

# CONFERENCE AGENDA

Federation of Asian Polymer Societies Biennial Polymer Congress 2025  
(FAPS 2025)



## THE ARC @NTU, SINGAPORE

1-4 DEC 2025

				<b>Organized &amp; Supported by</b>			
							

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# Programme At A Glance

## MONDAY, 1 DECEMBER 2025

8:00 AM -  
9:30 AM  
**Registration** (The Arc, B1),  
**Morning Tea Reception**  
(VLYM LT, Formerly LT1)

9:30 AM -  
9:40 AM  
**Welcome Address**  
by Prof. Xiao (Matthew) Hu

9:40 AM -  
9:50 AM  
**Guest-of-Honour Address**  
by Prof. Warren C.W. Chan

9:50 AM -  
10:35 AM  
**Opening Plenary 1:**  
“Conformal/Bioelectronic  
Interface”  
by Prof. Xiaodong CHEN  
(Chair: Prof. Atushi GOTO)

10:35 AM -  
11:00 AM  
**Announcements and  
Photo taking Session**

11:00 AM -  
12:30 PM  
**Session 1**  
(The Arc, Lvl 1, TR+14, 15, 30)

12:30 PM -  
1:30 PM  
**Lunch & Poster Session**  
(The Arc, Lvl 1)

1:30 PM -  
3:10 PM  
**Session 2**  
(The Arc, Lvl 1, TR+14, 15, 30)

3:15 PM -  
3:35 PM  
**Afternoon Tea Break**  
(The Arc, Lvl 1)

3:35 PM -  
6:00 PM  
**Session 3**  
(The Arc, Lvl 1, TR+14, 15, 30)

## TUESDAY, 2 DECEMBER 2025

8:00 AM -  
9:30 AM  
**Registration**  
(The Arc, B1)

9:30 AM -  
10:15 AM  
**Opening Plenary 2:**  
*RAFTing Radical Polymerization:  
Past and Future*  
by Prof. San Hoa THANG  
(Chair: Prof. Zi-Chen LI)

10:15 AM -  
10:30 AM  
**Morning Tea Break**  
(VLYM LT, Formerly LT1)

10:30 AM -  
12:30 PM  
**Session 4**  
(The Arc, Lvl 1, TR+14, 15, 30)

12:30 PM -  
1:30 PM  
**Lunch & Poster Session**  
(The Arc, Lvl 1)

1:30 PM -  
3:10 PM  
**Session 5**  
(The Arc, Lvl 1, TR+14, 15, 30)

3:15 PM -  
3:35 PM  
**Afternoon Tea Break**  
(The Arc, Lvl 1)

3:35 PM -  
6:00 PM  
**Session 6**  
(The Arc, Lvl 1, TR+14, 15, 30)

## WEDNESDAY, 3 DECEMBER 2025

8:00 AM -  
9:30 AM  
**Registration**  
(The Arc, B1)

9:30 AM -  
10:15 AM  
**Opening Plenary 3:**  
*Aquatic Functional Polymeric  
Materials for Sustainability*  
by Prof. Takashi KATO  
(Chair: Dong Hoon CHOI)

10:15 AM -  
10:30 AM  
**Morning Tea Break**  
(VLYM LT, Formerly LT1)

10:30 AM -  
12:30 PM  
**Session 7**  
(The Arc, Lvl 1, TR+14, 15, 30)

12:30 PM -  
1:30 PM  
**Lunch & Poster Session**  
(The Arc, Lvl 1)

1:30 PM -  
3:10 PM  
**Session 8**  
(The Arc, Lvl 1, TR+14, 15, 30)

3:15 PM -  
3:35 PM  
**Afternoon Tea Break**  
(The Arc, Lvl 1)

3:35 PM -  
6:00 PM  
**Session 9**  
(The Arc, Lvl 1, TR+14, 15, 30)

## THURSDAY, 4 DECEMBER 2025

8:00 AM -  
9:30 AM  
**Registration**  
(The Arc, B1)

9:30 AM -  
10:15 AM  
**Opening Plenary 4:**  
*Circular Polymer Innovation:  
Thailand's Journey Toward  
Sustainable Materials and Bacterial  
Cellulose Frontiers*  
by Prof. Hathaikarn MANUSPIYA  
(Chair: Prof. Wei ZHAI)

10:00 AM -  
10:30 AM  
**Appreciation Address**  
by Prof. Xiao (Matthew) Hu  
**Morning Tea Break**  
(VLYM LT, Formerly LT1)

10:30 AM -  
12:30 PM  
**Session 10**  
(The Arc, Lvl 1, TR+14, 15, 30)



\*Plenary sessions will be held at Von Lee Yong Miang Lecture Theatre (Formerly Lecture Theatre 1)

# Plenary Speakers



**Prof. Xiaodong CHEN**

**Distinguished University Professor at NTU, Fellow of the Royal Society, and Editor-in-Chief of ACS Nano**

School of Materials Science and Engineering, Nanyang Technological University, Singapore



**Prof. San Hoa THANG**

**Co-inventor of RAFT Polymerization, Companion of the Order of Australia (AC), and Fellow of the Australian Academy of Science (FAA)**

School of Chemistry, Monash University, Australia



**Prof. Hathaikarn Manuspiya**

**Professor of Polymer Engineering  
Director of Center of Excellence on Petrochemical and Materials Technology (PETROMAT)  
Winner of 2011 L'Oréal Thailand Fellowship For Women in Science**

Chulalongkorn University, Thailand



**Prof. Takashi Kato**

**Professor Emeritus, University of Tokyo, Japan  
Specially Appointed Professor at Shinshu University and at Okayama University, Japan  
Council member of FAPS and PPF**

University of Tokyo, Japan

# Guest of Honour



**Prof. Warren C.W. Chan**

Dean, College of Engineering  
President's Chair in Engineering  
Professor, School of Chemistry, Chemical  
Engineering and Biotechnology  
Professor, School of Materials Science &  
Engineering  
Professor, Lee Kong Chian School of Medicine  
(Courtesy Appointment)  
Member, Board of Governance, School of  
Chemistry, Chemical Engineering and  
Biotechnology (CCEB)

Nanyang Technological University,  
Singapore

**Xiao Matthew Hu**

Nanyang Technological University  
Serving President of FAPS

**Ayse Zehra Aroguz**

Biruni University İstanbul

**Kookheon Char**

Seoul National University

**Dong Hoon Choi**

Korea University, Seoul

**Rusli Daik**

Universiti Kebangsaan

**Takashi Kato**

University of Tokyo

**Anil Kumar**

Indian Institute of Technology Bombay

**Zichen Li**

Peking University

**Ying-Ling Liu**

National Tsing Hua University

**Hiroyuki Nishide**

Waseda University

**Yury Shchipunov**

Institute of Chemistry, Far East Department Russian Academy of Sciences

**Ramakrishnan Subramaniam**

Indian Institute of Science Bangalore

**Xianhong Wang**

Changchun Institute of Applied Chemistry

**Taweechai Amornsakchai**

Mahidol University Bangkok

# Committee



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### **Prof. Xiao (Matthew) HU**

School of Materials Science and Engineering, Nanyang Technological University



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### **Asst. Prof. Leonard Wei Tat NG**

School of Materials Science and Engineering, Nanyang Technological University



## Co-General Secretary

### **Asst. Prof. Jie SHEN**

School of Materials Science and Engineering, Nanyang Technological University



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Department of Urban-Rural Planning, Harbin Institute of Technology

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School of Materials Science and Engineering, Nanyang Technological University

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School of Materials Science and Engineering, Nanyang Technological University



**Organizing Committee**

**Prof. Atsushi GOTO**

School of Chemistry, Chemical Engineering and Biotechnology, Nanyang Technological University



**Organizing Committee**

**Dr. Yuan Chong Jason LIM**

A\*STAR Institute of Materials Research and Engineering (A\*STAR IMRE)



**Organizing Committee**

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School of Materials Science and Engineering, Nanyang Technological University

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School of Chemistry, Chemical Engineering and Biotechnology, Nanyang Technological University

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Faculty of Science, Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University (PolyU)

**Prof. Ingo PINNAU**

Physical Science and Engineering Division, King Abdullah University of Science and Technology (KAUST)

