

Room A

Wed. Sep 16

Invited Lecture

Masakazu Nakamura, presiding

13:20 1A09IL -Organic LED and the revitalization of regional economies
Junji Kido

Hiroshi Yabu, presiding

14:10 1A11IL Bridging a mesoscopic inhomogeneity to macroscopic performance of
amorphous materials
Yasumasa Nishiura

Hideharu Mori, presiding

15:25 1A14IL Synthesis of functional polymers via controlled/living cationic
polymerization
Sadahito Aoshima, Arihiro Kanazawa

Fumio Sanda, presiding

16:15 1A16IL Development of pi-Electronic Organic Molecules and Polymers -
Alignment and Connection -
Koji Takagi

Thu. Sep 17

Invited / Award Lecture

Takehiko Wada, presiding

10:25 2A02IL Gene therapy by oligonucleotides drug
Takanori Yokota

Masaya Mitsuishi, presiding

11:15 2A04IL Toward Design of Synthetic Molecular Engines Mimicking
Biomacromolecules
Kazushi Kinbara

Award Lecture

Yoshiki Katayama, presiding

13:20 2A07AL Development of polymer gel-based totally synthetic pancreas device
Akira Matsumoto

Michinari Kohri, presiding

14:10 2A09AL Development of pH-responsive polymers and their application
Shin-ichi Yusa

Yuichi Ohya, presiding

15:25 2A12AL Study of dynamic polymer brush

Hideaki Yokoyama

Keisuke Tajima, presiding

16:15 2A14AL Controlled synthesis of pi-conjugated polymers suited for organic electronics
Tomoya Higashihara

Akinori Saeki, presiding

17:05 2A16AL Studies on Smart Polymer Sensors
Gaku Fukuhara

Fri. Sep 18

Invited / Award Lecture

Masaru Nakagawa, presiding

10:25 3A02IL Structural Formation of Various Polymer Nanostructures Fabricated by Precise Polymer Process
Hiroshi Ito, Muanchan Paritrat, Yuki Watanabe, Kohta Kano, Akira Ishigami, Takashi Kurose

Jiro Kumaki, presiding

11:15 3A04IL Liquid marble stabilized with polymer particles
Syuji Fujii

Masaya Mitsuishi, presiding

13:20 3A07IL Polymer Nanomechanics -Current Status and Outlook-
Ken Nakajima

Room B

Wed. Sep 16

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Hiroto Kudo, presiding

10:25 1B04 Suppressed oxygen inhibition in UV curable formulations using a diene as an additive
Haruyuki Okamura, Nishijima Yuuki, Daiki Noguchi, Takashi Fukumoto, Yutaka Suzuki

10:50 1B05 Trommsdorff effect and polymerization induced phase separation
Eri Kato, Yasuhito Suzuki, Akikazu Matsumoto

11:15 1B06 Living Radical Polymerization of (Meth)acrylamide with Pyrazolyl Activated Amide Groups and Synthesis of Poly((Meth)allyl Alcohol)
Yuto SUGIURA, Takenori NISHIDA, Mineto UCHIYAMA, Kazuaki ISHIHARA, Masami KAMIGAITO

11:40 1B07 A Series of exo-Methylene Conjugated Dienes: Systematic Evaluation of the Reactivities and Macromolecular Design
Takenori NISHIDA, Kotaro SATOH, Masami KAMIGAITO

Haruyuki Okamura, presiding

- 12:55 1B08 Radical entry rate into polymer particles in emulsion copolymerization 2 : Copolymerization of styrene and acrylamide
Tomoyuki Yada, Kentaro Yamane, Ayaka Yamaguchi, Kiyoshi Suzuki
- 13:20 1B09 Radical Copolymerization of an Alkenyl Boronate Followed by Side Chain Replacement Based on the Unique Elemental Properties of Boron
Hiroshi Makino, Tsuyoshi Nishikawa, Makoto Ouchi
- 13:45 1B10 2:1 Alternating Radical Copolymerization of α -Trifluoromethyl Acrylate and Vinyl Ether for Synthesis of Fluorinated Functional Polymer
Dasom YOO, Masato MIYAJIMA, Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO, Bruno Ameduri
- 14:10 1B11 Synthesis of Sequence-Regulated Polymers with Functional Groups by Single Monomer Radical Addition and Thiol-Ene Polymerization
Yusuke YAMADA, Masato MIYAJIMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 14:35 1B12 Synthesis of Stereoregular Sequence-Regulated Vinyl Polymer by Atom Transfer Radical Addition and Olefin Metathesis
Masato Miyajima, Kotaro Satoh, Takahiro Horibe, Kazuaki Ishihara, Masami Kamigaito

Tsuyoshi Nishikawa, presiding

- 15:25 1B14 Synthesis of glycopolymer library using aqueous PET-RAFT polymerization
Takeshi Uemura, Yoshiko Miura, Yu Hoshino
- 15:50 1B15 Anionic polymerization of styrene derivatives possessing 1,3-dioxolane skeletons
Kana Miyata, Kazuki Takahata, Raita Goseki, Takashi Ishizone
- 16:15 1B16 Anionic polymerizability of 2,6-disubstituted styrenes
Mio Ishibashi, Raita Goseki, Takashi Ishizone

Arihiro Kanazawa, presiding

- 16:40 1B17 Sulfur-Free Cationic RAFT Polymerization Using exo-Methylene-Type α -Methylstyrene Derivative Dimers as Reversible Chain-Transfer Agents
Takayuki TANIMOTO, Masato MIYAJIMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 17:05 1B18 Photoinduced Cationic RAFT Polymerization of Vinyl Ethers Based on Photoredox Catalysis by Acridinium Salt
Marina MATSUDA, Masato MIYAJIMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 17:30 1B19 Synthesis of Degradable Multiblock Copolymers by Living Cationic Polymerization Using Cyclic Thioacetal as Reversible Chain-Transfer Agent
Yukihiko MURAKAMI, Mineto UCHIYAMA, kotaro SATOH, Masami KAMIGAITO
- 17:55 1B20 Radical and cationic polymerization of dehydroaspirin
Akane Kazama, Yasuhiro Kohsaka

Thu. Sep 17

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Tomohiro Kubo, presiding

- 10:00 2B01 Cationic copolymerization of *o*-phthalaldehyde and various enol ethers: Synthesis of new alternating copolymers based on the design of monomers
Keisuke Hayashi, Arihiro Kanazawa, Sadahito Aoshima
- 10:25 2B02 Development of Stereospecific Cationic Polymerization: Catalyst and Monomer Design
Hironobu Watanabe, Arihiro Kanazawa, Sadahito Aoshima
- 10:50 2B03 Synthesis and Polymerization of Cyclic Hemiacetal Esters with Acryloyl Group
Mai Yamashita, Yosuke Matsushashi, Shuji Yamashita, Yasuhiro Kohsaka
- 11:15 2B04 Development of Controlled Cationic Polymerization of Silyl Isopropenyl Ether
Naoki FUJIWARA, Takenori NISHIDA, Mineto UCHIYAMA, Masami KAMIGAITO
- 11:40 2B05 Controlled Cationic Polymerization and Radical Copolymerization of Bicyclic Diene with Vinyl Ether Moiety from Plant-Derived Isosorbide
Hayato YOSHIDA, Takenori NISHIDA, Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO

Mineto Uchiyama, presiding

- 12:55 2B06 Ring-Expansion Cationic Polymerization of Vinyl Ether with a Multifunctional Cyclic Initiator
Naoyuki Kusuyama, Makoto Ouchi
- 13:20 2B07 Synthesis and Evaluation of Fused Bisboron Complexes Having Expanded Conjugated Systems through Multiple Azo Groups
Masashi Nakamura, Masayuki Gon, Kazuo Tanaka
- 13:45 2B08 Nano-polyatenanes Self-assembled from Toroidal Supramolecular Polymers
Yasuki Kato, Sougata Datta, Shiki Yagai
- 14:10 2B09 Synthesis of metal-containing conjugated polymers bearing optically active phosphine ligands and construction of asymmetric aggregates
Soya Makino, Takahiro Ishida, Natsuhiko Sano, Hiromitsu Sogawa, Fumio Sanda
- 14:35 2B10 Synthesis of aromatic ladder polymer in Metal-Organic Frameworks
Takumi Miura, Takashi Kitao, Takashi Uemura

Takashi Kitao, presiding

- 15:25 2B12 Synthesis and Photophysical Properties of Conjugated Polymers Containing Boron Diiminate Complexes towards Highly Efficient Luminescence
Miyako Hashizume, Shunichiro Ito, Kazuo Tanaka
- 15:50 2B13 Synthesis and properties of conjugated polymers with platinum complex moieties in the main chain and platinacycles
Ken Motohara, Taichi Sotani, Sogawa Hiromitsu, Fumio Sanda
- 16:15 2B14 Synthesis and Optical Properties of Conjugated Compounds Based on Formazanate Complexes
Yoshinori ITO, Shunichiro ITO, Kazuo TANAKA

Hiromitsu Sogawa, presiding

- 16:40 2B15 Synthesis and evaluation of acid-base responsive conjugated polymer including Schiff base in the main chain
Taichi Kato, Masayuki Gon, Kazuo Tanaka
- 17:05 2B16 One-pot synthesis of polyrotaxane with various host/guest ratios in high purify and yield

- Takako Noritomi, Lan Jiang, Shota Ando, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 17:30 2B17 Transcription of Chirality from Metal-Organic Framework to Conjugated Materials
Takashi Kitao, Yusuke Nada, Yujiro Nagasaka, Takashi Uemura
- 17:55 2B18 Synthesis and Construction of Near-Infrared Emissive Boron Complexes Based on Molecular Orbitals of Hetero Rings
Hiromasa Takahashi, Hiroyuki Watanabe, Shunichiro Ito, Kazuo Tanaka

Fri. Sep 18

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Shiki Yagai, presiding

- 10:00 3B01 Microphase Separation of Random Copolymers: Molecular Design for Controlled and Layered Sub-10 nm Lamellar Structure
Takaya Ikami, Makoto Ouchi, Takaya Terashima
- 10:25 3B02 Microphase Separation of Amphiphilic Multicomponent Copolymers: Layout Control of Crystalline Pendants for Multidomain Structures
Sahori Imai, Makoto Ouchi, Takaya Terashima
- 10:50 3B03 Design Criteria of Amphiphilic Polymer Micelles: Control of Structure and Dynamic Behavior
Masayuki Hibino, Makoto Ouchi, Takaya Terashima
- 11:15 3B04 Synthesis of Fully-Fused Bisboron Azomethine Complexes with Solid-State Near-Infrared Emission
Shunsuke Ohtani, Masashi Nakamura, Masayuki Gon, Kazuo Tanaka
- 11:40 3B05 Evaluation of Alkyl Chain Length Dependence of Boron-fused Azomethine Polymers
Natsumi Yamada, Shunsuke Ohtani, Masayuki Gon, Kazuo Tanaka

Takaya Terashima, presiding

- 12:55 3B06 Synthesis and Solvent-Dependent Emission Properties of Conjugated Polymers Containing Boron Diiminate Complexes through Polycondensation of Malondialdehyde Derivatives and Aromatic Diamines
Yuki SAKAI, Shunichiro ITO, Kazuo TANAKA
- 13:20 3B07 Synthesis and Evaluation of Near-infrared Absorptive and Emissive Conjugated Polymers Using Tin-Fused Azobenzene Complexes
Kazuya Tanimura, Masayuki Gon, Kazuo Tanaka
- 13:45 3B08 Synthesis of star polymers composed of one-handed helical poly(phenylacetylene)s
Ayato INABA, Masato YAMAMOTO, Tsuyoshi TANIGUCHI, Kazuki MIYATA, Takeshi FUKUMA, Tatsuya NISHIMURA, Katsuhiko MAEDA
- 14:10 3B09 Templated synthesis of two-dimensional polymer networks using MOFs
Yuki Hayashi, Nobuhiko Hosono, Takashi Uemura
- 14:35 3B10 Synthesis of Soluble Ladder Polymers by Intramolecular ATRP of Multi-vinyl Polymer
Nozomi Sakai, Kazuya Natume, Moriya Kikuchi, Seigou Kawaguchi

Shunichiro Ito, presiding

- 15:25 3B12 Synthesis of cage compounds with p-t-butylcalix[n]arene (n = 4 and 8) in the main chain and their properties

15:50 3B13 Hiroyuki Maekawa, Hiroto Kudo
Synthesis of thermo-responsive tooth-brush like copolymer composed of chiral-oxazoline side-chain and PNIPAM
Haruka Takebuchi, Ren-Hua Jin

Room C

Wed. Sep 16

S1. Polymer Chemistry Based on Metal-free Catalyst

10:15 1CS0 Introductory Remarks S1
Naoki Haraguchi
Naoki Haraguchi, presiding

10:25 1C04IL Polymer chemistry developed by metal-free method
Toshifumi Satoh

10:50 1C05 Development of RAFT agent with radical-type mechanophore and its polymerization behavior
Daisuke Aoki, Hideyuki Otsuka

11:15 1C06 RAFT Polymerization of Methacrylic Esters with BOC Group and Functionalization of the Polymers
Kaito Osada, Jing Chu, Yasuhito Suzuki, Akikazu Matsumoto

11:40 1C07 Synthesis of Block Copolymer Assembly that Recognizes Thermal History via RAFT Aqueous Dispersion Polymerization
Shinji Sugihara, Yuto Tsutsui

12:55 1C08IL Development of Riboflavin Derivatives with Organocatalytic Activity and Their Application to Functional Macro- and Supramolecular Materials
Hiroki Iida
Takeshi Yamamoto, presiding

13:45 1C10 Synthesis and cross-linking of hyperbranched poly(ether ketone) for heterogeneous catalysis
Yuta Nabae, Kenta Yamamoto, Tomomi Ishihara, Teruaki Hayakawa

14:10 1C11 Synthesis of Polymer - supported diphenylprolinols and their application to asymmetric reaction.
Yudai Shinya, Rina Watanabe, Naoki Haraguchi

14:35 1C12 Design of polymer microsphere-immobilized chiral prolinol derivative and Michael addition reaction
Mithun Kumar Debnath, Naoki Haraguchi
Yukihiro Arakawa, presiding

15:25 1C14 Cinchona alkaloid polymers using Yamamoto coupling polymerization and their application to asymmetric reaction
Mohammad Farhadur Rahman, Ikuhide Fujisawa, Naoki Haraguchi, Shinichi Itsuno

15:50 1C15 Structure-controlled chiral polymers containing cinchona alkaloid moieties for their application to asymmetric catalysis
Hiroya Sasaki, Shinichi Itsuno

16:15 1C16 Asymmetric Steglich-Type Rearrangement of Oxindole Derivatives Using Chirality-Switchable Helical Polymer Catalysts Bearing 4-Aminopyridine Pendants
Takeshi Yamamoto, Takuya Takahashi, Ryo Murakami, Naoto Ariki, Michinori Suginome

Hiroki IIDA, presiding

16:40 1C17 Chirality Switching of Helical Polyquinoxaline Catalysts through Specific Nonbonding Interaction with Haloalkanes
Takaya Fujie, Takeshi Yamamoto, Michinori Suginome

17:05 1C18 Synthesis of chiral polymers containing sequenced guanidino groups in the main chain and their catalysis
Yukihiro Arakawa, Momoko Hara, Keiji Minagawa, Yasushi Imada

Toshifumi Satoh, presiding

17:30 1C19 Synthesis of functional polypeptides consisting of repetitive sequence via chemoenzymatic polymerization
Kousuke Tsuchiya, Keiji Numata

17:55 1C20 Synthesis of Amylose Analog Polysaccharides by Glucan Phosphorylase-catalyzed Enzymatic Polymerization
Jun-ichi Kadokawa

Thu. Sep 17

S1. Polymer Chemistry Based on Metal-free Catalyst

Miyuki Oshimura, presiding

10:00 2C01 Synthesis of cyclic vinyl polymer via ring-closing reaction without highly diluted condition and direct observation
Yuki Muramatsu, Mikihiro Hayashi, Akinori Takasu, Masahiro Higuchi

10:25 2C02 Synthesis of lactic acid/glycolic acid alternating copolymer by ring-opening polymerization of methylglycolide using organocatalysts
Takuya Isono, Kaoru Takojima, Kenji Tajima, Toshifumi Satoh

Takuya Isono, presiding

10:50 2C03 Ring-Opening Polymerization of *rac*-Lactide Using Thiourea and Quaternary Ammonium Salt Catalysts for Stereocontrol
Miyuki Oshimura, Ryota Shibuya, Kohei Toda, Tomohiro Hirano, Koichi Ute

11:15 2C04 Controlled cationic polymerization of vinyl monomers using organic Lewis acid catalysts
Koji Takagi

11:40 2C05 Precision Periodic Structures by Metal-Free Living Cationic Polymerization via Degenerative Chain-Transfer to Thioacetal
Mineto Uchiyama, Yukihiro Murakami, Masahiro Osumi, Kotaro Satoh, Masami KAMIGAITO

S3. Frontier of Polymer Synthesis by Profound Design of Key Reaction

12:45 2CSO Introductory Remarks S3
Yasuhiro Kohsaka, Ryohei Kakuchi

Ryohei Kakuchi, presiding

- 12:55 2C06IL Polymer Synthesis, Modification and Functions Highlighted by Elemental Reactions
Yasuhiro Kohsaka
Arihiro Kanazawa, presiding
- 13:20 2C07 Synthesis of Aromatic Polyketones by Nonstoichiometric Friedel-Crafts Polycondensations Utilizing Reactivity Changes
Kazuya Matsumoto, Riku Shoji, Shuko Hasegawa, Mitsutoshi Jikei
- 13:45 2C08 Development of new strategies for the modification, composition control, and preparation of methylaluminumoxane
Ryo Tanaka, Takeshi Shiono
Daisuke Aoki, presiding
- 14:10 2C09 End-Functionalized Poly(quinolyene-2,3-methylene) Using Aryl Palladium Initiator Containing Functional Groups
Kazuki Yamazaki, Naoya Kanbayashi, Taka-aki Okamura, Kiyotaka Onitsuka
- 14:35 2C10 Postpolymerization modification and main chain cleavage of poly(alkoxycarbonylmethylene)s
Hiroaki Shimomoto, Shogo Tsunematsu, Tomomichi Itoh, Eiji Ihara
Satoshi Honda, presiding
- 15:25 2C12 Synthesis of ABCD-type chain end sequence-controlled polymer by Living Anionic Addition Reaction
Kazuki Takahata, Raita Goseki, Ishizone Takashi
- 15:50 2C13 Synthesis, grafting, cyclization, and interconnection reactions of poly(tetrahydrofuran) by conjugate substitution at chain-ends
Naoki Nagatsuka, Kentaro Maehara, Madoka Kitamura, Yasuhiro Kohsaka
- 16:15 2C14 Controlled Cationic Copolymerization of Cyclic Acetals and Vinyl Monomers: The Control of Crossover Frequency Based on the Design of Active Species Derived from Cyclic Acetals
Kazuya Maruyama, Arihiro Kanazawa, Sadahito Aoshima
Hiroaki Shimomoto, presiding
- 16:40 2C15 Lewis Pair Radical Polymerization on-Water
Shin-ichi Matsuoka, Kazumasa Mori, Mayo Horibe, Tomoko Koyama, Masato Suzuki
- 17:05 2C16 Polymer Synthesis through Side-Chain Replacement: Radical Polymerization of an Alkenyl Boronate Followed by C-B Bond Cleavage in Polymer Reaction
Tsuyoshi Nishikawa, Hiroshi Makino, Tomoaki Kanazawa, Makoto Ouchi
Naoya Kanbayashi, presiding
- 17:30 2C17 Spiro Ladder Polymers with One-Handed Helical Geometry
Zheng Wei, Tomoyuki Ikai, Eiji Yashima
- 17:55 2C18 Synthesis of conformationally flexible diazacyclooctane-containing polymers using efficient and selective post-polymerization modification reactions
Fumitaka Ishiwari, Keiki Inoue, Takanori Fukushima

Fri. Sep 18

S3. Frontier of Polymer Synthesis by Profound Design of Key Reaction

Ryohei Kakuchi, presiding

10:00 3C01IL Precise Synthetic Chemistry of Nanocarbons Enabled by New Catalysis and Reaction: Annulative π -Extension (APEX) Reaction and Polymerization
Hideto Ito

Shohei Ida, presiding

10:50 3C03 Synthesis of multifunctional hyperbranched polymers and their application to dismantlable adhesives with interfacial debondability
Eriko Sato, Seidai Okada

11:15 3C04 Synthesis and Mechanical Properties of Alternating Peptides that Mimetic Functions of Viscoelastic Proteins
Yasuhito Koyama, Abu Bin Ihsan, Masataka Taniguchi

11:40 3C05 Mechanochromic Polymers with Asymmetric Radical-type Mechanophores That Can Generate Two Different Radical Species
Kosaku Yanada, Sota Kato, Daisuke Aoki, Hideyuki Otsuka

Fumitaka Ishiwari, presiding

12:55 3C06 Creation of dynamic polymer functions based on the scission and reformation of molecular chains
Satoshi Honda

13:20 3C07 Toughening and functionalization of gels by force-induced radical polymerization
Tasuku Nakajima, Takahiro Matsuda, Shotaro Namiki, Jian Ping Gong

Yasuhiro Kohsaka, presiding

13:45 3C08 Thermomechanical Properties of Designed Hydrogels with Crosslinked Domain Structure Prepared by RAFT polymerization-Induced Self Assembly
Miki Morimura, Shohei Ida, Masatoshi Oyama, Hiroki Takeshita, Shokyoku Kanaoka

14:10 3C09 A selection and optimization of organic transformation reactions as an feasible elementary reaction in polymer science
Ryohei Kakuchi, Kota Fukasawa, Ryo Takahashi, Hideki Amii

14:35 3C10 Cross-linking reaction of biobased polyester composed of bi(furfuryl alcohol)
Yuya Tachibana, Senri Hayashi, Azumi Narita, Tatsuya Wasano, Ken-ichi Kasuya

Room D

Wed. Sep 16

S2. Frontiers in Polymer Synthesis Directed towards Unprecedented Synthetic Methods and Materials

10:15 1DSO Introductory Remarks S2
Ikuyoshi Tomita, Hideharu Mori

Hideharu Mori, presiding

10:25 1D04IL Polymer Syntheses for Next Generation Polymer Science
Ikuyoshi Tomita

Makoto Ouchi, presiding

- 10:50 1D05 Precision Copolymerization of Polar and Non-Polar Olefins by Rare-Earth Catalysts
Zhaomin Hou
- 11:15 1D06 Polymerization of diazoacetates initiated by Pd complexes with a naphthoquinone-based ligand
Hiroaki Shimomoto, Yuto Miyano, Yumi Matsumura, Tomomichi Itoh, Eiji Ihara
- 11:40 1D07 Synthesis of conjugated polymers via Pd-catalyzed cross-dehydrogenative-coupling reaction
Takaki Kanbara

Ikuyoshi Tomita, presiding

- 12:55 1D08IL Syntheses of Stimuli-Responsive Topology-Transformable Polymers
Toshikazu Takata

Bungo Ochiai, presiding

- 13:45 1D10 Synthesis of telechelic polyester by means of reversible unstoichiometric polycondensation
Takayoshi KATOH, Tomoya SUZUKI, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 14:10 1D11 Click Living Polymerization of Various AB Monomers with Alkyne and Azide
Satoshi Sakai, Tomohiro Kubo, Takuya Nakamura, Mineto Uchiyama, Masami Kamigaito, Kotaro Satoh
- 14:35 1D12 Sequence Control via Radical Polymerization and Creation of Sequence-Oriented Functions
Yuki Kametani, Dongyoung Oh, Yousuke Furuya, Kentaro Shibata, Makoto Ouchi

Takuya Yamamoto, presiding

- 15:25 1D14 Preparation of cured thermosets with semi-interpenetrating network structures by connecting the networks and linear polymers followed by cleaving the bonds between them
Toshiyuki Oyama, Takahito Tsuchiya, Yuichiro Tokoro
- 15:50 1D15 Reactions of π -Conjugated Polymers Having Tellurophene Units Based on Te-Li Exchange Process
Ikuyoshi Tomita, Feng Zheng, Naoki Shida, Shinsuke Inagi
- 16:15 1D16 Syntheses of cyclic polymers using the dynamic property of bis(hindered amino)disulfide linkages
Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka

Takaki Kanbara, presiding

- 16:40 1D17 Syntheses of Cyclic Cyclopolymers via Ring-Expansion Cationic Cyclopolymerization and the Specific Topological Properties
Hiroyuki Kubota, Makoto Ouchi
- 17:05 1D18 Origin of Toughness of Acrylic Polymers Obtained by Solvent-less Radical Cyclo-copolymerization : Topological Cross-linkage and Gradient of Copolymer Composition
Takumi Miyashita, Yoshimasa Matsumura, Bungo Ochiai
- 17:30 1D19 Precise synthesis and characterization of *spiro*-type topological polymers via intramolecular consecutive cyclization
Yoshinobu Mato, Kohei Honda, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Tetsuo Deguchi, Toshifumi Satoh
- 17:55 1D20 Synthesis of Pillar[n]arene-based Polyrotaxanes

Tomoki Ogoshi, Katsuto Onishi, Koki Maeda, Masafumi Yagyu, Takahiro Kakuta, Shixin Fa, Tada-aki Yamagishi

Thu. Sep 17

S2. Frontiers in Polymer Synthesis Directed towards Unprecedented Synthetic Methods and Materials

Yoshimasa Matsumura, presiding

- 10:00 2D01 Synthesis of organoarsenic polymers by practical As-C bond formation techniques
Kensuke Naka, Chieko Yamazawa, Susumu Tanaka, Hiroaki Imoto
- 10:25 2D02 Ab Initio Design for the Development of Blue-Color Solid-State Luminescent Conjugated Polymers Based on Selective Perturbation of a Single Frontier Orbital
Kazuo TANAKA, Kazumasa SUENAGA, Aoi WATANABE
- 10:50 2D03 Preparation and Optical Properties of Silicon Nanosheets with Conjugated Substituents
Joji Ohshita, Takayuki Yagami, Yuki Matsuzawa, Yuki Tanaka, Kazuaki Yamamoto, Haruna Kadowaki, Makoto Nakashima, Yohei Adachi, Masataka Ohashi, Hideyuki Nakano

