

Adopted Levels, Gammas

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113,1315 (2012)	1-Aug-2011

Q(β^-)=-3878 12; S(n)=9915.7 17; S(p)=8917.8 13; Q(α)=-2866.3 13 [2012Wa38](#)Note: Current evaluation has used the following Q record -3878 129917.3 218919.8 15-2870 4 [2011AuZZ](#). **^{110}Cd Levels****Cross Reference (XREF) Flags**

A	^{110}Ag β^- decay (24.56 s)	H	$^{110}\text{Cd}(e,e')$	O	$^{109}\text{Ag}(p,p),(p,n)$ IAR
B	^{110}Ag β^- decay (249.83 d)	I	$^{110}\text{Cd}(n,n'\gamma)$	P	$^{111}\text{Cd}(\text{pol } d,t),^{111}\text{Cd}(d,t)$
C	^{110}In ε decay (69.1 min)	J	$^{110}\text{Cd}(p,p'),(d,d')$	Q	$^{110}\text{Cd}(\gamma,\gamma')$
D	^{110}In ε decay (4.92 h)	K	$^{110}\text{Cd}(p,p'\gamma)$	R	$^{110}\text{Cd}(\alpha,\alpha')$
E	(HI,xny)	L	Coulomb excitation	S	$^{114}\text{Sn}(d,^6\text{Li})$
F	$^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$	M	$^{112}\text{Cd}(p,t)$		
G	$^{109}\text{Ag}(^3\text{He},d)$	N	$^{108}\text{Pd}(^3\text{He},n)$		

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 ^d	0 ⁺	stable	ABCDEFGHIJKLMN PQRS	
657.7623 ^d 11	2 ⁺	5.42 ps 16	ABCDEFGHIJKLMN PQR	$\mu=0.52$ 4 $Q=-0.40$ 3 $B(E2)\uparrow=0.427$ 3 J ^π : L((pol d,t),(d,t))=L(α,α')=L(p,t)=2; 657.7600 γ E2 to 0 ⁺ . T _{1/2} : Weighted average of 6.4 ps 4 (recoil-distance technique in 1993Pi16), 6.0 ps 8 (recoil-distance technique in 2001Ha09) and 5.36 ps 9 (extracted from the adopted $B(E2)\uparrow=0.427$ 3). μ : Weighted average of 0.57 11 (using dynamic field technique (1980Br01)), 0.50 4 (reevaluated value based on the strength of the hyperfine field and the precession angle given at nuclear orientation measurement in ^{110}Ag β^- decay (249.83 d) (1978Wa07), using adopted $T_{1/2}=5.42$ 16), 0.62 14 (using recoil gas into vacuum technique in Coulomb excitation (1979LaZL)) and 0.50 20 (reevaluated value from the reference within 1989Be22 , using adopted $T_{1/2}=5.42$ 16). Other: 0.81 6 from transient filed technique in 2011Ch23 . Q: Weighted average of -0.39 4 (weighted average of -0.39 6 (1977Ma41), -0.36 8 (1976Es02) and -0.42 10 (1971Be36) in Coulomb excitation) and -0.40 4 (deduced from fits to the inelastic electron scattering cross sections within the framework of the anharmonic vibrational model in $^{110}\text{Cd}(e,e')$ (1977Gi13)). Others: -0.55 8 (or -0.31 7 in 1971Ha08) and -0.24 9 (relative to ^{114}Cd in 1970St17). $B(E2)\uparrow$: Weighted average of 0.45 4 (1991We15), 0.454 43 (1977Gi13) from $^{110}\text{Cd}(e,e')$, 0.427 3 (weighted average of 0.415 6 (1985Si01), 0.432 6 (1972Be66 and 1971Be36) and 0.427 4 (1976Es02), 0.44 4 (1971Ha08), 0.467 19 (1969Mi07), 0.50 4 (1958St32), 0.41 6 (1956Te26) and 0.436 22 (relative to $B(E2)\uparrow(^{114}\text{Cd})$ in 1970St17), in Coulomb excitation). Others: 0.459 (average of 0.474, 0.444, 0.460 and 0.456 in 1965Mc05) and 0.42 (1958Sh01).
1473.07 ^r 3	0 ⁺		A C EFG I K N p R	XREF: G(1470)N(1440)p(1474). J ^π : E0 to g.s.; 815.31 γ E2 to 2 ⁺ ; $\gamma\gamma(\theta)$ in ^{110}Ag β^- decay

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
1475.7900 <i>I</i> 4	2 ⁺	0.68 ps <i>I</i> 0	A B C D E F H I J K L P	(24.56 s) is only consistent with J=0, with J(657 keV level)=2 (1972Ka34). B(E0; 0 ⁺ to 0 ⁺ g.s. level)/B(E2; 0 ⁺ to 657 keV, 2 ⁺ level)=0.027 4 (1990Gi01 , ^{110}In ε decay (69.1 min)). B(E2) \uparrow =0.021 3 XREF: p(1474). J ^π : 1475.7792 γ E2 to 0 ⁺ ; 818.0244 γ M1+E2 to 2 ⁺ . B(E2) \uparrow : Weighted average of 0.021 3 (1969Mi07) and 0.023 7 (1961St02) in Coulomb excitation. Other: 0.014 3 (1991We15) in $^{110}\text{Cd}(e,e')$. T _{1/2} : From adopted B(E2) \uparrow =0.021 3 and γ branching. Others: 1.02 ps 22 (from B(E2) \uparrow =0.014 3 (1991We15) in $^{110}\text{Cd}(e,e')$), 0.8 ps +4–2 (1995KuZX) and 0.74 19 (1999Lo15) (using Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$). XREF: G(1538)J(1543)L(1543)M(1543)R(1539). J ^π : L(pol,d,t)=4; 884.6781 γ E2 to 2 ⁺ ; band member.
1542.4441 ^d <i>I</i> 4	4 ⁺	0.80 ps + <i>I</i> 7– <i>I</i> 6	B C D E F G H I J K L M P R	T _{1/2} : Weighted average of 0.7 ps 4 (2001Ha09) (from recoil-distance method, differential decay-curve analysis in (H _i ,x _n γ)) and 0.82 ps +22–12 (1999Lo15) (from $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$). Other: <2.1 ps (1993Pi16) from (H _i ,x _n γ). μ : 5.4 +14–13. μ : From g-factor=1.36 +34 –33 deduced using the strength of the hyperfine field and the precession angle given at nuclear orientation measurement in ^{110}Ag β^- decay (249.83 d) (1978Wa07), and adopted T _{1/2} =0.80 + <i>I</i> 7– <i>I</i> 6. B(E4) \uparrow : 0.5×10 ⁻³ 5 (1991We15) from $^{110}\text{Cd}(e,e')$. XREF: G(1730)J(1735). J ^π : E0 to g.s.; 1073.55 γ E2 to 2 ⁺ ; L(³ He,d)=1. B(E0; 0 ⁺ to 0 ⁺ g.s. level)/B(E2; 0 ⁺ to 657 keV, 2 ⁺ level)<0.049 (1990Gi01) from ^{110}In ε decay (69.1 min). B(E2; 0 ⁺ to 657 keV, 2 ⁺ level) \times B(E2; 0 ⁺ to 0 ⁺ g.s. level)/B(E2; 0 ⁺ to 657 keV, 2 ⁺ level) \times B(E2; 0 ⁺ to 1475 keV, 2 ⁺ level)<0.00029 (1990Gi01) from ^{110}In ε decay (69.1 min). B(E0; 0 ⁺ to 1473, 0 ⁺ level)/B(E2; 0 ⁺ to 1475 keV, 2 ⁺ level)<0.042 (1990Gi01) from ^{110}In ε decay (69.1 min). XREF: N(1770)Q(1790)R(1785). J ^π : 1783.49 γ E2 to 0 ⁺ ; 1125.709 γ M1+E2 to 2 ⁺ ; band member; $\gamma\gamma(\theta)$ in ^{110}Ag β^- decay (24.56 s) is only consistent with J=2, with J(657 keV level)=2 (1972Ka34). B(E2) \uparrow =0.005 3 (1990We08) from $^{110}\text{Cd}(e,e')$. E(level),J ^π : From $^{110}\text{Cd}(e,e')$. E γ =1151.9 keV was assigned in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ (1990Ke02) to depopulate the 1809.66-keV state (J ^π = (2^+)). However, this level was not observed in 1992Ku01 , where it was stated that this γ -ray belongs to ^{111}Cd . XREF: G(2076)R(2076). J ^π : From L(α,α')=3; 1421.06 γ E1 to 2 ⁺ . T _{1/2} : From Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ (1995KuZX and 1999Lo15).
1809.48? <i>9</i>	4 ⁺		H	
2078.548 ^k <i>II</i>	3 ⁻	0.7 ps +4–2	A B C D E F G I J K L R	

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
2078.80 5	0 ⁺		A C F I K P	Other: 0.46 ps +15–9 in $^{110}\text{Cd}(n,n'\gamma)$ (2001Co01) (using Doppler shift attenuation method). B(E3)↑=0.11 1 (weighted average of 0.10 2 (from 1965Mc05 , under assumption that only direct E3 excitation is involved) and 0.115 13 (1985Fe05) in Coulomb excitation). Other: 0.63 (1963Ha20) in $^{110}\text{Cd}(\alpha,\alpha')$. XREF: P(2081).
2162.8015 15	3 ⁺	0.8 ^{&} ps +6–2	B C D E F I J K P	J ^π : E0's to 0 ⁺ ; 295.30 γ E2 to 2 ⁺ ; $\gamma\gamma(\theta)$ in ^{110}Ag β^- decay (24.56 s) is only consistent with J=0, with J(657 keV level)=2 (1972Ka34). XREF: J(2164)P(2163). J ^π : 1505.0280 γ M1+E2 to 2 ⁺ ; 620.3553 γ M1+E2 to 4 ⁺ .
2184 [#] 2	(1 ⁻) [#]		J	
2198 [‡] 2	2 ^{+,3⁺‡}		P	
2220.0683 14	4 ⁺	0.7 ^{&} ps +3–2	B D E F H I J K P R	XREF: R(2221). J ^π : 677.6217 γ M1+E2 to 4 ⁺ ; 744.2755 γ E2 to 2 ⁺ . B(E4)↑=6.2×10 ⁻³ 16 (1991We15) from $^{110}\text{Cd}(e,e')$. J ^π : 467.01 γ E2 to 2 ⁺ ; 708.133 γ M1+E2 to 4 ⁺ ; band member.
2250.554 ^r 11	4 ⁺	0.6 ^{&} ps +5–2	B D E F H I J K	
2287.63 11	2 ⁺	0.29 ^{&} ps +7–5	A B C D F G I J K P	XREF: G(2279)J(2288)P(2288). J ^π : 1629.65 γ E2(+M1) to 2 ⁺ ; assignment in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$ and $^{110}\text{Cd}(\text{p,p}'),^{110}\text{Pd}(\text{d,d}')$; L($^3\text{He},\text{d}$)=(1). XREF: G(2346)J(2330)P(2333). J ^π : 1674.15 γ to 2 ⁺ and the absence of γ 's to 0 ⁺ ; L(d,t)=0.
2331.92 4	(0) ⁺		A C F G I J K P	
2355.792 19	2 ⁺	0.35 ^{&} ps +12–7	B C F G I J K P	XREF: G(2346)J(2357)P(2357). J ^π : L($^3\text{He},\text{d}$)=(1); 624.47 γ E2 to 0 ⁺ .
2365 [‡] 2	2 [‡]		P	
2377 [#] 2	4 [‡]		J	
2381 2			P	E(level): From $^{110}\text{Cd}(\text{p,p}'),(\text{d,d}')$.
2385 [#] 2	(2 ⁺) [#]		J	
2405 [#] 2	(0 ^{+,2⁻)[#]}		J	
2432 [#] 2	2 [‡]		J P	J ^π : From L((pol d,t),(d,t))=2. J ^π : 957.47 γ M1+E2 to 2 ⁺ ; 890.7 γ to 4 ⁺ . E(level): From $^{110}\text{Cd}(\text{p,p}'),(\text{d,d}')$. XREF: R(2475). J ^π : 746.19 γ E2 to 0 ⁺ .
2433.248 25	3 ⁺		B C F I	
2451 [#] 2	#		J	
2477.41 5	2 ⁺		C G I P R	
2479.9339 ^d 25	6 ⁺	0.6 ps 4	B D E F I M	J ^π : L(p,t)=(6); 937.485 γ E2 to 4 ⁺ ; band member. T _{1/2} : Using recoil-distance method, differential decay-curve analysis in (HI,xny) (2001Ha09). Others: 0.40 ps +15–9 (in $^{108}\text{Pd}(\alpha,2\text{ny}),^{110}\text{Pd}(\alpha,4\text{ny})$ (1999Lo15) using Doppler shift attenuation method), 0.2 ps +8–1 (in $^{110}\text{Cd}(n,n'\gamma)$ (2001Co01) using Doppler shift attenuation method), <2.1 ps (in (HI,xny) (1993Pi16) using recoil-distance method).
2481.606 20	(2) ⁺	0.46 ^{&} ps +23–12	F I J N	XREF: N(2490). J ^π : 402.84 γ (E1) to 3 ⁻ ; 1823.84 γ M1+E2 to 2 ⁺ .

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF					Comments	
			B	D	E	F	I	J	
2539.691 ^k 6	5 ⁻	0.60 ps +24-14						R	XREF: R(2544). T _{1/2} : Weighted average of 0.6 ps +4-2 (in $^{110}\text{Cd}(n,n'\gamma)$ (2001Co01), using Doppler shift attenuation method) and 0.6 ps +3-2 (in $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$ (1995KuZX and 1999Lo15), using Doppler shift attenuation method). J ^π : 460.85 γ E2 to 3 ⁻ ; 997.256 γ E1 to 4 ⁺ ; L(³ He,d)=4.
2561.284 9	4 ⁺	0.9 ^{&} ps +8-3	B	D	F	H	I	J	P
2566.47 6	(2 ⁻ ,3)				G	I			XREF: G(2570). J ^π : 782.8 γ and 1908.7 γ to 2 ⁺ ; branching ratios would favor dipole transitions; the absence of γ 's to 0 ⁺ would argue against J ^π =1 and 2 ⁺ .
2633.20 9	2 ⁺	0.139 ^{&} ps +21-14	C		I	J		P	J ^π : 1090.83 γ to 4 ⁺ ; 1975.2 γ E2+M1 to 2 ⁺ ; assignment in $^{111}\text{Cd}(\text{pol d,t})$, $^{111}\text{Cd}(\text{d,t})$ and $^{110}\text{Cd}(\text{p,p}')$, (d,d').
2649.95 6	1 ⁻	0.03 ^{&} ps I		G	I	J		Q	XREF: G(2652). J ^π : 2649.92 γ E1 to 0 ⁺ . T _{1/2} : Other: 0.0203 ps 5 from $^{110}\text{Cd}(\gamma,\gamma')$, deduced using ground state transition width Γ_0 and adopted branching ratios. Note that authors of 2005Ko32 only quote depopulating 2649.92 γ , but not the 1176.8 γ one resulting in T _{1/2} =0.0298 ps 8.
2659.866 ^j 7	5 ⁻		B	DEF	I	J		P	J ^π : 1117.437 γ E1 to 4 ⁺ ; 120.154 γ M1(+E2) to 5 ⁻ .
2662.13 10	0 ⁺		AB		I		P		J ^π : 2004.40 γ E2 to 2 ⁺ ; direct population in ^{110}Ag β^- decay (24.56 s) (J ^π =1 ⁺); $\gamma\gamma(\theta)$ in ^{110}Ag β^- decay (24.56 s) is only consistent with J=0, with J(657 keV level)=2 (1972Ka34). Note that L((pol d,t),(d,t))=2+4 would suggest J ^π =3 ⁺ .
2705.669 10	(4) ⁺		B	F	I	J		P	J ^π : 1163.19 γ M1+E2 to 4 ⁺ ; from $^{111}\text{Cd}(\text{pol d,t})$, $^{111}\text{Cd}(\text{d,t})$.
2707.397 8	(4) ⁺		B	F	I		P		J ^π : 1.60 γ M1 to 3 ⁺ ; 1164.98 γ M1(+E2) to 4 ⁺ .
2757 [#] 3	2 ⁻ [#]			G	J				XREF: G(2754).
2758.25 8	(1,2,3) ⁺	0.23 ps +9-6			I		P		J ^π : 1282.45 γ M1+E2 to 2 ⁺ ; 1 ^{+,2⁺ from $^{111}\text{Cd}(\text{pol d,t})$, $^{111}\text{Cd}(\text{d,t})$.}
2787.49 4	2 ⁺	0.028 ps 7	C		I	J	P		J ^π : L((pol d,t), $^{111}\text{Cd}(\text{d,t})$)=2; 2129.52 γ M1+E2 to 2 ⁺ , 1314.25 γ and 2788.37 γ to 0 ⁺ .
2793.441 7	(4) ⁺		B	F	I		P		J ^π : 573.0 γ M1+E2 to 4 ⁺ ; 630.62 γ M1(+E2) 3 ⁺ .
2813 3							P		E(level): From $^{111}\text{Cd}(\text{pol d,t})$, $^{111}\text{Cd}(\text{d,t})$.
2834 [‡] 3	3 ^{+,4⁺[‡]}						P		XREF: J(2840).
2842.682 10	(5) ⁻		B	EF	I	J			J ^π : 182.83 γ M1+E2 to 5 ⁻ ; 1300.233 γ E1(+M2) to 4 ⁺ ; 409.36 γ to 3 ⁻ .
2869.144 23	1 ^{+,2⁺}		C		I	J	P		J ^π : 2211.33 γ M1+E2 to 2 ⁺ ; 2869.28 γ to 0 ⁺ ; direct population in ^{110}In ε decay (69.1 min) (J ^π =2 ⁺).
2876.812 ^r 10	6 ⁺		B	DEF	I	J			J ^π : 626.256 γ E2 to 4 ⁺ ; band member.
2879.185 ^f 9	7 ⁻	0.61 ns 8		EF	I				J ^π : 339.498 γ E2 to 5 ⁻ ; 399.254 γ E1(+M2) to 6 ⁺ . T _{1/2} : Weighted average of 0.69 ns 42 (from recoil-distance measurement in (HI,xny) (1993Pi16)), 0.62 ns 14 (deduced using $\gamma\gamma(t)$ in

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
2895.948 <i>j</i> 13	6 ⁻		EF I	(HI,xny) (1994Ju04)), 0.60 ns <i>I</i> 0 (from generalized centroid-shift method in $^{108}\text{Pd}(\alpha,2\text{n}\gamma), ^{110}\text{Pd}(\alpha,4\text{n}\gamma)$ (1998Ko35)). Other: <0.87 ns in (HI,xny) (2001Ha09).
2917.60 7	2 ⁺ ,3,4 ⁺		IJ P	XREF: J(2915). J ^π : 356.38 γ to 4 ⁺ ; 1441.9 γ to 2 ⁺ .
2926.7474 16	5 ⁺		B D F I	J ^π : 763.9424 γ E2 to 3 ⁺ ; 446.812 γ M1+E2 to 4 ⁺ ; 387.075 γ to 6 ⁺ .
2938 [‡] 3	2 ^{+‡}		C G I P	XREF: G(2973)P(2972).
2975.24 4	1 ^{+,2⁺}			J ^π : 2317.41 γ M1+E2 to 2 ⁺ ; 2975.29 γ to 0 ⁺ .
2984.46 14	2 ^{+,3⁺}	0.11& ps +20-5	IJ R	XREF: J(2982)R(2984). J ^π : 2326.9 γ M1+E2 to 2 ⁺ ; 905.7 γ to 3 ⁻ ; 1441.9 γ to 4 ⁺ .
2984.48 6	(5 ⁻)		F J P R	XREF: J(2982)P(2983). J ^π : L((pol d,t),(d,t))=5; 1442.03 γ D to 4 ⁺ .
2991 [#] 3	(5 ⁻) [#]		J P	XREF: P(2993).
2993.63 17	(0 ⁺)		I P	J ^π : 1517.83 γ to 2 ⁺ in $^{110}\text{Cd}(n,n'\gamma)$.
2994.07 8	(3 ^{+,4⁺})		I	J ^π : 1451.62 γ to 4 ⁺ in $^{110}\text{Cd}(n,n'\gamma)$.
3008.4? 7	1,2 ⁺		I	J ^π : 2350.7 γ to 2 ⁺ ; 3008.3 γ to 0 ⁺ .
3021 [#] 3	(1 ⁻) [#]		J	
3029.077 ^k 12	7 ⁻	0.30 ns <i>I</i> 0	EF	J ^π : 369.20 γ E2 to 5 ⁻ ; 149.88 γ M1(+E2) to 7 ⁻ ; band member. T _{1/2} : From centroid-shift method in $^{108}\text{Pd}(\alpha,2\text{n}\gamma), ^{110}\text{Pd}(\alpha,4\text{n}\gamma)$ (1998Ko35).
3042.86 8	1 ⁺	31 fs 4	I PQ	XREF: P(3040)Q(3044). J ^π : 3042.98 γ M1 to 0 ⁺ . T _{1/2} : Deduced from the ground state transition width Γ_0 in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32) and the adopted branching ratios.
3052 [‡] 3	2 ^{+‡}		P	
3055.703 ^j 12	8 ⁻	2.26 ns <i>I</i> 0	EF	J ^π : 159.746 γ E2 to 6 ⁻ ; 176.517 γ M1+E2 to 7 ⁻ ; band member. T _{1/2} : Weighted average of 2.25 ns <i>I</i> 0 (from centroid-shift method in $^{108}\text{Pd}(\alpha,2\text{n}\gamma), ^{110}\text{Pd}(\alpha,4\text{n}\gamma)$ (1998Ko35)) and 2.4 ns 4 (from $\gamma\gamma(t)$ in (HI,xny) (1994Ju04)).
3064.712 13	6 ⁺		DEF IJ	XREF: J(3061). J ^π : 844.667 γ E2 to 4 ⁺ ; 584.21 γ M1+E2 to 6 ⁺ .
3073 [‡] 3	(1 ^{+,2⁺)[‡]}		P	E(level): Probably unresolved doublet in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3074.971 ^r 17	6 ⁻		EF	J ^π : 535.269 γ M1+E2 to (5 ⁻); band member.
3078.381 23	1 ⁽⁺⁾	187 fs 40	C I Q	J ^π : 3078.42 γ (M1) to 0 ⁺ ; 2420.51 γ to 2 ⁺ ; direct population in ^{110}In ε decay (69.1 min) ($J^\pi=2^+$). T _{1/2} : Deduced from the ground state transition width Γ_0 in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32) and the adopted branching ratios.
3101.88 3	2 ⁺		C G IJ P	XREF: P(3098). J ^π : 3102.00 γ to 0 ⁺ ; 1023.05 γ to 3 ⁻ ; assignment in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3106 [‡] 3	3 ^{+,4⁺)[‡]}		P	

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments	
3118 [#] 3	2 ⁺ [#]		D F I C	J ^π : 581.93γ E1 to 5 ⁻ ; 560.32γ E2 to 4 ⁺ . XREF: P(3125).	
3121.62 3	6 ⁺			J ^π : 3128γ to 0 ⁺ ; 1344.88γ to 2 ⁺ ; direct population in ^{110}In ε decay (69.1 min); assignment in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3128.41 7	1 ^{+,2⁺}			J ^π : 3128γ to 0 ⁺ ; 1344.88γ to 2 ⁺ ; direct population in ^{110}In ε decay (69.1 min); assignment in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3135.18 7	2 ^{+,3⁺}		I	J ^π : 1592.7γ to 4 ⁺ ; 2477.39γ M1+E2 to 2 ⁺ .	
3142 2	2 ^{+,3^{+,4⁺}}		J P	E(level): Weighted average of 3141 3 (from $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$) and 3143 3 (from $^{110}\text{Cd}(p,p'),(d,d')$). J ^π : From $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3148 [‡] 3	0 ⁺ [‡]		P		
3171.19 20	2 ^{+,3^{+,4⁺}}		G I P	J ^π : From $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$; 2513.4γ to 2 ⁺ .	
3183 [#] 3	(4 ⁺) [#]		J P	XREF: P(3179).	
3184.53 3	5 ⁻ ,6 ⁻		F	J ^π : 644.82γ M1+E2 to 5 ⁻ .	
3187.337 ^b 21	8 ⁺	55 ^b ps 6	DEF	J ^π : 707.40γ E2 to 6 ⁺ .	
3193.40 4	(3) ⁺		C I P	XREF: P(3190).	
3199 [#] 3	(2 ⁻) [#]		J P	J ^π : 1 ^{+,2^{+,3⁺}} in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$; 1030.0γ to 3 ⁺ and 1410.08γ to 2 ⁺ . The absence of γ's to 0 ⁺ would argue against J ^π =1 ⁺ and 2 ⁺ .	
3203 3				E(level): Probably J ^π =0 ⁺ component of unresolved doublet in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3208.69 7	2 ^{+,3⁺}	C	P	XREF: P(3203). E(level): Probably a component of unresolved doublet in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$. J ^π : 1666.23γ to 4 ⁺ ; direct population in ^{110}In ε Decay (69.1 min) (J ^π =2 ⁺); assignment in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3239.56 5	6 ⁺		D F	J ^π : 360.7γ E1 to 7 ⁻ ; 397.18γ E1 to (5) ⁻ ; 1018.99γ to 4 ⁺ .	
3251 [#] 3	3 ⁻ [#]		G J P	XREF: G(3247).	
3256.49 14	1 ^{+,2^{+,3⁺}}		I P	XREF: P(3253). J ^π : 2598.69γ to 2 ⁺ ; assignment in $^{111}\text{Cd}(\text{pol d,t}, ^{111}\text{Cd(d,t)})$.	
3262 [‡] 3	1 ^{+,2^{+,3[‡]}}		P		
3275.449 ^d 17	8 ⁺	0.70 ps 19	DEF	M	J ^π : L(p,t)=(8); 795.5γ E2 to 6 ⁺ ; band member. T _{1/2} : Weighted average of 0.62 ps 21 in $^{108}\text{Pd}(\alpha,2\gamma), ^{110}\text{Pd}(\alpha,4\gamma)$ (using Doppler shift attenuation method (1995KuZX)) and 1.0 ps 4 in (HI,xny) (using recoil-distance method, differential decay-curve analysis (2001Ha09)). Others: <2.8 ps in (HI,xny) (1993Pi16), (using recoil-distance method), >0.83 ps in (1999Lo15) (using Doppler shift attenuation method).
3277.86 14	(1 ⁺)	37.4 fs 1	I J PQ	XREF: P(3279)Q(3281). J ^π : 3281γ (M1) to 0 ⁺ ; 2620.00γ to 2 ⁺ .	
3298.13 20	1 ⁻	134 fs 12	I J Q	T _{1/2} : From $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32), by assuming that only 3281γ depopulate this level. XREF: J(3302). J ^π : 3298.1γ D to 0 ⁺ ; 2640.1γ to 2 ⁺ ; assignment in $^{110}\text{Cd}(p,p'), ^{110}\text{Cd}(d,d')$. T _{1/2} : From $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32), by assuming that	

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
3314.334 24	2 ⁺		C IJ P	only 3298γ depopulate this level. XREF: J(3309)P(3309). J^π : 1235.67γ to 3 ⁻ ; 1583.18γ to 0 ⁺ ; 1151.70γ to 3 ⁺ ; direct population in ^{110}In ε Decay (69.1 min) ($J^\pi=2^+$).
3329 17	(1 ⁻ ,2 ⁻ ,3 ⁻)		G	E(level): unresolved doublet in ^{109}Ag ($^3\text{He},d$). J^π : L($^3\text{He},d$)=(2).
3334.85 ^R 3	7 ⁻		EF	J^π : 456.0γ M1+E2 to 7 ⁻ ; 279.142γ M1(+E2) to 8 ⁻ ; band member.
3340 [#] 3	(5 ⁻ ,6 ⁺) [#]		J	
3340.83 14			I	
3345.810 ^f 15	9 ⁻	49 ^b ps 3	EF M	J^π : 290.09γ M1+E2 to 8 ⁻ ; 466.624γ E2 to 7 ⁻ ; band member.
3353 [‡] 3	2 ^{+,3[‡]}		P	
3359.06 20	1 ⁻	11.7 fs 2	I Q	J^π : 3359.0γ E1 to 0 ⁺ . T _{1/2} : Deduced from Γ_0 in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32).
3366.8 4	1 ^{+,2^{+,3^{+,4⁺}}}		I P	XREF: P(3362). J^π : 2709.0γ to 2 ⁺ ; assignment in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$.
3373 [#] 3	4 ⁺ [#]		J P	
3391.177 16	(7) ⁻		EF	J^π : 912.2γ (E1) to 6 ⁺ ; 495.227γ M1+E2 to 6 ⁻ . XREF: G(3410)P(3397).
3403.29 6	(1 ⁻)		G I	J^π : L($^3\text{He},d$)=2, 3403.48γ to 0 ⁺ ; 2745.45γ to 2 ⁺ . However, assignment in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$ suggests $J^\pi=1^+,2^+,3^+$.
3413 [#] 3	4 ⁺ [#]		J P	XREF: P(3412).
3427 [‡] 3	0 [‡]		P	
3427.27 ^g 11	8 ⁻	6.0 ^b ps 6	EF I	J^π : 371.6γ M1+E2 to 8 ⁻ ; 548.2γ M1+E2 to 7 ⁻ ; 531γ to 6 ⁻ ; band member.
3439.719 10	8 ⁺	0.45 ps +28-17	EF	J^π : 959.785γ E2 to 6 ⁺ ; 164.26γ M1(+E2) to 8 ⁺ . T _{1/2} : From Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ (1995KuZX). Others: <2.8 ps in (HI,xnγ) (from recoil distance method (1993Pi16)) and >1.11 ps from Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ (1999Lo15). XREF: J(3447)P(3442).
3449.6 3	(1,2)		IJ P	J^π : 1 ⁻ in $^{110}\text{Cd}(\text{p,p}'),(\text{d,d}')$, but $J^\pi=1^+,2^+$ in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$; 1973.8γ to 2 ⁺ .
3460 [‡] 4	1 ^{+,2[‡]}		G J P	J^π : 2808.59γ to 2 ⁺ ; direct population in ^{110}In ε Decay (69.1 min) ($J^\pi=2^+$).
3466.39 4	1,2,3		C I	XREF: J(3476)P(3471). J^π : 3475.34γ (M1) to 0 ⁺ ; direct population in ^{110}In ε Decay (69.1 min) ($J^\pi=2^+$). Note that $J^\pi=1^-$ in $^{110}\text{Cd}(\text{p,p}'),(\text{d,d}')$.
3475.416 24	1 ⁺	72 fs 4	C IJ PQ	T _{1/2} : Deduced from Γ_0 in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32), by assuming that only 3475γ depopulate this level.
3489 [#] 3	(0 ⁺) [#]		J	
3492.64 6	(5 ⁻ ,6 ⁻)		F P	XREF: P(3487).

