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^-)=665 *4*; S(n)=7671 *6*; S(p)=6027 *4*; Q(α)=−2809 *5* 2012Wa38

^{112}In Levels

Cross Reference (XREF) Flags

A	^{109}Ag(α,nγ)	E	^{110}Cd(α,d)	I	^{113}In(p,d)
B	^{112}In IT decay (20.67 min)	F	^{111}Cd(^{3}He,d)	J	^{113}In(d,t)
C	^{110}Pd(^{7}Li,5nγ)	G	^{112}Cd(p,nγ)	K	^{113}In(γ,xn)
D	^{110}Cd(α,npγ)	H	^{112}Cd(d,2nγ)	L	^{100}Mo(^{16}O,p3nγ)

E(level)[†]	J$^\pi$	T$_{1/2}$[b]	XREF	Comments
0.0[‡]	1$^+$[‡]	14.88 min *15*	ABCDEFGHIJK	%β^-=38 *4*; %ε+%β^+=62 *4* μ=+2.82 *3*; Q=+0.087 *5* %ε+%β^+: From Iβ^+(tot)=24% *2* in 1983Ry06 and Iβ^+(617.37)/Iβ^+(g.s.)=0.029 (1962Ru05), and by assuming that the Iβ^+ feedings to the higher-lying levels are negligible. J$^\pi$: L=4 in ^{113}In(p,d) (1978EmZT); Direct feeding of 0$^+$ and 2$^+$ states in ^{112}Cd following ^{112}In ε Decay. T$_{1/2}$: weighted average of 14.97 min *10* (1983Ry06), 14.5 min *1* (1953Bl44), 14.4 min *4* (1965Fu07), 15.2 min *1* (1980Ad04), 14.5 min *6* (1968Ro03); Other: 13.8 min (1974Ku10) and 14.4 min (1998Ko24). μ,Q: Using atomic beam magnetic resonance technique in 1968CaZX. configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(1g_{7/2})^{+1}$.
156.592[#] *25*	4$^+$[#]	20.67 min *8*	ABCDEFGHIJK	%IT=100 μ=5.277 *4*; Q=+0.714 *10* XREF: J(147). μ,Q: Using colinear fast-beam laser spectroscopy technique in 1987Eb02. J$^\pi$: L=0 in ^{113}In(d,t) (1967Hj03); 156.56γ M3 to 1$^+$. T$_{1/2}$: weighted average of 20.56 min *6* (1983Ry06), 20.7 min *3* (1953Bl44), 21.0 min *5* (1962Ru05), 20.9 min *2* (1968Ko25), 20.9 min *1* (1980Ad04); Others: 20.7 min (1974Ku10) and 20.4 min *4* (1968Ro03). configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(1s_{1/2})^{+1}$.
162.89[#] *4*	(5)$^+$[#]		A CD GH L	J$^\pi$: 187.93γ E2 from (7)$^+$; multiplet member.
206.717[‡] *20*	(2)$^+$[‡]		A D GHI	J$^\pi$: 206.75γ M1 to 1$^+$; multiplet member. configuration: $\pi(1g_{9/2}^{-1})\nu(1g_{7/2}^{+1})$.
350.80[@] *5*	(7)$^+$[@]	0.69 μs *5*	A CDE GHIJ L	%IT=100 XREF: E(354)I(356)J(339). J$^\pi$: L=2 in ^{113}In(p,d) (1978EmZT); multiplet member. T$_{1/2}$: from 263.01γ-187.93γ(t) in ^{109}Ag(α,nγ) (1976Io04); Other: 2.1 μs *2* from 188γ(t) in ^{112}Cd(d,2nγ) (1972BrYL) and 1.48 μs from 187γ(t) in ^{112}Cd(d,2nγ) (1973FrYM) differ significantly from adopted value. μ: +4.73 *4*, from g=+0.675 *6* in 1976Io04. Q: 1.03 *3* from TDPAD in ^{112}Cd(d,2nγ) (1993Io02); Also from the same group: 0.75 *15* from PAD in ^{109}Ag(α,nγ)(1981Io07). configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(2d_{5/2})^{+1}$.
456.426[‡] *24*	(3)$^+$[‡]		A E GHIJ	XREF: E(420)J(447). J$^\pi$: 249.68γ M1 to (2)$^+$; L=2+4 in ^{113}In(d,t) (1967Hj03); multiplet

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Adopted Levels, Gammas (continued)

^{112}In Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[b]	XREF	Comments
				member. configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(1g_{7/2})^{+1}$.
562.78[&] *4*	$(5)^{+}$[&]		A E G IJ	XREF: E(560)J(525). Jπ: 399.87γ M1,E2 to $(5)^{+}$; 406.20γ M1,E2 to 4^{+}; L=2 in ^{113}In(p,d) (1978EmZT); Member of the $\pi g_{9/2}\otimes\nu d_{3/2}$ multiplet.
592.08[‡] *4*	$(4)^{+}$[‡]		A GH J	XREF: J(591). Jπ: 135.64γ M1 to $(3)^{+}$, 385.5γ to $(2)^{+}$, 429.17γ to $(5)^{+}$; L=(2+4) in ^{113}In(d,t) (1967Hj03); member of the $\pi g_{9/2}\otimes\nu g_{7/2}$ multiplet.
594.888[@] *22*	2^{+}[@]		A G I	Jπ: 388.20γ M1 to $(2)^{+}$, 594.85γ M1+E2 to 1^{+}; L=2+4 in ^{113}In(p,d) (1978EmZT); multiplet member. configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(2d_{5/2})^{+1}$.
613.82[ac] *6*	$(8)^{-}$[a]	2.81 μs *3*	A CDE GHI L	%IT=100 XREF: E(620)I(622). Jπ: 263.01γ E1+M2 to $(7)^{+}$; member of the split $\pi g_{9/2}\otimes\nu h_{11/2}$ multiplet. $T_{1/2}$: from 187.93γ(t) in ^{109}Ag(α,nγ) (1976Io04); 2.81 μs *6* in ^{112}Cd(p,nγ) (1976Io05); Others: 1.6 μs *2* in ^{110}Cd(α,npγ) (1972BrYL). μ: +3.08 *3* (1976Io02). Q: 0.095 *3* from γ(t,θ) in (1993Io02). configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(1h_{11/2})^{+1}$.
624.42 *5*	(7^{+})		A CD GH J	XREF: J(648). Jπ: 273.01γ to $(7)^{+}$; L(p,d)=(2).
670.23[d] *5*	(8^{+})		A C E I L	XREF: E(680)I(672). Jπ: 319.41γ M1 to $(7)^{+}$; band member.
676.29 *6*	(6^{+})		A C E GH	XREF: E(680). Jπ: L=4 in ^{113}In(p,d) (1978EmZT); 51.87γ M1+E2 to (7^{+}).
728.978 *25*	$(1,2)^{-}$		A E G J	XREF: J(742). Jπ: 728.98γ E1 to 1^{+}; 522.29γ to $(2)^{+}$.
729.87[&] *4*	$(3)^{+}$[&]		A E G J	XREF: E(730)J(742). Jπ: 573.29γ M1+E2 to 4^{+}, 523.13γ to $(2)^{+}$; Member of the split $\pi g_{5/2}\otimes\nu s_{1/2}$ multiplet; However 4^{+} can not be excluded; L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
790.28 *5*	$(6,7,8)^{+}$		A E	XREF: E(790). Jπ: 439.49γ M1,E2 to $(7)^{+}$.
795.25[‡] *6*	$(5)^{+}$[‡]		A G I	Jπ: 203.17γ M1(+E2) to $(4)^{+}$; Member of the split $\pi g_{9/2}\otimes\nu g_{7/2}$ multiplet.
800.56[ac] *7*	(9^{-})[a]		A C L	Jπ: 186.74γ M1+E2 to $(8)^{-}$; band member.
822.32 *6*	(5^{+})		A C GH	Jπ: 146.04γ M1 to (6^{+}).
833.10 *5*	$(5,6)^{+}$		A IJ	XREF: J(866). Jπ: 670.19γ M1 to $(5)^{+}$, 482.31γ M1,E2 to $(7)^{+}$; L=2+4 in ^{113}In(p,d) (1978EmZT).
883.72[@] *5*	3^{+}[@]		A G I	XREF: I(886). Jπ: 288.81γ M1+E2 to 2^{+} and 727.16γ to 4^{+}; Member of the split $\pi g_{9/2}\otimes\nu d_{5/2}$ multiplet. configuration: $\pi(1g_{9/2})^{-1}\otimes\nu(2d_{5/2})^{+1}$.
918.84 *5*	$(1,2)^{-}$		A EFG	XREF: E(920)F(915). Jπ: 323.87γ E1 to 2^{+}, 918.81γ E1 to 1^{+}; L=1 in ^{111}Cd(^{3}He,d) (1978EmZT).
924.66 *5*	$(1,2,3)^{-}$		A G I	XREF: I(923). Jπ: 717.90γ E1 to $(2)^{+}$, 195.73γ M1 to $(1)^{-}$,2^{-};
928.67 *5*	$(0,1,2)^{-}$		E G	XREF: E(920). Jπ: 928.59γ E1 to 1^{+};
955	$(2,3)^{+}$		F J	XREF: J(963).

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Adopted Levels, Gammas (continued)

^{112}In Levels (continued)

E(level)[†]	Jπ	XREF	Comments
			Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT); L=(2) in ^{113}In(d,t) (1967Hj03).
1003 *4*	+	IJ	XREF: J(996). Jπ: L=2 in ^{113}In(p,d).
1007.42 *7*	(4+)	A C E GH	XREF: E(1005). Jπ: 185.10γ M1 to (5+); L=(2) in ^{113}In(d,t) (1967Hj03), L=2 in ^{113}In(p,d) (1978EmZT).
1037.78 *8*	(0,1,2)−	G	Jπ: 1037.77γ E1 to 1+.
1062.90 *4*	3+	A EFG	XREF: E(1060)F(1056). Jπ: 1062.92γ E2 to 1+; 856.22 M1 to (2)+; L=4 in ^{111}Cd(^{3}He,d) (1978EmZT); However, 1+,(2)+ in ^{109}Ag(α,nγ) and ^{112}Cd(p,nγ) (1988Ki04).
1151.26 *9*	(4,5)+	G IJ	XREF: I(1142)J(1117). Jπ: 421.39γ to (3)+; L=2 in ^{113}In(d,t) (1967Hj03); possible L=2(+0) doublet in ^{113}In(p,d) (1978EmZT).
1212.16 *10*	(0−,1−,2−)	FG J	XREF: F(1212)J(1202). possibly unresolved doublet in ^{113}In(d,t) and ^{111}Cd(^{3}He,d). Jπ: 293.32γ E2,M1 to (1,2)−; L=1 in ^{111}Cd(^{3}He,d) (1978EmZT).
1212.25 *5*	(1+,2+,3+)	G I	XREF: I(1213). possibly unresolved doublet in ^{113}In(p,d). Jπ: L=2(+0) in ^{113}In(p,d) (1978EmZT); 149.46γ to 3+.
1221.50 *5*	(3,4)+	A G	Jπ: 765.06γ M1 to (3)+; 214.12γ to (4−).
1250.89 *7*	(0 to 3)+	A G I	XREF: I(1249). Jπ: 326.19γ E1 to (1,2,3)−, 521.94γ to (1,2)−; L=0+2 in ^{113}In(p,d) (1978EmZT).
1260.47 *8*	(0,1,2)−	A G	Jπ: 531.44γ M1,E2 to (1,2)−, 1260.51γ to 1+.
1261.57 *8*	(0 to 4)+	A G	Jπ: 1054.92γ M1,E2 to (2)+.
1279.67 *4*	(0 to 3)+	E G	XREF: E(1270). Jπ: 1073.01γ M1,E2 to (2)+, 1279.65γ to 1+.
1286.31 *7*	(3,4)−	G	Jπ: 223.51γ E1 to 3+.
1286.93 *7*	(3+,4+,5+)	A C GH	Jπ: 279.51γ M1 to (4+).
1338	(0,1)+	EF IJ	XREF: E(1345)I(1340)J(1322). Jπ: L=0 in ^{111}Cd(^{3}He,d) (1978EmZT).
1388.90[ac] *8*	(10−)[a]	A C L	Jπ: 588.34γ M1,E2 to (9−); Member of the split $\pi g_{9/2}\otimes\nu h_{11/2}$ multiplet.
1398	(0 to 3)+	EF I	XREF: E(1395)I(1401). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1435	(0 to 3)+	F I	XREF: I(1438). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1473	(0 to 3)+	EF	XREF: E(1470). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1488	(0 to 3)+	F	Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1529	(0 to 3)+	F I	XREF: I(1531). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1554	(0 to 3)+	I	Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1608	(0,1)+	EF I	XREF: E(1590)I(1593). Jπ: L=0 in ^{111}Cd(^{3}He,d) (1978EmZT).
1631		F	
1678	(0 to 3)+	F I	XREF: I(1976). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1708	(0 to 3)+	F	Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1741	(0 to 3)+	F I	XREF: I(1738). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1754.90[d] *21*	(9+)	C L	Jπ: 1404.0γ E2 to (7)+; band member.
1777	(0 to 3)+	EF I	XREF: E(1800)I(1783). Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1872	(0 to 3)+	F	Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
1955	(0 to 3)+	F	Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
2011.9 *4*	(10)−	C	Jπ: 1398.0γ (E2) to (8)−; near-yrast state assumed.

