

Oral Presentation

Room A

Tue. Jul 18

Plenary Lecture

Kotaro Satoh, presiding

15:00 18A01PL Accelerated Polymer Synthesis and Discovery
Craig J. Hawker (United States of America)

Hideyuki Otsuka, presiding

16:00 18A04PL Exploring Dynamic Covalent Polymers as Adaptive and Pluripotent Materials
Stuart J. Rowan (United States of America)

Kazunari Akiyoshi, presiding

17:00 18A07PL Biomimetic polymer vesicles: from nanomedicines to artificial cells
Sebastien Lecommandoux (France)

Room B

Wed. Jul 19

T-1 Polymer Synthesis and Reactions

Kotaro Satoh, presiding

9:00 19B01IL Controlled Radical Polymerization from C-H Bonds
Brett Fors (United States of America)

Kotaro Satoh, presiding

9:40 19B03IL Precision synthesis of various functional polymers via controlled/living cationic polymerization
Sadahito Aoshima, Arihiro Kanazawa (Japan)

Vincent Ladmiraal, presiding

10:20 19B05 Unprecedented RAFT Control for All-(Meth)acrylic Thermoplastic Elastomers
Maksym Odnoroh, Oleksandr Ivanchenko, Stephane Mazieres, Marc Guerre, Mathias Destarac (France)

10:40 19B06 Direct Radical Copolymerization of Thioamides for Novel Vinyl Polymers Having Degradable Thioether Bonds in Backbones
Hironobu Watanabe, Masami Kamigaito (Japan)

Marc Guerre, presiding

11:00 19B07 Controlled/Living Cationic Polymerization of Vinyl Monomers using Halogen and Chalcogen Bonding
Koji Takagi, Koji Yamauchi, Hiroto Murakata, Nao Sakakibara (Japan)

11:20 19B08 Alternative solvents for efficient visible-light-driven RAFT polymerization under an open-to-air environment
Sheng-Sheng Yu, Chia-Yu Li, Yu-Ting Chou (Taiwan)

Koji Takagi, presiding

11:40 19B09 Macromolecular engineering of fluoropolymers via the RAFT process
Vincent Bouad, Marc Guerre, Sophie Barrau, Gilles Silly, Cedric Totee, Bruno Ameduri, Mona Semsarilar, Vincent Ladmiraal (France)

- 12:00 19B10 Synthesis of Star-shaped ABC miktoarm terpolymers using multicomponent reaction
Kodai Nagashima, Yuta Nabae, Teruaki Hayakawa (Japan)
Kotaro Satoh, presiding
- 14:00 19B11IL Data-Driven Catalyst Design for the Stereoselective Polymerization of Vinyl Ethers
Frank Leibfarth (United States of America)
Frank Leibfarth, presiding
- 14:40 19B13IL Precision Polymer Synthesis by Living Cationic and Anionic Polymerizations Based on Reversible Chain-Transfer Mechanism
Mineto Uchiyama (Japan)
Takeo Suga, presiding
- 15:20 19B15 Synthesis of end-functionalized poly(alkoxycarbonylmethylene) by Pd-initiated C1 polymerization of diazoacetate
Hiroaki Shimomoto, Yusuke Kuzukawa, Kyoka Aramasu, Ayumi Miyamoto, Tomomichi Itoh, Eiji Ihara (Japan)
- 15:40 19B16 Synthesis of Cyclic Olefin Polymers Derived from Norbornadiene Dimer
Shin-ichi Matsuoka (Japan)
- 16:00 19B17 Block Copolymers by Prepared Living Ring Opening Metathesis Polymerization and Their Application in AEMFCs.
Tse-Han Chiu, Jyh-Chien Chen (Taiwan)
Hiroaki Shimomoto, presiding
- 16:20 19B18 Synthesis of Bottle Brush Polymers by Stereospecific Ring Opening Metathesis Polymerization using (Arylimido)vanadium-Alkylidene Catalysts
Sirilak Mekcham, Kotohiro Nomura (Japan)
- 16:40 19B19 Synthesis of novel degradable polymers by radical copolymerization of exo-methylene-type monomers containing nitrogen atoms
Chihiro Homma, Shoki Yoshimura, Mineto Uchiyama, Masami Kamigaito (Japan)
- 17:00 19B20 Novel approach for heterotelechelic PDMS via anionic-ring-opening-polymerization (AROP) initiated by Si-H functionalized initiator
Yoichi Okayama, Allison Abdilla, Taejun Eom, Michael Czuczula, Javier Read de Alaniz, Christopher M. Bates, Craig J. Hawker (Japan)
Chihiro Homma, presiding
- 17:20 19B21 Photo-controlled Radical Polymerization: UV-Curing and Nanodomain Formation
Takeo Suga (Japan)
- 17:40 19B22 Synthesis and Higher-Order Structural Characterization of ABC/ACB-Type Triblock Copolymers Composed of Polystyrene and Polymethacrylates by Living Anionic Polymerization
Ryota Uehara, Shinsuke Maekawa, Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Yuta Nabae, Teruaki Hayakawa (Japan)

Thu. Jul 20

T-1 Polymer Synthesis and Reactions

- Kotaro Satoh, presiding**
- 9:00 20B01IL The precision synthesis of discrete polymers
Zhengbiao Zhang, Ao Feng, Zhihao Huang, Xiaohua Zhang (China)
Zhengbiao Zhang, presiding
- 9:40 20B03IL One-step synthesis of sequence-controlled multiblock polymers from monomer mixture
Toshifumi Satoh (Japan)
Takaya Terashima, presiding
- 10:20 20B05 Synthesis of Structure-Controlled Dense Triazole Polymers by Copper(I)-Catalyzed Azide-Alkyne Cycloaddition Polymerization
Akihito Hashidzume, Yuri Kamon, Masaki Nakahata (Japan)
- 10:40 20B06 Solvent free dual-cure adhesives with glycidyl carbamate functional epoxy resin using hydroxyl terminated polybutadiene
Hae Chan Kim, Dong Hyun Kim (Republic of Korea)

- 11:00 20B07 2D atomic boron network: Preparation and liquid crystalline properties of borophene oxides
Tetsuya Kambe, Kimihisa Yamamoto (Japan)
Tetsuya Kambe, presiding
- 11:20 20B08 Synthesis of polyacene mediated by a metal-organic framework
Takashi Kitao, Takumi Miura, Takashi Uemura (Japan)
- 11:40 20B09 Metal-Free Synthesis, Hydrolysis and Repolymerization of Asymmetric Poly(Silyl Ether)s
Naoki Yoshida, Huie Zhu, Masaya Mitsuishi (Japan)
- 12:00 20B10 Self-Assembly of Amphiphilic Polymers: Design Strategy to Build Precision Nanostructures
Takaya Terashima (Japan)
Hideharu Mori, presiding
- 14:00 20B11IL Functional Polymers: from new synthetic routes to applications in energy storage
Patrick Theato (Germany)
Patrick Theato, presiding
- 14:40 20B13IL Controlled synthesis of ionic polymers and deep eutectic polyelectrolytes with specific interactions
Hideharu Mori (Japan)
Takuya Matsumoto, presiding
- 15:20 20B15 Fluorine-activated hetero-Michael reactions and exchanges : a way to improve the synthesis and the dynamics of vitrimers
Dimitri Berne, Sebastien Lemouzy, Baptiste Quienne, Eric Manoury, Rinaldo Poli, Sylvain Caillol, Vincent Ladmiral, Eric Leclerc (France)
- 15:40 20B16 Styrene-butadiene rubber with Zn²⁺-nitrogen coordination linkages prepared by tetrazine click reaction for rubber to rubber adhesion application
Kyohei Kotani, Katsuhiko Tsunoda, Hideyuki Otsuka (Japan)
- 16:00 20B17 Current Insight into Rubber Vulcanization
Yuko Ikeda, Yuta Sakaki, Kosuke Miyaji, Takumi Ohashi, Hisayoshi Kobayashi, Preeyanuch Junkong (Japan)
Eric Leclerc, presiding
- 16:20 20B18 Synthesis of Ether-Functionalized Heterocyclic Monomers and Organocatalytic Polymerization
Kazuki Fukushima, Yuya Watanabe, Yuki Ota, Masaru Tanaka, Takashi Kato (Japan)
- 16:40 20B19 Acetylation of poly(vinyl alcohol) through amorphous-selective modification under supercritical carbon dioxide
Takuya Matsumoto, Miyabi Yorifuji, Ryohei Hori, Mitsuo Hara, Norifumi L. Yamada, Hideki Seto, Takashi Nishino (Japan)
Kazuki Fukushima, presiding
- 17:00 20B20 Creation of double-stranded vinyl polymers via controlled crosslinking reaction in coordination nanochannels
Masahiro Abe, Yuki Kametani, Takashi Uemura (Japan)
- 17:20 20B21 Side-Chain Modification of Poly(vinyl alcohol) under Supercritical Carbon Dioxide for Monomer Sequence Control
Ryohei Hori, Takuya Matsumoto, Takashi Nishino (Japan)

Fri. Jul 21

T-1 Polymer Synthesis and Reactions

- Ryo Tanaka, presiding**
- 9:00 21B01IL Synthesis of Polyolefins with Controlled Structure by Transition-Metal-Catalyzed Polymerization
Daisuke Takeuchi (Japan)
Hideyuki Otsuka, presiding
- 9:40 21B03IL Synthesis and Application of Hydrocarbon Ladder Polymers via Catalytic Arene-Norbornene Annulation
Yan Xia (United States of America)

Daisuke Takeuchi, presiding

- 10:20 21B05 Installation of boronic acid functionalities into polyolefins for mechanical property enhancement and reversible crosslinking
Ryo Tanaka, Yusuke Bando, Shin-ichi Kihara, Yuushou Nakayama, Takeshi Shiono (Japan)
- 10:40 21B06 Synthesis of regioselective thiophene-based poly(arylenevinylene)s via Co-catalyzed hydroarylation polyaddition
Ryota Iwamori, Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara (Japan)
- 11:00 21B07 Highly Selective and Efficient Mixed-Ligand Catalysts for Direct Arylation Polymerization (DAP)
Masayuki Wakioka (Japan)

Masayuki Wakioka, presiding

- 11:20 21B08 Structure Determination of Methylaluminoxane Activator using X-ray Total Scattering
Toru Wada, Patchanee Chamminkwan, Toshiaki Taniike (Japan)
- 11:40 21B09 Chemoselective Catalyst Transfer Migita-Kosugi-Stille Coupling Polycondensation between Distannyl and Tetrabromo Monomers
Kenta Yokawa, Tomoya Higashihara (Japan)
- 12:00 21B10 Synthesis of Fluorescent Self-Healing Elastomers by Scandium-Catalyzed Terpolymerization of Ethylene, Anisylpropylene, and Pyrenylethenylstyrene
Lin Huang, Haobing Wang, Yang Yang, Jingjing Shao, Gang Xiong, Masayoshi Nishiura, Zhaomin Hou (Japan)

Todd Shannon Emrick, presiding

- 14:00 21B11IL Molecular Design for Degradable Vinyl Polymers and Chemical Recycling
Yasuhiro Kohsaka (Japan)

Yasuhiro Kohsaka, presiding

- 14:40 21B13IL Functional Materials Chemistry Inspired by Nature
Todd Shannon Emrick (United States of America)
- 15:20 21B15 Modification of amino and amide groups to poly(vinyl alcohol) side chains and evaluation of their thermal properties and solubility
Miyuki Oshimura, Kai ming Huang, Yuya Masaki, Ryo Fujiwara, Tomohiro Hirano, Koichi Ute (Japan)
- 15:40 21B16 Flow Copolymerization of Methyl Methacrylate and Glycidyl Methacrylate using a Free Radical Method for Composition Regulation
Aniruddha Nag, Araki Wakiuchi, Shogo Takasuka, Shigehito Asano, Ryo Hashizume, Miho Hatanaka, Tomoyuki Miyao, Yuya Ohnishi, Takamitsu Matsubara, Tsuyoshi Ando, Tetsunori Sugawara, Mikiya Fuji, Hiroharu Ajiro (Japan)

Miyuki Oshimura, presiding

- 16:00 21B17 Postpolymerization of Poly(Ethylene Oxide) - C-H functionalization to Degradability and Molecular Delivery
Jeung Gon Kim (Republic of Korea)
- 16:20 21B18 Synthesis of Novel Ester-Free Type Poly(trimethylene carbonate) Derivatives Bearing Long Alkyl Chains
Ayun Erwina ARIFIANI, Takamasa MATSUMOTO, Nalinthip CHANTHASET, Hiroharu AJIRO (Japan)
- 16:40 21B19 Synthesis of Novel Ester-Free Type Poly(trimethylene carbonate) Derivatives Bearing Dialkyl Units
Thunchanok THUMMARAJ, Nalinthip CHANTHASET, Hiroharu AJIRO (Japan)

Room C**Wed. Jul 19****T-10 Bio-functional and Biomedical Polymers****Yoshihiro Sasaki, presiding**

- 9:00 19C01 Isolation of colon cancer cells using membrane filtration method
Zhe-Wei Zhu, Akon Higuchi (Taiwan)

- 9:20 19C02 Purification of human ovarian cancer stem cells using membrane filtration method
Yi-shuo Su, Akon Higuchi (Taiwan)
- 9:40 19C03 Purification of Human Pluripotent Stem cell-derived Cardiomyocytes on Cell Sorting Thermoresponsive Surface
Akon Higuchi (Taiwan)
- 10:00 19C04IL Amphiphilic multiblock oligomers functioning in lipid bilayer membranes
Kazushi Kinbara (Japan)
- Kazuo Sakurai, presiding**
- 10:40 19C06 Supramolecular polymers formed by peptide amphiphile enhance the maturation of human stem cell-derived neurons
Kohei Sato (Japan)
- 11:00 19C07 Study of effects of co-solvent and temperature on self-assembly behavior with polypeptide assembly
Motoki Ueda, Avanashiappan Nandakumar, Yoshihiro Ito (Japan)
- 11:20 19C08 Design of Biomembrane Hybrid Nanoparticles for Potential Biomedical Applications
Yoshihiro Sasaki, Ryosuke Mizuta, Keigo Ukyo, Shin-ichi Sawada, Kazunari Akiyoshi (Japan)
- 11:40 19C09IL Virus replicas constructed from designed peptides
Kazunori Matsuura (Japan)
- Byeong-Su Kim, presiding**
- 14:00 19C11IL Aqueous Two Phase System Biosensors
Shuichi Takayama (United States of America)
- 14:40 19C13 Extracellular Vesicle Detection on a Microchip with Partial Grafted and Low-Height Regions toward Cancer Point-of-Care Testing
Ryo ISHIHARA, Hinako YOKOHARI, Ren OGATA, Kotomi KATORI, Nao SAKAI, Kanau TSUGE, Tadaaki NAKAJIMA, Eri SHIMURA, Takeshi BABA (Japan)
- 15:00 19C14 Molecularly Designable 2D Cellulose Assemblies as Biosensing Platforms
Kai Sugiura, Misaki Hanamura, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa (Japan)
- Yuichi Ohya, presiding**
- 15:20 19C15 Emulsion-templated preparation of smart nanocapsules for DDS carriers
Akifumi Kawamura, Takashi Miyata (Japan)
- 15:40 19C16 Design of polymer post-biotics based on short-chain fatty acid
Yukio Nagasaki (Japan)
- 16:00 19C17IL Green Tea Based Nanomedicine for Cancer Therapy
Motoichi Kurisawa, Nunnarpas Yongvongsoontorn, Joo Eun Chung (Japan)
- Akon Higuchi, presiding**
- 16:40 19C19 Novel cyclodextrin-based nanoparticles delivering mangostin to treat brain ischemia
Van T. H. Doan, Jun Katsuki, Natsumi Oka, Hideaki Hara, kazuo Sakurai (Japan)
- 17:00 19C20 Polymeric Nanomedicine targets brain cancer
Sabina Quader, Xueying Liu, Hiroaki Kinoh, Horacio Cabral, Kazunori Kataoka (Japan)
- 17:20 19C21 Shear thinning polysaccharides hydrogels for biomedical applications
Yulia Shitrit, Or Peleg-Evron, Maya Davidovich-Pinhas, Havazelet Bianco-Peled (Israel)
- 17:40 19C22 Suppression of the depressive symptoms of chronic restraint stress mice via gut-brain axis by the intestinal ROS-scavenging nanomaterial.
Yutaka Ikeda, Naoki Saigo, Yukio Nagasaki (Japan)

Thu. Jul 20

T-10 Bio-functional and Biomedical Polymers

Kazushi Kinbara, presiding

- 9:00 20C01 Generation of microtubule superstructures by Tau-derived peptide-fused tetrameric proteins
Hiroshi Inaba, Yurina Sueki, Muneyoshi Ichikawa, Arif Md. Rashedul Kabir, Takashi Iwasaki, Akira Kakugo, Kazuki Sada, Kazunori Matsuura (Japan)
- 9:20 20C02 Microtubule contributes to regulate intracellular transport as a mechano-sensor
Syeda Rubaiya Nasrin, Christian Ganser, Arif Md. Rashedul Kabir, Kazuki Sada, Takefumi Yamashita, Mitsunori Ikeguchi, Takayuki Uchihashi, Akira Kakugo (Japan)

- 9:40 20C03 Force Measurement of Kinesin Propelled Microtubules in Swarming Using an Electromagnetic Tweezer
MST RUBAYA RASHID, Mousumi Akter, Arif Md. Rashedul Kabir, Kazuki Sada, Akira Kakugo (Japan)
- 10:00 20C04IL Flow based chemical synthesis of proteins
Bradley Lether Pentelute (United States of America)
- Takeshi Serizawa, presiding**
- 10:40 20C06 Optimization of Amphiphilic Oligo(ethylene glycol) Structure for Suppression of Protein Thermal Aggregations
Wijak Yospanya, Thirasara S. Pituwala Kankanamge, Kohei Sato, Adam M. Wawro, Kazushi Kinbara (Japan)
- 11:00 20C07 Development of Protein N-terminus Selective Modification Reagent Using Triazolecarbaldehyde Derivative for Biomaterials Applications
Akira Onoda (Japan)
- 11:20 20C08 The efficient encapsulation of proteins and the conceivable utilization of glycopoly(sarcosine)-derived coacervates
Yota Okuno, Yoshihiro Sasaki, Kazunari Akiyoshi, Yasuhiko Iwasaki (Japan)
- 11:40 20C09IL Structural and molecular insight into antibody recognition of pancreatic cancer MUC1
Shin-ichiro Nishimura (Japan)
- Akihiko Kikuchi, presiding**
- 14:00 20C11IL Cooperative task achievement by a swarm of molecular machines
Akira Kakugo (Japan)
- 14:40 20C13 Solid-phase synthesis as a tool for the generation of highly defined drug carrier systems
Johanna Katrin Elter, Natan Sidej, Veronika Liscakova, Pavel Sacha, Martin Hruby (Czech Republic)
- 15:00 20C14 Functional evaluation of gold colloids modified with biocompatible vinyl ether polymer that promote cellular uptake
Kento Fujiura, Mitsuru Naito, Lumi Negishi, Tomoya Kujirai, Yukiko Tanaka, Aki Yamamoto, Seiichi Ohta, Hitoshi Kurumizaka, Masaru Tanaka, Kanjiro Miyata (Japan)
- 15:20 20C15 Polyethylene Glycol Stabilized Carbon Nanohorn-based Carriers Toward Theranostics
Fitriani Jati Rahmania, Toyoko Imae (Taiwan)
- Hiroshi Inaba, presiding**
- 15:40 20C16 Rationale Design of Polymer Inhibitor of Proximal Enzymes on Cancer Cells: Contribution of Size and Ligand Density to Synergy and Selectivity
Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki (Japan)
- 16:00 20C17 Polymer-based micelle-type antioxidant that accumulates specifically in the gastrointestinal tract enhances exercise performance
Takuto Toriumi, Hajime Ohmori, Yukio Nagasaki (Japan)
- 16:20 20C18 Development of Biomacromolecule-Fueled Hydrogels
Masahiko Nakamoto, Michiya Matsusaki (Japan)
- 16:40 20C19 Interaction of thermoresponsive transformable particles with macrophages
Akihiko KIKUCHI, Syuuhei KOMATSU, Taka-Aki ASOH (Japan)
- Akifumi Kawamura, presiding**
- 17:00 20C20 Modular Peptidomimetic Polyethers Toward Mimicking Mussel and Frog
Minseong Kim, Byeong-Su Kim (Republic of Korea)
- 17:20 20C21 Fabrication of Alendronic acid and Phenylalanine functionalized Poly(gamma-Glutamic) acid for 3D bioprinting.
Sukulya Bunuasunthon, Masahiko Nakamoto, Michiya Matsusaki (Japan)

Fri. Jul 21

T-10 Bio-functional and Biomedical Polymers

Kazuki Fukushima, presiding

- 9:00 21C01 Nucleic Acid Sequence-Responsive Artificial Chaperone Based on Cationic Copolymer/Peptide Nucleic Acid Conjugates
Wancheng Zhang, Naohiko Shimada, Atsushi Maruyama (Japan)

