

Room A

Wed. May 26

INVITED LECTURES

Akinori Takasu, presiding

10:15 1A06IL Polymer Chemistry in Coordination Nanospaces
Takashi Uemura

Naoya Torikai, presiding

11:00 1A09IL Novel Microphase Separated Structure in Block Copolymers
Katsuhiro Yamamoto

Eiji Yashima, presiding

12:30 1A12IL New strategies for photoinduced alignment and surface morphing in LC polymer films
Takahiro Seki

Shigeki Habaue, presiding

13:15 1A15IL Development of amino acid- and peptide-based smart polymer materials
Tomoyuki Koga

Atsushi Takano, presiding

14:00 1A18IL Design and Creation of Topological Supramolecular Polymers
Shiki Yagai

Koji Takagi, presiding

15:00 1A22IL Novel Precision Polymerization by Combination of Various Active Species and Mechanism
Kotaro Satoh

AWARD LECTURES

Hiroshi Jinnai, presiding

15:45 1A25AL Sulfur Polymers: Materials for Sustainable Growth
Kookheon Char

Toshifumi Satoh, presiding

16:30 1A28AL Self-assembly of Carbohydrate-based Block Copolymer Systems
Redouane Borsali

Thu. May 27

INVITED LECTURES

Yukikazu Takeoka, presiding

9:30 2A03IL Self-Assembly of Macroscopic Polymer Nanocomposite Superlattices
Robert Macfarlane

Shinichi Itsuno, presiding

10:15 2A06IL Fabrication of Artificial Iris Showing Widening/Closing Radial Motions Based on Predesigned Functional Polymers
Kai-Ti Chang, Chun-Yen Liu, Jui-Hsiang Liu

AWARD LECTURES

Yoshiyuki Oishi, presiding

11:00 2A09AL Functionalization of Polyolefins Using Group 4 Polymerization Catalysts
Takeshi Shiono

Takuji Okamoto, presiding

- 12:30 2A12AL Precision Design and Synthesis of Helical Macromolecules for New Dynamic Chiral Functions
Michinori Suginome
Hiroyuki Asanuma, presiding
- 13:15 2A15AL Study of Polymer Properties and Function Using Single-molecule Spectroscopy
Martin VACHA
Ryo Yoshida, presiding
- 14:00 2A18AL Development of Functional Soft Materials by Precision Molecular Assembly
Takanori Fukushima
Satoshi Oyaizu, presiding
- 15:00 2A22AL Development and Industrialization of Biaxially Oriented Polypropylene Film for Heat Durable Film Capacitor in Electric Automobiles
Masatoshi Ohkura, Testuya Asano, Tastuya Ito, Itsuo Nagai, Isamu Moriguchi
Kazue Ueda, presiding
- 15:45 2A25AL Invention of Bio-based Polymer Alloys and Its Applications for Automobile Plastic Parts
Jumpei Kawada, Makoto Mouri, Masayuki Kito, Toshiyuki Ario, Keisuke Kato
Yoshihiro Sasaki, presiding
- 16:30 2A28AL Controlled Radical Polymerization of Vinyl Ethers and Precision Polymerization-Induced Self-Assembly
Shinji Sugihara

Fri. May 28

INVITED LECTURES

- Junpei Yamanaka, presiding**
- 9:30 3A03IL Molecular design, functionality and medical applications of biomedical polymers
Kazuhiko Ishihara
- Katsuhiro Yamamoto, presiding**
- 10:15 3A06IL Highly transparent and tough composite elastomer inspired by cornea
Yukikazu Takeoka

AWARD LECTURES

- Masaru Yoshida, presiding**
- 11:00 3A09AL Development of Multiple Controlled Radical Polymerization
Masami Kamigaito
- Hiroshi Jinnai, presiding**
- 12:30 3A12AL Design and Applications of Polymer Membranes and Gels Based on Molecular Interactions
Takashi Miyata
- Joji Ohshita, presiding**
- 13:15 3A15AL Functions of Rigid Dendrimers and Their Applications
Kimihisa Yamamoto
- Hiroataka Ihara, presiding**
- 14:00 3A18AL Creation of functional softmaterials based on self-oscillating polymer gels
Ryo Yoshida
- Akira Kakugo, presiding**
- 15:00 3A22AL Precision Synthesis of Molecular Assemblies through Living Supramolecular Polymerization
Kazunori Sugiyasu

Tatsuo Maruyama, presiding

15:45 3A25AL Experimental elucidation of structure-property relationship of polymer gels
Takamasa Sakai

Room B

Wed. May 26

POLYMERS TODAY AND BEYOND

Sadayuki Kobayashi, presiding

10:15 1B06IL Issues and Prospects for Recycling Carbon Fibers
Hiroshi Moritomi

Yutaka Hori, presiding

11:00 1B09IL Waste plastics chemical recycle: low-carbon hydrogen & circular economy
Tunekichi Kuriyama

Akinori Itoh, presiding

12:30 1B12IL How do fossil-based plastics and bioplastics play in a Circular Economy?
Nobuyuki Kawashima

Sadayuki Kobayashi, presiding

13:15 1B15IL Research progress on all-biomass molded products
Hiroshi Nonaka

Akinori Itoh, presiding

14:00 1B18IL Chemical Recycling, a key solution to realize our vision 'Circulate everything'
Takao Masaki

Motoshi Yamanaka, presiding

15:00 1B22IL New Trends in Packaging for Help Drive a Circular Economy
Toshio Arita

15:45 1B25IL Development of plastic recycling technology and its social implementation to realize a circular economy
Youichiroh Ide

Hiroshi Nakamura, presiding

16:30 1B28IL Kao's Environmental Approach to plastic containers and packaging
Shinichi Inaba

Thu. May 27

POLYMERS TODAY AND BEYOND

Hideo Fujimura, presiding

9:30 2B03IL Practical Application of Materials Informatics to Polymer Development in Nippon Shokubai
Keiya Migita

Norie Watanabe, presiding

10:15 2B06IL Accelerating material development with informatics technologies
Hisaki Ikebata

Shuichiro Ogawa, presiding

11:00 2B09IL Studies of descriptors and features of the higher order structures in polymeric materials to construct the data of materials
Hiroshi Morita

Hirofumi Murooka, presiding

12:30 2B12IL Research and Development of Asahi Kasei for Sustainability
Kazuya Noda

Morihiya Yokota, presiding

13:15 2B15IL R&D Strategy of KUREHA CORPORATION
Hiroyuki Sato

Makoto Nishimoto, presiding

14:00 2B18IL Open Innovation at TOYOBO
Yasuo Ohta

Fri. May 28

POLYMERS TODAY AND BEYOND

Hiroshi Nakamura, presiding

9:30 3B03IL A once-in-a-century revolution in automotive technologies
Yuichi Azuma

Kenichi Nakamura, presiding

10:15 3B06IL Current Status and Future Trends of Carbon Fiber Composite Materials
Technology
Naoki Sugiura

11:00 3B09IL Adhesive for Dissimilar Materials Bonding
Masato Akimoto

Hiroyuki Asanuma, presiding

12:30 3B12IL Photonics Polymer towards 8K, 5G Era
Yasuhiro Koike

13:15 3B15IL Development of Novel Aromatic Vinyl-based Curable Low Loss Materials for
High Speed PWB
Masanao Kawabe

14:00 3B18IL Resin Molecular Design and Applications for 5G and Millimeter
Communication
Masao Tomikawa

Room C

Wed. May 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Koichi Mayumi, presiding

10:00 1C05 Experimental verification of balance of the ionic and elastic osmotic pressures
of charged gels
Tasuku Nakajima, Ken-ichi Hoshino, Honglei Guo, Jian Ping Gong

10:15 1C06 Fracture mirror radius of highly stretchable hydrogel
Ryuji Kiyama, Takayuki Nonoyama, Daniel King, JianPing Gong

10:30 1C07 Semidilute scaling of osmotic pressure predicts equilibrium swelling of
polymer gels
Takashi Yasuda, Naoyuki Sakumichi, Takamasa Sakai

10:45 1C08 Elasticity analysis of Poly(ethylene glycol) chain in water using coarse grained
molecular dynamics simulation
Sota Nagahara, Naoyuki Sakumichi, Atsushi Kubo, Yoshitaka Umeno, Takamasa
Sakai

Naoyuki Sakumichi, presiding

- 11:00 1C09 Effects of entanglements on the elasticity of randomly cross-linked networks
Yuichi Masubuchi
- 11:15 1C10 Molecular Dynamics Simulation of 4-Arm Model Polymer Gel under Uniaxial Stretching
Kosuke Aomura, Yusuke Yasuda, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 11:30 1C11 Coarse-Grained Molecular Dynamics Simulation of Biaxial Extension of Polymer Gels
Haru Shinohara, Takeyoshi Masumoto, Kousuke Aomura, Yusuke Yasuda, Koichi Mayumi, Hideaki Yokoyama, Kozo Ito

Yuichi Masubuchi, presiding

- 12:30 1C12 Molecular Simulation of Structures and Mechanical Properties of Polymer Gels Synthesized by Living Radical Polymerization
Tsutomu Furuya, Tsuyoshi Koga
- 12:45 1C13ILY Negative energy elasticity in a polymer gel
Naoyuki Sakumichi

Kazuki Murai, presiding

- 13:15 1C15 Heterogeneous dynamics in the curing process of epoxy resins studied by X-ray photon correlation spectroscopy
Taiki Hoshino, Yasushi Okamoto, Atsushi Yamamoto, Hiroyasu Masunaga
- 13:30 1C16 Spatial distribution of nano-structures in epoxy resin using SMAXS-CT method
Satoshi Kuwata, Mikihiro Takenaka, Hiroki Ogawa
- 13:45 1C17 Research on hierarchical structure of rubber using anomalous scattering near K absorption edge of zinc
Yuki Watanabe, Mikihiro Takenaka, Shotaro Nishitsuji

Mikihiro Takenaka, presiding

- 14:15 1C19 Development of Tg-less Materials via Self-polymerization of Mesogenic Epoxy Resins Containing Schiff Base Moieties
Saki Ota, Miyuki Harada
- 14:30 1C20 Investigation of physical properties and structure of stereocomplex polylactic acid gel prepared under various conditions
Yukiha Kamizono, Yasuhiro Matsuda
- 14:45 1C21 X-ray CT Analysis and High Strength Mechanism of Co-continuous Network Polymers Using Epoxy Monolith.
Ren Tominaga, Yasuhiro Suzuki, Yoshihiro Takeda, Masaru Kotera, Akikazu Matsumoto

Yasuhiro Matsuda, presiding

- 15:00 1C22 Solid-state NMR structural analysis and mechanical property evaluation of recombinant spider silk protein gels with different secondary structures
Takanori Higashi, Takehiro Sato, Takashi Morinaga, Ryo Satoh, Yu Suzuki
- 15:15 1C23 Effects of cyclodextrin on the structure and physical properties of poly(styrene sulfonic acid) gels
Nana Arai, Masaki Kakiage, Masaru Yoneyama, Hiroki Uehara, Takeshi Yamanobe, Daisuke Nagai, Maiko Sasaki, Keiko Takahashi, Shinji Ozoe
- 15:30 1C24 Continuous second-order structural transition behavior induced by fusion of peptide hydrogel having different charges
Kazuki Murai, Hiroto Isobe, Masato Kawamura, Keishi Nishio

Yohei Miwa, presiding

- 16:00 1C26 Effects of Acid Treatment on High Elasticity of Polythiophenes with Cyclic Siloxane Side Chains
Masaki Kashimoto, Chihiro Kubota, Takuya Matsumoto, Atsunori Mori, Takashi Nishino
- 16:15 1C27 Effect of Moisture Absorption on the Network Structure and Material Properties of Epoxy Resin
Satoru Yamamoto, Keiji Tanaka

- 16:30 1C28 Thermal Properties of Trifunctional Mesogenic Epoxy Thermoset Containing Triazine Ring
Ryusei Nakane, Miyuki Harada
- 16:45 1C29 Synthesis and property of a structurally controlled bottlebrush polymer network
Shintaro Nakagawa, Naoko Yoshie

Thu. May 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Naofumi Naga, presiding

- 10:00 2C05 Effect of ionic bond strength on the structure and properties of tough and self-healing PA hydrogels
Haruna Tsuchibora, Ya'nan Ye, Kunpeng Cui, Jien Ping Gong
- 10:15 2C06 Mechanical properties of thermoplastic elastomers with intramolecular folding by localized hydrogen bonds
Natsuki Kanemura, Shintaro Nakagawa, Naoko Yoshie
- 10:30 2C07 Design of Chemical Structure around Ionic Group in Ionic Silicone Elastomer with Dynamic Crosslinks
Takehito Ohya, Yohei Miwa, Shoichi Kutsumizu
- 10:45 2C08 Thermoresponsive behavior of hydrogel microspheres evaluated by various techniques
Yuichiro Nishizawa, Takumi Inui, Takayuki Uchihashi, Daisuke Suzuki

Naoko Yoshie, presiding

- 11:00 2C09 Nanostructural changes in thermoresponsive hydrogel microspheres with different charge distributions
Takumi Inui, Yuichiro Nishizawa, Daisuke Suzuki
- 11:15 2C10 Membrane preparation from aqueous mixture containing carrageenan by meniscus splitting method
Yuming WU, Koji OGURA, Isamu SAITO, Tatsuo KANEKO, Kosuke OKEYOSHI
- 11:30 2C11 Synthesis and characterization of porous polyethyleneimine by the ring-opening polymerization of trifunctional aziridine compounds
Tomoya Takenouchi, Naofumi Naga

Tatsuo Kaneko, presiding

- 12:30 2C12 Synthesis and properties of porous polymers using ring-opening addition reaction of multifunctional epoxy and amine compounds.
Mei Kusakabe, Naofumi Naga
- 12:45 2C13 Synthesis and properties of porous polymers using Michael addition reaction of poly(ethyleneamine) and poly(ethylene glycol) diacrylate.
Risako Nakai, Naohumi Naga
- 13:00 2C14 Phase structure control of organic-inorganic hybrid gels by acoustic standing waves
Ayumu Koyama, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi

Hajime Kimura, presiding

- 13:15 2C15 Preparation of X-ray shielding films by thermal radical polymerization of styrylbismuthine derivatives
Yoshimasa Matsumura, Kikuo Furukawa, Miyuki Miyamoto, Yoshio Nishimura, Bungo Ochiai
- 13:30 2C16 Thermal and Mechanical Properties and Flame Retardancy of Epoxy Thermosets Phosphorus-containing Monofunctional Epoxy
Shiori Asada, Miyuki Harada, Yuka Mino
- 13:45 2C17 Benzoxazines containing π -conjugated units: Synthesis and polymerization behavior
Masanobu Muraoka, Masahide Goto, Minami Masaki, Hiromitsu Sogawa, Fumio Sanda

Miyuki Harada, presiding

- 14:15 2C19 Phenolic resin with Glycol modified lignin
Hajime Kimura, Morio Yonekawa, Keiko Ohtsuka, Yasunori Ohashi, Eri Takata, Thi Thi Nge, Shiho Takahashi, Tatsuhiko Yamada
- 14:30 2C20 Epoxy resins with high heat resistance via a new process
Hajime Kimura, Morio Yonekawa, Keiko Ohtsuka
- 14:45 2C21 Synthesis of Liquid Crystalline Epoxy Monomers and Characterization of Higher-order Structures of Thermosets for Insulating and Highly Thermal Conducting Resin
Rika Marui, Yuta Nabae, Teruaki Hayakawa

Kozo Matsumoto, presiding

- 15:00 2C22 Internal constraints in main-chain nematic elastomers
Takuya Ohzono, Kaoru Katoh, Hiroyuki Minamikawa, Mohand Saed, Eugene Terentjev
- 15:15 2C23 Reversible thermal diffusivity of LCST type phase separation induced vitrified gel
Tai Suzuki, Meguya Ryu, Takayuki Nonoyama, Jian Ping Gong, Junko Morikawa
- 15:30 2C24 Orientation of Network Chains and Thermal Conductivity of Liquid Crystalline Epoxy Modified Benzoxazine Thermosets
Miyuki HARADA, Yusuke AKAZAKI, Masaki MINAMI

Takuya Ohzono, presiding

- 16:00 2C26 Induced Orientation and Thermal conductivity of Liquid Crystalline Epoxy Thermosets with Side-chain Mesogenic Structure
Maki Murai, Miyuki Harada, Tsunehiko Terada, Yu Iihara
- 16:15 2C27 Synthesis and properties of bio-based epoxy resins using tyramine as a starting material
Kozo Matsumoto, Kohei Nonaka, Ryusei Hayata
- 16:30 2C28 Study on selection of cross-linking agent for suppressing crystallization in cross-linked elastomer of polyrotaxane and their mechanical properties
Shota Ando, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito

Fri. May 28

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Shoichi Kutsumizu, presiding

- 10:00 3C05ILY Preparation of stereoregular polymer on the basis of precise synthesis and characterization of its molecular aggregation state
Tomoyasu Hirai
- 10:30 3C07 Chemistry of aluminum-polymer interfaces investigated by STEM-EELS
Shin Horiuchi, Yida Liu, Akihisa Akiyama, Yukinori Akaike
- 10:45 3C08 Thermal stability of PMMA isolated chains deposited on a PMMA molecularly flat substrate evaluated by high-temperature AFM
Ryota Umetsu, Jiro Kumaki

Shin Horiuchi, presiding

- 11:00 3C09 Effect of interfacial aggregation states on bulk mechanical properties for deoxyribonucleic acid filled with inorganic materials
Hisao Matsuno, Yuma Morimitsu, Ayaka Kakiuchi, Keiji Tanaka
- 11:15 3C10 An Effect of Adsorption Energy on Aggregation States of Polymer Chains at Solid Interfaces
Hidenobu Taneda, Daisuke Kawaguchi, Satoru Yamamoto, Keiji Tanaka
- 11:30 3C11 Orientational Imaging of Functional Groups at a Buried Interface
Tatsuki Abe, Daisuke Kawaguchi, Keiji Tanaka

Takahiro Seki, presiding

- 12:30 3C12 Nanoscale Film Morphologies and Phase Transitions of Cage-Shaped Poly(caprolactone) and Its Various Topological Counterparts
Brian Jiwon Ree, Yoshinobu Mato, Takuya Isono, Toshifumi Satoh
- 12:45 3C13 Interactions between poly(substituted methylene)s with high-dense side chains and water
Misato Tomioka, Eichi Knnan, Takuya Matsumoto, Norifumi Yamada, Takashi Nishino
- 13:00 3C14 Effect of Tacticity on Interfacial Segregation for Blend Thin Films of Poly(methyl methacrylate)s with Different Taciticties
Miyu Iguchi, Yoshihisa Fujii, Norifumi L. Yamada, Naoya Torikai
- 13:15 3C15 Analysis on Mechanical Properties of Styrenic Block Copolymer Ultra-Thin Films by Pseudo Free-Standing Tensile Test
Masayuki Saito, Kohzo Ito, Hideaki Yokoyama
- 13:30 3C16 Surface structure analysis of amphiphilic gel by complementary use of Neutron reflectivity and Hard X-ray photoelectron spectroscopy.
Eri Ito, Tatsuya Imai, Katsuhiko Yamamoto

Naoya Torikai, presiding

- 13:45 3C17 Thin film formation of microgels by their adsorption at the air/water interface
Haruka Minato, Daisuke Suzuki
- 14:15 3C19 Ring-Like Self-Assembly of Silica Nanoparticles in the Presence of Amphiphilic Block Copolymers
Ryo Sugahara, Rintaro Takahashi, Kazuki Yamamoto, Jin Nakamura, Chikara Ohtsuki, Ayae Narutaki
- 14:30 3C20 Unique self-assembled structures formed by competition between phase separation and cross-linking reaction
Wataru Kukai, Atsushi Narumi, Hiroshi Yabu, Masaya Mitsuishi, Jun Matsui
- 14:45 3C21 Effect of crystalline relaxation on surface-deformation characteristics of polyethylene films.
Atsushi Yagi, Atsuya Higuchi, Shota Suzuki, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe

Hidegori Yokoi, presiding

- 15:00 3C22 Property of dynamic zwitterionic polymer brush
Katsuki Otaki, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 15:15 3C23 Investigation of correlation between lamellae orientation and elastic modulus on polymer thin films
Kenshiro Kaji, Van Toan Nguyen, Hiroyasu Masunaga, Taiki Hoshino, Shinichi Sakurai, Sono Sasaki
- 15:30 3C24 Studies on contrast enhancement of X-ray CT images of polymer materials by γ -ray induced graft copolymerization
Toshimi Nakaya, Daishi KaKatsura, Eiji Tanabe, Kenji Komaguchi, joji Ohshita
- 15:45 3C25 Study on deformation and cavitation of polypropylene/elastomer blend
Takahiko Kawai, Shin-ichi Kuroda

Room D

Wed. May 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Toshiyuki Shikata, presiding

- 10:00 1D05ILY Novel Solid Polymer Electrolytes Studied from the Viewpoint of Fundamental Polymer Physics
Yuya Doi

- 10:30 1D07 Segmental dynamics in supercooled liquids based on dynamically correlated networks
Takashi Sasaki, Yuya Tsuzuki, Tatsuki Nakane
- Yuya Doi, presiding**
- 10:45 1D08 Structure, conformation and molecular motions of poly(vinylidene fluoride) in solution
Toshiyuki Shikata, Yuki Nohara
- 11:00 1D09 Structure and conformation of chemically modified cellulose ethers in aqueous solution
Toshiyuki Shikata, Yuki Nohara, Erika Saiki, Misato Yoshida
- 11:15 1D10 Thermo-responsiveness of Carboxylated Polyallylamine Induced by Counter Ions
Junya Emoto, Yasumichi Yazaki, Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 11:30 1D11 Effect of citric acid on the thermal denaturation and renaturation behavior of xanthan
Koki Fujii, Ryoga Saiki, Kazuto Yoshida, Yasuhiro Matsuda
- Yasuhiro Matsuda, presiding**
- 12:30 1D12 Effects of cross-linking ratio on the viscoelastic behavior of poly(N,N'-dimethylacrylamide) microgel semi-dilute dispersion
Takuhiko Nakaura, Yuusuke Sanada, Akihiko Takada, Yukiteru Katsumoto
- 12:45 1D13 Effect of hydrophilic-lipophilic balances on the solution property of amphiphilic poly(ethylene oxide)-poly(propylene oxide) alternating multiblock copolymers in water
Kenji Sakanaya, Yusuke Sanada, Keisuke Watanabe, Yukiteru Katsumoto
- 13:00 1D14 Structure of micelles formed by amphiphilic triblock copolymers having poly(ethyl acrylate-co-dodecyl acrylate) as mid-block chains
Shuhei Ishii, Yusuke Kawamura, Isamu Akiba
- Yukiteru Katsumoto, presiding**
- 13:15 1D15 Phase Separation Behavior of Aqueous Solutions of Poly(N-isopropylacrylamide) upon Heating
Jiayun Han, Rintaro Takahashi, Chen Kuang, Takahiro Sato
- 13:30 1D16 Liquid crystallinity of cyclic amylose carbamate in concentrated solutions
Ken Terao, Daigo Kabata, Akiyuki Ryoki, Shinichi Kitamura
- 13:45 1D17 Thermoresponsive gelation of the aqueous solutions of amphiphilic random copolymers: aggregate structures and macroscopic properties
Motoki Shibata, Takaya Terashima, Tsuyoshi Koga
- Ken Terao, presiding**
- 14:15 1D19 The second virial coefficient of cyclic oligodimethylsiloxanes in a Θ solvent
Akiyuki Ryoki, Naohiro Osanai, Daichi Ida
- 14:30 1D20 Dilute aqueous solution properties of poly(2-(2-methoxyethoxy)ethyl methacrylate)
Haruki Yamaguchi, Takaya Terashima, Daichi Ida
- 14:45 1D21 Colloidal Particle Structure in Lecithin-Soybean Oil-Water Emulsion
Kenzo Yamada, Takahiro Sato
- Daichi Ida, presiding**
- 15:00 1D22 Effect of excluded volume and overlap of polymers under dilute and crowding conditions on molecular crystallization
Yuuki Hata, Xiang Li, Ung-il Chung, Shingo Nakamura, Masayuki Ishihara, Takamasa Sakai
- 15:15 1D23 Molecular Parameters for Brush-Like Polymers Consisting of Poly(styrene sulfonate).
Taishi Matsui, Masaki Shibayama, Yo Nakamura
- 15:30 1D24 Segment Distribution around the Center of Gravity of Branched Polymers
Kazumi Suematsu

Yo Nakamura, presiding

- 16:00 1D26 Structural analysis of small molecule complexes formed by schizophyllan and nucleic acids
Kazuki Sumiya, Takuya Matsunaga, Motoko Tanaka, Kazuo Sakurai
- 16:15 1D27 Small angle X-ray scattering from polysaccharide nucleic acid complexes containing two DNA molecules
Kazuo Sakurai, Yuki Hata, Kazuki Sumiya, Takuya Matsunaga

Ken Terao, presiding

- 16:30 1D28 Observation of aggregation number and morphological changes in Platonic micelles formed by Surfactin
Naoto Moriyama, Eri Tabata, Shota Fujii, Isamu Akiba, Kazuo Sakurai

Thu. May 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Koichi Mayumi, presiding

- 10:00 2D05 Fabrication and Evaluation of High Performance CNT Polypropylene Composites for Material Recycling of Waste Plastics
Ken-ichi Niihara, Wataru Kashima, Kouji Maekawa, Morinobu Endo, Toru Noguchi
- 10:15 2D06 Preparation and Properties of Synthetic Rubber with Nanomatrix Structure
Seiichi Kawahara, Hironari Nishioka, Yoshimasa Yamamoto
- 10:30 2D07 Effects of Silane Coupling Agent on The Nanoscale Tensile Deformation Behavior for Silica Nanoparticle Dispersed Rubbers
Daisuke Watanabe, Tomohiro Miyata, Katsuhiko Tsunoda, Yoshihiro Morishita, Hiroshi Kadowaki, Naruhiko Mashita, Hiroshi Jinnai
- 10:45 2D08 Graphene Oxide Reinforced Polyimide Nanocomposites
Seira Morimune-Moriya, Nagata Yusuke

Seiichi Kawahara, presiding

- 11:00 2D09 The molecular dynamics and the mechanical properties of an epoxy resin modified with polyrotaxane
Akihiro Hanafusa, Shota Ando, Satoru Ozawa, Masakazu Ito, Ryuichi Hasegawa, Koichi Mayumi, Kohzo Ito
- 11:15 2D10 Strength enhancement mechanism due to the phase-separated structure of PMMA/PC blends injection-molded
Kazuaki Nagamori, Tetsuya Ozawa, Takashi Kuriyama
- 11:30 2D11 Effects on Dispersion State and Rheological Properties for Polystyrene Composite by a Mixing Ratio of Silica Having Different Shapes
Masayuki Miyamoto, Yoshihisa Fujii, Naoya Torikai

Naoya Torikai, presiding

- 12:30 2D12 B Segment Distribution Analysis in the Block Copolymer Microdomain Consisting of A Chain and Random BC Chain Utilizing Anomalous Small-Angle X-ray Scattering
Yoshiaki Fuwa, Hideaki Takagi, Katsuhiro Yamamoto
- 12:45 2D13 Comparison of composition dependence of microphase-separated structure for AB and ABA block copolymers.
Atsushi Takano, Tsuyoshi Orido, Matsushita Yushu
- 13:00 2D14 Helical Cylinders formed from ABAC Tetrablock Terpolymers and Terpolymer/Homopolymer Blends.
Tsuyoshi Orido, Yuta Miyamori, Jiro Suzuki, Atsushi Takano, Yushu Matsushita
- 13:15 2D15 Effect of the molecular weight distribution on defects in double-gyroid structures of block copolymers
Takafumi Suenaga, Daisuke Watanabe, Hsiao-Fang Wang, Tomohiro Miyata, Hiroshi Jinnai

Hironori Marubayashi, presiding

- 13:30 2D16 Miscibility Calculation of Polymer Blends Using All-Atom Molecular Dynamics
Kazuo Yamada, Nobuyuki Matubayasi
- 13:45 2D17 Structural Analysis for bi-axial drawing film with wetted system
Keisuke Sotoyama, Go Matsuba
- 14:15 2D19 Structural analysis of a temperature-sensitive polarizing film with crystallizable side chains
Tomoya Okada, Go Matsuba, Takumi Kato, Minoru Nanchi
- 14:30 2D20 Crystal structure analysis of syndiotactic polystyrene and modified poly(phenylene ether) blend
Hiroto Adachi, Go Matsuba, Kazuo Ikeda, Takumi Suei
- 14:45 2D21 Separation of butanol from butanol aqueous solution by syndiotactic polystyrene with nanopore crystal
Takahiko Nakaoki, saki Fujino

Masatoshi Tosaka, presiding

- 15:00 2D22 Revealing of Nano-scale Spatial Distribution of Isotactic Polystyrene Crystallites by Nano-Diffraction Imaging
Hironori Marubayashi, Hiroya Satoh, Shusuke Kanomi, Tomohiro Miyata, Hiroshi Jinnai
- 15:15 2D23 Orientation and crosslinking reaction analyses of uniaxially oriented cross-linkable polyimide prepared from lyotropic liquid crystalline precursor
Yuta Ohsako, Shohei Hara, Shinji Ando, Ryohei Ishige
- 15:30 2D24 Development of Vertically Aligned Polyimide Films Using Smectic Liquid Crystalline Precursor
Shohei Hara, Keita Yanase, Kazuyuki Tanaka, Shinji Ando, Ryohei Ishige

Ryohei Ishige, presiding

- 16:00 2D26 Crystallization of Isotactic Poly(N,N-diethyl acrylamide) Synthesized by Controlled Radical Polymerization in the Presence of Lanthanide Lewis Acid
Masatoshi Tosaka, Ryosuke Imai, Yuji Imamura, Beomsu Park, Shigeru Yamago
- 16:15 2D27 Crystallization of poly(p-phenylene terephthalamide) from a dilute solution
Tomoyasu Takaki, Yutaro Hara, Shota Kumano, Tetsuya Uchida
- 16:30 2D28 Crystallization temperature dependence of lamellar thickness of poly(trimethylene terephthalate)
Daisuke Tadokoro, Takashi Konishi, Koji Fukao, Hideki Miyaji, Teppei Yoshida, Yoshihisa Miyamoto

Fri. May 28

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Hiroshi Jinnai, presiding

- 10:00 3D05 β relaxation of polyfumarates without methylene spacer in the main chain
Yasuhito Suzuki, Koji Fukao, Akikazu Matsumoto
- 10:15 3D06 Universality of strain-induced density fluctuations in glassy materials
Shuta Aokura, Mikihito Takenaka, Hiroshi Watanabe
- 10:30 3D07 Strain-Induced Density Fluctuations in Linear Low-Density Polyethylene
Mizuki Kishimoto, Kazuki Mita, Hiroki Ogawa, Mikihito Takenaka

Mikihito Takenaka, presiding

- 10:45 3D08 Local structural analysis of polyethylene by nano-diffraction imaging
Shusuke Kanomi, Hironori Marubayashi, Tomohiro Miyata, Hiroshi Jinnai
- 11:00 3D09 Formation of monoclinic and intermediate phases by compression of drawn ultra-high molecular weight polyethylene films
Sayoko Ogura, Takumi Sturugai, Tomoki Hidai, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe

11:15 3D10 Influences of Shape of Molecular Weight Distribution on Tensile Deformation of Polyethylene Solids
Takumitsu Kida, Ryo Tanaka, Yusuke Hiejima, Koh-hei Nitta, Takeshi Shiono

11:30 3D11 All-atom molecular dynamics study on fracture process of semi-crystalline polyethylene
Shuichi Uehara, Yang Wang, Yusuke Ootani, Nobuki Ozawa, Momoji Kubo

Koh-hei Nitta, presiding

12:45 3D13 Crystallization kinetics near the glass transition temperature examined by fast-scan calorimetry
Akihiko Toda

13:00 3D14 Macro-phase Separated Structure in Block Copolymer Analyzed by Small-angle Neutron Scattering with Dynamic Nuclear Polarization
Katsuhiro Yamamoto, Ando Kensei, Satoshi Koizumi, Noda Yohei, Maeda Tomoki

Akihiko Toda, presiding

13:15 3D15 Analysis of deformation behavior of poly(tetrafluoroethylene) sheets using Raman spectroscopy
Daisuke Kimura, Asae Ito, Koh-hei Nitta, Kazufumi Toda, Shunichi Shimatani

13:30 3D16 A Reactive Molecular Dynamics Study on Structural Stabilization of Damaged Hydrocarbons in a Vacuum
Haolun Li, Susumu Fujiwara, Hiroaki Nakamura, Tomoko Mizuguchi, Ayako Nakata, Tsuyoshi Miyazaki, Shinji Saito, Wataru Sakai

13:45 3D17 The Stabilization Mechanism of Cyclodextrin-Polyethylene Glycol Inclusion Complex
Yukino Nanba, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama

Jiro Kumaki, presiding

14:15 3D19 Kinetics of Strain-induced Crystallization of Slide-Ring Gels
Koichi Mayumi, Chang Liu, Yokoyama Hideaki, Kohzo Ito

14:30 3D20 Coarse-grained Molecular Dynamics Simulation of Strain Induced Crystallization in Slide-Ring Gels
Takeyoshi Masumoto, Yusuke Yasuda, Koichi Mayumi, Takashi Uneyama, Yuichi Masubuchi, Hideaki Yokoyama, Kohzo Ito

14:45 3D21 Structural Analysis of Polymer Materials based on Unique X-ray Diffraction of Rigid Cyclic Molecules
Kazuaki Kato, Kohzo Ito, Taiki Hoshino

Koichi Mayumi, presiding

15:00 3D22 High-resolution in-situ AFM observation of folded-chain crystallization of it-PMMA in a Langmuir monolayer
Yuki Ono, Jiro Kumaki

15:15 3D23 Orientation of Chiral Poly(phenyl isocyanide) Helix Using Magnetic Field
Takuya Yonehara, Hiroki Hayashi, Shigeki Nimori, Reiji Kumai, Hiromasa Goto

15:30 3D24 Melting behavior and polymorphsim of propylene-ethylene random copolymer
Ken TAGUCHI, Akihiko TODA, Toru IMAI, Ken-ichi FUNAKI, Koji YAMADA

Katsuhiro Yamamoto, presiding

16:00 3D26 Kinetics of density fluctuations during the early stage of crystallization in syndiotactic polypropylene III
Takashi Konishi, Daisuke Tadokoro, Koji Fukao, Yoshihisa Miyamoto

16:15 3D27 Microphase Separation and Lamella-Structured Thin Films of Amphiphilic Random Copolymers
Takaya Terashima, Takaya Ikami

16:30 3D28 Syntheses and Sequence-Specific Properties of Alternating Copolymers Consisting of Common Monomer Units
Yuki Kametani, Makoto Ouchi

Room E

Wed. May 26

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Kazuo Sakurai, presiding

- 10:00 1E05ILY Formation mechanisms of polymeric vesicles
Rintaro Takahashi
- 10:30 1E07 Correlation between shape and stimuli responsiveness of PIC micelles with sulfobetaine as shell
Dongwook Kim, Hideki Matsuoka, Yoshiyuki Saruwatari

Tomoyuki Koga, presiding

- 10:45 1E08 Construction of polymeric Platonic micelles composed of bottlebrush-based surfactants
Shota Fujii, Kazuo Sakurai
- 11:00 1E09 Phase separation of toothbrush polymer consist comp type poly(alkyl oxazoline) with functional side chains and hydrophilic PNIPAM
Hiroaki Shigemitsu, Wenli Wang, RenHua Jin
- 11:15 1E10 Synthesis of triblock copolymer composed of different betaine chains, and self-organization and temperature and pH responsiveness in solution
Hiroyoshi Kameshima, Hideki Matsuoka, Yoshiyuki Saruwatari
- 11:30 1E11 Stabilization of amphiphilic copolymer lamellae formed by nanophase separation using cross-link reaction
Kohei Amada, Wataru Kukai, Jun Matsui

Masato Suzuki, presiding

- 12:30 1E12 Temperature-induced supramolecular morphological transition prepared from two kinds of amphiphilic polypeptides having different hydrophilic polypeptoids
Hiroataka Uji, Shota Yoshida, Keiji Numata, Shunsaku Kimura
- 12:45 1E13 Alkyl side chains effect to the phase separation of poly(N-alkyl acrylamides-b-ethylene glycol) thin films.
Mizuki Ohke, Wataru Kukai, Atsushi Narumi, Hiroshi Yabu, Masaya Mitsuishi, Jun Matsui
- 13:00 1E14 Enzymatic Synthesis and Self-Assembled Structures of Cellulose Chains with Unique Shapes
Kai Sugiura, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa

Hidenori Otsuka, presiding

- 13:15 1E15 Surface Modification of Polyurea Thin Film with Polyether Chains
Ryo Tabata, Ryosuke Matsubara, Atsushi Kubono
- 13:30 1E16 Surface graft polymerization on silica capsules containing radical initiator group on their surface
Yuichi Iki, Reiko Saito
- 13:45 1E17 Colloidal Structure of Silica Ring/Polystyrene Sphere
Fumiya Takahashi, Mana Fujii, Daiki Tsujita, Toyoko Suzuki, Hideto Minami

Hideto Minami, presiding

- 14:15 1E19 Polymer Insertion Dynamics into Metal-Organic Frameworks
Noriyoshi Oe, Nobuhiko Hosono, Takashi Uemura
- 14:30 1E20 Elucidation of adsorption behavior of polybenzimidazole onto carbon materials surface by adsorption isothermal measurement
Nana Kayo, Naoki Tanaka, Tsuyohiko Fujigaya
- 14:45 1E21 Properties of surface layer of flexible polymer substrates treated with vacuum plasma and UV lamps for their application in electroless deposition
Toshiyuki Tamai, Mitsuru Watanabe, Yasuyuki Kobayashi, Junpei Kobata, Yoshio Nakahara, Setsuko Yajima

Hidegori Yokoi, presiding

- 15:00 1E22 Thermal Molecular Motion of Polystyrene Thin Film on Gold Electrode
Daiki Komiyama, Yoshihisa Fujii, Naoya Torikai

Takumitsu Kida, presiding

- 15:15 1E23 Plasticization of azobenzene containing polyester by photo-isomerization
Shogo Nobukawa, Tomoya Kimura, Katsuhiro Inomata
- 15:30 1E24 Mechanical properties of poly(methyl methacrylate) with salt under moisture condition
Arisa Shin, Asae Ito, Koh-hei Nitta

Shogo Nobukawa, presiding

- 16:00 1E26 High strain-rate compression of polyolefin solids by split Hopkinson bar method
Yusuke Hiejima, Ippitsu Ryohei, Masahiro Higuchi, Koh-hei Nitta
- 16:15 1E27 Analysis of failure in isotactic polypropylene damaged by falling weight impact test
Ryohei Ippitsu, Yusuke Hiejima, Koh-hei Nitta
- 16:30 1E28 Automated calculation system of physical properties with molecular dynamics calculation for polymer informatics
Yoshihiro Hayashi, Stephen Wu, You Noguchi, Junichiro Shiomi, Junko Morikawa, Ryo Yoshida

Thu. May 27

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Shoichi Kutsumizu, presiding

- 10:30 2E07 Phase Transition Behavior of Bridged-stilbene Liquid Crystals
Riki Iwai, Gen-ichi Konishi
- 10:45 2E08 ¹²⁹Xe NMR analysis of continuous nano-porosity in a columnar liquid crystal of a macrocyclic mesogen with gaseous Xe as the probe
Shin-ichiro Kawano, Takahiro Taki, Hiroaki Yoshimizu, Kentaro Tanaka
- 11:00 2E09ILY Twist-bend nematic liquid crystals with chalcogen-based linkages
Yuki Arakawa

Yuichi Masubuchi, presiding

- 12:45 2E13 Pre-History and Flow Behavior of Electro-Rheological Nano-Suspensions
Katsufumi Tanaka, Izumi Tateisi, Yuki Maenaka, Midori Takasaki, Haruki Kobayashi
- 13:00 2E14 High-Sensitivity Detection of Latex Agglutination by Ultrasound Scattering Techniques
Kana Kitao, Hideyuki Nakanishi, Tomohisa Norisuye
- 13:15 2E15 Evolution of the Elastic Properties of Particles during Solvent Evaporation in Liquid Droplet
Kazuto Tsuji, Hideyuki Nakanishi, Tomohisa Norisuye
- 13:30 2E16 Theoretical Analyses of Time Evolution of Molecular Weight Distribution by Random and Chain-End Scission Models
Takashi Uneyama

Takashi Uneyama, presiding

- 13:45 2E17 Coarse-grained molecular simulations of the elongational viscosity of entangled star polymers
Yuichi Masubuchi
- 14:15 2E19ILY In-situ observation and prediction using the same techniques of crystallization process in an injection molding machine
Takuro Matsunaga

Kazuo Sakurai, presiding

14:45	2E21	Identification of atomic-scale structures in polymer chains using electron microscopy <u>Tomohiro Miyata</u> , Raita Goseki, Takashi Ishizone, Hiroshi Jinnai
15:00	2E22	Noise-free dynamic light scattering via all-photon recording method <u>Takashi Hiroi</u> , Sadaki Samitsu, Kunie Ishioka
Takashi Hiroi, presiding		
15:15	2E23	Analysis of sub-micro particle solutions using Mie scattering <u>Kazuo Sakurai</u> , Takuma Kanamaru, Takuya Matsunaga, Ryohei Ono
15:30	2E24	Comparison of different instruments for the analysis of sub-micro particle solutions <u>Takuma Kanamaru</u> , Kazuo Sakurai, Takuya Matsunaga, Ryohei Ono

Room F

Wed. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yuichi Ohya, presiding

10:00	1F05	Optical tissue clearing using polymer hydrogels produced by various zwitterionic monomers <u>Chie Kojima</u> , Takayuki Koda, Akikazu Matsumoto
10:15	1F06	Development of tissue adhesive microparticles for perforation closure after early gastrointestinal cancer removal <u>Shima Ito</u> , Akihiro Nishiguchi, Fumisato Sasaki, Hidehito Maeda, Masayuki Kabayama, Akio Ido, Tetsushi Taguchi
10:30	1F07	Development of a tissue adhesive fiber sheet enabled the sealing of lung defect <u>Hiroaki Ichimaru</u> , Yosuke Mizuno, Xi Chin, Akihiro Nishiguchi, Tetsushi Taguchi
10:45	1F08	Preparation of Poly(2-methoxyethyl acrylate) Microparticles Eliciting Cell Affinity <u>Shinnosuke Nishimura</u> , Kei Nishida, Shunsuke Nakao, Hiroki Uehara, Takahisa Anada, Masaru Tanaka

Yoshinori Takashima, presiding

11:00	1F09	Development of a gas sensor by solid DNA using Membrane-type Surface stress Sensor (MSS) <u>Tomohiro Murata</u> , Tomohiko Yamazaki, Kosuke Minami, Genki Yoshikawa, Katsuhiko Ariga
11:15	1F10	Construction and functional evaluation of hybrid cell spheroids based on polysaccharide microspheres <u>Shunya Hayashi</u> , Yoshihiro Sasaki, Shin-ichi Sawada, Sada-atsu Mukai, Eriko Marukawa, Hiroyuki Harada, Kazunari Akiyoshi
11:30	1F11	Degradation control of reductively responsive cationic gel particles and their application as nucleic acid delivery carrier <u>Akifumi Kawamura</u> , Shun Fujisawa, Takashi Miyata

Takashi Miyata, presiding

12:30	1F12ILY	Strong Phase Separated Soft Materials Possessing Rubbery-to-Glassy Transition with Elevating Temperature <u>Takayuki Nonoyama</u>
13:00	1F14	Evaluation for the diameter of secondary magnetic particles in magnetic hydrogels by magnetorheology <u>Junko Ikeda</u> , Tomoki Kurihara, Keijyu Ogura, Mika Kawai, Tetsu Mitsumata
13:15	1F15	Star-Crosslinked Hydrogel with Super-Multiple Crosslinking Points Surrounded by Highly Dense Thermoresponsive Free-End Chains Shogo Toda, <u>Shohei Ida</u> , Masatoshi Oyama, Hiroki Takeshita, Shokyoku Kanaoka

