

## **Post-doc 2024**

### **INNOVATIVE, CO-CONSTRUCTED INSTITUTE POLICIES ON DECARBONATION Pilot experiment in a reflexive approach for chemistry researchers, inspired by sociology..**

IRCELYON, UMR 5256 CNRS- Université Claude Bernard- Lyon 1

**Contexte:** The aim of scientific research is to produce knowledge for the benefit of society. This requires to navigate the tension between several aspects that define and delimit research activities: the first, which is consubstantial with research activities, is the ability to create new forms of power; a second aspect, linked to the mission of societal service, is the ability to promote within the research world the deployment of powers generated by research activities that are potentially beneficial to society and to set limits on the possible excesses that some, sometimes the same, could allow; a third aspect is to succeed in articulating the necessary choice that result, while avoiding falling into a utilitarian, short-sighted and mutilating reduction of the role of research. The need to develop ways of dealing with this tension is particularly acute today, at a time of overlapping and accelerating environmental crises (climate change, biodiversity, disruption of biochemical nitrogen cycles, among others), which the term 'anthropocene' [1] helps to describe.

**Projet:** The Institut de recherche sur la catalyse et l'environnement de Lyon (IRCELYON, UMR 5256 CNRS- Univ Lyon) is proposing a pilot experiment in a reflexive approach, inspired by social sciences know-how, for researchers and research staff in chemistry at the Institute as well as for researchers from social sciences linked to the Institute. The aim is to contribute to the development of the Institute's project « Carbon sobriety & chemistry research on catalysis and the environment: what innovative institute policies around reducing the carbon footprint and how can they be co-constructed? » The aim is to help develop within the IRCELYON research community "[tools], [methodologies] and more broadly [a] scientifically sound theoretical framework shared within the research community" [ 2] for integrating the impacts of research into the definition of their practices, their objects of study and their research objectives. This requires reflexive and proactive interdisciplinary work between chemists, IRCELYON staff and social science researchers. The aim of this post-doctoral placement will be to :

- Stimulate collective analysis and shared reflection at the Institute level to identify the impacts of the research carried out on reducing the carbon footprint.
- Report on exchanges and activities undertaken
- Evaluate the impact of these actions at two levels:
  - o decision-making at Institute level

o possible changes in the way the Institute's research staff relate to their work (in terms of practices, in terms of their sense of the meaning of their work, or in terms of the objects of their studies).

**Duration, framework and deliverable at the end of the project:** The 1-year post-doctoral internship will take place at IRCELYON. Since 2023, IRCELYON has been leading the targeted project "POWERCO2- Propelling CO<sub>2</sub> conversion into e-fuels, solar fuels and chemical synthons via renewable energies beyond the state of the art", within the Priority Research Programme and Equipment (PEPR) " SPLEEN - DECARBONATION OF INDUSTRY-Supporting innovation to develop new, largely decarbonised industrial processes" (ANR-22-PESP-0010 "POWERCO2"). As such, it is the ideal scope for setting up the "Innovative and co-constructed institute policies for decarbonisation" project. The major deliverable expected at the end of the project is the submission of an ERC project designed to enable the selected post-doctoral



researcher to deploy this work more widely and in greater detail after the end of the 1-year project in question.

**Required Skills:** This project requires skills in the sociology of social change at several scales (individual, collective, global) and a very good knowledge of the challenges of the Anthropocene, as well as sufficient experience of the sociology of science. The project requires experience of interdisciplinary collaboration and a genuine enthusiasm for such exchanges. To achieve this, a good command of English and French, both spoken and written, is required, which can be demonstrated in particular by academic mobility abroad. Skills in making recommendations and taking action in the field are also welcome.

**Contact:** [alessandra.quadrelli@ircelyon.univ-lyon1.fr](mailto:alessandra.quadrelli@ircelyon.univ-lyon1.fr) et [samir.boumediene@ens-lyon.fr](mailto:samir.boumediene@ens-lyon.fr)

**Application :** on [emploi.cnrs.fr](http://emploi.cnrs.fr), Reference: UMR5256-ELSQUA-003