

The Laboratory for Physics of Nanomaterials and Energy (LPNE) at the University of Mons (UMONS) is recruiting a highly motivated and qualified postdoctoral researcher (m/f/x) to support an innovative project in collaboration with an international company active in polymer science and engineering for providing solutions for the challenges of today and in achieving ambitions for building a better tomorrow.

The candidate needs to be trained in Scanning Probe Microscopy (SPM) and spectroscopy, and ideally also in high resolution electron microscopy techniques (TEM and SEM) and have experience in STEM-EDX. Hands-on experience with *in-situ* experiments including heating, cooling, straining or with gas will be appreciated.

The work will be entirely dedicated to the activities carried out in this project.

During the project, the candidate will be required to :

- Carry out and develop research in polymer science for the characterization of the mechanical and chemical properties of polymer blends at the nanoscale by using cutting-edge electronic and scanning probe microscopy techniques;
- Actively participate to the research developments at LPNE in data acquisition, validation and analysis (based on machine learning and correlative approach);
- Write intermediate reports and participate to meetings with the company on a regular basis.

Profile and requirements

- You hold a doctorate degree (PhD) in Physics, Chemistry, Materials Science, Materials Engineering or similar;
- You understand and have strong experience in SPM and also ideally in high resolution TEM, SEM, and STEM-EDX;
- You have deep knowledge on the mechanical behavior of materials;
- You have certain skills in sample preparation (i.e. cryomicrotoming);
- You have published in high impact factor journals with referee system;
- You have experience in paper and project writing and in presenting your work at international conferences;
- You have skills in programming in Python;
- You have experience in guiding Master and PhD students is welcome;
- You have an excellent proficiency in English;
- You are quality-oriented, conscientious, creative and cooperative.

We offer :

- An exciting research environment at top laboratory on materials science and engineering;
- A full-time scholarship as post-doctoral researcher for 2 years (with an evaluation after 1 year), possibly to be prolonged;
- A gross annual scholarship ranging from 3 200 € and 3 700 € depending on years of experience and country of origin;
- The contract is expected as soon as possible (considering visa delay).

How to apply?

- Applications can be submitted until the closing date **30 October 2024**;
- A pre-selection will be made from amongst the submitted applications. The remainder of the selection procedure will be determined by the selection panel (including representatives of the company);
- To apply send your CV (including a list of publications) and three letters of recommendation to Prof. Philippe Leclère (philippe.leclere@umons.ac.be).