^{106}Cd(^{3}He,pnγ) 1986Ki11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

E(^{3}He)=20 MeV.
Thin target, enriched target 90%.
1986Ki11 measured: γ, Iγ, $\gamma(\theta)$, $\gamma\gamma$(t), ce, Ge, Si(Li), Si(Au), mini-orange.
1984Au12 measured: γ, Iγ, $\gamma(\theta)$, $\gamma\gamma$(t).

^{107}In Levels

E(level)	J$^{\pi}$†	E(level)	J$^{\pi}$†	E(level)	J$^{\pi}$†	E(level)	J$^{\pi}$†
0	9/2^{+}	1166.0	(1/2,3/2)	1518.4	(3/2,5/2)$^{-}$	1865.5	
678.3	1/2^{-}	1396.0		1541.0		1910.1	(3/2,5/2)$^{-}$
1001.5	11/2^{+}	1414.9	13/2^{+}	1733		1972.7	(7/2,9/2,11/2)
1106.8	3/2^{-}	1423.3	(9/2,11/2)$^{+}$	1807.0		2003.6	19/2
1129.3	5/2^{+}	1490.8	(1/2,3/2)	1853.4	17/2^{+}		

† As given by 1986Ki11. They do not fully agree with Adopted Levels.

γ(^{107}In)

E$_{\gamma}$†	I$_{\gamma}$†	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Mult.‡	Comments
150.26@ *10*	22.0 *20*	2003.6	19/2	1853.4	17/2^{+}		
325.0#		1490.8	(1/2,3/2)	1166.0	(1/2,3/2)		
361.46 *8*	65.7 *20*	1490.8	(1/2,3/2)	1129.3	5/2^{+}		
x379.0 *4*							
x393.0 *4*							
413.43@ *6*	70.1 *23*	1414.9	13/2^{+}	1001.5	11/2^{+}		E$_{\gamma}$: E=413.5 *5* (1984Au12).
421.52 *8*	27.9 *6*	1423.3	(9/2,11/2)$^{+}$	1001.5	11/2^{+}		E$_{\gamma}$: E=422.1 *4* (1984Au12).
428.42 *8*	96 *4*	1106.8	3/2^{-}	678.3	1/2^{-}		
438.43@ *6*	100	1853.4	17/2^{+}	1414.9	13/2^{+}		E$_{\gamma}$: E=438.0 *4* (1984Au12).
487.64 *8*	54.2 *17*	1166.0	(1/2,3/2)	678.3	1/2^{-}		
x593.0 *4*							
604.0#		1733		1129.3	5/2^{+}		
678.34@ *6*		678.3	1/2^{-}	0	9/2^{+}	M4	α(K)exp=0.00495 α(K)exp: α(K)exp=theoretical value used for normalization.
678.34# *6*		1807.0		1129.3	5/2^{+}		
758.75 *10*	11.4 *2*	1865.5		1106.8	3/2^{-}		
x792.6 *5*							
803.3 *2*	11.4 *2*	1910.1	(3/2,5/2)$^{-}$	1106.8	3/2^{-}	E2,M1	α(K)exp=1.65 *43*
840.08 *10*	39.1 *11*	1518.4	(3/2,5/2)$^{-}$	678.3	1/2^{-}	E2,M1	α(K)exp=0.0016 *4*
971.2 *2*	26.6 *6*	1972.7	(7/2,9/2,11/2)	1001.5	11/2^{+}		E$_{\gamma}$: E=971.7 *5* (1984Au12).
1001.46@ *8*	237 *23*	1001.5	11/2^{+}	0	9/2^{+}	E2	α(K)exp=0.0014 *4* E$_{\gamma}$: E=1001.3 *5* (1984Au12).
1129.29 *8*		1129.3	5/2^{+}	0	9/2^{+}	E2	α(K)exp=0.00075 *19*
1396.1 *1*	52.4 *18*	1396.0		0	9/2^{+}		
1414.92@ *8*	159 *9*	1414.9	13/2^{+}	0	9/2^{+}	E2	α(K)exp=0.00059 *17* E$_{\gamma}$: E=1414.8 *5* (1984Au12).
1423.28 *10*	53.5 *18*	1423.3	(9/2,11/2)$^{+}$	0	9/2^{+}	E2,M1	α(K)exp=0.00063 *24*
1540.95 *10*	73 *3*	1541.0		0	9/2^{+}		
1807.04 *10*	22.7 *6*	1807.0		0	9/2^{+}		

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^{106}Cd(^{3}He,pnγ) 1986Ki11 (continued)

$\gamma(^{107}In)$ (continued)

† From 1986Ki11, unplaced transitions are from 1984Au12.
‡ From α(K)exp based on rel Iγ and I(ce) norm to α(K)exp(678γ)=0.00495 (theory).
# Weak lines seen in $\gamma\gamma$ and tentatively placed.
@ From authors' (α,2pnγ) data.
x γ ray not placed in level scheme.

