

JOB OFFER

Position in the project:	Student
Scientific discipline:	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*):	1 500 PLN
Position starts on:	01.03.2018
Maximum period of contract/stipend agreement:	28.02.2021 (3 years)
Institution:	Cracow University of Technology, Faculty of Chemical Engineering and Technology, Laboratory of Photochemistry and Optical Spectroscopy
Project leader:	Joanna Ortyl
Project title:	Molecular design, synthesis and application of photoinitiator-catalysts (PICs) for photopolymerization reactions <i>Project is carried out within the TEAM TECH programme of the Foundation for Polish Science</i>
Project description:	Due to the constant search for very effective photoinitiating systems in the manufacturing of polymer coatings and also in the fast 3D imaging technologies, the research plan has been proposed regarding the application issues expanded to include cognitive aspects relating to the development of new, high-performance photoinitiator-catalyst systems (PICs), showing the versatility of action through the possibility of photochemical initiating of all type of standard photopolymerization processes, such as cationic photopolymerization (CP), free-radical polymerization (FRP), radical induced cationic polymerization (FRCP), thiol-ene photopolymerization and hybrid photopolymerization (HP).
Key responsibilities include:	<ol style="list-style-type: none"> 1. Synthesis of photoinitiator catalysts (PICs). 2. Spectrophotometric and electrochemical research of developed photoinitiator catalysts (for example measurement of fluorescence lifetimes, determination of fluorescence quantum yield, registration of excitation, emission spectra and absorption spectra, electrochemical measurements, determination of oxidation and reduction potentials, etc.). 3. Qualitative and quantitative research on the usefulness of developed compounds for the role of photocatalysts initiating systems (photoinitiator-catalyst systems - PICs). 4. Kinetics studies of photopolymerization processes initiated with developed photocatalytic initiating systems by real time

	FT-IR, Fluorescent Probe Technology, photo-DSC.
Profile of candidates/requirements:	<ol style="list-style-type: none"> 1. Basic knowledge of photochemistry and spectroscopy, knowledge of organic chemistry and the research methods used in the characterization of organic compounds. 2. Independence and laboratory experience especially in organic synthesis (welcome to experience a typical research work and the ability to use equipment used for spectroscopic analysis and / or electrochemical analysis). 3. Knowledge of English at least good level enabling analysis of specialist literature and preparation of scientific articles. 4. Average rating of the last academic year of at least 4.5. 5. Creativity and communication skills. Ability to work in a team.
Required documents:	<ol style="list-style-type: none"> 1. Curriculum Vitae with the list of publications, conference presentations and other achievements. 2. A cover letter with a description of the scientific achievements of the candidate. 3. Certificate of student status. 4. The list of subjects with the marks from the last year of study, together with the calculated average of marks for the last year of studies - confirmed in the dean's office or by the Vice-Dean for student.
We offer:	<p>Participation in interdisciplinary research. Ability to work in a young, energetic team. Possibility to hold research internships in national and foreign scientific centers. Possibility of completing an internship in the R & D department of a chemical company. Participation in international and national conferences and trainings. Support in scientific work and great opportunities for scientific development.</p> <p>If you join our team, we will expect your full engagement in the project realization. We appreciate creativity, responsibility, and open attitude, especially when dealing with complex research problems.</p>
Please submit the following documents to:	All materials should be submitted in electronic form to the address: jortyl@chemia.pk.edu.pl with STUDENT-TEAM TECH in the subject.
Application deadline:	20.02.2018
For more details about the position please visit (website/webpage address):	More information can be obtained from Joanna Ortyl jortyl@chemia.pk.edu.pl
Euraxess job/stipend offer (in case of PhD and postdoc positions):	-

Please include in your offer:

"I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended."