

Room A

Mon. Sep 5

Invited Lecture

Katsuaki Konishi, presiding

15:00 1A13IL Organic-Inorganic Hybrid Dendrimer with a Functional Nanoparticle-Core

Kiyoshi Kanie

Shuichiro Seno, presiding

15:50 1A15IL R & D of marine biodegradable plastics with degradation initiation switch function

Ken-ichi Kasuya

Tamaki Nakano, presiding

16:40 1A17IL Molecular Design and Structure Control of Joint-Linker Type Porous Polymers

Naofumi Naga

17:30 1A19IL Precise Synthesis of Helical Polyacetylenes and Their Application as Chiral Materials

Katsuhiko Maeda

Tue. Sep 6

Invited Lecture

Daichi Ida, presiding

9:10 2A01IL Statistical mechanical study of polymers

Tsuyoshi Koga

Nobuyuki Otozawa, presiding

10:00 2A03IL Data-driven approach to materials exploration and characterization

Kenta Hongo

Award Lecture

Tomoya Higashihara, presiding

12:55 2A08AL Impact of Interfacial Structure and Physical Properties on Functions of Polymer Thin Films

Daisuke Kawaguchi

Tsuyohiko Fujigaya, presiding

14:10 2A11AL Development of near-infrared luminescent polymers by narrowing an energy gap through selective perturbation to the isolated LUMO

Kazuo Tanaka

Keiji Numata, presiding

15:00 2A13AL Development of artificial vitreous and hemostat based on hydrogels with tuned swellability
Takamasa Sakai

Shinji Ando, presiding

15:50 2A15AL Development of Photo-on-Demand Polymer Synthesis with Halocarbons
Akihiko Tsuda

Wed. Sep 7

Invited Lecture

Kazunori Matsuura, presiding

9:35 3A02IL Manipulating and creating cells by designer self-localizing molecules
Shinya Tsukiji

Katsuaki Konishi, presiding

10:25 3A04IL Development of macroscopically oriented polymer gels using magnetic fields
Yasuhiro Ishida

Olaf Karthaus, presiding

11:15 3A06IL Towards Ecomimetics: Nature Positive Paradigm in Anthropocene
Masatsugu Shimomura

Room B

Mon. Sep 5

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Katsuhiko Maeda, presiding

12:55 1B08 End Functional Polymers by Click Living Polymerization from Alkyne and Azide Initiators
Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh

13:20 1B09 Click-Living Polymerization and Copolymerization of Conjugated AB Monomers
Seiichiro Uchida, Tomohiro Kubo, Kotaro Satoh

13:45 1B10 Precision Synthesis of Multiblock Copolymers by Click Living Polymerization of AB Macromonomers
Yasuaki Kobayashi, Tomohiro Kubo, Kotaro Satoh

14:10 1B11 Polymerization of Conjugated Monomers bearing Boronic Acid Functionality Protected by Diaminonaphthalene
Mari Nishizono, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono

Naoya Kanbayashi, presiding

14:35 1B12 Synthesis of various polybenzothiazoles by oxidative cyclopolymerization of aromatic diamines, aromatic dialdehydes, and element sulfur
Masaru Yoneyama, Keita Nakamura, Rena Nakazawa, Takeshi Yamanobe

- 15:00 1B13 Selective Formose Reaction under Microwave Irradiation
Akihito Hashidzume, Toru Imai, Nanako Deguchi, Takashi Tanibayashi, Takumi Ikeda, Tomohiro Michitaka, Satoki Kuwahara, Mine Tomioka, Masaki Nakahata, Yuri Kamon
- 15:25 1B14 Catalytic Helicity Induction of Water-Soluble Poly(biphenylacetylene)s through Intramolecular Inclusion Complexation in Water
Koshi Nakamura, Tomoyuki Ikai, Eiji Yashima
- 15:50 1B15 Macromolecular Helicity Control of Polyacetylene Derivatives Bearing Optically-Active Pendants in the Vicinity of the Main-Chains
Yuki Morita, Tsuyoshi Majima, Tomoyuki Ikai, Eiji Yashima

Akinori Takasu, presiding

- 16:15 1B16 Development of Helix-Sense-Selective Memory Polymerization of Biphenylacetylene Monomers Bearing Carboxy and Amino Groups in Water
Shogo Okuda, Hinako Okutsu, Mitsuka Ando, Masaki Hattori, Ryoma Ishidate, Tomoyuki Ikai, Eiji Yashima
- 16:40 1B17 Synthesis and elucidation of properties of poly(diphenylacetylene)s having optically active alkoxy groups
Daisuke Nakaguchi, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 17:05 1B18 Synthesis of Block Copolymer Using End-Functionalization of Poly(quinolylene-2,3-methylene)
Aoto Nakajima, Kazuki Yamazaki, Naoya Kanbayashi, Kiyotaka Onitsuka

Tomoyuki Ikai, presiding

- 17:30 1B19 Synthesis of ultra-high molecular weight polyethylene by metal catalysts supported on porous glass
Moeka Narasaki, Daisuke Takeuchi, Atsunobu Masuno, Sayoko Ogura, Ritsuki Harasawa, Ayaka Takazawa, Masaki Kakiage, Takeshi Yamanobe, Hiroki Uehara
- 17:55 1B20 Alternating Copolymerization of CO₂ and Epoxides catalyzed by Cationic CaCo₃ tetranuclear complex
Haruki Nagae, Saki Matsushiro, Jun Okuda, Kazushi Mashima

Tue. Sep 6

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Koji Takagi, presiding

- 9:10 2B01 Synthesis of Various Sequence-Regulated Ethylene-Styrene Copolymers by Olefin Metathesis Polymerization of Sequence-Regulated Oligomers: Effects of Monomer Compositions and Sequences
Kenta SOMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 9:35 2B02 Homopolymerization and copolymerization of norbornene/1-octene copolymer with a norbornenyl group at the end.
Sasuga Kanno, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono
- 10:00 2B03 Butadiene Polymerization by Dinuclear Metal Complex Catalyst with Dipyridylpyridazine Ligand
Yusei Miura, Daisuke Takeuchi

Kaoru Adachi, presiding

- 10:25 2B04 Synthesis and properties of cyclic olefin polymers by ring-opening metathesis polymerization of norbornene lactones

- Shin-ichi Matsuoka, Sae Kiyohara, Yoshiya Ota, Masato Suzuki
- 10:50 2B05 Ring-Opening Cationic Copolymerization of 3-Alkoxyphthalides with Oxiranes and Terpolymerization with Vinyl Ethers
Yuka Takahashi, Arihiro Kanazawa, Sadahito Aoshima
- 11:15 2B06 Investigation toward Simultaneous Control of Molecular Weights and Sequences by Photoinitiated Living Cationic Terpolymerization of Vinyl Ethers, Oxiranes, and Ketones
Yuto Eguchi, Arihiro Kanazawa, Sadahito Aoshima
- 11:40 2B07 Cationic Copolymerization of Sugar-Derived Cyclic Acetals with Vinyl Monomers and/or Oxiranes
Aya Katto, Arihiro Kanazawa, Sadahito Aoshima

Arihiro Kanazawa, presiding

- 12:55 2B08 Synthesis and Polymerization of Various Plant-Derived Conjugated Diene Monomers
Yasunobu Isobe, Tomohiro Kubo, Kotaro Satoh
- 13:20 2B09 Cationic Copolymerization with Electrophilic Polyaddition of Vinyl Catechol Derived from Caffeic Acid
Risa Fujita, Tomohiro Kubo, Kotaro Satoh
- 13:45 2B10 Synthesis of Multi-Degradable Vinyl Polymers by Living Cationic Copolymerization Using Cyclic Thioacetals with Cleavable Bonds
Kaoru Matoba, Mineto Uchiyama, Masami Kamigaito
- 14:10 2B11 Controlled Cationic Polymerization of Styrene Derivatives Using Organonitrogen Bonding Catalysts
Tomoki Hasegawa, Koji Takagi

Tomohiro Hirano, presiding

- 14:35 2B12 Anionic polymerization of aromatic 4-acylstyrenes
Yuki Kamiya, Raita Goseki, Takashi Ishizone
- 15:00 2B13 Synthesis of alternating copolymers composed of 1-phenyl-1,3-butadiene and 1,1-diphenylethylene
Kotaro Koike, Yoshito Itaya, Hamin Kim, Raita Goseki, Takashi Ishizone
- 15:25 2B14 Anionic polymerization behavior of 6-substituted benzofulvenes
Ayana Fukui, Raita Goseki, Takashi Ishizone
- 15:50 2B15 Anionic polymerizability of 5-substituted 2-isopropenylthiophenes
Yuki Kurishiba, Raita Goseki, Takashi Ishizone

Takashi Ishizone, presiding

- 16:15 2B16 Controlled Anionic Polymerization of (Meth)acrylic Thioester Utilizing Characteristics of Thioester Group
Shuhei Nakagawa, Shin-ichi Matsuoka, Koji Takagi, Masato Suzuki
- 16:40 2B17 High-Speed Anionic Polymerization of (Meth)acrylates at Ambient Temperature Initiated by Carboxylate Salt with Aluminum Catalyst
Yuji Namie, Michitaka Kaizu, Masashi Shimakage, Naoki Sugano, Yoshitaka Miyazaki, Yasuhiro Kohsaka
- 17:05 2B18 Development of polymerization method for ionic monomers.
Wataru Higashiguchi, Yoshinobu Nakamura, Syuji Fujii, Tomoyasu Hirai

Wed. Sep 7

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Shigeru Yamago, presiding

- 9:10 3B01 Bulk polymerization kinetics of methacrylic esters using differential scanning calorimetry
Ryutaro Mishima, Yasuhito Suzuki, Akikazu Matsumoto
- 9:35 3B02 Solvent-free synthesis and photo-radical polymerization of amide/metal-salt based deep eutectic monomers
Yuta Tanaka, Hideharu Mori
- 10:00 3B03 Radical polymerization of dipeptide-AIE hybrid acrylamide derivatives and self-assembly induced emission behavior
Ryo YONENUMA, Hideharu MORI

Yasuhito Suzuki, presiding

- 10:50 3B05 Synthesis of linear and hyperbranched polymers by ab-initio emulsion organotellurium-mediated radical polymerization
Yuhan JIANG, Masatoshi TOSAKA, Shigeru YAMAGO
- 11:15 3B06 Structure-controlled synthesis of hyperbranched polymers by TERP and rheological properties of the products
Masato Kibune, Tianxiang Tong, Masatoshi Tosaka, Yumi Matsumiya, Hiroshi Watanabe, Shigeru Yamago
- 11:40 3B07 Simulation of reaction kinetics in the single-step synthesis of structure-controlled hyperbranched polymers
Masatoshi Tosaka, Shigeru Yamago

Hideharu Mori, presiding

- 12:55 3B08 Synthesis of novel methacrylic monomer having cyclic urethane structure and radical polymerization behavior
Yuki Yoshinaga, Yoshiaki Yoshida
- 13:20 3B09 Radical Polymerization of Dicarboxyl Compounds Exhibiting Keto-Enol Tautomerism: Synthesis of Hydroxy-Group Containing Multiple-Substituted Vinyl Polymers
Taiki ISODA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 13:45 3B10 Radical Polymerization of Carbon-Heteroatom Double Bond: Development of Novel Polymers Containing Heteroatoms in the Main Chain
Hironobu Watanabe, Masami Kamigaito

Makoto Ouchi, presiding

- 14:35 3B12 Synthesis of Degradable Polymers by Radical Polymerization of Cyclic Ketene Aminals
Shoki YOSHIMURA, Chihiro HOMMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 15:00 3B13 Synthesis of Degradable Vinyl Polymers by 1,5-Shift Radical Isomerization Polymerization
Masato IMAI, Mineto UCHIYAMA, Masami KAMIGAITO

Mineto Uchiyama, presiding

- 15:25 3B14 Synthesis of Vinyl Polymers with Multiple Degradable Units by Radical Copolymerization of Lactide Derivatives Containing Carbon-Sulfur Double Bond
Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 15:50 3B15 Interlocking Degradation of Vinyl Polymers by Introducing Pendant-Responsive Comonomers
Sota Yamamoto, Tomohiro Kubo, Kotaro Satoh
- 16:15 3B16 Synthesis of Highly End-Functionalized Multi-Arm Poly(Vinyl Alcohol) towards Novel Functional Hydrogels.

Gaishi Murakami, Tomohiro Kubo, Kotaro Satoh

Tomohiro Kubo, presiding

- 16:40 3B17 Backbone Degradation of Poly(alkyl methacrylate) via Radical Activation of Trigger
Taichi Kimura, Makoto Ouchi
- 17:05 3B18 Synthesis and degradation of the vinyl polymers containing β -keto alcohol structure
Akane Kazama, Patrick Theato, Yasuhiro Kohsaka
- 17:30 3B19 High-speed degradation of vinyl polymers using intramolecular ester exchange reaction over the main chain and pendant group
Kaho Toyama, Moe Kawauchi, Yasuhiro Kohsaka

Room C

Mon. Sep 5

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Tomoyuki Ikai, presiding

- 12:55 1C08 Synthesis of block copolymer-type polyimide with no distribution of block chain lengths
Hayato Maeda, Yuta Nabae, Teruaki Hayakawa
- 13:20 1C09 Synthesis and Microphase Separation of Discrete Block Copolymers Consisting of Inorganic Polymer and Oligosaccharide
Taiki Nishimura, Kenji Tajima, Toshifumi Satoh, Takuya Isono
- 13:45 1C10 Synthesis and morphological analysis of block copolymers consisting of cellulose acetates with varied degrees of substitution
Satoshi Katsuhara, Naoki Sunagawa, Kiyohiko Igarashi, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh
- 14:10 1C11 Development of novel compatibilizer for marine-degradable blends containing of cellulose acetate
Yuki Tsuji, Satoshi Katsuhara, Naoki Sunagawa, Kiyohiko Igarashi, Kenji Takahashi, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh

Kazuko Nakazono, presiding

- 14:35 1C12 Synthesis and Evaluation of Silicon-Bridged Pillar[n]arene derivatives
Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi
- 15:00 1C13 Reversible Control of Helicity Memory in a Poly(diphenylacetylene) Bearing Carboxy Pendants
Shota SONA, Daisuke HIROSE, Katsuhiko MAEDA
- 15:25 1C14 Macromolecular Helicity Induction and Memory Effect in Poly(biphenylacetylene) Derivatives with a Catalytic Amount of Optically Active Ammonium Salts and Their Mechanism
Mayu Fukuda, Daisuke Hirose, Tsuyoshi Taniguchi, Tatsuya Nishimura, Eiji Yashima, Katsuhiko Maeda
- 15:50 1C15 Simultaneous Synthesis of a [7]Helicene and a [6]Helicene with a Heptagonal Ring through Alkyne Benzannulations, Their Enantioseparation, and Chiroptical Properties
Kosuke Oki, Shoya Yamakawa, Tomoyuki Ikai, Eiji Yashima

Masami Kamigaito, presiding

- 16:15 1C16 Conformational changes of symmetrically substituted poly(diphenylacetylene) derivatives bearing optically active amide pendants
Mai Nozaki, Daisuke Hirose, Tatsuya Nishimura, Sawa Ishii, Go Watanabe, Katsuhiko Maeda
- 16:40 1C17 Helicity induction and memory of lipophilic Brønsted acid-type poly(phenylacetylene) derivatives in hydrophobic solvents
Yuki Nishikawa, Shota Sona, Daisuke Hirose, Katsuhiko Maeda
- 17:05 1C18 Synthesis of Helical Bottlebrush Polymers Consisting of Poly(diphenylacetylene) as Main Chain and Their Chiroptical Properties
Seiya NAKADA, Daisuke HIROSE, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA
- 17:30 1C19 Preparation of Magnetic Field Alignment Film Using Poly(phenyl isocyanide) Derivatives Synthesized in Liquid Crystal
Takuya Yonehara, Shigeki Nimori, Reiji Kumai, Hiromasa Goto
- 17:55 1C20 Synthesis of Polymers Composed of Pentaarylcyclobutenylrhodium Complexes
Kosuke Ito, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda

Tue. Sep 6

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Takaya Terashima, presiding

- 9:10 2C01 Precise synthesis and characteristic properties of poly(vinyl ether)s with pendant ionic liquid moieties as thermosensitive segments
Naoki Matsuo, Arihiro Kanazawa, Sadahito Aoshima
- 9:35 2C02 Acid-degradable alternating copolymers bearing pendant ionic liquid-type structures: Precise synthesis and characteristic thermoresponsive behavior
Masahiro Ueda, Daichi Yokota, Arihiro Kanazawa, Sadahito Aoshima
- 10:00 2C03 Development of selective degradation systems of degradable hydrophobic polymers in water inspired by the protein degradation mechanism of enzymes
AKihisa Numao, Arihiro Kanazawa, Sadahito Aoshima

Hideharu Mori, presiding

- 10:25 2C04 Preparation of cyclic alternating smart polymers via ring-expansion RAFT copolymerization with a cyclic RAFT agent
Yuna Okuno, Jin Motoyanagi, Masahiko Minoda
- 10:50 2C05 Folded Micelles of Amphiphilic Alternating Copolymers: Design Strategy for Precision Self-Assembled Structures and Size Control
Hiroyuki Kouno, Makoto Ouchi, Takaya Terashima
- 11:15 2C06 Environment-Responsive Amphiphilic Random Copolymer Micelles: Association Control and Thermoresponsive Gelation by Salts
Rikuto Kanno, Makoto Ouchi, Takaya Terashima
- 11:40 2C07 Water-Assisted Microphase Separation and Multilayered Lamellar Thin Films of Cationic Random Copolymers
Takaya Terashima, Sahori Imai, Ryota Sujita

Teruaki Hayakawa, presiding

- 12:55 2C08 Synthesis of vinylamine-containing copolymers showing clusterization-triggered emission and their multi-stimuli responsiveness and polyplex formation
Yurika TANI, Hiheharu MORI
- 13:20 2C09 Precise synthesis of graphene nanoribbon using metal-organic framework
Takashi Kitao, Masayuki Hasegawa, Kazuki Nakata, Takashi Uemura
- 13:45 2C10 Self-assembly behavior and mechanical properties of triptycene-appended di-block copolymers
Yugen Chen, Fukui Fukui, Takashi Kajitani, Takanori Fukushima
- 14:10 2C11 Creation of Acid-responsive Luminescent Materials Based on Boron-Fused Azomethine Complexes
Misato Kanjo, Masayuki Gon, Kazuo Tanaka

Tomoki Ogoshi, presiding

- 14:35 2C12 Synthesis and Evaluation of Conjugated Polymers Containing a Novel Benzoxaborine Framework
Shuhe Morimoto, Masayuki Gon, Kazuo Tanaka
- 15:00 2C13 Optical Properties of Conjugated Polymers Based on Tropolonate Boron Complexes as a Novel Electron Acceptor
Hikari Ogoshi, Shunichiro Ito, Kazuo Tanaka
- 15:25 2C14 Synthesis of Luminescent Polymers Using Hypervalent Tin-fused Azobenzene Compounds
Yusuke Morisaki, Masayuki Gon, Kazuo Tanaka

Arihiro Kanazawa, presiding

- 15:50 2C15 Synthesis, higher-order structure and photoelectronic properties of bifacial ladder polymer
Kazuharu Murotani, Fumitaka Ishiwari, Akinori Saeki
- 16:15 2C16 Structure-property relationship in polymerization-induced emission behavior of poly-N,N-dimethylaminoethyl acrylate derivatives
Rikuto Ooie, Fumitaka Ishiwari, Akinori Saeki
- 16:40 2C17 Conformational Dynamics and Solid-State Structure of Ladder Polymers Containing N,N'-Diacylated Diazacyclooctane Units in their Main Chain
Keiki Inoue, Fumitaka Ishiwari, Takanori Fukushima
- 17:05 2C18 Rotaxane Synthesis Based on Diastereoselective Assembly of Pillar[5]arene by Crystallization
Kiichi Yasuzawa, Keisuke Wada, Fa Shixin, Kenichi Kato, Shunsuke Ohtani, Tomoki Ogoshi

Wed. Sep 7

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Nobuhiko Hosono, presiding

- 9:10 3C01 Radical polymerization of vinyl monomers mediated by cyclic RAFT agent and the topology
Kota Oto, Akinori Takasu
- 9:35 3C02 Synthesis of cyclic polymers at high concentrations using the inclusion of γ cyclodextrin
Yoshihiro Tsuji, Yuichiro Kobayashi, Akira Harada, Hiroyasu Yamaguchi

10:00 3C03 Systematic synthesis and physical properties of multicyclic polycaprolactones with different number of cyclic units
Hanyoung Seo, Chaehun Lee, Brian J. Ree, Feng Li, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh

10:25 3C04 Precise synthesis and evaluation of multicyclic polystyrene as elastomer additive
Yamato Ebij, Yoshinobu Mato, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Hironori Marubayashi, Hiroshi Jinnai, Toshifumi Satoh

Fumitaka Ishiwari, presiding

10:50 3C05 Evaluation of Coordination Behavior and Sensing Function of Hypervalent Bismuth Compounds in Combination with π -Conjugated Polymers
Kazuya Tanimura, Masayuki Gon, Kazuo Tanaka

11:15 3C06 Effects of central elements on photophysical properties of group 13 complexes with bidentate conjugated ligands
Yuto AOYAMA, Yuki SAKAI, Shunichiro ITO, Kazuo TANAKA

11:40 3C07 Near-Infrared Emissive Properties and Their Temperature Dependence of π -Conjugated Polymers Based on Non-Emissive Boron Complexes
Masashi Nakamura, Masayuki Gon, Kazuo Tanaka

Ren-Hua Jin, presiding

12:55 3C08 Investigation of the AIE Mechanism from the Aryl-Modified o-Carboranes
Junki Ochi, Kazuo Tanaka

13:20 3C09 Photophysical Properties of Donor-Acceptor Complexes of the Group 13 Elements Based on β -Diketiminato Ligands
Keisuke Suwa, Shunichiro Ito, Kazuo Tanaka

13:45 3C10 Improved ionic conductivity by poly(ionic liquid)s with branched side chains
Taichi Ikeda

14:10 3C11 Synthesis of Thermoresponsive Polymers with Various Structures by Living Cationic Polymerization Using Multifunctional Compounds and Their Thermoresponsive Behavior in Water
Yuyu Furuki, Arihiro Kanazawa, Sadahito Aoshima

Taichi Ikeda, presiding

14:35 3C12 Synthesis of well-defined aromatic hyperbranched polymers by means of Suzuki-Miyaura polycondensation through intramolecular catalyst transfer
Ryusuke SHIMADA, Yoshihiro OHTA, Tsutomu YOKOZAWA

15:00 3C13 Synthesis of Low-Viscous Hyperbranched Polyimides from Asymmetric Triamine and Aromatic Dianhydrides via A2 + B3 Polycondensation
Mitsutoshi Jikei, Shu Tsushima, Ryosuke Konno, Kazuya Matsumoto

15:25 3C14 Synthesis of ladder polymer using intramolecular ATRP method of multi-vinyl polymer
Kazuya Natsume, Kazuteru Kawanami, Moriya Kikuchi, Seigou Kawaguchi, Kazuzi Enomoto

15:50 3C15 Chemical modification of comb-like polymers possessing polyethyleneimine component and their self-assemblies
Ayaka Kanno, Wenli Wang, Ren-hua Jin

Kazuo Tanaka, presiding

16:15 3C16 Synthesis and oxygen permselectivity of two dimensional polymers containing ultramicropores
Kehan Cheng, Masahiro Terakuchi, Takashi Kaneko, Toshiki Aoki

16:40	3C17	Creation of porous carbons with controlled structure based on the molecular skeleton of the precursors. <u>Tatsuki SOBUE</u> , Koki CHIDA, Shunsuke OHTANI, Takeharu YOSHII, Hiroto NISHIHARA, Kenichi KATO, Tomoki OGOSHI
17:05	3C18	Synthesis of bottlebrush polymers with polyether side chains <u>Moeka Tamaki</u> , Kohji Ohno, Yoshinobu Tsujii
17:30	3C19	Synthesis of pi-conjugated two-dimensional polymers using surface reactions. <u>Michio Matsumoto</u>

Room D

Mon. Sep 5

S1. New Horizons in Metal-free Polymer Chemistry

12:45	1DSO	Introductory Remarks S1 <u>Takuya Isono</u> , Yukihiro Arakawa
		Naoki Haraguchi, presiding
12:55	1D08	Metal-free, Organo-Catalyzed Photo Radical Polymerization toward Controlled UV-Curing <u>Takeo Suga</u> , Midori Iwakiri, Ayane Mochizuki, Kenichi Oyaizu
13:20	1D09	Tunable Macro/Microphase-Separated Domain Formation in the UV-cured Coatings Using Metal-free Catalysts <u>Midori Iwakiri</u> , Takeo Suga, Kenichi Oyaizu
13:45	1D10	Metal-free living cationic polymerization using diaryliodonium salts as organic Lewis acid catalysts: Acceleration mechanism of the living polymerization by photoirradiation and development of applicable monomers <u>Yuji Mishima</u> , Arihiro Kanazawa, Sadahito Aoshima
		Takuya Isono, presiding
14:10	1D11IL	Progress in Ring-Closing of Vinyl Polymers without Highly Diluted Condition <u>Akinori Takasu</u>
15:00	1D13	Ring-Opening Polymerization of Novel Lactones with Protected Hydroxy Group Derived from Biomass and Deprotection-Induced Polymer Degradation <u>Yuki SAKATA</u> , Mineto UCHIYAMA, Masami KAMIGAITO
15:25	1D14	Precise synthesis of fusible, soluble, and functionalized poly[phenyl(p-tolyl)siloxane]s by ring-opening polymerization using guanidine catalysts <u>Keita Fuchise</u> , Kazuhiko Sato, Masayasu Igarashi
		Hiroki IIDA, presiding
15:50	1D15	Surface Modification of Polymer Particles by Metal-Free Photo-Induced Atom Transfer Radical Polymerization Daiya Shimizu, Risa Sugihara, Daisuke Aoki, <u>Tatsuo Taniguchi</u> , Takashi Karatsu
16:15	1D16	Synthesis of Hydrophobic Polysaccharides by Glucan Phosphorylase-catalyzed Enzymatic Polymerization

- Jun-ichi Kadokawa
- 16:40 1D17 Enzymatic synthesis of polypeptides containing periodic aromatic units
Kousuke Tsuchiya, Keiji Numata
- Yukihiro Arakawa, presiding**
- 17:05 1D18 One-step enzymatic synthesis and mechanical properties of synthetic nanocellulose-biomineral hybrid hydrogels
Kai Sugiura, Masashi Saito, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa
- 17:30 1D19 Oligosaccharide synthesis using phosphorylase enzymes and utilization in polymer design.
Naoki Sunagawa, Tomohiro Kuga, Satoshi Katsuhara, Yasuko Takagi, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh, Kiyohiko Igarashi
- 17:55 1D20 Crosslinked Polymer Beads of Hyperbranched Poly(Ether-Ketone) for Hydrolysis of Glycosidic Bonds
Yuta Nabae, Tomomi Ishihara, Teruaki Hayakawa, Yang Cheng, Atsushi Fukuoka, Hirokazu Kobayashi

Tue. Sep 6

S1. New Horizons in Metal-free Polymer Chemistry

Yuta Nabae, presiding

- 9:10 2D01 Development of riboflavin-based supramolecular gels and their application to chiral materials
Hiroki Iida, Ryo Kozako, Marina Oka, Takahiro Nitta
- 9:35 2D02 Continuous flow synthesis by porous polymer catalyst
Yoshiko Miura, Hikaru Matsumoto, Seiya Nonaka, Tomoki Imoto, Masanori Nagao

Yoshiko Miura, presiding

- 10:00 2D03 Development of asymmetric reactions in continuous flow system using polymer-immobilized chiral imidazolidinone salt
Naoki Haraguchi, Ali Md Azgar, Joh Yamada
- 10:25 2D04 Synthesis of optically active polyguanidines by polyaddition reaction of biscarbodiimides with chiral diamines
Yukihiro Arakawa, Daiki Mori, Momoko Hara, Keiji Minagawa, Yasushi Imada

Toshifumi Satoh, presiding

- 10:50 2D05 Helical Chirality Control of Poly(quinoxaline-2,3-diyl)s through Nonbonding Interactions with L-Lactic Acid Derivatives: Application to Asymmetric Catalysis with Asymmetric Amplification
Kana Omoto, Takaya Fujie, Takeshi Yamamoto, Michinori Suginome
- 11:15 2D06 Living Cationic Polymerization of Styrene Derivatives by Chalcogen Interaction of Tellurium Atom
Koji Takagi, Nao Sakakibara
- 11:40 2D07 Anionic ring-opening polymerization of lactones by conjugate substitution reaction
Natsumi Nishiie, Keito Hagiwara, Yasuhiro Kohsaka

Mineto Uchiyama, presiding

- 12:55 2D08 Metal-Free Synthesis and Hydrolytic Properties of Asymmetric Poly(Silyl Ether)s
Naoki Yoshida, Huie Zhu, Masaya Mitsuishi
- 13:20 2D09 Development of reusable polymer-supported alkali metal carboxylates catalysts for application in ring-opening polymerization
Itsuki Takahashi, Satoru Takagi, Yoshinobu Mato, Kenji Tajima, Takuya Yamamoto, Takuya Isono, Toshifumi Satoh
- Koji Takagi, presiding**
- 13:45 2D10 Ring-Opening Polymerization of Epoxides and Episulfides Catalyzed by Alkali Metal Carboxylates
Tianle Gao, Xiaochao Xia, Takuya Isono, Kenji Tajima, Toshifumi Satoh
- 14:10 2D11 One-step synthesis of multiblock copolymers by ring-opening copolymerization using alkali metal carboxylate catalyst
Xiaochao Xia, Takuya Isono, Toshifumi Satoh

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Shunsuke Ohtani, presiding

- 15:00 2D13 Supramolecular Polymorphism Shown by Barbiturate Supramolecular Monomer Bearing Dinaphthylethene π -conjugated Core
Saki Imai, Shiki Yagai
- 15:25 2D14 Supramolecular Chirality of Curved Supramolecular Polymers
Mei Tochibori, Sougata Datta, Shiki Yagai
- 15:50 2D15 Dissecting Self-folding Process of Curved Supramolecular Polymers
Atsushi Isobe, Shiki Yagai

