+ to 4^+	26 fs *6*	E	Jπ: 3152.90γ to 2^+;
3783.197 *11*	$(1,2,3)^+$	0.2 ps *+4−1*	E	Jπ: 3165.631γ M1+E2 to 2^+.
3785.69[c] *13*	9^-		D	Jπ: 692.67γ to 8^-; band member.
3787.3 *3*	2^+		E G	XREF: G(3795). Jπ: 3787.2γ E2 to 0^+.
3801.2 *3*	$(4)^+$		E M V	XREF: M(3800)V(3800). Jπ: 2385.7γ to 4^+; L(p,p′)=4. B(E4)↑: 1.3 *3* W.u. (1992Pi08).
3804.87 *14*	0^+ to 4^+	0.2 ps *+5−1*	E	Jπ: 3187.30γ to 2^+.
3809.39[b] *9*	10^-		D	Jπ: 716.376γ E2 to 8^-; 491.30γ M1+E2 to 9^-; band member.
3810.04 *10*	$1,2^+$	9.7 fs *21*	E I	Jπ: 3809.97γ to 0^+. $T_{1/2}$: Other: 17 fs *3* from ^{112}Cd(γ,pol γ′).
3810.88 *10*	(3^-)	0.07 ps *+3−2*	E M V	XREF: M(3815)V(3815). Jπ: 3193.317γ to 2^+; L(p,p′)=3 (1992Pi08).
3832.66 *11*	(4^+)	22 fs *7*	E M V	XREF: M(3835)V(3835). Jπ: 3215.09γ to 2^+; L(p,p′)=4 (1992Pi08). B(E4)↑: 1.0 *3* W.u. (1992Pi08).
3838.85 *23*	$(1,2^+)$		GH	Jπ: 3838.84γ to 0^+.
3844.25 *10*	0^+ to 4^+	263 fs	E	Jπ: 3226.68γ to 2^+.
3846.48 *10*	$(1,2^+)$	40 fs *9*	E GHI	Jπ: 3846.41γ to 0^+. $T_{1/2}$: Other: 0.20 ps *3* in ^{112}Cd(γ,pol γ′).
3854.4 *3*	2^+		E	Jπ: 3854.3γ E2 to 0^+.
3864.51 *11*	$(4)^+$		E M V	XREF: M(3863)V(3863). Jπ: 2449.0γ to 4^+; L(p,p′)=4 (1992Pi08). B(E4)↑: 1.37 *23* W.u. (1992Pi08).
3869.00 *10*	$(1,2^+)$	13 fs *3*	E I	Jπ: 3868.93γ to 2^+. $T_{1/2}$: Other: 20 fs *5* in ^{112}Cd(γ,pol γ′).
3878.62 *13*	0^+ to 4^+	53 fs *24*	E	Jπ: 3261.05γ to 2^+.
3892.48 *14*	$0^+,1,2,3^+$		GH M V	Jπ: 2579.77γ to 2^+; 5501.62γ from (1^+) in ^{111}Cd(n,γ) E=th:primary (1997Dr03).
3913.69[&] *9*	9^+		D	Jπ: 674.713γ E2 to 7^+; 514.75γ M1+E2 to 8^+; band member.
3929.21 *21*	$(0)^+$	≤0.9 ps	E P	XREF: P(3920). Jπ: 3311.64γ to 2^+; L(^{3}He,n)=0.
3930.78 *17*	12^+		D	Jπ: 608.5γ E2 to 10^+; band member.
3932.18 *12*	0^+ to 4^+	0.09 ps *+6−3*	E	Jπ: 3314.61γ to 2^+.
3933.07 *13*	$(1,2^+)$	12 fs *4*	E I	Jπ: 3933.00γ to 0^+. $T_{1/2}$: Other: 76 fs *10* in ^{112}Cd(γ,pol γ′).
3939.27 *14*	$(4)^+$	0.05 fs *+3−2*	E M V	XREF: M(3945)V(3945). Jπ: 3321.70γ to 2^+; L(p,p′)=4 (1992Pi08). B(E4)↑: 0.43 *14* W.u. (1992Pi08).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3951.57 *13*	1,2$^+$	43 fs *6*	E GH	XREF: E(3952.25)G(3951.43)H(3951.50). Jπ: 3951.4γ to 0$^+$, 3333.9γ to 2$^+$.
3963.8 *4*	(1,2$^+$)	0.03 ps *+4−2*	E	Jπ: 3963.7γ to 0$^+$.
3966.44 *14*	(9,10,11)$^+$		D	Jπ: 644.04γ M1+E2 to 10$^+$.
3970.08 *19*	(1,2$^+$)	0.05 ps *+7−2*	E GH	XREF: E(3969.28). Jπ: 3970.0γ to 0$^+$.
3990.40 *11*	10$^+$		D	Jπ: 591.57γ E2 to 8$^+$; 306.23γ M1+E2 to 10$^+$.
3997.75 *14*	1,2$^+$	2.4[e] fs *6*	GHI	XREF: G(3996.1). Jπ: 3997.6γ to 0$^+$, 2685.83γ to 2$^+$.
4003.9 *3*	(3$^-$)		GH M V	XREF: M(4010)V(4010). Jπ: 3386.50γ to 2$^+$; L(p,p′)=3 (1992Pi08).
4033.88 *20*	(3$^-$)	0.06 ps *+5−2*	E M V	XREF: M(4034)V(4034). Jπ: 3416.31γ to 2$^+$; L(p,p′)=3 (1992Pi08).
4060 *5*	(4$^+$)		M V	Jπ: L(p,p′)=4. B(E4)↑: 0.84 *16* W.u. (1992Pi08).
4090 *5*	(3$^-$)		M V	Jπ: L(p,p′)=3.
4118 *5*	(4$^+$)		M V	Jπ: L(p,p′)=4. B(E4)↑: 0.01 *3* W.u. (1992Pi08).
4125.91 *13*	10$^+$		D	Jπ: 949.44γ E2 to 8$^+$; assumed yrast state.
4172 *5*	(3$^-$)		M V	Jπ: L(p,p′)=3 (1992Pi08).
4174.50 *13*	10$^+$		D	Jπ: 856.41γ E1 to 9$^-$; assumed yrast state.
4221 *5*	(7$^-$)		M V	Jπ: L(p,p′)=7 (1992Pi08).
4248 *5*	(3$^-$)		M V	Jπ: L(p,p′)=3 (1992Pi08).
4279 *5*	(3$^-$)		M V	Jπ: L(p,p′)=3 (1992Pi08).
4283.47[&] *14*	10$^+$		D	Jπ: 740.63γ E2 to 8$^+$; band member.
4284.76 *15*	(9)$^-$		D	Jπ: 908.29γ E2 to (7)$^-$; assumed yrast state.
4285.20[a] *13*	11$^-$		D	Jπ: 967.10γ E2 to 9$^-$; band member.
4320 *5*	(4$^+$)		M V	Jπ: L(p,p′)=4 (1992Pi08). B(E4)↑: 0.71 *22* W.u. (1992Pi08).
4338 *5*	(7$^-$)		M V	Jπ: L(p,p′)=7 (1992Pi08).
4364 *5*	(4$^+$)		M V	Jπ: L(p,p′)=4 (1992Pi08). B(E4)↑: 0.62 *17* W.u. (1992Pi08).
4383.05 *14*	11$^+$		D	Jπ: 1060.63γ M1+E2 to 10$^+$; 452.27γ M1(+E2) to 12$^+$.
4385 *5*	(3$^-$)		M V	Jπ: L(p,p′)=3 (1992Pi08).
4385.16[c] *13*	10$^-$		D	Jπ: 1067.06γ M1+E2 to 9$^-$; band member.
4419 *5*	(4$^+$)		M V	Jπ: L(p,p′)=(4) (1992Pi08). B(E4)↑: 0.83 *17* W.u. (1992Pi08).
4467.74[b] *14*	11$^-$		D	Jπ: 896.683γ E2 to 9$^-$; band member.
4468 *5*	3		M V	Jπ: From ^{112}Cd(d,d′) and ^{112}Cd(p,p′).
4499 *5*	(3$^-$)		M V	Jπ: From ^{112}Cd(d,d′) and ^{112}Cd(p,p′).
4546 *5*	(2$^+$)		V	Jπ: From ^{112}Cd(p,p′).
4587.15[#] *16*	12$^+$		D	Jπ: 903.121γ E2 to 10$^+$; band member.
4687.17[&] *13*	11$^+$		D	Jπ: 773.48γ E2 9$^+$; band member.
4720	0$^+$,2$^+$		P	Jπ: L(^{3}He,n)=0,2.
4871.47 *20*	14$^+$		D	Jπ: 940.680γ E2 to 12$^+$; band member.
5106.22 *20*	(13)$^-$		D	Jπ: 1175.431γ E1 to 12$^+$; assumed yrast state.
7633.0 *5*	1$^-$	5.3 fs *9*	J	Jπ: 7632γ E1 to 0$^+$. $T_{1/2}$: from Γγ=0.086 eV *15* (1970Mo26). Other: 0.6 eV *+2−1* (1966Mi13).
(9394.20 *3*)	(1)$^+$		G	Jπ: s-wave capture on J^π=1/2$^+$ in ^{111}Cd suggests 0$^+$,1$^+$; 9393.63γ to the g.s. and other decay branches to 0$^+$ states support 1$^+$ assignments.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{112}Cd Levels (continued)

† From a least-squares fit to Eγ.
‡ From DSAM in ^{112}Cd(n,n′γ) (2007Ga22), unless otherwise stated.
# Member of the gsb.
@ Member of the band based on the 0^+ state at 1224 keV.
& Member of the band based on the 2^+ state at 1312 keV.
a Member of the band based on the 3^- state at 2005 keV.
b Member of the band based on the 5^- state at 2570 keV.
c Member of the band based on the 3^- state at 2415 keV.
d Unresolved multiplet in (p,p′) and (pol d, t).
e From ^{112}Cd(γ,pol γ′).

Adopted Levels, Gammas (continued)

γ(^{112}Cd)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†][f]	α[e]	$I_{(\gamma+ce)}$	Comments
617.518	2^+	617.517[d] *3*	100	0.0	0^+	E2		0.00371		α(K)=0.00321 *5*; α(L)=0.000407 *6*; α(M)=7.82×10^{-5} *11* α(N)=1.381×10^{-5} *20*; α(O)=7.37×10^{-7} *11* B(E2)(W.u.)=30.31 *19* Mult.: α(K)exp=0.00317 *16*, α(L)exp=0.00039 *4*, and α(M)exp=0.000138 *15* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03); α(K)exp=0.0038 *7* in ^{112}In ε decay (14.88 min) (1962Ru05); A_2=+0.44 *2*, A_4=−0.05 *2* from $\gamma\gamma(\theta)$ in ^{110}Pd(α,2nγ) (1997Dr03).
1224.341	0^+	606.821 *6*	100	617.518	2^+	E2		0.00388		α(K)=0.00336 *5*; α(L)=0.000427 *6*; α(M)=8.21×10^{-5} *12* α(N)=1.450×10^{-5} *21*; α(O)=7.71×10^{-7} *11* B(E2)(W.u.)=51 *14* Mult.: α(K)exp=0.0034 *3* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03); A_2=−0.02 *7*; A_4=−0.08 *10* in ^{110}Pd(α,2nγ) (1992Ku01).
		1224.341 *7*		0.0	0^+	E0			0.090 *7*	E_γ: transition energy from level energy differences. Mult.: from ce measurements 1979Gi05, 1980Ju05 and 1997Dr03; Ice(K)(1224.341γ)/Ice(K)(606.821γ)= 0.300 *22*, weighted average of 0.30 *4* (1979Gi05), 0.33 *5* (1980Ju05) and 0.29 *3* (1997Dr03). $I_{(\gamma+ce)}$: from Ice(K)(1224.341γ)/Ice(K)(606.821γ)= 0.300 *22* α(K)(606.84γ)=0.00336 *5* and Ω_K/Ω_T=0.8961 (2008Ki07).
1312.390	2^+	694.872[d] *7*	100[#] *3*	617.518	2^+	E2+M1	−4.0 *7*	0.00274		α(K)=0.00238 *4*; α(L)=0.000296 *5*; α(M)=5.68×10^{-5} *8* α(N)=1.007×10^{-5} *15*; α(O)=5.50×10^{-7} *8* B(M1)(W.u.)=0.0015 *6*; B(E2)(W.u.)=39 *7* Mult.: α(K)exp=0.00242 *18* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03); A_2=−0.224 *7*; A_4=0.008 *10* from $\gamma\gamma(\theta)$ in ^{110}Pd(α,2nγ) (1993De09). δ: From $\gamma\gamma(\theta)$ in ^{112}Ag β^- decay (1972Wa03); Others ($\gamma(\theta)$): −1.6 *+5−8* (1997Dr03), −2.6 *+4−3* in (2001Ga44), −0.77 *6* in ^{111}Cd(d,pγ) and −0.87 *10* or −3.5 *9* (1969Mi07).
		1312.36 *4*	37.7[#] *4*	0.0	0^+	E2		6.64×10^{-4}		α(K)=0.000557 *8*; α(L)=6.58×10^{-5} *10*; α(M)=1.258×10^{-5} *18* α(N)=2.24×10^{-6} *4*; α(O)=1.302×10^{-7} *19*; α(IPF)=2.64×10^{-5} *4* B(E2)(W.u.)=0.65 *11* Mult.: α(K)exp=0.00052 *6* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03); A_2=+0.46 *2*, A_4=−0.04 *3* from $\gamma\gamma(\theta)$ in ^{110}Pd(α,2nγ) (1997Dr03).
1415.480	4^+	798.04 *10*	100	617.518	2^+	E2		0.00193		α(K)=0.001676 *24*; α(L)=0.000206 *3*; α(M)=3.95×10^{-5}

$^{112}_{48}Cd_{64}$-13

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α^e	$I_{(\gamma+ce)}$	Comments
										6 α(N)=7.01×10^{-6} *10*; α(O)=3.89×10^{-7} *6* B(E2)(W.u.)=63 *8* Mult.: α(K)exp=0.00155 *15* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03); A_2=+0.58 *4*, A_4=−0.15 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
1433.27	0$^+$	120.68# *10*	58@ *7*	1312.390	2$^+$	E2		0.766		α(K)=0.597 *9*; α(L)=0.1367 *20*; α(M)=0.0270 *4* α(N)=0.00453 *7*; α(O)=0.0001141 *17* B(E2)(W.u.)=99 *16* I_γ: Others: 61 *10* in ^{112}Cd(p,p′γ), but 27 *4* in ^{110}Pd(α,2nγ).
		208.93 *3*		1224.341	0$^+$	E0			6.4 *10*	E_γ: transition energy from level energy differences. Mult.: from α measurements in 1980Ju05 and 1997Dr03. $I_{(\gamma+ce)}$: from Ice(K)(208.93γ):Ice(K)(815.79γ)=45 *5* (1997Dr03), α(K)(815.79γ)=0.001589 *23*, Iγ(815.79γ)=100 *11* and Ω_K/Ω_T=0.8941 (2008Ki07); Other: Ice(K)(208.93γ):Ice(K)(815.79γ)=25 *9* (1980Ju05), is probably affected by the uncertainties in the ce spectrum around the 183-keV line.
		815.79d *3*	100@ *10*	617.518	2$^+$	E2		0.00183		α(K)=0.001589 *23*; α(L)=0.000195 *3*; α(M)=3.74×10^{-5} *6* α(N)=6.63×10^{-6} *10*; α(O)=3.69×10^{-7} *6* B(E2)(W.u.)=0.0121 *17* E_γ: B(E2)(↓)=0.017 *4* (1980Ju05).
		1433.27 *3*		0.0	0$^+$	E0			2.7 *4*	E_γ: transition energy from level energy differences. Mult.: from α measurements in 1980Ju05 and 1997Dr03. $I_{(\gamma+ce)}$: from Ice(K)(1433.27γ):Ice(K)(815.79γ)=19.0 *17* (1997Dr03), α(K)(815.57γ)=0.001589 *23*, Iγ(815.57γ)=100 *11* and Ω_K/Ω_T=0.8962 (2008Ki07) Other: Ice(K)(1433.27γ):Ice(K)(815.79γ)=7.9 *25* (1980Ju05), but the value is probably affected by the weak population of this level.
1468.822	2$^+$	244.86# *23*	1.0 *3*	1224.341	0$^+$	(E2)		0.0641		α(K)=0.0538 *8*; α(L)=0.00840 *13*; α(M)=0.001633 *24* α(N)=0.000282 *4*; α(O)=1.143×10^{-5} *17* B(E2)(W.u.)=1.2×10^2 *5* Mult.: from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		851.285d *15*	100.0 *10*	617.518	2$^+$	M1+E2+E0	+0.050 *18*	0.00195	4	B(M1)(W.u.)=2.1×10^{-6} *16*

$^{112}_{48}Cd_{64}$-14

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									ce(K)/(γ+ce)=0.001664 *24*; ce(L)/(γ+ce)=0.000196 *3*; ce(M)/(γ+ce)=3.75×10^{-5} *6* ce(N)/(γ+ce)=6.71×10^{-6} *10*; ce(O)/(γ+ce)=3.97×10^{-7} *6* α(K)=0.001667 *24*; α(L)=0.000196 *3*; α(M)=3.76×10^{-5} *6* α(N)=6.72×10^{-6} *10*; α(O)=3.98×10^{-7} *6* Mult.: from α(K)exp=0.00235 *18* in ^{111}Cd(n,γ) E=th (1997Dr03) and α(K)exp=0.00234 *12* in ^{112}In ε decay (14.88 min) (1991Gi05); A_2=0.50 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03); Others: A_2=0.07 *7* and A_4=0.03 *16* in ^{112}Ag β$^-$ decay (3.130 h) (1972Wa03). δ: Weighted average of 0.053 *30* in 1997De03 and 0.048 *22* in 1991Gi05. Others: +0.14 *5* from γ(θ) in ^{112}Cd(n,n′γ) (2001Ga44), +0.23 *13* or +1.4 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03), +0.10 *7* (1973Gr16); 0.05 or +2.0 *+7−5* (1969Mi07) in Coulomb excitation; +0.22 *5* in ^{112}Ag β$^-$ decay (3.130 h) (1972Wa03). α: 0.00195 *4*, using q^2=9.7 *35*, weighted average of 9.4 *54* (1997Dr03) and 9.9 *46*(1991Gi05), and α from 2008Ki07.
1468.822	2$^+$	1468.84 *10*	58.3 *8*	0.0	0$^+$	E2		5.79×10^{-4}	α(K)=0.000444 *7*; α(L)=5.21×10^{-5} *8*; α(M)=9.96×10^{-6} *14* α(N)=1.777×10^{-6} *25*; α(O)=1.039×10^{-7} *15*; α(IPF)=7.09×10^{-5} *10* B(E2)(W.u.)=0.88 *17* Mult.: α(K)exp=0.00050 *7* in ^{111}Cd(n,γ) E=th (1997Dr03). Mult.: a_0=15.6 *2*; A_2=0.210 *13*; A_4=−0.036 *19* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
1870.68	4$^+$	401.88 *13*	58 *3*	1468.822	2$^+$	E2		0.01277	α(K)=0.01093 *16*; α(L)=0.001492 *21*; α(M)=0.000288 *4* α(N)=5.04×10^{-5} *7*; α(O)=2.44×10^{-6} *4* Mult.: A_2=+0.60 *2*, A_4=−0.10 *2* in ^{110}Pd(α,2nγ) (1997Dr03).
		455.26 *13*	32.0 *17*	1415.480	4$^+$	M1+E2	+2.7 *+4−3*	0.00871	α(K)=0.00750 *11*; α(L)=0.000987 *15*; α(M)=0.000190 *3* α(N)=3.35×10^{-5} *5*; α(O)=1.706×10^{-6} *24* Mult.: A_2=0.06 *23*, A_4=−0.41 *24* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). δ: Other: 2.43 *15* or −0.45 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		558.39 *11*	100.0 *25*	1312.390	2$^+$	E2		0.00487	α(K)=0.00421 *6*; α(L)=0.000542 *8*; α(M)=0.0001042 *15* α(N)=1.84×10^{-5} *3*; α(O)=9.62×10^{-7} *14* Mult.: A_2=+0.64 *3*, A_4=−0.12 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1253.16 *12*	89 *3*	617.518	2$^+$	E2		7.17×10^{-4}	α(K)=0.000612 *9*; α(L)=7.25×10^{-5} *11*; α(M)=1.387×10^{-5} *20* α(N)=2.47×10^{-6} *4*; α(O)=1.431×10^{-7} *20*; α(IPF)=1.510×10^{-5} *22* Mult.: A_2=+0.52 *4*, A_4=−0.15 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).

$^{112}_{48}Cd_{64}$-15

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
1870.96	0+	402.50 *16*	11.2 *12*	1468.822	2+	E2		0.01271	α(K)=0.01088 *16*; α(L)=0.001485 *21*; α(M)=0.000287 *4* α(N)=5.02×10^{-5} *7*; α(O)=2.43×10^{-6} *4* Mult.: A_2=+0.60 *2*, A_4=−0.10 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		558.7	3.5[@] *9*	1312.390	2+	E2		0.00487	α(K)=0.00420 *6*; α(L)=0.000541 *8*; α(M)=0.0001041 *15* α(N)=1.83×10^{-5} *3*; α(O)=9.61×10^{-7} *14*
		1253.56 *12*	100.0 *12*	617.518	2+	E2		7.16×10^{-4}	α(K)=0.000612 *9*; α(L)=7.25×10^{-5} *11*; α(M)=1.386×10^{-5} *20* α(N)=2.47×10^{-6} *4*; α(O)=1.430×10^{-7} *20*; α(IPF)=1.517×10^{-5} *22* Mult.: A_2=0.218 *42* and A_4=0.990 *51* in ^{112}In ε decay (14.88 min) (1972Ka34).
2005.200	3−	536.31 *10*	1.11 *12*	1468.822	2+	E1		0.00181	B(E1)(W.u.)=6.5×10^{-5} *15* α(K)=0.001581 *23*; α(L)=0.000186 *3*; α(M)=3.54×10^{-5} *5* α(N)=6.30×10^{-6} *9*; α(O)=3.61×10^{-7} *5* Mult.: A_2=−0.17 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		692.82[d] *3*	22.2 *6*	1312.390	2+	E1		1.02×10^{-3}	α(K)=0.000893 *13*; α(L)=0.0001041 *15*; α(M)=1.99×10^{-5} *3* α(N)=3.54×10^{-6} *5*; α(O)=2.05×10^{-7} *3* B(E1)(W.u.)=0.00061 *12* Mult.: A_2/A_0=−0.046 *17* in ^{110}Pd(α,2nγ) (1993De09).
		1387.68 *10*	100.0 *6*	617.518	2+	E1		4.19×10^{-4}	B(E1)(W.u.)=0.00034 *7* α(K)=0.000235 *4*; α(L)=2.70×10^{-5} *4*; α(M)=5.15×10^{-6} *8* α(N)=9.19×10^{-7} *13*; α(O)=5.44×10^{-8} *8*; α(IPF)=0.0001504 *21* Mult.: A_2=−0.07 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03); Also, A_2=−0.11 *3* and A_4=−0.02 *5* in ^{112}Ag β$^-$ decay (3.130 h) (1972Wa03). Possible M2 admixture; δ=−0.06 *2* from ^{112}Ag β$^-$ decay (3.130 h).
2064.53	3+	648.91 *10*	28.3 *7*	1415.480	4+	M1+E2	−1.20 *+20−15*	0.00338 *6*	α(K)=0.00294 *5*; α(L)=0.000361 *6*; α(M)=6.93×10^{-5} *10* α(N)=1.230×10^{-5} *19*; α(O)=6.89×10^{-7} *14* B(M1)(W.u.)=0.009 *4*; B(E2)(W.u.)=25 *8* Mult.: A_2=+0.45 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). δ: Also: −1.6 *3* or −0.50 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		752.14[d] *3*	100.0 *13*	1312.390	2+	M1+E2	−2.75 *+23−17*	0.00227	α(K)=0.00197 *3*; α(L)=0.000242 *4*; α(M)=4.65×10^{-5} *7*

$^{112}_{48}Cd_{64}$-16

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=8.24×10^{-6} *12*; α(O)=4.58×10^{-7} *7* B(M1)(W.u.)=0.0059 *19*; B(E2)(W.u.)=64 *18* Mult.: A_2=0.303 *6*; A_4=−0.092 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2064.53	3$^+$	1447.00 *10*	87.7 *13*	617.518	2$^+$	M1+E2	−1.70 +*10*−*12*	6.04×10^{-4}	δ: Also: −1.5 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). α(K)=0.000474 *7*; α(L)=5.55×10^{-5} *8*; α(M)=1.062×10^{-5} *16* α(N)=1.89×10^{-6} *3*; α(O)=1.114×10^{-7} *17*; α(IPF)=6.18×10^{-5} *9* B(M1)(W.u.)=0.0016 *5*; B(E2)(W.u.)=1.8 *5* Mult.: A_2=−0.47 *6*, A_4=+0.10 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
2081.64	4$^+$	211.0[#] *3*	4.9[#] *7*	1870.68	4$^+$	[M1]		0.0597	δ: Also: −1.24 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). α(K)=0.0519 *8*; α(L)=0.00638 *10*; α(M)=0.001226 *18* α(N)=0.000218 *4*; α(O)=1.261×10^{-5} *19* B(M1)(W.u.)=0.14 *5*
		612.88 *25*	23 *4*	1468.822	2$^+$	E2		0.00378	α(K)=0.00327 *5*; α(L)=0.000415 *6*; α(M)=7.99×10^{-5} *12* α(N)=1.411×10^{-5} *20*; α(O)=7.52×10^{-7} *11* B(E2)(W.u.)=59 *20* Mult.: A_2=+0.51 *18*, A_4=−0.12 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		666.17[d] *6*	100.0 *22*	1415.480	4$^+$	M1+E2	−0.41 *3*	0.00331	α(K)=0.00289 *4*; α(L)=0.000345 *5*; α(M)=6.62×10^{-5} *10* α(N)=1.181×10^{-5} *17*; α(O)=6.89×10^{-7} *10* B(M1)(W.u.)=0.080 *24*; B(E2)(W.u.)=24 *8* Mult.: A_2=+0.36 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). δ: Also: −0.47 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		769.36 *10*	70.4 *18*	1312.390	2$^+$	E2		0.00211	α(K)=0.00183 *3*; α(L)=0.000226 *4*; α(M)=4.34×10^{-5} *6* α(N)=7.69×10^{-6} *11*; α(O)=4.24×10^{-7} *6* B(E2)(W.u.)=58 *17* Mult.: A_2=+0.34 *16* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1464.04 *10*	27.7 *9*	617.518	2$^+$	E2		5.81×10^{-4}	B(E2)(W.u.)=0.9 *3* α(K)=0.000447 *7*; α(L)=5.25×10^{-5} *8*; α(M)=1.003×10^{-5} *14* α(N)=1.79×10^{-6} *3*; α(O)=1.046×10^{-7} *15*; α(IPF)=6.92×10^{-5} *10* Mult.: A_2=0.11 *6*; A_4=0.05 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2121.62	2$^+$	688.23 *10*	14.9 *9*	1433.27	0$^+$	E2		0.00279	B(E2)(W.u.)=25 *7* α(K)=0.00242 *4*; α(L)=0.000302 *5*; α(M)=5.81×10^{-5} *9* α(N)=1.028×10^{-5} *15*; α(O)=5.58×10^{-7} *8* Mult.: A_2=+0.52 *19* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).

$^{112}_{48}Cd_{64}$-17

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
2121.62	2+	808.82 *19*	3.73 *12*	1312.390	2+	M1+E2		0.00215	α(K)=0.00187 *3*; α(L)=0.000221 *3*; α(M)=4.23×10^{-5} *6* α(N)=7.56×10^{-6} *11*; α(O)=4.48×10^{-7} *7*
		897.07 *10*	11.9 *3*	1224.341	0+	E2		1.46×10^{-3}	B(E2)(W.u.)=5.3 *15* α(K)=0.001271 *18*; α(L)=0.0001545 *22*; α(M)=2.96×10^{-5} *5* α(N)=5.26×10^{-6} *8*; α(O)=2.96×10^{-7} *5*
		1504.04 *10*	100.0 *9*	617.518	2+	M1+E2	+1.36 *7*	5.88×10^{-4}	B(M1)(W.u.)=0.0033 *10*; B(E2)(W.u.)=2.2 *6* α(K)=0.000444 *7*; α(L)=5.19×10^{-5} *8*; α(M)=9.92×10^{-6} *15* α(N)=1.77×10^{-6} *3*; α(O)=1.045×10^{-7} *15*; α(IPF)=8.01×10^{-5} *12* E_γ: seen as 1507.3 keV *3* in ^{112}In ε decay (14.97 min). Mult.: α(K)exp=0.00030 *10* in ^{111}Cd(n,γ) E=th (1997Dr03); A_2=0.16 *4* from γγ(θ) in (1993De09). δ: Also: +0.15 *5* or +1.6 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		2121.49 *13*	2.80 *13*	0.0	0+	E2		6.14×10^{-4}	B(E2)(W.u.)=0.017 *5* α(K)=0.000222 *4*; α(L)=2.57×10^{-5} *4*; α(M)=4.90×10^{-6} *7* α(N)=8.75×10^{-7} *13*; α(O)=5.19×10^{-8} *8*; α(IPF)=0.000360 *5*
2156.18	2+	687.41 *10*	5.6 *8*	1468.822	2+	M1+E2	−2.3 *19*	0.00285 *24*	α(K)=0.00247 *22*; α(L)=0.000307 *15*; α(M)=5.9×10^{-5} *3* α(N)=1.04×10^{-5} *6*; α(O)=5.7×10^{-7} *7* B(M1)(W.u.)=0.003 *+5−3*; B(E2)(W.u.)=23 *+25−23*
		842.8[@] *15*	2.5[@] *7*	1312.390	2+	[M1]		0.00195	α(K)=0.001706 *25*; α(L)=0.000201 *3*; α(M)=3.85×10^{-5} *6* α(N)=6.88×10^{-6} *10*; α(O)=4.08×10^{-7} *6* B(M1)(W.u.)=0.004 *4*
		1538.68[d] *10*	100	617.518	2+	M1+E2	+0.085 *+25−22*	6.11×10^{-4}	α(K)=0.000459 *7*; α(L)=5.33×10^{-5} *8*; α(M)=1.019×10^{-5} *15* α(N)=1.82×10^{-6} *3*; α(O)=1.089×10^{-7} *16*; α(IPF)=8.67×10^{-5} *13* B(M1)(W.u.)=0.03 *3*; B(E2)(W.u.)=0.06 *+8−6* Mult.: A_2=−0.02 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: −0.33 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		2156.20 *10*	8.8 *3*	0.0	0+	E2		6.23×10^{-4}	α(K)=0.000216 *3*; α(L)=2.49×10^{-5} *4*;

$^{112}_{48}Cd_{64}$-18

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(M)=4.75×10^{-6} *7* α(N)=8.49×10^{-7} *12*; α(O)=5.04×10^{-8} *7*; α(IPF)=0.000377 *6* B(E2)(W.u.)=0.14 *+15−14*
2167.76	6$^+$	297.29[#] *12*	0.58[#] *9*	1870.68	4$^+$	E2		0.0334	α(K)=0.0283 *4*; α(L)=0.00416 *6*; α(M)=0.000806 *12* α(N)=0.0001400 *20*; α(O)=6.15×10^{-6} *9* Mult.: A_2=0.37 *7*; A_4=0.02 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		752.14[#] *10*	100[#] *3*	1415.480	4$^+$	E2		0.00223	α(K)=0.00194 *3*; α(L)=0.000240 *4*; α(M)=4.60×10^{-5} *7* α(N)=8.15×10^{-6} *12*; α(O)=4.48×10^{-7} *7* Mult.: A_2=+0.41 *5*, A_4=−0.11 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
2231.12	2$^+$	226.0[@] *3*	0.61[@] *15*	2005.200	3$^-$	[E1]		0.01665	α(K)=0.01452 *21*; α(L)=0.00174 *3*; α(M)=0.000332 *5* α(N)=5.87×10^{-5} *9*; α(O)=3.18×10^{-6} *5* B(E1)(W.u.)=0.0009 *9*
		762.41 *10*	2.07 *11*	1468.822	2$^+$	M1+E2	−1.4 *+8−34*	0.00226 *13*	α(K)=0.00196 *12*; α(L)=0.000239 *10*; α(M)=4.58×10^{-5} *18* α(N)=8.1×10^{-6} *4*; α(O)=4.6×10^{-7} *4* B(M1)(W.u.)=0.0021 *+26−21*; B(E2)(W.u.)=6 *6*
		918.72 *10*	2.72 *11*	1312.390	2$^+$	M1+E2	+0.21 *+20−13*	0.00160 *4*	α(K)=0.00140 *3*; α(L)=0.000164 *3*; α(M)=3.14×10^{-5} *6* α(N)=5.62×10^{-6} *11*; α(O)=3.33×10^{-7} *8* B(M1)(W.u.)=0.005 *5*; B(E2)(W.u.)=0.19 *+39−19*
		1006.81 *10*	4.03 *11*	1224.341	0$^+$	E2		1.12×10^{-3}	B(E2)(W.u.)=4 *4* α(K)=0.000979 *14*; α(L)=0.0001177 *17*; α(M)=2.25×10^{-5} *4* α(N)=4.01×10^{-6} *6*; α(O)=2.28×10^{-7} *4* Mult.: A_2=0.14 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1613.66 *10*	100.0 *2*	617.518	2$^+$	M1+E2	−0.020 *+20−27*	5.90×10^{-4}	B(M1)(W.u.)=0.03 *3*; B(E2)(W.u.)=0.004 *+9−4* α(K)=0.000416 *6*; α(L)=4.83×10^{-5} *7*; α(M)=9.23×10^{-6} *13* α(N)=1.650×10^{-6} *24*; α(O)=9.86×10^{-8} *14*; α(IPF)=0.0001147 *16* Mult.: A_2=−0.05 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: −0.6 *+2−4* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).

