

# Chemical Solution Deposition of YBCO Film for Coated Conductors

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Chemical solution deposition is a potential method for rapid and low cost production of coated conductors. For this work, we have prepared YBCO films on single crystal  $\text{LaAlO}_3$  by spin coating of Y-, Ba-, Cu-HFA solution and two-step heat treatment. In this process, calcination temperature of precursor, atmosphere, heating rate and flow rate are important factors for good electrical properties and morphology of YBCO. We have studied the effects of such processing conditions. XRD pole figure of the YBCO films showed very sharp FWHM as small as 4 degrees. The zero resistance temperature was 83K. SEM micrograph of the film surface showed very rough morphology which might be due to the solution quality.

keywords : YBCO, coated conductor, chemical solution, HFA