

$^{106}\text{Pd}(^{12}\text{C},2n\gamma)$ 1982Ch01

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

1982Ch01: $^{106}\text{Pd}(^{12}\text{C},2n\gamma)$ E=58 MeV, self-supporting enriched target, measured γ , $\gamma\gamma$, $\gamma(t)$, Ge(Li) detectors.

 ^{116}Te Levels

E(level)	J^π	E(level)	J^π	E(level)	J^π	E(level)	J^π
0.0	0 ⁺	1360.3 4	4 ⁺	3028.7 6	(7 ⁻)	4340	(12 ⁺)
679.2 3	2 ⁺	2003.6 5	6 ⁺	3175.9 7		5110.6	(14 ⁺)
1219.2		2774.5 6	8 ⁺	3576.6	10 ⁺		

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

E_γ	I_γ	$E_i(\text{level})$	J^π_i	E_f	J^π_f	Mult.	Comments
147.2 3	7 1	3175.9		3028.7 (7 ⁻)			
643.3 3	75 8	2003.6	6 ⁺	1360.3 4 ⁺		E2	Mult.: $A_2=0.26$ 3\$ $A_4=-0.17$ 4.
679.2 3	100 10	679.2	2 ⁺	0.0 0 ⁺		E2	Mult.: $A_2=0.26$ 4\$ $A_4=-0.14$ 6.
681.1 3	87 9	1360.3	4 ⁺	679.2 2 ⁺		E2	Mult.: $A_2=0.25$ 5\$ $A_4=-0.13$ 7.
763		4340	(12 ⁺)	3576.6 10 ⁺			E_γ : the authors' placement of 763 γ (from a level with 14 ⁺) does not agree with other recent inbeam work (12 ⁺ to 10 ⁺).
771.0 [†] 3	82 [†] 8	2774.5	8 ⁺	2003.6 6 ⁺		E2	I_γ : unresolved doublet evidenced in self-coincidence. The revised placement of the 771.0 γ from the 5111 level requires $I_\gamma \leq I_\gamma(763)$ and since $I_\gamma(763) < I_\gamma(771)$, most of the $I_\gamma(771)$ must belong to the placement from 2774. Mult.: $A_2=0.25$ 2\$ $A_4=-0.12$ 4.
771.0 [†] 3	[†]	5110.6	(14 ⁺)	4340 (12 ⁺)		E2	
802.1 3	32 3	3576.6	10 ⁺	2774.5 8 ⁺		E2	Mult.: $A_2=0.23$ 4.
1025.2 3	17 2	3028.7	(7 ⁻)	2003.6 6 ⁺		(E1)	Mult.: $A_2=-0.15$ 11.

[†] Multiply placed with undivided intensity.

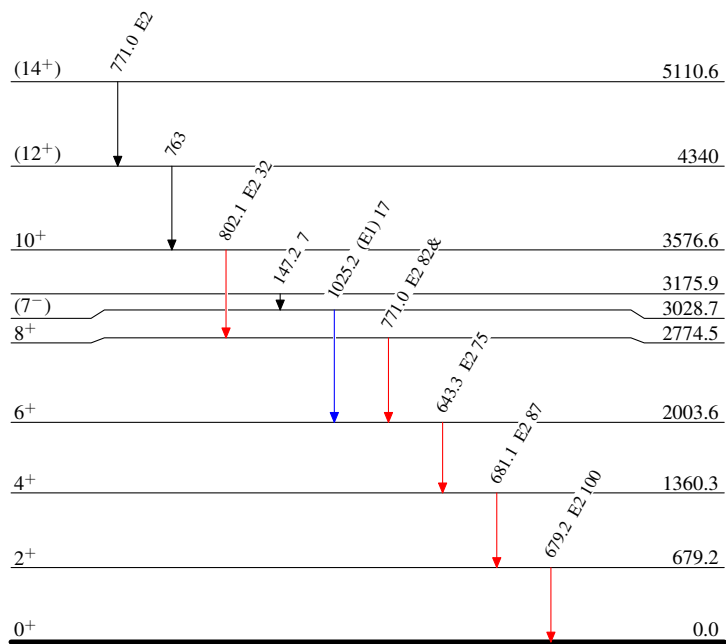
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Level Scheme

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

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

 $^{116}_{52}\text{Te}_{64}$