

## **MONDAY 12 JULY 2010 - ORAL SESSIONS**

Clyde Auditorium

### **Plenary: Han Meijer (DSM Award Winner)**

10:15 - 11:15 PLENARY    PLEN\_01 **Mechanical Performance of Polymers**  
Han Meijer, TU/e, Eindhoven, Netherlands

Clyde Auditorium

### **Plenary: Sebastian Conran**

PLEN\_02 **Deconstructing Value**  
Sebastian Conran, Sebastian Conran Associates, London, United Kingdom

Room: Forth

### **Parallel 1: A1 Polymers for Tissue Engineering and Regenerative Medicine**

Session Chair: Neil Cameron, Durham University, UK

14:15 KEYNOTE    A1\_O01 **New Materials based Strategies for Regenerative Medicine**  
Molly Stevens, Imperial College London, London, United Kingdom

15:00 KEYNOTE    A1\_O02 **Defined Polymer Matrices for Guided Cell Growth and Differentiation in Regenerative Medicine**  
Molly Shoichet, University of Toronto, Toronto, Ontario, Canada

Room: Alsh 1

### **Parallel 2: H26 Young Polymer Scientists**

Session Chair: Eva Harth, Vanderbilt University, USA

14:30 INVITED    H26\_O01 **Thermoresponsive polymer-protein conjugates prepared by grafting-to and grafting-from via RAFT polymerization**  
Brent Sumerlin, Southern Methodist University, Dallas, Texas, United States

14:55 INVITED      H26\_O02 **Protein Cages as Macromolecular Scaffolds**  
Jeroen Cornelissen, Laboratory for Biomolecular Nanotechnology,  
MESA+ Institute, University of Twente, Enschede, Netherlands

15:20 INVITED      H26\_O03 **Bio-responsive nanomaterials for enzyme sensing**  
Molly Stevens, Imperial College London, London, United Kingdom

Room: Leven

### **Parallel 3: H28 DSM Performance Materials**

14:15 INVITED      H28\_O01 **Fast Flow of Polymers. Problems and Perspectives**  
Giuseppe Marrucci, University of Naples, Naples, Italy

15:00 INVITED      H28\_O02 **High-Performance Polymer Foils**  
Theo Tervoort, Swiss Federal Institute of Technology, Zurich,  
Switzerland

Room: Dochart 1&2

### **Parallel 4: C8 Click and Efficient Linking Chemistry in Polymer Synthesis**

14:15 C8\_O01 **Facile preparation of stimuli-responsive core cross-linked micelles using thiol-yne chemistry**  
Niels ten Brummelhuis, Max Planck Institute of Colloids and Interfaces,  
Potsdam-Golm, Germany

14:30 C8\_O02 **Design and Functions of Two-Dimensional Macromolecules**  
Donglin Jiang, Institute for Molecular Science, Okazaki, Japan

14:45 C8\_O03 **One-pot tandem living radical polymerisation - Huisgens cycloaddition formation of multifunctional Giant Amphiphile nanoreactors.**  
Kelly Velonia, University of Crete, Department of Materials Science and  
Technology, Heraklion - Crete, Greece

15:00 KEYNOTE      C8\_O04 **Robust, Efficient and Orthogonal Chemistry for the Preparation of Functional Materials**  
Craig Hawker, University of California, Santa Barbara, United States

Room: Lomond

**Parallel 5: C10 Living Radical Polymerisation**

**14:15 KEYNOTE C10\_O01 Self-Controlled Supramolecular and Living Radical Polymerizations**

Virgil Percec, University of Pennsylvania, Philadelphia, United States

**15:00 C10\_O02 Synthesis of Sterically-Stabilized Nanolatexes by Living Radical Polymerization**

Steven Armes, University of Sheffield, Sheffield, Yorkshire, United Kingdom

**15:15 C10\_O03 Controlled Dispersion Polymerisation in Supercritical Carbon Dioxide: Designing scCO<sub>2</sub> Stabilisers and Preparing Living Block Co-Polymer Microparticles.**

Steven Howdle, University of Nottingham, Nottingham, United Kingdom

**15:30 C10\_O04 Phenanthrene and Rhodamine-B derived RAFT agents. Synthesis of alpha-end-functionalized thermosensitive polymers and fluorescence studies.**

Marie-Thérèse CHARREYRE, ENS, Lyon, France

Room: Carron 1 & 2

**Parallel 6: C12 Supramolecular Polymers and Self Assembly**

**14:15 INVITED C12\_O05 DEVELOPMENT OF HYDROGEN BONDING MODULES (HBM) AS BIOINSPIRED NANOSCALE ADHESION AGENTS**

Steven Zimmerman, University of Illinois, Urbana, IL, United States

**14:45 C12\_O06 Probing the nucleation pathway in chemical self-assembly**

Tom de Greef, Institute for Complex Molecular Systems, Eindhoven, Netherlands

**15:00 C12\_O02 Sequence-selective assembly of tweezer-molecules on oligomer and copolymer chains**

Howard Colquhoun, University of Reading, Berkshire, United Kingdom

**15:15 C12\_O03 Mechanical Activation of Catalysts**

Rint Sijbesma, Eindhoven University of Technology, Eindhoven, Netherlands

**15:30 C12\_O04 Studies on the effect of binding constants on healing ability of supramolecular polymer blends**

Wayne Hayes, University of Reading, Reading, Berkshire, United Kingdom

Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

**14:15 KEYNOTE D14\_O01 Fabrication of Uniform Microspheres for Biomedical Applications**

Younan Xia, Washington University, St. Louis, MO, United States

**15:00 D14\_O02 Biological properties of polymer brush-afforded particles prepared by surface-initiated living radical polymerization: Circulation lifetime in the blood**

Kohji Ohno, Institute for Chemical Research, Kyoto University, Uji, Kyoto 611-0011, Japan

**15:15 D14\_O03 Microgel Translocation Through Pores Under Confinement**

Andrew Lyon, School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA, United States

**15:30 D14\_O04 Preparation and function of stimuli-sensitive microgel containing silver nano-spheres**

Haruma Kawaaguchi, Kanagawa University, Yokohama, Japan

Room: Boisdale 1

**Parallel 8: E16 Probing Single Macromolecules**

Session Chair: Hagan Bayley, University of Oxford, UK and Ulrich Keyser, University of Cambridge, UK

**14:15 KEYNOTE E16\_O01 Properties and Methods for Fabricating Nanopores**

Daniel Branton, Harvard University, Cambridge, MA, United States

**15:00 E16\_O02 Probing bio-molecular complexes using nanopore force spectroscopy**

Jérôme Mathé, LAMBE - Université d'Evry Val d'essonne, EVRY, France

**15:15 E16\_O03 Analysis of single DNA molecules with Nanocapillaries**

Lorenz Steinbock, Cambridge University, Cambridge, United Kingdom

15:30 E16\_O04 **Single Molecule Interactions of Bio-adhesive-Inspired Polymers with Inorganic and Organic Surfaces**  
Nicolas Willet, University of Liege, Liege, Belgium

Room: Boisdale 2

### **Parallel 9: F19 Biodegradable and Sustainable Polymers**

14:15 KEYNOTE F19\_O01 **Development of New Catalysts for the Synthesis of Biodegradable Polymeric Materials from Epoxides**  
Geoffrey Coates, Cornell University, Ithaca, New York, United States

15:00 F19\_O02 **Organoyttrium Initiators for Lactide Ring-Opening Polymerization**  
Rachel Platel, Department of Chemistry, Imperial College London, London, United Kingdom

15:15 F19\_O03 **Novel Catalysts for the Utilization of Carbon Dioxide as C1 Building Block**  
Thomas Ernst Müller, CAT, RWTH Aachen University, Aachen, NRW, Germany

15:30 F19\_O04 **Hetero-selective rac-lactide polymerization by new types of group 4 metal catalysts**  
Moshe Kol, Tel Aviv University, Tel Aviv, Israel

Room: Morar & Ness

### **Parallel 10: G21 Polymer Electronics**

Session Chair: Steve Yeates, University of Manchester, UK

14:15 KEYNOTE G21\_O01 **Title to be confirmed**  
Donal Bradley, Imperial College London, London, United Kingdom

15:00 G21\_O02 **Orthogonal Patterning for Organic Electronics: New Materials for New Devices**  
Christopher Ober, Cornell University, Ithaca, NY, United States

15:15 G21\_O03 **How  $\pi$ - $\pi$  interactions in solution influence thin film organic semiconductor devices properties**  
Marie-Beatrice Madec, University of Manchester, Manchester, United Kingdom

15:30 G21\_O04 **Polymer Electret Materials**  
Hans-Werner Schmidt, University of Bayreuth, Bayreuth, Germany

Room: Alsh 2

### **Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Peter Budd, University of Manchester, UK

**14:15 KEYNOTE G23\_O01 Thermally Rearranged Polymer Membranes Tuned for CO<sub>2</sub> Capture**

Young Moo Lee, Hanyang University, Seoul, Korea, Republic of

**15:00 G23\_O02 Qualitative and quantitative comparison of different molecular probing techniques for the analysis of the free volume distribution of amorphous glassy perfluoropolymers.**

Johannes Carolus Jansen, Institute on Membrane Technology, ITM-CNR, Rende (CS), Italy

**15:15 G23\_O03 Polymer membranes with in situ grown palladium nanoparticles: how to control interactions towards hydrogen**

Eliane Espuche, University of Lyon, University Lyon 1, Ingénierie des Matériaux Polymères/ Laboratoire des Matériaux Polymères et des Biomatériaux, UMR CNRS 5223, Villeurbanne, France

**15:30 G23\_O04 Novel Si-containing highly permeable polymers: membrane materials for hydrocarbon separation**

Yuri Yampolskii, A.V.Topchiev Institute of Petrochemical synthesis, Moscow, Russian Federation

Room: Forth

### **Parallel 1: A1 Polymers for Tissue Engineering and Regenerative Medicine**

Session Chair: Steve Rimmer, University of Sheffield, UK

**16:15 INVITED A1\_O03 POLYMERS FOR TISSUE ENGINEERING AND WOUND MANAGEMENT**

Sheila MacNeil, University of Sheffield, Sheffield, United Kingdom

**16:45 A1\_O04 Development of an alternative to the amniotic membrane for delivering cultured epithelial cells to the cornea using poly(lactide-co-glycolide) electrospun scaffolds**

Pallavi Deshpande, University of Sheffield, Sheffield, United Kingdom

**17:00 A1\_O05 Biodegradable Thermosensitive Poly[(R)-3-hydroxybutyrate]-based Copolymers for Cell Sheet Technology**

Xian Jun Loh, Institute of Materials Research and Engineering,  
Singapore, Singapore

17:15 A1\_O06 **Development of Injectable and Mechanically Stable  
Composite Scaffolds for Bone Regeneration Applications.**

Cheryl Rahman, The University of Nottingham, Nottingham, United  
Kingdom

17:30 A1\_O07 **Hydroxyapatite Pickering PolyHIPEs and  
"Thermo"HIPEs as Injectable Scaffolds for Tissue Engineering**

Shengzhong Zhou, Imperial College London, London, United Kingdom

Room: Alsh 1

**Parallel 2: H26 Young Polymer Scientists**

Session Chair: Rachel O'Reilly, University of Warwick, UK

16:15 INVITED H26\_O04 **Novel Functional Highly and Hyper-  
branched Polymers**

Sebastien Perrier, University of Sydney, Sydney, NSW, Australia

16:40 INVITED H26\_O05 **Self-assembly of copoly(2-oxazoline)s:  
From multicompartment micelles to UCST based thermoresponsive  
micellization**

Richard Hoogenboom, Radboud University Nijmegen, Nijmegen,  
Netherlands

17:05 INVITED H26\_O06 **NEW STRATEGIES FOR CONTROLLING  
POLYMER SEQUENCES**

Jean-François Lutz, Fraunhofer IAP, Potsdam, Germany

17:30 INVITED H26\_O07 **Reconfiguring Stereoisomers and  
Activating Catalysts using Mechanical Force**

Christopher Bielawski, The University of Texas at Austin, Austin, TX,  
United States

Room: Leven

**Parallel 3: H28 DSM Performance Materials**

16:15 INVITED H28\_O04 **Advances in the Fracture Mechanisms of  
Filled Elastomers**

Costantino Creton, ESPCI ParisTech, Paris, France

17:00 INVITED      H28\_O03 **Optical Fiber Coatings: the Cavitation Demon**  
Markus Bulters, DSM Research, Geleen, Netherlands

Room: Dochart 1&2

**Parallel 4: C8 Click and Efficient Linking Chemistry in Polymer Synthesis**

16:15 INVITED      C8\_O05 **CLICK CHEMISTRY: A PRECISION TOOL FOR CONTROLLING PRIMARY- AND SECONDARY- STRUCTURES IN SYNTHETIC POLYMERS**  
Jean-François Lutz, Fraunhofer IAP, Potsdam, Germany

16:45 C8\_O06 **One-pot synthesis of polyalkyne clickable scaffolds: towards click processes**  
Giuseppe Mantovani, University of Nottingham - School of Pharmacy, Nottingham, United Kingdom

17:00 C8\_O07 **Investigations on the glycopolymer-protein interactions using surface plasmon resonance spectroscopy**  
C. Remzi Becer, University of Warwick, Coventry, United Kingdom

17:15 C8\_O08 **Thio-sugars for the efficient postfunctionalization of polymers to build up complex glycopolymer architectures and their interaction with lectins**  
Martina Stenzel, University of New South Wales, Sydney, Australia

17:30 C8\_O09 **Highly Functionnalized PEGylated Poly(Alkyl Cyanoacrylate) Nanoparticles Designed by Click Chemistry for Biological Applications in Alzheimer's Disease.**  
Benjamin Le Droumaguet, Laboratoire de Physico-Chimie, Pharmacotechnie et Biopharmacie, UMR CNRS 8612, Univ. Paris-Sud 11, Châtenay Malabry, France

Room: Lomond

**Parallel 5: C10 Living Radical Polymerisation**

16:15 INVITED      C10\_O05 **Metal-Catalyzed Living Radical Polymerization for the Precision Synthesis of Functional Macromolecules**  
Mitsuo Sawamoto, Kyoto University, Kyoto, Japan



16:45 C10\_O06 **Synthesis of N-acryloxysuccinimide based homo- and co-polymers by nitroxide mediated polymerization**

Denis Bertin, University of Provence, Marseille, France

17:00 C10\_O07 **Magnetic Nanotechnology applied to Controlled Radical Polymerization**

Ron Sanderson, Stellenbosch University, Stellenbosch, South Africa

17:15 C10\_O08 **Development of Photosensitive Alkoxyamines for Nitroxide Mediated PhotoPolymerization**

Didier Gimes, Université de Provence, Marseille, France

17:30 C10\_O09 **Single-electron Transfer Living Radical Polymerization (SET-LRP) of Methyl Methacrylate (MMA) with a Typical RAFT Agent as An Initiator**

Zhengbiao Zhang, Provincial Key Laboratory of Organic Synthesis, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou, China

Room: Carron 1 & 2

#### **Parallel 6: C12 Supramolecular Polymers and Self Assembly**

16:15 KEYNOTE C12\_O01 **Two-step folding of chiral polymers; towards single-chain nanoparticles**

E.W. 'Bert' Meijer, Eindhoven University of Technology, Eindhoven, Netherlands

17:00 C12\_O07 **Controlled Aggregation-Induced Emission Enhancement and Quenching in Thiophene-Containing Molecular Gels**

Koji Miyamoto, Kumamoto university, Kumamoto, kurokami, Japan

17:15 C12\_O08 **Tuning Rod-Coil Block Copolymer Aggregation via Heterosequences**

Andreas Kilbinger, University of Mainz, Mainz, Germany

17:30 C12\_O09 **Enzyme Controlled Self-Assembly of Peptide-Polymer Conjugates**

Hans Boerner, Humboldt-Universität zu Berlin, Berlin, Germany

Room: Gala 1 & 2

#### **Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

16:15 INVITED D14\_O05 **A Novel Synthesis of Multihollow Polymer Particles by Emulsion Polymerization By Utilizing Incorporation of**

### **Nonionic Emulsifier**

Masayoshi Okubo, Kobe University, Kobe, Japan

#### **16:45 D14\_O06 Flat latex particles**

Alex van Herk, Eindhoven University of Technology, Eindhoven, Netherlands

#### **17:00 D14\_O07 Fabrication of anisotropic "patchy" polymer colloids particles.**

Attyah Alzhrani, Warwick University, Coventry, United Kingdom

#### **17:15 D14\_O08 Metal containing latexes - Versatile hybrid nanostructures**

Clemens K. Weiss, Max-Planck-Institute for Polymer Research, Mainz, Germany

#### **17:30 D14\_O09 MORPHOLOGY CONTROL OF POLY(3,4-ETHYLENEDIOXYTHIOPHENE) AND POLYANILINE NANO-OBJECTS SYNTHESIZED BY AQUEOUS DISPERSION POLYMERIZATION**

Henri CRAMAIL, Université Bordeaux 1, Bordeaux, France

Room: Boisdale 1

### **Parallel 8: E16 Probing Single Macromolecules**

Session Chair: Hagan Bayley, University of Oxford and Ulrich Keyser, University of Cambridge

#### **16:15 INVITED E16\_O05 Single molecule mechanical sequencing of DNA**

David Bensimon, ENS-LPS, Paris, France

#### **16:45 INVITED E16\_O06 Assembling Polyelectrolytes and Fluorescent Nanoparticles by Single Molecule Cut & Paste**

Hermann Gaub, Ludwig Maximilians University, Munich, Germany

#### **17:15 E16\_O07 Stiffening transition in semiflexible ring macromolecules**

Peter Cifra, Polymer Institute, Slovak Academy of Sciences, Bratislava, Slovakia

#### **17:30 E16\_O08 Nanomechanics of membrane proteins probed by atomic force spectroscopy**

K. Tanuj Sapra, University of Oxford, Oxford, Oxfordshire, United Kingdom

Room: Boisdale 2

### **Parallel 9: F19 Biodegradable and Sustainable Polymers**

**16:15 F19\_O05 Stereocontrolled Synthesis of Polymer Stars: Control of Physical Properties and Biodegradation Rates**

Michael P. Shaver, University of Prince Edward Island, Charlottetown, Canada

**16:30 F19\_O06 Microstructure Design of Star-shaped Aliphatic Polyesters**

Karin Odelius, Fibre and Polymer Technology, Stockholm, Sweden

**16:45 F19\_P05 Transesterification During Poly(e-caprolactone)-Poly(lactide) Copolymers Synthesis**

Marc J.M. Abadie, School of Materials Science & Engineering, Nanyang Technological University, Singapore, Singapore

**17:00 F19\_O08 Metal-catalysed ROP of macrolactones to unprecedentedly high molecular weight polyesters.**

Rob Duchateau, Eindhoven University of Technology, Eindhoven, Netherlands

**17:15 F19\_O09 Highly active catalysts for the copolymerisation of carbon dioxide and functionalised epoxides at 1 atmosphere carbon dioxide pressure: synthesis, catalytic activity and mechanistic studies (kinetics, DFT)**

Antoine Buchard, Imperial College, London, United Kingdom

**17:30 F19\_O10 Metal-Catalyzed Immortal Ring-Opening Polymerization of Cyclic Esters**

Sophie Guillaume, Laboratoire Catalyse et Organométalliques, CNRS - Université de Rennes 1 - Sciences Chimiques de Rennes (UMR 6226), Rennes, France

Room: Morar & Ness

### **Parallel 10: G21 Polymer Electronics**

Session Chair: John Morrison, University of Manchester, UK

**16:15 INVITED G21\_O24 Device physics of conjugated polymer semiconductors for flexible electronics**

Henning Sirringhaus, University of Cambridge, Cambridge, United Kingdom

16:45 G21\_O06 **Dynamic/Living Conjugated Polymers with Tuneable Properties**

Will Skene, Université de Montréal, Montreal, QC, Canada

17:00 G21\_O07 **Synthesis and supramolecular behaviour of conjugated block copoly(thiophene)s**

Guy Koeckelberghs, KULeuven, Heverlee, Belgium

17:15 G21\_O08 **Synthesis of  $\sigma$ - $\pi$  conjugated poly(diarylstannane)s in liquid ammonia**

Markus Trummer, ETH, Zürich, Switzerland

17:30 G21\_O09 **An efficient route towards PTV derivatives: discovery of an acid induced conversion of the precursor polymers**

Hanne Diliën, Hasselt University, Diepenbeek, Belgium

Room: Alsh 2

**Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Neil McKeown, Cardiff University, UK

16:15 G23\_O05 **Propylene/Propane Separation with Zeolite/Perfluoropolymer Mixed Matrix Membranes**

Giovanni Golemme, Department of Chemical Engineering and Materials of the University of Calabria, and INSTM Consortium, Rende (CS), Italy

16:30 G23\_O06 **Permeation and sorption properties of PIM-1 Mixed Matrix Membranes filled with tailored nanoparticles**

Karel Friess, Institute of Chemical Technology Prague, Prague, Czech Republic

16:45 G23\_O07 **Graft cellulosic copolymers with nano-structured architectures: Application to the purification of bio-fuels by a membrane separation process**

Anne Jonquieres, University of Nancy, Nancy, France

17:00 G23\_O08 **Surface-functionalized track-etched membranes via living radical polymerization: stimuli-responsive properties and membrane adsorber applications**

Falk Tomicki, University of Duisburg-Essen, Essen, Germany

17:15 G23\_O09 **Dehydration of isopropanol-water mixtures by pervaporation technique using zeolite-incorporated chitosan membrane**

Haryadi Haryadi, Chemical Engineering Departmet, Bandung State Polytechnic, Bandung, West Java, Indonesia

17:30 G23\_O10 **Supercritical Carbon Dioxide Treatment of Electrospun  
PVDF Nano-fibrinous Membranes for Electrochemical Applications**  
Wu Aik Yee, Nanyang Technological University, Singapore, Singapore

## **TUESDAY 13 JULY 2010 - ORAL SESSIONS**

Clyde Auditorium

### **Plenary: Kiyohito Koyama**

**PLEN\_03 Rheology Control and Material Design**

Kiyohito Koyama, Yamagata university, Yonezawa, Japan

Room: Forth

### **Parallel 1: A1 Polymers for Tissue Engineering and Regenerative Medicine**

Session Chair: Neil Cameron, Durham University, UK

09:45 INVITED      **A1\_O08 Clinical & Experimental Viewpoint of Bone Engineering by Combining Composite Scaffolds with Biological Competence**

Jan-Thorsten Schantz, Technische Universität München, München, Germany

10:15 **A1\_O09 Photodegradable gels for studying the influence of gel structure on cell function**

April Kloxin, Howard Hughes Medical Institute and the Department of Chemical and Biological Engineering, University of Colorado at Boulder, Boulder, CO, United States

10:30 **A1\_O10 Simultaneously physically and chemically cross-linked hydrogels based on thermosensitive triblock copolymers and hyaluronic acid**

Tina Vermonden, Utrecht University, Utrecht, Netherlands

10:45 **A1\_O11 Protein Coupling to Resorbable Polymer Surfaces**

Ulrica Edlund, Royal Institute of Technology KTH, Stockholm, Sweden

Room: Alsh 1

### **Parallel 2: H26 Young Polymer Scientists**

Session Chair: Andrew Naylor, Critical Pharmaceuticals, UK

09:45 INVITED      **H26\_O08 Synthesis and Supramolecular Self-Assembly of Nonlinear-Shaped Responsive Polymers**

Shiyong Liu, Department of Polymer Science & Engineering, University

of Science and Technology of China, Hefei, Anhui Province, 230026, China

10:10 INVITED      H26\_O09 **Fabrication of Advanced Hierarchical Soft Materials using Responsive, Architecturally-Defined Copolymers**  
Jonathan Weaver, University of Liverpool, Liverpool, United Kingdom

10:35 INVITED      H26\_O10 **Exploiting Biocatalysis in Supramolecular Synthesis of Functional Nanostructures**  
Rein Ulijn, University of Strathclyde, Glasgow, United Kingdom

Room: Leven

### **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Manfred Bochmann, University of East Anglia, UK

09:45 KEYNOTE    B6\_O01 **MANIPULATING CENTER-SURFACE AND CENTER-CENTER COOPERATIVE EFFECTS FOR THE CATALYTIC SYNTHESIS OF NEW POLYMERIC MATERIALS**  
Tobin Marks, Northwestern U., Evanston IL, United States

10:30 INVITED      B6\_O02 **Custom Polyethylene by Molecular Design**  
Edmund Carnahan, Dow Chemical Company, Freeport, United States

Room: Dochart 1&2

### **Parallel 4: C8 Click and Efficient Linking Chemistry in Polymer Synthesis**

09:45 INVITED      C8\_O10 **"Thio-click" chemistry toward functional polymers: How to optimize it?**  
Filip Du Prez, Ghent University, Ghent, Belgium

10:15 C8\_O11 **Clickable poly(2-oxazoline)s**  
Richard Hoogenboom, Radboud University Nijmegen, Nijmegen, Netherlands

10:30 C8\_O12 **Patternable and nanostructured functional thin polymer films making use of click chemistry**  
Brigitte Voit, Leibniz Institute of Polymer Research Dresden, Dresden, Germany

10:45 C8\_O13 **Construction and Ordering of Complex Polymeric Architectures by "Click"-Chemistry**

Wolfgang H. Binder, Martin-Luther University Halle Wittenberg, Faculty of Natural Sciences II, Institute of Chemistry, Chair of Macromolecular Chemistry, Halle (Saale), von Danckelmannplatz 4, D-06120, Germany

Room: Lomond

### **Parallel 5: C10 Living Radical Polymerisation**

09:45 KEYNOTE C10\_O10 **ATRP- from mechanism to materials**  
Krzysztof Matyjaszewski, Carnegie Mellon, Pittsburgh, United States

10:30 C10\_O11 **Novel amphiphilic block copolymers and conetworks by combining click chemistry, quasiliving atp and carbocationic polymerizations**  
Béla Iván, Department of Polymer Chemistry and Material Science, Institute of Materials and Environmental Chemistry, Chemical Research Center, Hungarian Academy of Sciences, H-1525 Budapest, Puztaszeri u. 59-67, Budapest, Hungary

10:45 C10\_O12 **Control of Molecular Weight using the Reverse Iodine Transfer Polymerization (RITP)- Emulsion Technique**  
Yejin Lee, Inha university, Incheon, Korea, Republic of

Room: Carron 1 & 2

### **Parallel 6: C12 Supramolecular Polymers and Self Assembly**

09:45 INVITED C12\_O10 **Artificial Polymerases and Molecular Chaperons**  
Akira Harada, Osaka University, Toyonaka, Osaka, Japan

10:15 C12\_O11 **Supramolecular Polymers in Water Mediated by Cucurbiturils**  
Oren A. Scherman, Melville Laboratory for Polymer Synthesis, Department of Chemistry, University of Cambridge, Cambridge, United Kingdom

10:30 C12\_O12 **Syntheses of CD-based insulated molecular wires through the polymerization of fixed rotaxanes**  
Jun Terao, Kyoto University, Kyoto, Japan

10:45 C12\_O13 **Temperature Sensitive Supramolecular Self Assembly of per-6-PEO- $\beta$ -cyclodextrin and  $\alpha,\omega$ -diadamantyl-PNIPAM in water**  
Philippe Guegan, University of Evry, Evry, France



Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

09:45 KEYNOTE D14\_O10 **Title to be confirmed**

Alfons van Blaaderen, Utrecht University, Utrecht, Netherlands

10:30 D14\_O11 **Patterned Colloidal Polymer Coatings via Evaporative Lithography**

Joseph Keddie, University of Surrey, Guildford, Surrey, United Kingdom

10:45 D14\_O12 **Self-Assembled Phoretic Swimmers**

Jonathan Howse, University of Sheffield, Sheffield, United Kingdom

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: Andrei Zvelindovsky, University of Central Lancashire, UK

09:45 KEYNOTE E17\_O01 **Macroscopic Arrays of Block Copolymers With Areal Densities of 10 Terabit/inch<sup>2</sup> and Beyond**

Thomas P. Russell, University of Massachusetts, Amherst, MA, United States

10:30 E17\_O02 **3D structural observation of novel frustrated phase separation structures of block copolymers induced by the 3D confinement effect of nanoparticle**

Takeshi HIGUCHI, WPI-AIMR, Tohoku University, Sendai, Japan

10:45 E17\_O03 **Hierarchical, two-dimensional superstructures of nanorods obtained through co-assembly with block copolymers in thin films**

Roy Shenhar, Hebrew University of Jerusalem, Jerusalem, Israel

Room: Boisdale 2

**Parallel 9: F19 Biodegradable and Sustainable Polymers**

09:45 INVITED F19\_O11 **Synthesis and applications of renewable block polymers**

Marc Hillmyer, University of Minnesota, Minneapolis, MN, United States

10:15 F19\_O12 **Biohybrid Copolymers Prepared by Living NCA Ring Opening Polymerization**

Gijs Habraken, Eindhoven University of Technology, Eindhoven, Netherlands

10:30 F19\_O13 **Biorenewable plastics: Ring opening polymerization of a carbohydrate derived lactone and its copolymerization with (S,S)-lactide**

Min Tang, Imperial College, London, United Kingdom

10:45 F19\_O14 **Tailor-made Biodegradable Polymers from Organocatalysed ROP**

Blanca Martin Vaca, Paul Sabatier University, Toulouse, France

Room: Morar & Ness

**Parallel 10: G21 Polymer Electronics**

Session Chair: Marie-Beatrice Madec, University of Manchester, UK

09:45 KEYNOTE G21\_O10 **Polymeric Semiconductor and Dielectric Materials for Printed Transistors and Circuits**

Antonio Facchetti, Northwestern University and Polyera Corporation, Evanston, IL, United States

10:30 G21\_O11 **NEW CROSS-LINKABLE SYSTEMS USING HUISGEN REACTION FOR NON-LINEAR OPTICAL APPLICATIONS**

clement cabanetos, university of Nantes, CEISAM UMR 6230, Nantes, France

10:45 G21\_O12 **Nanoparticle-Polymer Hybrids: From Orientation to Applications**

Rudolf Zentel, University of Mainz, Mainz, D-55099, Germany

Room: Alsh 2

**Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Yuri Yampolskii, RAS Institute of Petrochemical Synthesis, Russia

09:45 INVITED G23\_O11 **Structure-Property Relations in Polymers for Gas Separations**

Benny Freeman, University of Texas, Austin, Texas, United States

10:15 G23\_O12 **Prediction of gas permeability and permselectivity in polyimide membranes**

Corine BAS, Université de Savoie, Le Bourget-du-Lac, France

10:30 G23\_O13 **Polymer and Ion Dynamics in 'Single Ion' Polymer Electrolytes**

James Runt, Penn State University, University Park, PA, United States

10:45 G23\_O14 **Synthesis and Properties of Novel Anion Conductive Aromatic Ionomers**

Kenji Miyatake, University of Yamanashi, Yamanashi, Japan

Room: Forth

### **Parallel 1: A2 Polymer Networks and Responsive Polymers in the Life Sciences**

Session Chair: Steve Rimmer, University of Sheffield, UK

11:30 KEYNOTE A2\_O01 **Versatile synthetic extracellular matrix mimics via thiol-ene photopolymerization**

Kristi Anseth, University of Colorado, Boulder, CO, United States

12:15 A2\_O02 **DEGRADABLE, AMPHIPHILIC END-LINKED POLYMER CONETWORKS: SYNTHESIS BY RAFT POLYMERIZATION AND DEGRADATION STUDIES**

Maria Rikkou, University of Cyprus, Nicosia, Cyprus

12:30 A2\_O03 **Smart surfaces for pH-controlled cell staining**

Simona Argentiere, National Nanotechnology Laboratory of CNR-INFM, Lecce, Italy

12:45 A2\_O04 **Smart in situ Biodegradable Hydrogels with Tailored Structures and Characteristics**

WU DE CHENG, Institute of Materials Research and Engineering, Singapore, Singapore

Room: Alsh 1

### **Parallel 2: H26 Young Polymer Scientists**

Session Chair: Sebastien Perrier, University of Sydney, Australia

11:30 INVITED H26\_O11 **Activated Esters in Polymer Chemistry: Synthesis of well-defined Functional Polymers and Block**

## **Copolymers**

Patrick Theato, University of Mainz, Mainz, Germany

11:55 INVITED      H26\_O12 **Interactions of Conjugated Polymers with Single-Walled Carbon Nanotubes**

Alex Adronov, McMaster University, Hamilton, Canada

12:20 INVITED      H26\_O13 **Selenophene based polymers for photovoltaic and transistor applications.**

Martin Heeney, Imperial College London, London, United Kingdom

12:45 INVITED      H26\_O14 **Magnetic Assembly and Colloidal Polymerization of Dipolar Nanoparticles: A New Concept in Polymer Science**

Jeffrey Pyun, University of Arizona, Tucson, AZ, United States

Room: Leven

### **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Scott Collins, University of Akron, USA

11:30 B6\_O03 **Tandem Catalyst System for Linear Low Density Polyethylene with Short and Long Branching**

Stephen Miller, University of Florida, Gainesville, Florida, United States

11:45 B6\_O04 **Scalable Production of Precision Polyolefins via Living Coordinative Chain-Transfer Polymerization**

Lawrence Sita, University of Maryland, College Park, United States

12:00 B6\_O05 **Coordinative Chain Transfer Polymerisation (CCTP<sup>1</sup>) - The Polymerisation of Ethylene in a Highly Controlled Fashion**

Rhett Kempe, Universität Bayreuth, Bayreuth, Germany

12:15 B6\_O06 **Isoselective polymerization of propylene by group 4 complexes of halo-Substituted Salan ligands**

Moshe Kol, Tel Aviv University, Tel Aviv, Israel

12:30 B6\_O07 **Catalytic Synthesis of Styryl-Capped Isotactic Polypropylenes**

Jinyong Dong, Institute of Chemistry, The Chinese Academy of Sciences, Beijing, China

12:45 B6\_O08 **New Palladium Aryl Sulfonate Phosphine Catalysts for the Preparation of Functionalized Polyolefins: Synthesis, Characterization and Studies of Intermediates.**

Jean-Christophe Daigle, University of Quebec at Montreal, Montreal, Quebec, Canada

Room: Dochart 1&2

#### **Parallel 4: C8 Click and Efficient Linking Chemistry in Polymer Synthesis**

11:30 INVITED C8\_O14 **Thiol-Click Chemistries in Polymer Synthesis and Modification**

Andrew Lowe, University of New South Wales, Sydney, NSW, Australia

12:00 C8\_O15 **Miktoarm core cross-linked star polymer derived from linear-dendritic and linear macromonomers and its prospective "click" modifications**

Søren Hvilsted, Technical University of Denmark, Kgs. Lyngby, Denmark

12:15 C8\_O16 **Incorporation of polyethylene segments into macromolecular architectures**

Franck D'Agosto, CNRS -UMR C2P2 - LCPP Team, Villeurbanne, France

12:30 C8\_O17 **Synthesis of Hetero-Telechelic  $\alpha,\omega$  Functionalized Polymers Utilizing Nucleophiles and Electrophiles.**

Patrick Theato, University of Mainz, Mainz, Germany

12:45 C8\_O18 **Click Chemistry-Type Postfunctionalization of Aromatic Polymers for Organic Electronic Applications**

Tsuyoshi Michinobu, Tokyo Institute of Technology & PRESTO, JST, Tokyo, Japan

Room: Lomond

#### **Parallel 5: C10 Living Radical Polymerisation**

11:30 INVITED C10\_O13 **Designing Nanostructured Materials with Peptide-Polymer Conjugates**

Sebastien Perrier, University of Sydney, Sydney, NSW, Australia

12:00 C10\_O14 **Development and Application of Switchable RAFT agents.**

Graeme Moad, CSIRO, Clayton, Victoria, Australia

12:15 C10\_O15 **Some recent advances in the MADIX process**

Mathias Destarac, Université Paul Sabatier, Toulouse, France

12:30 C10\_O16 **Synthesis of stimuli-responsive block copolymers based on poly(N,N-diethylacrylamide) by RAFT polymerization**

Sophie Monge, Institut Charles Gerhardt, Montpellier, France

12:45 C10\_O17 **Anionic Polymerizability of N,N-Dialkylmethacrylamides**

Takashi Ishizone, Tokyo Institute of Technology, Tokyo, Japan

Room: Carron 1 & 2

### **Parallel 6: C12 Supramolecular Polymers and Self Assembly**

11:30 C12\_O14 **Semicrystalline Organometallic Block Copolymer Micelles with symmetrically substituted Poly(ferrocenylsilane) compartments**

Felix Schacher, University of Bristol, Bristol, United Kingdom

11:45 C12\_O15 **Self-Assembled ABC Triblock Copolymer Helices**

Hongjing Dou, Shanghai Jiao Tong University, Shanghai, China

12:00 C12\_O16 **New building blocks and driving forces in constructing nanoparticles and supermicelles**

Daoyong Chen, Fudan University, Shanghai, China

12:15 C12\_O18 **Unusual photo-driven size change in vesicles of azobenzene endcapped polyethylene glycol**

Jinhua Hu, Nanyang Technological University, Singapore, Singapore

12:30 C12\_O19 **Synthesis and solution properties of telechelic poly(2-alkyl-2-oxazolines) bearing perfluorodecanyl end groups.**

Francoise M Winnik, universite de Montrea;, Montreal QC, Canada

Room: Gala 1 & 2

### **Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

11:30 D14\_O17 **Waterborne functional nanoparticles of tunable crystallinity by self-assembly of amphiphilic ethylene copolymers**

Francoise M. Winnik, Universite de Montreal, Montreal QC, Canada

11:45 D14\_O14 **Fabrication of Large-Area Patterned Photonic Crystals by Ink-Jet Printing**

Jingxia Wang, Institute of Chemistry, Beijing, China

12:00 D14\_O15 **Stimulus-Responsive Liquid Marbles**

Damien Dupin, University Of Sheffield, Sheffield, United Kingdom

**12:15 D14\_O16 LIGHT DIFFRACTION ON THIN LAYERS OF POLYMER PARTICLE ARRAYS IN THE OPTICAL NEAR-FIELD AND MIDDLE-FIELD**

Juergen Wagner, Fraunhofer Institute for Applied Polymer Research, Potsdam-Golm, Germany

**12:30 D14\_O13 From spherical colloids to one-dimensional polymer assemblies by electrospinning**

Andreas Greiner, University of Marburg, Marburg, Germany

**12:45 D14\_O18 Synthesis of cerium oxide-stabilized nanocomposite latexes through miniemulsion polymerization**

Elodie Bourgeat-Lami, Université de Lyon - CNRS - ESCPE, VILLEURBANNE, France

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: Xiaosong Wang, University of Leeds, UK

**11:30 E17\_O04 Hierarchical Structures based on Self-Assembled Diblock Copolymers within Honeycomb Micro-Structured Porous Films**

Maud SAVE, IPREM-Equipe de Physique et Chimie des Polymères, CNRS-University of Pau, PAU, France

**11:45 E17\_O05 Multiple Strategies Toward Block Copolymer Based Nanoporous Thin Films**

Charles-André Fustin, Université catholique de Louvain, Louvain-la-Neuve, Belgium

**12:00 E17\_O06 Phase Separation in PMMA-PS Block Copolymers Tethered to Gold Surfaces**

Benjamin O'Driscoll, University of Reading, Reading, United Kingdom

**12:15 E17\_O07 Block Copolymer Surface Pattern Based Ultrahigh-Density Data Storage Using AFM Tip Hammering Nanolithography**

You Wang, Harbin Institute of Technology, Harbin, Heilongjiang Province, China

**12:30 E17\_O08 Selective hydrophilization of nanoporous 1,2-Polybutadiene through UV induced grafting of acidic and 'pegylated' azides**

Anton Berthold, Technical University of Denmark, Copenhagen, Denmark

12:45 E17\_O09 **Ampholytic Polymer Based Janus Particles**  
André Gröschel, University of Bayreuth, Bayreuth, Germany

Room: Boisdale 2

#### **Parallel 9: F19 Biodegradable and Sustainable Polymers**

11:30 F19\_O15 **Biodegradable Thermoplastic Elastomers : Synthesis & Properties**  
Marc J.M. Abadie, School of Materials Science & Engineering, Nanyang Technological University, Singapore, Singapore

11:45 F19\_O16 **'Click' Functionalization of Biodegradable Aliphatic Polyesters Prepared by Step-Growth Polymerization**  
Leen Billiet, Department of Organic Chemistry, Polymer Chemistry Research Group, Ghent, Belgium

12:00 F19\_O17 **Isosorbide, a green diol for polymers**  
Françoise Fenouillot-Rimlinger, Université de Lyon, INSA Lyon, IMP UMR CNRS 5223, 69621 Villeurbanne Cedex, France

12:15 F19\_O18 **EPOXY FATTY ACID DIESTER / CO<sub>2</sub> SYSTEMS: SOLUBILITY, CARBONATATION KINETICS AND POLYURETHANE SYNTHESIS**  
aurelie boyer, LCPO, pessac, France

12:30 F19\_O19 **Preparation of cellulose/graphene oxide composite film with enhanced mechanical properties**  
Lifeng Yan, University of Science and Technology of China, Hefei, Anhui, China

12:45 F19\_O20 **Preparation of Vegetable Oil Polymers by a Green Processing Method**  
Zengshe (Kevin) Liu, NCAUR, ARS, USDA, Peoria, IL, United States

Room: Morar & Ness

#### **Parallel 10: G21 Polymer Electronics**

Session Chair: Marie-Beatrice Madec, University of Manchester, UK

11:30 G21\_O13 **Understanding the origin of control in the kumada catalyst transfer polycondensation for the synthesis of poly(3-hexylthiophene)**



Christine Luscombe, University of Washington, Seattle, WA, United States

11:45 G21\_O14 **Synthesis and Degradation Studies on Novel TIPS Pentacene Analogues**  
John Morrison, University of Manchester, Manchester, United Kingdom

12:00 G21\_O15 **Incorporating fullerene into the back-bone of a block copolymer for a photovoltaic device**  
Roger C. Hiorns, CNRS (IPREM), Pau, Aquitaine, France

12:15 G21\_O16 **OTFT fabrication using polymeric materials to control the morphology of small-molecule semi-conductors in spin coating, ink jet printing and aerosol jet printing.**  
David Bird, PETEC/CPI, Sedgefield, United Kingdom

