

| | |
|-----------------------------|--|
| Title | Direct electron transfer of Phanerochaete chrysosporium cellobiose dehydrogenase at platinum and palladium nanoparticles decorated carbon nanotubes modified electrodes |
| Authors | Bozorgzadeh, Somayyeh;Hamidi, Hassan;Ortiz, Roberto;Ludwig, Roland;Gorton, Lo |
| Publication date | 2015-08-24 |
| Original Citation | Bozorgzadeh, S., Hamidi, H., Ortiz, R., Ludwig, R. and Gorton, L. (2015) 'Direct electron transfer of Phanerochaete chrysosporium cellobiose dehydrogenase at platinum and palladium nanoparticles decorated carbon nanotubes modified electrodes', Physical Chemistry Chemical Physics, 17 (37), pp. 24157-24165. doi: 10.1039/C5CP03812J |
| Type of publication | Article (peer-reviewed) |
| Link to publisher's version | https://doi.org/10.1039/C5CP03812J - 10.1039/c5cp03812j |
| Rights | © Royal Society of Chemistry 2015 |
| Download date | 2024-02-22 05:25:53 |
| Item downloaded from | https://hdl.handle.net/10468/13521 |

Supplementary information

Direct Electron Transfer of *Phanerochaete chrysosporium* Cellobiose Dehydrogenase at Platinum and Palladium Nanoparticle Decorated Carbon Nanotube Modified Electrodes

Somayyeh Bozorgzadeh^{*, 1,2}, Hassan Hamidi^{1,2}, Roberto Ortiz¹, Roland Ludwig³ and Lo
Gorton^{*, 1}

¹Department of Analytical Chemistry/Biochemistry and Structural Biology,
Lund University, SE-22100 Lund, Sweden.

²Department of Chemistry, Zanzan Branch, Islamic Azad University, P O Box 49195-467,
Zanzan, Iran.

³ Vienna Institute of Biotechnology, Department of Food Sciences and Technology, BOKU-
University of Natural Resources and Life Sciences, Vienna, Muthgasse 18, A-1190 Vienna,
Austria

*Corresponding authors.

