Abstract Submitted
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Bulk versus surface contributions to the Shubnikov-de Haas Effect[1] E. MANIV, M. PETRUSHEVSKY, Raymond and Beverly Sackler School of Physics and Astronomy, Tel-Aviv University, Israel, E. LAHOUD, Department of Physics, Technion-Israel Institute of Technology, Israel, A. RON, I. NEDER, Raymond and Beverly Sackler School of Physics and Astronomy, Tel-Aviv University, Israel, S. WIEDMANN, V.K. GUDURU, U. ZEITLER, J.C. MAAN, High Field Magnet Laboratory, Institute for Molecules and Materials, Radboud University Nijmegen, The Netherlands, K. CHASHKA, A. KANIGEL, Department of Physics, Technion-Israel Institute of Technology, Israel, Y. DAGAN, Raymond and Beverly Sackler School of Physics and Astronomy, Tel-Aviv University, Israel — Among the bulk materials that are considered as experimental realizations of topological insulators Bi_2Se_3 is of particular interest due to its large bulk band gap and surface states with a single Dirac cone. It has been recently shown that Bi_2Se_3 can become superconducting when Cu intercalation is introduced (Hor, Y. S.; Williams, A. J. et al. *Phys. Rev. Lett.* **2010**, 104, 057001). We report on transport measurements of cleaved flakes $\sim$1$-$100 μm thick of Cu intercalated Bi_2Se_2. Clear Shubnikov-de Haas oscillations are observed. We study the temperature and angular dependence of these oscillations together with the Hall coefficient at low temperatures for various Cu concentrations. We discuss possible contributions from bulk and the protected surface states to the various transport channels.

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