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Latest results concerning short range correlations obtained in the dp elastic and dp breakup processes at Nuclotron, JINR.

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Deuteron spin structure program is aimed on extraction of two and three nucleon forces information, including their spin dependent parts, from dp elastic and dp breakup processes investigated at intermediate energies. The dp elastic data were obtained at Internal Target Station of Nuclotron (JINR) in the energy range of 400-1800 MeV using polarized deuteron beam. Angular dependencies of the vector A_y and tensor A_{xx} and A_{yy} analyzing powers below deuteron energy of 1000 MeV at large scattering angles are presented. Strong sensitivity to the short range spin structure of the isoscalar nucleon-nucleon correlations is observed in deuteron analyzing powers. Preliminary results of the cross section for the dp breakup reaction have been obtained in the energy range from 300 - 500 MeV of the incoming deuteron. Results are obtained for various detector configurations, in which the sensitivity to the three nucleon correlations and relativistic effects are assumed.

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