

**2<sup>nd</sup> GLOBAL CONFERENCE ON  
POLYMERS, PLASTICS AND COMPOSITES  
&  
5<sup>th</sup> WORLD  
CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at  
London, United Kingdom**

# Scientific Program

**Venue:**

**Hotel Novotel London Wembley  
London, United Kingdom**



Login:

Meeting ID: 821 8547 5387

Pass code: 544894



Day  
**1**  
Tuesday

2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

Meeting Room- Wembley 2

08:00-08:40 \_\_\_\_\_ Registrations

08:40-09:00 \_\_\_\_\_ Welcome Ceremony

## KEYNOTE TALKS

09:00-09:30 \_\_\_\_\_ **Recent Advances in Photocatalytic Chemical Conversion**

*Jimmy C. Yu, The Chinese University of Hong Kong, Hong Kong*

09:30-10:00 \_\_\_\_\_ **Quantum Light-Enhanced Two-Photon Imaging of Breast Cancer Cells**

*Theodore Goodson III, University of Michigan, United States*

10:00-10:30 \_\_\_\_\_ **Modelling and characterization of mixed-matrix membranes**

*Jules Thibault, University of Ottawa, Canada*

**GROUP PHOTO**

**Refreshment Break 10:30- 10:50 @ Foyer**

Technical Session-I

Session Chairs:

*Ying Zhang, University of Nottingham, UK*

*Daniela Matias de Carvalho Bittencourt, Embrapa Genetic Resources and Biotechnology, Brazil*

10:50-11:10 \_\_\_\_\_ **Polymeric materials as tools to study and direct immune function**

*Christopher M. Jewell, University of Maryland - College Park, USA*



2<sup>nd</sup> GLOBAL CONFERENCE ON  
**POLYMERS, PLASTICS AND COMPOSITES**  
&  
5<sup>th</sup> WORLD  
**CHEMISTRY CONFERENCE AND EXHIBITION**  
Oct 04 - 05, 2022 at London, UK

---

- 11:10-11:30 ————— **Surface-Immobilized Photoinitiators for Light Induced Polymerization and Coupling Reactions**  
*Wolfgang Kern, University of Leoben, Austria*
- 11:30-11:50 ————— **Properties of polymer chains at interfaces revealed by quantum beam techniques**  
*Hiroyuki Aoki, Japan Atomic Energy Agency, High Energy Accelerator Research Organization, Japan*
- 11:50-12:10 ————— **Development and characterisation of sustainable prepregs with improved fire behaviour based on furan resin and basalt fibre reinforcement**  
*Patricia Ares Elejoste, Gaiker Technology Centre, Spain*
- 12:10-12:30 ————— **Understanding the Structural Organization of Synthetic Spider Silk for the Development of Novel Biomaterials**  
*Daniela Matias de Carvalho Bittencourt, Embrapa Genetic Resources and Biotechnology, Brazil*
- 12:30-12:50 ————— **Sustainable act for construction chemicals by using recycled biopolymer in cementitious tile adhesive**  
*Nevin Karamahmut Mermer, Kalekim Construction Chemicals Co, Turkey*
- 12:50-13:10 ————— **Predicting the lifetime of weathered polyolefins by relating mechanics to microstructure**  
*Marta Chiapasco, Imperial College, UK*

**Lunch Break 13:10-14:10 @ Restaurant**



2<sup>nd</sup> GLOBAL CONFERENCE ON  
**POLYMERS, PLASTICS AND COMPOSITES**  
&  
5<sup>th</sup> WORLD  
**CHEMISTRY CONFERENCE AND EXHIBITION**  
Oct 04 - 05, 2022 at London, UK

---

Technical Session-II

Session Chairs:

*Christopher M. Jewell, University of Maryland - College Park, USA*

*Tomas Sikola, Brno University of Technology, Czech Republic*

- 14:10-14:30 ————— **Something from Nothing: Bioplastic from one carbon feedstock**  
*Ying Zhang, University of Nottingham, UK*
- 14:30-14:50 ————— **Temperature dependence of PSS diffusion in multilayers of entangled PDADMA: more than one diffusion constant**  
*Annekatriin Sill, University of Greifswald, Germany*
- 14:50-15:10 ————— **The Microencapsulation of Tung Oil with Natural Hydrocolloid and Synthetic Emulsifiers for Extrinsic Self-Healing Applications**  
*Abdullah Mustapha, Technology Innovation Institute, UK*
- 15:10-15:30 ————— **On-line ATR-MIR for real-time quantification of chemistry kinetics along the barrel in extrusion-based processes**  
*Lucivan Pereira Barros Junior, Case Western Reserve University, USA*
- 15:30-15:50 ————— **Kinetics of Guided Growth of Horizontal Nanowires on Sapphire Surfaces**  
*Tomas Sikola, Brno University of Technology, Czech Republic*
- 15:50-16:10 ————— **Preparation of Poly(ethylene glycol)@Polyurea Microcapsules Using Oil/Oil Emulsions and Their Application as Microreactors**  
*Raed Abu-Reziq, The Hebrew University of Jerusalem, Israel*

