

SCIENTIFIC PROGRAM

Sunday, June 21

18.00-20.00 Registration (“Palais des congrès” – Arcachon)

19.00-21:30 Welcome party

Monday, June 22

8:30-9:00 Opening - C. Delmas, Chairman

9.00-9:40 **INV1** The rechargeable lithium battery: where do we go from here?
Peter Bruce - University of Oxford (UK)

9:40-10:20 **INV2** Interface design for advanced oxide-based all-solid-state batteries
Yasutoshi Iriyama - Nagoya University (Japan)

10:20-10:50 Coffee Break

10:50-12:30 Posters session

12:30-14:30 Lunch break

14:30-15:30 **SOLID STATE**

(8 min each) **O01** Sintering of phase pure garnet $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ nanoparticles obtained via a solid state route from a highly reactive precursor
M. Senna - Keio University (Japan)

O02 All-solid-state Li and Li-ion thin film batteries, miniaturized power sources dedicated to microsystems and internet of things
B. Pecquenard - ICMCB-CNRS, Univ. Bordeaux, (France)

O03 Preparation of Idiomorphic Active Material Crystals/ $\text{Li}_{2-x}\text{C}_{1-x+y}\text{B}_x\text{O}_d$ Glass Hybrids by Using Flux-growth Approaches and Characterization of Their All-solid-state LIBs properties
Z. Nobuyuki - Shinsu University (Japan)

O04 Structural behavior and fast lithium-ion conduction in Li_4SiO_4 - Li_3PO_4 solid electrolytes
Y. Deng - Laboratoire de Réactivité et Chimie des Solides, Amiens (France)

>> **General discussion**

15:30-16:20 **INTERFACES**

(8 min each) **O05** Cycling-Related Electrolyte (De-)Composition in an EC/EMC Based Battery System
P. Novak - Paul Scherrer Institute (Switzerland)

O06 What happens at the interface between interphase and electrode? A potential discussion motivated from photoelectron spectroscopy characterizations
J. Maibach - Ångström Laboratory, Uppsala University (Sweden)

- O07** **Development of Novel Pyridine-Boron Trifluoride Electrolyte Additives for Lithium-Ion Batteries**
M. Nie - Dalhousie University (Canada)

>> **General discussion**

16:20-16:50 *Coffee Break*

16:50-17:50 **Li-SULFUR**

- (8 min each)* **O08** **Improvement of Li-Sulfur batteries with zeolites as polysulfides sorbent: an XPS study**
R. K. Chellappan - IPREM-CNRS, University of Pau (France)

- O09** **Lithium sulfur rechargeable batteries utilizing solid electrolytes**
R. P. Rao - National University of Singapore (Singapore)

- O10** **Revisiting sulfur electrochemistry in non-aqueous electrolytes: Impact on lithium-sulfur cell design and performance.**
M. Cuisinier - Qatar Environment and Energy Research Institute (Qatar)

- O11** **Degradation of LSB Electrodes investigated with X-ray Phase Contrast Tomography**
L. Zielke - IMTEK University of Freiburg (Germany)

>> **General discussion**

17:50-19:00 **Posters session**

19:00 **Welcome Cocktail**

Tuesday, June 23

- 8:30-9:10** **INV3** **The superstructure of the $A_{2/3}MPO_4$ phases (A = Li, Na, M = Fe, Co), key intermediates in the reaction mechanism of A_xMPO_4 systems**
Florent Boucher - Institut des Matériaux Jean Rouxel, Nantes (France)

9:10-10:20 **OLIVINE**

- (8 min each)* **O12** **What is the rate limiting charge transfer mechanism in $LiFePO_4$ electrodes? How do individual $LiFePO_4$ grains transform depending on the cycling rate? Answers from in operando Neutron Depth Profiling and in operando Micro Beam Diffraction**
M. Wagemaker - Delft University of Technology (The Netherlands)

- O13** **Relationship between Reaction Distribution and Ionic Conductivity in $LiFePO_4$ Composite Electrode**
Y. Orikasa - Kyoto University (Japan)

- O14** **Power Hysteresis in $LiFePO_4$ cells**
A. Gruhle - Daimler AG, Ulm (Germany)

- O15** **Phase evolution in single-crystalline $LiFePO_4$ in a micrometer-sized battery followed by in-situ scanning transmission X-ray microscopy**
N. Ohmer - Max Planck Institute for Solid State Research, Stuttgart (Germany)

- O16 High energy density of binder-free sintered electrodes made by Spark Plasma Sintering**
V. Seznec - Laboratoire de Réactivité et Chimie des Solides, Amiens (France)

>> **General discussion**

10:20-10:50 *Coffee Break*

10:50-12:00 **SPINEL**

(8 min each)

