	MONDAY - 11 <sup>th</sup> August - Click title for abstract			
11h30 – 13h45	Registration			
13h45 – 14h00	Welcome remarks - Chris Bowman & Filip Du Prez (Room 2)			
	Plenary session - Chair: Chris Bowman			
14h00 – 14h40		Stuart Rowan (University of Chicago, USA	A)	
	Dynamic Networks as a Route to Access Pluripotent Materials			
14h40 – 15h20	Coffee break			
	Session 1.1 - Chair: Chris Bowman (Room 2)	Session 1.2 - Chair: John Torkelson (Room 1)	Session 1.3 - Chair: Julia Kalow (Room 3)	
15h20 – 15h45	Philip Taynton (Mallinda Inc., USA) <u>Lessons learned: Commercial Development of Imine-linked Vitrimers</u>	Christoph Weder (Univ. Fribourg, Switzerland)  Stimuli-Responsive Polymers Based on  Dynamic Bonds	Rigoberto Advincula (Univ. Tennessee, USA)  3D/4D Printing of Smart Network Materials with Al/ML  Directed Properties	
15h45- 16h00	Jonas Debuyck (Ghent University, Belgium)  Low-Viscosity, Dynamic Amidoamine Hardeners with Tunable Curing Kinetics for Epoxy Adhesives	Jonas Grün (University of Jena, Germany)  Reversible Electrostatically Crosslinked  Networks from Star-Shaped Block Copolymers	Tao Zhang (Univ. Groningen, Netherlands) <u>Dynamic Covalent Polymers for Stimuli-Responsive 4D</u> <u>Printing</u>	
16h00 – 16h15	Xavier Montané (University Rovira i Virgili, Spain)  Exploring the Role of Rare-Earth Triflates as Catalysts in Modulating the Stress Relaxation and Creep Behavior of Poly(epoxy imine) Vitrimers	Georges Formon (Univ Fribourg, Switzerland)  Expanding Supramolecular Polymers from Synthesis to Responsiveness	Célia Ziane (LIST, Luxemburg)  Formulation and 3D Printing of High-Performance Epoxy- Amine Vitrimers	
	Salomé Luce (ESPCI Paris, France)	Maximilian Hagemann (Aalto University, Finland)	Armando Escribá-Flores (Uni. Rovira i Virgili, ES)	
16h15 – 16h30	Dynamic Silyl Ether Linkages for Advanced Material  Design	High-Performance Supramolecular Materials	Advanced Co-Network Design and Properties of Dual- Cured Vitrimeric Acrylic/Epoxy Systems for 3D VAT Photopolymerization	
16h30 –	Wei Zhang (University of Colorado Boulder, USA)	Enrico Dalcanale (University of Parma, Italy)	Katharina Ehrmann (TU Wien, Austria)	
16h55	Dynamic Polymer Networks with Closed-loop Recyclability Enabled by Dynamic Covalent Chemistry	Non-covalent DPN: challenges and opportunities	New Concepts for 3D Printing Dynamic Polymer Networks	
16h55 - 17h15	Poster installation			
17h15 – 19h00	Poster session with drinks and snacks			

TUESDAY - 12 <sup>th</sup> August - Click title for abstract				
	Plenary session - Chair: Filip Du Prez (Room 2)			
08h45 - 09h25	Kristi Anseth (University of Colorado Boulder, USA)			
091125		Photoadaptable Hydrogels for Biological Applications		
	Session 2.1 - Chair: Hannes Houck (Room 2)	Session 2.2 - Chair: Svetlana Sukhishvili (Room 1)	Session 2.3 - Chair: Katarina Ehrmann (Room 3)	
001.00	Filip Du Prez (Ghent University, Belgium)	Melissa Grunlan (Texas A&M University, USA)	Marco Sangermano (Politecnico di Torino, Italy)	
09h30 - 09h55	How to Unlock the Industrial Potential of Reprocessable	Cartilage Mimetic Substitutes Prepared from	Sustainable Bio-based UV-cured Dynamic Polymer	
031100	Thermosets through Dynamic Covalent Chemistry?	<u>Dynamic Hydrogels</u>	<u>Networks</u>	
