



Science & Technology
Facilities Council

KURRI-FFAG

Experiment in March 2019

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Experiments

- Repeat of Sept 2018 experiment for confirmation
- Tomography
- Measurement of rate of H⁻ converted in protons
- RF voltage monitoring

Prerequisites

- Characterisation of the beam at injection (Linac and HMBT)
 - ▶ Energy (TOF measurement, not conclusive in Sept 2018)
 - ▶ Momentum spread (reasonable value measured in Sept 2018)
 - ▶ Size and Position at injection (vary from day to day in Sept 2018)

Experiment

- Use of Machida san's RF script to measure the threshold between the beam in the foil and out of the foil. (simulations from Uesugi san not cleared by measurement)
 - Nothing conclusive in Sept 18
 - 1 turn injection?
- Monitoring of the RF voltage during the experiment to confirm the tomography analysis from David.
- Conversion rate of H- measurement with full aperture BM.
- Constant k vs. Variable k confirmation (more data)
 - Is it possible to do it remotely? (i.e. data taken by KURNS people, analysis at RAL)