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标题: Undulator-Like Radiation and Cooperative Phenomenon in Semiconductor Microstructure with Grating

作者: Tralle, I (Tralle, I.); Zieba, P (Zieba, P.)

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摘要: In the article the cooperative N-2-effect is considered, that is the radiation whose power is similar to N-2, where N is the number of emitters which in this case is equal to the number of electrons in a bunch. The suggested effect is the result of combining two other effects, Gunn-effect in GaAs and undulator-like radiation which can be produced by means of microstructure with grating (microundulator). It is very probable that the effect can be used for the developing of a new semiconductor-based room temperature source of the THz radiation.

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地址: [Tralle, I.; Zieba, P.] Univ Rzeszow, Inst Phys, Math & Nat Sci Dept, PL-35310 Rzeszow, Poland

通讯作者地址: Tralle, I (通讯作者), Univ Rzeszow, Inst Phys, Math & Nat Sci Dept, T Rejtana 16A, PL-35310 Rzeszow, Poland

电子邮件地址: tralle@univ.rzeszow.pl

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