The Third International Conference on Polymer Science and Engineering

December 13-16, 2018, Beijing, China

Program

Organized by:

Beijing University of Chemical Technology
College of Materials Science and Engineering
State Key Laboratory of Organic-Inorganic Composites
Beijing Laboratory of Biomedical Materials
BUCT Changzhou Institute of Advanced Materials
Beijing Key Laboratory of Advanced Functional Polymer Composites
Beijing Key Laboratory on Preparation and Processing of Novel Polymeric Materials

Sponsored by:

Program of Introducing Talents of Discipline to Universities

INVITATION

Following the great success of the first and the second conferences held in 2014 and 2016, respectively, the Third International Conference on Polymer Science and Engineering (PSE-2018) will be held in Beijing, China, December 13-16, 2018, which will provide an international forum for scientists, engineers and postgraduate students to exchange and discuss new ideas and new findings in polymer chemistry, polymer physics, polymer processing, biomacromolecules and biomaterials, functional materials, nanocomposites, polymer blends and composites, and new materials for energy and environment. Special focus will be on “green and functional materials for a sustainable world”. The scientific program will consist of plenary lectures, keynote lectures, invited lectures and posters. We warmly welcome materials experts around the world to join us and we believe that your participation will be a great contribution toward the success of this conference.

Conference Chairmen

Prof. Wantai Yang
Prof. Liqun Zhang

Organizing Committee

Chairman: Prof. Liqun Zhang

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Scientific Topics

Polymer Chemistry
Polymer Physics
Polymer Processing
Biomacromolecules and Biomaterials
Functional Materials
Polymer Blends and Composites
Nanocomposites
New Materials for Energy and Environment

Schedule

Date	Time	Content
December 13 Thursday	09:00~18:00	Registration[1]
	18:00~21:00	Reception[2]
December 14 Friday	08:30~09:00	Opening Ceremony[3]
	09:00~12:10	Plenary Lectures[3]
	12:10~14:00	Lunch[2]
	14:00~18:00	Keynote and Invited Lectures[4]
	18:00~21:00	Banquet[5]
December 15 Saturday	08:30~12:00	Keynote and Invited Lectures[4]
	12:00~14:00	Lunch[2]
	14:00~18:00	Keynote and Invited Lectures[4]
	18:00~21:00	Dinner[2]
December 16 Sunday	08:30~11:30	Departure

1. Guizhou Mansion Hotel; BUCT Organic Building
2. BUCT Hospitality Restaurant 6 (Third Floor)
3. Lecture Hall (Third Floor), BUCT Conference Center
4. BUCT Conference Center (Central Conference Room; Multi-Functional Hall; Round-Table Room), and Hua-Xin Building 211B
5. Xian-Heng Restaurant

Program and Schedule of PSE-2018

Thursday, December 13, 2018		
12:00~18:00	**Registration** (Guizhou Mansion Hotel & BUCT Organic Building)	
18:00~21:00	**Reception** (BUCT Hospitality Restaurant 6)	
18:00~21:00	**Setting up posters** (BUCT Conference Center)	
Friday Morning, December 14, 2018; Lecture Hall, BUCT Conference Center (Third Floor)		
Time	**Opening Ceremony & Plenary Lectures**	**Chairmen**
08:30-09:00	**Opening Ceremony**	**Prof. Liqun Zhang**
09:00-09:40	PL-01: **Prof. Gregory B. McKenna (Texas Tech University)** Vapor Deposited Amorphous Teflon: Extremely Stable Glass Viscoelasticity Challenges the Paradigm of an Ideal Glass Transition	**Prof. Vladimir V. Tsukruk**
09:40-10:20	PL-02: **Prof. Stephen Z. D Cheng (South China University of Technology)** Topological Engineering of Giant Molecules: Structures and Functions	**Prof. Tai-Shung Chung**
10:20-10:50	**Group Photo & Tea Break**	
10:50-11:30	PL-03: **Prof. Zhiqun Lin (Georgia Institute of Technology)** A Rich Variety of Polymer-Grafted Nanocrystals with Precisely Controlled Dimensions, Composition, Architectures, Surface Chemistry Enabled by Nonlinear Block Copolymer Nanoreactors for Energy Conversion and Storage	**Prof. Chul B. Park**
11:30-12:10	PL-04: **Prof. Wang Qi (Sichuan University)** Poly(vinyl alcohol) Based Functional Foams Prepared by Thermal Foaming	**Prof. Joshua Otaigbe**
12:10-14:00	**Lunch (BUCT Hospitality Restaurant 6, Third Floor)**	

