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5 years of SPIRAL2 LINAC operation: cryogenic and superconducting RF aspects

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The superconductor linear accelerator LINAC of SPIRAL2 at the GANIL facility is in operation since October 2019. The 26 superconducting quarter wave resonators (QWR) of the LINAC are integrated into 19 cryostats and cooled down at 4 K by a dedicated refrigeration system. These superconducting cavities are operated at a nominal gradient of 6.5 MV/m but most of the cavities can be operated up to 8 MV/m. One of the 26 cavities shows abnormal energy dissipation at medium and high RF gradient. In this paper, we will present the evolution of the superconducting cavities and the main issues that happened to the superconducting LINAC and its cryogenic system during the last six years and their effects on the beam schedule.

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Yes

Footnotes

Funding Agency

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