

ON DIFFRACTION NEUTRON-NUCLEAR SCATTERING IN STOCHASTIC APPROACH

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The elastic scattering of the middle energy neutrons by atomic nuclei has been chosen to demonstrate the fruitfulness of the stochastic modification of the diffraction model. The parameter r_0 of nuclear density that determines the radius of average field potential is a random variable in this approach. One may expect to take thus approximately into account the discrete structure of nuclear matter when diffraction model is used. The experimental data on the elastic differential cross-sections have been compared with the results of calculations.