

Future Programs at RIBF OEDO/SHARAQ: Utilizing Low Energy Heavy Ion Beams and Liq H₂ Targets

Friday, 4 August 2023 11:45 (25 minutes)

This talk will outline future experimental programs planned at RIBF OEDO/SHARAQ. The unique capabilities of energy-degraded heavy ion beams at OEDO enable the execution of experiments involving reactions previously unachievable due to the beam energy constraints of RIBF. For instance, in-beam gamma-ray spectroscopy using fusion reactions has proven to be an invaluable tool for studying high spin physics, including exotic deformations of nuclei such as super deformation or parity-violating octupole deformation.

We will provide an overview of the future experimental setup, which includes the gamma-ray detector array and liquid hydrogen (Liq H₂) targets used for fusion reactions. Although these programs are still in the early planning stages, we anticipate that our novel approaches will yield a wealth of new results on high-spin excited states across a wide range of exotic nuclei accessible at RIBF.

In this talk, we aim not only to showcase our upcoming experimental programs but also to stimulate discussion about the future of low energy heavy ion beam experiments at RIBF.

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