^{60}Ni(^{12}C,^{10}Be) 1990Bo27

History

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

1990Bo27: E=112 MeV. Measured ^{10}Be spectra, $\sigma(\theta)$ with Q3D spectrometer. FWHM=100-200 keV. DWBA analysis of $\sigma(\theta)$ data.
Reaction involves two-proton transfer.

^{62}Zn Levels

E(level)[†]	J^{π}[#]	dσ/dΩ (μb/sr).[‡]	Comments
0	0^+		
960 *50*	2^+	19 *6*	
1800 *50*	2^+		
2200 *50*	4^+		
3310 *50*	3^-&4^+	116 *35*	J^{π}: 4^+ from systematic trends and crude shell-model calculations with configuration=$\pi f^2_{5/2}$ (1990Bo27).
4170 *50*	5^-	141 *42*	Configuration=$\pi p_{3/2}\otimes\pi g_{9/2}$ (1990Bo27).
4600 *50*	6^+&7^-	47 *14*	E(level): from Fig. 5 of 1990Bo27. E=4500, 4700 listed in Table IV of 1990Bo27. J^{π}: 7^- is based on systematic trends; configuration= $\nu f_{5/2}\otimes\nu g_{9/2}$ (1990Bo27).
5190 *50*	7^-	171 *51*	J^{π}: based on crude shell-model calculations with configuration= $\pi f_{5/2}\otimes\pi g_{9/2}$ (1990Bo27).
6300 *50*	(8^+)		J^{π}: based on systematic trends; configuration=$\nu g^2_{9/2}$.
7540 *50*	(8^+)	106 *32*	J^{π}: based on crude shell-model calculations with configuration= $\pi g^2_{9/2}$.
8300 *50*	(6^+)	30 *9*	J^{π}: based on crude shell-model calculations with configuration= $\pi g_{9/2}\otimes\pi d_{5/2}$.

[†] Level-energy uncertainty of 50 keV given by 1990Bo27.
[‡] At 10° (lab), with uncertainty=30%.
[#] From Adopted Levels for levels below 3300 keV. Above 3300 keV, the assignments are from 1990Bo27, based on kinematical and geometrical considerations, crude shell-model calculations, and DWBA analysis of $\sigma(\theta)$ data.