- 9:20 21C02 DNA-Scaffolded Bioluminescence Energy Transfer System (dsBRET) for Precisely Controlled Multi-Color Bioluminescence
Akinori Kuzuya, Fumiaki Takano, Yuki Minamide, Shiori Tabana, Tomoya Niki, Koichi Tanimoto (Japan)
- 9:40 21C03 Multiple gene expression in the mitochondria using a membrane-anchoring peptide to restore mitochondrial functions
Naoto Yoshinaga, Takaaki Miyamoto, Masaki Odahara, Seia Nara, Haruna Nishimura, Feng Ling, Masayuki Su'etsugu, Minoru Yoshida, Keiji Numata (Japan)
- 10:00 21C04IL Supramolecular Assemblies for Targeted Delivery of Anticancer polycarbonates
Yi Yan Yang, James L. Hedrick (Singapore)
- Yosuke Okamura, presiding**
- 10:40 21C06 Anticancer Therapy Based on the Antioxidative Function of Cysteine-Based Polymer Nanoparticles
Yuta Koda, Yukio Nagasaki (Japan)
- 11:00 21C07 Treatment of liver fibrosis using a hyaluronic acid-coated biodegradable polymeric micelle as a drug delivery vehicle
Yuichi Ohya, Yuta Yoshizaki, Manami Yamasaki, Takuya Nagata, Kengo Suzuki, Rio Yamada, Takuma Kato, Akira Asai, Kazuhide Higuchi, Kosuke Kaji, Hitoshi Yoshiji, Nobuo Murase, Akinori Kuzuya (Japan)
- 11:20 21C08 Bio-inspired zwitterionic polymeric chelating assembly for treatment of copper-induced cytotoxicity and triggered-release drug delivery
Chun-Jen Huang (Taiwan)
- 11:40 21C09 pH-Responsive mixed-charger polymeric micelles for weak acidic tumorous environment selective cell interaction
Yuki Hiruta, Yubuki Nakamura, Yutaka Shindo, Kotaro Oka, Daniel Citterio (Japan)
- 12:00 21C10 Amphiphilic liquid crystalline polymer self-assemblies for smart drug delivery
Takashi Miyata, Yasuaki Inoue, Maika Togawa, Akifumi Kawamura (Japan)
- Satoshi Yamaguchi, presiding**
- 14:00 21C11IL Nano-Design of Cell Surfaces for Biomedical Applications
Michiya Matsusaki (Japan)
- 14:40 21C13 Reprogram of Human Amniotic Fluid Stem Cells into Universal Induced Pluripotent Stem Cells on different ECM-coated surface
Zhao-Yu Hong, Akon Higuchi, Yun-Ting Lin (Taiwan)
- 15:00 21C14 Covalent Stem Cell-Combining Injectable Materials with Enhanced Stemness and Controlled Differentiation In Vivo
Natsumi Ueda, Shiho Sawada, Fumiya Yuasa, Karen Kato, Koji Nagahama (Japan)
- 15:20 21C15 Differentiation of Human Pluripotent Stem Cells into Retinal Pigment Epithelial Cells on Different ECM-coated Surface
Hui-Yu Lin, Akon Higuchi (Taiwan)
- Michiya Matsusaki, presiding**
- 15:40 21C16 Bioorthogonal photo-reactive polymer surfaces for light-guided cell patterning
Satoshi Yamaguchi, Takahiro Kosaka, Xueyang Li, Akimitsu Okamoto (Japan)
- 16:00 21C17IL Biomaterials-based delivery of signaling molecules and cells for tissue engineering
Heungsoo Shin (Republic of Korea)
- 16:40 21C19 Treatment of GVHD using hMSCs cultured on ECM-coating surface
CHANG YEN TSAI, AKON HIGUCHI (Taiwan)
- 17:00 21C20 Electrospun fiber-based scaffold for evaluating and tuning cell migration of glioblastoma cells
Satoshi Fujita, Norichika Hashimoto, Wan-Ying Huang, Ryuhei Kitai, Takahiro Yamauchi, Makoto Isozaki, Ken-Ichiro Kikuta (Japan)

Room D

Wed. Jul 19

T-4 Polymer Surface and Interface**Shinichi Sakurai, presiding**

- 9:00 19D01IL Biopolymer and diblock copolymer functional materials
Stephan V. Roth (Germany)
- Syuji Fujii, presiding**
- 9:40 19D03IL Regular Ordering of Spherical Microdomains in Dewetted Monolayer Islands Induced by Thermal Annealing of Spin-Coated Ultrathin Films of a Triblock Copolymer
Rasha Bayomi, Takashi Aoki, Sono Sasaki, Shinichi Sakurai (Japan)
- Motoyasu Kobayashi, presiding**
- 10:20 19D05 Controlling of Secondary Structure in Organic-Inorganic Hybrid Polymers with Flexible Main Chain
Tomoyasu Hirai, Tomoki Mure, Sota Iwao, Syuji Fujii, Yoshinobu Nakamura (Japan)
- 10:40 19D06 Synthesis of higher-chi PS-b-PMMA derivatives and creation of sub-10 nm line patterns by directed self-assembly
Shinsuke Maekawa, Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Yuta Nabaе, Teruaki Hayakawa (Japan)
- 11:00 19D07 Complex formation of pendant lysine residue-containing zwitterionic random copolymer with copper
Shin-ichi Yusa, Kengo Takagi, Shukanta Bhowmik, Kang-Ting Huang, Chun-Jen Huang, Rintaro Takahashi (Japan)
- Tomoyasu Hirai, presiding**
- 11:20 19D08 Preparation and Characterization of Water-Soluble Polyion Complex (PIC) Micelles with Random Copolymers
Shukanta Bhowmik, Shin-ichi Yusa (Japan)
- 11:40 19D09 Thermo and pH-responsive water-soluble polyion complex (PIC) vesicle covered by polyampholyte shells
Thu Thao Pham, Tien Duc Pham, Shin-ichi Yusa (Japan)
- 12:00 19D10 Antifouling surface design against cypris larva by polyelectrolyte-grafted silica nanoparticles
Motoyasu Kobayashi, Ryuto Honda, Yasuyuki Nogata (Japan)
- Eriko Sato, presiding**
- 14:00 19D11IL Adsorption of Polymer Chains onto a Solid Surface
Keiji Tanaka, Yukari Oda, Yuma Morimitsu, Daisuke Kawaguchi, Satoru Yamamoto (Japan)
- 14:40 19D13IL Design and functions of polymeric materials formed by reversible and movable cross-linkers
Yoshinori Takashima (Japan)
- 15:20 19D15IL Functional Networks for Environmental Remediation
Mona Semsarilar (France)
- Keiichi Imato, presiding**
- 16:00 19D17 Crosslinked Polymer Particles Prepared by Heterogeneous Polymerization of an Asymmetric Divinyl Azobenzene Monomer for Light-Responsive Applications
Tomomichi Itoh, Moeka Kimoto, Natsumi Kuroda, Keisuke Ishizaki, Eiji Yukihiro, Hiroaki Shimomoto, Eiji Ihara (Japan)
- 16:20 19D18 Fabrication of Stimuli Responsive Capsules Utilizing Interfacial Photocrosslinking of Polymer Particles
Yukiya Kitayama, Akari Dosaka, Moeka Ogawa, Eiji Yuba, Atsushi Harada (Japan)
- 16:40 19D19 Nanoparticles of Amorphous Conjugated Polymer Network Containing Quinone Delivers and Their Electrochemical Applications
Ryuto Sugiura, Hiroaki Imai, Yuya Oaki (Japan)
- Yukiya Kitayama, presiding**
- 17:00 19D20 Study on surface functionalization and structure control of cellulose nanomaterial films using silylation modification
Hiroyuki Taniyama, Koji Takagi (Japan)
- 17:20 19D21 Development of gel actuators driven wirelessly by bipolar electrochemistry
Keiichi Imato, Taichi Hino, Naoki Shida, Shinsuke Inagi, Ichiro Imae, Yousuke Ooyama (Japan)
- 17:40 19D22 Construction of aqueous multicomponent supramolecular materials comprising peptide-based fibrous nanostructures and DNA nanoflowers obtained by isothermal rolling circle amplification
Shintaro Sugiura, Yuki Shintani, Sayuri L. Higashi, Masato Ikeda (Japan)

T-4 Polymer Surface and Interface

Syuji Fujii, presiding

- 9:00 20D01IL Interfacial Nanostructuring of Siloxane Building Blocks
Masaya Mitsuishi (Japan)
- 9:40 20D03IL Polymer particles at liquid interfaces: a tale of structures, coffee stains and clean up processes
Nicolas Vogel (Germany)

Kosuke Okeyoshi, presiding

- 10:20 20D05 Evaluation of Surface Segregation Behaviors of (Bottlebrush Polystyrene/Linear Polystyrene) Blend Films and its Frictional Properties
Anri Nishimura, Yoshihiro Yamauchi, Sadaki Samitsu, Yoshihisa Fujii, Naoya Torikai (Japan)
- 10:40 20D06 Molecular Structure Effects of PS and PMMA Films on Surface Properties modified by Air Plasma Treatment
Shintaro Yasuda, Yoshihisa Fujii, Naoya Torikai (Japan)
- 11:00 20D07 Controlled alignment and weak anchoring of liquid crystals on bottlebrush polymer films fabricated by the Langmuir-Blodgett technique
Yuji Kinose, Yoshirou Takamura, Osamu Sato, Yoshinobu Tsujii (Japan)

Yoshihisa Fujii, presiding

- 11:20 20D08 Structural analysis of phosphorus containing polymer thin films utilizing Tender X-rays reflectivity
Hiroki Kobayashi, Katsuhiko Yamamoto (Japan)
- 11:40 20D09 Analysis of the Chemical Component Distribution in EUV Resist Thin Films by Soft X-Ray
Shinji Yamakawa, Atsunori Nakamoto, Shuhei Iguchi, Tsukasa Sasakura, Tetsuo Harada, Takeo Watanabe (Japan)
- 12:00 20D10 Exploration of universal mechanisms in meniscus splitting on polymer/water dispersion systems.
Reina Hagiwara, Yoshifumi Katsushima, Kosuke Okeyoshi (Japan)

Shinichi Sakurai, presiding

- 14:00 20D11IL Making polymers vanish with nm-scale precision: Extreme UV Patterning for Fast Electronics
Christopher Kemper Ober, Florian Kaefer, Jingyuan Deng, Chenyun Yuan, Cameron Adams, Rachel Segalman (United States of America)
- 14:40 20D13IL Dismantlable adhesives based on nondegradable polymers
Eriko Sato (Japan)
- 15:20 20D15IL Adhesion mechanism from the viewpoint of meniscus formation and sedimentation behavior in fine particles on the rubber surface
Toshiaki Ougizawa (Japan)

Christopher Kemper Ober, presiding

- 16:00 20D17 Design of copolymer-conjugated nanocatalysts for photoinduced electron transfer
Kosuke Okeyoshi, Reina Hagiwara, Shun Nishimura (Japan)
- 16:20 20D18 Visualization and quantification of weak compression-stress distribution by integration of polydiacetylene and dry liquid
Nahoko Ono, Ryo Seishima, Koji Okabayashi, Hiroaki Imai, Syuji Fujii, Yuya Oaki (Japan)
- 16:40 20D19 A Low-Voltage-Driven Smart Window Controlled by Electrochemically Induced Polymer Phase Transition
Ryohei Matsuno, Hongyao Zhou, Teppei Yamada (Japan)
- 17:00 20D20 Photolithographic PN Patterning of Single-walled Carbon Nanotubes by Photoinduced Electron Doping
Naoki Tanaka, Mei Yamamoto, Tsuyohiko Fujigaya (Japan)

Fri. Jul 21

T-4 Polymer Surface and Interface

Syuji Fujii, presiding

- 9:00 21D01IL Nature-Friendly Approach for Creating Self-Healing Superhydrophobic/Superhydrophilic Coatings
Atsushi Hozumi (Japan)
- 9:40 21D03IL Wetting translucency of ultrathin polymer films
Reika Katsumata, Evon Petek (United States of America)
- 10:20 21D05 Frog-Skin-Inspired Slippery Antibiofouling Coatings Through Degradable Block Copolymer Wrinkling
Han-Yu Hsueh, Ting-Lun Chen, Yi-Ju Yang, Wei-Lung Wang (Taiwan)
- 10:40 21D06 Interfacial Release-Induced Surface Instabilities for Highly-Orientated Wrinkled Patterns
Yu Fang Lai, Han-Yu Hsueh (Taiwan)

Room E**Wed. Jul 19****T-6 Polymer Hybrid and Composite Materials****Kazuo Tanaka, presiding**

- 9:00 19E01IL Functional Polymer Materials with Versatile Element-blocks in the Main Chain
Ikuyoshi Tomita, Alvin Tanudjaja, Ryoyu Hifumi, Shinsuke Inagi (Japan)
- 9:40 19E03 Synthesis and Low Dielectric Properties of Phosphine Sulfide-containing Polymers
Ryoyu Hifumi, Kotaro Ochiai, Ikuyoshi Tomita (Japan)
- 10:00 19E04 Polymers bearing bismuth dithiocarboxylate and fluorescent structures for turn-on fluoride anion sensing
Yoshimasa Matsumura, Naoki Usui, Bungo Ochiai (Japan)
- 10:20 19E05 Lead-Free Wood/Polyvinyl Chloride (WPVC) Composites Containing Bismuth Oxide for Potential Use as X-ray Shielding Materials
Kiadtisak Saenboonruang, Worawat Poltabtim, Ekachai Wimolmala, Narongrit Sombatsompop (Thailand)

Hiroaki Imoto, presiding

- 10:40 19E06IL Synthesis and Optical Properties of π -Conjugated Polymers Containing Hypervalent Compounds
Masayuki Gon, Kazuo Tanaka (Japan)
- 11:20 19E08 Effects of Chemical Modification of Nanodiamond on the Properties of Epoxy Nanocomposites
Seira Morimune-Moriya, Gento Watanabe, Akiho Horibe, Ryusei Shibuya (Japan)
- 11:40 19E09 Development of graphene oxide reinforced polyamide6 nanocomposites
Ryusei Shibuya, Seira Morimune-Moriya (Japan)
- 12:00 19E10 Photoluminescence and Stimuli Responsiveness of Group 13 Element Complexes and Their Conjugated Polymers
Shunichiro Ito, Kazuo Tanaka, Yoshiki Chujo (Japan)

Kensuke Naka, presiding

- 14:00 19E11IL Synthesis of polymer/graphene oxide nanocomposites via aqueous emulsion based approaches
Per B. Zetterlund, Yasemin Fadil, Bich Ngoc Tran, Le Ngoc Minh Dinh, Vipul Agarwal (Australia)
- 14:40 19E13 Metal-like Lustrous Materials using Oligo(3-alkoxythiophene)
Satoru Tsukada, Ryota Saito, Katsuyoshi Hoshino (Japan)
- 15:00 19E14 Preparation of Metal Oxide/Metal Organic Framework Composite Embedded in Chitosan Film Towards CO₂ Photo-decomposition
Cecilia Adena, Toyoko Imae (Taiwan)
- 15:20 19E15 Polymer-Grafting from Ultrathin MOF Nanosheets for Fabrication of Versatile 2D Materials
SIYUAN YE, NOBUHIKO HOSONO, TAKASHI UEMURA (Japan)

Ryoyu Hifumi, presiding

- 15:40 19E16IL Conductive epoxy polymer blend / Ag filler composites with in-situ manipulation of the placement of Ag fillers and phase structures of matrices
Hajime Kishi, Ryoko Hara, Suzu Furuno, Natsumi Kimura, Kazuyoshi Yamada, Takeshi Kakibe, Satoshi Matsuda (Japan)
- 16:20 19E18 Novel network polymer derived from PPE units and development of the PWB with low Df for 5G applications.
Hisanao Yamamoto, Katsuhiko Iwase, Hiroshi Fukuoka, Shoji Otani, Miyuki Harada (Japan)
- 16:40 19E19 The Effect of Morphology of Polyaniline Nanocomposites on Photodegradation of Toxic Organic Dyes
Sook-Wai PHANG, Shu-Hui KHOR, Wan Jeffrey BASIRUN, Joon-Ching Juan JUAN (Malaysia)

Thu. Jul 20**T-6 Polymer Hybrid and Composite Materials****Shinobu Uemura, presiding**

- 9:00 20E01IL Active control of plasmonic nanoparticles using polymers
Hideyuki Mitomo (Japan)
- 9:40 20E03 Amphibian-Inspired Bilayer Lubricant-Infused Particulate Films as Slippery Protective Coatings with Durable Anticorrosion and Antifouling Performance
Ting-Lun Chen, Wei-Lung Wang, Han-Yu Hsueh (Taiwan)
- 10:00 20E04 Stress transfer analyses of poly-L-lactic acid/hydroxyapatite composites by synchrotron radiation
Chenyue He, Takuya Matsumoto, Takashi Nishino (Japan)
- 10:20 20E05 Enhance the toughness and biodegradability of polymers by introducing pseudo polyrotaxane nanosheets
Liu Cong, Shuntaro Uenuma, Shota Ando, Hideaki Yokoyama, Kohzo Ito (Japan)

Takuya Matsumoto, presiding

- 10:40 20E06IL Silsesquioxane-based hybrid materials
Michel Wong-Chi-Man (France)
- 11:20 20E08 Preparation and nanoaggregate formation of amphiphilic ladder-like hybrid polymers
Yoshiro Kaneko, Shiori Matsuo, Katsufumi Soda, Aki Mihata (Japan)
- 11:40 20E09 Liquid-Crystalline Dendron-Modified Iron Oxide Magnetic Nanoparticles: Dynamic Control of Array Structure by Thermal Phase Transition
Takehiro Yachi, Masaki Matsubara, Xiangbing Zeng, Goran Ungar, Atsushi Muramatsu, Kiyoshi Kaine (Japan)
- 12:00 20E10 Morphology Control of Anisotropic Gold Nanoparticles by Functional Polysaccharide Sacran
Pruetsakorn Saosamniang, Maninder Singh, Kenji Takada, Maiko Okajima, Tatsuo Kaneko (Japan)

Yoshiro Kaneko, presiding

- 14:00 20E11IL Transparent Omniphobic Coating with Glasslike Hardness and Polymerlike Bendability for Ready Shedding of Oil, Water, and Ice
Guojun Liu (Canada)
- 14:40 20E13 Luminescent, transparent polymer nanocomposites incorporating ZnO quantum dots
Haruyuki Ishii, Kazuhiro Kuzuya (Japan)
- 15:00 20E14 Synergistic effect of femtosecond pulse laser deposition of ZnO and conjugated polymers in core-shell hybrid filaments based on nanocellulose
Duong Tuan Anh Nguyen, Toyoko Imae (Taiwan)
- 15:20 20E15 Effect of Stacking Structure on Mechanical Properties of Biodegradable Poly(butylene succinate) Based Japanese Washi-Paper Composite Materials
Lovisa Erika Larsdotter Rova, Hiroki Kurita, Alia Gallet-Pandelle, Zhenjing Wang, Fumio Narita (Japan)

Shunichiro Ito, presiding

- 15:40 20E16IL Helical Polymers and Macrocycles Prepared From Alkyl Furan-3-carboxylate Building Blocks
Kevin J. T. Noonan (United States of America)

16:20	20E18	Synthesis and Characteristic Properties of pi-Conjugated Organoarsenic Polymers <u>Kensuke Naka</u> , Hiroaki Imoto (Japan)
16:40	20E19	Phase-transformative lanthanide coordination polymers with characteristic luminescence properties <u>Yasuchika Hasegawa</u> (Japan)

Room F

Wed. Jul 19

T-7 Polymer Processing

Hiroshi Ito, presiding

9:00	19F01IL	3D-printed/electrospun degradable drug-eluting scaffolds for treatment of alveolar bone defects Pang-Yun Chou, Chien-Tun Liao, <u>Shih-Jung Liu</u> (Taiwan)
9:40	19F03	A novel technology platform for printing microfluidics in polymer thin films. <u>Detao Qin</u> , Masateru Ito, Easan Sivaniah (Japan)
10:00	19F04	Polypeptide Hydrogels with Programmable Mechanical Properties for 3D-Printing <u>Robert D Murphy</u> , Colm Delaney, Andreas Heise, Craig J Hawker (Ireland)
10:20	19F05	Crystalline Polymer Gels and Their Processing Techniques Hiroto Sakurai, Yuta Kawanishi, Taisuke Nigou, Shinnosuke Irie, <u>Jin Gong</u> (Japan)

