Contribution ID: **389** Contribution code: **WEP009** Type: **Poster Presentation**

Baking of the vacuum chamber and Activation of the inside NEG coating film in the storage ring arc zone of HEPS

Wednesday 13 August 2025 16:00 (2 hours)

Due to the spatial constraints of the small-aperture magnets in the storage ring arc zone of the High Energy Photon Source (HEPS), where the magnetic pole gap is 26 mm and the vacuum chamber outer diameter is 24 mm, it is necessary to bake the vacuum chamber within a unilateral clearance of only 1 mm for the vacuum chamber degassing and NEG-coated film activation. This work introduces the online baking and activation scheme for the vacuum chamber in the storage ring arc zone of HEPS, including the design of the vacuum chamber heating method and the baking-activation procedures. Additionally, it records the changes in vacuum pressure and the variation in partial pressures of residual gases during the baking-activation process. After the baking-activation of the entire 48 arc zones were completed, the static vacuum pressure measured at the two gauge sites of the standard arc zones were, on average, 1×10−8 Pa and 5×10−8 Pa respectively across the whole ring. Compared with the simulation results after sufficient beam dose sweeping, the measured vacuum pressure is still nearly one order of magnitude higher.

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No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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