Shotaro Hayashi, presiding

- 16:15 2D16 A strategy for obtaining supramolecular polymers dispersed in single molecular width
Takuma Shimada, Yutaka Wakayama, Masayuki Takeuchi, Kazunori Sugiyasu
- 16:40 2D17 Vapoluminescence Behavior Based on Crystal State Host-Guest Complexation between Liquid Phosphorescence Molecules and Pillar[5]arenes
Keisuke Wada, Yuya Oshima, Shunsuke Ohtani, Kenich Kato, Yosuke Tani, Takashi Tachikawa, Tomoki Ogoshi
- 17:05 2D18 Supramolecular Nanotubes with Photo-Responsive Release Functions for Biomolecules
Naohiro Kameta, Yoshihiro Kikkawa, Yasuo Norikane

Wed. Sep 7

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Shiki Yagai, presiding

- 9:10 3D01 Creating Flexible Molecular Inclusion Crystal and Their Anisotropic Mechanical Properties
Yuto Hino, Shotaro Hayashi
- 9:35 3D02 Stepwise Construction and Properties of Block Co-Crystals Composed of Different Spin-State Metal Complexes

Tomoya Fukui, Masahiro Tsuchiya, Takanori Fukushima
10:00 3D03 Multi-chromic Luminescence of Carborane-substituted Anthracene with π -Stacking Structure
Kazuhiro Yuhara, Kazuo Tanaka

10:25 3D04 Creation of Functional Luminescent Molecules Based on Carborane Anions
Takumi Yanagihara, Junki Ochi, Kazuo Tanaka

Tomoya Fukui, presiding

10:50 3D05 Controlling a Incubation Period in Metal-Coordinated Supramolecular Polymerization
Hayato Takahashi, Takuya Yamakado, Kensuke Suga, Nilanjan DEY, Shohei Saito

11:15 3D06 Photo-modulation of supramolecular polymorphism in the self-assembly of an azobenzene dyad
Natsuki Suda, Shiki Yagai

11:40 3D07 Role of secondary nucleation in the self-assembly of an azobenzene dyad exhibiting reversal of supramolecular chirality by light
Takuho Saito, Yuichi Kitamoto, Daisuke Inoue, Shiki Yagai

Yuichiro Kobayashi, presiding

12:55 3D08 Development of novel high elasticity silicone polyurethane gel and its application to cosmetics
Takashi Takeshita, Yuji Masubuchi, Yusuke Taniguchi, Kengo Kudou

13:20 3D09 Synthesis and structural analysis of polyurethane having oxazolidinone moiety in the main-chain
Yoshiaki Yoshida, Takeshi Endo

13:45 3D10 Polyaddition reaction of tellurium tetrachloride with bisoxetane or bisepoxide
Ryusei Hanaki, Hiroto Kudo

14:10 3D11 Synthesis and properties of polyesters containing reactive points for main chain scission by conjugate substitution reaction
Kinari Tsurumi, Takumi Noda, Yasuhiro Kohsaka

Hiroto Kudo, presiding

14:35 3D12 Additive-controlled topology switching from cyclic polymer to linear polymer in unstoichiometric Suzuki-Miyaura polycondensation and end-functionalization
So MIYAZAKI, Takeru KAMIGAWARA, Yoshihiro OHTA, Tsutomu YOKOZAWA

15:00 3D13 Polymer synthesis and polymer reaction on the basis of alkoxy exchange reactions
Takayoshi KATO, Yukiko OGAWA, Tomoya SUZUKI, Maai SASO, Yoshihiro OHTA, Tsutomu YOKOZAWA

Akihito Hashidzume, presiding

15:25 3D14 Synthesis and Characterization of Novel Polyimides Derived from Diamine Monomers Containing Perfluoroalkylene Unit and Alkyl Groups
Tamako Nakamura, Yuriko Ito, Kanbara Tadashi, Ryohei Ishige, Shinji Ando, Tomoko Yajima

15:50 3D15 Syntheses of Photoresponsive bio-based poly(amide-ester)s using itaconic and cinnamic acids
Kakeru Kakizaki, Hongrong Yin, Kenji Takada, Tatsuo Kaneko

Tatsuo Kaneko, presiding

16:15	3D16	Synthesis of sulfide-containing polymers by polycondensation of epoxy monomer with linear sulfur units <u>Akiyoshi Horiguchi</u> , Yuichiro Kobayashi, Hiroyasu Yamaguchi
16:40	3D17	Synthesis of Sequence-Controlled Amphiphilic Polymers Possessing Dense Triazole Backbone <u>Tomoaki Yamamoto</u> , Yuri Kamon, Masaki Nakahata, Akihito Hashidzume
17:05	3D18	Synthesis of New Thermoresponsive Polymers Possessing the Dense 1,2,3-Triazole Backbone <u>Koji Okuno</u> , Yuri Kamon, Masaki Nakahata, Akihito Hashidzume

Room E

Mon. Sep 5

S2. Frontiers of Synthetic Polymer Chemistry Based on the Pursuit of Elementary Reactions

12:45	1ESO	Introductory Remarks S2 <u>Ryo Tanaka</u> , Naoya Kanbayashi
		Mineto Uchiyama, presiding
12:55	1E08	Lewis Pair Polymerization of Vinyl Monomers Using Metal Triflates as Lewis Acids <u>Shin-ichi Matsuoka</u> , Mayo Horibe, Riki Akita, Masato Suzuki
13:20	1E09	Cationic Ring-Opening Copolymerization of Cyclic Acetals with γ -Butyrolactone or 1,3-Dioxolan-4-ones via Main-Chain Scrambling Reactions: Sequence Control by External Stimuli and Investigation of Copolymerization Mechanisms <u>Kana Takebayashi</u> , Arihiro Kanazawa, Sadahito Aoshima
13:45	1E10	Radical Polymerization of Boronic Acid Monomers Protected by Aromatic Amine Derivatives: Effects of Protecting Groups on Polymerization Behaviors and Transformable Features <u>Hiroshi Suzuki</u> , Tsuyoshi Nishikawa, Makoto Ouchi
		Shin-ichi Matsuoka, presiding
14:10	1E11	Self-alternating polymerization of bifunctional monomers with two different reactive vinyl groups <u>Raita Goseki</u> , Yoshito Itaya, Kim Hamin, Kotaro Koike, Takashi Ishizone
14:35	1E12	Precision Polymer Synthesis by Living Anionic Polymerization Based on Degenerative Chain-Transfer Mechanism to C-H Bonds <u>Konomi YAMASHITA</u> , Mineto UCHIYAMA, Masami KAMIGAITO
15:00	1E13	Radical (Co)polymerization of (Meth)acrylate Derivatives Carrying Hexafluoroisopropanol on the Pendant: Sequence Control of Commodity Repeating Units via Post-polymerization Modification <u>Xiaoyan Xu</u> , Makoto Ouchi
		Ryohei Kakuchi, presiding
15:25	1E14	Radical Copolymerization of Benzyl Vinyl Ether: Precise Syntheses of Degradable Polymers Based on Isomerized Propagation <u>Keita Kuroda</u> , Makoto Ouchi
15:50	1E15	Solvent-free synthesis and degradation of unsaturated polyesters by conjugate substitution reaction

Rikuto Kimura, Yasuhiro Kohsaka

- 16:15 1E16 Amino group modification of poly(vinyl alcohol) side chain by chemoselective transesterification and its evaluation
Miyuki Oshimura, Ryo Kagitani, Naoto Tanabe, Ryo Fujiwara, Kai-Ming Huang, Tomohiro Hirano, Koichi Ute

Tsuyoshi Nishikawa, presiding

- 16:40 1E17 Facile polymer synthesis building on the reactivity of difluoroacetate esters
Ryohei Kakuchi, Kiho Matsubara, Hideki Amii
- 17:05 1E18 Precise synthesis of ring-based polymers by the use of 1,1-diphenylethylene-functionalized macromonomers
Atsushi Takano, Yuna Tsuduki, Yuma Yasuda, Yuya Doi, Yushu Matsushita
- 17:30 1E19 Replicating gelation process via stoichiometric imbalanced mixing: Elasticity, Osmotic pressure, and Swelling rate
Naoyuki Sakumichi, Yuki Yoshikawa, Takamasa Sakai
- 17:55 1E20 Thermoresponsive property of copolymer gels from hydrophilic/hydrophobic monomer combinations
Shohei Ida, Shokyoku Kanaoka

Tue. Sep 6

S2. Frontiers of Synthetic Polymer Chemistry Based on the Pursuit of Elementary Reactions

Naoya Kanbayashi, presiding

- 9:10 2E01IL Synthesis of New Bridged Polymers by the Stitching Polymerization
Ryo Shintani

Tsuyoshi Taniguchi, presiding

- 10:00 2E03 Control of coordination polymerization behavior using oxidation of methylaluminumoxane
Ryo Tanaka, Sogo Kenji, Komaguchi Kenji, Ae Kazuki, Nakayama Yuushou, Shiono Takeshi
- 10:25 2E04 Attempt to develop Pd-based initiating systems affording stereospecific polymerization of diazoacetates: synthesis of new Pd complexes with diphosphine and diamine ligands and investigation of their initiating ability
Hiroaki Shimomoto, Yuto Miyano, Kaito Kinoshita, Tomomichi Itoh, Eiji Ihara
- 10:50 2E05 Pd/Ag-catalyzed regiospecific C-H/C-H cross-coupling reaction
Junpei Kuwabara, Ryota Sato, Tomoki Iida, Takeshi Yasuda, Takaki Kanbara

Hiroaki Shimomoto, presiding

- 11:15 2E06 Design and catalytic mechanisms of rhodium complexes enabling controlled polymerization of monosubstituted acetylenes
Tsuyoshi Taniguchi, Shiori Sakamoto, Yoko Sakata, Shigehisa Akine, Tatsuya Nishimura, Katsuhiko Maeda
- 11:40 2E07 End-functionalization of Poly(quinolinene-2,3-methylene) using cysteine derivatives through a terminal palladium complex
Sora Odagaki, Naoya Kanbayashi, Kiyotaka Onitsuka

Ryo Tanaka, presiding

- 12:55 2E08 Post-functionalization of Conducting Polymer Films via Highly Efficient Electrochemical Reactions
Tomoyuki Kurioka, Shinsuke Inagi
- 13:20 2E09 Precise Synthesis of Chain-End-Functionalized Poly(dimethylsiloxane) with Bromoaryl Groups for Incorporation in Naphthalene-Diimide-Based N-type Semiconducting Polymers
Keiichiro Sato, Yudai Hemmi, Hiroyuki Matsui, Keita Fuchise, Tomoya Higashihara
- 13:45 2E10 Synthesis of two-dimensional block supramolecular polymers
Kazunori Sugiyasu, Norihiko Sasaki, Masayuki Takeuchi

Hiromitsu Sogawa, presiding

- 14:10 2E11 Development of Supramolecular Polymers with Controlled Structures directed by Specificity in Molecular Recognitions
Takeharu Haino
- 14:35 2E12 Synthesis of aromatic ladder polymer utilizing coordination nanospaces
Takumi Miura, Takashi Kitao, Takashi Uemura
- 15:00 2E13 Syntheses of double-stranded vinyl polymers by crosslinking polymerization in MOF nanochannels
Yuki Kametani, Masahiro Abe, Takashi Uemura

Takashi Kitao, presiding

- 15:25 2E14 Synthesis and secondary structures of amino-acid derived π -conjugated polymers
Hiromitsu Sogawa, Fumio Sanda, Ryo Nishimoto, Taiga Kawaguchi
- 15:50 2E15 Relationship between Higher-order Structure and Structural Transition in Curved Supramolecular Polymers
Kenta Tamaki, Yagai Shiki

Wed. Sep 7

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Ken-ichi Kasuya, presiding

- 9:10 3E01 Synthesis of isocyanate-free polyurethanes and their self-healing properties (II) -Effect of polymerization catalysts-
Yukiho Sonoda, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 9:35 3E02 Synthesis of oligourethane topologies through step-wise addition reactions
Shunya Inayama, Haruka Yamauchi, Shoutaro Hayashi
- 10:00 3E03 Degradation and isomerization of unsaturated polyesters by irreversible conjugate substitution reaction
Anri Tanaka, Takumi Noda, Yasuhiro Kohsaka

Shotaro Hayashi, presiding

- 10:25 3E04 Backbone Degradation of Boron-Pendant Vinyl Polymers via Carbon-Boron Bond Activation
Hiroshi Makino, Tsuyoshi Nishikawa, Makoto Ouchi
- 10:50 3E05 Synthesis of recyclable polycarbosilane bearing bifuran moiety
Shunnsuke Beppu, Yuya Tachibana, Ken-ichi Kasuya

Makoto Ouchi, presiding

11:15 3E06 Baeyer-Villiger oxidation of polyketones to ester-containing polymers and evaluation of their degradability
Kohei Takahashi, Haobo Yuan, Shinya Hayashi, Miwa Suzuki, Ken-ichi Kasuya, Kyoko Nozaki

11:40 3E07 Synthesis of Triarylsulfonium Salts and Polymers Having Corresponding Units by Addition Reaction to Arynes
Tomohiro Imai, Ryoyu Hifumi, Shinsuke Inagi, Ikuyoshi Tomita

Takahiro Uno, presiding

12:55 3E08 Synthesis, Reactions, and Computational Evaluation of Radical-type Mechanophores with Bisarylfuorene Skeletons
Hajime Sugita, Yi Lu, Koichiro Mikami, Daisuke Aoki, Hideyuki Otsuka

13:20 3E09 Ring-chain equilibria of macrocycles containing bis(hindered amino)disulfide linkages and their application.
Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka

13:45 3E10 Synthesis of polymers with reactive end groups by using maleimidophenyl isocyanate as a modification agent and their application
Tatsuki Sato, Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka

Yoshimasa Matsumura, presiding

14:10 3E11 Synthesis and Intermolecular Cross-linking Reactions of Single-chain Nanoparticles Based on Dynamic Covalent Chemistry
Gota Tomono, Hirogi Yokochi, Daisuke Aoki, Hideyuki Otsuka

14:35 3E12 Design and Synthesis of Diarylacetic Acid Derivatives for Detecting Polymeric Mechanoradicals
Yuto Uchida, Takumi Yamamoto, Daisuke Aoki, Hideyuki Otsuka

Daisuke Aoki, presiding

15:00 3E13 Fabrication of periodically crosslinked network using dithiol-functionalized MOF
Ikki Matsuda, Takashi Kitao, Takashi Uemura

15:25 3E14 Synthesis of polybromothiophene by electrooxidative polymerization and its polymer reactions
Hazuki Goto, Yoshimasa Matsumura, Bungo Ochiai

15:50 3E15 Analysis of Shear-induced Wear Progression in Concentrated Polymer Brush Systems through Fluorescence Detection of Chain-Scission Radicals
Ryota Koyama, Kohji Ohno, Ken Nakano, Yoshinobu Tsujii

Room F

Mon. Sep 5

S3. Development of Element-Block Materials for Realization of Sustainable Society

12:45 1FSO Introductory Remarks S3
Bungo Ochiai, Tomoyasu Hirai

Katsuhiro Yamamoto, presiding

12:55 1F08 Size-controlled polyimide nano-particles by precipitation polymerization and observation by small-angle X ray scattering.

- Satosi Kuretani, Tomoyasu Hirai, Teruaki Hayakawa, Yuta Nabae
- 13:20 1F09 Evaluation of Structural Distribution of Epoxy Adhesives during Curing Process by SMAXS-CT Method
Ryuji Morimoto, Mikihiro Takenaka, Hiroki Ogawa, Satoru Yamamoto, Keiji Tanaka
- 13:45 1F10 Toughening Mechanism of Slide-Ring Gels by Strain-Induced Crystallization
Koichi Mayumi, Chang Liu, Sohei Kawahara, Hideaki Yokoyama, Kohzo Ito
- Daisuke Kawaguchi, presiding**
- 14:10 1F11 Spatial distribution analysis of each element in polymer micelles by anomalous small-angle X-ray scattering
Isamu Akiba, Masaki Nakano, Yasuya Uchimura
- 14:35 1F12 Structural analysis of composition-gradient block copolymers utilizing contrast-variation small-angle scattering
Katsuhiko Yamamoto, Yoshiaki Fuwa, Satoshi Koizumi, Yohei Noda, Tamoki Maeda, Hideaki Takagi
- 15:00 1F13 Spatial distribution of nanostructures in Epoxy Resin Employing MAXS-CT Method
Hiroki Ogawa, Mikihiro Takenaka, Shunsuke Ono, Satoru Yamamoto, Keiji Tanaka
- 15:25 1F14 Evaluation of Correlation between Filler Orientation and Void Distribution in Filler-Filled Rubber by SAXSCT Method
Yuta Hara, Mikihiro Takenaka, Hiroki Ogawa, Ryo Masita
- Takuya Matsumoto, presiding**
- 15:50 1F15 Structure formation via polymerization-induced phase separation of methyl methacrylate and fabrication of amphiphobic surface
Yasuhito Suzuki, Shodai Onosato, Akikazu Matsumoto
- 16:15 1F16 Molecular Weight Dependence of Exciton Dynamics for Semiconducting Polymers
Daisuke Kawaguchi, Ayano Higashiyama, Shuhei Yamaguchi, Yudai Ogata, Taizo Kabe, Yushu Matsushita, Keiji Tanaka
- 16:40 1F17 Self-assembled structural transition in random copolymer thin films
Mao Kikuchi, Mizuki Ooke, Shusaku Nagano, Shotaro Nishitsuji, Hinako Ebe, Jun Matsui
- Jun Matsui, presiding**
- 17:05 1F18 Synthesis and Higher-order Structural Characterization of Polyimides Including Chain-length-controlled Polysiloxanes
Erina Yoshida, Maeda Hayato, Yuta Nabae, Teruaki Hayakawa
- 17:30 1F19 Structural Analysis and Morphology Control of Micro-Particles via Rapid Liquid/Liquid Phase Separation
Yoshihisa Fujii, Ryo Ogawa, Sadaki Samitsu, Naoya Torikai
- 17:55 1F20 Control of elastic recovery of polythiophenes through formation of cross-links of siloxane side chains
Takuya Matsumoto, Jian Shen, Masaki Kashimoto, Atsunori Mori, Takashi Nishino

Tue. Sep 6

S3. Development of Element-Block Materials for Realization of Sustainable Society

Yasuhiro Kohsaka, presiding

- 9:10 2F01 Development of sustainable inorganic pigments based on metal oxynitrides preparable by safe materials and processes
Kiyofumi Katagiri, Takuya Sakata, Sohta Urushidani, Naoki Tarutani, Kei Inumaru
- 9:35 2F02 Development of π -Conjugated Polymers Based on Hypervalent Compounds with Group 14 Elements
Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 10:00 2F03 Development of Carbon-based Two-Dimensional Functional Polymers
Ryo Sekiya, Takeharu Haino

Masayuki Gon, presiding

- 10:25 2F04 The "On water reaction" on surface of droplets in emulsions prepared using 2D type surfactant aqueous dispersion
Mirai Ishihara, Takuma Kamibe, Ryoko Suzuki, Yusuke Yamauchi, Yoshiyuki Sugahara
- 10:50 2F05 Polycondensation using continuous conjugate substitution and addition reactions within a single skeleton: Monomer design for polymers with low carbon density
Keito Hagiwara, Takumi Miyazaki, Rikuto Kimura, Akira Hiramatsu, Yasuhiro Kohsaka
- 11:15 2F06 Preparation of urea-containing polysilsesquioxane membranes for CO₂ separation
Joji Ohshita, Kohei Kajimura, Takatoshi Okonogi, Yohei Adachi
- 11:40 2F07 Synthesis and Properties of Soluble Solid Polysiloxanes
Ryo Iida, Yohei Sato, Kazuki Yamamoto, Yosimoto Abe, Takahiro Gunji

Keiji Tanaka, presiding

- 12:55 2F08IL Photo-functional materials based on triplet excited state
Nobuhiro Yanai

Takashi Ishizone, presiding

- 13:45 2F10IL Aggregation Structure and Physical Properties of Element-block Elastomers
Ken Kojio

Yoshimasa Matsumura, presiding

- 14:35 2F12 Development of Luminescent Element Blocks and Functional Polymers Based on Boron Complexes
Shunichiro ITO, Kazuo TANAKA, Yoshiki CHUJO
- 15:00 2F13 One-pot synthesis of sequence-controlled oligomers possessing vinyl groups at both chain-ends by living anionic addition reaction
Tomohiko Nishijima, Kazuki Takahata, Raita Goseki, Takashi Ishizone
- 15:25 2F14 Synthesis and Low Dielectric Properties of Phosphine Sulfide-containing Aromatic Poly(ether)s
Ryoyu Hifumi, Ikuyoshi Tomita
- 15:50 2F15 Structure and Function of whitened lignin synthesized via Solvent Controlled Encapsulation
Kazuhiro Shikinaka, Yuichiro Otsuka

Ryoyu Hifumi, presiding

- 16:15 2F16 Synthesis of Helical Poly(phenylacetylene) Brushes and Explore of Their Application
Tatsuya Nishimura, Misaki Yoshida, Tsuyoshi Taniguchi, Katsuhiko Maeda

- 16:40 2F17 Synthesis of high-refractive-index polymers, X-ray shielding polymers, and photochromic polymers by polymerizations of multi-functional styrylbismuthines
Yoshimasa Matsumura, Kota Kumagai, Kikuo Furukawa, Hideki Kohn, Miyuki Miyamoto, Yoshio Nishimura, Bungo Ochiai
- 17:05 2F18 Synthesis and Circularly Polarized Luminescence of π -Electron-Systems-Stacked Cyclic Oligomers Based on Planar Chiral Element-Blocks
Yasuhiro Morisaki, Kentaro Tanaka, Aoi Morisaki, Ryo Inoue

Wed. Sep 7

S3. Development of Element-Block Materials for Realization of Sustainable Society

Yuichiro Watanabe, presiding

- 9:10 3F01 Development of network polymer with low Df for 5G PWB derived from PPE unit.
Hisanao Yamamoto, Hiroshi Fukuoka, Katsuhiko Iwase, Miyuki Harada
- 9:35 3F02 Preparation of adhesives composed of catechol compound and epoxy group-containing cyclosiloxane
Yosuke Uchida, Takashi Aketa, Toshiyuki Ozai, Hideo Nakagawa, Yoshiro Kaneko
- 10:00 3F03 Glassy-state formation of luminescent Eu(III) coordination polymers with amide groups
Joe Hayashi, Sunao Shoji, Yuichi Kitagawa, Koji Fushimi, Yasuchika Hasegawa

Yoshiro Kaneko, presiding

- 10:25 3F04 Synthesis of functional graft materials via radiation-induced graft polymerization and multi-component reactions
Ryohei Kakuchi, Kiho Matsubara, Masaaki Omichi, Noriaki Seko
- 10:50 3F05 Copper(I)-Pyrazolate Complexes as Solid-State Phosphors: Deep-Blue Emission through a Remote Steric Effect
Yuichiro Watanabe, Benjamin Washer, Matthias Zeller, Sergei Savikhin, Lyudmila Slipchenko, Alex Wei
- 11:15 3F06 Studies on the hydrolysis behavior of titanium phosphate clusters
Takahiro Gunji, Hayato Tsukagoshi, Yohei Sato, Ryohei Hayami, Kazuki Yamamogo
- 11:40 3F07 Synthesis of novel sequential and branched semiconducting polymers using chain-end-functionalized poly(3-hexylthiophene) with hetero-functional groups at α, ω chain-ends
Shin Inagaki, Yan-Cheng Lin, Wen-Chang Chen, Tomoya Higashihara

Tsuyohiko Fujigaya, presiding

- 12:55 3F08 Synthesis and polymerization behavior of linear-oligosiloxane
Yohei Sato, Asahi Sugimoto, Ryohei Hayami, Kazuki Yamamoto, Takahiro Gunji
- 13:20 3F09 Synthesis and inorganic liquid crystalline feature of 2D boron material
Tetsuya Kambe, Dongwan Yan, Kimihisa Yamamoto
- 13:45 3F10 Control of solubility and photophysical properties of dithienoarsole through modification of the As-substituent
Hiroaki Imoto, Chisa Takahara, Suzuka Iwasaki, Hyota Kihara, Kensuke Naka

Takahiro Gunji, presiding

- 14:10 3F11 Regulation of Stem Cells Using Photoresponsive Poly(dimethylsiloxane) Films with Controllable Surface Properties
Neiro Kodama, Takafumi Noguchi, Misato Higashino, Akifumi Kawamura, Takashi Miyata
- 14:35 3F12 Near infrared emission from element-block materials composed of carbon nanotubes and small molecules
Tomohiro Shiraki, Yoshiaki Niidome, Boda Yu, Shunji Yorozuya, Sadahito Naka, Tsuyohiko Fujigaya
- 15:00 3F13 Water solubility control of styrene copolymers with pendant boratrane group based on Lewis adduct dissociation and reformation
Akira Takahashi, Masahiro Yamanishi, Atsushi Kameyama

Michinari Kohri, presiding

- 15:25 3F14 Fluorine-Free Superhydrophobic Films Based on Structure-Optimized Surface-Modified Nanosheets
Ryota Hikichi, Yuki Tokura, Hiroaki Imai, Yuya Oaki
- 15:50 3F15 Flexible Molecular Crystals: Crystal Engineering of Functional Molecules For Fiber Materials
Shotaro Hayashi
- 16:15 3F16 Functionalization of Side-Chain Crystalline Block Copolymers containing biocompatible zwitterionic polymers
Aki Kashiwazaki, Shingo Kobayashi, Masaru Tanaka, Shigeru Yao

Shotaro Hayashi, presiding

- 16:40 3F17 Preparation of Organically Bridged Polysilsequioxane Reverse Osmosis Membranes for Superior Performance
Dian Zhang, Yohei Adachi, Joji Ohshita
- 17:05 3F18 Highly ordered low-molecular-weight liquid crystal in the vicinity of Azobenzene polymer film
Chikara Kawakami, Mitsuo Hara, Takahiro Seki
- 17:30 3F19 Preparation and magnetic properties of cubic structures formed by supramolecular spheres composed of holmium complexes
Nao Komiyama, Takahiro Ohkubo, Yohei Miwa, Shohei Kutsumizu, Keiki Kishikawa, Michinari Kohri

Room G

Mon. Sep 5

S4. New Developments in Polymer Characterization

- 12:45 1GSO Introductory Remarks S4
Tomohiro Hirano, Hisamu Sasahara

Tomohiro Hirano, presiding

- 12:55 1G08 NMR Characterization of the Copolymer Structures Obtained by Cationic Copolymerization of Vinyl Monomers and Cyclic Monomers
Arihiro Kanazawa, Sadahito Aoshima

- 13:20 1G09 Synthesis of Polyarylates by polycondensation of acyl substitution and conjugate substitution reactions: Understanding of reaction mechanism by monomer junctions analyzed by ¹³C NMR spectrometry
Koki Nagai, Yasuhiro Kohsaka
- 13:45 1G10 Synthesis of end-functionalized poly(substituted methylene)s: polymerization of diazoacetates initiated by Pd complexes with *N*-substituted maleimide ligands and accurate characterization of the polymer chain end structures
Hiroaki Shimomoto, Kyoka Aramasu, Tomomichi Itoh, Eiji Ihara
- 14:10 1G11 Precise synthesis of oligo(diphenylacetylene)s with well-defined structures
Kensuke Echizen, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda

Hiroaki Shimomoto, presiding

- 14:35 1G12 Synthesis of Defect-Free Fluorene-Based π Conjugated Helical Ladder Polymers and Resolution into a Pair of Enantiomeric Helical Ladders
Sayaka Miyoshi, Tomoyuki Ikai, Eiji Yashima
- 15:00 1G13 Dynamics-property relationship of diazacyclooctane-containing ladder polymers
Fumitaka Ishiwari, Keiki Inoue, Takanori Fukushima
- 15:25 1G14 Highly accurate determination of interdetector delay volume between the MALS and differential refractometer in SEC-MALS
Yoshinori Matsumoto, Kazushi Enomoto, Moriya Kikuchi, Seigou Kawaguchi

Seigou Kawaguchi, presiding

- 15:50 1G15 Interchain ordering structure and thermal stability of vinyl-addition polynorbornenes
Hideki Kai, Atsushi Izumi, Shun Hayakawa, J. Alex Niemiec, Carl Ebner, Mike Schofield, Doug Skilskyj, Larry F Rhodes
- 16:15 1G16 Compositional Distribution Analysis of Styrenic Copolymers by 2D-HPLC
Nobuyuki Kagawa, Masato Kishiwaki
- 16:40 1G17 Soft laser deposition/ionization high-resolution mass spectrometric analysis of comonomer compositional distribution in bacterial copolyesters
Naoki KANAYAMA, Sayaka NAKAMURA, Hiroaki SATO, Hideaki HAGIHARA

Nobuyuki Kagawa, presiding

- 17:05 1G18 Statistical determination of chemical composition and blending fraction of copolymers composed of acrylonitrile, styrene and α -methylstyrene by multivariate analysis of ¹H NMR spectra of binary blends of the copolymers
Ryota Kamiike, Tomohiro Hirano, Koichi Ute
- 17:30 1G19 Automation and optimization of analysis of organic analytical data of polymer materials
Kazuki Hammura, Yuki Takei, Terumi Sakabe, Yasuhiro Hashimoto
- 17:55 1G20 Characterization of PVA/Chitosan Blend gel film
Risei WADA, Hidenobu SHIMIZU

Tue. Sep 6

S4. New Developments in Polymer Characterization

hisamu Sasahara, presiding

- 9:10 2G01 Polymer-selective particle size measurement by dynamic Raman scattering
Takashi Hiroi, Sadaki Samitsu, Kunie Ishioka, Hideaki Kano
- 9:35 2G02 Polarized Micro-infrared and Raman Spectroscopy for the Study of Molecular Orientation
Yasushi Maeda, Kazuki Nakai, Shinji Sugihara, Atsushi Matsumoto
- 10:00 2G03 Dynamics of bound water in polymers observed by THz spectroscopy
Hiromichi Hoshina
- 10:25 2G04 Study of poly(butylene succinate) by low-frequency vibrational spectroscopy and quantum chemical calculation
Kohei Ito, Masahiko Morooka, Harumi Sato

Fumitaka Ishiwari, presiding

- 10:50 2G05 Design of Hydrogels with Nanodomain Structure Exhibiting Dynamic Function
Shohei Ida, Shokyoku Kanaoka
- 11:15 2G06 Helix Inversion Kinetics on Poly(quinoxaline-2,3-diyl)s
Takaya Fujie, Takeshi Yamamoto, Michinori Suginome
- 11:40 2G07 Influence of Additives on the Structures of a Double Helical Polysaccharide Induced by Rewinding its Helices
Kohki Fujii, Yudai Yamaguchi, Kazuto Yoshiba, Yasuhiro Matsuda

Koto Suganuma, presiding

- 12:55 2G08IL Characterization of Synthetic Polymers by DOSY – Recent Advances
Koichi Ute

Atsushi Asano, presiding

- 13:45 2G10 Structural analysis of silicone-based amphiphilic copolymer with DOSY NMR
Akiko Ishida, Ippei Furikado, Koichi Ute
- 14:10 2G11 Measurement of average molecular weight of PA66 by DOSY using PMMA samples as internal standards
Atsushi Kako, Shinichi Miura, koichi Ute
- 14:35 2G12 Lamellar Structure of the Crystalline Region of Bombyx mori Silk Fibroin Fiber determined using Solid-state NMR
TETSUO ASAKURA, AKIRA NAITO, WILLIAMSON MIKE

Hiroaki Yoshimizu, presiding

- 15:00 2G13 Radical and cross-linking reactions of ethylene ionomers in the thermal degradation investigated by the high-resolution solid-state ¹³C NMR and ESR spectroscopies
Shohei Mikage, Atsushi Asano
- 15:25 2G14 ¹H T1rho ROSY : NMR spectral fingerprints for nanoscale phase separated structure of block copolymers
Koji Yazawa, Naoki Asakawa, Yusuke Nishiyama
- 15:50 2G15 Structural analysis of nanodiamond-polyamide composite by TD-NMR and IR
Masaru Aoyagi, Hideyuki Shinzawa, Shinji Fujimoto

Koji Yazawa, presiding

- 16:15 2G16 Plasticization by CO₂ sorption of rubbery materials observed from multi nuclear NMR spectra
Hiroaki Yoshimizu, Shogo Iwama

- 16:40 2G17 Relationship between abrasion resistance and chain conformation in amorphous film of aromatic polyimide
Ryohei Ishige, Shohei Hara, Shinji Ando
- 17:05 2G18 Separation of laminated films using solvent dissolution method and observation of laminate structure
Kazutoshi Ikenaga

Wed. Sep 7

S4. New Developments in Polymer Characterization

Yohei Nakanishi, presiding

- 9:10 3G01 Complex Formation of Collagen and Gold Nanoparticles in Acidic Aqueous Solution
Kota Sagawa, Ken Terao
- 9:35 3G02 Formation process of spherical acrylic acid nanoparticles clarified by SAXS
Shin Takano, Ryohei Ono, Shota Fujii, Isamu Akiba, Kazuo Sakurai
- 10:00 3G03 Structural Analysis of Self-Assembling amphiphilic random copolymers in aqueous media
Takahiro Sato
- 10:25 3G04 In Situ X-ray CT Observation of Epoxy Resin Blend under Deformation
Takashi Nishino, Kazuya Tao, Matsumoto Takuya

Ken Terao, presiding

- 10:50 3G05 The effect of tensile deformation on the fibrillar heratical stracuture of Poly (ethylene terephtharate) fiber.
Ren Tomisawa, Ryohei Fuse, Mutsuya Nagata, Toshifumi Ikaga, Kosuke Sugawara, KyoungHou Kim, Yutaka Ohkoshi, Kazuyuki Okada
- 11:15 3G06 Analysis on spatial distribution of sulfur and zinc compounds as well as their spatial correlation in vulcanized EPDM rubber with active zinc oxide
Yohei Nakanishi, Satoshi Kurosaki, Keisuke Shishido, Kotaro Ichino, Mikihiro Takenaka
- 11:40 3G07 Identification of different types of materials in liquid phase
Haruhisa Kato, Ayako Nakamura

Tomohisa Norisuye, presiding

- 12:55 3G08 Precise synthesis, characterization viscoelastic and properties of ring polybutadienes with high purity and high molecular weight.
Yuna Tsuzuki, Atsushi Takano, Nobuhiko Hosono, Takushi Uemura, Yoshiaki Takahashi, Yushu Matsusita
- 13:20 3G09 Viscoelastic properties of comb-shaped ring polymers
Yuya Doi
- 13:45 3G10 Challenge to Measure Viscoelasticity of Polyoxymethylene (POM) by Nanorheological Atomic Force Microscopy
Ryota Kojima, Yasuhisa Fujii, Makiko Ito, Ken Nakajima

Yuya Doi, presiding

- 14:10 3G11 Ultrasonic Scattering Analysis of Microparticle Suspensions Considering Viscoelastic Effects
Tomohisa Norisuye, Kenichiro Ishimoto, Kazuto Tsuji
- 14:35 3G12 Characterization of soft matter using nonlinear viscoelasticity analysis

RIKA TAKEDA,KYOICHI TSURUSAKI,RYOEN SHIRASAKI

15:00 3G13 Characterization of Unusual Mechanical Properties of Polycatenane Networks
Takuma Aoyama,Hiroya Kawanishi,Kenji Urayama

Jiro Kumaki, presiding

15:25 3G14 Rheo-Raman Spectroscopic Study of Flow-Induced Crystallization of Polyethylene
Takumitsu Kida,Khunanya Janchai,Masayuki Yamaguchi

15:50 3G15 Correlative light and electron microscopy of poly(L-lactic acid) spherulites for automatic detection
Yuji Konyuba,Hironori Marubayashi,Tomohiro Haruta,Hiroshi Jinnai

16:15 3G16 Formation of artificial higher-order structure by controlling the melting point of crystalline polymer
Koji Nishida,Yuta Hikima,Tsuyoshi Koga,Masahiro Ohshima

Koji Nishida, presiding

16:40 3G17 Structural analysis of polymers encapsulated in nanopores by AFM force curve measurements
Yu Kono,Nobuhiko Hosono,Takashi Uemura

17:05 3G18 Chain movements of polymer film surface directly observed by high-temperature in-situ AFM
Koki Koike,Jiro Kumaki

17:30 3G19 Single-molecules mechanics of ionic polymer motor dynamics by high-speed AFM imaging and laser trap method
Ken-ichi Shinohara,Yuga Onuki,Ryoga Hori,Hideo Higuchi

Room H

Mon. Sep 5

S5. Computational and Data Science for Creation of Polymer Materials

14:00 1HSO Introductory Remarks S5
Hitoshi Washizu,Takashi Honda

Takashi Honda, presiding

14:10 1H11 Current status and future direction of FMO-DPD
Koji Okuwaki,Hideo Doi,Taku Ozawa,Yuji Mochizuki

14:35 1H12 Analysis of stress overshoot under biaxial elongation flow on mixed systems of cyclic (monocyclic, multicyclic) chains and linear chains
Takahiro Murashima,Katsumi Hagita,Toshihiro Kawakatsu

15:00 1H13 Combined Approaches of Experimental and Computational Analyses on Vibrational Phenomena of Water Molecules in Polymer and Liquid-Crystalline Materials
Yoshiki Ishii,Hajime Torii,Yuka Ikemoto,Mitsuo Hara,Go Watanabe,Takashi Kato,Hitoshi Washizu

Yuji Mochizuki, presiding

15:25 1H14 Formation Mechanism of Heterogeneous Network in Epoxy Resins
Satoru Yamamoto,Ryoya Ida,Mika Aoki,Atsuomi Shundo,Keiji Tanaka

- 15:50 1H15 Mass transport in polymer electrolyte membranes studied by large-scale molecular dynamics simulations and dynamic Monte Carlo method
Tetsuro Nagai, Susumu Okazaki
- 16:15 1H16 Coarse-grained Simulation for Polymer Solution on micro-scale
Natsuko Sugimura, Yuji Mihara, Hitoshi Washizu
- Satoru Yamamoto, presiding**
- 16:40 1H17 Prediction of elastic modulus of light-cured resin by bond percolation model
Yuki Nishimura, Kentaro Taki
- 17:05 1H18 Molecular simulations on charged phospholipid bilayer membrane
Yuji Higuchi, Hiroaki Ito, Naofumi Shimokawa
- 17:30 1H19 Molecular Dynamics simulation on the molecular mechanism of micelle formation and self-sorting of amphiphilic copolymers
Nami Sato, Tsuyoshi Koga
- 17:55 1H20 Dissipative particle dynamics simulation for behavior analysis of threadlike reverse micelles under shear flow in oil environment
Tomoya Hasegawa, Natsuko Sugimura, Hitoshi Washizu

Tue. Sep 6

S5. Computational and Data Science for Creation of Polymer Materials

Hitoshi Washizu, presiding

- 9:10 2H01 Exact method for evaluating the elasticity of the phantom network of a given graph via homology theory without fixing any cross-links
Tetsuo Deguchi, Erica Uehara, Jason Cantarella, Clayton Shonkwiler
- 9:35 2H02 Microscopic model of a Gaussian network under topological constraints showing the Mooney-Rivlin behavior
Erica Uehara, Tetsuo Deguchi
- 10:00 2H03 Process-structure-property relationships of degradable polymers for design and understanding
Yoshifumi Amamoto, Hiroteru Kikutake, Chie Koganemaru, Ken Kojio, Atsushi Takahara, Kei Terayama

Yoshiki Ishii, presiding

- 10:25 2H04 Data-driven design of new liquid-crystal polyimide
Stephen Wu, Hayato Maeda, Marui Rika, Erina Yoshida, Yuta Nabaie, Teruaki Hayakawa, Yoh Noguchi, Yoshihiro Hayashi, Ryo Yoshida, Junko Morikawa
- 10:50 2H05 Prediction of physical property for hydrogel and interpretability using machine learning
Junichi Ishida, Naoki Tanimura, Yoshiko Yamazaki, Kiyoshi Shoji, Takao Sato
- 11:15 2H06 Texture identification by end-effectors in polymer materials
Kosuke Hirose, Jun Ogawa, Yosuke Watanabe, MD Nahin Islam Shiblee, Masaru Kawakami, Hidemitsu Furukawa
- 11:40 2H07 Development of programmable mechanical metasoft materials for shock mitigation
Komi Suzuki, Jun Ogawa, Yosuke Watanabe, MD Nahin Islam Shiblee, Masaru Kawakami, Hidemitsu Furukawa

Yoshihiro Hayashi, presiding

- 12:55 2H08 Data-driven materials design by materials researchers
Kyohei Hanaoka
- 13:20 2H09 Performance Verification of Advanced Technology by High-Speed Experimental System
Yuuki Nagai
- 13:45 2H10 A time-efficient optimization algorithm for functional materials composition
Ryosuke Arai
- Junichi Ishida, presiding**
- 14:10 2H11 Prediction of Polyethylene Diffusion Using MD-GAN: Efficient Learning by Inputting the Information of Multiple Particle Dynamics
Ryo Kawada,Katsuhiko Endo,Daisuke Yuhara,Kenji Yasuoka
- 14:35 2H12 Prediction of water diffusion in polymers using machine learning
Ryo Kawada,Katsuhiko Endo,Kenji Yasuoka,Hidekazu Kojima,Nobuyuki Matubayasi
- 15:00 2H13 Creation of Computational Properties Database for Polymeric Materials using Statistical Design of Experiments
Fin Ari,Yoshihiro Hayashi,Ryo Yoshida
- 15:25 2H14 Co-creation of polymer properties data platform by automated molecular dynamics calculation through industry-academia collaboration
Yoshihiro Hayashi,Stephen Wu,Yoh Noguchi,Aiko Takahashi,Ryo Yoshida
- Natsuko Sugimura, presiding**
- 15:50 2H15 Constructing a dataset of the dielectric properties of polymeric materials using molecular dynamics simulations
Koki Kitai,Satoru Yoshizaki,Seigo Mizutani,Beomgyu Choi,Yoshihiro Hayashi,Yuta Yoshimoto,Junichiro Shiomi
- 16:15 2H16 An Approach to Materials Informatics by Integrating Simulation and Machine Learning: Perspectives on the Use of Innovative Simulators
Yuya Nakajima,Yoshihiro Yayama,Tasuku Onodera
- 16:40 2H17 Surrogate Model of Polymer Viscoelasticity Calculation Motivated by Polymer Physics
Umi Yamamoto,Kenji Yoshimoto,Isamu Shigemoto
- 17:05 2H18 Morphology discrimination for ABA triblock copolymers using local density field as feature descriptor
Ryohei Hosoya,Hiroshi Morita

Wed. Sep 7

S5. Computational and Data Science for Creation of Polymer Materials

Naohito Urakami, presiding

- 9:10 3H01 Computational analysis for the aminolysis reaction based on the GFN2-xTB and DLPNO-CCSD(T) methods and its application to postpolymerization modification reactions
Kiho Matsubara,Hideki Amii,Ryohei Kakuchi
- 9:35 3H02 Two Dimensional Super-Lattice Structures from Pentablock Blends Studied by Monte Carlo Simulation
Jiro Suzuki,Atsushi Takano,Yushu Matsushita

- 10:00 3H03 All-atom Simulation of Dissolution of Extended Polyethylene Glycol Chain Crystals in Aqueous Solution
Kosuke Aomura, Kazushi Fujimoto, Hideaki Yokoyama, Koichi Mayumi, Kohzo Ito
- Takahiro Murashima, presiding**
- 10:25 3H04 High-throughput molecular dynamics study on glass transition point of polymers
Hiroki Sugisawa, Jun Endo, Kazuya Shiratori, Hiroya Kodama
- 10:50 3H05 Study on polymer particles using molecular dynamics calculations I
Shotaro Yoshida, Kazushi Fujimoto
- 11:15 3H06 SCF method for any topologies of polymers
Takashi Honda
- 11:40 3H07 Self-consistent field theory for multicyclic block copolymers
Yoshinori Tomiyoshi, Takashi Honda
- Yoshinori Tomiyoshi, presiding**
- 12:55 3H08 Molecular dynamics simulation of vesicle growth and division
Naohito Urakami, Yuka Sakuma, Masayuki Imai
- 13:20 3H09 Coarse-grained molecular dynamics simulation of mixed systems of cyclic and linear chains
Katsumi Hagita, Takahiro Murashima
- 13:45 3H10 Large-scale molecular dynamics study of yield behavior of amorphous polymers under multiaxial stress states
Daisuke Yuhara, Hiroya Kodama
- 14:10 3H11 Friction analysis of polymeric multi phase interface by coarse-grained molecular dynamics simulation
Masaki Hayama, Yuji Higuchi, Hitoshi Washizu

Room I

Mon. Sep 5

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yoshimitsu Sagara, presiding

- 12:55 1I08 Pyrene-bonded Network Polymer that Recognize Solvent Swelling and Shrinkage by Reversible Luminescence Changes
Ryo Yokoyama, Norihisa Kobayashi, Kazuki Nakamura
- 13:20 1I09 Development of fluorescent polymer films for visualizing water
Yousuke Ooyama, Saori Miho, Keiichi Imato
- 13:45 1I10 Development of segmented polyurethanes showing reversible two-step fluorescent color change under external stress
Kensuke Suga, Takuya Yamakado, Shohei Saito
- 14:10 1I11 Molecular Force Probe for Fluorescence Imaging of Elongation Stress in Flow
Sachika Akitomo, Takuya Yamakado, Hidetsugu Kitakado, Ryo Kimura, Shohei Saito

Kazuki Nakamura, presiding

- 14:35 1I12 Development of Dual-Functional Elastomers with Mechano-Stress Detection and Self-healing Function Activated by Charge-Transfer Interaction
Yuji Tsuchido, Kanae Aoki, Naruki Ito, Kenta Iitani, Naoya Takeda
- 15:00 1I13 Investigation of mechanoresponsive luminescence behavior of rotaxane mechanophores with different stoppers
Keiko Hiratsuka, Tatsuya Muramatsu, Yoshimitsu Sagara
- 15:25 1I14 Self-standing Films and Supramolecular Gels of Silicones Based on Multiple π -Stacking Structures
Hidetsugu Kitakado, Reo Masuda, Shohei Saito
- Takuya Ohzono, presiding**
- 15:50 1I15 Photo-irradiation Direction Specific Responsive Behavior of Azobenzene / Biphenol Hybrid Poly Phenyl Succinate
Ryoma Amanuma, Ayumi Kobayashi, Kohei Iritani, Takashi Yamashita
- 16:15 1I16 Viscoelasticity control of supramolecular polymer networks combining photo dimerization with homoternary host-guest complex
Shintaro Kawano, Kohei Nakano, Masahiro Muraoka, Motohiro Shizuma
- 16:40 1I17 Induced hybrid liquid crystal phases and photo phase separation by binary liquid crystal polymer blends
Takumi KOKUBO, Tatsunaga NAKAJIMA, Naoki HIDA, yuya ISHIZAKI, Mitsuo HARA, Takahiro SEKI, Shusaku NAGANO
- Shusaku Nagano, presiding**
- 17:05 1I18 Functional Capsule Particles Prepared by Interfacial Photodimerization of Nucleobases
Yukiya Kitayama, Akali Dosaka, Eiji Yuba, Atsushi Harada
- 17:30 1I19 Stabilized liquid crystalline director buckling patterns in nematic elastomers and their dynamic optical effects
Takuya Ohzono, Hiroyuki Minamikawa, Eugene Terentjev
- 17:55 1I20 Dual Sensing of Tensile and Compression Stresses by Composites of Layered Polydiacetylene and Polyurethane
Yuki Mochizuki, Hiroaki Imai, Yuya Oaki

Tue. Sep 6

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Kenji Takada, presiding

- 9:10 2I01 Stimuli-responsive foldamers consist of Donor and Acceptor units and their application to actuators
Taichi Ikeda, Waka Nakanishi
- 9:35 2I02 Synthesis of cationic curdlan and development of a stimuli responsive hydrogel using it.
Masashi Kikuchi, Hajime Terai, Toru Oba, Shingo Tamesue
- 10:00 2I03 Visualization and quantification of weak friction force using composite device of layered polydiacetylene and dry liquid
Nano Shioda, Ryotaro Kobayashi, Seiichiro Katsura, Hiroaki Imai, Syuji Fujii, Yuya Oaki
- 10:25 2I04 Novel Design of Structural Color Based on Alignment Control of Nanosheets
Koki Sano, Yi-Yang Zhan, Yasuhiro Ishida

Koki Sano, presiding

- 10:50 2I05 LCST-type thermo-responsive nylons in water
Akari Sugano, Sorachi Saito, Natsuki Inaba, Keitaro Matsuoka, Kazuki Sada
- 11:15 2I06 Design of LCST-type thermo-responsive polymers by using hydrogen bond
Natsuki Inaba, Miwa Kubota, Keitaro Matsuoka, Kazuki Sada
- 11:40 2I07 Investigation of thermo responsiveness of polymers in mixed fluorinated solvents
Tokiya OHIRA, Miwa KUBOTA, Keitaro MATSUOKA, Kazuki SADA

Shingo Tamesue, presiding

- 12:55 2I08 Syntheses of Bioderived Poly(furan-urea) Gels and Evaluation of Thermo-responsive Properties
Takuya Kumakura, Kenji Takada, Tatsuo Kaneko
- 13:20 2I09 Diblock copolymers showing two-step LCST behavior
Misato Hayashi, Shigeru Yamago, Rintaro Takahashi, Shin-ichi Yusa
- 13:45 2I10 Mechanism of temperature-responsive elastomer actuators
Naoto Yamaguchi, Hidenori Okuzaki
- 14:10 2I11 Thermo responsivity of the orientation and the optical anisotropy of liquid crystal included in Metal-Organic Frameworks
Shizuka Anan, Saki Nakano, Takuya Kurihara, Masaki Yamaguchi, Hirotsugu Kikuchi

Toshinori Fujie, presiding

- 14:35 2I12 Fabrication and Structure Control of Liquid Crystalline Polyurethane Composites
Seiji Ujiie, Taiki Watanabe, Masanori Nata
- 15:00 2I13 pH-responsive behavior of clear liquid marble made of a water droplet covered with hydrophobic silica particles
Ema Onodera, Shin-ichi Yusa, Shuji Fujii, Yoshinobu Nakamura
- 15:25 2I14 Electroactive Soft Actuators Based on Nanosegregated Liquid-Crystalline Electrolytes
Masafumi Yoshio, Che-Hao Wu, Siyu Cao, Chengyang Liu
- 15:50 2I15 Soft Actuation of Auxetic Structure Based on the Liquid Metal and Pneumatic Control
Yukihide Tashiro, Hiroshi Endo

Masafumi Yoshio, presiding

- 16:15 2I16 Stretchable Electrodes Composed of Conductive Ultra-Thin Films for Dielectric Elastomer Actuators
Tatsuhiko Horii, Kei Okada, Toshinori Fujie
- 16:40 2I17 Dissipative self-assembly of stimuli-responsive polymers regulated by catalysis
Takafumi Enomoto, Aya M. Akimoto, Ryo Yoshida
- 17:05 2I18 Room-temperature moltening and viscoelastic properties of regioregular polythiophenes
Akira Shinohara, Takashi Nakanishi

Wed. Sep 7

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Kazuki Murai, presiding

- 9:10 3I01 Polymerization of liquid monomer as polymeric plasticizer for PVC and the property of plasticized molding films
Honoka Iwami, Junji Watanabe
- 9:35 3I02 Surface strain analysis of bending triple-layer polymeric films
Takuya Yamoto, Masayuki Kishino, Ryo Taguchi, Miho Aizawa, Kyohei Hisano, Atsushi Shishido
- 10:00 3I03 Liquid crystalline poly(substituted methylene)s bearing ionic liquid side chains
Masamichi Kiyoura, Ayano Yoshitake, Masatoshi Tokita
- 10:25 3I04 Proton Conductivity of Acrylic Acid-Containing Liquid Crystalline Polymer Thin Films
Yuya Ishizaki, Kazuya Hirata, Yuki Nagao, Takahiro Seki, Shusaku Nagano

Kyohei Hisano, presiding

- 10:50 3I05 Gas Permeability Properties of P(MMA-co-SA) Gels
Koh Yoshida, Jin Gong
- 11:15 3I06 Dynamic analysis of silica formation by mineralization in biomolecular ionic liquids
Hiroka Hayashi, Takayuki Nonoyama, Kazuki Murai
- 11:40 3I07 Stretchable latex films prepared from elastomer microspheres crosslinked with rotaxane
Yuma Sasaki, Takuma Kureha, Haruka Minato, Seina Hiroshige, Kazuya Uenishi, Kazuko Nakazono, Toshikazu Takata, Daisuke Suzuki

Jin Gong, presiding

- 12:55 3I08 Structural characterization of two-dimensional colloidal crystals of microgels at the air/water interface
Takahisa Kawamoto, Tetsuya Noguchi, Kohei Yanagi, Haruka Minato, Daisuke Suzuki
- 13:20 3I09 Preparation of Tough Double Network Ionogels Consisting of Alumina and Poly(ionic liquid)s
Yuna Mizutani, Takaichi Watanabe, Tsutomu Ono

Takamasa Sakai, presiding

- 13:45 3I10 Preparation of Fluorescein-Loaded Polysaccharide Composite Films and Evaluation of Their pH Responsiveness
Takuya Sagawa, Konatsu Takagi, Mineo Hashizume
- 14:10 3I11 Design and functional evaluation of polysaccharide gel materials using nucleic acids
Hono Inoue, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 14:35 3I12 Design and functional evaluation of nanogel-integrated hydrogels as cell scaffolds
Jiarui Song, Yoshihiro Sasaki, Shunya Hayashi, Hiroyuki Harada, Shin-ichi Sawada, Kazunari Akiyoshi

Takuya Sagawa, presiding

- 15:00 3I13 Synthesis of Multiblock Copolymers Composed of β -Sheet Forming Oligophenylalanine and Polyethers and Their Film Properties
Shinnosuke Nishimura, Yutao Zhu, Yukiya Nakahashi, Nobuyuki Higashi, Tomoyuki Koga
- 15:25 3I14 Poly(vinyl alcohol) gel with high toughness similar to Ligament
Junhyuk Kim, Yasuhide Iwanaga, Ungil Chung, Takamasa Sakai

15:50 3I15 Development of self-assembled hydrogel using Transferrin with controllable drug release
Tomoyuki Tachibana, Akihiro Yabuki, JI HA LEE

Room J

Mon. Sep 5

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hisao Matsuno, presiding

- 12:55 1J08 Structure and Properties of Plasma Modified Carbon Nanotubes Reinforced Polyimide Nanocomposites
Seira Morimune-Moriya, Mitsuru Nakamura, Yuki Iwamura, Daisuke Ogawa, Keiji Nakamura
- 13:20 1J09 Plasma treatment of Carbon Nanotubes and Development of Polyurethane Nanocomposites
Hikaru Fukuda, Seira Morimune-Moriya, Daisuke Ogawa, Keiji Nakamura
- 13:45 1J10 Unidirectional alignment control of liquid-crystalline polymer-grafted ZnO nanorods
Kaho Nakano, Daisuke Taguchi, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Atsushi Shishido
- 14:10 1J11 Self-assembly cross-linking behavior of metal-coordinated hydrophilic polymers with metal ions
Naoki Isobe, Inoue Tatsushi, Syusuke Okamoto, Yasuyuki Maki, Takeshi Yamanobe, Daisuke Nagai

Daisuke Ogawa, presiding

- 14:35 1J12 Fabrication of Poly(2,5-benzimidazole)/Carbon Nanotubes Composites for High-thermoreistant and Conductive Plastics
Taichi Nakamura, Jiabei Zhou, Xianzhu Zhong, Kenji Takada, Tatsuo Kaneko
- 15:00 1J13 Improvement of Stability of π -Conjugated Polymer Hybrid Films with Luminophore-integrated POSS
Yusuke Taguchi, Masayuki Gon, Kazuo Tanaka
- 15:25 1J14 Control of Degradation Function for Poly(glycolic acid) in Nanofiber Mats Mixed with a Hyperbranched Polymer
Reiki Eto, Hisao Matsuno, Keiji Tanaka

Kazuaki Matsumura, presiding

- 15:50 1J15 Influence of Addition of Single-Walled Carbon Nanotubes to Polymer-Based Composite Containing Nanocellulose and Polyrotaxane as Organic Nanofillers and Its Orientation Effect
Ko Harada, Pinjung Chu, Atsuhiko Fujimori
- 16:15 1J16 Basic Study on Two Kinds of Oriented Carbon-Based Materials - Polymer Composites Containing Single-Walled Carbon Nanotubes and Carbon Fiber Reinforced Thermoplastic Resin (CFRTP)-
Kai Xu, Atsuhiko Fujimori
- 16:40 1J17 Reduction of noble metal ions by resin and complexation of noble metal and resin
Masamune Tokuda, Toshio Sakai

Toyoko Suzuki, presiding

- 17:05 1J18 Direct surface-modification of titania nanostructures by light-induced polymerization of vinyl monomers
Tomonari Tanaka, Kaito Nishiyama, Hisataka Nishida, Sung Hun Cho, Tohru Sekino
- 17:30 1J19 Development of high-strength poly (vinyl alcohol) fiber with lithium iodide
Yusuke Taoka, Takumitsu Kida, Masayuki Yamaguchi, Kazuaki Matsumura
- 17:55 1J20 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [23]; Effects by Mixed Solvent of Water/Alcohol on Iodine Doping into Polymers. (2)
Akio KAWAGUCHI

Tue. Sep 6

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hideto Minami, presiding

- 9:10 2J01 Fabrication and Evaluation of Artificial Bone Materials Using Biodegradable Polyurethane/Biphasic Ceramics (I) -Influence of polyurethane structure-
Miyu Shiraishi, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 9:35 2J02 Preparation of Clay Nanocomposite Using Cationic Cyclic Compounds
Yuki TAGASHIRA, Takahiro KAKUTA, Tada-aki YAMAGISHI
- 10:00 2J03 Organic-silica Millefeuille structural materials by localization of silica in lamellae of block copolymer with alicyclic epoxy group
Shinya Watanabe, Reiko Saito

Takahiro Kakuta, presiding

- 10:25 2J04 High Performance Bioplastic Composites Using Polymer Emulsions
Hajime Fujimori, Hsu Yu-I, Uyama Hiroshi
- 10:50 2J05 Synthesis and Design of Multi-layered Hydrogel Microspheres
Takumi Watanabe, Satoki Ushida, Chihong Song, Kazuyoshi Murata, Daisuke Suzuki
- 11:15 2J06 Preparation of polyimide/vinyl polymer composite particles
Takeru MICHUURA, Kouki SHIMOGOMI, Mana FUJII, Akiko NAKAHASHI, Hideki TACHI, Toyoko SUZUKI, Hideto MINAMI
- 11:40 2J07 Preparation of polypropylene/polystyrene composite particles by seeded emulsion polymerization
Ryohei Morimoto, Toyoko Suzuki, Hideto Minami

Katsuhiko Maeda, presiding

- 12:55 2J08 Polymer adsorption into metal-organic frameworks and its application to separation technology
Nobuhiko Hosono, Takashi Uemura
- 13:20 2J09 Bio-inspired design of synthetic polymers for selective recognition and recovery of heavy metal ions
Masaki Nakahata, Ai Sumiya, Shinji Sakai, Akihito Hashidzume, Motomu Tanaka
- 13:45 2J10 Asymmetric Suzuki-Miyaura cross coupling reaction catalyzed by helical cyclic chiral polyoxazoline / Pd (II) complexes.

