

## THE COMPETITION

For the position: post-doc in grant SONATA BIS 9 (UMO-2019/34/E/ST4/00068)  
at the Center for Advanced Technology of AMU

1. Reference number: Konkurs\_PostDoc\_Sonata Bis
2. Working hours: full time job
3. Legal basis of the employment: employment contract
4. Estimated duration of the employment: April, May 2022
5. Deadline for the submission: March, 27<sup>th</sup> 2022

### I Expectations:

The competition is open for a person who meets the conditions specified in the regulations on the allocation of resources for the implementation of tasks financed by the National Science Centre (Poland) for Sonata Bis 9 grant.

- The applicant should hold a PhD (doctor) degree in chemistry or in relevant disciplines (e.g., chemical technology, chemical engineering, materials science),
- The candidate should hold the documented scientific record in chemistry, published in the international journals from JCR list,
- The proven knowledge and experience in organic and organometallic chemistry (especially in the synthesis of organosilicon and organoboron compounds), homo- and heterogeneous catalysis or organocatalysis is welcome,
- The proven knowledge in stereochemistry, chiral synthesis will be an advantage,
- The experience in green chemistry (continuous flow processes and immobilization of molecular catalysts) will be also important for the realization of the project,
- The person is required to independent preparation of scientific publications and presentations as well as has to be experienced in writing manuscripts and grant applications,
- The knowledge in high-pressure synthesis will be appreciated,
- Experience in the synthesis and chemical analysis (spectroscopic, quantitative, qualitative) will be essential for project realization,
- Creativity, diligence, high motivation, good work organization, independence in planning and carrying out experiments, ability to work in a team are welcome,
- Candidate should be fluent in the English language and should be able to work in an international team, be independent in carrying out research,
- Experience in supervising students and PhD students is welcome,
- Ability to work with MS Office, ChemDraw, MestreNova, Endnote programs, which permitted to analyze data and present scientific research.

### II Tasks description:

The main goal of the SONATA BIS project is to build a new, green strategy in the hydroboration reactions of alkynes, olefins, imines and carbonyl compounds in continuous flow and repetitive batch systems with the emphasis placed on the application of green solvents (scCO<sub>2</sub>, ILs) and catalysts immobilization techniques. The stereoselective catalytic system for the transformation of prochiral reagents will be also envisaged. Different approaches based on homogeneous, heterogeneous catalysis and organocatalysis will be applied.

Sonata Bis grant is carried at the Center for Advanced Technology of Adam Mickiewicz University in Poznan in the Laboratory of Applied and Sustainable Catalysis. The project has high innovative potential. Post-doc will be responsible for carrying out tasks within this project, which will be focused on:

- Hydroboration of the unsaturated carbon-carbon and carbon-heteroatom bonds (also chiral synthesis),

- Development of new catalytic systems based on TM-catalysts, main group elements catalyst and nanoparticles,
- Preparation of chiral ligands and catalysts for hydroelementation reactions,
- Effective immobilization of the catalysts (e.g., SILP, HPA),
- Carrying out catalytic tests in scCO<sub>2</sub> and conventional solvents,
- Carrying out processes using repetitive batch and continuous flow systems,
- Determination of the process results (TON, TOF, conversion, metal leaching),
- Phase behaviour studies (reagents and products solubility),
- Characterization of obtained products with various analytic techniques,
- Synthesis of novel organoboron compounds (also chiral).

### III Information about CAT AMU in POZNAN

The host institution of the project is the **Adam Mickiewicz University in Poznan (AMU)**, which is the largest institution of higher education in Poznań and one of the leading universities in Poland. **CAT AMU (AMU Center for Advanced Technology)** was the coordinator of building and equipping the **Wielkopolska Center for Advanced Technology** in Poznań, a multidisciplinary entity focused on designing and characterization of new materials and biomaterials of multiple applications as well as discovery and development of new processes and technologies. This institution is based on the research know-how and credibility of leading scientists, working in the key institutes of the region. WCAT is co-financed (85%) by the European Regional Development Fund under the Operational Programme Innovative Economy 2007-2013 with a total budget of 63 million EURO.

**CAT AMU** is a frontier research-oriented center from the one side and an applied science institution from the other. Therefore, it is possible to carry out complex research from the idea to implementation of the scientific results. CAT AMU will provide access to infrastructure, laboratories, offices as well as special analytical and state of art scientific equipment located in WCAT.

The determination of products structure, their molecular identification will be obtained using state-of-the-art mass spectrometers (LC-MS, GC-MS, ICP-MS, high-resolution MS) and NMR spectrometers. The host institution will contribute to the realization of the project by giving access to advanced laboratory equipment (e.g., high-pressure system for reactions in compressed CO<sub>2</sub>, SFC chromatography, NMR spectrometer, mass spectrometers, FT-IR, CD, FT- IR etc.).

Information about the AMU: [www.amu.edu.pl](http://www.amu.edu.pl)

Information about the CAT AMU: [www.wczt.pl](http://www.wczt.pl)

### IV Employment conditions:

The post-doc position is available in the SONATA BIS 9 grant no. UMO-2019/34/E/ST4/00068, National Science Centre (NCN) entitled "*The new approach to hydroboration reactions of the unsaturated carbon-carbon and carbon-heteroatom bonds in repetitive batch and continuous flow systems*", which is realized in the Center for Advanced Technology of Adam Mickiewicz University in Poznan.