12:30 G21\_O17 **Design, Synthesis, and Electrochromic Properties of Novel Aromatic Polymers Based on Electroactive Tetraphenyl-p-Phenylenediamine (TPPA) Moieties**  
Hung-Ju Yen, Institute of Polymer Science and Engineering, National Taiwan University, Taipei, Taiwan

12:45 G21\_O18 **Rigid rod poly(p-phenylene sulfonic acid) PEMs: High conductivity at low relative humidity due to “frozen-in-free volume”**  
Morton Litt, Case Western Reserve University, Cleveland, Ohio, United States

Room: Alsh 2

### **Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Howard Colquhoun, University of Reading, UK

11:30 INVITED G23\_O15 **Sulfonated and phosphonated aromatic ionomers as proton-exchange membranes for fuel cells**  
Patric Jannasch, Lund University, Lund, Sweden

12:00 G23\_O16 **Composite fuel cell membranes based on an inert polymer matrix and proton-conducting phosphonated hybrid nanoparticles**  
Renaud Perrin, CEA-DAM, Monts, France

12:15 G23\_O17 **ORGANIC PROTON-CONDUCTING CRYSTALS AS MEMBRANE MATERIALS FOR FUEL CELLS**  
Markus Klapper, Max-Planck-Institute for Polymer Research, Mainz, Germany

12:30 G23\_O18 **Polybenzimidazole Membranes for the Use in Fuel Cell**  
Tushar Jana, University of Hyderabad, Hyderabad, AP, India

12:45 G23\_O19 **Proton Transfer Reactions and Dynamics at Hydrophilic Groups of Nafion<sup>®</sup>: Born-Oppenheimer Molecular Dynamics (BOMD) Simulations on Model Systems**  
Kritsana Sagarik, School of Chemistry, Institute of Science, Suranaree University of Technology, 111 University Avenue, Nakhon Ratchasima 30000, Thailand

Room: Forth

### **Parallel 1: A2 Polymer Networks and Responsive Polymers in the Life Sciences**

Session Chair: Antonio Fernandez Barbero, University of Almeria, Spain

14:30 INVITED A2\_O05 **Stimulus responsive particle gels: Principles, construction and potential for application in the life sciences**  
Brian Saunders, University of Manchester, Manchester, United Kingdom

15:00 A2\_O06 **Photo-induced creep and stress relaxation in crosslinked polymers using b-scission of allylic thio-ether units in network strands**  
Wayne Cook, Depart. of Materials Engineering, Monash University, Clayton, Melbourne, Victoria, Australia

15:15 A2\_O07 **Amphoteric Core-Shell Microgels: Contraphilic Two Compartment Colloidal Particles**  
Maria Vamvakaki, Foundation for Research and Technology, Institute of Electronic Structure and Laser, Heraklion, Crete, Greece

15:30 A2\_O08 **Highly permeable and mechanically sound polymerised-Pickering-High Internal Phase Emulsions**  
Angelika Menner, Imperial College London, London, United Kingdom

15:45 A2\_O09 **Selective Molecular Networks to Unravel Cell Signalling**  
Chirag Patel, Imperial College, London, United Kingdom

Room: Alsh 1

### **Parallel 2: H26 Young Polymer Scientists**

Session Chair: Craig Hawker, University of California, Santa Barbara, USA

14:30 INVITED H26\_O15 **The use of click coupling to construct functionalised cyclic polymers**

Scott Grayson, Tulane University, New Orleans, Louisiana, United States

14:55 INVITED H26\_O16 **Utilization of 'Click'-chemistries for tailored Polyester Nanosponges with encapsulated Therapeutics**

Eva Harth, Vanderbilt University, Nashville, United States

15:20 INVITED H26\_O17 **Synthesis of functional, architecturally diverse degradable polymers**

Andrew Dove, University of Warwick, Coventry, United Kingdom

Room: Leven

### **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Moshe Kol, Tel Aviv University, Israel

14:30 INVITED B6\_O09 **New kinetic insight into catalytic olefin polymerization**

Vincenzo Busico, Federico II University of Naples, Naples, Italy

15:00 B6\_O10 **Why two cocatalyst are better in the polymerization of  $\alpha$ -olefins catalysed by group 4 benzamidinate complexes, and why TIBA is the best cocatalyst for isolobal organoactinides?**

Moris Eisen, Technion -Israel Institute of Israel, Haifa, Israel

15:15 B6\_O11 **Copolymerization of Ethylene with Cycloolefin or Cyclodiolefin by Bis(beta-diketiminato)titanium Complexes Activated with Modified Methylaluminoxane**

Yuesheng LI, Changchun Institute of Applied Chemistry, Changchun, China

15:30 B6\_O12 **Post-Metallocene Catalysts Based on Dianionic Tridentate Ligands Built on a Quinoline Scaffold: Access to Structurally and Compositionally Diverse Polyolefins**

Sandor Nagy, Equistar Chemicals LP, Cincinnati, Ohio, United States

15:45 B6\_O13 **Title: Truly selective ethylene tetramerisation. Fact or fiction?**

Rob Duchateau, Eindhoven University of Technology, Eindhoven, Netherlands

Room: Dochart 1&2

#### **Parallel 4: C8 Click and Efficient Linking Chemistry in Polymer Synthesis**

14:30 C8\_O19 **Functionalised Materials By “Click” Surface Modification**  
Mark Moloney, University of Oxford, Oxford, United Kingdom

14:45 C8\_O20 **Self-assembly and drug loading of amphiphilic PCL-based graft polyesters prepared by click chemistry**  
Vincent Darcos, IBMM, Artificial Biopolymers group, Montpellier, France

15:00 C8\_O21 **Rapid Approach to Telechelics through Two One-Pot Thiol-Ene Click Reactions**  
Gerard Lligadas, Rovira i Virgili University, Tarragona, Spain

15:15 C8\_O22 **Reactive Polymeric Platforms via Diels-Alder/retro Diels-Alder Strategy**  
Amitav Sanyal, Bogazici University, Istanbul, Turkey

15:30 C8\_O23 **Quantitative synthesis of highly shape-anisotropic and persistent phenylene imine macrocycles based on reversible interchange of linear polymers**  
Toshihiko Matsumoto, Tokyo Polytechnic University, Atsugi, Kanagawa 243-0297, Japan

15:45 C8\_O24 **Step growth polymerization of starch-derived dianhydrohexitol stereoisomers: versatile platform for the design of linear polymers and polymer networks with original properties.**  
Eric Drockenmuller, Ingénierie des matériaux polymères, Lyon, France

Room: Lomond

#### **Parallel 5: C10 Living Radical Polymerisation**

14:30 INVITED C10\_O18 **Synthesis of Biomolecule-Reactive Telechelic Polymers Using Controlled Radical Polymerizations and Therapeutic Applications of the Resulting Protein Dimer-Polymer Conjugates**  
Heather Maynard, University of California, Los Angeles, Los Angeles, CA, United States

15:00 C10\_O19 **Precisely Synthesised Hollow Polymer Nanocapsules**  
Michael Whittaker, Centre for Advanced Macromolecular Design, Sydney, NSW, Australia

15:15 C10\_O20 **Controlled Radical Polymerization of Vinyl Acetate Mediated by a Vanadium Catalyst**

Michael P. Shaver, University of Prince Edward Island, Charlottetown, Canada

15:30 C10\_O21 **Compartmentalized Designer Catalysts via Living Radical Polymerization**

Takaya Terashima, Laboratory of Macromolecular and Organic Chemistry, Eindhoven University of Technology, Eindhoven, Netherlands

15:45 C10\_O22 ***Controlled Photopolymerization of n-Butyl Methacrylate in Microemulsion Mediated by HO-TEMPO***

Xiaoxuan Liu, Guangdong University of Technology, Guangzhou, Guangdong, China

Room: Carron 1 & 2

**Parallel 6: C12 Supramolecular Polymers and Self Assembly**

14:30 INVITED C12\_O20 **Star, Block and Graft Copolymers By Self-Assembly of Complementary Host- and Guest-Functionalized Polymeric Building Blocks**

Harry W. Gibson, Virginia Polytechnic Inst. & State U, Blacksburg, VA, United States

15:00 C12\_O21 **Porous Organic Polymers and Networks: Structures and Properties**

Abbie Trewin, University of Liverpool, Liverpool, United Kingdom

15:15 C12\_O22 **Thermally induced morphology switching polymeric nanostructures**

Rachel O'Reilly, University of Warwick, Coventry, United Kingdom

15:30 C12\_O23 **A Trimethylsilyl-labeled RAFT-Agent as NMR-Probe for Reversible Block Copolymer Self-Assembly**

Jan Weiss, University of Potsdam, Potsdam, Germany

15:45 C12\_O24 **Recognition of proteins and peptides using amphiphilic polymer nano-assemblies**

S. Thayumanavan, UMass Amherst, Amherst, MA, United States

Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

14:30 INVITED D14\_O19 **From Well-defined Macromonomers to Sterically-Stabilized Latexes to Pickering Emulsions to Covalently**

**Cross-linked Colloidosomes: Exerting Control Over Multiple Length Scales**

Steven Armes, University of Sheffield, Sheffield, United Kingdom

15:00 D14\_O20 **The synthesis and in-depth characterization of colloidosomes with tunable particle packing.**

Joris Salari, Polymer Chemistry, Eindhoven University of Technology, Eindhoven, Netherlands

15:15 D14\_O21 **Nonaqueous Emulsions as a Tool for Novel Polymer Particles**

Robert Haschick, Max Planck Institute for Polymer Research, Mainz, Germany

15:30 D14\_O22 **Octadecyl acrylate - methyl methacrylate block and gradient co-polymers from ATRP: Comb-like stabilizers for the preparation of micro- and nano-particles of poly(methyl methacrylate) and poly(acrylonitrile) by non-aqueous dispersion polymerization.**

Simon J. Holder, University of Kent, Canterbury, Kent, United Kingdom

15:45 D14\_O23 **Nanoscale Control and Morphological Manipulation of Prussian Blue Coordination Polymers using Miniemulsion Periphery Polymerization (MEPP)**

Ronan McHale, University of Leeds, Leeds, United Kingdom

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: Robert Magerle, Chemnitz University of Technology, Germany

14:30 INVITED E17\_O10 **Supramolecular hierarchical self-assemblies based on polypeptide complexes**

Olli Ikkala, Helsinki University of Technology/Aalto University, Department of Applied Physics, P.O. Box 5100, 02150 Espoo, Finland

15:00 E17\_O11 **A New Supramolecular Route for Using Rod-Coil Block Copolymers in Photovoltaic Applications**

Raffaele Mezzenga, ETH Zurich, Zurich, Switzerland

15:15 E17\_O12 **Rigid-Flexible Hinged Copolymers Designed for Crystallization Control**

Josee Brisson, Université Laval, Québec, Québec, Canada

15:30 E17\_O13 **Shake 'N' Bake Blocks: Spontaneous Gradient Copolymers with Block Copolymer Properties**

Simon Harrison, CSIRO Molecular and Health Technologies, Clayton, VIC, Australia

15:45 E17\_O14 **Incorporation of weak links into the backbone of water soluble polymers via redox polymerisation**

Emilia Kot, Imperial College London, London, United Kingdom

Room: Boisdale 2

**Parallel 9: F19 Biodegradable and Sustainable Polymers**

14:30 INVITED F19\_O21 **Carbohydrates as Chemical Feedstock: Synthesis of Saccharide-Derived Functional Polymers**

Joachim Thiem, University of Hamburg, Hamburg, Germany

15:00 F19\_O22 **Metathesis and other efficient (catalytic) approaches to renewable monomers and polymers**

Michael Meier, University of Potsdam, Potsdam, Germany

15:15 F19\_O23 **Sustainable Polyethylene Terephthalate (PET) Mimics Derived from Lignin**

Stephen Miller, University of Florida, Gainesville, Florida, United States

15:30 F19\_O24 **Aza- and phospho-Michael addition as key step for the straightforward synthesis of triglyceride-based renewable thermosets**

Juan Carlos Ronda, University Rovira i Virgili, Tarragona, Spain

15:45 F19\_O25 **Semi-crystalline Polyesters from Plant Oils**

Dorothee Quinzler, University of Konstanz, Konstanz, Germany

Room: Morar & Ness

**Parallel 10: G21 Polymer Electronics**

Session Chair: Mike Turner, University of Manchester, UK

14:30 INVITED G21\_O19 **Bulk and Interfacial Voltage Modulation in Polymeric Semiconductor Devices**

Howard Katz, Johns Hopkins University, Baltimore, MD, United States

15:00 G21\_O20 **Perturbation of Optical Absorption Energy in Low Bandgap Conjugated Polymers by the Incorporation of Rhenium Complexes**

Wai Kin Chan, The University of Hong Kong, Hong Kong, Hong Kong

15:15 G21\_O21 **Magnetic properties of undoped thiophene-based conjugated polymers**

Steven Vandeleene, KULeuven, Heverlee, Belgium

15:30 G21\_O22 **Development of Self-Organizing, Self-Directing Molecular Nanowires: Conjoined DNA-2,5-bis-(2-Thienyl)pyrrole Oligomers.**

Gary Schuster, Georgia Institute of Technology, Atlanta, Georgia, United States

15:45 G21\_O23 **Solid-State Processing of Organic Semiconductors**

Natalie Stingelin, Imperial College, London, United States

Room: Alsh 2

**Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Peter Budd, University of Manchester, UK

14:30 G23\_O20 **Aromatic Ionomers with Controlled Distribution of Ionic Substituents: A New Approach to High-Temperature Fuel-Cell Membranes**

Howard Colquhoun, University of Reading, Reading, Berkshire, United Kingdom

15:00 G23\_O22 **Enhancement of proton transport by supramolecular nano-channels in N-heterocycle functionalized comb polymers**

S. Thayumanavan, UMass Amherst, Amherst, MA, United States

15:15 G23\_O23 **Exploring the concept of intrinsic microporosity in polymers and oligomers.**

Neil McKeown, Cardiff University, Cardiff, United Kingdom

15:30 G23\_O24 **Stable, Unstable and Reversible Porosity in Nanoporous Polymers**

Jens Weber, Max Planck Institute of Colloids and Interfaces, Department of Colloid Chemistry, Potsdam-Golm, Germany

15:45 G23\_O25 **Synthesis of Luminescent Conjugated Microporous Polymers and Their Potential Applications for Photocatalysis**

Jiaxing Jiang, University of Liverpool, Liverpool, United Kingdom

Room: Alsh 2

**Parallel 1: H27 Polymer Education**



- 17:00 INVITED      H27\_O01 **International Polymer Education in the Internet Age**  
Christopher Ober, Cornell University, New York, United States
- 17:15 INVITED      H27\_O02 **Implementing an IUPAC Pilot Research Program to foster networking between excellent young polymer scientists**  
Werner Mormann, University of Siegen, Siegen, Germany
- 17:30 INVITED      H27\_O03 **Polymer education in Japan**  
Mitsuo Sawamoto, Kyoto University, Kyoto, Japan
- 17:45 INVITED      H27\_O04 **French Education Committee for Polymer Teaching**  
Bernadette Charleux, University Claude Bernard, Lyon 1, Lyon, France
- 18:00 INVITED      H27\_O05 **Growth and Impact of Polymer Education Programs Driven by ACS Polymer Divisions**  
Dennis Smith, Clemson University, Clemson, United States
- 18:15 INVITED      H27\_O06 **Teaching Polymer Science in Schools**  
Graham Coverdale, Brockworth Enterprise School, Brockworth, United Kingdom

## TUESDAY 13 JULY 2010 - POSTER SESSIONS

Hall 5

### A1: Polymers for Tissue Engineering and Regenerative Medicine

#### **A1\_P01 Highly-aligned Poly- $\gamma$ -Glutamic Acid Scaffolds for Musculoskeletal Tissue Engineering Applications**

Jessica Rose May, Imperial College London, London, United Kingdom

#### **A1\_P02 A New Type Branched Biodegradable Photopolymers For Cell Growth**

Gülay Bayramoglu, Yalova University, Yalova, Turkey

#### **A1\_P03 Modified Poly(2-Hydroxyethyl Methacrylate) Scaffolds with Oriented Pores for Spinal Cord Injury Repair**

Daniel Horák, Institute of Macromolecular Chemistry ASCR, Prague 6, Czech Republic

#### **A1\_P04 DELIVERY OF MESENCHYMAL STEM CELLS (MSCS) USING A CHEMICALLY DEFINED CELL CARRIER**

Paula Eves, The Kroto Research Institute, University of Sheffield, Sheffield, United Kingdom

#### **A1\_P05 Formation and guest-release behaviour of supramolecular hydrogel core-shell particles**

Mingyu Guo, Institute for Complex Molecular Systems; Eindhoven University of Technology, Eindhoven, Netherlands

#### **A1\_P06 Cryogels: Multi-featured scaffolds as novel carrier for the bioengineering applications.**

Anuj Tripathi, Indian Institute of echnology Kanpur, Kanpur, Uttar Pradesh, India

#### **A1\_P07 PLGA and PCL-based scaffolds for bladder tissue engineering**

Neil Cameron, Durham University, Durham, United Kingdom

#### **A1\_P08 Electrospinning Photocrosslinkable Methacrylate Monomers for Tissue Engineering**

Farina Muhamad, Department of Materials, Imperial College London, London, United Kingdom

#### **A1\_P10 CO<sub>2</sub>-phlic poly(vinyl acetate)-based block copolymer surfactants synthesis by RAFT and their applications on preparation of emulsion-templated poly(acrylamide)**

Bien Tan, Huazhong University of Science & Technology, Wuhan, China

#### **A1\_P11 Cell Adhesion on Nanopatterned Fibronectin Surfaces**

Dan Liu, University of Surrey, Guildford, Surrey, United Kingdom

**A1\_P12 Bio-fabrication and Evaluation of Nano-cellulose Artificial Skin**

Lina Fu, College of Life Science & Technology, Huazhong University of Science & Technology, Wuhan, Hubei, China

**A1\_P13 Development of polymer systems for use as cellular scaffolds to treat retinal degeneration.**

Andrew John Treharne, School of Chemistry, University of Southampton, Southampton, United Kingdom

**A1\_P14 Nanopatterning of Emulsion Templated Scaffolds**

Priya Viswanathan, University of Sheffield, Sheffield, United Kingdom

**A1\_P16 Retinal pigment epithelial (RPE) cells growth on Elastin-like recombinamers substrates**

Girish K. Srivastava, IOBA-University of Valladolid, Castilla Leon Regenerative Medicine and Cell Therapy Network Center, Valladolid, Spain

**A1\_P17 Preparation and Characterization of High Strength Poly(acrylic acid)-Chitosan-Silica Hydrogels**

Hong-Ru Lin, Southern Taiwan University, Yung-Kang, Tainan, Taiwan

**A1\_P18 Chitosan-Based Nanofibrous Webs as Post-Operative Anti-Adhesion Membranes**

Oh Hyeong Kwon, Department of Polymer Science and Engineering, Kumoh National Institute of Technology, Gumi, Korea, Republic of

**A1\_P19 Modification of electrospun biodegradable polymers for potential biomedical applications**

Gisela Buschle-Diller, Auburn University, Auburn, AL, United States

**A1\_P20 Responsive Particles Gels for Reversible Building and Deconstruction of 3D Cell Environments**

Racha Cheikh Al Ghanami, University of Nottingham, Nottingham, United Kingdom

**A1\_P21 Chemical cross-linking of collagen and elastin hydrolysates**

Alina Sionkowska, Nicolaus Copernicus University, Torun, Poland

**A1\_P22 Highly Porous Scaffolds Based on Star-shaped Functional Poly( $\epsilon$ -caprolactone)**

Stefan Theiler, RWTH Aachen University, Institute of Technical and Macromolecular Chemistry, Aachen, Germany

**A1\_P23 Synthesis and evaluation of thiolated poly(galacturonic acid) as an anti-adhesive film for preventing postsurgical adhesion**  
Hsiu-H Peng, Biomedical Engineering, Taipei, Taiwan

**A1\_P24 Photo curable molecules for use in biodegradable hybrid polymers**  
Matthias Beyer, University of Wuerzburg, Lehrstuhl fuer Chemische Technologie der Materialsynthese, Wuerzburg, Germany

**A1\_P25 PREPARATION OF POROUS POLYLACTIDE MATERIALS FOR BIOMEDICAL APPLICATIONS**  
Giada Lo Re, University of Palermo, Dipartimento di Ingegneria Chimica dei Processi e dei Materiali , Viale delle Scienze, ed. 6, 90128, Palermo, Italy

**A1\_P26 Fatigue of hydrogel fibers**  
Laurent Corté, Mines-ParisTech, Centre des Matériaux CNRS UMR7633, Evry, France

**A1\_P27 Nanofibrous composite scaffold made of resorbable polymers for bone tissue engineering.**  
Izabella Rajzer, ATH - University of Bielsko-Biala; Faculty of Materials and Environmental Sciences; Institute of Textile Engineering and Polymer Materials, Department of Polymer Materials, Bielsko-Biala, Poland

**A1\_P28 Bioactivity of modified PLA fibres**  
Izabella Rajzer, ATH - University of Bielsko-Biala, Faculty of Materials and Environmental Sciences; Institute of Textile Engineering and Polymer Materials, Department of Polymer Materials, Bielsko-Biala, Poland

**A1\_P29 Tissue engineering in bone defects: Development of biodegradable porous copolymer scaffolds stimulating cell growth and bone regeneration**  
Staffan Dänmark, Department of Fibre and Polymer Technology, School of Chemical Science and Engineering, Royal Institute of Technology, Stockholm, Sweden

**A1\_P30 Development of photocrosslinkable bioadhesives based on lactic acid**  
Dina Marques, Chemical Engineering Departement, University of Coimbra, Coimbra, Portugal

**A1\_P31 Synthesis, characterization and molecular architecture of electroactive and degradable polymers**  
Baolin Guo, Royal Institute of Technology, stockholm, Sweden

**A1\_P32 Protection of Amine-Functional Peptides with Novel Aryl Sulphonamides for Deprotection by the Enzyme Glutathione-S-**

**Transferase.**

Katherine Brown, University of Sheffield, Sheffield, United Kingdom

**A1\_P33 Design of bioactive PCL scaffolds for ligament tissue engineering**

Géraldine Rohman, Université Paris 13 - Institut Galilée, Villetaneuse, France

**A1\_P34 Surface modification of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) films for promoting adhesion of bladder urothelial cells**

Isabel Quijada-Garrido, Instituto de Ciencia y Tecnología de Polímeros (ICTP), Consejo Superior de Investigaciones Científicas (CSIC), Madrid, Spain

**A1\_P35 Micro- and nanofibres composed of polyaniline and polylactide**

Jaroslav Janicki, University of Bielsko-Biala, Institute of Textile Engineering and Polymer Materials, Bielsko-Biala, Poland

Hall 5

**A2: Polymer Networks and Responsive Polymers in the Life Sciences****A2\_P01 Preparation of functional polycarbonate-based hydrogels by metal-free ring-opening polymerization**

Laetitia Mespouille, University of Mons, Laboratory of Polymeric and Composite Materials, Mons, Belgium

**A2\_P02 Preparation of Poly(vinylamine-co-N-vinylamide)/DNA Polyion Complex**

Wanpen Tachaboonyakiat, Chulalongkorn University, Bangkok, Thailand

**A2\_P04 Design and Fabrication of Nanocomposite Hydrogels with Controllable Structure and Properties**

Meifang Zhu, Donghua University, Shanghai, China

**A2\_P05 Functional and responsive polymeric sequestering agents for radiological decontamination of aqueous solutions**

David Crouch, University of Manchester, Manchester, United Kingdom

**A2\_P06 Silk as a Module for New Polymeric Biomaterials**

Heather A. Currie, Tufts University, Medford, MA, United States

**A2\_P07 Macroporous sponge-like hydrogel scaffolds by cryogelation.**

Irina Savina, Brighton University, Brighton, United Kingdom

**A2\_P08 Thermoresponsive Composite Gels from Self-Assembling Peptide and Polymer-Peptide Conjugate**

Antons Maslovskis, University of Manchester, School of Chemical Engineering and Analytical Science and Manchester Interdisciplinary Biocentre, Manchester/Lancashire, United Kingdom

**A2\_P09 Development of Polysiloxane Biomaterials for Ophthalmic Applications**

Xiaojuan Hao, CSIRO Molecular and Health Technologies, Clayton, Victoria, Australia

**A2\_P10 NON-LINEAL ORGANOMETALLIC MICROGELS SOLUBLE IN WATER**

Antonio Romerosa, Universidad de Almeria, Almeria, Spain

**A2\_P11 Influence of poly(N-isopropylacrylamide) molecular weight and grafting density on the viscoelastic properties of thermoresponsive poly(N-isopropylacrylamide)/hyaluronan hydrogels synthesized via "click" chemistry and RAFT polymerization.**

David Eglin, AO Research Institute Davos, Davos, Switzerland

**A2\_P12 Synthesis of Functional Methacrylate Based Polymers that Exhibit an Upper Critical Solution Temperature (UCST) in Water**

Idriss Blakey, The University of Queensland, Brisbane, Queensland, Australia

**A2\_P13 Co-nonsolvency of zwitterionic phosphorylcholine-containing polymer brushes**

Steve Edmondson, Loughborough University, Loughborough, United Kingdom

**A2\_P14 Physical studies of enzymatically cross-linked fish gelatin networks for tissue repair**

Franziska Bode, King's College London, London, United Kingdom

**A2\_P15 Responsive Dendritic Polymeric Nanostructures with Multifunctional Groups via One-step Living/Controlled Synthetic Approach for Tissue Engineering and Drug Delivery Applications**

Hongyun Tai, Bangor University, Bangor, United Kingdom

**A2\_P16 Novel tetraglycidyl amines and their thermosets: synthesis and characterization**

Humaira Masood Siddiqi, quaid-i-Azam university, Islamabad, Pakistan

**A2\_P17 Synthesis and characterization of Polyimide-epoxy composites**

Humaira Masood Siddiqi, quaid-i-Azam University, Islamabad, Pakistan

**A2\_P18 Photo-Mechanical Materials and Devices Using Azobenzene-Containing Polymers**

Christopher Barrett, McGill University, Montreal, Canada

**A2\_P19 Poly(ethylene glycol) (PEG) Based Cryogels with Cleavable Disulfide Linkages**

Tugba Dispinar, Ghent University, Department of Organic Chemistry, Polymer Chemistry Research Group, Ghent, Belgium

**A2\_P20 Thermo- and pH-sensitive hydrogels based on 2-(2-methoxyethoxy)ethyl methacrylate (MEO<sub>2</sub>MA)**

Rodrigo París, Instituto de Ciencia y Tecnología de Polímeros, Consejo Superior de Investigaciones Científicas (ICTP-CSIC), Madrid, Spain

**A2\_P21 Injectable Pluronic-PAA Liquid Suppository Using In Situ Gelling Technique**

Hong-Ru Lin, Southern Taiwan University, Yung-Kang, Tainan, Taiwan

**A2\_P22 Magneto-responsive hydrogels based on maghemite/triblock terpolymer hybrid micelles**

Stefan Reinicke, University of Bayreuth, Bayreuth, Germany

**A2\_P23 Magnetic and Thermoresponsive Composite *p*NIPAA/Fe<sub>3</sub>O<sub>4</sub> prepared by modified frontal polymerization**

Josué David Mota Morales, CINVESTAV Unidad Querétaro, Querétaro, Mexico

**A2\_P24 THE STATES OF WATER IN HYDROGELS SYNTHESIZED FROM DIEPOXY-TERMINATED POLY(ETHYLENE GLYCOL)S AND ALIPHATIC POLYAMINES**

Bogdan Cursaru, POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Material Science, Department of Polymer Science and Technology, Bucharest, Romania

**A2\_P25 Enzyme-Responsive Polymeric Materials for Controlled Release and Sensing Applications**

Paul Thornton, Dublin City University, Dublin, Ireland

**A2\_P26 Functional Polyester–Glycidylmethacrylate–Divinylbenzene (Pes-GMA-DVB) Microspheres by High Internal Phase Emulsion Approach**

E. Hilal MERT, Yalova University, Yalova, Turkey

**A2\_P28 Shrinking Kinetics of Poly(*N*-isopropylacrylamide) Hydrogels Containing a Nonionic Surfactant**

Hiroki Takeshita, Nagaoka University of Technology, Nagaoka, Niigata, Japan

**A2\_P29 Preparation of functional environmentally responsive supports**

Alexandros Lamprou, ETH Zurich, Inst. f. Chemical & Bioengineering, Zurich, Switzerland

**A2\_P30 Dual-responsive thermo-crosslinked hydrogel based on methacrylate substituted polyphosphazene**

Virginia P. Silva Nykänen, Aalto University of Science and Technology, Espoo, Finland

**A2\_P31 Enzymatically tuneable peptide surfaces for cell engineering**

Mischa Zelzer, University of Strathclyde, Glasgow, United Kingdom

**A2\_P32 Thermoresponsive Terpolymers – Effect of Architecture, Composition and Molecular Weight on Thermoresponsive Ability.**

Mark Ward, University of Hull, Hull, United Kingdom

**A2\_P33 Hydrogels for loading therapeutic proteins by electrophoretic method**

Chun-Liang Yeh, Queensland University of technology, Brisbane, QLD, Australia

**A2\_P34 Sol-gel reactions as a novel method of synthesis of hydrogels to release silicone for scar remediation**

Babak Radi, Institute of Health and Biomedical Innovation, Queensland University of Technology, Brisbane, QLD, Australia

**A2\_P35 Synthesis and characterization of different sized microgels with pH and thermo responsive properties**

Divya Paloli, Adolphe Merkle Institute, Marly, Fribourg, Switzerland

**A2\_P36 Low-surface-energy polymer networks with self-replenishing ability: a dual experimental/ simulation approach.**

Catarina Esteves, Eindhoven University of Technology, Eindhoven, Netherlands

**A2\_P37 Hybrid Core-shell Responsive Silica nanoparticles by NCA Ring Opening Polymerization**

Tushar Borase, School of Chemical sciences, Dublin City University, Dublin, Ireland

**A2\_P38 Micropore switching for molecular screening with pH-responsive polymer brushes**

G.W. de Groot, University of Twente, Enschede, Netherlands

**A2\_P39 Towards a double stimuli responsive bottle-brush with a redox responsive poly(ferrocenylsilane) backbone and temperature responsive poly(N-isopropylacrylamide) side chains**

Edit Kutnyanszky, University of Twente, Enschede, Netherlands



Hall 5

## **C8: Click and Efficient Linking Chemistry in Polymer Synthesis**

### **C8\_P01 Probing the Reversibility of Ultra-Rapid RAFT-HDA Click Chemistry**

Andrew Inglis, Karlsruhe Institute of Technology, Karlsruhe, Germany

### **C8\_P02 A marriage of catalytic chain transfer polymerization (CCTP) and "double click" to glycopolymers**

Yanzi Gou, University of Warwick, Coventry, United Kingdom

### **C8\_P03 PMMA/AES blends prepared by *in situ* polymerization of methyl methacrylate**

Fabiana Pires de Carvalho, UNICAMP, Campinas - SP, Brazil

### **C8\_P04 Synthesis of PET-*b*-poly(lauryl acrylate)-*b*-PET (PET-*b*-PAL-*b*-PET) triblock copolymers from PET-*b*-PAL derivatives: comparison between click chemistry and other coupling methods**

Livie Liénafa, Institut Charles Gerhardt, Montpellier, France

### **C8\_P05 Photoswitchable triazole assisted 2-indolyl fulgimide polymer and its fluorescence lifetime investigation**

Kannan Palaninathan, Anna University, Chennai, Tamil Nadu, India

### **C8\_P06 Clicking Pentafluorostyrene Copolymers: Synthesis, Nanoprecipitation and Glycosylation**

C. Remzi Becer, Friedrich-Schiller University of Jena, Jena, Germany

### **C8\_P07 Modification and Cross-linking Reaction of Polymer with Unsaturated Linkages Exploiting Stable Nitrile N-Oxides**

Yasuhito Koyama, Tokyo Institute of Technology, Tokyo, Japan

### **C8\_P08 Polyurethane Chemistry Revisited.**

Jan Devroede, Ghent University, Ghent, Belgium

### **C8\_P09 Functionalisation of poly(di(ethylene glycol) methyl ether methacrylate) macromonomers via the thiol-ene click reaction**

Guang-zhao Li, Department of Chemistry - University of Warwick, Coventry, CV47AL, United Kingdom

### **C8\_P10 Semi-crystalline copolymers by thiol-ene coupling**

Julie Prévost, Laboratoire Matière Molle et Chimie (ESPCI ParisTech), Paris, France

### **C8\_P11 Contribution of "click chemistry" to the macromolecular engineering of aliphatic polyesters**

Raphaël Riva, University of Liège, Liège, Belgium

**C8\_P12 Poly-Condensation of Benzyl Alcohols in the Presence of Nano-Preyssler Polyoxometalate,  $[\text{NaP}_5\text{W}_{30}\text{O}_{110}]^{14-}$ , as A Novel and Green Nanocatalyst**

Fatemeh F. Bamoharram, Islamic Azad University, Mashhad-Branch, Department of Chemistry, Mashhad, Khorasan Razavi, Iran, Islamic Republic of

**C8\_P13 Facile Synthesis of a Bis(methylol)propionic Acid based Dendritic Polymer Library using Macrodendrons and Thiol-ene Click Chemistry**

Marie V. Walter, Royal Institute of Technology (KTH), Stockholm, Sweden

**C8\_P14 Synthesis of disubstituted acetylenes based polymers and their post-polymerization modification via "click" chemistry.**

Radoslava Sivkova, Charles University in Prague, Prague, Czech Republic

**C8\_P15 A highly efficient route to bio-active synthetic glycopeptides by combination of NCA polymerization and click reaction**

Jin Huang, School of Chemical Sciences, Dublin City University, Dublin, Ireland

**C8\_P16 2-Methylamino-thioxanthen-9-one (TX-NMA) as a Novel Visible Photoinitiator**

Sevnur Keskin Dogruyol, Yildiz Technical University Chemistry Department, Istanbul, Turkey

**C8\_P17 Well defined thiol end-functionalized polyethylene**

Jérôme MAZZOLINI, Laboratory C2P2 - Team LCPP - Université Lyon I, Villeurbanne, France

**C8\_P18 Palladium Nanoparticles Supported on Modified Crosslinked Polyacrylamide: an Efficient Heterogeneous Catalyst for Stille Cross-Coupling Reaction**

Bahman Tamami, Shiraz University, Shiraz, Fars, Iran, Islamic Republic of

**C8\_P19 Isocyanate Based Monoliths: A Novel, Highly Reactive and Versatile Chromatographic Monolith**

Timothy Hughes, CSIRO Molecular and Health Technologies, Melbourne, Victoria, Australia

**C8\_P20 Microencapsulation of inorganic-phase-change materials for energy storage applications**

Daniela Platte, University of Wuerzburg, Lehrstuhl fuer Chemische Technologie der Materialsynthese, Wuerzburg, Germany

**C8\_P21 Synthesis of a Smart Temperature Responsive Glycopolymers Based on Poly(Ethylene Glycol) via Click Chemistry**

Ahmed Eissa, Department of Chemistry, Durham University, Durham, United Kingdom

**C8\_P22 Biodegradable polymers from renewable resources via thiol-ene addition**

Oguz Turunc, University of Applied Sciences Emden/Leer, Emden, Germany

**C8\_P23 Modified nano-structured polyaniline: synthesis and characterization**

Bakhshali Massoumi, payame noor university of Tabriz center, Tabriz, Iran, Islamic Republic of

**C8\_P24 Synthesis of peroxide-curable butyl rubber via Suzuki-Miyaura coupling reaction of halogenated butyl rubber with 4-vinylphenylboronic acid**

Katsuhiko Takenaka, Nagaoka University of Technology, Nagaoka, Niigata, Japan

**C8\_P25 Synthesis and Characterisation of Well-Defined Oxazalone End-Functional Polymers via RAFT polymerisation and Orthogonal thiol-ene "Click" Chemistry**

Martin Levere, Universite du Maine, Le Mans, France

**C8\_P26 Synthesis and Characterization of Polysulfones via Click Chemistry Polymerization**

Mehmet Arif KAYA, Yildiz Technical University, Istanbul, Turkey

**C8\_P27 NORBORNENYL BASED RAFT AGENTS FOR THE PREPARATION OF FUNCTIONAL POLYMERS VIA THIOL-ENE CLICK CHEMISTRY**

Pieter Espeel, Ghent University, Ghent, Belgium

**C8\_P28 Biodegradable Giant Amphiphiles**

Kelly Velonia, University of Crete, Department of Materials Science and Technology, Heraklion - Crete, Greece

Hall 5

**C10: Living Radical Polymerisation**

**C10\_P01 Making Well-Defined Macromolecules with Nitron End Groups**

Edgar H. H. Wong, Centre for Advanced Macromolecular Design, UNSW, Sydney, NSW, Australia

**C10\_P03 Lectin recognizable Biomaterials synthesized via Nitroxide Mediated Controlled Free-Radical Polymerization of a Methacryloyl Galactose Monomer**

SAVE Maud, IPREM-Equipe de Physique et Chimie des Polymères, CNRS-University of Pau, PAU, France

**C10\_P04 Investigations on Different Verdazyl Derivatives for a Controlled Living Radical Polymerisation**

Georgina Rayner, University of Warwick, Coventry, West Midlands, United Kingdom

**C10\_P05 Utilization of Nitrones in Polymer Synthesis: Molecular Weight Control, Blockcopolymers and Polymer Conjugation**

Thomas Junkers, Universiteit Hasselt, Diepenbeek, Belgium

**C10\_P06 New Polymer Synthesis by Controlling the Kinetic Process of ATRP of AB\* Inimers**

Zi-Chen Li, College of Chemistry, Peking University, Beijing, China

**C10\_P07 Emulsion Polymerization of Methyl Methacrylate using the Reverse Iodine Transfer Polymerization (RITP) Technique**

Eunhee Kim, Inha university, Incheon, Korea, Republic of

**C10\_P08 Determination of the Rate Coefficients Associated with the RAFT Equilibrium via Time-Resolved EPR Spectroscopy after Laser Pulse Initiation**

Wibke Meiser, Institut für Physikalische Chemie, Georg-August-Universität Göttingen, Göttingen, Niedersachsen, Germany

**C10\_P09 Microwave-Assisted Nitroxide-Mediated Radical Polymerization of Acrylamide in Aqueous Solution**

Julien Rigolini, IPREM / EPCP, Université de Pau, Pau, France

**C10\_P10 Synthesis and Characterization of the (*n*-BA)-*b*-St Copolymers by Photopolymerization of NMP/ATRP Technique using Macroinitiator in the Microemulsion**

Xiaoxuan Liu, Guangdong University of Technology, Guangzhou, Guangdong, China

**C10\_P11 A Low Temperature Alkoxyamine Designed for Use in Nitroxide-Mediated Miniemulsion Polymerization**

Bencha Thongnuanchan, The University of Manchester, Manchester, United Kingdom

**C10\_P12 Quantitative Investigation of The Effect of AIBN on Polymer-end Structure in Organoheteroatom-mediated Living Radical Polymerization**

Yasuyuki Nakamura, Kyoto University, Uji, Japan

**C10\_P13 New Hydrocarbon Surfactants for Dispersion Polymerisation in  $\text{scCO}_2$**

Nicholas Arrowsmith, University of Nottingham, Nottingham, United Kingdom

**C10\_P14 Water-Soluble Organo-Silica Hybrid Nanotubes Templated by Cylindrical Polymer Brushes**

Markus Müllner, University of Bayreuth, Bayreuth, Germany

**C10\_P15 New Metal Complexes for Radical Polymerization of Vinyl Monomers**

Regina Islamova, Institute of Organic Chemistry of Ufa Scientific Centre of the Russian Academy of Sciences, Ufa, Republic of Bashkortostan, Russian Federation

**C10\_P16 Design of functionalized PEG-based polymers by nitroxide-mediated polymerization for bioconjugation purposes**

Julien Nicolas, Laboratoire de Physico-Chimie, Pharmacotechnie et Biopharmacie, UMR CNRS 8612, Univ. Paris-Sud 11, Châtenay-Malabry, France

**C10\_P17 Glycopolymer Grafted Microspheres**

André Pfaff, University of Bayreuth, Bayreuth, Germany

**C10\_P18 Smart Hydrogels based on star-shaped diblock copolymers of N,N'-dialkylaminoethyl methacrylates**

Alexander Schmalz, University of Bayreuth, Bayreuth, Germany

**C10\_P19 Chemical Modification of Polyaniline by N-Grafting of Polyethylacrylate Synthesized via ATRP**

Bakhshali Massoumi, payame noor university, tabriz-east azarbijan, Iran, Islamic Republic of

**C10\_P20 Facing the problem of the bis(acetylacetonato)cobalt(II)-mediated radical polymerization of acrylates.**

Marie Hurtgen, University of Liège, Liège, Belgium

**C10\_P21 Modified polydopamine-melanin coatings as initiators for surface-initiated ATRP**

Bocheng Zhu, Loughborough University, Loughborough, United Kingdom

**C10\_P22 Toward Sequence Regulated Polymerization: Selective Radical Reactions with Designed Template Initiators**

Shohei Ida, Kyoto university, Kyoto, Japan

**C10\_P23 Tandem Catalysis for Living Radical Polymerization and Transesterification: Precision Syntheses of Gradient Copolymers**

Kazuhiro Nakatani, Kyoto University, Kyoto, Japan

**C10\_P24 The ESARA Process: A Bridge between Nitroxide-Mediated and RAFT Controlled Radical Polymerization Techniques**

Arnaud Favier, UMR 5223 CNRS, Ingénierie des Matériaux Polymères and USR3010 CNRS-ENS Lyon, Laboratoire Joliot-Curie, Lyon, France

**C10\_P25 Star Polymers via Cross-Linking Linear Poly(amino acid) Macromonomers by (Controlled) Radical Polymerization**

Fabrice Audouin, Dublin City University, Dublin, Ireland

**C10\_P26 Designing new functional and responsive amino polymers *via* RAFT polymerisation.**

Pepa Cotanda, university of warwick, coventry, United Kingdom

**C10\_P27 Ring-Opening Polymerization of 1,3-Dehydroadamantanes**

Sotaro Inomata, Tokyo Institute of Technology, Tokyo, Japan

**C10\_P28 Synthesis of Photoactive Polymer Matrices for Gold Nanoparticles as Non-Linear Optic Antennae**

Ulrike Georgi, Leibniz Institut für Polymerforschung Dresden e.V., Dresden, Germany, Germany

