

14th International Symposium on Ionic Polymerization (IP'22)

Programme

Sunday 11/09/2022

17:00 Registration (until 18.30)

18:30 Welcome Reception - The University of Ghent, Tweakerkenstraat 2, 9000 Gent

19:30 End of the Welcome Reception

14th International Symposium on Ionic Polymerization (IP'22)

Programme

Monday 12/09/2022

08:00 Registration

08:50 Welcome

Plenary - Auditorium Andre Devreker

Session chair

Prof. Richard HOOGENBOOM
(GHENT UNIVERSITY, Ghent, Belgium)

09:00 **KL01 - Aqueous Atom Transfer Radical Polymerization in Open Air**

Prof. Krzysztof MATYJASZEWSKI
(CARNEGIE MELLON UNIVERSITY, Pittsburgh, United States)

09:30 **KL02 - Poly(2-Oxazoline)s: From New Monomers to their Combination with Other Polymer Classes**

Prof. Ulrich SCHUBERT
(UNIVERSITY OF JENA, Jena, Germany)

10:00 **KL03 - Lady of the Rings - Biodegradable Cyclic Polydisulfide Elastomers**

Dr Judit E. PUSKAS
(THE OHIO STATE UNIVERSITY, Ohio, United States)

10:30 Coffee break

Plenary - Auditorium Andre Devreker

Session chair

Prof. Dr Filip DU PREZ
(UGENT, Ghent, Belgium)

10:50 **KL04 - Recent Advances in Cationic Raft Polymerization via Reversible Chain Transfer - *Virtual Presentation***

Prof. Masami KAMIGAITO
(NAGOYA UNIVERSITY, Nagoya, Japan)

11:20 **KL05 - Using Living/Controlled Radical Polymerization in 3D Printing**

Prof. Cyrille BOYER
(THE UNIVERSITY OF NEW SOUTH WALES, Sydney, Australia)

11:50 **KL06 - Update on Polyphosphoesters: From Seawater-Degradable Polymers to Imaging**

Prof. Frederik WURM
(UNIVERSITY OF TWENTE, Enschede, The Netherlands)

12:20 Lunch

Session Session A - Auditorium Andre Devreker

Session chair

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Prof. Cyrille BOYER
(THE UNIVERSITY OF NEW SOUTH WALES, Sydney, Australia)

13:20 OC01 - Mechanistic Investigation of Cationic Polymerization of Isobutene

Dr Szilard CSIHONY
(INEOS MANUFACTURING DEUTSCHLAND GMBH, Köln, Germany)

13:40 OC02 - Precision Cationic Polymerization of o-Nitrobenzyl Vinyl Ether: Photo-Induced Pendant Transformation and Backbone Degradation

Mr Hiroyuki KUBOTA
(KYOTO UNIVERSITY, Kyoto, Japan)

14:00 OC03 - Flow Synthesis and Functionalization of Polymyrcene

Dr Daniela VULUGA
(PBS INSA ROUEN NORMANDIE, Saint-Étienne-du-Rouvray, France)

Session Session B - Auditorium Andre Vlerick

Session chair

Prof. Frederik WURM
(UNIVERSITY OF TWENTE, Enschede, The Netherlands)

13:20 OC04 - The Effect of Solvents on the Propagation Rate Coefficient

Dr Igor LACIK
(POLYMER INSTITUTE SAS, Bratislava, Slovakia)

13:40 OC05 - Borinane Boosted Bifunctional Organocatalysts for Ultrafast Ring-Opening Polymerization of Cyclic Ethers

Dr Chao CHEN
(KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, Jeddah, Saudi Arabia)

14:00 OC06 - Facile End-Group Diversification of Poly(2-Oxazoline)s Towards Applications in Nanomedicine

Dr Joachim VAN GUYSE
(LEIDEN UNIVERSITY, Leiden, The Netherlands)

14:20 Short break

Plenary - Auditorium Andre Devreker

Session chair

Dr Judit E. PUSKAS
(THE OHIO STATE UNIVERSITY, Ohio, United States)

14:30 KL07 - Photochemically Generated Ionic Species for Cationic and Step-Growth Polymerizations

Prof. Yusuf YAGCI
(ISTANBUL TECHNICAL UNIVERSITY, Istanbul, Turkey)

15:00 KL08 - Reversing Controlled Radical Polymerization: From Polymers to Monomers

Prof. Athina ANASTASAKI
(ETH ZÜRICH, Zürich, Switzerland)

15:30 Group Picture - (Meeting outside in front of the church)

