

Room A

Tue. Sep 16

Invited Lecture

Hideto Minami, presiding

11:00 1A09IL Development of Living Polymerization Based on Dormant Species for Precision Polymer Synthesis
Masami Kamigaito

Shigeru Yamago, presiding

13:00 1A13IL Library Polymer Synthesis for Elucidating Correlations between Primary Structures (Sequence and Tacticity) and Physical Properties
Makoto Ouchi

Yo Nakamura, presiding

14:00 1A17IL Interactions and nanostructure formation in polymer solutions: Possibilities for new material design
Ken Terao

Award Lecture “English Session”

Kazushi Mashima, presiding

15:00 1A21AL Insights into Rare-Earth-Metal Catalysts Used in Industrial 1,3-Diene Polymerization
Reiner Anwander

Atsushi Takahara, presiding

16:00 1A25AL Unraveling Complex Spherical Packing in Block Copolymers
Hsin-Lung Chen

Invited Lecture

Jun Okada, presiding

17:00 1A29IL Creation of polymer biomaterial science for improving patients quality of life
Kazuhiko Ishihara

Wed. Sep 17

Invited Lecture

Koji Yamada, presiding

9:30 2A03IL Development of easily dismantled materials by external stimuli
Hideki Tachi

Takashi Nishino, presiding

10:30 2A07IL Construction Archimedean tiling patterns from block copolymers mixtures and covalent organic framework
Shiao-Wei Kuo

Award Lecture

Daisuke Kawaguchi, presiding

13:00 2A13AL Development of Polymer Electrolytes Based on Organic Nanoionics and Their Device Applications
Manabu Tanaka

Takahiro Ichikawa, presiding

13:30 2A15AL Development of Chemical Sensor Devices Based on π -Conjugated Polymers for Real-Sample Analysis
Tsuyoshi Minami

Kazuki Fukushima, presiding

14:00 2A17AL Catalytic Bond Cleavage towards Selective Degradation of Mixed Polymer Wastes
Takanori Iwasaki

Kazuaki Matsumura, presiding

14:30 2A19AL Continuous Production of Organic Soft Materials Inspired by Deep-Sea Hydrothermal Environments
Shigeru Deguchi

Thu. Sep 18

Invited Lecture

Hideo Ohkita, presiding

10:00 3A05IL Development of Novel Organic Semiconductors for Efficient Solar Energy Utilization
Yutaka Ie

Yoshikuni Sasaki, presiding

11:00 3A09IL Structural Control of Polymer Particles by Self-organization
Hiroshi Yabu

Room B

Tue. Sep 16

Invited Lecture “English Session”

Teruaki Hayakawa, presiding

- 10:00 1B05ILY Synthesis and Properties of Phosphine Sulfide-Containing Polymers
Ryoyu Hifumi
- 10:30 1B07ILY Synthesis of functional copolymers via postpolymerization C-H functionalization
Myungeun Seo

Itaru Osaka, presiding

- 11:00 1B09ILY Synthesis of Sequence-Controlled Polychalcogenophenes and Their Optoelectronic Applications
Kuo-Hsiu Haung, Huai-Huan Liu, Kuang-Yi Cheng, Chia-Lin Tsai, Yen-ju Cheng
- 11:30 1B11ILY Tailored Crosslinkers for the Creation of Functional Network Polymers
Hiromitsu Sogawa

Tomoya Higashihara, presiding

- 14:30 1B19ILY Core Cross-Linked Star Polymers from Ring-Opening Metathesis Polymerization
Jeewoo Lim, Minji Kim, Hanjin Choi, Jaehyun Kim, Sung Beom Park
- 15:00 1B21ILY Efficient Synthesis of Ultrahigh Molecular Weight Poly(methyl methacrylate) via Visible Light-Induced RAFT Polymerization in Deep Eutectic Solvent
Sheng-Sheng Yu

Hiroharu Ajiro, presiding

- 15:30 1B23ILY Template-directed polymerization of XNA by chemical ligation.
Keiji Murayama
- 16:00 1B25ILY Dielectric polymer nanostructures with enhanced polarization for high-performance energy-harvesting applications
Minsoo Kim
- 16:30 1B27ILY Intrinsically elastic polyfluorene-based copolymers via coupling and RAFT reactions for SWCNTs application.
Yu-Cheng Chiu, Livy Laysandra, Mei-Nung Chen, Maina Moses Mburu, Ai-Nhan Au-Duong, Daniel Muara Sentosa

Ken Kojio, presiding

- 17:00 1B29ILY Exploring novel functions of elastomers by precision control of network structure
Shintaro Nakagawa
- 17:30 1B31ILY Inorganic Polymer-derived Ceramics: 3D Structuring, Reactors, and Surface Coatings
Yoon-Ho Hwang
- 18:00 1B33ILY Development of Functional Polymers for Triboelectric Bacteria Sensing and Antifouling Applications
Chia-Chih Chang

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Hironobu Watanabe, presiding

9:00	2B01	Preparation of Chiral Silica Using Organic-Inorganic Hybrid Polymers and Evaluation of Its Functional Properties. <u>Shunsuke Morii</u> , Yoshinobu Nakamura, Syuji Fujii, Tomoyasu Hirai
9:15	2B02	Preparation of Novel Chiral Silica Using Giant Molecules with Polyhedral Oligomeric Silsesquioxane and Evaluation of Its Optical Properties <u>Shinichi Kusaka</u> , Yoshinobu Nakamura, Syuji Fujii, Tomoyasu Hirai
9:30	2B03	Controlled synthesis of dendritic polymethacrylate by using TERP <u>Jin Suzuki</u> , Shigeru Yamago
9:45	2B04	Reduction of Silver Ion by Carborane Derivatives and Physical Properties after Silver Mirror Formation <u>Mei Tokutomi</u> , Kazuo Tanaka
Yoshimasa Matsumura, presiding		
10:00	2B05	Photophysical Properties of π -Conjugated Open-Cage Carboranes with Chiral Cage <u>Kousei MATSUMOTO</u> , Takumi YANAGIHARA, Kazuo TANAKA
10:15	2B06	Optical Properties of o-Carborane Derivatives with Heterohelicene Unit <u>Kazuhiro Yuhara</u> , Kazuo Tanaka
10:30	2B07	Synthesis of Luminescent Indium-Fused Azobenzene Complexes from Indium Oxide by Mechanochemical Reaction <u>Chiaki Hotta</u> , Masayuki Gon, Kazuo Tanaka
10:45	2B08	Optical Properties of the Cyclic Conjugated Oligomer Containing o-Carborane Associated with Guest Inclusion <u>Sota Takemori</u> , Kazuhiro Yuhara, Takumi Yanagihara, Kazuo Tanaka
Kazuo Tanaka, presiding		
11:00	2B09IL	Ladder Polymer Science Based on Ladder Bonding: Innovation in Secondary Structure Control and Functional Design <u>Tomoyuki Ikai</u>
Masayuki Gon, presiding		
13:00	2B13	Synthesis of Poly(2-vinylpyridine)-block-polydimethylsiloxane via ROP and RAFT polymerizations <u>Haruka Samizo</u> , Riku Takahashi, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa
13:15	2B14	Precise Design and Microphase Separation Control of Poly(phenylene ether)-Containing Block Copolymers <u>Riku Takahashi</u> , Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa
Takaya Terashima, presiding		
13:30	2B15	Development of Near-Infrared Absorbing Materials with Stimuli-Responsiveness Based on the Dinucleation of Hypervalent Tin Azobenzene Compounds. <u>Kento Tanaka</u> , Masayuki Gon, Kazuo Tanaka
13:45	2B16	Synthesis of Hypervalent Silicon Compounds with Strong Electron-Accepting Ability and Creation of Near-Infrared Absorptive/Luminescent Materials <u>Masayuki Gon</u> , Kazuo Tanaka

- 14:00 2B17 Inclusion polymerization in pillar[n]arene crystals
Shotaro Miki, shunsuke Ohtani, kenichi kato, tomoki ogoshi
- 14:15 2B18 Synthesis of Sulfur[n]arenes and Solid-State Supramolecular Dimerization via Multiple Sulfur–Sulfur Interactions
Shunsuke Ohtani, Keiichiro Murakami, Kenichi Kato, Tomoki Ogoshi

Shunsuke Ohtani, presiding

- 14:30 2B19 Control of Chiroptical Properties in Poly(diphenylacetylene)s Bearing Optically Active Groups in the Side Chain via an Amide Linkage by Photoirradiation
Naoe Kuroishi, Yuki Nishikawa, Daisuke Hirose, Katsuhiko Maeda
- 14:45 2B20 Chiroptical Properties of Poly(diphenylacetylene) Derivatives with Macromolecular Helicity Memory in the Film State
Takumi Matsuo, Yanchen Hong, Daisuke Hirose, Katsuhiko Maeda
- 15:00 2B21 Assessing the Effect of Ring Size on the Formation of Macrocyclic Hybrid Compounds
Yuki Nakamura, Kousuke Tsuchiya, Takamasa Sakai
- 15:15 2B22 Photophysical Properties of π -Conjugated Polymers Based on Dipyritylmethene Boron Complex
Kohsei YAMADA, Yuto AOYAMA, Shunichiro ITO, Kazuo TANAKA

Daisuke Hirose, presiding

- 15:30 2B23 Research into the Optical Properties of Boron Tropolonate Complexes with Coordination-Site Amination and Their Conjugated Polymers
Ryusei Nakashima, Hikari Ogoshi, Shunichiro Ito, Kazuo Tanaka
- 15:45 2B24 Development of π -Conjugated Materials Based on 9-Hydroxyphenalenone Boron Complexes with Strong Electron-Accepting Ability and Extended π -Plane
Yuga Tarumi, Shunichiro Ito, Kazuo Tanaka
- 16:00 2B25 Photochemical Rearrangement of Substituents on Boron Center of Boron Pyridylenolate Complexes and Photochromic Luminescence
Yuto AOYAMA, Shunichiro ITO, Kazuo TANAKA
- 16:15 2B26 Maleic Acid Derivatives/Vinyl Ether Alternating Copolymers: From Library Synthesis To Nanostructured Materials
Hiroyuki Kouno, Makoto Ouchi, Takaya Terashima

Shunichiro Ito, presiding

- 16:30 2B27 Synthesis and Microphase Separation of Amphiphilic Copolymers Bearing Phosphoric Acids as Side Chains
Haruaki Sakata, Makoto Ouchi, Takaya Terashima
- 16:45 2B28 Microphase Separation of Block Oligomers: Primary and Assembled Structures Controlled by Chain Transfer Agents
Kakeru Wakeshima, Makoto Ouchi, Takaya Terashima
- 17:00 2B29 Micelle Formation in the Mixtures of Ionic/PEG Random Copolymers: Self-Assembly Systems Controlling the Fusion and Separation of Polymers
Teruya Machino, Makoto Ouchi, Takaya Terashima

17:15	2B30	Microphase Separation Materials of Imidazolium Cation Copolymers: Nanostructure Control via Side Chain Association <u>Keita Iuchi</u> , Makoto Ouchi, Takaya Terashima
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Room C

Tue. Sep 16

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Masayuki Gon, presiding

10:00	1C05	Anisotropically Transformable Gels Based on Anisotropy in Interpenetrating Structure of Isorecticular Metal-Organic Frameworks <u>Sosuke Kamiura</u> , Shizuka Anan, Kenta Kokado
10:15	1C06	Introduction of boron-based cross-linking point utilizing direct C-H borylation to poly(conjugated dienes) <u>Keishi Sukita</u> , Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono

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

Masayuki Gon, presiding

10:30	1C07	Synthesis of polyethylenes bearing in-chain thioamides or amines via main-chain editing of a long chain polyketones <u>Yipu Lu</u> , Kohei Takahashi, Nontarin Roopsung, Shintaro Nakagawa, Naoko Yoshie, Kyoko Nozaki
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Masayuki Gon, presiding

10:45	1C08	Synthesis and characterization of membrane using π -fused propellane <u>Seina Okada</u> , Kenichi Kato, Shunsuke Ohtani, Tomoki Ogoshi
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Shintaro Nakagawa, presiding

11:00	1C09	Vitrimer-like Acryl Elastomers using Conjugate Substitution Reaction: Effects of Reversibility in Cross-Link Formation on Network Structure <u>Tomoyasu Kuni</u> , Mikihiro Hayashi, Yasuhiro Kohsaka
11:15	1C10	Vitrimer-like Tough Glass Prepared by Cross-Linking of Acrylic/Methacrylic Polymer Blends via Conjugate Substitution Reaction <u>Miu Mizuma</u> , Mikihiro Hayashi, Yasuhiro Kohsaka
11:30	1C11	Synthesis and chemical recycling of cross-linked polymers based on aliphatic polycarbonates

		<u>Rikuto Niki</u> , Yusuke Kita, Chen Pengru, Tatsuo Taniguchi, Masazumi Tamura, Daisuke Aoki
11:45	1C12	Design of UV- Curable Adhesives Dismountable via Main-Chain Scission Induced from Pendant Groups <u>Yuto Kawamura</u> , Yasuhiro Kohsaka
		Shizuka Anan, presiding
13:00	1C13	Chemical recycling of petroleum-based polycarbonate by ammonolysis and application of recycled bisphenol A <u>Toyokazu Tsutsuba</u> , Tomoki Shimokawa, Tatsuo Taniguchi, Daisuke Aoki
13:15	1C14	Synthesis and degradation of carbon-carbon main chain polymers with an alkoxycarbonylmethylene unit <u>Hiroaki Shimomoto</u> , Tsubasa Deguchi, Tomomichi Itoh, Eiji Ihara
13:30	1C15	Chemical recycling of polyurethanes using aqueous ammonia <u>Keitaro Ito</u> , Kazuaki Rikiyama, Tatsuo Taniguchi, Daisuke Aoki
13:45	1C16	Development of degradable PES incorporating light-driven cleavable C-O bonds. <u>Keisuke Yasuda</u> , Yasuyuki Nitta, Masatoshi Ohyama, Takashi Nishikata
		Daisuke Aoki, presiding
14:00	1C17	Photochemical Reaction Behavior of π -Conjugated Polymers Having Heavier Group 15 Elements-containing Heterole Units Obtained by Post-elements-transformation Process <u>Keisuke Tsujimura</u> , Moeki Nakano, Ryoyu Hifumi, Ikuyoshi Tomita
14:15	1C18	Base-Catalyzed Degradation of Acrylic Polymers Based on Generation of Anionic Species from C-H Bonds on the Main Chains <u>Tomoki WATANABE</u> , Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
14:30	1C19	Development of Polyarylates Containing Core-Blocks Degradable by Photocatalysis <u>Masatoshi Ohyama</u> , Yasuyuki Nitta, Yuta Nakamura, Takashi Koike, Tsuyoshi Taniguchi, Takashi Nishikata
14:45	1C20	Photocatalytic C-O Bond Cleavage-Enabled Design of Degradable Polyurethanes for Chemical Recycling <u>Yasuyuki Nitta</u> , Masatoshi Ohyama, Takashi Koike, Tsuyoshi Taniguchi, Takashi Nishikata
		Takashi Nishikata, presiding
15:00	1C21	Study on degradation behavior of various heat-resistant polymers under acidic conditions. <u>Tsuyoshi Takano</u> , Ryoyu Hifumi, Ikuyoshi Tomita