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
3493.1 4			I	J ^π : 952.9 $γ$ to 5 ⁻ ; 1012.70 $γ$ to 6 ⁺ ; assignment in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3499 [‡] 4	1 ⁺ ,2 ^{+,‡}		J P	
3510 [‡] 4	1 ^{+,2^{+,‡}}		P	
3517 18	0 ⁻ ,1 ⁻		G	E(level): From $^{109}\text{Ag}(^3\text{He},\text{d})$. J ^π : L($^3\text{He},\text{d}$)=0.
3525.34 5	6 ⁺		D F	J ^π : 460.85 $γ$ E2(+M1) to 6 ⁺ ; 1982.77 $γ$ to 4 ⁺ ; direct population in ^{110}In ε decay (4.92 h) ($J^\pi=7^+$).
3536 [‡] 4	1 ^{+,2^{+,3^{+,‡}}}		J P	J ^π : Other:(0 ⁺) from $^{110}\text{Cd}(\text{p,p}'), ^{110}\text{Cd}(\text{d,d}')$.
3581 4			P	E(level): From $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3598.0 7	1 ⁺	71 fs 6	I PQ	J ^π : 3596.9 $γ$ M1 to 0 ⁺ . T _{1/2} : Deduced using ground state transition width Γ_0 in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32).
3604 [#] 4	3 ^{-#}		J	
3611.041 ^d 15	10 ⁺	0.487 ns 24	EF	$\mu=-1.0$ 4 T _{1/2} : Weighted average of 0.45 ns 10 (from generalized centroid shift method in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$ (1998Ko35)), 0.56 ns 3 (from recoil distance method in (HI,xnγ) (1993Pi16)), 0.49 ns 14 (from γγ(t) in (HI,xnγ)(1994Ju04)) and 0.464 ns 17 (using recoil-distance method, differential decay-curve analysis in (HI,xnγ) (2001Ha09)). J ^π : 335.596 $γ$ E2 to 8 ⁺ ; 265.218 $γ$ E1(+M2) to 9 ⁻ . μ : From g-factor=-0.09 3 in 1995Re15, deduced using the perturbed angular-correlation technique and T _{1/2} =0.56 ns 3, and the adopted T _{1/2} =0.487 ns 24.
3614 18	0 ⁻ ,1 ⁻		G P	E(level): From $^{109}\text{Ag}(^3\text{He},\text{d})$. J ^π : L($^3\text{He},\text{d}$)=0. Note that J ^π =1 ^{+,2^{+,3⁺ in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.}}
3634.57 12	2 ⁺		C J P	XREF: J(3632)P(3630). J ^π : Assignment in $^{110}\text{Cd}(\text{p,p}'), (\text{d,d}')$; 1555.76 $γ$ to 3 ⁻ ; 1851.15 $γ$ to 2 ⁺ .
3641.10 ^m 4	8 ⁻		EF	J ^π : 566.02 $γ$ (E2) to 6 ⁻ ; 761.93 M1+E2 to 7 ⁻ .
3657 [‡] 4	1 ^{+,2^{+,3^{+,‡}}}		G J P	
3668 [‡] 4	1 ^{+,2^{+,3^{+,‡}}}		P	
3683.15 ^k 5	9 ⁻		EF	J ^π : 654.00 $γ$ E2 to 7 ⁻ ; 627.59 $γ$ M1+E2 to 8 ⁻ ; band member.
3686 [‡] 4	1 ^{+,2^{+,3^{+,‡}}}		P	
3689 [#] 4	3 ^{-#}		J	
3696			P	E(level): From $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3713			P	E(level): From $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.
3726.58 18	1,2 ⁺		C N	XREF: N(3730). J ^π : 3726.51 $γ$ to 0 ⁺ ; direct population in ^{110}In ε Decay (69.1 min) ($J^\pi=2^+$); L($^3\text{He},\text{n}$)=0+2.
3736 [#] 4	2 ^{+#}		G J P	J ^π : Other: 1 ^{+,2^{+,3⁺ in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.}}
3760 [‡] 4	1 ^{+,2^{+,3^{+,‡}}}		P	
3772.77 4	1 ⁺	12.8 fs 1	C IJ PQ	XREF: J(3776)P(3773). J ^π : 3772 $γ$ M1 to 0 ⁺ . Note, that 1 ^{+,2^{+,3⁺ in $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$ and (2^{+,3⁻) $^{110}\text{Cd}(\text{p,p}'), (\text{d,d}')$. T_{1/2}: Deduced using ground state transition width Γ_0}}}

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
3782.13 ⁿ 4	9 ⁻		EF	given in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32) and the adopted branching ratios.
3791.62 5	8 ⁺		F	J^π : 902.90 γ E2 to 7 ⁻ ; 726.43 γ M1+E2 to 8 ⁻ . J^π : 914.50 γ E2 to 6 ⁺ ; 351.93 γ M1(+E2) to 8 ⁺ ; band member.
3808 [‡] 4	2 ^{+,3⁺}		P	
3812 19	1 ⁻ ,2 ⁻ ,3 ⁻		G	E(level): From $^{109}\text{Ag}(^3\text{He},d)$. J^π : L($^3\text{He},d$)=2.
3823.247 ^j 21	10 ⁻	3.5 ^b ps 3	EF J	XREF: J(3824). J^π : 767.532 γ E2 to 8 ⁻ ; 477.45 γ M1 to 9 ⁻ ; band member. T _{1/2} : Other: >2.1 ps from Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ ((1995KuZX) and (1999Lo15)).
3830 [‡] 4	1 ^{+,2^{+,3[‡]}}		J	XREF: J(3824).
3854.1 10	(1 ⁺)	46 fs 6	J PQ	XREF: J(3847)P(3850). E(level): From $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$. J^π : 3854 γ (M1) to 0 ⁺ ; 1 ^{+,2^{+,3⁺ assignment in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$.}}
3861.9 7	(1 ⁺)	13.3 fs 5	PQ	XREF: P(3866). J^π : 3862 γ (M1) to 0 ⁺ ; 1 ^{+,2^{+,3⁺ assignment in $^{111}\text{Cd}(\text{pol d,t}),^{111}\text{Cd}(\text{d,t})$. T_{1/2}: Deduced using ground state transition width Γ_0 given in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32) and adopted branching ratios.}}
3866 [‡] 4	1 ^{+,2^{+,3[‡]}}		P	
3888 [‡] 4	2 ^{+,3[‡]}		J P	XREF: J(3891).
3897 19	0 ⁻ ,1 ⁻		G	E(level): From $^{109}\text{Ag}(^3\text{He},d)$. J^π : L($^3\text{He},d$)=0.
3924 [‡] 4	1 ^{+,2^{+,3[‡]}}		J P	XREF: J(3920).
3957 4	(2,3,4,5)		G J	XREF: G(3950). E(level): From $^{110}\text{Cd}(\text{p,p}'),^{110}\text{Cd}(\text{d,d}')$. J^π : L($^3\text{He},d$)=(3,4).
3968 [‡] 4	1 ^{+,2^{+,3[‡]}}		P	
3988 [‡] 4	1 ^{+,2^{+,3[‡]}}		P	
3992.79 ^r 15	(9 ⁻)		F	J^π : From 1113.60 γ (E2) to 7 ⁻ ; band member. XREF: J(3997).
4005 [‡] 4	1 ^{+,2[‡]}		J P	
4024 [‡] 4	0 [‡]		P	
4042 [‡] 4	1 ^{+,2^{+,3[‡]}}		J P	XREF: J(4034).
4067 5			J	E(level): From $^{110}\text{Cd}(\text{p,p}'),^{110}\text{Cd}(\text{d,d}')$. J^π : 801.724 E2 to 8 ⁺ .
4077.176 ^e 23	10 ⁺	0.72 ps +21-13	EF	T _{1/2} : Weighted average of 0.69 ps 21 (from recoil-distance method in (HI,xny) (1993Pi16)) and 0.8 ps +4-2 (from Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ ((1999Lo15))). Others: >1.4 ps (from Doppler shift attenuation method in $^{108}\text{Pd}(\alpha,2n\gamma),^{110}\text{Pd}(\alpha,4n\gamma)$ ((1995KuZX)), <3.5 ps (from recoil-distance Doppler shift technique, using the differential decay curve method in (HI,xny) ((2001Ha09))).
4078 [‡] 4	1 ^{+,2^{+,3[‡]}}		P	

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Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
4104 [‡] 4	1 ⁺ ,2 ⁺ ,3 [±]		J P	XREF: J(4098).
4128 [‡] 4	0 [±]		P	
4154 [‡] 4	1 ⁺ ,2 ⁺ ,3 [±]		J P	XREF: J(4143).
4171 [‡] 4	1 ⁺ ,2 ⁺ ,3 [±]		J P	XREF: J(4170).
4172.076 ^d 18	12 ⁺	8.1 ps 3	EF	J ^π : 561.034γ E2 to 10 ⁺ ; band member. T _{1/2} : Weighted average of 8.3 ps 4 (from recoil-distance method in (HI,xny) (1993Pi16)) and 7.9 ps 4 (from recoil-distance Doppler shift technique, using the differential decay curve method in (HI,xny) (2001Ha09)).
4172.706 ^f 24	11 ⁻	2.08 ^b ps 14	EF	J ^π : 826.893γ E2 to 9 ⁻ ; band member. T _{1/2} : Other: 1.7 ps +14-7 from Doppler shift attenuation method in ¹⁰⁸ Pd(α ,2ny), ¹¹⁰ Pd(α ,4ny) (1995KuZX and 1999Lo15).
4181 4			P	E(level): From ¹¹¹ Cd(pol d,t), ¹¹¹ Cd(d,t).
4181.96 ^g 9	10 ⁻	1.04 ^b ps 14	EF	J ^π : 836.13γ M1+E2 to 9 ⁻ ; 754.69γ E2 to 8 ⁻ ; band member.
4200 [#] 5	2 ⁺ #		J	
4290	0 ^{+,1^+}		N	E(level): From ¹⁰⁸ Pd(³ He,n). J ^π : L(³ He,n)=0.
4334.26 ^m 7	10 ⁻		EF	J ^π : 988.44γ M1 to 9 ⁻ ; band member.
4421.62 20	(10 ⁺)		F	J ^π : From 1075.8γ D to 9 ⁻ .
4438.37 7	9 ⁺		EF	J ^π : 1251.03γ M1+E2 to 8 ⁺ .
4559.12 ^k 5	11 ⁻	1.7 ps +14-7	EF	J ^π : 736.7γ M1 to 10 ⁻ ; 877.0γ E2 to 9 ⁻ ; band member. T _{1/2} : From Doppler shift attenuation method in ¹⁰⁸ Pd(α ,2ny), ¹¹⁰ Pd(α ,4ny) (1995KuZX and 1999Lo15).
4620.2 ^u 4	10 ⁺		EF	J ^π : 1433.0γ to 8 ⁺ ; band member.
4660	0 ^{+,1^+}		N	E(level): From ¹⁰⁸ Pd(³ He,n). J ^π : L(³ He,n)=0.
4736.81 ⁿ 19	11 ⁻		EF	J ^π : 954.64γ E2 to 9 ⁻ ; band member.
4888.27 ^e 3	12 ⁺	1.39 ^b ps 14	EF	J ^π : 811.093γ E2 to 10 ⁺ ; band member. Other: J ^π =12 ⁺ in ¹⁰⁸ Pd(α ,2ny), ¹¹⁰ Pd(α ,4ny), interpreted as a member of the g.s. band.
4930.26 ^j 19	12 ⁻		E	J ^π : 1107.0γ E2 to 10 ⁻ ; 757.7γ M1 to 11 ⁻ ; band member.
5026.32 ^d 7	14 ⁺	1.39 ^b ps 14	EF	J ^π : 854.25γ E2 to 12 ⁺ ; band member. T _{1/2} : Other: <2.8 ps (from recoil-distance method, differential decay-curve analysis in (HI,xny) (2001Ha09)).
5092.56 ^g 22	12 ⁻	3.3 ^b ps 4	E	J ^π : 910.6γ E2 to 10 ⁻ ; band member.
5113.6 ^o 3	12 ⁺		E	J ^π : 1036.7γ E2 to 10 ⁺ .
5212.7 ^m 3	12 ⁻		E	J ^π : 878.2γ E2 to 10 ⁻ ; band member.
5215.5 ^u 7	(11 ⁺)		E	J ^π : 595.3γ to 10 ⁺ ; band member.
5248.93 ^f 20	13 ⁻	<1.4 ^b ps	E	J ^π : 1076.1γ E2 to 11 ⁻ ; band member.
5497.29 25	13 ⁻		E	J ^π : 937γ to 11 ⁻ ; 1325.6γ to 12 ⁺ .
5500.00 ^s 24	13 ⁺		E	J ^π : 1327.9γ M1 to 12 ⁺ .
5675.5 ^p 3	14 ⁺		E	J ^π : 787.1γ E2 to 12 ⁺ .
5758.52 ⁱ 18	13 ⁻		E	J ^π : 828.0γ M1 to 12 ⁻ ; 1198.9γ E2 to 11 ⁻ ; 1586.8γ E1 to 12 ⁺ .
5789.95 ^q 25	14 ⁺		E	J ^π : 1617.9γ E2 to 12 ⁺ .

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Adopted Levels, Gammas (continued)

 ^{110}Cd Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
5856.3 ^e 3	14 ⁺		E	$J^\pi: 967.7\gamma$ E2 to 12 ⁺ ; band member.
5892.9 ^u 8	(12 ⁺ ,13 ⁺)		E	$J^\pi: 677.4\gamma$ to 11 ⁺ ; band member.
5914.5 ^o 3	14 ⁺		E	$J^\pi: 1026.2\gamma$ E2 to 12 ⁺ ; band member.
5966.98 ^g 21	14 ⁻		E	$J^\pi: 874.4\gamma$ E2 to 12 ⁻ ; band member.
5984.2 ⁱ 4	14 ⁻		E	$J^\pi: 225.6\gamma$ M1 to 13 ⁻ ; band member.
6079.8 ^u 10			E	
6100.87 ^d 19	16 ⁺	0.250 ^a ps 21	E	$J^\pi: 1074.6\gamma$ E2 to 14 ⁺ ; band member.
6101.4 ^j 3	14 ⁻		E	$J^\pi: 1171.3\gamma$ E2 to 12 ⁻ ; band member.
6178.5 ^s 3	15 ⁺		E	$J^\pi: 678.5\gamma$ E2 to 13 ⁺ ; 1152.1 γ M1 to 14 ⁺ ; band member.
6181.45 ^f 19	15 ⁻		E	$J^\pi: 1155.2\gamma$ E1 to 14 ⁺ ; 932.3 γ E2 to 13 ⁻ ; band member.
6216.9 ^l 3	(14)		E	$J^\pi: 1190.6\gamma$ D to 14 ⁺ .
6354.3 ⁱ 5	15 ⁻		E	$J^\pi: 370.0\gamma$ M1 to 14 ⁻ ; band member.
6489.9 6	(1)			$J^\pi: 6490\gamma$ D to 0 ⁺ .
6543.9 11	(15 ⁻)		E	$J^\pi: 1295\gamma$ to 13 ⁻ .
6568.8 4	14		E	$J^\pi:$ From a probable $\Delta J=0$ 1542.4 γ d to 14 ⁺ .
6575.6 ^p 4	16 ⁺		E	$J^\pi: 900.1\gamma$ E2 to 14 ⁺ ; band member.
6584.5 ^v 4	14		E	$J^\pi:$ From a very probable $\Delta J=0$ 1558.1 γ D to 14 ⁺ .
6646.1 ^q 6	(16 ⁺)		E	$J^\pi: 856.1\gamma$ E2 to 14 ⁺ .
6671.1 ^k 5	(15 ⁻)		E	$J^\pi: 1422\gamma$ to 13 ⁻ , 1645 γ to 14 ⁺ ; band structure.
6672.6 ^g 3	16 ⁻		E	$J^\pi: 705.7\gamma$ E2 to 14 ⁻ ; band member.
6798.0 ^e 6	16 ⁺		E	$J^\pi: 941.7\gamma$ E2 to 14 ⁺ ; band member.
6836.2 ^o 6	16 ⁺		E	$J^\pi: 921.7\gamma$ E2 to 14 ⁺ ; band member.
6879.6 ^v 4	15		E	$J^\pi: 295.0\gamma$ D to 14; band member.
6962.8 ⁱ 6	16 ⁻		E	$J^\pi: 608.5\gamma$ M1 to 15 ⁻ ; band member.
6993.1 ^f 3	17 ⁻		E	$J^\pi: 811.6\gamma$ E2 to 15 ⁻ ; 892.2 γ E1 to 16 ⁺ ; band member.
7047.6 ^j 4	16 ⁻		E	$J^\pi: 946.3\gamma$ E2 to 14 ⁻ ; band member.
7184.3 ^s 5	17 ⁺		E	$J^\pi: 1005.8\gamma$ E2 to 15 ⁺ ; band member.
7281.0 ^v 5	16		E	$J^\pi: 401.4\gamma$ D to 15; band member.
7285.8 ^l 5	(16)		E	$J^\pi: 1068.9\gamma$ (Q) to (14); band member.
7325.3 ^d 3	18 ⁺	0.159 ^a ps 21	E	$J^\pi: 1224.5\gamma$ E2 to 16 ⁺ ; band member.
7341.6 ^h 9			E	
7443.3 ^k 4	(17 ⁻)		E	$J^\pi: 1261\gamma$ to 15 ⁻ ; 770.7 γ to 16 ⁻ ; band member.
7523.2 ^g 5	18 ⁻		E	$J^\pi: 850.6\gamma$ E2 to 16 ⁻ ; band member.
7575.2 ⁱ 6	17 ⁻		E	$J^\pi: 612.4\gamma$ M1 to 16 ⁻ ; band member.
7594.2 ^h 8			E	
7653.1 ^p 5	18 ⁺		E	$J^\pi: 1077.4\gamma$ E2 to 16 ⁺ ; band member.
7759.0 ^v 6	17		E	$J^\pi: 477.9\gamma$ D to 16; band member.
7777.9 ^h 6			E	
7797.7 6	(17)		E	$J^\pi: 516.8\gamma$ D to 16.
7801.1 ^q 12	(18 ⁺)		E	$J^\pi: 1155\gamma$ (E2) to (16 ⁺); band member.
7945.9 ^f 4	19 ⁻		E	$J^\pi: 952.8\gamma$ E2 to 17 ⁻ ; band member.
7970.3 ^j 7	18 ⁻		E	$J^\pi: 922.7\gamma$ E2 to 16 ⁻ ; band member.
8016.5 ^t 6	17		E	$J^\pi:$ From band structure in (HI,xny).
8278.0 ^t 4	18		E	$J^\pi: 952.8\gamma$ D to 18 ⁺ ; band member.
8292.3 5	(18)		E	$J^\pi: 967.0\gamma$ to 18 ⁺ .
8372.8 ^h 8			E	
8405.3 ^k 11	(19 ⁻)		E	$J^\pi: 962\gamma$ E2 to (17 ⁻); band member.
8481.3 ^s 11	(19 ⁺)		E	$J^\pi: 1297\gamma$ (E2) to 17 ⁺ ; band member.
8530.7 ^l 7	(18)		E	$J^\pi: 1244.9\gamma$ to (16); band member.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
8595.6 ^t 5	19		E	J ^π : 317.6γ D to 18; band member.
8629.7 ^g 6	20 ⁻		E	J ^π : 1106.5γ E2 to 18 ⁻ ; band member.
8648.3 ^d 4	20 ⁺	0.118 ^a ps 21	E	J ^π : 1323.0γ E2 to 18 ⁺ ; band member.
8861.6 ^p 5	20 ⁺		E	J ^π : 1208.5γ E2 to 18 ⁺ ; band member.
8967.9 ^t 6	20	0.127 ^c ps +12-15	E	J ^π : 372.3γ D to 19; band member.
9106.8 ^f 5	21 ⁻		E	J ^π : 1160.9γ E2 to 19 ⁻ ; band member.
9430.4 ^t 7	21	0.070 ^c ps +10-12	E	J ^π : 462.5γ D to 20; band member.
9574.3 ^k 15	(21 ⁻)		E	J ^π : From band structure in (HI,xnγ).
9962.3 ^d 5	22 ⁺	0.15 ps 5	E	J ^π : 1314.1γ E2 to 20 ⁺ ; band member. T _{1/2} : From Doppler shift attenuation method using the line-shape analysis in (HI,xnγ) (2011Ro01). The quoted uncertainty does not include additional systematics error in the stopping powers that may be as large as 20%. Note that T _{1/2} =0.11 ps 4 was deduced by including 1100γ. However, authors of 2011Ro01 stated that 1100-keV γ was not confirmed in their γγ-coincidence gated spectra (see XUNDL compilation dated on January 5th, 2011) and they reported T _{1/2} =0.15 ps 5.
9971.7 ^g 12	22 ⁻		E	J ^π : 1342γ E2 to 20 ⁻ ; band member.
9991.4 ^t 12	22	0.065 ^c ps +10-12	E	J ^π : 561γ D to 21; band member.
10228.7 ^p 12	(22 ⁺)		E	J ^π : From band structure in (HI,xnγ).
10495.8 ^f 12	23 ⁻		E	J ^π : 1389γ E2 to 21 ⁻ ; band member.
10665.2 ^t 13	23	0.064 ^c ps +12-16	E	J ^π : 673.8γ D to 22; band member.
11320.3 ^d 6	24 ⁺	0.19 ^a ps 5	E	J ^π : 1358.0γ E2 to 22 ⁺ ; band member.
11451.2 ^t 16	24		E	J ^π : 786γ D to 23; band member.
11454.8 ^g 15	(24 ⁻)		E	J ^π : From band structure in (HI,xnγ).
12081.8 ^f 15	(25 ⁻)		E	J ^π : From band structure in (HI,xnγ).
12763.3 ^d 12	26 ⁺	0.24 ps	E	J ^π : 1443γ E2 to 24 ⁺ ; band member. T _{1/2} : Effective T _{1/2} from Doppler shift attenuation method using the line-shape analysis in (HI,xnγ) (2011Ro01). 1443γ which depopulate 12763 keV J ^π =26 ⁺ and 14206 keV J ^π =28 ⁺ levels was used to deduce the effective T _{1/2} .
13032.8 ^g 18	(26 ⁻)		E	J ^π : From band structure in (HI,xnγ).
14206.4 ^d 16	28 ⁺		E	J ^π : 1443γ E2 to 26 ⁺ ; band member.
15356 [@]	31 keV		O	E(p)(c.m)=6437 keV.
15586 [@]	36 keV		O	E(p)(c.m)=6667 keV. Possible IAS of ¹¹⁰ Ag(236.9) level.
15644 [@]	≈15 keV		O	E(p)(c.m)=(6725) keV.
15679 [@]	17 keV		O	E(p)(c.m)=6760 keV. Possible IAS of ¹¹⁰ Ag(338.9) level.
15737 [@]	23 keV		O	E(p)(c.m)=6818 keV. Possible IAS of ¹¹⁰ Ag(381.2) level.
15780 [@]	25 keV		O	E(p)(c.m)=6861 keV. Possible IAS of ¹¹⁰ Ag(424.7) level.
15877 [@]	45 keV		O	E(p)(c.m)=6958 keV. Possible IAS of ¹¹⁰ Ag(525.7 or 527.5) level.
15943 [@]	15 keV		O	E(p)(c.m)=7024 keV. Possible IAS of ¹¹⁰ Ag(594) level.
16004 [@]	10 keV		O	E(p)(c.m)=7085 keV. Possible IAS of ¹¹⁰ Ag(653.9) level.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) **^{110}Cd Levels (continued)**

[†] From least-squares fit to $E\gamma$'s, unless otherwise stated.

[‡] From $^{111}\text{Cd}(\text{pol d,t}), ^{111}\text{Cd}(\text{d,t})$.

[#] From $^{110}\text{Cd}(\text{p,p'}), (\text{d,d'})$.

[@] From $^{109}\text{Ag}(\text{p,p}), (\text{p,n})$ IAR.

[&] From Doppler shift attenuation method in $^{110}\text{Cd}(\text{n,n}'\gamma)$ ([2001Co01](#)).

^a From Doppler shift attenuation method using the line-shape analysis in (HI,xny) ([2011Ro01](#)). The quoted uncertainties do not include additional systematics error in the stopping powers that may be as large as 20%.

^b From recoil-distance method in (HI,xny) ([1993Pi16](#)).

^c From Doppler shift attenuation method in (HI,xny) ([1999Cl03](#)).

^d Band(A): g.s. rotational band.

^e Band(B): band based on 10^+ , 4077.176-keV.

^f Band(C): band based on 7^- , 2879.185-keV.

^g Band(D): band based on 8^- , 3427.27-keV.

^h Band(E): band based on 7341.6-keV.

ⁱ Band(F): band based on 13^- , 5758.52-keV.

^j Band(G): band based on 5^- , 2659.866-keV.

^k Band(H): band based on 3^- , 2078.548-keV.

^l Band(I): band based on (14), 6216.9-keV.

^m Band(J): band based on 8^- , 3641.10-keV.

ⁿ Band(K): band based on 9^- , 3782.13-keV.

^o Band(L): band based on 12^+ , 5113.6-keV.

^p Band(M): band based on 14^+ , 5675.5-keV.

^q Band(N): band based on 14^+ , 5789.95-keV.

^r Band(O): band based on 0^+ , 1473.07-keV.

^s Band(P): band based on 13^+ , 5500.0-keV.

^t Band(Q): band based on 17, 8016.5-keV.

^u Band(R): band based on 8^+ , 3187.337-keV.

^v Band(S): band based on 14, 6584.5-keV.

Adopted Levels, Gammas (continued)

<u>$\gamma^{(110\text{Cd})}$</u>									
$E_i(\text{level})$	J_i^π	$E_\gamma^{\frac{\ddagger}{\ddagger}}$	$I_\gamma^{\frac{\ddagger}{\ddagger}}$	E_f	J_f^π	Mult. ^b	δ^c	$\alpha^{\frac{\dagger}{\dagger}}$	Comments
657.7623	2 ⁺	657.7600 [#] 11	100 [#]	0.0	0 ⁺	E2		0.00314	$\alpha(K)=0.00272$ 4; $\alpha(L)=0.000342$ 5; $\alpha(M)=6.57\times 10^{-5}$ 10; $\alpha(N+..)=1.224\times 10^{-5}$ 18 $\alpha(N)=1.161\times 10^{-5}$ 17; $\alpha(O)=6.26\times 10^{-7}$ 9 $B(E2)(W.u.)=27.0$ 8 Mult.: $\alpha(K)\exp=0.00264$ 10 (1964Ne05), K/L=8.1 7, (M+N)/L=0.23 6 in ¹¹⁰ Ag β^- decay (249.83 d) (1993Ka37). Other: $A_2=+0.23$ 2, $A_4=-0.15$ 3 (1992Ku01) from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).
1473.07	0 ⁺	815.31 ^{&} 4	100 ^{&}	657.7623	2 ⁺	E2		0.00183	$\alpha(K)=0.001592$ 23; $\alpha(L)=0.000195$ 3; $\alpha(M)=3.74\times 10^{-5}$ 6; $\alpha(N+..)=7.01\times 10^{-6}$ 10 $\alpha(N)=6.64\times 10^{-6}$ 10; $\alpha(O)=3.69\times 10^{-7}$ 6 Mult.: $\alpha(K)\exp=0.0016$ 2, sum of 815.31 keV and 818.05 keV transitions in ¹¹⁰ In ε decay (69.1 min) (1992Ku01). Other: $A_2=0.277$ 30, $A_4=0.990$ 50, 657.76 γ gated (0-2-0 spin sequence) in ¹¹⁰ Ag β^- decay (24.56 s) (1972Ka34). E _y .Mult.: From ¹¹⁰ In ε decay (69.1 min) (1990Gi01). The uncertainty of the electron energy was estimated by the evaluators based on the energy resolution (2.6 keV at 1450 keV electron energy) given by the authors. Mult. from ce. $I\gamma(1473\gamma)/Ice(K)(1473\gamma)<3.4\times 10^{-4}$ (1990Gi01).
1473.1	11			0.0	0 ⁺	E0			
1475.7900	2 ⁺	818.0244 [#] 18	100.0 [#] 5	657.7623	2 ⁺	M1+E2	-1.36 6	0.00191	$\alpha(K)=0.001666$ 24; $\alpha(L)=0.000201$ 3; $\alpha(M)=3.86\times 10^{-5}$ 6; $\alpha(N+..)=7.25\times 10^{-6}$ 11 $\alpha(N)=6.86\times 10^{-6}$ 10; $\alpha(O)=3.91\times 10^{-7}$ 6 $B(M1)(W.u.)=0.0134$ 22; $B(E2)(W.u.)=30$ 5 Mult.: From $\alpha(K)\exp=0.00172$ 19 (1967Mo12). Other: 0.00191 15 (1980Ba58) from ¹¹⁰ In ε decay (4.92 h); $A_2=-0.23$ 1, $A_4=-0.10$ 1 (1992Ku01). δ : Weighted average of -1.20 15 (1970Kr03), -1.36 10 (1973Jo08), -1.2 5 (1978Wa07), -1.25 +22-10 (1979Ve03), and -1.44 10 (1980Ru03) (from ¹¹⁰ Ag β^- decay (249.83 d)), -1.5 +9-4 (1969Mi07) (from Coulomb excitation), -1.4 +10-4 (1992De41), -1.4 +4-10 (1990Ar20), 1.5 +3-4 (2001Co01) (from ¹¹⁰ Cd(n,n'γ)), and -1.5 4 (1990Ke02) (from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ)).
1475.7792 [#] 23		55.0 [#] 6	0.0	0 ⁺	E2		5.77×10 ⁻⁴		$\alpha(K)=0.000440$ 7; $\alpha(L)=5.16\times 10^{-5}$ 8; $\alpha(M)=9.87\times 10^{-6}$ 14; $\alpha(N+..)=7.51\times 10^{-5}$ 11 $\alpha(N)=1.760\times 10^{-6}$ 25; $\alpha(O)=1.029\times 10^{-7}$ 15; $\alpha(IPF)=7.32\times 10^{-5}$ 11 $B(E2)(W.u.)=1.35$ 20

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E_i (level)	J_i^π	E_γ^{\ddagger}	I_γ^{\ddagger}	E_f	J_f^π	Mult. ^b	δ^c	α^\dagger	Comments
1542.4441	4 ⁺	884.6781# 13	100#	657.7623	2 ⁺	E2		1.51×10 ⁻³	Mult.: From $\alpha(K)\exp=0.00043$ 6 (1967Mo12) in ¹¹⁰ Ag β^- decay (249.83 d) and 0.00036 7 (1980Ba58) from ¹¹⁰ In ε decay (4.92 h). Other: $A_2=0.18$ 3, $A_4=-0.11$ 4 (1992Ku01) from ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
1731.31	0 ⁺	255.4& 3	11.3& 19	1475.7900	2 ⁺	E2		0.0556	$\alpha(K)=0.001313$ 19; $\alpha(L)=0.0001597$ 23; $\alpha(M)=3.06\times10^{-5}$ 5; $\alpha(N+..)=5.74\times10^{-6}$ 8 $\alpha(N)=5.44\times10^{-6}$ 8; $\alpha(O)=3.05\times10^{-7}$ 5 B(E2)(W.u.)=42 9
		258.3 1		1473.07	0 ⁺	E0			Mult.: From $\alpha(K)\exp=0.00126$ 6 (1964Ne05) and K/L=7.6 (1963Su07) in ¹¹⁰ Ag β^- decay (249.83 d). K/(L+M)=7.7 13 (1962Ka08) from ¹¹⁰ In ε decay (4.9 h). Other: $A_2=0.289$, $A_4=-0.069$ 10 in (HI,xny) (1974Lu01).
		1073.55& 4	100& 5	657.7623	2 ⁺	E2		9.75×10 ⁻⁴	$\alpha(K)=0.000850$ 12; $\alpha(L)=0.0001017$ 15; $\alpha(M)=1.95\times10^{-5}$ 3; $\alpha(N+..)=3.66\times10^{-6}$ 6 $\alpha(N)=3.47\times10^{-6}$ 5; $\alpha(O)=1.98\times10^{-7}$ 3
		1731.4 11		0.0	0 ⁺	E0			Mult.: $\alpha(K)\exp=0.00085$ 8 (1992Ku01) in ¹¹⁰ In ε decay (69.1 min).
1783.496	2 ⁺	310.4@ 6	0.29@ 14	1473.07	0 ⁺				E_γ : From ¹¹⁰ In ε decay (69.1 min) (1992Ku01). The uncertainty of the electron energy was estimated from another close transition given by the authors.
		1125.709# 20	100# 5	657.7623	2 ⁺	M1+E2	+0.28 4	1.01×10 ⁻³	$I_\gamma(258\gamma)/\text{Ice}(K)(258\gamma)<6.5\times10^{-3}$ from ¹¹⁰ In ε decay (69.1 min) (1990Gi01). $I_\gamma(258\gamma)/\text{Ice}(K)(258\gamma)<6.5\times10^{-3}$ from ¹¹⁰ In ε decay (69.1 min) (1990Gi01). $I_\gamma(1731\gamma)/\text{Ice}(K)(1731\gamma)<2.1\times10^{-4}$ (1990Gi01). Mult.: From ¹¹⁰ In ε decay (69.1 min) (1990Gi01).
									$\alpha(K)=0.000886$ 13; $\alpha(L)=0.0001038$ 15; $\alpha(M)=1.98\times10^{-5}$ 3; $\alpha(N+..)=4.78\times10^{-6}$ 7

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
1783.496	2 ⁺	1783.49 [#] 3	33.2 [#] 16	0.0	0 ⁺	E2		5.49×10 ⁻⁴	$\alpha(N)=3.55\times10^{-6} 5; \alpha(O)=2.11\times10^{-7} 3;$ $\alpha(IPF)=1.020\times10^{-6} 15$ $B(M1)(W.u.)=0.013 +4-6; B(E2)(W.u.)=0.7 +3-4$ Mult.: From $\alpha(K)\exp=0.0009 2$ (1979Sy02) in ¹¹⁰ In ε decay (4.9 h), from $A_2=+0.36 2, A_4=+0.02 4$ (1992De41) in ¹¹⁰ Cd(n,n'γ) and from $A_2=0.21 10, A_4=-0.07 14, 657.50\gamma$ gated (2-2-0 spin sequence) in ¹¹⁰ Ag β ⁻ decay (24.56 s) (1972Ka34). Other: $\alpha(K)\exp=0.00043 5$ (1992Ku01) in ¹¹⁰ In ε decay (69.1 min). δ : Weighted average of +0.13 +3-2 (2001Co01), +0.33 +7-4 (1992De41), +0.33 8 (1990Ar20) (from ¹¹⁰ Cd(n,n'γ)), -0.06 +7-12 (1972Ka34) (from ¹¹⁰ Ag β ⁻ decay (24.56 s)) and 0.3 2 (1976De23). Other: 1.7 3 (1976De23).
2078.548	3 ⁻	295.42 ^a 18	3.77 ^a 22	1783.496	2 ⁺	(E1)		0.00805	$\alpha(K)=0.000306 5; \alpha(L)=3.56\times10^{-5} 5;$ $\alpha(M)=6.79\times10^{-6} 10; \alpha(N+..)=0.000201 3$ $\alpha(N)=1.212\times10^{-6} 17; \alpha(O)=7.15\times10^{-8} 10;$ $\alpha(IPF)=0.000200 3$ $B(E2)(W.u.)=0.31 +8-12$ Mult.: From $A_2=+0.29 3, A_4=-0.07 4$ (1992De41) in ¹¹⁰ Cd(n,n'γ) and from $\alpha(K)\exp=0.00018 3$ (1992Ku01) in ¹¹⁰ In ε decay (69.1 min). $\alpha(K)=0.00702 10; \alpha(L)=0.000836 12;$ $\alpha(M)=0.0001597 23; \alpha(N+..)=2.98\times10^{-5} 5$ $\alpha(N)=2.83\times10^{-5} 4; \alpha(O)=1.563\times10^{-6} 22$ $B(E1)(W.u.)=0.00052 +15-30$ Mult.: From $A_2=0.04 5$ (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.0014 10; \alpha(L)=0.00017 12; \alpha(M)=3.2\times10^{-5} 24; \alpha(N+..)=6.E-6 5$ $\alpha(N)=6.E-6 5; \alpha(O)=3.2\times10^{-7} 24$ $B(E1)(W.u.)=(0.00024 +8-14); B(M2)(W.u.)=(6.E+1 +19-6)$ Mult.: From $A_2=-0.3 2, A_4=-0.3 3$ (1992Ku01) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). δ : From 1990Ke02 . $\alpha(K)=0.000226 9; \alpha(L)=2.59\times10^{-5} 10;$
603.03 ^a 4	15.4 ^a 9		1475.7900	2 ⁺	E1(+M2)	-0.14 22	0.0016 11		
1421.06 ^a 4	100.0 ^a 22		657.7623	2 ⁺	E1(+M2)	+0.01 8	4.32×10 ⁻⁴ 10		

Adopted Levels, Gammas (continued)

γ (^{110}Cd) (continued)

