sensors

MDPI

Communication

Self-Assembled Monolayers Coated Porous SnO_2 Film Gas Sensor with Reduced Humidity Influence

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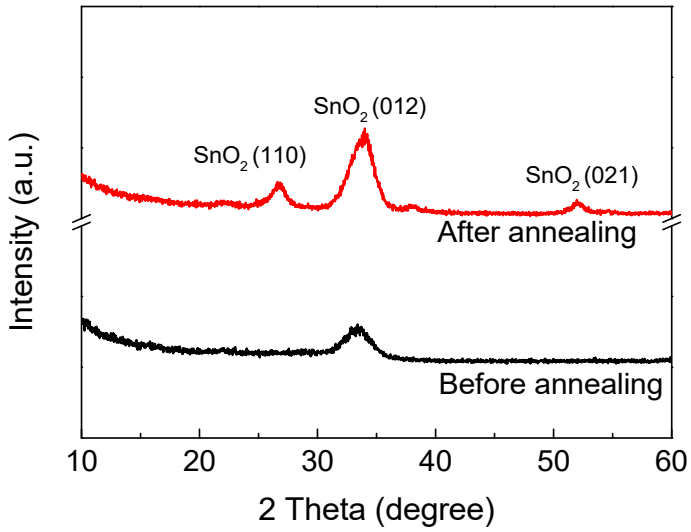

Figure S1. X-ray diffraction (XRD) patterns of porous SnO_2 films before and after annealing process.

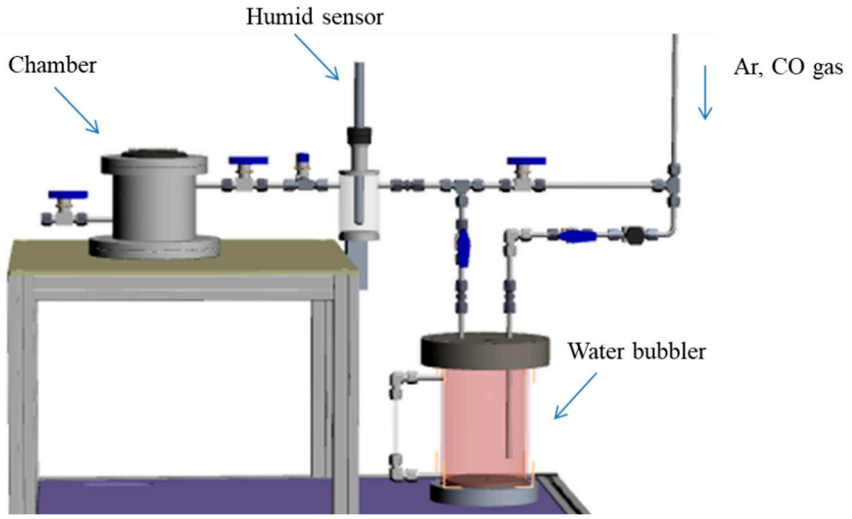

Figure S2. Schematic diagram of a custom-built experimental apparatus for controlling humidity.

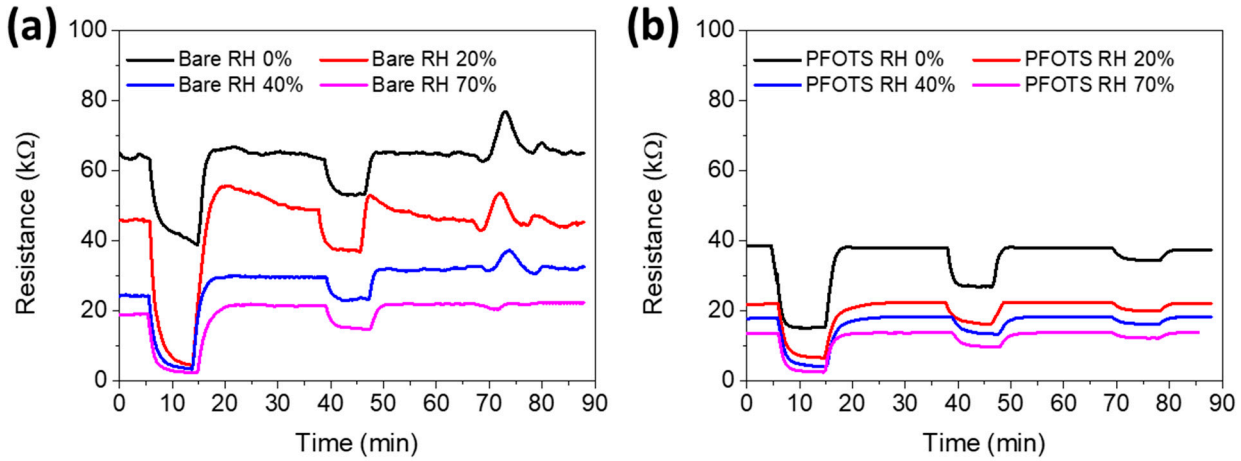

Figure S3. Real time data of bare (a) and PFOTS coated porous SnO_2 film gas sensors (b) are obtained at relative humidity 0, 20, 40, and 70 %.

