



GCNPM 2019

The 10th Conference on Green Chemistry and Nanotechnologies in Polymeric Materials

Riga - Latvia, 9-11 October 2019

Program



Organized by Latvian State Institute of Wood Chemistry

WELCOME

Dear Participant of GCNPM 2019,

It is my pleasure to welcome you to The 10th Conference on Green Chemistry and Nanotechnologies in Polymeric Materials (GCNPM 2019) organized by Latvian State Institute of Wood Chemistry. GCNPM 2019 is an annual conference dedicated to recent developments in polymer science and technology.

On the tenth anniversary of conference, we are happy to bring GCNPM 2019 back to Latvia to the beautiful and historical city of Riga with architecture from Gothic cathedrals to world-class Art Nouveau. Back in 2010, when GCNPM was first in Riga, conference was a rather small event with limited numbers of participants. This year we are happy to welcome participants from all over the world, from Europe to Costa Rica & Brazil, Japan and Indonesia with over 110 oral and poster presentations. Industry partners are also joining us this year.

The 10th Conference on Green Chemistry and Nanotechnologies in Polymeric Materials organized by the Latvian State Institute of Wood Chemistry offers a friendly environment to encourage open discussions, to exchange ideas and to initiate collaboration with other participants from scientific institutions and industry.

I do hope that you will enjoy the good science, pleasant company of the polymer science colleagues from all over the world and the beautiful Riga!

On behalf of the Organizing Committee,

Dr. Uģis Cābulis

FINANCIAL SUPPORT

GCNPM 2019 was supported by the European Regional Development Fund “Strengthening the capacity of the Latvian State Institute of Wood Chemistry for participation in international projects” (Project No. 1.1.1.5/18/I/002).

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PRACTICAL INFORMATION



WI-FI AT THE RADISSON BLU LATVIJA CONFERENCE & SPA HOTEL

Free wi-fi at the conference venue will be available.
Network: Radisson Conference



EMERGENCY/FIRST AID

Emergency aid in the event of an accident. Call 112! 112 called free of charge from any telephone apparatus (fixed, mobile, payphone)



GETTING AROUND

Everything in Riga city centre is in walkable distance
Public transportation - RIGAS SATIKSME - <https://www.rigassatiksmelv/en/>
Bolt is also available in Latvia



BADGES

Badges must be worn at the conference and all events related to GCNPM 2019



LETTERS OF PARTICIPATION

Letters of participation in the GCNPM 2019 will be provided and will be sent to you after the conference via email.



LOST AND FOUND

Please come to GCNPM 2019 registration desk for inquiries concerning lost and found items.



CLOAKROOM

There will be cloakroom for coats next to the conference room, on the second floor of Radisson Blu Latvija Conference & Spa hotel



ABSTRACT BOOK

Electronic abstract book will be provided in the USB drive.



CONTACT LIST

Contacts of all GCNPM 2019 participants can be found in the USB drive.



PHOTO AND VIDEO POLICY

When you attend GCNPM 2019, you automatically give your consent for GCNPM 2019 to use photographs and videos taken during the event.

GCNPM 2019 ORAL PRESENTATIONS

Wednesday, 9 October 2019

18:00 - 21:00 *Registration & Welcome reception at the Library of the University of Latvia at the 4 Kalpaka Boulevard, Riga*

Thursday, 10 October 2019

08:00 - 08:30 *Registration & Welcome coffee*

08:30 - 08:50 *Opening ceremony of GCNPM 2019*

Ugis Cabulis, Latvian State Institute of Wood Chemistry, Latvia
Andrejs Krasņikovs, Latvian Academy of Sciences, Latvia

Session 1 Chair: Ugis Cabulis

08:50 - 09:30 *Plenary lecture 1*

RECENT ADVANCES ON THE SURFACE FUNCTIONALISATION OF LIGNOCELLULOSICS: FUNDAMENTALS, TECHNIQUES OF CHARACTERISATION AND CONCRETE APPLICATIONS

