

Université Claude Bernard Lyon 1- Hosting offer for a MSCA Post-doctoral fellowship candidate in Civil Engineering

Host Organisation	Université Claude Bernard Lyon 1
Department	Mechanical department
Laboratory	LMC2
Website (lab / research team)	https://www.univ-lyon1.fr/en/research/laboratory-of-composite-materials-for-construction-lmc2
Supervisor Contact name	Thomas Sanchez
Supervisor Contact email	Thomas.Sanchez@univ-lyon1.fr

Host Organisation

The Université Claude Bernard Lyon 1 welcomes Marie Sklodowska 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.

The LMC2 Laboratory is a leading research lab in Europe in Composite Materials for Construction.

The scientific activity of LMC² focuses on the study of Composite Materials and Composite Structures and especially on the experimental analysis and modelling of the behaviour of civil engineering structures or parts of it (reinforced concrete, prestressed concrete, wood, metal) reinforced by composite materials. It is under the supervision of the University Claude Bernard Lyon I

Dr. Thomas Sanchez's research team is expert in **Durability of porous materials**: Numerical modelling of transfer phenomena in porous materials (natural and accelerated ionic diffusion under an electric field, capillarity and water transport,

corrosion of steel reinforcements and phenomenological consideration of chemical reactions) and experimental experience (natural and accelerated diffusion tests under an electric field, leaching, porosity in cementitious materials).

Hosting Offer

The **LMC2 lab** offers 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:

- Development of new porous materials that are environmentally friendly and cost-effective or innovative.
- Macroscopic and microscopic characterisation of the mechanical properties and durability of porous materials (Natural and accelerated diffusion tests under an electric field, leaching, porosity, capillarity, water diffusion)
- Innovative, non-destructive monitoring of infrastructures using macro-instrumentation and measuring climatic and environmental conditions.
- Optimisation of the prediction of infrastructure service life using multi-species reactive transport models coupled with mechanical stress models.

The fellowship could last for 12 to 36 months, depending on the type of Postdoctoral Fellowship.

Supervision

The successful Marie-Curie Post-doctoral fellow will be supervised by Dr. Thomas Sanchez. His research interests include Durability of porous materials.

Application process

Interested candidates are invited to contact us exclusively by email at thomas.sanchez@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, your MSc marks, **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 advice from successful applicants, to prepare and submit their application with the LMC2 as a host laboratory, to the next MSCA-PF call for proposals.