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The AISHA Ion Source: Commissioning and preliminary results

Saturday, September 23, 2017 11:00 AM (25 minutes)

The AISHa ion source is an Electron Cyclotron Resonance Ion Source designed and developed for the generation of high brightness multiply charged ion beams with high reliability, easy operations and maintenance for feeding linear accelerator or cyclotrons. Its innovative magnetic field is provided by a Halbach-type permanent magnet hexapole (radial confinement) and for four high field He-free superconducting magnets (longitudinal confinement). This hybrid solution allows to get higher performances limiting manufacturing and maintenance costs. The present work shows the preliminary results of the AISHa commissioning, either in terms of total current (up to 18 mA extracted from the source) and in terms of charge state distribution. Next steps for the upgrade of the AISHa source to full power conditions will be also commented.

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