

ENERGY DEPENDENCE OF THE NN -AMPLITUDE
PARAMETERS AND THE CALCULATION
OF THE EXCITATION FUNCTION
OF THE ${}^4\text{He}(p,d){}^3\text{He}$ REACTION
IN THE MANY-CENTER EIKONAL
APPROXIMATION

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Using a non-local separable potential of the second rank with the Gaussian form factors the energy dependence of parameters of NN -amplitudes in the Glauber—Sitenko theory of multiple scattering is found. On this basis, the excitation functions for ${}^4\text{He}(p,d){}^3\text{He}$ reaction are calculated for two angles of deuteron escape: $\theta_{c.m.} = 0$ and 34.5° . It is shown that even without the use of exotic mechanisms involving pion and isobar production the multiple scattering theory agrees with experimental data in the energy interval from 100 to 1000 MeV.