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Adopted Levels, Gammas (continued)

^{112}In Levels (continued)

E(level)†	Jπ	$T_{1/2}$[b]	XREF		Comments
2067	(0 to 3)$^+$		F		Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
2070.7[m] 8	(11$^-$)		C		Jπ: 682γ (M1) to (10$^-$), 1270γ (E2) to (9$^-$); band member.
2113.15[c] 19	(11$^-$)		C	L	Jπ: 724.3γ M1 to (10$^-$), 1312.5γ to (9$^-$); band member.
2115.28[d] 24	(10$^+$)		C	L	Jπ: 360.4γ M1 to (9$^+$), 1445.2γ E2 to 8$^+$; band member.
2172	(0 to 3)$^+$		F		Jπ: L=2 in ^{111}Cd(^{3}He,d) (1978EmZT).
2234	(0 to 3)$^+$		F		Jπ: L=0+2 in ^{111}Cd(^{3}He,d) (1978EmZT).
2374.9 6	(11$^-$,12$^-$)		C		Jπ: 986γ to (10$^-$), 973γ from (13$^-$).
2441.2 8			C		
2493.2 3	(11$^-$)		C	L	Jπ: 1104.2γ M1 to (10$^-$); yrast state assumed.
2652.7[m] 13	(13$^-$)		C		Jπ: 582γ E2 to (11$^-$); band member.
2665.59[c] 22	(12)$^-$		C	L	Jπ: 552.4γ M1 to (11$^-$), 1276.7γ E2 to (10$^-$); band member.
2756.1[j] 7	(12$^-$)		C		Jπ: 643γ to (11$^-$), 1367γ to (10$^-$); band member.
2802.05[d] 25	(11$^+$)		C	L	Jπ: 686.9γ M1 to (10$^+$), 1047.4γ E2 to (9$^+$); band member.
2964.0 6	(12$^-$)		C		Jπ: 952γ to (10$^-$), 1575γ to (10$^-$).
3062.6[e] 4	(12$^+$)		C	L	Jπ: 260.6γ M1 to (11$^+$), 947.4γ (E2) to (10$^+$) band member.
3102.7[c] 4	(13)$^-$		C	L	Jπ: 437.1γ M1 to (12)$^-$; band member.
3126.9 4	(13)$^-$		C	L	Jπ: 461.4γ M1 to (12)$^-$, 135.3γ (M1) from 14$^-$.
3153.5 3	(12)$^-$		C	L	Jπ: 660.2γ M1 to (11$^-$), 487.7γ to (12)$^-$, 1765γ to (10$^-$).
3190.8 5	(13$^+$)		C	L	Jπ: 128.3γ (M1) to 12$^+$.
3191.0 8	(11$^-$,12$^-$)		C		Jπ: 1802γ to (10$^-$).
3262.3[c] 5	(14$^-$)		C	L	Jπ: 159.6γ (M1) to (13)$^-$; band member.
3293.1[f] 6	(12$^+$)		C		Jπ: 491γ to 11$^+$, 329γ to (12$^-$); band member.
3296.1[g] 6	(12$^+$)		C		Jπ: 332γ to (12$^-$), 1181γ to 10$^+$; band member.
3327.2[i] 7	(12$^-$)		C		Jπ: 363γ to (12$^-$), 1214γ to (11$^-$); band member.
3347.7[k] 3	(13$^-$)		C	L	Jπ: 194.2γ (M1) to (12)$^-$, 681.9γ (M1) to (12$^-$); band member.
3369.3[e] 6	(14$^+$)		C	L	Jπ: 178.5γ (M1) to (13$^+$); band member.
3378.0[j] 10	(13$^-$)		C		Jπ: 622γ to (12$^-$), band member.
3391.1[h] 12	[13$^+$]		C		Jπ: 427γ to (12$^-$); assumed band head in ^{110}Pd(^{7}Li,5nγ).
3457.7[m] 16	(15$^-$)		C		Jπ: 805γ E2 to (13$^-$); band member.
3523.1[f] 12	(13$^+$)		C		Jπ: 230γ to (12$^+$); band member.
3564.3[i] 9	(13$^-$)		C		Jπ: 237γ to (12$^-$); band member.
3584.1[g] 12	(13$^+$)		C		Jπ: 288γ to (12$^+$); band member.
3606.8[c] 6	(15$^-$)		C	L	XREF: C(3605). Jπ: 344.6γ (M1) to (14$^-$); band member.
3642.0[e] 6	(15$^+$)	0.58 ps 11	C	L	XREF: C(3641). Jπ: 272.7γ M1 to (14$^+$); band member.
3644.7[k] 4	(14$^-$)		C	L	Jπ: 296.9γ M1 to (13$^-$); band member.
3685.1[h] 15	[14$^+$]		C		Jπ: 294γ to [13$^+$]; probable band member.
3769.7[i] 11	(14$^-$)		C		Jπ: 205γ to (13$^-$); band member.
3853.1[f] 16	(14$^+$)		C		Jπ: 330γ to (13$^+$); band member.
3854.9 11	(13$^-$ to 15$^-$)		C		Jπ: 477γ to (13$^-$); 554γ from (15$^-$).
3862.9[j] 13	(14$^-$)		C		Jπ: 485γ to (13$^-$); band member.
3991.8[k] 5	(15$^-$)	0.50 ps +25−19	C	L	XREF: C(3991). Jπ: 347.1γ (M1) to (14$^-$); band member.
4035.2[e] 7	(16$^+$)	0.34 ps 7	C	L	XREF: C(4034)L(4036). Jπ: 393.3γ M1 to (15$^+$); band member.
4041.1[g] 16	(14$^+$)		C		Jπ: 457γ to (13$^+$); band member.
4064.1[h] 18	[15$^+$]		C		Jπ: 379γ to [14$^+$]; probable band member.
4105.0[i] 12	(15$^-$)		C		Jπ: 335γ to (14$^-$); band member.
4166.9[g] 11	(15$^+$)		C		Jπ: 976γ to (13$^+$); band member.
4170.1[f] 19	(15$^+$)		C		Jπ: 317γ to (14$^+$); band member.

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Adopted Levels, Gammas (continued)

^{112}In Levels (continued)

E(level)†	Jπ	$T_{1/2}$ b	XREF		Comments
4203.9j 13	(15−)		C		Jπ: 341γ to (14−); band member.
4354.2k 9	(16−)	<0.42 ps	C	L	Jπ: 362.4γ (M1) to (15−); band member.
4390.7m 19	(17−)		C		Jπ: 933γ E2 to (15−); band member.
4394.7c 9	(16−)		C	L	XREF: C(4393). Jπ: 787.9γ M1 to (15−); band member.
4408.8l 9	(15−)		C		Jπ: 764γ to (14−); band member.
4452.1h 21	(16+)		C		Jπ: 388γ to (15+); probable band member.
4551.1f 21	(16+)		C		Jπ: 381γ to (15+); band member.
4552.4i 12	(16−)		C		Jπ: 447γ to (15−); band member.
4589.4e 8	(17+)	0.15 ps 4	C	L	XREF: C(4588). Jπ: 554.2γ M1 to (16+); band member.
4678.6 8	(16−)		C		Jπ: 1072γ to (15−), 1416γ to (14−).
4751.5g 10	(16+)		C		Jπ: 1382γ to (14+); band member.
4758.9k 11	(17−)		C	L	XREF: C(4758). Jπ: 404.7γ (M1) to (16−); band member.
4822.8l 12	(16−)		C		Jπ: 414γ to (15−); band member.
4917.1h 23	[17+]		C		Jπ: 465γ to [16+]; band member.
5063.7 10	(17−)		C		Jπ: 1457 γ to (15−); yrast state assumed.
5073.7g 9	(17+)		C		Jπ: 322γ to (16+), 1432γ to (15+); band member.
5168.1k 14	(18−)		C	L	Jπ: 409.2γ (M1) to (17−); band member.
5235.7m 22	(19−)		C		Jπ: 845γ (E2) to (17−); band member.
5272.8l 16	(17−)		C		Jπ: 450γ to (16−); band member.
5297.0e 8	(18+)	<0.17 ps	C	L	XREF: C(5295). Jπ: 707.6γ to 17+; band member.
5537.0g 10	(18+)		C		Jπ: 463γ to (17+), 1502γ to (16+); band member.
5638.1k 15	(19−)		C	L	XREF: C(5636). Jπ: 470.0γ (M1) to (18−); band member.
5773.8l 19	(18−)		C		Jπ: 501γ to (17−); band member.
6035.1e 10	(19+)		C		Jπ: 738.0γ to (18+); band member.
6059.0g 14	(19+)		C		Jπ: 522γ to (18+); band member.
6155.8m 24	(21−)		C		Jπ: 920γ E2 to (19−); band member.
6322.8l 21	(19−)		C		Jπ: 549γ to (18−); band member.
6373.1k 18	(20−)		C		Jπ: 735γ to (19−); band member.
6412.0g 18	(20+)		C		Jπ: 353γ to (19+); band member.
6850.0g 20	(21+)		C		Jπ: 438γ to (20+); band member.
6859.8l 24	(20−)		C		Jπ: 537γ to (19−); band member.
7148m 3	(23−)		C		Jπ: 992γ to (21−); band member.
8328m 3	(25−)		C		Jπ: 1180γ to (23−); band member.

† From a least-squares fit to Eγ.
‡ Member of the $\pi g_{9/2}\otimes\nu g_{7/2}$ multiplet.
# Member of the $\pi g_{9/2}\otimes\nu s_{1/2}$ multiplet.
@ Member of the $\pi g_{9/2}\otimes\nu d_{5/2}$ multiplet.
& Member of the $\pi g_{9/2}\otimes\nu d_{3/2}$ multiplet.
a Member of the $\pi g_{9/2}\otimes\nu h_{11/2}$ multiplet.
b From ^{100}Mo(^{16}O,p3nγ), unless otherwise noted.
c Band(A): Band based on 614-keV level; configuration=$\pi g_{9/2}^{-1}\otimes\nu h_{11/2}$; configuration=$\pi g_{9/2}^{-1}\otimes\nu(h_{11/2}(g_{7/2}/d_{5/2})^2)$ after the

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{112}In Levels (continued)

back bending.

[d] Band(B): Band based on 670-keV level; configuration=$\pi g_{9/2}^{-1}\otimes\nu g_{7/2}$.

[e] Band(C): band based on 3063-keV level; configuration=$\pi g_{9/2}^{-1}\otimes\nu(h_{11/2}^{2}g_{7/2})$.

[f] Band(D): Band based on 3293-keV level (2010He09).

[g] Band(E): Band based on 3296-keV level (2010He09).

[h] Band(F): Band based on 3390-keV level (2010He09).

[i] Band(G): Band based on 3327-keV level (2010He09).

[j] Band(H): Band based on 2756-keV level (2010He09).

[k] Band(I): Band based on 3154-keV level (2010He09).

[l] Band(J): Band based on 4409-keV level (2010He09).

[m] Band(K): ΔJ=2 band based on (11^-) level; configuration=$\pi g_{9/2}^{-2}g_{7/2}\otimes\nu h_{11/2}$.