E-mail: somayehbozorgzadeh@gmail.com

Lo.Gorton@biochemistry.lu.se

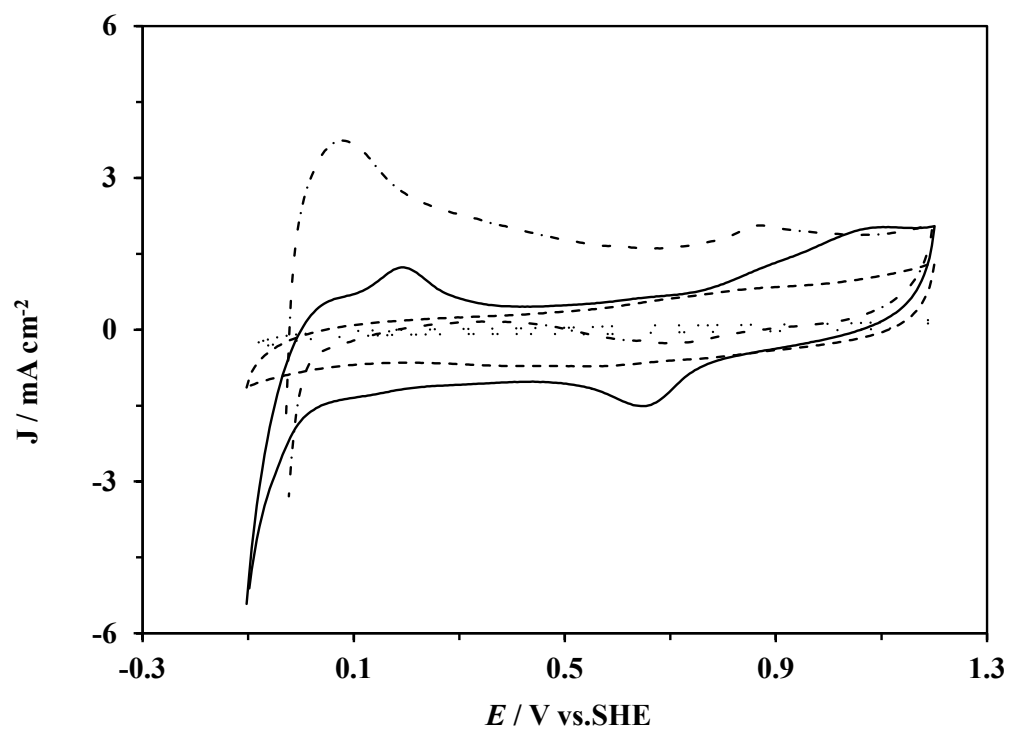


Fig. S1. CVs of a bare SPGE (dotted line), MWCNTs/SPGE (dashed line), PtNPs-MWCNTs/SPGE (dashed-dotted line) and PdNPs-MWCNTs/SPGE (solid line) in 0.5 M H₂SO₄ solution at a potential scan rate of 50 mVs⁻¹.

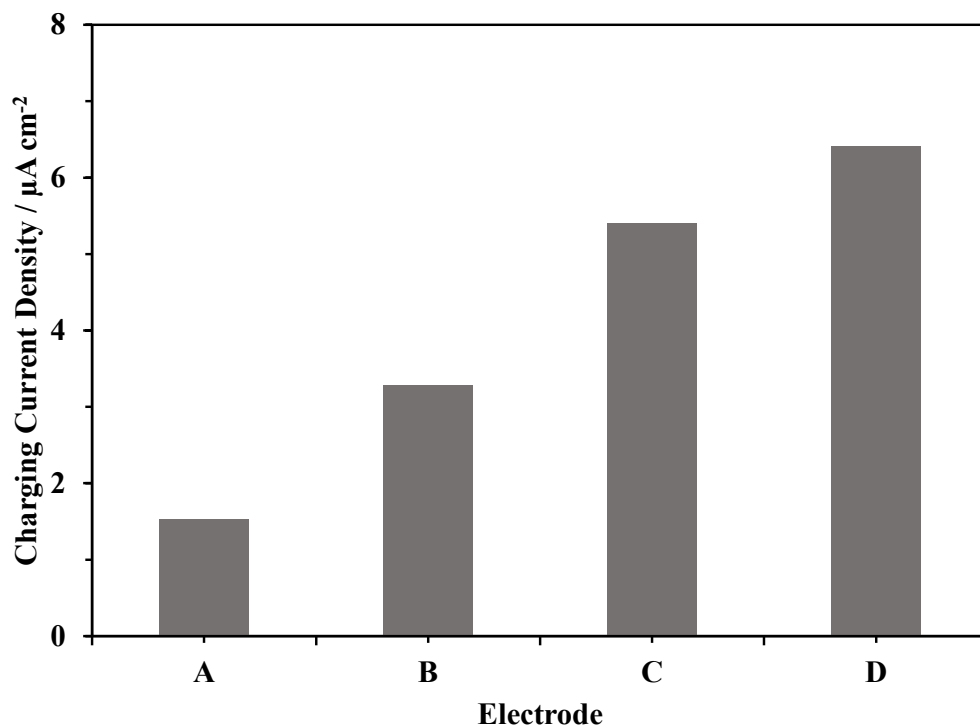


Fig. S2. Calculated charging current density at the potential of 0.5 V vs. SHE from CVs (in Fig. 5) of (A) a *Pc*CDH/SPGE, (B) *Pc*CDH/MWCNTs/SPGE, (C) *Pc*CDH/PdNPs-MWCNTs/SPGE and (D) *Pc*CDH/PtNPs-MWCNTs/SPGE in 0.1 M sodium acetate buffer (pH 4.5).