

SCIENTIFIC PROGRAM

Dear colleagues and friends,

The 5th EPNOE Junior Scientist Meeting 2022 will be held from 8th to 9th of September 2022 at the University of Aveiro, Aveiro, Portugal, and chaired by scientists from Portugal, Spain, and Poland. This is a biannually organized conference designed for young researchers (i.e., PhD students, Post-Doctoral Researchers, Junior Assistant Professors at an early stage of their scientific career) to meet and build their personal network in the polysaccharide field, while also presenting their recent work and brainstorming the direction and future of polysaccharides research. Senior scientists and industrial researchers are invited to share their experience and knowledge to the new generation of scientists.

Let's get together to build a strong and fruitful EPNOE community!

We wish you a fruitful meeting and a pleasant stay in Aveiro!

On behalf of the organizing committee,

Carla Vilela and Idalina Gonçalves (University of Aveiro, Portugal) Anna Laromaine (Institut Ciència de Materials de Barcelona (ICMAB-CSIC, Spain)

Kamila Kapuśniak and Arkadiusz Żarski (Jan Dlugosz University, Poland)



SPONSORS

This meeting is generously sponsored by universidade de aveiro THE THE THE DANIGATOR TECESSA COMPRNY THE DANIGATOR TECESSA DUVAS LECTOLOGIAS, S.A. DIVAS LECTOLOGIAS, S.A.

SPONSORED AWARDS

EPNOE JUNIOR BEST COMMUNICATION AWARD BY PUBLIC VOTE

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EPNOE JUNIOR BEST ORAL COMMUNICATION AWARD

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EPNOE JUNIOR BEST POSTER COMMUNICATION AWARD

Sponsored by Gels Journal from MDPI



EPNOE YOUNG SCIENTIST AWARD

Sponsored by EPNOE – European Polysaccharide Network of Excellence



VENUE

Aveiro is one of the most beautiful regions in the country with beaches, mountains, rivers, and a lagoon (Ria de Aveiro). Aveiro is the third Portuguese district with the largest number of municipalities, and it brings together industry, business, tourism, sports, architectural, natural heritage, and a university that is a great example of contemporary Portuguese Architecture with most of the buildings designed by some of the most important Portuguese contemporary architects. In terms of gastronomy, Aveiro has some delights from the sea to offer, namely shellfish, fresh fish, and eels, and the delicious sweet *ovos moles*.

www.visitportugal.com/en/content/visit-aveiro

THE CONFERENCE WILL BE HOSTED BY THE UNIVERSITY OF AVEIRO (PORTUGAL)

Website: https://www.ua.pt/

Institutional video: www.youtube.com/watch?v=wHsG5450vew



CENTRAL AND RECTORATE BUILDING

https://goo.gl/maps/jTXdKaxucZP332mH9



ROOM 2 | SALA DE ATOS ACADÉMICOS



THEMATIC SESSIONS

	Session title	Organizers
S1	Structure-function of polysaccharides	Caterina Czibula (TU Graz, Austria)
		Mónica Simões (Almascience, Portugal)
S2	Functionalization and modification of	Martin Gericke (Jena University, Germany)
	polysaccharides	Khouloud Tilouche (IMT Mines Alès,
		France)
S3	Biorefinery and biomass-derived	Rupert Kargl (TU Graz, Austria)
	polysaccharides	Andreea Scutaru (ICMPP, Romania)
S4	Polysaccharide-based materials	Michał Pancerz (University of Agriculture in
		Krakow, Poland)
		Marion Négrier (CEMEF, France)
		Diogo Costa (German Aerospace Center,
		Germany)
		Carmen Popescu (ICMPP, Romania)
S5	Polysaccharides in agri-food science	Sílvia Petronilho (UTAD, Portugal)
		Joana Lopes (University of Aveiro, Portugal)
		Malwina Wojcik (Jan Dlugosz University,
		Poland)
S6	Polysaccharides for biomedical applications	Roberta Censi (Camerino University, Italy)
		Coraline Chartier (CEMEF Mines ParisTech,
		France)
		Lénaïc Soullard (Université Grenoble Alpés,
		France)
S7	Out of the box – new research angles and	Katja Heise (Aalto University, Finland)
	applications of polysaccharides	Hubert Hettegger (BOKU, Austria)
S8	Polysaccharide-based carriers for drug	Roberto Aguado (University of Girona,
	delivery systems	Spain)
		Tânia Almeida (University of Aveiro,
		Portugal)
S9	Practical steps towards industrially relevant	Blaise Tardy (Khalifa University, UAE/ Aalto
	research on polysaccharides	University, Finland)
		Marco Beaumont (BOKU, Austria)
		Caio G. Otoni (Federal University of São
		Carlos, Brazil)