$^{112}_{48}Cd_{64}$-19

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
2300.68	0+	831.79 *10*	48.4 *12*	1468.822	2+	E2		1.75×10^{-3}	B(E2)(W.u.)<23 α(K)=0.001517 *22*; α(L)=0.000186 *3*; α(M)=3.56×10^{-5} *5* α(N)=6.32×10^{-6} *9*; α(O)=3.52×10^{-7} *5*
		1683.22 *10*	100.0 *12*	617.518	2+	E2		5.45×10^{-4}	B(E2)(W.u.)<1.4 α(K)=0.000341 *5*; α(L)=3.98×10^{-5} *6*; α(M)=7.60×10^{-6} *11* α(N)=1.356×10^{-6} *19*; α(O)=7.98×10^{-8} *12*; α(IPF)=0.0001551 *22*
2373.19	5−	291.5 *1*	1.08 *11*	2081.64	4+	E1		0.00834	α(K)=0.00728 *11*; α(L)=0.000867 *13*; α(M)=0.0001656 *24* α(N)=2.93×10^{-5} *5*; α(O)=1.619×10^{-6} *23* B(E1)(W.u.)=0.00031 *+16−31* Mult.: A_2=−0.16 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		367.9 *1*	0.98 *20*	2005.200	3−	E2		0.01681	B(E2)(W.u.)=6.E+1 *+4−6* α(K)=0.01435 *21*; α(L)=0.00200 *3*; α(M)=0.000386 *6* α(N)=6.74×10^{-5} *10*; α(O)=3.19×10^{-6} *5* Mult.: A_2=0.38 *4*; A_4=−0.09 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		957.72 *10*	100	1415.480	4+	E1		5.28×10^{-4}	B(E1)(W.u.)=0.0008 *+4−8* α(K)=0.000462 *7*; α(L)=5.34×10^{-5} *8*; α(M)=1.020×10^{-5} *15* α(N)=1.82×10^{-6} *3*; α(O)=1.065×10^{-7} *15* Mult.: A_2=−0.233 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2402.98	3+	531.89 *10*	10.4 *12*	1870.68	4+	M1+E2	−0.6 *+4−25*	0.00569 *13*	B(M1)(W.u.)=0.016 *+7−9*; B(E2)(W.u.)=16 *+17−16* α(K)=0.00495 *14*; α(L)=0.000605 *20*; α(M)=0.000116 *4* α(N)=2.06×10^{-5} *6*; α(O)=1.17×10^{-6} *7*
		934.19 *10*	61.2 *12*	1468.822	2+	M1+E2	−4.0 *6*	1.34×10^{-3} *2*	B(M1)(W.u.)=0.0014 *+6−7*; B(E2)(W.u.)=20 *+5−9* α(K)=0.001170 *17*; α(L)=0.0001413 *21*; α(M)=2.71×10^{-5} *4* α(N)=4.81×10^{-6} *7*; α(O)=2.73×10^{-7} *4* Mult.: A_2=0.09 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: 0.33 *10* from γγ(θ) in 1997Dr03.
		987.89 *10*	100	1415.480	4+	M1(+E2)	−0.025 *+27−36*	1.37×10^{-3}	α(K)=0.001194 *17*; α(L)=0.0001401 *20*; α(M)=2.68×10^{-5} *4* α(N)=4.79×10^{-6} *7*; α(O)=2.85×10^{-7} *4* B(M1)(W.u.)=(0.032 *+8−14*); B(E2)(W.u.)=(0.02 *+4−2*) δ: Also: −6.2 *+10−17* from 2001Ga44.

$^{112}_{48}Cd_{64}$-20

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
2402.98	3$^+$	1090.56 *10*	57.7 *12*	1312.390	2$^+$	M1+E2	+0.099 *+27−36*	1.10×10^{-3}	B(M1)(W.u.)=0.014 *+4−6*; B(E2)(W.u.)=0.09 *+6−7* α(K)=0.000958 *14*; α(L)=0.0001122 *16*; α(M)=2.15×10^{-5} *3* α(N)=3.84×10^{-6} *6*; α(O)=2.28×10^{-7} *4*
		1785.48 *10*	66.6 *15*	617.518	2$^+$	M1+E2	−0.107 *+36−43*	5.71×10^{-4}	α(K)=0.000338 *5*; α(L)=3.91×10^{-5} *6*; α(M)=7.47×10^{-6} *11* α(N)=1.336×10^{-6} *19*; α(O)=7.99×10^{-8} *12*; α(IPF)=0.000186 *3* B(M1)(W.u.)=0.0036 *+9−15*; B(E2)(W.u.)=0.010 *8* Mult.: A_2=−0.26 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: −0.25 *20* from γ(θ) in 1997Dr03.
2416.00	3$^-$	411.39 *23*	12.9 *14*	2005.200	3$^-$	M1+E2	−0.35 *+18−23*	0.01087 *23*	B(M1)(W.u.)=0.14 *4*; B(E2)(W.u.)=8.E+1 *8* α(K)=0.00945 *18*; α(L)=0.00115 *4*; α(M)=0.000222 *8* α(N)=3.95×10^{-5} *13*; α(O)=2.26×10^{-6} *4* I_γ: From ^{112}Ag β^- decay (3.130 h). Mult.: A_2=0.46 *9*; A_4=0.19 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: +4.2 +∞−20 from γγ(θ) in ^{112}Cd(n,n′γ) (2001Ga44); 0.50 *25* or 2.7 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		946.92 *10*	9.5 *12*	1468.822	2$^+$	E1		5.39×10^{-4}	α(K)=0.000472 *7*; α(L)=5.46×10^{-5} *8*; α(M)=1.043×10^{-5} *15* α(N)=1.86×10^{-6} *3*; α(O)=1.089×10^{-7} *16* B(E1)(W.u.)=0.00012 *3*
		983.8[@] *3*	5.7[@] *3*	1433.27	0$^+$				
		1103.58 *10*	47.0 *14*	1312.390	2$^+$	E1		4.08×10^{-4}	α(K)=0.000354 *5*; α(L)=4.08×10^{-5} *6*; α(M)=7.78×10^{-6} *11* α(N)=1.387×10^{-6} *20*; α(O)=8.16×10^{-8} *12*; α(IPF)=4.47×10^{-6} *7* B(E1)(W.u.)=0.00039 *8* Mult.: A_2=+0.31 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1798.50 *10*	100.0 *17*	617.518	2$^+$	E1		6.36×10^{-4}	α(K)=0.0001535 *22*; α(L)=1.751×10^{-5} *25*; α(M)=3.34×10^{-6} *5* α(N)=5.96×10^{-7} *9*; α(O)=3.55×10^{-8} *5*; α(IPF)=0.000461 *7* B(E1)(W.u.)=0.00019 *4* Mult.: A_2=−0.20 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2418.0	(1,2$^+$)	2418[a] *1*	100	0.0	0$^+$				

$^{112}_{48}Cd_{64}$-21

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
2454.51	4^+	1038.93 *10*	100.0 *3*	1415.480	4^+	M1+E2	−0.27 *18*	1.21×10^{-3} *3*		B(M1)(W.u.)=0.048 *+10−14*; B(E2)(W.u.)=3 *+4−3* α(K)=0.001057 *22*; α(L)=0.0001241 *24*; α(M)=2.37×10^{-5} *5* α(N)=4.24×10^{-6} *8*; α(O)=2.52×10^{-7} *6* Mult.: A_2=+0.40 *9* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1142.21 *10*	8.7 *3*	1312.390	2^+	E2		8.55×10^{-4}		B(E2)(W.u.)=2.1 *+4−6* α(K)=0.000744 *11*; α(L)=8.86×10^{-5} *13*; α(M)=1.696×10^{-5} *24* α(N)=3.02×10^{-6} *5*; α(O)=1.736×10^{-7} *25*; α(IPF)=1.93×10^{-6} *3*
2493.15	4^+	1024.29 *10*	13.7 *5*	1468.822	2^+	E2		1.08×10^{-3}		α(K)=0.000942 *14*; α(L)=0.0001132 *16*; α(M)=2.17×10^{-5} *3* α(N)=3.85×10^{-6} *6*; α(O)=2.20×10^{-7} *3*
		1077.60 *10*	100.0 *6*	1415.480	4^+	M1+E2	+0.13 *+6−5*	1.12×10^{-3}		B(E2)(W.u.)=4.5 *+12−45* α(K)=0.000983 *14*; α(L)=0.0001151 *17*; α(M)=2.20×10^{-5} *4* α(N)=3.94×10^{-6} *6*; α(O)=2.34×10^{-7} *4* B(M1)(W.u.)=0.036 *+9−36*; B(E2)(W.u.)=0.4 *4* Mult.: A_2=+0.47 *23* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). δ: Also: −0.03 *25* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1875.70 *10*	5.6 *5*	617.518	2^+	E2		5.60×10^{-4}		α(K)=0.000278 *4*; α(L)=3.23×10^{-5} *5*; α(M)=6.17×10^{-6} *9* α(N)=1.101×10^{-6} *16*; α(O)=6.51×10^{-8} *10*; α(IPF)=0.000242 *4*
2506.36	$(2)^+$	1194.00 *10*	17.9 *5*	1312.390	2^+	M1+E2	+0.20 *+16−12*	9.01×10^{-4} *16*		B(E2)(W.u.)=0.089 *+24−89* α(K)=0.000783 *14*; α(L)=9.16×10^{-5} *16*; α(M)=1.75×10^{-5} *3* α(N)=3.13×10^{-6} *6*; α(O)=1.86×10^{-7} *4*; α(IPF)=5.48×10^{-6} *11* B(M1)(W.u.)=0.0090 *15*; B(E2)(W.u.)=0.20 *+32−20* Mult.: A_2=−0.18 *17* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1888.79 *10*	100.0 *5*	617.518	2^+	M1+E2	−0.18 *6*	5.76×10^{-4}		α(K)=0.000301 *5*; α(L)=3.48×10^{-5} *5*; α(M)=6.64×10^{-6} *10* α(N)=1.188×10^{-6} *17*; α(O)=7.11×10^{-8} *10*; α(IPF)=0.000233 *4* B(M1)(W.u.)=0.0128 *19*; B(E2)(W.u.)=0.09 *7* δ: Also: +4.2 *+15−8* from γ(θ) in 2001Ga44.

$^{112}_{48}Cd_{64}$-22

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
2506.70	1⁻	1037.9[@] *3*	6.8[@] *7*	1468.822	2⁺	E1		4.53×10^{-4}	α(K)=0.000396 *6*; α(L)=4.58×10^{-5} *7*; α(M)=8.73×10^{-6} *13* α(N)=1.557×10^{-6} *22*; α(O)=9.15×10^{-8} *13* B(E1)(W.u.)=0.00041 *5*
		1073.32[@] *17*	4.8[@] *5*	1433.27	0⁺	E1		4.25×10^{-4}	α(K)=0.000372 *6*; α(L)=4.29×10^{-5} *6*; α(M)=8.19×10^{-6} *12* α(N)=1.462×10^{-6} *21*; α(O)=8.59×10^{-8} *12* B(E1)(W.u.)=0.00026 *3*
		1282.29 *10*	5.5 *5*	1224.341	0⁺	E1		3.90×10^{-4}	α(K)=0.000270 *4*; α(L)=3.10×10^{-5} *5*; α(M)=5.92×10^{-6} *9* α(N)=1.056×10^{-6} *15*; α(O)=6.24×10^{-8} *9*; α(IPF)=8.18×10^{-5} *12* B(E1)(W.u.)=0.000177 *19*
		2506.70 *10*	100.0 *6*	0.0	0⁺	E1		1.04×10^{-3}	α(K)=9.25×10^{-5} *13*; α(L)=1.050×10^{-5} *15*; α(M)=2.00×10^{-6} *3* α(N)=3.58×10^{-7} *5*; α(O)=2.14×10^{-8} *3*; α(IPF)=0.000940 *14* B(E1)(W.u.)=0.000431 *23* Mult.: ε=−0.10 *8* from polarization measurements in ^{112}Cd(γ,pol γ′) (2005Ko32).
2532.20	2⁺	1063.56[b] *22*	76[b] *12*	1468.822	2⁺				
		1099.0[b] *3*	45[b] *12*	1433.27	0⁺				
		1116.83[b] *20*	100[b] *15*	1415.480	4⁺				
2561.27	(1,2⁺)	1248.92[b] *24*	61[b] *11*	1312.390	2⁺				
		2561.13[b] *22*	100[b] *11*	0.0	0⁺				
2570.21	5⁻	197.03 *10*	95 *9*	2373.19	5⁻	M1		0.0717	B(M1)(W.u.)<1.3 α(K)=0.0622 *9*; α(L)=0.00767 *11*; α(M)=0.001474 *21* α(N)=0.000263 *4*; α(O)=1.514×10^{-5} *22* I_γ: 100 in ^{110}Pd(α,2nγ) (1997Dr03). Mult.: A_2=+0.61 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09); possible E2 admixture with δ=0.00 *15* in ^{110}Pd(α,2nγ) (1997Dr03).
		565.10 *20*	31 *3*	2005.200	3⁻	E2		0.00472	B(E2)(W.u.)<45 α(K)=0.00407 *6*; α(L)=0.000523 *8*; α(M)=0.0001007 *15* α(N)=1.776×10^{-5} *25*; α(O)=9.32×10^{-7} *13* Mult.: A_2=0.26 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		699.59 *10*	71 *4*	1870.68	4⁺	E1		1.00×10^{-3}	B(E1)(W.u.)<0.00029 α(K)=0.000874 *13*; α(L)=0.0001020 *15*; α(M)=1.95×10^{-5} *3* α(N)=3.47×10^{-6} *5*; α(O)=2.01×10^{-7} *3* Mult.: A_2=−0.21 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09); possible M2 admixture with δ=0.02 *5* in ^{110}Pd(α,2nγ) (1993De09).
		1154.75 *10*	100	1415.480	4⁺	E1		3.88×10^{-4}	B(E1)(W.u.)<9.0×10^{-5} α(K)=0.000326 *5*; α(L)=3.75×10^{-5} *6*; α(M)=7.15×10^{-6} *10* α(N)=1.276×10^{-6} *18*; α(O)=7.52×10^{-8} *11*; α(IPF)=1.621×10^{-5}

$^{112}_{48}Cd_{64}$-23

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									23 Mult.: A_2=−0.35 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09); Possible M2 admixture with δ=−0.13 *13* in ^{110}Pd(α,2nγ) (1993De09).
2571.47	6+	403.55[#] *10*	5.9[#] *7*	2167.76	6+	M1+E2[‡]	−0.57[‡] *6*	0.01159	B(M1)(W.u.)<0.012; B(E2)(W.u.)<20 α(K)=0.01005 *15*; α(L)=0.001253 *21*; α(M)=0.000241 *4* α(N)=4.28×10^{-5} *7*; α(O)=2.38×10^{-6} *4* Mult.,δ: A_2=0.048 *22*; A_4=−0.3 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Others: +1.8 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		700.89[#] *10*	100[#] *3*	1870.68	4+	E2		0.00266	B(E2)(W.u.)<77 α(K)=0.00231 *4*; α(L)=0.000288 *4*; α(M)=5.53×10^{-5} *8* α(N)=9.80×10^{-6} *14*; α(O)=5.33×10^{-7} *8* Mult.: A_2=+0.13 *54* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1156.21[#] *10*	89[#] *5*	1415.480	4+	E2		8.34×10^{-4}	B(E2)(W.u.)<5.6 α(K)=0.000725 *11*; α(L)=8.63×10^{-5} *12*; α(M)=1.651×10^{-5} *24* α(N)=2.94×10^{-6} *5*; α(O)=1.692×10^{-7} *24*; α(IPF)=2.80×10^{-6} *4* Mult.: A_2=+0.68 *22* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
2591.05	4−	526.52 *10*	48.0 *11*	2064.53	3+	E1		0.00189	B(E1)(W.u.)<0.00076 α(K)=0.001650 *24*; α(L)=0.000194 *3*; α(M)=3.70×10^{-5} *6* α(N)=6.58×10^{-6} *10*; α(O)=3.76×10^{-7} *6* Mult.: A_2=−0.13 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09); possible M2 admixture with δ=0.03 *5* (1993De09).
		585.78 *10*	23.0 *7*	2005.200	3−	M1+E2	+0.47 *+8−7*	0.00450	B(M1)(W.u.)<0.017; B(E2)(W.u.)<11 α(K)=0.00392 *6*; α(L)=0.000473 *7*; α(M)=9.06×10^{-5} *13* α(N)=1.616×10^{-5} *23*; α(O)=9.34×10^{-7} *15* Mult.: A_2=0.09 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: +0.27 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		720.44 *10*	11.7 *7*	1870.68	4+	E1		9.39×10^{-4}	B(E1)(W.u.)<7.2×10^{-5} α(K)=0.000822 *12*; α(L)=9.57×10^{-5} *14*; α(M)=1.83×10^{-5} *3* α(N)=3.25×10^{-6} *5*; α(O)=1.89×10^{-7} *3*
		1175.50 *10*	100.0 *11*	1415.480	4+	E1		3.84×10^{-4}	B(E1)(W.u.)<0.00014 α(K)=0.000315 *5*; α(L)=3.63×10^{-5} *5*; α(M)=6.92×10^{-6} *10*

$^{112}_{48}Cd_{64}$-24

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α e	Comments
									α(N)=1.235×10^{-6} *18*; α(O)=7.28×10^{-8} *11*; α(IPF)=2.42×10^{-5} *4* Mult.: A_2=0.334 *18*; A_4=0.111 *25* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2634.99	3+	570.5 *1*	10.15 *16*	2064.53	3+	M1+E2		0.00485	α(K)=0.00423 *6*; α(L)=0.000504 *7*; α(M)=9.66×10^{-5} *14* α(N)=1.725×10^{-5} *25*; α(O)=1.015×10^{-6} *15*
		629.80 *10*	38.1 *8*	2005.200	3−	E1		1.26×10^{-3}	α(K)=0.001099 *16*; α(L)=0.0001285 *18*; α(M)=2.45×10^{-5} *4* α(N)=4.37×10^{-6} *7*; α(O)=2.52×10^{-7} *4*
		1219.4 *1*		1415.480	4+	M1+E2		8.69×10^{-4}	α(K)=0.000753 *11*; α(L)=8.79×10^{-5} *13*; α(M)=1.680×10^{-5} *24* α(N)=3.00×10^{-6} *5*; α(O)=1.79×10^{-7} *3*; α(IPF)=8.36×10^{-6} *12*
		1322.59 *10*	100.0 *5*	1312.390	2+	M1+E2	−1.37 *+16−15*	6.88×10^{-4} *11*	α(K)=0.000577 *10*; α(L)=6.78×10^{-5} *11*; α(M)=1.297×10^{-5} *21* α(N)=2.31×10^{-6} *4*; α(O)=1.358×10^{-7} *23*; α(IPF)=2.74×10^{-5} *5*
		2017.5 *1*	8.67 *16*	617.518	2+	M1+E2		5.94×10^{-4}	α(K)=0.000264 *4*; α(L)=3.05×10^{-5} *5*; α(M)=5.83×10^{-6} *9* α(N)=1.042×10^{-6} *15*; α(O)=6.25×10^{-8} *9*; α(IPF)=0.000292 *4*
2650.15	0+	1337.75 *11*	14.2 *17*	1312.390	2+	E2		6.46×10^{-4}	B(E2)(W.u.)=2.2 *+7−12* α(K)=0.000536 *8*; α(L)=6.32×10^{-5} *9*; α(M)=1.208×10^{-5} *17* α(N)=2.15×10^{-6} *3*; α(O)=1.252×10^{-7} *18*; α(IPF)=3.23×10^{-5} *5*
		2032.62 *10*	100	617.518	2+	E2		5.92×10^{-4}	B(E2)(W.u.)=1.9 *+5−11* α(K)=0.000240 *4*; α(L)=2.78×10^{-5} *4*; α(M)=5.30×10^{-6} *8* α(N)=9.47×10^{-7} *14*; α(O)=5.61×10^{-8} *8*; α(IPF)=0.000317 *5*
2665.64	5+	583.92 *10*	100	2081.64	4+	M1+E2	+0.30 *4*	0.00456	B(M1)(W.u.)<0.19; B(E2)(W.u.)<48 α(K)=0.00398 *6*; α(L)=0.000477 *7*; α(M)=9.13×10^{-5} *13* α(N)=1.630×10^{-5} *23*; α(O)=9.52×10^{-7} *14*
		601.01 *10*	60 *4*	2064.53	3+	E2		0.00399	B(E2)(W.u.)<2.4×10^2 α(K)=0.00345 *5*; α(L)=0.000439 *7*; α(M)=8.44×10^{-5} *12* α(N)=1.490×10^{-5} *21*; α(O)=7.91×10^{-7} *11* Mult.: A_2=0.32 *6*; A_4=−0.11 *9* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		795.08 *13*	40 *3*	1870.68	4+	M1(+E2)	+0.14 *+18−17*	0.00223	α(K)=0.00194 *4*; α(L)=0.000230 *4*; α(M)=4.39×10^{-5} *7* α(N)=7.85×10^{-6} *13*; α(O)=4.64×10^{-7} *9* B(M1)(W.u.)<0.033?; B(E2)(W.u.)<2.7?
		1250.17 *10*	65.6 *24*	1415.480	4+	M1+E2	−0.12 *+6−5*	8.26×10^{-4}	B(M1)(W.u.)<0.013; B(E2)(W.u.)<0.19

$^{112}_{48}Cd_{64}$-25

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(K)=0.000712 *10*; α(L)=8.31×10^{-5} *12*; α(M)=1.588×10^{-5} *23* α(N)=2.84×10^{-6} *4*; α(O)=1.692×10^{-7} *24*; α(IPF)=1.260×10^{-5} *18* Mult.: A_2=−0.58 *5*; A_4=0.19 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: −2.0 *5* or −0.30 *12* in 1997Dr03.
2668.92	(2)$^-$	663.59 *15*	6.47 *25*	2005.200	3$^-$	M1+E2	+1.3 *+23−8*	0.00319 *15*	B(M1)(W.u.)=0.007 *+16−7*; B(E2)(W.u.)=21 *+29−21* α(K)=0.00277 *14*; α(L)=0.000340 *9*; α(M)=6.53×10^{-5} *17* α(N)=1.16×10^{-5} *4*; α(O)=6.5×10^{-7} *5*
		1356.52 *10*	100	1312.390	2$^+$	E1		4.08×10^{-4}	B(E1)(W.u.)=0.00045 *7* α(K)=0.000245 *4*; α(L)=2.81×10^{-5} *4*; α(M)=5.36×10^{-6} *8* α(N)=9.56×10^{-7} *14*; α(O)=5.66×10^{-8} *8*; α(IPF)=0.0001287 *18* Mult.: A_2=0.05 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		2051.50 *10*	17.9 *8*	617.518	2$^+$	E1		7.86×10^{-4}	B(E1)(W.u.)=2.3×10^{-5} *4* α(K)=0.0001249 *18*; α(L)=1.422×10^{-5} *20*; α(M)=2.71×10^{-6} *4* α(N)=4.84×10^{-7} *7*; α(O)=2.89×10^{-8} *4*; α(IPF)=0.000644 *9*
2674.00	2$^+$	2056.48 *10*	100	617.518	2$^+$	M1(+E2)	+0.05 *+7−8*	6.01×10^{-4}	α(K)=0.000254 *4*; α(L)=2.93×10^{-5} *5*; α(M)=5.61×10^{-6} *8* α(N)=1.003×10^{-6} *14*; α(O)=6.01×10^{-8} *9*; α(IPF)=0.000311 *5* B(M1)(W.u.)=(0.072 *7*); B(E2)(W.u.)=(0.03 *+10−3*)
2694.0	(1)	2694[a] *1*	100	0.0	0$^+$	M1		7.88×10^{-4}	α(K)=0.0001505 *21*; α(L)=1.729×10^{-5} *25*; α(M)=3.30×10^{-6} *5* α(N)=5.90×10^{-7} *9*; α(O)=3.55×10^{-8} *5*; α(IPF)=0.000617 *9* B(M1)(W.u.)=0.0016 *3*
2711.19	4$^+$	705.95 *10*	6.3 *9*	2005.200	3$^-$	E1		9.80×10^{-4}	B(E1)(W.u.)=0.00019 *+6−12* α(K)=0.000858 *12*; α(L)=0.0001000 *14*; α(M)=1.91×10^{-5} *3* α(N)=3.40×10^{-6} *5*; α(O)=1.97×10^{-7} *3*
		1295.74 *10*	100	1415.480	4$^+$	M1+E2	−0.08 *6*	7.74×10^{-4}	B(M1)(W.u.)=0.036 *+10−21*; B(E2)(W.u.)=0.11 *+17−11* α(K)=0.000660 *10*; α(L)=7.69×10^{-5} *11*; α(M)=1.471×10^{-5} *21* α(N)=2.63×10^{-6} *4*; α(O)=1.568×10^{-7} *23*; α(IPF)=2.00×10^{-5} *3*

$^{112}_{48}Cd_{64}$-26

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
										Mult.: A_2=0.09 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
										δ: Other: −0.33 *9* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
2723.96	2+	718.89 *10*	7.0[@] *7*	2005.200	3−	E1		9.43×10^{-4}		α(K)=0.000825 *12*; α(L)=9.62×10^{-5} *14*; α(M)=1.84×10^{-5} *3* α(N)=3.27×10^{-6} *5*; α(O)=1.90×10^{-7} *3* B(E1)(W.u.)=0.00031 *6* I_γ: 11.5 *6* in ^{112}Cd(n,n′γ).
		1411.8[@] *8*	1.4[@] *4*	1312.390	2+	[M1+E2]		6.75×10^{-4}		α(K)=0.000550 *8*; α(L)=6.40×10^{-5} *9*; α(M)=1.224×10^{-5} *18* α(N)=2.19×10^{-6} *3*; α(O)=1.306×10^{-7} *19*; α(IPF)=4.66×10^{-5} *7*
		2106.31 *10*	100.0 *6*	617.518	2+	M1(+E2)	+0.05 +6−5	6.12×10^{-4}		α(K)=0.000242 *4*; α(L)=2.80×10^{-5} *4*; α(M)=5.34×10^{-6} *8* α(N)=9.56×10^{-7} *14*; α(O)=5.73×10^{-8} *8*; α(IPF)=0.000335 *5* B(M1)(W.u.)=(0.0131 *20*); B(E2)(W.u.)=(0.006 +15−6) δ: Other: 2.0 +3−2 from γ(θ) in 2001Ga44.
		2723.6[@] *3*	4.1[@] *4*	0.0	0+	[E2]		8.09×10^{-4}		α(K)=0.0001430 *20*; α(L)=1.641×10^{-5} *23*; α(M)=3.13×10^{-6} *5* α(N)=5.59×10^{-7} *8*; α(O)=3.34×10^{-8} *5*; α(IPF)=0.000645 *9* B(E2)(W.u.)=0.027 *5*
2765.72	2+	894.5 *1*	7.2 *10*	1870.96	0+	E2		1.47×10^{-3}		B(E2)(W.u.)=47 *8* α(K)=0.001280 *18*; α(L)=0.0001555 *22*; α(M)=2.98×10^{-5} *5* α(N)=5.29×10^{-6} *8*; α(O)=2.98×10^{-7} *5*
		1296.9 *1*	16 *4*	1468.822	2+	M1+E2		7.74×10^{-4}		α(K)=0.000659 *10*; α(L)=7.68×10^{-5} *11*; α(M)=1.469×10^{-5} *21* α(N)=2.63×10^{-6} *4*; α(O)=1.567×10^{-7} *22*; α(IPF)=2.02×10^{-5} *3* I_γ: from ^{110}Cd(n,γ) E=th.
		1453.4 *1*	8.9 *5*	1312.390	2+	M1+E2		6.50×10^{-4}		α(K)=0.000518 *8*; α(L)=6.02×10^{-5} *9*; α(M)=1.150×10^{-5} *17* α(N)=2.06×10^{-6} *3*; α(O)=1.228×10^{-7} *18*; α(IPF)=5.85×10^{-5} *9*
		2148.21 *10*	100 *4*	617.518	2+	M1(+E2)	+0.06 +7−6	6.22×10^{-4}		α(K)=0.000233 *4*; α(L)=2.69×10^{-5} *4*; α(M)=5.14×10^{-6} *8* α(N)=9.19×10^{-7} *13*; α(O)=5.51×10^{-8} *8*; α(IPF)=0.000355 *5* B(M1)(W.u.)=(0.047 *5*); B(E2)(W.u.)=(0.03 +7−3) δ: Other: +1.9 +3−2 from γ(θ) in 2001Ga44.

