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Observation of coherent Terahertz bursts during low-energy operation of DELTA

Monday, 8 May 2023 16:30 (2 hours)

The electron storage ring DELTA which is operated by TU Dortmund University can be run at a reduced beam energy down to 500 MeV instead of 1.5 GeV. If a single bunch at low energy is stored, the bunch charge threshold for the emission of THz bursts is exceeded. Using a fast Schottky-barrier detector, coherent synchrotron radiation bursts of THz radiation were detected. Turn-by-turn data of the THz bursting behavior as function of the bunch charge and bursting spectrographs are presented.

Funding Agency

Footnotes

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Yes

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