^{62}Ni(α,^{2}He) 1990Fi07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 178,41 (2021).	12-Nov-2021

1990Fi07: E=57 MeV α beam from the Bonn isochroneous cyclotron. Reaction products were detected with ΔE-E telescopes (FWHM≈200 keV). Measured E(^{2}He), $\sigma(\theta)$ from 15° to 42° (lab). Deduced levels, J, π, L-transfers from DWBA analysis. Two-neutron states identified. See also 1985Ja02 from the same group.

^{64}Ni Levels

E(level)	J^{π}‡	L#	$(d\sigma/d\Omega_{exp})/(d\sigma/d\Omega_{DWBA})$#	Comments
0	0^{+}	0	160 *50*	Configuration=$(\nu\ p_{1/2})^{+2}$.
1340†				
4070†				
4600 *50*	(7^{-})	7	50 *10*	Configuration=$((\nu\ f_{5/2})(\nu\ g_{9/2}))$.
5430 *50*	(5^{-})	5	10 *5*	Configuration=$((\nu\ f_{5/2})(\nu\ d_{5/2}))$.
5810 *50*	(8^{+})	8,(6)	60 *5*	Configuration=$(\nu\ g_{9/2})^{+2}$.
6030 *50*	(6^{+})	6,(8)	50 *10*	Configuration=$((\nu\ g_{9/2})(\nu\ d_{5/2}))$.

† Very weak appearance in the spectrum.
‡ Consistent with $\sigma(\theta)$ data and DWBA calculations.
# From DWBA analysis of measured $\sigma(\theta)$.