

## Scientific Program

FIRST GREEN-MAP SUMMER SCHOOL on:  
**Designing bio-based polymers for circular economy: from green monomers to green polymers**

**19-21 September 2022, Nanotechnology Center, Al. Piastów 45, Szczecin, POLAND**

	19 September 2022	20 September 2022	21 September 2022
9.00-9.15	Welcome addresses: Mirosława El Fray, Project Coordinator		
	<b>Session I – Synthesis of bio-based monomers and polymers</b>	<b>Session III – Functionalization and High Performance of Bio-based Polymers</b>	<b>Session IV – Industrial Production and Applications of Bio-based Polymers Session</b>
9.15 – 10.00	From ‘ad-hoc’ synthesized to commercially available materials: an overview on biobased polymers ( <b>Mirosława El Fray</b> )	Cold atmospheric pressure plasma: a green technology for functional modification of polymers ( <b>Gulia Laghi</b> )	Fatty acid-based building blocks for circular plastics economy ( <b>Angela Smits</b> )
10.00 – 10.45	Green polymer chemistry: enzyme catalysis ( <b>Judit Puskas</b> )	<b>KEYNOTE INVITED</b> <b>Green meets circular</b> <b>Francesco Picchioni</b>	Foam injection moulding of eco-friendly products ( <b>Christian-Andre Keun</b> )
10.45 – 11.00 COFFEE BREAK			
11.00 – 11.45	<b>KEYNOTE INVITED</b> <b>Enzymatic synthesis of furan-based polymers</b> <b>Katja Loos</b>	Biodegradability and Compostability of Biobased Polymers ( <b>Wanda Sikorska</b> )	Rapid prototyping as future for industrial production ( <b>Kolos Molnar</b> )
11.45 – 12.30	Production of polyhydroxy-alkanoates, a family of bio-based and biodegradable polymers ( <b>Marek Kowalczyk</b> )	Functional additives and coatings for packaging materials ( <b>Artur Bartkowiak</b> )	Recent trends in the plastic food packaging ( <b>Marlena Roguszewska</b> )
12.30 – 14.30 LUNCH BREAK			
	<b>Session II – Materials Design, Physico-chemical, and Microstructural Analysis of Bio-based Polymers</b>	<b>TA Instruments Presentation</b> <b>Muhammad Harris</b> <i>“Application of thermal and mechanical analysis in characterizing biopolymers”</i>  <b>Exhibition of TA Instruments equipment</b>	<b>GREEN-MAP Consortium Meeting</b>
14.30 – 15.15	<b>KEYNOTE INVITED</b> <b>Environmentally friendly polymers. Capture of carbon dioxide and its application for synthesis</b> <b>Paweł Parzuchowski</b>		
15.15 – 16.00	Molecular characterization of biobased and biodegradable polymers ( <b>Grazyna Adamus</b> )		
16.00 – 16.15 COFFEE BREAK			
16.15 – 17.00	Structure-property-biodegradability relationship of polymers ( <b>Maria Letizia Focarete</b> )	<b>POSTER SESSION</b>	<b>GREEN-MAP Consortium Meeting</b>
17.00 – 17.45	Synthesis and characterization of chitosan derivatives - challenges and problems ( <b>Agnieszka Piegat</b> )		
19:00		Get Together at “Nowy Browar Szczecin”	