^{108}Cd(p,p′γ) 1992Ku01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

Inelastic proton scattering with E(p)=7– 9 MeV.

Measured γ, γγ, γ(θ), two Compton-suppressed Ge detectors, excitation functions between 12.3 and 17.4 MeV. Five angles between 90° and 158°.

Measured γ, pγ coin, ce electron spectrometer.

^{108}Cd Levels

E(level)	Jπ	T1/2	E(level)	Jπ	E(level)	Jπ
0	0+	stable	1721.0 *3*	0+	2201.9 *3*	3−
632.9 *3*	2+		1913.3 *3*	0+	2239.2 *3*	4+
1508.3 *3*	4+		2145.6 *3*	3+	2365.7 *3*	2+
1601.7 *3*	2+		2162.5 *3*	2+	2374.7 *3*	(0+)
					2486.0 *3*	2+

γ(^{108}Cd)

Eγ	Iγ‡	Ei(level)	J_i^π	Ef	J_f^π	Mult.†	δ	Comments
311.3 *3*	46	1913.3	0+	1601.7	2+	E2		α(K)exp=21×10−3 *3*
544.2 *3*	8.3	2145.6	3+	1601.7	2+	M1+E2	−1.22 *12*	Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
600.2 *3*	1.8 *3*	2201.9	3−	1601.7	2+			
632.9 *3*	1000	632.9	2+	0	0+	E2		α(K)exp=3.0×10−3
637.3 *3*	≤5.5	2145.6	3+	1508.3	4+			
637.5 *3*	≤5.5	2239.2	4+	1601.7	2+			
730.9 *3*	13	2239.2	4+	1508.3	4+	M1+E2	−0.43 *2*	α(K)exp=2.9×10−3 *4* Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
772.7 *3*	4.6	2374.7	(0+)	1601.7	2+	(E2)#		α(K)exp=2.3×10−3 *4*
875.4 *3*	61	1508.3	4+	632.9	2+	E2		α(K)exp=1.4×10−3 *3*
884.5 *3*	3 *1*	2486.0	2+	1601.7	2+			
969.1 *3*	141	1601.7	2+	632.9	2+	M1,E2		α(K)exp=1.2×10−3 *2*
1088.1 *3*	127	1721.0	0+	632.9	2+	E2		α(K)exp=0.8×10−3 *1*
1280.6 *3*	39	1913.3	0+	632.9	2+	E2		α(K)exp=0.39×10−3 *6*
1512.7 *3*	62	2145.6	3+	632.9	2+	M1+E2	−1.84 *3*	α(K)exp=0.40×10−3 *5* Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
1529.6 *3*	80	2162.5	2+	632.9	2+	M1+E2	+0.13 *2*	α(K)exp=0.43×10−3 *5* Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
1569.0 *3*	54	2201.9	3−	632.9	2+	E1		α(K)exp=0.19×10−3 *3*
1601.7 *3*	123	1601.7	2+	0	0+	E2		α(K)exp=0.36×10−3 *5*
1606.3 *3*	8.4	2239.2	4+	632.9	2+	E2		α(K)exp=0.37×10−3 *5*
1732.8 *3*	57	2365.7	2+	632.9	2+	M1+E2	−0.151 *14*	α(K)exp=0.32×10−3 *4* Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
1741.8 *3*	34	2374.7	(0+)	632.9	2+	(E2)#		α(K)exp=0.32×10−3 *4*
1853.2 *3*	34	2486.0	2+	632.9	2+	E2+M1	−0.61 *3*	α(K)exp=0.33×10−3 *5* Mult.: δ from (n,n′γ) and Adopted Levels, Gammas.
2162.5 *3*	2.5 *10*	2162.5	2+	0	0+	E2		

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^{108}Cd(p,p′γ) 1992Ku01 (continued)

γ(^{108}Cd) (continued)

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]
2365.7 *3*	8.5 *25*	2365.7	2^+	0	0^+	E2
2486.0 *3*	1.0 *5*	2486.0	2^+	0	0^+	

[†] Conversion coefficient normalized to α(K)exp=3.0 for the 632γ.
[‡] Intensity error typically 15%.
[#] Iγ=5.5 for the 637.3γ+637.5γ. α(K)exp allows M1 or E2. Placement in the level scheme requires ΔJ=2.

