

Supplemental Information for:
Nanofibers Decorated with High-Entropy Alloy Particles for the Detection of
Nitrites

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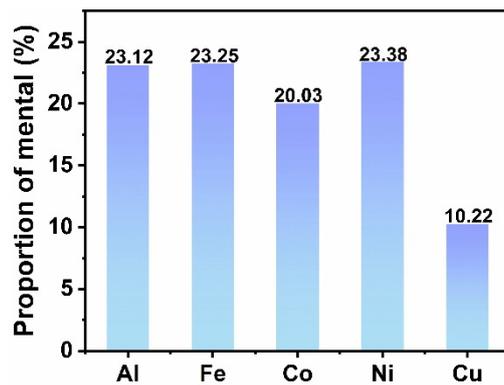


Figure S1 ICP results of the FeCoNiCuAl/CNFs.

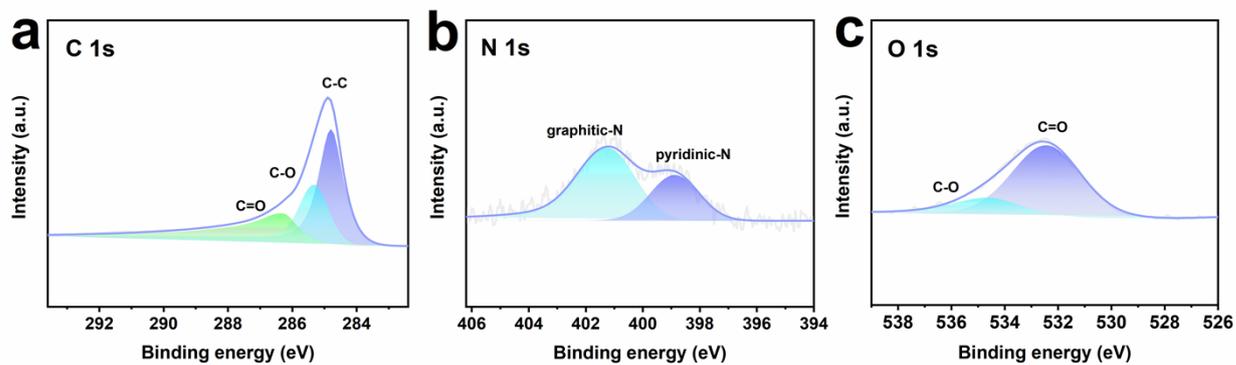


Figure S2 XPS spectra of the synthesized FeCoNiCuAl/CNFs: (a) C 1s, (b) N 1s, (c) O 1s.

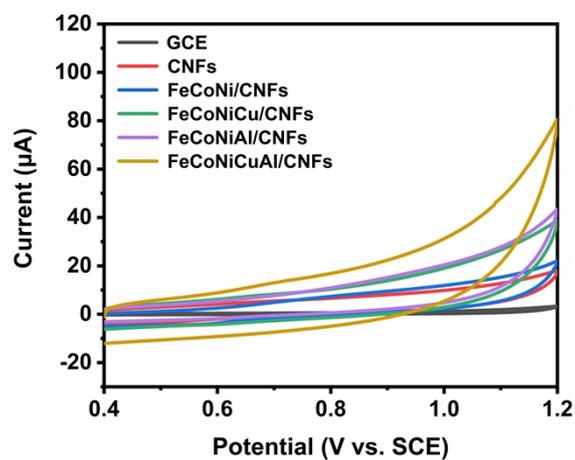


Figure S3 The CV diagram of GCE, CNFs/GCE, FeCoNi/CNFs/GCE, FeCoNiCu/CNFs/GCE, FeCoNiAl/CNFs/GCE, FeCoNiCuAl/CNFs/GCE in 0.10 M PBS (pH=7) without nitrite, and the scanning rate was 100 mV/s.

