FORM FOR EMPLOYERS

INSTITUTION Institute of Physics of the Polish Academy of Sciences

CITY Warsaw

POSITION Research fellow (adiunkt) in experimental physics. Expert in the MBE growth of topological materials and their characterization

DISCIPLINE Physics, Materials engineering

POSTED 19/11/2026

EXPIRES 17/12/2026

WEBSITE
https://www.ifpan.edu.pl/images/instytut/Oferty_pracy_i_konkursy/2026/2026-11-19_Adiunkt_036-2026_EN.pdf

KEY WORDS Physics, Materials engineering, MBE

DESCRIPTION (field, expectations, comments):

Job Summary:

Research and technology development of topological materials and nanostructures grown by MBE, including their characterization.

Job Description:

The research will be carried out in Division ON-6 (International Centre for Interfacing Magnetism and Superconductivity with Topological Matter – MagTop) at the Institute of Physics of the Polish Academy of Sciences. The team collaborates with research groups at the Institute of Physics PAS and with research institutions in Poland and abroad. The successful candidate will develop technologies for the growth of topological materials and heterostructures by molecular beam epitaxy (MBE), participate in their nanofabrication, and carry out their structural (XRD) and electronic (ARPES) characterization.

Requirements:

- A PhD degree in physics, engineering sciences or materials engineering.

- At least 10 years of experience in the MBE growth of nanostructures: quantum wells, heterostructures, multilayers, nanowires and quantum dots.

- Demonstrated expertise in the MBE growth of advanced quantum materials, particularly compounds from the IV–VI, II–VI and V–VI semiconductor families, as well as elemental topological materials such as Sn and Bi. Experience with topological materials (including topological insulators and topological crystalline insulators), magnetic materials and their heterostructures is highly desirable.

- Strong background in materials characterization, particularly X-ray diffraction (XRD), transmission electron microscopy (TEM), angle-resolved photoemission spectroscopy (ARPES), magnetometry and magnetotransport measurements.

- Experience with UHV experimental systems, synchrotron-based research and applications for beamtime at large-scale research infrastructures.

- Experience in working in a cleanroom environment.

- A documented research track record demonstrating scientific independence and confirmed by publications, which could serve as the basis for initiating habilitation proceedings in the near future.

- Documented experience in obtaining research funding and in applying for ARPES beamtime at large-scale research infrastructures.

- Fluent spoken and written English (knowledge of Polish at B1 level or higher will be an additional asset.).

- Ability to collaborate with people of different levels of experience and specializations.

What we offer:

- A supportive, friendly, and stable working environment with opportunities for career development, both within Poland and internationally.

- Access to MBE growth facilities, cleanrooms and equipment for the structural characterization.

Main research field: Physics, Materials engineering

Sub Research Field: Condensed matter physics

Career Stage: More Experienced researcher or >10 yrs (Senior)

Research Profile (details): Established Researcher (R3)

Type of Contract: Temporary, 24 months with possibility of extension

Status: full-time employment

Salary: Basic salary of PLN 7,114 gross per month before taxes and applicable social security contributions (approximately 24%), plus a length-of-service allowance.

Contact

More information can be obtained from Prof. Tomasz Wojtowicz

(e-mail: wojto@magtop.ifpan.edu.pl).

Application details

Application deadline: 17 December 2026. Later applications will not be considered.

Required materials:

• Curriculum Vitae

• Motivation letter

• Full list of publications

• Copy of the PhD diploma

• Research plan related to the employment at IP PAS.

• Contact data (e-mail) to at least two scientists willing to provide reference letters.

• Consent to process your personal data (expressed on the attached form)

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: rekrutacja@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