

PhD student position in project

Institution

AGH University of Science and Technology
Faculty of Geology, Geophysics and Environmental Protection
Department of Mineralogy, Petrography and Geochemistry
al. Mickiewicza 30, 30-059 Kraków
Poland

Position

PhD student

Project title and type

Nanotubular materials based on kaolin group minerals for the photodegradation of selected mycotoxins in aqueous environment

Opus 22 project – financed by National Science Centre Poland (2022-2025)

Project leader

prof. Jakub Matusik (jmatusik@agh.edu.pl)
www.mba.agh.edu.pl

Project description

The project will focus on synthesis of new types of photocatalysts involving mineral-based supports. In particular synthetic kaolinite-based nanotubes will be used. The obtained materials will be tested for the photodegradation of selected mycotoxins in aqueous solutions.

Please visit www.mba.agh.edu.pl or contact PI directly to get more information.

Terms of employment

Scholarship: 4 000 PLN/month (36 months)

Start date: 1st October 2022

Deadline for applications and required documents

15th June 2022 (23.59)

Please send your complete application as a single pdf file to: jmatusik@agh.edu.pl.

The application should contain the following:

- motivation letter outlining your interest in the proposed research
- CV including information on your education, research activities, list of publications, awards etc.
- copies of BSc and MSc diplomas (or information when MSc will be awarded)
- other documents confirming qualifications, scientific experience, courses, trainings (e.g. supporting letters) (**optional**)
- scan of signed permission for recruitment-related personal data processing, which states: „I give permission to the AGH University of Science and Technology, al. Mickiewicza 30, 30-059 Kraków, Poland to process my personal data for the purposes of carrying out the recruitment procedure”.

Requirements

- Msc graduate in applied mineralogy (in particular clay mineralogy), materials science, chemistry, environmental protection or related scientific disciplines
- knowledge of inorganic and organic chemistry
- moderate experience in the use of analytical methods for solid state analysis e.g. XRD, FTIR, SEM and analysis of liquid samples (e.g. AAS, ICP, HPLC)
- candidate must successfully pass the exam in the **AGH Doctoral School** (see here: <https://tiny.pl/9v8cm>)
- very good written and spoken English

Key tasks and responsibilities

- synthesis of mineral-based photocatalysts and their modification
- characterization of the obtained mineral-based photocatalysts using appropriate analytical methods
- evaluation of photodegradation efficiency and mechanisms in reactions with mycotoxins
- interpretation of the obtained results and preparation of scientific articles for publications
- presentation of results at scientific conferences

Additional information

- reviewing of the candidates will begin on 16th June 2022
- the candidates may be invited for an interview that will be organized online or live on 21st and 22nd June 2022
- the final results will be announced on **23rd June 2022**
- the scholarship is granted according to Regulations for awarding NCN scholarships for NCN-funded research projects (see more -> <https://tiny.pl/9v8sw>)

31st May 2022