

V. P. Mikhailyuk, D. V. Fedorchenko, O. D. Grygorenko

**DIFFRACTIVE SCATTERING OF DEUTERONS FROM ^{12}C NUCLEI
AT 700 MeV ENERGY**

In the framework of diffraction model the analytical expression for the elastic scattering amplitude of deuterons from ^{12}C nuclei has been obtained. On the basis of the approach the differential cross-section and analyzing possibilities for d - ^{12}C scattering at 700 MeV are calculated. Cluster structure of the target-nucleus and spin-structure of the incident particle are included in the calculations. It was shown that the given approach allows to describe the existing experimental data without any additional parameters which are fitted and predict the behavior of the polarization observables, which still are not measured.

Keywords: elastic scattering, d , ^{12}C , diffraction model.