PhD Student Scholarship Position in the NCN Research Project No. 2025/58/E/ST5/00431 (SONATA BIS 15)

A 48-month PhD scholarship is available within the National Science Centre (NCN) research project No. **2025/58/E/ST5/00431 (SONATA BIS 15**). The PhD student will conduct research within the **Nano- and Microscale Systems Research Group at the Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Kraków, Poland**.

Requirements

- A university degree in Chemistry, Materials Engineering, Chemical Engineering, Chemical Technology, or a related field
- Basic theoretical knowledge and practical skills in chemistry (advanced knowledge of physical chemistry and nanotechnology will be considered an asset)
- Practical experience and skills related to work in a chemical laboratory
- Strong motivation to pursue scientific research
- Good command of spoken and written English, enabling the use of scientific literature as well as the preparation of reports and scientific publications
- Ability to work both independently and as part of a research team
- Previous laboratory experience documented by internships, training courses, or participation in research projects will be considered an advantage
- Participation in an interview aimed at assessing the candidate's competencies and suitability for carrying out the research tasks planned within the project.
- admission to the Krakow Interdisciplinary Doctoral School (KISD) (https://kisd.ifj.edu.pl/).

Please note that the PhD scholarship will be granted on the condition that the successful candidate satisfies all requirements set forth in the Act of 20 July 2018 – Law on Higher Education and Science, entitling them to receive a doctoral scholarship throughout the entire duration of the project and the implementation of the planned research tasks.

Task description:

The successful candidate will conduct research within the NCN-funded project No. **2025/58/E/ST5/00431** (SONATA BIS 15), entitled **"Protein Fibrils – Well-Known Markers of Neurodegenerative Diseases in a Novel Plasmonic–Fluorescent Approach"**, in the research area: *"Assessment of Structural and Electrokinetic Changes During Protein Fibrillation Processes Using Viscometric and Electrokinetic Measurements".* The PhD student will be involved in the implementation of the research tasks planned within the project, with a particular focus on investigating the fibrillation processes of selected proteins under controlled pH and ionic strength conditions, as well as on the physicochemical characterization of the resulting fibrils using microscopic, fluorescence, electrokinetic, and viscometric techniques. The research activities will also include studies on the deposition kinetics of protein fibrils onto solid surfaces using gravimetric and electrokinetic methods, as well as the evaluation of conformational changes occurring in dispersed fibrils and fibrils immobilized at interfaces. These investigations will be correlated with the results of theoretical calculations, including Random Sequential Adsorption (RSA) modelling and electrokinetic modelling. Additional responsibilities will include the management, interpretation, and analysis of experimental and theoretical data, as well as the preparation of scientific publications based on the obtained results. The PhD student will be expected to prepare research reports, scientific manuscripts, and conference presentations, and to disseminate the project outcomes through participation in national and international scientific conferences. The scope of duties will also include regular scientific consultations with the Principal Investigator and active participation in project meetings and research seminars.

Employment conditions:

- The candidate selected through the recruitment procedure and successfully admitted to the Krakow Interdisciplinary Doctoral School (KISD), in accordance with the admission rules specified in the recruitment regulations (https://kisd.ifj.edu.pl/rekrutacja/rekrutacja-do-projektu/), will receive an NCN doctoral scholarship in the amount of PLN 5,000 per month until the month in which the mid-term evaluation at the doctoral school is conducted, and PLN 6,500 per month thereafter, following the completion of the mid-term evaluation, in accordance with the "Regulations on the Allocation of Funds for Tasks Funded by the National Science Centre within Research Projects" (https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2024/uchwala84_2024-zal1.pdf#page=39).
- The project implementation and doctoral education at KISD are scheduled to commence on **1 October 2026.**
- The PhD supervisor will be the Principal Investigator of the project, **Magdalena Oćwieja, PhD, DSc, Professor at the Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences.**

Required documents:

- curriculum vitae (CV) with a list of scientific achievements (scientific publications, awards, participation in conferences, ect.)
- Motivation letter addressing the recruitment requirements
- diploma of completion of MA (or related) studies or a certificate of their completion (with Master degree or equivalent entitling to apply for the award of a degree of doctor in the country of the education system of which the higher education institution which issued it operates degree)
- Reference of an MA thesis supervisor or head of a research group in which the candidate works (other motivation letters confirming the practical skills of candidate are welcome)
- certificate confirming the English language skills
- "Consent to the processing of personal data for the needs necessary to carry out the recruitment process" in accordance with the Act of 29 August 1997 on the protection of personal data (t.j. Dz. U. z 2016 r. poz. 922, z 2018 r. poz. 138, 723.) (https://ikifp.edu.pl/wp-content/uploads/2021/04/Zgoda_rekrutacja_ENG.pdf) and "Information obligations –recruitment of a perspective employee/collaborators" confirming acquainting with its content (https://ikifp.edu.pl/wp-content/uploads/2021/04/OI_RekrutacjaPracWspolpraca_ENG.pdf) (both documents filled and signed by the Candidate); (more information available on the website: https://ikifp.edu.pl/en/gdpr/)

Recruitment process – important dates:

Applications should be submitted electronically to: magdalena.ocwieja@ikifp.edu.pl with the subject line: "**SONATA BIS 15 – PhD Position**".
In addition, an application for admission to the Krakow Interdisciplinary Doctoral School (KISD), together with all required supporting documents, must be submitted to the KISD Secretariat. Detailed information regarding the admission procedure is available in the KISD Recruitment Regulations and in the recruitment announcement available at: https://kisd.ifj.edu.pl/wp-content/uploads/2023/01/1.-Regulamin-rekrutacji-do-KISD-obowiazujacy-od-rekrutacji-na-rok-akademicki-2023-2024.pdf and https://kisd.ifj.edu.pl/recruitment-for-a-project-ikifp-pan/

Application period for recruitment submissions: August 24–28, 2026.

Interviews aimed at assessing the candidates' competencies and suitability for the planned research tasks will be conducted between **10 and 16 September 2026.**

The admission procedure to KISD will be carried out in accordance with the schedule and requirements published on the KISD website: https://kisd.ifj.edu.pl/recruitment-for-a-project-ikifp-pan/
The recruitment procedure will be concluded by **18 September 2026**. All candidates will be notified of the outcome by e-mail.

Additional information:

The competition organized in accordance with „Regulamin przyznawania środków na realizację zadań finansowanych przez Narodowe Centrum Nauki w zakresie projektów badawczych" (https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2024/uchwala84_2024-zal1.pdf#page=39).

The Institute has adapted to the needs of the disabled. The Institute does not provide accommodation.