2 H(56 Ni, 56 Cu γ) **2017On01**

Type Author Citation Literature Cutoff Date
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This dataset adapted from compiled dataset from 2017On01 in the XUNDL database by J. Chen (NSCL/MSU), June 13, 2017. 2017On01: $E(^{56}Ni)\approx75$ MeV/nucleon ions were produced via fragmentation of 160 MeV/nucleon ^{58}Ni primary beam provided by the NSCL cyclotron impinging on a 752 mg/cm² ^{9}Be target. Fragments were extracted by the A1900 fragment separator using $B\rho$ - ΔE - $B\rho$ method. Reaction target was 225 mg/cm² $^{2}CD_2$. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, (recoils) γ -coin using the GRETINA array consisting of 28 coaxial HPGe detector crystals. Recoils were analyzed with the S800 spectrograph. Deduced levels, J^{π} , astrophysical reaction rates for $^{55}Ni(\rho,\gamma)^{56}Cu$ reaction.

⁵⁶Cu Levels

E(level) [†]	$J^{\pi \ddagger}$		
0	(4 ⁺)		
166 <i>I</i>	(3^{+})		
572 <i>1</i>	(5^{+})		
826 <i>4</i>	(4^{+})		
1037 4	(2^{+})		
1224 <i>4</i>	$(3^+,5^+)$		

[†] From Eγ data.

γ (⁵⁶Cu)

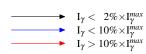
E_{γ}	I_{γ}	$E_i(level)$	\mathbf{J}_i^{π}	\mathbf{E}_f	\mathbf{J}_f^{π}
166 <i>I</i>	100	166	(3+)	0	(4+)
572 <i>1</i>	122 8	572	(5^{+})	0	(4^{+})
660 <i>3</i>	28 8	826	(4^{+})	166	(3^{+})
871 <i>3</i>	50 8	1037	(2^{+})	166	(3^{+})
1224 <i>4</i>	19 <i>10</i>	1224	$(3^+,5^+)$	0	(4^{+})

[‡] Tentative assignments from 2017On01, except for the g.s. which is from the Adopted Levels.

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Level Scheme

Intensities: Relative I_{γ}



Legend

