^{22}Ne(^{3}He,n) 1975Pe11,1969Ad02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia, Anagha Chakraborty	NDS 186, 2 (2022)	31-Mar-2022

Other reference: 1967Ad01 (same research group of 1969Ad02).

1975Pe11: Pulsed ^{3}He beam, E=20 MeV; ^{22}Ne gaseous target – purity >98%, time-of-flight spectroscopy, measured angular distribution in the range of 0° to 45° (lab); deduced excited levels, L transfer, spectroscopic amplitude. FWHM=120 to 300 keV.

1969Ad02: Pulsed ^{3}He beam, E=9.5 MeV, ^{22}Ne gaseous target – purity 99.7%; neutrons were detected with plastic scintillator mounted on photomutiplier; time-of-flight spectroscopy, measured angular distribution in the range of 0° to 45° (lab); deduced excited levels, L transfer, isospin T=2 state. Also in 1967Ad01.

^{24}Mg Levels

E(level)[†]	Jπ[‡]	Γ	L[#]	Comments
0	0^+		0	
1.37×10^3	2^+		2	σ(rel)=0.18 *3* relative to the 0° peak of the 0^+ g.s. to 0^+ g.s. transition (1975Pe11).
6.43×10^3	0^+		0	σ(rel)=0.43 *6* relative to the 0° peak of the 0^+ g.s. to 0^+ g.s. transition (1975Pe11).
13.0×10^3				E(level): From 1969Ad02, 1967Ad01.
15441 *15*	0^+	<35 keV	0	T=2 E(level): From 1969Ad02. Other: 15411 *15* appears to be a misprint in 1967Ad01. Γ,L: From 1969Ad02.
(17.5×10^3)				dσ/dΩ < 0.26 mb/sr at E(^{3}He)=9.5 MeV and θ(Lab)=30° (1969Ad02).

[†] From 1975Pe11, except where otherwise noted.
[‡] From L value.
[#] From 1975Pe11, based on comparison of measured dσ/dΩ and DWBA calculations, except where otherwise note.