Adopted Levels, Gammas (continued)

γ(^{112}In)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
156.592	4$^+$	156.61 *3*	100	0.0	1$^+$	M3	6.50	B(M3)(W.u.)=0.00511 *24* α(K)=5.00 *7*; α(L)=1.208 *17*; α(M)=0.249 *4* α(N)=0.0448 *7*; α(O)=0.00254 *4* Mult.: α(K)exp=5.4 *5* in ^{112}Cd(p,nγ) (1988Ki04), 5.8 *12* in ^{112}In IT decay (20.56 min) (1962Ru05) and 4.8 *3* in ^{109}Ag(α,nγ) (1991Kr14); α(L)exp=1.36 *12* in ^{112}Cd(p,nγ) (1988Ki04); K/LM=3.3 *7* (1962Ru05) and 3.7 *4* in ^{112}In IT decay (20.5 min) (1953Bl44).
162.89	(5)$^+$	(6.30 *5*)	100	156.592	4$^+$	[M1]	240 *7*	α(L)=195 *6*; α(M)=38.1 *11* α(N)=6.94 *20*; α(O)=0.505 *14* E_γ: not observed experimentally. Obtained from energy level difference by the evaluators. Mult.: From J^π difference.
206.717	(2)$^+$	206.75 *3*	100	0.0	1$^+$	M1	0.0692	α(K)=0.0600 *9*; α(L)=0.00746 *11*; α(M)=0.001447 *21* α(N)=0.000265 *4*; α(O)=1.97×10^{-5} *3* Mult.: A_2=−0.130 *4*; A_4=0.022 *6* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.066 *5*, weighted average of 0.059 *7* in ^{109}Ag(α,nγ) (1988Ki04) and 0.072 *6* in ^{112}Cd(p,nγ) (1988Ki04); α(L)exp=0.0068 *7* in ^{109}Ag(α,nγ) (1988Ki04) and 0.0075 *6* in ^{112}Cd(p,nγ) (1988Ki04); α(M)exp=0.0015 *4* in ^{109}Ag(α,nγ) (1988Ki04) and 0.0013 *1* in ^{112}Cd(p,nγ) (1988Ki04).
350.80	(7)$^+$	187.93 *3*	100	162.89	(5)$^+$	E2	0.1663	B(E2)(W.u.)=0.094 *7* α(K)=0.1360 *19*; α(L)=0.0245 *4*; α(M)=0.00485 *7* α(N)=0.000853 *12*; α(O)=4.40×10^{-5} *7* Mult.: α(K)exp=0.11 *1*, α(L)exp=0.021 *3* and α(M)exp=0.0056 *6* (1988Ki04).
456.426	(3)$^+$	249.68 *3*	100	206.717	(2)$^+$	M1	0.0420	α(K)=0.0365 *6*; α(L)=0.00450 *7*; α(M)=0.000874 *13* α(N)=0.0001601 *23*; α(O)=1.193×10^{-5} *17* Mult.: A_2=−0.203 *9*; A_4=−0.007 *11* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.036 *4* in ^{109}Ag(α,nγ) (1988Ki04) and 0.041 *3* ^{112}Cd(p,nγ) (1988Ki04); α(L)exp=0.0054 *10* in ^{112}Cd(p,nγ) (1988Ki04); α(M)exp=0.0013 *3* in ^{112}Cd(p,nγ) (1988Ki04).
		456.40 *5*	3.0 *5*	0.0	1$^+$			
562.78	(5)$^+$	399.88 *4*	50.0 *19*	162.89	(5)$^+$	M1,E2	0.01260	α(K)=0.01096 *16*; α(L)=0.001333 *19*; α(M)=0.000258 *4* α(N)=4.73×10^{-5} *7*; α(O)=3.55×10^{-6} *5* Mult.: α(K)exp=0.0125 *15* in ^{109}Ag(α,nγ) (1988Ki04).
		406.18 *3*	100 *3*	156.592	4$^+$	M1,E2	0.01212	α(K)=0.01054 *15*; α(L)=0.001281 *18*; α(M)=0.000248 *4* α(N)=4.55×10^{-5} *7*; α(O)=3.41×10^{-6} *5* Mult.: α(K)exp=0.0123 *14* in ^{109}Ag(α,nγ) (1988Ki04).
592.08	(4)$^+$	135.64 *3*	100 *3*	456.426	(3)$^+$	M1	0.218	α(K)=0.188 *3*; α(L)=0.0237 *4*; α(M)=0.00460 *7* α(N)=0.000842 *12*; α(O)=6.23×10^{-5} *9* Mult.: A_2=−0.287 *52*; A_4=0.005 *66* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.18 *2* in ^{109}Ag(α,nγ) (1988Ki04) and 0.20 *4* in ^{112}Cd(p,nγ) (1988Ki04); δ=0.01 *10* in ^{112}Cd(p,nγ) (1983Ko12).

$^{112}_{49}In_{63}$-7

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	δ	α[a]	Comments
592.08	(4)$^+$	385.5 *1*	6.2 *4*	206.717	(2)$^+$				
		429.17 *5*	9.4 *4*	162.89	(5)$^+$				
594.888	2$^+$	138.37# *8*	0.96# *8*	456.426	(3)$^+$				
		388.20 *3*	43 *3*	206.717	(2)$^+$	M1		0.01357	α(K)=0.01180 *17*; α(L)=0.001436 *21*; α(M)=0.000278 *4* α(N)=5.10×10^{-5} *8*; α(O)=3.82×10^{-6} *6* Mult.: A_2=0.156 *25*; A_4=−0.020 *30* in ^{112}Cd(p,nγ) (1983Ko12); Mult.: α(K)exp=0.0111 *11* in ^{109}Ag(α,nγ) (1988Ki04) and 0.0127 *12* in ^{112}Cd(p,nγ) (1988Ki04); δ=0.05 *5* in ^{112}Cd(p,nγ) (1983Ko12).
		594.85 *3*	100 *4*	0.0	1$^+$	M1+E2	+0.10 *3*	0.00478	α(K)=0.00416 *6*; α(L)=0.000500 *7*; α(M)=9.68×10^{-5} *14* α(N)=1.776×10^{-5} *25*; α(O)=1.335×10^{-6} *19* Mult.: A_2=−0.082 *11*; A_4=0.032 *14* in (1983Ko12) and p_{exp}=−0.19 *4* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.0046 *6* in ^{109}Ag(α,nγ) (1988Ki04) and 0.0045 *4* in ^{112}Cd(p,nγ) (1988Ki04).
613.82	(8)$^-$	263.01 *3*	100	350.80	(7)$^+$	E1+M2	0.09 *4*	0.0129 *15*	B(E1)(W.u.)=5.58×10^{-9} *8*; B(M2)(W.u.)=0.003 *3* α(K)=0.0112 *12*; α(L)=0.00138 *18*; α(M)=0.00027 *4* α(N)=4.9×10^{-5} *7*; α(O)=3.4×10^{-6} *5* Mult.: DCO=1.17 *10* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); α(K)exp=0.015 *2* and α(L)exp=0.0015 *2* in ^{109}Ag(α,nγ) (1988Ki04). δ: from PAC measurements (1987Iw04).
624.42	(7$^+$)	273.62 *3*	100	350.80	(7)$^+$				Mult.: A_2=0.176 *35*, A_4=−0.019 *47* (1978EmZT), consistent with J to J.
670.23	(8$^+$)	319.41 *3*	100	350.80	(7)$^+$	M1		0.0222	α(K)=0.0193 *3*; α(L)=0.00237 *4*; α(M)=0.000458 *7* α(N)=8.41×10^{-5} *12*; α(O)=6.28×10^{-6} *9* Mult.: α(K)exp=0.022 *3*; α(L)exp=0.0019 *3* in ^{109}Ag(α,nγ) (1988Ki04); DCO=0.42 *15* in ^{110}Pd(^{7}Li,5nγ) (2011He04); Others: DCO=1.06 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); pol=−0.079 *28* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
676.29	(6$^+$)	51.87 *3*	100	624.42	(7$^+$)	M1+E2		3.37	α(K)=2.91 *5*; α(L)=0.372 *6*; α(M)=0.0723 *11* α(N)=0.01322 *19*; α(O)=0.000971 *14* Mult.: A_2=−0.084 *14*; A_4=−0.008 *18* in ^{109}Ag(α,nγ) (1978EmZT).
728.978	(1,2)$^-$	522.29 *8*	9.5 *11*	206.717	(2)$^+$				
		728.98 *3*	100	0.0	1$^+$	E1+M2	+0.13 *+5−7*	0.00109 *11*	α(K)=0.00095 *10*; α(L)=0.000113 *12*; α(M)=2.18×10^{-5} *23* α(N)=4.0×10^{-6} *5*; α(O)=2.9×10^{-7} *4* Mult.: α(K)exp=0.00100 *9* in ^{109}Ag(α,nγ) (1988Ki04). δ: from ^{112}Cd(p,nγ).
729.87	(3)$^+$	273.49 *8*	100.0 *16*	456.426	(3)$^+$				I_γ: from (α,nγ) (1978EmZT).
		523.13 *8*	32 *4*	206.717	(2)$^+$				I_γ: from (α,nγ) (1978EmZT).

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ	α[a]	Comments
729.87	(3)$^+$	573.29 *3*	38.3 *21*	156.592	4$^+$	M1+E2	+0.10 *5*	0.00522	α(K)=0.00455 *7*; α(L)=0.000547 *8*; α(M)=0.0001058 *15* α(N)=1.94×10^{-5} *3*; α(O)=1.459×10^{-6} *21* Mult.: A_2=−0.092 *18* and A_4=0.004 *23* in ^{112}Cd(p,nγ) (1983Ko12); Also: A_2=−0.079 *7* and A_4=0.010 *9* in ^{112}Cd(p,nγ) (1983Ko12) pol=−0.10 *10* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.0042 *10* ^{109}Ag(α,nγ) (1988Ki04) and 0.00099 *15* in ^{112}Cd(p,nγ) (1988Ki04). δ: from ^{112}Cd(p,nγ) (1983Ko12).
790.28	(6,7,8)$^+$	120.01 *4*	10 *2*	670.23	(8$^+$)				
		439.49 *3*	100 *4*	350.80	(7)$^+$	M1,E2		0.00997	α(K)=0.00867 *13*; α(L)=0.001051 *15*; α(M)=0.000204 *3* α(N)=3.74×10^{-5} *6*; α(O)=2.80×10^{-6} *4* Mult.: α(K)exp=0.0090 *16* in ^{109}Ag(α,nγ) (1988Ki04).
795.25	(5)$^+$	203.17 *4*	100	592.08	(4)$^+$	M1(+E2)	+0.01 *11*	0.0725 *13*	α(K)=0.0629 *11*; α(L)=0.00782 *19*; α(M)=0.00152 *4* α(N)=0.000278 *7*; α(O)=2.07×10^{-5} *4* Mult.: A_2=−0.238 *69*; A_4=0.033 *91* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.072 *12*; α(L)exp=0.0097 *10* in ^{109}Ag(α,nγ) (1988Ki04); δ: from ^{112}Cd(p,nγ) (1983Ko12).
800.56	(9$^-$)	186.74 *4*	100	613.82	(8)$^-$	M1+E2		0.0909	α(K)=0.0788 *11*; α(L)=0.00982 *14*; α(M)=0.00191 *3* α(N)=0.000349 *5*; α(O)=2.59×10^{-5} *4* Mult.: A_2=−0.105 *14*, A_4=0.010 *20* in ^{109}Ag(α,nγ) (1978EmZT).
822.32	(5$^+$)	146.04 *3*	100	676.29	(6$^+$)	M1		0.1775	α(K)=0.1538 *22*; α(L)=0.0193 *3*; α(M)=0.00375 *6* α(N)=0.000686 *10*; α(O)=5.08×10^{-5} *8* Mult.: α(K)exp=0.17 *4*; α(L)exp=0.022 *9* in ^{109}Ag(α,nγ) (1988Ki04).
833.10	(5,6)$^+$	270.22 *8*	7.5 *17*	562.78	(5)$^+$				
		482.31 *3*	100 *6*	350.80	(7)$^+$	M1,E2		0.00793	α(K)=0.00691 *10*; α(L)=0.000835 *12*; α(M)=0.0001616 *23* α(N)=2.96×10^{-5} *5*; α(O)=2.22×10^{-6} *4* Mult.: α(K)exp=0.0081 *13* in ^{109}Ag(α,nγ) (1988Ki04).
		670.19 *13*	9.8 *12*	162.89	(5)$^+$	M1		0.00361	α(K)=0.00314 *5*; α(L)=0.000376 *6*; α(M)=7.28×10^{-5} *11* α(N)=1.336×10^{-5} *19*; α(O)=1.005×10^{-6} *14* Mult.: α(K)exp=0.0036 *8* in ^{109}Ag(α,nγ) (1988Ki04).
883.72	3$^+$	288.81[#] *8*	100[#] *3*	594.888	2$^+$	M1+E2	+0.05 *3*	0.0288	α(K)=0.0250 *4*; α(L)=0.00308 *5*; α(M)=0.000597 *9* α(N)=0.0001093 *16*; α(O)=8.15×10^{-6} *12* Mult.: A_2=−0.171 *14*; A_4=0.006 *18* in ^{112}Cd(p,nγ) (1983Ko12); pol=−0.35 *6* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.024 *5* in ^{112}Cd(p,nγ) (1988Ki04). δ: from ^{112}Cd(p,nγ).
		291.5[#] *2*	3.2[#] *16*	592.08	(4)$^+$				
		427.29[#] *8*	10.3[#] *10*	456.426	(3)$^+$				

