MECHANISM OF THE ^{9}Be(^{11}B, ^{12}B)^{8}Be REACTION

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Angular distribution of the ^{9}Be(^{11}B, ^{12}B)^{8}Be reaction were measured at E_{lab}(^{11}B) = 45 MeV for the transitions to the ground states of ^{12}B i ^{8}Be and to the 0,953 MeV (2^{+}) excited state of ^{12}B and 2,94 MeV (2^{+}) excited state of ^{8}Be. The data were analyzed within the coupled-reaction-channels (CRC) method. One- and two-step transfers of nucleons and clusters were included in the coupling scheme. It was found that the neutron transfer dominates in the ^{9}Be(^{11}B, ^{12}B)^{8}Be reaction. The parameters of the ^{12}B + ^{8}Be optical model potential were deduced.