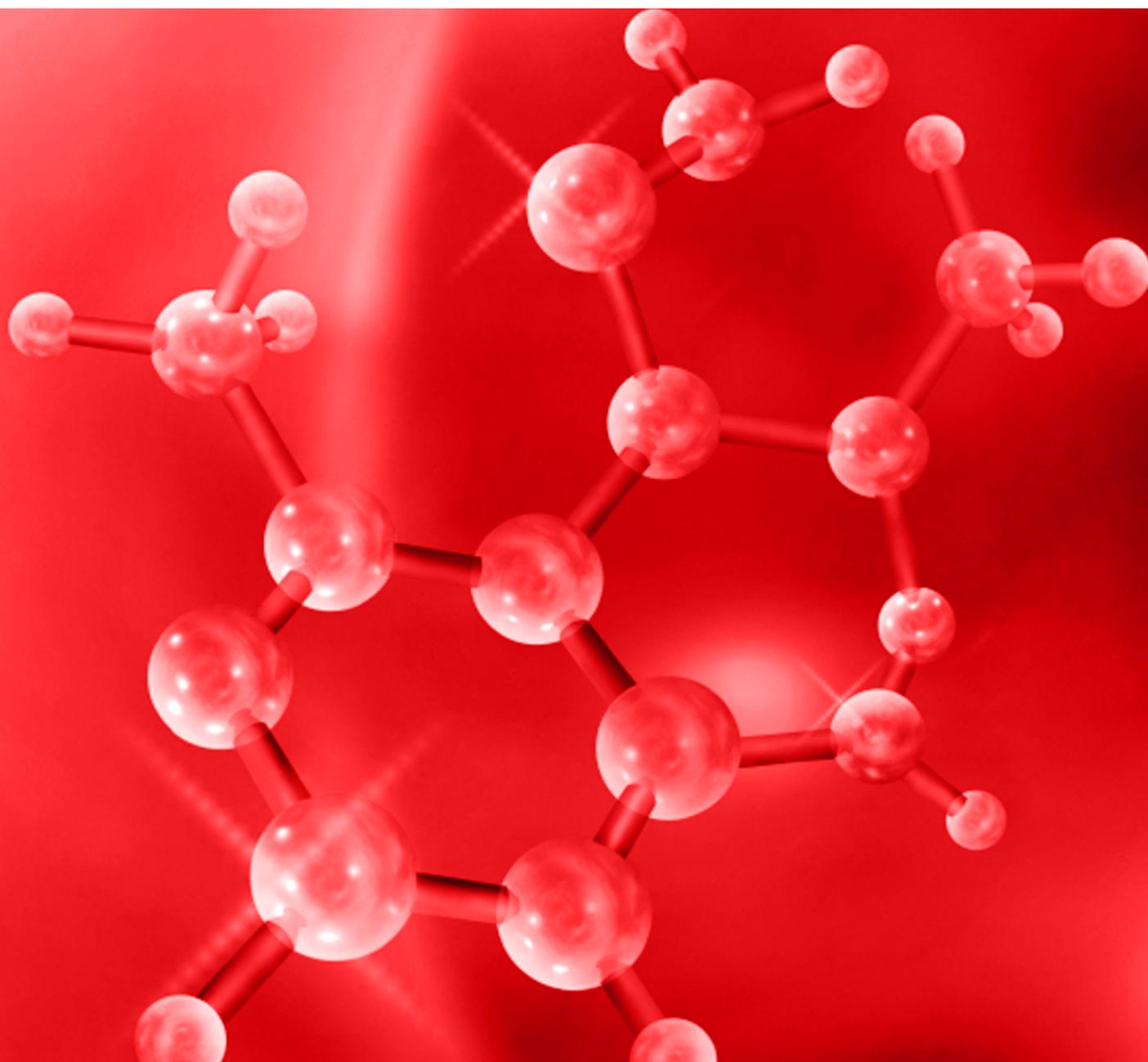


Scientific Program

International Conference on

POLYMER SCIENCE & ENGINEERING

August 22-24, 2025 Paris France



Hosting Organization: Meetingsera Conferences

46 D Chichilee Road, NW23DA London, UK, Tel: +1-800-216-6499

Email: polymerscience@meconferences.org

Scientific Program

Day 1 August 22, 2025

08:30-09:30 Registrations

Hall B

09:30-09:55 **Opening Ceremony**

Keynote Forum

09:55-10:00 Introduction

10:00-10:35 **Title: Brief history of plastics and how they conquered the world**
Mosongo Moukwa, PolyOne Designed Structures and Solutions, USA

