

RF Operational Experience with High QL CW SRF Cavities

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The CEBAF 12GeV energy upgrade cavities have a QL of 3×10^7 and operate at gradients of 20 MV/m. Operation of these cavities is challenging due to their microphonic sensitivity, cavity to cavity mechanical coupling and Lorentz force detuning. Before our last shutdown, 16 of these cavities (two cryomodules) were operated for six months in the CEBAF LINAC. During this run field control, fault recovery and start up routines were optimized and improved. This presentation discusses these issues including SEL to GDR, fault recovery, and resonance control.

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