Chie Kojima, presiding

- 13:30 1F16 Gelation of ionic liquid electrolytes by cross-linking reaction between oxazoline polymer and dicarboxylic acid terminated polymer
Tomoki Furukawa, Atsushi Aoki
- 13:45 1F17 Layered Polydiacetylene with Tuned Flexibility for Color Changes in Low- and Wide-Temperature Ranges
Aya Edagawa, Hiroaki Imai, Yuya Oaki
- 14:15 1F19 Wide-Range Temperature-Responsive Color-Change Properties of Conjugated Polymer Based on Self-Assembled Macrocyclic Diacetylene and Guest Molecules
Nano Shioda, Bubsung Kim, Jung-Moo Heo, Hiroaki Imai, Jong-Man Kim, Yuya Oaki
- 14:30 1F20 Development of photo-curable temperature-responsive injectable polymer system
Ayaka Ashida, Nozomi Mayumi, Nobuo Murase, Yuichi Ohya

Mikihiro Hayashi, presiding

- 14:45 1F21 Property evaluation of topological gels prepared with a soluble "Molecular Net" and penetrating polymerization
Yuto Nakazawa, Ryota Dohi, Fumika Seko, Nobuo Murase, Yuta Yoshizaki, Akinori Kuzuya, Yuichi Ohya
- 15:00 1F22 Evaluation of properties of the topological gel consisting of PNIPAAm physically constrained by soluble molecular nets
Takahiko Yasui, Fumika Seko, Ryota Dohi, Nobuo Murase, Yuta Yoshizaki, Akinori Kuzuya, Yuichi Ohya
- 15:15 1F23 Structural design of self-oscillating polymers toward the system driven by only organic acids
Takahiro Ono, Toshiki Yoshizawa, Takafumi Enomoto, Michika Onoda, Takeshi Ueki, Ryota Tamate, Aya Akimoto, Ryo Yoshida
- 15:30 1F24 Control of sol-gel transition temperature of biodegradable injectable polymers by control of the molecular structures
Chihiro Moriwaki, Kenta Horii, Nobuo Murase, Yuichi Ohya

Tetsu Mitsumata, presiding

- 16:00 1F26 Dynamics of wrinkles on hydrogel surface prepared by electrophoretic approach
Yuka Kashiwara, Taka-Aki Asoh, Hiroshi Uyama
- 16:15 1F27 Memory-editable Shape-memory Cross-linked Resins by utilizing Vitrimer-concept
Mikihiro Hayashi, Akira Katayama
- 16:30 1F28 Preparation of cationic poly(vinyl alcohol) films via copolymers consisting of benzoxaborole and their functional properties
Kazuma Fujimoto, Yohei Kotsuchibashi
- 16:45 1F29 Design of Temperature-Responsive Gels That Regulate Molecular Binding Ability by Structural Change and Their Applications to Drug Delivery
Yuto Toyoshima, Yuki Tanaka, Akifumi Kawamura, Yoshinori Takashima, Takashi Miyata

Thu. May 27

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Osamu Tsutsumi, presiding

- 10:00 2F05 Design of hydrogels based on the network structure reaction in radical polymerization: The use of RAFT polymerization
Tsukuru Masuda, Madoka Takai
- 10:15 2F06 Toughening Polymer Networks by Sacrificial Dynamic Covalent Bonds: Radical-type Mechanophore vs. Diels-Alder Adduct
Daisuke Aoki, Kota Seshimo, Hideyuki Otsuka

10:30 2F07 Preparation of hard core-soft shell microspheres by seeded precipitation polymerization
Kenshiro Honda, Yuichiro Nishizawa, Haruka Minato, Matthias Karg, Daisuke Suzuki

10:45 2F08 Fabrication of soft actuators by three-dimensional adhesion of microgel
Taka-Aki Asoh, Shiho Takai, Hiroshi Uyama

Ryo Yoshida, presiding

11:00 2F09 Preparation of temperature-responsive core-shell gel particles using water-soluble block copolymer emulsifier
Mitsuhide Sasaoka, Akifumi Kawamura, Takashi Miyata

11:15 2F10 Synthesis of Cholesteric-Liquid-Crystal Elastomer Microspheres
Shodai Hayashi, Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi

11:30 2F11 Mechano-responsive hydrogels driven by dissociation of host-guest inclusion complex
Akihide Sugawara, Taka-Aki Asoh, Yoshinori Takashima, Akira Harada, Hiroshi Uyama

Hideyuki Otsuka, presiding

12:30 2F12 Preparation of drug carrier consisting of photosensitizer and thermo-responsive triblock copolymer
Kohei Kitano, Kazuhiko Ishihara, Shin-ichi Yusa

12:45 2F13 Precise Control of Coverage of Polytaxane and Mechanical Properties of Slide-Ring Gels with a Wide Range of Coverage
Takako Noritomi, Lan Jiang, Chang Liu, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito

13:00 2F14 Thermal responsive and side chain length dependence of liquid crystal polymers using phenyl succinate
Ryoma Amanuma, Ayumi Kobayashi, Kohei Iritani, Takashi Yamashita

13:15 2F15 Design of Tough Hydrogels with Entanglement Cross-links of Polymer Chains and Their Mechanical Properties
Chika Hajime, Yuino Inamoto, Chisa Norioka, Akifumi Kawamura, Takashi Miyata

Shin-ichi Yusa, presiding

13:30 2F16 Strain-induced crystallization and mechanical properties of slide-ring elastomers
Yohei Iwahashi, Lan Jiang, Chang Liu, Takako Noritomi, Shota Ando, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito

13:45 2F17 Thermo-responsiveness of Poly(4-vinylphenol)
Natsuki Inaba, Miwa Kubota, Kazuki Sada

14:15 2F19 Thermo-responsiveness of various organic polymers in mixed fluorinated solvents
Miwa Kubota, Kenta Kokado, Kazuki Sada

14:30 2F20 Synthesis of anisotropically swellable polymer gels by crystal crosslinking of MOF using p-quinquephenyl ligands
Tokio Katou, Shizuka Anan, Kenta Kokado, Kazuki Sada

Masaya Yamamoto, presiding

14:45 2F21 Synthesis of Monodisperse Bio-based Polymer Particles
Katsuhiro Onita, Miku Onishi, Taro Omura, Takeshi Wakiya, Toyoko Suzuki, Hideto Minami

15:00 2F22 Synthesis of self-degradable and thermoresponsive hydrogels by radical polymerization
Syuuhei Komatsu, Takuya Sato, Akihiko Kikuchi

15:15 2F23 Application of fluorinated hectorite / hectorite lyotropic liquid crystals to nanocomposite hydrogels
Takashi Nakaoji, Masafumi Yamato, Hiroyoshi Kawakami

- 15:30 2F24 Anisotropic Self-Oscillating Gradient Hydrogel
Won Seok Lee, Takafumi Enomoto, Aya M. Akimoto, Ryo Yoshida
- Kazuki Sada, presiding**
- 16:00 2F26 Capsule-shaped Self-Oscillating Hydrogel with Cell-like Surface Fluctuation
Won Seok Lee, Takafumi Enomoto, Aya M. Akimoto, Ryo Yoshida
- 16:15 2F27 Structure-property relationship of hydrogel which surface is grafted with fluorine-containing polymer
Taihei Nishimoto, Takafumi Enomoto, Chia-Hsuan Lin, Jhin-Guang Wu, Gupit Caidric, Xiang Li, Shyh-Chyang Luo, Mizutani Aya Akimoto, Ryo Yoshida
- 16:30 2F28 LCST-UCST like thermoresponsiveness of sulfobetaine copolymer
Nobuyuki Morimoto, Masaya Yamamoto
- 16:45 2F29 Sequence-controlled amino acid-derived vinyl polymers : Effect of hydrophathy of amino acids on thermo responsiveness.
Atsushi Sawamoto, Nobuyuki Higashi, Tomoyuki Koga

Fri. May 28

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hiroto Kudo, presiding

- 10:00 3F05 Synthesis of thermoresponsive microgels based on N-vinylamide
Hiroaki Yoshida, Hiroya Furumai, Hiroharu Ajiro
- 10:15 3F06 Synthesis and properties of photoluminescent supramolecular gels derived from phenylenediamine hydrochlorides
Kazuki Tateishi, Hiromitsu Sogawa, Fumio Sanda
- 10:30 3F07 Precise Control of Helical-Axis Orientation in Cholesteric-Liquid-Crystalline elastomers by Photopolymerization
Maki Yanagihara, Kyohei Hisano, Osamu Tsutsumi
- 10:45 3F08 Double Networks: From Molecular-scale to Macro-scale
Daniel King, Tsuyoshi Okumura, Riku Takahashi, Jian Ping Gong

Takeshi Serizawa, presiding

- 11:00 3F09 Polymer complex formation of water-soluble cellulose derivative and polyanion
Yuki Shioji, Taka-Aki Asoh, Hiroshi Uyama
- 11:15 3F10 Multi-Dimensional Orientation Control of Cholesteric Liquid Crystal Polymers with Mechano-Optical Properties
Kyohei Hisano, Tomoki Shigeyama, Maki Yanagihara, Osamu Tsutsumi
- 11:30 3F11 Development of self-healing gels prepared by complex formation between counter ion of polyanion and sugar
Suzune Miki, Taka-Aki Asoh, Hiroshi Uyama

Hiroaki Yoshida, presiding

- 12:30 3F12 Novel elastomer actuators driven at lower temperatures
Naoto Yamaguchi, Yingjun An, Hidenori Okuzaki
- 12:45 3F13 Fabrication of conductive hydrogel wrinkles by adhesion of conductive film and hydrogel
Koki Tsujita, Taka-Aki Asoh, Hiroshi Uyama
- 13:00 3F14 Thermosetting reaction of tannic acid-based epoxy resin and properties of the obtained cured materials
Huayi Jin, Hiroto Kudo
- 13:15 3F15 Modification of serum albumin to polymer-coated single-walled carbon nanotubes and evaluation of their dispersibility.
Kenta Nakamura, Isabella Widjaja, Yukiko Nagai, Tsuyohiko Fujigaya

Fumio Sanda, presiding

- 13:30 3F16 Functional Ion Gels Based on Ultra-High Molecular Weight Polymers
Yuji Kamiyama, Ryota Tamate, Takeshi Ueki

13:45	3F17	A Mechanically Adaptive Hydrogel Consisting of Inorganic Nanosheets and Water <u>Koki Sano</u> , Yasuo Ebina, Takayoshi Sasaki, Yasuhiro Ishida
14:00	3F18	Bottom-up Preparation and Mechanical Properties of Cellulose Hydrogels Inspired by Plant Cell Walls <u>Yuta Sakurai</u> , Toshiki Sawada, Takeshi Serizawa

Room G

Wed. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Norihisa Tanio, presiding

10:00	1G05	Application of chain curing agents generating strong organic bases to anionic UV curing <u>Yoshiki Kojima</u> , Koji Arimitsu
10:15	1G06	Photo-conversion of epoxy resin films from isotropic phase to liquid crystal phase by photoinduced cationic polymerization <u>Kohei Itaoka</u> , Koji Arimitsu, Takahiro Seki
10:30	1G07	Photosensitivity characteristics of the photosensitive polyimide consisting of a photobase generator and polyhydroxyimide bearing base-reactive protecting groups <u>Yuta Fujie</u> , Daiki Yukimori, Mei Kunito, Nobuhiro Ishikawa, Toshiyuki Ogata, Koji Arimitsu
10:45	1G08	Correlation analysis of high pressure induced changes in aggregated states and optical properties of a phosphorescent bromine-containing polyimide. <u>Ryuichi Isoda</u> , Koichiro Muto, Marina Doi, Ryohei Ishige, Shinji Ando

Kazuki Nakamura, presiding

11:00	1G09	Analysis of Variations in Photophysical Processes of Fluorescent Polyimides having Terminal Groups with Different Emission Wavelengths under High Pressure Koichiro Muto, Eisuke Fujiwara, Ryohei Ishige, <u>Shinji Ando</u>
11:15	1G10	Control of refractive index and dispersion of transparent polymer and prediction from chemical structure <u>Daiki Anbe</u> , Keito Kikuchi, Norihisa Tanio
11:30	1G11	Heterogeneous structural analysis and transparency evaluation of transparent polymers for optical communication <u>Daiki Tenma</u> , Takahiro Hiraide, Norihisa Tanio
12:30	1G12	Verification of heavy atomic effects and control of molecular motion in the fluorescence and phosphorescence properties of sulfur-containing polyimides <u>Hiroka Yamamatsu</u> , Atsuko Tabuchi, Naiqiang Liang, Ryohei Ishige, Shinji Ando

Koji Arimitsu, presiding

12:45	1G13	Delayed Luminescence Properties of Imide Compounds having Naphthalene and Biphenyl Core Structures. <u>Marina Doi</u> , Koichiro Muto, Mayuko Nara, Naiqiang Liang, Ryohei Ishige, Shinji Ando, Hiroaki Mori
13:00	1G14	A novel Imide Compound Exhibiting Multicolor Fluorescence in the Entire Visible Region via Proton Transfer in the Ground and Excited States <u>Atsuko Tabuchi</u> , Ryohei Ishige, Teruaki Hayakawa, Shinji Ando
13:15	1G15	Design of Random Depolarization Film Doped with Crystal Microparticles for Real-Color Displays <u>Shizuki Sasaki</u> , Mariko Udonon, Yasuhiro Koike
13:30	1G16	Luminescence behavior of iridium complex hybridized in siloxane polymer <u>Yuki Kuroda</u> , Masashi Nakamura, Koji Mitamura, Mitsuru Watanabe, Masahiro Muraoka, Araki Masuyama, Seiji Watase

Shinji Ando, presiding

- 13:45 1G17 Effect of addition of alkylammonium ion on luminescent property of hybrid material of hydrophobized DNA / chiral Eu(III) complex.
Ren Kaneko, Haruki Minami, Kazuki Nakamura, Norihisa Kobayashi
- 14:15 1G19 Synthesis of phenol resins by condensation reaction of 2,6-dimethylphenol with Dialdehydes and their application to extreme ultraviolet (EUV) molecular resist
Yutaro Iwashige, Hiroto Kudo
- 14:30 1G20 Photoisomerization and phase change characteristics of arylazopyrazole derivatives
Yuka Masunaga, Yuki Nagai, Shinya Uchino, Masa-aki Morikawa, Nobuo Kimizuka
- 14:45 1G21 3-dimensional control of molecular alignment in Monodispersed Cholesteric-Liquid-Crystalline Microparticles
Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi

Takuya Nakashima, presiding

- 15:00 1G22 Enhanced Photothermal Conversion Properties of Liquid Crystalline Squaraine Dyes
Takeshi Maeda, Masashi Takano, Shigeyuki Yagi, Kento Okoshi
- 15:15 1G23 Controlled Molecular Alignment in Chiral-Liquid-Crystals Polymers by Light Intensity Gradient
Yuki Shikata, Kyohei Hisano, Osamu Tsutsumi
- 15:30 1G24 Near infrared photoluminescence properties of locally functionalized single-walled carbon nanotubes synthesized by a cycloaddition reaction
Keita Hayashi, Yoshiaki Niidome, Tsuyohiko Fujigaya, Tomohiro Shiraki
- 16:00 1G26 Near infrared photoluminescence properties of chemically functionalized single-walled carbon nanotubes using bis-aryldiazonium salts with different linker structures
Haruka Aoki, Boda Yu, Tsuyohiko Fujigaya, Tomohiro Shiraki
- 16:15 1G27 Stabilization of perovskite nanocrystals thin film by novel cross-linkable ligands
Taisei Kimura, Naoaki Oshita, Ryohei Yamakado, Takayuki Chiba, Satoshi Asakura, Akito Masuhara

