

$^{116}\text{Cd}(^{94}\text{Kr}, \text{xn}\gamma)$ 1996Ju03

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

E=320 MeV; Taken from XUNDL.

Measured: γ , $\gamma\gamma$ using TESSA array which consisted of 12 large escape-suppressed Ge detectors and 50 BGO elements.

The identification is based on previous known γ transitions.

 ^{116}Cd Levels

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
0.0 [#]	0 ⁺	1380 [@]	0 ⁺	2042 [@]	4 ⁺
513 [#]	2 ⁺	1642 [@]	2 ⁺	2564 [@]	6 ⁺
1219 [#]	4 ⁺	1951 ^{&}	2 ⁺	2824 [#]	8 ⁺
1282 ^{&}	0 ⁺	2026 [#]	6 ⁺	2873	8 ⁺
				3040 [#]	(10 ⁺)

[†] From the figure 3, E γ 's given as integers.

[‡] From angular distribution of γ -rays and band assignments.

[#] Band(A): g.s. band.

[@] Band(B): Intruder band based on the second excited 0⁺.

[&] Band(C): band based on the first excited 0⁺.

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

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
167	0.04	3040	(10 ⁺)	2873	8 ⁺	798	1	2824	8 ⁺	2026	6 ⁺
215	0.1	3040	(10 ⁺)	2824	8 ⁺	807	6	2026	6 ⁺	1219	4 ⁺
262	0.01	1642	2 ⁺	1380	0 ⁺	823	0.4	2042	4 ⁺	1219	4 ⁺
399	0.3	2042	4 ⁺	1642	2 ⁺	847	0.2	2873	8 ⁺	2026	6 ⁺
513		513	2 ⁺	0.0	0 ⁺	867	3	1380	0 ⁺	513	2 ⁺
523	0.09	2564	6 ⁺	2042	4 ⁺	1129	2	1642	2 ⁺	513	2 ⁺
538	0.2	2564	6 ⁺	2026	6 ⁺	1345	0.07	2564	6 ⁺	1219	4 ⁺
668	0.07	1951	2 ⁺	1282	0 ⁺	1438	0.4	1951	2 ⁺	513	2 ⁺
706	100	1219	4 ⁺	513	2 ⁺	1529	1	2042	4 ⁺	513	2 ⁺
769	3	1282	0 ⁺	513	2 ⁺	1642	3	1642	2 ⁺	0.0	0 ⁺

[†] From the figure 3 in the paper.