- O17 Phase Transition Dynamics in LiNiMnO micro-particles**
H. Arai - Kyoto University (Japan)
- O18 The Mechanism of Mn and Ni Dissolution at the $\text{Li}_x\text{Ni}_{0.5}\text{Mn}_{1.5}\text{O}_{4-d}$ / Organic Carbonate Electrolyte Interface**
R. Kostecki - Lawrence Berkeley National Laboratory (USA)
- O19 Atomic scale drivers for the order/disorder transition of LiNiMnO and effect on the electrochemical properties**
M. Casas-Cabanas - CIC energiGUNE (Spain)
- O20 Oxygen partial pressure and temperature dependence of electrical conductivities in LiMnNiTiO ($x=0, 0.5$ and $y=0, 0.5$)**
S. Abe - Tokyo City University (Japan)
- O21 Characterization for the $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ Prepared at Various Conditions**
S. H. Wu - Tatung University (Taiwan)

>> **General discussion**

12:00-14:00 *Lunch break*

14:00-14:40 **INV4 Atomic Resolution STEM and Spectroscopic Characterization of Li Ion Battery Related Crystals**
Yuichi Ikuhara - The University of Tokyo (Japan)

14:40-16:10 **Posters session and Coffee Break**

16:10-17:50 **POLYANION**

(8 min each)

- O22 Fe defects control Na^+ pathways and power performance in alluaudite-type low cost high voltage cathode material $\text{Na}_{2+d}\text{Fe}_{2-d/2}(\text{SO}_4)_3$**
R.P. Rao - National University of Singapore (Singapore)
- O23 $\text{Na}_3\text{V}_2(\text{PO}_4)_2\text{F}_3$: crystal structure and phase transformations upon Na^+ extraction of a promising positive electrode**
M. Bianchini - Institut Laue-Langevin, Grenoble (France)
- O24 Determining performance-limiting mechanisms in fluorophosphate sodium-ion battery cathodes via transition-metal substitution and first-principles calculations**
I. Matts - Massachusetts Institute of Technology (USA)
- O25 Low-polarization Na-ion battery with chromium-substituted sodium vanadium phosphate cathodes and sodium titanium phosphate anode**
P. Lavela - Departamento de Química Inorgánica e Ingeniería Química, Córdoba (Spain)

- O26 Sodium-Ion Diffusion and Voltage Trends in Phosphates $\text{Na}_4\text{M}_3(\text{PO}_4)_2\text{P}_2\text{O}_7$ (M = Fe, Mn, Ni, Co) for Possible High Rate Cathodes**
S. Wood - University of Bath (United Kingdom)
- O27 Sodium Intercalation into the Iron Hydroxysulfate $\text{NaFe}_3(\text{SO}_4)_2(\text{OH})_6$: a Topotactic Reversible Reaction from a Crystalline Phase to an Inorganic Polymer-like structure**
V. Pralong - Laboratoire de Cristallographie et Sciences des Matériaux, Caen (France)
- O28 $\text{Li}_2\text{Cu}_2\text{O}(\text{SO}_4)_2$: a possible electrode for sustainable Li-based batteries showing a 4.7 V redox activity vs. Li^+/Li^0**
M. Sun - Collège de France, Paris (France)
- >> **General discussion**

17:50-19:00 Posters session

Wednesday, June 24

8:30-9:10 **INV5 Ion Dynamics in Electrodes and Electrolytes as Characterized by Magnetic Resonance Spectroscopy and Imaging**
Gillian Goward - McMaster University, Hamilton (Canada)

9:10-10:40 **NEGATIVE-OTHERS**

- (8 min each)
- O29 MXene Nanosheets for Negative Electrode Materials of Sodium-Ion Batteries**
M. Okubo - The University of Tokyo (Japan)
- O30 On the high and low temperature performances of Na-ion batteries: Hard carbon a case study**
A. Ponrouch - Institut de Ciència de Materials de Barcelona (Spain)
- O31 Characterisations and electrochemical performances of hard carbons in sodium ion batteries**
V. Simone - Univ. Grenoble Alpes, CEA, LITEN (France)
- O32 In operando XRD/electrochemistry investigation of lithium insertion into anatase-derived titanium oxyfluoride TiOF_2**
K. Guérin - Institut de Chimie de Clermont-Ferrand (France)
- O33 Hydrides as novel high capacity anodes for lithium batteries**
S. Brutti - Università della Basilicata (Italy)
- O34 Electrochemical mechanism and high performances of Bi and Mg_3Bi_2 as negative electrodes for Mg batteries**
F. Murgia - Institut Charles Gerhardt, Montpellier (France)
- >> **General discussion**

10:40-11:10 Coffee Break

11:10-12:10 **Li-AIR**

- (8 min each)
- O35 Introduction of additives to nonaqueous Li- O_2 cells**
D. Aurbach - Bar Ilan University (Israel)

