Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supplementary Information

A two-dimensional thin Co-MOF nanosheet as nanozyme with high oxidase-like activity for GSH detection

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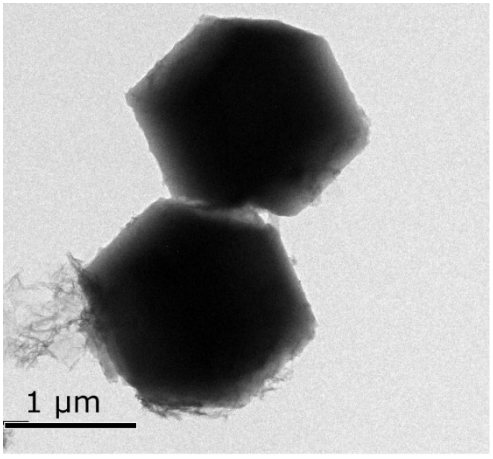

Fig. S1 The TEM image of M-ZIF-67.

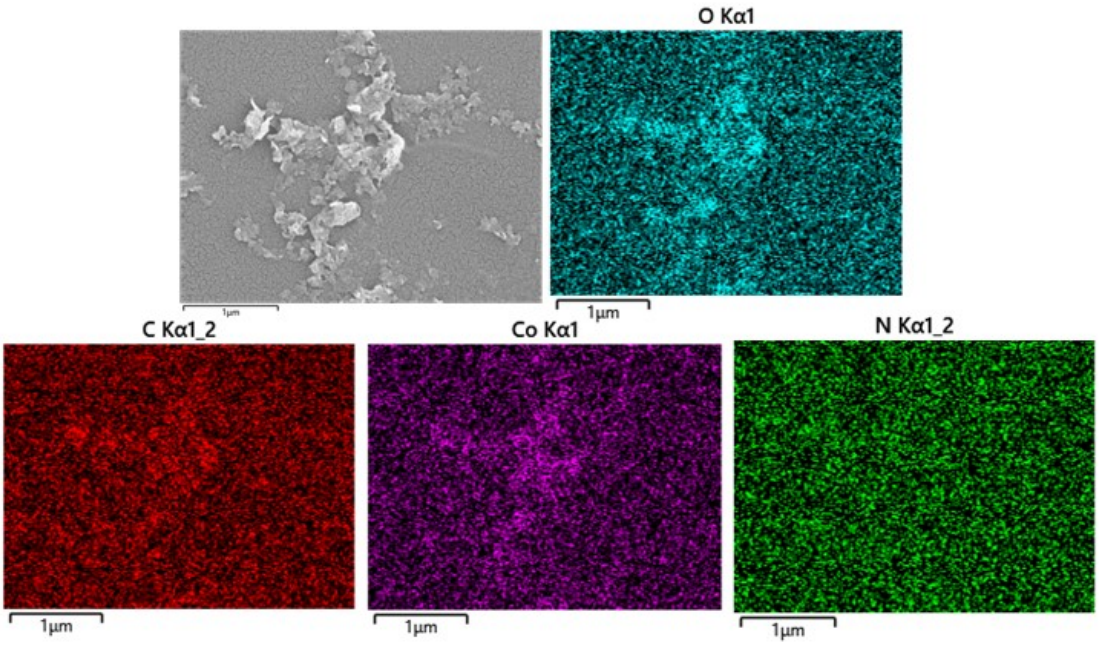

Fig. S2 The EDS mapping analysis of D-ZIF-67.