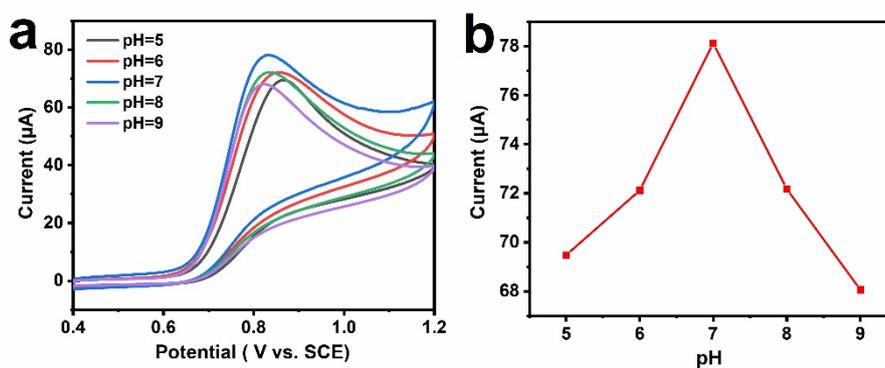


Figure S4 (a) CV diagram of FeCoNiCuAl/CNFs/GCE in PBS solution with pH=5-9 and nitrite concentration of 1 mM. (b) Change of peak current.

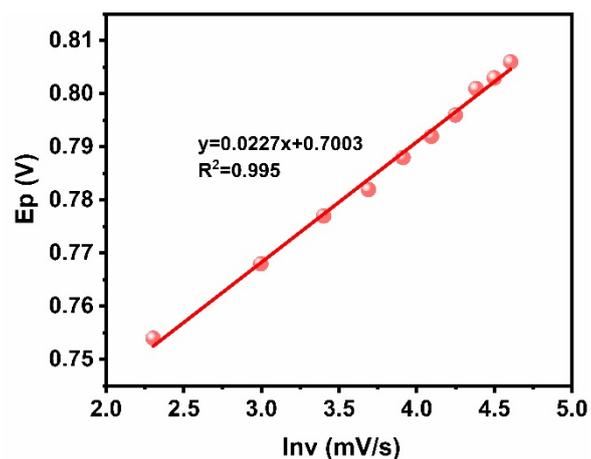


Figure S5 The linear relationship between the peak current of the anode and the square root of the scanning rate.

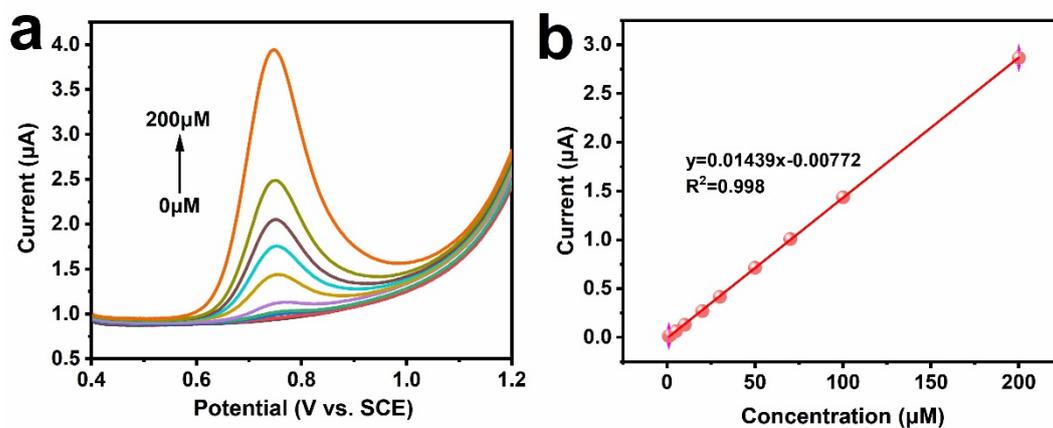


Figure S6 (a) DPV spectrum of 0-200 μM nitrite. (b) Linear curve of peak current and nitrite concentration.

