

Supplementary Information

Fabrication of paper-based sensor from graphene quantum dots coated with polymeric membrane for determination of gold(III) ion

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Fig. S3 Effect of the GQDs concentration from 10 to 100 mg mL⁻¹ in the absence and presence of 0.6 mM Au³⁺.

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Fig. S5 (a) ΔE responses and (b) photographical images of paper-based sensor after immersion in 0.6 mM of different anions.

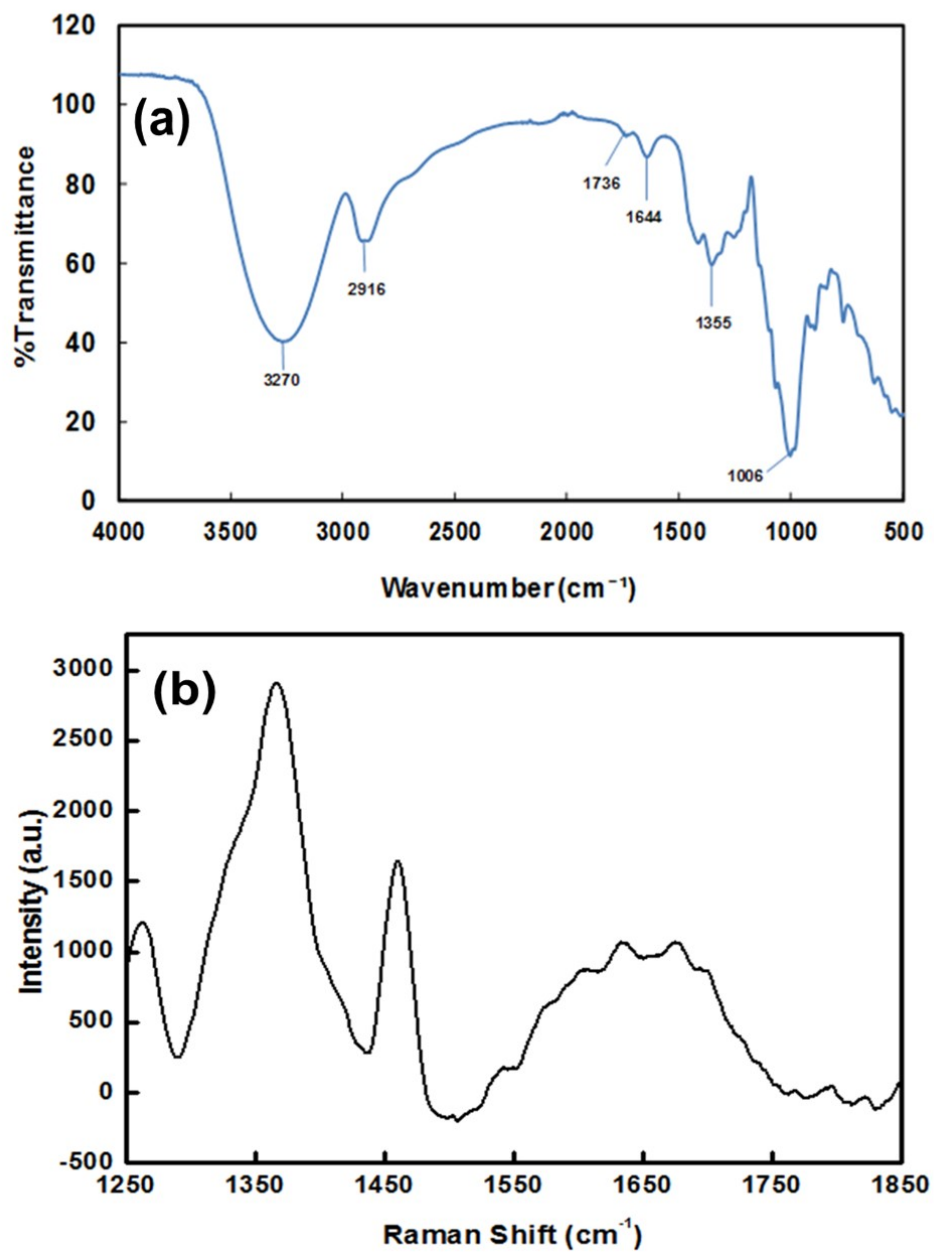


Fig. S1 (a) ATR-FT-IR spectrum and (b) Raman spectrum of as-prepared GQDs.

