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THE MAGNETIC MEASUREMENT OF ENHANCER-DIPOLE MAGNET FOR CEPC

The CEPC (Circular Electron Positron Collider) project is in the pre-research stage. When the beam energy of booster is 120GeV, the magnetic field of deflection magnet is 640Gs. In order to save funds for scientific research, we also consider the injection energy of 6GeV,the magnetic field of deflection magnet is 32Gs.
At the different current, the magnetic field value of the enhancer-dipole magnet can reach the beam energy range of 6Gev-120GEV.In such a requirements of magnetic field, the stability of the magnetic field value, repeatability, magnet magnetism, has become an important data for the design parameters of enhancer-dipole magnet.
The magnet is measured with the Hall-Probe measurement facility by IHEP. In this paper, first written the procedure of motor control and collection by Labview software, then hen the excitation curve（repeat the measurement six times）, transverse field distribution（repeat the measurement three times）, and integral field distribution are measured.
Based on the results of the analysis of large amounts of data, the stability and repeatability of the enhance-dipole magnet in different magnetic fields has summarized and analyzed.

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