Development of Carbon foil at RIKEN

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Abstracts

We have developed the fabrication method of carbon foil (C-foil) since 1999 in order to obtain a long-lived charge stripper used at RIKEN accelerator facility. Firstly, the required thickness of long-lived C-foil was 10-80 μ g/cm². After the operation of the RIKEN RI Beam Factory started in 2006, energies of accelerated heavy ions were enhanced and the beam intensity was constantly increased due to the new ECR ion source and new injector RILAC2. Thus, the required thickness of long-lived C-foil became thicker than before. In addition, fabrication of a C-foil with large area was also required to extend the beam-irradiated area. We will represent the status of the development of currently-used C-foils at the RIBF and will introduce some offered examples other than accelerator application.