SCIENTIFIC PROGRAM

DAY 1 | THURSDAY | SEPTEMBER 8th, 2022

8:30-9:00	REGISTRAT	ION & POSTER SE	ET-UP DAY 1
	ROOM	1 OPENING CEF	REMONY
0.00 0.20	Chairs: Carla Vilela, Idalina Gonçalves	, Anna Laromaine	e, Kamila Kapuśniak & Arkadiusz Żarski
9.00-9.20	Artur Silva (Vice-rector of the University of Aveiro)	João Coutinho	(Director of CICECO – Aveiro Institute of Materials)
	Pedro	Fardim (EPNOE P	resident)
	ROOM 1 Plenary lecture 1 Peter Pa	n, Giotto and Sha	rks as Inspiration for Young Researchers
9:20-10:00	Pedro Fo	rdim , KU Leuven	, Belgium
	Chair: Idalina Gonçalves		
	PARALLEL	SESSIONS	
	ROOM 1 AUDITÓRIO RENATO ARAÚJO		ROOM 2 SALA DE ATOS ACADÉMICOS
<u>SE</u>	SSION 1: Structure-function of polysaccharides	SESSION 2: Functionalization and modification of polysaccharides	
	Chairs: Caterina Czibula & Mónica Simões		Chairs: Martin Gericke & Khouloud Tilouche
	Keynote 1 The bond between paper fibers: a journey		Keynote 2 Highly Selective Mitsunobu Reaction of
10:00-10:30	through adhesion	10:00-10:30	Cellulose with Hydroxycinnamic Acids
	Robert Schennach, TU Graz, Austria		Thomas Elschener, TU Dresden, Germany
10:30-11:10	COFFEE-BRE	AK & POSTER SE	SSION DAY 1
	S1-O1 Structure-function relationships of pectin in pea		S2-O1 Preparation of cellulose carbamate-based chiral
11.10-11.30	starch composite films	11.10-11.30	stationary phases for the resolution of enantiomers by
11.10 11.50	Wengiang Rai Agrhus University Denmark	11.10 11.50	HPLC
	Trenglung bui, Humas Oniversity, Denmark		Hubert Hettegger, BOKU, Austria
	S1-O2 Predicting and tailoring of fibre-fibre joint strength		\$2-02 Synthesis characterization and subsequent
11.30-11.50	and bulk mechanical properties using model cellulose	11:30-11:50	modification of pectin hydrazides
11.50 11.50	materials		Katia Geitel University leng Germany
	Nadia Asta, KTH, Sweden		Raija Ocher, oniversity send, Germany

11:50-12:10	S1-O3 Polysaccharide thin films as a platform technology to assess xylanase activity <i>Jana Schaubeder, TU Graz, Austria</i>	11:50-12:10	 S2-O3 Towards a better understanding of microbial mechanisms involved during field retting of hemp "Cannabis Sativa" Eliane Bou Orm, IMT Mines Alès, France
12:10-12:15	 S1-PI1 3D Imaging and structural info determination of the chiral nematic phase of cellulose nanocrystals by non- linear optical microscopy techniques Thibaut Legat, KU Leuven, Belgium 	12:10-12:15	S2-PI1 Topochemical design of cellulose-based carriers for immobilization of endo-xylanase <i>Pieter De Wever, KU Leuven, Belgium</i>
12:15-12:20	S1-PI2 Hypocholesterolemicpropertiesofgalactomannans, arabinogalactans andmelanoidins andtheir dependence on coffee roasting and grinding levelFernanda Machado, University of Aveiro, Portugal	12:15-12:20	 S2-PI2 Study on the degradation of alginate and chitosan by high pressure processing (HPP) and pulsed electric fields treatment (PEF) Pedro Rivero Ramos, Northumbria University, United Kingdom
		12:20-12:25	S2-PI3 Cellulose nanocrystals modification by grafting from ring opening polymerization of a cyclic carbonate <i>Michaël Lalanne-Tisné, KU Leuven, Belgium</i>
12:30-14:00		LUNCH BREAK	
	ROOM 1 AUDITÓRIO RENATO ARAÚJO		ROOM 2 SALA DE ATOS ACADÉMICOS
SESSION	I 3: Biorefinery and biomass-derived polysaccharides		SESSION 4: Polysaccharide-based materials
	Chairs: Rupert Kargl & Andreea Scutaru	Chairs: Micha	ł Pancerz, Marion Négrier, Diogo Costa & Carmen Popescu
14:00-14:30	Keynote 3 Marine biomass-based polysaccharide bio-refinery optimizationBlaž Likozar, National Institute of Chemistry, Slovenia	14:00-14:30	Keynote 4 Bio-aerogels: new materials born in the 21stcenturyTatiana Budtova, CEMEF, France
14:30-14:50	S3-O1 Preparation of bacterial cellulose using enzymatic hydrolysate of olive pomace as carbon source <i>Ceren Sagdic-Oztan, ITU, Turkey</i>	14:30-14:50	S4-O1 Facilely prepared starch-based hydrogel for flexible electronics: strain-sensitive batteries and self-powered sensors <i>Fengwei Xie, Newcastle University, United Kingdom</i>

