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# Electrospun CuO/NiO composite nanofibers for sensitive and selective non-enzymatic nitrite sensors

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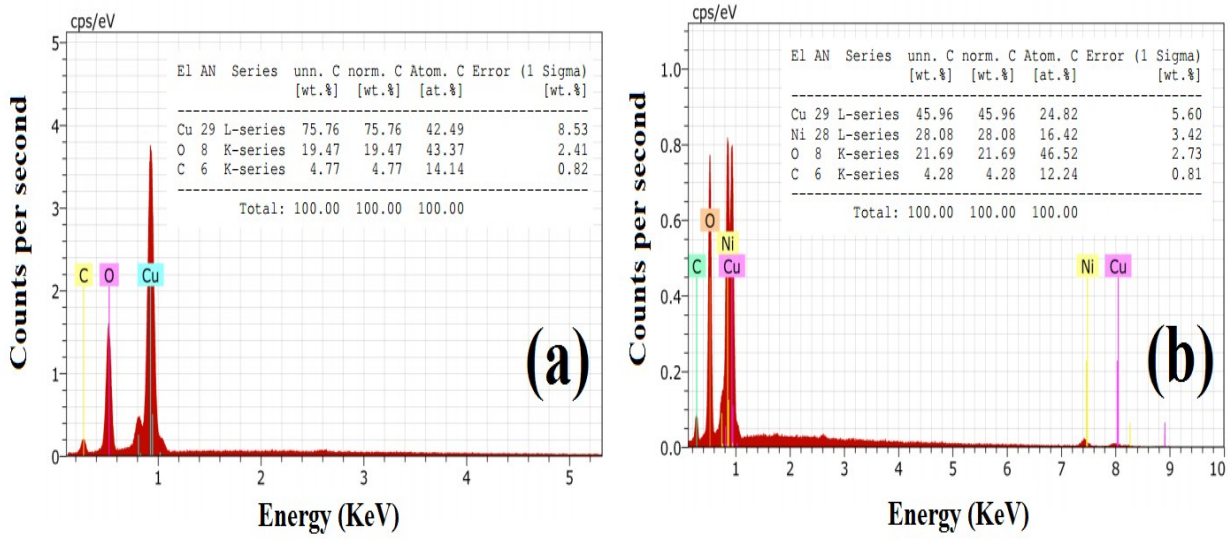


