

FORM FOR EMPLOYERS

INSTITUTION: Institute of Physics of the Polish Academy of Sciences

CITY: Warsaw

POSITION Reserach fellow in spectroscopy of colloidal nanocrystals; #26/2026

DISCIPLINE: Physics, Chemical physics

POSTED 24.08.2026

EXPIRES 04.09.2026 r.

WEBSITE

https://www.ifpan.edu.pl/images/instytut/Oferty_pracy_i_konkursy/2026/2026-08-24_Adiunkt_026-2026_EN.pdf

KEY WORDS Research, Physics, Chemical physics

DESCRIPTION (field, expectations, comments):

Job Summary:

Colloidal nanocrystals are highly versatile materials with established use in commercial technologies.

However, their broader application is limited by the toxicity of lead and cadmium ions, which are

prevalent in widely studied compounds like lead or cadmium chalcogenides and lead halide

perovskites. Our research group is focused on developing safer, cadmium- and lead-free alternatives,

specifically nanocrystals based on group I-III-VI compounds (e.g., AgInS_2 , CuInS_2) and double

perovskites (e.g., $\text{Cs}_2\text{AgInCl}_6$). We are dedicated to optimizing synthesis methods for these materials

and advancing cutting-edge understanding of their optical properties, paving the way for safer and

more sustainable nanotechnology solutions.

Job Description:

We are seeking a highly motivated postdoctoral scientist to conduct advanced spectroscopic studies

on colloidal nanocrystals. The successful candidate will be involved in studies of optical properties of

nanostructures via measurements of photoluminescence, absorption and Raman scattering.

Experiments will be conducted on colloidal ensembles and nanocrystal thin films and also on the level

of single nanostructures using microscopic techniques. The candidate will work, in particular, with an

optical microscope setup enabling studies with sub-micrometer spatial resolution and detection of light

emission from single nanostructures. Therefore, experience in spectroscopy of nanostructures

proven by relevant publications is essential.

Key Responsibilities:

- Conduct photoluminescence measurements on colloidal nanocrystals.

- Optimize and operate an advanced optical microscope setup for high-resolution spectroscopy.
- Analyze experimental data using Origin software and Python programming.
- Collaborate with a dynamic, multinational research team and contribute to the group scientific output.

Qualifications:

- PhD in physics, chemistry, or a related field.
- Proven experience in nanostructure spectroscopy, demonstrated through relevant publications.
- Proficiency in data analysis with Origin and Python.
- Strong communication skills in English, both written and spoken.
- Ability to work collaboratively within a multidisciplinary and international research environment.

What We Offer:

- A supportive, friendly, and stable working environment with opportunities for career development, both within Poland and internationally.
- The chance to build expertise in nanocrystal fabrication, spectroscopy, and single-nanostructure studies, evidenced by our extensive publication record.
- The opportunity to contribute to innovative research with potential for significant scientific impact.

For more information on the PI, the team, and the research project, visit

<http://klopotoski.com/physics/>

Institute of Physics of the Polish Academy of Sciences

OPEN POSITION

Main research field: Physics

Sub Research Field: Chemical physics

Career Stage: Post-Doc,

Type of Contract: 12 months, with possibility of prolongation.

Status: Full time

Salary: 7114 PLN per month before approximately 25% taxes, plus length of service

bonus

Contact

More information can be obtained from Łukasz Kłopotowski

(e-mail: lukasz.klopotoski@ifpan.edu.pl).

Application details

Application deadline: 4 September 2026. Applications sent after the deadline will not be considered.

Required materials:

- Curriculum Vitae
- Copy of PhD diploma
- List of publications

- Motivation letter
- Contact data (e-mail) to at least two scientists willing to provide reference letters.
- Consent to process your personal data (expressed on the form attached to this announcement) For legal reasons we will not be able to process your application without this!

All materials should be submitted in electronic form to the address:
rekrecja@ifpan.edu.pl

with Job ID in the subject.

We encourage people with disabilities to apply. We provide friendly working conditions.

The Institute of Physics of the Polish Academy of Sciences has Rules for Internal Reports specifying the procedure for reporting violations of law and taking follow-up actions, which

can be found on the Institute's website at the link:

<https://www.ifpan.edu.pl/en/institute/internal-reports-concerning-violations-of-law.html>