

## **Influence of different Pt functionalization modes on the properties of CuO gas sensing materials**

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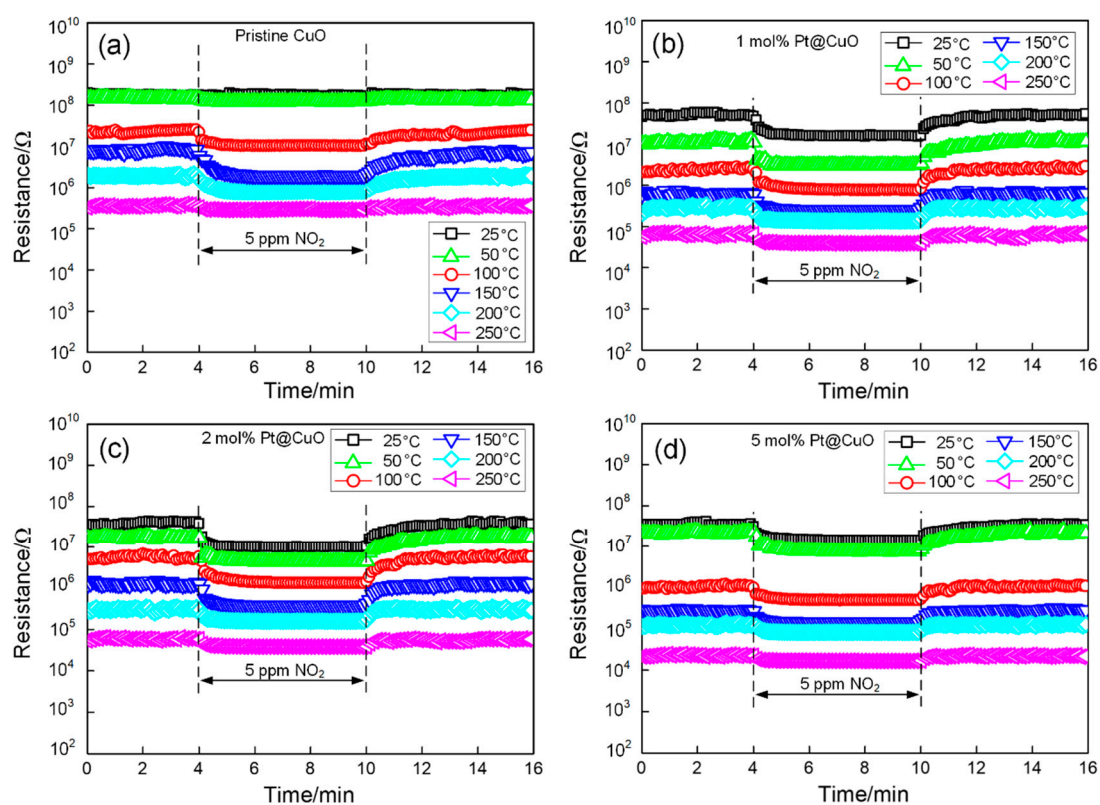
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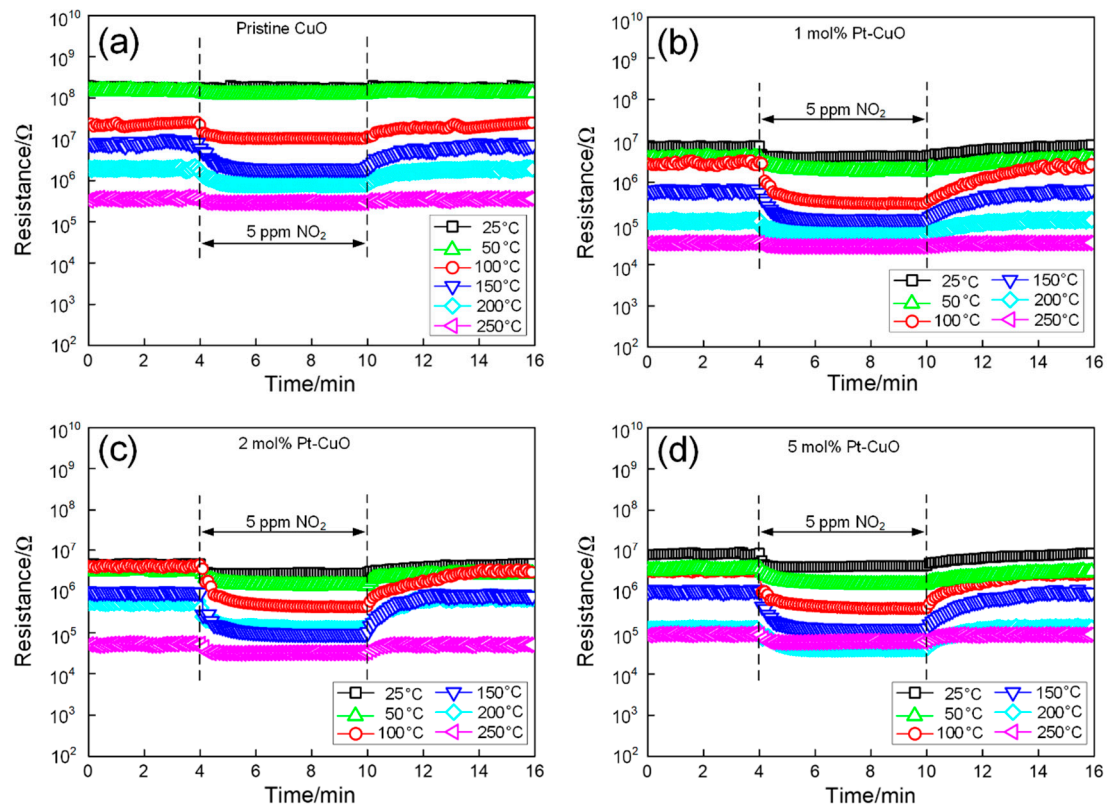
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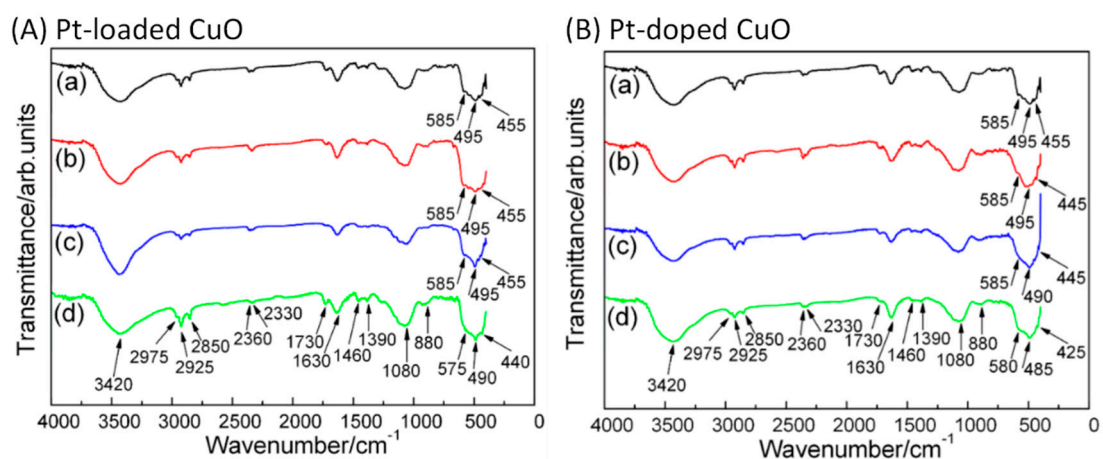
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**Figure S1.** Response and recovery curves of the sensors based on pristine and Pt-loaded CuO nanorods upon exposure to 5 ppm NO<sub>2</sub> at various operating temperature  
(a) Pristine; (b) 1 mol% Pt@CuO; (c) 2 mol% Pt@CuO; (d) 5 mol% Pt@CuO