Joji Ohshita, presiding

- 11:15 2D04 Precise synthesis of chain-end and in-chain functionalized polymer with luminescent compound
Kazuki Machida, Raita Goseki, Takashi Ishizone
- 11:40 2D05 Amorphous covalent organic networks based on heteroaromatic compounds and their application to electrocatalyst for hydrogen evolution reaction
Ryosuke Yoneda, Hiroaki Imai, Yuya Oaki

Takashi Ishizone, presiding

- 12:55 2D06 Challenges and Results: Practical Application of Structural Proteins
Kazuki Sakata, Hideki Kagata
- 13:20 2D07 Preparation of glycopolymer library by PET-RAFT method and analysis of protein affinity
Yoshiko Miura, Yuri Kimoto, Yu Hoshino
- 13:45 2D08 Synthesis and recombination reaction of molecular Lego block polymers utilizing Diels-Alder reaction
Yudai Tokiwa, Shunsaku Motoki, Takeshi Nakano, Kouhei Saruwatari, Takeru Iwamura

Kensuke Naka, presiding

- 14:10 2D09 Ring-opening metathesis polymerization of norbornene lactones
Shin-ichi Matsuoka, Narumi Miyasako, Sae Kiyohara, Masato Suzuki
- 14:35 2D10 Preparation of high-refractive-index polymer films by polymerizations of multi-functional styrylbismuthine
Yoshimasa Matsumura, Kikuo Furukawa, Miyuki Miyamoto, Yoshio Nishimura, Bungo Ochiai

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Ryo Tanaka, presiding

- 15:25 2D12 Development of a method for terminal end modification of poly(phenylacetylene)s using the living polymerization
Kensuke Echizen, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 15:50 2D13 Mechanism Elucidation and Improvement of the Tungsten-Catalyzed Polymerization of Diphenylacetylenes
Mami Miyairi, Tsuyoshi Taniguchi, Tatsuya Nishimura, Katsuhiko Maeda
- 16:15 2D14 Metathesis polymerization of monomers containing two diphenylacetylene units and the properties of the obtained polymers
Toshikazu Sakaguchi, Hikaru Shimada, Tamotsu Hashimoto
- 16:40 2D15 Development and application of controlled polymerization of phenylacetylenes enabling versatile initiating end-functionalization
Tsuyoshi Taniguchi, Takumi Yoshida, Kensuke Echizen, Kokoro Takayama, Tatsuya Nishimura, Katsuhiko Maeda

Tatsuya Nishimura, presiding

- 17:05 2D16 Controlled Copolymerization by Metal Complexes [88] Terpolymerization of CO₂, Propylene Oxide, Epoxide with Bulky Side Groups and the control of Thermal Properties of the Obtained Copolymers
Masayoshi Honda, Takuya Ebihara, Tomoya Ohkawa, Hiroshi Sugimoto
- 17:30 2D17 Structures and Organic Electronic Device Characteristics of Donor-Acceptor Polymers Prepared by Highly Selective Direct Arylation Polymerization
Masayuki Wakioka
- 17:55 2D18 Synthesis and properties of poly(norbornene-co-hydrocarbon macromonomer)
Yui Kushima, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono

Fri. Sep 18

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Tatsuya Nishimura, presiding

- 10:00 3D01 Control of chain growth by encounter probability between the monomers fixed in 3D Lattice
Kazuki Sada, Kenta Kokado
- 10:25 3D02 Borane-Catalyzed Reactions of Unsaturated Ketones with Silanes for Novel Functional Polymers
Naoki Yoshida, Huie Zhu, Masaya Mitsuishi

Kazuki Sada, presiding

- 10:50 3D03 Development of fluorescent molecular probes for detecting polymer mechanoradicals generated in bulk state
Takumi Yamamoto, Sota Kato, Daisuke Aoki, Hideyuki Otsuka
- 11:15 3D04 Control of primary structure of polymers by using macrocyclic compounds with a bis(hindered amino)disulfide linker
Hirogi Yokochi, Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka
- 11:40 3D05 Reversible cross-linking reactions of polymers via thermal exchange of hindered disulfide linkages under bulk condition
Shimon Kataoka, Daisuke Aoki, Hideyuki Otsuka

Room E

Wed. Sep 16

S4. New Functional Polymeric Materials Based on Element-Blocks

- 10:15 1ESO Introductory Remarks S4
Shinobu Uemura, Kazuo Tanaka
Kazuo Tanaka, presiding
- 10:25 1E04IL Element-Block Materials: Concept and Industrial Applications
Yoshiki Chujo
Hiroki Tanimoto, presiding
- 11:15 1E06 Synthesis of polymers utilizing side-opening cage silsesquioxanes for the main- or side-chains
Yuri Sato, Hiroaki Imoto, Kensuke Naka
- 11:40 1E07 Synthesis of coordination polymer from an element block which consists of cage silsesquioxane having beta-diketonate group
Yohei Sato, Ryohei Hyami, Kazuki Yamamoto, Takahiro Gunji
Kyosuke Isoda, presiding
- 12:55 1E08 Molecular conjugation and bond cleavage with organic azides
Hiroki Tanimoto, Koshiro Maegawa, Bayu Ardiansah, Kiyomi Kakiuchi
- 13:20 1E09 Synthesis and Structures of Conformation-Restricted Macrocycles Containing Disilylarene and Biaryl Moieties
Yuichiro Tokoro, Tetsuya Nakagawa, Toshiyuki Oyama
Hiroaki Imoto, presiding
- 13:45 1E10 Development of Conjugated Polymers Having Stimuli-Responsive Luminochromism Based on Excitation-Driven Element-Blocks
Kazuo Tanaka, Kazumasa Suenaga, Kyoya Uemura
- 14:10 1E11 Control of fluorescent color through liquid-mesophase transition of supercooled liquid based on N-heteroacene
Kyosuke Isoda
- 14:35 1E12 Synthesis and Turn-on Fluoride Sensing of Polymers Containing Bismuth- dithiocarboxylate Structure
Naoki Usui, Yoshimasa Matsumura, Bungo Ochiai
Masashi Kunitake, presiding
- 15:25 1E14 Creation of asymmetric coordination space utilizing biopolymer chiral reaction field and development to asymmetric photoreaction
Cheng Yan, Masaki Nishijima, Tadashi Mori, Yasuyuki Araki, Takehiko Wada
- 15:50 1E15 Macromolecular recognition and separation by metal-organic frameworks
Nobuhiko Hosono, Takashi Uemura
Shinobu Uemura, presiding
- 16:15 1E16 Superhydrophilic Polymer Coating Based on Zwitterion and Element Blocks: Preparation and Self-Cleaning Property
Takeo Suga, Satoshi Koishi, Daichi Nakamura, Kenichi Oyaizu

- 16:40 1E17 Preparation and glass abrasion properties of ceria particles through chelation effects of cellulose nanofiber
Takuya Matsumoto, Hiroaki Takahashi, Takashi Nishino
- 17:05 1E18 Application for polymer electrolyte membrane of fuel cell using silicone polymer
Masamichi Nishihara, Byungchan Hwang, Kazunari Sasaki, Akari Hayashi, Shoichi Kondo, Kikuchi Takamasa
- Takeo Suga, presiding**
- 17:30 1E19 Development of organically-bridged polysilsesquioxane reverse osmosis membrane with addition of hydrophilic cage siloxane
Yunosuke AMAIKE, Tomoya KOZUMA, Yoshiro KANEKO, Kazuki YAMAMOTO, Takahiro GUNJI
- 17:55 1E20 Investigation of the Membranes Composed of 2D Nanosheets for Desalination: Effect of the Counter Ions at the Preparation of the Membranes
Shinobu Uemura, Zhaojun Fan, Koki Tomosugi, Yusuke Nakao, Qi Feng

Thu. Sep 17

S4. New Functional Polymeric Materials Based on Element-Blocks

Masahiro Funahashi, presiding

- 10:00 2E01 Development of Near-Infrared Emissive Conjugated Polymers Based on Hypervalent Bonds
Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 10:25 2E02 Synthesis and photophysical properties of Europium coordination polymers containing chrysene frameworks
Yuichi Kitagawa, Marina Kumagai, Paulo Ferreira da Rosa Pedro, Koji Fushimi, Yasuchika Hasegawa
- 10:50 2E03 Exploration of Photophysical Properties and Development of Functional Luminescent Materials Based on β -Diketiminato Complexes Using Computational Chemistry
Shunichiro ITO, Kazuo TANAKA, Yoshiki CHUJO

Masayuki Gon, presiding

- 11:15 2E04 Modulation spectroscopy for the measurement of electronic transport properties of organic photoelectronic devices: data storage for machine learning and efficient device design
Hiroyoshi Naito
- 11:40 2E05 Bulk photovoltaic effect and electroluminescence with rotatable polarized plane in ferroelectric liquid crystals consisting of oligothiophene and chiral moieties
Masahiro Funahashi, Yuki Mori

Yoshiro Kaneko, presiding

- 12:55 2E06IL Design of polymeric materials based on element-blocks for a new development of inorganic polymers
Kensuke Naka

Takahiro Gunji, presiding

- 13:45 2E08 Development of Metal-Like Lustrous Materials using Oligo(3-alkoxythiophene)
Satoru Tsukada, Ryota Saito, Katsuyoshi Hoshino

14:10 2E09 Particle monolayer-stabilized light-sensitive liquid marbles
Syuji Fujii, Yuta Asaumi, Rey Marcel, Junya Fujiwara, Keigo Oyama, Vogel Nicolas, Mitamura Koji, Watase Seiji, Tomoyasu Hirai, Yoshinobu Nakamura

14:35 2E10 The control of catalytic activity of thermoresponsive polymer catalyst by conformational change
Kota Mishima, Naoki Fukaya, Kenta Kokado, Kazuki Sada

Jun Matsui, presiding

15:25 2E12 Self-Organization and Anomalous Properties of Amorphous Arylene-Conjugated Porphyrin Arrays
Mitsuhiko Morisue, Miho Kawanishi, Genki Saito, Shinya Nakano, Ikuya Ueno

15:50 2E13 Hierarchical control of cross-linking structures in necklace type silsesquioxane polymers
Masashi Kunitake, Shota Hikake, Tomoe Fukamachi, Satoshi Watanabe

Mitsuhiko Morisue, presiding

16:15 2E14 Stabilization of poly(N-dodecylacrylamide-b-ethyleneglycol) film with vertically oriented nanocylinders using siloxane cross-linking
wataru kukai, atsushi narumi, masaya mitsuishi, jun matsui

16:40 2E15 Synthesis and properties of polysiloxanes having phosphoric acid group as a side chain
Takahiro Gunji, Wataru Nakamoto, Shun Aizawa, Ryohei Hayami, Kazuki Yamamoto

17:05 2E16 Preparation of siloxane polymers containing catechol component and their adhesive property to metal
Shogo Oshiro, Yoshiro Kaneko

Room F

Wed. Sep 16

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Masayuki Gon, presiding

10:25 1F04 Hierarchical Self-assembly of an Azobenzene Dyad with Inverted Amide Connection
Takuho Saito, Shiki Yagai

10:50 1F05 Synthesis of optically-active coordination polymers consisting of dirhodium complexes and chiral amplification
Shogo Okuda, Akio Urushima, Naoki Ousaka, Tomoyuki Ikai, Eiji Yashima

11:15 1F06 Chiral Guest-induced Catalytic Deracemization of a Spiroborate-Based Double-Stranded Helicate Bearing a Bisporphyrin Unit with Brønsted Acids
Masaki ITO, Daisuke TAURA, Naoki OUSAKA, Tomoyuki IKAI, Eiji YASHIMA

11:40 1F07 Selective Formation of Spiroborate-Based Double-Stranded Hetero-Helicates Driven by Donor-Acceptor Interaction
Daisuke Taura, Xiang Wang, Masaki Ito, Eiji Yashima

Daisuke Taura, presiding

- 12:55 1F08 Structures and functions of crystalline hydrogen-bonded networks composed of transition metal complexes carrying bis(benzimidazole) and chlorido ligands
Shun Ohta, Yurika Iwabuchi, Ryota Mukai, Ryoga Yamaguchi, Tomoyuki Toda, Masaaki Okazaki
- 13:20 1F09 Transformation of Supramolecular Polymer into Two-dimensional Nanostructure through Hydrogen Bonding Rearrangement
Takumi Aizawa, Shiki Yagai
- 13:45 1F10 Effect of an Aromatic solvent on Hydrogen-Bond-Directed Supramolecular Polymerization of pi-Conjugated Rosettes
Atsushi Isobe, Deepka D. Prabhu, Shiki Yagai
- Masaru Yoneyama, presiding**
- 14:10 1F11 Temperature-Dependent Solid-State Emission of Nitrogen-Ring Containing Carboranes and Color Tuning by Selection of Spacers
Junki Ochi, Kazuo Tanaka
- 14:35 1F12 Synthesis of poly(unsaturated esters) by polycondensation based on conjugate substitution and acyl substitution: Sequence control and thermosetting
Koki Nagai, Yasuhiro Kohsaka
- 15:25 1F14 Improvement of Hydrolysis Resistance for PET by Copper Catalyzed Decarboxylation of Terminal Carboxylic Acid.
Masato Akahira, Hirokazu Komatsu, Koji Yamauchi
- Yasuhiro Kohsaka, presiding**
- 15:50 1F15 Epoxy resin with novel inclusion type epoxy monomer containing cyclodextrin
Shota Nagai, Reiko Saito
- 16:15 1F16 Molecular simulation of sequential polymerization controlling degree of polymerization and structure by using MOF
Yushi Kato, Tsuyoshi Koga
- 16:40 1F17 Direct preparation of sulfur-containing polymers from element sulfur
Masaru Yoneyama, Takeshi Yamanobe, Haruka Shimoda, Keita Nakamura

Thu. Sep 17

S8. Progressive Analytical Techniques Supporting Advanced Polymer Materials

- 10:15 2FSO Introductory Remarks S8
Atsushi Asano
- Atsushi Asano, presiding**
- 10:25 2F02IL Advances in Measurement Technology that Supports the Development of Polymer Materials
Koichi Ute
- Ryosuke Kusumi, presiding**
- 11:15 2F04 Time-dependent structural change during fibrillation of silk gel studied by solid state NMR
Yu Suzuki
- 11:40 2F05 Nanofibril formation mechanism in silks revealed by synchrotron X-ray scattering analysis
Taiyo Yoshioka, Tsunenori Kameda

Kazuhiko Yamada, presiding

- 12:55 2F06 Study on polymer-supported catalysts based on solid-state DNP-NMR spectroscopy
Shinji Tanaka, Atsuko Ogawa, Yumiko Nakajima, Kazuhiko Sato
- 13:20 2F07 Chemistry at metal/polymer joint interfaces investigated by STEM-EELS/EDX simultaneous recording
Shin Horiuchi, Hanada Takeshi
- 13:45 2F08 Elucidation of crosslink structure by dynamic nuclear polarization & contrast variation SANS method
Yohei Noda, Satoshi Koizumi, Tomomi Masui, Hiroyuki Kishimoto, Tomoki Maeda

Hiroaki Yoshimizu, presiding

- 14:10 2F09 Structural Analysis of PVA Films including water by DNP-SANS
Seisuke Inada, Yoshihiro Tsumura, Tetsuya Hara, Yohei Noda, Satoshi Koizumi
- 14:35 2F10 Dynamics of polymer and bound water observed by THz spectroscopy
Hikomichi Hoshina

Shinji Tanaka, presiding

- 15:25 2F12 Understanding of ³³S NMR parameters for structural study of crosslinked rubber
Kazuhiko Yamada
- 15:50 2F13 Structural analysis of p-type semiconducting polymer by solid-state NMR
Riku Takahashi, Shinji Kanehashi, Kenji Ogino
- 16:15 2F14 Function and property of the polymers with aggregation-induced emission property based on dynamics of the polymer chain
Fumitaka Ishiwari, Takanori Fukushima

Yohei Miwa, presiding

- 16:40 2F15 Physical analysis of fluorescent elastic organic crystals by spatially resolved fluorescence measurement
Shotaro Hayashi
- 17:05 2F16 Circular Dichroism Spectrum in the Photo-Excited State of Chiral polymer System
Pandey SADIKSHYA, Tomonori Kakizaki, Walance Wu, Tadashi Mori, Masaki Nishijima, Yasuyuki Araki, Takehiko Wada

Fri. Sep 18

S8. Progressive Analytical Techniques Supporting Advanced Polymer Materials

Yu Suzuki, presiding

- 10:00 3F01 Analyses of plasticization phenomenon of polymer materials by gas sorption
Hiroaki Yoshimizu, Hajime Ishitani
- 10:25 3F02 Unusually large hysteresis in temperature-responsive phase-transition behavior of aqueous solutions of isotactic copolymers comprising N-ethylacrylamide and N-isopropylacrylamide
Tomohiro Hirano, Menghao Li, Miyuki Oshimura, Koichi Ute
- 10:50 3F03 Analysis of heterogeneity in network polymers by diffracted X-ray tracking

Isamu Akiba, Hiroshi Sekiguchi

Yohei Noda, presiding

- 11:15 3F04 Pressure-induced Variations in Crystal Structure and Conformation of Polyimides having Bent Linkages in the Main Chain
Koichiro Muto, Eisuke Fujiwara, Ryohei Ishige, Shinji Ando
- 11:40 3F05 Effect of Local Glass Transition Temperature Around Ionic Aggregate on Mechanical Properties of Ethylene Ionomer
Yohei Miwa, Manato Koike, Shoichi Kutsumizu

Ryohei Ishige, presiding

- 12:55 3F06 Determination of the three-dimensional structure of nanocomposite hydrogel microspheres in a swollen state
Takumi Watanabe, Yuichiro Nishizawa, Haruka Minato, Chihong Song, Kazuyoshi Murata, Daisuke Suzuki
- 13:20 3F07 Development of near-infrared birefringence imaging system and its application to injection-molded polymer products
Yuta Hikima, Toshiki Nakamura, Masahiro Ohshima

Tomohiro Hirano, presiding

- 13:45 3F08 Determination of chemical shift anisotropy using a solid-state NMR probe for Magnetically Oriented Microcrystal Suspension (MOMS)
Ryosuke Kusumi, Hiroshi Kadoma, Hayate Yasui, Masahisa Wada, Kazuyuki Takeda
- 14:10 3F09 Control of anisotropy of the gas transport ways presented from highly ordered structure
Hiroaki Yoshimizu, Daiki Shoji

Room G

Wed. Sep 16

S10. Polymers under Aqueous Conditions: Status Quo and Perspectives

- 10:15 1GSO Introductory Remarks S10
Daisuke Ishii
- Toshiyuki Shikata, presiding**
- 10:25 1G04IL Towards the understanding and control of behaviors of polymers under the aquatic environments
Daisuke Ishii
- 10:50 1G05 Control of polymer molecules in aqueous environment: what can we learn from cellulose biosynthesis?
Tomoya Imai
- Shigeru Yao, presiding**
- 11:15 1G06 Capsule particles possessing pH-responsive controlled release properties fabricated by interfacial photocrosslinking of spherical polymer particles.
Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 11:40 1G07 Control the particle size and functional evaluation of cyclodextrin hyperbranched polymer.
Jun Katsuki, Shota Fujii, Kazuo Sakurai

Jun Araki, presiding

- 12:55 1G08 Characterization of Hydration Water Bound to Various Polyelectrolytes by Differential Scanning Calorimetry Analysis
Shohei Shiomoto, Kazuo Yamaguchi, Hiroki Uehara, Masaru Tanaka, Motoyasu Kobayashi
- 13:20 1G09 Aqueous Wet Spinning of Regenerated Silk Fibers with High Extensibility
Jianming Chen, Yoshinori Ohta, Hiroyasu Masunaga, Keiji Numata
- 13:45 1G10 Structure and conformation of chemically modified cellulose ether samples in aqueous solutions
Toshiyuki Shikata

Mitsuru Higa, presiding

- 14:10 1G11 Aqueous Solution Properties of Polyampholytes: Effect of the Charge Densities
Kazuyoshi Ogawa, Kenta Yoshida
- 14:35 1G12 Aqueous dispersion states and higher structures of polysaccharide nanowhiskers
Jun Araki

Daisuke Ishii, presiding

- 15:25 1G14 Adsorption and its relaxation of various types of polymer and polyelectrolytes on the colloidal surface under overshooting condition
yasuhisa adachi, Doan Yen
- 15:50 1G15IL Deformation processing of wood by hydrothermal treatment
Koji Adachi

Kazuyoshi Ogawa, presiding

- 16:40 1G17 Functionalities of wood material under aqueous conditions
Yoshiki Horikawa
- 17:05 1G18 Dielectric Relaxation Behavior of Wood Materials in Wet Conditions and Effect of Wood Fine Structure
Hiroyuki SUGIMOTO

Tomoya Imai, presiding

- 17:30 1G19 Enzymatic degradation of polysaccharides under aqueous conditions
Naotake Konno
- 17:55 1G20 Enhancement of Deacetylation Degree of Chitosan by Hydrothermal Treatment in Ionic Liquid
Daisuke Ishii, Chikara Ohashi, Hisao Hayashi

Thu. Sep 17

S10. Polymers under Aqueous Conditions: Status Quo and Perspectives

Yoshiki Horikawa, presiding

- 10:00 2G01 Higher-order organization and interfacial design of cellulose nanomaterials
Shingo Yokota, Tetsuo Kondo
- 10:25 2G02 Fabrication of Polymer Patterns and Application for Liquid Repellent Surfaces
Bihai Chen, Takehiko Wada, Hiroshi Yabu

Shingo Yokota, presiding

- 10:50 2G03 Effect of pore forming agent on the porous structure of polydimethylsiloxane membranes and solvent recovery by low-pressure membrane filtration from ink solutions
Ryotaro Kiyono, Toru Matsuki, Noriaki Seki
- 11:15 2G04 Evaluation of antithrombogenic function of polyethylene surface chemically modified with side chain crystalline block copolymer
Shigeru Yao, Sho Hirai, Masaru Tanaka

S5. AI and Computational Technologies in Polymer Science

- 13:35 2GSO Introductory Remarks S5
Hiroshi Morita, Yuichi Masubuchi
Yuichi Masubuchi, presiding
- 13:45 2G08IL Development of polymeric materials utilizing computational simulation and AI
Takeshi Aoyagi
Takashi Honda, presiding
- 14:35 2G10 Molecular Dynamics of Polymer Gel under Uniaxial Deformation
Kosuke Aomura, Yusuke Yasuda, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 15:25 2G12 Refractive index prediction of organic polymers based on quantum chemical calculations and machine learning
Mahito Chiba, Yoshihiro Hayashi, Masami Sako, Masakazu Sekijima, Shinji Ando, Susumu Kawauchi, Nobuaki Yasuo
Naohito Urakami, presiding
- 15:50 2G13 All-Atom MD Simulation of Self-Assembled Ionic Liquid Crystals Forming Nanochannels
Yoshiki Ishii, Nobuyuki Matubayasi, Go Watanabe, Takashi Kato, Hitoshi Washizu
- 16:15 2G14 Effect of Molecular Size and Shape on Interfacial Segregation in Epoxy-Amine Mixture
Satoru Yamamoto, Keiji Tanaka
- 16:40 2G15 Simulations of Lipid nano particles and proteins using FMO-DPD Method
Koji Okuwaki, Ruka Nishida, Karen Ujiie, Yuji Mochizuki, Kaori Fukuzawa, Etsuo Yonemochi, Tanaka Hiroki, Akita Hidetaka
Satoru Yamamoto, presiding
- 17:05 2G16 Simulation of phase separated structures of polymeric materials with fillers
Takashi Honda
- 17:30 2G17 Shape change and division of vesicles induced by flip-flop of lipids
Naohito Urakami, Yuka Sakuma, Imai Masayuki
- 17:55 2G18 Dynamic Self-Similarity of Multi-Chain Slip-Spring Model
Yuichi Masubuchi

Fri. Sep 18

S5. AI and Computational Technologies in Polymer Science

Takeshi Aoyagi, presiding

- 10:00 3G01 Machine-Learning Prediction of Fundamental Polymer Structures and Properties Using All-Atom Molecular-Dynamics Simulation Data as Training Sets
Umi Yamamoto, Masahiro Kitabata, Isamu Shigemoto
- 10:25 3G02 Hierarchical structure-property relationship of aliphatic polyesters based on feature extraction of their crystalline structure using dimensionality reduction methods
Hiroteru Kikutake, Tomoko Kajiwara, Kazutaka Kamitani, Ken Kojio, Kei Terayama, Koji Tsuda, Yoshifumi Amamoto, Atsushi Takahara
- 10:50 3G03 Predicting performances of non-fullerene organic solar cells via machine learning
Chihiro Kamijima, Yuta Yoshimoto, Shu Takagi, Ikuya Kinefuchi

Takashi Uneyama, presiding

- 11:15 3G04 Exploration of functional polymers by quantum annealing and machine learning approaches
Kan Hatakeyama, Momoka Umeki, Kenichi Oyaizu
- 12:55 3G06 Machine learning for detecting microscopic parameters characterizing physical properties of liquid crystal elastomers
Hideo Doi, Haruka Yasuoka, Kenji Tagashira, Kazuaki Takahashi, Jun-ichi Fukuda, Takeshi Aoyagi

Yuji Higuchi, presiding

- 13:20 3G07 Prediction of proton conductivity and water uptake of the graft-type polymer electrolyte membranes by machine learning methods
Shinichi Sawada, Yukiko Sakamoto, Kenichi Tanaka, Kimito Funatsu, Yasunari Maekawa
- 13:45 3G08 Exploration of new organic anodes for lithium-ion battery from small experimental data.
Takumi Komura, Yasuhiko Igarashi, Hiromichi Numazawa, Hiroaki Imai, Yuya Oaki
- 14:10 3G09 Study of Polymer/Filler Composite: Improvement of Disaggregation Property of Inorganic Filler with Machine Learning Analysis
Ken Saito, Yusuke Imai, Yuichi Tominaga, Yuji Hotta