Friday Afternoon, December 14, 2018; BUCT Conference Center (First Floor)				
Time	**Room A :** **Multi-Functional Room** **Polymer Chemistry;** **Polymer Physics;** **Polymer Blends & Composites**	**Room B :** **Central Conference Room** **Polymer Processing;** **New Materials for Energy and Environment**	**Room C :** **Round-Table Room** **Functional Materials;** **Nanocomposites**	**Room D :** **Hua-Xin Building 211B** **Biomacromolecules and Biomaterials**
Chairmen	**Prof. Bai Yang** **Prof. Hiroshi Jinnai**	**Prof. Chul B. Park** **Prof. Jintao Zhu**	**Prof. Meifang Zhu** **Prof. Hirotaka Ihara**	**Prof. Xuesi Chen** **Prof. Huabing Yin**
14:00-14:25	**Prof. Xianhong Wang** A1-1:Biomimic Catalyst for Carbon Dioxide Copolymerization	**Prof. Jian Xu** B1-1: Research and Engineering Development of Advanced Fibers with Ultra-high Performance	**Prof. Tai-Shung Chung** C1-1: Polymeric Membranes for Organic Solvent Recovery and Osmotic Power Generation	**Prof. Joshua U Otaigbe** D1-1: Sustainable Biocompatible Polymer Nanocomposites: Fact or Fiction?
14:25-14:50	**Prof. Russell J. Varley** A1-2: Lightweight, Strong and Multifunctional: The Emergence of Carbon Fiber Composites as a Sustainable Material for the 21st Century	**Prof. Stephen Jerrams** B1-2: A Practical, Universal Method for Predicting the Fatigue Life of Elastomeric Components	**Prof. Huisheng Peng** C1-2: Smart fiber Materials and Devices	**Prof. Changyou Gao** D1-2: Mediating Cell Migration by Gradient Cues in Biomaterials
14:50-15:15	**Prof. Ming Qiu Zhang** A1-3: Repeated Intrinsic Self-Healing of Wider Cracks in Polymer Assisted by Two-Way Shape Memory Effect	**Prof. Long Yu** B1-3: When a Cool-gel Mix with a Thermo-gel	**Prof. Dirk Kuckling** C1-3: Synthesis of Functional Smart Hybrid Materials	**Prof. Haojun Liang** D1-3: A Scalable “Junction Substrate” to Engineer Robust DNA Circuits
15:15-15:40	**Prof. Er-Qiang Chen** A1-4: Molecular Packing of Side-Chain Liquid Crystalline Polymer with Precisely Controlled Side-Chain Spacing	**Prof. Tao Tang** B1-4: Mediating Foaming behavior and foam structure of multiphase polymers	**Prof. Yanlei Yu** C1-4: Photocontrolled Artificial Muscle Engineered by Linear Liquid Crystal Copolymer	**Prof. Wenguang Liu** D1-4: Hydrogels for Biomedical Applications: From High-Strength to Soft Injectability
15:40-16:00	**Tea Break**			

