

$^{106}\text{Cd}(^3\text{He},d)$ 1970ThZW

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

$E(^3\text{He})=12,14.5$ MeV.

Magnetic spectrograph resolution=30-40 keV.

 ^{107}In Levels

ΔE : $\Delta E=10-20$ depending on intensity.

E(level)	L [‡]	S [@]	Comments
0	4	0.8	
670	1	0.07	
1120	4+2+0	6+0.6+0.6	E(level): may correspond with (d,n γ) excitations at 1107, 1129, 1166 keV $\sigma(\theta)$ can also be fit by 4+0 with S=7.5+0.75.
1400	0,1 [#]	0.02,0.04	E(level): may correspond with some combination of (d,n γ) excitations at 1396, 1415, 1423 keV.
1490	2	0.52	E(level): may correspond with (d,n γ) 3/2 ⁺ excitation at 1490 keV.
1720	&		
1790	&		E(level): may correspond with (d,n γ) excitation at 1805 keV.
1840	&		E(level): may correspond with (d,n γ) excitation at 1864 keV.
2200	0+4,5	0.03,0.3	E(level): doublet.
2290			
2340			
2395			
2705			

[†] $\Delta E=10-20$ depending on intensity.

[‡] Deduced from angular distributions compared with DWBA calc.

[#] Inconsistent with J ^{π} derived via (d,n γ) study.

[@] S' is given. J=7/2⁺ assumed if L=4 except for 9/2⁺ g.s.; J=3/2⁺ assumed if L=2; J=3/2⁻ assumed if L=1 except for 1/2⁻ isomeric state.

[&] The 1720, 1790, 1840 peaks were not fully resolved. The authors fix $\sigma(\theta)$ with L(1720+1790)=4 or ⁵S'=1.6 and L(1840)=⁰S'=0.054.