



Recruiting a 24 month Fixed Term R&D Engineer on *developing magnetic materials and stacks for Spintronics*

SPINTEC

Positioned at the crossroad of science and technology, **SPINTEC (SPINtronique et Technologie des Composants, <https://www.spintec.fr>)** is one of the leading spintronics research laboratories worldwide. SPINTEC was created in 2002 and rapidly expanded to currently exceed 100 persons, of which 48 permanent staff from CEA, CNRS and Grenoble-Alpes University. The lab aims at bridging the gap between fundamental research and applications in spin electronics. As such, the outcome of the laboratory is not only scientific publications and communications at international conferences, but also a consistent patent portfolio and implementation of relevant functional demonstrators and device nanofabrication. The lab has launched four start-up companies in the past 12 years, and another two are in the pipes. This synergy has placed SPINTEC at the forefront of spintronics research, having actively contributed to the emergence in industry of spintronic memories called MRAM, on which the laboratory holds key patents.

SPINTEC benefits from an idea local environment with a large spectrum of opportunities:

- SPINTEC belongs with the Interdisciplinary Research Institute of Grenoble ([IRIG](#)), gathering 10 laboratories with of total of 1000 researchers, technicians, doctoral and post-doctoral students. IRIG covers interdisciplinary skills (physics, chemistry, biology), and provides access to cutting-edge scientific and technological platforms such as PTA cleanroom, and nano-characterization PFNC.
- The [Giant Campus](#) Site (also called Scientific Presqu'île) offers an exceptional scientific environment with partners such as CEA-LETI, Néel Institute and major European facilities (ESRF and ILL on the EPN Campus).
- The entire Campus of [Grenoble Alpes University](#), whose excellence was recently recognized by the national IDEX award, bears a collective dynamics of research challenges in all fields of knowledge.

Grenoble is a cosmopolitan city at the heart of the French Alps. One out of five people living there works in the field of research, innovation or higher education. In addition, Grenoble offers various cultural and sportive opportunities all year round.

CONTEXT

SPINTEC opens a R&D Engineer position for developing magnetic multilayer stacks on a new fully automated ultra-high vacuum sputtering tool for 100 mm wafers, developed in-house.

The work will be carried out within the "Materials" team and in a close collaboration with researchers, PhDs and postdoctoral fellows.

POSITION

The mission will consist in:

- discussing with the researchers about their needs on materials development,
- depositing multi-layered stacks and perform basic characterisations (Vibrating Sample Magnetometry, Magneto-Optical Kerr Effect, Atomic Force Microscopy, X Ray Reflectometry...),
- discussing on the obtained results and properties,

- iterate on the stack composition and deposition parameters to obtain the sought-after characteristics,
- improving the setup (e.g. simplify maintenance operations, tweak the user interface, introduce new functionalities, ...).

The candidate should have a strong background in research on material science and, in particular, knowledge of:

- magnetic materials engineering,
- thin-film magnetic phenomena,
- magnetron sputtering deposition technique,
- vacuum phenomena,
- reading, writing and speaking of English: at least B2 CEFR level
- programming in Python language.

The required skills are:

- handling of materials and samples with cleanliness and purity constrains,
- analysis and interpretation of physical characterization results,
- reading and writing reports and articles, oral presentation of results,
- team working and ability to communicate in a diversely skilled laboratory.

How to apply: Interested candidates must send their CV and motivation letter to miguel.rubioroy@cea.fr and jerome.faure-vincent@cea.fr.

Starting date: available now

Employer: CNRS

Gross salary: between 2580 and 3270 euros per month depending on experience, social insurance included