



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



Job ID: #JOB 55/2019

## Job Description

**Job Title:** Scholarship.

**Job Summary:**

Growth and characterization of ZnO based layers/heterostructures.

**Job Description:**

The scholarship holder will participate in the realization of the NCN SONATA-BIS project: „*Bulk and interfacial defects in structures based on ZnO and ZnO semiconducting alloys*” financed by the National Science Centre (NCN). Aim of the project is to study the electrically active defects located in the bulk and at the interface of ZnO based heterostructures/Schottky diodes with advanced electrical characterization techniques like deep level transient spectroscopy (DLTS), photoinduced current transient spectroscopy (PICTS) and their Laplace extensions. Such advanced studies are of primary importance since they will contribute to a better understanding of the ZnO and ZnO based alloys potential in opto-electrical applications like low-cost solar cells and high efficiency LEDs and can lead to innovative solutions to overcome the present limitations in these prospective structures. The successful candidate will be responsible for growing the samples by atomic layer deposition (ALD) and their characterization. In addition, he/she will be a support in the devices realization, perform the electrical and electro-optical characterization of the thin film ZnO-based structures and contribute to the analysis, interpretation and dissemination of the achieved results. Therefore, previous experience in characterization of semiconductors and in thin films growth as well as technical skills in chemical handling and contact deposition will be considered as a plus. The scholarship holder will be obliged to apply to the Warsaw PhD School in Natural and BioMedical Sciences (Warsaw-4-PhD) at the Institute of Physics of the Polish Academy of Sciences in 2020. For more information please refer to the IP-PAS international PhD studies web pages at: [http://www.ifpan.edu.pl/t\\_en\\_szkola.html](http://www.ifpan.edu.pl/t_en_szkola.html).

Profile of the candidate:

1. **Person with present status of PhD student**/student attending the second cycle of university education in physics or related field possibly with a strong background in semiconductor physics/solid state physics/nanostructure engineering.
2. Highly motivated to perform supervised and independent scientific work in the field relevant to the position.
3. Ability to work in a team.
4. Good spoken and written English.

**Main research field: Physics;**

**Sub Research Field: semiconductor physics/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 34 months;**

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

## Contact

More information can be requested contacting directly the project principal investigator dr. Ramon Schifano (e-mail: [schifano@ifpan.edu.pl](mailto:schifano@ifpan.edu.pl), telephone number: +48-221163315, ResearchGate profile at [https://www.researchgate.net/profile/R\\_Schifano](https://www.researchgate.net/profile/R_Schifano)).

## Application details

**Application deadline:** 5 December. Later applications might be also considering till filling the position and cancelling the advertisement.

### Required materials:

- Curriculum Vitae.
- List of publications, conference presentations and other achievements (if any).
- Letter of motivation.
- Undergraduate studies transcript of records.
- At least one reference contact person(s) and/or recommendation letter. In both cases phone number(s) and e-mail address(es) of the contact person(s) should be also provided.
- Consent to process your personal data.

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

### **Information clause – scholarship competition**

Pursuant to Article 13 paragraphs 1 and 2 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals 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 Regulation) Official Journal of the European Union, L 119, 4 May 2016, page 1, as amended, hereinafter referred to as “GDPR”, we hereby inform as follows:

1. The Institute of Physics of the Polish Academy of Sciences with its registered office in Warsaw, Al. Lotników 32/46, represented by its Director, is the Controller, i.e. an entity deciding about how your personal data will be used. You may contact the Controller using one of the contact forms available on the website: tel. (22) 116-2111, e-mail: [director@ifpan.edu.pl](mailto:director@ifpan.edu.pl)
2. The Director of the Institute of Physics of the Polish Academy of Sciences has appointed the Data Protection Officer (DPO), whom you may contact in matters relating to your personal data, by sending an email to the following address: [iodo@ifpan.edu.pl](mailto:iodo@ifpan.edu.pl)
3. Your personal data will be processed in connection with your participation in the scholarship competition and if you win the competition, in connection with receiving the scholarship – on the basis of your consent – Article 6 paragraph 1 item a GDPR.
4. Your personal data will be processed for a period of 6 months after the end of the scholarship competition and in the case of receiving the scholarship – for a period resulting from legal and tax regulations;
5. Your personal data will be made available to other entities that can finance and settle the scholarship granted and entities authorized under provisions of law. Your data will only be accessed by people authorized by the Controller;
6. Provision of your personal data is mandatory; in the event of failure to do so, you will not be able to participate in the scholarship competition;
7. You have the right to access your data, the right to rectify it and limit processing thereof;
8. You have the right to lodge a complaint to the President of the Office for Personal Data Protection, if you consider that the processing of your personal data violates provisions of the General Data Protection Regulation.

#### **Consent to processing:**

I hereby consent to the processing of my personal data contained in the application/request form by the Institute of Physics of the Polish Academy of Sciences to conduct the scholarship competition and in the case of being granted the scholarship, to pay and settle it. I provide my personal data voluntarily and I declare that it is accurate. I have read the content of the information clause.

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Date and signature