

KET*

Focus on (*) Key Enabling Technologies - nanotechnologies, advanced materials, advanced manufacturing and processing

360

INNOVATE TOGETHER

27th June 2019 - Strasbourg - FRANCE

Project idea/ Field of expertise:

Innovative organic materials for energy storage

Organisation Name:

MOLTECH-Anjou, UMR 6200 CNRS

Adressed challenge(s)/ PPP(s):

Industrial sustainability/Clean energy through innovative materials

Building a Low-Carbon, Climate Resilient Future: Next-Generation Batteries

Adressed topic(s) in Work Programme:

LC-NMBP-28-2019: Materials for non-battery based energy storage

LC-NMBP-29-2020: Materials for future highly performant electrified vehicle batteries

LC-BAT-5-2019: Research and innovation for advanced Li-ion cells

LC-BAT-9-2020: Hybridisation of battery systems for stationary energy storage

LC-BAT-12-2020: Novel methodologies for autonomous discovery of advanced battery chemistries

LC-BAT-13-2020: Sensing functionalities for smart battery cell chemistries



Laboratory MOLTECH-Anjou

- Institutional information:

4 chemistry groups, 1 physic group, 50 researchers, 30 PhD and postdoctoral students

ERDySS	SCL	CIMI	SOMaF	SANSON
<ul style="list-style-type: none"> • Electrochemistry • Surface modification • Energy 	<ul style="list-style-type: none"> • Organic chemistry • Solar cells 	<ul style="list-style-type: none"> • Coordination Chemistry • Magnetic properties 	<ul style="list-style-type: none"> • Supramolecular chemistry • Molecular recognition 	<ul style="list-style-type: none"> • Molecular interaction • Nonlinear optics

- Skills and expertise:

Electrochemistry, surface modification, energy storage, supercapacitors, activated carbons

Domain of expertise

- Research interests on chemically **modified electrodes** for **batteries** and **supercapacitors** with particular emphasis on strategies which improve the integration of **redox molecules** in porous activated **carbons**.

- Skills and expertise

In chemistry: Engineering of redox materials, (conducting)-polymers, diazonium salts.

In electrochemistry: Cyclic voltammetry, coulometry, charge/discharge experiments, impedance, scanning electrochemical microscopy.

In material chemistry: Surface chemistry, functionalization of carbons (activated carbons, **onion** carbons, **graphene**...)

In surface and bulk characterization: X-ray photoelectron spectroscopy, thermal gravimetric analysis, gas adsorption-desorption experiments, quartz crystal microbalance.

Contact details

Contact person

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