

The Electrochemical Society

# Electrochemical Capacitors 2006

at the 210<sup>th</sup> ECS Meeting

ECS Transactions Volume 3 No.37

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](http://www.proceedings.com)

ISBN: 978-1-60423-913-3

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

---

Copyright 2007 by The Electrochemical Society, Inc.  
All rights reserved.

This book has been registered with Copyright Clearance Center, Inc.  
For further information, please contact the Copyright Clearance Center,  
Salem, Massachusetts.

Published by:

The Electrochemical Society, Inc.  
65 South Main Street  
Pennington, New Jersey 08534-2839, USA

Telephone 609.737.1902  
Fax 609.737.2743  
e-mail: [ecs@electrochem.org](mailto:ecs@electrochem.org)  
Web: [www.electrochem.org](http://www.electrochem.org)

ISSN 1938-6737 (online)  
ISSN 1938-5862 (print)

---

Printed in the United States of America.

---

**ECS Transactions, Volume 3, Issue 37**  
Electrochemical Capacitors 2006

**Table of Contents**

Preface

Cathodic Electrodeposition of Manganese Oxides for Electrochemical Supercapacitors <i>J. Wei, M. Cheong, N. Nagarajan and I. Zhitomirsky</i>	1
Investigation on Cycling Stability of Mn-Containing Oxide Supercapacitors <i>N. Wu and S. L. Kuo</i>	11
High Performance 1,5-Diaminoanthraquinone/Multi-Wall Carbon Nanotube(DAAQ/MWCNT) Composite Materials by Different Synthesis Methods for Supercapacitor <i>S. Park, H. Kim, J. Shin, H. Kim, J. Park and T. Osaka</i>	17
The Magnetohydrodynamic Effect In Electrochemical Systems Including Batteries <i>R. N. O'Brien</i>	23
Cellulose Based Activated Carbon for Electrochemical Double Layer Capacitors <i>P. Liu, S. Soukiazian and M. Verbrugge</i>	31
Characterization of Activated Nanoporous Carbon as Electrical Double Layer Capacitor Electrode Materials <i>A. Janes, H. Kurig and E. Lust</i>	39
Interface Modifications of Carbon-based Supercapacitor Electrodes <i>P. Simon, C. Largeot, R. Dugas, A. Balducci, P. Taberna, J. Chmiola, C. Portet, G. Yushin and Y. Gogotsi</i>	49
Redox Deposition of Nanoscale MnO <sub>2</sub> on Ultraporous Carbon Nanoarchitectures: Correlation of MnO <sub>2</sub> Deposition Time and Electrochemical Performance <i>A. Fischer and J. W. Long</i>	61
Author Index	67