Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

**Electron Heat Capacity of Nitrogen Doped Graphene in Low Temperature** DI LUO, WANG-CHUANG KUO, None — We calculate the electron heat capacity of nitrogen doped graphene with a simple method. There are four kinds of bonds to be considered, the pi and anti-pi bonds of C-C and C-N. And the extra electrons are treated as free constituents. We found a small amount of difference in the electron heat capacity between a pure graphene and a thin film CNx. Nevertheless, with a precise measurement on the electron heat capacity of the thin film or layer structure of CNx, we can determine the doping concentration of nitrogen.

Di Luo
rody0335@hotmail.com

Date submitted: 02 Nov 2011 Electronic form version 1.4