Kentaro Taki, presiding

10:40	19F06	Analysis of multi-scale structure of polyurethane adhesive with various hard segment contents of the single lap joint <u>Kakeru Obayashi</u> , Rasha Ahmed Hanafy Bayomi, Ken Kojio (Japan)
11:00	19F07	The effect of molding methods on microdomain structure of ABA type styrenic thermoplastic elastomer during deformation process Aya Fujimoto, Ayumi Hamada, Chao-Hung Cheng, Kakeru Obayashi, Ryosuke Kawatoko, Airi Sato, Makiko Ito, Ken Nakajima, <u>Ken Kojio</u> (Japan)
11:20	19F08	Improving Toughness of Marine Biodegradable Polymer Blends by Adding Polyrotaxane <u>Hiroshi Ito</u> , Kazuya Kumai, Yuta Yamada, Yutaka Kobayashi (Japan)
11:40	19F09	Fabrication of biodegradable polymer nanocomposites with antimicrobial properties <u>Supaphorn Thumsorn</u> , Tsubasa Ueda, Akira Ishigami, Hiroshi Ito (Japan)
12:00	19F10	Effect of Plasticizers on Physical and Mechanical Properties of Thermoplastic Films Based on Shear and Heat Milling Modified Starch <u>Apakorn Thongmeepech</u> , Tomonori Koda, Hiroko Yano, Akihiro Nishioka (Japan)

Jin Gong, presiding

14:00	19F11IL	Interfacial Designing of Immiscible Polymer Blends by Reactive Processing <u>Yongjin Li</u> , Hengti Wang (China)
14:40	19F13	Improved melt-mixing in single-screw extrusion by geometry modification based on mixing mechanism <u>Yasuya Nakayama</u> , Taishi Fujihara, Koichi Kimura, Toshihisa Kajiwara (Japan)
15:00	19F14	A Hybrid Modeling Approach to Predicting the Flow of Non-Newtonian Polymer Melts in Single-Screw Extruders <u>Christian Marschik</u> , Wolfgang Roland (Austria)
15:20	19F15	Study of Residence Time and Filling Ratio inside Counter-Rotating Continuous Mixer Using Partially Filled Flow Simulation <u>Toshihisa Kajiwara</u> , Kazuhide Sekiyama, Yasuya Nakayama (Japan)
15:40	19F16	Monitoring of glass fiber attrition and pellets' plastication in twin-screw extruder using acoustic emission sensor <u>Kentaro Taki</u> , Masatoshi Ohara, Keigo Inamori, Shogo Nagasawa, Shin-ichi Kihara (Japan)

Toshihisa Kajiwara, presiding

16:00	19F17IL	Multifunctional Biomimetic Nanocoatings Anna Marie LaChance, Jingjing Liu, Sonia E. Chavez, Zaili Hou, Fuchuan Ding, Montgomery T. Shaw, <u>Luyi Sun</u> (United States of America)
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16:40	19F19	Change in molecular aggregation structure of poly(methylmethacrylate) film under uniaxial and biaxial stretching deformation Ryosuke Kawatoko, Aya Fujimoto, Genki Matsuura, Chao-Hung Cheng, Kakeru Obayashi, <u>Ken Kojio</u> (Japan)
17:00	19F20	Removal of arsenic by polyvinylidene fluoride (pvdf) membrane incorporated with irradiation-assisted exfoliation of boron nitride <u>Sarala Selambakkannu</u> , Norliza Ishak, Nor Azillah Fatimah Othman, Teo Ming Ting, Zulhairun Karim (Malaysia)
17:20	19F21	Influence of processing history on the structure and mechanical properties of fibers from recycled polypropylene copolymers <u>Mohammad A. Barique</u> , Takarada Wataru, Takeshi Kikutani (Japan)
17:40	19F22	Poly(ether ether ketone) nanofibers fabricated by solution electrospinning <u>Tomoki Maeda</u> , Yuya Yokogi, Tomoyuki Nomura, Shigeki Okada, Gabin Goy, Atsushi Hotta (Japan)

Thu. Jul 20

T-7 Polymer Processing

Ken Kojio, presiding

9:00	20F01IL	Front-line polymer foams processing - the State of the Arts <u>Masahiro Ohshima</u> (Japan)
9:40	20F03	Measurement of Viscoelastic Properties of High-pressure CO ₂ /Polymers <u>Shin-ichi Kihara</u> , Takumi Maekawa, Soushi Akagawa, Kanako Otsubo, Ikuro Ushiki, Shigeki Takishima (Japan)
10:00	20F04	Delamination of plastic-metal bilayer using UV-induced foaming polymer <u>Wichean Khawdas</u> , Ryoutarou Okuda, Yuko Sawada, Ken Miyata, Haruyuki Okamura, Kentaro Taki, Hiroshi Ito (Japan)
10:20	20F05	Improvement of flowability of PP/GF by high-shear rate processing in the specially designed single screw extruder <u>Yuya Sasai</u> , Yoshio Iizuka, Katsunori Kobayashi, Kaho Osada, Kentaro Taki (Japan)

Shin-ichi Kihara, presiding

10:40	20F06	In-line color monitoring of thermoplastic extrusion: correlation of color measurement and rheological behavior <u>Puay Keong Neo</u> , Yuki Kitada, Ryuta Matsumoto, Qing Sheng Goh, Moi Fuai Soon, Supaphorn Thumsorn, Naoyuki Shigeta, Yew Wei Leong, Hiroshi Ito (Singapore)
11:00	20F07	Influence of extensional rate on the dispersion state of carbon nanotubes in polypropylene under uniaxial extensional flow using hyperbolic flow channel Koki Matsumoto, <u>Yuya Fujisawa</u> , Kenichi Takemura (Japan)
11:20	20F08	Continuous Process of Cellulose Dissolution and Transesterification reaction via Homogeneous Reactive Twin-screw Extrusion Catalyzed by Ionic Liquid <u>Romain Milotskyi</u> , Stephanie Hernandez, Gyanendra Sharma, Tetsuo Fujie, Naoki Wada, Kenji Takahashi (Japan)

T-10 Bio-functional and Biomedical Polymers

Masaya Yamamoto, presiding

15:20	20F15	Bioinspired Synthesis of Cellulose-Based Composite Hydrogels <u>Yuta Sakurai</u> , Sawada Toshiki, Takeshi Serizawa (Japan)
15:40	20F16	Hemocompatible poly(sulfobetaine methacrylate) hydrogels with stretchable, self-healing, and adhesive properties <u>Hsiu-Wen Chien</u> (Taiwan)
16:00	20F17	Construction of Dynamic Extracellular Environments Base on Enzymatically Degradable Hydrogels <u>Riho Tanimoto</u> , Mitsuhiro Ebara, Koichiro Uto (Japan)
16:20	20F18	Hydrogel Surface Grafted with Mixed Oligopeptides for Long-Term Cultivation and Differentiation of Human Pluripotent Stem Cells <u>Yen-Hung Chen</u> , Akon Higuchi (Taiwan)

Mitsuhiro Ebara, presiding

16:40	20F19	Physicochemical Surface Effect on Improving Dedifferentiated Fat Cell Rate <u>Asli Sena Karanfil</u> , Fiona Louis, Yoshihiro Sowa, Michiya Matsusaki (Japan)
17:00	20F20	Human pluripotent stem cell culture on dendrimer surface grafted with ECM-derived peptides <u>Wen-Hui Chao</u> , Akon Higuchi (Taiwan)
17:20	20F21	Fabrication of PP nanoparticles as nano- and microplastic models for cytotoxicity testing <u>Masaya Yamamoto</u> , Tomoki Hiraoka, Suphatra Hiranphinyophat, Naoto Washihira, Mako Kobayashi, Akio Kishida, Sho Fujii, Tadao Tanabe, Tsuyoshi Kimura (Japan)
17:40	20F22	Polymer Nanosheet Wrapping for High Quality Tissue Imaging In Vitro and In Vivo <u>Yosuke Okamura</u> , Hong Zhang, Kenji Yarinome, Takuto Aoki, Taiga Takahashi, Kohei Otomo, Ryosuke Kawakami, Tomomi Nemoto (Japan)

Room G

Wed. Jul 19

T-9 Sustainable Polymers

Tadahisa Iwata, presiding

9:00	19G01IL	Catalyst for Polymer Synthesis and Polymer Degradation <u>Kyoko Nozaki</u> (Japan)
9:40	19G03	Development of Bio-Based Thermoset Polyester Resins and Investigation of the Reaction Kinetics <u>Fabian Weitenhagen</u> , Oliver Weichold (Germany)
10:00	19G04	Utilization of lignin as functional materials via sustainable extraction process and whitening method <u>Kazuhiro Shikinaka</u> , Yuichiro Otsuka (Japan)
10:20	19G05	Design of Poly(buthylene succinate) Derivatives Bearing Zwitterionic Sulfobetaine and Degradation of Their Copolymer Films <u>Nalinthip CHANTHASET</u> , Utana NARUKAWA, Hiroharu AJIRO (Japan)

Suwabun Chirachanchai, presiding

10:40	19G06IL	Functional stereoregular PHAs advancing sustainability <u>Sophie M. Guillaume</u> (France)
11:20	19G08	Mechanical property and degradability of polyisoprene rubber with hydrolysable boronate ester linkages <u>Shun Kumano</u> , Shintaro Nakagawa, Naoko Yoshie (Japan)
11:40	19G09	From natural phenols to biobased polymers: a platform approach <u>Sylvain CAILLOL</u> (France)

Kyoko Nozaki, presiding

14:20	19G12IL	Sustainable Mono-Material Product Design by Biodegradable and Recyclable Polymers <u>Eugene Y.-X. Chen</u> (United States of America)
15:00	19G14	synthesis of bio-based poly(ester amide)s by acyclic diene metathesis polymerization of symmetrical diene monomers prepared from amino acids and castor oil <u>Mohamed Mehawed Abdellatif</u> , Kotohiro Nomura (Japan)
15:20	19G15	Synthesis, Properties, and Biodegradation of Sequence-Controlled Poly(Ester Amide)s Containing γ -Aminobutyric Acid <u>Yuushou Nakayama</u> , Kazumasa Watanabe, Ryo Tanaka, Takeshi Shiono, Norioki Kawasaki, Naoko Yamano, Atsuyoshi Nakayama (Japan)
15:40	19G16	Benzoin-Based 3D-Covalent Organic Polymers Through Green Synthetic Approach with High Apparent Quantum Yield in Sacrificial Photocatalytic Hydrogen Generation <u>Islam Mohamed Ahmad Mekhemer</u> , Ho-Hsiu Chou (Taiwan)

Sophie M. Guillaume, presiding

16:00	19G17IL	Challenge to create a new polymer industry through bio-manufacturing <u>Shunsuke Sato</u> , Hisashi Arikawa (Japan)
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16:20	19G18	Novel Ice Recrystallization Behavior from Tuna (<i>Katsuwonus pelamis</i>) Blood Protein Hydrolysate with Antioxidant Activity <u>Phatthranit Klinmalai</u> , Sutee Wangtuei, Tomoaki Hagiwara (Thailand)
16:40	19G19	Degradable and Nanosegregated Multi-Block Poly(ester-carbonate)s Composed of Aromatic Mesogens and Substituted Aliphatic Oligocarbonates <u>Yuya Watanabe</u> , Riki Kato, Kazuki Fukushima, Takashi Kato (Japan)
17:00	19G20	Environmental Degradation Behaviors of Fishing Lines <u>Yingjun AN</u> , Tomoko KAJIWARA, Adchara PADERMSHOKE, Hiroyasu MASUNAGA, Sono SASAKI, Haruki MOKUDAI, Takashi MASAKI, Atsushi TAKAHARA (Japan)
17:20	19G21	Depolymerization of polyethylene terephthalate by dimethyl carbonate-aided methanolysis <u>Shinji Tanaka</u> , Yumiko Nakajima (Japan)

Thu. Jul 20**T-9 Sustainable Polymers****Atsushi Takahara, presiding**

9:00	20G01IL	Revolutionary Mechanical Recycling Process based on the Physical Degradation and Physical Regeneration theory <u>Shigeru Yao</u> (Japan)
9:40	20G03	Fluorine-activated transesterification and transamidation vitrimers Dimitri Berne, Florian Cuminet, Rinaldo Poli, Eric Dantras, Sylvain Caillol, Eric Leclerc, <u>Vincent L Admiral</u> (France)
10:00	20G04	Chemical recycling of fluoropolymers by molten sodium hydroxide <u>Naohisa Yanagihara</u> , Takahiro Katoh (Japan)
10:20	20G05	Closing the loop of Polyurethanes: from self-healing non-isocyanate polyurethanes to vitrimers and upcycling materials <u>Sylvain CAILLOL</u> (France)

Eugene Y.-X. Chen, presiding

10:40	20G06IL	Biobased materials designed for circularity <u>Minna Hakkarainen</u> (Sweden)
11:20	20G08	Synthesis of Photoresponsive Adhesive Polyamide Using Biobased Caffeic Acid <u>Kenji Takada</u> , Takumi Noda, Takumi Sato, Tatsuo Kaneko (Japan)
11:40	20G09	Improving the performance of photoactive monomers in resin formulations for additive manufacturing <u>Viviane Chiaradia</u> , Elena Pensa, Andrew Dove (United Kingdom)
12:00	20G10	One-shot upcycle of ordinary polyesters into vitrimers via cross-linking involving decomposition and bond exchange <u>Mikihiro Hayashi</u> , Takahiro Kimura (Japan)

Ken-ichi Kasuya, presiding

14:00	20G11IL	Ocean plastic pollution, its current status and future view <u>Atsuhiko Isobe</u> (Japan)
14:40	20G13	Evaluation of marine biodegradability of oligomers derived from degraded plastics <u>Hironori TAGUCHI</u> , Nao OSAKA, Takako KIKUCHI, Hisao MATSUNO, Keiji TANAKA (Japan)
15:00	20G14	Near-complete biodegradation in seawater of a wide variety of polyesters by thermal embedding of <i>Humicola insolens</i> cutinase <u>Qiuyuan HUANG</u> , Satoshi KIMURA, Tadahisa IWATA (Japan)

Shigeru Yao, presiding

15:20	20G15IL	Practical Development of Polysaccharide-based Biomass Plastics and Recycling Technology <u>Shukichi Tanaka</u> (Japan)
15:40	20G16	Chemical Recycling of Polyesters and Polyethylene for Functional Degradable Materials <u>Pakorn Opaprasit</u> , Bunthoeun Nim, Mantana Opaprasit, Atitsa Petchsuk, Kusuma Pinsuwan (Thailand)
16:00	20G17	Cellulose ester from Banana Pseudo-Stems using Ionic Liquid Shogo Iwata, Romain Milotskyi, Tetsuo Fujie, Naoki Wada, <u>Kenji Takahashi</u> (Japan)

- 16:20 20G18 Modification of Tamarind Starch and Developing Starch Based Films
Gyanendra Sharma, Tomohiro Samata, Shinji Utsunomiya, Shinya Ito, Naoki Wada, Kenji Takahashi (Japan)
- Tsuguyuki Saito, presiding**
- 16:40 20G19IL Development of biopolymer for fishing gear
Takashi Masaki (Japan)
- 17:00 20G20 The effects of blend composition on the physical properties of poly(butylene succinate-co-adipate) and paramylon mix ester based binary green blends
Manikandan Ilangovan, Hongyi Gan, Taizo Kabe, Tadahisa Iwata (Japan)
- 17:20 20G21 Predictions of Fiber Length Distribution and Mechanical Properties in Recycled Materials by Machine Learning
Keiichiro Nomura, Kohei Koyanagi, Koji Mukai, Yuji Yamanaka, Umi Yamamoto (Japan)
- 17:40 20G22 Volatile released poly(lactic acid) polymers as functional packaging via cast extrusion and thermoforming process
Nathdanai Harnkarnsujarit (Thailand)

Fri. Jul 21

T-9 Sustainable Polymers

Hideki Abe, presiding

- 9:00 21G01IL Structuring of cellulose nanofibers for producing functional materials
Tsuguyuki Saito (Japan)
- 9:40 21G03 Cellulose nanofiber reinforced starch film with rapid disintegration in marine environments
Yu-I Hsu, Raghav Soni, Hiroshi Uyama (Japan)
- 10:00 21G04 Preparation of highly crystalline and high mechanical strength cellulose II materials by multi-step post-treatment using low concentration alkaline solutions
Yuki Kugo, Takuya Isono, Masashi Fujiwara, Toshifumi Satoh, Hirofumi Tani, Tomoki Erata, Kenji Tajima (Japan)
- 10:20 21G05 Layer-by-Layer assembly of chitosan-gelatin composite film incorporating curcumin nanoemulsion: Physical and antioxidant properties
FAKFAN LUANGAPAI, SOTA HORI, MASANARI USAMI, NAKAKO KATSUNO, SATOSHI IWAMOTO (Japan)

Minna Hakkarainen, presiding

- 10:40 21G06IL Combining Dynamic Covalent Bond to Starch: A Challenge on Thermoplastic Starch with Reprocessability and Retrogradation Retardance
Suwabun Chirachanchai, Patakorn Pilasen (Thailand)
- 11:20 21G08 CuO/ZnO Catalyst in Chitosan Film for CO₂ Reduction
Jusni Manidar Lumban Gaol, Toyoko Imae (Taiwan)
- 11:40 21G09 Exploring the Potential for Thermoplastics Development through Transesterification of Beet Pulp catalyzed by Ionic Liquids
Ryo Serizawa, Shogo Iwata, Roman Milotskyi, Tetsuo Fujie, Tokuo Matsushima, Naoki Wada, Kenji Takahashi (Japan)
- 12:00 21G10 Fighting Fire with Feathers
Oliver Weichold (Germany)

Naoko Yoshie, presiding

- 14:00 21G11IL Evaluation of biodegradability in marine
Takako Kikuchi, Hironori TAGUCHI, Hisao MATSUNO, Keiji TANAKA (Japan)
- 14:20 21G12 Hydrolytic degradation of PLA by multi-component blend
Chantiga Choochottiros, Natjaya Ekapakul, Suwabun Chirachanchai (Thailand)
- 14:40 21G13 Effect of chemical structure on pressure-processable degradable block copolymers
Ikuo Taniguchi, Hioka Yuri, Neha Sharma (Japan)
- 15:00 21G14 The Decomposition of Segmented Polyurethane Elastomer Films under Exposure to UV Irradiation and Extracted Seawater
Van Thinh Nguyen, Kusano Yasunori, An Yingjun, Kajiwara Tomoko, Takahara Atsuishi (Japan)
- 15:20 21G15IL Difference between plastics that biodegrade in the ocean and those that do not.
Ken-ichi Kasuya, Ken-ichi Kasuya (Japan)

Room H

Wed. Jul 19

T-3 Structure and Physical Properties of Polymers**Takamasa Sakai, presiding**

- 9:00 19H01IL AFM Nanomechanics on Polymeric Materials
Ken Nakajima (Japan)
- 9:40 19H03 Design of Hydrogels with Crosslinked Nanodomain Structure Exhibiting Thermoresponsive Toughening and Hybridization with Functional Molecules
Shohei Ida, Shokyoku Kanaoka (Japan)
- 10:00 19H04 Relaxation Behavior Study of Random Networks Using Coarse-Grained MD Simulation
Hiroshi Sasaki (Japan)

Tasuku Nakajima, presiding

- 10:20 19H05 Semidilute principle for gels
Takashi Yasuda, Naoyuki Sakumichi, Takamasa Sakai (Japan)
- 10:40 19H06 Formation of needle-like polyethylene crystals by diffusion and following segregation between polyethylene and polyurethane
Yoshihiko Shiraki, Norifumi L. Yamada, Kohzo Ito, Hideaki Yokoyama (Japan)
- 11:00 19H07 Strain-Induced Crystallization in Conductive, Durable, and Stretchable Slide-Ring Ion Gels
Takato Enoki, Kei Hashimoto, Kohzo Ito, Koichi Mayumi (Japan)

Kenji Urayama, presiding

- 11:20 19H08 Fatigue fracture behavior of tough and self-healing hydrogels
Xueyu Li, Kunpeng Cui, Jian Ping Gong (Japan)
- 11:40 19H09IL Super-resolution microscopy reveals nanoscale mechanisms in microgels and microgel-based materials
Frank Scheffold (Switzerland)

Ken Nakajima, presiding

- 14:00 19H11IL Self-healing polymers with dynamic networks
Yohei Miwa (Japan)
- 14:40 19H13 Facile Preparation and Characterization of Low-Gloss Waterborne Polyurethane Coatings Using Amine-based Chain Extenders
Yong Rok Kwon, Dong Hyun Kim (Republic of Korea)

Shohei Ida, presiding

- 15:00 19H14 Negative Energetic Contribution and Network Topology Dependence in Gel Elasticity
Naoyuki Sakumichi, Yuki Yoshikawa, Genki Otomo, Takamasa Sakai (Japan)
- 15:20 19H15 Acceleration of Hydrolysis of Poly(glycolic Acid) in Nanofiber Mats by Mixing a Hyperbranched Polymer
Reiki Eto, Haruki Mokudai, Takashi Masaki, Hisao Matsuno, Keiji Tanaka (Japan)
- 15:40 19H16 Percolation induced gel-gel phase separation in a dilute polymer network
Takamasa Sakai (Japan)