**C10\_P29 Polymerization of 2-Hydroxyethyl Methacrylate Catalyzed by Cyclometalated Ru<sup>II</sup> Compounds**

Maria-Ortencia Gonzalez, Instituto de Investigaciones en Materiales, Mexico, D.F., Mexico

**C10\_P30 EVALUATION OF THE CATALYTIC ACTIVITY OF CYCLOMETALATED-RUTHENIUM(II) COMPLEX IN THE POLYMERIZATION OF STYRENE AND METHYL METHACRYLATE**

Vanessa Martinez Cornejo, Instituto de Investigaciones en Materiales, Universidad Nacional Autonoma de México, Distrito Federal, Mexico

**C10\_P31 Synthesis and use of a new alkene-functionalized SG1-based alkoxyamine**

Claire BERNHARDT, Université Pierre et Marie Curie (Paris VI), Paris, France

**C10\_P32 Atom Transfer Radical Polymerization (ATRP) copolymers in combination with gemini surfactants as diesel fuel wax dispersants**

Norah Maithufi, Sasol Technology,R&D, Sasolburg, South Africa

**C10\_P33 Comb-type copolymers prepared via Atom Transfer Radical Polymerization as potential cold flow improvers in GTL diesel fuels**

Norah Maithufi, Eindhoven University of Technology, Eindhoven, Netherlands

**C10\_P34 Surface-Initiated Polymerization and Characterization of Mixed Polymer Brushes of Poly(*N*-isopropylacrylamide) and Poly(methacrylic acid) on Gold**

Xiaofeng Sui, Materials Science and Technology of Polymers, MESA+ Institute for Nanotechnology, University of Twente, Enschede, Netherlands

**C10\_P35 Controlled polymerisation of sulfonate-containing monomers via Atom Transfer Radical Polymerisation**

Darren Campbell, Aston University, Birmingham, West Midlands, United Kingdom

**C10\_P36 Polymeric Membranes for the Treatment and Purification of Water**

Catherine Fox, Department of Chemistry, National University of Ireland Maynooth, Maynooth, Co. Kildare, Ireland

**C10\_P37 A New Phosphine Oxide as Catalyst for Reversible Chain Transfer Catalyzed Polymerization (RTCP)**

Arne Wolpers, Institute of Physical Chemistry, Göttingen, Germany

**C10\_P38 Synthesis and Characterisation of a six-arm star poly(styrene sulfonate) containing alpha-cyclodextrin core**

Haruna Musa, Bayero University Kano, Kano, Nigeria

**C10\_P39 Preparation and Physical Properties of Copolymer based Carbon Nanotube Composites Prepared by 'Double Percolation' By Means of Controlled Radical Polymerisation in a Latex Using Reverse Addition Fragmentation Transfer Polymerisation and Reverse Atom Transfer Radical Polymerisation.**

Gavin T H Hill, Free University of Brussels, Brussels, Belgium

Hall 5

**C12: Supramolecular Polymers and Self Assembly**

**C12\_P01 Polyoxazoline Thermoresponsive Micelles: Light and X-Ray Scattering Studies**

Sergey Filippov, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic

**C12\_P02 Polymeric nanoparticles stabilized by surfactants: kinetic studies**

Sergey Filippov, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic

**C12\_P03 The self-assembly of polyphiles - a novel class of amphiphiles. Static and kinetic studies.**

Sergey Filippov, Institute of Macromolecular Chemistry AS CR, v.v.i.,  
Prague, Czech Republic

**C12\_P04 Ionic Liquids and Ion Beams - Controlling and Quantifying Thin Polymer Film Surfaces**

Richard Thompson, Durham University, Durham, United Kingdom

**C12\_P05 Semi-Crystalline Surface-Active Multi-End-Functional Polymer Blends**

Richard Thompson, Durham University, Durham, United Kingdom

**C12\_P06 A versatile polymeric nucleating agent for isotactic polypropylene**

Andrew Phillips, Monash University, Melbourne, Australia

**C12\_P07 Pickering emulsions stabilized by self-assembled colloidal particles of copolymers of P(St-alt-MAn)-co- P(VM-alt-MAn)**

Xiaoya Liu, Jiangnan University, Wuxi, Jiangsu, China

**C12\_P08 Sportive Removal of Methylene Blue from Water using Polyaniline Nanotubes**

Mohamad Ayad, Department of Chemistry, Faculty of Science,  
University of Tanta, Tanta, Egypt

**C12\_P09 Self-assembly of novel low molecular weight urethane/urea materials**

Andrew Slark, Henkel UK Limited, Slough, United Kingdom

**C12\_P10 Self-Assembled Healable Materials Through a Combination of pi-pi Stacking and Hydrogen Bonding Interactions**

Barnaby Greenland, University of Reading, Reading, Berkshire, United Kingdom

**C12\_P11 Formation of Block-Selected Polypseudorotaxanes from  $\alpha$ -Cyclodextrin and Poly[(R,S)-3-hydroxybutyrate]-based Triblock Copolymers**

Kerh Li Liu, Institute of Materials Research and Engineering, A\*STAR  
(Agency for Science, Technology and Research), Singapore, Singapore

**C12\_P12 SUPRAMOLECULAR MOLECULAR NANOCAPSULES FROM LOW-MOLECULAR WEIGHT UREAS THROUGH INTERFACIAL ADDITION REACTION IN MINIEMULSION**

Nathalie SINTES-ZYDOWICZ, Université de Lyon, Université Claude  
Bernard Lyon 1, VILLEURBANNE, France

**C12\_P13 AFM-based single molecule force spectroscopy of complementary quadruple hydrogen-bonded systems**

Anika Embrechts, University of Twente, Enschede, Netherlands



**C12\_P14 The effect of cucurbit[n]uril on the morphology, solubility and the photophysical properties of conjugated polymers in an aqueous medium**

DÖNÜS TUNCEL, BILKENT UNIVERSITY, ANKARA, Turkey

**C12\_P15 The Modulation of Photochromism in Polymer Matrices**

Francesca Ercole, CRC for Polymers, Notting Hill, VIC, Australia

**C12\_P16 Hierarchical self-assembly structures of supramolecular monodendritic liquid-crystalline block copolymer**

Wei-Tsung Chuang, National Synchrotron Radiation Research Center, Hsinchu, Taiwan

**C12\_P17 Quantifying polymer–DNA interactions through non-linear modelling of fluorescence data**

Jonas Mindemark, Uppsala University, Uppsala, Sweden

**C12\_P18 Snapshots of Amyloid Aggregation by AFM Single-Molecule Statistical Analysis of b-Lactoglobulin Fibrils**

Raffaele Mezzenga, ETH Zurich, Zurich, Switzerland

**C12\_P19 Design and synthesis of functional polymeric nanostructures utilizing CRP techniques and Metal-ligand interactions**

Joseph Patterson, University of Warwick, Coventry, United Kingdom

**C12\_P20 A Computational Approach to Predicting Gas Diffusion in Organic Cages**

Daniel Holden, University of Liverpool, Liverpool, United Kingdom

**C12\_P21 Porous organic cages for gas storage**

Shan Jiang, University of Liverpool, Liverpool, United Kingdom

**C12\_P22 Metal Lined Nanoparticles - Core hollowing removal studies.**

Helen Willcock, University of Warwick, Coventry, United Kingdom

**C12\_P23 Tailoring surface topology of multicomponent films built-up using Layer by layer self-assembly by adjusting interaction capacities**

Daniel Portinha, IMP INSA Lyon Universite de Lyon, Villeurbanne, France

**C12\_P24 Design of fatty acid based supramolecular polymers and networks for large scale syntheses.**

Damien Montarnal, ESPCI, Paris, France

**C12\_P25 Polyrotaxanes Based on Fluorene Copolymers for Micro/Optoelectronic Applications**

Nathalie JARROUX, University of EVRY VAL D'ESSONNE, EVRY, France

**C12\_P26 Structure and rheological properties of nano-ordered materials from PSAN-POE-PSAN block copolymers for membranes and solid electrolytes applications.**

Emmanuel Beaudoin, Université de Provence, Marseille, France

**C12\_P27 Structural and Dynamical Properties of Hydrogen-Bonded Supramolecular Polymers**

Eric Buhler, University Paris Diderot, Matière et Systèmes Complexes laboratory, Paris, France

**C12\_P28 Interpolymer polyelectrolyte complexes of macromolecules having different affinity to solvent**

Valentina Vasilevskaya, Nesmeyanov Institute of Organoelement Compounds, Moscow 119991, Russian Federation

**C12\_P29 Evolution of molecular structure of polyaniline nanotubes during oxidation of aniline in acetic acid**

Zuzana Rozlívková, Institute of Macromolecular Chemistry, AS CR, v.v.i., Prague, Czech Republic

**C12\_P30 Self-assembly of biopolymers in mixed solvents**

Ilja Voets, University of Fribourg, Adolphe Merkle Institute, Marly, Switzerland

**C12\_P31 Controlling the Assembly of Nanorod/Block Copolymer Composites**

Elina Ploshnik, The Institute of Chemistry and The Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem, Jerusalem, Israel

**C12\_P32 Nanoparticle Organization Into Branched Morphologies Using Thin Films Of A Crystalline Polymer As Dynamic Templates**

Mariela Pavan, The Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem, Jerusalem, Israel

**C12\_P33 Temperature Induced Self-Assembly of Triple-Responsive Triblock Copolymers in Dilute Aqueous Solution.**

Jan Weiß, University of Potsdam, Potsdam, Germany

**C12\_P34 Stepwise assembly of the same polyelectrolytes using host-guest interaction to obtain microcapsules with multiresponsive properties**

Zhipeng Wang, Max-Planck Institute of Colloids and Interfaces, Potsdam, Brandenburg, Germany

**C12\_P35 Manipulation of a Helical Conformation of a Cationic Polythiophene through Supramolecular Complexation with a**

### **Modified Polysaccharide**

Tomohiro Shiraki, Institute of Systems, Information Technologies and Nanotechnologies (ISIT), Fukuoka, Japan

### **C12\_P36 New Multi-stimuli Responsive Macromolecular Assemblies**

Patrice Woisel, Univ Lille Nord de France, Université des Sciences et Technologies de Lille, UMET UMR CNRS 8207, ENSCL, Lille, France

### **C12\_P37 The influence of the polymeric backbone on the folding of supramolecular based single-chain nanoparticles.**

Patrick Stals, Eindhoven University of Technology, Eindhoven, Netherlands

### **C12\_P38 To fold or not to fold in discotic based polymer chains: a combined spectroscopic and light scattering approach**

Martijn Gillissen, Eindhoven University of Technology, Eindhoven, Netherlands

### **C12\_P39 Parallel versus perpendicular lamellar-*within*-lamellar self-assembly of A-b-(B-b-A)<sub>n</sub>-b-C ternary multiblock copolymer melts.**

Vladimir Markov, RUG, Groningen, Netherlands

### **C12\_P40 Synthesis and characterization of electrical sensitive smart polymer from *Gum ghatti* and Acrylamide**

Balbir Singh Kaith, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, India

### **C12\_P41 Porphyrin polymer assisted self-assembly of unmodified fullerene C<sub>60</sub> and effect of polymer structure**

Xuan Zhang, National Institute for Materials Science, Tsukuba, Japan

### **C12\_P42 Self-organization of amphiphilic macromolecules with helical secondary structure.**

Mikhail Glagolev, Moscow State University, Moscow, Russian Federation

### **C12\_P43 Nanoparticles formed by poly(methacrylic acid)-*block*-poly(ethylene oxide)/N-dodecylpyridinium chloride complexes in aqueous solutions**

Miroslav Stepanek, Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University, Prague, Czech Republic

### **C12\_P44 Polymer-water interactions in association processes of Pluronics and their modification**

Adriana Sturcova, Institute of Macromolecular Chemistry AS CR, v. v. i., Prague, Czech Republic

**C12\_P45 Dynamic Covalent Diblock Copolymers**

Alexander Jackson, Newcastle University, Newcastle upon Tyne, United Kingdom

**C12\_P46 Formation of Star Polymers Containing Core Cross-Linked by Reversible Imine Bonds**

Alexander Jackson, Newcastle University, Newcastle Upon Tyne, United Kingdom

**C12\_P47 Hydrogels from Aromatic Sugar Amphiphiles**

Alison A. Edwards, Medway School of Pharmacy, Universities of Kent and Greenwich at Medway, Medway, Kent, United Kingdom

**C12\_P48 Investigating the Potential Of Polymer-Scaffolded Dynamic Combinatorial Libraries**

Ben Murray, Newcastle University, Newcastle Upon Tyne, United Kingdom

**C12\_P49 Synergistic Hofmeister effect on the LCST of poly(2-isopropyl oxazoline)-based double hydrophilic block copolymers tuned by chaotropic salts.**

Clara Valverde Serrano, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany

**C12\_P50 VARIOUS AMPHIPHILIC BLOCK-COPOLYMER MORPHOLOGIES THROUGH SIMULTANEOUS CHAIN-GROWTH AND SELF-ASSEMBLING IN WATER**

Stéphanie BOISSE, UPMC Univ. Paris 6, PARIS, France

**C12\_P51 Cubic to hexagonal phase transition induced by electric field**

Petr Stepanek, Institute of Macromolecular Chemistry, Prague, Czech Republic

**C12\_P52 Structure of self-organized diblock copolymer solutions in partially miscible solvents**

Petr Stepanek, institute of Macromolecular Chemistry, Prague, Czech Republic

**C12\_P53 Amyloid-like nanofibrils from self-assembly of peptides and peptide- PEG copolymers**

Ge Cheng, Shool of Chemistry, University of Reading, United Kingdom

**C12\_P54 Self-assembly of difunctional halogen-bonding molecules: A new family of supramolecular liquid crystalline polymers induced by halogen bond**

Jianwei Xu, Institute of Materials Research and Engineering, Singapore, Singapore

**C12\_P55 All-conjugated bis-terpyridines - building blocks of supramolecular polymers**

Jan Svoboda, Charles University in Prague, Hlavova 2030, Prague, Czech Republic

**C12\_P56 Enzyme-triggered Self-assembled Semiconducting Pyrene- peptide Nanofibers**

JunTae Kim, University of Strathclyde, Glasgow, United Kingdom

**C12\_P57 Biodegradable Cross-linking-De-Crosslinking Polycaprolactone based systems**

Nathalie Mignard, Université de Lyon, F-42023, CNRS UMR 5223, Ingénierie des Matériaux Polymères, Université de Saint-Etienne, Saint-Etienne, France

**C12\_P58 Theoretical study of micelles with ion-containing cores**

Elena Kramarenko, Physics Department, Moscow State University, Moscow, Russian Federation

**C12\_P59 Hollow Spherical Supramolecular Dendrimers**

Sami Nummelin, Aalto University School of Science & Technology, Espoo, Finland

**C12\_P60 Temperature responsive nanospheres with bicontinuous internal structure from a semi-crystalline amphiphilic block copolymer.**

Beulah McKenzie, University of Kent, Canterbury, Kent, United Kingdom

**C12\_P61 Towards control of the size and morphology of bicontinuous nanospheres from block copolymers of poly(ethylene oxide) and octadecyl methacrylate.**

Beulah McKenzie, University of Kent, Canterbury, Kent, United Kingdom

Hall 5

**D14: Polymer Colloids: from Synthesis to Applications**

**D14\_P01 Synthesis of alkyd resin by incorporation of Colocynth oil in the formulae**

Salem Al-Deyab, King Saud University, Riyadh, Saudi Arabia

**D14\_P02 Oil of citrullus colocynthis in alkyd processing and paint applications**

Salem Al-Deyab, Petrochemical Research Chair, Chemistry Department, College of Science, King Saud University, Riyadh, Saudi Arabia

**D14\_P03 Space Science Applications for Conducting Polymer-based Latex Particles**

Steven Armes, University of Sheffield, Sheffield, Yorkshire, United Kingdom

**D14\_P04 Glycosylated polyoxazolines and microparticles**

Helmut Schlaad, Max Planck Institute of Colloids and Interfaces, Potsdam-Golm, Germany

**D14\_P05 POLYURETHANE NANOCAPSULES OBTAINED BY INTERFACIAL POLYADDITION IN MINIEMULSION CONTROL AND INFLUENCE OF THE SIZE ON THE CHEMICAL MICROSTRUCTURE**

NATHALIE SINTES-ZYDOWICZ, Université de Lyon, Université Claude Bernard Lyon 1, VILLEURBANNE, France

**D14\_P06 Surfactant-free ab initio batch emulsion polymerization in the presence of macromolecular RAFT agents**

Jutta Rieger, Laboratoire de Chimie des Polymères, UPMC and CNRS, UMR, Paris, France

**D14\_P07 Evaluation of emulsifying capability of water soluble sodium phosphorylated chitosan**

Suchada Chongprakobkit, Chulalongkorn University, Bangkok, Thailand

**D14\_P08 Architecture of Polymer Particles Composed of Brush Structure and Construction of Colloidal Crystals**

Koji Ishizu, Department of Organic Materials and Macromolecules, Tokyo Institute of Technology, Tokyo, Japan

**D14\_P09 Functionalised Latexes for the Preparation of Covalently Cross-linked Colloidosomes**

Kate L Thompson, University of Sheffield, Sheffield, United Kingdom

**D14\_P10 High Polymer to Surfactant Ratio Microemulsion Polymerization of Styrene and Methyl Methacrylate**

Raul Moraes, Queen's University, Kingston, Ontario, Canada

**D14\_P11 Evaluation of alternative comonomers for the production of HASE thickeners**

Raul Moraes, Queen's University, Kingston, Ontario, Canada

**D14\_P12 Change of the Magnetic Force and the Thickness of Nickel Shell in the Poly(methyl methacrylate) / Nickel Magnetic Particles According to Change of the Particle Size**

Jong Gon Bang, Inha university, Incheon, Korea, Republic of

**D14\_P13 Atom Transfer Radical Polymerization of Acrylic Acid by Use of Supercritical Carbon Dioxide as medium**

Hideto Minami, Kobe University, Kobe, Japan

**D14\_P14 Emulsifier-Free, Organotellurium-Mediated Living Radical Emulsion Polymerization: Particle Formation**

Yukiya Kitayama, Kobe University, Kobe, Japan

**D14\_P15 NMR study of temperature-induced phase transition in solutions of poly(N-isopropylmethacrylamide-co-acrylamide) copolymers**

Jiri Spevacek, Institute of Macromolecular Chemistry AS CR, v.v.i., Prague, Czech Republic

**D14\_P16 Polystyrene core - polyglycidol shell microspheres (PS/PGL): synthesis, properties, particle assemblies and their suitability for medical diagnostic devices**

Stanislaw Slomkowski, Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, Poland

**D14\_P18 Study on electrostatic self-assembly preparation and antimicrobial property of TiO<sub>2</sub>/nature rubber nanocomposite**

Ding Aiwu, Agricultural Product Processing Research Institute, Chinese Academy of Tropical Agriculture Science, Key Laboratory of Tropical Crop Products Processing of Agriculture Department, Zhanjiang, China

**D14\_P19 Towards direct synthesis of anisotropically-shaped polymer particles**

Nancy Weber, Max-Planck-Institute of Colloids and Interfaces, Potsdam, Germany

**D14\_P20 Multi-responsive Block Copolymer and Its Consequent Variable Self-assembly Structures**

Natthaporn Suchao-in, The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand

**D14\_P21 Linear Amphiphilic Multiblock Copolymers and Amphiphilic Multiblock Copolymer Conetworks: Synthesis and Characterisation**

Costas Patrickios, University of Cyprus, Nicosia, Cyprus

**D14\_P22 Utilization of different conductive polymer systems in nanowires dye-sensitized solar cells**

Ahmed yousef, national research center, cairo, Egypt

**D14\_P23 High solids content emulsion copolymerization of styrene and n-butyl acrylate: experiments and modelling.**

Reinaldo Giudici, Universidade de Sao Paulo, Sao Paulo, SP, Brazil

**D14\_P24 Emulsion copolymerization of vinyl acetate and n-butyl acrylate: mathematical model development and experimental validation.**

Reinaldo Giudici, Universidade de São Paulo - Escola Politécnica, Sao Paulo, SP, Brazil

**D14\_P25 Adsorption of hydrophobically modified polymers intended as colloidal dispersants onto surfaces**

Alexander Lincoln, University of Leeds, Leeds, United Kingdom

**D14\_P26 POLYELECTROLYTE COMPLEXES WITH POLYSACCHARIDE DERIVATES : EFFECT OF STOECHOMETRY ON STRUCTURE AND SOLUBILITY**

Didier Le Cerf, University of Rouen, Mont Saint Aignan, France

**D14\_P27 THERMO ASSOCIATING BEHAVIOR OF CELLULOSIC ETHER POLYMERS, COPOLYMERS AND MIXTURES IN DILUTE AQUEOUS MEDIA**

didier le cerf, university of rouen, mont saint aignan, France

**D14\_P28 Synthesis and Characterization Of Conductive Polyaniline- Graft-Acrylic-Copolymers**

Elcin Coskun, Centro de Investigación en Materiales Avanzados, Chihuahua, Chih., Mexico

**D14\_P29 Ultrasonically catalyzed emulsion polymerization of ethyl acrylate**

Mohammed Bahattab, King Abdulaziz City for Science & Technology, Riyadh, Saudi Arabia

**D14\_P30 One-Pot Synthesis of Biocompatible Shell Cross-Linked Micelles and Nanocages via ATRP in 2-Propanol/Water Mixtures**

Shinji Sugihara, Graduate School of Engineering, University of Fukui, Fukui, Japan

**D14\_P31 Synthesis of Biocompatible Poly(2-(methacryloyloxy)ethyl phosphorylcholine Nanolatexes via ATRP in Alcohol/Water Mixtures**

Shinji Sugihara, Graduate School of Engineering, University of Fukui, Fukui, Japan

**D14\_P32 Characterisation of Poly-2-(methacryloyoxy)ethyl phosphorycholine – 2-(diisopropylamino)ethyl methacrylate Polymersome Formation**

Russell Pearson, Department of Biomedical Science, University of Sheffield, Sheffield, South Yorkshire, United Kingdom

**D14\_P33 "Sweet" Polymersomes**

Bahareh Fatemi, University Of sheffield, Sheffield, United Kingdom

**D14\_P34 Synthesis of Non-spherical Colloidal Particles via Cross-linked PMMA Particles**

Bo Peng, Soft Condensed Matter, Debye Institute for Nanomaterials Science, Utrecht University, Utrecht, Netherlands



**D14\_P35 Accessing quantitative degrees of functionalization on poly(divinyl benzene) microspheres via solid-state NMR spectroscopy**

Marianne Gaborieau, University of Western Sydney, Campbelltown, Australia

**D14\_P36 A study of the homogeneity of methanol/water/monomer mixture as a determining factor between polymerization modes of soap-free emulsion polymerization and dispersion polymerization**

Samuel Lim, Inha University, Incheon, Korea, Republic of

**D14\_P37 Multifunctional Polymeric Micelles for Antiviral Treatment**

YongSik Ahn, The Catholic University of Korea, 43-1 Yeokgok 2-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do, Korea, Republic of

**D14\_P38 A microfluidic strategy towards anisotropic polymer particles produced by phase separation of monodisperse emulsion droplets**

Nicholas Ballard, University of Warwick, Coventry, United Kingdom

**D14\_P39 Microfluidic fabrication of monodisperse anisotropic magnetic microcapsules**

Gabit Nurumbetov, The University of Warwick, Coventry, United Kingdom

**D14\_P40 Quadruple hydrogen-bond reinforced waterborne coatings**

Yunhua Chen, The University of Warwick, Coventry, United Kingdom

**D14\_P41 Synthesis of monodisperse polymer colloids and their mobility through porous media**

Andrew Edwards, University of Warwick, Coventry, United Kingdom

**D14\_P42 Polymer latexes armored with silica nanoparticles made by Pickering emulsion polymerization.**

Roberto Teixeira, University of Warwick, Coventry, United Kingdom

**D14\_P43 Polymer vesicles reinforced with an armor of nanoparticles**

Rong Chen, University of Warwick, Coventry, United Kingdom

**D14\_P44 A New Method for Making Hard, No-VOC Waterborne Coatings**

Argyrios Georgiadis, Department of Physics, Faculty of Engineering & Physical Sciences, University of Surrey, Guildford, GU2 7XH, United Kingdom

**D14\_P45 Mass transfer in miniemulsion (co-)polymerization**

T.G.T. Jansen, Eindhoven University of Technology, Eindhoven, Netherlands

**D14\_P46 Attachment of cellulosic chains to particle surface in emulsion polymerization**

Shicheng Li, University of Manchester, Manchester, United Kingdom

**D14\_P47 Comb-like Non-ionic Polymeric Macrosurfactants: Synthesis, Characterisation and Evaluation as Emulsifiers**

Theoni Georgiou, University of Hull, Hull, United Kingdom

**D14\_P48 Thermal energy storage nanocapsules by miniemulsion polymerization**

Raquel Rodriguez, INASMET-TECNALIA, Donostia-San Sebastian/Gipuzkoa, Spain

**D14\_P49 Studies of Alkali-Soluble Resins as Colloid Stabilizers in Emulsion Polymerisation: Dissolution Behaviour**

Paul Hunt, University of Manchester, Manchester, Lancashire, United Kingdom

**D14\_P50 Cryostructuration of Latexes**

Irina Portnaya, Technion Israel Institute of Technology, Haifa, Israel

**D14\_P51 Impact of wetting behaviour of ceramic mould on latex glove dipping**

Chee-Cheong HO, University Tunku Abdul Rahman, Petaling Jaya, Selangor, Malaysia

**D14\_P52 Synthesis and Characterisation of Porous PMMA for use in High Pressure Ceramic Casting**

Catherine Amos, University Of Manchester, Manchester, United Kingdom

**D14\_P53 Fabrication and Analysis of Composite Colloidal Structures by the implentation of the Leidenfrost Phenomenon**

Thomas Skelhon, University of Warwick, Coventry, United Kingdom

**D14\_P54 Shear Ordering in Polymer Photonic Crystals**

Yusuke Imai, Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom

**D14\_P55 Concentration Dependence on gamma-Ray Polymerization of Aqueous Solutions of Cationic Surfactant Having Double Bond End Group**

Yuichi Hirata, Shinshu University, Ueda-City, Nagano, Japan

**D14\_P56 Aerosol-based gas phase method for preparation of block copolymer hydrogel particles based on polystyrene-*block*-poly(*N*-isopropyl acrylamide)-*block*-polystyrene triblock copolymer: morphology, swelling and release properties**

Antti Nykänen, Aalto University, Department of Applied Physics, Espoo, Finland

**D14\_P57 High solids content, soap-free, film-forming latexes stabilized by Laponite clay platelets**

Thiago Rodriguez Guimarães, University of Sao Paulo - Laboratory of Polymers, Lorena (SP), Brazil

**D14\_P58 Giant Amphiphiles: From Synthesis to Potential Applications**

Benjamin Le Droumaguet, UMR 8612, Université Paris Sud XI, Chatenay-Malabry, France

**D14\_P59 Effect of Surfactants on Shear-Induced Gelation and Gel Morphology of Strawberry-like Particles**

Delong Xie, Chemical and Bioengineering, Zurich, Switzerland

**D14\_P60 Interdiffusion Across Symmetric and Asymmetric Interfaces Between Polymer Nanoparticles with Narrow Chain Size Distribution**

S. Piçarra, Instituto Politecnico de Setúbal - Escola Superior de Tecnologia de Setúbal, Setúbal, Portugal

Hall 5

**E16: Probing Single Macromolecules**

**E16\_P01 Molecular Elasticity of a Mechanically-Linked Polymer**

Perrine Lussis, University of Liege, Liege, Belgium

**E16\_P02 Investigation of Chain Rigidity of Surface Grafted PMMA by Full Atomistic Molecular Dynamics Simulations**

Markus Gerd Fröhlich, University of Vienna, Department of Physical Chemistry, A-1090 Vienna, Austria

**E16\_P03 Free energy of polymers confined in spherical cavities**

Tomas Bleha, Polymer Institute, Slovak Academy of Sciences, Bratislava, Slovakia

**E16\_P04 Structural modification of cyclic and linear macromolecules induced by chain stiffness**

Zuzana Benková, Polymer Institute, Slovak Academy of Sciences, Bratislava, Slovak Republic, Slovakia

**E16\_P05 Conformation of Single Polymer Chain during the Extension and Relaxation Processes Studied by Scanning Near-Field Optical Microscopy**

Toru Ube, Kyoto University, Kyoto, Japan

**E16\_P06 Network formation by free radical polymerization versus network formation by controlled radical polymerization / by thiol-ene 'click' chemistry: a *single-molecule view***

Karel Goossens, Katholieke Universiteit Leuven, Leuven, Belgium

**E16\_P07 High Temperature Single Molecule Fluorescence Imaging**

Moritz Baier, University of Konstanz, Konstanz, Germany

**E16\_P08 Nanocomposite Ferrogel Behaviour Under an Applied Magnetic Field: A Single Molecule Diffusion Study.**

Ateyyah AL-Baradi, The University of Sheffield, Sheffield, United Kingdom

**E16\_P09 Synthesis and Investigations of High Glass Transition Polycarbonates: Synthesis of Biphenylated Fluorene Monomers and Their Polycarbonates**

David Boyles, South Dakota School of Mines and Technology, Rapid City, South Dakota, United States

Hall 5

### **G23: Membranes, Nanoporous Polymers and Fuel Cells**

**G23\_P01 Structural and transport studies on polymer (PEO+IL) membranes: Evidence of complexation**

Rajendra Singh, Banaras Hindu University, Varanasi 221 005, U.P., India

**G23\_P02 Surface Modification of Polysulfone Membranes for a Simultaneous LDL- Apheresis and Hemodialysis**

Xiao-Jun Huang, Zhejiang University, Hangzhou, China

**G23\_P03 Effect of SiO<sub>2</sub> nanoparticle size on the permeability of polypropylene and polyamide-6 nanocomposites**

Vivianne Dougnac, Universidad de Chile, Santiago, metropolitana, Chile

**G23\_P04 Preparation and evaluation of epoxidized styrene-butadiene-styrene block copolymer membrane for wound dressing**

Jen Ming Yang, Chang Gung University, Tao Yuan, Taiwan

**G23\_P05 Fluorinated polyvinyl alcohol and polycaprolactone based polyurethane membranes for gas separation**

Maryam Esteki, Tarbiat Modares University, Tehran, Iran, Islamic Republic of

**G23\_P06 Synthesis of nanoporous poly(vinylcatechol-co-divinylbenzene) resins and application to metal retention**

Catherine Branger, MAPIEM Laboratory - Université du SUD Toulon  
Var, La Valette du Var, France

**G23\_P07 Transport properties of asymmetric dense PVDF hollow fibre membranes for potential use in gas, vapour and organic liquid separations.**

Johannes Carolus Jansen, Institute on Membrane Technology, ITM-CNR, Rende (CS), Italy

**G23\_P08 Graft Polymerization by  $\gamma$ -Radiation on Fluorinated based Microfiltration Membranes**

Etienne FLEURY, Université de Lyon, INSA, IMP/LMM UMR 5223, Villeurbanne, France

**G23\_P09 Palladium nanoparticle incorporation in conjugated microporous polymers by supercritical fluid processing**

Tom Hasell, University of Liverpool, Liverpool, United Kingdom

**G23\_P10 Co-continuous Morphology in PVDF/PEO Blends**

Virgile Daux, Université de Saint-Etienne, Saint-Etienne, France

**G23\_P11 Effect of synthesis procedure on film-forming properties of PIM-1**

Christopher Mason, university of manchester, manchester, United Kingdom

**G23\_P12 Graft polymerization of Acrylic acid onto Cold Plasma activated Esterification of Cellulose for Improvement of hydrophilic and Moisture Absorption**

Ko-Shao Chen, Department of Materials Engineering, Tatung University, Taipei, Taiwan

**G23\_P14 Cationic pollution effects on properties in perfluorinated sulfonic acid membranes**

Lionel Flandin, Université de Savoie, Le bourget du Lac, France

**G23\_P15 Fluorine Containing Proton Conductive Copolymers**

Sebnem Inceoglu, Istanbul Technical University, Istanbul, Turkey

**G23\_P16 Novel Phosphonated Poly(arylene ether)s as Potential High Temperature Proton conducting Materials**

Ebrahim Abouzari-Lotf, Membrane Research Group, Iranian Academic Center For Education , Culture & Research (ACECR), Tarbiat Moalem Branch, Tehran, Iran, Islamic Republic of

**G23\_P17 Novel Phosphonated-Sulfonated Ionomer as Potential Polymer Electrolyte Membrane Material**

Ebrahim Abouzari-Lotf, Young Researchers Club, Islamic Azad University, North Tehran Branch, Tehran, Iran, Islamic Republic of

**G23\_P18 "Green" crazing of polymers in supercritical carbon dioxide**

Elena Trofimchuk, Department of Chemistry, M.V. Lomonosov Moscow State University, Moscow, Russian Federation

**G23\_P19 The effect of Nano hydroxyl apatide on the permeability and selectivity of CO<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub> in polyurethane membranes**

Ali Poorkhalil, Iran Polymer and Petrochemical Institute, Tehran, Iran, Islamic Republic of

**G23\_P20 Studies of the thermal behavior of perfluorinated sulfonic acid membranes polluted by Potassium(I), Calcium(II) and Iron(III)**

Eddy Moukheiber, LMOPS-UMR 5041, Le bourget du lac, France

**G23\_P21 In-situ macroscopic characterization tool to detect defects in proton exchange membrane used in Fuel Cells (PEMFC)**

Gilles De Moor, CNRS-UMR 5041-LMOPS, Le bourget du lac, France

**G23\_P22 Intrinsically Microporous Polyimides - Structure-Porosity Relationships Studied by Gas Sorption and X-ray Scattering**

Nicola Ritter, Max Planck Institute of Colloids and Interfaces, Department of Colloid Chemistry, Potsdam, Germany

**G23\_P23 New highly permeable polymers based on silicon-containing norbornenes: synthesis, membrane and mechanical properties**

Maxim Bermeshev, A.V. Topchiev Institute of Petrochemical Synthesis RAS, Moscow, Russian Federation

**G23\_P24 Hydrophobic, transparent polyimide hybrid films fabrication via chemical and physical methods**

Teng Yuan Lo, National Chiao Tung University, Hsin-chu, Taiwan

**G23\_P25 Single-ion polymer electrolytes with highly delocalized negative charge for lithium batteries**

Rachid MEZIANE, Université de Picardie - Jules Verne, AMIENS, France

**G23\_P26 Structural Characterization of Polymers of Intrinsic Microporosity Using X-Ray Scattering Methods**

Amanda McDermott, Pennsylvania State University, University Park, PA, United States

**G23\_P27 New Highly Magnetic Microspheres Based on Hypercrosslinked Poly(styrene-co-divinylbenzene)**

Petr Šálek, Institute of Macromolecular Chemistry AS CR, Prague, Czech Republic

**G23\_P28 AROMATIC POLYSULFONE MEMBRANES FOR DIRECT METHANOL FUEL CELL APPLICATIONS**

David Chappell, University of Reading, Reading, Berkshire, United Kingdom

**G23\_P29 Alternative synthetic route to PIM-1**

Louise Maynard-Atem, University of Manchester, Manchester, United Kingdom

**G23\_P30 NANOSTRUCTURAL ANALYSIS OF PROTON CONDUCTING ZIRCONIUM OXIDE-SPEEK HYBRID MEMBRANES FOR DIRECT ALCOHOL FUEL CELLS**

Ailton Gomes, Instituto de Macromoléculas Prof. Eloisa Mano (IMA-UFRJ), Rio de Janeiro, RJ, Brazil

**G23\_P31 Thermal and Conducting Behaviour of Nanostructured composites of Mesoporous Niobium Oxide/Naphthalene Sulfonate Resin**

Marcos Dias, Instituto de Macromoléculas Professora Eloisa Mano, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil

**G23\_P32 Composite Membranes of Zeolitic Imidazolate Frameworks (ZIFs) in a Polymer of Intrinsic Microporosity.**

Alexandra Bushell, The University of Manchester, Manchester, United Kingdom

**G23\_P33 Novel thermally rearrangeable polyimide membrane based on a polymer of intrinsic microporosity (PIM)**

Hosna Shamsipour, University of Manchester, Manchester, United Kingdom

**G23\_P34 Pore size distribution (PSD) in Polymers of intrinsic microporosity (PIMs)**

Nhamo Chaukura, University of Manchester, Manchester, United Kingdom

**G23\_P35 Influence of modified silica on nanostructure of composite membrane based on sulfonated PEEK for use in fuel cells**

Ailton Gomes, Instituto de Macromoléculas/UFRJ, Rio de Janeiro, Brazil

**G23\_P36 PVA/PWA/DTPA HYBRID MEMBRANES FOR DIRECT ETHANOL FUEL CELLS (DEFC)APPLICATIONS**

Ailton Gomes, Instituto de Macromoléculas, Univ. Fed. Rio de Janeiro, Rio de Janeiro, RJ, Brazil

**G23\_P37 Control of Microcellular Foaming of bulk Commodity Amorphous Polymers in supercritical CO<sub>2</sub> and Nano-Structuration of CO<sub>2</sub>-philic Copolymers**

michel DUMON, LCPO IPB Université Bordeaux 1, PESSAC, France

**G23\_P38 Perfluoropolymer-based composite membranes: preparation and gas transport properties.**

Johannes C. Jansen, Institute on Membrane Technology, ITM-CNR, Arcavacata di Rende (CS), Italy

**G23\_P39 Structure Directing Effects in Cross-linked Hybrid Carbosilane-siloxane Systems.**

Anna Kowalewska, Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, Poland

**G23\_P40 Polymers of Intrinsic Microporosity for hydrogen purification.**

Mariolino Carta, Cardiff University, Cardiff, United Kingdom

**G23\_P41 Polymers of intrinsic microporosity (PIMs) derived from hexaphenylbenzene-based monomers**

Rhys Short, Cardiff University, Cardiff, United Kingdom

**G23\_P42 Polymers of intrinsic microporosity (PIMs) derived from bowl-shaped monomers.**

James Vile, Cardiff University, Cardiff, United Kingdom

**G23\_P43 Polymers of intrinsic microporosity (PIMs) derived from novel 1,1-spirobisindanes.**

Yulia Rogan, Cardiff University, Cardiff, United Kingdom

**G23\_P44 Polymers of Intrinsic Microporosity (PIMs) for Carbon Capture**

Matthew Croad, Cardiff University, Cardiff, United Kingdom

**G23\_P45 Organic Molecules of Intrinsic Microporosity**

Rupert Taylor, Cardiff University, Cardiff, United Kingdom

**G23\_P46 Polymers of intrinsic microporosity (PIMs) derived from fluorinated biphenyls**

Kadhum Msayib, Cardiff University, Cardiff, United Kingdom

**G23\_P47 Dendrimers of Intrinsic Microporosity**

Jonathan Walker, Cardiff University, Cardiff, United Kingdom

**G23\_P48 Applications of Block Copolymers: Membranes through Self-Assembly**

Adriana Boschetti-de-Fierro, Institute of Polymer Research, GKSS Research Centre Geesthacht GmbH, Geesthacht, Germany

**G23\_P49 Bi-continuous Nano-scale Morphology of PVDF-HFP Porous Membrane from Dense Film of PVDF-HFP/PMMA Blend**

Dar-Jong Lin, Tamkang University, Chemical and Materials Engn. Dept., Tamsui, Taipei County, Taiwan



**G23\_P50 Controlling porosity in conjugated microporous polymers**  
Robert Dawson, University of Liverpool, Liverpool, United Kingdom

**G23\_P51 Preparation of SAPO-34/Polyimide Mixed Matrix Membranes**

Giovanni Golemme, Department of Chemical Engineering and Materials of the University of Calabria, and INSTN Consortium, Rende (CS), Italy

**G23\_P52 Study of CO<sub>2</sub> Transport in ZIF-8/Polysulfone Membranes by Permeation, Sorption and PFG NMR Techniques**

Mar López-González, Instituto de Ciencia y Tecnología de Polímeros. CSIC, Madrid, Madrid, Spain

**G23\_P53 Grand Canonical Monte Carlo Simulations of Adsorption of Carbon Dioxide and Methane in Regular and Carbonyl Substituted PIM-1**

Gregory Larsen, The Pennsylvania State University, University Park, PA, United States

## WEDNESDAY 14 JULY 2010 - ORAL SESSIONS

Clyde Auditorium

### Plenary: Jean Frechet

**PLEN\_04 Functional Polymers: from Design to Applications**  
Jean M. Frechet, UC Berkeley, Berkeley, United States

Room: Forth

### Parallel 1: A2 Polymer Networks and Responsive Polymers in the Life Sciences

Session Chair: Rein Ulijn, University of Strathclyde, UK

09:45 INVITED      **A2\_O10 Thermosensitive Core-Shell Microgels: Synthesis, Characterization and Applications in Catalysis**  
Matthias Ballauff, Helmholtz-Zentrum Berlin, Berlin, Germany

10:15 **A2\_O11 Naphthalene-Dipeptides as Low Molecular Weight Hydrogelators**  
Dave Adams, University of Liverpool, Liverpool, United Kingdom

10:30 **A2\_O12 Synthesis and self-assembly of well-defined block copolypeptides**  
Neil Cameron, Durham University, Durham, United Kingdom

10:45 **A2\_O13 A Spectroscopic Approach to Understanding the Transport Properties of Small Molecules through Amphiphilic Networks**  
Chris Sammon, Sheffield Hallam University, Sheffield, United Kingdom

Room: Dochart 1 & 2

### Parallel 2: A4 Polymers in Therapeutics: Polymer Nanomedicines

09:45 INVITED      **A4\_O01 Nanomedicines with Polymers - from Drug Delivery Morphologies to Stem Cell Differentiation**  
Dennis Discher, University of Pennsylvania, Philadelphia, PA, United States

10:15 **A4\_O02 Efficient Intracellular delivery of bioactive molecules using pH sensitive polymersomes**  
Marzia Massignani, University of Sheffield, Sheffield, United Kingdom

10:30 A4\_O03 **RAFT-Synthesized Polymer Therapeutics for Gene Silencing**  
Volga Bulmus, The University of New South Wales, Sydney, Australia

