

## The Study of Joint Characteristics by the Removal of the Stabilizer in a YBCO Coated Conductor (CC)

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Recently, there have been many studies using the second generation, high temperature superconductor (HTS), YBCO Coated Conductor (CC) because it contains many advantages, such as high critical current density, high index number (n-value), good properties for high magnetic field, good mechanical properties and reasonable prime costs. Although it has many advantages, the joints of the YBCO CC are problematic since there are still technical difficulties in lengthening the YBCO CC for winding. This paper discusses the joint characteristics of the YBCO CC by removing the stabilizer, which plays a critical role in determining the resistance across the joint. We have developed the chemical etching method, which causes a less negative influence on the superconducting layer in the YBCO CC for the eliminating of the stabilizer. In addition, we used a four-probe method to evaluate the resistance and the critical current of the joints with the V-I curve and also analyzed microstructures of the jointed YBCO CCs with optical micrographs.

Keywords : YBCO Coated Conductor (CC), joint, etching, stabilizer