

PhD student - scholarship holder in a research project

2 positions

Faculty of Chemical Technology, Poznan University of Technology, Poznan

<https://fct.put.poznan.pl/>

Requirements / Expectations:

- Master's degree in chemical sciences, biological sciences or related discipline,
- Experience in laboratory work and knowledge of basic analytical, spectroscopic and microbiological techniques,
- Knowledge and experience of the basics of the project's research topic, including working with polymers,
- Fluency in written and spoken English,
- Independence, high motivation to work, problem-solving skills,
- Ability to work in a team.

Task description:

Recruitment is for the OPUS 21 project entitled. " Multilevel relationships between the presence of micro/nanoplastics (MNP) in soil and the amount and availability of water as well as sorption of model xenobiotics in terms of biodegradation kinetics and changes in soil microbial communities" funded by the National Science Centre.

The PhD student will be responsible for:

- Preparation and characterisation of micro/nanoplastics, determination of their effects on various soil parameters, sorption of model xenobiotics on artificial and agricultural soils, etc,
- Isolation and characterisation of soil microbiomes capable of degrading model xenobiotics,
- Determination of the influence of the presence of micro/nanoplastics on the kinetics of biodegradation (mineralisation) in aqueous and soil systems, structural changes at the level of bacterial membranes, and identification of metabolites formed in these processes using chromatographic techniques,
- Determination of qualitative and quantitative changes in soil microbial populations in the presence of micro/nanoplastics and xenobiotics using Illumina MiSeq sequencing metagenomic analyses,
- Defining the above parameters also in more complex systems, e.g. in the presence of crops and weeds in greenhouse experiments,
- Conducting a stable isotope C13-labelled xenobiotic experiments in the presence of micro/nanoplastics in a soil environment as part of an international research stay,
- Preparation of publications based on the above studies.

We are offering:

- Work in a rapidly developing research team,
- The opportunity to develop skills and gain experience in a wide range of chemistry and biology,
- The opportunity to participate in international conference and research internships,
- Support and a friendly working environment.

NSC call type: OPUS-NZ

Deadline: 21.07.2022, 12:00 CET

Submission: email

Terms and conditions of employment:

- commencement of studies at the Doctoral School of Poznan University of Technology
- PhD scholarship in the amount of: 2375 PLN brutto/month until a positive mid-term evaluation; 3654 PLN brutto/month after a positive mid-term evaluation (financed by the funds of the above mentioned project for 47 months)
- Starting date: October 2022

Additional information:

Interested persons are requested to send:

1. Curriculum vitae including a description of scientific achievements, information about awards, scholarships, internships abroad, participation in scientific conferences.
2. Motivation letter with a description of techniques used in research work.
3. A copy of the master's degree with a copy of the diploma supplement (or a certificate of graduation/graduation card).
4. An abstract of the master's thesis.
5. A letter of reference from the supervisor and/or academic supervisor working directly with the candidate.

Additional information can be obtained from the project leader: prof. dr hab. inż. Łukasz Chrzanowski

Please send your application and questions by e-mail to: lukasz.chrzanowski@put.poznan.pl (with the title "PhD student position OPUS 21").

Applications must be accompanied by the statements: I consent to the processing of my personal data for the purposes necessary for the recruitment process (in accordance with the Act of 10 May 2018 on personal data protection (Journal of Laws of 2018, item 1000) and in accordance with the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (RODO)).

Poznan University of Technology reserves the right to close the competition without selecting a scholarship holder.

Each candidate will be informed about the decision by e-mail.