



Contribution ID : 89

Type : **Poster**

Neutron-rich isotopes production in Heavy-Ion Collisions Using the COMBAS Fragment Separator and comparison with model predictions

Tuesday, 27 October 2026 19:25 (5)

Isotope and velocity distributions of neutron-rich isotopes produced in peripheral heavy-ion collisions are investigated using the high-luminosity, strong-focusing kinematic fragment separator COMBAS at the U400M cyclotron facility. Full systematic study of the short-lived isotopes produced in collisions induced with ^{18}O (at 35 MeV/nucleon), ^{22}Ne (at 42 MeV/nucleon), and ^{40}Ar (at 36 MeV/nucleon) primary beams on ^9Be and ^{181}Ta targets are presented. Experimental data were compared with model predictions, namely, empirical parametrization of fragmentation cross-sections (EPAX), the abrasion–ablation (AA) model and combined transport-statistical approach (BNV – SMM) to evaluate the accuracy of the model predictions and suggest the ways for improving them.

Primary author(s) : BATCHULUUN, Erdemchimeg (JINR)

Co-author(s) : MIKHAILOVA, Tatiana (JINR, Dubna); Mr. SEREDA, Yuri (FLNR, JINR); KONONENKO, Genady (FLNR, JINR); Mr. VORONTSOV, Andrey (FLNR, JINR)

Presenter(s) : BATCHULUUN, Erdemchimeg (JINR)

Session Classification : Poster session

Track Classification : Nuclear physics