Ryo Itoga, Ren-Hua Jin

Nobuhiko Hosono, presiding

- 14:10 2J11 Synthesis of uniform cyclic oligomers by click chemistry and their interaction
Koki Ishitsuka, Yuri Kamon, Masaki Nakahata, Akihito Hashidzume
- 14:35 2J12 Design of Stimuli-responsive Polymers That Specifically Recognize Denatured Proteins and Their Responsive Behavior
Kanoko Murayama, Ryota Ozaki, Akifumi Kawamura, Takashi Miyata
- 15:00 2J13 Screw-Sense Induction to Amphiphilic Poly(quinoxaline-2,3-diyl)s Bearing Oligo(ethylene glycol) Pendants through Nonbonding Interactions with Chiral Guests in Water
Takuo Tamura, Naoaki Kamiya, Takeshi Yamamoto, Michinori Suginome

Takashi Miyata, presiding

- 15:25 2J14 Synthesis of Helical Poly(diphenylacetylene)s Bearing Optically Inactive Rhodium Complexes in the Pendants and Their Application to Asymmetric Catalysts
Takuro YOSHIMURA, Daisuke HIROSE, Shota SONA, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA
- 15:50 2J15 Fluoride ion-selective fluorescence sensing using poly(diphenylacetylene) derivatives bearing pendant anilide groups
Keisei Nagasawa, Daisuke Hirose, Katsuhiko Maeda
- 16:15 2J16 Chiral Aggregate Formation of Poly(biphenylacetylene) Derivatives and Its Application to Chirality Sensing
Natsumi KURIHARA, Mayu FUKUDA, Daisuke HIROSE, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Eiji YASHIMA, Katsuhiko MAEDA

Takeshi Yamamoto, presiding

- 16:40 2J17 Catalytic One-Handed Helix-Induction and Memory of Biphenylacetylene-Based Copolymers Bearing a Small Amount of Carboxy Groups
Shoki Takeda, Tomoyuki Ikai, Eiji Yashima
- 17:05 2J18 Amplification Sensing of Chiralities by Dynamic Helical Chemosensors
Amane Homma, Gaku Fukuhara

Wed. Sep 7

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Tsuyoshi Minami, presiding

- 9:10 3J01 Particle-containing polymer membrane with high permeability for Direct Air Capture
Takumu Morita, Masafumi Yamato, Hiroyoshi Kawakami
- 9:35 3J02 Structure and Gas Permeation Properties of Highly Concentrated Silica Composite Membrane
Masafumi Yamato, Shiori Higashi, Hiroyoshi Kawakami
- 10:00 3J03 Fabrication of free standing film having normally oriented cylindrical nanostructure through the photocrosslink of CT complex toward water permeable membrane
Sadayuki Asaoka, Sayaka Taie, Tasuku Izutani

Hiroyoshi Kawakami, presiding

10:25 3J04 A Polymer Transistor-based Drug Sensor Functionalized with a Molecularly Imprinted Polymer for Selective Detection of a Tropane Alkaloid
Yui Sasaki, Qi Zhou, Tsuyoshi Minami

10:50 3J05 Nanofiltration property of Poly-(p-xylylene) Thin Films by structural tuning of Amide Side Chains
Mizuki Hayashi, Yu Kitazawa, Mutsumi Kimura

Mutsumi Kimura, presiding

12:55 3J08 Development of metal-like lustrous films of oligo(3-alkoxyselenophene)s
Masatsugu Doi, Katsuyoshi Hoshino, Satoru Tsukada

13:20 3J09 Preparation and Characterization of Blended Films of Water-Soluble 3-Methoxythiophene oligomer and Polyvinyl alcohol
Sota Sugahara, Satoru Tsukada, Katsuyoshi Hoshino

13:45 3J10 Morphology Control of Poly(methyl methacrylate) Particles by Seeded Dispersion Polymerization in the presence of Hydrocarbons
Hayate IKEDA, Fumiya TAKAHASHI, Mana FUJII, Toyoko SUZUKI, Hideto MINAMI

Kohzo Ito, presiding

14:10 3J11 Creation of molecular hydrogel/metal nanowire composite materials for electrochemical active materials
Mayumi Sasaki, Yutaka Ohsedo

14:35 3J12 Creation of molecular gel materials by mixing polymer gelator and poly(vinyl alcohol)
Yutaka Ohsedo, Wakana Ueno

Yutaka Ohsedo, presiding

15:00 3J13 Formation and Dissolution Kinetics of Strain-induced Crystal in Sliding Gels
Sohei Kawahara, Chang Liu, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito

15:25 3J14 Effect of Cross-linked Structure on Local Strain under Uniaxial Tension of Epoxy Resins
Akihiro Hanafusa, Shota Ando, Tetsuharu Yuge, Satoru Ozawa, Ryuichi Hasegawa, Hideaki Yokoyama, Koichi Mayumi, Kohzo Ito

15:50 3J15 Modified Polyimides for Use in Flexible Printed Circuit Boards for High-speed Data Communication
Masatoshi Hasegawa, Atsushi Hori, Takayuki Saito, Tomoaki Hishiki, Junichi Ishii

Akihiro Hanafusa, presiding

16:15 3J16 Toughening phenomenon of ionic comb polymers by counterions
Kento Yasuda, Daisuke Aoki, Koji Arimitsu

16:40 3J17 Syntheses of 4-aminocinnamic acid based bio co-polyamide and preparation of tough fiber and nanomembrane
Yasuyoshi Funahashi, Kenji Takada, Tatsuo Kaneko

17:05 3J18 Enhanced Toughness for Polybenzimidazole Copolymer Thin-films by Forming Hard Craters on Surface
Jiabei Zhou, Aniruddha Nag, Xianzhu Zhong, Kenji Takada, Tatsuo Kaneko

17:30 3J19 Design of biopolybenzazoles exhibiting low dielectric constant and ultrahigh heat resistance
Xianzhu Zhong, Aniruddha Nag, Jiabei Zhou, Kenji Takada, Tatsuo Kaneko

Room K

Mon. Sep 5

S9. Functional Expression of Polymer Gels by Flexible Design

- 12:45 1KSO Introductory Remarks S9
Kosuke Okeyoshi, Aya Akimoto
- Akifumi Kawamura, presiding**
- 12:55 1K08 Separation of hydrogel properties via surface grafting of fluorine-containing polymers
Aya M. Akimoto, Taihei Nishimoto, Takafumi Enomoto, Chia-Hsuan Lin, Jihh-Guang Wu, Shyh-Chyang Luo, Caidric Indaya Gupit, Xiang Li, Ryo Yoshida
- 13:20 1K09 Precision synthesis and film surface properties of hydrophobic core-crosslinked star polymers with multi-branched structure
Hiroki Tanigawa, Shohei Ida, Shokyoku Kanaoka
- 13:45 1K10 Synthesis of pH-responsive hydrogels using water-soluble polyimides
Kenji Takada, Tatsuo Kaneko
- 14:10 1K11 Composite Hydrogels Reinforced by Supramolecular Bonding Incorporated between Cellulose Nanocrystal and Matrix
May Myat Noe, Akihide Sugawara, Hsu Yu-I, Yoshinori Takashima, Akira Harada, Hiroshi Uyama
- Hiroaki Yoshida, presiding**
- 14:35 1K12 Swelling-Induced Mechanochromism in Multi-Network Polymers
Takuma Watabe, Hideyuki Otsuka
- 15:00 1K13 Rational design of the biomacromolecule-fueled transient volume phase transition of hydrogels
Masahiko Nakamoto, Michiya Matsusaki
- 15:25 1K14 Design of Tough Hydrogels Using Entanglement of Polymer Chains and Their Potential Applications
Takashi Miyata, Chika Hajime, Yuino Inamoto, Chisa Norioka, Akifumi Kawamura
- Shohei Ida, presiding**
- 15:50 1K15 Development of high viscous hydrogels based on the reactivity in radical copolymerization and initiator
Tsukuru Masuda, Yui Saegusa, Toshikazu Tsuji, Madoka Takai
- 16:15 1K16 Designing Ultrastretchable Hydrogels Based on Low Hydrophobic Monomer
Hiroaki Yoshida, Takanori Maeno, Ryo Kawatani, Yumi Miyaji, Hiroharu Ajiro
- 16:40 1K17 The Effect of a Combination of Reversible Cross-links with Different Relaxation Times on Toughness of Supramolecular Hydrogels
Subaru Konishi, Junsu Park, Osamu Urakawa, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Tadashi Inoue, Go Matsuba, Yoshinori Takashima
- Kenji Takada, presiding**
- 17:05 1K18 Enzyme-Catalyzed Synthesis of Plant Cell Wall-Inspired Robust Cellulose-based Hydrogels

- Yuta Sakurai, Toshiki Sawada, Takeshi Serizawa
- 17:30 1K19 Design of smart gel particles using interfacial reaction of emulsion
Akifumi Kawamura, Mitsuhide Sasaoka, Kazuki Naruse, Todd Emrick, Takashi Miyata
- 17:55 1K20 Degradation and functionalization of cross-linked MOF by alkylation of metal carboxylate cluster
Motoaki Horii, Masato Yamashita, Hiroki Amaya, Keitaro Matsuoka, Kazuki Sada

Tue. Sep 6

S9. Functional Expression of Polymer Gels by Flexible Design

Takuya Katashima, presiding

- 9:10 2K01 Self-healing gels prepared by complex formation between counter ion of polyanion and sugar
Suzune Miki, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama
- 9:35 2K02 Mechano-responsive hydrogels induced by dissociation of host-guest complex
Akihide Sugawara, Yoshinori Takashima, Akira Harada, Hiroshi Uyama
- 10:00 2K03 Mechanical properties of a gel composed of a slide-ring network and non-volatile solvent
Kei Hashimoto, Toru Shiwaku, Hideaki Yokoyama, Kohzo Ito, Koichi Mayumi

Koichi Mayumi, presiding

- 10:50 2K05 Negative energetic elasticity in polymer gels with various branching network structures
Naoyuki Sakumichi, Yuki Yoshikawa, Genki Otomo, Ryo Ohtsuki, Takamasa Sakai
- 11:15 2K06 Mechanical Properties of Fractal Elastomers Obtained from Critical Gels
Ryo Sakurai, Takuma Aoyama, Kenji Urayama
- 11:40 2K07 Development of hydrogels with predictable and controllable viscoelastic properties using double-strand DNA as a crosslinker
Masashi Ohira, Takuya Katashima, Mitsuru Naito, Daisuke Aoki, Takamasa Sakai, Mitsuhiro Shibayama, Xiang Li

Naoyuki Sakumichi, presiding

- 12:55 2K08 Diverse network structures and their control factors of supramolecular/polymer composite hydrogels
Keisuke Nakamura, Ryou Kubota, Itaru Hamachi
- 13:20 2K09 Effect of Particle Surface Structures on Rheology of Dense Microgel Suspensions
Yuuki Ikeno, Saori Minami, Yuichiro Nishizawa, Haruka Minato, Daisuke Suzuki, Kenji Urayama
- 13:45 2K10 Effect of water contents on functions and structures in supramolecular hydrogels
Junsu Park, Go Watanabe, Yuka Ikemoto, Hiroyasu Yamaguchi, Akira Harada, Oren A. Scherman, Go Matsuba, Masaru Tanaka, Yoshinori Takashima

Tasuku Nakajima, presiding

- 14:10 2K11L Controlling of spatial and temporal structures of polymer gels via bond percolation
Xiang Li
- 15:00 2K13 Interfacial fluctuation in meniscus splitting pattern formation and preparation of polysaccharide-oriented gels
Leijie Wu, Isamu Saito, Kenta Hongo, Kosuke Okeyoshi
- 15:25 2K14 Development of an autonomous swelling/shrinking polymer based on host-guest interaction of cyclodextrin
Yuuki Sugawara, Toshiyuki Hirose, Susumu Kawauchi, Takeo Yamaguchi
- Xiang Li, presiding**
- 15:50 2K15 Hydrogel electrodes with the conductive wrinkle surface
Koki Tsujita, Akihide Sugawara, Yu-I Hsu, Hiroshi Uyama
- 16:15 2K16 Compressible Nanocomposite Hydrogel Microspheres that Form Stable Gelfoams
Takumi Watanabe, Yuichiro Nishizawa, Haruka Minato, Chihong Song, Kazuyoshi Murata, Daisuke Suzuki
- 16:40 2K17 Fabrication of anisotropic self-oscillating gels by spatial patterning of Ru(bpy)₃ modification sites in the gels
Won Seok Lee, Takafumi Enomoto, Mizutani Aya Akimoto, Ryo Yoshida
- 17:05 2K18 Mechanical and Self-Healing Properties of Ion Gels Based on Entanglement of Ultra-High Molecular Weight Polymers.
Yuji Kamiyama, Ryota Tamate, Kenta Fujii, Takechi Ueki

Wed. Sep 7

S9. Functional Expression of Polymer Gels by Flexible Design

Yuuki Sugawara, presiding

- 9:10 3K01 Preparation of pH-responsive composites hydrogel of bacterial cellulose and chitosan with three-dimensional stability.
Horathal Pedige Madhurangika, Hsu Yu-I, Akihide Sugawara, Uyama Hiroshi
- 9:35 3K02 Unique mechanical phenomena of the hydrophobic-hydrophilic hybrid DN gels
Tasuku Nakajima, Shotaro Namiki, Zheng Yong, Jian Ping Gong
- 10:00 3K03 Ion transport and device properties of organic electrochemical transistors
Shunsuke Yamamoto

Yoshinori Takashima, presiding

- 10:25 3K04 Development of deformation-retaining structure with embedded shape memory gel
Hibiki Aoyama, Jun Ogawa, Yosuke Watanabe, MD Nahin Islam Shiblee, Masaru Kawakami, Hidemitsu Furukawa
- 10:50 3K05 Fabrication of Progressive Cavity Pumps with Polymer Gel Stators
Daisuke Sato, Yosuke Watanabe, Jun Ogawa, MD Nahin Islam Shiblee, Masaru Kawakami, Hidemitsu Furukawa
- 11:15 3K06 Development of protein-imprinted hydrogels
Takuya Kubo, Chenchen Liu, Yanawut Manmana, Koji Otsuka
- 11:40 3K07 Development of Visible Light-responsive Methoxyazobenzene-containing Hydrogel Scaffold

Yuna Osaka, Kenta Homma, Shota Yamamoto, Ryota Tamate, Aya Saruwatari, Hongzin Wang, Takeshi Ueki, Masao Kamimura, Jun Nakanishi

Shunsuke Yamamoto, presiding

- 12:55 3K08 Negative energy elasticity in polymer gels with heterogeneous network
Ryosuke Yamashita, Yuki Yoshikawa, Takeshi Fujiyabu, Tsukuru Masuda, Naoyuki Sakumichi, Yuichi Tei, Madoka Takai, Takamasa Sakai
- 13:20 3K09 Development of 4D Printing Applying Hierarchical Structure with 3D Gel Printer
Masanari Kameoka, MD Nahin Islam Shiblee, Yousuke Watanabe, Masaru Kawakami, Jun Ogawa, Hidemitsu Furukawa

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Kenji Miyatake, presiding

- 14:35 3K12 Gel-polymer lithium-ion batteries with sulfolane-based Li salt molten solvate electrolyte
Mari Kojitsu, Ryo Motoyoshi, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno
- 15:00 3K13 Characteristics of conductive gel electrodes composed of a liquid metal GaIn and ionic liquids
Moeka Kanto, Natsuka Usami, Juri Asada, Yuki Ota, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno
- 15:25 3K14 Charge carrier dynamics in all-polymer solar cells based on crystalline donor polymers
Jihun Jeon, Hyung Do Kim, Hideo Ohkita
- 15:50 3K15 Singlet Exciton Dynamics in Fused-Ring π -Conjugated Molecules with Dithienonaphthobisthiadiazole Unit
Yuki Sato, Takumi Ishikawa, Shota Suruga, Tsubasa Mikie, Itaru Osaka, Hyung Do Kim, Hideo Ohkita

Hisashi Kokubo, presiding

- 16:15 3K16 Synthesis and Evaluation of Anhydrous Proton Conductive Polymers Having Phosphonium Groups
Natsuki Otake, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 16:40 3K17 Polymer Network Formation of Tetra-arm Poly(ethylene glycol) via a Metal-ion Complexation and Its Application to Lithium-ion Battery Gel Electrolytes
Koyuki Fujita, Kenta Fujii
- 17:05 3K18 Synthesis and properties of anion conductive polymer membranes containing bulky groups
Masako Tanabe, Kenji Miyatake
- 17:30 3K19 Aromatic proton-conducting membranes: Effect of bulky groups
Yiyang Zou, Miyatake Kenji

Room L

Mon. Sep 5

S6. Polymer Materials and Technologies for Contributing to Future Energy Systems

- 12:45 1LSO Introductory Remarks S6
Tsuyohiko Fujigaya, Koichiro Kato
Shinji Kanehashi, presiding
- 12:55 1L08IL Development of polymer materials realizes "decarbonization"
Hiroyoshi Kawakami
Tsuyohiko Fujigaya, presiding
- 13:45 1L10 CO2 capture by amine-containing polymeric membranes: Applicability of hollow fiber membrane modules to CO2 emission sources
Ikuo Taniguchi
- 14:10 1L11 Photocatalytic CO2 reduction by rhenium complexes accumulated in the membrane having normally oriented one-dimensional cylindrical nanochannels
Sadayuki Asaoka, Kiko Shiokawa, Maki Komoda, Keita Nakao, Yoshiaki Tanio
- 14:35 1L12 CO2 capture by Mixed Matrix Membrane
Shinji Kanehashi, Sandra Kentish, Colin Scholes
- 15:00 1L13 Analysis of gas adsorption and diffusion processes in interfacial systems composed of a polymer of intrinsic microporosity and amorphous silica using molecular simulation techniques
Yuta Yoshimoto, Yuiko Tomita, Kohei Sato, Shiori Higashi, Masafumi Yamato, Shu Takagi, Hiroyoshi Kawakami, Ikuya Kinefuchi
Ikuo Taniguchi, presiding
- 15:25 1L14 Effect of polymer coating on carbon supporting materials for catalyst durability
Dan Wu, Samindi Madhubha Jayawickrama, Naoki Tanaka, Tsuyohiko Fujigaya
- 15:50 1L15 Quantum beam analysis for fuel cells: Focusing on the nanostructure of catalyst inks
Wataru Yoshimune, Masashi Harada
- 16:15 1L16 Development of Radical Quenchers for Polymer Electrolyte Fuel Cells (II) - Evaluation of Radical Quench Ability
Naoto Oniki, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
Masahiro Fujita, presiding
- 16:40 1L17 Chemical degradation mechanism of Nafion membrane under hydrogen peroxide exposure tests
Makoto Yamaguchi, Yuko Matsuda, Kiyoshi Inokuma, Mizuki Ozawa, Seiichi Kuroda, Takeshi Terao
- 17:05 1L18 Selective separation of Co, Mn, and Ni for recycling of used lithium-ion secondary batteries
Koki Kawabata, Masanori Hisano, Yuki Anma, Yoshikiyo Hatakeyama, Hironori Hondoh, Shusuke Okamoto, Daisuke Nagai
- 17:30 1L19 Relationship between the side-chain density and thermoelectric properties of polythiophenes
Miki Morimoto, Keiichi Imato, Yousuke Ooyama, Ichiro Imae
- 17:55 1L20 Carrier doping of single-walled carbon nanotubes with boron compounds and the thermoelectric properties
Naoki Tanaka, Aoi Hamasuna, Tsuyohiko Fujigaya

Tue. Sep 6

S6. Polymer Materials and Technologies for Contributing to Future Energy Systems

Noriyoshi Matsumi, presiding

- 9:10 2L01 Toray Initiatives for the Realization of a Hydrogen Society
Daisuke Izuhara
- 9:35 2L02 Design and synthesis of polyfluorene-based anion exchange membrane for the application to solid alkaline water electrolysis
Shoji Miyanishi, Takeo Yamaguchi
- 10:00 2L03 Synthesis and Design of Amorphous Conjugated polymer networks consisting of Furan Derivatives for High Performance Electrocatalyst of Hydrogen Evolution Reaction
Wakana Hamada, Hiroaki Imai, Yuya Oaki

Shoji Miyanishi, presiding

- 10:25 2L04 Hydration and Anion Conductive Properties of Fluorene-Thiophene-Based Anion Exchange Thin Films
Fangfang Wang, Yuki Nagao, Shusaku Nagano, Mitsuo Hara
- 10:50 2L05 Similarities and Differences between Proton Conduction and Anion Conduction in Polyelectrolyte Thin Films
Yuki Nagao, Fangfang Wang
- 11:15 2L06 Anionic Conductivity Driven by Molecular Assembly and Positive Charge Delocalization of π -Plane Cations with Long Alkyl Chain
Yuki Motoishi, Naoki Tanaka, Tsuyohiko Fujigaya
- 11:40 2L07 Structural features of graft-type polymer electrolyte membranes and the relation with required properties
Yasunari Maekawa

Yuki Nagao, presiding

- 12:55 2L08 Sulfonated polyphenylenes containing trifluoromethyl groups as highly conductive and durable PEMs for fuel cells
Fanghua Liu, Icksoo Kim, Kenji Miyatake
- 13:20 2L09 Two Tandemly Linked Sulfophenylene Groups Improve Durability of Aromatic Ionomer Membranes in Fuel Cell Applications
Lin Guo, Kenji Miyatake

Kenji Miyatake, presiding

- 13:45 2L10 Analysis and consideration of fast proton conduction mechanism in gyroid structural membrane
Takahiro Ichikawa
- 14:10 2L11 Improvement of fuel cell performance by high gas permeable ionomer
Masamichi Nishihara, Yasir Hutapea, Zulfi Gautama, Stephen Lyth, Akari Hayashi, Kazunari Sasaki
- 14:35 2L12 High proton mobility in the 2D nanochannel of interlayer of polymer lamellar film.
Jun Matsui, Minami Inoue, Hinako Ebe, Makoto Gemmei, Shusaku Nagano, Masaya Mitsuishi

Masamichi Nishihara, presiding

- 15:00 2L13 Development of Composite Polymer Electrolyte Membranes Containing Nanofibers Working in Wide Temperature Range towards Next Generation Fuel Cell
Toyotaka Nakae, Kazuto Suzuki, Yasutaka Kuwahara, Manabu Tanaka, Hiroyoshi Kawakami

- 15:25 2L14 Proton Conductive Polymer Electrolyte Membrane for PEFC Based on Functionalized Nanocrystals
Akito Masuhara, Toshihiko Arita, Tomohiro Nohara, Keisuke Tabata
- 15:50 2L15 Polymer electrolyte membrane for HT-PEFC based on polymeric ionic liquid-coated nanoparticles by polymerization with particles method
Keisuke Tabata, Haruki Nakazaki, Tsutomu Makino, Toshihiko Arita, Akito Masuhara
- Kan Hatakeyama, presiding**
- 16:15 2L16 Toward the Application of Materials Informatics to Electrolyte Membranes for Fuel Cells
Koichiro Kato, Yukito Higashi, Yin Kan Phua, Tsuyohiko Fujigaya
- 16:40 2L17 Feature extraction from phase-separation structure of proton exchange membranes by simulation and data science methods
Yukito Higashi, Tsuyohiko Fujigaya, Koichiro Kato
- 17:05 2L18 Explainable Machine Learning Model for Predicting Anion Conductivity of Anion Exchange Membrane (AEM) Used in AEM Fuel Cells
Yin Kan Phua, Tsuyohiko Fujigaya, Koichiro Kato

Wed. Sep 7

S6. Polymer Materials and Technologies for Contributing to Future Energy Systems

Koichiro Kato, presiding

- 9:10 3L01 High Density Organic Batteries Based on Electron Transfer Process of Organic and Inorganic Electrode-Active Materials
Kenichi Oyaizu, Kan Hatakeyama-Sato
- 9:35 3L02 Exploration of glassy lithium-ion conducting polymers using process informatics
Kan Hatakeyama, Hiroki Adachi, Kenichi Oyaizu
- 10:00 3L03 Exploration of high-performance organic cathodes of lithium-ion battery with an assistance of performance prediction models
Kosuke Sakano, Yasuhiko Igarashi, Hiroaki Imai, Shuntaro Miyakawa, Takaya Saito, Yoshiki Takayanagi, Koji Nishiyama, Yuya Oaki

Kenichi Oyaizu, presiding

- 10:25 3L04 Design of highly durable anodic material for LIB via carbon/silicon oxycarbide coating on microsilicon
Nandan Ravi, Noriyuki Takamori, Koichi Higashimine, Badam Rajashekar, Noriyoshi Matsumi
- 10:50 3L05 Pyrolysis temperature dependency on fast charge-discharge capability of PBI based Li ion secondary batteries
Kottisa Sumala Patnaik, Badam Rajashekar, Tatsuo Kaneko, Noriyoshi Matsumi
- 11:15 3L06 BIAN-Bismarck brown-based imine and azo functionalized polymer as anodic active material in Li-ion secondary batteries
Bharat Srimitra Mantripragada, Badam Rajashekar, Noriyoshi Matsumi
- 11:40 3L07 Stabilization of Si Based Anode in LIB through Multi Functionalization of Polymer Binders
Noriyoshi Matsumi, Agman Gupta, Badam Rajashekar

Manabu Tanaka, presiding

- 12:55 3L08 3D printable ionic liquid gel for capacitor

- Tatsuya Kobayashi,Yosuke Watanabe,Masaru Kawakami,Jun Ogawa,MD Nahin Islam Shiblee,Hidemitsu Furukawa
- 13:20 3L09 Preparation and Characterization of Solid Electrolytes Using Ionic Plastic Crystals and Ion Conductive Polymers (II) -Analysis of Ion Conduction Mechanism-
Shuho Akakabe,Yuko Takeoka,Masahiro Rikukawa,Masahiro Fujita
- 13:45 3L10 Unusual dissolution of PEG-chains in highly concentrated LiFSA/ionic liquid electrolytes: Application to Li-ion battery gel electrolytes
Namie Ikeda,Kenta Fujii
- Masahiro Fujita, presiding**
- 14:10 3L11 Development of polymer nanofiber-based composite electrolyte membranes and evaluation of the lithium ion conduction mechanism in the composite membranes
Manabu Tanaka,Nohara Yokota,Kenta Sando,Ryodai Fujihashi,Hiroyoshi Kawakami
- 14:35 3L12 Ion transport of weakly coordinating polyanions in nonaqueous solvents and their application in secondary batteries
Shinji Kondou,Yusuke Sakashita,Xiaoxiao Yang,Kei Hashimoto,Kaoru Dokko,Masayoshi Watanabe,Kazuhide Ueno

Room M

Mon. Sep 5

S7. Photonics Polymer for Comfortable Life

- 12:45 1MSO Introductory Remarks S7
Yoshihiro Uozu,Norihisa Tanio
- Yoshihiro Uozu, presiding**
- 12:55 1M08IL Photoalignable liquid crystalline polymers and their application to birefringent optical devices
Nobuhiro Kawatsuki,Hiroshi Ono
- Norihisa Tanio, presiding**
- 13:45 1M10 Reduction of birefringence and molecular motion in miscible blends of dissimilar polycarbonates
Koudai Takamatsu,Hiromu Saito
- 14:10 1M11 Improvement of Color Mura of Displays by Using Triple-Zero-Birefringence Polymer
Shizuki Sasaki,Yasuhiro Koike
- 14:35 1M12 Microphase-separated structure of ABC triblock terpolymers and application of optical materials
Atsushi Takano,Ayane Kitahara,Yushu Matsushita
- Kazuo Tanaka, presiding**
- 15:00 1M13 Development of Thiourea-Containing Ultrahigh-refractive-index Polymers Bearing Multiple Hydrogen Bonds
Seigo Watanabe,Kenichi Oyaizu
- 15:25 1M14 High heat resistance and low CTE polyimide film XENOMAX and application to flexible display substrate

- Satoshi Maeda
- 15:50 1M15 Photoproduction of reversible surface relief on colorless transparent materials
Takashi Ubukata, Kota Ninomiya, Yuya Miyoshi, Yuku Nakagawa, Shu Aoki, Yuki Shimada, Kota Marumoto, Sachiko Imura, Taishi Sonoda, Megumi Nakayama
- Takashi Ubukata, presiding**
- 16:15 1M16 Multi-functionality of the moth-eye surface
Yoshihiro UOZU
- 16:40 1M17 Recent Progress of High Speed Polymer Optical Modulator Toward B5G
Shiyoshi Yokoyama
- 17:05 1M18 Optical Interconnection Using Near-Infrared Light-Induced Self-Written Optical Waveguide
Hidetaka Terasawa, Tsuyoshi Namekawa, Keisuke Kondo, Okihito Sugihara
- Ryohei Ishige, presiding**
- 17:30 1M19 A novel error-free plastic optical fiber for stable high-speed data transmission
Kenta Muramoto, Yasuhiro Koike
- 17:55 1M20 Heterogeneous structural analysis and transparency evaluation of transparent polymers for optical communication
Takahiro Hiraide, Daiki Tenma, Kento Okoshi, Norihisa Tanio

Tue. Sep 6

S7. Photonics Polymer for Comfortable Life

- Shinji Ando, presiding**
- 9:10 2M01 Fabrication of nanostructured polymer particles and application for surface and optics
Hiroshi Yabu
- 9:35 2M02 Development of near-infrared emissive materials based on bathochromic shifts in luminescent element-blocks by aza-substitution
Kazuo Tanaka, Shunichiro Ito
- 10:00 2M03 Optical sensing based on dye-doped liquid crystals
Atsushi Shishido
- Hiroshi Yabu, presiding**
- 10:25 2M04 Visualization of Three-Dimensional Strain in Chiral-Nematic Liquid Crystal Particle Dispersion Films
Naoya Fukui, Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi
- 10:50 2M05 Change in Molecular Orientation in Liquid Crystal Elastomers with Auxetic Structure
Yudai Fuwa, Kyohei Hisano, Osamu Tsutsumi
- 11:15 2M06 Elongation properties of transparent and highly tough hemocompatible elastomers that mimic the cornea
Daiki Miyake, Fumio Asai, Mitsuo Hara, Xiaobin Liang, Ken Nakajima, Masaru Tanaka, Takahiro Seki, Yukikazu Takeoka
- 11:40 2M07 Polymer materials showing photon upconversion
Nobuhiro Yanai

Atsushi Shishido, presiding

- 12:55 2M08 Optical properties of plant-derived transparent film
Norihisa Tanio, Daiki Anbe, Sion Oba
- 13:20 2M09 Optical, Dielectric, and Thermal Properties of Novel Polyimides
Containing Plant-Derived Isohexide Skeletons in the Main Chain.
Ririka Sawada, Mitsutaka Ozaki, Kazuhisa Yajima, Ryohei Ishige, Shinji
Ando

