

### **3. OFF-SHELL ENERGY EFFECTS IN MULTIPLE SCATTERING OF PROTONS ON DEUTERONS AT THE ENERGY OF 1 GeV**

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Investigation of high energy proton scattering of the deuterium nuclei is carried out in the framework of the new approach using three-dimensional generalized profile function of the nucleon, which allows taking into account the off-shell energy effects in the intermediate acts of scattering. Cross sections of the elastic scattering of protons with the energy of 1 GeV on the deuterons are calculated. The obtained results of the calculation are compared with the experimental data as well as with the calculations within the common Glauber - Sitenko diffraction theory.