

The program current as of 8/6.

Room A

Wed. Sep 12

Invited Lecture

T. Satoh, presiding

11:15 1A06IL Aggregation States and Dynamics of Polymer Chains at Solid Interfaces
Keiji Tanaka

M. Shimomura, presiding

12:55 1A08IL Self-Lubricating Gels (SLUG) Showing Dynamic Surface Functionalities
Atsushi Hozumi

K. Ijro, presiding

13:45 1A10IL Simple mechanics of smart behaviors under the complicated situations in an amoeba
Toshiyuki NAKAGAKI

Y. Uraki, presiding

14:35 1A12IL Structuring of cellulose nanofibers and its correlation with properties
Tsuguyuki Saito

K. Sada, presiding

15:25 1A14IL Catalyst Design with Polymer Gels
MASAYA SAWAMURA

K. Konishi, presiding

16:15 1A16IL Dynamic Helical Macromolecular Catalysts for Catalytic Transfer and Amplification of Chirality
Michinori Suginome

K. Monde, presiding

17:05 1A18IL Toward the Development of Ultimate Helical Polymers
Eiji Yashima

Thu. Sep 13

Invited Lecture

T. Kurokawa, presiding

10:00 2A03IL Slide-Ring Materials: Molecular Design Toughening Polymers
Kohzo Ito

Y. Chujo, presiding

10:50 2A05IL New chemistry for 60 year old Pt-cured silicones: easy method for surface functionalization
Kenneth J. Wynne, Ashraf Kayesh, Sithara Nair

Award Lecture

K. Matsukawa, presiding

12:55 2A08AL Realization and Application of Structural Colors Produced by Artificial Melanin Particles
Michinari Kohri

K. Ijio, presiding

14:10 2A11AL Development of temperature-responsive biodegradable injectable polymers
Yuichi Ohya

T. Okamoto, presiding

15:00 2A13AL Structure Control by Surface Segregated Monolayers in Organic Semiconductor Thin Films
Keisuke Tajima

J. Kuwabara, presiding

15:50 2A15AL Development of Functional Polymeric Materials Based on Bipolar Electrochemistry
Shinsuke Inagi

Y. Miura, presiding

16:40 2A17AL Soft dispersion materials developed based on functional polymer particles
Syuji Fujii

Fri. Sep 14

Invited Lecture

K. Sada, presiding

11:15 3A06IL Polymer Dynamics at Nanoscale
Hiroshi Uji-i

Room B

Wed. Sep 12

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

A. Kanazawa, presiding

10:00 1B03 Synthesis and Characterization of Unnatural Oligo(amino saccharide)s via Cationic Ring-Selective Opening Polymerization of Oxazoline Based Sugar Monomers
Yuta Koda, Takaya Terashima, Makoto Ouchi

10:25 1B04 Precise Syntheses of Functional Sequence-Controlled Multiblock Copolymers via Iterative Monomer Addition in Living

Polymerization and Post Modification
Sho Yoshida, Takaya Terashima, Makoto Ouchi

10:50 1B05 Ring-Expansion Cationic Polymerization with MgBr₂: Effects of Oxophilicity on Ring-Expansion Propagation
Yuji Daito, Takaya Terashima, Makoto Ouchi

T. Terashima, presiding

11:15 1B06 Living Cationic Polymerization of Alicyclic Conjugated Dienes Derived from Naturally-Occurring Terpenes and Synthesis of High Performance Materials
Takenori NISHIDA, Kotaro SATOH, Masami KAMIGAITO

11:40 1B07 Mechanism of Cationic Polymerization by Photoredox Activation of Alkoxyamine
Masato KONYA, Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO

K. Satoh, presiding

12:55 1B08 Synthesis of copolymers composed of 3-hexylthiophene and cyclodextrin
Yushi Matsui, Ryuichi Sugimoto

13:20 1B09 Controlled cationic copolymerization of *o*-phthalaldehyde and vinyl monomers: Investigation of the specific propagating species and polymerization mechanisms
Keisuke Hayashi, Arihiro Kanazawa, Sadahito Aoshima

13:45 1B10 Controlled Cationic Polymerization of Trimethylsilyl Vinyl Ether and Synthesis of Various Vinyl Alcohol Copolymers.
Ryusei Kato, Arihiro Kanazawa, Sadahito Aoshima

R. Goseki, presiding

14:10 1B11 Stereospecific living cationic polymerization of *N*-vinylcarbazole: Study on the stereospecific polymerization mechanisms
Hironobu Watanabe, Ryo Yamanaka, Arihiro Kanazawa, Satoshi Okumoto, Shinichi Sakurai, Sadahito Aoshima

14:35 1B12 Cationic Polymerization of Phenyl Vinyl Ether and Copolymerization with Aromatic Aldehydes
Tomohito Asakawa, Arihiro Kanazawa, Sadahito Aoshima

15:00 1B13 Controlled Cationic Copolymerization of Vinyl Monomers and Cyclic Acetals: The Effects of Substituents and Ring-members of Cyclic Acetals on the Concurrent Vinyl-Addition and Ring-Opening Copolymerization
Kazuya Maruyama, Arihiro Kanazawa, Sadahito Aoshima

A. Takasu, presiding

15:25 1B14 Concurrent Cationic Vinyl-Addition, Ring-Opening, and Carbonyl-Addition Terpolymerization of Vinyl Ether, Cyclic Ether and Ketone: Toward ABC-type Alternating Sequence Control
Maki Mimura, Arihiro Kanazawa, Sadahito Aoshima

15:50 1B15 Initiator system of cationic ring-opening polymerization of 1,3-dehydroadamantanes
Koudai Michizoe, Reo Kurashima, Raita Goseki, Takashi Ishizone

16:15 1B16 Anionic polymerization of 2-vinylthiophene derivative having adamantyl group
Ayaka Oguri, Yota Nakagawa, Raita Goseki, Takashi Ishizone

S. Aoshima, presiding

16:40 1B17 Anionic polymerization of chlorostyrenes and bromostyrenes

		<u>Asahi Kondo</u> , Taro Koizumi, Raita Goseki, Takashi Ishizone
17:05	1B18	Synthesis of chain end sequence-controlled polymers by Living Anionic Addition Reaction and Umpolung strategy. <u>Kazuki Takahata</u> , Raita Goseki, Takashi Ishizone
17:30	1B19	Synthesis of Cyclic Vinyl Polymers by Ring-Closure Procedure without Highly Diluted Condition Yuhei Hosoi, <u>Akinori Takasu</u>
17:55	1B20	Generation of Functional Alkylolithiums Using Flow Microreactors and Applications to Synthesis of Telechelic Polymers <u>Aiichiro NAGAKI</u> , Hiroki TAMASHITA, Katsuyuki HIROSE, Yuta TSUTIHASHI, Jun-ichi Yoshida

Thu. Sep 13

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

M. Kamigaito, presiding

9:10	2B01	Peculiar Swelling Behavior and Mechanical Properties Induced by Divinyl Crosslinking <u>Shohei Ida</u> , Ryuichi Yoshida, Daiki Nishisako, Shokyoku Kanaoka
9:35	2B02	Synthesis and Property of Main Chain-Type Poly(cyclic hemiacetal ester) by Radical Polymerization of 'Dehydroaspirin' <u>Akane Kazama</u> , Yasuhiro Kohsaka

Y. Kohsaka, presiding

10:00	2B03	Direct ESR Observation of Radical Polymerizations of Water-soluble Monomers <u>Atsushi Kajiwara</u>
10:25	2B04	Photo-Switchable Cationic/Radical Controlled Cross-Linking Polymerization of Various Vinyl Ethers and Divinyl Monomers <u>Nagisa ITO</u> , Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO

S. Kanaoka, presiding

10:50	2B05	Design of Novel Sulfur-free RAFT Agents for Synthesis of Block Copolymers <u>Maki Amano</u> , Hisaaki Takeshima, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito
11:15	2B06	Sequence-Regulated Vinyl Polymers by Atom Transfer Radical Addition and Thiol-Ene Polymerization <u>Yoshiki TANAKA</u> , Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO
11:40	2B07	Control of Sequence for Vinyl Polymers using Activated Ester Bonds: Control of Radical Reactivity and Pendant Transformation <u>Dongyoung Oh</u> , Takaya Terashima, Makoto Ouchi

A. Kajiwara, presiding

12:55	2B08	Preparation of Multiblock Biofunctional polymers by rapid and quantitative RAFT polymerization. <u>Masanori Nagao</u> , Masaya Kichize, Yu Hoshino, Yoshiko Miura
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- 13:20 2B09 Controlled radical polymerization of acyclic N-vinyl monomers by TERP
Weijia Fan, Shigeru Yamago
- M. Ouchi, presiding**
- 13:45 2B10 Development of an Efficient Method for Tellurium Recovery and Recycling from Polymer-ends by Using Tellurol and Fluorous Chemistry
Takehiro Fujita, Shigeru Yamago
- 14:10 2B11 The design of vinyl telluride for the synthesis of structurally controlled hyperbranched polymers
Yangtian LU, Shigeru YAMAGO
- 14:35 2B12 Validity of the azo-compounds as a precursor of a polymer-chain end model radical in the termination mechanism of radical polymerization
Xiaopei LI, Yasuyuki NAKAMURA, Shigeru YAMAGO
- S. Yamago, presiding**
- 15:00 2B13 Polymerization of vinyl monomers using stabilized diethylzinc complexes
Hiromu Okada, Chao Zhao, Ryuichi Sugimoto
- 15:25 2B14 Polymerization of Norbornene derivatives using Ni/Phosphine-phenolate catalyst
Tatsuya Ichikawa, Ryuichi Sugimoto
- 15:50 2B15 Copolymerization of Norbornene with Halogen-substituted Styrenes Catalyzed by Anilinonaphthoquinone-ligated Nickel Complexes.
MD SAMIUL ISLAM CHOWDHURY, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono
- D. Takeuchi, presiding**
- 16:15 2B16 Copolymerization of isoprene and 1-alkenes using neodymium catalyst
Ryo Tanaka, Yuto Shinto, Yuushou Nakayama, Takeshi Shiono
- 16:40 2B17 Living cyclopolymerization Based on Alternating Insertion of Isocyanide and Allene into Organopalladium Complex
Naoya Kanbayashi, Taka-aki Okamura, Kiyotaka Onitsuka
- 17:05 2B18 Synthesis and fluorescence properties of polydiphenylacetylenes having dimesitylboryl groups
Daichi Araki, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki, Young-Jae Jin, Giseop Kwak

Fri. Sep 14

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

T. Kanbara, presiding

- 9:10 3B01 One-pot block copolymerization of olefins with p-methoxystyrene by double-decker type dinuclear dipalladium catalyst
Daisuke Takeuchi, Takashi Iwasawa, Kohtaro Osakada
- 9:35 3B02 Living polymerization of alkenylcyclohexanes. Synthesis and thermal properties of polymers with cycloalkane groups having controlled branches.

Kei Sato, Kohtaro Osakada, Daisuke Takeuchi, Hiroki Uehara

K. Osakada, presiding

- 10:00 3B03 Synthesis of regio- and stereoregular poly(methylglycolide) and its stereocomplex formation
Ryosuke Yanai, Nobuyoshi Nomura
- 10:25 3B04 Entropy-Driven Ring-Opening Metathesis Polymerization of Macrocyclic Sequence-Regulated Vinyl Oligomer
Masato MIYAJIMA, Kotaro SATOH, Masami KAMIGAITO
- 10:50 3B05 Click Living Polymerization via CuAAC Reaction
Takuya NAKAMURA, Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO

N. Nomura, presiding

- 11:15 3B06 Synthesis of conjugated polymers of three-component units by cross-dehydrogenative-coupling reaction
Chie Tanaka, Hideaki Aoki, Hitoshi Saito, Junpei Kuwabara, Takaki Kanbara
- 11:40 3B07 Steric and electronic effects of phosphine ligand of Pd catalyst on Suzuki-Miyaura catalyst-transfer condensation polymerization.
Tatsuya UCHIDA, Yoshihiro OHTA, Tsutomu YOKOZAWA

A. Hashidzume, presiding

- 12:55 3B08 Intramolecular transfer of Pd catalyst on two bromoarylenes connected to various functional groups and its application to polycondensation
Natsumi HARADA, Hajime SUGITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 13:20 3B09 Chain-growth condensation polymerization of amino acid monomers immobilized on polynorbornene, by using polymer base
Takeru KAMEYAMA, Ami MORIMITSU, Yoshihiro OHTA, Tsutomu YOKOZAWA

H. Mori, presiding

- 13:45 3B10 Additive controlled switching of polymerization mode in unstoichiometric Suzuki-Miyaura polycondensation
Takeru KAMIGAWARA, Hajime SUGITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 14:10 3B11 Copper(I)-Catalyzed Azide-Alkyne Cycloaddition Polymerization of 3-Azido-1-propynes Possessing Substituent of Carboxylic Acid Derivatives
Yamasaki Shota, Yuri Kamon, Akihito Hashidzume

T. Yokozawa, presiding

- 14:35 3B12 Polycondensation of (meth)acrylates by auto-tandem catalysis using organic base catalysts
Aoi Fukumoto, Shin-ichi Matsuoka, Masato Suzuki
- 15:00 3B13 Polycondensation of dithiol and acrylate substituted at α -methyl group and β -position: Selective synthesis of various polysulfide by controlled sequential nucleophilic reactions
Keito Hagiwara, Yasuhiro Kohsaka
- 15:25 3B14 Synthesis and Direct Nanoimprinting Fabrication of High Refractive Index and High Transparent Polythioethers Based on Thiol-Ene Click Chemistry
Shigeki Sobu, Kazuhiro Nakabayashi, Yuji Kosuge, Hideharu Mori

Room C

Wed. Sep 12

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

T. Aoki, presiding

- 10:00 1C03 Synthesis of Poly(L-lysine)s by Polycondensation of $N\alpha$, $N\epsilon$ -Phenoxycarbonyl Derivative of L-Lysine and the Modification of Side Chain
Shuhei Yamada, Shota Ando, Huseyin Akbulut, Takeshi Endo
- 10:25 1C04 Reexamination of Reactivity of N-Carboxy Amino Acid Anhydrides 87. Unsolved problems in the polymerization of Amino acid N-carboxy anhydrides initiated by tertiary amines.
Hitoshi Kanazawa, Aya Inada

S. Matsuoka, presiding

- 10:50 1C05 Synthesis and Higher-Order Structures of Hybrid Polymers Consisting of Peptide-Conjugated Molecules
Soki Sato, Shinya Takaoka, Yu Miyagi, Fumio Sanda
- 11:15 1C06 Synthesis of Near-infrared Emissive Polymers Composed of Boron Formazanate Complexes and Their Physical Properties
Yuki KAWANO, Kazuo TANAKA, Yoshiki CHUJO
- 11:40 1C07 Synthesis and Polymerization of Emissive Aza-Substituted Fused-Boron Ketoiminates
Aoi Watanabe, Kazumasa Suenaga, Kazuo Tanaka, Yoshiki Chujo

K. Naka, presiding

- 12:55 1C08 Synthesis and Properties of Fully Conjugated All Head-to-Tail Macrocyclic Poly (3-hexylthiophene)
Minato Nakamura, Masaaki Hosokawa, Takuya Yamamoto, Akinori Saeki, Yoshihiro Kikkawa
- 13:20 1C09 Helicity Control of Poly(biphenylacetylene) Derivatives Bearing Polyethylene Glycol Pendants and Their Thermo-responsive Properties
Ryoma Ishidate, Chiaki Yokota, Riho Ikeda, Katsuhiro Maeda, Eiji Yashima
- 13:45 1C10 Synthesis and polymerization of pentaazaphenylene derivatives toward narrow HOMO-LUMO gap materials
Junki Ochi, Hiroyuki Watanabe, Kazuo Tanaka, Yoshiki Chujo
- 14:10 1C11 Construction of Conjugated System with Nitrogen-Nitrogen Double Bond and Application to Near-Infrared Luminescent Materials
Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo

T. Kaneko, presiding

- 14:35 1C12 Helical Control of Non-natural Polypeptide bearing 2,6-Naphthylene Unit on the Main Chain

- Yuki Ishido, Naoya Kanbayashi, Taka-aki Okamura, Kiyotaka Onitsuka
- 15:00 1C13 Synthesis of polymers based on bifunctional incompletely-condensed caged silsesquioxanes
Ryoichi Katoh, Hiroaki Imoto, Kensuke Naka
- 15:25 1C14 Design and property of water-soluble chiral polymers
Makoto Isaki, Ren-hua Jin
- E. Yashima, presiding**
- 15:50 1C15 Development of synthetic methods of aryl-substituted octasilsesquioxanes by direct arylation reactions
Satoshi Wada, Hiroaki Imoto, Takashi Yumura, Kensuke Naka
- 16:15 1C16 Controlled Synthesis of Peptide/Vinyl Polymer Multiblock Hybrids
Shinnosuke Nishimura, Higashi Nobuyuki, Tomoyuki Koga
- T. Koga, presiding**
- 16:40 1C17 Synthesis and Evaluation of Conjugated Polymers Based on Fused Azobenzene-Boron Complexes
Junko Wakabayashi, Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 17:05 1C18 Polypseudorotaxane constructed from various linear polymers and pillararenes
Masafumi Yagyu, Tomoki Ogoshi, Takahiro Kakuta, Tada-aki Yamagishi
- 17:30 1C19 Functional Polymers Based on Amphiphilic Block Monomers: Precision Synthesis and Self-Assembly
Yoshihiko Kimura, Makoto Ouchi, Takaya Terashima
- 17:55 1C20 Precision Coupling of Amphiphilic Polymer Nanoparticles: Toward Sequence control and Nanostructure Construction
Yasuyuki Ommura, Makoto Ouchi, Takaya Terashima

Thu. Sep 13

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

T. Terashima, presiding

- 9:10 2C01 Synthesis of acceptor fixed poly(2,7-carbazole)s and their delayed emission behavior.
Fumihiko Aso, Hidehisa Kawashima, Michiya Fujiki, Masashi Kijima
- 9:35 2C02 Introduction of Various Substituents into the Side Chain of Optically Active Polymer Bearing Rigid Phthalimide Backbone Synthesized by Asymmetric Polymerization
Marina Saegusa, Naoya Kanbayashi, Yuki Ishido, Taka-aki Okamura, Kiyotaka Onitsuka
- 10:00 2C03 Reversible linear and cyclic block copolymer topology transformation utilizing rotaxane dimer
Gouta Aibara, Kazuko Nakazono, Satoshi Uchida, Toshikazu Takata

T. Takata, presiding

- 10:25 2C04 Synthesis and Photophysical Properties of Bifacial π -Conjugated Polymers
Daiki Abe, Fumitaka Ishiwari, Takanori Fukushima
- 10:50 2C05 Downsizing of Microphase-Separated Structures via Intramolecular Cross-Linking of Block Copolymers
Kodai Watanabe, Satoshi Katsuhara, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
- 11:15 2C06 Self-assembly and viscoelastic properties of telechelic polydimethylsiloxanes having 1,8-disubstituted triptycenes at the termini
Hibiki Ogiwara, Gen Okabe, Fumitaka Ishiwari, Takashi Kajitani, Takanori Fukushima
- 11:40 2C07 Preparation of polyrotaxane using PLA-PEG copolymer and cyclodextrin and observation of polymer-polymer interaction
Jaeyeong Choi, Hiroharu Ajiro

S. Uchida, presiding

- 12:55 2C08 Supramolecular Polymers with Photomodulable Topology: A System Employing Diarylethene
Takuya Fukushima, Shiki Yagai
- 13:20 2C09 One-pot preparation of supramolecular block copolymers realized by discotic supramolecular intermediates
Ziyan Pan, Yuichi Kitamoto, D. Deepak Prabhu, Shiki Yagai
- 13:45 2C10 Construction of Porous Organic Salts based on Diversity of Supramolecular Network
Norimitsu Tohnai, Tetsuya Miyano, Naoki Okada, Keiho Tsuchiya, Ichiro Hisaki
- 14:10 2C11 Self-assembly Behavior of Helical Foldamers Driven by Intermolecular Hydrogen Bonds
Satoshi KAWABATA, Shogo OKUDA, Naoki OUSAKA, Eiji YASHIMA

K. Naka, presiding

- 14:35 2C12 Stabilization/Activation of a Pt(II) Complex Coupled with the Crystalline-State Supramolecular Polymerization/De-Polymerization of Its Metal Center
Kentaro Tashiro, Hiroyoshi Ohtsu, Masaki Kawano, Tatsuhiko Kojima, Tatsuhisa Kato
- 15:00 2C13 Higher order helical supramolecular polymers that transform to crystalline fibrils by on-pathway mechanism
Hiroaki Yamada, Kengo Wakita, Shiki Yagai
- 15:25 2C14 Impact of toroidal topology on the structural transformation of curved supramolecular polymers
Atsuhito Suzuki, Shiki Yagai
- 15:50 2C15 Seeded Supramolecular Polymerization of a Diketopyrrolopyrrole Dye in Aqueous Media
Natsumi Fukaya, Arifin Arifin, Yuh Hijikata, Soichiro Ogi, Shigehiro Yamaguchi

S. Yagai, presiding

- 16:15 2C16 Properties of Liquid Crystalline Pentaazaphenylene Derivatives
Hiroyuki WATANABE, Kazuo TANAKA, Yoshiki CHUJO
- 16:40 2C17 Synthesis and properties of metallo-supramolecular polymers incorporating cage silsesquioxanes in the main chain
Mari Hashimoto, Hiroaki Imoto, Kensuke Naka

17:05 2C18 Development of novel maleimide dyes showing long-wavelength solid-state fluorescence.
Ryosuke Fujii, Hiroaki Imoto, Kensuke Naka

Fri. Sep 14

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

K. Kokado, presiding

- 9:10 3C01 Structure Dependency of Mechanoresponsiveness on Mechanochromic Dendrimers
Takuma Watabe, Kuniaki Ishizuki, Daisuke Aoki, Hideyuki Otsuka
- 9:35 3C02 Synthesis and Characterization of Diarylbiindolinone-based Mechanochromic Polymers
Kazuma Kawasaki, Daisuke Aoki, Hideyuki Otsuka
- 10:00 3C03 Synthesis and characterization of mechanochromic polymers based on a thermostable radical-typed mechanophore
Hio Sakai, Sumi Toshikazu, Raita Goseki, Daisuke Aoki, Hideyuki Otsuka

M. Furutani, presiding

- 10:25 3C04 Post-Modification of Polymer Gels via Freezing-Induced Radical Generation at Cross-Linking Points
Sota Kato, Daisuke Aoki, Hideyuki Otsuka
- 10:50 3C05 Property Modification of Cured Epoxy Resins with Boronic Acids
Yumiko Ito, Jumpei Kida, Aoki Daisuke, Hideyuki Otsuka
- 11:15 3C06 Mechanochromic Rotaxane Cross-linked Polymer: Visualization of Slide-ring Behavior
YI LU, Jun Sawada, Daisuke Aoki, Hiromitsu Sogawa, Hideyuki Otsuka, Toshikazu Takata
- 11:40 3C07 Development of LCST-type thermoresponsiveness of polymer solution in various solvents using charge-transfer interaction
Kyohei Uenishi, Kenta Kokado, Kazuki Sada

F. Ishiwari, presiding

- 12:55 3C08 Roles of Dinuclear Bridging Bidentate Zinc/Stearate Complexes in the Sulfur Cross-linking of Isoprene Rubber, 1
Yuta Sakaki, Preeyanuch Junkong, Hisayoshi Kobayashi, Yuko Ikeda
- 13:20 3C09 Investigation on structure and function induced by dynamic exchange of polypeptide side chains using thioester exchange reaction
Mayumi Inoue, Kazutoshi Nakagawa, Yuichiro Tokoro, Toshiyuki Oyama
- 13:45 3C10 Control of initiator-free photo RAFT template polymerization of multi-vinyl monomer
Yui Hamuro, Reiko Saito
- 14:10 3C11 Synthesis of end-functionalized linear polyester by means of exchange reaction of cyclic polyester, obtained by $A_2 + B_2$ polycondensation, with low molecule
Ryouichi Okabayashi, Yoshihiro Ohta, Tsutomu Yokozawa

Y. Tokoro, presiding

14:35	3C12	Controlled synthesis of ladder polymer in coordination nanospaces toward functional carbon materials <u>Takashi Kitao</u> , Ryoto Hongu, Takashi Uemura
15:00	3C13	Radical polymerization behavior of compartmentalized multivinyl polymers in single nano-droplets <u>Noriyoshi Obara</u> , Yuki Shinozaki, Moriya Kikuchi, Seigou Kawaguchi
15:25	3C14	Solvent-induced Morphology Control of a Poly (ether ether ketone) Film for Acceleration of Radiation-Induced Graft Polymerization <u>Shin Hasegawa</u> , Akihiro Hiroki, Kimio Yoshimura, Yue Zhao, Kenji Ohwada, Akihiko Machida, Tetsu Watanuki, Yasunari Maekawa

Room D

Wed. Sep 12

S1. Polymer Chemistry to Open up by Metal-free Catalyst

9:50	1DSO	Introductory Remarks S1 <u>Toshifumi Satoh</u>
		D. Aoki, presiding
10:00	1D03	<i>t</i> -Bu-P ₄ -Catalyzed Block Copolymerization of Glycidyl Ethers: Synthesis and Properties of Tacticity-Controlled Block Copolymers <u>Takuya Isono</u> , Toshifumi Satoh
10:25	1D04	<i>t</i> -Bu-P ₄ -catalyzed Block Polymerization of Glycidyl Ethers: Synthesis and Self-assembly Behavior of Triblock Terpolymers <u>Tomoki Shingu</u> , Brian J. Ree, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
10:50	1D05	Environmentally-Benign Synthesis of Aliphatic Polyesters Using Dual-Activation Catalysts <u>Tatsuya Saito</u> , Kaoru Takojima, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
		K. Fuchise, presiding
11:15	1D06	Poly(conjugated ester) synthesis by ring-opening polymerization of cyclic hemiacetal ester accompanied with elimination of aldehyde Yosuke Matsushashi, <u>Yasuhiro Kohsaka</u>
11:40	1D07	Metal-free polyester synthesis using bis(acyl triazole)s <u>Kazumasa Homma</u> , Ichiro Mori, Yasuhiro Kohsaka, Susumu Sugiyama, Daisuke Matsuura, Yoshikazu Kimura
		T. Satoh, presiding
12:55	1D08IL	Polymerizations of Polar Vinyl Monomers by Organocatalyst <u>Shin-ichi Matsuoka</u>
		Y. Kohsaka, presiding
13:45	1D10	Polymerization of (meth)acrylic thioester initiated with organic base and phosphine

- Yuna Ishikawa, Sato Ohashi, Takumi Kaneko, Shin-ichi Matsuoka, Koji Takagi, Masato Suzuki
- 14:10 1D11 Effective synthetic method for cyclic polymers via dynamic covalent bond
Daisuke Aoki, Hideyuki Otsuka
- 14:35 1D12 Polycondensations of Hydroxy Acids and Hydroxy Esters having amide groups Using Organocatalysts
Miyuki Oshimura, Ryo Kagitani, Tomohiro Hirano, Koichi Ute
- M. Oshimura, presiding**
- 15:00 1D13 Precise Synthesis of Side-Chain Functionalized Polysiloxanes by Ring-Opening Polymerization Using Strong Organic Bases as Catalysts
Keita Fuchise, Kazuhiko Sato, Masayasu Igarashi
- 15:25 1D14 Metal-free multicomponent reaction as a synthetic toolbox for an efficient utilization of biomass-derived compounds
Ryohei Kakuchi, Katsuhiko Maeda
- R. Kakuchi, presiding**
- 15:50 1D15 Organocatalysis in supercritical fluid: Synthesis of linear and cyclic polymers
Nobuyuki MASE, Uzzaman Monir, Toshiya TANAKA, Kohei SATO, Tetsuo NARUMI
- 16:15 1D16 Development of Crosslinking Systems Based on Metal-free Visible Light-driven Reactions Using Perylene as a Photoredox Catalyst
Atsushi Sudo, Shusuke Okamoto, Shin-ichiro Yamamoto
- T. Sawada, presiding**
- 16:40 1D17 Precision Synthesis of Non-natural Polysaccharides by Phosphorylase-catalyzed Enzymatic Polymerization
Jun-ichi KADOKAWA, Riko SHIMOHIGOSHI, Kento YAMASHITA, Takuya NAKAUCHIDA, Kazuya YAMAMOTO
- 17:05 1D18 Chemoenzymatic synthesis of polypeptides and its application to the bioelastomer
Hiromitsu Sogawa, Keiji Numata
- J. Kadokawa, presiding**
- 17:30 1D19 Enzymatic synthesis of cellulose oligomers and control of their self-assembling behavior
Yuka Fukaya, Toshiki Sawada, Takeshi Serizawa
- 17:55 1D20 Structure of α 1,3-glucan synthesized by enzymatic polymerization
Satoshi Kimura, Tadahisa Iwata

Thu. Sep 13

S1. Polymer Chemistry to Open up by Metal-free Catalyst

S. Sugihara, presiding

- 9:10 2D01 Cationic polymerization of vinyl monomers using iodoimidazolium salts as halogen bonding catalyst
Koji Takagi, Koji Yamauchi, Hiroto Murakata, Kouhei Hashimoto

9:35 2D02 Metal-free living cationic polymerization using diphenyliodonium salts as organic Lewis acid catalysts
Rui Haraguchi, Tsuyoshi Nishikawa, Arihiro Kanazawa, Sadahito Aoshima

10:00 2D03 Simultaneous Control of Molecular Weights and Stereo-Structures Using Metal-Free Cationic RAFT Polymerization
Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO

M. Uchiyama, presiding

10:25 2D04 Polymerization-induced self-assembly using RAFT dispersion polymerization for synthesis of amino acid-based nanoobjects
Ryo SUGAWARA, Kazuhiro NAKABAYASHI, Hideharu MORI

10:50 2D05 Direct RAFT Radical Homopolymerization of Vinyl Ethers
Shinji Sugihara, Ayano Yoshida, Tsuyoshi Takayama, Taka-aki Kono

11:15 2D06 Telechelic Polymeric Dormant: Precise Synthesis via Iodine-Transfer Controlled Radical Polymerization
Takeo Suga, Hiroyo Sumida, Kaname Takata, Hiroyuki Nishide

Y. Arakawa, presiding

11:40 2D07 Synthesis and Evaluation of Rigid Polyfumarates Containing Adamantyl Groups.
Nagisa Tsuji, Akikazu Matsumoto

12:55 2D08 The effect of hyperbranched structure in acid catalyzed reactions
Yuta Nabae, Masaki Tomita, Tsubasa Taniguchi, Jie Liang, Teruaki Hayakawa, Masa-aki Kakimoto

N. Haraguchi, presiding

13:20 2D09 Acylative Kinetic Resolution of Secondary Alcohols Using Chirality-Switchable Helical Polymer Catalyst
Takeshi Yamamoto, Ryo Murakami, Michinori Suginome

13:45 2D10 Development of polymer-immobilized riboflavin derivatives and their unique catalytic activity for oxidations
Hiroki Iida, Takuya Sakai, Takahiro Nitta, Yukihiko Arakawa, Yasushi Imada

H. Iida, presiding

14:10 2D11 Catalytic oxidations with resin-supported flavopeptides
Yukihiko Arakawa, Hazuki Kita, Ken Yamanomoto, Keiji Minagawa, Yasushi Imada

14:35 2D12 Synthesis of main-chain chiral polymeric organocatalysts of cinchona alkaloids for their application in asymmetric reactions
Bahati Thom Kumpuga, Naoki Haraguchi, Shinichi Itsuno

