

Room A

Wed. May 24

INVITED LECTURES

Takeshi Serizawa, presiding

10:15 1A06IL Development of High-performance Biodegradable Plastics and their Marine Biodegradability
Tadahisa Iwata

Akihiko Kikuchi, presiding

11:00 1A09IL Development of medical polymers contributing to future medicine
Yuichi Ohya

Michinari Kohri, presiding

12:45 1A13IL Improvement of Property and Functionality of Polyethylene by Drawing with Structural Control
Hiroki Uehara

Naoki Asakawa, presiding

13:30 1A16IL Thermophysical properties of polymers using state-of-the-art thermal analysis and thermophysical property measurement methods; Basic understanding of thermophysical properties and new developments in the design of molecular structures and higher-order structures
Junko Morikawa

AWARD LECTURES

Hideaki Yokoyama, presiding

14:15 1A19AL DEGRAFTING OF POLYMER BRUSHES FROM SILICA SUBSTRATES
Jan Genzer

Kohzo Ito, presiding

15:00 1A22AL Fundamental Mechanical and Scratch Behaviors of Reinforced Polymeric Systems
Hung-Jue Sue

Kazushi Mashima, presiding

15:45 1A25AL Molecularly Well-Defined Organometallics for Precision Polymerization
Jun Okuda

Hiroshi Jinnai, presiding

16:30 1A28AL Well-Ordered Nanonetwork Materials from Block Copolymer Templates for Metamaterial Applications
Rong-Ming Ho

Thu. May 25

INVITED LECTURES

Naotake Konno, presiding

- 9:30 2A03IL Polymeric Biomaterials for Regenerative Medicine and Environmental Research
Masaya Yamamoto

Naoko Yoshie, presiding

- 10:15 2A06IL Design of biocompatible polymers and advanced medical devices
Masaru Tanaka

Katsuhiko Inomata, presiding

- 11:00 2A09IL Liquid crystallinity of polymers for structural control and the manifestation of physical properties
Masatoshi Tokita

AWARD LECTURES

Takeshi Shiono, presiding

- 12:45 2A13AL Development of Polymer Syntheses using Diazocarbonyl Compounds
Eiji Ihara

Haruhisa Akiyama, presiding

- 13:30 2A16AL Structure and physical properties of polymers at surfaces and solid interfaces
Keiji Tanaka

Takeharu Isaki, presiding

- 14:15 2A19AL Design of Anti-Thrombogenic Polymer Focusing on How Water Interacts with It and Commercialization of Artificial Kidney
Yoshiyuki Ueno, Masaki Fujita, Hiroyuki Sugaya, Takeshi Baba, Masaru Nakada

INVITED LECTURES

Ken Kojio, presiding

- 15:00 2A22IL Tribological Applications of Concentrated Polymer Brushes
Yoshinobu Tsujii

Michiya Matsusaki, presiding

- 15:45 2A25IL Biofabrication strategies towards efficient topographic immunomodulation
Matthias Ryma, Tina Tylek, Carina Blum, Jürgen Groll

Toshifumi Satoh, presiding

- 16:30 2A28IL Stereoregular Chiral and Tactic block copolymers: Syntheses, Self-assembly and Applications
Jing Cherng Tsai

Fri. May 26

INVITED LECTURES

Kotaro Satoh, presiding

- 9:30 3A03IL Synthesis of Dendralene Derivatives and its Polymerization Behavior
Katsuhiko Takenaka

Yohei Yamamoto, presiding

- 10:15 3A06IL New Developments in Mechanochemical Organic Synthesis
Hajime Ito

Yoichi Tominaga, presiding

- 11:00 3A09IL Bioinspired anti-fouling functional surfaces in aqueous media and surface-grafted polymers
Motoyasu Kobayashi

AWARD LECTURES

Ichiro Hisaki, presiding

- 12:45 3A13AL Development of Supramolecular Materials Based on Artificial Nucleic Acids
Hironu Kashida

Shinji Sugihara, presiding

- 13:30 3A16AL Precision Synthesis and Controlled Self-Assembly of Amphiphilic Polymers
Takaya Terashima

Kazunori Sugiyasu, presiding

- 14:15 3A19AL Synthesis of Semiconducting Polymers by Polycondensations Based on Direct Arylation and Catalyst-Transfer
Christine K. Luscombe

Room B

Wed. May 24

POLYMERS TODAY AND BEYOND

Tomoko Yajima, presiding

- 10:15 1B06IL Deepening Reaction Control with AI Using "Digi-TOS" Platform
Takashi Ohshima

Yutaka Nozoe, presiding

- 11:00 1B09IL Molecular Creation in Digital Organic Synthesis
Seijiro Matsubara

Kazushi Kinbara, presiding

- 12:45 1B13IL Large-scale molecular simulation and AI for peptide drug

discovery
Masatake Sugita, Takuya Fujie, Jianan Li, Keisuke
Yanagisawa, Masahito Ohue, Yutaka Akiyama

Shukichi Tanaka, presiding

13:30 1B16IL NEC's AI Drug Development Initiatives
Akira Kitamura

Hiroaki Kuwahara, presiding

14:15 1B19IL Promoting a revolution in bio-manufacturing by integrating bio-
digital technologies
Akihiko Kondo

Kazuki Fukushima, presiding

15:00 1B22IL Nanomedicine Design Based on Polymer Science
Kanjiro Miyata

Tomokazu Yasuda, presiding

15:45 1B25IL Basic technology development and application of mRNA vaccines
and therapeutics
Satoshi Uchida

Akihiko Kikuchi, presiding

16:30 1B28IL R&D trend for mRNA medicines - Beyond mRNA Vaccines -
Shiro Akinaga

Thu. May 25

POLYMERS TODAY AND BEYOND

Shuichiro Ogawa, presiding

9:30 2B03IL Strategies and material diagnosis technology required for plastic
recycling
Hiroaki Sato

Toshio Tada, presiding

10:15 2B06IL Development of cellulose nano fiber in Nippon Paper Industries
Haruo Konno

Shinichiro Tanaka, presiding

11:00 2B09IL Ammonia and hydrogen produced for chemical recycling that
support the recycling of waste plastic resources.
Tsunekichi Kuriyama

Hideki Komatsu, presiding

12:45 2B13IL The way to realize Carbon Neutral in Mitsui Chemicals
Shingo Shibata

Takanari Yamaguchi, presiding

13:30 2B16IL Environmental Solution Initiatives at Teijin
Ton de Weijer, Markus Schneider, Jan Roos

Makoto Nishimoto, presiding

14:15 2B19IL From used tires to tire raw materials through horizontal recycling
"Toward a sustainable future where recycled tires are the
standard"
Masahiro Hojo

Fri. May 26

POLYMERS TODAY AND BEYOND

Ryosuke Kamitani, presiding

9:30 3B03IL Understanding and challenging of social implementation of adhesive interfaces at a molecular level
Keiji Tanaka

Seiichi Sumikura, presiding

10:15 3B06IL Basic Elemental Technology and Development of Dismantlable Adhesives
Eriko Sato

Yoshihiro Uozu, presiding

11:00 3B09IL Government Initiatives for Advanced Air Mobility
Kaori Uda

Mina Aoyama, presiding

12:45 3B13IL Multi-scale analysis of interfacial phenomena in adhesion and adhesive bonding
Shin Horiuchi

Hideko Akai, presiding

13:30 3B16IL Metal-Dissimilar Material Joining Technology DLAMP, Market Needs and Issues for Popularization.
Kiyoshi Shimizu

Takashi Sanada, presiding

14:15 3B19IL Advances in Biomimetic Technologies for Drones
Hao Liu

Room C

Wed. May 24

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Seigou Kawaguchi, presiding

10:00 1C05 Development of an MRI methodology for polymeric thin films by ex-situ solid-state NMR with neodymium magnet
Natsuki Kawabata, Naoki Asakawa

10:15 1C06 Structure and Strain-induced Crystallization of Vulcanized Natural Rubber
Seiichi Kawahara, Masaki Yamano, Yoshimasa Yamaoto

10:30 1C07 Recognition of Copolymer Sequence in Crystalline Nanospaces of Metal-Organic Frameworks
Nobuhiko Hosono, Biplab Manna, Mizuki Asami, Takashi Uemura

Seiichi Kawahara, presiding

- 10:45 1C08 Conformation analyses of stereoregular hydrogenated ring-opened poly(norbornene)s
Yuki Nakama, Satoshi Natori, Shigetaka Hayano, Takahiro Sato
- 11:00 1C09 Origin of abnormal elution for linear and branched polystyrene in SEC
Moriya Kikuchi, Yoshinori Matsumoto, Kazushi Enomoto, Seigou Kawaguchi
- 11:15 1C10 Dilute Solution Properties of Syndiotactic PMMA in THF
Shion Iwasa, Ituki Tousha, Moriya Kikuchi, Kazushi Enomoto, Takehiro Kawauchi, Jiro Kumaki, Seigou Kawaguchi
- 11:30 1C11 Performance Comparison of Particle Size Measurement Devices Using Polystyrene Latex Particles
Ryohei Ono, Takuya Matsunaga, Kazuo Sakurai

Kazuo Sakurai, presiding

- 12:45 1C13 Light and Small-Angle X-ray Scattering Measurements on Sodium Poly(styrene sulfonate) in Dilute Solutions
Fumi Watanabe, Akiyuki Ryoki, Yo Nakamura
- 13:00 1C14 The Θ Temperature of Aqueous Solutions of Poly(2-(2-methoxyethoxy)ethyl methacrylate)
Shunichiro Yamamoto, Haruki Yamaguchi, Daichi Ida
- 13:15 1C15 Intrinsic Viscosity of Polystyrene in d-limonene
Masashi Osa, Takumi Ozeki
- 13:30 1C16 Structural change of interpolymer aggregates of poly(2-ethyl-2-oxazoline) by controlling hydrogen bonds
Hiroto Emi, Ken Kojio, Yasuhiro Matsuda

Yo Nakamura, presiding

- 13:45 1C17 beta-1,3-Glucan Lentinan/Poly-dA40 Triple-Helical Complex in Dilute Solutions
Kazuki Sumiya, Takuya Matsunaga, Motoko Tanaka, Shinichi Mochizuki, Kazuo Sakurai
- 14:00 1C18 Structural analysis of a polysaccharide-oligonucleotide complex containing two DNA molecules.
Yuki Hata, Kazuo Sakurai
- 14:15 1C19 Amphiphilicity of poly(ethylene oxide)-poly(*N-tert*-butylacrylamide) alternating multiblock copolymers in methanol solution
Mizuki Hirano, Yusuke Sanada, Yukiteru Katsumoto
- 14:30 1C20 Chain length dependence on the morphology of the amphiphilic PEO-PPO alternating multiblock copolymer in water
Yukiteru Katsumoto, Kenji Sakanaya, Keisuke Watanabe, Yusuke Sanada
- 14:45 1C21 Kinetics of Micellization and Liquid-Liquid Phase Separation in Dilute Block Copolymer Solutions
Takahiro Sato

Ken Terao, presiding

- 15:00 1C22 Structural analysis of polymer micelles by using anomalous small-angle X-ray scattering near Br and Rb K-edges
Isamu Akiba, Masaki Nakano, Yasuya Uchimura
- 15:15 1C23 Precision Construction of Folded Micelles via Self-Assembly of Amphiphilic Alternating Copolymers
Hiroyuki Kouno, Daichi Ida, Makoto Ouchi, Takaya Terashima
- 15:30 1C24 Micelle-Crosslinked Hydrogels with Stretchable and Adhesive Properties Brought by Random Copolymer Self-Assembly

- Takaya Terashima, Hiroaki Asai
- 15:45 1C25 Gel growth dynamics of aqueous chitosan solutions containing polyvalent carboxylic acids
Kazuto Yoshiba, Yota Yasuda, Takao Yamamoto
- Isamu Akiba, presiding**
- 16:00 1C26 Phase transition of poly(2-isopropyl-2-oxazoline) in ionic liquid as a solvent
Mai Ueda, Yuji Kamiyama, Takeshi Ueki, Keisuke Watanabe, Yukiteru Katsumoto
- 16:15 1C27 Specific phase separation behavior and intermolecular interactions for multibranched polysaccharide derivatives - poor solvent systems
Ken Terao, Madoka Mizuguchi, Akihito Kobayashi
- 16:30 1C28 Nanosphere formation of star-shaped polymers in aqueous solution upon raising temperature
Ken Terao, Tadashi Nagase, Masahiro Abe, Shohei Ida, Shokyoku Kanaoka
- 16:45 1C29 Segmental relaxation and local relaxation of polyalkylstyrenes and polyalkenylstyrenes.
Atsushi Takano, Atsushi Asano

Thu. May 25

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Ryohei Ishige, presiding

- 10:00 2C05 Precise synthesis and viscoelastic properties of ring polybutadienes with high purity and high molar mass.
Yuna Tsuzuki, Atsushi Takano, Nobuhiko Hosono, Takashi Uemura
- 10:15 2C06 Dielectric Properties of Electro-Rheological Nano-suspensions based on Titanium Dioxide Nano-Particles
Katsufumi Tanaka, K. Ueno, X. Lin, M. Kawaguchi, Midori Takasaki, Haruki Kobayashi
- 10:30 2C07 Critical dynamics of the sol-gel transition studied by particle tracking microrheology
Yasuyuki Maki, Amane Endo, Masahiko Annaka
- 10:45 2C08 Nanorheological measurements using dielectric probes
Tadashi Inoue, Osamu Urakawa

Yasuyuki Maki, presiding

- 11:00 2C09 Dynamical study of rod-like colloids near liquid crystal phase transition by X-ray photon correlation spectroscopy
Taiki Hoshino, Takahiro Mikami, Yoshiaki Honjo, Kyosuke Ozaki, Toshiyuki Hiraki, Haruki Nishino, Yasumasa Joti, Takaki Hatsui, Takashi Kato
- 11:15 2C10 Correlation between Ordered Structure and Thermal Properties of Polyimide Films Prepared from Liquid Crystalline Precursors
Yuta Ohsako, Shohei Hara, Shinji Ando, Ryohei Ishige
- 11:30 2C11 Vertical alignment control of rigid polyimides by compositing liquid crystalline precursors with clay nanosheets
Kazuki Ooyama, Atsuto Momoze, Yuta Oosako, Shinji Ando, Ryohei Ishige

Tadashi Inoue, presiding

- 12:45 2C13 A stochastic properties of tensile fracture of PMMA
Koh-hei Nitta, Naoya Funasaki, Asae Ito, Yusuke Hiejima
- 13:00 2C14 Dependence of Percolation Behavior on Distance between Boron Nitride Platelets using Scanning Thermal Microscopy
Yuta Toma, Takuya Matsumoto, Takashi Nishino
- 13:15 2C15 Analysis of deformation and fracture process of polyrotaxane glasses
Kazuaki Kato, Kohzo Ito, Taiki Hoshino

Hidetoshi Matsumoto, presiding

- 13:30 2C16 Chain packing structure and properties of a series of 1,2-difluoroethylene polymers.
Ryouichi Yano, Kohji Tashiro, Hiroyasu Masunaga, Daisuke Ota, Sono Sasaki
- 13:45 2C17 Crystalline structure of PET film -Observation under chemical recycle degradation reaction-
Satoshi Koizumi, Yohei Noda, Haruka Nagai
- 14:00 2C18 Study of marine degradation process of polycaprolactone film by low-frequency Raman spectroscopy
Harumi Sato, Tomoaki Segawa, Kohei Ito, Masahiro Hatayama, Yota Maruyama, Jiacheng Gao
- 14:15 2C19 Ultrasmall Network Morphologies from Biobased Sugar-Terpenoid Hybrid Materials
Chaehun Lee, Brian J Ree, Kai Chen, Ryoya Komaki, Satoshi Katsuhara, Takuya Yamamoto, Kenji Tajima, Hsin-Lung Chen, Toshifumi Satoh, Takuya Isono
- 14:30 2C20 Heterogeneity, phase separation, and reaction acceleration at the vicinity of polymerization induced vitrification
Yasuhito Suzuki, Akikazu Matsumoto