	S3-O2 Biobased polysaccharide extracted from food		S4-O2 Stimuli-responsive actuators based on cellulose
14:50-15:10	industry waste use as paper additive	14:50-15:10	nanofibers
	Laura Andze, LSIWC, Latvia		Lisa Lopes da Costa, INRAE, France
	S3-O3 Innovative processes for Xylans extraction and		S4-O3 Dissolution and spinning of cellulose/protein
15:10-15:30	valorization using deep eutectic solvents	15:10-15:30	hybrid fibers using loncell process
	Armando Silvestre, University of Aveiro, Portugal		Wenwen Fang, Aalto University, Finland
	S3-Pl1 On the use of high hydrostatic pressure as a		S4-PI1 All cellulosic hierarchical 3D composites for
15:30-15:35	promising pre-treatment for alginate extraction process	15:30-15:35	asymmetrical electrochemical capacitors anode
	Hylenne Bojorges, IATA-CSIC, Spain		Julien Lemieux, KU Leuven, Belgium
	S3-PI2 Bio-based routes to y-valerolactone using		54 DI2 Surface Coating of Collulose Nanosnystals with
15.25 15.40	multifunctional nano and microcrystalline zeotype	15.25 15.40	Plant Derived Additives
13.33-13.40	catalysts containing hafnium	15.55-15.40	Francosco D'Aciorno INPAE Franco
	Margarida Antunes, University of Aveiro, Portugal		Funcesco D'Acierno, INRAE, Frunce
15:40-16:20	COFFEE-BREAK & PO	STER SESSION D	AY 1 & PICTURE TIME
	ROOM 1 AUDITÓRIO RENATO ARAÚJO		ROOM 2 SALA DE ATOS ACADÉMICOS
<u>S</u>	ROOM 1 AUDITÓRIO RENATO ARAÚJO <u>ESSION 5</u> : Polysaccharides in agri-food science		ROOM 2 SALA DE ATOS ACADÉMICOS SESSION 4: Polysaccharide-based materials
<u>S</u> Chair.	ROOM 1 AUDITÓRIO RENATO ARAÚJO <u>ESSION 5</u> : Polysaccharides in agri-food science s: Sílvia Petronilho, Joana Lopes & Malwina Wojcik	Chairs: Micha	ROOM 2 SALA DE ATOS ACADÉMICOS SESSION 4: Polysaccharide-based materials & Pancerz, Marion Négrier, Diogo Costa & Carmen Popescu
<u>S</u> Chair.	ROOM 1 AUDITÓRIO RENATO ARAÚJO <u>ESSION 5</u> : Polysaccharides in agri-food science <i>s: Sílvia Petronilho, Joana Lopes & Malwina Wojcik</i> Keynote 5 Eibre and prebiotic substances from starch in	Chairs: Micha	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materialsA Pancerz, Marion Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for food
<u>S</u> Chair.	ROOM 1 AUDITÓRIO RENATO ARAÚJO ESSION 5: Polysaccharides in agri-food science s: Sílvia Petronilho, Joana Lopes & Malwina Wojcik Keynote 5 Fibre and prebiotic substances from starch in human nutrition	Chairs: Micha	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materialsIf Pancerz, Marion Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for foodpackaging applications from minimally-processed red
<u>S</u> Chair. 16:20-16:50	ROOM 1 AUDITÓRIO RENATO ARAÚJO ESSION 5: Polysaccharides in agri-food science s: Sílvia Petronilho, Joana Lopes & Malwina Wojcik Keynote 5 Fibre and prebiotic substances from starch in human nutrition January Kanusajak, Jan Dlugosz University, Poland	<i>Chairs: Micha</i> 16:20-16:40	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materialsAron Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for foodpackaging applications from minimally-processed redseaweeds
<u>S</u> Chair. 16:20-16:50	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutrition Janusz Kapusniak, Jan Dlugosz University, Poland	<i>Chairs: Micha</i> 16:20-16:40	ROOM 2 SALA DE ATOS ACADÉMICOS SESSION 4: Polysaccharide-based materials Arion Négrier, Diogo Costa & Carmen Popescu S4-O4 Production of bio-based materials for food packaging applications from minimally-processed red seaweeds Vera Cebrián Lloret, IATA-CSIC, Spain
<u>S</u> Chair: 16:20-16:50	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutrition Janusz Kapusniak, Jan Dlugosz University, PolandS5-O1 Structural integrity of the main biopolymers	<i>Chairs: Micha</i> 16:20-16:40	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materialsArion Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for foodpackaging applications from minimally-processed redseaweedsVera Cebrián Lloret, IATA-CSIC, SpainS4-O5 Development of cellulose films by means of the
