

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Temperature and Carrier-Density Dependence of 1/f Noise in Single-walled Carbon Nanotube Transistors DAVID TOBIAS, MASA ISHIGAMI, C.J. LOBB, MICHAEL S. FUHRER, Center for Superconductivity Research, Department of Physics, University of Maryland College Park, College Park, MD 20742 — Field-effect transistors (FETs) have been fabricated from individual semiconducting single-walled carbon nanotubes (SWNTs) grown by chemical vapor deposition on SiO₂/Si substrates and contacted by metal (Cr/Au) electrodes. We have measured the low-frequency anomalous noise (1/f noise) in such SWNT-FETs as a function of temperature and charge carrier density. This material is based upon work supported by the National Science Foundation under Grant No. 0102950 and the Center for Superconductivity Research.

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Date submitted: 30 Nov 2005

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