^{63}Cu(t,p) 1966Bj02

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

Target $J^{\pi}(^{63}Cu$ g.s.)=3/2$^-$.

1966Bj02: E=12 MeV triton beam was produced from the Aldermaston tandem generator. Target was a self-supporting 99.4% enriched ^{63}Cu foil with a thickness of about 100 μg/cm^2. Reaction products were momentum-analyzed with the multi-angle magnetic spectrograph (FWHM≈15-30 keV). Measured $\sigma(E_p,\theta)$, θ_{cm}≈5° to 85°. Deduced levels, J, π, L-transfers from empirical analysis of measured $\sigma(\theta)$.

1976Iw01: E=2.8, 3.0 and 3.2 MeV from the Van de Graaff of the NAIG Nuclear Research Laboratory. Measured $\sigma(E_p,\theta)$.

^{65}Cu Levels

E(level)[†]	L[†]	E(level)[†]	L[†]	E(level)[†]	L[†]	E(level)[†]	L[†]
0	0	2220 *20*		2850 *20*	(3)	3370 *20*	3
780 *20*	2	2290 *20*		2880[‡] *20*	0	3450 *20*	(0)
1130 *20*	2	2340 *20*	0	3000 *20*	(2)	3500 *20*	
1490 *20*	(2)	2410 *20*		3090 *20*		3530 *20*	
1630 *20*	(2)	2540 *20*	3	3170 *20*		3650 *20*	
1730 *20*	(2)	2660 *20*	2	3290 *20*		3700 *20*	
2110 *20*	(2)	2760 *20*		3350 *20*		3770 *20*	(0)

[†] From 1966Bj02. L-transfers are from comparisons with ^{40}Ca(t,p)^{42}Ca angular distributions in 1964Mi06 and and ^{64}Ni(^{3}He,d)^{65}Cu results in 1965Bl14.

[‡] Probable doublet.