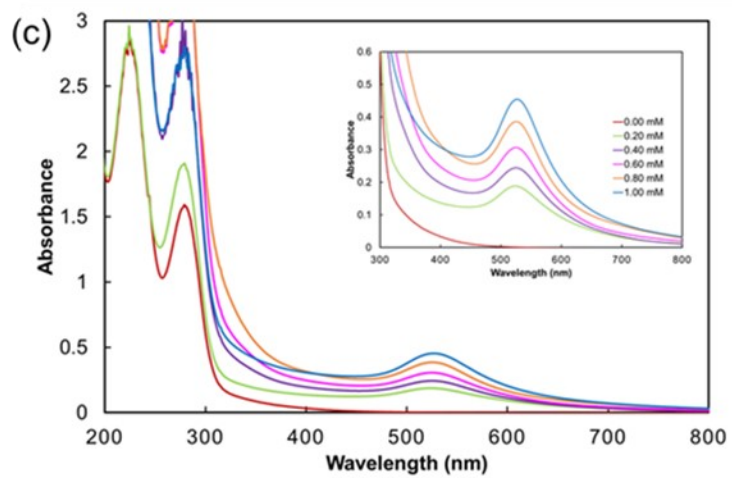
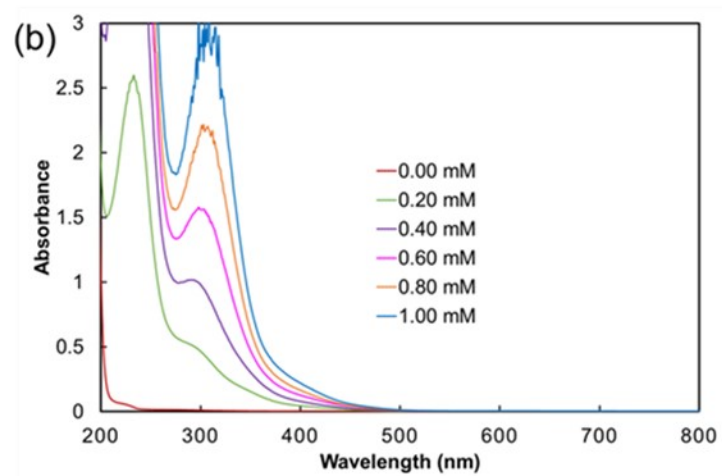
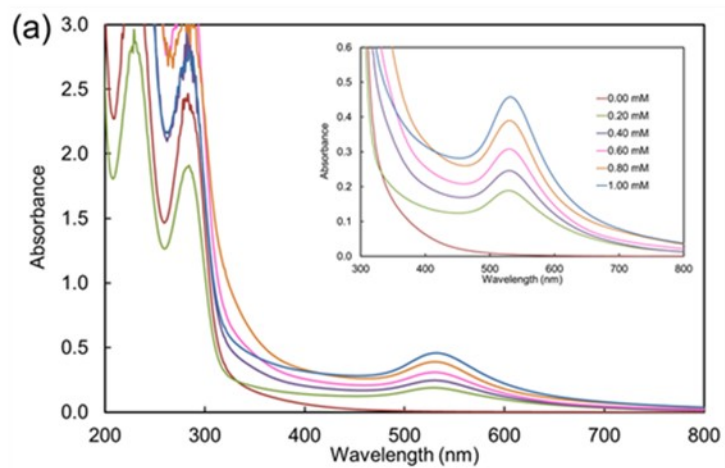


Fig. S2 UV-vis spectra of the reaction mixture after addition of various concentrations of Au^{3+} to (a) GQDs (50 mg mL^{-1}), (b) glucose (50 mg mL^{-1}) and (c) the mixture solution of GQDs (50 mg mL^{-1}) and glucose (50 mg mL^{-1}).

