

Diazo-reaction based dual-mode colorimetric-electrochemical sensing of nitrite in pickled food

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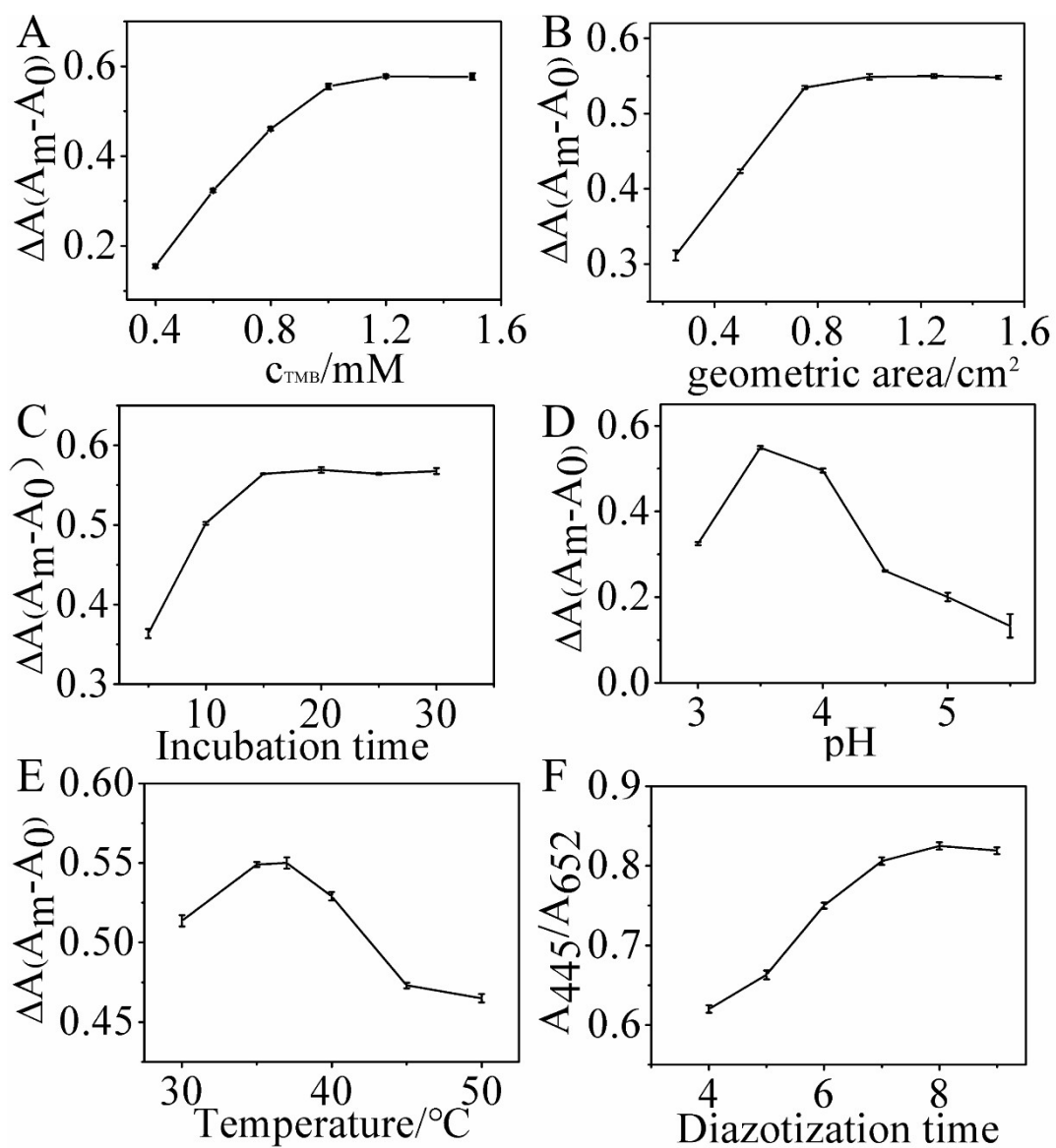


Fig. S1 The optimization of the experimental conditions: (A) the concentrations of TMB, (B) geometric area of Cu-MOFs/EGP, (C) incubation time of TMB-Cu-MOFs/EGP, (D) pH value of colorimetric sensing system, (E) temperature of colorimetric sensing system, and (F) the time of diazotization reaction.

