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Low beta cavity production based on a novel procedure at IMP

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Three superconducting linear accelerators are under construction at the Institute of Modern Physics (IMP) of the Chinese Academy of Sciences (CAS). 96 superconducting radio frequency (SRF) cavities housed in 17 cryomodules were fabricated, preparation and installed in the accelerator tunnel in 14 months. The cold test of the SRF cavity and cryomodule is skipped due to our excellent full-process quality control. The mass production of SRF cavity shows good performance, a higher accelerating gradient than the operation specification is achieved. In this paper, an overview of the cavity design, production fabrication, string and cryomodule assembly, efforts for SRF cavity performance recovery and operation status are introduced.

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Footnotes

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