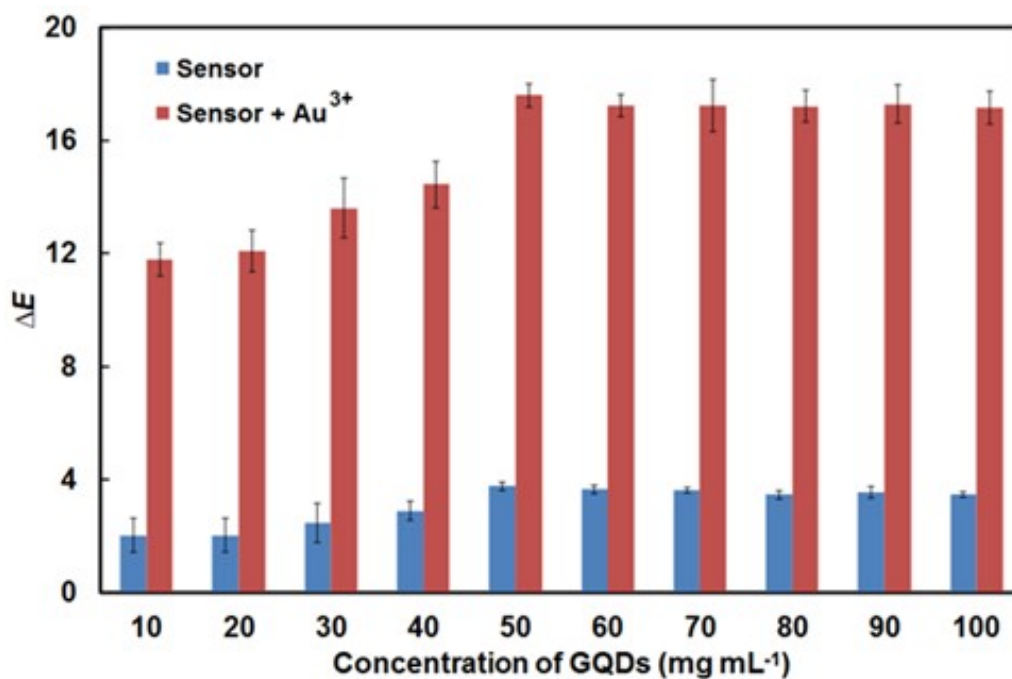


Fig. S3 Effect of the GQDs concentration from 10 to 100 mg mL^{-1} in the absence and presence of 0.6 mM Au^{3+} .

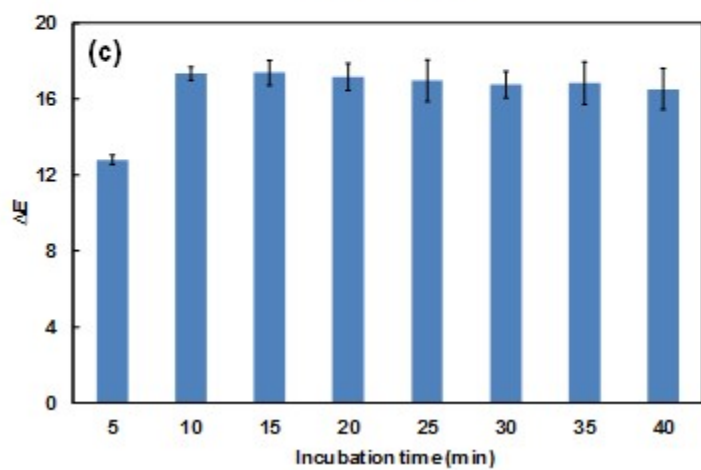
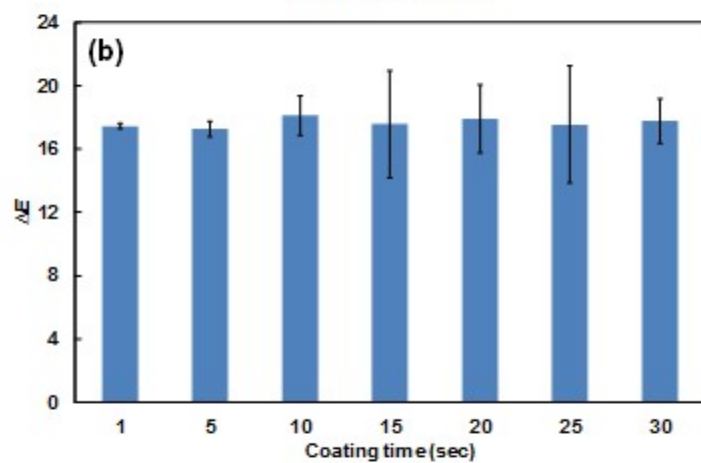
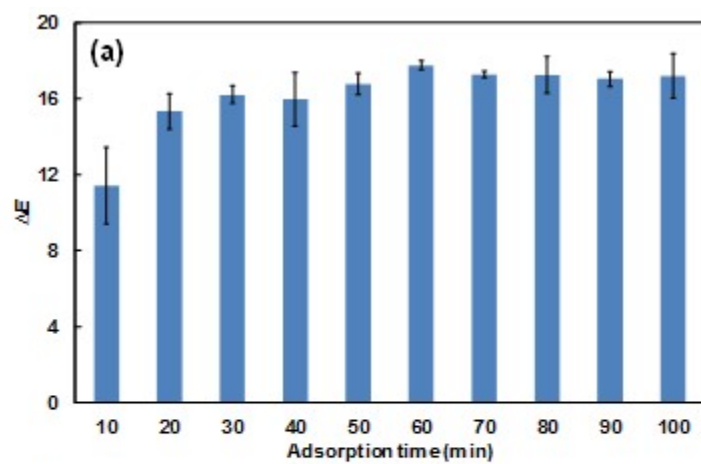


Fig. S4 (a) Effect of the adsorption time of GQDs, (b) effect of the coating time of polymeric membrane and (c) effect of the incubation time after immersing in 0.6 mM Au^{3+} .

