IPAC'23 - 14th International Particle Accelerator Conference



Contribution ID: 1080 Contribution code: MOPA159

Type: Poster Presentation

## Alternative Diamond-II storage ring optics with high beta section for improved injection

Monday, 8 May 2023 16:30 (2 hours)

The nominal Diamond-II storage ring optics have been designed to produce a pseudo twenty-four-fold symmetry by maintaining equal phase advance across the long and standard straights [1]. In this paper, the impact of introducing a high beta section in the injection straight and reducing the ring symmetry to one have been extensively investigated. This solution does not require any additional hardware and so can be switched on or off as required. In this paper we present the optics solution and study the expected performance.

[1] Diamond-II Technical Design Report, (2022).

## **Funding Agency**

## Footnotes

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Yes

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Session Classification: Monday Poster Session

**Track Classification:** MC2: Photon Sources and Electron Accelerators: MC2.A05: Synchrotron Radiation Facilities