$^{112}_{48}Cd_{64}$-27

Adopted Levels, Gammas (continued)

$\gamma(^{112}Cd)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
		2765.7 *3*	5.85 *24*	0.0	0^+	E2		8.23×10^{-4}		α(K)=0.0001393 *20*; α(L)=1.597×10^{-5} *23*;

$^{112}_{48}Cd_{64}$-28

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
										α(M)=3.05×10^{-6} *5* α(N)=5.45×10^{-7} *8*; α(O)=3.25×10^{-8} *5*; α(IPF)=0.000665 *10*
2773.08	(0)$^+$	541.80 *10*	19.2 *10*	2231.12	2$^+$	E2		0.00530		B(E2)(W.u.)=0.136 *15* B(E2)(W.u.)<88 α(K)=0.00457 *7*; α(L)=0.000592 *9*; α(M)=0.0001138 *16* α(N)=2.01×10^{-5} *3*; α(O)=1.044×10^{-6} *15*
		1460.83 *10*	100.0 *10*	1312.390	2$^+$	E2		5.82×10^{-4}		B(E2)(W.u.)<3.2 α(K)=0.000449 *7*; α(L)=5.27×10^{-5} *8*; α(M)=1.008×10^{-5} *15* α(N)=1.80×10^{-6} *3*; α(O)=1.050×10^{-7} *15*; α(IPF)=6.82×10^{-5} *10*
2791.79	(4)$^-$	786.59 *10*	100	2005.200	3$^-$	M1+E2	+0.038 *+49−14*	0.00229		α(K)=0.00200 *3*; α(L)=0.000236 *4*; α(M)=4.51×10^{-5} *7* α(N)=8.06×10^{-6} *12*; α(O)=4.77×10^{-7} *7* B(M1)(W.u.)<0.47; B(E2)(W.u.)<3.1
2793.80	7$^-$	222.17[#] *10*	3.2[#] *4*	2571.47	6$^+$	(E1)		0.01746		α(K)=0.01522 *22*; α(L)=0.00182 *3*; α(M)=0.000348 *5* α(N)=6.15×10^{-5} *9*; α(O)=3.33×10^{-6} *5* Mult.: A_2=−0.32 *22* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		420.68 *19*	63 *4*	2373.19	5$^-$	E2		0.01110		α(K)=0.00952 *14*; α(L)=0.001287 *19*; α(M)=0.000248 *4* α(N)=4.35×10^{-5} *7*; α(O)=2.14×10^{-6} *3* Mult.: A_2=0.323 *7*; A_4=−0.112 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		625.97 *10*	100 *4*	2167.76	6$^+$	E1		1.27×10^{-3}		α(K)=0.001114 *16*; α(L)=0.0001302 *19*; α(M)=2.49×10^{-5} *4* α(N)=4.43×10^{-6} *7*; α(O)=2.55×10^{-7} *4* Mult.: A_2=−0.250 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2816.71	4$^+$	735.20 *10*		2081.64	4$^+$	M1+E2	+4.0 *+39−13*	0.00238		α(K)=0.00207 *4*; α(L)=0.000255 *4*; α(M)=4.90×10^{-5} *8* α(N)=8.69×10^{-6} *14*; α(O)=4.79×10^{-7} *9* δ: Also: −0.65 *+16−20* from γ(θ) in 2001Ga44.
		811.3 *1*		2005.200	3$^-$	E1		7.33×10^{-4}		α(K)=0.000642 *9*; α(L)=7.46×10^{-5} *11*; α(M)=1.423×10^{-5} *20* α(N)=2.54×10^{-6} *4*; α(O)=1.477×10^{-7} *21*
		1401.3 *1*		1415.480	4$^+$	M1+E2		6.82×10^{-4}		α(K)=0.000559 *8*; α(L)=6.51×10^{-5} *10*; α(M)=1.243×10^{-5} *18*

$^{112}_{48}Cd_{64}$-29

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†][f]	α[e]	Comments
									α(N)=2.22×10^{-6} *4*; α(O)=1.327×10^{-7} *19*; α(IPF)=4.37×10^{-5} *7*
2817.74	6$^-$	247.54[#] *10*	10.6[#] *9*	2570.21	5$^-$	M1(+E2)	+0.03 *3*	0.0392	α(K)=0.0341 *5*; α(L)=0.00417 *6*; α(M)=0.000801 *12* α(N)=0.0001429 *21*; α(O)=8.27×10^{-6} *12* Mult.: A_2=−0.18 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		444.54 *10*	100.0 *28*	2373.19	5$^-$	M1+E2	−0.29 *+5−7*	0.00891	α(K)=0.00776 *11*; α(L)=0.000940 *15*; α(M)=0.000180 *3* α(N)=3.22×10^{-5} *5*; α(O)=1.86×10^{-6} *3* Mult.: A_2=−0.73 *2*; A_4=0.05 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: −0.45 *18* from γ(θ) in 1997Dr03.
2829.19	1$^-$	957.80 *19*	8.0[@] *10*	1870.96	0$^+$	E1		5.28×10^{-4}	α(K)=0.000462 *7*; α(L)=5.34×10^{-5} *8*; α(M)=1.019×10^{-5} *15* α(N)=1.82×10^{-6} *3*; α(O)=1.065×10^{-7} *15* B(E1)(W.u.)=0.00051 *9*
		1604.6 *4*	5.0[@] *14*	1224.341	0$^+$	[E1]		5.24×10^{-4}	α(K)=0.000185 *3*; α(L)=2.11×10^{-5} *3*; α(M)=4.02×10^{-6} *6* α(N)=7.19×10^{-7} *10*; α(O)=4.27×10^{-8} *6*; α(IPF)=0.000313 *5* B(E1)(W.u.)=6.8×10^{-5} *21*
		2211.65 *10*	100.0 *21*	617.518	2$^+$	E1		8.80×10^{-4}	α(K)=0.0001114 *16*; α(L)=1.267×10^{-5} *18*; α(M)=2.41×10^{-6} *4* α(N)=4.31×10^{-7} *6*; α(O)=2.58×10^{-8} *4*; α(IPF)=0.000753 *11* B(E1)(W.u.)=0.00052 *6*
		2829.20 *10*	78.6 *21*	0.0	0$^+$	E1		1.22×10^{-3}	α(K)=7.77×10^{-5} *11*; α(L)=8.80×10^{-6} *13*; α(M)=1.677×10^{-6} *24* α(N)=3.00×10^{-7} *5*; α(O)=1.79×10^{-8} *3*; α(IPF)=0.001129 *16* B(E1)(W.u.)=0.000195 *23*
2834.27	0$^+$	712.68 *10*	19 *4*	2121.62	2$^+$	E2		0.00255	α(K)=0.00221 *4*; α(L)=0.000276 *4*; α(M)=5.29×10^{-5} *8* α(N)=9.37×10^{-6} *14*; α(O)=5.12×10^{-7} *8* B(E2)(W.u.)<36
		1521.82 *12*	26.2 *19*	1312.390	2$^+$	E2		5.64×10^{-4}	α(K)=0.000415 *6*; α(L)=4.85×10^{-5} *7*; α(M)=9.28×10^{-6} *13* α(N)=1.655×10^{-6} *24*; α(O)=9.69×10^{-8} *14*; α(IPF)=8.96×10^{-5} *13* B(E2)(W.u.)<1.1
		2216.74 *10*	100	617.518	2$^+$	E2		6.40×10^{-4}	α(K)=0.000205 *3*; α(L)=2.37×10^{-5} *4*; α(M)=4.52×10^{-6} *7* α(N)=8.07×10^{-7} *12*; α(O)=4.80×10^{-8} *7*; α(IPF)=0.000406 *6* B(E2)(W.u.)<0.65

$^{112}_{48}Cd_{64}$-30

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α e	Comments
2840.22	(4)$^+$	1424.73 *10*	100	1415.480	4$^+$	M1+E2	−1.28 *+18−24*	6.23×10^{-4} *11*	α(K)=0.000498 *9*; α(L)=5.82×10^{-5} *10*; α(M)=1.113×10^{-5} *19* α(N)=1.99×10^{-6} *4*; α(O)=1.171×10^{-7} *22*; α(IPF)=5.41×10^{-5} *9* B(M1)(W.u.)<0.0070; B(E2)(W.u.)<4.3 Mult.: A_2=−0.33 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: −0.11 *8* γγ(θ) in ^{110}Pd(α,2nγ) in 1997Dr03.
2852.90	2$^+$	850& *2*		2005.200	3$^-$				
		1419.6 *1*	12.2 *4*	1433.27	0$^+$	E2		5.99×10^{-4}	B(E2)(W.u.)=0.42 *+10−21* α(K)=0.000475 *7*; α(L)=5.59×10^{-5} *8*; α(M)=1.068×10^{-5} *15* α(N)=1.90×10^{-6} *3*; α(O)=1.111×10^{-7} *16*; α(IPF)=5.49×10^{-5} *8*
		1540.4 *1*	52.8 *22*	1312.390	2$^+$	M1+E2		6.11×10^{-4}	α(K)=0.000458 *7*; α(L)=5.32×10^{-5} *8*; α(M)=1.017×10^{-5} *15* α(N)=1.82×10^{-6} *3*; α(O)=1.087×10^{-7} *16*; α(IPF)=8.72×10^{-5} *13*
		2235.46 *10*	34.8 *8*	617.518	2$^+$	M1+E2	−0.39 *+20−25*	6.44×10^{-4}	B(M1)(W.u.)=0.00068 *+18−34*; B(E2)(W.u.)=0.017 *+16−17* α(K)=0.000214 *4*; α(L)=2.47×10^{-5} *5*; α(M)=4.71×10^{-6} *8* α(N)=8.42×10^{-7} *15*; α(O)=5.04×10^{-8} *10*; α(IPF)=0.000400 *7*
		2852.87 *10*	100 *3*	0.0	0$^+$	E2		8.54×10^{-4}	B(E2)(W.u.)=0.106 *+25−51* α(K)=0.0001321 *19*; α(L)=1.514×10^{-5} *22*; α(M)=2.89×10^{-6} *4* α(N)=5.16×10^{-7} *8*; α(O)=3.09×10^{-8} *5*; α(IPF)=0.000704 *10*
2866.75	3$^-$	450.75 *10*	16.5 *7*	2416.00	3$^-$	M1+E2	+0.73 *+69−71*	0.00873 *20*	α(K)=0.00757 *15*; α(L)=0.00094 *5*; α(M)=0.000182 *10* α(N)=3.22×10^{-5} *16*; α(O)=1.78×10^{-6} *3* B(M1)(W.u.)=0.020 *+15−20*; B(E2)(W.u.)=4.E+1 *+6−4*
		784.91 *10*	18.3 *15*	2081.64	4$^+$	E1		7.85×10^{-4}	α(K)=0.000687 *10*; α(L)=7.99×10^{-5} *12*; α(M)=1.524×10^{-5} *22* α(N)=2.72×10^{-6} *4*; α(O)=1.580×10^{-7} *23* B(E1)(W.u.)=9.E−5 *+3−9*
		802.3@ *4*	14@ *4*	2064.53	3$^+$	[E1]		7.50×10^{-4}	α(K)=0.000657 *10*; α(L)=7.63×10^{-5} *11*; α(M)=1.456×10^{-5} *21* α(N)=2.59×10^{-6} *4*; α(O)=1.511×10^{-7} *22* B(E1)(W.u.)=6.E−5 *+3−6*
		861.68 *10*	100.0 *11*	2005.200	3$^-$	M1(+E2)	+0.069 *+89−69*	0.00186	α(K)=0.001621 *24*; α(L)=0.000191 *3*; α(M)=3.66×10^{-5}

$^{112}_{48}Cd_{64}$-31

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α e	Comments
									6
									α(N)=6.53×10^{-6} *10*; α(O)=3.87×10^{-7} *6*
									B(M1)(W.u.)=(0.027 *+9−27*); B(E2)(W.u.)=(0.1 *+4−1*)
2866.75	3$^-$	1451.30 *10*	64.7 *13*	1415.480	4$^+$	E1		4.45×10^{-4}	α(K)=0.000218 *3*; α(L)=2.50×10^{-5} *4*; α(M)=4.77×10^{-6} *7*
									α(N)=8.51×10^{-7} *12*; α(O)=5.04×10^{-8} *7*; α(IPF)=0.000197 *3*
									B(E1)(W.u.)=4.8×10^{-5} *+16−48*
2867.48	(3)$^+$	1398.64 *10*		1468.822	2$^+$	M1+E2		6.84×10^{-4}	α(K)=0.000561 *8*; α(L)=6.53×10^{-5} *10*; α(M)=1.249×10^{-5} *18*
									α(N)=2.23×10^{-6} *4*; α(O)=1.333×10^{-7} *19*; α(IPF)=4.30×10^{-5} *6*
		1555.1 *1*		1312.390	2$^+$	M1+E2		6.06×10^{-4}	α(K)=0.000449 *7*; α(L)=5.22×10^{-5} *8*; α(M)=9.97×10^{-6} *14*
									α(N)=1.783×10^{-6} *25*; α(O)=1.066×10^{-7} *15*; α(IPF)=9.26×10^{-5} *13*
		2249.91 *10*	100	617.518	2$^+$	M1+E2		6.48×10^{-4}	α(K)=0.000213 *3*; α(L)=2.45×10^{-5} *4*; α(M)=4.69×10^{-6} *7*
									α(N)=8.38×10^{-7} *12*; α(O)=5.03×10^{-8} *7*; α(IPF)=0.000405 *6*
2881.02	8$^+$	713.23# *10*	100#	2167.76	6$^+$	E2		0.00255	α(K)=0.00221 *3*; α(L)=0.000275 *4*; α(M)=5.28×10^{-5} *8*
									α(N)=9.36×10^{-6} *14*; α(O)=5.11×10^{-7} *8*
									Mult.: A_2=0.341 *9*; A_4=−0.121 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2882.82	0$^+$	726.79 *14*	36 *5*	2156.18	2$^+$	E2		0.00243	α(K)=0.00211 *3*; α(L)=0.000262 *4*; α(M)=5.03×10^{-5} *7*
									α(N)=8.91×10^{-6} *13*; α(O)=4.88×10^{-7} *7*
									B(E2)(W.u.)<27
		1413.86 *10*	100 *5*	1468.822	2$^+$	E2		6.02×10^{-4}	α(K)=0.000479 *7*; α(L)=5.63×10^{-5} *8*; α(M)=1.077×10^{-5} *15*
									α(N)=1.92×10^{-6} *3*; α(O)=1.120×10^{-7} *16*; α(IPF)=5.32×10^{-5} *8*
									B(E2)(W.u.)<2.7
		1570.51 *14*	28.5 *25*	1312.390	2$^+$	E2		5.54×10^{-4}	α(K)=0.000390 *6*; α(L)=4.56×10^{-5} *7*; α(M)=8.71×10^{-6} *13*
									α(N)=1.554×10^{-6} *22*; α(O)=9.12×10^{-8} *13*; α(IPF)=0.0001083 *16*
									B(E2)(W.u.)<0.46
2893.51	4$^+$	771.76 *10*	37 *4*	2121.62	2$^+$	E2		0.00209	α(K)=0.00182 *3*; α(L)=0.000224 *4*; α(M)=4.30×10^{-5} *6*
									α(N)=7.63×10^{-6} *11*; α(O)=4.21×10^{-7} *6*
									B(E2)(W.u.)<42
		811.9 *1*		2081.64	4$^+$	M1+E2		0.00213	α(K)=0.00186 *3*; α(L)=0.000219 *3*; α(M)=4.19×10^{-5} *6*
									α(N)=7.50×10^{-6} *11*; α(O)=4.44×10^{-7} *7*
		2276.07 *10*	100 *4*	617.518	2$^+$	E2		6.58×10^{-4}	B(E2)(W.u.)<0.51
									α(K)=0.000196 *3*; α(L)=2.26×10^{-5} *4*; α(M)=4.31×10^{-6} *6*
									α(N)=7.70×10^{-7} *11*; α(O)=4.58×10^{-8} *7*; α(IPF)=0.000435 *6*
2899.02	(3$^-$,5$^-$)	1483.53 *4*	100	1415.480	4$^+$	(E1)		4.60×10^{-4}	α(K)=0.000210 *3*; α(L)=2.41×10^{-5} *4*; α(M)=4.59×10^{-6} *7*
									α(N)=8.20×10^{-7} *12*; α(O)=4.86×10^{-8} *7*; α(IPF)=0.000221 *3*
									B(E1)(W.u.)=0.00069 *16*
									Mult.: A_2=−0.29 *3*; A_4=0.07 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
									Mult.: stretched transition; δ=+0.014 *+33−30* from γ(θ) in 2001Ga44.
2921.53	6$^+$	840.00 *10*	100# *8*	2081.64	4$^+$	E2		1.70×10^{-3}	α(K)=0.001482 *21*; α(L)=0.000181 *3*; α(M)=3.48×10^{-5} *5*

$^{112}_{48}Cd_{64}$-32

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=6.17×10^{-6} *9*; α(O)=3.44×10^{-7} *5* Mult.: A_2=0.28 *3*; A_4=−0.12 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2921.53	6$^+$	1505.5[#] *3*	40[#] *5*	1415.480	4$^+$	E2		5.68×10^{-4}	α(K)=0.000423 *6*; α(L)=4.96×10^{-5} *7*; α(M)=9.48×10^{-6} *14* α(N)=1.691×10^{-6} *24*; α(O)=9.90×10^{-8} *14*; α(IPF)=8.37×10^{-5} *12* Mult.: A_2=0.13 *12* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2924.83	4$^-$	333.72 *10*	60 *3*	2591.05	4$^-$	M1+E2	−0.21 *+18−17*	0.0184 *5*	α(K)=0.0160 *4*; α(L)=0.00195 *8*; α(M)=0.000375 *16* α(N)=6.7×10^{-5} *3*; α(O)=3.84×10^{-6} *7* B(M1)(W.u.)<0.80; B(E2)(W.u.)<6.3×10^2 δ: Other: +1.4 *+7−5* from γγ(θ) in 2001Ga44.
		551.63 *10*	28 *3*	2373.19	5$^-$	M1+E2		0.00525	α(K)=0.00458 *7*; α(L)=0.000547 *8*; α(M)=0.0001048 *15* α(N)=1.87×10^{-5} *3*; α(O)=1.101×10^{-6} *16*
		919.58 *10*	100 *3*	2005.200	3$^-$	M1+E2	−0.22 *10*	1.59×10^{-3} *3*	α(K)=0.001392 *22*; α(L)=0.0001639 *25*; α(M)=3.14×10^{-5} *5* α(N)=5.60×10^{-6} *9*; α(O)=3.32×10^{-7} *6* B(M1)(W.u.)<0.062; B(E2)(W.u.)<5.1
		1054.24 *10*	62 *3*	1870.68	4$^+$	E1		4.40×10^{-4}	α(K)=0.000385 *6*; α(L)=4.44×10^{-5} *7*; α(M)=8.48×10^{-6} *12* α(N)=1.512×10^{-6} *22*; α(O)=8.88×10^{-8} *13* B(E1)(W.u.)<0.00034
		1509.36 *10*	75.9 *23*	1415.480	4$^+$	E1		4.73×10^{-4}	α(K)=0.000204 *3*; α(L)=2.34×10^{-5} *4*; α(M)=4.46×10^{-6} *7* α(N)=7.96×10^{-7} *12*; α(O)=4.72×10^{-8} *7*; α(IPF)=0.000240 *4* B(E1)(W.u.)<0.00014
2931.46	1$^+$	1618.84 *11*	47.5 *20*	1312.390	2$^+$	M1+E2		5.89×10^{-4}	α(K)=0.000413 *6*; α(L)=4.80×10^{-5} *7*; α(M)=9.16×10^{-6} *13* α(N)=1.639×10^{-6} *23*; α(O)=9.80×10^{-8} *14*; α(IPF)=0.0001167 *17*
		2314.12 *10*	53 *3*	617.518	2$^+$	M1+E2		6.66×10^{-4}	α(K)=0.000202 *3*; α(L)=2.32×10^{-5} *4*; α(M)=4.43×10^{-6} *7* α(N)=7.93×10^{-7} *12*; α(O)=4.76×10^{-8} *7*; α(IPF)=0.000436 *7*
		2931.42 *10*	100 *3*	0.0	0$^+$	M1		8.72×10^{-4}	α(K)=0.0001284 *18*; α(L)=1.473×10^{-5} *21*; α(M)=2.81×10^{-6} *4* α(N)=5.03×10^{-7} *7*; α(O)=3.02×10^{-8} *5*; α(IPF)=0.000726 *11* B(M1)(W.u.)=0.026 *7* Mult.: ε=+0.08 *10* from polarization measurements in ^{112}Cd(γ,pol γ′) (2005Ko32).
2931.97	6$^-$	361.80[#] *20*		2570.21	5$^-$	M1+E2		0.01480	α(K)=0.01289 *19*; α(L)=0.001558 *22*; α(M)=0.000299 *5* α(N)=5.33×10^{-5} *8*; α(O)=3.11×10^{-6} *5* Mult.: A_2=−0.20 *17* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).

$^{112}_{48}Cd_{64}$-33

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
2931.97	6⁻	558.7 *1*	100	2373.19	5⁻	M1+E2		0.00510	α(K)=0.00445 *7*; α(L)=0.000530 *8*; α(M)=0.0001016 *15* α(N)=1.81×10^{-5} *3*; α(O)=1.068×10^{-6} *15* Mult.: A_2=+0.64 *3*, A_4=−0.12 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
2935.50	7⁻	141.69[#] *11*	5.6[#] *14*	2793.80	7⁻	M1+E2[‡]	−0.52[‡] *9*	0.230 *16*	α(K)=0.193 *12*; α(L)=0.030 *3*; α(M)=0.0058 *6* α(N)=0.00101 *10*; α(O)=4.37×10^{-5} *19*
		365.38[#] *10*	3.9[#] *16*	2570.21	5⁻	E2		0.01718	α(K)=0.01467 *21*; α(L)=0.00204 *3*; α(M)=0.000395 *6* α(N)=6.90×10^{-5} *10*; α(O)=3.25×10^{-6} *5* Mult.: A_2=0.63 *10*; A_4=−0.15 *12* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		562.39[#] *10*	100[#] *3*	2373.19	5⁻	(E2)		0.00478	α(K)=0.00413 *6*; α(L)=0.000531 *8*; α(M)=0.0001021 *15* α(N)=1.80×10^{-5} *3*; α(O)=9.44×10^{-7} *14* Mult.: A_2=+0.24 *8* (1997Dr03).
		767.65[#] *10*	61[#] *3*	2167.76	6⁺	E1		8.22×10^{-4}	α(K)=0.000719 *10*; α(L)=8.37×10^{-5} *12*; α(M)=1.597×10^{-5} *23* α(N)=2.84×10^{-6} *4*; α(O)=1.653×10^{-7} *24* Mult.: A_2=−0.249 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2944.94	2⁺	2327.44 *10*	100 *4*	617.518	2⁺	M1+E2	+1.4 *+11−14*	6.73×10^{-4}	α(K)=0.000192 *8*; α(L)=2.21×10^{-5} *9*; α(M)=4.22×10^{-6} *18* α(N)=7.5×10^{-7} *4*; α(O)=4.50×10^{-8} *22*; α(IPF)=0.000454 *13* B(M1)(W.u.)=0.0009 *+10−9*; B(E2)(W.u.)=0.25 *+15−23*
		2944.78 *10*	73 *4*	0.0	0⁺	E2		8.87×10^{-4}	α(K)=0.0001252 *18*; α(L)=1.433×10^{-5} *20*; α(M)=2.73×10^{-6} *4* α(N)=4.89×10^{-7} *7*; α(O)=2.92×10^{-8} *4*; α(IPF)=0.000744 *11* B(E2)(W.u.)=0.084 *+22−64*
2947.76	(2,3)⁺	2330.22 *10*	100	617.518	2⁺	M1+E2	−3.6 *+10−16*	6.75×10^{-4}	α(K)=0.000189 *3*; α(L)=2.17×10^{-5} *4*; α(M)=4.15×10^{-6} *6* α(N)=7.41×10^{-7} *11*; α(O)=4.41×10^{-8} *7*; α(IPF)=0.000460 *7* B(M1)(W.u.)=0.0015 *9*; B(E2)(W.u.)=2.9 *9*
2961.92	4⁻	370.86 *10*	37.1 *22*	2591.05	4⁻	M1(+E2)	+0.06 *+15−10*	0.01392 *22*	α(K)=0.01212 *19*; α(L)=0.00146 *3*; α(M)=0.000281 *6* α(N)=5.01×10^{-5} *10*; α(O)=2.92×10^{-6} *5*
		588.83 *10*	60.2 *24*	2373.19	5⁻	M1+E2		0.00450	α(K)=0.00392 *6*; α(L)=0.000467 *7*;

$^{112}_{48}Cd_{64}$-34

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†][f]	α[e]	Comments
									α(M)=8.95×10^{-5} *13* α(N)=1.598×10^{-5} *23*; α(O)=9.41×10^{-7} *14*
2961.92	4$^-$	956.7 *1*		2005.200	3$^-$	M1+E2		1.47×10^{-3}	α(K)=0.001282 *18*; α(L)=0.0001506 *21*; α(M)=2.88×10^{-5} *4* α(N)=5.15×10^{-6} *8*; α(O)=3.06×10^{-7} *5*
		1546.35 *10*	100 *3*	1415.480	4$^+$	E1		4.92×10^{-4}	α(K)=0.000196 *3*; α(L)=2.24×10^{-5} *4*; α(M)=4.28×10^{-6} *6* α(N)=7.64×10^{-7} *11*; α(O)=4.53×10^{-8} *7*; α(IPF)=0.000268 *4*
2962.0	2$^+$	957.1[@] *10*	50[@] *25*	2005.200	3$^-$				
		2961.7[@] *10*	100[@] *25*	0.0	0$^+$				
2970.02	(4,5)$^+$	398.57[#] *10*	75[#] *5*	2571.47	6$^+$				
		1554.49[#] *16*	100[#] *11*	1415.480	4$^+$	M1+E2[‡]	+0.42[‡] *12*	5.99×10^{-4} *10*	α(K)=0.000442 *8*; α(L)=5.14×10^{-5} *9*; α(M)=9.81×10^{-6} *16* α(N)=1.75×10^{-6} *3*; α(O)=1.046×10^{-7} *18*; α(IPF)=9.38×10^{-5} *15* Mult.: A_2=0.27 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2972.45	5$^+$	804.89 *10*	32.3 *17*	2167.76	6$^+$	M1+E2	−2.5 *+7−12*	0.00193 *4*	α(K)=0.00168 *4*; α(L)=0.000205 *4*; α(M)=3.92×10^{-5} *7* α(N)=6.97×10^{-6} *13*; α(O)=3.91×10^{-7} *9* B(M1)(W.u.)=0.0020 *+12−20*; B(E2)(W.u.)=15 *+6−15*
		890.77 *10*	25 *3*	2081.64	4$^+$	M1+E2	+0.17 *+7−6*	1.72×10^{-3} *3*	α(K)=0.001499 *22*; α(L)=0.000177 *3*; α(M)=3.38×10^{-5} *5* α(N)=6.04×10^{-6} *9*; α(O)=3.58×10^{-7} *6* B(M1)(W.u.)=0.008 *+3−8*; B(E2)(W.u.)=0.23 *+21−23* Mult.: A_2=−0.55 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: −0.33 *15* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		1556.8 *1*	100 *3*	1415.480	4$^+$	M1+E2[‡]	+0.42[‡] *12*	5.98×10^{-4} *10*	α(K)=0.000441 *8*; α(L)=5.12×10^{-5} *9*; α(M)=9.78×10^{-6} *16* α(N)=1.75×10^{-6} *3*; α(O)=1.043×10^{-7} *18*; α(IPF)=9.47×10^{-5} *16* B(M1)(W.u.)=0.0053 *+19−53*; B(E2)(W.u.)=0.31 *+18−31* Mult.: A_2=0.02 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
2980.85	2$^+$	1512.13 *17*	15 *3*	1468.822	2$^+$	M1+E2		6.22×10^{-4}	α(K)=0.000476 *7*; α(L)=5.53×10^{-5} *8*; α(M)=1.058×10^{-5} *15*

$^{112}_{48}Cd_{64}$-35

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=1.89×10^{-6} *3*; α(O)=1.130×10^{-7} *16*; α(IPF)=7.73×10^{-5} *11*
2980.85	2$^+$	1668.4	9.6 *23*	1312.390	2$^+$	M1+E2		5.80×10^{-4}	α(K)=0.000388 *6*; α(L)=4.50×10^{-5} *7*; α(M)=8.60×10^{-6} *12* α(N)=1.539×10^{-6} *22*; α(O)=9.20×10^{-8} *13*; α(IPF)=0.0001361 *19*
		2363.27 *10*	100 *4*	617.518	2$^+$	M1(+E2)	−0.01 *6*	6.81×10^{-4}	α(K)=0.000193 *3*; α(L)=2.23×10^{-5} *4*; α(M)=4.25×10^{-6} *6* α(N)=7.61×10^{-7} *11*; α(O)=4.57×10^{-8} *7*; α(IPF)=0.000460 *7* B(M1)(W.u.)=(0.0096 *22*); B(E2)(W.u.)=(0.00014 *+165−14*) δ: Other: +2.3 *+5−4* from γ(θ) in 2001Ga44.
3002.06	3$^+$	996.75 *14*	37 *6*	2005.200	3$^-$	E1		4.89×10^{-4}	α(K)=0.000428 *6*; α(L)=4.95×10^{-5} *7*; α(M)=9.44×10^{-6} *14* α(N)=1.683×10^{-6} *24*; α(O)=9.87×10^{-8} *14* B(E1)(W.u.)=0.00026 *+10−18*
		1586.57 *10*	79 *3*	1415.480	4$^+$	M1+E2	+0.12 *6*	5.96×10^{-4}	B(M1)(W.u.)=0.010 *+4−7*; B(E2)(W.u.)=0.05 *5* α(K)=0.000430 *6*; α(L)=4.99×10^{-5} *7*; α(M)=9.54×10^{-6} *14* α(N)=1.707×10^{-6} *25*; α(O)=1.020×10^{-7} *15*; α(IPF)=0.0001045 *15*
		1689.7 *1*		1312.390	2$^+$	M1+E2		5.77×10^{-4}	α(K)=0.000378 *6*; α(L)=4.39×10^{-5} *7*; α(M)=8.38×10^{-6} *12* α(N)=1.499×10^{-6} *21*; α(O)=8.97×10^{-8} *13*; α(IPF)=0.0001447 *21*
		2384.54 *11*	100 *4*	617.518	2$^+$	M1+E2	+8.3 *+44−20*	6.93×10^{-4}	B(M1)(W.u.)=6.E−5 *+7−6*; B(E2)(W.u.)=0.55 *+18−35* α(K)=0.000180 *3*; α(L)=2.08×10^{-5} *3*; α(M)=3.96×10^{-6} *6* α(N)=7.08×10^{-7} *10*; α(O)=4.22×10^{-8} *6*; α(IPF)=0.000487 *7* δ: Other: +0.33 *+5−6* from γ(θ) in 2001Ga44.
3011.08	(4,5,6)$^-$	637.89 *10*	100	2373.19	5$^-$	M1+E2	+3.5 *+27−14*	0.00342 *6*	α(K)=0.00297 *6*; α(L)=0.000373 *6*; α(M)=7.16×10^{-5} *11* α(N)=1.267×10^{-5} *19*; α(O)=6.85×10^{-7} *15* δ: Other: +0.36 *+25−17* from γ(θ) in 2001Ga44.
3027.97	6$^+$	859.83[#] *25*	45[#] *9*	2167.76	6$^+$	M1+E2[‡]	−0.39[‡] *9*	0.00183	α(K)=0.00160 *3*; α(L)=0.000189 *3*; α(M)=3.62×10^{-5} *6* α(N)=6.47×10^{-6} *10*; α(O)=3.81×10^{-7} *7* Mult.: A_2=0.15 *5*; A_4=0.10 *8* from γγ(θ) in