$^{112}_{49}In_{63}$-9

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
883.72	3+	727.16[#] *8*	63[#] *3*	156.592	4+			
918.84	(1,2)−	189.86[#] *8*	22.0[#] *12*	728.978	(1,2)−			
		323.87[#] *8*	100[#] *5*	594.888	2+	E1	0.00666	α(K)=0.00580 *9*; α(L)=0.000696 *10*; α(M)=0.0001342 *19* α(N)=2.44×10^{-5} *4*; α(O)=1.739×10^{-6} *25* Mult.: α(K)exp=0.0065 *14*, weighted average of 0.007 *2* in ^{109}Ag(α,nγ) (1988Ki04) and 0.006 *2* in ^{112}Cd(p,nγ) (1988Ki04).
		918.81[#] *8*	93.9[#] *25*	0.0	1+	E1	6.07×10^{-4}	α(K)=0.000531 *8*; α(L)=6.19×10^{-5} *9*; α(M)=1.193×10^{-5} *17* α(N)=2.19×10^{-6} *3*; α(O)=1.619×10^{-7} *23* Mult.: A_2=0.086 *20*; A_4=0.029 *27* in ^{112}Cd(p,nγ) (1983Ko12); pol=−0.20 *10* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.00063 *7* in ^{112}Cd(p,nγ) (1988Ki04); δ=0.00 *12* or −0.31 *7* in ^{112}Cd(p,nγ) (1983Ko12);
924.66	(1,2,3)−	195.73[#] *8*	51[#] *3*	728.978	(1,2)−	M1	0.0801	α(K)=0.0695 *10*; α(L)=0.00864 *13*; α(M)=0.001678 *24* α(N)=0.000307 *5*; α(O)=2.28×10^{-5} *4* Mult.: α(K)exp=0.067 *7*, weighted average of 0.060 *6* in ^{109}Ag(α,nγ) (1988Ki04) 0.073 *6* in ^{112}Cd(p,nγ) (1988Ki04).
		468.15[#] *8*	10.9[#] *8*	456.426	(3)+			
		717.90[#] *8*	100[#] *4*	206.717	(2)+	E1	1.00×10^{-3}	α(K)=0.000876 *13*; α(L)=0.0001029 *15*; α(M)=1.98×10^{-5} *3* α(N)=3.63×10^{-6} *5*; α(O)=2.67×10^{-7} *4* Mult.: A_2=0.159 *19*; A_4=0.009 *25* in ^{112}Cd(p,nγ) (1983Ko12); pol=−0.24 *11* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.009 *1* in ^{112}Cd(p,nγ) (1988Ki04);
928.67	(0,1,2)−	199.73[#] *8*	2.0[#] *6*	728.978	(1,2)−			
		928.59[#] *8*	100[#] *3*	0.0	1+	E1	5.95×10^{-4}	α(K)=0.000520 *8*; α(L)=6.06×10^{-5} *9*; α(M)=1.168×10^{-5} *17* α(N)=2.14×10^{-6} *3*; α(O)=1.586×10^{-7} *23* Mult.: A_2=0.016 *18*; A_4=0.028 *24* in ^{112}Cd(p,nγ) (1983Ko12); pol=−0.21 *9* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.00057 *6* in ^{112}Cd(p,nγ) (1988Ki04).
1007.42	(4+)	185.10 *3*	100	822.32	(5+)	M1	0.0931	α(K)=0.0807 *12*; α(L)=0.01006 *14*; α(M)=0.00195 *3* α(N)=0.000358 *5*; α(O)=2.66×10^{-5} *4* Mult.: α(K)exp=0.07 *1* in ^{112}Cd(p,nγ) (1988Ki04).
1037.78	(0,1,2)−	1037.77[#] *8*	100[#]	0.0	1+	E1	4.81×10^{-4}	α(K)=0.000420 *6*; α(L)=4.89×10^{-5} *7*; α(M)=9.42×10^{-6} *14* α(N)=1.726×10^{-6} *25*; α(O)=1.283×10^{-7} *18* Mult.: α(K)exp=0.00044 *6* in ^{112}Cd(p,nγ) (1988Ki04).
1062.90	3+	333.2 *1*	7.1 *18*	729.87	(3)+			
		856.22 *6*	34 *3*	206.717	(2)+	M1	0.00205	α(K)=0.001785 *25*; α(L)=0.000212 *3*; α(M)=4.10×10^{-5} *6* α(N)=7.53×10^{-6} *11*; α(O)=5.68×10^{-7} *8* Mult.: A_2=0.148 *67*; A_4=−0.062 *82* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.0015 *35* in ^{112}Cd(p,nγ) (1988Ki04).

$^{112}_{49}In_{63}$-10

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
1062.90	3$^+$	1062.92 *7*	100 *7*	0.0	1$^+$	E2	1.06×10^{-3}	α(K)=0.000922 *13*; α(L)=0.0001115 *16*; α(M)=2.16×10^{-5} *3* α(N)=3.94×10^{-6} *6*; α(O)=2.89×10^{-7} *4* Mult.: A_2=−0.036 *14*; A_4=0.023 *19* in ^{112}Cd(p,nγ) (1983Ko12); pol=−0.32 *7* in ^{112}Cd(p,nγ) (1983Ko12); α(K)exp=0.00086 *9*, weighted average of 0.00083 *13* in ^{109}Ag(α,nγ) (1988Ki04) and 0.00088 *12* in ^{112}Cd(p,nγ) (1988Ki04).
1151.26	(4,5)$^+$	421.39[#] *8*	100[#]	729.87	(3)$^+$			
1212.16	(0$^-$,1$^-$,2$^-$)	293.32[#] *8*	100[#]	918.84	(1,2)$^-$	E2,M1	0.0277	α(K)=0.0240 *4*; α(L)=0.00295 *5*; α(M)=0.000572 *8* α(N)=0.0001049 *15*; α(O)=7.82×10^{-6} *11* Mult.: α(K)exp=0.030 *5* in ^{112}Cd(p,nγ) (1988Ki04).
1212.25	(1$^+$,2$^+$,3$^+$)	149.46[#] *8*	24[#] *2*	1062.90	3$^+$			
		283.56[#] *8*	24[#] *3*	928.67	(0,1,2)$^-$			
		287.54[#] *8*	100[#] *4*	924.66	(1,2,3)$^-$			
		483.25[#] *8*	67[#] *4*	728.978	(1,2)$^-$			
1221.50	(3,4)$^+$	214.12 *9*	22 *7*	1007.42	(4$^+$)			I_γ: weighted average of 18.0 *13* in ^{109}Ag(α,nγ) (1988Ki04) and 35.0 *25* in ^{112}Cd(p,nγ) (1988Ki04).
		765.06 *4*	100 *4*	456.426	(3)$^+$	M1	0.00265	α(K)=0.00231 *4*; α(L)=0.000275 *4*; α(M)=5.32×10^{-5} *8* α(N)=9.78×10^{-6} *14*; α(O)=7.37×10^{-7} *11* Mult.: α(K)exp=0.0025 *4* in ^{109}Ag(α,nγ) (1988Ki04).
1250.89	(0 to 3)$^+$	326.19 *10*	100 *20*	924.66	(1,2,3)$^-$	E1	0.00653	α(K)=0.00569 *8*; α(L)=0.000683 *10*; α(M)=0.0001317 *19* α(N)=2.40×10^{-5} *4*; α(O)=1.708×10^{-6} *24* I_γ: 18% from Iγ(521.94) in ^{112}Cd(p,nγ) (1988Ki04). Mult.: α(K)exp≤0.012 in ^{112}Cd(p,nγ) (1988Ki04).
		521.94 *8*	100 *30*	728.978	(1,2)$^-$			
1260.47	(0,1,2)$^-$	531.44 *11*	83 *9*	728.978	(1,2)$^-$	M1,E2	0.00627	α(K)=0.00546 *8*; α(L)=0.000658 *10*; α(M)=0.0001273 *18* α(N)=2.34×10^{-5} *4*; α(O)=1.755×10^{-6} *25* Mult.: α(K)exp=0.006 *2* in ^{112}Cd(p,nγ) (1988Ki04).
		1260.51 *11*	100 *17*	0.0	1$^+$			
1261.57	(0 to 4)$^+$	666.6 *1*	20 *5*	594.888	2$^+$			
		1054.92 *10*	100 *8*	206.717	(2)$^+$	M1,E2	1.28×10^{-3}	α(K)=0.001117 *16*; α(L)=0.0001320 *19*; α(M)=2.55×10^{-5} *4* α(N)=4.68×10^{-6} *7*; α(O)=3.54×10^{-7} *5* Mult.: α(K)exp=0.0010 *2* in ^{112}Cd(p,nγ) (1988Ki04).
1279.67	(0 to 3)$^+$	823.22[#] *8*	88[#] *13*	456.426	(3)$^+$			
		1073.01[#] *8*	100[#] *6*	206.717	(2)$^+$	M1,E2	1.23×10^{-3}	α(K)=0.001076 *15*; α(L)=0.0001271 *18*; α(M)=2.45×10^{-5} *4* α(N)=4.51×10^{-6} *7*; α(O)=3.41×10^{-7} *5* Mult.: α(K)exp=0.0011 *2* in ^{112}Cd(p,nγ) (1988Ki04).
		1279.65 *5*		0.0	1$^+$			E_γ: from ^{112}Cd(p,nγ).
1286.31	(3,4)$^-$	223.51[#] *8*	100[#] *6*	1062.90	3$^+$	E1	0.0180	α(K)=0.01570 *22*; α(L)=0.00190 *3*; α(M)=0.000367 *6* α(N)=6.65×10^{-5} *10*; α(O)=4.63×10^{-6} *7* Mult.: α(K)exp=0.019 *5* in ^{112}Cd(p,nγ) (1988Ki04).

$^{112}_{49}In_{63}$-11

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
1286.31	(3,4)$^-$	367.37[#] *8*	80[#] *4*	918.84	(1,2)$^-$			
1286.93	(3$^+$,4$^+$,5$^+$)	279.51 *3*	100	1007.42	(4$^+$)	M1	0.0313	α(K)=0.0272 *4*; α(L)=0.00335 *5*; α(M)=0.000649 *9* α(N)=0.0001189 *17*; α(O)=8.87×10^{-6} *13* Mult.: α(K)exp=0.029 *5* in ^{109}Ag(α,nγ) (1988Ki04).
1388.90	(10$^-$)	588.34 *3*	100	800.56	(9$^-$)	M1,E2	0.00491	α(K)=0.00428 *6*; α(L)=0.000514 *8*; α(M)=9.94×10^{-5} *14* α(N)=1.82×10^{-5} *3*; α(O)=1.372×10^{-6} *20* Mult.: DCO=0.62 *10* in ^{110}Pd(^{7}Li,5nγ) (2011He04) and 0.96 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); pol=−0.037 *23* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); α(K)exp=0.0046 *11* in ^{109}Ag(α,nγ) (1988Ki04).
1754.90	(9$^+$)	1084.8[@] *3*	45.0[@] *3*	670.23	(8$^+$)	M1	1.20×10^{-3}	α(K)=0.001050 *15*; α(L)=0.0001240 *18*; α(M)=2.40×10^{-5} *4* α(N)=4.40×10^{-6} *7*; α(O)=3.33×10^{-7} *5* Mult.: DCO=1.22 *10* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=0.75 *11* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.10 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		1404.0[@] *3*	100[@] *4*	350.80	(7)$^+$	E2	6.42×10^{-4}	α(K)=0.000517 *8*; α(L)=6.13×10^{-5} *9*; α(M)=1.184×10^{-5} *17* α(N)=2.17×10^{-6} *3*; α(O)=1.611×10^{-7} *23*; α(IPF)=4.99×10^{-5} *7* Mult.: DCO=1.96 *15* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=1.60 *7* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=+0.08 *3* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
2011.9	(10)$^-$	1398.0[&] *5*	100	613.82	(8)$^-$	(E2)	6.46×10^{-4}	α(K)=0.000521 *8*; α(L)=6.19×10^{-5} *9*; α(M)=1.195×10^{-5} *17* α(N)=2.19×10^{-6} *3*; α(O)=1.625×10^{-7} *23*; α(IPF)=4.81×10^{-5} *7* Mult.: DCO=1.7 *4* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
2070.7	(11$^-$)	682[&]		1388.90	(10$^-$)	(M1)	0.00346	α(K)=0.00302 *5*; α(L)=0.000361 *5*; α(M)=6.98×10^{-5} *10* α(N)=1.281×10^{-5} *18*; α(O)=9.65×10^{-7} *14* Mult.: DCO=1.18 *5* in ^{110}Pd(^{7}Li,5nγ) (2012Li51).
		1270[&]		800.56	(9$^-$)	(E2)	7.44×10^{-4}	α(K)=0.000633 *9*; α(L)=7.56×10^{-5} *11*; α(M)=1.460×10^{-5} *21* α(N)=2.67×10^{-6} *4*; α(O)=1.98×10^{-7} *3*; α(IPF)=1.777×10^{-5} *25* Mult.: DCO=1.28 *25* in ^{110}Pd(^{7}Li,5nγ) (2012Li51).
2113.15	(11$^-$)	724.3[@] *3*	100[@] *6*	1388.90	(10$^-$)	M1	0.00301	α(K)=0.00262 *4*; α(L)=0.000313 *5*; α(M)=6.05×10^{-5} *9* α(N)=1.111×10^{-5} *16*; α(O)=8.37×10^{-7} *12* Mult.: DCO=1.02 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=0.70 *14* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.057 *25* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		1312.5[@] *3*	24.8[@] *4*	800.56	(9$^-$)	E2	7.05×10^{-4}	α(K)=0.000592 *9*; α(L)=7.05×10^{-5} *10*; α(M)=1.362×10^{-5} *19* α(N)=2.49×10^{-6} *4*; α(O)=1.85×10^{-7} *3*; α(IPF)=2.61×10^{-5} *4* Mult.: DCO=1.69 *14* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=1.7 *4* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=+0.24 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).