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Level Scheme

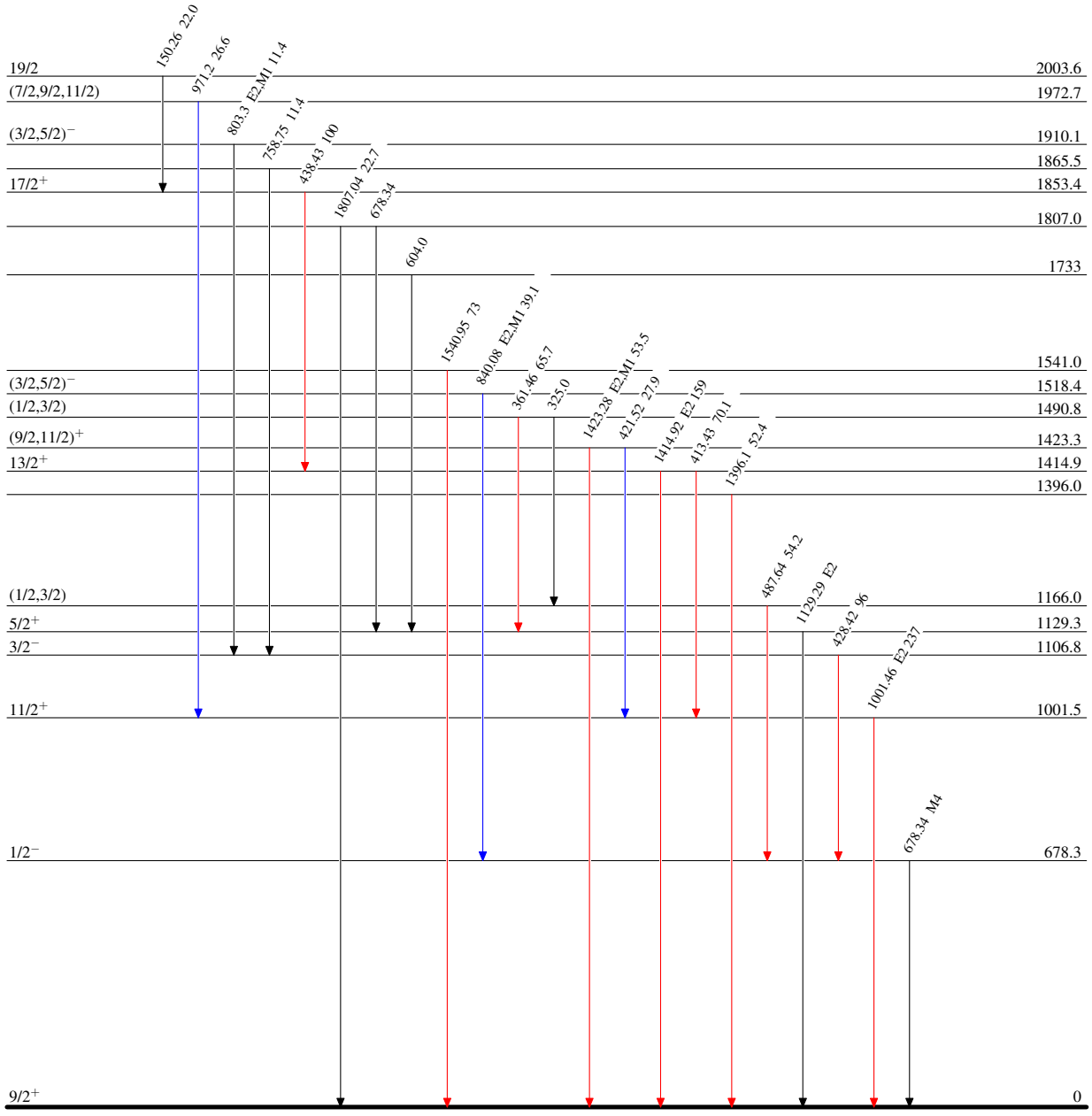
Intensities: Relative I_γ

Legend

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

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

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



$^{107}_{49}In_{58}$