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Superbend magnet for Elettra 2.0

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The Elettra 2.0 upgrade project is a new storage ring that will replace the existing Elettra. Among the project's flagships are those of three beamlines with a photon flux generated by dedicated bending magnets of up to 10^{13} ph/ses at 50 keV. Since a magnetic field of around 6 tesla is needed to do this, the magnet designed for those beam lines will employ superconducting technologies, for what it's called superbends.

The installation of those three superbends is scheduled in the 2026 while the test of the first prototype at the beginning of 2025. This paper reports the main magnetic characteristics of the superbend model as well as the mechanical and cryogenic preliminary design.

Funding Agency

Footnotes

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Yes

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