

## Light radioactive ion beam program at ACCULINNA-2 at FLNR

An significant the upgrade of the Dubna Radiactive Ion Beams facility is the replacement of the ACCULINNA fragment separator with a new high acceptance device - the ACCULINNA-2. The project of a new in-flight facility for low energy 30 – 60 AMeV primary beams with  $3 \leq Z \leq 36$  has been started in 2011. The new device is destined to add considerably to the studies of drip-line nuclei performed with the use of variety of direct reactions known to be distinctive to the 10–50 AMeV exotic secondary RIBs. An overview of the design, construction and commissioning studies of the ACCULINNA-2 device will be presented.

Recently, secondary beam profiles as well as RIBs production rates were measured for  $^{15}\text{N}$  (49.7 AMeV) primary beam and Be target. Example dE-ToF identification spectra and calculated beam purity for selected isotopes will be demonstrated. Measured isotope yields agrees with LISE++ simulations. The  $^6\text{He} + d$  experiment, aimed for the study of elastic and inelastic scattering in a wide angular range, was chosen for the first run. Preliminary results of the measurement will be presented. Future upgrades of ACCULINNA 2 setup (zero degree spectrometer, RF-kicker) and prospects of new experiments achievable with light radioactive ion beams in next years will be discussed.

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