

The Electrochemical Society

Multifunctional Carbon Materials for Electrochemical and Electronic Applications

at the 210th ECS Meeting

ECS Transactions Volume 3 No.28

October 29 – November 3, 2006
Cancun, Mexico

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60423-379-7

Some format issues inherent in the e-media version may also appear in this print version.

ECS Transactions, Volume 3, Issue 28
Multifunctional Carbon Materials for Electrochemical and Electronic Applications

Table of Contents

Preface

Electrochemical Response of BDD/IrO_x in Presence of As (III), Sb (III), Pb (II) and Cd (II) 1

M. M. Davila Martin Marino, M. S. Flores, M. P. Elizalde, J. Mattusch and R. Wennrich

Electrochemical Study and Preparation of Gold Substrates Functionalized with Single-Walled Carbon Nanotubes for DNA Biosensor Application 15

L. Santiago, G. Sanchez-Pomales, A. Rios-Pagan and C. R. Cabrera

Conductive Diamond Powder: A New Catalyst Support for the Polymer Electrolyte Membrane Fuel Cell 27

V. Swope, I. Sasaki, A. Ay and G. M. Swain

Fabrication and Characterisation of Diamond Ultramicroelectrodes of Diameter < 25 Microns for use in Electroanalysis, Sensing and Imaging Applications 37

K. B. Holt, D. Caruana, J. Foord and J. Hu

Kinetic and Adsorption Studies of Biogenic Amine Neurotransmitters at Polycrystalline Diamond Microelectrodes 47

J. M. Halpern, S. Xie, J. L. Schreiber and H. B. Martin

Evolution of Surface Terminations and Electrochemical Behaviors of Boron Doped Diamond Electrodes Induced by Controlled Anodic and Cathodic Pretreatments 59

N. Simon, H. Girard, D. Ballutaud, E. De la Rocheoucauld and A. Etcheberry

Characterization of Oxidized Reticulated Vitreous Carbon for Generation of H₂O₂ from Flowing Acid Solutions 67

M. M. Saleh, M. I. Awad and T. Ohsaka

Author Index 79