



# ZELLCHEMING-Conference Cellulose-Based Materials – From Science to Technology

2022  
conference

June 26-29, 2022  
RheinMain CongressCenter (RMCC)  
Wiesbaden, Germany

ZELL  CHEMING  
CONFERENCE



On behalf of the organizing committee



**Markus Biesalski**  
TU Darmstadt



**Thomas Heinze**  
Friedrich-Schiller-  
University Jena



**Samuel Schabel**  
TU Darmstadt



**Petra Hanke**  
ZELLCHEMING

**ZELLCHEMING**  
CONFERENCE



**TECHNISCHE  
UNIVERSITÄT  
DARMSTADT**

2022  
conference

We cordially invite you to the

## First International ZELLCHEMING-Conference – Cellulose-Based Materials – From Science to Technology,

which will take place from Sunday June 26th until Wednesday  
June 29th 2022, in Wiesbaden, Germany.

This conference is a joint initiative of the association ZELLCHEMING  
e.V. with its technical committees and the Technical University of  
Darmstadt.

The aim of this international conference is to bring together  
researchers from science and industry who are interested in R&D  
topics related to polysaccharides, paper-based materials and  
bioeconomy. Essentially it is our intention that chemical, physical, and  
engineering experts disseminate and discuss their findings, while also  
creating a completely new platform for close interaction of academia  
and industry.

We are pleased to be able to offer an excellent scientific program  
structured in thematic sessions which progress from polysaccharide  
chemistry, to paper chemistry, and paper physics & engineering. In  
addition to invited lectures, we offer the opportunity to submit poster  
presentations.



# Confirmed speakers



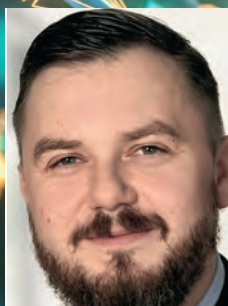
**Thomas Rosenau**  
BOKU Vienna  
Austria



**Karin Stana  
Kleinschek**  
TU Graz  
Austria



**Eugenio Ciucani**  
Holmen Iggesund  
UK



**André Lehmann**  
Fraunhofer  
Applied Polymer  
German



**Andreas Sauer**  
SE Tylose  
GmbH & Co. KG  
Germany



**Stefan Spirk**  
TU Graz  
Austria



**Axel Rußler**  
Lenzing AG  
Austria



**Catharina Fechter**  
Södra Skogsägarna  
Sweden



**Martin Gericke**  
Universität Jena  
Germany



**Tobias Meckel**  
TU Darmstadt  
Germany



**Orlando Rojas**  
The University of  
British Columbia  
Canada



**Jaan Simon**  
RWTH Aachen  
Germany



# Confirmed speakers



**Martin Thuo**  
Iowa State  
University, USA



**Gil Garnier**  
Monash University  
Australia



**Tom Lindström**  
KTH  
Sweden



**Martin Zahel**  
PTS  
Germany



**Michael Meier**  
Karlsruhe Institute  
of Technology (KIT)  
Germany



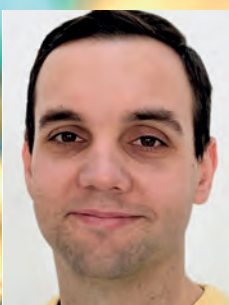
**Jean-Francis Bloch**  
TU Grenoble  
France



**William Sampson**  
Manchester  
University, UK



**Frank P. Meltzer**  
Mercer Pulp  
Products, Germany



**Thomas Harter**  
TU Graz  
Austria



**Ulrich Hirn**  
TU Graz  
Austria



**Jürgen Rühle**  
IMTEK,  
Universität Freiburg  
Germany



**Elisabeth Björk**  
RISE Research  
Institutes  
of Sweden



Sunday, June 26, 2022

18:00-20:00 Get together – Food & Drinks

Monday, June 27, 2022

**09:00-09:10 Welcome** Markus Biesalski, Thomas Heinze, Samuel Schabel

### **Cellulose Chemistry and Physics (Chair: Thomas Heinze, GER)**

09:10-10:00 Keynote: Lignocellulosic supraparticles in bioproduct development Orlando Rojas (CAN)

10:00-10:30 Biopolymers and their potential application in biomedicine Karin Stana Kleinschek (AT)

10:30-11:00 Coffee break

11:00-11:30 Cellulosic chromophores – Minute concentrations and huge effects Thomas Rosenau (AT)

