Program

International Symposium on Enhanced Electrochemical Capacitors

6-10 May 2019

Nantes, France| La Cité Nantes Events Center

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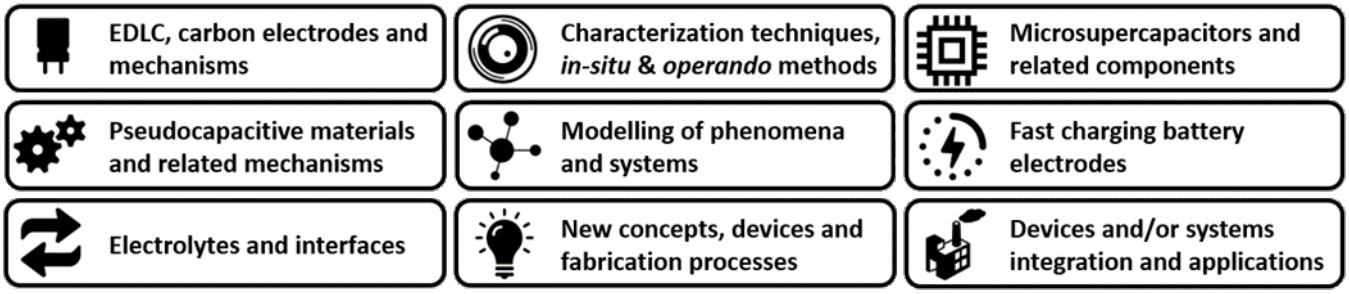
INTRODUCTION

Colors and symbols used in this document:

Plenary (50 min)	Keynote (20 min)	Oral (10 min)	Round Table	Breaks and social events



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All details about poster sessions are reported pages 11-17.

MONDAY 6TH MAY

12:30 > REGISTRATION

14:00 > INTRODUCTION [ROOM 300]

[ROOM 300] ***Chair***: *Elzbieta* ***Frackowiak*** *&* *Patrice* ***Simon***

14:20 > PLENARY 1
A. BALDUCCI
(University of Jena – DE)
Going toward high energy density electrochemical capacitor: the essential role of the electrolyte

15:10 > KEYNOTE 1
K. FIC
(Poznan University of Technology – PL)
Saturated water-based electrolytes in electrochemical capacitor application

15:30 > KEYNOTE 2
M. ISHIKAWA
(Kansai University – JP)
High-strength gel electrolytes from biopolymers with ionic liquid for EDLC

15:50 > COFFEE BREAK

[ROOM 300] ***Chair***: *Andrea* ***Balducci*** *&* *François* ***Béguin***

16:20 > KEYNOTE 3
O. GHODBANE
(Institut national de recherche et d'analyse physico-chimique – TN)
Physico-chemical and theoretical investigations of novel ionic liquids applied as electrolytes for supercapacitors

MONDAY 6TH MAY

16:40 > KEYNOTE 4
R. TORRESI
(Universidade de São Paulo – BR)
Conducting polymers for asymmetric pseudocapacitors

17:00 > KEYNOTE 5
S. SADKI
(Université de Grenoble Alpes – FR)
Bottom-up conjugated/conducting polymers-coated ALD@silicon nanostructures for integrated on-chip EDLCs

17:20 > KEYNOTE 6
F. LUFRANO
(CNR Institute for Advanced Energy Technologies – IT)
Flexible supercapacitors based on cotton textile electrodes

17:40 > **WELCOME DRINK**

TUESDAY 7TH MAY

[ROOM 300] *Chair*: Yury **Gogosti** & Stefanie **Lochmann**

09:00 > PLENARY 2
P. SIMON
(Université Paul Sabatier Toulouse – FR)
3- and 2-Dimensional materials for capacitive energy storage

09:50 > KEYNOTE 7
B. DUNN
(University of California Los Angeles – US)
What is the next big thing for pseudocapacitive materials?