	Matheus Nachbar (IMP, INSA Lyon, France)	Martin Hrubý (Univ. Prague, Czech Republic)	Charles Jehl (LIST, Luxembourg)	
09h55 - 10h10	Exploring the Impact of Catalyst Nature on the	<u>Dynamic Polymer Networks at the Nanoscale:</u>	A Recyclable, Reshapable and UV-Curable	
101110	Properties of PET-based CANs derived from Textiles	Metal Coordination and Ionic Interactions for Biomedicine	Polybenzoxazine Vitrimer Enabling Closed-loop 3D Printing Applications	
	Bram Daelman (Ghent University, Belgium)	Abdon Pena-Francesch (Univ. Michigan, USA)	Edoardo Albertini (Politecnico di Torino, Italy)	
10h10 -	Exploiting the Reversible Ring-Opening Reaction of	Self-Assembled Dynamic Networks from	Vitrimers Based on Epoxidized Cardanol Resin and	
10h25	Lactones to Develop Dynamic Polyamide Networks	Bioinspired Protein Materials	Cystamine for 3D Printing Applications	
10h25 -				
10h55		Coffee break		
	Session 3.1 - Chair: Stuart Rowan (Room 2)	Session 3.2 - Chair: Jean-Marie Raquez (Room 1)	Session 3.3 - Chair: Sandra Schlögl (Room 3)	
	,	Hans Heuts (TU Eindhoven, Netherlands)	Audrey Llevot (LCPO Bordeaux, France)	
10h55 -	Renaud Nicolaÿ (ESPCI, France) From Phase Separation to Nitrene Chemistry: Some		Audrey Lievot (LCPO Bordeaux, France)	
11h20	Recent Advances in the Design of Dynamic Polymer	Tuning the Properties of Dynamic Polymer	Exploiting the Reversible Dimerization of N-Heterocyclic	
	Networks by Reactive Processing	Networks using Catalyst-free Trans-reactions	Carbenes to Access DPN with an Organocatalytic Activity	
	Daniel Schmidt (LIST, Luxembourg)	Stephan Maes (Ghent University, Belgium)	Matthias Udo Mayer-Kriehuber (Leoben, Austria)	
11h20 - 11h35		Exploring Sulfonyl-Containing Motifs in Covalent	Unlocking the Future of Covalent Adaptable Networks:	
111135	Fundamentals of Transesterification in Epoxy Vitrimers	Adaptable Networks	Thermally Latent Catalysts with Tailored Activation and Deactivation Temperatures	
	Sasan Moradi (U. Politècnica Catalunya, Spain)	Tinatin Kouprava (LIST, Luxembourg)	Christoph Schmidleitner (Leoben, Austria)	
11h35 -	Development of Recyclable Thermally Conductive	, ,		
11h50	Vitrimers through Engineered Sequential Stress-	<u>Selective Chemical Recycling of Polybenzoxazine</u> <u>Vitrimer-Based Flexible Electronics</u>	Frontal Polymerization of Thiol-Acrylate Covalent Adaptable Networks	
	Relaxation Dynamics Loc Tan Nguyen (Ghent University, Belgium)	Hang Zhang (Aalto University, Finland)		
11h50 -		Interpenetrating Network Hydrogels: from Trainable	Devon Shipp (Clarkson University, USA)	
12h05	Dynamic Covalent Chemistry using β-Amino Amides for	Responses to Feedback-Controlled Dynamic Soft	Dynamic Networks Based on Poly(Methacrylic	
	Robust, Recyclable Covalent Adaptable Networks	<u>Devices</u>	Anhydride) and its Copolymers	
12h05 -	Chris Bowman (University of Colorado Boulder, USA)	Pierre Verge (LIST, Luxembourg)	Allan Guymon (Brigham Young Univ., USA)	
121105 - 12h30	Dual Cure Approaches Involving Dynamic Covalent	Polybenzoxazine-based Vitrimers: from Chemistry	Controlled Radical Photopolymerization and	
	<u>Chemistry</u>	to Applications	Photoinitiation to Direct CAN Structure	
12h30 - 13h30	Lunch**			
14h30 -				
20h00	Free time for potential excursions			

 $<sup>\</sup>ensuremath{^{\star\star}}$  - 1 h discussion with invited/plenary speakers about DPN-nomenclature

