

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Effect of high pressure on transport and structural properties of topological insulator Bi_2Se_3 ¹ J.J. HAMLIN, Department of Physics, University of California San Diego, J.R. JEFFRIES, Lawrence Livermore National Laboratory, N.P. BUTCH, P. SYERS, Department of Physics, University of Maryland, D. A. ZOCCO, Department of Physics, University of California San Diego, S.T. WEIR, Lawrence Livermore National Laboratory, Y.K. VOHRA, Department of Physics, University of Alabama at Birmingham, J. PAGLIONE, Department of Physics, University of Maryland, M.B. MAPLE, Department of Physics, University of California San Diego — We report a series of electrical resistivity, magnetotransport, and xray diffraction measurements on the topological insulator Bi_2Se_3 under pressures as high as 34 GPa. The results demonstrate that applied pressure can be used to controllably tune the transport properties without chemical substitution.

¹Support from the DOE/NNSA and NSF-MRSEC is acknowledged.

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Date submitted: 29 Dec 2010

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