10:10 > **POSTER SESSION & COFFEE BREAK [ROOM R0]**

[ROOM 150] *Chair A*: George **Chen** & Christophe **Lethien**

[ROOM 300] *Chair B*: Jérémy **Freixas** & Jeffrey **Long**

10:40 > YOUNG ORAL A1
B. ASBANI
(Université de Lille – FR)
Solder reflow resistant ionogel based micro-supercapacitors using MnO_2 3D electrodes

ORAL B1
J. AJURIA
(CICenergigune – ES)
An ultrafast battery performing as a supercapacitor: electrode tuning for high power performance and long cycling life

10:50 > YOUNG ORAL A2
M. GABARD
(GREMAN – FR)
Preparation of 3D electrodes for micro-supercapacitors by spin-coating based on pseudo-faradic materials

ORAL B2
N. MANYALA
(University of Pretoria – ZA)
Synthesis of ternary NiCo-MnO_2 nanocomposite and its application as a novel high energy supercapattery device

11:00 > YOUNG ORAL A3
B. BOUNOR
(Université de Nantes – FR)
Hierarchical electrode for high areal energy on chip micro-supercapacitors

YOUNG ORAL B3
H. SHAO
(Université de Toulouse – FR)
Electrochemical study of pseudocapacitive behavior of Ti_3C_2Tx MXene material in aqueous electrolytes

TUESDAY 7TH MAY

11:10 >

YOUNG ORAL A4
E. HAYE
(University of Namur – BE)
CrN electrodes deposited by magnetron sputtering for electrochemical capacitors: from dense films to nanostructured CrN on chip micro-supercapacitors

YOUNG ORAL B4
M. ARNAIZ
(CICenergigune – ES)
Na-ion capacitors based on $TiSb_2$ alloy negative electrode: the role of the binder towards enhancing cycle life

11:20 >

ORAL A5
M. BORRÀS ARGEMÍ
(Leitat Technological Center – ES)
Nanocellulose in printed supercapacitors capacitor

YOUNG ORAL B5
S. LI
(Nanyang Technological University – SG)
Holey graphene wrapped porous $TiNb_{24}O_{62}$ microparticles as high performance intercalation pseudocapacitive anode materials for lithium-ion capacitor

11:30 >

YOUNG ORAL A6
P. ZACCAGNINI
(Polytechnic of Turin – IT)
Innovative photovoltaic harvester and electrochemical double layer capacitor integrated devices

YOUNG ORAL B6
A. CHOJNACKA
(Poznan University of Technology – PL)
Tin phosphide battery-type negative electrode for high-performance Na-ion capacitor

11:40 >

YOUNG ORAL A7
P. RUSCHHAUPT
(Helmholtz Institute Ulm – GE)
High mass loading flexible electrodes with green aqueous binders based on mixtures of natural polymers

YOUNG ORAL B7
D. IERMAKOVA
(Université Paul Sabatier Toulouse – FR)
Non-electrochemical Na – deintercalation from O_3 $NaVO_2$

11:50 >

INVITED ORAL A8
A. LAMBERTI
(Polytechnic of Turin – IT)
Laser-induced graphenization of composite polymeric surface for flexible supercapacitor fabrication

ORAL B8
J.-Y. LIN
(Tatung University – TW)
Pulse-reversal deposition of nickel sulfide based materials for hybrid supercapacitors

12:00 > **ROUND TABLE**

12:30 > **POSTER SESSION & LUNCH BREAK [ROOM R0]**

[ROOM 150] *Chair A:* Krzysztof **Fic** & Laurent **Pilon**

[ROOM 300] *Chair B:* Olivier **Crosnier** & Ana Karina **Cuentas Gallegos**

14:00 >

ORAL A9
K. KROIS
(Technische Universität Darmstadt, Germany – GE)
A simulative approach for linking electrode and electrolyte properties to supercapacitor performance

ORAL B9
P. STEVENS
(Electricité de France EDF – FR)
New negative electrode materials for hybrid supercapacitors

14:10 >

ORAL A10
J. JACQUEMIN
(Université de Tours – FR)
Evaluation of the transport properties of electrolytes for supercapacitors

ORAL B10
R. PALM
(University of Tartu – EE)
On the optimal surface characteristics of electrical double layer capacitor electrodes with triethylmethylammonium tetrafluoroborate in acetonitrile electrolyte

14:20 >

YOUNG ORAL A11
A. SERVA
(Sorbonne Université – FR)
Biredox ionic liquids: an atomistic characterization of transport and electrochemical properties from molecular dynamics

ORAL B11
J. ESKUSSON
(University of Tartu – EE)
Potassium salts based non-aqueous electrolytes for supercapacitors

TUESDAY 7TH MAY

14:30 >

YOUNG ORAL A12
E. H. LAHRAR
(Université Paul Sabatier Toulouse – FR)
Towards an understanding of the structural and dynamical properties of adsorbed ions in various porous carbon structures – A molecular dynamics simulation study

YOUNG ORAL B12
J. MENZEL
(Poznan University of Technology – PL)
Redox processes in solid state agar based electrolytes for electrochemical capacitors

