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

HR EXCELLENCE IN RESEARCH

KSN 6/2021 Kraków, 05.10.2021

Assistant in the group "Nano and microscale systems"

- Employer: Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Krakow, Poland
- Research field:
  Chemistry> physical chemistry, colloid and interface chemistry, adsorption, biochemistry
  Engineering> Mechanical engineering, materials engineering
  Physics> Applied physics, chemical physics, biophysics
- Researcher profile: R2
- Deadline for applications: 4.11.2021, 3:00 pm GTM+1
- Place: Poland, Kraków
- Type of Contract: temporary, at least 12 months
- Job Status: Full-time
- Working hours/week: 40
- Start of employment: 15.12.2021
- Key Words: colloid proteins, molecular dynamics, bio-systems,

Jerzy Haber Institute of Catalysis and Surface Chemistry PAS invites applications for an ASSISTANT in the Nano and Microscale Systems 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 take part in research conducted within the group Nano and Micro Systems involving the following:

- molecular dynamics simulations of biological systems,
- computer simulation of processes at interfaces (adsorption, conformation changes on the surface, adsorption kinetics),
- analysis of experimental data from dynamic light scattering, AFM, viscosity and streaming potential measurements,
- development of measurement methods and results interpretation obtained in the Atomic force microscopy laboratory,

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- analysis of phase transitions on surfaces,
- analysis of colloidal particles structure changes induced by environmental factors.

In particular, the ASSISTANT will be responsible for:

- MD simulation (proteins, polyelectrolytes, nucleic acids and other bio systems),
- results interpretation (dynamic light scattering, AFM, streaming potential, viscosity measurements),
- statistical physics simulations (including RSA and mean-field paradigm simulations) of interface phenomena,
- participation in the work (theoretical and experimental) carried out in "Nano and Micro Scale Systems" group and in the "Laboratory of Atomic Forces".

Required education:

PhD in chemistry or physics

Skills/qualifications (obligatory):

- the main author of scientific publications from the JCR database (corresponding author or/and first author) in soft matter research
- knowledge of computer simulation packages (e.g. Gromacs, LAMMPS or Materials Studio) (publication from the JCR database)
- experience in mean-field paradigm research (publication from the JCR database)
- conducting theoretical and experimental research. (min. 3 experimental and 3 theoretical publications from the JCR database)

Optional skills:

- knowledge of LateX (certificate or proven given lecture)
- familiarity of polarizing microscope techniques, fluorescence microscopy or scanning probe microscopy (publications from the JCR database)
- popular science (engagement in giving lectures or popular science publication)
- International conference organization or scientific committee member

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 the 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, patents, patent applications, grants, etc.).
7. Copies of the 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 English in speech and writing (min C1 certificate)

Research experience:

4-10 years in the research in "soft matter"

Additional information:

Renumeration:

The gross salary will be at least **4000** PLN/month (approx. **870** Euro/month) depending on the Candidate's experience.

Eligibility criteria:

- PhD in chemistry or physics
- Experience confirmed by publications from the JRC list or patents.

Selection process:

Applications should be sent in electronic form to: sekretartiat@ikifp.edu.pl with the subject title „ASSISTANT UNM KSN 6/2021"

Deadline for applications: **05.11.2021** at **3:00 pm GTM+1**. The competition will be settled by **06.12.2021**. The candidates will be notified of the results.

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

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.