

Abstract Submitted
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Thermal Imaging of Graphene Devices INSUN JO, YONG J. LEE, ZHEN YAO, LI SHI, The University of Texas at Austin — We have performed scanning thermal microscopy on voltage-biased single-layer graphene devices by employing a microfabricated tip with an integrated thermocouple sensor at the apex. The lattice-temperature profile of the graphene channel as well as the temperatures of the substrates and the electrodes are measured with high spatial resolution as a function of both bias and gate voltages. The results allow us to understand various heat dissipation mechanisms in these technologically-important devices.

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