

$^{65}\text{Cu}(\text{d},\text{d}')$  1967Hj02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 202,59 (2025)	25-Feb-2025

Target  $J^\pi(^{65}\text{Cu g.s.})=3/2^-$ .

1967Hj02: E=15 MeV deuteron beam was produced from the University of Pittsburgh cyclotron. Target was 99% enriched  $^{65}\text{Cu}$  with a thickness of about 0.51 mg/cm<sup>2</sup>. Reaction products were momentum-analyzed with a magnetic wedge spectrograph (FWHM $\approx$ 50 keV) (detected with a solid-state counter  $\Delta E$ -E telescope in a second measurement, FWHM=70-90 keV). Measured  $\sigma(E_{\text{d}},\theta)$ ,  $\theta_{\text{lab}}\approx 10^\circ$  to  $50^\circ$ . Deduced levels, L-transfers from empirical analysis of measured  $\sigma(\theta)$  with known data.

Others: 1960Ra21, 1961Co07, 1970Le21.

 $^{65}\text{Cu}$  Levels

E(level) <sup>†</sup>	L <sup>†</sup>	E(level) <sup>†</sup>	L <sup>†</sup>	E(level) <sup>†</sup>	E(level) <sup>†</sup>
0		2280 25		2894 <sup>‡</sup> 25	3730 25
770 25	2	2329 25		2979 <sup>‡</sup> 25	3800 25
1114 25	2	2404 <sup>‡</sup> 25		3036 25	3930 <sup>‡</sup> 25
1482 25	2	2531 25	3	3078 25	4010 <sup>‡</sup> 25
1623 25		2594 <sup>‡</sup> 25		3160? 25	4070 25
1725 25		2648 25		3270 25	4140 25
2093 25	2	2751 25		3350 25	4260 <sup>‡</sup> 25
2105 25		2839 25		3510 25	
2213 25		2861 <sup>‡</sup> 25		3640 25	

<sup>†</sup> From 1967Hj02. L-transfers are from comparison of  $\sigma(\theta)$  with experimental  $^{60}\text{Ni}(\text{d},\text{d}')^{60}\text{Ni}$  data of 1965Jo11.

<sup>‡</sup> Probably represents an unresolved group of levels (1967Hj02).