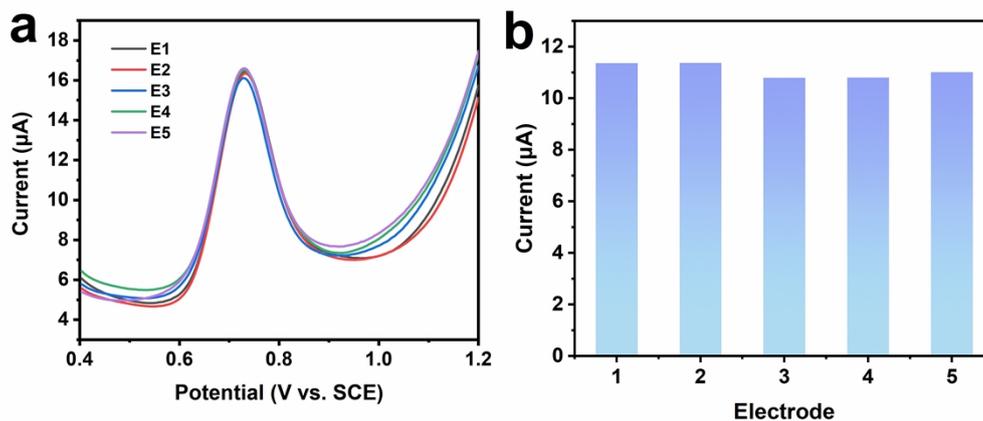


Figure S7 (a) DPV diagram of FeCoNiCuAl/CNFs at five glassy carbon electrodes at 1 mM nitrite concentration. (b) Peak current.

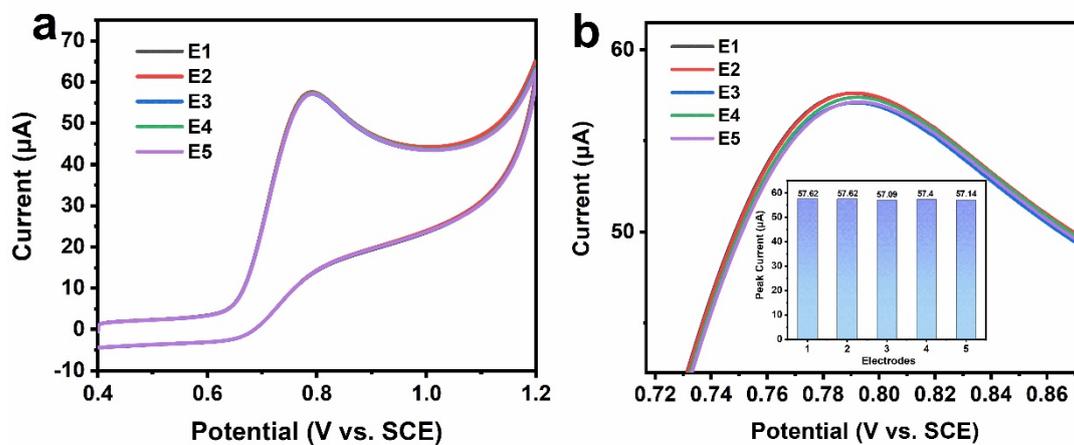


Figure S8 CV diagram and peak current of FeCoNiCuAl/CNFs at 1 mM nitrite concentration on five glassy carbon electrodes (scan rate 50 mV/s).

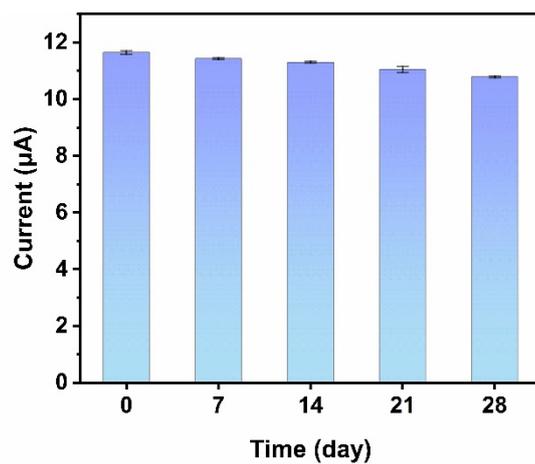


Figure S9 The weekly DPV peak current of FeCoNiCuAl/CNFs/GCE in 0-28 days.