Time	Room A : Multi-Functional Room	Room B : Central Conference Room	Room C : Round-Table Room	Room D : Hua-Xin Building 211B
Chairmen	**Prof. Ming Qiu Zhang** **Prof. Russell Valley**	**Prof. Stephen Jerrams** **Prof. Jian Xu**	**Prof. Dirk Kuckling** **Prof. Huisheng Peng**	**Prof. Joshua Otaigbe** **Prof. Changyou Gao**
16:00-16:25	**Prof. Bai Yang** A2-1: Carbonized Polymer Dots: Syntheses, Structures & Properties	**Prof. Chul B. Park** B2-1: Effect of the PP's MFI on the Nanofibrillation and Foaming Behavior of PP/PET System	**Prof. Meifang Zhu** C2-1: Formation and Functionalization of Bio-based Fibers	**Prof. Xuesi Chen** D2-1: Preparations and Applications of Poly(lactic Acid) and Poly(amino acid)
16:25-16:50	**Prof. Hiroshi Jinnai** A2-2: Morphological and Dynamical Characterizations of Rubber Composites Observed by Advanced Microscopy Techniques	**Prof. Jintao Zhu** B2-2: Inorganic Nanoparticles Superlattice Monolayer with Non-closed-packing and its High Performance in OFET Memory	**Prof. Hirotaka Ihara** C2-2: Totally-organic, Self-dispersed Luminescent Nanomaterials Fabricated by Self-assembling Techniques	**Prof. Huabing Yin** D2-2: Advanced Microengineering to Reveal the Role of Cell Mechanics in Cancer Invasion
16:50-17:15	**Prof. Xiao Hu** A2-3: Simultaneous Enhancement of Thermal Conductivity and Toughness in Epoxy via Poly (vinyl alcohol)/Boron Nitride Scaffold	**Prof. Ho Seok Park** B2-3: Ultracapacitive Energy Storage Materials and Devices Operating at Extreme Conditions	**Prof. Fei Huang** C2-3: Materials and Devices towards High Efficiency Thick-film Polymer Solar Cells	**Prof. Xudong Cao** D2-3: A Biosynthesized Cellulose Drug Delivery System to Promote Nerve Regeneration after Stroke
17:15-17:40	**Prof. Changwen Zhao** A2-4: Visible Light Induced Graft Polymerization on Polymeric Substrates and Its Bio-Merits	**Prof. Zhiguo Zhang** B2-4: High Performance Polymer Solar Cells: Materials and Efficiency	**Prof. Hao-Bin Zhang** C2-4: Transition Metal Carbide/Carbonitride Filled Polymer Nanocomposites for Electromagnetic Interference Shielding	**Prof. Peng Yang** D2-4: Amyloid-Inspired Protein Assembly and Interfacial Materials
18:00-21:00	**Banquet (Xian-Heng Restaurant)**			

Saturday Morning, December 15, 2018; BUCT Conference Center (First Floor)				
Time	**Room A : Multi-Functional Room**	**Room B : Central Conference Room**	**Room C : Round-Table Room**	**Room D : Hua-Xin Building 211B**
Chairmen	**Prof. Cyrille A. Boyer Prof. Wei Jiang**	**Prof. Xiaodong Chen Prof. Guo-Hua Hu**	**Prof. Hongzheng Chen Prof. Chun-Hui Wang**	**Prof. Pascal Jonkheijm Prof. Zheng-Zhong Shao**
08:30-08:55	**Prof. Qiang Fu** A3-1: Towards High-Performance Polyolefin via Controlling Crystalline Morphology and Incorporation of UHMWPE	**Prof. Robert K. Y. Li** B3-1: Fabrication of Carboxymethyl cellulose and Graphene Oxide Bio-Nanocomposites for Flexible Nonvolatile Resistive Switching Memory Devices	**Prof. Huai Yang** C3-1: Light-Transmittance Controllable Films from a Polymer Dispersed & Stabilized Liquid Crystal System	**Prof. Vladimir Tsukruk** D3-1:Dynamic Behavior and Directed Organized Assembly of Biopolymer Components in Anisotropic Phases and Solid State
08:55-09:20	**Prof. Gaëlle Fontaine** A3-2: Reactive Extrusion : A green and Versatile Tool for the Synthesis of Polylactide	**Prof. Xiaohong Zhang** B3-2:Wafer-scale Precise Patterning of Organic Micro/Nano-crystals for High-Performance Optoelectronic Devices	**Prof. Zhong-Ming Li** C3-2: Enhanced Oxidation Stability of Tea Polyphenol-stabilized Highly Crosslinked UHMWPE for Total Joint Implants	**Prof. Jian Ji** D3-2: Polyelectrolyte Complex Coatings: From Biomimetic methods to Real Coating Technology
09:20-09:45	**Prof. Qinghua Lu** A3-3: Helical Nanostructure with Controlled Handedness through Addition-driven Self-assembly of Achiral Block Copolymer	**Prof. Guo-Hua Hu** B3-3: How Well Do Moisture and Polymers Get along with Each Other?	**Prof. Aravind Dasari** C3-3: Fire Protective Performance of Building Materials: Our Recent Developments	**Prof. Shu Wang** D3-3: Conjugated Polymer-Based Assembly Materials for Biomedical Applications
09:45-10:10	**Prof. Feng Shi** A3-4: Macroscopic Supramolecular Assembly and Its Applications	**Prof. Chuhong Zhang** B3-4: 3D Printing of Superelastic Conductive Devices for Flexible Energy Storage Applications	**Prof. Jun Liu** C3-4: Designing and Fabricating Elastomeric Materials Guided by Materials Genome Approach	**Prof. Gang Cheng** D3-4:Molecular Design of the Zwitterionic Polymers for Biomedical Applications
10:10-10:30	**Tea Break**			