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Department of Materials Science and Engineering, National University of Singapore

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School of Mechanical and Materials Engineering, Washington State University

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School of Materials Science and Engineering, Nanyang Technological University

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Department of Mechanical Engineering, National University of Singapore

**Asst. Prof. Yiliang LIN**

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**Dr. Gillian GOH**

Institute of Sustainability for Chemicals, Energy and Environment (ISCE<sup>2</sup>), Agency for Science, Technology and Research (A\*STAR)

**Dr. James L. HEDRICK**

International Business Machines Corporation (IBM)

**Dr. Lili ZHANG**

Institute of Sustainability for Chemicals, Energy and Environment (ISCE<sup>2</sup>), Agency for Science, Technology and Research (A\*STAR)

**Dr. Xian Jun LOH**

Institute of Materials Research and Engineering (IMRE), Agency for Science, Technology and Research (A\*STAR)

**Dr. Yi Yan YANG**

Bioprocessing Technology Institute (BTI), A\*STAR

# Conference Organisers / Session Chairs

Track	Date	Session Chairs
I  (The Arc, TR +14)	1 Dec	<b>S1-3:</b> Prof. Rong WANG, Prof. Qianhong SHE, Prof. Jie SHEN, and Dr. Bofan LI
	2 Dec	<b>S4-5:</b> Prof. Wei ZHAI and Dr. Amrita JOSHI <b>S6:</b> Prof. Roland Yingjie TAY and Dr. Vivek Arjunan VASANTHA
	3 Dec	<b>S7:</b> Prof. Leonard Wei Tat NG and Dr. Sarmad FEROUZE <b>S8:</b> Prof. Dong Hoon CHOI and Dr. Xingchi XIAO <b>S9:</b> Prof. Leonard Wei Tat NG and Prof. Ming LIU
	4 Dec	<b>S10:</b> Dr. Bijun TANG and Prof. Roland Yingjie TAY
II  (The Arc, TR +15)	1 Dec	<b>S1-3:</b> Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA
	2 Dec	<b>S4-5:</b> Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA <b>S6:</b> Prof. Yiliang LIN and Dr. Dan KAI
	3 Dec	<b>S7:</b> Prof. Yiliang LIN and Dr. Dan KAI <b>S8:</b> Prof. Peichen SU and Prof. Beatrice SOH <b>S9:</b> Prof. Peichen SU and Dr. Bijun TANG
	4 Dec	<b>S10:</b> Prof. Peichen SU and Prof. Ming LIU
III  (The Arc, TR +30)	1 Dec	<b>S1:</b> Prof. Beatrice SOH and Prof. Roland Yingjie TAY <b>S2-3:</b> Prof. Ran NI and Prof. Lei ZHU
	2 Dec	<b>S4-6:</b> Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU
	3 Dec	<b>S7:</b> Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU <b>S8-9:</b> Prof. Jinwen ZHANG, Dr. Zibiao LI, Dr. Zhuang Mao PNG, and Dr. Yuan Chong Jason LIM
	4 Dec	<b>S10:</b> Prof. Jinwen ZHANG, Dr. Zibiao LI, Dr. Zhuang Mao PNG, and Dr. Yuan Chong Jason LIM

# 1-4 DEC

Von Lee Yong Miang Lecture Theatre  
(Formerly Lecture Theatre 1)

## **Registration**

0800-0930 (*The Arc, Level B1*)

### **Opening Plenary 1**

“Conformal Bioelectronic Interface”

Plenary Speaker: Prof. Xiaodong CHEN

Chaired by: Prof. Atsushi GOTO

Date & Time: **1 December 2025**, Monday, 0950-1035

### **Opening Plenary 2**

“RAFTing Radical Polymerization: Past and Future”

Plenary Speaker: Prof. San Hoa THANG

Chaired by: Prof. Zi-Chen LI

Date & Time: **2 December 2025**, Tuesday, 0930-1015

### **Opening Plenary 3**

“Aquatic Functional Polymeric Materials for Sustainability”

Plenary Speaker: Prof. Takashi KATO

Chaired by: Prof. Dong Hoon CHOI

Date & Time: **3 December 2025**, Wednesday, 0930-1015

### **Opening Plenary 4**

“Circular Polymer Innovation: Thailand’s Journey Toward Sustainable Materials and Bacterial Cellulose Frontiers”

Plenary Speaker: Prof. Hathaikarn MANUSPIYA

Chaired by: Prof. Wei ZHAI

Date & Time: **4 December 2025**, Thursday, 0915-1000

## **Morning Tea Breaks**

(*Von Lee Yong Miang Lecture Theatre*)

1 Dec: 0800-0930

2-4 Dec: 1015-1030

### Engineering Aspects of Polymers

Session 1 Chairs:

Prof. Rong WANG, Prof. Qianhong SHE, Prof. Jie SHEN, and Dr. Bofan LI

Time	Presentation Title	Speaker
1100-1125	S8-I-25006: Hydroxyl-Functional Polymers of Intrinsic Microporosity and Dual-Functional Blends for Membrane-Based Gas Separations	Prof. Ingo PINNAU
1125-1150	S4-I-25007: Physics-Informed Machine-Learning Models for Enhancing Understanding and Prediction of Polymeric-Membrane Fouling	Prof. Jia Wei CHEW
1150-1215	S8-I-25001: Integral Asymmetric Isoporous Block Copolymer Membranes	Prof. Volker ABETZ
1215-1230	S8-C-25015: Sustainable Valorisation of 3D Printing Waste: Electrospun Colored PLA Nanofibers for High-Performance Oil Adsorption and Regeneration	Mr. Mrinal PODDAR

1230-1330 Lunch & Poster Presentation

### Session 2 Chairs:

Prof. Rong WANG, Prof. Qianhong SHE, Prof. Jie SHEN, and Dr. Bofan LI

Time	Presentation Title	Speaker
1330-1355	S8-I-25010: Composite Membranes for Olefin/Paraffin Separation via Facilitated Olefin Transport	Prof. Xianshe FENG
1355-1420	S8-I-25014: Molecular Engineering of Microporous Polymer Membranes for Sustainable Separation and Energy Processes	Assoc. Prof. Qilei SONG
1420-1445	S8-I-25011: Rational Design of Ion-Exchange Membranes with Ultrahigh Charge Densities	Assoc. Prof. Jovan KAMCEV
1445-1510	S8-I-25012: Advancing Bipolar Membranes: Integrating 3D Junction Architecture, Ether-Free Ionomers, and Catalytic Design for Enhanced Water Splitting	Prof. Jaewoo LEE

1510-1535 Afternoon Tea Break

# 1 DEC

## Track I, The Arc (TR+14)

Session 3 Chairs:

Prof. Rong WANG, Prof. Qianhong SHE, Prof. Jie SHEN, and Dr. Bofan LI

Time	Presentation Title	Speaker
1535-1600	S8-I-25013: New Application of Electrodialysis	Prof. Yaoming WANG
1600-1625	S8-I-25017: Thermally Intensified Interfacial Polymerization for High-Performance Polyamide Membranes Development	Prof. Hao GUO
1625-1650	S8-I-25004: Sustainable Membranes for a Circular Membrane Industry	Dr. Bofan LI
1650-1705	S8-C-25009: Multifunctional Sustainable Silk Fibroin-Based Separation Membranes	Dr. Chun-Po HU
1705-1730	S8-I-25008: Sustainable Strategies in Molecular Engineering of Mixed Matrix Membranes for Gas Separation	Prof. Wai Fen YONG

### Engineering Aspects of Polymers

Session 4 Chairs:  
Prof. Wei ZHAI and Dr. Amrita JOSHI

Time	Presentation Title	Speaker
1030-1055	S9-I-25006: Hydrogel Interface Adhesion and Biomedical Applications	Prof. Tongqing LU
1055-1120	S9-I-25012: Strong and Tough Hydrogels Inspired by Nature's Composite Hierarchical Strategy	Asst. Prof. Wei ZHAI
1120-1145	S7-I-25029: Composite Thermoelectric Materials for Waste Heat Harvesting	Prof. Chaobin HE
1145-1200	S9-C-25008: Polymer-Based Nanocomposites for Reliable Operation of Electronics in Harsh Electromagnetic Environments	Mr. Qinniu LYU
1200-1225	S9-I-25019: Adaptive Energy Dissipator with Compression-to-Tension Design	Dr. Haitao YE
1225-1240	S9-C-25015: Strong and Conductive Silk for Smart and Protective Textiles	Dr. Haojie LU

1230-1330 Lunch & Poster Presentation

Session 5 Chairs:  
Prof. Wei ZHAI and Dr. Amrita JOSHI

Time	Presentation Title	Speaker
1330-1355	S9-I-25002: Natural Nanofiber/Polymer Biomimetic Composite Materials	Prof. Linxin ZHONG
1355-1410	S9-C-25003: Bamboo-Inspired Ultra-Strong Nanofiber-Reinforced Composite Hydrogels	Dr. Hao ZHUO
1410-1425	S9-C-25014: Crosslinking-Assisted Salting-out Strategy for Constructing Super-Strong, Anti-Swelling, and Mechanically Tunable Hydrogels	Mr. Weicheng GAO
1425-1450	S9-I-25001: Engineering the Extreme Properties of Hydrogels with Salt	Prof. Chuanzhuang ZHAO
1450-1505	S9-C-25023: Optimized Mn-Zn Ferrite Nanoparticles for Spinheat Processing	Ms. Jiaojiao WANG

1510-1535 Afternoon Tea Break

### Session 6 Chairs:

Prof. Roland Yingjie TAY and Dr. Vivek Arjunan VASANTHA

Time	Presentation Title	Speaker
1535-1600	S9-I-25018: Research on Nano-Catalytic Materials for Antimicrobial Infection Control and Wound Healing	Prof. Hongbin LI
1600-1625	S4-I-25002: Hierarchical Polymer Graph Representation for Deep Learning Prediction of Ionic Conductivity in Polymer Electrolytes	Prof. Sunnam PARK
1625-1650	S9-I-25017: 3D Light-Processed Printing of Biofunctional Hydrogel Dressings for Enhanced Wound Healing	Assoc. Prof. Feng CHENG
1650-1705	S7-C-25030: Pressure Sensing Cu/PDMS Capacitive Flexible Sensor Modeling and Relative Permittivity Modulation	Dr. Xu WANG
1705-1730	S9-I-25013: Development of a Room-Temperature Polymerized Composite Coupler with Embedded Process Monitoring	Dr. Chen WANG
1730-1755	S7-I-25004: Developing Nanoscale Morphology for High-Performance Organic Bulk-Heterojunction at a Large Area	Dr. Hae Jung SON

### Engineering Aspects of Polymers

Session 7 Chairs:  
Prof. Leonard Wei Tat NG and Dr. Sarmad FEROUZE

Time	Presentation Title	Speaker
1030-1055	S7-I-25002: Design of Sterically Shielded Dendritic MR-TADF Molecules for Solution-Processed OLEDs	Prof. Dong Hoon CHOI
1055-1110	S9-C-25016: Magnetic Mn–Zn Ferrite Curie Nanoparticles Produced by Auto-Combustion for Spinheat Curing	Ms. Purvi KHANNA
1110-1135	S7-I-25021: Manufacturing of Next Generation of Smart and Conjugated Polymers via Continuous Process Intensification	Prof. Anil KUMAR
1135-1150	S7-C-25014: Strategies to Achieve Efficiency of Over 19% for Organic Solar Cells	Dr. Xingchi XIAO
1150-1205	S7-C-25018: Direct Integration of Biomass-Derived Furan Polymers for Enhanced Stability and Efficiency in Hybrid Perovskite Solar Cells	Mr. Yujia LI
1205-1220	S7-C-25015: IDIC Non-Fullerene Acceptor Interlayer as Sustainable Interface Modifiers for Stable n-i-p Perovskite Solar Cells	Mr. Maloy DAS

1230-1330 Lunch & Poster Presentation

# 3 DEC

## Track I, The Arc (TR+14)

Session 8 Chairs:  
Prof. Dong Hoon CHOI and Dr. Xingchi XIAO

Time	Presentation Title	Speaker
1330-1355	S7-I-25020: Polythiophene Films as a Photo-Cathode and/or -Anode for Visible-Light-Driven Water-Splitting	Prof. Hiroyuki NISHIDE
1355-1420	S6-I-25017: Smart Textiles for Personalized Healthcare and Sustainability	Asst. Prof. Ronghui WU
1420-1445	S7-I-25001: Organic Photocatalysts and Photoelectrochemical Cells for Green Hydrogen Production	Prof. Han Young WOO
1445-1510	S7-I-25032: Electronic Structure Modulation in Solution-Processed 2D Materials Towards Tunable (Opto)electronics and Photonics	Asst. Prof. Guohua HU

1510-1535 Afternoon Tea Break

Session 9 Chairs:  
Prof. Leonard Wei Tat NG and Prof. Ming LIU

Time	Presentation Title	Speaker
1535-1600	S7-I-25033: Gel-Based Ionic Thermoelectric Materials for Sustainable Energy Harvesting	Prof. Cheng-Liang LIU
1600-1615	S7-C-25009: Printed Photovoltaics for BIPV/BAPV Applications	Dr. Sarmad FERZE
1615-1640	S7-I-25003: Nondestructive High-Resolution Patterning of Electronic Materials	Assoc. Prof. BongSoo KIM
1640-1655	S7-C-25008: Polysaccharide-Driven Modulation of Ionic Thermoelectric Performance in Gel-Based Energy Harvesting Devices	Dr. Shao-Huan HONG
1655-1710	S7-C-25026: PEDOT:PSS Films with Very High Thermoelectric Properties through Water-Swollen Assisted Reduction with a Tetrakis(dimethylamino)ethylene Solution	Ms. Yichen XU
1710-1725	S4-C-25003: When is Bayesian Optimization Beneficial? A Critical Assessment of Optimization Strategies in High-Throughput Organic Photovoltaic Manufacturing	Mr. Matthew OSVALDO
1725-1750	S4-I-25012: Building an Ecosystem for Lab Automation and Autonomy at AIST	Dr. Don Noromi FUTABA

### Engineering Aspects of Polymers

Session 10 Chairs:  
Dr. Bijun TANG and Prof. Roland Yingjie TAY

Time	Presentation Title	Speaker
1030-1055	S7-I-25011: Sequential Solution Polymerization for In-Situ Deposition of Conducting Polymer Films	Prof. Kuan SUN
1055-1110	S9-C-25024: Development of Spinheat Technology for Energy-Efficient Fiber Reinforced Polymer Composite Fabrication	Mr. Thool Chinmay SUDHAKAR
1110-1125	S9-C-25021: Spinheat Based Curing via Sol-Gel Synthesized Mn-Zn Ferrite Curie Nanoparticles (CNP)	Dr. Anshul BARAL
1125-1150	S7-C-25028: Transition Metal Phosphide PA6 Composites with Excellent Thermal Conductivity, Ferroelectric Response and Improved Nanomechanical Properties	Dr. Benjamin TAWIAH
1150-1205	S7-C-25027: Topographic SEM Revealing 3D Surface Structure by Replacing Gold with PEDOT:PSS as the Conductive Coatings	Ms. Wen SUN

# 1 DEC

## Track II, The Arc (TR+15)

### Polymer Chemistry, Functionality, and Applications

Session 1 Chairs:

Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA

Time	Presentation Title	Speaker
1100-1125	S2-I-25011: Bio-Based Closed-Loop Recyclable Polyesters	Prof. Zi-Chen LI
1125-1150	S2-I-25007: Synthesis and Functions of Dense Triazole Polymers	Prof. Akihito HASHIDZUME
1150-1215	S2-I-25027: Mechanistic Insights into Sonochemical Catalyst Activation: Direct vs. Remote Ultrasound Initiation and Optimized Conditions for Sustainable Frontal Ring-Opening Metathesis Polymerization	Prof. Jinglei YANG
1215-1230	S2-C-25034: Electrochemical Curing Strategy for Structural Adhesives	Dr. Animesh GHOSH

1230-1330 Lunch & Poster Presentation

# 1 DEC

## Track II, The Arc (TR+15)

Session 2 Chairs:

Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA

Time	Presentation Title	Speaker
1330-1355	S2-I-25026: Monomer Design for Library Synthesis of Precision Polymers	Prof. Makoto OUCHI
1355-1420	S2-I-25003: Macrocyclic Ring-Opening Polymerizations Based on Sulfur-Centered Radical Chemistry	Prof. Hanchu HUANG
1420-1445	S2-I-25002: Aggregation-Regulated Cascade Synthesis of Multiblock Copolymers by Atom Transfer Radical Addition-Coupling Copolymerization	Prof. Youliang ZHAO
1445-1510	S2-I-25006: Cationic Co- and Terpolymerization of Vinyl, Cyclic, and Carbonyl Monomers for the Synthesis of Sequence-Controlled, Degradable Polymers	Assoc. Prof. Arihiro KANAZAWA

1510-1535 Afternoon Tea Break

# 1 DEC

## Track II, The Arc (TR+15)

### Session 3 Chairs:

Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA

Time	Presentation Title	Speaker
1535-1600	S2-I-25021: New Polymerization System of Chain-Growth Controlled/"Living" Click Polymerization	Prof. Kotaro SATOH
1600-1615	S2-C-25001: Model-Guided Design and Solvent-Free Synthesis of Polysiloxanes with High Refractive Index and Low Viscosity	Dr. Donglin ZHONG
1615-1640	S2-I-25024: Cumulene-Based Functional Polymers	Prof. Rong ZHU
1640-1655	S2-I-25029: Confined Brønsted Acid Catalysis for Stereoselective Cationic Polymerization of Vinyl Ethers: A Metal-Free Approach	Prof. Saihu LIAO
1655-1720	S2-I-25008: The Two-Step Yu Model for the Nucleation and Growth of Colloidal Semiconductor Quantum Dots	Prof. Kui YU
1720-1745	S2-I-25018: Advancing Thiol-Aldehyde Polycondensation Towards Sustainable Polymers	Prof. Liang YUAN
1745-1800	S2-C-25022: High-Transparency Bio-Based Polyimides from Camphor-Derived Monomers	Mr. Hsiang-Mien WANG

# 2 DEC

## Track II, The Arc (TR+15)

### Polymer Chemistry, Functionality, and Applications

Session 4 Chairs:

Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA

Time	Presentation Title	Speaker
1030-1055	S2-I-25031: Reinforcement and Enzymatic Recycling of Biodegradable Polyesters via Movable Crosslinking Strategies	Prof. Yoshinori TAKASHIMA
1055-1120	S2-I-25028: Electrochemically Mediated Atom Transfer Radical Polymerization Employing Rapid Alternating Polarity	Asst. Prof. Yunyan QIU
1120-1145	S2-I-25023: Discovery of Anion-Binding Catalytic Polymerization	Prof. Youhua TAO
1145-1200	S2-C-25004: Dynamic Polymer Networks from Low-Cost Feedstocks	Asst. Prof. Jiajun YAN
1200-1215	S2-C-25005: Degradation Behaviors of Imipenem/Cilastatin Particles in Water and the Design of Novel Divanillin-Based Polycycloacetals	Ms. Zhang RUI
1215-1230	S2-C-25030: Side-Group Engineering of Water-Soluble Conjugated Polythiophenes for Nitroaromatic Explosive Sensing	Dr. Soner KARBACAK

1230-1330 Lunch & Poster Presentation

### Session 5 Chairs:

Prof. Zi-Chen LI, Prof. Atsushi GOTO, and Prof. Yoshinori TAKASHIMA

Time	Presentation Title	Speaker
1330-1355	S2-I-25036: New Frontier of Concentrated Polymer Brushes in Tribology and Anti-Icing Functionality	Prof. Yoshinobu TSUJII
1355-1420	S2-I-25012: Syndiotactic Poly(Substituted Methylene)s: Liquid Crystallinity and Enhanced Functional Properties of Side Chains	Prof. Masatoshi TOKITA
1420-1445	S2-I-25035: Innovative Post-Functionalized Hypercrosslinked Polymers as Versatile Platforms for Environmental Remediation	Assoc. Prof. Thanthapatra BUNCHUAY
1445-1510	S2-I-25025: Functional Polymer Synthesized via Halogen Bonding-Based Radical Polymerization	Prof. Atsushi GOTO

1510-1535 Afternoon Tea Break

# 2 DEC

## Track II, The Arc (TR+15)

Session 6 Chairs:  
Prof. Yiliang LIN and Dr. Dan KAI

Time	Presentation Title	Speaker
1535-1600	S5-I-25014: Keratins as Sustainable Materials for Biomedical Applications and Beyond	Prof. Kee Woei NG
1600-1625	S5-I-25007: Development of Supramolecular Self-Assembled Polymers and Hydrogels for Nanomedicine and Sustainability Applications	Prof. Jun LI
1625-1650	S5-I-25013: Valorization of Tropical Lignocellulosic Biomass Towards Sustainable Materials	Dr. Dan KAI
1650-1715	S5-I-25005: High-Precision 3D Printing of Complex Tissue Scaffolds Using a Starch-Chitosan Hybrid Bioink	Prof. David Fengwei XIE
1715-1740	S5-I-25021: Liquid Metal/Polymer Composites as 4D-Printed Soft Robotic Systems	Dr. Ruirui QIAO
1740-1805	S5-I-25022: Information and Exploration in Polymer Chemical Space	Assoc. Prof. Zhi LUO

# 3 DEC

## Track II, The Arc (TR+15)

### Polymer Chemistry, Functionality, and Applications

Session 7 Chairs:  
Prof. Yiliang LIN and Dr. Dan KAI

Time	Presentation Title	Speaker
1030-1055	S5-I-25019: Reproducing Reproductive Organs/Tissues via Additive Manufacturing and Bioprinting	Prof. Min WANG
1055-1120	S5-I-25016: Polymer Architectures Fabricated to Direct Cell Organisation in Tissue Engineering System	Prof. Ayşe Zehra AROĞUZ
1120-1135	S5-C-25006: Solar-Responsive Spider Silk Protein/Ag <sub>2</sub> Se Nanofiber Thermoelectric Devices for Flexible Power Generation	Mr. Chih-Wei HSU
1135-1150	S5-C-25001: Development of a Conducting Polymer-Based Smart Wound-Healing Device	Ms. Jingwen YANG
1150-1205	S5-C-25015: Developing 3D-Printed Hydrogels with Tunable Macroporous Structures for Enhanced Cell Proliferation	Ms. Liwei LIU
1205-1230	S5-I-25012: Granule-Based, Tissue-Like Materials for Regenerative Medicine and Bioelectronics	Asst. Prof. Yiliang LIN

1230-1330 Lunch & Poster Presentation

# 3 DEC

## Track II, The Arc (TR+15)

Session 8 Chairs:  
Prof. Peichen SU and Prof. Beatrice SOH

Time	Presentation Title	Speaker
1330-1355	S6-I-25008: Electrochemical Production of 2D Nanomaterials and Their Applications in Direct Ink Writing 3D Printing	Prof. Yulin ZHONG
1355-1420	S6-I-25007: Towards a Greener Future: Application of Thermochromic Polymer in Building Thermal Management	Prof. Shancheng WANG
1420-1435	S6-C-25011: Temperature-Controlled Recovery Force of Thermoset Shape Memory Polymers	Dr. Chin Siang NG
1435-1500	S6-I-25018: 4D Printing of Versatile Shape Memory Polymers with Digital Light Processing	Prof. Peichen SU

1510-1535 Afternoon Tea Break

# 3 DEC

## Track II, The Arc (TR+15)

Session 9 Chairs:  
Prof. Peichen SU and Dr. Bijun TANG

Time	Presentation Title	Speaker
1535-1600	S6-I-25001: Friction Control via Tunable Interpenetration of Spherical Polyelectrolyte Brushes	Prof. Xuhong GUO
1600-1625	S6-I-25009: Lignin-Driven Multi-Dynamic Networks for Self-Healing Hydrogels and Elastomers	Prof. Dongyu ZHU
1625-1650	S5-I-25004: Harnessing Natural Polysaccharides: Tailoring Multifunctional Biomaterials for Neural Repair and Biomedical Applications	Prof. Guang YANG
1650-1715	S6-I-25002: Remote Propulsion of Casted and Additive Manufactured Infrared-Irradiated PolyPOSS-Polyimide Robust 4D Bilayer Actuators	Dr. Ronan VERKER
1715-1740	S6-I-25020: Improvement of Water Vapor Transport in Membranes for Functional Textiles	Asst. Prof. Vitali LIPIK
1740-1755	S6-C-25010: Strain-Coupled, Crystalline Polymer-Inorganic Interfaces for Efficient Magnetoelectric Sensing	Ms. Binbin HE

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## Track II, The Arc (TR+15)

### Polymer Chemistry, Functionality, and Applications

Session 10 Chairs:  
Prof. Peichen SU and Prof. Ming LIU

Time	Presentation Title	Speaker
1030-1055	S6-I-25006: Additive Manufacturing of Polymer Gels for Wearable Ionotronics and Soft Robotics	Assoc. Prof. Sheng-Sheng YU
1055-1120	S6-I-25013: Explainable Machine Learning Study of Polyurethane Vitrimers	Dr. Jianwei ZHENG
1120-1135	S6-C-25016: 4D Printing Hybrid Soft Robots Enabled by Shape-Transformable Liquid Metal Nanoparticle	Mr. Xumin HUANG
1135-1150	S6-C-25014: Polymeric Hollow Spheres for Efficient Heavy Metal Removal	Dr. Yen Nan LIANG
1150-1205	S6-C-25015: Chain Length-Dependent Modulus Behavior in PEGDA-Based Shape Memory Polymer Networks	Mr. Taehyub LEE
1205-1230	TBD	Assoc. Prof. Hua LIU

### Polymer Physics, Self-Assembly, and Environmental Concerns

Session 1 Chairs:  
Prof. Beatrice SOH and Prof. Roland Yingjie TAY

Time	Presentation Title	Speaker
1100-1125	S10-I-25001: Nano/Microfibrillated Cellulose Aerogels. Materials for Advanced Technology, Medicine and Ecology	Prof. Yury SHCHIPUNOV
1125-1150	S10-I-25004: Synthetic Fuels and Chemicals from Plastic Waste with Scalability	Dr. Gillian GOH
1150-1215	S10-I-25006: Polymer-Conjugated Graphene Oxide for Tailored Interfaces in Mechanical, Biomedical, and Environmental Applications	Prof. Yuta NISHINA
1215-1240	S4-I-25010: Modular Automation for Polymer Materials Development	Dr. Pablo Quijano VELASCO

1230-1330 Lunch & Poster Presentation

Session 2 Chairs:  
Prof. Ran NI and Prof. Lei ZHU

Time	Presentation Title	Speaker
1330-1355	S1-I-25006: Designer Polymers Enable Hierarchical Chiral Supramolecular Assemblies and Hairy Nanocrystals with Tailored Optical and Catalytic Properties	Prof. Zhiqun LIN
1355-1420	S3-I-25031: Designed Self-Assembly of Programmable Colloidal Atom-Electron Equivalents	Prof. Ran NI
1420-1445	S3-I-25001: Development of Ferroelectric Liquid Crystalline Polymers and Elastomers	Prof. Mingjun HUANG
1445-1510	S10-I-25003: Multifunctional Polymer Nanocomposites for Space Applications: Tailoring Properties with 3D Graphene, Thermal Control Coatings, and POSS Nanoparticles	Dr. Ranjana SHIVAKUMAR

1510-1535 Afternoon Tea Break

Session 3 Chairs:  
Prof. Ran NI and Prof. Lei ZHU

Time	Presentation Title	Speaker
1535-1600	S3-I-25029: Photo-Cross-Stitching of Folded Polymer Chains in Solution	Prof. S. RAMAKRISHNAN
1600-1625	S3-I-25020: Precision Polymer Chemistry for Next-Generation Functional Materials	Prof. Shiyong LIU
1625-1650	S3-I-25022: Growing Shape-Symmetry Incommensurate Polymer Crystalsomes as Functional Nanoparticles	Prof. Christopher LI
1650-1715	S3-I-25004: Formation of DNA Olympic Gel: Kinetics of Catenation, Topological and Mechanical Properties	Prof. Hong LIU
1715-1740	S3-I-25024: The Effect of Hydrodynamics on the Effective Forces and Average Potential Energy of Passive Particles in Bacterial Suspensions	Assoc. Prof. Luhui NING
1740-1755	S5-C-25021: Effect of Polydopamine Surface Treatment on the Mechanical and Adhesive Properties of Zirconia and Resin Laminate Veneers Fabricated Using Additive and Subtractive Manufacturing: An In Vitro Study	Prof. Ayşe Zehra AROĞUZ

# 2 DEC

## Track III, The Arc (TR+30)

### Polymer Physics, Self-Assembly, and Environmental Concern

Session 4 Chairs:

Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU

Time	Presentation Title	Speaker
1030-1055	S3-I-25019: Morphology and Chain Orientation of Semicrystalline Polymers Studied by Electron Microscopy	Prof. Hiroshi JINNAI
1055-1120	S3-I-25008: Optimizing Morphology to Trade Off Charge Transport and Mechanical Properties of Stretchable Conjugated Polymer Films	Prof. Yanchun HAN
1120-1145	S3-I-25023: Water-Driven Self-Assembly Pathways for Thermostable and Adaptive Supramolecular Materials	Prof. Chien-Lung WANG
1145-1210	S3-I-25002: Spherical Phases in Block Copolymers	Prof. Xue-Hui DONG
1210-1235	S3-I-25010: Fluorine-Free Strongly Dipolar Polymers Exhibit Tailor-Made Ferroelectricity	Prof. Lei ZHU

1230-1330 Lunch & Poster Presentation

### Session 5 Chairs:

Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU

Time	Presentation Title	Speaker
1330-1355	S3-I-25015: Characterizing Polymer Brushes in Aqueous Solutions Using Total Internal Reflection Microscopy	Prof. To NGAI
1355-1420	S3-I-25012: Effect of Hydrogen Bonding Interaction on Crystallization of Long Chain Polyamide 1012 and Its Elastomer	Prof. Xia DONG
1420-1445	S3-I-25016: Dimensional Control of Copper-Chloride Coordination Polymers: A Versatile Platform for Transparent Conductors and Advanced Electrocatalysts	Dr. Kahyun HUR
1445-1510	S3-I-25021: Nanoengineering of Hybrid Mesoporous Silica Nanostructures with Multi-Hydrophilic Block Copolymer	Dr. Tangi AUBERT

1510-1535 Afternoon Tea Break

## Session 6 Chairs:

Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU

Time	Presentation Title	Speaker
1535-1600	S3-I-25003: What Controls the Polymorphic Selection During Polymer Epitaxy?	Prof. Shouke YAN
1600-1625	S3-I-25009: Directing, Positioning, and Fixing of Programmed Reactive Mesogens	Prof. Kwang-Un JEONG
1625-1650	S3-I-25005: Machine-Learning Accelerated Polymer Field Theory Simulations	Prof. Duyu CHEN
1650-1705	S3-C-25025: Multivalent Linker Mediated Self-Assembly and Ultra-Sensitive Biodetection	Dr. Xiuyang XIA
1705-1730	S4-I-25004: Entropic Effects in Polymer System	Assoc. Prof. Liang DAI
1730-1745	S4-C-25011: Learning Ordinal Symbolic-Continuous Alignment of Polymer Solvation States for Rational Material Design	Mr. Zheng Jie LIEW
1745-1800	S3-C-25031: Scalable Precise Self-Assembly of Liquid Crystalline Block Copolymers	Dr. Ling-Juan HU

# 3 DEC

## Track III, The Arc (TR+30)

### Polymer Physics, Self-Assembly, and Environmental Concern

Session 7 Chairs:

Prof. Kwan Wee TAN, Prof. Ran NI, and Prof. Lei ZHU

Time	Presentation Title	Speaker
1030-1055	S3-I-25026: Superlattice Engineering of Soft Alloys in Giant Molecules	Prof. Stephen Z.D. CHENG
1055-1120	S3-I-25018: Long-Range Ordered Nanostructures of Statistical Side-Chain Liquid Crystalline Copolymers	Prof. Erqiang CHEN
1120-1145	S3-I-25014: Polypropylene Vitrimers as Additives for Enhanced Strength and Melt Processability	Prof. Dong WANG
1145-1210	S3-I-25006: Block Copolymer Assembled Mesoporous Materials Architectures for Biosensing Applications	Prof. Stefan GULDIN
1210-1235	S3-I-25028: Nanofluid of Liquid Crystalline Polymer for Thermal Energy Storage	Prof. Rusli DAIK

1230-1330 Lunch & Poster Presentation

### Session 8 Chairs:

Prof. Jinwen ZHANG, Dr. Zibiao LI, Dr. Zhuang Mao PNG,  
and Dr. Yuan Chong Jason LIM

Time	Presentation Title	Speaker
1330-1355	S1-I-25016: Chemical Upcycling of PLA and PET via Aminolysis: From Waste to Value-Added New Polymer Resins	Prof. Jinwen ZHANG
1355-1420	S1-I-25013: Upcycling of Waste Polymers into Valuable Chemicals	Prof. Zhiliang HUANG
1420-1445	S1-I-25024: Synthesis of Sulfur Polymers from Elemental Sulfur via Step-Growth Polymerization	Prof. Yuichiro KOBAYASHI
1445-1510	S1-I-25020: Covalent Adaptable Networks for Sustainable Plastics and Energy	Dr. Shermin Simin GOH

1510-1535 Afternoon Tea Break

### Session 9 Chairs:

Prof. Jinwen ZHANG, Dr. Zibiao LI, Dr. Zhuang Mao PNG,  
and Dr. Yuan Chong Jason LIM

Time	Presentation Title	Speaker
1535-1600	S1-I-25012: Method and Equipment for Lifetime Assessments of the Aging and Degradation of Plastics	Prof. Xia GAO
1600-1615	S1-C-25014: Polyethylene Branching-dependent Chemical Recyclability and Polymer Properties Following Skeletal Insertion of Amide Linkages	Dr. Albert ONG
1615-1630	S1-C-25025: Low-Temperature Chemical Recycling of Polyurethane for Application in Water-Based Polyurethane Dispersion	Dr. Esha SHARMA
1630-1645	S1-C-25011: Bio-Based Hydroplastic Polyamides: Molecular Design, Moisture Resistance, and Degradability	Mr. Kangle YAN
1645-1700	S1-C-25004: Citric Acid-Assisted Extraction of Nanocellulose from Citrus Waste for Aerogel Fabrication and Oil- Water Separation	Ms. Maria BABY
1700-1715	S1-C-25029: Upcycling of Waste PET into Metal-Organic Frameworks for CO <sub>2</sub> Capture	Assoc. Prof. Anatoly ZINCHENKO
1715-1740	S1-I-25021: Innovation of Polymeric Materials for Sustainable Packaging	Dr. Xu LI
1740-1755	S1-C-25003: Synthesis of PBS/PEBAX/TPU Blend-Based Nanocomposites with Carbon Nanotubes Incorporation for Enhanced Mechanical and Thermal Properties	Ms. Mariyam FATIMA

**Polymer Physics, Self-Assembly, and Environmental Concern**

Session 10 Chairs:

 Prof. Jinwen ZHANG, Dr. Zibiao LI, Dr. Zhuang Mao PNG,  
and Dr. Yuan Chong Jason LIM

Time	Presentation Title	Speaker
1030-1055	S1-I-25007: Post-Polymerization Modification of Hydrocarbon Polymers via Backbone Editing	Asst. Prof. Arnaud THEVONON
1055-1110	S1-C-25008: Advancing Recyclable Thermosets through C=C/C=N Dynamic Covalent Metathesis Chemistry	Dr. Jie ZHENG
1110-1125	S1-C-25015: Catalytic Pyrolysis of Polyolefins by Zirconium-Based UiO-66 Metal–Organic Frameworks	Dr. Tristan TAN
1125-1140	S1-C-25028: Upcycling of Expanded Polystyrene Wastes into Reusable High-Performance VOC Adsorbents	Dr. Anuraj VARYAMBATH
1140-1205	S10-I-25002: Tailored Conjugated Polyelectrolytes for Biosensing Applications	Dr. Alagappan PALANIAPPAN

### Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-001	S1-P-25026: Reversible Vitrimisation of Polyolefins and Their Mixtures via General Crosslinking	Dr. Zhuang Mao PNG
Arc-L2-002	S1-P-25018: Kenaf Fiber-Reinforced Biodegradable Plastics	Ms. Sunyoung WOON
Arc-L2-003	S1-P-25031: Green Fabrication of Carbon Dots from Natural Rubber Glove Waste: Toward Improved Product Yield and Agricultural Utility	Ms. Nuchong SIRIKANYA
Arc-L2-004	S1-P-25032: Separating Mixed Plastic Waste via Reactive Extrusion	Mr. Kathirvel PERIASAMY
Arc-L2-005	S1-P-25033: From Waste to Value: Upcycling PET via Efficient Methanolysis Using Spent Glass Catalysts	Mr. Yuxuan LIU
Arc-L2-006	S1-C-25022: Normal Temperature and Pressure Condition Conversion and Synthesis of Carbon Polymer Dots from Polyurethane Waste and its Agricultural Application	Mr. Zhongkang WANG
Arc-L2-007	S1-P-25017: Sustainable Color Stripping of Reactively Dyed Cotton via Surfactant-Assisted NaOH Treatment for textile recycling	Dr. Woosung LEE
Arc-L2-008	S3-P-25011: Surface Properties of Liquid Crystalline Poly(substituted methylene)s Bearing Alkyl or Fluoroalkyl Side Chains	Dr. Kiyoura MASAMICHI
Arc-L2-009	S3-P-25013: Preparation and Properties of High-Performance Hydrogen-Bond Crosslinked Polyurethane Elastomers	Mr. Xianwei ZHAO

## Poster Presentation (Time: 1230-1330)

Time	Presentation Title	Presenter
Arc-L2-010	S3-P-25027: Unravelling the Self-Assembly of Polyelectrolyte Complex Thermogels	Ms. Belynn SIM
Arc-L2-011	S4-P-25001: Large Language Models in Materials Science: Evaluating RAG Performance in Graphene Synthesis Using RAGAS	Mr. Zen Han CHO
Arc-L2-012	S4-P-25008: Bridging Explainable AI and Generative Design for Organic Solar Cells: From Fragment-Level Analysis to 3D Molecular Graph Models	Mr. Yuan-Fang LEE
Arc-L2-013	S4-P-25009: AI-Assisted Analysis and Design of Polymeric Adsorbents for PFAS Removal	Mr. Jun-Yu ZHAN
Arc-L2-014	S4-P-25006: Design and Fabrication of Multi-Frame Fringing-Field Capacitive Soil Moisture Sensors on FR-4 Substrates for Improved Sensitivity and Penetration Depth	Dr. Amrita JOSHI
Arc-L2-015	S10-P-25005: Suppressing PTFE Electrochemical Reduction for High-Density Anode of Li-Ion Battery	Ms. Hyemin KIM

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-016	S7-P-25005: Tuning Molecular Weight of Host Materials to Optimize Multi-Resonance TADF OLEDs Employing a Dendritic Emitter	Ms. Shinyoung KIM
Arc-L2-017	S7-P-25006: Eco-Friendly Polymer Exciplex Design Enabling High-Efficiency TADF OLEDs through Solution Processing	Ms. Subin KWON
Arc-L2-018	S7-P-25007: Design of a Bifunctional Large Molecule Serving as a Single-Molecule Exciplex Host for Stable and Efficient TADF OLEDs	Ms. Yeseo LEE
Arc-L2-019	S7-P-25010: Molecular Dyad Strategy Enabling Efficient Intramolecular Energy Transfer in MR-TADF OLEDs	Ms. Ha Yeon KIM
Arc-L2-020	S7-P-25016: Affordable 3D Printed Automation for Self-Driving Laboratory: Expanding Access to High-Throughput Materials Discovery	Mr. Sayan DOLOI
Arc-L2-021	S7-P-25017: Biomass-Derived Conjugated Polymer Additive for Enhanced Stability and Performance in Hybrid Perovskite Solar Cells	Ms. Zilu LIN
Arc-L2-022	S7-P-25022: Ionic Side-Chain Engineering of Conjugated Polyelectrolytes for Dual Conduction and Synaptic Behavior in Organic Electrochemical Transistors	Haim KWON
Arc-L2-023	S7-P-25023: Bipolar Redox-Active Molecules for Organic Redox Flow Battery	Hyeong Hui KIM