E_i (level)	J^π_i	E_γ^{\ddagger}	I_γ^{\ddagger}	E_f	J_f^π	Mult. ^b	δ^c	α^\dagger	Comments
2078.80	0^+	295.30 8	100	1783.496	2^+	E2		0.0342	$\alpha(M)=4.94 \times 10^{-6} 19; \alpha(N+..)=0.000175 3$ $\alpha(N)=8.8 \times 10^{-7} 4; \alpha(O)=5.23 \times 10^{-8} 20; \alpha(IPF)=0.000174 3$ $B(E1)(W.u.)=(0.00012 +4-7)$ Mult.: $\alpha(K)\exp=0.00019 2$ (1992Ku01) in ^{110}In ε decay (69.1 min) and from $A_2=-0.28 3, A_4=-0.04 5$ (1992Ku01) in $^{108}\text{Pd}(\alpha,2\gamma), ^{110}\text{Pd}(\alpha,4\gamma)$. δ : From 1990Ke02 . $\alpha(K)=0.0290 4; \alpha(L)=0.00426 6; \alpha(M)=0.000826 12;$ $\alpha(N+..)=0.0001496 21$ $\alpha(N)=0.0001433 21; \alpha(O)=6.29 \times 10^{-6} 9$ E_γ, I_γ : From ^{110}Ag β^- decay (24.56 s). Mult.: From $\alpha(K)\exp=0.028 5$ in ^{110}In ε decay (69.1 min) (1992Ku01) and $A_2=0.259 17, A_4=0.753 26, 1783.6\gamma$ gated (0-2-0 spin sequence) in ^{110}Ag β^- decay (24.56 s) (1972Ka34).
		605.4 3		1473.07	0^+	E0			$E_\gamma, \text{Mult.}$: From ^{110}In ε Decay (69 min). $E_\gamma, \text{Mult.}$: From ^{110}In ε Decay (69 min).
		2078.4 3		0.0	0^+	E0			
2162.8015	3^+	620.3553# 17	20.5# 6	1542.4441	4^+	M1+E2	-0.50 5	0.00391	$B(M1)(W.u.)=0.011 +3-9; B(E2)(W.u.)=5.9 +18-46$ $\alpha(K)=0.00341 5; \alpha(L)=0.000410 6; \alpha(M)=7.86 \times 10^{-5} 11;$ $\alpha(N+..)=1.482 \times 10^{-5} 21$ $\alpha(N)=1.401 \times 10^{-5} 20; \alpha(O)=8.11 \times 10^{-7} 12$ Mult.: From $\alpha(K)\exp=0.0031 6$ (1967Mo12). δ : Weighted average of -0.50 8 (1980Ru03), -0.8 5 (1970Kr03), -0.85 25 (1979Ve03) (from ^{110}Ag β^- decay (249.83 d)) and -0.46 +7-6 (2001Co01) (from $^{110}\text{Cd}(n,n'\gamma)$). Others: -1.2 5 or -0.7 3 (1978Wa07) (from ^{110}Ag β^- decay (249.83 d)).
		687.0091# 18	49.00# 22	1475.7900	2^+	M1+E2	-1.69 +2-4	0.00289	$\alpha(K)=0.00251 4; \alpha(L)=0.000309 5; \alpha(M)=5.93 \times 10^{-5} 9;$ $\alpha(N+..)=1.111 \times 10^{-5} 16$ $\alpha(N)=1.052 \times 10^{-5} 15; \alpha(O)=5.85 \times 10^{-7} 9$ $B(M1)(W.u.)=0.0064 +16-48; B(E2)(W.u.)=32 +8-24$ Mult.: From $\alpha(K)\exp=0.0022 5$ and from $A_2=-0.70 5,$ $A_4=-0.01 2$ (1992Ku01 , in $^{108}\text{Pd}(\alpha,2\gamma), ^{110}\text{Pd}(\alpha,4\gamma)$). δ : Weighted average of -1.80 5 (1973Jo08), -1.65 9 (1978Wa07), and -1.27 38 (1980Ru03), -1.1 +8-4 (1970Kr03) and -1.5 +6-22 (1979Ve03) (from ^{110}Ag β^- decay (249.83 d)), -1.66 +9-8 (2001Co01), -1.48 10 (1992De41), -1.48 15 (1990Ar20), and -1.3 4 (1992Ku01)

17

Adopted Levels, Gammas (continued)

<u>$\gamma^{(110\text{Cd})}$ (continued)</u>										
E_i (level)	J_i^π	E_γ^{\ddagger}	I_γ^{\ddagger}	E_f	J_f^π	Mult. ^b	δ^c	α^{\ddagger}	Comments	
2162.8015	3 ⁺	1505.0280 [#] 20	100.0 [#] 12	657.7623	2 ⁺	M1+E2	-1.27 3	5.90×10^{-4}	(from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ)). Others: 0.4 +1–2 (1976De23) (from ¹¹⁰ Cd(n,n' γ)), -0.40 4 (1992De41) (from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ)).	
2220.0683	4 ⁺	677.6217 [#] 12	100.0 [#] 5	1542.4441	4 ⁺	M1+E2	-0.34 2	0.00320	$\alpha(K)=0.000446$ 7; $\alpha(L)=5.20 \times 10^{-5}$ 8; $\alpha(M)=9.94 \times 10^{-6}$ 14; $\alpha(N+..)=8.21 \times 10^{-5}$ 12 $\alpha(N)=1.776 \times 10^{-6}$ 25; $\alpha(O)=1.048 \times 10^{-7}$ 15; $\alpha(IPF)=8.02 \times 10^{-5}$ 12 B(M1)(W.u.)=0.0018 +5–14; B(E2)(W.u.)=1.1 +3–8 Mult.: From $\alpha(K)\exp=0.00046$ 4 (1967Mo12). δ : Weighted average of -1.05 16 (1988Kr03), -1.24 7 (1988Kr03), -1.24 20 (1980Ru03), -1.09 9 (1978Wa07), and -1.26 6 (1973Jo08) (from ¹¹⁰ Ag β^- decay (249.83 d)), -1.37 8 (1992De41), -1.37 15 (1990Ar20), -1.52 +11–14 (2001Co01) from ¹¹⁰ Cd(n,n' γ)), -1.48 23 (1990Ke02) (from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ)). Others: -0.55 10 (1970Kr03), -0.48 3 (1973Jo08), -0.40 +9–17 (1979Ve03) (from ¹¹⁰ Ag β^- decay (249.83 d)), -0.30 7 (1980Ba58) (from ¹¹⁰ In ε decay (4.92 h)), -0.1 1 or 3 +2–1 (1976De23) (from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ)).	
744.2755 [#] 18		44.6 [#] 3	1475.7900	2 ⁺	E2			0.00229	$\alpha(K)=0.00279$ 4; $\alpha(L)=0.000332$ 5; $\alpha(M)=6.37 \times 10^{-5}$ 9; $\alpha(N+..)=1.203 \times 10^{-5}$ 17 $\alpha(N)=1.136 \times 10^{-5}$ 16; $\alpha(O)=6.65 \times 10^{-7}$ 10 B(M1)(W.u.)=0.058 +17–25; B(E2)(W.u.)=12 +4–6 Mult.: From $\alpha(K)\exp=0.0025$ 4 (1967Mo12). δ : Unweighted average of -0.25 20 (1970Kr03), -0.44 5 (1973Jo08), -0.36 3 (1978Wa07), -0.25 15 (1979Ve03), -0.28 5 (1980Ru03) from ¹¹⁰ Ag β^- decay (249.83 d), -0.40 7 (1990Ke02) from ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ), -0.34 3 (1992De41), -0.34 4 (1990Ar20), -0.41 2 (2001Co01) from ¹¹⁰ Cd(n,n' γ)).	
1562.2940 [#] 18		11.4 [#] 3	657.7623	2 ⁺	E2			5.56×10^{-4}	$\alpha(K)=0.000394$ 6; $\alpha(L)=4.61 \times 10^{-5}$ 7; $\alpha(M)=8.80 \times 10^{-6}$ 13; $\alpha(N+..)=0.0001067$ 15	

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
2250.554	4 ⁺	467.01 [#] 4	11.0 [#] 8	1783.496	2 ⁺	E2		0.00812	α(N)=1.570×10 ⁻⁶ 22; α(O)=9.21×10 ⁻⁸ 13; α(IPF)=0.0001050 15 B(E2)(W.u.)=0.20 +6–9 Mult.: From A ₂ =0.22 6, A ₄ =−0.19 8 (1992Ku01) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ) and from α(K)exp=0.00046 7 (1967Mo12). Other: E2(+M3) with δ=−0.10 +2–3 from γγ(θ) in ¹¹⁰ Ag β [−] Decay (249.83 d) (1979Ve03). δ= Infinite (1970Kr03).
708.133 [#] 20	100 [#] 21	1542.4441	4 ⁺	M1+E2	−0.14 3	0.00291			α(K)=0.00698 10; α(L)=0.000926 13; α(M)=0.0001785 25; α(N+..)=3.29×10 ^{−5} 5 α(N)=3.14×10 ^{−5} 5; α(O)=1.580×10 ^{−6} 23 B(E2)(W.u.)=1.2×10 ² +5–11 Mult.: From A ₂ =+0.22 6, A ₄ =−0.10 8 (1992De41) in ¹¹⁰ Cd(n,n'γ) and from α(K)exp=0.013 4 (1979Sy02) in ¹¹⁰ In ε Decay (4.9 h) (1979Sy02). α(K)=0.00254 4; α(L)=0.000301 5; α(M)=5.76×10 ^{−5} 8; α(N+..)=1.090×10 ^{−5} 16 α(N)=1.029×10 ^{−5} 15; α(O)=6.07×10 ^{−7} 9 B(M1)(W.u.)=0.08 +4–8; B(E2)(W.u.)=2.6 +16–26 Mult.: From A ₂ =+0.22 6, A ₄ =−0.10 8 (1992De41) from ¹¹⁰ Cd(n,n'γ). δ: Weighted average of −0.15 9 (1992De41), −0.15 9 (1990Ar20), 0.13 +4–3 (2001Co01) (from ¹¹⁰ Cd(n,n'γ)). Other: −0.7 3 (1990Ke02) from ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
774.71 [#] 7	2.5 [#] 13	1475.7900	2 ⁺	E2		0.00207			α(K)=0.00180 3; α(L)=0.000222 4; α(M)=4.26×10 ^{−5} 6; α(N+..)=7.97×10 ^{−6} 12 α(N)=7.55×10 ^{−6} 11; α(O)=4.17×10 ^{−7} 6 B(E2)(W.u.)=2.2 +14–22 Mult.: From γ(θ) in ¹¹⁰ Cd(n,n'γ) but A ₂ and A ₄ coefficients were not given by the authors of 1992De41 . α(K)=−0.000379 6; α(L)=4.43×10 ^{−5} 7; α(M)=8.47×10 ^{−6} 12; α(N+..)=0.0001188 17 α(N)=1.511×10 ^{−6} 22; α(O)=8.87×10 ^{−8} 13; α(IPF)=0.0001172 17 B(E2)(W.u.)=0.22 +9–19 Mult.: From γ(θ) in ¹¹⁰ Cd(n,n'γ) but A ₂ and A ₄ coefficients were not given by the authors of 1992De41 . α(K)=0.000407 6; α(L)=4.73×10 ^{−5} 7; α(M)=9.03×10 ^{−6} 13;
1592.77 [#] 6	9.1 [#] 3	657.7623	2 ⁺	E2		5.51×10 ^{−4}			
2287.63	2 ⁺	1629.90 [#] 14	100 [#]	657.7623	2 ⁺	M1+E2	+0.06 3	5.86×10 ^{−4}	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
2331.92	(0) ⁺	548.4 [@] 2	24 [@] 6	1783.496	2 ⁺				$\alpha(N+..)=0.0001228$ 18 $\alpha(N)=1.615\times10^{-6}$ 23; $\alpha(O)=9.66\times10^{-8}$ 14; $\alpha(IPF)=0.0001211$ 17 $B(M1)(W.u.)=0.017$ +3–5; $B(E2)(W.u.)=0.019$ +20–19 Mult.: From $A_2=+0.24$ 3, $A_4=+0.01$ 4 (1992De41) in ¹¹⁰ Cd(n,n'γ). δ: From 1992De41 and 1990Ar20 using $\gamma(\theta)$ in ¹¹⁰ Cd(n,n'γ). Other: –0.01 2 (2001Co01) from ¹¹⁰ Cd(n,n'γ).
2355.792	2 ⁺	1674.15 [@] 4	100 [@] 6	657.7623	2 ⁺				$\alpha(K)=0.00311$ 5; $\alpha(L)=0.000394$ 6; $\alpha(M)=7.58\times10^{-5}$ 11; $\alpha(N+..)=1.411\times10^{-5}$ 20 $\alpha(N)=1.339\times10^{-5}$ 19; $\alpha(O)=7.16\times10^{-7}$ 10 E _γ : From ¹¹⁰ Cd(n,n'γ) (2001Co01). Mult.: From $\gamma(\theta)$ in ¹¹⁰ Cd(n,n'γ) but A_2 and A_4 coefficients were not given by the authors of 2001Co01 . $\alpha(K)=0.000345$ 5; $\alpha(L)=4.02\times10^{-5}$ 6; $\alpha(M)=7.67\times10^{-6}$ 12; $\alpha(N+..)=0.0001597$ 23 $\alpha(N)=1.370\times10^{-6}$ 20; $\alpha(O)=8.10\times10^{-8}$ 12; $\alpha(IPF)=0.0001582$ 23 $B(M1)(W.u.)=0.0032$ +8–12; $B(E2)(W.u.)=2.8$ +6–10 Mult.: From $A_2=+0.27$ 3, $A_4=-0.01$ 3 (1992De41) in ¹¹⁰ Cd(n,n'γ). δ: From 1992De41 . Others: +0.11 4 (1992De41), 0.1 +2–1 or 1.7 +6–5 (1976De23), 1.8 2 or +0.10 5 (1990Ar20) in ¹¹⁰ Cd(n,n'γ).
2433.248	3 ⁺	651.3 ^{@d} 5	29 [@] 4	1783.496	2 ⁺				$\alpha(K)=0.00120$ 8; $\alpha(L)=0.000142$ 8; $\alpha(M)=2.72\times10^{-5}$ 15; $\alpha(N+..)=5.1\times10^{-6}$ 3 $\alpha(N)=4.9\times10^{-6}$ 3; $\alpha(O)=2.83\times10^{-7}$ 21 Mult.: From $A_2=-0.58$ 3, $A_4=+0.07$ 3 (1992De41) in ¹¹⁰ Cd(n,n'γ). δ: Others: –0.45 5 or –1.38 14 (1992De41), –0.43 8 or –1.38 20 (1990Ar20) in ¹¹⁰ Cd(n,n'γ). $\alpha(K)=0.000338$ 6; $\alpha(L)=3.92\times10^{-5}$ 6; $\alpha(M)=7.49\times10^{-6}$ 12; $\alpha(N+..)=0.000184$ 3
		890.7 [@] 5	9 [@] 3	1542.4441	4 ⁺				
		957.38 [#] 6	100 [#] 7	1475.7900	2 ⁺	M1+E2	–0.9 7	0.00137 9	
		1775.42 [#] 4	70 [#] 3	657.7623	2 ⁺	M1+E2	–0.35 10	5.69×10 ^{–4}	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
2477.41	2 ⁺	746.19 @ 17	@	1731.31	0 ⁺	E2	0.00227	$\alpha(N)=1.339\times10^{-6}$ 21; $\alpha(O)=8.00\times10^{-8}$ 13; $\alpha(IPF)=0.000183$ 3 Mult.: From $A_2=-0.56$ 8, $A_4=0.00$ 3 (1992De41) in ¹¹⁰ Cd(n,n'γ). δ : -0.35 10 or -1.6 3 (1992De41), -0.35 10 or -1.6 4 (1990Ar20) in ¹¹⁰ Cd(n,n'γ).
	1001.71 & 6	98 & 10	1475.7900	2 ⁺				$\alpha(K)=0.00197$ 3; $\alpha(L)=0.000245$ 4; $\alpha(M)=4.69\times10^{-5}$ 7; $\alpha(N+..)=8.77\times10^{-6}$ 13
	1819.82 @ 24	@	657.7623	2 ⁺				$\alpha(N)=8.32\times10^{-6}$ 12; $\alpha(O)=4.57\times10^{-7}$ 7
	2477.16 & 8	100 & 4	0.0	0 ⁺	E2	7.24×10^{-4}		Mult.: From $\gamma(\theta)$ in ¹¹⁰ Cd(n,n'γ) but A_2 and A_4 coefficients were not given by the authors of 2001Co01 .
21	2479.9339	6 ⁺	229.420 #d 22	0.03 #	2250.554	4 ⁺	[E2]	0.0801
	937.485 # 3	100 #	1542.4441	4 ⁺	E2	1.32×10^{-3}		$\alpha(K)=0.001149$ 16; $\alpha(L)=0.0001390$ 20; $\alpha(M)=2.66\times10^{-5}$ 4; $\alpha(N+..)=5.00\times10^{-6}$ 7
								$\alpha(N)=4.73\times10^{-6}$ 7; $\alpha(O)=2.67\times10^{-7}$ 4
								B(E2)(W.u.)=14 10
								Mult.: From $\alpha(K)\exp=0.0012$ 8 (1964Ne05) in ¹¹⁰ Ag β ⁻ Decay (249.83 d) and 0.00114 8 (1980Ba58) in ¹¹⁰ In ε Decay (4.92 h). $K/(L+M)=6.6$ 14 from ¹¹⁰ In ε decay (4.92 h) (1962Ka08) and $A_2=+0.34$ 2, $A_4=-0.08$ 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
	2481.606	(2) ⁺	402.84 @ 17	@	2078.548	3 ⁻	(E1)	0.00361
	698.0 @ 2	27 @ 3	1783.496	2 ⁺				$\alpha(K)=0.00315$ 5; $\alpha(L)=0.000373$ 6; $\alpha(M)=7.12\times10^{-5}$ 10; $\alpha(N+..)=1.335\times10^{-5}$ 19
								$\alpha(N)=1.263\times10^{-5}$ 18; $\alpha(O)=7.12\times10^{-7}$ 10
								E _γ : From ¹¹⁰ Cd(n,n'γ).
								Mult.: From $\gamma(\theta)$ in ¹¹⁰ Cd(n,n'γ) but A_2 and A_4 coefficients were not given by the authors (2001Co01).

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
2481.606	(2) ⁺	1005.58 [@] 10	51 [@] 3	1475.7900	2 ⁺	M1(+E2)	-0.41 10	1.29×10 ⁻³ 2	α(K)=0.001124 19; α(L)=0.0001323 22; α(M)=2.53×10 ⁻⁵ 4; α(N+..)=4.79×10 ⁻⁶ 8 α(N)=4.52×10 ⁻⁶ 8; α(O)=2.67×10 ⁻⁷ 5 B(M1)(W.u.)=(0.012 +4-6); B(E2)(W.u.)=(1.6 +8-11) Mult.: From A ₂ =+0.07 3 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). δ: From 1992De41 in ¹¹⁰ Cd(n,n' γ). α(K)=0.000324 5; α(L)=3.75×10 ⁻⁵ 6; α(M)=7.16×10 ⁻⁶ 10; α(N+..)=0.000204 3 α(N)=1.280×10 ⁻⁶ 18; α(O)=7.66×10 ⁻⁸ 11; α(IPF)=0.000203 3 Mult.: From A ₂ =-0.15 3, A ₄ =0.02 4 in ¹¹⁰ Cd(n,n' γ) (1992De41). δ: -0.70 9 or -4.9 +24-11 (1992De41), -0.70 10 or -5.2 20 (1990Ar20) in ¹¹⁰ Cd(n,n' γ). α(K)=0.00726 11; α(L)=0.000965 14; α(M)=0.000186 3; α(N+..)=3.43×10 ⁻⁵ 5 α(N)=3.27×10 ⁻⁵ 5; α(O)=1.641×10 ⁻⁶ 23 B(E2)(W.u.)=56 +13-23 Mult.: From A ₂ =+0.31 6, A ₄ =-0.14 9 in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). α(K)=0.000430 15; α(L)=4.97×10 ⁻⁵ 18; α(M)=9.5×10 ⁻⁶ 4; α(N+..)=1.79×10 ⁻⁶ 7 α(N)=1.69×10 ⁻⁶ 6; α(O)=9.9×10 ⁻⁸ 4 B(E1)(W.u.)=(0.00048 +12-19); B(M2)(W.u.)=(2 +7-2) Mult.: α(K)exp=0.00041 5 (1980Ba58) in ¹¹⁰ In ε decay (4.92 h). δ: From 1990Ke02 in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). α(K)=0.01493 21; α(L)=0.00181 3; α(M)=0.000347 5; α(N+..)=6.55×10 ⁻⁵ 10 α(N)=6.19×10 ⁻⁵ 9; α(O)=3.61×10 ⁻⁶ 5 B(M1)(W.u.)=0.013 +6-12 α(K)=0.00107 4; α(L)=0.000126 5; α(M)=2.42×10 ⁻⁵ 8; α(N+..)=4.57×10 ⁻⁶ 16 α(N)=4.32×10 ⁻⁶ 15; α(O)=2.54×10 ⁻⁷ 11 B(M1)(W.u.)=0.0023 +12-22; B(E2)(W.u.)=0.7 7 Mult.: From A ₂ =+0.01 6 (1990Ke02)
1823.84 [@] 2	100 [@] 6	657.7623	2 ⁺	M1+E2			5.73×10 ⁻⁴		
2539.691	5 ⁻	460.85 ^a 8	4.00 ^a 11	2078.548	3 ⁻	E2		0.00845	
997.256 ^a 8	100.0 ^a 8	1542.4441	4 ⁺	E1(+M2)	-0.03 5		4.91×10 ⁻⁴ 17		
2561.284	4 ⁺	341.3 ^{#d} 1	3.0 [#] 7	2220.0683	4 ⁺	[M1]		0.01715	
1018.94 [#] 4	19.6 [#] 9	1542.4441	4 ⁺	M1+E2	-0.6 4		0.00123 5		

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	α [†]	Comments
2561.284	4 ⁺	1085.447 [#] 14	100 [#] 5	1475.7900	2 ⁺	E2	9.52×10 ⁻⁴	¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). δ: Other: -0.49 +16-19 in ¹¹⁰ Cd(n,n'γ) (2001Co01). α(K)=0.000830 12; α(L)=9.92×10 ⁻⁵ 14; α(M)=1.90×10 ⁻⁵ 3; α(N+..)=3.57×10 ⁻⁶ 5 α(N)=3.38×10 ⁻⁶ 5; α(O)=1.94×10 ⁻⁷ 3 B(E2)(W.u.)=9 +4-9 Mult.: From A ₂ =+0.36 4, A ₄ =-0.10 5 (1992De41) in ¹¹⁰ Cd(n,n'γ) and α(K)exp=0.0008 2 in ¹¹⁰ In ε decay (4.9 h) (1980Ba58). α(K)=0.000271 4; α(L)=3.14×10 ⁻⁵ 5; α(M)=6.00×10 ⁻⁶ 9; α(N+..)=0.000256 4 α(N)=1.071×10 ⁻⁶ 15; α(O)=6.33×10 ⁻⁸ 9; α(IPF)=0.000255 4 B(E2)(W.u.)=0.12 +5-11 Mult.: From γ(θ) in ¹¹⁰ Cd(n,n'γ) but A ₂ and A ₄ coefficients were not given by the authors of 2001Co01 .
		1903.53 [#] 3	22.2 [#] 9	657.7623	2 ⁺	E2	5.65×10 ⁻⁴	
2566.47	(2 ⁻ ,3)	782.8 [@] 2	29 [@] 4	1783.496	2 ⁺			
		1908.70 [@] 6	100 [@] 6	657.7623	2 ⁺			
2633.20	2 ⁺	1090.83 [@] 10	42 [@] 4	1542.4441	4 ⁺	[E2]	9.42×10 ⁻⁴	α(K)=0.000821 12; α(L)=9.81×10 ⁻⁵ 14; α(M)=1.88×10 ⁻⁵ 3; α(N+..)=3.54×10 ⁻⁶ 5 α(N)=3.34×10 ⁻⁶ 5; α(O)=1.92×10 ⁻⁷ 3 B(E2)(W.u.)=25 +4-5 α(K)=0.000843 12; α(L)=9.85×10 ⁻⁵ 14; α(M)=1.88×10 ⁻⁵ 3; α(N+..)=6.00×10 ⁻⁶ 9 α(N)=3.37×10 ⁻⁶ 5; α(O)=2.01×10 ⁻⁷ 3; α(IPF)=2.43×10 ⁻⁶ 4 E _γ : From ¹¹⁰ Cd(n,n'γ). α(K)=0.000276 4; α(L)=3.18×10 ⁻⁵ 5; α(M)=6.08×10 ⁻⁶ 9; α(N+..)=0.000274 4 α(N)=1.088×10 ⁻⁶ 16; α(O)=6.52×10 ⁻⁸ 10; α(IPF)=0.000272 4 Mult.: E2 from A ₂ =+0.43 4, A ₄ =0.00 4 (1992De41) in ¹¹⁰ Cd(n,n'γ). α(K)=0.000315 5; α(L)=3.62×10 ⁻⁵ 5; α(M)=6.91×10 ⁻⁶ 10; α(N+..)=2.61×10 ⁻⁵ 4 α(N)=1.232×10 ⁻⁶ 18; α(O)=7.26×10 ⁻⁸ 11; α(IPF)=2.48×10 ⁻⁵ 4 B(E1)(W.u.)=0.0015 6
2649.95	1 ⁻	1176.8 [@] 2	32 [@] 4	1473.07	0 ⁺	[E1]	3.84×10 ⁻⁴	
		2649.92 [@] 6	100 [@] 9	0.0	0 ⁺	E1	1.12×10 ⁻³	α(K)=8.53×10 ⁻⁵ 12; α(L)=9.68×10 ⁻⁶ 14; α(M)=1.84×10 ⁻⁶ 3; α(N+..)=0.001026 15 α(N)=3.30×10 ⁻⁷ 5; α(O)=1.97×10 ⁻⁸ 3; α(IPF)=0.001026 15 B(E1)(W.u.)=0.00040 15

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
2659.866	5 ⁻	120.154 ^a 25	33.3 ^a 18	2539.691	5 ⁻	M1(+E2)	-0.1 3	0.28 7	Mult.: From A ₂ =-0.09 4, A ₄ =0.00 5 (1992De41) in ¹¹⁰ Cd(n,n'γ) and from ¹¹⁰ Cd(γ,γ') (2005Ko32), deduced using γ(θ) and π from linear polarization measurements. α(K)=0.24 5; α(L)=0.031 14; α(M)=0.006 3; α(N+..)=0.0011 5 α(N)=0.0011 5; α(O)=5.9×10 ⁻⁵ 8 I _γ : Other: 58 10 in ¹¹⁰ Cd(n,n'γ). Mult.: From A ₂ =0.26 13 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). α(K)=0.00305 8; α(L)=0.000361 10; α(M)=6.90×10 ⁻⁵ 18; α(N+..)=1.29×10 ⁻⁵ 4 α(N)=1.23×10 ⁻⁵ 4; α(O)=6.91×10 ⁻⁷ 18
	409.36 ^a 8	10.4 ^a 4	2250.554	4 ⁺	E1(+M2)	-0.029 23	0.00350 9		Mult.: From α(K)exp=0.0027 10 (1970Ko12) in ¹¹⁰ In ε decay (4.9 h) and A ₂ =-0.25 2 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ) (1990Ke02). α(K)=0.000346 5; α(L)=3.98×10 ⁻⁵ 6; α(M)=7.60×10 ⁻⁶ 11; α(N+..)=8.05×10 ⁻⁶ 12 α(N)=1.356×10 ⁻⁶ 19; α(O)=7.98×10 ⁻⁸ 12; α(IPF)=6.61×10 ⁻⁶ 10 Mult.: From α(K)exp=0.00033 7 (1990Ke02) in ¹¹⁰ In ε decay (4.9 h) (1980Ba58) and A ₂ =-0.18 2 in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). E _γ ,I _γ : From ¹¹⁰ Ag β ⁻ decay (24.56 s). α(K)=0.000246 4; α(L)=2.85×10 ⁻⁵ 4; α(M)=5.44×10 ⁻⁶ 8; α(N+..)=0.000305 5 α(N)=9.72×10 ⁻⁷ 14; α(O)=5.76×10 ⁻⁸ 8; α(IPF)=0.000304 5 E _γ ,I _γ : From ¹¹⁰ Ag β ⁻ decay (24.56 s). Mult.: From A ₂ =0.177 28, A ₄ =0.986 47, 657.50γ gated (0-2-0 spin sequence) (1972Ka34) in ¹¹⁰ Ag β ⁻ decay (24.56 s). α(K)=0.000834 12; α(L)=9.74×10 ⁻⁵ 14; α(M)=1.86×10 ⁻⁵ 3; α(N+..)=6.34×10 ⁻⁶ 9 α(N)=3.33×10 ⁻⁶ 5; α(O)=1.98×10 ⁻⁷ 3; α(IPF)=2.81×10 ⁻⁶ 4 Mult.: From A ₂ =+0.32 5, A ₄ =-0.03 6 (1992De41) in ¹¹⁰ Cd(n,n'γ).
2662.13	0 ⁺	1186.30 12	75 16	1475.7900	2 ⁺			4.01×10 ⁻⁴	α(K)=0.000346 5; α(L)=3.98×10 ⁻⁵ 6; α(M)=7.60×10 ⁻⁶ 11; α(N+..)=8.05×10 ⁻⁶ 12 α(N)=1.356×10 ⁻⁶ 19; α(O)=7.98×10 ⁻⁸ 12; α(IPF)=6.61×10 ⁻⁶ 10 Mult.: From α(K)exp=0.00033 7 (1990Ke02) in ¹¹⁰ In ε decay (4.9 h) (1980Ba58) and A ₂ =-0.18 2 in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). E _γ ,I _γ : From ¹¹⁰ Ag β ⁻ decay (24.56 s). α(K)=0.000246 4; α(L)=2.85×10 ⁻⁵ 4; α(M)=5.44×10 ⁻⁶ 8; α(N+..)=0.000305 5 α(N)=9.72×10 ⁻⁷ 14; α(O)=5.76×10 ⁻⁸ 8; α(IPF)=0.000304 5 E _γ ,I _γ : From ¹¹⁰ Ag β ⁻ decay (24.56 s). Mult.: From A ₂ =0.177 28, A ₄ =0.986 47, 657.50γ gated (0-2-0 spin sequence) (1972Ka34) in ¹¹⁰ Ag β ⁻ decay (24.56 s). α(K)=0.000834 12; α(L)=9.74×10 ⁻⁵ 14; α(M)=1.86×10 ⁻⁵ 3; α(N+..)=6.34×10 ⁻⁶ 9 α(N)=3.33×10 ⁻⁶ 5; α(O)=1.98×10 ⁻⁷ 3; α(IPF)=2.81×10 ⁻⁶ 4 Mult.: From A ₂ =+0.32 5, A ₄ =-0.03 6 (1992De41) in ¹¹⁰ Cd(n,n'γ).
2705.669	(4) ⁺	1163.19 [#] 5	100 [#]	1542.4441	4 ⁺	M1+E2	-0.03 +6-9	9.56×10 ⁻⁴	δ: From γ(θ) in ¹¹⁰ Cd(n,n'γ) (1992De41). E _γ : From measured Ice in ¹¹⁰ Ag β ⁻ decay
2707.397	(4) ⁺	1.60 10		2705.669	(4) ⁺	M1			

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	δ ^c	α [†]	Comments
2707.397	(4) ⁺	544.56 [#] 4	41 [#] 7	2162.8015	3 ⁺	M1+E2	+0.21 11	0.00541	(249.83 d). Mult.: From M1/M2/M3=10 2/1.0/0.35 10 in ¹¹⁰ Ag β^- decay (249.83 d) (1993Ka37). $\alpha(K)=0.00472$ 7; $\alpha(L)=0.000565$ 8; $\alpha(M)=0.0001083$ 16; $\alpha(N+..)=2.05\times 10^{-5}$ 3 $\alpha(N)=1.93\times 10^{-5}$ 3; $\alpha(O)=1.131\times 10^{-6}$ 17 I _γ : Other: 62 3 in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ), 56 5 in ¹¹⁰ Cd(n,n' γ). Mult.: From A ₂ =+0.02 5 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). δ : Other:-0.03 5 or -5.5 +24-10 (1992De41) from ¹¹⁰ Cd(n,n' γ). $\alpha(K)=0.000826$ 13; $\alpha(L)=9.66\times 10^{-5}$ 15; $\alpha(M)=1.85\times 10^{-5}$ 3; $\alpha(N+..)=6.46\times 10^{-6}$ 9; $\alpha(N)=3.30\times 10^{-6}$ 5; $\alpha(O)=1.96\times 10^{-7}$ 3; $\alpha(IPF)=2.96\times 10^{-6}$ 5
		1164.98 [#] 7	100 [#] 7	1542.4441	4 ⁺	M1(+E2)	<+0.3	9.48×10 ⁻⁴ 15	Mult.: From A ₂ =+0.17 5 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). Other: A ₂ =+0.39 11, A ₄ =+0.02 14 (1992De41) from ¹¹⁰ Cd(n,n' γ). δ : Other:-0.07 +10-7 (1992De41) from ¹¹⁰ Cd(n,n' γ). $\alpha(K)=0.00988$ 14; $\alpha(L)=0.001191$ 17; $\alpha(M)=0.000228$ 4; $\alpha(N+..)=4.31\times 10^{-5}$ 6 $\alpha(N)=4.08\times 10^{-5}$ 6; $\alpha(O)=2.38\times 10^{-6}$ 4 B(M1)(W.u.)=0.37 +12-16 $\alpha(K)=0.000667$ 10; $\alpha(L)=7.78\times 10^{-5}$ 12; $\alpha(M)=1.488\times 10^{-5}$ 22; $\alpha(N+..)=2.07\times 10^{-5}$ 3 $\alpha(N)=2.66\times 10^{-6}$ 4; $\alpha(O)=1.583\times 10^{-7}$ 24; $\alpha(IPF)=1.79\times 10^{-5}$ 3 B(M1)(W.u.)=0.023 +7-10; B(E2)(W.u.)=1.2 +5-6 Mult.: From A ₂ =+0.39 11, A ₄ =+0.02 14 (1992De41) in ¹¹⁰ Cd(n,n' γ). δ : From $\gamma(\theta)$ in ¹¹⁰ Cd(n,n' γ) (1992De41). $\alpha(K)=0.000244$ 4; $\alpha(L)=2.81\times 10^{-5}$ 4; $\alpha(M)=5.37\times 10^{-6}$ 8; $\alpha(N+..)=0.000333$ 5 $\alpha(N)=9.61\times 10^{-7}$ 14; $\alpha(O)=5.76\times 10^{-8}$ 8; $\alpha(IPF)=0.000332$ 5 B(M1)(W.u.)=0.0019 +8-10 $\alpha(K)=0.0197$ 3; $\alpha(L)=0.00240$ 4; $\alpha(M)=0.000460$ 7;
2758.25	(1,2,3) ⁺	402.4 ^{@d} 2	45 [@] 7	2355.792	2 ⁺	[M1]		0.01135	
		1282.45 [@] 8	100 [@] 7	1475.7900	2 ⁺	M1+E2	+0.32 5	7.80×10 ⁻⁴ 12	
		2100.6 [@] 5	33 [@] 10	657.7623	2 ⁺	[M1]		6.10×10 ⁻⁴	
2787.49	2 ⁺	305.8 [@] 2	16 [@] 5	2481.606	(2) ⁺	[M1]		0.0227	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	δ ^c	a [†]	Comments
2787.49	2 ⁺	1314.25 ^{&} 10	1.91 ^{&} 14	1473.07	0 ⁺	[E2]		6.63×10 ⁻⁴	$\alpha(N+..)=8.69\times10^{-5}$ 13 $\alpha(N)=8.21\times10^{-5}$ 12; $\alpha(O)=4.77\times10^{-6}$ 7 $B(M1)(W.u.)=3.3$ 14 $\alpha(K)=0.000555$ 8; $\alpha(L)=6.56\times10^{-5}$ 10; $\alpha(M)=1.254\times10^{-5}$ 18; $\alpha(N+..)=2.92\times10^{-5}$ 4 $\alpha(N)=2.23\times10^{-6}$ 4; $\alpha(O)=1.298\times10^{-7}$ 19; $\alpha(IPF)=2.68\times10^{-5}$ 4 $B(E2)(W.u.)=2.3$ 7
	2129.52 [@] 5	100 [@] 7		657.7623	2 ⁺	M1+E2		6.17×10 ⁻⁴	$\alpha(K)=0.000237$ 4; $\alpha(L)=2.74\times10^{-5}$ 4; $\alpha(M)=5.23\times10^{-6}$ 8; $\alpha(N+..)=0.000347$ 5 $\alpha(N)=9.35\times10^{-7}$ 13; $\alpha(O)=5.61\times10^{-8}$ 8; $\alpha(IPF)=0.000346$ 5 Mult.: From $A_2=-0.31$ 5, $A_4=-0.02$ 5 (1992De41) in ¹¹⁰ Cd(n,n'γ).
	2788.37 [@] 10	16 [@] 5		0.0	0 ⁺	[E2]		8.31×10 ⁻⁴	$\delta: +0.18 +10-7$ or $+1.5$ 3 (1992De41) in ¹¹⁰ Cd(n,n'γ). $\alpha(K)=0.0001374$ 20; $\alpha(L)=1.575\times10^{-5}$ 22; $\alpha(M)=3.00\times10^{-6}$ 5; $\alpha(N+..)=0.000675$ 10 $\alpha(N)=5.37\times10^{-7}$ 8; $\alpha(O)=3.21\times10^{-8}$ 5; $\alpha(IPF)=0.000675$ 10 $B(E2)(W.u.)=0.46$ 19 I _γ : 3.27 14 in ¹¹⁰ In ε decay (69.1 min).
2793.441	(4) ⁺	360.23 [#] 8	23 [#] 14	2433.248	3 ⁺				I _γ : Other: 8.1 12 from ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). $\alpha(K)=0.00416$ 8; $\alpha(L)=0.000499$ 7; $\alpha(M)=9.57\times10^{-5}$ 14; $\alpha(N+..)=1.81\times10^{-5}$ 3 $\alpha(N)=1.707\times10^{-5}$ 24; $\alpha(O)=9.96\times10^{-7}$ 24
		573.0 [#] 4	51 [#] 3	2220.0683	4 ⁺	M1+E2	-0.3 3	0.00478 9	I _γ : Other: 17.4 14 in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ), <63 in ¹¹⁰ Cd(n,n'γ). Mult.: From $A_2=+0.10$ 14 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
	630.62 [#] 5	100 [#] 15		2162.8015	3 ⁺	M1+(E2)	+0.02 7	0.00382	$\alpha(K)=0.00334$ 5; $\alpha(L)=0.000396$ 6; $\alpha(M)=7.59\times10^{-5}$ 11; $\alpha(N+..)=1.436\times10^{-5}$ 21 $\alpha(N)=1.356\times10^{-5}$ 19; $\alpha(O)=8.00\times10^{-7}$ 12
2842.682	(5) ⁻	714.94 [#] 1	28 [#] 7	2078.548	3 ⁻				Mult.: From $A_2=-0.11$ 4 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
		1251.06 [#] 4	80 [#] 9	1542.4441	4 ⁺				$\alpha(K)=0.0760$ 11; $\alpha(L)=0.00939$ 14; $\alpha(M)=0.00181$ 3; $\alpha(N+..)=0.000340$ 5
		182.83 ^a 6	3.5 ^a 4	2659.866	5 ⁻	M1+E2		0.0876	