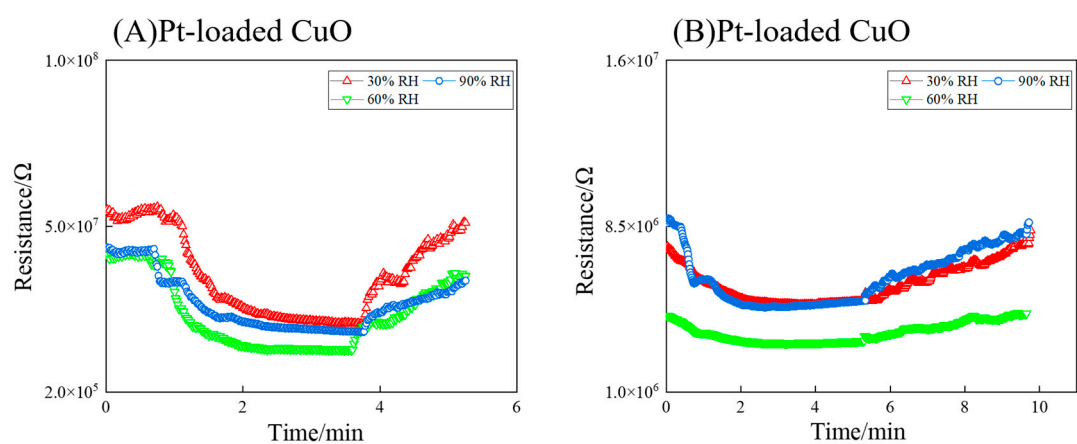


**Figure S2.** Response and recovery curves of the sensors based on pristine and Pt-doped CuO nanorods upon exposure to 5 ppm  $\text{NO}_2$  at various operating temperature  
(a) Pristine; (b) 1 mol% Pt-CuO; (c) 2 mol% Pt-CuO; (d) 5 mol% Pt-CuO



**Figure S3.** FTIR spectra of (A) Pt-loaded and (B) Pt-doped CuO nanorods with different Pt concentration

(a) 0 mol% Pt; (b) 1 mol% Pt; (c) 2 mol% Pt; (d) 5 mol% Pt



**Figure S4.** Response and recovery curves of the sensors based on 2 mol% (A) Pt-loaded CuO and (B) Pt-doped CuO nanorods upon exposure to 2 ppm  $\text{NO}_2$  at 25  $^\circ\text{C}$  and different humidity