Advances in Radioactive Isotope Science



ID de Contribution: 397 Type: invited presentation

Highlights of GANIL-SPIRAL2 facilities

lundi 5 juin 2023 11:00 (25 minutes)

The SPIRAL2 Phase 1 LINAC moved from project status to full operation on December 31st 2021, after the important milestone of acceleration of $45 \, \boxtimes A$ deuton beam at 40 MeV. Beams of protons and alpha particles were also accelerated. These beams were sent to the Neutron For Science (NFS) experimental cave. Two NFS campaigns have been performed with neutron beams in Fall 2021 and 2022. The S3 spectrometer installation is progressing well and the commissioning should start at the end of 2024. The first heavy ion beams were already accelerated by the LINAC with the dedicated ion source, to prepare for the S3 physics program. The presentation will give an overview on these different achievements together with an update of the DESIR project status. The new project NEWGAIN will also be presented. It will increase the capabilities of SPIRAL2 LINAC with the construction of a second injector able to produce and accelerate ion beams with mass to charge-state ratios ranging from A/q=3 up to A/q=7. This second injector will be designed to be fully compatible with the existing facility and to further enhance its 'multi-user' capabilities.

In parallel to SPIRAL2 developments, a refurbishing program of the GANIL cyclotrons is being planned. New beams are under development with SPIRAL1 target-ion sources. Selected results will be presented, together with the vision for the medium and long term plans.

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