^{24}Mg(p,^{6}He) 1969Ce01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, G. C. Sheu	ENSDF	29-July-2015

Population of ^{19}Na was first observed using the ^{24}Mg(p,^{6}He)^{19}Na reaction. A 54.7 MeV proton beam, from the Berkeley 88-inch cyclotron, impinged on a thin ^{24}Mg target. A pair of Si detectors comprising ΔE-ΔE-E-VETO transmission detectors was used to identify the reaction products. Discussion on careful analysis to discriminate against erroneous ^{6}He events is given in the text.

A single peak is observed in the ^{6}He energy spectrum corresponding to a mass excess ΔM=12974 keV *70* (1969). The discovery of the first excited state at E_x=120 keV (1975Be38) suggests that the peak observed here is made up of the unresolved ground and first excited states. The observed cross section is $\sigma(\theta_{lab}=14.1°)\approx 120$ nb/sr.

^{19}Na Levels

E(level)
0