$^{112}_{49}In_{63}$-12

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
2115.28	(10$^+$)	360.4[@] *7*	8.12[@] *13*	1754.90	(9$^+$)	M1	0.01635	α(K)=0.01422 *21*; α(L)=0.00173 *3*; α(M)=0.000336 *5* α(N)=6.16×10^{-5} *10*; α(O)=4.61×10^{-6} *7* Mult.: DCO=1.21 *11* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=1.10 *15* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
		1445.2[@] *3*	100.0[@] *5*	670.23	(8$^+$)	E2	6.22×10^{-4}	α(K)=0.000488 *7*; α(L)=5.78×10^{-5} *8*; α(M)=1.116×10^{-5} *16* α(N)=2.04×10^{-6} *3*; α(O)=1.520×10^{-7} *22*; α(IPF)=6.27×10^{-5} *9* Mult.: DCO=1.69 *12* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: DCO=1.50 *4* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=+0.06 *3* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
2374.9	(11$^-$,12$^-$)	986[&]	100	1388.90	(10$^-$)			
2441.2		326[&]	100	2115.28	(10$^+$)			
2493.2	(11$^-$)	1104.2[@] *3*	100[@]	1388.90	(10$^-$)	M1	1.16×10^{-3}	α(K)=0.001010 *15*; α(L)=0.0001192 *17*; α(M)=2.30×10^{-5} *4* α(N)=4.23×10^{-6} *6*; α(O)=3.20×10^{-7} *5*; α(IPF)=4.86×10^{-7} *9* Mult.: DCO=1.16 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01) pol=−0.02 *5* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
2652.7	(13$^-$)	582[&] *1*	100	2070.7	(11$^-$)	E2	0.00459	α(K)=0.00396 *6*; α(L)=0.000514 *8*; α(M)=9.99×10^{-5} *15* α(N)=1.81×10^{-5} *3*; α(O)=1.252×10^{-6} *19* Mult.: DCO=1.52 *6* in ^{110}Pd(^{7}Li,5nγ) (2012Li51).
2665.59	(12)$^-$	290[&]		2374.9	(11$^-$,12$^-$)			
		552.4[@] *3*	100.0[@] *7*	2113.15	(11$^-$)	M1	0.00571	α(K)=0.00497 *7*; α(L)=0.000599 *9*; α(M)=0.0001158 *17* α(N)=2.13×10^{-5} *3*; α(O)=1.597×10^{-6} *23* Mult.: DCO=1.02 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.98 *7* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.10 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		1276.7[@] *3*	33.0[@] *3*	1388.90	(10$^-$)	E2	7.37×10^{-4}	α(K)=0.000626 *9*; α(L)=7.48×10^{-5} *11*; α(M)=1.444×10^{-5} *21* α(N)=2.64×10^{-6} *4*; α(O)=1.96×10^{-7} *3*; α(IPF)=1.90×10^{-5} *3* I_γ: 45 *5* in ^{110}Pd(^{7}Li,5nγ). Mult.: DCO=1.85 *18* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.46 *11* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=+0.16 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
2756.1	(12$^-$)	643[&]		2113.15	(11$^-$)			
		1367[&]		1388.90	(10$^-$)			
2802.05	(11$^+$)	361[&]		2441.2				
		686.9[@] *3*	100.0[@] *6*	2115.28	(10$^+$)	M1	0.00340	α(K)=0.00297 *5*; α(L)=0.000355 *5*; α(M)=6.86×10^{-5} *10* α(N)=1.260×10^{-5} *18*; α(O)=9.49×10^{-7} *14* Mult.: DCO=1.03 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.92 *5* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.08 *3* (2012Tr01).

$^{112}_{49}In_{63}$-13

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
2802.05	(11$^+$)	790.0[&] *5*	19.2 *14*	2011.9	(10)$^-$	(E1)	8.22×10^{-4}	α(K)=0.000718 *10*; α(L)=8.41×10^{-5} *12*; α(M)=1.621×10^{-5} *23* α(N)=2.97×10^{-6} *5*; α(O)=2.19×10^{-7} *3* Mult.: DCO=0.92 *18* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
		1047.4[@] *7*	16.9[@] *2*	1754.90	(9$^+$)	E2	1.09×10^{-3}	α(K)=0.000952 *14*; α(L)=0.0001153 *17*; α(M)=2.23×10^{-5} *4* α(N)=4.08×10^{-6} *6*; α(O)=2.98×10^{-7} *5* I_γ: 24.1 *19* in ^{110}Pd(^{7}Li,5nγ) (2011He04). Mult.: DCO=1.78 *13* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.69 *14* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=+0.12 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		1412.9[&] *5*	4.4 *5*	1388.90	(10$^-$)			
2964.0	(12$^-$)	952[&]		2011.9	(10)$^-$			
		1575[&]		1388.90	(10$^-$)			
3062.6	(12$^+$)	260.6[@] *3*	100.0[@] *4*	2802.05	(11$^+$)	M1	0.0376	α(K)=0.0326 *5*; α(L)=0.00402 *6*; α(M)=0.000780 *12* α(N)=0.0001430 *21*; α(O)=1.066×10^{-5} *16* Mult.: DCO=0.97 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.03 *6* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.03 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		947.4[@] *7*	7.4[@] *4*	2115.28	(10$^+$)	(E2)	1.37×10^{-3}	α(K)=0.001189 *17*; α(L)=0.0001453 *21*; α(M)=2.81×10^{-5} *4* α(N)=5.14×10^{-6} *8*; α(O)=3.73×10^{-7} *6* Mult.: DCO=1.32 *14* in ^{110}Pd(^{7}Li,5nγ) (2011He04). I_γ: 11.8 *8* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
		949.1[@] *7*	12.0[@] *5*	2113.15	(11$^-$)			
3102.7	(13)$^-$	437.1[@] *3*	100[@]	2665.59	(12)$^-$	M1	0.01010	α(K)=0.00879 *13*; α(L)=0.001066 *15*; α(M)=0.000206 *3* α(N)=3.79×10^{-5} *6*; α(O)=2.84×10^{-6} *4* Mult.: DCO=0.98 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.05 *10* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.01 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
3126.9	(13)$^-$	461.4[@] *3*	100[@]	2665.59	(12)$^-$	M1	0.00884	α(K)=0.00770 *11*; α(L)=0.000932 *14*; α(M)=0.000180 *3* α(N)=3.31×10^{-5} *5*; α(O)=2.48×10^{-6} *4* Mult.: DCO=0.80 *5* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.98 *7* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.13 *3* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
3153.5	(12)$^-$	487.7[@] *7*	18.8[@] *9*	2665.59	(12)$^-$			
		660.2[@] *3*	100[@] *3*	2493.2	(11$^-$)	M1	0.00374	α(K)=0.00326 *5*; α(L)=0.000390 *6*; α(M)=7.54×10^{-5} *11* α(N)=1.384×10^{-5} *20*; α(O)=1.042×10^{-6} *15* Mult.: DCO=0.94 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); pol=−0.05 *5* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		779[&]		2374.9	(11$^-$,12$^-$)			

$^{112}_{49}In_{63}$-14

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	α[a]	Comments
3153.5	(12)$^-$	1041&		2113.15	(11$^-$)			
		1765&		1388.90	(10$^-$)			
3190.8	(13$^+$)	128.3@ *3*	100@	3062.6	(12$^+$)	(M1)	0.254	α(K)=0.220 *4*; α(L)=0.0277 *5*; α(M)=0.00537 *9* α(N)=0.000984 *16*; α(O)=7.27×10^{-5} *12* Mult.: DCO; 0.21 *13* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.03 *10* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
3191.0	(11$^-$,12$^-$)	1802&	100	1388.90	(10$^-$)			
3262.3	(14$^-$)	135.3@ *7*	22.9@ *4*	3126.9	(13)$^-$	(M1)	0.219 *5*	α(K)=0.190 *4*; α(L)=0.0238 *5*; α(M)=0.00463 *10* α(N)=0.000848 *18*; α(O)=6.28×10^{-5} *13* Mult.: DCO=1.09 *11* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.20 *13* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
		159.6@ *3*	100.0@ *7*	3102.7	(13)$^-$	(M1)	0.1392	α(K)=0.1206 *18*; α(L)=0.01509 *23*; α(M)=0.00293 *5* α(N)=0.000537 *8*; α(O)=3.98×10^{-5} *6* Mult.: DCO=0.97 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.23 *11* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
3293.1	(12$^+$)	102&		3191.0	(11$^-$,12$^-$)			
		329&		2964.0	(12$^-$)			
		491&		2802.05	(11$^+$)			
		800&		2493.2	(11$^-$)			
3296.1	(12$^+$)	332&		2964.0	(12$^-$)			
		494&		2802.05	(11$^+$)			
		1181&		2115.28	(10$^+$)			
		1183&		2113.15	(11$^-$)			
3327.2	(12$^-$)	363&		2964.0	(12$^-$)			
		1214&		2113.15	(11$^-$)			
3347.7	(13$^-$)	194.2@ *3*	89.3@ *8*	3153.5	(12)$^-$	(M1)	0.0818	α(K)=0.0710 *11*; α(L)=0.00883 *13*; α(M)=0.00171 *3* α(N)=0.000314 *5*; α(O)=2.33×10^{-5} *4* Mult.: D from DCO=0.99 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); (M1) from assumed by the evaluators; band structure.
		681.9@ *3*	100.0@ *16*	2665.59	(12)$^-$	(M1)	0.00346	α(K)=0.00302 *5*; α(L)=0.000361 *5*; α(M)=6.98×10^{-5} *10* α(N)=1.282×10^{-5} *18*; α(O)=9.65×10^{-7} *14* Mult.: D from DCO=0.95 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); (M1) from assumed by the evaluators; band structure.
		973&		2374.9	(11$^-$,12$^-$)			
3369.3	(14$^+$)	178.5@ *3*	100@	3190.8	(13$^+$)	(M1)	0.1027	α(K)=0.0890 *14*; α(L)=0.01110 *17*; α(M)=0.00216 *4* α(N)=0.000395 *6*; α(O)=2.93×10^{-5} *5* Mult.: D from DCO=1.06 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01) and 1.00 *8*

$^{112}_{49}In_{63}$-15

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
								in ^{110}Pd(^{7}Li,5nγ) (2011He04); (M1) assumed by the evaluators from the band structure.
3378.0	(13$^-$)	622[&]	100	2756.1	(12$^-$)			
3391.1	[13$^+$]	427[&]	100	2964.0	(12$^-$)			
3457.7	(15$^-$)	805[&] *1*		2652.7	(13$^-$)	E2	0.00200	α(K)=0.001737 *25*; α(L)=0.000216 *3*; α(M)=4.18×10^{-5} *6* α(N)=7.62×10^{-6} *11*; α(O)=5.46×10^{-7} *8* Mult.: DCO=1.86 *13* (2012Li51).
3523.1	(13$^+$)	230[&]	100	3293.1	(12$^+$)			
3564.3	(13$^-$)	237[&]		3327.2	(12$^-$)			
		808[&]		2756.1	(12$^-$)			
3584.1	(13$^+$)	288[&]	100	3296.1	(12$^+$)			
3606.8	(15$^-$)	344.6[@] *3*	100[@]	3262.3	(14$^-$)	(M1)	0.0183	α(K)=0.01592 *23*; α(L)=0.00195 *3*; α(M)=0.000377 *6* α(N)=6.91×10^{-5} *10*; α(O)=5.17×10^{-6} *8* Mult.: D from DCO=1.01 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 1.06 *8* in ^{110}Pd(^{7}Li,5nγ) (2011He04); assumed (M1) by the evaluators from the band structure.
3642.0	(15$^+$)	272.7[@] *3*	100[@]	3369.3	(14$^+$)	M1	0.0334	B(M1)(W.u.)=1.8 *4* α(K)=0.0290 *5*; α(L)=0.00357 *6*; α(M)=0.000692 *10* α(N)=0.0001269 *19*; α(O)=9.46×10^{-6} *14* Mult.: DCO=0.91 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.97 *7* in ^{110}Pd(^{7}Li,5nγ)(2011He04); pol=−0.09 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
3644.7	(14$^-$)	296.9[@] *3*	100[@]	3347.7	(13$^-$)	M1	0.0268	α(K)=0.0233 *4*; α(L)=0.00286 *4*; α(M)=0.000554 *8* α(N)=0.0001016 *15*; α(O)=7.58×10^{-6} *11* Mult.: DCO=0.86 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); pol=−0.04 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
		519[&]		3126.9	(13)$^-$			
3685.1	[14$^+$]	294[&]	100	3391.1	[13$^+$]			
3769.7	(14$^-$)	205[&]	100	3564.3	(13$^-$)			
3853.1	(14$^+$)	330[&]	100	3523.1	(13$^+$)			
3854.9	(13$^-$ to 15$^-$)	477[&]	100	3378.0	(13$^-$)			
3862.9	(14$^-$)	485[&]	100	3378.0	(13$^-$)			
3991.8	(15$^-$)	347.1[@] *3*	100[@]	3644.7	(14$^-$)	(M1)	0.0180	B(M1)(W.u.)=1.0 *+4−6* α(K)=0.01563 *23*; α(L)=0.00191 *3*; α(M)=0.000370 *6* α(N)=6.79×10^{-5} *10*; α(O)=5.07×10^{-6} *8* Mult.: DCO=1.01 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
4035.2	(16$^+$)	393.3[@] *3*	100[@]	3642.0	(15$^+$)	M1	0.01313	B(M1)(W.u.)=1.05 *22* α(K)=0.01142 *17*; α(L)=0.001390 *20*; α(M)=0.000269 *4* α(N)=4.94×10^{-5} *7*; α(O)=3.70×10^{-6} *6*

