



# Institute of Physics of the Polish Academy of Sciences Scholarship for a PhD Student



**Job ID:** #JOB3/2018

## Job Description

**Job Title:** PhD student in electron microscopy of semiconductor nanostructures

**Job Summary:**

Experimental investigation of local structure and properties of semiconductor hetero-nanocrystals by advanced Transmission Electron Microscopy (TEM) methods.

**Job Description:**

The PhD student will participate in research devoted to determination of the nanoscale deformation of the crystalline lattice of individual strained semiconductor hetero-nanowires and relationships between their atomic structure and properties using the advanced electron microscopy techniques as nano-beam electron diffraction (NBD), HRTEM, STEM, EELS, EDXS. Experimental results will be confronted with extended simulations based on realistic model of strained nanowire. Investigation will be performed in the frame of NCN grant UMO-2016/21/B/ST5/03411. The performed work will be the basis for doctoral thesis.

Profile of a candidate for the position:

- MSc university degree in one of the following disciplines: in physics, applied mathematics, material science, chemistry, computational physics or related fields, obtained after 1st January of 2014,
- high motivation for scientific work (at least co-authorship in one published or accepted paper in scientific journals, or/and presentation at international conference is desirable)
- ability to work in a team,
- analytical thinking, diligence in work,
- an additional advantage will be programming skills in one of C ++, Python Matlab, Mathematica or related programming languages,
- good spoken and written English.

The successful candidate will participate in International PhD Studies at IP PAS

[http://info.ifpan.edu.pl/msdifpan/Studium/index\\_en.htm](http://info.ifpan.edu.pl/msdifpan/Studium/index_en.htm)

More information about laboratory :

<http://www.ifpan.edu.pl/SL-1/index.html>

<http://www.wkraj.pl/index.php?page=vr&start=50464#/50464/0>

**Main research field:** Physics

**Sub Research Field:** Solid state physics

**Career Stage:** Early stage researcher or 0-4 yrs (Post-graduate)

**Research Profile** ([details](#)): First Stage Researcher (R1)

**Type of Contract:** Temporary for the 30 month term

**Status:** Full-time

**Salary:** 3000 PLN per month (untaxed scholarship).

## Contact

More information can be obtained from  
dr hab.Sławomir Kret (e-mail: [kret@ifpan.edu.pl](mailto:kret@ifpan.edu.pl) , tel. (48) 22 116 3382  
[https://www.researchgate.net/profile/Slawomir\\_Kret](https://www.researchgate.net/profile/Slawomir_Kret) ).

## Application details

**Application deadline:** February 2 2018. Later applications may also be considered.

### Required materials:

- Curriculum Vitae
- List of publications  
or/and , list of conference presentations
- Letter of motivation related to proposed topic of reserch (min 150 words)
- Transcript of record from undergraduate studies
- Reference contact person(s) (with phone number(s) and e-mail address(es))

The top candidat will be granted for position. In case of resignation of top ranked candidat, the next person from the ranking list can be selected. We reserve the right to cancel the competition without giving a reason .

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