

Supplementary material to Highly stable and selective determination of glucose by a modified glassy carbon electrode based on micro-rods [Ni(HL)NCS] complex as a novel modifier

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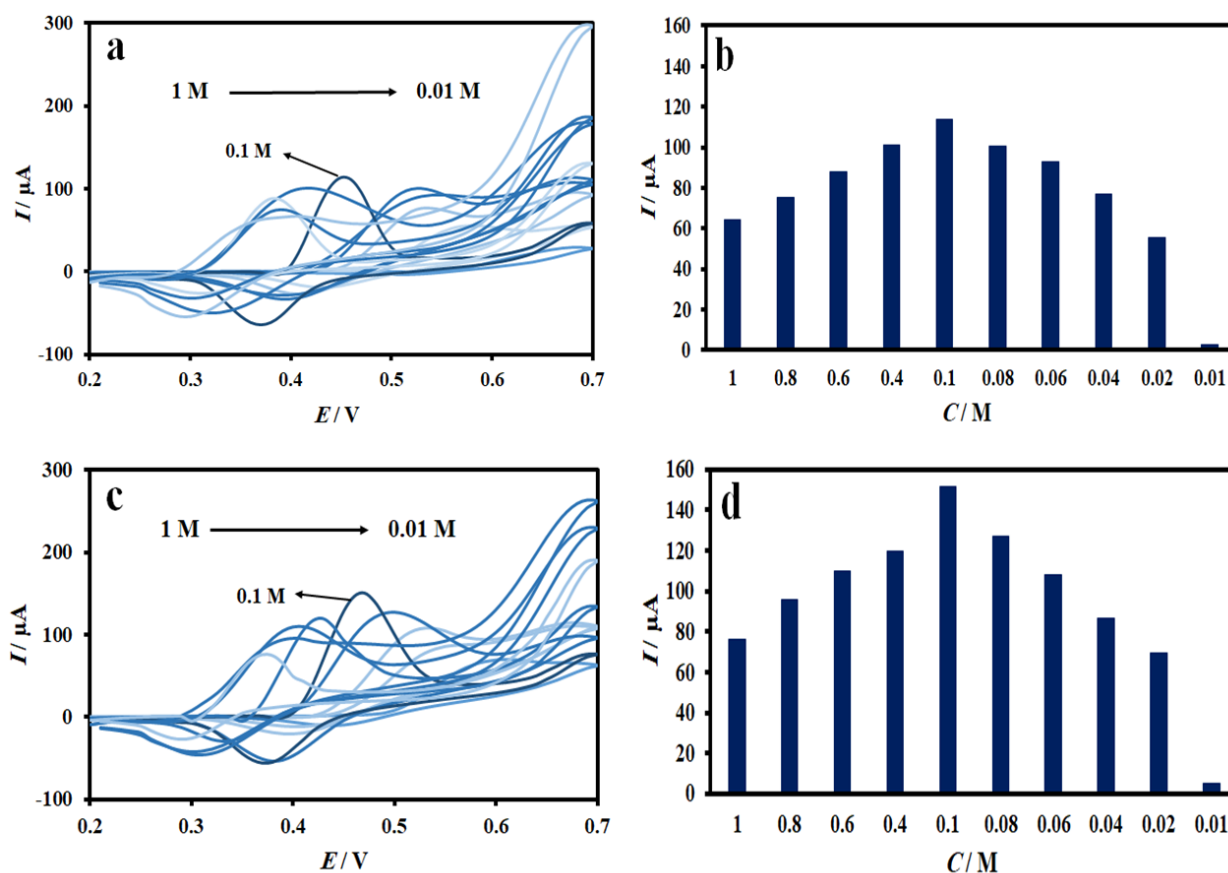


Figure S1. Optimization of NaOH concentration: (a, b) in the absence of glucose, (c, d) in the presence of 1.0 mM glucose, at $v = 50 \text{ mV s}^{-1}$ and with different concentrations of NaOH solutions (0.01 to 1.0 M)

