

STATUS OF THE ECRIS CHARGE STATE BREEDING PROJECT AT TRIUMF

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Abstract

Efficient and fast charge state breeding is an important parameter for the acceleration of radioactive ions at ISOL facilities. Most on-line ion sources produce only singly charged ions but efficient accelerators require high charge states. Tests of an ECRIS as charge breeder (14 GHz PHOENIX from Pantechnik) have been performed on a test bench at TRIUMF mainly focussing on the optimization of the efficiency and breeding time. After this the source has been moved on-line to the ISAC facility. Mass separated beams of radioactive ions from the on-line ion sources can be directed into the source as well as ions from a Cs test ion source. The latter will be used for commissioning the system and setting up and optimizing the performance of the source as well as the transport of the highly charged ions to the accelerator. A summary of the results obtained at the test bench and first results from the on line commissioning will be presented.

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