

8th High Power Targetry Workshop (HPTW2023)



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Charge stripper ring for RIBF

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The RIKEN RI beam factory (RIBF) is promoting the future upgrade plan to increase the intensity of heavy-element beams, especially uranium beams which are particularly important in unstable nuclear physics research in the midst of global research competition. At the RIBF, the overall charge conversion efficiency of two strippers, He gas and rotating graphite sheet disk strippers, used for uranium acceleration is less than 5%, which creates a severe bottleneck for the intensity upgrade. We have proposed using charge stripper rings (CSRs) as a cost-effective way to enhance the charge stripping efficiency at the RIBF. The overall charge conversion efficiency will be increased from 5% to 50% (10 times of the current level) with CSRs. The design and development status of CSRs will be discussed.

Themes for the contribution

5 Target facility challenges:

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