$^{112}_{48}Cd_{64}$-36

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α e	Comments
									^{110}Pd(α,2nγ) (1993De09).
									δ: Also: +1.3 *2* from γ(θ) in 1997Dr03.
3027.97	6$^+$	946.39# *10*	100# *7*	2081.64	4$^+$	E2		1.29×10^{-3}	α(K)=0.001124 *16*; α(L)=0.0001360 *19*; α(M)=2.61×10^{-5} *4*
									α(N)=4.63×10^{-6} *7*; α(O)=2.62×10^{-7} *4*
									Mult.: A_2=0.16 *2*; A_4=−0.08 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3049.08	(4$^+$)	967.63 *10*	28.4 *22*	2081.64	4$^+$	[M1]		1.43×10^{-3}	α(K)=0.001250 *18*; α(L)=0.0001468 *21*; α(M)=2.81×10^{-5} *4*
									α(N)=5.02×10^{-6} *7*; α(O)=2.98×10^{-7} *5*
									B(M1)(W.u.)=0.07 *+3−7*
		1633.39 *10*	100.0 *22*	1415.480	4$^+$	[M1]		5.86×10^{-4}	α(K)=0.000406 *6*; α(L)=4.71×10^{-5} *7*; α(M)=8.99×10^{-6} *13*
									α(N)=1.608×10^{-6} *23*; α(O)=9.62×10^{-8} *14*; α(IPF)=0.0001224 *18*
									B(M1)(W.u.)=0.049 *+19−49*
3051.19	(5)$^+$	1635.70 *10*	100	1415.480	4$^+$	M1+E2	+0.35 *+14−9*	5.81×10^{-4}	α(K)=0.000400 *7*; α(L)=4.64×10^{-5} *8*; α(M)=8.87×10^{-6} *15*
									α(N)=1.59×10^{-6} *3*; α(O)=9.46×10^{-8} *17*; α(IPF)=0.0001245 *20*
3066.23	(2,3)$^-$	1753.8	56.3 *23*	1312.390	2$^+$	E1		6.09×10^{-4}	B(E1)(W.u.)<9.4×10^{-5}
									α(K)=0.0001598 *23*; α(L)=1.82×10^{-5} *3*; α(M)=3.48×10^{-6} *5*
									α(N)=6.21×10^{-7} *9*; α(O)=3.69×10^{-8} *6*; α(IPF)=0.000427 *6*
		2448.76 *10*	100.0 *23*	617.518	2$^+$	E1		1.01×10^{-3}	B(E1)(W.u.)<6.1×10^{-5}
									α(K)=9.57×10^{-5} *14*; α(L)=1.087×10^{-5} *16*; α(M)=2.07×10^{-6} *3*
									α(N)=3.70×10^{-7} *6*; α(O)=2.21×10^{-8} *3*; α(IPF)=0.000904 *13*
3068.62	4$^+$	1063.49 *10*	100.0 *19*	2005.200	3$^-$	E1		4.32×10^{-4}	B(E1)(W.u.)<0.00016
									α(K)=0.000379 *6*; α(L)=4.37×10^{-5} *7*; α(M)=8.34×10^{-6} *12*
									α(N)=1.487×10^{-6} *21*; α(O)=8.74×10^{-8} *13*
		1599.70 *10*	93.4 *22*	1468.822	2$^+$	E2		5.50×10^{-4}	B(E2)(W.u.)<1.0
									α(K)=0.000376 *6*; α(L)=4.40×10^{-5} *7*; α(M)=8.40×10^{-6} *12*
									α(N)=1.499×10^{-6} *21*; α(O)=8.80×10^{-8} *13*; α(IPF)=0.0001200 *17*
		1653.09 *10*	44.8 *17*	1415.480	4$^+$	M1+E2	−0.54 *21*	5.74×10^{-4} *10*	B(M1)(W.u.)<0.0013; B(E2)(W.u.)<0.15
									α(K)=0.000386 *8*; α(L)=4.48×10^{-5} *9*; α(M)=8.57×10^{-6} *17*
									α(N)=1.53×10^{-6} *3*; α(O)=9.13×10^{-8} *20*; α(IPF)=0.0001328 *25*
		1756.30 *14*	36.5 *22*	1312.390	2$^+$	E2		5.47×10^{-4}	B(E2)(W.u.)<0.25
									α(K)=0.000315 *5*; α(L)=3.66×10^{-5} *6*; α(M)=7.00×10^{-6} *10*
									α(N)=1.249×10^{-6} *18*; α(O)=7.36×10^{-8} *11*; α(IPF)=0.000188 *3*

$^{112}_{48}Cd_{64}$-37

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†][f]	α[e]	Comments
3071.46	(4)$^+$	1006.9 *1*	100 *4*	2064.53	3$^+$				
		1066.28 *10*	39 *4*	2005.200	3$^-$				
3071.74	(1,2$^+$)	840.613 *10*		2231.12	2$^+$				
		949.65 *11*		2121.62	2$^+$				
		1638.4 *10*		1433.27	0$^+$				
		3071.2 *10*		0.0	0$^+$				
3075.19	(4,5)$^+$	1659.70 *10*	100	1415.480	4$^+$	M1+E2	+0.13 *5*	5.81×10^{-4}	B(M1)(W.u.)=0.016 *+6−16*; B(E2)(W.u.)=0.08 *+7−8* α(K)=0.000392 *6*; α(L)=4.54×10^{-5} *7*; α(M)=8.68×10^{-6} *13* α(N)=1.553×10^{-6} *22*; α(O)=9.29×10^{-8} *14*; α(IPF)=0.0001329 *19* Mult.: A_2=−0.20 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3081.65	2$^+$	3081.60 *19*	100	0.0	0$^+$	E2		9.35×10^{-4}	α(K)=0.0001160 *17*; α(L)=1.326×10^{-5} *19*; α(M)=2.53×10^{-6} *4* α(N)=4.52×10^{-7} *7*; α(O)=2.71×10^{-8} *4*; α(IPF)=0.000803 *12*
3093.02	8$^-$	157.50[#] *10*	16.0[#] *9*	2935.50	7$^-$	M1+E2[‡]	−0.59[‡] *18*	0.174 *20*	α(K)=0.147 *15*; α(L)=0.022 *4*; α(M)=0.0043 *8* α(N)=0.00075 *12*; α(O)=3.30×10^{-5} *24* Mult.: A_2=−1.01 *2*; A_4=0.13 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		299.19[#] *10*	100[#] *11*	2793.80	7$^-$	M1+E2[‡]	+0.55[‡] *6*	0.0260 *5*	α(K)=0.0225 *5*; α(L)=0.00289 *8*; α(M)=0.000557 *14* α(N)=9.85×10^{-5} *24*; α(O)=5.28×10^{-6} *9*
3102.15	(2)$^+$	3102.10 *10*	100	0.0	0$^+$	[E2]		9.42×10^{-4}	α(K)=0.0001147 *16*; α(L)=1.312×10^{-5} *19*; α(M)=2.50×10^{-6} *4* α(N)=4.47×10^{-7} *7*; α(O)=2.68×10^{-8} *4*; α(IPF)=0.000812 *12* B(E2)(W.u.)=2.9 *9*
3102.59	(4,5)	729.41 *10*	26.7 *25*	2373.19	5$^-$				
		1687.08 *10*	100.0 *25*	1415.480	4$^+$				
3105.50	(2)$^+$	1636.7 *1*		1468.822	2$^+$	[M1]		5.85×10^{-4}	α(K)=0.000404 *6*; α(L)=4.69×10^{-5} *7*; α(M)=8.96×10^{-6} *13* α(N)=1.602×10^{-6} *23*; α(O)=9.58×10^{-8} *14*; α(IPF)=0.0001237 *18*
		1690.1 *1*		1415.480	4$^+$	[E2]		5.45×10^{-4}	α(K)=0.000339 *5*; α(L)=3.95×10^{-5} *6*; α(M)=7.54×10^{-6} *11* α(N)=1.345×10^{-6} *19*; α(O)=7.92×10^{-8} *11*; α(IPF)=0.0001581 *23*
		1792.77 *10*	50 *3*	1312.390	2$^+$	[M1]		5.72×10^{-4}	α(K)=0.000335 *5*; α(L)=3.88×10^{-5} *6*; α(M)=7.41×10^{-6} *11* α(N)=1.326×10^{-6} *19*; α(O)=7.94×10^{-8} *12*;

$^{112}_{48}Cd_{64}$-38

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ†f	α e	Comments
									α(IPF)=0.000189 *3* B(M1)(W.u.)=0.0042 *+15−42*
3105.50	(2)$^+$	2488.14 *10*	100 *3*	617.518	2$^+$	[M1]		7.19×10^{-4}	α(K)=0.0001751 *25*; α(L)=2.01×10^{-5} *3*; α(M)=3.85×10^{-6} *6* α(N)=6.88×10^{-7} *10*; α(O)=4.13×10^{-8} *6*; α(IPF)=0.000519 *8* B(M1)(W.u.)=0.0032 *+11−32*
3109.98	(2)$^+$	1641.14 *10*	84.0 *20*	1468.822	2$^+$	[M1]		5.84×10^{-4}	α(K)=0.000402 *6*; α(L)=4.66×10^{-5} *7*; α(M)=8.91×10^{-6} *13* α(N)=1.593×10^{-6} *23*; α(O)=9.52×10^{-8} *14*; α(IPF)=0.0001254 *18* B(M1)(W.u.)=0.015 *+4−7*
		2492.24 *10*	100.0 *22*	617.518	2$^+$	[M1]		7.20×10^{-4}	α(K)=0.0001746 *25*; α(L)=2.01×10^{-5} *3*; α(M)=3.83×10^{-6} *6* α(N)=6.86×10^{-7} *10*; α(O)=4.12×10^{-8} *6*; α(IPF)=0.000521 *8* B(M1)(W.u.)=0.0049 *+12−23*
		3110.01 *16*	37.7 *18*	0.0	0$^+$	[E2]		9.45×10^{-4}	α(K)=0.0001142 *16*; α(L)=1.306×10^{-5} *19*; α(M)=2.49×10^{-6} *4* α(N)=4.45×10^{-7} *7*; α(O)=2.67×10^{-8} *4*; α(IPF)=0.000815 *12* B(E2)(W.u.)=0.079 *+19−37*
3130.83	5$^-$	714.84 *10*	30.0 *21*	2416.00	3$^-$	E2		0.00253	α(K)=0.00220 *3*; α(L)=0.000274 *4*; α(M)=5.25×10^{-5} *8* α(N)=9.30×10^{-6} *13*; α(O)=5.08×10^{-7} *8*
		1125.78 *10*	100	2005.200	3$^-$	E2		8.81×10^{-4}	α(K)=0.000767 *11*; α(L)=9.15×10^{-5} *13*; α(M)=1.751×10^{-5} *25* α(N)=3.12×10^{-6} *5*; α(O)=1.79×10^{-7} *3*; α(IPF)=1.198×10^{-6} *18*
		1715.08 *12*	23.0 *12*	1415.480	4$^+$	E1		5.86×10^{-4}	α(K)=0.0001656 *24*; α(L)=1.89×10^{-5} *3*; α(M)=3.61×10^{-6} *5* α(N)=6.44×10^{-7} *9*; α(O)=3.83×10^{-8} *6*; α(IPF)=0.000397 *6*
3133.42	1$^-$	1909.53[b] *17*	38.7[b] *16*	1224.341	0$^+$	[E1]		7.02×10^{-4}	α(K)=0.0001396 *20*; α(L)=1.592×10^{-5} *23*; α(M)=3.03×10^{-6} *5* α(N)=5.42×10^{-7} *8*; α(O)=3.23×10^{-8} *5*; α(IPF)=0.000543 *8* B(E1)(W.u.)=0.00043 *9*
		3133.21[b] *10*	100[b] *5*	0.0	0$^+$	E1		1.35×10^{-3}	B(E1)(W.u.)=0.00025 *5* α(K)=6.73×10^{-5} *10*; α(L)=7.62×10^{-6} *11*; α(M)=1.451×10^{-6} *21* α(N)=2.59×10^{-7} *4*; α(O)=1.554×10^{-8} *22*; α(IPF)=0.001278 *18* Mult.: ε=−0.13 *6* from polarization measurements in ^{112}Cd(γ,pol γ′) 2005Ko32.
3135.84	(2,3$^+$)	1071.26 *10*	28 *3*	2064.53	3$^+$				I$_\gamma$: 96 *6* in ^{111}Cd(n,γ) E=th:secondary (1997Dr03).
		1667.01[b] *25*	27[b] *5*	1468.822	2$^+$				
		1823.39 *10*	100 *5*	1312.390	2$^+$				
		2518.43 *10*	68 *6*	617.518	2$^+$				
3145.28	3$^+$,4$^+$,5$^+$	1063.6 *1*		2081.64	4$^+$	M1+E2		1.16×10^{-3}	α(K)=0.001014 *15*; α(L)=0.0001188 *17*; α(M)=2.27×10^{-5} *4* α(N)=4.06×10^{-6} *6*; α(O)=2.42×10^{-7} *4*

$^{112}_{48}Cd_{64}$-39

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3145.28	3$^+$,4$^+$,5$^+$	1729.82 *10*	100	1415.480	4$^+$	M1+E2	−0.43 *+11−12*	5.69×10^{-4} *9*	B(M1)(W.u.)=0.028 *+7−11*; B(E2)(W.u.)=1.4 *+7−8* α(K)=0.000355 *6*; α(L)=4.11×10^{-5} *7*; α(M)=7.86×10^{-6} *13* α(N)=1.405×10^{-6} *23*; α(O)=8.39×10^{-8} *14*; α(IPF)=0.000164 *3* δ: Also: +3.0 *+15−7* from γ(θ) in 2001Ga44.
3163.51	2$^+$	656.74[b] *10*	100[b]	2506.70	1$^-$	E1		1.15×10^{-3}	B(E1)(W.u.)=0.0025 *+7−12* α(K)=0.001002 *14*; α(L)=0.0001171 *17*; α(M)=2.23×10^{-5} *4* α(N)=3.98×10^{-6} *6*; α(O)=2.30×10^{-7} *4*
		3163.4[b] *3*	58[b] *9*	0.0	0$^+$	E2		9.64×10^{-4}	B(E2)(W.u.)=0.079 *+25−39* α(K)=0.0001110 *16*; α(L)=1.269×10^{-5} *18*; α(M)=2.42×10^{-6} *4* α(N)=4.33×10^{-7} *6*; α(O)=2.59×10^{-8} *4*; α(IPF)=0.000838 *12* I_γ: 100 in ^{112}Cd(n,n′γ) (2001Ga44).
3165.46	4$^-$,5$^-$,6$^-$	792.27 *10*	100	2373.19	5$^-$	M1+E2		0.00225	α(K)=0.00196 *3*; α(L)=0.000232 *4*; α(M)=4.44×10^{-5} *7* α(N)=7.93×10^{-6} *12*; α(O)=4.70×10^{-7} *7*
3169.46	2$^+$	1164.2 *1*		2005.200	3$^-$	E1		3.86×10^{-4}	α(K)=0.000321 *5*; α(L)=3.69×10^{-5} *6*; α(M)=7.04×10^{-6} *10* α(N)=1.257×10^{-6} *18*; α(O)=7.41×10^{-8} *11*; α(IPF)=1.96×10^{-5} *3*
		1945.14 *17*	74 *3*	1224.341	0$^+$	E2		5.72×10^{-4}	α(K)=0.000260 *4*; α(L)=3.02×10^{-5} *5*; α(M)=5.76×10^{-6} *8* α(N)=1.028×10^{-6} *15*; α(O)=6.09×10^{-8} *9*; α(IPF)=0.000275 *4* B(E2)(W.u.)=1.80 *20*
		2552.01 *10*	100 *3*	617.518	2$^+$	M1+E2	−0.68 *+13−20*	7.43×10^{-4}	B(M1)(W.u.)=0.0035 *6*; B(E2)(W.u.)=0.20 *6* α(K)=0.0001647 *25*; α(L)=1.89×10^{-5} *3*; α(M)=3.61×10^{-6} *6* α(N)=6.46×10^{-7} *10*; α(O)=3.87×10^{-8} *6*; α(IPF)=0.000555 *8* δ: Other: −4.8 *+19−58* from γ(θ) in ^{112}Cd(n,n′γ) (2001Ga44).
		3170.0[@] *15*	4[@]	0.0	0$^+$	[E2]		9.66×10^{-4}	α(K)=0.0001106 *16*; α(L)=1.264×10^{-5} *18*; α(M)=2.41×10^{-6} *4* α(N)=4.31×10^{-7} *6*; α(O)=2.58×10^{-8} *4*; α(IPF)=0.000840 *12* B(E2)(W.u.)=0.0085 *9*

$^{112}_{48}Cd_{64}$-40

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3176.47	8$^+$	295.19[#] *14*	8.2[#] *20*	2881.02	8$^+$	M1+E2[‡]	−0.14[‡] *10*	0.0250 *5*	α(K)=0.0217 *4*; α(L)=0.00266 *7*; α(M)=0.000511 *14* α(N)=9.10×10^{-5} *23*; α(O)=5.25×10^{-6} *9* Mult.: A_2=0.36 *3*; A_4=−0.02 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		382.37[#] *13*	10.6[#] *23*	2793.80	7$^-$				Mult.: A_2=+0.07 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		604.98[#] *10*	100[#] *5*	2571.47	6$^+$	E2		0.00392	α(K)=0.00339 *5*; α(L)=0.000431 *6*; α(M)=8.28×10^{-5} *12* α(N)=1.463×10^{-5} *21*; α(O)=7.78×10^{-7} *11* Mult.: A_2=0.334 *12*; A_4=−0.12 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3176.83	(4)$^+$	2559.28 *13*	100	617.518	2$^+$	E2		7.52×10^{-4}	α(K)=0.0001593 *23*; α(L)=1.83×10^{-5} *3*; α(M)=3.49×10^{-6} *5* α(N)=6.24×10^{-7} *9*; α(O)=3.72×10^{-8} *6*; α(IPF)=0.000570 *8*
3178.79	2$^+$	2561.23 *10*	100.0 *15*	617.518	2$^+$	M1+E2		7.43×10^{-4}	α(K)=0.0001657 *24*; α(L)=1.90×10^{-5} *3*; α(M)=3.64×10^{-6} *5* α(N)=6.51×10^{-7} *10*; α(O)=3.91×10^{-8} *6*; α(IPF)=0.000554 *8*
		3178.76 *10*	35.7 *15*	0.0	0$^+$	E2		9.70×10^{-4}	B(E2)(W.u.)=0.14 *4* α(K)=0.0001101 *16*; α(L)=1.259×10^{-5} *18*; α(M)=2.40×10^{-6} *4* α(N)=4.29×10^{-7} *6*; α(O)=2.57×10^{-8} *4*; α(IPF)=0.000844 *12*
3189.82	4$^+$,5,6$^+$	1022.09 *13*	83 *4*	2167.76	6$^+$				
		1774.30 *10*	100 *4*	1415.480	4$^+$				
3190.06	0$^+$,1,2,3$^+$	2572.51 *10*	100	617.518	2$^+$				
3194.46	(2)$^+$	1189.41 *10*	59.0 *18*	2005.200	3$^-$	[E1]		3.83×10^{-4}	α(K)=0.000309 *5*; α(L)=3.55×10^{-5} *5*; α(M)=6.77×10^{-6} *10* α(N)=1.209×10^{-6} *17*; α(O)=7.13×10^{-8} *10*; α(IPF)=3.06×10^{-5} *5* B(E1)(W.u.)=0.0006 *3*
		1882.1 *1*		1312.390	2$^+$	[M1]		5.76×10^{-4}	α(K)=0.000304 *5*; α(L)=3.51×10^{-5} *5*; α(M)=6.71×10^{-6} *10* α(N)=1.200×10^{-6} *17*; α(O)=7.19×10^{-8} *10*; α(IPF)=0.000229 *4*
		2576.72 *10*	100.0 *18*	617.518	2$^+$	[M1]		7.48×10^{-4}	α(K)=0.0001638 *23*; α(L)=1.88×10^{-5} *3*; α(M)=3.59×10^{-6} *5* α(N)=6.43×10^{-7} *9*; α(O)=3.86×10^{-8} *6*; α(IPF)=0.000561 *8* B(M1)(W.u.)=0.008 *4*

$^{112}_{48}Cd_{64}$-41

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3201.32	5⁻	1196.21 *19*	100	2005.200	3⁻	E2		7.80×10^{-4}	B(E2)(W.u.)=14 *+6−14* α(K)=0.000675 *10*; α(L)=8.01×10^{-5} *12*; α(M)=1.533×10^{-5} *22* α(N)=2.73×10^{-6} *4*; α(O)=1.576×10^{-7} *22*; α(IPF)=6.65×10^{-6} *10*
		1785.8 *1*		1415.480	4⁺	E1		6.28×10^{-4}	α(K)=0.0001552 *22*; α(L)=1.771×10^{-5} *25*; α(M)=3.38×10^{-6} *5* α(N)=6.03×10^{-7} *9*; α(O)=3.59×10^{-8} *5*; α(IPF)=0.000451 *7*
3203.25	(2,3)⁺	2585.70 *10*	100	617.518	2⁺	(M1+E2)	−0.10 *+5−6*	7.51×10^{-4}	α(K)=0.0001626 *23*; α(L)=1.87×10^{-5} *3*; α(M)=3.57×10^{-6} *5* α(N)=6.38×10^{-7} *9*; α(O)=3.83×10^{-8} *6*; α(IPF)=0.000566 *8* B(M1)(W.u.)=(0.011 *+4−8*); B(E2)(W.u.)=(0.013 *+14−13*)
3205.74	2⁺,3,4	1736.90 *12* 1790.2	100	1468.822 1415.480	2⁺ 4⁺				
3206.48	(4)⁺	1084.93 *10*	76 *4*	2121.62	2⁺	[E2]		9.53×10^{-4}	α(K)=0.000831 *12*; α(L)=9.93×10^{-5} *14*; α(M)=1.90×10^{-5} *3* α(N)=3.38×10^{-6} *5*; α(O)=1.94×10^{-7} *3* B(E2)(W.u.)=67 *22*
		2588.85 *10*	100	617.518	2⁺	[E2]		7.62×10^{-4}	α(K)=0.0001561 *22*; α(L)=1.79×10^{-5} *3*; α(M)=3.42×10^{-6} *5* α(N)=6.12×10^{-7} *9*; α(O)=3.65×10^{-8} *6*; α(IPF)=0.000584 *9* B(E2)(W.u.)=1.1 *4*
3206.71	2⁺,3,4	1792.1 1894.30 *3*	 100	1415.480 1312.390	4⁺ 2⁺				
3230.29	8⁺	349.26[#] *10*	27[#] *4*	2881.02	8⁺	M1+E2[‡]	+0.42[‡] *20*	0.0167 *6*	α(K)=0.0145 *5*; α(L)=0.00181 *9*; α(M)=0.000347 *18* α(N)=6.2×10^{-5} *3*; α(O)=3.45×10^{-6} *7* Mult.: A_2=0.42 *3*; A_4=−0.03 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: −0.09 *12* from γγ(θ) in ^{110}Pd(α,2nγ) in 1997Dr03.
		436.92[#g] *6*	[#]	2793.80	7⁻	E1		0.00295	α(K)=0.00258 *4*; α(L)=0.000304 *5*; α(M)=5.81×10^{-5} *9* α(N)=1.032×10^{-5} *15*; α(O)=5.84×10^{-7} *9* Mult.: A_0=3.3 *1*; A_2/A_0=0.02 *10* (1993De09).
		658.83[#] *10*	100[#] *14*	2571.47	6⁺	E2		0.00312	α(K)=0.00271 *4*; α(L)=0.000340 *5*; α(M)=6.54×10^{-5} *10* α(N)=1.156×10^{-5} *17*; α(O)=6.24×10^{-7} *9* Mult.: A_2=+0.43 *6* (1997Dr03).
3231.59	1⁺	1919.4 *1*		1312.390	2⁺	M1+E2		5.80×10^{-4}	α(K)=0.000292 *4*; α(L)=3.37×10^{-5} *5*;

$^{112}_{48}Cd_{64}$-42

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(M)=6.45×10^{-6} *9* α(N)=1.153×10^{-6} *17*; α(O)=6.91×10^{-8} *10*; α(IPF)=0.000247 *4* I_γ: 100 in ^{112}Ag β^- decay (3.130 h) (1970Ma45).
3231.59	1$^+$	2614.02 *14*	38.9 *22*	617.518	2$^+$	M1+E2		7.61×10^{-4}	α(K)=0.0001594 *23*; α(L)=1.83×10^{-5} *3*; α(M)=3.50×10^{-6} *5* α(N)=6.25×10^{-7} *9*; α(O)=3.76×10^{-8} *6*; α(IPF)=0.000579 *9*
		3231.35 *10*	100.0 *22*	0.0	0$^+$	M1		9.79×10^{-4}	B(M1)(W.u.)=0.0134 *16* α(K)=0.0001073 *15*; α(L)=1.229×10^{-5} *18*; α(M)=2.35×10^{-6} *4* α(N)=4.20×10^{-7} *6*; α(O)=2.52×10^{-8} *4*; α(IPF)=0.000856 *12* Mult.: ε=+0.27 *12* from polarization measurements in ^{112}Cd(γ,pol γ′) (2005Ko32).
3239.04	7$^+$	573.31[#] *10*	100[#] *4*	2665.64	5$^+$	E2		0.00453	α(K)=0.00392 *6*; α(L)=0.000502 *7*; α(M)=9.66×10^{-5} *14* α(N)=1.704×10^{-5} *24*; α(O)=8.97×10^{-7} *13* Mult.: A_2=0.34 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		668.18[#] *18*	35[#] *4*	2571.47	6$^+$	M1+E2[‡]	+2.6[‡] *10*	0.00305 *7*	α(K)=0.00265 *6*; α(L)=0.000330 *6*; α(M)=6.33×10^{-5} *11* α(N)=1.122×10^{-5} *19*; α(O)=6.14×10^{-7} *17* Mult.: A_2=+0.68 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: +0.54 *+30−15* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		1071.24[#] *10*	54[#] *6*	2167.76	6$^+$	E2(+M1)[‡]	−7.2[‡] *25*	9.83×10^{-4} *15*	α(K)=0.000857 *13*; α(L)=0.0001025 *15*; α(M)=1.96×10^{-5} *3* α(N)=3.49×10^{-6} *5*; α(O)=2.00×10^{-7} *3* Mult.: A_2=−0.26 *2*; A_4=0.28 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3242.64	2$^+$	1161.08 *12*	100 *8*	2081.64	4$^+$	E2		8.27×10^{-4}	B(E2)(W.u.)=16 *+9−16* α(K)=0.000719 *10*; α(L)=8.55×10^{-5} *12*; α(M)=1.636×10^{-5} *23* α(N)=2.91×10^{-6} *4*; α(O)=1.677×10^{-7} *24*; α(IPF)=3.16×10^{-6} *5*
		2625.07 *10*	92 *6*	617.518	2$^+$	M1+E2	+1.9 *+15−9*	7.72×10^{-4} *12*	B(M1)(W.u.)=0.0005 *+7−5*; B(E2)(W.u.)=0.20 *+13−20* α(K)=0.000154 *3*; α(L)=1.76×10^{-5} *4*; α(M)=3.37×10^{-6} *6* α(N)=6.02×10^{-7} *11*; α(O)=3.60×10^{-8} *7*;

$^{112}_{48}Cd_{64}$-43

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(IPF)=0.000597 *10* δ: Also: +0.10 *+35−22* (2001Ga44).
3242.64	2+	3242.49 *10*	64 *5*	0.0	0+	E2		9.92×10^{-4}	B(E2)(W.u.)=0.06 *+4−6* α(K)=0.0001065 *15*; α(L)=1.217×10^{-5} *17*; α(M)=2.32×10^{-6} *4* α(N)=4.15×10^{-7} *6*; α(O)=2.49×10^{-8} *4*; α(IPF)=0.000871 *13*
3246.86	(1,2)+	1778.0 *1*		1468.822	2+				
		2629.34 *10*	100	617.518	2+				
3247.17	(6+)	1831.67 *10*	100	1415.480	4+				
3248.25	7−	155.21[#] *10*	1.02[#] *23*	3093.02	8−	M1+E2[‡]	+0.18[‡] *12*	0.142 *10*	α(K)=0.123 *8*; α(L)=0.0158 *18*; α(M)=0.0030 *4* α(N)=0.00054 *6*; α(O)=2.96×10^{-5} *12* Mult.: a_0=0.96 *6*; A_2=−0.40 *10*; A_4=0.15 *16* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: +7 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		312.94[#] *10*	9.9[#] *5*	2935.50	7−	M1(+E2)[‡]	−0.1[‡] *1*	0.0214 *4*	α(K)=0.0187 *3*; α(L)=0.00227 *5*; α(M)=0.000436 *10* α(N)=7.78×10^{-5} *16*; α(O)=4.51×10^{-6} *7* Mult.: A_2=0.34 *1*; A_4=−0.01 *1* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		316.19[#] *10*	100[#]	2931.97	6−	M1+E2[‡]	+0.28[‡] *4*	0.0213 *4*	α(K)=0.0185 *3*; α(L)=0.00228 *4*; α(M)=0.000439 *8* α(N)=7.81×10^{-5} *14*; α(O)=4.43×10^{-6} *7* Mult.: A_2=0.19 *2*; A_4=−0.02 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3251.86	(0)+	2634.31 *13*	100	617.518	2+	E2		7.77×10^{-4}	α(K)=0.0001515 *22*; α(L)=1.739×10^{-5} *25*; α(M)=3.32×10^{-6} *5* α(N)=5.93×10^{-7} *9*; α(O)=3.54×10^{-8} *5*; α(IPF)=0.000605 *9* B(E2)(W.u.)>0.17
3252.55	(6,7,8)−	458.75[#] *10*	100[#]	2793.80	7−	M1(+E2)[‡]	−0.02[‡] *5*	0.00821	α(K)=0.00716 *10*; α(L)=0.000859 *12*; α(M)=0.0001647 *23* α(N)=2.94×10^{-5} *5*; α(O)=1.723×10^{-6} *25* Mult.: A_2=+0.39 *22* (1997Dr03).
3254.21	(0+,1,2)	1785.2		1468.822	2+				
		1942.01 *10*	100 *3*	1312.390	2+				
		2636.62 *11*	70 *3*	617.518	2+				Iγ: 100 in ^{111}Cd(n,γ) E=th:secondary (1997Dr03).
3254.30	(3,4)+	1249.01 *10*	100 *3*	2005.200	3−	E1		3.86×10^{-4}	B(E1)(W.u.)=0.0017 *5* α(K)=0.000283 *4*; α(L)=3.25×10^{-5} *5*;

