



**ISEE'Cap09**  
**30<sup>th</sup> June – 02<sup>nd</sup> July 2009, Nantes, France**

## **PROGRAMME**

### **TUESDAY JUNE 30<sup>th</sup>, 2009**

08H00: Registration

- **Morning Session (09.00 – 12.30)**

Devices, performances and applications

Electrolytes (organic, aqueous, ionic liquids)

- **Afternoon Session (14.00 – 17.30)**

Electrode materials: carbons

Electrode materials: Titanates

- **Evening Session (17.30 – 20.00)**

Poster Session I with drinks and "petits fours"

### **WEDNESDAY JULY 01<sup>st</sup>, 2009**

- **Morning Session (08.30 – 12.20)**

Devices, performances and applications

Poster Session II: Even Numbers

Electrodes / Electrolytes Interface

- **Afternoon Session (14.00 – 18.10)**

Electrode materials: oxides and Carbon/Oxide Composites

Poster Session III: Odd Numbers

Devices, performances and applications

- **Evening Session (19.30 – )**

Gala Dinner

### **THURSDAY JULY 02<sup>nd</sup>, 2009**

- **Morning Session (08.30 – 12.20)**

Electrode materials: Manganese Oxides

Electrode Materials: Other Materials

**MORNING SESSION (09.00 – 12.20)**

09.00 – 09.20

Welcoming  
**Chair: Thierry Brousse**

• **Devices, performances and applications - chairman: Andrew Burke**

09.20 – 09.50

**Keynote Lecture: Ralph Brodd**  
**Broddarp of Nevada, Inc., USA**  
*The day has come*

09.50 – 10.10

**Xavier Tackoen, R. Barrero, A. B. Ndiaye, and J. Van Mierlo**  
**Université Libre de Bruxelles, Belgium**  
*Supercapacitors-based energy storage solutions for urban rail vehicles.  
Case study of the Brussels public transport operator (STIB/MIVB)*

10.10 – 10.40

**Keynote Lecture: John R. Miller and Sue M. Butler**  
**JME Inc., USA**  
*Routes to Higher Effective Energy Density Electrochemical Capacitors*

10.40 – 11.10

Coffee Break

• **Electrolytes (organic, aqueous, ionic liquids) - chairman: Rudrigger Kötz**

11.10 – 11.40

**Keynote Lecture: Masayuki Morita**  
**Yamaguchi University, Japan**  
*Double-layer Capacitance at Carbon Electrodes with Non-porous Structure  
in Organic Electrolyte Solutions*

11.40 – 12.00

**Emmanuelle Perricone, F. Alloin and J.-C. Lepretre**  
**LEPMI/CNRS/UJF/Grenoble INP, France**  
*Organic electrolytes for supercapacitors : electrochemical and physico-chemical investigations*

12.00 – 12.30

**Keynote Lecture: Nae-Lih Wu**  
**National Taiwan University, Taiwan**  
*High-Performance Polyacrylate-Based MnO<sub>2</sub> Gel-Polymer-Electrolyte  
Supercapacitors*

12.30 – 14.00

Lunch

**AFTERNOON SESSION (14.00 – 17.50)**

• **Electrode materials: carbons - Chairman: Jeffrey Long**

14.00 – 14.30

**Keynote Lecture: Rudrigger Kötz**  
**Paul Scherrer Institut, Switzerland**  
*Single-walled carbon nanotubes and activated carbon for supercapacitor  
electrodes - a comparison*

14.30 - 15.00

**Keynote Lecture: Tony Pandolfo**  
**CSIRO Energy technology, Australia**  
*Carbons and carbon composites for electrochemical capacitors*

15.00 - 15.20

**K. C. Leonard and Marc Anderson**  
**University of Wisconsin-Madison, USA**  
IMDEA Energia, Spain  
*Electrochemical Capacitors Using Novel Nanoporous Insulating Oxide  
Materials*

15.20 - 15.50      **Keynote Lecture: Yury Gogotsi**  
**A.J. Drexel Nanotechnology Institute, Drexel University, USA**  
*Carbide-Derived Carbons for Supercapacitors and Other Energy-Related Applications*