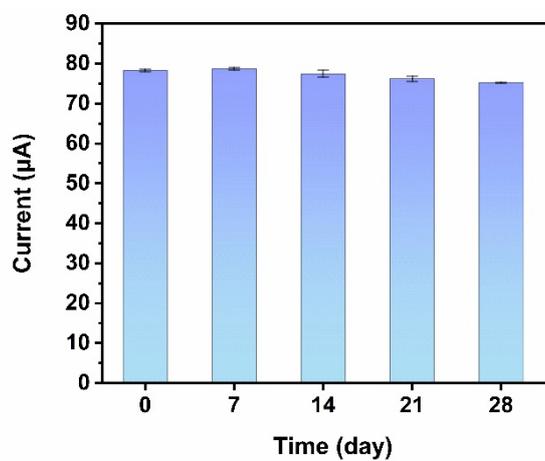


Figure S10 The weekly CV peak current of FeCoNiCuAl/CNFs/GCE in 0-28 days.

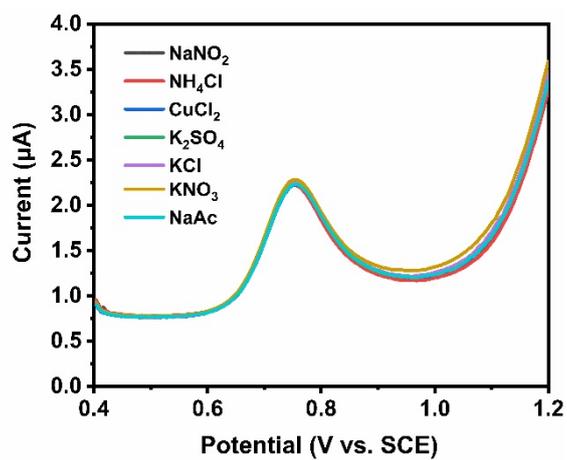


Figure S11 DPV spectra of FeCoNiCuAl/CNFs/GCE in 100 μM NaNO_2 and 2000 μM interfering substances.

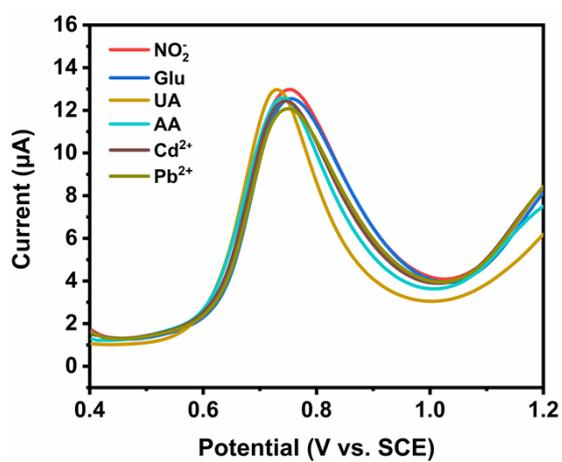


Figure S12 DPV spectra of FeCoNiCuAl/CNFs/GCE in 1 mM NaNO_2 and 5 mM interfering substances.

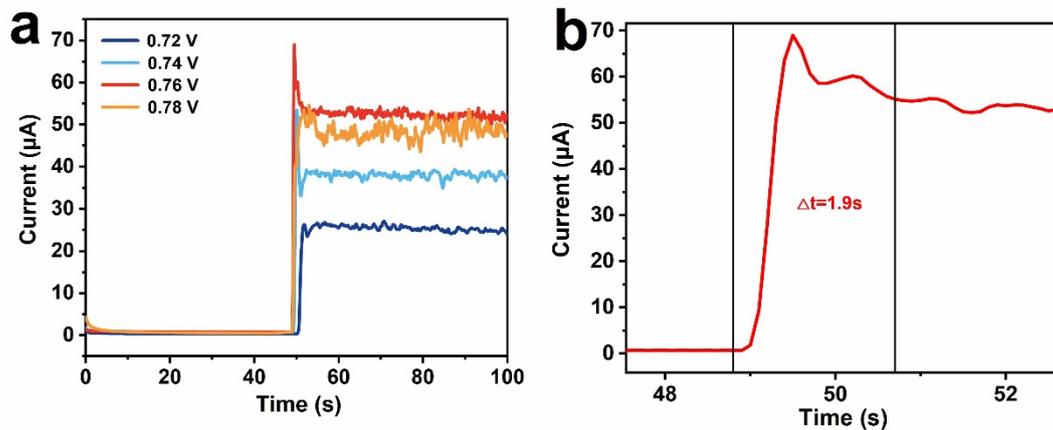


Figure S13 (a) The amperometric response of FeCoNiCuAl/CNFs/GCE in 0.10 M PBS (pH=7) at 0.72, 0.74, 0.76, 0.78 V, respectively. (b) Ampere current response diagram at 0.76 V.