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

Takashi Nishikata, presiding

15:15	1C22	Elucidation of the Scope and Limitations of Ortho-Nitrobenzyl (oNB) Group as a Photodegradable Unit <u>Jiade WU</u> , Masatoshi TOSAKA, Shigeru YAMAGO
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15:30	1C23	Synthesis of Self-Immolative Polymers with Various Terminal Structures by Controlled/Living Click Polymerization <u>Yuto Nakauchi</u> , Tomohiro Kubo, Kotaro Satoh
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Takashi Nishikata, presiding

15:45	1C24	Precise C(sp ³)-H bond functionalization of polyethylene glycol derivatives using semiconductor photocatalyst in water <u>Yoshino Inamori</u> , Shogo Mori, Mineto Uchiyama, Masami Kamigaito, Susumu Saito
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Kotaro Satoh, presiding

16:00	1C25	Post-polymerization modification by direct arylation of click-induced structure <u>Yuki Kitagawa</u> , Shotaro Hayashi
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16:15	1C26	Cu-free synthesis of glycidyl triazolyl polymers and their characterization <u>Taichi Ikeda</u>
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16:30	1C27	Thermally triggered alkene-alcohol conjugation using nitrile N-oxide-based orthogonal agent. <u>Sota Nozawa</u> , Noriyuki Nakajima, Masahiro Hamada, Yasuhito Koyama
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16:45	1C28	Development and validation of a comprehensive accelerating degradation analysis system <u>Yukinori Hasegawa</u> , Kenichi Kttamura, Harumi Matsuda, Yuki Kato, Harumi Suetsugu, Oda Ryutarou, Shinichi Kuroda
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Ikuyoshi Tomita, presiding

17:00	1C29	Terminal-specific post-polymerization modification of acrylamide polymers via intramolecular twisted amide formation <u>Yu Hoshino</u> , Honoka Moriguchi, Shota Iseri, Sotaro Tsuji, Yukiko Nagai, Toshikazu Ono, Hisashi Shimakoshi
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”

Yu Hoshino, presiding

17:30	1C31	Design and Synthesis of Alkaline-tolerant Wholly Aromatic Substituted Sulfoniums and Phosphoniums and Their Applications to Anion-exchange Membrane Materials Tomoiro Imai, Tetsuaki Hashimoto, Boya Li, Ryoyu Hifumi, <u>Ikuyoshi Tomita</u>
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Yu Hoshino, presiding

18:00	1C33	Combustion performance evaluation of low melting point thermoplastic fuels with glycerin <u>Haruo Doi</u> , Kanta Andou, Yutaka Wada
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”

Shin-ichi Matsuoka, presiding

- 9:00 2C01 Synthesis of polymeric nanostructures based on living coordination dispersion triblock copolymerization of allene derivatives under PISA conditions
Kotaro Kitamura, Ryoyu Hifumi, Ikuyoshi Tomita
- 9:30 2C03 Modification effect of Al- or Mg- based cocatalysts on the regiospecificity of Ni-catalyzed olefin polymerization
YU JIA, NAO HARADA, TORU WADA, YUUSHOU NAKAYAMA, TAKESHI SHIONO, RYO TANAKA

Yuushou Nakayama, presiding

- 10:00 2C05 Alternating copolymerization of carbon dioxide and epoxide by a heterogeneous lanthanoid phosphate catalyst
Masayoshi Honda, Hiroshi Sugimoto

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Yuushou Nakayama, presiding

- 10:30 2C07 Alternating copolymerization of carbon dioxide and epoxide by mechanochemically synthesized zinc glutarate catalyst
Masayoshi Honda, Norio Saito, Takahiro Takei, Hiroshi Sugimoto
- 10:45 2C08 Alternating Copolymerization of *N*-Allylacrylamide with α -Olefins and Polymer Reactions of the Copolymer
Kyoji Oshima, Daisuke Takeuchi

Masayoshi Honda, presiding

- 11:00 2C09 Regioselective introduction of hydroxy groups on polyolefins utilizing isomerization polymerization
Rintaro Hamada, Daisuke Takeuchi
- 11:15 2C10 Synthesis of bimodal stereoregular polypropylene using a catalytic system showing two different activation mechanisms
Daichi Oka, Syunsuke Nishiyama, Yuushou Nakayama, Takeshi Shiono, Ryo Tanaka
- 11:30 2C11 Synthesis of one-handed helical C1 polymers by stereospecific polymerization of diazoacetates
Hiroaki Shimomoto, Ayano Hori, Tomomichi Itoh, Eiji Ihara
- 11:45 2C12 Vinyl addition polymerization of norbornenes using phosphinimide Ti complexes
Maiko Hayashi, Shin-ichi Matsuoka

Hiroaki Shimomoto, presiding

- 13:00 2C13 Synthesis of polymers based on hydroxylation of polyaryl compounds.
Ryosuke Tanaka, Hideki Sugimoto
- 13:15 2C14 Development of Chain-Growth Polyaddition via Co-Catalyzed Hydroarylation Polyaddition
Ryota Iwamori, Junpei Kuwabara, Takaki Kanbara

Ryota Iwamori, presiding

13:30	2C15	Preparation of composites of biobased network polyesters with cellulose nanofibers by acyclic diene metathesis polymerization <u>Ayana Inoue</u> , Yuichi Matsumoto, Gaku Miyamoto, Mohamed Mehawed Soliman Abdellatif, Hiroshi Hirano, Seiji Higashi, Kotohiro Nomura
13:45	2C16	Coordination Polymerization of Borylacetylenes and Post-Polymerization Transformation of Boryl Side Chains for Functional Polyacetylenes <u>Sota Ueyama</u> , Tsuyoshi Nishikawa, Makoto Ouchi
14:00	2C17	Utilization as a Polymerization Catalyst of Hypervalent Bismuth Compounds with π -Conjugated ligands <u>Shota Yagi</u> , Masayuki Gon, Kazuo Tanaka
Yuichiro Watanabe, presiding		
14:15	2C18	Photo-control over the supramolecular nanotubes formed from anthracene dyads bearing azobenzene moieties. <u>Rina Tomochika</u> , Hiroki Hanayama, Shiki Yagai
14:30	2C19	Development of Self-Healing Organic-Inorganic Hybrid Materials Utilizing Dynamic Boronic Ester Bonds <u>Kohei Yamanaka</u> , Hideharu Mori
Hiroki Hanayama, presiding		
14:45	2C20	Development of Responsive Supramolecular Graft Polymer Gels via Molecular Recognition between Calix[4]resorcinarene-Based Self-Assembled Capsule Polymers and Guest Polymers Bearing Biphenyl Moieties <u>Yuma Nakamura</u> , Shin-ichi Kihara, Takehiro Hirao, Takeharu Haino
15:00	2C21	A Novel Supramolecular Strategy for Protection of Unstable Monomers and Interlocked Polymer Synthesis Using Pillar[n]arenes <u>Kouhei Sutou</u> , Kiichi Yasuzawa, Kenichi Kato, Shunsuke Ohtani, Tomoki Ogoshi
15:15	2C22	Control over the formation of hierarchical structures composed of supramolecular polymers for hot-melt adhesives <u>Takara Matsutani</u> , Yuichiro Watanabe, Tsutomu Furuya, Koji Nishida, Kazunori Sugiyasu
Kohji Ohno, presiding		
15:30	2C23IL	Supramolecular polymers getting one step closer to macromolecules <u>Kazunori Sugiyasu</u>

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

Yuya Doi, presiding

16:30	2C27	Structures and properties of hydrogen-bonded organic frameworks (HOFs) based on bis(benzimidazolyl)methane derivatives, and the development into a synthetic strategy for HOFs using guest exchange <u>Shun Ohta</u> , Yurika Iwabuchi, Ryota Mukai, Momo Ishii, Tomoyuki Toda, Masaaki Okazaki
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Yuya Doi, presiding

- 17:00 2C29 Controlled/Living Click Polymerization with Various Vinyl Polymers as Macroinitiators
Yuta Yamazaki, Seichiro Uchida, Tomohiro Kubo, Kotaro Satoh
- 17:15 2C30 Controlled/Living Click Copolymerization of Polyvinyl Ether AB Macromonomer
Yasuaki Kobayashi, Tomohiro Kubo, Kotaro Satoh

Thu. Sep 18

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Ryoyu Hifumi, presiding

- 9:00 3C01 Synthesis of polybenzothiazoles by oxidative cyclopolymerization of aromatic diamine, diacrylates, and sulfur
Masaru Yoneyama, Nao Yanagi
- 9:15 3C02 Synthesis of polybenzothiazole by oxidative cyclopolymerization of aromatic diamines, various aliphatic divinyl compounds, and sulfur
Masaru Yoneyama, Yoshinobu Kuroko
- 9:30 3C03 Photopolymerization of 1,4-Diphenylbutadiyne Bearing Long Alkyl Chains with Terminal Hydroxy Groups
Reita Tsuji, Shinnichi Sakurai, Yukiyasu Kashiwagi, Sadayuki Asaoka

Masaru Yoneyama, presiding

- 9:45 3C04 Synthesis of Thioester-Containing Degradable Polyesters and Their Application in Polymer Reactions
ZIXIAO LIANG, Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 10:00 3C05 Synthesis of Readily Degradable Polymers with Periodic Hemiacetal Ester Linkages
Rion Ogawa, Sota Takashima, Ravi Teja Ananthu, Tomohiro Kubo, Kotaro Satoh
- 10:15 3C06 Investigation of intramolecular transfer of Pd catalyst on dihaloarylenes consisting of three phenylenes connected with two different functional groups and its application to Suzuki-Miyaura condensation polymerization
Ken Kuwabara, Daiki Takamatu, Yoshihiro Ohta, Tsutomu Yokozawa

Masaki Nakahata, presiding

- 10:30 3C07 Direct Arylation Polymerization of Heteroarene with Aryl Triflates
Shunta Sakai, Hitoshi Hanamura, Rieko Fujita, Kenichi Tada, Masayuki Wakioka
- 10:45 3C08 Synthesis and Dielectric Property Evaluation of Poly(phenylene ether sulfone) with Bulky Side Chains
Kentaro Sone, Hayato Maeda, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa

11:00	3C09	New methods of PEEK polymer synthesis using the chlorine monomer <u>Hajime Watanabe</u> , Ken Sudo, Koichi Suga
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS “English Session”

Masayuki Wakioka, presiding

11:15	3C10	Synthesis and Properties of Poly(trithiophosphonate)s from Various Dithiols <u>Tianyue Zhou</u> , Ryoyu Hifumi, Ikuyoshi Tomita
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A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Masayuki Wakioka, presiding

11:30	3C11	Reaction control of polyurethane formation using betaines that generate tertiary amines upon thermal decomposition <u>Gashin Okamura</u> , Yukai Ito, Daisuke Aoki, Koji Arimitsu
11:45	3C12	Synthesis of Stereoregular Uniform Oligomers with the Dense Triazole Backbone and Amide Side Chains <u>Naoki Makita</u> , Masaki Nakahata, Yuri Kamon, Akihito Hashidzume

Room D

Tue. Sep 16

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Takaya Terashima, presiding

10:00	1D05	Sequence-Controlled Cationic Terpolymerization Using Bulky Vinyl Ethers and Conjugated Aldehydes as Nonhomopolymerizable Monomers <u>Yuto Eguchi</u> , Sadahito Aoshima, Arihiro Kanazawa
10:15	1D06	Cationic Alternating Copolymerization of <i>N</i> -Vinylphthalimide with Cyclic Hemiacetal Ester or Cyclic Acetal <u>Momo Okada</u> , Arihiro Kanazawa
10:30	1D07	Cationic Ring-Opening Copolymerization of Cyclic Esters and Five- or Six-Membered Cyclic Hemiacetal Esters <u>Manami Banno</u> , Sadahito Aoshima, Arihiro Kanazawa
10:45	1D08	Side reactions occurring in cationic polymerization of vinyl ethers: Investigation for revealing the mechanism of the alkoxy-group elimination reaction <u>Tensei Kanki</u> , Arihiro Kanazawa

Hironobu Watanabe, presiding

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| 11:00 | 1D09 | Cationic polymerization of low reactive styrene derivatives:
Toward polymerization by the degenerative chain-transfer
mechanism
<u>Yutaka Yokawa</u> , Sadahito Aoshima, Arihiro Kanazawa |
| 11:15 | 1D10 | Synthesis of Catechol-containing Hyperbranched Polymers
via Cationic Polymerization Using Inimer
<u>Risa Fujita</u> , Tomohiro Kubo, Kotaro Satoh |
| 11:30 | 1D11 | Anionic isomerization polymerization using organocuprate
reagent as an initiator
<u>Hibiki Harako</u> , Asuka Hamaguchi, Masaya Terasaki, Kaoru
Adachi |
| 11:45 | 1D12 | Anionic polyaddition of methyl substituted stilbene using
benzylic proton abstraction
<u>Yugo Nakajima</u> , Honoka Matsumoto, Takeru Iwamura, Kaoru
Adachi |

Chihiro Homma, presiding

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| 13:00 | 1D13 | Development of Photocontrolled Anionic Polymerization of
Methacrylates Using Photoswitchable Catalysts for C-H
Bonds as the Dormant Species
<u>Mei Okano</u> , Hironobu Watanabe, Mineto Uchiyama, Masami
Kamigaito |
| 13:15 | 1D14 | Anionic Polymerization of Thioamides
<u>Momo ISHIDA</u> , Hironobu WATANABE, Mineto
UCHIYAMA, Masami KAMIGAITO |
| 13:30 | 1D15 | Development of High-Performance Thermoplastic Elastomers
from Bio-Based Itaconimide Monomer
<u>Goki Hattori</u> , Tomohiro Kubo, Kotaro Satoh |
| 13:45 | 1D16 | Ring-Opening Polymerization of a Cyclic Acrylate with a Six-
Membered Ring
<u>Ryuki Tsuchiya</u> , Yasuhiro Kohsaka |

Kaoru Adachi, presiding

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| 14:00 | 1D17 | Anionic polymerization of N-tert-butyl-N-(4-
vinylbenzylidene)amine in hydrocarbon solvent and polymer
reaction
<u>Kohei Takimoto</u> , Chihiro Homma, Takashi Ishizone |
| 14:15 | 1D18 | Anionic polymerization of 6-(phenyl)benzofulvene derivatives
and degradation behavior of resulting polymers
<u>Jiaxuan Wu</u> , Ayana Fukui, Chihiro Homma, Takashi Ishizone |
| 14:30 | 1D19 | Anionic polymerization of cyclohexyl-substituted
[3]dendralenes
<u>Haruto Tanaka</u> , Chihiro Homma, Takashi Ishizone |
| 14:45 | 1D20 | Anionic self-alternating polymerization of α -substituted <i>p</i> -
divinylbenzenes
<u>Takuma Kasamatsu</u> , Tsuyoshi Matsuo, Hamin Kim, Chihiro
Homma, Takashi Ishizone |

