

Université Claude Bernard Lyon 1- Hosting offer for a MSCA Post-doctoral fellowship candidate in biomass and waste catalytic upgrading

Host Organisation	Université Claude Bernard Lyon 1
Department	Chemistry
Laboratory	CP2M // IRCELYON
Website (lab / research team)	www.cp2m.org // www.ircelyon.univ-lyon1.fr
Supervisor Contact name	Léa Vilcocq Laurent Djakovitch
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Host Organisation

The Université Claude Bernard Lyon 1 welcomes Marie Skłodowska Curie Postdoctoral Fellowships applications!

With 62 laboratories and more than 7000 publications per year, and leading French university in terms of the number of patents filed in collaboration with industry, Lyon 1 contributes to scientific and innovation progress in numerous fields: health, mathematics, IT, physics, chemistry, earth and space sciences, life sciences, etc. Creator of emerging knowledge and new technologies, the University is consolidating its research excellence on a global and international level by developing inter- and multidisciplinary approaches targeting the major challenges facing today society.

Host research lab/team

CP2M is a leading research lab in Europe in Catalysis, Polymerization, Processes and Materials. IRCELYON is a leading research laboratory in Catalysis and Environmental Science.

CP2M and IRCELYON have a long history of scientific collaboration on the design of catalytic processes and catalytic applications, with a focus on biomass and waste upgrading for chemical industry decarbonation.

Both research teams have strong expertise on multiphasic catalytic reactors, flow chemistry, intensified reactors (compartmented reactors, reaction-separation coupling), flow chemistry with online analysis, solid catalysts synthesis and characterization, catalytic reactions in complex mixtures.

Hosting Offer

The **CP2M and IRCELYON laboratories** offer to host a MSCA Postdoctoral Fellowship candidate (typically a post-doc of less than 8 years research experience since PhD defence), submitting an application to the next MSCA-2025 - PF call for proposals (deadline 10th September 2025), interested to work on the following research topic:

- New catalytic systems for catalytic upgrading of biomass and waste
- New catalytic reactors for catalytic upgrading of biomass and waste
- New analytical and monitoring strategies for catalytic upgrading of biomass and waste.

Experimental means in relation to these research topics will be provided. Particularly, common facilities for catalyst synthesis and catalyst characterization will be available at IRCELYON and common facilities for reactor design and implementation, and biomass and bioproducts analysis will be available at CP2M.

The fellowship could last for 12 to 36 months, depending on the type of Postdoctoral Fellowship (European Postdoctoral Fellowship or Global Postdoctoral Fellowship). Secondments in European research teams will be possible within the DREAM project consortium (<https://dream.cnrs.fr>).

Supervision

The successful Marie-Curie Post-doctoral fellow will be supervised by Dr Léa Vilcocq, CNRS researcher (ORCID <https://orcid.org/0000-0002-3381-3927>) and Dr Laurent Djakovitch, senior CNRS researcher (ORCID <https://orcid.org/0000-0001-5084-5608>).

Léa Vilcocq's research interests include the design of new catalytic processes for biomass and waste valorization (multiphasic continuous reactors, reaction-separation coupling, hybrid catalysis) applied for the upgrading of complex mixtures from biomass (black liquor, spent grains, etc.) and/or from plastic waste.

Laurent Djakovitch is expert in the chemistry of aromatic compounds. After having developed catalytic methodologies for the synthesis of bioactive aromatic molecules, he is currently working on lignin upgrading to chemicals and materials since more than 10 years. He gained international recognition in these area within 126 publications, 2 patents and 3 book chapters. He coordinated several projects on this area, including CHEMLIVAL, NANOTRAP and FOLIASTREX ANR projects, the BioMCat PEPR-BBest France 2030 project, and participated to national and international projects in this area. He was the French scientific co-director of a GDRI action with Russia (2012-2020) on this topic. LD is

deputy head of the C'Durable Team. He has supervised > 29 PhD and several post-doctoral fellows (12), MASTER students (42) and ATER.

Application process

Interested candidates are invited to contact us exclusively by email at lea.vilcocq@cnrs.fr and Laurent.djakovitch@ircelyon.univ-lyon1.fr.

Make sure that you include the reference to this offer in the title of your email. Please attach a CV, a motivation letter, a summary of your PhD, **as well as a 1-page research proposal**.

Professional grant application support:

Candidates will receive the support of the supervisors, as well as online training from a professional grant application company, and advices from successful applicants, to prepare and submit their application with CP2M and IRCELYON as a host laboratory, to the next MSCA-PF call for proposals.