		WEDNESDAY - 13 <sup>th</sup> August - Click title for abstract			
	Plenary session - Chair: Kristi Anseth ( <u>Room 2</u> )				
09h00 - 09h40	Julia Kalow (Northwestern University, USA)				
031140	Defect Engineering in Covalent Adaptable Networks				
	Session 4.1 - Chair: William Dichtel (Room 2)	Session 4.2 - Chair: Philip Taynton (Room 1)	Session 4.3 - Chair: Pierre Verge (Room 3)		
	Pengfei Cao (Beijing Univ., China)	Maarten Smulders (Wageningen Univ., Netherlands)	Jean-Marie Raquez (Univ. Mons & Montreal)		
09h45 - 10h10	Dynamic Crosslinked Elastomers with High Mechanical Robustness and Tunable Recyclability	Design of Macroscopic Properties of Polyimine Networks by Molecular and Mesoscale Control	Developing Non-isocyanate Polyurethane Chemistry as Sustainable Covalent Adaptive Networks for Structural Composites		
	Mickaël Du Fraysseix (LCPO Bordeaux, France)	Jessica Mangialetto (VUB, Belgium)	Killian Bourdon (LIST, Luxembourg)		
10h10 - 10h25	Synthesis of Aliphatic Imine-based Self-healing Poly(dimethylsiloxane) and their Stability in Simulated Space Environment	Cure Diagrams as Tools for Understanding Thermoreversible Diels-Alder Networks	Fibre-Matrix Interactions in Carbon and Flax Fibre Reinforced Transesterification-Based Vitrimers		
	Adrià Roig (Ghent University, Belgium)	Lucien Cousin (ETH Zurich, Switzerland)	Anthony Hoogmartens (EPFL, Switzerland)		
10h25 - 10h40	Exploring β-Amino Ester Chemistry for the Recycling of Epoxy and Polyurethane Materials	Entropy Links Molecular and Macroscopic Behavior in Dynamic Covalent Networks	Novel Initiator-Free Reprocessable Acrylate- Thermoplastic Composites with Enhanced Interfacial Interactions and Relaxation Behavior		
10h40 -	Erica Laguzzi (Univ. Piemonte Orientale, Italy)	Emilie Moses (Univ. North Carolina, USA)	Channya Hesse (LIST, Luxembourg)		
10h55	Aza-Michael Magic: Engineering Reprocessable Polymers with β-amino Esters	<u>Dynamically Tuning the Kuhn Length to Expand</u> <u>Property Control of Polymer Networks</u>	Optimizing the Chemical Recycling of Vitrimers: Effects of Acidolysis on Polybenzoxazine Vitrimers		
10h55 - 11h25	Coffee break				
	Session 5.1 - Chair: Pengfei Cao (Room 2)	Session 5.2 - Chair: Maarten Smulders (Room 1)	Session 5.3 - Chair: Jacob Lessard (Room 3)		
11h25 -	Huaping Xu (Tsinghua University, China)	Hannes Houck (University of Warwick, UK) Turning Conventional Photodimers into Reversible	Katrien Bernaerts (Maastricht University, Netherlands) From Lignin Derived Building Blocks to Covalent		
11h50	<u>Dynamic Selenium/Tellurium-Containing Polymers</u>	Bonding Motifs for Closed-loop Material Recycling	Adaptable Networks and Recyclable Materials		
11h50 -	Xiangqiang Pan (Soochow University, China)	Yi-Ru Chen (TU Eindhoven, Netherlands)	Claudio Pellecchia (Univ. Salerno, Italy)		
	Dynamic Polymer Networks Based on Selenonium Salt	Revealing the Dynamicity of Hexahydrotriazine for Multi-Circularity in Thermosets	Bio-based Vitrimeric Thermosets from Polylactide and Isosorbide Diepoxide		
12h05 -	Jeremy Wulff (University of Victoria, Canada)	Alper Balkan (EPFL, Switzerland)	Marlies Thys (VITO, Belgium)		
