

Contribution ID: 248

Type: Poster presentation

The First Radioactive Ion Beam at the Beijing Radioactive Ion-Beam Facility

Tuesday 17 October 2017 18:45 (15 minutes)

Beijing Radioactive Ion-beam Facility (BRIF) at China Institute of Atom Energy (CIAE) utilizes the high intensity proton beam extracted from a 100 MeV cyclotron to produce the radioactive ion beams (RIB) by the isotope separation on-line method. A positive surface ionization source has been developed to produce the first radioactive ion beam. The modulation design was under development to fulfill the strict requirements of high voltage insulation, radioactive damage, vacuum and cooling water seal, and so on. The ion source was tested with $^{7}\text{Li}^{+}$ and $^{39}\text{K}^{+}$ stable beams. Also $^{38}\text{K}^{+}$ radioactive beam was produced by bombarding CaO target by 100 MeV proton beam. The designing and the current status of the target/ion source will be presented.

Author: TANG, Bing (China Institute of Atomic Energy)

Co-authors: CUI, Baoqun (China Institute of Atomic Energy); MA, Ruigang; CHEN, Lihua; HUANG, Qinghua; MA, Xie; MA, Yingjun

Presenters: TANG, Bing (China Institute of Atomic Energy); CUI, Baoqun (China Institute of Atomic Energy)

Session Classification: Poster Session 2

Track Classification: Radioactive ion beams, charge breeders and polarized beams