

CeNT-18-2020

JOB OFFER

Position in the project:	Student
Scientific discipline:	Chemical sciences
Laboratory;	Chemical and Biological Systems Simulation Laboratory
Job type (employment contract/stipend):	Scholarship
Number of job offers:	2
Part-time/full time:	Part-time
Remuneration/stipend amount/month:	1500 PLN
Position starts on:	15.05.2020 or later
Maximum period of contract/stipend agreement:	6 months, with the possibility of extension to 24 months
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	Bartosz Trzaskowski, PhD, DSc
Project title:	Anionic, cationic and mesoionic analogues of N-heterocyclic carbenes in homogenous catalysis
Financing institution:	NCN
Competition type:	SONATA BIS
Project description:	The main part of this project consists of the design and modelling of new anionic, cationic and mesoionic N-heterocyclic carbene derivatives, 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, hydrogenation, transfer hydrogenation and hydrosilylation catalytic reactions. For these complexes we will computationally explore all possible catalytic reactions paths and degradation paths and select the best candidates for efficient catalysts for the synthesis. The second theme of this proposal is the development of new computational methods to accurately describe newly designed complexes not only at the atomic level but also at the nano/mesoscale level. This task will be carried out in an interdisciplinary team consisting of scientists, experts in rational design and modeling of transition metal complexes, organometallic chemistry and physics.
Keywords:	Computational chemistry, catalysis
Key responsibilities include:	- performing quantum chemistry calculations - preparation of reports, presentations and scientific publications
Profile of candidates/requirements:	- undergraduate student of 4 or 5 year. The candidate needs to have the status of student on the date of starting work in the project

	<ul style="list-style-type: none">- good knowledge of English- basic knowledge from computational and organometallic/organic chemistry is a plus
Required documents:	<ul style="list-style-type: none">- short CV (up to two A4 pages)- academic transcript with all degrees- information on the processing of personal data - the form is available at the University of Warsaw webpage: http://bsp.adm.uw.edu.pl/bsp/druki-i-formularze
We offer:	We offer interesting research and a well-equipped laboratory in the new building of the Centre of New Technologies, very flexible working time and the opportunity to start working in the project in any month of 2020, scholarship / student contract in the amount of PLN 1500 / month for up to 2 years
Please submit the following documents to:	b.trzaskowski@cent.uw.edu.pl
Recruitment procedure:	Selected candidates may be invited for an interview at the Centre of New Technologies of the University of Warsaw or via Skype.
Application deadline:	15.04.2020
Date of announcing the results:	30.04.2020
Method of informing about the results:	e-mail