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First results on plasma cleaning tests in a SSR1-type spoke resonator for PIP-II project at IJCLab

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Plasma ignition studies have been initiated at IJCLab since 2022. These are focusing on "in situ"plasma decontamination of SRF cavities with complex geometries as Quarter Wave Resonator (QWR) and Single Spoke Resonators (SSR). IJCLab being strongly involved in PIP-II project and in particular in the qualification test of SSR1- and SSR2-type resonators, the vertical cryostat has been upgraded to implement plasma decontamination capabilities. With the support of Fermilab and Eurolabs project, the impact of plasma ignition on the performance of a prototype SSR1 cavity has been assessed. This paper will give an overview on the upgrade work done on the cryostat, on the plasma decontamination process and on the comparative analysis of the 2 vertical tests (before and after plasma process).

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Yes

Footnotes

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