<u>S</u> <i>Chair</i> 16:20-16:50 16:50-17:10	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutrition Janusz Kapusniak, Jan Dlugosz University, PolandS5-O1 Structural integrity of the main biopolymers present in stale white bread	Chairs: Micha 16:20-16:40 16:40-17:00	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materialsAron Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for foodpackaging applications from minimally-processed redseaweedsVera Cebrián Lloret, IATA-CSIC, SpainS4-O5 Development of cellulose films by means of theloncell® technology, as an alternative to synthetic films
<u>S</u> <i>Chair</i> 16:20-16:50 16:50-17:10	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutritionJanusz Kapusniak, Jan Dlugosz University, PolandS5-O1 Structural integrity of the main biopolymers present in stale white bread Wanxiang Guo, Aarhus University, Denmark	<i>Chairs: Micha</i> 16:20-16:40 16:40-17:00	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materials# Pancerz, Marion Négrier, Diogo Costa & Carmen Popescu\$4-04 Production of bio-based materials for foodpackaging applications from minimally-processed redseaweedsVera Cebrián Lloret, IATA-CSIC, Spain\$4-05 Development of cellulose films by means of theloncell® technology, as an alternative to synthetic filmsEva González Carmona, Aalto University, Finland
<u>S</u> <i>Chair</i> 16:20-16:50 16:50-17:10	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutrition Janusz Kapusniak, Jan Dlugosz University, PolandS5-O1 Structural integrity of the main biopolymers present in stale white bread Wanxiang Guo, Aarhus University, DenmarkS5-O2 Developing cellulose-based multi-layered	Chairs: Micha 16:20-16:40 16:40-17:00	ROOM 2 SALA DE ATOS ACADÉMICOS SESSION 4: Polysaccharide-based materials Arrien Négrier, Diogo Costa & Carmen Popescu S4-04 Production of bio-based materials for food packaging applications from minimally-processed red seaweeds Vera Cebrián Lloret, IATA-CSIC, Spain S4-05 Development of cellulose films by means of the Ioncell® technology, as an alternative to synthetic films Eva González Carmona, Aalto University, Finland S4-06 Development of active coffee fruit cascara-derived
<u>S</u> Chair. 16:20-16:50 16:50-17:10	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutritionJanusz Kapusniak, Jan Dlugosz University, PolandS5-O1 Structural integrity of the main biopolymers present in stale white breadWanxiang Guo, Aarhus University, DenmarkS5-O2 Developing cellulose-based multi-layered packaging with mass transfer properties tailored to food	<i>Chairs: Micha</i> 16:20-16:40 16:40-17:00	ROOM 2 SALA DE ATOS ACADÉMICOSSESSION 4: Polysaccharide-based materials# Pancerz, Marion Négrier, Diogo Costa & Carmen PopescuS4-O4 Production of bio-based materials for foodpackaging applications from minimally-processed redseaweedsVera Cebrián Lloret, IATA-CSIC, SpainS4-O5 Development of cellulose films by means of theloncell® technology, as an alternative to synthetic filmsEva González Carmona, Aalto University, FinlandS4-O6 Development of active coffee fruit cascara-derivedbionlastics
<u>S</u> <i>Chair</i> 16:20-16:50 16:50-17:10 17:10-17:30	ROOM 1 AUDITÓRIO RENATO ARAÚJOESSION 5: Polysaccharides in agri-food sciences: Sílvia Petronilho, Joana Lopes & Malwina WojcikKeynote 5 Fibre and prebiotic substances from starch in human nutrition Janusz Kapusniak, Jan Dlugosz University, PolandS5-01 Structural integrity of the main biopolymers present in stale white bread Wanxiang Guo, Aarhus University, DenmarkS5-02 Developing cellulose-based multi-layered packaging with mass transfer properties tailored to food requirements	Chairs: Micha 16:20-16:40 16:40-17:00 17:00-17:20	ROOM 2 SALA DE ATOS ACADÉMICOS SESSION 4: Polysaccharide-based materials Arrien Négrier, Diogo Costa & Carmen Popescu S4-04 Production of bio-based materials for food packaging applications from minimally-processed red seaweeds Vera Cebrián Lloret, IATA-CSIC, Spain S4-05 Development of cellulose films by means of the Ioncell® technology, as an alternative to synthetic films Eva González Carmona, Aalto University, Finland S4-06 Development of active coffee fruit cascara-derived bioplastics Goncalo Oliveira

