

Room A

Tue. Sep 26

Invited Lecture

Eiji Ihara, presiding

12:55 1A08IL Photo-functional Soft Materials based on Anisotropic Molecular Packed Alignment
Shotaro Hayashi

Kenjiro Onimura, presiding

13:45 1A10IL New paradigm of organic luminescent materials based on fast spin conversion
Takuma Yasuda

Masaaki Akamatsu, presiding

14:35 1A12IL Chitin isolation and production of chitin materials using only water
Mitsumasa Osada

Takeshi Shiono, presiding

15:25 1A14IL Synthesis of precision functional polymers by newly designed molecular catalysts
Kotohiro Nomura

Koichi Ute, presiding

16:15 1A16IL Synthesis of Structurally Controlled Hyperbranched Polymers by Radical Polymerization
Shigeru Yamago

Wed. Sep 27

Invited Lecture

Takeharu Haino, presiding

10:00 2A03IL Development of Helical Polymers: Past, Present and Future Challenges
Eiji Yashima

Kazunori Matsuura, presiding

10:50 2A05IL Photon energy conversion based on self-assembled molecular systems
Nobuo Kimizuka

Award Lecture

Akikazu Matsumoto, presiding

12:55 2A08AL Developments of Degradation Technologies of Condensation Polymers Using Organic Catalysts
Kazuki Fukushima

Shin-ichi Yusa, presiding

14:10 2A11AL Development of Composite Electrolyte Membranes Based on Functional Polymer Nanofiber Frameworks
Hiroyoshi Kawakami

Eiji Ihara, presiding

15:00 2A13AL Innovative Anionic Polymerization Process Led by Flow Chemistry
Aiichiro Nagaki

Tsuyohiko Fujigaya, presiding

15:50 2A15AL Development of Functional Polymer Gel Electrolytes and Their Applications to Next Generation Lithium Secondary Batteries
Ryota Tamate

Thu. Sep 28

Invited Lecture

Kohei Shiraishi, presiding

10:25 3A04IL Development of High-Performance Polymer Materials Using Epoxy Monolith
Akikazu Matsumoto

Masaaki Akamatsu, presiding

11:15 3A06IL Development of retinal prostheses using photoelectric dyes coupled to
polyethylene films through medical-engineering collaboration
Tetsuya Uchida

Room B

Tue. Sep 26

S1. Novel Functions of Element-Block Polymer Materials Created by Synergistic Effect

9:50 1BSO Introductory Remarks S1
Yoshiro Kaneko, Masayuki Gon

Mitsuo Hara, presiding

10:00 1B03 Adhesion of necklace shaped silsesquioxane thermosetting polymers
Sao Yamaguchi, Satoshi Watanabe, Masashi Kunitake

10:25 1B04 Development of composed films consisting of Metal Organic Frameworks(MOF)
and POSS-DMS necklace polymers
Ena Yamada, Masahiko Kawata, Satoshi Watanabe, Masashi Kunitake

10:50 1B05 Preparation of functional siloxane building block by active-ester and their
applications
Tomoki Sato, Huie Zhu, Masaya Mitsuishi

Masaya Mitsuishi, presiding

11:15 1B06 Self-assembly of ionic linear polysiloxanes
Mitsuo Hara, Atsuki Kodama, Shohei Washiyama, Yuuma Ueno, Takahiro Seki

11:40 1B07 Self-assembly of Amphiphilic Liquid Crystalline Polysiloxanes in Water
Takashi Miyata, Maika Togawa, Yuki Hirano, Yasuaki Inoue, Akifumi Kawamura

Masayuki Gon, presiding

12:55 1B08IL Design of Nanostructured Siloxane-based Materials by Controlling the
Molecular Arrangement
Atsushi Shimojima

13:45 1B10 Development of hydrogen-bonded inorganic frameworks consisting of a cubic
octamer of orthosilicic acid
Masayasu Igarashi, Toshiki Nishitoba, Takeshi Nozawa, Tomohiro
Matsumoto, Fujio Yagihashi, Kazuhiko Sato

14:10 1B11 Synthesis of oligoethoxysiloxanes
Takahiro Gunji

14:35 1B12 Preparation of PDMS elastomer using hydrolyzates of linear-oligosiloxanes
Yohei Sato, Ryohei Hayami, Kazuki Yamamoto, Takahiro Gunji

Kazuhiro Shikinaka, presiding

15:00 1B13 Correlation between mechanical reinforcement and interaction at
polymer/fillers interface in nanocomposites with nanosilicons
Takuya Matsumoto, Kenshin Yamada, Hiroshi Sugimoto, Minoru Fujii, Takashi
Nishino

15:25 1B14 In situ polymerization and electrochromism of liquid crystalline perylene
bisimide derivatives
Masahiro Funahashi, Daiki Taga, Tatsumi Kajiwara, Shinobu Uemura

- 15:50 1B15 Corsslinking of organic polymer by silica domain provided from perhydropolysilazane and organic-silica nanocomposites
Reiko Saito, Shinya Watanabe, Yuta Yoshizawa, Hideki Honma, Noeru Kishita
- 16:15 1B16 Control of the surface structure and wettability of the cellulose nanocrystal film modified by silane compounds
Hiroyuki Taniyama, Koji Takagi

Koji Takagi, presiding

- 16:40 1B17 Janus glossy films using the reductive properties of catechol
Mizuki Ohke, Ryoichi Akaishi, Kyoka Tachibana, Michinari Kohri, Syusaku Nagano, Hinako Ebe, Jun Matsui
- 17:05 1B18 Thermal and photoluminescence properties originated from whitened lignin synthesized via Solvent Controlled Encapsulation
Kazuhiro Shikinaka
- 17:30 1B19 Photo-fabrication of gradient structured organic-inorganic hybrid films using inorganic resins containing photobase generators in side chains
Tatsunari Yoshino, Daisuke Aoki, Koji Arimitsu
- 17:55 1B20 Functional Organic/Inorganic Interface Design Based on Controlled UV-Curing
Takeo Suga, Nana Suzuki, Shuhei Abe, Ayane Mochizuki, Kenichi Oyaizu

Wed. Sep 27

S1. Novel Functions of Element-Block Polymer Materials Created by Synergistic Effect

Shunichiro Ito, presiding

- 9:10 2B01 Cycloalkane-fused arsoles: Photophysical properties and element recycling
Chisa Takahara, Suzuka Iwasaki, Hiroaki Imoto, Kensuke Naka
- 9:35 2B02 Synthesis and Optical Properties of New Conjugated Polymers with Boron-Containing Aromatic Rings
Yohei Adachi, Ryuji Matsuura, Joji Ohshita
- 10:00 2B03 Effect of alkoxy substituents at 3-position in metal-like lustrous film using oligo(3-alkoxythiophene)
Satoru Tsukada, Ryota Saito, Katsuyoshi Hoshino

Hiroaki Imoto, presiding

- 10:25 2B04 Recognition and Separation of Head-to-Tail Polyalkylthiophenes by Metal-Organic Frameworks
Yu Takashima, Taku Sawayama, Nobuhiko Hosono, Takashi Uemura
- 10:50 2B05 Modification of Luminescence Properties of Dimers of Dialdiminate Boron Complex by Changing Their Connectivity
Shunichiro Ito, Yuki Sakai, Kazuo Tanaka
- 11:15 2B06 Preparation of Conjugated D-A Polymers with Dithiazologermole Derivatives as Weak Donors
Weipeng Sun, Yohei Adachi, Joji Ohshita
- 11:40 2B07 Development of near-infrared-emitting element-blocks based on synergistic effects with aza-substitution at the isolated LUMO and boron coordination
Kazuo Tanaka, Shunichiro Ito, Hiromasa Takahashi, Hiroyuki Watanabe

Yoshiro Kaneko, presiding

- 12:55 2B08IL Design of functional materials through flexible integration of supramolecular blocks based on organic salts
Norimitsu Tohnai
- 13:45 2B10 Cooperative Molecular Recognition of Layered Triporphyrin Host Molecules and Formation of Ternary Host-Guest Complex
Naoyuki Hisano, Tomoki Kodama, Takeharu Haino
- 14:10 2B11 Synthesis of supramolecular polymers based on bisresorcinarenes
Koki Hamada, Daisuke Shimoyama, Takehiro Hirao, Takeharu Haino

Ryoyu Hifumi, presiding

- 14:35 2B12 Azimuthally selective light confinement in a twisted-bipolar microsphere from chiral conjugated polymer
Yohei Yamamoto, Osamu Oki, Hiroshi Yamagishi, Wenbo Lin, Satoshi Iwamoto
- 15:00 2B13 Formation Mechanism of Patchy Colloids through Coassembly of π -Conjugated Polymers by Spatiotemporal Monitoring
Shun-ichiro Noguchi, Osamu Oki, Hiroshi Yamagishi, Junpei Kuwabara, Takaki Kanbara, Yohei Yamamoto
- 15:25 2B14 Specific 2-step spin transition phenomenon of nanohybrid comprising Fe-Co tetranuclear complex and diblock copolypeptide amphiphiles containing aspartic acid and leucine
Yuya Tanimura, Kai Miyamoto, Keita Kuroiwa
- 15:50 2B15 Synthesis of boron-based single layers and the liquid crystalline functions
Tetsuya Kambe, Kimihisa Yamamoto
- Keita Kuroiwa, presiding**
- 16:15 2B16 Preparation and Investigation of Nanosheets Layered Films on Support Membranes for Water Treatment
Shinobu Uemura, Yasuto Yoshii, Motoo Morikawa, Yoshiki Yoshida, Qi Feng
- 16:40 2B17 Development of Highly Alkaline Stable Tetraarylphosphonium Salts and Their Application to Novel Anion Exchange Membrane Materials
Ryoyu Hifumi, Yoshikazu Toyama, Yisheng Wang, Shinsuke Inagi, Ikuyoshi Tomita
- 17:05 2B18 Synthesis of Triarylsulfonium-containing Polymers Having Direct Arylene - arylene Linkages for Highly Robust Anion-exchange Membrane Applications.
Tomohiro Imai, Ryoyu Hifumi, Shinsuke Inagi, Ikuyoshi Tomita

Thu. Sep 28

S1. Novel Functions of Element-Block Polymer Materials Created by Synergistic Effect

Mitsuhiko Morisue, presiding

- 9:10 3B01 Nanosize control and photophysical properties of Eu(III) coordination nanoparticles
Masaki Enokido, Wang Mengfei, Yuichi Kitagawa, Yasuchika Hasegawa
- 9:35 3B02 Emission Sensitization of Metal Complex Hybrids by Fluorene Derivatives
Seiji Watase, Haruka Katakura, Yui Hasegawa, Masashi Nakamura, Tsutomu Shinagawa
- 10:00 3B03 Synthesis of New Element-Blocks Consisting of Stacked π -Electron Systems
Yasuhiro Morisaki, Asuka Yanagawa, Motoki Tsuchiya, Ryo Inoue

Yasuhiro Morisaki, presiding

- 10:25 3B04 PEGylated Phthalocyanine Derivatives for Photoacoustic Contrast Agents
Koji Miki, Kohei Nogita, Takaya Sugahara, Yusuke Kataoka, Huiying Mu, Kouichi Ohe
- 10:50 3B05 Exploration of Functional Materials of Bulk Stacked π -Electron Systems Based on Morphological Control
Mitsuhiko Morisue, Nakamura Minami, Haruto Asada, Sono Sasaki, Kenya Shinozaki, Kouki Imamura, Munetaka Iwamura, Koichi Nozaki
- 11:15 3B06 Synthesis and precious metal adsorption of novel polymethacrylates bearing aromatic thiourethane structure
Hiroki Watanabe, Bungo Ochiai
- 11:40 3B07 Ultrahigh-Refractive-Index Polythioureas with Hydrogen-Bonding Networks and Polarizable Substituents
Seigo Watanabe, Kenichi Oyaizu

Koji Miki, presiding

- 12:55 3B08 Element-block synthetic chemistry using N2 or N3 functional groups
Hiroki TANIMOTO, Ryo ADACHI, Kyogaku Shogo, Tomohiro Takenori
- 13:20 3B09 Cyclic Structures and Electronic Conjugation of Silicon-Bridged Pillar[n]arenes

- Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi
 13:45 3B10 Synthesis of colorless polymers with high-refractive-index and X-ray shielding property by radical polymerization of m-styrylbismuthines
Yoshimasa Matsumura, Kikuo Furukawa, Miyuki Miyamoto, Yoshio Nishimura, Bungo Ochiai
 14:10 3B11 Preparation of chiral silica using stereoregular polymers and evaluation of its molecular recognition
Tomoyasu Hirai, Sakai Hinari, Mure Tomoki, Tomoki Mure, Yoshinobu Nakamura

Yoshimasa Matsumura, presiding

- 14:35 3B12 Synthesis of Optically-Pure Triptycene-Based Metallomacrocycles and Homochiral Self-Sorting
Kosuke Oki, Wei Zheng, Tomoyuki Ikai, Eiji Yashima
 15:00 3B13 Near-infrared photoluminescence property modulation of carbon nanotubes based on chemical functionalization of aryl groups with ortho-substituents
Tomohiro Shiraki, Boda Yu, Kazuki Shima, Tsuyohiko Fujigaya
 15:25 3B14 Molecular assembly of tetracene in the nanocavity of boron nitride nanotubes
Hayato Saeki, Rioe Saito, Tsuyohiko Fujigaya, Tomohiro Shiraki

Room C

Tue. Sep 26

S2. Frontiers in Polymer Synthesis Directed Towards High-Performance and Functional Polymer Materials

- 9:50 1CSO Introductory Remarks S2
Hiroaki Shimomoto, Kozo Matsumoto

Hiroaki Shimomoto, presiding

- 10:00 1C03 Selective Urethanization of Amorphous Region of Poly(vinyl alcohol) Using Supercritical Carbon Dioxide as a Reaction Medium and Functionalization
Ryohei Hori, Takuya Matsumoto, Masako Yamada, Norihumi L. Yamada, Hideki Seto, Takashi Nishino
 10:25 1C04 Thermoresponsive behavior of crosslinked PNIPAm with controlled dimensionality mediated by MOF templates
Yuki Kametani, Ami Nishijima, Shu Hiramoto, Takashi Uemura
 10:50 1C05 Additive effect of graphene compounds with different structures on the radical polymerization of methacrylate monomers.
Koki Kawabata, Mami Fukuda, Ayumi Komoda, Ryo Suwaki, Fumito Fujishiro, Takafumi Ishii, Mikaru Mori, Masanobu Mori, Shusuke Okamoto, Daisuke Nagai

Yuki Kametani, presiding

- 11:15 1C06 Radical and Cationic Polymerizations of Imines through their C=N Double Bonds
Yunosuke NAKACHI, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
 11:40 1C07 Anionic polymerization of benzene-fused exo-methylene monomers
Chihiro Homma, Karen Kawazome, Ayana Fukui, Raita Goseki, Takashi Ishizone

Zhaomin Hou, presiding

- 12:55 1C08 Progress of cationic polymerization using heavy element-containing organic Lewis acid catalysts
Koji Takagi
 13:20 1C09 Synthesis and Applications of π -Conjugated Polymers Containing Heavier Group 15 and 16 Elements by Metallacyclization and Post-element-transformation Process

- Ikuyoshi Tomita, Moeki Nakano, Yutaro Sugiyama, Alvin Tanudjaja, Mayu Miyazawa, Ryoyu Hifumi, Shinsuke Inagi
- 13:45 1C10 Synthesis and characterization of anionic glycidyl triazolyl polymers
Taichi IKEDA
- 14:10 1C11 Synthesis and function of stereoregular uniform oligomers possessing a dense 1,2,3-triazole backbone
Yuri Kamon, Junji Miura, Koji Okuno, Shota Yamasaki, Masaki Nakahata, Akihito Hashizume
- Ikuyoshi Tomita, presiding**
- 14:35 1C12 Controlled Isomerization Polymerization of 2-Alkylbornenes Catalyzed by Pd Complexes
Naoyuki Wakitani, Kanae Kohama, Ayano Suda, Daisuke Takeuchi
- 15:00 1C13 Synthesis of self-healing polymers through microstructure regulation
Zhaomin Hou
- 15:25 1C14 Monomer design for site- and regio-selective synthesis of poly(arylenevinylene)s via hydroarylation polyaddition
Ryota Iwamori, Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara
- Junpei Kuwabara, presiding**
- 15:50 1C15 Synthesis of ABA triblock copolymers comprised of polyisobutene and n-type semiconducting polymer segments and their application to stretchable organic transistor materials.
Shuto Yamamoto, Megumi Matsuda, Yan-Cheng Lin, Tomoya Higashihara
- 16:15 1C16 Development of stimuli-responsive luminescent films based on precise conjugated polymers
Kazuo Tanaka, Masayuki Gon, Shunichiro Ito, Misuzu Fukuyama
- 16:40 1C17 Precise Synthesis of Bottlebrush Polymers by Stereospecific Living ROMP, Exhibiting Different Thermal Property by Interpolymer Interactions
Sirilak Mekcham, Kotohiro Nomura
- Kazuo Tanaka, presiding**
- 17:05 1C18 Synthesis of Polymers with Sulfbobetaine Structure Based on Living Coordination Polymerization of Allenes and Investigation of Their UCST-Type Thermo-responsive Functions
Kyohei Yamamoto, Kenji Anahara, Ryoyu Hifumi, Ikuyoshi Tomita
- 17:30 1C19 Precision Syntheses of Acrylamide Alternating Copolymers Carrying Urethane Bonds in the Side Chains and Evaluation of the Sequence-Specific Self-Assembly Properties Based on Hydrogen Bond
Shimpei Maruyama, Makoto Ouchi
- 17:55 1C20 Organobase-Catalyzed Ring-opening Alternating Copolymerization of Cyclic Anhydrides and Oxetanes
Iyoka Ota, Yuta Mizukami, Ryota Suzuki, Tianle Gao, Xiaochao Xia, Takuya Yamamoto, Feng Li, Takuya Isono, Toshifumi Satoh

Wed. Sep 27

S2. Frontiers in Polymer Synthesis Directed Towards High-Performance and Functional Polymer Materials

Fumio Sanda, presiding

- 9:10 2C01 Synthesis of dipeptide-AIE hybrid polyacrylamide derivatives with self-assembly and aggregation-induced emission
Ryo Yonenuma, Hideharu Mori
- 9:35 2C02 Amphiphilic Alternating Copolymer Micelles via Precise yet Dynamic Self-Assembly
Hiroyuki Kouno, Makoto Ouchi, Takaya Terashima
- 10:00 2C03 Morphology Control via Polymerization-Induced Self-Assembly: Systematic Investigation of Core-Forming Blocks and Toroids Formation

Shinji Sugihara, Daigo Tsubota, Atsushi Takashima, Atsushi
Matsumoto, Yasushi Maeda

- 10:25 2C04 Development of High Thermal Conductive Polyimides Based on Higher-Order Structure Control
Teruaki Hayakawa, Hayato Maeda, Erina Yoshida, Yucheng Liang, Kan Hatakeyama, Yuta Nabae, Shiori Nakagawa, Felix Jiang, Meguya Ryu, Junko Morikawa, Stephen Wu, Yoh Noguchi, Yoshihiro Hayashi, Ryo Yoshida

Shinji Sugihara, presiding

- 10:50 2C05 Synthesis of Cyclic Bottlebrush Polymers Consisting of Helical Polymer Chains and Their Chiroptical Properties
Tatsuya Nishimura, Seiya Nakada, Daisuke Hirose, Tsuyoshi Taniguchi, Katsuhiko Maeda
- 11:15 2C06 Synthesis of Schiff base polymers utilizing optically active diaminobenzoylamides, and application to recyclable polymers and photoluminescent gels
Fumio Sanda, Kazuki Tateishi, Hiromitsu Sogawa
- 11:40 2C07 Chirality Induction on Carbon Nanosheets
Ryo Sekiya, Takeharu Haino

Kozo Matsumoto, presiding

- 12:55 2C08IL One-step Synthesis of Multiblock Copolymers using Alkali Metal Carboxylate Catalyst
Toshifumi Satoh
- 13:45 2C10 Novel Polymer Reaction Mode -Processive Reaction Promoting Complete Conversion
Toshikazu Takata, Koji Yamamoto, Kazuki Higuchi, Masahiro Ogawa, Ayumi Kawasaki, Shunya Mizuno, Hikaru Iwasaki, Masaki Nagashima, Yoshihiro Hayashi, Susumu Kawauchi, Kazuko Nakazono, Yasuhito Koyama

Eriko Sato, presiding

- 14:10 2C11 Chemical modification and functionality of linear polyethyleneimine
Yuya Saza, Ren-Hua Jin
- 14:35 2C12 Synthesis of cyclopropane-containing cyclic olefin copolymer by titanium catalysts and post-polymerization modifications.
Yusuke Iwata, Takeshi Shiono, Shin-ichi Matsuoka
- 15:00 2C13 Synthesis of vinyl polymers with main chain scission triggered by side group deprotection of adjacent units
Kaho Toyama, Yasuhiro Kohsaka
- 15:25 2C14 Structure-Property Relationships of Metastable Fluorescent Radicals Generated by Polymeric Mechanochemical Reactions
Takumi Yamamoto, Akira Takahashi, Hideyuki Otsuka

Shin-ichi Matsuoka, presiding

- 15:50 2C15 Synthesis of Degradable Network Polymers Using Amino Group-Containing Anthracene Photodimers and Epoxy Compounds
Kiichi Koshō, Kinuka Tano, Masato Ootsu, Kazuo Arita, Eriko Sato
- 16:15 2C16 Development of epoxy-anhydride curing system based on isohexide structures, attaining both mechanical properties and degradability
Kota Okumura, Bungo Ochiai
- 16:40 2C17 Synthesis and biodegradability of sequence-controlled copolyesters composed of 2,5-furandicarboxylic acid, glycolic acid, and diols
Yuushou Nakayama, Keitaro Fukumoto, Wataru Yagumo, Ryo Tanaka, Takeshi Shiono, Shodai Hino, Norioki Kawasaki, Naoko Yamano, Atsuyoshi Nakayama
- 17:05 2C18 Divanillic acid-based highly thermally stable biodegradable aromatic biomass plastics
Yukiko Enomoto, Tadahisa Iwata

Thu. Sep 28

S2. Frontiers in Polymer Synthesis Directed Towards High-Performance and Functional Polymer Materials

Hideyuki Otsuka, presiding

- 9:10 3C01 Polymer material design based on development of cage silsesquioxane monomers
Kensuke Naka, Hiroaki Imoto
- 9:35 3C02 Intramolecular polymerization behavior of multi-vinyl polymers with two ATRP initiation sites
Kazuteru Kawanami, Moriya Kikuchi, Seigou Kawaguchi
- 10:00 3C03 Investigation of synthesis for cyclic poly(trimethylene carbonate) by ring-opening polymerization
Naoto Hirano, Hiroaki Yoshida, Hiroharu Ajiro
- 10:25 3C04 Thermoresponsive properties of cyclic poly(N-isopropyl acrylamide) synthesized by ring expansion RAFT polymerization
Kenichi Bessho, Jin Motoyanagi, Masahiko Minoda

Hiroharu Ajiro, presiding

- 10:50 3C05 Synthesis and properties of core-gel type star-polysulfide by living ring-expansion polymerization with cyclic thiocarbamate and thirane
Ryouta Tsutsui, Hiroto Kudo, Akiyuki Ryoki
- 11:15 3C06 Thermally Driven Rotaxane-Catenane Conversion with Hindered Disulfide
Rikito Takashima, Daisuke Aoki, Akira Takahashi, Hideyuki Otsuka

Arihiro Kanazawa, presiding

- 12:55 3C08 Controlled Polymerization and Alkyl Sorbate with Phosphine as Initiator and the Topology
Hiroki Ito, Akinori Takasu, Masahiro Higuchi
- 13:20 3C09 Synthesis of star polymers with specific degradation points for structural analysis of network polymers
Junichiro Takahashi, Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh
- 13:45 3C10 Synthesis of hyperbranched polymers with high degree of polymerization and 100% of degree of branching from $A_2 + B_3$ Suzuki-Miyaura polycondensation through intramolecular catalyst transfer
Ryusuke SHIMADA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 14:10 3C11 Structural design of multiarm star poly(N-isopropylacrylamide) for controlled unique aggregation behavior
Shuya Hayashi, Shohei Ida, Shokyoku Kanaoka

Shokyoku Kanaoka, presiding

- 14:35 3C12 Synthesis of Multibranching Thermoresponsive Polymers by Living Cationic Polymerization Using Multifunctional Initiators and Their Characteristic Thermoresponsive Behavior
Yuyu Furuki, Arihiro Kanazawa, Sadahito Aoshima
- 15:00 3C13 Synthesis of dendrons and dendrimers through step-wise addition reactions.
Shunya Inayama, Shotaro Hayashi
- 15:25 3C14 Structure control and functionalization of poly(dialkyl fumarate)s composed of poly(substituted methylene) structures.
Ryotaro Ishimaru, Yasuhito Suzuki, Akikazu Matsumoto

Room D

Tue. Sep 26

S3. Frontiers of Precision Polymer Synthesis Based on Design of Key Reaction

- 9:50 1DSO Introductory Remarks S3
Mineto Uchiyama, Arihiro Kanazawa

Arihiro Kanazawa, presiding

- 10:00 1D03 Polymerization Chemistry of Vinylboronic Acid Derivatives for Polymer Synthesis through Side-Chain Replacement in Polymer Reaction
Tsuyoshi Nishikawa, Makoto Ouchi
- 10:25 1D04 Radical Polymerization of Vinylboronic Acids bearing Anthranilamide-based Protecting Group: Synthesis of Stereoregular Poly(vinyl alcohol) Based on Protecting-Group Design and Post-Polymerization Transformation
Hiroshi Suzuki, Tsuyoshi Nishikawa, Makoto Ouchi
- 10:50 1D05 Development of Radical Group Transfer Polymerization Using Oxidative Photoredox Catalysts
Shinnosuke NAKAYAMA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 11:15 1D06 Radical Copolymerization of Novel Oxazoline-Derived exo-Methylene Monomers
Sota Takashima, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh

Tsuyoshi Nishikawa, presiding

- 13:20 1D09 Facile synthesis of carboxyl-terminated aliphatic polyesters using diphenyl phosphate catalyst
Takuya Isono, Itsuki Takahashi, Feng Li, Toshifumi Satoh
- 13:45 1D10 Synthesis of recyclable polyacetal materials from plants-derived resources
Yuta Mizukami, Yuto Kakehi, Feng Li, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
- 14:10 1D11 Ring-opening-isomerization anionic polymerization of epoxides via Brook rearrangement
Asuka Hamaguchi, Masaya Terasaki, Kaoru Adachi

Takuya Isono, presiding

- 14:35 1D12 Bifunctional catalyst design for controlled polycondensation of amino acids and polymerization study
Tsuyoshi ANDO, Hiroyuki OHASHI, Akihiro MIYAKE, Hiroharu AJIRO
- 15:00 1D13 Design of Degradation of Aliphatic Condensation Polymers
Kazuki Fukushima, Yuki Ota, Yuya Watanabe, Natsuha Momma, Yuki Tachiwana, Takashi Kato
- 15:25 1D14 Functionalization and recycling of sugar-based polycarbonate by copolymerization
Kazuaki Rikiyama, Akari Matsunami, Tatsuo Taniguchi, Takashi Karatsu, Daisuke Aoki

Fumitaka Ishiwari, presiding

- 15:50 1D15 Design and synthesis of degradable polyamide materials by enzymatic reactions
Kousuke Tsuchiya, Keiji Numata
- 16:15 1D16 Chemistry of Supramolecular Helical Polymers Formed via Self-Assembly of Bisporphyrin Cleft and Biscavitand
Takeharu Haino
- 16:40 1D17 Thermal control of the ring or helicoid formation in the curved supramolecular polymer
Hiroki Hanayama, Shuhei Yamashita, Takumi Aizawa, Shiki Yagai

Daisuke Aoki, presiding

- 17:05 1D18 Synthesis and properties of well-defined bifacial ladder polymers with asymmetric structural elements
Kazuharu Murotani, Fumitaka Ishiwari, Akinori Saeki
- 17:30 1D19 Synthesis of Sequence-Controlled One-Handed Helical Ladder Polymers through Quantitative and Chemoselective Alkyne Benzannulations
Kanta Wakabayashi, Tomoyuki Ikai, Kosuke Oki, Eiji Yashima
- 17:55 1D20 Synthesis of cyclic poly(diphenylacetylene)s by low-valent transition metal catalysis
Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda

Wed. Sep 27

S3. Frontiers of Precision Polymer Synthesis Based on Design of Key Reaction

Tomohiro Kubo, presiding

- 9:10 2D01 On the relationship between cocatalyst ability and acidity in olefin polymerization using boradihydroanthracene derivatives
Keisuke Haruyama, Shunsuke Nishiyama, Yuusyou Nakayama, Takeshi Shiono, Ryou Tanaka
- 9:35 2D02 Precise synthesis of ethylene/styrene/butadiene terpolymers as novel thermoplastic elastomers
Shojiro Kaita, Olivier Tardif, Shigenaga Takano, Rika Fukushima, Jun-ichi Ishigami
- 10:00 2D03 Cyclocopolymerization via Alternating Insertion of Alkyl Isocyanide and Allene into the Organonickel complex
Naoya Kanbayashi, Yamamoto Ryoga, Taka-aki Okamura, Kiyotaka Onitsuka

Ryo Tanaka, presiding

- 10:25 2D04 Development of polymer synthesis using N-H and O-H insertion reaction of diazocarbonyl compound
Hiroaki Shimomoto, Sota Nagao, Tomomichi Itoh, Eiji Ihara
- 10:50 2D05 Precision Oxidative Polymerization of 2-Phenylphenol by Adjusting Coordination Spaces of Enzyme-Inspired Catalysts
Akiyuki Nakano, Naoki Asao, Kiyoshi Fujisawa, Hideyuki Higashimura
- 11:15 2D06 Creation of New Dense Triazole Polymers and Their Functions
Akihito Hashidzume, Yuri Kamon, Masaki Nakahata
- 11:40 2D07 Synthesis of Self-Immolative Polymers by Controlled/Living Click Polymerization and Evaluation of Degradability
Yuto Nakauchi, Satoshi Sakai, Sota Yamamoto, Tomohiro Kubo, Kotaro Satoh

Mineto Uchiyama, presiding

- 12:55 2D08IL Development of Highly Selective Polymerization Catalysts for Structure-Controlled Synthesis of π -Conjugated Polymers
Masayuki Wakioka
- 13:45 2D10 Synthesis of π -conjugated polymers via nonstoichiometric direct arylation polycondensation through intramolecular Pd-catalyst transfer
Taiki Goto, Lisa Takimoto, Junpei Kuwabara, Takaki Kanbara
- 14:10 2D11 Synthesis of Naphthalene-diimide-based π -Conjugated Polymers by Nonstoichiometric Direct Arylation Polycondensation
Kenta Yokawa, Tomoya Higashihara

Naoya Kanbayashi, presiding

- 14:35 2D12 Synthesis of Poly(thienylenevinylene) with Thioalkyl Side Chains Based on Environmentally friendly Polymerization Method
Koya Nishiyama, Tomoya Higashihara
- 15:00 2D13 Development of Novel Pendant-Transformable Acrylamide Monomer: Radical Copolymerization with Activated Ester Acrylate Monomer and Orthogonal Post-Polymerization Modification
YUEHANG PAN, Makoto Ouchi
- 15:25 2D14 Development of Disubstituted Acrylamide Monomers for Alternating Copolymerization and Pendant Transformation: Molecular Design and Precision Syntheses of Acryl-Based Alternating Copolymers
Tamaki Kondo, Makoto Ouchi
- 15:50 2D15 Precision Synthesis of Alternating Copolymers of Hydrophilic Vinyl Ethers and Hydrophobic Maleimide Derivatives by RAFT polymerization and their Cosolvency Phenomenon
Kaito Nakamura, Shohei Ida, Daichi Ida, Akiyuki Ryoki, Shokyoku Kanaoka

Shohei Ida, presiding

- 16:15 2D16 Development of ring-expansion RAFT polymerization suppressing ring fusion by using bulky monomers
Nanako Kozaki, Jin Motoyanagi, Masahiko Minoda
- 16:40 2D17 Precision Synthesis and Controlled Microphase Separation of Cationic/Alkyl Pendant Polymers
Ryota Sujita, Makoto Ouchi, Takaya Terashima
- 17:05 2D18 Synthesis of multibranching polymers by grafting-from method using BenzylTMS/t-BuOK initiator system
Yujiro Hiraki, Masaya Terasaki, Kaoru Adachi

Thu. Sep 28

S3. Frontiers of Precision Polymer Synthesis Based on Design of Key Reaction

Hironobu Watanabe, presiding

- 9:10 3D01 Radical Alternating Copolymerization of Pendant-Transformable Acrylate with Diene Carrying Protected Degradation Trigger Pendant and Post-Polymerization Modification: Precision Synthesis/Degradation of Sequence-Controlled Polymers
Keita Kuroda, Makoto Ouchi
- 9:35 3D02 Synthesis of Oligomers Containing Imino Groups and Anthracene Dimer Units in the Main Chain and Evaluation of Their Decomposition Behavior
Fumiki Sakashita, Eriko Sato
- 10:00 3D03 Polyaddition Reactions Utilizing the Excellent Electrophilicity of Vinyl Ketones
Masatoshi Ohyama, Rie Yasuda, Hirotsugu Kuratani, Shinsuke Miyouchi, Ryo Kawatani, Yasuhiro Kohsaka
- 10:25 3D04 Highly tolerant and controlled anionic polymerization catalyzed by metal triflates-based Lewis pair
Riki Akita, Mayo Horibe, Shin-ichi Matsuoka

Shin-ichi Matsuoka, presiding

- 10:50 3D05 Anionic polyaddition of 1,1-diphenylethylene derivatives using benzylic proton abstraction
Honoka Matsumoto, Kaoru Adachi
- 11:15 3D06 Stereospecific Living Anionic Polymerization via Reversible Chain-Transfer to C-H Bonds: Control of Tacticity Based on Design of Counteranions
Katsutoshi SAGAWA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 11:40 3D07 Development of Photoinitiated Living Cationic Sequence-Controlled Terpolymerization: Toward Precise Synthesis of Polymers by Simultaneous Control of Initiation, Molecular Weights, and Monomer Sequences
Yuto Eguchi, Arihiro Kanazawa, Sadahito Aoshima

Room E

Tue. Sep 26

S4. Designed Network Polymer by Controlling Molecular Arrangement and Covalent bond Formation

- 11:05 1ESO Introductory Remarks S4
Tomoki Ogoshi

Tomoki Ogoshi, presiding

- 11:15 1E06 Development of Multifunctional Monomers Based on Fusion of Inositol and Furan-derivatives
Atsushi Sudo, Yukito Nagata, Takuto Urabe, Ryota Iwahashi

11:40 1E07 Nanostructure and toughening mechanisms of lightly crosslinked methacrylic polymer/BCP blends
Hajime KISHI, Ayana KUBO, Ayu MOCHIZUKI, Yohei MIYAJI, Ryoko HARA, Katsuya TANAKA, Takeshi KAKIBE, Satoshi MATSUDA

Atsushi Sudo, presiding

12:55 1E08 Higher-Order Structural Analysis of Low-Thermal-Resistance Mesogenic Epoxy Resin Thin Films
Yoshitaka Takezawa, Ryuichiro Fukuta, Taiki Oikawa, Naoto Kudo, Tsuyoshi Nishi, Hiromichi Ohta

13:20 1E09 Controlled cross-linking by the design of amine-crosslinker and improved performance of dismantlable adhesives with an interfacial failure
Yuki Tsutsui, Eriko Sato

13:45 1E10 Creation and heat resistance of network polymers using bisphenol A-type cyanate, bisphenol E-type compound and oxetane
Shinichi Sato, Yoshiaki Yoshida, Yoshio Furusho, Takeshi Endo

Eriko Sato, presiding

14:10 1E11 Construction of Thermal Latent System in Epoxy/Imidazole Curing System Based on Charge Transfer Interaction
Yasuyuki Mori, Ken-ichi Tamaso, Junji Ueyama, Ippei Okano, Ryo Ogawa, Yoshio Furusho, Takeshi Endo

14:35 1E12 Synthesis of hyperbranched phenol resins by addition condensation reaction of phenols and bisaldehyde and their applications
Hiroto Kudo, Miho Kondo, Ikuho Muranaga

15:00 1E13 Synthesis of polyhydroxyurethane from 5-membered cyclic carbonates and polyoxypropylenediamine in the presence of triazabicyclodecene
Ryu Tada, Yoshio Furusho, Takeshi Endo

Hiroto Kudo, presiding

15:25 1E14 Synthesis of polyimide network structure crosslinked with polyamine and its dielectric constants.
Toshihiro Hiejima, Koki Tezuka

15:50 1E15 Vitriimer-like Acrylate Elastomers Crosslinked by Conjugate Substitution Reaction: Rapid Stress-Relaxation through Fast Covalent Bond Exchange
Natsumi Nishiie, Ryo Kawatani, Mikihiro Hayashi, Yasuhiro Kohsaka

16:15 1E16 Transformation between Cross-linked Polymers and Single-chain Nanoparticles Based on Network Structure Reorganization
Gota Tomono, Hirogi Yokochi, Akira Takahashi, Daisuke Aoki, Hideyuki Otsuka

Wed. Sep 27

S4. Designed Network Polymer by Controlling Molecular Arrangement and Covalent bond Formation

Yoshio Furusho, presiding

9:35 2E02 Reversible Crosslinking/Bond Exchange in Polymers Based on Diels-Alder Chemistry toward Material Recycling
Takeo Suga, Ryunosuke Tanaami, Ryusuke Kishida, Kenichi Oyaizu

10:00 2E03 Effect of protein on vulcanization and mechanical properties of natural rubber
Seichi Kawahara, Masaki Yamano, Yoshimasa Yamamoto

10:25 2E04 Analysis of aggregation structure of chemical crosslinking polyurea elastomers made from isocyanurate and diamine with different molecular weight
Kakeru Obayashi, Ken Kojio

Takeo Suga, presiding

10:50 2E05 Effect of structural defect on mechanical property of elastomer with highly homogeneous network structure
Renan Sasaki, Shintaro Nakagawa, Naoko Yoshie

- 11:15 2E06 The property of cyanate ester resin containing cyanate ester resin particles surface-modified with mesogenic epoxy
Satoshi Yanaura, Miyuki Harada
- 11:40 2E07 Toughening and Mechanical Behavior of Ionic Comb Polymers Through the Control of Ionic Interactions Using Bulky Ammonium Counterions
Kento Yasuda, Daisuke Aoki, Koji Arimitsu

Daisuke Aoki, presiding

- 12:55 2E08 Discovery of four types of the network structures and 3D patterning of supramolecular-polymer composite hydrogels
Ryou Kubota, Keisuke Nakamura, Takuma Aoyama, Kenji Urayama, Itaru Hamachi
- 13:20 2E09 Design and liquid-crystalline monomers for the development of gyroid nanostructured polymer films
Takahiro Ichikawa
- 13:45 2E10 Networked porous crystals with precise molecular arrangements controlled by hydrogen bonds.
Ichiro Hisaki

Ryou Kubota, presiding

- 14:10 2E11 Effect of Terminal Structure on Physical Properties of Rotaxane Crosslinked Polymers
Daisuke Aoki, Hirogi Yokochi, Hideyuki Otsuka
- 14:35 2E12 Preparation of vitrimer using polyhydric alcohol with various stereostructures
Hiroharu AJIRO, Kanako OKUDA
- 15:00 2E13 Control over supramolecular catenation by size control of constituent toroid
Shiki Yagai, Hiroki Itabashi

Ichiro Hisaki, presiding

- 15:25 2E14 Creation and Thermal Conductive Properties of Molecularly Ordered Epoxy Resin Cured Materials
Teruaki Hayakawa, Rika Marui, Kan Hatakeyama, Yuta Nabae, Meguya Ryu, Junko Morikawa
- 15:50 2E15 Synthesis and degradation of block supramolecular polymers
Kazunori Sugiyasu, Norihiko Sasaki, Jun Kikkawa, Masayuki Takeuchi, Takayuki Uchihashi

Hiroharu Ajiro, presiding

- 16:15 2E16 Polymeric design of nanocatalyst for electron transport using coil-globule transition
Kosuke OKEYOSHI, Reina HAGIWARA, Shun NISHIMURA
- 16:40 2E17 Size-selective capture of fluorocarbon gases and storage of volatile halogenated organic compounds by pillar[n]quinones
Shunsuke Ohtani, Katsuto Onishi, Keisuke Wada, Tomoki Hirohata, Shinsuke Inagi, Jenny Pirillo, Yuh Hijikata, Motohiro Mizuno, Kenichi Kato, Tomoki Ogoshi

Thu. Sep 28

S4. Designed Network Polymer by Controlling Molecular Arrangement and Covalent bond Formation

Kozo Matsumoto, presiding

- 9:35 3E02 Delayed UV curing properties of acrylates at room temperature by photoinduced redox-initiated radical polymerization
Ataru Daimon, Shinji Kawada, Yudai Ogata, Daisuke Aoki, Koji Arimitsu
- 10:00 3E03 Anionic UV curing properties of epoxy-thiol mixed resins containing a non-ionic photobase generator at room temperature
Nanae Tanaka, Yuya Tanaka, Daisuke Aoki, Koji Arimitsu
- 10:25 3E04 Anionic UV curing of thick films using various chain curing agents that generate bases in a chain reaction

Shinya Maruyama, Daisuke Aoki, Koji Arimitsu

Koji Arimitsu, presiding

- 10:50 3E05 Synthesis of Amorphous Conjugated Polymer Networks with Graphitic Structures
Tomoki Sakuma, Hiroaki Imai, Yuya Oaki
- 11:15 3E06 Unique mechanical properties and application of homogeneously crosslinked elastomer
Shintaro Nakagawa, Yuki Asano, Daisuke Aoki, Naoko Yoshie
- 11:40 3E07 Aromatic bio-based carbonate resins directed toward easily degradable networked materials
Tatsuki Watanabe, Yuki Nishioka, Kozo Matsumoto

Room F

Tue. Sep 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Seira Morimune-Moriya, presiding

- 10:00 1F03 Luminescent Properties of Non-Conjugated Molecules with Polar Groups
Ken Hirooka, Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi
- 10:25 1F04 Real-time analysis of fatigue behavior in oriented polymer films under cyclic bending
Yusho Kishimoto, Masayuki Kishino, Kyohei Hisano, Atsushi Shishido

Shinichi Sakurai, presiding

- 10:50 1F05 Failure analysis of semi-crystalline polymers by fluorescence mapping using aggregation-induced emission
Yusuke Momonoj, Yusuke Hiejima, Asae Ito, Koh-hei Nitta
- 11:15 1F06 Detailed structure analysis of hydrophilic/hydrophobic random copolymer using multiple quantum beam methods
Mihiro Inukai, Katsuhiko Yamamoto, Eri Ito
- 11:40 1F07 Molecular Mechanism of Pressure-Induced Phase Transition Process in Baroplastics
Hiroki Degaki, Ikuo Taniguchi, Shigeru Deguchi, Tsuyoshi Koga

Atsushi Seki, presiding

- 12:55 1F08 Reinforcement of Epoxy Resins with Low content of Recycled Carbon Fiber
Seira Morimune-Moriya, Akiho Horibe
- 13:20 1F09 Pore formation mechanism of epoxy monolith
Shuma Shinoda, Hirofumi Kondo, Reiko Saito
- 13:45 1F10 Thermal management sheet using a novel thermochromic polymer blend
Takayuki Hirai, Ko Kugimoto, Oyama Shin, Yasuhiko Takeda, Umemoto Kazuhiko

Ken Nakajima, presiding

- 14:10 1F11 Density functional theory for microphase separated structures formed by any topological polymers
Yoshinori Tomiyoshi
- 14:35 1F12 Effects of chain end structure of polylactide homopolymers and copolymers on physical properties and stereocomplex formation
Jaeyeong Choi, Hiroharu Ajiro
- 15:00 1F13 Preparation and Mechanical Properties of Fluoropolymer Composite Containing Polyrotaxane and Nanocellulose as Organic Fillers
Pinjung CHU, Kai XU, Atsuhiko FUJIMORI

Naoya Torikai, presiding

- 15:25 1F14 The study on elastic modulus of PP/SEBS blends using nano-palpatation atomic force microscopy

- Mari Hanai, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 15:50 1F15 Analysis of Micro-stress distribution and Structural changes of Thermoplastic Vulcanizates during Elongation Using Nano-Palppation Atomic Force Microscopy
Gakuto Kojima, Mari Hanai, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 16:15 1F16 Mechanical and viscoelastic properties in binary blends of high-density polyethylene (HDPE) and various CO₂-based polycarbonates
Miyu Kobayashi, Toshihiko Kanda, Asae Ito, Yusuke Hiejima, Koh-hei Nitta
- 16:40 1F17 Study on crystallization behavior and crystal growth of NR/BR rubber at low-temperature
Toshimi Nakaya, Joji Ohshita, Kazuma Kobayashi, Yuya Miyake, Hiroyuki Kai
- Reiko Saito, presiding**
- 17:05 1F18 Influences of Fumed Silica with the Different Surface Properties on Particle Dispersion State and Viscoelastic Properties of Polystyrene Composites
Momona Fukuura, Yosihisa Fujii, Naoya Torikai
- 17:30 1F19 Development of Graphene oxide reinforced polyamide 6 nanocomposites.
Ryusei Shibuya, Seira Morimune-Moriya
- 17:55 1F20 Structure and Properties of Poly(ether ether ketone) Composites Including Zinc Oxide Particles with Different Shape
Sarika Nishino, Takuya Matsumoto, Yasuo Gotoh, Takashi Nishino

Wed. Sep 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Nobuhiro Kawatsuki, presiding

- 9:35 2F02 Influence of crosslinkers on optical structures of liquid crystal/polymer phase separation co-ordered in molecular orientation
Hiroshi Kakiuchida, Akifumi Ogiwara
- 10:00 2F03 Appearance of the hexagonal columner phase by introduction of alkoxyethyl groups to sumanene
Tsuyoshi Abe, Hironobu Nakazawa, Yuta Uetake, Yumi Yakiyama, Hidehiro Sakurai
- 10:25 2F04 Vertical alignment control of rigid polyimides by compositing clay nanosheets with liquid crystalline precursors
Kazuki Ooyama, Atsuto Momoze, Yuta Oosako, Shinji Ando, Ryohei Ishige

Ryohei Ishige, presiding

- 10:50 2F05 Electro-optical properties of polymer-brush modified monolith membranes filled with liquid crystal
Tomoki Hosoya, Yuji Kinose, Norio Ishizuka, Osamu Sato, Yoshinobu Tsujii
- 11:15 2F06 The Development of Ferroelectric π -Conjugated Liquid Crystals for Improving the Output Performance of Bulk Photovoltaic Effect
Atsushi Seki, Sou-un Doi, Ken'ichi Aoki
- 11:40 2F07 Birefringence control by exchange of side groups in high efficient photo-alignable films
Gento Nakajima, Keigo Uemura, Mizuho Kondo, Nobuhiro Kawatsuki

Atsushi Shishido, presiding

- 12:55 2F08 In situ conversion of oriented imine end groups of photoaligned polymer liquid crystal films to various fluorescent salicylideneanilines.
Hiroki Furukawa, Mizuho Kondo, Tomoyuki Sasaki, Moritsugu Sakamoto, Hiroshi Ono, Nobuhiro Kawatsuki
- 13:20 2F09 Controlling polarized fluorescence wavelength of N-salicylideneaniline derivatives by direct exchange from photoaligned N-benzylideneaniline side groups in liquid crystalline polymeric film
Mizuki Tanaka, Hinano Yamaguchi, Mizuho Kondo, Tomoyuki Sasaki, Moritsugu Sakamoto, Hiroshi Ono, Nobuhiro Kawatsuki

Ken'ichi Aoki, presiding

- 13:45 2F10 Precision synthesis of liquid-crystalline block copolymers and formation of microphase separation structures under photoinduced molecular flow field
Kaito Takahashi, Takuto Ishiyama, Shoichi Kubo, Atsushi Shishido
- 14:10 2F11 Nonlinear molecular rotation of polymer-stabilized dye-doped liquid crystals by irradiation with a circularly polarized beam
Mirai Motoyama, Junki Yokota, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Atsushi Shishido
- 14:35 2F12 Formation of molecularly aligned films by scanning wave photopolymerization of heterobifunctional crosslinkers and their actuation behavior
Kotaro Shinmura, Hirona Nakamura, Takuto Ishiyama, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Atsushi Shishido

Mikihito Takenaka, presiding

- 15:00 2F13 Formation of nano oriented crystals by melt-elongational crystallization of iPP and the nucleating agent
Kiyoka OKADA, Masanori MARUYAMA, Katsuharu TAGASHIRA, Kazuhiko SAKAI, Hiroyasu MASUNAGA, Masamichi HIKOSAKA
- 15:25 2F14 Role of "chain sliding diffusion" in formation of nano oriented crystals (NOCs) by elongational crystallization of crystalline polymers
Masamichi Hikosaka, Kiyoka Okada
- 15:50 2F15 Re-ordering of molecular arrangements in α -forms of isotactic polypropylene
Koji Yamada, Koji Nozaki, Akihiko Toda

Masamichi Hikosaka, presiding

- 16:15 2F16 A study of the additional effects of normal alcohol and alkane on supermolecular structure and mechanical properties of high density polyethylene
Asae Ito, Kisaki Matsudaira, Koichi Kono, Yusuke Hiejima, Koh-hei Nitta
- 16:40 2F17 Evaluation for Internal Structure of Stretched LLDPE on Submicron Scale
Masato Arakawa, Mikihito Takenaka
- 17:05 2F18 Chain-tilting mechanisms in polyethylene lamellar crystals by nanodiffraction imaging
Shusuke Kanomi, Tomohiro Miyata, Hironori Marubayashi, Hiroshi Jinnai

Thu. Sep 28**B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES****Hiroki Uehara, presiding**

- 9:10 3F01 Analysis of structure formation mechanism of polymer band spherulites by time-resolved static light scattering and computer simulation
Tsutomu Furuya, Koji Nishida, Tsuyoshi Koga
- 9:35 3F02 In situ Chain Structure Analysis of Polymer Films under Multiaxial Elongation Deformation
Aya Fujimoto, Ayumi Hamada, Kakeru Obayashi, Ken Kojio
- 10:00 3F03 Phase transition-induced ductility and toughness of polyrotaxane glass
Kazuaki Kato, Kohzo Ito, Taiki Hoshino

Katsuhiro Inomata, presiding

- 10:25 3F04 The internal motion of polymers observed with Diffracted X-ray Blinking
Masaki Sakaguchi, Tatsuya Arai, Kazuhiro Mio, Masahide Hikita, Yuji Sasaki
- 10:50 3F05 Crystallization process for stretched poly(trimethylene terephthalate) near the glass transition temperature
Takashi Konishi, Hiroshi Yokota, Yoshihisa Miyamoto
- 11:15 3F06 Formation of various micro-phase separated structures from poly(2,2,2-trifluoroethyl methacrylate-b-styrene-b-4-vinyl pyridine) dependent on the kinds of casting solvents
Yuta Miyamori, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa

11:40 3F07 ABC/ACB-Type Linear Triblock Copolymers Based on Polystyrene and Polymethacrylates: Synthesis through Living Anionic Polymerization and Morphological Analysis in Bulk Film
Ryota Uehara, Shinsuke Maekawa, Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa

Takeshi Yamanobe, presiding

12:55 3F08 Crystal domains in the crystallization kinetics of poly(butylene terephthalate)
Akihiko Toda, Yoshitomo Furushima, Christoph Schick

13:20 3F09 Orientation and structural change of hot-stretched polystyrene film
Shogo Nobukawa, Yoshito Kitagawa, Katsuhiko Inomata

13:45 3F10 Effect of Liquid Crystallinity to Pattern Formation Induced by Gradient Photopolymerization
Tatsuya Ishibe, Yuki Shikata, Kohsuke Matsumoto, Osamu Tsutsumi

Akihiko Toda, presiding

14:10 3F11 Pre-annealing effect on structural change during stretching and shrinking of uniaxially-drawn ethylene-tetrafluoroethylene copolymer film
Atsuya Kimura, Ayaka Takazawa, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe

14:35 3F12 Orientation of novel 6-membered cyclic polyolefins with different molecular architectures and analyses of their crystalline structures
Ryusei Fujimi, Ayaka Takazawa, Yuta Kimura, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe, Daisuke Takeuchi

15:00 3F13 The effect of annealing and molecular weight on the crack propagation of PC
Takayuki Yoshida, Shotaro Nishitsuji, Hiroshi Ito

Room G

Tue. Sep 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Katsuhiko Yamamoto, presiding

10:00 1G03 A Theory on Surface Properties of Polymer Solutions
Takahiro Sato

10:25 1G04 Characterization of Adsorbed Layer of Polystyrene Blends with the Different Molecular Weights and Their Interfacial Structures with the Homologue Thin Films
Motoyuki Ozaki, Yoshihisa Fujii, Naoya Torikai

10:50 1G05 Effect of Molecular Structure of Bottlebrush Polystyrene on Surface Segregation and Frictional Properties of Blend Films
Anri Nishimura, Yoshihiro Yamauchi, Sadaki Samitsu, Yoshihisa Fujii, Naoya Torikai

Takahiro Sato, presiding

11:15 1G06 Aggregation States of Polystyrene Chains Adsorbed on Inorganic Solids with Different Surface Chemical States
Hidenobu Taneda, Daisuke Kawaguchi, Satoru Yamamoto, Keiji Tanaka

11:40 1G07 Two-dimensional Mapping of Functional Groups of Poly(methyl methacrylate) at the Quartz Interface
Tatsuki Abe, Daisuke Kawaguchi, Keiji Tanaka

Keiji Tanaka, presiding

12:55 1G08 The effect of different thermal annealing times on Nafion thin film on Platinum surface
shigeki uzuki, norifumi yamada

13:20 1G09 Structural analysis of phosphorus containing polymer thin films utilizing Tender X-rays reflectivity

Hiroki Kobayashi,Katsuhiko Yamamoto

- 13:45 1G10 Observation of mutual diffusion behavior of double-layered miscible polymers in ultrathin films
Tetsuya Ito,Katsuhiko Yamamoto

Yuji Higaki, presiding

- 14:10 1G11 AFM Nanomechanics of Styrenic Thermoplastic Elastomers: Comparison of Injection Molding and Compression Molding
Makiko Ito,Haonan Liu,Xiaobin Liang,Ken Nakajima
- 14:35 1G12 Measurement of inter-diffusion between polyethylene/polyurethane interface by neutron reflectometry and evaluation of adhesive properties
Yoshihiko Shiraki,Norifumi Yamada,Kohzo Ito,Hideaki Yokoyama
- 15:00 1G13 Fabrication of Pseudo-Polyrotaxane Nanosheet and Its Polymer Brush
Shuntaro Uenuma,Kimika Endo,Norifumi Yamada,Hideaki Yokoyama,Kohzo Ito

Yukiya Kitayama, presiding

- 15:25 1G14 Side-chain liquid crystal polymer thin films synthesized by photopolymerization using surface-segregated initiators
Daisuke Furuta,Mitsuo Hara,Yukikazu Takeoka,Takahiro Seki
- 15:50 1G15 Synthesis of dual thermoresponsive polymer using sulfobetaine
Yuta Edasawa,Dongwook Kim,Hideki Matsuoka
- 16:15 1G16 Cononsolvency Induced Microphase Separation of Double Hydrophilic Block Copolymers in Water-Ethanol Mixtures
Takumi Masuda,Masaya Takahashi,Naoki Kuraoka,Mai Nakamura,Higaki Yuji
- 16:40 1G17 Development of structural color pigments using concentrated brush type core shell polymer
Yuma Kumasaka,Moriya Kikuti,Masumi Takamura,Seigou Kawaguchi

Shin-ichi Kihara, presiding

- 17:05 1G18 Effect of Plasma Treatment on Protein Adsorption Properties of Non-Aqueous Polymer Blend Thin Films
Shintaro Yasuda,Yoshihisa Fujii,Naoya Torikai
- 17:30 1G19 Synthesis and DDS application of Core-Shell nanogels capable of functionalization with block copolymer modules.
Yukiya Kitayama,Shunsuke Takigawa,Eiji Yuba,Atsushi Harada
- 17:55 1G20 Self-assembled monolayer thin films composed of microgels with different softness
Haruka Minato,Yuma Sasaki,Kenshiro Honda,Daisuke Suzuki

Wed. Sep 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Yuya Oaki, presiding

- 9:10 2G01 Phase separation patterned films of natural materials: preparation of mixed monolayers of nanocellulose integrates and organo-modified nanoclays
Shogo SUGITA,Ryoma Nakada,Atsuhiko FUJIMORI
- 9:35 2G02 Controlling the Various Phase-Separated Patterns in Mixed Monolayers of Non-Amphiphilic Fluorinated Derivatives and Hydrogenated Comb Copolymers
Yoshiki SHIODA,Momo MAEDA,Atsuhiko FUJIMORI
- 10:00 2G03 Effects of rotaxane crosslinking on tear properties of microparticle-based films
Yuma Sasaki,Yuichiro Nishizawa,Takuma Kureha,Kazuya Uenishi,Kazuko Nakazono,Toshikazu Takata,Daisuke Suzuki

Atsuhiko Fujimori, presiding

- 10:25 2G04 Surface-initiated radical polymerization on silica surface provided from modified perhydropolysilazane
minghao Lu,Reiko Saito
- 10:50 2G05 order-order transition in amphiphilic copolymers upon hydration-dehydration

- Mao Kikuchi, Mizuki Ohke, Hinako Ebe, Shusaku Nagano, Shotaro Nishitsuji, Jun Matsui
- 11:15 2G06 Spatiotemporal Imaging of Weak Compression Stresses with the Sponge Device Combining Polydiacetylene and Dry Liquid
Nahoko Ono, Hiroaki Imai, Syuji Fujii, Yuya Oaki
- 11:40 2G07 Chromogenic polymer with controllable silver and gold luster composed of diacetylene derivatives
Kyoka Tachibana, Keiki Kishikawa, Hyuma Masu, Kazuki Nakamura, Yuya Oaki, Shuji Ichikawa, Jun Matsui, Yukishige Kondo, Michinari Kohri

Yukiteru Katsumoto, presiding

- 12:55 2G08 Single-Chain Structure Analysis of Polymers by Pulling Out from Nanopores
Yu Kono, Nobuhiko Hosono, Takashi Uemura
- 13:20 2G09 Preparation and characterization of sheet-shaped PMMA by free-radical polymerization in nanoclay
Yuya Doi
- 13:45 2G10 Thermoresponsive Properties and Gelation of PEG/Cation Random Copolymer Micelles in Water: Controlled by Composition and Salts
Rikuto Kanno, Makoto Ouchi, Takaya Terashima

Ken Terao, presiding

- 14:10 2G11 Chain Exchange Behavior of Amphiphilic Random or Alternating Copolymer Micelles in Water
Takaya Terashima, Rikuto Kanno, Hiroyuki Kono
- 14:35 2G12 Micellar Structure of Amphiphilic Polymers with Long Hydrophilic Side-Chains in Aqueous Solution
Takahiro Sato, Takaya Terashima
- 15:00 2G13 Cosolvency of water on poly(propylene glycol) in hydrophobic ionic liquid
Kei Yamamizu, Ryohei Shiraishi, Yukihiko Noda, Noboru Osaka

Takaya Terashima, presiding

- 15:25 2G14 Solution property of the amphiphilic PEO-PPO alternating multi block copolymer
Yukiteru Katsumoto, Kenji Sakanaya, Keisuke Watanabe, Yusuke Sanada
- 15:50 2G15 Synthesis and Micelle Formation Behavior of Pullulan Decyl Succinate
Risa Suenaga, Ken Terao
- 16:15 2G16 Solution properties of highly branched polysaccharide derivatives composed of rigid subchains
Keisuke Umeda, Ken Terao

Yuya Doi, presiding

- 16:40 2G17 Aggregation Behavior of Amylose-graft-PNIPAM Solution with Increasing Temperature
Tatsuki Nagao, Shinichi Kitamura, Ken Terao
- 17:05 2G18 Analyses of associating structures of polyglycerol mono fatty acid esters by using field-flow fractionation and small-angle X-ray scattering
Nanako Shimada, Yasuya Uchimura, Hikaru Nonobe, Ryo Yamashita, Kenji Murashima, Isamu Akiba

Thu. Sep 28

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Daichi Ida, presiding

- 9:10 3G01 Complex Formation Behavior of Collagen with Silica Nanoparticles Owing to Conformational Change of Collagen
Nanaka Kamishima, Ken Terao
- 9:35 3G02 Dependence of chain conformation for poly(D,L-lactic acid) on D-form content
Moriya Kikuchi, Kayo Ueda, Yoshinori Suzuki, Takahiro Watanabe, Seigou Kawaguchi

- 10:00 3G03 Chain conformational properties of isotactic and syndiotactic PMMA in dilute solution
Moriya Kikuchi, Shion Iwasa, Ituki Tousya, Takehiro Kawauchi, Jirou Kumaki, Seigou Kawaguchi
- 10:25 3G04 Hydration and effect of acetic acid on the order disorder transition of aqueous schizophyllan solutions
Yoshiba Kazuto, Sato Mana, Sasada Yuto, Miyazaki Yuji, Nakano Motohiro
- Seigou Kawaguchi, presiding**
- 10:50 3G05 Excluded-volume effects on the scattering function of wormlike chain
Akiyuki Ryoki, Daichi Ida
- 11:15 3G06 Temperature dependence of the microscopic structure of aqueous nonionic polymer solutions
Ryo Watanabe, Daichi Ida
- 11:40 3G07 Local chain conformations of poly(vinyl alcohol) in solutions
Jiro Shimada, Daichi Ida
- Akio Kawaguchi, presiding**
- 12:55 3G08 Scaling laws for semidilute polymer solutions governing the osmotic pressure of polymer gels
Takashi Yasuda, Naoyuki Sakumichi, Takamasa Sakai
- 13:20 3G09 Study of shear-induced density fluctuations in low-molecular-weight liquids
Shu Karitani, Mikihito Takenaka
- 13:45 3G10 Comparative evaluation of the effect of various dynamic bonds on the dynamic mechanical properties of polymers
Kazuma Kawasaki, Shintaro Nakagawa, Naoko Yoshie
- Shintaro Nakagawa, presiding**
- 14:10 3G11 Prediction of Flory-Huggins chi parameter in polymer-solvent systems using multitask learning.
Kazuya Shiratori, Yuta Aoki, Stephen Wu, Teruki Tsurimoto, Yoshihiro Hayashi, Shunya Minami, Tadamichi Okubo, Ryo Yoshida
- 14:35 3G12 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [25]; Effects by Mixed Solvent of Water/Alcohol on Iodine Doping into Polymers. (4)
Akio Kawaguchi
- 15:00 3G13 All-Atom Molecular Dynamics Simulation of Dissolution and Formation of Extended Polyethylene Glycol Crystals under Elongation in Water
Kosuke Aomura, Koichi Mayumi, Kazushi Fujimoto, Hideaki Yokoyama, Kohzo Ito

Room H

Tue. Sep 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Osamu Urakawa, presiding

- 10:00 1H03 Unraveling the topological glass formation in ring polymer melts: Investigating the impact of chain stiffness
Shota Goto, Kang Kim, Nobuyuki Matubayasi
- 10:25 1H04 Rheological Properties of Dense Mixture Suspensions of Thermo-Sensitive and Insensitive Microgels
Mako Kuzumoto, Yosuke Nishimaki, Daisuke Suzuki, Kenji Urayama
- 10:50 1H05 Dielectric Properties and Electro-Rheology of Nano-suspensions based on Titanium Dioxide Nano-Particles
Katsufumi Tanaka, K. Ueno, X. Lin, M. Kawaguchi, Midori Takasaki, Haruki Kobayashi

11:15 1H06 All-atom simulation of chain-transfer alkene polymerization reaction of (pyridylamido)Hf catalyst: Effect of microscopic steric hindrance on monomer insertion process
Shuhei Kanasato, Katsuhisa Yasoshima, Nobuaki Koga, Masataka Nagaoka

Kenji Urayama, presiding

12:55 1H08 Mechanical Properties and Functions of Elastomers Toughened with CO₂ gas
Hanako Yoneda, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa

13:20 1H09 Toughening Mechanism of CO₂ Gas-Responsive Elastomers
Kazuma Okada, Hanako Yoneda, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa

13:45 1H10 Polyethylene mechanically reinforced with CO₂ gas
Rina Takahashi, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa

Mikihiro Hayashi, presiding

14:10 1H11 The correlation between the mechanical properties and states of hydration of dissimilar polymer with movable cross-linkers
Yusaku Kawai, Junsu Park, Ryohei Ikura, Shunsuke Murayama, Kenji Yamaoka, Yuka Ikemoto, Go Matsuba, Yoshinori Takashima

14:35 1H12 Mechanical properties of organic-inorganic polymeric materials with movable cross-links
Naoki Yamashita, Daichi Yoshida, Kenji Yamaoka, Ryohei Ikura, Junsu Park, Nobu Kato, Masanao Kamei, Kentaro Ogura, Minoru Igarashi, Hideo Nakagawa, Yoshinori Takashima

15:00 1H13 Investigation of mechanical properties of hydrogels with movable cross-links by hydrophilic main chains and hydrophobic cyclic molecules
Ryohei Ikura, Koki Nishida, Shunsuke Murayama, Takashi Konishi, Go Matsuba, Yoshinori Takashima

Yohei Miwa, presiding

15:25 1H14 Dynamics of Elastomers with Movable Crosslinks
Osamu Urakawa, Seigo Hirai, Tadashi Inoue, Yoshinori Takashima

15:50 1H15 Functionalization of movable cross-linking materials by incorporation of poly(ϵ -caprolactone)
Sota Nakagawa, Akihide Sugawara, Yoshinori Takashima, Junsu Park, Ryohei Ikura, Hiroshi Uyama

16:15 1H16 Effect of solvent composition on viscoelasticity of self-healing gel
Kenji Yamaoka, Ryohei Ikura, Motofumi Osaki, Kazuya Takahashi, Hidenori Shirakawa, Hiroaki Takahashi, Yoshinori Takashima

Yoshinori Takashima, presiding

16:40 1H17 Effect of polyrotaxane on mechanical and bond exchange properties of vitrimers.
Masaki Hirano, Shota Ando, Hideaki Yokoyama, Kohzo Ito

17:05 1H18 The effect of network defects on the creep behavior of vitrimer
Takaya Inaba, Mikihiro Hayashi

17:30 1H19 Vitrimer transformation and physical property control of polyesters realized by cross-linking via bond exchanging
Taketo Isogai, Mikihiro Hayashi

17:55 1H20 Stress relaxation properties in vitrimer-like elastomers with bond exchangeable nanodomains
Takumi Kitou, Mikihiro Hayashi

Wed. Sep 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Jian Ping Gong, presiding

9:10 2H01 Analysis on Network Structure and Mechanical Properties of Inhomogeneous End-Crosslinked Elastomers via Coarse-Grained Molecular Dynamics Simulations

- Yusuke Yasuda, Hiroshi Morita
- 9:35 2H02 Relaxation Characteristics of Network Polymers by MD Simulation
hiroshi sasaki
- 10:00 2H03 Crosslink structure analysis of polybenzoxazine by molecular dynamics simulation
Yasuyuki Shudo, Atsushi Izumi, Fumio Sanda
- Hiroshi Sasaki, presiding**
- 10:25 2H04 Theoretical prediction of stress-strain behavior observed in highly-stretched polymer networks
Tsutomu Indei, Takahiro Matsuda, Tasuku Nakajima, Takahashi Yukiko, Tatiana B. Kouznetsova, Michael Rubinstein, Stephen L. Craig, Jian Ping Gong
- 10:50 2H05 Role of dynamic bond and static bonds on flaw sensitivity of polyampholyte hydrogels
Reina Watanabe, Kunpeng Cui, Xueyu Li, Jian Ping Gong
- 11:15 2H06 Investigation of hardening and degradation of gels with extreme elongation of its polymer network.
Shou Ohmura, Tasuku Nakajima, Jian Ping Gong
- 11:40 2H07 Negative Energetic Elasticity in Crossovers among Random, Self-avoiding, and Neighbor-avoiding Walks
Naoyuki Sakumichi, Nobu Shirai
- Kenji Urayama, presiding**
- 12:55 2H08 Flapping force probe for analyzing local stress concentration at polyurethane crosslinkers
Sachika Akitomo, Takuya Yamakado, Hidetsugu Kitakado, Kensuke Suga, Shohei Saito
- 13:20 2H09 Effect of Chain Extender on Mechanical Properties of Epoxy Products
Atsuomi Shundo, Ryosuke Takeya, Satoru Yamamoto, Keiji Tanaka
- Takamasa Sakai, presiding**
- 13:45 2H10 Shape-Memory and Surface Property of Aliphatic Polyester Crosslinked Films with Thermoresponsive Polymer Grafted Surface.
Takumi Yoshida, Toru Hoshi, Takao Aoyagi
- 14:10 2H11 Two-Step Transition of Crack Growth Rate in Viscoelastic Gels
Ayano Kozono, Thanh-Tam Mai, Kenji Urayama
- 14:35 2H12 Rupture mode transition of strain induced crystallizing elastomer
KATSUHIKO TSUNODA, KENJI URAYAMA
- Risei Wada, presiding**
- 15:00 2H13 Compression Induced Shrinking of Polyelectrolyte Gels
Akihiro Nagano, Kenji Urayama
- 15:25 2H14 Atomic-scale observation of molecular chains of rubber inside vulcanized rubber
Tomohiro Miyata, Takashi Kakubo, Katsunori Shimizu, Naoya Amino, Hiroshi Jinnai
- 15:50 2H15 Governing law of osmotic pressure in agarose gels
Kakeru Takeshige, Takashi Yasuda, Naoyuki Sakumichi, Takamasa Sakai
- Naoyuki Sakumichi, presiding**
- 16:15 2H16 Development of Tough Citric Acid-modified Cellulose Composite Materials Enhanced by Reversible Crosslinks and Hydrogen Bonds
Takuma Wada, Ryouhei Ikura, Kenji Yamaoka, Junsu Park, Bunsho Kure, Naomi Takenaka, Akihito Sugawara, Hiroshi Uyama, Yoshinori Takashima
- 16:40 2H17 Synthesis of core-shell hydrogel microspheres with multi shell layers by one-pot aqueous precipitation polymerization
Haruka Minato, Satoki Ushida, Kentaro Yokouchi, Daisuke Suzuki
- 17:05 2H18 Properties of PVA/Chitosan Hydrogel Film
Risei WADA, Hidenobu SHIMIZU

Thu. Sep 28

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Koichiro Uto, presiding

- 9:10 3H01 Structural Studies on Multinetwork Elastomers by DNP-SANS
Keitaro Iwasaki, Keisuke Chino, Yohei Noda, Tomoki Maeda, Satoshi Koizumi
- 9:35 3H02 Structural Analysis of Tough Slide-Ring Ion Gel during Elongation through Complementary Use of Small-Angle Neutron Scattering and X-ray Scattering Techniques
Takato Enoki, Kei Hashimoto, Tasuro Oda, Kohzo Ito, Koichi Mayumi
- 10:00 3H03 Fracture Mechanism of Hydrogels. I. Inter-micro Gel Fracture of Pure Elastic Gel
Ryuji KIYAMA, Takayuki NONOYAMA, Kazuki FUKAO, Tsutomu INDEI, Hui Chung Yuen, JianPing GONG

Koichi Mayumi, presiding

- 10:25 3H04 Large deformation characteristics of Polycatenane networks
Hiroya Kawanishi, Takuma Aoyama, Kenji Urayama
- 10:50 3H05 Evaluation of molecular chain structure during uniaxial and multi-axial deformation of segmented polyurethane elastomer
Kakeru Obayashi, Ken Kojio
- 11:15 3H06 Excluded Volume Effects of Branched Polymers
Kazumi Suematsu

Kazuo Sakurai, presiding

- 11:40 3H07 Synthesis of temperature-responsive gels with homogeneous network structure
Kai Kawabata, Yuka Hasegawa, Mitsuo Hara, Yukikazu Takeoka
- 12:55 3H08 Design of Semi-Interpenetrating Polymer Network Structures for Multiple and Reversible Shape Changes
Koichiro Uto, Yoshitaka Matsushita, Mitsuhiro Ebara
- 13:20 3H09 Structuring of magnetic nanoparticles in elastomers using photodegradable dispersants
Shuta Hara, Hiroki Ikake, Shigeru Shimizu, Takayuki Ikehara

Yukikazu Takeoka, presiding

- 13:45 3H10 Anisotropy of Mechanical Properties and Morphologies of Stretch Induced Carboxymethyl Cellulose (CMC)/ Polyacrylic Acid (PAA) Hydrogel Reinforced with TEMPO-oxidized Cellulose Nanofibers (TOCN)
Saeto Oe, Jianhui Qiu, Eiichi Sakai
- 14:10 3H11 The formation process of monodisperse polyacrylic acid particles: A theoretical study
Kazuo Sakurai, Takano Shin
- 14:35 3H12 The formation process of monodisperse polyacrylic acid particles: An experimental study
Shin Takano, Kazuo Sakurai
- 15:00 3H13 Prediction of glass transition temperature of polymers by machine learning
Takumu Yoshimura, Tsuyoshi Koga

Room I

Tue. Sep 26

S8. Elucidation of Boundary Between Bulk Water and Water Molecules

- 9:50 1ISO Introductory Remarks S8
Daisuke Ishii

Ryotaro Kiyono, presiding

- 10:00 1I03 Changes in nano-interfacial structure of native cellulose during solvent exchange as pretreatment for dissolution
Daisuke Ishii
- 10:25 1I04 Evaluation of mechanical properties of alkali-treated woods and wood powder moldings
Rika Takenaka,Daisuke Ishii

Daisuke Ishii, presiding

- 10:50 1I05 The crystal orientation of polymer fiber made of a rigid-rod molecule determined by water
Tooru Kitagawa
- 11:15 1I06 Effect of membrane surface hydrophobicity on membrane distillation performance
Ryotaro Kiyono,Koki Kawamura,Kohei Kajita
- 11:40 1I07 Fabrication of Water-Resistant Nanofiber films Mimicking the Structure of Penguin Feathers
Ryosuke Kawasaki,Daisuke Ishii,Yosuke Zaitso,Masanori Kurita

Hiroaki Yoshimizu, presiding

- 12:55 1I08 Dynamic behavior of water molecules in N-methyl-2-pyrrolidone
Toshiyuki Shikata,Kazuki Takeuchi
- 13:20 1I09 Formation and Characteristics Evaluation of Monovalent Cation Selective Layer by Plasma Graft Polymerization onto Hollow Fiber Cation-exchange Membranes
Yuriko Kakihana,Shuntaro Ikeda,Mitsuru Higa
- 13:45 1I10 Transport properties of Ions and Water in Charged Mosaic Membranes Prepared by Ion-Track Graft polymerization
Mitsuru Higa,Minato Higa,Yuriko Kakihana

Toshiyuki Shikata, presiding

- 14:10 1I11 Observation of electronic structure of water molecules interacting with polymers using soft X-ray emission spectroscopy
Naoya Kurahashi,Shinnosuke Nishimura,Shohei Shiomoto,Jun Miyawaki,Yuka Ikemoto,Masaru Tanaka,Yoshihisa Harada
- 14:35 1I12 NMR analyses of the systems in coexistence of polymer materials and water
Hiroaki Yoshimizu
- 15:00 1I13 Hydration states and antithrombogenicity of functionalized polycycloolefins
Shingo Kobayashi,Kaito Hamasaki,Masaru Tanaka

Shingo Kobayashi, presiding

- 15:25 1I14 Adsorption of water molecules on the PLA crystal surface
Tomoka Kokuzawa,Yuka Ikemoto,Go Matsuba
- 15:50 1I15 Liquid Crystal-Like Unknown Water Inferred by Anisotropic Spinodal-like Dewetting Dynamics at a Water-IceV Interface
Hiromasa Niinomi,Tomoya Yamzaki,Hiroki Nada,Tetsuya Hama,Akira Kouchi,Tomoya Oshikiri,Masaru Nakagawa,Yuki Kimura

Hiromasa Niinomi, presiding

- 16:15 1I16 Biofilm formation and detachment on antimicrobial peptide modified zwitterionic polymer coatings
Yuta Kozuka,Tsukuru Masuda,Madoka Takai
- 16:40 1I17 Bubble Detachment from Electrode Surface in Water-based Ferrofluid Electrolysis
Yuhiro Iwamoto

