

PreSPEC-AGATA nuclear structure studies using radioactive isotope beams

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The new PreSPEC-AGATA project is aimed at nuclear structure and reaction studies using radioactive isotope beams. At the SIS/FRS facility at GSI exotic beams at relativistic energies were employed for Coulomb excitation and secondary fragmentation experiments. High-resolution gamma-ray spectroscopy is the main tool to investigate the shell evolution far off stability, proton-neutron interaction, symmetries and nuclear shapes. Compared to the former RISING set-up an advanced particle (LYCCA) and gamma-ray (AGATA) detection system are used. At the future FAIR facility, these tools will be employed by the High-resolution In-flight SPECTroscopy (HISPEC) project. The improvements in the experimental set-ups, together with the opportunities to be opened, are discussed. The latest experimental results from the campaign in 2012 will be presented.

Notes

on behalf of the PreSPEC-AGATA collaboration

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