17.30-17:50	 S5-O3 Flexible, water tolerant, UV-protective, and antioxidant starch-based films derived from potato chips industry byproducts Ana Marta Peixoto, University of Aveiro, Portugal 	17:20-17:40	S4-07 3D printing and alignment of NFC-Alginate nanocomposites with highly tunable properties <i>Florian Lackner, TU Graz, Austria</i>
17:50-17:55	S5-Pl1 The antidiabetic effect of grape pomace polysaccharide-polyphenol conjugates: from wastes towards functional food additives <i>Ana Fernandes, FCUP, Portugal</i>	17:40-17:45	S4-PI3 Multilayers of α-glucans with engineered surface pattern and functionalities <i>Aurore Delvart, INRAE, France</i>
18:00-19:00	BOOM 2 Me	eting of the FPN(QE Junior Team
10100 10100			
	DIN	NER & NETWORI	KING
	Hotel Mélia Ria, <u>http</u>	s://goo.gl/maps/	/Rnufwivps4RTU8EeA
20:00-23:00			
	Announcement o	f the EPNOE Juni	or Scientist Award
	Chair: Laura Nyström (EPNO	E Vice-President	for Membership and Awards)

POSTER COMMUNICATIONS – DAY 1

	Title	Presenter
S1-P1	Antioxidant activity of free and adsorbed coffee low	Maria Inês Bonifácio
	molecular weight compounds in polysaccharides and	University of Aveiro, Portugal
	melanoidins	
S1-P2	Investigation of the topographical distribution of	Paul Bogner
	carboxyl groups in cellulose after heterogenous	University of Innsbruck,
	carboxymethylation	Austria
S1-P3	Red and black currant pectin – properties and	Michal Pancerz
	possible use in food industry	University of Agriculture in
		Krakow, Poland
S1-P4	Tracking of liquid movement in bulky viscose fibre	Thomas Harter
	networks using infrared thermography	TU Graz, Austria
S1-P5	New tools for designing food ingredient structures	Oksana Mykhalevych
		University of Copenhagen,
		Denmark
S1-P6	Salt pan waters – an exquisite source of sulfated	Sónia Ferreira
	polysaccharides	University of Aveiro, Portugal
S1-P7	Structure-Activity Relationship Studies of Common	Sankar Rathinam
	Chitosan Derivatives; Synthesis, Characterization,	University of Iceland, Iceland
	Evaluation of Antimicrobial Activity	
S1-P8	Phase separation and stability of cotton and bacterial	Vladimir Grachev
	cellulose nanocrystals in the presence of various salts	KU Leuven, Belgium
S1-P9	Surface Free Energy of Cellulose Nanofibers obtained	Tomohito Yagita
	from Inverse Gas Chromatography and its Effect on	The University of Tokyo,
C4 D40		Japan L. L. D. L.
S1-P10	Ionic liquids and Polysaccharides – a study on	Lukas Pachernegg
C4 D44		TU Graz, Austria
51-911	stabilized emulsions	Katja Heise
C2 D1	Stabilized emulsions	Auto University, Finiana
32-91	type chiral stationary phases by high performance	
	liquid chromatography	boko, Austria
\$2-D2	Click immobilization of cellulose carbamate-based	Cuong Viet Bui
52-12	chiral selectors onto silica gel for enantiomer	BOKIL Austria
	senaration by HPI C	
S2-P3	Transesterification of cellulose with (un)activated	Aleksandar Todorov
	esters in superbase ionic liquids	University of Helsinki. Finland
S2-P4	Synthesis of C-glycosidic entities for the modification	Tobias Dorn
	of polysaccharide matrixes	TU Graz, Austria
S2-P5	Impact of RfbC and FucS on the composition of the	João Pissarra
	released polysaccharides of the cyanobacterium	Universidade do Porto,
	Synechocystis sp. PCC 6803	Portugal

S2-P6	Chitosan-hydroxycinnamic acid conjugates:	Vivien Nagy
	Optimization of the synthesis and investigation of the	University of Iceland, Iceland
	structure activity relationship	
S2-P7	Preparation and characterization of cationic	Filipe Matos
	regenerated cellulose fibers with improved dyeing	University of Aveiro, Portugal
	properties	
S2-P8	A new organic phosphoroselenoates in	Sandra Zarske
	functionalisation of polyols	Jan Dlugosz University,
		Poland
S2-P9	Soluble dietary fiber from modified potato starch and	Arkadiusz Zarski
	its influence on the indigenous microflora of the	Jan Dlugosz University,
	human gastrointestinal tract	Poland
S2-P10	Synthesis of methacrylated carboxymethylcellulose	Lénäic Soullard
	for the design of hydrogels dedicated to biomedical	CEA, France
	applications	
S2-P11	Photopolymerizable coatings as a strategy for	Fábio Silva
	improving the hydrophobicity of paper materials for	University of Aveiro, Portugal
	packaging applications	
S2-P12	Efficient new extraction route for highly charged	Marcel Kröger
	phosphorylated CNC	Aalto University, Finland
S2-P13	Water Soluble Chitotriazolan Derivatives and	Sankar Rathinam
	Common Chitosan Derivatives Substituted with 1,2,3-	University of Iceland, Iceland
	Triazole for Antibacterial Activity	
S2-P14	SolarSafe	Daniel Langerreiter
		Aalto University, Finland
S2-P15	Solubilization of modified xylan in water	Chonnipa Palasingh
		Chalmers University of
		Technology, Sweden
S3-P1	Testing the efficiency of novel chelating agents for	Takaaki Goto
	peroxide bleaching of pulps	BOKU, Austria
S3-P2	Biomass-derived spherical cellulose nanocrystals	Lalduhsanga Pachuau
		Assam University, India
S3-P3	Lupin crop residues as a new polysaccharide source	Alina E. M. Schmidt
		KTH, Sweden
S3-P4	Preparation of water redispersible nanocellulose via	Liqiu Hu
	addition of water-soluble polysaccharides interfering	Abo Akademi University,
	fibre-to-fibre interaction	Finland
S3-P5	Structural Characterization of the extracellular	Lara Dütsch
	polysaccharide (EPS) of the invasive diatom	Technische Universität
	Didymosphenia geminata	Bergakademie Frieberg,
		Germany

