# Fabrication of Superconducting Coil Prepared with Coated Conductor using Wind-and-Flip Technique for Persistent Mode Operation.

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HTS superconducting magnet was prepared by Wind-and Flip technique for demonstrating persistent mode operation of HTS magnet using coated conductor. A special slitter was designed to slit the center of long coated conductor without break the both ends of the conductor and degrading the property of coated conductor. A double pancake type superconducting magnet coil with superconductive joint was prepared with slit coated conductor.

Resistive heater was attached to the one end of pancake coil to normalize the superconducting tape for energizing the coil and hall probe was attached to measure the generated magnetic field. Characteristics of superconducting to normal transition of coated conductor was analyzed such as dimension of resistive heater, applied current and location.

The characteristics of persistent mode switch by varying the temperature of switching part of sliced conductor and decaying property of superconducting coil will be tested and reported to provide the practical design parameter of the pancake coils using wind-and-flip method.

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