

## JOB OFFER

Position in the project:	PhD student
Scientific discipline:	Physical chemistry
Job type (employment contract/stipend):	stipend
Number of job offers:	1
Remuneration/stipend amount/month (*X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN*):	4000 PLN / month
Position starts on:	1.11.2018
Maximum period of contract/stipend agreement:	22 months
Institution:	Institute of Physical Chemistry of the Polish Academy of Sciences
Project leader:	Dr. Izabela Kamińska
Project title:	"Single-biomolecule optical sensors based in DNA origami"  <b><i>Project is carried out within the HOMING programme of the Foundation for Polish Science</i></b>
Project description:	The main goal of the project is the detection of single DNA of viruses. We will fabricate sensors based on self-assembled structures based on DNA origami, as well as metallic nanostructures and graphene. The precise control of the spatial arrangement of all elements allows the use of their unique properties, for example metallic nanostructures for the enhancement of the signal (fluorescence) of single molecules. This project is a contribution to very exciting fields of nanotechnology, biosensors, plasmonics or nanophotonics.
Key responsibilities include:	<ol style="list-style-type: none"> <li>1. Design and fabrication of DNA origami structures.</li> <li>2. Synthesis of metallic nanostructures and their application together with DNA origami in the construction of sensors.</li> <li>3. Fabrication of hybrid nanostructures composed on DNA origami and graphene.</li> <li>4. Measurements of single molecules on fluorescence confocal microscope, in order to characterize the optical properties of fabricated hybrid nanostructures and their potential application in the detection of single DNA of viruses.</li> </ol>
Profile of candidates/requirements:	<ol style="list-style-type: none"> <li>1. The status of a PhD student in the field of Physics, Chemistry or related fields.</li> <li>2. Enthusiasm and engagement in the scientific work.</li> <li>3. Motivation for independent research work.</li> <li>4. Basic knowledge about nanomaterials, graphene, optics, fluorescence microscopy and/or spectroscopy.</li> <li>5. Good knowledge in English.</li> <li>6. Knowledge in LabView is a plus.</li> </ol>

Required documents:	<ol style="list-style-type: none"> <li>1. CV with contact details to at least 1 independent scientist who can give an opinion/recommendation for the candidate.</li> <li>2. Motivation letter with the description of scientific interests.</li> <li>3. Master diploma.</li> <li>4. The certificate of having a status of a PhD student.</li> <li>5. Summary (max 2 pages A4) of Master thesis.</li> </ol>
We offer:	The job in the exciting interdisciplinary project, realized in a collaboration with Prof. Tinnefeld from Ludwig-Maximilian University in Munich. You will learn techniques to design and fabricate interesting structures based on DNA origami, graphene and metallic nanostructures. You will take part in fabrication of sensors, working at a level of single molecules. The job in our project gives the opportunity for short scientific visits in the group of our collaborators in Munich, as well as participation in seminars and international conferences.
Please submit the following documents to:	ikaminska@ichf.edu.pl (with a note/title "Recruitment PhD student")
Application deadline:	26.10.2018 for submitting documents (interview 29.10.2018)
For more details about the position please visit (website/webpage address):	
Euraxess job/stipend offer (in case of PhD and postdoc positions):	<a href="https://euraxess.ec.europa.eu/jobs/337780">https://euraxess.ec.europa.eu/jobs/337780</a>

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, we also require that your job advertisements include a clause requesting the candidate's consent to the processing of his or her personal data by the institution which carries out the recruitment process.