Adopted Levels, Gammas (continued)

$\gamma^{(110)\text{Cd}}$ (continued)										
E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments	
2842.682	(5) ⁻	409.36 ^a 8 1300.233 ^a 10	20.3 ^a 7 100.0 ^a 21	2433.248 1542.4441	3 ⁺ 4 ⁺	E1(+M2)	+0.0 I	3.93×10 ⁻⁴ 14	α(N)=0.000322 5; α(O)=1.85×10 ⁻⁵ 3 Mult.: From A ₂ =+0.79 11 in ¹⁰⁸ Pd($α,2n\gamma$), ¹¹⁰ Pd($α,4n\gamma$).	
2869.144	1 ^{+,2⁺}	1085.57 ^{&} 4	2.2 ^{&} 7	1783.496	2 ⁺	E2+M1		1.11×10 ⁻³	α(K)=0.000264 13; α(L)=3.03×10 ⁻⁵ 15; α(M)=5.8×10 ⁻⁶ 3; α(N+..)=9.35×10 ⁻⁵ 16 α(N)=1.03×10 ⁻⁶ 6; α(O)=6.1×10 ⁻⁸ 3; α(IPF)=9.24×10 ⁻⁵ 16 Mult.: From A ₂ =-0.21 2 (1990Ke02) in ¹⁰⁸ Pd($α,2n\gamma$), ¹¹⁰ Pd($α,4n\gamma$) and from $γ(θ)$ in ¹¹⁰ Cd(n,n'γ) (2001Co01).	
		1393.63 ^{&} 7 2211.33 ^{&} 3	3.03 ^{&} 22 100 ^{&} 2	1475.7900 657.7623	2 ⁺ 2 ⁺	M1+E2		6.38×10 ⁻⁴	α(K)=0.000969 14; α(L)=0.0001135 16; α(M)=2.17×10 ⁻⁵ 3; α(N+..)=4.11×10 ⁻⁶ 6 α(N)=3.88×10 ⁻⁶ 6; α(O)=2.31×10 ⁻⁷ 4 Mult.: From $γ(θ)$ in ¹¹⁰ Cd(n,n'γ), but A ₂ and A ₄ coefficients were not given by the authors (2001Co01).	
2876.812	6 ⁺	2869.28 ^{&} 10 396.894 [#] 22	1.85 ^{&} 11 17.2 [#] 18	0.0 2479.9339	0 ⁺ 6 ⁺	M1+E2		0.01174	α(K)=0.000220 3; α(L)=2.54×10 ⁻⁵ 4; α(M)=4.85×10 ⁻⁶ 7; α(N+..)=0.000387 6 α(N)=8.67×10 ⁻⁷ 13; α(O)=5.20×10 ⁻⁸ 8; α(IPF)=0.000386 6 Mult.: From $γ(θ)$ in ¹¹⁰ Cd(n,n'γ) but A ₂ and A ₄ coefficients were not given by the authors (1992De41). δ: +1.8 7 or +0.10 +22-13 (1992De41). I _γ : Other: 14 6 from ¹¹⁰ Cd(n,n'γ).	
		626.256 [#] 10	100 [#] 8	2250.554	4 ⁺	E2		0.00357	α(K)=0.01023 15; α(L)=0.001233 18; α(M)=0.000236 4; α(N+..)=4.47×10 ⁻⁵ 7 α(N)=4.22×10 ⁻⁵ 6; α(O)=2.47×10 ⁻⁶ 4 Mult.: From A ₂ =+0.29 6 in ¹⁰⁸ Pd($α,2n\gamma$), ¹¹⁰ Pd($α,4n\gamma$). α(K)=0.00309 5; α(L)=0.000391 6; α(M)=7.52×10 ⁻⁵ 11; α(N+..)=1.400×10 ⁻⁵ 20 α(N)=1.329×10 ⁻⁵ 19; α(O)=7.11×10 ⁻⁷ 10 Mult.: From α(K)exp=3.0×10 ⁻³ 4 (1980Ba58) in ¹¹⁰ In ε decay (4.92 h) and from A ₂ =+0.35 2, A ₄ =-0.04 3 (1990Ke02) in ¹⁰⁸ Pd($α,2n\gamma$), ¹¹⁰ Pd($α,4n\gamma$).	

27

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments	
2876.812	6 ⁺	1334.348 [#] 16	66.1 [#] 22	1542.4441	4 ⁺	E2		6.48×10 ⁻⁴	$\alpha(K)=0.000539$ 8; $\alpha(L)=6.35\times10^{-5}$ 9; $\alpha(M)=1.214\times10^{-5}$ 17; $\alpha(N+..)=3.37\times10^{-5}$ 5 $\alpha(N)=2.16\times10^{-6}$ 3; $\alpha(O)=1.259\times10^{-7}$ 18; $\alpha(IPF)=3.14\times10^{-5}$ 5 Mult.: From A ₂ =+0.33 4 in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) and DCO=1.02 14 in (HI,xn γ). B(E2)(W.u.)=0.84 12	
2879.185	7 ⁻	219.31 ^a 2	1.94 ^a 6	2659.866	5 ⁻	E2	0.0935		$\alpha(K)=0.0780$ 11; $\alpha(L)=0.01268$ 18; $\alpha(M)=0.00247$ 4; $\alpha(N+..)=0.000441$ 7 $\alpha(N)=0.000424$ 6; $\alpha(O)=1.632\times10^{-5}$ 23 B(E2)(W.u.)=0.84 12 Mult.: From A ₂ =+0.37 3, A ₄ =-0.09 4 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) and from DCO=1.38 13 (1994Ju04) in (HI,xn γ). B(E2)(W.u.)=1.56 21	
		339.498 ^a 15	32.2 ^a 3	2539.691	5 ⁻	E2	0.0217		$\alpha(K)=0.0185$ 3; $\alpha(L)=0.00262$ 4; $\alpha(M)=0.000507$ 7; $\alpha(N+..)=9.24\times10^{-5}$ 13 $\alpha(N)=8.84\times10^{-5}$ 13; $\alpha(O)=4.07\times10^{-6}$ 6 B(E2)(W.u.)=1.56 21 Mult.: From A ₂ =+0.34 2, A ₄ =-0.08 2 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).	
		399.254 ^a 15	100.0 ^a 6	2479.9339	6 ⁺	E1(+M2)	-0.01 3	0.00369 8	$\alpha(K)=0.00323$ 7; $\alpha(L)=0.000382$ 9; $\alpha(M)=7.29\times10^{-5}$ 17; $\alpha(N+..)=1.37\times10^{-5}$ 4 $\alpha(N)=1.29\times10^{-5}$ 3; $\alpha(O)=7.29\times10^{-7}$ 17 B(E1)(W.u.)=(5.6×10 ⁻⁶ 8); B(M2)(W.u.)=(0.016 +97-16) Mult.: From A ₂ =-0.25 1 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). δ: Other:<0.06 in (HI,xn γ). $\alpha(K)=0.0388$ 6; $\alpha(L)=0.00477$ 8; $\alpha(M)=0.000916$ 16; $\alpha(N+..)=0.000173$ 3	
		2895.948	6 ⁻	236.04 ^a 4	23.1 ^a 7	2659.866	5 ⁻	M1+E2	-0.09 4	0.0446 $\alpha(N)=0.000163$ 3; $\alpha(O)=9.40\times10^{-6}$ 14 Mult.: From A ₂ =-0.36 1 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.01340$ 19; $\alpha(L)=0.001620$ 23; $\alpha(M)=0.000311$ 5; $\alpha(N+..)=5.87\times10^{-5}$ 9 $\alpha(N)=5.55\times10^{-5}$ 8; $\alpha(O)=3.24\times10^{-6}$ 5 Mult.: From DCO=0.66 5 in (HI,xn γ); A ₂ =-0.35 1 with δ=-0.09 4 in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00291$ 4; $\alpha(L)=0.000344$ 5; $\alpha(M)=6.57\times10^{-5}$
		356.255 ^a 15	100.0 ^a 7	2539.691	5 ⁻	M1	0.01539			
		415.9 ^a 1	8.59 ^a 22	2479.9339	6 ⁺	E1	0.00333			

Adopted Levels, Gammas (continued)

<u>$\gamma(^{110}\text{Cd})$ (continued)</u>									
E_i (level)	J_i^π	E_γ^{\ddagger}	I_γ^{\ddagger}	E_f	J_f^π	Mult. ^b	δ^c	α^\dagger	Comments
2917.60	2+,3,4+	356.38 [@] 8 1441.9 [@] 2259.5 [@] 2	50@ 7 100@ 43@ 7	2561.284 1475.7900	4+ 2+ 2+				$10; \alpha(N+..)=1.232\times 10^{-5} 18$ $\alpha(N)=1.166\times 10^{-5} 17; \alpha(O)=6.59\times 10^{-7} 10$ Mult.: From $A_2=0.26$ 4 (1990Ke02) in $^{108}\text{Pd}(\alpha,2\text{n}\gamma), ^{110}\text{Pd}(\alpha,4\text{n}\gamma).$
2926.7474	5+	133.333 [#] 7 219.348 [#] 8 221.078 [#] 10 266.914 [#] 12 365.448 [#] 11 387.075 [#] 9 446.812 [#] 3	0.30# 1 0.29# 2 0.27# 0.16# 2 0.37# 2 0.2# 14.77# 19	2793.441 2707.397 2705.669 2659.866 2561.284 2539.691 2479.9339	(4)+ (4)+ (4)+ 5- 4+ 5- 6+	M1+E2	-0.39 2	0.00883	$\alpha(K)=0.00768 11; \alpha(L)=0.000936 14; \alpha(M)=0.000180$ $3; \alpha(N+..)=3.38\times 10^{-5} 5$ $\alpha(N)=3.20\times 10^{-5} 5; \alpha(O)=1.83\times 10^{-6} 3$ $I_\gamma:$ Other: 3.2 3 in $^{108}\text{Pd}(\alpha,2\text{n}\gamma), ^{110}\text{Pd}(\alpha,4\text{n}\gamma).$ Mult.: From $\alpha(K)\exp=0.0070$ 11 (1967Mo12). $\delta:$ Weighted average of -0.40 6 (1978Wa07), -0.39 +2-1 (1979Ve03), -0.35 5 (1980Ru03) and -0.45 20 (1970Kr03) from ^{110}Ag β^- decay (249.83 d).
	493.38 [#] 5 706.6760 [#] 15	0.04# 66.6# 3	2433.248 2220.0683	3+ 4+	M1+E2	-1.15 +5-6	0.00275	$\alpha(K)=0.00239 4; \alpha(L)=0.000291 5; \alpha(M)=5.58\times 10^{-5}$ $8; \alpha(N+..)=1.048\times 10^{-5} 15$ $\alpha(N)=9.92\times 10^{-6} 14; \alpha(O)=5.61\times 10^{-7} 9$ Mult.: From $\alpha(K)\exp=0.00262$ 23 (1967Mo12). $K/L=4.7$ (1963Su07). $\delta:$ Weighted average of -1.42 7 (1978Wa07), -1.0 3 (1970Kr03), -0.58 2 (1973Jo08), -1.8 +7-9 (1979Ve03) and -1.1 3 (1980Ru03) from ^{110}Ag β^- decay (249.83 d).	
	763.9424 [#] 17	90.2# 3	2162.8015	3+	E2		0.00215	$\alpha(K)=0.00186 3; \alpha(L)=0.000230 4; \alpha(M)=4.42\times 10^{-5}$ $7; \alpha(N+..)=8.26\times 10^{-6} 12$ $\alpha(N)=7.83\times 10^{-6} 11; \alpha(O)=4.32\times 10^{-7} 6$ Mult.: From $A_2=+0.31$ 1, $A_4=-0.13$ 1 (1990Ke02) in	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	δ ^c	α [†]	Comments
2926.7474	5 ⁺	1384.2931 [#] 20	100.0 [#] 19	1542.4441	4 ⁺	M1+E2	-0.44 1	6.82×10 ⁻⁴	¹⁰⁸ Pd($α,2nγ$), ¹¹⁰ Pd($α,4nγ$). Other:E2(+M3) with $δ=-0.10+2-3$ (1979Ve03) in ¹¹⁰ Ag $β^-$ decay (249.83 d). Other $δ=$ Infinite (1970Kr03). $α(K)=0.000562 8$; $α(L)=6.55×10^{-5} 10$; $α(M)=1.252×10^{-5} 18$; $α(N+..)=4.25×10^{-5} 6$ $α(N)=2.24×10^{-6} 4$; $α(O)=1.331×10^{-7} 19$; $α(IPF)=4.01×10^{-5} 6$ Mult.: From $α(K)exp=0.00055 4$ (1967Mo12). δ: Weighted average of -0.37 3 (1970Kr03), -0.46 1 (1973Jo08), -0.39 2 (1978Wa07), -0.42 +7-6 (1979Ve03), and -0.44 2 (1980Ru03) in ¹¹⁰ Ag $β^-$ decay (249.83 d).
2975.24	1 ^{+,2+}	2317.41 ^{&} 4	100.0 ^{&} 17	657.7623	2 ⁺	M1+E2	-0.16 12	6.67×10 ⁻⁴	$α(K)=0.000201 3$; $α(L)=2.31×10^{-5} 4$; $α(M)=4.41×10^{-6} 7$; $α(N+..)=0.000439 7$ $α(N)=7.90×10^{-7} 12$; $α(O)=4.74×10^{-8} 7$; $α(IPF)=0.000438 7$ Mult.: From ¹¹⁰ In $ε$ decay (69.1 min). δ: From 1992De41 .
30	2984.46	2975.29 ^{&} 6	8.5 ^{&} 3	0.0	0 ⁺				I _γ : 15 5 in ¹¹⁰ In $ε$ decay (69.1 min).
		905.7 [@] 2	27 [@] 7	2078.548	3 ⁻	[E1]		5.88×10 ⁻⁴	$α(K)=0.000515 8$; $α(L)=5.97×10^{-5} 9$; $α(M)=1.138×10^{-5} 16$; $α(N+..)=2.15×10^{-6} 3$ $α(N)=2.03×10^{-6} 3$; $α(O)=1.187×10^{-7} 17$ B(E1)(W.u.)=0.0006 +3-6
		1441.9 [@] 6	100 [@]	1542.4441	4 ⁺	[M1,E2]		6.56×10 ⁻⁴	$α(K)=0.000526 8$; $α(L)=6.12×10^{-5} 9$; $α(M)=1.170×10^{-5} 17$; $α(N+..)=5.73×10^{-5} 9$ $α(N)=2.09×10^{-6} 3$; $α(O)=1.249×10^{-7} 18$; $α(IPF)=5.51×10^{-5} 8$
		2326.9 [@] 2	40 [@] 7	657.7623	2 ⁺	M1+E2		6.70×10 ⁻⁴	$α(K)=0.000199 3$; $α(L)=2.30×10^{-5} 4$; $α(M)=4.38×10^{-6} 7$; $α(N+..)=0.000443 7$ $α(N)=7.84×10^{-7} 11$; $α(O)=4.71×10^{-8} 7$; $α(IPF)=0.000442 7$ Mult.: From A ₂ =-0.50 18, A ₄ =+0.02 18 (1992De41) in ¹¹⁰ Cd(n,n'γ).
2984.48	(5 ⁻)	1442.03 ^a 6	100 ^a	1542.4441	4 ⁺	D			δ: -1.9 +12-7 or -0.3 +3-2 (1992De41) in ¹¹⁰ Cd(n,n'γ). Mult.: From A ₂ =-0.17 4 (1990Ke02) in ¹⁰⁸ Pd($α,2nγ$), ¹¹⁰ Pd($α,4nγ$). δ: -0.01 9 (1990Ke02) in ¹⁰⁸ Pd($α,2nγ$), ¹¹⁰ Pd($α,4nγ$).
2993.63	(0 ⁺)	1517.83 [@] 17	100 [@]	1475.7900	2 ⁺				

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
2994.07	(3 ⁺ ,4 ⁺)	1451.62 [@] 8	100 [@]	1542.4441	4 ⁺				
3008.4?	1,2 ⁺	2350.7 [@] 10	100 [@] 40	657.7623	2 ⁺				
		3008.3 [@] 10	80 [@] 40	0.0	0 ⁺				
3029.077	7 ⁻	149.88 [@] 30	15.7 [@] 10	2879.185	7 ⁻	M1(+E2)	-0.08 22	0.152 16	$\alpha(K)=0.131$ 12; $\alpha(L)=0.016$ 3; $\alpha(M)=0.0032$ 6; $\alpha(N..)=0.00059$ 11 $\alpha(N)=0.00056$ 10; $\alpha(O)=3.20\times 10^{-5}$ 20 B(M1)(W.u.)=(0.0016 6); B(E2)(W.u.)=(0.4 +2/-4) Mult.: From A ₂ =0.33 5 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.01420$ 20; $\alpha(L)=0.00197$ 3; $\alpha(M)=0.000381$ 6; $\alpha(N..)=6.98\times 10^{-5}$ 10 $\alpha(N)=6.66\times 10^{-5}$ 10; $\alpha(O)=3.15\times 10^{-6}$ 5 B(E2)(W.u.)=0.61 22 Mult.: From A ₂ =+0.60 9, A ₄ =-0.35 10 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00610$ 9; $\alpha(L)=0.000802$ 12; $\alpha(M)=0.0001545$ 22; $\alpha(N..)=2.86\times 10^{-5}$ 4 $\alpha(N)=2.72\times 10^{-5}$ 4; $\alpha(O)=1.384\times 10^{-6}$ 20 B(E2)(W.u.)=0.8 3 Mult.: From A ₂ =+0.34 2, A ₄ =-0.08 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00152$ 11; $\alpha(L)=0.000178$ 14; $\alpha(M)=3.4\times 10^{-5}$ 3; $\alpha(N..)=6.4\times 10^{-6}$ 6 $\alpha(N)=6.1\times 10^{-6}$ 5; $\alpha(O)=3.5\times 10^{-7}$ 3 B(E1)(W.u.)=(2.8×10 ⁻⁶ 10); B(M2)(W.u.)=(0.07 +2/-7) Mult.: From A ₂ =-0.27 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). δ : From ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) (1990Ke02). E _γ : From ¹¹⁰ Cd(n,n'γ). E _γ ,I _γ : E _γ from ¹¹⁰ Cd(n,n'γ), I _γ from ¹¹⁰ Cd(γ,γ'). $\alpha(K)=0.0001198$ 17; $\alpha(L)=1.374\times 10^{-5}$ 20; $\alpha(M)=2.62\times 10^{-6}$ 4; $\alpha(N..)=0.000775$ 11 $\alpha(N)=4.69\times 10^{-7}$ 7; $\alpha(O)=2.82\times 10^{-8}$ 4; $\alpha(IPF)=0.000775$ 11 B(M1)(W.u.)=0.021 3
		369.20 [@] 10	14.4 [@] 16	2659.866	5 ⁻	E2		0.01662	
		489.382 [@] 15	75.0 [@] 7	2539.691	5 ⁻	E2		0.00708	
		549.141 [@] 17	100.0 [@] 20	2479.9339	6 ⁺	E1(+M2)	-0.04 6	0.00174 13	
3042.86	1 ⁺	1566.92 10		1475.7900	2 ⁺				
		2385.22 11	18.3 24	657.7623	2 ⁺				
		3042.98 28	100	0.0	0 ⁺	M1		9.12×10 ⁻⁴	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3055.703	8 ⁻	159.746 ^a 15	42.2 ^a 7	2895.948	6 ⁻	E2		0.283	E _γ ,I _γ : E _γ from ¹¹⁰ Cd(n,n'γ), I _γ from ¹¹⁰ Cd(γ,γ'). Mult.: From $\gamma(\theta)$ and linear polarization in ¹¹⁰ Cd(γ,γ') (2005Ko32). $\alpha(K)=0.230$ 4; $\alpha(L)=0.0435$ 6; $\alpha(M)=0.00853$ 12; $\alpha(N+..)=0.001493$ 21 $\alpha(N)=0.001447$ 21; $\alpha(O)=4.59\times10^{-5}$ 7 B(E2)(W.u.)=19.2 11 Mult.: From $A_2=+0.34$ 2, $A_4=-0.08$ 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.12$ 3; $\alpha(L)=0.020$ 6; $\alpha(M)=0.0039$ 12; $\alpha(N+..)=0.00070$ 21 $\alpha(N)=0.00067$ 20; $\alpha(O)=2.7\times10^{-5}$ 5 B(M1)(W.u.)=0.0005 3; B(E2)(W.u.)=14 8 Mult.: From $A_2=-0.96$ 1, $A_4=+0.17$ 2 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
		176.517 ^a 12	100.0 ^a 11	2879.185	7 ⁻	M1+E2	-1.03 54	0.15 4	
3064.712	6 ⁺	270.4 [@] 2	70 [@] 20	2793.441	(4) ⁺				$\alpha(K)=0.00400$ 6; $\alpha(L)=0.000476$ 7; $\alpha(M)=9.12\times10^{-5}$ 13; $\alpha(N+..)=1.725\times10^{-5}$ 25 $\alpha(N)=1.629\times10^{-5}$ 23; $\alpha(O)=9.59\times10^{-7}$ 16 Mult.: K/(L+M)=9 3 in ¹¹⁰ In ε decay (4.9 h) (1962Ka08). Other: $A_2=+0.29$ 2, $A_4=+0.19$ 4 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). δ: From $\gamma\gamma(\theta)$ in ¹¹⁰ In ε decay (4.92 h) (1980Ba58).
		584.21 ^{&} 8	100 ^{&} 3	2479.9339	6 ⁺	M1+E2	+0.0 3	0.00458	
		844.667 ^{&} 13	50.0 ^{&} 15	2220.0683	4 ⁺	E2		1.68×10 ⁻³	$\alpha(K)=0.001463$ 21; $\alpha(L)=0.000179$ 3; $\alpha(M)=3.43\times10^{-5}$ 5; $\alpha(N+..)=6.43\times10^{-6}$ 9 $\alpha(N)=6.09\times10^{-6}$ 9; $\alpha(O)=3.40\times10^{-7}$ 5 Mult.: $\alpha(K)\exp=0.00146$ 8 in ¹¹⁰ In ε decay (4.92 h) (1980Ba58).
3074.971	6 ⁻	1521.66 ^{&} 20	2.6 ^{&} 5	1542.4441	4 ⁺				$\alpha(K)=0.0403$ 6; $\alpha(L)=0.00494$ 8; $\alpha(M)=0.000950$ 15; $\alpha(N+..)=0.000179$ 3 $\alpha(N)=0.000169$ 3; $\alpha(O)=9.78\times10^{-6}$ 14 Mult.: From $A_2=-0.28$ 2 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00480$ 10; $\alpha(L)=0.000605$ 12;
		232.30 ^a 4	40.7 ^a 12	2842.682	(5) ⁻	M1(+E2)	-0.044 50	0.0463	
		535.269 ^a 18	100.0 ^a 23	2539.691	5 ⁻	M1+E2	+1.4 7	0.00554 10	

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3074.971	6 ⁻	595.49 ^a 14	30.2 ^a 12	2479.9339	6 ⁺				$\alpha(M)=0.0001162$ 24; $\alpha(N+..)=2.17 \times 10^{-5}$ 4 $\alpha(N)=2.06 \times 10^{-5}$ 4; $\alpha(O)=1.11 \times 10^{-6}$ 4 Mult.: From A ₂ =+0.63 2, A ₄ =+0.14 4 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$).
3078.381	1 ⁽⁺⁾	790.81 ^{&} 18	3.4 ^{&} 6	2287.63	2 ⁺	[M1]		0.00226	$\alpha(K)=0.00197$ 3; $\alpha(L)=0.000233$ 4; $\alpha(M)=4.46 \times 10^{-5}$ 7; $\alpha(N+..)=8.44 \times 10^{-6}$ 12 $\alpha(N)=7.97 \times 10^{-6}$ 12; $\alpha(O)=4.72 \times 10^{-7}$ 7 B(M1)(W.u.)=0.0046 13 I _γ : Other: 55 18 in ¹¹⁰ Cd(n,n'γ).
		1602.57 ^{&} 4	23.0 ^{&} 8	1475.7900	2 ⁺	[M1]		5.93×10 ⁻⁴	$\alpha(K)=0.000422$ 6; $\alpha(L)=4.90 \times 10^{-5}$ 7; $\alpha(M)=9.36 \times 10^{-6}$ 14; $\alpha(N+..)=0.0001123$ 16 $\alpha(N)=1.674 \times 10^{-6}$ 24; $\alpha(O)=1.001 \times 10^{-7}$ 14; $\alpha(IPF)=0.0001105$ 16 B(M1)(W.u.)=0.0037 9
		2420.51 ^{&} 4	100 ^{&} 2	657.7623	2 ⁺	[M1]		6.98×10 ⁻⁴	$\alpha(K)=0.000185$ 3; $\alpha(L)=2.13 \times 10^{-5}$ 3; $\alpha(M)=4.06 \times 10^{-6}$ 6; $\alpha(N+..)=0.000488$ 7 $\alpha(N)=7.26 \times 10^{-7}$ 11; $\alpha(O)=4.36 \times 10^{-8}$ 7; $\alpha(IPF)=0.000487$ 7 B(M1)(W.u.)=0.0047 11
33		3078.42 ^{&} 4	49.5 ^{&} 15	0.0	0 ⁺	(M1)		9.24×10 ⁻⁴	$\alpha(K)=0.0001173$ 17; $\alpha(L)=1.345 \times 10^{-5}$ 19; $\alpha(M)=2.57 \times 10^{-6}$ 4; $\alpha(N+..)=0.000791$ 11 $\alpha(N)=4.59 \times 10^{-7}$ 7; $\alpha(O)=2.76 \times 10^{-8}$ 4; $\alpha(IPF)=0.000790$ 11 B(M1)(W.u.)=0.00114 25 I _γ : Other: 73 18 in ¹¹⁰ Cd(n,n'γ). Mult.: D from $\gamma(\theta)$ in ¹¹⁰ Cd(γ, γ') (2005Ko32).
		3101.88	2 ⁺	184.4 [@] 2	77 [@] 15	2917.60	2 ^{+,3,4} ⁺		E _γ : Only observed in ¹¹⁰ Cd(n,n'γ).
				1023.05 ^{&} 5	21 ^{&} 4	2078.80	0 ⁺		
				1626.17 ^{&} 6	18.4 ^{&} 13	1475.7900	2 ⁺		
				2444.05 ^{&} 4	100 ^{&} 2	657.7623	2 ⁺		
				3102.00 ^{&} 18	1.7 ^{&} 3	0.0	0 ⁺		
		3121.62	6 ⁺	461.80 ^{&} 13	18 ^{&}	2659.866	5 ⁻		$\alpha(K)=0.00417$ 6; $\alpha(L)=0.000536$ 8; $\alpha(M)=0.0001032$ 15; $\alpha(N+..)=1.92 \times 10^{-5}$ 3 $\alpha(N)=1.82 \times 10^{-5}$ 3; $\alpha(O)=9.54 \times 10^{-7}$ 14 Mult.: $\alpha(K) \exp=3.8 \times 10^{-3}$ 5 (1980Ba58) from ¹¹⁰ In ε decay (4.9 h).
				560.32 ^{&} 11	7.2 ^{&} 4	2561.284	4 ⁺	E2	0.00483
				581.93 ^{&} 9	33.0 ^{&} 11	2539.691	5 ⁻	E1(+M2)	-0.01 10
								0.00150 15	$\alpha(K)=0.00131$ 13; $\alpha(L)=0.000154$ 17; $\alpha(M)=2.9 \times 10^{-5}$ 4; $\alpha(N+..)=5.5 \times 10^{-6}$ 6 $\alpha(N)=5.2 \times 10^{-6}$ 6; $\alpha(O)=3.0 \times 10^{-7}$ 4 Mult.: From A ₂ =-0.19 7 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$). δ : From 1990Ke02 in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$).

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α ^d	Comments
641.68 ^{&} 5		100.0 ^{&} 23		2479.9339	6 ⁺	M1(+E2)		0.00367	$\alpha(\text{K})=0.00320\ 5; \alpha(\text{L})=0.000380\ 6; \alpha(\text{M})=7.28\times10^{-5}\ 11;$

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3121.62	6 ⁺	871.08 ^{&} 5 901.53 ^{&} 5 1579.07 ^{&} 12	1.21 ^{&} 15 7.6 ^{&} 4 0.98 ^{&} 23	2250.554 2220.0683 1542.4441	4 ⁺ 4 ⁺ 4 ⁺				$\alpha(N+..)=1.378\times10^{-5}$ 20 $\alpha(N)=1.301\times10^{-5}$ 19; $\alpha(O)=7.68\times10^{-7}$ 11 Mult.: $\alpha(K)\exp=2.96\times10^{-3}$ 21 (1980Ba58) from ¹¹⁰ In ε decay (4.9 h). Other: From A ₂ =+0.39 5, A ₄ =+0.11 8 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).
3128.41	1 ^{+,2+}	1344.88 ^{&} 15 1652.70 ^{&} 9 3128.25 ^{&} 10	63 ^{&} 13 93 ^{&} 10 100 ^{&} 7	1783.496 1475.7900 0.0	2 ⁺ 2 ⁺ 0 ⁺				
3135.18	2 ^{+,3+}	1592.7 [@] 3 2477.39 [@] 7	30 [@] 7 100 [@] 7	1542.4441 657.7623	4 ⁺ 2 ⁺	M1+E2		7.16×10 ⁻⁴	$\alpha(K)=0.0001766$ 25; $\alpha(L)=2.03\times10^{-5}$ 3; $\alpha(M)=3.88\times10^{-6}$ 6; $\alpha(N+..)=0.000515$ 8 $\alpha(N)=6.94\times10^{-7}$ 10; $\alpha(O)=4.17\times10^{-8}$ 6; $\alpha(IPF)=0.000514$ 8 Mult.: From A ₂ =+0.31 7, A ₄ =-0.02 7 (2001Co01) in ¹¹⁰ Cd(n,n'γ).
35									
3171.19	2 ^{+,3^{+,4⁺}}	2513.4 [@] 2	100 [@]	657.7623	2 ⁺				$\alpha(K)=0.01501$ 23; $\alpha(L)=0.00184$ 3;
3184.53	5 ^{-,6⁻}	342.02 ^a 9	42.5 ^a 13	2842.682	(5) ⁻	M1+E2	+0.23 5	0.0173 3	$\alpha(M)=0.000353$ 6; $\alpha(N+..)=6.64\times10^{-5}$ 11 $\alpha(N)=6.28\times10^{-5}$ 11; $\alpha(O)=3.61\times10^{-6}$ 6 Mult.: From A ₂ =+0.08 3 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).
		644.82 ^a 3	100 ^a 4	2539.691	5 ⁻	M1+E2	+0.26 7	0.00361 6	$\alpha(K)=0.00315$ 5; $\alpha(L)=0.000375$ 6; $\alpha(M)=7.18\times10^{-5}$ 11; $\alpha(N+..)=1.358\times10^{-5}$ 20 $\alpha(N)=1.282\times10^{-5}$ 18; $\alpha(O)=7.53\times10^{-7}$ 11 Mult.: From A ₂ =+0.11 6 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).
3187.337	8 ⁺	707.40 ^{&} 2	100 ^{&}	2479.9339	6 ⁺	E2		0.00260	$\alpha(K)=0.00226$ 4; $\alpha(L)=0.000281$ 4; $\alpha(M)=5.40\times10^{-5}$ 8; $\alpha(N+..)=1.008\times10^{-5}$ 15 $\alpha(N)=9.56\times10^{-6}$ 14; $\alpha(O)=5.21\times10^{-7}$ 8 B(E2)(W.u.)=1.85 21 Mult.: $\alpha(K)\exp=2.61\times10^{-3}$ 16 (1980Ba58), 2.9×10^{-3} 6 (1970Ko12). K/(L+M)=6.0 5 (1962Ka08). DCO=1.47 6 (1994Ju04).
3193.40	(3) ⁺	1030.0 [@] 5 1410.08 ^{&} 8 1717.70 ^{&} 10	50 [@] 17 15.1 ^{&} 18 13.7 ^{&} 14	2162.8015 1783.496 1475.7900	3 ⁺ 2 ⁺ 2 ⁺				E _γ : Only observed in ¹¹⁰ Cd(n,n'γ).