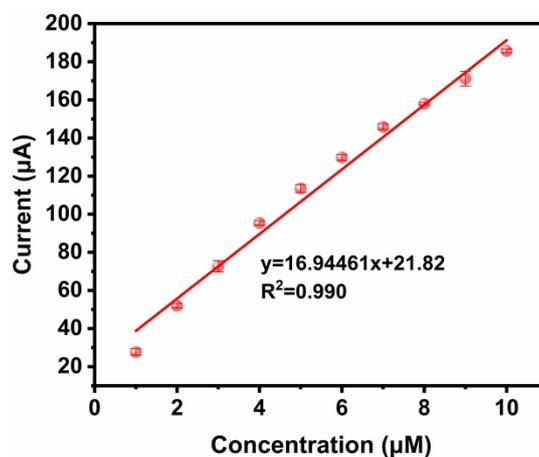


Figure S14 The linear curve of the amperometric response of FeCoNiCuAl/CNFs/GCE to nitrite concentration.

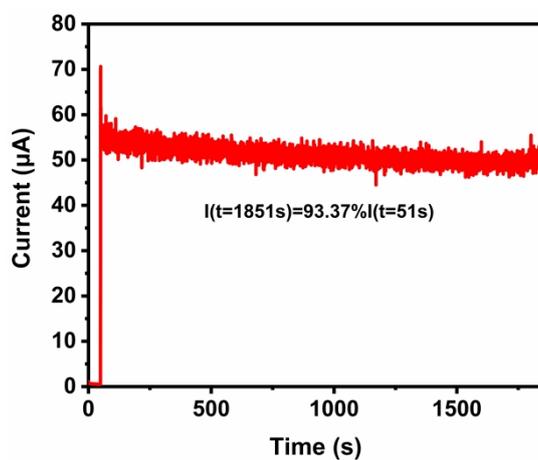


Figure S15 The current response of FeCoNiCuAl/CNFs/GCE to 2000 μM nitrite for 1800 s.

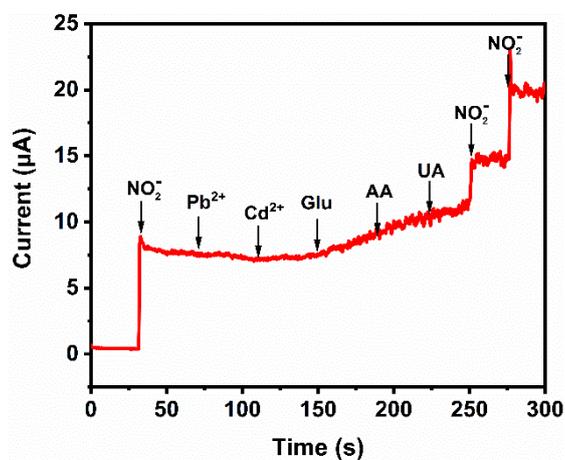


Figure S16 Amperometric response of FeCoNiCuAl/CNFs/GCE in 0.10 M PBS (pH=7) with 0.4 mM nitrite and different 2 mM Common electrochemical detection substances.

Table S1 Analysis of nitrite in real samples by DPV method based on FeCoNiCuAl/CNFs/GCE.

Sample	Nitrite concentration (μM)	Spiked nitrite concentration (μM)	Measured nitrite concentration (μM)	Recovery (%)
Tap water	Not detected	100	97.2	97.2
River water	Not detected	100	96.5	96.4
Milk	Not detected	100	95.7	95.7

Table S2 Analysis of nitrite in real samples by I-t method based on FeCoNiCuAl/CNFs/GCE.

Sample	Nitrite concentration (μM)	Spiked nitrite concentration (μM)	Measured nitrite concentration (μM)	Recovery (%)
Tap water	Not detected	100	100.4	100.4
River water	Not detected	100	93.0	93.0
Milk	Not detected	100	92.0	92.0