

## WEDNESDAY 30TH MAY

CONGRESS ROOM		ROOM 104/105	
POLYMER CHEMISTRY		POLYMER IN MEMBRANES AND ENERGY APPLICATIONS	
Chairwoman: Dorte Walzl Bælum		Chairwoman: Daniela Bach	
09.30 - 09.50	POLY(N-ACRYLOYL GLYCINAMIDE) MICROGELS AS NANOCATALYST PLATFORM <i>Dong Yang, Milla Viitasuo, Fabian Pooch, Heikki Tenhu, Sami Hietala</i>	POLY(ARYLENE PIPERIDINIUM)S – A NEW CLASS OF ANION-EXCHANGE MEMBRANES <i>Joel S. Olsson, Thanh Huong Pham, Patric Jannasch</i>	
09.50 - 10.10	POLYELECTROLYTE-NANODIAMOND COMPLEXES <i>Tony Tainen, Teemu Myllymäki, Timo Hatanpää, Heikki Tenhu, Sami Hietala</i>	SYNTHETIC STRATEGIES TO POLYMERS INCORPORATING N-SPIROCYCLIC QUATERNARY AMMONIUM MOIETIES FOR ANION-EXCHANGE MEMBRANES <i>Thanh Huong Pham, Joel S. Olsson, Patric Jannasch</i>	
10.10 - 10.30	SCREENINGS PLATFORM FOR EASY SURFACE MODIFICATION OF POLYMERS <i>Christian Andersen and Anders E. Daugaard</i>	MICROPHASE SEPARATED SOLID SINGLE-ION CONDUCTING ELECTROLYTES BASED ON NAPHTHALENE SULFONATE UNITS CONNECTED BY POLY(ETHYLENE OXIDE) SEGMENTS <i>Hannes Nederstedt, Patric Jannasch</i>	
10.30 - 11.00	Coffee by the Exhibition		
11.00 - 11.20	MANUFACTURING OF CABLE INSULATION MADE BY-PRODUCT FREE <i>Anna Peterson, Massimiliano Mauri, Oscar Prieto, Thomas Hjertberg and Christian Müller</i>	ALL-ORGANIC TEXTILE MATERIALS FOR ENERGY HARVESTING <i>Anja Lund, Jason D. Ryan, Sozan Darabi, Sandra Hultmark, Anna Hofmann, Desalegn Alemu Mengistie, Matthew Weisenberger and Christian Müller</i>	
11.20 - 11.40	POLYMER TECHNOLOGY INTEGRATED AT AALTO CHEM: MATERIALS SCIENCE AND ENGLISH LANGUAGE <i>Pirjo Pietikäinen</i>	INFRARED IMAGING AND TGA-IR-GCMS: FROM POLYMER CHARACTERIZATION TO UNDERSTANDING THE EFFECT OF MICROPLASTIC ON THE ENVIRONMENT <i>Olivier Savard</i>	
CONGRESS ROOM			
11.45 - 12.00	CLOSING CEREMONY		
12.00 - 12.30	SANDWICHES BY THE EXHIBITION		

