

Scale up Method of Coated Conductor Fabrication

Hosup Kim, Byungsoo Lee, Sunmi Lee, Sungchan Choi, and D.Youm

Department of Physics KAIST, Taejon 305-701,

Coated conductors as long as 12m were fabricated using RABiTS textured Ni tapes. The qualities of texture and superconductivity were inhomogeneous over full length of the tape, and good qualities were observed only in some parts of the tapes. The fabrication process includes rolling, heat treatment, e-beam evaporation for buffer layer, and coevaporation for YBCO film. Those fabrication equipments were some what complex and required complicated control. The structure of equipments and fabrication conditions will be explained in detail and the origins of the inhomogeneity of qualities will be also discussed.

keywords : YBCO, coated conductor, scale up