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Status of RFQ Cooler Buncher for rare isotope experiments with Isotope Separation On-Line system

Thursday, November 14, 2024 9:40 AM (20 minutes)

The Isotope Separation Online (ISOL) system at the Institute for Rare Isotope Science (IRIS) has successfully produced several rare isotopes (RI). The surface ionized beams produced by the ISOL target were identified by the gamma spectrum measured on HPGe. The ISOL beam transport line was optimized using stable ion beams such as Cs, Na and Sn, and the RI beams were measured using a plastic scintillator and a micro-channel plate (MCP) detector. The Radio Frequency Quadrupole Cooler Buncher (RFQ-CB) and the Electron Beam Ion Source (EBIS) are used to transport the ISOL RI beam to the post-accelerator (SCL3) and experimental systems. Recently, an experiment to cool/bunch and charge breed the ISOL RI beam (25Na) and accelerate it at SCL3 was successfully performed. Commissioning is currently underway to send the ISOL RI beam to the MMS and CLS. This presentation will discuss the current status of the ISOL system and the RFQ CB for the RI experiment.

- max. 3000 characters

Best Presentation

No

Contribution track

ICABU WG3. Beamline and Instrumentation

Paper submission Plan

No

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