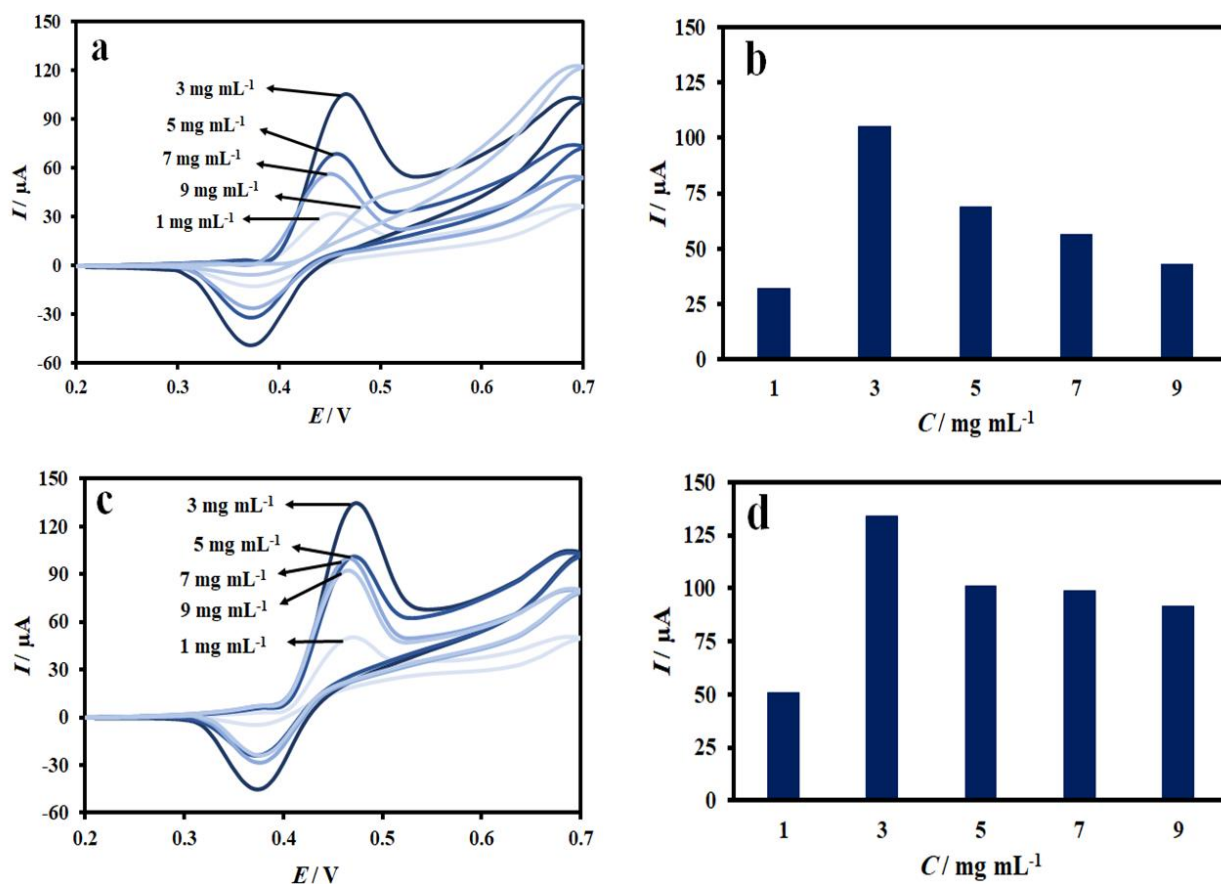


Figure S2. Optimization of modifier concentration: (a, b) in the absence of glucose, (c, d) in the presence of 1.0 mM glucose, at $v = 50 \text{ mVs}^{-1}$ and with different concentrations of modifier (1.0- 9.0 mg mL^{-1}) in 0.1 M NaOH solution

