

Scientific supervisor	
Name	Prof. Jakub Rysz
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Department	Department of Advanced Materials Engineering
Laboratory	Organic Electronic Laboratory
Group webpage	
Proposed research topic	
<i>Optical photolithography</i>	
<p>Photolithography is used in many branches of modern technology. Production lines of motherboards, processors or microelectromechanical devices (MEMS) are based on this process. Photolithography is a multi-stage process that starts with the application of a photosensitive layer (photoresist) on the substrate. In the next step, the photoresist is irradiated in such a way that after developing, it forms a given pattern, partially revealing the substrate. subsequently, a metallic layer can be deposited on top of the substrate or the substrate can be immersed in an etching solution.</p> <p>During the internship, you will be able to familiarize yourself with the entire process of photolithography and the use of this method to create electrodes for organic electronics systems on a micron scale and simple microfluidic devices. Those interested will also be familiarized with Atomic Force Microscopy, which will be used to image the structures produced.</p>	
Main research tool	
Spin-coating, imagesetter, optical microscope, Scanning Probe Microscope	
Additional requirements to the candidate	
Eagerness for laboratory work	
Possibility to continue student internship in the form of:	
Diploma thesis (master's or bachelor's degree)	X
PhD study	X