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Commissioning of SupraLab: SRF cavity processing and testing facility at HZB

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HZB has completed the commissioning of SupraLab, a complete cavity processing and testing facility. It has been used to recover several superconducting cavities for different accelerators. This article describes all the tested and validated steps from cavity processing to cold rf test and module assembly. They include approved filed-emission free cleanroom work, on-site chemical processing, high-pressure rinsing with a standard or a specially designed nozzle (e.g. for gun-cavities), low- and mid-temperature baking, cold rf test in helium bath or horizontal test with an FPC and a cavity tuner, additional diagnostics (second-sound quench detection, thermal mapping, magnetic field mapping, tests with variable antenna) and cryogenic tests of a cold-string.

Funding Agency

Footnotes

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Yes

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