



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



HR EXCELLENCE IN RESEARCH

FORM FOR EMPLOYERS

INSTITUTION . Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences

CITY . Krakow

POSITION Assistant (post-doc) (M/F/X)

DISCIPLINE .

- Structural, magnetic, and electronic properties of thin films of tin- and iron-based intermetallic compounds

POSTED October 19th 2026

EXPIRES November 19th 2026, 3:00 pm GMT+1

WEBSITE www.ikifp.edu.pl

KEY WORDS surface science and thin film physics, molecular beam epitaxy, LEEM electron microscopy, ultra-high vacuum, thin-film intermetallic compounds, electronic structure, magnetic properties, kagome lattice, topology

DESCRIPTION (field, expectations, comments):

The Jerzy Haber Institute of Catalysis and Surface Chemistry of the Polish Academy of Sciences in Krakow announces a competition for the position of Assistant (post-doc) in the group Surface Nanostructures for the implementation of the project SONATA BIS-12 "Topology meets magnetism: Sn-containing compounds for magnetization-driven topological phase transitions (TopoTin)" (UMO-2022/46/E/ST3/00184).

The competition is open to persons who meet the conditions set out in the Act on the Polish Academy of Sciences of 30 April 2010 (Journal of Laws 2020, item 1796, as amended), Article 89, Section 4.

The postdoc's responsibilities will include preparing thin-film samples of Fe-Sn using molecular beam epitaxy under ultra-high vacuum conditions, as well as characterizing their structural, magnetic, or electronic properties using selected experimental methods, such as low-energy electron microscopy (LEEM), scanning tunneling microscopy (STM), or the

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magneto-optical Kerr effect (MOKE). It is also possible to be involved in performing ab initio calculations of the electronic structure. The PostDoc's responsibilities will also include preparing the obtained results for conference presentations and publications.

Required education level:

A Ph.D. in physics, chemistry, or a related field is required. Applications are accepted from candidates who can include a certificate confirming the successful defense of their doctoral dissertation and who can provide their doctoral diploma upon starting the position.

Skills / qualifications:

Experience in scientific research using ultra-high vacuum equipment or experience in using computational tools to study electronic structure on an ab initio basis. Background in surface science. Experience working with a LEEM or STM microscope would be an asset. The candidate must meet the requirements specified in the NCN regulations governing employment as a PostDoc*

*A PostDoc contract is reserved for individuals who obtained their Ph.D. in the year of employment on the project or within 7 years prior to the year of employment on the project. This period may be extended by documented breaks related, for example, to maternity or parental leave or long-term illness—in accordance with the rules set forth in the NCN regulations.

An individual may not be employed as a postdoc at the same institution where they earned their Ph.D., unless they meet the additional requirement of having completed a continuous and documented postdoctoral fellowship (at least 10 months) at a different institution and in a different country.

Furthermore, during the period of receiving remuneration, a person employed in a postdoctoral position may not receive any other remuneration from funds allocated as direct costs from research projects funded through NCN competitions, nor may they receive compensation from another employer under an employment contract, including an employer based outside Poland.

Detailed requirements

The candidate's application should include:

1. employment application
2. copy of the diploma conferring the doctoral degree
3. full curriculum vitae
4. at least one opinion about the candidate from the previous supervisor
5. list of scientific achievements
6. self-report - maximum 1 A4 page

Required languages

- English (C1)

Required research experience

4-10 years.

Additional information

Salary:

Gross salary will amount to 9 500,00 - 9 700,00 PLN per month depending on the candidate's experience.

Qualification criteria

Criterion	Points from	Points to	Minimum
Documented experience in research conducted using ultra-high vacuum methods in the field of surface science, or experience in ab initio calculations of electronic properties, as evidenced by a list of publications in journals included in the Journal Citation Reports	0	10	5
Experience in low-energy electron microscopy (LEEM), angle-resolved photoemission spectroscopy (ARPES), the magneto-optical Kerr effect (MOKE), or scanning tunneling microscopy (STM)	0	5	0
Experience in ab initio calculations of electronic properties	0	5	0
International activities, internships, and experience gained at synchrotron facilities	0	5	0

Maximum number of points: 25.

Selection process

Applications for the competition should be submitted electronically via the platform <https://praca.ikifp.edu.pl>.

The deadline for submitting documents is **2026-11-19 03:00 pm GMT+1**. The competition will be concluded by **2026-12-09**. Candidates will be informed about the outcome.

Employment will be offered for a period of **12 months** in accordance with applicable regulations.

In the case of candidates with equivalent qualifications or if clarification of submitted information is needed, selected candidates may be invited to an online interview.

Additional information

The Institute has been adapted to the needs of persons with disabilities. The Institute does not provide accommodation.



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HR EXCELLENCE IN RESEARCH

The Jerzy Haber Institute of Catalysis and Surface Chemistry of the Polish Academy of Sciences, awarded the HR Excellence in Research Award by the European Commission, fully supports and applies the principles of open, transparent and merit-based recruitment (OTM-R). The Institute fully endorses and follows the [OTM-R policy](#) as one of the pillars of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers, as well as a key element of the HR Strategy ([HRS4R](#)).

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