Supporting Information

“Highly-Selective Environmental Nanosensors based on Anomalous Response of Carbon Nanotube Conductance to Mercury Ions”

Tae Hyun Kim¹, Joohyung Lee¹ and Seunghun Hong¹*

Department of Physics and Astronomy, Seoul National University, Seoul 151-747, Korea

*Corresponding author.

Telephone: +82-2-880-1343. Fax: +82-2-884-3002. E-mail address: shong@phya.snu.ac.kr
UV/vis/NIR Titration Experiment

Figure S1 shows the absorbance of swCNT dispersions after the addition of various metal ions at concentrations from 20 µM to 200 µM. Only minor changes in the spectra were observed when metal ions were added to swCNT solutions.

Figure S1. Optical absorption spectra of aqueous swCNT solution dispersed in 1wt% SDS after the addition of various metal ions solution ((a) Li⁺, (b) Na⁺, (c) K⁺, (d) Rb⁺, (e) Cs⁺, (f) Mg²⁺, (g) Sr²⁺, (h) Co²⁺, (i) Ni²⁺, (j) Cu²⁺, (k) Zn²⁺, (l) Cd²⁺ from 20 µM ~ 200 µM.
**Figure S2.** Conductance (Ids-Vlg curve) of the swCNT device in deionized water after the sequential addition of 10 µM Ca^{2+}, Na^{+} and Hg^{2+}.