Abstract Submitted
for the 4CF11 Meeting of
The American Physical Society

Scanning tunneling spectroscopy of CVD graphene DANIEL CORMODE, BRIAN LEROY, University of Arizona — We investigate the electronic properties of large crystal CVD grown graphene using scanning tunneling microscopy. Mono- and bilayer crystals were prepared by transferring graphene from copper onto exfoliated boron nitride flakes on 300 nm SiO_2 substrates. The boron nitride provides an ultra flat surface for the graphene. Samples were measured in ultra high vacuum by scanning tunneling spectroscopy at 5 K. In these experiments, we have investigated the effect of two types of charged impurities, either random impurities from the growth process or controlled doping of the graphene with potassium atoms. Potassium atoms are controllably deposited on the graphene at low temperature by heating a getter source.

Daniel Cormode
University of Arizona

Date submitted: 16 Sep 2011 Electronic form version 1.4