

Postdoctoral Fellowships

Marie Skłodowska-Curie Actions Developing talents, advancing research



CALL FOR APPLICATIONS 2025 - FELLOWS

Supervisor James Utterback

Supervisor page https://w3.insp.upmc.fr/en/insp-page-perso/utterback-james/

Host Institution Centre National de la Recherche Scientifique (CNRS)

https://www.cnrs.fr/en

Research Lab Institute of NanoSciences of Paris

https://w3.insp.upmc.fr/en/insp-en/

Research Team Chemical Physics and Dynamics of Surfaces

https://w3.insp.upmc.fr/en/research/research-teams/chemical-physics-

and-dynamics-of-surfaces/

Project Title

Transient Reflection Microscopy of Solar Energy Conversion

Project Description

A major challenge in solar fuels is to identify and control the factors that determine the efficiency of the light-driven molecular transformations under realistic operating conditions. Typical characterization methods either achieve high spatial and temporal resolution of photochemistry or access cell-level performance of true catalytic conditions, but their intersection is underdeveloped. We will propose a project to combine pump-probe optical microscopy and electrochemistry.

Keywords

ultrafast spectroscopy, photoelectrodes, charge transport

Description of the Host Research Lab

The Institute of NanoSciences of Paris (INSP) brings together teams from four condensed matter physics laboratories. Its scientific objectives are at the heart of fundamental research in nanosciences, but it also has a wide range of applications: optoelectronics and telecommunications, earth sciences and the environment, catalysis and medical diagnostics.