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Postdoctoral Fellowships

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CALL FOR APPLICATIONS 2025 – FELLOWS

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Supervisor page	https://ipcm.fr/recherche/presentation-equipe-emoca/composition- equipe-emoca/elodie-anxolabehere-mallart/
Host Institution	Sorbonne Université https://www.sorbonne-universite.fr/en
Research Lab	Paris Institute of Molecular Chemistry https://ipcm.fr/en/en-the-institute/
Research Team	Molecular electrochemistry and catalysis https://ipcm.fr/en/en-research/en-presentation-emoca-group/

Project Title

Bioinspired Electrochemical Approach for Eco-Friendly Oxidation Reactions: Electron-Driven Reductive Cleavage of O2.

Project Description

The electrification of the chemical industry requires the development of chemical conversion processes using green oxidants and novel catalyst materials. Drawing inspiration from natural systems, our scientific work focuses on developing oxidative transformations of substrates using earth-abundant catalysts, O2 and electrons as sole reagents. The ultimate goal is to develop environmentally friendly electrocatalytic processes that can be scaled up for industrial applications.

Keywords

bioinspiration processes, electrocatalysis, electrification of the chemical industry

Description of the Host Research Lab

The IPCM (Institut Parisien de Chimie Moléculaire/Parisian Institute for Molecular Chemistry) is a joint research unit between Sorbonne Université and CNRS (Centre National de la Recherche Scientifique). The expertise in molecular chemistry in the broadest sense, the great diversity of the teams and the laboratory's high-performance technical platforms lead to research ranging from the structuring of matter on a molecular scale to materials, involving know-how in inorganic and organic chemistry, polymer science, nanoscience, and even the interfaces with biology. The scientific results of the IPCM, in relation to the major societal challenges, have an impact on fields ranging from health, the environment and new energies to information technologies.