

# Postdoctoral position in Organic Synthesis

(CARMEN, UMR 6064, University of Rouen Normandie)

## • Details

- Working Place: **CARMEN Institute**, UMR 6064, University of Rouen Normandie (France)
- Funding: Région Normandie
- Contract period: 18 months
- Starting date: 01/12/2025
- Application before: **10/10/2025**
- Net salary ≈ 2200 €/month

## • Context

In recent years, mechanochemistry has re-emerged as a sustainable tool in organic synthesis, significantly reducing the use of harmful solvents in synthesis. Recognized among the top 10 sustainable technologies contributing to more sustainable chemistry, it not only lowers the carbon footprint but also offers opportunities for original reactivities. Meanwhile, the resurgence of photoredox catalysis and electrochemistry has highlighted the value of radical-based redox chemistry for the efficient preparation of organic molecules, often surpassing classical nucleophilic or electrophilic approaches. Merging mechanochemistry with redox processes could thus enable the development of innovative and more sustainable synthetic pathways to access valuable compounds. This project aims to develop new radical methodologies using ball-milling as a key synthetic tool. Reactive extrusion (flow mechanochemistry) will also be used for the design of novel synthetic methodologies.

## • Project

The postdoctoral position will take place at the CARMEN institute, UMR 6064, within the team « [Synthesis of Fluorinated Biomolecules](#) » led by Pr. Philippe Jubault. This project is part of our research program dedicated to the development of innovative methodologies to access valuable organic molecules through the formation of radical intermediates. The postdoctoral fellow will be in charge of the experimental work, analysis (NMR, HRMS, HPLC...), the writing of scientific reports, and will supervise in the lab area PhD students and will take benefit from an international environment. ***A previous experience in mechanochemistry is not mandatory.***

## • Profile

- PhD in organic chemistry
- Dedicated, motivated, curious, autonomous, and organized
- Experienced in organic synthesis, development of new methodologies, and strong skills in analysis of organic molecules.

## • Application

- Detailed CV
- Short research summary
- Cover letter
- Contact of at least two referees, able to be contacted to provide recommendations
- **All documents should be sent by email to Dr. Thomas Castanheiro ; [thomas.castanheiro-matias@univ-rouen.fr](mailto:thomas.castanheiro-matias@univ-rouen.fr)**