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## Thu-Af-Po.01-06: Design and Measurement of a DC Septum Magnet for CSNS-II RCS Injection

*Thursday 3 July 2025 14:00 (2 hours)*

The remould of the magnet of CSNS injection system is an important part of CSNS II magnet, which includes three septum magnet: two DC septum and one plused septum. Due to the installation limitation, the thickness of the shielding should be less than 2mm and the leakage field in the RCS is required to be less than 0.1%. This paper introduces the design and measurement of a DC Septum Magnet for CSNS-II RCS Injection, with main topic: (1) the design considerations of the central magnetic field and eddg shimming; (2) the accurate simulation of remote leakage field; (3) the optimization of filling materials in cutting plates. Finnaly the magntic field measurement results based on Hall probe is also introduced.

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