



Post-Doctoral Research Assistant in Artificial Photosynthesis

Centre of New Technologies, University of Warsaw

Design and optimisation of molecular interface for efficient electron transfer within photosystem I-based photovoltaic devices (PDRA 1)

Applications are invited for a 30-month full-time post-doctoral position in the Solar Fuels Lab, Centre of New Technologies, University of Warsaw, Poland. The position has been funded by the Polish National Science Centre within the OPUS14 call.

The aim of this project is to develop a new class of efficient biophotoelectrodes with significantly improved power conversion efficiency by application of a novel class of coordination molecular wires, based on highly conjugated terpyridine ligand complexes with transition metals, for interfacing the robust photoconverting molecular machine, photosystem I, with various types of conductive electrode materials. It is anticipated that the results obtained in this project will lead to the development of a universal chemical platform for efficient interfacing various (bio)molecular components which require a high degree of precise molecular organization within various types of biosolar cells, solar-to-fuel devices and biophotosensors.

The applicants should hold a PhD in electrochemistry/physical chemistry/organic chemistry or a related discipline, with a knowledge, insight, and proven technical ability in electrode surface modification and characterisation by atomic force microscopy and electrochemistry. Proven experience in characterisation of electron transfer kinetics by EIS will be advantageous. The highly interdisciplinary project will be conducted in the Solar Fuels Laboratory of Dr hab. Joanna Kargul (solar.biol.uw.edu.pl), Centre of New Technologies, University of Warsaw, in collaboration with the world-class experts in AFM/TUNA (Dr hab. Sławomir Sęk, University of Warsaw) and electrochemistry (Dr hab. Rafał Jurczakowski, University of Warsaw). Additional funds are available to attend relevant workshops and international conferences.

Additional Job Details

Approximate gross salary: **7 300 – 9 200 PLN/month** according to qualifications and experience

Start date: **1 October 2018** or as soon as possible afterwards

Post-doctoral candidates should:

- hold a PhD or equivalent in physical/organic chemistry, electrochemistry, biophysics or a related discipline (obtained within the last 5 years)
- provide a list of publications and conference abstracts
- demonstrate exceptional creativity and problem-solving ability, meticulous laboratory technique and record-keeping, along with a strong work ethic and determination to rapidly meet technical objectives.

Previous experience with bioelectrochemistry, biophotovoltaics, and advanced surface topology characterisation will be a major advantage. A fluent command of spoken and written English is essential.

Applicants should send a curriculum vitae, including a list of publications, cover letter, and contact details of 2 referees to Dr. hab. Joanna Kargul (j.kargul@uw.edu.pl), quoting '**OPUS14 PDRA 1**' in the subject line. Informal enquiries are

welcome. The closing date for the receipt of applications is **10 September 2018**. Interviews of shortlisted candidates will be scheduled for the week beginning on **17 September 2018**. Please note that only shortlisted candidates will be contacted.

The University of Warsaw is committed to equality and diversity, and encourages applications from all sections of the community.

Information and agreement clause

To allow us to process your data, please include the following statement in your application:

“I hereby consent to have my personal data processed by the University of Warsaw with its registered office at ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw. I have been informed of my rights and duties. I understand that provision of my personal data is voluntary.”

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3. Your personal data will be processed for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw;
4. The provided data will be processed pursuant to Article 221 § 1 of the Act of 26 June 1974 Labour Code (uniformed text: Dz.U. of 2018, item 917) and your consent for processing of personal data;
5. Provision of data in the scope stipulated in the Labour Code is mandatory, and the remaining data are processed according to your consent for processing of personal data;
6. The data will not be shared with any external entities;
7. The data will be stored until you withdraw your consent for processing of personal data;
8. You have the right to access your personal data, to rectify, erase them, restrict their processing, object to processing, and to withdraw the consent at any time;
9. You have the right to lodge a complaint to the President of the Office for the Protection of Personal Data.”