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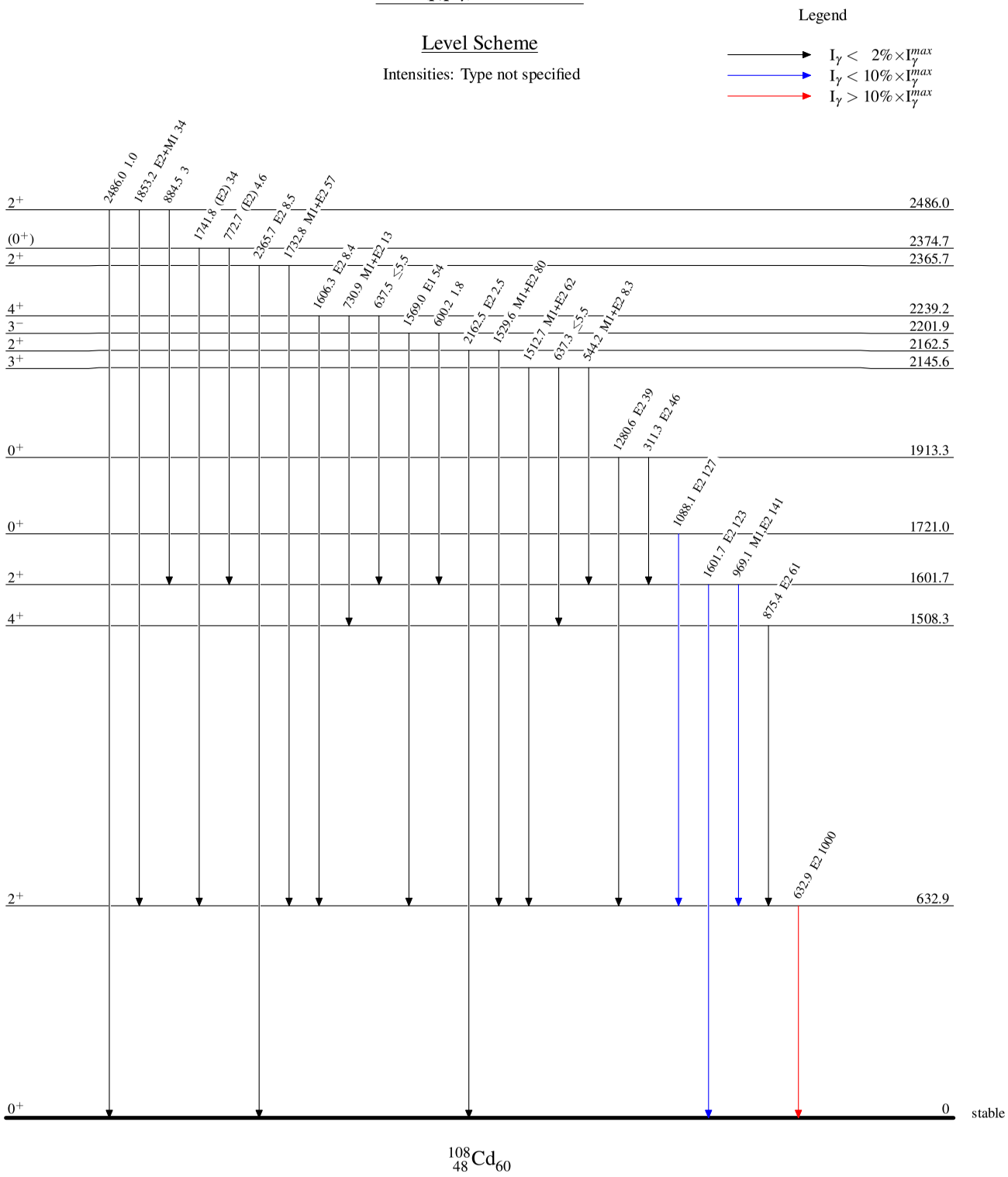
Level Scheme

Intensities: Type not specified



$^{108}_{48}Cd_{60}$