

## Job description

### Junior Professorship Chair Tenure-track Position

Decree n° 2021-1710 of 17 December 2021 relating to the junior professorship contract provided for by article L. 952-6-2 of the Education Code and by article L. 422-3 of the Research Code.

Body in which the person concerned is destined to be appointed: **University Professor**  
Publication profile (*title of the contract and the position concerned*): **Abundant metals for asymmetric organic synthesis**  
Location: **SciFa, Metz**

#### ➤ **Job profile and EURAXESS:**

Job profile (maximum two-line summary of the profile in English):

Candidates with demonstrated expertise in organometallic chemistry for organic/asymmetric synthesis, and able to propose and develop a research project exploiting the reactivity of abundant earth-metals or metalloids are encouraged to apply.

Euraxess research fields (see coding table in the annexed documents):

Chemistry      Molecular chemistry      Organic chemistry

#### ➤ **Job profile:**

Nature and purpose of the research project: **Molecular Chemistry for Ecological Transition and Health: Abundant Metals for the Eco-Compatible Synthesis of Pharmaceutical Compounds**

Nature and purpose of the proposed teaching project: **Organic Chemistry**

Partners : **CNRS**

Associated funding amount :    salary 3443. 5€/month (gross); financing research project 200k€ (ANR)

Anticipated contract duration: **5 years**

Teaching profile:

The person recruited will teach in the field of organic and organometallic chemistry. Teaching will mainly take place within the Bachelor of Chemistry level and the Sustainable Chemistry and Environment course of the Master of Chemistry at the University of Lorraine (English or French). The creation in 2024 of a new SOMBio course (Organic Synthesis, Bioactive and Biosourced Molecules) for the Master in Chemistry will also offer the opportunity for new courses in organic chemistry.

More generally, it is expected to be invested in the life of the Chemistry Department and the UFR, by taking responsibility for the organization and/or promotion of training. In conjunction with the Department of Chemistry, the recruited candidate will participate in the development of new training courses on molecular chemistry and sustainable development at European level (i.e. EURECA-PRO).

Keywords: **organic synthesis**

Department/University: **Basic and Applied Sciences (SciFA)**

Teaching department: **Chemistry Department**

Place(s) of work: **Campus Bridoux et Technopole, UFR SciFA 57000 METZ**

Teaching team: **Chemistry Department**

Name of Department Director: **Vincent Carré**

Tel. Department Director: +33 3 72 74 91 33  
Email Department Director: [vincent.carre@univ-lorraine.fr](mailto:vincent.carre@univ-lorraine.fr)  
URL dept: <https://scifa.univ-lorraine.fr/content/chimie>

**Research profile:**

Metal-promoted synthetic methods for C-C bond formation are undoubtedly the keystone of chemical and pharmaceutical industry. However, the extensive use of rare and expensive metals such as those of the platinum-group became a major issue in terms of cost, toxicity, environmental impact, and more recent geopolitical concerns. This requires finding engaging alternatives to trivial noble metal-based synthetic methods that are still essential to industry. In this context, the Lorraine Laboratory of Molecular Chemistry develops synthetic methodologies based on the use of post-transition and s-block metals while considering modern green chemical principles (step economy, eco-compatible sequences) to efficiently access polyfunctional scaffolds from simple starting materials. In the same line, we are now looking for candidates with well-recognized skills in asymmetric synthesis who are able to propose and develop a research project based on the employment of earth-abundant, cheap, and non-toxic metals or metalloids to produce compounds of biological interest. Expertise in the field of photo-redox catalysis or electrosynthesis for example are also welcome and should be further associated with earth-abundant metal-based reagents/catalysts. In addition to the scientific excellence, the recruited person should demonstrate scientific leadership, abilities to gather research fundings, to set up and lead a research group, to develop collaborations with internationally recognized research groups.