Hiroshi Morita, presiding

- 14:35 3G10 A study of image-classification performance of deep learning for simulation images of polymer materials
Katsumi Hagita
- 15:25 3G12 Molecular Study of Tensile and Compressive Fractures of Amorphous Polymer
Kazushi Fujimoto, Hiroaki Ishikawa, Zhiye Tang, Susumu Okazaki
- 15:50 3G13 Melting process of semicrystalline polymers by large-scale coarse-grained molecular dynamics simulation
Yuji Higuchi

Room H

Wed. Sep 16

S9. Today and Future of Academic and Industrial Applications of Quantum Beam Science

- 10:15 1HSO Introductory Remarks S9
Mitsuhiro Shibayama
Hiroyuki Aoki, presiding
- 10:25 1H04IL Fundamentals of Structural Analyses and Dynamics Research with Quantum Beam
Mitsuhiro Shibayama
- 11:15 1H06 Study on Polymer Crystallization with Aggregation of Small Crystallites by Time-Resolved Small/Wide-Angle X-ray Scattering
Takashi Konishi, Daisuke Tadokoro, Koji Fukao, Yoshihisa Miyamoto
- 11:40 1H07 Gradual change in highly oriented ordered structure induced in aromatic poly(amic acid) film by uniaxial thermal stretching revealed by synchrotron X-ray scattering method
Ryohei Ishige, Syohei Hara, Koichiro Muto, Shinji Ando
Atsushi Takano, presiding
- 12:55 1H08 Effect of submicron structures on the mechanical behavior of polyethylene
Mizuki Kishimoto, Kazuki Mita, Hiroki Ogawa, Mikihiro Takenaka
- 13:20 1H09 Study on polymer cocrystal systems by simultaneous measurements of SANS, WANS and FTIR
Fumitoshi Kaneko, Aurel Radulescu, Hiroki Iwase, Shin-ichi Takata, Masayoshi Nishiura, Zhaomin Hou
- 13:45 1H10 Spatial distribution of sulfur and zinc in vulcanized rubber by μ -XRF mapping
Yohei Nakanishi, Kazuki Mita, Kentaro Yamamoto, Kotaro Ichino, Mikihiro Takenaka
- 14:10 1H11 Industrial use of pulsed neutrons at J-PARC Dynamical nuclear polarization & contrast variation on iMATERIA spectrometer
Satoshi Koizumi, Yohei Noda, Tomoki Maeda
Satoshi Koizumi, presiding
- 14:35 1H12 Novel cylindrical structures formed by pentablock quarterpolymers.
Makoto Suzuki, Jiro Suzuki, Atsushi Takano, Yushu Matsushita
- 15:25 1H14 Quantitative Structure Analysis of a Near-Ideal Polymer Network with Deuterium Label by Small-Angle Neutron Scattering
Masashi Ohira, Yui Tsuji, Xiang Li, Takamasa Sakai, Mitsuhiro Shibayama
- 15:50 1H15 Elucidation of starch gelatinization processes using quantum beams.
Akane Nagasaki, Go Matsuba
- 16:15 1H16 Essential role of scattering technique of nanomedicines in terms of regulatory science
Kazuo Sakurai, Isamu Akiba
Kazuo Sakurai, presiding
- 16:40 1H17 The true appearance of a contact lens emerged with a quantum beam
Eri Ito, Katsuhiko Yamamoto
- 17:05 1H18 Structural Analysis of Micelles Formed by Polyoxyethylene-Type Nonionic Amphiphilic Oligomers with Small-Angle X-ray Scattering
Tomokazu Yoshimura, Maki Nagano, Shiho Yada
- 17:30 1H19 Kinetics of Denaturation and Renaturation Processes of Double-Stranded Helical Polysaccharide, Xanthan in Aqueous Sodium Chloride

Yu Tomofuji, Ken Terao, Koichi Matsuo

17:55 1H20 Ordered Structure of Binary Random Copolymer Formed in an Aqueous Environment
Katsuhiko Yamamoto, Tatsuya Imai, Eri Ito

Thu. Sep 17

S9. Today and Future of Academic and Industrial Applications of Quantum Beam Science

Mitsuhiro Shibayama, presiding

10:00 2H01IL Characterization of Polymer Surface and Interfaces by Quantum Beam
Atsushi Takahara

10:50 2H03 Development of spatially resolved neutron reflectometry to visualize buried interfaces
Hiroyuki Aoki

11:15 2H04 Synchrotron radiation beamline for evaluation of polymer materials
HIROYASU MASUNAGA, TAIZO KABE

11:40 2H05 Local conformational analysis of single polymer chains using atomic-resolution electron microscopy
Tomohiro Miyata, Raita Goseki, Takashi Ishizone, Hiroshi Jinnai

Koichi Mayumi, presiding

12:55 2H06 Inclusion process and structure analysis of terminal-alkylated polyethylene glycol and cyclodextrin by Neutron Reflectometry
Shun Kitawaki, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama

13:20 2H07 Analysis for Nano-structures of Latex Film by Synchrotron X-ray Scattering
Takuma Kureha, Seina Hiroshige, Daisuke Suzuki, Jun Sawada, Daisuke Aoki, Toshikazu Takata, Mitsuhiro Shibayama

13:45 2H08 Activities of Functional Polymer Consortium in J-PARC MLF - Hierarchical Structures of Water Domains in Materials-
Tsukasa Miyazaki

Hiroyasu Masunaga, presiding

14:10 2H09 An Interfacial Effect on Proton Conductivity in Polyelectrolyte Thin Films under Water and Humidity Conditions
Daisuke Kawaguchi, Shigeki Yonemori, Yudai Ogata, Tessei Yoshida, Noboru Miyata, Tsukasa Miyazaki, Norifumi Yamada, Hiroyuki Aoki, Keiji Tanaka

14:35 2H10 Self-Assembly of Amphiphilic Random Copolymers: Structure Analysis by Small-Angle Neutron Scattering and Neutron Reflectometry
Takaya Terashima

15:25 2H12 Study of polymer dynamics by triple axis spectrometer at compact neutron source RANS
Satoshi Koizumi, Yohei Noda, Tomoki Maeda, Yoshie Otake, Tomohiro Kobayashi

15:50 2H13 Observation of shear-induced phase-transition behavior of hydroxyapatite-based colloids by small-angle neutron scattering
Satoshi KAJIYAMA, Hiroki IWASE, Hideki SETO, Masanari NAKYAMA, Rino ICHIKAWA, Takashi KATO

Daisuke Kawaguchi, presiding

16:15	2H14	Structure and dynamics of highly homogeneous gel investigated via light and X-ray scattering <u>Xiang Li</u> , Shintaro Nakagawa, Yui Tsuji, Mitsuhiro Shibayama
16:40	2H15	Dynamics of Multi-Component Supramolecular Systems Investigated by Neutron Scattering <u>Koichi Mayumi</u> , Yusuke Yasuda, Yuta Hidaka, Kosuke Aomura, Takeshi Yamada, Hideaki Yokoyama, Kohzo Ito
17:05	2H16	Polymer dynamics of poly(ethylene carbonate/ethylene oxide) copolymer-based electrolytes studied by neutron scattering <u>Yuya Doi</u> , Takashi Uneyama, Yuichi Masubuchi, Juergen Allgaier, Stephan Foerster, Michael Ohl, Orsolya Czakkel

Room I

Wed. Sep 16

S7. Frontiers of Polymer Analysis and Characterization

10:15	1ISO	Introductory Remarks S7 <u>Yo Nakamura</u> Yo Nakamura, presiding
10:25	1I04IL	Characterization of Polymer Interfaces <u>Keiji Tanaka</u> Atsushi Takano, presiding
10:50	1I05	Characterization of propylene ethylene copolymers by 1H and 13C DOSY <u>Koichi Ute</u> , Yuta Mitani
11:15	1I06	Characterization of Nanodiamond Glass with Rubber Bond <u>Seiichi Kawahara</u> , Asangi Gannoruwa, Ken Nakajima, Xiaobin Liang, Isamu Akiba, Yoshimasa Yamamoto
11:40	1I07	Recognition of polymer terminus by MOFs for chromatographic separation <u>Nagi Mizutani</u> , Nobuhiko Hosono, Benjamin Le Ouay, Takashi Kitao, Takashi Uemura Koichi Ute, presiding
12:55	1I08	Analysis of thermal decomposition behavior of polypropylene under conditions containing oxygen. <u>Tomohiro Ohkawa</u> , Mikio Hata, Yoshihiro Takai
13:20	1I09	Characterization of chemical heterogeneity of RAFT copolymers by eluent gradient HPLC <u>Tadatomo Kawai</u> , Tetsuya Iwasaki, Riho Maruyama, Yuzo Itoh
13:45	1I10	Characterization of chemical heterogeneity of cellulose esters by eluent gradient HPLC <u>Tadatomo Kawai</u> , shu Shimamoto Hideaki Yokoyama, presiding
14:10	1I11	Electrical properties and characterization of cryogels comprising conducting polymer <u>Takeshi Shimomura</u> , Shinji Kanehashi

- 14:35 1I12 Direct Observation of Fixability Dynamics between a Functionalized SBR Chain and a Inorganic Matter Surface
Ken-ichi Shinohara,Yuu Makida
- 15:25 1I14 Characterization on thermoresponsive behavior of hydrogel microspheres by high-speed AFM
Yuichiro Nishizawa,Shusuke Matsui,Kenji Urayama,Takuma Kureha,Mitsuhiro Shibayama,Takayuki Uchihashi,Daisuke Suzuki
- Yukiteru Katsumoto, presiding**
- 15:50 1I15 A study of higher-order structure of PGA-PLA copolymer with different component ratio by THz and low-frequency Raman spectroscopy
Atsushi Nishimae,Harumi Sato
- 16:15 1I16 Comparison of vibrational modes of liquid water and water confined in super absorbent polymer by Raman and infrared spectra
Tatsuro Nasu,Harumi Sato,Yukihiko Ozaki
- 16:40 1I17 Study of the higher order structure by water absorption of ϵ -poly(L)lysine using vibrational spectroscopy
Mao Nochi,Harumi Sato
- Harumi Sato, presiding**
- 17:05 1I18 Order-disorder transition of schizophyllan in aqueous imidazole solutions
kazuto yoshiba,yota yasuda,chisaki kondo,yuji miyazaki,motohiro nakano
- 17:30 1I19 Direct observation of the water molecules bound to polymers by use of dielectric relaxation
Takuma Kanamaru,Rintaro Takahashi,Toshiyuki Shikata,Murakami Daiki,Tanaka Masaru,Sakurai Kazuo
- 17:55 1I20 Analysis of the aggregation behavior for thermo-responsive amphiphilic polymers by using the fluorescence correlation spectroscopy
Yukiteru Katsumoto,Hironori Ishihara,Yusuke Sanada

Thu. Sep 17

S7. Frontiers of Polymer Analysis and Characterization

Toshiyuki Shikata, presiding

- 10:00 2I01 Analysis on Mechanical Properties of Ultra-Thin Styrenic Triblock Copolymer Films
Masayuki Saito,Kohzo Ito,Hideaki Yokoyama
- 10:25 2I02 Relation between modulus enhancement and molecular dynamics in polycarbonate by addition of low-mass molecule
Shogo Nobukawa,Mai Maeda,Katsuhiko Inomata,Hiroki Takeshita,Katsuhisa Tokumitsu
- 10:50 2I03 Rheological characterization for chain-ends associating polymers via metal ions
Osamu Urakawa,Kazuki Hasegawa,Tadashi Inoue

Isamu Akiba, presiding

- 11:15 2I04 Analysis for dispersion of cellulose nanofibers in composites with various analysis methods
Akitoshi Morita,Go Matsuba

- 11:40 2I05 Structural change in inter-polymer aggregates formed by poly(ethyl oxazoline) induced by block chains and pH
Yasuhiro Matsuda, Shota Morishima, Hiroki Kanamori, Yosei Nakatsuka, Makoto Takahara, Atsushi Takahara, Shigeru Tasaka
- 12:55 2I06 Conformation Dependent Complex Formation of Atelocollagen and Silica Nanoparticles
Ken Terao, Mari Otsubo, Masahiro Abe
- Katsuhiro Inomata, presiding**
- 13:20 2I07 Particle scattering function of spherical micelles with corona chains discretely distributed on the core
Rintaro Takahashi, Isamu Akiba, Kazuo Sakurai
- 13:45 2I08 pH dependence of the micellar structure of an amphiphilic alternating copolymer in aqueous solution
Yuki Egami, Takahiro Sato
- 14:10 2I09 Phase Separation in Aqueous Solutions of Thermoresponsive Polymers
Jiayun Han, Chen Kuang, Takahiro Sato, Françoise M. Winnik
- Takahiro Sato, presiding**
- 14:35 2I10 Preparation and characterization of polyethyleneoxides with cyclic and branching structures
Kota Nakazaki, Yutaka Ohta, Atsushi Takano, Yushu Matsushita
- 15:25 2I12 Chain Conformation of Poly(lactic acid) with Different Stereoregularities in THF
Kayo Ueda, Natuki Fukuta, Hiroki Kosugi, Yoshinori Suzuki, Takahiro Watanabe, Moriya Kikuchi, Seigou Kawaguchi
- 15:50 2I13 Dimension of Sodium Carboxymethyl Cellulose in Aqueous Sodium Chloride
Kenta Masaki, Yo Nakamura

Room J

Wed. Sep 16

S6. Controlled Design of Functional Polymer Based on Active Surface and Interface

- 10:15 1J00 Introductory Remarks S6
Hiroshi Endo
- Hiroshi Endo, presiding**
- 10:25 1J04IL Importance of Surface and Interface in Polymeric Materials
Toshiaki Ougizawa
- 10:50 1J05 Electric-Field Response of Liquid Crystal Nanocapsules Prepared by Miniemulsion Polymerization of O/W Emulsion Monomer Droplets
Reina Kojima, Michinari Kohri, Tatsuo Taniguchi, Keiki Kishikawa, Takashi Karatsu
- Tatsuo Taniguchi, presiding**
- 11:15 1J06 Preparation of polyion complex micelles containing polyampholytes
Shin-ichi Yusa, Rina Nakahata
- 11:40 1J07 Polymer recognition by programmed nanospace of MOFs
Nobuhiko Hosono, Biplab Manna, Takashi Uemura

Takuya Matsumoto, presiding

- 12:55 1J08 Relationship between nanostructure and mechanical properties of thin films composed of rotaxane-cross-linked elastomer microspheres
Seina Hiroshige, Haruka Minato, Yuma Sasaki, Takuma Kureha, Mitsuhiro Shibayama, Kazuya Uenishi, Jun Sawada, Daisuke Aoki, Toshikazu Takata, Daisuke Suzuki
- 13:20 1J09 Mechanical Properties of Humidity-Responsive Polysiloxane Incorporating Multipoint Ionic Crosslinking
Mitsuo Hara, Yuta Iijima, Shusaku Nagano, Takahiro Seki
- 13:45 1J10 Control of adhesion and high-frequency properties of fluoropolymer surface via heat-assisted plasma treatment conditions
Yuji Ohkubo, Yuuki Okazaki, Misa Nishino, Fumiya Kobayashi, Katsuyoshi Endo, Kazuya Yamamura

Mitsuo Hara, presiding

- 14:10 1J11 Adhesion properties and structural change of surface-modified polypropylene with electron-beam irradiation
Takuya Matsumoto, Yuka Okumura, Takashi Nishino
- 14:35 1J12 Pressure-sensitive type dismantlable adhesives using reversibly cross-linkable acrylic copolymers: Interfacial interaction and rebondability
Eriko Sato, Naoki Ando, Ken Amano

Motoyasu Kobayashi, presiding

- 15:25 1J14 Preparation of honeycomb-like porous chitosan films with thermoresponsive polymers
Hironori Izawa, Haruya Kajimoto, Minoru Morimoto, Hiroyuki Saimoto, Shinsuke Ifuku
- 15:50 1J15 Photo-responsive surfaces for dynamic conversion of structures and functions driven by isomerization of spiropyran and application to culture substrates
Naoya Takeda, Rina Watanabe, Yutaro Miyake, Masato Sakano, Haruka Umeno, Keiichi Imato, Yuji Tsuchido
- 16:15 1J16 Cellulose Nanofibers modified with Concentrated Poly(sodium-4-styrene sulfonate) Brushes for Cartilage Regeneration
Punnida Nonsuwan, Nanami Nishijima, Keita Sakakibara, Nakaji-Hirabayashi Tadashi, Chiaki Yoshikawa
- 16:40 1J17 Fabrication and application of magnetically responsive polymer brush
Michinari Kohri

Chiaki Yoshikawa, presiding

- 17:05 1J18 Preparation and color control of metallic luster materials based on the hierarchically organized structure of diacetylene derivatives
Yuki Kojima, Keiki Kishikawa, Shuji Ichikawa, Jun Matsui, Yukishige Kondo, Michinari Kohri
- 17:30 1J19 Functional surface design by the coating of surface-grafted nanoparticles
Motoyasu Kobayashi, Kanae Takeuchi, Kazuo Yamaguchi
- 17:55 1J20 Dynamics of Concentrated PMMA Brush layers Under Shear Studied by Surface Forces and Resonance Shear Measurement
Masashi MIZUKAMI, Masao GEN, Shu-Yao Hsu, Yoshinobu TSUJII, Kazue KURIHARA

Thu. Sep 17

S6. Controlled Design of Functional Polymer Based on Active Surface and Interface

Atsushi Hozumi, presiding

- 10:00 2J01 Air/water interfacial nanoassembly of molecular building units into porous nanosheet crystals
Rie Makiura
- 10:25 2J02 Surface Modification and Ion Permeability Control of Ultrathin Nanoporous SiO₂ Films
Yuya Ishizaki, Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi
- 10:50 2J03 Dynamics of topological transitions at fluid-fluid interface in confined space
Ko Okumura

Ko Okumura, presiding

- 11:15 2J04 Design of anti-adhesive surfaces by using changes in dynamic wettability
Atsushi Hozumi
- 11:40 2J05 Molecular Dynamics Simulation Study on Molecular Interaction between Acrylate Polymer and Water at Bulk and Interface
Tatsuya Ishiyama

Yasuhiro Matsuda, presiding

- 12:55 2J06 An Effect of Interfacial Molecular Orientation on Hole Transport in Poly(3-hexyl thiophene) Thin Film
Tatsuki Abe, Daisuke Kawaguchi, Motonori Watanabe, Tatsumi Ishihara, Keiji Tanaka
- 13:20 2J07 Depth-dependent structural analysis of iPP thin films revealed by grazing incidence wide-angle X-ray diffraction in the tender energy region
Yohei Nakanishi, Kiminori Uchida, Kazuki Mita, Kazutaka Kamitani, Ken Kojio, Atsushi Takahara
- 13:45 2J08 Synchrotron X-ray study on void formation process of polymer blend during deformation
Takahiko Kawai, Shin-ichi Kuroda

Kazuki Mita, presiding

- 14:10 2J09 Structure and Properties of Interphase formed by nylon 6 and alumina nanoparticles
Yasuhiro Matsuda, Kazuki Okuda, Shigeru Tasaka
- 14:35 2J10 Covalent bonding between epoxy resin and silica nanodomains of alicyclic epoxy-silica nanocomposites
Reiko Saito, Kaito Yamashita, Tetsuo Sakaguchi

Takahiko Kawai, presiding

- 15:25 2J12 Effect of Interface between Cellulose Nanofibers and Polypropylene on Mechanical Properties
Kazuya Nagata, Fumihiko Ozaki, Ryosuke Hara, Kazuaki Sanada, Ken Nakajima, Qingyan Shen
- 15:50 2J13 Formation of periodic structures by photopolymerization-induced molecular flow
Atsushi Shishido
- 16:15 2J14 Augmentation of surface functions via topographical or viscoelastic changes
Takuya Ohzono
- 16:40 2J15 Spontaneous and reversible elastocapillary self-folding 3D structures

Room K

Wed. Sep 16

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Atsuhiko Fujimori, presiding

- 10:25 1K04 Actuator performance of dielectric elastomer containing cyano group-coated titanium oxide particles
Ryosuke MATSUNO, Yota KOKUBO, Shigeaki TAKAMATSU, Atsushi TAKAHARA
- 10:50 1K05 Investigation on the improving breakdown voltage of biaxial oriented polypropylene film by controlling the crystal and amorphous structure(2)
Masatoshi Ohkura, Yasuyuki Imanishi, Kazuma Okada, Toshiumi Tatsuki, Hideaki Takahashi, Yoshitomo Furushima

Seira Morimune-Moriya, presiding

- 11:15 1K06 Improved thermal stability of nanocomposites with low filler content achieved by well-dispersed carbon nanotubes
Taiyo Shimizu, Ryoichi Kishi, Kazufumi Kobashi, Takahiro Morimoto, Toshiya Okazaki, Takeo Yamada, Kenji Hata
- 11:40 1K07 Study of polymerization on the surface of single-walled carbon nanotubes (SWCNTs) monitored by newly-generated brighter photoluminescence of SWCNTs
Yukiko Nagai, Kenta Nakamura, Masako Yudasaka, Tomohiro Shiraki, Tsuyohiko Fujigaya

Tsuyohiko Fujigaya, presiding

- 12:55 1K08 Formation, Structure, and Function of Hydrogenated and Fluorinated Long-Chain Phosphonate-Modified Single-Walled Carbon Nanotubes with Bidentate Bonds
Yoshinori ABIKO, Takuto HAYASAKI, Ahmed A. ALMARASY, Youhei KAWABATA, Atsuhiko FUJIMORI
- 13:20 1K09 Influence of Uniaxial Orientation of Fluorinated Polymer/Phosphonate-Modified Single-Walled Carbon Nanotube Composite by Drawing
Takuto HAYASAKI, Yoshinori ABIKO, Ahmed. A. ALMARASY, Atsuhiko FUJIMORI

Hirota Uji, presiding

- 13:45 1K10 Polyguanamine Derivative-Based Supramolecular Assemblies with Multiple Hydrogen Bonding and Their Metal Scavenging Abilities
Keito Fukushi, Junto Yamaguchi, Yuji Shibasaki, Atsuhiko Fujimori
- 14:10 1K11 Cyclodextrin-based self-assembled structure controlled by designing guest polymer structures
Shuntaro Uenuma, Rina Maeda, Hideaki Yokoyama, Kohzo Ito
- 14:35 1K12 Synthesis, Stability, and Host Ability of Polyaromatic Oligomer Micelles in Water
Yamato Tsuchida, Mamiko Hanafusa, Michito Yoshizawa

Michito Yoshizawa, presiding

- 15:25 1K14 Supramolecular morphological transition and chiral arrangement of an amphiphilic polypeptides having a heterochiral helical hydrophobic block and an achiral aromatic core
Yuya Yoshimoto, Shunsaku Kimura, Hiroataka Uji
- 15:50 1K15 Fabrication of the functional interface for improvement of micro-nanoparticle analysis
Yukichi Horiguchi, Yuji Miyahara
- 16:15 1K16 Synthesis of nanocomposite microgels and applications as interfacial stabilizers
Tetsuya Noguchi, Takumi Watanabe, Haruka Minato, Daisuke Suzuki
- Yukichi Horiguchi, presiding**
- 16:40 1K17 On-Off Control of the BZ Reaction Using Thermoresponsive Core-Shell Hydrogel Microspheres
Kohei Inui, Takumi Watanabe, Haruka Minato, Shusuke Matsui, Keito Ishikawa, Ryo Yoshida, Daisuke Suzuki
- 17:05 1K18 Evaluation for Oscillation Behaviors of Autonomously Oscillating Hydrogel Microspheres
Ikuma Saito, Haruka Minato, Kohei Inui, Takuma Kureha, Mitsuhiro Shibayama, Ryo Yoshida, Daisuke Suzuki
- Haruka Minato, presiding**
- 17:30 1K19 Structure and properties of polypropylene composite with poly(vinyl alcohol) fibers prepared by addition of aqueous solution
Riho Nishikawa, Masayuki Yamaguchi, Naoki Ojima, Norifumi Aridome
- 17:55 1K20 Surface polymerization of MMA on hollow silica capsules provided from silica precursor having radical initiation groups
Reiko Saito, Hana Kiyosawa, Yuichi Iki

Thu. Sep 17

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Kazuki Nakamura, presiding

- 10:00 2K01 Temperature dependence of up-conversion based on triplet-triplet annihilation in dye-encapsulated liposomes
Hideki Kawai, Hinano Minemura
- 10:25 2K02 Fabrication of light-resistant polymer film exhibiting circularly polarized luminescence
Nao Nagatomo, Hisashi Oishi, Yutaka Kuwahara, Makoto Takafuji, Celine Olivier, Yann Ferrand, Reiko Oda, Hiroataka Ihara

Yutaka Ohseido, presiding

- 10:50 2K03 Emergent photocatalytic activity of organic dyes induced by self-assembly
Hajime Shigemitsu, Yohei Tani, Tomoe Tamemoto, Toshiyuki Kida
- 11:15 2K04 Creation of Highly Ordered "Nano-Mille-Feuille" Hard/Soft Nanoparticle Multilayers with Inter-Particle Cross-Linking by Diacetylene-Containing Chains
Takato OHASHI, Nanata KIKUCHI, Atsuhiko FUJIMORI
- 11:40 2K05 Nanofiberization and Interfacial Monolayer Behavior of Novel Thixotropic Additive Molecules with 12-Hydroxy Stearyl Chain Having Asymmetric Carbon

Yusuke KIMURA, Haruka MARUYAMA, Yuki MASHIYAMA, Eiichi SATOU, Tatsuro KIJIMA, Atsuhiko FUJIMORI

