

Abstract Submitted  
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**The effect of the tip in scanning tunneling spectroscopy of graphene Landau levels**<sup>1</sup> KEVIN KUBISTA, DAVID MILLER, MING RUAN, WALT DE HEER, PHILLIP FIRST, Georgia Institute of Technology, GREGORY RUTTER, JOSEPH STROSCIO, NIST-Gaithersburg — Landau Level (LL) spectroscopy measurements were performed on multilayer epitaxial graphene using 4 K scanning tunneling spectroscopy in magnetic fields up to 8 T. Fits of the LL energies to the form expected for graphene show a slight difference in the Fermi velocity of hole and electron states. We show that this may be a consequence of the work function difference between graphene and the tip material (iridium). Data sets consisting of LL energies versus magnetic field are used to fit a model tip potential. The calculated spectrum of tip-perturbed LLs reveals the possible source of some “extra” peaks.

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