

$^{116}\text{Cd}(p,p'\gamma)$ 1992Ku01,1978Ha33

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 717 (2010)	1-Dec-2009

E(p)=5-20 MeV (1978Ha33). E(p)=7-9 MeV (1992Ku01).

Measured: γ (semi), $\gamma\gamma$, $p\gamma$ coin, ce (1992Ku01).

 ^{116}Cd Levels

E(level)	J^π †	E(level)	J^π †	E(level)	J^π †	E(level)
0.0	0 ⁺	1380.2	0 ⁺	1951.0	2 ⁺	2296
513.5	2 ⁺	1641.5	2 ⁺	2027.7		2371
1212.7	2 ⁺	1915.2	3 ⁺	2115		2386
1219.0	4 ⁺	1921.3	3 ^{-‡}	2121?		2604
1282.5	0 ⁺	1927.8	(0 ⁺)	2250		2648

† From 1992Ku01.

‡ Deduced from excitation function and coupled-channel calculations.

 $\gamma(^{116}\text{Cd})$

E_γ †	I_γ ‡	E_i (level)	J_i^π	E_f	J_f^π	E_γ †	I_γ ‡	E_i (level)	J_i^π	E_f	J_f^π
195		2115		1921.3	3 ⁻	1212.6	3	1212.7	2 ⁺	0.0	0 ⁺
422.7	3	1641.5	2 ⁺	1219.0	4 ⁺	1385		2604		1219.0	4 ⁺
513.9	3	513.5	2 ⁺	0.0	0 ⁺	1401.8	3	1915.2	3 ⁺	513.5	2 ⁺
699.4	3	1212.7	2 ⁺	513.5	2 ⁺	1407.5	3	1921.3	3 ⁻	513.5	2 ⁺
702.7	3	1915.2	3 ⁺	1212.7	2 ⁺	1414.3	3	1927.8	(0 ⁺)	513.5	2 ⁺
705.5	3	1219.0	4 ⁺	513.5	2 ⁺	1437.5	3	1951.0	2 ⁺	513.5	2 ⁺
708.7	3	1921.3	3 ⁻	1212.7	2 ⁺	1601.5		2115		513.5	2 ⁺
769.0	3	1282.5	0 ⁺	513.5	2 ⁺	1607.3	#	2121?		513.5	2 ⁺
807.9		2027.7		1219.0	4 ⁺	1641.5	3	1641.5	2 ⁺	0.0	0 ⁺
866.7	3	1380.2	0 ⁺	513.5	2 ⁺	1736.0		2250		513.5	2 ⁺
1029.2		2250		1219.0	4 ⁺	2091		2604		513.5	2 ⁺
1038.6	#	2250		1212.7	2 ⁺	2604		2604		0.0	0 ⁺
1128.5	3	1641.5	2 ⁺	513.5	2 ⁺						

† From 1992Ku01 up to the level 1951 keV, from 1978Ha33 for the 2296 to 2250 levels and from 1973De12 for higher levels.

‡ From 1992Ku01 up to level 1951 keV (15% uncertainty). 1973De12 give branching ratios.

Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

Intensities: Relative I_γ

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

