

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Magneto-reflectance of Bi<sub>2</sub>Se<sub>3</sub> in 18 Tesla fields** S.V. DORDEVIC, M.S. WOLF, The University of Akron, N. STOJILOVIC, University of Wisconsin Oshkosh, H. LEI, C. PETROVIC, Brookhaven National Laboratory, L.C. TUNG, National High Magnetic Field Laboratory — Magneto-optical measurements can provide valuable information in studies of topological insulators. We will report magneto-reflectance spectra of Bi<sub>2</sub>Se<sub>3</sub> in magnetic fields up to 18 Tesla. Magnetic-field induced changes in reflectance are most pronounced around the plasma minimum and around the 60 cm<sup>-1</sup> mode. Such large magneto-optical activity is unusual for a phonon, and might indicate coupling to collective modes of magnetic origin. Model fits will provide deeper insight into evolution of optical functions with magnetic field.

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Date submitted: 08 Nov 2011

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