

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Imaging defects on epitaxial graphene/SiC(0001) using non-contact AFM with a Q-plus sensor¹ Y. LIU, L. LI, University of Wisconsin, Milwaukee — STM has been commonly used to study the atomic structures of resonant scatters such as vacancies and adsorbates on graphene, which are leading factors limiting its mobility. However, since STM probes primarily the local density of states, complex patterns are often observed when imaging defects on graphene, making it challenging to determine their atomic structures using STM alone. In this work, we carried out an integrated study of defects on epitaxial graphene/SiC(0001) using non-contact AFM with Q-plus sensors in addition to STM. With atomic resolution AFM imaging, straight forward identifications of single- and di-vacancy defects can be made. These results and their implications for understanding electron scattering in epitaxial graphene on SiC(0001) will be presented at the meeting.

¹Supported by DOE (DE-FG02-05ER46228).

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Date submitted: 22 Nov 2011

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