Yohei Miwa, presiding

- 16:00 19H17 Fuming-Induced Interfacial Crosslinking Reaction Giving Controllable Microwrinkled Patterns
Yi-Chen Chen, Ying-Wei Luo, Han-Yu Hsueh (Taiwan)
- 16:20 19H18 Effect of Heterogeneous Structure on Fracture Behavior for Epoxy Resins
Atsuomi Shundo, Mika Aoki, Pangpang Wang, Taiki Hoshino, Satoru Yamamoto, Sunao Yamada, Keiji Tanaka (Japan)
- 16:40 19H19 An Effect of Number Density of Functional Groups on Physical Properties of Resultant Epoxy Products
Atsushi Tokunaga, Atsuomi Shundo, Satoru Yamamoto, Keiji Tanaka (Japan)

Atsuomi Shundo, presiding

17:00	19H20	Anisotropic rotational motions of low-mass molecules in modulus enhanced polycarbonate <u>Shogo Nobukawa</u> , Mai Maeda, Katsuhiko Inomata (Japan)
17:20	19H21	Conversion of creep data with creep ringing to dynamic moduli and scaling of viscoelastic data <u>Heeyeol Lee</u> , Hye-Jin Ahn, Junghaeng Lee, Wook Ryol Hwang, Kwang Soo Cho (Republic of Korea)
17:40	19H22	Reinforcement effects of silica-etching on polybenzimidazole films <u>Jiabei Zhou</u> , Aniruddha Nag, Xianzhu Zhong, Kenji Takada, Tatsuo Kaneko (Japan)

Thu. Jul 20**T-3 Structure and Physical Properties of Polymers****Koichi Mayumi, presiding**

9:00	20H01IL	Tough hydrogels designed using entanglements of polymer chains <u>Takashi Miyata</u> (Japan)
9:40	20H03	Thermoplastic elastomer with tunable mechanical properties through collaboration of metal-ligand coordination and microphase-separated structure <u>Xiangyuan Guo</u> , Shintaro Nakagawa, Naoko Yoshie (Japan)
10:00	20H04	Microscopic Deformation Behavior of Polyethylene Solids with Different Molecular Weight Distributions Using Rheo-Raman Spectroscopy <u>Takumitsu Kida</u> , Ryo Tanaka, Takeshi Shiono, Masayuki Yamaguchi (Japan)

Xiang Li, presiding

10:20	20H05	Development of a Novel Cross-linked Silicone MQ Resin and Its Application to Cosmetics <u>Takashi Takeshita</u> , Yuji Masubuchi, Takuya Abe (Japan)
10:40	20H06	Application of Post-Widder Inversion Formula to the Calculation of Relaxation Spectrum from Relaxation Modulus <u>Gyuhyeon Cho</u> , Jehyeok Choi, Kwang Soo Cho (Republic of Korea)
11:00	20H07	A kinetical constitutive equation for the stress-strain behavior of moisten poly(methyl methacrylate) with a lithium salt <u>Asae Ito</u> , Koh-hei Nitta (Japan)

Hiroshi Sasaki, presiding

11:20	20H08	Mechanics of a polymer network near its geometric deformation limit <u>Tasuku Nakajima</u> , Chika Imaoka, Jian Ping Gong (Japan)
11:40	20H09IL	Structural development and mechanical properties of polybutene-1 <u>Yongfeng Men</u> , Ying Lu, Yongna Qiao (China)

Takashi Miyata, presiding

14:00	20H11IL	Tough and Rapidly Recoverable Polymer Gels Reinforced by Strain-Induced Crystallization <u>Koichi Mayumi</u> (Japan)
14:40	20H13	Reversible Photomelting of pi-Stacked Physical Crosslink in PDMS Gels Hidetsugu Kitakado, <u>Shohei Saito</u> (Japan)

Shingo Matsukawa, presiding

15:00	20H14	Single polymer's mechanical fingerprints derived from stretched macroscopic polymer network <u>Tsutomu Indei</u> , Takahiro Matsuda, Tasuku Nakajima, Yukiko Takahashi, Tatiana B. Kouznetsova, Michael Rubinstein, Stephen L. Craig, Jian Ping Gong (Japan)
15:20	20H15	Scaling Theory of Linear Viscoelasticity for Polymer Melts and Solutions <u>Jehyeok Choi</u> , Kwang Soo Cho, Mi Kyung Kwon (Republic of Korea)
15:40	20H16	Effect of Hydrogen-Bonding Interaction on the Phase and Crystallization Behaviors of Binary Symmetric Block Copolymers Po-Yun Chuang, Yu-Chen Lai, Shu-Yu Liao, Kuang-Hsin Wu, <u>Chieh-Tsung Lo</u> (Taiwan)

Shohei Saito, presiding

16:00	20H17	Star-polymer-DNA gels showing predictable stress relaxation behavior <u>Xiang Li</u> , Masashi Ohira, Takamasa Sakai, Mitsuhiko Shibayama (Japan)
16:20	20H18	Inner structure changes of a gelatin stacked film through physical aging <u>Sota Hori</u> , Fakfan Luangapai, Nakako Katsuno, Satoshi Iwamoto (Japan)

- 16:40 20H19 Quantitative Mapping of Nanoscale Viscoelastic Dynamics of Polymers at the Interface in Rubber Nanocomposites
Hung Kim Nguyen, Ken Nakajima (Japan)
Shotaro Nishitsuji, presiding
- 17:00 20H20 Crack-growth criteria in elastomers under general biaxial strain
Tam Thanh Mai, Katsuhiko Tsunoda, Kenji Urayama (Japan)
- 17:20 20H21 Complex Packing of Spherical Micro-Domains and Novel Bi-continuous Network Structures Formed in Block Copolymer Blend Systems
Katsuhiro Yamamoto, Hideaki Takagi, Ryosuke Mio, Toshiki Mizuno, Yusuke Takai (Japan)
- 17:40 20H22 An Alternating Copolymer Exhibits Microphase Separation: Sphere to Ultrathin-Plate Transition Induced by pH in PSAA and PSMA
Takuma Kanamaru, kazuo Sakurai (Japan)

Fri. Jul 21

T-3 Structure and Physical Properties of Polymers

Kazuo Sakurai, presiding

- 9:00 21H01IL Quasicrystal and Frank-Kasper phase of sugar-based block copolymer
Hsin-Lung Chen, Wei-Chi Chiu, Yu-Hong Cheng, Jin-Hao Lin, Ryoya Komaki, Nao Kawakami, Takuya Isono, Toshifumi Satoh (Taiwan)
- 9:40 21H03 Controlling Microstructure-Transport Interplay in Poly(ether-block-amide) block copolymer gas separation membranes
Sinan FENG, Yokajaksusri NUTTHON, Hiroyasu MASUNAGA, Sono SASAKI, Roman SELYANCHYN, Shigenori FUJIKAWA, Shinichi MURATA, Atsushi TAKAHARA (Japan)
- 10:00 21H04 Molecular vibration analysis of heat capacity for polymers containing inorganic elements (Si, Ge) below the glass-transition temperature
Marika Yokota, Itaru Tsukushi (Japan)

Kazuki Sada, presiding

- 10:20 21H05 Formation of nano oriented crystals of iPP with meltable nucleating agent by elongational crystallization
Masamichi Hikosaka, Kiyoka Okada, Masanori Maruyama, Katsuharu Tagashira, Kazuhiko Sakai, Hiroyasu Masunaga (Japan)
- 10:40 21H06 Damaging Effects of UV-C radiation on Polymers
Ethan Wang, Lillian Chen, Sunny Chi, Helena Chiang (Taiwan)
- 11:00 21H07 Synthesis and investigation of microphase-separated structures of Poly(2,2,2-trifluoroethyl methacrylate-b-styrene-b-4-vinyl pyridine) triblock terpolymers
Yuta Miyamori, Yuta Nabaе, Teruaki Hayakawa (Japan)

Hideaki Yokoyama, presiding

- 11:20 21H08 Polyion complexation poly(substituted methylene)s with carboxy groups on the side chain and polyamines.
Ryoma Fujii, Takuya Matsumoto, Takashi Nishino (Japan)
- 11:40 21H09IL Shape and Structure Control of Block-Copolymer Based Particles
Bumjoon Kim (Republic of Korea)

Katsuhiro Yamamoto, presiding

- 14:00 21H11IL Self-assembly of block copolymer blends
An-Chang Shi (Canada)
- 14:40 21H13 Novel Tricontinuous Microphase-Separated Structures formed from ABC Triblock Terpolymer Blends.
Ayane Kitahara, Jiro Suzuki, Atsushi Takano (Japan)
- 15:00 21H14 Versatile LCST/UCST-type Phase Separations of Commodity Plastics in Fluorous Solvent Mixtures
Tokiya Ohira, Miwa Kubota, Natsuki Inaba, Keitaro Matsuoka, Kazuki Sada (Japan)

Takumitsu Kida, presiding

- 15:20 21H15 Microphase-Separated Structures formed from ABAC Tetrablock Terpolymers
Atsushi Takano, kyoka Kusano, Tsuyoshi Orido, Jiro Suzuki (Japan)

15:40	21H16	The Change with Density Fluctuations of Polycarbonate under Deformation by Time-resolved Small Angle X-ray Scattering <u>Shotaro Nishitsuji</u> , Daisuke Iwahara, Hiroshi Ito, Masaru Ishikawa, Takashi Inoue, Mikihito Takenaka (Japan)
16:00	21H17	Investigation of the Relationship Between Cross-linked Structure of Elastomers and their Stretching Behavior <u>Ayumi Ando</u> , Ken Nakajima, Xiaobin Liang, Makiko Ito (Japan)
Atsushi Takano, presiding		
16:20	21H18	Real-time monitoring of structural transition of Bombyx mori liquid silk under pressure by solid state NMR <u>Yu Suzuki</u> , Shota Morie, Hideyasu Okamura, Tetsuo Asakura, Akira Naito (Japan)
16:40	21H19	Network structure in agarose solution during gelation studied by multiple particle tracking and NMR measurement <u>Shingo Matsukawa</u> , Hwabin Jung, Faith B. A. Descallar, Won Byong Yoon (Japan)
17:00	21H20	The effect of molecular structure symmetry and rigidity on high-order structures and thermal diffusivity of cured epoxy resin <u>Rika Marui</u> , Yuta Nabae, Meguya Ryu, Toshiaki Kimura, Ryota Morioka, Junko Morikawa, Teruaki Hayakawa (Japan)

Room J

Thu. Jul 20

T-5 Polymer Simulation and Informatics

Marcus Mueller, presiding

10:00	20J04IL	Atomistic and Mesoscopic Modeling of Structure-Property Relations in Polymers <u>Doros Nicolas Theodorou</u> (Greece)
10:40	20J06	Bottom-up Multi-Scale Modeling of Polymer Melt for the Prediction of Viscoelastic Properties <u>Kenji Yoshimoto</u> , Heyi Liang, Masahiro Kitabata, Umi Yamamoto, Juan J. de Pablo (Japan)
11:00	20J07	Characterization of the molecular level structure and interactions of different types of alkyl sulfonated polyimide (ASPI) with universal neural network potential (UNNP). <u>Attila Taborosi</u> , Michihisa Koyama, Yuki Nagao, Nobuyuki Zettsu (Japan)
11:20	20J08	Formation of Heterogeneous Free Space in the Curing Reaction of Epoxy Resins Tianxiang Shen, Atsuomi Shundo, <u>Satoru Yamamoto</u> , Keiji Tanaka (Japan)

Doros Nicolas Theodorou, presiding

14:00	20J11IL	Membrane fabrication via SNIPS: Insights from computer simulation <u>Marcus Mueller</u> , Niklas Blagojevic (Germany)
14:40	20J13	Simulation study of unentangled polymer melts and solutions under fast flow <u>Jun-ichi Takimoto</u> , Asato Murayama, Shunsuke Nakajima, Sathish K Sukumaran (Japan)
15:00	20J14	Development of a Simplified Method for Modeling Various Partially Crystalline States Using Coarse-grained Molecular Dynamics Simulations <u>Kohei Kanamori</u> (Japan)

Jun-ichi Takimoto, presiding

15:20	20J15	Microphase Separation in Polymer Double Networks <u>Wei Li</u> , Tetsuya Yamamoto, Michael Rubinstein (Japan)
15:40	20J16	Coarse-Grained Model of Dynamic Bond Elastomers with Tunable Binding Entropy and Energy <u>Yusuke Yasuda</u> , Hiroshi Morita (Japan)
16:00	20J17	Elasticity control of entangled chromosomes: crosstalk between condensin complexes and nucleosomes <u>Tetsuya Yamamoto</u> , Kazuhisa Kinoshita, Tatsuya Hirano (Japan)

Fri. Jul 21

T-5 Polymer Simulation and Informatics**Masanobu Naito, presiding**

- 10:00 21J04 Inverse Design for Materials: Optimization vs. Generation
Umi Yamamoto (Japan)
- 10:20 21J05 Efficient Structure Determination of Ziegler-Natta Catalysts with a High-Dimensional Neural Network Potential and Genetic Algorithm
Hiroki Chikuma, Gentoku Takasao, Joerg Behler, Toshiaki Taniike (Japan)
- 10:40 21J06 Machine-learning predictions of polymer mechanical durability after long-term heat treatment using FT-IR spectroscopy data
Koji Mukai, Kohei Koyanagi, Keiichiro Nomura (Japan)
- 11:00 21J07 Data-Driven Design and Synthesis of Liquid-Crystalline Polyimides
Hayato Maeda, Rika Marui, Erina Yoshida, Yuta Nabae, Meguya Ryu, Junko Morikawa, Stephen Wu, Yoh Noguchi, Yoshihiro Hayashi, Ryo Yoshida, Teruaki Hayakawa (Japan)

< Special symposia for DxMT: Big-data-driven bio/synthetic polymer science >

Yuichi Masubuchi, presiding

- 14:00 21J11 Big-data-driven bio/synthetic polymer science to create absolutely circular materials
Keiji Numata (Japan)
- 14:20 21J12IL Data-driven polymer development toward circular economy
Masanobu Naito (Japan)
- 15:00 21J14 Statistical Mechanical Theory for Molecular Systems: Solvation, Conformation and Kinetics
Hirofumi Sato (Japan)
- 15:20 21J15 All-Atom Analysis of Intermolecular Interactions in Polymeric Materials: Water Absorption and Mutual Miscibility
Nobuyuki Matubayasi (Japan)

Hirofumi Sato, presiding

- 15:40 21J16 Toward Functional Polymer Informatics via Coarse-Grained Simulation and Data Science
Koichiro Kato, Yukito Higashi, Yin Kan Phua, Tsuyohiko Fujigaya (Japan)
- 16:00 21J17IL Change of monomeric friction of polymers under fast flows
Yuichi Masubuchi (Japan)

Room K

Wed. Jul 19

T-2 Supramolecular Polymers**Nobuhiko Hosono, presiding**

- 9:00 19K01IL Melting and vitrification of coordination polymers / metal-organic frameworks
Satoshi Horike (Japan)
- 9:40 19K03 Hydrogen-bonded crystalline polymers for the adsorption of polar volatile organic compounds
Shun Ohta, Yurika Iwabuchi, Ryota Mukai, Ryoga Yamaguchi, Tatsuya Hatakeyama, Tomoyuki Toda, Masaaki Okazaki (Japan)
- Satoshi Horike, presiding**
- 10:00 19K04 Recognition of Microstructural Difference in Polymers by MOF Column Chromatography
Nagi Mizutani, Kaoru Kioka, Daichi Koga, Nobuhiko Hosono, Takashi Uemura (Japan)
- 10:20 19K05IL Architectural Design for Spatial Control of Functionality in Polymers
Ramakrishnan Subramaniam (India)

Ichiro Hisaki, presiding

11:00	19K07	Vapor-phase synthesis of conjugated polymers in a free-volume space of synthetic resins and rubbers for fabrication of mechanoresponsive rubbers <u>Sayaka Hirai</u> , Yuki Tokura, Hiroaki Imai, Yuya Oaki (Japan)
11:20	19K08	Metal-Organic Frameworks for Macromolecular Adsorption and Separation Applications <u>Nobuhiko Hosono</u> , Takashi Uemura (Japan)
11:40	19K09IL	Hydrogen Bonded Organic Frameworks: Chemistry and Functions <u>Banglin Chen</u> (China)
Fumitaka Ishiwari, presiding		
14:00	19K11IL	Supramolecular Helical Systems for the Development of Unique Chiral Materials <u>Eiji Yashima</u> (Japan)
14:40	19K13	Host-guest crystals between liquid thienyl diketone and pillar[5]arene and their vapor-responsive turn-on phosphorescence <u>Keisuke Wada</u> , Yuya Oshima, Shunsuke Ohtani, Kenichi Kato, Yosuke Tani, Takashi Tachikawa, Tomoki Ogoshi (Japan)
Tomoki Ogoshi, presiding		
15:00	19K14	Supramolecular helix structure constructed from ion-polymer complexation <u>Hongyao Zhou</u> , Teppei Yamada (Japan)
15:20	19K15IL	Topology and stereochemistry in oligomeric interlocked molecules Arнау Rodriguez-Rubio, Martin Tlustý, Florian Modicom, <u>Stephen Michael Goldup</u> (United Kingdom)
16:00	19K17	Disassembly Mechanism of Pseudo-Polyrotaxane Nanosheet in Solution <u>Shuntaro Uenuma</u> , Naoki Ando, Hideaki Yokoyama, Kohzo Ito (Japan)
Stephen Michael Goldup, presiding		
16:20	19K18	Chiral covalent architectures based on pillar[5]arenes <u>Tanhao Shi</u> , Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi (Japan)
16:40	19K19IL	Remarkable Properties of the Polymers Containing Molecular Units with 2D Self-Assembling Ability <u>Fumitaka Ishiwari</u> (Japan)

Thu. Jul 20

T-2 Supramolecular Polymers

Tomoya Fukui, presiding		
9:00	20K01IL	Non-Covalent synthesis of Branched Supramolecular Polymers <u>Subi Jacob George</u> (India)
9:40	20K03	Liquid Crystalline Supramolecular Copolymers Composed of Hydrophobic and Hydrophilic Monomers <u>Daiki Morishita</u> , Xu-Jie Zhang, Yoshimitsu Itoh, Takuzo Aida (Japan)
10:00	20K04	Supramolecular hemoglobin-PEG alternating polymers constructed through non-covalent interactions between $\alpha\beta$ subunits <u>Takashi Matsuhira</u> , Hiromi Sakai (Japan)
Kazunori Sugiyasu, presiding		
10:20	20K05	Construction of supramolecular nanostructures from a dipeptide hydrazide synthesized by using in situ enzymatic reaction and their post-assembly modification <u>Yuki Shintani</u> , Masato Ikeda (Japan)
10:40	20K06	Electrochromic devices with metallo-supramolecular polymers <u>Masayoshi Higuchi</u> (Japan)
11:00	20K07IL	Dynamic Switching of Self-Assembled Chiral Space <u>Myongsoo Lee</u> (China)
Shiki Yagai, presiding		
14:00	20K11	Redox-Responsive Foldamer-Based Actuators: Amplification of Nanoscale Motions of Molecular Machines to Macroscopic Scale <u>Taichi Ikeda</u> (Japan)
14:20	20K12	Glass of rotaxanes toughened by high-mobility mechanical bonding polymer networks <u>Kazuaki Kato</u> , Kohzo Ito, Taiki Hoshino (Japan)

14:40	20K13	Facet-selective Seeded Co-crystallization of Two-different Spin-crossover Metal Complexes <u>Tomoya Fukui</u> , Masahiro Tsuchiya, Takanori Fukushima (Japan)
Subi Jacob George, presiding		
15:00	20K14	Preparation of anisotropic pH-responsive chitosan hydrogels by meniscus splitting method <u>Thi Kim Loc Nguyen</u> , Koji Ogura, Kosuke Okeyoshi (Japan)
15:20	20K15	Unique Supramolecular Assembling Behaviors of Photofunctional [4n]Annulenes <u>Yoshimitsu Itoh</u> , Tsubasa Aoki, Takayoshi Akiyama, Takuzo Aida (Japan)
15:40	20K16IL	Curved Molecular Aggregates: Toward Mesoscale Molecular Science <u>Shiki Yagai</u> (Japan)

Room L

Wed. Jul 19

T-8 Polymers for Optics, Electronics and Energy

Itaru Osaka, presiding

9:00	19L01IL	High-Performance n-Type Polymer Semiconductors for Organic Electronics <u>Xugang Guo</u> (China)
9:40	19L03IL	Metallic polymers mediated by molecules, ions, and their interstices <u>Shun Watanabe</u> (Japan)
10:20	19L05	The density of states of conjugated polymers and its effect on the performance of field-effect transistors <u>Kyohei Nakano</u> , Yumiko Kaji, Keisuke Tajima (Japan)