- O36** Understand the reaction mechanism and re-chargeability of Li-O₂ battery via Electrochemical Quartz Crystal Microbalance study
F. Bardé - Toyota Motor Europe (Belgium)
- O37** Operando XRD view on the structure of Li₂O₂ during charge and controlling the morphology using NiO seed crystals to enhance cycle life time of Li-air batteries
S. Ganapathy - Delft University of Technology (The Netherlands)
- O38** Nanostructured Oxygen Selective Membrane for Li-Air Battery Operating In Ambient Air
J. Amici - Politecnico di Torino (Italy)
- >> **General discussion**

12:10-20:00 FREE AFTERNOON

20:00 BANQUET (« Château Smith Haut Laffite » Martillac)

Thursday, June 25

8:30-9:10 **INV6** Improving the rate capability of Li (Na)-ion batteries by constructing porous carbon network
Yan Yu - University of Science and Technology of China and Max Planck Institute for Solid State Research, Stuttgart (Germany)

9:10-10:30 CHARACTERIZATION

(8 min each)

- O39** Relaxation effects of the negative electrode TiSnSb using ¹¹⁹Sn Mössbauer and ⁷Li MAS NMR spectroscopies
N. Dupré - Institut des Matériaux Jean Rouxel, Nantes (France)
- O40** Chemical and electronic properties of thin film layered cathode materials: electron spectroscopy, X-ray diffraction and electrochemical studies
G. Cherkashinin - Technische Universität Darmstadt (Germany)
- O41** Operando Magnetic Resonance Spectroscopy and Imaging of batteries
E. Salager – CEMHTI, Orléans (France)
- O42** NAPXPS- a surface sensitive method for studying electrochemical interfaces in operando
M. Hahlin - Ångström laboratory, Uppsala University (Sweden)
- O43** Operando X-ray Absorption Spectroscopy of NCA Particles
L. Nowack - ETH Zurich (Switzerland)
- O44** Monitoring of the SEI-Evolution of Uncoated and Carbon-Coated Si Nanoparticles by Transmission Electron Microscopy and Electrochemical Impedance Spectroscopy
K. Van Havenbergh - EMAT - Antwerp (Belgium)
- >> **General discussion**

10:30-11:00 Coffee Break

11:00-11:40 **INV7** **New High Capacity Electrode Materials for Rechargeable Li/Na Batteries**
Naoaki Yabuuchi - Tokyo Denki University (Japan)

11:40-12:30 **Na-LAYERED**

- (8 min each)
- O45** **Irreversible reaction in NaCoO₂ by insertion and extraction of sodium**
T. Kobayashi - Central Research Institute of Electric Power Industry (Japan)
- O46** **P2-type: crystallography, crystal chemistry, and how to avoid Na⁺ ordering**
M. Avdeev - ANSTO (Australia)
- O47** **A Comparison of O3-NaFe_x(Co_{0.5}Ni_{0.5})_{1-x}O₂ and O3-NaFe_xCo_{1-x}O₂ for Na-ion Battery Positive electrodes**
J. S. Thorne - Dalhousie University (Canada)
- O48** **Solid-state NMR and DFT: powerful tools for the study of the processes occurring upon cycling of sodium transition metal oxides**
R. Clément - University of Cambridge (United Kingdom)

>> **General discussion**

12:30-14:30 *Lunch break*

14:30-16:10 **Li-LAYERED**

- (8 min each)
- O49** **Understanding the structure of Li-rich layered oxide for lithium-ion battery**
H. Yu - Beijing University of Technology (China)
- O50** **Developing new electrolyte systems for high voltage cycling and in situ neutron diffraction experiments: Highly concentrated electrolytes**
R. Petitbon - Dalhousie University (Canada)
- O51** **Understanding of Li-rich Layered Oxide Cathode Materials for Lithium Ion Batteries**
B-J. Hwang - National Taiwan University of Science and Technology (Taiwan)
- O52** **Analysis of the voltage decay in Li-Rich materials**
J-F. Colin - Univ. Grenoble Alpes, CEA, LITEN (France)
- O53** **Improvement of the high temperature cyclability of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ by flake-shaped Alumina surface coating.**
C.E. Liu - Industrial Technology Research Institute (Taiwan)
- O54** **Redox plateau decay in extended cycling of Li₂Ir_{1-x}Sn_xO₃ positive electrode materials**
E. McCalla - Collège de France, Paris (France)
- O55** **The role additive on improving performances of Lithium-Rich cathode**
M. Anouti - Physico-chimie des Matériaux et des Electrolytes pour l'Energie, Tours (France)
- O56** **Electrochemical performance of a layered-spinel integrated Li[Ni_{1/3}Mn_{2/3}]O₂ as a high capacity cathode material for Li-ion batteries**
P. K. Nayak - Bar-Ilan University (Israel)