Akifumi Kawamura, presiding

- 12:55 2K06 Verification of Interfacial Monolayer Conformation of Weakly Hydrophilic Diamide Derivatives Having a Hydrocarbon Sandwiched by Two Fluorocarbons
Haruka MARUYAMA, Yuki MASHIYAMA, Yusuke KIMURA, Eiichi SATOU, Tomoko YAJIMA, Atsuhiko FUJIMORI
- 13:20 2K07 The assembling and disassembling mechanism of pseudopolyrotaxane nanosheet
Kengo Kasai, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 13:45 2K08 Effect of RAFT Polymer Modification on Shape Stability of Gold Nanorods.
Tatsuya Fujiwara, Yukiko Nagai, Tsuyohiko Fujigaya

Hironori Marubayashi, presiding

- 14:10 2K09 Fabrication of water-repellent porous nanosheets for long-term imaging of zebrafish development
Konoha Shiratori, Zhang Hong, Kenji Yarinome, Takuto Aoki, Hiroaki Mitsuhashi, Yosuke Okamura
- 14:35 2K10 Mass production of porous nanosheets for live imaging of suspension cells
Tomomasa Suzuki, Zhang Hong, Kenji Yarinome, Takuto Aoki, Yosuke Okamura

Yosuke Okamura, presiding

- 15:25 2K12 Crack propagation in a silica nanoparticle-based rubber nanocomposite studied by transmission electron microscopy
Daisuke Watanabe, Tomohiko Nagao, Tomohiro Miyata, Hironori Marubayashi, Hiroshi Jinnai
- 15:50 2K13 Design of Liquid Crystalline Polymer-Gold Nanoparticle Hybrid Films That Change Their Dispersibility
Hiroki Tanaka, Akifumi Kawamura, Takashi Miyata
- 16:15 2K14 Preparation of Conducting Polymer Composites with Silver Nanowires and Phenol Derivatives
Hiroaki Tanahashi, Taiki Hashimoto, Ryohei Haga, Seira Moriyama-Morimune

Takashi Nishino, presiding

- 16:40 2K15 The Effect of Chemically Modified Nanodiamond on Polyethylene Nanocomposites
Taiki Hashimoto, Hiroaki Tanahashi, Ryohei Haga, Seira Moriyama-Moriya
- 17:05 2K16 Polyimide nanocomposite reinforced with various nanodiamond
Seira Morimune-Moriya, Keiya Obara

Seigou Kawaguchi, presiding

- 17:30 2K17 Reinforcement Effect of Chemically Modified Nanodiamond on Polypropylene Nanocomposites
Ryohei Haga, Hiroaki Tanahashi, Taiki Hashimoto, Seira Moriyama-Morimune
- 17:55 2K18 Thermophysical Properties of Composites with Aligned Nanodiamond through Ice-templating Method
Tomohiro Yoshitomi, Takuya Matsumoto, Takashi Nishino

Fri. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Takashi Hamada, presiding

- 10:00 3K01 Development of Anion Sensors Based on Polyhedral Oligomeric Silsesquioxane Having Flexible Side-Chains
Hayato Narikiyo, Masayuki Gon, Kazuo Tanaka
- 10:25 3K02 Development of POSS-Based Hybrid Film for Thermal-Stable Bright White Light Emission
Satoru Saotome, Masayuki Gon, Kazuo Tanaka

Kenta Kokado, presiding

- 10:50 3K03 Development of High Water-Resistant Aluminum Pigments By Using Non-Aqueous Dispersion
Ryoma Nojiri, Takumi Kanazawa, Moriya Kikuchi, Seigou Kawaguchi
- 11:15 3K04 Study of mechanical properties and water absorption of TEMPO Oxidized Cellulose Nanofiber / Thermoplastic resin Composite.
Ken-ichi Niihara, Kouji Maekawa, Akira Isogai, Toru Noguchi
- 11:40 3K05 Preparation of Functional Cellulose Nanocrystals for Metal Ion Absorption
ThianTiong Teh, Masaya Mitsuishi, Huie Zhu

Toshiyuki Kida, presiding

- 12:55 3K06 Precise size control of polyhedral polymer gels
Ayano Michibata, Emi Takagi, Yuki Furukawa, Kenta Kokado, Kazuki Sada
- 13:20 3K07 Insertion of extremely long polymers in 1-Dimensional MOF nanochannels : How long can we go?
Etsuhiro Miwa, Benjamin Le Ouay, Nobuhiko Hosono, takashi Uemura
- 13:45 3K08 Synthesis and Evaluation of Polynuclear Complex Based on Polyhydryal Oligomeric Silsesquioxane
Daisuke Iizuka, Hayato Narikiyo, Masayuki Gon, Kazuo Tanaka

Satoru Tsukada, presiding

- 14:10 3K09 Organic-silica millefeuille structural composites by poly(styrene-block-vinyl pyridine) as templates
Shinya Watanabe, Reiko Saito
- 14:35 3K10 Improvement of mechanical properties of organic-silica nanocomposites by introduction of kink deformation
Ahmet Can Sen, Reiko Saito

Reiko Saito, presiding

- 15:25 3K12 Antifogging Materials Based on Siloxane Skeleton
Tetsuya Maeda, Takashi Hamada, Satoru Tsukada, Daiji Katsura, Kenta Okada, Joji Ohshita
- 15:50 3K13 Preparation and properties of self-healing polymer networks produced by the thermal curing reaction of a disulfide-containing bismaleimide and diamine hardeners.
Masahiro OZAWA, Mitsuhiro SHIBATA
- 16:15 3K14 Creation of electrically conductive composite gels by use of a polymer hydrogelator
Yutaka Ohsedo

Room L

Wed. Sep 16

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Atsushi Shishido, presiding

- 10:25 1L04 Development of a New Coating Type Material for Retardation Film
Yasuyoshi Fujii, Shinsuke Toyomasu, Shinji Shimosato, Naoto Obara, Doi Toru
- 10:50 1L05 Control of Helical Nanostructure in Cholesteric-Liquid-Crystalline Polymer Particles
Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi

Hideki Kawai, presiding

- 11:15 1L06 Blue Electrochemiluminescence of 9,10-diphenylanthracene in photo-electro functional DNA/Ru(bpy)₃²⁺ hybrid film
Ryuki Ozawa, Haruki Minami, Kazuki Nakamura, Norihisa Kobayashi
- 11:40 1L07 Synthesis of Novel Multiple Helicenes Using a Chrysene Framework and Their Circularly Polarized Luminescence Properties
Shoya Yamakawa, Tomoyuki Ikai, Nozomu Suzuki, Eiji Yashima

Osamu Tsutsumi, presiding

- 12:55 1L08 PMMA Type Negative Resist by Dry Development Using Atomic Hydrogen
Yuki Takemori, Masao Gohdo, Hideo Horibe
- 13:20 1L09 Synthesis of a Poly(diphenylacetylene) Bearing Optically Active Anilide Pendants and Its Application to a Chiral Stationary Phase for HPLC
Mai NOZAKI, Daisuke HIROSE, Katsuhiko MAEDA
- 13:45 1L10 Helicity Control of Poly(biphenylacetylene)s Bearing Polar Pendant Groups in the Vicinity of the Main-Chain and Their Application to Chiral Stationary Phase for HPLC
Atsushi Tsuzuki, Tomoyuki Ikai, Eiji Yashima

Masayo Sakata, presiding

- 14:10 1L11 Poly(biphenylacetylene) derivatives with helicity memory and their chiral recognition abilities
Nozomu Suzuki, Tomoyuki Kurake, Tomoyuki Ikai, Katsuhiko Maeda, Eiji Yashima
- 14:35 1L12 Catalytic One-Handed Helix-Induction and Memory of Amphiphilic Poly(Biphenylacetylene)s Bearing Achiral and/or Chiral Oligoethylene Glycol Pendants in Water
Tomoyuki Ikai, Kosuke Mizumoto, Riho Ikeda, Ryoma Ishidate, Katsuhiko Maeda, Eiji Yashima
- 15:25 1L14 Preparation and gas transport properties of hyperbranched polybenzoxazole - silica hybrid membranes
Azumi Saito, Tomoyuki Suzuki

Tomoyuki Suzuki, presiding

- 15:50 1L15 Polymer intercalation into metal-organic frameworks: Mechanism and applications
Noriyoshi Oe, Nobuhiko Hosono, Takashi Uemura

- 16:15 1L16 Separation of cyclic polymers by metal-organic frameworks
Taku Sawayama, Nobuhiko Hosono, Takashi Uemura
- 16:40 1L17 Molecular insight into gas separation properties of polymers of intrinsic microporosity
Yuiko Tomita, Yuta Yoshimoto, Masafumi Yamato, Shu Takagi, Hiroyoshi Kawakami, Ikuya Kinefuchi
- Tomoyuki Ikai, presiding**
- 17:05 1L18 Cyclodextrin immobilized cellulose nanofiber for selective removal of endotoxin
Masayo Sakata, Yusuke Ota, Takeo Kitamura, Yuko Morita
- 17:30 1L19 Functional DNA oriented film stretched and immobilized between floating potential electrode by dielectrophoretic trapping method and its morphology, optical, and electrical properties.
Reo Chijimatsu, Kazuki Nakamura, Norihisa Kobayashi
- 17:55 1L20 Mullins effect under multiaxial deformation of carbon black filling tracked by electrical resistance measurement
Yuga Taniguchi, Mai Than-Tam, Kenji Urayama

Thu. Sep 17

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yasushi Okumura, presiding

- 10:00 2L01 Development of photofunctional adhesives with polymers containing azo-doped liquid crystals
Mioka Koike, Miho Aizawa, Takahiro Yamamoto, Norihisa Akamatsu, Atsushi Shishido
- 10:25 2L02 Development of photo-adhesive materials utilizing chemical characteristics of 2-mercaptopyridyl groups
Masahiro Furutani, Daiki Fujihira, Koji Arimitsu
- 10:50 2L03 Helical network polymers synthesized via photo-cross-link polymerizations in a chiral smectic liquid crystal field
Hiromasa Yamamoto, Takuya Inagaki, Ken Kusunoki, Jinwoo Park, Kosuke Kaneko, Tomonori Hanasaki, Kazuo Akagi

Koji Arimitsu, presiding

- 11:15 2L04 Soft Elasticity of Main-Chain Liquid Crystal Elastomers in Elongation Accompanied by Director Rotation
Suzuka Okamoto, Yuma Ito, Ruito Tanaka, Shinichi Sakurai, Kenji Urayama
- 11:40 2L05 Confocal laser scanning microscopic observation of liquid crystal director in liquid crystal/polymer composite materials
Naoya Arita, Yasushi Okumura, Hirotugu Kikuchi

Katsuhiko Maeda, presiding

- 12:55 2L06 Fabrication of aligned polymer films by photopolymerization and evaluation of mechanical property
Yuma Arai, Norihisa Akamatsu, Shoichi Kubo, Atsushi Shishido
- 13:20 2L07 Synthesis of helical poly(3,4-ethylenedioxythiophene)s in photo-invertible chiral liquid crystal field and their chirality-controlled optical properties
Satoru Yoshida, Santa Morikawa, Kenta Ueda, Masatomo Hidaka, Kosuke Kaneko, Kimiyoshi Kaneko, Tomonori Hanasaki, Kazuo Akagi

- 13:45 2L08 Fabrication of surface structure with molecular alignment by patterned-photopolymerization induced molecular motion
Sayuri Hashimoto, Norihisa Akamatsu, Shoichi Kubo, Atsushi Shishido
- Kazuki Nakamura, presiding**
- 14:10 2L09 Development of pyrene-type fluorescent mechanophore for local stress analysis in polymer gels
Takuya YAMAKADO, Shohei SAITO
- 14:35 2L10 Up-conversion of molecular organogel with anthracene framework
Hideki Kawai, Akihisa Mori
- Yoshinori Takashima, presiding**
- 15:25 2L12 Tough hydrogels by introducing ionic sacrificial bonds in bone tissues
Naohiro Kashimura, Takayuki Nonoyama, JianPing Gong
- 15:50 2L13 Mechanoresponsive Metamorphosis of DN gel
Tomoko Yamazaki, Takahiro Matsuda, Tasuku Nakajima, Jian Ping Gong
- 16:15 2L14 Visualization and quantification of weak compression stress using combination of stimuli-responsive layered polydiacetylene and dry liquid
Minami Nakamitsu, Keigo Oyama, Hiroaki Imai, Syuji Fujii, Yuya Oaki
- Tasuku Nakajima, presiding**
- 16:40 2L15 Preparation of cross-linked poly(vinyl alcohol) films via copolymers with benzoxaborole and carboxylic acid groups, and their degradability in an oxidizing environment
Yohei Kotsuchibashi, Nao Hakuto, Misaki Ishibane, Katsuya Saito, Masayuki Kirihara
- 17:05 2L16 Fast Self-healable and Recyclable Supramolecular Materials by Planetary Ball Milling Based on Host-guest Interaction of Cyclodextrin
Junsu Park, Shunsuke Murayama, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Go Matsuba, Yoshinori Takashima
- Hiroyasu Yamaguchi, presiding**
- 17:30 2L17 Preparation and properties of self-healing polyurethanes utilizing host-guest interaction of cyclodextrin and adamantane
Kaito Sugane, Mitsuhiko Shibata
- 17:55 2L18 Room temperature self-healing properties of cyclosiloxane polymers
Soyeon Kim, Huie Zhu, Masaya Mitsuishi

Fri. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Daisuke Ishii, presiding

- 10:00 3L01 Development of novel methacrylic acid copolymer with phosphorylcholine group and silicone group in the side chain and its powder surface treatment properties.
Ryo Sasaki, Takashi Takeshita, Nao Tsurumi, Yuji Masubuchi, Atsushi Nagasawa, Yuki Munekata
- 10:25 3L02 Aggregation States and Bioinert Properties of a Thin Film of a Polyoxazoline Derivative
Hisao Matsuno, Jinhyeok Hong, Masayasu Totani, Keiji Tanaka
- 10:50 3L03 Aggregation state of poly(2-hydroxyethyl methacrylate) at water interface and its effect on 2D-patterned

Kento Kawabata, Masayasu Totani, Hisao Matsuno, Keiji Tanaka

Norihisa Akamatsu, presiding

- 11:15 3L04 Adhesive properties of anti-biofouling cross-linked polymer based on epoxy/betaine
Masayasu Totani, Junko Katayama, Masaaki Ozawa, Nobutomo Tsuruzoe, Hisao Matsuno, Keiji Tanaka
- 11:40 3L05 Dynamic Wetting Behavior of Superhydrophobic Microstructures Surface in Water Media
Maria Inukai, Daisuke Ishii

Hisao Matsuno, presiding

- 12:55 3L06 Synthesis and adhesive performance of dopamine modified carboxymethyl cellulose
Yuya ITONO, Kozo MATSUMOTO
- 13:20 3L07 Photo-responsive reversible adhesives based on azobenzene-based block copolymers
Shotaro Ito, Haruhisa Akiyama
- 13:45 3L08 Supramolecular cellulose nanofiber composite materials with host-guest cross-linker assisted by calcium ion complex coordination
Hinako Tsuchiya, Garry Sinawang, Taka-Aki Asoh, Motofumi Osaki, Yuka Ikemoto, Yuji Higuchi, Hiroyasu Yamaguchi, Akira Harada, Hiroshi Uyama, Yoshinori Takashima

Kazuhide Ueno, presiding

- 14:10 3L09 Molecular Dynamics Simulation of Hybrid Gels with Slide-Ring and Fixed Cross-links
Takeyoshi Masumoto, Yusuke Yasuda, Koichi Mayumi, Hiroshi Morita, Hideaki Yokoyama, Kohzo Ito
- 14:35 3L10 Preparation and evaluation of photo-responsive nanogel particles to mimic photofunctional proteins
Rinoka Adachi, Yu Hoshino, Yoshiko Miura
- 15:25 3L12 Photo-mechanical conversion in N-benzylideneaniline polymer liquid crystal
Mizuho Kondo, Rin Nizuka, Takehiro Uematsu, Shika So, Ryohei Fukae, Nobuhiro Kawatsuki

Yu Hoshino, presiding

- 15:50 3L13 Preparation of mixed electronic/ionic conducting gels using a liquid metal and an ionic liquid
Juri Asada, Aya Saruwatari, Ryota Tamate, Hiroki Ota, Masayoshi Watanabe, Kazuhide Ueno
- 16:15 3L14 Synthesis and evaluation of temperature-responsive polymer with UCST, Poly(N-acryloyl-nipecotamide)
Yoshikatsu AKIYAMA

Room M

Wed. Sep 16

S15. Polymer Materials for The Hydrogen Energy-based Society

- 10:15 1MSO Introductory Remarks S15
Manabu Tanaka
- Manabu Tanaka, presiding**
- 10:25 1M04IL Possibility of polymers in hydrogen society
Hiroyoshi Kawakami
- Akihiro Ohira, presiding**
- 10:50 1M05 Development of Membrane Electrode Assembly for Polymer Electrolyte Membrane Water Electrolyzer.
Yoshihiko Nakano, Norihiro Yoshinaga
- 11:15 1M06 Development of easily synthesized all-aromatic anion conducting polymers and their application to solid alkaline water electrolysis
Shoji Miyanishi, Soni Roby, Hidenori Kuroki, Takeo Yamaguchi
- 11:40 1M07 Direct hydrogen production from salinity gradient energy using reverse electro dialysis (RED) technology
Mitsuru Higa, Yuriko Kakihana, Ryo Ujike, Yoshihiro Kawabata, Hiroki Kawasaki
- Shoji Miyanishi, presiding**
- 12:55 1M08 Polymers for Hydrogen Storage
Kenichi Oyaizu
- 13:20 1M09 Hydrogen storage on conjugated macromolecule-metal hydride composite materials
Akihiro Yoshida
- 13:45 1M10 Nanostructures of two-dimensional random copolymers containing heteroaromatic rings and quinone moieties and their superior electrocatalytic activity for hydrogen evolution reaction
Akira Ishizone, Hiroaki Imai, Yuya Oaki
- Yoichi Tominaga, presiding**
- 14:10 1M11 Tuning the Polarity of Fibrous Poly(vinylidene fluoride-co-hexafluoropropylene)-based Support for Active Electrochemical Water Splitting Catalysts
Shunsaku Uchiyama, Asuka Morinaga, Yu Katayama, Hiromori Tsutsumi
- 14:35 1M12 Characteristics of Vanadium Redox Flow Battery with Hydrocarbon-type Polymer Electrolyte Membrane
Akihiro Ohira, Wakako Sakata, Erika Ishida, Tomonori Mitsuru, Yukari Sato
- 15:25 1M14 Proposal of Na conductive new solid electrolyte and their physicochemical properties and Na-S battery performance
Yuji Yokomaku, Koji Hiraoka, Masaki Kato, Kohei Inaba, Hibiki Miyauchi, Shiro Seki
- Shiro Seki, presiding**
- 15:50 1M15 Preparation of Li-S Polymer Battery Utilizing High Compatibility of Carbonaceous Materials with Highly Concentrated Electrolytes
Ryo Motoyoshi, Aya Saruwatari, Jiali Liu, Kei Hashimoto, Kazuhide Ueno, Kaoru Dokko, Masayoshi Watanabe
- 16:15 1M16 Synthesis of polybetaine-type electrolyte materials and evaluation as Li-ion conductors
Masahiro Fujita, Jun Ishii, Yuko Takeoka, Masahiro Rikukawa
- 16:40 1M17 Li ion conducting solid polymer electrolytes based on polyacrylates bearing sulfone groups
Chihiro Doi, Yuichiro Saika, Hisashi Kokubo, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno

Masahiro Fujita, presiding

- 17:05 1M18 Ion-conductive properties of carbonate-based polymer electrolytes - Effects of terminal modification and copolymerization - Yoichi Tominaga
- 17:30 1M19 Investigations of polymer / inorganic electrolyte and F- conducting electrolytes for all-solid-batteries
Shiro Seki, Suzuki Naamo, Masaki Kato, Hiraoka Koji, Yokoo Atsuya, Kaneko Yukari, Takahashi Keitaro

Thu. Sep 17

S15. Polymer Materials for The Hydrogen Energy-based Society

Manabu Tanaka, presiding

- 10:00 2M01IL Innovative polymer materials for high efficiency, high power, high durability PEFCs
Akihiro Iiyama, Katsuyoshi Kakinuma, Makoto Uchida, Junji Inukai, Junpei Miyake, Kenji Miyatake

Junpei Miyake, presiding

- 10:50 2M03 Effect of heat treatment to polymer blend type charge-transfer electrolyte membrane for application in polymer electrolyte fuel cells
Masamichi Nishihara, Shiyang Feng, Liana Christiani, Byungchan Hwang, Kazunari Sasaki, Shoichi Kondo, Takamasa Kikuchi
- 11:15 2M04 Crosslinked sulfonated polyphenylsulfone electrolyte membranes for PEMFCs (II)
Je Deok KIM
- 11:40 2M05 Battery applications of ion conductive polymer nanofibers for the growing use of hydrogen energy
Manabu Tanaka, Motoki Nishizawa, Yu Matsuda, Mitsuki Ochiai, Hiroyoshi Kawakami

Masamichi Nishihara, presiding

- 12:55 2M06 Proof of concept study of all-polymer rechargeable fuel cell
Junpei Miyake, Yasunari Ogawa, Toshiki Tanaka, Jinju Ahn, Kouki Oka, Kenichi Oyaizu, Kenji Miyatake
- 13:20 2M07 Synthesis and Anion Conductivity of Anion Exchange Membrane Having Fused Expanded Pyridinium Cation with Delocalized Positive Charge
Yuki Motoishi, Naoki Tanaka, Tsuyohiko Fujigaya
- 13:45 2M08 Anion conducting polymer electrolyte membranes prepared by quantum beams
Yasunari Maekawa
- 14:10 2M09 Optimization of ionomer ratio for the catalyst based on polybenzimidazole-wrapped carbon
Tsuyohiko Fujigaya

Tsuyohiko Fujigaya, presiding

- 14:35 2M10 Molecular dynamics analyses of mass transport phenomena in polymer electrolyte membrane/ionomer of PEFC
Takashi Tokumasu, Takuya Mabuchi
- 15:25 2M12 Revealing the dynamics of molecules in polymer materials by computational chemistry and vibrational spectroscopy
Kiyoshi Yagi

- 15:50 2M13 Study on Hydrogen Isotope Separation by Solid Polymer Electrolyte Membranes
Hisayoshi Matsushima
- 16:15 2M14 Development of high gas permeable separation membrane containing surface modified nanoparticles
Masafumi Yamato, Manabu Tanaka, Hiroyoshi Kawakami

Room N

Wed. Sep 16

S12. Frontier Research of Organic/Hybrid Materials

- 10:15 1NSO Introductory Remarks S12
Toshinori Matsushima, Kenichi Goushi
- Toshinori Matsushima, presiding**
- 10:25 1N04IL Organic-based Thermoelectric Materials and Flexible Thermoelectric Generators
Masakazu Nakamura
- 11:15 1N06 Toward designed molecular semiconductor crystals
Kazuo Takimiya, Khosuke Kawabata, Takuya Ogaki
- 11:40 1N07 Solution-processable reduced graphene oxide films for molecular orientation control and device application
Ken-ichi Nakayama
- 12:55 1N08 Development of High Performance n-Type Organic Semiconductors Based on a Nitrogen-Containing pi-Electron Core
Toshihiro Okamoto, Shohei Kumagai, Craig Yu, Jun Takeya
- Kenichi Goushi, presiding**
- 13:20 1N09 Electrically driven organic semiconductor lasers
Katsumi Tanigaki, Thangavel Kanagasekaran, Hidekazu Shimotani
- 13:45 1N10 Emission Properties of Organic Crystals Equipped with Diffraction Gratings -Toward Laser Oscillation Wavelength Design-
Takeshi Yamao, Yuhi Inada, Shu Hotta
- 14:10 1N11 Cutting edge technology of organic semiconductor laser
Ryutaro Komatsu, Takashi Fujihara, Jean Charles Ribbierre, Bencheikh Fatima
- Takayuki Chiba, presiding**
- 14:35 1N12 Fastest Reverse Intersystem Crossing in OLED Emitters
Hironori Kaji
- 15:25 1N14 Triplet-triplet upconversion involving spin-orbit coupling in organic light-emitting diodes
Kenichi Goushi
- 15:50 1N15 Investigation of triplet deactivation mechanism using cooperative experimental and theoretical approaches
Shuzo Hirata
- 16:15 1N16 Highly Aligned and Aggregated Morphology of Donor-Acceptor Conjugated Polymer Derived from "Slow Bar-Coating Process"

Yuta Yabuuchi, Genya Uzurano, Hirotake Kajii, Akihiko Fujii, Masanori Ozaki

Takeshi Yasuda, presiding

- 16:40 1N17 Surface termination and interface energy level alignment of solution-processed perovskite
Abduheber Mirzehmet, Tomoki Ohtsuka, Peter Kruger, Hiroyuki Yoshida
- 17:05 1N18 Preparation of High Quality Hybrid Materials for Efficient Perovskite Solar Cells
Atsushi Wakamiya
- 17:30 1N19 Efficient and Stable Perovskite Solar Cells by using MAPbI₃ Nanoparticle-Seeded Growth
Md. Shahiduzzaman, Taima Tetsuya
- 17:55 1N20 Effects of Aging and Passivation on Charge Recombination in Perovskite Solar Cells
YONGYOON CHO, Hyung Do Kim, Hideo Ohkita

Thu. Sep 17

S12. Frontier Research of Organic/Hybrid Materials

Toshinori Matsushima, presiding

- 10:00 2N011L Organic Solar Cells Using High Mobility Organic Semiconductors
Masahiro Hiramoto
- 10:50 2N03 Organic photovoltaic properties associated with the molecular orientations of PTCDI derivatives on conjugated polymers
Takeshi Yasuda, Kenji Sakamoto
- 11:15 2N04 Reduced Nonradiative Voltage Loss in Polymer Solar Cells with a Small Energy Offset
Toshiharu Saito, Shin-ichiro Natsuda, Kenta Imakita, Yasunari Tamai, Hideo Ohkita
- 11:40 2N05 Bimolecular Recombination in All Polymer Solar Cells with Different Blend Morphologies
Hyung Do KIM, Shinta Iwasaki, Tomohiro Fukuhara, Hideo Ohkita

