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Title:Emission of terahertz radiation from selectively doped AlGaN/GaN heterostructures under the heating of two-dimensional electrons by an electric field

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Abstract:The emission of terahertz radiation from a AlGaN/GaN heterostructure under the heating of two-dimensional electrons in a lateral electric field is studied. The field dependence of the temperature of hot electrons is determined from an analysis of experimental volt-ampere characteristics. A theoretical model of the thermal radiation of hot two-dimensional electrons is considered, and the calculation results are compared with an experiment on terahertz radiation emission. © 2012 Allerton Press, Inc.

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