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	δ ^c	α [†]	Comments
3193.40	(3) ⁺	2535.55 ^{&} 4	100.0 ^{&} 23	657.7623	2 ⁺				
3208.69	2 ^{+,3⁺}	1666.23 ^{&} 7	100 ^{&}	1542.4441	4 ⁺				
3239.56	6 ⁺	360.7 ^a 4	8.8 ^a 13	2879.185	7 ⁻	E1		0.00478	$\alpha(K)=0.00417$ 6; $\alpha(L)=0.000494$ 7; $\alpha(M)=9.44\times10^{-5}$ 14; $\alpha(N+..)=1.77\times10^{-5}$ 3 $\alpha(N)=1.674\times10^{-5}$ 24; $\alpha(O)=9.38\times10^{-7}$ 14 Mult.: From $A_2=-0.02$ 9 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
	397.18 ^{ad} 15	52 ^a 3		2842.682	(5) ⁻	E1		0.00374	$\alpha(K)=0.00327$ 5; $\alpha(L)=0.000386$ 6; $\alpha(M)=7.38\times10^{-5}$ 11; $\alpha(N+..)=1.383\times10^{-5}$ 20 $\alpha(N)=1.309\times10^{-5}$ 19; $\alpha(O)=7.37\times10^{-7}$ 11 Mult.: From $A_2=+0.29$ 6 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
	760.0 ^a 6	100 ^a 3	2479.9339	6 ⁺	M1+E2	+0.29 10	0.00245		$\alpha(K)=0.00214$ 4; $\alpha(L)=0.000254$ 4; $\alpha(M)=4.86\times10^{-5}$ 8; $\alpha(N+..)=9.18\times10^{-6}$ 14 $\alpha(N)=8.67\times10^{-6}$ 13; $\alpha(O)=5.11\times10^{-7}$ 9 Mult.: From $A_2=+0.36$ (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). M1 from $\alpha(K)\exp=2.2\times10^{-3}$ 1 (1980Ba58) in ¹¹⁰ In ε decay (4.9 h).
	1018.99 ^a 6	39.1 ^a 16	2220.0683	4 ⁺			0.001094 16		$\alpha(K)=0.000953$ 14; $\alpha(L)=0.0001145$ 16; $\alpha(M)=2.19\times10^{-5}$ 3; $\alpha(N+..)=4.12\times10^{-6}$ $\alpha(N)=3.90\times10^{-6}$ 6; $\alpha(O)=2.22\times10^{-7}$ 4
3256.49	1 ^{+,2^{+,3⁺}}	1697.77 ^{&} 7	8.1 ^{&} 3	1542.4441	4 ⁺				
3275.449	8 ⁺	2598.69 [@] 14	100 [@]	657.7623	2 ⁺				
	398.5 5	1.05 14	2876.812	6 ⁺	[E2]		0.01310		$\alpha(K)=0.01122$ 17; $\alpha(L)=0.001534$ 23; $\alpha(M)=0.000296$ 5; $\alpha(N+..)=5.43\times10^{-5}$ 8 $\alpha(N)=5.18\times10^{-5}$ 8; $\alpha(O)=2.51\times10^{-6}$ 4 B(E2)(W.u.)=27 8
	795.5 1	100.0 9	2479.9339	6 ⁺	E2		0.00194		$\alpha(K)=0.001688$ 24; $\alpha(L)=0.000208$ 3; $\alpha(M)=3.98\times10^{-5}$ 6; $\alpha(N+..)=7.46\times10^{-6}$ 11 $\alpha(N)=7.07\times10^{-6}$ 10; $\alpha(O)=3.92\times10^{-7}$ 6 B(E2)(W.u.)=80 22 Mult.: From $A_2=0.327$ 14, $A_4=-0.077$ 21 and linear polarization measurements (1974Lu01).
3277.86	(1 ⁺)	2620.00 14		657.7623	2 ⁺	[M1]		7.63×10 ⁻⁴	$\alpha(K)=0.0001587$ 23; $\alpha(L)=1.82\times10^{-5}$ 3; $\alpha(M)=3.48\times10^{-6}$ 5; $\alpha(N+..)=0.000582$ 9 $\alpha(N)=6.23\times10^{-7}$ 9; $\alpha(O)=3.74\times10^{-8}$ 6; $\alpha(IPF)=0.000582$ 9

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3277.86	(1 ⁺)	3281		0.0	0 ⁺	(M1)		9.96×10 ⁻⁴	$\alpha(K)=0.0001044$ 15; $\alpha(L)=1.195\times10^{-5}$ 17; $\alpha(M)=2.28\times10^{-6}$ 4; $\alpha(N+..)=0.000878$ 13 $\alpha(N)=4.08\times10^{-7}$ 6; $\alpha(O)=2.45\times10^{-8}$ 4; $\alpha(IPF)=0.000877$ 13 E _γ ,Mult.: From ¹¹⁰ Cd(γ, γ') (2005Ko32); POL=+0.03 6.
3298.13	1 ⁻	2640.1 [@] 7	67 [@] 22	657.7623	2 ⁺	[E1]		1.12×10 ⁻³	$\alpha(K)=8.58\times10^{-5}$ 12; $\alpha(L)=9.73\times10^{-6}$ 14; $\alpha(M)=1.85\times10^{-6}$ 3; $\alpha(N+..)=0.001020$ 15 $\alpha(N)=3.31\times10^{-7}$ 5; $\alpha(O)=1.98\times10^{-8}$ 3; $\alpha(IPF)=0.001020$ 15 B(E1)(W.u.)=4.8×10 ⁻⁵ 19
		3298.1 [@] 2	100 [@] 22	0.0	0 ⁺	(E1)		1.43×10 ⁻³	$\alpha(K)=6.27\times10^{-5}$ 9; $\alpha(L)=7.09\times10^{-6}$ 10; $\alpha(M)=1.351\times10^{-6}$ 19; $\alpha(N+..)=0.001364$ 19 $\alpha(N)=2.41\times10^{-7}$ 4; $\alpha(O)=1.448\times10^{-8}$ 21; $\alpha(IPF)=0.001363$ 19 B(E1)(W.u.)=3.7×10 ⁻⁵ 11 Mult.: D from the intensity ratios W(90°)/W(127°) in ¹¹⁰ Cd(γ, γ').
37									
3314.334	2 ⁺	958.56 ^{&} 5	17.0 ^{&} 12	2355.792	2 ⁺				
		1151.70 ^{&} 6	12.3 ^{&} 10	2162.8015	3 ⁺				
		1235.67 ^{&} 4	73.2 ^{&} 20	2078.548	3 ⁻				
		1583.18 ^{&} 20	3.2 ^{&} 12	1731.31	0 ⁺				
		1838.2 [@] 4	50 [@] 25	1475.7900	2 ⁺				E _γ : Only observed in ¹¹⁰ Cd(n,n'γ).
		2656.55 ^{&} 4	100 ^{&} 2	657.7623	2 ⁺				
		3315.2 ^{@d} 7	35.0 [@] 7	0.0	0 ⁺				E _γ : Only observed in ¹¹⁰ Cd(n,n'γ).
3334.85	7 ⁻	279.142 ^a 25	82.0 ^a 16	3055.703	8 ⁻	M1(+E2)	+0.045 40	0.0287	$\alpha(K)=0.0250$ 4; $\alpha(L)=0.00304$ 5; $\alpha(M)=0.000585$ 9; $\alpha(N+..)=0.0001103$ 16 $\alpha(N)=0.0001042$ 15; $\alpha(O)=6.04\times10^{-6}$ 9 Mult.: From A ₂ =-0.205 15 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$). Mult.: From A ₂ =+0.25 13 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$).
		456.0 ^a 2	100 ^a 7	2879.185	7 ⁻	M1+E2	-0.28 19	0.00836 13	$\alpha(K)=0.00728$ 11; $\alpha(L)=0.000881$ 19; $\alpha(M)=0.000169$ 4; $\alpha(N+..)=3.19\times10^{-5}$ 7 $\alpha(N)=3.01\times10^{-5}$ 6; $\alpha(O)=1.74\times10^{-6}$ 3 Mult.: From A ₂ =+0.25 13 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$).
3340.83		2683.03 [@] 14	100 [@]	657.7623	2 ⁺				
3345.810	9 ⁻	290.09 ^a 3	10.38 ^a 23	3055.703	8 ⁻	M1+E2	+0.54 19	0.0283 14	$\alpha(K)=0.0244$ 11; $\alpha(L)=0.00315$ 23;

Adopted Levels, Gammas (continued)

 $\gamma^{(110)\text{Cd}}$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\ddagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^c	α^\dagger	Comments
3345.810	9 ⁻	466.624 ^a 20	100.0 ^a 12	2879.185	7 ⁻	E2		0.00814	$\alpha(M)=0.00061\ 5$; $\alpha(N+..)=0.000113\ 8$ $\alpha(N)=0.000107\ 8$; $\alpha(O)=5.74\times 10^{-6}\ 17$ $B(M1)(W.u.)=0.00133\ 23$; $B(E2)(W.u.)=3.8\ 21$ Mult.: From $A_2=+0.43\ 3$, $A_4=+0.19\ 3$ in (1990Ke02) $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$. $\alpha(K)=0.00700\ 10$; $\alpha(L)=0.000928\ 13$; $\alpha(M)=0.000179\ 3$; $\alpha(N+..)=3.30\times 10^{-5}\ 5$ $\alpha(N)=3.14\times 10^{-5}\ 5$; $\alpha(O)=1.583\times 10^{-6}\ 23$ $B(E2)(W.u.)=15.0\ 10$ Mult.: From $A_2=+0.36\ 2$, $A_4=-0.10\ 2$ (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$ (1990Ke02).
3359.06	1 ⁻	3359.0 [@] 2	100 [@]	0.0	0 ⁺	E1		1.46×10^{-3}	$\alpha(K)=6.11\times 10^{-5}\ 9$; $\alpha(L)=6.91\times 10^{-6}\ 10$; $\alpha(M)=1.317\times 10^{-6}\ 19$; $\alpha(N+..)=0.001394\ 20$ $\alpha(N)=2.35\times 10^{-7}\ 4$; $\alpha(O)=1.412\times 10^{-8}\ 20$ $\alpha(IPF)=0.001394\ 20$ $B(E1)(W.u.)=0.000664\ 12$ Mult.: From $\gamma(\theta)$ and POL in $^{110}\text{Cd}(\gamma,\gamma')$ (2005Ko32).
3366.8	1 ⁺ ,2 ⁺ ,3 ⁺ ,4 ⁺	2709.0 [@] 4	100 [@]	657.7623	2 ⁺				
3391.177	(7) ⁻	316.25 ^{ad} 25	12.2 ^a 13	3074.971	6 ⁻	M1+E2		0.0208	$\alpha(K)=0.0181\ 3$; $\alpha(L)=0.00220\ 4$; $\alpha(M)=0.000422\ 6$; $\alpha(N+..)=7.97\times 10^{-5}\ 12$ $\alpha(N)=7.53\times 10^{-5}\ 11$; $\alpha(O)=4.38\times 10^{-6}\ 7$ Mult.: From $A_2=+0.30\ 11$ (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$. No δ given by 1990Ke02.
		495.227 ^a 10	100.0 ^a 22	2895.948	6 ⁻	M1+E2	+0.16 2	0.00682	$\alpha(K)=0.00594\ 9$; $\alpha(L)=0.000713\ 10$; $\alpha(M)=0.0001366\ 20$; $\alpha(N+..)=2.58\times 10^{-5}\ 4$ $\alpha(N)=2.44\times 10^{-5}\ 4$; $\alpha(O)=1.427\times 10^{-6}\ 20$ Mult.: From $A_2=+0.01\ 3$ (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$.
		512.3 7		2879.185	7 ⁻				
		912.2 ^a 4	54 ^a 7	2479.9339	6 ⁺	(E1)		5.80×10^{-4}	$\alpha(K)=0.000508\ 8$; $\alpha(L)=5.88\times 10^{-5}\ 9$; $\alpha(M)=1.122\times 10^{-5}\ 16$; $\alpha(N+..)=2.12\times 10^{-6}\ 3$ $\alpha(N)=2.00\times 10^{-6}\ 3$; $\alpha(O)=1.170\times 10^{-7}\ 17$ Mult.: From $A_2=-0.19\ 19$ (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma)$, $^{110}\text{Pd}(\alpha,4n\gamma)$.
3403.29	(1 ⁻)	2745.45 ^{&} 6	100 ^{&} 3	657.7623	2 ⁺				
		3403.48 ^{&} 15	24.4 ^{&} 22	0.0	0 ⁺				

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult.	δ ^c	α [†]	Comments
3427.27	8 ⁻	371.6 5	11 4	3055.703	8 ⁻	M1+E2	-0.25 15	0.0140 3	α(K)=0.01216 23; α(L)=0.00148 5; α(M)=0.000285 9; α(N+..)=5.37×10 ⁻⁵ 15 α(N)=5.07×10 ⁻⁵ 15; α(O)=2.92×10 ⁻⁶ 5 B(M1)(W.u.)=0.006 3; B(E2)(W.u.)=2.4 +29–24 I _γ : 16.7 9 in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ). Mult.: From A ₂ =+0.28 5 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
	531 1		3.7 19	2895.948	6 ⁻	[E2]		0.00561	α(K)=0.00484 8; α(L)=0.000628 10; α(M)=0.0001208 19; α(N+..)=2.24×10 ⁻⁵ 4 α(N)=2.13×10 ⁻⁵ 4; α(O)=1.103×10 ⁻⁶ 17 B(E2)(W.u.)=2.3 13
	548.2 3	100 11		2879.185	7 ⁻	M1+E2	-0.14 4	0.00533	α(K)=0.00465 7; α(L)=0.000555 8; α(M)=0.0001064 15; α(N+..)=2.01×10 ⁻⁵ 3 α(N)=1.90×10 ⁻⁵ 3; α(O)=1.115×10 ⁻⁶ 16 B(M1)(W.u.)=0.019 4; B(E2)(W.u.)=1.0 6 Mult.: Other: DCO=0.50 5 in (HI,xny).
3439.719	8 ⁺	164.26 ^a 2	11.5 ^a 4	3275.449	8 ⁺	M1(+E2)	+0.22 27	0.123 21	α(K)=0.106 16; α(L)=0.014 4; α(M)=0.0027 8; α(N+..)=0.00050 13 α(N)=0.00047 13; α(O)=2.6×10 ⁻⁵ 3 B(M1)(W.u.)=0.8 +4–6 Mult.: From A ₂ =0.42 4 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ) Other:DCO=1.39 9 in (HI,xny).
	562.907 ^a 25		30.7 ^a 7	2876.812	6 ⁺	E2		0.00477	α(K)=0.00412 6; α(L)=0.000529 8; α(M)=0.0001018 15; α(N+..)=1.89×10 ⁻⁵ 3 α(N)=1.80×10 ⁻⁵ 3; α(O)=9.42×10 ⁻⁷ 14 B(E2)(W.u.)=1.5×10 ² +6–10 Mult.: From A ₂ =+0.46 3, A ₄ =−0.08 5 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
	959.785 ^a 10	100.0 ^a 14		2479.9339	6 ⁺	E2		1.25×10 ⁻³	α(K)=0.001089 16; α(L)=0.0001316 19; α(M)=2.52×10 ⁻⁵ 4; α(N+..)=4.73×10 ⁻⁶ 7 α(N)=4.48×10 ⁻⁶ 7; α(O)=2.54×10 ⁻⁷ 4 B(E2)(W.u.)=34 +13–22 Mult.: From A ₂ =+0.36 3, A ₄ =−0.12 5 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
3449.6	(1,2)	1973.8 [@] 3	100 [@]	1475.7900	2 ⁺				
3466.39	1,2,3	2808.59 ^{&} 4	100 ^{&}	657.7623	2 ⁺				
3475.416	1 ⁺	1744.10 ^{&} 7	8.5 ^{&} 5	1731.31	0 ⁺	[M1]		5.73×10 ⁻⁴	α(K)=0.000355 5; α(L)=4.11×10 ⁻⁵ 6; α(M)=7.85×10 ⁻⁶ 11; α(N+..)=0.0001690 24

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3475.416	1 ⁺	2002.37 ^{&} 5	22.4 ^{&} 5	1473.07	0 ⁺	[M1]		5.91×10 ⁻⁴	$\alpha(K)=0.000355$ 5; $\alpha(L)=4.11\times10^{-5}$ 6; $\alpha(M)=7.85\times10^{-6}$ 11; $\alpha(N+..)=0.0001690$ 24 $\alpha(N)=1.403\times10^{-6}$ 20; $\alpha(O)=8.40\times10^{-8}$ 12; $\alpha(IPF)=0.0001675$ 24 B(M1)(W.u.)=0.0035 3
		2817.61 ^{&} 7	9.8 ^{&} 5	657.7623	2 ⁺	[M1]		8.32×10 ⁻⁴	$\alpha(K)=0.000268$ 4; $\alpha(L)=3.10\times10^{-5}$ 5; $\alpha(M)=5.92\times10^{-6}$ 9; $\alpha(N+..)=0.000286$ 4 $\alpha(N)=1.058\times10^{-6}$ 15; $\alpha(O)=6.34\times10^{-8}$ 9; $\alpha(IPF)=0.000285$ 4 B(M1)(W.u.)=0.0061 4
	3475.34 ^{&} 3	100 ^{&} 3		0.0	0 ⁺	(M1)		1.06×10 ⁻³	$\alpha(K)=9.41\times10^{-5}$ 14; $\alpha(L)=1.076\times10^{-5}$ 15; $\alpha(M)=2.05\times10^{-6}$ 3; $\alpha(N+..)=0.000958$ 14 $\alpha(N)=3.67\times10^{-7}$ 6; $\alpha(O)=2.21\times10^{-8}$ 3; $\alpha(IPF)=0.000958$ 14 B(M1)(W.u.)=0.0052 4 Mult.: D from intensity ratios W(90°)/W(127°) in ¹¹⁰ Cd(γ, γ') (2005Ko32).
3492.64	(5 ⁻ ,6 ⁻)	566.02 ^{ad} 12	43.9 ^a 18	2926.7474	5 ⁺				
		952.9 ^a 4	100 ^a 5	2539.691	5 ⁻				
		1012.70 ^a 6	42 ^a 5	2479.9339	6 ⁺				
3493.1		2835.3 [@] 4	100 [@]	657.7623	2 ⁺				
3525.34	6 ⁺	460.85 ^a 8	100 ^a 3	3064.712	6 ⁺	E2(+M1)		0.00812	$\alpha(K)=0.00708$ 10; $\alpha(L)=0.000849$ 12; $\alpha(M)=0.0001628$ 23; $\alpha(N+..)=3.08\times10^{-5}$ 5 $\alpha(N)=2.91\times10^{-5}$ 4; $\alpha(O)=1.704\times10^{-6}$ 24 Mult.: From A ₂ =+0.31 6, A ₄ =-0.14 9 (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$).
		648.58 ^{&} 8	17 ^{&} 4	2876.812	6 ⁺	M1+E2	+0.20 +10-12	0.00357 6	$\alpha(K)=0.00311$ 5; $\alpha(L)=0.000370$ 6; $\alpha(M)=7.09\times10^{-5}$ 10; $\alpha(N+..)=1.341\times10^{-5}$ 19 $\alpha(N)=1.266\times10^{-5}$ 18; $\alpha(O)=7.45\times10^{-7}$ 12 Mult.: From $\alpha(K)\exp=4.2\times10^{-3}$ 12 (1979Sy02) in ¹¹⁰ In ε decay (4.9 h).

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3525.34	6 ⁺	1045.24 ^{&} 9	35.7 ^{&} 17	2479.9339	6 ⁺	M1(+E2)	+0.3 3	0.00119 4	$\alpha(K)=0.00311$ 5; $\alpha(L)=0.000370$ 6; $\alpha(M)=7.09\times10^{-5}$ 10; $\alpha(N+..)=1.341\times10^{-5}$ 19 $\alpha(N)=1.266\times10^{-5}$ 18; $\alpha(O)=7.45\times10^{-7}$ 12 Mult.: From $\alpha(K)\exp=4.2\times10^{-3}$ 12 (1979Sy02) in ¹¹⁰ In ε decay (4.9 h). δ: From $\gamma\gamma(\theta)$ in ¹¹⁰ In ε decay (4.9 h) (1980Ba58).
3598.0	1 ⁺	1305.11 ^{&} 9	15.2 ^{&} 13	2220.0683	4 ⁺				$\alpha(K)=0.00104$ 4; $\alpha(L)=0.000122$ 4; $\alpha(M)=2.34\times10^{-5}$ 7; $\alpha(N+..)=4.43\times10^{-6}$ 13 $\alpha(N)=4.18\times10^{-6}$ 12; $\alpha(O)=2.48\times10^{-7}$ 9 Mult.: From $\alpha(K)\exp=1.0\times10^{-3}$ 2 (1980Ba58). δ: From $\gamma\gamma(\theta)$ in ¹¹⁰ In ε decay (4.9 h) (1980Ba58).
		1982.77 ^{&} 18	17.0 ^{&} 4	1542.4441	4 ⁺				
3611.041	10 ⁺	171.33 2	14.81 11	3439.719	8 ⁺	E2		0.221	B(M1)(W.u.)=0.0067 6 $\alpha(K)=8.85\times10^{-5}$ 13; $\alpha(L)=1.011\times10^{-5}$ 15; $\alpha(M)=1.93\times10^{-6}$ 3; $\alpha(N+..)=0.001008$ 15 $\alpha(N)=3.45\times10^{-7}$ 5; $\alpha(O)=2.08\times10^{-8}$ 3; $\alpha(IPF)=0.001007$ 15 Mult.: From $\gamma(\theta)$ and linear polarization measurements in ¹¹⁰ Cd(γ,γ') (2005Ko32). $\alpha(K)=0.181$ 3; $\alpha(L)=0.0329$ 5; $\alpha(M)=0.00645$ 9; $\alpha(N+..)=0.001134$ 16 $\alpha(N)=0.001097$ 16; $\alpha(O)=3.65\times10^{-5}$ 6 B(E2)(W.u.)=29.1 15 E _γ : From ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). I _γ : From (HI,xnγ). Mult.: From $A_2=+0.22$ 2, $A_4=-0.08$ 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00940$ 16; $\alpha(L)=0.001123$ 21; $\alpha(M)=0.000214$ 4; $\alpha(N+..)=4.00\times10^{-5}$ 8 $\alpha(N)=3.79\times10^{-5}$ 7; $\alpha(O)=2.08\times10^{-6}$ 4 B(E1)(W.u.)=(1.33×10^{-6} 9); B(M2)(W.u.)=(0.017 +39-17) E _γ : From ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). I _γ : From (HI,xnγ). Mult.: From $A_2=-0.27$ 2 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
265.218 20	5.23 22	3345.810	9 ⁻	E1(+M2)	-0.014 16	0.01078 19			

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	α [†]	Comments
3611.041	10 ⁺	335.596 15	100.0 10	3275.449	8 ⁺	E2		0.0225	$\alpha(K)=0.0192~3; \alpha(L)=0.00273~4; \alpha(M)=0.000528~8;$ $\alpha(N+..)=9.61\times10^{-5}~14$ $\alpha(N)=9.19\times10^{-5}~13; \alpha(O)=4.22\times10^{-6}~6$ B(E2)(W.u.)=6.8 4 E _γ : From ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). I _γ : From (HI,xny). Mult.: From A ₂ =+0.35 2, A ₄ =-0.10 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) and A ₂ =0.333 11, A ₄ =-0.093 16 in (HI,xny).
	423.5 3		2.27 22	3187.337	8 ⁺	E2		0.01088	$\alpha(K)=0.00933~14; \alpha(L)=0.001260~18; \alpha(M)=0.000243~4;$ $\alpha(N+..)=4.47\times10^{-5}~7$ $\alpha(N)=4.26\times10^{-5}~6; \alpha(O)=2.10\times10^{-6}~3$ B(E2)(W.u.)=0.048 6 Mult.: DCO=1.7 4 in (HI,xny).
3634.57	2 ⁺	1555.76 ^{&} 21	28 ^{&} 9	2078.548	3 ⁻				
		1851.15 ^{&} 13	100 ^{&} 9	1783.496	2 ⁺				
3641.10	8 ⁻	566.02 ^{ad} 12	43.1 ^a 17	3074.971	6 ⁻	(E2)		0.00469	$\alpha(K)=0.00405~6; \alpha(L)=0.000521~8; \alpha(M)=0.0001002~14;$ $\alpha(N+..)=1.86\times10^{-5}~3$ $\alpha(N)=1.767\times10^{-5}~25; \alpha(O)=9.28\times10^{-7}~13$ I _γ : I _γ for unresolved doublet in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$). $\alpha(K)=0.00358~5; \alpha(L)=0.000426~6; \alpha(M)=8.16\times10^{-5}~12;$ $\alpha(N+..)=1.544\times10^{-5}~22$ $\alpha(N)=1.458\times10^{-5}~21; \alpha(O)=8.59\times10^{-7}~12$ Mult.: From ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) (1990Ke02) but no δ given.
		611.80 ^a 15	24 ^a 7	3029.077	7 ⁻	M1+E2		0.00411	
		761.93 ^a 4	100 ^a 4	2879.185	7 ⁻	M1+E2	+0.057 24	0.00246	$\alpha(K)=0.00215~3; \alpha(L)=0.000254~4; \alpha(M)=4.86\times10^{-5}~7;$ $\alpha(N+..)=9.20\times10^{-6}~13$ $\alpha(N)=8.68\times10^{-6}~13; \alpha(O)=5.14\times10^{-7}~8$ Mult.: From A ₂ =-0.14 3 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
3683.15	9 ⁻	255.74 ^{ad} 15	4.77 ^a 25	3427.27	8 ⁻	M1+E2	-0.12 11	0.0363 9	$\alpha(K)=0.0315~7; \alpha(L)=0.00387~14; \alpha(M)=0.00074~3;$ $\alpha(N+..)=0.000140~5$ $\alpha(N)=0.000133~5; \alpha(O)=7.62\times10^{-6}~14$ Mult.: From A ₂ =-0.42 1 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
		337.40 7	15.6 5	3345.810	9 ⁻	M1+E2		0.01765	$\alpha(K)=0.01537~22; \alpha(L)=0.00186~3; \alpha(M)=0.000357~5;$ $\alpha(N+..)=6.75\times10^{-5}~10$ $\alpha(N)=6.37\times10^{-5}~9; \alpha(O)=3.71\times10^{-6}~6$

Adopted Levels, Gammas (continued)

<u>$\gamma^{(110\text{Cd})}$ (continued)</u>										
E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	δ ^c	a [†]	Comments	
3683.15	9 ⁻	627.59 ^d 12	65.8 ^d 20	3055.703	8 ⁻	M1+E2	-0.21 7	0.00385	Mult.: From A ₂ =+0.67 9 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ). No reliable δ could be obtained by 1990Ke02 .	
		654.00 10	100.0 15	3029.077	7 ⁻	E2		0.00318	$\alpha(K)=0.00336~5; \alpha(L)=0.000400~6; \alpha(M)=7.67\times10^{-5}~11;$ $\alpha(N+..)=1.450\times10^{-5}~21$ $\alpha(N)=1.370\times10^{-5}~20; \alpha(O)=8.05\times10^{-7}~12$ Mult.: From DCO=0.90 10 in (HI,xn γ) and A ₂ =-0.57 4 (1990Ke02), in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).	
3726.58	1,2 ⁺	3726.51 ^{&} 18	100 ^{&}	0.0	0 ⁺				$\alpha(K)=0.00276~4; \alpha(L)=0.000347~5; \alpha(M)=6.67\times10^{-5}~10;$ $\alpha(N+..)=1.243\times10^{-5}~18$ $\alpha(N)=1.180\times10^{-5}~17; \alpha(O)=6.35\times10^{-7}~9$ Mult.: From A ₂ =+0.37 3, A ₄ =-0.06 6 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).	
3772.77	1 ⁺	3114	30 3	657.7623	2 ⁺	[M1]		9.37×10 ⁻⁴	$\alpha(K)=0.0001149~16; \alpha(L)=1.316\times10^{-5}~19;$ $\alpha(M)=2.51\times10^{-6}~4; \alpha(N+..)=0.000806~12$ $\alpha(N)=4.49\times10^{-7}~7; \alpha(O)=2.70\times10^{-8}~4; \alpha(IPF)=0.000806~12$ B(M1)(W.u.)=0.0131 14 E _γ ,I _γ : From ¹¹⁰ Cd(γ,γ').	
		3772.70 [@] 4	100 [@]	0.0	0 ⁺	M1		1.17×10 ⁻³	$\alpha(K)=8.13\times10^{-5}~12; \alpha(L)=9.29\times10^{-6}~13;$ $\alpha(M)=1.772\times10^{-6}~25; \alpha(N+..)=0.001076~15$ $\alpha(N)=3.17\times10^{-7}~5; \alpha(O)=1.91\times10^{-8}~3; \alpha(IPF)=0.001076~15$ B(M1)(W.u.)=0.0246 6 Mult.: Deduced from $\gamma(\theta)$ and linear polarization measurements in ¹¹⁰ Cd(γ,γ') (2005Ko32).	
3782.13	9 ⁻	726.43 ^a 4	100.0 ^a 22	3055.703	8 ⁻	M1+E2	+0.15 2	0.00274	$\alpha(K)=0.00239~4; \alpha(L)=0.000283~4; \alpha(M)=5.42\times10^{-5}~8;$ $\alpha(N+..)=1.026\times10^{-5}~15$ $\alpha(N)=9.69\times10^{-6}~14; \alpha(O)=5.72\times10^{-7}~8$ Mult.: From A ₂ =-0.00 2 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).	
		902.90 ^a 15	68.9 ^a 15	2879.185	7 ⁻	E2		1.44×10 ⁻³	$\alpha(K)=0.001252~18; \alpha(L)=0.0001521~22; \alpha(M)=2.91\times10^{-5}~4;$ $\alpha(N+..)=5.47\times10^{-6}~8$ $\alpha(N)=5.18\times10^{-6}~8; \alpha(O)=2.91\times10^{-7}~4$ I _γ : Other: 100 12 in (HI,xn γ). Mult.: From A ₂ =+0.36 2, A ₄ =-0.18 3 (1990Ke02) in ¹⁰⁸ Pd(α ,2n γ), ¹¹⁰ Pd(α ,4n γ).	

