



Job ID: #JOB20/2016

Job Description

Job Title: Assistant professor

Job Summary:

The researcher should play one of the central roles in the Electrical Characterization Laboratory in the Division of Physics and Technology of wide band-gap semiconductor nanostructures. General duties include up-grading of the laboratory equipment as well as advanced electrical characterization of wide band gap semiconducting materials such as oxides and oxide based heterojunctions, gallium nitride and related heterojunctions dedicated for electrical, optoelectrical and photovoltaic applications by capacitance based spectroscopic techniques like deep level transient spectroscopy, Laplace deep level transient spectroscopy and thermal admittance spectroscopy.

Job Description:

In the framework of the reactivation of the Electrical Characterization Laboratory the successful candidate will take over a responsibility for the electrical laboratory and work with young scientists on advanced electrical characterization of wide band-gap semiconducting materials. An experience, both at the theoretical and experimental level, in electrical characterization of oxides by capacitance spectroscopic techniques like thermal admittance spectroscopy and deep level transient spectroscopy is currently required. Furthermore, considering current needs of upgrading the current experimental setups and data analysis the candidate is obliged to have a good knowledge of the LabView platform as well as programs like Matlab and good technical skills.

The investigations in the Division are focused on defect identification in a range of wide band-gap materials like ZnO, ZnMgO, GaN and SiC and on devices based on these materials. The researcher should work on determining the link between growth conditions and materials electrical properties. He or she should show a high experience in physics of semiconductors and in semiconductor-based devices.

In addition, we expect that the successful candidate will act as an interface between the Electrical Characterization Laboratory team and the personnel of the Molecular Beam Epitaxy Laboratory and the Atomic Layer Deposition Laboratory. Hence, good communication skills and technological knowledge on growth process and characterization methods of thin films are also needed.

Finally, supervision capabilities at least at a master level and ability to apply for grants from available sources both Polish and European are required. The candidate is expected to actively seek a financial support of the electrical laboratory.

Main research field: Physics

Sub Research Field: Condensed matter physics

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

Research Profile ([details](#)): Recognised Researcher (R2)

Type of Contract: Temporary for two years

Status: Full-time

Salary: Depends on qualifications

From 2500 to 3300 PLN per month (before taxes).

Contact

More information can be obtained from

prof. Elżbieta Guziewicz (e-mail: guzel@ifpan.edu.pl).

Application details

Application deadline: November 4, 2016. Applications after deadline are not considered.

Required materials:

- Curriculum Vitae
- List of publications
- Two reference letters from scientists familiar with candidate research submitted by referees directly to jobs@ifpan.edu.pl

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