

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	2024-05-13 03:06:05
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, Zanjan Branch, Islamic Azad University, P O Box 49195-467,
Zanjan, 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

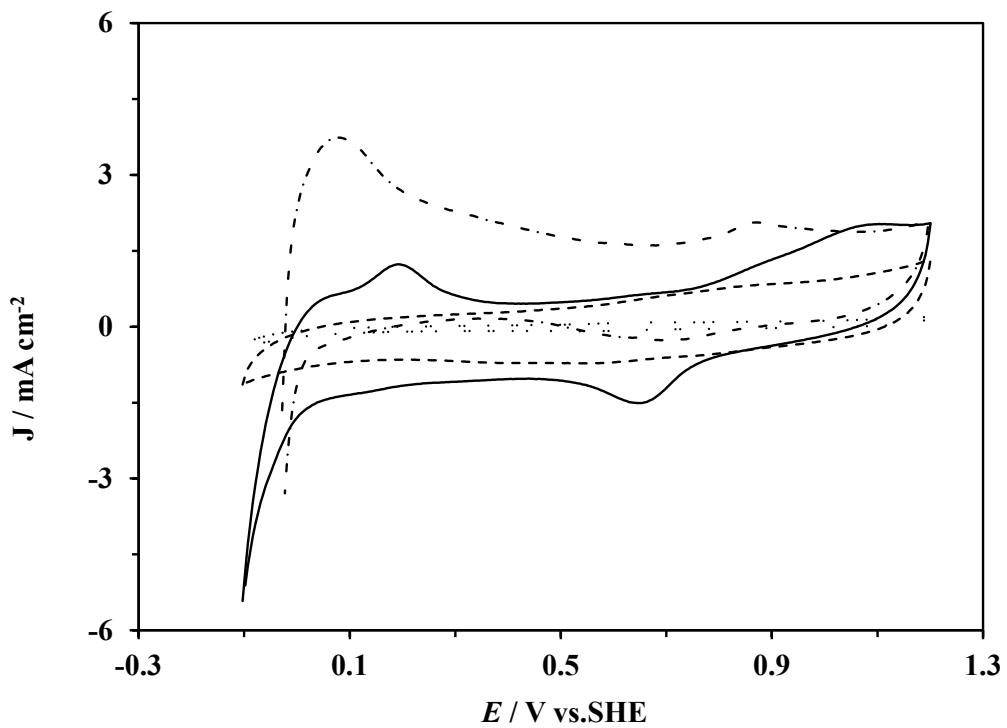


Fig. S1. CVs of a bare SPGE (dotted line), MWCNTs/SPGE (dashed line), PtNPs-MWCNTs/SPGE (dashed-dotted line) and PdNPs-MWCNTs/SPGE (solid line) in 0.5 M H_2SO_4 solution at a potential scan rate of 50 mVs⁻¹.

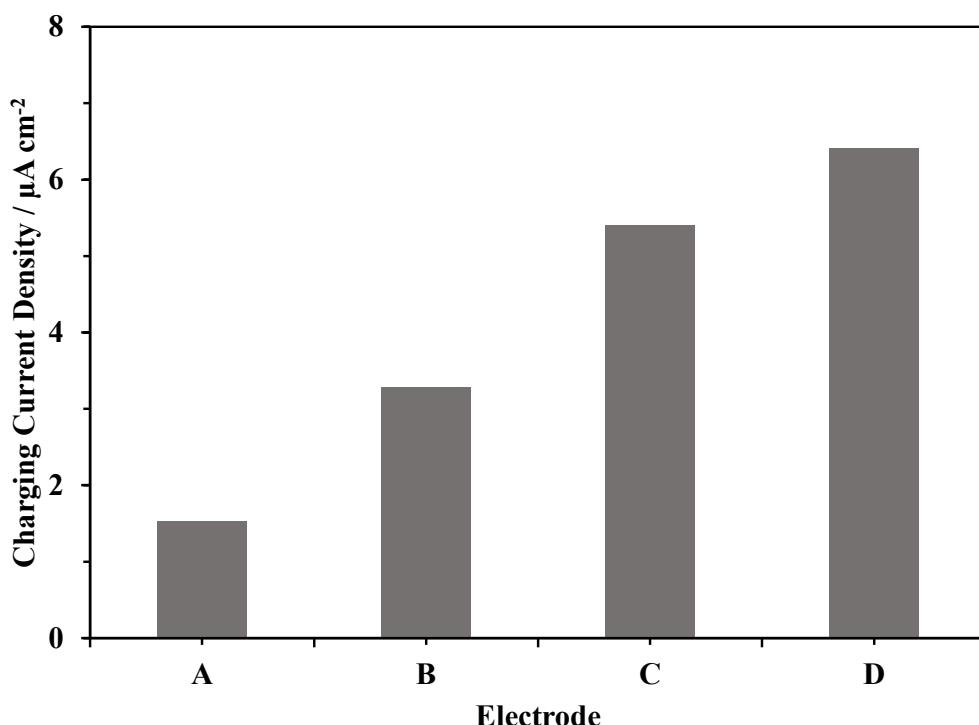


Fig. S2. Calculated charging current density at the potential of 0.5 V vs. SHE from CVs (in Fig. 5) of (A) a *Pc*CDH/SPGE, (B) *Pc*CDH/MWCNTs/SPGE, (C) *Pc*CDH/PdNPs-MWCNTs/SPGE and (D) *Pc*CDH/PtNPs-MWCNTs/SPGE in 0.1 M sodium acetate buffer (pH 4.5).