Keisuke Tajima, presiding

10:40	19L06	Noise-driven bifurcation in resonant diode circuit using pi-conjugated polymer <u>Naoki Asakawa</u> , Kazuya Igarashi (Japan)
11:00	19L07	Protonic field-effect transistor with electrochemical impedance spectroscopy reveals proton transport mobility in thin film <u>Athchaya Suwansoontorn</u> , Kentaro Aoki, Jun Matsui, Yuki Nagao (Japan)
11:20	19L08	Organic Semiconducting Polymers for Solar-Driven Hydrogen Evolution from Water <u>Ho-Hsiu Chou</u> (Taiwan)
11:40	19L09	Enhanced photocatalytic hydrogen evolution from organic heterojunction nanoparticles using a crystalline semiconducting polymer <u>Tsubasa Mikie</u> , Koichiro Hayashi, Chiyu Fujita, Itaru Osaka (Japan)

Atsushi Shishido, presiding

14:00	19L11IL	Molecular Engineering of Liquid Crystalline Elastomers to Enhance Functional Utility <u>Timothy J. White</u> (United States of America)
14:40	19L13IL	Longitudinal Ferroelectricity in Liquid Crystals <u>Hirotsugu Kikuchi</u> (Japan)

Hirotsugu Kikuchi, presiding

15:20	19L15	Deformable Mechanoelectric Generators Based on Alkylated Conjugated Polymer Electrets <u>Takashi Nakanishi</u> , Akira Shinohara, Manabu Yoshida (Japan)
15:40	19L16	Geometry-induced Thermal Polymerization of Fluorine-substituted Phenylazothiazoles <u>Hashim P. K.</u> , Nobuyuki Tamaoki (Japan)
16:00	19L17	Corannulene-based Functional Materials <u>Jing-Ju Huang</u> , Shyh-Chyang Luo (Taiwan)

Takashi Nakanishi, presiding

16:20	19L18IL	Plastic Optical Fiber and Novel Photonics Polymers for Beyond 5G Society <u>Yasuhiro Koike</u> (Japan)
17:00	19L20	Molecular alignment patterning by scanning wave photopolymerization <u>Atsushi Shishido</u> (Japan)
17:20	19L21	Size tuning of monodisperse polymer nanoparticles for UV-reflective colloidal crystals <u>Haruyuki Ishii</u> , Ayami Yoshio, Hiroyuki Kanekiyo (Japan)

17:40 19L22 Gyroid-Structured Metal/Semiconductor Nanoscaffolds with Ultrasensitive SERS Detection via Block Copolymer Templating
Pei-Chieh Tseng, Ying-Chun Lu, Chia-Feng Lin, Han-Yu Hsueh (Taiwan)

Thu. Jul 20

T-8 Polymers for Optics, Electronics and Energy

Itaru Osaka, presiding

9:00 20L01IL New horizons in polymer solar cells
Hideo Ohkita (Japan)

9:40 20L03 Molecular Orientation of Planar-Zigzag Shaped Polymer Semiconductors in Organic Solar Cells
Fengukun Chen, Kyohei Nakano, Yumiko Kaji, Keisuke Tajima (Japan)

Kyohei Nakano, presiding

10:00 20L04 Bimolecular Charge Recombination and Fill Factor of All-Polymer Blend Solar Cells
Hiroaki Benten, Ren Hagio, Yunju Na, Zhiyuan Liang, Naoki Oyaizu, Junya Suzuki, Shota Kubota, Min-Cherl Jung, Hirotaka Kojima, Masakazu Nakamura (Japan)

10:20 20L05 Interplay Between π -Conjugated Polymer Donors and Acceptors Determines Crystalline Order of Their Blends and Photovoltaic Performance
Kodai Yamanaka, Masahiko Saito, Tomoyuki Koganezawa, Hayato Saito, Hyung Do Kim, Hideo Ohkita, Itaru Osaka (Japan)

10:40 20L06 Development of Rigid π -Conjugated Skeletons by Introducing Spirocyclopentadiaryl Units and Application to Non-Fused Non-Fullerene Acceptors
Seihou Jinnai, Yutaka Ie (Japan)

11:00 20L07 Development of Non-Fullerene Acceptors Based on a Novel Ladder Type Pi-framework
Masahiko Saito, Takumi Tanaka, Itaru Osaka (Japan)

Itaru Osaka, presiding

11:20 20L08IL Synthesis of Sequence-Controlled Polychalcogenophenes and Their Optoelectronic Applications
Kuo-Hsiu Haung, Huai-Huan Liu, Kuang-Yi Cheng, Chia-Lin Tsai, Yen-Ju Cheng (Taiwan)

Keisuke Tajima, presiding

14:00 20L11IL C-H activation for the synthesis of semiconducting polymers
Christine K Luscombe (Japan)

14:40 20L13 Modulation of the Conformation, Segment Compatibility, and Coplanarity Conjugated Polymers by Aldol Condensation for Efficient Ambipolar Organic Field-Effect Transistors
Pin-Hsiang Chueh, Chu-Yen Tsai, Chu-Chen Chueh (Taiwan)

Atsushi Shishido, presiding

15:00 20L14 Synthesis of three-component miktoarm H-shaped copolymers with poly(3-hexylthiophene) segments and their application to intrinsically stretchable photonic transistor memories
Shin Inagaki, Chih-Yuan Sung, Ai-Chun Chang, Yan-Cheng Lin, Wen-Chang Chen, Tomoya Higashihara (Japan)

15:20 20L15 Improvement of the cyclic stretching stability of indenodithiophene-based soft semiconducting polymer via photo-crosslinking reaction
Yuto Ochiai, Keisuke Tajima (Japan)

15:40 20L16 Chain-kinked strategy constructing stretchable conjugated polymers
Chien-Chung Shih, Ting-Wei Chang, Ming-Zhang Zhou (Taiwan)

16:00 20L17IL Organic battery using polymers for energy storage
Kenichi Oyaizu (Japan)

Kenichi Oyaizu, presiding

16:40 20L19 OH- transport and hydration properties of anion exchange thin films
Yuki Nagao, Fangfang Wang (Japan)

17:00 20L20 Polyvinylidene fluoride-co-trifluoroethylene/graphene oxide (PVDF-HFP/GO) as anode coated separator for high-capacity lithium-oxygen battery
Shingjiang Jessie Lue, Chien-Sheng Yen (Taiwan)

17:20 20L21 Design of specific polymer binders for stabilization of Si based anode in LIB
Noriyoshi Matsumi (Japan)

Poster Presentation

Wed. Jul 19

Presentation Time

<a = 12:30~13:15>

<b = 13:15~14:00>

T-1 Polymer Synthesis and Reactions

- 19P001a Preparation of Silicone Network Modified with Topologically Trapped Multicyclic Polymer
Minami Ebe, Asuka Soga, Feng Li, Takuya Yamamoto, Kenji Tajima, Takuya Isono, Toshifumi Satoh
- 19P002b Asymmetric polymerizations in chiral liquid crystal
Hiromasa Goto, Kyoka Komaba
- 19P003a Hyperbranched Polyester Synthesis by Ring-opening Alternating Copolymerization of Trimellitic Anhydride with Epoxides
Ryota Suzuki, Xiaochao Xia, Tianle Gao, Takuya Yamamoto, Kenji Tajima, Feng Li, Takuya Isono, Toshifumi Satoh
- 19P004b Synthesis of Thiol-Substituted Poly(phenylene sulfide)s with High Refractive Indices
Yoshino Tsunekawa, Seigo Watanabe, Kenichi Oyaizu
- 19P005a Synthesis of star polymer with multifunctional chain transfer agent
Jinpei Tei
- 19P006b Synthesis of Heat-Resistant and Water/Oil-Repellent Aromatic Polyketones Bearing Tetrakis(nonafluorobutyl)-p-terphenylene Units
Haruki Konta, Katsuya Maeyama
- 19P007a Selective synthesis of linear polycarbonate by reversible unstoichiometric polycondensation through ester-carbonate exchange reaction
Nao KOBAYASHI, Takayoshi KATO, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 19P008b Suzuki-Miyaura catalyst-transfer condensation polymerization for the synthesis of polyphenylene with ester side chain
Reo NITTO, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 19P009a Abnormal behavior of Suzuki-Miyaura catalyst-transfer condensation polymerization of thiophene having hydrophilic side chain
Yota FUKUDA, Yoshihiro OHTA, Kazuya EBARA, Tsutomu YOKOZAWA
- 19P010b Radical Copolymerization of Benzyl Vinyl Ether with Acrylate via Periodic Propagation Involving Isomerization Leading to On-demand Degradable Polymers
Keita Kuroda, Makoto Ouchi
- 19P011a Switchable Polymerization: from Complex Monomer Mixtures to Poly(ester amide)-based block copolymers
Tianle Gao, Xiaochao Xia, Ryota Suzuki, Takuya Yamamoto, Feng Li, Takuya Isono, Toshifumi Satoh
- 19P012b Development of Tellurium-containing Lewis Organocatalysts and Application to Cationic Polymerization
Shuhei Hayashi, Koji Takagi
- 19P013a Organocatalyzed Ring-Opening Alternating Copolymerization of Maleic Anhydride with Functional Epoxide Monomers
Ahyun Kim, Byeong-Su Kim
- 19P014b Protecting-Group Design of Vinylboronic Acid Monomers for Advanced Polymer Syntheses via Radical Polymerization and Subsequent C-B Bond Transformation
Hiroshi Suzuki, Tsuyoshi Nishikawa, Makoto Ouchi
- 19P015a Copolymerization of Ethylene with functionalized 1,1-Disubstituted Olefins using a fluorenylamido-ligated titanium catalyst
Oluwaseyi Aderemi Ajala, Moeko Ono, Yuushou Nakayama, Ryo Tanaka, Takeshi Shiono
- 19P016b Investigation for Mechanical Properties of Polyurethane-Polyacrylate Hydrogels Prepared by 'Parallel Polymerization' of Polyaddition and Radical Polymerization
Ryo Kawatani, Yasuhiro Kohsaka

- 19P017a Radical and anionic Lewis pair polymerizations by metal triflates and PPh₃
Riki Akita, Mayo Horibe, Shin-ichi Matsuoka, Masato Suzuki
- 19P018b Polymerizations of norbornene derivatives synthesized by isomerization of Binor-S
Eri Funahashi, Shin-ichi Matsuoka, Masato Suzuki
- 19P019a Synthesis of polyolefin with cyclopropane ring by titanium catalyst and post-polymerization modifications.
Yusuke Iwata, Shin-ichi Matsuoka, Takeshi Shiono, Masato Suzuki
- 19P020b Systematic synthesis and characterization of multicyclic polystyrenes
Yamato Ebii, Yoshinobu Mato, Feng Li, Takuya Yamamoto, Kenji Tajima, Takuya Isono, Toshifumi Satoh
- 19P021a Synthesis of Polysiloxanes via Organocatalyzed Anionic Ring Opening Polymerization
Alice Corfa, Vincent Ladmiraal, Julien Pinaud, Sylvain Caillol
- 19P022b Programmed Degradation of Methacrylate-based Copolymers by Synergistic Dual Stimuli for Activation of Boryl Pendant
Hiroshi Makino, Tsuyoshi Nishikawa, Makoto Ouchi
- 19P023a Anionic Polymerization of Methyl Methacrylate with A Bulky Zincate - Chain-end Analysis to Investigate The Polymerization Mechanism -
Masayoshi Watanabe, Tomohiro Hirano, Koichi Ute, Miyuki Oshimura
- 19P024b Radical Polymerization of Vinyl Boronic Acid Pinacol Ester Followed by Oxidation of Boron Pendants Leading to Synthesis of Branched Poly(Vinyl Alcohol)
Tomoaki Kanazawa, Tsuyoshi Nishikawa, Makoto Ouchi
- 19P025a Ring-expansion Polymerization of Thiiranes with 7-membered Cyclic Aromatic Anhydride Initiator
Koki Okumura, Akira Takahashi, Atsushi Kameyama
- 19P026b Synthesis of sequence-controlled polymers by living anionic addition reaction of 1,1-diphenylethylene derivatives and acyclic diene metathesis polymerization
Tomohiko Nishijima, Raita Goseki, Takashi Ishizone
- 19P027a Anionic polymerization of 5-substituted 2-isopropenylthiophenes
Yuki Kurishiba, Raita Goseki, Takashi Ishizone
- 19P028b Polymerization of bulky styrene derivatives derived from aromatic ketones
Masayoshi Bando, Fang Ziyong, Weiben Du, Tamaki Nakano
- 19P029a Synthesis of sulfonium cation-containing nano-objects by polymerization-induced self-assembly (PISA)
Hirotsugu MIYAKAWA, Chiharu KUMANO, Hideharu MORI
- 19P030b Development of green radical polymerization based on hydrophobic deep eutectic solvents
Reina Shinohe, Shinogo Yuki, Hideharu Mori
- 19P031a Synthesis, Self-Assembly, and Photophysical Properties of "Bifacial" Ladder Polymers
Kazuharu Murotani, Fumitaka Ishiwari, Akinori Saeki
- 19P032b Carbon-Backbone Polymer Synthesized by Polyaddition of Bis(vinyl ketone)
Masatoshi Ohyama, Rie Yasuda, Hirotsugu Kuratani, Yasuhiro Kohsaka
- 19P033a Synthesis of linear-hyperbranched diblock copolymers containing poly(triphenylamine) by means of Suzuki-Miyaura catalyst-transfer chain-growth condensation polymerization
Ryusuke SHIMADA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 19P034b Synthesis and Structure of Ti and Zr Complexes with [PN] Ligand and Its Ethylene Polymerization Activity
Jin Iwasaki, Tomoyuki Toda, Katsuhiko Takenaka, Ayana Wakatsuki, Yoshihiro Matano, Kei Nishii, Shun Ohta
- 19P035a Coumarin-Derived exo-Methylene-Type Monomers for Novel Bio-Based Polymers by Cationic Polymerization
Tatsuya HATTORI, Shoki YOSHIMURA, Chihiro HOMMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 19P036b Synthesis of Block Copolymers with Poly(thienylene vinylene) Chains Based on Environmentally friendly Polymerization Method
Koya Nishiyama, Tomoya Higashihara

- 19P037a Living Anionic Polymerization of 2-Vinylpyridine Based on Reversible Activation of C-H Bonds
Koki SAKAI, Yuki SAKATA, Chihiro HOMMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 19P038b Stereospecific Living Anionic Polymerization of Methacrylates via Reversible Chain Transfer to C-H Bonds
Katsutoshi SAGAWA, Konomi YAMASHITA, Chihiro HOMMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 19P039a Investigation of ring-opening metathesis polymerization of hyperbranched polyamide macromonomers bearing *exo*-norbornene moiety for the synthesis of high-molecular-weight brush block copolymers with narrow molecular weight distribution
Shuji NAKAZAWA, Mizuki SATO, Hiroki KOBAYASHI, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 19P040b Radical Polymerization of C=N Bond to Introduce Nitrogen Atoms into Vinyl Polymer Backbone
Yunosuke NAKACHI, Taiki ISODA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 19P041a Development of Photocontrolled Radical Group-Transfer Polymerization by Photoredox Catalysts
Shinnosuke NAKAYAMA, Kaoru MATOBA, Masato IMAI, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 19P042b Polymer reaction of poly(methyl acrylate) with various esters via ester-ester exchange reaction
Takayoshi KATO, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 19P043a Synthesis of Tough and Self-Healing Elastomers by Scandium-Catalyzed Terpolymerization of Ethylene, Dimethylaminophenylpropylene, and Styrene
Haoran Zhang, Xia Wu, Lin Huang, Masayoshi Nishiura, Tetsuro Murahashi, Zhaomin Hou
- 19P044b Synthesis of Spirodihydroquinoline-Containing Polymers via Scandium-Catalyzed Dearomative Annulation of Quinoline with Alkyne
Jingjing Shao, Lin Huang, Shaojie Lou, Masayoshi Nishiura, Tetsuro Murahashi, Zhaomin Hou
- 19P045a New Tungsten Precatalysts for Ring-Opening Metathesis Polymerization of Cycloolefins
Toshiyuki Oshiki
- 19P046b Synthesis of self-healing elastomers by scandium-catalyzed copolymerization of ethylene with thioether-substituted propylenes
Mingjun Chi, Hao Wang, Lin Huang, Haoran Zhang, Xiaobin Lin, Masayoshi Nishiura, Zhaomin Hou
- 19P047a Miniemulsion Reversible Chain Transfer Catalyzed Polymerization with Carbon Catalysts
Masaya Sadakane, Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 19P048b Synthesis of Functional Polymers by RAFT Polymerization of Protected Vinyl Catechols Derived from Caffeic Acid
Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh
- 19P049a Effect of Initiator Structures on Controlled/Living Click Polymerization of AB Monomers
Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh
- 19P050b Synthesis of Functional Polymers from Plant-Based Conjugated Dienes
Yasunobu Isobe, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh
- 19P051a Iterative Synthesis of Discrete Poly(butylene Succinate) Tetramers and Related Copolymers
Ravi Teja Ananthu, Tomohiro Kubo, Takako Kikuchi, Kotaro Satoh
- 19P052b Synthesis of Degradable Vinyl Polymers by Radical Ring-Opening Copolymerization of Cyclic Thiocarbonyl Monomers
Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 19P053a PET-RAFT Copolymerization of Bio-Based Vinyl Monomers for Surface Modification
Rui Guo, Riko Kashima, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh
- 19P054b Development of Main-Chain Degradable Vinyl Polymers by Interlocking Degradation via Intramolecular 1,5-Shift
Sota Yamamoto, Tomohiro Kubo, Kotaro Satoh
- 19P055a Novel Functional Bio-Based Polymers from Glycerol-Derived Cyclic Vinyl Ethers
Riko Kashima, Tomohiro Kubo, Kotaro Satoh
- 19P056b Controlled/Living Click Polymerization of Conjugated AB Monomers
Seiichiro Uchida, Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh

- 19P057a Controlled/Living Click Polymerization of Alkyne and Azide-Terminated Heterotelechelic Oligomers
Yasuaki Kobayashi, Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh
- 19P058b Cationic Polymerization of Unprotected Vinyl Catechol for Synthesis of Functional Hyperbranched Polymers
Risa Fujita, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh
- 19P059a Molecular Design of Fluorescent Molecular Probes for Detecting Polymer Chain Scission
Takumi Yamamoto, Hideyuki Otsuka
- 19P060b Facile Approach to Synthesis of Ionic Polymers and Copolymerization of Immiscible Monomers Using Ball-milling
GUE SEON LEE, HYUN SUB LEE, HYUN GYU SHIN, NURI KIM
- 19P061a Super swelling induces degradation of hydrogels
Shou OHMURA, Tasuku NAKAJIMA, Jian Ping GONG
- 19P062b Visualization of Toughing Mechanism of Rotaxane Crosslinked Polymers by a Radical-Type Mechanophore
Hirogi Yokochi, Daisuke Aoki, Robert Thomas, Roman Boulatov, Hideyuki Otsuka
- 19P063a Mechanochemistry of Molecular Photoswitches Based on Stiff-Stilbene Skeleton
Misaki Majima, Keiichi Imato, Akira Ishii, Ayane Sasaki, Ichiro Imae, Yousuke Ooyama
- 19P064b Vinyl polymers designed for high-speed degradation triggered by intramolecular transesterification over the main chain and pendants
Kaho Toyama, Yasuhiro Kohsaka
- 19P065a Study of functional polymer design technology by ester modification
Ido Masayoshi
- 19P066b Synthesis and Main Chain Scission of Copolyesters Containing Methacrylate Skeleton for Reactive Sites
Kinari Tsurumi, Takumi Noda, Yasuhiro Kohsaka
- 19P067a Furan-Maleimide-Linked Polymers: Synthesis, Reversible Bond Formation, and Rheological Behavior
Ryusuke Kishida, Takeo Suga, Kenichi Oyaizu
- 19P068b Reversible Structural Reorganization between Single-chain Nanoparticles and Cross-linked Polymers Based on Dynamic Covalent Chemistry
Gota Tomono, Hirogi Yokochi, Daisuke Aoki, Hideyuki Otsuka
- 19P069a Isolation of Hetero-Telechelic Polyethylene Glycol with Terminal Functional Groups of Different Reactivity
Tatsuki Sato, Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka
- 19P070b Liquid Crystal Distinguished Polyacetylenes: Photo-induced Cross-linking, Magnetic alignment, Electrical conduction and Fluorescence from Liquid Crystal Domains
Kyoka Komaba, Masashi Otaki, Reiji Kumai, Shigeki Nimori, Hiromasa Goto
- 19P071a Synthesis of a Helical Inducer with Double Stereogenic Centers from Isoleucine, and Liquid Crystal Molecular Imprinting Asymmetric Polymerization
Kyoka Komaba, Tomoaki Jo, Hiromasa Goto
- 19P072b Synthesis of shape-memory hydrogel from Poly(arbutin) with PEG
Kota Nishizawa, Tadashi Tsukamoto, Yoshiyuki Oishi, Yuji Shibasaki
- 19P073a Inhibition of Ice Recrystallization by Dendritic Polyglycerols
Aram Shin, Sang Yup Lee, Tae Kyung Won, Byeong-Su Kim, Dong June Ahn
- 19P074b Crosslinking Polymer-Supported Rh(II) Complex: Soluble and Reusable Catalyst for Asymmetric Intramolecular C-H Insertion Reactions
Keitaro Kitajima, Nao Fuse, Koji Takeda
- 19P075a Synthesis and characterization of polylactide-block-poly(diethylene furanoate) copolymers for packaging applications
Judit Rebeka Molnar, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 19P076b Synthesis of Mechanically Tough and Transparent Polyamideimide Films without Purification
Jineun Lee, Young-Rae Kim, Heesang Kim, Giseop Kwak