14:40 >

ORAL A13
A. PAILLERET
(Sorbonne Université – FR)
EIS investigations of supercapacitor electrode materials in a two electrode configuration

YOUNG ORAL B13
H. AVIREDDY
(Catalonia Institute for Energy Research – ES)
Stable high-voltage aqueous pseudocapacitive energy storage in "Water-in-Salt" electrolyte with slow self-discharges

14:50 >

YOUNG ORAL A14
M. FORGHANI
(University of Newcastle – AU)
Inspecting the kinetic behaviour of electrolyte anions and cations in two electrodes system AC electrochemical cell using sensing electrode

YOUNG ORAL B14
C.-Y. KU
(National Tsing Hua University – TW)
Electrochemical activation of vertically grown graphene nanowalls synthesized by plasma-enhanced chemical vapor deposition for high-voltage supercapacitors

15:00 >

ORAL A15
O. BONDARCHUK
(International Iberian Nanotechnology Laboratory – PT)
Electrowetting of ionic liquid on graphite: probing via in situ electrochemical X-ray photoelectron spectroscopy

ORAL B15
S. MALMBERG
(Skeletontech – DE)
Increased energy density in industrial ultracapacitors

15:10 >

INVITED ORAL A16
Q. GAO
(Oak Ridge National Laboratory – US)
In-operando tracking ion intercalation into 2D MXenes in aqueous electrolytes

INVITED ORAL B16
F. DUCLAIROIR
(Commissariat à l'Energie Atomique et aux Energies Alternatives CEA – FR)
Pillared graphene assemblies as electrode materials for supercapacitors

15:20 > **ROUND TABLE**

15:40 > **POSTER SESSION & COFFEE BREAK [ROOM R0]**

[ROOM 150] *Chair A: Dominic **Rochefort** & Olivier **Fontaine***

[ROOM 300] *Chair B: Steven **Le Vot** & Wataru **Sugimoto***

16:10 >

INVITED ORAL A17
S. SATHYAMOORTHI
(VIDYASIRIMEDHI INSTITUTE OF SCIENCE AND TECHNOLOGY – TH)
High rate 3D graphene-sponge supercapacitor with hybrid aqueous/ionic liquid dual electrolyte: In situ gas analysis using DEMS

YOUNG ORAL B17
Y. SATO
(Shinshu University – JP)
Improvement of cyclability of 4 V-class aqueous hybrid capacitor by aqueous "pre-lithiation" and "re-lithiation"

16:20 >

YOUNG ORAL A18
P. PRZYGOCKI
(Poznan University of Technology – PL)
Electrochemical mass spectrometry as a perfect tool to quantitatively analyse the high-voltage degradation of ECs in aqueous electrolytes

YOUNG ORAL B18
S. LINDBERG
(Chalmers University of Technology – SE)
Novel electrolytes for next-generation hybrid supercapacitors

16:30 >

YOUNG ORAL A19
Y.-C. WU
(Université Paul Sabatier Toulouse – FR)
Electrochemical quartz crystal microbalance of ion adsorption in carbon nanopores

ORAL B19
B. BALLARIN
(Università di Bologna – IT)
Magnetic composite materials for energy storage applications

TUESDAY 7TH MAY

16:40 >

INVITED ORAL A20
B. GÓRSKA
(Poznan University of Technology – PL)
Remarkable low temperature performance of carbon/carbon EDLCs in ionic liquid binary mixture

INVITED ORAL B20
J. A. ARGÜELLO GARCÍA-PERTUSA
(Universidad Europea de Madrid – ES)
Electrophoretic deposition of manganese oxide and graphene nanoplatelets on graphite paper for the manufacture of supercapacitor electrodes

16:50 >

YOUNG ORAL A21
R. HACHICHA
(Université de Montpellier – FR)
Accelerated ageing method to estimate a reliable cell voltage of electrochemical supercapacitor

YOUNG ORAL B21
Y. ZHU
(Université de Montpellier – FR)
The structure modification of mxene layer for supercapacitors

17:00 >

YOUNG ORAL A22
T. MATHIS
(Drexel University – US)
Impact of organic solvent choice on the charge storage mechanisms of mxenes

ORAL B22
H. AHN
(Hanyang University - KR)
Conducting polymer intercalated vanadate nanofibers for pseudocapacitor applications

17:10 >

YOUNG ORAL A23
A. BOTHE
(Friedrich-Schiller-University Jena – DE)
Physicochemical and thermal properties of nitrile-based electrolytes for high voltage EDLCs

