8th International Polysaccharide Conference EPNOE2023

Thematic sessions:

1. Advances in polysaccharide analysis, extraction and characterization

Session organizers: Antje Potthast, Anton Huber, Henk Schols, Manuel Coimbra, Julien Navarro

Subthemes:

- Advanced analytical tools for structure characterization of polysaccharides and their derivatives
- Analysis of polysaccharides in their native environment
- Characterization of polysaccharides at surfaces and interfaces
- Microbial polysaccharides: biosynthesis, extraction, characterization and applications

2. Challenges and progress in polysaccharide chemistry

Session organizers: Martin Gericke, Thomas Rosenau, Kevin Edgar, Yoshinobu Tsujii

Subthemes:

- Chemical modification and copolymerization of polysaccharides
- Novel pathways and processes for sustainable and green chemical modification of polysaccharides, including high value-added synthons and molecules from carbohydrates
- Surface modification of polysaccharides and polysaccharide-based materials

3. Progress in bulk, surface and interfacial interactions of polysaccharides through experimental and computational methods

Session organizers: Wim Thielemans, Isabelle Capron, Ali Khodayari, Hubert Hettegger, Katja Heise

Subthemes:

- Polysaccharide structure at interfaces and in solution including self-assembly
- Thermodynamics during polysaccharides processing and interactions
- Application and development of computational tools for polysaccharide research
- Polysaccharide - water interactions

4. Emerging polysaccharide based (nano)materials

Session organizers: Stefan Spirk, Anna Roig Serra, Magnus Norgren, Silvia Vignolini

Subthemes:

- Polysaccharide based smart materials and stimuli responsive materials
- Cellulose-based devices including wearables and self-powered sensors
- Energy storage materials from polysaccharides
- Structural colors from polysaccharide-based materials

5. Polysaccharide gels, porous materials, emulsions

Session organizers: Tatiana Budtova, Falk Liebner, Bernard Cathala, Henrikki Liimatainen

Subthemes:

- Polysaccharide hydrogels and oleogels
- Polysaccharide foams, cryogels and aerogels
- Dynamics and rheology of polysaccharides
- Polysaccharide emulsions

6. Polysaccharides in food and nutrition

Session organizers: Laura Nyström, Gleb Yakubov, Maija Tenkanen, Caio Otoni

Subthemes:

- Polysaccharides in food processing and digestion including dietary fibers
- Role of polysaccharides in future foods
- Biological activity of polysaccharides in food application
- Polysaccharides products in sustainable food packaging applications

7. Polysaccharides in medical and pharmaceutical applications

Session organizers: Rupert Kargl, Carmen Freire, Pietro Matricardi, Sylvie Colliec-Jouault, Wu Jiang-Yong

Subthemes:

- Polysaccharides as materials in medical devices
- Polysaccharides for drug delivery
- Polysaccharides in tissue engineering
- Bioactivity of polysaccharides

8. Composites, textiles and fiber network structures

Session organizers: Nicolas LeMoigne; Avinash Manian, Ulrich Hirn, Tadahisa Iwata, Jörg Müssig

Subthemes:

- Natural fiber reinforced (nano)composites including processing/manufacturing
- Manufacturing, processing and technical applications of non-woven and woven textiles
- Advances in paper physics and technology

9. Interactions of plant cell wall polymers

Session Organizers: Tiina Nypelö, Chunlin Xu, Johnny Beaugrand,

Subthemes:

- Polysaccharide biosynthesis and biological aspects of plant cell wall interactions
- Fundamental aspects of plant cell wall hierarchies
- Challenges in deconstruction of plant cells components

10. Polysaccharides in a sustainable and circular economy

Session Organizers: Marco Beaumont, Blaise Tardy, Li Shen, Kristin Syverud, Elisabete Frollini

Subthemes:

- Techno-environmental and performance assessments of polysaccharide based products including life cycle analyses of value chains
- Sustainable production of polysaccharide products including biodegradability, recyclability and circularity concepts