

First results from two Nb₃Sn cavities assembled in a CEBAF quarter cryomodule

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Two 1.5 GHz CEBAF C75-shape 5-cell accelerator cavities were coated with Nb₃Sn film using the vapor diffusion technique at Fermilab and Jefferson Lab coating facilities. Both cavities were measured at 4 K and 2 K in the vertical dewar test in each lab, then assembled into a CEBAF quarter cryomodule at Jefferson Lab. The cryomodule was tested in 4 K and 2 K in the CryoModule Test Facility at Jefferson Lab. RF test results for both cavities in the cryomodule are similar to those of the qualification test in VTS, with one cavity reaching $E_{acc} = 7.5$ MV/m and the other - 13 MV/m at 4 K. In this contribution we discuss the progress with assembling Nb₃Sn cavities in a cryomodule and the first results from cryomodule testing.

Footnotes

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