

Article



## The Origins of the High Performance of Pd Catalysts Supported on Carbon Black-Embedded Carbon Nanofiber for Formic Acid Oxidation

## Norraihanah Mohamed Aslam<sup>1</sup>, Takuya Tsujiguchi<sup>2,\*</sup>, Yugo Osaka<sup>2</sup> and Akio Kodama<sup>2</sup>

- <sup>1</sup> Division of Mechanical Engineering, Graduate School of Natural Science and Technology, Kanazawa University, Kakumamachi, Kanazawa, Ishikawa 920-1192, Japan; norraihanah.m.a@gmail.com
- <sup>2</sup> Faculty of Mechanical Engineering, Institute of Science and Engineering, Kanazawa University, Kakumamachi, Kanazawa, Ishikawa 920-1192, Japan; y-osaka@se.kanazawa-u.ac.jp (Y.O.); akodama@se.kanazawa-u.ac.jp (A.K.)
- \* Correspondence: tsujiguchi@se.kanazawa-u.ac.jp; Tel.: +80-76-264-6473

Supplementary



Figure S1. Pore size distribution for  $Pd/C_v$  and  $Pd/C_k$  with various heat treatments.



**Figure S2.** Nitrogen adsorption and desorption isotherms for (**a**)  $Pd/C_v$  and (**b**)  $Pd/C_k$  with various heat treatments.



Figure S3. Cyclic voltammetry of (a) Pd/Cv and (b) Pd/Ck with various heat treatments.



Figure S4. Pore size distribution for PdKECNF and PdVECNF for various CB/PAN ratios.



**Figure S5.** Nitrogen adsorption and desorption isotherms for (**a**) PdVECNF and (**b**) PdKECNF for various CB/PAN ratios.



Figure S6. Cyclic voltammetry of (a) Pd/VECNF and (b) Pd/KECNF for various CB/PAN ratios.