10:35-11:10 **Title: New chemical approaches to complete solvent removal and their applications in preparation of non-porous and porous PLGA microspheres**
Hongkee Sah, Ewha Womans University, Republic of Korea

Group Photo

Networking & Refreshments Break: 11:10-11:30

Sessions: Polymer Physics

Session Introduction

Session Chair: Padmaja Guggilla, Alabama A&M University, USA

11:30-11:55 **Title: MWCNT doped PVDF: Nanocomposite films and their Raman spectral analysis**
Padmaja Guggilla, Alabama A&M University, USA

11:55-12:20 **Title: Effect of dispersion process and anionic to non-ionic ratio on properties of waterborne polyurethane dispersion**
Suresh Kolekar, Pidilite private Ltd. India

12:20-12:40 **Title: The surface activity of polymeric materials as determined from computational simulation**
Guy Francis Mongelli, Case Western Reserve University, USA

12:40-13:00 **Title: IR TMOA-Infrared Transition Moment Orientational Analysis as a valuable method to determine the spatial orientation and order of distinct subunits in polymeric systems**
A M Anton, University of Leipzig, Germany

13:00-13:20 **Title: Conducting polymers: Synthesis and kinetic study by pulsed radiolysis**
Cecilia Coletta, Université Paris-Saclay, France

Lunch Break: 13:20-14:00

Sessions: Polymer Nanotechnology | Biodegradable Polymers | Advanced Polymer structures

Session Introduction

Session Chair: Ana Barros-Timmons, University of Aveiro, Portugal

14:00-14:25 **Title: Grafting PLA onto GO and its effect on derived nanocomposites**
Ana Barros-Timmons, University of Aveiro, Portugal

14:25-14:50 **Title: Strong biodegradability of vinyl polymers exerted by insertion of N-benzyl-4-vinylpyridinium PBVP(Br), halide into the main chain**
Nariyoshi Kawabata, University of Shiga Prefecture, Japan

Networking & Refreshments Break: 14:50-15:10

15:10-15:35 **Title: The glass transition temperature of thin polycarbonate films and trinitrotoluene (TNT): Measured by Flash Differential Scanning Calorimetry (Flash DSC)**
Nabila Shamim, Texas Tech University, USA

15:35-16:00 **Title: Influence of covalent and ionic crosslinking on structure development in hydrogels assembled via in situ photo-polymerization**
Saminu M Magami, Edinburgh Napier University, United Kingdom

16:00-16:20 **Title: Studies of near surface dynamics and filler dispersion in nanocomposites**

James Hart, Durham University, UK

16:20-16:40 **Title: Quantum nanoparticles doped polymer waveguides for light propagation**

Parva Chhantyal, Laser Zentrum Hannover, Germany

Panel Discussion

Day 2 August 23, 2016

Hall B

Keynote Forum

10:00-10:35 **Title: Challenges for nano-scale imaging of polymeric nanostructures by electron microscopy**

Hiroshi Jinnai, Tohoku University, Japan

Sessions: Frontiers in Polymer Science & Engineering | Polymers meet Biology & Biosystems | Applications of Polymers

Session Introduction

Session Chair: Nurettin Sahiner, Canakkale Onsekiz Mart University, Turkey

10:35-11:00 **Title: Conductive PEI semi-IPN cryogels: Synthesis and characterization**

Nurettin Sahiner, Canakkale Onsekiz Mart University, Turkey

11:00-11:25 **Title: Degradable polymers for the oil and gas industry**

Sherry Zhu, Schlumberger-Doll Research Center, USA

Networking & Refreshments Break: 11:25-11:45

11:45-12:10 **Title: Powder cellulose nanocrystal (nanowhisker) prepared for functional filler of polymers**

Toshihiko Arita, Tohoku University, Japan

12:10-12:30 **Title: Preparation and characterization of functionalized heparin-loaded poly-ε-caprolactone fibrous mats to prevent infection with human papillomaviruses**

