Update on REBCO Accelerator Magnet Technology Development at LBNL

Xiaorong Wang

Lawrence Berkeley National Laboratory, Berkeley, USA

Email: xrwang@lbl.gov

Abstract – **The Superconducting Magnet Program at Lawrence Berkeley National Laboratory is developing magnet technology based on $REBa_2Cu_3O_{7-\delta}$ (REBCO, RE= rare earth) coated conductors for particle accelerator applications. In collaboration with conductor manufacturers, short-length samples of REBCO conductors and cables are characterized in configurations relevant for accelerator magnets in liquid nitrogen and helium to determine their critical current. To allow rapid feedback between conductor and coil performance, subscale coils are fabricated and tested. In this talk, we report the status of a dipole coil based on the canted cosine theta (CCT) concept and the Conductor-on-Round-Core (CORC®) wire, developed by the Advanced Conductor Technologies, LLC.**

***Keywords, Index Terms*—REBCO coated conductors, CORC® wire, dipole magnet**

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