



KSN 9/2020

Kraków, 13.10.2020

ASSISTANT PROFESSOR in the group of Heterogeneous catalysis: theory and experiment

- Employer: Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Krakow, Poland
- Research field:
Chemistry > heterogeneous catalysis,
- Researcher profile: R2
- Deadline for applications: 13.11.2020, 3:00 pm GTM+1
- Place: Poland, Kraków
- Type of Contract: at least for 12 months
- Job Status: Full-time
- Working hours/week: 40
- Start of employment: 14.12.2021
- Key Words: heterogeneous catalysis; metal oxides; porous systems

Jerzy Haber Institute of Catalysis and Surface Chemistry PAS invites applications for an ASSISTANT PROFESSOR in the Heterogeneous catalysis: theory and experiment 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. 3 for the position of ASSISTANT PROFESSOR are encouraged to apply for the position.

The Candidate will take part in research conducted by the group of Heterogeneous catalysis: theory and experiment group, which focus on studies on structural effects and the influence of the character of support on the activity of copper-based catalysts, which encompass synthesis and physico-chemical characterization of the oxide-type catalysts with various methods; running catalytic tests with fixed-bed gas flow catalytic reactors coupled with gas chromatographs.

In particular the ASSISTANT PROFESSOR will be responsible for:

- synthesis of oxide-type catalysts with various methods, incl. sonochemical ones,
- advanced physico-chemical characterization of the catalysts (determination of crystallinity, structure, porosity, acid-base properties) with the following methods:



X-ray diffraction, FT-IR spectroscopy, low temperature nitrogen sorption, CO, ammonia, pyridine, SO₂ chemisorption,

- running catalytic tests in the gas phase, mostly hydrogenation and/or decarbonylation of furfural by oxide-based catalysts.

Required education:

PhD degree in chemistry, materials science, or related fields.

Skills/qualifications:

1. Scientific achievements including publications from JRC list and conference presentations.
2. At least 6 months (24 weeks) post-doc experience in the institution(s) different from that where the Candidate received PhD

The experience in (proven by publications from JCR list):

1. Synthesis of heterogeneous catalysts (e.g. by co-precipitation, impregnation, hydrothermal methods, sonochemical methods). The experience in synthesis of oxide-type catalysts will be an asset.
2. Advanced physico-chemical characterization of the catalysts (determination of crystallinity, structure, porosity, acid-base properties with the following methods: X-ray diffraction, FT-IR spectroscopy, low temperature nitrogen sorption, CO, ammonia, pyridine, SO₂ chemisorption).
3. Catalytic tests with fixed-bed gas flow catalytic reactors coupled with gas chromatographs.
4. The correlation between catalysts properties and activity, selectivity, and stability in the catalytic reactions.

Specific requirements:

1. An application.
2. 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.) and fill in the form „Consent to the processing of personal data” confirming acquainting with its content. The form is available on the institute website [\[FORM\]](#).
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.



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



HR EXCELLENCE IN RESEARCH

6. List of scientific achievements (scientific papers, patent, patent applications, grants, etc.).
7. Copies of 3 best publications connected to the topic of the call.
8. The Candidate's report on his/her scientific interests and research aims (an A4 page).

Languages:

Fluent in written and spoken English.

Research experience:

4-10 years in experience in catalytic reactions, synthesis, and characterization of oxide-type catalysts.

Additional information:

Remuneration:

The gross salary will be at least **4700 PLN/month** (approximately 1047 Euro/month) depending on the Candidate's experience.

Eligibility criteria:

- PhD degree in chemistry, materials science, or related fields.
- Research experience documented by scientific publications in journals enlisted in JCR or patents
- Scientific post-doc experience in the institution(s) other than the institution where PhD studies were completed (minimum 6 months/24 weeks).

Selection process:

Applications should be sent in electronic form to: sekretariat@ikifp.edu.pl with the subject title „Assistant professor KHTE KSN 9/2020”

Deadline for applications: **13.11.2020 at 3:00 pm GTM+1**. The competition will be settled by **30.11.2020**. The candidates will be notified of the results.

The employment will be proceeded with accordance to the rules of Labour Code for at least 12 months.

Additional information:

The Institute has been adapted to the needs of the disabled. The Institute does not provide accommodation. The recruitment process is conducted according to [OTM-R policy](#).

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