

TOTAL REACTION CROSS SECTIONS OF NEUTRON-RICH LIGHT NUCLEI MEASURED BY THE COMBAS FRAGMENT-SEPARATOR

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Preliminary results of measurements of the total reaction cross sections σ_R for weakly bound ^4He , ^6He , ^8He , ^7Li , ^8Li , ^9Li , ^{11}Li , ^7Be , ^9Be , ^{10}Be , ^{11}Be , ^{12}Be , ^8B , ^{10}B , ^{11}B and ^{12}B nuclei at energy range (10-45) A MeV with ^{28}Si and ^{181}Ta target are presented. The secondary beams of light nuclei were produced by bombardment of the ^{15}N (50 A MeV) primary beam on Be target and separated by COMBAS fragment-separator. In dispersive focal plane a horizontal slit defined the momentum acceptance as 1% and a wedge degrader of 600 μm Al was installed. The B_p of the second section of the fragment-separator was adjusted for measurements in energy range (10-45) A MeV. The strong absorption model reproduces the A-dependence of σ_R , but not the detailed structure. We are comparing our experimental data with Glauber multiple scattering theory and preliminary results are obtained.

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