

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Vibration analysis of Graphene embedded in ordered fluids using Raman spectroscopy MIN SANG PARK, School of Material Science and Engineering, Georgia Institute of Technology, KARTHIK NAYANI, School of Material Science and Engineering, Georgia Institute of Technology, JUNG OK PARK, MOHAN SRINIVASARAO, School of Material Science and Engineering, Georgia Institute of Technology — We studied the vibrational characteristics of both single- and multi-layered Graphene embedded in liquid crystal (LC), possessing various ordered phases, by polarized micro-Raman spectroscopy. The evolution of the vibrational modes (G and 2D bands) was studied in 8CB in the isotropic, nematic and smectic A phases. The shifts in the vibrational modes are discussed in the context of the phase transition in the LC system.

Min Sang Park
School of Material Science and Engineering, Georgia Institute of Technology

Date submitted: 28 Dec 2010

Electronic form version 1.4