12h20	<u>Do Dynamic Linkages in Diazirine Reagents Drive</u> <u>Polymer Compatibilization?</u>	Cinnamate-Based Photo-Curable Thiol- Ene/Nanocellulose Composite Coatings	<u>Dynamic Epoxy-Acrylate Networks from Recycled and</u> <u>Biobased Building Blocks</u>		
12h20 -	Maciek Kopec (University of Bath, UK)	Jonathan Jayaratnam (ESPCI, France)	Mikelis Kirpluks (LSIWC, Latvia)		
12h35	<u>Lipoic Acid vs DOT as Cleavable Comonomers for</u> <u>Degradable and Reversible Polyacrylate Networks</u>	Influence of Dynamic Chemistry on Self-Patterning	Bio-Based β-Amino Polyester Vitrimers: A Sustainable and Recyclable Adhesive for Fibreboard Production		
12h35 -	Benjamin Nelson (Univ. Colorado Boulder, USA)	Yizheng Tan (Jiangnan University, China)	Agate Levron (ICG Montpellier, France)		
12h50	Multifunctional Dithiolane Monomers for Dynamic and Recyclable Networks	<u>Light-Induced Modular programming method for</u> <u>multiple substrates</u>	Fluorinated Tertiary N,O-acetals: a Catalyst-free Exchange Platform for Bio-based CANs Applications		
12h50 - 13h50		Lunch			

WEDNESDAY - 13 <sup>th</sup> August - Click title for abstract			
	Session 6.1 - Chair: Joost Brancart (Room 2)  Zhibin Guan (University of California, Irvine, USA)	Session 6.2 - Chair: Audrey Llevot (Room 1)  Marc Guerre (CNRS Toulouse, France)	Session 6.3 - Chair: Hans Heuts (Room 3)  Jacob Lessard (University of Utah, USA)
13h50 - 14h15	Sustainable Polymer Designs via Robust Dynamic Covalent Chemistry	Disulfide-based Vitrimers: from Mechanistic Insight to Industrial Implementation	Architectural Effects in Associative Covalent Adaptable  Networks
14h15 - 14h30	Jaclyn McLaughlin (Rowan University, USA) <u>Design of Vinyl Ester Precursors to Fabricate Tunable</u> <u>Imine-Based Covalent Adaptable Networks</u>	Valeria Berner (Fraunhofer ICT, Germany)  Thermal and Flame Retardant Properties of Recyclable Disulfide Based Epoxy Vitrimers	Sunny Sidhartha (Anton Paar, Germany)  Molecular changes meet macroscopic flow: Novel polymer insights by in situ Raman analysis in Rheology
14h30 - 14h45	Igor Luzinov (Clemson University, USA)  Chemically Recyclable Polyolefin-based Covalent  Adaptable Networks	Paula Fanlo (CIDETEC / POLYMAT, Spain) <u>Dynamic by Design: Unlocking Full Relaxation in Disulfide Epoxy Networks</u>	Pascal Carrière (Université de Toulon, France)  Applications of Spectroscopies to Reveal Complex  Relaxations of Aromatic Disulfide Networks
14h45 - 15h00	Molly Sun (Northwestern University, USA)  Reprocessing Thermoset Polyurethane through Twin- Screw Extrusion and Green Catalysis	Zviadi Katcharava (Univ. Halle-Wittenberg, Germany)  Pyrrolidinium-based Poly(ionic liquid) Vitrimers for Self-healing and Re-processable Electrolytes	Andreas Klingler (Leibniz-IVW, Germany) Simultaneous Insights into the Dynamic Thermal Volume Expansion and Shear Relaxation Behaviour of Dynamic Polymer Networks
15h00 - 15h15	Víctor Lechuga-Islas (Univ. Liege, Belgium)  Foam-to-Adhesive Recycling of Self-Blown Non- Isocyanate Polyurethane Foams Incorporating Disulfide  Covalent Adaptable Networks	Josiah Marshall (University North Carolina, USA) <u>Bottlebrush-Templated Percolation of P3HT toward</u> <u>Soft Electronics</u>	Nathan Arnould (CNRS Montpellier, France)  Reversible Classical Lewis Pair Adduct Formation for the Control of Vinylogous Urethane Transamination
15h15 - 15h40	William Dichtel (Northwestern University, USA) Reprocessing Thermoset Polyurethane Foams Using Organic Catalysts	Wolfgang Binder (U. Halle-Wittenberg, Germany) <u>Dynamic Polymer Science – the Power of Non-covalent Bonds</u>	Alexa Kuenstler (Univ. Illinois, USA)  Chemical Control of the Linear Viscoelasticity of Dynamic  Covalent Networks
15h40 - 16h10		Coffee break	
	Session 7.1 - Chair: Renaud Nicolaÿ (Room 2)	Session 7.2 - Chair: Zhibin Guan (Room 1)	Session 7.3 - Chair: Christoph Weder (Room 3)
16h10 - 16h35	John Torkelson (Northwestern University, USA)  The temperature dependence of dynamics in CANS:  Different factors control the apparent activation energies of stress relaxation and viscous creep in associative CANs and dissociative CANs	Sandra Schlögl (PCC Leoben, Austria) <u>Dynamic Photopolymers Containing Reversibly</u> <u>Activatable Catalysts</u>	Joost Brancart (Vrij Univ. Brussel, Belgium)  Dynamic Polymer Network Design for Applications using Structure-Property Relations
16h35 - 16h50	Vincent Scholiers (Ghent University, Belgium) <u>Transalkylation as a Gateway to Multifunctional</u> <u>Dynamic Polymer Networks</u>	lanis Retailleau (ESPCI-PSL Univ, France) <u>Transparency, Processability and High Tg for Vitrimer</u> <u>Composites in Photovoltaics</u>	Vincent Boulic (LIST, Luxembourg) <u>Degradation and Stability of a Bio-Based</u> <u>Polybenzoxazine Vitrimer during Mechanical Recycling</u>
16h50 - 17h05	Natanel Jarach (Hebrew Univ. Jerusalem, Israel)  Untighten the Knot: Fully Recyclable, Photocurable  Disulfide-Containing Adhesive	Elisabeth Rossegger (Leoben, Austria)  Wavelength-Dependent Dynamic Behavior in  Photopolymer Networks	Stefan Maessen (TU Eindhoven, Netherlands)  Highly Ordered Dynamic Covalent Networks and How to  Photocontrol Them
17h05 - 17h20	Lillian Felsenthal (Northwestern University, USA)  Robust Self-Healing Adhesives Based on Dynamic Urethane Exchange Reactions	Osman Konuray (UPC Barcelonatech, Spain) Investigating the Dynamicity of Epoxy Vitrimers as Influenced by Dynamic Bond Content: A Network Decrosslinking Approach	Ian Wyllie (University of Colorado Boulder, USA)  Transport Dynamics in Nominally Non-Porous and Swollen Covalent Adaptable Networks
17h20 - 17h45	Andrew Slark (University of Sheffield, UK)  Covalent Adaptable Networks from Polyurethanes and Unsaturated Polyesters via Diels-Alder and Michael Addition Chemisty	François Tournilhac (CNRS-ESPCI, France)  Latency, catalysis and phase separation in epoxy- based vitrimers	Charles-André Fustin (UC Louvain, Belgium)  Development of Vitrimers for Solid State Polymer  Electrolytes
19h30	Gala Dinner		

THURSDAY - 14 <sup>th</sup> August - Click title for abstract			
	Session 8.1 - Chair: Andrew Slark (Room 2)	Session 8.2 - Chair: Katrien Bemaerts (Room 1)	Session 8.3 - Chair: Enrico Dalcanale (Room 3)
09h00 -	Sabyasachi Gaan (Empa, Switzerland) Phosphorus-based Dynamic Covalent Adaptable	Svetlana Sukhishvili (Texas A&M Univ., USA)	Michael Dickey (NC State University)
09h25	Networks: Addressing Fire Protection and Recyclability as a Unified Solution	Shape Morphing Materials with Dynamic Covalent Bonds	Tough Glassy Gels Crosslinked by Liquids
09h25 -	Shermin Goh (A*STAR IMRE, Singapore)	Sidonie Laviéville (ICG Montpellier, France)	Davide Campagna (University Mainz, Germany)