Arihiro Kanazawa, presiding

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| 15:00 | 1D21 | Anionic ring-opening polymerization of oxindole derivative
with a cyclopropane ring
<u>Seinosuke Katahira</u> , Chihiro Homma, Takashi Ishizone |
| 15:15 | 1D22 | Synthesis of Aliphatic Polyesters by Ring-Opening
Polymerization Using a Bifunctional Zwitterionic Catalyst and
Its Application to degradation of polyesters |

		<u>Minori Matsuda</u> , Ryota Suzuki, Takuya Yamamoto, Feng Li, Takuya Isono, Toshifumi Satoh
15:30	1D23	Synthesis of aliphatic polyesters via ring-opening polymerization using food additives as catalysts <u>Toshiki Miwa</u> , Ryota Suzuki, Takuya Yamamoto, Feng Li, Takuya Isono, Toshifumi Satoh
15:45	1D24	Ring-opening polymerization of 5-membered cyclic carbonates derived from myo-inositol and copolymerization with various comonomers <u>Yuto Oshima</u> , Hayato Tanno, Shota Hiraga, Osamu Haba, Tatsuro Toda, Hisanari Yoneda
Masashi Sugiyama, presiding		
16:15	1D26	Synthesis and properties of optically active hyperbranched polymers having chirality centers at branching points <u>Quanyan Tan</u> , An Xing, Tamaki Nakano
16:30	1D27	Synthesis of Dendrimers through Iterative Click-Addition Process and Their Applications <u>Yamato Watanabe</u> , Shotaro Hayashi
16:45	1D28	Suzuki-Miyaura catalyst transfer-condensation polymerization of benzotriazole-triphenylamine donor-acceptor AB ₂ monomer for the synthesis of well-defined hyperbranched aromatic polymer <u>Mayu SATO</u> , Ryusuke SHIMADA, Yoshihiro OHTA, Tsutomu YOKOZAWA
17:00	1D29	Synthesis of End-hydroxyl Functionalized Dendritic Polyacrylates by TERP and Their Use in Condensed State Formation <u>TIANXIANG TONG</u> , Masatoshi Tosaka, Yumi Matsumiya, Hiroshi Watanabe, Shigeru Yamago
17:15	1D30	Synthesis and Material Property of Dendritic Polyacrylates Bearing Long Alkyl Chains at the Polymer-End by TERP. <u>Satsuki Imai</u> , <u>TIANXIANG TONG</u> , Masatoshi Tosaka, Yumi Matsumiya, Hiroshi Watanabe, Shigeru Yamago
Shotaro Hayashi, presiding		
17:30	1D31	Introduction of Branched Structure into Poly(vinylidene fluoride) <u>Masafumi Sugiyama</u> , Tetsuya Kashino, Chikahiro Hakoishi, Eisuke Yasuo, Satoru Hommura, Takashi Okazoe, Daisuke Kawaguchi
17:45	1D32	Direct Measurement of Long-Branch Chain of Chiral Helical Polymer Ryoga Hori, <u>Ken-ichi Shinohara</u>
18:00	1D33	Residence time distribution effects on continuous-flow reaction in a polymer porous monolith <u>Yoshiko Miura</u> , Hikaru Matsumoto, Harutaka Shigeeda, Masanori Nagao
18:15	1D34	Surface-Initiated Polymerization of Conjugated Helical Polyisocyanides on Various Substrates and Particles <u>Yusuke Morita</u> , Emika Omura, Sadayuki Asaoka

Wed. Sep 17

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Yuki Kametani, presiding

- 9:00 2D01 Syntheses and Thermosetting Property of Macrocyclic Compounds with Silyl Ether Bonds
Sota Amano, Kensuke Naka, Takahiro Iwamoto
- 9:15 2D02 Study on the Synthesis Process of Cyclic Polyvinylpyrrolidone
Kotaro Okawa, Tomohisa Watanabe, Takuya Yamamoto
- 9:30 2D03 Macro-rotaxane formation of multicyclic poly(n-butyl acrylate) in acrylic rubber
Kotaro Ibe, Yamato Ebii, Kazushige Suzuki, Minami Ebe, Feng Li, Takuya Yamamoto, Takuya Isono, Toshifumi Sato

Yasuhiro Kohsaka, presiding

- 9:45 2D04 MOF-templated synthesis of multi-fused cyclic polymers
Yoichi Hara, Yuki Kametani, Takashi Uemura

Tomohiro Kubo, presiding

- 10:00 2D05 Topological transformation of multicyclic polymers by selective bond cleavage
Tsubasa Fukuda, Ami Nishijima, Takashi Uemura
- 10:15 2D06 Synthesis and characterization of multi-stranded vinyl polymers mediated by MOF nanochannels
Yosuke Nukui, Yuki Kametani, Takashi Uemura
- 10:30 2D07 Synthesis of bundled copolymers with parallel chains of chemically distinct polymers
Yusuke Ando, Yuta Kawasaki, Yuki Kametani, Takashi Uemura

Takuya Yamamoto, presiding

- 10:45 2D08 Design of thermoresponsive star polymers embedding cationic functional groups
Seiya Kato, Shohei Ida, Shokyoku Kanaoka
- 11:00 2D09 Facile property modification of star polymers by thermally induced reversible adsorption and desorption of linear block copolymers based on non-covalent interaction
Yuki Danno, Shohei Ida, Shokyoku Kanaoka
- 11:15 2D10 Synthesis of Functional Star-Shaped Polymers from Block Copolymers Containing Itaconic Anhydride
Nanaho Kabuki, Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh

Tsuyoshi Nishikawa, presiding

- 13:30 2D15 Synthesis of an A-B Diblock Copolymers / Homopolymers Blend via Two-Step Photopolymerization Using LEDs
Yasuyuki Sanai
- 13:45 2D16 Spatially selective thermal polymerization of acrylate monomers utilizing patterned photothermal effect of near-infrared light irradiation
Tomoki Watanabe, Kaito Takahashi, Kotaro Shinmura, Miho Aizawa, Kyohei Hisano, Atsushi Shishido
- 14:00 2D17 Photocontrolled Radical Polymerization via Reversible Decarboxylation Using Carboxylates as Dormant Species
Haruyuki KATADA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 14:15 2D18 Photocontrolled Nitroxide-Mediated Polymerization by Various Photothermal Catalysts

Seima KONDO, Hironobu WATANABE, Mineto
UCHIYAMA, Masami KAMIGAITO

Arihiro Kanazawa, presiding

- 14:30 2D19 Unzipping Depolymerization of Polymers Carrying Boronic Ester Pendant
Satoshi Akabane, Tomoaki Kanazawa, Tsuyoshi Nishikawa, Makoto Ouchi
- 14:45 2D20 Novel Sulfur-Free Photo-Iniferter/RAFT Agents for Controlled Radical Polymerization
Ayari NISHIO, Eisuke HIRANO, Yuri MATSUBA, Akitsugu SHIBATA, Atsushi MATSUMOTO, Yasushi MAEDA, Shinji SUGIHARA
- 15:00 2D21 Development of Controlled Radical Polymerization with Thioether Initiators
Mina YONEGUCHI, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 15:15 2D22 Synthesis of triazole-containing polymers based on vinyl ethers-maleic anhydride copolymers
Miyu Iwasaki, Michio Urushisaki, Toshikazu Sakaguchi, Tamotsu Hashimoto

Mineto Uchiyama, presiding

- 15:30 2D23 Library Synthesis of Acrylate-Cyclic Vinyl Monomer Alternating Copolymers for Unique Physical Properties
Yuma Hanaura, Makoto Ouchi
- 15:45 2D24 Heterogeneous radical polymerization "on-water"
Yusaku Kambe, Shin-ichi Matsuoka
- 16:00 2D25 Copolymerization of conjugated dienes with styrylboronic acid and its application to cross-linked rubber materials
Manami Kawamoto, Takeshi Shiono, Yuushou Nakayama, Ryo Tanaka, Subrata Dolui
- 16:15 2D26 Synthesis of Acrylamide-Based Alternating Copolymers Carrying Tertiary Amino and Hydrophobic Side Chains: Evaluation of Sequence-Dependent Stimuli-Responsive Properties
Seungchul Kwak, Makoto Ouchi

Yuushou Nakayama, presiding

- 16:30 2D27 Alternating Copolymerization of Electron-Deficient Monomer with Hydrocarbon Conjugated Monomer and Subsequent Pendant Transformation for Synthesis of Alternating Copolymer Exhibiting Sequence-Specific Properties
Ryosei Watabe, Makoto Ouchi
- 16:45 2D28 Polymer Design by Radical Polymerization of Si-H Containing Monomers
Yuki ISHIKAWA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO
- 17:00 2D29 Radical (co)Polymerization of N-Containing exo-Methylene Monomers with Various Structures
Sota Takashima, Tomohiro Kubo, Kotaro Satoh
- 17:15 2D30 Styrene-Methacrylate Alternating Copolymers via Copolymerization and Pendant Transformation with Designer Monomers Having Improved Abilities of Copolymerization, Transformation, and Polymerization Control
Haruto Nitanda, Makoto Ouchi

Thu. Sep 18

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

Hiroharu Ajiro, presiding

- 9:00 3D01 Effect of Photoirradiation of Radical Polymerization of Various C=S Bond-Containing Monomers
Ami Negishi, Sota Yamamoto, Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 9:15 3D02 Radical Ring-Opening Polymerization of Cyclic Thionoesters Derived from Salicylic Acid with Various Substituents
Ryoya Kamiki, Tomohiro Kubo, Kotaro Satoh
- 9:30 3D03 Radical Polymerization of Thioamides with Various Pendant Groups: Control of Polymer Degradability and Synthesis of Structurally Unique Polymers Based on Pendant Group Design
Toshiki IIDA, Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO

Kotaro Satoh, presiding

- 9:45 3D04 Development of degradable copolymers from N-vinylamides via radical ring-opening copolymerization with 2-methylene-1,3-dioxepane
Mukmin Sapto Pamungkas, Tsuyoshi Ando, Hiroharu Ajiro
- 10:00 3D05 Control of Depolymerization of Vinyl Polymers Triggered by C-H Bond Activation via HAT Reaction
Masaya Kinugawa, Makoto Ouchi

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

Eriko Sato, presiding

- 10:15 3D06 Exploitation of Hydrogen Bonding via Janus Guanine-Cytosine Base Monomers: Block Copolymer Self-Assembly and Film Formation.
Per Zetterlund

Room E

Tue. Sep 16

S1. Covalent Bond Controls and Functional Polymers for Sustainability

- 11:20 1ESO Introductory Remarks S1
Yasuhiro Kohsaka, Yuichiro Kobayashi

Yuichiro Kobayashi, presiding

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|--------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:30 | 1E11 | Development of Highly Active Heterogeneous Catalysts for Efficient Plastic Chemical Recycling
<u>Sho Yamaguchi</u> |
| Tsuyoshi Nishikawa, presiding | | |
| 13:00 | 1E13 | Main chain cleavage of persistent plastics for the formation of organic raw materials
<u>Yasunori Minami</u> , Shunsuke Tsuyuki, Hayato Ishikawa, Kazuhiko Sato, Masaru Yoshida |
| 13:30 | 1E15 | Acid-promoted depolymerization of poly(hydroxyurethane)s to five-membered cyclic carbonates and amines
<u>Yasuyuki Mori</u> , Sho Morinaga, Takehiro Kawauchi, Yoshio Furusho |
| 14:00 | 1E17 | Polymer Functionalization through Main-Chain Claisen Rearrangement
<u>Yuki Kodama</u> , Yasuaki Kobayashi, Tomohiro Kubo, Kotaro Satoh |
| Yukiya Kitayama, presiding | | |
| 14:30 | 1E19 | Synthesis of bundled polymers using MOFs
<u>Yuki Kametani</u> , Takashi Uemura |
| 15:00 | 1E21 | Polymer Synthesis and Functions Based on Designability and Transformability of Boron Substituents
<u>Tsuyoshi Nishikawa</u> , Makoto Ouchi |
| Mineto Uchiyama, presiding | | |
| 15:30 | 1E23 | Sequence and Degradability Control on Polyurethane Based on AB-Type Monomer
<u>Yosuke Akae</u> , Patrick Theato |
| 16:00 | 1E25 | Synthesis of cyclic-polymer-free telechelic polymers by means of non-stoichiometric reversible polycondensation
<u>Takayoshi KATOH</u> , Nao KOBAYASHI, Reo YAMATO, Tomoya SUZUKI, Yoshihiro OHTA, Tsutomu YOKOZAWA |
| 16:30 | 1E27 | Synthesis and properties of fluorene-containing polycyclopentenenes via ring-opening metathesis polymerization.
<u>Shota Kihara</u> , Akane Nakajima, Yoshiya Ota, Shin-ichi Matsuoka |
| Yuki Kametani, presiding | | |
| 17:00 | 1E29 | Kinetic Model for Radical Ring-Opening Polymerization of Asymmetrical Five-Membered Cyclic Ketene Acetals
<u>Shinnosuke Nishimura</u> , Marina Uryu, Ryosuke Kanai, Tomoyuki Koga |
| 17:30 | 1E31 | Dual Control of Molecular Weight and Tacticity in Proton Transfer Anionic Polymerization of Various Acrylic Monomers by Design of Counteranions
<u>Katsutoshi SAGAWA</u> , Hironobu WATANABE, Mineto UCHIYAMA, Masami KAMIGAITO |
| 18:00 | 1E33 | Cascade Radical Polymerization Involving Two-Step Isomerization Reactions: Vinyl Monomer Design Leading to Polyamide Syntheses
<u>Keita Kuroda</u> , Makoto Ouchi |

Wed. Sep 17

S1. Covalent Bond Controls and Functional Polymers for Sustainability

Shintaro Nakagawa, presiding

- 9:00 2E01 Photocontrol of crystallinity by copolymerization with thermally bistable molecular photoswitches
Naoki Kaneda, Keiichi Imato, Yousuke Ooyama
- 9:30 2E03 Development of photoreversible silicone elastomers that enables visible and UV light-triggered transformation of network structures.
Hiroshi Okamoto, Atsushi Sogabe, Satoshi Honda
- 10:00 2E05 Morphologically functionalized polymer particles synthesized by interfacial photoreaction
Yukiya Kitayama, Yu Takahashi, Moeka Ogawa, Atsushi Harada

Shogo Nobukawa, presiding

- 10:30 2E07 Covalent bond control of adhesive interfaces by thermo/photoresponsive molecular layers
Miho Aizawa, Haruhisa Akiyama, Yoko Matsuzawa, Atsushi Shishido
- 11:00 2E09 Spatial Analysis of Morphological Changes during Photodegradation and Thermal Degradation of Polyolefins
Takumitsu Kida, Kento Kitamura, Hiroki Takeshita, Katsuhisa Tokumitsu
- 11:30 2E11 An application of a photo-responsive material toward hardness tactile modulation devices
Satoru Ohisa, Genichi Motomura, Yoshihide Fujisaki, Norihiko Ishii, Nobuhiro Kinoshita, Kei Hagiwara, Satoshi Honda