INVITED ORAL B23
F. GHAMOUSS
(Université de Tours – FR)
Vertically aligned composite electrodes using carbon nanotubes and pseudocapacitive materials for supercapacitors

17:20 > **ROUND TABLE**

17:40 > **POSTER SESSION & REFRESHMENTS [ROOM R0]**

WEDNESDAY 8TH MAY

[ROOM 300] ***Chair****: Daniel* ***Bélanger*** *&* *Enn* ***Lust***

09:00 >

PLENARY 3
Y. GOGOTSI
(Drexel University – US)
High-power, high-energy storage enabled by 2D metallic materials

09:50 >

KEYNOTE 8
F. BÉGUIN
(Poznan University of Technology – PL)
Electrochemical capacitors in aqueous electrolyte on the way to outperform their organic counter part

10:10 > **COFFEE BREAK [ROOM R0]**

[ROOM 300] ***Chair****: Bruce* ***Dunn*** *&* *Wan-Yu* ***Tsai***

10:40 >

KEYNOTE 9
N. PINNA
(Humboldt-Universität zu Berlin – DE)
Nonaqueous synthesis of Nb_2O_5@Carbon nanoparticles and nanospheres for high performance hybrid supercapacitors

WEDNESDAY 8TH MAY

11:00 > KEYNOTE 10
S. DONNE
(University of Newcastle – AU)
An examination of the factors determining electrochemical capacitor behaviour

11:20 > KEYNOTE 11
L. PILON
(University of California Los Angeles – US)
Thermal signature of ion intercalation and surface redox reactions in model pseudocapacitive electrodes

11:40 > KEYNOTE 12
H. S. PARK
(Sungkyunkwan University – KR)
Molecular-level surface redox sites of oxidized black phosphorus nanosheets

12:00 > KEYNOTE 13
J. LONG
(Naval Research Laboratory – US)
Battery-like versus pseudocapacitive behaviour at nanostructured manganese oxides: Mechanistic insights from model 2D interfaces to 3D electrode architectures

12:30 > **LUNCH BREAK [ROOM R0]**

[ROOM 300] ***Chair****: Ouassim* ***Ghodbane*** *&* *Ho Seok* ***Park***

14:00 > PLENARY 4
E. FRACKOWIAK
(Poznan University of Technology – PL)
Electrolytes in electrochemical capacitors: beyond capacitive storage

14:50 > KEYNOTE 14
O. FONTAINE
(Université de Montpellier – FR)
Molecular electrochemistry of redox ionic liquids in porous carbon for better supercapacitors

15:10 > KEYNOTE 15
D. ROCHEFORT
(Université de Montréal – CA)
Towards a better understanding of redox-active electrolyte capacitors with the help of solid-state NMR

15:30 > KEYNOTE 16
G. Z. CHEN
(University of Nottingham Ningbo – CN)
Bromide against iodide for supercapacitors

15:50 > **COFFEE BREAK [ROOM R0]**

[ROOM 300] ***Chair****: Volker* ***Presser*** *&* *Hussam Niman* ***Alshareef***

16:20 > PLENARY 5
K. NAOI
(Tokyo University of Agriculture and Technology – JP)
Evolution of supercapacitors for climate change

WEDNESDAY 8TH MAY

17:10 > **KEYNOTE 17**
C. LETHIEN
(Unviersité de Lille – FR)
Powering the Internet of Thing with on chip micro-supercapacitors

17:30 > **KEYNOTE 18**
H. N. ALSHAREEF
(KAUST University – SA)
Electrodes and microfabrication strategies for on-chip electrochemical microsupercapacitors

17:50 > **KEYNOTE 19**
S. LOCHMANN
(Technische Universität Dresden – DE)
Nanoimprint lithography of nanoporous carbon precursors for all-solid-state micro-supercapacitors

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THURSDAY 9TH MAY

[ROOM 300] *Chair*: Masashi **Ishikawa** & Katsuhiko **Naoi**

09:00 > **PLENARY 6**
D. BÉLANGER
(Université Québec À Montréal – CA)
A 25-year journey from Los Alamos to the east along the Saint-Laurent and Loire rivers, to investigate electrode materials and aqueous electrolytes for Electrochemical Capacitors

09:50 > **KEYNOTE 20**
N.-L. WU
(National Taiwan University – TW)
On the high-rate performance of oxide pseudocapacitors