Kenichi Goushi, presiding

- 12:55 2N06 Ligand exchange blue perovskite nanocrystals for Highly Efficient LEDs
Takayuki Chiba, Shota Ishikawa, Hinako Ebe, Kido Junji
- 13:20 2N07 High efficiency from hybrid perovskite LEDs
Toshinori Matsushima, Cheng Tai, Qin Chuanjiang, Adachi Chihaya

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Akito Masuhara, presiding

- 15:25 2N12 Effect of steric hindrance of alkyl-sidechains on lithium-ion transport properties for polyether electrolytes
Kousuke Matsuo, Shohei Yuasa, Ryansu Sai, Yu Katayama, Hiromori Tsutsumi
- 15:50 2N13 Effect of cation on the ion conduction properties of polyether electrolyte with cyanoethoxy sidechain

Soichiro Yamanaka, Riho Matuoka, Ryansu Sai, Yu Katayama, Hiromori Tsutsumi

Shiro Seki, presiding

- 16:15 2N14 TetraPEG gels containing high concentrated electrolyte for Li-ion capacitors
Jihae Han, Kenta Fujii
- 16:40 2N15 Structural Study on Polymer Gel Electrolytes Prepared by "Salting-in" Poly(ethylene glycol) into a Phosphonium Ionic Liquid with a Lithium Salt.
Masayuki Shibata, Saki Matsuura, Kenta Fujii
- 17:05 2N16 Influence on Proton Conductivity by the Density of Surface Hydroxy Groups of Functionalized Filler for Polymer Electrolyte Membrane.
Kazuki Koseki, Ryuichiro Shimada, Toshihiko Arita, Akito Masuhara

Kenta Fujii, presiding

- 17:30 2N17 Composite electrolytes based on sulfide-based solid electrolytes and highly concentrated electrolytes
Saiki Shiori, Jiyoung Ock, Ryoichi Tatara, Kaoru Dokko, Masayoshi Watanabe, Kazuhide Ueno
- 17:55 2N18 Preparation of Polymer Electrolytes with Low-solubility of Lithium-polysulfide and Evaluation of Battery Performance
Hibiki Miyauchi, Kohei Inaba, Keitaro Takahashi, Shiro Seki

Fri. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Haruka Minato, presiding

- 10:00 3N01 Viscoelastic Relaxation Attributed to the Molecular Dynamics of Polyrotaxane Confined in an Epoxy Resin Network
Akihiro Hanafusa, Shota Ando, Satoru Ozawa, Masakazu Ito, Ryuichi Hasegawa, Koichi Mayumi, Kohzo Ito
- 10:25 3N02 Structure, properties, and functions of polyrotaxane glass
Kazuaki Kato, Kohzo Ito

Hiroharu Ajiro, presiding

- 10:50 3N03 Latex films of elastomer microspheres cross-linked with rotaxane
Yuma Sasaki, Seina Hiroshige, Jun Sawada, Daisuke Aoki, Toshikazu Takata, Daisuke Suzuki
- 11:15 3N04 Effect of molecular orientation on bending strain of uniaxially oriented polymer films
Yurina Kanehara, Ryo Taguchi, Norihisa Akamatsu, Shoichi Kubo, Atsushi Shishido
- 11:40 3N05 Synthesis and evaluation of main-chain poly(ionic liquid)s with click-reactive monomers
Ruka Hirai, Takaichi Watanabe, Tsutomu Ono

Tsutomu Ono, presiding

- 12:55 3N06 Control of rheological and mechanical properties of comb-shaped polyurethane by precise molecular design
Daisuke AOKI, Hiroaki YOSHIDA, Hiroharu AJIRO
- 13:20 3N07 Control of mechanical properties of reversibly crosslinked multiphase polymer based on different densities of hydrogen bonds

13:45 3N08 Shogo Ishizaka, Shintaro Nakagawa, Koji Matsuoka, Naoko Yoshie
Tough and self-healable elastomer based on entropy-driven hydrogen bonds between vicinal diols
Shintaro Nakagawa, Chaehoon Kim, Masataka Seshimo, Hirohiko Houjou, Naoko Yoshie

Room O

Wed. Sep 16

S16. Polymer Gels for Creating the Future by Functions Due to Softness

10:15 1OSO Introductory Remarks S16
Takayuki Kurokawa
Shohei Ida, presiding

10:25 1O04IL Tutorial of Polymer Gel Study
Takayuki Kurokawa

10:50 1O05 Design of a thermoresponsive gel by using a strong cationic radical initiator
Tsukuru Masuda, Toshikazu Tsuji, Hideki Koizumi, Madoka Takai

11:15 1O06 Effects of viscoelastic relaxation time of reversible cross-link on mechanical properties of supramolecular hydrogels
Subaru Konishi, Yu Kashiwagi, Go Watanabe, Motofumi Osaki, Takuya Katashima, Osamu Urakawa, Hiroyasu Yamaguchi, Tadashi Inoue, Akira Harada, Yoshinori Takashima

11:40 1O07 PEG-based ion gel electrolytes with controlled network structure for lithium-ion batteries
Asumi Ishikawa, Kenta Fujii
Tsukuru Masuda, presiding

12:55 1O08 A New Strategy to Enhance Modulus and Toughness of Ionic Polyisoprene Elastomers that Autonomously Self-Heal at Room Temperature
Yohei Miwa, Mayu Yamada, Yu Shinke, Shoichi Kutsumizu

13:20 1O09 Unique Thermoresponsive Aggregation Behavior of Core-Crosslinked Star Polymers with Multiple Arms
Sayuri Takeshima, Shohei Ida, Shin-ichi Yusa, Shokyoku Kanaoka

13:45 1O10 Development of ellipsoidal-shaped microgels and their self-organization behavior at the air/water interface
Kenshiro Honda, Yuka Sazuka, Kojiro Iizuka, Shusuke Matsui, Takayuki Uchihashi, Takuma Kureha, Mitsuhiro Shibayama, Takumi Watanabe, Daisuke Suzuki

14:10 1O11 Characterization of the hydrogel microsphere's surface properties by using electrophoresis
Takumi Inui, Yuichiro Nishizawa, Kenshiro Honda, Daisuke Suzuki
Haruka Minato, presiding

14:35 1O12 Thermoresponsive Gelation of Amphiphilic Random Copolymer Self-Assemblies in Water
Motoki Shibata, Takaya Terashima, Tsuyoshi Koga

15:25 1014 Control of seed formation allows two distinct self-sorting patterns of supramolecular nanofibers.
Kazutoshi Nagao, Ryou Kubota, Wataru Tanaka, Takuma Aoyama, Kenji Urayama, Itaru Hamachi

15:50 1015 Gelation mechanism of aqueous solutions of chemically modified celluloses
Toshiyuki Shikata

Toshiyuki Shikata, presiding

16:15 1016 Preparation and structural analysis of rhombically swellable polymer gels by crystal crosslinking method
Tokiyo Katou, Kanta Fukushima, Shizuka Anan, Kenta Kokado, Kazuki Sada

16:40 1017 Reinforcement of Hydrogels Using Strain-induced Crystallization
Chang Liu, Koichi Mayumi, Takamasa Sakai, Hideaki Yokoyama, Kohzo Ito

Hideaki Yokoyama, presiding

17:05 1018 Anisotropic Double Network Hydrogels based on Semi-Rigid Polyelectrolyte Physical Networks
Daniel King, Riku Takahashi, Takuma Ikai, Kazuki Fukao, Takayuki Kurokawa, Jian Ping Gong

17:30 1019 Mechanical Properties of Tough Hydrogels with Entanglement Cross-linking via Free Radical Polymerization
Takashi Miyata, Chika Hajime, Yuino Inamoto, Chisa Norioka, Akifumi Kawamura

17:55 1020 Development of thin inorganic/organic double-network ion gel membrane
Eiji Kamio, Masayuki Kinoshita, Tomoki Yasui, Atsushi Matsuoka, Hideto Matsuyama

Thu. Sep 17

S16. Polymer Gels for Creating the Future by Functions Due to Softness

Kenji Urayama, presiding

10:00 2001 Synthesis of nearly ideal networks consisting of various vinyl polymers
Shintaro Nakagawa, Xin Huang, Naoko Yoshie

10:25 2002 Preparation of conducting porous polymer hydrogel for increasing the redox activity
Sayaka Kamei, Yixuan Huang, Tsukuru Masuda, Madoka Takai

10:50 2003 Design and synthesis of new gel using crosslinker with rotaxane and stereocomplex
Jaeyeong Choi, Hiroharu Ajiro

Takuya Katashima, presiding

11:15 2004 Bidirectional mobility of photomechanical materials using polypeptide gel and its origin.
Toshihiro Hiejima, Masahiro Imai

11:40 2005 Rheological behavior of colloidal gels formed by temperature-responsive microgels
Atsushi Yamamoto, Takumi Inui, Takumi Watanabe, Daisuke Suzuki, Kenji Urayama

- 12:55 2006 Visualization of nano-mechanical properties and nano-stress distribution for polymer gels by atomic force microscopy
Xiaobin Liang, Ken Nakajima
- 13:20 2007 Structure Analysis of Temperature-Sensitive Microporous Film Based on Gel Particles
Jin Gong, Kohei Sakai, Kazuhiro Ara, Itsuki Hachiya, Ito Hiroshi
- Takamasa Sakai, presiding**
- 13:45 2008 Electrophoretic fabrication of stimuli-responsive hydrogel wrinkles
Taka-Aki Asoh, Yuka Kashihara, Hiroshi Uyama
- 14:10 2009 Molecular Insights for the Softness and Toughness of Slide-Ring Gels via Coarse-Grained Molecular Dynamics Simulations
Yusuke Yasuda, Takeyoshi Masumoto, Koichi Mayumi, Masatoshi Toda, Hideaki Yokoyama, Hiroshi Morita, Kohzo Ito
- Koichi Mayumi, presiding**
- 14:35 2010 Viscoelastic Properties of Transient Networks with Uniform Functionality
Takuya Katashima, Mitsuru Naito, Ung-il Chung, Kanjiro Miyata, Takamasa Sakai
- 15:25 2012 supramolecular/polymer composite hydrogel: classification of network structure and rheological property
Keisuke Nakamura, Ryou Kubota, Kei Sada, Takuma Aoyama, Kenji Urayama, Itaru Hamachi
- Tetsuo Yamaguchi, presiding**
- 15:50 2013 Multiaxial Deformation Behavior of Nearly Critical Gels
Takuma Aoyama, Naoto Yamada, Kenji Urayama
- 16:15 2014 Equation governing the softness of polymer gels
Naoyuki Sakumichi, Yuki Yoshikawa, Takamasa Sakai
- Naoyuki Sakumichi, presiding**
- 16:40 2015 Understanding Giant Earthquakes using polymer gels
Tetsuo Yamaguchi
- 17:05 2016 Fast deformation mode of gels driven by mixing of two solvents:
Yoshimi Tanaka, Miyu Seii, Sui Jize, Masao Doi
- 17:30 2017 Strain-induced "deswelling" of double network hydrogels with fully stretched network strands
Chika Imaoka, Tasuku Nakajima, JianPing Gong
- 17:55 2018 Dielectric and Complementary Studies on Dynamic Behaviors of Solvent Molecules Restricted in Fractal Structures of Gel Materials
Shin Yagihara, Hironobu Saito, Yuko Maruyama

Fri. Sep 18

S16. Polymer Gels for Creating the Future by Functions Due to Softness

Kimio Sumaru, presiding

- 10:00 3001 3D printing of starch
Kosuke Aiso, Masaru Kawakami, Yosuke Watanabe, Nahin Shiblee, Khosla Ajit, Jun Ogawa, Hidemitsu Furukawa
- 10:25 3002 Preparation of degradable hydrogel surfaces with re-oriented PEG-grafts for removal of adsorbed protein layer

- Tatsuki KAMIYA, Syuuhei KOMATSU, Akihiko KIKUCHI
- 10:50 3O03 Synthesis of functional hydrogels for stimuli-responsive release of proteins by multi-stimuli responsive
Syuuhei Komatsu, Moeno Tago, Taka-Aki Asoh, Akihiko Kikuchi
- Taka-aki Asoh, presiding**
- 11:15 3O04 Construction of a novel cell culture system using flexible floating hydrogel membrane as cell culture scaffold
Atsushi Tsuyukubo, Kimio Sumaru, Kana Morishita, Toshiyuki Kanamori
- 11:40 3O05 Self-healing and selective adhesion properties of hydrogels generated by cellular adhesion and intercellular junctions
Seika Aoyama, Koji Nagahama
- 12:55 3O06 Polymer gel soft function design in diffusion property for the development of "artificial pancreas"
Akira Matsumoto, Siyuan Chen, Takuya Miyazaki, Michiko Ito, Hiroko Matsumoto, Yuki Moro-oka, Miyako Tanaka, Takayoshi Suganami, Yuji Miyahara
- Akira Matsumoto, presiding**
- 13:20 3O07 Design and functional evaluation of nanogel cross-linked porous gels for muscle tissue regeneration
Yoshihiro Sasaki, Naoya Kinoshita, Shunya Hayashi, Shin-ichi Sawada, Eriko Marukawa, Hiroyuki Harada, Kazunari Akiyoshi
- 13:45 3O08 Polymer gels as matrices for deep-sea bioprospecting
Shigeru Deguchi, Mikiko Tsudome
- Takashi Miyata, presiding**
- 14:10 3O09IL Soft-Function Science and Technology Created by Polymer Gels
Hidemitsu Furukawa
- Takayuki Nonoyama, presiding**
- 15:00 3O11 Development of soft actuator using swelling behavior dependent hydro gels
Fumiya Shiga, Jun Ogawa, Yosuke Watanabe, Nahin Shiblee, Khosla Ajit, Masaru Kawakami, Hidemitsu Furukawa
- 15:25 3O12 Surface Friction on Soft Substrate Controlled by Gel Coating and Transforming of Surface Pattern
Takanori Sato, Masaru Kawakami, Yosuke Watanabe, Shiblee Nahin, Ajit Khosla, Jun Ogawa, Hidemitsu Furukawa
- 15:50 3O13 Development of Smart Door Knob System Using Soft Materials
Ikuma Sudo, Jun Ogawa, Yosuke Watanabe, Shiblee Nahin, Ajit Khosla, Masaru Kawakami, Hidemitsu Furukawa
- 16:15 3O14 Physical Property Control of Soft Matter Using Auxetic Structure
Tomoharu Mori, Masaru Kawakami, Yosuke Watanabe, Nahin Shiblee, Khosla Ajit, Jun Ogawa, Hidemitsu Furukawa

Room Q

Wed. Sep 16

S11. Dynamic Control of Electron and Ion by Designing Soft Matter

- 10:15 1QSO Introductory Remarks S11
Yuki Nagao, Shusaku Nagano
- Shusaku Nagano, presiding**
- 10:25 1Q04IL Dynamic control of electron and ion by designing soft matter
Yuki Nagao
- Hiroaki Iino, presiding**
- 10:50 1Q05 Ion-Pairing π -Electronic Assemblies Exhibiting Diverse Structures and Multiple Interactions
Hiromitsu Maeda
- 11:15 1Q06 Controlling the Optical Properties of Various D- π -A Type Molecules by the Ion Addition
Ryohei Yamakado, Hiroyuki Nabeta, Takahiro Yanbe, Saki Ohta, Shuji Okada
- 11:40 1Q07 Control of electron and ion transfer in metallosupramolecular polymer
Masayoshi Higuchi
- Masayoshi Higuchi, presiding**
- 12:55 1Q08 Electronic and ionic transports in liquid crystal phases
Hiroaki Iino, Jun-ichi Hanna
- 13:20 1Q09 Ion-selective electrochemical response of liquid crystalline perylene bisimide derivatives bearing a crown ether ring and an imidazolium moiety
Masahiro Funahashi, Daiki Taga, Kosei Okamoto
- 13:45 1Q10 A New Design Principle for Proton Conductive Membranes Based on the Use of a Gyroid Minimal Surface
Takahiro Ichikawa
- Takahiro Ichikawa, presiding**
- 14:10 1Q11 Effect of self-assembly of block copolymers in ionic liquid on properties of ion gels
Haruna MIZUNO, Kei HASHIMOTO, Hisashi KOKUBO, Kazuhide UENO, Masayoshi WATANABE
- 14:35 1Q12 Control of hierarchical structures of metal-oxide nanoparticles via interaction with organic compounds
Takaaki Tomai, Akira Yoko, Gimyeong Seong, Tadafumi Adschiri
- Yuki Nagao, presiding**
- 15:25 1Q14IL Anisotropic Conduction of Ions and Electrons and their Dynamic Control for Molecular Liquid- Crystalline Assemblies
Takashi Kato
- 16:15 1Q16 Control of mass transfer in the fuel cell cathode based on the modification of carbon surface
Tsuyohiko Fujigaya, Hoon Han, Dan Wu, Ryo Yoshihara
- 16:40 1Q17 Porous soft matter fabricated through hierarchical self-assembly of metal-organic polyhedra
Shuhei Furukawa
- 17:05 1Q18 Energy storage and conversion in electron conductive porous coordination polymers
Shinya Takaishi
- Shinya Takaishi, presiding**
- 17:30 1Q19 Superprotonic conduction in hydrophobic channel of a metal-organic nanotube
Kazuya Otsubo, Ken-ichi Otake, Hiroshi Kitagawa

17:55 1Q20 Synthesis of MOF crystals and glasses for anhydrous proton conductivity
Satoshi Horike

Thu. Sep 17

S11. Dynamic Control of Electron and Ion by Designing Soft Matter

Naoki Asakawa, presiding

10:00 2Q01 Exploration of an informational resource inherently being in polymer materials
Megumi Akai-Kasaya

10:25 2Q02 Neuron-like pulse generation and neuromorphic computation by SWNT/polyoxometalate random network
Hirofumi Tanaka, Takumi Kotooka, Deep Banerjee, T. Hadiyawarman, Saman Azhari, Yuki Usami

10:50 2Q03 Fabrication of protonic memristor devices based on MOF film having proton conduction
Naoki Morozumi, Masa-aki Haga, Yusuke Hiruma, Yuki Nagao, Satoshi Horike

Jun Matsui, presiding

11:15 2Q04 Emergence of stochastic resonance in field effect transistor using noise from pi-conjugated polymer
Riho Miyazaki, Teruo Kanki, Naoki Asakawa

11:40 2Q05 Development of Organic Spintronics Devices by Precise Synthesis of Helical Polymers
Tatsuya Nishimura, Mishra Suryakant, Takumu Yoshida, Amit Kumar Mondal, Eilam Z. B. Smolinsky, Kokoro Takayama, Eiji Yashima, Tsuyoshi Taniguchi, Katsuhiko Maeda, Ron Naaman

Megumi Akai-Kasaya, presiding

12:55 2Q06 High proton transport at the interlayer of polymer nanosheet multilayer film containing acrylic acids
Minami Inoue, Makoto Gemmei, Tokuji Miyashita, Masaya Mitsuishi, Jun Matsui

13:20 2Q07 Ion-conduction and polymer dynamics of poly(ethylene carbonate/ethylene oxide) copolymer-based electrolytes studied by dielectric spectroscopy and rheology
Yuya Doi, Takashi Uneyama, Yuichi Masubuchi, Juergen Allgaier, Stephan Foerster, Michael Ohl

Yuki Nagao, presiding

13:45 2Q08 Photo-crosslinked Poly(ethylene glycol)-Scaffolds Containing Solvate Ionic Liquids as Electrolytes for rechargeable Lithium Ion Batteries
Manjit Singh Grewal, Kazuaki Kisu, Shin-ichiro Orimo, Hiroshi Yabu

S13. Fusion between Polymer Science and Catalysis

15:15 2QSO Introductory Remarks S13
Tamaki Nakano

Tamaki Nakano, presiding

- 15:25 2Q12IL Design, synthesis and applications of polymer-supported catalyst
Shinichi Itsuno
- 16:15 2Q14 Dynamic Helical Macromolecular Catalysts for Catalytic Asymmetric Amplification
Michinori Suginome
- Michinori Suginome, presiding**
- 16:40 2Q15 Helicity Control of Polyacetylenes Bearing Catalytically Active Pendants with Dynamic Axial Chirality and Their Application to Asymmetric Organocatalysis
Tomoyuki Ikai, Mitsuka Ando, Masaki Ito, Ryoma Ishidate, Katsuhiko Maeda, Eiji Yashima
- 17:05 2Q16 Asymmetric Intermolecular C-H Insertion Using Di-rhodium Complexes Having Poly(diphenylacetylene)s with Macromolecular Helicity Memory as Chiral Ligands
Shota SONA, Daisuke HIROSE, Hidetaka ISHIBASHI, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA
- Katsuhiko Maeda, presiding**
- 17:30 2Q17 Asymmetric Suzuki-Miyaura Coupling in Aqueous Media Using Water-Soluble Helically Chiral Polymer Ligands
Naoaki Kamiya, Yuuya Nagata, Michinori Suginome
- 17:55 2Q18 Synthesis of polymers composed of accumulated bidentate nitrogen ligands and their application for catalysis
Yuehui Yuan, Jiyue Luo, Zhiyi Song, Masayoshi Bando, Tamaki Nakano

Fri. Sep 18

S13. Fusion between Polymer Science and Catalysis

Tamaki Nakano, presiding

- 10:00 3Q01IL Cyclocopolymerization Based on Alternating Insertion of Isocyanide and Unsaturated Hydrocarbon Units into a Palladium-carbon Bonds
Naoya Kanbayashi

Tomoyuki Ikai, presiding

- 10:50 3Q03 Vanadium(V)-, Niobium(V)-Alkylidene Catalysts for Living Polymerization of Cyclic Olefins and Internal Alkynes
Kotohiro Nomura
- 11:15 3Q04 Palladium-Catalyzed Synthesis of Optically Active Axially Chiral Allenic Polymers
Masamichi Ogasawara
- 11:40 3Q05 Insights into the Stereospecificity of proteases for L- and D-amino acids in Chemoenzymatic Polymerization from Quantum Mechanics/Molecular Mechanics Simulations
Joan Gimenez Dejoz, Ayaka Tateishi, Yoko Motoda, Kousuke Tsuchiya, Keiji Numata

Naoki Haraguchi, presiding

- 12:55 3Q06 Design of Bio-heterogeneous catalyst by crystalline protein scaffolds
Khanh Tien Nguyen, Takafumi Ueno
- 13:20 3Q07 Controlled Synthesis of Graphene Nanoribbons in Porous Coordination Polymer
Kazuki Nakata, Takashi Kitao, Takashi Uemura

13:45 3Q08 Preparation and Catalytic Function of Substituted Polyacetylenes
Coordinating Palladium Nanoclusters
Masahide Goto, Marina Nakaoka, Tatsuki Nagata, Takeyuki
Suzuki, Yasushi Obora, Hiromitsu Sogawa, Fumio Sanda

Kotohiro Nomura, presiding

14:10 3Q09 Catalytically Active Core-shell Hydrogel Microspheres with High
Reusability

Takuma Kureha, Yasuhisa Nagase, Daisuke Suzuki

14:35 3Q10 Synthesis of polymer microsphere and its application for catalytic
reaction

Yuri Hashimoto, Naoki Haraguchi

Room R

Wed. Sep 16

S14. Precise Design and Functionalization of Polymeric and Organic Electronic Materials

10:15 1RSO Introductory Remarks S14
Tomoya Higashihara

Tomoya Higashihara, presiding

10:25 1R04IL Development of functional polymers assisted by new synthetic method
for condensation polymers

Mitsuru Ueda

11:15 1R06IL Synthesis of Conjugated Polymers with Designed Conjugated Structures
and/or Morphologies via Solid-State Polymerization

Shuji Okada

Koji Takagi, presiding

12:55 1R08 Molecular recognition using water-soluble pi-conjugated polymers
Yuko Takeoka, Yui Shimada, Tsubasa Sato, Masahiro Fujita, Masahiro
Rikukawa

13:20 1R09 A method for simple chemical modification of PEDOT:PSS films for
bioengineering applications

Hideki Fujisaki, Akira Matsumoto, Yuji Miyahara, Tatsuro Goda

13:45 1R10 Synthesis and Properties of Defect-Free Regioregular Cyclic Poly(3-
Hexylthiophene)

Takuya Yamamoto

Tsuyoshi Michinobu, presiding

14:10 1R11 Synthesis of polyfluorene-containing block copolymers via Suzuki
catalyst-transfer polycondensation using macroinitiators

Saburo Kobayashi, Kaiyu Fujiwara, Brian Ree, Takuya Isono, Takuya
Yamamoto, Kenji Tajima, Toshifumi Satoh

14:35 1R12 Synthesis and device characteristic of electron-transporting transistor
materials based on the anti-aromatic unit

Koji Takagi

15:25 1R14 Structural Controls of Organic Semiconducting Materials Induced from
Film Surfaces

Keisuke Tajima, Chao Wang, Wei-chih Wang

Keisuke Tajima, presiding

- 15:50 1R15 Precise molecular design of semiconducting polymers by utilizing intramolecular non-covalent interactions
Itaru Osaka, Satoshi Kamimura, Masahiko Saito, Tsubasa Mikie
- 16:15 1R16 Development of n-type semiconducting polymers based on ester-substituted [2,2']-bithiazole
Yoshikazu Teshima, Masahiko Saito, Tsubasa Mikie, Itaru Osaka
- 16:40 1R17 Development of Semiconducting Polymers Based on Ester-Functionalized Anthrabisthiadiazoles
Hiroki Mori, Yuki Yamada, Yukiya Minagawa, Yasushi Nishihara

Itaru Osaka, presiding

- 17:05 1R18 Relationship between the backbone planarity and transistor performance of organic semiconducting polymers
Sultan Otep, Tsuyoshi Michinobu
- 17:30 1R19 Synthesis of azine-based conjugated polymers through a dehydration condensation reaction
Junpei Kuwabara
- 17:55 1R20 Neuromorphic Devices Based on Blend of Mixed Conducting Polymers
Shunsuke Yamamoto, Malliaras George