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult.	δ ^c	α [†]	Comments
3791.62	8 ⁺	351.93 ^a 7	25.0 ^a 16	3439.719	8 ⁺	M1(+E2)	-0.15 24	0.0159 5	$\alpha(K)=0.0139$ 4; $\alpha(L)=0.00169$ 8; $\alpha(M)=0.000324$ 15; $\alpha(N..)=6.10\times10^{-5}$ 25 $\alpha(N)=5.77\times10^{-5}$ 25; $\alpha(O)=3.34\times10^{-6}$ 6 Mult.: From A ₂ =+0.30 5 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
	914.50 ^a 15	100 ^a 5		2876.812	6 ⁺	E2		1.40×10 ⁻³	$\alpha(K)=0.001216$ 17; $\alpha(L)=0.0001475$ 21; $\alpha(M)=2.83\times10^{-5}$ 4; $\alpha(N..)=5.30\times10^{-6}$ 8 $\alpha(N)=5.02\times10^{-6}$ 7; $\alpha(O)=2.83\times10^{-7}$ 4 Mult.: From A ₂ =+0.42 11 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
	1311.70 ^a 6	78 ^a 3		2479.9339	6 ⁺	E2		6.65×10 ⁻⁴	$\alpha(K)=0.000558$ 8; $\alpha(L)=6.58\times10^{-5}$ 10; $\alpha(M)=1.259\times10^{-5}$ 18; $\alpha(N..)=2.87\times10^{-5}$ 4 $\alpha(N)=2.24\times10^{-6}$ 4; $\alpha(O)=1.303\times10^{-7}$ 19; $\alpha(IPF)=2.63\times10^{-5}$ 4 Mult.: From A ₂ =+0.30 4 in (1990Ke02) ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
3823.247	10 ⁻	477.45 ^a 4	20.0 ^a 6	3345.810	9 ⁻	M1+E2	-0.24 8	0.00746	$\alpha(K)=0.00650$ 9; $\alpha(L)=0.000783$ 12; $\alpha(M)=0.0001501$ 22; $\alpha(N..)=2.83\times10^{-5}$ 4 $\alpha(N)=2.68\times10^{-5}$ 4; $\alpha(O)=1.558\times10^{-6}$ 22 B(M1)(W.u.)=0.0091 9; B(E2)(W.u.)=1.9 12 I _γ : Other: 14.8 9 in (HI,xnγ). Mult.: From DCO=0.60 6 in (HI,xnγ) and A ₂ =-0.61 4, A ₄ =+0.13 6 in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$) (1990Ke02).
	767.532 ^a 20	100.0 ^a 12		3055.703	8 ⁻	E2		0.00212	$\alpha(K)=0.00184$ 3; $\alpha(L)=0.000227$ 4; $\alpha(M)=4.36\times10^{-5}$ 7; $\alpha(N..)=8.16\times10^{-6}$ 12 $\alpha(N)=7.74\times10^{-6}$ 11; $\alpha(O)=4.27\times10^{-7}$ 6 B(E2)(W.u.)=16.1 14 Mult.: From A ₂ =-0.36 3, A ₄ =-0.13 4 (1990Ke02) in ¹⁰⁸ Pd($\alpha,2n\gamma$), ¹¹⁰ Pd($\alpha,4n\gamma$).
3854.1	(1 ⁺)	3854	100	0.0	0 ⁺	(M1)		1.19×10 ⁻³	$\alpha(K)=7.83\times10^{-5}$ 11; $\alpha(L)=8.95\times10^{-6}$ 13; $\alpha(M)=1.706\times10^{-6}$ 24; $\alpha(N..)=0.001105$ 16 $\alpha(N)=3.05\times10^{-7}$ 5; $\alpha(O)=1.84\times10^{-8}$ 3; $\alpha(IPF)=0.001105$ 16 B(M1)(W.u.)=0.0084 11 E _γ ,I _γ : From ¹¹⁰ Cd(γ,γ'). Mult.: POL=+0.09 7 for the 3854+3862 keV doublet.
3861.9	(1 ⁺)	3204	12 4	657.7623	2 ⁺	[M1]		9.69×10 ⁻⁴	$\alpha(K)=0.0001090$ 16; $\alpha(L)=1.249\times10^{-5}$ 18; $\alpha(M)=2.38\times10^{-6}$ 4; $\alpha(N..)=0.000845$ 12

Adopted Levels, Gammas (continued) $\gamma^{(110\text{Cd})}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
3861.9	(1 ⁺)	3862		100	0.0	0 ⁺	(M1)	1.20×10^{-3}
								$\alpha(K)=0.0001090~16; \alpha(L)=1.249 \times 10^{-5}~18; \alpha(M)=2.38 \times 10^{-6}~4;$ $\alpha(N+..)=0.000845~12$ $\alpha(N)=4.26 \times 10^{-7}~6; \alpha(O)=2.56 \times 10^{-8}~4; \alpha(IPF)=0.000845~12$ $B(M1)(W.u.)=0.0054~19$ $E_{\gamma}I_{\gamma}$: From ¹¹⁰ Cd(γ, γ'). $\alpha(K)=7.81 \times 10^{-5}~11; \alpha(L)=8.91 \times 10^{-6}~13; \alpha(M)=1.700 \times 10^{-6}~24;$ $\alpha(N+..)=0.001108~16$ $\alpha(N)=3.04 \times 10^{-7}~5; \alpha(O)=1.83 \times 10^{-8}~3; \alpha(IPF)=0.001107~16$ $B(M1)(W.u.)=0.0256~14$ $E_{\gamma}I_{\gamma}$: From ¹¹⁰ Cd(γ, γ'). Mult.: Deduced from $\gamma(\theta)$ and linear polarization measurements in ¹¹⁰ Cd(γ, γ') (2005Ko32).
3992.79	(9 ⁻)	1113.60 ^a 15	100 ^a	2879.185	7 ⁻	(E2)	9.01×10^{-4}	$\alpha(K)=0.000785~11; \alpha(L)=9.37 \times 10^{-5}~14; \alpha(M)=1.79 \times 10^{-5}~3;$ $\alpha(N+..)=4.19 \times 10^{-6}~6$ $\alpha(N)=3.19 \times 10^{-6}~5; \alpha(O)=1.83 \times 10^{-7}~3; \alpha(IPF)=8.12 \times 10^{-7}~12$ Mult.: From $A_2=+0.53~10$ (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$). $\alpha(K)=0.00295~5; \alpha(L)=0.000373~6; \alpha(M)=7.17 \times 10^{-5}~11;$ $\alpha(N+..)=1.335 \times 10^{-5}~19$ $\alpha(N)=1.267 \times 10^{-5}~18; \alpha(O)=6.79 \times 10^{-7}~10$ $B(E2)(W.u.)=15~+4-5$ Mult.: From DCO=1.5 2.
4077.176	10 ⁺	637.2 5	6.8 9	3439.719	8 ⁺	E2	0.00341	$\alpha(K)=0.001657~24; \alpha(L)=0.000204~3; \alpha(M)=3.91 \times 10^{-5}~6;$ $\alpha(N+..)=7.31 \times 10^{-6}~11$ $\alpha(N)=6.93 \times 10^{-6}~10; \alpha(O)=3.84 \times 10^{-7}~6$ $B(E2)(W.u.)=71~+13-21$ Mult.: From DCO=1.5 2.
		801.724 ^a 15	100 ^a 1	3275.449	8 ⁺	E2	0.00191	$\alpha(K)=0.001657~24; \alpha(L)=0.000204~3; \alpha(M)=3.91 \times 10^{-5}~6;$ $\alpha(N+..)=7.31 \times 10^{-6}~11$ $\alpha(N)=6.93 \times 10^{-6}~10; \alpha(O)=3.84 \times 10^{-7}~6$ $B(E2)(W.u.)=71~+13-21$ Mult.: From DCO=1.40 6.
4172.076	12 ⁺	561.034 ^a 10	100 ^a	3611.041	10 ⁺	E2	0.00481	$\alpha(K)=0.00415~6; \alpha(L)=0.000534~8; \alpha(M)=0.0001028~15;$ $\alpha(N+..)=1.91 \times 10^{-5}~3$ $\alpha(N)=1.81 \times 10^{-5}~3; \alpha(O)=9.50 \times 10^{-7}~14$ $B(E2)(W.u.)=40.0~15$ Mult.: $A_2=+0.36~2, A_4=-0.09~3$ (1990Ke02) from ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$). $\alpha(K)=0.001539~22; \alpha(L)=0.000188~3; \alpha(M)=3.61 \times 10^{-5}~5;$ $\alpha(N+..)=6.77 \times 10^{-6}~10$ $\alpha(N)=6.41 \times 10^{-6}~9; \alpha(O)=3.57 \times 10^{-7}~5$ $B(E2)(W.u.)=22.4~16$ Mult.: From $A_2=+0.37~1, A_4=-0.13~2$ (1990Ke02) in ¹⁰⁸ Pd($\alpha, 2n\gamma$), ¹¹⁰ Pd($\alpha, 4n\gamma$). Mult.: From DCO < 0.6.
4181.96	10 ⁻	499.1 5	20 7	3683.15	9 ⁻	D		

45

Adopted Levels, Gammas (continued)

 $\gamma^{(110\text{Cd})}$ (continued)

E_i (level)	J_i^π	E_γ^\ddagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^c	α^\dagger	Comments
4181.96	10^-	754.69^a 6	100^a 3	3427.27	8^-	E2		0.00221	$\alpha(K)=0.00192$ 3; $\alpha(L)=0.000237$ 4; $\alpha(M)=4.56\times 10^{-5}$ 7; $\alpha(N..)=8.52\times 10^{-6}$ 12 $\alpha(N)=8.08\times 10^{-6}$ 12; $\alpha(O)=4.45\times 10^{-7}$ 7 $B(E2)(W.u.)=43$ 7 Mult.: From $A_2=+0.39$ 1, $A_4=-0.13$ 2 (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$.
	836.13^a 10	46.3^a 18	3345.810	9^-	M1+E2	-0.27 8	0.00197		$\alpha(K)=0.00172$ 3; $\alpha(L)=0.000203$ 3; $\alpha(M)=3.89\times 10^{-5}$ 6; $\alpha(N..)=7.36\times 10^{-6}$ 11 $\alpha(N)=6.95\times 10^{-6}$ 11; $\alpha(O)=4.10\times 10^{-7}$ 7 $B(M1)(W.u.)=0.0094$ 15; $B(E2)(W.u.)=0.8$ 5 I_γ : Other: 33 7 from (HI,xn γ). Mult.: From DCO=0.46 4 in (HI,xn γ) and $A_2=-0.66$ 4 (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$.
4334.26	10^-	694^d 1 988.44^a 6	100^a	3641.10	8^-	M1+E2	0.57 12	1.32×10^{-3} 2	$\alpha(K)=0.001150$ 21; $\alpha(L)=0.0001358$ 24; $\alpha(M)=2.60\times 10^{-5}$ 5; $\alpha(N..)=4.91\times 10^{-6}$ 9 $\alpha(N)=4.64\times 10^{-6}$ 8; $\alpha(O)=2.73\times 10^{-7}$ 6 Mult.: From DCO=1.6 2. Other: M1+E2 from $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$ (1990Ke02). $\delta=0.57$ 12 reported by 1990Ke02 .
4421.62	(10^+)	1075.8^a 2	100^a	3345.810	9^-	D			Mult.: From $A_2=+0.35$ 6 (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$.
4438.37	9^+	1251.03^a 6	100^a	3187.337	8^+	M1+E2		8.27×10^{-4}	$\alpha(K)=0.000712$ 10; $\alpha(L)=8.31\times 10^{-5}$ 12; $\alpha(M)=1.589\times 10^{-5}$ 23; $\alpha(N..)=1.571\times 10^{-5}$ 22 $\alpha(N)=2.84\times 10^{-6}$ 4; $\alpha(O)=1.693\times 10^{-7}$ 24; $\alpha(IPF)=1.270\times 10^{-5}$ 18 Mult.: From $A_2=+0.06$ 3 (1990Ke02) $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$ but no δ given.
4559.12	11^-	735.83 5	38 10	3823.247	10^-	M1+E2	-0.07 5	0.00266	$\alpha(K)=0.00233$ 4; $\alpha(L)=0.000275$ 4; $\alpha(M)=5.27\times 10^{-5}$ 8; $\alpha(N..)=9.97\times 10^{-6}$ 14 $\alpha(N)=9.42\times 10^{-6}$ 14; $\alpha(O)=5.57\times 10^{-7}$ 8 $B(M1)(W.u.)=0.009$ +5-8; $B(E2)(W.u.)=0.07$ +10-7 E_γ : from $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$. I_γ : From (HI,xn γ). Other: 17.4 14 in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$. Mult.: From DCO=0.73 14 in (HI,xn γ) and $A_2=-0.37$ 5 (1990Ke02) in $^{108}\text{Pd}(\alpha,2n\gamma), ^{110}\text{Pd}(\alpha,4n\gamma)$.
	876.00^a 5	100^a 5	3683.15	9^-	E2			1.54×10^{-3}	$\alpha(K)=0.001343$ 19; $\alpha(L)=0.0001636$ 23; $\alpha(M)=3.14\times 10^{-5}$

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
4620.2	10 ⁺	1344.5 5 1433.0 5	40 20 100 20	3275.449 8 ⁺ 3187.337 8 ⁺				5; α(N+..)=5.88×10 ⁻⁶ 9 α(N)=5.57×10 ⁻⁶ 8; α(O)=3.12×10 ⁻⁷ 5 B(E2)(W.u.)=15 +7-13 Mult.: From A ₂ =+0.32 3, A ₄ =-0.10 4 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
4736.81	11 ⁻	954.64 ^a 20	100 ^a	3782.13 9 ⁻	E2	1.27×10 ⁻³		Mult.: Note that mult.=M1+E2 was suggested in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ) (1990Ke02), while the decay scheme requires mult.=E2.
4888.27	12 ⁺	811.093 ^a 20	100 ^a	4077.176 10 ⁺	E2	0.00185		α(K)=0.001103 16; α(L)=0.0001332 19; α(M)=2.55×10 ⁻⁵ 4; α(N+..)=4.79×10 ⁻⁶ 7 α(N)=4.54×10 ⁻⁶ 7; α(O)=2.57×10 ⁻⁷ 4 Mult.: From DCO=1.7 4 in (HI,xnγ) and A ₂ =+0.35 5, A ₄ =-0.11 7 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
4930.26	12 ⁻	757.7 5	6 1	4172.706 11 ⁻	M1	0.00249		α(K)=0.001611 23; α(L)=0.000198 3; α(M)=3.79×10 ⁻⁵ 6; α(N+..)=7.10×10 ⁻⁶ 10 α(N)=6.73×10 ⁻⁶ 10; α(O)=3.74×10 ⁻⁷ 6 B(E2)(W.u.)=37 4 Mult.: From DCO=1.46 6 in (HI,xnγ) and A ₂ =+0.35 2, A ₄ =-0.10 3 (1990Ke02) in ¹⁰⁸ Pd(α,2nγ), ¹¹⁰ Pd(α,4nγ).
5026.32	14 ⁺	854.25 ^a 7	100 ^a	4172.076 12 ⁺	E2	1.64×10 ⁻³		α(K)=0.001425 20; α(L)=0.0001739 25; α(M)=3.33×10 ⁻⁵ 5; α(N+..)=6.25×10 ⁻⁶ 9 α(N)=5.92×10 ⁻⁶ 9; α(O)=3.31×10 ⁻⁷ 5 B(E2)(W.u.)=29 3 Mult.: From DCO=1.44 9.
5092.56	12 ⁻	910.6 3	100	4181.96 10 ⁻	E2	1.41×10 ⁻³		α(K)=0.001228 18; α(L)=0.0001490 21; α(M)=2.86×10 ⁻⁵ 4; α(N+..)=5.36×10 ⁻⁶ 8 α(N)=5.07×10 ⁻⁶ 8; α(O)=2.86×10 ⁻⁷ 4 B(E2)(W.u.)=8.7 11 Mult.: From DCO=1.48 10.

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

48

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	α [†]	Comments
5113.6	12 ⁺	941 1 1036.7 3	<13 100 7	4172.076 4077.176	12 ⁺ 10 ⁺	E2	1.05×10 ⁻³	α(K)=0.000917 13; α(L)=0.0001101 16; α(M)=2.11×10 ⁻⁵ 3; α(N+..)=3.96×10 ⁻⁶ 6 α(N)=3.75×10 ⁻⁶ 6; α(O)=2.14×10 ⁻⁷ 3 Mult.: From DCO=1.29 11.
5212.7	12 ⁻	878.2 3	100	4334.26	10 ⁻	E2	1.53×10 ⁻³	α(K)=0.001335 19; α(L)=0.0001626 23; α(M)=3.12×10 ⁻⁵ 5; α(N+..)=5.85×10 ⁻⁶ 9 α(N)=5.53×10 ⁻⁶ 8; α(O)=3.10×10 ⁻⁷ 5 Mult.: From DCO=1.46 12.
5215.5	(11 ⁺)	595.3 5	100	4620.2	10 ⁺			α(K)=0.000846 12; α(L)=0.0001012 15; α(M)=1.94×10 ⁻⁵ 3;
5248.93	13 ⁻	1076.1 3	100	4172.706	11 ⁻	E2	9.70×10 ⁻⁴	α(N+..)=3.64×10 ⁻⁶ 6 α(N)=3.45×10 ⁻⁶ 5; α(O)=1.97×10 ⁻⁷ 3 B(E2)(W.u.)>8.9 Mult.: From DCO=1.40 8.
5497.29	13 ⁻	937 1 1324.6 5 1325.6 5	100 10 40 10 80 20	4559.12 4172.706 4172.076	11 ⁻ 11 ⁻ 12 ⁺			
5500.00	13 ⁺	1327.9 3	100	4172.076	12 ⁺	M1	7.42×10 ⁻⁴	α(K)=0.000627 9; α(L)=7.30×10 ⁻⁵ 11; α(M)=1.396×10 ⁻⁵ 20; α(N+..)=2.88×10 ⁻⁵ 4 α(N)=2.50×10 ⁻⁶ 4; α(O)=1.489×10 ⁻⁷ 21; α(IPF)=2.62×10 ⁻⁵ 4 Mult.: From DCO=1.05 14.
5675.5	14 ⁺	787.1 3	100 4	4888.27	12 ⁺	E2	0.00199	α(K)=0.001732 25; α(L)=0.000213 3; α(M)=4.09×10 ⁻⁵ 6; α(N+..)=7.66×10 ⁻⁶ 11 α(N)=7.26×10 ⁻⁶ 11; α(O)=4.02×10 ⁻⁷ 6 Mult.: From DCO=1.50 6.
		1504 1	48 6	4172.076	12 ⁺	E2	5.68×10 ⁻⁴	α(K)=0.000424 6; α(L)=4.97×10 ⁻⁵ 7; α(M)=9.50×10 ⁻⁶ 14; α(N+..)=8.49×10 ⁻⁵ 13 α(N)=1.694×10 ⁻⁶ 24; α(O)=9.92×10 ⁻⁸ 14; α(IPF)=8.31×10 ⁻⁵ 13 Mult.: From DCO=1.7 3.
5758.52	13 ⁻	509.8 5	31 6	5248.93	13 ⁻	M1	0.00635	α(K)=0.00554 8; α(L)=0.000662 10; α(M)=0.0001270 18; α(N+..)=2.40×10 ⁻⁵ 4 α(N)=2.27×10 ⁻⁵ 4; α(O)=1.332×10 ⁻⁶ 19 Mult.: From DCO=1.32 12.
		545 1	16 3	5212.7	12 ⁻	M1	0.00541	α(K)=0.00472 7; α(L)=0.000563 9; α(M)=0.0001079 16; α(N+..)=2.04×10 ⁻⁵ 3 α(N)=1.93×10 ⁻⁵ 3; α(O)=1.133×10 ⁻⁶ 17 Mult.: From DCO=0.63 8.
		666.0 5	19 6	5092.56	12 ⁻	M1	0.00336	α(K)=0.00294 5; α(L)=0.000348 5; α(M)=6.67×10 ⁻⁵ 10;

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	α [†]	Comments
5758.52	13 ⁻	828.0 3	75 25	4930.26	12 ⁻	M1	0.00203	$\alpha(\text{N}..)=1.262\times10^{-5}$ 18 $\alpha(\text{N})=1.191\times10^{-5}$ 17; $\alpha(\text{O})=7.03\times10^{-7}$ 10 Mult.: From DCO=0.83 11.
		1021.5 5	16 3	4736.81	11 ⁻	E2	1.09×10^{-3}	$\alpha(\text{K})=0.001776$ 25; $\alpha(\text{L})=0.000209$ 3; $\alpha(\text{M})=4.01\times10^{-5}$ 6; $\alpha(\text{N}..)=7.59\times10^{-6}$ 11 $\alpha(\text{N})=7.16\times10^{-6}$ 10; $\alpha(\text{O})=4.24\times10^{-7}$ 6 Mult.: From DCO=1.0 2.
		1198.9 5	19 6	4559.12	11 ⁻	E2	7.76×10^{-4}	$\alpha(\text{K})=0.000948$ 14; $\alpha(\text{L})=0.0001139$ 16; $\alpha(\text{M})=2.18\times10^{-5}$ 3; $\alpha(\text{N}..)=4.10\times10^{-6}$ 6 $\alpha(\text{N})=3.88\times10^{-6}$ 6; $\alpha(\text{O})=2.21\times10^{-7}$ 4 Mult.: From DCO=1.9 4.
		1586 1	31 6	4172.706	11 ⁻	E2	5.52×10^{-4}	$\alpha(\text{K})=0.000672$ 10; $\alpha(\text{L})=7.97\times10^{-5}$ 12; $\alpha(\text{M})=1.526\times10^{-5}$ 22; $\alpha(\text{N}..)=9.86\times10^{-6}$ 15 $\alpha(\text{N})=2.72\times10^{-6}$ 4; $\alpha(\text{O})=1.568\times10^{-7}$ 22; $\alpha(\text{IPF})=6.98\times10^{-6}$ 12 Mult.: From DCO=1.6 2.
		1586.8 3	100 6	4172.076	12 ⁺	E1	5.14×10^{-4}	$\alpha(\text{K})=0.000383$ 6; $\alpha(\text{L})=4.47\times10^{-5}$ 7; $\alpha(\text{M})=8.54\times10^{-6}$ 12; $\alpha(\text{N}..)=0.0001161$ 17 $\alpha(\text{N})=1.524\times10^{-6}$ 22; $\alpha(\text{O})=8.95\times10^{-8}$ 13; $\alpha(\text{IPF})=0.0001144$ 17 Mult.: From DCO=1.3 2.
5789.95	14 ⁺	289.9 5	13 7	5500.00	13 ⁺	E2	5.48×10^{-4}	$\alpha(\text{K})=0.000188$ 3; $\alpha(\text{L})=2.15\times10^{-5}$ 3; $\alpha(\text{M})=4.10\times10^{-6}$ 6; $\alpha(\text{N}..)=0.000300$ 5 $\alpha(\text{N})=7.32\times10^{-7}$ 11; $\alpha(\text{O})=4.34\times10^{-8}$ 6; $\alpha(\text{IPF})=0.000299$ 5 Mult.: From DCO=0.71 9.
		1617.9 3	100 7	4172.076	12 ⁺			$\alpha(\text{K})=0.000368$ 6; $\alpha(\text{L})=4.30\times10^{-5}$ 6; $\alpha(\text{M})=8.21\times10^{-6}$ 12; $\alpha(\text{N}..)=0.0001290$ 18 $\alpha(\text{N})=1.465\times10^{-6}$ 21; $\alpha(\text{O})=8.61\times10^{-8}$ 12; $\alpha(\text{IPF})=0.0001274$ 18 Mult.: From DCO=1.1 2.
		743.5 5	24 6	5113.6	12 ⁺			$\alpha(\text{K})=0.001069$ 15; $\alpha(\text{L})=0.0001291$ 18; $\alpha(\text{M})=2.47\times10^{-5}$ 4; $\alpha(\text{N}..)=4.64\times10^{-6}$ 7 $\alpha(\text{N})=4.39\times10^{-6}$ 7; $\alpha(\text{O})=2.49\times10^{-7}$ 4 Mult.: From DCO=1.41 10.
5892.9	(12 ^{+,13⁺)}	677.4 5	<100	5215.5	(11 ⁺)	E2	1.08×10^{-3}	$\alpha(\text{K})=0.000938$ 14; $\alpha(\text{L})=0.0001127$ 16; $\alpha(\text{M})=2.16\times10^{-5}$ 3; $\alpha(\text{N}..)=4.06\times10^{-6}$ 6 $\alpha(\text{N})=3.84\times10^{-6}$ 6; $\alpha(\text{O})=2.19\times10^{-7}$ 3 Mult.: From DCO=1.51 13.
5914.5	14 ⁺	1026.2 3	100	4888.27	12 ⁺			
5966.98	14 ⁻	718.1 5	15 3	5248.93	13 ⁻			

Adopted Levels, Gammas (continued) $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J ^π _i	E _γ [‡]		I _γ [‡]		E _f	J ^π _f	Mult. ^b	α^{\dagger}	Comments
		5966.98	14 ⁻	753.8 5	21 5					
50	5984.2	874.4 3	100 16	5092.56	12 ⁻	1036.8 3	37 3	E2	1.55×10 ⁻³	$\alpha(K)=0.00193\ 3; \alpha(L)=0.000238\ 4; \alpha(M)=4.57\times10^{-5}\ 7;$ $\alpha(N+..)=8.55\times10^{-6}\ 12$ $\alpha(N)=8.10\times10^{-6}\ 12; \alpha(O)=4.46\times10^{-7}\ 7$ Mult.: From DCO=1.64 8.
		1036.8 3	37 3	4930.26	12 ⁻					$\alpha(K)=0.001349\ 19; \alpha(L)=0.0001643\ 23; \alpha(M)=3.15\times10^{-5}\ 5;$ $\alpha(N+..)=5.91\times10^{-6}\ 9$ $\alpha(N)=5.59\times10^{-6}\ 8; \alpha(O)=3.14\times10^{-7}\ 5$ Mult.: From DCO=1.5 2.
		5984.2	14 ⁻	225.6 3	100	5758.52	13 ⁻	M1	0.0500	$\alpha(K)=0.000917\ 13; \alpha(L)=0.0001101\ 16; \alpha(M)=2.11\times10^{-5}\ 3;$ $\alpha(N+..)=3.96\times10^{-6}\ 6$ $\alpha(N)=3.75\times10^{-6}\ 6; \alpha(O)=2.14\times10^{-7}\ 3$ Mult.: From DCO=1.38 13.
		6079.8	16 ⁺	1055 1	100	4930.26	12 ⁻	E2	9.73×10 ⁻⁴	$\alpha(K)=0.0434\ 7; \alpha(L)=0.00533\ 8; \alpha(M)=0.001025\ 15; \alpha(N+..)=0.000193\ 3$ $\alpha(N)=0.000183\ 3; \alpha(O)=1.056\times10^{-5}\ 16$ Mult.: From DCO=0.84 3.
		6100.87	1074.6 2	186.9 5	100	5892.9	(12 ⁺ ,13 ⁺)			$\alpha(K)=0.000848\ 12; \alpha(L)=0.0001015\ 15; \alpha(M)=1.94\times10^{-5}\ 3;$ $\alpha(N+..)=3.66\times10^{-6}\ 6$ $\alpha(N)=3.46\times10^{-6}\ 5; \alpha(O)=1.98\times10^{-7}\ 3$ B(E2)(W.u.)=50 5 Mult.: From DCO=1.47 5.
		6101.4	14 ⁻	1009 1	20 4	5092.56	12 ⁻			$\alpha(K)=0.000705\ 10; \alpha(L)=8.39\times10^{-5}\ 12; \alpha(M)=1.605\times10^{-5}\ 23;$ $\alpha(N+..)=7.03\times10^{-6}\ 11$ $\alpha(N)=2.86\times10^{-6}\ 4; \alpha(O)=1.647\times10^{-7}\ 23; \alpha(IPF)=4.01\times10^{-6}\ 7$ B(E2)(W.u.)>6.8 Mult.: From DCO=1.3 2.
		6178.5	15 ⁺	1171.3 3	100 23	4930.26	12 ⁻	E2	8.12×10 ⁻⁴	$\alpha(K)=0.01078\ 16; \alpha(L)=0.001300\ 19; \alpha(M)=0.000249\ 4;$ $\alpha(N+..)=4.71\times10^{-5}\ 7$ $\alpha(N)=4.45\times10^{-5}\ 7; \alpha(O)=2.60\times10^{-6}\ 4$ Mult.: From DCO<0.7.
		678.5 3	100 27	5500.00	13 ⁺	1152.1 5	46 18	E2	0.00289	$\alpha(K)=0.00251\ 4; \alpha(L)=0.000314\ 5; \alpha(M)=6.04\times10^{-5}\ 9;$ $\alpha(N+..)=1.126\times10^{-5}\ 16$ $\alpha(N)=1.068\times10^{-5}\ 15; \alpha(O)=5.79\times10^{-7}\ 9$ Mult.: From DCO=1.23 10.
		5026.32	14 ⁺	$\alpha(K)=0.000851\ 12; \alpha(L)=9.95\times10^{-5}\ 14; \alpha(M)=1.90\times10^{-5}\ 3;$ $\alpha(N+..)=5.74\times10^{-6}\ 9$ $\alpha(N)=3.40\times10^{-6}\ 5; \alpha(O)=2.03\times10^{-7}\ 3; \alpha(IPF)=2.13\times10^{-6}\ 4$ Mult.: From DCO=1.2 2.						

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
6181.45	15 ⁻	684.2 3	36 4	5497.29	13 ⁻	E2	0.00283	$\alpha(K)=0.00246\ 4; \alpha(L)=0.000307\ 5; \alpha(M)=5.90\times10^{-5}\ 9;$ $\alpha(N+..)=1.101\times10^{-5}\ 16$ $\alpha(N)=1.044\times10^{-5}\ 15; \alpha(O)=5.67\times10^{-7}\ 8$ Mult.: From DCO=1.3 2.
		932.3 3	91 5	5248.93	13 ⁻	E2	1.34×10^{-3}	$\alpha(K)=0.001163\ 17; \alpha(L)=0.0001409\ 20; \alpha(M)=2.70\times10^{-5}\ 4;$ $\alpha(N+..)=5.07\times10^{-6}\ 8$ $\alpha(N)=4.80\times10^{-6}\ 7; \alpha(O)=2.71\times10^{-7}\ 4$ Mult.: From DCO=1.40 6.
		1155.2 3	100 7	5026.32	14 ⁺	E1	3.88×10^{-4}	$\alpha(K)=0.000325\ 5; \alpha(L)=3.75\times10^{-5}\ 6; \alpha(M)=7.15\times10^{-6}\ 10;$ $\alpha(N+..)=1.77\times10^{-5}\ 3$ $\alpha(N)=1.275\times10^{-6}\ 18; \alpha(O)=7.51\times10^{-8}\ 11; \alpha(IPF)=1.64\times10^{-5}\ 3$ Mult.: From DCO=0.81 6.
6216.9	(14)	1190.6 3	100	5026.32	14 ⁺	D		Mult.: From DCO=1.39 14.
6354.3	15 ⁻	370.0 3	100	5984.2	14 ⁻	M1	0.01399	$\alpha(K)=0.01218\ 18; \alpha(L)=0.001472\ 21; \alpha(M)=0.000282\ 4;$ $\alpha(N+..)=5.33\times10^{-5}\ 8$ $\alpha(N)=5.04\times10^{-5}\ 8; \alpha(O)=2.94\times10^{-6}\ 5$ Mult.: From DCO=0.77 3.
51	6489.9	(1)	4707	1783.496	2 ⁺			$E_\gamma:$ From ¹¹⁰ Cd(γ, γ').
		5831		657.7623	2 ⁺			$E_\gamma:$ From ¹¹⁰ Cd(γ, γ').
		6490		0.0	0 ⁺	D		$E_\gamma, \text{Mult.}:$ From ¹¹⁰ Cd(γ, γ'). $I\gamma(150^\circ)/I\gamma(90^\circ)=1.66\ 8, 1.75$ expected for 0(1)1(1)0 transition (1969Mi13).
6543.9	(15 ⁻)	1295 1	100	5248.93	13 ⁻			Mult.: From DCO=1.4 2, very probably a ΔJ=0 transition.
6568.8	14	1542.4 5	100	5026.32	14 ⁺	D		$\alpha(K)=0.001261\ 18; \alpha(L)=0.0001532\ 22; \alpha(M)=2.94\times10^{-5}\ 5;$ $\alpha(N+..)=5.51\times10^{-6}\ 8$ $\alpha(N)=5.22\times10^{-6}\ 8; \alpha(O)=2.93\times10^{-7}\ 5$
6575.6	16 ⁺	900.1 3	100.0 23	5675.5	14 ⁺	E2	1.45×10^{-3}	Mult.: From DCO=1.33 7. $\alpha(K)=0.000401\ 6; \alpha(L)=4.69\times10^{-5}\ 7; \alpha(M)=8.95\times10^{-6}\ 13;$ $\alpha(N+..)=0.0001016\ 15$ $\alpha(N)=1.597\times10^{-6}\ 23; \alpha(O)=9.36\times10^{-8}\ 14; \alpha(IPF)=9.99\times10^{-5}\ 15$ Mult.: From DCO=1.3 2.
		1549 1	25 5	5026.32	14 ⁺	E2	5.58×10^{-4}	Mult.: From DCO=1.33 7. $\alpha(K)=0.000401\ 6; \alpha(L)=4.69\times10^{-5}\ 7; \alpha(M)=8.95\times10^{-6}\ 13;$ $\alpha(N+..)=0.0001016\ 15$ $\alpha(N)=1.597\times10^{-6}\ 23; \alpha(O)=9.36\times10^{-8}\ 14; \alpha(IPF)=9.99\times10^{-5}\ 15$ Mult.: From DCO=1.3 2.
6584.5	14	1558.1 5	100	5026.32	14 ⁺	D		Mult.: From DCO=1.5 2, very probably a ΔJ=0 transition.
6646.1	(16 ⁺)	856.1 5	100	5789.95	14 ⁺	(E2)	1.63×10^{-3}	$\alpha(K)=0.001417\ 20; \alpha(L)=0.0001730\ 25; \alpha(M)=3.32\times10^{-5}\ 5;$ $\alpha(N+..)=6.22\times10^{-6}\ 9$ $\alpha(N)=5.89\times10^{-6}\ 9; \alpha(O)=3.29\times10^{-7}\ 5$ Mult.: From DCO=1.69 14.
6671.1	(15 ⁻)	1422 1	67 33	5248.93	13 ⁻			
		1645 1	100 33	5026.32	14 ⁺			
6672.6	16 ⁻	491.2 5	12.1 14	6181.45	15 ⁻			

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J ^π _i	E _γ [‡]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	α [†]	Comments
6672.6	16 ⁻	705.7 3	100 7	5966.98	14 ⁻	E2	0.00262	$\alpha(\text{K})=0.00227\ 4; \alpha(\text{L})=0.000283\ 4; \alpha(\text{M})=5.43\times10^{-5}\ 8; \alpha(\text{N+..})=1.015\times10^{-5}\ 15$ $\alpha(\text{N})=9.62\times10^{-6}\ 14; \alpha(\text{O})=5.24\times10^{-7}\ 8$ Mult.: From DCO=1.40 7.
6798.0	16 ⁺	941.7 5	100	5856.3	14 ⁺	E2	1.31×10^{-3}	$\alpha(\text{K})=0.001137\ 16; \alpha(\text{L})=0.0001376\ 20; \alpha(\text{M})=2.64\times10^{-5}\ 4;$ $\alpha(\text{N+..})=4.95\times10^{-6}\ 7$ $\alpha(\text{N})=4.68\times10^{-6}\ 7; \alpha(\text{O})=2.65\times10^{-7}\ 4$ Mult.: From DCO=1.3 2.
6836.2	16 ⁺	921.7 5	100	5914.5	14 ⁺	E2	1.37×10^{-3}	$\alpha(\text{K})=0.001194\ 17; \alpha(\text{L})=0.0001448\ 21; \alpha(\text{M})=2.77\times10^{-5}\ 4;$ $\alpha(\text{N+..})=5.21\times10^{-6}\ 8$ $\alpha(\text{N})=4.93\times10^{-6}\ 7; \alpha(\text{O})=2.78\times10^{-7}\ 4$ Mult.: From DCO=1.3 2.
6879.6	15	295.0 3	100 10	6584.5	14	D		Mult.: From DCO=0.78 3.
6962.8	16 ⁻	608.5 3	100	6354.3	15 ⁻	M1	0.00416	$\alpha(\text{K})=0.00363\ 5; \alpha(\text{L})=0.000432\ 6; \alpha(\text{M})=8.27\times10^{-5}\ 12; \alpha(\text{N+..})=1.564\times10^{-5}\ 22$ $\alpha(\text{N})=1.477\times10^{-5}\ 21; \alpha(\text{O})=8.71\times10^{-7}\ 13$ Mult.: From DCO=0.84 6.
6993.1	17 ⁻	811.6 3	100 4	6181.45	15 ⁻	E2	0.00185	$\alpha(\text{K})=0.001609\ 23; \alpha(\text{L})=0.000197\ 3; \alpha(\text{M})=3.79\times10^{-5}\ 6; \alpha(\text{N+..})=7.09\times10^{-6}\ 10$ $\alpha(\text{N})=6.72\times10^{-6}\ 10; \alpha(\text{O})=3.73\times10^{-7}\ 6$ Mult.: From DCO=1.46 12.
		892.2 3	20.2 20	6100.87	16 ⁺	E1	6.06×10^{-4}	$\alpha(\text{K})=0.000531\ 8; \alpha(\text{L})=6.15\times10^{-5}\ 9; \alpha(\text{M})=1.173\times10^{-5}\ 17;$ $\alpha(\text{N+..})=2.21\times10^{-6}\ 4$ $\alpha(\text{N})=2.09\times10^{-6}\ 3; \alpha(\text{O})=1.222\times10^{-7}\ 18$ Mult.: From DCO=0.77 6.
7047.6	16 ⁻	946.3 3	100 20	6101.4	14 ⁻	E2	1.29×10^{-3}	$\alpha(\text{K})=0.001125\ 16; \alpha(\text{L})=0.0001360\ 19; \alpha(\text{M})=2.61\times10^{-5}\ 4;$ $\alpha(\text{N+..})=4.89\times10^{-6}\ 7$ $\alpha(\text{N})=4.63\times10^{-6}\ 7; \alpha(\text{O})=2.62\times10^{-7}\ 4$ Mult.: From DCO=1.7 3.
7184.3	17 ⁺	1080.2 5	70 16	5966.98	14 ⁻			$\alpha(\text{K})=0.000981\ 14; \alpha(\text{L})=0.0001180\ 17; \alpha(\text{M})=2.26\times10^{-5}\ 4;$ $\alpha(\text{N+..})=4.25\times10^{-6}\ 6$ $\alpha(\text{N})=4.02\times10^{-6}\ 6; \alpha(\text{O})=2.29\times10^{-7}\ 4$ Mult.: From DCO=1.36 10.
7281.0	16	401.4 3	100	6879.6	15	D		Mult.: From DCO=0.87 5.
7285.8	(16)	1068.9 3	100	6216.9	(14)	(Q)		Mult.: From DCO=1.48 13.
7325.3	18 ⁺	1224.5 2	100	6100.87	16 ⁺	E2	7.47×10^{-4}	$\alpha(\text{K})=0.000643\ 9; \alpha(\text{L})=7.62\times10^{-5}\ 11; \alpha(\text{M})=1.458\times10^{-5}\ 21;$ $\alpha(\text{N+..})=1.325\times10^{-5}\ 19$

