

ELECTRON AND ION BEAM DYNAMICS IN THE CARIBU EBIS CHARGE BREEDER

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Abstract

An Electron Beam Ion Source (EBIS) is being built to charge breed ion beams from the Californium Rare Isotope Breeder Upgrade (CARIBU) for acceleration in the Argonne Tandem Linear Accelerator System (ATLAS) at Argonne National Laboratory (ANL). The overall efficiency of the source and charge breeder system is important since CARIBU will produce many low intensity radioactive ion species. Simulations of the electron and ion beam dynamics have been used to determine the system's expected performance. The details of these simulations and results will be presented.

**CONTRIBUTION NOT
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