15.50 - 16.20      Coffee Break

• **Electrode Materials: Titanates - Chairman: Kwang Kim**

16.20 - 16.50      **Keynote Lecture: Katsuhiko Naoi**  
**Tokyo University of Agriculture & Technology, Japan**  
*Nanohybrid Capacitors: A New Hybrid System, Triply Enhanced Energy Density of EDLCs by use of UC-derived nc-Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>/CNF*

16.50 - 17.10      **H. I. Kim, J. J. Yang, H. J. Kim, T. Momma, Soo Gil Park and  
T. Osaka**  
**Chungbuk National University, Korea**  
*Electrochemical behaviour of lithium titanium oxide/carbon composite for electrochemical capacitor*

17.10 - 17.30      **Thomas Beuvier, M. Richard-Plouet, M. Mancini-Le Granvalet and  
L. Brohan**  
**IMN, University of Nantes, France**  
*TiO<sub>2</sub>(B) nanoribbon obtained by a soft chemistry method*

**EVENING SESSION (17.50 - 20.00)**

17.50 - 20.00      **Poster Session I**  
**Poster award Committee: Elzbieta Frackowiak, Frédéric Favier,  
Pietro Staiti, Scott Donne and Masayuki Morita**

**MORNING SESSION (08.30 – 12.20)**

- **Devices, performances and applications - chairman: Ralph Brodd**

- 08.30 – 09.00      **Keynote Lecture: Yves Scudeller**  
**Polytech Nantes, University of Nantes, France**  
*Electrothermal analysis of Supercapacitors*
- 09.00 – 09.20      **Maximilian Kaus, J. Kowal and D. U. Sauer**  
**RWTH Aachen University, Germany**  
*Modelling the effects of charge redistribution during self discharge of supercapacitors*
- 09.20 – 09.40      **David Pech, M. Brunet, H. Durou, P-L. Taberna, P. Simon, N. Fabre, F. Mesnilgrete and V. Conédéra**  
**University of Toulouse, LAAS-CNRS, France**  
*Miniaturization and Integration of Carbon-based Electrochemical Capacitors: Technological Issues*
- 09.40 – 10.10      **Keynote Lecture: Andrew Burke**  
**University of California-Davis, USA**  
*Testing of Supercapacitor Devices: Capacitance, Resistance, Energy density, and Power capacity*
- 10.10 – 11.00      **Poster Session II: Even Numbers - Coffee Break**

- **Electrodes / Electrolytes Interface - chairman: Katsuhiko Naoi**

- 11.00 – 11.30      **Keynote Lecture: Patrice Simon**  
**University of Toulouse, CIRIMAT, France**  
*The effect of carbon pore size compared to ion size on capacitive behavior of EDLC electrodes*
- 11.30 – 11.50      **Philippe Azaïs, F. Tertrais, O. Caumont, J-D. Depond and J. Lejosne**  
**BATSCAP, France**  
*Ageing study of advanced carbon / carbon ultracapacitor cells working in various organic electrolytes*
- 11.50 – 12.20      **Keynote Lecture: Encarnation Raymundo-Piñero, R. Mysyk and F. Béguin**  
**CNRS-University of Orléans, France**  
*Confinement of tetraalkylammonium ions in EDLC carbon electrodes*
- 12.20 – 14.00      Lunch

**AFTERNOON SESSION (14.00 – 18.10)**

- **Electrode materials: Oxides and Carbon/Oxide Composites - Chairman: Tony Pandolfo**

- 14.00 – 14.30      **Keynote Lecture: Jeffrey W. Long, M.B. Sassin, A.N. Mansour, A.E. Fischer, K.A. Pettigrew and D.R. Rolison**  
**U.S. Naval Research Laboratory, USA**  
*Multifunctional carbon nanoarchitectures as electrode structures for high-performance asymmetric electrochemical capacitors*

