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Beam Commissioning Results of the RAON Superconducting Linac with argon beams

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The low energy part of the superconducting linac has been developed in the first phase of RISP (rare-isotope science project). The installation of the linac was completed in 2021. The linac consists of two different types of superconducting cavities, QWR (quarter wave resonator) and HWR (half wave resonator). The QWR cryomodule has a single cavity. There are 2 different types of cryomodules in the HWR section, HWRA and HWRB. They have 2 and 4 cavities respectively. For transvers beam focusing, we used quadrupole doublets which are installed in the warm section between cryomodules. The initial beam commissioning of the superconducting linac started from October 6, 2022 using Ar9+ beams and the second one started from April 29, 2024 using Ar8+ beams. This work summaried the beam commissioning results of the RAON superconducting linac with argon beam.

Paper submission Plan

Best Presentation

Contribution track

ICABU WG1. Accelerator Systems

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