

**Scientific Days LRCS - July 2023 - Amphi HUB**

**Tuesday 18th of July**

13:45	-	14:00	15	Lucie Denisart	Combining Virtual Reality with Mixed Reality for efficient training in Battery Manufacturing
14:00	-	14:15	15	Javier F. Troncoso	Mindvoltage: From Fundamental Research to Industrialization
14:15	-	14:30	15	Julie Ruellou	Thermal and photo-degradation of $\alpha$ -FAPbI <sub>3</sub> -based perovskite using in situ characterisation techniques
14:30	-	14:45	15	Lucile Carlier	Impact d'électrolyte à base d'acétonitrile sur la durabilité des batteries Li-ion
14:45	-	15:00	15	Victor Boudeville	Toward 3D printing lithium ion batteries
15:00	-	15:08	8	Sebastian Urcescu	NMC Based Cathodes for 3D-Printed Lithium-ion batteries
15:08	-	15:23	15	Félix Bourseau	3D printing of Polymer Electrolyte
15:23	-	15:31	8	Elizaveta Lozhkina	Etude de la lithiation de matériaux d'électrode organique pour batterie
15:31 - 15:50 : <i>Pause</i>					
15:50	-	16:05	15	Christian Masquelier	Discovery of New redox Phenomena in Na <sub>x</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> Positive Electrodes
16:05	-	16:13	8	Anna-Lena Hetzel	Utilisation des calculs DFT pour l'étude de systèmes organiques actifs au plan redox
16:13	-	16:28	15	Mohammed Al-Abdali	Modeling to Improve Solid State Battery Composite Electrodes Manufacturing
16:28	-	16:43	15	Jazer Togonon	Insights on the electronic structure of KVPO <sub>4</sub> F <sub>1-x</sub> O <sub>x</sub> positive electrodes for K-ion batteries from Valence-to-Core X-ray emission spectroscopy
16:43	-	16:58	15	Diana Zapata Dominguez	Understanding the Processability of Graphite Blend Electrodes with Silicon Nanoparticles
16:58	-	17:13	15	Antonio Carnevali	Potential high capacity, low voltage electrode materials: predictions vs experiments
17:13	-	17:28	15	Diego Galvez Aranda	Extrusion Model for Solvent-Free Li-Ion Battery Electrode Manufacturing
17:28	-	17:43	15	Ahmed Yousfi	Phase-Field model including elastic aspect to study phase transformation kinetics in single LFP cathode crystal

**Wednesday 19th of July**

09:00	-	09:15	15	Marco Brasini	DFT study of composition-structure relation in sodium NaSICON
09:15	-	09:30	15	Tassadit Ouaneche	Room temperature efficient regeneration of spent LiFePO <sub>4</sub> by direct chemical lithiation
09:30	-	09:45	15	Kevyn Gallegos Moncayo	Study of Lithiation Dynamics in Primary Particles of Cathode Materials by TEM Techniques Applications
09:45	-	10:00	15	Maxandre Caroff	Study of the reactivity and degradation mechanisms in organic batteries by electron microscopy
10:00	-	10:15	15	Emmanuel Baudrin	Are redox-flow batteries ideal
10:15	-	10:25	10	Evan Février	Sodium mediated redox flow batteries : Study and integration of insertion materials
10:25	-	10:40	15	Florian Léveillé	All Solid-State Batteries with Polymer Electrolytes
10:40 - 11:00 : <i>Pause</i>					
11:00	-	11:15	15	Charles Delacourt	Simulating charge/discharge of a cell with Newman model as easy as simulating an X-ray pattern with Fullprof?
11:15	-	11:30	15	Baptiste Salomez	Understanding and counteracting gas generation induced high energy lithium-ion batteries swelling
11:30	-	11:38	8	Manon Mignon	Morphology study on hybride electrolyte based on Covalent Organic Framework for lithium mobility
11:38	-	11:53	15	Nikhil Subash	Digging of Nb-Containing Negative electrodes Na and Li Batteries
11:53	-	12:08	15	Sreelakshmi Anil Kumar	Towards Operando Investigation of Solid-state battery materials using Neutron Diffraction
12:08	-	12:23	15	Anastasia Grebenshchikova	Development of new sulfate-containing cathode materials bases on abundant elements for Na-ion batteries
12:23	-	12:38	15	Florent Magaud	Deep Learning Analysis of Experimental and Simulated Data of Battery
12:38	-	12:46	8	Marion Bermont	Chalcogenide glass and glass-ceramics for all solid-state sodium batteries
12:46 - 14:00 : <i>Pause</i>					
14:00	-	14:15	15	Kriti	Operando XRD studies of NVP as a function of Temperature
14:15	-	14:30	15	Amina El Malki	An interactive application to track Lithium-ion battery degradation
14:30	-	14:45	15	Pierre Gibot	Solution synthesis of Na <sub>3</sub> SbS <sub>4</sub> solid electrolyte
14:45	-	15:00	15	Sébastien Charrier	All Solid-State Battery using Binder Jetting and Sintering
15:00	-	15:15	15	Dennis Weitze	Computational Physics Based Modeling of the Solid State Battery Manufacturing Process
15:15	-	15:30	15	Utkarsh Vijay	Paving the way towards autonomous battery manufacturing optimisation: a surrogate multi-scale modelling approach
15:30	-	15:45	15	Aubin Leray	Synthesis and study of Li-rich solid solution alloys as anode for solid state batteries
15:40 - 16:00 : <i>Pause</i>					
16:00	-	16:15	15	Sorina Cretu	Method developments for analyzing interfaces in solid-state batteries
16:15	-	16:30	15	Iliia Tertov	Phase equilibrium during high-temperature synthesis of LNMO
16:30	-	16:45	15	Hoang Thi To Nhu	A passivation strategy for the perovskite/Hole Blocking layer interface of Perovskite solar cells
16:45	-	17:00	15	Duy Linh Pham	New lithium ionic conductor
17:00	-	17:15	15	Valentine Destarkeet	Study of oxide precursors preparation for Li-rich layered oxides 2nd chapter