15:45 Poster Presentations - Drinks & Snacks

18:30 End of the day

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Tuesday 13/09/2022

Plenary - Auditorium Andre Devreker

Session chair

Prof. Axel MÜLLER
(JOHANNES GUTENBERG UNIVERSITY MAINZ, Mainz, Germany)

09:00 KL09 - Biostable Polyurethanes

Prof. Rudolf FAUST
(UNIVERSITY OF MASSACHUSETTS LOWELL, Massachusetts, United States)

09:30 KL10 - Polypeptoid Polymers by Controlled Zwitterionic Ring-Opening Polymerization: Twists and Turns

Dr Zhang DONGHUI
(LOUISIANA STATE UNIVERSITY, Louisiana, United States)

10:00 KL11 - Macromolecular Engineering via Polylactide Stereocomplexation

Prof. Nikos HADJICHRISTIDIS
(KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KAUST), Jeddah, Saudi Arabia)

10:30 Coffee break

Plenary - Auditorium Andre Devreker

Session chair

Prof. Nikos HADJICHRISTIDIS
(KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KAUST), Jeddah, Saudi Arabia)

10:50 KL12 - Precision Synthesis of Various Functional Polymers via Controlled/living Cationic Polymerization - *Virtual Presentation*

Prof. Sadahito AOSHIMA
(OSAKA UNIVERSITY, Osaka, Japan)

11:20 KL13 - Poly(2-oxazoline)s: from Nucleic Acid Delivery to Oil Additives

Dr Remzi BECER
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

11:50 KL14 - Terpenes and Terpene-Based Monomers: a Treasure Chest for Biobased Materials Generated via Anionic Polymerization

Prof. Holger FREY
(JOHANNES GUTENBERG UNIVERSITY MAINZ, Mainz, Germany)

12:20 Lunch

Session Session A - Auditorium Andre Devreker

Session chair

Dr Zhang DONGHUI
(LOUISIANA STATE UNIVERSITY, Louisiana, United States)

13:20 OC07 - Redox-Responsive Functional Polymeric Materials: Design and Applications

Prof. Amitav SANYAL
(BOGAZICI UNIVERSITY, Istanbul, Turkey)

13:40 OC08 - Orchestrated Regulation of Host-Guest Interactions Through Ph- and Thermoresponsive Polymers

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Mr Aurélien VEBR
(GHENT UNIVERSITY, Ghent, Belgium)

14:00 OC09 - Controlled Oxyanionic Polymerization of Propylene Oxide: Unlocking the Molecular-Weight Limitation by a Soft Nucleophilic Catalysis

Ms Charlotte FORNACIARI
(UNIVERSITÀ DEGLI STUDI DI PAVIA, Mons, Belgium)

14:20 OC10 - Anionic Polymerization and Polyhomologation: Perfect Partners for the Synthesis of Well-Defined Pe-Based Materials

Dr Konstantinos NTETSIKAS
(KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KAUST), Thuwal, Saudi Arabia)

14:40 OC11 - Novel Concrete Superplasticizers with Sterically Hindered Amines as Stabilizing Pendant Side Chains

Dr Metwally MUHAMMAD
(GHENT UNIVERSITY, Ghent, Belgium)

15:00 OC12 - Metal-Free Synthesis and Self-Assembly of Novel Block Copolymers

Mr Robert MUNDIL
(CHARLES UNIVERSITY, Prague, Czech Republic)

Session Session B - Auditorium Andre Vlerick

Session chair

Dr Meike LEISKE
(GHENT UNIVERSITY, Ghent, Belgium)

13:20 OC13 - Synthesis of Poly(Ethylenimine-B-2-Oxazoline)-Based Copolymers for Gene Delivery Applications.

Mrs Véronique BENNEVAULT
(INSTITUT PARISIEN DE CHIMIE MOLÉCULAIRE, Paris Cédex 05, France)

13:40 OC14 - Linear Poly(Ethylenimine-Propylenimine) Random Copolymers for Gene Delivery: From Polymer Synthesis to Efficient Transfection with High Serum Tolerance

Ms Ine MERTENS
(UGENT, Ghent, Belgium)

14:00 OC15 - Positively Charged and Glycosylated Poly(2-Oxazoline)s for Rna Transfection

Mr Graham HAYES
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

14:20 OC16 - Design of Nitrile-Functionalised Poly(2-Oxazoline)s as Novel and Versatile Platform for Drug Delivery System

Ms Zihnil Adha Islamy MAZRAD
(FACULTY OF PHARMACY AND PHARMACEUTICAL SCIENCES, MONASH UNIVERSITY, Melbourne, Australia)

14:40 OC17 - Functional 2-Oxazoline Monomers to Combine Cationic with Controlled Radical Polymerisation

Ms Jungyeon KIM
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

15:00 OC18 - Designing Degradable Poly(2-Isopropenyl-2-Oxazoline)- Materials for Drug Delivery Applications

Dr Valentin Victor JERCA
(CENTRE OF ORGANIC CHEMISTRY "COSTIN D. NENITZESCU", Bucharest, Romania)

15:20 Coffee break

Plenary - Auditorium Andre Devreker

15:50 KL16 - Novel Nanostructured Polymer Assemblies by Functional Polymers Obtained via Quasiliving Ionic Polymerizations

Prof. Bela IVAN
(RESEARCH CENTRE FOR NATURAL SCIENCES , Budapest, Hungary)

Session chair

Dr Remzi BECER
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

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- 16:20** **KL17 - Polymer Therapeutics via the Spontaneous Zwitterionic Copolymerisation of 2-Oxazolines**
Dr Kristian KEMPE
(MONASH UNIVERSITY, Melbourne, Australia)
- 18:30** **Reception at the City Hall of Ghent - Pacification Room (Botermarkt 1, 9000 Gent)**
- 19:30** **End of Reception at the City Hall of Ghent**

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Wednesday 14/09/2022

Plenary - Auditorium Andre Devreker

09:00 Session chair

Prof. Richard HOOGENBOOM
(GHENT UNIVERSITY, Ghent, Belgium)

09:00 KL 18 - Anionic Polymerisation, Post Functionalisation and Hydrogenation of Dienes as Replacements for Polyisobutene Dispersants

Prof. David HADDLETON
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

09:30 KL19 - Helical Polyisocyanates Synthesized by Living Anionic Polymerization Toward Peptide Mimicry

Prof. Jae-Suk LEE
(GWANGJU INSTITUTE OF SCIENCE AND TECHNOLOGY, Gwangju, Korea, South)

10:00 KL20 - Molecularly Designed Poly(2-oxazoline)s for Tuning the Properties of Biointerfaces

Dr Edmondo Maria BENETTI
(UNIVERSITY OF PADOVA, Padova, Italy)

10:30 Coffee break

Plenary - Auditorium Andre Devreker

Session chair

Dr Edmondo Maria BENETTI
(UNIVERSITY OF PADOVA, Padova, Italy)

10:50 KL21 - The Investigation of pH Responsive Switchable Protein Adsorption Properties of Poly(2-methyl-2-oxazoline) Based Coatings - *Virtual Presentation*

Prof. Yanmei WANG
(UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA, Hefei Anhui, China)

11:20 KL22 - Pushing the Limits of NCA Polymerization: About the Synthesis of Miktoarm Star Polymers and Cylindrical Bottlebrush Copolymers with Compartmentalized Surface Functionality

Prof. Matthias BARZ
(LEIDEN UNIVERSITY, Leiden, The Netherlands)

11:50 KL23 - Organocatalyzed Routes to Challenging (Co)polymer Structures - *Virtual Presentation*

Prof. Daniel TATON
(UNIVERSITY OF BORDEAUX, Pessac, France)

12:20 Lunch

Session Session A - Auditorium Andre Devreker

Session chair

Prof. Jae-Suk LEE
(GWANGJU INSTITUTE OF SCIENCE AND TECHNOLOGY, Gwangju, Korea, South)

13:20 OC19 - Synthesis of Poly(Furfuryl Methacrylate) by Anionic Polymerization and its Application for Low Temperature-Processed Organic Thin Film Transistors via Diels-Alder Reaction-Based Crosslinking

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Prof. Myung-Han YOON
(GIST, Gwangju, Korea, South)

- 13:40 OC20 - Geometric Requirements for Living Anionic Polymerization in Hydrocarbon Media: Polymerization of Rotationally Constrained 1,3-Dienes**

Mrs Ramona BARENT
(UNIVERSITY OF MAINZ, Mainz, Germany)

- 14:00 OC21 - Investigating the Influence of Polymer Architecture on the Microalgae Flocculation Efficiency of Ph-Responsive Polymers**

Dr Valentin BEYER
(KU LEUVEN, Kortrijk, Belgium)

- 14:20 OC22 - From Gradients to Random Copolymers: Real-Time ¹H and ³¹P NMR Kinetics of the Statistical Copolymerization of Cyclic Phosphoesters and Cyclic Carbonates**

Mr Timo RHEINBERGER
(UNIVERSITY OF TWENTE, Enschede, The Netherlands)

- 14:40 OC23 - Functional Polyesters via Ring Opening Copolymerization of γ -Hydroxy- γ -Butyrolactone and γ -Caprolactone**

Ms Chloé PASCOUAT
(UNIVERSITY OF BORDEAUX, Pessac, France)

- 15:00 OC24 - Living/Controlled Cationic Polymerization of Isobutylene Using Complexes FeCl₃ as Co-Initiators: Mechanism Understanding, Synthesis And Application Of End-Functional Polyisobutylene -**

Prof. Sergei KOSTJUK
(RESEARCH INSTITUTE FOR PHYSICAL CHEMICAL PROBLEMS OF THE BELARUSIAN STATE UNIVERSITY, Minsk, Belarus)

Session Session B - Auditorium Andre Vlerick

Session chair

Prof. Dagmar D'HOOGHE
(GHENT UNIVERSITY, Zwijnaarde (Ghent), Belgium)

- 13:20 OC25 - Super-Hydrophilic Poly(2-Oxazoline): Synthesis and Application Towards Drug Delivery**

Dr SOMDEB JANA
(GHENT UNIVERSITY, Ghent, Belgium)

- 13:40 OC26 - Synthesis of Antimicrobial Oxazoline Copolymers and their Application in an In Vivo Insect Model**

Mrs Matilde CONCILIO
(UNIVERSITY OF WARWICK, Coventry, United Kingdom)

- 14:00 OC27 - Ferrostatin-Nanotherapeutic Materials for Neurodegeneration Applications**

Mr Joshua MORROW
(MONASH INSTITUTE OF PHARMACEUTICAL SCIENCES, Melbourne, Australia)

- 14:20 OC28 - Model-Guided Study of 2-Oxazolines Cationic Ring-Opening Polymerization with Special Attention to Side Reactions**

Dr Mariya EDELEVA
(GHENT UNIVERSITY LABORATORY FOR CHEMICAL TECHNOLOGY, Ghent, Belgium)

- 14:40 OC29 - Effect of Molar Mass and Cloud Point: Block Versus Statistical Copolymer Architecture**

Ms Lezhi WANG
(IMPERIAL COLLEGE LONDON, London, United Kingdom)

- 15:00 OC30 - From Cationic Ring-Opening Polymerization of 2-Oxazolines to Supermacroporous Hydrogels via Uv-Assisted Fast Cryogelation**

Dr Tomas SEDLACIK
(GHENT UNIVERSITY, Ghent, Belgium)

- 15:20 Coffee break**

Plenary - Auditorium Andre Devreker

Session chair

Prof. Matthias BARZ
(LEIDEN UNIVERSITY, Leiden, The Netherlands)

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- 15:50** **KL24 - Group Transfer Polymerisation for the Synthesis of Block Copolymers - - *Virtual Presentation***
Prof. Theoni GEORGIOU
(IMPERIAL COLLEGE OF LONDON, London, United Kingdom)
- 16:20** **KL25 - Reversible Transformations of Polymer Topologies through Visible Light and Darkness**
Dr Evelina LIAROU
(GHENT UNIVERSITY, Ghent, Belgium)
- 16:50** **KL26 - Model-based Design of Linear, Branched and Crosslinked Polymers**
Prof. Dagmar D'HOOGE
(GHENT UNIVERSITY, Zwijnaarde (Ghent), Belgium)
- 18:30** **Banquet - Monasterium PoortAckere**
- 23:00** **End of Banquet at the Monasterium PoortAckere**

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Thursday 15/09/2022

Plenary - Auditorium Andre Devreker

Session chair

Prof. Helmut SCHLAAD
(UNIVERSITY OF POTSDAM, Potsdam, Germany)

09:00 KL27 - Tapered Block and Multiblock Copolymers via Statistical Anionic Copolymerization

Prof. Axel MÜLLER
(JOHANNES GUTENBERG UNIVERSITY MAINZ, Mainz, Germany)

09:30 KL28 - PEO-Based Block Copolymers as Polymer Electrolytes for Lithium-Ion Batteries

Prof. Patrick THEATO
(KIT-KARLSRUHE INSTITUTE OF TECHNOLOGY, Karlsruhe, Germany)

10:00 KL29 - Polyphosphoesters: a Valuable Platform for Future Applications in Health and Energy"

Prof. Christine JÉRÔME
(UNIVERSITY OF LIEGE, Liège, Belgium)