11:30-12:00 New cellulose chemistry from a sustainability perspective: renewability is not enough Michael Meier (GER)

12:00-12:30 Overview on pharmaceutical applications of cellulose ethers Andreas Sauer (GER)

12:30-13:30 Lunch break

13:30-14:00 Insights into properties of cationic starches prepared by jet cooking Stefan Spirk (AT)

14:00-14:30 Novel analytical NMR-techniques for the advanced characterization of commercial cellulose ethers Martin Gericke (GER)

14:30-15:00 Current and emerging cellulose regeneration technologies André Lehmann (GER)

15:00-15:30 New aspects about regenerated cellulose fibers – Versatile and sustainable tools for broad field of applications Axel Rußler (AT)

15:30-16:00 Coffee break

16:00-17:30 Poster Short Presentations

17:30-20:00 Poster Show with pretzels & more



Tuesday, June 28, 2022

### **Paper Chemistry and Chemical Engineering of Lignocellulosics (Chair: Markus Biesalski, GER)**

09:00-09:50	Keynote: The concept of agricultural residues for nitro-oxidized nanocellulose for water remediation	Tom Lindström (SE)
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09:50-10:20	Strategies for preparing strong and transparent films from cellulose-rich fibres using papermaking methods	Lars Wågberg (SE)
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10:20-10:50	Coffee break	
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10:50-11:20	How to engineer paper bio-diagnostics?	Gil Garnier (AUS)
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11:20-11:50	Tailormade polymer networks for the generation of tailormade paper	Jürgen Rühle (GER)
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11:50-13:00	Lunch break	
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13:00-13:30	Cellulose-derived functional materials: From lubricants and electronics	Martin Thuo (USA)
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13:30-14:00	How paper can change the world – Sustainable energy generation	Jean-Francis Bloch (F)
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14:00-14:30	Laser mediated fusing of paper materials	Martin Zahel (GER)
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14:30-15:00	Mechanisms controlling dispersibility in wetlaid hydroentangled nonwovens	Thomas Harter (AT)
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15:00-15:30	Coffee break	
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### **Paper & Pulp Engineering (Chair: Samuel Schabel, GER)**

15:30-16:00	No-load power – A critical parameter for laboratory refining	Frank P. Meltzer (GER)
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16:00-16:30	The variety of dissolving wood pulps and its influence on processing	Catharina Fechter (SE)
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16:30-17:00	Stock preparation knowledge and experiences for optimal quality in sustainable 3D wet forming	Elisabeth Björk
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19:00	Conference dinner	
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Wednesday, June 29, 2022

### **Paper Engineering, Physics & Characterization (Chair: Samuel Schabel, GER)**

09:00-09:50	Keynote: Theoretical insights into paper roughness: Dependence on sheet properties and fibre morphology	William Sampson (UK)
09:50-10:20	Multiscale modeling of paper – How to get from network to sheet level	Jaan Simon (GER)
10:20-10:40	Coffee break	
10:40-11:10	Analysis of process variations in the paperboard production based on thermography	Eugenio Cuicani (SE)
11:10-11:40	Lights, camera, action! – Imaging of dynamic processes in paper	Tobias Meckel (GER)
11:40-12:10	Evaluating nanoscale contact and adhesion using FRET microscopy	Ulrich Hirn (AT)
12:10-12:20	Closing remarks	
12:20-13:00	Good-bye Lunch	

### **ZELLCHEMING-Expo (optional)**

13:00	ZELLCHEMING-Expo, Hall North, RMCC Wiesbaden
16:00-17:30	Science Flash – Young Talents' Competition, Foyer Hall North, RMCC Wiesbaden
19:30	ZELLCHEMING Summer Evening



## Registration

Conference Fees	Early Bird	from May 15, 2022
Industry	EUR 660	EUR 715
Universities/Scientific Institutes	EUR 545	EUR 590
Students (enrollment certificate req.)	EUR 250	EUR 280

10% discount for ZELLCHEMING members on the above mentioned prices.

### Optional:

Ticket ZELLCHEMING-Expo June 29, 2022	EUR 10
ZELLCHEMING Summer Evening	EUR 79

All prices incl. 19% VAT

Registration: <https://pretix.eu/zellcheming/conference/>

## Accommodation

Don't forget to book a hotel room early. Wiesbaden Congress & Marketing GmbH offers a contingent of hotels within walking distance of the RMCC. Make your reservation here.

## Contact

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