A 100 MV CRYOMODULE FOR CW OPERATION*

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Abstract

A cryomodule designed for high-gradient CW operation has been built at Jefferson Lab. The Renascence cryomodule is the final prototype of a design for use in the 12 GeV CEBAF upgrade. The module uses eight 7cell 1497 MHz cavities to be individually powered by 13 kW klystrons. Specifications call for providing >109 MV CW with <250 W of dynamic heat at 2.07 K. The module incorporates a new generation of tuners and higher power input waveguides. A mixture of the new HG and LL cavity shapes are used. A new high thermal conductivity RF feedthrough has been developed and used on the 32 HOM coupler probes of Renascence. The cryomodule assembly is complete. Testing is to begin late June. Design features and initial test data will be presented.

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