15:00 2D13 Synthesis of polymer microsphere-immobilized chiral pyrrolidine catalyst and its application to asymmetric organocatalysis
Naoki Haraguchi, Md. Wali Ullah, Yuya Ono, Shinichi Itsuno

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

D. Aoki, presiding

15:50 2D15 Creation of Novel Functional Luminescent Materials Based on Boron Diiminates Containing Aromatic Substituents
Ryoji Himeno, Shunichiro Ito, Kazuo Tanaka, Yoshiki Chujo

16:15	2D16	Synthesis and Photophysical Properties of Boron Diiminate Complexes Having Reversible Vapochromism <u>Misao Yaegashi</u> , Shunichiro Ito, Kazuo Tanaka, Yoshiki Chujo
16:40	2D17	Synthesis and Photoluminescence Properties of Aluminum β -Diketiminato Complexes <u>Shunichiro Ito</u> , Kazuo Tanaka, Yoshiki Chujo
17:05	2D18	Induction of dynamic chirality of P-chiral phosphines by photoexcitation <u>Takashi Machida</u> , Kenta Kokado, Kazuki Sada

Fri. Sep 14

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

D. Nagai, presiding

9:10	3D01	Living annulative pi-extension polymerization for graphene nanoribbon synthesis <u>Yuuta Yano</u> , Kaho Matsushima, Nobuhiko Mitoma, Wang Feijiu, Yuhei Miyauchi, Hideto Ito, Kenichiro Itami
9:35	3D02	Synthesis of Various Unsymmetric Thienoisindios and Their Direct Arylation Polycondensation <u>Kaoru Uegaki</u> , Shin-ichi Yamamoto, Toshio Koizumi, Shotaro Hayashi

S. Hayashi, presiding

10:00	3D03	Cationic Co- and Terpolymerization of Lactic Acid-Derived Dioxolanones with Oxiranes and Vinyl Ethers <u>Kano Hyoi</u> , Sadahito Aoshima, Arihiro Kanazawa
10:25	3D04	Synthesis of polythioethers from aromatic dialdehydes and sulfur using indium catalyst and disiloxane reducing agent <u>Shunta Kimura</u> , Takeshi Yamanobe, Masaru Yoneyama

S. Ida, presiding

10:50	3D05	Anomalous Chiral Amplification Behavior of Poly(diphenylacetylene) Derivatives Bearing Optically Active Pendant Groups Hidetaka ISHIBASHI, <u>Daisuke HIROSE</u> , Tatsuya NISHIMURA, Tomoyuki IKAI, Katsuhiko MAEDA
11:15	3D06	Syntheses of dithienoarsole polymers via Suzuki-Miyaura and Sonogashira-Hagihara polycondensations and their coordination behavior <u>Chieko Yamazawa</u> , Hiroaki Imoto, Kensuke Naka
11:40	3D07	Highly ordered smectic phase in amphiphilic liquid crystal diblock copolymer <u>Hidemi Tsunemine</u> , Sadayuki Asaoka

M. Yoneyama, presiding

12:55	3D08	Systematic synthesis and physical property evaluation of multicyclic poly(ϵ -caprolactone)s <u>Yoshinobu Mato</u> , Kohei Honda, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh
13:20	3D09	Efficient Synthesis of the High-density Grafted Polymer via the Catalyst-free Click Reaction <u>Toyokazu Tsutsuba</u> , Toshikazu Takata

13:45	3D10	Surface and thermoresponsive properties of core-crosslinked star polymers with many arms <u>Shokyoku Kanaoka</u> , Hiroki Ooishi, Yuri Toyama, Chisato Maezawa, Shohei Ida
14:10	3D11	Synthesis of ABA triblock copolymer containing photo cross-linkable A blocks and Thermal stability enhancement of micro-phase separation structure by photo cross-linking <u>Isamu Kawarazaki</u> , Mikihiro Hayashi, Akinori Takasu
M. Hayashi, presiding		
14:35	3D12	Living-Expansion polymerization using cyclic carbamothioate and thiirane. <u>Syuto Onishi</u> , Hiroto Kudo
15:00	3D13	Vesicle formation of specially structured comb-polymers and their application in hybridizations <u>Wenli Wang</u> , Ren-hua Jin
15:25	3D14	Synthesis and microphase separation behavior of branched block copolymers consisting of oligosaccharide and poly(delta-decanolactone) <u>Saki Nakahira</u> , Chih-Chien Hung, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Wen-Chang Chen, Toshifumi Satoh

Room E

Wed. Sep 12

S2. New Functional Materials Developed by Polymers based on Element-Blocks

9:50	1ESO	Introductory Remarks S2 <u>Yasuchika Hasegawa</u> , Yoshiro Kaneko
D. Kawaguchi, presiding		
10:00	1E03	Precise Synthesis of Oligosiloxanes Kazuhiro Matsumoto, Yasushi Satoh, Masayasu Igarashi, Kazuhiko Sato, <u>Shigeru Shimada</u>
10:25	1E04	Size-controlled preparation of ammonium-functionalized cage-like oligosilsesquioxanes using superacid catalyst <u>Takatoshi Matsumoto</u> , Yoshiro Kaneko
T. Gunji, presiding		
10:50	1E05	Functionalization of Poly(methyl methacrylate) Surface Using Polyhedral Oligomeric Silsesquioxane <u>Daisuke Kawaguchi</u> , Kentaro Yamamoto, Tatsuki Abe, Takeshi Komino, Kensuke Naka, Chihaya Adachi, Keiji Tanaka
11:15	1E06	Nanostructure Preparation of SiO ₂ Nanofilms from Silsesquioxane-Containing Polymer Nanosheets <u>Yuya Ishizaki</u> , Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi
11:40	1E07	Elucidation of hot melt type strong adhesion using necklace shaped polymers based on van der Waals force <u>Tsubasa Natsuaki</u> , Kenta Kumeda, Naohiro Katsuta, Masashi Kunitake, Tomoyuki Ohba, Kazuya Suwa, Daisuke

Kawaguchi, Keiji Tanaka

Y. Kaneko, presiding

- 12:55 1E08 Synthesis and properties of polydimethylsiloxane/polyethoxysiloxane copolymers
Takahiro Gunji, Ryohei Hayami, Nishikawa Izumi, Hiroaki Nakashima, Satoru Tsukada, Kazuki Yamamoto
- 13:20 1E09 Surface modification of titanium dioxide by vinylphosphonic acid and reactivity of vinyl groups
Anri Miki, Yosuke Shinada, Naokazu Idota, Regis Guegan, Yoshiyuki Sugahara
- 13:45 1E10 Preparation of zirconia nanoparticle dispersions surfaced treated by norbornene derivative and application to flexible and high refractive index hybrid thin film
Kimihiro Matsukawa, Atsushi Sasaki, Hiroyuki Enomoto, Kazuhide Yoshiyama, Hiroaki Imoto, Kensuke Naka

H. Segawa, presiding

- 14:10 1E11 Preparation of zirconium oxide nanoparticle/polymer hybrids using zirconium oxide nanoparticles modified with phosphonic acid in a liquid-liquid biphasic system
Risa Nakamura, Regis Guegan, Kimihiro Matsukawa, Yasushi Nakamjima, Yoshiyuki Sugahara
- 14:35 1E12 Preparation and properties of organic-inorganic hybrid materials containing titanium phosphonate clusters
Ryohei Hayami, Satoru Tsukada, Kazuki Yamamoto, Takahiro Gunji
- 15:00 1E13 A Liquid-Phase Synthesis of Magic Numbered Fully Cationized Gold Clusters
Kunihiro Narita, Yohei Ishida, Tetsu Yonezawa

S. Uemura, presiding

- 15:25 1E14 Low Temperature Sintering Coppe Fine Particle System
Tetsu Yonezawa, Hiroki Tsukamoto
- 15:50 1E15 Development of the Conversion Method from Metal-oxides and Hydroxides to Oxynitrides Using Urea as a Nitrogen Source
Kiyofumi Katagiri, Yuki Hayashi, Ryoki Okada, Kei Inuamru
- 16:15 1E16 Synthesis of Si-O-N glasses from hybrid aerogels
Yuta Osawa, Hiroyo Segawa, Atsuo Yasumori, Naoki Ohashi

K. Katagiri, presiding

- 16:40 1E17 Preperation of polymer brushes on the surface of layered hexaniobate nanosheets via surface-initiated ATRP
Mayu Ishihara, Naokazu Idota, Regis Guegan, Kimihiro Matsukawa, Yoshinobu Tsujii, Yoshiyuki Sugahara
- 17:05 1E18 Structural control of carbon nitrides/graphene oxide films by electrostatic self-assembly
Shinobu UEMURA, Takuya GO, Shun FUJIWARA, Qi FENG
- 17:30 1E19 Preparation of inorganic Janus nanosheets using K₄Nb₆O₁₇·3H₂O and two types organophosphonic acid
Ryoko Suzuki, Mitsuhito Sudo, Megumi Hirano, Naokazu Idota, Masashi Kunitake, Taisei Nishimi, Yoshiyuki Sugahara
- 17:55 1E20 Preparation of polymer modified dielectric nanosheet using surface initiated atom transfer radical polymerization (SI-ATRP) method
Kentaro Ogura, Naokazu Idota, Regis Guegan, Yoshiyuki

Thu. Sep 13

S2. New Functional Materials Developed by Polymers based on Element-Blocks

J. Matsui, presiding

- 9:10 2E01 Construction of Functional Porous Architectures by Laminating Hydrogen-bonded Hexagonal Frameworks
Ichiro Hisaki
- 9:35 2E02 Synthesis of element-block materials and Methodology towards their versatile integration: Arene-inserted extended germapericyclines and multiple azido platforms
Hiroki Tanimoto, Taiki Yokoi, Junta Mori, Kiyomi Kakiuchi
- 10:00 2E03 Construction of Self-assemblies of Element Blocks by Utilizing Dynamic Covalent Bonds and Their Unique Functions
Tatsuya Nabeshima

I. Hisaki, presiding

- 10:25 2E04 Supramolecular Copolymer formed via Complexation of Electron-Deficient Guest to Supramolecular Porphyrin Homopolymer
Kouhei Nadamoto, Kei Maruyama, Naoka Fujii, Toshiaki Ikeda, Shin-ichi Kihara, Takeharu Haino
- 10:50 2E05 Structural control by in-situ recrystallization of porous coordination polymers.
Yuma Uemura, Masashi Kunitake, Satoshi Watanabe, Haruka Mishima
- 11:15 2E06 Development of specific nanostructures by conjugating amphiphilic glycyrrhetic acid derivatives with metal complexes
Hien Tran Thi Dieu, Souta Toohara, Sarah Ho Shew Kheng, Keiko Yonemura, Yasuhito Koyama, Keita Kuroiwa
- 11:40 2E07 Hierarchical organization of comb-shape polymers prepared by humid annealing and their application as element blocks.
Jun Matsui, Kazuki Ebata, Yamamoto Shunsuke, Masaya Mitsuishi, Shusaku Nagano

I. Tomita, presiding

- 12:55 2E08 Stacked π -Electron Systems by Control of the Optically Active Second-ordered Structures
Yasuhiro Morisaki, Katsuaki Kikuchi, Jun Nakamura, Hiromu Tsuchida, Takahiro Kakuta, Tomoki Ogoshi, Yuuya Nagata
- 13:20 2E09 Photophysical properties of highly-fused borepin derivatives and their polymers
Yohei Adachi, Takanori Nomura, Fuka Arai, Joji Ohshita
- 13:45 2E10 Preparations and properties of non- π -conjugated phenazasiline-containing polymers
Hideki Hayashi, Take-aki Koizumi

Y. Morisaki, presiding

- 14:10 2E11 Functionalization of π -conjugated element-block type liquid crystals based on nanosegregation
Masahiro Funahashi

14:35 2E12 Synthesis of Functional Elements-block Polymers Possessing Plural Elements
Ikuyoshi Tomita, Yumiko Hayashi, Kouhei Hayashi, Feng Zheng, Yoshimasa Matsumura, Hiroki Nishiyama, Shinsuke Inagi

Y. Hasegawa, presiding

15:00 2E13IL New Polymeric Materials Based on Element-Blocks
Yoshiki Chujo

M. Funahashi, presiding

15:50 2E15 Development of luminescent arsenic element blocks
Hiroaki Imoto, Kensuke Naka

16:15 2E16 Development of stimuli-responsive luminescent polymers containing boron element-blocks
Kazuo Tanaka, Yoshiki Chujo

16:40 2E17 Influence of luminophore concentration on hybrid sensitized emission system incorporated in polysilsesquioxane films
Masashi Nakamura, Ryohei Ono, Koji Mitamura, Hiroyuki Enomoto, Kimihiro Matsukawa, Seiji Watase

Fri. Sep 14

S2. New Functional Materials Developed by Polymers based on Element-Blocks

S. Watase, presiding

9:10 3E01 Synthesis of Curved π -Conjugated Macrocycles and Their Complexation with Carbon Nanotubes
Koji Miki

9:35 3E02 Circularly polarized luminescence from achiral organic chromophores confined in chiral silica matrix
Seiji Tsunega, Takuya Nakashima, Tsuyoshi Kawai, Ren-Hua Jin

10:00 3E03 Synthesis and characterization of Eu (III) complexes using tridentate triphenylamine linker
Natsumi Sato, Yuichi Kitagawa, Kouji Fusimi, Yasuchika Hasegawa

K. Miki, presiding

10:25 3E04 Hybrid Luminescent Materials Using Interlocked Two Different Element-Blocks
Seiji Watase, Masashi Nakamura, Koji Mitamura, Satoshi Minami, Haruka Katakura

10:50 3E05 Fabrication of T8-poly(azomethine) films having solvent resistance and its application to a multilayer device.
Shunichi Fujii, Saori Minami, Kenji Urayama, Yu Suenaga, Hiroyoshi Naito, Hiroaki Imoto, Kensuke Naka

11:15 3E06 Simultaneous determination of electron and hole drift mobilities in element-block polymer based solar cells using modulated photocurrent spectroscopy
Hiroyoshi Naito

11:40 3E07 Self-healing Property of Poly(borosiloxane) and Its Application as Binder Material for Li Ion Secondary Batteries
Noriyoshi Matsumi, Puhup Puneet, Yukihiro Sawamura, Raman

Vedarajan,SaiGourang Patnaik

S. Fujii, presiding

- 12:55 3E08 Preparation and characterization of magnetic materials by holmium-bearing polymers
Kotona Kohaku,Kenshi Yanagimoto,Michinari Kohri,Tatsuo Taniguchi,Keiki Kishikawa
- 13:20 3E09 Near-infrared two wavelength response soft actuators composed with rare earth photo thermal materials
Satoshi Watanabe,Masashi Kunitake
- 13:45 3E10 Morphology control and transferring of single crystals of an organic semiconductor with hydrogel capillaries
Ryota Urata,Satoshi Watanabe,Masashi Kunitake

S. Watanabe, presiding

- 14:10 3E11 Elastomeric polythiophene preparation by using peroxide crosslinking
Jian Shen,Takuya Matsumoto,Atsunori Mori,Takashi Nishino
- 14:35 3E12 Preparation of Photo-responsive Polymer Films with Changeable Surface Structure and Their Applications to Cell Patterning
Misato Higashino,Takafumi Noguchi,Akifumi Kawamura,Takashi Miyata
- 15:00 3E13 Development of material delivery system based on polymer particle-stabilized bubbles
Syuji Fujii,Masaya Ito,Hiroyuki Mayama,Yoshinobu Nakamura

Room F

Wed. Sep 12

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

J. Motoyanagi, presiding

- 10:00 1F03 Controlled synthesis of ultrathin vinyl polymer films using pillared-layer metal-organic frameworks
Shuto Mochizuki,Takashi Uemura
- 10:25 1F04 Synthesis of three kinds of diblock copolymers consisting of hyperbranched, *p*-, and *m*-aromatic polyamides and polystyrene and investigation of difference between their self-assembled structures
Kenta HOKA,Yoshihiro OHTA,Takahiro KOMAMURA,Takeshi HIGUCHI,Yoshihito ISHIDA,Teruaki HAYAKAWA,Hiroshi JINNAI,Tsutomu YOKOZAWA

T. Uemura, presiding

- 10:50 1F05 Synthesis of well-defined hyperbranched and linear poly(thienylene-phenylene)s by Kumada-Tamao catalyst-transfer condensation polymerization and investigation of their optical properties
Toshiki Hirota,Yoshihiro Ohta,Tsutomu Yokozawa

11:15 1F06 Living Anionic Polymerization of 4-Trimethylstannylstyrene and Polymer Linking Reaction for Synthesis of Graft Polymer
Naoto Takagi, Tomoya Higashihara

11:40 1F07 Synthesis of a poly(phenylacetylene) bearing alkynyl-appended poly(vinyl ether)s as graft chains
Tsuyoshi Kikuchi, Jin Motoyanagi, Tomonari Tanaka, Masahiko Minoda

T. Higashihara, presiding

12:55 1F08 Synthesis and oxygen permeation of star multi-stranded copolymers by post polycondensation of functional groups at the pendant groups of loosely or tightly helical substituted polyphenylacetylenes
Takaya Ohno, Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki

13:20 1F09 Synthesis of Polymer Nanoparticles via Site-Selective Transesterification
Daiki Ito, Makoto Ouchi, Takaya Terashima

13:45 1F10 Self-Assembly and Thermoresponsive Properties of Amphiphilic Graft Copolymers in Water: Effects of Accumulated Polymer Chains
Takehiro Itami, Makoto Ouchi, Takaya Terashima

M. Minoda, presiding

14:10 1F11 Effect of Polymer-Chain Topology of AIEgen-Appended Poly(acrylic acid) with Biocompatible Segments on Ca²⁺-Sensing and Protein-Adsorption-Resistance Properties
Minami Sakamoto, Satoko Matsumura, Fumitaka Ishiwari, Takanori Fukushima

14:35 1F12 Preparation of dendritic ions having bulky substituents and evaluation of their dissociability in non-polar solvent
Soukurou SUNAGA, Kenta KOKADO, Kazuki SADA

15:00 1F13 Concurrent cationic vinyl-addition and coordination ring-opening copolymerization: Design criteria for various graft copolymers consisting of vinyl ethers and cyclic esters
Motoki Higuchi, Arihiro Kanazawa, Sadahito Aoshima

S5. Creation of Innovative Methods for Control of Molecular Bond and Novel Functionality

16:05 1FSO Introductory Remarks S5
Yoshinori Takashima, Yuuya Nagata

K. Kato, presiding

16:15 1F16 "Forging" of double network gels by deformation-induced radical polymerization
Takahiro Matsuda, Tasuku Nakajima, Ryo Namba, Jian Ping Gong

16:40 1F17 Stress Relaxation Behavior of Supramolecular Gels Crosslinked by Host-Guest complexes under Various Types of Deformation
Takuro Kimura, Kenji Urayama, Masaki Nakahata, Yoshinori Takashima, Akira Harada, Motomu Tanaka

K. Urayama, presiding

17:05 1F18 Molecular design for hard and ductile polyrotaxane materials
Kazuaki Kato, Masayuki Taniguchi, Koichi Mayumi, Hideaki

Yokoyama, Kohzo Ito
17:30 1F19 Molecular conformation in solution and chiral separation behaviors of cyclic amylose carbamates
Ken Terao, Akiyuki Ryoki, Shinichi Kitamura

K. Terao, presiding

17:55 1F20 Wetting Behavior of Poly(sulfobetaine) Brushes as a Function of the Binding States of the Zwitterionic Groups
Tatsunori Sakamaki, Yoshihiro Inutsuka, Yuji Higaki, L. Norifumi Yamada, Atsushi Takahara

Thu. Sep 13

S5. Creation of Innovative Methods for Control of Molecular Bond and Novel Functionality

M. Naito, presiding

9:10 2F01 Phase Separation of Polymers with Similar Chemical Properties
Yoshihiro Yamauchi, Kuniyo Yamada, Noriko Horimoto

9:35 2F02 Evaluation of Thermo- and Photo-Responsive Behavior of Monofunctional Dual Stimuli-Responsive Organogels
Seidai Okada, Eriko Sato, Yuta Koda, Hideo Horibe

10:00 2F03 Tunable Mechanical Properties of Deoxyribonucleic Acid Solid Films Based on Molecular Aggregation State Control
Hisao Matsuno, Yuma Morimitsu, Noboru Ohta, Hiroshi Sekiguchi, Atsushi Takahara, Keiji Tanaka

K. Tanaka, presiding

10:25 2F04 Fluorescent mechanophore for evaluation of polymer stress concentration
Shohei SAITO, Ryota KOTANI, Hidetsugu KITAKADO

10:50 2F05 Functionalization of adhesive by controlling chemical bonding
Masanobu NAITO

S. Saito, presiding

11:15 2F06 Development of Self-Assembled Polymer Gels Based on Supramolecular Complexes
Junya Uchida, Masafumi Yoshio, Sota Sato, Hiroyuki Yokoyama, Makoto Fujita, Takashi Kato

11:40 2F07 Preparation and Stress Relaxation of Noncovalent Bonded Elastomers Based on Styrenic Block Copolymers
Takato KAJITA, Haruka TANAKA, Atsushi NORO, Yushu MATSUSHITA, Kosuke ISOBE, Atsushi NOZAWA, Sadaharu HASHIMOTO

Y. Takashima, presiding

12:55 2F08IL Polymer Chemistry in Tailor-made Nanospaces
Takashi Uemura

13:45 2F10 Synthesis and Physical Properties of Insulated Metallopolymers
Jun Terao

T. Ogoshi, presiding

14:10 2F11 Development of Functional Polymer Films Having Bicontinuous Cubic Structures and Their Applications

Takahiro Ichikawa

- 14:35 2F12 Development of Molecular and Polymeric Materials Using Catalyst-Free Reaction between Electron-Deficient π -Systems and Nucleophiles
Atsuro TAKAI, Masayuki TAKEUCHI

T. Ichikawa, presiding

- 15:00 2F13 Effect of Molecular Parameters on Mechanical Properties and Autonomic Self-Healing Behavior of Dynamic Ion-Crosslinked Elastomer
Yohei Miwa, Junosuke Kurachi, Yusuke Sugino, Shoichi Kutsumizu

- 15:25 2F14 Screw-sense Induction of Achiral Poly(quinioxaline-2,3-diyl) Based on a Chirality Transfer through Non-covalent-bonding Interactions
Yuuya Nagata, Shoma Ikeda, Michinori Suginome

Y. Miwa, presiding

- 15:50 2F15 Guest Vapor-Induced State Change of Structural Liquid Pillar[6]arene
Tomoki Ogoshi, Keisuke Maruyama, Takahiro Kakuta, Tada-aki Yamagishi

- 16:15 2F16 Synthesis of Shape-Persistent Metallonobelts That Have No Rotatable Units
Yoko Sakata, Shigehisa Akine

H. Maeda, presiding

- 16:40 2F17 Time-dependent Supramolecular Polymerization of Amino-Acid-Based Diamides
Soichiro Ogi, Kentaro Matsumoto, Aiko Takamatsu, Shigehiro Yamaguchi

- 17:05 2F18 Inversion of supramolecular chirality realized by photo-controllable nucleation process
Shiki Yagai, Yuichi Kitamoto, Daisuke Inoue

Fri. Sep 14

S5. Creation of Innovative Methods for Control of Molecular Bond and Novel Functionality

R. Kubota, presiding

- 9:10 3F01 Creation of Novel Control Strategy for Chiral Molecule Synthesis with Unique Structure Utilizing Protein as Chiral Nanoreactor
Yuya Fujishiro, Sota Toyooka, Misaki Kawai, Masaki Nishijima, Yasuyuki Araki, Tadashi Mori, Yoshihisa Inoue, Takehiko Wada

- 9:35 3F02 Self-assembled behavior of glyco folder and their structural memory
Tomoki Nishimura, Shishi Shin, Yoshihiro Sasaki, Kazunari Akiyoshi

S. Uchida, presiding

- 10:00 3F03 Construction of functional supramolecular double network hydrogels comprising self-sorting nanofibers
Ryou Kubota, Hajime Shigemitsu, Wataru Tanaka, Takahiro

- Fujisaku, Itaru Hamachi
- 10:25 3F04 Asymmetric one-dimensional coordination structures and supramolecular band-gap engineering in halogen-bridged Pt complexes packaged with chiral lipid counter anions
Yuki Nagai, Masaya Matsuki, Masa-aki Morikawa, Teppei Yamada, Nobuo Kimizuka
- Y. Kohsaka, presiding**
- 10:50 3F05 Macrocyclic Pt-complex-catalyzed hydrosilylation reaction of acetylene-containing polymer substrate
Kazuki Higuchi, Kazuko Nakazono, Satoshi Uchida, Toshikazu Takata
- 11:15 3F06 Precise syntheses and sequence-oriented properties of alternating copolymers of methacrylic acid and acrylamide
Yuki Kametani, Takaya Terashima, Makoto Ouchi
- 11:40 3F07 Colorimetric and Fluorescent Anion Sensing by Helical Poly(diphenylacetylene) Derivatives Bearing Chiral Pendants
Yoichi Shimizu, Daisuke Hirose, Tatsuya Nishimura, Tomoyuki Ikai, Katsuhiro Maeda
- T. Terashima, presiding**
- 12:55 3F08 Synthesis of degradable polyesters by conjugate substitution reaction of α -(chloromethyl)acryloyl group and hybridization with common polyesters
Koki Nagai, Takumi Miyazaki, Yasuhiro Kohsaka
- 13:20 3F09 Main Chain-Scission and -Exchange Reactions of Poly(conjugate ester) by Conjugate Substitution.
Takumi Miyazaki, Nagai Koki, Kohsaka Yasuhiro
- K. Kokado, presiding**
- 13:45 3F10 Fabrication of fluorescent nanowires by solid-state polymerization triggered by high-energy charged particle irradiation and their formation mechanism
Shugo Sakaguchi, Tsuneaki Sakurai, Shu Seki
- 14:10 3F11 Assembled Behaviors and Functionalization of Polarity-Switchable π -Systems
Kazuto Nakamura, Hiromitsu Maeda
- Y. Nagata, presiding**
- 14:35 3F12 Control of Higher Order Structures of Platinum-containing Conjugated Polymers by Ligand Exchange Reaction
Takahiro Ishida, Yu Miyagi, Natsuhiko Sano, Fumio Sanda
- 15:00 3F13 Controlling polymerization degree and polymer configuration in step-wise polymerization by regulating encounter probability
Shizuka Anan, Yumi Mochizuki, Kenta Kokado, Kazuki Sada

Room G

Wed. Sep 12

S6. Multiscale Structure, Property and Dynamics in Polymers

- 9:50 1GSO Introductory Remarks S6
Hideaki Yokoyama, Ken Nakajima
- S. Nishitsuji, presiding**
- 10:00 1G03 Large Deformation of Main-Chain Liquid Crystal Elastomers
Asaka Takebe, Kenji Urayama, Haruki Tokumoto
- 10:25 1G04 In-situ Raman spectroscopic studies of microscopic deformation behaviors of polyethylene solid under hot drawing.
Takumitsu Kida, Yusuke Hiejima, Koh-hei Nitta
- 10:50 1G05 Synthesis of Water-soluble Polysaccharide Derivatives and Their Thermo-responsive Behaviors
Shunji Kimura, Shinichi Kitamura, Ken Terao
- K. Nakajima, presiding**
- 11:15 1G06 Static structure of double-network polymers
Taiki Tominaga
- 11:40 1G07 Ion Transport Properties of Poly(ionic liquid) Electrolytes in Non-aqueous Media
Keita Murai, Xiaoxiao Yang, Ryosuke Shioiri, Tatsuhiko Horii, Hisashi Kokubo, Kazuhide Ueno, Masayoshi Watanabe
- M. Mizukami, presiding**
- 12:55 1G08 in-situ measurement of self-assembling blockcopolymer thin film with GISAXS
Takuya Omosu, Mikihiro Takenaka, Hiroki Ogawa, Kenji Yoshimoto, Tsukasa Azuma, Katsuyoshi Kodera
- 13:20 1G09 Shape memory ability of graft copolymers with microphase separated structure
Hasumi Takagi, Shogo Nobukawa, Katsuhiko Inomata
- 13:45 1G10 An application of SAXS-CT for rubber-filler systems
Hiroki Ogawa, Mikihiro Takenaka, Takuya Omosu, Yukihiro Nishikawa, Taizo Kabe
- X. Liang, presiding**
- 14:10 1G11 Study on dynamics of aggregates in rubber filling system
Yu Nishimura, Mikihiro Takenaka
- 14:35 1G12 Polyrotaxane formation mechanism: Interfacial analysis of alpha-CDs inclusion onto PEG brush
Ken Fujita, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 15:00 1G13 Resonance Shear Measurement Study on the Contact Mechanics between Polymer Hydrogel-Silica Sphere
Masashi Mizukami, Huai-Yin Ren, Hidemitsu Furukawa, Kazue Kurihara
- H. Jinnai, presiding**
- 15:25 1G14 Study on Mechanical Properties of Thermoplastic Elastomer by Nano-palpation Atomic Force Microscope
Nanako Kotani, Xiaobin Liang, Ken Nakajima
- 15:50 1G15 Higher-Order Structure and Viscosity of Concentrated Solutions of the Flower Micelle and Flower Necklace Formed by an Amphiphilic Alternating Copolymer
Takahiro Sato, Yasuho Ohtani, Sahomi Takeuchi
- 16:15 1G16 Polyion complexation of an amphiphilic alternative copolymer and polycation in aqueous solution
Akira Kosaka, Takahiro Sato
- K. Kojio, presiding**

16:40	1G17	In-situ Raman spectroscopic study on the re-organization of microscopic structure in HDPE during annealing. <u>Misato Nabata</u> , Takumitsu Kida, Koh-hei Nitta
17:05	1G18	Effects of Molecular Weight and Composition Distributions on Microphase-Separated Structures of Block Copolymers <u>Komei Isono</u> , Takeshi Higuchi, Katsumi Hagita, Isamu Kuroki, Moriya Kikuchi, Seigou Kawaguchi, Hiroshi Jinnai
17:30	1G19	Neutron reflectivity measurements for phase separation and dewetting in dPS/P2ClS thin films <u>Takuto Fuwa</u> , Mikihiro Takenaka, Hiroki Ogawa, Toshiji Kanaya, Norifumi Yamada
17:55	1G20	Macroscopic single arrangement of perpendicular cylinder structure by orientation transition of liquid crystal Ayumu Tuchiya, <u>Motonori Komura</u>

Thu. Sep 13

S6. Multiscale Structure, Property and Dynamics in Polymers

T. Sakai, presiding

9:10	2G01	Microphase-separated structure of thermoplastic elastomers during various deformation modes and rates Dechnarong Nattanee, <u>Kazutaka Kamitani</u> , Shiori Masuda, Chao-Hung Cheng, Ayumi Hamada, Ken Kojio, Atsushi Takahara
9:35	2G02	Solvent effect on spin coating process of polystyrene-b-poly(2-vinylpyridine) thin film <u>Tsubasa Matsunaga</u> , Hiroki Ogawa, Mikihiro Takenaka, Tsukasa Miyazaki, Taizo Kabe
10:00	2G03	Complex Formation of Collagen and Colloidal Silica in Aqueous Media <u>Mari Otsubo</u> , Ken Terao