DAY 2 | FRIDAY | SEPTEMBER 9th, 2022

8:30-9:00	REGISTRAT	ION & POSTER SE	ON & POSTER SET-UP DAY 2	
	ROOM 1 Plenary lecture 2 A r	esearch journey o	on polysaccharide-based materials	
9:00-9:40	Carmen Freire	e, University of A	veiro, Portugal	
	Chair: Anna Laromaine			
	PARALLEL	SESSIONS		
	ROOM 1 AUDITÓRIO RENATO ARAÚJO		ROOM 2 SALA DE ATOS ACADÉMICOS	
SESSI	ON 6: Polysaccharides for biomedical applications	SESSION 7: 0	Out of the box – new research angles and applications of	
Chairs	: Roberta Censi, Coraline Chartier & Lénaïc Soullard		polysaccharides	
chuirs	. Noberta censi, coranne chartier a Lenale Soundra		Chairs: Katja Heise & Hubert Hettegger	
	Keynote 6 3D-printing of aerogels: Development of a		Keynote 7 Seeking & exploiting the unique opportunities	
9.40-10.10	technological combination for biomedical applications	9.40-10.10	of polysaccharides to form sustainable materials	
5.40-10.10	Carlos Garcia González, University of Santiago de	5.40-10.10	Blaise Tardy, Khalifa University, UAE; Aalto University,	
	Compostela, Spain		Finland	
	S6-O1 Mesenchymal stromal cells 3D cultures in collagen		S7-01 Wood warning by 3D printing	
10:10-10:30	hydrogels reinforced with bacterial cellulose fibers	10:10-10:30	Doron Kam The Hebrew University of Jerusalem Israel	
	Nanthilde Malandain, ICMAB-CSIC, Spain		Doron Rum , the hebrew oniversity of setusatem, israel	
10:30-11:10	COFFEE-BRE	AK & POSTER SE	SSION DAY 2	
	S6-O2 Enzymatic degradation of starch foams for bone		S7-O2 Solution-State NMR spectroscopy in cellulose	
11:10-11:30	regeneration	11:10-11:30	chemistry	
	Anais Lescher, INRAE, France		Lukas Fliri, Aalto University, Finland	
	S6-O3 Combining Low Transition Temperature Mixtures		S7-O3 Waste biomass coffee-quinone induced	
11:30-11:50	with hyaluronic acid & NSAID for osteoarthritis treatment	11:30-11:50	supercapacitors with nanocellulose membranes	
	Ana Roda, FCT NOVA, Portugal		Julian Selinger, TU Graz, Austria	