Thu. May 27**C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS****Masayuki Wakioka, presiding**

- 10:15 2G06 Fabrication of Aligned Films of Polymer Semiconductors Using High-Temperature LB Method and Their Conduction Properties at High Carrier Density
Masato Ito, Yu Yamashita, Taizo Mori, Shun Watanabe, Jun Takeya, Katsuhiko Ariga
- 10:30 2G07 Effect of 4'4-BPS on PEDOT:PSS/polyester composites
Kazui Sasaki, Hiroaki Tanahashi, Taiki Hashimoto, Seira Morimune-Moriya, Shigeji Konagaya
- 10:45 2G08 Synthesis and properties of a polythiophene with octyloxy group in the side chain
Miki Morimoto, Keiichi Imato, Yousuke Ooyama, Ichiro Imae

Ichiro Imae, presiding

- 11:00 2G09 Preparation of polymer film by electrochemical polymerization in liquid crystal with biologically active substance as a chiral inducer and evaluation of optical and magnetic properties
Kyoka Komaba, Reiji Kumai, Hiromasa Goto
- 11:15 2G10 Cis-to-trans isomerization of poly(thienylenevinylene)s: a thin film preparation method allowing the use of green solvents
Masayuki Wakioka, Natsumi Yamashita, Fumiyuki Ozawa

Hideto Minami, presiding

- 12:30 2G12 Development of colorless and transparent polyimides for OLED materials
Kei Fukasawa, Takashi Kino, Ayumi Kobayashi, Kohei Iritani, Takashi Yamashita
- 12:45 2G13 Segregated structure and low thermal expansion behavior of multiblock copolymer consisting of aromatic polyimide and poly(dimethyl siloxane)
Ryohei Ishige, Shohei Hara, Shiniji Ando, Naoki Matsuda, Tomoya Higashihara, Mitsuru Ueda, Yooichiroh Maruyama, Shintaro Fujitomi
- 13:00 2G14 Toughening of reversibly crosslinked polymer by controlled arrangement of hydrogen bonds
Shogo Ishizaka, Shintaro Nakagawa, Naoko Yoshie

Shintaro Nakagawa, presiding

- 13:15 2G15 Mechanical properties of latex film prepared from rotaxane-crosslinked elastomer microspheres
Yuma Sasaki, Seina Hiroshige, Kazuya Uenishi, Kazuko Nakazono, Toshikazu Takata, Daisuke Suzuki
- 13:30 2G16 High-Speed Deformation Properties of Poly(butylene terephthalate)/Polyrotaxane Alloys Fabricated by Octa-Screw Melt-Kneading Method
Akira Ishigami, Shota Mikoshiba, Takashi Kurose, Hiroshi Ito
- 13:45 2G17 Preparation of hollow fluoropolymer particles
Koki Shimogomi, Yuya Takeuchi, Ken Mukai, Yosito Tanaka, Mayumi Shimano, Toyoko Suzuki, Hideto Minami

Gaku Fukuhara, presiding

- 14:15 2G19 Polymer Separation by Topological Entrapment in Metal-Organic Frameworks
Nagi Mizutani, Nobuhiko Hosono, Takashi Uemura
- 14:30 2G20 Metal-Organic Frameworks for Practical Separation of Cyclic and Linear Polymers
Taku Sawayama, Nobuhiko Hosono, Takashi Uemura
- 14:45 2G21 pH-sensing epoxy resin provided with novel inclusion type monomer derived from β -cyclodextrin
Syota Nagai, Reiko Saito
- 15:00 2G22 Selective Ion Permeation of pH-Responsive Ultrathin Nanoporous SiO₂ Films
Yuya Ishizaki, Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi
- 15:15 2G23 Preparation and properties of cage siloxane-containing polysilsesquioxane reverse osmosis membrane
Kazuki Yamamoto, Yunosuke Amaike, Yoshiro Kaneko, Takahiro Gunji

Reiko Saito, presiding

- 15:30 2G24 Synthesis and permeation of hyperbranch or networked polymer membranes connecting by hydrogen, ionic, or covalent bonds from three functional monomers having six hydroxyl groups synthesized by selective decomposition of substituted acetylene polymers
Riku Asai, Chenxi Xu, Syunya Narita, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 16:00 2G26 Synthesis and gas permeation of membranes containing two dimensional polymers by polycondensation between side groups at solid-solid interfaces in serial membranes of two different polymers followed by highly selective photocyclic aromatization
Kehan Cheng, Yanqing Qu, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 16:15 2G27 Synthesis of two dimensional polymers by polycondensation between the side groups and decomposition of main chains of acetylene polymer membranes and their performances
Jia Shi, Shohei Takeda, Yuuka Kimura, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 16:30 2G28 Synthesis, reaction, and gas permeation of fully-conjugated diethynylene/ diphenylene/ phenyleneethynylene condensation polymers bearing functional groups in the terminal and side groups
Keisuke Ookawa, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki

16:45 2G29 Synthesis, reaction, and gas permeation of phenyleneethynylene condensation polymers bearing functional groups in the main chain and side groups
hajime Takahashi, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki

Fri. May 28

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Toshiki Aoki, presiding

10:00 3G05 Gas transport properties of thermally rearranged fluorine-contained polybenzoxazole - silica hybrid membranes
Tomoyuki Suzuki

10:15 3G06 Fabrication and gas permeation property of novel MMM including surface-modified silica nanoparticles and nanofiber framework
Takumu Morita, Ayano Imai, Masafumi Yamato, Hiroyoshi Kawakami

10:30 3G07 Synthesis of highly gas-permeable poly(diphenylacetylene)s having methyl and trimethylsilyl groups
Toshikazu Sakaguchi, Katsuya Kuratani, Tamotsu Hashimoto

10:45 3G08 Development of cellulose acetate modified by ferulic acid for CO₂ separation
Shinji Kanehashi, Yuki Yanase, Kei Machigashira, Kenji Ogino, Junichi Kamagata, Hitoshi Aoki

Tomoyuki Ikai, presiding

11:00 3G09 Catalytic bio-supramolecular photochirogenesis: Hetero-photocyclodimerization of anthracene derivatives mediated by human serum albumin
Masaki NISHIJIMA, Misaki KAWAI, Sota TOYOOKA, Yuya FUJISHIRO, Yasuyuki ARAKI, Tadashi MORI, Yoshihisa INOUE, Takehiko WADA

11:15 3G10 Color and structural change of poly(phenylacetylene) occurred by sulfonamide-anion interaction
Keisuke Ogata, Satoshi Umeda, Katsuyuki Tsuda, Toshifumi Satoh, Toyoji Kakuchi, Ryosuke Sakai

11:30 3G11 Optical Properties of Fluorescence Polymers in Glucans
Kotoe Nakasha, Gaku Fukuhara

Nobuhiko Hosono, presiding

12:30 3G12 Simultaneous Synthesis of Circularly Polarized Luminescent Multiple Helicenes Using a Chrysene Framework
Shoya Yamakawa, Tomoyuki Ikai, Nozomu Suzuki, Eiji Yashima

12:45 3G13 Synthesis of Double-Stranded Titanium(IV) Helicates Composed of Oligophenol Units and Its Three-State Structural Conversion
Masaki Ito, Manabu Itakura, Daisuke Taura, Naoki Ousaka, Tomoyuki Ikai, Eiji Yashima

13:00 3G14 Asymmetric C-H Insertion Reactions Catalyzed by Di-rhodium Complexes Coordinated with Helical Poly(diphenylacetylene) Derivatives
Shota SONA, Daisuke HIROSE, Hidetaka ISHIBASHI, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA

13:15 3G15 Synthesis and properties of Botryosin by polycondensation reaction of p-t-Butylcalix[8]arene with dialkylhalide compounds
Hiroyuki Maekawa, Hiroto Kudo

13:30 3G16 Preparation of perfluorosulfonated ionomer nanofibers by solution blow spinning
Masahiro Shinakawa, Minoru Ashizawa, Kazunori Motai, Yuhei Hayamizu, Hidetoshi Matsumoto

Tatsuya Nishimura, presiding

13:45 3G17 Structure and functional properties of Pd complexed cyclic poly(oxazoline)s.
Ryo Itoga, Wen-Li Wang, Ren-Hua Jin

14:15	3G19	Catalytic Functions Based on Side-Chain Cooperation of Vinyl Boronic Acid Pinacol Ester-Maleic Anhydride Copolymer <u>Hiroshi Makino</u> , Tsuyoshi Nishikawa, Makoto Ouchi
14:30	3G20	Development of Asymmetric Diels-Alder Reaction by Polymer-immobilized MacMillan Catalyst in continuous flow system <u>Joh Yamada</u> , Naoki Haraguchi
14:45	3G21	Synthesis of ionically polymer-supported N-heterocyclic carbene catalysts and their application to asymmetric reaction <u>Noriyuki Tatsumi</u> , Naoki Haraguchi
15:00	3G22	Novel Design Strategy of DNA-Artificial Nucleic Acid Chimera Toward Enhancement of Cleavage Activities Akira Yano, Masahito Inagaki, seiya Ishizawa, Masaki Nishijima, Tsuyoshi Yamamoto, Yasuyuki Araki, Asako Yamayoshi, <u>Takehiko Wada</u>

Room H

Wed. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yasuhiro Matsuda, presiding

10:00	1H05	Threading ultra-long polymer into MOF: Synthesis and physical properties <u>Tomoya Iizuka</u> , Etsuhiro Miwa, Nobuhiko Hosono, Takashi Uemura
10:15	1H06	Preparation and Industrial Characterization of Hydrophilic Surfaces with Metal Oxide Nanoparticles/Polymer Composites <u>Yuki Hanzawa</u> , Akira Ishigami, Hisaaki Koseko, Takashi Kurose, Hiroshi Ito
10:30	1H07	Near-infrared wavelength selective response actuators consisting of interpenetrating polymer network gels <u>Satoshi Watanabe</u> , Kazuki Arikawa, Masashi Kunitake

Izumi Ichinose, presiding

10:45	1H08	Controllable Ag Nanoparticles Adsorption using Polycyclosiloxane with Varying Catechol Substitution Ratios <u>Soyeon Kim</u> , Huie Zhu, Masaya Mitsuishi
11:00	1H09	3D Interconnect Formation Using Block Copolymers with PMMA-Modified Au Nanoparticles <u>Takafumi Fukushima</u>
11:15	1H10	Structure and properties of single-walled carbon nanotube nanofiller/polymer composite film Ryusei Takatani, <u>Tetsuya Uchida</u>
11:30	1H11	Fabrication of boron carbide fibers starting from poly(vinyl alcohol) <u>Rei Hondo</u> , Yusuke Yoda, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe

Makoto Takafuji, presiding

12:30	1H12	Structural control of multi-layered nanocomposite microgels <u>Satoki Ushida</u> , Takumi Watanabe, Haruka Minato, Daisuke Suzuki
12:45	1H13	Silica Hybrids Templated by Complexes of Polyethyleneimine with Achiral / Chiral acids <u>Shunya Motegi</u> , Ren-Hua Jin
13:00	1H14	Self-assembling crosslinking of metal-coordinated hydrophilic polymers and metal ions to synthesize different gel shapes <u>Naoki Isobe</u> , Tatushi Inoue, Takeshi Yamanobe, Daisuke Nagai

Yohei Miwa, presiding

13:15	1H15	Creation of recyclable acrylic composites utilizing trans-N-alkylation bond exchange <u>Takahiro Kimura</u> , Mikihiro Hayashi, Akinori Takasu
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- 13:30 1H16 Improvement of mechanical properties of poly(lactic acid) by dynamic crosslinking with Eucommia elastomer
Yuji Kiba, Yu-I Hsu, Taka-Aki Asoh, Kinkou Sho, Hiroshi Uyama
- 13:45 1H17 Grafting of oligoether on citric acid modified cellulose surface and application for reinforcement of polyurethane composite
Takeshi Hiraoka, Xinnan Cui, Yu-I Hsu, Taka-Aki Asoh, Hiroshi Uyama
- 14:15 1H19 Development of Polymer Electrolyte Membrane Filled with Functionalized Cellulose Nanocrystals for PEFC
Tomohiro Nohara, Keisuke Tabata, Toshihiko Arita, Akito Masuhara

Masaya Mitsuishi, presiding

- 14:30 1H20 UV-Resistant Trifluoropropyl-Substituted Open-Cage Silsesquioxane-Pendant Polysiloxanes
Lina Li, Hiroaki Imoto, Kensuke Naka
- 14:45 1H21 Development of self-healing materials using metal coordination between zinc and azole-containing silsesquioxane nanoparticles
Takuto OHASHI, Yusuke SASAKI, Hideharu MORI
- 15:00 1H22 Silsesquioxane/Triazine Hybrid Insulating Materials
Sakino Takase, Takashi Hamada, Kenta Okada, Susumu Mineoi, Joji Ohshita
- 15:15 1H23 Preparation of organic-inorganic composite films having gradient structure by UV curing
Yoshiki Shirai, Ayano Sasaki, Koji Arimitsu
- 15:30 1H24 Organic-silica nano composites synthesized by immersion method with poly(styrene-block-4-vinyl pyridine)
Shinya Watanabe, Reiko Saito

Tatsuo Kaneko, presiding

- 16:00 1H26ILY Novel Technique for Utilization of lignin as functional polymeric materials
Kazuhiro Shikinaka

Thu. May 27

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Atsushi Hozumi, presiding

- 10:00 2H05 Molding of micro-structure on poly(vinyl acetate) membrane surface and change in wettability by membrane expansion
Tatsuya Takeshima, Junji Watanabe
- 10:15 2H06 Change in surface wettability on blend membrane composed of hydrophilic and hydrophobic polymers.
Honoka Iwami, Junji Watanabe
- 10:30 2H07 Hydrophobic surfaces utilizing particle shape
Shunji Kimura, Daiki Tsujita, Yuya Takeuchi, Yoshito Tanaka, Mayumi Shimano, Toyoko Suzuki, Hideto Minami
- 10:45 2H08 Improvement of hard-coating solutions to enhance weatherability and reduce environmental load
Yasuhiro Matsuda, Hikaru Kawai, Hideyo Ando, Shigeru Tasaka

