ELASTIC SCATTERING OF ^{6}He IONS BY ^{58}Ni AND ^{209}Bi NUCLEI NEAR THE COULOMB BARRIER

V. P. Verbitsky, V. O. Romanyshyn, K. O. Terenetsky

Experimental elastic scattering cross sections of ^{6}He ions by ^{58}Ni and ^{209}Bi nuclei at 10 MeV and 14,7, 16,2, 17,8, 19,1, 22 MeV, respectively, are analyzed in the framework of optical model with electric optical potential using. This potential allows to take into account the polarizability and breakup of ^{6}He projectile in the field of target nucleus by the effective way. The considerable influence of projectile breakup on elastic scattering cross sections formation near the Coulomb barrier is shown. The last fact is the direct evidence of dineutron configuration subsistence in the ground state in this exotic nucleus.