



PhD Position in Bioelectrochemistry / Numerical modelling

We are seeking a highly motivated and talented individual to join our research team as a PhD student. The successful candidate will work on numerical modelling or fabrication, characterisation and optimization of gas-diffusion bioelectrodes. The goal of the project is to develop and optimise electrodes tailored for the use of redox enzymes as sustainable catalysts in energy-related applications. The research will be conducted under the supervision of I. Mazurenko within the framework of [Threenzy project](#) funded by ANR-agency.

Key responsibilities:

- Conducting research and experiments related to the project
- Performing electrode fabrication and electrochemical experiments
- Performing numerical modelling and simulation
- Collecting and analysing data using other suitable techniques
- Writing and presenting research findings in scientific publications and conferences
- Collaborating with other team members and researchers in related fields

Requirements:

- Master's degree (or equivalent) in Chemistry, Materials Chemistry, Engineering or another related discipline.
- Strong background in electrochemistry and/or numerical modelling methods
- Good communication and interpersonal skills
- Demonstrated ability to work independently and in a team environment

One or several qualifications from this list will strengthen the application:

- Experience in bioelectrochemistry or biochemistry
- Experience in conductive materials fabrication and characterization

- Knowledge of Comsol® or another FEM software
- Knowledge of 3D-modelling and 3D-printing principles and software
- Knowledge of Python or other programming languages

Research environment:

The work will be conducted in the interdisciplinary [BIP laboratory](#) situated in Marseille (France). The applicant will be employed by CNRS on the basis of a 3-years contract and registered as a PhD-student in the Aix-Marseille University. The position offers a standard salary of 2135 €/month (gross), partial transport reimbursement and an on-site canteen with reduced fares, as well as opportunities for professional development and career advancement. The successful candidate will have access to state-of-the-art facilities and equipment in our research institution.

To apply, please submit the following documents to imazurenko@imm.cnrs.fr:

- Curriculum vitae (CV)
- Cover letter outlining your research interests, qualifications, and career goals
- Academic transcripts from the university courses
- 1-2 letters of recommendation from academic referees

The shortlisted candidates will be contacted for an interview.

Application deadline: 01/10/2023

Expected starting date: as soon as possible