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First beam acceleration using cryo-cooled Nb3Sn coated cavity at IMP

Wednesday 24 September 2025 09:30 (20 minutes)

Operational experience of the LHe-Free (LHe-free) Nb3Sn demo SRF electron linac over the past year will be reported. A statistical analysis was conducted on beam loss-induced irradiation effects on the Nb3Sn thin film of the superconducting cavity inner surfaces, with subsequent assessment of their impact. An irradiation terminal facility was constructed to conduct experiments on electron beam irradiation for wastewater treatment. A 650 MHz 5-cell Nb3Sn cavity coated by the tin vapor diffusion method has been vertically tested to verify its RF performance.

I have read and accept the Privacy Policy Statement

Yes

Footnotes

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