10:10 > **POSTER SESSION & COFFEE BREAK [ROOM R0]**

[ROOM 300] *Chair*: Francesco **Lufrano** & Francesca **Soavi**

10:40 > **KEYNOTE 21**
J. M. ROJO
(ICMM-CSIC – ES)
Composites based on transition metal oxides and carbon materials as electrodes

11:00 > **KEYNOTE 22**
J. LE BIDEAU
(Unviersité de Nantes – FR)
Lowering activation energy of ionic liquids within ionogels: liquid properties for solid devices

11:20 > **KEYNOTE 23**
E. LUST
(University of Tartu – EE)
Operando analysis of processes at carbon |ionic liquid and carbon | non-aqueous electrolyte interface within very wide region of cell potentials

11:40 > **PANEL DISCUSSION**

12:30 > **POSTER SESSION & LUNCH BREAK [ROOM R0]**

THURSDAY 9TH MAY

14:00 > FREE TIME

[ROOM 300] *Chair*: Jose ***M. Rojo*** & Nae-Lih ***Wu***

16:00 > KEYNOTE 24
A. K. CUENTAS GALLEGOS
(Universidad Nacional Autónoma de México – MX)
Sustainable production of activated carbons using concentrated solar energy for their use in supercapacitors

16:20 > KEYNOTE 25
W. SUGIMOTO
(Shinshu University – JP)
Status and future prospects of aqueous hybrid supercapacitor using protected anode

16:40 > KEYNOTE 26
C. BUSSON
(Armor Group – FR)
En' Safe® primed current collector for EDLC

17:00 > KEYNOTE 27
E. IWAMA
(Tokyo University of Agriculture and Technology – JP)
Cation-disordered Li_3VO_4 as a negative electrode for hybrid capacitors

17:20 > KEYNOTE 28
B. CHAVILLON
(Commissariat à l'Energie Atomique et aux Energies Alternatives CEA – FR)
Hybrid Potassium-Ion capacitor: an innovative and cost-effective energy storage device for transportation applications

17:40 > FREE TIME

18:30 > **ISEECAP 2019 PICTURE SHOOTING IN FRONT OF BOATS**
1min walk from conference center

19:00 > **BOAT DEPARTURE**

21:00 > **GALA DINNER + ISEECAP AWARDS**

FRIDAY 10TH MAY

09:00 > **WELCOME COFFEE**

[ROOM 300] *Chair*: Thierry ***Brousse*** & Scott ***Donne***

09:30 > PLENARY 7
V. PRESSER
(Saarland University – DE)
A tale of two technologies: capacitive deionization and supercapacitors

10:20 > KEYNOTE 29

F. SOAVI
(University of Bologna – IT)

Green supercapacitors for energy and environmental sustainability

10:40 > KEYNOTE 30

J. OLCHOWKA
(Université de Bordeaux – FR)

Ionic Liquids for positive electrode material nano-structuration and surface optimization in hybrid supercapacitors

11:00 > KEYNOTE 31

F. FAVIER
(Université de Montpellier – FR)

Anionic compensation in the charge storage mechanism of pseudocapacitive materials

11:20 > KEYNOTE 32

W.-Y. TSAI
(Oak Ridge National Lab – US)

3D reconstruction of ionic liquid double layer structure by in-situ AFM

11:40 > KEYNOTE 33

H. PERROT
(Sorbonne Unviersité – FR)

Capacitive charge storage behavior of electrochemically reduced graphene oxides investigated by ac-electrogravimetric and electroacoustic methods

12:00 > CONCLUSION

POSTER SESSION

Pseudocapacitive materials and related mechanisms

P1 | A. A. MIRGHNI
(University of Pretoria – ZA)

Nickel-cobalt phosphate/graphene foam as enhanced electrode for hybrid supercapacitor

P2 | L.-Q. FAN
(Huaqiao University – CN)

Synthesis of $CuCo_2S_4$ nanosheet arrays on Ni foam as binder-free electrode for asymmetric supercapacitor

P3 | E. WHEELER-JONES
(University of Warwick – UK)

High power energy storage: new materials for large format supercapacitors

P4 | J. C. ESPINOSA-ÁNGELES
(Université de Nantes – FR)

Fe_2WO_6 as negative electrode material for supercapacitors operating in aqueous electrolytes

P5 | G. AH-LUNG
(Université de Tours – FR)

Fast and one step synthesis of manganese oxide with controlled-morphology and structure for aqueous supercapacitors

P6 | L. GUERLOU-DEMOURGUES
(Université de Bordeaux – FR)

Restacked 2D Mn-Co-Ni oxyhydroxides: what are the key parameters for optimized performances?

