

In Situ Oxidation of Cu₂O Crystal for Electrochemical Detection of Glucose

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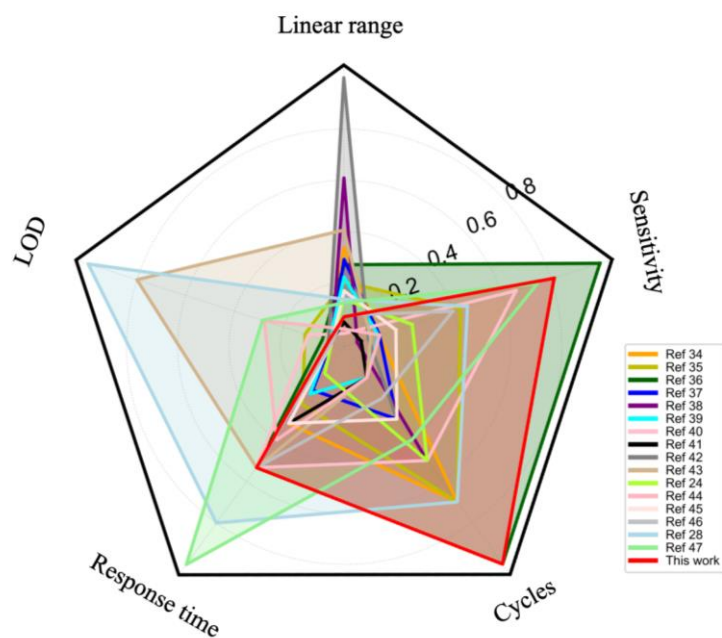


Figure S1. Comparison of different glucose sensors performance.

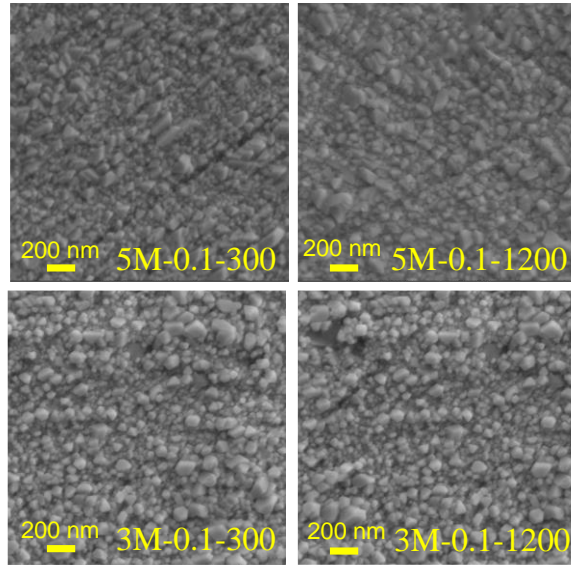


Figure S2. The SEM images of 5M-0.1-300, 5M-0.1-1200, 3M-0.1-300, 5M-0.1-1200.

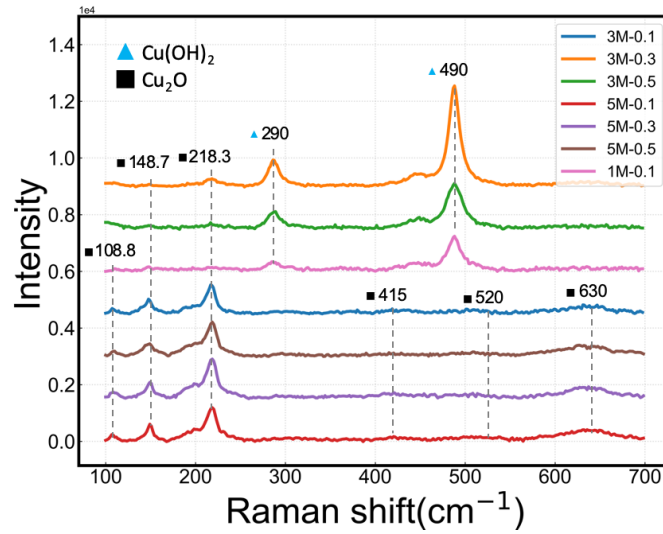


Figure S3. The Raman spectrum of the Cu_2O electrodes fabricated under different conditions.

The Raman spectra of 3M-0.1, 3M-0.3, 5M-0.1, 5M-0.3 and 5M-0.5 electrodes exhibit characteristic peaks at 108.8 cm^{-1} , 148.7 cm^{-1} , 218.3 cm^{-1} , 520 cm^{-1} and 630 cm^{-1} , which are attributed to Cu_2O [1,2]. The Raman spectra of 3M-0.5, 3M-0.3 and 1M-0.1 exhibit the characteristic peaks of $\text{Cu}(\text{OH})_2$ at 290 cm^{-1} and 490 cm^{-1} , according to previous researches [2–4]. It should be noticed that the Raman spectrum of 3M-0.3 exhibits the both characteristic peaks of Cu_2O and $\text{Cu}(\text{OH})_2$. This agrees with the SEM in Figure S1 that shows the existence of nanoparticles and nanotubes.

References

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