H. Furuya, presiding

10:25	2G04	Change in Molecular Aggregation State Induced during Scratch Testing and Scratch Resistance of Polymers Tomoko Kajiwara, Saburo Yamamoto, <u>Ken Kojio</u> , Atsushi Takahara
10:50	2G05	Supramolecular structure formation in meso 2,4-pentanediol <u>Nobuyuki Takahashi</u> , Do Y. Yoon, Wolfgang Paul
11:15	2G06	Elastic Modulus Evaluation of Polymer Materials at Microscopic Area with Indentation Method - Stress Relaxation and Attractive Force - <u>Akihiro KOIKE</u>
11:40	2G07	Drug uptake behavior of micelles formed from a triblock terpolymer <u>Shotaro Miwa</u> , Rintaro Takahashi, Carsten Rossel, Sakiko Matsumoto, Felix H. Schacher, Kazuo Sakurai

T. Matsumoto, presiding

12:55	2G08	Orientation Structure and Electrical Properties of Surface-grafted Polypeptide Thin Films Exhibiting Molecular Structure Transition
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- Hidemine Furuya, Kazuho Hosokawa, Takuto Matsuzono, Xianobin Liang, Shinji Ando, Ken Nakajima
- 13:20 2G09 Thermo-sensitive structural transformation of higher-order hierarchical structures of block-copolymer-based PIC and its transition dynamics
Takumi Egashira, Takeshi Mori, Yoshiki Katayama, Akihiro Kishimura
- 13:45 2G10 Evaluation of Resilient Properties of Concentrated Polymer Brushes by Means of Simultaneous Measurements of Film Thickness and Friction Coefficient
Hiroshi EGUCHI, Keita SAKAKIBAEA, Chiharu TADOKORO, Ken NAKANO, Yoshinobu TSUJII

Y. Tsujii, presiding

- 14:10 2G11 Elucidation of spontaneous phase separation accompanying gelation of hydrophilic polymer
Ikuo Fujinaga, Takamasa Sakai
- 14:35 2G12 Structure and physical property analysis of dynamic polymer brush by adhesion force measurement
Taihei Aoki, Hirokazu Tanoue, Satoahi Yamada, Kohzo Ito, Hideaki Yokoyama

S. Fujinami, presiding

- 15:00 2G13 Preparation and Gradient Properties of Molecular Weight Gradient Thin Films of Poly(ethylene oxide)
Norikazu Tanaka, Takuya Matsumoto, Takashi Nishino
- 15:25 2G14 Morphology of deoxyribonucleic acid adsorbed layer on solid interface
Yuma Morimitsu, Hisao Matsuno, Tanaka Keiji
- 15:50 2G15 An Effect of Interfacial Relaxation on Mechanical Properties of Rubber/Filler Composites
Shin Sugimoto, Manabu Inutsuka, Daisuke Kawaguchi, Keiji Tanaka

D. Kawaguchi, presiding

- 16:15 2G16 Analysis of Gelation Behavior for Methylcellulose Aqueous using Quartz Crystal Microbalance
Kenji Yamaoka, Yoshihisa Fujii, Naoya Torikai
- 16:40 2G17 Aggregation structure of cellulose microfibrils and dynamic viscoelastic property of polymer composite
Shuji Suzuki, Yoshihisa Fujii, Naoya Torikai
- 17:05 2G18 Dispersion State of Carbon Black and Viscoelastic Properties of the Composites Prepared by Using Different Dispersion Media
Yudai Fukunaga, Yoshihisa Fujii, Naoya Torikai

Fri. Sep 14

S6. Multiscale Structure, Property and Dynamics in Polymers

N. Torikai, presiding

- 9:10 3G01 The density fluctuations of amorphous polymer under deformation by using in-situ SAXS method
Shotaro Nishitsuji, Daisuke Iwahara, Hiroshi Ito, Masaru Ishikawa, Takashi Inoue, Mikihiro Takenaka

- 9:35 3G02 Heterogeneity of polymer dynamics under shear condition studied by X-ray photon correlation spectroscopy
Taiki Hoshino, So Fujinami, Tomotaka Nakatani
- 10:00 3G03 Molecular Aggregation States of Thermoplastic Polyurethane Elastomers under Various Deformations Using in situ X-ray Structural Analysis
Shiori Masuda, Shuhei Nozaki, Ken Kojio, Atsushi Takahara, Kazuki Mita, Satoshi Yamasaki

T. Hoshino, presiding

- 10:25 3G04 Dynamics of dangling chains, star and linear guest chains in rubber mesh
Rika Nagasaki, Kenji Urayama
- 10:50 3G05 Dynamics of polyrotaxane investigated by quasi-elastic neutron scattering and NMR
Yuta Hidaka, Koichi Mayumi, Takeshi Yamada, Hideaki Yokoyama, Kohzo Ito
- 11:15 3G06 Glass transition in thin polymer films and asymmetric interfacial dynamics
Koji Fukao, Megumi Ooe, Tatsuhiko Hayashi, Koichiro Sadakane, Norifumi Yamada

K. Terao, presiding

- 11:40 3G07 Dynamics of PMMA chains in spin-coated films studied by neutron reflectometry
Hiroyuki Aoki
- 12:55 3G08 Ordering and surface anchoring of nematic solvent on the liquid crystalline polymer brush
Takuya Yanagimachi, Xiao Li, Helou Xie, Paul Nealey, Kazue Kurihara
- 13:20 3G09 Effect of Hydrogen Bond on Hierarchical Dynamics of Polymers
Osamu Urakawa, Naoya Miyawaki, Tadashi Inoue

O. Urakawa, presiding

- 13:45 3G10 Diffusion Behavior of Water Molecules in Hydrogels with Controlled Network Structure
Takeshi Fujiyabu, Xiang Li, Takamasa Sakai
- 14:10 3G11 Acceleration of phase separation for poly(*N*-isopropylacrylamide) aqueous solution by copolymerization with hydrophilic monomer
Moe Kitaba, Tatsuya Shoji, Kayo Fujiwara, Mitsuhiro Matsumoto, Taka-Aki Asoh, Takashi Nishiyama, Hideo Horibe, Yasuyuki Tsuboi
- 14:35 3G12 Rheo-Optical Study on Semiflexible Polymer Solutions
Yuki Okada, Yuka Goto, Ken Terao, Takahiro Sato, Inoue Tadashi
- 15:00 3G13 Kinetics of Strain-induced Crystallization of Natural Rubber under Constant Supercooling
Masatoshi Tosaka

Room H

Wed. Sep 12

S4. Understanding of Failure Mechanism of Polymer Materials

- 9:50 1HSO Introductory Remarks S4
Wataru Shinoda
- K. Fujimoto, presiding**
- 10:00 1H03 Fracture toughness and crack visualization of CFRP/metal joint interface
Shin Horiuchi, Nao Terasaki, Hiroshi Morita
- 10:25 1H04 Control of mechanical properties on comb-shaped polyurethane bearing soft segment as side chain
Daisuke Aoki, Grandjean Audrey, Hiroharu Ajiro
- 10:50 1H05 Velocity transition in crack propagation of elastomers
Yoshihiro Morishita, Thanh-Tam Mai, Katsuhiko Tsunoda, Kenji Urayama
- 11:15 1H06 Mechanism of a velocity jump observed in crack propagation in rubbers
Naoyuki Sakumichi, Ko Okumura, Atsushi Kubo, Yoshitaka Umeno
- 11:40 1H07 Topology and fracture of model polymer networks
Tetsuo Yamaguchi, Yudai Onoue, Yoshinori Sawae
- W. Shinoda, presiding**
- 12:55 1H08IL Theoretical aspect to fracture behavior of polymeric solids
Koh-hei Nitta
- Y. Higuchi, presiding**
- 13:45 1H10 Multiscale modeling and simulation for fracture mechanism of structural polymer materials
Yoshitaka Umeno, Atsushi Kubo
- 14:10 1H11 Molecular Study of Impact Fracture of Amorphous Polymer I: Brittle Material - PMMA
Kazushi Fujimoto, Zhiye Tang, Rajdeep Payal, Wataru Shinoda, Susumu Okazaki
- 14:35 1H12 A molecular dynamics study of amorphous polymer undergoing impact destruction II: Ductile material - PC
Zhiye Tang, Rajdeep Payal, Kazushi Fujimoto, Wataru Shinoda, Susumu Okazaki
- T. Yamaguchi, presiding**
- 15:00 1H13 Formation Mechanism of Cyclodextrin Inclusion Complex: Coarse-Grained Simulation Study
Umi Yamamoto, Kohei Yamashita, Isamu Shigemoto, Sadayuki Kobayashi
- 15:25 1H14 Fracture process of crystalline polymers based on molecular theory via large-scale coarse-grained molecular dynamics simulation
Yuji Higuchi
- 15:50 1H15 Microscopic origin of the tensile behaviour of Rubber
Rajdeep Payal, Kazushi Fujimoto, Changwoon Jang, Wataru Shinoda, Yuki Takei, Hiroshi Shima, Katsuhiko Tsunoda, Susumu Okazaki
- 16:15 1H16 Fracture analysis of crosslinked phenolic resins with crosslink inhomogeneity using molecular dynamics simulations with reactive force field

Yasuyuki Shudo,Astushi Izumi,Katsumi Hagita,Mitsuhiro Shibayama

N. Sakumichi, presiding

- 16:40 1H17 Evaluation of Rubber Elasticity of Network Polymers using Molecular Dynamics Simulations
Hiroshi Sasaki
- 17:05 1H18 Atomistic molecular-dynamics simulations of stress-strain curves for amorphous polymers in their glassy states
Satoru Kuwajima
- 17:30 1H19 Rheo-optical near-infrared spectroscopy for characterizing deformation-induced variation of polymer
Hideyuki Shinzawa,Junji Mizukado
- 17:55 1H20 Development of the composite of UHMWPE and MWCNT having impact-resistance and abrasion-resistance
Takumi Okihara,Kazuki Miyamae,Kazutoshi Sagioka

Thu. Sep 13

S4. Understanding of Failure Mechanism of Polymer Materials

S. Fujinami, presiding

- 9:10 2H01 The influence of annealing condition and molecular weight on toughness of polycarbonate
Toshiki Sato,Shotaro Nishitsuji,Hiroshi Ito,Masaru Ishikawa
- 9:35 2H02 Synthesis and property control of mechanochromic polyurethanes exhibiting color change and photoluminescence toward visualization of material failure
Daisuke Aoki,Marina Nukui,Hideyuki Otsuka
- 10:00 2H03 Toughening by Controlling of Ordered Network Structure of Liquid Crystalline Epoxy Resins
Miyuki HARADA,Kosuke YAMAGUCHI
- 10:25 2H04 Characteristic Behavior of Silicone Insulating Material by Radiation Exposure
Naoki Yasuda,Takashi Miyamoto,Shinichi Okada,Yasuhiro Fukuta

T. Kuriyama, presiding

- 10:50 2H05 Hierarchical Heterogeneity in Epoxy Curing Process
Atsuomi Shundo,Mika Aoki,Keiji Tanaka
- 11:15 2H06 Toughening polymeric materials by molecular necklace
Koichi Mayumi,Chang Liu,Yuta Hidaka,Wenshun Shi,Jiang Lan,Rina Maeda,Hideaki Yokoyama,Kohzo Ito
- 11:40 2H07 In situ Analysis of Molecular Aggregation State and Fracture Mechanism of Polymer Films during Bulge Deformation
Aya Fujimoto,Chugusa Nagano,Shiori Masuda,Chao-Hung Cheng,Shuhei Nozaki,Ken Kojio,Astushi Takahara

K. Mayumi, presiding

- 12:55 2H08 Fabrication of Novel Polyamide 6/Polyrotaxane Blends with Excellent High Speed Deformation Properties and Observation of Fracture Process

Hiroshi Ito,Yuki Kodama,Akira Ishigami,Takashi Kurose,Shotaro Nishitsuji

- 13:20 2H09 Development of inorganic-organic composite material by complexing of silica fine particles and Measurement of mechanical and optical properties.
Eiji Miwa,Kenta Watanabe,Yukikazu Takeoka,Takahiro Seki,Kenji Urayama
- 13:45 2H10 Relationship between higher order structure of electrolyte membrane for fuel cell and its durability of dry/wet cycle
Tatsuya Miyajima,Susumu Saito,Takumi Okuyama,An-Tsung Kuo,Tetsuji Shimohira
- 14:10 2H11 Visualization of Flemion membrane structural change under tensile load by wide and small angle X-ray scattering
So Fujinami,Taiki Hoshino,Tomotaka Nakatani,Masaki Takata

T. Nakatani, presiding

- 14:35 2H12 Observation of fracture process and Physical Properties of highly transparent polymethyl methacrylate / polyrotaxane blends
Kazuki Watanabe,Akira Ishigami,Takashi Kurose,Hiroshi Ito
- 15:00 2H13 Fracture of porous polymer sheets: crack propagation and dynamic fracture energy
Ko Okumura
- 15:25 2H14 Measurement of local mechanical properties for tough polymer by nano-palpatation AFM
Xiaobin Liang,Ken Nakajima

X. Liang, presiding

- 15:50 2H15 void formation and deformation during uniaxial drawing of beta phase isotactic polypropylene
Takahiko Kawai,Shota Soeno,Shin-ichi Kuroda,Shunsuke Koido,Tomoyuki Nemoto
- 16:15 2H16 Effect of hierarchical structure on toughness of Poly (vinyl chloride)
Takashi Kuriyama,Masahisa Enomoto
- 16:40 2H17 Effect of stress hold time on the life of fatigue fracture for injection molded Polyamides.
Toshiki Akitomo,Susumu Kuriyama,Takashi Kuriyama
- 17:05 2H18 Evaluation of dispersion state of silica particles in rubber during elongation by SAXS and RMC modelling
Tomotaka Nakatani,Shinji Kohara,Taiki Hoshino,So Fujinami,Masaki Takata

Room I

Wed. Sep 12

S3. Hierarchical Structure and Dynamics of Polymer Composites

- 14:00 1ISO Introductory Remarks S3

Yu Suzuki, Koto Suganuma

H. Yoshimizu, presiding

- 14:10 1I11 Structure analysis of blockiness controlled poly (vinyl alcohol-co-vinyl acetate) by NMR
Yasunari Kusaka, Misaki Senoo, Nami Hamamae, Miyuki Oshimura, Tomohiro Hirano, Kouichi Ute
- 14:35 1I12 Structure analysis of polysaccharide synthesized by glucosyltransferase GtFL
Ryosuke Kusumi, Shinichi Asai, Tsunehisa Kimura, Masahisa Wada, Satoshi Kimura
- 15:00 1I13 NMR analysis of the stereoregularity of poly(lactic acid) through the use of solvent effect
Koto Suganuma, Miyuki Oshimura, Tomohiro Hirano, Koichi Ute, H.N. Cheng, Tetsuo Asakura

K. Suganuma, presiding

- 15:25 1I14 Chemical Structure of Free-volume Holes elucidated by Low-energy Positron Age-momentum Correlation Measurements
Kenji Ito
- 15:50 1I15 Study on free volume of functionalized polypropylene/silica composite by positron annihilation lifetime spectroscopy
Ryota Watanabe, Hideaki Hagihara, Hiroaki Sato
- 16:15 1I16 Study on structure and degradation mechanism of carbon-fiber-reinforced plastic degraded by hot steam
Hideaki Hagihara, Tomio Shimada, Ryota Watanabe, Masahiro Funabashi, Masao Kunioka, Hiroaki Sato

N. Asakawa, presiding

- 16:40 1I17 SIMULTANEOUS MEASUREMENTS OF SMALL-ANGLE AND WIDE-ANGLE NEUTRON SCATTERING WITH FTIR SPECTROSCOPY: TEMPERATURE DEPENDENT STRUCTURAL CHANGES OF CRYSTALLINE POLYMER COMPLEX SYSTEMS
Fumitoshi Kaneko, Aurel Radulescu, Hiroki wase, Shinnichi Takata, Masayoshi Nishiura, Zhaomin Hou
- 17:05 1I18 Development of polarized infrared/near-infrared spectroscopic imaging technique and its application to polymer products
Yuta Hikima, Ryoki Mitsui, Masahiro Ohshima
- 17:30 1I19 Development of dynamic nuclear polarization contrast variation neutron scattering instrument at iMATERIA spectrometer
Yohei Noda, Satoshi Koizumi
- 17:55 1I20 Relation between molecular dynamics and molecular weight using muon spin relaxation method
Soshi Takeshita, Koichiro Shimomura, Hirotaka Okabe, Masatoshi Hiraishi, Akihiro Koda, Kenji Kojima, Ryosuke Kadono, Hideki Seto

Thu. Sep 13

S3. Hierarchical Structure and Dynamics of Polymer Composites

K. Yamada, presiding

- 9:10 2I01 Crystalline Structure and Dynamics of Ethylene Ionomers investigated by VTMS NMR

- Atsushi Asano, Takayuki Matsukawa, Chikako T. Nakazawa
- 9:35 2I02 Characterization of poly(γ -glutamic acid) and its complexes by solid NMR
Shiro Maeda
- 10:00 2I03 Phase structure of ultrahigh molecular weight polyethylene investigated by solid-state high resolution ^{13}C NMR
Takahiko Nakaoki, Takanari Ikenishi

S. Kawahara, presiding

- 10:25 2I04 Development of solid-state NMR of sulfur-containing polymers
Kazuhiko Yamada
- 10:50 2I05 Cooperativity and its temperature dependence of polymer dynamics as investigated with a surface controlled CRR model
Takashi Sasaki, Akinori Sato, Tatsuki Nakane
- 11:15 2I06 Research for strain-induced density fluctuations in glassy materials
yuta Ikeda, Mikihiro Takenaka

Y. Suzuki, presiding

- 13:20 2I09 Structure and Dynamics of Spider Silks studied using Solid-State NMR
Tetsuo Asakura, Hironori Matsuda, Yugo Tasei, Akio Nishimura, Naomi Kataoka, Akiko Imai
- 13:45 2I10 Relationship between hierarchical structure and mechanical property of silks revealed by synchrotron X-ray analysis
Taiyo Yoshioka, Tsunenori Kameda, Kohji Tashiro
- 14:10 2I11 Development of Silk Fibroin-based Composite for Tissue Engineering Materials in the Cardiovascular System
Yasumoto NAKAZAWA, Natsui HATTORI, Tadakatsu HONDA, Chikako NAKAZAWA, Atsushi ASANO, Tsunemori KAMEDA, Yusuke IBE, Takaki JONO

A. Asano, presiding

- 14:35 2I12 Structural changes of silk proteins under the magic angle spinning studied by solid state NMR
Yu Suzuki, Shota Morie, Takanori Higashi
- 15:00 2I13 Higher order structure analysis based on pMAIRS method for aromatic polyimide thin film prepared from liquid crystalline precursor
Ryohei Ishige, Kazuyuki Tanaka, Keita Yanase, Shinji Ando
- 15:25 2I14 Highly ordered lamellar structures constructed by blending amorphous-b-liquid crystal-b-amorphous triblock copolymer and liquid crystal homopolymers
Mikihiro Hayashi, Masatoshi Tokita
- 15:50 2I15 pH Dependence of Pressure Sensitive Adhesive Properties of Poly(Acrylic Esters)/Nanodiamond Composites
Takuya Matsumoto, Kota Mizutani, Chizuru Hongo, Takashi Nishino

R. Kusumi, presiding

- 16:15 2I16 Self-assembled deposits of LC polysaccharide obtained in confined space by manipulating temperature and concentration
Gargi Joshi, Kosuke Okeyoshi, Tatsuo Kaneko
- 16:40 2I17 Analysis of Factors Influencing Physical Properties of Polyurethane Hot Melt Adhesive
Amano Yoshihiro, Akihiro Unno, Shodai Ishida, Souichirou

17:05 2I18 Komiya,Junichi Kamei
 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [21]; Consideration for Re-orientation of Crystallite Induced by Inner Diffusion of Polyiodides.(6) - Bi-directional Structure of Polyamide Cites for Diffusion and Self-organization by Halogen-bonds between Polyiodides - Akio KAWAGUCHI

Fri. Sep 14

S3. Hierarchical Structure and Dynamics of Polymer Composites

Y. Kusaka, presiding

9:10 3I01 High-sensitivity measurements of materials by DNP-NMR
Hironori Kaji

9:35 3I02 Characterization of gas diffusion properties of polymers by NMR methods
Hiroaki Yoshimizu

10:00 3I03 g-anisotropy in organic semiconductor device explored by variable frequency EDMR experiments
Naoki Asakawa,Kunito Fukuda

H. Kaji, presiding

10:25 3I04 Preparation and Properties of Natural Rubber with Nanodiamondo-nanomatrix Structure
Seiichi Kawahara,Asangi Gannoruwa,Yoshimasa Yamamoto

10:50 3I05 Characterization of epoxidized natural rubber and brominated natural rubber prepared through electrolysis
Yoshimasa Yamamoto,Seiichi Kawahara

11:15 3I06 Research for hierarchical structures in vulcanized rubber by using contrast variation
Yuki Watanabe,Mikihito Takenaka,Shotaro Nishitsuji,Daisuke Yamaguchi,Satoshi Koizumi

11:40 3I07 3D analysis of SBR/IR rubber blends with silica composites by STEM-EDX tomography
Shin Horiuchi,Hideki Hakukawa,Ryota Yamamoto,Jun Morita

Room J

Wed. Sep 12

S7. Present and Perspective of Water Research as Fundamental Science and Applications

9:50 1J50 Introductory Remarks S7
Toshiyuki Shikata,Tsutomu Uchida

T. Shikata, presiding

10:00 1J03 Local hydrogen bonding of water in the bulk and interfaces

analyzed by X-ray spectroscopy

Yoshihisa Harada

- 10:25 1J04 Analysis of the molecular dynamics of water in wood using dielectric measurements
Seiichi Sudo, Youki Suzuki, Hironobu Saito, Tsubasa Kawaguchi, Fumiya Abe, Takao Hori, Akihiro Nishi, Shin Yagihara

T. Sato, presiding

- 10:50 1J05 Liquid-liquid critical point hypothesis of water and the polyamorphic state of solvent water in the glycerol aqueous solution.
Yoshiharu Suzuki
- 11:15 1J06 Incoherent scattering of hydrogen observed by time-of-flight SANS
Satoshi koizumi, Yohei Noda, Takumi Inada
- 11:40 1J07 Reconsideration of the relaxation dynamics of liquid water based on ultrabroadband dielectric spectroscopy
Keiichiro Shiraga

Y. Harada, presiding

- 13:20 1J09 In-situ MS of propagating carbocations at the air-water interface
Shinnosuke Ishizuka, Akira Matsugi, Testsuya Hama, Shinichi Enami
- 13:45 1J10 Dynamics of polymer adsorption and sequential flocculation on the basis of collision frequency between colloidal particles
yasuhisa adachi, kazuyoshi ogawa, Yiran Zhuang, Leonid Ilyasov

S. Sudo, presiding

- 14:10 1J11 Hydration Behavior and Rheology of Hydroxyethyl Cellulose
Kengo Arai, Toshiyuki Shikata
- 14:35 1J12 Molecular Motion in Aqueous Solution of Tilapia Scale Collagen
Shotaro Kishi, Sho Kubo, Ryusuke Nozaki
- 15:00 1J13 Characterization of water structures in aqueous materials from aggregation/dispersion of hydrogen bonding networks
Shin Yagihara

Y. Adachi, presiding

- 15:25 1J14 Effects of added organic salts on gelation and phase separation of aqueous methylcellulose solution
Motoki Shibata, Taiki Imai, Tsuyoshi Koga, Koji Nishida
- 15:50 1J15 The correlation among microstructure, hydration, and ion fluctuation in micellar solutions and cationic vesicle dispersions designed as the base for household products by means of scattering and spectroscopic techniques
Takaaki Sato, Keiichi Yanase, Miku Obikane, Richard Buchner, Akinori Igarashi, Taku Ogura
- 16:15 1J16 Hydration/dehydration behavior and micro-globule formation related to critical phenomena of a thermo-sensitive polymer in aqueous media
Keiichi Yanase, Richard Buchner, Takaaki Sato

S. Yagihara, presiding

- 16:40 1J17 Relationship between mechanical properties and nano-structure of the transient network structure constructed with telechelic polymers

		<u>Isamu Kaneda</u> , Atsushi Nunomi, Shogo Shibata, Yuko Nasuda, Masato Ohnuma
17:05	1J18	Colloidal Dispersion State of Phase Separating Aqueous Solutions of Poly(N-isopropylacrylamide) <u>Jiayun Han</u> , Rintaro Takahashi, Takahiro Sato
17:30	1J19	Molecular mechanism of thermal gelation of aqueous polymer solution revealed by statistical thermodynamics <u>Noriyuki Isobe</u> , Shigeru Deguchi, Seishi Shimizu
17:55	1J20	Study on Hydration and Phase Behavior of Temperature-Responsive Copolymers <u>Yasushi Maeda</u> , Koudai Nishimoto, Shinji Sugihara

Thu. Sep 13

S7. Present and Perspective of Water Research as Fundamental Science and Applications

R. Nozaki, presiding

9:10	2J01	Dielectric study of dynamics and glass transition in polymer-water mixtures <u>Kaito Sasaki</u> , Rio Kita, Naoki Shinyashiki, Shin Yagihara
9:35	2J02	Correlations between self-assembly structures and hydration states of lipids and surfactants <u>Mafumi Hishida</u>
10:00	2J03	Dynamical behavior of hydration water between lipid bilayers Yamada Takeshi, Nobuaki Takahashi, Taiki Tominaga, Shin-ichi Takata, <u>Hideki Seto</u>

Y. Maeda, presiding

10:25	2J04	Studies on cryoprotectants for cryopreservation of living cells <u>Tsutomu Uchida</u> , Maho Furukawa, Takahiro Kikawada, Kenji Yamazaki, Kazutoshi Gohara
10:50	2J05	Effects of the degree of branching of the chemically modified beta-1,3-glucan on the conformation and the order-disorder transition <u>Kazuto Yoshiba</u> , Toshiaki Dobashi, Toshihiko Saheki, Bjorn E. Christensen
11:15	2J06	Water Structure at Hemocompatible Polymer/Water Interfaces Revealed by Interface selective Nonlinear Spectroscopy <u>Satoshi Nihonyanagi</u> , Anton Myalitsin, Shu-hei Urashima, Sanat Ghosh, Shoichi Yamaguchi, Junji Yanagisawa, Takashi Aoki, Tahei Tahara
11:40	2J07	Molecular dependence of collagen model peptide studied by Infrared and low frequency Raman spectroscopy <u>Tomoki Nagahama</u> , Harumi Sato

K. Yoshiba, presiding

12:55	2J08	Effect of absorbed water on the physical properties of globular polymeric films <u>Naoki Sasaki</u> , Kazuya Furusawa
13:20	2J09	Technology for reducing paint-spatter by controlling viscoelasticity of waterborne paint <u>Satoshi Ishida</u> , Kenta Koike

- 13:45 2J10 Elucidation of the mechanism of fabric softener
Takako Igarashi, Koichi Nakamura, Masato Hoshi, Shigeto Inoue, Takeshi Kaharu, Ken-ichiro Murata
- T. Shikata, presiding**
- 14:10 2J11 Solution properties caused by hydrophobic interaction of novel polysaccharide derivatives and its application to cosmetic products.
Masanori Takai, Makoto Tsuji, Hiromi Nanbu
- 14:35 2J12 Low-frequency Raman scattering of NaOH, KOH solutions and water
Yuko Amo, Takuya Oomura, Masataka Watanabe, Kameda Yasuo, Takeshi Usuki

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

S. Saito, presiding

- 16:15 2J16 Synthesis and evaluation of spiropyran-containing thermoresponsive gel particles
Mitsunori Moribe, Yu Hoshino, Yoshiko Miura
- 16:40 2J17 Photoinduced bending behavior of N-benzylideneaniline Liquid Crystalline Polymer Film Prepared with Area-Selectively Sublimated Crosslinker
Wataru Yamaguchi, Mizuho Kondo, Ryohei Fukae, Nobuhiro Kawatsuki
- 17:05 2J18 Photoresponsive behavior of H-bonded N-benzylidene aniline liquid crystalline composite film composed of pyridine terminated molecule and hydrogen bonded liquid crystal polymer
Daijiro Kojima, Mizuho Kondo, Nobuhiro Kawatsuki

Fri. Sep 14

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

K. Tanaka, presiding

- 9:10 3J01 Synthesis and Self-Organized Behavior of Acid-Responsive Room Temperature Fluorescent Liquids
Yuika SATO, Kyosuke ISODA
- 9:35 3J02 Control of Fluorescent Color and Rheology for Stimuli-Responsive Photoluminescent N-Heteroacenes
Kyosuke ISODA
- 10:00 3J03 Photon upconversion based on triplet exciton diffusion in luminescent ionic glass
Shota Hisamitsu, Nobuhiro Yanai, Nobuo Kimizuka
- 10:25 3J04 Optical Properties of Strain-Responsive Layered Cholesteric-Liquid-Crystal Elastomer Films
Seiya Kimura, Kyosun Ku, Kyouhei Hisano, Osamu Tsutsumi, Norihisa Akamatsu, Atsushi Shishido

K. Isoda, presiding

- 10:50 3J05 Flapping Fluorescent Mechanophore: Activation Accompanied by

Void Collapse in a Crystalline Phase and Incorporation into Polymer Chains
Takuya Yamakado, Kazuya Otsubo, Atsuhiko Osuka, Shohei Saito

- 11:15 3J06 Fluorescent dendrimer crystals that display thermo-, vapor-, and piezochromism
Jooyoung Yoo, Sae Nakajima, Albrecht Ken, Yohei Takeda, Satoshi Minakata, Kouju Yamamoto, Yohei Yamamoto
- 11:40 3J07 Control of highly fluorescent polyimides using liquid crystallinity and polarization character of fluorescent emission.
Keita Yanase, Kazuyuki Tanaka, Ryohei Ishige, Shinji Ando

N. Akamatsu, presiding

- 12:55 3J08 Phase transition behavior of aqueous solution of temperature-responsive triblock copolymer micelles
Shinjiro Machida, Tomohiro Tamaki, Minami Yoshida, Tomoko Tada, Naoki Tanaka, Tomonori Waku, Noriaki Ikeda
- 13:20 3J09 Observation of Crosslinked Structural Change in Dynamic Ion-Crosslinked Elastomer during Stretching
Junosuke Kurachi, Yohei Miwa, Yusuke Sugino, Shoichi Kutsumizu
- 13:45 3J10 Supramolecular ionic liquid gel cross-linked by host-guest inclusion complexes.
Garry Sinawang, Yuichiro Kobayashi, Motofumi Osaki, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada

H. Yamaguchi, presiding

- 14:10 3J11 Thermoresponsive copolymers having two kinds of interaction sites and their phase transition behavior
Naoki Fukaya, Yoshiki Kuroshima, Kenta Kokado, Kazuki Sada
- 14:35 3J12 Fabrication of a molecular alignment layer for liquid crystals by scanning wave photopolymerization
Yoshiaki Kobayashi, Norihisa Akamatsu, Atsushi Shishido
- 15:00 3J13 Thermo-responsive behavior of amphoteric diblock copolymers in water
Yuuki Kawata, Shohei Kozuka, Shin-ichi Yusa
- 15:25 3J14 Physicochemical Properties of Thermo-responsive Hydrogels
Takuma Kureha, Kyohei Hayashi, Xiang Li, Mitsuhiro Shibayama

Room K

Wed. Sep 12

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

I. Akiba, presiding

- 10:00 1K03 Insolubilization of cyclodextrin nonwovens by post-crosslinking
Yoshihiro Ozawa, Hiroaki Yoshida
- 10:25 1K04 Electrospinning of Cyclodextrins into Nonpolar Solvents

