

The Electron-Beam Ion Trap (EBIT) charge breeder of the ReA post-accelerator

Monday

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4 P.M.

Rm 124 NSH

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An Electron-Beam Ion Trap (EBIT) charge breeder is being commissioned at the National Superconducting Cyclotron Laboratory (NSCL) at Michigan State University (MSU). The EBIT is part of the ReA post-accelerator for reacceleration of rare isotopes, which are thermalized in a He gas cell after production at high energy by projectile fragmentation. The ReA EBIT has a distinctive design; it features a high-current electron gun and a two-field superconducting magnet to optimize the capture and charge breeding efficiency of ‘continuously’ injected singly charged ion beams. Following a brief overview of the reaccelerator and the ReA EBIT, this talk will present the latest commissioning results, particularly, charge breeding efficiency studies, work on stretching the extracted pulses in time, ion beam contamination measurements, and reacceleration tests of highly charged rare isotope beams.

Refreshments served prior to the seminar in Rm 124.