Akira Takahashi, presiding

- 13:00 2E13 Development of foldable shape-memory polymers based on reversible bonds originating from dipole-dipole interaction of cyclic carbonate groups
Bungo Ochiai, Tetta Seki
- 13:30 2E15 Self-healing and recycling behavior of polydithiourethanes containing self-catalytic monomers
Tsubasa Sakiyama, Yoshiaki Yoshida
- 14:00 2E17 Development of polydithiourethanes with reversible crosslinking moieties based on hydrogen bonding and dynamic covalent bonding
Yoshiaki Yoshida, Tsubasa Sakiyama, Ririka Ota

Yoshiaki Yoshida, presiding

- 14:30 2E19 Reversible boration of triethanolamine to induce variation of thermal and hydration properties of polymers
Akira Takahashi, Hideyuki Otsuka
- 15:00 2E21 Improvement of mechanical performance of polypropylene and its blend using boronic acid-crosslinked polymer additive
Kazuki Shimizu, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono, Shin-ichi Kihara, Hiroyuki Koga
- 15:30 2E23 Toughening of glassy polymer films with dynamical crosslinks and hot-stretching
Shogo Nobukawa, Ryo Yaguchi, Katsuhiro Inomata

Yosuke Akae, presiding

16:00	2E25	Controlling mechanical properties of elastomer by a combination of static and dynamic crosslinks <u>Zheng yuan Liu</u> , Shintaro Nakagawa, Kanyou Shin, Fumito Yatsuyanagi, Noriyoshi Oono, Naoko Yoshie
16:30	2E27	Biomass Derived 2-Pyrone-4,6-dicarboxylic Acid (PDC)-Based Sustainable Vitrimers <u>Puhup Puneet</u> , Yijie Jin, Isobe Atsushi, Fujita Masaya, Araki Takuma, Suzuki Yuzo, Otsuka Yuichiro, Kamimura Naofumi, Masai Eiji, Hayashi Mikihiro, Michinobu Tsuyoshi
17:00	2E29	Completely natural and biodegradable hardcoatings with a pencil hardness of H10 <u>Olaf Karthaus</u> , Taiyo Nagai, Toma Furukawa, Yoshihiko Omura, Leonard Genin

Thu. Sep 18

S1. Covalent Bond Controls and Functional Polymers for Sustainability

Yasuhiro Kohsaka, presiding

9:00	3E01	Controlling the physical properties of self-healing cholesteric liquid crystalline vitrimers by molecular design of cellulose derivatives <u>Naoto Iwata</u> , Yu Sotoyama, Seiichi Furumi
9:30	3E03	Bond exchange-triggered topology changes in vitrimer-like material <u>Ryota Onishi</u> , Mikihiro Hayashi, Hiroshi Sasaki
10:00	3E05	Effect of Anionic Species in Network Structures on Physical Properties of Poly(Ionic Liquid)s-based Vitrimers <u>Hikari Tsunekawa</u> , Atsushi Matsumoto, Yuya Iida, Tsutomu Ono, Takaichi Watanabe

Takumitsu Kida, presiding

10:30	3E07	Elucidation of Percolation Mechanism in Transient Networks Using Diffusing-Wave Spectroscopy <u>Shota Michida</u> , Tetsuharu Narita, Mitsuru Naito, Ung-il Chung, Takuya Katashima
11:00	3E09	Molecular Dynamics Study of Sliding Relaxation in Slide-Ring Gels Haru Shinohara, Takeyoshi Masumoto, Kosuke Aomura, <u>Yusuke Yasuda</u> , Kazushi Fujimoto, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
11:30	3E11	Thermomechanical characteristics of Epoxy Vitrimers Using Molecular Dynamics Simulations <u>Tomoya Uyama</u> , Naoki Kishimoto, Yutaka Oya, Jun Koyanagi

Room F

Tue. Sep 16

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Naoya Torikai, presiding

- 10:30 1F07 Design of Gels by Crosslinking of Star Polymer Containing Hydrophobic Units towards Reinforcement and Swelling Behavior Control
Mako Harada, Shohei Ida, Shokyoku Kanaoka
- 10:45 1F08 One-pot synthesis and characterization of amphiphilic gels with micrometer-scale phase-separated structures
Kanta Nakamoto, Shohei Ida, Takumitsu Kida, Naohiro Nakai, Masatoshi Oyama, Keiji Nakajima, Shimon Matsumoto, Shokyoku Kanaoka
- 11:00 1F09 High Order Structure Formation and Thermal Properties of Epoxy Resins with Liquid-Crystalline Diamines
Rika Marui, Kan Hatakeyama, Yuta Nabae, Teruaki Hayakawa

Shokyoku Kanaoka, presiding

- 11:15 1F10 Catalytic performance and physical properties of gel-immobilized molecular catalyst prepared through semiconductor-photocatalyzed C-H activation of PEG derivatives in water.
Yuji Sakai, Shogo Mori, Mineto Uchiyama, Masami Kamigaito, Naoya Torikai, Susumu Saito
- 11:30 1F11 Swelling Behavior and Ionic Conductivity for Polymerized Ionic-Liquid-Based Gels
Haruki Izutsu, Atsushi Matsumoto, Osamu Urakawa, Tadashi Inoue

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

Shokyoku Kanaoka, presiding

- 11:45 1F12 Advances in creating thermoresponsive hydrogels with controlled structures using living cationic polymerization and an orthogonal crosslinking reaction
Kira Landenberger, Yoichi Tokunaga, Hiroaki Kato

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Yukikazu Takeoka, presiding

- 13:00 1F13 Development of ethylene/styrene/butadiene terpolymers strengthened in response to CO₂
Kota Ohata, Shojiro Kaita, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa
- 13:15 1F14 Development of chemically recyclable thermoplastic silicone elastomers crosslinked with CO₂
Koji Natsume, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa
- 13:30 1F15 Optimization of Molecular Structure for the Polymer Reinforced with the Aid of CO₂ Gas
Kazuma Okada, Hayato Nakamura, Kei Hashimoto, Shoichi Kutsumizu, Yohei Miwa
- 14:00 1F17 Toughness and adhesive properties of cyanate ester thermosets modified with epoxy silsesquioxanes with different alkyl side chain

- Koji Kawahara, Miyuki Harada
- 14:15 1F18 Development of thermal latent curing agents for epoxy resins by N-oxidation of aminopyridines
Yukai Ito, Daisuke Aoki, Koji Arimitsu
- Daisuke Aoki, presiding**
- 14:30 1F19 Regulation of Structural Heterogeneity in Epoxy Product via One-time Bond Exchange
Kazuma Kumamoto, Atsuomi Shundo, Satoru Yamamoto, Keiji Tanaka

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

- Daisuke Aoki, presiding**
- 14:45 1F20 Tuning toughness of model network elastomers through molecular friction
QIYUE CUI, Naoko Yoshie, Shintaro Nakagawa

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- Daisuke Aoki, presiding**
- 15:00 1F21 Structure-Property Relationship in Thermosetting Polymers: A Molecular Dynamics Approach
Haruki Yamada, Yutaka Oya, Zyun Koyanagi, Ryuichi Hirayama
- 15:15 1F22 Predicting the tension of single polymer chains that form a highly-stretched polymer network
Tsutomu Indei, Takahiro Matsuda, Tasuku Nakajima, Yukiko Takahashi, Tatiana B. Kouznetsova, Michael Rubinstein, Stephen L. Craig, Jian Ping Gong
- 15:30 1F23 Elucidation of the effect of uncross linked chains on the physical properties of biocompatible polymer gels
Nanaho Ozawa, Yuka Hasegawa, Xiang Li, Taiki Hoshino, Yukikazu Takeoka
- Tsutomu Indei, presiding**
- 15:45 1F24 Correlation Analysis of Electronic States and Hydrogen Bonding during the Drying Process of PVA Hydrogel
Nami Ueno, Ichiro Tanabe
- 16:00 1F25 In situ X-ray scattering analysis of poly (vinyl alcohol) hydrogels under various freezing-thawing conditions
Yoshiyasu Nagakawa, Yu Oku
- 16:15 1F26 Evaluation of physical properties of topological gels with movable cross-linking "spaces" obtained by molecular net and penetrating polymerization
Hiroaki Ogawa, Yusuke Taoka, Yuichi Ohya
- 16:30 1F27 Mechanically Induced Selective Exchange of Stress-Concentrated Chains in Polymer Gels
Haruna Sakurai, Takamasa Sakai
- 16:45 1F28 In Situ Electron Microscopy Observation of Deformation Behaviors of High-Strength Ethylene-based Thermoplastic Elastomers

Tomoki Kayama, Shusuke Kanomi, Tomohiro Miyata, Takumitsu Kida, Hiroki Takeshita, Shigenaga Takano, Shojiro Kaita, Hiroshi Jinnai

Nami Ueno, presiding

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| 17:00 | 1F29 | Quantifying Degradation Process of Physical Gels
<u>Yui Suemura</u> , Masashi Ohira, Takashi Yasuda, Xiang Li |
| 17:30 | 1F31 | Microscopic Origin of the Mullins Effect in Filler-reinforced Rubber Revealed by in situ Transmission Electron Microscopy
<u>Soichiro Monji</u> , Tomohiro Miyata, Takahiro Ohkuma, Hiroshi Jinnai |
| 18:00 | 1F33 | Osmotic pressure-based quantification of network inhomogeneity in polymer gels
<u>Ruka Ito</u> , Naoyuki Sakumichi, Tsukuru Masuda, Takamasa Sakai |

Wed. Sep 17

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Yuma Morimitsu, presiding

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| 9:00 | 2F01 | Molecular Dynamics Simulation for Evaluating Microscopic Damage in Thermosetting Crosslinked Polymers
<u>Yutaka Oya</u> , Maruri Takamura, Jun Koyanagi |
| 9:30 | 2F03 | Consistency between the theory of gelation and the linear viscoelastic theory
<u>Kazumi Suematsu</u> |
| 10:00 | 2F05 | Molecular simulation of effects of crosslinker structure and monomer reactivity ratio on network structure of radical copolymerization gels
<u>Tsutomu Furuya</u> , Tsuyoshi Koga |

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

Tsutomu Furuya, presiding

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| 10:30 | 2F07 | Experimental verification of elastic modulus theory through Tetra-PEG DMF gels
<u>Haoyu Wang</u> , Takashi Yasuda, Xiang Li |
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Tsutomu Furuya, presiding

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| 11:30 | 2F11 | Network Topological Transformation for Controlling Linear Elasticity in Polymer Gels
<u>Takashi Yasuda</u> , Ryo Ohtsuki, Xiang Li, Naoyuki Sakumichi, Takamasa Sakai |
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES “English Session”

Takamasa Sakai, presiding

- 13:00 2F13 Mechanic and Structural Properties in Super-Homogeneous Strain-induced Crystallization Gel
Xiaoyuan Wang, Xiang Li, Masashi Ohira, Takashi Yasuda, Jingyun Zhao

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Takamasa Sakai, presiding

- 13:30 2F15 Improved nano structural analysis of multi-component systems by contrast variation small angle neutron scattering
Koichi Mayumi, Tatsuro Oda, Shinya Miyajima, Ippei Obayashi, Kazuaki Tanaka
- 14:00 2F17 Structural design and characterization of a CO₂ sensor based on fluorescent nanogels with tunable sensitive concentration range via controlled amine introduction
Tomoka Kimura, Luxia Cui, Ryutaro Honda, Toshikazu Ono, Yu Hoshino

Seiichi Kawahara, presiding

- 14:30 2F19 Synthesis and properties of UV-curable hyperbranched polysiloxanes with low refractive index ($n < 1.4$)
Yuya Nakashima, Hiroto Kudo
- 15:00 2F21 Effect of Curing Reaction Modes on the Structural Heterogeneity and Mechanical Properties of Epoxy Products
Atsuomi Shundo, Kotaro Suzuki, Satoru Yamamoto, keiji Tanaka
- 15:30 2F23 Impact of crosslinker hydrophobicity on the nanostructure of thermoresponsive microgels
Yuichiro Nishizawa, Kentaro Yamanaka, Takayuki Uchihashi, Daisuke Suzuki

Hiroto Kudo, presiding

- 16:00 2F25 Design and Mechanical Properties of Hydrogels with Evenly Distributed Nanodomain Structure
Shohei Ida, Koki Kimura, Haruyuki Nagasaki, Kaho Harada, Hayato Wakuda, Shokyoku Kanaoka
- 16:30 2F27 Controlling nanoparticle diffusion by the side chain length of hydrogel
Keita Namba, Yuka Wakayama, Mitsuhiro Shibayama, Takuma Kureha
- 17:00 2F29 Effect of Proteins on Vulcanization, Structure and Mechanical Properties of Natural Rubber
Seiichi Kawahara, Yoshimasa Yamamoto

Thu. Sep 18

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Akifumi Kawamura, presiding

9:00	3F01	Fabrication of freestanding gelatin thin films by gelation and drying of a liquid foam film <u>Miwa Ohniwa</u> , <u>Izumi Ichinose</u> , <u>Sadaki Samitsu</u>
9:30	3F03	Segmental dynamics of epoxy resins cured with a phenolic harder <u>Takeshi Kakara</u> ,Yasuyuki Shudo,Atsushi Izumi,Atsuomi Shundo,Keiji Tanaka
10:00	3F05	Can the molecular net gels with topological structures be a new standard of gel materials? <u>Yuichi Ohya</u> ,Hiroaki Ogawa,Yamato Fujita,Yusuke Taoka

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

Sadaki Samitsu, presiding

10:30	3F07	The entropy-driven microphase separation of hydrogels. <u>Dong Shi</u> ,Takayuki Nonoyama,Jian Ping Gong
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Sadaki Samitsu, presiding

11:00	3F09	Revisiting and advancing temperature-responsive polymers <u>Takashi Miyata</u> ,Ryo Mashiba,Shuta Hagiwara,Akifumi Kawamura
11:30	3F11	Tensile properties of acrylic IPN elastomer consisting of interpenetrating polymer networks with the same chemical structure Soma Higuchi,Shogo Nobukawa, <u>Katsuhiro Inomata</u>

Room G

Tue. Sep 16

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

Takashi Sasaki, presiding

10:15	1G06	A Comparative Study on Degradation of Thin Films of Poly(L-lactic acid) and Poly(L-lactic acid)/Poly(D-lactic acid) Blend in Seawater <u>Thi Khanh Van Khuat</u> ,Nana Tsuji,Ryu Miyajima,Kazuki Imai,Hiroyasu Masunaga,An Yingjun,Atsushi Takahara,Sono Sasaki
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Takashi Sasaki, presiding

10:30 1G07 Thickness effect on melt-isothermal crystallization kinetics of biodegradable polyester thin films
Ryu Miyajima, Nana Tsuji, Kazuki Imai, Thi Khanh Van Khuat, Hiroto Osakaki, Keito Shimakawa, Hiroyasu Masunaga, Sono Sasaki