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. ‡	α [a]	Comments
								Mult.: DCO=1.10 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.90 *10* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.14 *3* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
4041.1	(14$^+$)	457 &	100	3584.1	(13$^+$)			
4064.1	[15$^+$]	379 &	100	3685.1	[14$^+$]			
4105.0	(15$^-$)	335 &	100	3769.7	(14$^-$)			
4166.9	(15$^+$)	976 &	100	3190.8	(13$^+$)			
4170.1	(15$^+$)	317 &	100	3853.1	(14$^+$)			
4203.9	(15$^-$)	341 &	100	3862.9	(14$^-$)			
4354.2	(16$^-$)	362.4 @ *7*	100 @	3991.8	(15$^-$)	(M1)	0.01613	B(M1)(W.u.)>1.1 α(K)=0.01402 *21*; α(L)=0.00171 *3*; α(M)=0.000331 *5* α(N)=6.08×10^{-5} *9*; α(O)=4.55×10^{-6} *7* Mult.: DCO=0.91 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
4390.7	(17$^-$)	933 & *1*	100	3457.7	(15$^-$)	E2	1.42×10^{-3}	α(K)=0.001231 *18*; α(L)=0.0001507 *22*; α(M)=2.92×10^{-5} *5* α(N)=5.33×10^{-6} *8*; α(O)=3.87×10^{-7} *6* Mult.: DCO=2.01 *11* (2012Li51).
4394.7	(16$^-$)	787.9 @ *7*	100 @	3606.8	(15$^-$)	M1	0.00248	α(K)=0.00216 *3*; α(L)=0.000257 *4*; α(M)=4.97×10^{-5} *7* α(N)=9.13×10^{-6} *13*; α(O)=6.88×10^{-7} *10* Mult.: DCO=0.89 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.54 *13* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
4408.8	(15$^-$)	554 &		3854.9	(13$^-$ to 15$^-$)			
		764 &		3644.7	(14$^-$)			
4452.1	(16$^+$)	388 &	100	4064.1	[15$^+$]			
4551.1	(16$^+$)	381 &	100	4170.1	(15$^+$)			
4552.4	(16$^-$)	447 &	100	4105.0	(15$^-$)			
4589.4	(17$^+$)	554.2 *3*	100	4035.2	(16$^+$)	M1	0.00567	B(M1)(W.u.)=0.86 *23* α(K)=0.00494 *7*; α(L)=0.000594 *9*; α(M)=0.0001149 *17* α(N)=2.11×10^{-5} *3*; α(O)=1.585×10^{-6} *23* Mult.: DCO=0.89 *6* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); Also: 0.80 *11* in ^{110}Pd(^{7}Li,5nγ) (2011He04); pol=−0.16 *4* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01).
4678.6	(16$^-$)	1072 &		3606.8	(15$^-$)			
		1416 &		3262.3	(14$^-$)			
4751.5	(16$^+$)	1382 &	100	3369.3	(14$^+$)			
4758.9	(17$^-$)	404.7 *7*	100	4354.2	(16$^-$)	(M1)	0.01223	α(K)=0.01064 *16*; α(L)=0.001293 *19*; α(M)=0.000250 *4* α(N)=4.59×10^{-5} *7*; α(O)=3.44×10^{-6} *5* Mult.: D from DCO=0.74 *7* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); (M1) assumed from the band structure.

$^{112}_{49}In_{63}$-17

Adopted Levels, Gammas (continued)

γ(^{112}In) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[a]	Comments
4822.8	(16$^-$)	414[&]		4408.8	(15$^-$)			
		619[&]		4203.9	(15$^-$)			
4917.1	[17$^+$]	465[&]	100	4452.1	(16$^+$)			
5063.7	(17$^-$)	385[&]		4678.6	(16$^-$)			
		1457[&]		3606.8	(15$^-$)			
5073.7	(17$^+$)	322[&]		4751.5	(16$^+$)			
		521[&]		4552.4	(16$^-$)			
		1432[&]		3642.0	(15$^+$)			
5168.1	(18$^-$)	409.2[@] *7*	100[@]	4758.9	(17$^-$)	(M1)	0.01190	α(K)=0.01035 *16*; α(L)=0.001258 *19*; α(M)=0.000244 *4* α(N)=4.47×10^{-5} *7*; α(O)=3.35×10^{-6} *5* Mult.: D from DCO=1.00 *9* in ^{100}Mo(^{16}O,p3nγ) (2012Tr01); (M1) assumed from the band structure.
5235.7	(19$^-$)	845[&] *1*	100	4390.7	(17$^-$)	(E2)	0.00178	α(K)=0.001548 *22*; α(L)=0.000191 *3*; α(M)=3.71×10^{-5} *6* α(N)=6.76×10^{-6} *10*; α(O)=4.87×10^{-7} *7* Mult.: DCO=1.29 *19* (2011Li51).
5272.8	(17$^-$)	450[&]	100	4822.8	(16$^-$)			
5297.0	(18$^+$)	707.6 *3*	100	4589.4	(17$^+$)	[M1]	0.00318	α(K)=0.00277 *4*; α(L)=0.000331 *5*; α(M)=6.40×10^{-5} *9* α(N)=1.174×10^{-5} *17*; α(O)=8.84×10^{-7} *13* B(M1)(W.u.)>0.36 Mult.: DCO=0.88 *16* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
5537.0	(18$^+$)	463[&]		5073.7	(17$^+$)			
		1502[&]		4035.2	(16$^+$)			
5638.1	(19$^-$)	470.0[@] *7*	100[@]	5168.1	(18$^-$)	(M1)	0.00845	α(K)=0.00736 *11*; α(L)=0.000890 *13*; α(M)=0.0001723 *25* α(N)=3.16×10^{-5} *5*; α(O)=2.37×10^{-6} *4* Mult.: D from DCO=0.92 *7*; assumed (M1) from the band structure.
5773.8	(18$^-$)	501[&]	100	5272.8	(17$^-$)			
6035.1	(19$^+$)	738.0[&] *5*	100	5297.0	(18$^+$)	(M1)	0.00288	α(K)=0.00251 *4*; α(L)=0.000300 *5*; α(M)=5.79×10^{-5} *9* α(N)=1.064×10^{-5} *15*; α(O)=8.01×10^{-7} *12* Mult.: DCO=0.86 *18* in ^{110}Pd(^{7}Li,5nγ) (2011He04).
6059.0	(19$^+$)	522[&]	100	5537.0	(18$^+$)			
6155.8	(21$^-$)	920[&] *1*	100	5235.7	(19$^-$)	E2	1.46×10^{-3}	α(K)=0.001271 *18*; α(L)=0.0001558 *23*; α(M)=3.02×10^{-5} *5* α(N)=5.51×10^{-6} *8*; α(O)=3.99×10^{-7} *6* Mult.: DCO=2.21 *41* (2012Li51).
6322.8	(19$^-$)	549[&]	100	5773.8	(18$^-$)			
6373.1	(20$^-$)	735[&]	100	5638.1	(19$^-$)			
6412.0	(20$^+$)	353[&]	100	6059.0	(19$^+$)			
6850.0	(21$^+$)	438[&]	100	6412.0	(20$^+$)			

$^{112}_{49}In_{63}$-18

Adopted Levels, Gammas (continued)

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

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
6859.8	(20^-)	537&	100	6322.8	(19^-)
7148	(23^-)	992& *1*	100	6155.8	(21^-)
8328	(25^-)	1180& *1*	100	7148	(23^-)

† From $^{109}Ag(\alpha,n\gamma)$, unless otherwise noted.
‡ From DCO and γ-ray polarization measurements, unless otherwise noted.
# From $^{112}Cd(p,n\gamma)$ (1988Ki04).
@ From $^{100}Mo(^{16}O,p3n\gamma)$ (2012Tr01).
& From $^{110}Pd(^{7}Li,5n\gamma)$.
a Additional information 1.

