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MDPI

Supplementary Information

Highly Dispersed Pt-Incorporated Mesoporous Fe_2O_3 for Low-Level Sensing of Formaldehyde Gas

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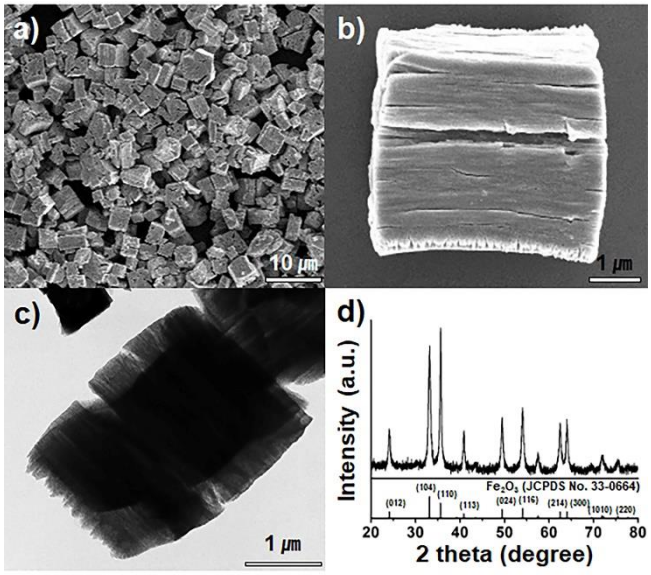

Figure S1. (**a**) SEM and (**b**) magnified SEM images, (**c**) TEM image, and (**d**) XRD spectrum of the m-Fe_2O_3.

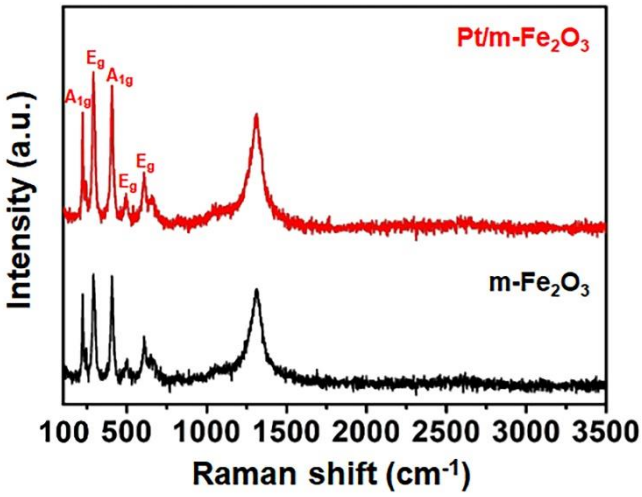

Figure S2. Raman spectra of the m-Fe_2O_3 and 0.2wt% Pt/m-Fe_2O_3.

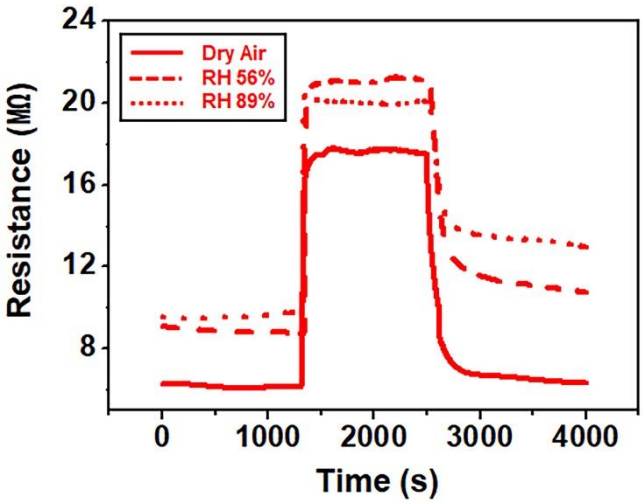

Figure S3. Resistance changes of the Pt/m-Fe_2O_3 under different relative humidity (Dry air, RH 56 % and RH 89 %) with respect to the 200 ppb HCHO gas at 300 °C.

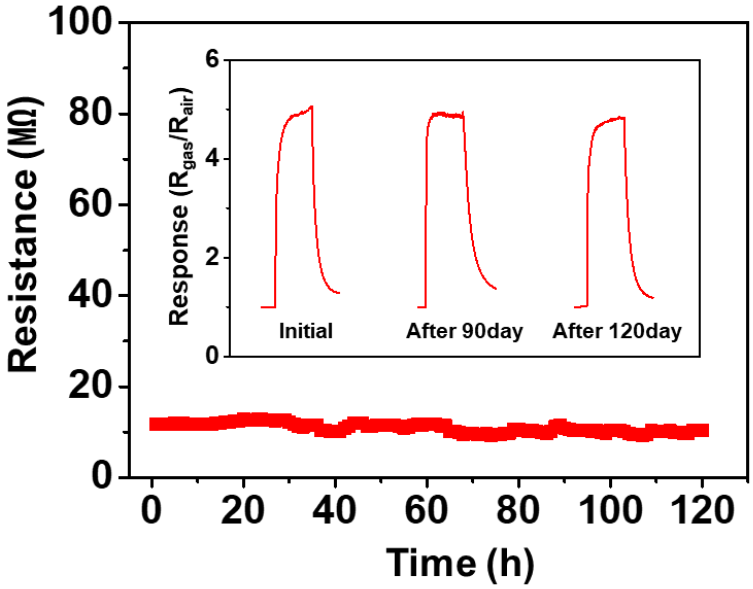

Figure S4. Base resistance of Pt-Fe_2O_3 in air condition for 120 h consecutively. (The insets were HCHO gas response of Pt-Fe_2O_3 toward 500 ppb HCHO gas at the initial test, after 90 days and 120 days at 275 °C).