



Contribution ID: 967 Contribution code: THPM009

Type: **Poster Presentation**

Prototype girder systems for Korea 4GSR

Thursday, 11 May 2023 16:30 (2 hours)

A 4th generation storage ring based light source is being developed in Korea since 2021. The storage ring based on the multi-bend achromat lattice concept may be able to surpass the brightness and coherence. It features about 800 m circumference with 28 cells, 4 GeV e-beam energy. The storage ring girders consist of 140 girders and each cell of girder is composed of five pieces. We have designed prototype girder using new schemes to achieve long-term mechanical stability, vibration suppression and precision adjusting system. Each girder have vertical, transverse and longitudinal adjusting mechanism with ball screw jack. The alignment error between girders should be less than 50 μm . In this report, the conceptual design of the 4GSR girder and support systems are reported.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: LEE, Hong-Gi (Pohang Accelerator Laboratory)

Co-authors: KIM, Dong Eon (Pohang Accelerator Laboratory); HONG, Gwang-Wook (Pohang Accelerator Laboratory); SUH, Hyung (Pohang Accelerator Laboratory); HA, Taekyun (Pohang Accelerator Laboratory); JUNG, YoungGyu (Pohang Accelerator Laboratory); SUH, YoungJin (Pohang Accelerator Laboratory)

Presenter: LEE, Hong-Gi (Pohang Accelerator Laboratory)

Session Classification: Thursday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T31: Subsystems, Technology and Components, Other