$^{112}_{49}In_{63}$-19

Adopted Levels, Gammas

Level Scheme

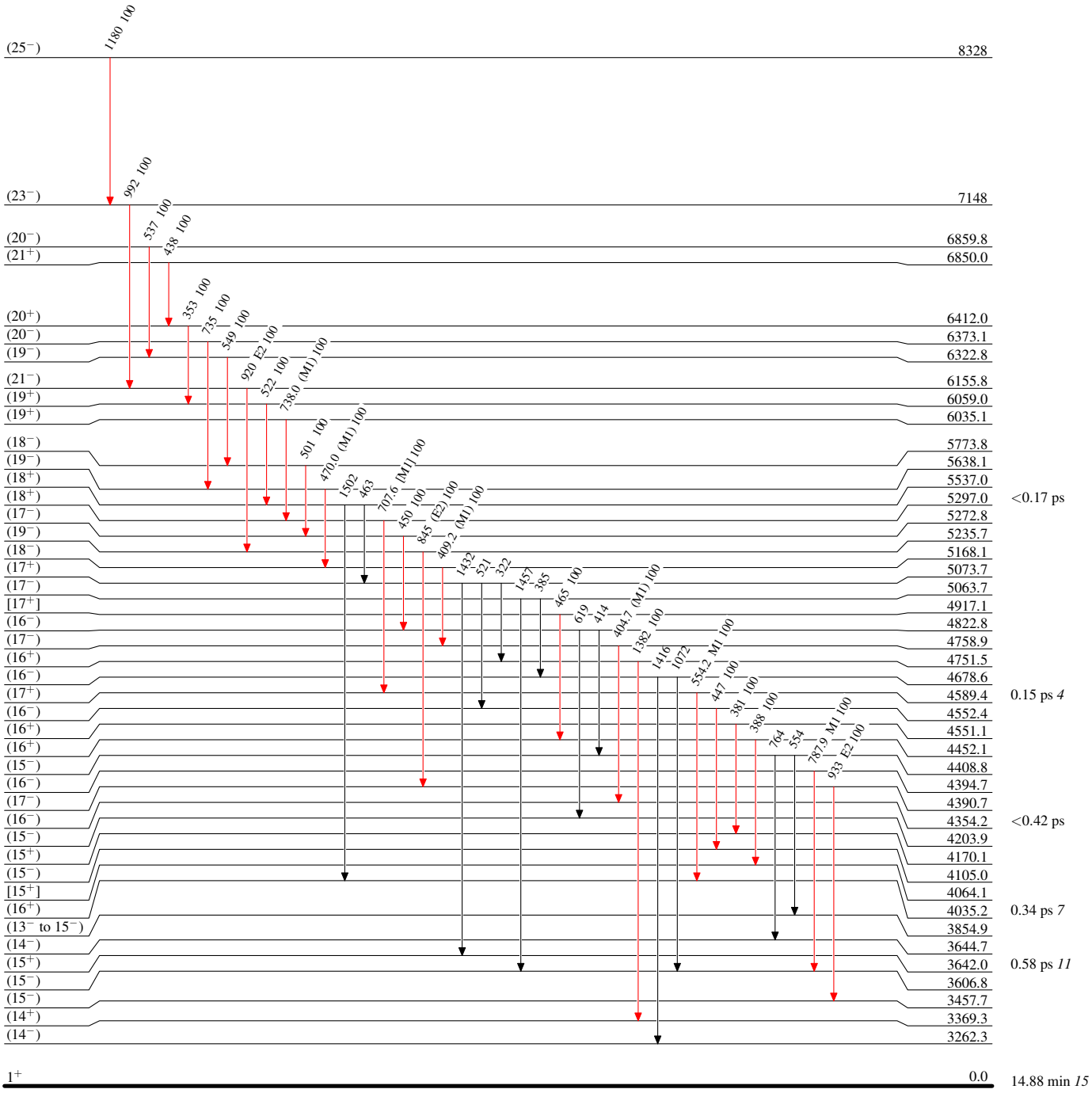
Intensities: Type not specified

Legend

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

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

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

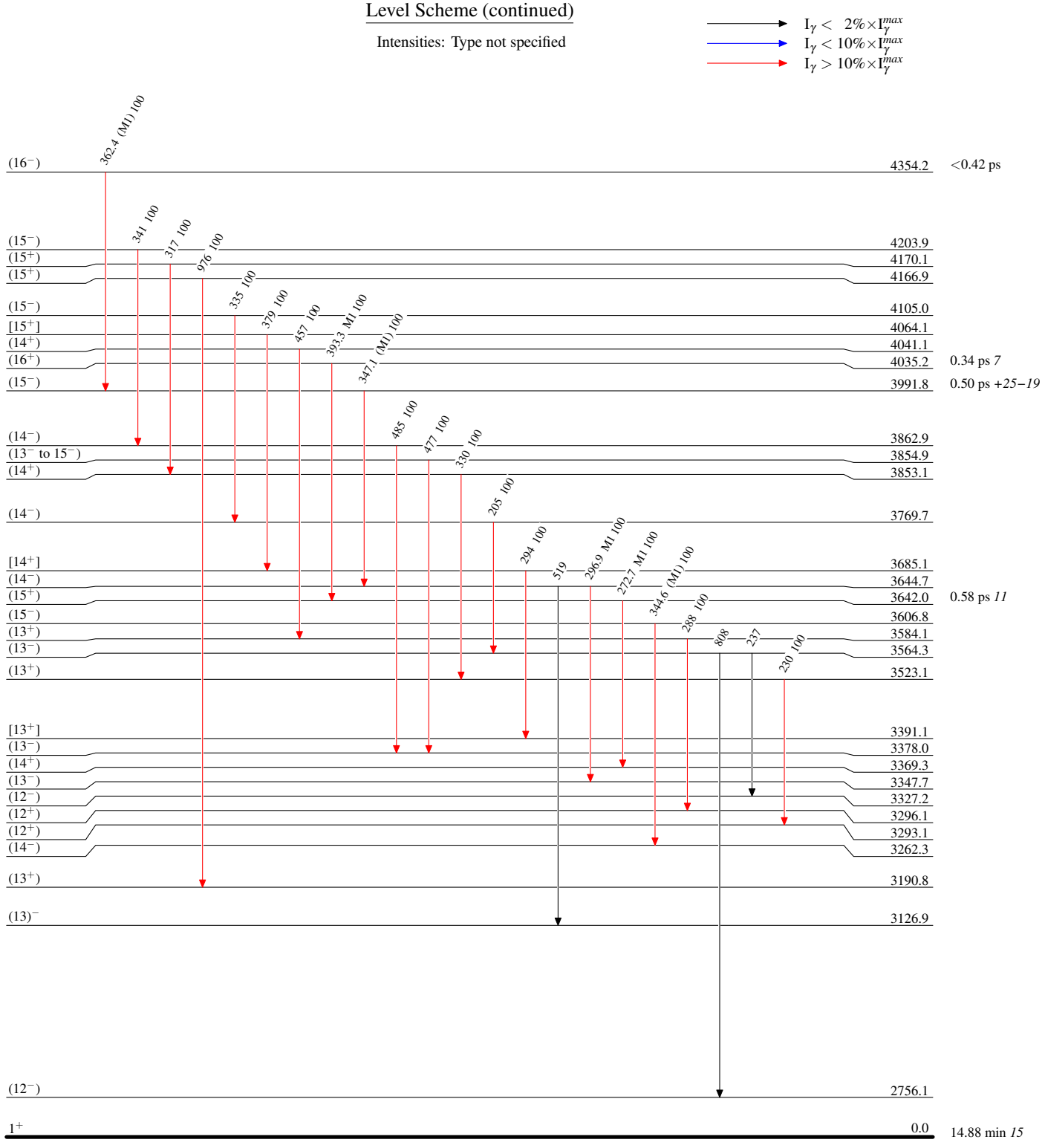


$^{112}_{49}In_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

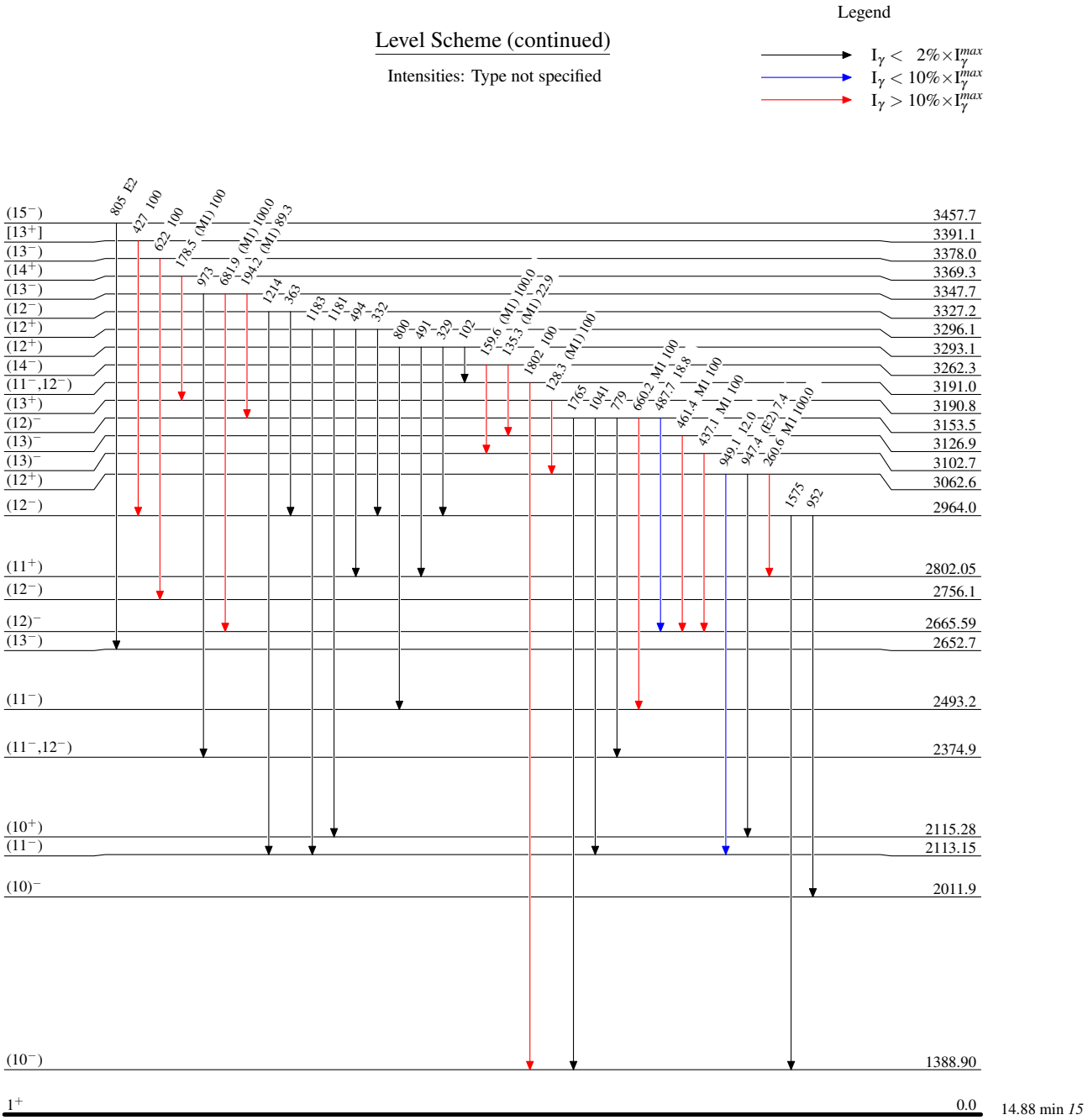


$^{112}_{49}In_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

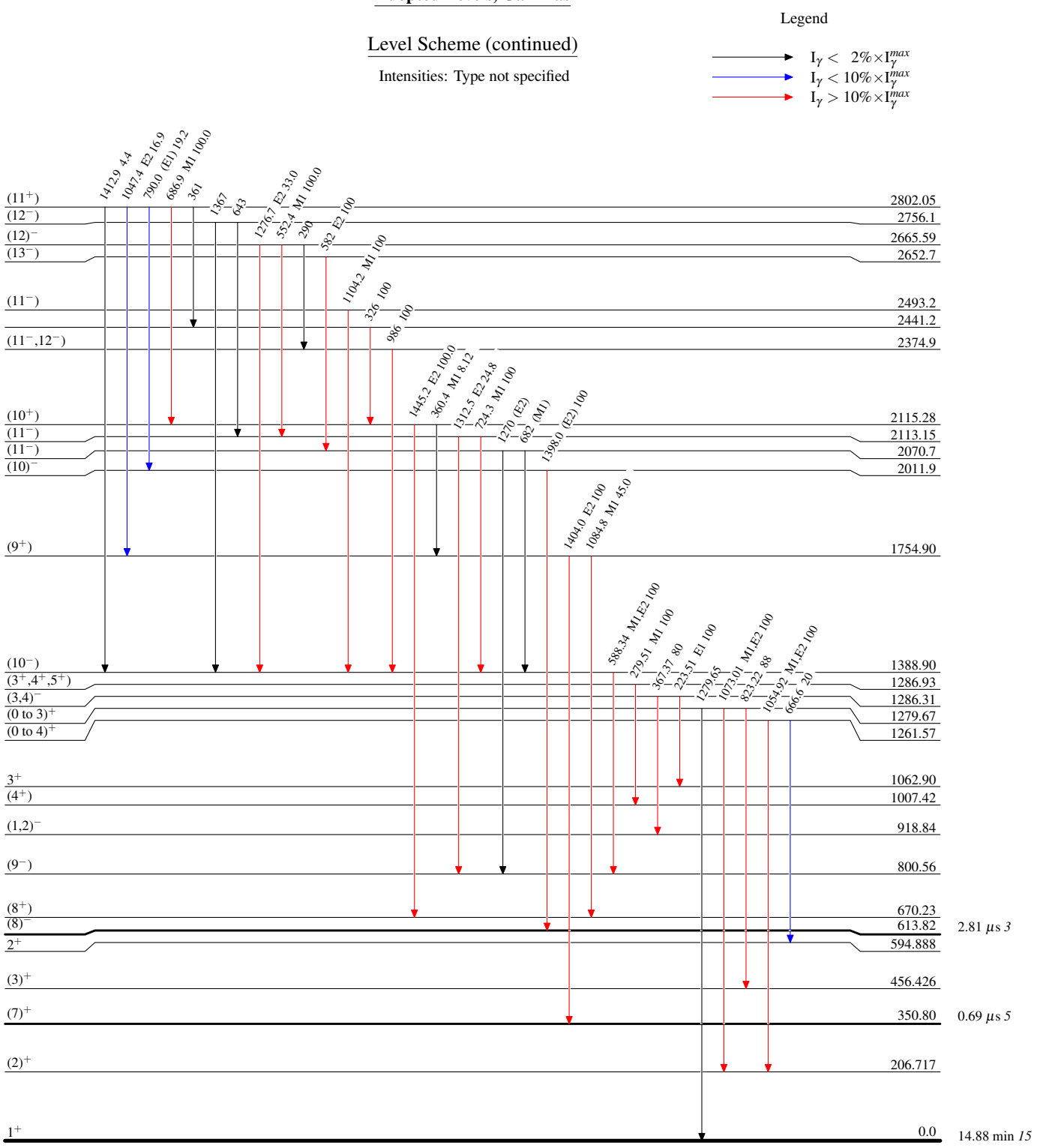


