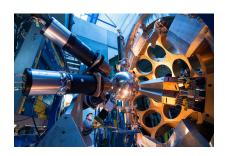
The 25th AGATA week and ACC Meeting



ID de Contribution: 65 Type: Non spécifié

Pathway to nuclear structure in heavy neutron rich nuclei in the vicinity of N=126 and nuclei northwest of ¹³²Sn via multinucleon transfer reactions

mardi 16 septembre 2025 12:00 (20 minutes)

Multinucleon transfer (MNT) reactions provide a powerful approach to access exotic neutron-rich nuclei. Excited reaction products have been measured in $^{136}\mathrm{Xe}$ + $^{208}\mathrm{Pb}$ at 1 GeV with the high-resolution γ -ray tracking array AGATA coupled to the mass spectrometer PRISMA at LNL (INFN, Italy) positioned at the grazing angle. For the beam-like fragments, energy E, atomic number Z, velocity β , charge state q, and mass number A were measured in the range Z=52–58, enabling a clean selection of the nuclei of interest. Kinematic coincidences were exploited to improve the identification of the hard-to-reach neutron-rich lead isotopes on the target-like side. Based on relative cross-section distributions for different reaction channels, the potential and limitations of this method for producing neutron-rich nuclei will be presented. Preliminary results on excited states of beam-like nuclei in the Xe–Ba mass region will also be presented.

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Classification de Session: ACC 4