

Fast chopper line for DONES

Tuesday 27 August 2024 16:00 (2 hours)

The International Fusion Materials Irradiation Facility – DEMO-Oriented Neutron Early Source (IFMIF-DONES) will provide a deuteron beam of unprecedented intensity for irradiation and characterization of materials to be used in fusion reactors. In recent years, the possibility to use a small fraction of this beam for other applications in parasitic mode was discussed. This not only has the potential to enlarge the user community without perturbing the main operation, but also allows characterization measurements for beam quality management purposes. Considering various requirements and constraints, the most promising option for the extraction towards such a parasitic line involves the use of a meander-line travelling-pulse beam deflector at the start of the High Energy Beam Transfer (HEBT) line. This paper describes preliminary studies aiming at a first definition of the structure, materials and geometrical parameters of the meander-line deflector.

Footnotes

Funding Agency

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Session Classification: Tuesday Poster Session

Track Classification: MC3: Proton and Ion Accelerators and Applications: MC3.2 Ion linac projects