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-024	S7-P-25024: Through Conjugated Polymers and Interface Engineering to Achieve Energy-Level Matching in Carbon-Electrode Perovskite Solar Cells	Ms. Jiali WANG
Arc-L2-025	S7-P-25019: Cocrystallization Strategy Toward Multifunctional Materials	Assoc. Prof. Zongrui WANG
Arc-L2-026	S7-P-25012: The PQD Surface Matrix Strengthening for High-Efficiency Photovoltaic Devices	Mr. Guoliang WANG
Arc-L2-027	S7-P-25011: Sequential Surface Matrix Engineering of FAPbI <sub>3</sub> Perovskite Quantum Dots: Enhancing Carrier Transport for Solar Cells with Efficiency Exceeding 19%	Ms. Mingxu ZHANG
Arc-L2-028	S8-C-25002: Functional Polymer-Inorganic Composites for Selective Li <sup>+</sup> Transport from Seawater	Mr. Changan LU
Arc-L2-029	S8-P-25003: Retardation-Induced Porous Geopolymer Membranes for Water Treatment	Mr. Andrew Wei Heng LAU
Arc-L2-030	S8-P-25017: Hard-Soft Channel Design and Behavioral Segmentation of Cellulose-Based Separators for Electrochemical Capacitors	Dr. Ziyu LI
Arc-L2-031	S9-C-25007: High-Performance Stimuli-Responsive Hydrogels for Soft Actuation	Dr. Liuxiang ZHAN
Arc-L2-032	S9-P-25009: High Energy Density Lithium-Ion Batteries with Dry-Processed Electrodes	Ms. Juhee YOON

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-033	S9-P-25010: Hofmeister-Modulated Kinetic Control of Metastable Polysaccharide Supramolecular Nanofibers	Mr. Hongzhi ZHENG
Arc-L2-034	S9-P-25011: Bioderivable "Latent" Non-Combustive CO <sub>2</sub> -Generating Polymers - A New Class of High-Performing Fire-Resistant Materials	Mr. Kwang Jen Ryan LIM
Arc-L2-035	S9-P-25025: Cellulose Nanofiber Reinforced Ca-Alginate Hydrogel for Enhanced Durability in Soil Seepage Control	Mr. Yutian ZHOU
Arc-L2-054	S7-P-25034: Enhancing Perovskite Solar Cell Stability and Performance via Bulk Passivation with Sulfonium-Based Passivators	Ms. Li Ying LIU

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-036	S2-P-25009: Well-Defined Redox-Active Hyperbranched Polymers for Flow Batteries: Harnessing Self-Condensing Vinyl Copolymerization by Flow Chemistry	Mr. Lyu YI
Arc-L2-037	S2-P-25013: Design of Fluorinated Prepolymers with Tunable Refractive Index for High-Efficiency Holographic Gratings	Azhu WANG
Arc-L2-038	S2-P-25014: Regio- and Stereo-Selective Living Ring-Opening Metathesis Polymerization of $\alpha$ , $\beta$ -Conjugated Lactones	Ms. Yi-Fan ZHANG
Arc-L2-039	S2-P-25015: Design and Development of Chemically Recyclable Poly(ketal-ester)s Regulated by Floor Temperature	Mr. Xianbin MENG
Arc-L2-040	S2-P-25016: Highly Thermal Stable Polythioester from a Bio-Based $\alpha$ , $\beta$ -Conjugated Lactone	Cheng-Ao BI
Arc-L2-041	S2-P-25017: Bioderived Poly(ketal-ester)s with Highly Selective Orthogonal Depolymerization into Monomer or Dimer Recovery	Zhenning YU
Arc-L2-042	S2-P-25019: Chemical Self-Assembly for the Nucleation and Growth of Colloidal Semiconductor Quantum Dots	Dr. Xiaoqin CHEN
Arc-L2-043	S2-P-25020: Substrate-Free PEDOS film via Three Phase Heterojunction: Advancing Charge-Transport for Conducting Polymer Electrodes	Ms. Manisha

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-044	S5-P-25003: Synergistic Antibacterial Polymers: Guanidinium/Phenylboronic Acid Copolymers as Adjuvants for Gram-Negative Bacteria	Ms. Yi-Lin QIAN
Arc-L2-045	S5-P-25008: Physical and Photo-Crosslink Hydrogels with Tailorable Mechanical Properties Based on Peptide-PEG-Peptide Triblock Copolymers for Nerve Tissue Engineering	Syuan-Yu LIN
Arc-L2-046	S5-P-25017: Ultra-High Efficiency Hybrid Biomass-Inorganic Coagulation Strategy for Water Treatment	Ms. Jingdan HU
Arc-L2-047	S5-P-25018: Lignin-Derived, Wood-Flour-Reinforced Biodegradable Polyurethane Elastomers with Superior Toughness and UV Resistance	Mr. Qianyun DENG
Arc-L2-048	S5-P-25020: Synthesis of Biomaterials Using Biopolymers Obtained from Macroalgae Collected from Marmara Sea for Agricultural Applications	Prof. Ayşe Zehra AROĞUZ
Arc-L2-049	S5-P-25009: Non-Equilibrium Dissipative Assembly with Switchable Biological Functions	Mr. Yuanfeng ZHAO
Arc-L2-050	S5-P-25010: Autocatalytic Reaction Networks: A Pathway to Spatial Temporal Mastery in Dynamic Materials	Mr. Yingshuai ZHAO
Arc-L2-051	S6-P-25004: Functional Ionic Liquid Monomers for “Smart” Poly(Ionic Liquid)s: Synthesis and Applications	Dr. Ambuz BASAK

# 3 DEC

■ The Arc, Level 1

## Poster Presentation (Time: 1230-1330)

No.	Presentation Title	Presenter
Arc-L2-052	S6-P-25005: Rewritable Polymer Brushes: Dynamic Covalent Linkages for Diverse Grafts	Mr. Feichen CUI
Arc-L2-053	S6-P-25003: Moisture-Responsive Ultralow-Hysteresis Polymer Ionogels for Adhesion-Switchable Strain Sensing	Yichen ZHOU

# Important Information for Participants

## 1. Access to Conference Venue

Presented below are our strong recommendations to facilitate your travel to the conference venue. **For more details, please visit our websites: [Transportation](#) or [NTU's Site for Transportation](#):**

### Taxi / Ride-hailing Apps:

The conference venue (Arc @ NTU) is accessible via taxi or a ride-hailing app, downloadable on your own device. The taxi services in Singapore are quite inexpensive and affordable.

Taxi		Ride-Hailing Apps	
ComfortDelGro	SMRT	Grab	Gojek
<b>Tel:</b> +65 6552 1111 <b>Apps:</b> <a href="#">Apple App Store</a> <a href="#">Google Play Store</a>	<b>Tel:</b> +65 6555 8888	<b>Apps:</b> <a href="#">Apple App Store</a> <a href="#">Google Play Store</a>	<b>Apps:</b> <a href="#">Apple App Store</a> <a href="#">Google Play Store</a>

The drop-off point should be indicated to your driver as **NTU Innovation Centre (Singapore 638075)**.

Upon alighting, an usher will guide you to the Arc @ NTU for registration.

A map of the conference venue from the drop-off point is provided on page 33.

