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At NCBJ in Otwock-Świerk a THz facility is under construction. It will deliver THz radiation in the frequency range from 0.5THz to 5THz (600 μ m - 60 μ m). Its superconducting cw-operating linac will provide electron bunches at energy up to 60 MeV and charge in the range of 20pC–250pC. In the first stage, electron bunches will be generated in a room temperature electron gun. For the second stage, a superconducting gun will be implemented, and the bunch repetition rate will be raised from 100Hz to 50kHz. The THz radiation will be generated in a permanent magnet tunable gap undulator operating in the superradiant mode. Beamline will be completed in 2025. According to the present schedule, the commissioning will take place in 2026. In the presented article, the design and technical parameters of the THz facility is discussed.

Footnotes

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