

# **Postdoctoral Fellowships**

Marie Skłodowska-Curie Actions Developing talents, advancing research



### **CALL FOR APPLICATIONS 2025 - FELLOWS**

Supervisor Vincent Vivier

Supervisor page <a href="https://lrs.sorbonne-universite.fr/personnes-lrs/vincent-vivier">https://lrs.sorbonne-universite.fr/personnes-lrs/vincent-vivier</a>

Host Institution Centre National de la Recherche Scientifique (CNRS)

https://www.cnrs.fr/en

Research Lab Laboratoire de Réactivité de Surface

https://lrs.sorbonne-universite.fr/en

**Research Team** Surface science and solid-liquid interfaces

https://lrs.sorbonne-universite.fr/en/node/1908

## **Project Title**

Identification of the rate limiting step in electrocatalysis

### **Project Description**

Electrochemical reactions are most often governed by complex mechanisms involving intermediates that form on the electrode surface depending on the applied potential. The objective of this project is to combine spectroscopic (Raman and/or IR) and electrochemical techniques to characterize and quantify these reactive species. Particular attention will be paid to two reactions of interest: urea oxidation and the oxygen evolution reaction (OER).

#### Keywords

electrocatalysis, vibrational spectroscopy, reaction intermediate

## **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).