Sono Sasaki, presiding

- 14:45 2C21 effects of particle sizes on the reinforcement of rubber filler systems
Shu Karitani, Daiki Kumagawa, Yuki Watanabe, Kaito Nakamura, Yohei Nakanishi, Tadashi Inoue, Osamu Urakawa, Mikihito Takenaka
- 15:00 2C22 Elucidation of self-reinforcement mechanism of cross-linked isoprene rubber by strain-induced crystallization using transmission electron microscope
Daisuke Watanabe, Hironori Marubayashi, Tomohiro Miyata, Hsiao-Fang Wang, Wakana Miyoshi, Ryuya Kikuchi, Kendai Kitaura, Hiroaki Yamada, Hiroshi Jinnai
- 15:15 2C23 Analysis of structural changes in poly(ethylene terephthalate) by in-situ USAXS measurement during tensile deformation
Ren Tomisawa, Ryohei Fuse, Yuki Tanimoto, Kosuke Sugawara, Toshifumi Ikaga, KyoungHou Kim, Yutaka Ohkoshi, Kazuyuki Okada
- 15:30 2C24 Preparation and winding of flexible molecular single-crystal fibers by capillary method
Shota Sato, Keigo Ono, Satoshi Watanabe, Shotaro Hayashi, Masashi Kunitake
- 15:45 2C25 Combinatorial analysis of critical points of crystallization by inkjet printing
Satoshi Watanabe, Shun Inouchi, Masashi Kunitake

Hiroshi Jinnai, presiding

- 16:00 2C26 Analysis of internal structure of blow-spun perfluorosulfonic acid ionomer nanofibers
Hidetoshi Matsumoto, Shuta Onuki, Yoshiki Kawai, Hiroyasu Masunaga, Noboru Ohta
- 16:15 2C27 Annealing dependence of structure in different degrees of neutralization of ionomers
Yoshifumi Imai, Go Matsuba, Shunsuke Murayama
- 16:30 2C28 Preparation of highly crystalline polyimide nanofiber by using solution crystallization
Shota Kumano, Kei Suzuki, Toshiyuki Goshima, Tetsuya Uchida
- 16:45 2C29 Solid-state ¹³C NMR study of heat-treatment effect on the crystalline phase for ethylene ionomers
Atsushi Asano, Shohei Mikage, Chikako T. Nakazawa
- 17:00 2C30 Solid-state NMR analysis of alanine-glycine sequential peptides to clarify the special structure of Bombyx mori silk fibroin
Tetsuo Asakura, Akira Naito

Fri. May 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Sono Sasaki, presiding

- 9:30 3C03 Development of small-angle light scattering instrument with wide scattering vector and wide dynamic ranges and its application to structural analysis of polymer spherulites
Tsutomu Furuya, Hiroyuki Kojima, Koji Nishida, Yoshiki Fukutani, Ayaka Mutaguchi, Tsuyoshi Koga
- 9:45 3C04 Local chain orientations in lamellar crystals analyzed by nanodiffraction imaging
Shusuke Kanomi, Hironori Marubayashi, Tomohiro Miyata, Hiroshi Jinnai
- 10:00 3C05 Effect of density fluctuations of amorphous polymer on plastic zone
Daisuke Iwahara, Shotaro Nishitsuji, Hiroshi Ito, Masaru Ishikawa, Takashi Inoue, Mikihito Takenaka
- 10:15 3C06 Crystal Morphology of Syndiotactic Polystyrene/Modified Polyphenylene Ether Blends
Hirotada Adachi, Go Matsuba, Kazuo Ikeda, Takumi Suei

Takahiko Kawai, presiding

- 10:30 3C07 Kinetics of density fluctuations during the early stage of crystallization in syndiotactic polypropylene VI
Takashi Konishi, Daisuke Tadokoro, Koji Fukao, Yoshihisa Miyamoto
- 10:45 3C08 Formation of nano oriented crystals of iPP with meltable nucleating agent by elongational crystallization
Masamichi Hikosaka, Kiyoka Okada, Masanori Maruyama, Katsuharu Tagashira, Kazuhiko Sakai, Hiroyasu Masunaga
- 11:00 3C09 Helical Molecular Arrangements in α -forms of Isotactic Polypropylene

- Takahiro Miyoshi, Koji Nozaki, Koji Yamada
- 11:15 3C10 Distribution of Oriented Lamellar Structures in Injection-Molded POM Visualized by SAXS-CT Method
Hiroki Ogawa, Mikihiro Takenaka, Yasuhisa Fujii
- 11:30 3C11 Local structure and growth mechanism of non-banded polymer spherulites studied by nanodiffraction imaging
Hironori Marubayashi, Koichi Azuma, Shusuke Kanomi, Sonosuke Watanabe, Tomohiro Miyata, Hiroshi Jinnai
- Go Matsuba, presiding**
- 12:45 3C13 Study on Strain Distribution of Polycarbonate Using Digital Image Correlation.
Takayuki Yoshida, Shotaro Nishitsuji, Hiroshi Ito
- 13:00 3C14 Additive effects of normal alkane and alcohol on supermolecular structure and tensile properties in high-density polyethylene
Asae Ito, Kisaki Matsudaira, Yusuke Hiejima, Koh-hei Nitta
- 13:15 3C15 Changes in the submicron-scale structures of stretched LLDPE
Masato Arakawa, Mikihiro Takenaka
- 13:30 3C16 The effects of molecular weight and fiber manufacturing processes on Ultra-SAXS images of Poly(ethylene terephthalate)
Ren Tomisawa, Ryohei Fuse, Yuki Tanimoto, Toshifumi Ikaga, Kosuke Sugawara, KyoungHou Kim, Yutaka Ohkoshi, Kazuyuki Okada, Syohei Tsuchiya, Hiroo Katsuta, Hiroyasu Masunaga, Toshiji Kanaya, Shigetoshi Maekawa
- 13:45 3C17 Toughening via deformation and void formation of crystallized Poly(L-lactic Acid)
Takahiko Kawai

Room D

Wed. May 24

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Katsuhiro Yamamoto, presiding

- 10:00 1D05ILY Understanding and Control of Aggregation States of Polymer Chains at Interfaces
Yukari Oda
- 10:30 1D07 Structures and properties of spontaneously forming ionic polymer brushes at air interface
Gota Kawano, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 10:45 1D08 Surface chain movements of PMMA and hydrophilic polymers in water evaluated by AFM
Yuto Kashiwaya, Jiro Kumaki

Yukari Oda, presiding

- 11:00 1D09 Two-dimensional Mapping of Height Fractuation of a Polystyrene Chain Adsorbed on a Solid
Yuma Morimitsu, Satoru Yamamoto, Keiji Tanaka
- 11:15 1D10 Molecular Weight Effect of Adsorbed Chain on the Interfacial

Structure between the Adsorbed Layer of Polystyrene Blend and the Spin-Coated Homologue Thin Films

Motoyuki Ozaki, Yoshihisa Fuji, Naoya Torikai

- 11:30 1D11 The compression behavior of microgels adsorbed at the air/water interface
Takahisa Kawamoto, Tetsuya Noguchi, Haruka Minato, Daisuke Suzuki

Shin Horiuchi, presiding

- 12:45 1D13 In-situ Observation of Heterogeneous Degradation of Poly(epsilon-caprolactone) in Thin Films Based on Lamellar Orientation
Hisao Matsuno, Michinari Toyonaga, Taizou Kabe, Keiji Tanaka
- 13:00 1D14 Characterization of friction-induced molecular orientation change in fluoropolymer
Kasuya Motohiro, Toma Nagata, Miyuki Matsushita, Nobutaka Shioya, Takefumi Shimoaka, Akihide Hibara, Takeshi Hasegawa
- 13:15 1D15 Adsorption of an Amphiphilic Random Copolymer onto a Hydrophobic Substrate from Aqueous Solution
Takahiro Sato, Yuji Sakaiharu, Mari Furuichi, Koji Oosaki, Takuji Kume
- 13:30 1D16 Short-term surface decomposition behavior of Polycaprolactone films during seawater immersion
Mamiko Takigawa, Kenshirou Kaji, Van Toan Nguyen, Hiroyasu Masunaga, Taiki Hoshino, Chiharu Miyazaki, Yuji Aso, Tomoko Kajiwara, Atsushi Takahara, Sono Sasaki

Masanobu Naito, presiding

- 13:45 1D17 Segregation of Water Molecules at Adhered Interface of Epoxy Product Facilitated by Hygrothermal Aging
Ko Yamaguchi, Daisuke Kawaguchi, Totani Masayasu, Noboru Miyata, Tsukasa Miyazaki, Liu Yuwei, Hiroyuki Aoki, Keiji Tanaka
- 14:00 1D18 Neutron reflectivity analysis of solvent penetration into cross-linked phenolic resin
Yasuyuki Shudo, Atsushi Izumi
- 14:15 1D19 Improvement of Adhesion Strength Based on Chemical Bond Formation of Adsorbed Chains on Adherend to Bulk Chains
Daisuke Kawaguchi, Reika Nakayama, Hiroki Koga, Masayasu Totani, Keiji Tanaka

Takuya Matsumoto, presiding

- 14:30 1D20 Depth dependence of microphase separation structure of PS-b-P2VP thin films on surface modified substrates
Shusuke Bando, Yohei Nakanishi, Hiroki Ogawa, Hideaki Takagi, Nobutaka Shimizu, Mikihiro Takenaka
- 14:45 1D21 Structural analysis of phosphorus containing polymer thin films utilizing Tender X-rays reflectivity
Hiroki Kobayashi, Katsuhiko Yamamoto
- 15:00 1D22 Observation of mutual diffusion behavior of double-layered miscible polymers in ultrathin films
Tetsuya Ito, Katsuhiko Yamamoto

Qingshuo Wei, presiding

- 15:15 1D23 2D photocatalyst and surface micropatterning
Sumire Abe, Kazuki Umezu, Chikaho Un-no, Masahito Sano
- 15:30 1D24 Ion Mobility of Electrolyte Thin Film by the Electric Field Effect
Yuki Nagao, Athchaya Suwansontorn, Kentaro Aoki, Jun Matsui

Mineo Hashizume, presiding

- 16:00 1D26 Chiral recognition of mixed micelles composed of chiral/achiral surfactants
Nozomu Suzuki
- 16:15 1D27 Protein Adsorption Control upon Polymer Surfaces based on Molecular Structure Effects against Air Plasma Treatment
Shintaro Yasuda, Yoshihisa Fujii, Naoya Torikai
- 16:30 1D28 Hydrophilicity Control of Silicone Rubber Surface Using Sulfobetaine Polymer
Mutsuo Tanaka, Yuuki Koizumi, Tetta Iizuka, Yuuto Kikuchi, Takashi Kumazawa
- 16:45 1D29 Jamming Properties of 2D Cellulose Assemblies at the Liquid-Liquid Interface
Hiroataka Kamada, Toshiki Sawada, Takeshi Serizawa
- 17:00 1D30 Fabrication and functionalization of a CNF layered membrane by condensation and drying
Yuuka Fukui, Eriko Baba, Keiji Fujimoto

Thu. May 25

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Hideto Minami, presiding

- 9:30 2D03 Characterization of nanophase-separated structure formed by amphiphilic copolymer thin film using spectroscopic techniques
Mao Kikuchi, Mizuki Ooke, Hinako Ebe, Shusaku Nagano, Shotaro Nishitsuji, Jun Matsui
- 9:45 2D04 Numerical calculation analyses of small-angle scattering for nanosheet assemblies
Nobuyoshi Miyamoto
- 10:00 2D05 Precise Syntheses of Block Copolymers Carrying Urea Junction: Cooperative Interface Hydrogen Bond for Phase Separation
Suguru Sonobe, Kodai Nagashima, Shinsuke Maekawa, Teruaki Hayakawa, Taichi Kimura, Makoto Ouchi
- 10:15 2D06 Control of Marangoni Swimming of Liquid Metal-Containing Elastomer Films by Near-Infrared Irradiation
Hiroshi Endo, Minami Taya, Hizuma Takahashi

Hiroshi Endo, presiding

- 10:30 2D07 Preparation of Non-spherical Polymer Particles with Site-selective Functional Groups
Ikuko Maitani, Takeru Michiura, Toyoko Suzuki, Kensuke Akamatsu, Hideto Minami
- 10:45 2D08 Synthesis of polymerizable dyes and development of colored particles for inkjet printings
Kaito Nishijima, Ryosuke Matoba, Kaito Togashi, Kazushi Enomoto, Moriya Kikuchi, Seigou Kawaguchi
- 11:00 2D09 Adsorption Races of Binary Microgels with Different Softness during Evaporation of Water from Sessile Droplets
Haruka Minato, Yuma Sasaki, Kenshiro Honda, Takumi Watanabe, Daisuke Suzuki
- 11:15 2D10 Surface initiating atom-transfer radical polymerization on silica

surface provided from perhydropolysilazane modified with an initiator

minghao Lu, Reiko Saito

- 11:30 2D11 Preparation of Non-Spherical Silicone Particles using Liquid-Liquid Phase Separation
Shintaro Ishidate, Hayate Ikeda, Shinya Katsube, Toyoko Suzuki, Hideto Minami

Jun Matsui, presiding

- 12:45 2D13 Preparation of Poly(methyl methacrylate) Particles with Lithium Salt
Hinano Morimoto, Hayate Ikeda, Toyoko Suzuki, Hideto Minami
- 13:00 2D14 Preparation of Amphiphilic Janus Discs by Milling Method
Haruka Yamamoto, Kota Takemura, Toyoko Suzuki, Hideto Minami
- 13:15 2D15 Preparation of polyimide hollow particles via chemical imidization
Nao Minoshima, Takeru Michiura, Shinya Matsuno, Takuto Ouchi, Toyoko Suzuki, Hideto Minami
- 13:30 2D16 Preparation of Porous Structures Composed of Polysaccharide Polyion Complexes Using Supercritical Fluid Treatments
Shunsuke Dobashi, Takuya Sagawa, Mineo Hashizume
- 13:45 2D17 Preparation of Anisotropic Polysaccharide Composite Films by Pressure Roll Press Techniques
Haruto Nemoto, Takuya Sagawa, Mineo Hashizume

Atsushi Takano, presiding

- 14:00 2D18 Novel packing structure of spherical domains formed by block copolymers
Toshiki Mizuno, Katsuhiko Yamamoto, Hideaki Takagi
- 14:15 2D19 Discovery of P-surface Phase in Microphase Separation of Diblock Copolymer / Homopolymer Blends
Yusuke Takai, Katuhiko Yamamoto, Hideaki Takagi
- 14:30 2D20 Morphological analysis of polymer alloys by STEM-ELNES phase mapping
Shin Horiuchi, Yuri Shigemoto, Takeshi Hanada

Tsuyoshi Koga, presiding

- 14:45 2D21 Novel Tricontinuous Microphase-Separated Structures formed from ABC Triblock Terpolymer Blends.
Ayane Kitahara, Jiro Suzuki, Atsushi Takano
- 15:00 2D22 Characteristic Microphase-Separated Structures formed from ABAC Tetrablock Terpolymers.
Kyoka Kusano, Tsuyoshi Orido, Jiro Suzuki, Atsushi Takano
- 15:15 2D23 Arrangement of polymer-grafted nano platelets by hot pressing
Yusuke Watanabe, Yusuke Kakizawa, Masatoshi Tokita

