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Status of the 1st Article NbTi SCU for the Advanced Photon Source Upgrade

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The 1st article NbTi SCU consists of two 1.5 m-long superconducting undulators (SCU) installed in a single cryostat that will occupy an entire straight section in the upgraded storage ring at the Advanced Photon Source. Installation is planned during the winter shutdown of 2025/2026. The initial design of the magnets proved to be difficult to successfully implement and a new design was pursued to resolve the issues that were identified. Manufacturing of the updated magnet design is scheduled to be completed in early 2025 after which the magnets will be tested in a vertical bath cryostat followed by installation into the production cryostat. A description of the magnet design modifications along with test results from the bath cryostat will be provided.

Footnotes

Paper preparation format

LaTeX

Region represented

America

Funding Agency

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