Coulomb excitation

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne and A. Negret	NDS 109, 943 (2008)	1-May-2007

^{106}Cd(p,p′γ) E=1.5-3.3 MeV (1958St32), 2.7,3.0 MeV (1969Mi07).
^{106}Cd(α,α′γ) E=9-11 MeV (1969Mi07), E=9 MeV (1970Kl12), E=11 MeV (1973Gr16).
^{106}Cd(α,α′) E=8-17 MeV (1976Es01,1976Es02).
^{106}Cd(^{16}O,^{16}O′γ) E=42-49 MeV (1969Mi07), E=35-40 MeV (1970Kl12).
^{106}Cd(^{16}O,^{16}O′) E=40-44 MeV (1976Es01,1976Es02).
^{106}Cd(^{32}S,^{32}S′γ) E=49-55 MeV (1970Kl12), E=72 MeV (1978BeZJ).

^{106}Cd Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+	stable	
632.7	2^+	7.27 ps *9*	B(E2)↑=0.384 *4* (1976Es02) Q=−0.28 *8* (1976Es02) $T_{1/2}$: from B(E2)=0.384 *4* (1976Es02). B(E2)↑: Others: 0.408 *24* (1970Kl12), 0.426 *17* (1969Mi07) 0.47 *5* (1958St32). Q: Constructive interference from higher 2^+ states assumed; others: −0.32 *8* (1976Es01), −0.15 *11* (1974Ha08), −0.76 *15* (1970Kl12), −0.77 *26* (1970St17).
1493.8	4^+	0.87 ps *11*	$T_{1/2}$: from B[E2;2+(632 keV) to 4+(1493 keV)]=0.247 *31* (1969Mi07).
1716.4	2^+	0.31 ps *5*	B(E2)↑=0.036 *5* (1969Mi07) $T_{1/2}$: from B(E2)=0.036 *5*, Iγ(1716γ) branching=59% *3*.

γ(^{106}Cd)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	Comments
632.7 *3*		632.7	2^+	0.0	0^+	E2		
861.1 *2*		1493.8	4^+	632.7	2^+	E2		E_γ: from 1977Da08 (α,2nγ). Other: 857 *5* (1969Mi07).
1084.2 *3*	71 *28*	1716.4	2^+	632.7	2^+	M1+E2	0.85 *20*	I_γ: relative photon branchings in % from 1977Da08 (α,2nγ). E_γ: from 1977Da08 (α,2nγ). Other: 1085 *1* (1969Mi07). δ: from 1084γ(633γ)(θ) (1973Gr16); other: −0.60 *+20−15* (1969Mi07) 1084γ(θ).
1716.4 *3*	100 *20*	1716.4	2^+	0.0	0^+	E2		I_γ: relative photon branchings in %. E_γ: from 1977Da08 (α,2nγ). Other: 1718 *1* (1969Mi07).

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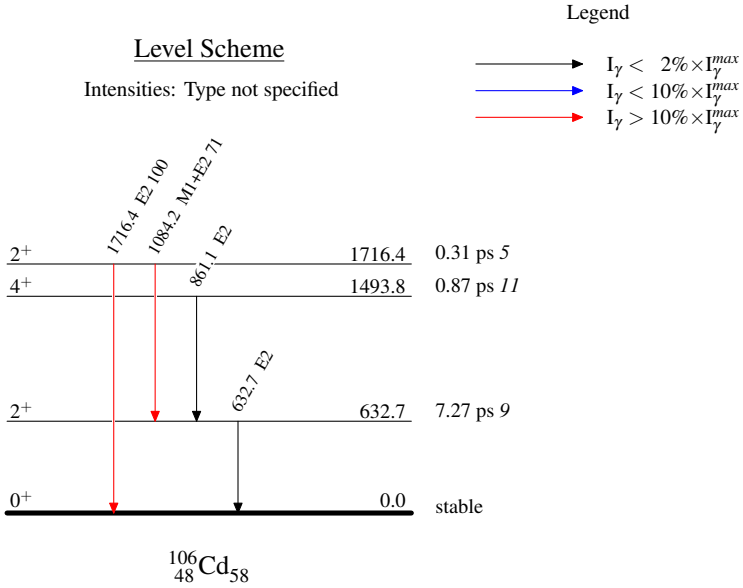

$^{106}_{48}Cd_{58}$