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Shunsuke Yamamoto, presiding

- 14:10 2M11 Electrochemical Properties and Electrochromism of Self-doped PEDOT
Yudai Fukuzawa, Hirokazu Yano, Hidenori Okuzaki
- 14:35 2M12 Synthesis and charge transport property of narrow-bandgap
semiconducting polymers based on a quinoid π -extended fused ring
Yuka Iwasaki, Tsubasa Mikie, Itaru Osaka
- 15:00 2M13 DNA Sensing Using Phosphonium Polythiophene (I) -Effect of
Polymerization Degree of Polymer and Base of DNA -
Haruna Sakai, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

Yuji Shibasaki, presiding

- 15:25 2M14 Hemoglobin-polyaniline composite and electrochemical transistors
Mai Ichikawa, Kyoka Komaba, Reiji Kumai, Hiromasa Goto
- 15:50 2M15 Dielectric Behavior of Polyglutamate with Different Side-chain and its
Effects on the OTFT Memory Properties
Yuta Nishinaka, Taiki Nobeshima, Kazuki Nakamura, Sei
Uemura, Norihisa Kobayashi
- 16:15 2M16 Device Properties of Temperature Responsive Organic Electrochemical
Transistors
Shuhei Kindaichi, Shunsuke Yamamoto, Masaya Mitsuishi
- 16:40 2M17 Electrochemical Synthesis of Soluble Self-doped poly(3,4-
ethylenedioxythiophene) and Application to Biosensors
Yuxin Jing, Fumika Miyai, Hirokazu Yano, Hidenori Okuzaki

Wed. Sep 7

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yoshihiro Sasaki, presiding

- 9:10 3M01 Construction and Control of Coassembled Structures Composed of
Perylene Bisimide Derivatives and Perovskite Nanocrystals
Naoki Kubo, Mitsuaki Yamauchi, Sadahiro Masuo
- 9:35 3M02 Porous Organic Salts Composed of Square Tetrasulfonic Acids and
Bulky Amines
Kohei Okubo, Kouki Oka, Norimitsu Tohnai
- 10:00 3M03 Development of Photo-Responsive Gels with Controllable Drug Release
Wataru Kanda, Ji Ha Lee, Akihiro Yabuki
- 10:25 3M04 Emulsion polymerization on the surface of single-walled carbon
nanotubes for real-time vascular imaging
Yukiko Nagai, Tsuyohiko Fujigaya

Tomohiro Shiraki, presiding

- 10:50 3M05 Properties and bioapplications of hydrophobized alginate nanogels
Kaori Moriwaki, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 11:15 3M06 Cancer vaccine using hydrophobized polysaccharide nanogels:
Functional evaluation of specific delivery to macrophage
Tatsuhiko Okuda, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 11:40 3M07 Orthogonal Lamination of Uniaxially-Aligned Mesoporous Silica Films
and Evaluation of Their Mesopore Surface Properties
Rin Nakajima, Daichi Noda, Yadong Chai, Mari Miyata, Motohiro Tagaya

Norimitsu Tohnai, presiding

- 12:55 3M08 Synthesis and adhesiveness of catechol modified pseudo-polyrotaxane
nanosheets
Junshin Takeda, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 13:20 3M09 Fabrication of Functionalized Pseudo-polyrotaxane Nanosheets by Click
Reaction
Minaka Sugano, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 13:45 3M10 Encapsulation of pentacene in boron nitride nanotubes and their
optical properties
Hayato Saeki, Rioe Saito, Tsuyohiko Fujigaya, Tomohiro Shiraki
- 14:10 3M11 Optical properties of chemically modified boron nitride nanotubes
Rioe Saito, Hayato Saeki, Naoki Tanaka, Tsuyohiko Fujigaya, Tomohiro
Shiraki

Shin-ichi Yusa, presiding

- 14:35 3M12 Design and Growth Mechanism of One-Dimensional Molecular
Assemblies Based on self-assembly Amphiphilic Graft Copolymers
Yusuke Sakamoto, Tomoki Nishimura
- 15:00 3M13 Adsorption Races of Binary Microgels with Different Softness at
Air/Water Interface
Haruka Minato, Yuma Sasaki, Kenshiro Honda, Takumi
Watanabe, Daisuke Suzuki
- 15:25 3M14 Photoinduced Chemical Patterning of Graphene Oxide
Chikaho Un-no, Sumire Abe, Kazuki Umezaki, Kazusa Hara, Koushin
Funaki, Masahito Sano
- 15:50 3M15 Study on polymer-free electrospinning with acylated oligosaccharide
Naoto Hirano, Yoshida Hiroaki, Hiroharu Ajiro

Masahito Sano, presiding

- 16:15 3M16 Polyion complex aggregates with sugar-polymer shells
Tomoki Ando, Shin-ichi Yusa, Rintaro Takahashi
- 16:40 3M17 Biocompatible micelles using anionic polysaccharide
Kazushi Ogata, Mineo Hashizume, Rintaro Takahashi, Shin-ichi Yusa
- 17:05 3M18 Complex formation of copolymer containing pendant pH-responsive
lysine groups with copper
Kengo Takagi, Chun-Jen Huang, Rintaro Takahashi, Shin-ichi Yusa

Room N

Mon. Sep 5

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Seigou Kawaguchi, presiding

- 12:55 1N08 DNA Patterning Utilizing Mixed Monolayer Template by Phase Separation Between Hydrocarbons and Fluorocarbons and Evaluation of Second-order Structural Maintenance Ability
Momo Maeda, Yoshiki Shioda, Atsuhiko Fujimori
- 13:20 1N09 Immobilization of Trypsin from Subphase to the Langmuir Monolayer of Fluorocarbon-Modified Single-Walled Carbon Nanotube and Its Activity Maintenance
Yuna Yamada, Kei Obuchi, Atsuhiko Fujimori
- 13:45 1N10 Solid-State Structure, Phase Transition, and Shape-Memory Properties of Network Copolymers with Hyperbranched Units Containing s-Benzenetricarbamide Cores
Yuto Otsuki, Junto Yamaguchi, Yuji Shibasaki, Atsuhiko Fujimori

Atsuhiko Fujimori, presiding

- 14:10 1N11 Preparation and functional characterization of a surgical sealant based on catechol group-modified Alaska pollock gelatin
Kazuhiro Nagasaka, Shiharu Watanabe, Shima Ito, Akihiro Nishiguchi, Hidenori Otsuka, Tetsushi Taguchi
- 14:35 1N12 Control of Marangoni Propulsion of Liquid Metal-Containing Elastomer Films by Near-Infrared Irradiation
Hizuma Takahashi, Minami Taya, Hiroshi Endo
- 15:00 1N13 Adhesion Interphase Formed in Bonding of Polypropylene and Aluminum Determined by Localized Thermomechanical Analysis
Shin Horiuchi, Takeshi Hanada, Yuri Shigemoto

Hideaki Yokoyama, presiding

- 15:25 1N14 Aggregation States and Biodegradation Property of Poly(ϵ -caprolactone) in Thin Films
Michinari Toyonaga, Taizou Kabe, Hisao Matsuno, Keiji Tanaka
- 15:50 1N15 Infinite dilution of surface initiators using a sol-gel method and changes in graft density of the resulting polymer brushes: Determination of the lower limit of surface initiator concentration required for "Paint-on" SI-ATRP
Tomoya Sato, Satoshi Nakamura, Chihiro Urata, Atsushi Hozumi
- 16:15 1N16 Photoswitchable polymer adhesives using polarity changes of photochromic molecules
Keiichi Imato, Koki Momota, Ichiro Imae, Yousuke Ooyama
- 16:40 1N17 Investigation of near-infrared absorbing materials nano-encapsulation
Takumi Kudo, Naohiro Kobayashi, Kazushi Enomoto, Moriya Kikuchi, Atsushi Igari, Takeshi Chonan, Seigou Kawaguchi

Hisao Matsuno, presiding

- 17:05 1N18 Development of anti-virus copper plating PP non-woven fabric
Yu-I Hsu, Hiroshi Uyama, Kunihiro Kaihatsu
- 17:30 1N19 Adhesion to untreated polyolefins by needle-like polyolefin crystals
Yoshihiko Shiraki, Kohzo Ito, Hideaki Yokoyama
- 17:55 1N20 Formation mechanism of needle-like polyolefin crystals at adhesion interface
Yoshihiko Shiraki, Masayuki Saito, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama

Tue. Sep 6

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yousuke Ooyama, presiding

- 9:10 2N01 Hydrophilization of hydrophobic surfaces by adsorption of amphiphilic polymers
Yuji Sakaihara, Mari Furuichi, Koji Oosaki, Takuji Kume, Takahiro Sato
- 9:35 2N02 Competitive two-layer adsorption of two random copolymers forming polyion complex
Mari Furuichi, Yuji Sakaihara, Ippei Furikado, Koji Oosaki, Takuji Kume, Takahiro Sato
- 10:00 2N03 Prevention of icing at the polymer brush interface and its understanding
Ken Tamamoto, Yuji Kinose, Ken Nakano, Yoshinobu Tsujii
- 10:25 2N04 Anchoring Property of Structure-Controlled Thin Film of Brush-like Polymer
Yoshiro Takamura, Yuji Kinose, Yoshinobu Tsujii

S8. Design and Functionalization of Light Conversion Materials

- 11:30 2NSO Introductory Remarks S8
Yuko Takeoka, Keisuke Tajima

Yuko Takeoka, presiding

- 11:40 2N07 Facile Procedures for Photoresponsive Polymer Interfaces and Dynamic Functions
Takahiro Seki

Yong-Jin Pu, presiding

- 12:55 2N08 Generation Mechanism of Peculiar Prolonged Irradiation-induced Delayed Luminescence of Imide Compounds Dispersed in Polymer Matrices
Marina Doi, Ryohei Ishige, Shinji Ando
- 13:20 2N09 Spectral Conversion and Chemical Sensor Properties of Multi-color Fluorescent Polyimides with ESIPT Ability
Atsuko Tabuchi, Teruaki Hayakawa, Shigeaki Kuwata, Ryohei Ishige, Shinji Ando
- 13:45 2N10 Development of photometamorphic functions based on the reversible phototransformation of polymer topologies
Satoshi Honda

Sadahiro Masuo, presiding

- 14:10 2N11 Development and Applications of Supramolecular Assemblies with Light Energy Conversion Function
Hajime Shigemitsu, Toshiyuki Kida
- 14:35 2N12 The chemical composition and size control of perovskite nanocrystal for light emitting device application
Takayuki Chiba, Hinako Ebe, Junji Kido
- 15:00 2N13 Controlled Self-Assembly Pattern of Colloidal Quantum Dots and their Photophysical Properties
Yong-Jin Pu

- 15:25 2N14 Spectroscopic properties of ionic nanosphere having strongly-fluorescent moieties and excited-state energy transfer with ruthenium(II) complexes
Taizo Misato, Akitaka Ito
- Takayuki Chiba, presiding**
- 15:50 2N15 Energy transfer in a single CdSe quantum dot with perylene bisimide as acceptor
Miyu Yoshioka, Mitsuaki Yamauchi, Sadahiro Masuo
- 16:15 2N16 Single-photon emission of single perovskite nanocrystals depending on the size
Sadahiro Masuo
- 16:40 2N17 Construction of Quantum Dot Arrangement Structures with Supramolecular Templates
Mitsuaki Yamauchi, Kanako Nakatsukasa, Sadahiro Masuo
- 17:05 2N18 Visible-light-driven water splitting using metal-complex/oxide-nanosheet hybrids
Kazuhiko Maeda

Wed. Sep 7

S8. Design and Functionalization of Light Conversion Materials

Atsushi Shishido, presiding

- 9:10 3N01 Bulk photovoltaic effect in ferroelectric liquid crystals bearing extended pi-conjugated units
Masahiro Funahashi, Yuji Matoba
- 9:35 3N02 Development of Electrochromic Dimming Glass with Metallo-Supramolecular Polymers
Masayoshi Higuchi
- 10:00 3N03 Photoswitchable microlaser resonator array and optical logic gate
Yohei Yamamoto

Masahiro Funahashi, presiding

- 10:25 3N04 Direct fabrication of functional polymer films by structured light
Atsushi Shishido
- 10:50 3N05 Photomechanical Rolling Motions of Azobenzene-based Molecular Glasses
Hajime Nigorikawa, Hideyuki Nakano
- 11:15 3N06 Stimulated luminescence from stable charge separated states
Ryota Kabe
- 11:40 3N07 Stereoisomeric Effects of Alkyl Chains on the Emission Properties of Fluidic BODIPYs
Masashi Yamaguchi, Sono Sasaki, Mitsuhiko Morisue

Yuko Takeoka, presiding

- 12:55 3N08 Development of Naphthalene-diimide-based n-Type Semiconducting Polymers with Precisely-designed Thioether-based Stress Relaxation Units
Megumi Matsuda, Lin Chia-Yu, Lin Yan-Cheng, Chen Wen-Chang, Tomoya Higashihara
- 13:20 3N09 One-step synthesis of photofunctional π -conjugated molecules and their immobilization on heterogeneous interfaces

Atsuro TAKAI

- 13:45 3N10 Synthesis of side-chain liquid crystalline polymer thin films via RAFT photopolymerization initiating from free surface
Daisuke Furuta, Mitsuo Hara, Takahiro Seki

Mitsuo Hara, presiding

- 14:10 3N11 Effect of adding a base amplifier releasing aminopyridine to an anionic UV curing system of epoxy resins
Nanami Ogawa, Daisuke Aoki, Koji Arimitsu
- 14:35 3N12 Anionic UV curing properties of thiol-epoxy systems containing a photobase generator at room temperature
Nanae Tanaka, Yuya Tanaka, Daisuke Aoki, Koji Arimitsu
- 15:00 3N13 UV curing of shadow parts at room temperature by photoinduced redox-initiated radical polymerization using a photobase generator
Ataru Daimon, Kazuki Uetake, Shinji Kawada, Yudai Ogata, Daisuke Aoki, Koji Arimitsu

Keisuke Tajima, presiding

- 15:25 3N14 Abrupt vapor release from porous molecular crystal with visible light
Kentaro Maejima, Hiroshi Yamagishi, Ken Albrecht, Youhei Takeda, Yohei Yamamoto
- 15:50 3N15 Precision Polymerization of Photo-Transformable Vinyl Ethers: Light-Induced Pendant Deprotection and Backbone Degradation
Hiroyuki Kubota, Makoto Ouchi
- 16:15 3N16 Development of nanoparticle photocatalyst based on crystalline semiconducting polymers
Tsubasa Mikie, Chiyu Fujita, Itaru Osaka
- 16:40 3N17 Development of multi-color bioluminescent devices using DNA as a linker
Fumiaki Takano, Yuki Minamide, Tomoya Niki, Shiori Tabana, Akinori Kuzuya

Room O

Mon. Sep 5

S12. Challenges in Organic Optoelectronics

- 12:45 1OSO Introductory Remarks S12
Itaru Osaka, Hideo Ohkita

Hajime Nakanotani, presiding

- 12:55 1O08 Precise molecular design based on quantum chemical calculation and charge transport analysis by multiscale simulation
Hironori Kaji
- 13:20 1O09 Development of organic luminescent materials featuring fast spin conversion
Takuma Yasuda
- 13:45 1O10 Development of a series of asymmetric spirobiacridine-based TADF emitters realizing high-efficiency OLEDs and their molecular orientations in various host materials

- Hiroki Arai, Naoto Yoshida, Kengo Kumada, Hisahiro Sasabe, Junji Kido
- 14:10 1011 Organic Light-Emitting Devices Fabricated on Uneven Aluminum-Foil Electrodes
Satoru Ohisa, Taku Oono, Masashi Miyakawa, Takahisa Shimizu, Toshimitsu Tsuzuki

Takuma Yasuda, presiding

- 14:35 1012 Multifunctional hole-transporters for high-efficiency and long lifetime OLEDs
Hisahiro SASABE
- 15:00 1013 Spontaneous exciton dissociation in organic solid-state
Hajime Nakanotani
- 15:25 1014 Photon upconversion through triplet formation at organic semiconductor interface
Seiichiro Izawa
- 15:50 1015 Near-Infrared-Emissive Amorphous Porphyrin Arrays Overcoming the Energy Gap Law
Minami Nakamura, Haruto Asada, Miho Kawanishi, Sono Sasaki, Mitsuhiko Morisue

Itaru Osaka, presiding

- 16:15 1016 Theoretical model for localized/delocalized carrier in organic semiconductor
Tetsuhiko Miyadera
- 16:40 1017 Large magnetoresistance observed for quinoid-type organic semiconductors and role of triplet diradicals
Chao Wang, Hua Hao, Keisuke Tajima
- 17:05 1018 Controlling Molecular Orientation of Solution-Processable Organic Semiconductors Using Iodine-Iodine Interactions
Amane Matsunaga, Mai Hasada, Kakeru Hasumi, Yuta Ogawa, Daisuke Kumaki, Shizuo Tokito, Hiroshi Katagiri
- 17:30 1019 Indacenodithiophene-based polymer with polydimethylsiloxane side chains for stretchable semiconducting polymers
Yuto Ochiai, Kyohei Nakano, Keisuke Tajima

Tue. Sep 6

S12. Challenges in Organic Optoelectronics

Akinori Saeki, presiding

- 9:10 2001 Improvements in Open-Circuit Voltage in Polymer Solar Cells by Controlling Charge-Transfer States Formed at Heterojunction
Hideo Ohkita, Yasunari Tamai, Hyung Do Kim
- 9:35 2002 Microscopic elucidation of stability improvement mechanism of ternary polymer solar cells
Kazuhiro Marumoto
- 10:00 2003 Charge Recombination Characteristics and Film Morphology of All-Polymer Blend Solar Cells with High Fill Factor
Hiroaki BENTEN, Ren HAGIO, Yunju NA, Zhiyuan LIANG, Masakazu NAKAMURA
- 10:25 2004 Hole Transport Properties in Crystalline Conjugated Polymers Diluted by an Insulating Polymer Matrix

Hyung Do Kim, Yuya Horiuchi, Hiroki Ogawa, Mikihiro Takenaka, Hideo Ohkita

Tsuyoshi Michinobu, presiding

- 10:50 2005 Side-Chain Engineering to Balance Ionic and Electronic Conductivities in Mixed Ionic/Electronic Conductors
Christine Keiko Luscombe
- 11:15 2006 Control of charge transport and thermoelectric properties in conducting polymer thin films by electrolyte gating
Hisaaki Tanaka, Taishi Takenobu
- 11:40 2007 Optimization of thermoelectric properties of PEDOT:PSS by ion exchange with ionic liquids
Ichiro Imae, Hiroki Uehara, Keiichi Imato, Yousuke Ooyama

Seiichi Izawa, presiding

- 12:55 2008 Development of Polymer Solar Cell Materials by Measurements, Artificial Intelligence, and Inspiration
Akinori Saeki
- 13:20 2009 Effects of rigid and sterically bulky structure of non-fused nonfullerene acceptors on photovoltaic characteristics
Seihou Jinnai, Kasumi Murayama, Keisuke Nagai, Azusa Muraoka, Akira Yamakata, Akinori Saeki, Yasuhiro Kobori, Yutaka Ie
- 13:45 2010 Development of a High-Performance Semiconducting Polymer Realizing High Charge Generation Efficiency Simultaneously with Small Voltage Loss in Organic Photovoltaics
Shota Suruga, Tsubasa Mikie, Takumi Ishikawa, Yuki Sato, Hyung Do Kim, Hideo Ohkita, Itaru Osaka
- 14:10 2011 Development of Semiconducting Polymers Based on Vinylene-Bridged Bisalkoxyfluorobenzothiadiazoles
Hiroki Mori, Yuya Asanuma, Ryuchi Hosogi, Yasushi Nishihara
- 14:35 2012 Benzodithiophene-Anthracene-thiadiazole Semiconducting Polymers: Effect of Halogen Atoms on Their Solar Cell Performance
Ryuchi Hosogi, Hiroki Mori, Yasushi Nishihara

Hisaaki Tanaka, presiding

- 15:00 2013 Supramolecular alchemy towards plastic metal
Shun Watanabe
- 15:25 2014 Strong and Atmospherically Stable Dicationic Oxidative p-Dopant
Toshihiro Okamoto, Tadanori Kurosawa, Yu Yamashita, Shohei Kumagai, Shun Watanabe, Jun Takeya
- 15:50 2015 High-Performance and Air-Stable Conducting π -Conjugated Polymers with Alkoxy Sidechains
Craig Yu, Tadanori Kurosawa, Yu Yamashita, Shohei Kumagai, Shun Watanabe, Jun Takeya, Toshihiro Okamoto

Toshihiro Okamoto, presiding

- 16:15 2016 Dopants in Organic Thermoelectrics and Transistors
Tsuyoshi Michinobu
- 16:40 2017 Stable Organic Thermoelectric Devices for Self-Powered Sensor Applications
Qingshuo Wei, Masakazu Mukaida
- 17:05 2018 Infrared sensing based on photonics and thermoelectrics of single-walled carbon nanotubes
Yoshiyuki Nonoguchi, Kazuhiro Yoshida

Wed. Sep 7

S12. Challenges in Organic Optoelectronics

Hideo Ohkita, presiding

- 9:10 3001 Study on efficiency enhancement and stability improvement of Pb free Sn perovskite solar cells
Shuzi Hayase
- 9:35 3002 Development of Multipodal Hole-Collecting Monolayer Materials for Efficient Perovskite Solar Cells
Minh Anh Truong, Tsukasa Funasaki, Lucas Ueberricke, Wataru Nojo, Richard Murdey, Takumi Yamada, Shuaifeng Hu, Tomoya Nakamura, Nobutaka Shioya, Takeshi Hasegawa, Yoshihiko Kanemitsu, Takanori Suzuki, Atsushi Wakamiya
- 10:00 3003 Realization of high stability perovskite solar cells by ionic liquid addition and Cs halogen intercalation
Tetsuya Taima, Md. Shahiduzzaman
- 10:25 3004 Synthesis of Thiophene-based Conjugated Polymers with Cleavable Side Chains and Their Application to the Perovskite Solar Cells
Teruhiro Fukushima, Kenichi Oyaizu, Hiroyuki Nishide, Takeo Suga

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Shusaku Nagano, presiding

- 10:50 3005 Optical properties of thianthrene-containing imide compound and polyimides exhibiting extremely long-wavelength fluorescence and phosphorescence
Hiroka Yamamatsu, Atsuko Tabuchi, Naiqiang Liang, Ryohei Ishige, Shinji Ando
- 11:15 3006 Analysis on Pressure-induced Luminescence Enhancement of Phosphorescent Bromine-Containing Imide Compound and Polyimide
Ryuichi Isoda, Koichiro Muto, Marina Doi, Ryohei Ishige, Shinji Ando
- 11:40 3007 Development of organometallic cross-linked gel for photopatterning of luminescent properties
Martin Go Russell, Takashi Kaneko, Hiroshi Masai, Jun Terao

Shinji Ando, presiding

- 12:55 3008 Synthesis and performance evaluation of water-soluble fine patterning materials using polysaccharides
Makoto Kobayashi, Takayuki Ota, toru Amano, Satoshi Takei
- 13:20 3009 Induced smectic E phase in side-chain liquid crystalline copolymers and polymer blends with heterogeneous mesogenic interactions
Tatsunaga Nakajima, Naoki Hida, yuya Ishizaki, Mitsuo Hara, Takahiro Seki, Shusaku Nagano
- 13:45 3010 Fabrication and waveguide analysis of dye-doped terpolymer optical fiber with double-core structure
Hayato Yamazaki, Kentaro Yano, Rei Furukawa
- 14:10 3011 Refractive index distribution analysis of zero-birefringence double core polymer optical fiber.
Shingo Sode, Rei Furukawa

Jun Terao, presiding

14:35	3O12	Nonlinear optical effect of dye-doped liquid crystals: effect of the incident laser wavelength on photoinduced molecular reorientation <u>Tomohiro Kitano</u> , Junki Yokota, Kohsuke Matsumoto, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Rumiko Yamaguchi, Atsushi Shishido
15:00	3O13	Effect of host liquid crystals on nonlinear molecular reorientation of oligothiophene-doped liquid crystals <u>Junki Yokota</u> , Tomohiro Kitano, Kohsuke Matsumoto, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Rumiko Yamaguchi, Atsushi Shishido
15:25	3O14	Synthesis and Properties of High-Refractive-Index Iodine-Containing Polyacrylates <u>Hiroyuki Maekawa</u> , Hikaru Amano, Ikuko Nishina, Hiroto Kudo
		Takeo Suga, presiding
15:50	3O15	Photophysical characteristics of ultra-violet emitting chromophores in stretched poly(vinyl alcohol) thin films <u>Akane SAITO</u> , Takeshi MORI, Hitoshi SAOMOTO, Tsuyoshi MASUDA
16:15	3O16	Development of a one-component urea adhesive using photobase generators that generate amines <u>Toshiki Moriya</u> , Daisuke Aoki, Koji Arimitsu
16:40	3O17	Application of a photobase generator that generates aminopyridine to black resist materials <u>Shigemasa Dougoshi</u> , Daisuke Aoki, Koji Arimitsu
17:05	3O18	Imidization behavior of polyamic acid esters using photobase generators <u>Tsubasa Tani</u> , Daisuke Aoki, Koji Arimitsu

Room Q

Mon. Sep 5

S10. Interaction Between Polymer Materials and Water in Membrane Separation Technology

12:45	1QSO	Introductory Remarks S10 <u>Mitsuru Higa</u> , Hiroaki Yoshimizu
		Eiji Kamio, presiding
12:55	1Q08	Methane sorption isotherms of glassy polymers observed by NMR spectra <u>Tomoki Kawanishi</u> , Shohei Ariga, Hiroaki Yoshimizu
13:20	1Q09	Temperature-dependent of the gas diffusion properties in syndiotactic polystyrenes containing various crystal phases by PFG NMR <u>Koki Yamada</u> , Tomohiro Ueji, Hiroaki Yoshimizu
13:45	1Q10	Characteristic gas transport properties of thermally rearranged copolybenzoxazole membranes <u>Tomoyuki Suzuki</u> , Ryo Akiyama
		Hiroaki Yoshimizu, presiding
14:10	1Q11	Gas Permeability of Composite Membranes using Polymer Intrinsic Microporosity Matrix <u>Masafumi Yamato</u> , Kaito Udo, Hiro Yoshi Kawakami

- 14:35 1Q12 Effect of substituents on gas permeability for poly(diphenylacetylene)s
Toshikazu Sakaguchi, Hashimoto Tamotsu
- 15:00 1Q13 Application of a tough gel composed of an ionic liquid and interpenetrating polymer network to CO₂ separation membrane
Eiji Kamio, Jinhui Zhang, Atsushi Matsuoka, Hideto Matsuyama
- Kazuki Akamatsu, presiding**
- 15:25 1Q14 Membrane distillation for seawater desalination using carbonized fiber and porous polyvinylidene fluoride membranes
Koki Kawamura, Yuki Uotani, Ryotaro Kiyono
- 15:50 1Q15 Brine concentration process using osmotically assisted reverse osmosis (OARO)
Takahito Nakao
- 16:15 1Q16 Fundamental investigation on the effect of chemical structure of polymer-based draw solutes on reverse solute flux through forward osmosis membrane
Atsushi Matsuoka, Masayuki Fukushima, Kana Kobayashi, Eiji Kamio, Tomohisa Yoshioka, Keizo Nakagawa, Hideto Matsuyama
- Atsushi Matsuoka, presiding**
- 16:40 1Q17 Development of low-fouling PVDF membranes for water purification and wastewater treatment
Kazuki Akamatsu, Seiya Ohno, Shin-ichi Nakao, Xiao-lin Wang
- 17:05 1Q18 Foulant adsorption simulation and anti-fouling RO membrane preparation
Takahiro Kawakatsu, Yu Fujimura, Yuki Kawabata, Tomohisa Yoshioka
- 17:30 1Q19 Development of Polysilsesquioxane Reverse Osmosis Membranes with Caged Siloxanes
Kazuki Yamamoto, Takumi Nagura, Mai Yasuno, Miyuki Tani, Yunosuke Amaike, Yoshiro Kaneko, Takahiro Gunji
- 17:55 1Q20 Investigation of Membranes Composed of 2D Nanosheets for Desalination: Immobilization of Nanosheets onto Support Membranes
Shinobu Uemura, Yasuto Yoshii, Zhaojun Fan, Qi Feng

Tue. Sep 6

S10. Interaction Between Polymer Materials and Water in Membrane Separation Technology

Yu Sugimoto, presiding

- 9:35 2Q02 Asymmetric polydimethylsiloxane membrane formation and solvent recovery by low pressure membrane filtration
Chuanyan Jia, Ryotano Kiyono
- 10:00 2Q03 Synthesis and Applications of Porous Sodium Methacrylate
Hitoshi Takada, Yasuhiro Yoshimura, Xin Wang
- 10:25 2Q04 Separation of electrolyte and non-electrolyte across an asymmetric amphoteric charged membrane in which an ion exchange resin is dispersed
Yusuke Mochizuki, Yusuke Nakamura, Ryouyusuke Kodama, Ryotaro Kiyono