Mohamed Naceur Belgacem, Grenoble INP, France

09:30 - 10:10 *Plenary lecture 2*

CRITICAL ASPECTS ON CHEMICAL MODIFICATION OF NANOCELLULOSE

Tekla Tammelin, VTT Technical Research Centre of Finland Ltd, Finland

10:10 - 10:30

NANOCRYSTALLINE CELLULOSE FROM LABORATORY TO PILOT PLANT PRODUCTION AND ITS USE

Matjaž Kunaver, National Institute of Chemistry, Slovenia

10:30 - 11:00 *Coffee break*

Session 2 Chair: Mohamed Naceur Belgacem

11:00 - 11:20

FUNGAL EXTRACELLULAR LIPASES FROM COFFEE PLANTATION ENVIROMENTS FOR THE SUSTAINABLE MANAGEMENT OF COFFEE BIOMASS

Manuel Sandoval-Barrantes, Universidad Nacional, Costa Rica

- 11:20 - 11:40 **IONIC GRAFT COPOLYMERS IN DESIGNING DELIVERY SYSTEMS OF ANIONIC PHARMACEUTICS**
Dorota Neugebauer, Silesian University of Technology, Poland
- 11:40 - 12:00 **CHANGES OF PHYSICAL PROPERTIES OF PLA – BASED BLENDS DURING BIODEGRADATION IN COMPOST**
Ivan Chodak, Polymer Institute Slovak Academy of Sciences, Slovakia
- 12:00 - 12:20 **MICROSTRUCTURE/WATER BARRIER PROPERTY RELATIONSHIP FOR STEREOCOMPLEX PLA FILMS**
Kateryna Fatyeyeva, Rouen University Normandie, France
- 12:20 - 12:40 **ELECTROSPUN BIODEGRADABLE PHB/PLA FIBERS FOR BIOMEDICINE AND ENVIRONMENTAL CONCERN ADDRESSING: CHARACTERIZATION AND TRANSPORT PHENOMENA**
Alexey L Iordanskii, Semenov Institute of Chemical Physics, Russia
- 12:40 - 13:00 **CHEMICAL MODIFICATION OF POLY(3-HYDROXYBUTYRATE-CO-3-HYDROXYHEXANOATE) VIA GRAFTING POLYMERIZATION WITH NATURAL RUBBER**
Noor Hana Hanif Abu Bakar, Universiti Sains Malaysia, Malaysia

13:00 - 14:00 Lunch

Session 3 Chair: Julio Mata-Segrada

Session 3A Chair: Matjaž Kunaver

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| <p>14:00 - 14:20 LIGNIN-BASED DUAL PHASE FILLERS APPLICATION IN POLYETHYLENE
Karol Bula, Poznan University of Technology, Poland</p> | <p>EXPERIMENTAL RESEARCH ON STRENGTHENING OF NANOCELLULOSE FIBER-REINFORCED GREEN COMPOSITES
Hitoshi Takagi, Tokushima University, Japan</p> |
| <p>14:20 - 14:40 PROPERTIES AND CHARACTERIZATION OF SUBERINIC ACIDS AS ADHESIVE IN WOOD BIO-BASED COMPOSITES AND POLYMER CONSTITUENTS
Janis Rizikovs, Latvian State Institute of Wood Chemistry, Latvia</p> | <p>LIGNIN NANOPARTICLES WITH ACIDIC MOIETIES: EFFECT ON; PLA FILMS PERFORMANCE
Francesca Luzi, University of Perugia, Italy</p> |
| <p>14:40 - 15:00 TESTING OF AN INFLUENCE OF ALOE VERA EXTRACT ON THE PROPERTIES OF SODIUM ALGINATE/PVA HYDROGEL FILMS
Katarzyna Bialik-Wąs, Cracow University of Technology, Poland</p> | <p>BIOCOMPOSITE OSTEOCONDUCTIVE MATERIALS FROM CHEMICALLY MODIFIED NANOCRYSTALLINE CELLULOSE AND BIODEGRADABLE POLYESTERS
Iliia Averianov, Institute of Macromolecular Compounds, Russia</p> |

15:00 - 15:20	POM/PLA BLENDS AND COMPOSITES. THE USE OF MISCIBLE PLA SYSTEM FOR PREPARATION OF WOOD FIBER REINFORCED MATERIALS Jacek Andrzejewski, Poznan University of Technology, Poland	ORGANOCATALYTIC ESTERIFICATION OF POLYSACCHARIDES EXTRACTED FROM AGRICULTURAL RESIDUES Balázs Imre, KTH Royal Institute of Technology, Sweden
15:20 – 16:20	<i>Coffee break and poster session</i> Session 4 Chair: Aleksander Prociak	Session 4A Chair: Arantxa Eceiza Mendiguren
16:20 - 16:40	EFFECT OF ALKALI TREATMENT ON THE DEFORMATION AND FAILURE OF SUGARCANE BAGASSE REINFORCED COMPOSITES András Bartos, Budapest University of Technology and Economics, Hungary	PRODUCTION OF POLYHYDROXYALKANOATES BY PURPLE PHOTOTROPHIC BACTERIA USING WASTEWATER TREATMENT PRODUCTS Guillaume Bayon-Vicente, University of Mons, Belgium
16:40 - 17:00	PROCESSING AND CHARACTERIZATION OF NEW GREEN MATERIAL: PLA/COMPATIBILIZED WOOL FIBER REINFORCED POLYMER Franciszek Pawlak, Universitat Politècnica de València / University of Science and Technology in Bydgoszcz, Spain/Poland	THE PECULIARITIES OF DEGRADATION OF POLYLACTIDE FIBERS STRAINED BY THE CRAZING MECHANISM Mukhamed Khavpachev, M.V. Lomonosov Moscow State University, Russia
17:00 - 17:20	UV-LIGHT CURING OF BIO-BASED POLYMERS BASED ON VEGETABLE OILS AND ITS FORMULATIONS WITH VARIOUS CELLULOSES FILLERS FOR WOOD MIMIC Anda Barkane, Riga Technical University, Latvia	VALORIZATION OF APPLE WASTE FOR THE PRODUCTION OF BIOPOLYMERS AND MULTIFUNCTIONAL ADVANCED NANOCOMPOSITES Leire Urbina, University of the Basque Country, Spain
17:20 - 17:40	NATURAL RUBBER COMPOSITES REINFORCED WITH STRAW Justyna Midzianowska, Lodz University of Technology, Poland	ALCANIVORAX BORKUMENSIS, A KEY PLAYER FOR THE LOW-DENSITY POLYETHYLENE DEGRADATION Alice Delacuvellerie, University of Mons, Belgium
17:40 - 18:00	GLUCAN PARTICLES AS PROMISING CARRIERS FOR ENHANCING THE BIOAVAILABILITY OF ATORVASTATIN Petra Salamunova, UCT Prague, Czech Republic	STUDY OF THE CORRELATION BETWEEN REOLOGICAL PROPERTIES AND 3D BIOPRINTING PERFORMANCES OF WATERBORNE POLYURETHANE-UREA HIDROGELS Julen Vadillo, University of Basque Country (UPV) / University of Pau (UPPA), Spain/France

18:50 Bus leaves for conference gala dinner at Aldaris beer museum

Friday, 11 October 2019

Session 5 Chair: Tekla Tammelin

08:50 - 09:30

Plenary lecture 3

STRATEGIES FOR TOUGHENING POLY(LACTIC ACID) (PLA) WITH A DEFORMABLE OR A RIGID DISPERSED PHASE

Andrea Lazzeri, University of Pisa, Italy

09:30 - 09:50

SYNTHESIS AND CHARACTERIZATION OF HYPERBRANCHED POLYGLYCEROLS AND POLYETHER-SILOXANES CONTAINING AMINE GROUPS FOR CO₂ CAPTURE

Paweł Parzuchowski, Warsaw University of Technology, Poland

09:50 - 10:10

CATIONIC COPOLYMERIZATION OF FURFURYL ALCOHOL AND TUNG OIL DERIVATIVES

Talita Martins Lacerda, University of São Paulo, Brazil

10:10 - 10:30

EFFECT OF MOLECULAR STRUCTURE ON DIFFUSION OF ALCOHOLS THROUGH ZEOLITE A PORES (0,5 NM)

