

STATUS OF THE CESR SUPERCONDUCTING RF SYSTEM*

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Abstract

Electron-positron storage ring CESR operates with four superconducting singlecell cavity cryomodules. CESR runs in two distinct regimes: as CESR-c collider at 1.55 to 2.5 GeV and as CESR-CHESS synchrotron light source at 5.3 GeV. RF system is configured with one klystron per two cavities for both regimes of operation. In CESR-CHESS mode SRF cryomodules have to support maximum beam current of 500 mA by delivering up to 160 kW of RF power per cryomodule. CESR-c operation is radically different for RF system as the emphasis is not on delivering very high RF power to beams, but on providing very high RF voltage to produce short bunches and high synchrotron tune. Superconducting cavities perform well in both regimes.

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NO SUBMISSION RECIEVED