OPERATION OF SOLEIL WITH THE TWO 352 MHZ CRYOMODULES IN THE STORAGE RING

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Abstract

In the SOLEIL storage ring, two cryomodules provide to the electron beam an accelerating voltage of 4 MV and a power of 575 kW at 352 MHz. Each cryomodule contains a pair of superconducting cavities, cooled with liquid Helium at 4K, supplied by a single 350 W liquefier. The RF power is provided by 4 solid state amplifiers, each delivering a maximum of 180 kW. The parasitic impedances of the high order modes are strongly attenuated by means of four coaxial couplers, located on the tube connecting the two cavities. The first cryomodule, operational since September 2006, has allowed storing beam current up to 300 mA. The second cryomodule, manufactured by ACCEL (Germany), was implemented in May 2008. After more than one year of running with the two cryomodules, the first operation results are reported.

CONTRIBUTION NOT RECEIVED