

Abstract Submitted  
for the MAR09 Meeting of  
The American Physical Society

**Low-frequency magneto-optical spectra of bilayer Bernal graphene**

YEN-HUNG HO, Y. H. CHIU, M. F. LIN, Department of Physics, National Cheng Kung University — The low-frequency magnetoabsorption spectra of bilayer Bernal graphene are investigated within the gradient approximation. The interlayer interactions significantly alter the Landau-level energies, state wave function, and thus enrich the optical excitation spectra. There exist four kinds of absorption peaks, mainly owing to the optical transitions between two groups of Landau levels with valence and conduction states. The number, intensity, and frequency of absorption peaks strongly depend on the field strength. Such features quite differ from those of monolayers.

Yen-Hung Ho  
Department of Physics, National Cheng Kung University

Date submitted: 21 Nov 2008

Electronic form version 1.4