

Scientific days LRCS - July 2022 - Amphi HUB

Tuesday 19th July

09:00	-	09:15	15	Amina El Malki	Hybrid data-science/Multiphysics modelling approach to assess and predict battery durability
09:15	-	09:23	8	Jeyhun Abbasov	Exploration of information related to data specifications for battery manufacturing
09:23	-	09:38	15	Mohamed Benchakar	Coating of active materials for all-solid-state batteries
09:38	-	09:53	15	Valentine Destarkeet	Li-rich layered oxides, synthesis and preliminary nano computed tomography results
09:53	-	10:08	15	Julien Porcq	Halide Solid Electrolytes for All-Solid-State Batteries
10:08	-	10:23	15	Adolfo Urrutia	Anti-perovskite ion conductors for solid state batteries
10:23	-	10:38	15	Rita Salloum	Understanding and modeling the internal short-circuit in Li-ion batteries
10:38 - 11:00					Pause
11:00	-	11:15	15	Pierre Gibot	Tailored synthesis of electrolytes for all-solid-state batteries
11:15	-	11:30	15	Lucile Carlier	Impact d'électrolytes à base d'acétonitrile sur la durabilité des batteries à lithium ion
11:30	-	11:38	8	Oualid Boukhia	modélisation de mixage de l'encre(slurry) des batteries lithium-ion
11:38	-	11:53	15	Diana Zapata Dominguez	Experimental Manufacturing Characterization of Graphite Blend Electrodes with Silicon Nanoparticles
11:53	-	12:08	15	Eduardo Roque Rodriguez	Modeling a simulation of the mechanical degradation in active particles
12:08	-	12:16	8	Ahmed Yousfi	Phase field model to study phase transformation kinetics in individual cathode crystals
12:16	-	12:31	15	Junhao Cao	Multi-Clustering detection of 4D-STEM diffraction patterns using Machine learning approach
12:31 - 14:00					Pause
14:00	-	14:15	15	Frédéric Sauvage	A journey of key results on photon-induced electrochemical reactions at LRCS for the last years to seed new short-term research perspectives beyond PV
14:15	-	14:23	8	Brinti Mondal	Tortuosity in Battery
14:23	-	14:38	15	Chaoyue Liu	3D Electrochemical Model Revealing Electrode Manufacturing Parameters' Effects on Battery Performance
14:38	-	14:53	15	Mariama N'Dour	Cellulose derivatives as efficient Binders for Silicon Based Li-Ion Batteries
14:53	-	15:08	15	Dhanush Shanbhag	Exploring the mixed halide compositional space of Li-argyrodites
15:08	-	15:23	15	Antonio Carnevali	Data science for battery materials discovery
15:23	-	15:38	15	Duy Linh Pham	New ionic lithium and sodium solid state conductors
15:38 - 16:00					Pause
16:00	-	16:15	15	Mekki Negui	implementing dibenzofuran & dibenzothiophene based hole transport materials for perovskite solar cells
16:15	-	16:30	15	Jiahui Xu	Lithium Ion Battery Electrode Manufacturing Model and Electrode Microstructure Study
16:30	-	16:38	8	Han Xue	Electrochemical investigation of high voltage LNMO Spinel
16:38	-	16:53	15	Fernando Caro	The BIG-MAP notebook and the digitalization of battery scientific data through the implementation of ontologized standards
16:53	-	17:01	8	Clément Lourdaïs	Modeling electrolyte infiltration
17:01	-	17:16	15	Julie Ruellou	Dynamic structural change in hybrid halide perovskite using picosecond pump laser and x-ray diffraction probe
17:16	-	17:24	8	Jhoey Moukongo	Effet dendritique sur les propriétés électrochimiques de matériaux organiques

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09:00	-	09:15	15	Tassadit Ouaneche	Évaluation de la régénération de LiFePO ₄ par lithiation directe
09:15	-	09:23	8	Romain Dufrêne	Etude de mélanges de matériaux de cathodes NMC dans le cadre du recyclage direct des matériaux de batteries Li-ions
09:23	-	09:38	15	Mickael Bolmont	Part 3: Regeneration of NMC type active materials by heat treatment
09:38	-	09:43	15	Roberto Russo	Disodium Naphthalene Dicarboxylate as Negative Electrode for Hybrid Organic/Inorganic Sodium batteries
09:43	-	09:58	15	Charles Delacourt	Importance of underlying model assumptions when deriving model parameters
09:58	-	10:06	8	Elena Daufresne	Fabrication of thick electrodes by binder jetting : a preliminary study
10:06	-	10:21	15	Abdessalam Boudouch	Phosphosulfate NaFe ₂ (PO ₄)(SO ₄) ₂ doped Al materials : synthesis, characterization, mechanism and application for sodium-ion batteries.
10:21 - 11:00					Pause
11:00	-	11:15	15	Baptiste Salomez	Understanding and counteracting gas generation induced high energy lithium-ion batteries swelling
11:15	-	11:30	15	François Rabuel	Activités de la plateforme de prototypage
11:30	-	11:45	15	Antoine Pesesse	LPSCI based all solid state batteries prototyping : current situation and roads ahead