Yuhiro Iwamoto, presiding

- 17:05 1I18 Comparison of wettability of natural and synthetic leathers by quantitative evaluation
Kazuya Uchida,Daisuke Ishii
- 17:30 1I19 Development of Fabrication Technology Using Electroforming for Biomimetic Polymer Sheet with High Aspect Ratio Microstructures
Petrus Yesaya SAMORI,Toru YAHAGI,Naoya YAMADA,Daisuke ISHII,Junichi SAITO,Takao MISAWA,Tameo NAKANISHI

17:55 1I20 Fabrication of high-aspect-ratio microstructure Si molds using MEMS technology and shape transfer to resin
Toru Yahagi, Naoya Yamada, Petrus Yesaya Samori, Daisuke Ishii, Junichi Saito, Takao Misawa, Tameo Nakanish

Wed. Sep 27

S8. Elucidation of Boundary Between Bulk Water and Water Molecules

Koji Kuroda, presiding

9:35 2I02 Numerical simulation of capillary rise on a vertical wall with periodic micropatterns
Tameo Nakanishi, Kentaro Morinaga, Kenji Inukai, Junichi Saito, Takao Misawa, Yesaya Samori Petrus, Daisuke Ishii, Toru Yahagi, Naoya Yamada

10:00 2I03IL Progress of the wetting analysis using Molecular Dynamics
Yasutaka Yamaguchi

Mitsuru Higa, presiding

10:50 2I05 The hypothesis of interface water dynamic model on Ryusokairagi earthenware whose teste changes according to burning temperature
Koji Kuroda, Yuka Takai, Daisuke Ishii

11:15 2I06 Development of analysis method for water behavior in human hair by X-ray diffraction.
Hiromitsu Nakazawa, Mizuki Matsunaga, Yuki Tabata, Keiko Yokoyama, Shinsuke Inoue, Noboru Ohta, Satoru Kato

11:40 2I07 Analysis of penetration of nano-sized ultrafine water cluster into hair
Mizuki Matsunaga, Yuki Tabata, Keiko Yokoyama, Shinsuke Inoue, Noboru Ohta, Hiromitsu Nakazawa, Satoru Kato

S6. Understanding Polymer Surface and Interface

12:45 2ISO Introductory Remarks S6
Takahiko Kawai

Takahiko Kawai, presiding

12:55 2I08IL All-atom molecular dynamics study of real polymers
Susumu Okazaki

Yuji Higuchi, presiding

13:45 2I10 Molecular Dynamics Simulations of Polymer Fracture and Structure
Kazushi Fujimoto, Hiroaki Ishikawa, Zhiye Tang, Susumu Okazaki

14:10 2I11 Structure of Adsorbed Water at a Silica Interface and Its Effect on Curing Reaction of Epoxy Resin
Satoru Yamamoto, Atsuomi Shundo, Keiji Tanaka

14:35 2I12 Machine learning model of well-defined polymer brushes toward prediction of protein adsorption
Tsukuru Masuda, Shiwei Su, Yoichi Watanabe, Madoka Takai

Takafumi Shimoaka, presiding

15:00 2I13 Influence of topological constraints on DNA wrapping around histone cores by coarse-grained molecular dynamics simulation
Takumi Hagiwara, Kenji Ono, Yuji Higuchi

15:25 2I14 Non-biofouling property of well-designed bottlebrush polymers
Chiaki Yoshikawa

15:50 2I15 Investigation of temperature-dependent methods for measuring the surface mobility of poly(fluoroalkyl acrylate) by quantum beams
Rena Inamasu, Takaaki Shiina, Hiroki Yamaguchi, Tatsuya Arai, Kazuhiro Mio, Yuji. C Sasaki

Masaru Kotera, presiding

- 16:15 2I16 Hydration to molecules and rotational dynamics of water molecules by molecular simulations
Yuji Higuchi, Mafumi Hishida
- 16:40 2I17 Molecular Aggregate Structure of Organofluorine Materials Studied by Infrared Spectroscopy
Takafumi Shimoaka
- 17:05 2I18 Relationship between physical Surface Properties and molecular structure of Fluorine-based oil repellents
hideki yamasaki

Thu. Sep 28

S6. Understanding Polymer Surface and Interface

Hiroyuki Aoki, presiding

- 9:10 3I01 The orientation behaviors and the frictional properties of Lubricants on Polymer Films
Takayuki Miyamae, Yui Suzuki
- 9:35 3I02 Visualization of Nanomechanical Properties and Nanodeformation Behavior of Polymer Nanocomposites Using Atomic Force Microscopy
Xiaobin Liang, Ken Nakajima
- 10:00 3I03 Direct evaluation of chain movements at polymer surfaces by tapping-mode AFM
Kouki Koike, Yuto Kashiwaya, Jiro Kumaki

Kazuki Mita, presiding

- 10:25 3I04 Evaluation of Structural Distribution of Epoxy Adhesives during Curing Process by MAXS-CT Method
Ryuji Morimoto, Mikihiro Takenaka, Hiroki Ogawa, Satoru Yamamoto, Keiji Tanaka
- 10:50 3I05 Distribution of Oriented Lamellar Structures in Injection-Molded High-Density Polyethylene used by SAXS-CT Method
Hiroki Ogawa, Takashi Konishi, Shotaro Nishitsuji, Shunsuke Ono, Nobutaka Shimizu, Yuki Watanabe, Mikihiro Takenaka
- 11:15 3I06 Dynamical study of epoxy resin thin films in the curing process using GI-XPCS
Taiki Hoshino, Yasushi Okamoto, Atsushi Yamamoto, Hiroyasu Masunaga
- 11:40 3I07 Visualization of micro- to nanoscale hierarchical structures of polymer composites via X-ray ptychography
Yuki Takayama

Hiroki Ogawa, presiding

- 12:55 3I08 Development of novel neutron reflectometry technique and its application to structure analysis of adhesion interface
Hiroyuki Aoki, Yuwei Liu
- 13:20 3I09 Emulsification Properties and Adsorbed Structure at Interface of Water-Soluble Random Copolymers with the Different Randomness
Hikaru Hasegawa, Yoshihisa Fujii, Naoya Torikai
- 13:45 3I10 Local conformations and heterogeneities in structures and dynamics of isotactic polypropylene adsorbed onto carbon fiber
Zhixing Huang, Yashasvi Bajaj, Jan-Michael Y. Carrillo, Yohei Nakanishi, Kiminori Uchida, Kazuki Mita, Takeshi Yamada, Tsukasa Miyazaki, Bobby G. Sumpter, Maya Endoh, Tadanori Koga
- 14:10 3I11 SAXS study on polymer deformation and fracture by means of nanovoid analysis
Takahiko Kawai

Room J

Tue. Sep 26

S5. Characterization and Property-Function Relationships Supporting the Development of Polymeric Materials

13:10 1J50 Introductory Remarks S5
Hikaru Momose, Koto Suganuma

Seiichi Kawahara, presiding

13:20 1J09 NMR structural analyses of polyurethane-silk composite materials and application to silk vascular grafts
Tetsuo Asakura, Yusuke Ibe, Takaki Jono, Koto Suganuma, Hironori Matsuda, Akira Naito, Takashi Tanaka, Ryo Tanaka

13:45 1J10 Study on structural formation mechanism of Eri-silk having a polyalanine sequence in its tandem repeat motif
Taiyo Yoshioka, Maito Koga, Tsunenori Kameda

14:10 1J11 Polarized Micro-Raman Spectroscopic Investigation of Polymer Spherulites
Yasushi Maeda, Koichi Matsuo, Reiya Watanabe, Shinji Sugihara, Atsushi Matsumoto

14:35 1J12 Raman Spectroscopic Study of Influences of Short-Chain Branches on Morphology and Mechanical Properties of Polyethylene Solids
Takumitsu Kida, Ryo Tanaka, Takeshi Shiono, Hiroki Takeshita, Katsuhisa Tokumitsu

Takumitsu Kida, presiding

15:00 1J13 Visualization of interfacial structures of polymer composites during heating process using in situ infrared spectroscopic imaging: Correlation between interfacial bonding and mechanical properties
Ryota Watanabe, Hideaki Hagihara, Hideyuki Shinzawa

15:25 1J14 Mass spectrometry imaging of polymer containing sunscreen coating
Shunichi Suga, Junko Yasuda, Ruka Suzuki, Tsuyoshi Hata, Masahiro Kotani

15:50 1J15 Analysis Method of the Mechanical Properties at Liquid Surfaces and Interfaces
Tadashi Kajiya, Koji Miyata, Daisuke Sawai

16:15 1J16 Evaluation of Various Factors Affecting Adhesive Strength at the Interface of Aluminum and Epoxy Adhesives
Takuya Mitsuoka, Mina Iwai, Taiji Ikawa, Katsutoshi Abiko

Atsushi Takano, presiding

16:40 1J17 Characteristic Ratio of Stereoregular Hydrogenated Ring-Opened Poly(norbornene)s
Takahiro Sato, Yuki Nakama, Satoshi Natori, Shigetaka Hayano

17:05 1J18 Control of abnormal SEC elution behavior caused by molecular deformation
Moriya Kikuchi, Seigou Kawaguchi

17:30 1J19 The molecular weight distribution analysis of nanosheet-forming polymers with NMR
Akiko Ishida, Riko Horiai, Kazuhiro Sugiyama, Takumi Miyamoto

17:55 1J20 Characterization of synthetic polymers by DOSY - Current Status and Prospects
Koichi Ute, Tomohiro Hirano, Norihiro Tokuda, Soh Watanabe, Yuto Sakaguchi

Wed. Sep 27

S5. Characterization and Property-Function Relationships Supporting the Development of Polymeric Materials

Ryota Watanabe, presiding

- 9:35 2J02 Can Informatics Accelerate Materials Development? Case-Study on Formulation Design
Umi Yamamoto
- 10:00 2J03 Description of higher order structure-property relationships of environmentally degradable polymers assisted by machine learning techniques
Yoshifumi Amamoto, Chie Koganemaru, Ken Kojio, Atsushi Takahara, Kei Terayama

Jiro Suzuki, presiding

- 10:25 2J04 Precise synthesis and viscoelastic properties of ring polybutadienes with high purity
Atsushi Takano, Yuna Tsuduki, Nobuhiko Hosono, Takashi Uemura
- 10:50 2J05 Segment friction under fast flows
Yuichi Masubuchi
- 11:15 2J06 Dynamics analysis of polymer by NMR -relaxation, exchange, diffusion-
Koji Yazawa
- 11:40 2J07 Characterization of the gases in polymers by means of NMR
Hiroaki Yoshimizu

Koto Suganuma, presiding

- 12:55 2J08IL Advanced techniques for polymer characterization based on spectroscopy, mass spectrometry and data informatics
Hideyuki Shinzawa
- 13:45 2J10 The end-group analysis of synthetic polymers using high-resolution mass spectrometers and new structural analysis method
Takaya Satoh, Azusa Kubota, Hitomi Abe, Naoto Ogiso
- 14:10 2J11 Multivariate analyses of ¹H NMR data for ternary blends of copolymers to determine the blending parameters
Ryota Kamiike, Tomohiro Hirano, Koichi Ute

Atsushi Asano, presiding

- 14:35 2J12 Structural analysis of vulcanized natural rubber through rubber-state NMR spectroscopy
Seiichi Kawahara, Masaki Yamano, Yoshimasa Yamamoto
- 15:00 2J13 Measurement of vulcanized rubber by raman microspectroscopy and removal of fluorescence by projection method
Yusuke Shibata, Tsuyoshi Furukawa, Hideyuki Shinzawa, Hiroki Itasaka
- 15:25 2J14 Effect of proteins on spray drying of natural rubber
Yoshimasa Yamamoto, Sasaki Anna, Seiichi Kawahara

Yusuke Shibata, presiding

- 15:50 2J15 Complementary Analysis of Micro-WAXS and Micro-DIC on Strain-Induced Crystallization Near the Crack-Tip of Natural Rubber
Thanh-Tam Mai, Yasui Tomohiro, Ruito Tanaka, Hiroyasu Masunaga, Taizo Kabe, Katsuhiko Tsunoda, Sakurai Shin-ichi, Kenji Urayama
- 16:15 2J16 Correlation between Cross-linked Network Structures and Fracture Behaviors of Epoxy Resins under Uniaxial Tension
Akihiro Hanafusa, Shota Ando, Satoru Ozawa, Ryuichi Hasegawa, Hideaki Yokoyama, Koichi Mayumi, Kohzo Ito
- 16:40 2J17 Orientational state of perfluorinated ion exchange membrane and its swelling dynamics
Osamu Homma
- 17:05 2J18 Investigations of local dynamics of gel networks and side-chain effects revealed by dynamic light scattering
Keita Namba, Takuma Kureha

Thu. Sep 28

S5. Characterization and Property-Function Relationships Supporting the Development of Polymeric Materials

Koji Yazawa, presiding

- 9:10 3J01 Observation of filler dynamics in polymer nanocomposites with diffracted X-ray blinking
Tatsuya Arai, Masahiro Kuramochi, Kazuhiro Mio, Sekiguchi Hiroshi, Yuji C. Sasaki
- 9:35 3J02 Structural change and cross-linking reaction occurring in ethylene ionomers during annealing or heating
Atsushi Asano, Shohei Mikage, Chikako T. Nakazawa
- 10:00 3J03 Functional elucidation by structural analysis of ion-conductive and mechanically stable polycarbonates-based copolymer electrolytes
Shuto Ishii, Tominaga Yoichi
- 10:25 3J04 Development of an MRI methodology for polymeric thin films by ex-situ solid-state NMR with neodymium magnet
Natsuki Kawabata, Naoki Asakawa

Hikaru Momose, presiding

- 10:50 3J05 Reduction in Thermal Expansion Based on Microphase-Separated Structure of Siloxane-Containing Block Copolyimides
Atsuto Momose, Naoki Matsuda, Tomoya Higashihara, Yoichiro Maruyama, Shinichiro Fujitomi, Shinji Ando, Ryohei Ishige
- 11:15 3J06 Helical Microdomains with Homochirality Trapped in a Gyroid Network from Symmetric ABCBD Pentablock Quaterpolymer
Jiro Suzuki, Yushu Matsushita
- 11:40 3J07 Symmetry of Dodecagonal Quasicrystalline Tiling from 4-Component Pentablock Polymers of the AB1CB2D Type
Yushu Matsushita, Ayane Kitahara, Atsushi Takano

Room K

Tue. Sep 26**S7. Interdisciplinary Developments of Polymer Membranes: from Thin Films to Flexible and High-Strength Solid Membranes**

- 10:40 1KSO Introductory Remarks S7
Takaaki Sato, Hisao Matsuno

Hiroyuki Aoki, presiding

- 10:50 1K05 Nanomechanics of polymer thin films in glassy and rubbery states
Ken Nakajima, Kim Hung Nguyen
- 11:15 1K06 Characterization of Molecular Dynamics of Polystyrene in Thin Film State and Its Frictional Properties
Yoshihisa Fujii, Akira Uchiyama, Natsuki Yokoi, Daiki Komiyama, Naoya Torikai
- 11:40 1K07 Thermal Stability and Interfacial Segregation of Polymer Additives for a Polymer Thin Film
Naoki Sugiura, Miyu Iguchi, Yoshihisa Fujii, Naoya Torikai

Naoya Torikai, presiding

- 12:55 1K08 Chain dynamics in polymer thin films revealed by neutrons, photons, and muons
Hiroyuki Aoki
- 13:20 1K09 Investigation of press-induced liquid advancing of isolated sub-picoliter UV-curable droplets for single-digit-nanometer nanoimprinting (3) Effect of hydrogen-bonded polymers
Masaru Nakagawa, Takeru Yoshida, Akiko Onuma
- 13:45 1K10 Application of self-organized honeycomb films for energy materials
Hiroshi Yabu

Mutsumi Kimura, presiding

- 14:10 1K11 Development of Soft Actuators Utilizing Amphiphilic Liquid-Crystalline Polymer Membranes
Masafumi Yoshio, Che-Hao Wu
- 14:35 1K12 Porous polyimide film production by the high-pressure CO₂ gas and UV irradiation
Kentaro Taki
- 15:00 1K13 Fabrication and Anti-icing Mechanism of Crosslinked Coating Films of Structure-Controlled Hydrophilic Bottlebrushes
Monami Kameda, Ken Tamamoto, Yuji Kinose, Yoshinobu Tsujii

Kentaro Taki, presiding

- 15:25 1K14 Bisanthracene thin film that changes surface morphology in response to light patterns
Takashi Ubukata, Kota Ninomiya, Yuya Miyoshi, Yuku Nakagawa, Shu Aoki, Yuki Shimada, Kota Marumoto, Sachiko Imura, Taishi Sonoda, Megumi Nakayama
- 15:50 1K15 Permeation Control of Parylene Thin Film through Vapor Deposition Polymerization
Mutsumi Kimura
- 16:15 1K16 Surface effects of nanomembranes on CO₂ capture and its surface molecular design
Shigenori Fujikawa, Kosuke Taketsuna, Nakano Takeo
- 16:40 1K17 Evaluation of CO₂/N₂ separation performance of composite membranes with ether-based compounds on silicone membrane surface
Kakeru Taniyama, Kayoko Yuasa, Shigenori Fujikawa, Yoshiro Kaneko

Wed. Sep 27**S7. Interdisciplinary Developments of Polymer Membranes: from Thin Films to Flexible and High-Strength Solid Membranes****Masatoshi Tokita, presiding**

- 9:10 2K01 Nano-structure analysis of surfactant bilayer membranes by a laboratory small-angle X-ray scattering apparatus under shear flow
Yuichi Takasaki
- 9:35 2K02 Interfacial structure of emulsified oil droplets in lamellar gel stabilized o/w emulsions and emergence of dielectrically inert thin water layers
Takaaki Sato, Marino Hioki, Yasuharu Nakagawa
- 10:00 2K03 Design of permeable polymer vesicles based on thermoresponsive polymers and their function as nanoreactors and molecular channels
Tomoki Nishimura, Naoki Ozawa, Shunji Kosaka

Takaaki Sato, presiding

- 10:25 2K04 Structural Control of a-type Hydrated Crystal (a-gel) Prepared Cationic Surfactant / Higher Alcohol / Water
Takanori Saito
- 10:50 2K05 Formation and Rheological Properties of Novel BCLC Structures ~Thickening and stabilization by Coexisting bicontinuous (BC) and liquid crystal (LC) phases~
Yuko Shimma
- 11:15 2K06 Non-specific and selective adsorption effect and the protein structural stability in the aqueous polymer solution
Ken-ichi Amano
- 11:40 2K07 Quantitative Elucidation of Biological Phenomena Based on the Mechanics of Biological Membranes.
Takahisa Matsuzaki

Hisao Matsuno, presiding

- 12:55 2K08IL Hierarchical Dynamics in Phospholipid Bilayers

- Michihiro Nagao
13:45 2K10 Heterogeneity of multicomponent lipid vesicle and line tension
Takanori Takiue
- 14:10 2K11 Correlation between Lipid Molecular Structures and Membrane States: From Systematic Lipidology to Chemical Lipidology
Hitoshi Matsuki
- Shinichi Sakurai, presiding**
- 14:35 2K12 Functional nano-composite polymer films embedded with liquid crystalline inorganic nanosheets
Nobuyoshi Miyamoto
- 15:00 2K13 Analysis of the structure and function of amphiphilic gel membranes and the hierarchical structure formed on their surfaces.
Eri Ito, Katsuhiko Yamamoto
- 15:25 2K14 Fractal Structure Analysis of Thin Film Forming Chlorohydroxyaluminum Gel Exhibiting Antiperspirant Function
Sachiko Masaoka, Atsunori Morigaki, Takaaki Sato
- Nobuyoshi Miyamoto, presiding**
- 15:50 2K15 Strengthening polymers by smectic layer deformations
Masatoshi Tokita
- 16:15 2K16 Ordered Structure Formation of Amphiphilic Random Copolymer under Wet Environment
Katsuhiko Yamamoto, Mihiro Inukai, Hiroki Kobayashi, Eri Ito
- 16:40 2K17 Regular Ordering of Spherical or Cylindrical Microdomains in Thin Film or at Free Surface
Shinichi Sakurai
- 17:05 2K18 Changes in Internal Higher-Order Structure and Physical Properties of Multilayer Films by High-Pressure Compression Process
Akinori Iwamura, Yuki Watanabe, Shotaro Nishitaji, Yutaka Kobayashi, Akira Ishigami, Hiroshi Ito

Thu. Sep 28

S7. Interdisciplinary Developments of Polymer Membranes: from Thin Films to Flexible and High-Strength Solid Membranes

Ken Nakajima, presiding

- 9:10 3K01 Microphase-Separated Structures and Lithium Ion Conductivity of Side-Chain Liquid Crystalline Polymer Thin Films with Different Out-of-Plane Orientation Properties
Mahiro SHIMADA, Yuya ISHIZAKI, Mitsuo HARA, Takahiro SEKI, Shusaku NAGANO
- 9:35 3K02 Photoorientation and Proton Conductivity in Acrylic Acid-Containing Liquid Crystalline Polymer Thin Films
Yuya Ishizaki, Yuki Nagao, Takahiro Seki, Shusaku Nagano
- 10:00 3K03 High proton conduction and transport control using lamellar structure
Yuki Nagao

Ken-ichi Iimura, presiding

- 10:25 3K04 Preparation of disc-shaped cellulose nanocrystal-based particles
Emiko Mouri, Ryohei Iwhisa, Kenata Noma, Teruyuki Nakato
- 10:50 3K05 Polyion complexation with poly(substituted methylene)s and polyamines
Ryoma Fujii, Takuya Matsumoto, Takashi Nishino
- 11:15 3K06 Application of Surface Analysis to Art Restoration
Taku Ogura

Harumi Sato, presiding

- 11:40 3K07 Two-dimensional structures formed by amphiphilic molecules at the air/water interface and their functionalities
Ken-ichi Iimura
- 12:55 3K08 Relation between hydration states and aggregation structures of lipid and surfactant membranes, polymers and proteins.
Mafumi Hishida
- 13:20 3K09 Computational Chemistry and its Applications for the Elucidation of Hydration Properties in Soft Material Interfaces
Yoshiki Ishii, Hitoshi Washizu
- Yuki Nagao, presiding**
- 13:45 3K10 Structural analysis of biodegradable polyester film during marine degradation process using low-frequency vibrational spectroscopy
Harumi Sato, Masahiro Hatayama
- 14:10 3K11 Aggregation States and Degradation behavior of Polyamide 4 in Thin Films
Shunta Tamura, Haruki Mokudai, Takashi Masaki, Hironori Taguchi, Takako Kikuchi, Hisao Matsuno, Keiji Tanaka
- 14:35 3K12 In-situ observation of enzymatic degradation of poly(ϵ -caprolactone) thin films
Michinari Toyonaga, Hisao Matsuno, Keiji Tanaka

Room L

Wed. Sep 27

S11. Total Gel Science Driving the SDGs

- 9:50 2LSO Introductory Remarks S11
Taka-Aki Asoh
- Shohei Ida, presiding**
- 10:00 2L03 Preparation of Various Tough Gels by Introducing Entanglement of Polymer Chains
Takashi Miyata, Midori Murakami, Chika Hajime, Yuino Inamoto, Akifumi Kawamura
- 10:25 2L04 Positive and Negative Elasticity of Non-Hydro Gels
Takuma Aoyama, Kenji Urayama
- 10:50 2L05 Swelling of a gel beyond its structural swelling limit
Tasuku Nakajima, Shou Ohmura, Yoshida Masahiro, Jian Ping Gong
- Tasuku Nakajima, presiding**
- 11:15 2L06 Correlation between structure and mechanical properties of star-crosslinked gels
Souma Suzuki, Shohei Ida, Hiroki Takeshita, Masatoshi Oyama, Keiji Nakajima, Shokyoku Kanaoka
- 11:40 2L07 Structure mechanical property relationship of homogeneous gels with double-stranded DNA as cross-linker
Masashi Ohira, Mitsuhiro Shibayama, Xiang Li
- Shohei Ishikawa, presiding**
- 12:55 2L08 Controlling the swelling properties of the temperature-responsive hydrogels by adjusting side-chain length
Taichi Nishi, Takuma Kureha
- 13:20 2L09 Effect of electrolyte on the network formation of radical copolymerized gels
Nanami Sato, Tasuku Nakajima, Masahiro Yoshida, JianPing Gong
- 13:45 2L10 Self-oscillating Gels Exhibiting Anisotropic Motion by an Interpenetrating Network Spatially Patterned by UV Photopolymerization
Suwen Lee, Won Seok Lee, Takafumi Enomoto, Aya Mizutani Akimoto, Ryo Yoshida

- 14:10 2L11 Demonstration of meniscus splitting using various vinyl polymers and exploration of regulatory factors
Reina Hagiwara, Kosuke Okeyoshi
- Takuma Kureha, presiding**
- 14:35 2L12 Physical property of ENB polymer hydrogel formed via photo-induced sol-gel transition
Kimio Sumaru, Ayaka Tomoda, Toshiyuki Takagi
- 15:00 2L13 Ionic liquid-polymer solution that enables photo-reversible viscoelastic change and their application to a cell scaffold
Aya Saruwatari, Yuji Kamiyama, Ryota Tamate, Takeshi Ueki
- 15:25 2L14 Fabrication of oligo(ethylene glycol) based multipoint cross-linkers and structural stabilization of Gelatin gels
Airi Wakai, Shigehito Osawa, Hidenori Otsuka
- Takeshi Ueki, presiding**
- 15:50 2L15 Regulating thickness of photo-crosslinked pNIPAAm gel substrate to form spheroids and their non-invasive recovery
Ryota Teshima, Shigehito Osawa, Hidenori Otsuka
- 16:15 2L16 The effect of network structure of PMEA gel on biocompatibility
Yuka Hasegawa, Xiang Li, Masashi Ohira, Taiki Hoshino, Masaru Tanaka, Mitsuo Hara, Takahiro Seki, Yukikazu Takeoka
- 16:40 2L17 Dynamically Cross-linked Polymer Gels for Localized Virus Infection on Skin Ulcer Surfaces
Shohei Ishikawa, Motoi Kato, Takuya Katashima, Masakazu Kurita, Takamasa Sakai
- 17:05 2L18 Development of new ECM-mimic injectable hemostat with shear-thinning property
Momoko Kamedani, Masashi Okawa, Takeshi Fujiyabu, Arvind Singh Chandel, Natsuko Inagaki, Taichi Ito

