

Progress Status of Fabrication of Stripper Foils for 3 GeV RCS of J-PARC in Tokai-site

Monday, 8 October 2018 11:10 (20 minutes)

In the 3-GeV Rapid Cycling Synchrotron (RCS) of the Japan Proton Accelerator Research Complex (J-PARC), we adopted thick Hybrid type Boron-doped Carbon (HBC) stripper foil for the multi-turn H- charge-exchange injection. The HBC stripper foil developed at KEK has been successfully demonstrated to improve the foil lifetime significantly. Early manufacturing process of the stripper foil in the J-PARC had been carried out in following two steps: foil fabrication in KEK Tsukuba-site and foil preparation in JAEA Tokai-site. However, to proceed with the foil manufacturing in a same place efficiently, the carbon discharge arc-evaporation system for HBC stripper foil was removed from the Tsukuba-site and relocated in the Tokai-site.

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Session Classification: Session 1- Beam Charge Strippers (foil, liquid, gas, plasma)

Track Classification: 2 - Beam charge strippers (foil, liquid, gas, plasma)