

Engineer in organic analyses and liquid chromatography coupled with high-resolution mass spectrometry

Publication date: 10/26/2021

Offer reference: ING ORGA ANAE

Location: Department of Oise, accessible by public transport, at 40 min North of Paris.

Type of contract: Permanent position

Contact: ineris-381738@cvmail.com

Description

Within the Environmental characterisation and impacts on human and biodiversity Department, the Analytical Methods and Developments for the environment Unit (ANAE) carries out activities of development of analytical methods and provides analytical services (organic, inorganic, physical) in environmental matrices (air, water, soil, biota), designs experiments to study the transformation of pollutants, as well as performs tests and trials on materials and products.

The ANAE unit is composed of around twenty people (engineers and technicians) and has a platform of cutting-edge analytical equipment and materials: gas or liquid phase chromatographs coupled with a wide variety of detectors, including different types of mass spectrometers (single Quad, Triple Quad, TOF, QTOF), inductively coupled plasma with optical spectrometers or mass spectrometers (ICP-OES and ICP-MS), microscopes (optical, transmission electron TEM).

Under the supervision of the Head of the unit and through strong interactions with other engineers or technicians of the unit and of Ineris:

- You will be more particularly in charge of the development of the **targeted and non-targeted analyses by LC-QTOF**. You will therefore have to implement these studies, contribute to the sample analyses and data processing, in targeted mode, in "suspect" mode, and in non-targeted mode. You will also be in charge of the interpretation of the results as well as the drafting of the corresponding study reports. You will implement the optimization of data processing, relying in particular on Artificial Intelligence.
- You will also be in charge of studies related to the development and validation of **targeted analysis methods in LC-MS-MS and GC-MS-(MS)** for the quantification of organic pollutants in the environment and particularly in the matrices related to the aquatic environment (natural water and waste water). In interaction with the technical team, for these studies, you will have to establish the analytical strategies, make sure of their progress, and produce the deliverables usually as reports.
- You will be involved or lead French and European research programs aimed at better characterizing chemical pollutants in various environmental matrices, and more particularly emerging pollutants, in order to acquire knowledge on the overall exposure to substances and chemical agents depending on the contribution levels and

the types of contributors (industrial sites, polluted soils, and air, water and food pollution, etc.).

You will carry out your daily work strictly following the procedures and operating methods of our quality assurance system as well as our safety rules.

You may need to make occasional trips to France or Europe.

Profile

With a PhD in organic analyses, you have an experience of at least 3 years in organic analyses and more particularly in the implementation of liquid chromatography coupled with high resolution mass spectrometry in environmental matrices. You master sample preparation techniques, including SPE, both offline and online.

Skills in gas chromatography coupled with mass spectrometry in the environmental field, background in identifying and quantifying organic pollutants in aquatic environments, data analysis skills with Agilent tools (Mass Hunter, Mass Profiler and Mass Profinder) and statistical tools (Principal Component Analysis, PLS regressions) would be appreciated.

In addition, you have the following skills and competences:

- Sense of multidisciplinary teamwork (internal and external);
- Sense of listening, technical and experimental curiosity, taste for innovation, critical thinking, analysis and synthesis capabilities
- Real oral and written skills (oral presentations at meetings, frequent writing of reports, briefing notes and scientific articles)
- Fluent written and oral French and English (consultation of documents, oral presentations and writing of scientific reports and articles in both languages)

Additional information

To apply, send a cover letter and a resume to ineris-381738@cvmil.com with the following reference as the object: **ING ORGA ANAE**.

This position is open to people with disabilities.