



Contribution ID: 163

Type: **Regular 15 minutes Oral Presentation**

Development of 3 T high-temperature superconducting magnet for MRI

Wednesday 30 August 2017 11:45 (15 minutes)

The new HTS application project supported by New Energy and Industrial Technology Development Organization (NEDO) started on July 2016 in Japan. One of the targets of this project is to demonstrate the half-scale magnet resonance imaging (MRI) system using high-temperature superconducting (HTS) magnets with REBCO coils. In the first phase of this project (2016 –2018), a three-tesla magnet with active-shield coils will be manufactured. The room temperature bore of the magnet is 480 mm in diameter. The magnet will be cooled to less than 20 K with a G-M refrigerator and the MR imaging will be performed to evaluate the uniformity and stability of the magnetic field.

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JAPAN

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Session Classification: Wed-Mo-Or20

Track Classification: D2 - Magnets for MRI