Supporting Information

Stable n-Type Conduction in WO_x-CNT Hybrid Films

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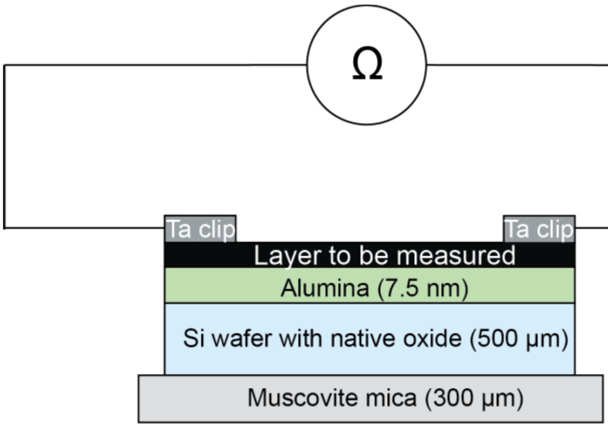

Figure S1. Geometry of the resistivity measurements performed under UHV conditions. Layer thicknesses are not drawn to scale. The thickness of the Ta clips was approximately 200 µm.

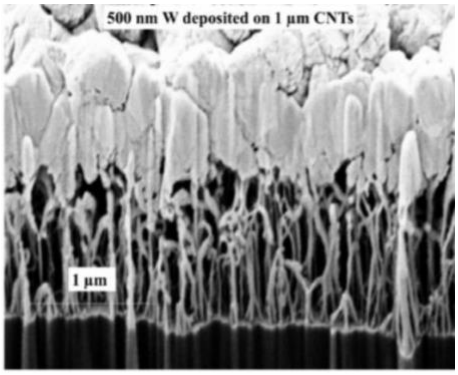

Figure S2. SEM image of FIB-cross section of 500 nm WO_x layer deposited by DCMS on CNTs forest. (CNTs density: $7.5x10^3$ CNTs/mm^2).

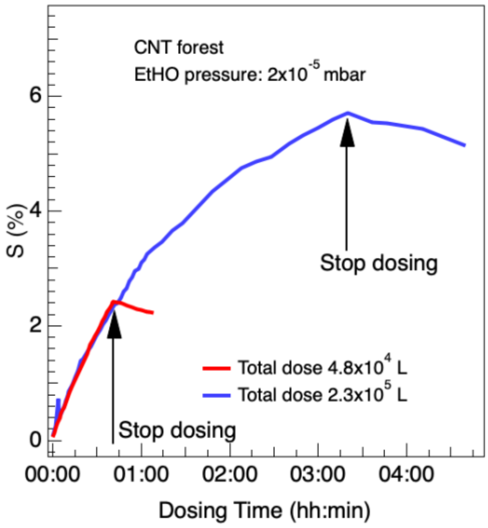

Figure S3. Exposure of a CNTs sample to EtOH in UHV ($p=2x10^{-5}$ mbar), to verify the reproducibility of the data and find the saturation dose. The total amount of EtOH dosed is reported for each of the two exposures.

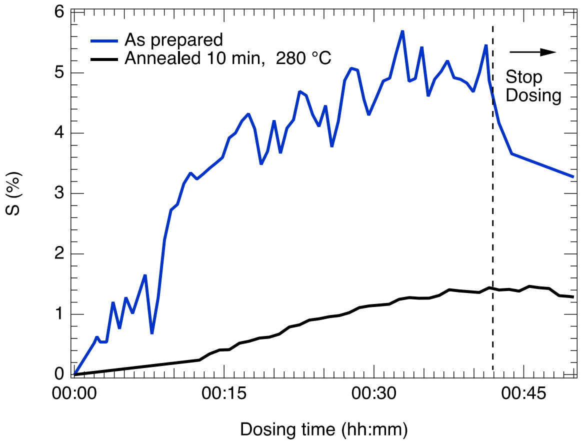

Figure S4. Sensitivity measurements for the NS-WO_x deposited on Si wafer during exposure to EtOH in UHV (partial pressure $p=2\times10^{-5}$ mbar) at RT (blue) and after annealing at 280 ˚C for 10 minutes in UHV (black).

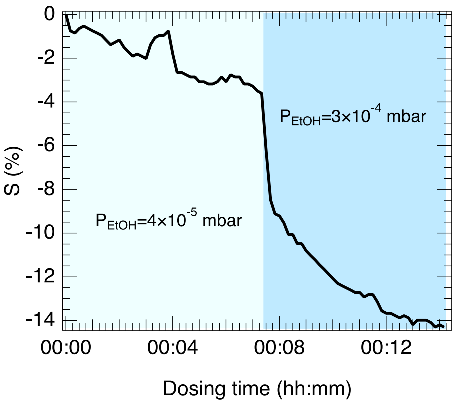

Figure S5. Exposure to EtOH of the NS-WO_x/CNTs hybrid in two different pressure regimes.