- 14.30 - 14.50      **Robert C.T. Slade, A. Chandra, A. J. Roberts and E. Lam How Yee**  
**University of Surrey, United Kingdom**  
*Nanostructured oxides for energy storage applications in supercapacitors and batteries*
- 14.50 - 15.10      **Daniel Guay**  
**INRS-Énergie, Canada**  
*On the stability of ruthenium oxide at low potential*
- 15.10 - 15.40      **Keynote Lecture: Ouassim Ghodbane, J.L. Pascal and F. Favier**  
**University of Montpellier - CNRS, France**  
*Study of Charge Storage Properties in MnO<sub>2</sub> based Electrochemical Supercapacitors*
- 15.40 – 16.30      **Poster session: Odd Numbers** - Coffee Break
- **Devices, performances and applications - Chairman: Yury Gogotsi**
- 16.30 – 17.00      **Keynote Lecture: Elzbieta Frackowiak and G. Lota**  
**Poznan University of Technology, Poland**  
*Pseudocapacitance effects for a novel generation of supercapacitors*
- 17.00 – 17.20      **Denshchikov K.K, Marianna Y. Izmaylova, Zhuk A.Z., Gerasimov A.F.**  
**Joint Institute of High Temperatures of the Russian Academy of Science, Russia**  
*New generation of stacked supercapacitors*
- 17.20 - 17.40      **M. Lazzari, Francesca Soavi and M. Mastragostino**  
**University of Bologna, Italy**  
*Dynamic performance of PYR1(2O1)TFSI-based supercapacitor for HEV application*
- 17.40 – 18.10      **Keynote Lecture: S. Yoon, S. Ma, J. Kim, K. Kim, and Kwang Kim**  
**Yonsei University, Korea**  
*Nano-Hybrid Electrode Materials for Electrochemical Capacitors*

**EVENING SESSION (19.30 – )**

- 19.30                      Bording for Cruise Dinner
- 19.45 -                      Poster Award and Gala Dinner

**MORNING SESSION (08.30 - 12.20)**

• **Electrode Materials: Manganese Oxides - chairman: Nae-Lih Wu**

- 08.30 - 09.00      **Keynote Lecture: Scott Donne**  
**University of Newcastle, Australia**  
*Structural and Morphological Effects on Manganese Dioxide Supercapacitor Electrodes*
- 09.00 - 09.20      **Agnieszka Malak, C. Matei-Ghimbeu, C. Vix-Guterl and E. Frackowiak**  
**Poznan University of Technology, Poland**  
*Carbon/ $\lambda$ -MnO<sub>2</sub> composites for supercapacitor electrodes*
- 09.20 - 09.40      **Fatemeh Ataherian, K.T. Lee, and N.L. Wu**  
**National Taiwan University, Taiwan**  
*Long-term electrochemical behavior of manganese oxide electrochemical capacitor under reducing potential*
- 09.40 - 10.10      **Keynote Lecture: Pietro Staiti and Francesco Lufrano**  
**Institute CNR di Tecnologie Avanzate per l'Energia "Nicola Giordano", Italy.**  
*Manganese oxide/activated carbon materials for hybrid supercapacitors*
- 10.10 - 10.40      Coffee Break

• **Electrodes Materials: Other Materials - chairman: John Miller**

- 10.40 - 11.10      **Keynote Lecture: Daniel Bélanger**  
**UQAM, Canada**  
*Enhanced activated carbon electrodes for EDLC: the influence of grafted electroactive molecules*
- 11.10 - 11.30      **Ana Karina Cuentas-Gallegos**  
**National Autonomous University of Mexico, Mexico**  
*Design of an asymmetric aqueous electrochemical supercapacitor using hybrid materials electrodes based on polyoxometalates and carbon nanotubes.*
- 11.30 - 11.50      **Teressa Nathan, M. Cloke and S. R. S. Prabaharan**  
**The Nottingham University Malaysia, Malaysia**  
*Pseudocapacitive properties of Transition Metal Silicide, Ni<sub>2</sub>Si induced by Probable Electrochemical Conversion Reactions*
- 11.50 - 12.20      Concluding
- 12.20                  Lunch boxes