



Job ID: #JOB 38/2021

Job Description

Job Title: Post-doc in transmission electron microscopy of topological nanowire heterostructures

Job Summary:

Transmission Electron Microscopy study of radial nanowire heterostructures implementing topological crystalline insulators, superconductors, ferro- and antiferromagnets

Job Description:

The Post-Doc will be involved in TEM-related research in the frame of the project “Radial nanowire heterostructures of topological crystalline insulators with superconductors, ferro- and antiferromagnets”

The Post-Doc will directly operate a state of the art new generation monochromated aberration corrected transmission electron microscope (FEI Titan 80-300) at IPPAS

His/her tasks will be focused on research methodology and its application to determine relations between properties, structure, elemental and phase composition of radial nanowire (NW) heterostructures implementing topological crystalline insulators (TCI), ferromagnets (FM) and antiferromagnets (AFM).

Different state-of-the-art methods of Transmission Electron Microscopy will be applied for this purpose. The advanced interpretation of the experimental images of NW heterointerfaces will be performed with use of the electron microscopy image simulation software based on atomistic model.

Close collaboration (including training) with a PhD student employed in the Project will also belong to the tasks of the Post-Doc, as well as a team-work with the IP PAS Electron Microscopy Group and support of other IP PAS young researchers in their activities related to TEM methods

Requirements

- PhD degree in the area related to transmission electron microscopy investigations of semiconducting, ceramic, or metallic materials or nanoparticles; **completed after 1 January 2011** (more experienced candidates, and candidates with PhD in other domains can also be considered if outstanding experience in TEM can be documented)
- (co)authorships of scientific publications in international journals related to transmission electron microscopy,
- good command of at least one programming language, e.g., Python or similar; experience in images processing,
- Experience in interpreting images and spectra using computer simulations based on structural atomic models and specialized software such as EELS model, QSTEM, DrProbe or similar.
- Ability to operate TEM with electron optic aberration correction technology and minimum 4 years long experience in this field, documented by relevant publications.
- Certificate of operator issued by one of the electron microscopy manufacturers will be an asset.

Main research field: Physics

Sub Research Field: Solid state physics, electron microscopy

Career Stage: more than 6 years' experience

Research Profile ([details](#)): at least Recognized Researcher (R2)

Type of Contract: Temporary 36 months

Status: Full-time

Salary:

_10000_____ PLN per month (employer's costs).

Contact

More information can be obtained from Sławomir Kret (e-mail: kret@ifpan.edu.pl)

Sławomir Kret (e-mail: kret@ifpan.edu.pl).

Janusz Sadowski (e-mail: sadow@ifpan.edu.pl)

Application details

Application deadline: 15.09.2021 Applications after deadline are not considered.

Required materials:

- Curriculum Vitae
- List of publications
- Motivation letter related to this position
- Consent to process your personal data
- Contact to 2 referee persons

We reserve the right to cancel the competition in the case of in the absence of a candidate with appropriate competences.

- (Add additional requirements if needed; multi-line possible. Otherwise leave empty.)

All materials should be submitted in electronic form to the address: jobs@ifpan.edu.pl with Job ID in the subject.

DATA PROCESSING UNDER CONSENT FOR THE PURPOSES OF RECRUITMENT

Under Art. 13 sections 1 and 2 of the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Resolution), EU OJ L 119 of 04.05.2016, page 1, as amended, hereinafter referred to as "GDPR", we hereby inform as follows:

1. The Data Controller of the provided personal data is the Institute of Physics of the Polish Academy of Sciences, Al. Lotników 32/46, 02-668 Warsaw, phone (22) 116-2111, e-mail director@ifpan.edu.pl.
2. Contact details to the Data Protection Officer are as follows: e-mail iodo@ifpan.edu.pl
3. Your personal data shall be processed for the purpose of carrying out the recruitment process for the position of post-doc
4. Processing of your personal data in scope of: full name, date of birth, correspondence address, information about education and course of past employment shall take place under Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code. In the scope in which you sent to us more personal data than indicated above, we process your data under the consent granted by you.
5. Your personal data shall be stored for 1 month from completion of the recruitment process. If you grant consent for processing of personal data for future recruitments, we shall process your data until withdrawal of the consent by you, however, no longer than for the period of 6 months from the day of submittal of the application by you.
6. Provision of the abovementioned data in the scope indicated above is a statutory requirement resulting from Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code, in the remaining scope it is voluntary. Failure to provide the data referred to in Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code precludes consideration of your candidacy for the offered position.
7. You have the right to access your personal data, to rectify them, erase them, restrict their processing.
8. You may submit a complaint to the Inspector General for the Protection of Personal Data.
9. You have the right to withdraw the consent to process your personal data in the scope in which they were provided at any time. Withdrawing the consent does not affect the lawfulness of processing carried out on the basis of consent before its withdrawal.

Consent content:

I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents for the purpose of carrying out the recruitment process for the position of ... post-doc.

If you want us to consider your candidacy also in the future recruitment processes, please grant the additional consent:

I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents in future recruitment processes taking place during 6 months from the day of appearance of this job advertisement.