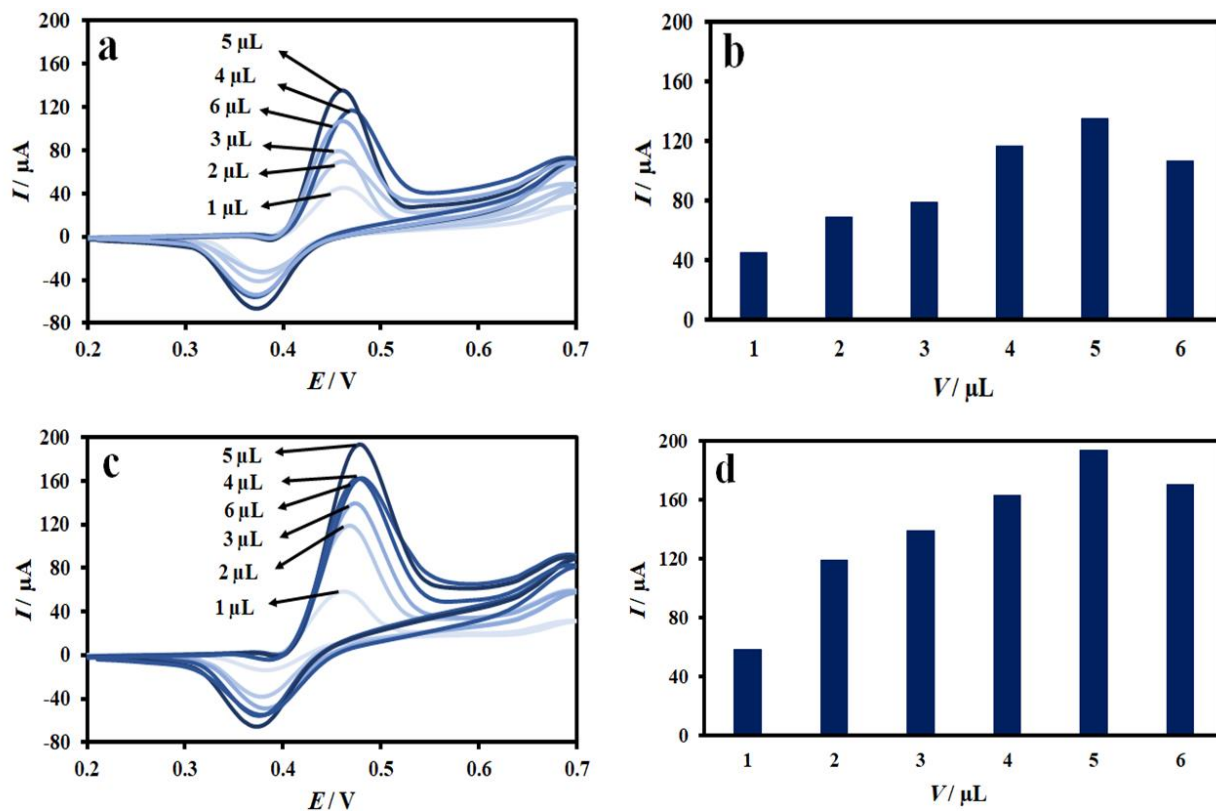


Figure S3. Optimization of drop casting amount of modifier on the electrode surface: (a, b) in the absence of glucose, (c, d) in the presence of 1.0 mM glucose with different amounts of modifier (1-6 μL) in 0.1 M NaOH solution at $v = 50 \text{ mVs}^{-1}$

