

FORM FOR EMPLOYERS

INSTITUTION: AGH University of Krakow

DEPARTMENT: Academic Centre for Materials and Nanotechnology

CITY: Krakow

POSITION: assistant professor in a group of research workers (post-doc)

DISCIPLINE: electronics, physical sciences, material engineering

POSTED: 25.05.2024

EXPIRES: 31.07.2024

WEBSITE <https://www.agh.edu.pl/o-agh/praca-w-agh>

KEY WORDS: spintronics, quantum materials, spin-orbit coupling, spin Hall effect

DESCRIPTION (field, expectations, comments, requirements):

"The project seeks to develop extremely low-power spintronic based nonvolatile memory and logic technologies with infinite endurance, through experimental studies of new quantum materials and devices that can greatly increase the efficiency of magnetization switching. With these materials, we will realize physical phenomena and device functionalities that are not possible in traditional polycrystalline metal-based spintronic. Range of hybrid materials will be designed, synthesized, dynamically tuned structurally and electronically, and integrated into the state-of-the-art MRAM devices."

As part a post-doctoral researcher, you will conduct experimental research on new quantum materials for applications in spin electronics. The tasks will include:

- deposition of oxide-based multilayer structures using pulse laser deposition (PLD) and magnetron sputtering methods,
- experimental work in cleanrooms on the preparation of prototype spintronic elements in the micro- and nano-meter scale,
- investigation of the materials and devices parameters using range of available experimental methods: vibrating sample magnetometry (VSM), X-ray reflectivity and diffraction, magneto-transport measurements,
- analysis of results, preparation of manuscripts for publication.

REQUIREMENTS:

- 1) doctoral degree in the discipline electronics, physics, materials engineering or related obtained in the year of employment in the project or in the 7 years before 1 January of the year of employment in the project,
- 2) degree held: recognized researcher (R2),
- 3) English at least B2 level,
- 4) expertise in a thin film growth using various vacuum techniques (PLD, sputtering),
- 5) experience in thin film measurement techniques (XRR, XRD, VSM etc),
- 6) previous experience in the fabrication of micro devices in the cleanroom,
- 7) full-time involvement in the project,
- 8) passion for the implementation of an ambitious scientific project,
- 9) scientific and organizational activities as well as active participation in conferences and symposiums.

DOCUMENTS REQUIRED:

- 1) job application, cv, personal questionnaire,
- 2) copy of diplomas or other certificates attesting to qualifications,
- 3) cover letter containing a description of completed projects,
- 4) documented scientific and research achievements,
- 5) a reference letter confirming acquired skills and experience,
- 6) a document confirming language proficiency at least B2 level.

DOCUMENTS MUST BE SUBMITTED:

Complete documentation must be sent to the following email address: skowron@agh.edu.pl

The AGH University will be the candidate's main place of employment. Proposed basic salary - approximately PLN 9,000.00 / month.

The AGH University of Krakow does not require you to provide any information or data other than those resulting from the applicable law (name/names, surname, date of birth, contact details, education, professional qualifications, and employment history). However, if you choose to include your photograph or any other information, please fill in and attach this statement of consent to the processing of personal data, which constitutes an attachment to this information.

The controller of your personal data processed in order to carry out the recruitment process for the above-mentioned position is the AGH University of Krakow, al. A. Mickiewicza 30, 30-059 Krakow. You can read all information concerning the processing of your personal data on the website of the AGH University of Krakow after going to the "Personal data protection" tab (<https://www.agh.edu.pl/en/personal-data-protection>).

The University reserves the right not to settle the competition without providing any reason or justification. Winning the competition is not tantamount to ensuring the candidate's employment. The result of the competition serves solely as a recommendation to the Rector in this regard. The final decision concerning the employment will be made by the Rector.

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name and surname

CONSENT TO PERSONAL DATA PROCESSING
(recruitment - employee)

Pursuant to Article 6(1)(a) of the Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation), [OJ EU. L. 2016.119.1, May 4, 2016] hereinafter referred to as "GDPR", **I consent to the processing of my personal data other** than the data mentioned in Article 22¹ § 1 of the Labour Code and contained in my CV and other application documents, and to the reproduction of my physical likeness **for the purposes of recruitment and selection for the position of** (contest notice no.).

In addition, I declare that the request for consent has been presented in a clear and understandable manner and that I have been informed about a possibility of withdrawing my consent at any time as well as about consent accountability. The withdrawal of consent to have personal data processed shall not affect the legality of the processing, which is carried out on the basis of such consent prior to its withdrawal; The consent may be withdrawn by submitting a written representation on consent withdrawal at a place that was indicated in the contest notice as the place for submitting documents.

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Date and signature