

# Electronic Supplementary Material

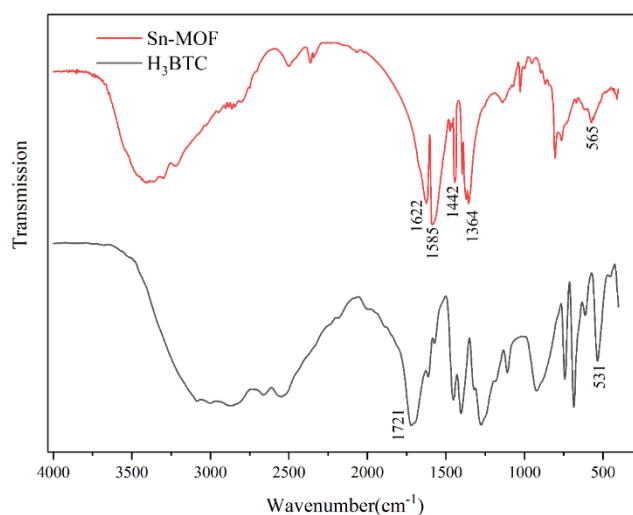
## High-sensitivity formaldehyde gas sensor based on Ce-doped urchin-like SnO<sub>2</sub> nanowires derived from calcination of Sn-MOFs

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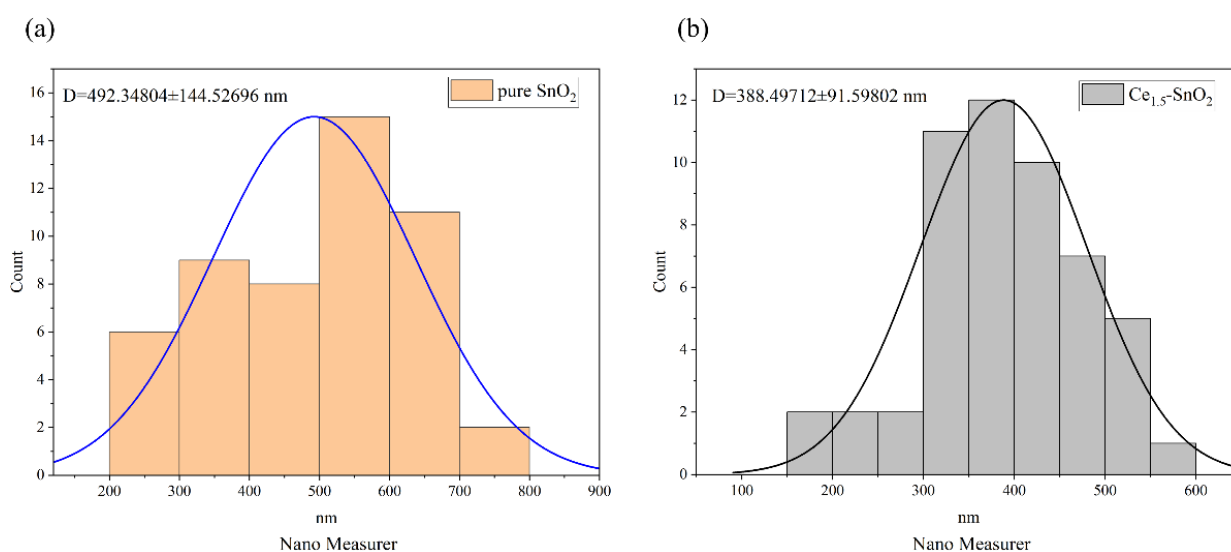
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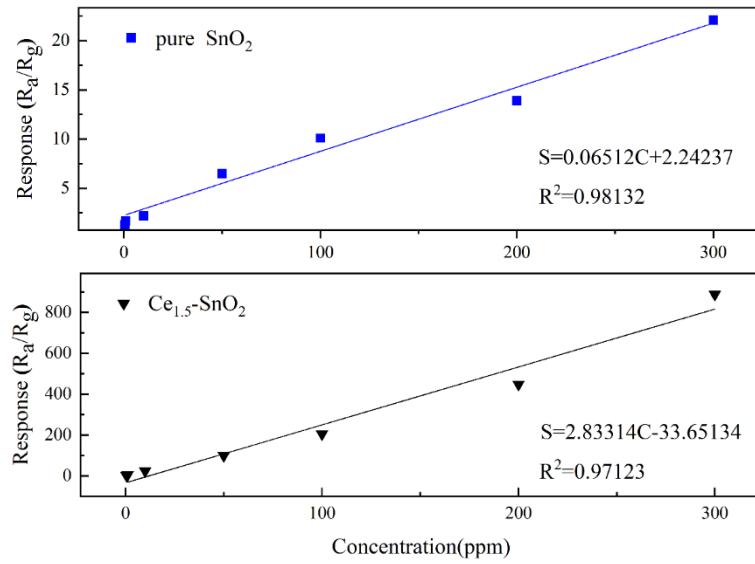
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**Fig. S1** FTIR spectra of Sn-MOF and H<sub>3</sub>BTC.



**Fig. S2** Statistical distributions of materials' sizes: (a) pure SnO<sub>2</sub>; (b) Ce<sub>1.5</sub>-SnO<sub>2</sub>.



**Fig. S3** The linear relationship between gas-sensitive response and target-gas concentration for different sensors: **(a)** pure  $\text{SnO}_2$ ; **(b)**  $\text{Ce}_{1.5}\text{-SnO}_2$ .