
GENERATOR PROPERTIES OF GRAPHENE RESONANT TUNNELING DIODES

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Abstract

The study evaluated the possibilities of using graphene resonant tunneling diodes as an active element in a high-frequency generator. We examine the dependence of the current frequency and power on the degree of graphene electrode doping, as well as the device geometry, graphene arrays parallelism. Findings of the research show that there exists a theoretical possibility of creating a terahertz current generator based on graphene resonant tunneling diodes

Keywords

Resonant tunneling diode, high-frequency generator, graphene, hexagonal boron nitride

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