Electronic Supplementary Material (ESI) for CrystEngComm.


# Supporting Information

## Metal-organic framework (MOF)-derived hollow hybrid $Cu_2O/Cu/Au$ for non-enzymatic $H_2O_2$ sensing

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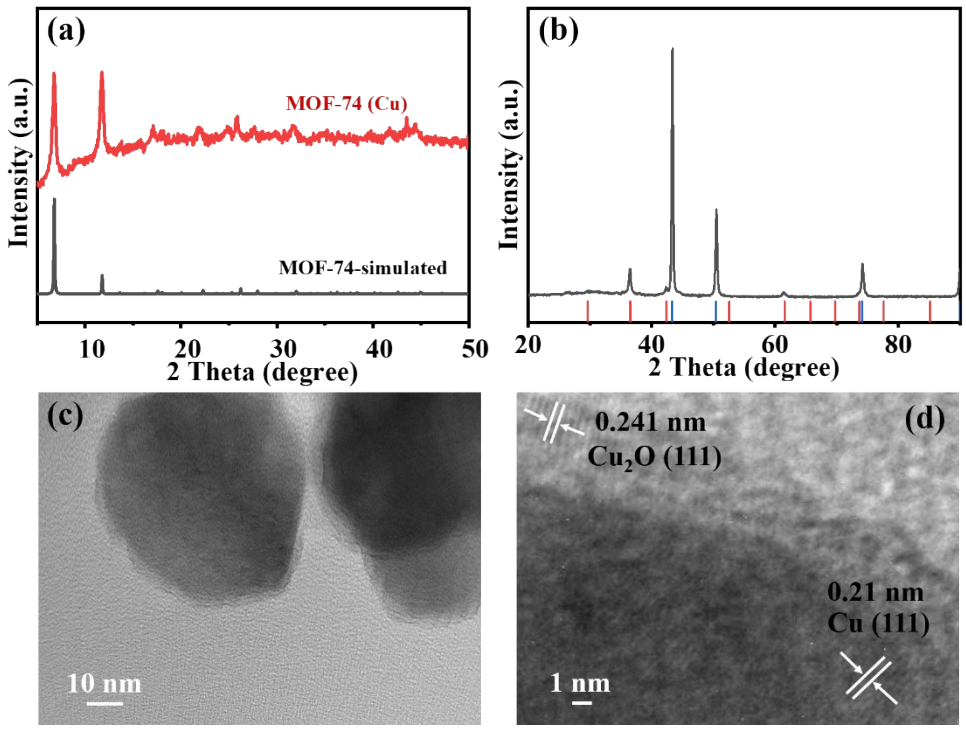


Figure S1. (a) PXRD patterns of MOF-74-simulated and MOF-74 (Cu); (b) PXRD pattern of $Cu_2O/Cu/Au$, standard PDF cards of $Cu_2O$ (red vertical lines) and Cu (blue vertical lines); (c) TEM image of $Cu_2O/Cu$; (d) HRTEM image of $Cu_2O/Cu$.

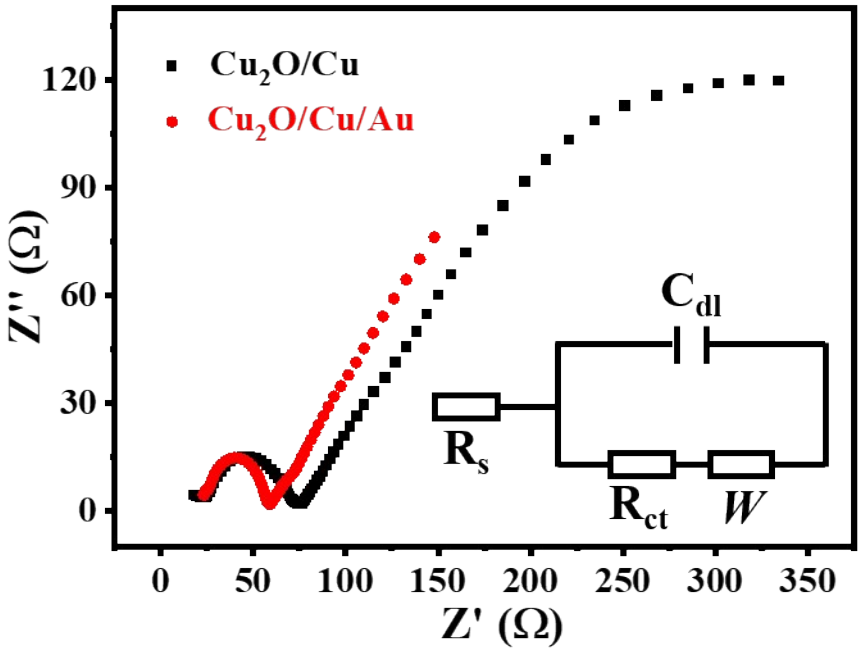


Figure S2. Nyquist plots of $Cu_2O$/Cu-modified GCE and $Cu_2O$/Cu/Au-modified GCE in the presence of 0.1 M $K_3Fe(CN)_6/K_4Fe(CN)_6$ with 0.1 M KCl solution. The equivalent circuit used to fit the EIS response is shown in the insert.

