



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



Job ID: #JOB19/2018

Job Description

Job Title: Position of Adjunct in X-ray diffraction methods in solid state science

Job Summary:

The employed winner of the competition ("Employee") will carry out experiments in the field of X-ray diffraction by X-ray powder diffraction methods and X-ray methods of quality analysis of thin films. The research will concern the structure of multicomponent oxides at conditions of ambient temperature and high temperatures, synthesized partly with the participation of the Employee. The Employee will also participate in the study of thin layers and heterostructures, produced in large part in IFPAN technological laboratories. The candidate must have experience in conducting research in the field of solid state physics and chemistry, and it is particularly desirable to have experience in structural research using X-ray methods. Experience in the synthesis of oxide materials will be considered as an advantage.

Job Description:

The recruited winner ("the Employee") of the competition will:

- (i) carry out the X-ray diffraction experiments in the X-ray Laboratory of SL1 Division of the Institute of Physics of the Polish Academy of Sciences using methods of X-ray powder diffraction and X-ray methods of thin film quality analysis,
- (ii) take part in the scientific projects concerning the structure of multicomponent oxides at ambient and nonambient temperature conditions. For some of the materials studied, the Employee will participate in their synthesis.
- (iii) take part in common studies (involving the collaborating groups) of polycrystalline samples, thin films and semiconductor heterostructures, produced in large part in the IFPAN technological laboratories.

The candidate must have a documented experience in conducting research in the field of solid state physics and chemistry, and it is particularly desirable to have experience in structural research using the X-ray methods. Experience in the synthesis of oxide materials will be considered as an advantage.

We expect from the candidate:

- (a) knowledge of experimental techniques in the field of powder X-ray diffraction and knowledge of software used to calculate and visualize the results of determining the structure of crystals, such as FullProf, Maud and GSAS,
- (b) involvement in conducting measurements, their interpretation with care for taking into account the current literature data, and writing scientific papers,
- (c) initiatives of the Employee in the search for research topics and organizational skills are desirable,
- (d) activity in obtaining funds for research.

The candidate must have a PhD degree in physical sciences obtained in the field of physics, chemistry, materials or a related field. The candidate is required to be fluent in speaking and writing in English so that he/she can read and write scientific papers and short communications. Ability to work in a group is necessary.

It is allowed to consider applications of candidates who have written a doctoral thesis, whose defense will take place before 1 July 2018.

Main research field: Physics

Sub Research Field: Solid state physics

Career Stage: Experienced researcher or 4-10 yrs (Post-Doc)

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

Type of Contract: Temporary for the 36 month term

Status: Full-time

Salary: 3200 PLN PLN per month (untaxed scholarship).

Contact

More information can be obtained from

Prof. Dr. hab. Wojciech Paszkowicz (e-mail: paszk@ifpan.edu.pl, tel. (+48) 221163301, <https://scholar.google.pl/citations?user=FYofYdAAAAAJ&hl=pl>).

Application details

Application deadline: May 15, 2018. Later applications may also be considered.

Required materials:

- Curriculum Vitae
- List of publications
(publications: published/accepted/send reserch papers and (optionally) list of conference presentations)
- Motivation letter (in Polish or English) related to proposed specifique topic of research proving the candidate's basic knowledge of topics related to crystallography and materials science
- PhD diploma
- Declaration on the ability to take up employment within a period of not more than 4 months after the announcement of the result of the competition.
- Recommendation letters from two scientists knowing the candidate's achievements, with their phone numbers and e-mail addresses

The top candidate will be granted for position. In case of resignation of top ranked candidate, 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 with Job ID in the subject.