Julio Mata-Segreda, University of Costa Rica, Costa Rica

10:30 - 11:30

Coffee break & Poster session

Session 6 Chair: Alexey Iordanskii

Session 6A: Chair: Filomena Barreiro

11:30 - 11:50

DEVELOPMENT OF HYBRID POLY(LACTIC ACID)-BASED COMPOSITES WITH IMPROVED THERMO-MECHANICAL PROPERTIES AND HYDROLYTIC DEGRADATION RESISTANCE FIBER

Mateusz Barczewski, Poznan University of Technology, Poland

POLYURETHANE FOAMS FOR ENVIRONMENTAL APPLICATIONS

Hynek Beneš, Institute of Macromolecular Chemistry, Czech Academy of Sciences, Czech Republic

11:50 - 12:10

EVALUATION OF COMPOSITION, STRUCTURE, AND PROPERTIES ON ALKALI TREATED SUGARCANE BAGASSE

Juliana Anggono, Petra Christian University, Indonesia

NEW HYBRID BIOBASED POLYURETHANE COMPOSITES FOR HEAT INSULATING APPLICATIONS

Aleksander Prociak, Cracow University of Technology, Poland

12:10 - 12:30

MULTYFUNCTIONAL ELASTOMERIC BIOCOMPOSITES BASED ON NATURAL RUBBER WITH THE ADDITION OF MODIFIED CEREAL STRAW

Marcin Masłowski, Lodz University of Technology, Poland

RIGID PU FOAM THERMAL INSULATION DEVELOPED USING ONLY WOOD PULPING SIDE-STREAM BASED POLYOLS

Mikelis Kirpluks, Latvian State Institute of Wood Chemistry, Latvia

12:30 - 12:50

FUNCTIONAL TINY CAPSULES FOR SKIN CARE PRODUCTS

Liudmyla Gryshchuk, Institut fuer Verbundwerkstoffe GmbH, Germany

BIO-POLYOLS BASED ON USED COOKING OILS AS COMPONENT FOR SYNTHESIS OPEN CELL RIGID POLYURETHANE FOAMS

Maria Kurańska, Cracow University of Technology, Poland

12:50 - 13:50		Lunch	
		<i>Session 7 Chair: Andrea Lazzeri</i>	<i>Session 7A Chair: Ugis Cabulis</i>
13:50-14:10	DIELECTRIC PERMITTIVITY OF RIGID, CLOSED-CELL POLYURETHANE BIOFOAMS AND PETROCHEMICAL FOAMS AT LOW FREQUENCIES Ilze Beverte, University of Latvia, Latvia	MECHANICAL PROPERTIES OF POLYLACTIDE IN DEPENDENCE OF CRYSTALLINITY Hendrik Schäfer, Kompetenzzentrum Holz GmbH, Austria	
14:10 -14:30	FURFURAL AS POTENTIAL FEEDSTOCK FOR POLYMER PRODUCTION: CONFORMITY OF THE CATALYTIC ACTIVITY OF SALTS IN THE PRETREATMENT PROCESS Nikolajs Vedernikovs, Latvian State Institute of Wood Chemistry, Latvia	EXPLORATION OF EXOPOLYSACCHARIDE PRODUCTION BY CYANOTHECE SP. PCC7822 Camille Van Camp, University of Mons, Belgium	
14:30 - 14:50	THE GLUCAN PARTICLES AS POTENTIAL CARRIERS FOR ANTI-INFLAMMATORY DRUG CURCUMIN Petra Salamunova, UCT Prague, Czech Republic	MODIFIED MICROFIBRILLATED LIGNOCELLULOSE/POLYLACTIC ACID BIOCOMPOSITES Ferhat Yetis, The University of Manchester, United Kingdom	
14:50 - 15:10		Coffee break	
		<i>Session 8 Chair: Janis Rizhikovs</i>	
15:10 - 15:30	DEVELOPMENT OF BIOPOLYOLS FROM COFFEE HUSK BIOMASS João Pinto, Polytechnic Institute of Bragança, Portugal	15:10-16:10 SEMINAR BY DR. ILZE BEVERTE, UNIVERSITY OF LATVIA	
15:30 - 15:50	HIGH PERFORMANCE, TUNABLE AND EASILY REMOVABLE BIO-BASED WATERBORNE PRESSURE SENSITIVE ADHESIVES Adrián Badía, University of the Basque Country / POLYMAT, Spain/Poland	NON-DESTRUCTIVE QUALITY TESTING OF MATERIALS AND STRUCTURES FROM RIGID CELLULAR PLASTICS	
15:50 - 16:10	RUBBER GONE GREEN: EFFECT OF RICE HUSK NANOSILICA IN DEVELOPING GREEN TYRES Midhun Dominic Chemmerickal Dominic, Sacred Heart College, India		
16:10 - 16:30	WOOD-LIKE BIOBASED AND BIODEGRADABLE POLYBUTYLENE SUCCINATE NANOCELLULOSE AND MICROCELLULOSE COMPOSITES Oskars Platnieks, Riga Technical University, Latvia		
16:30 - 16:50		Best poster award & Closing remarks	
17:00 - 18:30		Riga city tour (if you would like to join, please inform us @ info@gcnpm2019.com)	

