



CeNT-4-2021

Director of Centre of New Technologies of the University of Warsaw, with the Project Leader, announce opening of the competition for the position of PhD Student in the Chemical and Biological Systems Simulation Lab – Centre of New Technologies of the University of Warsaw.

JOB OFFER

Position in the project:	PhD student
Laboratory:	Chemical and Biological Systems Simulation Laboratory
Scientific discipline:	Chemical sciences
Keywords:	Carbenes, catalysis, synthesis, metathesis
Job type (employment contract/stipend):	Stipend
Part-time/full-time:	Part-time (10-15 hours per week)
Number of job offers:	1
Remuneration/stipend amount/month:	1466 PLN gross gross/ month
Position starts on:	01.03.2021 or as soon as possible afterwards
Maximum period of contract/stipend agreement:	6 months
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	dr hab. Bartosz Trzaskowski
Project title:	Anionic Carbenes and Borylanions: Tuning the properties of ruthenium metal complexes in olefin metathesis
Competition type:	NCN BEETHOVEN 2
Financing institution:	NCN
Project description:	The main goal of this research project is a systematic study of selected, non-standard carbenes and their potential use in homogenous chemical catalysts directed toward better understanding of the fundamental aspects of their action. The main part of this project consists of the design, modelling, synthesis and analysis of new anionic N-heterocyclic carbene derivatives and borylanions, which can be used as transition metal complexing agents to produce new catalysts. We will focus on ruthenium-based complexes as candidates for efficient metathesis reaction but also explore synthetic routes towards complexes of other transition metals. This task will be carried out in an interdisciplinary, multinational team consisting of scientists, experts in carbene synthesis, experimental ruthenium-catalyst preparation and analysis and rational design and modeling of transition metal complexes. The results of this project will allow for an accurate characterization of a series of new carbenes and complexes and allow



	to develop a general methodology, which will be used in the future to design new, better catalysts.
Key responsibilities include:	<ul style="list-style-type: none">- modelling of new chemical compounds with focus on carbenes and organometallic systems- analysis of the obtained data- active participation in lab meetings, scientific seminars and international conferences- participation in the data preparation and writing of manuscripts
Profile of candidates/requirements:	<ul style="list-style-type: none">- The competition is open the persons who meet the conditions specified in the regulations on the allocation of resources for the implementation of tasks financed by the National Centre of Science for BEETHOVEN 2 grant;- status of a PhD student (in chemistry or related discipline) of a Polish university – on the day of starting work in the research project- MSc degree in chemistry or related field- very good knowledge of computational modelling and at least one chemical modelling software- very good knowledge of mechanism of organic reactions- very good command of English- strong analytical and problem-solving skills as well as excellent communication skills- at least two scientific publications from the topics of catalysis/organic chemistry
Required documents:	<ol style="list-style-type: none">1. Cover letter2. Current curriculum vitae3. Copy of MSc certificate (or, if the MSc certificate has not been obtained yet, a certificate/document about the date of MSc defense)4. Signed information on the personal data processing
We offer:	<ul style="list-style-type: none">- an opportunity to participate in a multidisciplinary project in one of the best scientific institutions in Poland- stimulating, young and friendly work environment- access to the state-of-art equipment- opportunities for interdisciplinary and international collaborations- VERY flexible working time of 10-15 hours/week
Please submit the following documents to:	b.trzaskowski@cent.uw.edu.pl with the title PhD student application
Application deadline:	24.02.2021
Date of announcing the results:	28.02.2021
Method of notification about the results:	email