

**CeNT-38.1-2020**

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

JOB OFFER

Position in the project:	Undergraduate 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
Number of job offers:	2
Remuneration/stipend amount/month:	3000 PLN gross gross/ month
Position starts on:	01.10.2020 or as soon as possible afterwards
Maximum period of contract/stipend agreement:	7 months
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	dr hab. Bartosz Trzaskowski
Project title:	Anionic, cationic and mesoionic analogues of N-heterocyclic carbenes in homogenous catalysis
Competition type:	NCN SONATA BIS 6
Financing institution:	NCN
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.



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 SONATA BIS 6 grant;- status of an undergraduate student (in chemistry or related discipline) of a Polish university of at least 4th year (uniform Master studies) or 1st year (second cycle) obtained not later than 01.10.2020- good knowledge of computational modelling and/or- good knowledge of mechanism of organic reactions- good command of English- strong analytical and problem-solving skills as well as excellent communication skills
Required documents:	<ol style="list-style-type: none">1. Cover letter2. Current curriculum vitae3. Document confirming the status of a student (on the date of employment in the project)4. Signed information on the personal data processing, available at: http://bsp.adm.uw.edu.pl/bsp/druki-i-formularze/
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 undergraduate student application
Application deadline:	5.09.2020
Date of announcing the results:	10.09.2020
Method of notification about the results:	email