11:50-11:55 11:55-12:00	 S6-PI1 High-performance cellulose nanocomposite substrates for printed electronics with end-of-life considerations Aayush Kumar Jaiswal, VTT, Finland S6-PI2 Gelatin-nanofibrillated cellulose based bioinks for 3D bioprinting applications 	11:50-11:55 11:55-12:00	 S7-PI1 Cellulose nanocrystals as collectors in froth flotation technology: new green materials for mineral processing Feliciana Ludovici, University of Oulu, Finland S7-PI2 3,3',5,5'-Tetramethylbenzidine and oxidized nanocellulose: Visually responsive Pickering emulsions
12:00 14:00	Nicole Lameirinhas, University of Aveiro, Portugal		Roberto Aguado, University of Girona, Spain
12.00-14.00	ROOM 1 AUDITÓRIO RENATO ARAÚJO		ROOM 2 SALA DE ATOS ACADÉMICOS
SESSION 8:	Polysaccharide-based carriers for drug delivery systems Chairs: Roberto Aguado & Tânia Almeida	<u>SESSION 9</u> : Chair	Practical steps towards industrially relevant research on polysaccharides rs: Blaise Tardy, Caio G. Otoni & Marco Beaumont
14:00-14:30	Keynote 8 Polysaccharide-based nanocarriers as vaccineadjuvants - chitosan and glucan contribution for improvedhepatitis B vaccine efficacySandra Jesus, University of Coimbra, Portugal	14:00-14:30	Keynote 9 Tangled up in renewables - how wood-based cellulose fibers can help with environmental issues <i>Martina Opietnik, Lenzing AG, Austria</i>
14:30-14:50	S8-O1 Dissolvable carboxymethylcellulose microneedles for administration of diclofenac envisaging rapid pain relief <i>Ana Cristina Silva</i> , University of Aveiro, Portugal	14:30-14:50	S9-O1 Investigations for the use and recyclability of the ionic liquid [MTBDH][AcO] as a solvent in Lyocell similar spinning processes <i>Michael Sturm, TITK, Germany</i>
14:50-15:10	S8-O2 Kinetics of ascorbic acid 2-phosphate and dexamethasone phosphate release from chitosan porous materials in view of wound dressing applications <i>Coraline Chartier, CEMEF, MINES ParisTech, France</i>	14:50-15:10	 S9-O2 The role of packing and mechanical properties on the jamming of non-colloidal plant cell-wall suspensions Panagiota Mouraka, University of Nottingham, United Kingdom

	S8-O3 Locust bean gum, a polysaccharide source for		S9-Pl1 Synthesis of cellulose aerogel beads from
15:10-15:30	pulmonary delivery of insulin	15:10-15:15	agricultural residues
	Miguel Galrinho, University of Aveiro, Portugal		Diogo Costa, German Aerospace Center, Germany
			S9-PI2 Mechanocatalytic partial depolymerization of
		15:15-15:20	lignocellulosic feedstock towards oligomeric glycans
			Marius Wolf, IWKS, Germany
15:30-16:10	COFFEE-BRE	AK & POSTER SE	SSION DAY 2
16:10-16:30	ROOM 1 LECTUR	E EPNOE YOUNG	SCIENTIST AWARD
	Chair: Laura Nyström (EPNOE Vice-President for Membership and Awards)		
16.30-17.00	ROOM 1 AV	VARDS & CLOSIN	IG CEREMONY
10.30-17.00	Chairs: Carla Vilela, Idalina Gonçalves, Anna Laromaine, Kamila Kapuśniak & Arkadiusz Żarski		e, Kamila Kapuśniak & Arkadiusz Żarski
	Pedro Fardim (EPNOE President) Carmen Freire (EPNOE Vice-President for Conferences and Workshops)		

POSTER COMMUNICATIONS – DAY 2

	Title	Presenter
S4-P1	Plasticization of all cellulose composites with a	Bruno Valente
	biobased additive for improved performance	University of Aveiro, Portugal
S4-P2	Optically transparent Eucalyptus spp. wood as a	Vasco Valente
	substrate for the development of innovative	University of Aveiro, Portugal
	functional materials	
S4-P3	Synthesis of new bio-based flame retardants for	Khouloud Tilouche
	biocomposite applications	IMT Mines Ales, France
S4-P4	From hemp stalk waste to porous wood-mimic	Sergejs Beluns
	foams	Riga Technical University,
		Latvia
S4-P5	Development of starch/locust bean byproduct-	Joana Lopes
	based blisters	University of Aveiro, Portugal
S4-P6	Effect of chitin nanofiber coating on biodegradable	Yuto Kaku
	polymer microparticles	The University of Tokyo,
		Japan
S4-P7	Towards sustainable chitosan-based fluorine-free	Irene Tagliaro
	superhydrophobic coatings	University Milano-Bicocca,
		Italy
S4-P8	Development of carboxymethyl cellulose-based bio-	Sujie Yu
	aerogels	MINES ParisTech, CEMEF,
		France
S4-P9	Textile waste upcycling into cellulose aerogel beads	Marion Negrier
		Center For Material Forming,
		France
S4-P10	Anti-inflammatory starch-based films derived from	Paloma Lopes
	potato and tomato byproducts	University of Aveiro, Portugal
S4-P11	Spin dyeing man-made cellulose fibres with Vat dyes	Nicole Nygren
		Aalto University, Finland
S4-P12	Hydrophobic and flexible starch-based films derived	André Oliveira
	from potato chips industry byproducts	University of Aveiro, Portugal
S4-P13	Development of antioxidant starch/PBA1/onion	Mariana Vallejo
	peel-based thermoplastic composites	University of Aveiro, Portugal
S4-P14	Adding value to starch-rich rice byproducts through	Paulo Brites
	the development of antioxidant/UV-protective	University of Aveiro, Portugal
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55-P1	Development of starch-based films containing	Anna Karamysneva
	iysozyme nanotibriis for active food packaging	University of Aveiro, Portugal
S5-P2	Assessment of the acceptance and preferences of	Malwina Wojcik
	vegetable and fruit mousses with a potato dextrin	Jan Diugosz University,
	fiber in children with normal and abnormal body	Poland
	weight	