$^{112}_{49}In_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

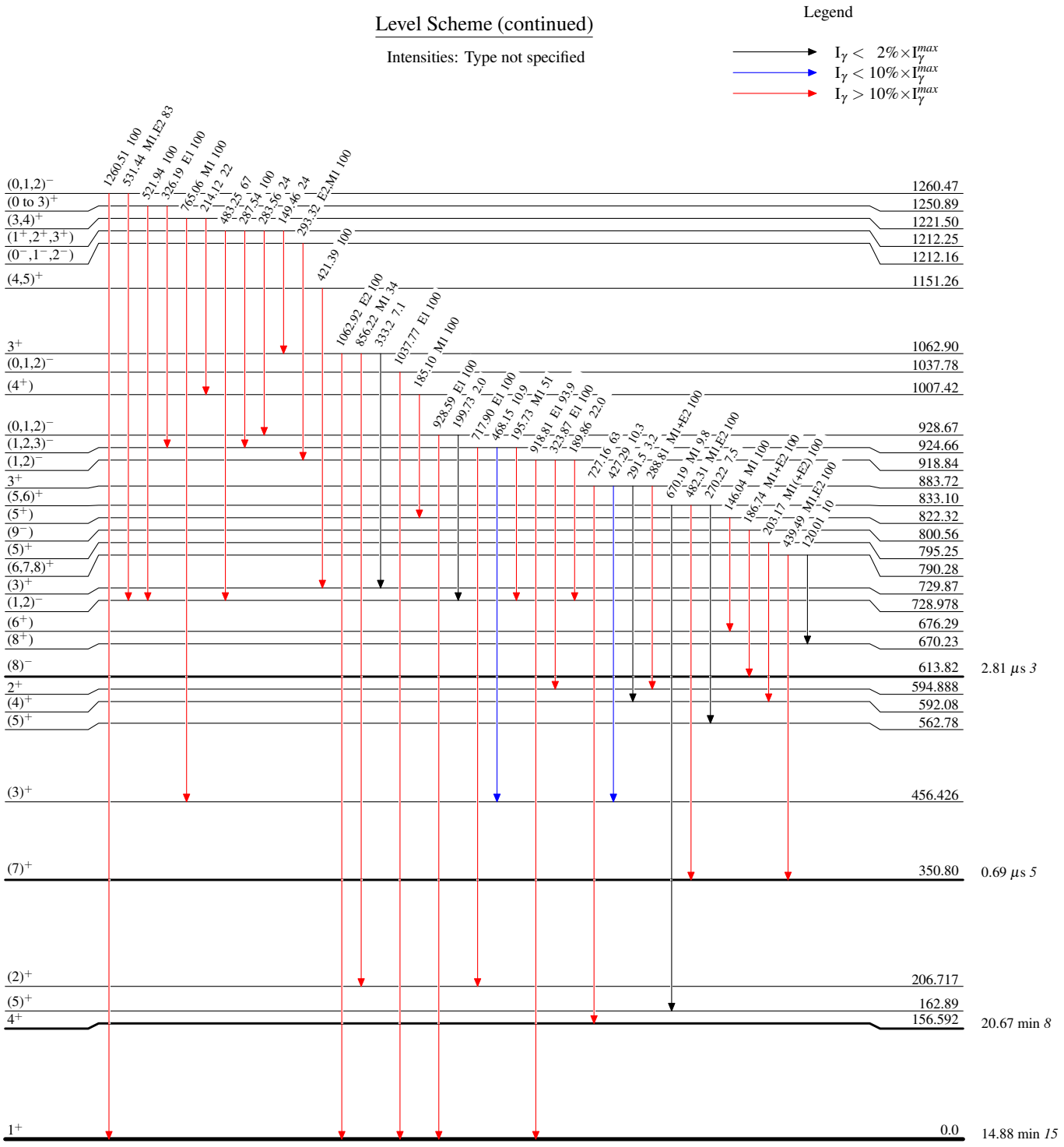


$^{112}_{49}In_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

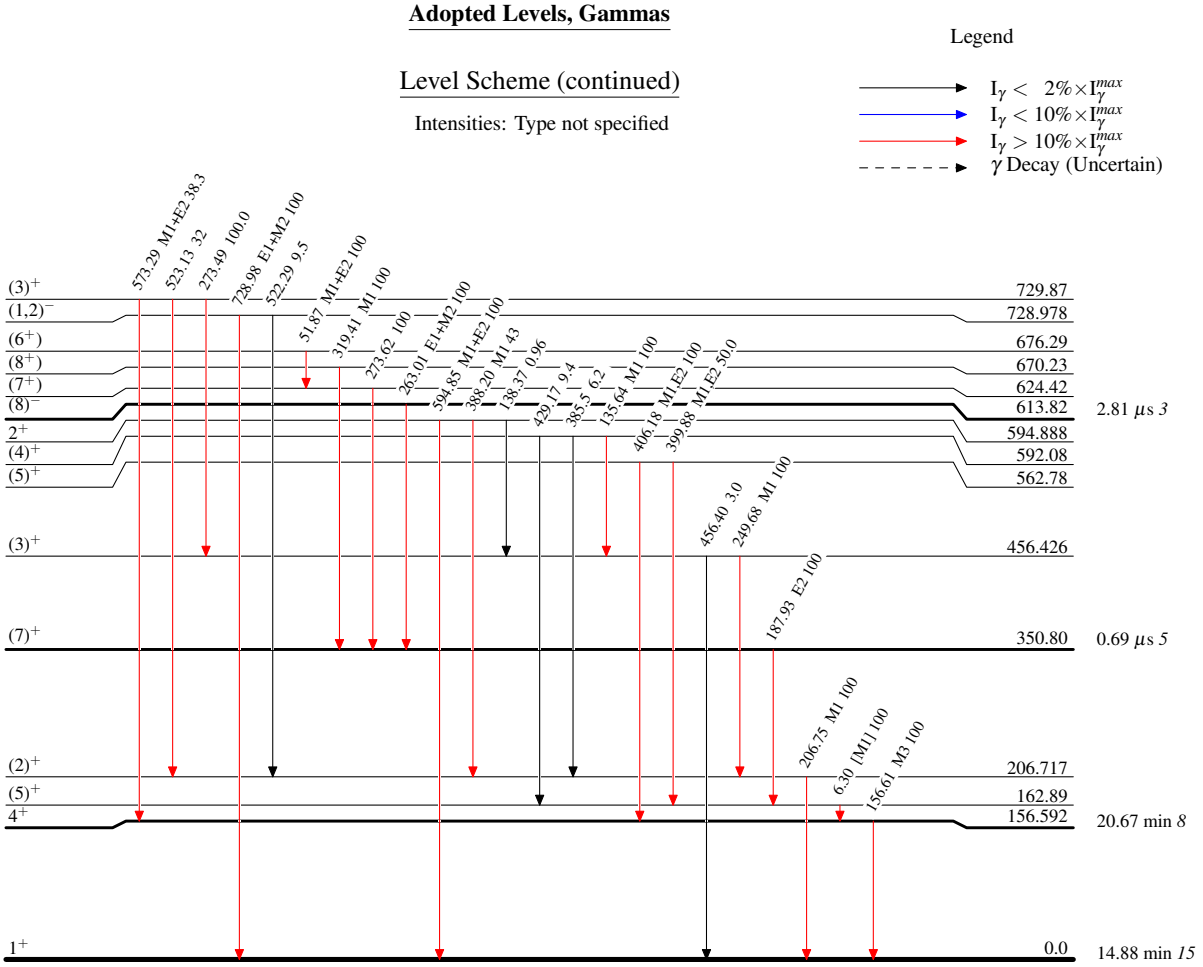


$^{112}_{49}In_{63}$

Adopted Levels, Gammas

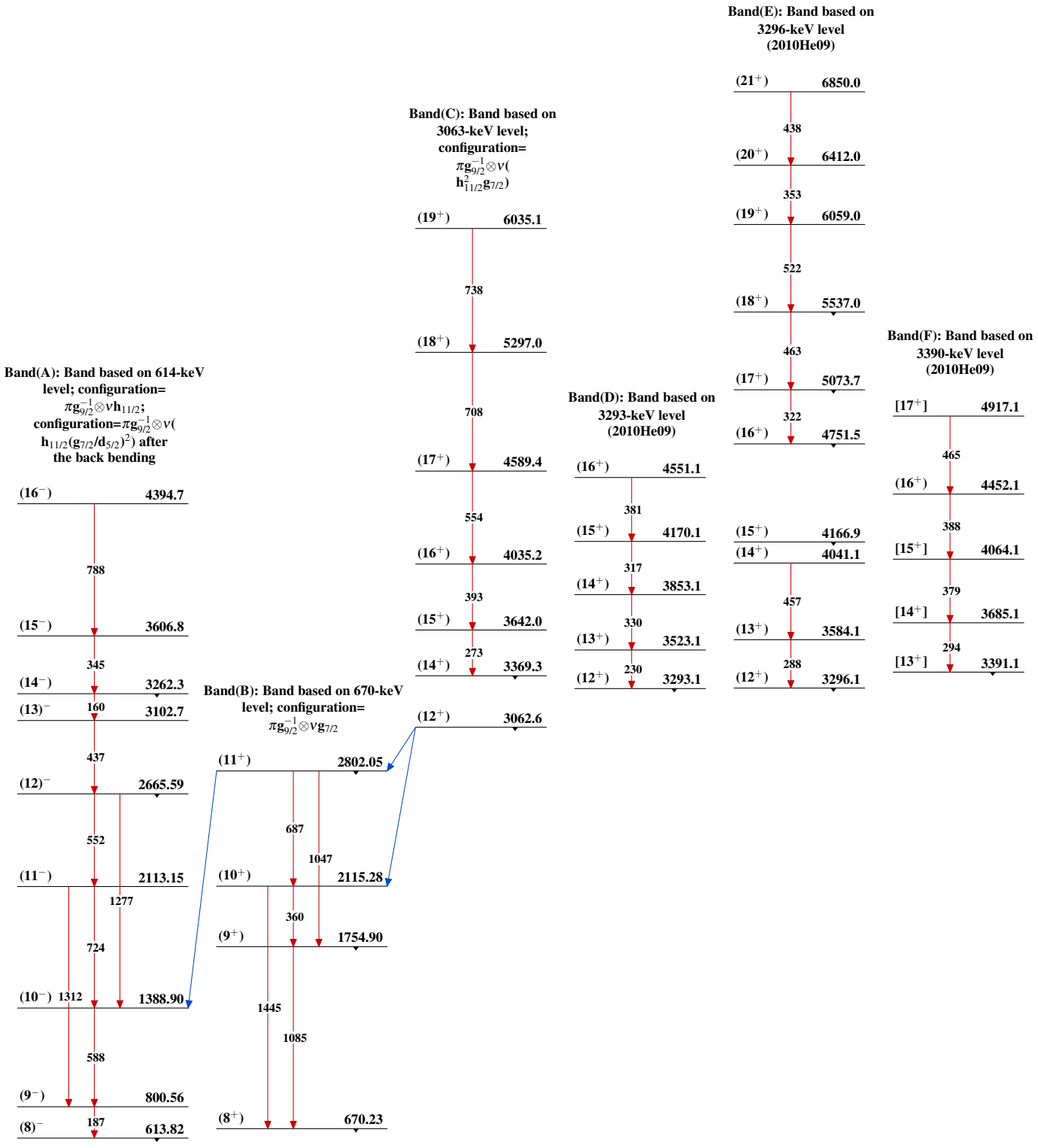
Level Scheme (continued)

Intensities: Type not specified



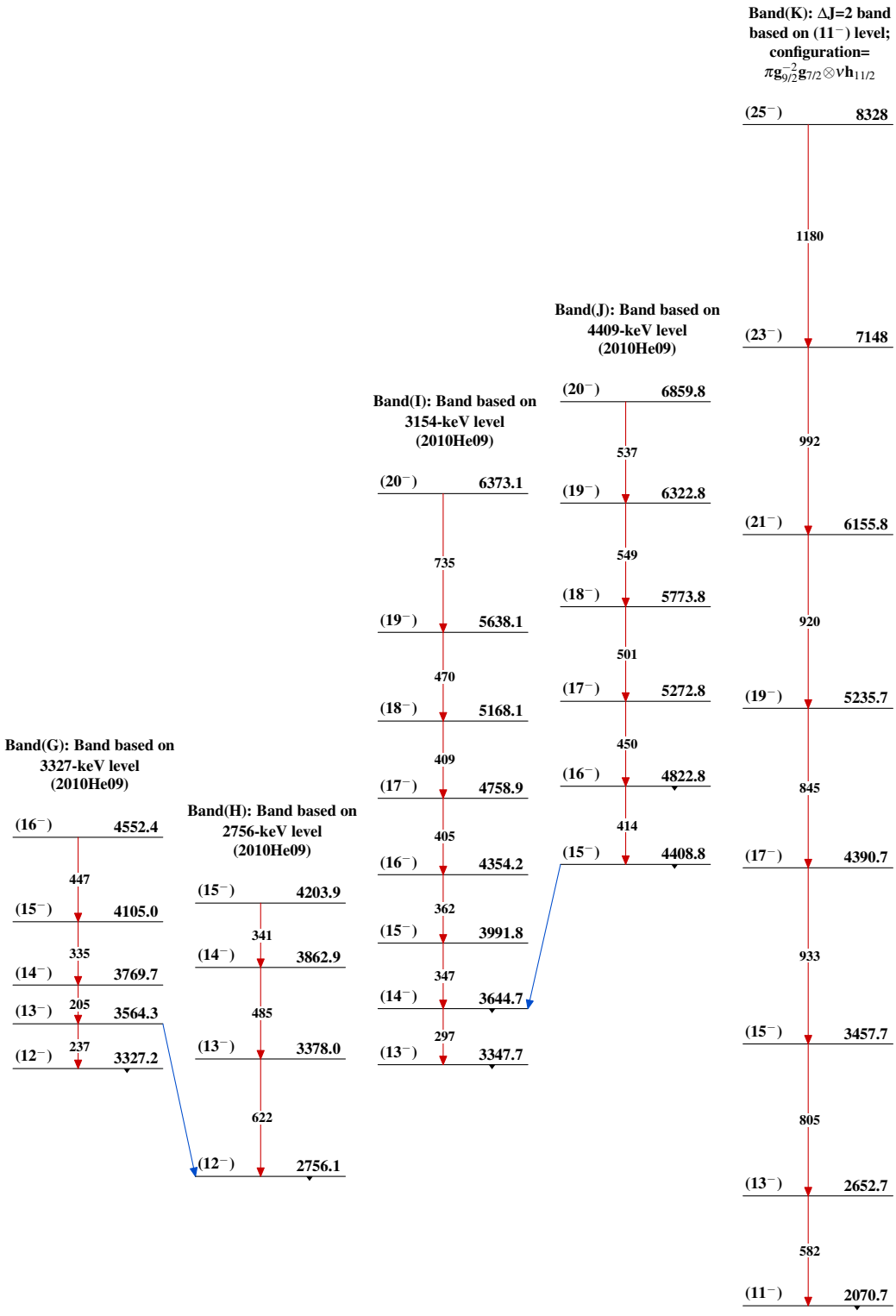
$^{112}_{49}In_{63}$

Adopted Levels, Gammas



$^{112}_{49}In_{63}$

Adopted Levels, Gammas (continued)



$^{112}_{49}In_{63}$