## Exhibitors at Nordic Polymer Days 2018



METTLER TOLEDO



## MONDAY 28TH MAY

ENTRANCE	
12.00 - 13.00	Registration and sandwiches
CONGRESS ROOM	
13.00 - 13.10	OPENING OF NORDIC POLYMER DAYS 2018 by Chairman Søren Hvilsted, IDA Polymer
13.10 - 13.45	Plenary Lecture 1 STEPS TOWARDS A SUSTAINABLE PLASTICS SYSTEM IN A CIRCULAR ECONOMY <i>Rajni Hatti-Kaul, Professor in Biotechnology at Lund University, Sweden.</i>
13.45 - 14.20	Plenary Lecture 2 SUSTAINABLE APPROACHES TO BIOBASED FUNCTIONAL POLYMERS <i>Assoc. Professor Karin Odellius, KTH Royal Institute of Technology, Stockholm, Sweden.</i>
CONGRESS ROOM	
SUSTAINABLE POLYMERS	
Chairman: Allan V. Rasmussen	
14.20 - 14.40	BIOREFINING AND ISOLATION OF BIOPOLYMERS FROM RED MACROALGAE PORPHYRA UMBILICALIS KUTZING <i>Niklas Wahlström, Hanna Harrysson, Ingrid Undeland, Ulrica Edlund</i>
14.40 - 15.00	BIOBASED POLYAMIDES SYNTHESIZED THROUGH RING-OPENING AMINOLYSIS-CONDENSATION REACTION <i>Geng Hua, Karin Odellius</i>
15.00 - 15.20	BIO-BASED NOVEL SULFUR-CONTAINING POLYAMIDES: HIGH FLEXIBILITY, AND LOW WATER ABSORPTION <i>Nguyen Phan Huy, Steven Spoljaric, Jukka Seppälä</i>
15.20 - 15.50	Coffee by the Exhibition
15.50 - 16.10	CATIONIZATION OF CELLULOSE FIBERS <i>Harri Setälä, Pauliina Pitkänen, Pia Willberg-Keyriläinen, Janne Hulkko</i>
16.10 - 16.30	ON THE ROLE OF PEPTIDE HYDROLYSIS FOR FIBRILLATION KINETICS AND AMYLOID FIBRIL MORPHOLOGY <i>Xinchen Ye, Christofer Lendel, Mikael S. Hedenqvist, Richard T. Olsson</i>
16.30 - 16.50	NOVEL ABSORBENT MATERIALS OBTAINED FROM PLANT PROTEINS <i>Antonio Capezza, William Newson, Mikael Hedenqvist, Eva Johansson</i>
16.50 - 17.10	PLASTICIZATION MECHANISMS OF STARCH BASED PLASTICS: EXPERIMENTAL AND MOLECULAR SIMULATIONS APPROACH <i>Hüsamettin Deniz Özeren, Fritjof Nilsson, Richard Olsson and Mikael S. Hedenqvist</i>
17.10 - 17.30	EXTENSIONAL VISCOSITY OF A BETA-GLUCAN CONCENTRATE <i>Kristina Karlsson, Marco Berta, Camilla Öhgren, Mats Stading and Mikael Rigdahl</i>
18.00 - 20.00	Canal Tour of Copenhagen Harbour
20.00 - 22.00	Tapas at IDA Restaurant.
ROOM 104/105	
POLYMER CHEMISTRY	
Chairwoman: Daniela Bach	
	POLYMERIC IONIC LIQUID NANOPARTICLES BY RAFT DISPERSION POLYMERIZATION <i>Vikram Baddam, Vladimir Asseyev, Sami Hietala and Heikki Tenhu</i>
	CROSSLINKING OF CELLULOSE NANOCRYSTALS IN A TEMPLATE PRE-HYDROLYZED BY HYDROGEN CHLORIDE GAS <i>Panagiotis Spiliopoulos, Iina Solala and Eero Kontturi</i>
	SELF-ASSEMBLY OF PROTEIN SCAFFOLDS USING CATIONIC POLYMER LINKERS <i>Antti Korpi, Chao Ma, Kai Liu, Nonappa, Andreas Herrmann, Olli Ikkala and Mauri Kostiaainen</i>
	THE SIZE STABILITY OF ALGINATE MICROBEADS CHARACTERIZED BY QUANTITATIVE PHASE CONTRAST MICROSCOPY <i>M. Tomić, S. V. Bhujbal, B. T. Stokke</i>
	POLYMERIZATION INDUCED THERMAL SELF-ASSEMBLY OF N-VINYLCAPROLACTAM <i>Joonas Siirilä, Satu Häkkinen, Heikki Tenhu</i>
	MODIFICATION OF COMMERCIAL POLYETHERSULFONE MEMBRANES <i>Libor Zverina and Anders Egede Daugaard</i>
	HALOGEN BONDING BETWEEN POLYMERS AND MACROCYCLES <i>Salla Välimäki, Ngong Kodiah Beyeh, Veikko Linko, Robin H. A. Ras, Mauri A. Kostiaainen</i>
	PREPARATION AND CHARACTERIZATION OF A SANDWICH STRUCTURE – ALTERNATE THIOL-ENE MATERIALS <i>Peng Shen, Qian Huang, Anders Egede Daugaard, Peter Szabo</i>