Kenta Sakuragi, Hiroaki Yoshida

T. Yamamoto, presiding

- 10:50 1K05 Synthesis of Amphiphilic Two-Dimensional Polymer by Photocycloaddition at Air/Water Interface
Kohei Iritani, Yuki Uno, Kazuki Kunimoto, Kazukuni Tahara, Keiji Hirose, Yoshito Tobe
- 11:15 1K06 Fabrication of polyrotaxane nanosheet
Shuntaro Uenuma, Rina Maeda, Hideaki Yokoyama, Kohzo Ito
- 11:40 1K07 Application of polyrotaxane nanosheet
Rina Maeda, Shuntaro Uenuma, Kengo Kasai, Hideaki Yokoyama, Kohzo Ito

H. Yoshida, presiding

- 12:55 1K08 Characterization of Polymer Disks and Their Application to Carriers for Turbidimetric Assay
Kenichi Ishikura, Daiki Sogabe, Atsushi Nakagawa, Yosuke Okamura
- 13:20 1K09 Monodisperse Oligosaccharide-Solanesol Block Copolymers for Single Nano-Order Self-Assembled Structures
Ryoya Komaki, Nao Kawakami, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
- 13:45 1K10 Inclusion of poly(ethylene glycol) by Cyclic Peptide Amphiphile
Kosuke Morimoto, Satoshi Kanazawa, Isamu Akiba

N. Miyamoto, presiding

- 14:10 1K11 Characterization of Nanodiamond Reinforced Peroxides-crosslinked Natural Rubber Nanocomposite
Takatsugu Kato, seira Morimune-Moriya
- 14:35 1K12 Control of semiconductor nanocrystal arrangement by self-assembly of organic dye
Mitsuaki Yamauchi, Sadahiro Masuo

H. Yokoyama, presiding

- 15:00 1K13 Structural analysis on fuel cell catalyst using small-angle neutron scattering -Approach from micelle solution-
Takumi Inada, Satoru Ueda, Yohei Noda, Satoshi Koizumi
- 15:25 1K14 Thermoresponsive sol-gel transitions and microstructures of PEG-PLGA/laponite hydrogels
Tomoki Maeda, Atsushi Hotta, Yohei Noda, Satoshi Koizumi

Y. Miwa, presiding

- 15:50 1K15 Gradient-type organic-inorganic hybrid coating films fabricated by radical and anionic UV curing
Ayano Sasaki, Hidenori Munekata, Masahiro Furutani, Koji Arimitsu
- 16:15 1K16 Grafting polysilanes on titania particles through the polymer photofragmentation and photocatalytic activity of the modified particles
Miki Kudo, Masahiro Furutani, Koji Arimitsu

S. Morimune-Moriya, presiding

- 16:40 1K17 Synthesis of liquid crystalline nanosheets/polyurethane composite fiber
Toki Morooka, Yutaka Ohsedo, Nobuyoshi Miyamoto
- 17:05 1K18 Synthesis of nanosheet/polymer hybrid by hydro gel template

Toshiki Furukawa, Yutaka Ohseido, Nobuyoshi Miyamoto

R. Maeda, presiding

- 17:30 1K19 Control of Physical Properties of Ethylene Ionomer via Blending of Fatty Acids
Manato Koike, Yohei Miwa, Yu Kohbara, Shoichi Kutsumizu
- 17:55 1K20 Preparation of hybrid polymer particles and construction of porous polymeric structures by accumulation of water nanodroplets
Ryota Fujino, Yuuka Fukui, Keiji Fujimoto

Thu. Sep 13

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Y. Imai, presiding

- 9:10 2K01 Synthesis of hybrids materials using micellar templates self-organized from amphiphilic tooth-brush like block copolymers.
Moemi Takita, Ren-Hua Jin
- 9:35 2K02 Syntheses and composites of surface-modified cellulose nanofibers for the enhancement of the mechanical property of poly(ϵ -caprolactone)
Hiroki Ichimura, Naruki Kurokawa, Atsushi Hotta

S. Kutsumizu, presiding

- 10:00 2K03 Improvement of high frequency composite dielectric materials by fine control of filler structure
Yusuke Imai, Akinori Kan, Yuji Hotta, Hirotaka Ogawa
- 10:25 2K04 The acceleration of polymerization at the interface into CF RTP made with in-situ polymerizable PA6
Toshihira Irisawa, Masataka Shibata, Tetsuya Yamamoto, Yasuhiro Tanabe

S8. Computational Science Cutting-edge for Polymer Materials Development

- 11:05 2KSO Introductory Remarks S8
Takashi Honda

T. Honda, presiding

- 11:15 2K06IL Multiscale simulation methods for analysis of complex polymeric flows
Youhei Morii, Toshihiro Kawakatsu

H. Morita, presiding

- 12:55 2K08 Molecular dynamics study on wettability of poly(vinylidene fluoride) (PVDF) crystalline and amorphous surfaces
Masahiro Kitabata, Tseden Taddese, Susumu Okazaki
- 13:20 2K09 Multiscale Simulation of Polymeric Material
Takahiro Murashima
- 13:45 2K10 Large-scale Coarse-grained MD Simulations and Two-Dimensional Scattering Pattern Analyses
Katsumi Hagita

- 14:10 2K11 Deformation of a droplet with surfactant under flow
Taku Ozawa, Takashi Honda, Toshihiro Kawakatsu
- T. Murashima, presiding**
- 14:35 2K12 Extension of the OCTA system for the experimental data cooperation of composite material
Jun Morita, Yamamoto Ryouta, Saito Ken, Aoyagi Takeshi, Hiroshi Morita
- 15:00 2K13 Elongation viscosity prediction of branch polymers by machine learning
Ryuichi Sakashita, Jun-ichi Takimoto, Yuichi Iwakata, Kenta Chaki
- 15:25 2K14 Analysis of the stress network inside TPE using graph theory
Hiroshi Morita, Ayano Miyamoto
- 15:50 2K15 SCF calculation of polymer composite materials
Takashi Honda
- T. Ozawa, presiding**
- 16:15 2K16 Quantum-chemical study of structural formation mechanism and intermolecular interactions of polymer-iodine complexes
Kohji Tashiro, Tomohiko Takahama, MengFan Wang
- 16:40 2K17 Relationships between macroscopic mechanical properties and microscopic molecular structure of slide-ring gels.
Yusuke Yasuda, Masatoshi Toda, Mayumi Koichi, Hideaki Yokoyama, Hiroshi Morita, Kohzo Ito
- 17:05 2K18 Simulation of Phase Separation in Binary Fluid Containing Particles
Hiroto Ozaki, Takeshi Aoyagi, Ryoichi Yamamoto

Fri. Sep 14

S8. Computational Science Cutting-edge for Polymer Materials Development

T. Uneyama, presiding

- 9:10 3K01 Analysis of mechanical properties of liquid crystal elastomer using coarse-grained model
Kenji Tagashira, Z. Kazuaki Takahashi, Hideo Doi, Jun-ichi Fukuda, Takeshi Aoyagi
- 9:35 3K02 Analysis of Wetting Behavior of Monomer Droplet by Using Coarse-Grained Molecular Dynamics Method
Hiroshi Ito, Shigenori Matsumoto, Tomohisa Suzuki, Taisuke Sugii, Takeshi Taresaki, Hiroshi Moriya
- 10:00 3K03 Polymer chain rotation under shear flow by coarse-grained molecular dynamics method
Naoki Kobayashi, Jun-ichi Takimoto
- 10:25 3K04 Molecular Simulations for development of functional polymers
Hitoshi Washizu
- N. Kobayashi, presiding**
- 10:50 3K05 Coarse-grained molecular dynamics simulation under constant electrode potential
Takeshi Aoyagi
- 11:15 3K06 Field-induced dipolar attraction between like-charged colloids

Chunyu Shih, John J. Molina, Ryoichi Yamamoto
11:40 3K07 Dissolution of Cellulose and Chitin in Ionic Liquids: Theoretical Study
Takuya Uto, Satoshi Idenoue, Kazuya Yamamoto, Jun-ichi Kadokawa

T. Aoyagi, presiding

12:55 3K08 Complexation of a Charged Dendrimer with a Linear Polyelectrolyte :Effect of Dendrimer Generation Number
Mitsunori Kobara, Susumu Fujiwara, Tomoko Mizuguchi, Masato Hashimoto

13:20 3K09 Properties of a High-Level Coarse-Grained Model with Transient Bonds
Takashi Uneyama

13:45 3K10 Simulation study of the network structure of tetra-PEG gel
Jun-ichi Takimoto, Megumi Murakami, Miho Kameda, Sathish Sukumaran

14:10 3K11 Comparison among multi-chain models for entangled polymer dynamics
Yuichi Masubuchi, Takashi Uneyama

Y. Masubuchi, presiding

14:35 3K12 Molecular Simulation of Structure and Mechanical Properties of Polymer Gels Synthesized by Radical Polymerization
Tsutomu Furuya, Tsuyoshi Koga

15:00 3K13 Investigation of layer structure of mesogenic epoxy resins by reactive coarse-grained molecular dynamics simulations
Taisuke Sugii, Hiroshi Ito, Shigenori Matsumoto, Shingo Tanaka, Hiroshi Moriya, Naoki Maruyama, Minoru Hoshino, Naotaka Tanaka, Yoshitaka Takezawa

Room L

Wed. Sep 12

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

T. Okamoto, presiding

10:00 1L03 Analysis of $1/f$ fluctuation in current-time profiles measured by c-AFM on cyclic β peptide nanotubes having functional groups
Hiroshi Oomura, Yusuke Kamano, Yuki Tabata, Hirotaka Uji, Shunsaku Kimura

10:25 1L04 Piezoelectricity of Peptide Nanotubes Self-Assembled by Cyclic Peptides Based on AFM Analyses
Yuki Tabata, Kazushi Takagaki, Hirotaka Uji, Shunsaku Kimura

10:50 1L05 Structural and electronic characterizations of bola-type helical peptide molecular assembly incorporating pi-conjugates in two-dimensional crystals
Hirotaka Uji, Junya Ogawa, Shunsaku Kimura

I. Osaka, presiding

- 11:15 1L06 Synthesis of PEDOT:PSS and Improvement of Electrical Conductivity by Acid Treatment
Naoya Katsuyama, Takumi Ozawa, Hidenori Okuzaki
- 11:40 1L07 Synthesis of Highly Conductive Self-Doped PEDOT
Kazuki Kudo, Hirokazu Yano, Hidenori Okuzaki
- H. Uji, presiding**
- 12:55 1L08 Enhancement of Anti-Vibration Property for Aligned-Type Piezoelectric Rubber
Tatsuya Ota, Shogo Mamada, Hiroyuki Takenaka
- 13:20 1L09 Analysis of Photoconduction Mechanism of Polyimide Films Containing Diphenyl-benzidine Structure via Applied Voltage Dependence of Photocurrent Spectra
Chiaki Takemasa, Shigeo Asai, Ryohei Ishige, Shinji Ando
- 13:45 1L10 Impact of isomeric structure on electronic and charge transport properties in bithiophenedione semiconducting polymers
Tsubasa Mikie, Aiko Fukazawa, Shigehiro Yamaguchi, Itaru Osaka
- 14:10 1L11 Synthesis of helical magnetic polymer transferring cholesteric liquid crystal structure
Masashi Otaki, Hiromasa Goto
- H. Okuzaki, presiding**
- 14:35 1L12 Synthesis and Charge Transporting Capability of Conjugated Polymers Based on Zigzag-shaped Chrysenodithiophene Backbone
Tadanori Kurosawa, Daiji Ikeda, Akito Yamamoto, Junichi Takeya, Toshihiro Okamoto
- 15:00 1L13 Structure-Property Relationship of High Mobility N-Shaped Organic Semiconductors for Large-Area Solution-Processed Devices
Masato Mitani, Chikahiko Mitsui, Akifumi Yamamura, Masakazu Yamagishi, Hiroyasu Sato, Akihito Yamano, Daisuke Hashizume, Hiroyuki Ishii, Jun Takaya, Toshihiro Okamoto
- 15:25 1L14 Synthesis and carrier transport property of fluorine-substituted quinoxalineimide derivatives
Tsukasa Hasegawa, Minoru Ashizawa, Susumu Kawauchi, Hidetoshi Matsumoto
- 15:50 1L15 Synthesis and carrier-transport property of cyano-substituted nitrogen-containing perylene diimide n-type organic semiconductors
Takeru Koguma, Shohei Kumagai, Hiroyuki Ishii, Eiji Fukuzaki, Yukio Tani, Hiroki Sugiura, Tetsuya Watanabe, Tadanori Kurosawa, Jun Takeya, Toshihiro Okamoto
- Y. Takeoka, presiding**
- 16:15 1L16 Chirality Induction and Amplification in Chiral-Guest-Responsive Helical Polymer Catalyst
Takeshi Yamamoto, Ryo Murakami, Satoko Komatsu, Michinori Suginome
- 16:40 1L17 Chiral Recognition Based on Thermo-Responsive Polymers Tethering Optical Active Side Chains in Organic Solvents
Masami Naya, Kenta Kokado, Kazuki Sada
- 17:05 1L18 Aminated cellulose nanofiber packed column for chromatographic separation of DNA

Kazuya Matsumoto, Tosiaki Marugame, Masayo Sakata

M. Sakata, presiding

- 17:30 1L19 Creation and electrochemical analysis of creatinine-imprinted polymer-coated electrodes by controlled radical polymerization
Taira KAJISA, Yoshiyuki YANAGIMOTO, Toshiya SAKATA
- 17:55 1L20 Creation of high functional reverse osmosis membrane
Tsuyoshi Hamada, Takafumi Ogawa, Masahiro Kimura

Thu. Sep 13

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

T. Yamamoto, presiding

- 9:10 2L01 Synthesis and application of dual chiral materials consisted of silica and polyphenolic resins
Takumi Itoh, Ren-hua Jin
- 9:35 2L02 Structure and catalytic activity of self-assembled aggregates from palladium and multi-theophylline ligands
Katsuya Kaikake, Go Sitara, Ren-Hua Jin
- 10:00 2L03 Sensing of biomolecules using cationic π -conjugated polymers (II) -Biomolecule recognition of polyfluorene-thiophene diblock copolymers-
Yui Shimada, Tsubasa Sato, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 10:25 2L04 Synthesis and Catalytic Reaction Activity with Gold Nanoparticles/Diblock Ionomers (VII) -Refinement of particle size-
Hinako Inoue, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

Y. Naka, presiding

- 10:50 2L05 Controlled collapse of pH-responsive liquid marble by CO₂
Shotaro Yukioka, Syuji Fujii, Yoshinobu Nakamura, Shin-ichi Yusa
- 11:15 2L06 A Study on the synthesis of a long-chain silane coupling agent by one-end addition reaction to a compound equivalent at both ends using a micro flow reactor
Kiyomi Fuchigami, Kenzo Yamamoto, Naoya Kitada, Kazuya Shinno
- 11:40 2L07 Synthesis and Surface Properties of Poly(substituted methylene)s with Hydrophilic or Hydrophobic Groups in their Side Chains
Eichi Kannan, Takuya Matsumoto, Takashi Nishino

A. Fujimori, presiding

- 12:55 2L08 Poly (olefin sulfone)s type dismantling adhesive containing isocyanate crosslinking agent
Ayane Koizumi, Takeo Sasaki, Khoa Le
- 13:20 2L09 Synthesis and characterizaion of photodegradable surface modifiers suitable for selective deposition of metal nanoparticulate ink
Takuma Igari, Kazuo Yamaguchi

13:45 2L10 Formation of Porous Structure Using Cyanobiphenyl-Containing Star Polymers with Several Sulfonyl Groups in the Core
Yutaka Tomaru, Yumiko Naka

14:10 2L11 A Polymer Molecular Motor and All-atom MD Simulation of Unidirectional Processive Movement along a Chiral Helical Polymer Chain
Ken-ichi Shinohara, Yuu Makida

H. Yabu, presiding

14:35 2L12 Development of novel thixotropic additive molecule and elucidation of improvement origin of physical properties by supramolecular organization of trefoil-like triamide derivative with three alkyl chains
Yuto Nakagawa, Kaede Watahiki, Eiichi Sato, Yuji Shibasaki, Atsuhiko Fujimori

15:00 2L13 Nano-dispersion in solvent of surface-modified organo-inorganic nanoparticles and their formation behavior of single particle layer
Hiroki Machida, Qi Meng, Atsuhiko Fujimori

15:25 2L14 Study on Preparation of Composite Materials Containing Organo-Modified Inorganic Filler Focusing on Their Miscibility with Matrix Polymers
Yifei Guo, Keito Fukushi, Shuichi Akasaka, Atsuhiko Fujimori

15:50 2L15 Tribological Property of Concentrated Polymer Brush with Cross-linked Structures
Koichi MURAJI, Tomoya FUJIMORI, Hiroshi EGUCHI, Hiroshi WATANABE, Yoshinobu TSUJII

K. Yamaguchi, presiding

16:15 2L16 Hierarchical structure formation in block copolymer prepared by nano and micro phase separation
Sachiho Ito, Kohei Matsunaga, Jun Matsui, Shunsuke Yamamoto, Masaya Mitsuishi, Shusaku Nagano, Hiroshi Yabu

16:40 2L17 Effect of Simple Organo-Modification on Single-Walled Carbon Nanotubes
Shuhei Hirayama, Yoshinori Abiko, Atsuhiko Fujimori

17:05 2L18 Establishment of immobilization technology of functional biomolecules on single layer of organo-inorganic nanoparticle and attempts to maintain their activity
Takeru Yunoki, Yusuke Kimura, Atsuhiko Fujimori

Fri. Sep 14

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

T. Nonoyama, presiding

9:10 3L01 Symmetric and Asymmetric Spiro-type Poly(ester imide)s with Low Thermal Expansion Properties, Optical Transparency, Heat Resistance, and Solution-processability
Masatoshi Hasegawa, Shinya Takahashi, Soichi Tsukuda, Junichi Ishii, Yukari Yamashina, Yoshinori Kawamura

9:35 3L02 Ultra-Low-modulus Polyimide (13). Improvement of non-flammability by Phosphorus-containing Compounds

Junichi ISHII, Ayato ICHIKURA, Yuki ISHIHARA, Yuta
IMAZUMI, Koyuki SAITO, Ayumi SEKINE, Masatoshi HASEGAWA

10:00 3L03 Fabrication of cellulose nanofibers by electrospinning for PCL
composites and their mechanical properties
Hotaka Taniguchi, Naruki Kurokawa, Atsushi Hotta

T. Maeda, presiding

10:25 3L04 Anisotropic toughness of DCC-Cellulose hydrogel with highly
aligned fibrous structure
YunZhou Guo, Md. Tariful Islam Mredha, Tasuku
Nakajima, Takayuki Kurokawa, JianPing Gong

10:50 3L05 Reversible Thermo-Responsive Hydrogels Possessing Super
Modulus Jump
Takayuki Nonoyama, YonWoo Lee, Kumi Ota, Keigo Fujioka, Jian
Ping Gong

Y. Adachi, presiding

11:15 3L06 Synthesis and Evaluation of Polythiophene-Silica Particles by
Surface Grafting (I) -Study of Polymerization Condition-
Ko Koizumi, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

11:40 3L07 Formation and Structural Control of Calcium Phosphate Hybrid
Thin Films by the Effects of Organic Polymer Templates
Rino ICHIKAWA, Satoshi KAJIYAMA, Misato IIMURA, Takashi
KATO

K. Yamabuki, presiding

12:55 3L08 Synthesis and Optical Properties of *o*-Carborane-Substituted π -
Conjugated Molecule
Keisuke Wada, Kazuo Tanaka, Yoshiki Chujo

13:20 3L09 Development of oxygen-resistant electrochemiluminescence
system by substitution with polyhedral oligomeric
silsesquioxane
Ryota Nakamura, Hayato Narikiyo, Masayuki Gon, Kazuo
Tanaka, Yoshiki Chujo

13:45 3L10 Synthesis and Evaluation of Polyurethane-Conjugated Polymer
Hybrids Based on POSS
Keigo Kato, Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo

M. Gon, presiding

14:10 3L11 Preparation of ladder-like polysilsesquioxanes containing
catechol structures and their adhesive properties
Yusaku Sainohira, Yoshiro Kaneko

14:35 3L12 Development of thermal insulation materials using bridged poly
silsesquioxanes
Yuki Nakanishi, Satoru Tsukada, Takayoshi Ishimoto, Hiroyuki
Kai, Kenta Okada, Yohei Adachi, Ohshita Joji

15:00 3L13 Synthesis of Organic-inorganic Hybrid Rotaxane Network with
POSS Modified Crown Ether
Ginta Yamane, Kazuhiro Yamabuki, Kenjiro Onimura

Room M

Wed. Sep 12

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

K. Niikura, presiding

- 10:00 1M03 Antibacterial Activity of PVA/Chitosan Blend Film
Risei WADA, Yoshiki ODA, Akinori ZUKERAN, Jun SAWAI, Hidenobu SHIMIZU, Masaru OKABE
- 10:25 1M04 Biodegradability and radiopaque property of Lipiodol/polycaprolactone microbeads for TACE
Yutaka Okamoto, Kenta Bito, Tomohiro Matsumoto, Kosuke Tomita, Terumitsu Hasebe, Atsushi Hotta

T. Miyata, presiding

- 10:50 1M05 Anionic polysaccharide-sensing with monomer-excimer switching and photo-induced colorimetric reaction of a 1,8-naphthalimide derivative having a cationic receptor
Mayuko Wada, Hironori Izawa, Shinsuke Ifuku, Minoru Morimoto, Hiroyuki Saimoto
- 11:15 1M06 Development of POSS Network Probes for Detection of Cellular Reductive Environment
Kazumasa SUENAGA, Kazuo TANAKA, Yoshiki CHUJO
- 11:40 1M07 Physical properties and redox response of supramolecular hydrogels cross-linked by the inclusion complex of cyclodextrin
Hikaru Aramoto, Yoshinori Takasima, Akira Harada, Hiroyasu Yamaguchi

S. Yashima, presiding

- 12:55 1M08 Self-Regulation of Microchannels Using Molecular Stimuli-Responsive Gels and Their Functions as Gates
Mayu Hirayama, Akifumi Kawamura, Kan Syoji, Ryuji Kawano, Takashi Miyata
- 13:20 1M09 Control of Phase Transition Temperatures by Interaction of Thermosensitive Polymers with Small Molecules
Hidenobu Shimizu, Risei Wada, Masaru Okabe
- 13:45 1M10 Highly tough supramolecular materials by bulk polymerization of cyclodextrin monomer and guest monomers
Ryohei Ikura, Suguru Momimura, Yoshinori Takashima, Akira Harada, Hiroyasu Yamaguchi

H. Shimizu, presiding

- 14:10 1M11 Friction Behavior of Hydrogels with Surface Semi-Spherical Patterns against Substrates with Different Wettability
Haruna Takefuji, Shintaro Yashima, Takayuki Kurokawa, Jian Ping Gong, Masahiko Annaka
- 14:35 1M12 Acid/light induced acceleration of C-Pt bond-cleavage and its application to gel processing technology
Go Martin Russell, Shunichi Kaneko, Daiki Inamori, Hiroshi Masai, Jun Terao
- 15:00 1M13 Creation of composite gels by use of a polymer hydrogelator as a matrix material
Yutaka Ohsedo, Masashi Oono, Kowichiro Saruhashi, Hisayuki Watanabe, Nobuyoshi Miyamoto

J. Terao, presiding

- 15:25 1M14 Design and Properties of Dual-responsive nanocapsules consisted of cross-linked PEI shell and PNIPAM
Haruka Takebuchi, Ren-Hua Jin
- 15:50 1M15 Control of Helical Chirality of a Foldamer Composed of Dithienyl Ketone and Benzene
Soichiro Koga, Eisuke Ohta, Shuichi Tani, Takafumi Tsuno, Takuya Ogaki, Yasunori Matsui, Hiroshi Ikeda
- 16:15 1M16 Solubility of PMMA Synthesized by Atom-Transfer Radical Polymerization
Yuuki Ohboshi, Yumiko Naka
- H. Ikeda, presiding**
- 16:40 1M17 Solvent species dependencies of conformation and molecular motion of poly(vinylidene fluoride) in solution
Ayana Tagawa, Hideo Horibe, Toshiyuki Shikata
- 17:05 1M18 Effect of plasticizer on ion-conductive behavior of polycarbonate-based electrolytes
Kaori Kobayashi, Hidekazu Kodama, Takeo Furukawa, Vito Di Noto, Yoichi Tominaga

Thu. Sep 13

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

K. Nakamura, presiding

- 9:10 2M01 Fabrication and Electrical Characteristics of PEDOT:PSS Aluminum Solid Electrolytic Capacitors
Toshiki Wakabayashi, Masato Katsunuma, Kazuki Kudo, Hidenori Okuzaki
- 9:35 2M02 Development of Nanostructured Liquid-Crystalline Electrolytes Towards Functionalization of Dye-Sensitized Solar Cells
Yurika Mizumura, Daniel Hogberg, Bartolome Soberats, Masafumi Yoshio, Satoshi Uchida, Hiroshi Segawa, Takashi Kato
- 10:00 2M03 Investigation of performance degradation factor of organic photovoltaics using non-fullerene acceptor.
Kenji Suzuki, Makoto Karakawa, Tetsuya Taima, Kohshin Takahashi
- 10:25 2M04 Voltage Losses in Polymer Solar Cells and Perovskite Solar Cells
Hyung Do Kim, Nayu Yanagawa, Ai Shimazaki, Masaru Endo, Atsushi Wakamiya, Hideo Ohkita

H. Nakano, presiding

- 10:50 2M05 Synthesis and Evaluation of Tris(bipyridine)ruthenium(II) Complex Containing nido-Carborane
Kyoya Uemura, Kazuo Tanaka, Yoshiki Chujo
- 11:15 2M06 Poly(Styrene Sulfonic Acid) Hybrid Materials Showing Room-Temperature Phosphorescence
Ichio Hayashi, Tomoki Ogoshi, Takahiro Kakuta, Tadaaki Yamagishi
- 11:40 2M07 Fabrication of highly oriented DNA/Ru(II) complex hybrid nanofilms by applying AC voltage and its stimulus response
Tsukasa Miyazaki, Kazuki Nakamura, Norihisa Kobayashi

K. Tanaka, presiding

- 12:55 2M08 Elucidation of luminescent assistance effect to ECL device using P3HT as a polymer light-emitting material by low molecular compounds.
Hiroyuki Takayama, Eisuke Nihei
- 13:20 2M09 Analysis of Photoluminescence Behaviors of Phosphorescent Polyimide Films and Imide Model Compounds under Very High Pressure
Yutaro Ando, Eisuke Fujiwara, Ryoji Orita, Ryohei Ishige, Shinji Ando
- 13:45 2M10 Measurements of in-plane thermo-optic coefficients of polyimide films based on optical interferometry, and the relations with chemical structure, chain orientation, and thermal expansion behaviors.
megumi fujita, mari harada, ryohei ishige, shinji ando
- 14:10 2M11 Photoinduced Change in Emission Color of 1,4-Bis(2-cyano-2-{4-[5-(4-methylphenoxy)pentyl]phenoxy}phenyl)ethenyl)-2,5-dimethoxybenzene in the Solid State
Ryohei Kaneko, Yoshimitsu Sagara, Shouhei Katao, Nobuyuki Tamaoki, Hideyuki Nakano

A. Shishido, presiding

- 14:35 2M12 Synthesis of photobase generators to generate strong bases via an intramolecular photocyclization reaction and their application to photoreactive materials
Takafumi Akiyama, Masahiro Furutani, Koji Arimitsu
- 15:00 2M13 Photo-initiated anionic polymerization of shadow parts triggered by tertiary amines from photobase generators
Yasuhiro Nakamoto, Kento Oomura, Nobuaki Koike, Masahiro Furutani, Koji Arimitsu
- 15:25 2M14 Photo-initiated radical polymerization of acrylates sensitized with charge transfer complexes absorbing visible light
Kengo Takemura, Masahiro Furutani, Koji Arimitsu
- 15:50 2M15 Cationic polymerization of epoxy monomers by thermal acid generators generating superacids
Kyohei Akiyama, Masahiro Furutani, Koji Arimitsu, Takahiro Seki

K. Arimitsu, presiding

- 16:15 2M16 Development of photo-functional materials (UV-curing and Resist) based on tannic acid
Shizuya Ohori, Hiroto Kudo
- 16:40 2M17 Micro and nanostructured surface of the conjugated polymer film prepared by hydroxypropyl cellulose liquid crystals and a function as diffraction gratings
Eguchi Naoto, Hiromasa Goto
- 17:05 2M18 Three-dimensional control of molecular orientation of polymer stabilized dye-doped liquid crystals by nonlinear optical response
Kohsuke Matsumoto, Koji Usui, Norihisa Akamatsu, Atsushi Shishido

Fri. Sep 14

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Y. Koike, presiding

- 9:10 3M01 Synthesis of Optically Active Polymers Containing Glucose Units and Their Circularly Polarized Luminescence Properties
Tomoyuki Ikai, Seiya Awata, Ken-ichi Shinohara
- 9:35 3M02 Stepwise Wavelength Modulation of Near Infrared Photoluminescence by Imine Bond-Based Chemical Reactions on Single-Walled Carbon Nanotubes
Tamehito Shiga, Tomohiro Shiraki, Tsuyohiko Fujigaya
- 10:00 3M03 Evanescent Wave Optical Amplification Using Water-Soluble Quantum Dots as Amplifying Medium
Yumiko Ueda, Eisuke Nihei

Y. Yamamoto, presiding

- 10:25 3M04 Spectral analysis of stressed dichroic dye-doped polymer optical fiber
Takamichi Tozaki, Rei Furukawa, Kentaro Yano
- 10:50 3M05 Temperature-Independent Zero-Birefringence Polymer by Compensation for Temperature Dependence of Birefringence
Kenji Wada, Akihiro Tagaya, Yasuhiro Koike
- 11:15 3M06 Control of Birefringence Dispersion by Doping Polymers with Anisotropic Molecules
Kenta Hirose, Yasuhiro Koike
- 11:40 3M07 Analysis of Birefringence Properties to Realize Practical Temperature-Independent Zero-Birefringence Polymers
Yuma Kobayashi, Yasuhiro Koike

E. Nihei, presiding

- 12:55 3M08 Proposal of Novel Random Depolarization Film for Real-Color Displays
Mariko Udono, Yasuhiro Koike
- 13:20 3M09 Novel High Retardation Polymer Film for Organic Light Emitting Displays
Kotaro Murakami, Yasuhiro Koike
- 13:45 3M10 Multi-color Photoluminescence of BODIPY Crystals and Optical Heterostructures
Daichi Okada, Aswin Asaithambi, Takashi Nakamura, Gunther Prinz, Hiroyasu Sato, Akinori Saeki, Tatsuya Nabeshima, Axel Lorke, Yohei Yamamoto
- 14:10 3M11 Photo-Responsive Behavior of Extended-Viologen Polymers
Shota Ito, Yumiko Naka

Room N

Wed. Sep 12

S11. Control of Dimensional and Structural Control of Polymers Hybridized with Nanomaterials

- 9:50 1NSO Introductory Remarks S11

Masahiro Funahashi, Yuichi Negishi

K. Akamatsu, presiding

- 10:00 1N03 Photocatalytic Reaction with Supramolecular Gold Nanoclusters Bearing Peptide Dendron Ligands
Katsuhiko Isozaki, Ryo Ueno, Kosuke Ishibashi, Hikaru Takaya, Masaharu Nakamura
- 10:25 1N04 Structure of polymer-metal interface of electrolessly metal deposited flexible polymer films
Toshiyuki TAMAI, Mitsuru WATANABE, Yasuyuki KOBAYASHI, Jyunpei KOBATA, Yoshio NAKAHARA, Setsuko YAJIMA, Joonhaeng KANG, Azusa KITA

