



Job ID: (#JOB46/2018)

Job Description

Job Title: PhD student in experimental condensed matter physics

Job Summary:

MBE growth of II-VI semiconductor quantum dots and nanowires, their basic characterization and optical investigations including micro-photoluminescence and cathodoluminescence.

Job Description:

The student will be involved in the realization of the project which aim is the growth of one- and zero-dimensional nanostructures: nanowires and quantum dots, made of II-VI semiconductors by molecular beam epitaxy and a detailed investigation of their optical properties. The studied heterostructures will contain type II band alignment which would lead to spatial separation of carriers (electrons and holes) inside of them. As a result some new and exciting quantum phenomena are expected (including Aharonov-Bohm oscillations, stable magnetic polaron formation). The student will learn several experimental techniques including molecular beam epitaxy, scanning electron microscopy, photoluminescence, micro-photoluminescence and cathodoluminescence.

Profile of the candidate:

- Master title in physics or chemistry
- Fluent English (oral and written).
- Research stages in experimental physics- or chemistry laboratories

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 (48 months).

Status: Full-time

Salary:

3500 PLN per month (untaxed scholarship)

Contact

More information can be obtained from dr hab. Piotr Wojnar (e-mail: wojnar@ifpan.edu.pl).

Application details

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

Required materials:

- Curriculum Vitae
- List of publications
- Reference letters from scientists with PhD title are welcome

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