GCNPM 2019 POSTER SESSIONS

There will be two poster sessions:

Thursday, 10 October 2019

15:20 - 16:20 Coffee break and poster session

Friday, 11 October 2019

10:30 - 11:30 Coffee break and poster session

No	Name	Surname	Institution	Country	Title
P1	Krzysztof	Formela	Gdansk University of Technology	Poland	MODIFICATION OF BIODEGRADABLE ALIPHATIC POLYESTERS AND THEIR BLENDS USING PEROXIDE INITIATORS
P2	Anita	Andicsová - Eckstein	Polymer Institute SAS	Slovakia	AMPHIPHILIC NANOPARTICLES AS VEHICLES FOR DRUG DISTRIBUTION
P3	Matea	Perić	Wood K plus - Competence Center for Wood Composites & Wood Chemistry	Austria	PLA FILAMENTS FOR 3D PRINTING REINFORCED WITH NANOFIBRILLATED CELLULOSE
P4	Laima	Vevere	Latvian State Institute of Wood Chemistry	Latvia	CHEMICAL ANALYSIS OF HARDWOOD TREE BARKS WITH EMPHASIS ON THEIR APPLICATION FOR POLYURETHANE PRODUCTION
P5	Paulina	Kosmela	Gdańsk University of Technology	Poland	THE RIGID POLYURETHANE FOAMS OBTAINED USING POLYOL PRODUCTS FROM LIQUEFIED BIOMASS OF THE BALTIC SEA
P6	Arantxa	Eceiza Mendiguren	University of the Basque Country	Spain	GREEN WATERBORNE POLYURETHANE-GRAPHENE NANOCOMPOSITES: SYNTHESIS AND CHARACTERIZATION
P7	Klaudia	Pluta	Cracow University of Technology	Poland	DEGRADATION OF ALOE VERA CONTAINING HYDROGELS BASED ON ALGINATE/POLYVINYL ALCOHOL
P8	Marianna	Laka	Latvian State Institute of Wood Chemistry	Latvia	USE OF NANO-MICROPARTICLE FILLERS PRODUCED FROM HEMP SHIVES IN PAPERMAKING
P9	Raphaela	Süss	Wood K plus - Competence Center for Wood Composites & Wood Chemistry, Kompetenzzentrum Holz GmbH	Austria	DEPOLYMERIZATION OF ORGANOSOLV LIGNIN IN ETHANOL/WATER MIXTURES
P10	Raimonds	Makars	Latvian State Institute of Wood Chemistry	Latvia	CHARACTERIZATION OF SUBERINIC ACID BINDER OBTAINED FROM OUTER BIRCH BARK