Takahiro Seki, presiding

- 11:00 2H09 Characterization of Various Hydrophobic Polymer Brushes Synthesized by "Paint-on" SI-ATRP
Tomoya Sato, Satoshi Nakamura, Chihiro Urata, Atsushi Hozumi
- 11:15 2H10 Voltage Driven Characteristic Dynamics of Directed Self-Assembled Nematic Liquid Crystal on Chemically Patterned Polymer Brush
Takuya Yanagimachi, Xiao Li, Paul Nealey, Kazue Kurihara
- 11:30 2H11 The analysis of the thickness and the electrokinetic phenomenon of the cationic polymer brush modified surfaces
Yoichi Watanabe, Tsukuru Masuda, Madoka Takai

Naoko Yoshie, presiding

- 12:30 2H12 Synthesis of decrosslinkable epoxy cured materials using thermal dissociation of anthracenecarboxylic acid dimer: Improvement of the dissociation temperature and application to dismantlable adhesives
Kinuka Tano, Eriko Sato
- 12:45 2H13 A photocurable adhesive for Nafion films in a polymer electric fuel cell
Makoto Kadoyashiki, Koji Arimitsu
- 13:00 2H14 Design of Diamine Polymer Coatings: CO₂ Capture and Wettability Control
Takeo Suga, Daichi Nakamura, Kenya Katayama, Kenichi Oyaizu

Madoka Takai, presiding

- 13:15 2H15 Cephalopoda inspired self-healing films and applications thereof
Kengo Manabe, Emiko Koyama, Yasuo Norikane
- 13:30 2H16 Antibacterial Activity of Surface-aminated Cellulose Oligomer Assemblies
Saeko Yamaguchi, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa
- 13:45 2H17 Function of the Bioinert Interface with Thinner Swollen Layer
Shoichiro Asayama, Yuya Sone

Kazuhiko Ishihara, presiding

- 14:15 2H19 Investigation of repulsive hydration layer on biocompatible polymer/water interface by Frequency Modulation Atomic Force Microscopy.
Daiki Murakami, Shinnosuke Nishimura, Yukiko Tanaka, Masaru Tanaka
- 14:30 2H20 Control of cellular behaviors on a poly(2-hydroxyethyl methacrylate) film prepared on a silica nanoparticles-patterned substrate
Kento Kawabata, Masayasu Totani, Hisao Matsuno, Keiji Tanaka
- 14:45 2H21 Aggregation states and bioinert properties of polyoxazoline derivatives at the water interfaces
Hisao Matsuno, Jinhyeok Hong, Masayasu Totani, Daisuke Kawaguchi, Norifumi Yamada, Keiji Tanaka
- 15:00 2H22 Improvement lubricity and antifouling property of surfaces modified with photo-reactive zwitterionic polymers
Yasuhiko Iwasaki, Hiroki Nakano, Sachiro Kakinoki

Shin Horiuchi, presiding

- 15:15 2H23ILY Photoresponsive reversible adhesives using solid-liquid phase transition behavior of azobenzene-containing polymers
Shotaro Ito

Fri. May 28

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Makoto Takafuji, presiding

- 10:00 3H05ILY Template-directed polymerization of acyclic artificial nucleic acid for sequence replication
Keiji Murayama
- 10:30 3H07 Synthetic Membrane-Deforming Molecules: Membrane Deformation Induced by Adhesion onto Phospholipid Bilayer
Noriyuki Uchida, Anju Kawakita, Takahiro Muraoka
- 10:45 3H08 Synthetic Membrane-Deforming Molecules: Endocytosis-like Vesicle Fission Induced by a Photoreactive Molecular Machine
Noriyuki Uchida, Yunosuke Ryu, Takahiro Muraoka

Takahiro Muraoka, presiding

- 11:00 3H09 Development of electromagnetic field-induced method for preparation of cell-derived nanovesicles
Tomoya Yagita, Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi

- 11:15 3H10 Thermoresponsive polypeptoid-oligosaccharide block polymer : Formation of polymer vesicle and its membrane permeability
Yota Okuno,Tomoki Nishimura,Yoshihiro Sasaki,Kazunari Akiyoshi
- 11:30 3H11 Synthesis of self-assembling oligopeptide-PEG multiblock polymers and their film properties
Ryosuke Oka,Nobuyuki Higashi,Tomoyuki Koga
- 12:30 3H12 Preparation of nanoparticles functionalized with L- and D-amino acid-derived vinyl polymers and their properties.
Naoaki Nishida,Nobuyuki Higashi,Tomoyuki Koga

Teruyuki Komatsu, presiding

- 12:45 3H13 Application of Silver Nanowire/PVA transparent electrode into the semi-transparent organic solar cells
Hiroto Ishida,Atsushi Aoki
- 13:00 3H14 Photophysical properties of up-conversion in dye-encapsulated polymeric micelles
Hideki Kawai,Yuki Wakebe
- 13:15 3H15 Construction and piezoelectric properties of single peptide nanotubes having helical peptide
Taichi Kurita,Tomoaki Terabayashi,Keiji Numata,Shunsaku Kimura,Hiroataka Uji
- 13:30 3H16 Mechanism of the Formation of Pseudo-polyrotaxane Nanosheet
Shuntaro Uenuma,Hideaki Yokoyama,Kohzo Ito

Kousuke Tsuchiya, presiding

- 13:45 3H17 Thermal structural transition of pseudo-polyrotaxane nanosheet
Naoki Ando,Shuntaro Uenuma,Hideaki Yokoyama,Kohzo Ito
- 14:15 3H19 Cross-linked poly(vinyl alcohol) films having nano-structures
Yohei Kotsuchibashi
- 14:30 3H20 Au nanoparticle-coated catalase microtube motor having controllable velocity by light irradiation
Ryo Kato,Tomonao Sugawara,Yoshitsugu Morita,Teruyuki Komatsu
- 14:45 3H21 Preparation of cellulose nanocrystal-based core-shell particles with tunable location of components
Emiko Mouri,Jie Zhang,Hinako Furushima,Teruyuki Nakato

Tomoyuki Koga, presiding

- 15:00 3H22 Preparation of novel spherical π -conjugated polymer particles having various surface functionality
Mai Fukunaga,Nanami Hano,Hiroataka Ihara,Makoto Takafuji
- 15:15 3H23 Changes in physicochemical properties for supramolecular nano-assemblies of cationic glutamide derivatives by electron-donating and electron-accepting
Mio Ito,Yutaka Kuwahara,Tatsumi Iwamoto,Naoya Ryu,Makoto Takafuji,Hiroataka Ihara
- 15:30 3H24 Selective capturing ability of the dimple space on the surface of polymer microsphere
Nanami Hano,Shizuka Kanawa,Naoya Ryu,Reiko Oda,Hiroataka Ihara,Makoto Takafuji
- 15:45 3H25 Synthesis and Thin Film Structural Control of Chemically Tailored PS-b-PMMA Derivatives
Shinsuke Maekawa,Lei Dong,Takahiro Dazai,Ken Miyagi,Takayoshi Mori,Kazufumi Sato,Yuta Nabae,Teruaki Hayakawa

Room J

Wed. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Taichi Ikeda, presiding

- 10:00 1J05 Conduction process of lithium-ion conducting polymer electrolytes composited with electron-donor/-acceptor molecules
Kan Hatakeyama, Momoka Umeki, Hiroki Adachi, Kenichi Oyaizu
- 10:15 1J06 Effect of cyano side chain on the ion transport properties in polyether-based electrolytes: comparison of ether and cyano side chains
Shintaro Saku, Kousuke Matsuo, Koki Yamada, Ryansu Sai, Yu Katayama, Hiromori Tsutsumi
- 10:30 1J07 TetraPEG-based Solid Electrolytes with a Homogeneous Polymer Network for Li-ion Batteries
Namie Ikeda, Kenta Fujii
- 10:45 1J08 Fundamental properties and battery application of tetra-PEG gel containing carbonate-based highly concentrated electrolytes
Ryotaro Ishikawa, Kei Hashimoto, Yosuke Ugata, Kazuhide Ueno, Masayoshi Watanabe, Kaoru Dokko

Kenichi Oyaizu, presiding

- 11:00 1J09 Ion transport and electrochemical properties of weakly coordinating polyanion solutions
Yusuke Sakashita, Xiaoxiao Yang, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno
- 11:15 1J10 Development of poly(ionic liquid)s with branched side chains: Polymer design for breaking conventional record of ionic conductivity
Taichi Ikeda
- 11:30 1J11 Thermoelectric properties of PEDOT:PSS doped with ionic liquid
Hiroki Uehara, Keiichi Imato, Yousuke Ooyama, Ichiro Imae

Jun Matsui, presiding

- 12:30 1J12 Development of carbon nanotube-based non-precious metal (Fe/Ni/S-based) catalysts with high ORR/OER performance and their applications
Pandian Ganesan, Aleksandar Staykov, Hiroaki Shu, Mitsugu Uejima, Naotoshi Nakashima
- 12:45 1J13 Synthesis, structure and properties of partially-fluorinated anion-conductive terpolymer membranes
Yoshihiro Ozawa, Junpei Miyake, Kenji Miyatake
- 13:00 1J14 Time-of-flight small-angle neutron scattering observing polymer electrolyte fuel cell under operation
Satoshi Koizumi, Tohei Noda, Tomoki Maeda, Takumi Inada
- 13:15 1J15 Synthesis and properties of sulfonated aromatic terpolymers containing perfluoroalkylene groups in the main chains
Ren Kumao, Junpei Miyake, Kenji Miyatake

Kenji Miyatake, presiding

- 13:30 1J16 Structural analysis at high proton transport channels formed at the interlayer of polymer nanosheet multilayer film
Minami Inoue, Miaomiao Liu, Yuki Nagao, Makoto Gemmei, Tokuji Miyashita, Masaya Mitsuishi, Jun Matsui
- 13:45 1J17 Nanoscale Electron-transport Property in Conjugated-polymer Acceptor Films Studied by Conductive AFM
Toshiki Kawanishi, Hidayat Anjar Taufik, Pandey Manish, Masakazu Nakamura, Hiroaki Benten
- 14:15 1J19 Machine learning of the power conversion efficiencies of non-fullerene organic solar cells
Yuta Yoshimoto, Chihiro Kamijima, Shu Takagi, Ikuya Kinefuchi

14:30 1J20 Construction of Photochemical Reaction Systems Utilizing Functionalized Shell Site of Core-Crosslinked Polymer Micelle
Takafumi Enomoto, Aya M. Akimoto, Ryo Yoshida

F. INDUSTRIAL POLYMERS AND TECHNOLOGY

Akira Ishigami, presiding

14:45 1J21 Kinetic analysis of thermal and oxidative decomposition in polypropylene.
Tomohiro Ohkawa

15:00 1J22 Study of imprinting femtoliter-scale isolated liquid droplets into nano-gaps between superstrate and substrate surfaces
Takeru Yoshida, Akiko Onuma, Shunya Ito, Masaru Nakagawa

15:15 1J23 Development and characterization of proton conductive materials composed of poly(vinylphosphonic acid)/imidazole coated silica filler by RAFT polymerization with particles method
Keisuke Tabata, Haruki Nakazaki, Tomohiro Nohara, Toshihiko Arita, Akito Masuhara

15:30 1J24 Evaluation of adhesive properties using dielectric relaxation measurements
Yuki Kawata

Masaru Nakagawa, presiding

16:00 1J26 Improvement of adhesion strength between alumina and epoxy resin using atmospheric pressure plasma CVD
Kenichi Yamazaki, Hiroyuki Yasui, Hinako Suematsu, Tsuyoshi Noguchi, Yuma Suenaga, Akitoshi Okino

16:15 1J27 Design for improving the adhesion of DNA materials by use of molecular simulation and materials informatics
Tomio Iwasaki

16:30 1J28 Inhibition of nano-cellulose aggregation using fatty acid salts and its applications
Tessei Kawano, Yoshito Andou

16:45 1J29 Evaluation of higher-order structure and mechanical properties of cellulose nanofibers reinforced biodegradable polymer composites.
Tsubasa Ueda, Akira Ishigami, Takashi Kurose, Hiroshi Ito

Thu. May 27

AWARD LECTURES

Masato Ikeda, presiding

12:30 2J12AL Mechanical properties of doubly crosslinked gels
Takuya Katashima

Keiji Numata, presiding

13:00 2J14AL Phase Separation during Bulk Polymerization of Methyl Methacrylate
Yasuhito Suzuki

Takuma Yasuda, presiding

13:30 2J16AL Polysaccharide-based wrinkled surfaces induced by polyion complex skin layers upon drying
Hironori Izawa

Makoto Ouchi, presiding

14:15 2J19AL Viscoelastic Relaxation Attributed to the Molecular Dynamics of Polyrotaxane Confined in an Epoxy Resin Network
Akihiro Hanafusa, Shota Ando, Satoru Ozawa, Masakazu Ito, Ryuichi Hasegawa, Koichi Mayumi, Kohzo Ito

Masato Ikeda, presiding

14:45 2J21AL Cyclic Tau-derived Peptides for Stabilization of Microtubules
Hiroshi Inaba

Takuma Yasuda, presiding

- 15:15 2J23AL Thermally Conductive Molecular Assembly Composed of an Oligo(ethylene glycol)-modified Filamentous Virus with Improved Solubility and Resistance to Organic Solvents
Toshiki Sawada

Room K

Wed. May 26

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Hidenori Yokoi, presiding

- 10:00 1K05ILI Tough Structural Materials from Natural Silks
Juan Guan, Kang Yang, Robert Ritchie
- 10:30 1K07 Development of all peptide-based PICsome and application to an enzyme delivery carrier
Seiya Fujita, Kousuke Tsuchiya, Keiji Numata

Atsushi Maruyama, presiding

- 10:45 1K08 Evaluation of origin of driving force for loop formation in a chromatin fiber
Hiroshi Yokota, Masashi Tachikawa
- 11:00 1K09 Synthesis and evaluation of polyadenine/polysaccharide complex adjuvant
Mari Takahara, Shinichi Mochizuki, Kazuo Sakurai

Hiroshi Yokota, presiding

- 11:15 1K10 Polymer having complexes with different metal species in sidechains as DNA binding macromolecules; Investigation on metal species-dependent function for regulating the gene expression
Shigehito Osawa, Remi Watanabe, Hidenori Otsuka
- 11:30 1K11 Enhancement of nucleic acid enzyme activity by cationic copolymer for simple RNA detection method
Naoki Yoshida, Orakan Hanpanich, Naohiko Shimada, Atsushi Maruyama

Shoichiro Asayama, presiding

- 12:30 1K12ILI Design of amino acid self-assembling polymeric nano-drugs for therapeutic applications
Binh Long Vong, Yukio Nagasaki

Yukio Nagasaki, presiding

- 13:00 1K14 Characterization of cyclodextrin-based nanoparticles and the effect of their characteristics on the drug retention
Jun Katsuki, Van Doan, Shota Fujii, Kazuo Sakurai
- 13:15 1K15 Bioactivities of cyclodextrin-based nanoparticles containing alpha mangostin
Van Doan, Jun Katsuki, Shota Fujii, Kazuo Sakurai

