UNIVERSITY OF WARSAW

Faculty of Chemistry

Faculty of Chemistry
University of Warsaw

Work offer for PhD candidate

A work offer for PhD student in the project OPUS „Chemical transformations, absorption of solar radiation, and toxicity of the atmospheric brown carbon in the context of climate change and threats to public health" funded by the Polish National Science Centre.

PI: prof. dr hab. Tomasz Gierczak (email: Gierczak@chem.uw.edu.pl),
University of Warsaw, Faculty of Chemistry, Warsaw, Poland.

Terms of employment

A monthly stipend of 5000 PLN for 3 years, which can be increased by ca. 50% after successfully getting into the Doctoral School of Exact and Natural Sciences at the University of Warsaw. We offer participation in an interesting research project related to climate change and atmospheric chemistry, the opportunity to be a part of a productive and dynamic research team, including participation in domestic and international conferences.

The project is focused on studying the properties transformation of the light-absorbing, harmful organic compounds generated during the burning and combustion of biomass (brown carbon, BrC). Planned research tasks include operating a small laboratory combustor, studying the BrC mixtures with gas and liquid chromatography coupled to mass spectrometry, *in-vitro* biotoxicity studies, kinetic and mechanistic studies of the aqueous reactions of BrC with inorganic radicals, and the development of kinetic, structure-activity relationship and atmospheric models. An overreaching goal of this project is to study the formation and processing of biomass-burning-related pollution from wildfires and the energy sector.

Requirements

-Master's degree in analytical, organic chemistry, physical chemistry or related

-Practical experience working in a chemical laboratory

-Good command of the English language

-Self-reliance, ability to quickly acquire new skills, and strong motivation for professional development

Additional skills that will be greatly appreciated

-Analysis and identification of organic compounds with GC/MS and LC/MS

-Basic knowledge of the kinetic box models and SAR

-Kinetic and atmospheric chemical modeling

-Working with *in-vitro* cytotoxicity assays

Required documents

-Curriculum Vitae (CV), motivation letter, list of publications in peer-reviewed journals, list of conference presentations and the most important professional achievements, copy of the master's degree diploma. Sent the required documents to the email address: Gierczak@chem.uw.edu.pl before the 29th of February 2024.