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Latest results of dp breakup and dp elastic reaction investigation at Nuclotron

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The goal of the Deuteron Spin Structure experimental program is to obtain the information about two and three nucleon forces, including their spin dependent parts, from dp elastic scattering at the energies between 400-2000 MeV and dp breakup reactions with registration of two protons at deuteron energies of 300-500 MeV. Experimental and simulated results obtained from fragmentation of deuterons on polyethylene and carbon targets are compared to each other at 300 and 400 MeV of deuteron incoming energy. Latest results of cross section and vector and tensor analyzing powers of elastic dp scattering in mentioned energy range are discussed from the point of nucleon-nucleon correlations including short range ones.

Collaboration

DSS collaboration

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