No	Name	Surname	Institution	Country	Title
P11	Alena	Šišková	Institute of Materials and Machine Mechanics of Slovak Academy of Sciences	Slovakia	PLANT-BIOMASS DERIVED CARBON AS PERSPECTIVE SOLUTION FOR ENVIRONMENTAL PROTECTION
P12	Aigars	Pāže	Latvian State Institute of Wood Chemistry	Latvia	THE STUDY OF A NOVEL BIO-BASED BINDER FOR OBTAINING OF MOISTURE RESISTANT PLYWOOD
P13	Darina	Smržová	IIC of the CAS	Czech Republic	SORPTION OF SELECTED HEAVY METALS ONTO ZEOLITES
P14	Sergejs	Gaidukovs	Riga Technical University	Latvia	DETERMINATION OF GLASS TRANSITION OF CROSSLINKED BIOPOLYMERS BY TEMPERATURE MODULATED DIFFERENTIAL SCANNING CALORIMETRY
P15	Zsuzsanna	Havas	Inno-Comp Kft.	Hungary	EFFECT OF FILLER CONTENT ON THE MECHANICAL PROPERTIES OF APRICOT SHELL POLYPROPYLENE COMPOSITES
P16	Anrijs	Verovkins	Latvian State Institute of Wood Chemistry	Latvia	TWO AMMOXIDATION METHODS FOR BARK MODIFICATION FOR USAGE IN COMPOSITE MATERIALS
P17	Elīna	Didrihsone	Latvian State Institute of Wood Chemistry	Latvia	DEVELOPMENT OF A PERSPECTIVE BIODEGRADABLE COMPOSITE MATERIAL DESIGN BASED ON POLY(LACTIC ACID)
P18	Petra	Ecorchard	IIC of the CAS	Czech Republic	SORPTION OF RADIONUCLIDES ONTO ZEOLITE OR ZEOLITE MODIFIED BY IONIC LIQUID
P19	Virginija	Kleivaitė	Kaunas University of Technology	Lithuania	INVESTIGATION OF ELECTROSPUN WEB POROSITY AND ITS STATISTICAL EVALUATION
P20	Zane	Zelca	Riga Technical University	Latvia	EFFECT OF AGGING ON PROPERTIES OF HEMP WASTE/POLYETHYLENE COMPOSITES
P21	Emese	Pregi	Department of Physical Chemistry and Materials Science, Budapest University of Technology and Economics	Hungary	STRUCTURE AND PROPERTIES OF MULTICOMPONENT FILMS BASED ON LIGNIN
P22	Martins	Andzs	Latvian State Institute of Wood Chemistry	Latvia	INVESTIGATION OF BINDER PREPARATION FROM BIRCH OUTER BARK FOR PARTICLEBOARD BONDING
P23	Dagmara	Malina	Cracow University of Technology	Poland	DEVELOPMENT OF WOUND DRESSING SYSTEM BASED ON SODIUM ALGINATE/POLYVINYL ALCOHOL HYDROGEL MATRIX MODIFIED WITH GLYCERIN
P24	Kenji	Nagata	Nagoya Institute of Technology	Japan	PREPARATION AND MECHANICAL PROPERTIES OF MODIFIED CELLULOSE NANOFIBER/EPOXY COMPOSITES

