

The advertisement on the special recruitment to the Wrocław Doctoral School of Institutes of Polish Academy of Sciences for the Ph.D. student position in the program "Implementation doctorate I", financed by Ministry of Science and Higher Education in Poland and carried out in the Division of Optical Spectroscopy of ILT&SR PAS – Theme 1

INSTITUTION: Institute of Low Temperature and Structure Research Polish Academy of Science (ILT&SR PAS)

CITY: Wrocław

POSITION: Ph.D. student in the program "Implementation doctorate I", financed by Ministry of Science and Higher Education (MNiSW) in Poland

SCIENTIFIC DISCIPLINE: Physical sciences

ANNOUNCEMENT DATE: **10.08.2020**

DEADLINE FOR APPLICATIONS: **10.09.2020**

DURATION AND INITIAL DATE OF EDUCATION: **4 years**, starting from **01.10.2020**

WSD IPAN website: <http://wsdipan.intibs.pl>

INTiBS PAN website: www.intibs.pl

Keywords: photonics, amorphous materials, ceramics, phosphors for white LEDs

The Wrocław Doctoral School of Institutes of Polish Academy of Sciences (WDS IPAS) announces special recruitment for a Ph.D. student scholarship in IV edition of the program "Implementation doctorate I" – Theme 1: "Synthesis and study of spectroscopic properties of amorphous materials doped with selected rare-earth ions", funded by Ministry of Science and Higher Education in Poland (Project ID 485802 in OSF system, Reg. no. DWD/4/40/2020), and carried out under the supervision of Prof. Przemysław Dereń in the Division of Optical Spectroscopy of ILT&SR PAS in cooperation with the company Nanores Sp. z o. o. Sp. k. in Wrocław.

I. Description of Theme 1:

In a flourishing and demanding field of optical research and engineering, amorphous materials are a promising class of photonic-grade structures. The main task of the Ph.D. student is to synthesize and study the optical properties of new amorphous materials doped with rare-earth ions, and then using them to try to obtain a transparent ceramic applying the unique method of the synthesis of these materials developed at ILT&SR PAS. It is planned to conduct application studies that will allow the use of new materials as optical temperature sensors and as phosphors for lighting in LED technology.

II. Additional information

The Ph.D. student program is performed based on the Communication of 29.05.2019 of MNiSW on the establishment of the "Implementation Doctorate" program (Communication of MNiSW) that grants the Ph.D. fellowship, defined in the Act of 20 July 2018 – Law on higher education and science (Dz. U. no. 1668 as amended) in article 209 paragraph 1, as below.

The total Ph.D. fellowship per month will be provided:

1. **3450,00 PLN** (gross) – till the month of the mid-term evaluation (planned at the end of II academic year);
2. **4450,00 PLN** (gross) – starting from the next month after the mid-term evaluation (during III and IV academic years).

In addition, the Ph.D. student has granted **financial support** for His/Her use of the research infrastructure at ILT&SR PAS, amounting to about **25 000 PLN per each academic year**.

The recruitment is carrying out according to the Act of 20 July 2018 – Law on higher education and science, the Communication of and the Rules of recruitment for WDS IPAS.

III. Duties and obligations of the Ph.D. student:

- timely implementation of the doctoral schedule,
- synthesis of amorphous materials samples by laser forming,
- study of the spectroscopic properties of the materials obtained,
- surface study with scanning electron microscopy (SEM) and analysis of the cross-sections of investigated structures examined by electron microscopy techniques,
- analysis and presentation of the results, elaboration of scientific reports and publications, participation in scientific conferences,
- following rules and performance of tasks resulting from the duties of a doctoral student at the Wrocław Doctoral School of Institutes of Polish Academy of Sciences.

IV. Requirements from the candidate:

- **master's degree in physics**, chemistry, material engineering or related disciplines
- scientific interests in solid-state physics or chemistry
- knowledge and experience in experimental work including spectroscopic methods
- good knowledge of English
- motivation for scientific work, diligence, independence, ability to work in a team, creativity.

V. Required documents:

According to the rules of recruitment for WDS IPAS:

http://wsdipan.intibs.pl/images/Recruitment_Rules_WDS_IPAS.pdf

Additional obligatory documents:

1. Consent to the processing of personal data by MNiSW (GDPR) on the form (attachment 1).
2. Statement of the company Nanores Sp. z o. o. Sp. k. in Wrocław that in the case of admission to **Wrocław Doctoral School of Institutes of Polish Academy of Sciences** the candidate will remain or will be employed on the full time in the period of the doctoral studies and the consent to His/Her education in the School within the program.

VI. Applications for admission to the School must be submitted by 10.09.2020 until 3:00 p.m.:

- **in person** at the School's Secretariat at the Institute of Low Temperatures and Structural Research of the Polish Academy of Sciences at Okólna Street 2 in Wrocław) from 9:00 a.m. to 3:00 p.m.
or
- **by registered mail or courier service** (date of receipt of documents at the School's premises decides) to the address: WSD IPAN, ul. Okólna 2, 50-422 Wrocław
or
- **by e-mail** to wsdipan@intibs.pl, the original documents should be however delivered before the beginning of the education (failure to meet this requirement will result in the removal from the list of doctoral students).

For further information please contact prof. Przemysław Dereń (p.deren@intibs.pl, tel. +48 71 3954 178).

The information concerning the processing of your personal data is given on website: <http://www.intibs.pl/en/the-institute/gdpr.html>