Katsuhiko Yamamoto, presiding

- 15:30 2D24 Preparation and properties of natural rubber with hybrid island-nanomatrix structure.
Seichi Kawahara, Thi Thuong Nghiem, Yoshimasa Yamamoto
- 15:45 2D25 Preparation of Epoxy/Nanodiamond/Boron Nitride Ternary Composites
Seira Morimune-Moriya, Gento Watanabe
- 16:00 2D26 Effects of Pressure Medium on Baroplastic Behavior of Block Copolymers
Hiroki Degaki, Ikuo Taniguchi, Shigeru Deguchi, Tsuyoshi Koga

Seiichi Kawahara, presiding

- 16:15 2D27ILY Development of a novel polymer materials for automotive by utilizing multi scale phase structure in polymer blends
Takayuki Hirai

Room E

Wed. May 24

F. INDUSTRIAL POLYMERS AND TECHNOLOGY

Hideyuki Nakanishi, presiding

- 13:30 1E16 Solvent extraction purification of plastic parts of non-woven disposable masks
Kazutoshi Ikenaga, Tatsuya Ogata
- 13:45 1E17 Investigation of oxidative degradation of marine plastics made of polyethylene and purification using solvent extraction method
Kazutoshi Ikenaga, Tatsuya Ogata, Ily Asilah Ibrahim
- 14:00 1E18 Controlling the size of calcium carbonate by polymer addition
Yurie Nakanishi
- 14:15 1E19 Fabrication and application of WGM resonators using silica gel sphere as a template
Hiroki Tanikubo, takumi Matuo, Shotaro Hayashi

Takeharu Isaki, presiding

- 14:30 1E20 Modeling of soft tube models using a 3D gel printer
Daisuke Sakashita, Masaru Kawakami, Yousuke Watanabe, Islam Shiblee MD Nahin, Jon Ogawa, Hidemitsu Furukawa
- 14:45 1E21 Laser-induced local heating with aqueous polysaccharide mixture-based inks for 3D Food Printing
Yosuke Watanabe, Kei Toba, Yuki Kainuma, Hidemitsu Furukawa, Koki Ryo, Yvan Llave, Shingo Matsukawa, Shin-ichi Ishikawa
- 15:00 1E22 In-situ observation of the plastic injection molding by using neutron beam
Kanta Takahashi, Yohei Noda, Satoshi Koizumi
- 15:15 1E23 Development of Negative electrodeposition photoresist for thin film substrate and 3D wafer
Hiroyuki Maruta, Takumi Morimoto, Masahiro Mizushima
- 15:30 1E24 Development of heat resistant and insulation electrodeposition coatings pointed to EV components
Nobuhiro Takusari, Shunsuke Ozawa, Hiroyuki Honda, Masahiro Mizushima

Satoshi Koizumi, presiding

- 15:45 1E25 Development of Conductive Polymers Using Metal Nanoparticles
Nagisa Kojima, Hideyuki Nakanishi
- 16:00 1E26 Microscopic Properties of Sliding Materials by Homology Analysis
Hinako Suematsu, Yasutaka Nishida, Kenichi Yamazaki, Fumio Sawa

- 16:15 1E27 Improvement of adhesion properties of ceramics by hexylamine thin film using atmospheric pressure plasma
Kenichi Yamazaki, Hiroyuki Yasui, Hinako Suematsu, Motoaki Yamauchi, Akitoshi Okino
- 16:30 1E28 Material performance evaluation of silicone heat dissipation resin by high-speed mass spectrometry measurement and machine learning
Yasuhiro Tsuyuki, Satoshi Ishii, Eiichi Ide, Tomio Iwasaki, Toshiaki Ishii, Yusuke Hibi, Masanobu Naito

Thu. May 25

AWARD LECTURES

Makoto Ouchi, presiding

- 9:45 2E04AL Formation of shish-like fibril crystals from the melt of blends of cyclic and linear polyethylene under shear flow
Keiko Kobayashi

Keiji Tanaka, presiding

- 10:15 2E06AL Effect of bisphenols on the electrical conductivity and chemical structure of poly (3,4-ethylene dioxothiophene): poly (4-styrene sulfonate)
Seira Morimune-Moriya, Hiroaki Tanahashi, Kazui Sasaki, Shigeji Konagaya

Masato Ikeda, presiding

- 10:45 2E08AL Supramolecular nylon-based actuators with a high work efficiency based on host-guest complexation and the mechanoisomerization of azobenzene
Junsu Park, Hiroki Tamura, Hiroyasu Yamaguchi, Akira Harada, Yoshinori Takashima

Takeshi Serizawa, presiding

- 11:15 2E10AL Analysis of the formation mechanism of polyion complexes of polysaccharides by molecular dynamics simulation with oligosaccharides
Makoto Yamazaki, Makoto Yabe, Kazutoshi Iijima

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Yuichi Masubuchi, presiding

- 12:45 2E13ILY Deformation of a polymer network up to its geometric deformation limit
Tasuku Nakajima
- 13:15 2E15 Network structures analysis of side-chain variable temperature responsive hydrogels
Keita Namba, Takuma Kureha
- 13:30 2E16 Mechanical properties of artificial cells supported by DNA skeletons: Dependence on cross-link structure and density of DNA networks
Kazutoshi Masuda, Miho Yanagisawa

Tasuku Nakajima, presiding

13:45 2E17 Ordered Structure of Amphiphilic Random Copolymer Developed under Aqueous Condition.
Mihiro Inukai,Katsuhiko Yamamoto,Eri Ito

14:00 2E18 Phantom chain simulations for the fracture of energy-minimized tetra and tri-branched networks
Yuichi Masubuchi

14:15 2E19 Molecular aggregation structure and mechanical property of low-crosslinked epoxy adhesive under lap shear deformation
Kakeru Obayashi,Rasha Bayomi,Ken Kojio

Yusuke Yasuda, presiding

14:30 2E20 Semidilute principle contradicts de Gennes' c^* theorem in polymer gels
Takashi Yasuda,Naoyuki Sakumichi,Takamasa Sakai

14:45 2E21 Critical Property of the Size Exponents of Branched Polymers
Kazumi Suematsu

15:00 2E22 Mechanical property of single polymer chain derived from polymer network's stress-strain relation
Tsutomu Indei,Takahiro Matsuda,Tasuku Nakajima,Yukiko Takahashi,Tatiana B. Kouznetsova,Michael Rubinstein,Stephen L. Craig,Jian Ping Gong

15:15 2E23 DNP SANS study on microscale distribution of water in human hair
Yohei Noda,Satoshi Koizumi,Tomoki Maeda,Takumi Inada,Aya Ishihara

Tsutomu Indei, presiding

15:30 2E24 Structural Studies on Multinetwork Elastomers by DNP-SANS
Keitaro Iwasaki,Keisuke Chino,Yohei Noda,Tomoki Maeda,Kanta Takahashi,Satoshi Koizumi

15:45 2E25 Neutron incoherent scattering originating from water, as observed by dynamical nuclear polarization
Satoshi Koizumi,Yohei Noda,Takumi Inada

16:00 2E26 Molecular Dynamics of a Polymer Chain under Uniaxial Deformation
Kosuke Aomura,Takeshi Yamada,Takamasa Sakai,Kazushi Fujimoto,Koichi Mayumi

Takuya Katashima, presiding

16:15 2E27 Characteristics of inhomogeneous network formation in vulcanization of isoprene rubber
Yuko Ikeda,Takumi Ohahsi,Tomoyuki Sato,Kosuke Miyaji,Preeyanuch Junkong

16:30 2E28 Mechanical properties of particle-based films composed of temperature-responsive microgels
Aya Watanuki,Yuma Sasaki,Kazuko Nakazono,Toshikazu Takata,Daisuke Suzuki

16:45 2E29 Analysis on Relationship between Effective Network and Mechanical Properties of End Cross-linked Elastomers via Coarse-Grained Molecular Dynamics Simulations.
Yusuke Yasuda,Hiroshi Morita

17:00 2E30 Atomic-scale observation of nanoscopic hierarchical structures inside vulcanized rubber
Tomohiro Miyata,Takashi Kakubo,Katsunori Shimizu,Naoya Amino,Hiroshi Jinnai

Fri. May 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Shintaro Nakagawa, presiding

- 9:30 3E03 Microdomain Structure of Polystyrene-b-polyisoprene-b-polystyrene Block Copolymers Prepared by a Compression Shear Method and Injection Molding during Mechanical Deformation
Aya FUJIMOTO, Ayumi HAMADA, Chao-Hung CHENG, Kakeru OBAYASHI, Ryosuke KAWATOKO, Airi SATO, Makiko ITO, Ken NAKAJIMA, Ken KOJIO
- 9:45 3E04 Large negative energy elasticity in a hydrogel with long side chains
Ryosuke Yamashita, Tsukuru Masuda, Naoyuki Sakumichi, Yuki Yoshikawa, Takeshi Hujiyabu, Madoka Takai, Yuichi Tei, Takamasa Sakai
- 10:00 3E05 Observation and analyzation of stress field fluctuations in gels
Mitsuki Nagaura, Naoyuki Sakumichi, Takamasa Sakai
- 10:15 3E06 Swelling Behavior of Thermoresponsive Hydrogels with Various Quarternary Ammonium Cations
Yudai Tanaka, Shohei Ida, Shokyoku Kanaoka

Ken Kojio, presiding

- 10:30 3E07 Synthesis and properties of porous polymers prepared by addition reaction of trifunctional aziridines and multifunctional ester type thiols.
Takeru Kishimoto, Naofumi Naga
- 10:45 3E08 Synthesis and properties of porous polymers using ring opening addition reaction of tri-functional aziridine and dicarboxylic acids compounds
Bocong Chen, Naofumi Naga
- 11:00 3E09 Synthesis and characterization of porous polymers using addition reaction of multifunctional isocyanates and dicarboxylic acids accompanied by phase separation and foraming.
Yu Naito, Naofumi Naga
- 11:15 3E10 Thermal Latency in Epoxy/Imidazole Curing System by Addition of Imides and Properties of The Cured Materials
Yasuyuki Mori, Kenichi Tamaso, Junji Ueyama, Ippei Okano, Ryo Ogawa, Yoshio Furusho, Takeshi Endo

Shohei Ida, presiding

- 11:30 3E11 Relationship between molecular chain length of curing agents, higher-order structure, and thermal conductivity in liquid crystalline epoxy resins
Rika Marui, Yuta Nabae, Teruaki Hayakawa
- 12:45 3E13 Development of gel food ink toward Food 3D printing of meat analogue
Hironobu Suzuseki, Kenta Watanabe, Makoto Takemasa
- 13:00 3E14 Fabrication of a homogeneous elastomer exhibiting unusual strain stiffening capacity
Shintaro Nakagawa, Daisuke Aoki, Naoko Yoshie

Makoto Takemasa, presiding

- 13:15 3E15 Revisiting the effect of sucrose on the physical properties of agarose gel
Yasuyuki Maki, Shiori Ohara, Masahiko Annaka
- 13:30 3E16 Supramolecular tough materials based on multiple hydrophilic polymers and their composites with citric acid-modified cellulose
Takuma Wada, Yuki Asaki, Ryohei Ikura, Junsu Park, Bunsho Kure, Naomi Takenaka, Akihide Sugawara, Hiroshi Uyama, Yoshinori Takashima
- 13:45 3E17 Effect of Number of Functional Groups on Curing Process for Epoxy Products
Atsushi Tokunaga, Atsuomi Shundo, Satoru Yamamoto, Keiji Tanaka
- Yasuyuki Maki, presiding**
- 14:00 3E18 Relationships between bond lifetime and viscoelasticity in transient networks consisting of star-shaped polymers
Takuya Katashima, Mitsuru Naito, Kanjiro Miyata, Ung-il Chung, Takamasa Sakai
- 14:15 3E19 Analyses of hierarchical structures in SBR rubber by using contrast-variation SANS: effects of silane coupling agent
Yohei Nakanishi, Motoki Shibata, Satoshi Sawada, Hiroaki Kondo, Ryuhei Motokawa, Takayuki Kumada, Kazuki Mita, Tsukasa Miyazaki, Mikihiro Takenaka
- 14:30 3E20 Preparation of anisotropic microgels via fixation of the highly deformed state
Ayane Nakanishi, Hiroaki Yoshida, Hiroharu Ajiro

Room F

Wed. May 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hidenori Okuzaki, presiding

- 10:00 1F05 Pneumatic Control for Locomotion Performance of Auxetic-typed Armored Soft Cylinder
Shuntaro Kondo, Hiroshi Endo
- 10:15 1F06 Verification of Kirigami Soft Gripper Composed of Bellows-typed Multiple Arm
Yuki Honda, Hiroshi Endo
- 10:30 1F07 Design of Auxetic Chiral Structure for Out-of-plane Deformation
Sho Kazuguchi, Hiroshi Endo
- 10:45 1F08 Preparation of polymer electrolyte membrane with nanomatrix channel
Yoshimasa Yamamoto, Hiroyuki Ishii, Seichi Kawahara

Hiroshi Endo, presiding

- 11:00 1F09 Inkjet Printing of PEDOT:PSS Electrodes for Flexible Sensors
Kanako Matsushita, Liang Tian, Hidenori Okuzaki
- 11:15 1F10 Development of gel actuators driven wirelessly by bipolar electrochemistry

Keiichi Imato, Taichi Hino, Naoki Shida, Shinsuke Inagi, Ichiro Imae, Yousuke Ooyama

- 11:30 1F11 Preparation of patterning films with different elasticity for a new method of buckling-based wrinkle formation
Haruka Fukunishi, Shuto Ito, Mikihiro Hayashi

Masatoshi Tokita, presiding

- 12:45 1F13 Spontaneous Formation of Molecular Orientation by Gradient Photopolymerization of Liquid-Crystalline Monomers
Yuki Shikata, Osamu Tsutsumi
- 13:00 1F14 Control of Molecular Alignment in Liquid-Crystalline Polymer Particles
Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi
- 13:15 1F15 Control of Molecular Orientation and Introduction of Cross-linked Structure in Monodispersed Liquid Crystal Polymer Particles
Kazuki Kawai, Tomoki Shigeyama, Osamu Tsutsumi
- 13:30 1F16 Three-Dimensional Deformation Analysis Using Chiral-Nematic Liquid Crystal Particles
Tomohiro Azumaya, Naoya Fukui, Tomoki Shigeyama, Osamu Tsutsumi

Osamu Tsutsumi, presiding

- 13:45 1F17 Enhanced dynamic adhesion of nematic elastomers with soft elasticity on rough surfaces
Takuya Ohzono, Emiko Koyama
- 14:00 1F18 Reversible contraction of block copolymers comprising of main-chain nematic liquid crystalline polymer bonded with cross-linked amorphous chains bonded at both ends
Ryoji Suzuki, Yuki Ikeda, Masatoshi Tokita
- 14:15 1F19 Development of Functional Liquid Crystals Based on Biomolecular Derivatives
Junya Uchida, Anna Niwa, Mina Hasome, Rie Makiura, Takashi Kato

Junya Uchida, presiding

- 14:30 1F20 Ionic conductivity and liquid crystalline structure of poly(substituted methylene)s bearing ionic liquid side chains
Masamichi Kiyoura, Ayano Yoshitake, Masatoshi Tokita
- 14:45 1F21 Thermal diffusivity enhancement of polymethacrylate liquid crystal by introducing alkyl side chain units
Shoki Tomizawa, Takeshi Saito, Masatoshi Tokita
- 15:00 1F22 Functional design of dissimilar polymer knitted materials with movable cross-links
Ryohei Ikura, Shunsuke Murayama, Yuka Ikemoto, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Go Matsuba, Yoshinori Takashima

Ryohei Ikura, presiding

- 15:15 1F23 Synthesis of biodegradable and radiopaque polymers with self-healing ability realized by intermolecular halogen bonding
Yuya Oyama, Naruki Kurokawa, Atsushi Hotta
- 15:30 1F24 Preparation of poly(γ -glutamic acid)/ hyaluronic acid hydrogels with self-healing ability
Rina Kugimiya, Meng Wei, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 15:45 1F25 Control of spatiotemporal structure of polymer aggregates by

utilizing catalytic hydrogen evolution reactions
Takafumi Enomoto, Aya M. Akimoto, Ryo Yoshida

