



Contribution ID: 860 Contribution code: TUPR51

Type: **Poster Presentation**

Design of permanent dipole magnet in transport line for TPS

Tuesday, 21 May 2024 16:00 (2 hours)

To reduce the electric power consumption and advance the magnetic stability, a prototype of BTS dipole magnet in TPS transfer line between booster and storage ring came into sight. An 1 m long, high current dipole will be replaced by a permanent magnet with Sm₂Co₁₇. The new permanent dipole magnet will decrease total volume compared with original electric one, and the homogeneity of integral field is promoted as well. With simulation, the assembly deviation was also discussed. This article presents the magnet circuit design status of prototype to upgrade the transport line in TPS.

Footnotes

Funding Agency

Paper preparation format

Region represented

Asia

Primary author: CHU, Yun-Liang (National Synchrotron Radiation Research Center)

Co-authors: JAN, Jyh-Chyuan (National Synchrotron Radiation Research Center); HSU, Yang-Yang (National Synchrotron Radiation Research Center); CHEN, Hsiung (National Synchrotron Radiation Research Center); YANG, Chin-Kang (National Synchrotron Radiation Research Center); CHEN, Chih-Wei (National Synchrotron Radiation Research Center); YANG, Chih-Sheng (National Synchrotron Radiation Research Center); HUANG, Jui-Che (National Synchrotron Radiation Research Center)

Presenter: YANG, Chin-Kang (National Synchrotron Radiation Research Center)

Session Classification: Tuesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T09 Room Temperature Magnets