17:15	-	17:30	15	Pempa Tshering Bhutia	Thermal Runaway: Tuning the "poorer SEI" of sodium-ion batteries
17:30	-	17:45	15	Neil Hayagan	Direct recycling of Li-ion battery positive electrodes assisted by supercritical CO <sub>2</sub>
17:45	-	18:00	15	Hanen Raissi	Synthèse de matériaux macromoléculaires insolubles pour batteries organiques
<b>Thursday 20th of July</b>					
09:00	-	09:15	15	Frédéric Sauvage	From a last year short term perspective to the construction of 2024 activities
09:15	-	09:30	15	Alexandre Bernard	Synthesis of silicon-based complex hydrides for solid hydrogen storage
09:30	-	09:45	15	Franco Zanotto	Modelling approaches for supporting cathode manufacturing research in the PULSELiON project
09:45	-	10:00	15	Corentin Bellay	Développement de nouveaux électrolytes pour batterie à circulation aqueuse
10:00	-	10:15	15	Flora Chelouah	Recyclage direct des matériaux des batteries Li-ion : impact des chimies de la cathode sur le tri sélectif de batteries Li-ions usagées- Etude de la stabilité de NMC
10:15	-	10:30	15	Matthieu Becuwe	Organic-based materials for ion batteries
10:30	-	10:38	8	Mohammed El-Fanassi	Network representation and analysis of recent trends in inorganic synthesis for battery science
10:38	-	10:46	8	Oualid Boukhar	Solid Booster Based On Na <sub>3</sub> MnTi(PO <sub>4</sub> ) <sub>3</sub> :Synthesis and Modeling
<b>10:50 - 11:10 : Pause</b>					
11:10	-	11:25	15	Christine Surcin	ICP méthode de dosage multi-élément
11:25	-	11:30	5	Melisa Herrman Alba	Gresilion
11:30	-	11:38	8	Faycal Adrar	Machine Learning processing for STXM Data
11:38	-	11:46	8	Rizki Hanifah	Investigating Microstructure, Chemical, and Mechanical Evolution of Sodiated Hard Carbon Anode in Sodium Ion Battery
11:46	-	11:56	10	Siwar Ben Hadj Ali	3D-resolved computational modeling of mechano-electrochemistry in solid state batteries
11:56	-	12:11	15	Tan Le Dinh	Machine Learning Guidance of Manufacturing Process of Solid Oxide Cells
12:11	-	12:19	8	Ana Yancy Segura Zarate	Innovative materials for emerging photovoltaics
12:19	-	12:34	15	Ana Licia Moura Gomes	Photovoltaic cells sensitized with near-IR dyes: devices preparation and analyses
12:34	-	12:49	15	Sébastien Gottis	Macromolécules Dendritiques pour le stockage de l'énergie
12:50				Mot du Directeur	