

Supporting Information

Electrochemical method for the quantitative determination of *Escherichia coli* based on gold functionalized FTO substrate

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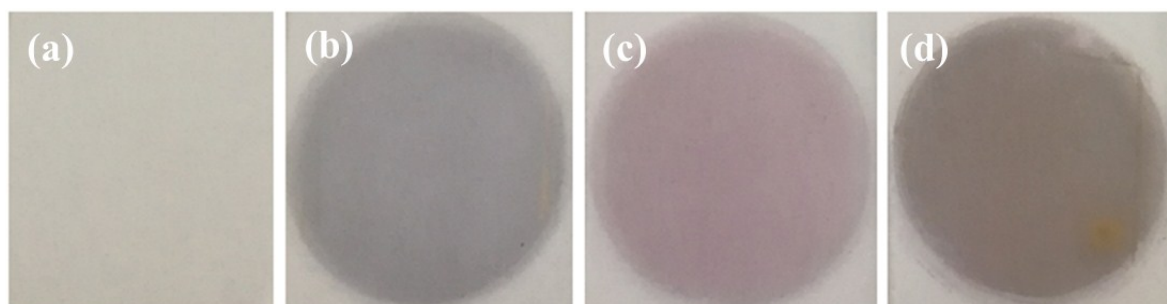


Figure 1S Typical light microscope image of different gold morphology on FTO substrate. (a) FTO (b) FTO-GED (c) FTO-GEDC(d) FTO-GEDC-D30

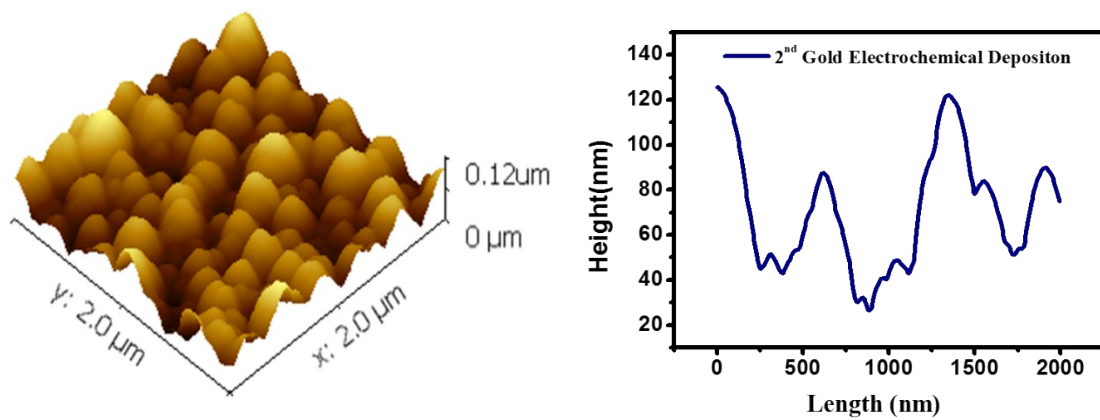


Figure 2S AFM images of nanostructured FTO-GEDC-30D surfaces and its Profiles of nanostructured FTO surfaces