>> **General discussion**

16:10-16:40 *Coffee break*

16:40-17:50 **NEGATIVE-Si**

(8 min each)

- O57 Stress-Voltage Coupling in Si Alloys**
M. Obrovak - Dalhousie University (Canada)
- O58 Coupling surface imaging, spectroscopy and focused ion beam for a better understanding of lithiation mechanisms of silicon electrodes for Li-ion battery applications.**
A. Bordes - Laboratoire de Physico-Chimie des Surfaces, Chimie ParisTech, (France)
- O59 Influence of silicon and carbon contents on the microstructure and electrochemical performances of Si/Ni_{3,4}Sn₄/Al/C composites used as negative electrodes for Li-ion batteries**
T. Azib - Institut de Chimie et des Matériaux Paris Est (France)
- O60 Benefits of silicon carbonitride matrices on the cycling stability of silicon anodes in LIBs**
D. Vrankovic - Technische Universität Darmstadt (Germany)
- O61 Synergistic effects of Ge and Si on the performances and mechanisms of Ge_xSi_{1-x} electrode for Li-ion batteries**
D. Duveau - Institut Charles Gerhard, Montpellier (France)

>> *General discussion*

Friday, June 26

- 8:30-9:10** **INV8** **Linking electrode kinetics to crystallography and chemistry**
Anton Van der Ven - University of California Santa Barbara (USA)
- 9:10-9:50** **INV9** **X-ray Microscopies for Studying Lithium Ion Batteries**
Vanessa Wood - ETH Zurich (Switzerland)
- 9:50-10:10** *Coffee break*
- 10:10-12:00** **Discussions on transverse topics**
Conclusion

Posters List

N°	Topic	Author	Title
P01	Solid State	Burbano Mario	<i>Structure and ionic conductivity of lithium garnets</i>
P02	Solid State	Flamary Florian	<i>Iron disulfide, a high performance positive electrode material in thin film lithium batteries.</i>
P03	Solid State	Kimura Yuta	<i>Evaluation of Li Chemical Potential of Mechanically Stressed Li Ion Batteries Cathodes</i>
P04	Solid State	Loho Christoph	<i>Potential of Novel CO₂-Laser Assisted Chemical Vapor Deposition for All-Solid-State Thin-Film Li-Ion Battery Research</i>
P05	Solid State	Pelé Vincent	<i>Iron molybdate as an electrode material for Na and Li thin films batteries</i>
P06	Solid State	Rawlence Michael	<i>Solid State Li₇La₃Zr₂O₁₂ Thin Film Electrolyte by Pulsed Laser Deposition: Deposition, Crystallization, Near Order Characteristics vs. Lithiation</i>
P07	Solid State	Ritter Helene	<i>Investigations on Lithium/LIPON interfaces for Li-ion microbatteries</i>
P08	Solid State	Tarhouchi Ilyas	<i>Li₁₀SnP₂S₁₂: an electrolyte and electrode material for all-solid state batteries?</i>
P09	Solid State	Katoh Yuki	<i>Ionic conductivities of solid solutions with LGPS-type crystal structure</i>
P10	Interface	Chen Zonghai	<i>Investigating Parasitic Reactions in Lithium Batteries</i>
P11	Interface	Downie Laura	<i>Effect of electrolyte solvents and additives at high voltage studied using isothermal microcalorimetry and ultra high precision coulometry</i>
P12	Interface	Freunberger Stefan	<i>Long chain alkyl carbonates as SEI modifiers: Ion transport, structure and electrochemistry of the parent electrolytes</i>
P13	Interface	Gonser Andreas	<i>Slurry based composite electrodes vs. Si thin films - SEI investigations</i>
P14	Interface	He Minglong	<i>In situ Gas Analysis of Li₄Ti₅O₁₂ Based Electrodes at Elevated Temperatures</i>
P15	Interface	Horstmann Birger	<i>Morphology of Solid Electrolyte Interphase: A Model Based Approach</i>
P16	Interface	Koyama Yukinori	<i>Density functional study on LiCoO₂ surfaces</i>
P17	Interface	Schulz Natalia	<i>XPS analysis of composite cathodes: SEI-formation at different depth and spectral interpretation</i>
P18	Interface	Späth Thomas	<i>Towards a more fundamental understanding of SEI formation: LiCoO₂-solvent interaction studied with surface science methods</i>
P19	Interface	Suzuki Kota	<i>Analysis of Coating Effects on LiMn₂O₄ Epitaxial Thin Film Electrode</i>
P20	Li- sulfur	Conder Joanna	<i>Taming the polysulfide shuttle in Li-S battery</i>
P21	Li- sulfur	Moog Iona	<i>Li-S batteries in Johnson Matthey</i>
P22	Olivine	Anne Henri	<i>New insights into the kinetics of Na insertion and extraction into the FePO₄/NaFePO₄ system</i>
P23	Olivine	Gounder Adiel	<i>Synthesis and Characterization of LiMnPO₄ Cathode Material Prepared by a Novel Sol-Gel Method</i>
P24	Olivine	Kwon Nam Hee	<i>Opportunities and Risks of Nano-LiMnPO₄: ionic diffusivity and life cycle assessments</i>
P25	Olivine	Manzi Jessica	<i>Self-discharge in LiCoPO₄ electrodes</i>
P26	Olivine	Mori Takuya	<i>Origin of High Rate Capability of LiFePO₄ Investigated by Time-resolved X-ray Diffraction at Various Operating Temperatures</i>
P27	Spinel	Boulet Lucien	<i>Operando neutron powder diffraction of LiNi_{0.5}Mn_{1.5}O₄ vs. graphite performed in a cylindrical cell</i>
P28	Spinel	Dräger Christoph	<i>Titanium substituted LiCoTi_xMn_{1-x}O₄: in situ powder diffraction on high-voltage spinels</i>

