

# Characteristics of Isotope Distributions Produced in Peripheral Collisions at Fermi Energies as a Function of the Projectile Mass

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Peripheral collisions at Fermi energies are a tool to obtain new neutron rich isotopes far from stability line and also to make further experiments with secondary beams of exotic projectiles. In this work analysis of characteristics of isotope distributions produced in peripheral collisions at Fermi energies as a function of the projectile mass is presented. Experiments were performed at COMBAS set-up at FLNR Laboratory. The experimental data obtained in reactions with different projectiles:  $^{18}\text{O}$ ,  $^{22}\text{Ne}$  and  $^{40}\text{Ar}$  on  $^9\text{Be}$  and  $^{181}\text{Ta}$  targets are shown. The energies of collisions vary from 35 to 40 MeV per nucleon. Yields of isotope distributions produced in the reactions with different projectiles are compared with each other. The influence of  $N/Z$  ratio of the projectile on the  $N/Z$  is discussed.