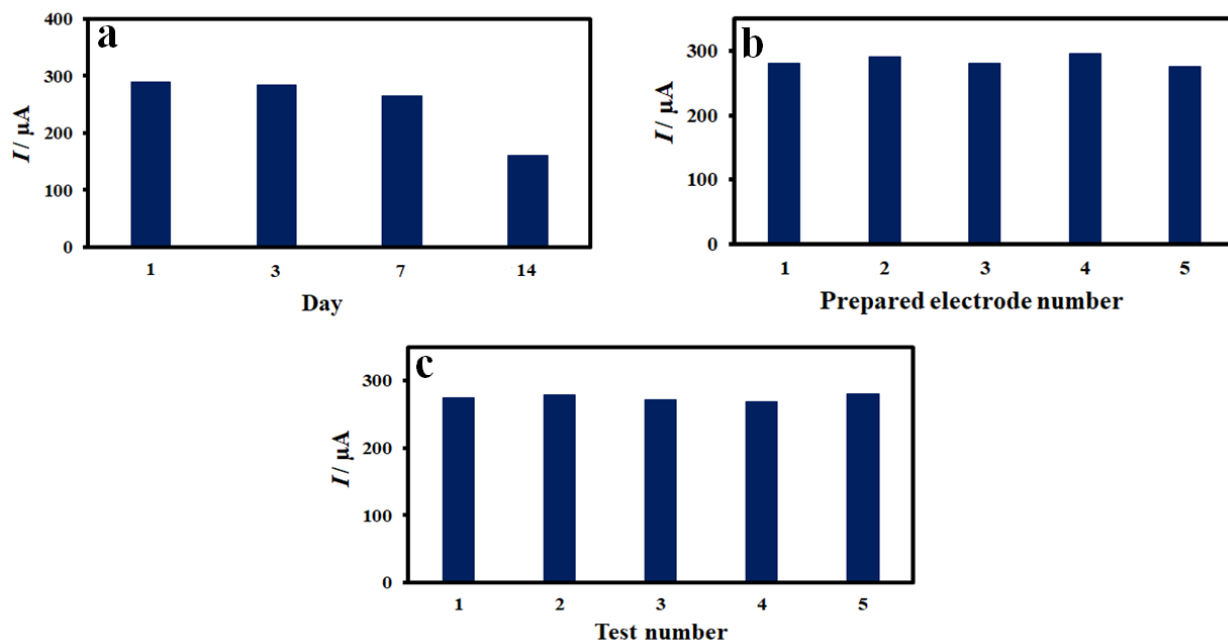


Figure S4. The results obtained to check a) stability, b) reproducibility and c) repeatability

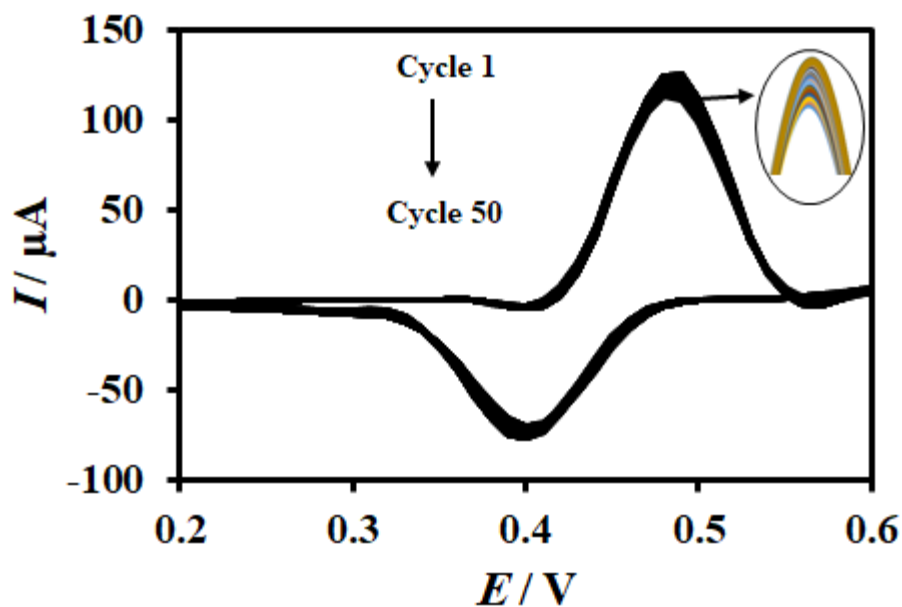


Figure S5. CVs of MR-NiC/GCE during 50 consecutive cycles in 0.1 M NaOH solution at $v = 50 \text{ mV s}^{-1}$ and potential window of 0.2 to 0.7 V

Table S1. Investigation of interfering species

	Species	Acceptable species amount without interfering*
1	Dopamine	40×
2	Fructose	30×
3	Uric acid	20×
4	Citric acid	15×
5	Ascorbic acid	15×
6	Sucrose	10×

*× indicates how many times the concentration of given substance could be higher than 0.3 mM glucose prior interference effect.

