

Supporting Information

Hybrid Tin Oxide-SWNT Nanostructures Based Gas Sensor

Syed Mubeen¹, Min Lai², Ting Zhang³, Jae-Hong Lim¹, Ashok Mulchandani¹,
Marc A. Deshusses⁴, Nosang V. Myung^{1*}

¹*Department of Chemical and Environmental Engineering; University of
California-Riverside; Riverside, CA 92521*

²School of Mathematics and Physics, Nanjing University of Information Science &

Technology, Nanjing, 210044, People's Republic of China

³Suzhou Institute of Nano-tech and Nano-bionics (SINANO),

Chinese Academy of Science (CAS), Suzhou, 215125, People's Republic of China

⁴*Department of Civil and Environmental Engineering; Duke University; Durham,
NC 27708*

*e-mail: (myung@engr.ucr.edu)

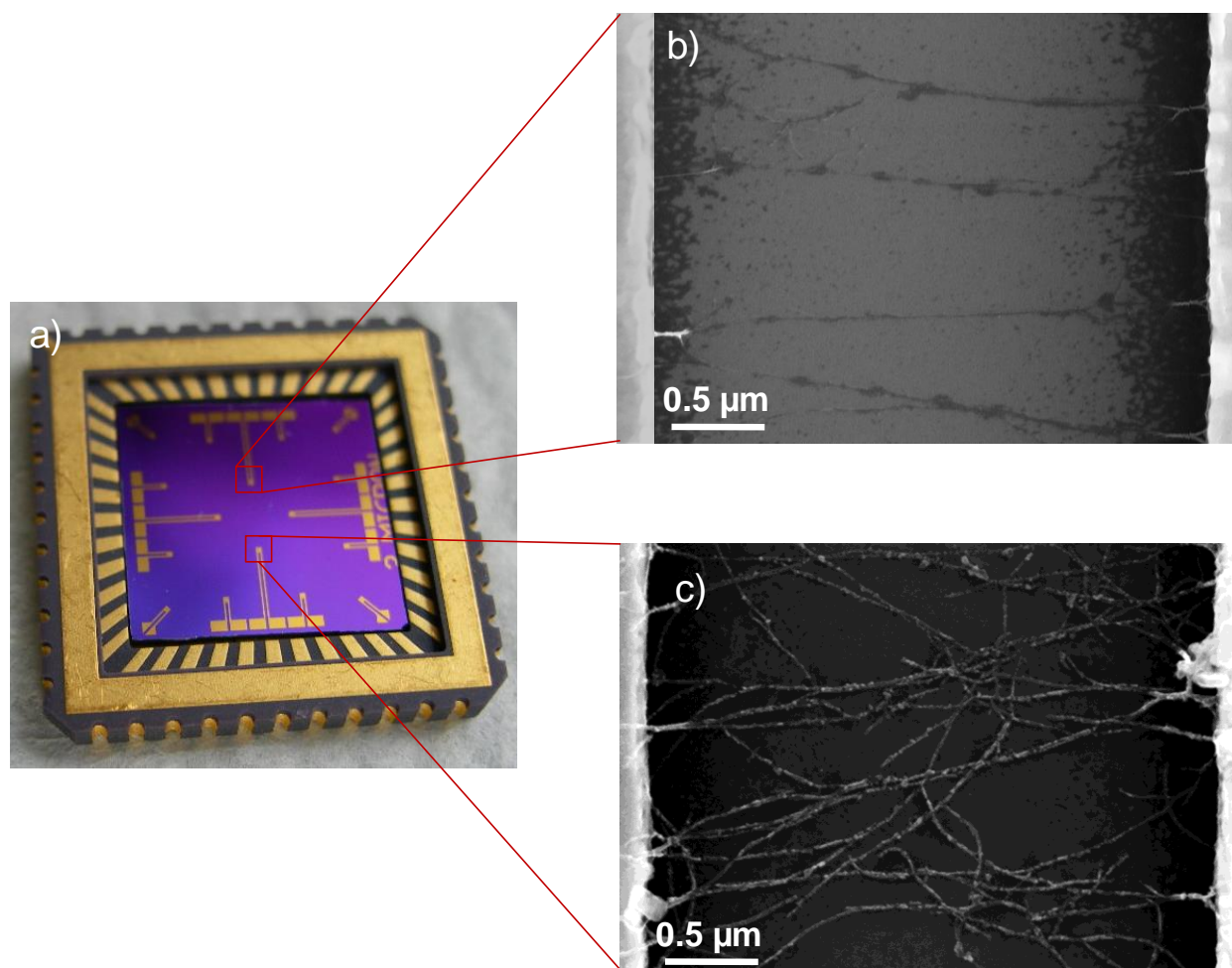


Figure S1. (a) Optical image of a sensor chip showing 16 electrode sensor arrays with (b) and (c) showing high magnification SEM images of bare SWNTs and SWNTs coated with tin oxide (-0.4 V vs. Ag/AgCl wire, 5 μ C).

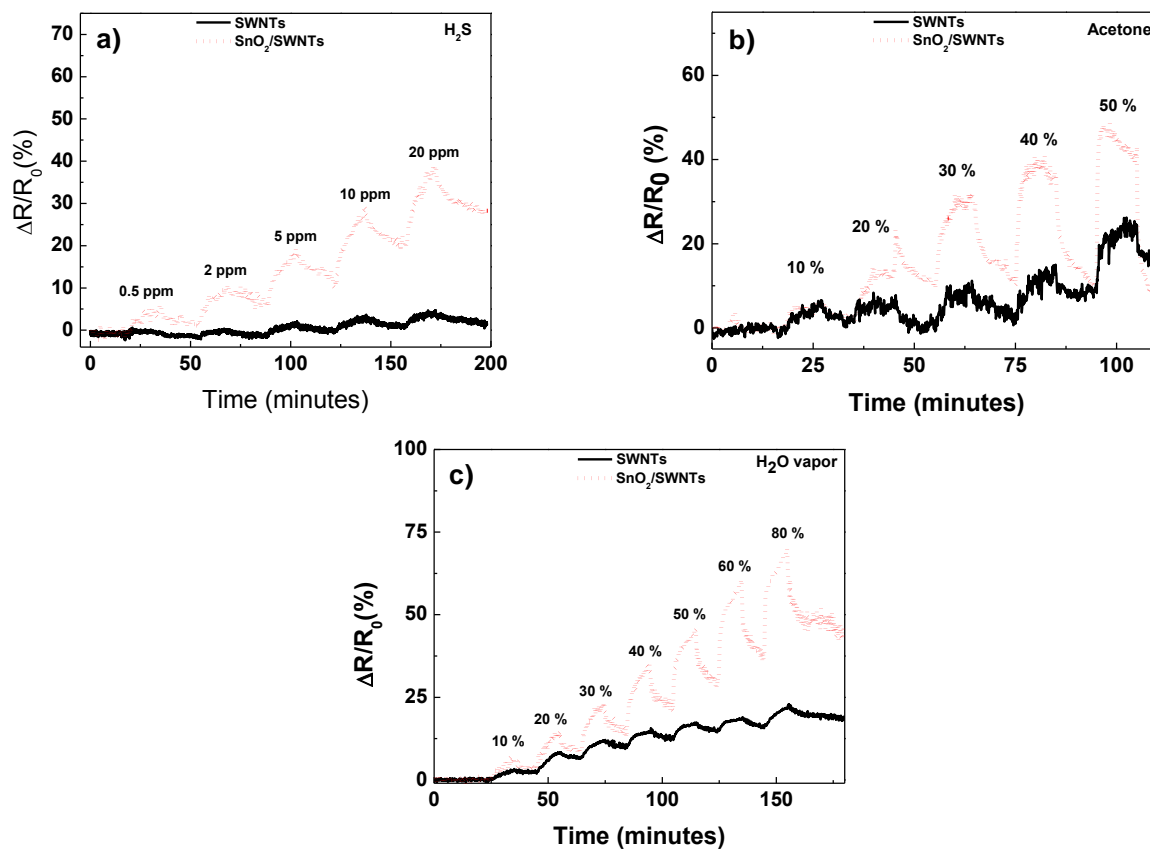


Figure S2. Sensor performance of bare SWNTs and SWNTs coated with tin oxide (-0.4 V vs. Ag/AgCl wire, 5 μ C) towards a) H₂S, b) acetone and c) water vapor.