Shoichi Doi, presiding

- 10:50 2Q05 Ionic separation using piezodialysis system with charged mosaic membranes prepared by ion track graft polymerization method
Minato Higa, Ren Ueno, Yuriko Kakihana, Mitsuru Higa
- 11:15 2Q06 Evaluation of divalent ion removal by Donnan dialysis using sulfonated polyether sulfone-based cation-exchange membranes
Yuriko Kakihana, Keiko Komuta, Mitsuru Higa
- 11:40 2Q07 Preparation and characterization of monovalent ion selective hollow fiber cation exchange membranes by plasma graft polymerization
Shuntaro Ikeda, Yuriko Kakihana, Mitsuru Higa
- Ryotaro Kiyono, presiding**
- 12:55 2Q08 Monovalent selective ion-exchange membranes prepared by plasma irradiation graft polymerization method
Miki Tanaka, Tomoaki Kasuga, Yuriko Kakihana, Mitsuru Higa
- 13:20 2Q09 Relationship between the membrane structure and anion permselectivity of monovalent selective anion exchange membranes
Taishi Hirotsu, Minato Higa, Yu Sugimoto, Yuki Nakamura, Shoichi Doi, Yuriko Kakihana, Mitsuru Higa
- 13:45 2Q10 Examination of current efficiency in acid / alkali production using bipolar membrane electro dialysis.
Souichiro Hira, Mitsuru Higa, Yu Sugimoto, Yuriko Kakihana
- 14:10 2Q11 Deterioration of anion-exchange membranes for electro dialysis processes
Shoichi Doi, Masahiro Yasukawa, Yuriko Kakihana, Mitsuru Higa
- Shinobu Uemura, presiding**
- 14:35 2Q12 The surface hydrophilicity is contributed to the polyethylene porous membranes by a variety of Side Chain Crystalline Block Copolymers (SCCBCs)
Tokumu Aoki, Aki Kashiwazaki, Ryoko Nakano, Shigeru Yao
- 15:00 2Q13 Analysis of power generation characteristics of reverse electro dialysis power generation using various ion exchange membranes
Yu Sugimoto, Ryo Ujike, Minato Higa, Yuriko Kakihana, Mitsuru Higa
- 15:25 2Q14 Evaluation of power generation performance in reverse electro dialysis system using a novel profiled ion-exchange membranes
Manato Tanaka, Ryo Uzike, Hiroki Kawasaki, Yu Sugimoto, Yuriko Kakihana, Mitsuru Higa
- 15:50 2Q15 Examination of large-scale power storage system using electro dialysis / reverse electro dialysis
Mitsuru Higa, Yu Sugimoto, Yuriko Kakihana, Minato Higa
- Mitsuru Higa, presiding**
- 16:15 2Q16IL Low energy membrane technology for water treatment - Membrane distillation and MCDI -
Ryotaro Kiyono

Wed. Sep 7

S10. Interaction Between Polymer Materials and Water in Membrane Separation Technology

Takashi Miyata, presiding

- 9:35 3Q02 Functionalization of the ePTFE surface modified with side-chain crystalline block copolymers
Shinsuke Asou, Aki Kashiwazaki, Shigeru Yao
- 10:00 3Q03 Modification of ePTFE surfaces with a focus on biocompatibility and analysis of hydration structures
Aki Kashiwazaki, Shinsuke Aso, Shigeru Yao
- 10:25 3Q04 Structure and rheology of water soluble chemically modified cellulose ethers in aqueous solutions
Toshiyuki Shikata, Erika Saiki, Misato Yoshida

Toshiyuki Shikata, presiding

- 10:50 3Q05 Water transport behavior through polymer membranes consisting of vertically-aligned carbon nanotubes as transport channels
Hidetoshi Matsumoto, Akito Saeki, Shaoling Zhang, Minoru Ashizawa, Yuichiro Tanaka, Yasuhiko Hayashi
- 11:15 3Q06 The effect of secondary structure of biocompatible polymers on the hydration state
Naoya Kurahashi, Shin-nosuke Nishimura, Shohei Shiimoto, Tomoya Ueda, Daiki Murakami, Keishi Akada, Yuka Ikemoto, Masaru Tanaka, Yoshihisa Harada
- 11:40 3Q07 Harvest of Water from Air Using Thermoresponsive Polymer/Alginate IPN Dried Gels
Takashi Miyata, Kazuya Matsumoto, Nobuki Sakikawa

Daisuke Ishii, presiding

- 12:55 3Q08 Hydrogel properties of chemically crosslinked hydroxypropyl cellulose
Daisuke Ishii, Azusa Yoshimura
- 13:20 3Q09 Molecular dynamics study on intermediate water between protein and polymer surface
Hiromitsu Takaba, Akane Suda, Toshiki Okamoto, Atsumu Inoue, Hirofumi Sakai, Masaya Miyagawa
- 13:45 3Q10 Effect of morphological properties of polylactic acid scaffold on rabbit chondrocyte culture differentiation
Chinami Kohara, Takao Momoi, Hiroya Ohbayashi, Daisuke Ishii

Daisuke Ishii, presiding

- 14:10 3Q11 Development of Anti-adhesion Surface Using Oil-based Nanosuit
Daisuke Ishii, Soma Kitamura
- 14:35 3Q12 Structure and Rheology of Hydroxyethylcellulose in Aqueous Solution
Misato Yoshida, Toshiyuki Shikata
- 15:00 3Q13 Self-assembled structure formation in amphiphilic comb-shaped polymers by interaction with water
Mizuki Ohke, Hinako Ebe, Yuki Koizumi, Jun Matsui, Syusaku Nagano

Room R

Mon. Sep 5

S11. Precisely Designed Network Polymers in Action

- 12:45 1RSO Introductory Remarks S11

Daisuke Aoki, Shintaro Nakagawa

Yoshiro Kaneko, presiding

- 12:55 1R08 The effect of crosslinking and interpenetrating network structure on water absorption from reverse osmosis membrane by swelling behavior
Hiroharu Ajiro, Maho Oura, Hideki Takahashi
- 13:20 1R09 Synthesis of Network Polymers Using myo-Inositol and Furfural as Starting Materials
Atsushi Sudo, Jinpei Kitasaka

Hiroharu Ajiro, presiding

- 13:45 1R10 Synthesis of unimolecular-thick 2D network polymers using MOF templates
Ami Nishijima, Yuki Hayashi, Marta Ximenes, Nobuhiko Hosono, Takashi Uemura
- 14:10 1R11 Preparation of amphiphilic ladder-like polymer in which hydrophilic polyether and hydrophobic polysiloxane chains are intramolecular cross-linked and its nanoaggregate formation behavior
Shiori Matsuo, Yoshiro Kaneko

Atsushi Sudo, presiding

- 14:35 1R12 Optical and Electronic Functions of Amorphous Polymers Derived by Network Structures
Kenichi Oyaizu, Seigo Watanabe
- 15:00 1R13 Toughness of epoxy-modified cyanate ester resin containing liquid crystal phases
Satoshi Yanaura, Miyuki Harada
- 15:25 1R14 Preparation and properties of rubbery polymer with a network of the nanomatrix.
Seiichi Kawahara, Yoshimasa Yamamoto

Mitsuo Hara, presiding

- 15:50 1R15 Synthesis and curing of aromatic bio-based carbonate resins
Yuki NISHIOKA, Soma GOTO, Kazuma MAKITA, Kozo MATSUMOTO
- 16:15 1R16 A new method for controlling the physical properties of vitrimers based on the branch numbers at the cross-link
Taketo Isogai, Mikihiro Hayashi
- 16:40 1R17 Material transformation and vitrimerization realized by a new cross-linking method operated with decomposition and bond exchange
Mikihiro Hayashi

Mikihiro Hayashi, presiding

- 17:05 1R18 Humidity-induced self-assembly of ionic linear polysiloxanes
Mitsuo Hara, Atsuki Kodama, Shohei Washiyama, Takahiro Seki
- 17:30 1R19 Preparation of Dual Cross Network Polymers and Hybridizing Linear Polymers with High Young's modulus
Yusaku Kawai, Junsu Park, Yoshiki Ishii, Shunsuke Murayama, Ryohei Ikura, Motofumi Osaki, Yuka Ikemoto, Hiroyasu Yamaguchi, Akira Harada, Hitoshi Washizu, Go Matsuba, Yoshinori Takashima
- 17:55 1R20 A self-healing elastomer crosslinked via segregation of fluoroalkyl side chains
Yohei Miwa, Taro Udagawa, Shoichi Kutsumizu

Tue. Sep 6

S11. Precisely Designed Network Polymers in Action

Shintaro Nakagawa, presiding

- 9:10 2R01 Synthesis of 3D network polymers by solid-state polymerization of 1,3,5-tris(buta-1,3-diynyl)benzene.
Taiki Ietsune, Mariko Tsutsumi, Keitaro Matsuoka, Ayako Shinozaki, Kazuki Sada
- 9:35 2R02 Synthesis of metal-organic frameworks by using an polysubstituted organic ligand and its reaction in the crystal
Kenta Kokado, Kiyonori Takahashi, Takayoshi Nakamura, Yukihiro Motoyama
- 10:00 2R03 Control of mechanical properties based on reset, reshuffling, and reconstruction of network topologies with silicone elastomers
Minami Oka, Satoshi Honda

Kenta Kokado, presiding

- 10:25 2R04 Synthesis of Dipyrenyl Silyl Cross-linked Polymer Network Materials Switchable between Photoprocessability and Photostability
Yutaro Kawano, Takashi Kaneko, Hiroshi Masai, Jun Terao
- 10:50 2R05 Low molecular model reactions and cross-linking aiming for controlling the reaction of epoxy resins containing methacryloyl groups
Yuki Tsutsui, Eriko Sato

Eriko Sato, presiding

- 11:15 2R06 Development of thermosetting resin material by ring-opening polymerization reaction of epoxide with cyclic amide and cyclic ester
Hiroto Kudo, Shuji Nishioka, Kentaro Buya
- 11:40 2R07 Synthesis, Curing and Properties of Benzoxazines Bearing pi-Conjugated Moieties
Fumio Sanda, Hiromitsu Sogawa, Masanobu Muraoka

Atsuomi Shundo, presiding

- 12:55 2R08 Characteristic Behavior of Insulating Material by Radiation Exposure
Naoki Yasuda, Takashi Miyamoto
- 13:20 2R09 Structure formation mechanism of a phenolic resin and silica interface during curing
Atsushi Izumi, Yasuyuki Shudo, Mitsuhiro Shibayama, Noboru Miyata, Tsukasa Miyazaki, Hiroyuki Aoki
- 13:45 2R10 Structure and dynamics analysis of the interface between phenolic resin and inorganic materials
Yasuyuki Shudo, Atsushi Izumi

Yasuyuki Shudo, presiding

- 14:10 2R11 Cross-linking Effect on Creep Rupture Behavior of Epoxy Resins
Atsuomi Shundo, Mika Aoki, Satoru Yamamoto, Keiji Tanaka
- 14:35 2R12 Synthesis of Liquid Crystalline Epoxy Resins for the Development of Insulating High Thermal Conductivity Resins and Higher-Order Structural Analysis of Cured Resin
Rika Marui, Yuta Nabae, Teruaki Hayakawa
- 15:00 2R13 Nanostructured epoxy/ block copolymer/ in-situ Ag filler electrically conductive composites
Hajime Kishi, Suzu Furuno, Souta Kawakami, Ken Arimura, Kazuki Sakaguchi, Kazuyoshi Yamada, Takeshi Kakibe, Satoshi Matsuda

Bungo Ochiai, presiding

- 15:25 2R14 Preparation and characterization of degradable microspheres
Hiroki Yokoi, Yuichiro Nishizawa, Takayuki Uchihashi, Daisuke Suzuki
- 15:50 2R15 Crosslinking and decrosslinking of network polymer using conjugate substitution reaction
Takashi Oya, Natsumi Nishiie, Yasuhiro Kohsaka
- Yasuhiro Kohsaka, presiding**
- 16:15 2R16 Development of environmentally degradable epoxy thermoset based on glycidate-anhydride curing
Bungo Ochiai, Miharuru Yashima, Yoshimasa Matsumura
- 16:40 2R17 Cross-linking reaction of limonene oxide-based multi-functional epoxides and polyhydric carboxylic acid
HISATOYO MORINAGA, YUTAKA KOIKE
- 17:05 2R18 Fabrication of Chitin and Chitosan Monoliths with Controllable Morphology
Emil Hajili, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama

Wed. Sep 7

S11. Precisely Designed Network Polymers in Action

Daisuke Aoki, presiding

- 9:10 3R01 Synthesis and properties of porous silicone polymers using ring-opening addition reaction of multifunctional epoxy and diamine compounds with siloxane units
Takahiro Yamada, Naofumi Naga
- 9:35 3R02 Synthesis and characterization of porous polymers by the Michael addition reaction between polyallylamine and divinyl sulfone compounds.
Ayame Okuda, Naofumi Naga
- 10:00 3R03 Anionic UV curing of epoxy-thiol mixed resins using phthalaldehydic acid derivatives as photobase generators
Riku Takizawa, Daisuke Aoki, Koji Arimitsu
- 10:25 3R04 Function of a photobase generator as a chain curing agent that produces imidazole and its application to anionic UV curing
Shinya Maruyama, Daisuke Aoki, Koji Arimitsu
- 10:50 3R05 Anionic photopolymerization of lactones using a photobase generator and its application
Masahiro Takano, Daisuke Aoki, Koji Arimitsu

Daisuke Aoki, presiding

- 11:15 3R06 Observation of wrinkle formation process by photo-polymerization of monomer spread on the water surface
Kentaro Taki, Mikako Hoshino
- 11:40 3R07 Characterization of networked polymers formed by thermal reaction of bisoxazoline and *p-tert*-butylcalix[n]arene with different ring sizes
Morio Yonekawa, Hajime Kimura, Keiko Ohtsuka

Takaya Terashima, presiding

- 12:55 3R08 Fabrication of Poly(stearyl methacrylate)-grafted Cellulose Monolith with Thermoresponsive Stiffness
Nontarin Roopsung, Yu-I Hsu, Akihide Sugawara, Hiroshi Uyama

- 13:20 3R09 Synthesis and Mechanochromism of Polymer Microparticles Cross-linked by Mechanophores
Kengo Ogasawara, Takuma Watabe, Daisuke Aoki, Hideyuki Otsuka
- Yusuke Yasuda, presiding**
- 13:45 3R10 The Effects of Flexible Hydrogen-Bonding Groups on the Dynamic Mechanical Properties of Crosslinked Polymer
Rena Tajima, Shogo Ishizaka, Shintaro Nakagawa, Naoko Yoshie
- 14:10 3R11 Preparation of impact-resistant ionized thermoplastic elastomers
Takato Kajita, Atsushi Noro, Ryoji Oda, Sadaharu Hashimoto
- 14:35 3R12 Network Polymer Materials Based on Random Copolymer Micelles: Control of Physical and Adhesive Properties for Hydrogels
Hiroaki Asai, Makoto Ouchi, Takaya Terasima
- Hironori Marubayashi, presiding**
- 15:00 3R13 Clarification of Relationship between Cross-linking Structure, Dynamics and Mechanical Properties of Dynamic Bond Elastomers via Coarse-Grained Molecular Dynamics Simulations.
Yusuke Yasuda, Hiroshi Morita
- 15:25 3R14 Structure of a well-defined bottlebrush polymer network under tension
Shintaro Nakagawa, Naoko Yoshie
- 15:50 3R15 Synthesis and physical properties of gels with a homogeneous network structure using biocompatible polymers
Yuka Hasegawa, Xiang Li, Masashi Ohira, Taiki Hoshino, Masaru Tanaka, Mitsuo Hara, Takahiro Seki, Yukikazu Takeoka
- Shintaro Nakagawa, presiding**
- 16:15 3R16 Multiscale Molecular Dynamics Simulation on Effect of Ring Size on Mechanical Properties of Slide-Ring Gels
Haru Shinohara, takeyoshi Masumoto, Yukinori Aomura, Yusuke Yausda, Koichi mayumi, Kazushi Fujimoto, Hideaki Yokoyama, Kohzo Ito
- 16:40 3R17 Effects of multicyclic polymers on structure and properties of a polymer network
Hironori Marubayashi, Atsushi Imasaki, Minami Ebe, Kaiyu Fujiwara, Takuya Isono, Toshifumi Satoh, Hiroshi Jinnai

Room S

Mon. Sep 5

S17. Novel Development of Materials and Processing for Electronics and Photonics Supporting Post-COVID-19

- 12:45 1SSO Introductory Remarks S17
Hiroki Yamamoto, Motoi Kinoshita
- Koji Arimitsu, presiding**
- 12:55 1S08 Control of photo-induced crawling motion of azobenzene crystals by the effect of substrate surface
Yasuo Norikane
- 13:20 1S09 Computer-assisted development of chromophores with enhanced red persistent room-temperature phosphorescence characteristics

- Shuzo Hirata
- 13:45 1S10 The Periodic Liquid-Crystalline Orientation Induced by Gradient Photopolymerization
Yuki Shikata, Kyohei Hisano, Osamu Tsutsumi
- Yasuo Norikane, presiding**
- 14:10 1S11 Control of Molecular Orientation in Liquid-Crystalline Polymeric Particles Synthesized by Dispersion Polymerization
Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi
- 14:35 1S12 Photopattern formation using polysilane modified with radical polymerizable monomers
Kenyu Sugita, Daiki Yukimori, Nobuhiro Ishikawa, Daisuke Aoki, Koji Arimitsu
- Motoi Kinoshita, presiding**
- 15:00 1S13 Photosensitivity characteristics of photosensitive polyimide containing acid amplifiers
Takafumi Watanabe, Keigo Kato, Kazuyuki Matsumura, Daisuke Aoki, Koji Arimitsu
- 15:25 1S14 Electrodeposition of Solvent-Soluble Polyimides without Ionic Groups and the Mechanism of Their Coating Film Formation
Ayumi Kobayashi, Hideyuki Kikuchi, Kohei Iritani, Takashi Yamashita
- 15:50 1S15 Three-dimensional printing of Inter-Crosslinking Network (ICN) gels encapsulating magnetic particles
Yuma Sakurai, Yosuke Watanabe, Masaru Kawakami, MD Nahin Islam Shiblee, Jun Ogawa, Hidemitsu Furukawa
- 16:15 1S16 microfluidic device based on structural color printing
Masateru Ito, Detao Qin, Andrew Gibbons, Easan Sivaniah
- Hiroki Yamamoto, presiding**
- 16:40 1S17 Fabrication of an Electrochromic Device Consists of a Viologen-based Ionic Liquid Polymer and Ferrocene-based Ionic Liquid.
Saki Takuma, Hironobu Tahara, Hiroto Murakami
- 17:05 1S18 Generation of microscopic bumps observed on λ -carrageenan
Hironori Izawa, Yuta Toyoshima, Momoka Kawakami, Shinsuke Ifuku
- 17:30 1S19 Proposal of a method for forming double roughness structures using atmospheric pressure low-temperature plasma
Masashi Yamamoto, Katsuki Mitani, Shu Tanino, Tomokazu Shikama, Haruki Okamoto, Hideo Horibe
- 17:55 1S20 Development of volume-shrinking polymers after metal infiltration and evaluation of their dry-etch resistance
Norikatsu Sasao, Shinobu Sugimura, Koji Asakawa

Tue. Sep 6

S17. Novel Development of Materials and Processing for Electronics and Photonics Supporting Post-COVID-19

Masaru Nakagawa, presiding

- 9:10 2S01 Development of Self-Dissolving Nano-Microneedles Using Ultrafabrication Technology
Sayaka Miura, Rio Yamagishi, Miyazaki Mutsuhisa, Yasuda Kaori, Kawano Yuki, Yokoyama Yoshiyuki, Naoto Sugino, Kameda Takao, Takei Satoshi

9:35 2S02 Antibacterial functional film by nanoimprint lithography using gas permeable mold
Rio Yamagishi, Sayaka Miura, Kaori Yasuda, Naoto Sugino, Takao Kameda, Satoshi Takei

Masaaki Yasuda, presiding

10:00 2S03 Investigation of press-induced spreading of isolated sub-picoliter UV-curable droplets for single-digit-nanometer nanoimprinting
Masaru Nakagawa, Akiko Onuma, Hiromasa Niinomi, Shintaro Itoh, Kenji Fukuzawa, Toshiya Asano

10:25 2S04 High-aspect-ratio Si etching with reactive gas cluster injection
Toshio Seki, Hiroki Yamamoto, Kunihiko Koike, Takaaki Aoki, Jiro Matsuo

Takei Satoshi, presiding

10:50 2S05 Prediction of pattern shape in electron beam lithography using stochastic simulation and deep learning
Bunta Inoue, Yoshihiko Hirai, Masaaki Yasuda

11:15 2S06 Estimation of effective reaction radius for deprotection reaction proceeding inside the polymer matrix of photoresist by Bayesian optimization
Yuqing Jin, Takahiro Kozawa

11:40 2S07 Study on resist composed of Sn-complex-side-chain polymer used for extreme ultraviolet lithography
Yui Takata, Yusa Muroya, Takahiro Kozawa, Satoshi Enomoto, Bilal Naqvi, Danilo De Simone

Hiroto Kudo, presiding

12:55 2S08 Dependence of swelling and dissolution kinetics of poly(4-hydroxystyrene) in alkaline aqueous solution on alkyl chain length of tetraalkylammonium hydroxide
Hitomi Betsumiya, Tsutsui Yuko Ito, Takahiro Kozawa, Kazuo Sakamoto, Makoto Muramatsu

13:20 2S09 Stochastic effects in lithography
Takahiro Kozawa

Takahiro Kozawa, presiding

13:45 2S10 Synthesis of branched-type oligomer based on calixarenes and their application as extreme ultraviolet materials.
Hiroyuki Maekawa, Hiroto Kudo

14:10 2S11 Development of high-sensitive extreme ultraviolet photoresist material based on tannin acid
Ryoto Takeuchi, Hiroto Kudo

14:35 2S12 Ablation study with ultra-short pulse soft x-ray laser
Masahiko Ishino, Yuji Hosaka, Thanh-Hung Dinh, Hiroki Yamamoto

Norikatsu Sasao, presiding

15:00 2S13 Precision Syntheses of PS-PMMA Block Copolymers Carrying Oligopeptide at the Junction and Phase Separation Promotion by Amino Acid Sequence
Tomoka Yoshimura, Yoshihiro Agata, Kodai Nagashima, Shinsuke Maekawa, Teruaki Hayakawa, Makoto Ouchi

15:25 2S14 Selective degradation of liquid-crystalline diblock copolymers towards nanostructure formation
Daisuke Taguchi, Miho Aizawa, Kyohei Hisano, Shoichi Kubo, Atsushi Shishido

15:50 2S15 Precision Synthesis of Strongly Segregating PS-b-PMMA Derivatives and Control of Long-Range Domain Ordering by Directed Self-Assembly

Room T

Mon. Sep 5

S16. Ecomimetics for Symbiosis with Nature

- 12:45 1TSO Introductory Remarks S16
Atsushi Hozumi, Masatsugu Shimomura
Masatsugu Shimomura, presiding
- 12:55 1T08IL Pest control technology based on an insect's view of the world
Naoki Mori, Naoko Yoshinaga
Shigeru Deguchi, presiding
- 13:45 1T10 Proposal of a novel discovery method for pest control compounds based on the molecular mechanism of olfaction
Hidefumi Mitsuno, Yuji Sukekawa, Sawako Niki, Takuya Nakajo, Ryohei Kanzaki
- 14:10 1T11 Mechanism of sex pheromone detection in moths and its application to control insect behavior
Takeshi Sakurai
- 14:35 1T12 Analysis of motor control mechanism of insect to multisensory stimuli using sensory intervention system
Shunsuke Shigaki
- 15:00 1T13 The application of light for the control of the behavior of insects and insect pest control
Mika Murata, Mantaro Hirokana, Junya Yase
Hidefumi Mitsuno, presiding
- 15:50 1T15 Degradation Control of Polymers by Deep-Sea-Inspired Chemistry
Shigeru Deguchi, Ikuo Taniguchi, Tsuyoshi Koga
- 16:15 1T16 Physiochemical analysis of hard shell of Job's tears and development into bioinspired functionally graded materials
Rikima Kuwada, Daisuke Ishii
Mika Murata, presiding
- 16:40 1T17 Learn from Nature: Dual Wettability of a Termite Wing
Hiroyuki Mayama
- 17:05 1T18 Route of pesticide spreading on the body surface of insects: Analysis using NanoSuit-EDS methods
Yasuharu Takaku, Katsumi Shiraki, Chiaki Suzuki, Sayuri Takehara, Hiroyuki Nishii, Tomonori Sasaki, Takahiko Hariyama
- 17:30 1T19 A new approach based on information science for supporting interdisciplinary research in Eco-mimetics
Takahiro Ogawa
- 17:55 1T20 Data-driven biomimetic material design using TRIZ method
Takeshi Yamauchi

Tue. Sep 6

S16. Ecomimetics for Symbiosis with Nature

Hideyuki Mitomo, presiding

- 9:10 2T01 Visualization of structural color by in situ generation of melanin
Michinari Kohri
- 9:35 2T02 Fabrication of metallic luster materials with a controllable tone that mimics the coloring mechanism of insects
Kyoka Tachibana, Keiki Kishikawa, Shuji Ichikawa, Jun Matsui, Yukishige Kondo, Michinari Kohri
- 10:00 2T03 Polymer network liquid crystals for the application to energy-saving thermoresponsive windowpanes
Hiroshi Kakiuchida

Yuji Hirai, presiding

- 10:25 2T04 Ecoinformatics from the perspective of landscape ecology
Chika Takatori
- 10:50 2T05 Evolution from Biomimetics to Ecomimetics: The Evolution of City Planning
Mamoru Taniguchi
- 11:15 2T06 Technical innovation supporting neo-entomology aiming to natural synbiosis
Shuhe Nomura, Tatsuya Ide
- 11:40 2T07 Construction of functional nanocapsules by self-organization of plasmonic particles
Kuniharu Ijro, Ryo Sugiyama, Yusuke Yonamine, Hideyuki Mitomo

Takayuki Murosaki, presiding

- 12:55 2T08 Fabrication of gold nanorod arrays with flexible structures on a 2-dimensional surface
Hideyuki Mitomo, Jingyan Yang, Yu Sekizawa, Yusuke Yonamine, Kuniharu Ijro
- 13:20 2T09 Superhydrophobic materials showing long-lasting and rapid self-healing ability through regeneration of surface morphologies
Satoshi Nakamura, Atsushi Hozumi
- 13:45 2T10 Self-healing materials using a moisture in air as a trigger
Tomoya Sato, Atsushi Hozumi
- 14:10 2T11 Production technology and applications of self-organized honeycomb-patterned polymer film
Hidekazu Yamazaki

Hiroyuki Mayama, presiding

- 14:35 2T12 Investigation of jointing fixation method using adhesive strength of side chain crystalline polymers
Tsubasa Honma, Masato Wada, Masaru Kawakami, Hidemitsu Furukawa
- 15:00 2T13 Adhesive force Enhancement by the Nano-hairy Structures of a Clingfish Sucker
Yuji Hirai, Kazuma Tsujioka, Yasutaka Matsuo, Masatsugu Shimomura
- 15:25 2T14 Fouling control technologies based on the understanding of larval settlement selectivity in marine sessile organisms
Takayuki Murosaki, Junpei Watanabe, Taiki Kishigami, Yuji Hirai, Yasuyuki Nogata

15:50 2T15 Functional transparent organogel film whose surface function changes dynamically with changes in ambient temperature
Satoshi Nakamura, Chihiro Urata, Atsushi Hozumi

Room U

Mon. Sep 5

S15. Environmental Problem Caused by Plastics and Their Solution

12:45 1USO Introductory Remarks S15
Yuya Tachibana, Hisayuki Nakatani
Shinji Tanaka, presiding

12:55 1U08 The Effects of The Different Side and Main Chains in Biobased Polyarylates with Gallic Acid on Their Thermal, Mechanical, and Morphological Properties
Tatsuya Goto, Tadahisa Iwata, Hideki Abe

13:20 1U09 Lignin gel swelling with addition of lithium salt toward utilization as a separator for lithium-ion battery
Shogo Taira, Fumiya Honda, Kazuhiro Shikinaka, Yasumitsu Uraki

13:45 1U10 Properties and functions of a biobased plastics with designed interlocked structure
Kazuaki Kato, Kohzo Ito, Ken Kojio, Taiki Hoshino
Kenji Tajima, presiding

14:10 1U11 Syntheses of fully-divanillic acid-based aromatic polyamides and their properties
Yagura Kazuma, Yukiko Enomoto, Tadahisa Iwata

14:35 1U12 Crystallinity control of polycaprolactone by addition of ferulic acid copolyester
Daisuke Ishii, Kanoko Ryu

15:00 1U13 Effects on thermal properties and crystallinity of P(3HB) by addition of ferulic acid copolyester
Haruka Taniguchi, Daisuke Ishii

15:25 1U14 Design of poly(L-lactide) based shape memory bioelastomers for the esophageal stent application
Manjie He, Yu-I Hsu, Hiroshi Uyama
Yasuhiro Kohsaka, presiding

15:50 1U15 Synthesis of Catechol-Containing Functional Polymers by Precision Polymerization of Various Styrenes Derived from Caffeic Acid
Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh

16:15 1U16 Preparation of thermoplastic cellulose derivatives and their mechanical properties
Tessei Kawano, Yoshito Andou

16:40 1U17 Mechanochemical-assisted modification of cellulose and the effect of reaction conditions on the properties of cellulose esters
Lease Jacqueline, Tessei Kawano, Yoshito Andou
Atsuyoshi Nakayama, presiding

17:05 1U18 Evaluation of Cellulose Derivatives for Alternated plastics

- Yoshito Ando, Tessei Kawano, Lease Jaqueline, Ruozhu Wang
- 17:30 1U19 Research and development related to the production of polybutadiene from biomass
Takashi Arai, Kiyoharu Tsutsumi
- 17:55 1U20 Recent progress in the fundamental development of the biomass-derived aromatic polyesters derived from furandicarboxylic acid
Shunsuke Tanaka, Rie Shirahama, Takashi Sato, Satoshi Kato

Tue. Sep 6

S15. Environmental Problem Caused by Plastics and Their Solution

Kazuaki Kato, presiding

- 9:10 2U01 Improvement of physical properties for biodegradable plastics with bacteria-derived cellulose nanofibers with high aspect ratio
Hamida binti Hashim, Nur Aisyah Adlin binti Emran, Satoshi Katsuhara, Hiroko Ninoyu, Haruto Tsujisaki, Xia Xiaochao, Masaaki Hosokawa, Shuichiro Seno, Hiroshi Kani, Takuya Isono, Yamamoto Takuya, Toshifumi Satoh, Hiroshi Orihara, Kenji Tajima
- 9:35 2U02 Modification of poly(lactate) by polymer blending with microbially-produced poly[(R)-lactate-co-(R)-3-hydroxybutyrate] copolymers
Yusuke Imai, Yuichi Tominaga, Shinji Tanaka, Masaru Yoshida, Sho Furutate, Shunsuke Sato, Sangho Koh, Seiichi Taguchi
- 10:00 2U03 Identification of poly(cis-1,4-isoprene) degradation pathway and application to polyhydroxyalkanoate production
Daisuke Kasai
- 10:25 2U04 Characterization of Oriented Polymer Fibers after Environmental Degradation
Yingjun AN, Tomoko KAJIWARA, Adchara PADERMSHOKE, Hiroyasu MASUNAGA, Sono SASAKI, Haruki MOKUDAI, Takashi MASAKI, Atsushi TAKAHARA