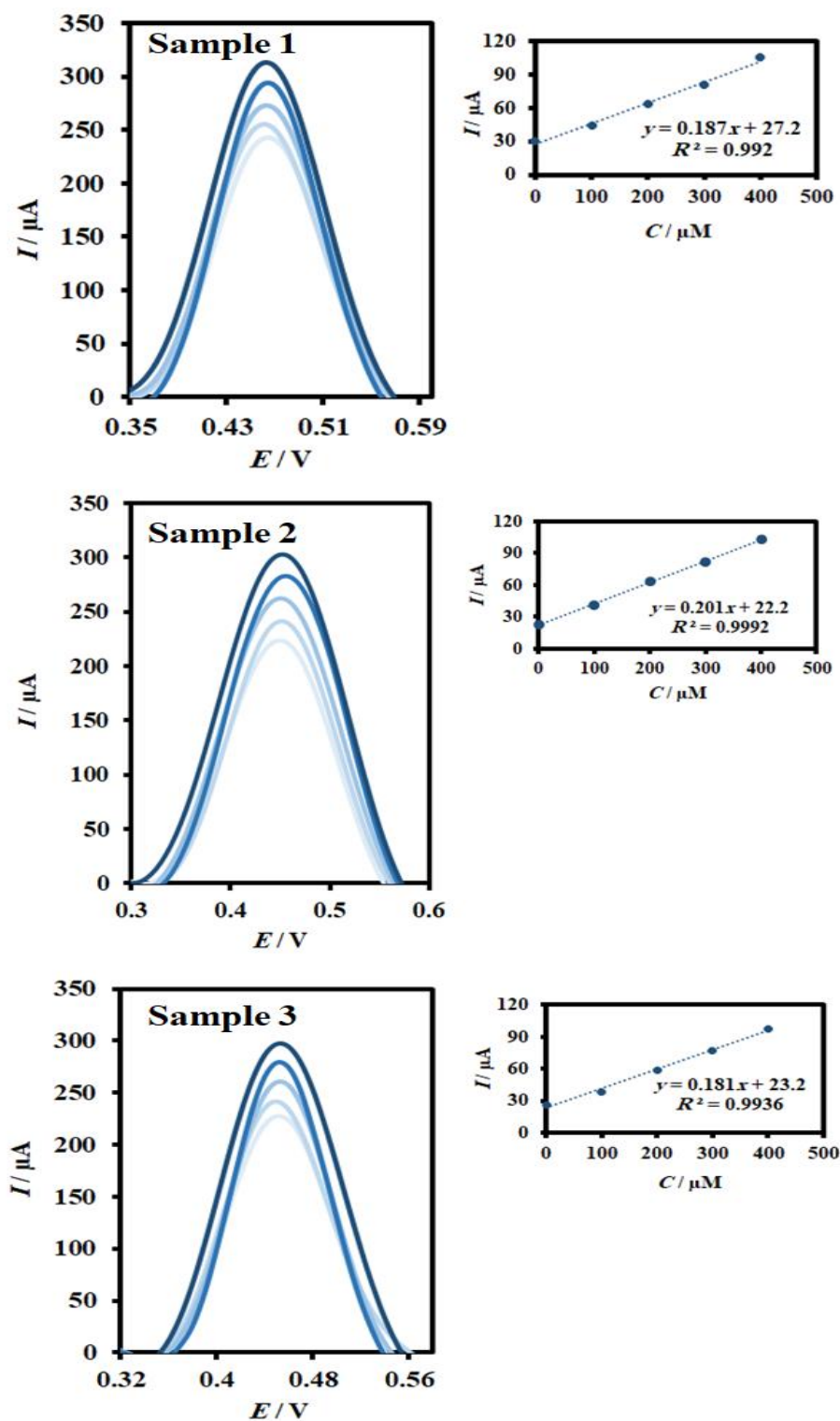


Figure S6. DPVs and calibration curves for 3 human blood plasma samples (sample 1: diabetic, sample 2: diabetic, sample 3: normal)