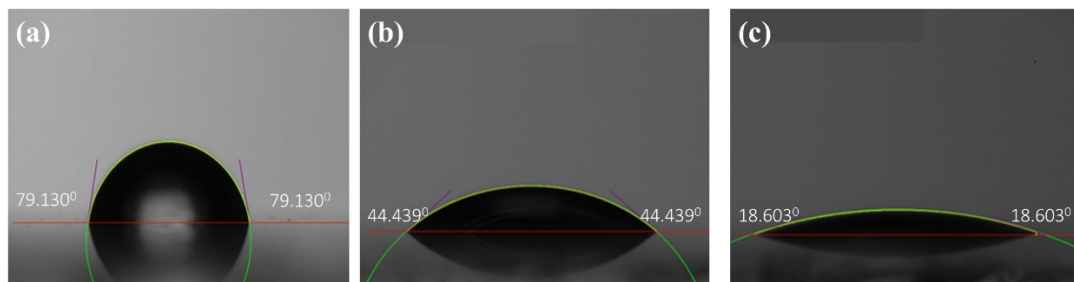


Figure 3S the Contact angle of (a) FTO, (b) FTO-GED and (c) FTO-GEDC

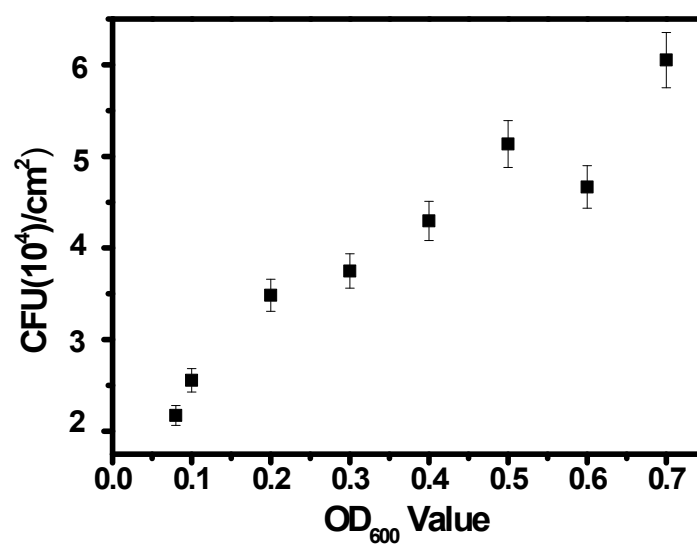


Figure.4S The number of the E. coli on FTO-GED was counted using fluorescence-staining method.

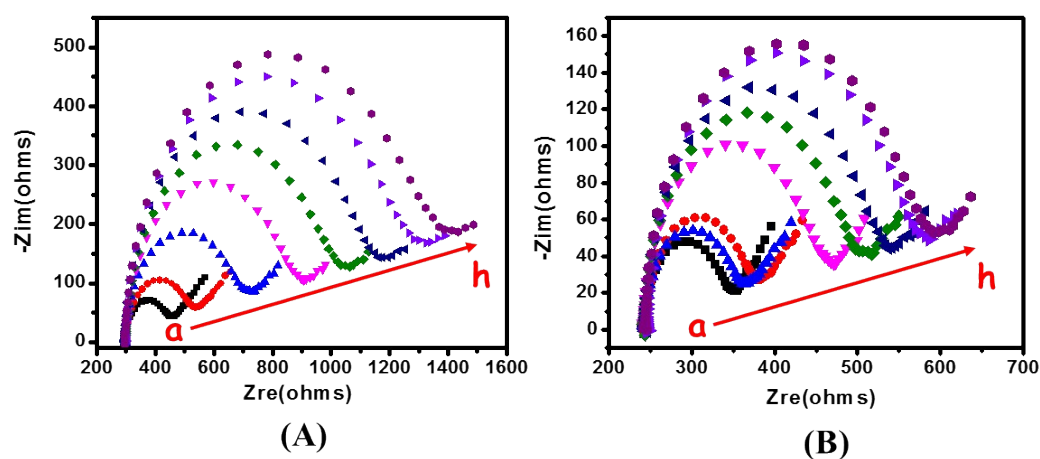


Figure 5S. Nyquist plots of impedance spectra of the E.Coli sensor for different concentrations of E. coli. (a) OD 0.08; (b) OD 0.1; (c) OD 0.2; (d) OD 0.3; (e) OD 0.4; (f) OD 0.5; (g) OD 0.6; (h) OD 0.7. (A) FTO-GEDC-based E.Coli sensor, (B) FTO-GEDC-D30-based E.Coli sensor.

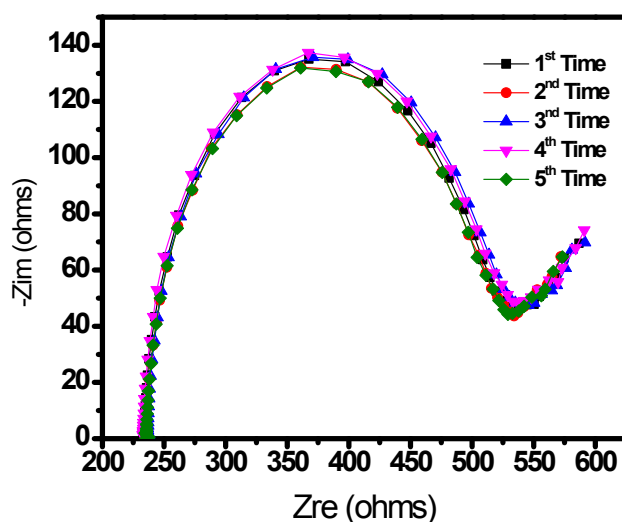


Figure 6S EIS Nyquist plots of Repeatability of FTO-GEDC-D30 on the measurement of E. coli (OD600=0.3)