

## FORM FOR EMPLOYERS

**INSTITUTION:** AGH University of Krakow

**DEPARTMENT:** Faculty of Metals Engineering and Industrial Computer Science

**CITY:** Krakow

**POSITION:** assistant professor in a group of a research staff

**DISCIPLINE:** Materials Engineering

**POSTED:** 09.07.2025

**EXPIRES:** 11.08.2025

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

**KEY WORDS:** DFT calculations, molecular dynamics, Rietveld method, NiMnGa-based alloys, twinning process

**DESCRIPTION** (field, expectations, comments, requirements):

The responsibilities include conducting research tasks within a project funded by the National Science Centre (NCN) under the SONATA Bis 11 programme titled "Micro-functionality of NiMnGa-based shape memory alloys", agreement no. UMO-2021/42/E/ST5/00367.

The primary task of the postdoctoral researcher will be to model the twinning process in NiMnGa-based alloys using computational methods such as DFT and molecular dynamics. The project will aim to develop at least three twinning mechanisms depending on the stress level and the atomic structure of the boundaries. An additional task will involve fitting theoretical X-ray diffraction profiles to experimental data using the Rietveld method.

Scope of work:

- DFT and molecular dynamics calculations to model the twinning process in NiMnGa-based alloys;
- Fitting theoretical X-ray diffraction profiles to experimental ones using the Rietveld refinement method.

### REQUIREMENTS:

- 1) PhD in Materials Engineering or Physics obtained at an institution other than the one where employment in this position is planned, or completion of at least a 10-month, continuous and documented postdoctoral fellowship at an institution other than the one implementing the project and in a country different from the country where the doctoral degree was obtained,
- 2) scientific achievements in the following areas: shape memory alloys, basic knowledge of Linux, DFT calculation skills allowing for numerical determination of structural properties of ternary systems, and basic knowledge of crystallography,
- 3) organizational achievements,
- 4) possession of a scientific output including publications in journals with an impact factor (IF),
- 5) active participation in scientific conferences and symposia,
- 6) documented knowledge of English at a minimum B2 level.

**A person may become a candidate if they meet the following requirements set forth in the Law on Higher Education:**

- 1) has the qualifications specified in the Law,
- 2) has full legal capacity,
- 3) has not been punished by a final court judgment for an intentional crime,
- 4) enjoys full public rights.

### DOCUMENTS REQUIRED:

- 1) application, CV, personal questionnaire,
- 2) a document confirming knowledge of English, at least at B2 level,
- 3) copies of diplomas and other documents confirming qualifications and professional experience,
- 4) information about research achievements, list of publications, list of organizational achievements,
- 5) opinion on previous research or professional work.

**ADDITIONAL INFORMATION:**

A candidate may apply for the position if they obtained their PhD degree in the year of employment in the project or within 7 years prior to January 1 of the year of employment. This period may be extended by the duration of documented long-term (over 90 days) sick leave or rehabilitation benefits taken due to incapacity for work. Additionally, this period may be extended by the number of months spent on childcare-related leaves granted under the provisions of the Labour Code, and in the case of women – by 18 months for each child born or adopted, if such a method of accounting for career breaks is more favorable.

During the period of receiving this remuneration, the employee may not receive any other remuneration from funds awarded as direct costs in research projects financed under NCN calls. Furthermore, during this period, the employee may not be employed under an employment contract by any other employer, including an employer based outside the territory of Poland.

**DOCUMENTS MUST BE SUBMITTED:**

Complete documentation must be submitted at Secretary of the Faculty of Metals Engineering and Industrial Computer Science AGH (30 Mickiewicza Ave, B5 building, IX floor, room, 909 or 910) or electronically at [jglowacz@agh.edu.pl](mailto:jglowacz@agh.edu.pl)

The AGH University will be the candidate's main place of employment.

*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 our 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.*

*Following the selection process, the candidate who qualified for employment is obliged to provide a certificate from the National Criminal Register (the criminal record certificate should be up-to-date, i.e. issued no sooner than 1 month before its submission at the AGH University) and shall be subject to the verification process in the Sex Offender Register – the Restricted Access Register.*

Cracow, on .....

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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 22<sup>1</sup> § 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