

ANALYSIS OF PRODUCTION OF FORWARD-ANGLE FRAGMENTS IN THE ^{22}Ne (40 AMeV) + ^9Be REACTION

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A mechanisms of production of forward-emitted fragments in the ^{22}Ne (40 AMeV) + ^9Be reaction are investigated. Inclusive velocity and isotopic distributions of products with $3 \leq Z \leq 11$ were measured on the fragment separator COMBAS. The contribution of direct processes and dissipative ones is presented. Gaussian fitting functions according to Goldhaber formalism has been used to estimate direct components of fragments velocity distributions. Experimental data have been compared to geometric incomplete fusion model predictions. Incomplete fusion model was the first time applied for light nuclei as in the studied reaction system. Overall agreement of simulations with experiment in description of velocity distributions have been achieved for fragments with atomic number close to the projectile mass and for stable isotopes. Discrepancies for other products are the result of transition from incomplete fusion to direct processes with collisions of clusters in the participant zone.