Adopted Levels, Gammas (continued)

 $\gamma^{(110)\text{Cd}}$ (continued)

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
7341.6		1358 1	100	5984.2	14 ⁻			$\alpha(K)=0.000643\ 9; \alpha(L)=7.62\times10^{-5}\ 11; \alpha(M)=1.458\times10^{-5}\ 21;$ $\alpha(N+..)=1.325\times10^{-5}\ 19$ $\alpha(N)=2.60\times10^{-6}\ 4; \alpha(O)=1.501\times10^{-7}\ 21; \alpha(IPF)=1.051\times10^{-5}\ 15$ B(E2)(W.u.)=41 6 Mult.: From DCO=1.46 4.
7443.3	(17 ⁻)	770.7 3	100 17	6672.6	16 ⁻			
		772.2 5		6671.1	(15 ⁻)			
		1261 1	17 8	6181.45	15 ⁻			
7523.2	18 ⁻	850.6 3	100	6672.6	16 ⁻	E2	1.65×10^{-3}	$\alpha(K)=0.001439\ 21; \alpha(L)=0.0001758\ 25; \alpha(M)=3.37\times10^{-5}\ 5;$ $\alpha(N+..)=6.32\times10^{-6}\ 9$ $\alpha(N)=5.98\times10^{-6}\ 9; \alpha(O)=3.34\times10^{-7}\ 5$ Mult.: From DCO=1.43 5.
7575.2	17 ⁻	612.4 3	100	6962.8	16 ⁻	M1	0.00410	$\alpha(K)=0.00357\ 5; \alpha(L)=0.000425\ 6; \alpha(M)=8.14\times10^{-5}\ 12;$ $\alpha(N+..)=1.540\times10^{-5}\ 22$ $\alpha(N)=1.455\times10^{-5}\ 21; \alpha(O)=8.57\times10^{-7}\ 12$ Mult.: From DCO=0.87 12.
53								
7594.2		631.4 5	100	6962.8	16 ⁻			
7653.1	18 ⁺	1077.4 3	100	6575.6	16 ⁺	E2	9.67×10^{-4}	$\alpha(K)=0.000843\ 12; \alpha(L)=0.0001009\ 15; \alpha(M)=1.93\times10^{-5}\ 3;$ $\alpha(N+..)=3.63\times10^{-6}\ 5$ $\alpha(N)=3.44\times10^{-6}\ 5; \alpha(O)=1.97\times10^{-7}\ 3$ Mult.: From DCO=1.5 2.
7759.0	17	477.9 5	100	7281.0	16	D		Mult.: From DCO=0.73 3.
7777.9		437 1	67 33	7341.6				
		815 1	100 33	6962.8	16 ⁻			
		1423.5 5	57 13	6354.3	15 ⁻			
7797.7	(17)	516.8 5	100	7281.0	16	D		Mult.: From DCO=0.64 6.
7801.1	(18 ⁺)	1155 1	100	6646.1	(16 ⁺)	(E2)	8.35×10^{-4}	$\alpha(K)=0.000727\ 11; \alpha(L)=8.65\times10^{-5}\ 13; \alpha(M)=1.655\times10^{-5}\ 24;$ $\alpha(N+..)=5.83\times10^{-6}\ 11$ $\alpha(N)=2.95\times10^{-6}\ 5; \alpha(O)=1.696\times10^{-7}\ 24; \alpha(IPF)=2.71\times10^{-6}\ 8$ Mult.: From (HI,xny).
7945.9	19 ⁻	952.8 3	100	6993.1	17 ⁻	E2	1.27×10^{-3}	$\alpha(K)=0.001107\ 16; \alpha(L)=0.0001338\ 19; \alpha(M)=2.56\times10^{-5}\ 4;$ $\alpha(N+..)=4.82\times10^{-6}\ 7$ $\alpha(N)=4.56\times10^{-6}\ 7; \alpha(O)=2.58\times10^{-7}\ 4$ Mult.: From DCO=1.41 9.
7970.3	18 ⁻	922.7 5	100	7047.6	16 ⁻	E2	1.37×10^{-3}	$\alpha(K)=0.001191\ 17; \alpha(L)=0.0001444\ 21; \alpha(M)=2.77\times10^{-5}\ 4;$ $\alpha(N+..)=5.19\times10^{-6}\ 8$ $\alpha(N)=4.92\times10^{-6}\ 7; \alpha(O)=2.77\times10^{-7}\ 4$ Mult.: From DCO=1.37 13.
8016.5	17	735.2 5	100	7281.0	16			

Adopted Levels, Gammas (continued)

 $\gamma(^{110}\text{Cd})$ (continued)

54

E _i (level)	J _i ^π	E _γ [‡]	I _γ [‡]	E _f	J _f ^π	Mult. ^b	α [†]	Comments
8278.0	18	261.2 5	29 14	8016.5	17	D		Mult.: From DCO=0.91 6.
		480.5 5	71 14	7797.7	(17)	D		Mult.: From DCO=0.77 6.
		519.0 5	43 14	7759.0	17	D		Mult.: From DCO=0.80 5.
		952.8 5	100 14	7325.3	18 ⁺	D		Mult.: From DCO=1.46 10, very probably a ΔJ=0 transition.
8292.3	(18)	967.0 5	100	7325.3	18 ⁺			
8372.8		594.9 5	100	7777.9				
8405.3	(19 ⁻)	962 1	100	7443.3	(17 ⁻)	E2	1.24×10 ⁻³	$\alpha(K)=0.001084\ 16; \alpha(L)=0.0001308\ 19; \alpha(M)=2.51\times10^{-5}\ 4;$ $\alpha(N+..)=4.71\times10^{-6}\ 7$ $\alpha(N)=4.46\times10^{-6}\ 7; \alpha(O)=2.52\times10^{-7}\ 4$ Mult.: From DCO=1.4 2.
8481.3	(19 ⁺)	1297 1	100	7184.3	17 ⁺	(E2)	6.77×10 ⁻⁴	$\alpha(K)=0.000571\ 8; \alpha(L)=6.74\times10^{-5}\ 10; \alpha(M)=1.289\times10^{-5}\ 19;$ $\alpha(N+..)=2.56\times10^{-5}\ 5$ Mult.: From (HI,xny).
8530.7	(18)	1244.9 5	100	7285.8	(16)			
8595.6	19	303.3 5	5.6 19	8292.3	(18)			Mult.: From DCO=0.87 5.
		317.6 3	100 7	8278.0	18	D		$\alpha(K)=0.000796\ 12; \alpha(L)=9.51\times10^{-5}\ 14; \alpha(M)=1.82\times10^{-5}\ 3;$ $\alpha(N+..)=4.06\times10^{-6}\ 6$
8629.7	20 ⁻	1106.5 3	100	7523.2	18 ⁻	E2	9.14×10 ⁻⁴	$\alpha(N)=3.24\times10^{-6}\ 5; \alpha(O)=1.86\times10^{-7}\ 3; \alpha(IPF)=6.38\times10^{-7}\ 12$ Mult.: From DCO=1.50 14.
8648.3	20 ⁺	1323.0 3	100	7325.3	18 ⁺	E2	6.56×10 ⁻⁴	$\alpha(K)=0.000548\ 8; \alpha(L)=6.47\times10^{-5}\ 9; \alpha(M)=1.236\times10^{-5}\ 18;$ $\alpha(N+..)=3.11\times10^{-5}\ 5$ $\alpha(N)=2.20\times10^{-6}\ 3; \alpha(O)=1.281\times10^{-7}\ 18; \alpha(IPF)=2.88\times10^{-5}\ 4$ B(E2)(W.u.)=38 7 Mult.: From DCO=1.44 6.
8861.6	20 ⁺	1208.5 3	100	7653.1	18 ⁺	E2	7.65×10 ⁻⁴	$\alpha(K)=0.000660\ 10; \alpha(L)=7.84\times10^{-5}\ 11; \alpha(M)=1.500\times10^{-5}\ 21;$ $\alpha(N+..)=1.105\times10^{-5}\ 16$ $\alpha(N)=2.67\times10^{-6}\ 4; \alpha(O)=1.542\times10^{-7}\ 22; \alpha(IPF)=8.23\times10^{-6}\ 13$ Mult.: From DCO=1.7 2.
8967.9	20	372.3 3	100	8595.6	19	(M1)	0.01377	$\alpha(K)=0.01200\ 17; \alpha(L)=0.001449\ 21; \alpha(M)=0.000278\ 4; \alpha(N+..)=5.25\times10^{-5}$ 8 $\alpha(N)=4.96\times10^{-5}\ 7; \alpha(O)=2.90\times10^{-6}\ 4$ B(M1)(W.u.)=3.3 4 Mult.: From DCO=0.84 6.
9106.8	21 ⁻	1160.9 3	100	7945.9	19 ⁻	E2	8.27×10 ⁻⁴	$\alpha(K)=0.000719\ 10; \alpha(L)=8.55\times10^{-5}\ 12; \alpha(M)=1.637\times10^{-5}\ 23;$ $\alpha(N+..)=6.22\times10^{-6}\ 9$ $\alpha(N)=2.91\times10^{-6}\ 4; \alpha(O)=1.678\times10^{-7}\ 24; \alpha(IPF)=3.14\times10^{-6}\ 5$ Mult.: From DCO=1.50 14.
9430.4	21	462.5 3	100	8967.9	20	(M1)	0.00805	$\alpha(K)=0.00702\ 10; \alpha(L)=0.000842\ 12; \alpha(M)=0.0001614\ 23;$

Adopted Levels, Gammas (continued)

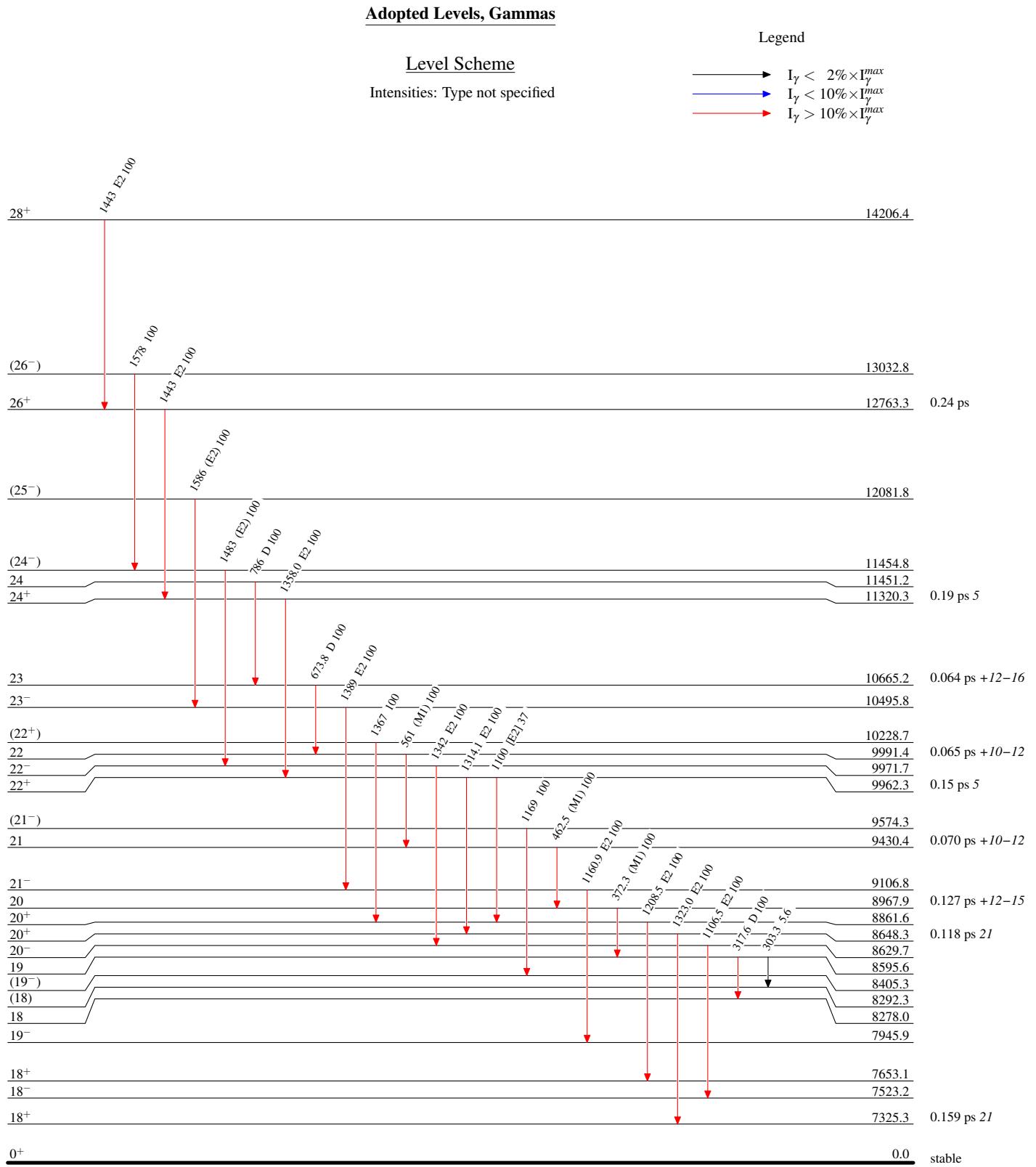
 $\gamma(^{110}\text{Cd})$ (continued)

E _i (level)	J ^{<i>x</i>} _{<i>i</i>}	E ^{<i>y</i>} _{<i>y</i>}	I ^{<i>y</i>} _{<i>y</i>}	E _f	J ^{<i>x</i>} _{<i>f</i>}	Mult. ^{<i>b</i>}	α^{\dagger}	Comments
								$\alpha(\text{N+..})=3.05\times10^{-5} \text{ } 5$ $\alpha(\text{N})=2.88\times10^{-5} \text{ } 4; \alpha(\text{O})=1.689\times10^{-6} \text{ } 24$ $\text{B(M1)(W.u.)}=3.2 \text{ } +6-5$ Mult.: From DCO=0.98 6.
9574.3	(21 ⁻)	1169 <i>I</i>	100	8405.3 (19 ⁻)				
9962.3	22 ⁺	1100 <i>I</i>	37 11	8861.6 20 ⁺	[E2]	9.25×10^{-4}	$\alpha(\text{K})=0.000806 \text{ } 12; \alpha(\text{L})=9.63\times10^{-5} \text{ } 14; \alpha(\text{M})=1.84\times10^{-5} \text{ } 3;$ $\alpha(\text{N+..})=4.0\times10^{-6} \text{ } 5$ $\alpha(\text{N})=3.28\times10^{-6} \text{ } 5; \alpha(\text{O})=1.88\times10^{-7} \text{ } 3$ $\text{B(E2)(W.u.)}=20 \text{ } 10$	
		1314.1 3	100 4	8648.3 20 ⁺	E2	6.63×10^{-4}	$\alpha(\text{K})=0.000556 \text{ } 8; \alpha(\text{L})=6.56\times10^{-5} \text{ } 10; \alpha(\text{M})=1.254\times10^{-5} \text{ } 18;$ $\alpha(\text{N+..})=2.92\times10^{-5} \text{ } 5$ $\alpha(\text{N})=2.24\times10^{-6} \text{ } 4; \alpha(\text{O})=1.298\times10^{-7} \text{ } 19; \alpha(\text{IPF})=2.68\times10^{-5} \text{ } 4$ $\text{B(E2)(W.u.)}=22 \text{ } 8$ Mult.: From DCO=1.50 9.	
9971.7	22 ⁻	1342 <i>I</i>	100	8629.7 20 ⁻	E2	6.43×10^{-4}	$\alpha(\text{K})=0.000532 \text{ } 8; \alpha(\text{L})=6.28\times10^{-5} \text{ } 9; \alpha(\text{M})=1.200\times10^{-5} \text{ } 17;$ $\alpha(\text{N+..})=3.56\times10^{-5} \text{ } 6$ $\alpha(\text{N})=2.14\times10^{-6} \text{ } 3; \alpha(\text{O})=1.244\times10^{-7} \text{ } 18; \alpha(\text{IPF})=3.33\times10^{-5} \text{ } 6$ Mult.: From DCO=1.8 3.	
9991.4	22	561 <i>I</i>	100	9430.4 21	(M1)	0.00505	$\alpha(\text{K})=0.00440 \text{ } 7; \alpha(\text{L})=0.000525 \text{ } 8; \alpha(\text{M})=0.0001006 \text{ } 15; \alpha(\text{N+..})=1.90\times10^{-5} \text{ } 3$ $\alpha(\text{N})=1.80\times10^{-5} \text{ } 3; \alpha(\text{O})=1.057\times10^{-6} \text{ } 16$ $\text{B(M1)(W.u.)}=1.9 \text{ } +4-3$ Mult.: From DCO=1.0 2.	
10228.7	(22 ⁺)	1367 <i>I</i>	100	8861.6 20 ⁺			$\alpha(\text{K})=0.000497 \text{ } 7; \alpha(\text{L})=5.84\times10^{-5} \text{ } 9; \alpha(\text{M})=1.117\times10^{-5} \text{ } 16;$ $\alpha(\text{N+..})=4.80\times10^{-5} \text{ } 8$	
10495.8	23 ⁻	1389 <i>I</i>	100	9106.8 21 ⁻	E2	6.14×10^{-4}	$\alpha(\text{N})=1.99\times10^{-6} \text{ } 3; \alpha(\text{O})=1.161\times10^{-7} \text{ } 17; \alpha(\text{IPF})=4.59\times10^{-5} \text{ } 7$ Mult.: From DCO=1.5 3.	
10665.2	23	673.8 3	100	9991.4 22	D		Mult.: From DCO=0.83 7.	
11320.3	24 ⁺	1358.0 3	100	9962.3 22 ⁺	E2	6.32×10^{-4}	$\alpha(\text{K})=0.000520 \text{ } 8; \alpha(\text{L})=6.12\times10^{-5} \text{ } 9; \alpha(\text{M})=1.171\times10^{-5} \text{ } 17;$ $\alpha(\text{N+..})=3.96\times10^{-5} \text{ } 6$ $\alpha(\text{N})=2.09\times10^{-6} \text{ } 3; \alpha(\text{O})=1.215\times10^{-7} \text{ } 17; \alpha(\text{IPF})=3.74\times10^{-5} \text{ } 6$ $\text{B(E2)(W.u.)}=21 \text{ } 6$ Mult.: From DCO=1.33 10.	
11451.2	24	786 <i>I</i>	100	10665.2 23	D		Mult.: From DCO=1.12 13.	
11454.8	(24 ⁻)	1483 <i>I</i>	100	9971.7 22 ⁻	(E2)	5.75×10^{-4}	$\alpha(\text{K})=0.000436 \text{ } 7; \alpha(\text{L})=5.11\times10^{-5} \text{ } 8; \alpha(\text{M})=9.77\times10^{-6} \text{ } 14;$ $\alpha(\text{N+..})=7.75\times10^{-5} \text{ } 12$ $\alpha(\text{N})=1.743\times10^{-6} \text{ } 25; \alpha(\text{O})=1.020\times10^{-7} \text{ } 15; \alpha(\text{IPF})=7.57\times10^{-5} \text{ } 12$ Mult.: From (HI,xn γ).	
12081.8	(25 ⁻)	1586 <i>I</i>	100	10495.8 23 ⁻	(E2)	5.52×10^{-4}	$\alpha(\text{K})=0.000383 \text{ } 6; \alpha(\text{L})=4.47\times10^{-5} \text{ } 7; \alpha(\text{M})=8.54\times10^{-6} \text{ } 12;$	

Adopted Levels, Gammas (continued) **$\gamma(^{110}\text{Cd})$ (continued)**

E _i (level)	J ^{<i>a</i>} _{<i>i</i>}	E _{γ} ^{<i>b</i>}	I _{γ} ^{<i>c</i>}	E _{<i>f</i>}	J ^{<i>d</i>} _{<i>f</i>}	Mult. ^{<i>e</i>}	<i>a</i> ^{<i>f</i>}	Comments
12763.3	26 ⁺	1443 <i>I</i>	100	11320.3	24 ⁺	E2	5.89×10 ⁻⁴	$\alpha(\text{N+..})=0.0001161$ <i>I7</i> $\alpha(\text{N})=1.524\times10^{-6}$ <i>22</i> ; $\alpha(\text{O})=8.95\times10^{-8}$ <i>13</i> ; $\alpha(\text{IPF})=0.0001144$ <i>I7</i> Mult.: From (HI,xnγ).
13032.8	(26 ⁻)	1578 <i>I</i>	100	11454.8	(24 ⁻)			$\alpha(\text{K})=0.000460$ <i>7</i> ; $\alpha(\text{L})=5.40\times10^{-5}$ <i>8</i> ; $\alpha(\text{M})=1.033\times10^{-5}$ <i>15</i> ; $\alpha(\text{N+..})=6.43\times10^{-5}$ <i>10</i>
14206.4	28 ⁺	1443	100	12763.3	26 ⁺	E2	5.89×10 ⁻⁴	$\alpha(\text{N})=1.84\times10^{-6}$ <i>3</i> ; $\alpha(\text{O})=1.076\times10^{-7}$ <i>16</i> ; $\alpha(\text{IPF})=6.23\times10^{-5}$ <i>10</i> B(E2)(W.u.)=12.0 Mult.: From DCO=1.53 <i>I2</i> .
								$\alpha(\text{K})=0.000460$ <i>7</i> ; $\alpha(\text{L})=5.40\times10^{-5}$ <i>8</i> ; $\alpha(\text{M})=1.033\times10^{-5}$ <i>15</i> ; $\alpha(\text{N+..})=6.43\times10^{-5}$ <i>9</i> $\alpha(\text{N})=1.84\times10^{-6}$ <i>3</i> ; $\alpha(\text{O})=1.076\times10^{-7}$ <i>15</i> ; $\alpha(\text{IPF})=6.23\times10^{-5}$ <i>9</i> Mult.: From DCO=1.53 <i>I2</i> .

^{*a*} Additional information 1.^{*b*} From (HI,xn) reaction, unless otherwise stated.^{*c*} From ¹¹⁰Ag β⁻ decay (249.83 d).^{*d*} From ¹¹⁰Cd(n,n'γ).^{*e*} From ¹¹⁰In ε decay (69.1 min).^{*a*} From ¹⁰⁸Pd(α,2nγ),¹¹⁰Pd(α,4nγ).^{*b*} From α(K)exp in ¹¹⁰Ag β⁻ decay (249.83 d) ([1967Mo12](#)) and/or DCO measurements in (HI,xnγ) ([1994Ju04](#)), unless otherwise stated. DCO ratios are deduced using $(R(E_\gamma)=I_\gamma(143^\circ \text{ or } 37^\circ)/I_\gamma(79^\circ \text{ or } 101^\circ))$. For ΔI=0 dipole and ΔI=2 quadrupole transitions $R(E_\gamma)\approx 1.50$, for stretch dipole transitions $R(E_\gamma)\approx 0.75$.^{*c*} From γ(θ) in ¹⁰⁸Pd(α,2nγ),¹¹⁰Pd(α,4nγ) ([1990Ke02](#)), unless otherwise stated.^{*d*} Placement of transition in the level scheme is uncertain.

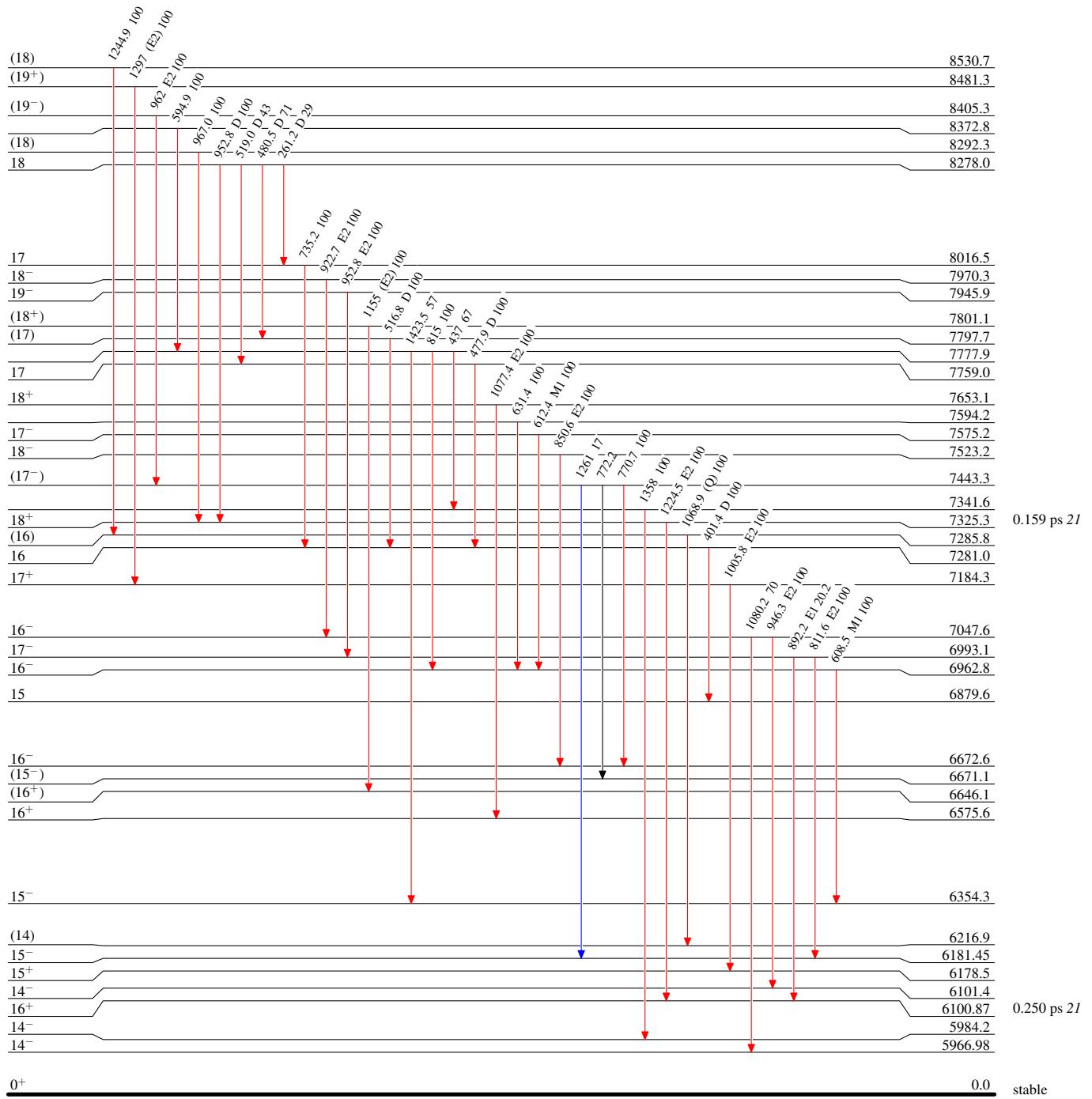


Adopted Levels, GammasLevel Scheme (continued)

Intensities: Type not specified

Legend

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

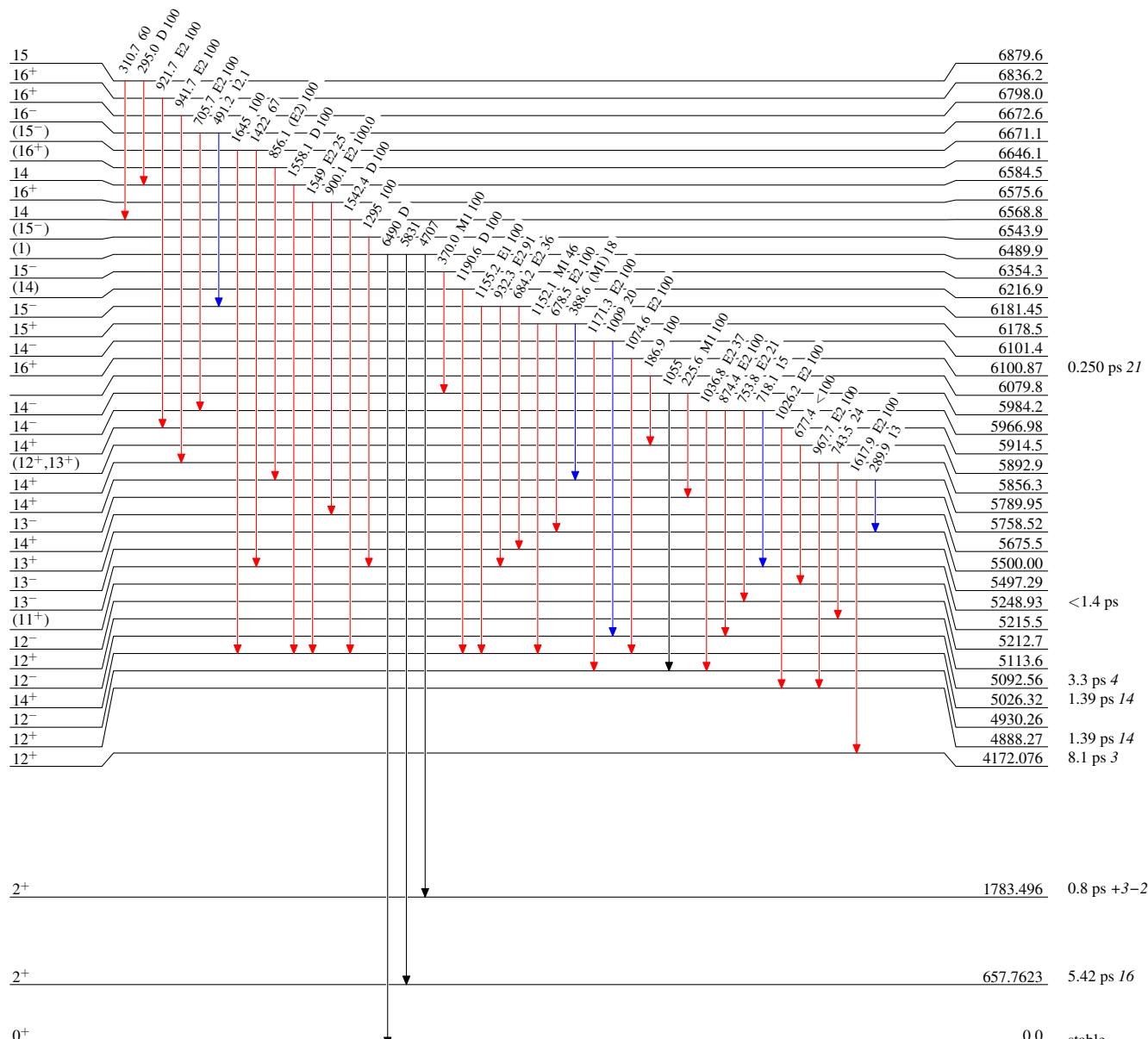


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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