P7 | L. ATHOUËL
(Université de Nantes – FR)

Electrochemical characterization of a birnessite-type manganese dioxide: influence of the manganese average oxidation state

P8 | A. STOTT
(University of Surrey – UK)

Surfactant modified polyaniline for supercapacitor applications

P9 | A. STOTT
(University of Surrey – UK)

Layered polyaniline composites for supercapacitor applications

P10 | F. BRAGA
(University of Liverpool – UK)

Manganese oxide composites for asymmetric pseudocapacitors

P11 | C.-H. YEN
(National Tsing Hua University - TW)

A flexible supercapacitor consisting of Na_xMnO_2@CNT positive and AC-CNT negative electrode

Electrolytes and interface

P12 | L. H. HESS
(Friedrich-Schiller-University Jena – DE)

The influence of carbonate based electrolytes on the cycling stability and self-discharge of high voltage EDLCs

P13 | C. SIIMENSON
(University of Tartu – EE)

Electrochemical characterization of ionic liquid | Electrode interface for organic additives studies

P14 | C. BODIN
(Université de Montpellier – FR)

Biredox ionic liquids: new opportunities toward high performance supercapacitors

P15 | C. NETO
(CNRS CEMHTI – FR)

Investigating the carbon/electrolyte interface in high concentrated aqueous electrolytes

P16 | I. DOUIHRI
(Université de Tours – FR)

Impact of adding phosphazene flame retardant on the safety and performances of EDLC

P17 | J. KRUMMACHER
(Friedrich Schiller University Jena – DE)

$Al(TFSI)_3$ in acetonitrile as electrolyte for high-performance EDLCs

EDLC, carbon electrodes and mechanisms

P18 | D. PACHECO CATALÁN
(Centro de Investigación Científica de Yucatán A.C. – MX)

Performance of activated carbon derived from agave of mezcal for this application in supercapacitors

P19 | M. YU
(Technische Universität Dresden – DE)

Achieving high-voltage aqueous carbon-based supercapacitors

POSTER SESSION

P20 | K. SCHUTJAJEW
(Max Planck Institute of Colloids and Interfaces – DE)

Contribution of local ordering transitions in ionic liquid electrolytes for energy storage in supercapacitors

P21 | L. SOSEROV
(Institute of Electrochemistry and Energy Systems – BG)

Multiphase composite electrodes for hybrid supercapacitors operated in ionic liquid electrolytes

P22 | Y. CHIKAOKA
(Tokyo University of Agriculture & Technology – JP)

Mass transfer parameters of dualcation electrolyte for high power $Li_4Ti_5O_{12}$ / AC hybrid capacitor system

P23 | M. FORGHANI
(University of Newcastle – AU)

Investigating the electrochemical performance of AC electrochemical cell with different electrolyte concentrations using sensing

P24 | M. HÄRMAS
(University of Tartu – EE)

Perspectives of granulated white sugar for supercapacitor electrode material

P25 | M. K. SINGH
(Rajkiya Engineering College - IN)

Performance of hybrid supercapacitors fabricated with proton-battery anode and gel polymer electrolyte

P26 | X. CHEN
(West Pomeranian University of Technology Szczecin – PL)

MOF derived interconnected structured porous carbon for high-performance supercapacitor

P27 | T.-Y. YI
(National Tsing Hua University – TW)

Electrochemical activation and capacitance enhancement of expanded mesocarbon microbeads for high-voltage, symmetric supercapacitors

P28 | E. ZHANG
(TU Dresden – DE)

An asymmetric supercapacitor for unidirectional energy storage

P29 | P. GALEK
(Poznan University of Technology – PL)

Electrolyte viscosity: limiting parameter of electrochemical capacitor efficiency?

P30 | P. PRZYGOCKI
(Poznan University of Technology – PL)

Concentrated neutral aqueous electrolyte for carbon/carbon electrochemical capacitor operating at high temperature

P31 | B. GÓRSKA
(Poznan University of Technology – PL)

Anthraquinone grafted carbon as negative electrode for hybrid capacitor operating in low pH aqueous salt solution

P32 | P. BUJEWSKA
(Poznan University of Technology – PL)

Gold nanoparticles as an additive to the electrolyte for electrochemical capacitors - does the size matter?