$^{112}_{48}Cd_{64}$-44

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(M)=6.20×10^{-6} *9* α(N)=1.107×10^{-6} *16*; α(O)=6.53×10^{-8} *10*; α(IPF)=6.28×10^{-5} *9*
3254.30	(3,4)$^+$	1838.89 *10*	57 *3*	1415.480	4$^+$	M1+E2	+3.1 *+30−11*	5.57×10^{-4}	B(M1)(W.u.)=0.0021 *+38−21*; B(E2)(W.u.)=4.8 *18* α(K)=0.000292 *6*; α(L)=3.38×10^{-5} *6*; α(M)=6.46×10^{-6} *12* α(N)=1.154×10^{-6} *21*; α(O)=6.83×10^{-8} *13*; α(IPF)=0.000224 *4* δ: Also: −0.45 *+30−25* from γ(θ) in 2001Ga44.
3258.01	(3,4$^+$)	1252.8 *1*	100	2005.200	3$^-$				
3266.54	4$^+$	1851.04 *10*	100	1415.480	4$^+$	[M1]		5.74×10^{-4}	α(K)=0.000314 *5*; α(L)=3.63×10^{-5} *5*; α(M)=6.94×10^{-6} *10* α(N)=1.242×10^{-6} *18*; α(O)=7.43×10^{-8} *11*; α(IPF)=0.000215 *3* B(M1)(W.u.)=0.018 *5*
3269.50	2$^+$,3,4,5$^-$	1264.25 *10*	100.0 *25*	2005.200	3$^-$				
		1854.04 *10*	44.3 *25*	1415.480	4$^+$				
3290.40	(2$^+$)	1419.43 *10*	100	1870.96	0$^+$				
3291.13	2$^+$,3,4,5$^-$	1209.4 *1*		2081.64	4$^+$				
		1285.95 *10*	100	2005.200	3$^-$				
		1875.7 *1*		1415.480	4$^+$				
3291.17	7$^-$	917.73[#] *10*	100[#] *8*	2373.19	5$^-$	E2		1.39×10^{-3}	α(K)=0.001206 *17*; α(L)=0.0001463 *21*; α(M)=2.80×10^{-5} *4* α(N)=4.98×10^{-6} *7*; α(O)=2.81×10^{-7} *4* Mult.: A$_2$=+0.07 *2* (1997Dr03).
		1123.96[#] *15*	95[#] *10*	2167.76	6$^+$	E1		3.98×10^{-4}	α(K)=0.000342 *5*; α(L)=3.94×10^{-5} *6*; α(M)=7.52×10^{-6} *11* α(N)=1.341×10^{-6} *19*; α(O)=7.89×10^{-8} *11*; α(IPF)=7.87×10^{-6} *12* Mult.: A$_2$=−0.23 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09);
3297.01	(2,3)$^+$	1881.5 *1*	100.0 *20*	1415.480	4$^+$				
		2679.46 *10*	31.2 *20*	617.518	2$^+$				
3300.99	(1)	3300.94 *16*	100.0 *4*	0.0	0$^+$				
3303.24	(2,3)$^+$	629.2[@] *4*	6.8[@] *17*	2674.00	2$^+$				
		886.99[b] *23*	17[b] *3*	2416.00	3$^-$				
		2685.83[b] *17*	100[b] *5*	617.518	2$^+$				
3312.24	(1$^-$,2)	1306.97 *10*	46.9 *13*	2005.200	3$^-$				
		2000.01 *10*	43.8 *19*	1312.390	2$^+$				
		2694.56 *10*	100.0 *21*	617.518	2$^+$				
3318.09	9$^-$	382.37[#] *13*	14[#] *3*	2935.50	7$^-$	E2		0.01489	α(K)=0.01274 *18*; α(L)=0.001757 *25*;

$^{112}_{48}Cd_{64}$-45

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†][f]	α[e]	Comments
									α(M)=0.000339 *5* α(N)=5.93×10^{-5} *9*; α(O)=2.84×10^{-6} *4*
3318.09	9$^-$	524.28[#] *10*	100[#]	2793.80	7$^-$	E2		0.00581	α(K)=0.00501 *7*; α(L)=0.000652 *10*; α(M)=0.0001255 *18* α(N)=2.21×10^{-5} *3*; α(O)=1.143×10^{-6} *16* Mult.: a_2=0.340 *10*; a_4=−0.132 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3319.83	1$^-$,2,3,4$^+$	1314.6 *1*		2005.200	3$^-$				
		1851.04 *10*	100 *3*	1468.822	2$^+$				
		2702.24 *10*	62 *3*	617.518	2$^+$				
3322.40	10$^+$	145.87[#] *10*	11.8[#] *10*	3176.47	8$^+$	E2		0.390	α(K)=0.313 *5*; α(L)=0.0627 *9*; α(M)=0.01232 *18* α(N)=0.00208 *3*; α(O)=6.18×10^{-5} *9*
		441.45[#] *10*	100[#] *5*	2881.02	8$^+$	E2		0.00960	α(K)=0.00824 *12*; α(L)=0.001104 *16*; α(M)=0.000213 *3* α(N)=3.74×10^{-5} *6*; α(O)=1.86×10^{-6} *3* Mult.: A_2=+0.72 *23* (1997Dr03).
3325.96	(3)$^-$	734.91 *10*	100	2591.05	4$^-$				
3329.17	(5$^-$)	1913.67 *10*	100	1415.480	4$^+$				
3332.11	2$^+$,3,4,5$^-$	1326.83 *10*	100 *8*	2005.200	3$^-$				
		1916.72 *12*	54 *8*	1415.480	4$^+$				
3332.46	1,2,3,4$^+$	2714.91 *10*	100	617.518	2$^+$				
3336.03	(2)$^+$	2718.48 *10*	100	617.518	2$^+$	[M1+E2]		7.97×10^{-4}	α(K)=0.0001479 *21*; α(L)=1.699×10^{-5} *24*; α(M)=3.24×10^{-6} *5* α(N)=5.80×10^{-7} *9*; α(O)=3.49×10^{-8} *5*; α(IPF)=0.000628 *9*
3341.86	(3)$^+$	2724.31 *10*	100	617.518	2$^+$	E2+M1	+7.4 *+17−16*	8.09×10^{-4}	B(M1)(W.u.)=0.00053 *25*; B(E2)(W.u.)=3.1 *4* α(K)=0.0001430 *20*; α(L)=1.641×10^{-5} *23*; α(M)=3.13×10^{-6} *5* α(N)=5.60×10^{-7} *8*; α(O)=3.34×10^{-8} *5*; α(IPF)=0.000646 *9*
3353.36	0$^+$	2735.81 *10*	100	617.518	2$^+$	[E2]		8.13×10^{-4}	α(K)=0.0001419 *20*; α(L)=1.628×10^{-5} *23*; α(M)=3.11×10^{-6} *5* α(N)=5.55×10^{-7} *8*; α(O)=3.32×10^{-8} *5*; α(IPF)=0.000651 *10*
3363.55	2$^+$	2745.86 *10*	100 *3*	617.518	2$^+$	M1+E2	−0.49 *+15−17*	8.08×10^{-4}	B(E2)(W.u.)=0.9 *3* α(K)=0.0001444 *21*; α(L)=1.657×10^{-5} *24*; α(M)=3.16×10^{-6} *5* α(N)=5.66×10^{-7} *9*; α(O)=3.40×10^{-8} *5*; α(IPF)=0.000644 *10*
		3363.67 *10*	58 *3*	0.0	0$^+$	E2		1.03×10^{-3}	B(M1)(W.u.)=0.0023 *+7−10*; B(E2)(W.u.)=0.06 *4* α(K)=0.0001002 *14*; α(L)=1.144×10^{-5} *16*; α(M)=2.18×10^{-6} *3*

$^{112}_{48}Cd_{64}$-46

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=3.90×10^{-7} *6*; α(O)=2.34×10^{-8} *4*; α(IPF)=0.000920 *13* B(E2)(W.u.)=0.063 *+16−27*
3363.99	2$^+$,3,4,5,6$^+$	909.48 *10*	100	2454.51	4$^+$				
3369.62	2$^+$,3,4$^+$	1900.77 *10*	26.9 *14*	1468.822	2$^+$				
		1952.9[@] *10*	50[@]	1415.480	4$^+$				
		2752.08 *10*	100.0 *14*	617.518	2$^+$				
3375.45	(6,7,8)	439.95[#] *10*	100[#]	2935.50	7$^-$	D[‡]	[‡]		Mult.: A_2=−0.281 *12* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3375.50	(1)	2758.02 *14*	95 *3*	617.518	2$^+$				
		3375.40 *10*	100 *3*	0.0	0$^+$				
3376.46	7$^-$	283.40[#] *12*	4.7[#] *10*	3093.02	8$^-$	M1+E2[‡]	−2.2[‡] *7*	0.0372 *17*	α(K)=0.0316 *14*; α(L)=0.0046 *3*; α(M)=0.00089 *6* α(N)=0.000155 *10*; α(O)=6.93×10^{-6} *21* Mult.: A_2=0.32 *6*; A_4=0.17 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Also: −0.42 *+15−40* from γ(θ) in 1997Dr03.
		444.53[#] *10*	100[#] *3*	2931.97	6$^-$	M1+E2[‡]	−0.37[‡] *13*	0.00894 *14*	α(K)=0.00777 *12*; α(L)=0.000947 *18*; α(M)=0.000182 *4* α(N)=3.24×10^{-5} *6*; α(O)=1.86×10^{-6} *3* Mult.: A_2=−0.73 *2*; A_4=0.05 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3378.52	(2)$^+$	1909.63 *10*	100.0 *21*	1468.822	2$^+$	[M1]		5.79×10^{-4}	α(K)=0.000295 *5*; α(L)=3.41×10^{-5} *5*; α(M)=6.51×10^{-6} *10* α(N)=1.165×10^{-6} *17*; α(O)=6.98×10^{-8} *10*; α(IPF)=0.000242 *4* B(M1)(W.u.)=0.0059 *+15−45*
		2761.18 *14*	33.9 *21*	617.518	2$^+$	[M1]		8.12×10^{-4}	α(K)=0.0001437 *21*; α(L)=1.650×10^{-5} *23*; α(M)=3.15×10^{-6} *5* α(N)=5.63×10^{-7} *8*; α(O)=3.38×10^{-8} *5*; α(IPF)=0.000648 *9* B(M1)(W.u.)=0.00066 *+18−50*
3383.71	0$^+$ to 4$^+$	1227.70 *13*	30 *3*	2156.18	2$^+$				
		2766.05 *10*	100	617.518	2$^+$				
3392.78	1,2$^+$	3392.72 *12*	100	0.0	0$^+$				
3393.39	0$^+$ to 4$^+$	2775.83 *4*	100	617.518	2$^+$				
3393.45	(1,2$^+$)	2775.78[b] *18*	100[b]	617.518	2$^+$				
		3393.35[b] *20*	31[b] *4*	0.0	0$^+$				
3393.60	1$^-$ to 5$^-$	977.59 *5*	100	2416.00	3$^-$				
3398.88	8$^+$	222.17[#] *10*	28[#] *4*	3176.47	8$^+$	(M1)		0.0521	α(K)=0.0452 *7*; α(L)=0.00556 *8*;

$^{112}_{48}Cd_{64}$-47

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(M)=0.001067 *15* α(N)=0.000190 *3*; α(O)=1.099×10^{-5} *16* Mult.: A_2=−0.32 *22* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
3398.88	8$^+$	517.99[#] *12*	51[#] *9*	2881.02	8$^+$	M1+E2[‡]	−0.16[‡] *14*	0.00611	α(K)=0.00533 *8*; α(L)=0.000638 *10*; α(M)=0.0001223 *18* α(N)=2.18×10^{-5} *4*; α(O)=1.279×10^{-6} *19* Mult.: A_2=+0.23 5from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03). δ: Other: +0.62 *12* in ^{110}Pd(α,2nγ) (1997dr3).
		827.54[#] *10*	100[#] *9*	2571.47	6$^+$	E2		1.77×10^{-3}	α(K)=0.001536 *22*; α(L)=0.000188 *3*; α(M)=3.61×10^{-5} *5* α(N)=6.40×10^{-6} *9*; α(O)=3.57×10^{-7} *5* Mult.: A_2=0.316 *9*; A_4=−0.111 *12* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3400.35	0$^+$ to 4$^+$	2087.94 *10*	100	1312.390	2$^+$				
3402.93	1$^+$,2$^+$,3$^+$	2785.37 *10*	100	617.518	2$^+$	M1+E2	−1.8 *+3−4*	8.28×10^{-4}	B(M1)(W.u.)<0.00057; B(E2)(W.u.)<0.16 α(K)=0.0001385 *20*; α(L)=1.588×10^{-5} *23*; α(M)=3.03×10^{-6} *5* α(N)=5.42×10^{-7} *8*; α(O)=3.24×10^{-8} *5*; α(IPF)=0.000670 *10* δ: Also: −0.34 *+10−13* from G(θ) in 2001Ga44.
3422.55	(4)$^+$	1953.71 *16*	100.0 *24*	1468.822	2$^+$				
		2805.0 *1*	35.7 *24*	617.518	2$^+$				
3425.60	0$^+$ to 4$^+$	2113.19 *5*	100	1312.390	2$^+$				
3426.32	0$^+$ to 4$^+$	2808.76 *14*	100	617.518	2$^+$				
3428.87	2$^+$	2811.2 *1*	100.0 *16*	617.518	2$^+$	M1+E2		8.30×10^{-4}	α(K)=0.0001389 *20*; α(L)=1.594×10^{-5} *23*; α(M)=3.04×10^{-6} *5* α(N)=5.44×10^{-7} *8*; α(O)=3.27×10^{-8} *5*; α(IPF)=0.000671 *10*
		3428.71 *14*	14.2 *16*	0.0	0$^+$	E2		1.06×10^{-3}	α(K)=9.71×10^{-5} *14*; α(L)=1.108×10^{-5} *16*; α(M)=2.11×10^{-6} *3* α(N)=3.78×10^{-7} *6*; α(O)=2.27×10^{-8} *4*; α(IPF)=0.000946 *14* B(E2)(W.u.)=0.058 *+23−37*
3429.6		2014.1 *3*	100	1415.480	4$^+$				
3429.98	(5,6,7)	1262.21[#] *15*	100[#]	2167.76	6$^+$	D(+Q)[‡]	−0.04[‡] *5*		Mult.: A_2=−0.30 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3433.73	(2$^+$ to 6$^+$)	2018.23 *10*	100	1415.480	4$^+$				
3451.97	(0$^+$)	945.26 *5*	100	2506.70	1$^-$	E1		5.41×10^{-4}	α(K)=0.000474 *7*; α(L)=5.48×10^{-5} *8*; α(M)=1.046×10^{-5} *15* α(N)=1.87×10^{-6} *3*; α(O)=1.092×10^{-7} *16*

$^{112}_{48}Cd_{64}$-48

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
3452.47	2+	2037.4 *3*	59 *8*	1415.480	4+	[E2]		5.93×10^{-4}		α(K)=0.000239 *4*; α(L)=2.77×10^{-5} *4*; α(M)=5.28×10^{-6} *8* α(N)=9.43×10^{-7} *14*; α(O)=5.59×10^{-8} *8*; α(IPF)=0.000320 *5* B(E2)(W.u.)=0.9 *+5−9*
		2835.33 *10*	100 *8*	617.518	2+	[M1]		8.38×10^{-4}		α(K)=0.0001367 *20*; α(L)=1.569×10^{-5} *22*; α(M)=2.99×10^{-6} *5* α(N)=5.36×10^{-7} *8*; α(O)=3.22×10^{-8} *5*; α(IPF)=0.000682 *10* B(M1)(W.u.)=0.0030 *+16−30*
		3452.1 *4*		0.0	0+	[E2]		1.06×10^{-3}		α(K)=9.60×10^{-5} *14*; α(L)=1.096×10^{-5} *16*; α(M)=2.09×10^{-6} *3* α(N)=3.74×10^{-7} *6*; α(O)=2.24×10^{-8} *4*; α(IPF)=0.000955 *14* E_γ: from ce in ^{111}Cd(n,γ) E=th:secondary (1997Dr03).
3453.8	0+ to 4+	1985.0 *3*	100	1468.822	2+					
3455.48	0+,1,2	2837.85 *10*	100	617.518	2+					
3470.3	0+ to 4+	2852.7[@] *12*	100[@]	617.518	2+					
3471.32	2+ to 6+	1389.7 *3*	100	2081.64	4+					
		2055.8 *3*	100	1415.480	4+					
3478.58	0+,1,2+	2166.06 *10*	100	1312.390	2+					
		2861.0 *1*	37 *5*	617.518	2+					
		3479.2[b] *3*	100[b]	0.0	0+					
3478.7	0+ to 4+	1322.0[@] *10*	100[@] *17*	2156.18	2+					
		2863.0[@] *20*	33[@] *17*	617.518	2+					
3487.55	(4)+	2869.99 *10*	100	617.518	2+	E2		8.60×10^{-4}		B(E2)(W.u.)=1.09 *23* α(K)=0.0001308 *19*; α(L)=1.498×10^{-5} *21*; α(M)=2.86×10^{-6} *4* α(N)=5.11×10^{-7} *8*; α(O)=3.05×10^{-8} *5*; α(IPF)=0.000711 *10*
3489.85	2+,3,4+	1368.12 *10*	39 *4*	2121.62	2+					
		2074.36 *10*	100 *4*	1415.480	4+					
		2872.4 *1*	55.8 *10*	617.518	2+					
3493.92	(6,7)	1326.15[#] *12*	100[#]	2167.76	6+	D(+Q)[‡]	+0.02[‡] *3*			Mult.: A_2=−0.21 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3500.45	0+ to 3+	2882.85 *10*	100	617.518	2+					
3511.6	3− to 7−	1138.4 *3*	100	2373.19	5−					
3512.97	(1,2,3)+	2895.23 *10*	100	617.518	2+	M1+E2	−0.18 *6*	8.60×10^{-4}		B(M1)(W.u.)=0.009 *3*; B(E2)(W.u.)=0.027 *20* α(K)=0.0001314 *19*; α(L)=1.507×10^{-5} *22*; α(M)=2.88×10^{-6} *4*

$^{112}_{48}Cd_{64}$-49

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=5.15×10^{-7} *8*; α(O)=3.09×10^{-8} *5*; α(IPF)=0.000710 *10*
3522.51	0$^+$ to 4$^+$	2904.95 *10*	100	617.518	2$^+$				
3528.92	7$^-$	593.45[#] *10*	82[#] *11*	2935.50	7$^-$	M1+E2[‡]	+1.0[‡] *5*	0.00427 *11*	α(K)=0.00371 *10*; α(L)=0.000457 *7*; α(M)=8.76×10^{-5} *13* α(N)=1.556×10^{-5} *23*; α(O)=8.7×10^{-7} *4* Mult.: A_2=+0.51 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
		735.08[#] *10*	100[#]	2793.80	7$^-$	M1+E2[‡]	−0.11[‡] *6*	0.00267	α(K)=0.00233 *4*; α(L)=0.000276 *4*; α(M)=5.28×10^{-5} *8* α(N)=9.43×10^{-6} *14*; α(O)=5.57×10^{-7} *8* Mult.: A_2=+0.12 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
3530.90		1525.69 *4*	100	2005.200	3$^-$				
3531.32	4$^+$	2218.9 *1*		1312.390	2$^+$				
		2913.77 *10*	100	617.518	2$^+$	M1+E2	−0.18 *+10−9*	8.66×10^{-4}	α(K)=0.0001298 *19*; α(L)=1.489×10^{-5} *21*; α(M)=2.84×10^{-6} *4* α(N)=5.08×10^{-7} *8*; α(O)=3.06×10^{-8} *5*; α(IPF)=0.000718 *10* B(M1)(W.u.)=0.011 *4*; B(E2)(W.u.)=0.03 *+4−3*
3540.24	1,2$^+$	2922.72 *10*	100 *7*	617.518	2$^+$				
		3539.8[b] *4*	24[b] *6*	0.0	0$^+$				
3542.84	8$^+$	621.41[#] *15*	78[#] *8*	2921.53	6$^+$	E2		0.00364	α(K)=0.00315 *5*; α(L)=0.000400 *6*; α(M)=7.68×10^{-5} *11* α(N)=1.358×10^{-5} *19*; α(O)=7.25×10^{-7} *11* Mult.: A_2=0.26 *10*; A_4=−0.26 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		1375.02[#] *10*	100[#] *6*	2167.76	6$^+$	E2		6.22×10^{-4}	α(K)=0.000507 *7*; α(L)=5.97×10^{-5} *9*; α(M)=1.141×10^{-5} *16* α(N)=2.03×10^{-6} *3*; α(O)=1.185×10^{-7} *17*; α(IPF)=4.19×10^{-5} *6* Mult.: A_2=0.31 *3*; A_4=−0.07 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3556.88	(1,2$^+$)	3556.78 *12*	100	0.0	0$^+$				
3557.33	(3)$^-$	2939.77 *10*	100	617.518	2$^+$	[E1]		1.27×10^{-3}	α(K)=7.36×10^{-5} *11*; α(L)=8.34×10^{-6} *12*; α(M)=1.588×10^{-6} *23* α(N)=2.84×10^{-7} *4*; α(O)=1.700×10^{-8} *24*; α(IPF)=0.001184 *17* B(E1)(W.u.)=0.00016 *7*
3568.05	2$^+$	2099.17 *10*	100 *5*	1468.822	2$^+$	M1+E2	≤+0.29	6.10×10^{-4}	α(K)=0.000243 *4*; α(L)=2.81×10^{-5} *4*;

$^{112}_{48}Cd_{64}$-50

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(M)=5.36×10^{-6} *8* α(N)=9.60×10^{-7} *14*; α(O)=5.75×10^{-8} *9*; α(IPF)=0.000332 *5* B(M1)(W.u.)>0.011; B(E2)(W.u.)<0.24 δ: Other: +2.3 *+29−9* from γ(θ) in ^{112}Cd(n,n′γ) (2001Ga44).
3568.05	2$^+$	2950.52 *12*	94 *4*	617.518	2$^+$	M1+E2	+1.6 *+12−8*	8.86×10^{-4}	α(K)=0.0001254 *19*; α(L)=1.436×10^{-5} *22*; α(M)=2.74×10^{-6} *5* α(N)=4.90×10^{-7} *8*; α(O)=2.93×10^{-8} *5*; α(IPF)=0.000743 *12* B(M1)(W.u.)=0.0014 *+15−14*; B(E2)(W.u.)=0.32 *15* δ: Other: +0.15 *+40−20* from γ(θ) in ^{112}Cd(n,n′γ) 2001Ga44.
		3568.00 *10*	75 *5*	0.0	0$^+$	E2		1.10×10^{-3}	B(E2)(W.u.)=0.137 *25* α(K)=9.10×10^{-5} *13*; α(L)=1.038×10^{-5} *15*; α(M)=1.98×10^{-6} *3* α(N)=3.54×10^{-7} *5*; α(O)=2.12×10^{-8} *3*; α(IPF)=0.001000 *14*
3571.05	9$^-$	252.88[#] *10*	100[#] *6*	3318.09	9$^-$	M1+E2[‡]	+0.82[‡] *13*	0.0453 *18*	α(K)=0.0387 *14*; α(L)=0.0054 *3*; α(M)=0.00104 *6* α(N)=0.000181 *10*; α(O)=8.82×10^{-6} *24* Mult.: A_2=0.28 *4*; A_4=−0.11 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: −0.33 *14* in ^{110}Pd(α,2nγ) (1997Dr03).
		478.22[#g] *4*	[#]	3093.02	8$^-$	M1+E2	−0.10 *6*	0.00742	α(K)=0.00647 *9*; α(L)=0.000776 *11*; α(M)=0.0001487 *21* α(N)=2.66×10^{-5} *4*; α(O)=1.555×10^{-6} *22* E_γ: transition seen only in 1993De09. Mult.: A_0=3.74 *15*; A_2/A_0=−0.43 *8* (1993De09).
		635.7[#] *3*	51[#] *17*	2935.50	7$^-$	E2		0.00343	α(K)=0.00297 *5*; α(L)=0.000375 *6*; α(M)=7.21×10^{-5} *11* α(N)=1.275×10^{-5} *18*; α(O)=6.84×10^{-7} *10* Mult.: A_2=0.34 *3*; A_4=−0.12 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		777.36[#] *15*	76[#] *13*	2793.80	7$^-$	E2		0.00206	α(K)=0.00179 *3*; α(L)=0.000220 *3*; α(M)=4.22×10^{-5} *6* α(N)=7.49×10^{-6} *11*; α(O)=4.14×10^{-7} *6* Mult.: A_2=0.352 *10*; A_4=−0.120 *14* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3572.28	(1,2$^+$)	3572.37[b] *23*	100[b]	0.0	0$^+$				
3574.49	0$^+$ to 4$^+$	2262.06 *10*	57 *4*	1312.390	2$^+$				

$^{112}_{48}Cd_{64}$-51

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3574.49	0$^+$ to 4$^+$	2956.96 *18*	100 *4*	617.518	2$^+$				
3577.2	0$^+$ to 4$^+$	2264.8 *3*	100	1312.390	2$^+$				
3577.55	2$^+$	2352.94[b] *19*	21.9[b] *19*	1224.341	0$^+$				
		2960.13[b] *16*	100[b] *4*	617.518	2$^+$				
		3577.53[b] *18*	18.1[b] *19*	0.0	0$^+$				
3579.44	0$^+$ to 4$^+$	2267.21 *10*	40 *3*	1312.390	2$^+$				
		2961.69 *10*	100	617.518	2$^+$				
3583.80	5,6,7	1416.03[#] *23*	100[#]	2167.76	6$^+$	D(+Q)[‡]	−0.06[‡] *4*		Mult.: A_2=−0.13 *26* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
3594.64	1,2$^+$	2977.24 *14*	43 *4*	617.518	2$^+$				
		3594.49 *10*	100	0.0	0$^+$				
3598.81	1$^+$,2$^+$,3$^+$	2981.25 *10*	100	617.518	2$^+$	M1+E2	−0.16 *+8−10*	8.90×10^{-4}	α(K)=0.0001244 *18*; α(L)=1.427×10^{-5} *20*; α(M)=2.72×10^{-6} *4* α(N)=4.87×10^{-7} *7*; α(O)=2.93×10^{-8} *5*; α(IPF)=0.000748 *11* B(M1)(W.u.)=0.026 *7*; B(E2)(W.u.)=0.06 *6* δ: Other: −2.8 *+6−11* from G(θ) in 2001Ga44.
3608.91	0$^+$,1,2,3$^+$	2991.30 *10*	100	617.518	2$^+$				
3613.26	1$^+$,2$^+$,3$^+$	2143.97 *19*	96 *6*	1468.822	2$^+$				
		2995.85 *11*	100	617.518	2$^+$	M1+E2	+2.0 *+21−15*	9.03×10^{-4} *14*	α(K)=0.0001220 *20*; α(L)=1.396×10^{-5} *24*; α(M)=2.66×10^{-6} *5* α(N)=4.76×10^{-7} *9*; α(O)=2.85×10^{-8} *6*; α(IPF)=0.000764 *13* B(M1)(W.u.)=0.0008 *+15−8*; B(E2)(W.u.)=0.30 *+16−22*
3618.48	3$^-$	1613.8 *3*		2005.200	3$^-$				
		2202.7 *3*		1415.480	4$^+$				
		3000.83 *18*	100	617.518	2$^+$	[E1]		1.29×10^{-3}	α(K)=7.15×10^{-5} *10*; α(L)=8.10×10^{-6} *12*; α(M)=1.542×10^{-6} *22* α(N)=2.76×10^{-7} *4*; α(O)=1.651×10^{-8} *24*; α(IPF)=0.001213 *17* B(E1)(W.u.)=0.00018 *+6−18*
3622.18	0$^+$ to 4$^+$	3004.62 *11*	100	617.518	2$^+$				
3627.6	2$^+$ to 6$^+$	2212.1 *3*	100	1415.480	4$^+$				
3646.54	0$^+$,1,2,3$^+$	3028.88 *10*	100	617.518	2$^+$				
3652.18	1,2$^+$	3034.60 *10*	100 *4*	617.518	2$^+$				
		3652.07 *23*	19 *4*	0.0	0$^+$				
3658.74	8$^-$	340.50[#] *15*	100[#]	3318.09	9$^-$	M1+E2[‡]	−0.18[‡] *4*	0.0174 *3*	α(K)=0.01512 *22*; α(L)=0.00184 *3*; α(M)=0.000354 *6* α(N)=6.31×10^{-5} *10*; α(O)=3.64×10^{-6} *6* Mult.: A_2=0.09 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).

