

Supplementary Information

Co-N/C-900 Metal-Organic Framework-Derived Nanozyme as H₂O₂- Free Oxidase Mimic for Colorimetric Sensing of L-Cysteine

Jian Chen, Song Hu, Yongliang Cai, Xia Liu, Yueqi Wu, Yihu Dai, Zhijuan Wang*

Institute of Advanced Synthesis (IAS), School of Chemistry and Molecular Engineering (SCME), Jiangsu National Synergetic Innovation Center for Advanced Materials (SICAM), Nanjing Tech University, 30 South Puzhu Road, Nanjing 211816, PR China

E-mail: ias_zjwang@njtech.edu.cn

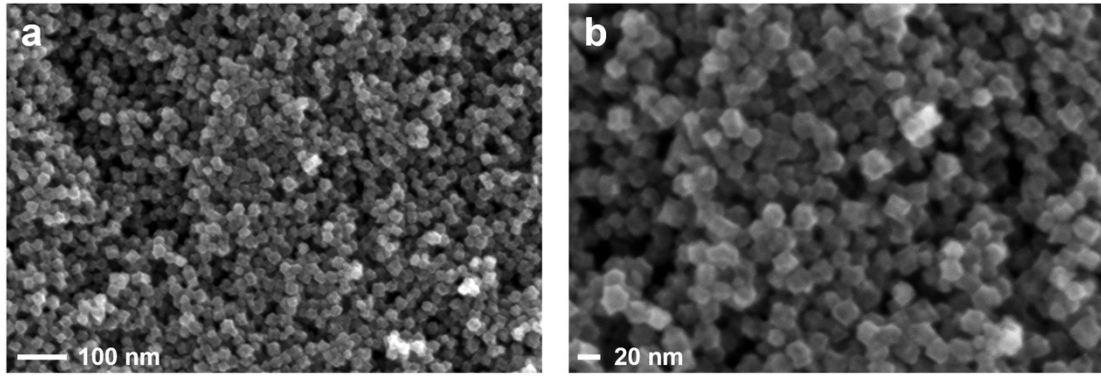


Figure S1. SEM images of Co-N/C-900 with different magnification.

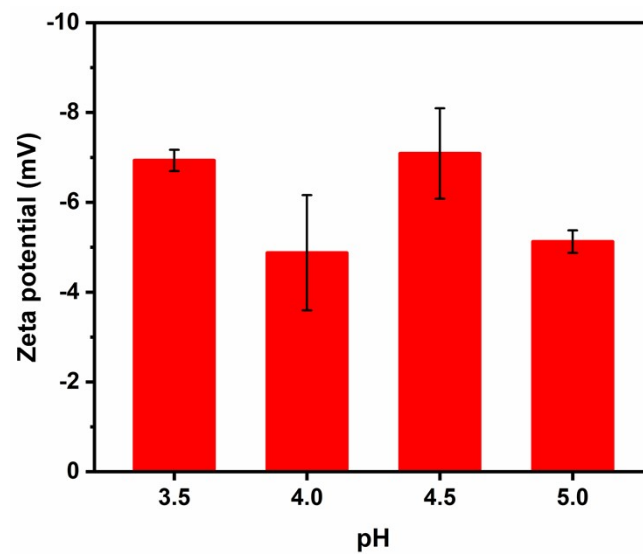


Figure S2. The effect of pH on the zeta potential of Co-N/C-900.

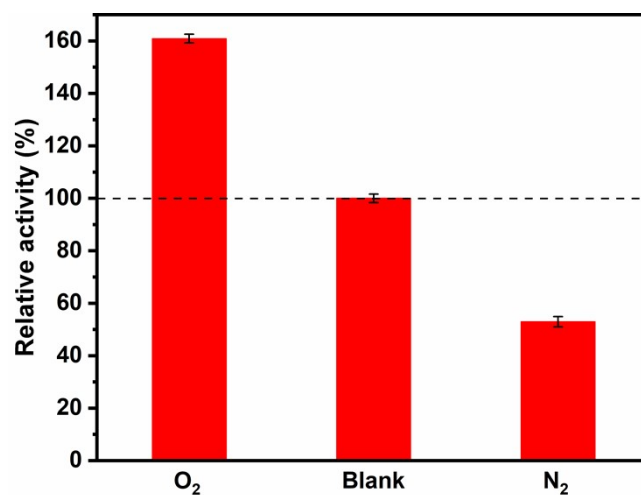


Figure S3. The catalytic oxidation of TMB in the presence of O₂ and N₂. Reaction conditions: 4 mg/mL Co-N/C-900, 0.1 M acetate buffer (pH 4, bubbled with O₂/N₂ for 15 min), 20 mM TMB, 20 °C for 10 min incubation

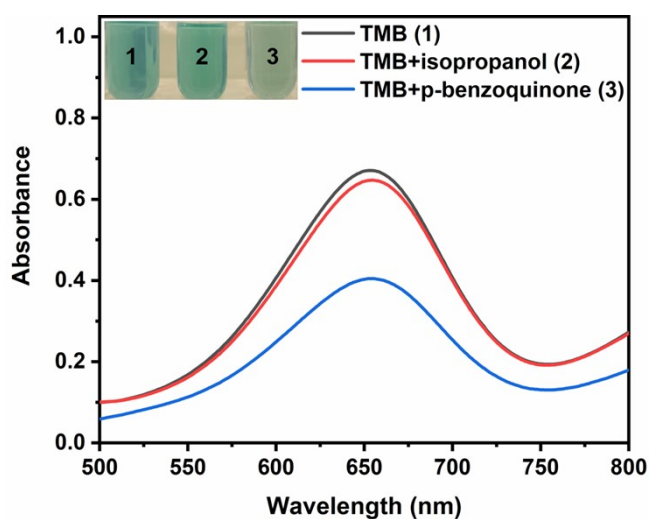


Figure S4. UV-vis absorption spectra of TMB (1) and TMB in the presence of isopropanol (2) and p-benzoquinone (3), respectively. Inset: color contrast photograph of the above three systems. Reaction conditions: 4 mg/mL Co-N/C-900, 10 mM isopropanol/p-benzoquinone, 0.1 M acetate buffer (pH 4), 20 mM TMB, 20 °C for 10 min incubation.