10:45 A4\_O04 **Poly (gamma-Glutamic Acid): a Biodegradable, Biocompatible and Naturally Produced Polymer as a Promising Candidate for Regenerative Medicine Applications.**  
Cristina Gentilini, Imperial College London, London, United Kingdom

Room: Leven

### **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: J. den Doelder, Dow Benelux BV, The Netherlands

09:45 KEYNOTE B6\_O14 **Rheology as an Ultra-Sensitive Polymer Characterization Tool**  
Ronald Larson, University of Michigan, Ann Arbor, MI, United States

10:30 B6\_O15 **Randomly branched polymer melts: from reactions to rheology**  
Daniel Read, University of Leeds, Leeds, United Kingdom

10:45 B6\_O16 **Hostalen ACP - From optimized process to tailor-made HDPE products**  
Iakovos Vittorias, R&D Basell Polyolefine GmbH-LyondellBasell Industries, Frankfurt am Main, Germany

Room: Alsh 1

### **Parallel 4: C9 Dendrimers and Hyperbranched Polymer Synthesis**

Session Chair: Wayne Hayes, University of Reading, UK

09:45 KEYNOTE C9\_O01 **Putting the divergent growth concept to the test: The largest synthetic molecule with structure precision**  
A. Dieter Schlüter, ETH Zurich, Zurich, Switzerland

10:30 C9\_O02 **Commercial branched addition polymers: Their use in viscosity-reducing applications and as dispersants.**  
Paul Findlay, Hydra Polymers Ltd, Liverpool, United Kingdom

10:45 C9\_O03 **Inorganic/Organic Hybrid Dendrimers: A Concise Synthesis of Cyclotriphosphazene Containing Dendrimers by the**

## **Convergent Route**

Barnaby Greenland, University of Reading, Reading, United Kingdom

Room: Lomond

### **Parallel 5: C10 Living Radical Polymerisation**

09:45 INVITED C10\_O23 **Title to be confirmed**

Alan Rowan, Radboud University, Nijmegen, Netherlands

10:15 C10\_O24 **Self Healing Polymers Prepared via Living Radical Polymerisation**

Jay Antony Syrett, University of Warwick, Warwickshire, United Kingdom

10:30 C10\_O25 **Investigating Polymer Structure by Gel Permeation Chromatography**

Ben MacCreath, Varian, Inc., Church Stretton, United Kingdom

10:45 C10\_O26 **System Design toward Sequence Regulated Polymerization**

Makoto Ouchi, Kyoto University, Kyoto, Japan

Room: Carron 1 & 2

### **Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals through to Applications**

Session Chair: Joao Cabral, Imperial College London, UK

09:45 KEYNOTE D13\_O01 **Designing Communicating Colonies of Biomimetic Microcapsules**

Anna C. Balazs, University of Pittsburgh, Chemical Engineering Department, Pittsburgh, PA, United States

10:30 D13\_O02 **Temperature and magnetic field induced changes in liquid crystal polymer vesicles**

Annie Brûlet, Laboratoire Léon Brillouin, CEA CNRS UMR12, CEA, Saclay, France

10:45 D13\_O03 **Periodic Patterns produced in Magnetically Coupled Phase Separation in Polymer-Solvent-Nanoparticle mixtures.**

Easan Sivaniah, Cambridge University, Cambridge, United Kingdom

Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

09:45 INVITED      **D14\_O24 Thermodynamics of polyelectrolyte complexes and the colloids made of them**  
**Martien A. Cohen Stuart**  
Martien A. Cohen Stuart, Wageningen University, Wageningen, Netherlands

10:15 **D14\_O25 Determination of Interaction Potentials in Colloidal Monolayers using the Inversion of 2D Pair Correlation Functions**  
Adam Law, The University of Hull, Kingston Upon Hull, East Yorkshire, United Kingdom

10:30 **D14\_O26 Accumulation of Impurity Particles to the Crystal Grain Boundaries of Charged Colloids.**  
Koki Yoshizawa, Nagoya City University, Nagoya, Japan

10:45 **D14\_O27 Self Segregation in Water Borne Latex Coatings**  
Richard Trueman, University of Cambridge, Cambridge, United Kingdom

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: Andrei Zvelindovsky, University of Central Lancashire, UK

09:45 KEYNOTE      **E17\_O15 Making Polymers Swim.**  
Anthony Ryan, The University Of Sheffield, Sheffield, South Yorkshire, United Kingdom

10:30 **E17\_O16 Functional Materials in Self-Assembled Block Copolymer “Playground”: New Approaches toward Organic Nonvolatile Memory and Optical Sensor**  
Takeo Suga, Waseda University, Tokyo, Japan

10:45 **E17\_O17 Linear Di-, ABA Tri-, Multi- and Star-block Copolymers of Styrene and Vinyl Pyridine: Synthesis by RAFT Polymerisation and Self-assembly in Solution and in the Bulk**  
Mirela Elena Zamfir, University of Cyprus, Nicosia, Cyprus

Room: Boisdale 2

**Parallel 9: F19 Biodegradable and Sustainable Polymers**

09:45 INVITED      **F19\_O26 Cross-linked Poly(trimethylene carbonate-co-L-lactide) as a Biodegradable, Elastomeric Scaffold for Vascular Graft Generation**

Andrew Whittaker, University of Queensland, St Lucia, QLD, Australia

10:15 **F19\_O27 Analysis of degradation products crucial for testing of degradable polymers**

Ann-Christine Albertsson, Kungliga Tekniska Högskolan, Stockholm, Sweden

10:30 **F19\_O28 Effects of Interacting Poly(3-hydroxybutyrate) on Crystalline Morphology of Stereocomplexing Poly(L-Lactic Acid) and Poly(D-Lactic Acid)**

Ling Chang, Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan

10:45 **F19\_O29 High performance biodegradable (bio)polymers by tailored reactive extrusion**

Philippe Dubois, University of Mons - UMONS, Mons, Belgium

Room: Morar & Ness

## **Parallel 10: G21 Polymer Electronics**

Session Chair: Natalie Stinglen, Imperial College London, UK

09:45 INVITED      **G21\_O05 Chemical Design of Functional Oligomers and (Co)polymers for Electronics Applications**

Ullrich Scherf, Bergische Universität Wuppertal, D-42097 Wuppertal, Germany

10:15 **G21\_O25 Coarse-grained computer simulations of polymer/fullerene bulkheterojunctions for photovoltaic applications**

Roland Faller, University of California, Davis, Davis, United States

10:30 **G21\_O26 New Redox Stable Low Band Gap Conjugated Polymer Based on an EDOT-BODIPY-EDOT and EDTT-BODIPY-EDTT Repeat Unit for Organic Photovoltaic Cells.**

Diego Cortizo, University of Strathclyde, Glasgow, Scotland, United Kingdom

10:45 **G21\_O27 Spanning the Spectrum: Enhancing Charge Transfer Emission from Donor-Acceptor Co-Polymers**

Kathryn Moss, Durham University, Durham, United Kingdom

Room: Alsh 2

### **Parallel 11: G23 Membranes, Nanoporous Polymers and Fuel Cells**

Session Chair: Andrew Cooper, University of Liverpool, UK

09:45 INVITED      G23\_O26 **Synthesis of porous engineering plastics and carbon nitride polymers**

Markus Antonietti, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany

10:15 G23\_O27 **Co-crystalline and Nanoporous Polymer Phases**

Gaetano Guerra, University of Salerno, Salerno, Italy

10:30 G23\_O28 **Nanoporous Polymer Nanoparticles Prepared via a Facile Method for Hydrogen Storage Application**

Bien Tan, Huazhong University of Science & Technology, Wuhan, China

10:45 G23\_O29 **Construction of Glycosylated Surfaces for Microporous Polypropylene Membranes: An Overview**

Zhi-Kang Xu, Key Laboratory of Macromolecular Synthesis and Functionalization (Ministry of Education), Department of Polymer Science and Engineering, Hangzhou 310027, China

Room: Forth

### **Parallel 1: A3 Colloids and Surfaces for Biomaterials Applications**

Session Chair: Brian Saunders, University of Manchester, UK

11:30 KEYNOTE      A3\_O01 **Nanostructured Colloidal Particles of Self-Assembled Amphiphiles as Drug Delivery and Medical Imaging Agents**

Calum Drummond, CSIRO Materials Science and Engineering, Clayton, Victoria, Australia

12:15 A3\_O02 **Silk-based gene delivery via cell membrane-destabilizing or tumor-homing peptides**

Keiji Numata, Tufts University, Medford, MA, United States

12:30 A3\_O03 **The use of biomimetic 3D hydrogel scaffold as a tool to study cellular migration and as an aid to drug discovery.**

Cheng-Hwa Raymond Kuo, University of Cambridge, Cambridge, United Kingdom

12:45 A3\_O04 **Biocompatible polymersome formation using microfluidic platforms**

Luke Brown, The University of Sheffield, Sheffield, Yorkshire, United Kingdom

Room: Dochart 1 & 2

**Parallel 2: A4 Polymers in Therapeutics: Polymer Nanomedicines**

11:30 INVITED      A4\_O05 **Polymersome-based artificial organelles**  
Jan van Hest, Radboud University Nijmegen, Nijmegen, Netherlands

12:00 A4\_O06 **Exploiting Supercritical Carbon Dioxide To Create Novel Polymeric Drug Delivery Devices**  
Steven Howdle, University of Nottingham, Nottingham, United Kingdom

12:15 A4\_O07 **"One pot" loading of hydrophilic model drugs in polymersomes using co-flow microfluidic chip.**  
Jean-François Le Meins, University of Bordeaux, ENSCBP LCPO (UMR CNRS 5629), PESSAC, France

12:30 A4\_O08 **POLYMERIC NANOREACTORS FOR ENZYME THERAPY IN OXIDATIVE STRESS**  
Cornelia G. Palivan, University of Basel, Basel, Switzerland

12:45 A4\_O09 **Photo-responsive polymer vesicles: bursting and wrinkling**  
Min-Hui Li, Institut Curie, CNRS, Université Pierre & Marie Curie, Laboratoire Physico-Chimie Curie, UMR168, Paris, France

Room: Leven

**Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Christophe Boisson, CNRS, France

11:30 INVITED      B6\_O17 **Synthesis of linear and branched polyolefins with controlled microstructures using two single-site catalysts**  
Joao Soares, University of Waterloo, Waterloo, Ontario, Canada

12:00 B6\_O18 **Morphology and mechanical properties of isotactic polypropylene/olefin block copolymer blends: influence of octene content in the soft segment**  
Dujin Wang, Beijing National Laboratory for Molecular Sciences, Key Laboratory of Engineering Plastics, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China



**12:15 B6\_O19 Iron Procatalysts for Ethylene Polymerization and Oligomerization**

Wen-Hua Sun, Chinese Academy of Sciences, Beijing, China

**12:30 B6\_O20 Insertion polymerization of polar vinyl monomers**

Stefan Mecking, University of Konstanz, Konstanz, Germany

**12:45 B6\_O21 Activation of homo- and copolymerizations of (meth)acrylates and styrene using neutral nickel complexes: the radical pathway**

Vincent MONTEIL, Université de Lyon / CNRS / ESCPE Lyon, Villeurbanne, France

Room: Alsh 1

**Parallel 4: C9 Dendrimers and Hyperbranched Polymer Synthesis**

Session Chair: Steve Rannard, University of Liverpool, UK

**11:30 INVITED C9\_O04 Dendritic molecules as enzyme mimics and protein-protein inhibitors**

Lance Twyman, University of Sheffield, Sheffield, United Kingdom

**12:00 C9\_O05 Disassembly of dendrimer based amphiphilic nanocontainers using a protein trigger**

S. Thayumanavan, UMass Amherst, Amherst, MA, United States

**12:15 C9\_O06 A facile approach for the bifunctionalization of dendritic structures**

Michael Malkoch, The Royal Institute of Technology, Stockholm, Sweden

**12:30 C9\_O07 In Situ Formation of Platinum Nanoparticles by Internally Isopropanol-Modified Poly(amido amine) Dendrimers**

Chih-Chien Chu, Chung Shan Medical Univ., Taichung, Taiwan

**12:45 C9\_O08 The largest ever synthesized, structure-defined macromolecule**

Baozhong Zhang, ETH Zürich, Zürich, Switzerland

Room: Lomond

**Parallel 5: C11 Polymerisation Kinetics and New Concepts in Polymerisation**

11:30 KEYNOTE C11\_O01 **New Functional Hybrid Nanoparticles via RAFT and ATRP**

Axel H. E. Müller, University of Bayreuth, Bayreuth, Germany

12:15 C11\_O02 **New strategies for the synthesis of graft copolymers based on RAFT-mediated polymerization.**

Bert Klumperman, Stellenbosch University, Matieland, South Africa

12:30 C11\_O03 **Stereocontrolled copolymerization of lactides with  $\epsilon$ -caprolactone and cyclic carbonates devoid of transesterification**

Andrzej Duda, Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, Poland

12:45 C11\_O04 **Metal-free activation in the anionic ring-opening polymerization of cyclopropane derivatives**

Sylvie Boileau, East-Paris Institute of Chemistry & Materials Science, CNRS and Université Paris-Est, Thiais, France

Room: Carron 1 & 2

**Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals though to Applications**

Session Chair: Joe Keddie, University of Surrey, UK

11:30 D13\_O04 **Interacting microgels with tuneable softness and charge density**

Priti Mohanty, Adolphe Merkle Institute, Fribourg, Switzerland

11:45 D13\_O05 **Synthesis of high solids content Laponite-armored polymer latexes by soap-free emulsion polymerization and mechanical properties of the latex films**

Amilton Martins dos Santos, Laboratory of Polymer, LORENA, Brazil

12:00 D13\_O06 **Self Stratification due to Segregation between Charged and Neutral Particles During Film Formation from Polymer Dispersions**

Diethelm Johannsmann, Clausthal University of Technology, Clausthal-Zellerfeld, Germany

12:15 D13\_O07 **Armored Nanocomposite Polymer Latexes made via Pickering (Mini)Emulsion Polymerization**

Stefan Bon, University of Warwick, Coventry, United Kingdom

12:30 D13\_O08 **Can Tg-nanoconfinement be used to produce zero-VOC waterborne coatings? : SANS study**

Yahya Rharbi, laboratoire de Rheologie, UMR 5520, Grenoble, France

Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Applications**

11:30 D14\_O28 **Waterborne ethylene-acrylic dispersions**

José M. Asua, University of the Basque Country, Donostia-San Sebastián, Spain

11:45 D14\_O29 **Carbon Dioxide Switchable Surfactants for the Preparation of Stimuli Responsive Polymer Colloids**

Michael Cunningham, Queen's University, Kingston, Ontario, Canada

12:00 D14\_O30 **A New Chemistry for Crosslinking of Water-Borne Coatings using Vinyl Sulfone Groups generated in situ during Latex Film Formation**

Peter Lovell, University of Manchester, Manchester, United Kingdom

12:15 D14\_O31 **Unique multi-structures in poly-Pickering-HIPEs synthesised using high internal phase emulsions stabilised by functionalised silica and titania nanoparticles**

Ling Ching Wong, Imperial College, London, United Kingdom

12:30 D14\_O32 **New Insights in Free Radical Polymerization of Ethylene in the medium pressure range: From Solution process to Emulsion**

Etienne GRAU, Université de LYON / CNRS, Villeurbanne, France

12:45 D14\_O33 **Boosting Emulsion Polymerization by Circumventing the Zero-One Paradigm**

Klaus Tauer, MPI Colloids and Interfaces, Golm, Germany

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: G.J. Agur Sevink, Leiden University, The Netherlands

11:30 INVITED E17\_O18 **Coarse-Grained Dynamical Models for Self-Assembling Amphiphilic Molecules**

Toshihiro Kawakatsu, Tohoku University, Sendai, Japan

12:00 E17\_O19 **Nanostructures from living copolymers: some insights from coarse-grained simulations.**

Kostas Daoulas, Georg-August-University-Goettingen, Goettingen, Germany

**12:15 E17\_O20 Coarse-Grained Models of Biological Membranes within the Single Chain Mean Field Theory**

Vladimir Baulin, Universitat Rovira i Virgili, Tarragona, Spain

**12:30 E17\_O21 Stochastic Quasi-Newton molecular simulations**

Agur Sevink, Leiden University, Leiden, Netherlands

**12:45 E17\_O22 Block copolymers for stabilization of colloidal suspensions: a new approach to an "old" problem**

Igor I. Potemkin, Department of Physics, Moscow State University, Moscow 119991, Russian Federation

Room: Boisdale 2

**Parallel 9: F19 Biodegradable and Sustainable Polymers**

**11:30 F19\_O30 Reactivity of Allyl and Vinyl Derivatives of Glucides in UV-initiated Free Radical Copolymerization with Acceptor Monomers**

Xavier Coqueret, Universite de Reims Champagne Ardenne, ICMR UMR CNRS 6229, Reims, France

**11:45 F19\_O31 CONTROLLED SYNTHESIS OF FUNCTIONAL POLYMERS BASED ON NATURALLY-DERIVED MONOMERS**

Eleni Kassi, University of Cyprus, Nicosia, Cyprus

**12:00 F19\_O32 Understanding Thermal and UV Degradation on a Molecular Level of Acrylic Polymers via High Resolution Electrospray Ionization Mass Spectrometry (ESI-MS)**

Alexander H Soeriyadi, Centre for Advanced Macromolecular Design, University of New South Wales, Sydney, Australia

**12:15 F19\_O33 New biodegradable and biocompatible polymers by free-radical chemistry**

Seema Agarwal, Philipps University marburg, Marburg, Germany

**12:30 F19\_O34 Surface Characteristics of Nanowhiskers obtained from Banana fibres by steam explosion**

Laly Pothan, Bishop Moore College, Mavelikkara, India

**12:45 F19\_O35 The morphology and mechanical properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV) / MWNTs (multi-walled carbon nanotubes) composites**

Guifang Shan, Donghua University, Shanghai, China

Room: Morar & Ness

## **Parallel 10: G21 Polymer Electronics**

Session Chair: Marie-Beatrice Madec, University of Manchester, UK

**11:30 G21\_O28 PEDOT Coated Counter Electrodes for Dye-Sensitized Solar Cells**

Jenny Pringle, Monash University, Melbourne, Australia

**11:45 G21\_O29 A new intramolecular donor-acceptor polyfluorene copolymer for bulk heterojunction solar cells**

Jung Feng Lee, Department of Materials Science & Engineering, National Cheng-Kung University, Tainan, Taiwan

**12:00 G21\_O30 Three-Dimensional Nanoscale Organization of Bulk Heterojunction Polymer Solar Cells**

Joachim Loos, Eindhoven University of Technology, Eindhoven, Netherlands

**12:15 G21\_O31 Understanding dynamic film formation process in P3HT/PCBM photovoltaic blends.**

Tao Wang, Department of Physics and Astronomy, University of Sheffield, Sheffield, United Kingdom

**12:30 G21\_O32 Influence of Fullerene Chemical Structure on Microstructure of Polymer:fullerene Binary Blend Films**

Anne Guilbert, Department of Physics, Imperial College London, London SW7 2 AZ, United Kingdom

**12:45 G21\_O33 Synthesis and Characterization of Ink Jet Printable Conducting Polyaniline Ink: A Promising Material for Flexible Organic Electronics**

Milind Kulkarni, C-MET, Pune, India

Room: Alsh 2

## **Parallel 11: G24 Polymers for Sensors**

Session Chair: Aleksandar Radu, Dublin City University, Ireland

**11:30 KEYNOTE G24\_O01 Chemical sensors based on conjugated polymers**

Johan Bobacka, Åbo Akademi University, Turku-Åbo, Finland

**12:15 G24\_O02 Environmentally Friendly Conjugated Materials for Colorimetric and Fluorometric Metal Ion Sensing**

Ivan Ulliel Roche, Université de Montréal, Montreal, QC, Canada

12:30 G24\_O03 **Fabrication of polymer micro-devices based on organic sacrificial pastes**

Nathalie Serra, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

12:45 G24\_O04 **Electroactive ultrathin fibers of Poly(lactic acid)/Polyaniline prepared by electrospinning: structural, electrical, mechanical and thermal properties**

Paulo Picciani, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil

Room: Forth

### **Parallel 1: A3 Colloids and Surfaces for Biomaterials Applications**

Session Chair: Keith McClean, CSIRO, Australia

14:30 INVITED A3\_O05 **Directing and detecting biology using peptide based biomaterials**

Rein Ulijn, University of Strathclyde, Glasgow, United Kingdom

15:00 A3\_O06 **Self-Healing Hydrogel Films**

Andrew Lyon, Georgia Institute of Technology, School of Chemistry and Biochemistry, Atlanta, GA, United States

15:15 A3\_O07 **Novel and versatile surface modification technique of PLA for biomedical applications**

Benjamin Nottelet, IBMM, Artificial Biopolymers Group, Montpellier, France

15:30 A3\_O08 **Size Dependant LCST Transitions of Polymer-Coated Gold Nanoparticles: Co-operative Aggregation and Surface Assembly**

Matthew I Gibson, University of Warwick, Coventry, United Kingdom

15:45 A3\_O09 **Controllable Hydrogels for Biomedical Applications via Enzyme Mediated Peptide Self Assembly**

Patrick Hartley, CSIRO Molecular and Health Technologies, Clayton, Victoria, Australia

Room: Dochart 1 & 2

### **Parallel 2: A4 Polymers in Therapeutics: Polymer Nanomedicines**

- 14:30 INVITED      **A4\_O10 Self-assembled beta-hairpin peptides-responsive gels and templates for hybrid materials**  
Darrin Pochan, University of Delaware, Newark, DE, United States
- 15:00 **A4\_O11 From Test Tube to In Vivo Protection : Polyelectrolyte Microcapsules as Versatile Antigen Carriers**  
Bruno De Geest, Ghent University, Ghent, Belgium
- A4\_P17 Polymersome penetration into human skin**  
Carla Pegoraro, Kroto Research Institute, University of Sheffield, Sheffield, South Yorkshire, United Kingdom
- 15:30 **A4\_O13 Phosphine-mediated one-pot thiol-ene "click" approach to polymer-protein conjugates**  
Mathew Jones, University of Warwick, Coventry, United Kingdom
- 15:45 **A4\_O14 Teaching Polymers How to Act Like Proteins: Antimicrobial and Cell Penetrating Activity**  
Greg Tew, University of Massachusetts, Amherst, MA, United States

Room: Leven

### **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Lawrence Sita, University of Maryland, USA

- 14:30 INVITED      **B6\_O22 Molecular architecture and properties of Polypropylene**  
Christian Paulik, Borealis, Linz, Austria
- 15:00 **B6\_O23 Preparation of new elastomers via cyclocopolymerization of ethylene with butadiene**  
Christophe Boisson, CNRS-UMR C2P2, Villeurbanne, France
- 15:15 **B6\_O24 Synthesis of Stereoregular Regioblock Polybutadiene with  $\text{CoCl}_2$ -MAO-Phosphine Catalyst**  
Takeshi Shiono, Hiroshima University, Higashi-Hiroshima, Japan
- 15:30 **B6\_O25 The Role of Solvent Ligated Metal Complexes Associated With Weakly Coordinating Anions (WCAs) In Isobutylene Polymerization**  
Hui Yee Yeong, Leibniz-Institut für Polymerforschung Dresden e.V, Dresden, Germany
- 15:45 **B6\_O26 When in Akron...isobutene polymerization co-initiated by chelating diboranes. When in Zaragoza... polymerization of**

**PhC≡CH using hemi-labile Rh(I) complexes**  
Scott Collins, University of Akron, Akron, United States

Room: Alsh 1

**Parallel 4: C9 Dendrimers and Hyperbranched Polymer Synthesis**

Session Chair: Wayne Hayes, University of Reading, UK

14:30 INVITED C9\_O09 **Hyperbranched polyionic liquids with core/shell topology as nanoreactors and nanotransporters**  
Rolf Mülhaupt, Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Albert-Ludwigs University, Stefan-Meier-Strasse 31, D-79104 Freiburg, Germany

15:00 C9\_O11 **Quantification of Intramolecular Cyclization in Branched Methacrylic Copolymers Using <sup>1</sup>H NMR Spectroscopy**  
Steven Armes, University of Sheffield, Sheffield, Yorkshire, United Kingdom

15:15 C9\_O12 **Synthesis of hyperbranched polymers via Cobalt-catalysed chain transfer and functionalisation by thiol-ene click chemistry**  
Kayleigh McEwan, The University of Warwick, Coventry, West Midlands, United Kingdom

15:30 C9\_O13 **Synthesis of telechelic oligomers and branched polymers with well controlled end groups by radical polymerisation in the presence of a silyl enol ether**  
Stephen Rimmer, University of Sheffield, Sheffield, United Kingdom

Room: Lomond

**Parallel 5: C11 Polymerisation Kinetics and New Concepts in Polymerisation**

14:30 C11\_O05 **Photochemical and Thermal Covalent Adaptable Networks**  
Christopher Bowman, University of Colorado, Boulder, CO, United States

14:45 C11\_O06 **Novel materials from nitroxide-mediated polymerization of methacrylic esters**  
Julien Nicolas, Laboratoire de Physico-Chimie, Pharmacotechnie et Biopharmacie, UMR CNRS 8612, Univ. Paris-Sud 11, Châtenay-Malabry, France



**15:00 C11\_O07 Towards Monomer Sequence Control in Anionic Polymerisation**

Lian Hutchings, Durham University, Durham, Co Durham, United Kingdom

**15:15 C11\_O08 Novel Ring-Opening Polymerization and Its Application to Functional Materials**

Takeshi Endo, Molecular Engineering Institute, Kinki University, Iizuka, Fukuoka, Japan

**15:30 C11\_O09 Kinetic Analysis on Ring-Opening Polymerization of L,L-Lactide**

Yingchuan Yu, Swiss Federal Institute of Technology, Zurich, Switzerland

**15:45 C11\_O10 Controlled L-lactide polymerization by new organo-catalytic systems based on N,N-dimethylaminopyridine and its salts**

Frederic PERUCH, LCPO, Bordeaux University, Pessac, France

Room: Carron 1 & 2

**Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals through to Applications**

Session Chair: Daniel Read, University of Leeds, UK

**14:30 INVITED D13\_O09 Mechanical Properties of Soft Viscoelastic Nanocomposites**

Costantino Creton, ESPCI-ParisTech, Paris, France

**15:00 D13\_O10 Facile access to biomimetic layered composite films and coatings with superior material properties**

Andreas Walther, Molecular Materials, Department of Applied Physics, School of Science and Technology, Aalto University, Helsinki, Finland

**15:15 D13\_O11 The importance of molecular friction in determining the mechanical properties of a soft polymer-nanotube nanocomposite**

Tao Wang, University of Surrey, Guildford, Surrey, United Kingdom

**15:30 D13\_O12 Carbon Nanostructures as Fillers for Polymer Nanocomposites**

Horacio Salavagione, Institute of Polymer Science and Technology (ICTP-CSIC), Madrid, Spain

**15:45 D13\_P19 Strategies to enhance compatibility without affecting oxidative curing on waterborne alkyd/acrylic hybrids**

Monika Goikoetxea, 1Institute for Polymer Materials, University of the Basque Country, Basque Country, Spain

Room: Gala 1 & 2

**Parallel 7: D14 Polymer Colloids: from Synthesis to Application**

14:30 INVITED D14\_O34 **Amphiphilic block copolymer synthesis via living radical polymerization in aqueous dispersed systems: toward non-spherical morphologies using polymerization-induced micellization**

Bernadette Charleux, University Claude Bernard, Lyon 1, Villeurbanne, France

15:00 D14\_O35 **Janus Micelles by Direct Dissolution of Triblock Copolymers in Water**

Jianzhong Du, Tongji University, School of Materials Science and Engineering, Shanghai, China

15:15 D14\_O36 **Nitroxide-mediated precipitation polymerization in supercritical carbon dioxide: Effects of monomer loading and pressure**

Fawaz Aldabbagh, National University of Ireland, Galway, Ireland

15:30 D14\_O37 **Mechanism of core-shell nanoparticle formation via controlled radical polymerization**

Jerome Claverie, UQAM, Montreal, Qc, H3C3P8, Canada

15:45 D14\_O38 **Direct Synthesis of Branched Polymer Nanoparticles by One-Pot Living and Controlled Polymerisation**

Steve Rannard, University of Liverpool, Liverpool, United Kingdom

Room: Boisdale 1

**Parallel 8: E17 Designing Block Copolymers: Theory, Experiment and Applications**

Session Chair: Roy Shenhar, Hebrew University of Jerusalem, Israel

14:30 INVITED E17\_O23 **From Block Copolymers and Nanoparticles to Complex, Multifunctional Hybrid Materials**

Ulrich Wiesner, Cornell University, Ithaca, NY, United States

15:00 E17\_O24 **Holographic Gratings and Data Storage in Azobenzene-Containing Block Copolymers**

Hans-Werner Schmidt, University of Bayreuth, Bayreuth, Germany

**15:15 E17\_O25 Plastic Processing without Heating**

Metin H Acar, Istanbul Technical University, Maslak/Istanbul, Turkey

**15:30 E17\_O26 Supramolecular structure and interaction kinetics of fullerene derivative and block copolymer charge transfer complex**

Alok Chaurasia, Nanyang Technological University, Singapore, Singapore

**15:45 E17\_O27 An all Conjugated Block Copolymer Bulk Heterojunction Solar Cell**

Andrew J Parnell, University of Sheffield, Department of Physics and Astronomy, Sheffield, United Kingdom

Room: Boisdale 2

**Parallel 9: F20 Polysaccharides: Chemistry, Structure, Properties and Technology**

Session Chair: Cameron Alexander, University of Nottingham, UK

**14:30 INVITED F20\_O01 Some properties of cellulose nanocrystals prepared by acid hydrolysis of natural cellulose fibres**

Derek Gray, McGill University, Montreal, QC, Canada

**15:00 F20\_O02 Polysaccharides and (solid-state) NMR: characterizing solutions, local motions and films**

Marianne Gaborieau, University of Western Sydney, Campbelltown, Australia

**15:15 F20\_O03 Thermoreversible Gelation of cellulose ethers**

Patrick Fairclough, the university of sheffield, sheffield, United Kingdom

**15:30 F20\_O04 Photoluminescent Porous Alginate Hybrid Materials Containing Lanthanide Ions**

Mike Robitzer, Institut Charles Gerhardt-Montpellier, Matériaux Avancés pour la Catalyse et la Santé, Montpellier, France

**15:45 F20\_O05 Plasticization of starch by a ionic liquid: melt processing and mechanical properties**

Eric Leroy, Process Engineering for Environment and Food Laboratory (GEPEA) - CNRS, ST NAZAIRE, France

Room: Morar & Ness

**Parallel 10: G21 Polymer Electronics**

Session Chair: Steve Yeates, University of Manchester, UK

14:30 INVITED      **G21\_O34 Controlling Interfaces of Semiconducting Polymers in Transistors and Solar Cells**

Michael Chabinyc, University of California, Santa Barbara, CA, United States

15:00 **G21\_O35 Towards rational design of polymer/fullerene composites for efficient organic solar cells**

Pavel Troshin, Institute for Problems of Chemical Physics of Russian Academy of Sciences, Chernogolovka, Moscow region, Russian Federation

15:15 **G21\_O36 Mutual intercalation of poly(3-hexylthiophene) crystallites and aggregates of fullerene derivatives in thin films optimized for solar cell application**

U-Ser Jeng, National Synchrotron Radiation Research Center, Hsinchu, Taiwan

15:30 **G21\_O37 Investigating the nano-structure of thin polymer films used in polymer based solar cells.**

Alan Dunbar, University of Sheffield, Sheffield, United Kingdom

15:45 **G21\_O38 Phenylenevinylene homopolymers and block copolymers through ring-opening metathesis polymerization**

Chin-Yang Yu, The University of Manchester, Manchester, United Kingdom

Room: Alsh 2

**Parallel 11: G24 Polymers for Sensors**

Session Chair: Aoife Morrin, Dublin City University, Ireland

14:30 INVITED      **G24\_O05 Nanoscale conducting polymers and their functionalisation with antibodies**

Carol Lynam, School of Biotechnology and Biomedical Diagnostics Institute, National Centre for Sensor Research, Dublin City University, Dublin, Ireland

15:00 **G24\_O06 Novel Biosensors Based on Surface Modification of Magnetoelastic Materials using Biologically Active Polymers**

Anthony Granville, The University of New South Wales, Sydney, NSW, Australia

15:15 **G24\_O07 The inherent physical, optical and conductivity values of Ionic Liquid - Polymeric membranes; a self - indicated**

**simultaneous response upon coordination to transition metal ions.**

Andrew Kavanagh, Dublin City University, Dublin, Ireland

15:30 G24\_O08 **Methyl Methacrylate-Decyl Methacrylate Copolymer - A Plasticizer-Free Alternative for Ionophore-Based Chemical Sensors**

Shane Peper, Pacific Northwest National Laboratory, Richland,  
Washington, United States

Room: Alsh 2

### **Parallel 1: H27 Polymer Education**

17:00 INVITED H27\_O07 **Teaching Polymers in Europe**

Alex van Herk, Eindhoven University of Technology, Eindhoven,  
Netherlands

17:30 INVITED H27\_O08 **How should we introduce polymerization reactions to undergraduate students?**

Henri Cramail, Université Bordeaux 1, Pessac, France

## WEDNESDAY 14 JULY 2010 - POSTER SESSIONS

Hall 5

### **B6: Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

#### **B6\_P01 Rationalization of the Solvent Effect in Free Radical Polymerization of Ethylene in the medium pressure range (up to 250 bar)**

Etienne GRAU, Université de LYON / CNRS, Villeurbanne, France

#### **B6\_P02 New insights from the "cluster" model of active sites in the Ziegler-Natta polymerization of olefins**

Vincent MONTEIL, Université de Lyon / CNRS / ESCPE Lyon, Villeurbanne, France

#### **B6\_P03 Effect of Clarifying Agent on Photodegradation of Isotactic Polypropylene**

Lenka Chvatalova, Tomas Bata University in Zlín, Faculty of Technology, Zlín, Czech Republic

#### **B6\_P04 Effect of Annealing on Mechanical Properties of Nucleated Polypropylene**

Lenka Chvatalova, Tomas Bata University in Zlín, Faculty of Technology, Zlín, Czech Republic

#### **B6\_P06 Composition Ascription Analysis of Disperse phases for Impact Polypropylene Copolymers by AFM/Nano-TA**

Hongsheng Tan, School of Materials Science and Engineering, Shandong University of Technology, Zibo, Shandong province, China

#### **B6\_P07 Preparation of Polyethylen Building Blocks**

Christophe Boisson, CNRS-UMR C2P2, Villeurbanne, France

#### **B6\_P08 Synthesis of Macroreticular Anion-Exchange Resins based on Poly(styrene-co-divinylbenzene): Influence of the Polymerization Conditions on the Degree of Functionalization**

Raul Rodrigo, University of Salamanca, Salamanca, Spain

#### **B6\_P09 Synthesis and Application of Titanium Complexes Bearing [O<sup>-</sup>NX] Tridentate Ligands in Ethylene Polymerization**

Junfang Li, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China

#### **B6\_P10 Direct Synthesis of PE-OH and Its Application in the Preparation of Diblock**

Xiuli Sun, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China

**B6\_P11 Titanium Catalysts for the Copolymerization of Ethylene with 5-Norbornene-2-methanol**

Yong Tang, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China

**B6\_P12 Effect of Oxidized PP Wax in Organoclay Dispersion**

Ali Salimi, Iran Polymer & Petrochemical Institute, Tehran, Tehran, Iran, Islamic Republic of

**B6\_P13 Close Approaches of C-H Bond Hydrogens to Transition Metal Centres: New Types of Interactions with Agostic-like Characteristics.**

Alastair Nielson, Massey University at Albany, Auckland, New Zealand

**B6\_P14 Study on Dicyclopentadiene Polymerization with a New Modified Macroligand-Tungsten Catalyst System**

Xiaoping Cai, Jilin Petrochemical Company, PetroChina,Ltd, Jilin City, Jilin Province, China

**B6\_P15 A study on the use of styrene in controlling the molecular weight and tacticity of polypropylene produced by two metallocene catalysts.**

Raul Quijada, Departamento de Ingeniería Química y Biotecnología, Facultad de Ciencias Físicas y Matemáticas and CIMAT, Universidad de Chile, Santiago, Chile

**B6\_P16 Temperature Rising Elution Fractionation and thermal behaviors of Impact polypropylene copolymers with high melt flowability**

Xiaoying Lu, Petrochina Petrochemical Research Institute, Beijing, China

**B6\_P17 Adsorption on Semi-crystalline Polymers**

Sarah Hardman, Durham University, Durham, United Kingdom

**B6\_P18 Asymmetric Polymerization of *N*-Phenylmaleimide with Rhodium Catalyst in the Presence of Chiral Amine**

Tsutomu Oishi, Yamaguchi University, Ube, Yamaguchi, Japan

**B6\_P19 Influence of TiO<sub>2</sub> and Corona treatment on photodegradation of LLDPE films**

Guilhermino J. M. Fechine, Presbyterian University Mackenzie, São Paulo/SP, Brazil

**B6\_P20 Influence of styrene-butadiene-styrene (SBS) on photodegradation of polypropylene/high impact polystyrene blends**

Guilhermino J. M. Fechine, Presbyterian University Mackenzie, São Paulo/SP, Brazil

**B6\_P21 Effect of Boundary Conditions on Morphological Development during Polymer Crystallization: A Monte Carlo Simulation**

Siripon Anantawaraskul, Kasetsart University, Bangkok, Thailand

**B6\_P22 Application of Artificial Neural Network in Ethylene/1-Butene Copolymerization**

Siripon Anantawaraskul, Kasetsart University, Bangkok, Thailand

**B6\_P23 Catalytic Activity of Group 4 Metal Complexes Containing Fluorinated Amidinate Ligands in  $\alpha$ -Olefin Polymerization**

Tatjana Elkin, Technion - Israel Institute of Technology, Haifa, Israel

**B6\_P24 Methacrylates in Insertion Polymerization**

Thomas Rünzi, University of Konstanz, Konstanz, Germany

**B6\_P26 Kinetic Studies on the Polymerisation of Functionalised Norbornenes**

Lynn Donlon, Durham University, Durham, United Kingdom

**B6\_P27 Evaluation of synthetic methodologies aiming the development of HDPE/MCM-41 nanocomposites with enhanced interfacial adhesion**

Artur Bento, Instituto de Ciencia e Engenharia de Materiais e Superfícies (ICEMS) & Departamento de Engenharia Química, Instituto Superior Técnico (IST), Technical University of Lisbon, Lisboa, Portugal

**B6\_P28 Highly efficient Aminopyridinate ligand stabilised hafnium catalysts for the coordinative chain transfer polymerisation**

Isabelle Haas, Universität Bayreuth, Bayreuth, Germany

**B6\_P29 A highly efficient NCN-ligand stabilised organoyttrium catalysed version of the "Aufbaureaktion" leading to terminal functionalised polyethylene.**

Tobias Bauer, Universität Bayreuth, Bayreuth, Germany

**B6\_P30 Morphology and mechanical properties of binary blends of polypropylene with statistical and block ethylene-octene copolymers**

Guoming Liu, Beijing National Laboratory for Molecular Sciences, Key Laboratory of Engineering Plastics, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China

**B6\_P31 Investigation on the molecular structure-mechanical properties relations in Polypropylene/poly(ethylene-co-propylene)(PP/EPR) in-reactor alloys**

Ying Zhao, Beijing National Laboratory for Molecular Sciences, Key Laboratory of Engineering Plastics, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China



**B6\_P32 The Development of Solvent Ligated Metal Complexes Associated With Weakly Coordinating Counteranions for the Polymerization of Isobutylene at Room Temperature**

Hui Yee Yeong, Leibniz-Institut für Polymerforschung Dresden e.V., Dresden, Germany

**B6\_P33 CATALYTIC COPOLYMERIZATION OF ETHYLENE WITH POLAR COMONOMERS: TOWARD AMPHIPHILIC POLYETHYLENES CHANGER**

Jean-Christophe Daigle, Université du Québec à Montréal, NanoQAM, Montreal, Quebec, Canada

**B6\_P34 VITAMIN E ADDITIVE INFLUENCE ON DIELECTRIC LOSSES OF  $\gamma$ -IRRADIATION RECYCLED POLYETHYLENE COMPOSITES**

Ulmas Gafurov, Institute of Nuclear Physics, Tashkent, Ulugbek, Uzbekistan

**B6\_P35 The Effect of Melt-Annealing of Ultrathin Polymer Film on Crystal Growth**

Ken Taguchi, Hiroshima University, Higashi-Hiroshima City, Hiroshima, Japan

Hall 5

**C9: Dendrimers and Hyperbranched Polymer Synthesis**

**C9\_P01 Hyperbranched poly(arylene ether)s by an unusual  $AB_2+A_2$  polymerization approach**

Anindita Ghosh, Leibniz-Institut für Polymerforschung Dresden e.V., Dresden, Saxony, Germany

**C9\_P03 Novel Triazine Based Dendrimers for Effective Delivery of Anticancer Agent**

Kuldeep K. Bansal, Dr. H. S. Gour University, Sagar (M.P.), India

**C9\_P04 Online monitoring study of branched methacrylic copolymers synthesised by RAFT**

Julien Rosselgong, University of Warwick, Coventry, United Kingdom

**C9\_P05 GLASS TRANSITION TEMPERATURE AS A DEGREE OF BRANCHING FUNCTION FOR AROMATIC-ALIPHATIC POLYESTERS WITH TAILORED BRANCHING TOPOLOGY**

Anna Khalyavina, Leibniz-Institut für Polymerforschung Dresden e.V., Dresden, Germany

**C9\_P06 Determining the functionality of star polymers by multi detector gel permeation chromatography**

James Burns, University of Warwick, Coventry, United Kingdom

**C9\_P07 New thermosets based on oxazolidone-isocyanurate-ether polymers and hydroxylated hyperbranched polymers modified with vinyl and epoxy end groups**

Marjorie Flores, Universitat Rovira i Virgili, Tarragona, Spain

**C9\_P08 Novel thermosets obtained by cationic polymerization of DGEBA and polyglycidol initiated by ytterbium triflate**

Xavier Fernàndez-Francos, Universitat Politècnica de Catalunya (UPC), Laboratori de Termodinàmica ETSEIB, Barcelona, Spain

