

**Three-dimensional nickel–cobalt oxide nanomaterials as enzyme-mimics
electrocatalyst for the glucose and lactic acid oxidation reaction**

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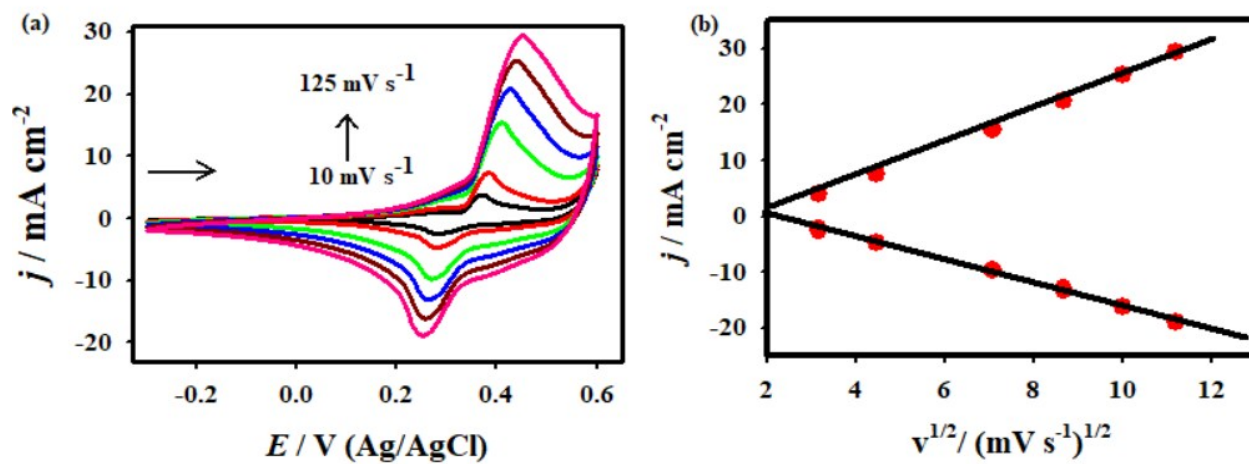


Fig. S1. CV curves of the NiCo₂O₄ recorded at various scan rates in 0.1 M KOH (a); and the plot of current density vs square root of scan rate (b).

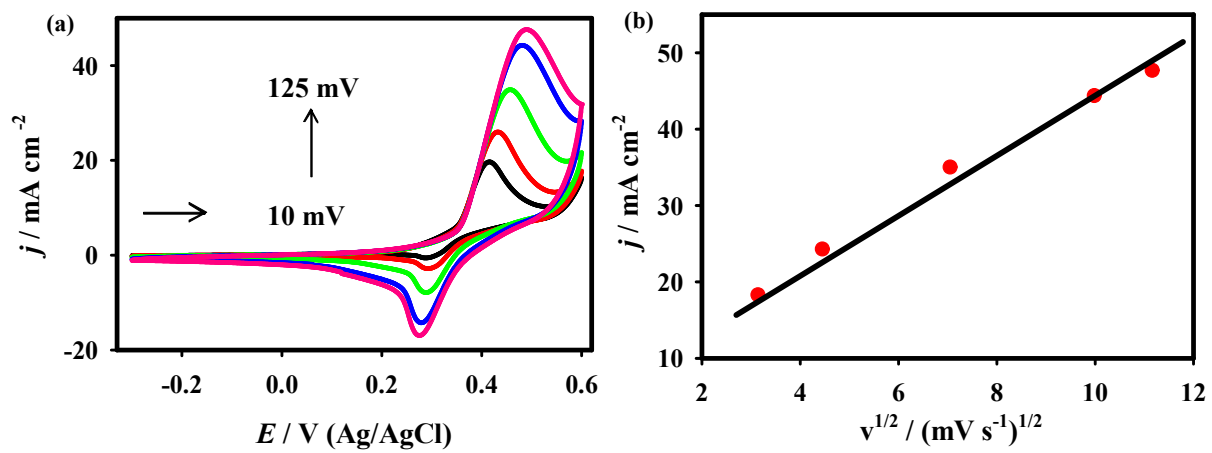


Fig. S2. CV curves of the NiCo₂O₄ recorded for 10.0 mM glucose + 0.1 M KOH at various scan rates(a) and the plot of current density vs square root of scan rate (b).

