

Nuclear physics at Nazarbayev University in Astana, Kazakhstan

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Abstract:

We will describe nuclear research in Nazarbayev University, and will present the first results of study of resonances in $\alpha+^{13}\text{C}$ reaction at low energies. The aim of the project is to obtain experimental data of the excitation functions of the $^{13}\text{C}(\alpha, \alpha)^{13}\text{C}$ elastic scattering at the initial beam energy of ^{13}C from 1.7MeV/A to energies close to zero by using the Thick Target Inverse Kinematics method. The experiment has been done in Astana by using a new heavy ion accelerator DC-60 which provides beams with the energies in the range of 0.34-1.77 MeV/nucleon.