**C9\_P09 New chemically reworkable epoxy thermosets by modification of DGEBA with hyperbranched polyesters. Study on the influence of the degree of branching**

Angels Serra, Universitat Rovira i Virgili, Tarragona, Spain

**C9\_P10 Effect of Different Crosslinking Structures Derived from Dendrimer on the Properties of Poly (NIPAAm-co-Acrylic Acid) Hydrogels**

Wen-Fu Lee, Department of Chemical Engineering, Tatung University, Taipei, Taiwan

**C9\_P11 Maleimide Based Thiol Reactive Multiarm Star Polymers via Diels-Alder/retro Diels-Alder Strategy**

Ozgul Gok, Bogazici University, Istanbul, Turkey

**C9\_P12 Dendron-Polymer-Dendron Conjugates via the Diels-Alder 'Click' Reaction**

Sezin Yigit, Bogazici University, Istanbul, Turkey

**C9\_P13 Covalently Functionalizable Polyethylene Glycol Based Hydrogels**

Emine Ece Manavoglu, Bogazici University, Istanbul, Turkey

**C9\_P14 Synthesis of Multiarm Star Polymers Based on Hyperbranched Poly(glycidol) with Poly(methylmethacrylate), Poly(styrene) and Poly( $\epsilon$ -caprolactone) Arms**

Mireia Morell, Universitat Rovira i Virgili, Tarragona, Spain

**C9\_P15 Star-shaped polymers via acyclic diene metathesis (ADMET) polymerization**

Lucas Montero de Espinosa, University of Potsdam, Potsdam, Brandenburg, Germany

**C9\_P16 Water Soluble Hyperbranched Polymers for Application in Photodynamic Therapy**

suriani shamsudin, university of sheffield, sheffield, england, United Kingdom

**C9\_P17 New auto-fluorescent PAMAM dendritic wedges.**  
Alaa El-Betany, Cardiff University, Cardiff, United Kingdom

**C9\_P18 Synthesis of Branched Polymers by Direct One-Pot Ambient-Temperature 'Living' Anionic Polymerisation.**  
Tamara Alhilfi, University of Liverpool, Liverpool, United Kingdom

**C9\_P19 Segment Block Dendrimers and Dendron-Polymer Conjugates via Diels-Alder Cycloaddition**  
Oyuntuya Munkhbat, Bogazici University, Istanbul, Turkey

**C9\_P20 Synthesis and Properties of Monodisperse Oligofluorene-Functionalized Truxenes with Different Alkyl Chains**  
Clara Orofino-Peña, University of Strathclyde, Glasgow, United Kingdom

**C9\_P21 Commercial branched addition polymers:. Their use in viscosity-reducing applications and as dispersants.**  
Roz Baudry, Hydra Polymers Ltd, Liverpool, United Kingdom

**C9\_P22 Low-Cross Linked Terpolymers of Glycidyl Methacrylate as Matrices for Synthesis of Polyfunctionalized Supports for Palladium Particles Encapsulation**  
Wiktor Bukowski, Faculty of Chemistry, Rzeszów University of Technology, Rzeszów, Poland

**C9\_P23 Dendrytic Poly(amidoamine) Immobilized on Hydrophobic Glycidyl Methacrylate Terpolymers**  
Agnieszka Bukowska, Faculty of Chemistry, Rzeszów University of Technology, Rzeszów, Poland

Hall 5

### **D13: Colloidal and Nanoscale Polymer Composites: Fundamentals through to Applications**

**D13\_P01 Performing Different Types Of Interfacial Polymerization Reactions Through The Permeable membrane of Poly(terephthalamide) Microcapsules**  
Hisham Essawy, National Research Center, Cairo, Egypt

**D13\_P02 Chiral Micelles by Achiral TPPS and Diblock Copolymer Poly(ethylene glycol)-block-poly(4-vinylpyridine)**  
Linqi Shi, Institute of Polymer Chemistry, Nankai University, Tianjin, China

**D13\_P04 Polymer/Inorganic Composite Particle Materials--  
Preparation, Structure and Applications**

Yi Dan, State Key Laboratory of Polymer Materials Engineering of  
Chian, Polymer Research Institute of Sichuan University, Chengdu,  
Sichuan, China

**D13\_P05 Ethylene/Chrysotile nanocomposites in situ  
polymerization**

Griselda Barrera Galland, Instituto de Química, Universidade Federal do  
Rio Grande do Sul, Porto Alegre, Brazil

**D13\_P06 PROPERTIES OF POLYETHYLENE/GRAPHITE  
NANOCOMPOSITES OBTAINED BY IN SITU**

Griselda Barrera Galland, Instituto de Química, Universidade Federal do  
Rio Grande do Sul, Porto Alegre, Brazil

**D13\_P07 Polymer-coated Palladium Nanoparticles: Synthesis,  
Characterisation and Investigation of their Non-Linear Optical  
Response**

Theodora Krasia-Christoforou, Department of Mechanical and  
Manufacturing Engineering, University of Cyprus, Nicosia, Cyprus

**D13\_P08 Synthesis and Applications of Polyvinylpyridine-Grafted  
Silica Containing Palladium Nanoparticles as a New  
Heterogeneous Catalyst for Heck Coupling Reactions**

Bahman Tamami, Shiraz university, Shiraz, Iran, Islamic Republic of

**D13\_P09 Phase Transitions in Model Polymer Mixture with C<sub>60</sub>  
fullerenes: Thermodynamics and Kinetics**

Yang Choo Chua, Imperial College London, London, United Kingdom

**D13\_P10 Performance of Multi-Walled Carbon Nanotube/High  
Density Polyethylene Nanocomposites at High Strain Rates**

Waleed Al-Iafi, Loughborough University, Loughborough, United  
Kingdom

**D13\_P11 Preparation and characterisation of multiphase polymer  
systems with carbon nanotubes**

Milana Lisunova, Freie Universitet of Berlin, Berlin, Germany

**D13\_P12 Driving Polymer-Grafted Carbon Nanotubes at Interfaces  
in Phase-Separated Polymer Blends**

Fangfang Tao, Université catholique de Louvain, louvain-la-neuve,  
Brabant Wallon, Belgium

**D13\_P13 Functionalised nanocomposites synthesis by in situ  
generation of filler through extrusion process**

Véronique Bounor-legaré, Ingénierie des Matériaux Polymères, IMP,  
UMR 5223, CNRS, Université Lyon 1, Villeurbanne, France

**D13\_P14 One-pot, *in situ* synthesis of ZnO-epoxy resin hierarchical and hybrid composites**

Katherine Orchard, Imperial College, London, United Kingdom

**D13\_P15 The Effect of Plasticizer in the Morphology and Thermal Behavior of Cellulose**

**Acetate/Poly(epichlorohydrin)/Montmorillonite-clay Nanocomposites.**

Juliana Aristéia de Lima, Universidade Estadual de Campinas, Campinas/SP, Brazil

**D13\_P16 Complex Inorganic/Organic Core-Shell and Shape Anisotropic Nanoparticles by an Inverse Emulsion Technique**

Christian Geidel, Max Planck Institute for Polymer Research, Mainz, Germany

**D13\_P17 Light Scattering from Aqueous Solutions of Colloid Metal Nanoparticles Stabilized by Natural Polysaccharide Arabinogalactan**

Ekaterina Gasilova, Institute of Macromolecular Compounds, Russian Academy of Sciences, St.-Petersburg, Russian Federation

**D13\_P18 Colloidal Polymer/Silica Nanocomposite Particles Prepared by Aqueous Emulsion Polymerisation**

Lee Fielding, The University of Sheffield, Sheffield, United Kingdom

**D13\_P20 Investigation of microstructure and mechanical properties of biaxial stretched polyethylene terephthalate/clay nanocomposites**

Yucai Shen, Queen's University Belfast, Belfast, United Kingdom

**D13\_P21 Ag(PbS)/Poly-p-xylylene Nanocomposites by VDP-Method**

Sergei A. Ozerin, Institute of synthetic polymer materials RAS, Moscow, Russian Federation

**D13\_P22 Kinetics of nanoparticle synthesis by different sugars**

Ya-Lin Fang, China Medical University, Taichung, Taiwan

**D13\_P23 Thermostimulable Au nanoparticles by coating with amphiphilic block copolymers synthesized via the MADIX process.**

Mariana Beija, IMRCP - UMR 5623, Toulouse, France

**D13\_P24 New perspectives in the synthesis of macroporous polymers via emulsion templating**

Nadine Graeber, Imperial College London, London, United Kingdom

**D13\_P25 Encapsulated graphite sheets covered with polystyrene nanoparticles by *in-situ* miniemulsion polymerization**

Hussein Etmimi, Department of Chemistry and Polymer Science, University of Stellenbosch, Cape town, South Africa

**D13\_P26 Rheological & Light Scattering Studies on the Dispersion of Clays in Monomer Solvents**

Neil Bradley, University of Strathclyde, Glasgow, United Kingdom

**D13\_P27 Hyperbranched Core-Multishell Architecture for the Formation and Stabilization of Nanoparticles in Water and their applications.**

Marty Jean-Daniel, Université Paul Sabatier, Toulouse, France

**D13\_P28 PROTECTION OF STEELS BY EPOXY - (ORGANO) CLAYS NANOCOMPOSITE COATINGSD. Merachtsaki<sup>1</sup>, P. Spathis<sup>2\*</sup>, K. Triantafullidis<sup>3</sup>, P. Giannakoudakis<sup>21</sup>Graduate Student, <sup>2</sup>Assoc. Professor, <sup>3</sup>Assist. Professor,School of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, 54124, Greecee-mail: [spathis@chem.auth.gr](mailto:spathis@chem.auth.gr)**

Panagiotis Spathis, Aristotle University of Thessaliniki, Thessaliniki, Greece

**D13\_P29 Preparation of oligomeric block copolymers via Reverse Iodine Transfer Polymerization (RITP) and their use in clay surface modification for the preparation of polymer-clay nanocomposites in dispersed media**

Patrice Hartmann, Mondi Packaging South-Africa R&D, Stellenbosch, South Africa

**D13\_P30 Preparation and characterization of silver/carbopol polycomposites in colloidal and non colloidal solutions**

Nabila HADDADINE, Laboratoire de Synthèse Macromoléculaire et Thio-organique Macromoléculaire. USTHB, ALGIERS, Algeria

**D13\_P31 Biocompatible Hybrid Janus particles**

Thomas Ruhland, University Bayreuth, Bayreuth,Bavaria, Germany

**D13\_P32 Preparation and characterization of polyaniline-silver composites.**

Patrycja Bober, Institute of Macromolecular Chemistry AS CR, Prague, Czech Republic

**D13\_P33 Carbon Materials Obtained by the Carbonization of a Conducting Polymer, Polyaniline**

Jaroslav Stejskal, Institute of Macromolecular Chemistry AS CR, Prague, Czech Republic

**D13\_P34 Organic-inorganic hybrid materials combining Pd nanoparticles and diblock copolymers, having carbazole and  $\beta$ -ketoester functionalities. Synthesis, characterization and experimental investigation of their nonlinear optical properties.**

Maria Demetriou, University of Cyprus, Nicosia, Cyprus

**D13\_P35 Rubber-based nanocomposites containing new intercalated/exfoliated organo-modified clays**

LUCIA CONZATTI, CNR- ISMAC Genova, Genova, Italy

**D13\_P36 Responsive Fluorescent Quantum Dot-Polymer Nanocomposites Generated by Rapid and Facile Frontal Polymerization**

Su Chen, State Key Laboratory of Material-Oriented Chemical Engineering and College of Chemistry and Chemical Engineering, Nanjing University of Technology, Nanjing, Jiangsu Province, China

**D13\_P37 Synthesis of Monodisperse Zinc Sulfide Nanoparticles Grafted with Concentrated PS Brush by Surface-Initiated Nitroxide Mediated Polymerization**

Vincent Ladmira, University of Sheffield, Sheffield, United Kingdom

**D13\_P38 Sparsely Distributed Silica-Modified PMMA Composite Particles Prepared by Static Polymerization in Aqueous Silica Dispersion**

Shintaro Kawano, Kumamoto University, Kumamoto, Japan

**D13\_P39 Water-soluble dual-responsive iron oxide nanoparticles**

Alexander Majewski, University of Bayreuth, Bayreuth, Germany

**D13\_P40 Synthesis of polyhedral oligomeric hydrido silsesquioxane polymer films and their application for cleaning mercury contaminated water**

Kseniia Katok, O.O. Chuiko Institute of Surface Chemistry Ukraine, 17 General Naumov Str., Kyiv, Ukraine

**D13\_P41 Photo-induced vesicles to micelles transition**

Jinfeng Dong, Department of Chemistry, Wuhan, China

**D13\_P42 Nanocomposites based on Fluorescent labelled silica nanoparticles and thermoplastic polymer matrixes. Steady State Fluorescence to Study at Molecular Scale their interphases.**

Dania Olmos, Universidad Carlos III de Madrid, Leganes, MADRID, Spain

**D13\_P43 Influence of the Incorporation of Biomineralized Calcium Carbonate Microparticles on the Mechanical and Thermal Properties of Polypropylene/Clay Nanocomposites**

Mehrdad Yazdani-Pedram, University of Chile, Faculty of Chemical and Pharmaceutical Sciences, Department of Physical and Organic Chemistry, S. Livingstone 1007, Independencia, Santiago, Chile

**D13\_P44 Functionalized Multiwalled Carbon Nanotubes/Polypropylene Nanocomposites**

Mehrdad Yazdani-Pedram, University of Chile, Faculty of Chemical and

Pharmaceutical Sciences, Department of Physical and Organic Chemistry, S. Livingstone 1007, Santiago, Chile

**D13\_P45 Capillarity Force Induced Formation of Luminescent PS/Rare-Earth-Doped Nanoparticles Hybrid Hollow Spheres**

Min Chen, Fudan University, Shanghai, China

**D13\_P46 Incorporation of Single CdSe/ZnS Quantum Dots into Polymer Nanoparticles by Means of Smart Functionalization with Polymerizable Ligands**

Carla Negele, University of Konstanz, Konstanz, Germany

**D13\_P47 Curing mechanism and properties of the Bismaleimide-Triazine/EOVS composites**

Dingsheng Yu, The Key Laboratory of Beijing City on Preparation and Processing of Novel Polymer Materials, Beijing University of Chemical Technology, Beijing, China

**D13\_P48 Polybenzoxazine Resin Cured by Latent Catalyst containing POSS**

Riwei Xu, The Key Laboratory of carbon fiber and functional polymers, Ministry of Education, Beijing University of Chemical Technology, Beijing, China

**D13\_P49 Antibacterial activity and mechanical properties of natural rubber/TiO<sub>2</sub> nanocomposites**

Boonchai Seentrakoon, Program in Petrochemistry and Polymer Science, Faculty of Science, Chulalongkorn University, Bangkok, Thailand

**D13\_P50 SYNTHESIS OF NANOCOMPOSITES OF POLYANILINE NANOFIBERS AND POLYETHYLENE BY *IN SITU* POLYMERIZATION**

Nara Basso, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre/Rio Grande do Sul, Brazil

**D13\_P51 Influence of the compatibilizer type on the rheological properties of HDPE/LLDPE/organoclay nanocomposites**

Fabio Roberto Passador, PPGCEM/UFSCar, São Carlos, SP, Brazil

**D13\_P53 Fire and smoke behaviour of PVC/O-MMT/metallic oxides nanocomposites**

Lucia Mei, Universidade Estadual de Campinas, Unicamp, Campinas, SP, Brazil

**D13\_P56 Effects of vibrations on melt compounding of PP/carbonic nanocomposites**

Georgi Kotzev, Central Laboratory of Physico-Chemical Mechanics, BAS, Sofia, Bulgaria



**D13\_P57 Analysis of the influence of an octaepoxy-POSS in the morphology of an epoxy-amine system.**

Carmen Ramírez, Group of Polymers. University of A Coruña. E. U. P., Avda. 19 de Febrero s/n, 15405, Ferrol., Spain

**D13\_P58 Localization of nanodiamond particles within polypropylene amorphous-crystalline matrix**

Georgy Alkhanishvili, Institute of Synthetic Polymeric Materials, Moscow, Russian Federation

**D13\_P59 Structural investigation of polylactide modified with functionalized silica nanoparticles.**

Elena Sudeeva, Enikolopov Institute of Synthetic Polymeric Materials of the Russian Academy of Science, Moscow, Russian Federation

**D13\_P60 Structural and mechanical analysis of SBR/organoclay nanocomposites**

Belén Montero, Group of Polymers. Universidad de A Coruña. E. U. P., Avda. 19 de Febrero s/n, 15405, Ferrol., Spain

**D13\_P61 Synthesis of cerium oxide-stabilised nanocomposite latexes through polymerisation in aqueous dispersed system**

Nancy Zgheib, ESCPE/CNRS/UCBL, Villeurbanne, France

**D13\_P62 High tensile strength poly(vinyl alcohol) fibers modified with nanodiamonds: morphology, properties, application**

Tikhon Kurkin, Institute of Synthetic Polymeric Materials RAS, Moscow, Russian Federation

**D13\_P63 Solvent Effect in Dynamic Superstructures from Au Nanoparticles and CdTe Nanowires: Experimental Observation and Theoretical Description**

Jaebeom Lee, Pusan National University, Miryang, Korea, Republic of

**D13\_P64 Thermal and Crystallization Behaviors of thin-MWCNT/Polyamide 6 Nanocomposite**

Jong-ha Oh, Hyosung Corporation, Anyang-Si, Gyeonggi-Do, Korea, Republic of

**D13\_P65 Calibration and use of an optical detector to monitor in-line a nanocomposite extrusion**

Kelen Cristina dos Reis, Universidade Federal de São Carlos, São Carlos, São Paulo, Brazil

**D13\_P66 Advances in RAFT Mediated Emulsion Polymerization**

Brian Hawzett, The University of Sydney, Sydney, Australia

**D13\_P67 Poly(zinc methacrylate) as the Precursor for the Low-Temperature Formation of Polymer-ZnO Hybrid Materials and/or**

## **ZnO Nanoparticles**

Gabriela Ambrozic, National Institute for Chemistry, Ljubljana, Slovenia

## **D13\_P68 Mechanical and thermal properties of polymer nanocomposites**

S.J. Picken, NanoStructured Materials, Department of Chemical Engineering, TU Delft, Delft, Netherlands

## **D13\_P69 The effects of the Packing Structure of Polyhedral Oligomeric Silsesquioxane (POSS) Surfactants on the Degree of Clay Exfoliation in Polyethylene Terephthalate/ POSS-Modified Clay Nanocomposites**

Cher Ling Joan Toh, School of Materials Science and Engineering, Nanyang Technological University, Singapore, Singapore

## **D13\_P70 Analysis of Dissolved Hydrogen Molecules in Rubber Materials by Solid-state $^1\text{H}$ NMR**

Shin Nishimura, Kyushu University, Fukuoka, Japan

## **D13\_P71 Investigation on the radiation induced vulcanization of silica-elastomer blends: physical properties and filler-elastomer reaction mechanisms**

Daniele Dondi, University of Pavia, Department of General Chemistry, Pavia, Italy

## **D13\_P72 Polyester-based nanocomposites prepared by *in situ* entropically-driven ring-opening polymerization of macrocyclic oligomers**

Paola Stagnaro, CNR, Istituto per lo Studio delle Macromolecole ISMAC, Genova, Italy

## **D13\_P73 Dispersion of individual MWNTs in epoxy resin composites by noncovalent functionalization with surfactants**

Celina-Maria Damian, Politehnica University of Bucharest, Department of Polymer Science and Engineering, Bucharest, Romania

## **D13\_P74 Poly(Methyl Methacrylate)/ZnO Nanocomposites Based on Polyol Mediated Organophilic Nano ZnO**

Alojz Anžlovar\*, National Institute of Chemistry, Ljubljana, Slovenia

## **D13\_P75 Transparent and high refractive index nanocomposites based on main-chain aromatic copolymers**

Yusuke Imai, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan

## **D13\_P76 Study of the mechanical properties of methacrylic polymers reinforced by functionalized oxozirconium nanoclusters**

Alexandre Gatti, Institute of Chemistry of Araraquara, Araraquara - SP, Brazil

**D13\_P77 Covalent Attachment of Polymersomes to Surfaces**  
Mustafa Volkan Filiz, Institut of Physical Chemistry, Hamburg, Germany

**D13\_P78 Physical aging of polymer nanocomposites: development of the diffusion model**  
Daniele Cangialosi, CSIC, San Sebastian, Spain

**D13\_P79 New nanocomposites based on unsaturated polyester resin and modified halloysite**  
SORINA GAREA, University POLITEHNICA of Bucharest, Bucharest, Romania

**D13\_P80 New hybrid materials based on polybenzoxazine matrix and epoxy polyhedral oligomeric silsesquioxane**  
SORINA GAREA, University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania

**D13\_P81 Investigating Silica Shell Growth on Polymer Colloids through the Starve-Fed Addition of TEOS; Routes to Hollow Inorganic Particles**  
Adam Morgan, The University of Warwick, Coventry, Warwickshire, United Kingdom

**D13\_P82 Rheological study of the isothermal flow-induced crystallization kinetics of HDPE nanocomposites using particles with different geometries.**  
Cesar Augusto Gonçalves Beatrice, UFSCar / PPG-CEM, São Carlos / SP, Brazil

**D13\_P83 Effect of nanoparticle shape on the rheological behavior of PA6 nanocomposites**  
Juliano Marini, UFSCar / PPG-CEM, São Carlos, SP, Brazil

**D13\_P84 Rheological and Mechanical Characterization of Blown Films of PBAT Nanocomposites**  
Bruna Turino Rego, UFSCar/PPGCEM, São Carlos, SP, Brazil

**D13\_P85 Release of cupric ions from polypropylene/ copper nanoparticles composites with antimicrobial properties.**  
Katherine Delgado, Departamento de Ingeniería Química y Biotecnología, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile, Santiago, Chile

**D13\_P86 Influence of Silane Coupling Agents on the Curing Characteristics of Nano Silicon Carbide Filled Butadiene Rubber Compounds**  
Amirpasha Kharazi, Amirkabir University of Technology, Tehran, Iran, Islamic Republic of

**D13\_P87 Influence of Silane Coupling Agents on the Curing Characteristics of Nano Silicon Carbide Filled Butadiene Rubber Compounds**

Azam Jalali Arani, Amirkabir University of Technology, Tehran, Iran, Islamic Republic of

**D13\_P88 Influence of nano layered silicate on curing behaviour of NR/BR nanocomposites in presence of different amounts of MBTS/Sulphur**

Azam Jalali Arani, Amirkabir University of Technology, Tehran, Iran, Islamic Republic of

**D13\_P89 Small angle neutron scattering from polystyrene-fullerene solutions**

Lila Bouzina, Institut Charles Sadron (CNRS-ULP), Strasbourg, France

Hall 5

**E17: Designing Block Copolymers: Theory, Experiment and Applications**

**E17\_P01 Selective swelling induced mesoporous structures in block copolymers**

Yong Wang, Nanjing University of Technology, Nanjing, China

**E17\_P03 Computational Studies on Understanding the Mechanism of Microphase Separation in Silicone-Urea Segmented Copolymers**

Mine Yurtsever, Istanbul Technical University, Istanbul, Turkey

**E17\_P04 Design and synthesis of block copolymer supramolecular hybrid colloids for material applications**

Xiaosong Wang, Leeds University, Leeds, United Kingdom

**E17\_P05 Block copolymer structures in nano-pores**

Marco Pinna, University of Central Lancashire, Preston, United Kingdom

**E17\_P07 Phenylboronic acid as a sugar- and pH-responsive trigger to tune the multiple micellization of thermo-responsive block copolymer**

Jin Qiao, Department of Polymer Science, Zhejiang University, Hangzhou, China

**E17\_P08 Thermoplastic Elastomers with Saturated Soft Segments**

Yixian Wu, Beijing University of Chemical Technology, Beijing, China

**E17\_P09 Hybrid block copolymer precursors carrying reactive triethoxy silyl side groups : Synthesis, micellar behaviour and hydrolysis-condensation**

EMMANUEL BEYOU, Ingénierie des Matériaux Polymères

UMRCNRS5223 : Laboratoire des Matériaux Polymères et Biomatériaux, Université Lyon1, VILLEURBANNE, France

**E17\_P10 Spatio-temporal correlations in a minimal model for block copolymer microdomain ordering**

Christian Riesch, Institut für Physik, TU Chemnitz, D-09107 Chemnitz, Germany

**E17\_P11 UCST controlled block copolymer self-assembly**

Aydin Can, Eindhoven University of Technology, Eindhoven, Netherlands

**E17\_P12 Temperature-responsive nanospheres with bicontinuous internal structures from semi-crystalline amphiphilic diblock copolymers.**

Simon J. Holder, University of Kent, Canterbury, Kent, United Kingdom

**E17\_P13 Self-assembly in aqueous solution of amphiphilic diblock copolymers : from frozen aggregates to dynamic micelles.**

Elise Lejeune, Université du Maine - UMR 6120 Polymères, Colloïdes et Interfaces, Le Mans, Sarthe, France

**E17\_P14 Thermoresponsive self-assembly of rod-coil copolymers based on poly[oligo(ethylene glycol) methacrylate] and poly( $\epsilon$ -caprolactone).**

Mario Luzón, Instituto de Ciencia y Tecnología de Polímeros, Madrid, Spain

**E17\_P15 HIGH MOLECULAR WEIGHT LINEAR BLOCK COPOLYMERS OF POLY(L-LACTIDE) AND POLY(2-DIMETHYLAMINOETHYL METHACRYLATE): SYNTHESIS AND NANOPATTERNING**

Maksym Kryuchkov, University of Montreal, Montreal, Quebec, Canada

**E17\_P16 Tunable Photonic Crystals made from Shear Ordered Diblock Copolymers**

Andrew J Parnell, University of Sheffield, Sheffield, United Kingdom

**E17\_P17 Poly(trialkylsilyl (meth)acrylate) diblock copolymers : Self-assembly of hydrolytically labile polymers**

Nadia Canilho, Université du sud Toulon - Var, La Garde, France

**E17\_P18 Designing controlled (meth)acrylic-based diblock copolymers/ZnO nanoparticles via the RAFT polymerization**

Christine Bressy, Université du Sud Toulon-Var, La Valette du Var, France

**E17\_P19 Study on antiblocking masterbatches for LDPE plant**

Shengxian Cao, Daqing petrochemical research center, Daqing, China

**E17\_P20 Well-Defined Semifluorinated Brush-Like Amphiphilic Block Copolymers: Synthesis, Self-Assembly, and Anti-biofouling Applications**

Hazrat Hussain, Institute of Materials Research and Engineering, Singapore, Singapore

**E17\_P21 A Novel Janus Particle Topology From a New Versatile Block Terpolymer**

Andrea Wolf, University of Bayreuth, Bayreuth, Germany

**E17\_P22 Stimuli-Responsive Multicompartment Micelles**

Eva Betthausen, University of Bayreuth, Bayreuth, Germany

**E17\_P23 Controlled release of volatile molecules from block copolymer micelles in ethanol-water mixtures**

Damien Berthier, Firmenich SA, R&D Division, Geneva, Switzerland

**E17\_P24 Polymeric Optical Fibers Produced with Different Acrylates via Atom Transfer Radical Polymerization Reactions**

Selin Celebi, Middle East Technical University, Ankara, Turkey

**E17\_P25 Tailored surface properties of semifluorinated block copolymers by electrospinning**

Sami Hietala, Laboratory of Polymer Chemistry, Department of Chemistry, University of Helsinki, Helsinki, Finland

**E17\_P26 Dissipative Particle Dynamics Study of Linear Diblock and Heteroarm Star Copolymers**

Michael Matthias Nardai, University of Vienna, Department of Physical Chemistry, A-1090 Vienna, Austria

**E17\_P27 Introduction of metal nanoparticles into polymer particles with phase separation structures**

Kazutaka Koike, Graduate school of Eng., Tohoku Univ., Sendai, Japan

**E17\_P28 Nanostructured Langmuir-Blodgett Films: From Nanodots to Nanostrand Network Patterns**

Iryna Perepichka, University of Montreal, Montreal, Quebec, Canada

**E17\_P29 Alternating Diene Metathesis Polycondensation (ALTMET) - Optimizing Catalyst Loading.**

Mudassar Abbas, Institute of Chemistry and Technology of Materials, Graz University of Technology, Graz, Austria

**E17\_P30 Study on the Lamellae-*Fddd* Transition of Block Copolymer**

Kuniaki Matsuda, Department of polymer chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Kyoto, Japan

**E17\_P31 Controlled arrangement of ferritin molecules on a self-assembled nano pattern of diblock copolymer**

Go Sakaguchi, Department of Polymer Chemistry, Kyoto University  
Graduate School of Engineering, Kyoto, Japan

**E17\_P32 Synthesis of Novel Polysulfone-Polydimethylsiloxane Block Copolymers**

Mehmet Arif KAYA, Yildiz Technical University, Istanbul, Turkey

**E17\_P33 Phase diagram of diblock copolymer melt obtained by dissipative particle dynamics simulation**

Elena Patyukova, M.V. Lomonosov Moscow State University, Physics department, Moscow, Russian Federation

**E17\_P34 Block copolymers from renewable macrolactones by combination of enzymatic polymerization and ATRP**

Zeliha Ates, School of Chemical Sciences, Dublin City University, Dublin, Ireland

**E17\_P35 Synthesis and characterization of amphiphilic elastomeric segmented polyurethanes based on polycaprolactone diol and poly(propylene glycol)-*block*-poly(ethylene glycol)-*block*-poly(propylene glycol)**

Jonathan Bergamaschi, State University of Campinas, Campinas, São Paulo, Brazil

**E17\_P36 Crystalline conformation of poly(ethylene/trimethylene terephthalate) copolyester**

Tien-Wei Shyr, Institute of Textile Engineering, Feng Chia University, Taichung, Taiwan

**E17\_P37 Theoretical Studies on Phase Behaviors of Diblock Copolymers in Selective Solvents**

Dadong Yan, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China

**E17\_P38 Single Chain Mean Field Technique for Simulation of Complex Molecular Systems**

Sergey Pogodin, Universitat Rovira i Virgili, Tarragona, Spain

**E17\_P39 Formation of Hierarchy Structure in Liquid Crystalline Block Copolymers**

Tomoo Shiomi, Nagaoka University of Technology, Nagaoka, Niigata, Japan

**E17\_P40 Poly(Ethylene Oxide) Crystal Orientation Change under 1D Nanoscale Confinement using Polystyrene-*block*- Poly(Ethylene Oxide) Copolymers: Confined Dimension and Reduced Tethering**

**Density Effects**

Ming-Siao Hsiao, The University of Akron, Akron, Ohio, United States

**E17\_P41 ABC triblock copolymer thin films doped with lithium salts**

Seung Hyun Kim, Inha University, Incheon, Korea, Republic of

**E17\_P42 Curing and postcuring of UDMA/BisGMA copolymers**

Nicoleta Sulca, University POLITEHNICA of Bucharest, Bucharest, Romania

**E17\_P43 Pattern formation of binary fluids and copolymers in quenching with variable temperature**

Giuseppe Gonnella, University of Bari - Department of Physics, Bari, Italy

**E17\_P44 Molecular Weight Distribution of Multiblock Polymers Prepared via RAFT Polymerization**

Bastian Ebeling, Georg-August-Universität Göttingen, Göttingen, Germany

**E17\_P46 Block Copolymer Synthesis in Supercritical Carbon Dioxide- A Route to Nanostructured Spherical Microparticles**

James Jennings, University of Nottingham, Nottingham, United Kingdom

**E17\_P47 Double or triple hydrophilic block copolymer based on uncharged, strong polyelectrolyte and stimuli-responsive sequences**

Céline Baguenard, Ingénierie des Matériaux Polymères, CNRS, UMR 5223, Villeurbanne, France

**E17\_P48 Epoxy Resin Modified with Polyetherimide-Siloxane Block Copolymers**

Wenjun Gan, Shanghai University of Engineering Science, Shanghai, China

Hall 5

**F19: Biodegradable and Sustainable Polymers****F19\_P01 A new method for the synthesis of photocurable oligochitosan**

Laleh Solhi, Iran polymer and Petrochemical institute, Tehran, Iran, Islamic Republic of

**F19\_P02 Rice bran filled with PLA bio-packaging: production and properties**

Rapeephun Dangtungee, Department of Industrial Chemistry, Faculty of



Applied Science, King Mongkut's University of Technology North  
Bangkok, Bangkok, Thailand

**F19\_P04 The study on photosensitizing effect of Galbanic acid and its ferric salt on polyethylene film**

homa asempour, Amirkabir University, Tehran, Iran, Islamic Republic of

**F19\_P06 Synthesis, Characterization and Photo-Polymerization of Vinyl Ether and Acrylate Functionalized-PCL**

Marc J.M. Abadie, School of Materials Science & Engineering, Nanyang Technological University, Singapore, Singapore

**F19\_P07 Mechanical properties and degradation of polylactic acid blended with cassava starch and natural rubber**

Varaporn Tanrattanakul, Prince of Songkla University, Hatyai, Songkla, Thailand

**F19\_P08 Novel Fucose-containing EPS: Production and Characterization**

Rodolfo Marques, Requimte/CQFB, Chemistry Department, FCT/Universidade Nova de Lisboa, Caparica, Portugal

**F19\_P09 Unexpected Mechanical Properties of Salt Modified Starch**

Andrew Ballantyne, University of Leicester, Leicester, United Kingdom

**F19\_P10 Electron beam cured resins and composites based on acrylated linseed oil**

Marco R. Rettig, Brandenburg University of Technology Cottbus, Chair of Polymeric Materials, Teltow, Germany

**F19\_P11 Particle Processing and Optimization**

Marie Warren, The University of Nottingham, Nottingham, United Kingdom

**F19\_P12 Novel Thermo-Responsive Micelles Based on Water-Soluble Amphiphilic Comb-like Graft Copolymer with Well-Defined Molecular Structure**

Gang Wu, Center for Degradable and Flame-Retardant Polymeric Materials, College of Chemistry, Sichuan University, Chengdu 610064, China

**F19\_P13 Preparation and Evaluation of Novel Interpenetrating Polymer Network-Based on Newspaper Pulp for Copper Ions Chelation**

Ahmed Haroun, National Research Centre, Chemical Industries Research Division, Cairo, Dokki, Egypt

**F19\_P14 Direct Polycondensation of Aromatic Hydroxy Acid Simulating Lignosulphonate Fragments**

Ana Marques, University of Aveiro, Aveiro, Portugal

**F19\_P15 Natural Wood Fibers Modification via Surface-Initiated MADIX/RAFT Polymerization: Grafting Amphiphilic Cationic Polystyrene Based Copolymers.**

DAMIEN TASTET, IPREM-Equipe de Physique et Chimie des Polymères, CNRS-University of Pau, PAU, France

**F19\_P16 LACTIC ACID BASED THERMOSET PLASTICS FROM CELLULOSIC WASTE**

Shweta soam, CHAUDHARY CHARAN SINGH UNIVERSITY, MEERUT, U.P, India

**F19\_P17 Some Studies on Organosolv Lignin - PVC Blends.**

Nesrine Farid Kassem, National Research Center, Guiza, Egypt

**F19\_P18 Biodegradation of photodegraded polyethylene films by bacteria. effect of calcium and iron stearates as pro-oxidants additives.**

Jesús Luis Pablos, Departamento de Fotoquímica, Instituto de Ciencia y Tecnología de Polímeros, CSIC, Madrid, Spain

**F19\_P19 Fluoropolymer dispersions: new environment-friendly products and technology**

Stefana Musio, Solvay Solexis S.p.A., P.le Donegani, 5/6 - 15047 Spinetta Marengo, (AL), Italy

**F19\_P20 Synthesis and ring-opening polymerisation of a new functional lactone,  $\alpha$ -iodo- $\epsilon$ -caprolactone: a novel route to functionalized aliphatic polyesters**

Vincent Darcos, IBMM, Artificial Biopolymers group, Montpellier, France

**F19\_P21 The influence of morphology on the biodegradability of PP/PHB blends**

Guilhermino J. M. Fechine, Presbyterian University Mackenzie, São Paulo/SP, Brazil

**F19\_P22 Catalytic Copolymerization of Propylene Oxide and Carbon Dioxide**

Doreen Alisch, Institute for Technical and Macromolecular Chemistry, University of Hamburg, Hamburg, Germany

**F19\_P23 Co-catalytic behaviour of titanium dioxides and carbonyl compounds in photo-oxidative degradation of polyethylene film**

Thara Manangan, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand

**F19\_P24 PHB and PLA coating on paper for food packaging**

Sarinya Shawaphun, Department of Industrial Chemistry, Faculty of Applied Science, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand

**F19\_P25 Synthesis of polyesters from anhydrides and oxiranes and their diol derivatives.**

Elham Hosseini Nejad, Technical University of Eindhoven, Eindhoven, Netherlands

**F19\_P26 Properties of All-Cellulose Composites Reinforced by cellulose nanofibrils Prepared with an Ionic Liquid**

Jun ZHANG, Institute of Chemistry, Chinese Academy of Sciences (CAS), Beijing, China

**F19\_P27 The study on photosensitizing effect of Galbanic acid and its ferric salt on polyethylene film Summary**

Homa Asempour, Department of Polymer Engineering, Amirkabir University of Technology, Tehran, Iran, Islamic Republic of

**F19\_P28 Characterization and Preparation of Kenaf bast pulp as renewable agricultural products by Electron beam irradiation**

Phil Hyun Kang, Korea Atomic Energy Research Institute Radiation Research Division for Industry and Environment, Daejeon, Korea, Republic of

**F19\_P29 Catalytic Modification of Cellulose in Ionic Liquids**

Anna Osichow, University of Konstanz, Konstanz, Germany

**F19\_P30 Aggregation numbers of chitosan clusters in dilute aqueous solutions**

Evgeniya Korchagina, M.V. Lomonosov Moscow State University, Physical Department, Moscow, Russian Federation

**F19\_P31 Vegetable oil-based biodegradable photo-crosslinked polymer networks**

Beom Soo Kim, Chungbuk National University, Cheongju, Korea, Republic of

**F19\_P32 Photochemical and thermal stability of naturally cross-linked collagen materials**

Alina Sionkowska, Nicolaus Copernicus University, Torun, Poland

**F19\_P33 Chitosan/Poly(L-lactic acid)/Polycaprolactone blend for control delivery of antibiotic drug**

Wasinee Boonkong, Program in Petrochemistry Faculty of Science Chulalongkorn University, Bangkok, Thailand

**F19\_P34 Microwave enhanced synthesis of graft co-polymers of binary vinyl monomer mixtures onto acetylated *saccharum spontaneum* L and characterization**

Balbir Singh Kaith, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India

**F19\_P35 Synthesis and characterization of corn starch based green composites reinforced with Saccharum spontaneum L graft copolymers prepared under micro-wave**

Balbir Singh Kaith, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India

**F19\_P36 Networks and copolymers of an unsaturated aliphatic polyester for use in biomedical applications**

Sofia Målberg, Department of Fiber and Polymer Technology, School of Chemical Science and Engineering, Royal Institute of Technology, SE-10044 Stockholm, Sweden

**F19\_P37 Polyurethanes and Polyanhydrides from Thiol-ene Functionalized Castor Oil Derivatives**

Marina Galià, Rovira i Virgili University, Tarragona, Spain

**F19\_P38 Structural, mechanical, thermal and degradability study of thermoset polymers synthesized from a renewable resource: Rubber Seed Oil**

Jonathan Bergamaschi, State University of Campinas, Campinas, São Paulo, Brazil

**F19\_P39 PLA-Synthetic Mica Nanocomposites: Preparation by Melt Blending**

Marcos Dias, Instituto de Macromoléculas Professora Eloisa Mano, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil

**F19\_P40 Green composites: effect of wood flour addition in the biodegradation behaviour of the polymeric matrix Ecobras<sup>®</sup>**

Marília Vieira, UFSCar, São Carlos - SP, Brazil

**F19\_P41 Active packaging of fresh fruits: casting *versus* extrusion**

Patrícia Ponce, Instituto de Pesquisas Energéticas e Nucleares - IPEN, São Paulo, São Paulo, Brazil

**F19\_P42 High Molecular Weight Aliphatic Polycarbonates by Melt Polycondensation of Aliphatic Diols with Dimethyl Carbonate: Synthesis and Characterization**

Chuncheng Li, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China

**F19\_P43 Synthesis of aliphatic polyester by radical polymerization of ketene acetals**

Jenny Undin, Fibre and polymer technology, Stockholm, Sweden

**F19\_P44 Polymorphic Crystallization of PLLA-PEG-PLLA Triblock Copolymer**

Wen-Bin Liao, National Taiwan University, Taipei, Taiwan

**F19\_P45 Amphiphilic, Biodegradable Graft-Copolymers**

Christian Hahn, RWTH Aachen University, Institute for Technical and Macromolecular Chemistry, Aachen, Germany

**F19\_P46 Preparation of polyesteramide nanofibers**

Jiri Brozek, Department of Polymers, Institute of Chemical Technology, Prague, Czech Republic

**F19\_P47 Towards more environmentally-friendly materials : incorporating PLA in common plastics.**

Cécile BOUTIN, Laboratoire MMC, Paris, France

**F19\_P48 Syntheses Polymers from sustainable sources by olefin metathesis**

Patrick Lamprecht, University of Hamburg, Hamburg, Germany

**F19\_P49 Processability and characterization of biodegradable polymers based on poly lactic acid**

Ana Isabel Ares, Group of Polymers. Universidad de A Coruña. E. U. P., Avda. 19 de Febrero s/n, 15405, Ferrol., Spain

**F19\_P50 Hydroxy telechelic polycarbonates for the synthesis of block copolymers**

Marion Helou, Sciences Chimiques de Rennes, Rennes, France

**F19\_P51 Synthesis and functionalization of stereoregular, architecturally diverse poly(lactide)s with thiol-ene click chemistry**

Robin Pflughaupt, University of Warwick, Coventry, United Kingdom

**F19\_P52 Crystallizable-crystallizable block copolymer containing poly(3-hydroxybutyrate-co-3-hydroxyvalerate) and poly( $\epsilon$ -caprolactone): synthesis, crystallization competition and thermal stability**

