

Abstract Submitted
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Measurements of 1/f Noise in Carbon Nanotube Devices¹ MASA ISHIGAMI, Department of Physics, University of Maryland, College Park, Maryland 20742, W. X. YAN, Thomas Jefferson High School for Science and Technology, Alexandria VA 22312, J.H. CHEN, M. S. FUHRER, E. D. WILLIAMS, Department of Physics, University of Maryland, College Park, Maryland 20742 — We have measured the low frequency noise of field effect transistors made from individual single-walled carbon nanotubes in an ultra high vacuum environment. We will compare Hooges constants measured in oxygen, argon, air, and ultra high vacuum, and propose a possible solution for reducing noise in nanotube devices. Furthermore, the utility of noise amplitude in carbon nanotube devices for chemical specific sensing will be discussed.

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