Aya Mizutani Akimoto, presiding

- 16:00 1F26 Flow properties of poly(1,5-dioxepan-2-one)-b-poly(L-lactide) and the enzymatic degradability
Hiroto Tada, Ikuo Taniguchi
- 16:15 1F27 Effect of chemical structure on flow properties of pressure-processable block copolymers
Yuri Hioka, Ikuo Taniguchi, Neha Sharma
- 16:30 1F28 Novel polymer system exhibiting photo-induced sol-gel transition
Kimio Sumaru, Ayaka Tomoda, Toshiyuki Takagi
- 16:45 1F29 Photoinduced solid-liquid phase transitions of polymers by thermally stable molecular switches
Naoki Kaneda, Keiichi Imato, Akira Ishii, Ichiro Imae, Yousuke Ooyama

Keiichi Imato, presiding

- 17:00 1F30 Synthesis and mechanical property of homogeneous network consisting of poly(ether-ester)
Renan Sasaki, Shintaro Nakagawa, Naoko Yoshie
- 17:15 1F31 Preparation of movable cross-network materials using poly(ϵ -caprolactone)
Sota Nakagawa, Akihide Sugawara, Yoshinori Takashima, Junsu Park, Ryohei Ikura, Hiroshi Uyama
- 17:30 1F32 Development of Aryl Silicon-Crosslinked Polymer Material Cooperatively Degraded by Water and Light
Tomoki Nakagawa, Hiroshi Masai, Kentaro Aoki, Yuki Nagao, Jun Terao

Thu. May 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Takayuki Nonoyama, presiding

- 9:30 2F03 Preparation of poly(N-isopropylacrylamide) gels chemically cross-linked via molecular net with a large molecular weight and three-dimensional network structure
Kenichiro Mizuguchi, Takahiko Yasui, Nobuo Murase, Yuichi Ohya
- 9:45 2F04 Humidity-responsive shape deformation of a gel based on the co-nsolvency effect
Aya Mizutani Akimoto, Ryotaro Makita, Takafumi Enomoto, Taihei Nishimoto, Xiang Li, Mitsuhiro Shibayama, Ryo Yoshida
- 10:00 2F05 Design of the self-oscillating gels with a wide operating temperature region
WON SEOK LEE, Takafumi Enomoto, Aya Mizutani Akimoto, Ryo Yoshida
- 10:15 2F06 Control of temperature-response behavior of hydrogel by side chain length
Taichi Nishi, Sakyo Hiraizumi, Takuma Kureha
- 10:30 2F07 Selective permeability of materials induced by structural difference of gelatin networks in hydrogel
Kazuki Murai, Tamaki Maeda, Syuuhei Komatsu, Yoshihiro

Nomura, Akihiko Kikuchi

Takuma Kureha, presiding

- 10:45 2F08 Elastomers Possessing Phase Separation-Induced Vitrification
Mayu Watanabe, Takayuki Nonoyama, Yuichiro
Nishizawa, Takayuki Uchihashi, Jian Ping Gong
- 11:00 2F09 Utilizing N-Vinylamide Monomer for Surface-Selective Chemical
Modification of Polymer Hydrogels
Hiroaki Yoshida, Tsurugi Kikukawa, Hiroharu Ajiro
- 11:15 2F10 Preparation of reductively responsive nanocapsules by formation
of disulfide cross-links at the interface of W/O emulsion
Maho Kawaguchi, Akifumi Kawamura, Takashi Miyata
- 11:30 2F11 Sensitive iongel based on non-cytotoxic ionic liquid
Aya Saruwatari, Yuji Kamiyama, Ryota Tamate, Jun
Nakanishi, Takeshi Ueki

Daisuke Suzuki, presiding

- 12:45 2F13 Motion of two self-propelled ion gel pieces in a circle channel
Kohei Katsuno, Kazuaki Furukawa
- 13:00 2F14 Preparation and mechanical properties of hydrogels based on
interaction between DNA and metal ions
Arisa Fukatsu, Sari Kurisu, Nanami Kuramoto, Waka Yoshida, Ibuki
Yasui, Tadashi Inoue, Kenji Okada, Masahide Takahashi
- 13:15 2F15 Preparation of mechano-responsive hydrogels using host-guest
interaction
Akihide Sugawara, Yoshinori Takashima, Akira Harada, Hiroshi
Uyama
- 13:30 2F16 Toughening effect of polyrotaxane cross-linked EPDM elastomer
Shota Ando, Kohzo Ito, Yuki Okabe, Akishige Seo, Hiromitsu
Takeuchi

Takeshi Serizawa, presiding

- 13:45 2F17 Clarification of single microgel degradation behavior via real-time
observation
Yuichiro Nishizawa, Hiroki Yokoi, Takayuki Uchihashi, Daisuke
Suzuki
- 14:00 2F18 Synthesis of micron-sized microgels by multi-step aqueous
precipitation polymerization
Kentaro Yamanaka, Takahisa Kawamoto, Haruka Minato, Daisuke
Suzuki

Mineo Hashizume, presiding

- 14:15 2F19 Enzymatic Synthesis of Cellulose-Based Hybrid Hydrogels
Inspired by Biosynthesis of Plant Cell Wall
Yuta Sakurai, Toshiki Sawada, Takeshi Serizawa
- 14:30 2F20 Construction of Composite Hydrogels Composed of Hyaluronic
Acid and Cellulose Oligomer Assemblies
Takako Ida, Yuta Sakurai, Toshiki Sawada, Takeshi Serizawa
- 14:45 2F21 Control of Assembled Structures and Mechanical Properties of
Cellulose Oligomer Hydrogels Constructed via Self-Assembly
Mahiro Tashiro, Toshiki Sawada, Takeshi Serizawa

Tomoyuki Koga, presiding

- 15:00 2F22 Preparation of Polysaccharide Composite Films Using
Azobenzene-Modified Hyaluronic Acid
Riho Nakama, Takuya Sagawa, Mineo Hashizume

- 15:15 2F23 Effects of Molecular Imprinting on Molecular Permeability of Polysaccharides Composite Films
Takuya Sagawa, Masaya Ohishi, Tamao Yamamoto, Mineo Hashizume
- 15:30 2F24 Preparation of Hydrophobic Drug-Loaded Polysaccharide Composite Films Using Polymeric Nanoparticles and Evaluation of Their Release Properties
Takuma Ryuzaki, Takuya Sagawa, Mineo Hashizume
- 15:45 2F25 Preparation of Aliphatic Polyester Crosslinked Films Having The Reaction Points at The Surface and Grafting of Thermo-Responsive Polymer.
Takumi Yoshida, Toru Hoshi, Takao Aoyagi
- Shota Ando, presiding**
- 16:00 2F26 Thermo-responsive behavior of amino acid-derived vinyl polymers with different polymer architectures
Shinnosuke Nishimura, Momoka Kamiya, Tomoyuki Koga
- 16:15 2F27 Injectable hydrogels from linear and branched block copolymers composed of PEG and amino acid-derived vinyl polymers
Mitsuki Nakamura, Shin-nosuke Nishimura, Tomoyuki Koga
- 16:30 2F28 Synthesis of phenylalanine-conjugated polyethyleneimines and their pH and temperature sensitivity
Chie Kojima, Yunshen Fu
- Chie Kojima, presiding**
- 16:45 2F29ILY Phase separation behavior in polymer gels composed of poly(ethylene glycol): phase separation induced by gelation and gel shrinking
Shohei Ishikawa, Takamasa Sakai

Fri. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Kazuki Sada, presiding

- 9:30 3F03 Self-assembling behaviors and photo-luminescent properties of tetraphenylethylene derivatives bearing oligosiloxane units in the side chain
Atsushi Seki, Yukinori Kokubo, Ken'ichi Aoki
- 9:45 3F04 Dual Wavelength Conversion Ability of Polybutylene succinate Film with Tetraphenylethylene Derivatives
Yuta TAKEI, Kohei IRITANI, Ayumi KOBAYASHI, Takashi YAMASHITA
- 10:00 3F05 Effect of PEG grafts introduction into carboxylated polyallylamine with stimuli-responsiveness
Junya Emoto, Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 10:15 3F06 Thermal response of bilayer polymer vesicles
Nobuyuki Morimoto, Shin-ichiro Nomura
- Yukiya Kitayama, presiding**
- 10:30 3F07 Control of multiple stimuli-responsive behaviors in polymer/effector cooperative systems
Keitaro Matsuoka, Kota Hashimoto, Natsuki Inaba, Kazuki Sada

- 10:45 3F08 UCST-type thermo-responsive nylons in water
Akari Sugano, Keitaro Matsuoka, Kazuki Sada
- 11:00 3F09 Simulated medical treatment by the coordinated actions of multiple protein-based micromachines
Hironori Yamazoe, Takaaki Kurinomaru, Akiko Inagaki
- 11:15 3F10 Synthesis of cyclic poly(N-isopropyl acrylamide)s and their thermoresponsive properties
Kenichi Bessho, Jin Motoyanagi, Masahiko Minoda
- 11:30 3F11 Tunable and Coatable Thermoresponsive Color-Changing Layered Polydiacetylene with Intercalation and Phase-Segregated Structures
Risako Shibata, Hiroaki Imai, Yuya Oaki

Yasuhiko Iwasaki, presiding

- 12:45 3F13 Design of adjuvant modified polysaccharide nanogels and application to vaccine carriers
Yuki Yazawa, Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 13:00 3F14 Construction of a novel cancer cell-selective DDS molecular system incorporation of a matrix metalloprotease-9 substrate sequence and applying to an enhanced efficient cellular membrane uptake system II
Ryota Azuma, Nagisa Kanazawa, Yuka Matsuhashi, Masaki Nishijima, Ikuhiko Nakase, Yasuyuki Araki, Takehiko Wada
- 13:15 3F15 Synthesis and characterization of biodegradable PEG crosslinkers for 3D structure control of nanogel crosslinked gels
Ryo Takahashi, Yoshihiro Sasaki, Shunya Hayashi, Hiroyuki Harada, Shin-ichi Sawada, Kazunari Akiyoshi

Yoshihiro Sasaki, presiding

- 13:30 3F16 Regulation of Mesenchymal Stem Cells Using Controllable Surface Properties of Photoresponsive Poly(dimethylsiloxane) Films
Takashi Miyata, Neiro Kodama, Takafumi Noguchi, Misato Higashino, Akifumi Kawamura
- 13:45 3F17 Conformation and activity changes of protein via poly(Sarcosine) conjugation
Noritomo Tsuda, Yota Okuno, Yasuhiko Iwasaki
- 14:00 3F18 Design of Smart Materials That Change Elastic Modulus and Hydrophilicity by Light and Temperature and Their Cellular Regulatory Functions
Masaaki Okihara, Akifumi Kawamura, Takashi Miyata
- 14:15 3F19 Development of tissue engineering injectable gel with VEGF-C-adsorbing property for lymphatic vessel regeneration
Tatsuya Dode, Kimika Ono, Koji Nagahama
- 14:30 3F20ILY Novel polysulfide polymers: Supramolecular polysulfide polymers and polycondensation polysulfide polymers
Yuichiro Kobayashi

Room G

Wed. May 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Koji Arimitsu, presiding

- 10:00 1G05 Structure-Property Relationships of Fluorescent Radicals Generated by Polymeric Mechanochemical Reactions
Takumi Yamamoto, Hideyuki Otsuka
- 10:15 1G06 Synthesis of Hyperbranched Polyacetal for Application of High Sensitive EUV Resist Material
Hiroyuki Maekawa, Taku Saito, Hiroto Kudo
- 10:30 1G07 Photomechanical Rolling Motions of Azobenzene-based Molecular Glasses
Hajime Nigorikawa, Hideyuki Nakano
- 10:45 1G08 Triplet-Triplet Annihilation Upconversion Emission Using Amorphous Molecular Materials
Shungo Naemura, Ryoma Matsui, Hiroki Asanuma, Ikumi Matsumoto, Hideyuki Nakano

Ryoyu Hifumi, presiding

- 11:00 1G09 Changes in Fluorescence Quantum Yields of Cyanostilbene-based Amorphous Molecular Materials with Grinding Crystal
Kou Miyagishi, Hiroya Fukushima, Hideyuki Nakano
- 11:15 1G10 Design and Optical Properties of Thioether-Containing Imide Compounds Exhibiting Long Wavelength Fluorescence via Excited State Proton Transfer
Yuka Ando, Marina Doi, Atsuko Tabuchi, Ryohei Ishige, Shinji Ando
- 11:30 1G11 Relationship between Structures in the Excited States and Optical Properties of Thianthrene-containing Imide Compounds and Polyimides
Hiroka Yamamatsu, Ryohei Ishige, Shinji Ando, Megumi Matsuda, Naoki Mastuda, Tomoya Higashihara

Takeo Sasaki, presiding

- 12:45 1G13 Storage stability and anionic UV curing properties of epoxy-thiol mixed resins containing a photobase generator
Nanae Tanaka, Yuya Tanaka, Daisuke Aoki, Koji Arimitsu
- 13:00 1G14 Anionic UV curing of thick films of epoxy resins using a photobase generator as a chain curing agent that generates imidazole
Shinya Maruyama, Daisuke Aoki, Koji Arimitsu
- 13:15 1G15 Fine pattern formation of poly(bisphenol A carbonate) utilizing the main chain scission during post-exposure baking
Ryuji Ozawa, Toshiyuki Oyama
- 13:30 1G16 Improvement of intensity and lifetime of ultrafast electrochemiluminescence from DNA/ Ru(bpy)₃²⁺ hybrid film by tuning composition of electrolyte solution
Hiroki Nakatani, Ryuki Ozawa, Kazuki Nakamura, Norihisa Kobayashi

Hideyuki Nakano, presiding

- 13:45 1G17 Laser ultrasonic measurement system using photorefractive liquid crystals
Takeo Sasaki
- 14:00 1G18 Analysis of Prolonged Irradiation-induced Delayed Luminescence of Imide Compounds Dispersed in Polymer Matrix
Marina Doi, Ryohei Ishige, Shinji Ando

- 14:15 1G19 Analysis of Photophysical Processes in Phosphorescent Bromine-Containing Imide Compounds and Polyimides under High Pressure
Ryuichi Isoda,Marina Doi,Ryohei Ishige,Shinji Ando
- 14:30 1G20 Localization and luminescence properties of conductive polymer within microphase separation in MEH-PPV/SBS composite films
Zhongming Yuan,Hiroko Yamamoto,Takeshi Simomura
- Kazuki Nakamura, presiding**
- 14:45 1G21 CO₂ Responsivity of Silicone Elastomers Doped with Ring-Perfluorinated Dye and Their Optical Properties
Ryunosuke Kani,Youhei Miwa,Yasuhiro Kubota,Toshiyasu Inuzuka,Syoichi Kutsumizu,Kazumasa Funabiki
- 15:00 1G22 Properties of novel thermosetting polysiloxanes capable of photopatterning
Yukai Ito,Daisuke Aoki,Koji Arimitsu
- 15:15 1G23 Properties of black resist materials using aminopyridine derivatives as thermal latent curing agents
Shigemasa Dougoshi,Hisatoshi Kura,Yuki Koizumi,Kenta Yamanaka,Daisuke Aoki,Koji Arimitsu
- 15:30 1G24 Synthesis of photoresponsive liquid crystal block copolymers with high temperature liquid crystalline phase and photoreorientation control of microphase-separated structure
Shoto Suzuki,Yuya Ishizaki,Mitsuo Hara,Takahiro Seki,Shusaku Nagano
- 15:45 1G25 Precise control of Bioluminescence Energy Transfer System via DNA linker
Koichi Tanimoto,Tomoya Niki,Yuki Minamide,Fumiaki Takano,Akinori Kuzuya
- Shusaku Nagano, presiding**
- 16:00 1G26 Mechanism of Sensitized Photolysis of a Iodonium Salt Using Nanosecond Transient Absorption Measurements
Mayu MASUDA,Atsushi SHIRAISHI,Kohei IRITANI,Ayumi KOBAYASHI,Takashi YAMASHITA
- 16:15 1G27 Stereospecific and Simultaneous Synthesis of a [7]Helicene and a [6]Helicene with a Heptagonal Ring through Alkyne Annulations and Their Optical Properties
Kosuke Oki,Shoya Yamakawa,Tomoyuki Ikai,Eiji Yashima
- 16:30 1G28 Improvement of photoinduced redox-initiated radical polymerization efficiency of shadow parts at room temperature
Ataru Daimon,Shinji Kawada,Yudai Ogata,Daisuke Aoki,Koji Arimitsu
- 16:45 1G29 Properties of photoreactive materials using various coumaric acid-type photobase generators
Toshiki Moriya,Daisuke Aoki,Koji Arimitsu

