

Abstract Submitted  
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**Transport in multilayered epitaxial graphene** CLAIRE BERGER, Georgia Tech-Atlanta and CNRS-France, XIAOSONG WU, MIKE SPRINKLE, XUEBIN LI, Georgia Tech-Physics, Atlanta, FAN MING, WALT DE HEER, Georgia Tech-Physics, Atlanta — We present recent results of electronic transport in multilayered epitaxial graphene (EG) grown by thermal decomposition of SiC wafers. Because of the rotational stacking of the layers, it was recently shown theoretically that the system should retain essentially the same band structure as single layer graphene. The system consists of a charged layer at the SiC/EG interface, as revealed by the period of the Shubnikov-de Haas oscillations (a few  $10^{12}/cm^2$ ), and quasi-neutral layers on top. We discuss possible effects of the multilayering in the transport properties, such as the large positive increase in field of the magnetoresistance  $\rho_{xx}$ , the weak amplitude of the Shubnikov-de Haas and the overall features of the Hall effect, in particular the anomaly of the Hall resistance  $\rho_{xy}$  observed at low field.

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