10:45 1G08 Analysis of the Localization of Dispersants at the PDMS/Alumina Interface Using Neutron Reflectometry
Seisuke Inada, Kanmuri Shuhei, Keiichi Ishida, Hiroya Ishida, Naoya Torikai

Hiroyasu Masunaga, presiding

11:00 1G09 Gas Sorption Behavior of Partially Fluorinated Polynorbornenes in Thin Films
Daisuke Kawaguchi, Makoto Uno, Satoru Hommura, Takashi Okazoe

11:15 1G10 Segmental mobility gradient near the interfaces of polystyrene predicted by a dynamically correlated network model
Takashi Sasaki, Kohki Okano, Natsuha Miyata

11:30 1G11 Fabrication of multilayer thin-film drug release devices using polyvinyl alcohol as the controlled-release layer
Mako Ishida, Shinji Takeoka

11:45 1G12 Depth Dependence of Chemical Composition of Epoxy Resins near the Copper Interface
Shintaro Saeki, Tatsuki Abe, Keiji Tanaka

Yukari Oda, presiding

13:00 1G13 Morphology of Polystyrene Chains Spun onto a Solid Substrate
Reiki Eto, Yuma Morimitsu, Keiji Tanaka

13:15 1G14 Effects of Interfacial Interactions on the Dynamics of Polystyrene Chains Adsorbed on a Substrate
Shuji Morita, Yuma Morimitsu, Shiho Tanizaki, Satoru Yamamoto, Kotaro Satoh, Keiji Tanaka

13:30 1G15 Effect of Interfacial Roughness on Glass Transition Behavior of Polystyrene Thin Films
Taketo Nakasuka, Yuma Morimitsu, Keiji Tanaka

13:45 1G16 Local Structural Analysis of Filler Interfaces Buried in Epoxy Composites by Atomic Force Microscope-Infrared Spectroscopy
Atsushi Tokunaga, Yuma Morimitsu, Atsuomi Shundo, Keiji Tanaka

14:00 1G17 Local Orientational Analysis of Epoxy Resins at Adhesion Interfaces
Koyu Eto, Tatsuki Abe, Keiji Tanaka

Xiaobin Liang, presiding

14:15 1G18 Influence of Dispersants on the Viscosity of Alumina-PDMS Composite and the Interface Structure on Sapphire Substrate
Shuhei Kanmuri, Keiichi Ishida, Seisuke Inada, Hiroya Ishida, Naoya Torikai

14:30 1G19 Evaluation of Nano-structural Changes in Poly(butylene succinate-co-adipate) by Seawater Immersion Treatment
Nana Tsuji, Hiroto Osakaki, Keito Shimakawa, Ryu Miyajima, Thi Khanh Van Khuat, Kazuki Imai, Hiroyasu Masunaga, Yingjun An, Atsushi Takahara, Sono Sasaki

14:45	1G20	Effect of Primary Structure and Thermal Annealing on Surface Orientation of Amphiphilic Block Copolymers <u>Hayate Narumi</u> , Yukari Oda
15:00	1G21	Effect of End-group Structure on Construction of Hydrophilic Surfaces on Amphiphilic Copolymer Films <u>kako kawase</u> , yukari oda

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

Xiaobin Liang, presiding

15:15	1G22	Low-Temperature Annealing of PS-b-PMMA-Based Block Copolymers Incorporating PnBMA for Perpendicular Microdomain Orientation in Thin Films <u>Hsi Chih Wang</u> , Takehiro Seshimo, Takahiro Dazai, Kazufumi Sato, Kan Hatakeyama-Sato, Yuta Nabae, Teruaki Hayakawa
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Masayuki Wakioka, presiding

15:30	1G23	Thermal History Dependence of Residual Stress at Adhesive Interface of Poly(ether ether ketone) <u>Shota Yamauchi</u> , Takuya Matsumoto, Takashi Nishino
15:45	1G24	Swelling behavior and stability of a polystyrene adsorbed layer and a homologue thin film on it under different solvent vapor <u>Ryou Tsurui</u> , Yoshihisa Fujii, Naoya Torikai
16:00	1G25	Understanding lithium-ion transport mechanism in alkyl sulfonated polyimides at cathode-polymer-electrolyte interfaces via multiscale modelling <u>Attila Taborosi</u> , Kentaro Aoki, Nobuyuki Zettsu, Michihisa Koyama, Yuki Nagao
16:30	1G27	PFAS-Free Hydrophobic and Oleophobic Bio-Based Polyurethane Coatings <u>Yoshihiko Shiraki</u>

Naoya Torikai, presiding

17:00	1G29	Adhesion of polyisobutylene polyurethane to polypropylene by diffusion <u>Yoshihiko Shiraki</u> , Takehito Seki, Masayuki Wakioka
17:30	1G31	Study on the Physical Properties of Cononsolvency Polymers Using Nanofishing <u>Haruka Mori</u> , Shiho Tanizaki, Xiaobin Liang, Kotaro Satoh, Ken Nakajima
18:00	1G33	Adsorption of amphiphilic random copolymers from solution onto solid substrates <u>Takahiro Sato</u>

Wed. Sep 17

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Kosuke Okeyoshi, presiding

- 9:00 2G01 Machine learning model that predicts the wettability for water and an organic solvent and surface free energy of polymer surfaces
Tsukuru Masuda, Shunya Sudo, Madoka Takai
- 9:30 2G03 Mechanical Properties of Single Poly(ethylene glycol) Chains by Nanofishing Method 2
Takaki Kohama, Xiaobin Liang, Ken Nakajima
- 10:00 2G05 Multi-scale CT observation of the fracture process at the Al-adhesive interface
Takanori Itoh, Norio Saito, Masayuki Inaba, Chulho Song, Emi Mukai, Takashi Kumamoto, Akihisa Takeuchi, Masayuki Uesugi, Yuki Sada, Hiro Fujihara, Hiroyuki Toda

Xiaobin Liang, presiding

- 10:30 2G07 Buried Interfacial Structures Analysis in Cellulose-Reinforced Styrene-Butadiene Rubber by Sum-frequency Generation Spectroscopy
Tatsuki Abe, Ozawa Ryosuke, Tomofumi Maekawa, Satoru Yamamoto, Keiji Tanaka
- 11:00 2G09 Interdiffusion and Adhesion Properties of Polymers with Reversible Bonds
Kenji Yamaoka, Iori Ogasa, Takuma Wada, Yoshinori Takashima
- 11:30 2G11 Effect on Antifouling Properties of the Hydrated State of Polymer with Surface Hydrophilization
Shintaro Yasuda, Yuka Ikemoto, Shohei Shiimoto, Hideki Seto, Masaru Tanaka, Yoshihisa Fujii, Naoya Torikai

Jun Matsui, presiding

- 13:00 2G13 Assembly of tough elastomer microparticles at the air/water interface
Yuma Sasaki, Yuichiro Nishizawa, Natsuki Watanabe, Uchihashi Takayuki, Daisuke Suzuki
- 13:30 2G15 Visualization and Analysis of In-Plane Diffusion in a Polystyrene Monolayer
Yuma Morimitsu, Keiji Tanaka
- 14:00 2G17 New developments in Langmuir monolayers of fluorinated polymers spread from solid tablets
Itsuki Fujii, Naoto Yokokawa, Atsuhiko Fujimori
- 14:15 2G18 Annealing effect on occurrence of structural color in formation of multi-particle layers using titanium dioxide modified with long-chain dienoate
Shoma Sakamoto, Ayane Yamazaki, Atsuhiko Fujimori

Masaya Mitsuishi, presiding

- 14:30 2G19 Structure and properties of fluorinated polymer-based composites containing cellulose nanofibers before and after TEMPO-oxidation
Chisato Nara, Manato Yoshino, Atsuhiko Fujimori
- 14:45 2G20 Osmotic pressure of microgel particle with homogeneous network
Haruki Takarai, Sadao Hirose, Minato Yamashita, Naoyuki Sakumichi, Sadao Ota, Takamasa Sakai

15:00	2G21	Quantitative analysis of cyclic poly(ethylene glycol) adsorption phenomena on gold surfaces <u>Yuki Maruyama</u> , Watanabe Tomohisa, Takuya Yamamoto
15:15	2G22	Physisorption of Cyclic Polyethylene Glycol on Nanoparticles and Catalytic Application <u>Mayu Kakizaki</u> , Takuya Yamamoto
15:30	2G23	Construction of Anisotropic Self-assembly Induced by Crystallization of Hydrophobic Peptoids; Phase Transition and Morphology Control <u>Renya Fukuda</u> , Yota Okuno, Tomoki Nishimura, Yasuhiko Iwasaki
15:45	2G24	Dynamic deformation of evaporation interface during the drying process of aqueous polymer solution <u>Reina Hagiwara</u> , Kosuke Okeyoshi
Atsuhiko Fujimori, presiding		
16:00	2G25	Control of the cloud point in LCST-type phase transitions of polymethacrylates containing gallic acid with oxyethylene chains in the side group <u>Keigo Urushidate</u> , Rena Sakai, Yasuteru Mawatari
16:15	2G26	Exfoliation of Sheet-like MOFs by Anisotropic Polymerization Reaction in Pillared Layer MOFs <u>Takumi Sato</u> , Kenta Kokado, Shizuka Anan
16:30	2G27	Improving the elasticity of silicone particles by controlling molecular structure <u>Reina Nakamoto</u> , Hyota Nishi, Yuya Takeuchi, Shinya Katsube, Nozomu Suzuki, Toyoko Suzuki, Hideto Minami
16:45	2G28	Photo-Oxidized Ultrathin Film Formation of Amphiphilic Cyclic Siloxanes Using Activated Ester <u>Chinami Habu</u> , Yuki Irie, Huie Zhu, Aki Kashiwazaki, Masaya Mitsuishi
17:00	2G29	Microphase-separated Structures of poly(DOPAm-b-protected DOPAm) for Sequential Integration of Heterogeneous Materials <u>Mizuki Ohke</u> , Ryoichi Akaishi, Shusaku Nagano, Manabu Ishizaki, Masato Kurihara, Shotaro Nishitsuji, Hinako Ebe, Jun Matsui

Thu. Sep 18

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Takuya Yamamoto, presiding

9:00	3G01	Fabrication of surface skinless porous polymer particles using nanocellulose/cosurfactant system <u>Takaki Kishida</u> , Koichiro Ishida, Yoshinobu Tsujii
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES “English Session”

Takuya Yamamoto, presiding

9:15	3G02	Synthesis of cyclic polymers by dynamic bond formation of phenylboronic acid and a 1,2-diol and topology investigation <u>Tojo ANDRIANALY</u> , Tsuyoshi ANDO, Hiroharu AJIRO
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Takuya Yamamoto, presiding

9:30	3G03	Controlled grafting density of zwitterionic polymer brushes on polymer particles with antifouling properties <u>Ryota Niwa</u> , Daisuke Aoki, Tatsuo Taniguchi
10:00	3G05	Visualization and Quantification of Compression-Stress Distribution by Three-Dimensional Composite Device of Layered Polydiacetylene and Transparent Resin <u>Hazuki Yamanaka</u> , Hiroaki Imai, Syuji Fujii, Yuya Oaki

Yoshinobu Tsujii, presiding

10:30	3G07	Dispersion Stabilization of Gold Nanoparticles using Bicyclic Poly(Ethylene Glycol) <u>Jo Tazuke</u> , Yuto Ohkuma, Tomohisa Watanabe, Takuya Yamamoto
11:00	3G09	Adsorption of Cyclic Poly(Ethylene Glycol) onto Gold Nanoparticles Formed by Various Reducing Agents <u>Makoto Hikichi</u> , Takuya Yamamoto
11:30	3G11	Self-organized structure control of statistical copolymers based on nano-phase separation Mao Kikuchi, Hinako Ebe, Katsuhiko Yamamoto, Shotaro Nishitsuji, Yuya Ishizaki, Shusaku Nagano, <u>Jun Matsui</u>

Shotaro Nishitsuji, presiding

13:00	3G13	Molecular Weight-Biased Adsorption of Amino-Modified Silicone to Titanium Dioxide Particles and its Effect on the Dispersibility <u>Ryushi Fukuhara</u> , Motoyuki Iijima
13:30	3G15	Precise supramolecular 2D self-assembly of cyclic molecules and localized incorporation of guest molecules <u>Shuntaro Uenuma</u> , Kyosuke Goyo, Yusuke Yasuda, Kazushi Fujimoto, Riku Kanno, Sadaki Samitsu, Takashi Nakanishi, Hideaki Yokoyama, Kohzo Ito
14:00	3G17	New method for the synthesis of membranes using unconventional electrochemical method <u>Yoshimitsu Itoh</u> , Yudai Yokoyama

Room H

Tue. Sep 16

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Shoichi Kutsumizu, presiding

- 10:45 1H08 Staining of polymer blends and silica composites with ruthenium tetroxide
Aya Kasahara, Teruhiko Saito, Sachiko Inazato, Emiko Igaki
- 11:00 1H09 Integrated Analysis of Structural Relaxation Based on Viscoelastic and Dielectric Responses in SWCNT Composite Films
Hiroaki Nobuoka, Osamu Urakawa, Tadashi Inoue
- 11:15 1H10 Phase Stability in Systems Containing Block Copolymers under Pressure
Hiroki Degaki, Ikuo Taniguchi, Shigeru Deguchi, Tsuyoshi Koga
- 11:30 1H11 Effects of phase-separated structure and aggregation state of fumed silica on viscoelastic properties for incompatible polymer blends
Furiku Maruyama, Yoshihisa Fujii, Naoya Torikai
- 11:45 1H12 Deformation Analyses of Nylon 610 Composites with Recycled Carbon Fibers through Raman Measurements and X-ray CT Observation
Takuya Matsumoto, Junpei Yamazaki, Takashi Nishino

Osamu Urakawa, presiding

- 13:00 1H13 Proposal for a potentially promising application of thermochromic polymer blends utilizing poly(n-alkyl acrylate) based on its transition temperature control
Takayuki Hirai, Konomi Yamashita, Ko Kugimoto, Norihiro Mizoshita
- 13:30 1H15 Analyses of hierarchical structures in SBR rubber silica-containing SBR treated with various silane coupling agents by using contrast-variation SANS
Yohei Nakanishi, Satoshi Sawada, Hiroaki Kondo, Motoki Shibata, Tsukasa Miyazaki, Ryuhei Motokawa, Takayuki Kumada, Kazuki Mita, Katsuhiro Yamamoto, Mikihiro Takenaka
- 14:00 1H17 Composite of Polyethylene and Polyacrylonitrile Synthesized by Vapor Phase Polymerization in Free Volume Space
shunsuke Yamamura, Hiroaki Imai, Yuya Oaki
- 14:30 1H19 Spatial Distribution Analysis of Stress Softening Effect under Non-uniform Deformation of Soft-nanocomposites
Yuuki Tokudome, Mai Thanh-Tam, Kenji Urayama

