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COMMUNICATION

High Performance Enzyme Fuel Cell Using Genetically Expressed FAD-Dependent Glucose Dehydrogenase α-Subunit of *Burkholderia cepacia* Immobilized in Carbon Nanotube Electrode for Low Glucose Condition

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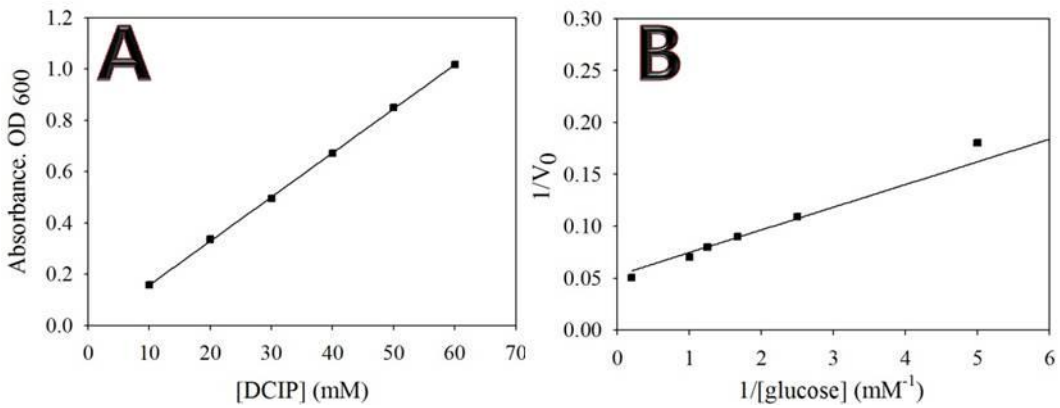
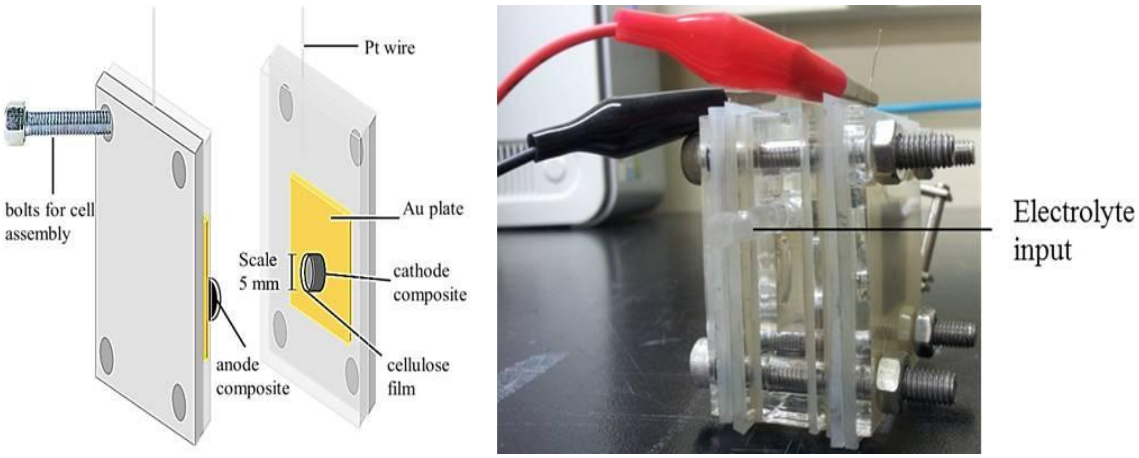
Supplementary information

Supplementary Table 1. PCR primers used for cloning of FAD-GDH gene from *B. cepacia* ATCC25416 and expression in *E. coli* BL21RIL.

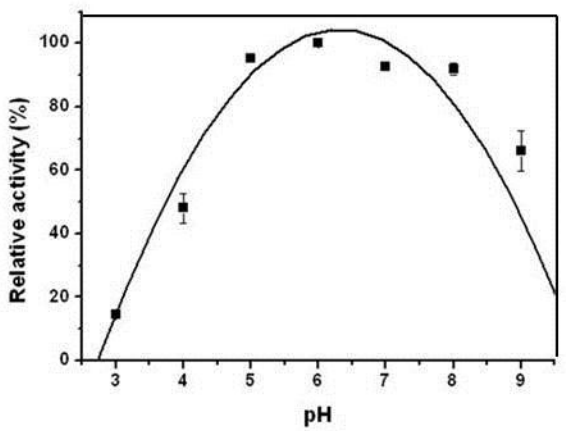
Primers	Sequences	Restriction sites
BacH-F1	5'-GCATATGATGCACAACGACAACACTCCC-3'	*Nde*1
BacH-R1	5'-CGCGGCCGCGACTTCCTTCTTCAGCGTGTCC-3'	*Not*I
BacH-F2	5'- GCCATGGCCATGCACAACGACAACACTCCCCAC-3'	*Nco*I
BacH-R2	5'-GGAAGCTTCAGTGGTGGTGGTGGTGGTG-3'	*Hin*dIII



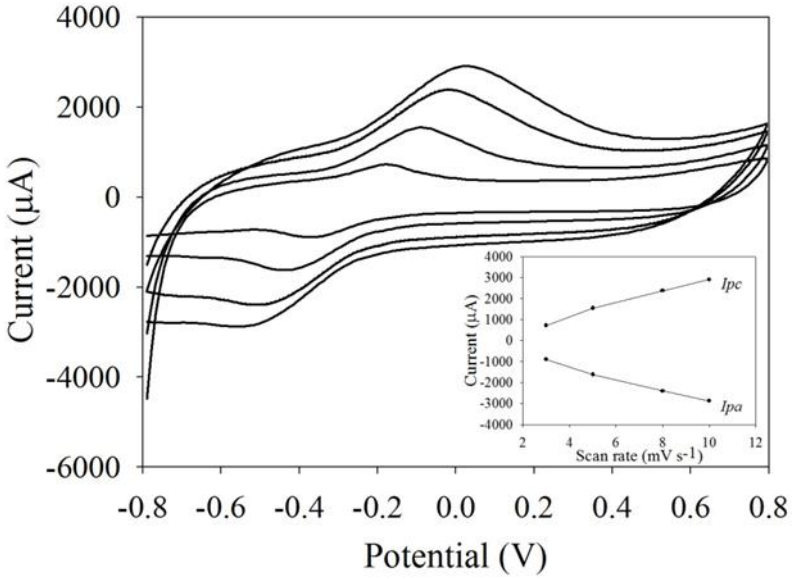
Supplementary Fig. 1 A) DCIP curve at 600 nm. **(B)** Lineweaver-Burk plot for analysis of enzyme kinetic parameters, V_{max} and K_m



Supplementary Fig.2 (A) structure and **(B)** photograph of BFC



Supplementary Fig. 3 Activity of FAD-GDH from *B. cepacia* for various pH values, represented as relative percentage to the highest activity obtained around neutral pH.



Supplementary Fig. 4. Cyclic voltammograms of FAD-GDH/menadione/CNT in 100 mM PBS buffer pH 7.0 at 30°C at 3, 5, 8 and 10 mV s^{-1} (from inner to outer). Inset: Plots of peak currents *vs.* scan rate

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