

07:00 08:30 Registration Hallway 1st floor Slomškov Trg 15

Room Frana Miklošiča - Chair: Rupert Kargl

08:30	Welcome - Vice Dean for Research - Faculty of Mechanical Engineering	Simona Strnad	
08:40	Welcome - Head of LCPP	Karin Stana Kleinschek	
08:45	Welcome - President of EPNOE	Patrick Navard	
08:55	Research at LCPP - organisational	Rupert Kargl	
09:05	Enabling technologies - the core assets of BioNanoNet network	Andreas Falk	1
09:40	Thermodynamics of adsorption at nanocellulose surfaces	Wim Thielemans	2

10:15 10:30 Poster and Coffee break room Antona Trstenjaka

Room Frana Miklošiča**Polysaccharides in technical applications - Chair: Stefan Spirk**

10:30	Potential of fibrillated cellulose in papermaking. Looking for optimal conditions of fibrillation and addition rate to maximize paper performances	Julie BOSSU	3
10:50	Investigation of dissolution process of cellulose in NaOH-urea (system) and effect of regenerated material on properties of paper	Velta Fridrihsone	4
11:10	Nanocellulose papers from elephant manure	Andreas Mautner	5
11:30	From surface modification of cellulosic materials to paper-based biosensors	Thomas Elschner	6
11:50	All-cellulose composites based on paper fines for energy storage devices	Mathias A. Hobisch	7

12:10 13:10 Lunch in room Antona Trstenjaka

Polysaccharides in technical applications - Chair: Nicolas Le Moigne

13:10	Up-scaling bioplastic formulations: from solvent casting to extrusion and injection processes	Idalina Gonçalves	8
13:30	Lignocellulosic residues pretreatment with reactive extrusion using enzymes - Influence of process conditions on subsequent enzymatic hydrolysis	Etienne Gatt	9
13:50	Reactive extrusion	Alexander Feldner	10
14:10	Electrospinning water-soluble/insoluble polymer blends	Timo Grothe	11
14:30	Microphase separation of cellulose derivatives	Gundula Teichert	12

14:50 16:00 Foto in front of the building - Poster session and Coffee break in room Antona Trstenjaka

Polysaccharides in technical applications - Chair: Martin Gericke

16:00	Gas-esterification of cellulose particles for the production of PHBV based biocomposites	Grégoire DAVID	13
16:20	Influence of low-pressure oxygen plasma on properties of hemp fibres (Cannabis sativa)	Marija Gorjanc	14
16:40	Flame retardancy of flax fabrics by radiografting of phosphorus compounds	Raymond Hajj	15
17:00	How is cellulose affected during the X-rays examination of manuscripts?	Alice Gimat	16
17:20	Incorporation of Nanoparticles into Cellulose Matrices using Femtosecond Laser Pulses	Werner Schlemmer	17

19:30 22:00 Dinner - Gostilna Maribor - Glavni trg 8

Room Borisa Podrecce**Polysaccharides in biomedical applications - Chair: Yves Verherbruggen**

10:30	ENTIRELY BIO-SOURCED NANOCOMPOSITES FOR THE ELABORATION OF BIOMATERIALS	Veronica Nessi	18
10:50	New composites for basic GTR principles: employment of nature-derived and bio-inspired materials in periodontal treatment	Selestina Gorgjeva	19
11:10	Definition of optimal "active" material for bio-printing through analyzing the thin films	Tina Maver	20
11:30	A preliminary study of material suitability for growth of pancreatic cells	Marko Milojevic	21
11:50	Alternative sigma factor F (SigF) regulates secretion and production of extracellular polysaccharides in <i>Synechocystis</i> sp. PCC 6803	Carlos Flores	22

12:10 13:10 Lunch in room Antona Trstenjaka

Polysaccharides in biomedical applications - Chair: Marco Beaumont

13:10	Dextran formamidines: A new and easily synthesizable non-viral vector in gene delivery	Konrad Hotzel	23
13:30	Approaches for the derivatization of polyols with amino acids	Ana Bratuša	24
13:50	Dextran-based hydrogels matrixes for biomedical applications - synthesis and characterization	Kamila J. Szafulera	25
14:10	Pullulan-based microneedles for transdermal delivery of pharmaceutical ingredients	Daniela F. S. Fonseca	26
14:30	Functional and Material Properties of a Novel Microcrystalline Cellulose for Drug Delivery	Lalduhsanga Pachuau	27