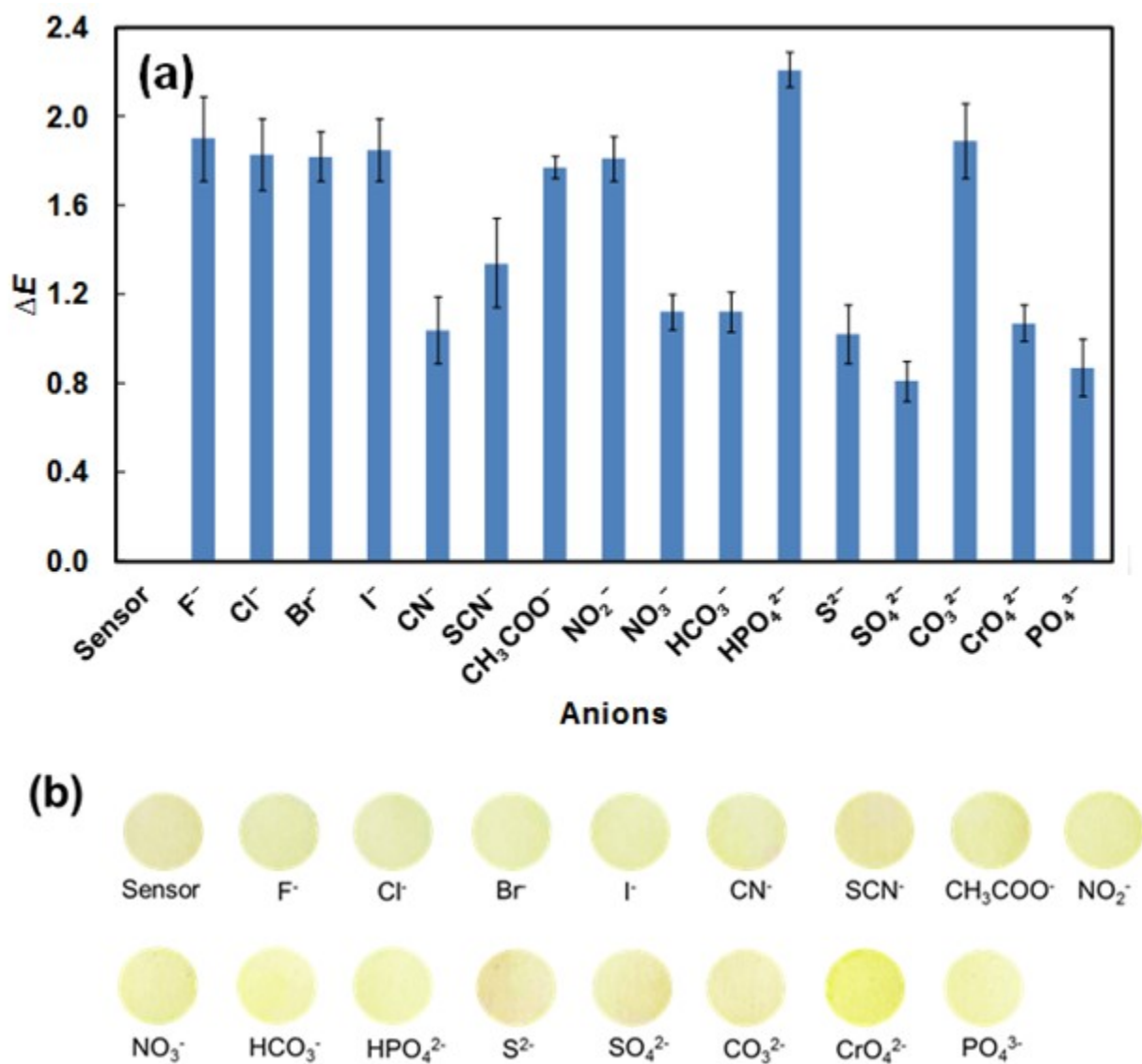


Fig. S5 (a) ΔE responses and (b) photographical images of paper-based sensor after immersion in 0.6 mM of different anions.

