# SEMICLASSICAL ANALYSIS OF FRAGMENTATION OF $^{18}$O-NUCLEUS ON THE $^{181}$Ta AND $^{9}$Be TARGETS AT 35 MeV/u

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In the framework of the classical-trajectory method, we analyse zero-angle yields and velocity distributions for the products of fragmentation of $^{18}$O-nucleus with $Z > 2$ on the $^{181}$Ta and $^{9}$Be targets at the energy 35 MeV/u. The analysis is based on the hypothesis of a two-step mechanism of which the first step is stripping of few nucleons from the projectile during its motion through the target and the second step is fragmentation of the projectile residue when it already left the target. The stripping probability of a nucleon is related with the imaginary part of the nucleon-target optical potential, while fragmentation is described within the Fermi statistical breakup model. The calculations reproduce the general trends of $0^0$ yields of $^{13\text{-}17}$O, $^{12\text{-}17}$N, $^{9\text{-}16}$C, $^{8,10\text{-}15}$B, $^{7,9\text{-}12,14}$Be, and $^{6\text{-}9,11}$Li nuclei, which implies that the two-step mechanism of fragmentation prevails. However, the inability of our calculations to reproduce the complex shape of the velocity spectra indicates that also the prompt disintegration of projectile within the target nucleus contributes to 0° yields.