**Refreshment Break 16:10-16:20 @ Foyer**



2<sup>nd</sup> GLOBAL CONFERENCE ON  
**POLYMERS, PLASTICS AND COMPOSITES**  
&  
5<sup>th</sup> WORLD  
**CHEMISTRY CONFERENCE AND EXHIBITION**  
Oct 04 - 05, 2022 at London, UK

---

- 16:20-16:40 ————— **A synergistic multi material flame retardant formulation for reinforced PA6 on the basis of expandable graphite**  
*Florian Tomiak, Friedrich Alexander Universität Erlangen-Nürnberg, Germany*
- 16:40-17:00 ————— **Greenhouse Gas Emission Reduction Potential of European Union's Circularity Related Targets for Plastics**  
*Anna Tenhunen-Lunkka, VTT Technical Research Centre of Finland Ltd, Finland*

Panel Discussion

Day  
**2**  
Wednesday

2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

Meeting Room - Wembley 2

Technical Sessions- III

Session Chairs:

*Sourav Bhattacharjee, University College Dublin (UCD), Ireland*

*Konstantina Lambrinou, University of Huddersfield, UK*

09.30-09.50 \_\_\_\_\_ **Helical structure motifs made searchable for functional peptide design**

*Lee Wei Yang, National Tsing Hua University, Taiwan*

09.50-10.10 \_\_\_\_\_ **Toward surface manipulation of engineered nanoparticles in drug delivery: The rise of in silico tools**

*Sourav Bhattacharjee, University College Dublin (UCD), Ireland*

10.10-10.30 \_\_\_\_\_ **Environmental degradation of structural and fuel cladding stainless steels in liquid lead- and liquid lead-bismuth eutectic-cooled reactors**

*Konstantina Lambrinou, University of Huddersfield, UK*

10.30-10.50 \_\_\_\_\_ **Cilostazol-imprinted polymer film-coated electrode as an electrochemical chemosensor for selective determination of cilostazol and its active primary metabolite**

*Wlodzimierz Kutner, Institute of Physical Chemistry, Polish Academy of Sciences and Cardinal Stefan Wyszyński University in Warsaw, Poland*

10.50-11.10 \_\_\_\_\_ **Transition-metals perovskites electrocatalysts for boosting the electrochemical energy reactions**

*Mohamed Ali Ghanem, King Saud University, Saudi Arabia*

**Refreshment Break 11:10-11:30 @ Foyer**

Day  
**2**  
Wednesday

2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

**Poster Session (11:30 – 12:30)**

- POSTER-1 ————— **Chemical Recycling of Real Complex Waste Streams**  
*Izotz Amundarain, GAIKER, Spain*
- POSTER-2 ————— **Origin of capacitance decay for a flower-like  $\delta$ -MnO<sub>2</sub> aqueous supercapacitor electrode: The quantitative surface and electrochemical analysis**  
*Byung Chul Kim, Suncheon National University, South Korea*
- POSTER-3 ————— **The Synthesis of hyperbranched polymers based TADF materials for OLEDs applications**  
*Saif H D Althagafi, University of Sheffield, UK*
- POSTER-4 ————— **A highly efficient nanocomposite-containing coatings for the protection of Mg-alloy against corrosion in chloride containing electrolytes**  
*Mariam Abbi Abtidon, Kuwait University, Kuwait*
- POSTER-5 ————— **The Synthesis of TADF hyperbranched polymers based Oxadiazoles for OLEDs applications**  
*Fatemah Asiri, University of Sheffield, UK*
- POSTER-6 ————— **The formation mechanism of Choline Chloride and Glucose based Natural Deep Eutectic Solvents studied at the molecular level**  
*Zhassulan Sailau, Al-Farabi Kazakh National University, Kazakhstan*
- POSTER-7 ————— **The physico-chemical attributes that determine insulin agglomeration: Therapeutic implications**  
*Megren Faghihi, University College Dublin, Ireland*
- POSTER-8 ————— **The influence of different cross-linking methods of hydrogels based on PVA on self-healing performance and ionic conductivity**  
*Nujood Saeed Alshehhi, Technology Innovation Institute, United Arab Emirates*

Day  
**2**  
Wednesday

2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

---

POSTER-9

Preparation and Characterization of Graphene-Enriched Tung oil-Urea Formaldehyde Microcapsules

*Maitha Almheiri, Technology Innovation Institute, United Arab Emirates*

Awards and Closing Ceremony

**Lunch Break 12:30-13:30 @ Restaurant**



Day  
**2**  
Wednesday

2<sup>nd</sup> GLOBAL CONFERENCE ON  
**POLYMERS, PLASTICS AND COMPOSITES**  
&  
5<sup>th</sup> WORLD  
**CHEMISTRY CONFERENCE AND EXHIBITION**

