

Analysis of the $^{24}\text{Mg}(t, p)$ reaction in the incident energy $E_t=1.5\text{-}3.5$ MeV

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About 40 years ago, S.Takayanagi et al.(submitted to EXFOR file) measured angular distributions of emitted protons; p_0, p_1, p_2, p_3 and p_4 by the reaction $^{24}\text{Mg}(t, p)^{26}\text{Mg}$ using NAIG electro-static accelerator. Since then, no publication was made on the experiment and the analysis. Presently, analysis of the (t, p_0) and (t, p_1) reaction cross section and angular distributions were successfully made using the combined model of the resonance and direct reaction. The following figures show the typical results of the present analysis.

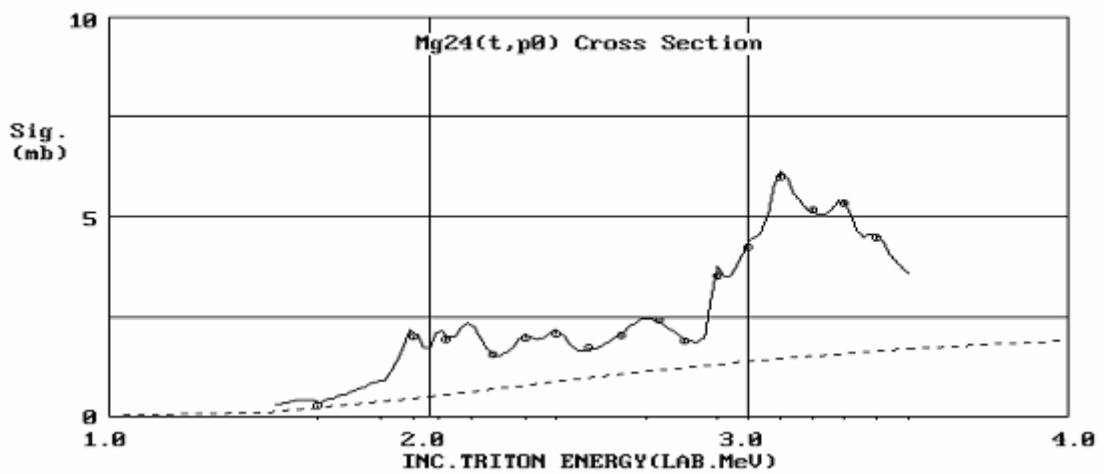


Fig.1. $^{24}\text{Mg}(t, p_0)$ cross section compared with experiment (open circles) and the present analysis(solid line) and dashed line represents DWBA calculation.

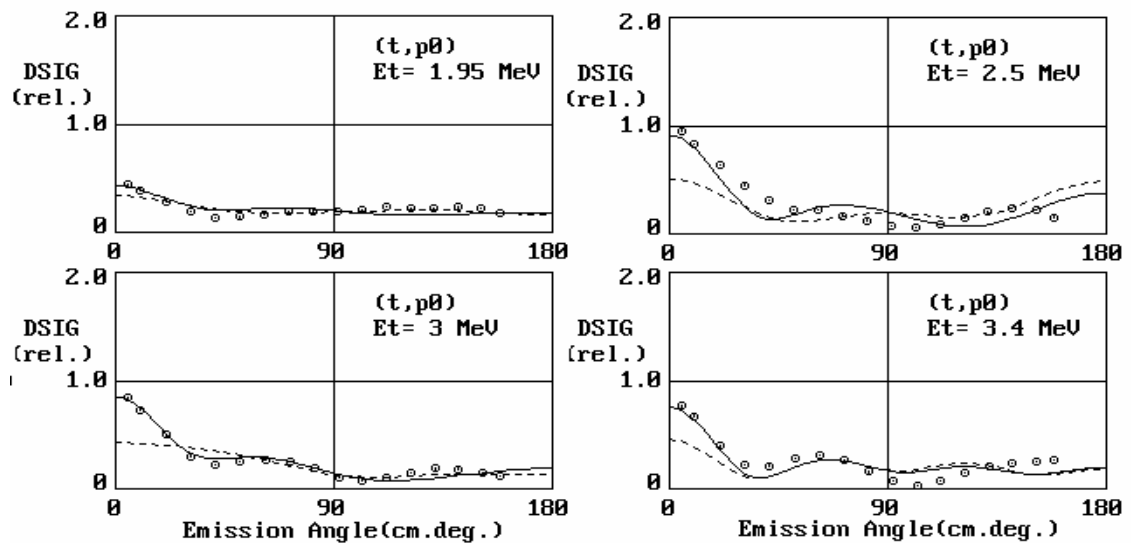


Fig.2 Relative angular distributions of $^{24}\text{Mg}(t, p_0)$ compared with experiment (open circles) and the present analysis (solid lines) and dashed lines show resonance calculation.