**Keywords:** organic chemistry, organometallic chemistry, asymmetric synthesis, Earth-abundant metal

**Laboratory name:** Lorrain Laboratory of Molecular Chemistry

**Laboratory unit number:** UMR 7053

**Place(s) of work:** University of Lorraine, ICPM, 1 Boulevard Arago, 57078 METZ, France

**Name Lab Director:** Andreea Pasc

**Tel Lab Director:** + 33 3 72 74 54 97

**Email Lab Director:** [andreea.pasc@univ-lorraine.fr](mailto:andreea.pasc@univ-lorraine.fr)

**Lab URL:** <http://www.l2cm.univ-lorraine.fr/l2cm/>

**Laboratory description:** The Lorrain Laboratory of Molecular Chemistry (L2CM) is a UMR CNRS-University of Lorraine (UMR 7053) grouping about 70 people geographically distributed between Nancy (Faculty of Sciences and Technologies; Campus Brabois Santé) and Metz (Institute of Chemistry, Physics and Materials).

**Unit's project description:** The objective of L2CM is to develop innovative methods for the synthesis of molecules and molecular materials with applications in physics (catalysis, energy, luminescence) and biology (antibacterials, drug delivery, imaging). The philosophy of the laboratory is the design of the molecule to the device or bioactive system, based on a set of synthesis and characterization platforms.

<https://ultv.univ-lorraine.fr/video/12975->

[12cm\\_plateformes\\_aout\\_2022m4v/0960ee50a572beb4b19e2642e1806fd354e4c3f79aa5056d50887fe6686adeef/](https://ultv.univ-lorraine.fr/video/12975-12cm_plateformes_aout_2022m4v/0960ee50a572beb4b19e2642e1806fd354e4c3f79aa5056d50887fe6686adeef/)

➤ **Additional information:**

• **Requirements for applicants:**

- Hold a doctorate or an equivalent degree (upon recognition by UL Scientific Committee).

**In addition, it is recommended:**

- To have completed at least 3 years of scientific activity after the PhD thesis.
- For holders of a doctorate in France, to have a significant experience of mobility abroad (at least two years).

• **The list of supporting documents** to be attached to the application:

Your application file, consisting of the application form entered online, must include the following items:

- An official identity document with a photography;
- A document certifying that you hold a PhD, or an equivalent degree (whose equivalence must be recognized by the University of Lorraine Scientific Committee);
- The PhD examination report, or a certificate from the institution stating that no examination report has been drawn up;

- An analytical presentation of the works, books, articles, achievements and activities related to the profile of the Junior Professorship Chair tenure-track position in question, mentioning those that the candidate intends to present at the audition;
- A copy of each of the works, books, articles and achievements mentioned in the analytical presentation and which the candidate intends to present at the audition, not exceeding six documents.

Administrative documents written in whole or in part in a foreign language must be accompanied by a translation into French, the conformity of which the candidate certifies on his or her honor. The translation of the analytical presentation is compulsory and the works, books, articles and achievements in a foreign language must be accompanied by a summary in French. Otherwise, the application will be declared inadmissible.

Candidates who are or have been for less than eighteen months a teacher-researcher at a level equivalent to that of the post to be filled, in a higher education institution in a country other than France, must indicate this status.

Applications must be submitted on the [Galaxie](#) platform (*FIDIS module*) according to the calendar available on the [Université de Lorraine](#) website.

Any application incomplete by the above-mentioned deadline will be declared inadmissible.

Only those candidates who have been selected by the recruitment committee on the basis of their applications will be invited to the audition.

*\*When searching for positions, Junior Professorships will be distinguished from others by the recruitment article (JPC).*

- **How auditions are organized:**

Professional situation:

yes       no

*“The audition may include [...] one or more on-site or remote works, in particular in the form of one or more lessons on a free or imposed theme, a seminar for the presentation of research work or a meeting with students or teachers-researchers, researchers or similar staff of the research or teaching unit in which the position is open.*

*This work may be public under the conditions laid down in the recruitment notice.*

*During these simulation phases, the selection committee acts as an observer and only intervenes to ensure that the simulation runs smoothly.” art.10 of decree n° 2021-1710 of 17 December 2021*

*If yes:*

public       non-public

*In the form of:*

of lesson "Asymmetric Synthesis Strategies", Level M2 in Sustainable Chemistry and Environment (10 min)

research presentation seminar

meetings (with students or teachers/researchers/researchers of the research or teaching unit in which the post is open)

Other information:

- The position for which you are applying is likely to be located in a “restricted area” within the meaning of article R 413-5-1 of the penal code. If this is the case, your appointment and/or assignment can only take place after authorization of access issued by the head of the establishment, in accordance with the provisions of article 20-4 of decree n°84-431 of 6 June 1984.