S5-P3	Microwave-assisted preparation of resistant	Malwina Wojcik
	dextrins from potato starch	Jan Dlugosz University,
		Poland
S5-P4	The properties of soluble dextrin fibre from potato	Kamila Kapusniak
	starch prepared in semi-industrial scale	Jan Dlugosz University,
		Poland
S6-P1	Pectin hydrogels reinforced with biobased	Maria C. Teixeira
	nanofibers for 3d-bioprinting applications	University of Aveiro, Portugal
S6-P2	Cellulose acetate nanosystems loaded with	João Leite
	curcumin for cancer treatment	University of Aveiro, Portugal
S6-P3	Mushroom β -glucan microparticles with immune-	Christiane Ellefsen
	activating potential	University of Oslo, Norway
S6-P4	Enhancing the properties of cellulose nanofibrils	Roberta Polez
	hydrogels with tragacanth gum and lignin	Aalto University, Finland
	nanoparticles	
S6-P5	Preparation of physically crosslinked hyaluronic	Laurianne Legay
	acid-based aerogels	CEMEF, France
S6-P6	Elimination of the height limit for extrusion-based	Doron Kam
	3D printed hydrogels by rapid photopolymerization	The Hebrew University of
		Jerusalem, Israel
S6-P7	Magnetic chitosan biocomposite films for	Ana Barra
	hyperthermia therapy of skin tumors	University of Aveiro, Portugal
S7-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric	University of Aveiro, Portugal Florian Lackner
S7-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes	University of Aveiro, Portugal Florian Lackner TU Graz, Austria
S7-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys
S7-P1 S7-P2	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki,
S7-P1 S7-P2	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies	University of Aveiro, Portugal Florian Lackner <i>TU Graz, Austria</i> Magdalena Drys University of Helsinki, Finland
S7-P1 S7-P2 S8-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho
S7-P1 S7-P2 S8-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal
S7-P1 S7-P2 S8-P1	hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal
S7-P1 S7-P2 S8-P1 S8-P2	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn
S7-P1 S7-P2 S8-P1 S8-P2	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel,
S7-P1 S7-P2 S8-P1 S8-P2	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application Towards hydrolytically stable superbase ionic 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application Towards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki,
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application Towards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ regeneration 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki, Finland
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1 S9-P2	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application Towards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ regeneration Aminolytic degradation of elastane for the recycling 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki, Finland Lorena Blanco
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1 S9-P2	 hyperthermia therapy of skin tumors In-situ alignment of dielectric fibers with electric fields in extrusion processes Method development for regioselective capture of cellulose oxygen for climate studies Storage Stability and Cutaneous Compatibility of Bacterial Nanocellulose-based Systems for Topical Drug-Delivery Phloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery application Towards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ regeneration Aminolytic degradation of elastane for the recycling of cellulose-based textile blends 	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki, Finland Lorena Blanco University of Vigo, Spain
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1 S9-P2 S9-P3	hyperthermia therapy of skin tumorsIn-situ alignment of dielectric fibers with electricfields in extrusion processesMethod development for regioselective capture ofcellulose oxygen for climate studiesStorage Stability and Cutaneous Compatibility ofBacterial Nanocellulose-based Systems for TopicalDrug-DeliveryPhloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery applicationTowards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ regenerationAminolytic degradation of elastane for the recycling of cellulose-based textile blendsUnderstanding the links between microscopic	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki, Finland Lorena Blanco University of Vigo, Spain Alex Gresty
S7-P1 S7-P2 S8-P1 S8-P2 S9-P1 S9-P2 S9-P3	hyperthermia therapy of skin tumorsIn-situ alignment of dielectric fibers with electricfields in extrusion processesMethod development for regioselective capture ofcellulose oxygen for climate studiesStorage Stability and Cutaneous Compatibility ofBacterial Nanocellulose-based Systems for TopicalDrug-DeliveryPhloroglucinol-enhanced chitosan hydrogels with antioxidant activity for drug delivery applicationTowards hydrolytically stable superbase ionic liquids: application for cellulose dissolution/ regenerationAminolytic degradation of elastane for the recycling of cellulose-based textile blendsUnderstanding the links between microscopic molecular relaxations and macroscopic mechanical	University of Aveiro, Portugal Florian Lackner TU Graz, Austria Magdalena Drys University of Helsinki, Finland João Carvalho University of Aveiro, Portugal Marilia Horn University of Kassel, Germany Eva Gazagnaire University of Helsinki, Finland Lorena Blanco University of Vigo, Spain Alex Gresty University of Leeds, England