Ryohei Ishige, presiding

- 15:00 1H21 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [27]; Hydration of Simple Iodine Depending on Aqueous Solutes.
Akio Kawaguchi
- 15:30 1H23 Relationship between phase transitions and the regularity of phase-segregated nanostructures in amphiphilic liquid-crystalline diblock copolymers
Sadayuki Asaoka, Norihiko Ishii, Hidemi Tsunemine, Shinichi Sakurai
- 15:45 1H24 Viscoelastic properties and functionalization to adhesives of thermotropic cubic phase materials
Manami HARAYAMA, Sho NAKAMURA, Yohei MIWA, Kei HASHIMOTO, Taro UDAGAWA, Yasuhisa YAMAMURA, Kazuya SAITO, Shoichi KUTSUMIZU

16:00	1H25	Correlation between Fingerprint Texture Modulation and Mechanical Response in Cholesteric Liquid Crystal Elastomers <u>Koudai Tanino</u> , Tsutomu Furuya, Tsuyoshi Koga, Kenji Urayama Kenji Urayama, presiding
16:30	1H27	Vertical alignment control of rigid polyimides with self-assembling photo-crosslinkable termini <u>Kazuki Ooyama</u> , Shohei Hara, Ryohei Ishige
17:00	1H29	Helical Conformation of Polyimide prepared from Liquid Crystalline Precursor with Chiral Elimination group <u>Kodai Yamamoto</u> , Shunsuke Morii, Hinari Sakai, Tomoyasu Hirai, Ryohei Ishige
17:30	1H31	Correlation between Higher-Order Structure and Thermal Diffusivity in Liquid Crystalline Rigid Polymer <u>Tomohiro Kojima</u> , Kazuki Oyama, Ryohei Ishige
18:00	1H33	Two kinds of chiral network structures of thermotropic bicontinuous cubic phases <u>Shoichi Kutsumizu</u> , Toshihiko Oka, Yasuhisa Yamamura, Kazuya Saito, Takumi Hayashi, Ryoki Ohno, Kei Hashimoto, Yohei Miwa

Wed. Sep 17

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Tomohiro Miyata, presiding		
9:15	2H02	Chiroptical properties of poly(diphenylacetylene)s bearing mandelate pendants <u>Rikuya Aoki</u> , Abilesh Kumar Ravikumar, Tatsuya Nishimura, Katsuhiko Maeda
9:30	2H03	Investigation of structure transition of poly(alpha-L-glutamic acid) single chain using atomic force microscopy <u>Shota Suga</u> , Xiaobin Liang, Ken Nakajima, Hidemine Furuya
10:00	2H05	Simultaneous measurement of tensile testing and small angle neutron scattering on Nafion membranes under humid conditions <u>Shin-ichi Takata</u> , Shigeki Uduki
10:30	2H07	Synthesis and structural analysis of well-defined star-shaped polysulfides via living insert reaction with carbamic acid thioester and thiirane. <u>Ryouta Tsutsui</u> , Hiroto Kudo, Akiyuki Ryoki
Shin-ichi Takata, presiding		
11:15	2H10	Effect of high-pressure press on mechanical properties and crystalline structure of polybutylene succinate <u>Hiroki Miyakawa</u> , Shotaro Nishitsuji, Hiroshi Ito, Atsusi Kusuno
11:30	2H11	Comparison of the Melting Point of Polymer Crystals with Fully Extended Chains and the Equilibrium Melting Temperature Estimated by Linear and Nonlinear Hoffman-Weeks Extrapolation <u>Shota Usukawa</u> , Akikazu Matsumoto, Yasuhito Suzuki

11:45	2H12	Crystal morphologies and molecular chain orientations at isotactic polypropylene - dissimilar material interfaces <u>Kazuhiro Sato</u> , Tomohiro Miyata, Shusuke Kanomi, Hiroshi Jinnai
Katsuhiko Yamamoto, presiding		
13:00	2H13	Orientation analysis of molecular chains in amorphous regions of polyethylene using nanodiffraction imaging <u>Mirei Abe</u> , Shusuke Kanomi, Tomohiro Miyata, Hiroshi Jinnai
13:15	2H14	Effect of Tearing Rate on Nanostructural Changes in PBS:PBSA Blend Films during Tearing Process. <u>Kazuki Imai</u> , Keito Shimakawa, Ryu Miyajima, Nana Tsuji, Thi Khanh Van Khuat, Hiroyasu Masunaga, Yingjun An, Atushi Takahara, Sono Sasaki
13:30	2H15	Phase separation and control of copolymers with long crystalline side chains <u>Kaito Yui</u> , Yuuki Horiike, Takaya Terashima, Go Matsuba
13:45	2H16	Solid Solution and Higher-order Structure Evolutions of Poly α -olefin and N-alkane Blends <u>Shori Goshima</u> , Koji Nozaki
14:00	2H17	Nanoscale Correlation Analysis of Local Deformation Behavior and Material Properties in Crystalline Polymers <u>Kota Yagi</u> , Makiko Ito, Xiaobin Liang, Ken Nakajima
Takahiko Kawai, presiding		
14:15	2H18	Structural Analysis of Fluorinated Polymer Electrolyte Membranes by Contrast Variation Small-Angle Neutron Scattering <u>Shigeki Uzuki</u> , Shinichi Takata
14:30	2H19	Structural Analysis of Polymers by X-ray Raman Scattering <u>Katsuhiko Yamamoto</u> , Mikihiro Takenaka, Motohiro Suzuki, Skihiko Fujiwara, Naomi Kawamura, Hayashi Mikihiro
14:45	2H20	Structure evolution of Isotactic Polypropylene (iPP) into the α -form Crystals with Different Molecular Orderings <u>Shunnosuke Okimura</u> , Naohito Urakami, Koji Nozaki
15:00	2H21	Evaluation of the mechanical properties of crystalline polymers via molecular dynamics simulation <u>Nonoka Watanabe</u> , Ryuichi Hiraiwa, Yutaka Oya, Jun Koyanagi
15:15	2H22	Molecular design of non-covalent cholesterol-based glasses with optical, thermal, mechanical properties <u>Yuichiro Watanabe</u> , Kazuki Muro, Chia Hsin Cheng, Sadaki Samitsu, Takashi Kajitani, Takahito Ohmura, Kazunori Sugiyasu
Koji Yamada, presiding		
15:30	2H23IL	Visualization of failure in polymers using aggregation-induced emission <u>Hiejima Hiejima</u>
Naohito Urakami, presiding		
16:30	2H27	Cryogenic Oxygen Diffusion in Amorphous Polymers under Low Temperatures and the Correlation with Polymer-Chain Movement Probed by Dual-Emission Imide Compound <u>Rika Watanabe</u> , Haonan Liu, Masatoshi Tokita, Shinji Ando
17:00	2H29	Multiscale measurement of polymer crystallization from solution

Thu. Sep 18

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Naoko Yoshie, presiding

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| 9:00 | 3H01 | Minimum lactate chain length for hetero-stereocomplex formation between poly(lactate) and lactate copolymer LAHB
<u>Yusuke Imai</u> , Shinji Tanaka, Shinji Tanaka, Sangho Koh, Seiichi Taguchi |
| 9:30 | 3H03 | Development of an MRI methodology for polymeric films by ex-situ solid-state NMR with needle-like ferromagnet
<u>Natsuki KAWABATA</u> , Naoki ASAKAWA |
| 10:00 | 3H05 | Microphase Separation of Random/Alternating Copolymers into Nanostructured Materials
<u>Takaya Terashima</u> |

Yusuke Imai, presiding

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| 10:30 | 3H07 | Revealing the Deformation Behavior of High-Density Polyethylene Through In Situ Tensile Observation and Nanodiffraction Imaging Using Transmission Electron Microscopy
<u>Shusuke Kanomi</u> , Tomohiro Miyata, Hiroshi Jinnai |
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES “English Session”

Yusuke Imai, presiding

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| 11:00 | 3H09 | Crystallization Behavior of Polyethylene Bearing In-chain Functional Groups
<u>Nontarin Roopsung</u> , Yipu Lu, Kohei Takahashi, Kyoko Nozaki, Naoko Yoshie, Shintaro Nakagawa |
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Room I

Tue. Sep 16

S2. Mechanics and toughening of materials across their species

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| 12:50 | 1ISO | Introductory Remarks S2
<u>Tasuku Nakajima</u> |
| | | Ken Kojio, presiding |
| 13:00 | 1I13 | Transformation-induced plasticity of rotaxane resin
<u>Kazuaki Kato</u> , Taiki Hoshino |
| 13:30 | 1I15 | Migrating strain/stress concentrations in liquid crystal elastomers |

		Shunsuke Imai, Yuki Tokudome, Thanh-Tam Mai, Yasushi Okumura, Hirotsugu Kikuchi, <u>Kenji Urayama</u>
14:00	1I17	Fabrication of Multifunctional Non-Polymeric Materials by Controlling Heterogeneous Microstructure ~Metallurgical Researchers' Approach~ <u>Shoichi Kikuchi</u>
		Tasuku Nakajima, presiding
14:30	1I19	Mechanical properties and fracture behavior in the solid state of various glassy polymer materials <u>Asae Ito</u> , Ryohei Ippitsu, Takashi Uneyama, Yusuke Hiejima, Koh-hei Nitta, Masahiro Higuchi
15:00	1I21	Deformation behavior of polymer materials under various deformation modes based on multi-scale structure analyses Aya Fujimoto, Ayumi Hamada, <u>Ken Kojio</u>
15:30	1I23	Microscopic Failure of Fiber Reinforced Composites <u>Kosuke Takahashi</u>
		Asae Ito, presiding
16:00	1I25	Silica Nanoparticle-Induced J-shaped stress-strain behavior and Toughening Mechanism in PMEA Elastomer <u>Karin Ito</u> , Moe Sakamoto, Yuki Tokudome, Daichi Nozaki, Kenji Urayama, Yukikazu Takeoka
16:30	1I27	Guidelines for achieving high-strength adhesion between polymers and inorganic materials <u>Tomohiro Miyata</u> , Keiichi Shirasu, Sunao Mori, Hiroshi Jinnai
		Tomoki Yasui, presiding
17:00	1I29	The strain-induced crystallization behaviors of segmented polyurethane elastomers during various deformation modes <u>Kakeru Obayashi</u> , Ken Kojio, Kenji Urayama
17:30	1I31	Mechano-responsive behavior of supramolecular cross-linked hydrogels via stretch-induced phase separation <u>Naoaki Ishihara</u> , Akihide Sugawara, Yoshinori Takashima, Hiroshi Uyama
18:00	1I33	Controlling Strain-Induced Crystallization in Homogeneously Crosslinked Elastomers via Crystallizability Design of Network Strands <u>Renan Sasaki</u> , Naoko Yoshie, Shintaro Nakagawa

Wed. Sep 17

S2. Mechanics and toughening of materials across their species

		Kazuaki Kato, presiding
9:00	2I01	Effect of environment on crack propagation of double-network gels <u>Tasuku Nakajima</u>
9:30	2I03	TEM imaging of polymer network rupture using mechanoradical indicator <u>Masahiro Yoshida</u> , Ryuji Kiyama, Tasuku Nakajima, Jian Ping Gong

10:00	2I05	Toughness Enhancement through Design of Heterogeneous Glass Structures <u>Kenji Shinozaki</u>
10:30	2I07	Fundamental toughening landscape in soft-hard composites: insights from a minimal framework <u>Fucheng Tian</u> , Katsuhiko Sato, Jian Ping Gong
Takashi Miyata, presiding		
11:00	2I09	Hybridization of Polysaccharides and Hydroxyapatite for the Development of High-Toughness Biomass Structural Materials Inspired by Bone Mimicry <u>Yui Okuda</u> , Go Matsuba, Eiichi Kido, Tadashi Mizutani
11:30	2I11	Structural/Mechanical Characterization of Films Composed of Acrylic Acid Copolymerized Microparticles <u>Haruka Minato</u> , Hayato Suzuki, Yosuke Nishimaki, Yuji Sato, Yuichiro Nishizawa, Chan Feng-Yueh, Takayuki Uchihashi, Keita Namba, Takuma Kureha, Ikki Takahashi, Yusuke Yasuda, Kazushi Fujimoto, Daisuke Suzuki
Yohei Miwa, presiding		
13:00	2I13	Toughening of Glassy Polymers by Weak Ionic Interactions of Organic Base Counterions <u>Daisuke Aoki</u> , Kotaro Uchiyama, Koji Arimitsu
13:30	2I15	Tough ion gels based on salting-in effect of hydrogen-bonding polymers <u>Yuji Kamiyama</u> , Yueying Peng, Kei Nishikawa, Ryota Tamate
14:00	2I17	Improved mechanical properties of self-assembled peptide hydrogels <u>Yoshiaki Hirano</u> , Natsuki Yamamoto, Shota Yamauchi, Jo Aoyama
Tasuku Nakajima, presiding		
14:30	2I19	Elastomers that transform into highly fluorescent plastics upon CO ₂ exposure <u>Yohei Miwa</u> , Kazuma Okada, Takumi Hayashi, Kei Hashimoto, Shoichi Kutsumizu
15:00	2I21	Toughening of Single Crystals of Metal-Organic Frameworks through Polymer Networking of Organic Ligands <u>Shizuka Anan</u> , Kenta Kokado
15:30	2I23	Toughening of gels using polymer chain entanglements <u>Takashi Miyata</u> , Midori Murakami, Akifumi Kawamura
Kenta Kokado, presiding		
16:00	2I25	Fabrication of uniformly cross-linked network structure via self-expansion of metal-organic frameworks <u>Ami Nishijima</u> , Yuto Osugi, Akira Uchiyama, Takashi Uemura
16:30	2I27	Fabrication of soft and tough hydrogels using microgel network clusters <u>Tomoki Yasui</u> , Masato Ishimoto, Masahiro Yoshida, Tasuku Nakajima, Takayuki Kurokawa, Jian Ping Gong
17:00	2I29	High elasticity of hydrogels by terminal functional groups of polymer side chains <u>Yuka Wakayama</u> , Takuma Kureha

Thu. Sep 18

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Takuya Matsumoto, presiding

- 9:00 3I01 Microscopic analysis of bending behavior in polycarbonate films using luminescent quantum dots
Ryota Niwa,Yusho Kishimoto,Miho Aizawa,Kyohei Hisano,Atsushi Shishido
- 9:15 3I02 Thermal and mechanical properties of synthesized aliphatic polyesters with different halogen compounds on their side chains
Kanji Niimi,Yuya Oyama,Atsushi Hotta
- 9:30 3I03 Analysis of Strain Distribution during Crack Propagation in Polycarbonate film
Takayuki Yoshida,Shotaro Nishitsuji
- 9:45 3I04 Visualization of nanoscale deformation behavior under large deformation by atomic force microscopy
Xiaobin Liang,Ken Nakajima
- 10:00 3I05 Analysis of bending deformation and surface fracture of hard-coated polymer films with different film thicknesses
Yusuke Fukumoto,Jiayi Yu,Kyohei Hisano,Atsushi Shishido