Thu. Sep 28

S11. Total Gel Science Driving the SDGs

Taka-Aki Asoh, presiding

- 9:35 3L02 Spatiotemporal control of photochromic reaction using supramolecular gel
Yuki Nagai, Sota Fujisaki, Yuki Nakai, Yoshinori Okayasu, Yoichi Kobayashi
- 10:00 3L03 Structural characterization and electrochemical analysis of the enzyme immobilized zwitterionic polymer nanogel.
Takehiro Sato, Yixuan Huang, Tsukuru Masuda, Madoka Takai
- 10:25 3L04 Extremely Tough, Stretchable Gel Electrolytes with Strong Interpolymer Hydrogen Bonding Prepared Using Concentrated Electrolytes to Stabilize Lithium-Metal Anodes
Ryota Tamate, Yueying Peng, Yuji Kamiyama, Kei Nishikawa

Ryota Tamate, presiding

- 10:50 3L05 Plant Cell Wall-Inspired Construction of Cellulose Oligomer-Polysaccharide Networks
Yuta Sakurai, Yuuki Hata, Toshiki Sawada, Takeshi Serizawa
- 11:15 3L06 Elucidating the Spatiotemporal Structure of Carrageenan Gels and their Mixtures During Sol-Gel Transition by Rheology and Scattering Techniques
Lester Geonzon, Kei Hashimoto, Tatsuro Oda, Shingo Matsukawa, Koichi Mayumi
- 11:40 3L07 Multifunctional hydrogels based on interaction between naturally occurring DNA and various metal ions
Arisa Fukatsu, Sari Kurisu, Nanami Kuramoto, Waka Yoshida, Ibuki Yasui, Kasumi Nomura, Terumi Fujiwara, Tadashi Inoue, Kenji Okada, Masahide Takahashi

Koichi Mayumi, presiding

- 12:55 3L08 Compression behavior of polymer hydrogel particles adsorbed and deformed at the air/water interface
Takahisa Kawamoto, Kohei Yanagi, Yuichiro Nishizawa, Haruka Minato, Daisuke Suzuki
- 13:20 3L09 Evolved shape-deformation modes of the capsule self-oscillating gels: from membrane fluctuation to cell-like shape buckling
Lee Won Seok, Takafumi Enomoto, Aya Akimoto, Ryo Yoshida
- 13:45 3L10 Development of protected boronic acids for stimulus-cleavable chemistry and its SDGs gel science applications
Akira Matsumoto, Barthelmes Kevin, Keiichiro Yaginuma

Room M**Tue. Sep 26****S9. Forefront of Polymer Materials Supporting Energy Conversion Devices**

- 12:45 1MSO Introductory Remarks S9
Shoji Miyanishi

Takashi Tokumasu, presiding

- 12:55 1M08 Efficient Exploration of Organic Anode Active Materials for Lithium-ion Battery with Advances in Capacity Prediction Models
Haruka Tobita, Hiroaki Imai, Yusuke Yamashita, Yasuhiko Igarashi, Yuya Oaki
- 13:20 1M09 Development of unconventional lithium-ion conducting polymers using materials informatics
Kenichi Oyaizu, Yasuei Uchima
- 13:45 1M10 Digitalization of structure models in polymer electrolyte membranes using small angle neutron scattering methods with partial scattering function and simulation.
Yasunari Maekawa, Yue Zhao, Toshinori Motegi, Masataka Abe, Kimio Yoshimura, Akihiro Hiroki, Shin Hasegawa
- 14:10 1M11 Descriptor Development for Functional Polymer Informatics
Koichiro Kato, Yin Kan Phua, Yukito Higashi, Tsuyohiko Fujigaya

Yu Sugimoto, presiding

- 14:35 1M12 Fast Charging in Lithium-ion Full-cell Using BIAN Based n-Type Conjugated Polymer Derived N-doped Carbon
Bharat Srimitra Mantripragada, Rajashekar Badam, Noriyoshi Matsumi
- 15:00 1M13 Bio-based Poly(benzimidazole-co-polyamide) Derived Carbon Material as Fast Charging Anode for LIBs
Kottisa Sumala Patnaik, Mantripragada Bharat Srimitra, Rajashekar Badam, Xianzhu Zhong, Tatsuo Kaneko, Noriyoshi Matsumi
- 15:25 1M14 Study of high-performanced organic redox-flow-battery
AKIHIRO OHIRA, TAKASHI FUNAKI, EIJI HOSONO, RYOICHI KANEGA, TAKA AKI SAKAI, DAISUKE ASAKURA, YUKARI SATO
- 15:50 1M15 Fabrication of cross-linked network polymer electrolyte membranes and their application to lithium ion batteries
Manabu Tanaka, Yubing Dong, Hiroyoshi Kawakami
- 16:15 1M16 Preparation and Characterization of Solid Electrolytes Using Ionic Plastic Crystals and Ion Conductive Polymers (IV) - Effect of Organic Cations on Properties -
Shuho Akakabe, Yuko Takaoka, Masahiro Rikukawa, Masahiro Fujita

Kenichi Oyaizu, presiding

- 16:40 1M17 Gel-polymer lithium-ion batteries with sulfolane-based Li salt molten solvate electrolyte
Mari Kojitsu, Chao Ma, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno

- 17:05 1M18 Investigation of conductive gel electrode using Ga-based liquid metal and ionic liquid
Moeka Kanto, Natsuka Usami, Yuki Ota, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno
- 17:30 1M19 Gelation of high concentration Li salt/sulfolane electrolytes with polymer gelator
Yukako Konishi, Natsumi Tasaki, Hisashi Kokubo, Kazuhide Ueno, Masayoshi Watanabe, Kaoru Dokko
- 17:55 1M20 Power generation in a reverse electrodialysis system using natural seawater and treated sewage water
Yu Sugimoto, Hiroki Kawasaki, Yuki Shimogochi, Mitsuru Higa

Wed. Sep 27

S9. Forefront of Polymer Materials Supporting Energy Conversion Devices

Akihiro Ohira, presiding

- 9:10 2M01 Analysis of Water Molecules in Proton-Conductive Polymer using Soft X-ray Emission Spectroscopy
Naoya Kurahashi, John Ugalino Ralph, Hisao Kiuchi, Yoshihisa Harada
- 9:35 2M02 Molecular analysis of mass transport properties inside polymer materials for polymer electrolyte fuel cells
Takashi Tokumasu
- 10:00 2M03 Synthesis and evaluation of silica particles grafted with electrolyte units (2) - Evaluation of hybrid materials -
Yusuke Watabe, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 10:25 2M04 Proton conductivity of acid-grafted polybenzimidazole/silica composite membrane
Minami Yoshida, Hiroto Miura, Hoon Han, Naoki Tanaka, Tsuyohiko Fujigaya

Koichiro Kato, presiding

- 10:50 2M05 Mechanism of super-fast proton conduction at the interlayer of weak acid polymer nanosheet assembly.
Jun Matsui, Riku Sakashita, Shigehiro Kagaya, Makoto Genmmei, Yuki Nagao, Shunsuke Yamamoto, Masaya Mitsuishi, Shusaku Nagano
- 11:15 2M06 Development of proton-conducting polymer membranes with ultra-high density arrangement of sulfo groups
Takahiro Ichikawa, Takeshi Yamada
- 11:40 2M07 Hydration and Anion Conductive Properties of Anion Exchange Thin Films with Fluorene and Thiophene Backbone
Yuki Nagao, Fangfang Wang

Masamichi Nishihara, presiding

- 12:55 2M08 Crosslinked sulfonated polyphenylsulfone electrolyte membranes for PEMFCs (III)
Je Deok KIM, Fatin Bazilah FAUZI, Hiroshi ITO
- 13:20 2M09 Preparation of a cross-linked polymer electrolyte membrane with a high density of sulfonic acid groups
Katsumi Sato, Takato Kajita, Atsushi Noro
- 13:45 2M10 Synthesis and evaluation of polyphenylene-based copolymers with superacid groups (II) - Effect of Membrane Composition -
Rio Takahashi, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 14:10 2M11 Synthesis and evaluation of polyphenylene-based copolymers with phosphonium group (II) - Correlation between membrane composition and cell performance -
Hayato Momosawa, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

Yasunari Maekawa, presiding

- 14:35 2M12 Development of blend nanofiber-based composite electrolyte membranes and evaluation of their proton conduction mechanism
Kota Iwasaki, Ryota Inahara, Natsuki Inoue, Akari Tatsukawa, Manabu Tanaka, Hiroyoshi Kawakami
- 15:00 2M13 Preparation and characterization of anion-conductive polymers/ porous polyethylene composite membranes
Kejiro Nagahara, Kenji Miyatake
- 15:25 2M14 Improvement of fuel cell performance by high gas permeable ionomer and effect of the hydrophobicity
Masamichi Nishihara, Yasir Hutapea, Zulfi Gautama, Yang I, Stephen Lyth, Akari Hayashi, Kazunari Sasaki

Je Deok Kim, presiding

- 15:50 2M15 Investigation of novel ionomers for binders in catalyst layers in fuel cells
Yiyang Zou, Miyatake Kenji
- 16:15 2M16 Highly gas permeable anion conductive terpolymer membranes: effect of hydrophobic components
Masako Tanabe, Kenji Miyatake
- 16:40 2M17 Synthesis and water electrolysis application of various anion conductive polyfluorenes with different ion exchange capacities
Yuri Nara, Syuhei Koyama, Kento Kasahara, Kensaku Nagasawa, Yoshiyuki Kuroda, Shigenori Mitsushima, Hiroyoshi Kawakami, Manabu Tanaka
- 17:05 2M18 Development of new polyfluorene polyelectrolyte and controlling of their hydrogen and oxygen gas permeation property
Shoji Miyanishi, Kaede Matsuta, Takeo Yamaguchi

Thu. Sep 28

S9. Forefront of Polymer Materials Supporting Energy Conversion Devices

Manabu Tanaka, presiding

- 9:10 3M01 Fabrication of mesoporous carbon from self-assembled block copolymers as soft-template
Yuta Nabae, Haruna Sasaki, Hitomi Kawahara, Yasuko Takeda, Teruaki Hayakawa
- 9:35 3M02 Effect of semiconducting polymer crystallinity on hydrogen evolution rate in p/n heterojunction nanoparticle photocatalysts
Tsubasa Mikie, Koichiro Hayashi, Itaru Osaka
- 10:00 3M03 Fabrication of Nickel Oxide Film toward Hydrogen Evolution Photocathode and Hole Transport Ability on the Interface
Tomoya Oshikiri, Takashi Katsurahara, Noriko Kubota, Hiromasa Niinomi, Yasutaka Matsuo, Hiroaki Misawa, Masaru Nakagawa
- 10:25 3M04 Polythiophenes as a Photoanode for Water Oxidation / Oxygen Evolution
Hiromi SHINOHARA, Hiroyuki NISHIDE

Tsubasa Mikie, presiding

- 10:50 3M05 Development of Organic Solar Cells Based on The Multiple-Component Blend of Semiconducting Polymers
Hiroaki BENTEN, Zhiyuan LIANG, Ren HAGIO, Yongyoon CHO, Manish PANDEY, Masakazu NAKAMURA
- 11:15 3M06 Thermoelectric conversion of phase transition system using molecular assembly of 9,9'-(9,10-anthraquinone-2,6-dily)bis(oxy)didecanoic acid (AQ-10)
Ryota Suzuki, Hirotaka Inoue, Zhou Hongyao, Teppei Yamada
- 11:40 3M07 Ionic thermoelectric energy conversion of hydrogels functionalized with host-guest interaction
Soshi Iokawa, Yuki Kabaya, Masatoshi Kidowaki, Takeshi Shimomura

Room N

Tue. Sep 26

S10. Frontiers of Chiral Materials

9:50 1NSO Introductory Remarks S10
Katsuhiko Maeda

Fumitaka Ishiwari, presiding

10:00 1N03 Molecular dynamics simulation on structure formation of chiral nano-needle by optical vortex
Hiroaki Nakamura, Shu Habu

10:25 1N04 Macroscopic Chiral Symmetry Breaking That Emerges in Gelation: Its Generality
Kentaro Tashiro

Hiroki IIDA, presiding

10:50 1N05 Chiral Symmetry Breaking Crystallization of an Anthracene-Containing Diacetylcyclooctane Derivative and Application to Preparation of Optically Active Compounds
Souta Matsuda, Fumitaka Ishiwari, Akinori Saeki

11:15 1N06 Synthesis of Cu- and Zn-porphyrins with cholesteryl groups and imaging of chiral helical supramolecular polymers
Ryoga Hori, Ken-ichi Shinohara, Osamu Notoya, Koichi Higashimine

11:40 1N07 Non-uniform, non-helical chiral structure of linear and hyperbranched, optically active polyfourenevinylene derivatives and their chiroptical properties including circularly polarized luminescence
Pengfei Wu, Adriana Pietropaolo, Mariagrazia Fortino, Masayoshi Bando, Katsuhiko Maeda, Tatsuya Nishimura, Naofumi Naga, Tamaki Nakano

Tamaki Nakano, presiding

13:20 1N09 Chiral amplification by using nano-structures composed of serinol nucleic acid
Hiromu Kashida, Keiji Nishikawa, Hiroyuki Asanuma

13:45 1N10 Chiral Sensing Using a Sumanene-based Supramolecular Polymer
Hiroaki Mizuno, Hironobu Nakazawa, Akihisa Miyagawa, Yumi Yakiyama, Hidehiro Sakurai, Gaku Fukuhara

Hiromitsu Sogawa, presiding

14:10 1N11 Reversal of Supramolecular Chirality through Photo-controlled Nucleation Process
Shiki Yagai, Takuho Saito, Hiroki Hanayama, Yuichi Kitamoto, Daisuke Inoue

14:35 1N12 Design and Synthesis of Dynamic and Static α -Helical Peptides Utilizing Intramolecular Crosslinking
Naoki Ousaka, Mark J. MacLachlan, Shigehisa Akine

15:00 1N13 Construction of Stacked Helical Polymer Based on the Precise Polymerization of Poly(quinolylene-2,3-methylene)
Naoya Kanbayashi, Hiroaki Kato, Taka-aki Okamura, Kiyotaka Onitsuka

Naoya Kanbayashi, presiding

15:25 1N14 Precision Synthesis of Optically Active Poly(benzofuran) by Asymmetric Living Cationic Polymerization Based on Degenerative Chain-Transfer Mechanism
Mineto UCHIYAMA, Daichi WATANABE, Yuhei TANAKA, Kotaro SATOH, Masami KAMIGAITO

15:50 1N15 Creation of precision acrylic oligomers that recognize target molecules by the chirality of the main chain
Shota Iseri, Sotaro Akashi, Yusuke Saito, Hinako Iwamoto, Sotaro Tsuji, Masanori Nagao, Yoshiko Miura, Yukiko Nagai, Toshikazu Ono, Hisashi Shimakoshi, Yu Hoshino

16:15 1N16 Supramolecular Chiral Sensing based on Supramolecular Porphyrin Polymers
Takehiro Hirao, Sei Kishino, Takeharu Haino

Naoki Ousaka, presiding

- 16:40 1N17 Chiral induction in graphene nanoribbon using a metal-organic framework
Yuto Onozuka, Daichi Akiyama, Takashi Kitao, Takashi Uemura
- 17:05 1N18 Chirality Control in Silver Cluster
Takuya Nakashima
- 17:30 1N19 Self-Assembling Behavior of Amino-Acid Based Multi-Substituted Chiral Benzimidazoles
Hiromitsu Sogawa, Takato Mizukoshi, Fumio Sanda
- 17:55 1N20 Development of chiral supramolecular gels formed by riboflavin derivatives and their application to chiral materials
Hiroki Iida, Marina Oka, Ryo Kozako, Yuta Teranishi, Takahiro Nitta

Wed. Sep 27

S10. Frontiers of Chiral Materials

Naoki Haraguchi, presiding

- 9:10 2N01 Chiral Nanotubes Linked with Pillars[5]arenes via Dynamic Covalent Bonds
Tomoki OGOSHI, Tanhao SHI, Shixin FA, Shunsuke OHTANI, Kenichi KATO
- 9:35 2N02 Synthesis of chiral materials through the expansion of conjugated system of cyclic aromatic amide
Koji Takagi, Tomoyuki Ikai, Eiji Yashima
- 10:00 2N03 Preparation of one-handed helical polyacetylenes by enantioselective separation or polymerization using chiral channels in polymer membranes
Shuaishuai Huang, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki

Koji Takagi, presiding

- 10:25 2N04 Development of Helix-Sense-Selective Memory Polymerization of Acetylene Monomers through Chiral Acid-Base Interactions in Water
Shogo Okuda, Hinako Okutsu, Mitsuka Ando, Masaki Hattori, Ryoma Ishidate, Tomoyuki Ikai, Eiji Yashima
- 10:50 2N05 Synthesis of One-Handed Helical Polyacetylenes Bearing Axially-Chiral 2-Arylpyridyl-N-Oxide Units with Various Substituents and Their Application to Chiral Stationary Phases for HPLC
Tomoyuki Ikai, Masaki Ito, Kosuke Oki, Nozomu Suzuki, Eiji Yashima
- 11:15 2N06 Traceless Chiral Shift Reagent Based on Nonbonding Interactions with Single-Handed Helical Poly(quinoxaline-2,3-diyl)
Takeshi Yamamoto, Takaya Fujie, Suginome Michinori
- 11:40 2N07 Colorimetric Chiral Recognition Based on Helicity Induction and Memory in a Poly(diphenylacetylene) Bearing Carboxy Pendants and Subsequent Chemical Modification of the Pendants
Kyosei Matsunaga, Shota Sona, Daisuke Hirose, Katsuhiro Maeda

Toshiki Aoki, presiding

- 12:55 2N08IL Synthesis, Structure Control and Function of Polymers Containing Platinum Complex Moieties
Fumio Sanda
- 13:45 2N10 Development of Stimuli-Responsive Circularly Polarized Luminescent Materials Based on Boron Element-Blocks
Kazuo Tanaka, Masayuki Gon, Shunsuke Ohtani

Tomoyuki Ikai, presiding

- 14:10 2N11 Enhancement of red circularly polarized luminescence by hybridization of chiral Eu(III) complex and alkylammonium salts
Kazuki Nakamura, Ziyang Li, Norihisa Kobayashi
- 14:35 2N12 Circularly polarized luminescence of aromatic-bridged chiral Eu(III) coordination polymers
Yuki Yamazaki, Makoto Tsurui, Mengfei Wang, Yuichi Kitagawa, Yasuchika Hasegawa

- 15:00 2N13 Synthesis of optically active cyclic molecules based on planar chirality and their circularly polarized luminescence behaviors
Yasuhiro Morisaki, Nanami Miki, Motoki Tsuchiya, Ryo Inoue
- 15:25 2N14 Origin of chirality in silica/titania: morphological or configurational?
Ren-Hua Jin
- Takeshi Yamamoto, presiding**
- 15:50 2N15 Transcription of the Chirality to Conductive Polymers by Electrochemical Polymerization in Cholesteric Liquid Crystal
Kyoka Komaba, Hiromasa Goto
- 16:15 2N16 Asymmetric catalysis using monoclonal antibodies as a reaction field
Hiroyasu Yamaguchi, Takuma Adachi, Keisuke Murata, Akira Harada
- 16:40 2N17 Synthesis of Polymer-immobilized cis-Diphenylprolinols and Its Application to Asymmetric Reactions
Naoki Haraguchi, Tomoki Akita, Rina Watanabe, Yudai Shinya
- 17:05 2N18 Synthesis and properties of diphenylacetylene oligomers having helical chirality
Kensuke Echizen, Tsuyoshi Taniguchi, Yoko Sakata, Shigehisa Akine, Tatsuya Nishimura, Katsuhiko Maeda

Thu. Sep 28

S10. Frontiers of Chiral Materials

Katsuhiko Maeda, presiding

- 9:10 3N01 Fabrication of Chiral-Nematic Liquid Crystal Polymer Particles by Dispersion Polymerization and Their Reflective Functions
Tomoki Shigeyama, Kyohei Hisano, Kosuke Matsumoto, Osamu Tsutsumi
- 9:35 3N02 Deformation Behavior of Chiral-Nematic Liquid Crystal Polymer Particles Dispersed in Elastic Films
Tomohiro Azumaya, Kousuke Matsumoto, Osamu Tsutsumi
- 10:00 3N03 Creation of Cross-Linked Liquid Crystal Polymer Particles
Kazuki Kawai, Tomoki Shigeyama, Kosuke Matsumoto, Osamu Tsutsumi

Kohsuke Matsumoto, presiding

- 10:25 3N04 Ferroelectricity and bulk photovoltaic effect of oligothiophene derivatives bearing lactic dimer units
Masahiro Funahashi
- 10:50 3N05 A gel with chiral mechanical elasticity
Yasuhiro Ishida

Yasuhiro Ishida, presiding

- 11:15 3N06 Selective reflection properties of chiral nematic liquid crystal elastomers in various deformation modes
Saki Mori, Kenji Urayama
- 11:40 3N07 Improvement of Sensitivity in Strain Sensors of Chiral Nematic Liquid Crystal Elastomers through the Introduction of Auxetic Structures
Mina Matsuda, Kohsuke Matsumoto, Osamu Tsutsumi

Yasuteru Mawatari, presiding

- 12:55 3N08 Characteristics of Local Molecular Conformation and Chiral Recognition Ability of Amylose Derivatives with Branched and Cyclic Structures
Ken Terao
- 13:20 3N09 The helix-sense inversion behavior and functional properties of polyaspartate
Hidemine Furuya, Ryota Murakami, Yosuke Mizuno, Xiaobin Liang, Ken Nakajima

Ken Terao, presiding

- 13:45 3N10 Dilute solution properties of un-, mono- and bi-substituted poly(phenylacetylene)

- Moriya Kikuchi, Sho Kasuga, Shiori Sakamoto, Sandip Das, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda, Seigou Kawaguchi
- 14:10 3N11 Control of helical structure of aromatic substituted polyacetylenes and their application
Yasuteru Mawatari, Masayoshi Tabata
- 14:35 3N12 Solvent-selective and temperature-dependent conformational changes of poly(phenylacetylene)s bearing alanine residues in the pendants
Naoya Asakura, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 15:00 3N13 Chiral Amplification Sensing in Dynamic Helical Polymers
Amane Homma, Gaku Fukuhara

Room O

Tue. Sep 26

D. BIOPOLYMERS AND BIORELATED POLYMERS

Tomonari Tanaka, presiding

- 11:15 1O06 Synthesis of Various Chitin Ester Derivatives by Acylation in Deep Eutectic Solvents
Yusuke Egi, Jun-ichi Kadokawa
- 11:40 1O07 Evaluation of binding of synthetic polymers whose motility is controlled by folding structure to target proteins
Daichi Yoshimatsu, Hikaru Matsumoto, Masanori Nagao, Yoshiko Miura

Yoshihiro Sasaki, presiding

- 12:55 1O08 Inclusion Behavior of Amylose Toward Polyesters in Vine-twining Polymerization Field
Masaaki Iwamoto, Jun-ichi Kadokawa
- 13:20 1O09 Synthesis and reaction of glycopolymers for polysaccharide synthesis
Yuto Nakanishi, Shuji Zenke, Ryo Omikawa, Tomonari Tanaka
- 13:45 1O10 Evaluation of the interactions between mannoses through the calcium ions.
Tomoya Sumura, Hikaru Matsumoto, Masanori Nagao, Yoshiko Miura

Masanori Nagao, presiding

- 14:10 1O11 Preparation of Polysaccharide Composite Films Containing Cyclodextrin-Conjugated Chitosan and Their Application as Hydrophobic Drug Carriers
Aoi Kashiwabara, Takuya Sagawa, Mineo Hashizume
- 14:35 1O12 Efficient complexation of proteins with nanocarriers by precision frequency-controlled microwaves and their biofunctions
Yunting Ma, Yoshihiro Sasaki, Hikaru Takaya, Kazunari Akiyoshi
- 15:00 1O13 Design and function of amphiphilic glycopolymers for selective discrimination between biomembrane states.
Yudai Sadanami, Ryosuke Mizuta, Yoshihiro Sasaki, Tomoki Nishimura, Kazunari Akiyoshi

Mineo Hashizume, presiding

- 15:25 1O14 Synthesis and self-assembly of cellulose nanocrystals asymmetrically substituted with two types of graft polymers
Seitaro Fujimoto, Yuji Kinose, Keita Sakakibara, Yoshinobu Tsujii
- 15:50 1O15 Development of a method for facile synthesis of cellulose ether derivatives using α -bromocarboxamides
Naoyuki Furuya, Tsuyoshi Taniguchi, Takashi Nishikata, Tatsuya Nishimura, Katsuhiko Maeda
- 16:15 1O16 Deodorant adsorption sheets using cellulose nanofibers
Atsushi Sone, Akira Isogai

Jun Nakanishi, presiding

- 16:40 1O17 Composition of dynamically stretching/contracting protein ribbon refractile body
Kosuke Kikuchi, Koki Date, Thuc Toan Pham, Takafumi Ueno
- 17:05 1O18 Development of spiropyran-conjugated Tau-derived peptides for optical manipulation of microtubule structures
Minamo Sakaguchi, Soei Watari, Hiroshi Inaba, Kabir Arif Md. Rashedul, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 17:30 1O19 Construction of capsular supramolecular aggregate with Arg_n-Pro₁₀-Leu_m
Yui Okamoto, Masahiro Higuchi, Shogo Matsubara
- 17:55 1O20 Biomolecule detection utilizing DNA-scaffolded multicolor bioluminescent system
Shiori Tabana, Yuki Minamide, Tomoya Niki, Fumiaki Takano, Koichi Tanimoto, Akinori Kuzuya