Tadahisa Iwata, presiding

- 10:50 2U05 Preparation of a marine microplastic model sample
Hisayuki Nakatani, Yuina Oshima, Taishi Uchiyama, Suguru Motokucho
- 11:15 2U06 Formation Mechanism of Polyolefin Microplastics based on Artificial Degradation Experiment
Tomoko Kajiwara, Yingjun An, Adchara Padermshoke, Akemi Kumagai, Hironori Marubayashi, Sono Sasaki, Hiroyasu Masunaga, Hiroshi Jinnai, Atsuhiko Isobe, Atsushi Takahara
- 11:40 2U07 The synergistic effect of UV radiation and marine microorganism on polyurethane elastomer degradation
NGUYEN Van Thinh, KAJIWARA Tomoko, AN Yingjun, YASUNORI Kusano, TAKAHARA Atsushi

Yoshito Andou, presiding

- 12:55 2U08 Effect of short oligomers from biodegradable polycaprolactone on the ecology and neuron cells
Naoto Yoshinaga, Ayaka Tateishi, Takahiro Yamagishi, Hiroshi Yamamoto, Kotaro Satoh, Keiji Numata
- 13:20 2U09 Improvement of toughness for thermoplastic starch / biodegradable plastic blends with the addition of bio-based plasticizer
Kazuki Shibasaki, Yuka Asai, Hsu Yu-I, Hiroshi Uyama

- 13:45 2U10 Improving properties of starch contained bioplastic blends
Kaita Kikuchi, Yu-I Hsu, Hiroshi Uyama
- 14:10 2U11 Dual-crosslinked Starch/Carboxymethyl Cellulose Blend Film with Ion-responsive Dissolution Properties
YUXIANG JIA, Yu-I Hsu, Hiroshi Uyama
- Daisuke Ishii, presiding**
- 14:35 2U12 Chemically recyclable poly(styrene derivative)s degradable to their monomer precursors
Yota Chiba, Yasuhiro Kohsaka
- 15:00 2U13 Development of Oxidatively Degradable Polymer Using Novel Oxidatively Degradable Functional Group
Nobuhiro Kihara, Haruyuki Yamaguchi
- 15:25 2U14 Development of Aliphatic Polycarbonates with Functional Side Chains and Control over Their Nanostructures
Kazuki FUKUSHIMA, So NAKAI, Yichen GONG, Junya UCHIDA, Takashi KATO
- Suguru Motokucho, presiding**
- 15:50 2U15 Development of enzyme embedded plastics with degradation starting function
QIUYUAN HUANG, Satoshi Kimura, Tadahisa Iwata
- 16:15 2U16 Development of itaconic acid-based bionylon
Hongong Yin, Huaiyu Wang, Maninder Singh, Mohammed Asif Ali, Kenji Takada, Tatsuo Kaneko
- 16:40 2U17 Seawater biodegradability of polyrotaxane-added biodegradable polymer materials
Shota Ando, Kohzo Ito
- 17:05 2U18 Development of marine degradable plastics with degradation initiation switch function caused by reductive environment
Toyokazu Tsutsuba, Moe Shimizu, Yuya Tachibana, Ken-ichi Kasuya

Wed. Sep 7

S15. Environmental Problem Caused by Plastics and Their Solution

Nobuhiro Kihara, presiding

- 9:10 3U01 Development of polyethylene mechanical recycling process by dynamic shear treatment: Comparative study on linear and long chain branching structure
Patchiya Phanthong, Shigeru Yao
- 9:35 3U02 Development of Electromagnetic Shielding Material Using ASR (Automobile Shredder Residue) Plastic and Shot Carbon Fiber
Minato Wakisaka, Haruo Nishida, Taro Kimura, Shingo Saita, Hirofumi Kawazumi, Akihiro Tsuchida, Yasuo Tsuchida
- 10:00 3U03 Thermal degradation behavior of cellulose derivatives
Takayuki Tsukegi
- 10:25 3U04 Kinetic analysis of accurate chemical recycling of plastic materials
Haruo Nishida

Daisuke Kasai, presiding

- 10:50 3U05 Study on Marine Disintegration of Commercialized Biodegradable Film

Atsuyoshi Nakayama, Naoko Yamano, Norioki Kawasaki, Shodai Hino, Takashi Omoto, Hiroshi Hirano, Takeshi Kanzawa, Takeshi Kanzawa, Hiroto Munetsuna, Hiroharu Kojima, Masaya Watanabe, Yuki Takahashi, Shin Sano, Dai-ichiro Kato, Hideo Okamura

11:15 3U06 Biodegradability evaluation of plastics in marine
Takako KIKUCHI, Nao OSAKA, Hironori TAGUCHI, Hisao MATSUNO, Keiji TANAKA

11:40 3U07 Characterization of milimeter-thick methycellulose plate
Noriyuki Isobe, Jessica Naliharifetra, Keiko Tanaka, Hidetaka Nomaki

Haruo Nishida, presiding

12:55 3U08 Development of PHA elastic fibers by a new melt spinning method and evaluation of their physical properties, structure and environmental degradability
Taku Omura, Katsuya Komiyama, Sakura Tsujimoto, Akira Maehara, Tadahisa Iwata

13:20 3U09 Chemical Material Recycling of Plastic Wastes in High Temperature Fluids
Hideyuki Tagaya

13:45 3U10 Precise Thermal Degradation of Commodity Plastics for Chemically Recycling
Sasaki Daisuke, Atsushi Takamura, Takashi Sawaguchi

14:10 3U11 Purification and purity measurement of degraded polyethylene and polypropylene
Kazutoshi Ikenaga, Tatsuya Ogata, Ily Asilah Binti Ibrahim

Yuushou Nakayama, presiding

14:35 3U12 Chemical recycling of various polyurethane by using carbonic acid
Suguru Motokucho, Hisayuki Nakatani

15:00 3U13 Study on ambient-temperature depolymerization of polyester resins
Shinji Tanaka, Yumiko Nakajima

15:25 3U14 Pyrolytic synergistic interactions during co-pyrolysis of plastic and biomass
Shogo Kumagai, Toshiaki Yoshioka

15:50 3U15 Seawater-degradable electrospun polyester nanofiber reinforced with cellulose
Miyu Yamagata, Mizuki Irie, Yoshiyasu Nagakawa, Shin-ichiro Suye, Satoshi Fujita

Kousuke Tsuchiya, presiding

16:15 3U16 Effect of seawater immersion time of polycaprolactone thin films
Mamiko Takigawa, Kenshirou Kaji, Van Toan Nguyen, Hiroyasu Masunaga, Taiki Hoshino, Tomoko Kajiwara, Atsushi Takahara, Shinichi Sakurai, Sono Sasaki

16:40 3U17 Synthesis and Enzymatic Degradation of Divanillic Acid-derived Polyester with Phenolic Hydroxyl Groups
Kentaro Fujieda, Yukiko Enomoto, Tadahisa Iwata

17:05 3U18 Biodegradable thermoplastic elastomers synthesized from long-chain dicarboxylic acid, 2-methyl-1,3-propanediol and lactide
Takayoshi Matsuura, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono, Shodai Hino, Noriko Kawasaki, Noriko Yamano, Atsuyoshi Nakayama, Rie Tezuka, Kazuya Tanaka

17:30 3U19 Degradation of biodegradable polyesters by an extremely halophilic archaeon

Room V

Mon. Sep 5

S13. Polymeric Materials for Contributing Healthcare in Post-Corona World

- 12:45 1VSO Introductory Remarks S13
Atsushi Tamura, Ebara Mitsuhiro
Mitsuhiro Ebara, presiding
- 12:55 1V08 Quantitative Fluorescent Detection of Antibacterial Activity with Pyrene-Bearing Tannic Acid
Takehiro Fujita, Jun Hasegawa, Miki Onoue, Ryohei Matsubara, Takako Yamamoto, Masanobu Naito
- 13:20 1V09 Screening of antiviral polymer coating by luminescent surrogate virus
Kimio Sumaru, Toshiyuki Takagi, Masayuki Sano
- 13:45 1V10 Highly Sensitive Detection of Anti-PEG Antibody Using Synthetic Nanocellulose.
Kai Sugiura, Toshiki Sawada, Hiroshi Tanaka, Takeshi Serizawa
Kimio Sumaru, presiding
- 14:10 1V11 Development of antibody-smart polymer conjugates toward visual diagnosis of cervical cancer
Erika YOSHIHARA, Ahmed Nabil, Michihiro IJIMA, Mitsuhiro EBARA
- 14:35 1V12 Separation technology of next generation medicines using thermoresponsive polymer modified interfaces
Kenichi Nagase, Hideko Kanazawa
- 15:00 1V13 Design of fusion proteins that reversibly bind to DNA aptamers for sensitive detection of tumor cells
Kei Nishida, Gaoyang Wang, Masayasu Mie, Kobatake Eiry
- 15:25 1V14 Development of blood-brain barrier network models and their application to analysis of receptor-mediated transcytosis
Michiya MATSUSAKI, Marie Piantino
Kenichi Nagase, presiding
- 15:50 1V15 Remote Manipulation of Thermo/Mechano-Sensitive Channels Based on Polymer Conjugated Nanoparticles
Masao Kamimura
- 16:15 1V16 Liposomal nanoparticles for maintaining cell quality
Kiyoshi Sato, Koki Mino, Ayaka Mori, Keisuke Ashiba, Masahiro Yoshioka, Hiro Yoshi Kawakami
- 16:40 1V17 Design and Function of Polymer Nanosheets as an Adhesive Nanomaterial for UV Care
Yosuke Okamura, Khampeeraphan Ramphai, Shun Takimoto, Hiromi Kanda, Sakura Ono, Momori Odera, Ayumi Sakai, Nami Motosugi, Minoru Kimura, Tomotaka Mabuchi, Tomomi Hatanaka
Kei Nishida, presiding

17:05	1V18	Glucose sensor prepared by enzyme immobilized hydrogel consisting of zwitterionic polymer with redox unit <u>Madoka Takai</u> , Yixuan Huang, PanPan Gao, Takehiro Sato, Toshihiro Kasama, Ryo Miyake
17:30	1V19	Functionalization strategy of conducting polymers for biosensing <u>Tatsuro Goda</u>
17:55	1V20	Development of biosensing element for tissue-interfaced electronics <u>Toshinori Fujie</u> , Hajime Fujita

Tue. Sep 6

S13. Polymeric Materials for Contributing Healthcare in Post-Corona World

Tatsuro Goda, presiding

9:10	2V01	Synthesis of well-defined star-shaped zwitterionic polymers for intracellular delivery <u>Yuta Yoshizaki</u> , Tomohiro Konno
9:35	2V02	Permeation of sulfobetaine methacrylamide polymers into 3D cell aggregates <u>Nobuyuki Morimoto</u> , Takaki Hiroe, Masaya Yamamoto
10:00	2V03	Development of cell fabrication technology using with water-soluble phospholipid polymer bearing reversible function Sachi Moriwaki, Yuta Yoshizaki, <u>Tomohiro Konno</u>
10:25	2V04	Hydrogel microneedles with protein protective properties <u>Kazuaki Matsumura</u> , Harit Pitakjakpipop, Robin Rajan, Paisan Khanchaitit

Yuta Yoshizaki, presiding

10:50	2V05	Regulation of cell interaction by terminal groups of the dendrimer <u>Chie Kojima</u>
11:15	2V06	Preparation and selective internalization of L-serine-modified PEG-b-PLGA nanoparticles to renal epithelial cells Kanoko Takahashi, Syuuhei Komatsu, Yoshitsugu Akiyama, <u>Akihiko Kikuchi</u>
11:40	2V07	Construction of a Novel Carrier System for Cancer Cell-specific Delivery Utilizing MMP-9 Activity VI: Effects of PAD Copnjugated System for Cell Activity Control Ryota Azuma, Nagisa Kanazawa, Yuka Mattsuhashi, Ikuhiko Nakase, Tuyyoshi Yamamoto, Masaki Nishijima, Yasuyuki Araki, Asako Yamayoshi, <u>Takehiko Wada</u>

Chie Kojima, presiding

12:55	2V08	Improvement of pharmacokinetics and therapeutic effects of drug by newly designed molecular assembling system <u>Yutaka Ikeda</u> , Yukio Nagasaki
13:20	2V09	Self-assembled formation of fluorescein/Gd-chelate-conjugated polyethylene glycol for microvasculature MR imaging <u>Atsushi Mahara</u> , raghav Soni, Shigeyoshi Saito, Tetsuji Yamaoka
13:45	2V10	Molecular design of cationic/hydrophobic polypeptide derivatives for mRNA delivery <u>Kanjiro Miyata</u> , Jongmin Yum, Mitsuru Naito, Satoshi Uchida, HyunJin Kim

Atsushi Mahara, presiding

- 14:10 2V11 Preparation of estrogen-immobilized polyphosphodiester and their effect on the differentiation of bone cells
Shun Mabuchi, Souta Fukaura, Yasuhiko Iwasaki
- 14:35 2V12 Hepatocyte-Specific Delivery Carrier of Zn²⁺ Ions for Diabetes Therapy
Shoichiro Asayama, Akito Endo
- 15:00 2V13 Intracellular synthesis of an anti-cancer peptide amphiphile using kinase overexpressed in cancer cells
Tatsuo Maruyama, Kanon Nishimura, Kenta Morita, Shota Yamamoto, Natsumi Shimizu, Takashi Aoi, Atsuo Tamura
- 15:25 2V14 Apoptosis induction by epidermal growth factor-nanoparticle conjugates: Studies to improve anti-cancer activities
Jun Nakanishi, Shota Yamamoto, Aiwon Zhang, Shima Abdellatef, Karim El-Said

Yutaka Ikeda, presiding

- 15:50 2V15 Development of PEGylated antibodies with intratumoral activation and their application to immune checkpoint blockade therapy
Yuki Mochida, Tao Yang, Xueying Liu, Hiroaki Kinoh, Horacio Cabral, Kazunori Kataoka
- 16:15 2V16 Preparation of HA-OVA conjugates for inducing foreign antigen presentation to cancer cells
Souichi Ogata, Shinichi Mochizuki
- 16:40 2V17 Effect of spacer structures on immune cell-activation property of carboxylated polysaccharides
Eiji Yuba, Xin Shu, Atsushi Harada
- 17:05 2V18 Effective CpG DNA delivery using polysaccharide-nucleic acid complexes to induce cytotoxic T activity and its application to vaccines
kazuo sakurai

Wed. Sep 7

S13. Polymeric Materials for Contributing Healthcare in Post-Corona World

Yuji Teramura, presiding

- 9:10 3V01 Removal of adsorbed proteins from hydrogels that reconstruct hydrophilic surfaces through surface degradation
Naoki Kamei, Syuuhei Komatsu, Akihiko Kikuchi
- 9:35 3V02 Synthesis of thermally degradable and highly efficient self-healing hydrogel using dynamic covalent 3D nanoparticle crosslinkers
Mahmoud Hassan Mahmoud Othman, Yoshihiro Ito, Jun Akimoto
- 10:00 3V03 A Peptide That Gives Bacterial Selectivity on a Conventional Antifungal Drug
Kenta Morita, Yuya Nishimura, Jun Ishii, Tatsuo Maruyama
- 10:25 3V04 Nanospine structure formation on microfiber surfaces of cellulose materials
Yuuki Hata, Sumiyo Hiruma, Hiromi Miyazaki, Shingo Nakamura

Tsuyoshi Kimura, presiding

- 10:50 3V05 Development of tissue adhesive gelatin microparticle-based colloidal gel for wound dressing and prevention of postoperative adhesion

- Shima Ito, Kazuhiro Nagasaka, Akihiro Nishiguchi, Fumisato Sasaki, Hidehito Maeda, Masayuki Kabayama, Akio Ido, Tetsushi Taguchi
- 11:15 3V06 Development of a Hydrogel Injection Material with Postoperative Ulcer Protective Function in Gastric and Duodenal Endoscopic Submucosal Dissection
Haruna Tsuchibora, Keiko Yamamoto, Takayuki Kurokawa
- 11:40 3V07 Design of hotmelt tissue adhesive based on controlling sol-gel transition and their application for anti-adhesive barrier
Akihiro Nishiguchi, Shima Ito, Kazuhiro Nagasaka, Tetsushi Taguchi
- Akihiro Nishiguchi, presiding**
- 12:55 3V08 Stability and hemocompatibility of cross-linked phospholipid polymer coating with different hydrophobic anchoring moieties
Kazuto Uchida, Tsukuru Masuda, Shintaro Hara, Madoka Takai
- 13:20 3V09 Development of Aliphatic Condensation Polymers with Hydration Functions in the Main and Side Chains
Kazuki FUKUSHIMA, Yuki OTA, Natsuha MOMMA, Takashi KATO
- 13:45 3V10 Effect of Polystyrene Surface Modification on Cell Adhesion onto Thermoresponsive Culture Substrates and Its Application
Masamichi Nakayama, Teruo Okano
- 14:10 3V11 Molecular design of cellular surface for regulation of immune response
Yuji Teramura, Anna Adler, Ekdahl Kristina, Bo Nilsson, Kazuhiko Ishihara
- Tomohiro Konno, presiding**
- 14:35 3V12 Screening of glycopolymer structures that suppress inflammatory reaction in macrophage-like cells
Takato Ishida, Masanori Nagao, Hirohiko Ise, Yu Hoshino, Yoshiko Miura
- 15:00 3V13 Macrophage response to various polymeric materials
Ruri Ishigaki, Tsuyoshi Kimura, Yoshihide Hashimoto, Takahide Matsushima, Hiroshi Asahara, Wataru Namura, Naoko Nakamura, Masaya Yamamoto, Akio Kishida
- 15:25 3V14 Development of a mineralized decellularized tissue for soft-hard tissue
Mika Suzuki, Tsuyoshi Kimura, Masahiro Okada, Takuya Matsumoto, Hironobu Takahashi, Tatsuya Shimizu, Naoko Nakamura, Yoshihide Hashimoto, Akio Kishida
- 15:50 3V15 Novel biomaterial's design: cell-type-specific shape is incorporated into biomaterials as essential factors generating cell shape derived functions
Tokitaka Katayama, Koji Nagahama
- Kazuki Fukushima, presiding**
- 16:15 3V16 Investigation of cellular behavior in temperature-responsive injectable polymer gels with cell adhesion peptides
Nobuo Murase, Yoshiaki Hirano, Yuichi Ohya
- 16:40 3V17 Cartilage Tissue Regeneration Using Porous Collagen Scaffolds Prepared by Template Method
Guoping Chen, Yan Xie, Naoki Kawazoe
- 17:05 3V18 Cell Regulation by Visible Light- and Temperature-responsive Polymer Materials with Controllable Physical and Chemical Properties
Masaaki Okihara, Akifumi Kawamura, Takashi Miyata
- 17:30 3V19 Creation of Bioactive Interfaces using Shape Memory Polymers
Koichiro UTO, Mitsuhiro EBARA

Room W

Mon. Sep 5

S14. Observing, Creating, and Manipulating Biosystems by Biopolymers

- 12:45 1WSO Introductory Remarks S14
Kazunori Matsuura, Hiroshi Inaba
- Akinori Kuzuya, presiding**
- 12:55 1W08 Orthogonal signal amplification circuits composed of acyclic XNAs for RNA visualization
Keiji Murayama, Yanglingzhi Chen, Ryuya Nagao, Hiroyuki Asanuma
- 13:20 1W09 Quantitative analysis of molecular crowding effects on i-motif DNA
Shuntaro Takahashi, Saptarshi Ghosh, Pallavi Chilka, Tatsuya Ohyama, Naoki Sugimoto
- 13:45 1W10 Multiplexed protein imaging by fluorescent barcode labeling that changes fluorescence color
Koki Makino, Hiroyuki Asanuma, Hiromu Kashida
- Keiji Murayama, presiding**
- 14:10 1W11 Development of BRET system for sub-nm analysis of DNA Origami microstructure in liquid
Shiori Tabana, Yuki Minamide, Fumiaki Takano, Tomoya Niki, Akinori Kuzuya
- 14:35 1W12 Biological mechano-system revealed with DNA nano-device and nanometer-precision single-molecule imaging
Mitsuhiro Iwaki
- 15:00 1W13 Liquid-liquid phase separation of nucleic acids induced by their non-canonical structures
Daisuke Miyoshi, Mitsuki Tsuruta, Takeru Torii, Nagisa Takamiya, Masaya Gessho, Keiko Kawauchi
- Shuntaro Takahashi, presiding**
- 15:25 1W14 Sensitive detection of circulating tumor cells based on the successive strand exchange reaction of nucleic acids
Yusuke Kitamura, Shunpei Sakamoto, Tomoya Kotani, Yuta Nakashima, Masaaki Iwatsuki, Keiichiro Yasuda, Seitaro Kumamoto, Yosuke Katsuda, Hideo Baba, Yoshitaka Nakanishi, Toshihiro Ihara
- 15:50 1W15 Development of polymeric contrast agents for MRI diagnosis of cancer microenvironment and its application to PDX model
Kensuke Osada, Kazuaki Rikiyama, Mitsuru Naito, Kanjiro Miyata, Akira Sumiyoshi, Ichio Aoki
- 16:15 1W16 Observation of functional biomolecules in biosystems using the hardness and softness measurement
Hiroyuki Furusawa
- Kazunori Matsuura, presiding**
- 16:40 1W17 Functional Extension of Photosynthetic Light-Harvesting Complex 2 (LH2) and Ultrafast Excitation Energy Transfer
Takehisa Dewa, Masaya Kito, Tetsuya Yamamoto, Yusuke Yoneda, Masaharu Kondo, Hiroshi Miyasaka, Yutaka Nagasawa

- 17:05 1W18 Observation of Dynamic Behavior of Biological Macromolecules by High-Speed Atomic Force Microscopy
Takayuki Uchihashi
- 17:30 1W19IL Protein Assembly Materials -Structure, Function, Dynamics-
Takafumi Ueno

Tue. Sep 6

S14. Observing, Creating, and Manipulating Biosystems by Biopolymers

Takayuki Miki, presiding

- 9:10 2W01 Spaciotemporal analysis of algal organellar biosynthesis via Raman microscopy with stable isotope labeling
Yusuke Yonamine, Yasuyuki Ozeki, Yu Hoshino, Hideyuki Mitomo, Kuniharu Ijiri
- 9:35 2W02 Visualization system for enzymatic reactions using biomolecule-incorporated synthetic polymers
Hiroyasu Yamaguchi, Seiji Yamasaki, Kenji Kohara, Yuichiro Kobayashi, Akira Harada
- 10:00 2W03 Turn-On fluorescent imaging of gangliosides on cell membrane with dansyl-arginine oligopeptides
Kazunori Matsuura, Mizuki Okazaki, Shotaro Tsuchitori, Koichi Hisamoto, Hiroshi Inaba

Takeshi Mori, presiding

- 10:25 2W04 Tracking of organ distribution and mortality of transplanted stem cells by using of novel MRI contrast agent
Tetsuji Yamaoka, Chihiro Hiriuno, Yu-I Hsu, Yuichi Ohya, Atsushi Mahara, Kyoko Fukazawa
- 10:50 2W05 Attenuation of Oxidative Stress in Nonalcoholic Steatohepatitis by Cysteine-based Antioxidant Nanoparticles
Yuta Koda, Yukio Nagasaki
- 11:15 2W06 Engineering extracellular vesicles for their comprehensive understanding and applications
Ryosuke Kojima
- 11:40 2W07 Development of polymer ligand-modified liposomes for neutralizing target toxins
Hiroyuki Koide, Yu Hoshino, Naoto Oku, Tomohiro Asai

Kazuma Yasuhara, presiding

- 12:55 2W08 Construction of self-assembling alpha-hemolysin-displaying liposomes for contact molecular communication
Tomoaki Matsuura, Yuta Ishii, Takeshi Yokoyama, Yoshikazu Tanaka
- 13:20 2W09 Temporal pattern-dependent stimulus response of a synthetic dipeptide coacervate
Ryou Kubota, Shogo Torigoe, Itaru Hamachi
- 13:45 2W10 Autonomous control of lipid vesicle/sheet transformation by peptide chaperoning
Shutaro Takahashi, Masuda Tsukuru, Seiya Takemura, Shimada Naohiko, Atsushi Maruyama
- 14:10 2W11 Development and post-modification of supramolecular hydrogels based on in-situ enzymatic synthesis of self-assembling peptides
Yuki Shintani, Masato Ikeda

Toshiki Sawada, presiding

- 14:35 2W12 Construction and in-situ imaging of supramolecular fibers that repeat elongation and decomposition by the addition of surfactants
Shogo Torigoe, Kazutoshi Nagao, Ryou Kubota, Itaru Hmachi
- 15:00 2W13 Formation of lipid nanodisc by amphiphilic polymers and its application as a nano-carrier
Kazuma Yasuhara, Jinyu Hao, Yuma Mitsuyoshi, Gwenael Rapenne
- 15:25 2W14 Construction of supramolecules by fusion of self-assembling peptide tag
Takayuki Miki, Masahiro Hashimoto, Keigo Kajiwara, Taichi Nakai, Hiroki Takahashi, Sae Nakayama, Hisakazu Mihara
- 15:50 2W15 Fabrication of nanostructured materials from self-assembling collagen-mimetic peptides
Tomoyuki Koga, Shinya Kingetsu, Aika Ikejiri, Shin-nosuke Nishimura, Nobuyuki Higashi

Masato Ikeda, presiding

- 16:15 2W16 Amphiphilic oligo(ethylene glycol)s as protein stabilizers: effect of structure
Wijak Yospanya, Thirasara Sammani, Kohei Sato, Adam M. Wawro, Kazushi Kinbara
- 16:40 2W17 Head-to-head and Tail-to-tail Dual Interactions by Head-tail Asymmetric Protein Needles for Designing Hierarchical Two-dimensional Assembly Networks
Kosuke Kikuchi, Koki Date, Takafumi Ueno
- 17:05 2W18 Improvement of thermal diffusivity of filamentous virus-based assemblies through genetic engineering and machine learning
Toshiki Sawada, Takashi Kishida, Takeshi Serizawa

Wed. Sep 7

S14. Observing, Creating, and Manipulating Biosystems by Biopolymers

Satoshi Yamaguchi, presiding

- 9:10 3W01 Synthetic glycopolymer ligands with the optimized molecular topology and size for interacting with the target protein
Masanori Nagao, Ai Yamaguchi, Teruhiko Matsubara, Yu Hoshino, Toshinori Sato, Yoshiko Miura
- 9:35 3W02 Controlled synthesis of alternating glycopolymers having pendant sulfated carbohydrate residues as novel chondroitin sulfate mimics
Hiroki Inaoka, Ryohei Saiga, Tomonori Waku, Jin Motoyanagi, Masahiko Minoda
- 10:00 3W03 Analysis of formation of polysaccharide complexes using molecular dynamics (MD) simulation
Kazutoshi Iijima, Makoto Yamazaki, Makoto Yabe

Masanori Nagao, presiding

- 10:25 3W04 Photo-degradable protein-polymer hybrid materials for caging living cells
Satoshi Yamaguchi, Kazuki Chujo, Akimitsu Okamoto
- 10:50 3W05 Optical manipulation of microtubule structures by spiropyran-modified Tau-derived peptides
Hiroshi Inaba, Minamo Sakaguchi, Arif Md. Rashedul Kabir, Akira Kakugo, Kazuki Sada, Kazunori Matsuura

- 11:15 3W06 A concept of redirectional medicine: application to natural antibody
Takeshi Mori,Yoshiki Katayama
- 11:40 3W07 Biomembrane-inorganic hybrid materials: Functional control of biomembrane vesicles by hybridization of inorganic nanoparticles
Ryosuke Mizuta,Shinichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi

Atsushi Maruyama, presiding

- 12:55 3W08 Metal species dependent association behavior of polymer metal complexes to DNA and regulation on the gene expression
Shigehito Osawa,Remi Watanabe,Sosuke Kurokawa,Hidenori Otsuka
- 13:20 3W09 Novel Design Strategy of DNA-Artificial Nucleic Acid Chimera Toward Enhancement of Target RNA Cleavage Activities: Application for COVID-19 Therapeutics III
Nozomu Ishiwata,Kazutoshi Fujita,Yuto Horiuchi,Masahito Inagaki,Hironori Hayyashi,Masaki Nishijima,Yasuyuki Araki,Hiroyuykii Sato,Akiko Namba,Eiichi Kodama,Takehiko Wada
- 13:45 3W10 Development of long-chain extension reaction of L- α TNA based on kinetic analysis of non-enzymatic template-directed synthesis
Hikari Okita,Keiji Murayama,Hiroyuki Asanuma

Takehiko Wada, presiding

- 14:10 3W11 Development of new type DNA Origami structure with DX motif
Yuki Minamide,Yuki Mano,Fumiaki Takano,Haruki Tanaka,Akinori Kuzuya
- 14:35 3W12 Effect of base pair on DNA-mediated intermembrane interaction
Yusuke Arima,Yusuke Ohno,Tamada Kaoru
- 15:00 3W13 Investigation of improvement of gene delivery efficiency into plant mitochondria by DNA-peptide complex containing cell penetrating and mitochondrial transit peptides
Naoya Abe,Seiya Fujita,Takaaki Miyamoto,Kousuke Tsuchiya,Keiji Numata

Yoshihiro Sasaki, presiding

- 15:25 3W14 Development of nanoparticle vaccine which can induce immunological response via intranasal administration
Yuichi Ohya,Kengo Suzuki,Takuma Kato,Yuta Yoshizaki,Murase Nobuo,Akinori Kuzuya
- 15:50 3W15 Design of pH-responsive polypeptide gels and nanoparticles that regulate their molecular binding capacity by conformational change
Takashi Miyata,Tomoya Iwagaki,Masaaki Kanazawa,Akifumi Kawamura
- 16:15 3W16 Development of polypeptide-based polyion complex (PIC) nanoparticles with tunable physicochemical nature for selective cellular interaction and manipulation of cellular function
Aulia Fadlina,Hiroaki Matsuba,Teruki Nii,Takeshi Mori,Yoshiki Katayama,Akihiro Kishimura

