

Electrochemical Capacitors 2017

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R&D SYMPOSIUM 1

Electrochemical (EC) Capacitors

30 January 2017 | Congress Centrum Mainz | Mainz, Germany

SUPERCAPS

Part of the 7th Advanced Automotive Battery Conference Europe

MONDAY, 30 JANUARY

ADVANCES IN EC CAPACITOR MATERIALS & CELL DESIGN

- 8:30 Symposium Registration and Morning Coffee**
- 10:00 Chairperson's Opening Remarks**
Katsuhiko Naoi, Ph.D., Professor of Chemistry, Institute of Symbiotic Science & Technology, Tokyo University of Agriculture & Technology
- 10:05 Future Perspective of Supercapacitors' Nanomaterials 1**
Katsuhiko Naoi, Ph.D., Professor of Chemistry, Institute of Symbiotic Science & Technology, Tokyo University of Agriculture & Technology
- 10:25 Materials Selection for Asymmetric/Hybrid Supercapacitors 11**
Margret Wohlfahrt-Mehrens, Ph.D., Head, Materials Research Accumulator (ECM), ZSW – Zentrum für Sonnenenergie- und Wasserstoff-Forschung, Baden-Württemberg, Germany
- 10:45 Rational Design of Innovative Electrolytes for Supercapacitors 21**
Andrea Balducci, Ph.D., Professor, Institute for Technical Chemistry and Environmental Chemistry, Center for Energy and Environmental Chemistry (CEEC), Friedrich-Schiller-University Jena
- 11:05 Networking Coffee Break with Poster Viewing**
- 11:35 High Density Oxides for Aqueous Asymmetric Supercapacitors for Improved Volumetric Properties N/A**
Olivier Crosnier, Ph.D., Assistant Professor, Jean Rouxel Institute of Materials, University of Nantes, France
- 11:55 Lithium-Ion Capacitor with Low Footprint Sacrificial Material for Graphite Pre-Lithiation 33**
François Béguin, Ph.D., Professor, Power Sources Group, Poznan University of Technology, Poland
- 12:15 2-D Materials for Capacitive Storage 46**
Patrice Simon, Ph.D., Professor, Université Paul Sabatier
- 12:35 Q&A**
- 12:50 Networking Lunch**
- 14:15 Chairperson's Remarks**
Andrew F. Burke, Ph.D., Institute of Transportation Studies, University of California, Davis
- 14:20 An Industrial Perspective on Supercapacitor Carbons 70**
Ranjan Dash, Advanced Programs Technologist, Future Business, SABIC
- 14:40 Carbon Black Additives for Electrochemical Capacitors: Impact on Capacity and Cycle Life 79**
Miki Oljaca, Ph.D., Director, R&D and Applications, Cabot Corporation
- 15:00 Coarse-Grained Carbide-Derived Carbon Supercapacitor Electrodes for Automotive Applications 90**
Boris Dyatkin, NRC Post-Doctoral Researcher, U.S. Naval Research Laboratory
- 15:20 Q&A**



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15:35 Refreshment Break with Poster Viewing

NEW EC CAPACITOR PRODUCTS

16:10 Chairperson's Remarks

Andrew F. Burke, Ph.D., Institute of Transportation Studies, University of California, Davis

16:15 Review of Supercapacitors Performance Characteristics and Vehicle Applications in Combination with Batteries 97

Andrew F. Burke, Ph.D., Institute of Transportation Studies, University of California, Davis

16:35 Enhanced Energy of Water-Based Electrochemical Capacitor 114

Elzbieta Frackowiak, Ph.D., Professor, Poznan University of Technology

16:55 Combined Battery/Supercapacitor Hybridised Energy Storage Systems for Hybrid Electric Vehicles 128

Wasim Sarwar, Energy Storage Systems Research Engineer, Jaguar Land Rover; Department of Mechanical Engineering, Imperial College London, UK

17:15 Novel Carbon Materials for Supercapacitors 143

Vinod M. Nair, Chief Technology Officer, FaradPower

17:35 Recent Developments in Ultracapacitor Technologies 149

Ken Rudisuela, Chief Technical Officer, IOXUS, Inc.

17:55 Q&A

18:15 Welcome Reception with Poster Viewing

19:15 Close of Day