- 19P077a Polyester synthesis by dimerization of lignin derivatives and condensation with diols and evaluation of their degradability by photocleavage and hydrolysis
Kazuma Abe, Kohdai Oda, Miyuki Oshimura, Tomohiro Hirano, Koichi Ute
- 19P078b Synthesis and Photophysical Properties of Carbazolophane Oligomers.
Keita Tani, Takayoshi Ikura, Kazushige Hori, Koji Kubono, Masatsugu Taneda, Masayoshi Bando, Tamaki Nakano
- 19P079a Controlling microphase-separated morphology and dimension of polystyrene-block-poly(methyl methacrylate) by post-polymerization modification of benzene rings.
Emma Baba, Feng Li, Takuya Yamamoto, Toshifumi Satoh, Takuya Isono
- 19P080b Preparation of fluorescent dye-dispersed polyimide film for amine sensing
Heesang Kim, JINEUN Lee, Giseop Kwak
- 19P081a Synthesis of Polymers Containing Triarylsulfonium Salts and Their Applications to Anion Exchange Membranes
Tomohiro Imai, Ryoyu Hifumi, Shinsuke Inagi, Ikuyoshi Tomita
- 19P082b Photodimerization crosslinking in HEMA-based Soft contact lens
HEUNGGI YEO, GISEOP KWAK

T-5 Polymer Simulation and Informatics

- 19P084b Effects of water on structure of cis-1,4-polyisoprene
Hikaru Higuchi, Tomoko Ikeda-Fukazawa
- 19P085a Development of prediction model for LCST of thermo-responsive polymers by experiment-oriented materials informatics
Mai Hayakawa, Kosuke Sakano, Rei Kumada, Yasuhiko Igarashi, Daniel Citterio, Yuya Oaki, Yuki Hiruta
- 19P086b Discrimination of polymer nanoparticles based on multivariate analysis of fluorescence signals obtained from peptide sensors
Shion Hasegawa, Toshiki Sawada, Yuzo Kitazawa, Takuya Kaneda, Takeshi Serizawa
- 19P087a Explainable Machine Learning Protocol for Predicting Ionic Conductivity of Anion Exchange Membranes used in Fuel Cells
Yin Kan Phua, Tsuyohiko Fujigaya, Koichiro Kato
- 19P088b Trial of Machine Learning Force Field Development for Biomolecules based on Fragment Molecular Orbital Methods for Cyclic Peptides and Small Proteins.
Hiromu Matsumoto, Tsuyohiko Fujigaya, Koichiro Kato

T-9 Sustainable Polymers

- 19P090b Synthesis of triazine-core trifunctional thirane compounds and properties of cured products
Miyu Satake, Tadashi Tsukamoto, Yoshiyuki Oishi, Yuji Shibusaki
- 19P091a Chemically Recyclable Poly(styrene derivative)s by Free Radical Polymerization: The Carbon Chain Scission Induced by Ring-Opening of Pendants
Yota Chiba, Yasuhiro Kohsaka
- 19P092b Development of bio-based plastics made by trans-esterification of grape skin in 1-ethyl-3-methylimidazolium acetate
Yuki Sugimoto, Romain Milotskyi, Elisabeth Ito, Tetsuo Fujie, Naoki Wada, Kenji Takahashi
- 19P093a Synthesis and polymerization of itaconyl chloride
Yoshino Aoki, Ryo Kawatani, Daisuke Matsuura, Yoshio Onogawa, Yoshikazu Kimura, Yasuhiro Kohsaka
- 19P094b Syntheses of Itaconic Acid-Based Polyamides with High-Toughness and Controllable Biodegradability
Kohei Amada, Huaiyu Wang, Maninder Singh, Hongrong Yin, Mohammed Asif Ali, Maiko Okajima, Kenji Takada, Tatsuo Kaneko
- 19P095a Mechanochemistry Driven Greener Chemical Upcycling of Polycarbonate: Catalyst-and Solvent-Free Methanolysis to Bisphenol A and Dimethyl Carbonate
Hyo Won Lee, Kwangho Yoo

- 19P096b Development of Dual Wavelength Conversion Film Using Polybutylene Succinate Having Tetraphenylethylene Chromophores in the Main Chain
Yuta TAKEI, Kohei IRITANI, Ayumi KOBAYASHI, Takashi YAMASHITA
- 19P097a Synthesis of PAC and evaluation as a diluent
Rinta Tani, Takayuki Honda
- 19P098b Reversible Crosslinking of Polymers Based on Anthracene-Naphthoquinone Adducts
Ryunosuke Tanaami, Ryusuke Kishida, Takeo Suga, Oyaizu Kenichi
- 19P099a Fully bio-based vitrimers from biomass-derived aromatics and aliphatic carboxylic acids
Yunfan Zhang, Hideki Abe
- 19P100b Intrinsic effects of ester bonds concentration on the bond exchange properties for trans-esterification vitrimers
Taketo Isogai, Mikihiro Hayashi
- 19P101a Effects of entanglement on rheological properties in vitrimer-like materials with a trans-N-alkylation bond exchange mechanism
Takumi Kito, Mikihiro Hayashi
- 19P102b Creation of vitrimer-like SBS elastomers with bond exchangeable subdomains based on ion aggregation of quaternized pyridines
Tatsuya Aoyama, Mikihiro Hayashi
- 19P103a Control of Mechanical Properties of Chlorella Dispersion Composites Based on Polymer Matrices
Kohei Iritani, Akari Baba, Ayumi Kobayashi, Yamashita Takashi
- 19P104b Room-Temperature Self-Healing Glassy Polymers
Hao Wang, Takuzo Aida
- 19P105a Conceptually New Supramolecular Polymer Materials for a Sustainable Future
Yiren Cheng, Hubiao Huang, Hao Wang, Motonobu Kuwayama, Takuzo Aida
- 19P106b Development of high barrier multi-layer shrinkable film with Polyglycolic acid (PGA) corresponded to circular economy
Daisuke Ito, Yoshinori Suzuki
- 19P107a Decomposition and copolymerization of polyester including poly (L-lactic acid) under Hydrothermal Conditions
Yin Sun, Sayaka Shinomoto, Mikitaka Kishita, Idzumi Okajima, Toshiharu Goto
- 19P108b Development of biodegradable plastics based on the Polypropylene with organic acids and a 1,2-Dodecanediol
Kensuke Miyazaki, Takashi Yoshida
- 19P109a TEM observation of lamellar crystals in microbial polyester fibers to elucidate enzymatic degradation mechanism.
Naotaka Kimura, Taizo Kabe, Satoshi Kimura, Tadahisa Iwata
- 19P110b Investigation of mechanical properties and marine biodegradability of thermally processable cellulose esters and their composites with bacterial cellulose nanofibers
Ao Oshikiri, Ayane Yamaguchi, Ayaka Kameda, Yuichi Ebata, Hiroyuki Itaya, Tetsuo Fujie, Tokuo Matsushima, Takatomo Kusano, Yutaka Takeuchi, Naoki Wada, Kenji Takahashi
- 19P111a Bonito Gut Bacteria for Accelerating Aliphatic Polyester-Plastics Degradation
Toma Onari, Yuichi Hakumai, Makoto Ashiuchi
- 19P112b Seawater biodegradability of polyrotaxane and polyrotaxane elastomers with controlled crosslink density and analysis of degradation mechanism
Shota Ando, Kohzo Ito
- 19P114b Each molecular weight of block copolymer for P3HA biosynthesized by *P. putida*.
Kei Okumura, Tenma Nishimura, Takahiko Nakaoki
- 19P115a Accumulation of Poly(3-hydroxyalkanoate) by Two or Three steps Cultivation using octanoic acid as a Carbon source from *P. putida*
Tomoki Kawamoto, Takahiko Nakaoki
- 19P116b Physical properties and biodegradability of surface oxidized Polyhydroxyalkanoate films
Jobu Tateiwa, Yu-I Hsu, Hiroshi Uyama, Tadahisa Iwata
- 19P117a Effect of Poly(vinyl alcohol) on the Physical Properties of Starch-based Composite Films
Ying Yao, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama

- 19P118b Polymer composite of plant-based linear and cross-linked polyesters with cellulose nanofibers and their mechanical properties
Yuichi Matsumoto,Kotohiro Nomura
- 19P119a Preparation and Properties of Unique Amorphous Cellulose Regenerated from Cellulose/Amine/Inorganic Salt Solutions
Kazuyuki Hattori,Shohei Saji
- 19P120b Force-induced Alignment of Nanofibrillated Bacterial Cellulose for Tough Fibers from Ionic Liquid Cosolvent
Ruochun Wang,Tetsuo Fujie,Hiroyuki Itaya,Naoki Wada,Kenji Takahashi
- 19P121a Preparation and characterization of composite films made of galactoxyloglucan and bacterial cellulose nanofiber.
Daiki Noguchi,Ryunosuke Sakaguchi,Hiroyuki Itaya,Tetsuo Fujie,Shinji Utsunomiya,Shinya Ito,Tokuo Matsushima,Takatomo Kusano,Naoki Wada,Kenji Takahashi
- 19P122b Modification of Tamarind Seed Gum and Bio-based Film Making
Tomohiro Samata,Gyanendra Sharma,Shinji Utsunomiya,Shinya Ito,Naoki Wada,Kenji Takahashi
- 19P123a Melt spinning of cellulose propionate thread reinforced with bacterial cellulose nanofibers
Ayane Yamaguchi,Ayaka Kameda,Hiroyuki Itaya,Tetsuo Fujie,Tokuo Matsushima,Takatomo Kusano,Naoki Wada,Kenji Takahashi
- 19P124b Synthesis, characterization and biodegradability of paramylon mix ester derivatives with different DS
RUIQI LI,Jin Ho Seok,Tadahisa Iwata
- 19P125a Increased toughness of Polybutylene succinate by addition of surface-modified nanofibrillated bacterial cellulose as reinforcement material
Hamidah Binti Hashim,Xiaochao Xia,Seno Shuichiro,Kani Hiroshi,Li Feng,Fujiwara Masashi,Isono Takuya,Yamamoto Takuya,Tani Hirofumi,Satoh Toshifumi,Tajima Kenji
- 19P126b Elucidation of crystal transition mechanism from cellulose I to cellulose II in low-concentration alkali treatment at low-temperatures
Yuki Kugo,Takuya Isono,Masashi Fujiwara,Toshifumi Satoh,Hirofumi Tani,Tomoki Erata,Kenji Tajima
- 19P128b Green Synthesis of Thermoplastics by Transesterification of Total Lignocellulose Components of Beet Pulp Using Ionic Liquid
Shogo Iwata,Romain Milotskyi,Ryo Serizawa,Tetsuo Fujie,Naoki Wada,Kenji Takahashi
- 19P129a Preparation and characterization of the spherical chitosan-based hydrogels for removal of heavy metal
Sayaka Fujita,Yuri Ainai,Hiroyuki Kono

Thu. Jul 20

Presentation Time

<a = 12:30~13:15>

<b = 13:15~14:00>

T-3 Structure and Physical Properties of Polymers

- 20P001a Wide-angle X-ray Scattering of Aqueous Solutions of Non-ionic Polymers
Ryo Watanabe,Daichi Ida
- 20P002b Development of an MRI methodology for polymeric thin films by ex-situ solid-state NMR with neodymium magnet
Natsuki Kawabata,Naoki Asakawa
- 20P003a Synthesis of Hydrogels with Thermoresponsive Crosslinked Nanodomains Containing Iridium Complex for Ammonia Sensing and Catalytic Reaction
Shohichi Furukawa,Shohei Ida,Fujita Ken-ichi
- 20P004b Study on mechanical properties, changes of structure and deformation behaviors of PP/EPDM dynamic vulcanizates
Akihiko Morikawa,Ouki Urata,Asae Ito,Yusuke Hiejima,Koh-hei Nitta
- 20P005a Flexible Cholesteric Liquid Crystal Films Derived from Cellulose
Yu Sotoyama,Naoto Iwata,Seiichi Furumi

- 20P006b Selective Uptake of Butanol in Butanol/Acetone Mixed Solution by Nanoporous Syndiotactic Polystyrene
Rei Miyauchi, Takahiko Nakaoki
- 20P007a Strong adsorption of dyes via electrostatic interaction in high-salinity wastewater
Hongguang LIAO, Hailong FAN, Jian Ping GONG
- 20P008b The biomimetic self-adaptative and self-protective hydrogels to defend thermal stimulus
Dong Shi, Hongguang Liao, Yuki Inoue, Takayuki Nonoyama, Jian Ping Gong
- 20P009a Force relaxation of an axisymmetric indenter on a poroviscoelastic layer
Yu-Yun Lin
- 20P010b Bending Fatigue Behavior of Molecularly Oriented Poly(ethylene terephthalate) Films
Yusho Kishimoto, Masayuki Kishino, Kyohei Hisano, Atsushi Shishido
- 20P011a Film preparation of syndiotactic polystyrene at different cast temperatures.
Mikito Nishioka, Takahiko Nakaoki
- 20P012b Effect of Diverse Hydrogen Bonding Modes on Dynamic Mechanical Properties of Polymers
Rena Tajima, Shogo Ishizaka, Shintaro Nakagawa, Naoko Yoshie
- 20P013a Synthesis and photodeformation of fully biobased poly(amide ester)s
Kenji Takada, Kakeru Kakizaki, Tatsuo Kaneko
- 20P014b Light-responsive actuator of azobenzene-containing main-chain liquid crystal elastomer with allyl sulfide dynamic exchangeable linkages
You-jeong Jeong, Soo-young Park
- 20P015a Liquid crystal elastomer reinforced with carbon nanotubes dispersed by poly(pyrene-co-LC11) and its application to photoactuators
HYEWON OH, Soo-Young Park
- 20P016b Examination of mechanoresponsive luminescence properties of polyurethane containing rotaxane mechanophores having different stoppers
Tatsuya Muramatsu, Keiko Hiratsuka, Christoph Weder, Yoshimitsu Sagara
- 20P017a Bilayer actuator film with photonic interpenetrating polymer network structure on the poly(ethylene terephthalate) substrate and its urea biosensor application using dual response of bending actuation and photonic color change
Amhagiyorgis Mesfin Adane, Soo-Young Park
- 20P018b Detecting force applied to phase-separated hydrogels using a cyclophane-based supramolecular mechanophore
Shohei Shimizu, Hiroaki Yoshida, Koichi Mayumi, Hiroharu Ajiro, Yoshimitsu Sagara
- 20P019a PAA-b-LCP decorated liquid crystal-based aptasensor for the detection of cocaine
BILAL UDDIN KHAN, Soo-young Park
- 20P020b Stretching and compression deformation mechanism of epoxy monolith and co-continuous network polymers
Kazuma Aragishi, Ren Tominaga, Yasuhito Suzuki, Akikazu Matsumoto
- 20P021a Exploration of the relationship between yield point and network strand elongation in well-defined double network gels
Naohiro Kashimura, Takahiro Matsuda, Tsutomu Indei, Tasuku Nakajima, Jian Ping Gong
- 20P022b Study on Strain Distribution of Polycarbonate Using Digital Image Correlation
Takayuki Yoshida, Shotaro Nishitsuji, Hiroshi Ito
- 20P023a Mixed Gels of Ocean Fish Skin Gelatin and Mammalian Gelatin studied by rheological measurements, micro DSC and particle tracking.
Hazuku Takagi, Shingo Matsukawa, Catherine Taylor Nordgard, Kurt Ingar Draget, Yumika Hayano
- 20P024b The gelation mechanism of the funoran extracted from the red alga *Gloiopeltis furcata*.
Marwa Elsayed Abdelgelil Atya, Shingo Matsukawa, Rando Tuvikene
- 20P025a The Study on Gelation Mechanism in Mixed Solution of Pig Gelatin and Ocean Fish Gelatin from the Viewpoint at Molecular Levels
Yumika Hayano, Shingo Matsukawa, Catherine Taylor Nordgard, Kurt Ingar Draget, Hazuku Takagi
- 20P026b Gelation of gellan induced by trivalent cation and coexisting trivalent with monovalent cations as revealed by rheological and DSC measurements
Xi Yang, Momoka Kimura, Koki Ryo, Faith Bernadette A. Descallar, Shingo Matsukawa

- 20P027a Water-soluble Micelles Formed from Biocompatible Amphiphilic Block Copolymers Containing Zwitterion Block
Kaito Yokota, Masaru Tanaka, Shingo Kobayashi, Shin-ichi Yusa
- 20P028b Comparison of properties in polylactide copolymers and homopolymers with linear structures using end-capping and investigation of their stereocomplex formation
Jaeyeong Choi, Hiroharu Ajiro
- 20P029a Nanodiffraction imaging of lamellar crystals of polyethylene
Shusuke Kanomi, Hironori Marubayashi, Tomohiro Miyata, Hiroshi Jinnai
- 20P030b Structure of water in a polyvinyl alcohol hydrogel prepared by irradiation with electron beam
Riina Yanagawa, Tomoko Ikeda-Fukazawa
- 20P031a Molecular mobility of mcl-poly(3-hydroxyalkanoate) by high resolution solid state ^{13}C NMR
Syunya Oriuchi, Takahiko Nakaoki
- 20P032b Millisecond-scale analyses during melt-drawing of ultrahigh-molecular-weight polyethylene using synchrotron radiation
Ayaka Takazawa, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe, Shinichi Asai, Shoko Naruke, Takuya Ohnishi, Yasutake Wakabayashi, Kouki Aoyama, Hiroshi Sekiguchi
- 20P033a Structural changes of water of poly-vinyl alcohol hydrogels with dehydration and swelling
Naoya Takeuchi, Tomoko Ikeda-Fukazawa
- 20P034b Structure of water coexisting with cis-1,4-polyisoprene
Kazuaki Sato, Tomoko Ikeda-Fukazawa
- 20P035a Nano-scale 3D Network Morphologies from Biobased Saccharide-Terpenoid Amphiphilic Materials
Chaehun Lee, Brian J Ree, Kai Chen, Ryoya Komaki, Satoshi Katsuhara, Takuya Yamamoto, Kenji Tajima, Hsin-Lung Chen, Toshifumi Satoh, Takuya Isono
- 20P036b Effect of annealing on changes of density fluctuations of polymethylmethacrylate during tensile test
Daisuke Iwahara, Shotaro Nishitsuji, Hiroshi Ito, Masaru Ishikawa, Takashi Inoue, Mikihiro Takenaka
- 20P037a Spatial distribution of the substances encapsulated in the film prepared by dense-packed alginate beads
Masanari Usami, Fakfan Luangapai, Nakako Katsuno, Satoshi Iwamoto
- 20P038b Analysis of Thermal Percolation and Distance between Boron Nitride Platelets using Scanning Thermal Microscopy
Yuta Toma, Takuya Matsumoto, Takashi Nishino
- 20P039a Crystallization dynamics of poly(L-lactic acid) ultra-thin films
Taisei Ishiyama, Kaito Sasaki, Yosuke Okamura, Rio Kita, Naoki Shinyashiki
- 20P040b Fabrication of ultrafine microphase-separated structures from monodisperse sugar-inorganic hybrid block copolymers
Taiki Nishimura, Feng Li, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh, Takuya Isono
- 20P041a Concentration-cooling rate map of ice crystal structures in poly (vinyl pyrrolidone) water mixtures studied by X-ray diffraction.
Yuka Arai, Risa Otagiri, Kaito Sasaki, Rio Kita, Takeru Ito, Yoshiki Oda, Naoki Shinyashiki
- 20P042b Effect of Cellulose Nanofiber on the Crystal Structure of Poly (vinylidene fluoride)/Organoclay Composites
Masato Hoshi, Tomonori Koda, Hiroko Yano, Taichi Nishio, Takeshi Nakatani, Akihiro Nishioka
- 20P043a Theoretical Study on Baroplastic Behavior of Block Copolymers
Hiroki Degaki, Ikuo Taniguchi, Shigeru Deguchi, Tsuyoshi Koga
- 20P044b Shell-structure generated during the melting and recrystallization process of polymer spherulite.
Yuta SHINMURA, Masato HASHIMOTO, Tomoko MIZUGUCHI, Susumu FUJIWARA
- 20P045a Solid-state complex-shape photonic droplets prepared by phase separation and microfluidics
Ye-ri Kim, Soo-Young Park
- 20P046b Morphology and tensile properties of transparent immiscible PMMA/EVOH blend
Hana Watanabe, Mayu Horada, Shogo Nobukawa, Katsuhiko Inomata
- 20P047a Solid-state ^{13}C NMR and ESR study of poly(ethylene-co-methacrylic acid) ionomers during heat treatment
Atsushi Asano, Shohei Mikage, Chikako T. Nakazawa, Takayuki Matsukawa