K. Isozaki, presiding

- 10:50 1N05 Precise Synthesis and One Dimensional Polymer Structure of Novel AuPt Bimetallic Cluster
Yuichi Negishi
- 11:15 1N06 Synthesis and Structural Control of Metal/Polymer Nanohybrid Materials
Kensuke Akamatsu
- 11:40 1N07 Rod-Shaped Polymer Additives for Facile Preparation of C60 Whiskers and Fibers
Hiroki Hayashi, Ryosuke Kikuchi, Reiji Kumai, Hajime Sagayama, Hiromasa Goto

Y. Negishi, presiding

- 12:55 1N08 Self-healing of polymer hydrogels by incorporation of TiO₂ nanoparticles bearing phenylboronate residues
Naokazu Idota, Keita Iijima, Suzuki Kengo, Yoshiyuki Sugahara
- 13:20 1N09 Embedding 2D gold nanoparticle array into polymer matrix for plasmonic composite film
Nao Hirakawa, Shigenori Fujikawa, Nobuo Kimizuka
- 13:45 1N10 Structural control and bio-related function of lipid bilayer membrane using nanoparticles
Yoshihiro Sasaki, Momoka Nakura, Fumihito Inoue, Yuki Ujihara, Shinichi Sawada, Sadakatsu Mukai, Kazunari Akiyoshi
- 14:10 1N11 Synthesis and hybridization of tooth-brush like copolymers with amphiphilicity and double hydrophilicity.
Yoshito Inoue, Ren-Hua Jin

D. Miyajima, presiding

- 14:35 1N12 A Phenothiazine-based Aromatic Micelle with Redox Stimuli Responsibilities
yoshiyuki satoh, michito yoshizawa, munetaka akita
- 15:00 1N13 Tuning color film using silver nanoparticles (1) Development of one-component UV curable coatings for tuning color film
Yasushi Ohe, Erika Tabuchi, Atsuko Kamada
- 15:25 1N14 Nano-structural characterization of organic-inorganic nano-hybrid materials by scattering methods
Moriya Kikuchi, Kazushi Enomoto, Masahiko Nakano, Seigou Kawaguchi

R. Sakamoto, presiding

- 15:50 1N15 Preparation and Characterization of Temperature-Responsive Fluorescent Probe Using DNA-Conjugated Polymer

- Takafumi Sako, Masahiro Fujita, Mizuo Maeda
- 16:15 1N16 Anisotropic Self-assembly of Iron-oxide Nanoparticles with Protein-jackets
Daigo Miyajima
- 16:40 1N17 Alloy nanoparticle by sputtering on a liquid polymer
Tetsu Yonezawa, Lianlian Deng, Tomoharu Tokunaga, Mai Thanh Nguyen

N. Ozaki, presiding

- 17:05 1N18 Two-dimensional conductive-polymer nanosheets synthesized on the crystal surface of organic oxidant
Kosuke Sato, Hiroaki Imai, Yuya Oaki
- 17:30 1N19 Elastomer and gels hybridized with inorganic nanosheet liquid crystals
Nobuyoshi Miyamoto, Toki Morooka, Toshihki Furukawa, Takumi Inadomi, Yutaka Ohsedo
- 17:55 1N20 Bottom-up fabrication of molecule-based low-dimensional materials
Ryota Sakamoto, Ryojun Toyoda, Hiroshi Nishihara

Thu. Sep 13

S11. Control of Dimensional and Structural Control of Polymers Hybridized with Nanomaterials

T. Takaguchi, presiding

- 9:10 2N01 Supramolecular Polymers Having Topology: Realization through Supramolecular Hybridization
Shiki Yagai, Keisuke Aratsu
- 9:35 2N02 Lyotropic Liquid Crystalline Phase Control in Organic-inorganic Hybrid Film Containing Humidity-responsive Polysiloxane
Mitsuo Hara, Taiki Orito, Naoyuki Wakitani, Shusaku Nagano, Takahiro Seki
- 10:00 2N03 Design and synthesis of polythiophenes with functionalities
Atsunori Mori, Keisuke Fujita, Tadayuki Ogura, Chihiro Kubota, Kentaro Okano, Masahiro Funahashi

M. Funahashi, presiding

- 10:25 2N04 Development of gel-coating method for carbon nanotube and their functionalization
Tsuyohiko Fujigaya, Yukiko Nagai, Kouichiro Mori, Minoru Kawaguchi
- 10:50 2N05 Single-walled Carbon Nanotubes Coated with Thiol-reactive Gel via Emulsion Polymerization
Yukiko Nagai, Tsuyohiko Fujigaya
- 11:15 2N06 Stimuli-responsivity of cycloparaphenylene-iodine assembly
Noriaki Ozaki, Hirotohi Sakamoto, Taishi Nishihara, Kenichiro Itami
- 11:40 2N07 H₂-evolving SWCNT Photocatalysts for Effective Use of Solar Energy
Yutaka Takaguchi, Takumi Izawa, Daiki Miyamoto, Hideaki Miyake, Tomoyuki Tajima

M. Hara, presiding

- 12:55 2N08 Relationship between the dimension control of polymer structure and the electronic / ionic conductivity of metallo-supramolecular polymer
Masayoshi Higuchi
- 13:20 2N09 Synthesis of polyamide and hydroxyapatite nanocomposite - Shape control and interface modification of hydroxyapatite-
Tomoyo Kawamura, Kenya Sonobe, Asami Ohashi, Harumi Watanabe, Katsushi Watanabe, Hiroshi Oyamada, Masaaki Aramaki, Toshiaki Ougisawa
- 13:45 2N10 Control of structures and properties of one-dimensional gold(I)-thiolate coordination polymer through the interaction between organic chains
Midori Murakami, Riku Matsumine, Takeya Ono, Yukatsu Shichibu, Noriko Horimoto, Yasuhiro Ishida, Katsuaki Konishi

M. Higuchi, presiding

- 14:10 2N11 Light-controlled transfection using near infrared light and thermosensitive dendron lipid-gold nanorod hybrid vectors
Takuya Hashimoto, Eiji Yuba, Atsushi Harada, Kenji Kono
- 14:35 2N12 Controlled Synthesis of Graphene Nanoribbon using Coordination Nanospaces
Takashi Kitao, Michael MacLean, Ryoto Hongu, Takashi Uemura
- 15:00 2N13 Preparation of composite membrane for fuel cells by using fluorinated oligomer/clay nanocomposite as a key intermediate
Katsumi Yamashita, Yui Endo, Yuri Oikawa, Takumi Okuyama, Atsushi Watakabe, Hideo Sawada

Room O

Wed. Sep 12

S9. Polymeric Materials for High Performance Energy Devices

- 9:50 1OSO Introductory Remarks S9
Kenichi Oyaizu
- M. Tanaka, presiding**
- 10:00 1O03 Morphological analysis of fuel cell electrodes with low-dose electron tomography
Tomohiko Nagao, Komei Isono, Keita Nomura, Hiroto Nishihara, Takashi Kyotani, Yoshihisa Furuya, Masashi Ito, Atsushi Ohma, Hiroshi Jinnai
- 10:25 1O04 Green photo-generation of Pt nanoparticles on TiO₂ based composite for high ORR activity
Rajashekar Badam, Raman Vedarajan, Noriyoshi Matsumi
- 10:50 1O05 Design of nanocarbon-based non-Pt electrode catalysts
Naotoshi Nakashima, Jun Yang, Junfang Cheng

K. Oyaizu, presiding

11:15 1O06IL Necessity of hydrogen society and revolution of hydrogen and fuel cell materials
Takeo Yamaguchi

N. Matsumi, presiding

12:55 1O08 Microstructure of fuel cell catalyst observed by time-of-flight SANS
Satoshi Koizumi, Satoru Ueda

13:20 1O09 Nano-structure analysis of Nafion® dispersed aqueous liquid by using cryo-TEM method
Takeshi Terao, Hidekazu Sugimori, Makoto Yamaguchi

13:45 1O10 AFM observation of Nafion membrane at initial stage of degradation by hydrogen peroxide
Seiichi Kuroda, Toyooki Matsuura, Yuko Matsuda, Kiyoshi Inokuma, Makoto Yamaguchi

14:10 1O11 Construction of three-dimensional proton conductive network structures and their application to fuel cell electrolytes
Manabu Tanaka, Takahiro Ogura, Hiroki Harada, Motoki Nishizawa, Hiroyoshi Kawakami

T. Fujigaya, presiding

14:35 1O12 Synthesis and Application of Polymer Electrolytes with Super Acid Group (VII) -Effect of Introduction Rate of Super Acid Group on Electrolyte Properties-
Miho Asano, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

15:00 1O13 Higher-order membrane structure analysis of poly(p-phenylene) diblock copolymer as ionomer
Hidekazu Sugimori, Ken-ichi Ogu, Miru Hirahara, Takeshi Terao, Makoto Yamaguchi, Masahiro Rikukawa

15:25 1O14 Study on the main chain planarity and proton conduction in sulfonated polyimide thin films
Yuki Nagao, Kensaku Takakura, Ono Yutaro, Ryosuke Goto, Kota Suetsugu, Mitsuo Hara, Shusaku Nagano, Takashi Abe

15:50 1O15 Improvement of Chemical Stability in Anion Conductive Aromatic Polymer Membranes
Naoki Yokota, Junpei Miyake, Kenji Miyatake

A. Ohira, presiding

16:15 1O16 Conformation of Electrolyte Membranes and Performance of Power Generation of Fuel Cells
Junji Inukai, Kenji Miyatake

16:40 1O17 Influence of Ionomer for Improved PEMFC Performance at High Temperature and Low Humidity
Rei Nakayama, Dhammika Weerathunga, Tsuyohiko Fujigaya

17:05 1O18 Biomimetic Polymer Nanosheet Electrolytes and their Two-dimensional Proton Conduction Mechanism
Mayu Tsukamoto, Jun Matsui, Shunsuke Yamamoto, Masaya Mitsuishi, Tokuji Miyashita

S. Yamamoto, presiding

17:30 1O19 Electrochemical Hydrogenation of Aromatic Hydrocarbons in Microemulsion
Mitsuru Wakisaka, Masashi Kunitake

17:55 1O20 Property of polymer electrolyte and electrolyzer for toluene

hydrogenation for energy carrier synthesis
Kensaku Nagasawa, Junpei Koike, Tanimoto Keisuke, Yoshiyuki Kuroda, Shigenori Mitsushima

Thu. Sep 13

S9. Polymeric Materials for High Performance Energy Devices

Y. Oaki, presiding

- 9:10 2001 High-capacity gel electrodes based on concentrated electrolytes and carbon materials for next generation secondary batteries
Aya Saruwatari, Azusa Nakanishi, Ryota Tamate, Yoshiharu Matsumae, Kazuhide Ueno, Kaoru Dokko, Masayoshi Watanabe
- 9:35 2002 Application of BIAN based conjugated polymers for energy materials
Sai Gourang Patnaik, Raman Vedarajan, Noriyoshi Matsumi
- 10:00 2003 Recent development on electricity storage device utilizing pi-stacked radical polymer as electrode-active materials
Yasushi Morita, Tsuyoshi Murata
- 10:25 2004 TEMPO-substituted polymers for stretchable and solid-state rechargeable devices
Kan Hatakeyama, Hiroyuki Nishide, Kenichi Oyaizu

Y. Morita, presiding

- 10:50 2005 Efficient Exploration of High-performance Organic Anode using Materials-informatics
Hiromichi Numazawa, Kosuke Sato, Hiroaki Imai, Yuya Oaki
- 11:15 2006 Search for electrolyte and electrode material for realizing new redox flow battery
Akihiro Ohira, Akira Negishi, Eiji Hozomi, Je-Deok Kim, Yukari Sato
- 11:40 2007 Development of aqueous polymer binder systems for silicon anodes in Li-ion batteries
Toya Kamei, Satoshi Uchida, Masashi Ishikawa

K. Hatakeyama, presiding

- 12:55 2008 Properties for Lithium Ion Battery of Solid Polymer Electrolytes Using Polycarbonate and Polysulfite
Takahiro Uno, Kaito Nakamura, Satoshi Niihara, Masataka Kubo, Takahito Itoh
- 13:20 2009 Synthesis of High-sulfur-containing Resin Consisting with Thiol and the Application of Lithium-sulfur Battery
Kazuhiro Yamabuki, Ayako Shimizu, Satoru Fujitsu, Nobuko Yoshimoto, Kenjiro Onimura

S14. Natural Polysaccharides for Novel Functional Nanomaterials

- 14:05 20SO Introductory Remarks S14
Shukichi Tanaka

H. Ajiro, presiding

- 14:10 2011 Emerging ambidextrous CPL-/CD-functions from optically inactive polymers, oligomers, and molecules by chirality transfer of cellulose derivatives
Michiya Fujiki,Sibo Guo,Nozomu Suzuki,Laibing Wang,Asuka Ohkubo,Hiroki Kamite
- 14:35 2012 Cellulose Nanofibers as a Module for Paper-based Microfluidic Analytical Devices: Labile Substance Storage, Processability, and Reaction Field Provision and Control
Rina Murase,Takeo Kitamura,Yohsuke Goi,Masayuki Hashimoto,Yoshikuni Teramoto
- 15:00 2013 Optical properties of hierarchical cellulose nanopaper
Kojiro Uetani,Hiroataka Koga,Masaya Nogi
- T. Saito, presiding**
- 15:25 2014 Prepration of Surface-Sulfated CNF and Its Characteristics
Lianzhen Lin,Ayako Maruta,Yui Ito
- 15:50 2015 Thermal expansion and refractive index of transparent cellulose nanopaper
Norihisa Tanio,Atsushi Hatano,Arisa Narumi,Yuya Maeda,Hitomi Yagyu,Masaya NOGI
- H. Koga, presiding**
- 16:15 2016 Preparation and properties of circularly polarized luminescent materials from liquid crystalline cellulose derivatives
Takuto Maeda,Takahiro Kakuta,Tomoki Ogoshi,Tada-aki Yamagishi,Akihiko Takada
- 16:40 2017 Fabrication of Electrospun Nonwovens Dissolvable on Cooling
Hiroshi Mori,Hiroaki Yoshida
- 17:05 2018 Synthesis of Chitosan Derivatives Bearing Natural Compounds with Long Alkyl Chain and Hydrophilic Substituents
Ryo Kawatani,Suwabun Chirachanchai,Hiroharu Ajiro

Fri. Sep 14

S14. Natural Polysaccharides for Novel Functional Nanomaterials

Y. Teramoto, presiding

- 9:10 3001 Mechanical properties and new functions of TEMPO Oxidized Cellulose Nanofiber / thermoplastic resin Composite.
Ken-ichi Niihara,Takahiko Makise,Kouji Maekawa,Tsuguyuki Saito,Akira Isogai,Toru Noguchi
- 9:35 3002 Hair growth property of chitin nanofiber prepared from crab shell
Ryo Koizumi,Kazuo Azuma,Shinsuke Ifuku
- 10:00 3003 Development of chondroitin sulfate derivatives having both pH-sensitivity and adjuvant function and their application to antigen delivery system
Minori Okubo,Eiji Yuba,Atsushi Harada,Kenji Kono

S. Tanaka, presiding

- 10:25 3004 Interfacial Control Technique for Cellulose Nanofibers
Yutaka Yoshida,Kyohei Yamato,Kenta Mukai,Hiroyuki Shiomi,Yoshiaki Kumamoto,Akira Isogai

10:50	3O05	Improvement of mechanical properties of polypropylene by addition of citric acid-modified cellulose <u>Toshiki HONDA</u> , Taka-aki ASOH, Hiroshi UYAMA
11:15	3O06IL	Cellulose Nanofiber for Novel Functionality <u>Takashi Nishino</u>
E. Yuba, presiding		
12:55	3O08	Oil absorption materials with porous cryogels based on cellulose nanofibers <u>Takuya Matsumoto</u> , Tatsuya Sato, Chizuru Hongo, Takashi Nishino
13:20	3O09	Control of Hierarchical Structures from Amylosic Supramolecules by Enzymatic Chain-elongation Reaction <u>Saya Orio</u> , Kazuya Yamamoto, Jun-ichi Kadokawa
S. Ifuku, presiding		
13:45	3O10	Three-dimensional structuring of nanomaterials in cellulose oligomer gels and functional evaluation <u>Yuuki Hata</u> , Toshiki Sawada, Takamasa Sakai, Takeshi Serizawa
14:10	3O11	Disposable paper sensor based on nanocellulose and zinc oxide nanowire <u>Hiroataka Koga</u> , Kazuki Nagashima, Takeshi Yanagida, Masaya Nogi
14:35	3O12	Forming and stabilizing mechanism of Pickering emulsion with TEMPO-oxidized cellulose nanofiber <u>Yohsuke Goi</u> , Shuji Fujisawa, Tsuguyuki Saito, Akira Isogai

Room Q

Wed. Sep 12

S10. Colored Polymers

9:50	1QSO	Introductory Remarks S10 <u>Masayoshi Higuchi</u> , Michinari Kohri
M. Higuchi, presiding		
10:00	1Q03	Growth of colloidal crystal film in EPD process and structural color changes <u>Hiroshi Fudouzi</u> , Masaki Koike, Tetsuo Uchikoshi, Giang Tran Thi Hoai
10:25	1Q04	Preparation, Properties and Applications of artificial melanin particles based structural color materials <u>Michinari Kohri</u>
10:50	1Q05	Dynamic Photonic Crystals Mainly Composed of Water: Sensitive Changes of Structural Colors Exhibited by Thermoresponsive Phospholipid Bilayers <u>Noriyuki Uchida</u> , Fumito Araoka, Yasuhiro Ishida
Y. Ishida, presiding		
11:15	1Q06	Over-1000 nm fluorescent polymer nanoparticles for deep tissue

bioimaging
Masao Kamimura, Kohei Soga

11:40 1Q07 Reversible Color Change of Hybrid Films of Amorphous
Molecular Materials and Organic Acids
Yuya Kitamura, Ryoji Ichikawa, Hideyuki Nakano

Y. Oaki, presiding

12:55 1Q08 Transmitting and scattering colors of porous particles of
poly(vinyl chloride) based on Christiansen effect
Sadaki Samitsu, Hideki Miyazaki, Hiroyo Segawa

13:20 1Q09 Preparation of Structurally Colored Coating Films Formed with
Array of Monodispersed Spherical Particles by Electrophoretic
Deposition
Kiyofumi Katagiri, Kensuke Uemura, Ryo Uesugi, Kei
Inumaru, Tetsuo Uchikoshi, Yukikazu Takeoka

13:45 1Q10 Synthesis of multi-colored polymers by [2+2] cycloaddition-
retroelectrocyclization
Tsuyoshi Michinobu

14:10 1Q11 Control of color and fluorescence properties with azobenzene
liquid crystalline polymers
Tsuyoshi Fukaminato

M. Eguchi, presiding

14:35 1Q12 Application of stimuli-responsive layered polydiacetylenes to
visualization and quantitative detection of friction force
Hideto Terada, Hiroaki Imai, Yuya Oaki

15:00 1Q13 Temperature-dependent luminescence of lanthanide coordination
polymers
Yasuchika Hasegawa

15:25 1Q14 Ion-permeability and electrochromism of nanosegregated liquid
crystalline perylene bisimide derivatives
Masahiro Funahashi

A. Noro, presiding

15:50 1Q15 Adsorption behavior of metal complex polymer at the surface of
layered silicate
Miharu Eguchi

16:15 1Q16 Cellulose Derivatives with Visualization Ability of Mechanical
Stress
Seiichi Furumi

16:40 1Q17 Controlling colors of angle-independent color materials by Mie
resonances
Yui Naoi, Yukikazu Takeoka, Takahiro Seki

Y. Takeoka, presiding

17:05 1Q18 Preparation and Optical Properties of Block Copolymer Photonic
Films Swollen with Acidic Liquids
Atsushi NORO, Atsushi YAMAMOTO, Takato KAJITA, Yushu
MATSUSHITA

17:30 1Q19 Photonic crystal and structural color in insect
Shinya Yoshioka

17:55 1Q20 Crack visualization by color change using opal film
Tsuyoshi Hyakutake, Hiroyuki Nitta, Hiroshi Fudouzi, Shinichi
Todoroki

Thu. Sep 13

S10. Colored Polymers

S. Yamamoto, presiding

- 9:10 2Q01 Synthesis and Characterizations of Phenolic Polymers Showing Solvatochromism with Halogen Compounds
Ryota Nakanishi, Takahiro Kakuta, Tomoki Ogoshi, Tada-aki Yamagishi
- 9:35 2Q02 Preparation of Photochromic Nanocapsules
Yosuke Tsuru, Michinari Kohri, Tatsuo Taniguchi, Keiki Kishikawa, Masaki Hayashi
- 10:00 2Q03 Environmentally responsive color materials based on inorganic nano-sheets
Takuya Fujimura, Tamao Ishida, Tetsuya Shimada, Shinsuke Takagi
- 10:25 2Q04 Functional diversity of biological photoreactive molecule rhodopsin and development of tools for optical control
Yuki Sudo

T. Taniguchi, presiding

- 10:50 2Q05 Fabrication and Photoluminescence Properties of Near-Infrared-Emissive Gold Nanoclusters
Shunsuke Yamamoto, Mai Hashimoto, Takumi Nagasawa, Masaya Mitsuishi
- 11:15 2Q06 Synthesis of Metal Nanoparticles within the Interlayer of Polyanionic Layered Metal Oxides and their Optical Properties
Tatsuto Yui
- 11:40 2Q07 Structural Study of Iodine Complexes of Poly(vinyl alcohol) and Related Polymers
Kohji Tashiro, Tomohiko Takahama, MengFan Wang

J. Matsui, presiding

- 12:55 2Q08 Development of novel luminescent nanoparticles based on immobilization of aggregation-induced emission structure
Kazuhiro Nakabayashi, Mizuki Takata, Hideharu Mori
- 13:20 2Q09 Synthesis and Photophysical Properties of Polycarbonates with Aggregation-Induced Emission Monomer in the Main Chain
SHARIDAN AMIR, GEN-ICHI KONISHI, KOUHEI KUWAHARA
- 13:45 2Q10 Control of gap distances and surface plasmon of gold nanodots with polymer gels
Satoru Hamajima, Hideyuki Mitomo, Yasutaka Matsuo, Kenichi Niikura, Kuniharu Ijro

H. Mitomo, presiding

- 14:10 2Q11 Construction of broadband absorber by strong coupling between plasmon and nanocavity modes and its application to light-energy conversion systems
Kosei Ueno, Xu Shi, Quan Sun, Tomoya Oshikiri, Keiji Sasaki, Hiroaki Misawa
- 14:35 2Q12 Hierarchical structured redox polymer and inorganic nanoparticles for multicolor electrochromism in a single electrode
Yuki Kayaba, Kenta Hojo, Kenta Ono, Manabu Ishizaki, Katsuhiko

		Kanaizuka, Shin-ichi Kondo, Masato Kurihara, Masaya Mitsuishi, Jun Matsui
15:00	2Q13	Fabrication of Optical Chemosensor Arrays using Polythiophene Derivatives <u>Tsuyoshi Minami</u>
		M. Kohri, presiding
15:25	2Q14	Preparation and characterization of metal-like lustrous polymer alloys <u>Rihito Tamura</u> , Katsuma Miyamoto, Katsuyoshi Hoshino
15:50	2Q15	Effect of polymerization conditions on the properties of gold-like lustrous organic films <u>Minako Kubo</u> , Kenta Horikoshi, Katsuyoshi Hoshino
16:15	2Q16	Preparation of gold-lustrous organic sheets <u>Yukishige Kondo</u> , Shuntaro Mikome, Norio Saito

Room R

Wed. Sep 12

S12. Biomimetic Innovation toward Sustainable Development

12:45	1RSO	Introductory Remarks S12 <u>Shigeru Deguchi</u>
		S. Deguchi, presiding
12:55	1R08IL	Basic research of cellulase for the realization of Bioeconomy: beyond 10 ¹⁵ differences <u>Kiyohiko Igarashi</u>
		M. Kohri, presiding
13:45	1R10	Determination of biological nanostructures by cryo-SEM <u>Satoshi Okada</u>
14:10	1R11	Elucidation of the mechanism by which flower petals turn transparent and their biomimetic polymer films <u>Takumi Arakawa</u> , Olaf Karthaus
14:35	1R12	Bio-mimicry by 4D-printer of Soft Material Dispersed with Magnetic Particles <u>Fujio Tsumori</u> , Seiji Azukizawa, Hayato Shinoda
15:00	1R13	Synthesis of cyclic amphiphilic block copolymers and topology-effects of self-assembled vesicles <u>Satoru Chimura</u> , Takuya Yamamoto
15:25	1R14	Self-assembly of metal nanoparticles on liposomes <u>Kouta Sugikawa</u> , Kotaro Matsuo, Kazuma Yasuhara, Atsushi Ikeda
		A. Hozumi, presiding
15:50	1R15	Effects of composition / shape / arrangement of artificial melanin particles on structural coloration <u>Michinari Kohri</u>
16:15	1R16	Switchable Bumps of Beads-Embedded Elastomer Surface with

		Variable Adhesion <u>Takuya Ohzono</u> , Kay Teraoka
16:40	1R17	Next-generation polymer adhesives with molecular mimics of mussel foot proteins Debabrata Payra, <u>Masanobu Naito</u>
17:05	1R18	Development of Superhydrophobic Materials Composed of Cyclodextrin Derivative <u>Yuji Sugiyama</u> , Hiroaki Yoshida
17:30	1R19	Surface shield effects and Complexation of a plasma-polymerized film "Nano-suits" of amphiphilic molecules <u>Nanami Sawayama</u> , Shingo Ito, Daisuke Ishii

Thu. Sep 13

S12. Biomimetic Innovation toward Sustainable Development

S. Kidoaki, presiding

9:10	2R01	Operation principle of a biomolecular motor efficiently hydrolyzing biomass polysaccharide <u>Ryota Iino</u>
9:35	2R02	Swarming of microtubules utilizing the sequential signaling of DNA <u>Jakia Jannat Keya</u> , Arif. Md. Rashedul Kabir, Kazuki Sada, Akinori Kuzuya, Akira Kakugo
10:00	2R03	Membrane contact properties of artificial protein needles from T4 phage <u>Kento Niwase</u> , Furuta Tadaomi, Takafumi Ueno

S. Okada, presiding

10:25	2R04	Self-healable Superhydrophobic and Superhydrophilic Materials Chihiro Urata, <u>Atsushi Hozumi</u>
10:50	2R05	The combination of hydrophobic-hydrophilic structure supports aquatic insect to move effectively just under the water surface <u>Yasuharu Takaku</u> , Chiaki Suzuki, Hiroshi Suzuki, Daisuke Ishii, Tateo Shimosawa, Shuhei Nomura, Masatsugu Shimomura, Takahiko Hariyama
11:15	2R06	Precise multi-scaled control of surface wrinkle on the hydrogels <u>Saori Sasaki</u> , Satoru Kidoaki
11:40	2R07	Development of environmentally friendly antifouling micro-structured surfaces against marine sessile organisms <u>Takayuki Murosaki</u> , Yasuyuki Nogata, Yuji Hirai, Masatsugu Shimomura

N. Asakawa, presiding

12:55	2R08	Design of an Anti-freeze Peptide for Application to a Glass Surface Syunki Nagatomo, Kaya Ichikawa, Sachiro Kakinoki, <u>Yoshiaki Hirano</u>
13:20	2R09	Development of Superhydrophobic Nonwovens Prepared from Polyphenylalanine Electrospinning <u>Kazuhiro Yanagisawa</u> , Hiroaki Yoshida
13:45	2R10	Application of strain imaging sheets to social infrastructure field

Hiroshi Fudouzi

T. Murosaki, presiding

- 14:10 2R11 Effects for the surface wettability of vulcanized rubber micropillar height and period
Yuji Hirai, Riku Tamura, Yasutaka Matsuo, Takahiro Okamatsu, Toshihiko Arita, Masatsugu Shimomura
- 14:35 2R12 Powdered viscous liquid in Nature: Structure of liquid marble fabricated by aphid
Syuji FUJII, Moe KASAHARA, Shin-ichi AKIMOTO, Takahiko HARIYAMA, Yasuharu TAKAKU, Shin-ichi YUSA, Yoshinobu NAKAMURA
- 15:00 2R13 Magnetic-resonance-driven spin synapse-mimicking device
Naoki Asakawa, Kunito Fukuda

Y. Hirai, presiding

- 15:25 2R14 Construction of a bio-TRIZ deta base which supports realization of SDGs
Takeshi Yamauchi, Tetsu Mitsumata, Norio Tsubokawa, Hidetoshi Kobayashi, Toru Kobayashi
- 15:50 2R15 Bubble coating learned from aquatic habitats
Masanobu NAITO
- 16:15 2R16 Bioelectronic applications of conducting polymers bearing biomimetic functional group
Tatsuro GODA, Wenfeng HAI, Masahiro TOYA, Akira MATSUMOTO, Yuji MIYAHARA

Room S

Wed. Sep 12

S13. Polymer Gel Opens the Way to Soft Matter Science

- 9:50 1SSO Introductory Remarks S13
Akira Kakugo
- K. Shikinaka, presiding**
- 10:00 1S03 The helical shaped gel showing large and uniaxial deformation
Younsoo KIM, Narumi TAKEDA, Mareo KINOSHITA, Takamasa SAKAI, Aya AKIMOTO, Ryo Yoshida
- 10:25 1S04 Self-oscillating polymeric fluids with sol-gel oscillation and the macroscopic/microscopic analysis
Michika Onoda, Takeshi Ueki, Ryota Tamate, Mitsuhiro Shibayama, Ryo Yoshida
- 10:50 1S05 Active swimming of an azobenzene-containing soft matter
Yoshiyuki Kageyama, Tomonori Ikegami, Kazuma Obara, Shinnosuke Satonaga, Sadamu Takeda
- K. Okeyoshi, presiding**
- 11:15 1S06 Drug Release from Hollow-type Spherical Bacterial Cellulose gel
Toru Hoshi, Kazuyoshi Yamazaki, Takao Aoyagi
- 11:40 1S07 Utilization of lignin as functional softmatter via simultaneous

enzymatic saccharification and comminution of plants
Kazuhiro Shikinaka, Yuichiro Otsuka

A. Matsumoto, presiding

- 12:55 1S08 Snaking/Twisting Fibers Formation of Cyanobacterial Supra-Polysaccharides in Natural Drying Process
Kulisara BUDPUD, Kosuke OKEYOSHI, Maiko OKAJIMA, Tatsuo KANEKO
- 13:20 1S09 Preparation of supra-polysaccharide gels with microfiber orientation via evaporative self-assembly
Kosuke Okeyoshi, Kittiphong TONGSUK, Miki YAMASHITA, Kulisara BUDPUD, Takeshi SHINHAMA, Gargi JOSHI, Maiko OKAJIMA, Tatsuo KANEKO
- 13:45 1S10 DNA-gold nanoparticle hybrid hydrogel prepared by DNA polymerase chain reaction
Tatsuo Maruyama, Yuka Eguchi, Tomoharu Kato, Tsutomu Tanaka
- 14:10 1S11 Nano-IPN conversion of DNA quadruplex gel for enhanced gel-state lifetime in water
Shizuma TANAKA, Shinsuke YUKAMI, Yuichi OHYA, Akinori KUZUYA