Gui-Fang Shan, Donghua University, Shanghai, China

**F19\_P53 Evaluation of Mechanical Properties and Morphological in Biocomposite PHB/V with Different Natural Fibers and Nanofillers.**

Marcio Kobayashi, PPG/CEM-UFSCar, São Carlos, São Paulo, Brazil

**F19\_P54 Benzoxazine Thermosets from Diphenolic Acid as Renewable Resource.**

Virginia Cádiz, Rovira i Virgili University, Tarragona, Spain

**F19\_P55 Polyethers from epoxidised vegetable oil**

Seng Soi Hoong, The University of Warwick, Coventry, United Kingdom

**F19\_P56 MECHANICAL PROPERTIES AND BIODEGRADABILITY OF MATER-BI®/WOOD FLOUR ECOCOMPOSITES**

Giada Lo Re, University of Palermo, Dipartimento di Ingegneria Chimica dei Processi e dei Materiali , Viale delle Scienze, ed. 6, Palermo, Italy

**F19\_P57 Clicking renewable resources: Fatty acid derived monomers and related polymers via thiol-ene additions**

Oguz Turunc, University of Applied Sciences Emden/Leer, Emden, Germany

**F19\_P58 Synthesis and Functionalisation of Allyl-functional Aliphatic Poly(Carbonate)s**

Sarah Tempelaar, University of Warwick, Coventry, United Kingdom

**F19\_P59 Synthesis of functional poly(ester)s derived from malic acid**

Mike Bennison, University of Warwick, Coventry, United Kingdom

**F19\_P60 Biodegradability of chitosan films coated paper packaging**

Arlete Reis, UFVJM - Universidade Federal dos Vales do Jequitinhonha e Mucuri; ICT – Science and Technology Institute, Diamantina, Minas Gerais, Brazil

**F19\_P61 In-situ measurement of dielectric properties for polycondensation of lactic acid**

Takashi Nakamura, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan

**F19\_P62 Renewable dendrimers through thiol-ene additions**

Lucas Montero de Espinosa, University of Potsdam, Potsdam, Brandenburg, Germany

**F19\_P63 Unsaturated PA X,20 from Renewable Resources via Metathesis and Catalytic Amidation**

Hatice Mutlu, Fachhochschule Emden-Leer, Emden, Germany

**F19\_P64 Ring Opening Metathesis Polymerization of Fatty Acid Derived Monomers**

Hatice Mutlu, Fachhochschule Emden-Leer, Emden, Germany

**F19\_P65 Long-Term Aging and Life-Prediction Studies of Fluoropolymer Materials used in Photovoltaic Modules.**

Prasad Shankarappa, Underwriter's Laboratories Inc., Northbrook, IL, United States

**F19\_P66 NNO-tridentate ketiminate zinc and magnesium complexes as active catalysts for ring-opening polymerization of L-lactide**

Hui-Ju Chuang, Department of Chemistry, National Chung-Hsing University, Taichung 402, Taiwan

**F19\_P67 Synthesis of Novel Biodegradable Polymers**

Lauren Cowie, Durham University, Durham, United Kingdom

**F19\_P68 Bismuth(III) Alkoxide Catalysts for Ring-Opening Polymerization of Lactides and  $\epsilon$ -Caprolactone**

Sirpa Vuorinen, Laboratory of Inorganic Chemistry, Department of Chemistry, University of Helsinki, Helsinki, Finland

**F19\_P69 Synthesis of polyester-based copolymers as biodegradable impact modifiers for polylactide.**

Emmanuel Duquesne, University of Mons, Mons, Belgium

**F19\_P70 Highly stereoselective polymerization of (D,L)-lactide by O,N,N,O-tetradentate aluminium alkoxide complexes**

Hsiao-Li Chen, Department of chemistry, National Chung Hsing University, Taichung 402, Taiwan

**F19\_P71 Highly stereoselective polymerization of (D,L)-lactide by O,N,N,O-tetradentate aluminium alkoxide complexes**

Hsiao-Li Chen, Department of Chemistry, National Chung Hsing University, Taichung 402, Taiwan

**F19\_P72 Functional Materials from Hemicelluloses-rich Biomass**

Yingzhi Zhu Ryberg, Royal Institute of Technology, Stockholm, Sweden

**F19\_P73 Redox polymerization of N-isopropylacrylamide initiated by hydroxylated soya oil polymer in the presence of Ce(IV) to obtain a graft copolymer.**

Timur SANAL, Yalova University, Yalova, Turkey

**F19\_P74 Copolymers with Orthogonally Reactive Side Chains: Combination of an Azido Monomer with a Novel Carbonate Monomer**

Nergiz Cengiz, Bogazici University, Istanbul, Turkey

**F19\_P75 BIO-BASED FUNCTIONAL POLYETHERS : APPLICATION TO POLYURETHANES AND EPOXY RESINS MATERIALS**

Anne-Laure BROCAS, LCPO, Bordeaux, France

**F19\_P76 Alginate Hydrogel Beads; A Biodegradable Slow Release Delivery System for Agrochemicals**

Louise Gallagher, NUIM, Maynooth, Ireland

**F19\_P77 Efficient transformations for the functionalization of aliphatic poly(ester)s**

Richard Todd, University of Warwick, Coventry, United Kingdom

**F19\_P78 Synthesis and Characterization of Some New Brush Type Amphiphilic Hybride Graft Copolymers.**

elif keleş, zonguldak karaelmas university, zonguldak, Turkey

**F19\_P79 Preparation of starch-based bioplastics and gelatin with different techniques**

Farayde M. Fakhouri, UNICAMP State University of Campinas, Campinas, São Paulo, Brazil

**F19\_P80 Flexible bioplastics composites based on lipophilic corn starch and gelatin plasticized with glycerol**

Lúcia H. Innocentini-Mei, UNICAMP State University of Campinas, Campinas, São Paulo, Brazil

**F19\_P81 Development of flexible bioplastic from cassava starch and glycerol using thermoplastic extrusion**

Lúcia H. Innocentini-Mei, UNICAMP State University of Campinas, Campinas, São Paulo, Brazil

**F19\_P82 Thermal analysis and mechanical properties of cassava starch edible films added of barbados cherry**

Farayde M. Fakhouri, UNICAMP, Campinas, SP, Brazil

**F19\_P83 Preparation and Characterization of Films Based on Cellulose Acetate Nanocomposites**

Francisco Rodríguez, Universidad de Santiago de Chile, Santiago, Chile

**F19\_P84 ISOLATION AND CHARACTERIZATION OF CELLULOSE WHISKERS FROM RICE HUSKS**

Sônia Marli B. Nachtigall, UFRGS, Porto Alegre, RS, Brazil

**F19\_P85 Chemical migration analysis of thermoformed virgin/post-consumer polyethylene terephthalate clamshell packaging into food simulants**

Greg Curtzwiler, California Polytechnic State University, San Luis Obispo, CA, United States

**F19\_P86 Preparation and characterization of PHB/cellulose whiskers bionanocomposites modified by PEG**

Patrícia Patricio, Unifei, Itabira, MG, Brazil

**F19\_P87 Antimicrobial ability of Acetate cellulose/MMT-Cu<sup>2+</sup> nanocomposite**

Julio Bruna, Universidad de Santiago, Santiago, Region Metropolitana, Chile

**F19\_P88 Ternary blends of chitosan/poly(vinyl alcohol)/ poly(lactic acid)**

Rafael Grande, Universidade Federal de São Carlos, São Carlos, Brazil

**F19\_P89 Biodegradable Polyesters Based on Isosorbide and Isomannide Obtained from Enzymatic Catalysis: Synthesis and Surface Properties**

Alliny Naves, Universidade de São Paulo, São Paulo, Brazil



**F19\_P90 Ageing of polylactide fibres in an Accelerated Weathering Chamber**

Lucila Araceli Montero, Textile Research Institute of Terrassa  
(Universitat Politècnica de Catalunya), Terrassa, Spain

**F19\_P91 Variation of properties of polylactide fibres during thermal fixation**

Diana Cayuela, Textile Research Institute of Terrassa, Universitat  
Politècnica de Catalunya, Terrassa, Spain

**F19\_P92 Synthesis, chemical and physical characterization of biodegradable flexible polyurethanes derived from saccharides to be applied as biomaterial in wound dressing.**

Susete Fernandes, Institute for Biotechnology and Bioengineering,  
Centre for Biological and Chemical Engineering, Instituto Superior  
Técnico, Technical University of Lisbon, Lisbon, Portugal

**F19\_P93 Thermoplastic starch modified by reactive extrusion using isocyanates and organic acids**

Antonio J. F. Carvalho, Universidade de São Paulo - EESC/SMM, São  
Carlos, Brazil

**F19\_P94 Structure and thermal characterization of biodegradable polymer/organomontmorillonite composites based on poly(butylene terephthalate) and poly(butylene succinate)**

Malgorzata Gazinska, Wroclaw University of Technology, Polymer  
Engineering and Technology Division, Wroclaw, Poland

**F19\_P95 *Combining chain-extension reaction and stereocomplexation to improve poly(lactide) properties***

Valérie Lison, Umons, Mons, Belgium

**F19\_P96 Bioproduction of poly(3-hydroxybutyrate) and its copolymers from waste edible oils**

Stanislav Obruca, Brno University of Technology, Brno, Czech Republic

**F19\_P97 Comparison of molecular properties and stability of collagen type I derived from chicken skin and other animal tissues**

Ivana Márová, Brno University of Technology, Brno, Czech Republic

Hall 5

**G24 Polymers for Sensors**

**G24\_P01 Aggregation-nonaggregation-aggregation transformation in a conjugated polymer system and the optimization for sensing**

**application**

Li-Juan Fan, Soochow University, Suzhou, China

**G24\_P03 Transport properties of nanoporous 1,2-Polybutadiene membranes for biosensor applications**

LI LI, Danish Polymer Center, Technical University of Denmark, Copenhagen, Denmark

**G24\_P04 Label free detection and estimation of biologically important cations and anions using new water-soluble fluorescent polymer**

Parameswar K. Iyer, Indian Institute of Technology, Guwahati, Assam, India

**G24\_P05 Adsorption Study of Metal Ions on Electrochemically Synthesized Poly-(ortho-phenylenediamine)**

Abdunnaser Etorki, Department of chemistry , University of Alfateh, Tripoli, Libyan Arab Jamahiriya

**G24\_P06 High sensitivity optical biosensing based on polycyanurate nanorods**

Antonis Gitsas, Austrian Institute of Technology, Vienna, Austria

**G24\_P07 *p*-PHENYLENEDIAMINE EPOXY RESIN FILM FOR REDOX ENZYME DETECTION**

Kenichi Kanno, Department of Biological and Environmental Chemistry, Kinki University, Fukuoka, Japan

**G24\_P08 Chemical sensing behavior of electrically conductive polymer blends**

Roza Tchoudakov, Technion, Haifa, Israel

**G24\_P09 Effect of polymer Particle Size in CdSe Polystyrene Nanocomposites Fluorescence Emission**

Elcin Coskun, Centro de Investigación en Materiales Avanzados, Chihuahua, Mexico

**G24\_P10 DNA-branched polyacrylamide brushes grown via SI-ATRP onto gold surfaces and their application in optical and electrochemical DNA sensing**

Olivier Henry, Universitat Rovira I Virgili, Tarragona, Spain

**G24\_P11 Preparation of Template-Assisted Conducting Polymer Nanowires and Their Applications for Sensor**

Sang Hyun LEE, Yeung nam, Gyeongsan, Korea, Republic of

**G24\_P12 Nano size patterning of biomolecules on a polymer surface via Dip-pen nanolithography**

HAECHUL BAE, yeung nam univ, kyeung san, Korea, Republic of

**G24\_P13 Synthesis of novel polymers for the production of polymeric optical fibers**

Evren Aslan Gürel, Empa - Swiss Federal Laboratories for Materials Testing and Research, St.Gallen, Switzerland

**G24\_P14 Ternary complex of three-dimensional polymer chains**

Elena Makhaeva, Moscow State University Physics Department, Moscow, Russian Federation

**G24\_P15 Synthesis of light-responsive spiropyran polymers**

Claudia Ventura, School of Chemical Sciences, Dublin City University, Dublin, Ireland

**G24\_P16 Thermal Induced Helical Structure Control Accompanying Formation of  $\pi$ -Stack Conjugation of Stereoregular Poly(phenylacetylene)s**

Yasuteru MAWATARI, Muroran Institute of Technology, Muroran, Hokkaido, Japan

**G24\_P17 A Novel Organic-inorganic Composite: Poly(3-ethynyl-N-2-ethylhexylcarbazole)/Delafossite  $\text{CuAlO}_2$  with an Extremely Long Life Time Constant of Photoelectric Conversion**

Yasuteru MAWATARI, Muroran Institute of Technology, Muroran, Hokkaido, Japan

**G24\_P18 Fluorescent nanogel thermometer for intracellular thermometry**

Seiichi Uchiyama, The University of Tokyo, Tokyo, Japan

**G24\_P19 Polymerization of phenylsilane catalyzed by titanium complexes**

Jan Merna, Institute of Chemical Technology, Prague, Department of Polymers, Prague, Czech Republic

**G24\_P20 A NEW ROUTE TO OBTAIN PANI-EAA FLEXIBLE FILMS**

Giada Lo Re, University of Palermo, Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Viale delle Scienze, ed. 6, Palermo, Italy

**G24\_P21 Fluorophore labelled smart polymers**

Saima Jabeen, University of Greenwich, Kent, United Kingdom

**G24\_P22 Helical Structure Control of Poly(pentyl propiolate)s Bearing a Branched Alkyl Chain Prepared with a Rh Complex Catalyst**

Asahi MOTOSIGE, Muroran Institute of Technology, Muroran, Hokkaido, Japan

**G24\_P23 Conformational Change of Poly(alkyl propiolate)s Bearing a Normal or Branched Alkyl Chain**

Yoshiaki Yoshida, Muroran Institute of Technology, Muroran, Hokkaido, Japan

**G24\_P24 Poly(phenylacetylene) metal complex: Helicity control in dynamic helical polymers**

Felix Freire, University of Santiago de Compostela, Santiago de Compostela, Spain

**G24\_P25 Electrochromic properties of spiropyran-terthiophene adaptative polymers**

Michele Zanoni, Dublin City University, Dublin, Italy

**G24\_P26 Functionalized conjugated organic molecules for metal ions detection.**

Jitapa Sumranjit, National Nanotechnology Center, Klongluang, Pathumthani, Thailand

Hall 5

**H26: Young Polymer Scientists**

**H26\_P01 Synthesis and characterization of novel poly(thiazole imide)s derived from 5,5'-methylenebis(2-aminothiazole) with some of dianhydride monomers**

Ali Javadi, Faculty of Chemistry, Tarbiat Moallem University, Mofatteh Ave. No.49, Tehran, Iran, Islamic Republic of

**H26\_P02 Synthesis and properties of thermally stable and organosoluble novel polyesters bearing sulfur linkages**

Ali Javadi, Young Researchers Club, Islamic Azad University, South Tehran Branch, Tehran, Iran, Islamic Republic of

**H26\_P03 Synthesis and characterization of novel organosoluble fluorinated polyamide-imides bearing ether and sulfur linkages**

Ali Javadi, Iranian Academic Center for Education, Culture and Research, Tarbiat Moallem Branch, Tehran, Iran, Islamic Republic of

**H26\_P04 Synthesis of polyethylenes with specified properties using (C<sub>5</sub>H<sub>5</sub>)<sub>4</sub>Zr based catalytic systems**

Igor Sedov, Institute of problems of chemical physics RAS, Chernogolovka, Moscow reg., Russian Federation

**H26\_P05 Designing and characterization of PVA nanoparticles for Controlled Release of Ciprofloxacin hydrochloride (Cfx). An In - Vitro Study.**

Rajesh Kumar Saini, Government Autonomous Science College,, Jabalpur, M.P., India

**H26\_P06 Tailored  $\alpha$ -azide- $\omega$ -alkyne monomers: versatile precursors to polymer materials ranging from high molar mass polytriazoles to molecularly defined cyclic oligomers**  
Eric Drockenmuller, Ingénierie des Matériaux Polymères, Lyon, France

**H26\_P07 NEW POLYMERIC SULFIDE-BORANE COMPLEXES AS CONVENIENT HYDROBORATING AND REDUCING AGENTS**  
Asim A. Balakit, Cardiff University, Cardiff, United Kingdom

**H26\_P09 Ionic liquid soluble side chain cyclic carbonate polymers for transparent, flexible and highly conductive ion gels**  
Satyasankar Jana, Institute of Chemical and Engineering Sciences, Singapore, Singapore

**H26\_P10 Charge Induced Phase Separation in Binary Charged Colloids.**  
Koki Yoshizawa, Nagoya City University, Nagoya, Japan

**H26\_P12 Vacuum Pyrolysis of Ground Tire Rubber (GTR), and Reclaimed Rubber (RR)**  
Abbas Kebritchi, Isfahan University of Technology, Isfahan, Iran, Islamic Republic of

**H26\_P13 Applications of Novel Organic Polymer Composites in Suzuki and Heck Cross-coupling Reactions**  
Mian Wang, Institute of chemical and engineering science, singapore, Singapore

**H26\_P15 IMPROVEMENT OF NATURAL RUBBER BY ULTRACENTRIFUGATION**  
Danillo Godinho Rodrigues, UFG - Universidade Federal de Goiás, Goiânia, Goiás, Brazil

**H26\_P16 Cyclic Esters Polymerization Reactions with Cyclam-Based Zr Catalysts**  
Luis Alves, Instituto Superior Técnico, Lisboa, Portugal

**H26\_P17 Synthesis and crystallization of rigid-flexible aromatic polyetherketones with controlled rigid segment lengths**  
Jean-Michel Benoit, Université Laval, Québec, Canada

**H26\_P18 Preparation, Characterisation and Diffusion Studies of Polypyrrole, poly(1,6-di(N-pyrrolyl)hexane) and poly(N-dodecylpyrrole)**  
Danesh Roudini, Kingston University, London, Kingston upon Thames, United Kingdom

**H26\_P19 Polycondensation of 12-hydroxydodecanoic acid in Brønsted Acidic Ionic Liquids**  
Shaodong Zhang, Université P. et M. Curie, Paris, France

**H26\_P20 IDENTIFICATION OF SUBSTANCES FORMED IN A MODEL OF POLYOLEFIN CONTAINING ANTIOXIDANTS EXPOSED TO CHLORINATED WATER MEDIA**

Wenbin Yu, Royal Institute of Technology, Stockholm, Sweden

**H26\_P21 Effect of natural rubber and epoxidized natural rubber on physical properties of poly(butylenes adipate-co-terephthalate)**

Nuda Pisutthian, Prince of Songkla University, Hatyai Songkla, Thailand

**H26\_P22 Oligomeric isosorbide esters as renewable resource plasticizers for PVC**

Bo Yin, Royal Institute of Technology (KTH), Stockholm, Sweden

**H26\_P23 Determination of the Macromolecular Dimensions of Hydrophobically Modified Polymers by Micellar Size Exclusion Chromatography Coupled With Multiangle Light Scattering**

Guillaume Dupuis, Institut Français du Pétrole, IFP, Rueil-Malmaison, France

**H26\_P24 Molecular Dynamics of Regioregular Poly(3-alkylthiophene) Investigated by NMR Relaxation and an Interpretation of Temperature Dependent Optical Absorption**

Koji Yazawa, Tokyo Institute of Technology, Yokohama, Japan

**H26\_P25 Electrochemical copolymerization of anisidine and o-aminophenol**

Bakhshali Massoumi, Payame Noor University, Tabriz, Azarbayjane sharghi, Iran, Islamic Republic of

**H26\_P26 New coarse-grained DNA model for analysis of mechanical properties**

Irina Kikot, Semenov Institute of Chemical Physics, RAS, Moscow, Russian Federation

**H26\_P28 Synthesis and Characterization of Polyacrolein and Its Oxime and Phenylhydrazone Derivatives**

Dilek Kars Mete, Abant Izzet Baysal University, Bolu, Turkey

**H26\_P29 The significant effect of polypropylene material on the migration of antioxidants from food container to food simulants**

Jonas Alin, Fibre- and polymer technology, Stockholm, Sweden

**H26\_P30 Preparation and characterization of organosoluble fluorinated polyamides bearing ether and sulfur linkages in ionic liquids**

Masoumeh Zakeri, Department of chemistry, School of sciences, Alzahra University, Tehran, Iran, Islamic Republic of

**H26\_P31 Novel Aromatic Polyoxadiazoles bearing 1,1'-thiobis(2-naphthoxy) groups**

Masoumeh Zakeri, Young Researchers Club, Islamic Azad University, North Tehran Branch, Tehran, Iran, Islamic Republic of

**H26\_P32 Ring-substituted polyphenylacetylenes: preparation, characterization, study of molecular weight and configurational stability.**

Olga Trhlikova, Charles University in Prague, Prague, Czech Republic

**H26\_P33 Study of molecular weight stability of MEH-PPV in solution**

Dmitrij Bondarev, Charles University in Prague, Prague, Czech Republic

**H26\_P34 Bio-mimetic characterisation of *Mimosa pudica* fiber using *in-situ* laser diffraction technique**

Rajaram Satapathy, Spintronic Technology and Advance Research, Bhubaneswar 752050, Orissa, India

**H26\_P35 Hydroxyalkyl methacrylate based gels as supports for chiral salenMn(III) and Co(III) complexes and their application in asymmetric olefin epoxidation and hydratation epoxides**

Katarzyna Matkiewicz, Faculty of Chemistry, Rzeszów University of Technology, Rzeszów, Poland

**H26\_P36 Conical deposits from drying poly(ethylene oxide) solutions**

Kyle Baldwin, Nottingham Trent University, Nottingham, United Kingdom

## THURSDAY 15 JULY 2010 - ORAL SESSIONS

Clyde Auditorium

### Plenary: Ludwik Leibler

#### **PLEN\_05 Supramolecular networks and nanocomposites: search of the missing link**

Ludwik Leibler, École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris, Paris, France

Room: Forth

### Parallel 1: A3 Colloids and Surfaces for Biomaterials Applications

Session Chair: Jonathan Aylott, University of Nottingham, UK

#### **09:45 INVITED A3\_O10 Nanostructured Polymer Capsules for Biomedical Applications**

Frank Caruso, Centre for Nanoscience and Nanotechnology,  
Department of Chemical and Biomolecular Engineering, The University of Melbourne, Melbourne, Victoria, Australia

#### **10:15 A3\_P07 DEVELOPMENT OF AN IMPLANTABLE CONTACT LENS AND RELATED ADHESIVE**

Timothy Hughes, CSIRO Molecular and Health Technologies,  
Melbourne, Victoria, Australia

#### **10:30 A3\_O12 Controlling cell-materials interactions using surface initiated polymerisation - a platform approach.**

Laurence Meagher, CSIRO Molecular and Health Technologies, Clayton South, VIC, Australia

#### **10:45 A3\_O13 Thermally-responsive surfaces comprising grafted poly(N-isopropylacrylamide) Chains: The preparation and reversible capture of dispersed polymer particles.**

Ruixue Liu, The University of Manchester, manchester, United Kingdom

Room: Gala 1 & 2

### Parallel 2: B5 Polymers in the Home, Personal Care and Agriculture

Session Chair: Ezat Khoshdel, Unilever, UK



09:45 KEYNOTE B5\_O01 **Future Direction for Polymers in Home and Personal Care Products**

Adam Limer, Unilever, Port Sunlight, United Kingdom

10:30 B5\_O02 **Influence of the Backbone Structure on the Release of Bioactive Volatiles from Maleic acid Based Polymer Conjugates**

Damien Berthier, Firmenich SA, Geneva, Switzerland

10:45 B5\_O03 **Fabrication of Titanium Dioxide Nanoparticle Armored UV-Protective Microcapsules**

Stefan Bon, University of Warwick, Coventry, United Kingdom

Room: Leven

**Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Daniel Read, University of Leeds, UK

09:45 INVITED B6\_O27 **Disentangled Linear Ultra High Molecular Weight Polyethylene; from fundamental to technological development**

Sanjay Rastogi, Loughborough University, Loughborough, United Kingdom

10:15 B6\_O28 **The Trapped Disentangled Melt State: Theoretical and Structural Analysis**

Tom McLeish, Durham University, Durham, United Kingdom

10:30 B6\_O29 **Macromolecular Topology and Branch Content of Polyolefins using Small-Angle Neutron Scattering**

Gregory Beaucage, University of Cincinnati, Cincinnati, Ohio, United States

10:45 B6\_O30 **The Effect of Analysis and Sample Preparation Temperatures on the Chromatography of Polyolefins by High Temperature GPC**

Greg Saunders, Varian, Inc., Church Stretton, Shropshire, United Kingdom

Room: Alsh 1

**Parallel 4: B7 Polymers in Adhesives**

Session Chair: Andrew Slark, Henkel, UK

09:45 KEYNOTE B7\_O01 **Curing of Polymers on Metals: Adhesion - Interphases - Properties - Ageing**  
Wulff Possart, Saarland University, Saarbruecken, Germany

10:45 B7\_O03 **Surface enrichment layers in pressure sensitive adhesive films**  
Peter Müller-Buschbaum, TU München, Physik Department LS E13, Garching, Germany

Room: Lomond

**Parallel 5: C11 Polymerisation Kinetics and New Concepts in Polymerisation**

09:45 INVITED C11\_O11 **Radical Spin Traps as Versatile Macromolecular Control Agents: Molecular Weight Control, Block Copolymers and Modular Design**  
Christopher Barner-Kowollik, Karlsruhe Institute of Technology, Karlsruhe, Germany

10:15 C11\_O12 **The Design and Synthesis of Anti-Fouling, Non-cytotoxic Magnetic Nanoparticles for Simultaneous Imaging and Efficacious siRNA Delivery**  
Tom Davis, UNSW, Sydney, NSW, Australia

10:30 C11\_O13 **GRIM Chain-Growth Polymerization for Conjugated Polymers**  
Yanhui Geng, State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China

10:45 C11\_O14 **Addition-fragmentation Chain Transfer in Chemical Networks**  
Christopher Kloxin, Department of Chemical and Biological Engineering, University of Colorado at Boulder, Boulder, CO, United States

Room: Carron 1 & 2

**Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals through to Applications**

Session Chair: Joao Cabral, Imperial College London, UK

09:45 INVITED D13\_O14 **Indirect reinforcement of nanocomposites**  
Michael Mackay, University of Delaware, Newark, DE, United States

- 10:15 D13\_O15 **Polymer Diffusion Exhibits a Minimum with Increasing Carbon Nanotube Concentration in Nanocomposites**  
Nigel Clarke, Durham University, Durham, United Kingdom
- 10:30 D13\_O16 **Self organized growth of magnetic cobalt nanoparticles on polymer template: Real time GISAXS study**  
Ezzeldin Metwalli, TU München, Physikdepartment E13, 85747, Garching, Germany
- 10:45 D13\_O17 **Fullerene association in model polymer matrices: bulk and thin film confinement**  
Him Cheng Wong, Imperial College London, London, United Kingdom

Room: Dochart 1 & 2

### **Parallel 7: E15 Mechanical Properties of Polymer Materials and Fibres**

Session Chair: Costantino Creton, ESPCI Paris-Tech, France

- 09:45 KEYNOTE E15\_O01 **DIRECT MEASUREMENT OF ENHANCED MOLECULAR MOBILITY DURING THE ACTIVE DEFORMATION OF POLYMER GLASSES.**  
Mark Ediger, University of Wisconsin-Madison, Madison, WI, United States
- 10:30 E15\_O02 **Nanomechanics of a single polystyrene nanoparticles in nanoblends.**  
Yahya Rharbi, Laboratoire de Rheologie UMR 5520, Grenoble, France
- 10:45 E15\_O03 **Direct imaging of nanoscale deformation processes in elastomeric polypropylene**  
Robert Magerle, Technische Universität Chemnitz, Chemnitz, Germany

Room: Boisdale 1

### **Parallel 8: E18 Rheology and Dynamics of Polymer Solutions and Gels**

Session Chair: Peter Williams, Glyndwr University, UK

- 09:45 KEYNOTE E18\_O01 **Thermogelation of PEO-PPO-PEO type copolymers in relation with molecular architecture and solution composition**  
Madeleine Djabourov, ESPCI-ParisTech, Paris, France
- 10:30 E18\_O02 **Hydrophobically Modified Water Soluble Polymers: How Solution Properties Correlate with Flow Behaviour in Porous**

### **Media?**

Guillaume Dupuis, Institut Français du Pétrole, IFP, Rueil-Malmaison, France

- 10:45 E18\_O03 **Slow mode in the dynamics of polymer solutions**  
Yaroslav Kudryavtsev, Topchiev Institute of Petrochemical Synthesis  
RAS, Moscow, Russian Federation

Room: Boisdale 2

### **Parallel 9: F20 Polysaccharides: Chemistry, Structure, Properties and Technology**

Session Chair: Wim Thielemans, University of Nottingham, UK

- 09:45 KEYNOTE F20\_O06 **Engineering Cell-Material Interactions with Polysaccharide-Derivatized Materials**  
Kristi Kiick, University of Delaware, Newark, DE, United States

- 10:30 F20\_O07 **Chitosan and its derivatives: from physicochemical properties to biomedical applications**  
Vitaliy Khutoryanskiy, University of Reading, Reading, United Kingdom

- 10:45 F20\_O08 **pH-sensitive EC-g-PDEAEMA micelles and drug release from micelles**  
Yong Huang, Technical Institute of Physics & Chemistry, Chinese Academy of Sciences, Beijing, China

Room: Morar & Ness

### **Parallel 10: G21 Polymer Electronics**

Session Chair: Steve Yeates, University of Manchester, UK

- 09:45 INVITED G21\_O39 **Exploiting Dual Fluorescence in Fluorene Copolymers for PLED Applications Including White Light Emission**  
Martin R Bryce, Durham University, Durham, United Kingdom

- 10:15 G21\_O40 **Phosphorescent Dendrimers for Solution Processible PLED**  
Lixiang Wang, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, Jilin Province, China

- 10:30 G21\_O41 **Fluorescent Conjugated Polymer Nanoparticles**  
Moritz Baier, University of Konstanz, Konstanz, Germany

10:45 G21\_O42 **Reactive Polypyrroles: Synthesis, Conductivity, and there Use as Reactive Modifier in Blends**

Jürgen Pionteck, Leibniz Institute of Polymer Research Dresden,  
Dresden, Germany

Room: Alsh 2

**Parallel 11: G24 Polymers for Sensors**

Session Chair: Shane Peper, Pacific Northwest National Laboratory, USA

09:45 INVITED G24\_O10 **Chemomechanical Polymers as Sensors**

Hans-Jörg Schneider, FR Organische Chemie der Universität des  
Saarlandes, Saarbruecken, Germany

10:15 G24\_O11 **Functional polyurethaneimide copolymers with  
evolutive structure for SO<sub>2</sub> gas microsensors**

Anne Jonquieres, University of Nancy, Nancy, France

10:30 G24\_O12 **Spectroelectrochemical Detection of Pertechnetate  
using Technetium Complex Excited States within Polymer Films**

Samuel Bryan, Pacific Northwest National Laboratory, Richland,  
Washington, United States

10:45 G24\_O13 **Poly(triarylamine) (PTAA) Thick Films for Real-time  
Direct X-ray Detection**

Akarin Intaniwet, Department of Physics, University of Surrey, Guildford,  
Surrey, United Kingdom

Room: Forth

**Parallel 1: A4 Polymers in Therapeutics: Polymer Nanomedicines**

11:30 A4\_O15 **Complex polymer architectures with pending ligands  
prepared via click chemistry or isocyanate chemistry for the  
delivery of platinum anti-cancer drugs**

Martina Stenzel, University of New South Wales, Sydney, Australia

11:45 A4\_O16 **Use of SANS and EPR to study the interaction of an  
endosomolytic polyamidoamine ISA23 with vesicles mimicking  
intracellular membranes**

Peter Griffiths, Cardiff University, Cardiff, United Kingdom

12:00 A4\_O17 **Template-Polymerised, Bio-Reducible, Branched  
Polyamine Vectors for siRNA Delivery**

James Serginson, Imperial College London, London, United Kingdom

12:15 A4\_O18 **Amphiphiles containing rigid hydrogen-bonding moieties: Syntheses, characterization, evaluation of self-assembly behaviors and drug delivery applications**

Shrinivas Venkataraman, Institute of Bioengineering and Nanotechnology, Singapore, Singapore

12:30 A4\_O19 **Development of highly branched modified poly(N-isopropyl acrylamide) polymers responsive to bacteria and their use in the reduction of bacterial burden of infected wounds.**

Joanna Shepherd, University of Sheffield, Sheffield, United Kingdom

12:45 A4\_O20 **Physicochemical Characterisation of Novel DES-Polyacetal Block Copolymers for the Treatment of Hormone-Dependent Cancer.**

Vanessa Giménez-Navarro, Centro de Investigación Príncipe Felipe, Valencia, Spain

Room: Gala 1 & 2

## **Parallel 2: B5 Polymers in the Home, Personal Care and Agriculture**

Session Chair: Sebastian Kolzenburg, BASF, Germany

11:30 INVITED B5\_O04 **Recent Developments in Silicone Technology for Life Science Applications**

Michael Starch, Dow Corning Corporation, Midland, Michigan, United States

12:00 B5\_O05 **Structure Property Relationships: The Key to Successful Development of Polymers for Hair-care**

David Graham, BASF-SE, Ludwigshafen, Germany

12:15 B5\_O06 **Polymer surfactant Interaction: pseudo-phase equilibria in coacervate formation**

Robert Lochhead, The University of Southern Mississippi, Hattiesburg, MS, United States

12:30 B5\_O07 **Copolymerization of vinyl lactams for application in personal care formulations**

Linda Foltis, International Specialty Products, Wayne, NJ, United States

12:45 B5\_O08 **Mechanical strength and release properties of silica microcapsules produced via a surfactant-free emulsion synthesis**

Rachael Allen, University of Birmingham, Birmingham, West Midlands, United Kingdom

Room: Leven

**Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Dujin Wang, Institute of Chemistry, Chinese Academy of Sciences, China

11:30 INVITED      B6\_O31 **All polyethylene nanocomposites prepared with nanostructured supported single and multiple single-site catalysts**

Rolf Mülhaupt, Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Albert-Ludwigs University, Stefan-Meier-Strasse 31, D-79104 Freiburg, Germany

12:00 B6\_O32 **Tuneable and Self-Reinforced Polyethylene/MCM-41 Nanocomposites by In Situ Polymerisation: From Synthesis to Structure Characterisation and Properties**

Maria do Rosario Ribeiro, Instituto de Ciência e Engenharia de Materiais e Superfícies (ICEMS) & Departamento de Engenharia Química e Biológica, Instituto Superior Técnico (IST), Lisboa, Portugal

12:15 B6\_O33 **Unusual Methods for Morphology Control in Polyolefin Synthesis**

Markus Klapper, Max-Planck-Institute for Polymer Research, Mainz, Germany

12:30 B6\_O34 **Effect of matrix topology and carbon nanotube content on the melt flow instabilities of polyethylene nanocomposites**

Humberto Palza, Departamento de Ingenieria Quimica y Biotecnologia, Facultad de Ciencias Fisicas y Matematicas, Universidad de Chile, Santiago, Chile

Room: Alsh 1

**Parallel 4: B7 Polymers in Adhesives**

Session Chair: Andrew Slark, Henkel, UK

11:30 INVITED      B7\_O04 **Probing the Chemistry of Polymer/Metal and Polymer/Polymer Interfaces**

John Watts, University of Surrey, Guildford, United Kingdom

12:00 B7\_O05 **Synergistic Effects between Clay and a Soft Polymer in a Supracolloidal Structure Leading to Increased Tack Energy in Pressure-Sensitive Adhesives**

Joseph Keddie, University of Surrey, Guildford, Surrey, United Kingdom

12:15 B7\_O06 **Radiation Curable Pressure Sensitive Adhesives**

Peter Palasz, Henkel UK, Slough/Berks, United Kingdom

12:30 B7\_O07 **Synthesis of novel hydrolysis stable adhesive monomers and their dental application**

Joachim E. Klee, DENTSPLY, Konstanz, Germany

12:45 B7\_O08 **Experimental characterization of marine glues: a prerequisite for the development of bio-inspired adhesives**

Elise Hennebert, University of Mons, Mons, Belgium

Room: Lomond

**Parallel 5: C11 Polymerisation Kinetics and New Concepts in Polymerisation**

11:30 INVITED C11\_O15 **Compartmentalization in Heterogeneous Living/Controlled Radical Polymerizations**

Michael Cunningham, Queen's University, Kingston, Ontario, Canada

12:00 C11\_O16 **Chain-Length-Dependent Termination in Radical Polymerization: Subtle Revolution in Tackling a Long-Standing Challenge**

Gregory Russell, University of Canterbury, Christchurch, New Zealand

12:15 C11\_O17 **A Novel Approach for Investigation of Chain Transfer Events by Pulsed Laser Polymerization.**

Anatoly N Nikitin, Institute on Laser and Information Technologies, Shatura, Moscow Region, Russian Federation

12:30 C11\_O18 **New insights into the influence of monomer structure and reaction medium on polymerization kinetics derived from studies into fluorinated and PEGylated methacrylates**

Sabine Beuermann, University of Potsdam, Potsdam, Germany

12:45 C11\_O19 **Propagation kinetics of ionized monomers in aqueous solutions studied by PLP-SEC**

Igor Lacik, Polymer Institute of the Slovak Academy of Sciences, Bratislava, Slovakia

Room: Carron 1 & 2

**Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals through to Design**



Session Chair: Nigel Clarke, Durham University, UK

**11:30 D13\_O18 Dynamics of polymer grafted nano-silica particles by neutron scattering**

Valeria Arrighi, Heriot-Watt University, Edinburgh, United Kingdom

**11:45 D13\_O19 The free volume holes diffusion model as an explanation for the accelerated physical aging in polymer nanocomposites**

Virginie M. Boucher, Donostia International Physics Center, San Sebastian, Spain

**12:00 D13\_O20 Polymer dynamics in nanocomposite-confinement: influence of the filler content on the cooperative characteristic length.**

Allisson Saiter, Institute for Materials Research - Laboratoire LECAP, Saint Etienne du Rouvray, France

**12:15 D13\_O21 Atomistic molecular dynamics simulations of polybutadiene at graphite: Slowing down of correlations decay in confinement vs. bulk system**

Leonid Yelash, Institute of Physics, Johannes-Gutenberg-University Mainz, 55099 Mainz, Germany

**12:30 D13\_O22 Abrupt Change in Surface Wetting and Hierarchical Pore Formation in PVDF/Graphite Nano-sheet Composite Films**

Xiao Hu, Nanyang Technological University, Singapore, Singapore

**12:45 D13\_O23 THERMODYNAMICS AND KINETICS GOVERNING THE DISTRIBUTION OF SOLID NANOPARTICLES IN IMMISCIBLE POLYMER BLENDS**

Françoise Fenouillot, Université de Lyon, INSA-Lyon, UMR CNRS 5223, Villeurbanne, France

Room: Dochart 1 & 2

**Parallel 7: E15 Mechanical Properties of Polymer Materials and Fibres**

Session Chair: Mark Ediger, University of Wisconsin-Madison, USA

**11:30 INVITED E15\_O04 Play with the Tough Double Network Hydrogels**

Jian Ping Gong, Hokkaido University, Sapporo, Japan

**12:00 E15\_O05 Self-healing of supramolecular rubbers**

Florine Maes, MINES ParisTech, MAT- Centre des matériaux, Evry, France

12:15 E15\_O06 **Novel routes for 3D nanopatterning using soft matter: wave frontal growth and multi-axial surface instabilities.**

Joao Cabral, Department of Chemical Engineering, Imperial College London, London, United Kingdom

12:30 E15\_O07 **Electrospun Polycation Fibers with Stable Morphology and Antibacterial Activity**

Zhi-Kang Xu, Key Laboratory of Macromolecular Synthesis and Functionalization (Ministry of Education), Department of Polymer Science and Engineering, Hangzhou 310027, China

12:45 E15\_O08 **Peculiar mechanical properties and microstructure of polyamide-chlorobutyl rubber blends by dynamic vulcanization**

Daniel Ramrus, Polymer Engineering Company, Burnaby, BC, Canada

Room: Boisdale 1

## **Parallel 8: E18 Rheology and Dynamics of Polymer Solutions and Gels**

Session Chair: Peter Williams, Glyndwr University, UK

11:30 INVITED E18\_O04 **Synthesis and Rheological Characterization of Hydrogels**

Werner-Michael Kulicke, University of Hamburg, Hamburg, Germany

12:00 E18\_O05 **Extreme Rheometry of Entangled and Network Forming Polymers-An Optical Microrheology and LAOS Study**

Samiul Amin, Malvern Instruments Limited, Malvern, Worcestershire, United Kingdom

12:15 E18\_O06 **Multi-scale simulations for entangled polymers utilizing primitive chain network simulations**

Yuichi Masubuchi, Kyoto University, Kyoto, Japan

12:30 E18\_O07 **Reversible Planar Elongation of Soft Polymeric Networks**

Anne Ladegaard Skov, DTU Chemical Engineering, Kgs Lyngby, Denmark

12:45 E18\_O08 **Cross-Linked DNA Gels: Disruption and Release Properties**

Diana Costa, Department of Chemistry, Coimbra University, Coimbra, Portugal

Room: Boisdale 2

## **Parallel 9: F20 Polysaccharides: Chemistry, Structure, Properties and Technology**

Session Chair: Wim Thielemans, University of Nottingham, UK

11:30 INVITED F20\_O09 **Bio-inspired stimuli-responsive polymer nanocomposites**

Stuart Rowan, Case Western Reserve University, Cleveland, Ohio, United States

12:00 F20\_O10 **Solvent-free modification of cellulose microfibrils and nanocrystals for nanocomposite materials**

Laurent Heux, CERMAV-CNRS, Grenoble, France

12:15 F20\_O11 **Hydrogels and aerogels through self-assembly of cellulose nanoparticles**

Wim Thielemans, University of Nottingham, Nottingham, United Kingdom

12:30 F20\_O12 **Novel thermosensitive biohybrid hydrogels based on functionalized galactomannan: Synthesis and Characterization in aqueous medium.**

Aurelia Charlot, Ingénierie des Matériaux Polymères, Villeurbanne, France

12:45 F20\_O13 **Direct versus Indirect routes for the ATRP synthesis of amphiphilic poly(methyl methacrylate)-grafted Dextran (Dex-g-PMMA): advantages and drawbacks for macromolecular engineering.**

