FORM FOR EMPLOYERS

INSTITUTION: Institute of Organic Chemistry PAS

CITY: Warsaw

POSITION: post-doc

DISCIPLINE: chemistry

POSTED: 14.01.2025 r.

EXPIRES: 07.02.2025 r.

WEBSITE: https://www.icho.edu.pl/en/

KEY WORDS: *asymmetric synthesis, artificial intelligence, catalysis*

DESCRIPTION (field, expectations, comments):

Project/Grant title: Application of Artificial Intelligence in Asymmetric Catalysis: A New Approach to Catalyst Design

Number of positions available: 2
Researcher profile: R2/R3

Job description:
The aim of the planned research is to design new chiral Lewis acids containing zinc and magnesium ions as catalysts for selected organic reactions, particularly the asymmetric reduction of carbonyl groups, supported by artificial intelligence. Computer-aided catalyst design will require statistical analysis of data collected by our team over years of work in the field of asymmetric synthesis and computational analysis of literature data. The research also involves implementing a substantial database of results (both positive and negative) obtained in previous studies to address encountered challenges. The main task for the postdoctoral researcher is to validate computational methods in the laboratory and to conduct reactions using catalysts selected by AI.

Responsibilities:
- Computational analysis of data collected by our team and analysis of literature data.
- Synthesis of optically pure catalysts and their use to validate AI-generated results.
- Practical synthesis and asymmetric catalysis in the laboratory.
- Applying the methodology to synthesize bioactive and natural compounds.

Envisaged job starting date: 01.03.2025

Offer:
• Terms of employment:
- salary including employer costs: 11,666.66 PLN per month (~9800 PLN gross)
- full-time employment
- employment for 12 months with a possibility of extension based on grant budget

Benefits:
- private medical care package,
- co-financing of sports cards

Career development opportunities:
- working in a dynamic team
- access to research infrastructure
- career development in the field of computational chemistry
- collaboration with international research centers
- the possibility of further professional development at the IOC PAS

Requirements:

Required Qualifications:
- A PhD in chemistry (specialization: organic chemistry) awarded no earlier than 7 years before employment in the project (exceptions apply as per NCN regulations).
- Scientific achievements documented through publications in reputable journals.

required competences
- excellent knowledge of organic synthesis, laboratory experience, and expertise in asymmetric synthesis and catalysis
- proficiency in English (spoken and written) sufficient for independent scientific work

desirable competences
- creativity
- independence in work
- ability to work in a team
- responsibility

Candidate evaluation criteria:
- Candidate's competencies relevant to the project
- Scientific achievements measured by the quality and quantity of publications
- Awards or distinctions received
- Recommendations included in reference letters
- Proficiency in English enabling scientific work

List of required documents:
- Candidate's CV, including a list of scientific achievements (scholarships, publications, conference participation)
- a diploma confirming the awarding of a PhD degree
- a motivation letter
- 1 reference letter from an academic supervisor

Along with the required documents, please send a scan of a signed consent to the processing of personal data available at: https://www.icho.edu.pl/en/cooperations/career/

Additional information:
Project manager: prof. Jacek Młynarski
e-mail: jacek.mlynarski@icho.edu.pl

Deadline for submitting applications: 2025-02-07 23:59

Competition settlement date: 2025-02-24

The form of submitting applications: e-mail: rekrutacja@icho.edu.pl

Secretariat
Institute of Organic Chemistry of the Polish Academy of Sciences
Kasprzaka 44/52 Street
01-224 Warsaw
Phone: +48 22 631 8788

Please apply by e-mail: rekrutacja@icho.edu.pl

ATTENTION! In the title of the e-mail, please enter "Recruitment – Jacek Mlynarski"