

Course title:	Photopolymerization
Institute/Speciality:	Faculty of chemical engineering and technology
Number of contact hours:	15h (lectures) 30h (laboratory)
Course duration:	1 semester
ECTS credits:	3
Course description:	<p>The aim of the class is to familiarize students with light-initiated polymerization processes. To introduce the types of polymerization, their advantages, disadvantages, and mechanism of action as well as examples of application in industry and the world around us.</p> <p>Lectures content: definition of polymerization, the definition of photopolymerization, division and characterization of polymerization steps, cationic polymerization, radical polymerization, thiol-ene polymerization, ring-opening polymerization, RAFT polymerization, frontal polymerization, characteristics of initiator systems, the effect of parameters on the polymerization process</p>
Literature:	<p>[1] B. Christmas, M. Idacavage, "Photopolymerization Chemistry and Technology",</p> <p>[2] Jean-Pierre Fouassier, Jacques Lalevée, "Photoinitiators: Structures, Reactivity and Applications in Polymerization", WILEY - VCH GmbH, 2021</p> <p>[3] Kenichiro Nakamura, "Photopolymers", CRC Press, 2014</p>
Assesment method:	Final test
Prerequisites:	Basic knowledge of chemistry and spectroscopy
Primary target group:	Biotechnology students
Lecturer:	dr hab. inż. Joanna Ortyl, prof. PK
Contact person:	dr hab. inż. Joanna Ortyl, prof. PK (kontakt: jortyl@pk.edu.pl)
Deadline for application:	
Remarks:	This course is selectable