Thu. May 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Atsushi Noro, presiding

- 9:30 2G03 Development and characterization of proton-electron conductors

using diblock copolymers (III) -Influence of molecular weight-
Nanami Tanaka, Masahiro Hujita, Yuko Takeoka, Masahiro Rikukawa

- 9:45 2G04 Development of radical quenchers for polymer electrolyte fuel cells (III) - Evaluation of graphene oxide-
Naoto Oniki, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 10:00 2G05 Syntheses of Lithium Methacrylate-Based Alternating Copolymers for Polyelectrolytes
Shizuka Okada, Hiroyuki Kubota, Hideto Nakajima, Izumi Yamada, Naoki Inui, Makoto Ouchi
- 10:15 2G06 Singlet Exciton Properties of Fused Ring π -Conjugated Polymers
Yuki Sato, Tsubasa Mikie, Itaru Osaka, Hideo Ohkita
- 10:30 2G07 Triplet excited state dynamics in organic solar cells
Kazuki Kohzuki, Rei Shirouchi, Shin-ichiro Natsuda, Yasunari Tamai, Hideo Ohkita

Hyung Do Kim, presiding

- 10:45 2G08 Molecularly Doped Poly(3-hexylthiophene)s as a Photoanode for Water Oxidation
Hiromi SHINOHARA, Hiroyuki NISHIDE
- 11:00 2G09 Voids of PEFC catalyst observed by small-angle neutron scattering under high pressure
Satoshi Koizumi, Yohei Noda, Issei Terunuma
- 11:15 2G10 Effects of functional group in polymer side chains on electrochemical properties of gel polymer electrolyte composed of highly concentrated electrolytes
Natsumi Tasaki, Hisashi Kokubo, Kazuhide Ueno, Masayoshi Watanabe, Kaoru Dokko
- 11:30 2G11 Anhydrous proton conduction in the assembled state of ionic liquid-coated core-shell nanoparticles
Keisuke Tabata, Tsutomu Makino, Yoshimasa Matsuo, Akito Masuhara

Masahiro Fujita, presiding

- 12:45 2G13ILY Design of functional polymers by data science and application to charge-storage devices
Kan Hatakeyama-Sato
- 13:15 2G15 Design of gel polymer electrolytes composed of weakly coordinating polymer with homogeneous network.
Miyagawa Kazuki, Natsumi Tasaki, Hisashi Kokubo, Kazuhide Ueno, Masayoshi Watanabe, Kaoru Dokko
- 13:30 2G16 Annealing temperature effect on high proton transport channels formed at interlayer of polymer nanosheet multilayer film
Mizuki Ohke, Momoka Saito, Yuki Nagao, Makoto Gemmei, Hiroshi Katagiri, Masaya Mitsuishi, Syusaku Nagano, Jun Matsui

Kazuhide Ueno, presiding

- 13:45 2G17 Effects of a Nanophase-Separated Structure on Mechanical Properties and Proton Conductivities of Polymer Electrolyte Membranes Composed of a Block Polymer and an Inorganic Acid
Takato Kajita, Haruka Tanaka, Yumiko Ohtsuka, Tsuyoshi Orido, Atsushi Takano, Hiroyuki Iwamoto, Albert Mufundirwa, Hideto Imai, Atsushi Noro
- 14:00 2G18 Development of Na-ion Conducting Gel Electrolytes with Ionic Liquids and Zwitterions
Masahiro Fujita, Masaya Sato, Mina Yamaguchi, Yuko

Takeoka, Masahiro Rikukawa

- 14:15 2G19 Film Morphology and Device Performance of Ternary Blend All-Polymer Solar Cells
Zhiyuan LIANG, Ren HAGIO, Yongyoon CHO, Manish PANDEY, Masakazu NAKAMURA, Hiroaki BENTEN

Akihide Sugawara, presiding

- 14:30 2G20 Control of Properties on Whitened Lignin by Functional Group
Kazuhiro Shikinaka, Asami Suzuki, Yuichiro Otsuka
- 14:45 2G21 Effect of functionalized polypropylenes on interfacial shear strength of carbon fiber-reinforced thermoplastics
Ayaka Yamaguchi, Tamotsu Hashimoto, Hideyuki Uematsu, Michio Urushisaki, Toshikazu Sakaguchi
- 15:00 2G22 Effect of hardness difference between hard and soft layers on mechanical properties of organic-silica type millefeuille structural materials
Shinya Watanabe, Hideki Honma, Noeru Kishita, Reiko Saito
- 15:15 2G23 Cross-linking by silica of poly(tert-butyl methacrylate)-silica nanocomposites with lamellar structure
Noeru Kishita, Reiko Saito

Reiko Saito, presiding

- 15:30 2G24 Self-assembly of triangular nanoplate from hybrid of diblock polypeptide amphiphiles with anionic polyoxometalate [SiMo₁₂O₄₀]⁴⁻ and their catalytic activity
Takayuki Tanaka, Keita Kuroiwa
- 15:45 2G25 Grafting of polythiophene to silica nanoparticles by surface-graft polymerization (III) -Control of particle size and graft density-
Minghao Yuan, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 16:00 2G26 Fabrication and characterization of biodegradable polyurethane / biphasic ceramics composites (I) -Effect of urethane bonds on the composites-
Koshiro Morikubo, Miyu Shiraishi, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

Kazuhiro Shikinaka, presiding

- 16:15 2G27 Reversible Surface Modification of Cellulose Nanocrystals by Metal-Polyphenol Networks
Eriko Yamada, Hirotaka Ejima
- 16:30 2G28 High strengthening of epoxy resin using citric acid modified cellulose filler
Shotaro Yano, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 16:45 2G29 Patterning Perovskite Quantum Dots using Patterned Light Illumination
Takuto Iwaki, Mamoru Morinaga, Hikaru Moriwaki, Hideyuki Nakanishi
- 17:00 2G30 Electrochromic properties of a Ru(II)-based metallo-supramolecular polymer/layered material composite
Kazuko Fujii, Dines Chandra Santra, Manas Kumar Bera, Takatsugu Wakahara, Ritsuko Nagahata, Masayoshi Higuchi

Fri. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yu-I Hsu, presiding

- 9:30 3G03 Imaging the applying and elapsed time of weak compression-stress by integration of polydiacetylene and dry liquid
Nahoko Ono, Hiroaki Imai, Syuji Fujii, Yuya Oaki
- 9:45 3G04 Synthesis of conductive polymers in a free-volume space of synthetic resins and rubbers and their application to stress sensing
Sayaka Hirai, Yuki Tokura, Hiroaki Imai, Yuya Oaki
- 10:00 3G05 Preparation and Evaluation of Composite Membranes Composed of Biodegradable Polyurethane and Hydroxyapatite (II) -Shape Effect of Hydroxyapatite on Mechanical Strength of Composite Membranes-
Kyoko Sato, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

Yuya Oaki, presiding

- 10:15 3G06 Fabrication and characterization of oxidized-cellulose nanofiber/chitosan composite films
Rika Onishi, Akihide Sugawara, Yu-I Shu, Hiroshi Uyama
- 10:30 3G07 Cellulose nanofiber-reinforced Natural rubber composites prepared by CWsolid Method and elastic kneading.
Rie Iwamoto, Isao Odaka, Yasuo Bamba, Kenji Takeuchi, Morinobu Endo, Akira Isogai, Toru Noguchi
- 10:45 3G08 Development of copolymers having two reactive groups and their application to epoxy composite interfaces
Kosei Magara, Tatsuhiko Takahashi

Hiroshi Eguchi, presiding

- 11:00 3G09 High-performance plastic composites using waste-derived calcium carbonate
Maoko Hayashi, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 11:15 3G10 Preparation of Organic-Inorganic Hybrid Block Copolymers with Cysteine Side Chains and Evaluation of Its Higher-Ordered Structures
Sota Iwao, Yoshinobu Nakamura, Syuuji Fujii, Tomoyasu Hirai
- 11:30 3G11 Functionalization of hydrogel particles by fabricating nanocomposite structure
Takumi Watanabe, Satoki Ushida, Daisuke Suzuki

Akio Kawaguchi, presiding

- 12:45 3G13 Analysis of bone formation ability of organic-inorganic hybrid capsules based on drug loadable coacervate droplets.
Takuro Aikawa, Syuuhei Komatsu, Taka-Aki Asoh, Akihiko Kikuchi
- 13:00 3G14 Improvement of interfacial adhesion between ceramic particles/epoxy resin by wet-jet milling
Yuichi TOMINAGA, Chaofu ZHANG, Kimiyasu SATO, Yusuke IMAI
- 13:15 3G15 Design and function of magnetic nanocarrier for intracellular antibody delivery
Katsuya Ozeki, Ryosuke Mizuta, Yoshihiro Sasaki, Shinichi Sawada, Kazunari Akiyoshi
- 13:30 3G16 Synthesis and Higher-order Structural Characterization of Functionally Separated Polysiloxane-containing Polyimides
Erina Yoshida, Hayato Maeda, Yuta Nabae, Teruaki Hayakawa

Yuichi Tominaga, presiding

- 13:45 3G17 Electrically conductive cellulose nanofiber/graphene porous composites prepared by using vapor phase reduction method
Hikomichi Hayashi, Hiroshi Eguchi, Kenji Nagata
- 14:00 3G18 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [24]; Effects by Mixed Solvent of Water/Alcohol on Iodine Doping into Polymers. (3)
Akio Kawaguchi
- 14:15 3G19 Synthesis of silicone resins containing photobase generating groups in side chains and their application to photo-fabrication of organic-inorganic hybrid films
Tatsunari Yoshino, Ayano Sasaki, Daisuke Aoki, Koji Arimitsu
- 14:30 3G20 Development of Machine Learning Techniques Aided Prediction of Mechanical Properties on Nanocellulose-Reinforced Polypropylene
Koyuru Nakayama, Takashi Endo, Keita Sakakibara

Room H

Wed. May 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Shoichiro Asayama, presiding

- 10:00 1H05 Peptide-type hydrogelator creates a selectivity on a conventional antifungal drug
Kenta Morita, Yuya Nishimura, Jun Ishii, Tatsuo Maruyama
- 10:15 1H06 Fabrication of thermally cross-linked poly(vinyl alcohol) and poly(methacrylic acid)-based nanomaterials
Yohei Kotsuchibashi
- 10:30 1H07 Fabrication of nanosheets containing antioxidants for control of aged body odor
Ayumi Sakai, Hironori Iwamatsu, Yosuke Okamura
- 10:45 1H08 Fabrication and biomedical application of cellulose materials composed of microfibrils with nanospine-structured surfaces
Yuuki Hata, Hiromi Miyazaki, Takeshi Serizawa, Shingo Nakamura

Yohei Kotsuchibashi, presiding

- 11:00 1H09 Anisotropic circularly polarized luminescence from self-assembled prolate micro-spheroids of conjugated polymer mixed with chiral dopants
Sota Nakayama, Osamu Oki, Hiroshi Yamagishi, Yohei Yamamoto
- 11:15 1H10 Design of the Surface with Catalase Pseudo-Active Center Consisting of Alkylated Poly(1-vinylimidazole)/Mn-Porphyrin Complexes
Shoichiro Asayama, Rina Sato
- 11:30 1H11 Synthesis and surface modification of polymer microspheres composed of reactive monomer
Yosuke Nishimaki, Hiroki Yokoi, Atsushi Nagasawa, Masaki Murai, Akihiro Yamada, Takumi Watanabe, Daisuke Suzuki

Shuntaro Uenuma, presiding

- 12:45 1H13 Design and synthesis of ion-permeable polymer vesicles and their function as artificial ion channels
Shunji Kosaka, Tomoki Nishimura
- 13:00 1H14 Preparation of Supramolecular Structure from Various Types of Methylated Cyclodextrins
Haruya Ishida, Justine M Kalaw, Hajime Shigemitsu, Toshiyuki Kida
- 13:15 1H15 Investigation of press-induced spreading of isolated sub-picoliter UV-curable droplets for single-digit-nanometer nanoimprinting (2) Effect of polymerization groups for reactive surface modifiers
Masaru Nakagawa, Takeru Yoshida, Akiko Onuma
- 13:30 1H16 Thermal conductivity evaluation of films composed of nanosheet-structured cellulose assemblies
Hiroto MARUYAMA, Toshiki SAWADA, Takeshi SERIZAWA
- Tomoki Nishimura, presiding**
- 13:45 1H17 Development of Co-culture Model of Intestinal Microbiota and Engineered Intestinal Epithelial Tissue Fabricated by Double-layered Porous Polymer Substrate
Yuji Tsuchido, Moeka Kawada, Kazuomi Tanaka, Kenta Iitani, Naoya Takeda
- 14:00 1H18 Detection of polymer nanoparticles using fluorescently labelled peptides and their discrimination by multivariate analysis
Shion Hasegawa, Toshiki Sawada, Yuzou Kitazawa, Takuya Kaneda, Takeshi Serizawa
- 14:15 1H19 Fabrication and characterization of organic semiconductor pn junction nanorods using vacuum deposition
Yasuko Koshiba, Iori Sugimoto, Kenta Higashida, Shohei Horike, Kenji Ishida
- 14:30 1H20 Design and function of amphiphilic glycopolymers that selectively interact with biomembranes.
Yudai Sadanami, Ryosuke Mizuta, Yoshihiro Sasaki, shin-ichi Sawada, Kazunari Akiyoshi
- Toshiki Sawada, presiding**
- 14:45 1H21 Synthesis and thermo-responsibility of shell or core-crosslinked micelles containing PNIPAM
Akira Wakaiko, Ren-Hua Jin
- 15:00 1H22 Exploration of the potential function of polyethyleneimine-based diblock copolymers
Yuya Saza, Ren-Hua Jin
- 15:15 1H23 Feature of pattern transfer of bisphenol A - containing UV - cured resists for UV nanoimprint lithography
Naoki Takano, Hiromasa Niinomi, Masaru Nakagawa
- 15:30 1H24 Creation of sub-10 nm line patterns by directed self-assembly of strongly segregating PS-b-PMMA derivatives
Shinsuke Maekawa, Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Yuta Nabae, Teruaki Hayakawa
- Yuta Nabae, presiding**
- 15:45 1H25 Catalytic function of polyethyleneimine-based polymer and gold nanoparticle hybrid vesicles
Ayaka Kanno, Wenli Wang, Ren-hua Jin
- 16:00 1H26 Orientation control of polydiacetylenes in the side chain type liquid-crystalline polymer thin films
Sadayuki Asaoka, Satoru Tamaki, Seiya Yokogi, Shinichi Sakurai