Cécile Nouvel, Laboratoire de Chimie Physique Macromoléculaire, UMR 7568 CNRS-Nancy-University, Nancy, France

Room: Morar & Ness

## **Parallel 10: G22 Molecularly Imprinted Polymers**

11:30 KEYNOTE G22\_O01 **Plastic Antibodies Recent Advances in Synthetic Receptors for Biological Macromolecules**

Kenneth Shea, University of California, Irvine, CA, United States

12:15 G22\_O02 **The use of electrostatic interactions for protein imprinting in hydrogels: hit or miss?**

Cornelus van Nostrum, Utrecht University, Utrecht, Netherlands

12:30 G22\_O03 **Imprinted catalytic nanomaterial for the determination of trichlorophenol**

María Carmen Blanco López, Universidad de Oviedo, Oviedo, Spain

12:45 G22\_O04 **Insight into molecular imprinting in precipitation polymerization systems using solution NMR and dynamic light scattering**

Lei Ye, Lund University, Lund, Sweden

Room: Alsh 2

### **Parallel 11: G25 Polymers in Liquid Crystalline Materials**

Session Chair: Ingo Dierking, University of Manchester, UK

11:30 KEYNOTE G25\_O01 **The new mechanics of polymers distorted by liquid crystals**

Mark Warner, University of Cambridge, Cambridge, United Kingdom

12:15 G25\_O02 **Stable Holographic Gratings Based on Small-Molecular, Liquid-Crystalline Trisazobenzene Derivatives**

Pascal Wolfer, ETH Zurich, Zurich, Switzerland

12:30 G25\_P08 **Molecular Dynamics and Biaxiality of Nematic Liquid Crystalline Polymers and Elastomers**

Felicitas Brömmel, Institut für Makromolekulare Chemie, Albert-Ludwigs Universität Freiburg i. Br., Freiburg i. Br., Germany

12:45 G25\_O04 **Photomechanical outputs of glassy azobenzene liquid crystal polymer networks**

Timothy White, Airforce Research Laboratory, Ohio, United States

Room: Forth

### **Parallel 1: A4 Polymers in Therapeutics: Polymer Nanomedicines**

14:30 KEYNOTE A4\_O21 **Smart micelles and vesicles from PEG-polypeptide block copolymers as nanocarriers for gene and drug delivery**

Kazunori Kataoka, The University of Tokyo, Tokyo, Japan

15:15 A4\_O22 **Advanced Poly(alkyl cyanoacrylate) Nanoparticles As Promising Therapeutic Agents for Alzheimer's Disease And Intracellular Trafficking**

Julien Nicolas, Laboratoire de Physico-Chimie, Pharmacotechnie et Biopharmacie, UMR CNRS 8612, Univ. Paris-Sud 11, Châtenay-Malabry, France

15:30 A4\_O23 **Hyperbranched Polymers in Theranostics.**

Kristofer J Thurecht, The University of Queensland, St Lucia, QLD, Australia

15:45 A4\_O24 **Development of Implantable Polymer Rods for Minimum Invasive Cancer Chemotherapy**

Norased Nasongkla, Department of Biomedical Engineering, Faculty of Engineering, Mahidol University, Nakorn Pathom, Thailand

Room: Gala 1 & 2

## **Parallel 2: B5 Polymers in the Home, Personal Care and Agriculture**

Session Chair: Ian Shirley, Syngenta, UK

14:30 INVITED B5\_O09 **Agrochemical Applications - Multiple uses and unique advantages through polymers**

Matthias Bratz, BASF SE, Crop Protection, 67117 Limburgerhof, Germany

15:00 B5\_O10 **Reactive Poly(ethylene glycol) containing Polymers for Covalent Conjugation to Biological Surfaces**

Stacy Slavin, University of Warwick, Coventry, United Kingdom

15:15 B5\_O11 **Particle encapsulation by ATRP initiated from surface adsorbed polymers**

Alex Heming, Syngenta, Jealott's Hill, United Kingdom

15:30 B5\_O12 **Polymers on snow: Towards skiing faster**

Jan L. Giesbrecht, ETH Zurich, Zurich, Switzerland

15:45 B5\_O13 **HYBRID ORGANOFLUOROSILICONE MATERIALS FOR OPTICAL APPLICATIONS**

Lech Wilczek, DuPont, CR&D, Wilmington, DE, United States

Room: Leven

## **Parallel 3: B6 Advances in Polyolefins: from Catalyst Design to Smart Molecular Processing**

Session Chair: Tom McLeish, Durham University, UK

14:30 B6\_O36 **Boundary conditions for the onset of oriented morphology in flow-induced crystallization of polyolefins: visual observations.**

Oleksandr Mykhaylyk, University of Sheffield, Sheffield, United Kingdom

- 14:45 B6\_O37 **Detailed Analysis for Shish-kebab Structure during Drawing Process of Polyethylene**  
Go Matsuba, Yamagata University, Yonezawa, Yamagata, Japan
- 15:00 B6\_O38 **Novel morphology of "nano-oriented crystals (NOC)" of iPP by elongational crystallization and its ultra high performances**  
Masamichi HIKOSAKA, Hiroshima University, Japan Science and Technology agency (JST), Higashi-Hiroshima, Japan
- 15:15 B6\_O39 **X-ray evidence and formation mechanism of "nano-oriented crystals" of iPP on elongational crystallization**  
Kiyoka Okada, Hiroshima University, Higashi-hiroshima, Japan
- 15:30 B6\_O40 **Monte Carlo Simulation of Morphological Development during Polymer Crystallization in a Temperature Gradient: A Case Study of Syndiotactic Polypropylene**  
Siripon Anantawaraskul, Department of Chemical Engineering, Kasetsart University, Bangkok, Thailand
- 15:45 B6\_O41 **On the Behaviour of Trigonal Polymorph in Random Co- and Terpolymers of Isotactic Polypropylene under Tensile and Pressure Deformation**  
Paola Stagnaro, Istituto per lo Studio delle Macromolecole ISMAC-CNR UOS Genova, Genova, Italy

Room: Alsh 1

#### **Parallel 4: B7 Polymers in Adhesives**

Session Chair: Andrew Slark, Henkel, UK

- 14:30 INVITED B7\_O09 **Biointerfacial Aspects of Mussel Adhesive Proteins and their Biomimetic Analogs**  
Phillip Messersmith, Northwestern University, Evanston, United States
- 15:00 B7\_O10 **Bioinspired reversible adhesives for dry and wet conditions**  
Aránzazu del Campo, MAx-Planck-Institut für Polymerforschung, Mainz, Germany
- 15:15 B7\_O11 **Development of anti-biofouling materials for marine applications**  
Nick Aldred, Newcastle University, Newcastle upon Tyne, United Kingdom

15:30 B7\_O12 **Synthetic Polymers of Mussel derived Peptides**

Klaus Rischka, Fraunhofer-Institute for Manufacturing Technology and Applied Materials Research, Bremen, Germany

15:45 B7\_O13 **Bio-inspired Design of Hierarchically Structured Polymer Adhesives**

Edward Peter Arul, Indian Institute of Technology Kanpur, Kanpur, Uttar pradesh, India

Room: Lomond

**Parallel 5: C11 Polymerisation Kinetics and New Concepts in Polymerisation**

14:30 C11\_O20 **Investigation into the Mechanism of Microwave Induced Rate Enhancements in Chain Growth Polymerisation**

Derek Irvine, University of Nottingham, Nottingham, United Kingdom

14:45 C11\_O21 **Single laser pulse initiation combined with time-resolved EPR spectroscopy for detailed investigations into radical polymerization**

Johannes Barth, Georg August Universität Göttingen, Göttingen, Niedersachsen, Germany

15:00 C11\_O22 **Kinetics and Dynamics of Initiation Processes in Radical Polymerizations of (Meth)acrylates using Time-Resolved Electron Spin Resonance Spectroscopy**

Atsushi Kajiwara, Nara University of Education, Nara, Japan

15:15 C11\_O23 **Recent Achievements in Radical Polymerization of Vinyl Monomers Initiated with Ionic Liquids**

Shuichi Kanno, Tohoku Seikatsu Bunka Junior College, Sendai, Miyagi, Japan

15:30 C11\_O24 **Preparation of functional hairy particles using amphiphilic block copolymers in emulsion polymerization**

Alexandra Munoz Bonilla, Eindhoven University of Technology, Eindhoven, Netherlands

Room: Carron 1 & 2

**Parallel 6: D13 Colloidal and Nanoscale Polymer Composites: Fundamentals though to Applications**

Session Chair: Anthony Ryan, University of Sheffield, UK

- 14:30 INVITED      **D13\_O24 Single Component Polymer Nanocomposites: Assemblies of Polymer-Nanoparticle Hybrids**  
Richard Vaia, Air Force Research Laboratory, WPAFB, OH, United States
- 15:00 **D13\_O25 Enhanced light absorption and plamonic interactions in composites of silver nanoparticles and ferroelectric polymers**  
Tonino Greco, Fraunhofer Institute for Applied Polymer Research, Potsdam, Germany
- 15:15 **D13\_P03 Cellulose-based Thermal Sensitive Microgels with stable and reversible photoluminescence**  
Hongjing Dou, Shanghai Jiao Tong University, Shanghai, China
- 15:30 **D13\_O27 Preparation of high performance conductive polymer fibre through morphological control of networks formed by nanofillers**  
Ton Peijs, Sichuan University, Chengdu, China
- 15:45 **D13\_O28 Magnetic Liquid Crystal Polymers**  
Lacramioara Zadoina, Laboratoire des Interactions Moléculaires et Réactivité Chimique et Photochimique, Université de Toulouse; UPS/CNRS;, Toulouse, France

Room: Dochart 1 & 2

## **Parallel 7: E15 Mechanical Properties of Polymer Materials and Fibres**

Session Chair: Joao Cabral, Imperial College London, UK

- 14:30 INVITED      **E15\_O09 Evidence for Magnetomechanical Coupling in Particle-Crosslinked Ferrohydrogels**  
Annette Schmidt, Institute für Physikalische Chemie, Universität zu Köln, Köln, Germany
- 15:00 **E15\_O10 Mechanical deformation of electroconductive composites**  
Ivan Chodak, Polymer Institute of the Slovak Acad Sci, Bratislava, Slovakia
- 15:15 **E15\_O11 Aromatic heterocyclic polymer(AHC)/PMMA blends: precursors of porous conductive carbon films**  
Ming Liu, Nanyang Technological University, Singapore, Singapore
- 15:30 **E15\_O12 Polymer nanocomposite ionogels: how to combine mechanical strength, thermal stability and high ion conduction in electrolyte membranes.**



Florence Gayet, Department of Chemistry, University of Warwick,  
Coventry, CV4 7AL, United Kingdom

15:45 E15\_O13 **Photo-responsive ionogels as functional materials in microfluidic systems**

Robert Byrne, Clarity: Centre for Sensor Web Technologies, National  
Centre for Sensor Research, Dublin City University, Dublin, Ireland

Room: Boisdale 1

**Parallel 8: E18 Rheology and Dynamics of Polymer Solutions and Gels**

Session Chair: Katsuyoshi Nishinari, Osaka University, Japan

14:30 INVITED E18\_O09 **Physically cross-linked hydrogels from native and carboxymethylated curdlan**

Hongbin Zhang, Shanghai Jiao Tong University, Shanghai, China

15:00 E18\_O10 **Tunable interactions between a polymer brush and a hydrogel**

Guillaume SUDRE, PPMD - ESPCI, Paris, France

15:15 E18\_O11 **Influence of Water and Supercritical Carbon Dioxide on the Rheological Behaviour of Polycondensate Melts.**

Vincent GIRARD, ENSIC-GEMICO, Nancy, France

15:30 E18\_O12 **Small-angle neutron scattering studies of electrospun fibres of polystyrene**

Saaed Mohan, The University of Reading, Reading, United Kingdom

15:45 E18\_O13 **Phase Competition in Melt Crystallization of Syndiotactic Polystyrene as Illustrated via in Situ Small- and Wide-angle X-ray Scattering**

Chiu-Hun Su, National Synchrotron Radiation Research Center,  
Hsinchu, Taiwan

Room: Boisdale 2

**Parallel 9: F20 Polysaccharides: Chemistry, Structure, Properties and Technology**

Session Chair: Laurent Heux, CERMAV-CNRS, France

14:30 INVITED F20\_O14 **Elucidation of Structure-Property-Function Relationships of Starch by Comprehensive Size-Exclusion**

### **Chromatography (SEC)**

Peter Kilz, PSS Polymer Standards Service GmbH, Mainz, Germany

**15:00 F20\_O15 Size and molecular weight distributions of starch: mathematical limitations on evolution**

Robert Gilbert, University of Queensland, Brisbane, Qld, Australia

**15:15 F20\_O16 New chitosan based catalysts for azide-alkyne Huisgen's [1,3-dipolar] cycloaddition reaction**

Francoise Quignard, Institut Charles Gerhard - Matériaux Avancés pour la Catalyse et la Santé, Montpellier, France

**15:30 F20\_O17 AMPHIPHILIC COPOLYMERS FROM POLYSACCHARIDES AND (METH)ACRYLACRYLATES BY "CLICK" REACTION PROMOTED COUPLING**

Monica Bertoldo, PolyLab-INFM-CNR, Pisa, Italy

**15:45 F20\_O18 Controlled release of antitumor drug from folate modified biocompatible polysaccharide multilayer nanocapsules based on chitosan (CS) and carboxymethyl cellulose(CMC)**

Wang Huiqing, Beijing Institute of Technology, Beijing, China

Room: Morar & Ness

### **Parallel 10: G22 Molecularly Imprinted Polymers**

**14:30 INVITED G22\_O05 Application of Molecular Imprinting to Analytical Separations of Drug Compounds**

Lars I. Andersson, AstraZeneca R&D Södertälje, Department of Neuroscience, S-151 85 Södertälje, Sweden

**15:00 G22\_O06 Computer simulation of adsorption and molecular recognition phenomena in imprinted porous materials**

Lev Sarkisov, University of Edinburgh, Edinburgh, United Kingdom

**15:15 G22\_O07 MIP based biomimetic sensor platforms for the detection of small molecules in aqueous media**

Frederik Horemans, Hasselt University, Institute for Materials Research (IMO), Diepenbeek, Belgium

**15:30 G22\_O08 Highly Selective Bisphenol A-Imprinted Polymers Prepared by Atom Transfer Radical Polymerization**

Toshifumi Takeuchi, Graduate School of Engineering, Kobe University, Kobe, Japan

**15:45 G22\_O09 Dendritic multi-iniferters for localised polymerisation of nanostructured molecularly imprinted polymers**

Karsten Haupt, Compiègne University of Technology, Compiègne,  
France

Room: Alsh 2

**Parallel 11: G25 Polymers in Liquid Crystalline Materials**

Session Chair: Ingo Dierking, University of Manchester, UK

14:30 INVITED      G25\_O05 **Liquid-crystalline dendrimers: Combining molecular complexity and order**  
Daniel GUILLON, IPCMS, Strasbourg, France

15:00 INVITED      G25\_O06 **Photopolymerization of liquid crystal networks as a tool for micro- and nano-structuring of functional polymer materials**  
Dirk J. Broer, Eindhoven University of Technology, Eindhoven, Netherlands

15:45 G25\_O08 **Deformation of cholesteric elastomers, taking into account of the Frank-Oseen elasticity**  
Werner Stille, University of Freiburg, Freiburg, Germany

## THURSDAY 15 JULY 2010 - POSTER SESSIONS

Hall 5

### A3: Colloids and Surfaces for Biomaterials Applications

#### **A3\_P01 Highly Adhesive Fibre Reinforced Patches for Fixation of Bone Fractures**

Michael Malkoch, The Royal Institute of Technology, Stockholm, Sweden

#### **A3\_P02 Fabrication of colloidosomes at low temperature for encapsulation of bacteria**

Toshiyuki Nomura, University of Cambridge, Cambridge, United Kingdom

#### **A3\_P03 Stimuli-Responsive Switchable Layer-by-Layer Polyelectrolytes Self-Assembled Multilayer Thin-Films**

Nasir Mahmood Ahmad, National University of Sciences and Technology, School of Chemical and Materials Engineering, Islamabad, Pakistan

#### **A3\_P04 Phosphatidylserine-containing Phytantriol Cubic-Phase Particles: Influence of Lyotropic Liquid Crystalline Phase Behaviour on Cellular Response**

Keith McLean, CSIRO, Clayton, Victoria, Australia

#### **A3\_P05 Novel Degradable Nanoparticles and Their Application in Drug Delivery**

Yingchuan Yu, Swiss Federal Institute of Technology, Zurich, Switzerland

#### **A3\_P06 A Substrate-Independent Approach for Preparing Cell-Attaching / Low Protein-Fouling Biomaterials using Polymer Brushes Grafted by Atom Transfer Radical Polymerisation.**

Bryan Coad, CSIRO Molecular and Health Technologies, Clayton South, Victoria, Australia

#### **A3\_P08 Photo Induced Surface Graft Polymerization of Acrylic Monomers onto Atmospheric Plasma Treated Polymers for Improving the Hydrophilicity**

Ko-Shao Chen, Department of Materials Engineering, Tatung University, Taipei, Taiwan

#### **A3\_P09 Structure of magnetite/poly(lactic acid) microcapsules and their acoustical behavior**

Kang Sun, State Key Lab of Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai, China

**A3\_P10 Biocidal self-polishing coatings based on tailored block copolymers**

Eva Berndt, Universität Duisburg-Essen, Essen, Germany

**A3\_P11 Synthesis and Characterization of Novel Glycosurfaces by ATRP**

Maria Vamvakaki, University of Crete, Department of Materials Science and Technology, Heraklion, Crete, Greece

**A3\_P13 Polymeric excipients in fluorinated liquids: the use of NMR techniques to elucidate solubility and phase separation mechanisms**

Alison Paul, Cardiff University, Cardiff, United Kingdom

**A3\_P14 Ultra-low Fouling Surfaces for Biomedical Applications: From the Role of Monomer and Architecture to Nanoparticle's Applications**

Cesar Rodriguez-Emmenegger, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, v.v.i., Prague, Czech Republic

**A3\_P15 Nanostructured Stimuli-Responsive Polymer Surfaces prepared by Interfacial Diffusion of Amphiphilic Block Copolymers**

Juan Rodriguez Hernandez, Instituto de Ciencia y Tecnologia de Polimeros (ICTP-CSIC), Madrid, Spain

**A3\_P16 Metallation of Solochrome Cyanine R Using Metallated Agents to Form Compounds Having Antimicrobial Activities**

Emtithal El-Sawi, faculty of girls for art science and education, ain shams university, cairo, masr elgateda, Egypt

**A3\_P17 Biocompatible Polymer Brushes Grown from Model Quartz Fibres: Synthesis, Characterisation and in situ Determination of Frictional Coefficient**

Andrew Morse, University of Sheffield, Sheffield, United Kingdom

**A3\_P18 Gold nano particles and benzophenone group added polymerization and application as ophthalmological material**

A-Young Sung, Daebul university, Jeonnam, Korea, Republic of

**A3\_P19 Synthesis of polymer containing silver/gold nano particles and physical characterization**

A-Young Sung, Daebul university, Jeonnam, Korea, Republic of

**A3\_P20 PEGylation of silica particles for toxicological studies**

Kishore Natte, Federal institute for materials research and testing-BAM, berlin, Germany

**A3\_P21 Interaction between cow beta-casein and synthetic triblock copolymer Lutrol F-127. Mixed micellization.**

Irina Portnaya, Technion - Israel Institute of Technology, Haifa, Israel

**A3\_P22 The control of cell adhesion and detachment on dual-responsive silicon surfaces modified with poly (N-isopropylacrylamide)-block-polystyrene copolymer**

Qian Yu, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Soochow, China

**A3\_P23 Covalent Enzyme Immobilization onto Emulsion-Templated Porous Polymers**

Scott Kimmins, Durham University, Durham, United Kingdom

**A3\_P24 Antibacterial coatings on poly(fluoroethylenepropylene) films via grafting of 3-hexadecyl-1-vinylimidazolium bromide**

Letizia Cruciani, a Dipartimento di Chimica Applicata e Scienza dei Materiali, Università di Bologna, Bologna, Italy, Italy

**A3\_P25 Enrichment of Phosphopeptides Using Polyethyleneimine-modified Magnetic Nanoparticles**

Chen Cheng-Tung, National Dong Hwa University, Hualien, Taiwan

**A3\_P28 CHARACTERISATION OF POLYMER CONTAINING SYSTEMS USING QUARTZ CRYSTAL MICROBALANCE WITH DISSIPATION MONITORING**

Malin Edvardsson, Biolin Scientific AB, Vastra Frolunda, Sweden

**A3\_P29 Surface treatment of xanthan by non-equilibrium atmospheric pressure plasma to improve the bonding in chitosan/xanthan biohydrogels**

Luis Emilio Cruz-Barba, University of Guadalajara, Guadalajara, Jalisco, Mexico

**A3\_P30 Formulation of polypeptide-based polymersomes and their interaction with model plasmatic proteins**

Anitha Cheruvamkala Kumar, LCPO,ENSCBP-University of Bordeaux 1, Pessac, France

**A3\_P31 Fabrication and characterization of microchannels produced in poly(methyl methacrylate) by femtosecond laser ablation**

Raffaella Suriano, Department of Chemistry, Materials and Chemical Engineering "Giulio Natta", Politecnico di Milano, Milan, Italy

**A3\_P32 Bio-labeling Hematopoietic Cells Using Near-Infrared Fluorescent Gold Nanoclusters**

Bien Tan, Huazhong University of Science and Technology, Wuhan, Hubei, China

Hall 5

#### **A4: Polymers in Therapeutics: Polymer Nanomedicines**

**A4\_P01 Preparation and In Vitro Evaluation of Gelatin Graft Copolymers/Hydroxyapatite Bionanocomposites**

Ahmed Haroun, National Research Centre, Cairo, Egypt

**A4\_P02 Development of polyelectrolyte complex microparticles of natural polymers for drug delivery**

Nirmala Devi, Tezpur University, Tezpur, Assam, India

**A4\_P03 "Smart" Functional Hybrid Polymer/Gold Nanoparticles**

Cyrille Boyer, CAMD, UNSW, Sydney, NSW, Australia, Australia

**A4\_P04 Unbreakable Codes in Electrospun Fibers to Stop Medicine Counterfeiting**

Chaobo Huang, Department of Pharmaceutics, Gent university, Belgium

**A4\_P05 The multiple morphologies of pH-responsive di- and triblock copolymers: from asymmetric vesicles to octopi and hexagonal vesicles to highly branched wormlike micelles**

Adam Blanazs, University of Sheffield, Sheffield, S. Yorks, United Kingdom

**A4\_P06 Polymer-Peptide Hydrogels: Towards Smart Drug Delivery Scaffolds**

Paul Topham, Aston University, Birmingham, United Kingdom

**A4\_P07 Thermoresponsive Biocompatible Block Copolymers with Antimicrobial Activity**

Jeppe Madsen, University of Sheffield, Department of Chemistry, Sheffield, United Kingdom

**A4\_P08 Imaging amphiphilic block copolymer interactions with lipid bilayers**

Millicent Firestone, Argonne National Laboratory, Argonne, IL, United States

**A4\_P09 Thermo-responsive and biocompatible Poly(N-vinylcaprolactam) coated magnetic nanoparticles for biomedical applications: Synthesis and characterization.**

Simone Medeiros, Engineering School of Lorena – University of São Paulo – USP, Lorena, São Paulo, Brazil

**A4\_P10 Hydrophilic Cationic Core Cross-linked Star Polymers siRNA Nanocarriers: Synthesis, Characterization and Evaluation**

Kyriaki Pafiti, University of Cyprus, Nicosia, Cyprus

**A4\_P11 Selective Fluorescent Labelling of an Amphiphilic Biocompatible Block Copolymer**

Nicholas Warren, University of Sheffield, Sheffield, United Kingdom

**A4\_P12 Time-Resolved Small-Angle Neutron Scattering as a Tool for Studying Controlled Release from Liposomes using Polymer-Enzyme Conjugates**

Peter Griffiths, Cardiff University, Cardiff, United Kingdom

**A4\_P13 The interaction of model polymer therapeutics with mucous**

Peter Griffiths, Cardiff University, Cardiff, United Kingdom

**A4\_P14 Chitosan-based Nanogel Delivery Systems: Characterization and Toxicological Evaluation**

Catherine A. Schütz, Laboratory for Regenerative Medicine and Pharmacobiology, EPFL-SV-IBI-LMRP, CH-1015 Lausanne, Switzerland

**A4\_P15 Resorbable Calibrated Microspheres for Therapeutic Embolization**

Laurence Moine, CNRS, Châtenay-Malabry, France

**A4\_P16 Investigation of functional structure relationship between different PDMAEMA-based architectures and cellular uptake**

Anja Schallon, Process Biotechnology, University of Bayreuth, Bayreuth, Germany

**A4\_P18 Novel electrospun micro- and nanofibrous materials possessing antimicrobial properties for wound dressing applications**

Milena Ignatova, Laboratory of Bioactive Polymers, Institute of Polymers, Bulgarian Academy of Sciences, Sofia, Bulgaria

**A4\_P19 Bio-responsive Small Molecule Polyamines as Non-Cytotoxic Alternative to Polyethylenimine**

Joachim Steinke, Imperial College London, London, United Kingdom

**A4\_P20 Solution Conformation of Polymer-Drug Conjugates: contrast-variation small-angle neutron scattering (SANS) as a tool to elucidate the microstructure of uni-molecular aggregates.**

Alison Paul, Cardiff University, Cardiff, United Kingdom

**A4\_P21 Crosslinked polymeric micelles: the new golden standard for tumour targeted drug delivery?**

Cornelus van Nostrum, Utrecht University, Utrecht, Netherlands

**A4\_P22 Investigation of Croscarmellose sodium as an excipient for Fast releasing tablets of Olanzapine**



VENKATESKUMAR KRISHNAMOORTHY, KMCH College of  
Pharmacy, Coimbatore , Tamilnadu, India

**A4\_P23 Injectable Biodegradable Polymers For The Delivery Of  
Camptothecin Anti-Cancer Drugs**

Olca Mert, Middle East Technical University Department of Chemistry,  
Ankara, Turkey

**A4\_P24 Glycerolipidic Prodrug of Didanosine Encapsulated Into  
PEGylated Nanoparticles: An Approach To Treat HIV-1 Associated  
Dementia**

Julien Nicolas, Laboratoire de Physico-Chimie, Pharmacotechnie et  
Biopharmacie, UMR CNRS 8612, Univ. Paris-Sud 11, Châtenay-  
Malabry, France

**A4\_P25 Thermosensitive Amphiphilic Polymer as in-Situ Gelation  
Biomaterials for Injectable Vitreous Substitute**

Masahiko Annaka, Kyushu University, Fukuoka, Fukuoka, Japan

**A4\_P26 Tailor-made Polycations for Gene-Delivery Applications**

Christopher V. Synatschke, Macromolecular Chemistry II, University of  
Bayreuth, Bayreuth, Bavaria, Germany

**A4\_P28 pH-Sensitive and Cross-linkable Polymersomes for  
Applications in Synthetic Biology as part of biomedical  
Applications**

Jens Gaitzsch, Leibniz Institute of Polymer Research, Dresden,  
Germany

**A4\_P29 An on-line combine analysis system for polymersome  
purification and characterisation**

Linge Wang, The Department of Biomedical Science, The University of  
Sheffield, Sheffield, United Kingdom

**A4\_P30 Polymersome mediated siRNA delivery**

Nisa Patikarnmonthon, The University of Sheffield, Sheffield, United  
Kingdom

**A4\_P31 pH-responsive diblock copolymers based on HEGMA and  
DEAEMA functionalities: Investigation of their ability to act as drug  
delivery systems and *in-vitro* cytotoxicity studies**

Petri Papaphilippou, University of Cyprus, Nicosia, Cyprus

**A4\_P32 Versatile Surface Functionalization of Polymer Vesicles**

Stefan Egli, Universität Basel, Department of Chemistry, Basel,  
Switzerland

**A4\_P33 Oligopeptide-grafted polycyclooctene for gene therapy**

Delphine Chan-Seng, Department of Polymer Science and Engineering,  
University of Massachusetts, Amherst, MA, United States

**A4\_P34 Dextran coated gold nanorods for targeted photothermal ablation of inflammatory macrophages.**

Choi Rayun, Yosei university, Seoul, Seodaemun-gu, Korea, Republic of

**A4\_P35 A self-organized pH-responsive glycol chitosan nonagel for tumor targeting.**

Oh Nam Muk, The Catholic University of Korea, 43-1 Yeokgok 2-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do, Korea, Republic of

**A4\_P36 A pH-sensitive multifunctional bio-polymeric nanocarrier for protein delivery.**

Lee Bo Reum, The Catholic University of Korea, Bucheon-si, Gyeonggi-do, Korea, Republic of

**A4\_P37 Synthesis of hydrophilic bioconjugate polymers by nitroxide mediated polymerization.**

Nadège Handké, Université de Provence - Laboratoire Chimie Provence, Marseille, France

**A4\_P38 Polyelectrolyte complexes for improved drug delivery of therapeutic proteins**

Marina Inés Giannotti, Centro de Investigación Biomédica en Red de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN), Barcelona, Spain

**A4\_P39 Injectability of Polymer Microparticles Prepared Using Supercritical Carbon Dioxide**

Andrew Naylor, Critical Pharmaceuticals Ltd, Nottingham, United Kingdom

**A4\_P40 Randomly Methylated-Beta-Cyclodextrin (RAMEB) Alters the Photostability of Midazolam in Aqueous Solution.**

Beverly Glass, James Cook University, Townsville, QLD, Australia

**A4\_P41 EFFECTIVE ENCAPSULATION AND PROTEASE PROTECTION OF PROTEINS USING POLYMERSOME**

Denis Cecchin, The University of Sheffield, Sheffield, United Kingdom

**A4\_P42 A three-component cancer treatment using an alkylated DNA based drug delivered with PMPC-PDPA based polymersomes followed by alkylation chemotherapy.**

Christopher Millington, University of Sheffield, Sheffield, United Kingdom

**A4\_P43 Specific optical imaging of glioblastoma with integrin-targeting gold nanorods**

Choi Jihye, Yonsei university, Seoul, Seodaemoon-gu, Korea, Republic of

**A4\_P44 Polymer Stabilised Emulsions for the Treatment of HIV/AIDS**

Rebecca Slater, University of Liverpool, Liverpool, United Kingdom

**A4\_P45 Tuning the crystallinity of poly(3-hydroxybutyrate) in order to match its application as drug carrier**

Lilian Lacerda de Almeida, Universidade de Sao Paulo, Sao Paulo, Brazil

**A4\_P46 The synthesis of novel microgel particles based on 2-hydroxyethylmethacrylate and 2-hydroxyethylacrylate**

Joseph Cook, University of Reading, Reading, United Kingdom

**A4\_P47 Carbopol®-based *in situ* gelling systems for the improved delivery of ocular therapeutics**

Richard Cave, University of Reading, Reading, United Kingdom

**A4\_P48 Development of a Vascular Graft Using Electrospun Polyurethane**

Andrew Whitton, University of Strathclyde, Glasgow, United Kingdom

Hall 5

**B5: Polymers in the Home, Personal Care and Agriculture**

**B5\_P01 The Effect of Fire Retardants on the Thermal Degradation Chemistry of Flexible Polyurethane Foam**

Deborah Todd, University of Strathclyde, Glasgow, United Kingdom

**B5\_P02 N-Heterocyclic carbenes (NHCs) as organocatalysts in polymerization of siloxanes**

Sébastien Marrot, Bluestar Silicones, Saint-Fons, France

**B5\_P03 SYNTHESIS AND CHARACTERIZATION OF MODEL POLYMERIC ESTERS TO REVEAL THE STRUCTURAL COMPLEXITY OF COMMERCIALY AVAILABLE POLSORBATE SURFACTANTS**

SHAZIA ABRAR, INSTITUTE OF CHEMISTRY, GRAZ, Austria

**B5\_P04 Waste Management in Qatar**

Nabil Madi, University of Qatar, MTU, Doha, Qatar

**B5\_P05 Surface migration of fluorinated acrylic block copolymers on vinyl chloride polymer films**

Xiaogang Yang, Institute of Chemical and Engineering Sciences, Singapore, Singapore

**B5\_P06 Structural analysis of high-molecular-weight brominated flame retardants using the MALDI-Spiral TOFMS**

Akihiko Kusai, JEOL(EUROPE)SAS, Croissy-sur-Seine, France

**B5\_P07 POLYMERS AND SOIL-ZEOLITE AGGREGATES - RECENT DEVELOPMENTS AND FUTURE PROSPECTS FOR WASTES STOCKS RECUPERATION**

Margarita Natova, Central Laboratory of Physico-Chemical Mechanics of BAS, Sofia, Bulgaria

**B5\_P08 Ultra-fine PLA fibres obtained by melt-blown technology - structure, applications and properties.**

Jaroslav Janicki, University of Bielsko-Biala, Institute of Textile Engineering and Polymer Materials, Bielsko-Biala, Poland

**B5\_P09 Influence of Residual Catalysts and Comonomer Content on the Thermal Degradation of PET Containing PEG Sequences**

Annika Alke, University of Strathclyde, Glasgow, United Kingdom

**B5\_P10 Synthesis of functionalised hyperbranched polymers via combination of Catalytic Chain Transfer Polymerisation of dimethacrylates and thiol-ene Click Chemistry**

Jasmin Menzel, University of Warwick, Coventry, United Kingdom

**B5\_P11 The effect of granulometry, glycerol concentration and presence of fat in the properties of films from feathers and bovine hair.**

Pilar Gonçalves, Faculdade de Engenharia da Universidade do Porto, Porto, Porto, Portugal

Hall 5

**B7: Polymers in Adhesives**

**B7\_P01 New components for dental adhesives**

Norbert Moszner, Ivoclar Vivadent AG, Schaan, Liechtenstein

**B7\_P02 Structure of high density polymer brushes: An integrated experimental and multiscale simulation study**

Roland Faller, University of California, Davis, Davis, United States

**B7\_P03 Polyaniline/Epoxy Resin Composites: Dielectric and Thermomechanical Behaviours**

Belkacem Belaabed, EMP, Bordj El Bahri, Algeria

**B7\_P04 New concept for polymer-metal interfaces**

Renate Mix, BAM, Berlin, Germany

**B7\_P05 A Quinoxaline Derivative as a Long Wavelength  
Photosensitizer for Diaryliodonium Salts**

Umut Bulut, Middle East Technical University NCC, Guzelyurt, Mersin  
10, Turkey

**B7\_P06 Characterization of acrylic acid polymers and copolymers  
with styrene**

Renate Mix, Federal Institute of Materials Research and Testing, Berlin,  
Germany

**B7\_P07 Responsive Polymers for Bacterial Attachment and Ligand  
Sequestration**

Francisco Fernandez-Trillo, University of Nottingham, Nottingham,  
United Kingdom

**B7\_P08 Thermal Stability and Volatile Out-gassing Studies on  
Ethylene Vinyl Acetate Copolymer**

Mogon Patel, AWE, Aldermaston, Reading, United Kingdom

**B7\_P09 Probing for adhesion mechanism in oxidized PP wax/pp  
blends**

Mojtaba Mirabedini, Iran Polymer & Petrochemical Institute, Tehran,  
Tehran, Iran, Islamic Republic of

**B7\_P10 Polymer Film Morphology of Pressure Sensitive Adhesives**

Matthias Gerst, BASF SE, Ludwigshafen, Germany

**B7\_P11 Adhesion Strength of Norbornene-based Self-healing  
Agents to an Amine-cured Epoxy**

Guangchun Huang, Performance Materials Team, R&D Center, Kolon  
Industries, Inc., Incheon, Korea, Republic of

**B7\_P12 Study on novel latent curing agents for epoxy resins based  
on dihydrazides**

Adrian Marius Tomuta, Universitat Rovira i Virgili, Tarragona, Spain

**B7\_P13 Mucoadhesive Properties of Methacrylic Acid Copolymer  
Microspheres of Pravastatin Sodium on Gastrointestinal Mucosa:  
An *In Vitro* and *Ex Vivo* Evaluation**

Yogesh Garg, Rajiv Academy for pharmacy, Mathura, India

**B7\_P14 Biological adhesives: from biology to biomimetics (COST  
Action TD0906)**

Elise Hennebert, Université de Mons-UMONS, Mons, Belgium

**B7\_P15 Effect of Hard Particles on the Adhesion and Bulk  
Mechanical Properties of Waterborne Pressure-Sensitive  
Adhesives (PSAs)**

Robert Gurney, University of Surrey, Guildford, Surrey, United Kingdom

**B7\_P16 Degradation kinetics and mechanism of polyurethane adhesive based on TDI and polyester polyol**

Fachun Zhong, Institute of Chemical Materials, Chinese Academy of Engineering and Physics, MianYang, Sichuan Province, China

**B7\_P17 Study of the poly-(2-dimethylamino) ethyl methacrylate conformation's influence on polymer adhesive behaviour**

Thomas Bras, University of Mons Hainaut, Mons, Belgium

**B7\_P18 Polymer conservation treatments for stained glass in the Burrell Collection, Glasgow: an assessment of 25 years of natural aging.**

Norman Tennent, University of Amsterdam, Amsterdam, Netherlands

**B7\_P19 ADHESION PROPERTIES OF ROOM TEMPERATURE SELF-CURABLE WATERBORNE POLYURETHANE HYBRIDS**

**FUNCTIONALIZED WITH (3-AMINOPROPYL)TRIETHOXY SILANE**

HARITZ SARDON, University of Basque Country (UPV/EHU), Donostia, Gipuzkoa, Spain

Hall 5

**C11: Polymerisation Kinetics and New Concepts in Polymerisation**

**C11\_P01 SYNTHESIS OF POLYESTER IN BRONSTED ACIDIC IONIC LIQUIDS**

Hervé Lefebvre, Pierre & Marie Curie University, UMR 7610 Chimie des Polymères, PARIS, France

**C11\_P02 Kinetics of Polymerisation of a Carborane-Siloxane Copolymer using Lewis Acid Catalysts**

Alistair Apeidaile, University of Strathclyde, Glasgow, United Kingdom

**C11\_P03 Entry in Emulsion Copolymerization**

Pooja Daswani, Eindhoven University of Technology, Eindhoven, Netherlands

**C11\_P04 Controlled syntheses of hydrophilic and hydrophobic polyethers by monomer activation and their direct  $\alpha$ -azido functionalization**

Stephane Carlotti, Universite de Bordeaux, Bordeaux, France

**C11\_P05 Controlled Cationic Copolymerization of Benzaldehyde Derivatives with Vinyl Ethers: Evolutionary Chemical Cycle of Precision Synthesis and Complete Degradation to Another Aldehyde Monomer**

Shokyoku Kanaoka, Osaka University, Toyonaka, Japan

**C11\_P06 Investigations on oxazoline polymerization initiated by iodine**

Brieuc Guillerm, Institut Charles Gerhardt, Montpellier, France

**C11\_P07 Droplet-based Microfluidics as a New Miniaturized Tool to Investigate Polymerization Reactions**

Emmanuel Mignard, CNRS-Rhodia-University of Bordeaux 1 - UMR5258 Laboratory of the Future, Pessac, France

**C11\_P08 Coordinative Chain Transfer Polymerization : A new concept to tune the composition of a statistical copolymer**

Philippe Zinck, UCCS - Université Lille Nord de France - ENSCL, Villeneuve d'Ascq, France

**C11\_P09 Step-growth polymerization of terephthalaldehyde catalysed by N-Heterocyclic Carbenes.**

Julien Pinaud, LCPO, Pessac, France

**C11\_P10 Linear polyN-isopropylacrylamide (NIPAM) nanoparticles via emulsion polymerisation**

yan chen, King's College London, London, United Kingdom

**C11\_P11 Synthesis and Functionalization of Main-Chain Degradable Polyperoxides by Radical Alternating Copolymerization**

Eriko Sato, Osaka City University, Osaka, Japan

**C11\_P12 Investigation of Acrylate Solution Polymerisation up to High Conversions**

Anatoly N Nikitin, Institute on Laser and Information Technologies, Shatura, Moscow Region, Russian Federation

**C11\_P13 Penultimate model of acrylate polymerization**

Anatoly N Nikitin, Institute on Laser and Information Technologies, Shatura, Moscow Region, Russian Federation

**C11\_P14 Transfer to polymer and branching in the radical polymerization of acrylates**

Patrice Castignolles, University of Western Sydney, Sydney, NSW, Australia

**C11\_P15 New routes to end-functional ROMP polymers**

Andreas Kilbinger, University of Mainz, Mainz, Germany

**C11\_P16 Unique Step-Growth Semi-Fluorinated Polymers from Fluorinated Olefins**

Dennis Smith, Clemson University, Clemson, SC, United States

**C11\_P17 Stability and charge density of redox initiated polyvinyl Acetate**

Abou El Fettouh AbdElHakim, National Research Center, Cairo, Dokki, Egypt

**C11\_P18 Synthesis of PP-g-PS Copolymer and its Application in Polypropylene/polystyrene Blends as Compatilizer**

Jianjun Yi, Petrochemical Research Institute, PetroChina Company Limited, Beijing, China

**C11\_P19 FUZZY LOGIC APPROACH TO INVESTIGATE CONCENTRATION AND CHAIN LENGTH EFFECTS ON CHAIN SHUTTLING POLYMERIZATION BLOCK FORMATION**

Mamdouh Al-Harthi, KFUPM, DHAHRAN, Saudi Arabia

**C11\_P20 Styrene-isoprene copolymerization by some zirconocene-MAO initiator systems**

Franco M. Rabagliati, Grupo Polímeros, Facultad Química y Biología, Universidad de Santiago de Chile, Santiago, Chile

**C11\_P21 SYNTHESIS AND CHARACTERIZATION OF DIFFERENT POLYMERS OBTAINED AT HYDROTHERMAL CONDITIONS**

Miriam M. Unterlass, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany

**C11\_P22 Conformation Controlled Radical Polymerization of s-Cis Locked Methylene Dioxolanones**

Hitoshi Tanaka, University of Tokushima, Tokushima, Japan

**C11\_P23 Modification of polycyclooctene with ester-functionalised cyclooctene and norbornene derivatives.**

Joseba Alonso-Villanueva, Universidad del País Vasco (UPV/EHU), Leioa, Spain

**C11\_P24 Synthesis of various pH-responsive polymers having naphthalene rings and acid pendants by living cationic polymerization.**

