

## Study on performance of the OEDO beamline

OEDO (Optimized Energy Degrading Optics for RI beam) is the renovation project of the SHARAO beamline at RIBF-RIKEN to accommodate a RI beam of with a few tens of MeV/u by energy degrading method. The highly exotic beams with such an energy, which still have been uncharted territory for the existing RI beam facilities, are expected to be achievable by the OEDO beamline. The beamline was designed to produce a well-focused beam of small momentum dispersion from secondary beams separated by BigRIPS with the help of the angle-tunable energy degrader and the RF deflector.

The commissioning experiment of the OEDO beamline as a part of the ImPACT program for nuclear transmutation of long-lived fission products (LLFPs) was carried out after the completion of construction in last year. The  $^{79}\text{Se}$  and  $^{107}\text{Pd}$  beams at 35 MeV/u (30 MeV/u for  $^{107}\text{Pd}$ ) were produced from the 180-MeV/u beams. The beamline elements were carefully optimized to obtain a beam of high quality.

In this talk, the evaluation results of the performance of the OEDO beamline together with responses on the beamline elements will be reported.

### Summary

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