

Contribution ID: 785 Contribution code: MOPA076

Type: Poster Presentation

Modernization of the laser-optical system of the X-ray generator NESTOR

Monday 8 May 2023 16:30 (2 hours)

Modernization of the NESTOR hard X-ray generator storage ring for switching to the operating frequency of the accelerator of 2.856 GHz requires corresponding changes in the design of the high-frequency system, and this, in turn, leads to the need to modernize the laser-optical system. The necessary calculations were carried out to determine the new characteristics of the pulsed laser, the Fabry-Perot cavity, and the lens optical system matching the beam geometry. The obtained results confirm the possibility to use an already existing laser-optical system at a new operating frequency of the accelerator with some changes in the design.

Funding Agency

Footnotes

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Yes

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Track Classification: MC1: Colliders and other Particle Physics Accelerators: MC1.A24: Accelerators

and Storage Rings, Other