P29	Spinel	Komine Shigeki	<i>Electrochemical Properties of Thick, Dense Single Crystal Electrodes Fabricated by Flux-coating</i>
P30	Spinel	Lee Jung Hwa	<i>High electrochemical performance of high voltage $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ by decoupling the Ni/Mn disordering from the presence of Mn^{3+} ions</i>
P31	Spinel	Sonoda Takashi	<i>Development of Acetylene Black for High voltage based Lithium-ion secondary battery</i>
P32	Spinel	Seidel Matthias	<i>Characterization of $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ synthesized using different acetate/nitrate-precursors</i>
P33	Spinel	Younesi Reza	<i>Electrochemical and surface properties of the high voltage spinel cathode material $\text{LiCr}_{0.2}\text{Ni}_{0.4}\text{Mn}_{1.4}\text{O}_4$</i>
P34	Polyanion	Bamine Tahya	<i>Understanding the defect in LiVPO_4F: a combined NMR and DFT calculations study</i>
P35	Polyanion	Chotard Jean-Noël	<i>Low temperature NASICON $\text{Na}_3\text{V}_2(\text{PO}_4)_3$ - An incommensurate modulated crystal structure</i>
P36	Polyanion	Fedotov Stanislav	<i>Structure-property relationships in $\text{A}_2\text{Co}_{1-x}\text{M}_x\text{PO}_4\text{F}$ (A = Li, Na; M = Mn, Fe) fluoride-phosphate cathode materials for rechargeable batteries</i>
P37	Polyanion	Heath Jennifer	<i>NaFePO_4 Cathodes for Sodium-ion Batteries: Why is Olivine More Promising Than Maricite?</i>
P38	Polyanion	Colin Jean-François	<i>A novel Li-battery cathode material: synthesis and characterization of $\text{Li}(\text{Mn}_{1-x}\text{Co}_x)\text{BO}_3$</i>
P39	Polyanion	Liivat Anti	<i>Evidence for a >1 electron reaction in $\text{Li}_2\text{FeSiO}_4$: an in situ Mössbauer spectroscopy study</i>
P40	Polyanion	Mancini Marilena	<i>Study on the stability of $\text{Li}_2\text{MnSiO}_4$ cathode material in different electrolyte systems for Li-ion batteries</i>
P41	Polyanion	Kim Minkyung	<i>Superior rate capability of $4.2\text{V-LiVPO}_4\text{F}$ synthesized by scalable and single-step solid-state reaction</i>
P42	Polyanion	Oyama Gosuke	<i>Structure and electrochemical properties of alluaudite-type sodium iron sulfate</i>
P43	Polyanion	Serras Paula	<i>Influence of synthesis method on sodium vanadium fluorophosphates cathodes for Na-ion batteries</i>
P44	Polyanion	Reichardt Martin	<i>Lithium chromium phosphate $\text{Li}_3\text{Cr}_2(\text{PO}_4)_3$ as cathode material for Li-ion batteries</i>
P45	Polyanion	Zhang Leiting	<i>Influence of humidity on the handling of LiFeSO_4F electrode for Li-ion batteries</i>
P46	Negative-Others	Guérin Katia	<i>Surface fluorination of commercial LTO in order to overcome the low electrochemical performances of Li_2TiO_3 set onto LTO</i>
P47	Negative-Others	Balachandran Geethu	<i>Comparison of electrochemical performances and elucidation of electrochemical mechanism of conversion type anodes MFe_2O_4 (M = Fe, Co, Ni and Cu) for Li-Ion Batteries</i>
P48	Negative-Others	Bourrioux Samantha	<i>ZnFe_2O_4 nanoparticles synthesis by laser pyrolysis: interest as new anode material for lithium-ion batteries</i>
P49	Negative-Others	Brutti Sergio	<i>The MgH_2 conversion reaction in a lithium cell: a computational study</i>
P50	Negative-Others	Eames Christopher	<i>Ion Intercalation into Two-dimensional Transition Metal Carbides: are 'MXenes' a Suitable Anode Material for Li-, Na- and Mg-ion Batteries?</i>
P51	Negative-Others	George Chandramohan	<i>Improved Li ion kinetics using Carbon Nanotubes as conductive additives in conversion electrodes for Li ion batteries</i>
P52	Negative-Others	Klingeler Rüdiger	<i>Mn_3O_4 nanoparticles inside carbon nanotubes: A new high-performance anode material for lithium-ion batteries</i>
P53	Negative-Others	Maharajan Sivarajakumar	<i>Sn/C composite anode materials for lithium ion batteries</i>