$^{112}_{48}Cd_{64}$-52

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3658.74	8⁻	410.55[#] *10*		3248.25	7⁻	M1+E2[‡]	0.50[‡] *25*	0.01103 *25*	α(K)=0.00957 *19*; α(L)=0.00118 *5*; α(M)=0.000227 *9* α(N)=4.04×10⁻⁵ *15*; α(O)=2.27×10⁻⁶ *4* Mult.: A_2=0.46 *9*; A_4=0.19 *13* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: from ^{110}Pd(α,2nγ) (1993De09); Other: 2.7 *10* in ^{110}Pd(α,2nγ) (1993De09).
3665.78	3⁻	3048.22 *10*	100	617.518	2⁺	[E1]		1.32×10⁻³	α(K)=6.99×10⁻⁵ *10*; α(L)=7.92×10⁻⁶ *11*; α(M)=1.508×10⁻⁶ *22* α(N)=2.70×10⁻⁷ *4*; α(O)=1.615×10⁻⁸ *23*; α(IPF)=0.001236 *18* B(E1)(W.u.)=7.8×10⁻⁵ *15*
3676.73	0⁺ to 4⁺	2208.09 *11*	100 *4*	1468.822	2⁺				
		3059.00 *10*	75 *4*	617.518	2⁺				
3682.83	1,2⁺	3682.76 *12*	100	0.0	0⁺				
3684.02	10⁺	802.98[#] *10*	100[#]	2881.02	8⁺	E2		0.00190	α(K)=0.001651 *24*; α(L)=0.000203 *3*; α(M)=3.89×10⁻⁵ *6* α(N)=6.90×10⁻⁶ *10*; α(O)=3.83×10⁻⁷ *6* Mult.: A_2=+0.53 *16*, A_4=−0.48 *20* from γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).
3685.55	6⁻,7⁻,8⁻	309.09[#] *10*	100[#]	3376.46	7⁻	M1+E2[‡]	−0.29[‡] *9*	0.0226 *5*	α(K)=0.0196 *4*; α(L)=0.00243 *8*; α(M)=0.000468 *14* α(N)=8.32×10⁻⁵ *24*; α(O)=4.71×10⁻⁶ *8* Mult.: A_2=0.24 *2*; A_4=−0.04 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3687.93	(1,2⁺)	3687.86 *10*	100	0.0	0⁺				
3690.68	(4)⁺	3073.12 *13*	100	617.518	2⁺	[E2]		9.32×10⁻⁴	α(K)=0.0001165 *17*; α(L)=1.333×10⁻⁵ *19*; α(M)=2.54×10⁻⁶ *4* α(N)=4.55×10⁻⁷ *7*; α(O)=2.72×10⁻⁸ *4*; α(IPF)=0.000799 *12* B(E2)(W.u.)=0.6 *+3−6*
3696.15	0⁺,1,2,3⁺	2383.81[b] *17*	100[b]	1312.390	2⁺				
3697.74	1⁻,2,3,4⁺	1692.8 *3*		2005.200	3⁻				
		3080.13 *12*	100	617.518	2⁺				
3703.81	1,2⁺	3703.74 *10*	100	0.0	0⁺				
3707.45	1⁻,2,3⁺	840.71[b] *18*	40[b] *4*	2866.75	3⁻				
		2395.00[b] *18*	57[b] *4*	1312.390	2⁺				
		3090.04[b] *18*	100[b] *6*	617.518	2⁺				
3719.75	(2⁺,3⁺)	2305.1 *3*	100	1415.480	4⁺				
3723.25	0⁺,1,2,3⁺	3105.13 *24*	100	617.518	2⁺				
3731.95	0⁺ to 4⁺	3114.39 *10*	100	617.518	2⁺				

$^{112}_{48}Cd_{64}$-53

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	$I_{(\gamma+ce)}$	Comments
3736.5	8^+	1165.0[#] *3*	100[#]	2571.47	6^+	E2		8.21×10^{-4}		α(K)=0.000713 *10*; α(L)=8.49×10^{-5} *12*; α(M)=1.624×10^{-5} *23* α(N)=2.89×10^{-6} *4*; α(O)=1.666×10^{-7} *24*; α(IPF)=3.47×10^{-6} *6* Mult.: A_2=0.36 *7*; A_4=−0.04 *9* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3739.55	$(1,2,3)^+$	3121.99 *10*	100	617.518	2^+	M1+E2	−0.32 *+14−20*	9.41×10^{-4}		B(M1)(W.u.)=0.010 *4*; B(E2)(W.u.)=0.08 *8* α(K)=0.0001142 *16*; α(L)=1.309×10^{-5} *19*; α(M)=2.50×10^{-6} *4* α(N)=4.47×10^{-7} *7*; α(O)=2.69×10^{-8} *4*; α(IPF)=0.000810 *12*
3743.76	$(1,2,3)^+$	3126.22 *10*	100	617.518	2^+	M1+E2	−12 *+4−20*	9.51×10^{-4}		α(K)=0.0001132 *16*; α(L)=1.295×10^{-5} *19*; α(M)=2.47×10^{-6} *4* α(N)=4.42×10^{-7} *7*; α(O)=2.64×10^{-8} *4*; α(IPF)=0.000822 *12* B(M1)(W.u.)=9.E−5 *7*; B(E2)(W.u.)=1.09 *16*
3746.8	$(4)^+$	2331.3 *3*	100	1415.480	4^+					
3754.09	2^+ to 6^+	2338.58 *10*	100	1415.480	4^+					
3755.46	(2^+)	3755.39 *13*	100	0.0	0^+	[E2]		1.17×10^{-3}		α(K)=8.37×10^{-5} *12*; α(L)=9.54×10^{-6} *14*; α(M)=1.82×10^{-6} *3* α(N)=3.25×10^{-7} *5*; α(O)=1.95×10^{-8} *3*; α(IPF)=0.001073 *15* B(E2)(W.u.)=0.8 *3*
3763.95	$(4)^+$	3146.38 *10*	100	617.518	2^+	[E2]		9.58×10^{-4}		α(K)=0.0001120 *16*; α(L)=1.280×10^{-5} *18*; α(M)=2.44×10^{-6} *4* α(N)=4.37×10^{-7} *7*; α(O)=2.61×10^{-8} *4*; α(IPF)=0.000830 *12* B(E2)(W.u.)=0.55 *8*
3770.47	0^+ to 4^+	3152.90 *10*	100	617.518	2^+					
3783.197	$(1,2,3)^+$	3165.631 *10*	100	617.518	2^+	M1+E2	−2.7 *+10−14*	9.64×10^{-4}		B(M1)(W.u.)=0.0004 *4*; B(E2)(W.u.)=0.24 *+13−24* α(K)=0.0001109 *16*; α(L)=1.268×10^{-5} *18*; α(M)=2.42×10^{-6} *4* α(N)=4.33×10^{-7} *6*; α(O)=2.59×10^{-8} *4*; α(IPF)=0.000837 *12* δ: Other: −0.23 *+14−20* from γ(θ) in 2001Ga44.
3785.69	9^-	692.67[#] *10*	100[#]	3093.02	8^-					
3787.3	2^+	3787.2 *3*	100	0.0	0^+	E2		1.18×10^{-3}		α(K)=8.26×10^{-5} *12*; α(L)=9.41×10^{-6} *14*; α(M)=1.79×10^{-6} *3* α(N)=3.21×10^{-7} *5*; α(O)=1.93×10^{-8} *3*; α(IPF)=0.001085 *16*
3801.2	$(4)^+$	2385.7 *3*	100	1415.480	4^+					
3804.87	0^+ to 4^+	3187.30 *14*	100	617.518	2^+					

$^{112}_{48}Cd_{64}$-54

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3809.39	10⁻	238.32[#] *10*		3571.05	9⁻	M1+E2		0.0433	α(K)=0.0376 *6*; α(L)=0.00461 *7*; α(M)=0.000885 *13* α(N)=0.0001579 *23*; α(O)=9.13×10⁻⁶ *13*
		491.30[#] *10*		3318.09	9⁻	M1+E2	−0.78 *35*	0.00697	α(K)=0.00605 *9*; α(L)=0.000751 *19*; α(M)=0.000144 *4* α(N)=2.56×10⁻⁵ *6*; α(O)=1.42×10⁻⁶ *3* Mult.,δ: A_2=−1.23 *5*; A_4=0.06 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		716.38[#] *10*		3093.02	8⁻	E2		0.00252	α(K)=0.00219 *3*; α(L)=0.000272 *4*; α(M)=5.22×10⁻⁵ *8* α(N)=9.25×10⁻⁶ *13*; α(O)=5.05×10⁻⁷ *7* Mult.: A_2=0.445 *24*; A_4=−0.139 *33* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3810.04	1,2⁺	3809.97 *10*		0.0	0⁺				
3810.88	(3⁻)	3193.31 *10*	100	617.518	2⁺	[E1]		1.38×10⁻³	α(K)=6.55×10⁻⁵ *10*; α(L)=7.42×10⁻⁶ *11*; α(M)=1.413×10⁻⁶ *20* α(N)=2.53×10⁻⁷ *4*; α(O)=1.514×10⁻⁸ *22*; α(IPF)=0.001309 *19* B(E1)(W.u.)=0.00013 *+4−6*
3832.66	(4⁺)	3215.09 *11*	100	617.518	2⁺	[E2]		9.83×10⁻⁴	α(K)=0.0001080 *16*; α(L)=1.235×10⁻⁵ *18*; α(M)=2.35×10⁻⁶ *4* α(N)=4.21×10⁻⁷ *6*; α(O)=2.52×10⁻⁸ *4*; α(IPF)=0.000859 *12* B(E2)(W.u.)=2.3 *8*
3838.85	(1,2⁺)	3838.84[b] *24*	100[b]	0.0	0⁺				
3844.25	0⁺ to 4⁺	3226.68 *10*	100	617.518	2⁺				
3846.48	(1,2⁺)	3846.41 *10*	100	0.0	0⁺				
3854.4	2⁺	3854.3 *3*	100	0.0	0⁺	E2		1.20×10⁻³	α(K)=8.03×10⁻⁵ *12*; α(L)=9.14×10⁻⁶ *13*; α(M)=1.743×10⁻⁶ *25* α(N)=3.12×10⁻⁷ *5*; α(O)=1.87×10⁻⁸ *3*; α(IPF)=0.001110 *16*
3864.51	(4)⁺	2449.0 *1*	100	1415.480	4⁺				
3869.00	(1,2⁺)	3868.93 *10*	100 *11*	0.0	0⁺				
3878.62	0⁺ to 4⁺	3261.05 *13*	100	617.518	2⁺				
3892.48	0⁺,1,2,3⁺	2579.77[b] *23*	100[b]	1312.390	2⁺				
3913.69	9⁺	514.75[#] *10*		3398.88	8⁺	M1+E2	0.31 *7*	0.00620	α(K)=0.00540 *8*; α(L)=0.000651 *10*; α(M)=0.0001247 *18* α(N)=2.22×10⁻⁵ *4*; α(O)=1.292×10⁻⁶ *19* Mult.,δ: A_2=0.26 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		674.71[#] *10*		3239.04	7⁺	E2		0.00294	α(K)=0.00254 *4*; α(L)=0.000319 *5*; α(M)=6.13×10⁻⁵ *9* α(N)=1.084×10⁻⁵ *16*; α(O)=5.87×10⁻⁷ *9* Mult.: A_2=0.322 *14*; A_4=−0.15 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		1032.66[#] *10*		2881.02	8⁺	M1(+E2)	0.09 *7*	1.24×10⁻³	α(K)=0.001081 *16*; α(L)=0.0001267 *18*; α(M)=2.42×10⁻⁵ *4*

$^{112}_{48}Cd_{64}$-55

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=4.33×10^{-6} *7*; α(O)=2.58×10^{-7} *4* Mult.,δ: A_2=−0.09 *4*; A_4=0.17 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3929.21	(0)$^+$	3311.64 *21*	100	617.518	2$^+$	[E2]		1.02×10^{-3}	α(K)=0.0001028 *15*; α(L)=1.175×10^{-5} *17*; α(M)=2.24×10^{-6} *4* α(N)=4.01×10^{-7} *6*; α(O)=2.40×10^{-8} *4*; α(IPF)=0.000899 *13* B(E2)(W.u.)>0.049
3930.78	12$^+$	608.5[#] *4*	100[#]	3322.40	10$^+$	E2		0.00385	α(K)=0.00333 *5*; α(L)=0.000424 *6*; α(M)=8.15×10^{-5} *12* α(N)=1.439×10^{-5} *21*; α(O)=7.66×10^{-7} *11* Mult.: A_2=0.340 *16*; A_4=−0.139 *22* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3932.18	0$^+$ to 4$^+$	3314.61 *12*	100	617.518	2$^+$				
3933.07	(1,2$^+$)	3933.00 *13*	100	0.0	0$^+$				
3939.27	(4)$^+$	3321.70 *14*	100	617.518	2$^+$				
3951.57	1,2$^+$	3333.9[b] *10*	100[b] *5*	617.518	2$^+$				E_γ: a rounded off value and ΔEγ=1.0 keV set by the evaluators.
		3951.4[b] *10*	12.5[b] *18*	0.0	0$^+$				E_γ: a rounded off value and ΔEγ=1.0 keV set by the evaluators.
3963.8	(1,2$^+$)	3963.7 *4*	100	0.0	0$^+$				
3966.44	(9,10,11)$^+$	644.04[#] *10*		3322.40	10$^+$	M1+E2	−0.16 *2*	0.00363	α(K)=0.00317 *5*; α(L)=0.000377 *6*; α(M)=7.21×10^{-5} *11* α(N)=1.288×10^{-5} *18*; α(O)=7.59×10^{-7} *11* Mult.,δ: A_2=0.07 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
3970.08	(1,2$^+$)	3352.4[b] *4*	44[b] *11*	617.518	2$^+$				E_γ: 3351.72 *20* in ^{112}Cd(n,n′γ).
		3970.0[b] *3*	100[b] *9*	0.0	0$^+$				
3990.40	10$^+$	306.23[#] *25*	21 *5*	3684.02	10$^+$	M1+E2[‡]	−0.50[‡] *10*	0.0241 *6*	α(K)=0.0209 *5*; α(L)=0.00266 *10*; α(M)=0.000512 *19* α(N)=9.1×10^{-5} *4*; α(O)=4.93×10^{-6} *9* Mult.: A_2=0.17 *2* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		591.57[#] *10*	[#]	3398.88	8$^+$	E2		0.00416	α(K)=0.00360 *5*; α(L)=0.000459 *7*; α(M)=8.83×10^{-5} *13* α(N)=1.558×10^{-5} *22*; α(O)=8.25×10^{-7} *12* Mult.: A_2=0.397 *24*; A_4=−0.22 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		813.86[#] *15*	100[#] *12*	3176.47	8$^+$	(E2)		0.00184	α(K)=0.001598 *23*; α(L)=0.000196 *3*; α(M)=3.76×10^{-5} *6* α(N)=6.67×10^{-6} *10*; α(O)=3.71×10^{-7} *6* Mult.: A_2=+0.25 *22* from γγ(θ) in

$^{112}_{48}Cd_{64}$-56

Adopted Levels, Gammas (continued)

$\gamma(^{112}Cd)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. †	δ †f	α^e	Comments
									^{110}Pd(α,2nγ) (1997Dr03).

$^{112}_{48}Cd_{64}$-57

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
3997.75	1,2$^+$	2685.83[b] *17*	100[b] *5*	1312.390	2$^+$				
		3997.6[b] *3*	27[b] *3*	0.0	0$^+$				
4003.9	(3$^-$)	3386.50[b] *31*	100[b]	617.518	2$^+$				
4033.88	(3$^-$)	3416.31 *20*	100	617.518	2$^+$	[E1]		1.49×10^{-3}	α(K)=5.97×10^{-5} *9*; α(L)=6.75×10^{-6} *10*; α(M)=1.287×10^{-6} *18* α(N)=2.30×10^{-7} *4*; α(O)=1.379×10^{-8} *20*; α(IPF)=0.001420 *20* B(E1)(W.u.)=0.00012 *+4−11*
4125.91	10$^+$	949.44[#] *10*	100[#]	3176.47	8$^+$	E2		1.28×10^{-3}	α(K)=0.001116 *16*; α(L)=0.0001349 *19*; α(M)=2.59×10^{-5} *4* α(N)=4.60×10^{-6} *7*; α(O)=2.60×10^{-7} *4* Mult.: A_2=0.33 *5*; A_4=−0.17 *7* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4174.50	10$^+$	856.41[#] *10*	100[#]	3318.09	9$^-$	E1		6.57×10^{-4}	α(K)=0.000576 *8*; α(L)=6.68×10^{-5} *10*; α(M)=1.274×10^{-5} *18* α(N)=2.27×10^{-6} *4*; α(O)=1.325×10^{-7} *19* Mult.: A_2=−0.39 *5* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: possible M2 admixture of δ=−0.08 *5* ^{110}Pd(α,2nγ) (1993De09).
4283.47	10$^+$	740.63[#] *10*	100[#]	3542.84	8$^+$	E2		0.00232	α(K)=0.00201 *3*; α(L)=0.000249 *4*; α(M)=4.79×10^{-5} *7* α(N)=8.48×10^{-6} *12*; α(O)=4.65×10^{-7} *7* Mult.: A_2=0.43 *4*; A_4=−0.08 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4284.76	(9)$^-$	908.29[#] *10*	100[#]	3376.46	7$^-$	E2		1.42×10^{-3}	α(K)=0.001235 *18*; α(L)=0.0001499 *21*; α(M)=2.87×10^{-5} *4* α(N)=5.10×10^{-6} *8*; α(O)=2.87×10^{-7} *4* Mult.: A_2=0.27 *7*; A_4=−0.13 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4285.20	11$^-$	967.10[#] *10*	100[#]	3318.09	9$^-$	E2		1.23×10^{-3}	α(K)=0.001071 *15*; α(L)=0.0001292 *18*; α(M)=2.48×10^{-5} *4* α(N)=4.40×10^{-6} *7*; α(O)=2.49×10^{-7} *4* Mult.: A_2=0.285 *39*; A_4=−0.13 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4383.05	11$^+$	452.27[#] *10*		3930.78	12$^+$	M1(+E2)	0.05 *3*	0.00850	α(K)=0.00741 *11*; α(L)=0.000890 *13*; α(M)=0.0001706 *24* α(N)=3.05×10^{-5} *5*; α(O)=1.784×10^{-6} *25* Mult.: a_0/A_2=−0.28 *10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
		1060.63[#] *10*		3322.40	10$^+$	M1+E2	0.75 *30*	0.00111 *4*	α(K)=0.00097 *4*; α(L)=0.000114 *4*; α(M)=2.18×10^{-5} *7* α(N)=3.90×10^{-6} *12*; α(O)=2.29×10^{-7} *9* Mult.,δ: A_2=0.67 *5*; A_4=0.16 *6* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4385.16	10$^-$	1067.06[#] *10*	100[#]	3318.09	9$^-$	M1+E2	0.38 *10*	1.13×10^{-3} *2*	α(K)=0.000988 *17*; α(L)=0.0001161 *19*; α(M)=2.22×10^{-5} *4*

$^{112}_{48}Cd_{64}$-58

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
									α(N)=3.97×10^{-6} *7*; α(O)=2.35×10^{-7} *4* Mult.,δ: A_2=0.35 *10*; A_4=0.17 *12* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09). δ: Other: 3.6 *+20−10* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4467.74	11$^-$	896.68[#] *10*	100[#]	3571.05	9$^-$	E2		1.46×10^{-3}	α(K)=0.001272 *18*; α(L)=0.0001546 *22*; α(M)=2.96×10^{-5} *5* α(N)=5.26×10^{-6} *8*; α(O)=2.96×10^{-7} *5* Mult.: A_2=0.364 *23*; A_4=−0.06 *3* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4587.15	12$^+$	903.12[#] *10*	100[#]	3684.02	10$^+$	E2		1.44×10^{-3}	α(K)=0.001251 *18*; α(L)=0.0001520 *22*; α(M)=2.91×10^{-5} *4* α(N)=5.17×10^{-6} *8*; α(O)=2.91×10^{-7} *4* Mult.: A_2=0.367 *19*; A_4=−0.124 *28* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4687.17	11$^+$	773.48[#] *10*	100[#]	3913.69	9$^+$	E2		0.00208	α(K)=0.00181 *3*; α(L)=0.000223 *4*; α(M)=4.28×10^{-5} *6* α(N)=7.59×10^{-6} *11*; α(O)=4.19×10^{-7} *6* Mult.: A_2=0.31 *6*; A_4=−0.09 *8* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
4871.47	14$^+$	940.68[#] *10*	100[#]	3930.78	12$^+$	E2		1.31×10^{-3}	α(K)=0.001140 *16*; α(L)=0.0001379 *20*; α(M)=2.64×10^{-5} *4* α(N)=4.70×10^{-6} *7*; α(O)=2.65×10^{-7} *4* Mult.: A_2=0.35 *3*; A_4=−0.14 *4* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
5106.22	(13)$^-$	1175.43[#] *10*	100[#]	3930.78	12$^+$	E1		3.84×10^{-4}	α(K)=0.000315 *5*; α(L)=3.63×10^{-5} *5*; α(M)=6.92×10^{-6} *10* α(N)=1.235×10^{-6} *18*; α(O)=7.28×10^{-8} *11*; α(IPF)=2.42×10^{-5} *4* Mult.: A_2=0.334 *18*; A_4=0.111 *25* from γγ(θ) in ^{110}Pd(α,2nγ) (1993De09).
7633.0	1$^-$	4323[&] *6*	0.36 *18*	3312.24	(1$^-$,2)				
		4385[&] *6*	0.91 *18*	3246.86	(1,2)$^+$	E1		0.00186	α(K)=4.28×10^{-5} *6*; α(L)=4.83×10^{-6} *7*; α(M)=9.20×10^{-7} *13* α(N)=1.645×10^{-7} *24*; α(O)=9.88×10^{-9} *14*; α(IPF)=0.00181 *3* B(E1)(W.u.)=3.3×10^{-6} *9* Mult.: A_2=0.4 *1* (1971Mo31).
		4439[&] *6*	0.36 *18*	3190.06	0$^+$,1,2,3$^+$	E1(+M2)	≤0.6	0.00177 *11*	α(K)=5.0×10^{-5} *8*; α(L)=5.7×10^{-6} *10*;

$^{112}_{48}Cd_{64}$-59

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	α[e]	Comments
								α(M)=1.08×10^{-6} *18* α(N)=1.9×10^{-7} *4*; α(O)=1.16×10^{-8} *19*; α(IPF)=0.00172 *12* B(E1)(W.u.)>4.4×10^{-7}?; B(M2)(W.u.)<0.12? Mult.: A_2=0.16 *17* (1971Mo31).
7633.0	4522[&]	0.91 *18*	3109.98	(2)$^+$	E1(+M2)	>−0.28	0.0015 *4*	α(K)=7.E−5 *3*; α(L)=8.E−6 *3*; α(M)=1.6×10^{-6} *6* α(N)=2.8×10^{-7} *11*; α(O)=1.7×10^{-8} *7*; α(IPF)=0.0014 *4* B(E1)(W.u.)<3.5×10^{-6}?; B(M2)(W.u.)>0.036? Mult.: A_2=0.04 *18* (1971Mo31).
	4782[&] *3*	3.5 *4*	2852.90	2$^+$	E1(+M2)	≤+0.21	0.00197 *4*	α(K)=3.93×10^{-5} *12*; α(L)=4.44×10^{-6} *14*; α(M)=8.4×10^{-7} *3* α(N)=1.51×10^{-7} *5*; α(O)=9.1×10^{-9} *3*; α(IPF)=0.00193 *4* B(E1)(W.u.)>7.4×10^{-6}?; B(M2)(W.u.)<0.10? Mult.: A_2=0.11 *8* (1971Mo31).
	4800[&] *3*	3.09 *18*	2834.27	0$^+$	E1		0.00199	α(K)=3.81×10^{-5} *6*; α(L)=4.29×10^{-6} *6*; α(M)=8.18×10^{-7} *12* α(N)=1.462×10^{-7} *21*; α(O)=8.79×10^{-9} *13*; α(IPF)=0.00195 *3* B(E1)(W.u.)=8.6×10^{-6} *16* Mult.: A_2=0.5 *1* (1971Mo31).
	4909[&] *2*	0.36 *18*	2723.96	2$^+$	[E1]		0.00203	α(K)=3.70×10^{-5} *6*; α(L)=4.17×10^{-6} *6*; α(M)=7.94×10^{-7} *12* α(N)=1.421×10^{-7} *20*; α(O)=8.54×10^{-9} *12*; α(IPF)=0.00198 *3* B(E1)(W.u.)=9.E−7 *5*
	5126[&] *2*	0.73 *18*	2506.36	(2)$^+$	[E1]		0.00209	α(K)=3.50×10^{-5} *5*; α(L)=3.95×10^{-6} *6*; α(M)=7.52×10^{-7} *11* α(N)=1.344×10^{-7} *19*; α(O)=8.08×10^{-9} *12*; α(IPF)=0.00205 *3* B(E1)(W.u.)=1.7×10^{-6} *5*
	5337[&] *4*	0.91 *18*	2300.68	0$^+$	[E1]		0.00215	α(K)=3.33×10^{-5} *5*; α(L)=3.75×10^{-6} *6*; α(M)=7.14×10^{-7} *10* α(N)=1.277×10^{-7} *18*; α(O)=7.68×10^{-9} *11*; α(IPF)=0.00211 *3* B(E1)(W.u.)=1.8×10^{-6} *5*
	5403[&] *2*	0.36 *18*	2231.12	2$^+$	[E1]		0.00217	α(K)=3.28×10^{-5} *5*; α(L)=3.69×10^{-6} *6*; α(M)=7.03×10^{-7} *10* α(N)=1.257×10^{-7} *18*; α(O)=7.56×10^{-9} *11*; α(IPF)=0.00213 *3* B(E1)(W.u.)=7.E−7 *4*
	5477[&] *2*	0.73 *18*	2156.18	2$^+$	[E1]		0.00219	α(K)=3.22×10^{-5} *5*; α(L)=3.63×10^{-6} *5*; α(M)=6.91×10^{-7} *10* α(N)=1.236×10^{-7} *18*; α(O)=7.43×10^{-9} *11*; α(IPF)=0.00215 *3* B(E1)(W.u.)=1.4×10^{-6} *5*
	5512[&] *2*	1.27 *18*	2121.62	2$^+$	[E1]		0.00220	α(K)=3.20×10^{-5} *5*; α(L)=3.60×10^{-6} *5*; α(M)=6.86×10^{-7} *10* α(N)=1.226×10^{-7} *18*; α(O)=7.37×10^{-9} *11*; α(IPF)=0.00216 *3* B(E1)(W.u.)=2.3×10^{-6} *6*
	5551[&] *4*	0.91 *18*	2081.64	4$^+$	[E3]		1.40×10^{-3}	α(K)=6.29×10^{-5} *9*; α(L)=7.18×10^{-6} *10*; α(M)=1.370×10^{-6} *20* α(N)=2.45×10^{-7} *4*; α(O)=1.475×10^{-8} *21*; α(IPF)=0.001327 *19* B(E3)(W.u.)=10 *3*
	5763[&] *2*	21.1 *16*	1870.96	0$^+$	E1		0.00226	α(K)=3.02×10^{-5} *5*; α(L)=3.41×10^{-6} *5*; α(M)=6.48×10^{-7} *9* α(N)=1.159×10^{-7} *17*; α(O)=6.98×10^{-9} *10*; α(IPF)=0.00223 *4* B(E1)(W.u.)=3.4×10^{-5} *7* Mult.: A_2=0.51 *2* (1971Mo31).

$^{112}_{48}Cd_{64}$-60

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[†f]	Comments
7633.0	1⁻	6164[&] *2*	3.5 *4*	1468.822	2⁺	E1(+M2)	≤0.15	α(IPF)=0.00233 *4* B(E1)(W.u.)>3.5×10^{-6}?; B(M2)(W.u.)<0.015? Mult.: A_2=0.08 *7* (1971Mo31).
		6203[&] *3*	4.0 *4*	1433.27	0⁺	E1		α(IPF)=0.00235 *4* B(E1)(W.u.)=5.1×10^{-6} *11* Mult.: A_2=0.57 *7* (1971Mo31).
		6409[&] *2*	14.6 *11*	1224.341	0⁺	E1		α(IPF)=0.00240 *4* B(E1)(W.u.)=1.7×10^{-5} *4* Mult.: A_2=0.52 *4* (1971Mo31).
		7015 *2*	21.3 *16*	617.518	2⁺	E1+M2	0.06 *2*	α(IPF)=0.00254 *4* B(E1)(W.u.)=1.9×10^{-5} *4*; B(M2)(W.u.)=0.006 *5* Mult.: A_2=0.09 *2* (1971Mo31).
		7632[&] *1*	100 *7*	0.0	0⁺	E1		α(IPF)=0.00267 *4* B(E1)(W.u.)=6.9×10^{-5} *13* Mult.: from γ(θ) and γ(pol) (1970Mo26). Mult.: A_2=0.51 *1* (1971Mo31).
(9394.20)	(1)⁺	5390.5[c] *5*	2.9[c] *6*	4003.9	(3⁻)			
		5397.8[c] *3*	5.5[c] *9*	3997.75	1,2⁺			
		5423.9[c] *3*	4.4[c] *6*	3970.08	(1,2⁺)			
		5442.48[c] *13*	62.3[c] *16*	3951.57	1,2⁺			
		5498.9[c] *6*	4.3[c] *12*					
		5501.62[c] *17*	24.5[c] *19*	3892.48	0⁺,1,2,3⁺			
		5547.5[c] *4*	5.3[c] *8*	3846.48	(1,2⁺)			
		5555.6[c] *6*	2.6[c] *6*	3838.85	(1,2⁺)			
		5650.8[c] *5*	3.4[c] *8*	3743.76	(1,2,3)⁺			
		5670.24[c] *24*	6.2[c] *7*	3723.25	0⁺,1,2,3⁺			
		5674.88[c] *25*	5.9[c] *7*	3719.75	(2⁺,3⁺)			
		5686.66[c] *14*	62.6[c] *19*	3707.45	1⁻,2,3⁺			
		5697.93[c] *13*	58.7[c] *19*	3696.15	0⁺,1,2,3⁺			
		5741.76[c] *18*	14.3[c] *8*	3652.18	1,2⁺			
		5746.95[c] *24*	7.5[c] *7*	3646.54	0⁺,1,2,3⁺			
		5784.3[c] *4*	4.5[c] *8*	3608.91	0⁺,1,2,3⁺			
		5822.2[c] *4*	4.7[c] *7*	3572.28	(1,2⁺)			
		5825.99[c] *20*	11.3[c] *9*	3568.05	2⁺			
		5837.08[c] *18*	11.0[c] *7*	3556.88	(1,2⁺)			
		5853.86[c] *21*	13.6[c] *13*	3540.24	1,2⁺			
		5879.4[c] *3*	4.4[c] *6*	3512.97	(1,2,3)⁺			
		5893.51[c] *13*	30.5[c] *10*	3500.45	0⁺ to 3⁺			
		5914.9[c] *3*	5.7[c] *7*	3478.58	0⁺,1,2⁺			
		5938.41[c] *14*	35.6[c] *13*	3455.48	0⁺,1,2			

$^{112}_{48}Cd_{64}$-61

Adopted Levels, Gammas (continued)

γ(^{112}Cd) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
(9394.20)	(1)$^+$	5942.00[c] *10*	8.7[c] *11*	3452.47	2$^+$
		5965.00[c] *10*	3.9[c] *5*	3428.87	2$^+$
		6000.49[c] *13*	28.8[c] *10*	3393.45	(1,2$^+$)
		6015.63[c] *15*	25.7[c] *10*	3378.52	(2)$^+$
		6030.58[c] *16*	12.1[c] *7*	3363.55	2$^+$
		6090.77[c] *16*	22.3[c] *13*	3303.24	(2,3)$^+$
		6140.26[c] *16*	14.5[c] *8*	3254.21	(0$^+$,1,2)
		6150.4[c] *4*	2.9[c] *5*	3242.64	2$^+$
		6162.45[c] *16*	13.0[c] *7*	3231.59	1$^+$
		6203.94[c] *15*	18.8[c] *9*	3190.06	0$^+$,1,2,3$^+$
		6224.68[c] *15*	20.1[c] *9*	3169.46	2$^+$
		6230.36[c] *14*	27.7[c] *11*	3163.51	2$^+$
		6258.35[c] *19*	41[c] *5*	3135.84	(2,3$^+$)
		6260.63[c] *25*	29[c] *5*	3133.42	1$^-$
		6282.6[c] *3*	8.7[c] *8*	3109.98	(2)$^+$
		6328.5[c] *3*	6.4[c] *8*	3066.23	(2,3)$^-$
		6448.4[c] *3*	2.7[c] *4*	2944.94	2$^+$
		6463.7[c] *6*	1.4[c] *3*	2931.46	1$^+$
		6559.8[c] *6*	2.7[c] *6*	2834.27	0$^+$
		6564.67[c] *13*	85[c] *3*	2829.19	1$^-$
(9394.20)	(1)$^+$	6627.97[c] *15*	3.0[c] *7*	2765.72	2$^+$
		6720.8[c] *6*	3.0[c] *7*	2674.00	2$^+$
		6725.22[c] *15*	38.1[c] *19*	2668.92	(2)$^-$
		6832.3[c] *5*	3.4[c] *5*	2561.27	(1,2$^+$)
		6862.10[c] *21*	9.5[c] *7*	2532.20	2$^+$
		6887.26[c] *13*	100[c] *4*	2506.70	1$^-$
		6991.18[c] *23*	6.1[c] *6*	2402.98	3$^+$
		7093.29[c] *17*	10.3[c] *7*	2300.68	0$^+$
		7162.1[c] *5*	2.3[c] *5*	2231.12	2$^+$
		7237.56[c] *23*	6.1[c] *6*	2156.18	2$^+$
		7272.28[c] *17*	12.7[c] *8*	2121.62	2$^+$
		7328.6[c] *7*	1.5[c] *5*	2064.53	3$^+$
		7522.80[c] *25*	5.9[c] *6*	1870.96	0$^+$
		7924.8[c] *4*	1.9[c] *3*	1468.822	2$^+$
		7961.03[c] *11*	0.45[c] *19*	1433.27	0$^+$
		8081.34[c] *14*	16.8[c] *12*	1312.390	2$^+$
		8169.41[c] *23*	8.8[c] *8*	1224.341	0$^+$
		8776.11[c] *14*	25.8[c] *3*	617.518	2$^+$
		9393.63[c] *18*	4.1[c] *5*	0.0	0$^+$

† From ^{112}Cd(n,n′γ), unless otherwise stated. Eγ′s were rounded off by the evaluators and ΔEγ=0.10 was set by the evaluators in cases where the authors quoted ΔEγ<0.10 keV.

‡ From γγ(θ) in ^{110}Pd(α,2nγ) (1997Dr03).

From ^{110}Pd(α,2nγ). ΔEγ=0.10 was set by the evaluators in cases where the authors quoted ΔEγ<0.10 keV.

@ From ^{112}Ag β$^-$ decay (3.130 h).