16:15	1H27	Disassembly Mechanism of Pseudo-Polyrotaxane Nanosheet in a Solvent <u>Shuntaro Uenuma</u> , Naoki Ando, Hideaki Yokoyama, Kohzo Ito
16:30	1H28	Thickening growth of supramolecular nanosheet consisting of polyethylene glycol and α -cyclodextrin <u>Haruki Kazumi</u> , Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
16:45	1H29	Co-creation of polymer properties data platform by automated molecular simulation through industry-academia collaboration <u>Yoshihiro Hayashi</u> , Stephen Wu, Yoh Noguchi, Aiko Takahashi, Ryo Yoshida
17:00	1H30	Synthesis and optical properties of chiral polymers transformed from poly(methylethyleneimine). <u>Ryo Itoga</u> , Ren-Hua Jin

Thu. May 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Itaru Osaka, presiding

9:30	2H03	Synthesis of thiophene-based poly(arylenevinylene)s via hydroarylation polyaddition and investigation of optoelectronic properties <u>Ryota Iwamori</u> , Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara
9:45	2H04	Improving the reversibility of mechanical and electronic properties of ductile semiconducting polymers via photo crosslinking <u>Yuto Ochiai</u> , Keisuke Tajima
10:00	2H05	Bulk photovoltaic effect in ferroelectric liquid crystals comprising extended pi-conjugated units: Extension of pi-conjugate units <u>Masahiro Funahashi</u> , Takashima Kotaro, Uemura Shinobu
10:15	2H06	Synthesis and Characterizations of Semi-alicyclic Polyimides Using Diamine Containing Isosorbide <u>Yoshiyuki Tsurusaki</u> , Ririka Sawada, Ryohei Ishige, Shinji Ando
10:30	2H07	Humidity Dependence of Dielectric Properties at GHz Frequencies for Bio-based Polyimides and Various Existing Polyimides <u>Ririka Sawada</u> , Yuka Ando, Kazuhisa Yajima, Mitsutaka Ozaki, Ryohei Ishige, Shinji Ando

Shinji Ando, presiding

10:45	2H08	Enhanced charge carrier mobility by extended π -electron delocalization in S-Pechmann-based polymers <u>Tsubasa Mikie</u> , Keitaro Iguchi, Ryosuke Kamimura, Itaru Osaka
11:00	2H09	Synthesis of a π -Conjugated Polymer Based on Bithiazolodione for Application in Organic Transistor <u>Shuhei Doi</u> , Tsubasa Mikie, Itaru Osaka
11:15	2H10	Synthesis and Property of Semiconducting Polymers Based on Dithienonaphthobisthiadiazole <u>Kazuya Matsui</u> , Tsubasa Mikie, Takuji Seo, Yutaka Ie, Itaru Osaka
11:30	2H11	Thermoelectric properties and giant Seebeck effect of conducting polymer nanofiber cryogel <u>Takeshi Shimomura</u> , Ayaka Iso, Shinji Kanehashi

Masahiro Funahashi, presiding

- 12:45 2H13 Synthesis and Carrier Transport Properties of Alkyl-PEDOT:PSS
Sho Takano,Yoshiki Kawai,Kenji Machida,Hidenori Okuzaki
- 13:00 2H14 Phase-Separated Structures and Charge Transport Properties in Blend Films of Crystalline Conjugated Polymer and Insulating Polymer
Kohei Fukuda,Hyung Do Kim,Hideo Ohkita
- 13:15 2H15 3D printing and Magnetic Properties of Inter-Crosslinking Network (ICN) gels encapsulating magnetic particles
Yuma Sakurai,Yousuke Watanabe,Masaru Kawakami,MD Nahin Islam Shiblee,Jun Ogawa,Hidemitsu Furukawa
- 13:30 2H16 Application of Cationic Polythiophenes to Biomolecular Probe (II) - Effect of Base Sequence on DNA Recognition-
Rui Kuroda,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa
- Hiroshi Yamagishi, presiding**
- 13:45 2H17 Modified Polyimides for use in Flexible Printed Circuit Boards for High-speed Data Communication (3)
Masatoshi Hasegawa,Taro Fukuda,Junichi Ishii
- 14:00 2H18 Low-CTE Colorless Polyimides Obtained by Modified One-pot Method (3)
Masatoshi Hasegawa,Takehiro Shinoda,Junichi Ishii
- 14:15 2H19 Synthesis of isocyanate-free polyurethanes and their self-healing properties (III) -Effect of initiators-
Yukiho Sonoda,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa
- Masatoshi Hasegawa, presiding**
- 14:30 2H20 Creation of polyrotaxane containing vitrimer resin with toughness, self-healing, and chemical recyclability
Shota Ando,Masaki Hirano,Hideaki Yokoyama,Kohzo Ito
- 14:45 2H21 Stereocomplex Crystallization of PLLA/PDLA Microsphere as Heat Resistant Microresonator
Suharman Suharman,Wey Yih Heah,Hiroshi Yamagishi,Yohei Yamamoto
- 15:00 2H22 Functionalization of biodegradable polylactone (I) -Evaluation of copolymerizability of bromolactones-
Rena Yoshida,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa
- Yuko Takeoka, presiding**
- 15:15 2H23 Tough latex films preventing crack propagation
Yuma Sasaki,Takumi Watanabe,Yuichiro Nishizawa,Takuma Kureha,Kazuya Uenishi,Kazuko Nakazono,Toshikazu Takata,Daisuke Suzuki
- 15:30 2H24 Tough soft composites based on unprocessed biotissues
Tasuku Nakajima,Shou Ohmura,Kagari Maruyama,Jian Ping Gong
- 15:45 2H25 Design and interpretation of environmentally degradable polymers based on machine learning methods
Yoshifumi Amamoto,Chie Koganemaru,Ken Kojio,Atsushi Takahara,Kei Terayama
- 16:00 2H26 Development of Tough Poly (Vinyl Alcohol) Gel via Strain-Induced Crystallization
Junhyuk Kim,Ungil Chung,Takamasa Sakai
- Takuya Matsumoto, presiding**
- 16:15 2H27 Construction of surface water repellency structure inspired by

- insect wings
Yuro Katsurashima, Kazunari Yoshida
- 16:30 2H28 Synthesis of polyester having sulfobetaine structure and their oil repellent and adhesive properties
Akifumi Kawamura, Rika Itomitsu, Takashi Miyata
- Akifumi Kawamura, presiding**
- 16:45 2H29ILY Interaction between water and poly(substituted methylene) with carboxyl side chain groups
Takuya Matsumoto

Fri. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Tatsuo Maruyama, presiding

- 9:30 3H03 Surface Functionalities of Large-scale Copolymer Brushes Synthesized by "Paint-on" Surface-initiated Atom Transfer Radical Polymerization (SI-ATRP)
Tomoya Sato, Chihiro Urata, Atsushi Hozumi
- 9:45 3H04 Molecular interaction in well-defined polymer brushes and trial for the prediction
Tsukuru Masuda, Yoichi Watanabe, Shiwei Su, Madoka Takai
- 10:00 3H05 Hydration State and Anti-Icing Properties of Hydrophilic Concentrated Polymer Brushes
Ken Tamamoto, Yuji Kinose, Kento Hase, Ken Nakano, Yoshinobu Tsujii
- 10:15 3H06 Synthesis of diblock copolymer with dual temperature responsiveness
Yuta Edasawa, Dongwook Kim, Hideki Matsuoka

Tsukuru Masuda, presiding

- 10:30 3H07 Surface functionalization of cellulose paper via polymer dip-coating for the development of a paper-based analytical device
Kazuki Kaneko, Manami Hara, Takashi Nishino, Tatsuo Maruyama
- 10:45 3H08 Preparation of antifog hard coatings using carboxyl group-containing POSS
Jun Nakagawa, Yoshiro Kaneko
- 11:00 3H09 Surface oxidation of large-area polypropylene sheet by chlorine dioxide radical
Akane Odagaki, Yu-I Hsu, Hiroshi Uyama
- 11:15 3H10 Studies on synthesis of linear and branched polybenzoxazoles and their applications
Koshu Nakamura, Hiroto Kudo
- 11:30 3H11 Direct observation of force generation by ionic polymer chains
Ken-ichi Shinohara, Yuga Onuki, Ryoga Hori, Hideo Higuchi

Eriko Sato, presiding

- 12:45 3H13 Light-induced adhesion of azobenzene doped polyester films
Shogo Nobukawa, Chihiro Ando, Katsuhiko Inomata
- 13:00 3H14 Surface Crystallization and Adhesiveness on Polyolefin Type Hot-melt Adhesives
Masaru KOTERA, Hisashi ICHIKAWA, Hiroshi

KUROKAWA, Masahiko HASHIMOTO, Eiji KUSUNOKI, Katsuhito FUKUDA

- 13:15 3H15 Evaluation of Nanostructural Distribution of Epoxy Adhesives during Curing Process by MAXS-CT Method
Ryuji Morimoto, Mikihito Takenaka, Hiroki Ogawa, Satoru Yamamoto, Keiji Tanaka
- 13:30 3H16 Development of alginate-based water-soluble adhesives containing phenolic hydroxy groups and removal from the substrate via water-washing
Hiromitsu Sogawa, Soei Inata, Fumio Sanda
- Hiromitsu Sogawa, presiding**
- 13:45 3H17 Design of polyamines aiming for control of the polymer reactions of epoxy resins containing vinyl groups
Yuki Tsutsui, Eriko Sato
- 14:00 3H18 Fracture mechanism at adhesion interface of nailing adhesion by needle-like polyolefin crystals
Yoshihiko Shiraki, Kohzo Ito, Hideaki Yokoyama
- 14:15 3H19 Electrophoretic deposition of a solvent soluble polyimide containing fluorene moiety
Rena Takashima, Ayumi Kobayashi, Kohei Iritani, Hideyuki Kikuchi, Takashi Yamashita
- 14:30 3H20 Electrophoretic deposition of a poly(amide acid) methyl ester as a precursor of Kapton type polyimide.
Yasuhiro FUNAYAMA, Hisatora TAKAHASHI, Ayumi KOBAYASHI, Kohei IRITANI, Daisuke MISHO, Takashi YAMASHITA, Hideyuki KIKUCHI

Room J

Wed. May 24

INVITED LECTURES “English Session”

Kazunori Sugiyasu, presiding

- 12:45 1J13IL Enabling extracellular vesicle microRNA analysis via temperature-responsive polymeric reagents
Ramon Jauregui, Barrett J. Nehilla, Lucia N Vojtech, John J. Hill, James J Lai
- 13:15 1J15IL Development of organic-inorganic hybrid nanomaterials for boron neutron capture therapy
Riku Kawasaki, Keita Yamana, Hidetoshi Hirano, Ayano Oshige, Yu Sanada, Kaori Bando, Anri Tabata, Yoshinori Sakurai, Hiroki Tanaka, Minoru Suzuki, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi, Takeshi Nagasaki, Atsushi Ikeda
- 13:45 1J17IL Development and Characterization of Conductive, Biodegradable, Polymeric Nerve Conduits for Neural Regeneration
Jane Wang

Xiang Li, presiding

- 14:15 1J19IL Topological design of synthetic polymers for controlling the

- biomolecular recognition
Masanori Nagao
- 14:45 1J21IL Fabrication of dynamic covalently crosslinked alginate hydrogels for biomedical applications
Yi-Cheun Yeh
- 15:15 1J23IL Design of self-assembling polymeric materials for the detection of a specific cell
Kei Nishida
- Yukio Nagasaki, presiding**
- 15:45 1J25IL Polysaccharide- and polycarbonate-based biomaterials for regenerative medicine applications
Chih-Kuang Chen, Zheng-Ian Lin
- 16:15 1J27IL Peptide-mediated intracellular cargo delivery for plant biomodification
Takaaki Miyamoto, Keiji Numata
- 16:45 1J29IL In situ formation of silver nanoparticles in dopamine-modified gelatin hydrogels with antibacterial activities
Jeng-Shiung Jan, Thi-Ngoc Pham, Ching-Fang Su

Thu. May 25

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

Yuma Morimitsu, presiding

- 9:30 2J03 Ice-polymer film friction studied by low temperature resonance shear measurement (RSM)
Jon Eric Pallbo Arvidsson, Héméte Sylvain, Masashi Mizukami, Kazue Kurihara
- 9:45 2J04 Design and Synthesis of Tough Reticular Polymeric Nanomembranes
Yudai Yokoyama, Tengfei Fu, Pier-Luc Champagne, Takuzo Aida, Yoshimitsu Itoh
- 10:00 2J05 Morphology Change of Lecithin-Soybean Oil Mixtures in Aqueous Solution
Kenzo Yamada, Takahiro Sato
- 10:15 2J06 Polyion complex (PIC) with micelle and vesicle structure fabricated by different preparation methods
Thu Thao Pham, Rintaro Takahashi, Tien Duc Pham, Shin-ichi Yusa
- 10:30 2J07 Cyclic Polyphenylene Sulfide as Additive to Improve the Mechanical Properties of Polystyrene-based Materials
Yuyang Ding, Junsu Park, Ryohei Ikura, Saori Nara, Kazuki Toda, Yoshinori Takashima

Yuichiro Kobayashi, presiding

- 10:45 2J08 Reinforcement effects of graphene oxide on polyamide6 nanocomposites
Ryusei Shibuya, Seira Morimune-Moriya
- 11:00 2J09 An Effect of Absorbed Water Molecules on Curing Reaction of an Epoxy/Amine Mixture
Tianxiang Shen, Yoshiki Ishii, Hitoshi Washizu, Atsuomi Shundo, Satoru Yamamoto, Keiji Tanaka

- 11:15 2J10 Monomeric sequence effect on hydrogel properties
Hailong Fan, Jian Ping Gong
- 11:30 2J11 Effect of salt on dynamic mechanical behaviors of polyampholyte hydrogels
Xueyu Li, Feng Luo, Tao Lin Sun, Kunpeng Cui, Reina Watanabe, Tasuku Nakajima, Jian Ping Gong

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Fumitaka Ishiwari, presiding

- 12:45 2J13 Enantioselective permeation of chiral channel-containing membranes prepared by helix-sense selective photocyclic aromatization using circularly polarized light
Shuaishuai Huang, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 13:00 2J14 Gas permeability and physical aging of mixed matrix membranes composed of porous particle (ZIF-8) and diphenylacetylene polymers
Toshikazu Sakaguchi, Shigeyoshi Imaizumi, Tamotsu Hashimoto
- 13:15 2J15 Synthesis of One-Handed Helical Ladder Polymers Containing Chiral 9,9'-Spirobifluorene Units and Their Enantioseparation Abilities
Takehiro Matsumoto, Tomoyuki Ikai, Kosuke Oki, Eiji Yashima
- 13:30 2J16 Synthesis of Optically-Active Fully Conjugated Helical Ladder Polymers Consisting of Totally Achiral Repeating Units and Their Chiroptical Properties
Tomoyuki Ikai, Sayaka Miyoshi, Eiji Yashima
- 13:45 2J17 Macromolecular Helicity Control of Copolymers of Chiral/Achiral Biphenylacetylenes through Amplification of Asymmetry and Their Use as Chiral Stationary Phases for HPLC
Tomoyuki Ikai, Yuki Morita, Tsuyoshi Majima, Eiji Yashima

Tomoyuki Ikai, presiding

- 14:00 2J18 Poly(diphenylacetylene)s as photocatalysts and their application to organic synthesis
Tsuyoshi Taniguchi, Daisuke Nakaguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 14:15 2J19 Steroid Sensing Using a Sumanene-based Supramolecular Polymer
Hiroaki Mizuno, Hironobu Nakazawa, Akihisa Miyagawa, Yumi Yakiyama, Susumu Kawauchi, Hidehiro Sakurai, Gaku Fukuhara
- 14:30 2J20 Synthesis of chiral polymers bearing chiral imidazolidinones and their application to asymmetric Diels-Alder reaction
THI HANG VAN, Hiroya Sasaki, Naoki Haraguchi, Toru Amaya
- 14:45 2J21 Sintering and catalysis of platinum-containing conjugated polymers
Fumio Sanda, Miki Ozaki, Mio Hosotani, Hiromitsu Sogawa