- 20P048b Helical orientation control of aromatic polyazomethine thin films by polarization plane rotation during polarized -UV-assisted vapor deposition polymerization
Seika Murashita, Yan Tan, Ryosuke Matsubara, Atsushi Kubono

T-7 Polymer Processing

- 20P050b Synthesis and Gas Permeability Characteristics of P(MMA-co-SA) Gels
Koh Yoshida, Jin Gong
- 20P051a Effect of long alkyl side chains on response temperature and response speed of shape memory gel.
Daiki Hinata, Jin Gong
- 20P052b Soft actuator of molecularly aligned films fabricated by scanning wave photopolymerization with heterobifunctional crosslinkers
Kotaro Shinmura, Hirona Nakamura, Takuto Ishiyama, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Atsushi Shishido
- 20P053a Influence of cross-linkers and initiators on the self-healing properties of gels
Tomoyuki Takata, Satoshi Aoki, Koichiro Momma, Jun Morita, Jin Gong
- 20P054b Micro-Fabricated Organic-Inorganic Composite for 3D Bone Models
Hiroki Miyajima, Hiroki Touji, Kaori Kojima, Masaru Mukai, Shoji Maruo, Kazutoshi Iijima
- 20P055a AFM Nanomechanics of Injection Molded Styrenic Thermoplastic Elastomers
Makiko Ito, Airi Sato, Haonan Liu, Xiaobin Liang, Ken Nakajima
- 20P056b Development of Roll-to-Roll Manufacture Process for Stretchable Device Substrate
Hiroki Kawakami, Kyohei Nagatake, Sijue Ni, Fumika Nakamura, Tatsuhiro Horii, Toshinori Fujie, Hiroki Ota
- 20P057a Using pentafluorophenol for solution electrospinning of poly(aryl ether ketone)
Tomoki Maeda, Tomoyuki Nomura, Shigeki Okada, Gabin Goy, Satoshi Uchida, Atsushi Hotta
- 20P058b Fabrication of Fragmented Polymeric Nanofibers as Novel Anisotropic Nanomaterials for Turbidimetric Immunoassay.
Hayato Yokose, Naoya Ichihara, Yosuke Okamura
- 20P059a Structure and Morphological Study of Hollow Segmented-pie Bicomponent Spunbond Nonwoven by splitting process
INWOO NAM, DOKUN KIM, BYEONGJIN YEANG, TAEHWAN LIM
- 20P060b Anti-Microbial and Deodorant Properties of Side-by-Side Recycle Polyethylene Terephthalate Fiber Containing ZnO and TiO₂ Hybrid Nanoparticles
Sang Kyoo Lim, Young Kwang Kim, HyeJin Seo, Sung-Ho Hwang
- 20P061a Continuous Production of Cellulose Mixed Esters Catalyzed by Ionic Liquid via Reactive Extrusion
Romain Milotskyi, Stephanie Hernandez, Shohei Takagi, Elisabeth Ito, Shiori Suzuki, Naoki Wada, Kenji Takahashi
- 20P062b Shear and Heat milling and citric acid modification effects on thermoplastic starch processing and properties
Akane Okamoto, Apakorn Thongmeepech, Tomonori Koda, Hiroko Yano, Tomoo Yamada, Taichi Nishio, Akihiro Nishioka

T-10 Bio-functional and Biomedical Polymers

- 20P064b Multi thermo-responsive polymer micelles applied for drug delivery system
Misato Hayashi, Shinichi Yusa, Shigeru Yamago, Rintaro Takahashi
- 20P065a Polymeric micelle using carboxylic acid-functionalized polyether for cisplatin delivery
Jiwoo Yoon, Byeong-Su Kim
- 20P066b Impact of Polysarcosine-coating of liposome on pharmacokinetics and antigenicity
Mingxin HU, Kazuaki TAGUCHI, Eiry KOBATAKE, Yoshihiro ITO, Motoki UEDA
- 20P067a Bile Acid, Amino Acid & Carbohydrate Amphiphilic Copolymers for mRNA Delivery
Alexy Sanseigne, Alexander Cunningham, Zhiyuan Ma, Jeanne Leblond, Xavier Banquy, Marc Lavertu, Xiaoxia Zhu

- 20P068b In situ Synthesis of Multivalent Ligands of CAIX by Click Reaction Between Polymeric Nano-assemblies for Cancer Treatment
Rentaro Sakamoto, Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki
- 20P069a Membrane-contracting Molecular Machine for Intracellular Delivery with Membrane Fusion
Ken Yoshizawa, Noriyuki Uchida, Takahiro Muraoka
- 20P070b Design of Reductively Responsive Nanocapsules for Intracellular Drug Delivery
Maho Kawaguchi, Akifumi Kawamura, Takashi Miyata
- 20P071a The influence of various PVA nanosheets on the permeation rate of hydrophobic dye
Yuran CHENG, Shinji TAKEOKA
- 20P072b Site-specific Dual Modification of Albumin Using 1H-1,2,3-Triazole-4-carbaldehyde as an N-Terminus Modification Reagent with a Fluorophore
Yuya Maeda, Akira Onoda
- 20P073a Preparation of Proteins with a Long Alkyl Chain at N-Terminus Using Triazole Carbaldehyde Derivatives and Immobilization of the Proteins on the Surface of Liposomes
Lisa Tara Connolly, Akira Onoda
- 20P074b Development of Targeted Fucoidan/Hyaluronate/Gelatin Nanoparticles and Microbubbles for Drugs Delivery in Gastric Cancer Treatment
Hau-Lun Huang, Che-Yu Hsu, Yong-Xin Ta, Yu-Hsin Lin
- 20P075a Fabrication of poly(N-isopropylacrylamide) hydrogel nanofiber via electrospinning
ZHITONG SHEN, Shin-ichiro Suye, Satoshi Fujita
- 20P076b Synthesis of Arsenocholine-type Polyelectrolyte Brush and Hydrated Swollen Thickness
Takumi Komiya, Raita Goseki, Motoyasu Kobayashi
- 20P077a Development of hyaluronic acid-coated biodegradable polymeric micelles for intranasal vaccine against SARS-CoV-2
Takuma Kato, Kengo Suzuki, Kenta Horii, Yuta Yoshizaki, Nobuo Murase, Akinori Kuzuya, Yuichi Ohya
- 20P078b Fabrication and Evaluation of Drug-Wrapped Adhesive Nanosheets with epidermal regeneration ability
Yota Shiba, Genta Yagami, Tadahiro Fuyama, Hideaki Sumiyoshi, Yutaka Inagaki, Yosuke Okamura
- 20P079a Design and function of adjuvant and antigen co-delivery system using polysaccharide nanogels
Yuki Yazawa, Sawada Shin-ichi, Yoshihiro Sasaki, Kazunari Akiyoshi
- 20P080b Design of molecular bottlebrushes for immunostimulatory CpG ODN delivery
Shin Takano, Yusuke Miyashima, Shota Fujii, Kazuo Sakurai
- 20P081a Enhancement of inhibitory activity of small molecules on PD-1/PD-L1 interaction by conjugation with branched polyethylene glycol
EunHye Kim, Boyang Ning, Masuki Kawamoto, Hideyuki Miyatake, Jun Akimoto, Motoki Ueda, Yoshihiro Ito
- 20P082b Sustained Transdermal Delivery of Curcumin and Gallic Acid from Double-Layered PLGA/HA Microneedle Systems for Long-Term Management of Atopic Dermatitis
Mei-Chin Chen, Yi-Lun Chen, Chih-Chi Chang
- 20P083a New insight into insulin fibrillation assay
Thirasara Pituwala Kankanamge, Wijk Yospanya, Kazushi Kinbara
- 20P084b Caging Cationic Polymer Brush-Coated Plasmonic Nanostructures for Traceable Selective Antimicrobial Activities
Jielin Ma, Derong Lu, Hongwei Duan
- 20P085a Fabrication of Gelatin/Sulfated Hyaluronic Acid/Bioglass Composite Scaffolds Coated with Thylakoid for Osteonecrosis Therapy
Young-Jin Kim, Hye-Ji Lee
- 20P086b Photo-responsive Hydrogel with Dexamethasone Conjugate for Osteogenesis
Akihito Shibui, Hiroki Miyajima, Saeka Kato, Kazutoshi Iijima
- 20P087a 3D-printed poly(glycolic acid)/hydroxyapatite composite scaffolds for promoting bone regeneration
Jeongmin Kim, Yu Jin Kim, Hyolim Lee, Yunjeh Ko, Oh Hyeong Kwon
- 20P088b Electrospinning of 3D Nanofibrous Scaffolds
Komal Raje, Keisuke Ohashi, Satoshi Fujita

- 20P089a Evaluation of osteoinductive function of organic-inorganic capsules based on liquid-liquid phase separation
Syuuhei Komatsu,Taka-Aki Asoh,Akihiko Kikuchi
- 20P090b Activation of bone marrow-derived dendritic cells in temperature-responsive biodegradable injectable hydrogel for cancer immunotherapy
Keisuke Sasaki,Kenta Horii,Yuta Yoshizaki,Nobuo Murase,Yuichi Ohya
- 20P091a Establishment of patient-specific colon cancer cell lines by membrane filtration method via Nylon mesh filter and PLGA-silk screen membranes
Zhe-Wei Zhu,Akon Higuchi
- 20P092b Isolation of ovarian cancer cells to establishing cancer stem cell lines using membrane filtration method
Yi-Shuo Su,Akon Higuchi
- 20P093a Generation of Universal Human Induced Pluripotent Stem Cells Prepared from Fetal Stem cells on ECM-coated materials
Zhao-Yu Hong,Akon Higuchi,Yun-Ting Lin
- 20P094b Retinal pigment epithelium differentiated from human pluripotent stem cells cultured on ECM-coated materials
Hui-Yu Lin,Akon Higuchi
- 20P095a GVHD treatment utilizing several types of stem cells cultivated on biomaterials
CHANG YEN TSAI,AKON HIGUCHI
- 20P096b Design of Dual Stimuli-responsive Polymers with Controllable Physical and Chemical Properties and Cell Behavior on Their Surface
Masaaki Okihara,Akifumi Kawamura,Takashi Miyata
- 20P097a Reinforced Gelatin-Methacrylate Hydrogels Containing Nanofiber Fragments for 3D Bioprinting
Dong Hoon Sim,Do Kyung Kim,Yun Jeh Ko,Oh Hyeong Kwon
- 20P098b Real time measurement of in brain dopamine using electrochemical aptamer-based (E-AB) biosensors
Kon Son,Takanori Uzawa,Yoshihiro Ito,Tod E. Kippin,Kevin W. Plaxco,Toshinori Fujie
- 20P099a Selective Detection of Cytokine IL-1 α on Epitope-Imprinted Polymer Films Using Extended-Gate Field-Effect Transistor
Seok Jin Lim,Jinyoung Park
- 20P100b Scanning biosensor based on bipolar phenomenon for rapid analysis of multiple samples
Arisa Tochigi,Joh Takahashi,Mizuki Kondo,Takashi Kuwahara
- 20P101a Fabrication and Characterization of a Powder-type Anti-adhesion Agent with Improved Tissue Adhesion Property
Yu Jin Kim,Jeongmin Kim,Yunjeh Ko,Oh Hyeong Kwon
- 20P102b MXene-based Flexible Polymer Nanosheets for Thermo-therapy
Yan Chen,Masato Saito,Toshinori Fujie,Shinji Takeoka
- 20P103a Enzyme-encapsulated nanocapsules prepared by cross-linking of water-soluble block copolymer emulsifier stabilizing the interface of W/O emulsion
Miyu Shimizu,Akifumi Kawamura,Takashi Miyata
- 20P104b Design of Temperature-Responsive Nanocapsules by Interfacial Cross-linking of W/O Emulsions
Tatsuya Miyoshi,Akifumi Kawamura,Takashi Miyata
- 20P105a Effective and specific navigation of immune checkpoint blockade antibodies to glioblastoma by the glucose-PEGylation technology
Yuki Mochida,Tao Yang,Xueying Liu,Hiroaki Kinoh,Horacio Cabral,Kazunori Kataoka
- 20P106b Fabrication of Chitosan/Starch based Powder-type Active Hemostatic Agents Containing Blood Coagulation Agents
Hyolim Lee,Yu Jin Kim,Yunjeh Ko,Oh Hyeong Kwon
- 20P107a Fabrication of Powder-type Reactive Hemostatic Agents Containing Blood Coagulation Agents made of dialdehyde starch and hyaluronic acid
Dokyung Kim,Hyolim Lee,Dong Hoon Sim,Yunjeh Ko,Oh Hyeong Kwon
- 20P108b Prediction of Differentiation Behavior of Mesenchymal Stem Cells in Polysaccharide-Based Hydrogels Using Machine Learning
Chika Inuma,Kazuki Yamauchi,Kazutoshi Iijima

- 20P109a Preparation of glycan-immobilized nanogel particles and their selective interaction with lectins
Hiroyuki Kono,Remi Anazawa,Lisa Connolly,Mitsuki Asano,Ryota Kishimoto,Makoto Ogata
- 20P110b Study on the thermoreversible self-assembly of chitin oligosaccharides
Yuuya Nagaoka,Ogata Makoto,Takeshi Hattori,Taiichi Usui,Hiroyuki Kono
- 20P111a Fabrication of Microneedle Using Hydrogels from Cross-Linked Sacran
Chamaiporn Supachettapun,Kenji Takada,Maiko Okajima,Tatsuo Kaneko
- 20P112b Emulsification by carbohydrates and its emulsification mechanism
Hibiki Yamashita,Muneaki Tomotake,Baku Onishi,Sayaka Fujita,Makoto Ogata,Hiroyuki Kono
- 20P113a Peptide Fibrillar Assemblies Exhibit Membranolytic Effects and Anticancer Activity
Jeng-Shiung Jan,Yu-Fon Chen
- 20P114b Preparation of cellular delivery system using temperature-responsive injectable hydrogels with biomacromolecular cross-linkers and cell-adhesive peptides
Nobuo Murase,Yoshiaki Hirano,Yuichi Ohya
- 20P115a Property analysis of cell aggregation inducing peptide
Yoshiaki Hirano,Masaki Iwamoto,Rino Watanabe,Ikumi Amimoto,Yudai Futaki
- 20P116b Screening of anti-nucleation peptide from a phage-displayed peptide library
Yoshiaki Hirano,Sora Okamoto,Madoka Washizaki
- 20P117a Stabilization of microtubule structures by light-induced crosslinking of Tau-derived peptide
Soei Watari,Hiroshi Inaba,Arif Md. Rashedul Kabir,Akira Kakugo,Kazuki Sada,Kazunori Matsuura
- 20P118b Construction of enveloped viral replica equipped with spike protein derived from SARS-Cov-2
Hiroto Furukawa,Keigo Nakamura,Hiroshi Inaba,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi,Kazunori Matsuura
- 20P119a Stable disk-shaped co-assembly of amphiphilic polypeptide and phospholipid
Motoki Ueda,Yoshihiro Ito
- 20P120b Preparation of Protein Adsorbed on Near-Infrared Emissive π -Conjugated Polymers and Their Optical Properties
Dahye YOO,Misato KANJO,Masashi NAKAMURA,Masayuki GON,Kazuo TANAKA
- 20P121a Kinetics Control of Gel-Sol Transition and Cargo Release of Oxidation-Responsive Peptides
Yoshika Hara,Atsuya Yaguchi,Hirotsugu Hiramatsu,Takahiro Muraoka
- 20P122b Proliferation and Differentiation of hPSCs into Mesenchymal Stem Cells on Oligopeptide-grafted Hydrogels
Wen-Hui Chao,Akon Higuchi
- 20P123a LLPS materials for protein capturing and manipulation
Yukino Yamashita,Erika Miura,Takuya Mabuchi,Takahiro Muraoka
- 20P124b Development of a helix-forming photoresponsive peptide for controlling bioadhesion property
Atsuya Yaguchi,Noriyuki Uchida,Hirotsugu Hiramatsu,Itsuki Ajioka,Takahiro Muraoka
- 20P125a Human Pluripotent Stem Cell Culture on Single and Mixed Oligopeptide-grafted Hydrogels
Yen-Hung Chen,Akon Higuchi
- 20P126b Thiol compounds bearing cationic units promote oxidative protein folding
Mai Kitamura,Takahiro Muraoka
- 20P127a N-Terminal Specific Immobilization of Proteins onto Polymer Resin Using Triazolecarbaldehyde Reagents
Shiyu Wang,Akira Onoda
- 20P128b Preparation of an azide-linked albumin using triazolecarbaldehyde derivatives and immobilization of the protein on a materials surface using strain-promoted azide-alkyne cycloaddition reaction
Yu Ikarashi,Akira Onoda
- 20P129a dsBRET on DNA Origami Nanostructures for Efficient Bio-Sensing and Analyses
Shiori Tabana,Fumiaki Takano,Yuki Minamide,Tomoya Niki,Koichi Tanimoto,Akinori Kuzuya
- 20P130b Efficient DNA-Scaffolded Intramolecular Energy Transmission utilizing Split Luciferase as Single-Molecular Energy Source
Yuki Minamide,Koichi Tanimoto,Tomoya Niki,Shiori Tabana,Fumiaki Takano,Akinori Kuzuya
- 20P131a Development of a self-assembled gene carrier based on dynamic covalent bonds
Akira Matsumoto,Tsuyoshi Minami

Fri. Jul 21

Presentation Time

<a = 12:30~13:15>

<b = 13:15~14:00>

T-2 Supramolecular Polymers

- 21P001a Self-assembly and Aggregation-Induced Emission by dipeptide-AIE hybrid monomer and polymers
Ryo Yonenuma, Hideharu Mori
- 21P002b Creation of Ultralong Room-Temperature Phosphorescent Polymeric Materials
Ken Hirooka, Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi
- 21P003a Controlled Self-Sorting and Thermoresponsive Properties of PEG/Cation Random Copolymer Micelles: Synergy of Molecular Design and Salt Triggers
Rikuto Kanno, Makoto Ouchi, Takaya Terashima
- 21P005a Self-assembly and thermo-responsive properties of poly(N-isopropylacrylamide)-based copolymers bearing triptycene-containing side chains
Jiatong Yu, Tomoya Fukui, Takanori Fukushima
- 21P006b Fluorous Nanochannels Enabling Both Ultrafast Water Permeation and High Salt Rejection
Shuo Chen, Yoshimitsu Itoh, Ryota Hirahara, Takeshi Konda, Tsubasa Aoki, Kohei Sato, Takuzo Aida
- 21P007a Hierarchical self-assembly of urea derivative via cooperative mechanism
Shinya Kimura, Kurea Adachi, Yoshiki Ishii, Tomoki Komiyama, Takuho Saito, Naofumi Nakayama, Masashi Yokoya, Shiki Yagai, Shinnosuke Kawai, Takayuki Uchihashi, Masamichi Yamanaka
- 21P008b Synthesis of a Two-Dimensional Assembly of Molecular Rotor Units
Takejiro Ogawa, Fumitaka Ishiwari, Ryosuke Takehara, Yoshiaki Shoji, Takanori Fukushima
- 21P009a Aggregation-induced Crystallization of Curved Supramolecular Polymers
Kenta Tamaki, Shiki Yagai
- 21P010b Synthesis and Single-Molecule Imaging of Porphyrin Supramolecular Polymer with Cholesteryl Groups
Ryoga Hori, Ken-ichi Shinohara
- 21P011a Synthesis and Adsorption Properties of Fluorinated Porous Network Polymers Based on Pillar[n]arene
Yuki Togari, Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi
- 21P012b Control over Supramolecular Chirality through Photo-regulated Heterogeneity during Nucleation Process
Takuho Saito, Daisuke Inoue, Yuichi Kitamoto, Shiki Yagai
- 21P013a Diastereoselective Crystallization of Pillar[5]arene-based Host – Guest Complexes and Solvent-free Rotaxane Synthesis
Kiichi Yasuzawa, Keisuke Wada, Shixin Fa, Kenichi Kato, Shunsuke Ohtani, Tomoki Ogoshi
- 21P014b Fine-tuning Size of Supramolecular Nanotoroids Prevent Further Catenation in Nano-[2]catenanes
Hiroki Itabashi, Sougata Datta, Ryohei Tsukuda, Martin J. Hollamby, Shiki Yagai
- 21P015a Construction of light-responsive hydrogen-bonded supramolecular networks based on dimethyldihydrobenzo[e]pyrene derivatives
Koki Kasuya, Ryusei Oketani, Ichiro Hisaki
- 21P016b Exploring Topology-Dependent Fluorescence Properties of Functional Supramolecular Polymers
Sho Takahashi, Hikaru Sotome, Shiki Yagai
- 21P017a A Ring-Fiber Structural Transition of a Self-Assembled Azobenzene Dyad
Natsuki Suda, Shiki Yagai
- 21P018b Construction of ladder-shaped, supramolecular porous structures based on a low-symmetric isoquinoline derivative
Namiki Tanaka, Yuto Suzuki, Ryusei Oketani, Ichiro Hisaki
- 21P019a A layered assembly of hydrogen-bonded hexagonal low-density network based on a macrocyclic molecule
Hiroki Yoshimura, Yuto Suzuki, Ryusei Oketani, Ichiro Hisaki