& From ^{112}Cd(γ,γ′); Mult and δ based on γ(θ) in 1971Mo31, where applicable.

a From ^{112}Cd(γ, pol γ′).

b From ^{111}Cd(n,γ) E=th:secondary. ΔEγ=0.10 was set by the evaluators in cases where the authors quoted ΔEγ<0.10 keV, unless value measured with a curved crystal spectrometer.

c From ^{111}Cd(n,γ) E=th:primary.

d From curved crystal spectrometer measurements in ^{111}Cd(n,γ) E=th:secondary (1997Dr03).

e Additional information 1.

f If no value given it was assumed δ=0.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.

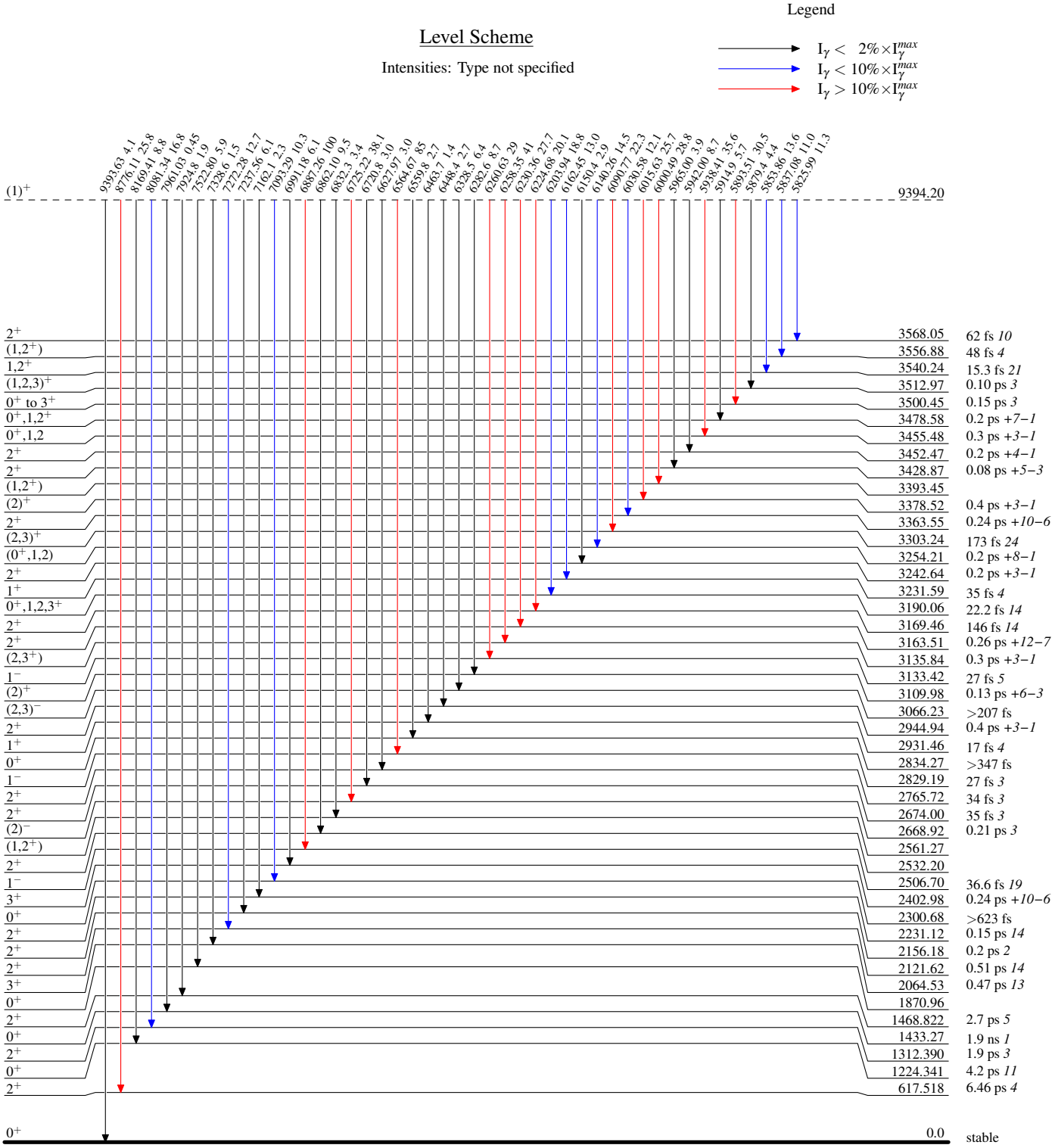
g Placement of transition in the level scheme is uncertain.

$^{112}_{48}Cd_{64}$-62

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

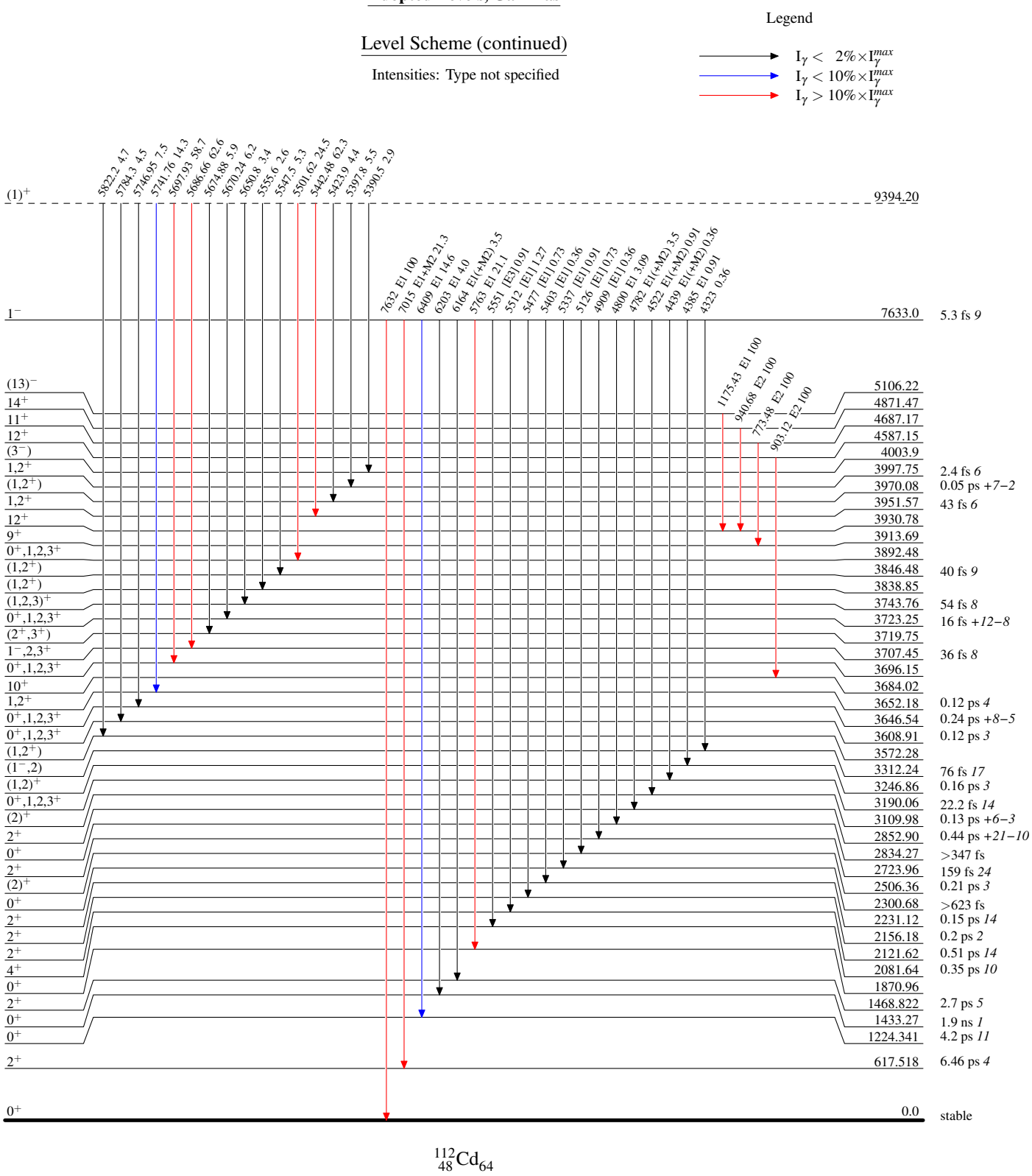


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

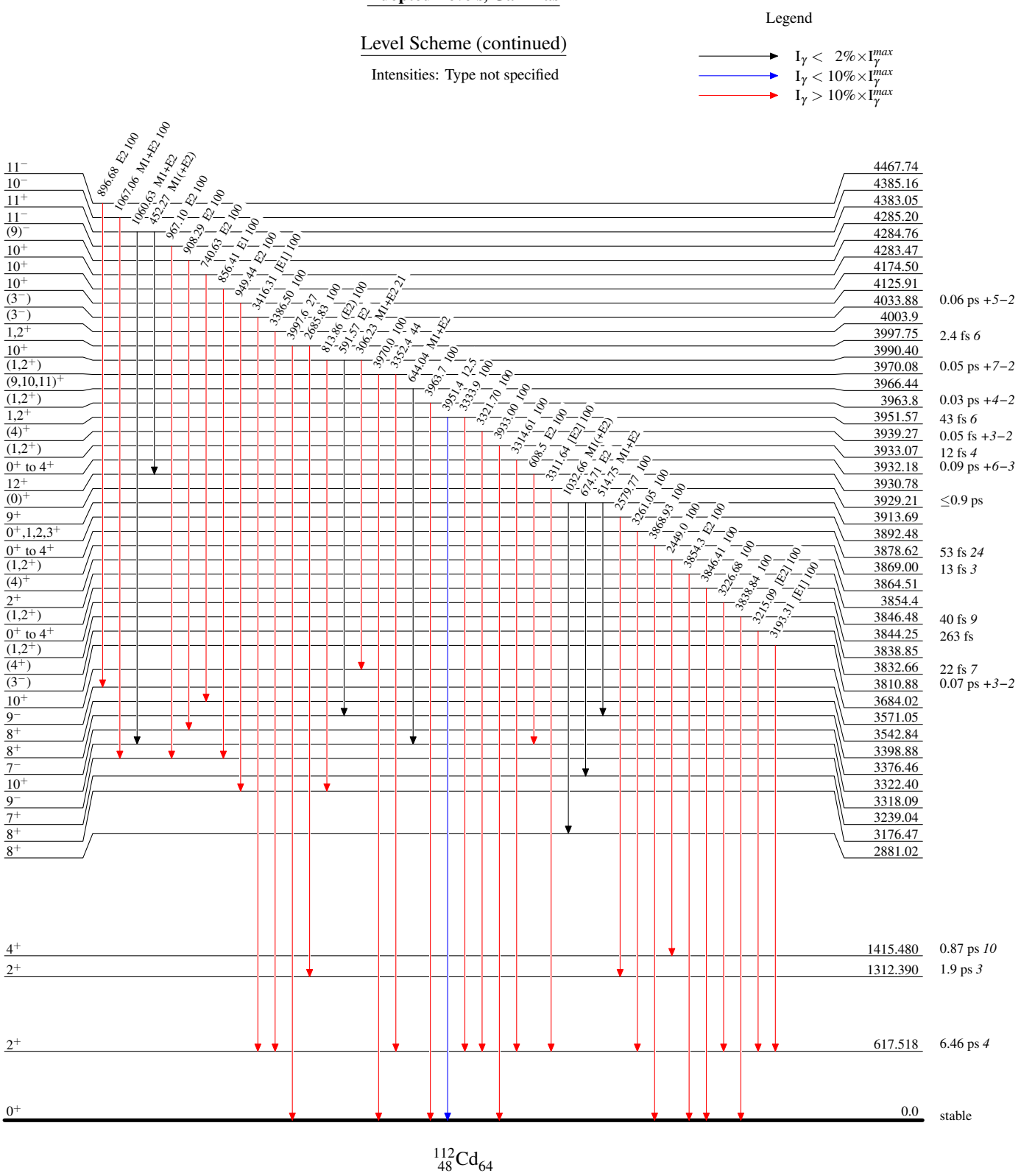


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

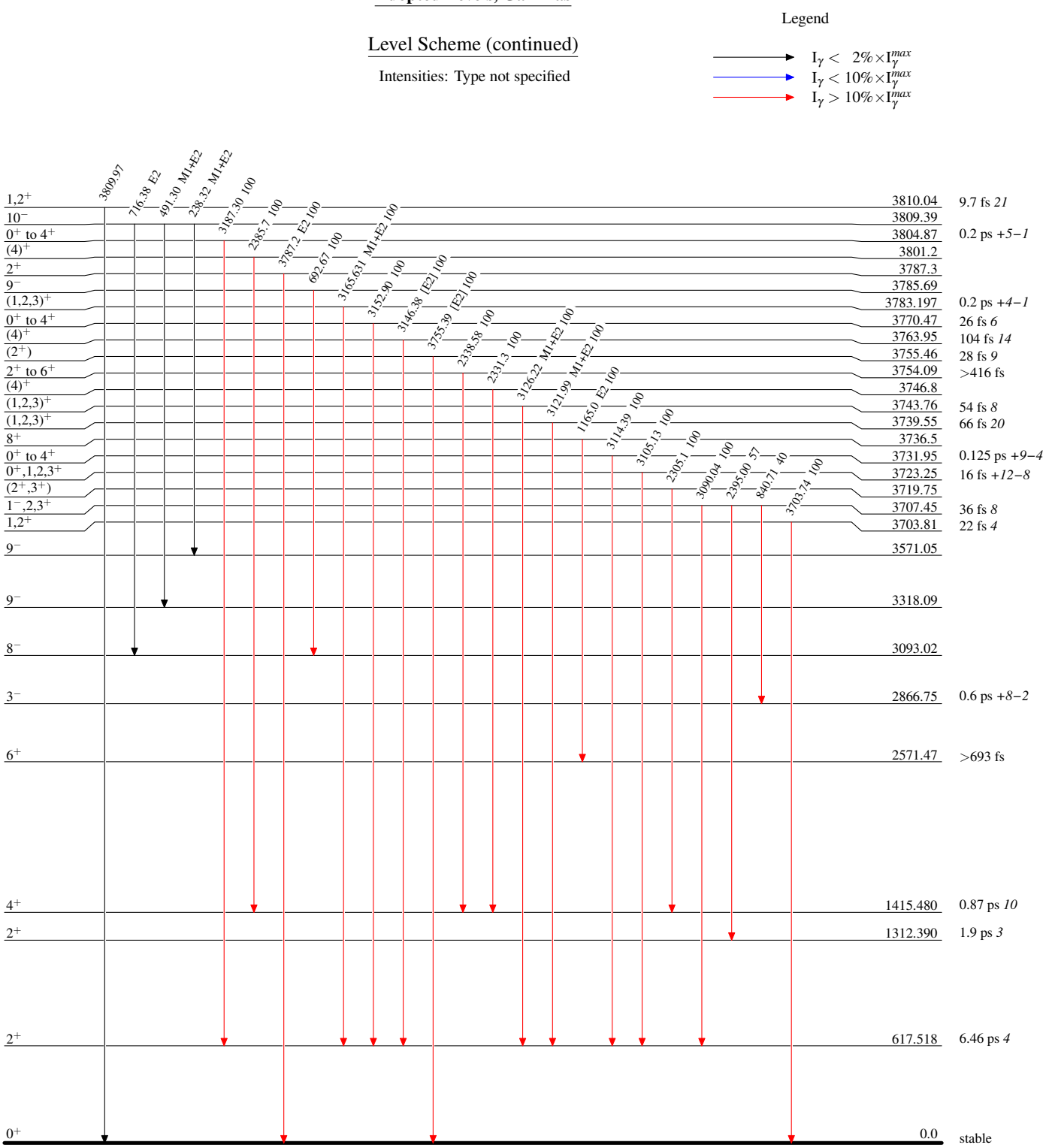
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

