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Ultraselective and ultrasensitive TEA sensor based on α-MoO_3 hierarchical nanostructures and the sensing mechanism

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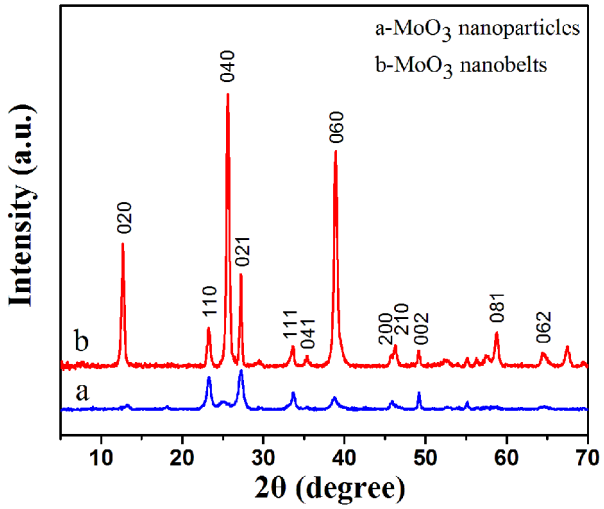

Fig. S1 XRD patterns of the products prepared in a mixture of acetic acid (33 mL) and distilled water (2 mL) at 150 °C for 5 min (a) and 30 min (b).

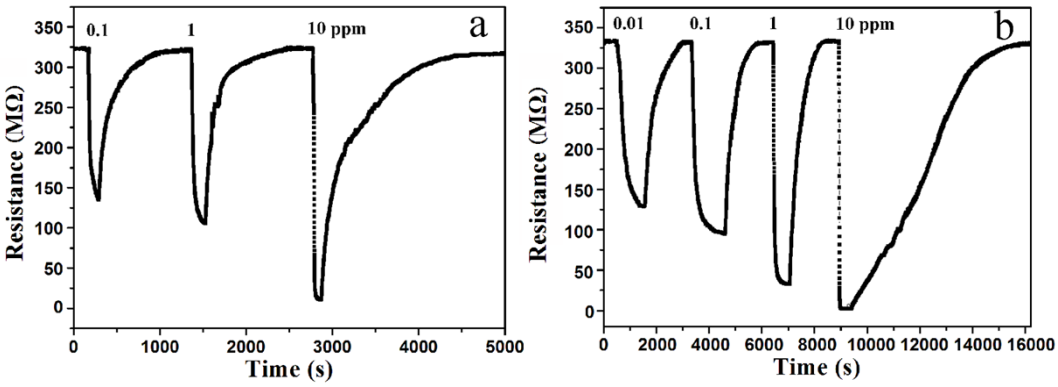

Fig. S2 Sensing transients of Mo-NP (a) and Mo-NB (b) sensors to different concentrations of TEA at the working temperature of 170 °C.

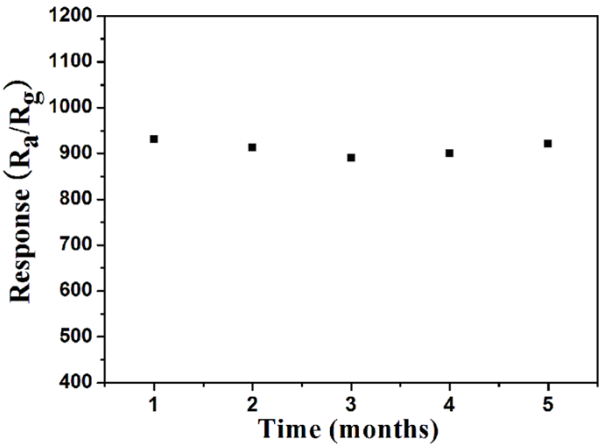

Fig. S3 Variations in response of the Mo-FL sensor to 10 ppm TEA at 170 °C measured in ambient condition of 25 ± 5 RH% after storage in air for different time periods.

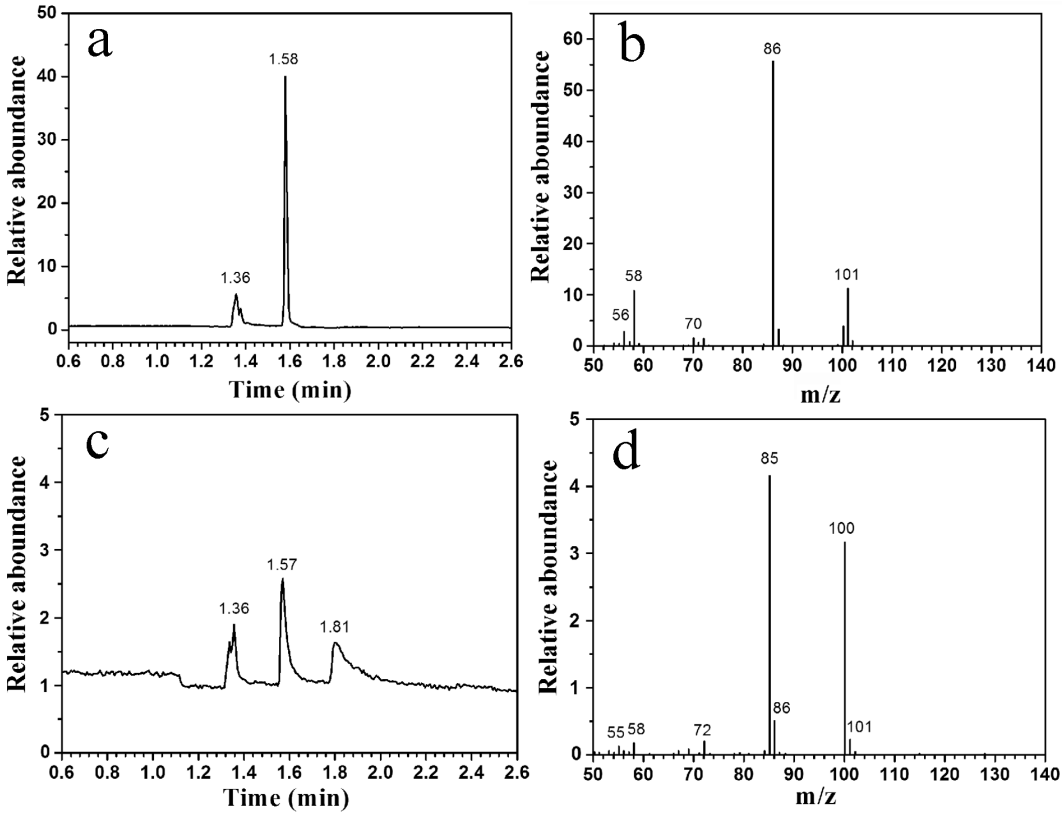

Fig. S4 Gas chromatograms (a, c) and Mass spectra (b, d) of TEA (a and b) and the intermediate gaseous product after the α-MoO_3 flowers sensor exposure to TEA (c and d).