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## Recent progresses and perspective of RI Beam Factory

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The RI Beam Factory (RIBF) is a third-generation in-flight facility, designed and optimized for the RI beam production by uranium fission. High intensity beams available over a wide region of the nuclear chart by the BigRIPS separator, together with the three spectrometers, namely ZeroDegree, Samurai and SHARAQ/OEDO each having a specific advantage, make a powerful platform for reaction studies with fast RI beams. New initiatives aimed at advancing reaction studies at the RIBF have been taken in the last few years. One is that the energy-degrading RI beamline OEDO has been launched. Energy-degraded RI beams from OEDO provide various reaction opportunities down to the energy regime of about 10 MeV/u, far lower than the nominal secondary beam energies of the RIBF from 200 to 300 MeV/u. Another initiative is the HiCARI campaign at ZeroDegree, which introduced tracking-type germanium detectors, for the first time, for in-beam gamma-ray spectroscopy at the RIBF.

These initiatives not only provide fruitful scientific outcomes in terms of shell evolution or nucleosynthesis, but also lay a foundation for in-beam reaction studies toward the RIBF facility upgrade envisioned in near future, where the uranium beam intensity presently at about 100 pA will increase to 2,000 pA.

In this talk, I will overview recent progresses at the RIBF and perspective with the RIBF facility upgrade.

### Attendance Type

Remote

**Primary author:** SUZUKI, Daisuke (RIKEN Nishina Center)

**Presenter:** SUZUKI, Daisuke (RIKEN Nishina Center)

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