P54	Negative-Others	Miléna Martine	<i>NaSbSn compound as negative material for Na cells at room temperature</i>
P55	Negative-Others	Parzych Grzegorz	<i>Li-Al-Mg as potential anode material for Li-ion batteries</i>
P56	Negative-Others	Periyapperuma Kalani	<i>Reversible Magnesiumation of Pb</i>
P57	Negative-Others	Prutsch Denise	<i>Nanoarchitected Titania as Anode Material for Na-Ion Batteries</i>
P58	Negative-Others	Saurel Damien	<i>Disordered carbons as negative electrode materials for Na-ion batteries</i>
P59	Negative-Others	Silvestri Laura	<i>On the reactivity of Sodium Alanates in lithium batteries</i>
P60	Negative-Others	Silvestri Laura	<i>LiAlH₄ and Li₃AlH₆ as conversion anodes for lithium ion batteries</i>
P61	Negative-Others	Uitz Marlina	<i>Li Insertion Behaviour of Rutile TiO₂ Nanorods as Anode Material in Lithium-Ion Batteries</i>
P62	Negative-Others	Vankova Svetoslava	<i>Characterization of commercial Al alloy as low cost anode material for Li-ion batteries</i>
P63	Negative-Others	Villevieille Claire	<i>Bulk analysis of Sn-electrodes in sodium ion batteries using XRD and first principle calculation</i>
P64	Negative-Others	Vogt Leonie	<i>MSn₂ (M=Fe, Co) intermetallics as anode materials in Na-ion batteries: controlling volume expansion through reaction pathway engineering</i>
P65	Negative-Others	Walter Marc	<i>Nanocrystals as High-Performance Anode Materials for Sodium-ion Batteries</i>
P66	Negative-Others	Wang Luyuan Paul	<i>Laser pyrolyzed SnO₂ nanoparticles as anode material in Sodium ion Batteries</i>
P67	Negative-Others	Yu Yan	<i>How to get a conversion reaction reversible? Lithium storage in metal sulphide nanodots</i>
P68	Negative-Others	Zheng Lituo	<i>Electrochemical Reaction Mechanism of Tin Phosphide with Sodium by Ex-situ X-ray Diffractometry and Mössbauer Effect Spectroscopy</i>
P69	Li-air	Goward Gillian	<i>Characterization of Discharge Products in Metal-Oxygen Batteries by Solid State NMR</i>
P70	Li-air	Guéguen Aurélie	<i>Dynamics of the porous carbonaceous O₂ electrode interface: a combined XPS and OEMS study</i>
P71	Li-air	Lepoivre Florent	<i>In-situ pressure monitoring of Li-Oxygen cells: Towards a better understanding of gas reduction and evolution reactions</i>
P72	Li-air	Zeng Juqin	<i>Optimizing nonaqueous electrolytes for high-performance Li-O₂ batteries</i>
P73	Characterization	Ortiz Gregorio	<i>Comparative view of ions-storage in nanostructured TiO₂ materials in both non-aqueous and aqueous electrolyte solutions</i>
P74	Characterization	Guérin Katia	<i>Low temperature rhombohedral iron trifluoride with a mesoporous texture for lithium batteries.</i>
P75	Characterization	Guérin Katia	<i>Core-shell Ni-NiF₂ as cathode materials for secondary lithium batteries</i>
P76	Characterization	Berhaut Christopher	<i>LiTfI as electrolyte salt for Li-ion batteries: electrolyte transport properties and cyclability of Li/Graphite and Li/LiFePO₄ half cells.</i>
P77	Characterization	Bianchini Matteo	<i>Operando Neutron Diffraction Studies of Li-ion Battery Electrodes</i>
P78	Characterization	Cabelguen Pierre-Etienne	<i>Analysis of the active material microstructure constituting the positive electrode in lithium-ion batteries application.</i>
P79	Characterization	Fingerle Mathias	<i>Photoelectron spectroscopy on electrode/solid electrolyte interfaces: Interface formation and energy level alignment</i>
P80	Characterization	Huynh Tan Vu	<i>Transport and Dynamics of Ionic Species in Block Copolymer Electrolytes for Solid-State Lithium Batteries Elucidated by NMR</i>

