

Experimental investigation of $dp \rightarrow ppn$ reaction at intermediate energies at Nuclotron

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Collaboration

DSS

Abstract content

There are still discrepancies between theory and experimental data in the polarisation observables of $dp \rightarrow ppn$ reaction in the low and intermediate energies, despite of significant process in the development of theoretical models which include three and more nucleon forces and relativistic effects. The data of $dp \rightarrow ppn$ reaction have been accumulated at 300, 400 and 500 MeV in the Nuclotron (Dubna, Russia) and partially processed for some kinematic configurations including few in which possible relativistic effects can appear. Kinematic simulation in the framework of ROOT and GEANT4 package have been performed before data processing. Part of the preliminary results are obtained in the form of energy deposit correlations of the two arms working in coincidence and few in the form of kinematic S curve.

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