



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



HR EXCELLENCE IN RESEARCH

KSN 1/2022

Kraków, 12/01/2022

Call for Professor Position in the Group of Nano and Microscale Systems

- Employer: Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Krakow, Poland
- Research field:
Chemistry> Physical chemistry, instrumental techniques
Engineering > Material engineering
Physics> Chemical physics, Statistical physics, Biophysics
Researcher profile: R3, R4
- Deadline for applications: 14/02/2022, 3:00 pm CEST
- Place: Poland, Kraków
- Type of Contract: at least 2 years,
- Job Status: Full-time,
- Working hours/week: 40
- Start of employment: 1/03/2022
- Key Words: Scanning Probe Microscopy, force spectroscopy, molecular dynamics, proteins, macromolecules, "bio" systems, finite element method, computer simulations, physicochemical and mechanical properties

Jerzy Haber Institute of Catalysis and Surface Chemistry PAS invites applications for a Professor of Institute in the group of Nano and Microscale Systems. 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. 2 for the position of Institute Professor are encouraged to apply for the position.

The Candidate will take part in research conducted by the group of Nano and Microscale Systems, which consider biological systems and their synthetic analogues.

It is expected that the candidate will develop his research among others in the following fields:

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- experimental (force spectroscopy) and theoretical (molecular dynamics simulations) research on the processes of formation of two and three-dimensional structures of proteins, polyelectrolytes, carbohydrates and related molecules and their model analogues;
- theoretical and experimental studies of the correlation between the physicochemical and mechanical properties of natural biological systems with their biological properties; application of those correlations for the purposes of medical diagnostics;
- modeling the physicochemical and mechanical properties of biological and bio-similar systems and applying these models for medical (eg. diagnostic) purposes;
- theoretical and experimental studies of the physicochemical properties of proteins, polyelectrolytes, carbohydrates and related molecules
- developing methodology for the interpretation of the results of measurement of interactions in natural biological systems and their model equivalents.
- development of measurement methods (eg. microscopic, spectroscopic) in the research scope of the Nano and Microscale Systems group.

In particular, the Institute Professor will be responsible for:

- Planning and conducting of research in the above-mentioned research areas of the Nano and Microscale System group;
- Supervision of young scientists, PhD students and undergraduate students conducting research in the above-mentioned areas;
- Obtaining funding from external sources which will finance his research (scientific grants, external orders)
- Managing the AFM laboratory (technical supervision of the equipment and organization of the work of the team providing services for the Institute);
- Presentation of research results at conferences, fairs, events popularizing science and publishing in journals from JCR list as well as securing IP with patent applications.

Required education:

- habilitated doctor (DSc) the title of professor in the field of p natural sciences, in the discipline of chemical, physical, biological or related sciences,
- in the case of a person permanently residing abroad, at least the title of doctor and research experience is equivalent to the degree of habilitated doctor (R3 or R4).



Skills/Qualifications:

The candidate has to:

1. Hold a degree of habilitated doctor (DSc) or a title of professor in chemical, biological, physical or related sciences, and in the case of a person permanently residing abroad, at least a doctoral degree and research experience equivalent to the habilitated doctor degree (R3 or R4).
2. Have proven experience in conducting scientific research in the field of physicochemistry of surface and biophysics confirmed by:
 - a. a publication record (at least 5 papers from the last 4 years) published in the first quartile (Q1) journals from the Journal Citation Reports lists (0-20 points)
 - b. an experience in the role of PhD supervisor (currently or in the past) in the process of preparation of PhD thesis (0-10 points)
 - c. documented record of leading a scientific team (0-10 points)
 - d. experience in leading and management of at least two scientific projects (in the field of science associated with the call) which were financed from external sources (0-20 points).
3. Formulate a research program for their team, which fits into the scientific plans of the Institute or initiates a promising novel research topic that can be conducted in ICSC PAS; the research program should be presented in the competition documentation and at the Institute's seminar (0-20 points)

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 certificates (PhD and DSc).
4. In the case of the candidate permanent residence outside of Poland a short description confirming scientific position equivalent to that expected from a scientist with DSc
5. Full CV (including information on maternal leaves, voluntary work and periods of work in the industry).
6. At least two current opinions on the Candidate given by previous supervisors, preferentially an independent researcher.
7. List of scientific achievements (scientific papers, patents, patent applications, grants, conferences, activity in scientific institutions and editorial boards, etc.).



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8. The Candidate's research program containing information about research plans and scientific topics (2-5 A4 pages).

Languages:

English at an excellent level

Research experience:

More than 10 years in the following fields:

Chemistry > Physical chemistry, instrumental techniques
Engineering > Material engineering
Physics > Chemical physics, Statistical physics, Biophysics

Additional information:

Remuneration:

The gross salary will be at least **5900 PLN/month (approx. 1300 €/month)** depending on the Candidate's experience.

Eligibility criteria:

- The academic degree of habilitated doctor in the discipline of chemistry, biology, physics or related.
- Documented scientific record confirmed by publications from the JRC list or patents.
- At least 6-month (24 weeks) research fellowship/internships in centres other than those where the doctoral degree was obtained
- Confirmed role as a supervisor in the process or doctoral proceedings
- Confirmed management of a research team and at least two research grants from the field of science of the call financed from external funds.

Selection process:

Applications should be sent in the electronic form to: sekretariat@ikifp.edu.pl with the subject title „Systems_professor KSN 1/2022”

Deadline for applications: **14/02/2022 at 3:00 pm CEST**. The competition will be settled by **28.02.2022**. The candidates will be notified of the results.

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The employment will proceed in accordance with the rules of the Labour Code for at least 2 years.

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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