P81	Characterization	Iadecola Antonella	<i>Vite fait bien fait : electrochemistry on the ROCK beamline</i>
P82	Characterization	Kajiyama Akihisa	<i>Grain Boundary Composition of Cathode Active Materials on Lithium Ion Battery Performance</i>
P83	Characterization	Kimura Yuta	<i>Evaluation of the Effective Reaction Zone in LiCoO₂ Composite Cathode by Two Dimensional In-situ X-ray Absorption Spectroscopy</i>
P84	Characterization	Nako Yuki	<i>Finite Element Model for Electrical Conduction in Lithium Battery Slurry</i>
P85	Characterization	Pietsch Patrick	<i>Microstructure dynamics in graphite-based electrodes during battery operation</i>
P86	Characterization	Self Julian	<i>In Situ Volume Studies of Li-Ion Cells and Reaction Pathways for Gas Production</i>
P87	Characterization	Takano Mikio	<i>In-situ Mössbauer Spectroscopic Study of the Redox Reactions of a Bacterial Fe-Oxide, L-BIOX</i>
P88	Characterization	Xiong Baokou	<i>Measurement of CO₂ solubility in ionic liquids based electrolytes for lithium-ion batteries</i>
P89	Na-Layered	Carlier Dany	<i>The Na_x(Fe,Mn)O₂ layered oxides used in Na Batteries : structural transformations and redox processes</i>
P90	Na-Layered	Delmas Claude	<i>Revisiting the Na_xNiO₂ system</i>
P91	Na-Layered	Santos Pena Jesus	<i>Effect of the spectator ion, M', on the electrochemical performance of Na_{0.67}(Mn,M')O₂ in sodium ion batteries</i>
P92	Na-Layered	Vitoux Laura	<i>Structural rearrangements in sodium layered oxides Na_xMoO₂ during electrochemical sodium (de)intercalation</i>
P93	Na-Layered	Yoshida Jun	<i>Structural investigation of Na_{0.70}Mn_{0.60}Ni_{0.30}Co_{0.10}O₂ as positive electrode material for Na-ion batteries</i>
P94	Na-Layered	Freire Mélanie	<i>Amorphous sodium vanadate, A new matrix for high density Na ion batteries</i>
P95	Li-Layered	Brog Jean-Pierre	<i>Nano-lithium cobalt oxide: organometallic precursors as source of high Li-ion diffusion oxides for battery purpose.</i>
P96	Li-Layered	Croguennec Laurence	<i>Insight in the Atomic Structure of Cycled Lithium-rich Layered Oxide Li_{1.20}Mn_{0.54}Co_{0.13}Ni_{0.13}O₂ using HAADF STEM and Electron Nano Diffraction</i>
P97	Li-Layered	Dolotko Oleksandr	<i>Structural behavior of LCO Li-ion cells at different temperatures - an in situ neutron diffraction study</i>
P98	Li-Layered	Aurbach Doron	<i>Novel studies of structural and surface modifications of positive electrodes for lithium-ion batteries</i>
P99	Li-Layered	Komine Shigeki	<i>In situ XAFS study on the Ni²⁺ - Ni⁴⁺ redox system, LiNi_{0.5}Mn_{0.5}O₂</i>
P100	Li-Layered	Madec Lenaic	<i>Effect of a Combination of Electrolyte Additives on LiNi_{0.42}Mn_{0.42}Co_{0.16}O₂ (NMC442)/Graphite Pouch Cell Lifetime: Electrochemical versus XPS analysis</i>
P101	Li-Layered	Mukai Kazuhiko	<i>Unknown magnetism in a well-known Li-battery material</i>
P102	Li-Layered	Pajot Ségolène	<i>Development of a Lithium and Manganese-rich Layered Oxide with Concentration Gradient for High Energy Density Lithium-ion Batteries</i>
P103	Li-Layered	Pradon Alexandre	<i>Li-rich lamellar oxide: Influence of the cycling conditions on voltage decay</i>
P104	Li-Layered	Song Jun Ho	<i>Relationship between Micro-crack Growth and Capacity Fading of Ni-rich Cathode Materials during Cycling in Lithium Ion Batteries</i>
P105	Li-Layered	Strafela Marc	<i>Microstructural and electrochemical comparison of as deposited and heat treated Li-Ni-Mn-Co-O thin film cathodes for Lithium-ion batteries</i>

