

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**I-V characteristics of organic molecules coated graphene** SEUNG JAE BAEK, YUNG WOO PARK, Seoul National University — Thin layers of organic molecules, OTS and DMF, are coated on top of graphene which was extracted by the exfoliation. I-V characteristics of the organic molecules coated graphene were investigated at low temperature by varying the gate voltage. P-doping with slight enhancement of mobility was observed with the OTS coating. On the other hand, n-doping with relatively higher enhancement of mobility was obtained with the DMF coating. CNT is nested on top of the organic molecules coated graphene by dielectrophoresis and Coulomb blockade was observed in the sandwich device.

Yung Woo Park  
Seoul National University

Date submitted: 13 Nov 2011

Electronic form version 1.4