Thu. Sep 17

S14. Precise Design and Functionalization of Polymeric and Organic Electronic Materials

Tadanori Kurosawa, presiding

- 10:00 2R01 Development of Homeotropically Aligned Polyimide Films Using Smectic Liquid Crystalline Precursor and Molecular Orientation Analyses by pMAIRS and GI-WAXD Methods
Shohei Hara, Keita Yanase, Kazuyuki Tanaka, Shinji Ando, Ryohei Ishige
- 10:25 2R02 In-situ Formation of Thiophene-Based Conjugated Polymers via Vapor-Phase Polymerization toward Charge-Transporting Materials
Takeo Suga, Yutaro Kanda, Kenichi Oyaizu
- 10:50 2R03 Kinetic Prediction of Reverse Intersystem Crossing in Organic Semiconductors
Naoya Aizawa, Yu Harabuchi, Satoshi Maeda, Yong-Jin Pu
- 11:15 2R04 Effects of the surface structure of the SAM gate insulator on the device performance of organic thin-film transistors
Chiho Katagiri, Kouki Akaike, Takayuki Miyamae

Ryohei Yamakado, presiding

- 11:40 2R05 Functions of Oligothiophene Quinoids Based on Stabilization of Quinoidal Electronic Structures
Keitaro Yamamoto, Yoshio Aso, Yutaka Ie
- 12:55 2R06 Designing Opto-Electronic Organic Materials by Materials Informatics
Hiroyuki Matsui, Tomoharu Okada
- 13:20 2R07 Synthesis of conductive polymer with high conductivity and stability under ambient condition and its electrical conductivity
Tadanori Kurosawa, Daiji Ikeda, Yu Yamashita, Shyunichiro Watanabe, Junichi Takeya, Toshihiro Okamoto

Yutaka Ie, presiding

- 13:45 2R08 Development of the hydrogel-based biosensors for non-invasive perspiration analysis
Kuniaki Nagamine, Hiroyuki Matsui, Shizuo Tokito
- 14:10 2R09 Synthesis and Optical Properties of Ion-responsive π -Electronic Systems Bearing Frustrated Lewis Pairs
Ryohei Yamakado, Takahiro Yanbe, Hiroyuki Nabeta, Saki Ohta, Shuji Okada
- 14:35 2R10 Controlling reaction of oxidative coupling polymerization of 3-hexylthiophene using FeCl₃ particles
Tomoyasu Hirai, Tamio Seko, Syuji Fujii, Yoshinobu Nakamura

S25. Electronics and Polymer Underpin Growth in Auto Sector

- 15:15 2RSO Introductory Remarks S25
Akihiko Happoya, Yoshihiro Taguchi

Yoshihiro Taguchi, presiding

- 15:25 2R12IL Polymer materials required for Beyond 5G and millimeter-wave band usage
Masamitsu Aoki

Masamitsu Aoki, presiding

- 16:15 2R14 Development of Crystalline Acrylic Polymer-based Latent Thermal Storage Sheet
Tsuyoshi Morimoto, Naoki Furukawa, Hiroshi Yokota
- 16:40 2R15 Microstructure and thermal conductivity anisotropy of alumina/silicone composites
Mai Sugie, Masakazu Hattori, Kazuaki Sanada
- 17:05 2R16 High Heat Dissipative Insulation Sheet Material
Kazuya Kitagawa, Tomomasa Kashino, Seishi Ohashi, Mika Kagawa, Nobuo Tagashira, Toshihiro Sato, Akihito Takahashi, Shigeyuki Yagi

Fri. Sep 18

S25. Electronics and Polymer Underpin Growth in Auto Sector

Yoshihiro Taguchi, presiding

- 10:00 3R01IL Electronics and polymer materials to support automobile industry
Akio Takahashi

Akio Takahashi, presiding

- 10:50 3R03 Development to New Fields in Bio-inspired Monomer, Dopamine Acrylamide
Ryoichi Akaishi
- 11:15 3R04 Synthesis of active ester type curing agents which have both practical use and reduce Dk (dielectric constant) and Df (dissipation factor) of cured epoxy resins.
Kazuo Arita
- 11:40 3R05 Preparation and Low Dielectric Properties of Polyimide Films with Perfluorohexylene Groups

- Yoshiki Endo, Tadashi Tsukamoto, Yuji Shibasaki, Yoshiyuki Oishi
- 12:55 3R06 Fabrication of MID on high performance resin by selective surface modification
Kazuyuki Meguro, Soichiro Murakami, Emi Kurosu, Kazunori Suzuki
- Kazuyuki Meguro, presiding**
- 13:20 3R07 Development of Novel Low Dielectric Materials for 5G Applications
Nobuyuki Miyaki, Naoyuki Kawashima, Isao Nishimura, Shintarou Fujitomi, Yuutoku Yamashita, Toshiaki Kadota, Kenta Nishino, Syouma Anabuki, Yasutaka Yoshida
- 13:45 3R08 Effect of Dielectric Characteristics of Printed Board Materials on Transmission Loss in Millimeter-wave Band
Akiko Matsui, Kazuki Takahashi, Mitsunori Abe, Kouhei Chouraku
- 14:10 3R09 Contact characteristics and polymer materials required for automotive switches from now on. - Contact lubricant -
Toshiharu Mori, Hisato Shimomura, Yoshiomi Tsuji
- Toshiharu Mori, presiding**
- 14:35 3R10 Effect of surfactant and dispersion medium on colloidal solution property for magnetic fluid and magneto-rheological fluid
Masamichi Saito, Kazunari Takahashi, Munemitsu Abe, Takeshi Shirasaka
- 15:25 3R12 Development of high heat resistant cycloaliphatic epoxide resin for automobile electrification
Hiroto Takenaka, Hirose Suzuki
- 15:50 3R13 Thermostability and Formability of CFRP with Dynamic Covalent Bonding Resin
Takeshi Kondo, Hiroyuki Kagawa

Room S

Wed. Sep 16

S17. Multi-scale Approaches to The Material Properties and Biofunctions in Biomedical Polymers

- 10:15 1SSO Introductory Remarks S17
Masaya Yamamoto, Kazuki Fukushima
- Kazuki Fukushima, presiding**
- 10:25 1S04IL Multi-scale approaches to the material properties and biofunctions in biomedical polymers
Masaya Yamamoto
- 10:50 1S05 Fabrication of colloidal wound dressing with tissue adhesive and hemostatic properties
Akihiro Nishiguchi, Fumisato Sasaki, Hidehito Maeda, Masayuki Kabayama, Akio Ido, Tetsushi Taguchi
- 11:15 1S06 Development of vascular embolization materials by control of interfacial and bulk properties of temperature-responsive biodegradable injectable gel
Yuichi Ohya, Soichiro Fujiwara, Nozomi Mayumi, Yuta Yoshizaki, Akinori Kuzuya

- 11:40 1S07 Soft, Moist, Iontronic Biodevice Engineering
Matsuhiko Nishizawa
- Yasuhiko Iwasaki, presiding**
- 12:55 1S08 Establishment of design concept for hydrogel-based materials guiding skin regeneration
Kimika Ono, Koji Nagahama
- 13:20 1S09 pH dependent multi-drug delivery system by polyampholytic hydrogel
Kazuaki Matsumura
- Shoichiro Asayama, presiding**
- 13:45 1S10 Preparation of carbonate apatite capsules based on degradable polymer rich-phase and dual-drugs loading ability
Shuhe Abe, Syuuhei Komatsu, Taka-Aki Asoh, Akihiko Kikuchi
- 14:10 1S11 Permeability of phospholipid-mimicked amphiphilic random copolymers through epithelia monolayers
Hiroaki Hatano, Akira Matsumoto, Yuji Miyahara, Tatsuro Goda
- 14:35 1S12 Design of sulfobetaine polymers for spatiotemporal control of intracellular distribution
Nobuyuki Morimoto, Masaya Yamamoto
- Yuichi Ohya, presiding**
- 15:25 1S14 Tuned thermo-responsiveness of oligo(ethylene glycol) derivatives on gold nanoparticles by local density control
Hideyuki Mitomo, Xiong Kun, Yier Shi, Yusuke Yonamine, Kuniharu Ijiro
- 15:50 1S15 Temporal control of release of nanomedicine based on hierarchical assemblies of polyioncomplex nanostructure
Akihiro Kishimura, Takumi Egashira, Biplab KC, Rento Ota, Takeshi Mori, Yoshiki Katayama
- 16:15 1S16 Design of the bio-inert surface by the coating with cholesterol end-modified poly(ethylene glycol) (2k) and (5k)
Shoichiro Asayama, Yuya Sone
- Akihiko Kikuchi, presiding**
- 16:40 1S17 Blood Compatibility of Dendritic Glycerols in Conjunction with Water Structure
Tooru Ooya, Moe Yamazaki, Murakami Daiki, Tanaka Masaru
- 17:05 1S18 Physical properties of polymer thin-films that regulate bacterial adhesion
Madoka Takai, Tomohiro Hayashi, Zhou Lu, Tsukuru Masuda, Evan Mondarte, Kasinan Suthiwanich, Norifumi Isu

Thu. Sep 17

S17. Multi-scale Approaches to The Material Properties and Biofunctions in Biomedical Polymers

Michiya Matsusaki, presiding

- 10:00 2S01 Microprinting of protein-containing thin-films generated with photo-reactive zwitterionic polymers
Yasuhiko Iwasaki, Hoven Voravee, Sukulya Bunuasunthon
- 10:25 2S02 Novel cell manipulation using photo-responsive polymer double layer
Kimio Sumaru, Toshiyuki Takagi, Kana Morishita, Toshiyuki Kanamori

- 10:50 2S03 Cell Behavior on Micropatterned Surface of Photo-responsive Polymer Films with Controllable Surface Modulus
Takashi Miyata, Misato Higashino, Akifumi Kawamura
- 11:15 2S04 Controlled interaction of thermoresponsive-cationic copolymer brushes with proteins and cells.
Kenichi Nagase, Hideko Kanazawa
- Kimio Sumaru, presiding**
- 12:55 2S06 Dynamics of cell nucleus mechanics in mechanobiologically-activated mesenchymal stem cells
Satoru Kidoaki, Hiroyuki Ebata, Thasaneeya Kuboki, Rumi Sawada, Yukie Tsuji, Misaki Kaneshiro, Kazusa Tanaka, Ken Kono
- 13:20 2S07 Multi-scale analysis of shape memory cell culture substrate for dynamic control of cell orientation
Koichiro Uto, Mitsuhiro Ebara
- 13:45 2S08 Directed spheroid formation of adipose-tissue derived stem cells using porous nanosheets
Toshinori Fujie, Yoshitaka Suematsu, Shinji Takeoka
- Satoru Kidoaki, presiding**
- 14:10 2S09 Microstructure Analysis of Biocompatible Polycarbonate/Polylactide Triblock Copolymers towards Elucidation of Its Biological Functions through the Viewpoint of Spatial Scale
Kazuki FUKUSHIMA, Masayoshi JOHMEN, Ikue MITANI, Takashi KATO
- 14:35 2S10 Nano-scaled structural analysis for biomaterial polymers
Tomoka Kokuzawa, Go Matsuba
- Toshinori Fujie, presiding**
- 15:25 2S12 Cell adhesion/detachment behavior on culture surfaces coated with thermoresponsive block copolymers containing hydrophilic moieties
Kentaro Kitajima, Masamichi Nakayama, Akihiko Kikuchi, Teruo Okano
- 15:50 2S13 Adhesion behavior of cancer cells on a biocompatible polymer
Takahisa Anada, Shogo Sekida, Kei Nishida, Shingo Kobayashi, Masaru Tanaka
- 16:15 2S14 A unified biomarker of quality of cultured human corneal endothelial cells and of the long-term prognosis of corneal restoration
Akihisa Yamamoto, Hiroshi Tanaka, Munetoyo Toda, Chie Sotozono, Junji Hamuro, Shigeru Kinoshita, Morio Ueno, Motomu Tanaka
- 16:40 2S15 Design and evaluation of self-assembling peptides actively regulating functional recovery of the injured brain
Itsuki Ajioka, Takahiro Muraoka, Go Watanabe

Fri. Sep 18

S17. Multi-scale Approaches to The Material Properties and Biofunctions in Biomedical Polymers

Tsuyoshi Kimura, presiding

- 10:00 3S01 Development of multi-scale polymeric materials through bio-synthetic interaction and fusion
Masaki Nakahata, Masaru Kojima, Shinji Sakai
- 10:25 3S02 Development of a synthetic oligoamide with a defined shape in water and its application for protein ligand design

Jumpei Morimoto, Yasuhiro Fukuda, Shinsuke Sando

Takeshi Serizawa, presiding

- 10:50 3S03 Regulation of cellular function by nucleic acid aptamer
Keitaro Yoshimoto
- 11:15 3S04 Construction of 3D tissue using decellularized membrane
Tsuyoshi Kimura, Mika Suzuki, Yukina Yoshida, Yoshihide Hashimoto, Hironobu Takahashi, Tatsuya Shimizu, Naoko Nakamura, Akio Kishida
- 11:40 3S05 Cell Compartmentalization in 3D Tissues by Nanofilms Controlling Biomolecular diffusion and Cell Migration
Michiya Matsusaki, Jinfeng Zeng

Masao Kamimura, presiding

- 12:55 3S06 3D Cell Culture Using Cellulose Oligomer Assemblies
Tohru Maeda, Saeko Yamaguchi, Toshiki Sawada, Takeshi Serizawa
- 13:20 3S07 Phenylboronic acid-installed polymeric micellar fluorescent nanoprobe for ATP sensing
Mitsuru Naito, Nodoka Takahashi, Ken Miyajima, Kanjiro Miyata

Masaya Yamamoto, presiding

- 13:45 3S08 Development of drug delivery systems indispensable for the imaging of cellular biological functions
Jun-ichiro Jo, Yuki Murata, Yasuhiko Tabata
- 14:10 3S09 Near-Infrared Polymer Nanoparticles for Deep Tissue Imaging and Manipulation
Masao Kamimura, Kohei Soga
- 14:35 3S10 Mechanical deformation of microtubule regulates dynein-driven cargo transport
Syeda Rubaiya Nasrin, Tanjina Afrin, Arif Md. Rashedul Kabir, Daisuke Inoue, Takayuki Torisawa, Kazuhiro Oiwa, Kazuki Sada, Akira Kakugo

Room T

Wed. Sep 16

S18. Structural Control-based Functionalization of Biomacromolecules

- 10:15 1TSO Introductory Remarks S18
Hiroyuki Asanuma, Takeshi Serizawa
- Toshiki Sawada, presiding**
- 10:25 1T04IL Chemical modification of nucleic acids and their application
Hiromu Kashida
- 10:50 1T05 Development of nucleic acids fluorescent labeling agents that change emissive fluorophores
Koki Makino, Hiromu Kashida, Hiroyuki Asanuma
- 11:15 1T06 Exploration of stability of nucleic acids structure at the level of intracellular environments
Shuntaro Takahashi, Saptarshi Ghosh, Naoki Sugimoto

- 11:40 1T07 Single Molecule Evaluation of Excluded Volume Effect Using DNA Origami-PEG Hybrid
Yuta Okamoto, Shota Abe, Yoshihiro Iida, Kota Sakamoto, Yuichi Ohya, Akinori Kuzuya
- Shuntaro Takahashi, presiding**
- 12:55 1T08 Novel acyclic artificial nucleic acid based on the structure of L-aTNA
Keiji Murayama, Youhei Iizuka, Junya Yokoyama, Hiroyuki Asanuma
- 13:20 1T09 Development of anti-miRNA oligonucleotide composed of acyclic nucleic acid and modified bases
Fuminori Sato, Keiji Murayama, Yukiko Kamiya, Hiroyuki Asanuma
- 13:45 1T10 Creation of Novel Function of Nucleases by Backbone Structural Design of DNA-XNA Chimeras
Akira Yano, Masahito Inagaki, Seiya Ishizawa, Masaki Nishijima, Tsuyoshi Yamamoto, Satoru Ishibashi, Yasuyuki Araki, Asako Yamayoshi, Takanori Yokota, Takehiko Wada
- Masato Ikeda, presiding**
- 14:10 1T11 Comparison among metal species of DNA binding metal complexes pendant at sidechains of polymers on regulation of gene expression
Remi Watanabe, Sosuke Kurokawa, Sayaka Kubo, Shigehito Osawa, Hidenori Otsuka
- 14:35 1T12 Development of polypeptide-based molecular assembly drugs
Yukio Nagasaki
- 15:25 1T14 Rapid protein crystallization and structural analysis of submicron crystals
Satoshi Abe, Mariko Kojima, Takafumi Ueno
- Keiji Murayama, presiding**
- 15:50 1T15 Fabrications of multi-component supramolecular nanomaterials composed of artificial glycopeptides and nucleic acids
Masato Ikeda
- 16:15 1T16 Self-Assembly Of Spider Silk Proteins: The Role Of Liquid-Liquid Phase Separation
Ali D. Malay, Keiji Numata
- 16:40 1T17 Addition of antibiotic resistance to plants by introduction of PICsome containing enzyme
Seiya Fujita, Kousuke Tsuchiya, Keiji Numata
- Satoshi Abe, presiding**
- 17:05 1T18 Preparation of stereoisomeric discrete oligomer ligand libraries and evaluation of their interactions with target peptide
Sotaro Akashi, Yu Hoshino, Yoshiko Miura
- 17:30 1T19 Development of Nanogel Particles Incorporating Homogeneous Synthetic Oligomer Ligand as Molecular Recognition Site
Yusuke Saito, Sotaro Akashi, Yu Hoshino, Yoshiko Miura
- 17:55 1T20 Development of cell nuclear nanotransporters by importin-mimicking approach
Mitsuo Inui, Yoshinori Sano, Koji Nagahama

Thu. Sep 17

S18. Structural Control-based Functionalization of Biomacromolecules

Keiji Numata, presiding

- 10:00 2T01 An unusual vesicle covered by loop-cluster polyamine from comb-like blockpolymers
Wenli Wang, Ren-Hua Jin
- 10:25 2T02 Magnetic force-induced alignment of microtubules by encapsulation of CoPt nanoparticles using a Tau-derived peptide
Hiroshi Inaba, Mayuki Yamada, Mst. Rubaya Rashid, Arif Md. Rashedul Kabir, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 10:50 2T03 Creation of virus replica mimicking enveloped virus.
Hiroto Furukawa, Hiroshi Inaba, Yoshihiro Sasaki, Kazunari Akiyoshi, Kazunori Matsuura

Hiroshi Inaba, presiding

- 11:15 2T04 Self-assembled behavior of amphiphilic graft copolymers and their structural memory
Tomoki Nishimura, Shishi Shen, Yoshihiro Sasaki, Kazunari Akiyoshi
- 11:40 2T05 Optimization Of Click-Reaction Conditions Of Antibody With Temperature-Responsive Polymers For Efficient Biomarker Enrichment
Keita Hironaka, Akihiko Kikuchi, Mitsuhiro Ebara

Yoshihiro Sasaki, presiding

- 12:55 2T06 Highly Sensitive Antigen Detection Technique Using Temperature-Responsive immunoliposomes
Shinji Takeoka, Runkai HU, Ken Lee, Keitaro Sou
- 13:20 2T07 Preparation of transformable and degradable surface-functionalized core-corona type particles
Satoshi YAMADA, Tatsuki KAMIYA, Shuhei ABE, Syuuhei KOMATSU, Akihiko KIKUCHI
- 13:45 2T08 Polymer assembly made from pH-responsive block polymer having phospholipid membrane destruction
Akihiko KIKUCHI, Ken GOTO, Glen S. KWON, Syuuhei KOMATSU

Koji Nagahama, presiding

- 14:10 2T09 Surface Forces Measurements for Characterizing Polymer Brushes, Films and Gels
Kazue Kurihara
- 14:35 2T10 Polycarboxybetaine-modified liposomes induced specific IgM in mice
Takaaki Ryujin, Taro Shimizu, Ryo Miyahara, Rena Shimazui, Daisuke Asai, Takuma Yoshikawa, Akihiro Kishimura, Takeshi Mori, Tatsuhiro Ishida, Yoshiki Katayama
- 15:25 2T12 Design of Stimuli-responsive Gels with Dynamic Molecular Binding Ability by Entropy Reduction
Takashi Miyata, Masaaki Kanazawa, Akifumi Kawamura

Takeshi Mori, presiding

- 15:50 2T13 Manipulation of extracellular environment by layer-by-layer assembled membrane composed of biopolymers and construction of 3D tissues
Takami Akagi, Mitsuru Akagshi
- 16:15 2T14 Engineering Synthetic Polymer Inhibitor of Metalloproteinases: Abiotic Mimic of Endogenous Tissue Inhibitors of Metalloproteinases
Masahiko Nakamoto, Michiya Matsusaki, Kenneth&J Shea
- 16:40 2T15 Fabrication of Nano-adhesive molecules with dynamic assembling property on cell membrane for cancer treatment
Michiya Matsusaki, Hirotaka Nakatsuji

Kazuma Yasuhara, presiding

17:05	2T16	Promotion of cell fusion by oligopeptide-PEG-lipid-based cell-cell attachment <u>Yuji Teramura</u> , Sayumi Watanabe, Kazuhiko Ishihara
17:30	2T17	Cell surface modulation by heparin-conjugated lipids for regulation of ischemia reperfusion injury <u>Kenta Asawa</u> , Mason D. Hurd, Kristina N. Ekdahl, Bo Nilsson, Kazuhiko Ishihara, Yuji Teramura
17:55	2T18	Enhanced stability and antitumor efficacy of polymeric micelles by controlling the secondary structure of poly(amino acids) <u>Yuki Mochida</u> , Horacio Cabral, Yutaka Miura, Kensuke Osada, Nobuhiro Nishiyama, Kazunori Kataoka

Fri. Sep 18

S18. Structural Control-based Functionalization of Biomacromolecules

Satoshi Yamaguchi, presiding

10:00	3T01	The analysis on formation process of polysaccharide nanoparticles and its application for cell scaffolds. <u>Makoto Yamazaki</u> , Makoto Yabe, Kazutoshi Iijima
10:25	3T02	Formaton of lipid nanodiscs by an apolipoorotein-mimicking polymer <u>Kazuma Yasuhara</u> , Yuma Mitsuyoshi, Hao Jinyu, Gwenael Rapenne
10:50	3T03	Control of Physical Properties of Polysaccharide Composite Films Utilizing Structural Control of Parent Gels <u>Mineo Hashizume</u> , Masahiro Sakaguchi, Yuto Kubota, Yusuke Yataka, Takuya Sagawa

Yusuke Yonamine, presiding

11:15	3T04	Enhancing Light-Harvesting Activity by Fluorescent Dyes Attached to Photosynthetic Light-Harvesting 1-Reaction Center Core Complex (LH1-RC) <u>Genki Kasagi</u> , Masaharu Kondo, Yusuke Yoneda, Hiroshi Miyasaka, Yutaka Nagasawa, Takehisa Dewa
11:40	3T05	Quantitative analysis for functional coupling of photosynthetic light-harvesting and reaction center complexes in a molecular assembly system <u>Takehisa Dewa</u> , Genki Kasagi, Hiromi Harada, Akari Goto, Masaharu Kondo

Yu Hoshino, presiding

12:55	3T06	Photo-responsive cell immobilization surfaces based on hydrophobic assembly of lipids <u>Satoshi Yamaguchi</u> , Shinya Yamahira, Akimitsu Okamoto, Teruyuki Nagamune
13:20	3T07	Development of Thermoresponsive Functional Molecules Bearing Mono-dispersed PEGs. <u>Kazushi Kinbara</u>
13:45	3T08	Synthesis of model polymers with controlled sidechain spacings and its application to biocompatibility control <u>Shingo Kobayashi</u> , Toshiki Sonoda, Kento Yoshida, Masaru Tanaka

Hiromu Kashida, presiding

14:10	3T09	Investigation of the influence of glycopolymer backbone structure on molecular recognition ability.
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		<u>Masaya Kichize</u> , Yu Hoshino, Yoshiko Miura
14:35	3T10	Design of brush polymer particle based prodrug <u>Shin Takano</u> , Shota Fujii, Hiroshi Maeda, Kazuo Sakurai
15:25	3T12	Development of labeling reagents for multicolor Raman imaging using an algal carotenoid <u>Yusuke Yonamine</u> , Joshua Mba, Yu Hoshino, Hideyuki Mitomo, Kuniharu Ijio
15:50	3T13	Controlled assembly of filamentous virus toward thermally conductive materials <u>Toshiki Sawada</u> , Naoki Ueda, Taiki Tsuruoka, Hironori Marubayashi, Shuichi Nojima, Junko Morikawa, Takeshi Serizawa

Room U

Wed. Sep 16

S24. Evaluation and Analysis Technology of Polymeric Materials

10:15	1US0	Introductory Remarks S24 <u>Hirohmi Watanabe</u>
		Ken Kojio, presiding
10:25	1U04IL	Analytical evaluation of polymer materials based on chemical structure <u>Junji Mizukado</u> , Hirohmi Watanabe
		Junji Mizukado, presiding
11:15	1U06	Evaluation for Water Permeation into the Interface of Adhesive Materials <u>Yoshihisa Fujii</u> , Daiki Shomura, Koki Inoue, Naoya Torikai
11:40	1U07	Molecular aggregation structure and mechanical property of polyurethane adhesive under cyclic-fatigue loading <u>Kakeru Obayashi</u> , Chien-Wei Chu, Ken Kojio, Atsushi Takahara
12:55	1U08	Novel evaluation based on non-linear viscoelasticity for degradation of rubbers <u>Kyoichi Tsurusaki</u> , Rika Takeda
13:20	1U09	Evaluation of Weathering Resistance of Rubber Materials by non-linear viscoelastic index <u>Rika Takeda</u> , Kyoichi Tsurusaki
		Kyoichi Tsurusaki, presiding
13:45	1U10	Application of positron annihilation lifetime spectroscopy in degradation analysis of polymer materials <u>Hideaki Hagihara</u> , Ryota Watanabe, Takato Ishida, Ryoma Kitagaki
14:10	1U11	Investigation of combinatorial effects of stabilizing additives on yellowing suppression of polystyrene <u>Ken Takimoto</u> , Toshiaki Taniike
14:35	1U12	Influences of antioxidant content and structural alteration on physical properties in the polypropylene aged by heat <u>Yukio Kitada</u> , Makiko Miura, Kazuhiro Toyoda, Hideaki Hagihara, Shogo Yamane, Maito Koga, Jyunji Mizukado