A. Kuzuya, presiding

- 14:35 1S12 Construction of novel cell culture system using semi 3-D hydrogel microstructures
Atsushi Tsuyukubo, Kimio Sumaru, Toshiyuki Kanamori
- 15:00 1S13 Development of skeletal muscle regenerative technology using injectable cell cross-linked hydrogels
Yuka Kimura, Koji Nagahama
- 15:25 1S14 Subcutaneously accessible smart-gel based approach to the development of artificial pancreas
Akira Matsumoto, Siyuan Chen, Hiroko Matsumoto, Yuki Morooka, Hironori Yamada, Hirohito Kuwata, Miyako Tanaka, Kozue Ochi, Kazunori Kataoka, Takayoshi Suganami, Yuji Miyahara

K. Younsoo, presiding

- 15:50 1S15 Reversible generation of large tensile forces in isometric chemo-mechanical actuators composed of nanocomposite hydrogels and aqueous NaCl solutions
Kazutoshi Haraguchi, Yuji Kimura, Shoichi Shimizu
- 16:15 1S16 Liquid crystalline nanosheets/polymer composite gels
Nobuyoshi Miyamoto, Takumi Inadomi, Shinya Yamamoto, Kenji Urayama
- 16:40 1S17 Effect of orientation on the photo-bending behaviors of liquid crystalline polypeptide gel fabricated on polyimide layer.
Toshihiro Hiejima, Hiromasa Imai

K. Sumaru, presiding

- 17:05 1S18 Change of properties of poly(lactic acid) gel by controlling crystalline structure
Yasuhiro Matsuda, Hiroki Ashizawa, Takahiro Fukui, Atsushi Takahara, Shigeru Tasaka
- 17:30 1S19 Crystalline Gel Fibers Produced by Electrospinning
Takuya Miyazaki, Jin Gong, Yuchen Mao
- 17:55 1S20 Synthesis of soft matter consisting of the benzoxaborole-based

copolymers via reversible covalent bonds
Yohei Kotsuchibashi

Thu. Sep 13

S13. Polymer Gel Opens the Way to Soft Matter Science

T. Asoh, presiding

- 9:10 2S01 Elasticity of Dense Mixture Suspensions of Microgels with Different Diameters and Rigidities
Ayaki Nakaishi, Shun Oura, Saori Minami, Takumi Watanabe, Daisuke Suzuki, Kenji Urayama
- 9:35 2S02 Yielding Behavior of Dense Mixture Suspensions of Microgels with Different Diameters and Rigidities
Saori Minami, Ayaki Nakaishi, Shun Oura, Takumi Watanabe, Daisuke Suzuki, Kenji Urayama
- 10:00 2S03 Dynamic Swelling Behavior of Hydrogel microspheres Interacted with Surfactants
Yuichiro Nishizawa, Shusuke Matsui, Hiroki Watanabe, Takayuki Uchihashi, Daisuke Suzuki

A. Kakugo, presiding

- 10:25 2S04 Electrokinetic Phenomena of Microgels with Soft Interface
Takuma Kureha, Takahisa Shibamoto, Takamasa Sakai, Daisuke Suzuki

T. Kureha, presiding

- 10:50 2S05 Elastic-plastic control of highly particle filled composite gels with stimuli-responsive networks
Tatsuya Yamamoto, Taka-Aki Asoh, Hiroshi Uyama
- 11:15 2S06 Control of microscopic structure in nanogel crosslinked gels by acoustic wave
Chisato Kadota, Sada-atsu Mukai, Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 11:40 2S07 Fundamental investigation of toughening mechanism of polymeric ion gel containing well dispersed silica nanoparticles
Tomoki Yasui, Eiji Kamio, Yu Iida, Hideto Matsuyama

K. Urayama, presiding

- 12:55 2S08 Computer Simulation of Gelation and Rheology of Associating Polymers using Coarse-grained Flower-micelle Model
Hanako Nakamura, Tsuyoshi Koga
- 13:20 2S09 Thermodynamic analysis of polymer gel elasticity
Yuki Yoshikawa, Takamasa Sakai
- 13:45 2S10 Coil-Globule Transition of Branched Polymers
Kazumi Suematsu

T. Sakai, presiding

- 14:10 2S11 Development and structure analysis of ergodic gels
Xiang Li, Shintaro Nakagawa, Yui Tsuji, Takako Noritomi, Mitsuhiro Shibayama
- 14:35 2S12 Effect of the cross-link mobility on the deformation and fracture behavior of slide-ring gels
Chang Liu, Lan Jiang, Koichi Mayumi, Hideaki Yokoyama, Kohzo

- Ito
- 15:00 2S13 Transient Gelation of Dilute Polyion Complex Aqueous Solution
Kyoichi Tsurusaki, Hiroya Shinohara, Ken Suematsu, Ryoen Shirasaki, Rika Takeda, Chihiro Kato
- 15:25 2S14 Fabrication of hybrid materials consisting of graphene and lipophilic polyelectrolyte gels
Shinya Tajima, Kenta Kokado, Kazuki Sada
- K. Sada, presiding**
- 15:50 2S15 Self-healing micellar ion gels via hydrogen bonding and application for polymer gel electrolytes
Ryota Tamate, Kei Hashimoto, Tatsuhiko Horii, Xiang Li, Mitsuhiro Shibayama, Masayoshi Watanabe
- 16:15 2S16 UCST behavior of novel thermoresponsive polymers containing a nucleobase structure
Chie Otsuka, Takashi Aoki, Yuko Wakahara, Juri Sakata, Masaki Okuyama, Akinobu Hayashi, Hidetoshi Tokuyama, Seiichi Uchiyama
- 16:40 2S17 Design of crosslinking structure of amphiphilic gels based on well-controlled synthesis of triblock prepolymers toward novel thermoresponsive materials functioning in air.
Miki Morimura, Shohei Ida, Shokyoku Kanaoka
- 17:05 2S18 Novel Application of Temperature-responsive Polymer Gels - Moisture Absorption and Oozing Water
Nobuki Sakikawa, Kazuya Matsumoto, Takashi Miyata

Fri. Sep 14

S13. Polymer Gel Opens the Way to Soft Matter Science

T. Kurokawa, presiding

- 9:10 3S01 Relationship between Cross-linked Structure and Mechanical Properties of Hydrogels That Look Tough
Takashi Miyata, Chisa Norioka, Akifumi Kawamura
- 9:35 3S02 Synthesis of fluorescent rotaxane cross-linked polymers and evaluation of dynamic behavior of the movable cross-linking point
Hiromitsu Sogawa, Yousuke Akae, Keisuke Iijima, Toshikazu Takata
- 10:00 3S03 Development of flexible fatigue detection device
Tetsuro Iijima, Hideaki Tamate, Go Murasawa, Masaru Kawakami, Hidemitsu Furukawa
- 10:25 3S04 Wearable Hydrogel Patch as a Non-enzymatic Continuous Biosensor Enabled by Anisotropic Swelling Property
Junggho Lee, Koki Sano, Yasuo Ebina, Takayoshi Sasaki, Geunbae Lim, Yasuhiro Ishida

T. Miyata, presiding

- 10:50 3S05 Molecular model for rubber elasticity of polymer networks that takes account of polymer chain's break under large deformation. Analysis of Double Network gels
Tsutomu Indei, Takahiro Matsuda, Yukiko Takahashi, Tasuku Nakajima, Jian Ping Gong

- 11:15 3S06 Functional supramolecular soft-materials controlled by cross-linking unit in polymer networks
Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada
- 11:40 3S07 Synthesis of a gel with a homogeneous network structure by combining two methods of synthesizing star polymers
Yusuke Baba, Do Woo Kwon, Yuumi Okaya, Yuto Jochi, Yukikazu Takeoka, Takahiro Seki, Kotaro Sato, Masami Kamigaito

Y. Sasaki, presiding

- 12:55 3S08 Swelling Behavior and Interfacial Molecular Motion of Hydrogel Thin Films
Nozomi Itagaki, Yukari Oda, L. Norifumi Yamada, Daisuke Kawaguchi, Keiji Tanaka
- 13:20 3S09 Redox injectable hydrogel for cardiovascular therapeutics improved by poly(arginine)-triggered nitric oxide generation
Binh Long Vong, Thang Quoc Bui, Tsutomu Tomita, Hiroki Sakamoto, Yuji Hiramatsu, Yukio Nagasaki
- 13:45 3S10 Smart lipid membrane devices: Control of lipid membrane morphology by thermoresponsive cationic comb-type copolymer/peptide complex
Tsukuru Masuda, Takuro Ochiai, Naohiko Shimada, Atsushi Maruyama

T. Nakajima, presiding

- 14:10 3S11 Study on surface structure of gel material for contact lens with pattern printed by neutron reflectometry
Eri Ito, Akihiro Ohara, Ryo Matsushita, Katsuhiko Yamamoto
- 14:35 3S12 Normal stress and formation of lubrication layers for polymer gels
Masahiro Kuze, Takashi Uneyama, Yuichi Masubuchi, Tetsuya Yamamoto
- 15:00 3S13 Self-Assembly of Amphiphilic Random Copolymers into Hydrogels
Takaya Terashima
- 15:25 3S14 Viscoelastic properties of associative polymers in polymeric matrix
Takuya Katashima, Yu Kashiwagi, Ohnishi Miyu, Takamitsu Chiba, Takamasa Sakai, Tadashi Inoue

Room T

Wed. Sep 12

S16. Design of Bio-polymer Interfaces for Medical Applications

- 9:50 1TSO Introductory Remarks S16
Yuichi Ohya, Mitsuhiro Ebara
- Y. Ohya, presiding**
- 10:00 1T03 3D-Cell patterning using intercellular anchoring molecules
Michiya Matsusaki, Kousuke Yanagisawa
- 10:25 1T04 Development of polymer-peptide hybrid directed to compatibility

between efficient cell membrane permeability and improved stability in blood

Hiroka Sugai,JIANG Nan,Cheng Yan,Moeka Matsushima,Masahito Inagaki,Masaki Nishijima,Satoru Ishibashi,Yasuyuki Araki,Takanori Yokota,Takehiko Wada

M. Matsusaki, presiding

- 10:50 1T05 Apoptotic activity of signal condensing nanoparticles
Shota Yamamoto,Yoshifumi Iwamaru,Jun Nakanishi
- 11:15 1T06 Bone tissue synthesis by using cellular membrane nano-fragment
Takuya Matsumoto
- 11:40 1T07 Challenge to advanced application of proteoliposomes prepared by cell-free membrane protein / liposomes system
Mitsuru Ando,Yoshihiro Sasaki,Kazunari Akiyoshi

J. Nakanishi, presiding

- 12:55 1T08 pH-responsive polymer vesicles with biocompatible interface
Shin-ichi Yusa,Yuki Ohara,Sana Ahmed,Kazuaki Matsumura,Kazuhiko Ishihara
- 13:20 1T09 Spontaneous assembly of supramolecular polymers by modulating intermolecular interactions and their pharmaceutical applications
Atsushi Tamura,Kei Nishida,Asato Tonegawa,Nobuhiko Yui
- 13:45 1T10 Development of the biointerfaces dynamically functioning by photo-induced phase transitions of spiropyran-introduced polymer materials
Naoya Takeda,Mitsuya Yamamoto,Masato Sakano,Yutaro Miyake,Haruka Umeno,Keiichi Imato
- 14:10 1T11 Construction of ligand-conjugated polymeric micelles for oligonucleotide delivery
Kanjiro Miyata,Hyun Su Min,Yu Yi,Mitsuru Naito,Hyun Jin Kim,Kazunori Kataoka

Y. Ikeda, presiding

- 14:35 1T12 Crispy gel formation of self-assembled cellulose oligomers toward 3D cell culture
Tohru Maeda,Toshiki Sawada,Takeshi Serizawa
- 15:00 1T13 Tissue-adhesive nanofilms for implantable device applications
Toshinori Fujie,Kento Yamagishi,Izumi Kirino,Isao Takahashi,Hizuru Amano,Shinji Takeoka,Yuji Morimoto
- 15:25 1T14 One-pot Preparation of Biodegradable IPN Hydrogel for Cartilage Tissue Engineering Application
Shohei Ishikawa,Kazutoshi Iijima,Shigehito Osawa,Michihiro Iijima,Hidenori Otsuka

S. Asayama, presiding

- 15:50 1T15 Drug Delivery System Utilizing Aqueous Two Phase Separation Between PEG and Polysaccharides
Tooru Ooya,Kazune Oda,Yuta Horibe,Ryo Adomi,Ari Yamamoto
- 16:15 1T16 Development of regenerative technology for whole skin tissues using self-replenishing gels
Kimika Ono,Kaho Tobiishi,Koji Nagahama
- 16:40 1T17 Development of a navigator molecule that switches the metabolic pathway of an etiologic agent in the blood

Yusuke Kambe, Kento Koyashiki, Yoshiaki Hirano, Tetsuji Yamaoka

A. Tamura, presiding

- 17:05 1T18 Construction of antioxidative biointerface for stem cell culture and blood compatible material design
Yutaka Ikeda, Naoki Inuzuka, Mitsuaki Goto, Toshihiro Akaike, Yukio nagasaki
- 17:30 1T19 Synthesis of DNA-poly lactide conjugates for preparation of interfaces immobilizing desired cell-specific ligands and evaluation of their cellular recognition
Hiromichi Sumida, Yuta Yoshizaki, Akinori Kuzuya, Yuichi Ohya
- 17:55 1T20 Effect of polycarboxylates-coating of TiO₂ nanoparticles/polyallylamine complexes to immune cell activation
Atsushi Harada, Kazuki Furukawa, Eiji Yuba

Thu. Sep 13

S16. Design of Bio-polymer Interfaces for Medical Applications

A. Kikuchi, presiding

- 9:10 2T01 Protein Loading and Release Properties of Polyion Complex-Type Polysaccharide Composite Films
Tomonori Shibata, Yusuke Otsuka, Yusuke Yataka, Kazutoshi Iijima, Mineo Hashizume
- 9:35 2T02 Development of functional polymeric glue with complementary interaction for spatial cell arrangement
Taihei Nishimoto, Ko Matsukawa, Kenichi Nagase, Hideko Kanazawa, Mizutani Aya Akimoto, Ryo Yoshida
- 10:00 2T03 Bioactivation of ePTFE substrates by direct immobilization of peptide ligands
Satoru Nishioka, Yuki Arichi, Yoshiaki Hirano, Tetsuji Yamaoka, Sachiro Kakinoki
- 10:25 2T04 Investigation on activation dynamics of C-reactive protein through biomimetic interface
Tatsuro GODA, Yuji MIYAHARA

Y. Hirano, presiding

- 10:50 2T05 Development of Super teeth and super implant with phosphate containing polymer
Yoshiko Miura, Xinnan Cui, Yu Hoshino, Kazuhiro Aoki
- 11:15 2T06 Preparation of carbonate apatite capsules utilizing biodegradable coacervate droplets toward bone regeneration
Syuuhei KOMATSU, Yui IKEDO, Hokuto SANTA, Taka-Aki ASOH, Ryo ISHIHARA, Akihiko KIKUCHI
- 11:40 2T07 Shape memory cell culture platforms for mechanobiology study
Koichiro Uto, Mitsuhiro Ebara

M. Yamamoto, presiding

- 12:55 2T08 Serum Albumin Imprinted Nanogels Containing Gold Nanoparticles for Radiation Therapy
Yukiya Kitayama, Takuya Yamada, Kentaro Kiguchi, Aoi

- Yoshida, Hiroaki Akasaka, Yuya Nishimura, Kazunori Igarashi, Yu Matsumoto, Ryohei Sasaki, Toshifumi Takeuchi
- 13:20 2T09 Modulation of APC expression in mesenchymal stem cell during nomadic culture on heterogeneous field of elasticity
Satoru Kidoaki, Kousuke Moriyama, Thasaneeya Kuboki, Rumi Sawada, Yukie Tsuji, Hiroyuki Ebata, Saori Sasaki, Aki Yamamoto, Kazusa Tanaka, Ken Kouno
- 13:45 2T10 Design of Bioinert Interface by Noncovalent Modification with Cholesterol End-Modified Poly(ethylene glycol)
Shoichiro Asayama, Yuya Sone, Hiroyoshi Kawakami, Yoichi Negishi
- 14:10 2T11 Preparation of biocompatible poly(ester-urethane)s containing phosphorylcholine moiety and soft segments.
Hiroaki Miyashita, Yuki Nogami, Yosuke Okamura, Yu Nagase

J. Kobayashi, presiding

- 14:35 2T12 Construction of biocompatible interface using hyperbranched polymer
Masayasu Totani, Masayuki Haraguchi, Hisao Matsuno, Nobutomo Tsuruzoe, Keiji Tanaka
- 15:00 2T13 Interaction with blood components suppressed by polymer-concentrated layers having dynamic interface
Takashi AOKI, Kanta NOGAMI
- 15:25 2T14 Surface design of polymer-based nanoparticles for improving their blood retention
Jun Matsuno, Shota Fujii, Rintaro Takahashi, Ji Ha Lee, Kazuo Sakurai

K. Uto, presiding

- 15:50 2T15 Prevention of bacteria adhesion by modifying zwitterionic polymer on ceramic surfaces
Shoichi Yoshizawa, Aya Noguchi, Zhou Lu, Norifumi Isu, Madoka Takai
- 16:15 2T16 Synthesis and cell adhesion behavior of segmented poly(L-lactide) multiblock copolymers
Mitsutoshi Jikei, Keita Kashiwaya, Mao Takeda, Kazuya Matsumoto, Noriko Tan, Shigeharu Ueki
- 16:40 2T17 Control of interfacial structures and function of biocompatible polymers
Daiki Murakami, Tomoya Ueda, Nami Mawatari, Yuto Segami, Masaru Tanaka
- 17:05 2T18 Design of polymer nanosheets as nano-interfaces and their application to a novel tool for high quality bioimaging
Yosuke Okamura, Hong Zhang, Kenji Yarinome, Takuto Aoki, Taiga Takahashi, Ryosuke Kawakami, Tomomi Nemoto

Fri. Sep 14

S16. Design of Bio-polymer Interfaces for Medical Applications

A. Mahara, presiding

- 9:10 3T01 Development of an innovative surgical adhesive with high

- bonding strength and biocompatibility
Ryo Mizuta, Tetsushi Taguchi
- 9:35 3T02 Development of a synthetic replica having surface morphology of aortic lumen
Tsuyoshi Kimura, Mayuka Kondo, Yoshihide Hashimoto, Toshiya Fujiato, Naoko Nakamura, Akio Kishida
- 10:00 3T03 Design of cell-material interfaces for modulating stem cells functions
Masaya Yamamoto
- 10:25 3T04 Design of a thermoresponsive cell culture surface for on-off stimulation of cellular receptors
Jun Kobayashi, Yoshikatsu Akiyama, Masayuki Yamato, Teruo Okano

K. Sumaru, presiding

- 10:50 3T05 Tumor cell-binding synthetic polymer with sensing dense glutamine transporter on cancer cells based on aberrant glutamine metabolism
Yuto Honda, Naoki Yamada, Hiroyasu Takemoto, Takahiro Nomoto, Makoto Matsui, Keishiro Tomoda, Nobuhiro Nishiyama
- 11:15 3T06 Intracellular materials delivery by using polyampholytes and freeze concentration
Kazuaki Matsumura, Sana Ahmed
- 11:40 3T07 Controlled structure of cell sheets using patterned thermoresponsive surfaces based on polymer stamping method
Masamichi Nakayama, Junichi Tonegawa, Akihiko Kikuchi, Masayuki Yamato, Teruo Okano

T. Fujie, presiding

- 12:55 3T08 Super-fine MR imaging of cerebrovasculature by self-assembled structure of Gd-chelate conjugated 8-arm polyethylene glycol
Atsushi Mahara, Yu-I Hsu, Shigeyoshi Saito, Takahiro Higuchi, Tetsuji Yamaoka
- 13:20 3T09 Design of thermally-assisted complexation of proteins with amphiphilic poly(ethylene sodium phosphate)
Susita Noree, Yasuhiko Iwasaki
- 13:45 3T10 Design of Dual Stimuli-Responsive Sol-Gel Transition Polymers Using Photodimerization and Their Applications to Cell Cultures
Takashi Miyata, Akana Matsuda, Yousuke Natsume, Akifumi Kawamura
- 14:10 3T11 Photo-responsive culture substrates for spatiotemporal control of drug release
Kimio Sumaru, Toshiyuki Takagi, Kana Morishita, Toshiyuki Kanamori

M. Ebara, presiding

- 14:35 3T12 UCST-type behavior of acylated ureido polymers
Naohiko Shimada, Taira Sasaki, Atsushi Maruyama
- 15:00 3T13 "Borono-lectin" engineering as a versatile platform for biosensing and drug delivery systems
AKira Matsumoto
- 15:25 3T14 Fabrication of photothermal actuators by adhesion of conductive polymers and thermoresponsive gels
Megumi Nakamura, Taka-Aki Asoh, Tatsuya Shoji, Yasuyuki Tsuboi, Hiroshi Uyama

Room U

Wed. Sep 12

S15. Structural Control-based Functionalization of Biomacromolecules

- 9:50 1USO Introductory Remarks S15
Hiromu Kashida, Toshiki Sawada
- H. Kashida, presiding**
- 10:00 1U03 Fabrication of a monolayer composed of vertically aligned GNR arrays with an assistance of a double stranded DNA brush
Satoshi Nakamura, Hideyuki Mitomo, Yasutaka Matsuo, Kenichi Niikura, Takeshi Higuchi, Hiroshi Jinnai, Kuniharu Ijiro
- 10:25 1U04 Picomechanical Analysis of DNA/DNA Interactions Using Optical Tweezers Technique
Naoki Kanayama, Hiroya Nakauchi, Mizuo Maeda
- 10:50 1U05 Directed Association of DNA-Functionalized Nanoparticle Assemblies
Li Yu, Tzung-Ying Yang, Yoshitsugu Akiyama, Tohru Takarada, Mizuo Maeda
- N. Kanayama, presiding**
- 11:15 1U06 Anti-coagulation regulation of DNA aptamer identified by MACE-SELEX
Keitaro Yoshimoto
- 11:40 1U07 Investigation of cationic poly(amino acid) for delivery of siRNA
Kotaro Hayashi, Shigeto Fukushima, Nobuhiro Nishiyama, Kanjiro Miyata, Kazunori Kataoka
- H. Mitomo, presiding**
- 12:55 1U08 Development of Tau-derived peptides toward encapsulation of functional molecules into microtubules
Takahisa Yamamoto, Hiroshi Inaba, Arif Md. Rashedul Kabir, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 13:20 1U09 Synthesis of Temperature-responsive Polymers with Protein Recognition Sites and Their Responsive Behavior for Denatured Proteins
Ryota Ozaki, Akifumi Kawamura, Takashi Miyata
- K. Matsuura, presiding**
- 13:45 1U10 Synthesis and characterization of GFP-inspired peptide-vinyl polymer conjugates.
Nae Ota, Shinnosuke Nishimura, Nobuyuki Higashi, Tomoyuki Koga
- 14:10 1U11 Preparation of Anisotropic Films by Structural Control of Polysaccharide Polyion Complexes
Mineo Hashizume, Yuichi Nikaido, Masahiro Sakaguchi, Yusuke Yataka, Kazutoshi Iijima
- M. Hashizume, presiding**
- 14:35 1U12 Construction of Higher-order Structure from Amylose Inclusion

- complex with Amphiphilic Triblock Guest Copolymer
Keisuke Yano, Jun-ichi Kadokawa, Kazuya Yamamoto
- 15:00 1U13 Creation of Artificial Viral Capsid decorated with Ribonuclease S
Kazunori MATSUURA, Junpei OTA, Hiroshi INABA
- 15:25 1U14 Enhancement of the Long-term Internalization Efficiency of Cell Penetrating Peptide containing α -aminoisobutylic acid having Tolerance to Protease Degradation
Yu MIYAGI, Kousuke TSUCHIYA, Keiji NUMATA

A. Otaka, presiding

- 15:50 1U15 Preparation of the self-oscillating polymer modified substrates with different graft densities and their surface analyses by atomic force microscopy
Kenta Homma, Yuji Ohta, Aya Mizutani Akimoto, Ryo Yoshida
- 16:15 1U16 Compartmentalization of pDNA as single-strand within polyplex micelles
Kensuke OSADA, Theofilus Tockary, Kazunori Kataoka
- 16:40 1U17 Design of mitochondrial localizing polymers with biomembrane translocation
Nobuyuki Morimoto, Masaya Yamamoto

K. Osada, presiding

- 17:05 1U18 Cell surface modification by layer-by-layer membrane composed of biopolymers and construction of 3D biological tissue models
Takami Akagi, Mitsuru Akashi
- 17:30 1U19 Polyphosphoesters as a macrophage targeting drug delivery system
Akihisa Otaka, Yasuhiko Iwasaki
- 17:55 1U20 Synthesis of polymers with precisely placed side chains for controlling functions of biomaterials
Shingo Kobayashi, Toshiki Sonoda, Naoki Fujita, Masaru Tanaka

Thu. Sep 13

S15. Structural Control-based Functionalization of Biomacromolecules

K. Murayama, presiding

- 9:10 2U01 Effect of freezing solution for AuNPs conjugation with DNA origami
Shumpei Ishikawa, Md. Sirajul Islam, Naohide Akamatsu, Yuichi Ohya, Akinori Kuzuya
- 9:35 2U02 Nucleic acids loaded polyplex micelle with hydrophobic core-protective barrier -Thermo-switchable poly(oxazoline) segment to form hydrophobic barrier and its effect to enhance the stability of polyplex micelle-
Shigehito Osawa, Kensuke Osada, Anjaneyulu Dirisala, Hidenori Otsuka, Kazunori Kataoka
- 10:00 2U03 Spatiotemporal control of cargo transportation by biomolecular motor and photoresponsive DNA
Kentaro Kayano, Jakia Jannat Keya, Arif Md. Rashedul KABIR, Kazuki Sada, Akinori Kuzuya, Akira Kakugo

M. Ikeda, presiding

- 10:25 2U04 Recovery of guanine-quadruplex with base lesion by ligand-conjugated nucleic acid material
Shuntaro Takahashi, Byeang Hyeon Kim, Dmitry Stetsenko, Janez Plavec, Naoki Sugimoto
- 10:50 2U05 Reversible photo-regulation of SNA duplex formation by using photo-crosslink type modified nucleobases
Yuuhei Yamano, keiji Murayama, Hiroyuki Asanuma

S. Takahashi, presiding

- 11:15 2U06 Activation of allosteric DNAzyme with cationic copolymers
Orakan Hanpanich, Hiroki Sato, Naohiko Shimada, Atsushi Maruyama
- 11:40 2U07 Reduction stimuli-responsive structural transformation of nucleic acids
Masato Ikeda

C. Kojima, presiding

- 12:55 2U08 Long-term imaging of mRNA based on intracellular release of nucleic acids
Yuki Murata, Jun-ichiro Jo, Yasuhiko Tabata
- 13:20 2U09 Anti-inflammatory evaluation of using apoptotic cell membrane inspired polymer (MPS)
Yuto Yano, Yasuhiro Nakagawa, Akihiko Kikuchi, Mitsuhiro Ebara
- 13:45 2U10 Molecular designs of poly(ethylene glycol)-lipids for freely controlling cell immobilization in a light-guided manner
Satoshi Yamaguchi, Shin Izuta, Shinya Yamahira, Akimitsu Okamoto

E. Yuba, presiding

- 14:10 2U11 Elucidation of disassembly mechanism of protein cage
Takafumi Ueno, Basudev Maity, Kento Niwase, Zhipeng Li, Diannan Lu
- 14:35 2U12 Synthesis of Various Phenylalanine-Modified Dendrimers and Their Dual pH- and Thermo-Sensitivities
Chie Kojima, Mamiko Tamaki, Daichi Fukushima
- 15:00 2U13 Lattice defects in microtubule induced by biomolecular motors and its self-repairing
Daisuke Inoue, Sarah Triclin, Jeremie Gaillard, Laurent Blanchoin, Manuel Thery
- 15:25 2U14 Design and function of membrane protein hybrid using functional micro/nanoparticles
Yuki Ujihira, Mitsuru Ando, Yoshihiro Sasaki, Kazunari Akiyoshi

S. Yamaguchi, presiding

- 15:50 2U15 single molecular imaging of enzymatic reactions on the biomembrane using AFM
Toshiaki Mori, Shinya Kobayashi, Rina Tanaka, Keisuke Kurihara, shuhei Teguri
- 16:15 2U16 Activation of immune cells by liposomes highly coated with anionic adjuvant molecules
Eiji Yuba, Yuna Kado, Naoki Sakaguchi, Atsushi Harada, Kenji Kono
- 16:40 2U17 Structural Control of Molecular blocks with Self-Assembling

- Property at Cancer Microenvironment and Their Inducing Cell Death Function
Michiya Matsusaki, Yuudai Shioji
- 17:05 2U18 Synthesis of Star Glycopolymers for controlling the interaction with the influenza viruses.
Masanori Nagao, Teruhiko Matsubara, Yu Hoshino, Toshinori Sato, Yoshiko Miura

Fri. Sep 14

S15. Structural Control-based Functionalization of Biomacromolecules

K. Yasuhara, presiding

- 9:10 3U01 Controlled synthesis of alternating glycopolymers (1) –A new approach based on RAFT copolymerization employing a sugar-carrying styrene derivative –
Daichi Shimizu, Jin Motoyanagi, Tomonari Tanaka, Masahiko Minoda
- 9:35 3U02 Controlled synthesis of alternating glycopolymers (2) –A new approach based on RAFT copolymerization and sequential post-click reactions –
Tomomi Otsubo, Jin Motoyanagi, Tomonari Tanaka, Masahiko Minoda
- 10:00 3U03 Ultrafast Energy Transfer, Charge Separation, and Photocurrent Generation by Photosynthetic Light-Harvesting and Reaction Center Complexes Reconstituted into Lipid Bilayer
Takehisa Dewa, Akari Goto, Yusuke Yoneda, Nobutaka Takeda, Masaharu Kondo, Hiroshi Miyasaka, Yutaka Nagasawa

T. Dewa, presiding

- 10:25 3U04 pH Dependence on Properties of Poly (methyl methacrylate) Composites with Cellulose Nanofibers by Various Nano Fibrillization Methods
Mibuki Sakata, Takuya Matsumoto, Takashi Nishino
- 10:50 3U05 Screening glycopolymer incorporating functional group for detection of Cholera toxin
Yuri Kimoto, Yuhei Terada, Yu Hoshino, Yoshiko Miura

Y. Hoshino, presiding

- 11:15 3U06 Recognition of curved lipid membrane by amphiphilic polymer
Kazuma Yasuhara, Ryo Yamanaka, Jun-ichi Kikuchi
- 11:40 3U07 Development and its bio-function of extracellular vesicles prepared by external field induction method
Ai Amano, Yoshihiro Sasaki, Kazunari Akiyoshi

S. Takenaka, presiding

- 12:55 3U08 Novel Design Strategy of DNA-Artificial Nucleic Acid Chimera Toward Enhancement of Cleavage Activities
Masahito Inagaki, Daisuke Unabara, Kenta Otake, Ryouhei uematsu, Yasuyuki Araki, Satoru Ishibashi, Asako Yamayoshi, Kazuhiko Nakatani, Masaki Nishijima, Takanori Yokota, Takehiko Wada
- 13:20 3U09 Functionalization of Multiblock Oligomers Mimicking Membrane

