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Abstract for an Invited Paper
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Tunneling spectroscopy of graphene boron nitride heterostructures¹

DAVID GOLDBER-GORDON, Stanford University

We report on the fabrication and measurement of a graphene tunnel junction using hexagonal boron nitride as a tunnel barrier between graphene and a metal gate. The tunneling behavior into graphene is altered by the interactions with phonons and the presence of disorder. We extract properties of graphene and observe multiple phonon-enhanced tunneling thresholds. Finally, differences in the measured properties of two devices are used to shed light on mutually-contrasting previous results of scanning tunneling microscopy in graphene.

¹This work can be found on arXiv:1108.2686v1 and was done in collaboration with F. Amet, J. R. Williams, A. G. F. Garcia, M. Yankowitz, K. Watanabe and T. Taniguchi