Hirohmi Watanabe, presiding

- 15:25 1U14L Morphological characterization of nano-composite materials by electron microscopy
Hiroshi Jinnai
- 16:15 1U16 IR microscopic imaging and two-dimensional correlation spectroscopy
Shogo Yamane, Ryota Watanabe, Hideyuki Shinzawa, Junji Mizukado, Hideaki Hagihara
- 16:40 1U17 High-throughput chemiluminescence imaging and machine-learning aided stabilizer formulation
Toshiaki Taniike
- Toshiaki Taniike, presiding**
- 17:05 1U18 Visual evaluation on polymer material and structure based on mechanoluminescence
Nao Terasaki
- 17:30 1U19 Nanoscale chemical analysis of interfaces and surfaces by photothermal infrared spectroscopy
Naoki Baden
- 17:55 1U20 Characterization of interfacial structure of polypropylene/silica composites by infrared microscopic imaging
Ryota Watanabe, Aki Sugahara, Hideaki Hagihara, Junji Mizukado, Hideyuki Shinzawa

Thu. Sep 17

S24. Evaluation and Analysis Technology of Polymeric Materials

Yoshihisa Fujii, presiding

- 10:00 2U01 Adhesion and Fatigue Behaviors of Epoxy/Montmorillonite Composite Adhesives under Lap Shear Deformation Modes
Chien-Wei Chu, Yucheng Zhang, Kakeru Obayashi, Ken Kojio, Atsushi Takahara
- 10:25 2U02 Evaluation of molecular aggregation state of organic-inorganic polymer with well-controlled stereoregularity
Tomoyasu Hirai, Kei Manabe, Satoshi Kuretani, Syuji Fujii, Yoshinobu Nakamura, Teruaki Hayakawa

Tomoyasu Hirai, presiding

- 10:50 2U03 Rheo-optical near-infrared spectroscopy for polymer characterization
Hideyuki Shinzawa, Ryota Watanabe, Maito Koga, Hideaki Hagihara, Junji Mizukado
- 11:15 2U04 Relation between Molecular Aggregation Structure and Scratching Resistance of Polymer Materials
Tomoko Kajiwara, Aya Fujimoto, Ken Kojio, Atsushi Takahara
- 11:40 2U05 Elucidation of inhibition mechanisms of EPDM cross-linking by using low-molecular-weight model study
Ryosuke Nishi, Ryohei Nishihara, Shotaro Ito, Junji Mizukado

S19. Frontier of Polymer Research toward Practical Application of Nucleic Acid Drugs

- 13:10 2USO Introductory Remarks S19
Kanjiro Miyata

Takehiko Wada, presiding

13:20 2U07IL Past and future of polymer research contributing to the development of nucleic acid/gene drugs
Kanjiro Miyata

Kenzo Fujimoto, presiding

13:45 2U08 Novel Oligonucleotide Therapeutic Design Strategy for Enhanced Therapeutic Effects with Chimeric DNA-XNA system
Masahito Inagaki, Akira Yano, Seiya Ishizawa, Masaki Nishijima, Tsuyoshi Yamamoto, Satoru Ishibashi, Yasuyuki Araki, Asako Yamayoshi, Toshinori Yokota, Takehiko Wada

14:10 2U09 Development of oligonucleotide therapeutics with artificial nucleic acid targeting for gene
Yosuke Taniguchi, Shigeki Sasaki

14:35 2U10 Development of the artificial nucleic acids for the effective crosslinking reactivity to target RNA
Fumi Nagatsugi, Yusuke Abe, Ken Yamada, Kiyono Fukuma, Donglai Tang, Hidenori Okamura

Yosuke Taniguchi, presiding

15:25 2U12 Control and analysis of intracellular RNA using artificial DNA with ultrafast photo-cross-linking ability
Kenzo Fujimoto, Nanami Watanabe, Yang Hung, Shigetaka Nakamura

15:50 2U13 Design of nucleic acid aptamer/antidote system against blood coagulant factor
Keitaro Yoshimoto

16:15 2U14 Direct cytoplasmic delivery of oligonucleotide
Yasuaki Kimura, Zhaoma Shu, Saki Kawaguchi, Kosuke Nakamoto, Fumiaki Tomoike, Naoko Abe, Seiichi Tada, Yoshihiro Ito, Hiroshi Abe

16:40 2U15 Artificial control of siRNA bioactivity by conjugation of synthetic polymer
Hiroyasu Takemoto, Takahiro Nomoto, Makoto Matsui, Yutaka Miura, Nobuhiro Nishiyama

Keitaro Yoshimoto, presiding

17:05 2U16 Three-dimensional structural design and optimization of nanostructured immunostimulatory nucleic acids for the development of multi-functional vaccine adjuvants
Kosuke Kusamori, Makiya Nishikawa

17:30 2U17 Design of delivery system of nucleic acids and antigens for induction of antigen presentation
Shinichi Mochizuki, Reika Tsuji, Masashi Umeda

17:55 2U18 Design strategy of polyion complex materials considered through delivery of antisense oligonucleotides
Akihiro Kishimura, Beob Soo Kim, Mitsuru Naito, Hiroyuki Chaya, Kotaro Hayashi, Hyun Jin Kim, Kaunori Kataoka, Kanjiro Miyata

Fri. Sep 18

S19. Frontier of Polymer Research toward Practical Application of Nucleic Acid Drugs

Akihiro Kishimura, presiding

- 10:00 3U01 Random copolymer grafting oligo (ethylene glycol)s and zinc(II) dipicolylamine coordination complexes to design polyplex loading a nucleic acid toward gene delivery
Sayaka Kubo, Shigehito Osawa, Hidenori Otsuka
- 10:25 3U02 Induce of cancer immunity of lipid nanoparticles coated with antigenic protein-encoding functional mRNA and polysaccharide derivatives having adjuvant property
Takumi Tsujimura, Yukiya Kitayama, Eiji Yuba, Satoshi Uchida, Atsushi Harada
- 10:50 3U03 Development of novel DDS carrier using polysaccharide quantized complex
Kazuki Sumiya, Hiroto Izumi, Yasuo Morimoto, Shinichi Mochizuki, Kazuo Sakurai
- 11:15 3U04 Design of Gel Capsules with Interior Water Phase for Therapeutic Nucleic Acid Delivery
Akifumi Kawamura, Kaito Fukui, Hiroshi Nakaura, Takashi Miyata
- 11:40 3U05 Bioapplication of DNA origami dendrimer as DDS nanocarrier
Tomoki Nishikawa, Yuki Mano, Yuta Yamasaki, Shumpei Ishikawa, Yuichi Ohya, Akinori Kuzuya

Shoichiro Asayama, presiding

- 12:55 3U06 Study on cell-penetrating peptides for delivery of nucleic acids and genes
Makoto Oba
- 13:20 3U07 Stabilization of siRNA in vivo by fine tuning of cationic block-copolymers
Kotaro Hayashi, Kazuko Toh, Shigeto Fukushima, Kanjiro Miyata, Kazunori Kataoka
- 13:45 3U08 Development of siRNA delivery system for pancreatic cancers using folic acid-conjugated cationic oligopeptide
Kazuki Sato, Kazunori Takagi, Rintaro Hara, Keisuke Taniuchi, Takeshi Wada

Makoto Oba, presiding

- 14:10 3U09 Intracellular ATP-responsive polyion complex micelles for siRNA delivery
Mitsuru Naito, Naoto Yoshinaga, Takehiko Ishii, Akira Matsumoto, Kanjiro Miyata, Kazunori Kataoka
- 14:35 3U10 Preparation of Highly Condensed Plasmid DNA by Mono / Di-Cationic PEG for In Vivo Delivery
SHOICHIRO ASAYAMA, AMIKA MORI, KEI NIRASAWA, YUKI KOBAYASHI, YOICHI NEGISHI
- 15:25 3U12 Polyaspartamide derivatives development for mRNA delivery and their application for CRISPR-Cas Technology
HyunJin Kim, Satomi Ogura, JongMin Yum, Mitsuru Naito, Kanjiro Miyata
- 15:50 3U13 Functionalizing messenger RNA therapeutics through modulating RNA structure
Satoshi Uchida

Room V

Wed. Sep 16

S21. Outstanding Precisely Designed Network Polymer

- 10:15 1VSO Introductory Remarks S21
Hiroharu Ajiro
Hiroharu Ajiro, presiding
- 10:25 1V04IL Basics of network polymers
Koji Arimitsu
Atsushi Sudo, presiding
- 10:50 1V05 Synthesis, Structure Control and Cross-linking Reaction of Optically Active Acetylene Copolymers Substituted with Benzoxazine Moieties
Masahide Goto, Masaki Minami, Hiromitsu Sogawa, Fumio Sanda
- 11:15 1V06 Spacer Effect on the Curing Behavior and Properties of Benzoxazine Polymers Containing π -conjugated Moieties in the Main Chain
Takumi Kobayashi, Masahide Goto, Masaki Minami, Hiromitsu Sogawa, Fumio Sanda
- 11:40 1V07 Synthesis of polyacetylenes substituted with phosphine ligands and formation of metal complex network
Yuto Inoue, Takahiro Ishida, Natsuhiko Sano, Hiromitsu Sogawa, Fumio Sanda
Kozo Matsumoto, presiding
- 12:55 1V08 Synthesis and application of epoxy cured materials using anthracenecarboxylic acid dimer as a decrosslinkable crosslinker
Kinuka Tano, Eriko Sato
- 13:20 1V09 Synthesis of Network Polymers Based on Polygonal Macrocyclic Hosts Pillar[n]arenes
Tomoki Ogoshi, Keisuke Maruyama, Ryuta Sueto, Kumiko Yoshikoshi, Takahiro Kakuta, Tada-aki Yamagishi
- 13:45 1V10 Synthesis of rigid rod-like polymers and their cross-linking reactions
Tomoki Yamasaki, Takuro Yamashita, Akihiro Tsumura, Atsushi Sudo
Hiroharu Ajiro, presiding
- 14:10 1V11 Synthesis and curing of novel bio-based epoxy resins starting from tyramine or lactic acid
Ryusei HAYATA, Yuta ITO, Kozo MATSUMOTO
- 14:35 1V12 Development of networked aromatic polyketones using trifunctional acyl-acceptant monomers
Katsuya Maeyama
- 15:25 1V14 Application of chain curing agents generating cyclic amidines to anionic UV curing
Yoshiki Kojima, Masahiro Furutani, Koji Arimitsu
- 15:50 1V15 Photoinduced cationic polymerization behavior of various kinds of epoxy resins in a thick film containing thermal acid generators
Kohei Itaoka, Masahiro Furutani, Koji Arimitsu, Takahiro Seki
Tomoki Ogoshi, presiding
- 16:15 1V16 Control of Higher Order Structures of Diblock Copolymers by Chemoselectively and Dually Modification
Kodai Nagashima, Yuta Nabae, Teruaki Hayakawa
- 16:40 1V17 Heteroarm star shaped polymer using thermosensitive methacrylate polymer bearing oligo(ethylene glycol) units

- Kazuki Yamaguchi, Tsuyoshi Ando, Nobuo Murase, Nalinthip Chanthaset, Hiroharu Ajiro
- 17:05 1V18 Syntheses of bio-based polyureas and thermally responsive gels with furan skeleton in main chain
Takuya Kumakura, Amit Kumar, Kenji Takada, Tatsuo Kaneko

Thu. Sep 17

S21. Outstanding Precisely Designed Network Polymer

Seiichi Kawahara, presiding

- 10:00 2V01 Highly Thermal-Conductive Liquid Crystalline Epoxy Film: Analysis of Local Ordering Structure by Microbeam Small Angle X-ray Scattering
Shingo Tanaka, Yoshitaka Takezawa, Kiyoshi Kanie, Atsushi Muramatsu
- 10:25 2V02 Visible-light sensitive degradable resins after UV light irradiation and subsequent heating
Haruyuki Okamura, Kunihiko Kawabe, Hideki Tachi
- 10:50 2V03 Development of new thermosetting resin system by the reaction of poly (N ϵ -vinylcaprolactam) and epoxide
Shuji Nishioka, Hiroto Kudo

Haruyuki Okamura, presiding

- 11:15 2V04 Preparation of film by chitosan and poly(trimethylene carbonate) derivative
Hiroaki Yoshida, Koichi Irikura, Natjaya Ekapakul, Chantiga Choochottiros, Nalinthip Chanthaset, Hiroharu Ajiro
- 11:40 2V05 Formation of cross-linked network structure of bifunctional monomers using lattice model and effect of photoinitiator on elastic modulus and Poisson's ratio
Kentaro Taki

Kentaro Taki, presiding

- 12:55 2V06 Analysis of vulcanization mechanism through rubber-state NMR spectroscopy
Seiichi Kawahara, Yoshimasa Yamamoto
- 13:20 2V07 Controlled crosslinking of branched-poly lactic acid synthesized by concerted acid-base organocatalyst
Joji Kadota, Akinori Okada, Hiroshi Hirano, Yasuyuki Agari

Toshiyuki Oyama, presiding

- 13:45 2V08 Dismantlable adhesives using de-cross-linkable epoxy network polymers containing thermally expandable microcapsules
Eriko Sato, Kazuki Kawarada
- 14:10 2V09 Phase structures and anti-flammability / thermal conductivity of cyanate ester polymer blends and composites
Hajime Kishi, Souta Shigemura, Takemasa Mototsuka
- 14:35 2V10 Preparation of ABA triblock copolymer-based functional elastomers with dynamic covalent bonded cross-links in the A block domains
Mikihiro Hayashi, Lei Chen

Hajime Kishi, presiding

- 15:25 2V12 Fabrication and Fracture Mechanism of High Strength Co-continuous Network Polymers (CNP) Using Epoxy Monolith

- Ren Tominaga, Yasuhito Suzuki, Yoshihiro Takeda, Masaru Kotera, Akikazu Matsumoto
- 15:50 2V13 Anisotropic conductive hydrogels prepared by bacterial cellulose Skeleton
Taka-Aki Asoh, Chen Qian, Tatsuya Higashigaki, Hiroshi Uyama
- 16:15 2V14 Investigation of Inter Crosslinking Network Gels for Self-cleaning and Antifouling Surfaces
Yosuke Watanabe, Fumiya Shiga, Hidemitsu Furukawa, Chie Hirai, Taiki Umemoto, Mitsuhiro Sano
- Eriko Sato, presiding**
- 16:40 2V15 Synthesis and Photo-degradation behavior of polyphthalaldehydes with oxime ether terminals
Hirokazu Hayashi, Hideki Tachi, Kanji Suyama
- 17:05 2V16 Curing acceleration of cyanate ester resin by a phenolic compound having a tertiary amino group at the ortho-position
Toshiyuki Oyama, Keisuke Izu, Yuichiro Tokoro
- 17:30 2V17 Novel through-porous particle applied to chromatography
Norio Ishizuka, Keita Sakakibara, Kimiyo Nakamichi, Yoshinobu Tsujii

Room W

Wed. Sep 16

S23. Nano-electronics and Nano-photonics Realized by Superfine Fabrication and Structure Control Using Polymer Materials

- 10:15 1WSO Introductory Remarks S23
Koji Asakawa, Shuichi Maeda
- Yasuo Norikane, presiding**
- 10:25 1W04IL Nano-electronics and nano-photonics realized by superfine fabrication and structure control using polymer materials
Koji Asakawa, Shuichi Maeda
- Koji Asakawa, presiding**
- 10:50 1W05 Synthesis, evaluation, and deposition mechanism of the polyimides with electrodeposition ability
Ayumi Kobayashi, Kohei Iritani, Kazuyuki Nishio, Takashi Yamashita
- 11:15 1W06 Synthesis of Two-Dimensional Polymer at the Air/Water Interface and Its Application to Plastics
Kohei Iritani, Takashi Yamashita
- 11:40 1W07 Development and application of cationic photopolymers with high resistance to oxygen reactive etching and concentrated hydrochloric acid
Atsushi Shiraishi, Masaaki Kitano, Tomohito Kizu, Shinya Nitta, Hideki Kimura, Yuki Tsuboi, Shunya Ito, Toru Nakabo, Masaru Nakagawa
- Shuichi Maeda, presiding**
- 12:55 1W08 Chromophores with highly efficient and bright room-temperature phosphorescence allowing afterglow nano-imaging
Shuzo Hirata

- 13:20 1W09 Stimuli-responsive Synthetic Ion Channels Functioning in Artificial and Biological Membranes
Takahiro Muraoka
- 13:45 1W10 Perovskite solar cells with donor-accepter copolymer as hole transport layer
Masayuki Chikamatsu, Nobuko Onozawa-Komatsuzaki, Yoshihiko Nishihara, Yuji Yoshida
- Masayuki Chikamatsu, presiding**
- 14:10 1W11 Mobility enhancement and operational stability of polymer-based organic field-effect transistors with highly hydrophobic nano-grooved gate dielectric surfaces
Kenji Sakamoto
- 14:35 1W12 Creation of High-Performance Organic Semiconductor Nanosheets
Toshihiro Okamoto, Shohei Kumagai, Shun Watanabe, Jun Takeya
- Koji Asakawa, presiding**
- 15:25 1W14IL Ultraviolet Nanoimprinting Technology for Lithography Usage
Masaru Nakagawa
- Yoshihiko Hirai, presiding**
- 16:15 1W16 Heterogeneity of in-plane distribution of elastic modulus emerging in UV-cured ultrathin films visualized by nano-palpation atomic force microscopy
Shunya ITO, Xiaobin LIANG, Akiko ONUMA, Ken NAKAJIMA, Masaru NAKAGAWA
- 16:40 1W17 Development of UV-curable visible-fluorescence liquids suitable for fluorescence imprint alignment: Effect of radical photoinitiators
Takuma YOSHIDA, Shunya ITO, Masaru NAKAGAWA
- 17:05 1W18 Ultrafast dry development of metal-deposited nanoimprinted patterns by shooting single pulse generated from a femtosecond pulsed laser
Yusuke ISAWA, Takahiro NAKAMURA, Shunya ITO, Masaru NAKAGAWA
- Masaru Nakagawa, presiding**
- 17:30 1W19 Characterization of UV curable resin
Masanori Koyama, Masaaki Ysauda, Masamitsu Shirai, Yoshihiko Hirai
- 17:55 1W20 Micropatterning of soft materials from 2D nanosheets
Youfeng Yue, Yasuo Norikane

Thu. Sep 17

S23. Nano-electronics and Nano-photonics Realized by Superfine Fabrication and Structure Control Using Polymer Materials

Norikatsu Sasao, presiding

- 10:25 2W02 Organic-inorganic hybridization of electron beam and nanoimprint resists by sequential infiltration synthesis
Shunya ITO, Masaru NAKAGAWA
- 10:50 2W03 Sequential infiltration synthesis-induced collapse defects of imprint line nano-patterns suppressed by cross-linking agents
Chiaki MIYAJIMA, Shunya ITO, Masaru NAKAGAWA

Shunya Ito, presiding

- 11:15 2W04 Molecular Designs of Metal Infiltrating Polymers for High Dry-etch Resistance
Norikatsu Sasao, Koji Asakawa, Shinobu Sugimura
- 11:40 2W05 Direct formation of organic-inorganic fine pattern by electron beam irradiation
Hiroki Yamamoto, Takahiro Kozawa, Seichi Tagawa, Jean-Louis Marignier, Meran Mastafavi, Jacqueline Belloni
- Teruaki Hayakawa, presiding**
- 13:20 2W07 Fabrication of Photocrosslinked Diarylfluorene Films with Episulfide Groups using Photobase Generators
Haruyuki Okamura, Keiko Minokami, Shinsuke Miyauchi
- 13:45 2W08 Present Status and Future Problems of Extreme Ultraviolet Lithography
Yoshitaka Komuro, Daisuke Kawana, Katsumi Omori
- 14:10 2W09 Development of new highly sensitive extreme ultraviolet (EUV) resist material containing iodine and tellurium
Yutaro Iwashige, Hiroto Kudo
- 14:35 2W10 Photoinduced morphology of polymer film based on the Marangoni flow at topmost photoresponsive skin layer
Issei Kitamura, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- Hiroki Yamamoto, presiding**
- 15:25 2W12 Synthesis of Metallopolymer Bearing Oligosaccharide Moieties for Realizing Microphase-Separated Structures with Sub-10 nm Domain Spacing
Satoshi Katsuhara, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
- 15:50 2W13 Downsizing the Thin Film Domain of Poly(styrene-block-methyl methacrylate) by Introducing Fluorine to Randomly Pre-polymerized Functional Units
LEI DONG, Kevin Wylie, Ryuichi Nakatani, Yuta Nabae, Teruaki Hayakawa, Takahiro Dazai, Ken Miyagi, Takayoshi Mori, Daisuke Kawana
- 16:15 2W14 Orientation Control of Block Copolymer Microphase-separated Nanostructures using Polyimide as underlayer
Hayato Maeda, Yuta Nabae, Teruaki Hayakawa

Fri. Sep 18

S22. Polymer Materials for Multi-materialization and Weight Saving

- 10:15 3WSO Introductory Remarks S22
Takayuki Ishizaka
- Takayuki Ishizaka, presiding**
- 10:25 3W02IL Trends in fiber-reinforced reinforced composite materials for automobiles and examples of biomass utilization.
Takeo Ebina
- 11:15 3W04IL Development of cellulose nano-fiber reinforced plastic via KYTO PROCESS
Takeshi Semba
- Takayuki Tsukegi, presiding**
- 13:20 3W07 Fabrication of Nacre-mimetic Organic/Inorganic Nanocomposites with Two Nanosheets

- Atsushi Emoto, Shintaro Nakagawa, Naoko Yoshie
- 13:45 3W08 Mechanical Reinforcement and Crystallization Acceleration of Poly(ether ether ketone) Composites with Nanodiamond
Yusuke Kamaya, Takuya Matsumoto, Yasuo Gotoh, Takashi Nishino
- Takuya Matsumoto, presiding**
- 14:10 3W09 Challenge to large automobile parts with CNF laminated structure by RTM
Takayuki Tsukegi, Yuji Kageyama, Kyoko Sugita
- 14:35 3W10 Development of thermosetting polycarbonates having ethynyl or phenylethynyl terminals
Yuji Shibasaki, Tomoya Shirata, Tadashi Tsukamoto, Yoshiyuki Oishi
- Yuji Shibasaki, presiding**
- 15:25 3W12 Toughening of Slide-ring crosslinked EPDM with polyrotaxane
Shota Ando, Rina Maeda, Koichi Mayumi, Kohzo Ito, Akishige Seo, Takanori Nakai, Naoki Iwase
- 15:50 3W13 Properties of polymer-metal interface in electroless metal deposition on flexible polymer substrates
Toshiyuki Tamai, Mitsuru Watanabe, Yasuyuki Kobayashi, Junpei Kobata, Yoshio Nakahara, Setsuko Yajima
- 16:15 3W14 Surface Modification and Non-destructive X-ray Imaging for Strength Control of Epoxy Monolith Bonding
Nanako Sakata, Yasuhito Suzuki, Yoshihiro Takeda, Masaru Kotera, Akikazu Matsumoto

Room X

Wed. Sep 16

S20. New Materials and Resource Recycling Technologies to Solve Plastic Environmental Problems

- 10:15 1XSO Introductory Remarks S20
Olaf Karthaus, Yoshihiro Kikkawa, Yuushou Nakayama
- Olaf Karthaus, presiding**
- 10:25 1X04IL Science for environmentally unfavorable waste plastics =Time to reconsider the way to live together with plastics=
Hiroyuki Ohno
- 11:15 1X06 The missing plastics investigations and new methods of micro plastic measurement
Katsunori Fujikura
- 11:40 1X07 Research Trends in Microplastics Formation Mechanism
Shin-ichi Kuroda
- Shin-ichi Kuroda, presiding**
- 12:55 1X08 Effects of spherulite structure on microplastic production mechanism.
Hisayuki Nakatani, Takuma Kyan, Takuya Muraoka
- 13:20 1X09 Overview of microplastic pollution and the chemical aspects
Hideshige Takada

13:45 1X10 Detection of Marine Plastic by Composite Remote Sensing with AI
Jun Sonoda,Tomoyuki Kimoto,Yasushi Kanazawa

Hisayuki Nakatani, presiding

14:10 1X11 Cuurent and future environmental researches of microplastics
Yutaka Kameda

14:35 1X12 Assessment of contamination and transport of microplastics in
Japanese rivers
Tomoya Kataoka,Yasuo Nihei

15:25 1X14 Fragmentation Process of Polyolefin Films under UV and Mechanical
Stimuli
Tomoko Kajiwara,Atsushiko Isobe,Atsushi Takahara

Yoshihiro Kikkawa, presiding

15:50 1X15 Biodegradation of Polymers with Seawater Blend
Atsuyoshi Nakayama,Naoko Yamano,Norioki Kawasaki,Tsutomu
Nakamura

16:15 1X16 Characterization of a poly(ϵ -caprolactone)-degrading bacterium and its
hydrolytic enzyme
Miwa Suzuki,Kohei Oba,Yuya Tachibana,Ken-ichi Kasuya

16:40 1X17 Preparation, physical properties and enzymatic degradation of
microbeads of microbial polyesters
Takumi Okada,Taku Ohmura,Satoshi Kimura,Kenichi Kasuya,Tadahisa
Iwata