14:50 16:00 Foto - Poster session and Coffee break in room Antona Trstenjaka

Polysaccharides in biomedical applications - Chair: Zélia Alves

16:00	Isolation and purification of high molecular weight chitin from shrimp shells using deep eutectic solvents	Bojana Bradic	28
16:20	Thermodynamic study of the interaction of various salts with cellulose nanocrystals	Salvatore Lombardo	29
16:40	Surface treatment of chitosan fibers with polypyrrole	Elena Dresvyanina	30
17:00	Mimicking biological mechanical behavior by a bioactive lactose-modified chitosan	Franco Furlani	31
17:20	Electrospun cellulose acetate nanofibrous mats for detection of pH in the wound bed	Natalija Virant	32
17:40	Development of cellulose wound dressing materials with rutin and polyrutin	Tanja Pivec	33

19:30 22:00 Dinner - Gostilna Maribor - Glavni trg 8

Poster Monday 14th of May 14:50 - 16:00 - Antona Trstenjaka

P1	Fractionation and structural analysis of polysaccharides from <i>Chlorella vulgaris</i> G11 biomass	Leonid Sushytskyi	food
P2	Redesign of collagen sausage casings for high quality performance using food grade polysaccharides	Motolani Sobanwa	food
P3	Chitin as a renewable source for the production of smart food packaging materials	Bojana Bradic	technical application
P4	Gelatin/PAN as a polymer blend for electrospinning	Daria Wehlage	technical application
P5	Influence of xylan on ions of 1-ethyl-3-methylimidazolium acetate solution	Wafa Ezzawam	technical application
P6	MATUROLIFE - Metallisation of Textiles to make Urban living for Older people more Independent and Fashionable	Alenka Ojstršek	technical application
P7	Oil encapsulation in core-shell alginate capsules using droplets based millifluidic	Mariana Pereda	technical application
P8	Using phenolics from potato peels for the production of active starch-based films	Joana Lopes	technical application
P9	Development and characterization of novel electrospun matrices with embedded CNC for air filtration	Manja Kurečič	technical application
P10	A comparative study of sample preparation for staining and immunodetection of plant cell walls by light microscopy	Yves Verherbruggen	basic science
P11	A comprehensive approach to the analysis of anhydrosaccharides in wood pyrolysis products	Kristine Meile	basic science
P12	Fungal biomass polysaccharides: extraction of side stream from enzyme production	Ida Nikkilä	basic science
P13	Gas chromatographic-mass spectrometric determination of selected monosaccharides in wood hemicellulose samples	Mitja Kolar	basic science
P14	Lytic polysaccharide monoxygenases (LPMOs) as novel tools for the preparation of innovative nanocelluloses	Amani Chalak	basic science
P15	The improvement of wet spinning of chitosan fibers	Ekaterina Maevskaia	basic science
P16	Comparison of bacterial cellulose yield in two strains of <i>Gluconacetobacter xylinus</i> in Hestrinn-Schramm and molasses media	Ceren Sagdic Oztan	basic science
P17	Thin Films from Acetylated Lignin	Stefanie Müller	basic science
P18	Coated Cellulose Interface as Substrate for Dynamic Observation of Protein Adhesion and Coupling Processes with Liquid Atomic Force Microscopy	Krisztina Zajki-Zechmeister	basic science
P19	Determination of Surface Fractions of Cellulose Thin Films	Carina Sampl	basic science
P20	Bacterial cellulose on bioelectronics for the study and treatment of neurodegenerative disorders	Tiago Carvalho	biomedical application
P21	Bioresorption of porous three-dimensional chitosan-based matrices	Pavel Popryadukhin	biomedical application

Tuesday 15th of May 2018

Abstract #

Room Frana Miklošiča - Chair: Matej Bračič

08:30	09:05	InnoRenew CoE Renewable Materials and Healthy Environments Research and Innovation Centre of Excellence	Črtomir Tavzes	34
09:05	09:40	Monosaccharide chemistry	Martin Thonhofer	35
09:40	10:00	Poster and coffee break in room Antona Trstenjaka		

