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Gas Sensitivity of Carbon Nanotube Devices[1] J. H. CHEN, MASA ISHIGAMI, M. S. FUHRER, E. D. WILLIAMS, Department of Physics, University of Maryland, College Park, Maryland 20742 — We have measured the gas sensitivity of field effect transistors made from individual single-walled carbon nanotubes in an ultra high vacuum environment. We exposed nanotube devices to varying partial pressures of oxygen and argon. We will compare the results to existing theoretical calculations for oxygen sensitivity of carbon nanotubes and discuss the ultimate gas sensitivity for these devices.

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