## TUESDAY 29TH MAY

## CONGRESS ROOM

Chairman: Søren Hvilsted

## Plenary Lecture 3

09.00 - 09.35 FROM UNIMER MICELLE SOLUTIONS TO NANOSTRUCTURED-SURFACE FILMS OF AMPHIPHILIC POLYMERS  
*Professor Giancarlo Galli, University of Pisa, Italy.*

## Plenary Lecture 4

09.35 - 10.10 POLYMER BRUSHES - FROM LABSCALE TO INDUSTRIAL APPLICATIONS  
*CEO, Mikkel Kongsfelt, RadiSurf.*

## CONGRESS ROOM

## POLYMER INTENDED FOR MEDICAL APPLICATIONS

Chairwoman: Pernille Guldager

10.10 - 10.30 HYALURONIC ACID GRAFT COPOLYMERS WITH CLEAVABLE ARMS AS POTENTIAL INTRAVITREAL DRUG DELIVERY VEHICLES  
*Tina Borke, Arto Urtti, Heikki Tenhu, Sami Hietala*

10.30 - 10.50 MODULAR SYNTHESIS OF SELF-ASSEMBLING JANUS-DENDRIMERS AND FACILE PREPARATION OF DRUG-LOADED DENDRIMERS  
*Sami Nummelin, Markus Selin, Sacha Legrand, Jarmo Ropponen, Jani Seitsonen, Antti Nykänen, Jari Koivisto, Jouni Hirvonen, Mauri A. Kostainen, Luis M. Bimbo*

10.50 - 11.20 Coffee by the exhibition

11.20 - 11.40 SYNTHETIC PROCEDURE TO OBTAIN HIGH MOLECULAR WEIGHT MONODISPERSE PEGYLATED DENDRIMERS  
*Pablo Mesa-Antunez, Michael Malkoch*

11.40 - 12.00 TRIAZINE TRIONE BASED ADHESIVES AS PROMISING MATERIAL FOR BONE FRACTURE FIXATIONS  
*Mathieu Arseneault, Viktor Granskog, Ilona Heckler, Pablo Mesa-Antunez, Yuning Zhang, and Michael Malkoch*

12.00 - 13.00 Lunch

## CONGRESS ROOM

Chairman: Peter Kybelund

## Plenary Lecture 5

13.00 - 13.35 POLYMER-MODIFIED NANOPARTICLES AS WAX-INHIBITORS  
*Assoc. Professor Kristofer G. Paso, Norwegian University of Science and Technology (NTNU), Trondheim*

## CONGRESS ROOM

## POLYMER RHEOLOGY AND ANALYSIS

Chairman: Peter Kybelund

13.35 - 13.55 LINEAR AND NONLINEAR SHEAR RHEOLOGY OF LOW PERCOLATION GRAPHENE POLYMER NANOCOMPOSITES  
*Roland Kádár and Thomas Gkourmpis*

13.55 - 14.15 RHEOLOGICAL PROPERTIES OF POLY(SULFOBETAINE METHACRYLATE)-POLY(ALLYLAMINE) MULTILAYERS AND COMPRESSED COACERVATES  
*Jukka Niskanen, Gauthier Rydzek, Katsuhiko Ariga, Françoise M. Winnik, and Heikki Tenhu*

14.15 - 14.35 COMBINING MOLECULAR AND BULK CHARACTERIZATION TECHNIQUES FOR IMPROVED UNDERSTANDING OF POLYMER AND POLYMER FORMULATION FLOW PROPERTIES  
*Mats Larsson, Tomas Sandberg, Robert Sadolin*