No	Name	Surname	Institution	Country	Title
P25	Inese	Filipova	Latvian State Institute of Wood Chemistry	Latvia	PRODUCING OF NANOCELLULOSE FILMS FROM HOUSEHOLD CARDBOARD WASTE
P26	Diana Małgorzata	Bobrowska	Institute of Chemistry, University of Białystok	Poland	NOVEL CLASS OF CARBON NANOMATERIALS NON-COVALENTLY LINKED WITH P-POLY(PHENYLENE VINYLENE)S
P27	Madara	Varkale	Riga Technical University	Latvia	STUDY ON PROCESSING AND MECHANICAL CHARACTERISTICS OF POLYPROPYLENE BASED COMPOSITES, REINFORCED WITH LIGNOCELLULOSIC FILLERS FROM AGRICULTURAL RESIDUES
P28	Łukasz	Zedler	Gdańsk University of Technology, Faculty of Chemistry	Poland	REACTIVE SINTERING OF MODIFIED GROUND TIRE RUBBER
P29	Beatrise	Sture	Latvian State Institute of Wood Chemistry	Latvia	DEVELOPMENT OF PHOTOACTIVE COMPOUNDS SYNTHESIZED FROM TALL OIL FATTY ACIDS
P30	Róbert	Várdai	Department of Physical Chemistry and Materials Science, Budapest University of Technology and Economics	Hungary	IMPACT MODIFICATION OF PP/NATURAL FIBRE COMPOSITES: A NEW APPROACH USING PET FIBERS
P31	Sławomir	Wilczewski	University of Science and Technology in Bydgoszcz (UTP)	Poland	PROCESSING AND MECHANICAL CHARACTERIZATION OF NANOSILICA/LINSEED MODIFIED POLY(VINYL CHLORIDE)
P32	Arnis	Āboliņš	Latvian State Institute of Wood Chemistry	Latvia	EPOXIDIZED TALL OIL FATTY ACIDS BASED HIGHLY FUNCTIONAL POLYOLS AS FEEDSTOCK FOR RIGID POLYURETHANE FOAM THERMAL INSULATION
P33	Balázs	Imre	KTH Royal Institute of Technology	Sweden	ORGANOCATALYTIC ESTERIFICATION OF POLYSACCHARIDES FROM AGRICULTURAL RESIDUES
P34	Karlis	Kalnins	Riga Technical University, Faculty of Material Science and Applied Chemistry Institute of Polymer Materials	Latvia	RHEOLOGICAL PROPERTIES OF WOOD PLASTIC COMPOSITES BASED ON POLYPROPYLENE AND BIRCH WOOD PLYWOOD SANDING DUST
P35	Leire	Urbina	University of the Basque Country	Spain	SPHERE-LIKE BACTERIAL CELLULOSE-GRAPHENE HYDROGELS FOR DRUG DELIVERY
P36	Anna	Czajka	Warsaw University of Technology	Poland	ANALYSIS OF NANOCRYSTALLINE CELLULOSE
P37	Alexandr	Arshanitsa	Latvian State Institute of Wood Chemistry	Latvia	VALORISATION OF LIGNIN ENRICHED PRODUCTS OBTAINED AT ULTRASONIC PRE-TREATMENT AND HYDROLYSIS OF PRE-TREATED WHEAT STRAW AS POLYOLS FOR OBTAINING POLYURETHANE.

No	Name	Surname	Institution	Country	Title
P38	Kenichiro	Tsukahara	National Institute of Advanced Industrial Science and Technology	Japan	CONSEQUENTIAL ASSESSMENT OF CHEMICAL PRODUCTION FROM NON-EDIBLE LIGNOCELLULOSIC BIOMASS
P39	Brindusa	Balanuca	University Politehnica of Bucharest	Romania	METHACRYLATED VEGETABLE OIL: A USEFUL REACTIVE MONOMER. SYNTHESIS AND HARNESSING
P40	Edgars	Vanags	Latvian State Institute of Wood Chemistry	Latvia	PILOT SCALE SYNTHESIS OF TALL OIL FATTY ACIDS BASED POLYOLS AND CUMULATIVE ENERGY DEMAND AS ENVIRONMENTAL INDICATOR
P41	João	Pinto	Mountain Research Centre (CIMO) and Laboratory of Separation and Reaction Engineering – Laboratory of Catalysis and Materials (LSRE-LCM), Polytechnic Institute of Bragança	Portugal	SUSTAINABLE POLYMERS SOLUTIONS THROUGH LIGNIN LIQUEFACTION PROCESSES
P42	Prans	Brazdausks	Latvian State Institute of Wood Chemistry	Latvia	INVESTIGATION OF PARTICLEBOARD PRODUCTION POSSIBILITIES FROM THE BIRCH INNER BARK RESIDUE AFTER FURFURAL PRODUCTION USING SUBERINIC ACIDS AS A BINDER
P43	Dragomir	Vassilev	Technical University of Gabrovo	Bulgaria	ULTRASOUND-ASSISTED ESTERIFICATION OF LAURIC ACID TO ALKYL LAURATES WITH POTENTIAL ANTIMICROBIAL ACTIVITY
P44	Dragomir	Vassilev	Technical University of Gabrovo	Bulgaria	PHYSICOCHEMICAL CHARACTERIZATION AND ANTIMICROBIAL PROPERTIES OF INULIN ACETATE OBTAINED BY MICROWAVE-ASSISTED SYNTHESIS
P45	Anete	Smoca	Riga Technical University	Latvia	MAXIMUM USE OF TECHNICAL HEMP FOR POLYMER COMPOSITE REINFORCEMENT
P46	Iliia	Averianov	Institute of macromolecular compounds	Russia	CHEMICALLY MODIFIED NANOCRYSTALLINE CELLULOSE FOR COMPOSITE POLYESTER SCAFFOLDS
P47	Zinta	Zimele	Riga Technical university	Latvia	NOVEL MYCELIUM-BASED BIOCOMPOSITES BUILDING MATERIAL
P48	Jacek	Andrzejewski	Poznan University of Technology (Politechnika Poznanska)	Poland	PREPARATION AND PROPERTIES OF PLA BASED COMPOSITES PREPARED BY ROTATIONAL MOLDING. THE INFLUENCE OF FILLER TYPE AND MORPHOLOGY