**Fig. S1** EDAX patterns of (a) CuO and (b) CuO-NiO nanofibers.

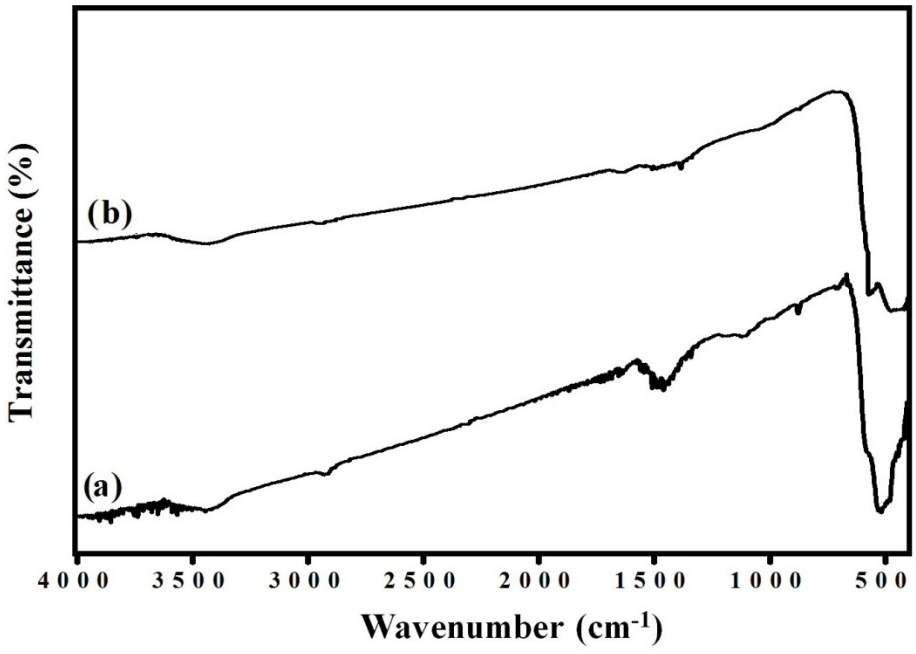


**Fig. S2** FT-IR spectra of (a) CuO and (b) CuO-NiO nanofibers.

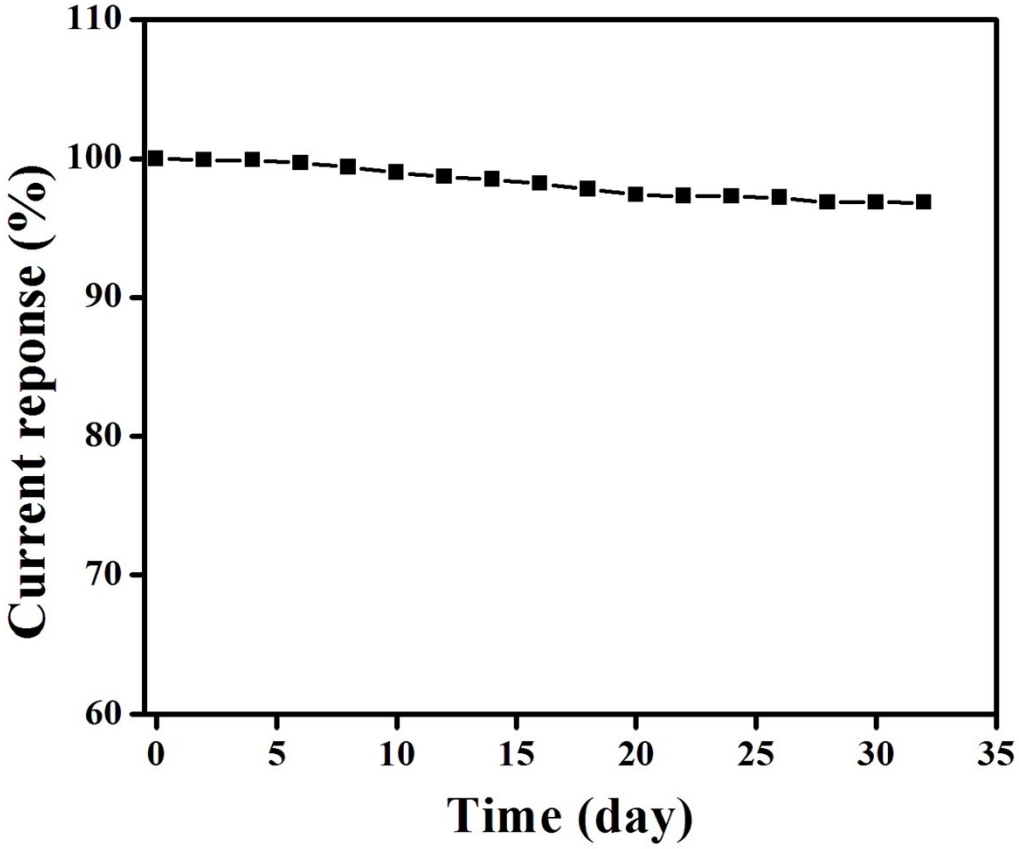


**Fig. S3** The stability profile of CuO/NiO/GCE in 1 mM $NO_2^-$ in 0.1 M PBS solution.

**Table S1.** Comparison of the electroanalytical performance of non-enzymatic nitrite sensors.

| Electrode Materials | Linear range (mM) | LOD[a] (μM) | Sensitivity (μA $mM^{-1}$ $cm^{-2}$) | References |
|---|---|---|---|---|
| Au NPs[b]/CLDH[c]/GCE[d] | 0.001-0.191 | 0.5 | 382.2 μA $mM^{-1}$ | 1 |
| CuO-CPE[e] | 0.1-1.25 | 0.6 | - | 2 |
| Cu-NDs[f]/rGO[g]/GCE[d] | 0.00125-13.0 | 0.4 | 214.0 | 3 |
| CuO/GCE[d] | 0.1-3.0 | 28.0 | - | 4 |
| MCPE[h] | 0.1-2.15 | 1.19 | - | 5 |
| MOF[i]-525 thin film | 0.02-0.8 | 2.1 | 95.0 | 6 |
| CR[j]-GO[k]/GCE[d] | 0.0089-0.167 | 1.0 | 0.0267 $AM^{-1}$ | 7 |
| Ag MCS[l]-PAA[m] /PVA[n]/SPCE[o] | 0.002-0.8 | 4.5 | 474.14 | 8 |
| Ag-PAMAM[p]/GCE[d] | 0.004-1.44 | 0.4 | 265.0 | 9 |
| $MoS_2$-MWCNTs[q]-Au/GCE[d] | 0.012-2.1 | 4.0 | 1734.0 | 10 |
| TOAB[r]/ZnPp-C60/GCE[d] | 0.002-0.164 | 1.44 | 249.9 μA $mM^{-1}$ | 11 |
| f-ZnO@rFGO[s]/GCE[d] | 0.01-8.0 | 33.0 | - | 12 |
| $Mn_2O_3$/GCE[d] | 0.005-3.5 | 1.0 | 326.0 | 13 |
| PAOA[t]/GCE[d] | 0.005-2.0 | 2.0 | 0.0643 μA $μM^{-1}$ $cm^{-2}$ | 14 |
| PEDOT[u]-HMF[v]/FTO[w] | 0.05-7.5 | 0.59 | 255.2 | 15 |
| **CuO/NiO/GCE[d]** | **0.001-5.0** | **0.5** | **282.72** | **This work** |

[a]limit of detection. [b]nanoparticles. [c]copper calcined layered double hydroxide. [d]glassy carbon electrode. [e]carbon powder electrode. [f]nanodendrites. [g]reduced graphene oxide. [h]cobalt hexa cyanoferrate-modified carbon paste electrode. [i]metal-organic framework. [j]chemically reduced. [k]graphene oxide. [l]microcubics. [m]poly (acrylic acid). [n]poly (vinyl alcohol). [o]screen printed carbon electrode. [p]polyamidoamine. [q]multi-walled carbon nanotubes. [r]tetraoctylammonium bromide. [s]reduced functionalized graphene oxide. [t]poly(aniline-co-o-aminophenol). [u]poly(3,4-ethylenedioxythiophene). [v]hollow microflowers. [w]fluorine-doped tin oxide.

## Notes and References


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