14.35 - 14.55 USING MULTI-DETECTOR GPC FOR ADVANCED POLYMER CHARACTERIZATION  
*Dr Raj Bhardwaj*

14.55 - 15.15 ANALYTICAL PYROLYSIS, ANOTHER POWERFUL TOOL FOR ANALYZING POLYMERS  
*Helena Jönsson*

15.15 - 15.45 Coffee by the Exhibition

15.45 - 16.05

## IN THE HALLWAY ON FIRST FLOOR BY ROOM 105

## POSTER PRESENTATIONS

Chairman: Søren Hvilsted

INVESTIGATION AND MODELING OF VARIOUS INFLUENCING FACTORS ON THE DIELECTRIC BREAKDOWN STRENGTH OF SILICONE ELASTOMERS  
*Andreas Ziegmann, Claus Berner, Dirk W. Schubert*

16.15 - 17.00 VISUAL AND RHEOLOGICAL INVESTIGATION OF CELLULOSE NANOCRYSTAL SUSPENSION FLOW USING POLARIZED LIGHT  
*Roland Kádár and Tiina Nypelö*

POLYELECTROLYTE-NANOPARTICLE COMPLEXATION STUDIED BY MONTE CARLO SIMULATIONS  
*Morten Stornes, Binamra Shrestha, Per Linsey, and Rita S. Dias*

POLY(IONIC LIQUID) MEMBRANES FOR CO<sub>2</sub> SEPARATION FROM N<sub>2</sub>  
*Ting Song, Xiangping Zhang, Suojiang Zhang, Peter Szabo, Anders E. Daugaard*

ISOCYANATE FREE POLYURETHANES IN COMMODITY APPLICATIONS  
*Charalampos Pronoitis, Minna Hakkarainen, Karin Odelius*

Nano-Graphene Oxide Surface-Functionalized Poly( $\epsilon$ -caprolactone) Films and Scaffolds  
*Jenevieve Linnell Yao, Nejlá B. Erdal and Minna Hakkarainen*

RESONANCE PHENOMENA IN OSCILLATORY SHEAR RHEOMETRY: INFLUENCE OF MATERIAL PARAMETERS  
*Michael Redel, Bastian Walter, Joachim Kaschta and Dirk W. Schubert*

RHEOLOGICAL EXAMINATION AND 3D BIOPRINTING OF PRE-GELLED ALGINATE HYDROGELS  
*Jonas Hazur, Joachim Kaschta, Vera Bednarzig, Aldo R. Boccaccini, Dirk W. Schubert, Rainer Detsch*

## ROOM 104/105

## ADDITIVE POLYMER MANUFACTURING AND COMPOSITES

Chairwoman: Rikke Maj Ager

3D PRINTED BIOPOLYMER SCAFFOLDS FOR MEDICAL APPLICATIONS  
*Sahar Sultan, Tony Serani, Aji.P.Mathew*

3D PRINTED CONDUCTING POLYMER BLENDS FOR ELECTRONIC DEVICES  
*Ida Holm, Anna Hofmann, Anja Lund, Sven Fauth and Christian Müller*

RECYCLING OF CELLULOSE-FIBER-REINFORCED THERMOPLASTIC COMPOSITES  
*Martina Prambauer, Oleksandra Voronych, Christoph Burgstaller*

COMPOSITES WITH SURFACE-GRAFTED CELLULOSE NANOCRYSTALS (CNC)  
*Lilian Forsgren, Karin Sahlin, Abhijit Venkatesh, Johannes Thunberg, Roland Kadar, Antal Boldizar, Gunnar Westman and Mikael Rigdah*

CELLULOSE NANOFIBRILS AND AMPHIPHILIC COPOLYMER BASED BIO-COMPOSITES  
*Abhijit Venkatesh, Johannes Thunberg, Tobias Moberg, Maria Klingberg, Lars Hammar, Anna Peterson, Christian Müller, Antal Boldizar*

## CONGRESS ROOM

19.00 - 23.00 CONGRESS DINNER AT IDA HOUSE