CeNT-20-2024

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

JOB OFFER

Position in the project:	Student
Laboratory:	*Chemical and Biological Systems Simulation Lab*
Scientific discipline:	Chemical sciences
Keywords:	computation , charge and energy transfer, low dimensional materials, nano assembly, spectroscopy
Job type (employment contract/stipend):	Stipend
Working time:	25-30 hours/week
Number of job offers:	1
Remuneration/stipend amount/month:	2000 PLN gross gross
Position starts on:	01.10.2024
Maximum period of contract/stipend agreement:	15 months
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	Dr hab. Silvio Osella
Project title:	Low-Dimensional Nano-Architectures for Light Emission and Light-to-Electricity Conversion
Competition type:	OPUS LAP
Financing institution:	NCN
Project description:	The goal of the project is to design stable and highly efficient hybrid nanomaterials for optoelectronic applications, i.e. collecting sunlight and transforming it into a different type of light or clean energy. The nanomaterials will be placed in prototype devices by a multidisciplinary and international team of chemists and experimental physicists. In this project we will use 1: multiscale computational methods to describe the chemical and physical properties of interfaces; 2: synthesis and characterization of hybrid interfaces and 3: optimization of optoelectronic functionality (Dr Teresa Gatti, JLU, Germany). The computational part of the project will focus on 1. the rational design of low dimensional carbon materials' building blocks by mean of ab initio computation to assess their opto-electronic properties. 2. Detailed study of the interfaces created by assembly different NBBs,

	using a multiscale computational approach to fully assess the opto-electronic properties of the different interfaces in order to optimize charge or energy transfer processes.
Key responsibilities include:	1. MD analysis of the low dimensional assemblies 2. study of optical, electronic and transport properties from QM/MM calculations
Profile of candidates/requirements:	The competition is open for persons who meet the conditions specified in the regulations on the allocation of resources for the implementation of tasks financed by the National Science Centre for OPUS 20 LAP grant. Enrolled as a student of first cycle studies, second cycle studies or uniform Master's studies conducted in a higher education institution on the territory of Poland, in chemistry, physics or related discipline. Willing to spend 25-30 hours a week (flexible hours) to do fun projects With good oral/written communication skills in English Although not required, any previous experience in molecular modelling would be welcome
Required documents:	1. Cover letter 2. Current curriculum vitae 3. Copy of document confirming the student status 4. Signed information on the personal data processing
We offer:	Stimulating and friendly work environment, attractive stipend, opportunity to work in an innovative international project
Please submit the following documents to:	s.osella@cent.uw.edu.pl
Application deadline:	10.09.2024
Date of announcing the results:	15.09.2024
Method of notification about the results:	E-mail, website