

## **A Novel Superconducting Coil Fabrication Method with YBCO Coated Conductor**

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YBCO coated conductor has attracted attention because of its high critical current in high magnetic field condition. However, the magnet fabrication technique with YBCO coated conductor has not been developed as of yet. Especially, the impregnation method of YBCO coils is one of the biggest problems. The epoxy resin is usually used for the impregnation of low temperature superconducting coils. However, the bonding strength of the epoxy is stronger than the breaking strength of YBCO conductor in a certain direction. Therefore, an epoxy impregnated YBCO coil has a risk to be damaged by thermal stress or external forces. We have investigated new impregnation materials and focused on the cyanoacrylate resin. The bonding strength of cyanoacrylate is weaker than that of epoxy and doesn't cause the damage against YBCO coils.