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CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Jessem Landoulsi
Supervisor page	http://www.lrs.upmc.fr/fr/equipe-du-lrs/personnel-permanent/jessem-landoulsi.html
Host Institution	Sorbonne Université https://www.sorbonne-universite.fr/en
Research Lab	Laboratoire de Réactivité de Surface https://lrs.sorbonne-universite.fr/en
Research Team	Biointerfaces https://jessemlandoulsi.wixsite.com/jlandoulsi

Project Title

Exploring protein-mineral interfaces: from single-molecule measurements to the design of biomimetic nanostructured materials

Project Description

Protein-mineral interaction is a fundamental feature of biomineralization. Proteins stabilize amorphous phases, direct crystallization, inhibit pathological mineralization, etc. However, molecular mechanisms behind these effects remains poorly understood. The present project aims at exploring protein-mineral interfaces by probing single-molecule/real-time events with the aim to provide guidelines to design novel biomimetic nanostructures with tailored properties and functions.

Keywords

biomineralization, atomic force microscopy (AFM), collagen

Description of the Host Research Lab

Research at the Laboratoire de Réactivité de Surface is focused on developing and controlling the surface of inorganic materials (such as metal oxides) for applications in heterogeneous catalysis (pollution control, “green” processes, upgrading of bio-sourced molecules or pollutants) and biointerfaces (biosensors, anti-biofilm surfaces, biopiles, prebiotic chemistry).

To submit your application, please send an email with the required documents to
msca-pf@sorbonne-universite.fr