Oct 04 - 05, 2022 at London, UK

(Virtual Through ZOOM)  
London Time (GMT+1) - 11:30- 17:20

- |             |       |  |
|-------------|-------|--|
| 11:30-12:00 | ————— | <b>Plenary Talk:</b> Environment-assisted degradation of fibres in FRP composites for advanced concrete structure<br><i>Raman Singh, Monash University, Australia</i>                                  |
| 12:00-12:20 | ————— | High performance graphene-based devices with an affordable cost by using a wafer bonding<br><i>Hirokazu Fukidome, Tohoku University, Japan</i>   |
| 12:20-12:40 | ————— | Vibro-impact response of FRP sandwich plates with a foam core reinforced by chopped fiber rods<br><i>Hui Li, Northeastern University, China</i>  |
| 12:40-13:00 | ————— | Cost-efficient and recyclable epoxy vitrimer composite with low initial viscosity based on exchangeable disulfide crosslinks<br><i>Shaojian He, North China Electric Power University, China</i>       |
| 13:00-13:20 | ————— | Asymmetry at ferromagnet/antiferromagnet interface: Route toward an advanced spin-orbit torque device<br><i>Chao-Yao Yang, National Yang Ming Chiao Tung University, Taiwan</i>                        |
| 13:20-13:40 | ————— | Palladium-catalyzed chemoselective direct $\alpha$ -arylation of carbonyl compounds with chloroaryl triflates at the C-Cl site<br><i>Chau Ming So, The Hong Kong Polytechnic University, Hong Kong</i> |
| 13:40-14:00 | ————— | Development of IrOx pH electrode modified by SP/SiOx/ImIL composite film with long stability and high anti-interference<br><i>Shen Yunwen, Zhejiang University, China</i>                              |



2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

- 
- 14:00-14:20 — Unraveling roles of lead ions in selective flotation of scheelite and fluorite from atomic force microscopy and first-principles calculations  
*Wenjiahao Hu, Central South University, China*
- 14:20-14:40 — Mechanical and Electrical Performances of Poly(lactic Acid/Liquid Natural Rubber/Graphene Platelets Nanocomposites in the Light of Different Graphene Platelets Functionalization Routes  
*Sahrim Ahmad, Universiti Kebangsaan Malaysia, Malaysia*
- 14:40-15:00 — Electronic and steric effects on L-Lactide Ring-Opening polymerization with NSSN-type Zr(IV) Complexes  
*Ida Ritacco, University of Salerno, Italy*
- 15:00-15:20 — Mechanistic Insights on Ethylene Polymerization with Ni(II) Catalysts: the impact of the ligand on the polymer microstructure:  
*Maria Voccia, University of Salerno, Italy*
- 15:20-15:40 — Grid Cells in the Brain as a Synergetic Problem of Physical Chemistry and Neurophysiology  
*Alexander Chalyi, Bogomolets National Medical University, Ukraine*
- 15:40-16:00 — Effect of physical-mechanical treating of cellulose on the properties of elastomeric composites  
*Ivan Labaj, Alexander Dubcek University of Trencin, Slovakia*
- 16:00-16:20 — Manufacturing processes of bonded magnets for the automotive industry  
*David Esteves, CeNTI, Portugal*
- 16:20-16:40 — Electrical and mechanical investigation of silver-polyurethane composite film under applied pressure  
*Saeid Mehvari, Northumbria University Newcastle, UK*

Day  
**2**  
Wednesday

2<sup>nd</sup> GLOBAL CONFERENCE ON

**POLYMERS, PLASTICS AND COMPOSITES**

&

5<sup>th</sup> WORLD

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Oct 04 - 05, 2022 at London, UK**

- 
- 16:40-17:00 ————— **Parameter Screening and Optimization of a Polycaprolactone-Based Electrospun Membrane for Guided Tissue Regeneration Applications**  
*Yuanyuan Duan, University of Mississippi Medical Center, USA*
- 17:00-17:20 ————— **Electrostatic sheathing of lipoprotein lipase is essential for its movement across capillary endothelial cells**  
*Wenxin Song, UCLA, USA*

Closing Remarks

**We wish to  
see you again at**

**3<sup>rd</sup> Global Conference on  
POLYMERS, PLASTICS AND COMPOSITES**

**Sept 04-05, 2023 at Rome, Italy**

Website: <https://polymers-plastics.org/>

Email: [matthewsmithson@innovinc.org](mailto:matthewsmithson@innovinc.org)

**6<sup>th</sup> WORLD**

**CHEMISTRY CONFERENCE AND EXHIBITION**

**Sept 04-05, 2023 at Rome, Italy**

Website: <https://worldchemistry.org/>

Email: [Alex\\_greenSPAN@worldchemistry.org](mailto:Alex_greenSPAN@worldchemistry.org)



**Innovinc International**

5201 Great America Pkwy #320, Santa Clara, CA 95054,  
United States  
Ph: +1-408-352-1010

**Innovinc International**

301, Sri Venkateswara Residency, Balaji Nagar, Nizampet, Hyderabad,  
TS, India. 500072  
Ph: +918374242127