Time	Room A : Multi-Functional Room	Room B : Central Conference Room	Room C : Round-Table Room	Room D : Hua-Xin Building 211B
Chairmen	**Prof. Gaëlle Fontaine** **Prof. Qiang Fu**	**Prof. Robert K. Y. Li** **Prof. Xiaohong Zhang**	**Prof. Aravind Dasari** **Prof. Huai Yang**	**Prof. Vladimir V. Tsukruk** **Prof. Shu Wang**
10:30-10:55	**Prof. Cyrille Boyer** A4-1: Visible Light: An efficient Tool for Polymer Synthesis	**Prof. Xiaodong Chen** B4-1: Conformal Electrodes for Electrophysiological Monitoring	**Prof. Chun-Hui Wang** C4-1: Multifunctional Nanocomposites	**Prof. Zheng-Zhong Shao** D4-1: The Relationship between Mechanical Properties/Fracture Behaviors and Structures of Animal Silks
10:55-11:20	**Prof. Wei Jiang** A4-2: Electrostatic Field Controlled Disassembly of Polymer Micelles and Its Release Behavior	**Prof. Zhixiang Wei** B4-2: Ternary Blends for Large Area Flexible Organic Solar Cells	**Prof. Hongzheng Chen** C4-2: Molecular Design of Small Molecule Electron Acceptors with Unfused Ring Core for Photovoltaic Applications	**Prof. Pascal Jonkheijm** D4-2: Cell-instructive Biointerfaces with Dynamic Complexity
11:20-11:45	**Prof. Zhihao Shen** A4-3: Silica Cubosomes with A Double Diamond Structure Obtained from Self-Assembly of A Rod Coil Amphiphilic Block Copolymer	**Prof. Wen-Feng Lin** B4-3: High Performance Nanocomposites for Hydrogen Production and Fuel Cell Applications	**Prof. Boxin Zhao** C4-3: Biomimetic Interfacial Engineering and Smart Polymers for Soft Robotic Devices	**Prof. Ye-Zi You** D4-3: Assembled Reducible Nanomicelles for High DNA-Binding and Efficient Gene Delivery
11:45-12:10	**Prof. Dong Wang** A4-4: Atomic Force Microscopy-based Study on Polymer Interface: from Solid-Solid to Liquid-Liquid	**Prof. Bo Wen** B4-4: The Announcement of Macromolecular Rapid Communication BUCT Special Issue and Wiley Publishing Workshop	**Prof. Nanying Ning** C4-4: Microstructure Tailoring and Structure-properties Relationship of Dielectric Elastomers for Microactuators	**Prof. Decheng Wu** D4-4: Polylactone Microcapsules and Scaffolds for Bioimaging and Tissue Engineering
12:10-14:00	**Lunch (BUCT Hospitality Restaurant 6, Third Floor)**			