Daniela Gonzalez, University of Nebraska Lincoln, USA

12:30-12:50 **Title: Biodegradable drug delivery vehicles produced by controlled ring-opening polymerisations**

Mthulisi Khuphe, University of Leeds, United Kingdom

12:50-13:10 **Title: Preparation of a nanobiocomposite scaffold containing boron modified bioactive glass nanoparticles and biopolymers of cellulose acetate/pullulan/gelatin and evaluation of its application in dentin tissue engineering**

Reza Moonesi Rad, Middle East Technical University, Turkey

13:10-13:30 **Title: On the effect of autofrettage on compressive behavior of fiber metal composite cylinder**

Sumana B G, Government Engineering College, India

Lunch Break: 13:30-14:10

Poster Presentations: 14:10-14:40

PS-01 **Title: The catalytic activity of cathode with sputtered cobalt with graphene oxide on carbon paper**

Dong Min Kim, Hongik University, Republic of Korea

PS-02 **Title: Ionic liquid-based polymer electrolytes via surfactant-assisted polymerization at the plasma-liquid interface**

Ho-Suk Choi, Chungnam National University, Republic of Korea

PS-03 **Title: The use of poly (tris(2-aminoethyl)amine-co-glycerol diglycidyl ether microgel as template for Co, Ni nanoparticles and their use as catalyst for H₂ production from NaBH₄ hydrolysis**

Nurettin Sahiner, Canakkale Onsekiz Mart University, Turkey

PS-04 **Title: The preparation of imidazolium based composite polymeric ionic liquid microgels containing Co metal nanoparticles and their use as catalyst in hydrolysis of NaBH₄**

Nurettin Sahiner, Canakkale Onsekiz Mart University, Turkey

PS-05 **Title: Synthesis of novel type of functional macromolecules by quasi living polymerizations and subsequent modifications**

Balázs Pásztói, Hungarian Academy of Sciences, Hungary

Interactive sessions by JPK Instruments and Malvern Instruments

14:40-15:10 Title: **Latest developments in hardware and applications for advanced, multi-detector GPC/SEC**
Carrie Schindler, Malvern Instruments, USA

Networking & Refreshments Break: 15:10-15:30

15:30-16:00 Title: **Modern tools for analyzing morphology and nano-mechanical properties of polymers**
Matt thompson, JPK Instruments, Germany

16:00-16:45 Workshop on **Introduction to GPC with triple detection and its capabilities**
by: Carrie Schindler, Malvern Instruments, USA

Panel Discussion

Day 3 August 24, 2016

Hall B

Sessions: Polymer Material Science & Engineering | Composite Polymeric Materials

Session Introduction

Session Chair: Mahdi Saud Alajmi, Public Authority for Applied Education and Training, Kuwait

10:00-10:25 Title: **Mechanical and nanoindentation studies on nano-layered silicate reinforced recycled glass-filled polyamide 12 nanocomposites**
Mahdi Saud Alajmi, Public Authority for Applied Education and Training, Kuwait

10:25-10:50 Title: **Towards the realization of post-silicon smart systems: IPMC based sensors**
Salvatore Graziani, University of Catania, Italy

10:50-11:15 Title: **Preparation of a photoactive 3D polymer pillared with metalloporphyrin**
Rahmatollah Rahimi, Iran University of Science and Technology, Iran

Networking & Refreshments Break: 11:15-11:35

11:35-12:00 Title: **Co, Ni and Cu metal nanoparticle containing cationic p(MTMA) microgel composites as catalyst for H₂ generation and nitro compound reductions**
Omer F Ozturk, Canakkale Onsekiz Mart University, Turkey

12:00-12:25 Title: **Photocatalytic properties of TiO₂-Graphene nanocomposite as a 2D polymer photosensitized with porphyrin**
Rahmatollah Rahimi, Iran University of Science and Technology, Iran

12:25-12:45 Title: **Effect of surface modification of multi wall carbon nanotubes on the electrical properties of the polymer composite epoxy/CNT**
Milena Kurkowska, Warsaw University of Technology, Poland

Panel Discussion

Lunch Break & Closing Ceremony 12:45-13:45

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