Contribution ID: **94** Type: **Invited talk**

Citius, altius, fortius - is the EBIS/T charge breeder up for the challenge?

Thursday, 11 June 2015 11:40 (30 minutes)

The use of an Electron Beam Ion Source/Trap as charge breeder for radioactive ions is by now a well-established concept. The operational experience at REX-ISOLDE has highlighted strengths, the main being the purity of the extracted beam, but also short-comings, such as complexity. A summary of the standard breeder performance will be given in this paper.

Since a few years CERN is actively pursuing the development of an upgrade of the REXEBIS charge breeder. Future challenges to be met are the faster breeding in order to reduce to increase the repetition rate, higher charge states (even fully stripped in case injected into a storage ring), and higher radioactive beam intensities. Results from recent tests addressing some of these issues will be presented. The R&D programme focussing on improving the electron beam characteristics, and in the extension the breeder performance, will also be presented.

Primary author: Dr WENANDER, Fredrik (CERN)

Presenter: Dr WENANDER, Fredrik (CERN)

Session Classification: Production and manipulation of RIB

Track Classification: Production and manipulation of RIB