



Instytut Katalizy i Fizykochemii Powierzchni  
im. Jerzego Habera  
Polskiej Akademii Nauk



HR EXCELLENCE IN RESEARCH

KSN 4/2025

Kraków, 30.04.2025

**Assistant (POST-DOC) in  
the Theoretical and Experimental Biocatalysis group**

- Employer: Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Krakow, Poland
- Research field:
  - Chemistry > Biochemistry
- Researcher profile: R2
- Deadline for applications: 31.05.2025, 3:00 pm GTM+1
- Place: Poland, Kraków
- Type of Contract: temporary
- Job Status: Full-time
- Working hours/week: 40
- Start of employment: between 01.07.2025 and 01.09.2025
- Key Words: tungsten enzymes, molecular biology, fermentor cultivation, cultivation of anaerobic bacteria, catalytic tests

Jerzy Haber Institute of Catalysis and Surface Chemistry PAS invites applications for an assistant (post-doc) in the Theoretical and Experimental Biocatalysis group. The candidates who meet the conditions stated in the act "Ustawa o Polskiej Akademii Nauk" dated 30 April 2010 (Dz.U. 2018 poz. 1475 z póź. zm.), art 89. Ust. 4 for the position of assistant are encouraged to apply for the position.

The candidate will participate in research conducted in the Theoretical and Experimental Biocatalysis group on tungsten aldehyde oxidoreductase enzyme in the project HORIZON-EIC-2023-PATHFINDEROPEN-01-01 "TUNGSTEN BIOCATALYSIS – HEAVY METAL ENZYMES FOR SUSTAINABLE INDUSTRIAL BIOCATALYSIS. The aim of the project is the development of the expression platform for the production of recombinant tungsten enzymes and the development of industrial applications.

**In particular, the Assistant's responsibilities will include:**

- cultivation of *E. coli* and *Aromatoleum evansii* under anaerobic conditions in fermenters,
- expression of recombinant enzymes in bacterial hosts,
- protein purification using affinity chromatography,
- introduction of mutations into plasmids coding tungsten enzymes and transformations of bacteria,
- catalytic tests in batch and/or flow reactor systems, activity assays using spectrophotometric or LC-MS techniques,
- optimization of reactor conditions aimed at a high yield of a biocatalytic process,
- supervision of PhD and undergraduate students,
- documentation of the research,
- preparing scientific publications and patent applications,
- transfer of the developed systems to industrial partners.



**Required education:**

The candidate should have a doctoral degree in chemistry, biotechnology, biochemistry or related disciplines.

**Skills/qualifications:**

- PhD degree in chemistry, biotechnology, biochemistry or related fields;
- good knowledge of molecular biology methods;
- good knowledge of bacteria cultivation techniques;
- excellent knowledge of protein purification methods;
- proficiency in conducting kinetic enzymatic tests and optimization of reactor conditions;
- skill in writing patent applications and/or experience in commercial research project(s) (projects conducted for industry or experience in working in biotech industry R&D)
- knowledge of the English language;
- ability to conduct independent scientific work;
- at least 24 weeks long research fellowship/experience in the Institution other than that which granted PhD title.

**Specific requirements:**

1. An application.
2. Completed and signed "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.) [\[FORM\]](#) and "Information obligations – recruitment of a perspective employee/collaborators" confirming acquainting with its content [\[FORM\]](#). The form is available on the institute [website](#).
3. A copy of scientific degree certificate.
4. Full CV (including information on maternal leaves, voluntary work and periods of work in the industry).
5. At least one opinion on the Candidate given by an independent researcher.
6. List of scientific achievements (scientific papers, patent, patent applications, grants, etc.).
7. The Candidate's report on his/her scientific interests and research aims (an A4 page).

**Languages:**

Good command of the English language in speech and writing.

**Research experience:**

4-10 years of research experience in chemistry, biotechnology, biochemistry, or related fields.

Additional information:

**Remuneration:**

The gross salary 13500 PLN/month (roughly 3150 Euro/month, net salary 2300 Euro/month) depending on the Candidate's experience.

**Eligibility criteria:**



- Documented experience in conducting scientific research in the field of biotechnology, biochemistry, biological chemistry or related fields, confirmed by a list of publications in journals from the Journal Citation Reports list (0-10 points). Minimum number of points required: 5;
- Knowledge of protein purification techniques (0-10 points). Minimum number of points required: 5;
- Knowledge of methods of genetic modification of bacteria (0-10 points). Minimum number of points required: 3.
- Experience in working in anaerobic glove box (0-5 points)
- Skill in conducting biocatalytic research (0-10 points). Minimal number of points required 5;
- Experience in analytical and kinetic methods (in particular LC-MS and stopped-flow) (0-10 points). Minimal number of points required 5;
- Additionally, experience in working with the biotech or fine chemical industry will be valued (0-10 points)

The knowledge, skills and experience should be confirmed by papers, conference presentations or opinions of direct supervisors from previous places of work or education.

The candidate's application has to be assessed above or equal to 50 points to be considered for employment.

#### **Selection process:**

Applications for the Competition should be sent electronically to sekretariat@ikifp.edu.pl, with the subject line "Biocatalysis KSN 4/2025".

The deadline for submitting documents is May 31, 2025 at 15:00 GMT+1. The competition will be concluded by June 11, 2025. Candidates will be notified about the result.

**The employment will be proceeded with accordance to the rules of Labour Code for the period of 24 months.**

In the case of candidates with equivalent qualifications or a need for further clarification of information provided selected candidates will be asked to participate in an on-line interview.

#### **Additional information:**

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

Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, awarded the HR Excellence in Research Award by the European Commission in recognition of ongoing commitment to adopt the principles of The European Charter for Researchers (ECR) and a Code of Conduct for the Recruitment of Researchers (CCRR) fully supports and applies open, transparent and merit-based recruitment (OTM-R policy) procedures. The Institute is dedicated to implementing and strengthening the OTM-R policy as one of the pillars of the ECR and CCRR and one of the crucial components of the Human Resources Strategy for Researchers (HRS4R).