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Семинар
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EXCITED STATES OF ^{11}B AND ^{13}C NUCLEI

Daniyar Janseitov, Dinara Valiolda

Institute of Nuclear Physics (Almaty)
BLTP, JINR (Dubna)

The differential cross-sections of the elastic and inelastic $\alpha+^{11}$B, $\alpha+^{13}$C scattering have been measured at different energies. The experimental results for the elastic scattering were analyzed within the framework of the optical model using the Woods-Saxon and double-folding potentials. The theoretical calculations for the concerned excited states of ^{11}B and ^{13}C nuclei were performed using the coupled-channel method. The radii of the exited states of ^{11}B $\left(8.56\ (3/2^-)\ \text{MeV}\right)$ and ^{13}C $\left(3.09\ (1/2^+)\ \text{and}\ 8.86\ (1/2^-)\ \text{MeV}\right)$ were determined using the Modified Diffraction Model. The possibility of coexistence of various exotic states in the structure of the ^{11}B and ^{13}C nuclei has been shown.