Call for Applications for an NCN Research Scholarship

Poznań University of Technology – Institute of Physics

Poznań University of Technology, Institute of Physics, invites applications for a research scholarship funded by the National Science Centre (NCN), Poland.

We are seeking a motivated candidate to participate in the NCN research project No. **2025/59/D/ST5/01720,** carried out under the **SONATA 21** programme and entitled *"Substitutional Doping in 2D Transition-Metal Dichalcogenides: Descriptor-Based Modeling of Chemical Sensing Behavior."* The Principal Investigator (PI) is Maciej Szary, PhD.

Position
Research Scholarship Grantee (student or PhD student)

Number of positions:
1

Eligibility Requirements
Applicants must be enrolled as a student or PhD student at the time of commencing their project-related tasks, in accordance with the applicable NCN scholarship regulations.

Required Qualifications and Skills

- A background in *chemistry*, *physics*, *materials science*, or a related discipline.
- Basic scripting, data-processing, and documentation skills, e.g., using Bash, Python, LaTeX.
- Good command of English sufficient to read and understand scientific literature.
- A strong interest in materials chemistry, two-dimensional (2D) materials, and their environmental applications.
- Motivation to pursue scientific research, a proactive attitude, commitment to research activities, and a willingness to develop professionally.

The following qualifications will be considered an advantage:

- Experience with density functional theory (DFT) calculations and computational materials science software, such as Quantum ESPRESSO, VASP, or equivalent packages.
- Familiarity with Linux-based environments.
- Experience in statistical analysis and machine learning.

Scope of Responsibilities
Under the supervision of the Principal Investigator, the scholarship holder will:

- Perform DFT-based computational modeling of materials, focusing on geometry optimization, electronic structure, and adsorption energetics.

- Assist with data curation, descriptor extraction, and visualization of computational results, including plots, maps, and comparative tables.
- Contribute to the maintenance of version-controlled code and data repositories.
- Help ensure data and metadata consistency in accordance with the FAIR principles (Findable, Accessible, Interoperable, and Reusable).

Scholarship Terms and Conditions

- Type of funding: Research **scholarship** under a scholarship agreement.
- Scholarship amount: **3 000 PLN** per month.
- Funding duration: Up to **30 months**.
- Expected start date: **January 1, 2027**.

What We Offer

- Training and hands-on experience in computational materials modeling.
- Access to high-performance computing (HPC) infrastructure.
- Opportunities to develop research skills and build a foundation for an academic career.

Application Procedure

Applicants are requested to submit Curriculum Vitae (CV) including:

- Scientific interests and career goals.
- Relevant coursework, particularly in chemistry, physics, materials science, computational materials modeling, and statistical analysis.
- Technical and computational skills.
- A description of previous research experience, if applicable.
- A list of scientific achievements, publications, presentations, or other relevant accomplishments, if applicable.
- Personal data statement and consent for the processing of personal data for recruitment purposes, in accordance with applicable data protection regulations, e.g., "*I consent to the processing of my personal data contained in the application documents by Poznań University of Technology, based in Poznań, for the purpose of conducting the current recruitment process.*"

Applications should be submitted by email to **maciej.szary@put.poznan.pl**

Applications may be submitted in **Polish** or **English**.

Application deadline: November 20th, 2026.

Selected candidates will be invited to an in-person interview via email at least three days before the scheduled interview date.

Candidate interviews: November 27, 2026.

Announcement of competition results: December 4, 2026.