

**Post-doctoral Scholarship Offer as part of the NCN OPUS project UMO-2022/45/B/ST4/01511 titled
"Polyynes Compounds in the Synthesis of New Derivatives and Polymer Materials."**

PI of the project: prof. dr hab. Sławomir Szafert

Summary: Polyynes are compounds with great application potential in modern nanoelectronics and are useful substrates in organic synthesis. They enable the production of various new derivatives and materials with interesting physicochemical properties. Research on these systems is being conducted by several research groups worldwide, and the results are published in prestigious international journals.

As part of the currently ongoing research grant, work will focus on using polyyne compounds to create new molecular and polymeric architectures. Polymers will be synthesized through thermal or photochemical processes from 1-haloalkyne precursors. The obtained derivatives are expected to have conductive properties and a range of other intriguing physicochemical characteristics. Therefore, all synthesized polymer compounds will undergo thorough examination (spectroscopic analysis and material property evaluation) to identify materials suitable for molecular electronics applications.

Name of the Institution: Faculty of Chemistry, University of Wrocław, Group of Organometallic Chemistry and Functional Materials

Position title: Post-doc

Requirements:

- PhD degree in chemistry or related fields obtained not earlier than 7 years before the engagement in the project (extension might apply according to National Science Centre Poland rules)
- Experience in organic synthesis and materials chemistry (especially nanoparticles synthesis)
- Excellent knowledge of general chemistry
- Creativity, independence, responsibility and teamwork spirit
- Very good knowledge of English, spoken and written
- High motivation and a strong commitment to research

Complete application should include the following items:

- Scientific curriculum vitae, including a list of scientific achievements (scholarships, publications, patents, conference presentations, etc.)
- Research summary
- Cover letter
- A letter of recommendation and/or references from previous employers/supervisors or their contact information
- A scan of the PhD diploma

Task description:

We seek an experienced and highly motivated researcher to join our group as a post-doc in order to realize selected goals of the National Science Center Poland financed project entitled: "Polyynes compounds in the synthesis of new derivatives and polymer materials" (OPUS-23 no.

2022/45/B/ST4/01511). The main target of the research conducted by the candidate will be a synthesis of nanoparticles “decorated” with polyyne-ended alkyl chains and their application in regioselective transformations and polymerization.

Responsibilities:

- Design and synthesis of metal nanoparticles.
- Attachment of the sulphur terminated alkyl chains with polyyne fragments
- Physicochemical characterization of the resulting nanoparticles
- UV and thermal polymerization of polyyne fragments attached to nanoparticles
- Application of polyyne decorated nanoparticles for regioselective transformation (for example hydroamination)
- Data analysis and reporting of the results
- Preparation of presentations and parts of the manuscripts

NCN competition type: OPUS - ST

Application deadline: October 10, 2024; until 2.00 pm

Form of application submission: e-mail at: slawomir.szafert@uwr.edu.pl

Employment conditions:

Postdoc position available at the Faculty of Chemistry of the University of Wrocław within National Science Center Poland project OPUS-23 (no. 2022/45/B/ST4/01511) entitled “Polyyne compounds in the synthesis of new derivatives and polymer materials” (PI prof. dr hab. Sławomir Szafert).

We offer:

- A competitive gross salary of ca. 9 000 PLN (before tax) with a 12-month full-time work contract with the possibility to be extended for another period up to 12 months.
- Work in a motivated research group focused on high-impact research
- Access to the state-of-the-art equipment

Number of positions: 1

Additional Information:

How to Apply: Send application directly to: slawomir.szafert@uwr.edu.pl

IMPORTANT: email title “Recruitment for post-doc position”

A post-doc type post is a full-time post, scheduled by the project’s principal investigator for a person who has obtained their PhD degree within 7 years before joining the project. This period may be extended by a time of long-term (in excess of 90 days) documented sick leaves or rehabilitation leaves granted on account of being unfit to work. In addition, the period may be extended by the number of months of a child care leave granted pursuant to the Labour Code and in the case of women, by 18 months for every child born or adopted, whichever manner of accounting for career breaks is preferable.

Candidate needs to meet formal requirements:

- a) their PhD degree has been awarded by another institution than the University of Wrocław
- b) they will be employed for a period of 12 months
- c) at the time of receiving remuneration, they will not be receiving any other remuneration paid from the funds granted to research projects under NCN calls under the heading of direct costs
- d) in the period of receiving the remuneration they will be receiving no remuneration from another employer pursuant to an employment contract, including an employer with registered office outside of Poland

Employment will take place in accordance with the provisions of the competition documentation of the National Science Center Poland (NSCP) for the OPUS-23 and Employment policy of the University of Wrocław

The Commission will analyze CVs of the candidates. The top candidates will be invited for an online interview (beginning of June). We reserve the right to contact and reply only to selected candidates.

The Commission will take into account the following criteria:

1. Competence in specific tasks in a research project
2. Previous scientific achievements (publication record, H-index etc.)
3. References
4. Candidate's initiative in research projects

- The position will be awarded to the person who meets all the criteria. If the top candidate does not sign the contract, due to the resignation, we reserve the right to choose the second best candidate.
- The incomplete applications may be not considered.
- The results of the competition are made public.
- Candidates who have been issued a negative opinion by the Competition Committee or candidates not selected for employment have the right to appeal against the results of the evaluation. The appeal shall be lodged with recruitment commission within 7 days from the date of receipt of the appropriate information. Its second decision shall be final.

The results of the recruitment are planned to be announced on the 15th of October, 2024. Scheduled date of starting work within the project is: 01.01.2025 (can be negotiated and adjusted). More details are available directly from the Principal Investigator (prof. dr hab. Sławomir Szafert): e-mail: slawomir.szafert@uwr.edu.pl; phone: +48 797 367 467.

By submitting the application you consent to the processing of your personal data in the recruitment process.

The controller of your personal data is University of Wrocław. The University will process your data for the purpose of carrying out scientific and research activities, providing services and contact with the Faculty, on the basis of a contract.

You have the right to: request access to your data, receive a copy of it; rectify (correct) it; delete it; limit its processing; transfer it; lodge a complaint to the supervisory body; withdraw your consent for processing at any time (withdrawal of consent does not affect the lawfulness of the processing carried out prior to its withdrawal) or to lodge an objection to data processing. More information is available at <https://uwr.edu.pl/polityka-prywatnosci/>.



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