The atmospheric plasma group of ULB (Université libre de Bruxelles, Belgium) is currently looking for post-doctoral researchers, engineers, and PhD students to fulfill the following open positions:

- **2 Researchers for the AMORPHO project.** This project, funded by the Walloon region, aims at depositing metal layers using atmospheric plasma technologies. More specifically, AMORPHO aims at synthesizing thin coatings of new glassy metal alloys in order to improve properties such as corrosion resistance and hardness.

- **1 Researcher for the SMARTHYCAR project.** This project, funded by the European Union M-EraNet program, aims at modifying textiles in order to facilitate further grafting of bioactive molecules for wound healing.

- **3 Researchers for the NITROPLASM program.** This project, funded by the FNRS and the FWO (Belgium) aims at synthesizing nitrates using atmospheric plasma. The context of the NITROPLASM project is described more extensively in the file “Job-opening-NITROPLASM” also posted on the website on the Faculty of Sciences @ULB.

The plasma group of ULB has developed a recognized expertise in atmospheric plasma treatment of surfaces and in the chemistry of the plasma phase and at the gas-solid interface since 1999. The laboratory, located in Brussels, is well equipped, with 15 plasma reactors, 2 optical emission spectrometers, 2 infrared spectrometers (1 allowing in situ characterization), 2 atmospheric mass spectrometers, 1 dynamic contact angle system, 1 profilometer. Not mentioning the open positions, the group is also working on the synthesis of self-catalytic membranes for interior air depollution, on membranes and catalysts for fuel cells, on the synthesis of doped-TiO₂, of doped ZnO, of Vanadium oxides, of hydrophilic/hydrophobic coatings, on 3D atmospheric plasmas and on plasmas for biomedical applications. Altogether, 12 people are working in the group.

Brussels, as the capital city of Europe is a truly multicultural city, with more than 150 languages spoken. Located in the nice district of Ixelles, ULB is a research driven university. It offers competitive salaries, as well as a rich cultural and intellectual environment.

**Profile of PhD students**

- You have a master degree in one of the following fields: physics, chemistry, physical chemistry, material science, engineering physics, chemical engineering, material engineering, or equivalent.
- Candidates graduating this summer are also encouraged to apply.
- You should have excellent qualifications at bachelor and master levels.
- You should have an independent and well-organized working style, demanding a high standard for your own work.
- You should have well-developed social skills directed towards working in an interdisciplinary team as well as excellent interpersonal and communicative skills.
- You should have very good to excellent English language skills (verbally and written).

**We offer to PhD students**

- A full-time (100%) PhD student position as a bursary. The scholarship is initially offered for a period of one year and can be renewed up-to four years upon positive evaluation.
A competitive salary for doctoral students.
A challenging, versatile and carefully designed project.
A dynamic, multidisciplinary and ambitious research consortium with a wide international network.
Full access to expertise, state-of-the-art research infrastructure and user training.
Access to a Doctoral Training Program.
An opportunity to earn the highest academic degree.
Envisaged starting date: between 1/7/2018 and 1/10/2018

Profile of post-doctoral fellows

- You have a PhD diploma or are expecting to obtain a PhD in the near future in the field of plasma chemistry or plasma technology.
- Specific experience in cold atmospheric plasma is strongly encouraged (DBD, RF, torches...).
- Knowledge of plasma characterization techniques (optical emission spectrometry, mass spectrometry, electrical characterization, gas chromatography) is an asset.
- Knowledge of surface and materials analysis techniques (XPS, FTIR, contact angle) is a plus.
- You should show an excellent track record of publications in one of the requested research fields.
- You are a team player but you are an autonomous researcher, you have a strong positive personality and you work in a result-oriented manner.
- You are creative and willing to work in a multidisciplinary context.
- You are proficient in oral and written English and have strong communication skills.

We offer to postdoctoral fellows:

- A 1-year contract with a competitive salary. There could be possibilities to have the contract extended to max 3 years.
- You will be directly embedded in the research consortium of your project composed of plasma-oriented international research teams of different Belgian universities and/or research centers.
- You will have access to state-of-the-art tools and facilities, a rich training environment and the possibility to collaborate with many other groups within excellence-based universities.
- Envisaged starting date: As soon as possible but not later than October 1st, 2018.

How to apply:

Applications for the AMORPHO and SMARTHYCAR should be sent by email to Prof. F. Reniers, freniers@ulb.ac.be. Applications for the NITROPLASM project should be sent by email to Prof. N. De Geyter (nitroplasmproject@gmail.com), with copy to freniers@ulb.ac.be. For all applications, please put the name of the project you apply for (AMORPHO – SMARTHYCAR – NITROPLASM) + your name as the subject of the email.

Applications must contain the following documents in English:

- a personal (motivation) letter
- curriculum vitae (a proof of English language skills is an added value).
- a list of publications (if available)
- transcripts of B.Sc. and M.Sc. courses and grades
- a copy of your diplomas (if already available)