Mitsuhiro Ebara, presiding

- 13:30 1K16 Does scavenging reactive oxygen species in the tumor environment diminish the effect of radiotherapy?
Yukio Nagasaki, Ahram Kim, Chiaki Yonemoto, Babita Shashni, Chitho Feliciano
- 13:45 1K17 Application to Drug Delivery System by using quantized complexes
Kazuki Sumiya, Hiroto Izumi, Shinichi Mochizuki, Kazuo Sakurai
- 14:15 1K19 Anticancer effects of complexes of immunostimulatory CpG DNA and SPG
Yusuke Miyashima, Mizuha Takaoka, Kazuo Sakurai
- 14:30 1K20 Cancer-specific assembling and anti-cancer effect of molecular blocks possessing self-assembling property in response to cancer microenvironment
Hiroataka Nakatsuji, Yudai Shioji, Yuta Okada, Noboru Hiraoka, Ichio Aoki, Michiya Matsusaki

Kazuo Sakurai, presiding

- 14:45 1K21 Functional analysis of ganglioside GD3-expressing cancer cell-derived exosomes
Qinyue Liu, Shin-ichi Sawada, Yoshihiro Sasaki, Koichi Furukawa, Kazunari Akiyoshi
- 15:00 1K22 PEG-b-poly(vinylbutyrate) self-assembling nanoparticle enhanced radiation-sensitizing effect on melanoma-bearing mice
Babita Shashni, Yukio Nagasaki
- 15:15 1K23 Engineering of the cancer cell targeted polymer drug that inhibit the enzyme cluster on the cell membrane.
Masahiko Nakamoto, Yuki Koba, Michiya Matsusaki
- 15:30 1K24 Improved drug delivery to cancer by oxidative stabilization of platinum-loaded polymeric micelles
Yuki Mochida, Horacio Cabral, Kazunori Kataoka

Kanjiro Miyata, presiding

- 16:00 1K26 Molecular bottlebrush-based polyion complexed for delivering oligonucleotide
Shin Takano, Shota Fujii, Yusuke Miyashima, Kazuo Sakurai
- 16:15 1K27 Modification of antigenicity for cancer cells by using conjugates consisting of antigenic proteins and hyaluronic acid
Shinichi Mochizuki, Souichi Ogata, Reika Tsuji
- 16:30 1K28 Development of a Tissue Plasminogen Activator Installed Redox-Active Nanoparticle (t-PA@iRNP) for Novel Therapeutics
Ting Mei, Yukio Nagasaki, Kim Ahram, Long Binh Vong, Marushima Aiki, Puentes Sandra, Babita Shashni, Hiroshi Maeda
- 16:45 1K29 Temperature-Triggered Drug Release via Diels-Alder Reaction Aiming at Cancer Chronotherapy
Nanami Fujisawa, Mitsuhiro Ebara

Thu. May 27

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Kuniharu Ijio, presiding

- 10:00 2K05 Apoptotic cell-inspired Particles for the Improvement of Current Blood Coagulation Tests
Liang Yue, Yihua Liu, Mitsuhiro Ebara
- 10:15 2K06 Design of Shape-memory Polymeric Devices for Minimally Invasive Fetal Surgery
FULATI AILIFEIRE, Koichiro Uto, Miho Watanabe, Mitsuhiro Ebara
- 10:30 2K07 Development of Nanofiber Meshes for the Removal of Indoxyl Sulfate in Kidney Failure Patients' Blood
Makoto SASAKI, Mitsuhiro EBARA
- 10:45 2K08 Design of clickable temperature-responsive polymers towards visual diagnosis for infectious diseases
Erika Yoshihara, Keita Hironaka, Mitsuhiro Ebara

Yasuhiko Iwasaki, presiding

- 11:00 2K09 Fabrication of shape-memory polymer as minimally invasive medical device
Kazusa NAKAMURA, Koichiro UTO, Akihiko KIKUCHI, Mitsuhiro EBARA
- 11:15 2K10 Preparation of water-absorbent fiber meshes by centrifugal spinning for removal of excess water during hemodialysis.
Yuki Wada, Akihiko Kikuchi, Mitsuhiro Ebara
- 11:30 2K11 Development of a highly sensitive DNA-based fluorescence labeling reagent using DNA elongation enzyme
Yusuke Yonamine, Naohiro Okada, Hideyuki Mitomo, Kuniharu Ijio

Michiya Matsusaki, presiding

- 12:30 2K12ILI Micro- and nano-polymer patterns to control cell morphology and behavior
Tae-Hyung KIM

Mitsuhiro Ebara, presiding

- 13:00 2K14 Cell surface modulation by heparin-conjugated lipids for suppression of blood coagulation
Yuji Teramura, Kenta Asawa, Kazuhiko Ishihara
- 13:15 2K15 Incorporation of cell-penetrating peptide into liposome by self-assembly and analysis of the binding
Yuya Sato, Naoko Nakamura, Kazuhiko Ishihara, Yuji Teramura
- 13:30 2K16 Bio-interface composed of water-insoluble polymers tailoring cell adhesion strength based on a water content
Kei Nishida, Takahisa Anada, Shingo Kobayashi, Masaru Tanaka
- 13:45 2K17 Tumor suppression by implantation of an anti-CD25 antibody-immobilized material
Tsuyoshi Kimura, Rino Tokunaga, Yoshihide Hashimoto, Naoko Nakamura, Akio Kishida

Masaru Tanaka, presiding

- 14:15 2K19 Enhanced FRET imaging by fluorescence polymeric nanoparticles for detection of cell-surface protein-specific sialylation
Tingbi Zhao, Tsukuru Masuda, Eiji Miyoshi, Madoka Takai
- 14:30 2K20 Evaluation of bacterial adhesion on zwitterionic cross-linked polymer coating under laminar flow condition
Yuta Kozuka, Zhou Lu, Tsukuru Masuda, Shintaro Hara, Norifumi Isu, Madoka Takai
- 14:45 2K21 Enzyme immobilized in redox zwitterionic polymer hydrogel for implantable enzymatic biofuel cell
YIXUAN HUANG, TSUKURU MASUDA, MADOKA TAKAI

Madoka Takai, presiding

- 15:00 2K22 Effect of Hydration and Viscoelastic Properties of Grafted Poly(2-Methoxyethyl Acrylate) on Fibrinogen Adsorption Behavior
Tomoya Ueda, Daiki Murakami, Masaru Tanaka
- 15:15 2K23 Development of post-surgical colloidal wound dressing with tissue adhesive and hemostatic ability
Akihiro Nishiguchi, Fumisato Sasaki, Hidehito Maeda, Masayuki Kabayama, Akio Ido, Tetsushi Taguchi

Yoshiko Miura, presiding

- 15:30 2K24ILI Design and synthesis of glycopolymers for cell regulation
Gaojian Chen, Hong Chen
- 16:00 2K26 Effects of Sugar Chain Length of Bolaamphiphilic Quercetin Glycosides on Self-Assembly Behaviors in Aqueous Media
Yasuhito Koyama, Mahmuda Nargis, Abu Bin Ihsan

Yasuhito Koyama, presiding

- 16:15 2K27 Preparation of Glycopolymer library with PET-RAFT living radical polymerization
Yoshiko Miura, Uemura Takeshi, Yu Hoshino

Fri. May 28

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Kazunori Matsuura, presiding

- 10:00 3K05 Controlled Phase-behavior of Peptide Vesicle Containing Lipid and its Controlled Drug Release
Avanashiappan Nandakumar, Yoshihiro Ito, Motoki Ueda

- 10:15 3K06 Peptide co-assembly composed of I- and T-shaped amphiphilic block polypeptides having stereocomplexable helical block
Toru Itagaki,Motoki Ueda,Yoshihiro Ito
- 10:30 3K07 Single walled carbon nanotube-polymer hybrids modified with functional peptides for nucleic acid delivery into plants
Simon Sau Yin Law,Geoffrey Liou,Yukiko Nagai,Naoki Tanaka,Masaki Odahara,Kousuke Tsuchiya,Tsuyohiko Fujigaya,Keiji Numata
- 10:45 3K08 Peptide assembly as a model system in which co-solvent influences its morphology
Avanashiappan Nandakumar,Yoshihiro Ito,Motoki Ueda

Motoki Ueda, presiding

- 11:00 3K09 Structural change of microtubules by encapsulation of gold nanoparticles using a Tau-derived peptide
Hiroshi Inaba,Arif Md. Rashedul Kabir,Akira Kakugo,Kazuki Sada,Kazunori Matsuura
- 11:15 3K10 Construction of artificial biomembrane hybrids based on magnetoresponsive nanocarriers
Ryosuke Mizuta,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi
- 11:30 3K11 Water migration phenomena accompanied with phase separation of polymer solution in cell-sized droplets
Kazunari Yoshida,Keitaro Horii,Azusa Saito,Akito Takashima,Izumi Nishio
- 12:30 3K12 Robustizing pH sensitive lipid sheet-vesicle transformation chaperoned by ionic copolymers
Shutaro Takahashi,Takuro Ochiai,Naohiko Shimada,Atsushi Maruyama

Atsushi Maruyama, presiding

- 12:45 3K13 Evaluation of glucose-responsive core-corona type nanoparticles for application in visual diagnosis of diabetes
Masanori OMAE,Syuuhei KOMATSU,Taka-Aki ASOH,Akihiko KIKUCHI
- 13:00 3K14 Formation of lipid domains by membrane-active polymer and its antimicrobial activity
Kazuma YASUHARA,Mika ISHIHARA,Tomomi INOIE,Gwenael Rapenne
- 13:15 3K15 DNP-SANS study on micro-structure of human hair fiber
Yohei Noda,Satoshi Koizumi,Tomoki Maeda,Takumi Inada,Mitsuki Tanaka,Aya Ishihara,Hiroyuki Inoue

Akihiko Kikuchi, presiding

- 13:30 3K16 Fluidic Substrate for Probing Specific Breast Cancer Cellular Response to the Matrix Viscosity
Mazaya Najmina,Koichiro Uto,Mitsuhiro Ebara
- 13:45 3K17 Design of Enzymatically Degradable Hydrogels for Maneuvering the Human Mesenchymal Stem Cells Behavior
Riho Tanimoto,Koichiro Uto,Mitsuhiro Ebara
- 14:15 3K19 Development of Collagen Fibers with Ultra High Elastic Modulus by Controlling Orientation of Collagen Nanofibers
Michiya Matsusaki,Noboru Hiraoka,Dong-hee Kang
- 14:30 3K20 Development of Biocompatible Clearing Molecules for Live Imaging of Three-Dimensional Tissues
Michiya Matsusaki,Kazuma Ishiguro,Hiroataka Nakatsuji

Michiya Matsusaki, presiding

- 14:45 3K21 Evaluation of physiological functions of HepG2 spheroid cultured on floating hydrogel membrane
Atsushi Tsuyukubo,Kimio Sumaru,Kana Morishita,Toshiyuki Kanamori
- 15:00 3K22 Preparation of carbonate apatite capsules based on degradable coacervate and effect for osteoblast
Syuuhei komatsu,Shuhei Abe,Taka-Aki Asoh,Akihiko Kikuchi

- 15:15 3K23 Cell surface modification of neural stem cells for ischemic stroke treatment
Isha Goel, Yuka Yamauchi, Koichi Kato, Yuji Termaura
- Mitsuhiro Ebara, presiding**
- 15:30 3K24 Synthesis of cationic comb-type copolymer with photo-responsive molecule
Seiya Takemura, Naohiko Shimada, Atsushi Maruyama
- 16:00 3K26 Citrulline polypeptide/nucleic acids complex as a model of intracellular liquid-to-solid transition of membraneless organelles
Shouhei Nomura, Naohiko Shimada, Atsushi Maruyama
- 16:15 3K27 Evaluation of ureido polymers as cold shock stress granules
Naohiko Shimada, Takuya Komachi, Atsushi Maruyama
- Atsushi Maruyama, presiding**
- 16:30 3K28 Apoptotic Cell Membrane-inspired Polymers to Control the Inflammatory Environment in Spinal Cord Injury
Akari Tasaki, Yihua Liu, Mitsuhiro Ebara

Room L

Wed. May 26

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

Masato Suzuki, presiding

- 10:00 1L05 Effect of Air Atmosphere on the Photo-Induced Chain Polymerization in the Self-Assembled Monolayers of Diacetylene on Graphite Surface Studied by Scanning Tunneling Microscopy
Daisuke Takajo, Koichi Sudoh
- 10:15 1L06 Synthesis of Structurally Controlled Amphiphilic Hyperbranched Block Copolymers and Their Micelle Formation in Water
Yuzhong HE, Yangtian LU, Masatoshi TOSAKA, Shigeru YAMAGO

Koji Takagi, presiding

- 10:30 1L07 Controlled synthesis of high molecular weight polystyrene by ab-initio emulsion organotellurium-mediated radical polymerization
Yuhan JIANG, Masatoshi TOSAKA, Shigeru YAMAGO
- 10:45 1L08 Elucidation of the decomposition mechanism of dithiobenzoate RAFT dormant species in the polymerization of acrylamides and its suppression
Yuji Imamura, Shigeru Yamago
- 11:00 1L09 Clarification of the termination mechanism in the radical polymerization of vinyl acetate
Xiaopei LI, Yasuyuki NAKAMURA, Shigeru YAMAGO
- 11:15 1L10 Investigation of Mechanism for Styrene Polymerization Initiated by Stable Aryl Radicals Catalytically Generated in Interlayer Space of Clays
Kyohei Hisano, Yugo Okada, Osamu Tsutsumi, Fuminao Kishimoto
- 11:30 1L11 Nano-dispersed Ziegler-Natta catalyst for the synthesis of less entangled ultra-high molecular weight polyethylene
Patchanee Chammingkwan, Yusuke Bando, Le Thi Tuyet Mai, Minoru Terano, Toshiaki Taniike

Kotohiro Nomura, presiding

- 12:30 1L12ILI A New Plastic Future: Biodegradable Polyhydroxyalkanoates Derived from Cyclic Diolides
Xiaoyan Tang

Kayo Terada, presiding

- 13:00 1L14 Cationic Polymerization of Vinyl Monomers using Halogen Bonding Organocatalysts with Varied Activity
Koji Takagi, Hiroto Murakata, Koji Yamauchi, Kohei Hashimoto

