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Simulation of RF components for the ICONE pilot at CEA: RFQ, rebuncher, IH-DTL cavities and amplifiers

Tuesday 3 June 2025 16:00 (2 hours)

This poster presents some RF components of the ICONE pilot. The ICONE pilots aims at defining a technical solution for a HiCANS Neutron source that would be built in France. The LINAC part aims at accelerating an 80 mA proton beam up to 25 MeV to the target with a 6% duty cycle.
The poster presents RF and thermal simulations of the RFQ, based on the ESS RFQ design. Then, a design of rebuncher is proposed. Finally, an IH-DTL solution, studied at CEA, is presented for acceleration from 3.6 to 25 MeV. A short presentation of the RF peak power requirements is added.

Footnotes

Paper preparation format

Word

Region represented

Europe

Funding Agency

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