Yu Shinke, Osaka University, Toyonaka, Osaka, Japan

**C11\_P25 BIO-INSPIRED CATIONIC POLYMERIZATION OF ISOPRENE INITIATED BY ALLYLIC ALCOHOLS/B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>**

ouardad samira, LCPO, bordeaux, French Southern Territories

**C11\_P26 Synthesis of Ring Polymers by Ring Expansion Polymerization of a Cyclic Thioester Compound with Thiiranes**

Jan-Hendrik Schütz, Georg-August-Universität, Göttingen, Germany

**C11\_P27 CCT-derived Macromonomers as Initiators for Anionic Polymerisation**

G.C. Sanders, Technische Universiteit Eindhoven, Eindhoven, Netherlands



**C11\_P28 Poly(vinylsulfonic acid): Emerging Sulfonic Acid Polymer and its Functional Application**

Teruyuki Okayasu, Waseda University, Tokyo, Japan

**C11\_P29 RAFT Copolymerization of PEO Macromonomers Yielding Charge-Containing Comb Copolymers**

Ricardas Makuska, Vilnius University, Vilnius, Lithuania

**C11\_P30 AMPHIPHILIC GLYCOPOLYMERS BASED ON 2-HYDROXYETHYL ACRYLATE: COPOLYMERIZATION, PHYSICO-CHEMICAL AND BIOLOGICAL PROPERTIES**

Marta Fernández-García, Institute of Polymer Science and Technology (CSIC), Madrid, Spain

**C11\_P31 Amphiphilic block copolymer synthesis via Nitroxide-Mediated Polymerization in aqueous dispersed systems, using various hydrophilic SG1-based macroalkoxyamines**

Ségolène Brusseau, UPMC Univ. Paris 6, CNRS, UMR 7610, Laboratoire de Chimie des Polymères, Paris, France

**C11\_P32 Solution Polymerization of *N*-vinylcaprolactam in Different Solvents. Kinetic Dependence on Temperature, Monomer and Initiator Concentrations.**

Simone F. Medeiros, Engineering School of Lorena – University of São Paulo, Lorena, SP, Brazil

**C11\_P33 Sequential RAFT and CCT Polymerization to create unsaturated functionalized polymers with unprecedented control.**

Alexander H Soeriyadi, UNSW, NSW, Australia

**C11\_P34 Synthesis, characterization and ion-complexing properties of polymers displaying densely packed arrays of crown-ether lateral substituents**

Ming Liu, East-Paris Institute of Chemistry & Materials Science, Thiais/Paris, France

**C11\_P35 Kinetics of copolymers thermal degradation based on UDMA and BisGMA**

Adriana Lungu, University POLITEHNICA of Bucharest, Bucharest, Romania

**C11\_P36 Surface-Initiated PLP-SEC from Silica Nanoparticles**

Robert Rotzoll, Institute of Physical Chemistry, Goettingen, Germany

**C11\_P37 Polymerization of ethynylpyridene derivatives using quarternization polymerization of Blumstein type and Grubbs-Hoveyda carbene catalyst 2<sup>nd</sup> generation**

Jiri Zednik, Charles University in Prague, Prague 2, Czech Republic

**C11\_P38 Universality gel fraction exponent during photoinitiated gelation at different temperatures; a photo-DSC study.**

Zekeriya Dogruyol, Yildiz Technical University, Department of Physics, Istanbul, Turkey

**C11\_P39 Synthesis of a novel polymer using as catalyst two superacids**

Lazo-Jiménez Rosa Estela, Universidad Nacional Autónoma de México, Mexico City, Mexico

Hall 5

**E15: Mechanical Properties of Polymer Materials and Fibres**

**E15\_P01 Overall investigation of unreinforced and reinforced blends based on pp/pp-g-mah/(sgfr)pa 66.**

Zitouni SAFIDINE, EMP, UER of Applied Chemistry, Bordj EL Bahri City, Algeria

**E15\_P02 UV Curing of Structural Epoxy Resins for Fibre Reinforced Composites**

Vanda Yu. Voytekunas-Abadie, Singapore Institute of Manufacturing Technology, SIMTech,, Singapore, Singapore

**E15\_P03 Materials based on biopolymers of maize: stoichiometric interpretation of starch-glycerol-water interaction.**

Farouk Ayadi, INRA-UMR 614 FARE, Reims, France

**E15\_P04 Phase change materials based on polyethylene, paraffin wax and wood flour**

Riaan Luyt, University of the Free State (Qwaqwa Campus), Phuthaditjhaba, Free State, South Africa

**E15\_P05 Polymer Opals as Novel Electro-active Photonic Materials**

Chris Finlayson, Cavendish Laboratory, Cambridge, United Kingdom

**E15\_P06 Surface Physical and Chemical Analysis of Plasma-treated Cotton Fabric Subjected to Wrinkle-resistant Finishing**

Yin Ling Lam, The Hong Kong Polytechnic University, Hong Kong, Hong Kong

**E15\_P07 A study of grey cotton fabric using laser technology**

Yim-ling Chow, The Hong Kong Polytechnic University, Kowloon, Hong Kong, Hong Kong

**E15\_P09 Wheat flour thermoplastic matrix reinforced by natural fibres**

Larisa Dobircan, University of Rouen, LECAP, Saint Etienne du Rouvray, 76801, France

**E15\_P10 Formulation and optimization of an oxidative vulcanization system for polysulfide sealants using a D-optimal designing**

Payam Zahedi, University of Tehran, Tehran, Iran, Islamic Republic of

**E15\_P11 Influence of Allyl Ether and Dicyclopentadiene on Properties of Unsaturated Polyester Resins**

Zbigniew Boncza-Tomaszewski, Industrial Chemistry Research Institute, Warszawa, Poland

**E15\_P12 Patterning the mechanical properties of hydrogen silsesquioxane (HSQ) films using electron beam irradiation for application in mechano cell guidance**

Mathieu Lanniel, University of Nottingham, Nottingham, United Kingdom

**E15\_P13 MONITORING THE EXTRUSION COMPOUNDING PROCESS OF PA-12 AND TREATED MONTMORILLONITE CLAY FOR OPTIMISED NANOCOMPOSITE BARRIER FILMS**

Mathew Leung, Polymer Engineering Company Ltd., Burnaby, BC, Canada

**E15\_P14 Synthesis of polystyrene-b-polybutadiene-b-poly (methyl methacrylate), (SBM) triblock terpolymers consisting of 1,2- and 1,4-polybutadiene microstructures and investigations of their mechanical properties and their morphology.**

Rakibul Kabir, Institute of Polymer Research, GKSS Research Centre, Geesthacht, Germany

**E15\_P15 Stretchable 2-D Honeycomb Assemblies of Carbon Nanotubes Templated by Latex Crystals**

Patnarin Worajittiphon, University of Surrey, Guildford, Surrey, United Kingdom

**E15\_P16 Hybrid filler networks in rubber composites: from morphology to properties**

Lucia Conzatti, CNR - ISMAC Genova, Genova, Italy

**E15\_P18 Supercritical CO<sub>2</sub>-solvent System for Stereocomplex Formation of High-Molecular-Weight Polylactide**

Purba Purnama, Korea Institute of Science and Technology, Seoul, Korea, Republic of

**E15\_P19 Preparation of high performance polybenzoxazine resin using hyperbranched polyborate**

Peijun Xu, Department of Chemical Engineering, School of Energy and Power Engineering, Xi'an Jiaotong University, Xi'an, China

**E15\_P20 Preparation and properties of polyimide foams derived from aromatic dianhydrides and isocyanates**

Liancai Wang, radiation center of research and application, Beijing, China

**E15\_P21 MECHANISMS OF SURFACE MODIFICATIONS OF POLYPROPYLENE BY HELIUM AND ARGON ION BOMBARDMENT**

Nabil Madi, Qatar University, Doha, Qatar

**E15\_P23 Elastomer Particles Arising from Tyres out of Use as Toughness modifiers of epoxy based Thermosetting Polymers.**

Javier González-Benito, Universidad Carlos III de Madrid, Leganes, MADRID, Spain

**E15\_P24 Influence of additives on polyolefins' degradation studied by infrared spectroscopy**

Ivana Sedenkova, Institute of Macromolecular Chemistry, Prague, Czech Republic

**E15\_P25 Epoxidized Natural Rubber/Dicarboxylic Acids Self-Vulcanized Blends**

Myriam Pire, Matière Molle et Chimie, ESPCI ParisTech - CNRS, UMR-7167, Paris, France

**E15\_P26 The mechanisms of ozonolysis for polybutadiene rubber**

Yuichi Aoyagi, NOK corporation, Fujisawa-shi, Kanagawa-ken/tshujido-shinmachi, Japan

**E15\_P27 Control of Molecular Weight using the Reverse Iodine Transfer Polymerization (RITP) Technique - Emulsion Polymerization with Changes of Initiator Concentration and Scale up of Reactor**

Yeoju Kim, Inha University, Incheon, Korea, Republic of

**E15\_P28 Effect of electron beam irradiation on rheological properties of PP/EPDM composites**

Phil Hyun Kang, Korea Atomic Energy Research Institute, Radiation Research Division for Industry and Environment, Daejeon, Korea, Republic of

**E15\_P29 PHYSICAL AGEING STUDIES OF POLY(ETHYLENE ISOPHTHALATE)**

Louise Turnbull, University of Strathclyde, Glasgow, United Kingdom

**E15\_P30 Effect of dynamic vulcanization in the thermal and mechanical properties of NR/PP blends**

Fabio Roberto Passador, PPG-CEM/UFSCar, São Carlos, SP, Brazil

**E15\_P31 The effect of the structure of newly synthesized silicon modifiers and POSS units on the thermomechanical properties of epoxy polymer networks**

Piotr Murias, Rzeszow University of Technology, Faculty of Chemistry, Department of Industrial and Materials Chemistry, Rzeszow, Poland

**E15\_P32 Properties of Natural Rubber Modified with Starch Nano-crystals**

Jasper Azuatalam, University of Agriculture, Abeokuta, Ogun state, Nigeria

**E15\_P33 New silanes for silica modification in reinforcement of SBR compounds**

Maila Castellano, University, Genova, Italy

**E15\_P34 High-performance electrolyte membranes with excellent mechanical properties / ionic conductivities compromise**

Florence Gayet, Department of Chemistry, University of Warwick, Coventry CV4 7AL, United Kingdom

**E15\_P35 Tensile Properties of NBR with different types of Nanofillers**

Fabiula Sousa, Universidade Federal do ABC - UFABC, Santo André, SP, Brazil

**E15\_P36 Bioinspired pressure responsive reversible adhesive system**

Dadhichi Paretkar, INM - Leibniz Institute for New Materials, Saarbrücken, Germany

**E15\_P37 Thermal and mechanical properties of dispersed silica nanoparticles in Poly(methyl methacrylate) (PMMA)**

Moussa Khelifa, Heriot-Watt University, Edinburgh/Scotland, United Kingdom

**E15\_P38 Effect of Molecular Weight and Solvent on the Nanotribological Properties of Poly(2-(methacryloyloxy)ethyl phosphorylcholine) Brushes**

Zhenyu Zhang, Department of Chemistry, University of Sheffield, Brook Hill, Sheffield, United Kingdom

**E15\_P39 Development and Characterization of Itaconic-Based Derivatives as Biomass Materials for Thermoplastic Elastomer.**

ChungCheng Lin, Industrial Technology Research Institute, Hsinchu, Taiwan

**E15\_P40 Effects of the number of methyl groups on the mechanical properties of styrene-acrylate random ionomers**

Kwang-Hwan Ko, Chosun University, Gwangju, Korea, Republic of

**E15\_P41 Glass transition temperatures of poly(styrene-co-3-sulfopropyl methacrylate) ionomers**

Kwang-Hwan Ko, Chosun University, Gwangju, Korea, Republic of

**E15\_P42 Preparation and Application of Modified Novolacs in Halogen-Free Epoxy Composites.**

Wei-Ta Yang, Industrial Technology Research Institute Hsinchu, Chutung, Hsinchu, Taiwan

**E15\_P43 Synthesis and Optical Property of Poly(arylene thioether)s Consisting of “Cardo” Moieties in the Main Chain**

Hitoshi Okuda, Tokyo Institute of Technology, Meguro-ku, Tokyo, Japan

**E15\_P44 Nanoscopic mechanical characterization of inhomogeneous polymer networks.**

Miriam V. Flores-Merino, Department of Engineering Materials. The Kroto Research Institute. University of Sheffield, Sheffield, South of Yorkshire., United Kingdom

**E15\_P45 Magnetic field controlled elastomers based on hard magnetic filler**

Elena Kramarenko, Physics Department, Moscow State University, Moscow, Russian Federation

**E15\_P47 Effect of block copolymers as compatibilizers in ps/epdm blends**

Sônia Marlí Bohrz Nachtigall, Federal University of Rio Grande do Sul, Porto Alegre, RS, Brazil

**E15\_P48 FOAMING AGENTS IN NATURAL FIBER/PLASTIC COMPOSITES**

Sônia Marlí Bohrz Nachtigall, Federal University of Rio Grande do Sul, Porto Alegre, RS, Brazil

**E15\_P49 GELATION PROCESS ANALYSIS BY ULTRASOUND METHOD OF A RIGID PVC COMPOUND**

Henrique Finocchio, Federal University of São Carlos, São Carlos, São Paulo, Brazil

**E15\_P50 Development of polyurethane formulations for long term sustainability with reduced toxicity.**

Annette Glauser, AWE, Reading, Berkshire, United Kingdom

**E15\_P51 The effect of polymer binder on the compressive and tensile properties of polymer bonded explosives.**

Peter Bolton, AWE, Aldermaston, Reading, Berkshire, United Kingdom

**E15\_P52 Characterisation of co-solvent effects in poly(vinyl alcohol) films by tensile analysis and swelling studies.**

Emma Wright, Queen's University Belfast, Belfast, United Kingdom

**E15\_P53 Title: Modeling of Plastic Deformation Molecular Mechanics of an Oriented Linear Crystalline Polymer**

Ulmas Gafurov, Institute of Nuclear Physics, Tashkent, Ulugbek, Uzbekistan

**E15\_P54 Influence of gel matrix preparation method in the mechanical properties of UHMWPE fibers/EVA ballistic laminates**

Cristina M. A. Lopes, Institute of Aeronautics and Space, São José dos Campos, SP, Brazil

Hall 5

**E18: Rheology and Dynamics of Polymer Solutions and Gels**

**E18\_P01 The rheological behaviour of epoxy molding compound for packaging of large-scale integrated circuits**

Mingshan Yang, Beijing Institute of Petrochemical Technology, Beijing, China

**E18\_P02 Effect of surfactants on the rheological properties of hydrophobically modified hydroxyethyl cellulose**

Peter A. Williams, Glyndwr University, Wrexham, United Kingdom

**E18\_P03 Rheology and atomisation of aqueous ceramic slips**

Saumil Vadodaria, Glyndwr University, Wrexham, Wales, United Kingdom

**E18\_P04 Effects of irradiation on some molecular behavior of different species of gum tragacanth**

Samira Alijani, Beheshti University. Department of Food science, Tehran, Iran, Islamic Republic of

**E18\_P05 Rheological characterization of *Leucaena leucocephala* seed polysaccharide**

Louis Nwokocha, University of Ibadan, Ibadan, Nigeria

**E18\_P06 Sol-gel transition of methyl cellulose**

Katsuyoshi Nishinari, Osaka City University, Osaka, Japan

**E18\_P07 Relation between rheological properties of polysaccharide solutions and aspiration**

Katsuyoshi Nishinari, Osaka City University, Osaka, Japan

**E18\_P08 Polymer Chain Relaxation Mechanisms in Siloxane-carbosilane Systems.**

Anna Kowalewska, Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, Poland

**E18\_P10 Engineering The Next Generation of Nanostructured Complex Fluids Through Expert System Rheometry**

Samiul Amin, Malvern Instruments Limited, Malvern, Worcestershire, United Kingdom

**E18\_P11 Diffusional changes during radical bulk polymerization - Fluorescence Correlation Spectroscopy and Single Molecule Fluorescence Tracking as new methods for analysis and visualization**

Dominik Wöll, Zukunftskolleg, Universität Konstanz, Konstanz, Germany

**E18\_P12 GLYCOPOLYMERS CONTAINING MALTOTRIONOLACTONE PENDANT GROUPS BY CHEMICAL MODIFICATION OF ETHYLENE-VINYL ALCOHOL COPOLYMERS. SPECIFIC LECTIN INTERACTIONS AND TEMPERATURE-INDUCED REVERSIBLE GELS**

Manuel Sánchez-Chaves, Institute of Polymer Science and Technology (CSIC), Madrid, Spain

**E18\_P13 Physical Ageing of Poly(ethylene Oxide) (PEO)/Poly(vinylphenol) (PVPh) Blends**

Abdelsallam Youssef, Heriot-Watt University, Edinburgh/Scotland, United Kingdom

**E18\_P14 Dynamics of non-aqueous polyelectrolyte solutions in a wide temperature range**

Petr Stepanek, Institute of macromolecular chemistry, Prague, Czech Republic

**E18\_P15 Shear and extensional rheometry of hydrophobically modified polysaccharides in aqueous media**

Saamil Vadodaria, Glyndwr University, Wrexham, United Kingdom

**E18\_P16 Influence of fluorophenyl end-groups on hydrodynamic properties and aggregation of end-capped poly(methyl methacrylates)**

Ekaterina Gasilova, Institute of Macromolecular Compounds, Russian Academy of Sciences, St.-Petersburg, Russian Federation

**E18\_P17 Production and characterization of whey protein/agar complex coacervates.**

Pilar Gonçalves, Instituto de Macromoléculas Professora Eloisa Mano-UFRJ, Rio de Janeiro, Rio de Janeiro, Brazil

**E18\_P18 Polymer Modified Asphalts As Viscoelastic Emulsions**

Jasper Azuatalam, University of Agriculture, Abeokuta, Ogun state, Nigeria



**E18\_P19 Effect of thermo-mechanical treatment on the rheological properties of crosslinked waxy corn starch**

Jasper Azuatalam, University of Agriculture, Abeokuta, Ogun state, Nigeria

**E18\_P20 Rheological characterisation of co-solvent effects in poly(vinyl alcohol) gels.**

Emma Wright, Queen's University Belfast, Belfast, United Kingdom

**E18\_P21 Reinforcement of natural rubber with cassava starch nanocrystals**

Jasper Azuatalam, University of Agriculture, Abeokuta, Ogun state, Nigeria

**E18\_P22 Effect of temperature on polymer-surfactant networks**

Vyacheslav Molchanov, Lomonosov Moscow State University, Moscow, Russian Federation

Hall 5

**F20: Polysaccharides: Chemistry, Structure, Properties and Technology**

**F20\_P02 Polysaccharide nanocrystals as substrates for the Surface-Initiated Ring-Opening Polymerization (SI-ROP) of  $\epsilon$ -caprolactone catalysed by organic catalysts**

Marianne Labet, The University of Nottingham, Nottingham, United Kingdom

**F20\_P03 NANOMATERIALS ON THE POLYSACCHARIDES BASE Rashidova S.Sh. Institute of Polymer Chemistry and Physics of AS RUz, 100128, Uzbekistan, Tashkent, A.Kadyrii str., 7 "b", e-mail:carbon@uzsci.net**

Rashidova Sayera, Institute of Polymer Chemistry and Physics of AS RUz, Tashkent, Uzbekistan

**F20\_P04 STUDY OF FORMATION OF METAL COMPLEXES OF CHITOSAN BOMBYX MORI A.A.**

Kholmuminov Abdulfatto, Institute of Polymer Chemistry and Physics of AS RUz, Tashkent, Uzbekistan

**F20\_P05 Deconstruction and reconstruction of polysaccharide materials by control of thermal and solvent environments: Starch, Cellulose and Hemicellulose**

Roger Ibbett, University of Nottingham, Nottingham, United Kingdom

**F20\_P06 Stability of polysaccharide sulfates dependence on their molecular parameters**

Nodirali Normakhamatov, Institute of Bioorganic Chemistry, Uzbek Academy of Sciences, Tashkent, Uzbekistan

**F20\_P07 Topological modeling of reaction ability and biological activity some amine polysaccharides**

Bahodirjan Asqarov, Institute of polymer chemistry and physics, Tashkent, Uzbekistan

**F20\_P08 New liquid state NMR technique to probe polymer-colloid interaction : adsorption of xyloglucan chains onto cellulose surface**

Laurent Heux, CERMAV-CNRS, Grenoble, France

**F20\_P09 In air synthesis of Gum ghatti-acrylamide based hydrogels and study of the effect of cationic charges on its swelling behavior**

Rajeev Jindal, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India

**F20\_P10 Pressure induced synthesis of *Gum ghatti*-acrylamide based crosslinked networks for the selective absorption of saline from different petroleum fraction-saline emulsions**

Rajeev Jindal, Dr. B. R. Ambedkar National Institute of technology, jalandhar, Punjab, India

**F20\_P11 Preparation of Functionalized Polysaccharide Based Materials: A Combination of Cellulose, RAFT and Supramolecular Chemistry**

Mona Semsarilar, University of Sheffield, Sheffield, United Kingdom

**F20\_P12 ESTIMATION OF DEGREE TRANSFORM OF CARBOXYMETHYLCHITOSANBY METHOD PULSED NMR**

Abdulfatto Kholmuminov, Institute of polymer chemistry and physics, Tashkent, Uzbekistan

**F20\_P13 Weathering of chitosan films in the presence of additives**

Alina Sionkowska, Nicolaus Copernicus University, Torun, Poland

**F20\_P14 Effect of the sodium phosphate dibasic concentration on the swelling properties of chitosan hydrogels**

Agustin Martinez-Ruvalcaba, University of Guadalajara, Chemical Engineering Department, Guadalajara, Jalisco, Mexico

**F20\_P15 Drug delivery kinetics of polyacrylamide-co-itaconic acid/chitosan hydrogels**

Alejandro Gonzalez-Alvarez, Chemical Engineering Department. University of Guadalajara, Guadalajara, Jalisco, Mexico

**F20\_P16 NEW NANOSTRUCTURES BASED ON GLYCOPOLYMERS**

Hulya Arslan, Zonguldak Karaelmas University, Zonguldak, Turkey

**F20\_P17 Study of an environmentally friendly alternative method for agar extraction from commercial *Gelidium sesquipedale***

Ana Sousa, Faculty of Engineering of University of Porto, Porto, Portugal

**F20\_P18 The Mechanism and Kinetics of the Free-Radical Degradation of Xyloglucan in Aqueous Solution Using Gel Permeation Chromatography**

Amilcar Pillay Narrainen, University of Manchester, Manchester, United Kingdom

**F20\_P19 Production of Dried Alginate-Chitosan Microcapsules for Bacterial Encapsulation and their Controlled Release in Simulated Gastro-Intestinal Conditions.**

Michael Cook, University of Reading, Reading, United Kingdom

**F20\_P20 Characterization of the blends of bacterial cellulose/gum Arabic treated with swelling or dissolving solvents**

Cesar A. Tischer, Federal University of Parana - UFPR, Curitiba - Parana, Brazil

**F20\_P21 Nanogels of chitosan and its derivatives**

Olga Philippova, Physics Department of Moscow State University, Moscow, Russian Federation

**F20\_P22 Grafts copolymers of cellulose with controlled architecture prepared in homogeneous phase**

Vladimír Raus, Institute of Macromolecular Chemistry, AS CR, v.v.i., Prague, Czech Republic

**F20\_P23 Films of bacterial cellulose modified after ultrasound**

Paula Faria Tischer, Federal University of Parana (UFPR), Curitiba, Parana, Brazil

**F20\_P24 Cellulose grafted with poly(2-alkyl-2-oxazoline)s**

Paula Jarvi, University of Helsinki, Helsinki, Finland

**F20\_P25 Hydrophobization of nanofibrillated cellulose with hydrocarbon tails and polymers grafted from the surface**

Ulla Hippo, Aalto University, Espoo, Finland

**F20\_P26 Structure-biosynthesis relations for starch and glycogen**

Alex Chi Wu, The University of Queensland, Brisbane, QLD, Australia

Hall 5

**G21: Polymer Electronics**

**G21\_P01 Interfacial Synthesis of Conducting Polymers: Formation of Hollow Spheres**

Bhavana Gupta, School of Materials Science and Technology, Institute of Technology, Banaras Hindu University, Varanasi, India

**G21\_P02 Conducting Polymer nano-composite Electrode for High Power Supercapacitors**

Ashok K. Sharma, Department of Chemistry, G. J. University of Science & Technology, , Hisar (Haryana), India

**G21\_P03 Patterning of Low-bandgap dithiophene Polymer and their application to organic photovoltaics.**

Sehwan Kim, Yonsei University, Seoul, 262 Seongsanno, Seodaemun-gu, Korea, Republic of

**G21\_P05 Towards Materials With Reversible Oxidation and Tuneable Colours Using Heterocyclic Conjugated Azomethines**

Will Skene, Université de Montréal, Montreal, QC, Canada

**G21\_P07 In situ Ordered Nano-assembly of Cellulose Fibers / Polyaniline**

Yue Zhang, College of Life Science & Technology, Huazhong University of Science & Technology, Wuhan, Hubei, China

**G21\_P08 Highly stable, high-capacitance cellulose-polypyrrole nanocomposites**

Soon Yee Liew, University of Nottingham, Nottingham, United Kingdom

**G21\_P09 Electrchemical formation metal polymers and coverings**

E W Kazarian, State University of Armenia, Yerevan, Armenia

**G21\_P10 Optoelectronic processes in pristine and ion irradiated kapton-h polyimide**

Jitendra Quamara, National Institute of technology, Kurukshetra-136119, India

**G21\_P11 Semiconductor character of polyaniline doped by sulfonic acid**

NAAR Nacera, EMP, ALGIES, Algeria

**G21\_P12 Morphology and Optical Properties of Electrospun Light-Emitting Fibers from a Tertiary Blend Solution of an Inert Polymer and Two Conjugated Polymers**

Sutheerat Changsarn, The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand

**G21\_P13 Poly(fluorenevinylene)s and Poly(phenylenevinylene) with Quinoline or Bisquinoline Electron-Accepting Segments**

Spiliopoulos Ioakim, Technological Education Institute of Kalamata,  
Kalamata, Greece

**G21\_P14 *The Synthesis and Evaluation of Conducting Polyaniline Blends***

Zaid K. Abbas, Kingston University, Kingston Upon Thames, United Kingdom

**G21\_P15 Anomalous Enhancement of Conductivity on PEDOT Films with Salts**

Shin-ichiro Nakajima, Japan Aviation Electronics Ind., Ltd., Akishima, Tokyo, Japan

**G21\_P16 Synthesis and testing of fast switching electrochromic conjugated polymers**

Sandeep Kaur, University of Strathclyde, Glasgow, United Kingdom

**G21\_P17 Mechanistic study on the p-quinodimethane formation in the synthesis of PPV through the Sulfinyl and Dithiocarbamate Precursor Routes**

Joke Vandenberg, Institute for Materials Research (IMO), Hasselt University, Diepenbeek, Belgium

**G21\_P18 Investigation of the synthesis and physical properties of novel sulfur-containing polyfluorene co-polymers for the application in OLEDs**

Katja Dahms, Department of Chemistry, Durham University, Durham, United Kingdom

**G21\_P19 Synthesis, photoluminescence, and electrochromism of novel polyamides with 3,6-di-*tert*-butylcarbazol-9-yl-substituted triphenylamine units**

Sheng-Huei Hsiao, National Taipei University of Technology, Taipei, Taiwan

**G21\_P20 One- and two-photon excited fluorescence of two-photon polymerized structures**

Daniel Correa, Instituto de Fisica de Sao Carlos, Universidade de Sao Paulo, Sao Carlos, Sao Paulo, Brazil

**G21\_P21 Properties and Electrical Conductivity Percolation Threshold for Blends of Poly(epichlorhydrin) with Polyaniline Dodecylbenzenesulfonate**

Elaheh Bakhtiarian, Materials Research Group, Faculty of Science, Kingston University, Penrhyn Road, Kingston upon Thames, Surrey KT1 2EE, United Kingdom

**G21\_P22 Synthesis and Characterization of Conducting Polyaniline**

Elaheh Bakhtiarian, Kingston University, London, Penrhyn Road, Kingston upon Thames, Surrey, United Kingdom

**G21\_P23 Control of the nano-morphology of P3HT/PCBM blend using crystallization accelerant**

Leeyih Wang, National Taiwan University, Taipei, Taiwan

**G21\_P24 Investigation of annealing effects of polymer solar cells based on the CdSe-PVK electron acceptor**

Tzong-Liu Wang, Department of Chemical & Materials Engineering, National University of Kaohsiung, Kaohsiung, Taiwan

**G21\_P25 Deep blue OLEDs based on ambipolar triphenylamine-oxadiazole-fluorene triad molecules**

Katharine Linton, Department of Chemistry, Durham University, Durham, United Kingdom

**G21\_P26 New semiconducting copolymers based cyclopentadithiophene end its derivatives**

Ekaterina Myshkovskaya, Institute of Syntetic Polymer Materials Russian Academy of Sciences, Moscow, Russian Federation

**G21\_P27 Extending the range of spectrum utilised in organic photovoltaics by dye sensitisation**

Hannah Jasper, University of Sheffield, Sheffield, United Kingdom

**G21\_P29 Inhomogeneous Quantum Yield Distribution of Photochromic Reactions of some Diarylethenes in Solid State Polymers**

Takashi Yamashita, Tokyo University of Science, Chiba, Japan

**G21\_P30 Enhancement of thermal conductivity of silicon epoxy/ $\text{Al}_2\text{O}_3$  composite via using modified polysiloxane containing metal oxide**

Hyungu Im, Chung-Ang University, Seoul, Korea, Republic of

**G21\_P31 Electrical conductivity of PU-g-MWNTs / PU composite film ; Effect of hard segment structure on PU matrix**

Sungjin Yoon, Chung-Ang university, Seoul, Korea, Republic of

**G21\_P32 Direct Porous structure patterning of Polyimides without development process**

Yasushi Matsuzawa, Tokyo University of Science, Noda, Japan

**G21\_P33 Thermoelectric Property Enhancements of PEDOT:PSS by Structural Modification**

Tsung-Che Tsai, National Chiao Tung University, NCTU, Hsinchu City, Taiwan

**G21\_P34 Star-like conjugated oligothiophenesilanes for photovoltaic applications.**

Elena Kleymyuk, Institute of Synthetic Polymer Materials of Russian Academy of Sciences, Moscow, Russian Federation

**G21\_P35 Towards Materials for Polymer Solar Cells with Controlled Polymerization Techniques**

Maria Heuken, Leibniz-Institut für Polymerforschung Dresden e.V., Dresden, Germany

**G21\_P36 Oligofluorene-functionalised Truxenes as Electron Conducting/Hole Blocking Layers in Electroluminescent Devices**

Neil Thomson, The University of Strathclyde, Glasgow, United Kingdom

**G21\_P37 Fabrication of fatty acid-poly(*p*-phenylene vinylene) mixed nanostructured films through the Langmuir-Blodgett technique**

Shu Wang, Universidade de Sao Paulo, Sao Paulo, Brazil

**G21\_P38 Inkjet printing with inks based on PANI and PPy conductive polymers**

Monika Rom, University of Bielsko-Biala, Institute of Textile Engineering and Polymer Materials, Bielsko-Biala, Poland

**G21\_P39 High Thermal Stability and Transparency of Polyester Having Main-Chain Terminal OH Group Capped by using Benzoyl Chlorides**

Masayoshi Tabata, Muroran Institute of Technology, Muroran, Japan

**G21\_P40 Design of Highly Thermal Resistant Plastic Optical Fibre (POF) as a Step-Index Type Using a Chemically Modified Aromatic Polyester**

Masayoshi Tabata, Muroran Institute of Technology, Muroran, Japan

**G21\_P41 Truly critical constitutional defects in poly(*p*-phenylene vinylene)s and their impact on ageing and fatigue of light-emitting diodes**

Nicole Vilbrandt, Technical University of Darmstadt, Darmstadt, Hessen, Germany

**G21\_P42 Novel solution-processable materials for (opto)electronic applications: polymer-immobilized small-molecule semi-conductors**

Jochen Wulff, Ernst-Berl-Institut for chemical engineering and macromolecular chemistry, Darmstadt, Germany

**G21\_P43 A Facile Approach Towards Optically Isotropic, Colorless, and Thermoplastic Polyimidothioethers with High Refractive Index**

Guey-Sheng Liou, National Taiwan University, Taipei, Taiwan

**G21\_P44 Use of novel Polyvinylidene (di) Fluoride products as electrode binders for printed Li-ion Thin Film Batteries**

Lionel PICARD, CEA-Grenoble/DRT/LITEN/DEHT/LBA, Grenoble, France

**G21\_P45 Polyaniline Synthesis Using Fenton Reagent: Reaction Course Study**

Michal Blaha, Charles University in Prague, Hlavova 2030, Prague, Czech Republic

**G21\_P46 PLEDs devices with OC<sub>1</sub>C<sub>10</sub>-PPV as emissive polymer comparing chloroform and toluene as solvents and treated ITO films by UV-Ozone using modified HID mercury lamp.**

Wang Shu Hui, Engenharia Metalúrgica e de Materiais da Escola Politécnica da Universidade de São Paulo, São Paulo, SP/Cidade Universitária, Brazil

**G21\_P47 Synthesis and Photovoltaic application of Block Copolymers Based on Poly(3-hexylthiophene) and Polystyrene**

Harikrishna Erothu, LCPO, ENSCPB, UNIVERSITY OF BORDEAUX 1, BORDEAUX, AQUITAINE, France

**G21\_P48 The synthesis and characterisation of novel organic conjugated molecules based on a benzothiadiazole unit**

Saadeldin Elmasly, University of strathclyde, Glasgow/Scotland, United Kingdom

**G21\_P49 The incorporation of the dye molecule BODIPY into conjugated polymers for solar cell applications**

Zuzana Vobecka, University of Strathclyde, WestCHEM, Department of pure and applied chemistry, Glasgow, United Kingdom

**G21\_P50 Blends of TIPS-pentacene and a glassy polymer: Optical and morphological study for lasing applications**

Kittiyaporn Singsumphan, Department of Physics, University of Surrey, Guildford, Surrey, United Kingdom

**G21\_P51 New aromatic polybenzoxazine matrix**

SORINA GAREA, University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania

**G21\_P52 A Novel OFET Design Exploiting Dielectric Peculiarity and Compatibility of the Thiophene Based Gel at the Interface of the Device**

Zekeriya Dogruiyol, Yildiz Technical University, Department of Physics, Istanbul, Turkey

**G21\_P53 Tuning the Electronic Properties of Conjugated Polymer by Tethering Low Band-Gap Rhenium(II) Complex on the Main Chain**

Chris S. K. Mak, Department of Chemistry, The University of Hong Kong, Pokfulam Road, Hong Kong, Hong Kong



**G21\_P54 Molecular dynamics of poly-alkyl-thiophenes: experimental study by neutron scattering, rheology and calorimetry**

Victoria Garcia Sakai, ISIS Facility, Oxfordshire, United Kingdom

Hall 5

**G22: Molecularly Imprinted Polymers**

**G22\_P01 Hierarchically structured porous beads as artificial receptors with high capacity and favorable mass transfer for protein separation and depletion**

Ali Nematollahzadeh, Institute of Environmental Research (INFU)  
University of Dortmund, Dortmund, Germany

**G22\_P02 The development of enzyme conjugated molecularly imprinted polymers.**

Joanne O'Connor, Limerick Institute of Technology, Limerick, Ireland

**G22\_P03 Synthesis and characterization of MIP coatings as sensing layers of low-cost sensors for security applications**

Gudrun Bunte, Fraunhofer ICT, 76327 Pfinztal, Germany

**G22\_P04 Molecularly imprinted hydrogels for the peptide-hormone hepcidin prepared by the epitope approach via water-in-oil suspension polymerization under mild conditions.**

Vincenzo Abbate, King's College London, London, United Kingdom

**G22\_P05 Design and Development of New Diamino-pyridine Based Functional Monomer for the Effective Imprinting of the Pharmaceutical Drug Aminogluthethimide: Water Compatible Sol-Gel Approach**

Porkodi Kadirvel, University of Porto, Porto, Portugal

**G22\_P06 MOLECULARLY IMPRINTED POLYMER FOR SELECTIVE EXTRACTION AND CLEAN-UP OF CATECHINS FROM NATURAL SAMPLES**

María del Mar Castro López, Laboratorio de Química - Centro de Investigacións Tecnolóxicas - Universidade da Coruña, Campus de Esteiro s/n, 15403, Ferrol, Spain

**G22\_P07 CHARACTERIZATION OF MOLECULARLY IMPRINTED POLYMERS FOR ATMER-129**

María Concepción Cela Pérez, Laboratorio de Química-Centro de Investigacións Tecnolóxicas-Universidade da Coruña, Campus de Esteiro s/n, 15403, Ferrol, Spain

**G22\_P08 Temperature Responsive Imprinted Polymer Hydrogels Based on Electrostatic Interaction and Hydrogen bonding**  
Xueyong Liu, Institute of Chemical Materials, Mianyang, Sichuan, China

**G22\_P09 Developments in the synthesis of molecularly imprinted polymers with different functional monomers**  
Sonia Scorrano, University of Salento, Lecce, Italy

**G22\_P10 Malachite green detection based on MIP sensing concepts; proof of principle sensing for environmental screening**  
Ans Weustenraed, Hasselt University, Institute for Materials Research (IMO), Diepenbeek, Belgium

**G22\_P11 Investigation of the influence of Reversible Addition Fragmentation chain Transfer (RAFT) agent on the performance and properties of an L-phenylalanine anilide MIP**  
Mahadeo Halhalli, Technische Universität, Institut für Umweltforschung, Dortmund, NRW, Germany

**G22\_P12 Development of Point-of-care Sensors to Improve Drug Delivery using Molecular Imprinted Polymers**  
Stuart Gilby, Cranfield University, Bedfordshire, United Kingdom

**G22\_P13 Molecularly Imprinted Polymers (MIPs) targeting posttranslationally modified protein fragments.**  
Sudhirkumar Shinde, INFU, TU, Dortmund, NRW, Germany

**G22\_P14 Role of polymerization temperature on recognition properties of Thermo-responsive MIPs: switchable behaviour.**  
Francesco Puoci, Università della Calabria, Rende, Italy

**G22\_P15 BULK VS EMULSION POLYMERISATION FOR IMPRINTED PARTICLES PREPARATION**  
Catherine Branger, MAPIEM Laboratory - Université SUD Toulon-Var, La Valette du Var, France

**G22\_P16 MOLECULARLY IMPRINTED POLYMERS IN DISPERSED PHASE**  
Ibon Iturralde, University of The Basque Country-POLYMAT, Donostia-San Sebastian/Gipuzkoa, Spain

**G22\_P17 Molecularly imprinted polymers for recognition of neopterin in diagnostic applications**  
Roberta Del Sole, University of Salento, Lecce, Italy

**G22\_P18 Molecularly Imprinted Polymers: A Market Overview based on the Patent Situation**  
Soeren Schumacher, Fraunhofer IBMT, Potsdam-Golm, Germany

**G22\_P19 Effective molecular imprints of mono-functional templates.**

Yvonne Luk, Cardiff University, Cardiff, United Kingdom

**G22\_P20 Comparative evaluation of molecular imprinted polymer equilibrium binding data**

Marc Kelly, Cardiff University, Cardiff, United Kingdom

**G22\_P21 Optimisation of MIP Performance by Porogen Tuning and Post-Polymerisation Modification**

Jenna Bowen, Cardiff University, Cardiff, United Kingdom

Hall 5

**G25: Polymers in Liquid Crystalline Materials**

**G25\_P03 Novel Liquid Crystalline and Enhanced Light Emitting Polyacetylenes: Effects of Substitution, Spacers and Terminal Groups on Polyacetylenes Bearing Terphenyl Pendants**

Yiwang Chen, Nanchang University, Nanchang, China

**G25\_P04 A study of cationic polymerization of 1-(2-hydroxyethyl)aziridine**

Marta Giamberini, Departament d'Enginyeria Química, Universitat Rovira i Virgili, Tarragona, Spain

**G25\_P05 Molecular orientation behavior of azobenzene polymer liquid crystals and their application for photoresponsive 1D-photonic crystal**

Seiji Kurihara, Kumamoto University, Kumamoto, Japan

**G25\_P06 DSC and synchrotron studies of liquid crystalline copolyesters**

María L Cerrada, Institute of Polymer Science and Technology (CSIC), Madrid, Spain

**G25\_P07 Relations between the Diisocyanate Structure and Properties of Liquid Crystalline Polyurethane Elastomers**

Steven Fuhrmann, Heriot-Watt University, Edinburgh, United Kingdom

Hall 5

**H27: Polymer Education**

**H27\_P01 Multidisciplinary project: Synthesis and application of transparent lattices**

Pooja Daswani, Technical University of Eindhoven(TU/e), Eindhoven, Netherlands

**H27\_P02 Masterclass Project: Controlled drug release from biodegradable polymer nanoparticles**

T.G.T. Jansen, Eindhoven University of Technology, Eindhoven, Netherlands

**H27\_P03 Design-based Learning & The synthesis of colloidal nanocomposites**

Joris Salari, Polymer Chemistry Group, Eindhoven, Netherlands

## **FRIDAY 16 JULY 2010 - ORAL SESSIONS**

Clyde Auditorium

### **Plenary: Laura Kiessling**

09:00 PLEN\_06 **Synthesis of Polymeric Probes to Control Cell Recognition and Signaling**

Laura Kiessling, University of Wisconsin-Madison, Madison, United States

Clyde Auditorium

### **Plenary: Ming Jiang**

PLEN\_07 **New Strategies in Macromolecular Self-assembly in Solutions**

Ming Jiang, Fudan University, Shanghai, China

Clyde Auditorium

### **Plenary: Sir Richard Friend**

PLEN\_08 **Control of Structure and Electronic Structure in Polymeric Semiconductor Diodes**

Richard Friend, University of Cambridge, Cambridge, United Kingdom