Room Frana Miklošiča

Polysaccharides in technical applications - Chair: Franco Furlani

10:00		The influence of zinc oxide nanorods on chitosan-based film properties for food packaging	Zélia Alves	36
10:20		The influence of neutralization on the properties and structure of chitosan films	Urška Jančič	37
10:40		Physical, antioxidant and antimicrobial properties of chitosan-based films incorporated with hop extract	Marijan Bajič	38
11:00		Starch films reinforced with broccoli by-products with antioxidant activity	Sónia S. Ferreira	39
11:20		Development of chitosan/graphene oxide composites for potential application as anion-exchange membranes in fuel cells	Barbara Kaker	40
11:40		Novel chitosan-based silica-coated magnetic nanocomposites as a potential adsorbent for heavy metals	Olivija Plohl	41
12:00	13:00	Lunch in room Antona Trstenjaka		

Polysaccharides in technical applications - Chair: Andreas Mautner

13:00		Anisotropic Diffusion and Phase Behaviour of Cellulose Nanocrystal Suspensions	Jonas Van Rie	42
13:20		Water vapor diffusivity estimation in a polydisperse sample of micrometric size cellulose particles	Valentin Thoury	43
13:40		Nanofibrillated cellulose stabilized Pickering emulsion as templates for thermal superinsulating materials	Clara Jimenez Saelices	44
14:00		Making bio-based materials from microalgae : solvent and plasticization routes	Nicolas Le Moigne	45
14:20		Insights in electrostatic interactions between cationic modified cellulose and microalgae	An Verfaillie	46
14:40		Cellulose metal sulfide based nanocomposite thin films	Michael Weißl	47
15:00	15:20	Poster and coffee break in room Antona Trstenjaka		

Polysaccharides in food science - Chair: Celestina Gorgieva

15:20		Nanocellulose from citrus peel residue: A sustainable biorefinery approach	Eduardo M. de Melo	48
15:40		From structure to functionality: an initial approach towards the application of the galactomannans extracted from Prosopis affinis	Pilar Vilaró	49
16:00		Identification and characterisation of Micro-fibrillated cellulose (MFC) from pea fibre food waste.	Jade Phillips	50
16:20		Break		

Room Frana Miklošiča

17:00	17:30	Prizes and awards closing ceremony		Organizers
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Room Borisa Podrecce

Polysaccharides in basic science - Chair: Thomas Elschner

10:00		Tailor-Made Polysaccharides with Defined Substitution Pattern by Enzymatic Polymerization of Arabinoxylan Oligosaccharides	Deborah Senf	51
10:20		Investigations towards the Synthesis of Bismuth-sugar conjugates	Martin Thonhofer	52
10:40		Polysaccharide Carbonates as Intermediates for Modular Synthesis Approaches	Martin Gericke	53
11:00		Efficient solvent-free preparation of amidified carboxymethyl cellulose derivatives: study of the structure-properties relationships	Asja Pettignano	54
11:20		Polysaccharide based 3D scaffolds: preparation, characterization, and application	Tamilselvan Mohan	55
11:40		Functionalization of never-dried Nanocelluloses	Marco Beaumont	56
12:00	13:00	Lunch in room Antona Trstenjaka		

Polysaccharides in basic science - Chair: Wim Thielemans

13:00		The potential of electrochemical methods in analysis of natural polysaccharides	Slađana Strmečki Kos	57
13:20		Responsive chitosan/surfactant complexes for different applications	Leonardo Chiappisi	58
13:40		The impact of the hemicellulose acetylation on interactions with model cellulose surfaces: a QCM-D study	Zahraa Jaafar	59
14:00		Formation of Ethyl Cellulose Particles: Influence of Different Surface Active Polysaccharide Derivates and Particle Formation Methods	Doris Tkaučič	60
14:20		Investigation of the decomposition process of cellulose during oxidation with ammonium persulfate	Inese Filipova	61
14:40		RELATIONSHIP BETWEEN DEGREE OF SUBSTITUTION AND VISCOSITY OF CATIONIC STARCH	Denys Zalyvchyi	62
15:00	15:20	Poster and coffee break in room Antona Trstenjaka		

Polysaccharides in basic science - Chair: Silvo Hribernik

15:20		Coupling of alginate isolation with alternative method for polyphenol extraction from brown seaweed Laminaria Hyperborea	Miša Mojca Cajnko	63
15:40		Does mannan interact with arabinogalactan proteins and impact wheat endosperm development?	Yves Verhertbruggen	64
16:00		Kraft lignin as a modifier and binder: Esterification of lignin	Matej Bračič	65
16:20		Break		

Room Frana Miklošiča

17:00	17:30	Prizes and awards closing ceremony		Organizers
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