- 13:15 1L15 Revisiting the Polymerization of Diphenylacetylenes with Tantalum(V) Chloride and Cocatalysts
Shingyo Sueyoshi, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 13:30 1L16 Rhodium-catalyzed living polymerization of phenylacetylenes in water
Kensuke Echizen, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 13:45 1L17 Polymerization of Diphenylacetylenes with Low-Valent Tungsten Catalysts
Tsuyoshi Taniguchi, Mami Miyairi, Tatsuya Nishimura, Katsuhiko Maeda
- Katsuhiko Maeda, presiding**
- 14:15 1L19 Synthesis of bio-based polyesters by tandem acyclic diene metathesis polymerization and hydrogenation
Mohamed Mehawed Abdellatif, Permpoon Chaijaroen, Kotohiro NOMURA
- 14:30 1L20 Hetero-Tetranuclear Complex Catalyzed Alternating Copolymerization of CO₂ and Epoxide in The Presence of Active Methylene Compounds as the Chain Transfer Agent
Haruki Nagae, Shin-ya Akebi, Takanori Iwasaki, Kyoko Nozaki, Kazushi Mashima
- 14:45 1L21 Synthesis of histidine-containing polypeptide by chemoenzymatic polymerization
Kayo Terada, Taichi Kurita, Kousuke Tsuchiya, Keiji Numata
- 15:00 1L22 Azide-alkyne cycloaddition polymerization of *t*-butyl 4-azido-5-heyanoate and characterization of the polymer obtained
Yuri Kamon, Shota Yamasaki, Linlin Xu, Akihito Hashidzume
- 15:15 1L23 Synthesis of Polyanion Possessing Dense 1,2,3-Triazole Backbone by Copper(I)-Catalyzed Azide-Alkyne Cycloaddition Polymerization
LINLIN XU, Kamon Yuri, Hashidzume Akihito
- 15:30 1L24 Synthesis of Organometallic Polymers Containing Dithienotitanacyclopentadiene Units
Alvin Tanudjaja, Shinsuke Inagi, Ikuyoshi Tomita
- Akinori Takasu, presiding**
- 16:00 1L26 Synthesis of polypeptides containing an alternating sequence of lysine/glutamic acid via chemoenzymatic polymerization
Kousuke Tsuchiya, Keiji Numata
- 16:15 1L27 Synthesis and Optical Properties of Ultrahigh Refractive Index Poly(phenylene sulfide)s via Oxidative Polymerization
Seigo Watanabe, Hiromichi Nishio, Kenichi Oyaizu
- 16:30 1L28 Polymerisation of Aromatic Polymers with Thermally Stable Organic Catalysts
Shu Kaiho, Kayla R. Delle Chiaie, Andrew P. Dove
- 16:45 1L29 Synthesis of poly(pentafluorophenyl methacrylate)-functionalizable core containing nanoaggregates by polymerization-induced self-assembly (PISA) for post-polymerization
Panittha Damsongsang, Voravee P. Hoven, Shin-ichi Yusa

Thu. May 27

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

Akihito Hashidzume, presiding

- 10:00 2L05 Synthesis of aromatic ladder polymer utilizing coordination nanospaces
Takumi Miura, Takashi Kitao, Takashi Uemura
- 10:15 2L06 Synthesis and upconversion property of platinum-containing poly(norbornene)s bearing naphthalimide moieties
Taichi Sotani, Toshiko Mizokuro, Hiromitsu Sogawa, Fumio Sanda
- 10:30 2L07 Polymerization of lactide with pseudo-polyrotaxane as initiator and stereocomplex formation of branch structure
Jaeyeong Choi, Hiroharu Ajiro

- 10:45 2L08 Synthesis of Superhydrophobic Cross-linked Nanostructured Materials by the Living Coordination Block Copolymerization of Fluorous Allenes with Hydrophobic Allenes via Polymerization-induced Self-assembly Process
Yidan Cheng, Takeshi Wakiya, Shinsuke Inagi, Ikiyoshi Tomita
- 11:00 2L09 Creation of Dual Stimuli-responsive Polymer Nanostructures by Living Coordination Copolymerization of Allene Derivatives.
Yidan Wei, Takeshi Wakiya, Shinsuke Inagi, Ikiyoshi Tomita

Masato Suzuki, presiding

- 11:15 2L10 Creation of Crystalline Polymeric Nanoplatelets by pi-Allylnickel-catalyzed Living Coordination Polymerization of Allene Derivatives via Polymerization-induced Crystallization-driven Self-assembly Process
Yidan Cheng, Takeshi Wakiya, Shinsuke Inagi, Ikiyoshi Tomita
- 11:30 2L11 Fabrication of Ultrasmall Network Structure from Sugar-Terpenoid Hybrid Materials
Chaehun Lee, Brian J Ree, Kai Chen, Ryoya Komaki, Satoshi Katsuhara, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Hsin-Lung Chen, Toshifumi Satoh

Hiroharu Ajiro, presiding

- 12:30 2L12 Templated Synthesis of Two-Dimensional Polymer Networks using MOFs
Yuki Hayashi, Nobuhiko Hosono, Takashi Uemura
- 12:45 2L13 2D Polymeric Nanomaterials via MOF-Templated Copolymerization
Marta Ximenes Campins, Nobuhiko Hosono, Takashi Uemura
- 13:00 2L14 Synthesis of Helical Polyphenylacetylene Bottlebrushes and Their Chiroptical Properties
Masato Yamamoto, Moriya Kikuchi, Seigou Kawaguchi, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 13:15 2L15 Control Over Self-Assembly of Charge-Terminated Amphiphilic Poly(3-hexylthiophene) Based on the Energy Landscape
Tomoya Fukui, Ian Manners
- 13:30 2L16 Self-healing hybrids fabricated by metal complexation with imidazole-containing silsesquioxane nanoparticles
Yusuke Sasaki, Hideharu Mori

Ikiyoshi Tomita, presiding

- 13:45 2L17 Supramolecular Polymerization of Thiophene-Fused Chiral [4n]Annulenes: (1) Perfect Heterochiral Supramolecular Polymer with Unconventional Optical Activity
Tsubasa Aoki, Michihisa Ueda, Takayuki Nakamuro, Eiichi Nakamura, Takuzo Aida, Yoshimitsu Itoh
- 14:15 2L19 Supramolecular Polymerization of Thiophene-Fused Chiral [4n]Annulenes: (2) Effect of Side Chain Structures on Stereoselection
Takayoshi Akiyama, Tsubasa Aoki, Takuzo Aida, Yoshimitsu Itoh
- 14:30 2L20 Helically organized fullerene array within supramolecular polymer chain
Takehiro Hirao, Yoshiki Iwabe, Naoka Fujii, Takeharu Haino

Shin-ichi Matsuoka, presiding

- 14:45 2L21 Thermal Isomerization and Stability of Helical Conformation of Optically Active Poly(phenylacetylene) Derivatives
Masahide Goto, Masaki Minami, Hiromitsu Sogawa, Fumio Sanda
- 15:00 2L22 Difference of microplastic formation between marine and terrestrial regions
Hisayuki Nakatani, Takuya Muraoka, Yuina Ohsima
- 15:15 2L23 Carbonization of Polyacrylonitrile Chains in Metal-Organic Frameworks
Xiyuan Zhang, Ryoto Hongu, Takashi Kitao, Takashi Uemura
- 15:30 2L24 Computational analysis for the aminolysis of new activated ester and its application to post-modification reaction processes
Kiho Matsubara, Kota Fukasawa, Hideki Amii, Ryohei Kakuchi

15:45 2L25 An engineered Petasis three-component reaction for the synthesis of poly(α -amino acid)
Lichieh Chou, Ryo Takahashi, Ryohei Kakuchi

Fri. May 28

E. POLYMERS AND ENVIRONMENT “English Session”

Naoko Yoshie, presiding

10:00 3L05 Synthesis and Characterization of Bio-based Copolyesters Composed of Divanillic Acid, Cyclic diol and Alkanediol
Yunfan Zhang, Yukiko Enomoto, Tadahisa Iwata

10:15 3L06 Synthesis and characterization of paramylon propionate-graft-poly(lactic acid) and paramylon propionate-graft-poly(ϵ -caprolactone)
Jin Ho Seok, Yukiko Enomoto, Tadahisa Iwata

10:30 3L07 Fabrication of Cell-Plastic Film Using Water-Soluble and Biodegradable PVA as Filler
Kohei Iritani, Ayami Ota, Takashi Yamashita

Tadahisa Iwata, presiding

10:45 3L08ILI Amino Acid-Derived Ecopolymers for Sustainability and Protein Therapeutics
Hua Lu

11:15 3L10 Developing green and sustainable bioprocess and spinning process for artificial spider dragline silk using marine photosynthetic cell factory
Choon Pin Foong, Ali D. Malay, Keiji Numata

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

Tasuku Nakajima, presiding

12:30 3L12ILI Improved network formation in polyelectrolyte complex hydrogels via suppression of micellization
Younsoo Kim

Teruaki Hayakawa, presiding

13:00 3L14 Effect of Mesoscale Phase Contrast on Fatigue-Delaying Behavior of Tough and Self-Healing Hydrogels
Xueyu Li, Kunpeng Cui, Takayuki Kurokawa, Jian Ping Gong

13:15 3L15 Nanophase-Separation-Induced Synergetic Toughening in Immiscible Double Network Elastomers
Yong Zheng, Tasuku Nakajima, Jian Ping Gong

13:30 3L16 Effect of uncrystallizable 3-hydroxyhexanoate (3HH) content on crystallization kinetic of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBH) from melt
Toan Van Nguyen, Kaji Kenshiro, Masunaga Hiroyasu, Hoshino Taiki, Sakurai Shinichi, Sasaki Sono

13:45 3L17 Direct polymer/metal adhesion induced by interfacial phase separation
YIDA LIU, YURI SHIGEMOTO, TAKESHI HANADA, KAZUNORI KAWASAKI, TAKAYUKI MIYAMAE, SHIN HORIUCHI

Shin Horiuchi, presiding

14:15 3L19 Creation of golf ball-shaped surface morphological particles using diblock copolymer via 3D confined self-assembly
Liang Tong, Yuta Nabae, Hiroshi Yabu, Teruaki Hayakawa

14:30 3L20 Enhancement of the binding affinity of cyclodextrin for guest molecules by polymerizing with epichlorohydrin
Anh Doan, Thi Hong Van Doan, Shota Fujii, Kazuo Sakurai

14:45 3L21 Dispersion State of Carbon Black in an Immiscible Polymer Blend and Composite Viscoelastic Properties
Junsai Kogure, Yoshihisa Fujii, Naoya Torikai

- 15:00 3L22ILI Probing nanochemical domains of dry powder inhalers using atomic force microscopy infrared spectroscopy (AFM-IR)
Dipesh Khanal,Jing Zhang,Wei-Ren Ke,Mark M. Banaszak Holl,Hak-Kim Chan

Kenji Urayama, presiding

- 15:30 3L24ILI Natural Rubber : An Indispensable Material for Sustainable Society in the 21st Century
Preeyanuch Junkong

Room M

Wed. May 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Izumi Ichinose, presiding

- 13:30 1M16 Adjacent cationic-aromatic sequences yield strong electrostatic adhesion of hydrogels in seawater
Hailong Fan,Jian Ping Gong
- 13:45 1M17 Oligomeric Thiourea for Rapid and Strong Underwater Adhesion
Kohei Kikkawa,Yu Yanagisawa,Yoshimitsu Itoh,Takuzo Aida
- 14:15 1M19ILI Ultrathin polymer nanofilm composite membranes for ionic and molecular separation
Santanu Karan,Pulak Sarkar,Solagna Modak

Ikuyoshi Tomita, presiding

- 14:45 1M21ILI Two-Dimensional Covalent Organic Frameworks: Structural Design, Synthesis, and Application
Ning Huang,Donglin Jiang
- 15:15 1M23 Synthesis of π -conjugated helical polymers bearing cinchona alkaloid moiety for asymmetric organocatalysis application
Hiroya Sasaki,Shinichi Itsuno
- 15:30 1M24 Development of one-pot multi-step reactions by using polymer microsphere-immobilized chiral prolinol derivative
Mithun Kumar Debnath,Naoki Haraguchi

Naoki Haraguchi, presiding

- 16:00 1M26 Water-soluble multi-walled carbon nanotube bearing phosphorylcholine groups for heat generation
Thi Lien Nguyen,Madoka Takai,Kazuhiko Ishihara,Shin-ichi Yusa
- 16:15 1M27 Synthesis and Applications of Stimuli-responsive Nanostructured Materials Having AIE Functions by Living Coordination Polymerization of Allene Derivatives
Taidong Yao,Wakiya Takeshi,Shinsuke Inagi,Ikuyoshi Tomita

Thu. May 27

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Tsuyoshi Minami, presiding

- 10:15 2M06ILI Facile Synthesis and Applications of Dendritic Polymers Exhibiting Size-dependent Properties
Chien-Hsin Wu,Ru-Jong Jeng
- 10:45 2M08 All-Organic Optical gate operation by Photoswitchable energy transfer Cascade of Interconnected Polymer
Hendra Hendra,Akihito Takeuchi,Osamu Oki,Hiroshi Yamagishi,Masakazu Morimoto,Masahiro Irie,Yohei Yamamoto

Yohei Yamamoto, presiding

- 11:00 2M09 Strain sensor using a dopant dye with its absorption matching the transmission window of a polymer optical fiber
Hayato Yamazaki, Keigo Uzawa, Kentaro Yano, Rei Furukawa
- 11:15 2M10 Clustering behavior of phthalocyanine derivatives doped in a polymer optical fibers core
Takahiro Shigeyama, Chie Hirose, Rei Furukawa
- 11:30 2M11 Mode-dependent polarization analysis of plastic optical fibers with birefringence-reduce core
Shingo Sode, Hayato Yamazaki, Keigo Uzawa, Rei Furukawa

Mitsutoshi Jikei, presiding

- 12:30 2M12 Facile Designing of Silicon Carbide Based Nanocomposites as A Resilience Anode Material for Lithium-Ion Batteries
Nandan Ravi, Noriyuki Takamori, Koichi Higashimine, Rajashekar Badam, Noriyoshi Matsumi
- 12:45 2M13 A Perspective on the Effect of PIL Structure on the Performance as Anodic Binder in Li-ion Secondary Batteries
Tejkiran Pindi Jayakumar, Rajashekar Badam, Noriyoshi Matsumi
- 13:00 2M14 Effect of substituents on sulfonated poly(p-phenylene)s
Fanghua Liu, Jinju Ahn, Junpei Miyake, Kenji Miyatake

Noriyoshi Matsumi, presiding

- 13:15 2M15 Hyperbranched polyphenylene as an organic electrode for Li-ion batteries
Laurel Simon Lobo, Kazuya Matsumoto, Mitsutoshi Jikei
- 13:30 2M16ILI Understanding the interactions in organic solid electrolytes and composites for future battery applications
Xiaoen Wang, Fangfang Chen, Gaetan Girard, Frederick Nti, David Mecerreyes, Patrick Howlett, Maria Forsyth

Takashi Uemura, presiding

- 14:15 2M19 Dielectric Elastomer Actuator Behavior of Silicone/Cyanoethylsucrose Composite films
Satoshi Tamura, Ryotaro Kiyono, Toshihiro Hirai
- 14:30 2M20 Synthesis and Characterization of AIE-Active Naphthalimide Modified Cyclosiloxane Molecules
Manmian Chen, Huie Zhu, Masaya Mitsuishi

Masaya Mitsuishi, presiding

- 14:45 2M21ILI Application of porous materials in membrane separation
Xiao Feng
- 15:15 2M23 Chiral Induction in Buckminsterfullerene Using a Metal-Organic Framework
Shao-Wei Lo, Yusuke NADA, Takashi KITAO, Takashi UEMURA