

# ELASTIC SCATTERING OF PROTONS ON $^{20}\text{Ne}$ NUCLEI AND THE $\alpha$ -CLUSTER MODEL WITH DISPERSION

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The  $\alpha$ -cluster model with dispersion is developed to the case of  $^{20}\text{Ne}$  nucleus. The differential cross-section and the polarization observables of 800 MeV protons elastic scattering on  $^{20}\text{Ne}$  nuclei are calculated on the basis of the  $\alpha$ -cluster model with dispersion and the multiple diffraction scattering theory. The results obtained show that  $\alpha$ -cluster in  $^{20}\text{Ne}$  nucleus takes place inside the deformed core ( $^{16}\text{O}$  nucleus) with most probability.