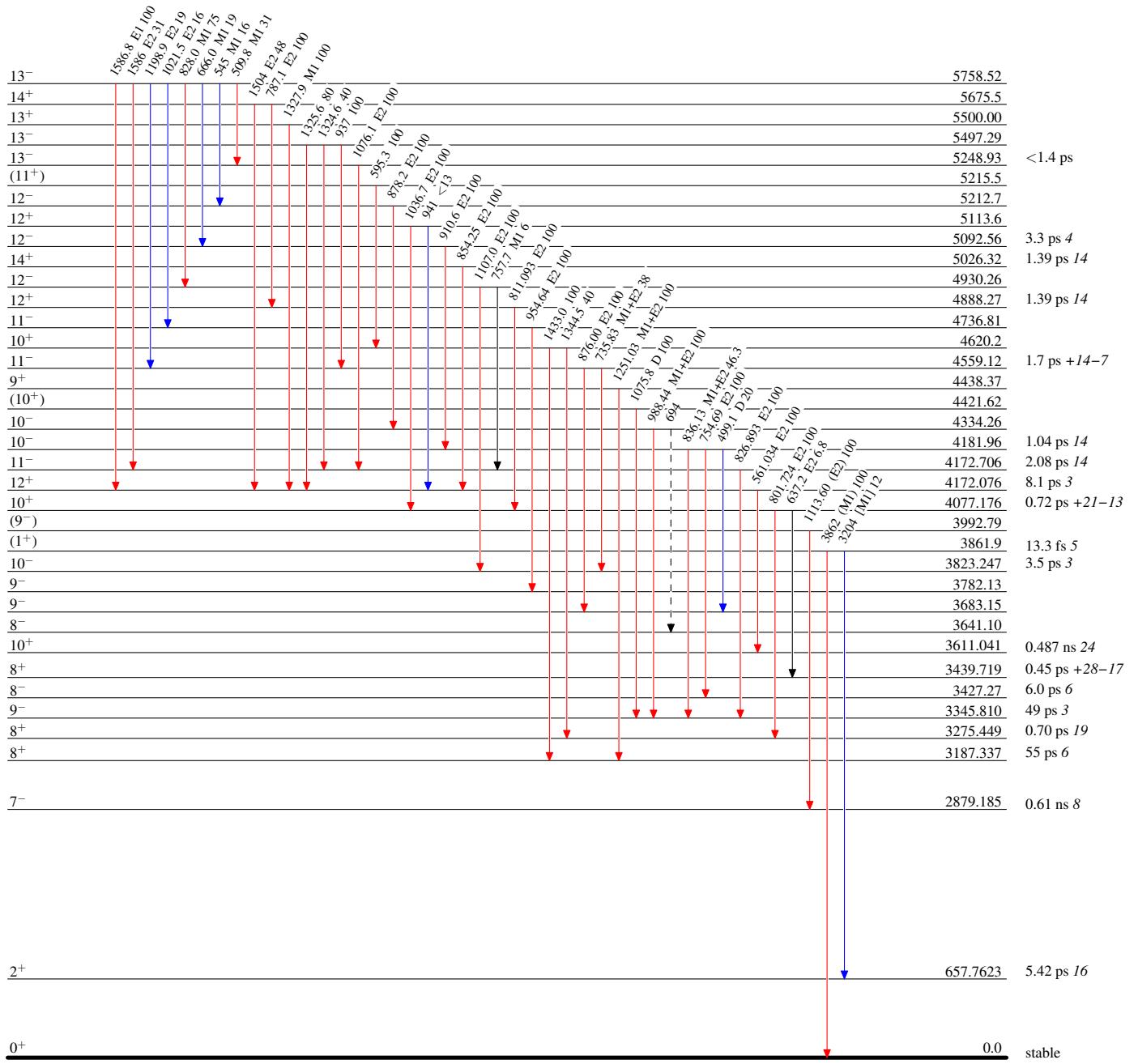


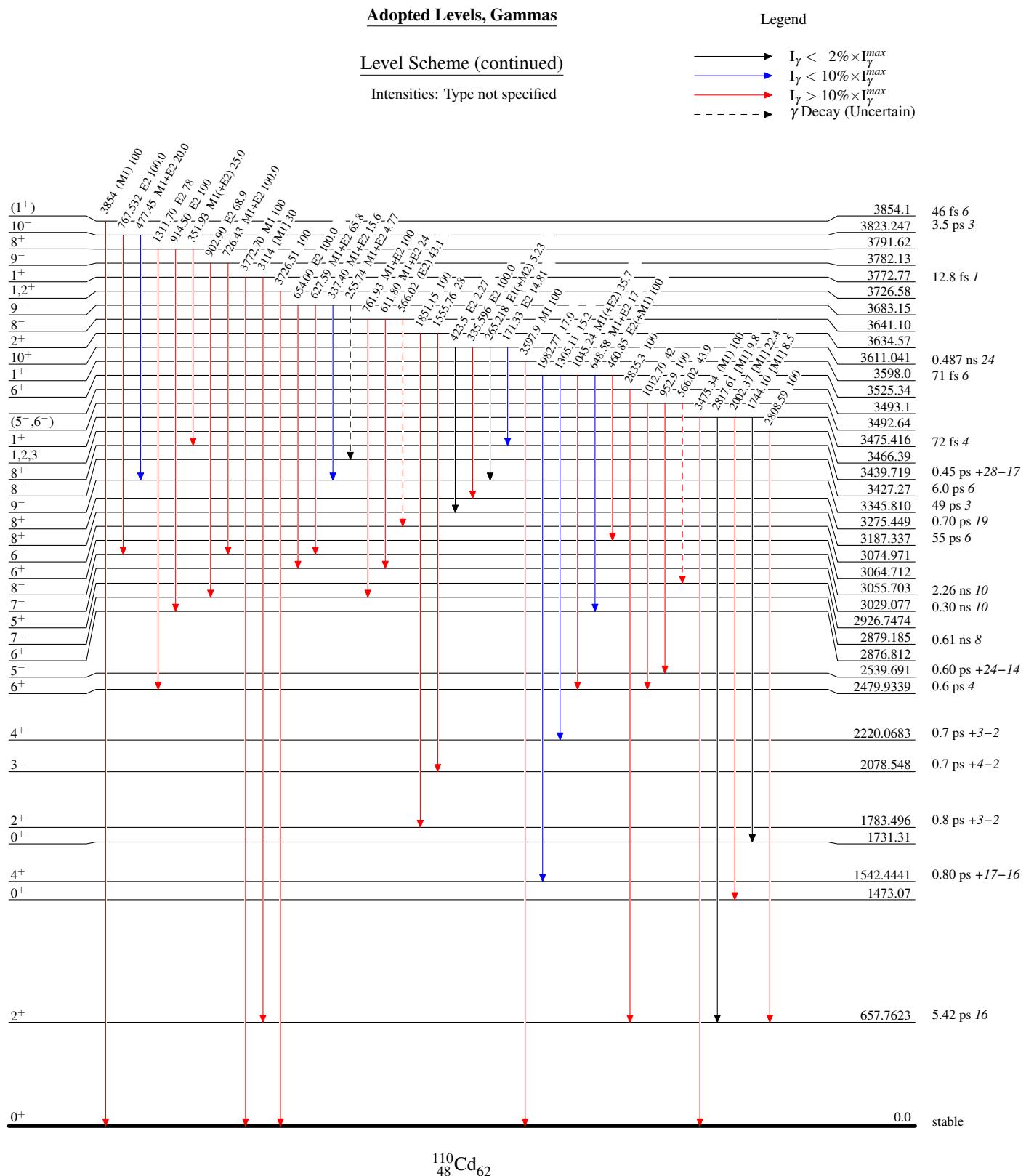
Adopted Levels, Gammas**Level Scheme (continued)**

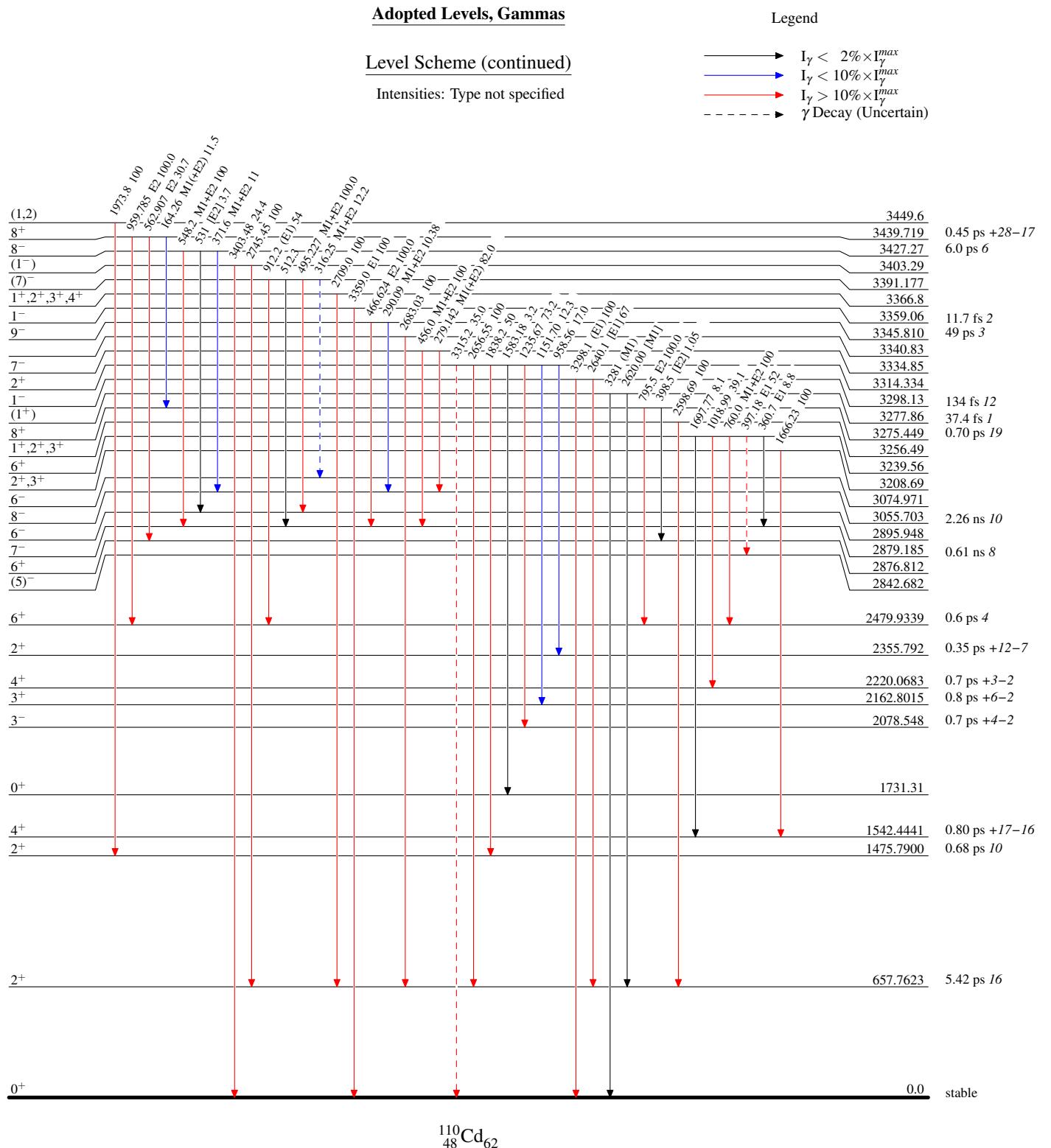
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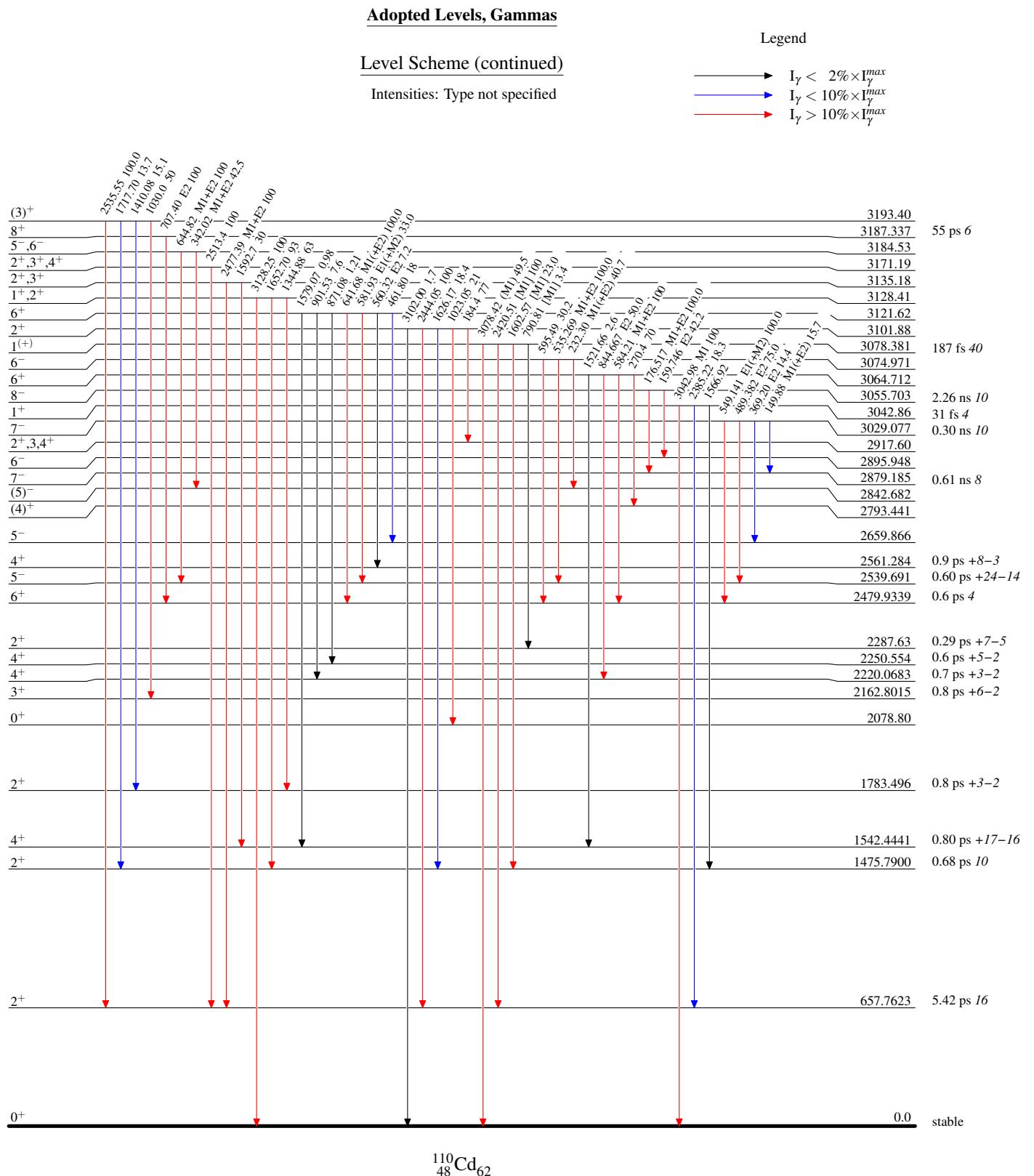
Legend

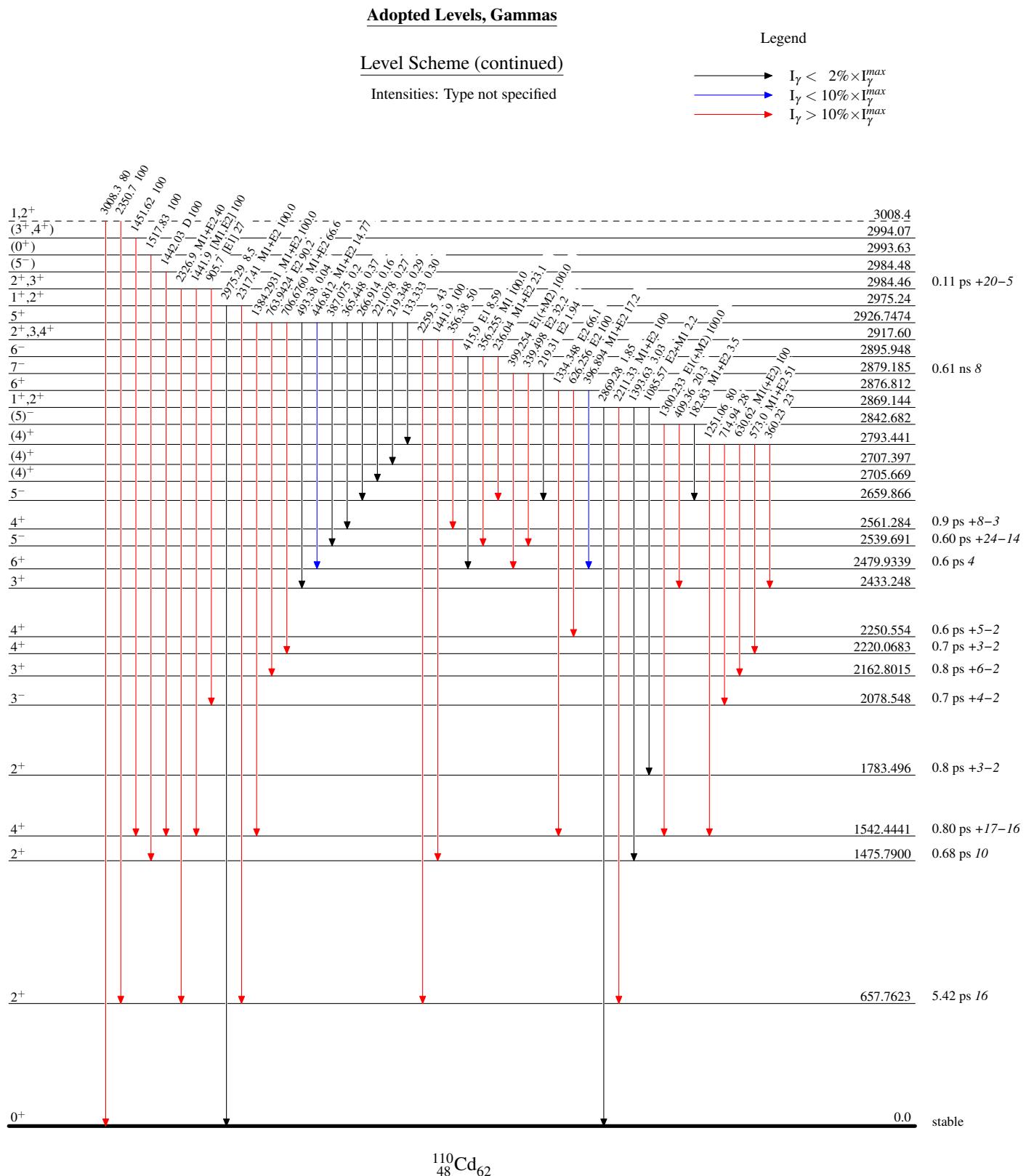
- $I_{\gamma} < 2\% \times I_{\gamma}^{\max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{\max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{\max}$
- - - - - → γ Decay (Uncertain)

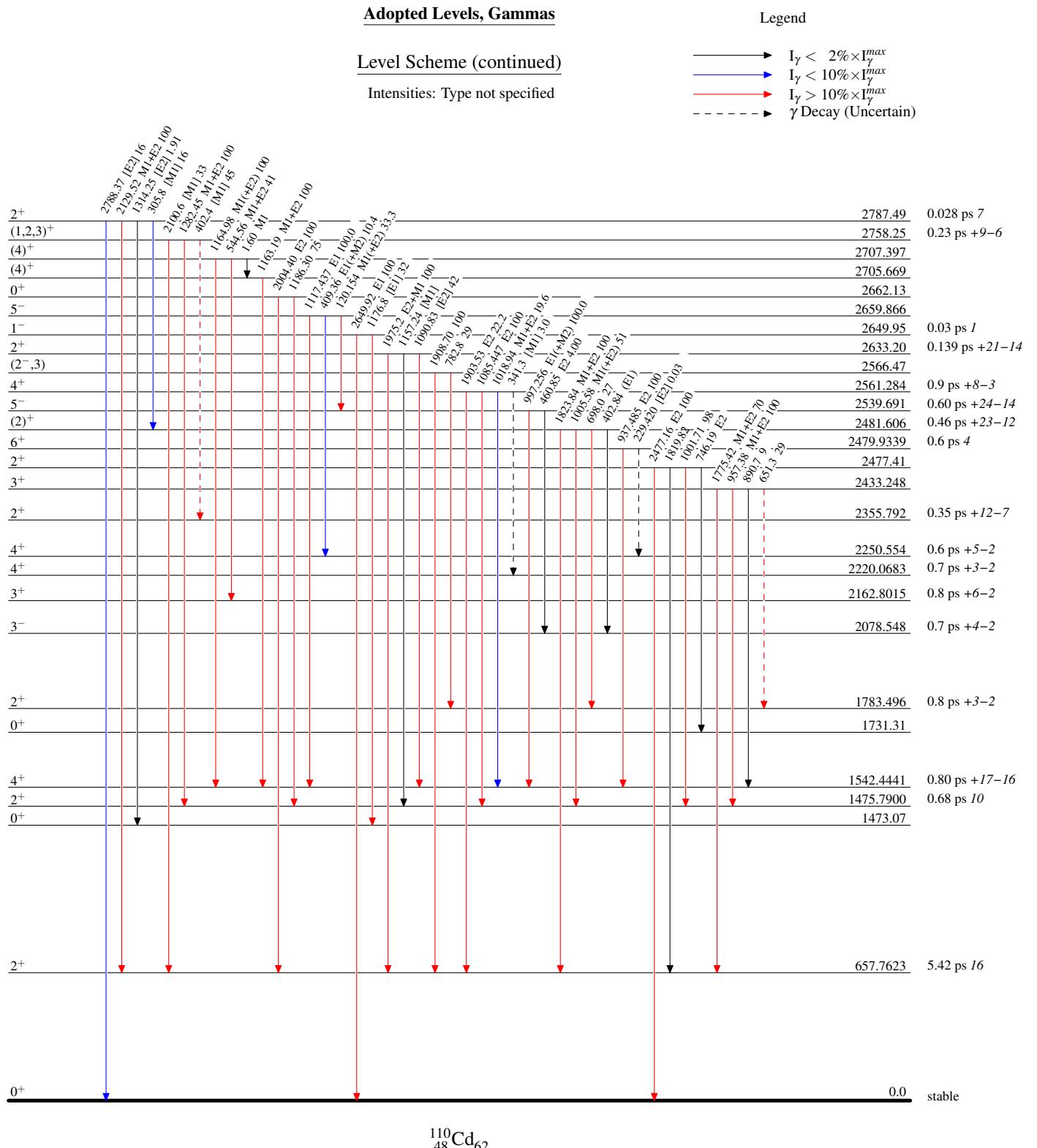


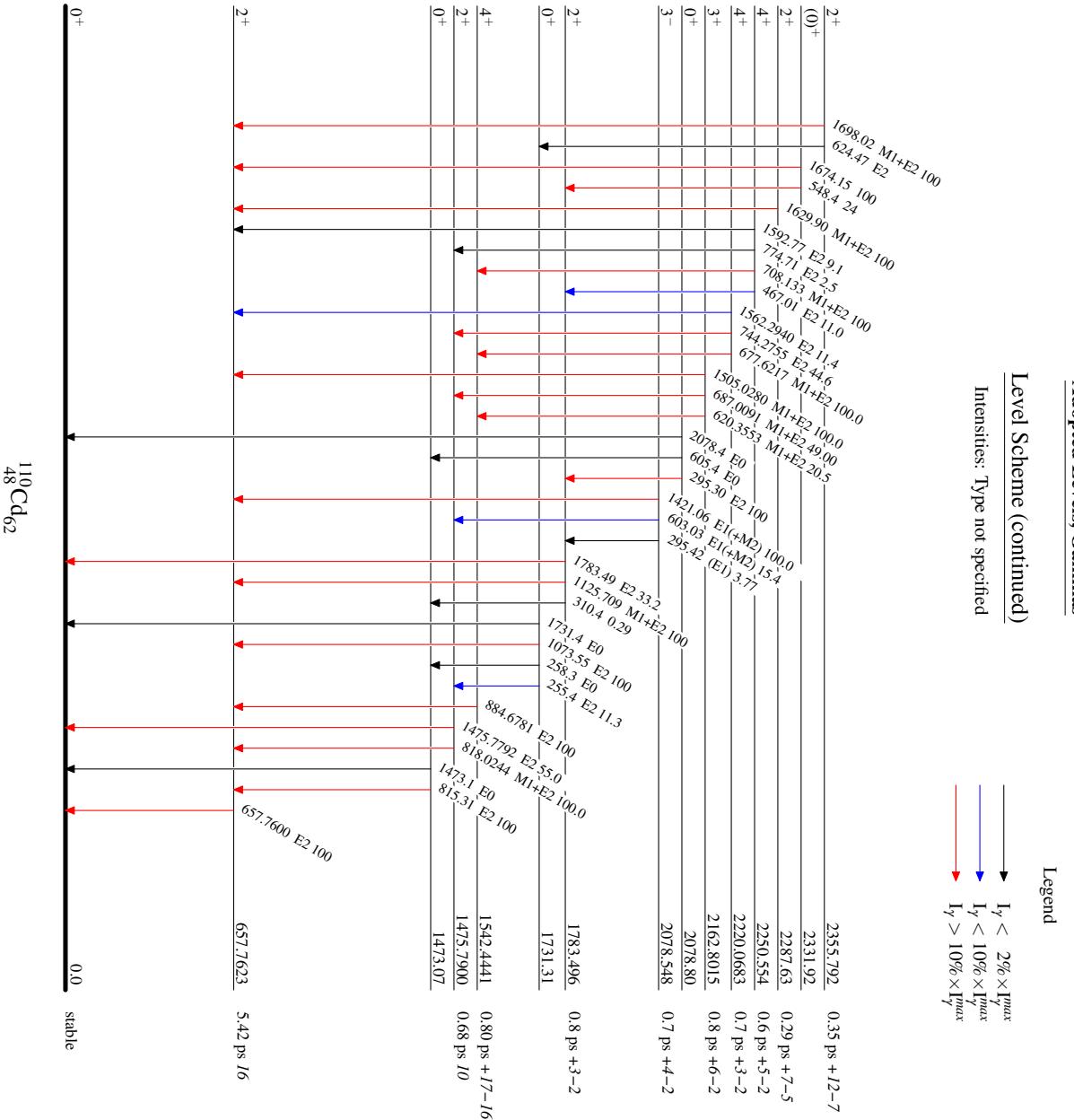






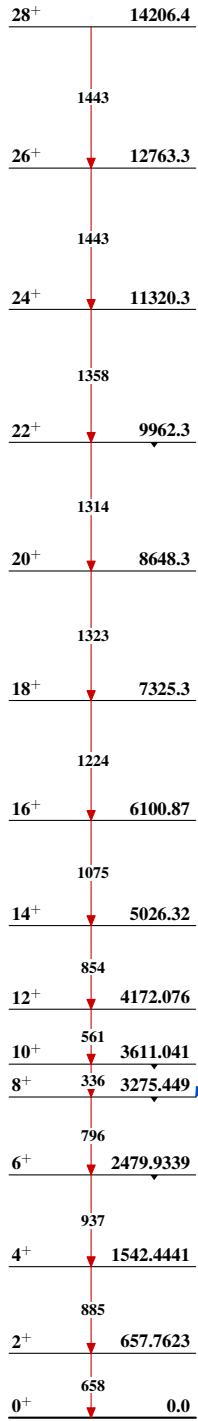






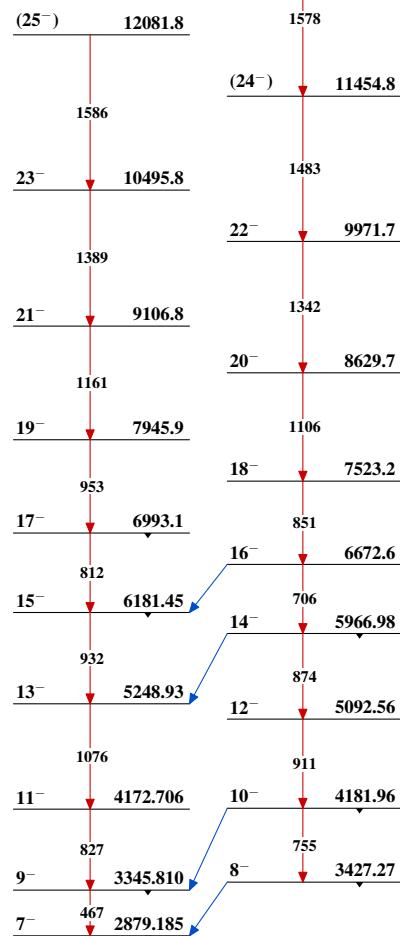
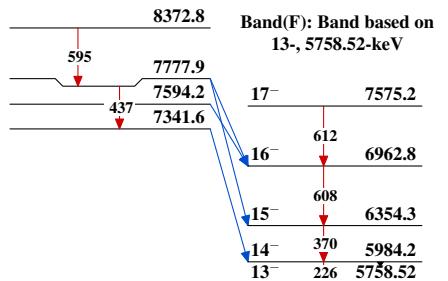
Adopted Levels, Gammas

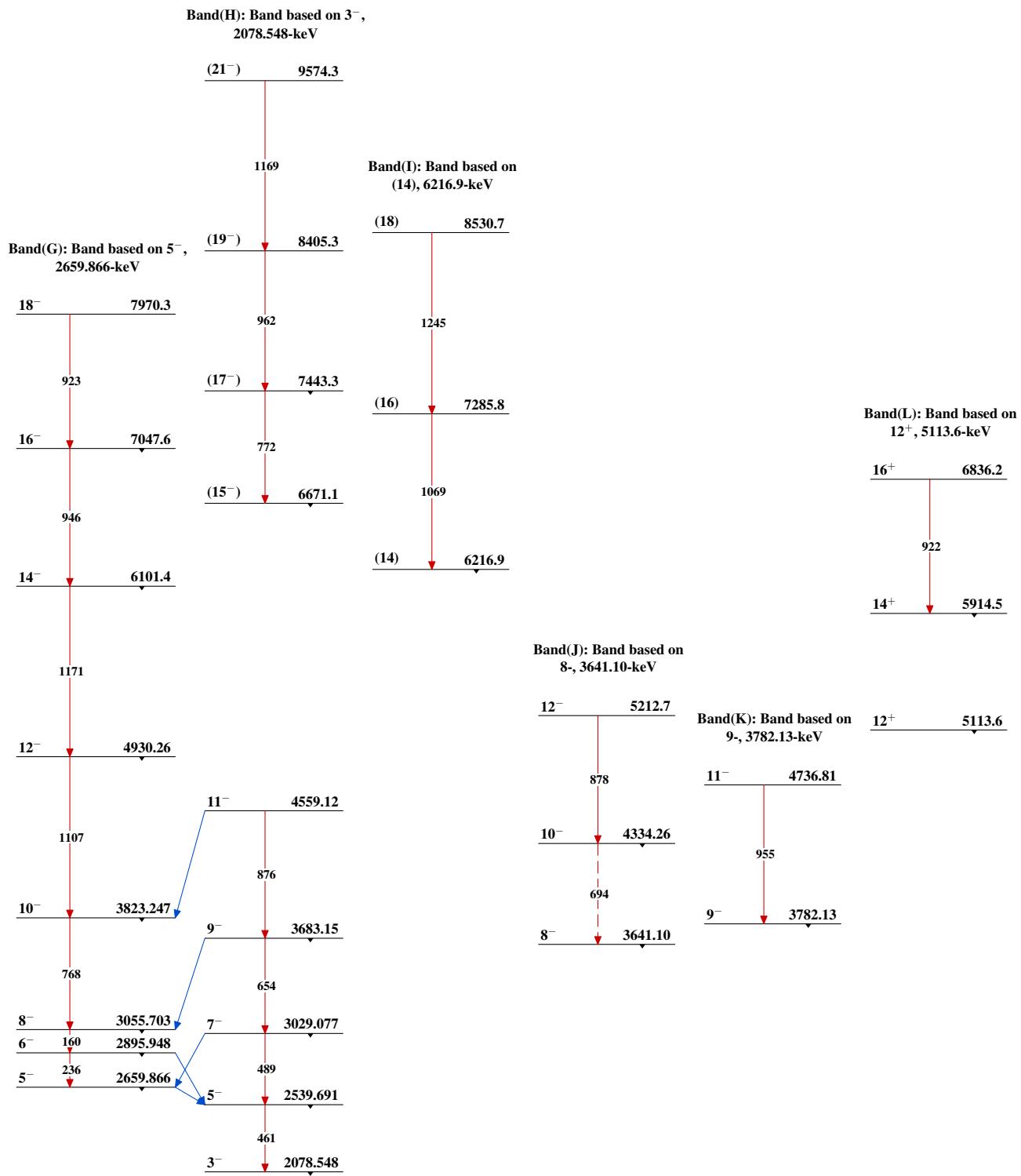
Band(A): g.s. rotational band

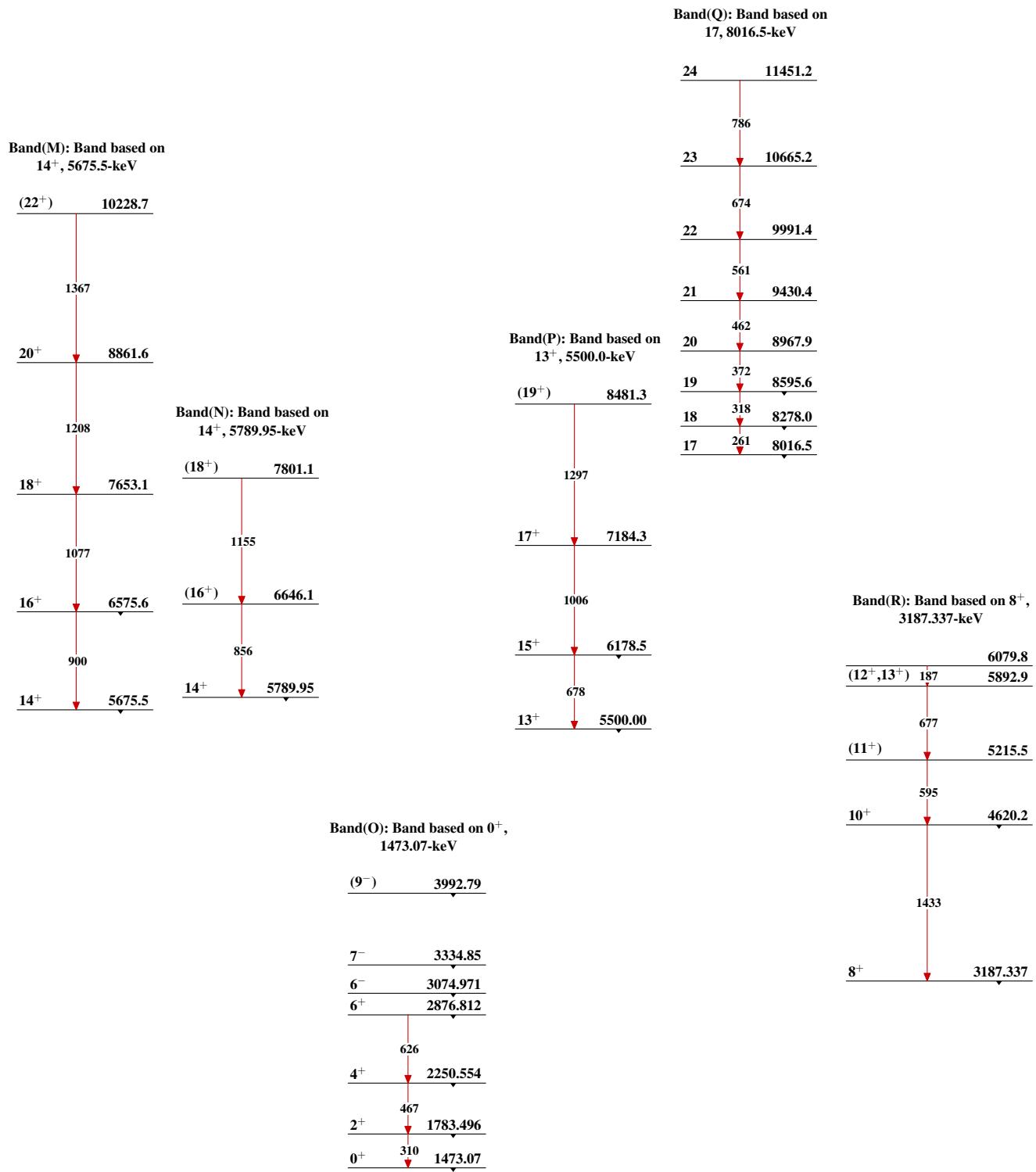


Band(D): Band based on
8-, 3427.27-keV

Band(C): Band based on 7-,
2879.185-keV

Band(E): Band based on
7341.6-keVBand(F): Band based on
13-, 5758.52-keV

Adopted Levels, Gammas (continued)

Adopted Levels, Gammas (continued)

Adopted Levels, Gammas (continued)

Band(S): Band based on
14, 6584.5-keV