Proteins

Kazushi Kinbara, Takahiro Muraoka, Kaori Umetsu, Daiki Noguchi, Tatsuya Shima

K. Kinbara, presiding

- 13:45 3U10 Characterization of Drug-loaded Transferrin nanoparticles
Hayata Matsumoto, Lee Ji Ha, Shota Fujii, Rintaro Takahashi, Kazuo Sakurai
- 14:10 3U11 Control of high-ordered DNA structures based on supramolecular interaction
Shigeori Takenaka, Shinobu Sato, KenSuke Hiraki
- 14:35 3U12 Hierarchical assemblies of liquid crystalline filamentous viruses and their thermophysical properties
Toshiki Sawada, Naoki Ueda, Yuta Murata, Hironori Marubayashi, Shuichi Nojima, Junko Morikawa, Takeshi Serizawa

T. Sawada, presiding

- 15:00 3U13 Construction of an RNA module that switch its function by pH
Junji Kawakami, Nae Sakimoto
- 15:25 3U14 Amino Acid Sequences of Lys-containing Peptides that induce the Folding of a Giant ds-DNA Control the Continuity in the Folding of DNA.
Tatsuo Akitaya, Anatoly Zinchenko, Toshio Kanbe, Koji Kubo, Shizuaki Murata, Kenichi Yoshikawa

Room V

Wed. Sep 12

S23. 3D + Polymer = Soft Matter Innovation

- 9:50 1VSO Introductory Remarks S23
Go Murasawa
- A. Saito, presiding**
- 10:00 1V03 Process for structural formation under shear flow
Go Matsuba, Kun Li
- 10:25 1V04 Development of color gel recipe system
Mizuki Takahashi, Masanobu Tanaka, Kei Sato, Azusa Saito, Masaru Kawakami, Hidemitsu Furukawa
- 10:50 1V05 3D printable thermal energy-storage crystalline gels
Jin Gong, Yuchen Mao, Takuya Miyazaki, Kohei Sakai
- H. Furukawa, presiding**
- 11:15 1V06 Cu microfabrication on polymer substrates using femtosecond laser reductive sintering
Mizue Mizoshiri, Seiichi Hata
- 11:40 1V07 Wettability improvement of porous media toward application of 3D printing to capillary-driven heat transfer devices
Chiemi Oka, Kimihide Odagiri, Hosei Nagano, Seiichi Hata

G. Murasawa, presiding

12:55	1V08	Soft-Manufacturing Innovation by 3D Printing of Soft-Matter <u>Hidemitsu Furukawa</u> , Kazunari Yoshida, Azusa Saito, Ajit Khosla, Masato Makino, Masaru Kawakami
13:20	1V09	Fabrication of orientation controlled 3D cardiac tissue with vascular network using a cell accumulation technique and 3D printed a thermo-responsive gel frame <u>Yoshinari Tsukamoto</u> , Takami Akagi, Mitsuru Akashi
13:45	1V10	Rubber Fabrication using 3D Printers <u>Takashi Nishino</u> , Takafumi Tsurui, Hiroshi Suzuki, Ruri Hidema, Kenji Ishida, Tatsuya Fukushima, Yasuko Koshiba, Takuya Matsumoto, Takahiro Kaneyoshi, Asahiro Nagatani, Yusuke Fukuchi, Hisao Yoshinaga, Jun Ohnishi, Tsutomu Shioyama, Kenichi Harano
14:10	1V11	Development of physical simulator for stereolithography Ken Tanaka, Hiroshi Yamamoto, <u>Kentaro Taki</u>
K. Taki, presiding		
14:35	1V12	Development of simple physical property measuring device for material for 3D food printer using concentric circle method <u>Ryo Ishigaki</u> , Mai Kodama, Masaru Kawakami, Hidemitsu Hurukawa
15:00	1V13	Extruding evaluation of 3D printer materials for FDM <u>Kazunari Masutani</u> , Shotarou Kamai, Seiichi Yuyama
15:25	1V14	Low-cost 3D gel printer "RepRap SWIM-ER" <u>Azusa Saito</u> , Kei Sato, Samiul Bashar, Yuta Yamazaki, Yosuke Sato, Masaru Kawakami, Hidemitsu Furukawa

Thu. Sep 13

S22. Well-defined Network Polymers for Development of Next Society

9:00	2VSO	Introductory Remarks S22 <u>Bungo Ochiai</u>
D. Nagai, presiding		
9:10	2V01	Curing reaction of multi-functional epoxides derived from limonene oxide by imidazole catalyst <u>Hisatoyo Morinaga</u> , Mayu Sakamoto
9:35	2V02	Lowering effect of curing temperature of cyanate ester resin caused by phenolic compounds with tertiary amine structure and characterization of the resulting cured resins <u>Keisuke Izu</u> , Yuichiro Tokoro, Toshiyuki Oyama
10:00	2V03	Synthesis and Crosslinking Reaction of Polyacetylenes Substituted with Benzoxazine Rings <u>Masahide Goto</u> , Yu Miyagi, Masaki Minami, Fumio Sanda
H. Morinaga, presiding		
10:25	2V04	Controlled Degradation of Cross-linked Polyperoxides by Thermal Latent Reductants and Property Enhancements of Dismantlable Adhesives <u>Eriko Sato</u> , Chisato Omori, Yuta Koda, Hideo Horibe
10:50	2V05	Synthesis of organic-inorganic materials utilizing cross-linking of hydrophilic polymer with metal-coordination unit and metal ion

Daisuke Nagai, Moeko Morita, Tadaomi Shimazaki, Ayaka Kubo, Yasuyuki Maki, Hiroyuki Takeno, Masanobu Mori, Hiroki Uehara, Takeshi Yamanobe

11:15 2V06 Fusion of different cross-linked polymers based on exchange reaction of bulky disulfide bonds

Ayuko Tsuruoka, Koki Ikuta, Akira Takahashi, Daisuke Aoki, Hideyuki Otsuka

11:40 2V07 Synthesis and properties of polycarbonate and polyester containing Noria skeletons in the main-chain

Kuta Kitagawa, Hiroto Kudo

B. Ochiai, presiding

12:55 2V08 Synthesis of Polymers having Zwitterion Structure Obtained by the Cyclic Amidine Derivatives and Isothiocyanate Derivatives

Akira Yamauchi, Takeshi Endo

13:20 2V09 Synthesis of Novel Poly(spiroorthocarbonate)s from Pentaerythritol Derivatives and Their Application to Networked Polymers

Yasuyuki Mori, Takeshi Endo

13:45 2V10 Synthesis and properties of polydithiourethane with multifunctional isothiocyanates and thiols

Yoshiaki Yoshida, Takeshi Endo

14:10 2V11 Development of functional adhesives by complexation of poly(γ -glutamic acid)s having dopamine-derived structure with zinc ions

Wataru Fukushima, Takayuki Fujiyama, Kozo Matsumoto, Takeshi Endo

K. Matsumoto, presiding

14:35 2V12 Design of high strength and heat-resistant materials using N-allyl maleimide polymers and multifunctional thiol/allyl crosslinkings

Yuto Kurasaki, Akikazu Matsumoto

15:00 2V13 Synthesis and characterization of core cross-linked polymeric nanoparticles with thiophene and sulfur in the cores

Hiroki Otsuka, Chen-Tsyr Lo, Kazuhiro Nakabayashi, Hideharu Mori

15:25 2V14 Radical Polymerization of Rigid Trimethacrylates Derived from Naturally Occurring myo-Inositol

Atsushi Sudo, Shusuke Okamoto

Y. Matsumura, presiding

15:50 2V15 Synthesis of the network of polymers with controlled chain length and vitrimer-type cross linkings

Yasuyuki Nakamura, Akinori Moriya, Masanobu Naito

16:15 2V16 High-photosensitive radical UV curing of methacrylates using chain transfer reactions

Yuina Kokai, Masahiro Furutani, Koji Arimitsu

16:40 2V17 Mixing effect of bismaleimide resins to anionic UV curing system of epoxy resins

Nene Hatakeyama, Yusuke Hakamata, Masahiro Furutani, Koji Arimitsu

17:05 2V18 Construction of cascade-type reaction systems for anionic UV curing of thick film samples

Kouta Ooki, Masahiro Furutani, Koji Arimitsu

Fri. Sep 14

S22. Well-defined Network Polymers for Development of Next Society

S. Nakagawa, presiding

- 9:10 3V01 Self-assembled structure of rod-like polyrotaxanes using coordination bond
Riki Masuda, Shuntaro Uenuma, Rina Maeda, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 9:35 3V02 Toughening Elastomer by Hybrid Cross-Link Composed Rotaxane and Hydrogen-Bond
Jun Sawada, Toshikazu Takata
- 10:00 3V03 Development of tough shape-memory materials deformable under compression via solventless thermal radical cyclocopolymerization
Kazuki CHIBA, Takumi MIYASHITA, Kiichi GOTO, Yoshimasa MATSUMURA, Bungo OCHIAI

S. Nishitsuji, presiding

- 10:25 3V04 Autonomous Self-healing Network Polymers by Atmospheric Moisture
CHAEHOON KIM, HIROTAKA EJIMA, NAOKO YOSHIE
- 10:50 3V05 A composite hydrogel possessing supramolecular bonding between cellulose fiber and polymer matrix
Akihide Sugawara, Taka-Aki Asoh, Yoshinori Takashima, Akira Harada, Hiroshi Uyama
- 11:15 3V06 Promotion of radical polymerization by oxygen inhibition reaction during cross-linked network formation
Ryota Hayashi, Asuka Tsuneishi, Kentaro Taki

K. Taki, presiding

- 11:40 3V07 Electrochemical and mechanical properties of salt-in-polymer electrolytes with homogeneous network
Monami Tosa, Ryosuke Shioiri, Kei Hashimoto, Hisashi Kokubo, Masayoshi Watanabe
- 12:55 3V08 The dispersion of filler in rubber by using in-situ USAXS method
Shotaro Nishitsuji, Mikihito Takenaka
- 13:20 3V09 Highly Thermal-Conductive and Highly Oriented Liquid Crystalline Epoxy Film
Shingo Tanaka, Fusao Hojo, Yoshitaka Takezawa, Kiyoshi Kanie, Atsushi Muramatsu

Room W

Wed. Sep 12

S21. Nano- and Micropatterning and Printing Technologies for Their Applications in Electronics and Photonics

9:50	1WS0	Introductory Remarks S21 <u>Yasuo Norikane</u>
		Y. Norikane, presiding
10:00	1W03	Directed Self Assembly of Block Copolymer in Nanoimprinted Guides and its Roughness Evaluation <u>Norikatsu Sasao</u> ,Koji Asakawa,Shinobu Sugimura
10:25	1W04	Depth profiles of chemical compositions of UV-cured imprint resists hybridized by three chemical vapor reaction methods using trimethylaluminum <u>Shunya ITO</u> ,Takuya UEHARA,Yuki OZAKI,Takahiro NAKAMURA,Masaru NAKAGAWA
10:50	1W05	Photosensitivity characteristics of chemically-modified polyhydroxyimide containing photobase generators <u>Misaki Takashima</u> ,Hiroya Akita,Masahiro Furutani,Koji Arimitsu
11:15	1W06	Photopatterning of polysilane films using superbases from photobase generators <u>Shun Kikuchi</u> ,Kunihiro Noda,Dai Shiota,Masahiro Furutani,Koji Arimitsu
11:40	1W07	Photopatterning of films consisting of PEDOT derivatives and acid amplifiers generating polystyrenesulfonic acid in a dry process <u>Eishiro Hiraga</u> ,Masahiro Furutani,Koji Arimitsu
		K. Arimitsu, presiding
12:55	1W08	Development of High- x Block Copolymers Based on Poly(glycidyl methacrylate) Derivatives <u>Yasunari Yoshimura</u> ,Yuta Nabae,Teruaki Hayakawa
13:20	1W09	Formation of surface relief based on mass transfer induced by local photoreaction <u>Takashi Ubukata</u> ,Kota Marumoto,Sachiko Imura,Taishi Sonoda,Megumi Nakayama,Youta Iwamoto,Masaki Hatase,Masato Toyoda
13:45	1W10	Development of Biolithography Technique: Spatial Control of Enzymatic Degradation <u>Yoshihiro Kikkawa</u> ,Yasuo Norikane
14:10	1W11	The Current Status and Future Prospects of EUV lithography <u>Yoshitaka Komuro</u> ,Daisuke Kawana,Akiyoshi Yamazaki
		A. Watanabe, presiding
14:35	1W12	Preparation and Properties of Polyimides with Electrodeposition Ability <u>Ayumi Kobayashi</u> ,Misaki Sou,Kohei Iritani,Masayuki Yamashita,Seiji Bando,Takashi Yamashita
15:00	1W13	Development of High Resolution Resist Material using Main-Chain Scission Type Hyperbranched Polyacetal <u>Kouhei Shiotsuki</u> ,Hiroto Kudou
15:25	1W14	Development of Extreme Ultraviolet Laser molecular resist materials containing Tellurium <u>Yoshiaki Iwamoto</u> ,Hiroto Kudo
15:50	1W15	Rheological analysis of reworkable photocuring resins <u>Haruyuki Okamura</u> ,Hideki Tachi
		H. Okamura, presiding
16:15	1W16	Development of Large-Area Solution-Processable Single

		Crystalline Organic Semiconductors with High Carrier Mobility <u>Toshihiro Okamoto</u> , Masato Mitani, Akifumi Yamamura, Shun Watanabe, Jun Takeya
16:40	1W17	Laser-drilled screen printing for low-viscosity UV-curable liquid in print-and-imprint method <u>Takahiro Nakamura</u> , Narumi Endo, Masaru Nakagawa
17:05	1W18	Optically transparent cellulose nanofiber materials for printed electronics <u>Masaya Nogi</u> , Hiroataka Koga, Kojiro Uetani, Takaaki Kasuga, Isobe Noriyuki
17:30	1W19	Development of inkjet-printed, polymeric ultra-thin neural microelectrodes for spike recording and optogenetics <u>Nana Kokubo</u> , Masashi Arake, Kento Yamagishi, Yuji Morimoto, Shinji Takeoka, Hiroyuki Ohta, Toshinori Fujie
17:55	1W20	Formation of conductive patterns by laser direct writing using nanomaterials and device applications <u>Akira Watanabe</u> , Jinguang Cai

Thu. Sep 13

S21. Nano- and Micropatterning and Printing Technologies for Their Applications in Electronics and Photonics

T. Nishino, presiding

9:10	2W01	Organic photovoltaics with a new type of solution-processable oligothiophene-based donor material <u>Masayuki Chikamatsu</u> , Tetsuhiko Miyadera, Hiroaki Tachibana
9:35	2W02	Functionalization of electrochromic device using metallo-supramolecular polymer <u>Masayoshi Higuchi</u>
10:00	2W03	Photoswitchable optical microresonators and arrays <u>Yohei Yamamoto</u> , Daichi Okada, Yusuke Kitayama, Masahiro Irie, Masakazu Morimoto, Jer-Shing Huang, Zhang-Hing Ling

M. Nakagawa, presiding

10:25	2W04	Photoinduced Structural Changes Observed for Thin Films of Azobenzene-based Photochromic Amorphous Molecular Materials Placed on Soft Surfaces <u>Ayame Kitano</u> , Ryota Ichikawa, Hideyuki Nakano
10:50	2W05	Photoinduced mass motion by the surface heterostructure fabricated by inkjet printing on polymer films <u>Issei Kitamura</u> , Kazuaki Oishi, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
11:15	2W06	The Study of oil repellent effect by nano metamaterial structure <u>Tomoki Nishino</u> , Hiroshi Tanigawa, Atsushi Sekiguchi
11:40	2W07	The Study of bile duct stent having antifouling properties using biomimetics technique <u>Atsushi Sekiguchi</u> , Hiroshi Tanigawa, Masayasu Aikawa, Masayasu Aikawa

S18. Polymer Materials for Energy Harvesting

- 12:45 2WSO Introductory Remarks S18
Itaru Osaka
- I. Osaka, presiding**
- 12:55 2W08 Intermolecular Arrangement of Acceptor Molecules in Mixed Bulk Heterojunctions
Chao Wang, Kyohei Nakano, Hsiao Fang Lee, Yujiao Chen, You-Lee Hong, Yusuke Nishiyama, Keisuke Tajima
- 13:20 2W09 Charge Transport Properties of Conjugated Polymer Films Visualized by Conductive-AFM
Hiroaki BENTEN
- 13:45 2W10 Doping for Controlling Energy Level Alignment at the Donor/Acceptor Interface in Organic Solar Cells
Seiichiro Izawa, Naoto Shintaku, Masahiro Hiramoto
- 14:10 2W11 Improvement of Organic Photovoltaic Cell Performance by Molecular Orientation Control
Tetsuya Taima, Isuki Chikamatsu, Akihiro Yamada, Makoto Karakawa, Koshin Takahashi
- A. Saeki, presiding**
- 14:35 2W12 Relationship between Fill Factor and Bimolecular Recombination in Polymer Solar Cells
Tomohiro Fukuhara, Masahiko Saito, Yasunari Tamai, Itaru Osaka, Hideo Ohkita
- 15:00 2W13 Crystal growth control of organolead halide perovskite by vacuum process
Tetsuhiko Miyadera, Yuto Auchi, Tomoyuki Koganezawa, Hiroyuki Yaguchi, Yuji Yoshida, Masayuki Chikamatsu
- 15:25 2W14 Tuning of thermoelectric properties of single-walled carbon nanotube by chemical doping
Tsuyohiko Fujigaya, Wenxin Huang, Masamichi Matsumoto, Angana Borah
- 15:50 2W15 Extraction of semiconducting carbon nanotubes by conducting polymer wrapping and its application in thermoelectrics
Yoshiyuki Nonoguchi, Ami Takata, Chigusa Goto, Tsuyoshi Kawai
- T. Okamoto, presiding**
- 16:15 2W16 Control of the anisotropic conductivity of carbon nanotube sheet by using particulate template
Masamichi Matsumoto, Masakazu Mukaida, Takao Ishida, Tsuyohiko Fujigaya
- 16:40 2W17 PEDOT-based thermoelectric materials and devices
Qingshuo Wei
- 17:05 2W18 Dependency of oxidation levels poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) (PEDOT:PSS) on thermoelectric properties
Ichiro Imae, Mengyan Shi, Yousuke Ooyama, Yutaka Harima

Fri. Sep 14

S18. Polymer Materials for Energy Harvesting

K. Tajima, presiding

- 9:10 3W01 Efficient Light-Harvesting in Ternary Blend Polymer Solar Cells
Hideo Ohkita, Hyung Do Kim, Yanbin Wang
- 9:35 3W02 Performance Prediction of Polymer Solar Cell Based on Machine Learning and Experimental Fast Screening
Akinori Saeki
- 10:00 3W03 Development of amorphous donor copolymers containing fluorine-substituted dioxocycloalkene-annelated thiophene
Yutaka Ie, Koki Morikawa, Yota Kishimoto, Gert-Jan A. H. Wetzelaer, Paul W. M. Blom, Yoshio Aso
- 10:25 3W04 Photovoltaic Properties of Phenanthrothiophene-Based Copolymer in Non-Fullerene Solar Cells
Hiroki Mori, Masaya Watanabe, Yasushi Nishihara

Y. Nonoguchi, presiding

- 10:50 3W05 Charge Transport Properties of Polymer-type Semiconductors Based on Rigid pi-Electron Cores
Toshihiro Okamoto, Daiji Ikeda, Yu Yamashita, Shun Watanabe, Akito Yamamoto, Tadanori Kurosawa, Jun Takeya
- 11:15 3W06 Development of Coordination Polymers toward the Application in Flexible Thermoelectric Materials
Michihisa Murata
- 11:40 3W07 Molecular-Assembly Approach for Thermocell
Teppei Yamada, Yimin Liang, Takashi Kobayashi, Nobuo Kimizuka

Y. Ie, presiding

- 12:55 3W08 Transition-metal-free and halogen-free synthesis of semiconducting polymers based on condensative chain-growth polymerization
Tomoya Higashihara, Eisuke Goto, Shingo Sato, Kei-ichiro Sato
- 13:20 3W09 Structures and FET Characteristics of 1,2-Dithienylethene-Containing Donor-Acceptor Polymers Prepared by Highly Selective Direct Arylation Polymerization
Masayuki Wakioka, Natsumi Yamashita, Hiroki Mori, Yasushi Nishihara, Fumiyuki Ozawa
- 13:45 3W10 Direct arylation polycondensation for synthesis of pure conjugated polymer material in OPV application
Junpei Kuwabara, Haruka Asai, Kazuhiro Marumoto, Takeshi Yasuda, Takaki Kanbara

H. Ohkita, presiding

- 14:10 3W11 Effect of Fluorine on Electronic and Photovoltaic Properties in Naphthobisthiadiazole Polymers
Masahiko Saito, Satoshi Kamimura, Yasuhito Suzuki, Yutaka Ie, Itaru Osaka
- 14:35 3W12 Development of Photovoltaics Based on Narrow-Bandgap Oligomers
Takuma Yasuda, Hideaki Komiyama, Seiichi Furukawa, Arai Ryota
- 15:00 3W13 Formation of excited charge transfer state between long-distanced donor and acceptor molecules
Daisuke Otsuki, Yong-Jin Pu
- 15:25 3W14 Near infrared-to-visible photon upconversion

Room X

Wed. Sep 12

S20. Advances in capture and fixation of carbon dioxide via polymer science

- 16:05 2XSO Introductory Remarks S20
Keiji Numata
- Y. Hoshino, presiding**
- 16:15 1X16 Synthesis of polypeptide materials mimicking structural proteins
Kousuke Tsuchiya, Prashant Gudeangadi, Keiji Numata
- 16:40 1X17 Quantum mechanics/molecular mechanics (QM/MM) simulation studies on the papain-mediated chemoenzymatic polymerization
Joan Gimenez Dejoz, Keiji Numata
- 17:05 1X18 Synthesis of recombinant spider dragline silk that mimics the properties of the native fiber
Ali Malay, Keiji Numata

Thu. Sep 13

S20. Advances in capture and fixation of carbon dioxide via polymer science

K. Tsuchiya, presiding

- 9:10 2X01 Polymer hybrids for CO₂ separation
Shinji Kanehashi, Kenji Ogino, Sandra Kentish
- 9:35 2X02 Synthesis of crosslinked poly(vinyl ether)s possessing oxyethylene chains and their carbon dioxide separation property
Toshikazu Sakaguchi, Shinya Yamazaki, Tamotsu Hashimoto
- 10:00 2X03 Effect of Chemical Structure on CO₂ Separation Properties of Sulfonated Polyimide Composite Membranes Containing Ionic Liquids
Eri Hayashi, Syogo Tachibana, Morgan Leslie Thomas, Kei Hashimoto, Masayoshi Watanabe
- 10:25 2X04 ¹³C NMR measurement of CO₂ in polymer membrane
Masafumi Yamato, Eiko Ito, Takuya Muramoto, Manabu Tanaka, Hiroyoshi Kawakami

S. Kanehashi, presiding

- 10:50 2X05 Preparation of large and free-standing PDMS nanomembranes and their gas permeation properties.
Shigenori Fujikawa, Roman Selyanchyn, Miho Ariyoshi
- 11:15 2X06 Improvement of CO₂ selectivity of highly gas permeable membrane by nanosheets composed of aromatic polymers

containing PEO segments
Toru Isono, Taishi Suzuki, Yosuke Okamura, Yu Nagase

11:40 2X07 Mechanism of preferential CO₂ permeation of amine-containing polymeric membranes and the potential for negative carbon emission
Ikuo Taniguchi, Kae Kinugasa, Koki Minezaki

K. Numata, presiding

12:55 2X08 Development of amine-containing gelparticles and membranes for effective CO₂ separation
Yu Hoshino, Tomohiro Gyobu, Kazushi Imamura, Ryutaro Honda, Kota Katafuchi, Chie Yamashita, Takeshi Watanebe, Ikuo Taniguchi, Yoshiko Miura

13:20 2X09IL Polymer Synthesis using Carbon Dioxide as a Comonomer
Kyoko Nozaki

14:10 2X11 Highly Efficient DBU-mediated CO₂-fixation to polypropargylamines
Hiromitsu Sogawa, Nam-Kyun Kim, Toshikazu Takata

S. Fujikawa, presiding

14:35 2X12 Photocatalytic reaction by metal complexes accumulated on normally oriented one-dimensional cylindrical channel surface
Keita Nakao, Yoshiaki Tanio, Sadayuki Asaoka, Shigeo Suita, Shinichi Sakurai

15:00 2X13 The effect of the structure of poly(aliphatic carbonate)s on degradation temperature
Masayoshi Honda, Hideki Abe

15:25 2X14 Controlled Copolymerization by Metal Complexes [82] Polymer Synthesis from Carbon Dioxide: Copolymerization of CO₂ and Oxetane Catalyzed by Metalloporphyrin Catalyst System.
Ryo Nakamura, Hiroshi Sugimoto

Y. Yonamine, presiding

15:50 2X15 Manufacturing of lactate-based polymers synthesized by microbial platform from plant biomass
Seiichi Taguchi, Ayaka Hiroe, Toshiko Ooi, Daisuke Ishii, Ken'ichiro Matsumoto, Tadahisa Iwata

16:15 2X16 Biosynthesis of polyhydroxyalkanoates from biomass resources and carbon dioxide
Yuki Miyahara, Masahiro Yamamoto, Mino Oota, Takeharu Tsuge

16:40 2X17 Polyhydroxyalkanoate production using carbon dioxide and nitrogen fixation abilities of marine purple photosynthetic bacteria
Mieko Higuchi, Keiji Numata

17:05 2X18 Sustainable Photosynthetic Marine Bacterium for Synthetic Spider Silk Production
Choon Pin Foong, Keiji Numata

Fri. Sep 14

S20. Advances in capture and fixation of carbon dioxide via polymer science

S. Taguchi, presiding

9:35	3X02	High-Resolution Visualization of Plant Cell Wall <u>NEVAL YILMAZ</u> , YUTAKA KODAMA, KEIJI NUMATA
10:00	3X03	Monitoring of pigment production process in a microalgal cell by resonance Raman imaging combined with stable isotope labeling <u>Yusuke Yonamine</u> , Kotaro Hiramatsu, Takuro Ito, Takuro Ideguchi, Yoshiko Miura, Keisuke Goda, Yu Hoshino
10:25	3X04	Genetic engineering of microalgae for bioproduction using carbon dioxide <u>Takashi Osanai</u>
H. Sogawa, presiding		
10:50	3X05	Multicellular formation and biofuel production of microalgae by gel encapsulation-culture technique <u>Toru Yoshitomi</u> , Saeko Kaminaga, Naoki Sato, Masakazu Toyoshima, Takashi Moriyama, Keitaro Yoshimoto
11:15	3X06	Functionalization of a block copolymer micelle displaying maleimide groups on the surface and its application for plant gene delivery <u>Takaaki Miyamoto</u> , Kousuke Tsuchiya, Numata Keiji
11:40	3X07	The development of PICsome for the additional trait to plants <u>Seiya Fujita</u> , Kousuke Tsuchiya, Keiji Numata

Room Y

Wed. Sep 12

S19. Frontier and Vision in Research and Development of Bioplastics

9:50	1YSO	Introductory Remarks S19 <u>Ken-ichi Kasuya</u>
Y. Tachibana, presiding		
10:00	1Y03	Biosynthesis and properties of 3-hydroxy-2-methylbutyrate containing polyesters <u>Sho Furutate</u> , Hideki Abe, Takeharu Tsuge
10:25	1Y04	Engineering antimicrobial coating of archaeal poly- γ -glutamate-based materials using non-covalent crosslinkages <u>Yuichi Hakumai</u> , Sawami Nakayama, Haruna Higashiuchi, Kosuke Shimada, Makoto Ashiuchi
10:50	1Y05	Non-template-dependent biosynthesis of block copolyesters and their structural analysis <u>Ken'ichiro Matsumoto</u> , Ryunosuke Fujii, Chiaki Hori, Toshihiko Ooi, Takuya Isono, Toshifumi Satoh, Seiichi Taguchi
11:15	1Y06	Development of compatibilizer based on end-clickable polyhydroxyalkanoate <u>Takafumi Oyama</u> , Tatsuya Saitoh, Shingo Kobayashi, Tetsuo Okura, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh
11:40	1Y07	Chemical synthesis and biodegradation of aromatic ring-containing copolymers using fermented (R)-3-hydroxybutyric acid

Yutaka Tokiwa, Atsuyoshi Nakayama, Norioki Kawasaki, Naoko Yamano, Sayuri Ida, Takao Raku, Hiroto Yokaryo

K. Matsumoto, presiding

- 12:55 1Y08 Biodegradation of Aliphatic Polyesters in Aquatic Environment
Atsuyoshi Nakayama, Norioki Kawasaki, Naoko Yamano
- 13:20 1Y09 Degradation of biodegradable plastic through biofilm formation in aqueous environments
Tomohiro Morohoshi, Kento Ogata, Taishiro Oi, Tetsuo Okura, Shunsuke Sato
- 13:45 1Y10 Characterization of poly(epsilon-caprolactone)-degrading bacteria isolated from marine plastic debris.
Kohei Oba, Miwa Suzuki, Reika Takizawa, Yuya Tachibana, Ken-ichi Kasuya
- 14:10 1Y11 Biodegradability of 13 polyesters composed of linear aliphatic dicarboxylic acids and 1,4-butanediol
Ken-ichi Kasuya, Yuya Tachibana, Kohei Kageyama
- 14:35 1Y12 Biodegradability of alicyclic polyester
Yuya Tachibana, Masaru Sakata, Masayuki Yamahata, Ken-ichi Kasuya

T. Kaneko, presiding

- 15:00 1Y13 Precision (Co)polymerization of Various Cinnamic Acid Derivatives for Bio-Based Functional Polystyrenes
Kotaro Satoh, Hisaaki Takeshima, Shizuka Sugihara, Masami Kamigaito
- 15:25 1Y14 Synthesis and Characterization of Bio-based Anthraquinone Polyesters Containing Various Structures in Their Side and Main Chains
Tatsuya GOTO, Tadahisa IWATA, Hideki ABE
- 15:50 1Y15 Synthesis, properties, and processing of poly(caffeic acid)
Daisuke Ishii, Tadahisa Iwata
- 16:15 1Y16 Synthesis of bio-based polyester composed bifuryl moiety
Azumi Narita, Senri Hayashi, Tatsuya Wasano, Yuya Tachibana, Ken-ichi Kasuya

D. Ishii, presiding

- 16:40 1Y17 Elastic Modulus of the Crystalline Regions of Furan-derived, Bio-based polyesters
Yuki Ueda, Takuya Matsumoto, Takashi Nishino
- 17:05 1Y18 Molecular design of bio-based polymers using building blocks of amino acid derivatives
Kenji Takada, Tatsuo Kaneko
- 17:30 1Y19 White biotechnological approaches ~From Lignin to functional aromatic monomers~
Yukari Ohta, Hiroshi Nishimura, Masato Katahira, Katsuhiro Isozaki, Masaharu Nakamura
- 17:55 1Y20 High performance lignin/natural rubber bio-nanocomposites
Yuko Ikeda, Treethip PHAKKEEREE, Preeyanuch JUNKONG, Takumi OHASHI

Thu. Sep 13

S19. Frontier and Vision in Research and Development of Bioplastics

H. Marubayashi, presiding

- 9:10 2Y01 Evaluation of physical properties of β -1,3 glucan esters as bio-based plastics
Hongyi Gan, Taizo Kabe, Satoshi Kimura, Takaaki Hikima, Masaki Takata, Yukiko Enomoto, Tadahisa Iwata
- 9:35 2Y02 Development of bioplastics using paramylon and long chain fatty acids derived from algae biomass
Midori Yamashiro, Masatoshi Iji, Shukichi Tanaka, Toshie Miyamoto, Junko Ito, Kiyoshi Tada, Makoto Watanabe
- 10:00 2Y03 Influence of the regioregularity on molecular conformational properties of poly(lactic acid)
Yoshinori Suzuki, Takahiro Watanabe, Hiroki Kosugi, Moriya Kikuchi, Seigou Kawaguchi
- 10:25 2Y04 Structural Study of Crystal Phase Transitions of Poly(lactic Acid)
Kohji Tashiro