Atsuyoshi Nakayama, presiding

17:05 1X18 Fabrication of High Strength and Elastic poly[(R)-3-hydroxybutylate-co-
4-hydroxybutylate] Biodegradable Fiber by a New Melt-Spinning Method
and Evaluation of Mechanical Properties and Highly Ordered Structure
Taku Omura,Akira Maehara,Taizo Kabe,Tadahisa Iwata

17:30 1X19 Synthesis of Nylon-6 derivatives with amino acids located by sequence-
controlled manner and those structural and property analysis
Chie Koganemaru,Yoshifumi Amamoto,Atsushi Takahara

17:55 1X20 Synthesis of bio-based polyurethane and secretory production of diol-
type microbial oligoesters
Tetsuo Sakurai,Shoji Mizuno,Ayaka Hiroe,Seiichi Taguchi,Takeharu
Tsuge

Thu. Sep 17

**S20. New Materials and Resource Recycling Technologies to Solve Plastic
Environmental Problems**

Ikuo Taniguchi, presiding

10:00 2X01 Synthesis of high molecular weight aliphatic polycarbonate using bulky
Lewis acid catalyst
Yuushou Nakayama,Chaoyi Zhou,Ryo Tanaka,Takeshi Shiono

10:25 2X02 Properties and Biodegradabilities of Thermoplastic Elastomers
Synthesized from 2-Methyl-1,3-propanediol, Succinic Acid and Lactide
Lamya Zahir,Takumitsu Kida,Ryo Tanaka,Yuushou Nakayama,Takeshi
Shiono,Norioki Kawasaki,Naoko Yamano,Atsuyoshi Nakayama

Taizo Kabe, presiding

- 10:50 2X03 Solid-state Structure and Thermal Properties of Crystalline Side-chain Substituted Poly(lactic acid)s
Hironori MARUBAYASHI, Yuji HAMADA, Shuichi NOJIMA
- 11:15 2X04 Research and Development for bio-based plastics
Jumpei Kawada, Makoto Mouri, Keisuke Kato, Masayuki Kito, Toshiyuki Ario
- 11:40 2X05 Interplay between pressure-induced phase transition and low temperature flow of degradable block copolymers with low temperature formability
Ikuo Taniguchi, Kae Kinugasa, Thao Nguyen
- Kazuhiro Shikinaka, presiding**
- 12:55 2X06 Development of high strength herbaceous composites using cellulose derivatives
Takayuki Tsukegi, Motomu Tanaka, Sara Senda, Takatsugu Endo, Kazuaki Ninomiya, Kenji Takahashi
- 13:20 2X07 Reinforcement of biobased network polymer with ligno-cellulose nanofiber derived from wine pomace
Hisatoyo Morinaga, Shunsuke Haibara, Satoki Ashizawa
- 13:45 2X08 Development of marine-friendly biomass product
Hiroshi Nonaka
- Takayuki Tsukegi, presiding**
- 14:10 2X09 Control for aggregated cellulose nanofibers and the polymer composites
Yoshito Ando
- 14:35 2X10 Polymer Heatproofing Mechanism of Lignin Extracted by Simultaneous Enzymatic Saccharification and Comminution
Kazuhiro Shikinaka, Haruka Sotome, Ai Tsukidate, Yoichi Tominaga, Yuichiro Otsuka
- 15:25 2X12 Observation of the crystal structure formation mechanism in the melt-spinning process of Curdlan propionate
Taizo Kabe, Hongyi Gan, Hiroyasu Masunaga, Tadahisa Iwata
- Shigeru Yao, presiding**
- 15:50 2X13 The future of plastics recycling and resource recycling strategy
naoki Kubo
- 16:15 2X14 Mechanistic study toward enhancing efficiency of depolymerization of polyamides in supercritical alcohol
Akio Kamimura
- 16:40 2X15 Liquid phase treatment of waste plastics
Hideyuki Tagaya, Junya Sugaya, Taichi Sugeno
- Akio Kamimura, presiding**
- 17:05 2X16 Development and Oxidative Decrosslinking of Gel Crosslinked with Diacylhydrazine
Nobuhiro Kihara
- 17:30 2X17 Advanced mechanical recycling technology that utilizes the Self-resilience ability of polymers
Shigeru Yao, Patchiya Phantong, Hikaru Okubo, Yusuke Miyoshi
- 17:55 2X18 Chemical recycle of poly(ethylene terephthalate) to terephthalic acid and ethylene glycol in high-temperature liquid water
Masayuki Shirai, Osamu Sato, Aritomo Yamaguchi

Fri. Sep 18

S20. New Materials and Resource Recycling Technologies to Solve Plastic Environmental Problems

Yuya Tachibana, presiding

- 10:00 3X01 The Effects of Side Chains and Comonomers of Biobased Polyesters with Gallic Acid on Their Properties
Tatsuya Goto,Tadahisa Iwata,Hideki Abe
- 10:25 3X02 Precision Polymerization of Various Vinyl Catechol Derivatives for Novel Functional Bio-Based Polymers
Shiho Tanizaki,Tomohiro Kubo,Hisaaki Takeshima,Masami Kamigaito,Kotaro Satoh

Yuushou Nakayama, presiding

- 10:50 3X03 A biobased polyimide composed of bifuryl moiety
Toyokazu Tsutsuba,Yuya Tachibana,Ken-ichi Kasuya
- 11:15 3X04 Synthesis and characterization of bifuryl-containing polyamide
Kota Arai,Toyokazu Tsutsuba,Yuka Hirose,Tatsuya Wasano,Yuya Tachibana,Ken-ichi Kasuya

Room ESA

Wed. Sep 16

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

Yuta Yoshimoto, presiding

- 10:25 1ESA04 Phenomenon of β to α phase transition of PVDF crystal in PVDF/PMMA blend
ENGUANG CAI,Masao Gohdo,Hideo Horibe
- 10:50 1ESA05 Dynamic mechanical analysis of polyethylene films with liquid paraffin
Asae Ito,Kaori Hioki,Koichi Kouno,Yusuke Hiejima,Koh-hei Nitta
- 11:15 1ESA06 Solvent Dependence of Molecular Aggregation Structure of Polyethylene Single Crystal and Cellulose Nanocrystal Grown in Solution
Naoki Okawa,Shiori Masuda,Kazutaka Kamitani,Tomoko Kajiwara,Shuhei Nozaki,Chao-Hung Cheng,Ken Kojio,Atushi Takahara,Takeshi Serizawa
- 11:40 1ESA07 Ordered structures of an asymmetric diblock copolymer
Tappei Oda,Mikihito Takenaka,Takaya Terashima

Koh-hei Nitta, presiding

- 12:55 1ESA08 A Molecular Dynamics Study on Structural Change of Damaged Polyethylene by Beta-Decay of Substituted Tritium using Reactive Force Field
Haolun Li,Susumu Fujiwara,Hiroaki Nakamura,Tomoko Mizuguchi,Ayako Nakata,Tsuyoshi Miyazaki,Shinji Saito
- 13:20 1ESA09 The investigation on universality of strain-induced density fluctuations in glassy materials
Shuta Aokura,Mikihito Takenaka,Hiroshi Watanabe,Yumi Matsumiya

13:45 1ESA10 Relating microscopic morphology to the mechanical properties of active layers of bulk heterojunction organic solar cells
Yuta Yoshimoto, Sou Sugiyama, Shuntaro Shimada, Toshihiro Kaneko, Shu Takagi, Ikuya Kinefuchi

14:10 1ESA11 Flow Behavior and Microstructure of Electro-Rheological Nano-Suspensions
Katsufumi Tanaka, Yuto Yamamura, Hisashi Masumoto, Yuki Maenaka, Midori Takasaki, Haruki Kobayashi

Takeshi Shiono, presiding

14:35 1ESA12ILY Design of Amphiphilic Polymer Hydrogels with Crosslinked Domain Structure
Shohei Ida

15:25 1ESA14ILY Advanced energy conversion and storage devices using double comb copolymers
Juyoung Moon, Gyo Hun Choi, Jeong Min Lim, Uoon Chul Baek, Jae Yeon Lee, Jung Tae Park

15:50 1ESA15ILY Tough Polymer Gels with Dynamic Cross-links
Koichi Mayumi

16:15 1ESA16ILY Microscale shape morphing materials from stimuli-responsive hydrogels
Seog-Jin Jeon

Teruaki Hayakawa, presiding

16:40 1ESA17ILY Design of a synthetic polymer nanoparticle that captures and neutralizes target molecules in the body
Hiroyuki Koide, Hoshino Yu, Oku Naoto, Shea Kenneth, Asai Tomohiro

17:05 1ESA18ILY Tailoring hyper-structured conductive materials for detection and removal of potential hazardous chemicals
Yunjung Hwang, Ji-Hwan Ha, Sung-Hoon Park, Joonwon Bae

17:30 1ESA19ILY Polymerization induced phase separation at the onset of Trommsdorff effect
Yasuhito Suzuki

17:55 1ESA20ILY Nanoarchitecturing Hybrid Graphene Membrane via Molecular Intercalation for Desalination
Ki Ryuk Bang, Daniel Bahamon, Lourdes F. Vega, Eun Seon Cho

Thu. Sep 17

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

Keiji Tanaka, presiding

10:00 2ESA01 Micellar Structure of a Hydrophobically Modified Pullulan in Aqueous Solution
Jia Yang, Takahiro Sato

10:25 2ESA02 Elucidating Helical Structure of Columnar Liquid Crystals Formed by Chiral Octahedral Metallomesogens Using Molecular Dynamics Simulations
Go Watanabe, Takuyoshi Mandai, Mitsuo Hara, Jun Yoshida

10:50 2ESA03 Elastic modulus of semi-flexible polymers estimated from bending dynamics in the living cell
Kengo Nishi, Sufi Raja, Chase Broedersz, Fred MacKintosh, Christoph Schmidt

Mikihito Takenaka, presiding

- 11:15 2ESA04 Effect of Solvent Quality on Diffusion Coefficient of Polymer Network
Takeshi Fujiyabu, Yuki Yoshikawa, Masashi Ohira, Takuya
Katashima, Naoyuki Sakumichi, Xiang Li, Ung-il Chung, Takamasa Sakai
- 11:40 2ESA05 Phase Separation Behavior in Tough Polyampholytes Hydrogels
KUNPENG CUI, Takayuki KUROKAWA, Jian Ping GONG

Satoshi Koizumi, presiding

- 12:55 2ESA06 Structure-property relationship in rubber/filler systems
Daiki Kumagawa, Mikihito Takenaka, Yuki Watanabe, Tadashi Inoue
- 13:20 2ESA07 Research on hierarchical structure of rubber using anomalous
scattering near K absorption edge of zinc
Yuki Watanabe, Mikihito Takenaka, Shotaro Nishitsuji
- 13:45 2ESA08 Visualization of the distribution of oriented nanoparticle fillers and
voids in rubber/filler under uniaxial stretching
Kenta Mitani, Mikihito Takenaka, Hiroki Ogawa, Yukihiko Nishikawa, Ryo
Mashita, Yuki Watanabe

Takayuki Kurokawa, presiding

- 14:10 2ESA09 Local stress concentration of cross-linked polymers studied by
mechanophores and MD simulations
Ryota Kotani, Atsuhiko Osuka, Yuichi Masubuchi, Shohei Saito
- 14:35 2ESA10 Effect of Chain Length of Alkyldiamine on Molecular Motion of Epoxy
Resins
Mika Aoki, Satoru Yamamoto, Keiji Tanaka
- 15:25 2ESA12 Deformation-induced Change in Heterogeneity of a Polymer Network
Atsuomi Shundo, Aoki Kawaguchi, Keiji Tanaka
- 15:50 2ESA13 Effect of Structure of Amine Hardener on Curing Kinetics of Epoxy
Resins
Keunwon Song, Satoru Yamamoto, keiji Tanaka

Shotaro Nishitsuji, presiding

- 16:15 2ESA14 Grazing incidence small-angle scattering on a single film of shampoo
surfactant
Satoshi Koizumi, Misaki Onizawa, Tomoki Maeda, Yohei Noda, Hiroya
Fujita, Hiroshi Shimosegawa
- 16:40 2ESA15 Neutron reflectometry under atmospheric pressure at iMATERIA for in-
situ monitoring of polymer-brush growth
Tomoki Maeda, Motoki Saitoh, Takumi Inada, Yohei Noda, Satoshi
Koizumi
- 17:05 2ESA16 Distribution Analysis of Nanoscale Structures in Epoxy Resin Using
SAXS-CT Method
Satoshi Kuwata, Mikihito Takenaka, Hiroki Ogawa
- 17:30 2ESA17 Mechanism of irreversible adsorption of poly(9-anthracenyl methyl
methacrylate) onto silica surfaces
Mina Ishihara, Yusuke Naito, Miku Sakai, Takashi Sasaki

F. INDUSTRIAL POLYMERS AND TECHNOLOGY “English Session”

Shotaro Nishitsuji, presiding

- 17:55 2ESA18 Mechanical properties and interlayer adhesion of FDM 3D printing from
biodegradable ternary blends composite.

Fri. Sep 18

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

Shin-ichi Yusa, presiding

- 10:00 3ESA01 Synthesis of Reactive Organometallic Polymers Containing Fused Titanacycle Units
Alvin Tanudjaja, Naoki Shida, Shinsuke Inagi, Ikuyoshi Tomita
- 10:25 3ESA02 User-Friendly Poly(3-hexylthiophene) Synthesis via Catalyst-Transfer Polymerization
Tomohiro Kubo, Anne McNeil

Ikuyoshi Tomita, presiding

- 10:50 3ESA03 Anionic polymerization behavior of 1-(4-vinylphenyl)-1-phenylethylene
Hamin Kim, Takashi Ishizone, Raita Goseki
- 11:15 3ESA04 Synthesis of core functionalizable polymer aggregates by polymerization-induced self-assembly (PISA) based on reversible addition-fragmentation chain transfer (RAFT) dispersion polymerization
Panittha Damsongsang, Voravee Hoven, Shin-ichi Yusa
- 11:40 3ESA05 Synthesis and Properties of Block Copolymers Composed of Norbornene/ α -Olefin Gradient Segments Using ansa-Fluorenylamidodimethyltitanium-[Ph₃C][B(C₆F₅)₄]
Haobo Yuan, Takumitsu Kida, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono

Tomohiro Kubo, presiding

- 12:55 3ESA06 Coordination-Driven Polymerization of Nitrogen-Doped Flapping Fluorophores: Monitoring the Long-time Process by Fluorescence
Nilanjan DEY, Ryo ACHIWA, Shohei SAITO
- 13:20 3ESA07 Light-induced morphology control of helicoidal supramolecular polymer composed of rigid azobenzene-based barbituric acid
Keigo Tashiro, Shiki Yagai

Room ESB

Wed. Sep 16

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Nobuhiro Nishiyama, presiding

- 10:25 1ESB04 Glucan Phosphorylase-Catalyzed Enzymatic Synthesis of 6-Deoxyamylose Oligomers
Le Hooi Lee, Kazuya Yamamoto, Jun-ichi Kadokawa
- 10:50 1ESB05 In vivo Protein Crystal Engineering for Structure Analysis of Meta-stable State Mini-protein
Mariko Kojima, Satoshi Abe, Takafumi Ueno

11:15 1ESB06 Molecular basis underlying dimerization mechanism of N-terminal domain of spider dragline silk proteins
Oktaviani Nur Alia, Ali Malay, Matsugami Akimasa, Hayashi Fumiaki, Keiji Numata

11:40 1ESB07 Design of the two-dimensional protein assembly patterns by β -helical protein needle
Kosuke Kikuchi, Takafumi Ueno

Jun-ichi Kadokawa, presiding

12:55 1ESB08 Construction of Fibril Protein Assemblies From Engineered Protein Crystals
THUC TOAN PHAM

13:20 1ESB09 Micelles dually modified with cell-penetrating and endosome-disrupting peptides for efficient endosomal escape and gene delivery to plants
Takaaki Miyamoto, Kousuke Tsuchiya, Keiji Numata

13:45 1ESB10 Preservation of effector functions of mAb via tryptophan-selective reaction to prepare folic acid-mAb conjugate
Hiroshi Tagawa, Katsuya Maruyama, Koichi Sasaki, Natsuki Konoue, Akihiro Kishimura, Motomu Kanai, Takeshi Mori, Kounosuke Oisaki, Yoshiki Katayama

14:10 1ESB11 Polymeric iron-chelators for improving high-dose vitamin C therapy
Haochen Guo, Takahiro Nomoto, Kana Koumoto, Sjaikhurrisal EL Muttaqien, Xiaohang Sun, Hiroyasu Takemoto, Makoto Matsui, Yutaka Miura, Nobuhiro Nishiyama

14:35 1ESB12 Anticancer efficacy of cyclodextrin-based polymer nanoparticles containing alpha mangostin system
Van Doan, Shin Takano, Shota Fujii, Kazuo Sakurai

Keiji Numata, presiding

15:25 1ESB14 Development of a versatile drug delivery system using tannic acid and boronic acid-conjugated polymer
I Dewa Agung Panji Dwipayana, Yuto Honda, Takahiro Nomoto, Hiroyasu Takemoto, Makoto Matsui, Yutaka Miura, Nobuhiro Nishiyama

15:50 1ESB15 Unbiased Screening of Blood Vessels Chemical Probes for In Vivo Imaging
Asri Muhammad, Fiona Louis, Michiya Matsusaki

16:15 1ESB16 Development of functional polymers to boost therapeutic potential of boronophenylalanine in neutron capture therapy
Takahiro Nomoto, Yukiya Inoue, Ying Yao, Minoru Suzuki, Kaito Kanamori, Kakeru Konarita, Hiroyasu Takemoto, Makoto Matsui, Nobuhiro Nishiyama

16:40 1ESB17 Therapeutic efficacy of self-assembling short-chain fatty acid nanomedicine against diabetes
Babita Shashni, Yukio Nagasaki

Yukio Nagasaki, presiding

17:05 1ESB18 Synthesis of nanoemulsion-mediated core crosslinked nanoparticles, and in vivo pharmacokinetics depending on the PEG density in the particle shell
Shota Fujii, Kazuo Sakurai, Jun Matsuno

17:30 1ESB19 Development of protein delivery system utilizing tannic acid and phenyl boronic acid conjugation polymer.
Yuto Honda, Takahiro Nomoto, Makoto Matsui, Hiroyasu Takemoto, Yutaka Miura, Nobuhiro Nishiyama

17:55 1ESB20 Interaction of Peptide/DNA Complexes with Model Lipid Membranes
Neval Yilmaz, Yutaka Kodama, Keiji Numata

Thu. Sep 17

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Kazuo Sakurai, presiding

- 10:00 2ESB01 Lyotropic Ordered Structure Transition of Double Zwitterionic Block Copolymers in Aqueous Solutions
Yuji Higaki, Masaya Takahashi, Akane Shimizu
- 10:25 2ESB02 Structural analysis with proteomic insight provides new detail on the role of post-translational modifications in the structure-function relationship of spider silk.
Hamish Craig, Ali Malay, Fumiaki Hayashi, Keiji Numata
- 10:50 2ESB03 The influence of sugar structure on the self-assembly of double hydrophilic block glycopolymer in aqueous solution
Takahiro Oh, Yu Hoshino, Yoshiko Miura
- 11:15 2ESB04 Fabrication of Collagen Micro Fibers with Ultra High Elasticity by Coagulation Solution
Noboru Hiraoka, Dong-Hee Kang, Michiya Matsusaki
- 11:40 2ESB05 Construction of organized 3D blood vessel wall model using elastin microfibrils for evaluation of structural change response to arteriosclerosis induction factor
Hirotaka Nakatsuji, Masatsune Ogura, Shiro Kitano, Shinji Irie, Shiba Mariko, Michiya Matsusaki

Yuji Teramura, presiding

- 12:55 2ESB06 Design of polymeric-based fluidic substrate for the breast microtumor formation
Mazaya Najmina, Koichiro Uto, Mitsuhiko Ebara
- 13:20 2ESB07 Fabrication of Artificial Basement Membranes for Cell Compartmentalization in Well-Organized 3D Tissues
Jinfeng Zeng, Michiya Matsusaki
- 13:45 2ESB08 Development of Nucleotide Clearing Molecules for Deep Observation of Living Three-dimensional Tissues
Kazuma Ishiguro, Hirotaka Nakatsuji, Michiya Matsusaki
- 14:10 2ESB09 Pyridylboronic Acid-Functionalized Polythiophenes for Specific Electrochemical Detection of Sialic Acid
Tatsuro Goda, Wenfeng Hai
- 14:35 2ESB10 Preparation of cross-linked poly(vinyl alcohol) films via copolymers with cationic, benzoxaborole, and carboxylic acid groups, and their antimicrobial properties
Yohei Kotsuchibashi, Kazuma Fujimoto, Hiromu Hagita, Keiichi Uemura, Aika Ogata, Yuji Narita, Akihiro Saito

Yu Hoshino, presiding

- 15:25 2ESB12 Polyphosphoester as osteoporosis drug candidates to modulate osteoblast and osteoclast cells
Akihisa Otake, Koji Takahashi, Kenjiro Kiyono, Yasuhiko Iwasaki
- 15:50 2ESB13 Synthesis and association behavior of amphiphilic random copolymers bearing phosphoryl choline groups
Thi Lien Nguyen, Yuuki Kawata, Kazuhiko Ishihara, Shin-ichi Yusa
- 16:15 2ESB14 Liquid film behavior during transport processes in bioinspired open microchannels

- Rikima Kuwada, Taro Yaeo, Daisuke Ishii
- 16:40 2ESB15 Synthesis of hydrolysis-resistant quasi-choline phosphate zwitterionic polymer and its bioadhesive properties
masaru mukai, daiki ihara, mi chin, Chia-Hsin lin, Shyh-Chyang lu, atsushi takahara
- 17:05 2ESB16 Installing copper complexes into polymer sidechain toward forming locally concentrated state to promote redox activity
Shigehito Osawa, Maho Kiuchi, Hidenori Otsuka

E. POLYMERS AND ENVIRONMENT “English Session”

Ken-ichi Kasuya, presiding

- 17:30 2ESB17 Enzymatic self-biodegradation of biodegradable films by embedded heat-treated enzymes
QiuYuan HUANG, Masatoshi Hiyama, Taizo Kabe, Satoshi Kimura, Tadahisa Iwata
- 17:55 2ESB18 Biosynthesis of spider dragline silk protein in marine photosynthetic purple non-sulfur bacterium
Choon Pin Foong, Mieko Higuchi-Takeuchi, Keiji Numata

Fri. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Masaya Mitsuishi, presiding

- 10:00 3ESB01 Heavily Nitrogen Doped Bio-derived Hard Carbon as Fast Charging and Long Life Lithium Battery Anode Material
Badam Rajashekar, Sumala Patnaik, Tatsuo Kaneko, Noriyoshi Matsumi
- 10:25 3ESB02 Lithium Ion Secondary Battery with Silicon Based Anode Highly Stabilized with Self-healing Polymer Binder Matrices
Agman Gupta, Badam Rajashekar, Noriyoshi Matsumi
- 10:50 3ESB03 Effect of ionic structure on transport properties of polyanions dissolved in non-aqueous solvents
Yusuke SAKASHITA, Xiaoxiao YANG, Kaoru DOKKO, Masayoshi WATANABE, Kazuhide UENO

Kazuhide Ueno, presiding

- 11:15 3ESB04 Synthesis and Functionalization of Cyclosiloxane Polymers Using Borane Catalyst
Huie Zhu, Shogo Hiruta, Soyeon Kim, Masaya Mitsuishi
- 11:40 3ESB05 Microscopic Phase Separation Induced Nanosheet Assemblies in Cyclosiloxane Supramolecule Bearing Multiple-Hydrogen-Bonding Units
Manmian Chen, Huie Zhu, Masaya Mitsuishi

Yoshinori Takashima, presiding

- 12:55 3ESB06 Single walled carbon nanotubes-polymer hybrids modified with functional peptides for gene delivery into plants
Simon Sau Yin Law, Yukiko Nagai, Naoki Tanaka, Kousuke Tsuchiya, Fujigaya Tsuyohiko, Keiji Numata
- 13:20 3ESB07 Synthesis of Superhydrophobic Nanomaterials by the Living Coordination Block Copolymerization of Fluorous Allenes with

Hydrophobic Allenes via Polymerization-induced Self-assembly and Their Applications to Optically Transparent Surface Coatings
Yidan CHENG, Takeshi WAKIYA, Shinsuke INAGI, Ikuoyoshi TOMITA

Makoto Takafuji, presiding

- 13:45 3ESB08 Soft Fiber Reinforced Polymer Composites with Extraordinary Crack Resistance
Wei Cui, Daniel R. King, Yiwan Huang, Liang Chen, Tao Lin Sun, Yunzhou Guo, Yoshiyuki Saruwatari, Chung-Yuen Hui, Takayuki Kurokawa, Jian Ping Gong
- 14:10 3ESB09 Design of polymeric materials using movable cross-linking and their mechanical properties
Ryohei Ikura, Shunsuke Murayama, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Yuka Ikemoto, Go Matsuba, Yoshinori Takashima
- 14:35 3ESB10 Synthesis of Poly(phenylene sulfide) Derivatives with High Dispersivity of TiO₂ Nanoparticles and Their Application to High Refractive Index Hybrid Materials
Seigo Watanabe, Kenichi Oyaizu

Takeo Suga, presiding

- 15:25 3ESB12 Development of Highly Transparent Polyimide Copolymer Films Displaying Large Stokes Shifted Photoluminescence
Naiqiang Liang, Eisuke Fujiwara, Mayuko Nara, Ryohei Ishige, Shinji Ando
- 15:50 3ESB13 Coordination-driven enhancement of binary signals of circular dichroism and fluorescence of molecular gels from terpyridine-attached glutamide
Nahid Sultana, Tomoki Kawahara, Yutaka Kuwahara, Hirotaka Ihara, Makoto Takafuji
- 16:15 3ESB14 Facile Preparation of Hetero-Network Hydrogels with Tunable Thermo-responsive Property
Mst Maria Rahman, Md. Ashraful Alam, Makoto Takafuji, Hirotaka Ihara