

Vacancy

The main objective of this position is to understand residual stress formation during additive manufacturing (AM) by means of neutrons and x-rays monitoring. This will allow to tailor residual stresses in the material and consequently to enhance its mechanical properties. The work is embedded in a direct collaboration with the Institute of Materials Physics in Space of German Aerospace Center (DLR) in Cologne and the Federal Institute for Materials Research and Testing in Berlin (BAM) for materials characterisation and AM powder-based process development.

Post-Doctoral Fellowship in Metal Additive Manufacturing

Yours Tasks

Working within our Diffraction group on the strain diffractometer SALSA, your research program will focus on:

- Residual stress mapping (ex-situ) and monitoring (in-situ) of various materials that are manufactured from powders (steel, Ti-based, bulk-metallic glass).
- Operando studies on internal stresses development and phase formation using existing set-ups.
- Assist the scientists in charge of SALSA when they welcome users on experiments with similar scientific scope, in order to further develop your- scientific network.

Qualifications / Experience:

- Highly motivated candidate with a PhD (obtained less than 4 years ago) in physics, materials science or alike.
- A strong background in experimental physics or materials science is a prerequisite.
- Practical experience in diffraction methods and metal AM and/or solidification research would be advantageous.
- As an international research centre, we are particularly keen to ensure that we also attract applicants from outside France. You must have a sound knowledge of English and be willing to learn French (a language course will be paid for by the ILL). Knowledge of German would be an advantage.

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 **18 months post-doctoral contract renewable for a further 6 to 18 months period.**
- **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 12/02/2023, via our website :

www.ill.eu/careers

(vacancy reference : 23/02).

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

Indicando la referencia ILL 23/02

Ayudas a la movilidad EURES