**Type of Contract:** Temporary for 12 months (with the possibility of extension for the next 12 months).

**Status:** Full-time.

**Total salary:** 7 500 PLN (brutto) / month

**The availability:** The contract might start from 1<sup>st</sup> of May 2022, but the date might be shifted.

According to the SONATA BIS 9 rules, post-doc needs to meet the following criteria:

- 1) The principal investigator was not a supervisor/auxiliary supervisor in his/her doctoral thesis,
- 2) In the last two years before taking up employment in the project, he/she was not employed under an employment contract in the Entity where the research project will be carried out,
- 3) Is employed for not less than 6 months,
- 4) During the period of receiving remuneration, he/she do not receive any other remuneration from the funds allocated as direct costs from research projects funded under NCN calls,
- 5) During the period of receiving this remuneration, he/she is not employed by another employer baased on employment contract, including an employer outside Poland.
- 6) It is allowed to employ one person in the project from the pool of full-time salaries in a post-doc position who does not meet the conditions specified in point 1).
- 7) The candidate should obtain a doctoral degree not earlier than 7 years before the year of employment in the project ((plus 18 months for every child of female candidates).
- 8) When re-applying for employment in a post-doc type position in the same entity, the condition specified in point 2) is not applied. A person who does not meet the condition specified in point 2), may apply for re-employment in a post-doc position only once in the same entity.

**Additional employment conditions:**

- Working on a project focused on organometallic chemistry, catalysis and green chemistry,
- Position with 100% focus on research (no teaching obligations, except for supervision of students (BSc, MSc, PhD) working in the laboratory.
- Working in the multidisciplinary Center for Advanced Technology of Adam Mickiewicz University in Poznan, in a state-of-the-art equipped entity.
- Possible cooperation with other research groups.
- For details, please contact the project principal investigator (e-mail: [jedrzejw@amu.edu.pl](mailto:jedrzejw@amu.edu.pl)).

**V Additional information:**

**Dates:**

**Application deadline:** March, 27<sup>th</sup> 2022

**Interviews:** For selected Candidates' interviews will be carried out online using the TEAMS application.

**Results:** Results will be announced on the Adam Mickiewicz University in Poznan website.

The successful candidate will be selected by a committee chaired by the project leader according to the rules established by the National Science Center.

**Contact:** dr hab. eng. Jędrzej Walkowiak, associate professor  
Center for Advanced Technology, Adam Mickiewicz University in Poznan  
Uniwersytetu Poznanskiego 10  
61-614 Poznan, Poland  
e-mail: [jedrzejw@amu.edu.pl](mailto:jedrzejw@amu.edu.pl)

All questions should be addressed to the principal investigator using the above email.

## DOCUMENTS REQUIRED FOR APPLICATION:

- The application should be sent by e-mail with the subject **“POST-DOC – SONATA BIS – Applicant name”**
- Motivation letter with a description of the candidate’s research interests,
- Scientific CV including a list of achievements, awards, papers, conference presentations, trainings,
- Measurable effects and efficiency of the scientific work
- Complete list of publications with the information about actual IF of the papers, patents, patent applications, projects, conferences,
- Information about previous post-doc and internships,
- Copy of the certificate of Doctoral degree,
- Two Letters of recommendation from e.g., supervisors or former managers,
- Contact addresses to the candidate’s previous supervisors,
- Consent to the processing of one’s personal data: In accordance with Article 6(1)(a) of the General Data Protection Regulation of 27 April 2016 (Journal of Laws of the EU L 119/1 of 4 May 2016) I agree to the processing of personal data other than those indicated in Article 221 of the Labour Code (name(s) and surname; parents' names; date of birth; place of residence; address for correspondence; education; previous employment), included in my job offer for the purpose of current recruitment.

### Information clause for jobseekers

Pursuant to Article 13 of Regulation (EU) No. 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC - General Regulation on data protection (Official Journal of the European Union L 119/1 of 04.05.2016) I hereby inform you that.

1. The Controller of your personal data is Adam Mickiewicz University in Poznań with its registered office at 1, Henryka Wieniawskiego Street, 61-712 Poznań.
2. The controller of personal data has appointed a Data Protection Inspector to supervise the correctness of personal data processing, who can be contacted via e-mail address: [iod@amu.edu.pl](mailto:iod@amu.edu.pl).
3. The purpose of the processing of your personal data is to carry out the recruitment process for the indicated position.
4. The legal basis for the processing of your personal data is Article 6(1)(a) of the General Data Protection Regulation of 27 April 2016 and the Labour Code of 26 June 1974 (Journal of Laws of 1998, N21, item 94, as amended).
5. Your personal data will be stored for a period of 6 months from the end of the recruitment process.
6. Your personal data will not be made available to other entities, except for entities authorized by law. Access to your data will be granted to persons authorized by the Controller to process them within the scope of their professional duties.
7. You have the right to access your data and, subject to the provisions of law, the right to rectify, delete, restrict the processing, the right to transfer data, the right to object to the processing, the right to withdraw consent at any time.
8. You have the right to lodge a complaint to the supervisory authority - the President of the Office for Personal Data Protection, ul. Stawki 2, 00-193 Warszawa.
9. Provision of personal data is obligatory on the basis of legal regulations, in the remaining scope it is voluntary.
10. With regard to your personal data, decisions will not be taken automatically, in accordance with Article 22 RODO.

.....  
Signature