Shinji Kanehashi, presiding

- 15:00 2J22 Synthesis of polymer-supported diphenylprolinols and their application to asymmetric Michael addition reactions
Tomoki Akita, Rina Watanabe, Naoki Haraguchi
- 15:15 2J23 Synthesis and gas permeation property of PDMS-MOF composite membrane by in situ synthesis in PDMS gel

- Shogo Amemori, Ayumu Tomura, Sachi Nagame, Motohiro Mizuno
- 15:30 2J24 Synthesis and catalytic function of asymmetric organocatalysts supported by polysaccharides from marine biomass
Hiromitsu Sogawa, Manano Murakishi, Fumio Sanda
- 15:45 2J25 Design of synthetic polymers inspired by heavy metal ion-recognition proteins for application to water purification
Masaki Nakahata, Chikano Okamoto, Koji Okuno, Akihito Hashidzume
- Fumio Sanda, presiding**
- 16:00 2J26 Development of CO₂ separation membranes using imidazolium-functionalized polysiloxanes
Yumi Nakano, Kayoko Yuasa, Shigenori Fujikawa, Yoshiro Kaneko
- 16:15 2J27 Bridging- vs. Non-Bridging-type Exo-Coordination: Highly Sensitive Detection of Mercury(II) Ions Utilizing a Polymer Transistor-based Sensor
Yui Sasaki, Kohei Ohshiro, Yijing Zhang, Qi Zhou, Hikaru Tanaka, Kazutake Hagiya, Tsuyoshi Minami
- 16:30 2J28 Enhancement of CO₂ Selectivity of PDMS nanomembranes by molecular anchoring
Kosuke Taketsuna, Takeo Nakano, Shigenori Fujikawa
- 16:45 2J29 CO₂ separation property of cellulose acetate modified by ferulic acid derived from unutilized biomass waste
Shinji Kanehashi, Koto Namba, Kei Machigashira, Yuki Yanase, Kenji Ogino, Junichi Kamagata, Hitoshi Aoki

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Masafumi Yoshio, presiding

- 9:30 3J03 Development of Nanographene-Organic Fluorogens Hybrid Materials
Ryo Sekiya, Saki Arimura, Ikuya Matsumoto, Takeharu Haino
- 9:45 3J04 Cost Effective, Reinforced Anion Exchange Membranes for Alkaline Fuel Cell Applications
Ahmed Mohamed Ahmed Mahmoud, Kenji Miyatake
- 10:00 3J05 High-performance Isotropic Thermoelectrochemical Cells Using Agar-gelled Ferricyanide/Ferrocyanide/Guanidinium
Qingshuo Wei, Shohei Horike, Masakazu Mukaida, Kazuhiro Kirihara, Kazuhiko Seki
- 10:15 3J06 Optimization of fuel cell performance and gas barrier property by thin multilayer composite gas barrier polymer electrolyte membrane
Zulfi Al Rasyid Gautama, Yang I, Yasir Arafat Hutapea, Stephen Lyth, Kazunari Sasaki, Masamichi Nishihara
- 10:30 3J07 Helicity Induction and Memory in a Poly(diphenylacetylene) Bearing Carboxy Groups at the meta-Positions and Its Chemical Modification
Sanhanut Kesornsit, Mai Nozaki, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda

Kenji Miyatake, presiding

- 10:45 3J08 Poly(ether ether ketone) based gas separation membrane with surface-anchored CO₂-philic polymer brushes
Sinan FENG, Yokajaksusri NUTTHON, Hiroyasu MASUNAGA, Sono

SASAKI,Roman SELYANCHYN,Shigenori FUJIKAWA,Shinichi MURATA,Atsushi TAKAHARA

- 11:00 3J09 Size effect of MOF particles embedded in polymeric membranes on the CO₂ separation performance
YiHsin Lin,Roman Selyanchyn,Shigenori Fujikawa
- 11:15 3J10 Ion Conducting Flame-Retardant Liquid Crystal-Polymer Composites for High-frequency Soft Actuators
CHENGYANG LIU,MASAFUMI YOSHIO
- 11:30 3J11 Mechanically Tough Micellar Cubic Liquid-Crystalline Polymer Electrolytes for Electromechanical Actuators
Che-Hao WU,Masafumi YOSHIO

Masanobu Naito, presiding

- 12:45 3J13 Redox-responsive polymer phase transition in aqueous media
Hongyao Zhou,Teppey Yamada
- 13:00 3J14 Anisotropically Self-oscillating Gels by Spatially Patterned Interpenetrating Network
Suwen Lee,Won Seok Lee,Takafumi Enomoto,Aya Mizutani Akimoto,Ryo Yoshida
- 13:15 3J15 Thermoresponsive Properties of Stereoregular Dense Triazole Polymers Carrying Amide Side Chains
Koji Okuno,Masaki Nakahata,Yuri Kamon,Akihito Hashidzume
- 13:30 3J16 Preparation of host-guest supramolecular hydrogels using cellulose derivatives
Sooyeon Noh,Akihide Sugawara,Yoshinori Takashima,Akira Harada,Hiroshi Uyama

Masaki Nakahata, presiding

- 13:45 3J17 Ruthenium Based Single Metal Containing Metallosupramolecular Polymers for Three Step Redox and Electrochromic Study
Dines Chandra SANTRA,Banchhanidhi PRUSTI,Masayoshi HIGUCHI
- 14:00 3J18 Preparation of Flexible, and Conductive Gold coated Polylactic Acid (Au-PLA) Nanofiber Sheet by Electrospinning
Mkliwa Koumbia,Yecan Wang,Shicheng Zhou,Tsukuru Masuda,Madoka Takai
- 14:15 3J19 Control the degree of crystalline orientation in semicrystalline polymer by Pseudo polyrotaxane nanosheets (PPRNS)
Cong Liu,Shuntaro Uenuma,Shota Ando,Hideaki Yokoyama,Kohzo Ito
- 14:30 3J20 Relationship between superhydrophobic and anti-icing performance of polydimethylsiloxane-based surfaces
Wei WENG,Mizuki TENJIMBAYASHI,Masanobu NAITO
- 14:45 3J21 Mussel-inspired Light-Reworkable Tough Adhesive
Siqian WANG,Masanobu Naito

Room K

Wed. May 24

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Toshihisa Mizuno, presiding

- 12:45 1K13 Reversible photocontrol of microtubule structures by spiropyran-conjugated Tau-derived peptides
Hiroshi Inaba, Minamo Sakaguchi, Soei Watari, Arif Md. Rashedul Kabir, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 13:00 1K14 Construction of histidine clusters in a ferritin cage for the oxidase-mimetic catalysis
Jiixin Tian, Basudev Maity, Tiezheng Pan, Satoshi Abe, Takafumi Ueno
- 13:15 1K15 In-cell crystallization of protein cage and structure analysis
Junko Tanaka, Satoshi Abe, Thuc Toan Pham, Shuji Kanamaru, Takafumi Ueno
- 13:30 1K16 Comparison in translocation efficiency of mitochondrial targeting sequences in Arabidopsis thaliana
Naoya Abe, Masaki Odahara, Kousuke Tsuchiya, Keiji Numata

Risako Miura, presiding

- 13:45 1K17 Effects of molecular flexibility of self-folding glycopolymers on the interaction with the target protein.
Daichi Yoshimatsu
- 14:00 1K18 Synthesis of cyclic glycopolymer and evaluation of the interaction with target proteins
WENKANG JIN, Masanori Nagao, Yoshiko Miura
- 14:15 1K19 Single Process Production of Hybrid Materials Composed of Surface-Carboxylated Cellulose Oligomer Assemblies and Hydroxyapatite
Kai Sugiura, Masashi Saito, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa
- 14:30 1K20 Synthesis of star glycopolymers with sialic acid and evaluation of the immunosuppression activity
Haruka Shiomitsu, Takato Ishida, Masanori Nagao, Hirohiko Ise, Yoshiko Miura

Hiroshi Inaba, presiding

- 14:45 1K21 Efficient Control of Protein-Nanogel Complex Formation by Controlled Microwave for DDS Application
Yunting Ma, Hikaru Takaya, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 15:00 1K22 Evaluation of the interactions between glycopolymers through the metal ions
Tomoya Sumura, Masanori Nagao, Yoshiko Miura
- 15:15 1K23 Screening cryoprotective effect of amphipathic polymers
Shuya Tanaka

Kenichi Nagase, presiding

- 15:30 1K24 Preparation and characterization of fluoro-polymer films aiming at the biomimetics of flower petals
Olaf Karthaus, Shinon Takahashi, Shinpei Otaki, Thomas Berberich
- 15:45 1K25 Correlation between percent collapse of self-folding amphiphilic polymers and their molecular flexibility
Masanori Nagao, Yoshiko Miura

- 16:00 1K26 Control of Lysozyme-Fueled Transient Volume Change of a Hydrogel
Masahiko Nakamoto, Young Kyoung Hong, Michiya Matsusaki
- 16:15 1K27 Control of rolling circle transcription of a RNA polymerase with repressor-mimetic compounds
Yusuke Yonamine, Wei Jie Cheah, Hideyuki Mitomo, Kuniharu Ijio
- Masanori Nagao, presiding**
- 16:30 1K28 Synthesis of antimicrobial peptide-mimetic amphiphilic alkylamideethylmethacrylate copolymers and their bioactivities
Kazuma YASUHARA, Mizuki TAKASUGI, Hiroki EZUKA, Atsushi NAGASAWA, Akihiro YAMADA
- 16:45 1K29 Effect of side chain composition of mixed-charge polymers on pH-selective cell-membrane interaction
Yuki Hiruta, Yubuki Nakamura, Yutaka Shindo, Kotaro Oka, Daniel Citterio
- 17:00 1K30 Thermoresponsive-hepatocyte recognizing block copolymer brush for hepatocyte separation
Kenichi Nagase, Naoto Kojima, Mitsuaki Goto, Toshihiro Akaike, Kenjiro Hanaoka, Hideko Kanazawa

Thu. May 25

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Akihiko Kikuchi, presiding

- 9:30 2K03 Hydration-driven adhesive colloidal gels for perforation closure and postoperative adhesion prevention of digestive tissue
Shima Ito, Kazuhiro Nagasaka, Akihiro Nishiguchi, Fumisato Sasaki, Hidehito Maeda, Masayuki Kabayama, Akio Ido, Tetsushi Taguchi
- 9:45 2K04 Design of liquid-liquid phase-separated hotmelt tissue adhesives to prevent postoperative adhesion
Akihiro NISHIGUCHI, Shima ITO, Kazuhiro NAGASAKA, TAGUCHI Tetsushi
- 10:00 2K05 Supramolecular MR contrast agents for visualizing cancer angiogenesis
Atsushi Mahara, Raghav Soni, Shigeyoshi Saito, Tetsuji Yamaoka
- 10:15 2K06 Creation of Electrospun Nanofibers Capable of Rapid and Safe Removal of Urea from Blood
Makoto Sasaki, Mitsuhiro Ebara
- 10:30 2K07 Design strategy for Nanostructured Porous Carbon Nanofibers from Bio-Resource Chitosan Loaded with Nitrogen-Doped Zeolites as Effective Adsorbents for Chronic Kidney Failure Patients
I-Hsuan Yang, Makoto Sasaki, Mitsuhiro Ebara

Mitsuhiro Ebara, presiding

- 10:45 2K08 Drug-loaded acellular tissue for suppression of anastomotic stenosis
Kaito Shimizu, Atsushi Mahara, Yoshiaki Hirano, Tetsuji Yamaoka
- 11:00 2K09 Cell adhesion properties and structure analysis of interfacial water of zwitterion based N-oxide polymer brush
Naoto Ogiwara, Tsukuru Masuda, Madoka Takai

- 11:15 2K10 Machine learning modeling of the hydrophilic/hydrophobic properties of polymer brush to ward understanding protein adsorption
Shiwei Su, Tsukuru Masuda, Madoka Takai
- 11:30 2K11 Preparation of nanoparticles having sugar-recognition moiety on the outermost surfaces and their glucose concentration dependent responses
Fumihide INOUE, Syuuhei KOMATSU, Akihiko KIKUCHI

Shinichi Mochizuki, presiding

- 12:45 2K13 Utilizing Polyethylene glycol-based self-assembled monolayer for improved electrochemical aptamer-based sensor stability
Kon Son, Takanori Uzawa, Yoshihiro Ito, Tod. E Kippin, Kevin. W Plaxco, Toshinori Fujie
- 13:00 2K14 A cationic copolymer for acceleration of DNA circuits and elimination of toehold length dependency
Jun Wang, Naohiko Shimada, Atushi Maruyama
- 13:15 2K15 Highly active DNzyme nanowire cooperated with cationic copolymers for nucleic acid detection
Naoki Yoshida, Jun Wang, Naohiko Shimada, Atsushi Maruyama
- 13:30 2K16ILY Development of Cysteine-Based Self-Assembling Antioxidant Polymer Drugs Attenuating Oxidative Stress for Chemotherapy of Inflammatory Diseases
Yuta Koda
- 14:00 2K18 Design of pH-Responsive Nanoparticles with Dynamic Molecular Binding Sites and Regulation of Binding Capacity for Drugs
Takashi Miyata, Tomoya Iwagaki, Akifumi Kawamura

Akifumi Kawamura, presiding

- 14:15 2K19 Design of Molecular Bottlebrushes as a CpG ODN Carrier
Yusuke Miyashima, Shin Takano, Shota Fujii, Kazuo Sakurai
- 14:30 2K20 Behavior of Polysarcosine in PEG-b-polypeptoid-b-polypeptide Triblock co-polymer for suppression in Antibody Binding
Debabrata Maiti, Koichi Shiraishi, Masayuki Yokoyama
- 14:45 2K21 Functional evaluation of poly(vinyl ether)-modified gold colloids with both biocompatibility and cell adhesion
Kento Fujiura, Mitsuru Naito, Lumi Negishi, Tomoya Kujirai, Yukiko Tanaka, Aki Yamamoto, Seiichi Ohta, Hitoshi Kurumizaka, Masaru Tanaka, Kanjiro Miyata
- 15:00 2K22 Poly(acrylamide 2-methylpropane sulfonic acid)(PAMPS) regulates poly(ethylene glycol)s (PEGs) and anti-PEG IgG/IgM antibodies interactions.
Koichi Shiraishi, Shin-ichi Yusa, Masayuki Yokoyama

Koichi Shiraishi, presiding

- 15:15 2K23ILI Development of Redox-Active Nanoparticle for Novel Therapeutics of ischemic stroke
Ting Mei, Ahram Kim, Long Binh Vong, Babita Shashni, Aiki Marushima, Sandra Puentes, Hiroshi Maeda, Yukio Nagasaki
- 15:45 2K25 Induction of foreign antigen presentation for novel cancer immune therapy
Shinichi Mochizuki, Soichi Ogata
- 16:00 2K26 Contribution of Polymer Length of Polyglutamic Acid Functionalized with Dual Inhibitors of Proximal Enzymes to Synergistic Inhibition of Cancer Cell Proliferation
Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki

Takashi Miyata, presiding

- 16:15 2K27 Multiligand Inhibitor of Carbonic Anhydrase IX Activated by Click Reaction Between Polymeric Nano-assemblies for Cancer Treatment
Rentaro Sakamoto, Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki
- 16:30 2K28 Optimization of Grafting Degree of Ursodeoxycholic Acid in Molecular Blocks for Induction of Cell Death at Tumor Microenvironment with High Sensitivity
Kazuki Moroishi, Masahiko Nakamoto, Michiya Matsusaki
- 16:45 2K29 Extracellular vesicles with cell-penetrating peptide modification for intracellular delivery to endothelial cells
Tianwei HUANG, Yuya Sato, Yuji Teramura
- 17:00 2K30 Suppression of the depressive symptoms of chronic restraint stress mice via gut-brain axis by the intestinal ROS-scavenging nanomaterial
Yutaka Ikeda, Naoki Saigo, Yukio Nagasaki