P106	Li-Layered	Takeshi Kobayashi	<i>Degradation behavior of charge-discharge performance for $\text{LiNi}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$</i>
P107	Li-Layered	Uchida Shuhei	<i>High-voltage capabilities of NbOx Nanosheets coating to $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{O}_2$ cathode surface</i>
P108	Negative-Si	Ghamouss Fouad	<i>Micro and nanostructured Silicon anodes for Li based microbatteries</i>
P109	Negative-Si	Wilamowska Monika	<i>Silicon Oxycarbide Modified with Divinylbenzene as Anodes for Lithium-Ion Batteries</i>
P110	Negative-Si	Haruta Masakazu	<i>Effects of additives on cycle performances of silicon-flake-powder anodes in glyme/lithium complex electrolytes</i>
P111	Negative-Si	Iaboni Douglas	<i>$\text{Li}_{15}\text{Si}_4$ Phase Formation in Si Thin Films</i>
P112	Negative-Si	Ikonen Timo	<i>Effect of particle size on the performance of porous silicon-based anode material in Li-ion battery</i>
P113	Negative-Si	Kang Sehlieier Yee Hwa	<i>Si/CNT/C composite as high-capacity anode material for lithium ion batteries</i>
P114	Negative-Si	Liu Hui	<i>Amorphous $\text{Si}_{1-x}\text{B}_x$ films for Lithium Ion Anodes</i>
P115	Negative-Si	Maceachern Lauren	<i>Fe-Si-Zn Negative Electrodes for Li-Ion Batteries</i>
P116	Negative-Si	Park Eunjun	<i>Li-storage Characteristics of C-coated Mesoporous SiO_x Using Oil Templating as a High Capacity Anode Material for Lithium-ion Battery</i>
P117	Negative-Si	Shuhei Yoshida	<i>Li pre-doping of amorphous silicon electrode in Li-organic complex solution</i>
P118	Negative-Si	Sourice Julien	<i>Core shell amorphous silicon-carbon nanoparticles synthesis by double stage laser pyrolysis, application to anode material</i>
P119	Negative-Si	Wilamowska Monika	<i>Influence of Polystyrene Addition on Electrochemical Properties, Porosity and Structure of Silicon Oxycarbide Anodes for Li-Ion Batteries</i>
P120	Negative-Si	Wilamowska Monika	<i>Carbon-Rich vs. Carbon-Poor Silicon Oxycarbide Ceramics: Lithium Storage Capacity Influenced by Precursor Used for Sol-Gel Synthesis of Polysiloxanes</i>
P121	Negative-Si	Xiao Lisong	<i>Synthesis of silicon nanoparticles and silicon/carbon nanocomposites as high performance anodes for lithium-ion batteries</i>
P122	Batteries	Aurbach Doron	<i>Multifunctional Aqueous Binders for High Voltage Lithium-Ion Batteries</i>
P123	Batteries	Brown Zack	<i>Electrochemical behavior of aromatic polyimide binder</i>
P124	Batteries	Demir-Cakan Rezan	<i>Development of Aqueous Electrolyte Rechargeable Alkali-ion/Polysulphide Batteries</i>
P125	Batteries	Hess Michael	<i>Challenges in determining the rate capability of battery materials</i>
P126	Batteries	Jiménez Manero Pablo	<i>Conducting polymer additives for millimeter-thick lithium-ion battery electrodes</i>
P127	Batteries	Koketsu Toshinari	<i>A new Tellurium@CMK-3 composite electrode for Lithium secondary batteries</i>
P128	Batteries	Lang Michael	<i>Investigation of fatigue mechanisms in commercial lithium ion batteries containing blended cathode materials</i>
P129	Batteries	Yu Yan	<i>1D Porous and Electrical Conductive Coated Electrode Materials for Superior Li/Na-ion Storage</i>
P130	Li Organic	Hausbrand René	<i>Electronic structure and electrode properties of an organic cathode material: a surface science investigation of TCNQ and its interfaces</i>
P131	Li Organic	Schmidt Sebastian	<i>Lithium iron methylene diphosphonate, a new organic-inorganic hybrid material for Li-ion batteries</i>

LiBD-7 2015 – “Electrode materials” Arcachon, France June 21-26, 2015

P132	Li Organic	Sottmann Jonas	<i>In operando studies of the Prussian Blue Analogue $\text{Na}_{1.35}\text{Mn}[\text{Fe}(\text{CN})_6]0.83\cdot z\text{H}_2\text{O}$ as promising cathode material for sodium ion batteries</i>
P133	Li Organic	Ahouari Hania	<i>Exploration of new synthetic route and electrochemical behavior vs. Li of iron(III) oxalate tetrahydrate</i>