T. Asoh, presiding

- 10:50 2Y05 The additional effects of polypropylene carbonate on the mechanical properties in polylactide.
Aoi Shibazaki, Koh-hei Nitta, Kiyoshi Nishioka
- 11:15 2Y06 Low-temperature formability of poly(carbonate-b-ester) block copolymers from renewables and the biodegradability
Thi Thu Thao Nguyen, Kae Kinugasa, Ikuo Taniguchi
- 11:40 2Y07 Crystal Structure Analysis of Poly(L-2-hydroxy-3-methylbutanoic acid) β -form by X-ray Fiber Diffraction Method
Hironori Marubayashi, Ryo Mizukami, Yuji Hamada, Shuichi Nojima

H. Abe, presiding

- 12:55 2Y08 Novel Cellulose-based Bioplastics Featuring Elegance of "Urushi black (Luxury Lacquerware)"
Shukichi Tanaka, Kiyohiko Toyama, Toshie Miyamoto, Masatoshi Iji
- 13:20 2Y09 Anisotropic electrical conductivity of gel electrodes consisting of conductive polymer coated bacterial cellulose nanofibers
Taka-Aki ASOH, Tatsuya HIGASHIGAKI, Chen QIAN, Hiroshi UYAMA
- 13:45 2Y10 Utilization of lignin as high-performance heatproof filler via simultaneous enzymatic saccharification and comminution
Kazuhiro Shikinaka, Haruka Sotome, Yuichiro Otsuka, Masaya Nakamura, Yoichi Tominaga

K. Satoh, presiding

- 14:10 2Y11 Practical Production of microbial copolyester PHBH: Increasing molecular weight and stable production by genetic modification targeting PHA degradation enzymes
Hisashi Arikawa, Shunsuke Sato, Tetsuya Fujiki, Keiji Matsumoto
- 14:35 2Y12 Development for environment-friendly polyurethanes
Satoshi Yamasaki
- 15:00 2Y13 Improvement and application of bioplastics of Mitsubishi Chemical
Hiroshi Sano

S24. Unusual Integration Starting from KOBUNSHI MIRAI JUKU

15:40	2YSO	Introductory Remarks S24 <u>Hidemitsu Furukawa</u>
H. Furukawa, presiding		
15:50	2Y15	"Polymer Future Summit" toward Novel Platform <u>Yoshinobu Tsujii</u>
16:15	2Y16	Global Science Educations Programs <u>Olaf Karthaus</u>
16:40	2Y17	Science experiments and science teaching materials using polymers and its development to learning content <u>Arisa Narumi</u> , <u>Norihisa Tanio</u>
17:05	2Y18	Company Coverage for a Content of Kobunshi Mirai Juku <u>Takayuki Nonoyama</u>

Fri. Sep 14

S24. Unusual Integration Starting from KOBUNSHI MIRAI JUKU

T. Masuda, presiding

9:10	3Y01	Providing More Attractive Information from Polymer <u>Hidemitsu Furukawa</u> , <u>Takashi Kato</u>
9:35	3Y02	Introduction of researches for polymer science through school visit of elementary, junior-high and high-school <u>Go Matsuba</u>
10:00	3Y03	Very familiar gel material There may be also in your eyes. <u>Eri Ito</u>

G. Matsuba, presiding

10:25	3Y04	Polymers which allows gas to pass or block, or separate <u>Nao Hirakawa</u> , <u>Shigenori Fujikawa</u> , <u>Nobuo Kimizuka</u>
10:50	3Y05	Smart Polymer Rangers change Science Education!? <u>Eri Niyama</u> , <u>Mitsuhiro Ebara</u>
11:15	3Y06	Polymers for Drugs <u>Risako Miura</u>
11:40	3Y07	Koubunshi Mirai Juku linking chemistry up to high school and chemistry after that <u>Tsukuru Masuda</u>

T. Nonoyama, presiding

12:55	3Y08	Beginning Future of Kobunshi Mirai Juku <u>Hidemitsu Furukawa</u>
13:20	3Y09	3D printers for forming polymeric materials - How do 3D printers work? <u>Azusa Saito</u> , <u>Kei Sato</u> , <u>Samiul Basher</u> , <u>Masaru Kawakami</u> , <u>Hidemitsu Furukawa</u>
13:45	3Y10	3D printers for forming polymeric materials - Movement of 3D printer <u>Azusa Saito</u> , <u>Kei Sato</u> , <u>Samiul Basher</u> , <u>Masaru Kawakami</u> , <u>Hidemitsu Furukawa</u>

A. Saito, presiding

- 14:10 3Y11 Finding similarities between gels and living things throughout experiments
Takamasa Sakai
- 14:35 3Y12 Finding similarities between gels and living things throughout experiments 2
Takamasa Sakai
- 15:00 3Y13 What is Rheology? -Rheology in Daily Life
Hideaki Tamate,Hidemitsu Furukawa
- 15:25 3Y14 What is Rheology? -Rheology in Research Field
Hideaki Tamate,Hidemitsu Furukawa

Room Z

Wed. Sep 12

S17. Polymeric Materials Considering the Environment in the Near Future

- 12:45 1ZSO Introductory Remarks S17
Suguru Motokucho,Takayuki Tsukegi

Y. Nakayama, presiding

- 12:55 1Z08 High performance and recycling technology of Expanded Polystyrene
Michihiro Takeda
- 13:20 1Z09 Imparting antimicrobial properties to flame-retardant plastics recovered from waste home appliances
YOKO FUKUSHIMA,AKIHIDE TODA

M. Takeda, presiding

- 13:45 1Z10 Development of bioplastics with antimicrobial properties using Viva oil
Osamu Yoshimura,Ryo Sakuma,Ken Nakashima,Takayuki Tsukegi
- 14:10 1Z11 Precise thermal degradation of polypropylene and development of new type polypropylene
Sasaki Daisuke,Atsushi Takamura

S. Daisuke, presiding

- 14:35 1Z12 Improvement of mechanical strength of plastic composite material with biomass-derived nano / micro fiber
Sara Senda,Takayuki Tsukegi,Kenji Takahashi
- 15:00 1Z13 Profitable Mass-production of Acid-Modified Recovered Resins for Value-Added Mechanical Recycling as a Compatibilizer for Composites
Yuta Sunaga,Shinji Ogoe,Kenji Aoki,Hirokazu Ito,Yoshikuni Teramoto

Y. Teramoto, presiding

- 15:25 1Z14 lignin derivatives as compatibilizing agents for polypropylene-based carbon fiber reinforced plastics
Kosuke Kuroda,Takayuki Tsukegi,Ninomiya Kazuaki,Takahashi

Kenji
15:50 1Z15 Ionic Liquid-Catalyzed Transesterification Reaction of Cellulose
Daisuke Hirose, Syuhei Nomura, Chie Maruyama, Samuel
Kusuma, Kenji Takahashi

K. Kuroda, presiding

16:15 1Z16 Synthesis of cyclic carbonate from epoxide with CO₂ in the
presence of aromatic polyurethane
Yuya Takenouchi, Suguru Motokucho, Hisayuki Nakatani
16:40 1Z17 Hydrolysis reaction of multi-block polyurethane under high
pressure carbon dioxide
Kouki Hashimoto, Suguru Motokucho, Hisayuki Nakatani
17:05 1Z18 Recycling of polyurethane with dormant species
Hisayuki Nakatani, Tomohiro Nakamura, Suguru Motokucho

H. Nakatani, presiding

17:30 1Z19 Synthesis of biopolyester using inedible compounds and its
thermal-induced crosslinking
Masuhiko Okada, Katsunori Suzuki, Yasuteru
Mawatari, Masayoshi Tabata
17:55 1Z20 Solvolysis of polycarbonate using microwave pressurization
conditions and its reaction mechanism
Kazutoshi Ikenaga, Kohei Higuchi, Satoshi Hirayama

Thu. Sep 13

S17. Polymeric Materials Considering the Environment in the Near Future

K. Ikenaga, presiding

9:10 2Z01 Development of ultrasonic peelable pressure sensitive adhesives
containing encapsulated latent compound
Hideki Tachi, Kanji Suyama
9:35 2Z02 The study of pore structure change for UV irradiated urethane
clear coatings
Takato Ishida, Ryoma Kitagaki
10:00 2Z03 Subjects in thermal degradation kinetics simulation analysis of
polymer materials
Haruo Nishida

H. Nishida, presiding

10:25 2Z04 Physical degradation from remolding process and the
regeneration of mechanical properties in virgin low-density
polyethylene
Patchiya Phanthong, Hiroshi Sekiguchi, Ryoko Nakano, Shigeru
Yao
10:50 2Z05 Practical recycling method of waste plastics
Shigeru Yao, Natsumi Yamasaki, Keitaro Yamashita, Patchiya
Phanthong, Hiroshi Sekiguchi, Ryoko Nakano, Tetsuyoshi
Michiue, Yasuko Ueno

S. Yao, presiding

11:15 2Z06 Innovative surface modification of hydrophilic biomass to
hydrophobic via Vapor-phase assisted surface polymerization
Yoshito Ando, Kubra Eksiler

11:40 2Z07 An attempt to design a heat dispersion molding material with an upgraded recycle of metal cutting sludge
Yoshito Ando,Kubra Eksiler

S. Motokucho, presiding

12:55 2Z08IL Environmentally-friendly polymer materials in the near future
Takeshi Shiono

T. Tsukegi, presiding

13:45 2Z10 Synthesis of high-performance bio-based plastic using cinnamic acid derivatives
Kenji Takada,Tatsuo Kaneko

14:10 2Z11 Synthesis and characterization of sulfur-based copolymer from elemental sulfur, algae oil and terpene
Kaho Oi,Shuheii Oishi,Junpei Kuwabara,Takashi Fukuda,Makoto Watanabe,Takaki Kanbara

K. Takada, presiding

14:35 2Z12 Design of Functional Materials Using Thermal Decomposition of Copolymers of 2-Hydroxyethyl Acrylate and Methacrylate Protected with BOC Moiety
Akikazu Matsumoto,Masashi Iseki,Chu Jing

15:00 2Z13 Synthesis and properties of ABC type sequence-regulated copolymer consisting of L-lactic acid, ethylene glycol, and terephthalic acid
Yuushou Nakayama,Koichi Akiyama,Ryo Tanaka,Takeshi Shiono,Norioki Kawasaki,Naoko Yamano,Atsuyoshi Nakayama

15:25 2Z14 Preparation of Thermoplastic Cellulose Film with Ionic Liquid
Jun-ichi KADOKAWA,Akihiko TAKADA,Muhammad Abdul HAQ,Kazuya YAMAMOTO

J. Kadokawa, presiding

15:50 2Z15 Cellulose nanofiber modified by in-situ oxidative polymerization of conductive polymer polyaniline and its electrical properties
Taku Omura,Chi Hoong Chan,Minato Wakisaka,Haruo Nishida

16:15 2Z16 Eugenol Derivatives for Bio-Based Multifunctional Coatings
Hirohmi Watanabe,Mariko Takahashi,Hideyuki Kihara,Masaru Yoshida

Room ESA

Wed. Sep 12

E. POLYMERS AND ENVIRONMENT “English Session”

Y. Uraki, presiding

12:55 1ESA08 Design of Wall-Destructive but Membrane-Compatible Solvents
Kosuke Kuroda,Kazuaki Ninomiya,Kenji Takahashi

13:20 1ESA09 Performance comparison and improvement of water purification by solar assisted membrane permeation with dye-modified

membrane
Masaki Kikuchi,kisho Tomita,Masahiro Fujiwara

13:45 1ESA10 Water purification and seawater desalination by light energy using transpiration stream
kisho Tomita,Masaki Kikuchi,Masahiro Fujiwara

T. Shiono, presiding

14:10 1ESA11ILY Head-to-tail depolymerization enables rapid, macroscopic responses in polymeric materials
Hyungwoo Kim

14:35 1ESA12ILY Development of bio-based polymers derived from non-food biomass
Shinji Kanehashi

15:00 1ESA13ILY Environmentally benign fabrication process of polymer semiconductors
Cho Jangwhan,Dae Sung Chung

15:25 1ESA14ILY Active control of metal nanostructures using flexible polymers
Hideyuki Mitomo

I. Tomita, presiding

15:50 1ESA15ILY Liquid Crystals: A Functional Building Block for Programmable Adaptive Materials
Suk-kyun Ahn

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

I. Tomita, presiding

16:15 1ESA16ILY Polymer Conjugated Fluorescent Nanoparticles for Over-1000 nm Near-Infrared Bioimaging
Masao Kamimura

16:40 1ESA17ILY Enhancing Safety and Efficacy of Nano-sized Dendritic Contrast Agents for X-ray Computed Tomography by Using Tetraiodobenzene Derivatives as Potent Radiopaque Units
Yoonkyung Kim,Hye-youn Jung

17:05 1ESA18ILY Near infrared photoluminescent nanomaterials whose functions are tunable based on molecular interactions
Tomohiro Shiraki

Thu. Sep 13

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Y. Hoshino, presiding

9:10 2ESA01 Chemoenzymatic Polymerization of Tripeptide Ester Containing Nylon Units for Thermal Processability
Prashant Gopal Gudeangadi,Kousuke Tsuchiya,Keiji Numata

9:35 2ESA02 Elucidation of pH- and salt-dependent dimerization of Nephila clavipes N-terminal domain of spider dragline silk proteins
Nur Alia Oktaviani,Ali D Malay,Akimasa Matsugami,Fumiaki Hayashi,Keiji Numata

M. Hashizume, presiding

- 10:00 2ESA03 Protein Needle conjugated with Cargo Protein Derived from Norovirus
Que Dan Nguyen, Kazuhiko Katayama, Takafumi Ueno
- 10:25 2ESA04 Physicochemical characterization of poly-(PEG-hemoglobin) produced by ring-opening polymerization
Takashi Matsuhira, Keizo Yamamoto, Hiromi Sakai

K. Numata, presiding

- 10:50 2ESA05 Degradation control of oxidized dextran-based hydrogel independent of the mechanical properties for drug delivery application
Punnida Nonsuwan, Akimasa Matsugami, Fumiaki Hayashi, Suong Hyu Hyon, Kazuaki Matsumura
- 11:15 2ESA06 Controlling the lectin recognition of glycopolymer by distance arrangement of sugar blocks
Kazuki Jono, Masanori Nagao, Yu Hoshino, Yoshiko Miura
- 11:40 2ESA07 A Sensitive Colorimetric pH Sensor via G-quadruplex-conjugated Gold Nanoparticles
Surachada Chuaychob, Masahiro Fujita, Mizuo Maeda

M. Matsusaki, presiding

- 12:55 2ESA08 Smart artificial on-skin pancreas fabricated with phenylboronic acid/silk fibroin hybrid hydrogel for glucose-responsive insulin delivery
Siyuan Chen, Hiroko Matsumoto, Yuki Morooka, Miyako Tanaka, Kozue Ochi, Yuji Miyahara, Takayoshi Suganami, Akira Matsumoto
- 13:20 2ESA09 Diagnosis and Management of Hypersialylated Metastatic Cancers by Phenylboronic Acid-installed PEGylated Gold Nanoparticles and Nitroxide Radical-containing Nanoparticles
Babita Shashni, Yukichi Horiguchi, Kosuke Kurosu, Hitoshi Furusho, Yukio Nagasaki
- 13:45 2ESA10 Advanced application of nano-fibrillated bacterial cellulose (Fibnano®) to anti-cancer therapy
Hidenori Ando, Takashi Mochizuki, Kenji Fujita, Kenji Tajima, Tokuo Matsushima, Takatomo Kusano, Tatsuhiko Ishida
- 14:10 2ESA11 Development of gemcitabine-conjugated poly(amino acid) and its evaluation using pancreatic tumor model
Xiaomeng Liu, Hiroyasu Takemoto, Takahiro Nomoto, Makoto Matsui, Keishiro Tomoda, Nobuhiro Nishiyama

A. Kabir, presiding

- 14:35 2ESA12 Regulation of pluripotency through decoupling surface and bulk effects using double network hydrogels
Martin Frauenlob, Honglei Guo, Daniel R. King, Seiichiro Ishihara, Masumi Tsuda, Takayuki Kurokawa, Hisashi Haga, Shinya Tanaka, Jian P. Gong
- 15:00 2ESA13 Influence of Gelatin Hydrogel Stiffness on Chondrocyte Functions
Guoping Chen, Xiaomeng Li, Naoki Kawazoe
- 15:25 2ESA14 Extracellular matrix fiber paper for construction of multi-layered 3D-tissue
Hirotaka Nakatsuji, Michiya Matsusaki
- 15:50 2ESA15 Investigation of Localization Effect of Ionic Group in Gel Particles

on Protein Recognition
Honda Ryutaro, Gyobu Tomohiro, Shimahara Hideto, Hoshino Yu, Miura Yoshiko

S. Takeoka, presiding

- 16:15 2ESA16 Fabrication of artificial cilia from microtubules and kinesins through a bottom-up approach
Arif Md. Rashedul Kabir, Atsushi P. Kimura, Kazuki Sada, Akira Kakugo
- 16:40 2ESA17 Synthesis of Acrylic acid Oligomer Ligands in the Presence of Biomolecules
Hinata Takimoto, Shohei Taniguchi, Masanori Nagao, Yusuke Yonamine, Yu Hoshino, Miura Yoshiko
- 17:05 2ESA18 Preparation and Evaluation of Discrete Synthetic Oligomer Ligands
Shohei Taniguchi, Sho Katakami, Yusuke Yonamine, Yu Hoshino, Yoshiko Miura

Fri. Sep 14

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

H. Takemoto, presiding

- 9:10 3ESA01 Shear-induced fabrication of multiple parallel alginate gel filaments using a coaxial flow system
Yuriko Takayama, Norihiro Kato
- 9:35 3ESA02 Influence of particle shapes and surface property on phagocytic activity of macrophages
Akihiko Kikuchi, Yota Kosukegawa, Masatoshi Kawase, Taka-Aki Asoh, Ryo Ishihara
- 10:00 3ESA03 Fission of dumbbell-shaped vesicle triggered by reconstruction of amphiphilic peptide packing
Kon Son, Motoki Ueda, Yoshihiro Ito, Shinji Takeoka

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

F. Sanda, presiding

- 10:25 3ESA04 Development of Kinetic Hydrate Inhibitor Using Poly(N-vinylamide) Derivatives Bearing Alkene Group and Their Molecular Weight Effect
Ryo Kawatani, Malcolm A Kelland, Hiroharu Ajiro
- 10:50 3ESA05 Grafting polystyrene to polypropylene initiated by the organozinc compound
Chao Zhao, Hiromu Okada, Ryuichi Sugimoto

M. Yoshida, presiding

- 11:15 3ESA06 Design, synthesis, and characterization of conjugated block copolymers containing poly(3-hexylthiophene) and bio-based poly(δ -decanolactone)
Li Che Hsu, Saburo Kobayashi, Tzu Hsuan Liu, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh, Wen Chang Chen

- 11:40 3ESA07 Synthesis and structure control of platinum-containing conjugated polymers ligated with bipyridine ligands bearing optically active amide groups
Taichi Sotani, Tatsuya Ogawa, Yu Miyagi, Fumio Sanda
- H. Ajiro, presiding**
- 12:55 3ESA08 Thermostimulated Reversible Interconversion between m-Phenyleneimine Macrocycle and Linear Oligomers
Toshihiko Matsumoto, Yasuaki Kikuchi
- 13:20 3ESA09 Chirality Sensing and Enantio Separation of Amino Alcohols by Using a Helical Supramolecular Polymer
Krishnachary Salikolimi, Ammathnadu S Achalkumar, Vakayil K Praveen, Kuniyo Yamada, Yasuhiro Ishida
- 13:45 3ESA10 Degradation Behavior of Multi-Layered Thermoset-Resin Based Fiber-Reinforced Polymers By Superheated Steam
Chi Hoong Chan, Minato Wakisaka, Haruo Nishida

Room ESB

Wed. Sep 12

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

Y. Okamura, presiding

- 10:00 1ESB03 A Study of Hydrogen Bonding of Polyethylene Glycol-Based Polymer Blend in The Low-frequency Region
Dian MARLINA, Harumi SATO
- 10:25 1ESB04 Modification of poly(methyl methacrylate) by addition of metal salt
Asae Ito, Panitha Phulkerd, Masayuki Yamaguchi

H. Sato, presiding

- 10:50 1ESB05 Polyamide/Nanodiamond Nanocomposites Prepared by In-situ Polymerization
Seira Morimune-Moriya, Sayumi Yada, Nanako Kuroki
- 11:15 1ESB06 Formation of elongated phase separation domains in spin-cast polymer blend thin films
Hong Zhang, Yosuke Okamura
- 11:40 1ESB07 Mechanochromic Behavior and Structure Change of Colloidal Crystal Elastomer Prepared from Polymer Grafted Nanoparticles
Chao-Hung Cheng, Shuhei Nozaki, Chigusa Nagano, Shiori Masuda, Tomoyasu Hirai, Yuji Higaki, Ken Kojio, Atsushi Takahara

Y. Miura, presiding

- 12:55 1ESB08 Visualization of Accuracy for the AFM Nanomechanical Mapping of the Morphology of a Rubber Network
Taichi Nakajima, Takumi Ohashi, Tomoyuki Sato, Preeyanuch Junkong, Yuko Ikeda
- 13:20 1ESB09 Concentration profiles in photo-curing porous coatings
Hirokazu Yoshihara, Masato Yamamura

- 13:45 1ESB10 Grazing Incident Scattering on Model Catalyst for Polymer Electrolyte Fuel Cell
Satoru Ueda, Satoshi Koizumi, Seiichi Kuroda, Andrew Nelson, Robert Robinson
- S. Koizumi, presiding**
- 14:10 1ESB11 Porous Membranes with Large Surface Area Prepared by Phase Inversion Micro Molding
Yida Liu, Yu Hoshino, Yoshiko Miura
- 14:35 1ESB12 Monodispersity and discreteness of the aggregation number of resorcinarene-based reverse-micelles
Shota Fujii, Rika Miyake, Ji Ha Lee, Rintaro Takahashi, Kazuo Sakurai
- 15:00 1ESB13 Separation of Poly(ethylene glycol) with different terminal groups using MOFs
Benjamin Le Ouay, Chikara Watanabe, Takashi Uemura
- 15:25 1ESB14 Morphological Transition of Oppositely Charged Calix[4]arene Surfactant Mixture
Ji Ha Lee, Shota Fujii, Rintaro Takahashi, Kazuo Sakurai
- K. Tanaka, presiding**
- 15:50 1ESB15 Novel molecular modification of bio-based polybenzimidazole to obtain single ion conducting polyelectrolyte
Aniruddha Nag, Mohammad Asif Ali, Raman Vedarajan, Noriyoshi Matsumi, Tatsuo Kaneko
- 16:15 1ESB16 Conformational Transition of Double-Helical Polysaccharide Xanthan in Renaturation Process
Yu Tomofuji, Ken Terao
- 16:40 1ESB17 Dehydration, Self-Association, and Phase Separation Behavior of Thermosensitive Polyoxazoline Star Block-Copolymers in Aqueous Solution
Tetiana Sezenenko, Takahiro Sato, Xing-Ping Qiu, Françoise M. Winnik
- T. Kaneko, presiding**
- 17:05 1ESB18 Micellization and Phase Separation in Aqueous Solutions of Poly(N-isopropylacrylamide)-b-Poly(N-vinyl-2-pyrrolidone) upon Heating.
Chen Kuang, Yusa Shin-ichi, Sato Takahiro
- 17:30 1ESB19 Phase separation during bulk polymerization of methyl methacrylate
Yasuhito Suzuki, Yuya Shinagawa, Akikazu Matsumoto
- 17:55 1ESB20 Pre-History and Flow Behavior of Electro-Rheological Nano-Suspensions
Katsufumi Tanaka, H. Ieki, A. Ichikawa, Y. Yamamura, H. Masumoto, M. Takasaki, H. Kobayashi

Thu. Sep 13

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

S. Yusa, presiding

- 9:10 2ESB01 Predicting the phase behavior of the poly(vinylidene fluoride)/N-methyl-2-pyrrolidone/water ternary system: all-atom molecular

dynamics simulation
Tseden Taddese, Masahiro Kitabata, Susumu Okazaki

- 9:35 2ESB02 A Model for apparent viscoelasticity of re-melted extruded polystyrene foam(XPS) around melting point
Ryoma Kitagaki, Takehiko Arai, Takato Ishida
- 10:00 2ESB03 Dynamic viscoelasticity and shear birefringence of nanocelluloses in dilute dispersions
Reina Tanaka, Yu Kashiwagi, Tadashi Inoue

J. Gong, presiding

- 10:25 2ESB04 Comparison of three blob sizes of model network gel fabricated with linear and tetra PEG prepolymers
Yui Tsuji, Xiang Li, Mitsuhiro Shibayama
- 10:50 2ESB05 Kinetically Induced Turbid-to-Transparent Transition in Polyampholyte Hydrogels
Honglei Guo, Chengtao Yu, Takayuki Kurokawa, Taolin Sun, Kunpeng Cui, Xueyu Li, Yunzhou Guo, liang Chen, Yanan Ye, ping Rao, JianPing Gong
- 11:15 2ESB06 Characteristics and Necessity of Alternative Natural Rubbers from Guayule and Rubber Dandelion
Preeyanuch JUNKONG, Katrina CORNISH, Yuko IKEDA
- 11:40 2ESB07 Preparation of tough porous gels using double network principle and cryogelation
Tomas Sedlacik, Ryuji Kiyama, Takayuki Nonoyama, Tasuku Nakajima, Jian Ping Gong

K. Okoshi, presiding

- 12:55 2ESB08 Paraffinic Metal-Organic Polyhedrons as a New Class of Nanoporous Liquid-Crystalline Materials
Nobuhiko Hosono, Susumu Kitagawa
- 13:20 2ESB09 Dynamical study of inorganic / polymer hybrid colloidal liquid crystals by X-ray photon correlation spectroscopy
Taiki Hoshino, Masanari Nakayama, So Fujinami, Tomotaka Nakatani, Takashi Kato

S. Sakurai, presiding

- 13:45 2ESB10 Liquid phase crystallization and morphology study of organolead halide perovskites
Satoshi Watanabe, Tenyu Date, Masashi Kunitake
- 14:10 2ESB11 Nucleation theory on multi chain system with conformation entropy
Hiroshi Yokota, Toshihiro Kawakatsu

T. Kawakatsu, presiding

- 14:35 2ESB12 Morphology and structural formation of millimeter-scale giant spherulites in poly(ethylene glycol) thin films obtained by direct spin coating
Tien Nguyen, Shinichi Sakurai, Katsuhiko Yamamoto
- 15:00 2ESB13 Studies on Concentration Dependence of a Liquid-Type Crystallization Agent on Crystallization of Poly(L-Lactic Acid)
Diep Thi Ngoc Pham, Vimal Katiyar, Sono Sasaki, Shinichi Sakurai
- 15:25 2ESB14 Influence of Silk Nanocrystals on the Crystallization Behavior of Poly (L-Lactic Acid)
Amit Kumar Pandey, Rahul Patwa, Vimal Katiyar, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Sono

- Sasaki, Shinichi Sakurai
- 15:50 2ESB15 Grain Growth on the Free Surface and in the Thickness
Direction of Triblock Copolymer Thin Film forming Spherical
Microdomains
Rasha Bayomi, Konomi Honda, Isao Wataoka, Hideaki
Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Sono
Sasaki, Shinichi Sakurai

F. INDUSTRIAL POLYMERS AND TECHNOLOGY “English Session”

H. Nakano, presiding

- 16:15 2ESB16 Microstructure of foam determined by SANS
Satoshi Koizumi, Tomokazu Yoshimura, Shiho Yada, Hiroya
Fujita, Hiroshi Shimosegawa, Yukako Matsue, Yohei Noda
- 16:40 2ESB17 Highly Transparent Alicyclic Polyimide Films Fabricated at Low
Temperature
Toshihiko Matsumoto, Tomohiro Mizuta, Hiroki Ozawa, Eriko
Ishiguro

Fri. Sep 14

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

K. Miyatake, presiding

- 9:10 3ESB01 Polythioureas and their Segment Block Copolymers: Synthesis
and Dielectric Material
Yang Feng, Yuki Hasegawa, Takeo Suga, George Chen, Shengtao
Li, Hiroyuki Nishide
- 9:35 3ESB02 Study on Ionic Conduction Change in Europium(III)-Based
Metallo-Supramolecular Polymers by Varying the Counter
Cation
Narayana Yemineni, Masayoshi HIGUCHI

M. Higuchi, presiding

- 10:00 3ESB03 Significant enhancement of hole hopping ability in conjugated
polymer/fullerene bulk heterojunction microspheres
Amandeep Jindal, Hiroaki Kotani, Soh Kushida, Akinori
Saeki, Takahiko Kojima, Yohei Yamamoto
- 10:25 3ESB04 Development of biocompatible gel for measuring the biosignal
with low noise
Yuki Noda, Naomi Toyoshima, Teppei Araki, Shuusuke
Yoshimoto, Hirokazu Iida, Takafumi Uemura, Tsuyoshi Sekitani

T. Suga, presiding

- 10:50 3ESB05 Synthesis and properties of sulfonated poly(phenylene)s
containing hexafluoro propane groups as fuel cell membranes
JINJU AHN, KENJI MIYATAKE
- 11:15 3ESB06 Effect of cross-linking on the properties of partially fluorinated
anion exchange membranes
Daniel Koronka, Kenji Miyatake
- 11:40 3ESB07 Two-dimensional coordination nanosheets for electrochromic

application
Manas Kumar BERA, Masayoshi HIGUCHI

K. Fuchise, presiding

- 12:55 3ESB08 Metallo-Supramolecular Based Electrochromic Device and Its Thermal Durability
Sanjoy MONDAL, Masayoshi HIGUCHI
- 13:20 3ESB09 Swelling behavior of lipophilic polyelectrolyte gels in mixed solvents
Xinmeng Wang, Sokuro Sunaga, Kenta Kokado, Kazuki Sada
- 13:45 3ESB10 Extremely Tough Soft Composites from Elastomers and Fabrics
Wei Cui, Daniel R. King, Tao Lin Sun, Liang Chen, Yiwan Huang, Takayuki Nonoyama, Takayuki Kurokawa, Yoshiyuki Saruwatari, Jian Ping Gong

S. Kajiyama, presiding

- 14:10 3ESB11 Photoresponsive Aromatic Micelles Comprising ortho-Substituted Bent Amphiphilic Compounds
Lorenzo Catti, Natsuki Kishida, Tomokuni Kai, Munetaka Akita, Michito Yoshizawa
- 14:35 3ESB12 Fabrication of hydrophobic polymer surfaces including fluorine-containing functional groups with different chemical structures into their side chains
Yijun Xie, Takuya Matsumoto, Chizuru Hongo, Norifumi L. Yamada, Takashi Nishino

T. Matsumoto, presiding

- 15:00 3ESB13 Structural Control of Thin Films of Layered Zinc Hydroxides by Using Organic Polymers and Their Conversion to ZnO Thin Films with Nanostructures
Satoshi Kajiyama, Fumiya Katase, Takashi Kato
- 15:25 3ESB14 Robustification of ITO nanolayer by surface-functionalization of transparent biopolyimide substrates
Sumant Dwivedi, Narubol Charoencheep, Tatsuo Kaneko