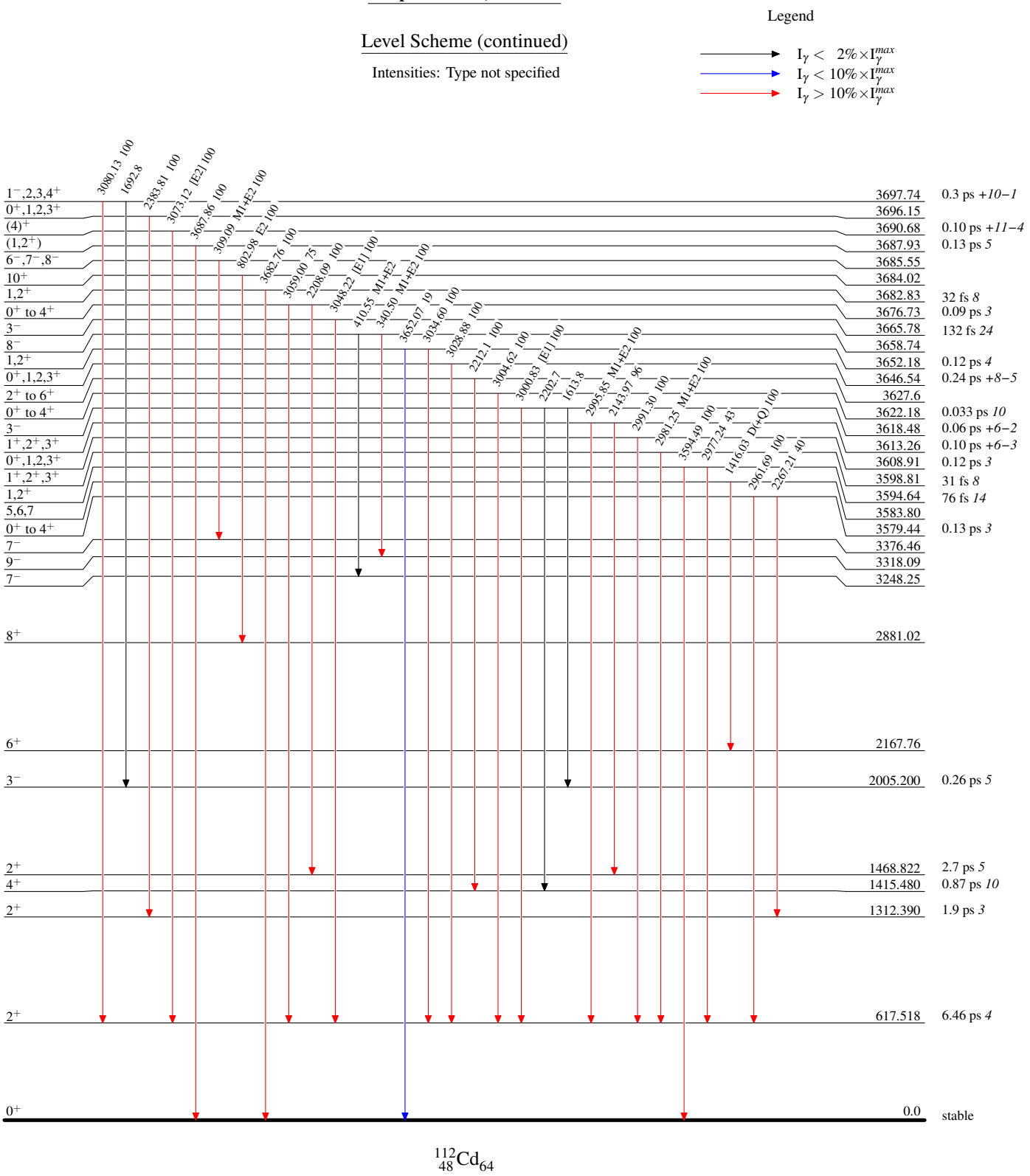


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

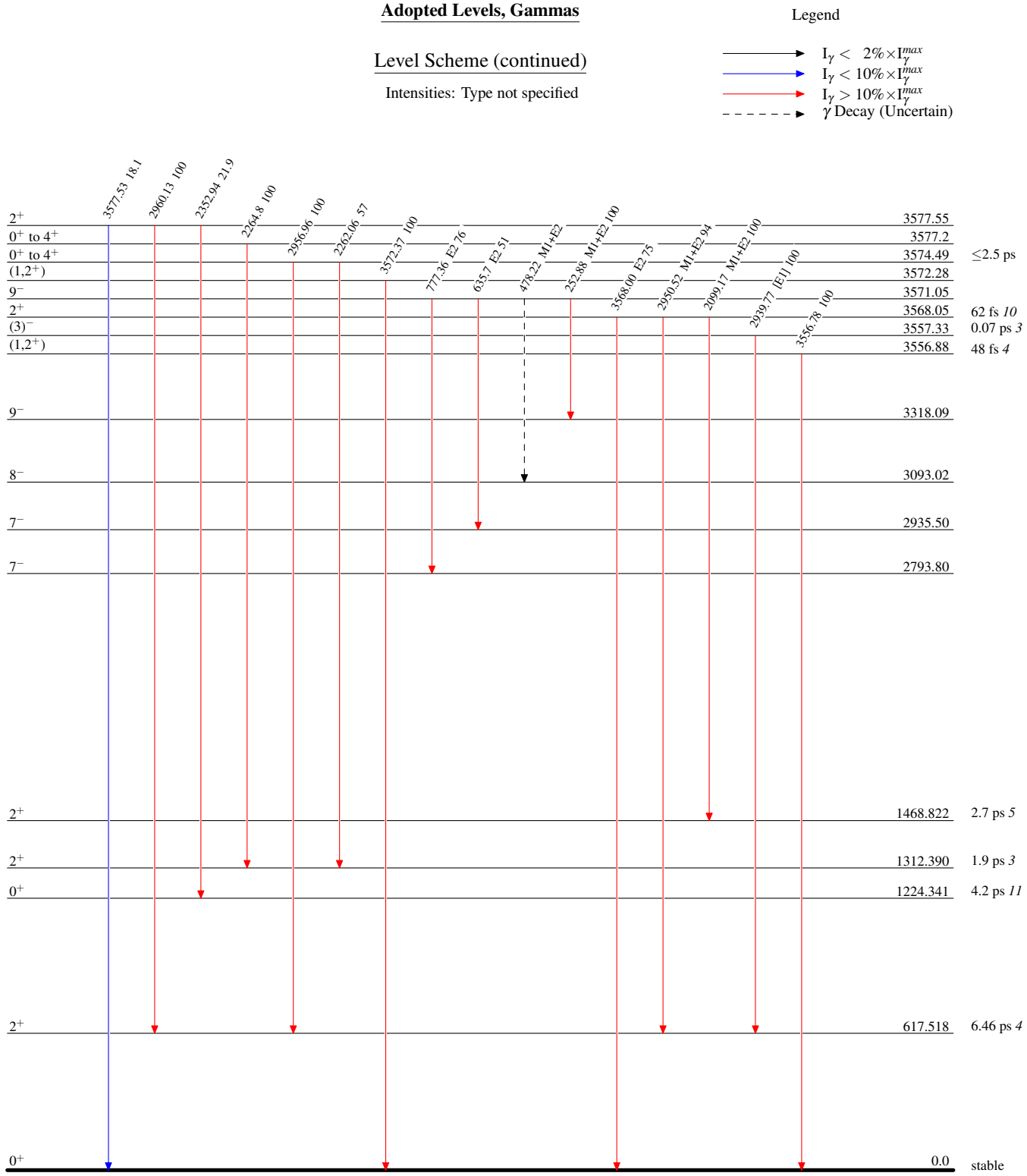


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

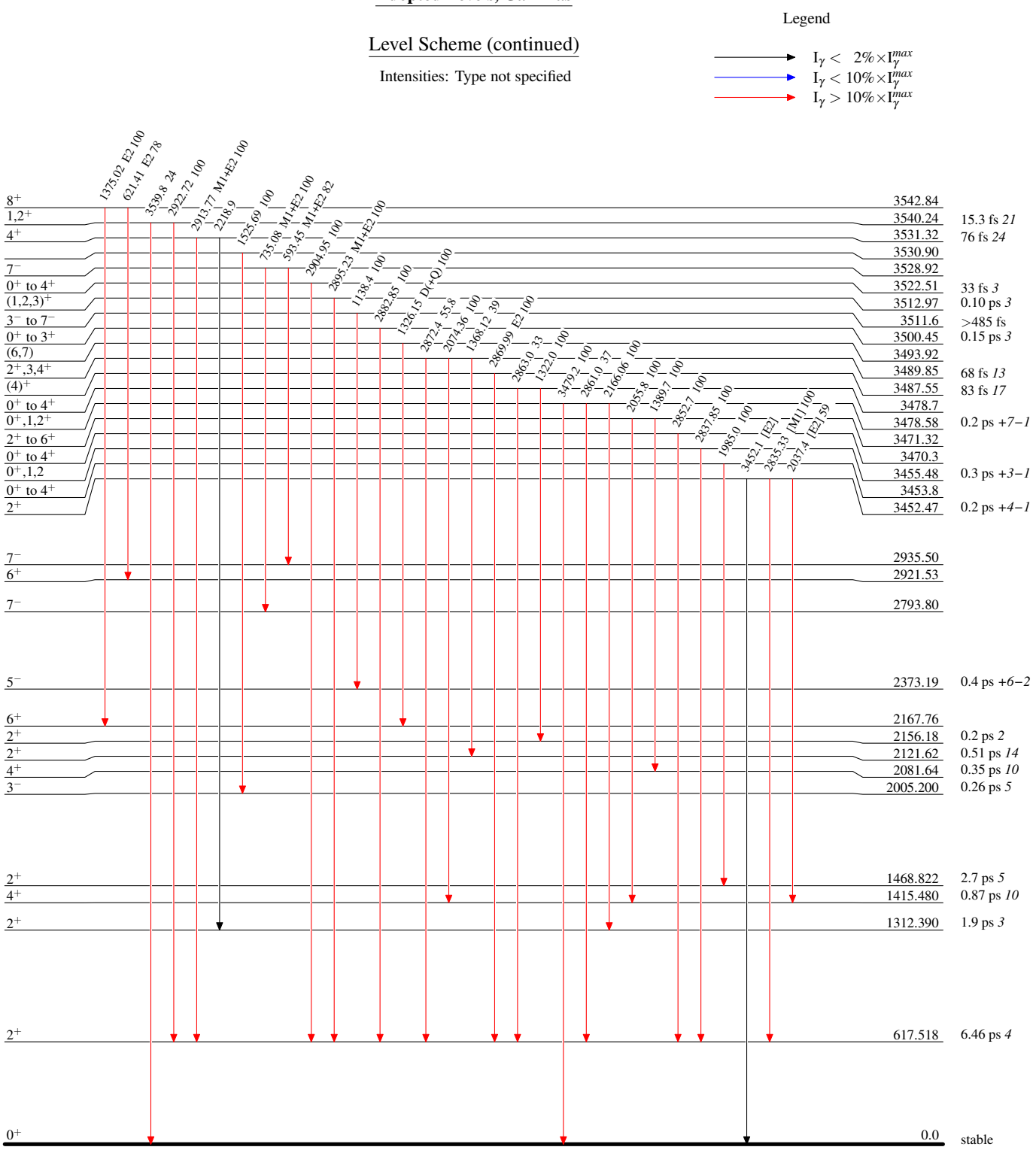


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

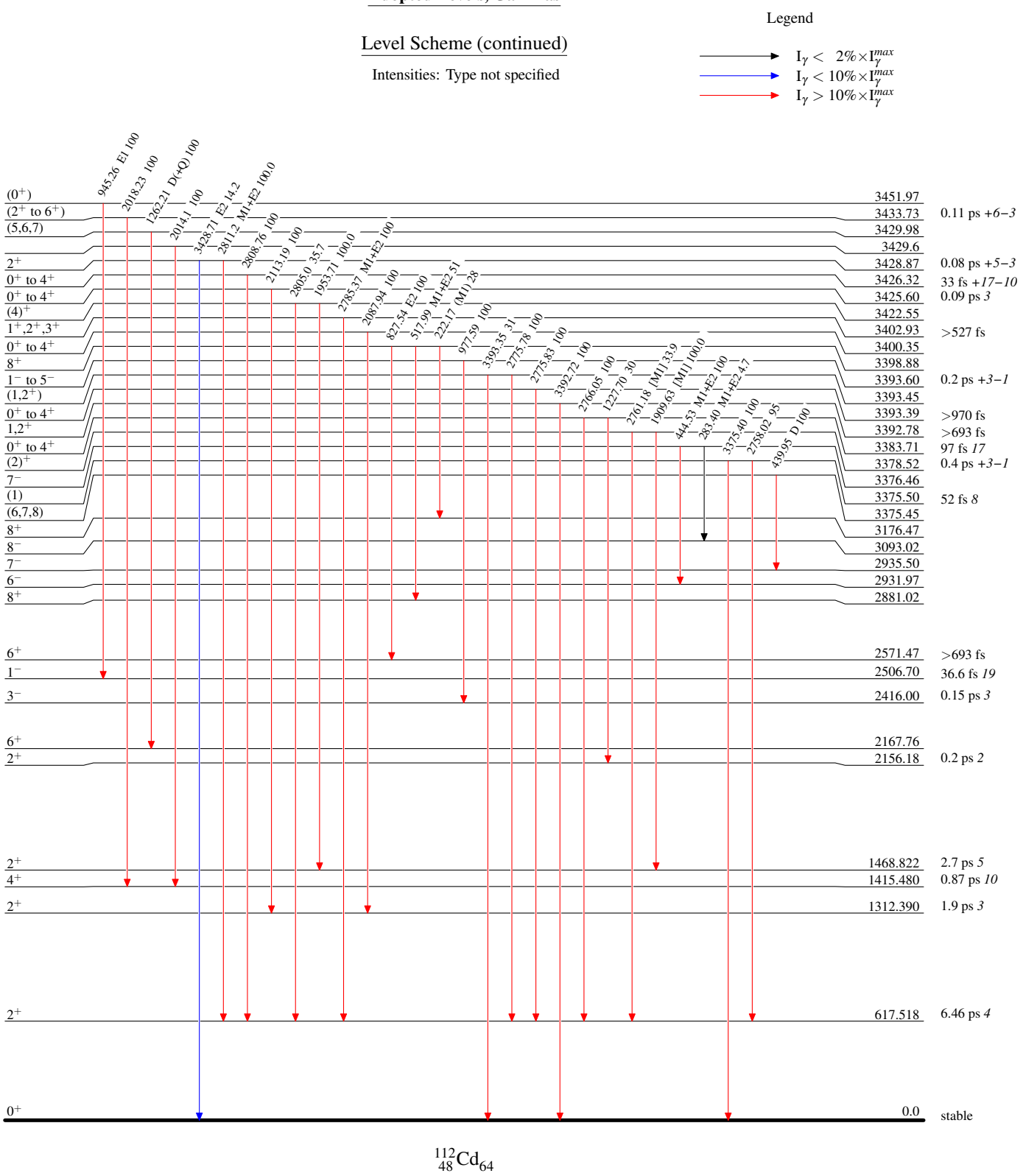


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

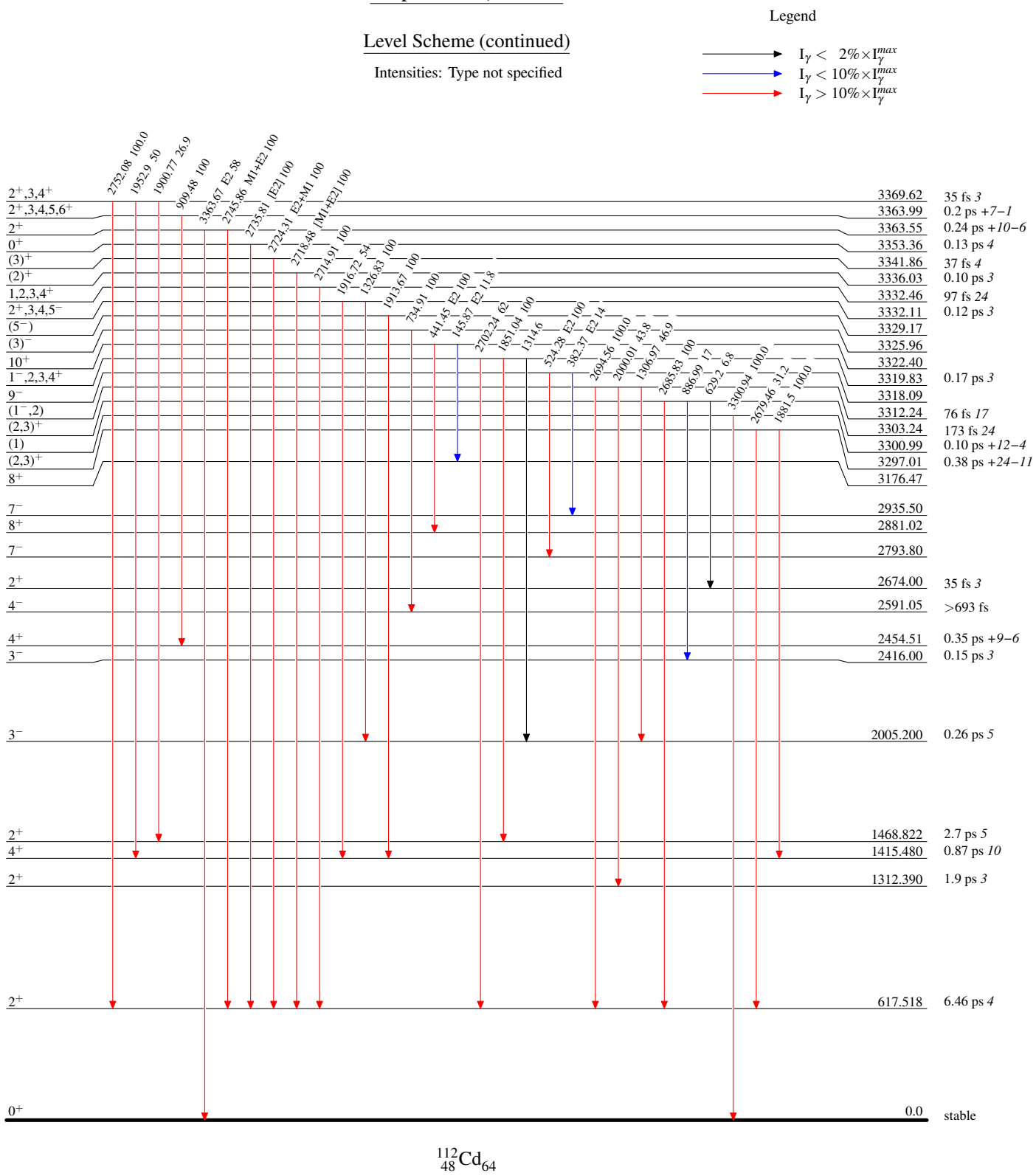


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

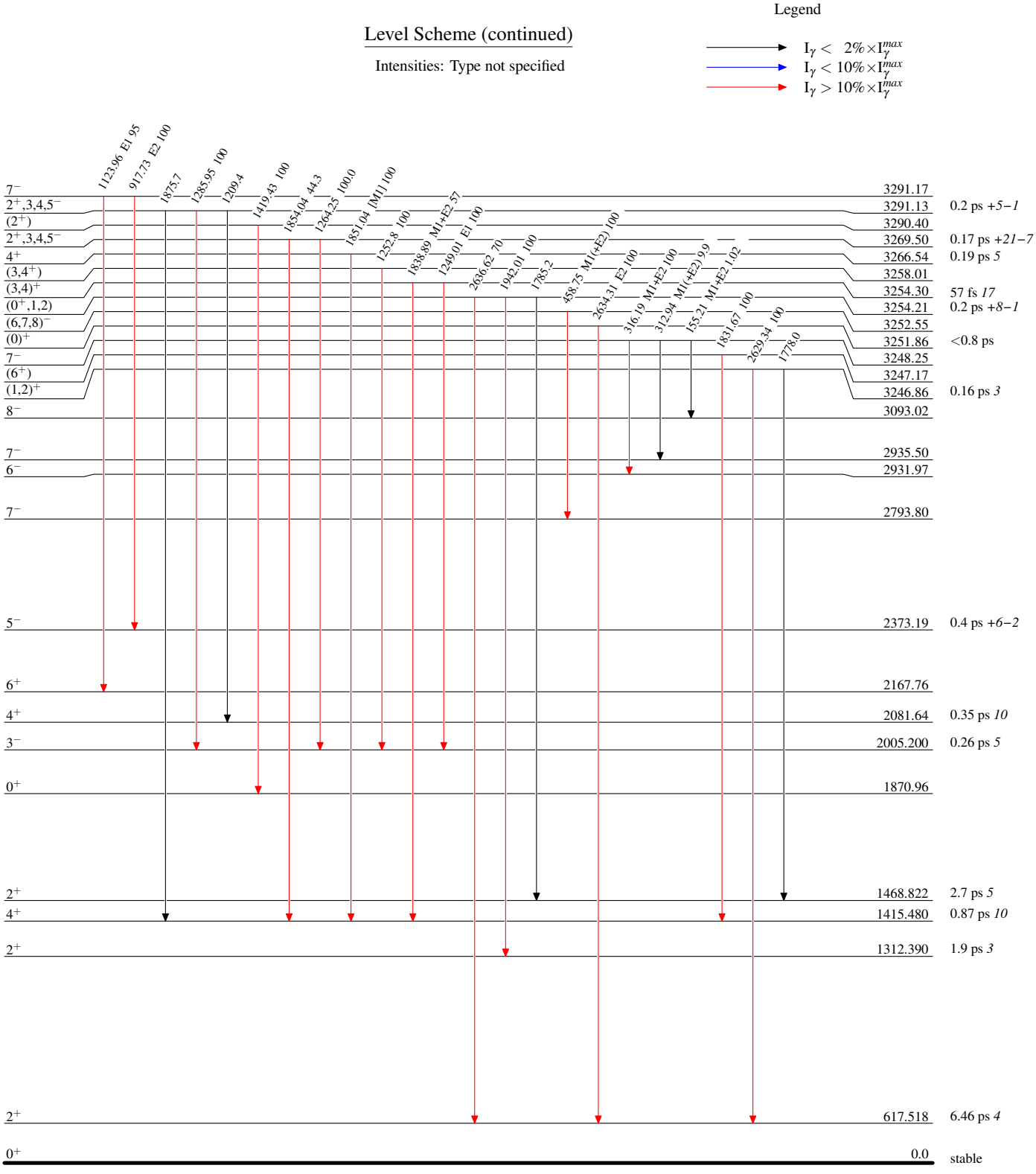


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

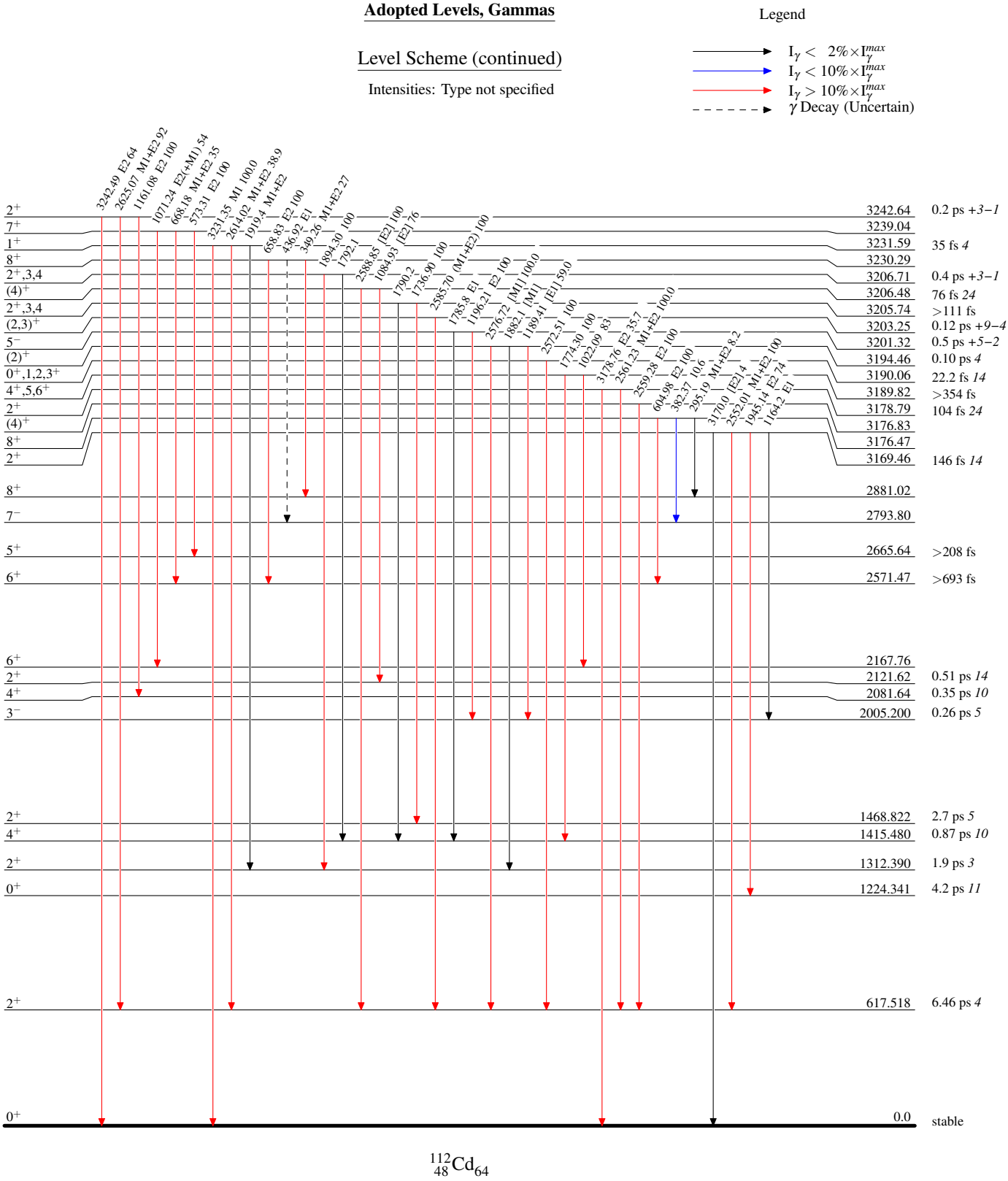


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

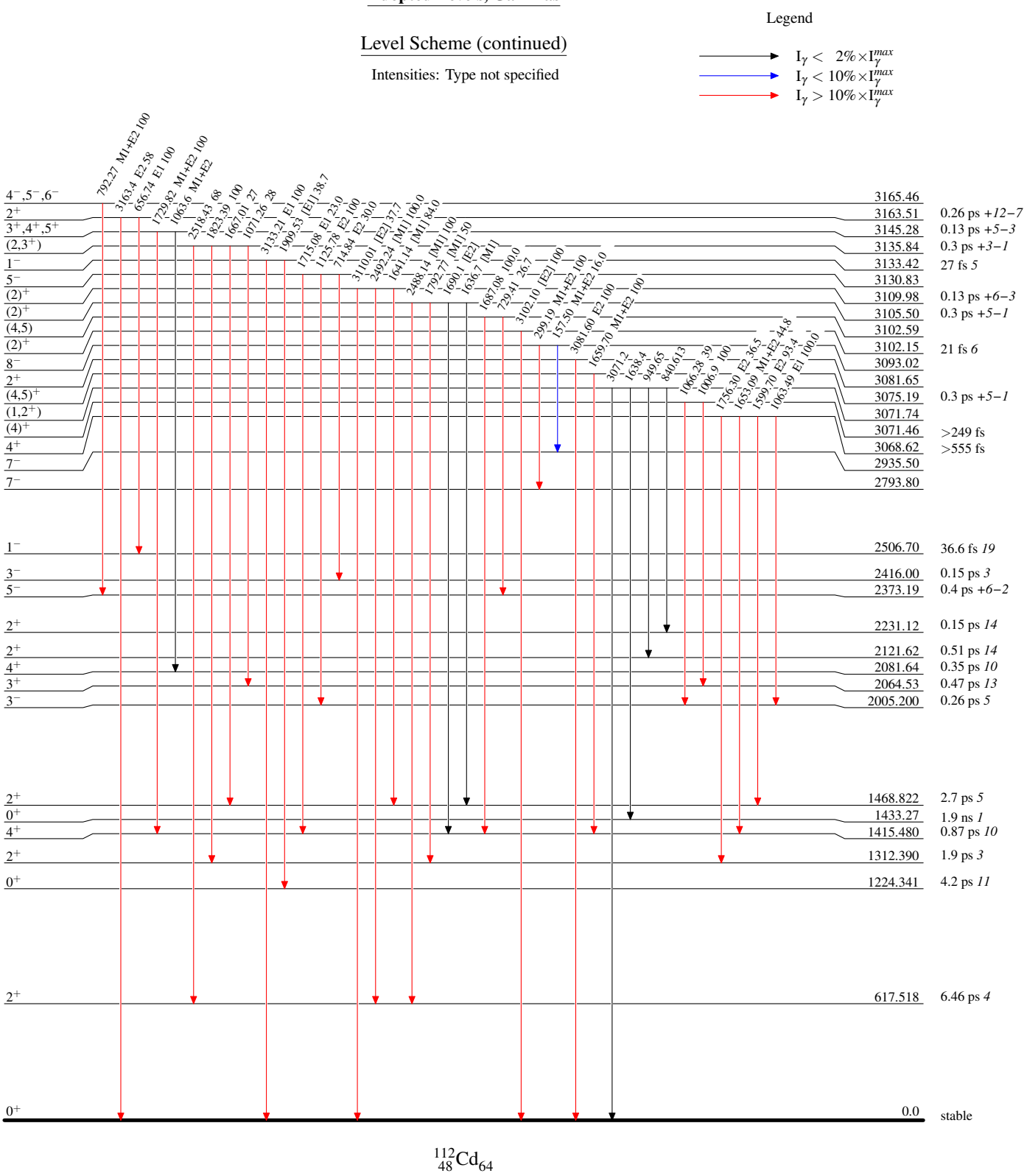


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

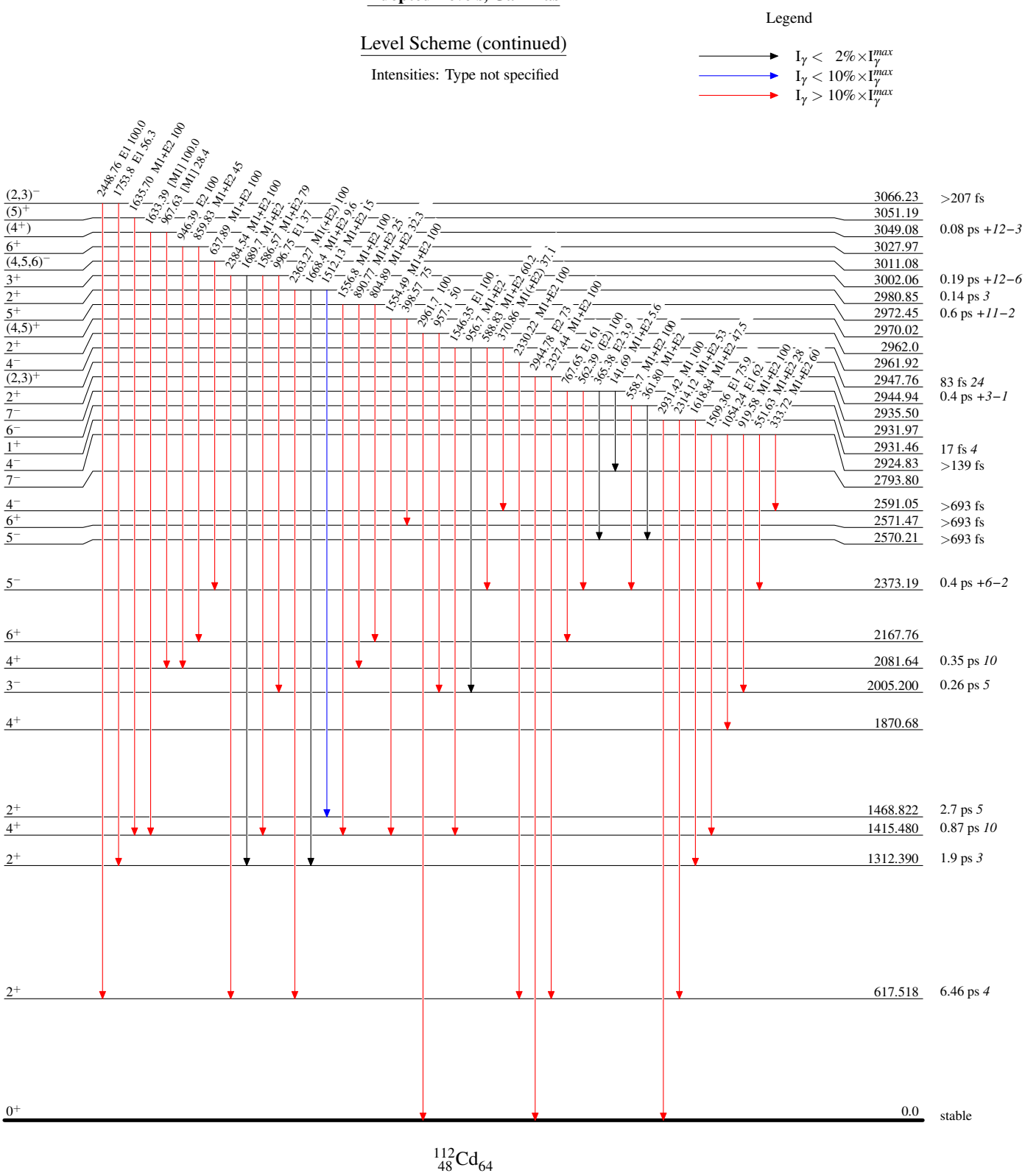


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

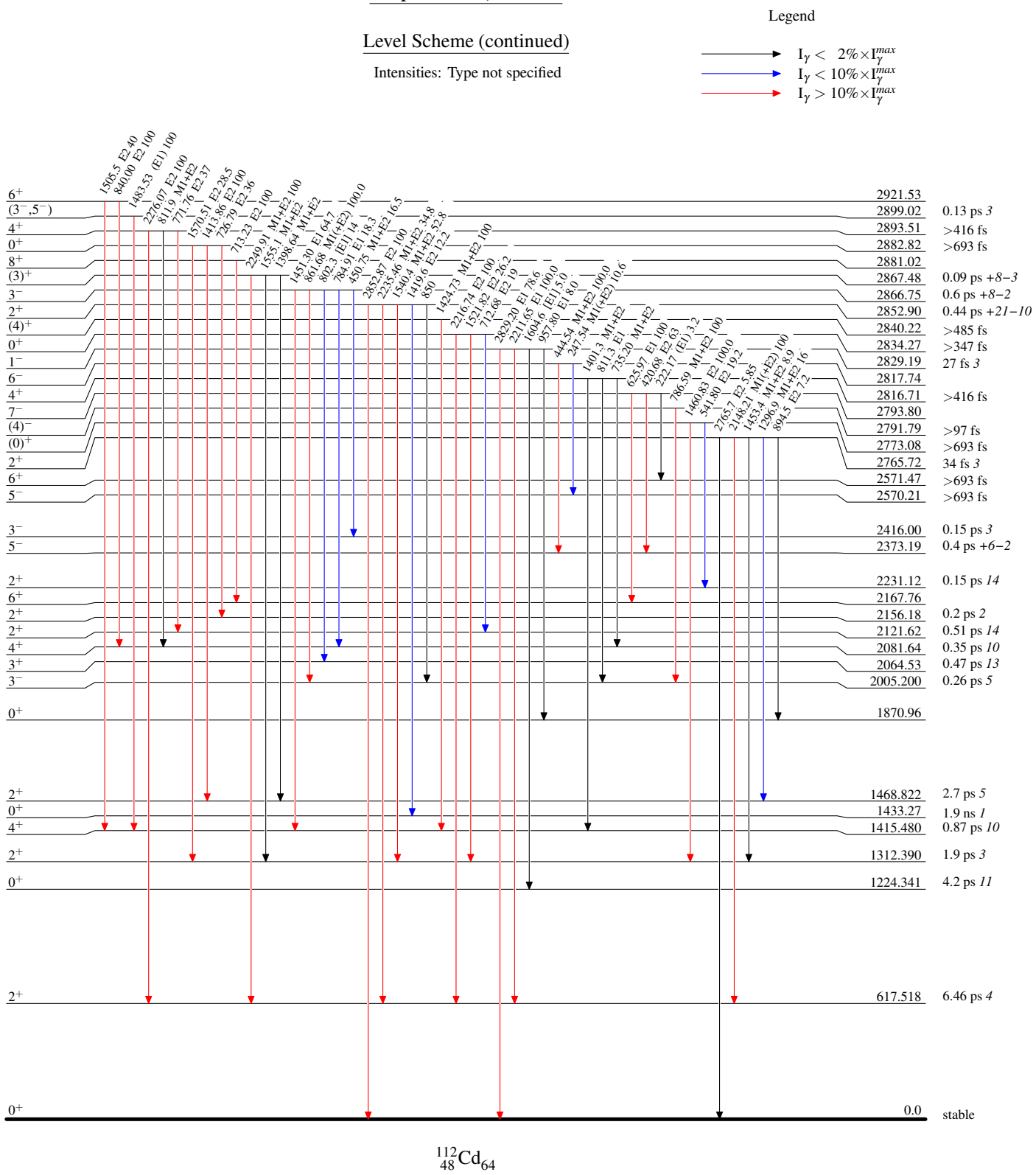


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

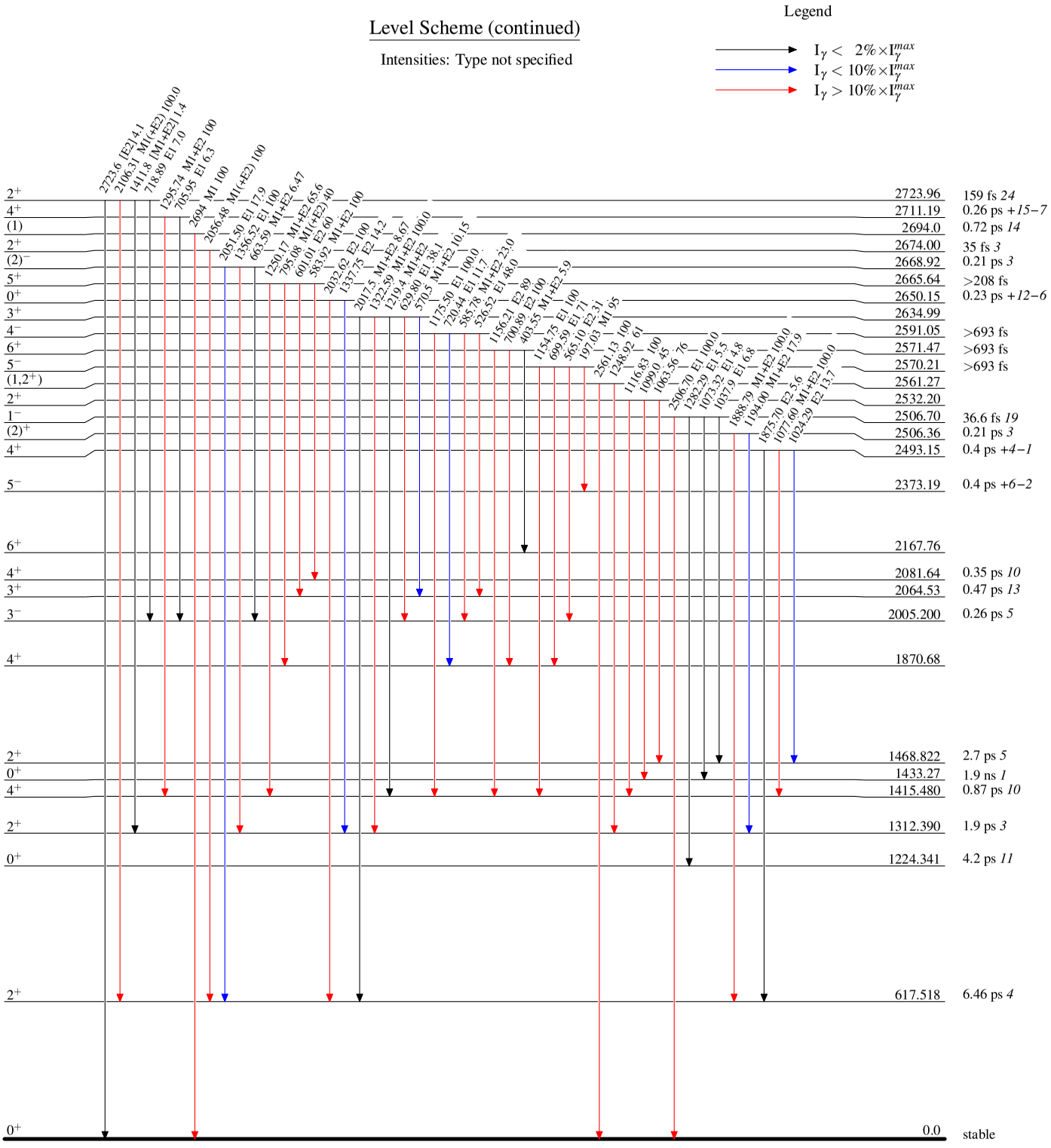


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

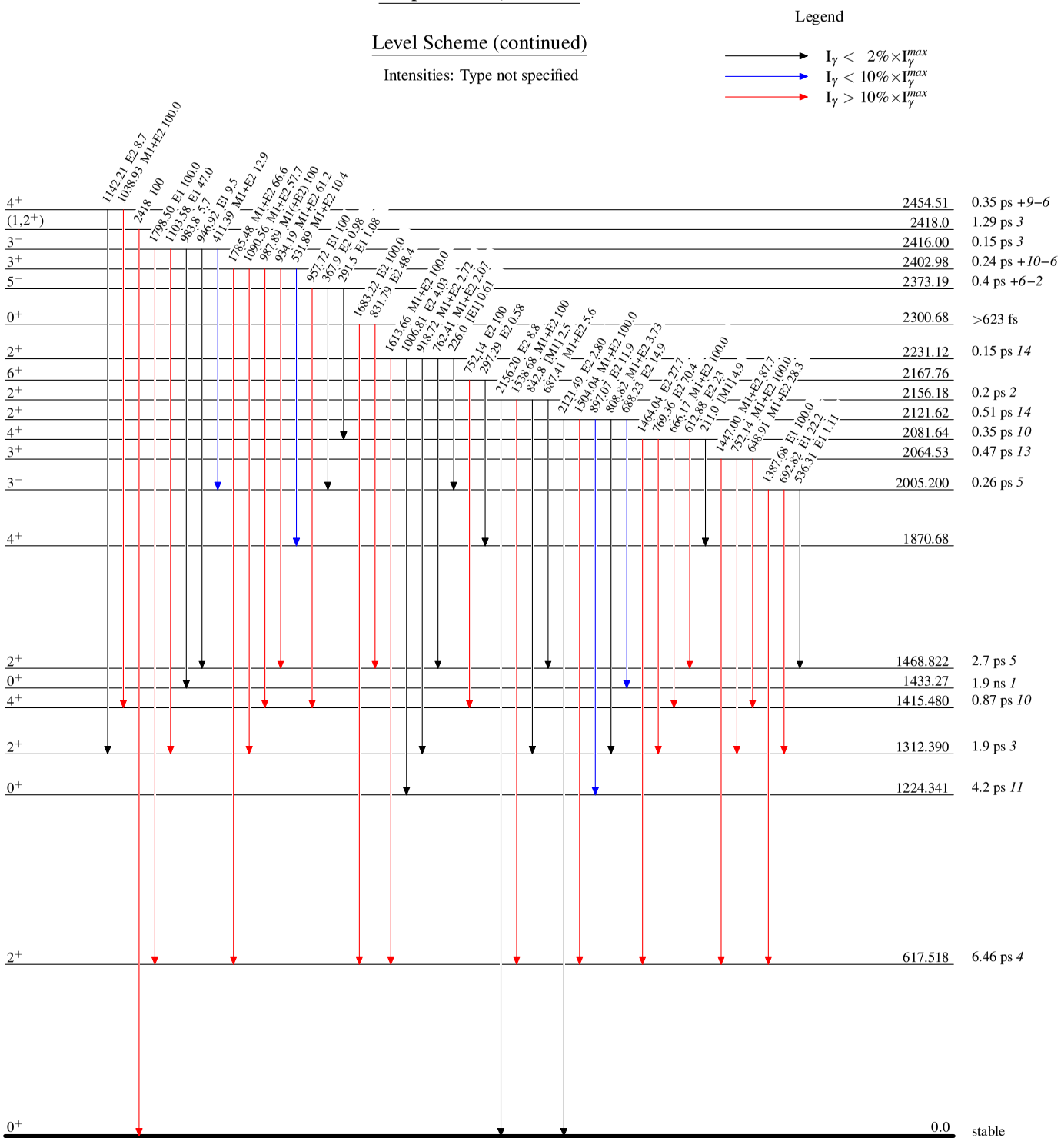


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

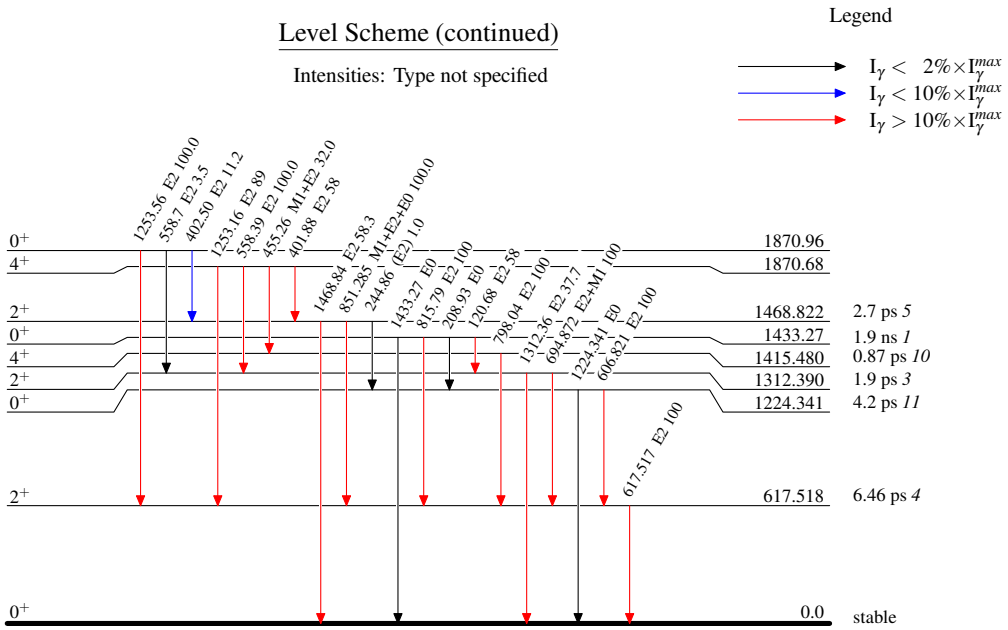


$^{112}_{48}Cd_{64}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified



$^{112}_{48}Cd_{64}$