Wed. Sep 27

D. BIOPOLYMERS AND BIORELATED POLYMERS

Naoto Yoshinaga, presiding

- 9:10 2O01 Development of epidermal growth factor-nanoparticle conjugates as anticancer drugs
Shota Yamamoto, Jun Nakanishi
- 9:35 2O02 Development of Antibody-Polymer Conjugates (APCs) for the Treatment of Inflammatory Diseases
Taishu Iwase, Gyeongwoo Lee, Nabil Ahmed, Mitsuhiro Ebara
- 10:00 2O03 The cell penetration analysis of perfluoroalkyl-conjugated nucleic acids
Masako Takatsu, Kunihiro Morihiko, Kana Okuma, Kohsuke Aikawa, Soichiro Kakuta, Takashi Okazoe, Akimitsu Okamoto
- 10:25 2O04 Inflammatory muscle-targeted oligonucleotide delivery system
Mitsuru Naito, Yusuke Watanuki, Kazuko Toh, Masaru Cho, Hiroyuki Chaya, Kaori Taniwaki, Satomi Ogura, Kensuke Osada, Shigeto Fukushima, Kazunori Kataoka, Kanjiro Miyata

Kanjiro Miyata, presiding

- 10:50 2O05 Design of nanogel vaccine carrier targeting mucosal tissue and functional evaluation using nasal epithelial model
Sotaro Iguchi, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 11:15 2O06 Preparation and response evaluation of polymer nanoparticles with glucose recognition under physiological conditions
Fumihide INOUE, Syuuhei KOMATSU, Taka-Aki ASOH, Akihiko KIKUCHI

Tomoki Nishimura, presiding

- 13:20 2O09 Preparation and characterization of thermoresponsive nanoparticles introduced with mannose on their surfaces.
Tomohiro OIZURU, Shuuhei KOMATSU, Akihiko KIKUCHI
- 13:45 2O10 Dramatic and Reversible Control of Morphology of Liposomes by Photoresponsive Peptide Nanofibers
Yingbing Liang, Hiroshi Inaba, Kazunori Matsuura
- 14:10 2O11 Development of complexation method for magnetic nanogels with antibodies and construction of a magnetic-guided antibody delivery system
Katsuya Ozeki, Ryosuke Mizuta, Yoshhihiro Sasaki, Kazunari Akiyoshi

Michiya Matsusaki, presiding

- 14:35 2O12 Synthesis of amphiphilic glycopolymers with different architectures and the morphological control of the self-assembled structures.
Naoki Ozawa, JI HA LEE, Isamu Akiba, Tomoki Nishimura
- 15:00 2O13 Fabrication and evaluation of artificial ion channel based on thermoresponsive block polymers
Shunji Kosaka, Tomoki Nishimura

- 15:25 2014 Development of the graft copolymer assemblies loaded with anticancer platinum catalysts
Kyosuke Seryu, Tomoki Nishimura
- 15:50 2015 Photophysical properties of near-infrared to visible up-conversion in dye-encapsulated liposomes
Hideki KAWAI, Ryoya TAGATA

Tomoyuki Koga, presiding

- 16:15 2016 3D fabrication of nanogel-integrated hydrogels with controlled protein release ability as cellular scaffolds
Ryo Takahashi, Yoshihiro Sasaki, Shunya Hayashi, Hiroyuki Harada, Kazunari Akiyoshi
- 16:40 2017 Organic-inorganic hybrid material based on coacervate droplets for bone regeneration
Syuuhei Komatsu, Akihiko Kikuchi
- 17:05 2018 Design of cell scaffold bearing visible-light responsive azobenzene for spatio-temporal control of integrin-mediated cellular mechanotransduction
Kenta Homma, Itsuki Miyaguni, Michiya Matsusaki

Thu. Sep 28

D. BIOPOLYMERS AND BIORELATED POLYMERS

Tatsuo Maruyama, presiding

- 9:10 3001 Elucidation of symbiotic interactions between cells and polymeric biomaterials with different properties
Kosei Ito, Yasushi Tamada, Tomoko Hashimoto
- 9:35 3002 Evaluations of the Properties and Biocompatibility of Alcohol-Treated Silk Fibroin
Kaho Kobayashi, Yasushi Tamada, Tomoko Hashimoto
- 10:00 3003 Fabrication of injectable hydrogels from thermo-responsive amino acid-derived vinyl polymers
Tomoyuki Koga, Mitsuki Nakamura, Shin-nosuke Nishimura
- 10:25 3004 Friction reduction by hierarchical surface microstructures learning from the *Necrophila japonica*
Kazuma Tsujioka, Yuji Hirai, Masatsugu Shimomura, Yasutaka Matsuo

Tomoko Hashimoto, presiding

- 10:50 3005 Inhibition of enzymes by self-assembling molecules
Kenta Morita, Tomoko Moriwaki, Shunsuke Habe, Takashi Aoi, Mariko Ikeda, Tatsuo Maruyama
- 11:15 3006 Bacteria detection using polythiophene with dipicolylamine unit (II) -Optical response to phosphate derivatives and DNA-
Shiori Nishizumi, Takashi Hayashita, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 11:40 3007 Thermoresponsive mixed polymer brushes for temperature-modulated bioseparation
Kenichi Nagase, Haruno Wakayama, Saki Ishii, Kenjiro Hanaoka, Hideko Kanazawa

Room Q

Tue. Sep 26

S12. Medical Polymers that Fight Against Aarious Diseases in Effective, Biofriendly, and Smart Ways

9:50 1QSO Introductory Remarks S12
Chie Kojima, Akifumi Kawamura

Akifumi Kawamura, presiding

10:00 1Q03 Apoptosis of cancer cells induced by the intracellular phosphorylation of a peptide amphiphile
Tatsuo Maruyama, Natsumi Shimizu, Kenta Morita, Tomoko Yashiro, Riku Umemura, Ryoko Kawabata

10:25 1Q04 in situ synthesis of multivalent ligands of CAIX by inter-nano-assemblies click reaction and proliferative inhibition of cancer cells
Masahiko Nakamoto, Rentaro Sakamoto, Yuki Koba, Michiya Matsusaki

10:50 1Q05 Effective Induction of Cancer Cell Death by Polymeric Assemblies Focusing on Polymerizable Vitamin E Esters
Moemi Matsuda, Tooru Ooya

Masahiko Nakamoto, presiding

11:15 1Q06 Construction of Efficient Cellular Membrane Permeable Molecular Systems for Cancer Cell-Specific Drug Delivery Systems
Hirari Kato, Ryota Azuma, nagisa Kanazawa, Masaki Nisijima, Yasuyuki Araki, Ikuhiko Nakase, Takehiko Wada

11:40 1Q07 New strategy for cancer therapy by cell conversion from cancer cells to senescent cells
Kiyoshi Sato, Hiyori Iitsuka, Haruka Mitome, Masahiro Yoshioka, Hiroyoshi Kawakami

Hirohiko Ise, presiding

12:55 1Q08 Effect of Particle Size on Tissue Adhesion and Sprayability of Hydrophobically modified Alaska Pollock Gelatin Colloidal Gels
Shima Ito, Akihiro Nishiguchi, Tetsushi Taguchi

13:20 1Q09 Fabrication of Spray-Based Biodegradable Thin Films Using Liquefied Gas as a Novel Solvent for Biomedical Applications
Yosuke Okamura, Momori Odera, kanta Iiyama, Ayumi Sakai, Mayuko Nishimura, Yuri Nishikata, Yasutomo Nakajima, Hokuto Kamijyo, Tomomi Hatanaka

13:45 1Q10 Therapeutic Effects of Poly(cysteine)-Based Polymer Antioxidant Drugs on Nonalcoholic Steatohepatitis
Yuta Koda, Yukio Nagasaki

Akihiro Nishiguchi, presiding

14:10 1Q11 Lactose Polymer Installed Gelatin Hydrogel to Modulate Hepatocyte Function
Kyoya Matsumura, Shigehito Osawa, Hidenori Otsuka

14:35 1Q12 Amelioration of liver fibrosis by using N-acetylglucosamine-bearing polymers
Hirohiko Ise

15:00 1Q13 Hepatic drug delivery system using hyaluronic acid-coated polymeric micelles containing an anti-fibrosis drug
Yuichi Ohya, Yuta Yoshizaki, Manami Yamasaki, Takuya Nagata, Kengo Suzuki, Rio Yamada, Takuma Kato, Nobuo Murase, Kosuke Kaji, Hitoshi Yoshiji, Akira Asai, Kazuhide Higuchi, Akinori Kuzuya

Koji Nagahama, presiding

15:25 1Q14 Hepatocyte culture on thermoresponsive surfaces for the preparation of transplantable hepatic tissue sheets
Jun Kobayashi, Teruo Okano

15:50 1Q15 Development of porous injectable gels engineered by liquid-liquid phase separation and their application for stem cell transplantation
Akihiro Nishiguchi, Shima Ito, Kazuhiro Nagasaka, Hiyori Komatsu, Koichiro Uto, Tetsushi Taguchi

16:15 1Q16 In Vivo Gene Delivery for Skeletal Muscle by the Formation of Annealed pDNA/Zn²⁺/Carrier Complexes
Shoichiro Asayama, Riku Kimura, Takahashi Yoko, Yoichi Negishi

Chie Kojima, presiding

- 16:40 1Q17 Development of lymphedema treatment technology using lymphatic vessel regeneration-inducing biomaterials
Tatsuya Dode, Koji Nagahama
- 17:05 1Q18 Artificial Scaffolds Using Supramolecular Peptide Hydrogels for Injured Brain Regeneration
Itsuki Ajioka
- 17:30 1Q19 Control of vascular structures in a blood-brain barrier network model based on mechanobiology
Michiya Matsusaki, Marie Piantino, Yucheng Shang
- 17:55 1Q20 Time- and space-resolved MR imaging for cerebrovascular disease by supramolecular MR probe
Atsushi Mahara, Raghav Soni, Shigeyoshi Saito, Tetsuji Yamaoka

Wed. Sep 27

S12. Medical Polymers that Fight Against Various Diseases in Effective, Biofriendly, and Smart Ways

Sachiro Kakinoki, presiding

- 9:10 2Q01 Design of Shape Fix/Memory Hydrogel Toward Cell Scaffold Material for Regenerative Medicine
Shinnosuke Nishimura, Tomoya Yoshida, Tomoyuki Koga
- 9:35 2Q02 Behavior of human iPS cell-derived vascular endothelial cells on various decellularized vessels
Mako Kobayashi, Masaya Yamamoto, Yoshihide Hashimoto, Tsuyoshi Kimura, Kozue Murata, Kenji Minatoya, Hidetoshi Masumoto, Akio Kishida
- 10:00 2Q03 Biocompatible polymer for surface coating aiming of long-life time used medical device under fluidic condition
Madoka Takai

Shinnosuke Nishimura, presiding

- 10:25 2Q04 Anti-biofouling properties of the oligoproline-immobilized surface to cells, blood and bacteria
Sachiro Kakinoki, Aldona Myzk, Kazuna Takahashi, Yuma Matsushita, Masato Ueda, Yasuhiko Iwasaki, Roman Major
- 10:50 2Q05 Polymer coating of bioresorbable cardiovascular stent
Wei Xu, Makoto Sasaki, Takuro Niidome

Takuro Niidome, presiding

- 11:15 2Q06 Locally administered photodynamic therapy for cancer using porphyrin with polycations consisting of quaternary ammonium salt groups
Toru Yoshitomi, Yoshiki Komatsu, Van Thi Hong Doan, Hiromi Kurokawa, Saori Fujiwara, Hirofumi Matsui, Naoki Kawazoe, Chen Guoping
- 11:40 2Q07 Wirelessly Powered Thin-Film Light-Emitting Devices for Hyper-Localized Photosensitizing Effects
Masato Saito, Takahiro Nomoto, Yasufumi Yokoshiki, Takashi Tokuda, Toshinori Fujie

Yuki Mochida, presiding

- 12:55 2Q08 Development of antigenicity modification for cancer cells using conjugates consisting of hyaluronic acid and antigenic protein
Shinichi Mochizuki, Soichi Ogata
- 13:20 2Q09 Development of high-performance monoclonal antibody production methods
Taro Tachibana, Chiyako Yokoyama
- 13:45 2Q10 Boron delivery system by using an anti-Her2 x anti-BSH bispecific antibody for BNCT
Takeshi Nagasaki, Anri Tabata, Kaori Bando, Taro Tachibana, Takeshi Nakanishi, Riku Kawasaki, Yosinori Sakurai, Hiroki Tanaka, Yu Sanada

Shinichi Mochizuki, presiding

- 14:10 2Q11 Cancer therapy using antibody-dye conjugates
Mikako Ogawa
- 14:35 2Q12 Effective and gentle cancer immunotherapy with PEG-modified immune checkpoint inhibitors
Yuki Mochida
- 15:00 2Q13 Immune responses against polyethylene glycol-modified nanoparticles
Taro Shimizu,Tatsuhiko Ishida

Mitsuhiro Ebara, presiding

- 15:25 2Q14 Investigation of immunosuppression on macrophage-like cells with star glycopolymer
Haruka Shiomitsu,Takato Ishida,Masanori Nagao,Hirohiko Ise,Yoshiko Miura
- 15:50 2Q15 Fabrication of Polypropylene microplastics to investigate the inflammatory response
Masaya Yamamoto,Tomoki Hiraoka,Suphatra Hiranphinyophat,Naoto Washihira,Mako Kobayashi,Akio Kishida,Sho Fujii,Tadao Tanabe,Tsuyoshi Kimura
- 16:15 2Q16 Fabrication of cellulose gauze with nanopiked surfaces that adsorb bacteria
Yuuki Hata,Hiromi Miyazaki,Shingo Nakamura,Takeshi Serizawa

Masaya Yamamoto, presiding

- 16:40 2Q17 Smart polymer technologies for global health
Ahmed Nabil,James Lai,Allan Hoffman,Mitsuhiro Ebara
- 17:05 2Q18 Development of functional interface for specific detection of infectious viruses
Tatsuro Goda

Thu. Sep 28

S12. Medical Polymers that Fight Against Aarious Diseases in Effective, Biofriendly, and Smart Ways

Tsuyoshi Kimura, presiding

- 9:10 3Q01 Analysis of bone formation ability of carbonate apatite capsules encapsulating biodegradable coacervate droplets capable of loading drugs.
Takuro Aikawa,Syuuhei Komatsu,Taka-Aki Asoh,Akihiko Kikuchi
- 9:35 3Q02 Surface modification of metal implants with biocompatible polymers and its effect on Bone affinity
Takahisa Anada,Yasuki Kurihara,Yuri Kado,Chikara Ushiku,Masaru Tanaka

Yasuhiko Iwasaki, presiding

- 10:00 3Q03 Application of a mineralized decellularized tissue for soft-hard tissue
Tsuyoshi Kimura,Mika Suzuki,Masahiro Okada,Takuya Matsumoto,Hironobu Takahashi,Tatsuya Shimizu,Naoko Nakamura,Yoshihide Hashimoto,Akio Kishida
- 10:25 3Q04 Structural understanding of biological hard tissue and its application to the development of biological tissue adhesives
Takuya Matsumoto
- 10:50 3Q05 Intestinal ROS scavenger reduced plasma IL-6 level and can be used for the treatment of inflammatory diseases
Yutaka Ikeda,Yukio Nagasaki

Yuta Yoshizaki, presiding

- 11:15 3Q06 An Enzyme Encapsulation into Microgel with Highefficiency: Basic Investigation for Enzymatic Reaction Field for in vivo synthesis
Yota Okuno,Yasuhiko Iwasaki
- 11:40 3Q07 Preparation of Hydrophobic Drug-Loaded Coaxial Fibers and Evaluation of the Drug Release Ability
Takuya Sagawa,Kenta Tanaka,Yuki Morizumi,Mineo Hashizume

Syuuhei Komatsu, presiding

- 12:55 3Q08 Synthesis of well-defined star-shaped phospholipid polymers for the development of drug carriers
Yuta Yoshizaki, Tomohiro Konno
- 13:20 3Q09 Design of stimuli-responsive luciferin-polymer conjugates for a detection of cathepsin B under weak acidic conditions
Kei Nishida, Masayasu Mie, Eiry Kobatake

Kei Nishida, presiding

- 13:45 3Q10 Self-immolative behavior of reduction-responsive DNA-based nanostructures composed of poly(carbamate) derivatives
Ren Ishiyama, Syuuhei Komatsu, Akihiko Kikuchi, Yoshitsugu Akiyama
- 14:10 3Q11 Intracellular Delivery of Tumor Suppressor Oligonucleotide Using Reductively Degradable Microgel
Akifumi Kawamura, Shun Fujisawa, Yosuke Inomata, Kohei Taniguchi, Takashi Miyata
- 14:35 3Q12 DDS and imaging of cancer cells using functional dendrimers
Chie Kojima

Room R

Tue. Sep 26

S14. Synthesized/Working Polymers and Supramolecules in Water Environment

- 14:25 1RSO Introductory Remarks S14
Hironori Izawa, Masaaki Akamatsu

Yohei Kotsuchibashi, presiding

- 14:35 1R12 Control of hydrogen bonding properties of poly(N-acryloyl-piperidine-carboxamide) by the position of the carboxamide group in their piperidine ring.
Yoshikatsu AKIYAMA, Shigehito OSAWA
- 15:00 1R13 Fabrication of a hydrogel through physical interaction among polymer chains containing nipecotamide group in the sidechains
Shigehito Osawa, Yoshikatsu Akiyama, Saki Kusakabe, Tooru Ooya, Yuki Akagi, Etsuko Kobayashi, Ken Masamune, Yoshihiro Muragaki
- 15:25 1R14 Design of Bio-inspired Synthetic Polymers Based on Heavy Metal Ion Recognition Proteins and Their Application to Water Purification
Masaki Nakahata, Ai Sumiya, Yuka Ikemoto, Takashi Nakamura, Akihisa Yamamoto, Shinji Sakai, Stefan Kaufmann, Motomu Tanaka

Shigehito Osawa, presiding

- 15:50 1R15 Antibacterial polymeric hydrogels working in water environment
Yohei Kotsuchibashi
- 16:15 1R16 Particle formation between crown ethers and polyphenols and their pH responsiveness
Mahiro Sarai, Saki Endo, Hiroki Seo, Mayuri Koga, Akihiko Hatano, Kenichi Niikura
- 16:40 1R17 Crack-free structural color materials with controlled dispersion and aggregation behavior of melanin particles in aqueous solution
Michinari Kohri, Mai Urase, Yui Maejima, Taku Watanabe, Hiroshi Fudouzi, Keiki Kishikawa

Masaaki Akamatsu, presiding

- 17:05 1R18 Preparation of melanin-based structural color materials using the air-water interface
Yui Maejima, Yasuhiko Iwasaki, Hiroshi Fudouzi, Keiki Kishikawa, Michinari Kohri
- 17:30 1R19 Preparation of gold nanoparticles using amphiphilic ladder-like polymer composed of hydrophilic polyether and hydrophobic polysiloxane chains
Shiori Matsuo, Aki Mihata, Yoshiro Kaneko

17:55 1R20 Preparation and Evaluation of Polysilsesquioxane-Based Reverse Osmosis Membranes by Interfacial Polymerization with Polyacrylic Acid
Masato Sugino, Kazuki Yamamoto, Takahiro Gunji

Wed. Sep 27

S14. Synthesized/Working Polymers and Supramolecules in Water Environment

Tomonari Tanaka, presiding

9:10 2R01 Controlled Formose Reaction: Synthesis of Monosaccharides from Formaldehyde
Akihito Hashidzume

9:35 2R02 Synthesis and Self-Assembly Behaviors of 1,2-Galactan-Bound Ceramide
Yasuhito Koyama, Ryo Miyazaki, Misaki Suzuki, Noriyuki Nakajima, Masahiro Hamada

10:00 2R03 Application of human type glycosyl asparagine towards glycopolymer
Masato Noguchi

Yuji Higaki, presiding

10:25 2R04 Control of the mobility of self-folding amphiphilic copolymers and their molecular recognition in water
Masanori Nagao, Daichi Yoshimatsu, Yoshiko Miura

10:50 2R05 Precise synthesis and functions of alternating glycopolymers
Masahiko Minoda, Ayane Sunaga, Hiroki Inaoka, Ryohei Saiga, Junya Koga, Yuichi Hiraki, Tomonori Waku, Jin Motoyanagi

Masanori Nagao, presiding

11:15 2R06 Development of water-soluble activated esters stable in water and their use for synthesis of glycopolymers in water
Tomonari Tanaka, Sotaro Tsuji

11:40 2R07 Microphase Separation Behavior of Double Zwitterionic Block Copolymer Concentrated Solutions Depending on Zwitterion Structure
Yuji Higaki, Takumi Masuda, Yasuhiro Eguchi, Ayuho Miyamoto

Makoto Anraku, presiding

12:55 2R08 Preparation of cellulose nanofibers and hydrogels using only water
Mitsumasa Osada

13:20 2R09 Precision Enzymatic Synthesis and Assembling Properties of α -Glucans in Water
Jun-ichi Kadokawa

13:45 2R10 Release mechanism of an adhesive drug delivery system based on phosphorylated pullulan
Takumi OKIHARA, Kaho ASANO, Mariko NAKAMURA

Toshifumi Yui, presiding

14:10 2R11 Creation and Biodistribution of Size-tunable One-Dimensional Molecular Assemblies Based on Self-assembly of Amphiphilic Graft Copolymers
Yusuke Sakamoto, Shota Fujii, Mitsuru Ando, Noriyuki Kodera, Tomoki Nishimura

14:35 2R12 Loading of Hydrophobic Drugs to Polysaccharide Composite Films and Evaluation of Their Release Behaviors
Takuya Sagawa, Takuma Ryuzaki, Aoi Kashiwabara, Mineo Hashizume

Takumi Okihara, presiding

15:00 2R13 Water-soluble guanidinylated chitosan having less limitation by acidic pH
Hironori Izawa, Ayaka Yagi, Umemoto Ryo, Shinsuke Ifuku

15:25 2R14 Comprehensive Study on Improvement of Oral Formulation Based on Functional Chitosan
Makoto Anraku, Hironori Izawa, Shinsuke Ifuku, Masaki Otagiri

15:50 2R15 Analysis of Higher Order Structure Formation of Polysaccharide Molecular Chains by Extended Ensemble Molecular Dynamics Simulations

Toshifumi Yui, Takuya Uto

Hironori Izawa, presiding

- 16:15 2R16 Selective permeability of molecules by formation of anisotropic gelatin network by self-assembly process in hydrogel
Kazuki Murai, Tamaki Maeda, Kohei Kawaguchi
- 16:40 2R17 Controlling water/ice with peptides
Yoshiaki Hirano, Sora Okamoto, Madoka Washizaki, Taichi Shirakawa, Taichi Okamoto
- 17:05 2R18 Development of virus isolation technology using liquid-liquid phase separation and magnetic nanoparticles
Noriyuki OHNISHI, Ayame KITANO, Hiroshi SAITOH, Xiaomao XIE, Made Sandhyana ANGGA, Bikash MALLA, Sunayana RAYA, Eiji HARAMOTO, Kumiko MOTOSAKA

Thu. Sep 28

S14. Synthesized/Working Polymers and Supramolecules in Water Environment

Hironori Izawa, presiding

- 9:10 3R01IL Investigations of Supramolecular Functions using Inner Spaces of Self-Assemblies in Aqueous Media
Masaaki Akamatsu

Ryo Ishihara, presiding

- 10:00 3R03 pH-Dependent motion control of oil-in-water droplets in the presence of amphiphilic polymers having tertiary amines
Taisuke Banno, Manami Suzuki, Wouter P. van den Akker, Loai K. E. A. Abdelmohsen, Jan C. M. van hest, Kouichi Asakura
- 10:25 3R04 Dynamic control of molecular conformation at the air-water interface
Taizo Mori

Taizo Mori, presiding

- 10:50 3R05 Extension of cellular function with long DNA chains elongated from cell surface
Yusuke Yonamine, Naohiro Okada, Yingqi Mu, Hideyuki Mitomo, Kuniharu Ijiro
- 11:15 3R06 Self-assembly of amphiphilic DNA nanoplates at the oil-water interface to form cell-like capsules with channel function
Daisuke Ishikawa
- 11:40 3R07 Extracellular vesicles and microRNAs detection on surface-functionalized power-free microchips
Ryo ISHIIHARA

Room S

Tue. Sep 26

S13. Biopolymers for Construction of Molecular Systems and Materials Beyond Life

- 13:10 1SSO Introductory Remarks S13
Keiji Murayama

Atsushi Maruyama, presiding

- 13:20 1S09 Controlling stability of DNA duplex using visible light photodimerization of stilbene by Ru(II) complex
Hidenori Azuma, Hiroyuki Asanuma, Hiromu Kashida
- 13:45 1S10 Unusual triplex formed by acyclic XNAs
Hiroyuki Asanuma, Siyuan Lao, Yukiko Kamiya

14:10 1S11 Analysis of ligand binding on guanine quadruplex DNAs using high pressure
Shuntaro Takahashi, Saki Matsumoto, Tatsuya Ohyama, Sudipta Bhowmik, Naoki Sugimoto

Takehiko Wada, presiding

14:35 1S12 Prediction of Duplex Stability of Nucleic Acids in Diverse in vitro and Cellular-like Crowding Conditions
Saptarshi Ghosh, Dipanwita Banerjee, Shuntaro Takahashi, Hisae Tateishi-Karimata, Tamaki Endoh, Tatsuya Ohyama, Naoki Sugimoto