Fri. May 26

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Kazuma Yasuhara, presiding

- 9:30 3K03 Sorbitol-releasing in situ gelling materials for treatment of myocardial infarction
Hue LE THI, Kyoko FUKAZAWA, Takeshi NAGASAKI, Atsushi MAHARA, Tetsuji YAMAOKA
- 9:45 3K04 Preparation of Composite Scaffolds of Gelatin, Gold Nanoparticles and Doxorubicin-Encapsulated Thermosensitive Liposomes
Guoping Chen, Huajian Chen, Toru Yoshitomi, Naoki Kawazoe
- 10:00 3K05 Fabrication and characterization of linear and branch PEGNHS to modify the porcine and bovine pericardium
Sreylich SAY, Yoshihide HASHIMOTO, Tsuyoshi KIMURA, Akio KISHIDA
- 10:15 3K06 Preparation of organic-inorganic capsules having osteoinductive function made from polymer coacervates
Yuya Mizuno, Syuuhei Komatsu, Akihiko Kikuchi
- 10:30 3K07 Coating of visible light-crosslinkable poly(N-isopropylacrylamide) for thermoresponsive cell culture surfaces
Jun Kobayashi, Masayuki Yamato, Teruo Okano

Yoshitsugu Akiyama, presiding

- 10:45 3K08ILY Self-Assembling Nanocomplexes Based on Tannic Acid and Phenylboronic Acid Conjugated-Polymers for Efficient Biomolecule Delivery.
Yuto Honda
- 11:15 3K10 Design and functionalities of novel antioxidant polymers
Yukio Nagasaki
- 11:30 3K11 Synthesis of fluorescein conjugated iron-oxide nanocluster for MR contrast agent
Raghav Soni, Tetsuji Yamaoka, Atsushi Mahara

Atsushi Mahara, presiding

- 12:45 3K13 Preparation of ceramide-containing liponano-capsules by polymer deposition for versatile loading and self-degradation
Yuuka Fukui,Junna Ito,Masatoshi Takeiri,Kouki Hatayama,Yoshihide Kimura,Keiji Fujimoto
- 13:00 3K14 Cellular uptake of spontaneously formed lipid nanodiscs and its size effect
Jinyu HAO,Gwenael RAPENNE,Kazuma YASUHARA
- 13:15 3K15 Design of Phospholipid Membrane Supramolecular Nanosheets and Their Applications to Blood Administration
Noriyuki Uchida,Takagi Yuichiro,Takahiro Muraoka
- 13:30 3K16 Glycosylation-induced polysarcosine coacervation: encapsulation of proteins and its prospective utilization
Yota Okuno,Yoshihiro Sasaki,Kazunari Akiyoshi,Yasuhiko Iwasaki
- Yuuka Fukui, presiding**
- 13:45 3K17 Controlled polymerization of α -amino acid *N*-carboxyanhydrides by thiourea and its effect on the self-assembly of PEG-poly(amino acid) block copolymers
Yuki Mochida,Ushio Sumida,Moe Nakatsuka,Kazunori Kataoka
- 14:00 3K18 The polypeptide assembly as a model system to evaluate the effect of co-solvent and temperature on self-assembly behavior
Motoki Ueda,Avanashiappan Nandakumar,Yoshihiro Ito
- 14:15 3K19 Construction of reduction-responsive DNA-based nanostructures from DNA-poly(carbamate) conjugates with self-immolative fragmentation ability
Ren Ishiyama,Syuuhei Komatsu,Akihiko Kikuchi,Yoshitsugu Akiyama
- 14:30 3K20 Differences of Hydration Water Amount Bound to Phosphobetaine, Sulfofetaine, and Carboxybetaine-type Polymers
Shohei Shiimoto,Kaito Inoue,Hayato Higuchi,Shin-nosuke Nishimura,Hiromitsu Takaba,Motoyasu Kobayashi,Masaru Tanaka

Room L

Wed. May 24

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

Takuya Isono, presiding

- 10:30 1L07 Self-Assembly of Cyclodextrin-Based [3]Rotaxane and Its Application to Polymer
Yosuke Akae,Patrick Theato
- 10:45 1L08 Synthesis of Chiral/Chiral and Chiral/Achiral Copolymers of Diphenylacetylenes Bearing Ester Pendants and Their Chiral Amplification Behaviors
Abilesh Kumar Ravikumar,Tatsuya Nishimura,Tsuyoshi Taniguchi,Katsuhiko Maeda
- 11:00 1L09 Oxidative Polymerization of Dithiarubicene Derivatives and Electrochromic Properties of Narrow Bandgap Conjugated

Polymers
Koji Takagi, Takeru Yamamori, Shuhei Hayashi, Kenji Tsukamoto

Koji Takagi, presiding

- 11:15 1L10 Installing Multicyclic Polymer in Silicone Network through Topological Trapping
Minami Ebe, Asuka Soga, Feng Li, Takuya Yamamoto, Kenji Tajima, Takuya Isono, Toshifumi Satoh
- 11:30 1L11 Systematic synthesis and nanostructural characterization of discrete and monodisperse sugar-inorganic block copolymers
Taiki Nishimura, Feng Li, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh, Takuya Isono

Shigeru Yamago, presiding

- 12:45 1L13 Ring-opening Alternating Copolymerization of Epoxide with Cyclic Anhydride Having a Carboxyl Group for Synthesizing Hyperbranched Polyesters
Ryota Suzuki, Xiaochao Xia, Tianle Gao, Takuya Yamamoto, Kenji Tajima, Feng Li, Takuya Isono, Toshifumi Satoh
- 13:00 1L14 Synthesis of two-dimensional polymer membranes containing ultramicropores from liquid crystalline one-dimensional polymer membranes by two step polymer reaction and oxygen permeation of the membranes
Kehan Cheng, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 13:15 1L15 On the comment of ISO standards obtaining the activation energy of thermal degradation of polymer
masayuki Ito

Mineto Uchiyama, presiding

- 13:30 1L16 Removal of organotellurium groups from the polymers synthesized by organotellurium-mediated radical polymerization (TERP)
Yuhan JIANG, Masatoshi TOSAKA, Misato IWASE, Yoshiki SOHRIN, Shigeru YAMAGO
- 13:45 1L17 Elucidation of the Termination Mechanism of the Radical Polymerization of Isoprene Monomer
Naila YAMIN, Masatoshi TOSAKA, Shigeru YAMAGO

Makoto Ouchi, presiding

- 14:00 1L18 Synthesis of structurally controlled dendritic hyperbranched polyacrylates by TERP and their rheological properties
TIANXIANG TONG, Masato Kibune, Masatoshi Tosaka, yumi Matsumiya, Hiroshi Watanabe, Shigeru YAMAGO
- 14:15 1L19 Simulation of Structural Fluctuations in Hyperbranched Polymers Synthesized in a Structure-Controlled Single Step
Masatoshi TOSAKA, Shigeru YAMAGO
- 14:30 1L20 Synthesis of stereocontrolled dendritic hyperbranched polyacrylamides by TERP in the presence of lanthanide Lewis acids
Yuji Imamura, Shigeru Yamago

Tatsuya Nishimura, presiding

- 14:45 1L21 Precision Syntheses of Acrylamide-Hydroxyethyl Vinyl Ether Alternating Copolymers and Sequence Effects on Thermoresponsive Behaviors in Water
Zhengzhao Jiang, Makoto Ouchi
- 15:00 1L22 Controlled radical polymerization of N-vinylisobutylamide using

xanthate as a RAFT agent
Tsuyoshi ANDO, Alexis DUPRE--DEMORSY, Olivier
COUTELIER, Mathias DESTARAC, Hiroharu AJIRO

15:15 1L23 Development of Catechol-Containing Polymers by RAFT
Polymerization of Functional Bio-Based Styrene Derivatives
Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh

Tomohiro Kubo, presiding

15:30 1L24 Terminal end-functionalization of poly(phenylacetylene)s by
reactions with isocyanates and isothiocyanates in rhodium-
catalyzed living polymerization of phenylacetylenes
Nina Adriani, Kensuke Echizen, Tsuyoshi Taniguchi, Tatsuya
Nishimura, Katsuhiko Maeda

15:45 1L25 Chemoenzymatic polymerization of amino acids having reactive
functional group in the side chain
Kayo Terada, Zhiwei Liu, Risa Naka, Hiroyasu Masunaga, Kousuke
Tsuchiya, Keiji Numata

16:00 1L26 Development of a new ortho-nitrobenzyl alcohol monomer giving
photo-degradable polymer
Jincheng FU, Jiade WU, Shigeru YAMAGO

Tsuyoshi Ando, presiding

16:15 1L27 Controlled/Living Click Polymerization of AB Monomers with
Various Initiators
Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh

16:30 1L28 Ring-Opening Copolymerization of ϵ -Caprolactone and Cyclic
Thionoester Monomer to Improve Degradability
Andrea Mialdea Molina, Riko Kashima, Tomohiro Kubo, Kotaro
Satoh

16:45 1L29 Synthesis of boron-containing pi-conjugated polymers from
triethynylborane-pyridine complex
Naoki Takahashi, Yuta Nishina

Thu. May 25

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

Kazuki Fukushima, presiding

9:30 2L03 A crystalline hydrogen-bonded polymer based on methanol
substituted by benzimidazolyl and phenyl groups
Shun Ohta, Tatsuya Hatakeyama, Shusuke Fujita, Tomoyuki
Toda, Masanobu Sagisaka, Masaaki Okazaki

9:45 2L04 Structural transformation of hydrogen-bonded organic
frameworks based on pyrene derivative.
Taito Hashimoto, Ryusei Oketani, Ichiro Hisaki

10:00 2L05 Development of one-handed helical structures in the
supramolecular porphyrin polymers by the application of
prechosen chiral solvents
Takehiro Hirao, Sei Kishino, Takeharu Haino

Naoki Haraguchi, presiding

10:15 2L06 Degradation of Condensation Polymers Using Organocatalysts
Kazuki FUKUSHIMA, Yuya WATANABE, Tetsuya UEDA, So
NAKAI, Takashi KATO

- 10:30 2L07 Synthesis and biodegradability of polymers containing ester and ketone groups in chains
Haobo Yuan, Kohei Takahashi, Shinya Hayashi, Chifeng Li, Kazuya Yamaguchi, Miwa Suzuki, Kenichi Kasuya, Kyoko Nozaki
- 10:45 2L08 Remolding/ Recycling of Reversible Polymer Network Based on Diels-Alder Chemistry
Takeo Suga, Ryunosuke Tanaami, Ryusuke Kishida, Kenichi Oyaizu
- Takeo Suga, presiding**
- 11:00 2L09 Synthesis of monodisperse core-shell polymer microsphere with sulfonic acid by precipitation polymerization
Md Rabiul Alam, Naoki Haraguchi
- 11:15 2L10 Rapid fragmentation of polypropylene in seawater for preparation of realistic reference microplastics
Hisayuki Nakatani, Taishi Uchiyama, Kaito Yamashiro, Suguru Motokucho, Anh Thi Ngoc DAO
- 11:30 2L11 Development of a highly efficient method for the synthesis of cellulose ether derivatives
Naoyuki Furuya, Tsuyoshi Taniguchi, Takashi Nshikata, Tatsuya Nishimura, Katsuhiko Maeda

E. POLYMERS AND ENVIRONMENT “English Session”

Yuya Tachibana, presiding

- 12:45 2L13 Viscosity homogenization treatment of waste plastic recycling by means of tandem extrusion line.
Takeharu Isaki, Yasunori Sato, Hiroki Endo, Takeru Yamamoto, Tsutomu Takahashi
- 13:00 2L14 In situ observation of plastic decomposition in supercritical water by small-angle neutron scattering
Motoki Shibata, Yohei Nakanishi, Hiroki Iwase, Jun Abe, Hiroshi Arima-Osonoi, Ryuhei Motokawa, Takayuki Kumada, Katsuhiko Yamamoto, Mikihito Takenaka, Tsukasa Miyazaki
- 13:15 2L15 Depolymerization of polyester fibers by dimethyl carbonate-aided methanolysis
Shinji Tanaka, Yumiko Nakajima

Ikuo Taniguchi, presiding

- 13:30 2L16ILY Recovery of high-purity Cu and PVC from waste wire harness via swelling followed by ball-milling
Shogo Kumagai

Shinji Tanaka, presiding

- 14:00 2L18 Low-temperature formable Block Copolymers as a Plasticizer for Polylactides
Neha Sharma, Ikuo Taniguchi
- 14:15 2L19 Mechanical properties improvement of poly(lactic acid)/starch composites using in situ cross-linking of amine-modified silicone
Kazuki Shibasaki, Yu-I Hsu, Hiroshi Uyama
- 14:30 2L20 Effect of pH on water durability and solubility of cellulose nanofiber reinforced starch films
Izzah Hamid, Raghav Soni, Yu-I Hsu, Hiroshi Uyama

Yu-I Hsu, presiding

- 14:45 2L21 Recyclable polycarbosilane containing bio-based bifuran structure
Yuya Tachibana, Shunsuke Beppu, Ken-ichi Kasuya
- 15:00 2L22 Blend materials with chitosan and poly(trimethylene carbonate) derivatives with glucamine
Hiroharu AJIRO, Yuka MORIMURA, Nalinthip CHANTHASET, Chantiga CHOOCHOTTIROS, Natjaya EKAPAKUL
- Hiroharu Ajiro, presiding**
- 15:15 2L23 Factors affecting biodegradation rate in accelerated evaluation of marine biodegradation of plastics
Hironori TAGUCHI, Nao OSAKA, Takako KIKUCHI, Hisao MATSUNO, Keiji TANAKA
- 15:30 2L24 Microscopic observation of hydrolysis reaction of polymer particles by optical resonance
Hiroshi Yamagishi, Akihide Takeuchi, Yohei Yamamoto
- 15:45 2L25 Improvement of toughness and seawater biodegradability of polycaprolactone by polyrotaxane addition
Qingwen Zhang, Yuhei Kobayashi, Shota Ando, Hideaki Yokoyama, Kohzo Ito
- Yukiko Enomoto, presiding**
- 16:00 2L26 Hydrolysis of Poly(glycolic acid) in Nanofiber Mats with Hyperbranched Polyester as a Degradation Promoter
Reiki Eto, Haruki Mokudai, Takashi Masaki, Hisao Matsuno, Keiji Tanaka
- 16:15 2L27 Degradation and Stability of Segmented Polyurethane Elastomers in Naturally Simulated Environments
Van Thinh Nguyen, Yasunori Kusano, Yingjun An, Tomoko Kajiwara, Atsushi Takahara
- 16:30 2L28 Environmental Degradation Behaviors of Biodegradable Poly(butylene succinate) and Poly(butylene succinate-co-adipate)
Yingjun AN, Tomoko KAJIWARA, Adchara PADERMSHOKE, Yuuta IKEDA, Hiroshi NOGUCHI, Atsushi KUSUNO, Hiroyasu MASUNAGA, Sono SASAKI, Atsushi TAKAHARA
- Hisao Matsuno, presiding**
- 16:45 2L29 Poly(butylene succinate-co-adipate) and paramylon ester-based polymer blend with improved physical properties
Manikandan Ilangovan, Hongyi Gan, Taizo Kabe, Tadahisa Iwata
- 17:00 2L30 Incorporation of switch function into poly(butylene succinate) toward marine degradable plastic
Toyokazu Tsutsuba, Moe Shimizu, Yuya Tachibana, Ken-ichi Kasuya