Hiroshi Inaba, presiding

- 16:40 3W17 Peptide design to overcome multiple barriers in plant cells for intracellular delivery of nucleic acids and proteins
Takaaki Miyamoto,Keiji Numata
- 17:05 3W18 Development of cell cross-linked hydrogels-based skeletal muscle tissue regeneration technology utilizing mechanobiology
Natsumi Ueda,Koji Nagahama
- 17:30 3W19 Decisiveness of poly(ethylene glycol)(PEG) toward PEG specific antibodies
Koichi Shiraishi,Masayuki Yokoyama

Room ESA

Mon. Sep 5

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Takaaki Miyamoto, presiding

- | | | |
|-------|--------|---|
| 12:55 | 1ESA08 | Cicada-wing-inspired nanopillar hydrogels for capturing bacteria and their antibacterial properties
<u>Yohei Kotsuchibashi</u> |
| 13:20 | 1ESA09 | The design of pH-responsive anti-inflammatory particles for the treatments of inflammatory disease
<u>Shunsuke Matsumoto</u> , Mitsuhiro Ebara |
| 13:45 | 1ESA10 | Fabrication of microgrooved thin films by UV laser processing for the development of biohybrid actuators
<u>Hiroaki Mita</u> , Yousuke Mizuno, Toshinori Fujie |

Invited / Award Lecture “English Session”

Yukio Nagasaki, presiding

- | | | |
|-------|-----------|--|
| 14:10 | 1ESA11ILY | Mechanical Properties of Dynamic Cross-Linked Hydrogels with well-controlled structures and Biomedical Applications
<u>Takuya Katashima</u> |
| 14:35 | 1ESA12ILY | Synthetic polymer-like nucleic acids for natural protein-like functions
<u>Seung Soo Oh</u> |
| 15:00 | 1ESA13ILY | Functional modulation of microtubules by peptide-based molecular encapsulation
<u>Hiroshi Inaba</u> |
| 15:25 | 1ESA14ILY | DNA micro-disk : Toward reliable, manageable DNA-based data storage
<u>Yeongjae Choi</u> |

Teruaki Hayakawa, presiding

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|-------|-----------|---|
| 15:50 | 1ESA15ILY | Multi-Scale Analyses for Adhesion Phenomena of Acrylamide-Based Hydrogels
<u>Aya M. Akimoto</u> |
| 16:15 | 1ESA16ILY | Bioinspired Strategies for Artificial Photosynthesis
<u>Dong Ryeol Whang</u> |
| 16:40 | 1ESA17ILY | Selective Transmembrane Material Transport by Fluorinated Channels
<u>Kohei Sato</u> |
| 17:05 | 1ESA18ILY | Nature-inspired Adhesive Pigment for Spatial Marking of Biomarkers
<u>Seonki Hong</u> , Haejin Jeong |

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Yohei Kotsuchibashi, presiding

- 17:30 1ESA19 Exploring the self-assembly of MaSp1 dragline silk spidroin into native-like hierarchical fibers
Ali Malay, Keiji Numata
- 17:55 1ESA20 Self-assembled zwitterionic polymer-based micelles as removable protein stabilizing agents
Robin Rajan, Kazuaki Matsumura

Tue. Sep 6

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Yukio Nagasaki, presiding

- 9:10 2ESA01 Mechanism of tumor microenvironment-selective cancer cell membrane disruption by molecular block functionalized with ursodeoxycholic acid
Kazuki Moroishi, Masahiko Nakamoto, Michiya Matsusaki
- 9:35 2ESA02 Analysis of Synergistic Inhibition Mechanism of Cancer Cell Metabolism by Hetero Ligands Polyglutamic Acid Derivatives
Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki

Michiya Matsusaki, presiding

- 10:00 2ESA03 Design of Ornithine-Based Polymer Assembling Drugs Reduces Systemic Ammonia in Acute Liver Injury
Yuanyuan Ding, Yuta Koda, Babita Shashni, Yukio Nagasaki
- 10:25 2ESA04 Antioxidant nanoparticles that scavenge intestinal reactive oxygen species inhibit exercise-induced gastrointestinal syndrome and improve exercise performance
Takuto Toriumi, Hajime Ohmori, Yukio Nagasaki
- 10:50 2ESA05 Radiation-based cancer therapy using self-assembling PEG-b-poly(vinylbutyrate) nanoparticle
Babita Shashni, Yukio Nagasaki

Guoping Chen, presiding

- 11:15 2ESA06 Cyclic RGD peptide-conjugated methylated beta-cyclodextrin-threaded polyrotaxanes for tumor-specific targeting.
Shunyao Zhang, Atsushi Tamura, Nobuhiko Yui
- 11:40 2ESA07 Design and Synthesis of Sub-10 nm Polymer-Drug conjugates for Drug Delivery Applications
Shan Gao, Satoshi Ohno, Keisuke Ogata, Shota Ishida, Nobuhiro Nishiyama, Yutaka Miura

Yutaka Miura, presiding

- 12:55 2ESA08 Exploration of characteristics that affect the pharmacokinetics of orally administrated polymer nanoparticles
Go Yasuno, Hiroyuki Koide, Sei Yonezawa, Tomohiro Asai
- 13:20 2ESA09 Zn-coordinated polymeric macromolecules designed selectively for killing cancer cells.
Nishant Kumar, Robin Rajan, Matsumura Kazuaki

Akihiro Nishiguchi, presiding

- 13:45 2ESA10 Influence of the water contents on the permeation mechanism of W/O type of microemulsions through the stratum corneum
Erika Nakamura, Mina Sakuagi
- 14:10 2ESA11 Development of Glioblastoma Therapeutic Mesh (G-mesh) Toward Local Chemo/thermotherapy

- Emiho Oe, Nanami Fujisawa, Yoshitaka Matsumoto, Mitsuhiro Ebara
- 14:35 2ESA12 Skin penetration mechanism of hydrophobic deep eutectic solvents composed of terpenes and monocarboxylic acids
Yuta Araki, Yuma Hamada, Norika Imamura, Koki Yamasaka, Mina Sakuragi
- Kazuaki Matsumura, presiding**
- 15:00 2ESA13 Elucidation of the skin penetration mechanism of microemulsions dispersed in oil base including hydrophobic deep eutectic solvents
Yuma Hamada, Mina Sakuragi
- 15:25 2ESA14 Composite scaffolds of gelatin and Fe₃O₄ nanoparticles for magnetic hyperthermia-based breast cancer treatment and adipose tissue regeneration
Rui Sun, Toru Yoshitomi, Naoki Kawazoe, Guoping Chen
- Koichiro Uto, presiding**
- 15:50 2ESA15 Development of oxygen releasing cell scaffolds and evaluation of its effectiveness on cell viability under hypoxic environments
Daisuke Tomioka, Michiya Matsusaki
- 16:15 2ESA16 Drug-loaded injectable hydrogel with tissue-adhesive ability
Hue Le Thi, Atsushi Mahara, Tetsuji Yamaoka
- Tetsuji Yamaoka, presiding**
- 16:40 2ESA17 Development and in vivo evaluation of self-expandable hydrogel biliary stent with anisotropic swelling behavior
Yoshiyasu Nagakawa, Satoshi Fujita, Shunji Yunoki, Takayoshi Tsuchiya, Kenji Kinoshita, Shin-ichiro Suye, Moto Sasaki, Takao Itoi
- 17:05 2ESA18 Design of Urease Immobilized Nanofiber Meshes to Remove Urea from Blood of Patients with Chronic Kidney Disease
Makoto Sasaki, Yihua Liu, Mitsuhiro Ebara

Wed. Sep 7

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

- Takashi Matsuhira, presiding**
- 9:10 3ESA01 Construction of histidine clusters in a ferritin cage for the oxidase-mimetic catalysis
JIAXIN TIAN, Basudev Maity, Satoshi Abe, Takafumi Ueno
- 9:35 3ESA02 Cell-free protein crystallization for rapid structure analysis
Junko Tanaka, Satoshi Abe, Takafumi Ueno
- 10:00 3ESA03 Engineering of Hybrid Protein Crystals for Enzyme-coupled Catalysis
Tiezheng Pan, Basudev Maity, Satoshi Abe, Takafumi Ueno
- Nobuhiro Nishiyama, presiding**
- 10:25 3ESA04 Unusual pK_a values of conserved residues governs the pH response dimerization of N-terminal domain of spider dragline silk protein
Nur Alia Oktaviani, Ali D. Malay, Akimasa Matsugami, Fumiaki Hayashi, Keiji Numata
- 10:50 3ESA05 Rheological properties of supramolecular hydrogel composed of hemoglobin and four-armed PEG
Takashi Matsuhira, Hiromi Sakai
- Takafumi Ueno, presiding**

- 11:15 3ESA06 Chemical synthesis of all-peptide-based rotaxanes from cyclic peptides interacting with primary amines.
Taichi Kurita, Masahiro Higashi, Joan Gimenez-Dejoz, Seiya Fujita, Hirofumi Sato, Hiroataka Uji, Keiji Numata
- 11:40 3ESA07 pH-changeable polyzwitterion-introduced nanosystem for plasmid DNA delivery
Shen Xin, Anjaneyulu Dirisala, Toyoda Masahiro, Honda Yuto, Nomoto Takahiro, Takemoto Hiroyasu, Miura Yutaka, Nishiyama Nobuhiro
- Noriyuki Uchida, presiding**
- 12:55 3ESA08 Protease-triggered delivery with carbon nanotube-based nanocarriers in plant mitochondria.
Simon Sau Yin Law, Geoffrey Liou, Yukiko Nagai, Kousuke Tsuchiya, Yutaka Kodama, Tsuyohiko Fujigaya, Keiji Numata
- 13:20 3ESA09 Development of multiblock amphiphilic cyclophanes and their functions within lipid bilayer membranes
Ryoto Matsuda, Kohei Sato, Kazushi Kinbara
- 13:45 3ESA10 Screening and structural analysis of boronic acid-conjugated polymers capable of stable ester formation with polyphenol structural molecules in in vivo.
Yuto Honda, Koichi Usukura, Takahiro Nomoto, Yutaka Miura, Nobuhiro Nishiyama
- Iwasaki Iwasaki, presiding**
- 14:10 3ESA11 Structural characterization of disk-shaped bicelles modified with an arginine oligomer at the different sites and their application for transdermal drug delivery systems
Mina Sakuragi, Sabrina Hasnol, Shota Fuji, Tsugumi Araki
- 14:35 3ESA12 Evaluation of structural properties and skin permeabilities of transfersomes dispersed in hydrated deep eutectic solvents
Amika Takada, Tsugumi Araki, Mina Sakuragi
- 15:00 3ESA13 Endocytosis-like Vesicle Fission by Membrane Expanding Molecular Machine Enabling Efficient Encapsulation of Huge Biomacromolecules
Noriyuki Uchida, Yunosuke Ryu, Teruhiko Matsubara, Toshinori Sato, Yasutaka Anraku, Takahiro Muraoka
- Kazushi Kinbara, presiding**
- 15:25 3ESA14 Glycosylation induced poly(sarcosine) coacervate: the characterization and the application
Yota Okuno, Yoshihiro Sasaki, Kazunari Akiyoshi, Yasuhiko Iwasaki
- 15:50 3ESA15 Preparation of Cationic Copolymer-Peptide Nucleic Acid Conjugates as DNA-responsive Chaperones
Wancheng Zhang, Naohiko Shimada, Atsushi Maruyama

Room ESB

Mon. Sep 5

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

Tsutomu Indei, presiding

- 12:55 1ESB08 Role of dynamic bonds on fatigue fracture of self-healing hydrogels

- Xueyu Li, Jian Ping Gong
- 13:20 1ESB09 Dynamical study of epoxy resin thin films in the curing process using GI-XPCS
Taiki Hoshino, Yasushi Okamoto, Atsushi Yamamoto, Hiroyasu Masunaga
- 13:45 1ESB10 Universality of osmotic pressure in dynamic covalent networks
Takashi Yasuda, Takuya Katashima, Naoyuki Sakumichi, Takamasa Sakai, Mitsuru Naito, Kanjiro Miyata, Yuichi Tei
- 14:10 1ESB11 Overshoot behavior of dynamically crosslinked hydrogel under start-up shear flow
Ryoya Onishi, Takuya Katashima, Mitsuru Naito, Kanjiro Miyata, Yuichi Tei, Takamasa Sakai

Youn Soo Kim, presiding

- 14:35 1ESB12 The research on the thermodynamic behavior of thermal-switching hydrogels
Dong Shi, Yuki Inoue, Hongguang Liao, Takauki Nonoyama, Jianping Gong
- 15:00 1ESB13 Macroscopic Chiral Symmetry Breaking That Emerges in Gelation
Kentaro Tashiro, Toshiaki Takei, Alejandro M. Fracaroli, Hiroyoshi Ohtsu, Masaki Kawano, Daisuke Hashizume
- 15:25 1ESB14 Role of co-surfactants on improving the mechanical response of lamellar photonic hydrogels
Milena Lama, Jian Ping Gong

Xueyu Li, presiding

- 15:50 1ESB15 Metal ligand coordination enables tunable mechanical properties in multiphase thermoplastic elastomer
Xiangyuan Guo, Shintaro Nakagawa, Naoko Yoshie
- 16:15 1ESB16 Bridge-rich and loop-less hydrogel networks through suppressed micellization of multiblock polyelectrolytes
Jihoon Han, Saeed Najafi, Joan-Emma Shea, Youn Soo Kim
- 16:40 1ESB17 Evaluation of shear, relaxation, and recrystallization effects on the microstructure of high-density polyethylene semicrystalline model by molecular dynamics simulations
Mohammed Althaf Hussain, Takashi Yamamoto, Shigeru Yao

Takuya Katashima, presiding

- 17:05 1ESB18 Stress Responses and Conduction Current of Electro-Rheological Nano-suspensions based on Titanium Dioxide Nano-Particles
Katsufumi Tanaka, Takumi Uchikoshi, Yuki Maenaka, Shingo Yonezumi, Masahiro Kawaguchi, Midori Takasaki, Haruki Kobayashi
- 17:30 1ESB19 Viscosity measurement of photo-reactive polymer using ultra-trace viscometer
Minami OKA, Masashi MIZUKAMI, Kazue KURIHARA, Satoshi HONDA

Tue. Sep 6

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

Koh-hei Nitta, presiding

- 9:10 2ESB01 Quantifying the Contributions of Crystallinity and Crosslinking Density in Energy Storage Density of Semi-crystalline Shape-memory Polymers

- Fulati Ailifeire, Koichiro Uto, Mitsuhiro Ebara
- 9:35 2ESB02 Thermal diffusivity of structured poly(ethylene glycols)
Mitsuhiro Matsumoto, Meguya Ryu, Kohei Sato, Anna Ishikawa, Takashi Kajitani, Yoshihisa Sei, Nobutaka Honma, Katsuhiko Nakajima, Junzo Ukai, Junko Morikawa, Kazushi Kinbara

- 10:00 2ESB03 High-entropy polymer blends utilizing in situ exchange reactions
Takayuki Hirai, Kenichi Yagi, Nakai Kyoko, Kazuo Okamoto, Daisuke Murai, Hirotaka Okamoto

Kanjiro Miyata, presiding

- 10:25 2ESB04 Cure characteristics and mechanical properties of natural rubber prepared with ZnO nanoparticles
KIM Bunsreyneang, Kanoktip Boonkerd, Seiichi Kawahara

- 10:50 2ESB05 Viscosity and Scaling of Ionic-Liquid-Based Polyelectrolytes in Non-Aqueous Solvents with Various Dielectric Constants
Atsushi Matsumoto, Hiroto Osada, Ryosuke Ukai, Shinji Sugihara, Yasushi Maeda

- 11:15 2ESB06 Microphase separation induced by the segregation of side chains in styrene-maleic-acid alternating copolymers and its derivatives
Kiesuke Nishi, Takuma Kanamaru, Kazuo Sakurai

- 11:40 2ESB07 Microrheological study of semi-dilute entangled polymer solutions
Tsutomu Indej, Tetsuharu Narita

Osamu Urakawa, presiding

- 12:55 2ESB08 Monodisperse Synthesis of Structurally Flexible Aliphatic Polyketones and Chain-length Dependent Crystallinity Changes
Yumehiro Manabe, Yuki Ide, Yuya Inaba, Yusuke Kinoshita, Tomoki Yoneda, Yasuhide Inokuma

- 13:20 2ESB09 Water distribution in human hair fiber, analysis by DNP-SANS approach
Yohei Noda, Satoshi Koizumi, Tomoki Maeda, Takumi Inada, Aya Ishihara, Hiroyuki Inoue

- 13:45 2ESB10 Crosslinks of SBR Rubber investigated by DNP SANS
Satoshi Koizumi, Yohei Noda, Tomomi Masui, Hiromichi Kishimoto

- 14:10 2ESB11 Water in Nafion investigated by DNP SANS
Satoshi Koizumi, Yohei Noda, Takumi Inada, tomoki Maeda, Henrich Fielinghaus, Olf Holderer

Satoshi Koizumi, presiding

- 14:35 2ESB12 Water-free liquid phase crystallization of Cs₄PbBr₆ perovskite single crystals based on phase diagram
Satoshi Watanabe, Taiki Hayashida, Yuusuke Inomata, Masashi Kunitake, Tetsuya Kida

- 15:00 2ESB13 Crystal Transition and Accelerated Relaxation Process of Melt-spun Polyamide 4 Microfibers in Underwater Environments
Hisao Matsuno, Jin-Hyeok Hong, Haruki Mokudai, Takashi Masaki, Keiji Tanaka

- 15:25 2ESB14 Control of Molecular Motion for Low Mass Guest Molecules Confined in sPS Crystals
Osamu Urakawa, Ryosai Inoue, Tadashi Inoue, Fumitoshi Kaneko

Satoshi Watanabe, presiding

- 15:50 2ESB15 Doping effects of lithium halides on rheological and tensile properties of poly(methyl methacrylate)
Asae Ito, Arisa Shin, Koh-hei Nitta

- 16:15 2ESB16 Molecule mechanism of enhanced binding interaction between cyclodextrin hyperbranched polymer and vanillin: NMR study
Anh Doan, Shota Fujii, Kazuo Sakurai
- 16:40 2ESB17 Effect of proteins on the stereoregularity and mechanical properties of vulcanized natural rubber
masaki yamano, seiichi kawahara

Wed. Sep 7

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

Xueyu Li, presiding

- 9:10 3ESB01 Mechanical Properties of Chemically Cross-Linked Polybutadiene Ultrathin Films
Masayuki Saito, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 9:35 3ESB02 Aggregation State and Strength at the Polystyrene/Substrate Interface Controlled by Oligomer Segregation
Manabu Inutsuka, Hirohmi Watanabe, Masaru Aoyagi, Norifumi Yamada, Chisa Tanaka, Takayuki Ikehara, Daisuke Kawaguchi, Satoru Yamamoto, Keiji Tanaka
- 10:00 3ESB03 Segmental dynamics in polymeric thin-films predicted by the dynamically correlated network model
Tatsuki NAKANE, Takashi SASAKI

Hideaki Yokoyama, presiding

- 10:25 3ESB04 Mechanism of polymer adsorption from the melt onto fluorinated silica surface
Minato Ishihara, Takashi Sasaki
- 10:50 3ESB05 Interfacial Viscoelastic Behavior of Aqueous Methylcellulose Solution in High Frequency Region
Kenji Yamaoka, Yoshihisa Fujii, Naoya Torikai
- 11:15 3ESB06 Direct Observation of Diffusion Behavior for Poly(tert-butyl methacrylate) Single Chains on Solid Surfaces
Masayuki KAWANO, Yuma MORIMITSU, Daisuke KAWAGUCHI, Satoru YAMAMOTO, Keiji TANAKA
- 11:40 3ESB07 Surface Aggregation States of Poly(dimethylsiloxane) in Cross-linked Films
Huiqiang Lu, Daisuke Kawaguchi, Keiji Tanaka

Naoya Torikai, presiding

- 12:55 3ESB08 Water accumulation at adhesion interface of epoxy resin under high humidity
Yuwei Liu, Hiroyuki Aoki
- 13:20 3ESB09 Direct Observation of Local Conformational Change for Polystyrene Single Chains Adsorbed on a Solid Surface
Yuma Morimitsu, Satoru Yamamoto, Keiji Tanaka
- 13:45 3ESB10 pH response of spontaneously forming cationic polymer brushes at air interface
Gota Kawano, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama

Hideto Minami, presiding

- 14:10 3ESB11 Accumulation of water at the interface between polypropylene thin film and substrate by neutron reflectometry

- Keisuke Shimokita, Katsuhiko Yamamoto, Tsukasa Miyazaki
- 14:35 3ESB12 Comparison between Ultrathin Films and the Bulk of Microbial Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) with Regard to Isothermal Crystallization Kinetics from the Melt
Toan Van Nguyen, Toshiteru Nagata, Kosei Noso, Kenshiro Kaji, Hiroyasu Masunaga, Taiki Hoshino, Shinichi Sakurai, Sono Sasaki
- 15:00 3ESB13 Arraying of Discrete C60s on Two-Dimensional Crystalline Templates Composed of Macrocycles through Stable Host-Guest Complexation
Shin-ichiro Kawano, Masato Nakaya, Masaaki Saitow, Atsuki Ishiguro, Takeshi Yanai, Jun Onoe, Kentaro Tanaka
- Katsuhiko Yamamoto, presiding**
- 15:25 3ESB14 Hydrolysis-induced morphology transition of micrometer-sized PMMA-b-PVAc particles prepared by ITP in an aqueous phase
Chujuan Huang, Toyoko Suzuki, Hideto Minami
- 15:50 3ESB15 Disassembly Mechanism of Pseudo-Polyrotaxane Nanosheet in Water
Shuntaro Uenuma, Naoki Ando, Hideaki Yokoyama, Kohzo Ito
- 16:15 3ESB16 Dispersion of Fullerenes in Water by Cyclized PEG and Pluronic
Yubo Wang, Hiroshi Hirata, Takuya Yamamoto

Room ESC

Mon. Sep 5

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Yoshinori Takashima, presiding

- 12:55 1ESC08 Morphology of Poly(ether-block-amide) block copolymer membranes and its effect on the gas permeation properties
Sinan FENG, Nutthon YOKACHUKSUSE, Hiroyasu MASUNAGA, Sono SASAKI, Roman SELYANCHYN, Shigenori FUJIKAWA, Shinichi MURATA, Atsushi TAKAHARA
- 13:20 1ESC09 Oxygen permselectivity of well-defined multi-stranded copolymers synthesized from monomers having some different polymerizable groups
Yu Zang, Jianjun Wang, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki
- 13:45 1ESC10 Bronsted acid-catalyzed synthesis of non-conjugated polythiophene thin films and their application to gas separation
Wataru Matsumoto, Hiroki Nagahata, Yuto Muramatsu, Toshikazu Sakaguchi, Takeru Iwamura, Masashi Shiotsuki

Masayuki Takeuchi, presiding

- 14:10 1ESC11 Functional design of polymeric materials based on movable cross-links
Ryohei Ikura, Shunsuke Murayama, Yuka Ikemoto, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Go Matsuba, Yoshinori Takashima
- 14:35 1ESC12 Preparation of polymer composites with thermal conductivity and electrical insulation using thermally conductive fibers
Kang Zhang, Jianhui Qiu, Eiichi Sakai, Guohong Zhang
- 15:00 1ESC13 Self-growth of DN gel with Monomer Supplied by Inner Channel

Gumi WEI, Daniel R. KING, Yumeko KUDO, Zhijian WANG, Qifeng MU, Tasuku NAKAJIMA, Jianping GONG

- 15:25 1ESC14 Low-CTE Colorless Polyimides Derived from Hydrogenated Pyromellitic Dianhydride (H-PMDA)
Masatoshi Hasegawa, Katsuki Ichikawa, Shuichi Takahashi, Junichi Ishii

Jian Ping Gong, presiding

- 15:50 1ESC15 Mechanism elucidation of azobenzene photomelting: Mixture melting point depression
Dennis Kwaria, Yasuo Norikane
- 16:15 1ESC16 Phase-separated Hydrogels with Embedded Nanogels to Improve Shrinking and Re-swelling Processes
Taehun Chung, Youn Soo Kim
- 16:40 1ESC17 Conformational Effect on Liquid Properties of Alkyl-diphenylanthracene Atropisomers
Xiao Zheng, Kazuhiko Nagura, Takashi Nakanishi
- 17:05 1ESC18 PDMAA Polymer Gel Fibers Produced by UV-Reactive Electrospinning
Takahashi Kohei, Hiroto Sakurai, Jin Gong

Shigenori Fujikawa, presiding

- 17:30 1ESC19 Controlled disassembly of Pseudo-polyrotaxane nanosheets by axial end capping
Yumi Shikano, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 17:55 1ESC20 Supramolecular Miktoarm Star Copolymers With a Zinc Phthalocyanine Core
Xinhao ZHONG, Junko AIMI, Masayuki TAKEUCHI

Tue. Sep 6

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Ikuyoshi Tomita, presiding

- 9:10 2ESC01 Molecular simulation on the effect of molecular isomerism for photoalignment of fluorine-containing polyimide
Hitoshi Sugiyama, Shuichi Sato, Kazukiyo Nagai
- 9:35 2ESC02 Generation of scattering centers at the interfacial gel polymerization in terpolymer system
Yuki Ino, Rei Furukawa
- 10:00 2ESC03 Spectroscopic Analysis for Mechanism of Electrochemically Triggered Upconverted Luminescence in DNA/Ru(bpy)₃²⁺ Hybrid Film and Their Device Application
Ryuki Ozawa, Kazuki Nakamura, Takashi Tachikawa, Norihisa Kobayashi

Kazuki Nakamura, presiding

- 10:25 2ESC04 Encapsulation of TiO₂ particle via in-situ emulsion polymerization
MD Kamrul Hasan, Kazushi Enomoto, Moriya Kikuchi, Seigou Kawaguchi
- 10:50 2ESC05 Synthesis and Applications of Superhydrophobic Nanomaterials by Living Coordination Block Copolymerization of Allene Derivatives Through Polymerization-induced Self-assembly Process
Yidan Cheng, Takeshi Wakiya, Shinsuke Inagi, Ikuyoshi Tomita
- 11:15 2ESC06 Biomimetic Superhydrophobic Surfaces with Gecko, Petal, and Lotus Effect
Wei Weng, Mizuki Tenjimbayashi, Masanobu Naito

E. POLYMERS AND ENVIRONMENT “English Session”

Arisa Fukatsu, presiding

- 12:55 2ESC08 Water induced switching from polymer to readily biodegradable oligomers using boron chemistry
Olivier DOAT, Yuki SEKIGUCHI, Shintaro NAKAGAWA, Naoko YOSHIE
- 13:20 2ESC09 Plasticizing Effect of Degradable Block copolymers with Low-Temperature Flow
Neha Sharma, Ikuo Taniguchi
- 13:45 2ESC10 Improved mechanical properties of thermoplastic starch made from thermo-mechanically modified starch by adding dicarboxylic acid.
Apakorn Thongmeepech, Tomonori Koda, Hiroko Yano, Akihiro Nishioka

Naoko Yoshie, presiding

- 14:10 2ESC11 Preparation of hydrogel based on naturally derived DNA
Arisa Fukatsu, Sari Kurisu, Kenji Okada, Masahide Takahashi
- 14:35 2ESC12 Enzymatic Degradation of BioNylons derived from Itaconic acid and Amino acid
Mohammad Asif Ali, Tatsuo Kaneko
- 15:00 2ESC13 Esterification of lignin from palm tree empty fruit bunches obtained by dilute maleic acid/n-butanol pretreatment
Elisabeth Rada Desideria Ito, Mayu Asada, Naoki Wada, Kenji Takahashi

F. INDUSTRIAL POLYMERS AND TECHNOLOGY “English Session”

Koichi Mayumi, presiding

- 15:25 2ESC14 Molecular Dynamics Simulation for fatigue damage of PEEK resin
Shun Iwamoto, Yutaka Oya, Jun Koyanagi
- 15:50 2ESC15 Molecular dynamics analysis of modified lignin for application to composite matrices
Taisei Akamatsu, Yutaka Oya, Go Masuda, Jun Koyanagi

Yutaka Oya, presiding

- 16:15 2ESC16 Enhanced Joint Strength Between Carbon Fiber Reinforced Polyamide and Aluminum Alloy by Changing Injection Temperature
Wei Zhao, Jianhui Qiu, Eiichi Sakai, Haonan Wu, Andong Pan, Huixia Feng
- 16:40 2ESC17 Study of joint strength and interface structure of carbon fiber reinforced PA composites by injection molding
Haonan Wu, Jianhui Qiu, Guohong Zhang, Eiichi Sakai, Wei Zhao

Wed. Sep 7

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

Yuta Nabae, presiding

- 9:10 3ESC01 Development of novel exo-methylene-type monomers containing nitrogen atoms and their application to synthesis of degradable polymers

Chihiro HOMMA, Shoki YOSHIMURA, Mineto UCHIYAMA, Masami KAMIGAITO

9:35 3ESC02 Synthesis of Hydrophilic Bio-Based Polymers from Glycerol-Derived Cyclic Vinyl Ethers
Riko Kashima, Tomohiro Kubo, Kotaro Satoh

10:00 3ESC03 Polymethylene Brushes via Surface-Initiated C1 Polyhomologation
Feng Li, Sophia Thiele, Harm-Anton Klok

Tomohiro Kubo, presiding

10:25 3ESC04 Controlled ring-opening copolymerization of a novel cyclic carbonate monomer with an ortho-nitrobenzyl group and photo-degradation of the resulting copolymers
Jiade WU, Masatoshi TOSAKA, Shigeru YAMAGO

10:50 3ESC05 Discrete chiral organic nanotubes: one-dimensional channel in five-fold symmetry
Tanhao Shi, Shixin Fa, Yuuya Nagata, Keisuke Wada, Shunsuke Ohtani, Kenichi Kato, Tomoki Ogoshi

11:15 3ESC06 Synthesis of Side-chain Type Block Copolymers via Click Chemistry and Control of Microphase-separated Structural Morphology
Zhengdan Lin, Yuta Nabae, Teruaki Hayakawa