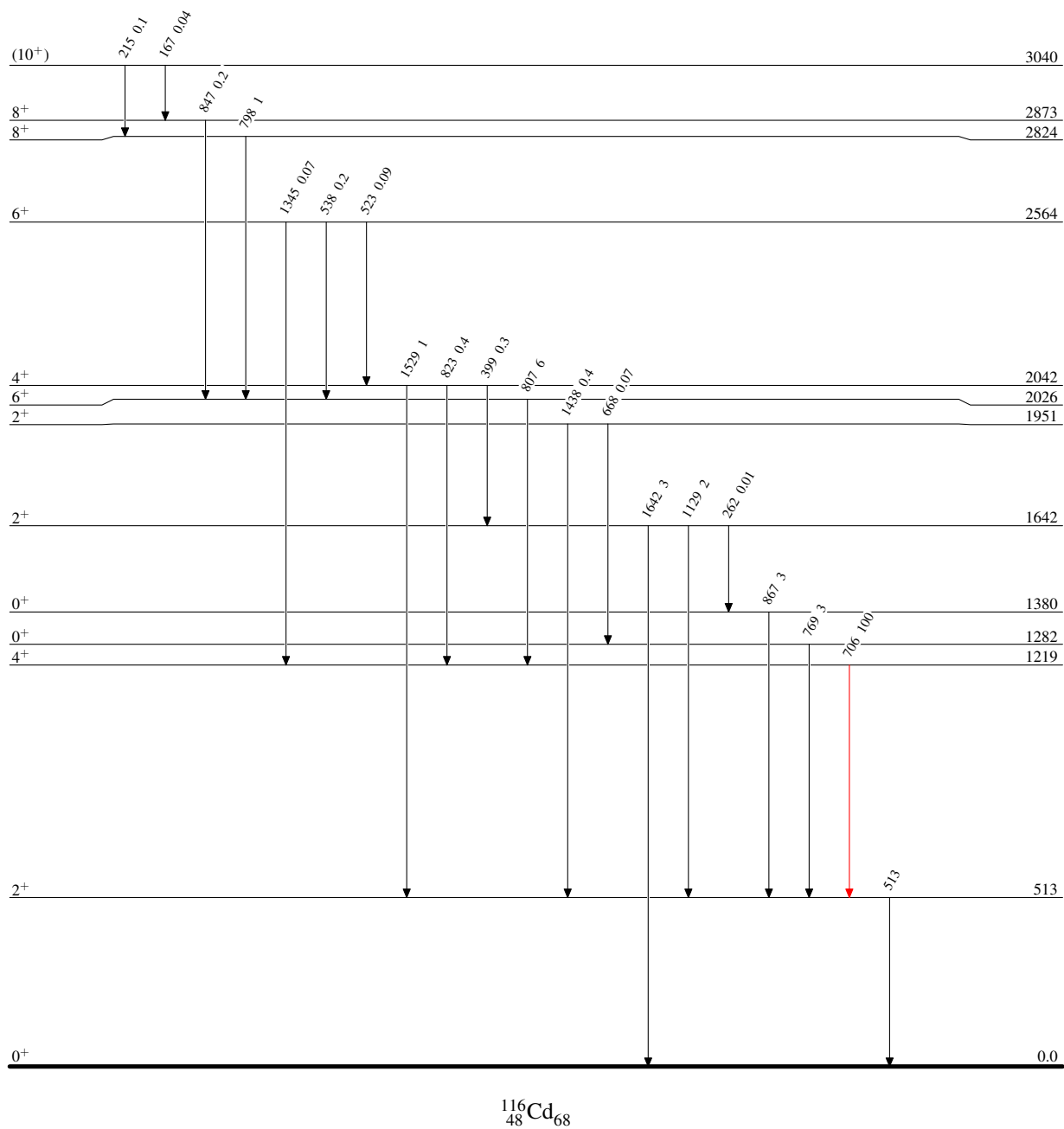
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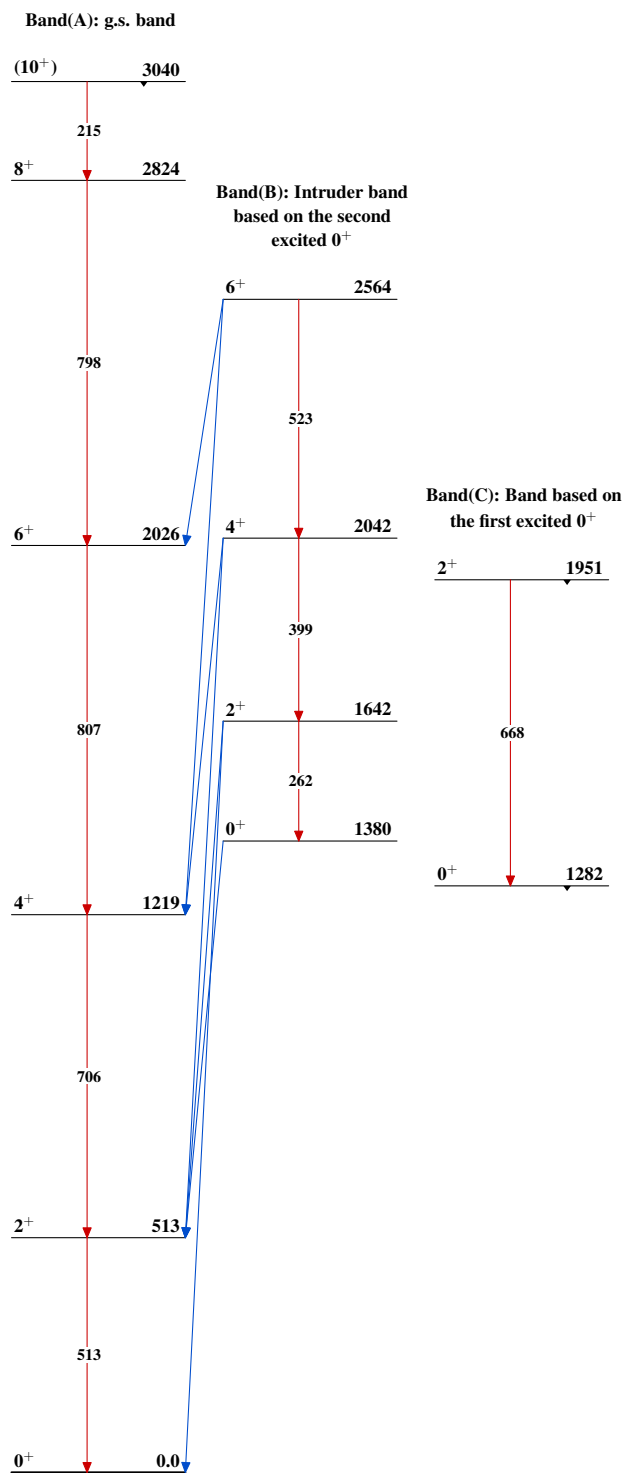
Level Scheme

Intensities: Type not specified

Legend

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


 $^{116}_{48}\text{Cd}_{68}$

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