# Important Information for Participants

## 1. Access to Conference Venue (cont.)

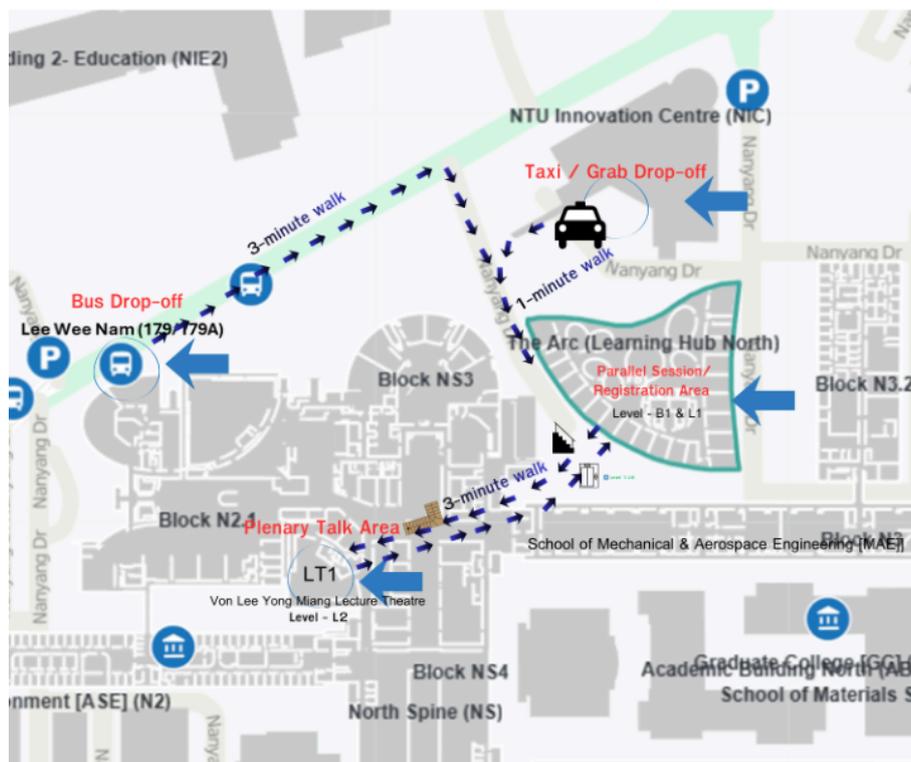
### Public Transport:

The conference venue (Arc @ NTU) is accessible via Singapore's MRT (Train) and bus systems:

1. From the MRT station closest to your place of accommodation, take the **MRT to Pioneer MRT Station (EW28)**.
2. From **Pioneer MRT Station**, exit the MRT station via **Exit A**. There will be a bus stop directly at the exit.
3. From the **bus stop, Pioneer Station Exit A (22521)**:
  - Take **bus 179**, alighting at the bus stop **Lee Wee Nam Lib (27211)**.
  - Upon reaching the bus stop **Lee Wee Nam Lib (27211)**, an usher will guide you to The Arc @ NTU for registration.

A map of the conference venue from the drop-off point is provided below.

CONFERENCE NAVIGATION MAP



# Important Information for Participants

## 2. Registration

We kindly request that all presenters prepare the email accompanied by the 'Important Information For Participants' document, as evidence of your registered participation in FAPS 2025.

Registration will take place at Level 1 of the Arc @ NTU.

## 3. Latest Scientific Programme and Note to Presenters

A copy of the **Latest Scientific Programme** can also be found on our websites: [Scientific Programme](#) | [NTU's Site for Scientific Programme](#)

For all **Oral Presenters**, please note that your presentation timeslot is inclusive of a 5-minute Q&A session.

For **Poster Presenters**, we kindly ask that your poster be printed at A0 size before the conference, be displayed for the entirety of the conference's duration, and that you be present at your poster during your allotted time-slot.

You may mount your posters from lunch time on Day 1 onwards. A conference helper will be available to assist you in mounting your posters if needed.

## 4. Meals and Refreshments

Meals & Refreshments	Venue	Dates
Morning Tea Breaks	Outside Von Lee Yong Miang Lecture Theatre (Formerly Lecture Theatre 1)	1-4 Dec
Conference Lunch Buffets	Level 1 of the Arc @ NTU	1-3 Dec
Afternoon Tea Breaks	The Arc @ NTU	1-3 Dec

# Important Information for Participants

## 5. On-Site Communication

To facilitate communication with our staff during the conference, please note the following methods of contact:

**For non-urgent matters:** Email our team at [mse-FAPS2025@ntu.edu.sg](mailto:mse-FAPS2025@ntu.edu.sg)

**For emergency contact/urgent matters:** Call/Whatsapp us at +65 88915673, +65 81796029

You may also approach any of the conference helpers and staff/organizers.

## 6. Pre-conference dinner/drinks (30 Nov, Sunday)

This is a casual, invitation-only welcome event for our plenary speakers, FAPS council members and other distinguished guests.

Details will be sent out separately.

# Important Information for Participants

## 7. Entrepreneurial Night

### Raising funds for a spinout project?

The Federation of Asian Polymer Societies (FAPS) 2025 conference is pleased to invite entrepreneurial-minded researchers to an exclusive networking evening sponsored by Ortolli Rosenstadt Ye Pte. Ltd. (ORY), a law practice.



This special event is by application only and is targeted at researchers who are considering commercializing their research through spinouts or seeking guidance on the entrepreneurial path in academia. The evening presents a unique opportunity to connect with legal and business professionals who specialize in supporting academic ventures and research commercialization in Singapore.

Sign-up link - [FAPS 2025 Entrepreneurial Networking Evening – Fill in form](#) – 50 slots only.

Priority will be given to early-career researchers, postdocs and PhD students.

Successful applicants will be sent an invitation email prior to the event. Please produce the email for entry.



# Important Information for Participants

## 8 Conference Banquet

We are delighted to invite all full paying (non-student rate) participants of the Federation of Asian Polymer Societies (FAPS) 2025 conference to our official conference banquet at Amara Singapore.

This evening promises to be a memorable celebration bringing together researchers, academics, and industry professionals from across the Asia-Pacific region and beyond.

*This dinner is partially sponsored by the journal, Polymer (Elsevier) and Ortolli Rosenstadt Ye Pte. Ltd.*

The conference dinner offers an excellent opportunity to continue conversations begun during the day, forge new collaborations, and enjoy an evening of fine dining and entertainment in a relaxed and convivial atmosphere.

We look forward to celebrating the achievements of our community and the exciting developments in polymer science that have been shared throughout the conference.



### Event Details

**Venue:** Amara Singapore, 165 Tanjong Pagar Rd, Singapore 088539 (Ballroom 1)

- *One-way transport will be provided from the conference venue to Amara Singapore*

**Date:** 3rd Dec 2025

**Time:** 7.00 PM - 10.00 PM

**Includes:** Dinner, drinks, and entertainment

# Important Information for Participants

## 8 Conference Banquet (cont.)

### *What to Expect*

The evening will feature a delicious multi-course dinner showcasing the best of Asian cuisine, complemented by a selection of beverages throughout the night.

Entertainment will be provided to ensure a fun and engaging atmosphere, allowing attendees to relax and enjoy the company of colleagues and peers from around the world.



Whether you are reconnecting with old friends or making new connections, the conference dinner offers the perfect setting for meaningful interactions in a more informal environment.

### *Important Ticket Information*

This is a ticketed event. All eligible participants must collect their conference dinner tickets from the registration desk at the conference venue. Please have your conference badge ready when collecting your ticket, as this will be used to verify your eligibility.

**If you find that you are unable to attend the conference dinner, we kindly request that you return your ticket to the reception desk.**

Returned tickets will be redistributed to student participants who would otherwise be unable to attend, ensuring that no places go to waste and that as many members of our community as possible can enjoy this special evening. Your consideration in returning unused tickets is greatly appreciated and helps us extend this opportunity to early-career researchers.

# Important Information for Participants

## 8 Conference Banquet (cont.)

### *Transportation to Banquet Venue*

Transportation will be provided from Nanyang Technological University (NTU) to Amara Singapore for the convenience of conference attendees. Buses will depart from designated pick-up points at NTU Carpark E with directional guidance provided.

The schedule will be announced closer to the event date.

Please plan to arrive at the pick-up point at least ten minutes before the scheduled departure time. Announcements will be made again on that day.

For your return journey, Amara Singapore is conveniently located with excellent public transportation connections. The venue is easily accessible via MRT, and Grab or other ride-hailing services are readily available from the hotel.

This flexibility allows you to return to your accommodation at your convenience, whether you choose to leave shortly after dinner or stay to continue networking with colleagues.