No	Name	Surname	Institution	Country	Title
P49	Nikolajs	Vedernikovs	Latvian State Institute of Wood Chemistry	Latvia	DIFFERENTIAL CATALYSIS OF DEPOLYMERIZATION AND DEHYDRATION REACTIONS PRODUCING FURFURAL FROM PLANT BIOMASS
P50	Aleksander	Hejna	Gdańsk University of Technology	Poland	EVALUATION OF SYSTEM MODELS' SUITABILITY FOR LCA ANALYSIS OF POLYETHYLENE PACKAGING FILMS PRODUCTION
P51	Aleksander	Hejna	Gdańsk University of Technology	Poland	INVESTIGATION OF VOCS EMISSION FROM ISOCYANATE-MODIFIED CELLULOSE FIBERS
P52	Kristīne	Meile	Latvian State Institute of Wood Chemistry	Latvia	SEPARATION AND DETERMINATION OF 1,6- ANHYDRO-B-D-GLUCOFURANOSE: THE UNAPPRECIATED ANHYDROSUGAR IN WOOD PYROLYSIS PRODUCTS
P53	Liudmyla	Gryshchuk	Institut fuer Verbundwerkstoffe GmbH	Germany	BIO-BASED NANO-REINFORCED POLYURETHANE FOAMS
P54	Galia	Shulga	Latvian State Institute of Wood Chemistry	Latvia	POLYELECTROLYTE COMPLEX NANOPARTICLES OF SOLUBLE LIGNIN AND CHITOSAN AND THEIR PROPERTIES
P55	Galia	Shulga	Latvian State Institute of Wood Chemistry	Latvia	POSSIBLE USAGE OF SEWAGE SLUDGE SEPARATED FROM PLYWOOD PRODUCTION WASTEWATER FOR OBTAINING WOOD-POLYMER COMPOSITE
P56	Mateusz	Barczewski	Poznan University of Technology, Institute of Materials Technology	Poland	POLY(VINYL ALCOHOL)-MODIFIED LINSEED CAKE AS A FILLER FOR POLY(LACTIC ACID) GREEN COMPOSITES
P57	Julen	Vadillo	University of Basque country (UPV) // University of Pau (UPPA)	Spain/ France	INFLUENCE OF THE MOLECULAR WEIGHT OF POLYETHYLENGLYCOL ON THE PROPERTIES OF PCL/PEG BASED WATERBORNE POLYURETHANE-UREA DISPERSIONS
P58	Raimonds	Grūbe	Latvian State Institute of Wood Chemistry	Latvia	BIO-BASED POLYURETHANE CRYOGENIC INSULATION DEVELOPED FROM TALL OIL BASED POLYOLS
P59	Maria Filomena	Barreiro	LSRE - LCM / Instituto Politécnico de Bragança	Portugal	BIOCOMPOSITES BASED ON CORK AND BIOMASS RESIDUES AGLOMERATED WITH WATER-BASED POLYURETHANE ADHESIVES MODIFIED WITH MELISSA OFFICINALIS EXTRACT
P60	Maria Filomena	Barreiro	LSRE - LCM / Instituto Politécnico de Bragança	Portugal	ECO-COATINGS BASED ON NATURAL DYES AND AQUEOUS POLYURETHANE DISPERSIONS