P33 | A. CYMANN
(Gdańsk University of Technology – PL)

The influence of type and concentration of electrolyte on capacitive properties of ternary composites consisting of graphene oxide, functionalised carbon nanotubes and poly(3,4-ethylenedioxythiophene)

Modelling of phenomena and systems

P34 | A. BELHBOUB
(Université de Toulouse – FR)

Probing the relationship between structural and capacitive properties in porous carbon based supercapacitors: A lattice model

P35 | L. PILON
(University of California Los Angeles – US)

Theoretical validation of the step potential electrochemical spectroscopy (SPECS) method for pseudocapacitive electrodes

P36 | J.-M. GUIHAL
(Université de Nantes – FR)

A new recursive formulation of the output error method dedicated to continuous-time non-linear model identification: application to the state of health and state of charge monitoring of EDLC storage systems

P37 | P. ZACCAGNINI
(Polytechnic of Turin – IT)

Modeling of electrochemical capacitors under dynamical cycling

P38 | H. LIU
(University of New South Wales – SG)

Electrochemical double layer capacitors based on a nonporous two-dimensional organic-inorganic hybrid material

POSTER SESSION

Fast charging battery electrodes for asymmetric and hybrid devices

P39 | T. PANJA
(CIC Energigune – ES)

Advanced nanostructured carbons for Lithium Ion capacitors

P40 | N. OKITA
(Tokyo University of Agriculture & Technology – JP)

Prolonged cycle life for $Li_4Ti_5O_{12}$//[$Li_3V_2(PO_4)_3$/multiwalled carbon nanotubes] full cell configuration "superredox capacitor"

P41 | K. MATSUMURA
(Tokyo University of Agriculture & Technology – JP)

Mechanochemical synthesis of high capacity and ultrafast anode material; cation-disordered Li_3VO_4

P42 | D. KNOZOWSKI
(Gdańsk University of Technology – PL)

Silicon oxycarbide-graphite composite for high power batteries and hybrid devices

P43 | G. CALCAGNO
(Chalmers University of Technology - SE)

Development and evaluation of mesoporous anatase beads as anode in asymmetric hybrid supercapacitors

P44 | G.-M. BOSCH
(Karlsruher Institut für Technologie – DE)

Advanced hybrid electrodes based on polyoxometalate–carbon materials for electrochemical supercapacitors

P45 | M. WILAMOWSKA-ZAWLOCKA
(Gdańsk University of Technology – PL)

Composite materials for negative and positive electrodes dedicated to Li-ion capacitors

P46 | A. TOMAR
(University of Delhi – IN)

Mo-doped strontium cobaltite perovskite as an advanced electrode material for hybrid supercapacitor cell

P47 | X. HAN
(Humboldt-Universität zu Berlin – DE)

Nb_2O_5/reduced graphene oxide nanocomposites for hybrid supercapacitors

Characterization techniques, *in-situ* and *operando* methods

P48 | M. SUKSOMBOON
(Vidyasirimedhi Institute of Science and Technology – TH)

Single hybrid energy storage and conversion cell of silver-doped cobalt oxides: trapping excited photo-electron by silver nanoparticles

P49 | P. PIKMA
(University of Tartu – EE)

In situ STM and EIS study of 2,2'-bipyridine adsorption on Sb(111) from ionic liquid

P50 | A. SLESINSKI
(Poznan University of Technology – PL)

Interfacial side reactions in electrochemical capacitors operating with aqueous electrolyte monitored by internal pressure

P51 | A. PLATEK
(Poznan University of Technology – PL)

EQCM study of carbon-based electrodes operating with sulphate-based electrolytes for electrochemical capacitors improvement

P52 | J. PIWEK
(Poznan University of Technology – PL)

Comparison of ageing mechanisms in water-based electrochemical capacitors with capacitive and pseudocapacitive contribution

Devices and/or systems integration and applications

P53 | C. DOUARD
(Université de Nantes – FR)

Symmetric MnO_2 devices: study of components used in aqueous lab prototypes

P54 | N. TANGHERONI
(Réseau Stockage Electrochimique de l'Energie – FR)

Process optimization for symmetric supercapacitor devices in aqueous media at pilot scale

Microsupercapacitors and related components

P55 | L. BENALI KARROUBI
(LAAS CNRS – FR)

Conformal coating of pseudocapacitive materials onto highly porous current collectors for high energy/high power microsupercapacitors

P56 | P. ZACCAGNINI
(Polytechnic of Turin – IT)

Flexible and high temperature supercapacitor based on laser-induced graphene electrodes and ionic liquid electrolyte

POSTER SESSION

P57 | P. ZHANG
(Technische Universität Dresden – DE)

