



# Institute of Physics of the Polish Academy of Sciences

## Scholarship for a PhD Student



**Job ID: #JOB 72/2021**

### Job Description

**Job Title:** PhD student – scholarship holder

**Job Summary:**

Impact of chemically and physically-induced structural phase transitions on optical properties of inorganic perovskites

**Job Description:**

Project predicts preparation of various types of perovskites, important from application point of view as well as fundamental one. They will be examined by sophisticated and modern methods, which include high pressures generated in diamond anvil cells, and nonlinear optical spectroscopy.

The experimental part of the project will be strongly supported by theoretical research, based on first principle's method. Already existing long-standing fruitful collaboration between the Polish and Chinese teams forms the strong ground for efficient project implementation. We anticipate that the project findings will contribute to the knowledge of physics and chemistry of perovskites and performance of devices based on those materials. The project will make a profound positive impact on the development and strengthening of research ties between both countries. It will also be beneficial for the young researchers from both sides

Requirements:

- **research experience:** sample preparation by various methods, including solid state reaction, Pechini, etc., initial characterization techniques such as XRD, SEM, STM, spectroscopic and electrical transport measurements, high pressure spectroscopy;
- **degree held:** M.Sc. in physics or chemistry or material's engineering;
- **required skills:** knowledge of LabView, experience in laboratory work in chemistry laboratory and proper knowledge of basic spectroscopic equipment;
- **sufficient proficiency in English;**
- **ability to work in research team,** interact with other members of the group.
- To be employed, the candidate must be accepted into the PhD school in which the Institute of Physics participates. Applications for the position are through recruitment to the School, online at [warsaw4phd.eu](http://warsaw4phd.eu).

**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:** Fixed term (33 months)

**Status:** Full-time

**Salary:** grant funding of **5000** PLN per month, before subtracting obligatory employer and employee social security contributions (~15%).

## Contact

More information can be obtained from

Andrzej Suchocki (e-mail: [suchy@ifpan.edu.pl](mailto:suchy@ifpan.edu.pl))

[www.ifpan.edu.pl/sdvs/en/on4.1.html](http://www.ifpan.edu.pl/sdvs/en/on4.1.html)

Please make contact.

## Application details

**Application deadline: 04.01.2022** Later applications will not be considered.

### Required materials:

- Scientific CV
- Cover letter
- Scan of MsC diploma or equivalent (or an explanation of when one is expected)
- Academic record (for finalized semesters)
- Recommended: A recommendation letter by an academic, or their contact email.

All materials should be submitted in electronic form by application to the PhD school [warsaw4phd.eu](http://warsaw4phd.eu), choosing the project: " Impact of chemically and physically-induced structural phase transitions on optical properties of inorganic perovskites". (The application system will be active from 21 December 2021).

Results regarding the position will be made available by 10 February 2022.