Atsushi Shishido, presiding

- 10:15 3I06 Crystal Modulus of Various Polyalcohols
Takashi Nishino,Naoto Takahashi,Takuya Matsumoto
- 10:45 3I08 Formation of polytetrapeptide-based coacervates under dilute conditions and elucidation of regulatory factors
Jumpei Inomata,Shohei Ishikawa,Takamasa Sakai
- 11:00 3I09 Adsorption suppression and viscosity transition in semidilute PEO/silicananoparticle mixtures under the protein limit
Xiang Li,Saki Kusakabe,Takuya Katashima,Koichi Mayumi,Yuki Akagi

Room J

Tue. Sep 16

S4. Frontiers of Simulation and Data Science Technologies in Polymer Science

- 9:50 1JSO Introductory Remarks S4
Taku Ozawa

Yoshifumi Amamoto, presiding

- 10:00 1J05 Frontiers of Sim2Real machine learning in polymeric materials
Yoshihiro Hayashi
- 10:30 1J07 Machine Learning-Based Analysis of Polymer Resistance to Organic Solvents

		<u>Shogo Kunieda</u> , Mitsuru Yambe, Hiromori Murashima, Takeru Nakamura, Yosuke Hanawa, Toshiaki Shintani, Hitoshi Kamijima, Yoshihiro Hayashi, Ryo Yoshida
11:00	1J09	Exploration of thermo-responsive polymers based on completely enumeration of polymer constitutional isomers with amide group <u>Gikyo Usuki</u> , Takuro Tsutsumi, Kohei Hasebe, Masato Kobayashi, Mio Shitamichi, Keitaro Matsuoka, Tetsuya Taketsugu, Kazuki Sada
11:30	1J11	Construction and Exploration of Performance Prediction Models for Organic Cathode Active Materials of Lithium-Ion Battery by Materials Informatics <u>Rika Yamamoto</u> , Kosuke Sakano, Hiroaki Imai, Taisei Sakata, Shuntaro Miyakawa, Shino Yoshizaki, Takaya Saito, Yasuhiko Igarashi, Yuya Oaki
		Yoshihiro Hayashi, presiding
13:00	1J13	Natural Language Processing for Analyzing Trend in Polymer Science and Utilization of Experimental Data <u>Yoshifumi Amamoto</u> , Takaaki Ohnishi
13:30	1J15	Description of hydrogel-ligand interactions through multi-perspective data-driven science based on multiple-resonance NMR measurements <u>Masayuki Okada</u> , Wenrui ZHU, Yoshifumi Amamoto, Jun Kikuchi
14:00	1J17	Structural Analysis of Coarse-grained Polymer Networks via Graph-based Algorithms <u>Yusuke Yasuda</u> , Yuta Akagi, Kazushi Fujimoto
14:30	1J19	Analysis of soft material structural changes using the molecular assembly structure learning package for identifying order parameters <u>Kazuaki Takahashi</u>
		Takahiro Murashima, presiding
15:00	1J21	Analysis of Polymer Friction and Wear using Multiscale Simulation <u>Hitoshi Washizu</u> , Akinori Fujita, Ogawa Yudai, Itoh Kazuki, Masaki Hayama, Yodai Tanabe, Akito Nakamura, Kaito Nomura, Yuji Higuchi, Sugimura Natsuko
15:30	1J23	Analysis of Pressure-Sensitive Adhesive/Resin Bonding Interfaces Using DPD Simulation <u>Tetsunori Morishita</u> , Kohsuke Ohmi, Yuya Yamada, Takuya Mitsuoka
16:00	1J25	Molecular Dynamics Analysis of Small-Molecule Permeation in Polymers Using a Highly Efficient New Free Energy Calculation Method <u>Ryo Omori</u> , Keiichiro Nomura, Isamu Shigemoto, Susumu Okazaki
16:30	1J27	Viscosity of unentangled polymer solutions under fast shear flow by coarse-grained molecular simulation <u>Tatsuma Oishi</u> , Yusuke Koide, Takato Ishida, Takashi Uneyama, Yuichi Masubuchi
		Kazuaki Takahashi, presiding
17:00	1J29	A multiscale simulation for large deformation of rubber compounds

		<u>Takahiro Ohkuma</u> , Yoshiaki Kawagoe, Kazuki Ryuzono, Tomohiro Miyata, Tomonaga Okabe, Hiroshi Jinnai
17:30	1J31	Method for calculating phase-separated structures by generating random polymer structures <u>Takashi Honda</u>
18:00	1J33	Multiscale simulation coupling molecular dynamics simulation and continuum simulation. <u>Takahiro Murashima</u>

Wed. Sep 17

S4. Frontiers of Simulation and Data Science Technologies in Polymer Science

Takato Ishida, presiding

9:00	2J01	Mechanical properties of crystalline polymers by large-scale coarse-grained molecular dynamics simulations <u>Yuji Higuchi</u>
9:30	2J03	Simulation and Data-Driven Analysis of Crystallization and Mechanical Properties in Semicrystalline Polymers <u>Mohammed Althaf Hussain</u> , Takeshi Yamamoto, Shigeru Yao
10:00	2J05	Molecular Dynamics Study on Compressive Fracture Mechanisms of Polymer Nanoparticles <u>Ikki Takahashi</u> , Yoshiki Hieda, Yusuke Yasuda, Minoru Kato, Kazushi Fujimoto

Yuji Higuchi, presiding

10:30	2J07	Development of a simulation method for network polymer formation using quantum chemistry and molecular dynamics calculations: application to interfacial reactions with molecular catalytic effects Yingxiao Xi, Kaiwen Li, Takahisa Ishiyama, Hao Xue, Gota Kikugawa, <u>Naoki Kishimoto</u>
11:00	2J09	Coarse-Grained Molecular Dynamics Simulation of Polymer Oxidative Degradation Considering Radical Transportation: Comparison between Quiescent and Flow Conditions <u>Takato Ishida</u> , Yusuke Koide, Takashi Uneyama, Yuichi Masubuchi

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Hideyuki Nakanishi, presiding

13:00	2J13IL	Materials design based on loose constraints between molecules <u>Kazuaki Kato</u>
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Isamu Akiba, presiding

14:00	2J17	Micellar Structure of Amphiphilic Pullulan with Hydrophobically Pendants of Dodecyl Succinate in Aqueous Solution <u>Yuki Matsumoto</u> , Shinichi Kitamura, Rintaro Takahashi, Ken Terao
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B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES “English Session”

Isamu Akiba, presiding

- 14:15 2J18 Structural and Conformational Investigation of Pectin in Acid Solution
Hai Huang, Rintaro Takahashi, Ken Terao

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Isamu Akiba, presiding

- 14:30 2J19 Denaturation and renaturation behavior of double helices in the gelation of Gellan Gum
Ryoma Suzuki, Rintaro Takahashi, Ken Terao
- 14:45 2J20 Synthesis and Micelle Formation Behavior of Decyl Succinate-modified Dextran
Yuzu Komuro, Rintaro Takahashi, Ken Terao
- 15:00 2J21 Temperature response and hydration/dehydration behavior of aqueous solutions of dextran derivatives
Aito Saeki, Rintaro Takahashi, Ken Terao

Ken Terao, presiding

- 15:15 2J22 Decomposition Behavior of Pullulan in Hot Water Observed by Small-Angle X-ray Scattering
Shinichiro Katsuya, Yo Nakamura
- 15:30 2J23 Synthesis of UCST-type water-soluble polymers and their unusual aqueous solution behavior
Maina Takeuchi, Moriya Kikuchi, Seigou Kawaguchi
- 15:45 2J24 Phase behavior of aqueous solution of poly(acrylic acid)/guanidyl compound mixtures
Koki Yamaura, Isamu Akiba
- 16:00 2J25 Structural and rheological studies on wormlike micelles formed by mixtures of potassium oleate and L-arginine
Tomoki Endo, Takayoshi Kawahara, Kazuya Uezu, Isamu Akiba

Yo Nakamura, presiding

- 16:15 2J26 Associating structures of mixtures of polyglycerol fatty acid esters with different hydrophobic chain length
Ichito Morimoto, Isamu Akiba
- 16:30 2J27 Aggregation behavior of aqueous solutions of comb-shaped poly(N-isopropylacrylamide) with polysaccharide main chain with increasing temperature
Tomoki Arakawa, Rintaro Takahashi, Ken Terao
- 16:45 2J28 Effects of stereoregularity of poly (lactic acid) chain on the local conformation
Masahiro Yagishita, Kayo Ueda, Yoshinori Suzuki, Takahiro Watanabe, Moriya Kikuchi, Seigou Kawaguchi
- 17:00 2J29 Viscoelastic properties of ring polybutadienes with high purity.
Masahiro Ito, Atsushi Takano

Thu. Sep 18

B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

Yuya Doi, presiding

- 9:00 3J01 Effect of Terminal Modification on the Temperature Responsiveness of Poly(N,N-diethylacrylamide)
Koume Matsuo, Rintaro Takahashi, Ken Terao
- 9:15 3J02 Linear and branched supramolecular polymers formed from isomeric monomers
Natsumi Fukaya, Yufuka Furukawa, Ren Sato, Takuya Katashima, Takashi Kajitani, Kazunori Sugiyasu
- 9:30 3J03 Effects of Tacticity of Poly(methyl methacrylate) on the Local Conformation.
Yuta Suzuki, Moriya Kikuchi, sion Iwasa, Ituki Tousya, Takehiro Kawauchi, Ziro Kumaki, Kawaguchi Seigo
- 9:45 3J04 Scaling Analysis on the Viscoelasticity of Semidilute Entangled Polyelectrolyte Solutions Using Diffusing Wave Spectroscopy
Atsushi Matsumoto, Ikuto Kato, Chi Zhang, Shinji Sugihara, Yasushi Maeda, Frank Scheffold, Amy Shen
- 10:00 3J05 Reentrant Phase Separation Behavior of Cationic Polymer Aqueous Solutions Induced by Addition of Organic Salt
Kazusa Takesue, Yura Narazaki, Yusuke Sanada, Yukiteru Katsumoto

Daichi Ida, presiding

- 10:15 3J06 Heat-induced bundle formation of methylcellulose in aqueous solution
Toshiki Hara, Nazuna Taniguchi, Yusuke Sanada, Yukiteru Katsumoto
- 10:30 3J07 Influence of congo red on the structure of xanthan
Kaede Sato, Yuka Sato, Kazuto Yoshida, Yoshiumi Kohno, Tadatomo Kawai, Yasuhiro Matsuda
- 11:00 3J09 Polymer Conformation Analysis in PEC-type Solid Polymer Electrolytes by SANS
Yuya Doi, Juergen Allgaier, Stephan Foerster, Michael Ohl
- 11:30 3J11 Excluded-volume-exponent crossover observed through the scaling law of the osmotic pressure in polymer gels
Sohei Shinozaki, Takashi Yasuda, Noriaki Mizumoto, Xiang Li, Naoyuki Sakumichi, Takamasa Sakai

Yukiteru Katsumoto, presiding

- 13:00 3J13 Dynamic Control of Redox-active Polymer Electrolyte Solution Viscosity and Nanoparticle Dispersibility
Kenichi Oyaizu, Kohei Ishigami, Shinjiro Mori
- 13:30 3J15 Evaluation of Phase Transition Behavior in Ternary Polymer Solutions Driven by Hydrogen Bonding Formation and Dissociation
Koki Takasu, Natsuki Inaba, Keitaro Matsuoka, Takuro Tsutsumi, Kazuki Sada
- 14:00 3J17 Structure and Rheology of Acrylic Ionomers
Osamu Urakawa, Takuto Suda, Tadashi Inoue

14:30	3J19	A simple extension of the Flory&endash;Huggins theory to aqueous polymer solutions Takenao Yoshizaki, <u>Daichi Ida</u>
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Room K

Tue. Sep 16

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Tsuneaki Sakurai, presiding

10:15	1K06	Mechanochromic Emission of Cyanostilbene-based Amorphous Molecular Fluorophores <u>Hideyuki Nakano</u> , Hiroya Fukushima, Kou Miyagishi, Yuito Shimazaki, Rikuya Kurita
10:30	1K07	Photocured Blended Films of Diarylfluorene having Naphthalene Moieties and TiO ₂ with High Refractive Indices <u>Haruyuki Okamura</u> , Keiko Minokami, Shinsuke Miyauchi
10:45	1K08	Optical properties of (CNF/ionic liquid) composite films with photon upconversion dyes system <u>Hirokazu Yamane</u> , Kenichiro Sasaki
11:00	1K09	Z-to-E thermal isomerization of thioindigo promoted by alkylamide supramolecular assemblies <u>Yuki Nagai</u> , Sota Fujisaki, Yoichi Kobayashi

Hideyuki Nakano, presiding

11:15	1K10	Development of colorless and transparent polyurethanes bearing excited-state intramolecular proton transfer-type fluorophores as side pendants <u>Tsukasa Kawamura</u> , Tsuneaki Sakurai, Masaki Shimizu
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Hideyuki Nakano, presiding

11:30	1K11	Nonconventional Luminescent Polyester with Cryogenic Phosphorescence and Thermofluorochromic Behavior <u>Tianle Gao</u> , Yu-Jen Shao, Feng Li, Takuya Isono, Toshifumi Satoh
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hideyuki Nakano, presiding

11:45	1K12	Fine pattern formation of polymers containing carboxylic acid derivatives at side chains utilizing consecutive nucleophilic acyl substitution reaction during development process <u>Shiori Hidehira</u> , Hiroyuki Maekawa, Toshiyuki Oyama
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Takuya Isono, presiding

