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# Job offer

JOB

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[Jan Dlugosz University in Czestochowa](#) | Posted on: 7 April 2025

## Postdoc Positions

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STATUS: EXPIRED

7 Apr 2025

## Job Information

Organisation/Company	Jan Dlugosz University in Czestochowa
Department	Faculty of Science and Technology
Research Field	Physics » Computational physics
Researcher Profile	Recognised Researcher (R2)
Positions	Postdoc Positions
Country	Poland
Application Deadline	8 May 2025 - 15:00 (Europe/Warsaw)
Type of Contract	Temporary
Job Status	Full-time
Hours Per Week	40
Offer Starting Date	2 Jun 2025
Is the job funded through the EU Research Framework Programme?	Not funded by a EU programme
Reference Number	NCN 2024/53/B/ST5/01357
Is the Job related to staff position within a Research Infrastructure?	No

## Offer Description

Description of the tasks:

- participation in the research tasks of the NCN OPUS 27 project, No. 2024/53/B/ST5/01357 titled "Design, characterization, and the performance mechanism description of heterostructured semiconductor materials in photocatalytic systems and dye-sensitized photovoltaic cells", planned to be conducted at Jan Dlugosz University, Faculty of Science and Technology, under the supervision of: prof. dr hab. Malgorzata Makowska-Janusik
- research planning;
- conduction of quantum-chemical calculations of structural, electron, and phonon properties of hybrid materials based on TiO<sub>2</sub>, ZrO<sub>2</sub>, ZnO, and WO<sub>3</sub> doped with selected lanthanides (La, Eu, Ce, Nd, etc.)
- calculation of photovoltaics and photocatalytic properties of synthesized semiconducting heterostructural materials for DSSC applications;

## Where to apply

E-mail [m.makowska@ujd.edu.pl](mailto:m.makowska@ujd.edu.pl)

## Requirements

Research Field Physics » Computational physics

Education Level PhD or equivalent

### Skills/Qualifications

- skills in quantum chemical calculations and computer modeling using VASP, and Gaussian programs;
- the experience in photocatalysis or/and photovoltaics processes investigation;
- knowledge in solid state physics, photophysics;
- knowledge of English sufficient to freely use scientific literature, present and disseminate results;
- ability to work individually and in a team; diligence, systematic approach, willingness to deepen knowledge
- knowledge of the ANSYS package used to predict photovoltaic and photocatalytic properties of materials will be an additional advantage;

### Specific Requirements

The competition is open to individuals who meet the requirements specified in Article 113 of the Law on Higher Education and Science of 20 July 2018 (Journal of Laws of 2024, item 1571 ; Polish: Dz. U. z 2024 poz. 1571 t.j.) and who meet the following requirements:

- PhD in physics sciences/chemical sciences obtained not earlier than 7 years ago (this period may be extended by the duration of maternity and parental leaves, or long-term incapacity to work due to illness),
- The project leader (prof. dr hab. Malgorzata Makowska-Janusik) was not the supervisor or the auxiliary supervisor of the candidate's doctoral dissertation;
- A doctoral degree was obtained in an entity other than Jan Dlugosz University in Czestochowa or the candidate completed a continuous and documented postdoctoral fellowship for at least 10 months in an entity other than the entity implementing this project and in a country other than the country of obtaining the doctoral degree;

Languages ENGLISH

Level Excellent

Research Field Physics » Computational physics

## Additional Information

### Work Location(s)

Number of offers available 1

Company/Institute Jan Dlugosz University in Czestochowa

Country Poland

City Czestochowa

Postal Code 42-200

Street Armii Krajowej 13/15

Geofield








## Contact

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