

Status of Dipole-Quadrupole (DQ) magnet design for Korea 4GSR

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The 4th generation multipurpose synchrotron radiation accelerator has been under development in Korea since 2021. This light source targets electron beam emittance less than 60 pm, a circumference of about 800 m, and electron beam energy of 4 GeV. It aims for 40 beamlines for multipurpose industry, and scientific applications. The accelerator uses various magnets in the storage ring, including conventional magnets, longitudinal gradient bending magnets (LGBM), and combined function dipole-quadrupole magnets (DQ). In this study, the design of the DQ magnet is studied and an optimal pole profile is determined.

Paper submission Plan

Best Presentation

Contribution track

ICABU WG1. Accelerator Systems

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