

Vacancy

Instrument Scientist – Neutron Powder Diffraction D20 (and D2B)

The Institut Laue-Langevin (ILL) is a world-leading research facility dedicated to neutron science, providing cutting-edge instrumentation for a wide range of scientific disciplines. Within the Diffraction Group, the high-intensity neutron powder diffractometer D20 plays a key role in studying the structural properties of materials under various conditions. D20 is characterized by a high throughput of relatively short but complex experiments. Strong scientific expertise in crystallography and diffraction methods particularly parametric powder diffraction is essential, as well as the ability to work effectively with a diverse user community, ranging from experienced researchers to first-time users and students. Enhanced support in data analysis is expected to increase further the publication rate of experiments conducted on the instrument.

Yours Tasks

- Developing a research activity in high-intensity (parametric) powder diffraction, in collaboration with the user community and as part of a personal research programme.
- Providing support to users for scientific experiments on the D20 diffractometer, and on other powder diffractometers, in particular the high-resolution diffractometer D2B, with the possibility of also acting as Local Contact on single-crystal diffractometers or other ILL instruments.
- Initiating development and maintenance for the D20 diffractometer and sample environment equipment for in-situ diffraction, i.e. involving gas-handling, high pressure, high temperatures or electrochemical environments.
- Facilitating instrument control and data reduction, in collaboration with the relevant in-house services. The drive must nevertheless come from the scientist, and programming skills, e.g. Python, will be very helpful here.
- Promoting the ILL diffraction and neutron scattering programme and engaging in teaching and training activities.

Qualifications / Experience:

- A PhD in chemistry, physics or materials science, or equivalent.
- Demonstrated experience in chemical crystallography.
- Experience with complex experimental environments (e.g. gas handling, in-situ chemistry, high pressure, high temperature).
- Knowledge in relevant fields such as electrochemistry, sequestration, storage and transportation of gases, metal-organic frameworks, etc.
- Experience in neutron and/or X-ray scattering techniques. In-depth knowledge of powder diffraction methods.
- Experience with the Rietveld method and optionally the „PDF“-method in terms of data analysis.
- Knowledge of crystallography. Knowledge of neutron scattering and programming languages (Python)

We offer:

- ✓ **Quality of life** A hub for research and technology, the city of Grenoble is ideally located in the heart of the French Alps (just 3 hours from Paris/Provence by train, 1 hour from Lyon international airport and 1 ½ hours from Geneva). It is important for us that our staff achieve a healthy work-life balance. We therefore offer home working (under certain conditions), generous annual paid leave entitlement and a host of other benefits that you will discover when you arrive!
- ✓ **Prospects** We guarantee you a **stable 5-year fixed-term contract** in a multicultural scientific environment.
- ✓ **Benefits** - We offer generous social benefits (expatriation allowance, excellent health cover), moving and relocation assistance (under certain conditions) and an annual productivity bonus. We also offer language courses for you and your partner and subsidies for the use of public transport and the staff canteen, as well as for holidays and a variety of cultural and sports activities.

How to apply:

Please submit your application on line no later **16/03/2025**, via our website :

www.ill.eu/careers

(vacancy reference : 25/14).

https://www.ill-recruits.eu/index_extern.php?sid=1715&intern=0

Con copia de la candidatura a: eures.franciasuizabenelux@sepe.es

Indicando la referencia ILL 25/14

Ayudas a la movilidad EURES