15:00 1S13 Construction of bioluminescent energy transmission system utilizing DNA as a scaffold.
Yuki Minamide, Fumiaki Takano, Koichi Tanimoto, Tomoya Niki, Shiori Tabana, Akinori Kuzuya

15:25 1S14 Effect of epigenetic modification on liquid-liquid phase separation induced by DNA G-quadruplex
Mitsuki Tsuruta, Takeru Torii, Natsuki Kinoshita, Kawauchi Keiko, Naoki Sugimoto, Daisuke Miyoshi

Shuntaro Takahashi, presiding

15:50 1S15 Creation of Chimeric Artificial Nucleic Acids for Expression Control of RNA Functions at the Cellular Level
Kazutoshi Fujita, Tuto Horiuchi, Nozomu Ishiwata, Masahito Inagaki, Hironori Hayashi, Masaki Nishijima, Yasuyuki Araki, Eiichi Kodama, Takehiko Wada

16:15 1S16 Liquid-liquid phase separation of DNA nanostructures and its applications
Yusuke Sato

16:40 1S17 Intracellular assessment of droplet driving proteins using self-assembling peptides
Takayuki Miki, Masahiro Hashimoto, Hisakazu Mihara

Takayuki Miki, presiding

17:05 1S18 Continuous-flow solid-phase synthesis of long peptides
Kohei Sato

17:30 1S19 Identification and classification of polymeric nanoparticles using a peptide sensor and machine learning
Shion Hasegawa, Toshiki Sawada, Yuzou Kitazawa, Takuya Kaneda, Takeshi Serizawa

17:55 1S20 Synthesis of cyclic glycopolymer targeting Cholera Toxin and the evaluation of their interaction
WENKANG JIN, Masanori Nagao, Yoshiko Miura

Wed. Sep 27

S13. Biopolymers for Construction of Molecular Systems and Materials Beyond Life

Koji Nagahama, presiding

9:35 2S02 Preparation of acrylamide-MPC copolymers with L-Lysine groups on the side chain with selective binding ability to fibrinolytic factors and effect of MPC segments on interaction between the copolymers with fibrinolytic factors
Tomoya Nakago, Yuto Oki, Seiryu Hirao, Kohei Shiraishi

10:00 2S03 Thermo-responsive underwater adhesive hydrogels inspired by mussel adhesion
Daichi Yoshihara, Hiroya Abe, Daigo Terutsuki, Matsuhiko Nishizawa

10:25 2S04 Thermo-responsive surface properties of oligo(ethylene glycol)-modified gold nanoparticles for bio-interface
Hideyuki Mitomo, Honoka Niwa, Kun Xiong, Yusuke Yonamine, Kuniharu Ijiri

Hideyuki Mitomo, presiding

10:50 2S05 Creation of functions by hybridization of biological and artificial systems
Hiroyasu Yamaguchi, Yuichiro Kobayashi, Kenji Kohara, Akira Harada

- 11:15 2S06 Creation of tissue regenerative technology utilizing mechanobiology by cell cross-linking hydrogel
Natsumi Ueda, Koji Nagahama
- 11:40 2S07 Development of a Photo-Functionalized Hydrogel Cell Scaffold for Osteogenesis
Hiroki Miyajima, Akihito Shibui, Saeka Kato, Kazutoshi Iijima

Kohei Sato, presiding

- 12:55 2S08 Development of Tau-derived peptide-fused photochromic protein for regulating microtubule structures
Soei Watari, Hiroshi Inaba, Takashi Iwasaki, Kabir Arif Md. Rashedul, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 13:20 2S09 Supramolecular hydrogel exhibiting autonomous re-gelation after gel-to-sol transition in response to hydrogen peroxide
Yuki Shintani, Hiroshi Katagiri, Masato Ikeda
- 13:45 2S10 Application of reaction mechanism analysis in nonenzymatic template-directed synthesis to elongation of long L- α TNA strand
Hikari Okita, Keiji Murayama, Hiroyuki Asanuma
- 14:10 2S11 Molecular delivery by lipid nanodiscs formed with amphiphilic polymers
Kazuma Yasuhara, Jinyu Hao, Gwenael Rapenne

Kazuma Yasuhara, presiding

- 14:35 2S12 Dynamic control of biological activity through transient formation of amphiphilic molecules
Yume Nakagawa, Kohei Sato, Miki Mori, Masahiro Takinoue, Kazushi Kinbara
- 15:00 2S13 Creation of enveloped viral replica equipped with spike protein derived from SARS-CoV-2
Hiroto Furukawa, Keigo Nakamura, Hiroshi Inaba, Yoshihiro Sasaki, Kazunari Akiyoshi, Kazunori Matsuura
- 15:25 2S14 Development of biomacromolecular materials inspired by biomolecular condensates
Akihiro Kishimura, Biplab KC, Yiwei Liu, Asmariah Ahmad, Teruki Nii, Takeshi Mori, Yoshiki Katayama

Keiji Murayama, presiding

- 15:50 2S15 Autonomous 2D/3D transformation of lipid membrane
Wancheng Zhang, Seiya Takemura, Shutaro Takahashi, Tsukuru Masuda, Naohiko Shimada, Atsushi Maruyama
- 16:15 2S16 DNA assisted programable assembly of hierarchical structure of cytoskeletons
Daisuke Inoue
- 16:40 2S17IL From Molecular Robots to Automatter: The Challenge for Creating Programmable Autonomous Microparticle Swarms
Shin-ichiro Nomura

Thu. Sep 28

S13. Biopolymers for Construction of Molecular Systems and Materials Beyond Life

Takehisa Dewa, presiding

- 9:10 3S01 Quantitative PEGylation of Nanodiamond for in vivo Quantum Sensing
Kensuke Osada, Kazuaki Rikiyama
- 9:35 3S02 Design of Allosteric Gels by Reduction of Polymer Chain Entropy
Takashi Miyata, Tomoya Iwagaki, Masaaki Kanazawa, Akifumi Kawamura
- 10:00 3S03 Construction of frameworks utilizing and incorporating biomolecules
Hiroyuki Furusawa, Momoyo Takatsu

Kensuke Osada, presiding

- 10:25 3S04 Site-specific and Orthogonal Locating of the protein on the DNA scaffold
EIJI NAKATA, TAKASHI MORII
- 10:50 3S05 Biohybrid Light-Harvesting Complexes: Extension of Light-Harvesting Wavelength, Ultrafast Energy Transfer, and Photocurrent Generation

Takehisa Dewa, Masato Hirakawa, Ryoga Morishita, Masaya Kito, Sora Ishikawa, Tetsuya Yamamoto, Yusuke Yoneda, Masaharu Kondo, Yutaka Nagasawa

11:15 3S06 Control of 3D crystal lattices by the surface design of protein cages
Junko Tanaka, Satoshi Abe, Pan Tiezheng, Misaki Nagama, Shuji Kanamaru, Kunio Hirata, Takafumi Ueno

11:40 3S07 In-Cell Engineering of Protein Crystals into Hybrid Solid Catalysts for Artificial Photosynthesis
Tiezheng Pan, Satoshi Abe, Takafumi Ueno

Teruki Nii, presiding

12:55 3S08 Development of mitochondria-targeting gene delivery system to restore mitochondrial function through multiple gene expression
Naoto Yoshinaga, Takaaki Miyamoto, Masaki Odahara, Noriko Takeda, Kiminori Toyooka, Seia Nara, Haruna Nishimura, Feng Ling, Masayuki Su'etsugu, Minoru Yoshida, Keiji Numata

13:20 3S09 Gene delivery systems using polysaccharide nanoparticles targeting H. pylori-induced gastric cancer stem cell marker CD44v9
Toshinori Sato, Shogo Nakamura, Yu Torizuka, Hitoshi Tsugawa, Hidekazu Suzuki

13:45 3S10 Design of antigen-adjuvant co-delivering nanogels for application to therapeutic cancer vaccines
Yuki Yazawa, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi

Toshinori Sato, presiding

14:10 3S11 Development of hyaluronic acid-coated polymeric micelles as anti-coronavirus vaccines that can induce immunological response via nasal administration
Takuma Kato, Kengo Suzuki, Kenta Horii, Yuta Yoshizaki, Nobuo Murase, Yuichi Ohya

14:35 3S12 Engineered macrophages acting as a trigger for inflammation in tumor tissues: MacTrigger
Teruki Nii, Kenta Tanito, Akihiro Kishimura, Takeshi Mori, Yoshiki Katayama

Room T

Tue. Sep 26

E. POLYMERS AND ENVIRONMENT

Shinichi Yamazaki, presiding

10:00 1T03 New synthesis and evaluation of polymers by plasma-induced polymerization
Kazuki Yanagida, Katsuto Yamaguchi, Kyoka Komaba, Hiromasa Goto

10:25 1T04 Kinetics analysis of thermal decomposition of polymers with multiple reaction mechanisms.
Tomohiro Ohkawa, Yoshitomo Furushima

Yuta Koda, presiding

10:50 1T05 Fabrication of Polyethylene Nano/Micro Plastic models and Evaluation of Their Cytotoxicity
Naoto Washihira, Hiranphinyophat Suphatra, Mako Kobayashi, Tadao Tanabe, Tsuyoshi Kimura, Masaya Yamamoto

11:15 1T06 Construction of co-culture system of intestinal epithelial cells and macrophages for evaluating immune response to micro-, nano plastics
Chen Liang, Tsuyoshi Kimura, Moeko Hagiwara, Yoshihide Hashimoto, Takahide Matushima, Hiroshi Asahara, Wataru Nomura, Tadao Tanabe, Naoko Nakamura, Masaya Yamamoto, Akio Kishida

11:40 1T07 Effect of Particle Size of Microplastics (MPs) in Soil on Pyrolysis Behavior
Kento Kumagai, Eiichi Sakai, Kenki Qu

Tatsuo Taniguchi, presiding

- 13:20 1T09 Selective Preparation for Aromatic Polyester in Three-component System Using Reaction-induced Crystallization
Hironori Atarashi, Rina Miyawaki, Syuhei Nishimura, Shinichi Yamazaki, Kunio Kimura
- 13:45 1T10 Synthesis and Characterization of Cationic Cellulose (IV) -Effect of Degree of Substitution on Properties of Ion Gels-
Yutaro Hayashi, Yuko Takeoka, Masahiro Rikukawa, Masahiro Fujita
- 14:10 1T11 Development of melanin degradation method and polymer synthesis from degradation products
Takumi Morita, Tomoya Fujikura, Toshihiko Matsuura, Keiki Kishikawa, Michinari Kohri

Yu-I Hsu, presiding

- 14:35 1T12 Synthesis of conductive polymers in acid hot spring water
Kyoka Komaba, Hiromasa Goto
- 15:00 1T13 Development of cellulose materials using aqueous pyrrolidinium hydroxide and carbon dioxide (II) -Fabrication of 3D structures -
Arata Matsui, Ayu Putri Deandra, Leslie Thomas Morgan, Yuko Takeoka, Masahiro Rikukawa, Masahiro Fujita
- 15:25 1T14 Development of polymer ligands for recycling of platinum group metals
Naoya Kaneko, Daisuke Aoki, Tatsuo Taniguchi, Takashi Karatsu, Ryuhei Motokawa, Tomoya Suzuki, Takeshi Ogata, Hirokazu Narita

Yuko Takeoka, presiding

- 15:50 1T15 Development of polymer catalysts driven by visible light and their application to radical reactions
Daisuke Nakaguchi, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 16:15 1T16 Synthesis of plastics using alpha-1,3-glucan produced by oral bacteria enzyme and high-performance materialization through control of crystalline structure.
Yuva Fukata, Satoshi Kimura, Tadahisa Iwata
- 16:40 1T17 Polymerization of anhydrosugar: (-)-Levoglucosenone with dithiols/dihydrazides and their properties
Atsushi Tahara, Shogo Yashiro, Toshio Hokajo, Shinji Kudo, Takayuki Doi

Hironori Atarashi, presiding

- 17:05 1T18 Synthesis of limonene glycol-based polyhydric alcohols and its cross-linking reaction
HISATOYO MORINAGA, RIKKA KADO, TETSUO KUWABARA
- 17:30 1T19 Highly-toughened and dimensionally-stable TEMPO cellulose nanofiber/BioPBSA nanocomposites fabricated via Pickering emulsion process
Naruki Kurokawa, Kei Matsumoto, Atsushi Hotta
- 17:55 1T20 Oxidized-cellulose nanofiber/chitosan composite film with water resistance
Rika Onishi, Madhurangika Panchabashini Horathal Pedige, Akihide Sugawara, Yu-I HSU, Hiroshi Uyama

Wed. Sep 27

E. POLYMERS AND ENVIRONMENT

Ikuo Taniguchi, presiding

- 9:10 2T01 Simple Synthetic Strategy for High Sulfur Content Polymer Materials in Solvent-free Condition and Their Diversities
Hiroto Tominaga, Kenjiro Onimura, Kazuhiro Yamabuki
- 9:35 2T02 Fabrication and functional evaluation of chitosan monoliths modified with polydopamine
Hiroshi Hasegawa, Emil Hajili, Akihide Sugawara, Hiroshi Uyama
- 10:00 2T03 Synthesis and characterization of multiblock copolymers composed of polyester (PBS) and polyamide (PA4)

Hideaki Ono, Yasutaka Kawai, Seisuke Ata, Hiroyuki Minamikawa, Kazuma Kurihara, Shinji Tanaka, Masaru Yoshida

10:25 2T04 Synthesis of Functional Bio-Based Block Copolymer Containing Catechol Derived from Caffeic Acid
Kaori Tanimoto, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh

Yasumasa Takenaka, presiding

10:50 2T05 Pressure-induced phase transition of block copolymers with low-temperature formability

Yuri Hioka, Neha Sharma, Tsuyoshi Koga, Shigeru Deguchi, Ikuo Taniguchi

11:15 2T06 Observation of high order structure of microbial polyester fibers and curdlan propionate fibers by TEM, and process of enzymatic degradation of microbial polyester fibers

Naotaka Kimura, Taizo Kabe, Satoshi Kimura, Ken-ichi Kasuya, Tadahisa Iwata

11:40 2T07 Investigation on compatibility of Poly(lactic acid)/thermoplasticized starch blends and amine-terminated silicone

Kazuki Shibasaki, Yu-I Hsu, Hiroshi Uyama

Shintaro Nakagawa, presiding

13:20 2T09 Improvement of mechanical properties of epoxy composites using citric acid modified cellulose

Shotaro Yano, Yu-i HSU, Hiroshi Uyama

13:45 2T10 Effect of Structural Chirality of DNA on Optical Properties of Water-Soluble Helical Eu(III) Complexes.

Nana Hitomi, Hitomi Ohmagari, Kazuki Nakamura, Miki Hasegawa, Norihisa Kobayashi

14:10 2T11 Correlation between the free-volume size using positron annihilation lifetime spectroscopy and the enzymatic degradation rate of polylactic acid film

Azusa Togo, Hideaki Hagihara

Tomohiro Kubo, presiding

14:35 2T12 Effect of nucleating agent on PHA crystallization

Masahiro Fujita, Noboru Ohta, Kiyoshi Yagi, Hideki Abe

15:00 2T13 Visualization of Volatile Organic Halogenated Compounds by Using D- π -A Type Pyridinium Dye Polymer

Kumpei Kozuka, Keiichi Imato, Yousuke Ooyama

15:25 2T14 Effect of electrolyte composition on membrane microstructure and device characteristics in ultrafast electrochemiluminescent devices based on DNA/Ru(bpy)₃²⁺ hybrid film

Hiroki Nakatani, Ryuki Ozawa, Kazuki Nakamura, Norihisa Kobayashi

15:50 2T15 Development of biodegradation trigger for marine biodegradable plastics by surface modification

Jobu Tateiwa, Yu-I Hsu, Hiroshi Uyama, Tadahisa Iwata

16:15 2T16 Development of Enzyme Embedded Polyesters with Marine Biodegradability

QIUYUAN HUANG, Satoshi KIMURA, Tadahisa IWATA

16:40 2T17 Isolation of marine PHBH-degrading bacteria and their PHBH degradation behavior

Tomohiro Hiraishi, Senri Hayashi, Takuma Otsuki, Momoko Kitamura, Noriyuki Asakura, Hideki Abe

Thu. Sep 28

E. POLYMERS AND ENVIRONMENT

Naoki Kanayama, presiding

9:10 3T01 Development of Marine Biodegradable Poly(ester-amide)s having Long-chain Dicarboxylate Units

Yasumasa Takenaka, Motosuke Imada, Kaoko Sato, Sumito Kumagai, Senri Hayashi, Atsushi Katsuragi, Hideki Abe

- 9:35 3T02 Synthesis and Biodegradability of Poly(ester-amide)s containing (R)-3-hydroxybutyric acid
Senri Hayashi, Tomohiro Hiraishi, Hideki Abe
- 10:00 3T03 Preparation of chitosan containing porous films and their biodegradability
Olaf Karthaus, Hiroki Fujiwara, Fuka Sato, Seiyu Abe, Taiyo Nagai, Hiroyuki Doyama, SangYul Kim, Yoshihiko Omura
- Masaru Yoshida, presiding**
- 10:25 3T04 Synthesis of Vinyl Copolymers with Degradable Units by Radical Copolymerization of Coumarin-Derived Thionoester Monomers
Kanako Kikuta, Sota Yamamoto, Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 10:50 3T05 Synthesis and characterization of polyisoprene rubber with degradable units by environmental stimuli
Shun Kumano, Shintaro Nakagawa, Naoko Yoshie
- 11:15 3T06 Chemical recycling and self-healing behavior of networked polydithiourethanes
Yoshiaki Yoshida, Ryuichi Suenaga, Honoka Watanabe

Room U

Wed. Sep 27

S15. Plastic Resource Cycle for Circular Economy

- 9:00 2USO Introductory Remarks S15
Toshiaki Yoshioka
- Toshiaki Yoshioka, presiding**
- 9:10 2U01 A preparation of marine microplastic model and the resulting ecological risk assessment
Hisayuki Nakatani, Suguru Motokucho, Anh Thi Ngoc DAO, Hee-Jin Kim, Mitsuharu Yagi, Yusaku Kyojuka
- 9:35 2U02 Residual behavior of UV absorbers in various microplastics
Taishi Uchiyama, Hisayuki Nakatani, Suguru Motokucho, Anh Thi Ngoc DAO
- 10:00 2U03 Estimation of the age of polyethylene microplastics collected from oceans.
Rie Okubo, Aguru Yamamoto, Akihiro Kurima, Terumi Sakabe, Youichiroh Ide, Atsuhiko Isobe
- 10:25 2U04 Estimating the time required for polyethylene film to transform into microplastics on the beach
Akihiro Kurima, Rie Okubo, Aguru Yamamoto, Terumi Sakabe, Youichirou Ide, Atsuhiko Isobe
- Takayuki Tsukegi, presiding**
- 10:50 2U05 Photooxidative Degradation of Oriented Isotactic Polypropylene
Yingjun AN, Tomoko KAJIWARA, Adchara PADERMSHOKE, Thinh Van NGUYEN, Hiroyasu MASUNAGA, Yutaka KOBAYASHI, Hiroshi ITO, Sono SASAKI, Atsushi TAKAHARA
- 11:15 2U06 Use of organocatalysts for depolymerization reactions
Akio Kamimura
- 11:40 2U07 Low-temperature and short-time depolymerization of polyester fibers
Shinji Tanaka
- Masazumi Tamura, presiding**
- 12:55 2U08 Transformation of polyesters into vitrimers based on the cross-linking via decomposition and bond exchange and the application into upcycling technique
Mikihiro Hayashi, Shoko Uchiyama, Mio Kato
- 13:20 2U09 Upgrading recycling of polyolefin by microorganisms
Seiya Okubo, Shun Narizumi, Suguru Motokucho, Anh Thi Ngoc DAO, Hisayuki Nakatani

- 13:45 2U10 Recovery of valuables via catalytic conversion of pyrolysis gas from carbon fiber reinforced plastics
Kazumasa Oshima, Kazumasa Morita, Keigo Tashiro, Masahiro Kishida, Shigeo Satokawa
- 14:10 2U11 Preparation of waste plastic mixed bio-coke and evaluation of their structure / thermal properties
Tomoya Ukai, Takase Kishimoto, Daiki Anma, Kohei Shiraishi, Tamio Ida

Shogo Kumagai, presiding

- 14:35 2U12 Development of catalytic cracking process of waste plastics using spent FCC catalyst
Haruki Tani, Shuji Noda, Yayoi Murakami, Kenji Asami, Kaoru Fujimoto
- 15:00 2U13 Development of effective solid catalysts for chemical upcycling of polyolefinic plastics
Masazumi Tamura
- 15:25 2U14 Lithium recovery from LiCoO₂ by the pyrolysis reaction of synthetic resins
Shunsuke Kuzuhara, Kazuki Fujiwara, Kaisei Ito, Osamu Terakado, Kasuya Ryo

Shigeru Yao, presiding

- 15:50 2U15 Decomposition of plastic materials via supercritical hydrothermal reaction: in situ observation by small-angle neutron scattering
Motoki Shibata, Yohei Nakanishi, Jun Abe, Hiroshi Arima-Osonoi, Hiroki Iwase, Mitsuhiko Shibayama, Ryuhei Motokawa, Takayuki Kumada, Shin-ichi Takata, Katsuhiko Yamamoto, Mikihiro Takenaka, Tsukasa Miyazaki
- 16:15 2U16 Degradation of Modified Polystyrenes Having Degradable Units by Near Infrared Light Irradiation
Haruyuki Okamura, Kiwa Mihono
- 16:40 2U17 Self-assembly observed in the degradation reaction solution - the case of room temperature-
Satoshi Koizumi, Haruka Nagai, Yohei Noda, Ryuichirou Tamochi, Norie Yaguchi
- 17:05 2U18 Investigation of pyrolysis characteristics of polymers through pyrolysis-gas chromatography
Shogo Kumagai, Toshiaki Yoshioka

Thu. Sep 28

S15. Plastic Resource Cycle for Circular Economy

Suguru Motokucho, presiding

- 9:10 3U01 Challenges in mechanical recycling of low-density polyethylene film: effect from various shear treatment modes on mechanical properties
Patchiya Phanthong, Shigeru Yao
- 9:35 3U02 Design for Environment from the Viewpoint of Polymer Physical Properties
Shigeru Yao, Patchiya Phantong, Nobuhisa Takayama
- 10:00 3U03 The Effects of Wood Fiber Composition as a Filler on Bio-Composites
Yoshito Andou, Jinndi Wu

Shinji Tanaka, presiding

- 10:25 3U04 Recycling of PLA/PP fiber reinforced plastics
Takayuki Tsukegi, Osamu Yoshimura
- 10:50 3U05 Depolymerization of super engineering plastic PEEK by sulfur nucleophiles to form monomer-type products
Yasunori Minami, Nao Matsuyama, Yumiko Nakajima
- 11:15 3U06 Chemical recycling of polyurethane foam via carbonated water hydrolysis
Suguru Motokucho, Yoshihiko Oniki, Hajime Kitano
- 11:40 3U07 Chemical recycling of polycarbosilane containing bifuran moiety via proto-desilylation
Yuya Tachibana, Shunsuke Beppu, Ken-ichi Kasuya

Akio Kamimura, presiding

- 12:55 3U08 High performance of vitrimeric resins with cyclic supramolecules for the circular economy
Shota Ando, Masaki Hirano, Hideaki Yokoyama, Kohzo Ito
- 13:20 3U09 Synthesis of aromatic polycarbonates having stilbene-type main chain structures and their thermal properties
Masayoshi Honda, Hideki Abe, Hiroshi Sugimoto
- 13:45 3U10 Synthesis and characterization of bio-based polyimides using isosorbide-containing diamine
Yoshiyuki Tsurusaki, Ririka Sawada, Shinji Ando
- 14:10 3U11 Synthesis of poly(lactic acid) derivatives by controlled introduction of glycolic acid structure and their biodegradation properties
Yuushou Nakayama, Chigen Kinoshita, Ryo Tanaka, Takeshi Shiono, Shodai Hino, Norioki Kawasaki, Naoko Yamano, Atsuyoshi Nakayama

Yuushou Nakayama, presiding

- 14:35 3U12 Effect of Degree of Substitution on the Mechanical Properties of Cellulose Ester Film
Lease Jacqueline, Yoshito Andou
- 15:00 3U13 Development of alginate-based functional materials
Hiromitsu Sogawa, Soi Inata, Riku Kojima, Fumio Sanda
- 15:25 3U14 New Developments in Optical Sorting Technology for Advanced Plastic Recycling
Hirofumi Kawazumi, Akihiro Tsuchida, Katsushi Nishimori, Noriyuki Kato

Room V

Tue. Sep 26

S16. Developments in Optical Electronics Materials and Processes in Physical Space Compatible with Cyberspace

- 12:45 1VSO Introductory Remarks S16
Kohei Iritani

Haruyuki Okamura, presiding

- 12:55 1V08 Electrophoretic Deposition of Polyimides/Boehmite Alumina Hybrid Materials and the Properties of Their Deposition Coatings
Ayumi Kobayashi, Kohei Iritani, Takashi Yamashita
- 13:20 1V09 Synthesis of Hybrid Electrophoretic Deposition Materials of Solvent-Soluble Polyimides without Ionic Groups/Boehmite alumina and their Coating Properties
Ayumi Kobayashi, Hideyuki Kikuchi, Kohei Iritani, Akemi Kumagai, Hiroshi Jinnai, Takashi Yamashita
- 13:45 1V10 Electrophoretic deposition of solvent soluble polyimides containing fluorene moieties and the properties of EPD coatings
Rena Takashima, Ayumi Kobayashi, Kohei Iritani, Hideyuki Kikuchi, Takashi Yamashita
- 14:10 1V11 Non-power Flexible Sensors Using Ionic Gels
Tian Liang, Kanako Matsushita, Hidenori Okuzaki