Zn-ion hybrid micro-supercapacitors with ultra-high areal energy density and long-term durability

P58 | J.-Y. LIN
(Tatung University – TW)

Fabrication of all-solid-state interdigitated in-planar flexible micro supercapacitors by using laser printer patterned sacrificed layer

P59 | T. BABKOVA
(Tomas Bata University in Zlin – CZ)

Flexible fiber-shaped supercapacitor based on RuO_x/PEDOT/rGO

P60 | J. YOO
(Korea Institute of Energy Research – KR)

Laser-micro-drilled edge enhancement of graphene for micro-supercapacitors with ultrahigh capacitance and energy density

P61 | T. GUILLEMIN
(Université de Nantes – FR)

All-solid 3D micro-supercapacitors based on MnO2 and ionogels

New concepts, new devices and new fabrication processes in supercapacitors

P62 | A. CHOJNACKA
(Poznan University of Technology – PL)

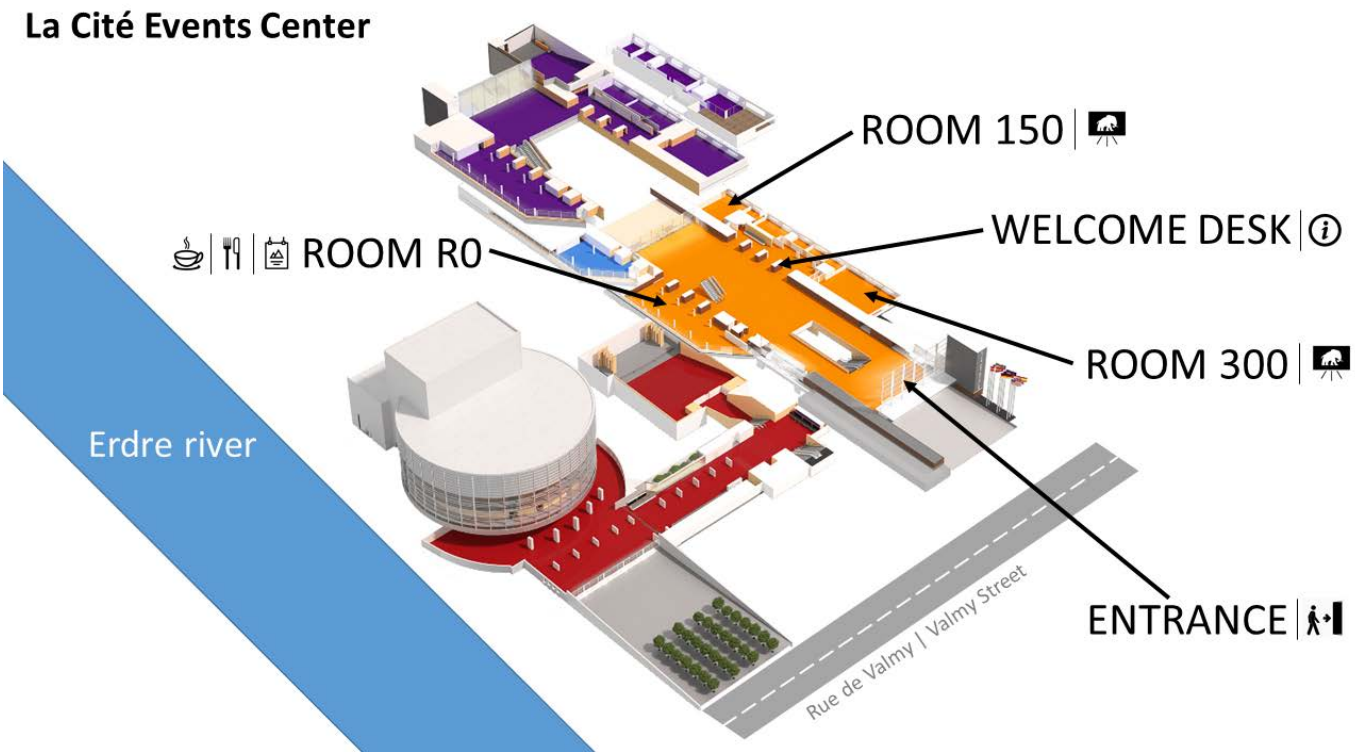
Sacrificial cathodic materials for high performance Na-ion capacitors

P63 | J. MONTEIRO BAPTISTA
(Faculdade de Ciências da Universidade de Lisboa – PT)

Extending the voltage window of aqueous electrolytes for supercapacitors

NOTES

ISEECap MAP



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