Supporting Information

A Comparative Study of Honeycomb-like 2D π-Conjugation Metal-Organic Frameworks Chemiresistors: Conductivity and Channels

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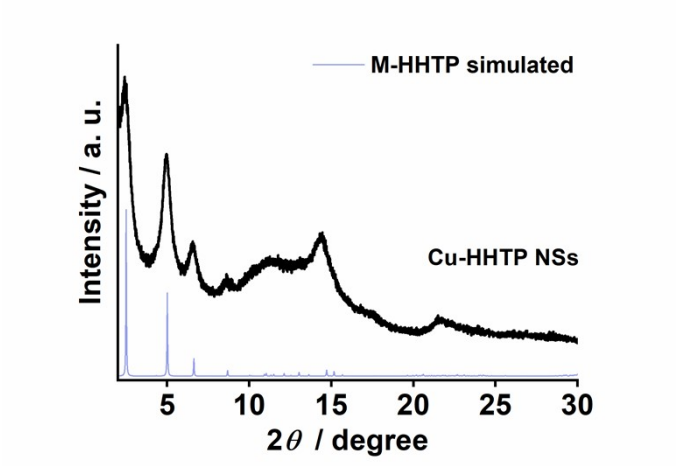

Fig.S1 The PXRD patterns of Cu-HHTP NSs powders and simluated M-HHTP, data were collected at beamline 02B2 in SPring 8, Japan (λ=0.79962 Å).

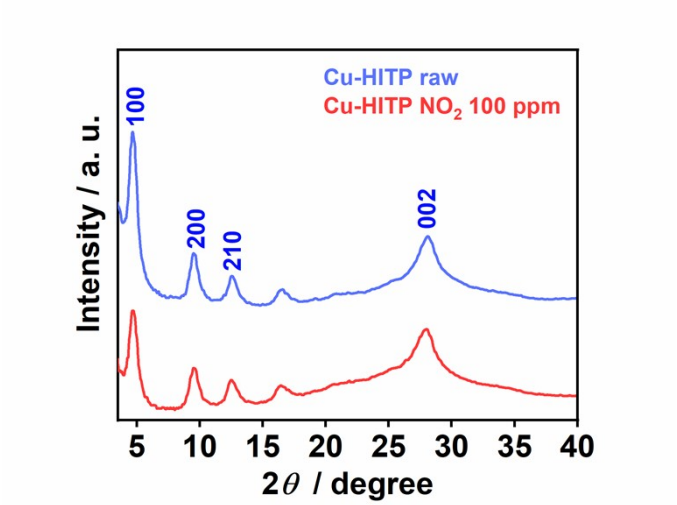

Fig.S2 PXRD patterns of Cu-HITP before and after exposure to 100 ppm of NO_2 gas diluted in dry air.

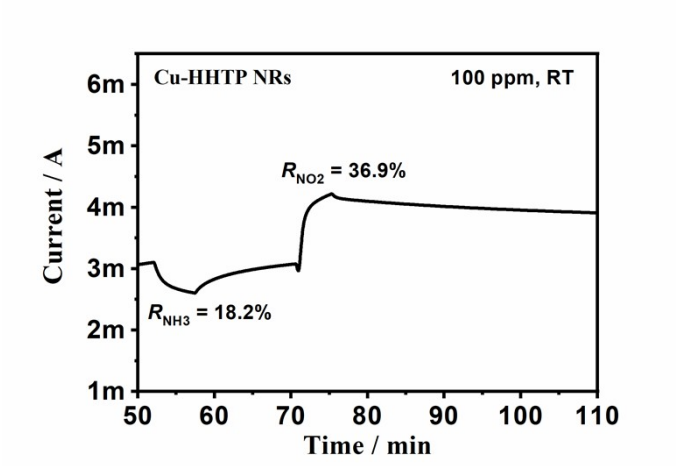

Fig.S3 The dynamic sensing curve of Cu-HHTP NRs sensor toward typical reducing gases (NH_3 100 ppm) and oxidizing gas (NO_2 100 ppm).

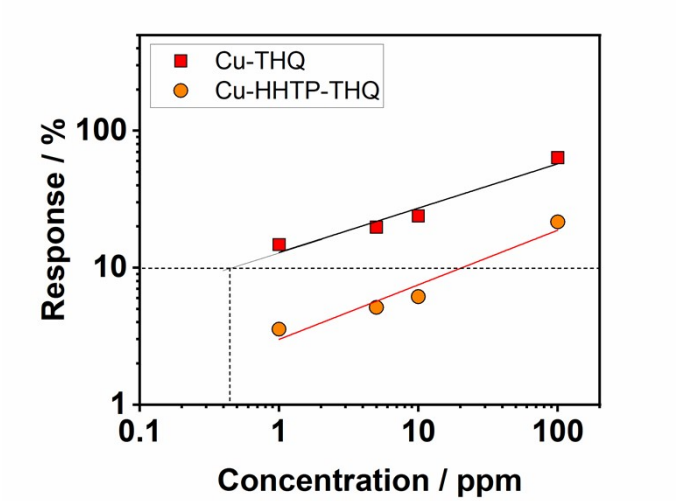

Fig. S4 The log-log plots of response *vs*. concentration of Cu-HHTP-THQ and Cu-THQ sensors toward 1-100 ppm of NH_3. The linear fitting equation for Cu-THQ is y=1.11212+0.32351x. By setting *R*=10%, the calculated LOD value is ~0.45 ppm.