



Contribution ID: 253

Type: **Poster presentation (105min)**

Operation of the SKS magnet at K1.8 beamline in J-PARC Hadron Hall

Wednesday, 9 July 2014 14:15 (1h 45m)

After 18 years operation in KEK Tsukuba, the SKS (Superconducting Kaon Spectrometer) magnet was modified and moved to the K1.8 beamline of the J-PARC Hadron Hall in 2009. The SKS magnet has a structure cooled by pool boiling method. During this relocation, the cooling scheme of the SKS magnet was changed to use three GM-JT cryocoolers from the previous 300-W helium refrigerator. Since this relocation, SKS has maintained a steady state of 4.5 K as long as possible in order to avoid repetitions of long precooling. The SKS magnet has been used for nuclear physics experiments.

The SKS magnet has two long term suspensions. One is damage by the 2011 Pacific coast of Tohoku Earthquake and the other is broken down by the radioactive material leak accident at the Hadron Hall which occurred in May 23, 2013.

The SKS magnet is foreseen to be moved to another K1.1 beamline in the Hadron Hall to complete the repair of the damage caused by the 2011 earthquake. The preparation had begun before the radioactive material leak accident. A new SKS base structure has been fabricated. The base structure was designed based on the experience of the earthquake.

Five year operational experiences of the SKS magnet at K1.8 beamline will be summarized in this report.

Primary author: Ms AOKI, Kanae (KEK)

Co-authors: Mr OHHATA, Hirokatsu (KEK); Mr KASAMI, Katsuyu (KEK); Mr IIDA, Masahisa (KEK); Mr KAWAI, Masanori (KEK); Ms SEKIMOTO, Michiko (KEK); Mr ARAOKA, Osamu (KEK); Ms IWASAKI, Ruri (KEK); Mr SUZUKI, Shoji (KEK); Prof. OKAMURA, Takahiro (KEK); Prof. TAKAHASHI, Toshiyuki (KEK); Prof. MAKIDA, Yasuhiro (KEK); Mr SHIRAKABE, Yoshihisa (KEK); Mr KONDO, Yoshinari (KEK); Mr KAKIGUCHI, Yutaka (KEK)

Presenter: Ms AOKI, Kanae (KEK)

Session Classification: Wed-Af-Posters Session 2.4

Track Classification: C-09: Accelerators and detectors