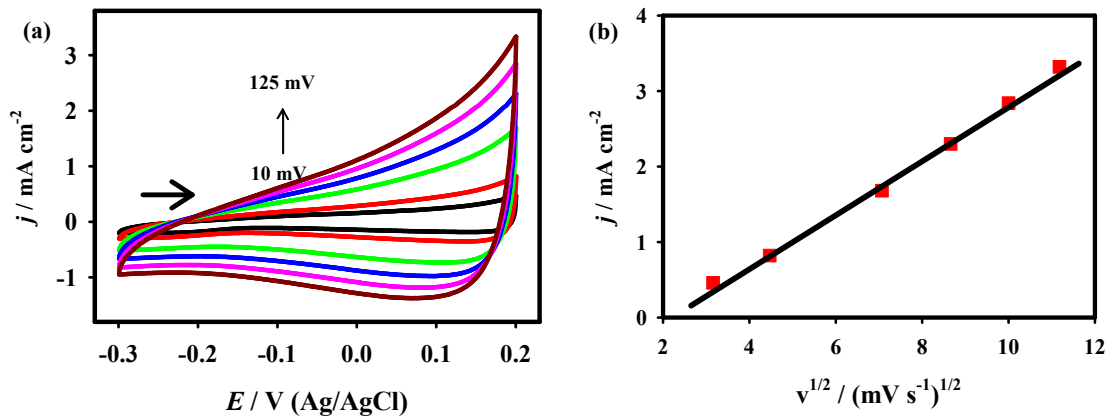


Fig. S3. CV curves of the NiCo₂O₄ electrode recorded with various scan rates under 1.0 M KOH (a); and the corresponding plot of anodic current density vs square root of the scan rates.

Calculated electrochemical active surface area:

$$\text{NiCo}_2\text{O}_4: A_{ECSA} = \frac{35.8 \text{ mF cm}^{-2}}{40 \mu\text{F cm}^{-2} \text{ per cm}_{ECSA}^2} = 895 \text{ cm}_{ECSA}^2$$

$$\text{NiO} : A_{ECSA} = \frac{8.2 \text{ mF cm}^{-2}}{40 \mu\text{F cm}^{-2} \text{ per cm}_{ECSA}^2} = 205 \text{ cm}_{ECSA}^2$$

$$\text{Co}_3\text{O}_4 : A_{ECSA} = \frac{9.4 \text{ mF cm}^{-2}}{40 \mu\text{F cm}^{-2} \text{ per cm}_{ECSA}^2} = 235 \text{ cm}_{ECSA}^2$$

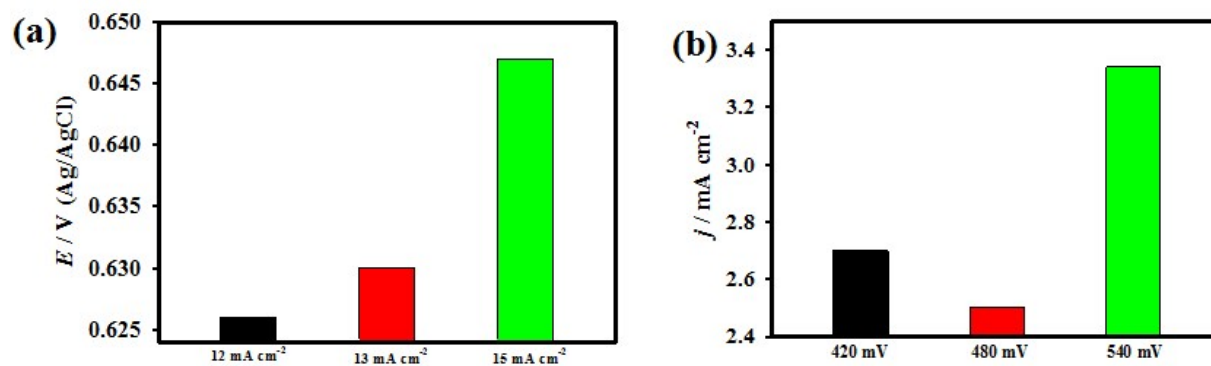


Fig. S4. The plot of electrode potential vs applied current density (a); and current density vs applied potential at the NiCo₂O₄ electrode recorded in presence of 25.0 mM lactic acid.

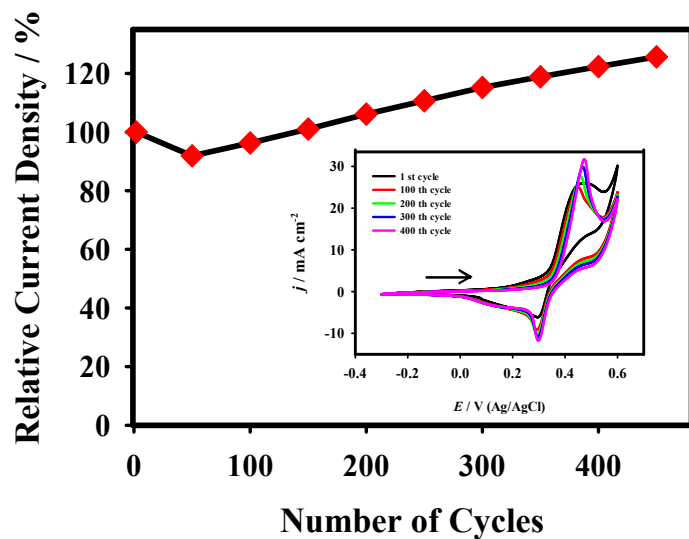


Fig. S5. The plot of the relative current density against the number of cycles of the NiCo_2O_4 electrode. **Inset:** CV curves of the NiCo_2O_4 electrode recorded for 25 mM of lactic acid from 1st to 400 cycles.