10:30 Coffee break

Plenary - Auditorium Andre Devreker

Session chair

Prof. Patrick THEATO
(KIT-KARLSRUHE INSTITUTE OF TECHNOLOGY, Karlsruhe, Germany)

10:50 KL30 - Sequence-Controlled Vinyl Polymers: Precision Synthesis and Functions - *Virtual Presentation*

Prof. Makoto OUCHI
(KYOTO UNIVERSITY, Kyoto, Japan)

11:20 KL31 - Kraton Polymers: from Polymer Design to Application

Dr Marianne STOL
(KRATON, Amsterdam, The Netherlands)

11:50 KL32 - Ring-Opening Polymerization of Bio-Sourced Heterocyclic Monomers

Prof. Helmut SCHLAAD
(UNIVERSITY OF POTSDAM, Potsdam, Germany)

12:20 Lunch

Session Session A - Auditorium Andre Devreker

Session chair

Dr Marianne STOL
(KRATON, Amsterdam, The Netherlands)

13:20 OC31 - Polymeric Nanoparticles for Biological Application

Ms Shuchen WANG
(IMPERIAL COLLEGE LONDON, London, United Kingdom)

13:40 OC32 - Structure-Property Relationships for Polycarboxylate Ether Superplasticizers by Means of Raft Polymerization

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Ms Phanumat LATSRI SAENG
(UGENT, Ghent, Belgium)

14:00 OC33 - Facile Synthetic Routes to Well-Defined Polystyrene / Polyisoprene Pom-Pom and Barbwire Topologies

Prof. Valerian HIRSCHBERG
(KARLSRUHE INSTITUTE OF TECHNOLOGY, Clausthal, Germany)

14:20 OC34 - Radical Copolymerization of Alkenyl Boronates for Syntheses of Functional Copolymers Based on Unique Reactivity and Transformability of Boron

Mr Hiroshi MAKINO
(KYOTO UNIVERSITY, Kyoto, Japan)

14:40 OC35 - Lord of the Rings: Biodegradable Polydisulfide Elastomers

Dr Kristof MOLNAR
(THE OHIO STATE UNIVERSITY, Wooster, OH, United States)

Session Session B - Auditorium Andre Vlerick

Session chair

Dr Kristian KEMPE
(MONASH UNIVERSITY, Melbourne, Australia)

13:20 OC36 - Poly(2-Oxazoline)s: From High Tunability and Versatility to New Hydrophilic Stabilizers for Conventional and Pickering Emulsions

Mr Valentin BARDOULA
(GHENT UNIVERSITY/LILLE UNIVERSITY, Ghent, Belgium)

13:40 OC37 - From Functional to Flexible and Rigid Polydienes via Anionic Polymerization: in Pursuit of Bio-Based Thermoplastic Elastomers

Mr Christoph HAHN
(JOHANNES GUTENBERG-UNIVERSITY MAINZ, Mainz, Germany)

14:00 OC38 - Advancing the Field of Bio-Derived Polymers Synthesised by Living Anionic Polymerisation

Mr Lloyd SHAW
(DURHAM UNIVERSITY, Durham, United Kingdom)

14:20 OC39 - Photoinduced Cationic Chain-Growth Condensation Polymerization of Heteroaromatic Compounds

K?l?çlar HÜSEYİN CEM
(İSTANBUL TECHNICAL UNIVERSITY, Istanbul, Turkey)

14:40 OC40 - Expanding The Realm of Dye-Labelled Poly(2-Oxazoline)s Beyond Probing Behaviour

Mr Ronald MERCKX
(GHENT UNIVERSITY, Ghent, Belgium)

15:00 Coffee break

Plenary - Auditorium Andre Devreker

15:30 Session chair

Prof. Richard HOOGENBOOM
(GHENT UNIVERSITY, Ghent, Belgium)

15:30 KL33 - Combination of Living Cationic and Reversible Addition-Fragmentation Chain Transfer (RAFT) Polymerization for Macromolecular Engineering - *Virtual Presentation*

Prof. Priyadarsi DE
(INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH KOLKATA, West Bengal, India)

16:00 KL34 - Biomimetic Polymers – A Cell-oriented Approach for the Design of Tailored Therapeutics

Dr Meike LEISKE
(GHENT UNIVERSITY, Ghent, Belgium)

16:30 Concluding remarks

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Programme

Friday 16/09/2022

- 10:30 Excursion - Ghent Discovery Tour
- 16:00 End of the Excursion "Ghent Discovery Tour"