



Contribution ID: 4

Type: **Poster Presentation**

RECENT PROGRESS OF CRYOGENIC SYSTEM FOR 40T HYBRID MAGNET

Wednesday, July 1, 2015 9:00 AM (2 hours)

The 40T hybrid magnet under construction at High Magnetic Field Laboratory of Chinese Academy Sciences (CHMFL) consists of resistive inserts and an 11T superconducting outsert with a clear bore of 800 mm. The outsert made of Nb₃Sn CICC is cooled with forced flow supercritical helium at 4.5 K. The main cryogenic system includes a helium refrigerator (360W@4.5K) and a helium distribution system for the cooling of coils, structures, transfer line and current leads. The helium refrigerator was successfully commissioned and put into operation at 2012. The helium distribution system installation will be completed at July, 2015. This paper discusses the design of cryogenic system and recent progress in construction.

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Session Classification: C3PoD - Superconducting Magnets Cryogenic Systems I

Track Classification: CEC-02 - Large-Scale Systems, Facilities, and Testing