

Electronic Supplementary Information (ESI)

BiOI hierarchical nanoflowers as a novel robust peroxidase mimetics for colorimetric detection of H₂O₂

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Table S1. Comparison of K_m and V_{max} between BiOI-F and HRP for H_2O_2 and TMB.

Catalyst	Substance	K_m (mM)	V_{max} (M/s)	Reference
BiOI-F	H_2O_2	0.0998	7.35×10^{-8}	This work
BiOI-F	TMB	1.024	2.86×10^{-8}	This work
HRP	H_2O_2	0.214	2.46×10^{-8}	S1, S2, S3
HRP	TMB	0.275	1.24×10^{-8}	S1, S2, S3

Table S2. Comparison of enzyme mimetic activity in the linear range and detection limit of H_2O_2 between BiOI-F and other enzyme mimetics.

Mimetic enzyme	Linear range (μM)	Detection limit (μM)	Reference
BiOI-F	0.25~20	0.05	This work
BiOBr	0.5~30	0.3	S3
$Fe_3H_9(PO_4)_6 \cdot 6H_2O$	57.4~525.8	1.0	S4
MoS_2	5~100	1.5	S5
Fe_3O_4	5~100	3.0	S6
Co-Al LDH	10~50	10.0	S7

References

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