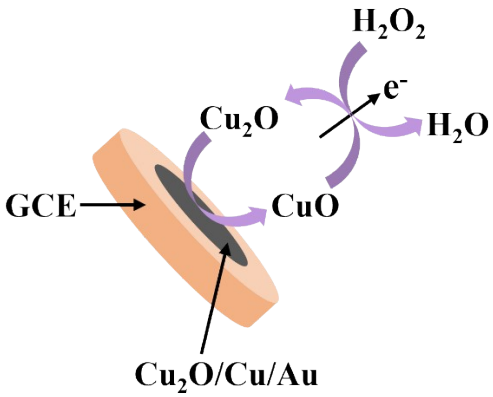


Figure S3. The schematic diagram of the catalytic mechanism for the reduction of $H_2O_2$ by $Cu_2O$/Cu/Au electrode

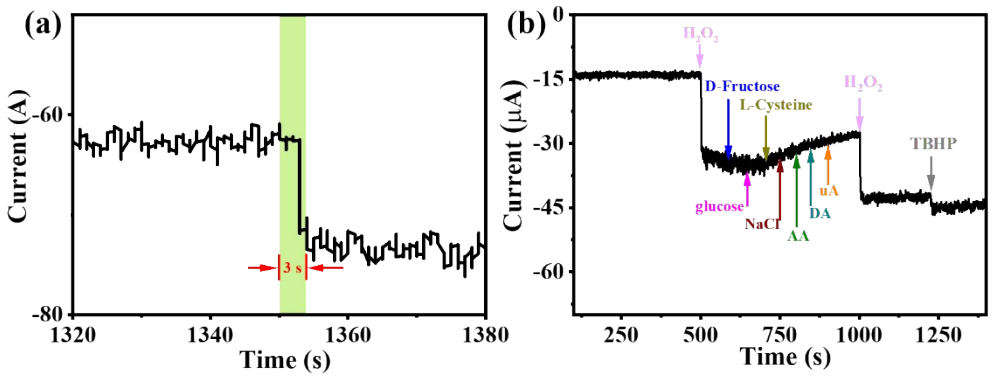


Figure S4. (a) The response time of $Cu_2O$/Cu/Au toward $H_2O_2$; (b) the anti-interference and selectivity toward $H_2O_2$ of $Cu_2O$/Cu/Au.

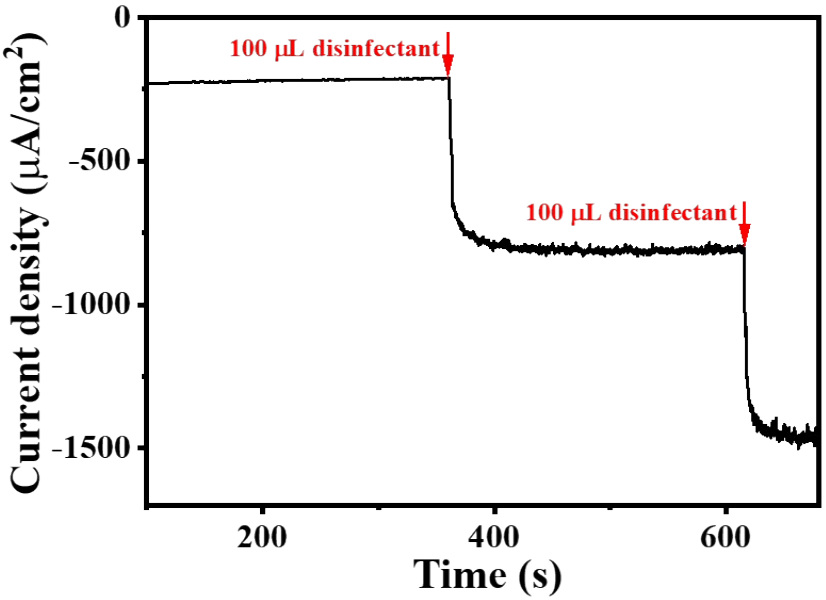


Figure S5. The response current density of hollow $Cu_2O$/Cu/Au toward disinfectant.