Saturday Afternoon, December 15, 2018; BUCT Conference Center (First Floor)				
Time	**Room A : Multi-Functional Room**	**Room B : Central Conference Room**	**Room C : Round-Table Room**	**Room D : Hua-Xin Building 211B**
Chairman	**Prof. Sindee L. Simon Prof. Wei Yu**	**Prof. Bingqing Wei Prof. Tao Xie**	**Prof. Zi-Chen Li Prof. Xi Wen**	**Prof. Changchun Wang Prof. Xian Jun Loh**
14:00-14:25	**Prof. Zhong Zhang** A5-1: Strain Engineering of Two-Dimensional Materials	**Prof. Shizhang Qiao** B5-1: Nanostructured Electrocatalysts for Water Splitting and Carbon Dioxide Conversion	**Prof. Li-Min Wu** C5-1: Polymeric/inorganic Hybrid Functional Polymer Coatings	**Prof. Xinyuan Zhu** D5-1: DNA-based Nanomedicine and Drug Delivery System
14:25-14:50	**Prof. Marek W. Urban** A5-2: Next-Generations of Self-Healing Polymeric Materials	**Prof. Yong Huang** B5-2: Preparation of Nanocellulose Based on Medium Polarity through Mechanical Balling Method	**Prof. Shaoyun Guo** C5-2: Thermal-induced Shape Memory Polymers with Multilayer-assembled Structure	**Prof. Wenxin Wang** D5-2: Highly Branched Poly(b-Amino Ester)s as New Gene Delivery Vectors
14:50-15:15	**Prof. Liangbin Li** A5-3: Polymer Crystallization: A Tough Journey Battling with Chain Flexibility	**Prof. Jang-Kyo Kim** B5-3: Electrospinning Polymer Precursors: Efficient Means to Synthesize Freestanding Carbon Nanofiber Composite Electrodes for Rechargeable Batteries	**Prof. Christopher Li** C5-3:Designed Polymer Crystallization for Functional Nanomaterials	**Prof. Hao Wang** D5-3:In Vivo Self Assembled Polymeric Biomaterials for Bioimaging and Therapeutics
15:15-15:40	**Prof. Junqi Sun** A5-4: Mechanically Robust Self-Healing Polymer Composites	**Prof. Jun Zhang** B5-4: High Value-added Cellulose Products Directly Prepared from Low-grade Cellulose Resources	**Prof. Pengbo Wan** C5-4: Functional Elastomer Nanocomposite for Wearable Pressure Sensor with Full-Range Human–Machine Interfacing	**Prof. Shaobing Zhou** D5-4: Progress in Biodegradable Shape Memory Polymers and Their Biomedical Applications
15:40-16:00	**Tea Break**			

Time	Room A : Multi-Functional Room	Room B : Central Conference Room	Room C : Round-Table Room	Room D : Hua-Xin Building 211B
Chairman	**Prof. Marek W. Urban** **Prof. Liangbin Li**	**Prof. Shizhang Qiao** **Prof. Jang-Kyo Kim**	**Prof. Li-Min Wu** **Prof. Shaoyun Guo**	**Prof. Xinyuan Zhu** **Prof. Wenxin Wang**
16:00-16:25	**Prof. Yan Li** A6-1: High Performances of Plant Fiber Reinforced Composites and Their Applications	**Prof. Tao Xie** B6-1: Thermadapt Shape Memory Polymer	**Prof. Zi-Chen Li** C6-1:Design and Synthesis of Precise and Functional Polymers with Passerini Three-component Reaction	**Prof. Changchun Wang** D6-1: Stimuli-responsive Multifunctional Nano-drugs for Anticancer Therapy
16:25-16:50	**Prof. Sindee L. Simon** A6-2: Polymerization Synthesis under Nanoconfinement	**Prof. Bingqing Wei** B6-2: Controlling Anion Transportation in Polymer Electrolytes for Solid-State Electrochemical Energy Storage Devices	**Prof. Zongwu Bai** C6-2: Nanocomposites and Nanotechnology in PEM Materials for Power Energy Applications	**Prof. Xian Jun Loh** D6-2: Thermogels – An Emerging Biomaterial for Biomedical Applications
16:50-17:15	**Prof. Wei Yu** A6-3: Control of Multiple Continuity in Nanoparticle Filled Polymer Blends	**Prof. Xu-Ming Xie** B6-3: Multiphase Immiscible Polymer Blends Compatibilized by Multiphase Compatibilizers: Toward Efficient Recycling of Waste Plastics	**Prof. Xi Wen** C6-3: Publishing on Wiley's Material Journals	**Prof. Xing-Jie Liang** D6-3: Understanding the parameters to impact on Interaction of Nanomaterials with Biosystems
17:15-17:40	**Prof. Xiaofeng Li** A6-4: Graphene Aerogels and Their Thermally Conductive Phase Change Composites	**Prof. Weiwei Li** B6-4: New Materials for Energy and Environment	**Prof. Zhongjie Ren** C6-4: Pendant and Conjugated Homopolymer and Copolymers as Solution-Processable Thermally Activated Delayed Fluorescence Materials for Organic Light-Emitting Diods	**Prof. Nana Zhao** D6-4:Versatile polycation/Inorganic Nanohybrids for Multifunctional Theranostics
18:00-21:00	**Dinner (BUCT Hospitality Restaurant 6, Third Floor)**			