UNIVERSITE D'ANGERS
DIRECTION / SERVICE

LABORATOIRE Groupe Analyses et Procédés (GA&P) – Dpt. de Chimie UFR Sciences

Intitulé du poste :

Chercheur contractuel junior
- Contrat **postdoctoral Electrochimie Analytique, , PFAS, Sols**

Presentation of the University of Angers

In the heart of a region recognized for its quality of life, the University of Angers, the 3rd largest employer in the region, offers an environment conducive to the development of its staff and students. The UA is a multidisciplinary university, welcoming more than 26000 students spread over 3 campuses and 2 relocated campuses (in Cholet and Saumur). It has 8 components (5 UFR, 1 IUT, 1 internal engineering school and 1 internal business and management school), and 31 federative research units and structures. Thanks to the many innovative projects it carries out and its openness to the world, the AU allows everyone to evolve in a stimulating environment. Its annual budget is €156 million (including €123 million in payroll). The UA has 1167 teachers and teacher-researchers, 917 administrative and technical staff and nearly 2000 individual contractors and is looking for involved and daring actors. You recognize yourself in this job offer? Join us !

Contract features:

Starting date: 01/11/2024
Contract duration: : 24 month (2 years)
Work quota: 100%
Monthly wage: 2950 € (experience and profile)
Location: Angers University and travel abroad related to the needs of the project

Research project: **E-SPF Digit :** *Emergent soil, plant and food onsite digital services on chemical and biological contaminants* - Call: HORIZON-MISS-2023-SOIL-01

Description:

This involves integrating a consortium of 18 European partners all committed to continuing to improve the quality of soils and therefore soil production impacted by chemical and microbiological pollutants. Concerning chemical pollutants, our work in Angers will focus on the development of an innovative analytical chain to carry out an analysis of PFAS compounds (known as eternal pollutants) dedicated to soils contaminated by certain families of these compounds whose interest is always improving

Calendar: **Kick-off meeting (KOM) : october/november 2024**

Anticipating a KOM on 1/10/2024, recruitment of the postdoctoral position will take place on December 1st 2024. Recruitment is for 2 years (24 months). The first year will be focalize on developing PFAS analyzes in the laboratory to develop a "classic" measurement chain. The second year will consist of miniaturizing the analytical process to adapt it to the realities of on-site soil analysis.

Expected results:

The development of a complete analytical chain for the analysis of PFAS

Miniaturization of the analytical chain for use on-site

Définition of research activities and tasks to be accomplished in UA:

At the start of the project, it will be necessary to carry out an exhaustive bibliographic search on PFAS and their analysis methods and in particular to list the electrochemical methods, highlighting their performances (advantages and disadvantages).
This will involve working in harmony with the laboratory's postdoctoral fellows already involved and working within the iMERMAID project on the analysis of PFAS in water. In particular, electrochemical measurements developed in liquid can advantageously be used for soil analysis.
A complete analytical chain will be developed in order to implement in particular a sensor dedicated to PFAS capable of sending its electrochemical signal remotely. If necessary, a pre-concentration pretreatment will help to improve the performance of the analysis.
During the work, regular publications will be produced as well as communications at congresses in consultation with the AU development bodies (in particular the SATT) who can also advise us to patent before publishing. The creation of values is of course highlighted.

The work will be supervised by the leader of the E-SPFdigit project at the UA, Professor Maxime PONTIE. Good laboratory practices will be required (daily keeping of a laboratory notebook, taking into account the hygiene and safety constraints used at the UA and imposed by the experiments to be set up). Participation in consortium meetings will also be part of the deliverables (sometimes they will take place abroad) with regular presentations in English. Field work will put the analytical chain previously developed in the laboratory to the test in the field.

Expected skills:

knowledges :

- Electrochemistry
- Anal. Chemistry
- English spoken
- Professional experience

Know-how :

- Electrochemical methods
- Implementation of chemical analyzes and comparison of analysis methods
- Exhaustive bibliography
-Writing articles
- Fluent in English
- Statistical analyzes of data

Know how to be :

- Good presentation
- Open-mindedness given the numerous project partners (18) and the many nationalities involved (to be discussed during interviews)

Required qualifications:

- Validated doctoral degree + 1 industrial experience (doctorate less than 3 years old)
- Specialties: Analytical electrochemistry, Analytical chemistry, Analysis of pollutants in soils, in water, Knowledge of soils; Statistical analysis of data.

Recruitment procedures and contact

You must submit your CV, cover letter and doctoral degree by mail : maxime.pontie@univ-angers.fr, copy: recrutement@univ-angers.fr

Deadline for applications: 31/08/2024

This job description is available until the closing date for applications.
On that date, it will no longer be available on the website.

If needed, your contact for any further information is:

Pr. Maxime PONTIE : **+33 (0)2 41 73 52 52**, maxime.pontie@univ-angers.fr