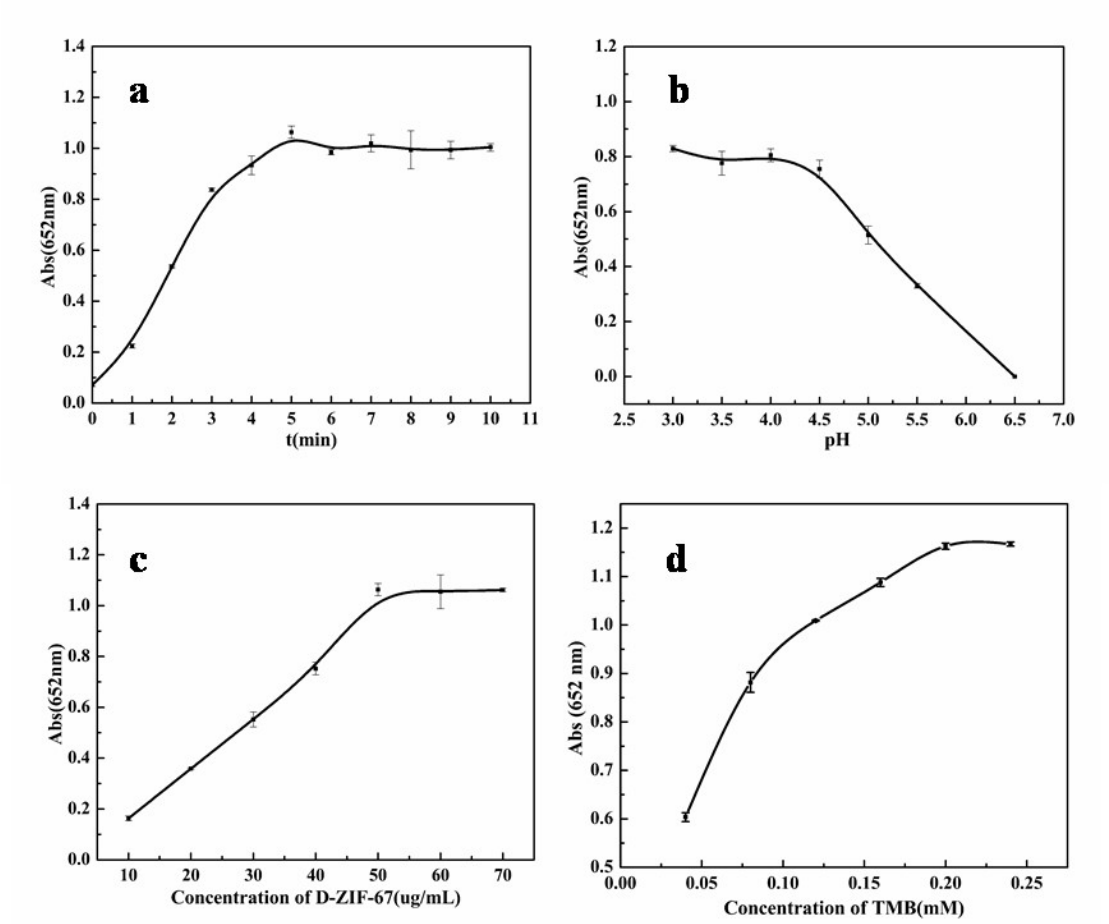

Fig. S3 The effect of reaction time (a); pH of acetic acid buffer (b); concentration of D-ZIF-

67 (c); concentration of TMB (d) on the oxidase activity of D-ZIF-67.

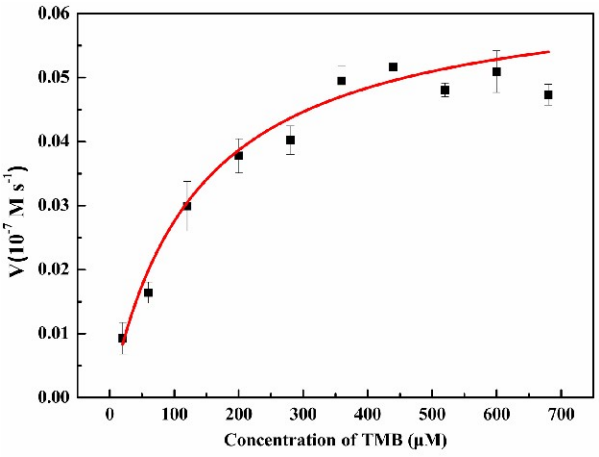

Fig. S4 Steady-state kinetics assay of M-ZIF-67.

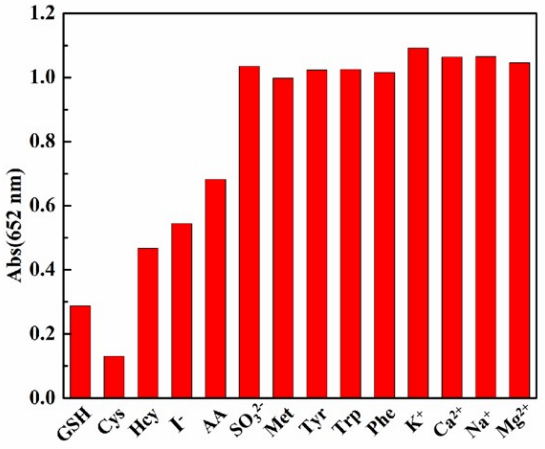

Fig. S5 The influence of potential interferent substances on the GSH detection. The concentrations of GSH, Cys, Hcy, AA, and SO_3^{2-} are 10 μM and those of others are 100 μM.

Table S1 Comparison of different GSH detection methods.

Material	Measurement method	Linear range	LOD	Ref.
MnO_2 nanosheets	Colorimetry	1-25μM	300 nM	[1]
Ir/NC	Colorimetry	0.05-15 μM	0. 5 μM	[2]
PSMOF	Colorimetry	0-20 μM	0.68 μM	[3]
gold nanoclusters	Colorimetry	2-25 μM	420 nM	[4]
Fe_3O_4 magnetic nanoparticles	Colorimetry	3-30 μM	3 μM	[5]
UiO-66(NH_2)	Colorimetry	5-120 μM	310 nM	[6]
carbon dots–MnO_2 nanocomposites	Fluorimetry	1-10 μM	300 nM	[7]
quantum-dot	Fluorimetry	5-250 μM	0.6 μM	[8]
graphene quantum dot–MnO_2 nanosheet	Fluorimetry	0.5-10 μM	150 nM	[9]
conjugated polymer–Cu (II)	Fluorimetry	0.1-15 μM	40 nM	[10]
core−shell CdSe/ZnS quantum dots/Nafifion composite fifilms	Electrochemical method	10-180 μM	1.5 μM	[11]
MoS_2 Nanosheet	Electrochemical method	0.01-500 mM	703 nM	[12]
$Fe(CN)_6^{3-/4-}$/carbon dots	Electrochemical method	0.1-1.0 μM	54.3 nM	[13]
D-ZIF-67	Colorimetry	0.5-10 μM	229.2 nM	This work

Notes and references

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