11:45	-	12:00	15	Vincent Pignier	Towards an organic electrode without conductive carbon for lithium ion battery
12:00	-	12:15	15	Rehman Butt	Electrochemical Etching of Ti ₃ AlC ₂ in Ionic Liquids
12:15	-	12:23	8	Melisa Herrmann Alba	Development of operando SEM experiments with liquid electrolytes
12:23 - 14:00					Pause
14:00	-	14:15	15	Matthieu Courty / Christine Surcin	Gestion des déchets chimiques
14:15	-	14:30	15	Ilda Olivia Santos Mendoza	Capacity Fading mechanism of NMC811 cathodes in Lithium-ion batteries
14:30	-	14:45	15	Anastasia Grebenshchikova	Sulphate-phosphate based cathode materials for Na-ion batteries
14:45	-	15:00	15	Marc Duquesnoy	Machine Learning-Assisted Multi-Objective Optimization of Battery Manufacturing from Synthetic Data Generated by Physics-Based Simulations
15:00	-	15:15	15	Mohammed Al Abdali	Modelling to Improve the Manufacturing Process of All-Solid-State Batteries
15:15	-	15:30	15	Alain Ngandjong	SmartBattLab WebApp Tool
15:30	-	15:38	8	Amna Rafique	High power Wadsley-Roth type negative electrodes for Li-ion batteries
15:38 - 16:00					Pause
16:00	-	16:15	15	Hélène Tonnoir	Mechanistic insights on sodium storage in hard carbons
16:15	-	16:30	15	Kriti	Operando XRD studies of Na ₃ V ₂ (PO ₄) ₃ as a function of temperature
16:30	-	16:45	15	Théo Lotenberg	Towards the incapsulation of insertial materials for Redox Targeted Flow Battery
16:45	-	17:00	15	Matheus Leal De Souza	Degradation Mechanisms on Si/Gr Electrodes
17:00	-	17:15	15	Eunike Mahayoni	NASICON as solid electrolyte for Sodium Solid-state Battery: Bulk and Grain Boundary Effect on Total Conductivity
17:15	-	17:35	15	Marina Porcher	Development of hard carbons as anode materials for sodium-ion batteries

Thursday 21st July

09:00	-	09:15	15	Célia Aider	Fabrication and characterization of Large-Scale perovskite Solar Devices
09:15	-	09:30	15	Agnese Marcato	Structure interpretation via neural networks: an application to flow and transport in porous media
09:30	-	09:45	15	Franco Zanotto	Computational Study of the Effect of Binder Expansion in Lithium Ion Battery Electrodes
09:45	-	09:53	8	Anna-Léna Hetzel	Modélisation de systèmes organiques actifs au plan redox par calcul DFT
09:53	-	10:08	15	Victor Boudeville	Toward 3D printing Lithium ion batteries
10:08	-	10:23	15	Loic Dupont	De la terre à la lune
10:23	-	10:31	8	Thibaut Hery	Tissage de fils métalliques gainés en vue de l'obtention de batteries souples
10:33 - 11:00					Pause
11:00	-	11:15	15	Christian Masquelier	Na-containing ionic conductors of general formula Na ₃ PnCh ₄ (Pn = P, Sb ; Ch = S, Se)
11:15	-	11:30	15	Ilia Tertov	In Situ Synthesis of Important Electrode Materials for Li-ion Batteries: <i>Li(Ni,Mn)2O4-δ</i> spinels
11:30	-	11:45	15	Corentin Querné	Prototyping and post-mortem analysis of Na-ion batteries
11:45	-	12:00	15	Iris Hoang	Molecular approach for improving hole extraction and interface passivation: first validation results on methodology to determine hole mobility in Spiro-OMeTAD
12:00	-	12:15	15	Ilyasse Izzanar	New binders for anode electrodes in lithium-ion batteries
12:15	-	12:30	15	Corentin Bellay	développement de nouveaux électrolytes pour batterie à circulation
12:30	:			Mot du Directeur	