

$^{62}\text{Ni}(\alpha, \alpha')$ 1982Ku18

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Alan L. Nichols, Balraj Singh, Jagdish K. Tuli		NDS 113, 973 (2012)	15-Apr-2012

Many experiments report inelastic excitation of the 2^+ level (1.17 MeV) or the 3^- level (3.77 MeV). Results are given in various ways, as shown below; in view of the model dependence of the analyses, the results are merely quoted as published.

Other: 1973Bi12, E=166 MeV, deduced B(E2), B(E3).

For data on continuum spectra and level densities, see 1975Al106, 1972Lu03, 1972Lu09, 1967Jo03.

Reference	E(MeV)	FWHM (keV)
1963Br13	43	
1970Br07	44	180
1972Re15	104	200-300
1974Tr04	18-27	200
1974Co28	24.3-32.3	100
1975Al12	27.2	
1975Al34	27.2	
1979PaZO	29, 40, 45, 50	
1982Ku18	28.5	70

 ^{62}Ni Levels

E(level) [†]	L [†]	β_L [†]	E(level) [†]	L [†]	β_L [†]	E(level) [†]	L [†]	β_L [†]
0.0			3160	2	0.044	4650	3	0.054
1170	2	0.184 [#]	3270	4	0.075	4790	2	0.042
2020	0		3500	2	0.030	5310	2	0.053
2300 [‡] 20	4(+2)		3750	3	0.156 [@]	5640	3	0.090
2320	4		4150	5	0.064	5930	2	0.051
3030	2	0.022	4430	3	0.023	6530	3	0.058

[†] From 1982Ku18, except as noted.

[‡] From 1963Br13.

[#] Others: $\beta_2=0.20$ (1979PaZO), 0.16 (1975Al34), 0.19 2 (1974Co28), 0.16 (1974Tr04), 0.16 3 (1972Re15), 0.16 2 (1970Br07). Deformation length $\beta_2R=1.09$ fm 3 (1975Al12), 0.825 fm (1972Re15), 0.80 fm 8 (1970Br07).

[@] Others: $\beta_3=0.12$ (1975Al34), 0.17 2 (1974Co28), 0.12 1 (1970Br07). Deformation length $\beta_3R=0.95$ fm 7 (1975Al12), 0.56 fm 6 (1970Br07).