09h40	One-Pot Synthesis of Covalent Adaptable Networks for Plastics and Energy Sustainability	Stabilized N,X-acetals: New Exchange Platforms for Vitrimer Application	Post-Fabrication Reconfiguration of Functional Crosslinking Segments in Polymer Gels
	Jolly Patro (Northwestern University, USA)	Huixing Cao (Maastricht University, Netherlands)	Kanykei Ryskulova (IMP, INSA Lyon, France)
09h40 - 09h55	Investigating Mechanophore Activation in Covalent  Adaptable Networks	Dynamically Cross-Linking Polyaspartic ester with Epoxy resin: Biobased vs. Petroleum Based Solvent- free and Catalyst-free Vitrimers	Tunable Ionic Liquid-Based Dynamic Epoxies for Advanced Recyclable Thermosets
	Jung Kwon Oh (Concordia University, Canada)	Anna Vilanova (Universitat Rovira i Virgili, Spain)	Matias Paatelainen (Tampere University, Finland)
09h55 - 10h10	Poly(hindered urea) Covalent Adaptive Network  Materials for Energy Harvesting and Storage  Applications	Design of 3D Printing, Self-Repairing and Recyclable Biobased Acetals with Tunable Mechanical and Viscoelastic Properties	Live-Shaping of Hydrogel Thin Films with Light
	Gloria Signorato (Univ. Hamburg, Germany)	Logan Chevret (ICG Montpellier, France)	Mario Piedrahita-Bello (Aalto University, Finland)
10h10 - 10h25	Magnetic Vitrimer Nanocomposites: Reprocessable	Recyclable and High Tg Phenolic Urethane from Cashew Nut Shell Liquid and Biobased Isocyanate	Hierarchical Strengthening of Resilient Hydrogel Networks
101123	and Multi-Responsive Materials	Crosslinker	via a Self-Reinforcement Approach
10h25 - 10h55	Coffee break		
	Session 9.1 - Chair: Alexa Kuenstler (Room 2)	Session 9.2 - Chair: Marc Guerre (Room 1)	Session 9.3 - Chair: Michael Dickey (Room 3)
10h55 -	Anahita Karimi (UCL, Belgium/Univ. Groningen, Netherlands)	Xiaokong Liu (Jilin University, China)	Taha Behroozi Kohlan (KTH, Sweden)
11h10	Investigating the Rheological Properties of Dynamic Covalent Polyethylene Networks	Strong and Tough Supramolecular Covalent  Adaptable Networks	Schiff Base Crosslinked Dynamic Covalent Hydrogels with Tunable and Cell-Instructive Properties
44540	Alvaro Quinteros-Sedano (UC Louvain, Belgium)	Takeo Suga (Waseda University, Japan)	Jessica Garcia (Univ. North Carolina, USA)
11h10 - 11h25	<u>Delving into the Viscoelastic Properties of</u> <u>Dioxazaborocane Vitrimers</u>	New Bio-derived, Diels-Alder Adducts for Materials Recycling of Network Polymers	Injectable Bottlebrush Hydrogels Mimicking the ECM Softness
	Niklas Lorenz (TU Delft, Netherlands)	Aleix Costa Cornellà (Vrije Univ. Brussel, Belgium)	Thomas Swift (University of Bradford, UK)
11h25 - 11h40	Engineering Composite Manufacturing with Dynamic Covalent Networks Bearing Aromatic Disulfide Bonds	Engineering the Relaxation Dynamics of Polymer Networks by Combining Associative and Dissociative Dynamic Covalent Bonds	Incorporating Antibiotic Functional Highly Branched Polymers into Interpolymer Networks to Create Agglutionation Based Microbiology Sensors
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11h45 -	Plenary session - Chair: Huaping Xu (Room 2)		
12h25	Tao Xie (Zhejiang University, China)		
Designing Life Cycle Performance of Polymers via Dynamic Polymer Network		<u>ymer Networks</u>	
12h25 - 12h40	Award Ceremony / Closing Remarks		
12h40 - 14h00	Lunch		