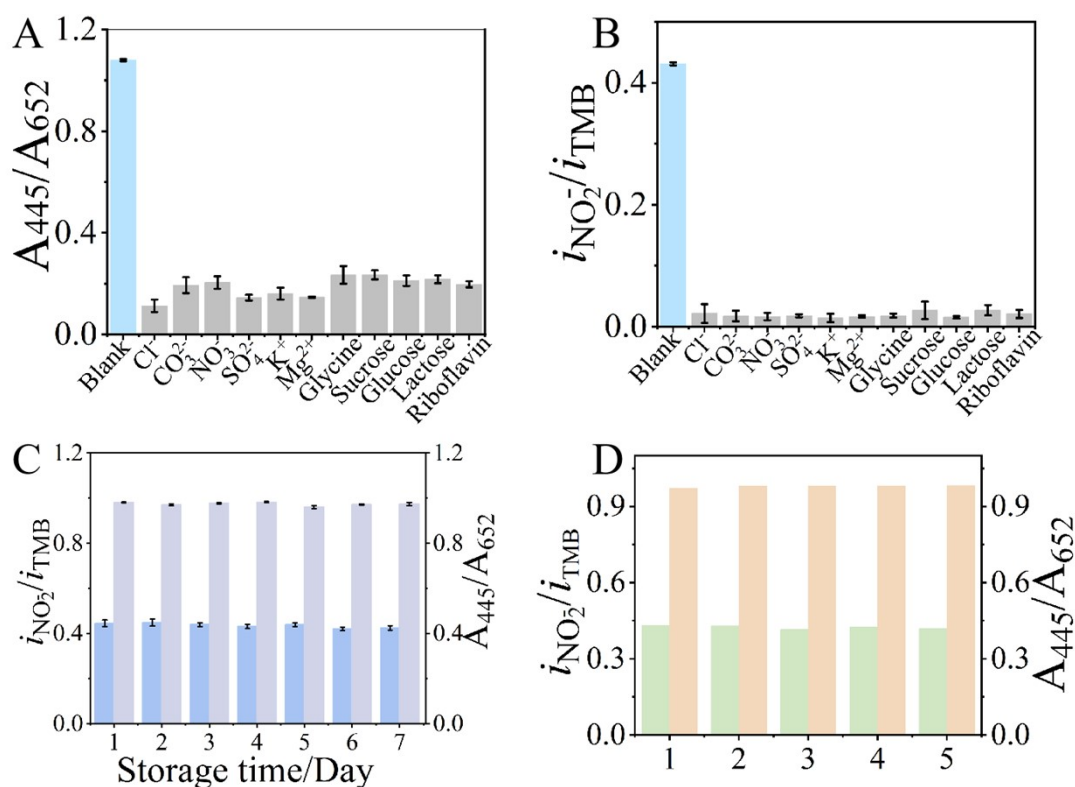


Fig. S2 Selectivity of the sensor based ratiometric colorimetric mode (A) and ratiometric electrochemical mode. The stability (C) and reproducibility (D) of the sensor.

Table S1 Comparison of analytical performances between Cu-MOFs/EGP and other reported methods for the detection of nitrite.

Method	Linear range ($\mu\text{mol L}^{-1}$)	LOD ($\mu\text{mol L}^{-1}$)	Ref.
Colorimetric	100-5000	4.6	[1]
Colorimetric	10-400	2.3	[2]
Ratiometric Colorimetric	3.33-133.3	0.2	[3]
Ratiometric Colorimetric	3-150	0.4	[4]
Electrochemical	5-5000	1	[5]
Electrochemical	5-800	0.98	[6]
Electrochemical	0-2000	9.1	[7]
Electrochemical	10-380	2.4	[8]
Ratiometric Electrochemical	3-250	1.7	[4]
Ratiometric Colorimetric	12.5-261	8.5	This work
Ratiometric Electrochemical	0.625-196	0.54	This work

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