ISOBARIC AND ISOTOPIC EFFECTS IN THE ^{9}Be(^{11}B, ^{12}C)^{8}Li, ^{9}Be(^{11}B, ^{12}B)^{8}Be, ^{9}Be(^{11}B, ^{10}B)^{10}Be REACTIONS

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Isobaric and isotopic effects were investigated in the angular distributions of the ^{9}Be(^{11}B, ^{12}B)^{8}Be and ^{9}Be(^{11}B, ^{12}C)^{8}Li, ^{9}Be(^{11}B, ^{12}B)^{8}Be and ^{9}Be(^{11}B, ^{10}B)^{10}Be reactions at the energy E_{lab}(^{11}B) = 45 MeV. The experimental data of the ^{9}Be(^{11}B, ^{12}B)^{8}Be and ^{9}Be(^{11}B, ^{10}B)^{10}Be reactions measured earlier, were used. The angular distribution of the ^{9}Be(^{11}B, ^{12}C)^{8}Li reaction were measured at E_{lab}(^{11}B) = 45 MeV for the transitions to the ground states of ^{12}C i ^{8}Li and to the 4,439 MeV (2^{+}) state of ^{12}C and 0,981 MeV (1^{+}), 2,261 MeV (3^{+}), 3,21 MeV (1^{+}), 5,4 MeV (2^{+}) states of ^{8}Li. The data were analyzed within the coupled-reaction-channels method. It was found existence of considerable difference (isobaric effect) in the angular distributions of the ^{9}Be(^{11}B, ^{12}B)^{8}Be and ^{9}Be(^{11}B, ^{12}C)^{8}Li reactions. The isotopic effects in the angular distributions of the ^{9}Be(^{11}B, ^{12}B)^{8}Be and ^{9}Be(^{11}B, ^{10}B)^{10}Be reactions at the energy E_{lab}(^{11}B) = 45 MeV were investigated. The isotopic and isobaric effects in the optical potentials of the ^{11}B + ^{9}Be, ^{10}B + ^{10}Be, ^{12}B + ^{8}Be, ^{12}C + ^{8}Li nuclear interactions were analyzed.