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Effects of the CARIBU EBIS Trap Configuration on Extracted Ion Beam Characteristics

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Recently the CAlifornium Rare Isotope Breeder Upgrade (CARIBU) Electron Beam Ion Source (EBIS) charge breeder was commissioned at the ATLAS accelerator facility. Different EBIS trap configurations were used in order to investigate the effects on the extracted beam. Extracted beam intensities, timing, and energy spread were measured using a fast-counting ionization chamber. Results of the commissioning runs will be presented, and implications regarding optimization of the charge breeder configuration will be discussed.

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Primary author: DICKERSON, Clayton (Argonne National Laboratory)

Co-authors: Dr SANTIAGO-GONZALEZ, Daniel (Louisiana State University); Dr SAVARD, Guy (Argonne National Laboratory); OSTROUMOV, Peter (Argonne National Laboratory); VONDRASEK, Richard (Argonne National Laboratory)

Presenter: DICKERSON, Clayton (Argonne National Laboratory)

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