

$^{70}\text{Zn}(\text{pol t},\alpha)$ 1981Aj02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 115, 1 (2014)	31-Jul-2013

1981Aj02: E=17 MeV polarized triton on a $216\mu\text{g}/\text{cm}^2$ Zn target. α particles measured with Q3D spectrometer. Measured $\sigma(\theta)$ and analyzing power angular distributions for $\theta \approx 10^\circ - 40^\circ$ DWBA code DWUCK used for analysis of data.

 ^{69}Cu Levels

E(level)	J^π [†]	C ² S	Comments
0	$3/2^-$	1.03	
1096 6	$1/2^-$	0.41	
1212 6	$(5/2^-)$	1.2	J^π : systematics suggest that this possible doublet state may be $5/2^-$ and $7/2^-$. $\sigma(\theta)$ cannot differentiate between these two; analyzing power data are not in agreement with either value though $5/2^-$ appears more likely. E(level): probable doublet with the spacing of the two unresolved levels estimated to be less than 15 keV by 1981Aj02.
1706 6	$(7/2^-)$	1.8	J^π : the analyzing power data are in fairly good agreement with shape but not with absolute values predicted for $J^\pi=7/2^-$ level.
1863 10 2540 10	$(7/2^-)$	0.5	J^π : data more in agreement with $J^\pi=7/2^-$ rather than $5/2^-$; problems with contaminant peak in data.

[†] From differential cross sections and analyzing powers.