Hiroki Yamamoto, presiding

- 14:35 1V12 Construction of Fluorescent Monolayer Based on Precise Alignment of Molecule with Aggregation-Induced Emission Effect
Kohei Iritani, Keijiro Ikuta, Yoshitaku Matsubara, Ayumi Kobayashi, Takashi Yamashita
- 15:00 1V13 High-speed afterglow patterning and high-resolution afterglow readout due to cooperative stimulation
Shuzo Hirata, Kikuya Hayashi

15:25 1V14 Photopatterning of polysiloxane and its thermal curing by acylated imidazoles as chain curing agents
Yukai Ito, Nobuhiro Ishikawa, Daisuke Aoki, Koji Arimitsu

Teruaki Hayakawa, presiding

15:50 1V15 Novel Photomechanical Behaviors Observed for Azobenzene-based Photochromic Amorphous Molecular Materials
Hideyuki Nakano, Ryota Ichikawa, Ayame Kitano, Hiroyasu Ukai, Motona Matsubara, Hajime Nigorikawa, Yoshiki Aomatsu, Masahiro Kuragano, Kiyotaka Tokuraku

16:15 1V16 Photo-Induced Crawling Motion of Azobenzene Crystals on a Liquid-Like Surface and its Application for Particle Transportation
Makoto Saikawa, Kengo Manabe, Koichiro Saito, Yoshihiro Kikkawa, Yasuo Norikane

16:40 1V17 Molecular Orientation Patterns Formation by Gradient Photopolymerization-Induced Self-Organization.
Yuki Shikata, Kohsuke Matsumoto, Osamu Tsutsumi

Yasuo Norikane, presiding

17:05 1V18 Photo-thermal Dual Cured Blends of TiO₂/diarylfuorene Films with High Refractive Indices
Haruyuki Okamura, Keiko Minokami, Hirotsugu Kuratani, Shinsuke Miyauchi

17:30 1V19 Development of One-Dimensional Helical Nanomaterials Based on Organic-inorganic Hybrid Structure for Circularly Polarized Light Detection
Ayumi Ishii

17:55 1V20 Study on Irradiation Effects by Ultrashort-pulsed Extreme Ultraviolet in Resist Materials
Hiroki Yamamoto, Yuji Hosaka, Masahiko Ishino, Thanh-Hung Dinh, Takahiro Kozawa, Yasunari Maekawa

Wed. Sep 27

S16. Developments in Optical Electronics Materials and Processes in Physical Space Compatible with Cyberspace

Ken'ichi Aoki, presiding

9:10 2V01 Synthesis of Polyacetals for Application of High-Sensitive Extreme Ultraviolet Resist Material
Hiroyuki Maekawa, Hiroto Kudo

9:35 2V02 Precise Synthesis of PS-b-PMMA Derivative with Hydroxy Groups for Neutral Layers and Thin Films
Riku Mizusaki, Shinsuke Maekawa, Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa

10:00 2V03 Precision Syntheses and Phase Separation Behaviors of PS-PMMA Block Copolymers Carrying Urea Bonds in the Junction: Achievement of Phase Separation with Low Molecular Weight Block Copolymer
Suguru Sonobe, Kodai Nagashima, Shinsuke Maekawa, Teruaki Hayakawa, Makoto Ouchi

Kohei Iritani, presiding

10:25 2V04 Blue Organic Light-Emitting Diodes Operated Only by a 1.5 V Battery
Seiichiro Izawa

10:50 2V05 Large-scale synthesis of dendritic polyacrylates and polyols for the application to photopolymer materials
Ken'ichi Aoki, Atsushi Seki

11:15 2V06 Optoelectronic Organic Materials Based on Polymer Blend Films
Hideo Ohkita, Hyung Do Kim

11:40 2V07 Effects of Insulating Polymer Matrix on Charge Transport Properties in Crystalline Conjugated Polymer Films

F. INDUSTRIAL POLYMERS AND TECHNOLOGY

Masafumi Yamato, presiding

- 12:55 2V08 Mechanical Properties of Functionally Graded Materials Inspired by Hard Shells of Plants
Rikima Kuwada, Daisuke Ishii
- 13:20 2V09 Modified Polyimides for use in Flexible Printed Circuit Boards for High-speed Data Communication (4)
Masatoshi Hasegawa, Taro Fukuda, Junichi Ishii
- 13:45 2V10 Modified Polyimides with Low Thermal Expansion Property and Thermoplasticity
Masatoshi Hasegawa, Keisuke Minagawa, Takayuki Kaneki, Junichi Ishii, Takao Miwa, Toshiyuki Goshima, Win Maw Soe

Masatoshi Hasegawa, presiding

- 14:10 2V11 Gas Permeability Performance of Polymer of Intrinsic Microporosity (PIM-1) at Temperatures Near 100 ° C
Mizuki Akatsuka, Masafumi Yamato, Hiroyoshi Kawakami
- 14:35 2V12 Structure and Physical Properties of Highly Loaded Membranes with Silica Nanoparticles
Masafumi Yamato, Hiroyoshi Kawakami
- 15:00 2V13 Investigation of flame retardant mechanism of epoxy resin by machine learning
Yuki Sado, Hiroaki Sakata

Tomoki Maeda, presiding

- 15:25 2V14 Effect of Side Chain Alkyl Length on Mechanical Properties of Ionic Thermoplastic Elastomers
Kei Suzuki, Mako Ota, Takato Kajita, Daisuke Kato, Ryoji Oda, Atsushi Noro
- 15:50 2V15 Development of high-dispersion polymer-encapsulated nano-pigment ink
Ryosuke Kokubun, Moriya Kikuchi, Shigeki Takahashi, Seigou Kawaguchi

Hiroshi Endo, presiding

- 16:15 2V16 Molecular weight control of cationically end-functionalized polystyrene with antibacterial activity
Shunsuke Ishizuka, Tomoki Maeda, Atsushi Hotta
- 16:40 2V17 Nanofibers of poly(ether ether ketone) and its derivatives fabricated by solution electrospinning
Tomoki Maeda, Kosuke Yoshimura, Tomoyuki Nomura, Shigeki Okada, Atsushi Hotta

Hiroaki Sakata, presiding

- 17:05 2V18 Actuation Performance of Auxetic-typed Flexible Structures
Hiroshi Endo, Shuntaro Kondo, Yukihide Tashiro

Thu. Sep 28

F. INDUSTRIAL POLYMERS AND TECHNOLOGY

Hiroaki Sakata, presiding

- 9:10 3V01 Unique elongation behavior of composite elastomers induced by surface treatment of silica particles
Moe Sakamoto, Mitsuo Hara, Xiaobin Liang, Ken Nakajima, Taiki Hoshino, Masaru Tanaka, Yukikazu Takeoka
- 9:35 3V02 Mechanical properties of carbon black/natural rubber composites prepared by the supercritical fluids mixing method
Shin-ichi Kihara, Soshi Akagawa, Takumi Maekawa, Ikuo Ushiki, Shigeki Takishima

Shin-ichi Kihara, presiding

- 10:00 3V03 Development of dynamic thermal functions based on stretching of the elastomeric composite materials
Yuki Otomo, Shin-ichiro Abe, Shota Tsuneyasu, Kojiro Uetani
- 10:25 3V04 Composite membranes composed of polymer and porous nanoparticles for CO₂ capture
Shinji Kanehashi, Sandra Kentish, Colin Scholes

Shinji Kanehashi, presiding

- 10:50 3V05 Feature Extraction and Automatic Discrimination by Combustion Behavior Analysis of Polymer Materials
Yuya Nakanishi, Erika Nakashima, Tomonaga Ueno
- 11:15 3V06 GPT-4-based Chatbot Capable of Answering Polymer Science Questions
Kan Hatakeyama, Teruaki Hayakawa, Yuta Nabae

Daisuke Aoki, presiding

- 12:55 3V08 Photoinduced exfoliation behavior and change in adhesive property of oriented liquid-crystalline Schiff-based photoresponsive adhesives
Tatsuki Nagata, Mizuho Kondo, Daisuke Okai, Hiroki Adachi, Nobuhiro Kawatsuki
- 13:20 3V09 Dismantlable adhesive using photoresponsive polymer liquid crystals
Mizuho Kondo, Nobuhiro Kawatsuki

Mizuho Kondo, presiding

- 13:45 3V10 Novel photocurable systems utilizing acetoacetic acid esters at room temperature and their adhesive properties
Yuya Tanaka, Daisuke Aoki, Koji Arimitsu
- 14:10 3V11 UV adhesive behavior of one-component urea adhesives using various photobase generators
Toshiki Moriya, Daisuke Aoki, Koji Arimitsu
- 14:35 3V12 Study on the effect of degreasing treatment on adhesion between natural rubber and steel cord
Jing Sang, Shuhei Somazawa, Sumio Aisawa, Hidetoshi Hirahara, Yuuki Murakami

Room ESA**Tue. Sep 26****A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”****Tomohiro Kubo, presiding**

- 10:00 1ESA03 One-pot Synthesis of Star-shaped ABC miktoarm terpolymers via multicomponent reaction
Kodai Nagashima, Yuta Nabae, Kan Hatakeyama, Teruaki Hayakawa
- 10:25 1ESA04 Synthesis and permselectivity of various well-defined macromolecules from 1,3-bis(hydroxymethyl)-2,5-diethynylbenzene
Moena Maeyama, Kehan Cheng, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 10:50 1ESA05 Synthesis and Properties of π -Conjugated Benzodithiophene-based Polymers Containing Fluorinated Polycyclic Aromatic Units
Hidetoshi Okuzaki, Sera Sato, Tomohiro Agou, Toshio Kubota, Hiroki Fukumoto

Hiroki Fukumoto, presiding

- 11:15 1ESA06 Thermoreversible Tough Polymer: Introducing Crosslinks by the Diels-Alder Reaction into Polymethylcaprolactone-grafted Polyrotaxane
Adriana Saikali, Yuya Oyama, Naruki Kurokawa, Atsushi Hotta
- 11:40 1ESA07 Degradation of crystalline polyolefins in the solid state assisted by COOH group

Bin Lu, Kohei Takahashi, Jian Zhou, Shintaro Nakagawa, Naoko Yoshie, Kyoko Nozaki

Naruki Kurokawa, presiding

- 12:55 1ESA08 Synthesis of Biobased Polyesters by Olefin Metathesis and the End-Functionalization
Daisuke Shimoyama, Shunsuke Sato, Kento Hashiguchi, Kotohiro Nomura
- 13:20 1ESA09 Synthesis of sequence-controlled homopolymer via anionic self-alternating polymerization of AB-type divinyl monomers
Hamin Kim, Raita Goseki, Chihiro Homma, Takashi Ishizone
- 13:45 1ESA10 Chemoselective polymerization of bromostyrenes enabled by flow microreactors
Yosuke Ashikari, Tomoko Kawaguchi, Takashi Tamaki, Mai Furusawa, Yuya Yonekura, Yoko Aizawa, Yusuke Takahashi, Aiichiro Nagaki

Invited Lecture “English Session”

Yukio Nagasaki, presiding

- 14:10 1ESA11ILY Development of Innovative Organic Energy Materials towards a Sustainable Society
Kouki Oka
- 14:35 1ESA12ILY Bridge-rich and loop-less hydrogel networks through suppressed micellization of multiblock polyelectrolytes
Jihoon Han, Saeed Najafi, Joan-Emma Shea, Youn Soo Kim
- 15:00 1ESA13ILY Biomimetic soft materials of self-assembled inorganic nanosheets
Koki Sano

Hiroyuki Aoki, presiding

- 15:25 1ESA14ILY Modulating Nanomorphology of Functionalized Organic Semiconductors for Optoelectronic Applications
Min Kim
- 15:50 1ESA15ILY A New Approach to Realize Large-scale Synthesis of Polymer Brushes
Tomoya Sato, Atsushi Hozumi
- 16:15 1ESA16ILY Pump-probe spectroscopy to investigate the excited-state dynamics of excitons and charge-carriers in optronic materials
JaeHong Park

Youn Soo Kim, presiding

- 16:40 1ESA17ILY Precise polymerization using borataanthracenide as a counteranion
Ryo Tanaka
- 17:05 1ESA18ILY Covalent Adaptable Networks: Recyclable Networked Polymers
Chae Bin Kim

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”

Takashi Ishizone, presiding

- 17:30 1ESA19 The relationship between polymerization-induced heterogeneity and the reaction acceleration during the late stage of bulk polymerization
Yasuhito Suzuki, Akikazu Matsumoto
- 17:55 1ESA20 Synthesis of Catechol-Containing Polymer Brushes by Surface-Initiated PET-RAFT Polymerization
Rui Guo, Shiho Tanizaki, Riko Kashima, Tomohiro Kubo, Kotaro Satoh

Wed. Sep 27

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”

Hiroaki Shimomoto, presiding

- 9:35 2ESA02 Sequence Controllable Copolymerization of Epoxides/Aziridines/Cyclic Anhydrides Monomer Mixture by Binary Organocatalysts
Tianle Gao, Feng Li, Isono Takuya, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Yukio Nagasaki, presiding

- 10:00 2ESA03 Phase separation behavior of polymer gels composed of 8-armed poly(ethylene glycol) and the application for bone regeneration
Jinyan Si, Shant Nepal, Shohei Ishikawa, Hiroyuki Okada, Ung-il Chung, Hironori Hojo, Takamasa Sakai
- 10:25 2ESA04 Enhancing the Binding Constant of Cyclodextrin-Based Nanoparticles (CDNPs) with Paroxetine Determined by DOSY-NMR: A Comprehensive Approach for Characterizing Drug Encapsulation
Anh Doan, Kazuo Sakurai

Kazuo Sakurai, presiding

- 10:50 2ESA05 Design of Phosphoserine Conjugated Chitosan Hydrogels for Chronic inflammatory Diseases
Gyeongwoo Lee, Mitsuhiko Ebara
- 11:15 2ESA06 Design and Synthesis of Self-folding Macromolecular Drug Carriers and their Biological Applications for Tumor-directed Diagnosis and Therapy
Shan Gao, Satoshi Ohno, Akira Sumiyoshi, Keisuke Ogata, Shota Ishida, Yuto Honda, Kensuke Osada, Ichio Aoki, Nobuhiro Nishiyama, Yutaka Miura
- 11:40 2ESA07 Efficacy of butyrate-based self-assembling polymer micelle drug in various animal models of diseases
Babita Shashni, Yuya Tajika, Yutaka Ikeda, Yuji Nishikawa, Yukio Nagasaki

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES “English Session”

Kosuke Okeyoshi, presiding

- 12:55 2ESA08 In-situ observation of PET film during degradation
Satoshi Koizumi, Haruka Nagai, Yohei Noda, Ryuichirou Tamochi, Norie Yaguchi
- 13:20 2ESA09 Investigating single-chain structure during the crystallization process by atomic force microscopy
Dingrui Wang, Xiaobin Liang, Ken Nakajima

Ken Nakajima, presiding

- 13:45 2ESA10 Synthesis and Characterization of Molecularly Oriented Polyimides Toward Highly Thermal Conductivity
Yucheng Liang, Erina Yoshida, Hayato Maeda, Kan Hatakeyama, Yuta Nabaie, Meguya Ryu, Junko Morikawa, Teruaki Hayakawa
- 14:10 2ESA11 Specific polymer deposition in meniscus splitting and the effect of Marangoni convection
Leijie WU, Kosuke OKEYOSHI

Kazunari Yoshizawa, presiding

- 14:35 2ESA12 Improved network formation in polyelectrolyte complex hydrogels via suppression of micellization
Jihoon Han, Saeed Najafi, Joan-Emma Shea, Youn Soo Kim
- 15:00 2ESA13 Fabrication of Homogeneous Thermoresponsive Polymer Network with Narrow Molecular Weight Distribution Using Four-Branched Star Polymers
Guohao GAO, YUKIKAZU TAKEOKA

Yukikazu Takeoka, presiding

- 15:25 2ESA14 A DFT Study on Adhesion Mechanism of Epoxy Resin to Graphene and Graphene Oxide
Amit Shrestha, Yosuke Sumiya, Kazunari Yoshizawa

- 15:50 2ESA15 Effect of the amine/epoxy stoichiometric ratios on the mechanical properties of hydrogenated-epoxy-resin single-lap joints
Rasha A. H. Bayomi, Chien-Wei Chu, Yuki Ando, Chao-Hung Cheng, Kakeru Obayashi, Atsushi Takahara, Ken Kojio

Room ESB

Tue. Sep 26

E. POLYMERS AND ENVIRONMENT “English Session”

Masaya Yamamoto, presiding

- 10:25 1ESB04 Enhance the toughness and biodegradability of poly(butylene succinate) (PBS) by polyrotaxane (PR)
Cong Liu, Shota Ando, Hideaki Yokoyama, Kohzo Ito
- 10:50 1ESB05 Structure-property relationships in binary polymer blends of paramylon ester and aliphatic polyesters
Manikandan Ilangovan, Taizo Kabe, Tadahisa Iwata
- 11:15 1ESB06 Pressure-processable plasticizer for polylactides
Neha Sharma, Tsuyoshi Koga, Shigeru Deguchi, Ikuo Taniguchi
- 11:40 1ESB07 Antibacterial properties of DNA ion complex films consisting of different cationic surfactants
Diaa Abdelsalam, Takashi AOKI

Takashi Aoki, presiding

- 12:55 1ESB08 Novel sulfur-rich polymer prepared with bio-based materials via inverse vulcanization
Guohao MA, Masanobu NAITO
- 13:20 1ESB09 Quartz Crystal Microbalance-based Quantitative Evaluation of CO₂ Sorption for Rubbery and Crystalline Polymer Membranes
Yucheng Zhang, Sinan Feng, Atsushi Takahara
- 13:45 1ESB10 Caco-2 cell uptake polypropylene nanoplastics fabricated by thermal-oxidative reaction
Suphatra Hiranphinyophat, Naoto Washihira, Sho Fujii, Tadao Tanabe, Tsuyoshi Kimura, Mako Kobayashi, Masaya Yamamoto

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Kenji Kinashi, presiding

- 15:00 1ESB13 Development of dicoumarol supramolecular microfibers
Aohan Wang, Isao Yamaguchi
- 15:25 1ESB14 Controlling the formation of pseudo-polyrotaxane nanosheets by modification of axial end groups
Riku Kanno, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 15:50 1ESB15 Pseudo-polyrotaxane Nanosheet: Elucidation of Axle Polymer Folding Mechanism and Comparison of Disassembly Behavior
Haruki Kazumi, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito

Yukikazu Takeoka, presiding

- 16:15 1ESB16 Organic Electrochemical Transistors Utilizing pi-ion Gel
Soh Kushida, Kato Masato, Yohei Yamamoto
- 16:40 1ESB17 Sponge-like cellulose acetate three-dimensional structure produced by non-solvent induced phase separation jet-spinning technique
DE NGUYEN, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi
- 17:05 1ESB18 Crosslinked polyimide nanofibrous aerogels with hierarchical cellular structure for thermal insulation
Van Khuat Thi Khanh, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi

Yohei Yamamoto, presiding

- 17:30 1ESB19 Photosolient Effect of trans Tetra-ortho-Bromo Azobenzene
Keegan McGehee, Koichiro Saito, Dennis Kwaria, Hiroyuki Minamikawa, Rie Haruki, Ryo Fukaya, Shunsuke Nozawa, Yasuo Norikane
- 17:55 1ESB20 The analysis of crosslinking reaction of acryl ionic rubber
Keita Suzuki, Kaoru Umeda, Tatsuya Jotsuka, Yuichi Aoyagi

Wed. Sep 27**C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”****Shotaro Hayashi, presiding**

- 9:10 2ESB01 Deformable mechanoelectric generators based on alkyl- π molecular liquid electrets
Takashi Nakanishi, Akira Shinohara, Ravindra Gupta
- 9:35 2ESB02 Quantitative Analysis of the Dielectric Properties of Various Polyimides at 10 GHz and Their Humidity Dependence Based on Polarization Characterization
Ririka Sawada, Shinji Ando
- 10:00 2ESB03 Synthesis of Helical Poly(diphenylacetylene)s Using Chiral Bio-Based Solvents as a Chiral Source and Their Use as Chiral Stationary Phases for HPLC
Zeyang Lin, Shota Sona, Daisuke Hirose, Katsuhiko Maeda

Takashi Nakanishi, presiding

- 10:25 2ESB04 Fundamental evaluation for rapid screening of environmental and biological samples by receptor-mimic polymer adsorbents
Takuya Kubo, Ichiro Yamauchi, Daisuke Nakajima
- 10:50 2ESB05 A Zinc(II)-Dipicolylamine-Attached Amphiphilic Polythiophene enabling Pattern Recognition-driven Oxyanion Detection
Yui Sasaki, Kohei Ohshiro, Kiyosumi Okabe, Xiaojun Lyu, Kazuhiko Tsuchiya, Akira Matsumoto, Shin-ya Takizawa, Tsuyoshi Minami
- 11:15 2ESB06 Evaluation of carbon dioxide (CO₂) transport behavior in Acrylonitrile-Butadiene Rubber (NBR)
Sinan FENG, Yokajaksusri NUTTHON, Yucheng ZHANG, Roman SELYANCHYN, Shigenori FUJIKAWA, Shinichi MURATA, Atsushi TAKAHARA

Tatsuya Nishimura, presiding

- 11:40 2ESB07 Preparation of pH-responsive chitosan hydrogels by meniscus splitting method
Thi Kim Loc Nguyen, Kosuke Okeyoshi
- 12:55 2ESB08 Operation conditions for efficient photomechanical response in nematic elastomers
takuya ohzono, emiko koyama
- 13:20 2ESB09 Development of a liquid crystalline pressure-sensitive adhesive
Kota Ono, Kensuke Suga, Katsuki Miyokawa, Mitsuo Hara, Shohei Saito

Tsuyoshi Minami, presiding

- 13:45 2ESB10 Low Entropic Hydrogel as Soft Template for Controlled Nanoparticle Formation
Maradhana Agung Marsudi, Ryuji Kiyama, Masahiro Yoshida, Takayuki Nonoyama, Jian Ping Gong
- 14:10 2ESB11 Effect of anions on the phase transition temperature of two structurally isomeric polymers: poly(N-isopropylacrylamide) and poly(2-isopropyl-2-oxazoline)
Taehun Chung, Jihoon Han, Youn Soo Kim
- 14:35 2ESB12 Optoelectronic active super-condensed π -gels based on alkyl- π molecular liquids
Akito Tateyama, Masamichi Yamanaka, Takashi Nakanishi

Shohei Saito, presiding

- 15:00 2ESB13 Particle Size Controlled Structural Color of Cholesteric Liquid Crystals Particles
Jialei HE, Mitsuo Hara, Yukikazu Takeoka

- 15:25 2ESB14 Gelatin-Smectite Nanocomposite Hydrogel with Anti-freezing and Thermal-hardening Behavior
Ploypailin SAENGDET, Yukikazu TAKEOKA, Makoto OGAWA
- 15:50 2ESB15 Evaluation of the changes by introducing polyrotaxane crosslinking reagent on mechanical performance of elastomers
shitetsu Ryuu, Yukikazu Takeoka

Jian Ping Gong, presiding

- 16:15 2ESB16 Synthesis and self-healing property of polyurethane elastomers: diisocyanate-linked biomass poly(methyl-caprolactone)
Shuhei Takamura, Naruki Kurokawa, Atsushi Hotta
- 16:40 2ESB17 Homogeneous blends of alkyl-pi molecular liquids monitored by full-color photoluminescence and rheology
Zhenfeng GUO, Chengjun PAN, Akira SHINOHARA, Takashi NAKANISHI
- 17:05 2ESB18 Effects of Isomerization of Azobenzene Moieties in Cross-Linked Polybutadiene Films in the Mechanical Properties
Midori Ishii, Yumiko Naka, Takeo Sasaki, Khoa V. Le

Thu. Sep 28

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Masashi Kunitake, presiding

- 9:10 3ESB01 Changes in Stereo-structures and Optical Properties of Thianthrene-containing Imide and Polyimide Induced by Photoexcitation and High Pressure
Haonan Liu, Hiroka Yamamatsu, Ryuichi Isoda, Megumi Matsuda, Naoki Matsuda, Tomoya Higashihara, Shinji Ando
- 9:35 3ESB02 Analysis for mechanism of upconverted luminescence of 9,10-diphenylanthracene by microstructural observation in DNA/Ru(bpy)₃²⁺ hybrid film
Ryuki Ozawa, Kazuki Nakamura, Takashi Tachikawa, Norihisa Kobayashi
- 10:00 3ESB03 Thermal control of nano-aggregate structures and optical properties using luminescent leuco dye/phenolic developer molecule complexes
Takuro Kawahata, Norihisa Kobayashi, Kazuki Nakamura

Tomoya Higashihara, presiding

- 10:25 3ESB04 Optical Properties of Two-Photon Polymerization Printed 3D Structures using Uniform Shrinking
Tomohiro MORI, Hao WANG, Takeshi MORI, Hideyuki KOISHI, Joel YANG
- 10:50 3ESB05 Batch and continuous fabrication techniques for flexible molecular crystal optical fibers
Satoshi Watanabe, Shota Sato, Shotaro Hayashi, Masashi Kunitake

Kazuki Nakamura, presiding

- 11:15 3ESB06 Generation of high purity circularly polarized light and multiplexing of chiroptical information by luminescence-based CP conversion film
Yutaka Okazaki, Hayaki Shimizu, Kaito Nakamura, Kyohei Yoshida, Guillaume Raffy, Kan Hachiya, Makoto Takafuji, Andre Del Guerzo, Takashi Sagawa
- 11:40 3ESB07 Investigation of Birefringent Particles in Random Depolarization Film for Liquid-Crystal and OLED Displays
Shizuki Sasaki, Yasuhiro Koike