- 21P020b Fluorescent Nanotubes Self-assembled from 9,10-Diphenylanthracene Dyads
Takumi Aizawa,Hironari Arima,Shiki Yagai
- 21P021a Effect of steric hindrance on supramolecular polymerization of hydrogen-bonded rosettes
Atsushi Isobe,Shiki Yagai
- 21P022b Supramolecular Polymerization of Self-Replicating Monomers Using Allosteric Binding-Promoted Imine Formation
Takayuki Kataoka,Kwangsu Mun,Yoshitaka Tsuchido,Kosuke Ono,Hidetoshi Kawai
- 21P023a Construction of Rotaxane-based Daisy Chains by Imine-directed Threading of Self-complementary Monomers: Degree of Polymerization and Linear/cyclic Ratio
Yuto Shiina,Keita Ishikawa,Hiroyoshi Sugino,Yoshitaka Tsuchido,Hidetoshi Kawai
- 21P024b Nucleobase-mediated supramolecular functional materials: Molecular Recognition Behavior and surface relief grating(SRG) fabrication
Cheng-Wei Huang,Ling-Zheng Huang,Meng-Ting Hung
- 21P025a Controlled Release of Drug-encapsulated Protein Films with Surfactant
Hiroya Tsubota,Akihiro Yabuki,Jiha Lee
- 21P026b Spatiotemporal Dynamics of Supramolecular Polymers of Naphthalenediimides Triggered by a Click Reaction
Atsuro TAKAI,Minghan TAN
- 21P027a Controlled drug release from protein gels by salt addition
Michiya Arafuka,Akihiro Yabuki,Jiha Lee
- 21P028b Induction of Enantioselectivity Enhancement with Chiral Supramolecular Gelation
Yutaka Kuwahara,Nao Nagatomo,Makoto Takafuji,Noriko Okita,Hongdeng Qiu,Hiroataka Ihara
- 21P029a Preparation of Novolac-MOF composites by the condensation reaction of host ligands in MOF and guest arenes
Keitaro Matsuoka,Mariko Tsutsumi,Kazuki Sada
- 21P030b Development of hydrogels with controllable drug release behavior
Tomoyuki Tachibana,Akihiro Yabuki,Ji Ha Lee

T-4 Polymer Surface and Interface

- 21P033a Polymethylene brushes: synthesis and crystallization behavior
Feng Li,Sophia Thiele,Chaehun Lee,Takuya Isono,Toshifumi Satoh,Harm-Anton Klok
- 21P034b Development of grafted catalyst for biodiesel fuel production using cellulose fiber
Mizuki Harada,Noriaki Seko,Yuji Ueki
- 21P035a Synthesis of PS-b-PMMA derivatives with precisely introduced hydroxy groups for neutral layers and their relation to the microphase separated structure of thin films
Riku Mizusaki,Shinsuke Maekawa,Takehiro Seshimo,Takahiro Dazai,Kazufumi Sato,Yuta Nabae,Teruaki Hayakawa
- 21P036b Polyion complex (PIC) aggregates formed by electrostatic interactions with sugar-polymer shells
Tomoki Ando,Rintaro Takahashi,Shinichi Yusa
- 21P037a Multiarm Star Polymers as Designed Nanodomains for Modifying Surface or Interface Properties and Functions
Shohei Ida,Shokyoku Kanaoka
- 21P038b Janus particles synthesized by vapor phase polymerization
Kazuma Kuroiwa,Kazusa Takeuchi,Yuya Oaki,Tomoyasu Hirai,Yoshinobu Nakamura,Syuji Fujii
- 21P039a Surface Modification of Polyamide-Polyurethane Elastic Fabric by Conductive Polyaniline doped with Nitric Acid
Cheng-Ho Chen,Liang-Ling Song
- 21P040b Cyclonic atmospheric pressure plasma induced immobilization of Poly(Ethylene Glycol) Methacrylate on Poly vinylidene fluoride membrane
Li-Ko Huang,Yu-Lian Chen,Chun Huang
- 21P041a Jamming of Surface-Alkylated 2D Cellulose Assemblies at the Liquid-Liquid Interface
Hiroataka Kamada,Toshiki Sawada,Takeshi Serizawa

- 21P042b Non-aqueous polyhedral liquid marbles stabilized with polymer plates with surface roughness
Yamato Iwata,Tatsuro Yoshida,Tomoyasu Hirai,Yoshinobu Nakamura,Syuji Fujii
- 21P043a Pickering emulsion stabilized with millimeter-sized polymer particles
Rina Kakiuchi,Yuri Sakurai,Tomoyasu Hirai,Yoshinobu Nakamura,Syuji Fujii
- 21P044b The effect of hierarchical surface microstructures of *Necrophila japonica* on friction properties
Kazuma Tsujioka,Yuji Hirai,Masatsugu Shimomura,Yasutaka Matsuo
- 21P045a Photoinduced solid-liquid phase transitions by thermally stable molecular switches
Naoki Kaneda,Keiichi Imato,Akira Ishii,Ichiro Imae,Yousuke Ooyama
- 21P046b Novel Type of Thermoresponsive Polymers Induced by Multivalent Metal Ionic Effectors
Junya Emoto,Yukiya Kitayama,Eiji Yuba,Atsushi Harada
- 21P047a Thermal switching of weight and surface property in a polysaccharide-based hydrogel
Kazunari Yoshida,Naofumi Fujiwara
- 21P048b Water droplets covered with pH-responsive polymer-grafted small silica particles
Ema Onodera,Fujii Syuji,Yoshinobu Nakamura,Shin-ichi Yusa
- 21P049a Fabrication of viologen induced polymer brush surface and its wettability control by redox reaction
Hironu Moku,Hongyao Zhou,Teppe Yamada
- 21P050b NIR light- and pH-responsive mesoporous silica-coated gold nanorods with Dual gate-keeping and reversible on-off switching drug release for cancer chemotherapy
Jong Ryeol Kim,So Young Kim,Seong Yeol Kim,Dong Choon Hyun
- 21P051a To Understand the Cell Adhesion Behavior on Zwitterionic Conducting Polymers
Chia Hsin Lin,Xiaofang Tang,Diyen Chueh,Peilin Chen,Shyh-Chyang Luo
- 21P052b Novel water-based self-healing coating material capable of releasing antimicrobial-agents
Dong Choon Hyun,Da In Kim,Ki-Hak Kim,Hosu Kang,Hye Jin Yoo
- 21P053a Conformal polymer coating on nanoporous materials by vapor deposition polymerization
Ryo Tabata,Ryosuke Matsubara,Atsushi Kubono
- 21P054b Tuning the Surface Charge through Electrochemical Copolymerization of Functionalized PEDOTs toward Antifouling Surfaces
Tzu-Yu Lin,Wen-Yin Lo,Tzu-Yu Kao,Chia-Hsuan Lin,Yen-Ku Wu,Shyh-Chyang Luo
- 21P055a Mussel-Inspired Zwitterionic Copolyethers for Antifouling Surface Coatings: Loop vs Brush
Sowon Yun,Byeong-Su Kim
- 21P056b Self-healing and antifogging graphene-composite zwitter wetttable surfaces
Kengo Manabe,Yasuo Norikane
- 21P057a Hydration and Anti-Icing Properties of Hydrophilic Concentrated Polymer Brushes
Ken Tamamoto,Yuji Kinose,Kento Hase,Ken Nakano,Yoshinobu Tsujii
- 21P058b Design of oil-repellent and adhesive aromatic polyester having zwitterionic structure
Akifumi Kawamura,Rika Itomitsu,Takashi Miyata
- 21P059a Synthesis of polyamines with low Michael addition reactivity and their application to dismantlable adhesives based on epoxy resin containing vinyl groups
Yuki Tsutsui,Eriko Sato
- 21P060b Difference in Curing Behavior between Interface and Bulk in Urethane Adhesives
Seito Yamazaki,Takayuki Miyamae
- 21P061a Polyzwitterion Adsorption on Electrified Surfaces
Chia-Hsuan Lin,Shyh-Chyang Luo
- 21P062b Characterization of Physical Properties of Polymeric Materials at Nanoscale via QCM Technique
Yamaoka Kenji,Natsuki Komiyama,Akira Uchiyama,Daiki Komiyama,Yoshihisa Fujii,Naoya Torikai
- 21P063a Molecular Weight Dependence of Glass Transition Temperature at Solid Interface of Polystyrene Thin Films
Akira Uchiyama,Daiki Komiyama,Yoshihisa Fujii,Naoya Torikai
- 21P064b Observation of Temperature-dependent Molecular Motions of Acrylate Homopolymer by Diffracted X-ray Blinking
Rena Inamasu,Hiroki Yamaguchi,Tatsuya Arai,Kazuhiro Mio,Yuji.C Sasaki

- 21P065a Evaluation of the Chemical Component Distribution in Resist Thin Film by Grazing Incidence Resonant Soft X-ray Scattering
Atsunori Nakamoto, Shinji Yamakawa, Tetsuo Harada, Takeo Watanabe
- 21P066b Spatial Distribution Evaluation of EUV Resist Using Reflection-type Projection Soft X-Ray Microscope
Shuhei Iguchi, Tetuo Harada, Shinji Yamakawa, Takeo Watanabe
- 21P067a Investigation of the Chemical Imaging of Resist Thin Films by Photoemission Electron Microscopy at NewSUBARU
Tsukasa Sasakura, Shinji Yamakawa, Tetsuo Harada, Takeo Watanabe
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- 21P072b Stimuli-Responsive Emission of Boron Pyridylenolate Complexes Introduced into Conjugated Polymer Backbones
Yuto AOYAMA, Shunichiro ITO, Kazuo TANAKA
- 21P073a Multi-Stimuli-Responsive Luminescent Properties of Anthracene-Substituted nido-Carboranyl Anion
Takumi Yanagihara, Kazuo Tanaka
- 21P074b Development of ion-conductive hybrids by combining silsesquioxane and deep eutectics
Tomohito Inoue, Yuito SONTA, Takuto OHASHI, Hideharu MORI
- 21P075a Preparation of antifog hard coatings composed of carboxyl group-containing POSS and hydroxy group-containing compounds
Jun Nakagawa, Yoshiro Kaneko
- 21P076b Synthesis and properties of octa-alkoxy-substituted cage silsesquioxanes
Naoki Watanabe, Hiroaki Imoto, Kensuke Naka
- 21P077a Detection of food poisoning bacteria using molecularly imprinted organic-inorganic nanocomposites
Satohiro Itagaki, Akihiro Nakao, Yojiro Yamamoto, Hiroshi Shiigi
- 21P078b Preparation and characterization of colloidal crystals and colloidal amorphous arrays using TiO₂ particles coated with polymeric dispersants
Yangnan Jiang, Yukikazu Takeoka
- 21P079a Crystallization and Reinforcement Effect of Poly(ether ether ketone) Composites using Zinc Oxide with Different Shape
Sarika Nishino, Chiharu Tominaga, Takuya Matsumoto, Yasuo Gotoh, Takashi Nishino
- 21P080b Structure-property relation of high-molecular weight PEO/silica nanocomposites
Saki Kusakabe, Takuya Katashima, Li Xiang, Etsuko Kobayashi, Ichiro Sakuma, Yuki Akagi
- 21P081a Preparation of Polymeric Positive Temperature Coefficient Material by Thermoplastic Vulcanizate Polymer with Carbon Particles
Cheng-Chien Wang, Hsin Ju Liu, Yi Cheng Huang, Yi Jing Chen, Chun Wei Cheng
- 21P082b Synthesis of core-shell polymer-inorganic composite particles and their application as adsorption carriers
Yayoi Yoshioka
- 21P083a Electrospun Carbon Fibre-Supported Hierarchical NiCo Layered Double Hydroxide Nanosheets as Glucose Oxidation Catalysts and Sensors
Yi-Shan Wu, Sheng-Min Huang, Pei-Jung Tsai, Chieh-Tsung Lo, Chien-Liang Lee

- 21P084b New Toughening Mechanism of Viscoelastic Composite
Ryo Kato, Daniel Rudolf King, Ryuji Kiyama, Takuya Nishimura, Tsuyoshi Okumura, Jian Ping Gong, Takayuki Kurokawa
- 21P085a Polyoxometalate hydrogel composite as solid acid catalyst in water
JunJie Zhu, Ryota Urabayashi, Takehiko Gotoh, Masahiro Sadakane, Satoshi Nakai
- 21P086b 3D foam structural rGO-MXene/epoxy composites for superior EMI shielding performance
Seung Wook Lee, Mu Jin Kim, Keun-Byoung Yoon
- 21P087a The rheological property and crystallization behavior of the poly(trimethylene terephthalate)/graphene nanosheets-grafted magnetic nanoparticles bioinspired composites with nacre like structures
Chien-Lin Huang, En-Zai Lin, Shen-Po Huang
- 21P088b Oligothiophene Dendron-Modified CdS Quantum Dots and their Optical Properties
Akari Yoshida, Ryosuke Nozawa, Yuma Sakagami, Masaki Matsubara, Atsunori Mori, Atsushi Muramatsu, Kiyoshi Kanie
- 21P089a Highly conductive rGO-CNT hybrid fillers for electromagnetic shielding epoxy composites
Jisu Kang, Keunbyoung Yoon
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Min Yeong JEONG, Dong Yun Lee
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Yumi Nakano, Kayoko Yuasa, Shigenori Fujikawa, Yoshiro Kaneko
- 21P092b Extremely long chains of magnetic particles via large plastic beads observed in bimodal magnetic elastomers
Rio Urano, Kejun Chen, Shota Akama, Motohiro Suzuki, Akihisa Takeuchi, Masayuki Uesugi, Mika Kawai, Tetsu Mitsumata
- 21P093a Investigation of nanosheets-composite PVDF crosslinked membranes for sea water desalination
Zhaojun Fan, Mohamad Rafiq Bin Ruzlan, Shinobu Uemura, Qi Feng
- 21P094b Anionic polymer brushes can change anisotropic nanoparticle's orientation
Yu Sekizawa, Hideyuki Mitomo, Yusuke Yonamine, Takuya Isono, Kenji Tajima, Toshifumi Satoh, Kuniharu Ijiri
- 21P095a Development of Citric Acid Modified Cellulose Monolith for Enriching Glycopeptides
Guan Wang, Luwei Zhang, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 21P096b Simultaneous Removal Efficiently of Heavy Metal Arsenic (V) and Chromium (III) Combining to the Positive Complex by Ionic Hydrogels
Yu Song, Takehiko Gotoh, Toshikazu Suenaga, Satoshi Nakai
- 21P097a Viscoelasticity of Gel-Network and Magnetorheological Effect for Polysaccharide Magnetic Hydrogels
Masahiro Kaneko, Mika Kawai, Tetsu Mitsumata

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- 21P100b Biomimetics of Flower Pollen and Petals
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- 21P101a Development of high-performance organic photorefractive composites comprising hole transport poly(triarylamine) polymers
Meng Che Tsai, Kuo Lung Wang, Takafumi Sassa, Masaki Horie, Satoshi Wada
- 21P102b Redox-active Polymers for Electrochemically Mediated Carbon Dioxide Capture
Alexandra Easley, Phillip Milner, Brett Fors
- 21P103a In-situ synthesis of poly(sulfone-thioether)/lithium salt composites as solid-state electrolytes
Akinari Chiba, Kan Hatakeyama-Sato, Kenichi Oyaizu
- 21P104b Multiarm Polyether-based Non-swellable Conductive Hydrogel
Seohyun Kim, Jinsu Baek, Byeong-Su Kim

- 21P105a Synthesis and charge transport property of a small bandgap polymer based on quinoidal bithiazole
Shuheii Doi, Tsubasa Mikie, Itaru Osaka
- 21P106b Single-Ion Conducting Polyether Electrolyte via Orthogonal Post-Polymerization Modification
Jiyoung Lee, Seonho Kim, Hyeoksu Kwon, Seungyun Jo, Du Yeol Ryu, U Hyeok Choi, Byeong-Su Kim
- 21P107a Impact of substituents in a nonfullerene acceptor having benzimidazole moiety on properties, structure, and photovoltaic performance
Shohei Ohno, Tsubasa Mikie, Itaru Osaka
- 21P108b Fabrication of Free-standing Nanosheet with Self-doped PEDOT and Evaluation of Its Properties
Hiroaki Taniguchi, Mao Nagata, Hirokazu Yano, Shinji Takeoka
- 21P109a Click synthesis of donor-acceptor-donor triblock copolymers for single-component polymer solar cell application
Naomasa Yomogita, Tsuyoshi Michinobu
- 21P110b A Dithienonaphthobisthiadiazole-Based π -Conjugated Polymer Enabling Small Voltage Loss and High Charge Generation Efficiency in Nonfullerene Organic Photovoltaics
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- 21P111a Late-Stage Functionalization of Thienobenzobisthiazole: Synthesis of π -Conjugated Polymers for High-Voltage Organic Photovoltaics
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- 21P112b Development of π -Conjugated Polymers Based on Dithienonaphthobisthiadiazole for Organic Transistors and Photovoltaics
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- 21P113a Simultaneously Quaternized and Crosslinked Anion Exchange Membranes based on Polystyrene Copolymers for Fuel Cells
Li-Cheng Jheng, Tzu-En Liu, Hong-Yi Yeh, Lien-Chung Hsu
- 21P114b Functionalized PEDOT-coated electrode for enhanced bubble releasing and efficient hydrogen evolution reaction
Hsun-Hao Lin, Chia-Hsin Lin, Shyh-Chyang Luo
- 21P115a Photoelectric Memory Transistors Fabricated by a Facile Solution Process Based on CsPbBr₃ Perovskite Quantum Dots and Polymer Semiconductors
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Hiromi SHINOHARA, Hiroyuki NISHIDE
- 21P117a Electrosynthesis of Polydithienylpyrroles Containing Triphenylamine or *N*-Phenylcarbazole Subunits
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- 21P118b Controlling the Location of Heteroatom Doping in Porous Carbons Derived from Silk Fibroin Toward Electrochemical Energy Storage Applications
Hongjun Park, Jaewon Choi
- 21P119a Sulfonation Properties of Polyphenylsulfone
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- 21P120b Pressure Sensor Based on Modulation of Electrical Double Layer
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- 21P121a Alicyclic Poly(thioether)s with High Refractive Indices and High Abbe's Numbers Prepared Using Dithiin Derivatives
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- 21P122b Crosslinked Carbonate-based Copolymer as Cathode Binder and Solid Polymer Electrolyte for Lithium-Ion Batteries
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- 21P123a All-pai-Conjugated Donor-Acceptor Semiconducting Block Copolymers with Twisted Stress-Releasing Units Suited for Single-Component Polymer Solar Cells
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- 21P124b Blend Morphology and Photovoltaic Properties of All-Polymer Ternary Solar Cells
Zhiyuan LIANG,Ren HAGIO,Yongyoon CHO,Manish PANDEY,Masakazu NAKAMURA,Hiroaki BENTEN
- 21P125a Electrochemical and Mechanical Properties of Composite Polymer Electrolytes with Electrospun Silica Nanofiber
Pa Do Kim,Hidetoshi Matsumoto,Yoichi Tominaga
- 21P126b Effects of Polymeric Binders for Ti₃C₂T_x MXene Catalyst Layer on Photovoltaic Performance of Hybrid Solar Cells
Dongho Park,Seokhun Shin,Youngwan Kwon,Yoon Soo Han
- 21P127a Ion-Conductive Properties of Solid Polymer Electrolytes Based on Polyurethane with Carbonate Unit
Yuta Fujiyoshi,Yoichi Tominaga
- 21P128b Orientation control and piezoelectricity measurements of aromatic polyester thin films prepared by thermal chemical vapor deposition
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- 21P129a Development of Lithium-ion Battery Electrode Using Polypropylene-based Waste Masks
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- 21P130b Development of Poly(ionic liquid)-based Gel Polymer Electrolyte for Li-ion Polymer Batteries
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- 21P131a Fabrication of pi-conjugated polyazomethine thin films by vapor deposition polymerization
Ryosuke Matsubara,Teruhiro Hamaguchi,Atsushi Kubono
- 21P132b A study of properties and morphology of anion exchange membranes with different core structures based on poly(fluorene) containing an alkyl spacer for water electrolysis
Haeryang Lim,Dasol Chung,Jeongsu Kim,Taiho park
- 21P133a n-Type Alcohol-soluble Conjugated Polyelectrolyte as a Cathode Interlayer enables Stable Stretchable Organic Solar Cells
Jeongsu Kim,Dasol Chung,Haeryang Lim,Taiho Park
- 21P134b Aggregation competition study in novel double-cable conjugated polymers
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- 21P135a Synthesis and Optoelectronic Properties of Condensation Polymers Bearing Polycyclic Aromatic Hydrocarbon Chromophores
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