



KSN 10/2024

Kraków, 19.12.2024

## 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: 24.01.2025, 3:00 pm GTM+1
- Place: Poland, Kraków
- Type of Contract: temporary
- Job Status: Full-time
- Working hours/week: 40
- Start of employment: 01.03.2024
- Key Words: proteins, enzymes, molecular biology, chromatographic protein purification, enzymatic kinetics, stopped-flow method.

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 Adiunct are encouraged to apply for the position.

The candidate will participate in research conducted in the Theoretical and Experimental Biocatalysis group on iron enzymes catalysing ring closing or cleavage reactions as part of the OPUS 23 research project. According to the short description of the project: "Very many natural products, a significant part of which are useful in medicine, contain in its structure one or more rings. ... As part of this project, we will undertake closely integrated research that will use protein crystallography, measurements of fast enzymatic kinetics, Mossbauer spectroscopy and computational methods (molecular dynamics simulations, QM/MM studies on reaction mechanisms, calculations of Mossbauer spectral properties, rational redesign of enzymes), in aim: to obtain crystal structures of enzymes and their complexes with substrates/mimetics or products, to elucidate the mechanisms of catalytic reactions, to unravel the structure and dynamic factors determining the activity, specificity and efficiency of enzymatic reactions, and to carry out rational redesign of enzymes."

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

- protein production by overexpression in *E. coli*,
- protein purification using affinity chromatography and molecular filtration,
- protein crystallization,
- diffraction measurements at synchrotron beamlines,
- solving and refinement of crystal structures,
- preparing scientific publications.



**Required education:**

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

**Skills/qualifications:**

- PhD degree in chemistry, biology or related fields;
- knowledge of molecular biology methods;
- knowledge of protein purification methods;
- knowledge of protein crystallography;
- knowledge of the English language;
- ability to conduct independent scientific work;
- the candidate must meet the requirements specified in the NCN regulations governing the principles of employment as a post-doc in the OPUS competition (23rd edition).

**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 [\[FORM\]](#).
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 biochemistry, biological chemistry or related fields.

Additional information:

**Remuneration:**

The gross salary 8200 PLN/month (roughly 1850 Euro/month) depending on the Candidate's experience.

**Eligibility criteria:**

- Documented experience in conducting scientific research in the field of 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: 3;
- Knowledge of protein purification techniques (0-5 points). Minimum number of points required: 2;



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



HR EXCELLENCE IN RESEARCH

- Knowledge of protein crystallography methods (0-5 points). Minimum number of points required: 2.

#### **Selection process:**

Applications for the Competition should be sent electronically to sekretariat@ikifp.edu.pl, with the subject line "**Biocatalysis KSN 10/2024**".

The deadline for submitting documents is January 24, 2025 at 3:00 pm GMT+1. The competition will be concluded by February 03, 2025. Candidates will be notified about the result.

**The employment will be proceeded with accordance to the rules of Labour Code for the period till January 31, 2027.**

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 CCER and one of the crucial components of the Human Resources Strategy for Researchers (HRS4R).