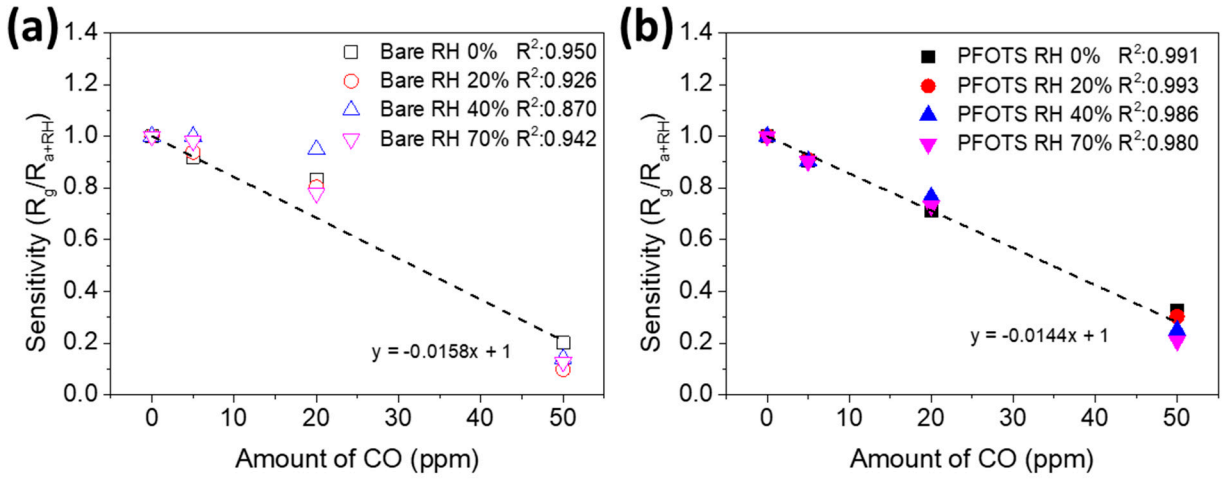

Figure S4. Gas sensor sensitivity with removing effect of humidity. (a) Bare and (b) PFOTS shows sensitivity according to amount of CO; the reaction gas (R_g) with the humid air signal (R_{a+RH}). The trend line is drawn with R^2 at RH 0%.

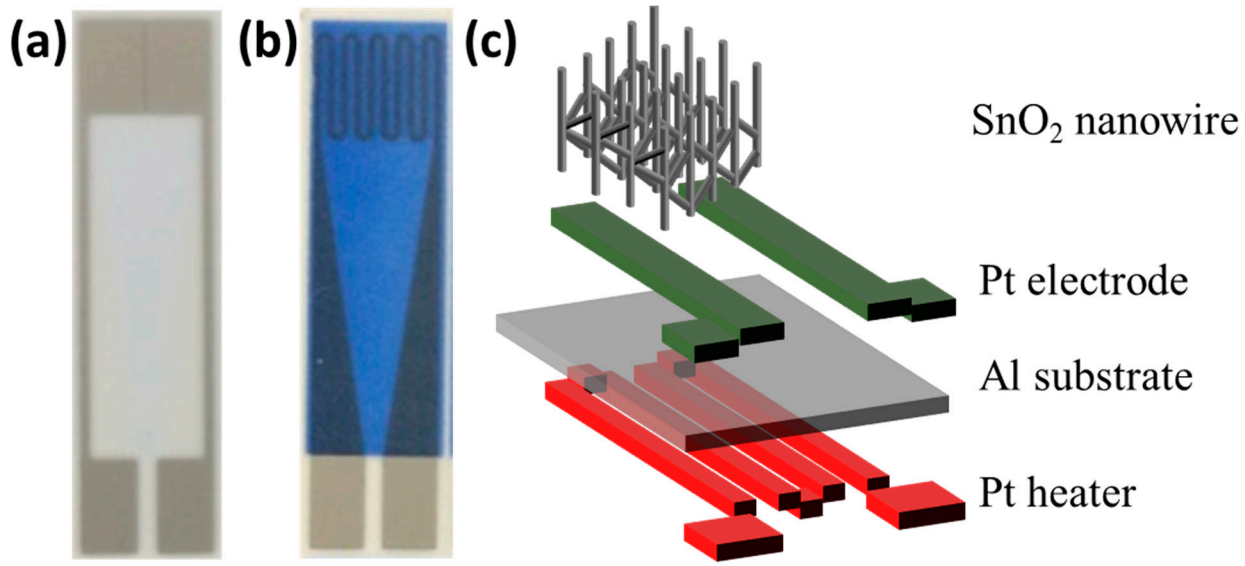

Figure S5. Photos of the gas sensor platform. (a) Front image of patterned Pt electrodes and (b) back image of heater. (c) Schematic image of the porous SnO_2 gas sensor structure.