^{60}Ni(α,p) 2001Ny01,1972Bu17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 196,17 (2024)	30-Sep-2023

2001Ny01: E=25 MeV α beam was produced from the Niels Bor Institute Tandem Accelerator. Target was about 70 μg/cm^2 99.79% enriched ^{60}Ni. Reaction products were momentum analyzed in the NBI multi-gap spectrometer (FWHM=25 keV). Measured σ(E$_p$,θ). Deduced levels, J, π from DWBA analysis.

1972Bu17: E=19.3 MeV α beam was produced from the U-120 cyclotron of the Institute for Atomic Physics, Bucharest. Target was a self-supporting foil of 98% enriched ^{60}Ni. Reaction products were detected with a Si(Li) detector (FWHM=150-200 keV). Measured σ(E$_p$,θ). Deduced levels, L-transfers from DWBA analysis.

Others: 1994Ka06, 1989Ch43, 1975Se14, 1961No04.

^{63}Cu Levels

E(level)[†]	J$^\pi$[‡]	L[@]	dσ/dω(μb/sr)[&]	E(level)[†]	J$^\pi$[‡]	dσ/dω(μb/sr)[&]
0	3/2$^-$	1	505	2773	3/2$^-$	49
670	1/2$^-$	1	207	3210	9/2	27
962	5/2$^-$	3	70	3254	(5/2)	41
1326	7/2$^-$		12	3308	(3/2)	87
1412	5/2$^-$	3	115	3434	(3/2)	44
1547	3/2$^-$		31	3476	5/2$^+$	320
1870[#] *60*				3713	(5/2)	62
2011			7	3839	(9/2$^+$)	59
2062	(1/2$^-$)		18	3888	(5/2$^+$)	74
2082	(5/2$^-$)		13	3964	(9/2$^+$)	209
2336	5/2		63	4054	(7/2)	80
2506	9/2$^+$	4	442	4135	(9/2)	75
2678	11/2$^-$		25	4666		89

[†] From 2001Ny01, unless otherwise noted.
[‡] From DWBA analysis with j-dependence of measured $\sigma(\theta)$ in 2001Ny01.
[#] From 1972Bu17.
[@] From DWBA analysis of measured $\sigma(\theta)$ in 1972Bu17.
[&] At 12.5° (2001Ny01).