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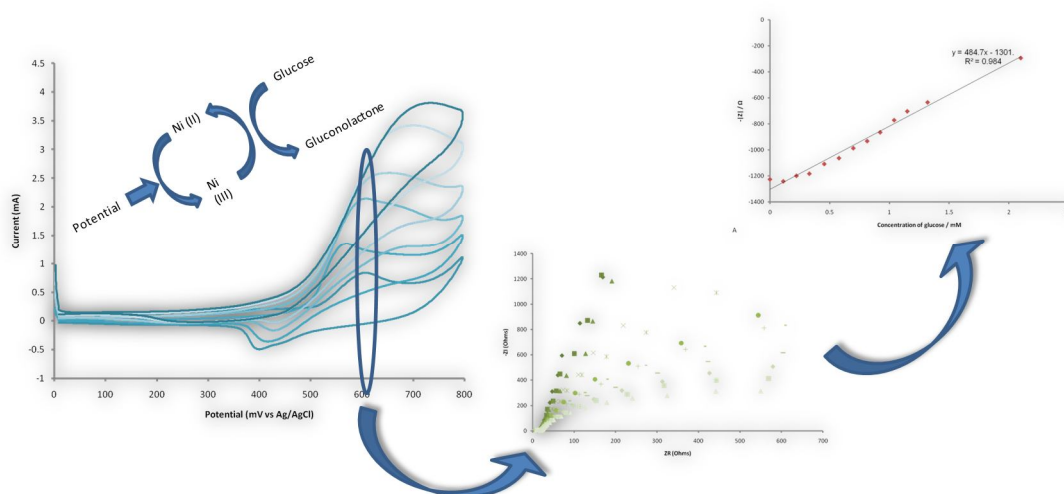
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Impedimetric non-enzymatic glucose sensor based on nickel hydroxide thin film onto gold electrode.

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Graphical abstract



Highlights:

- A method for electrodeposition of a thin layer of nickel onto gold is optimized.
- Only $\text{Ni}(\text{OH})_2/\text{NiOOH}$ onto gold electrode catalyzes the glucose electrooxidation.
- A single-frequency impedance method is proposed for non-enzymatic glucose sensors.
- R^2 of 0.984 between $|Z|$ and glucose concentration at 0.1 Hz was obtained.
- Glucose impedimetric determination in blood samples was achieved using $\text{EAuNi}(\text{OH})_2$.

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