^{64}Ni(α,^{2}He) 1990Fi07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 111, 1093 (2010)	3-Mar-2009

Eα=55.5 MeV, FWHM=200-300 keV; measured $\sigma(\theta)$ at four angles in the range, θ=17.5°−40° (c.m.); DWBA analysis.
Additional information 1.

^{66}Ni Levels

Configuration: Listed configurations are those expected in this region, and were used in DWBA analysis of (α,^{2}He) data.

E(level)	L[†]	Comments
0	0	Configuration=(ν $f_{5/2}0^+$)
3390 *50*	(5)	Configuration=((ν $p_{1/2}$)(ν $g_{9/2}$))5^-
4050 *50*	7	Configuration=((ν $f_{5/2}$)(ν $g_{9/2}$))7^-
4760 *50*	(5)	Configuration=((ν $f_{5/2}$)(ν $d_{5/2}$))5^- configuration: at the largest angle measured, this level could not be separated clearly from the 5170 level with a dominant configuration=(ν $g_{9/2}$)$^{+2}_{8+}$.
5170 *50*	8+6	Configuration=((ν $G_{9/2}$)$^{+2}_{8+}$+(ν $G_{9/2}$)(ν $d_{5/2}$))6^+ E(level): unresolved doublet.

[†] From DWBA analysis of $\sigma(\theta)$.