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|-------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00 | 1K13 | High Pressure-induced Changes in the Photophysical Properties of Imide Compounds and Polyimides Containing a Thianthrene-Moiety in the Main Chain
<u>Liangkang Yu</u> , Hiroka Yamamatsu, Ryuichi Isoda, Megumi Matsuda, Haonan Liu, Tomoya Higashihara, Shinji Ando |
| 13:15 | 1K14 | Thin resist film structures, submicrometer-size resist pattern shapes, and dry-etched silicon hole structures obtained under different process temperature conditions of a positive-tone photoresist in ultraviolet laser direct drawing
<u>Daisuke Tojima</u> , Iori Morita, Tomoko Hasegawa, Masaru Nakagawa |
| 13:30 | 1K15 | Systematic copolymerization of various electron donor and acceptor monomers and aggregation-induced TADF property of the resultant copolymers.
<u>Chikato Tanabe</u> , Fumitaka Ishiwari, Akinori Saeki |
| 13:45 | 1K16 | Synthesis and Optical Properties of Phenolic Polymers Including Triphenylamine Units
<u>Takahiro Kakuta</u> , Yukiyo Shinjo, Rise Miyazaki, Yukiko Ueno, Tada-aki Yamagishi |
| Fumitaka Ishiwari, presiding | | |
| 14:00 | 1K17 | Improvement of Adhesion Performance of Delayed UV-Curable Radical Adhesives Based on Acrylic Resin
<u>Naoya Machida</u> , Daisuke Aoki, Koji Arimitsu |
| 14:15 | 1K18 | Study on anionic UV adhesion of a multifunctional lactone monomer using a photobase generator
<u>Yuudai Yamamuro</u> , Daisuke Aoki, Koji Arimitsu |
| 14:30 | 1K19 | Anionic photopolymerization of episulfides with UV curing in shadow zones at room temperature and its application to adhesion
<u>Nanami Inoue</u> , Takahiro Matsuo, Junpei Murata, Daisuke Aoki, Koji Arimitsu |
| Takahiro Kakuta, presiding | | |
| 14:45 | 1K20 | Exploration of photobase generators for UV curable polyurethane adhesives
<u>Hiyori Inoue</u> , Daisuke Aoki, Koji Arimitsu |
| 15:00 | 1K21 | Alignment of phase separation structures through sequence of spatially selective photopolymerization and chain reshuffling reaction
<u>Keigo Akisawa</u> , Kotaro Shinmura, Kaito Takahashi, Miho Aizawa, Kyohei Hisano, Atsushi Shishido |
| 15:15 | 1K22 | Observation of Asymmetric Rotational Brownian Motion of Chiral Molecules via Polarization-Angle-Dependent Optical Kerr Effect spectroscopy
<u>Koichi Murakami</u> , Soh Kushida, Yohei Yamamoto |
| Soh Kushida, presiding | | |
| 15:30 | 1K23 | Photo-induced molecular reorientation and molecular rotation in polymer-stabilized dye-doped liquid crystals: real-time retardation analysis by polarization imaging
<u>Reika Fukumitsu</u> , Yuya Nakata, Junki Yokota, Miho Aizawa, Kyohei Hisano, Atsushi Shishido |
| 15:45 | 1K24 | Polarization analysis of molecular rotation and self-oscillation behavior of monomer-containing dye-doped liquid crystals under circularly polarized light irradiation |

Soichiro Koyama, Junki Yokota, Miho Aizawa, Kyohei Hisano, Atsushi Shishido

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Soh Kushida, presiding

16:00 1K25 Real-Color Displays Realized by Wavelength-Independent Random Depolarization
Shizuki Sasaki, Yasuhiro Koike

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Takeshi Yamamoto, presiding

16:30 1K27 Kinetic evaluation of CO₂ in PDMS by sorption measurement at low temperatures and high pressures
Mizuki Inoue, Edhuan Ismail, Laszlo Szabo, Samitsu Sadaki, Ichinose Izumi

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Takeshi Yamamoto, presiding

16:45 1K28 CO₂ Transport Behavior in Perfluoropolyether Elastomers for Gas Separation Applications
Sinan FENG, Anh Phuong LE THI, Sono SASAKI, Hiroyasu MASUNAGA, Atsushi TAKAHARA

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Takeshi Yamamoto, presiding

17:00 1K29 The effects of the membrane surface on the gas permeability of polymer composite membranes and its thickness dependence
Ryo Tomeba, Roman Selyanchyn, Shigenori Fujikawa

17:15 1K30 Development of self-healing polymer membranes with dynamic disulfide bonds for CO₂ separation
Naoki Ousaka, Ryo Tomeba, Shigenori Fujikawa

Sadaki Samitsu, presiding

17:30 1K31 Effect of permeation environmental conditions on the CO₂ permeation properties of polymeric membranes containing surface-modified nanoparticles aimed at membrane-separated DAC.
Hiroshi Shingu, Masafumi Yamato, Hiroyoshi Kawakami

17:45 1K32 Visual Chiral Sensing Using Enantioselective Gel Collapse of Supramolecular Gel Formed by Carbamoylated Riboflavin
Riku Izumi, Yuta Teranishi, Hiroki Iida

18:00 1K33 Exploration of Asymmetric Autoinductive Reaction Using Dynamic Helical Polymer Catalysts

		<u>Takeshi Yamamoto</u> ,Kae Oshitani,Shumpei Ito,Yusuke Matsumoto,Michinori Suginome
18:15	1K34	Fabrication and Characterization of a Biomimetic Root Structure Inspired by the Halophytic Mangrove <u>Jin Goto</u> ,Daisuke Ishii

Wed. Sep 17

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hidegori Okuzaki, presiding

9:00	2K01	Analysis of the CO ₂ permeation mechanism of polymeric membranes based on vibrational spectroscopy and high-angle X-ray scattering. <u>Chuya Sato</u> ,Kakeru Obayashi,Aya Fujimoto,Shuiti Nakazato,Ken Kojio
9:15	2K02	Detection of phosphate-based biomolecules using π -conjugated polymers with dipicolylamine unit (V) -Effect of the main chain structure- <u>Nao Hosoi</u> ,Shiori Nishizumi,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa
9:30	2K03	Detection of bacteria by cationic π -conjugated polymers (III) - Effect of molecular weight on bacterial detection- <u>Hibiki Ogura</u> ,Nobuyuki Kanzawa,Masahiro Fujita,Masahiro Rikukawa,Yuko Takeoka
9:45	2K04	Effects of Shear Stress on Antiferromagnetic Interactions within Nitroxide Dimers in Spin-Labeled Polypeptides and Their Conformational Analyses <u>Toshihiro Hiejima</u> ,Junpei Kaneko

Toshihiro Hiejima, presiding

10:00	2K05	Role and Effect of Ionic Gels on Piezoionic Sensors <u>Daito Goto</u> ,Taiki Horiuchi,Hidegori Okuzaki
10:15	2K06	Synthesis and Carrier Transport Properties of Alkyl-PEDOT:PSS with Different Composition Ratios <u>Kosei Sakurai</u> ,Yuxin Jing,Hidegori Okuzaki
10:30	2K07	Synthesis and ladderization of polyphenylene bearing 2,6-di-tert-butylphenol residues <u>Shuji Katsuta</u> ,Masahiro Teraguchi,Takashi Kaneko
10:45	2K08	Electronic states of polyradicals derived from cyclic tetramers of 2,6-bis(3,5-di-tert-butyl-4-hydroxyphenyl)benzo[1,2-b:5,4-b']difuran. <u>Koki Katano</u> ,Masahiro Teraguchi,Takashi Kaneko

Masahiro Teraguchi, presiding

11:00	2K09	Fabrication of CNTs-contained self-doped PEDOT thin films and its properties <u>Hiroaki Taniguchi</u> ,Yukina Taniguchi,Hirokazu Yano,Shinji Takeoka
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Masahiro Teraguchi, presiding

- 11:15 2K10 Sharp subthreshold switching in interface-modified organic electrochemical transistors for millivolt-level signal sensing
Hanyu Sun, Masaki Ishii, Takeya Jun, Katsuhiko Ariga, Yu Yamashita

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Masahiro Teraguchi, presiding

- 11:30 2K11 Characterization of Blend Films of PEDOT:PSS and Zwitterionic Polymers
Wakana Takahashi, Aki Kashiwazaki, Masaya Mitsuishi, Shunsuke Yamamoto

Tomoya Higashihara, presiding

- 13:15 2K14 A Strategically Designed Easily-Synthesized Polymer Donor for Efficient Organic Photovoltaics
Kodai Yamanaka, Tsubasa Mikie, Itaru Osaka
- 13:30 2K15 Development of Thienoquinoid-based Acceptors Having Short-Wavelength Infrared Absorption for Application in Organic Photodetector
Iori Atohe, Risa Ueda, Kodai Yamanaka, Tsubasa Mikie, Itaru Osaka
- 13:45 2K16 Development of semiconducting polymers incorporating novel benzo[1,2-d:4,3-d']bisthiazole-based building units for efficient organic photovoltaics
Mayu Tomita, Kodai Yamanaka, Tsubasa Mikie, Itaru Osaka
- 14:00 2K17 Interfacial effects on charge carrier dynamics in polymer semiconductors blends
Kazuki Kohzuki, Tsubasa Mikie, Itaru Osaka, Shunsuke Yamamoto, Hideo Ohkita

Shunsuke YAMAMOTO, presiding

- 14:15 2K18 Synthesis of novel semiconducting polymers with arylene sulfide spacers
Teruma Mikata, Tomoya Higashihara, Chu-Chen Chueh
- 14:30 2K19 Effect of phosphoric acid doping on quaternized polymer electrolyte membranes
Koki Kanda, Kenji Miyatake
- 14:45 2K20 Water vapor permeation properties of ion-conductive polymer membranes
Ryunosuke Omata, Kenji Miyatake

Kenji Miyatake, presiding

- 15:00 2K21 Novel Anion Conduction Mechanism Based on Anion- π Interaction and Application to Solid Polymer Electrolyte
Yuri Nara, Hiroyoshi Kawakami, Manabu Tanaka
- 15:15 2K22 Preparation of Solid Polymer Electrolytes with Sulfur-Containing Aliphatic Polymers and amorphous lithium salts.
Yuki Ogawa, Akinari Chiba, Kenichi Oyaizu
- 15:30 2K23 Ion Conduction Mechanism for Solid Polymer Electrolytes with Soft Lewis Base-Containing Aliphatic Polymers
Akinari Chiba, Kenichi Oyaizu

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Kenji Miyatake, presiding

- 15:45 2K24 Electrochemical Peltier Cooling by phase transition entropy of pH-Responsive poly(N-isopropylacrylamide) nanoparticles
Ryuto Iwata, Yusuke Wakayama, Hongyao Zhou, Teppei Yamada

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hongyao Zhou, presiding

- 16:00 2K25 Electrolyte membranes based on phosphorylated cellulose nanofibers for LT-PEFC
Hinako Koyanagi, Takashi Kato, Takafumi Sai, Akito Masuhara
- 16:15 2K26 Synthesis of Polydopamine- Graphene Oxide Composites for Organic Cathode Active Materials of Lithium-ion Battery
Fuka Yoshida, Hiroaki Imai, Yuta Nishina, Yuya Oaki
- 16:30 2K27 Synthesis and properties of novel fluorine-free anion conductive polymers
Rino Terada, Kenji Miyatake

Yuya Oaki, presiding

- 16:45 2K28 Cost-effective synthesis of proton-conductive aromatic polymer membranes
Taito Koshimura, Kenji Miyatake
- 17:00 2K29 Synthesis of acrylate polymers with coordinating side chains and application to gel polymer electrolytes
Taiyo Arai, Hisashi Kokubo, Ryoichi Tatara, Kaoru Dokko
- 17:15 2K30 Preparation of a polymer electrolyte membrane composed of polystyrene with phosphonic acid groups on the side chains through alkylene spacers
Takato Kajita, Takenori Nakayama, Mio Nishimoto, Haruka Tanaka, Katsumi Sato, Mayeesha Marium, Albert Mufundirwa, Hiroyuki Iwamoto, Atsushi Noro

Thu. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Jun Matsui, presiding

- 9:00 3K01 Preparation of polymer electrolyte membranes composed of polystyrylalkane-b-poly(styrylalkane phosphonic acid) block polymers
Itsuki Takashima, Takato Kajita, Mio Nishimoto, Haruka Tanaka, Atsushi Noro
- 9:15 3K02 Properties of all-solid-state rechargeable air batteries using anthraquinone-2-carboxylic acid as the negative Electrode.
Hiroataka Yazawa, Kenji Miyatake

9:30	3K03	Development of Hydrogel Nanoparticle-Based Rechargeable Thermo-electrochemical Cell Driven by Volume Phase Transition <u>Yuki Namba</u> , Hisashi Shimakoshi, Yu Hoshino
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Jun Matsui, presiding

9:45	3K04	Enhancing High-Voltage Performance of Symmetric Supercapacitors Using BIAN-Based Polymerizable Electrolyte Additive <u>Bharat Srimitra Mantripragada</u> , Noriyoshi Matsumi
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Atsushi Noro, presiding

10:00	3K05	Transparent latent heat storage polymer utilizing side-chain aggregation and melting occurring in the glassy state <u>Ryota Onodera</u> , Mao Kikuchi, Takayuki Yoshida, Syotaro Nishitsuji, Jun Matsui
10:15	3K06	Synthesis of A2B-type Y-shaped copolymer consisting of poly(lactide) and poly(stearyl methacrylate), particle formation in solution, and investigation to thermal storage materials <u>Tsuyoshi Ando</u> , Kengo Hayase, Hiroharu Ajiro

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Atsushi Noro, presiding

10:30	3K07	Analysis of the hydration state of polymer electrolyte membranes using X-ray absorption spectroscopy <u>Naoya Kurahashi</u> , Hiroki Suga, Masahiro Rikukawa
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Room L

Tue. Sep 16

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Shin-ichi Yusa, presiding

10:15	1L06	A Universal Method for Creating LCST-type Simple Polymer Coacervates <u>Haowei SUN</u> , Takafumi ENOMOTO, Ryo YOSHIDA
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Shin-ichi Yusa, presiding

- 10:30 1L07 Alkyl- π Supercooled Gels
Takashi Nakanishi, Akito Tateyama
- 10:45 1L08 Fabrication of EPDM Fibers and Application to Soft Actuators
Shuki Toyoshima, Yuma Furuya, Daiki Shimazaki, Hidenori Okuzaki
- 11:00 1L09 Synthesis of High-Permittivity Polysiloxane Elastomers Modified with Cyano Groups and Evaluation of Their Electrical and Mechanical Properties
Yuria Otsuka, Hiromitsu Tanaka, Minako Uoshima, Kensuke Wada, Yumi Inagaki, Norihiro Mizoshita

Takashi Nakanishi, presiding

- 11:15 1L10 Construction and physical properties of peptide hydrogels showing photo-, thermos-, and pH-responsible sol-gel transition.
Kosei Wakita, Shogo Matsubara
- 11:30 1L11 Self-assembly of graphene oxide nanosheets for the generation of structural colors and the application in functional soft materials
Daisuke Ogawa, Yuta Nishina, Koki Sano
- 11:45 1L12 Aggregation behavior of photo-responsive polyampholytes
Rei Kakitani, Shin-ichi Yusa

Kohsuke Matsumoto, presiding

- 13:00 1L13 Stimuli-Responsive Behavior of Rotaxane Mechanophores Modulated by Axial Substituent Variation
Riku Yamamoto, Yoshimitsu Sagara
- 13:15 1L14 Development of printable 4D hydrogel by PET-RAFT polymerization.
Yoshiko Miura, Chanhyuk Jee, Hikaru Matsumoto, Masanori Nagao, Ken Kojio, Zhongkui Wang
- 13:30 1L15 Effect of alkoxy side chain positions on the ring-opening and closing property of coumarin π -conjugated polymers
Yuya Kaneko, Aohan Wang
- 13:45 1L16 Synthesis and Functionalization of High-Strength Materials Using Hydrogel Containing Phosphate Groups
Riku Fukuoka, Takuma Kureha

Yoshiko Miura, presiding

- 14:00 1L17 Mechanical-Optical Response of Pressure-Responsive Chiral-Nematic Liquid-Crystalline Elastomers
Ryota Morimoto, Maki Ogata, Kohsuke Matsumoto, Osamu Tsutsumi
- 14:15 1L18 Liquid-Crystalline Polymer Microparticles Embedded with Inorganic Nanoparticles via Seeded Dispersion Polymerization
Kei Nomura, Kohsuke Matsumoto, Osamu Tsutsumi
- 14:30 1L19 Electrochemical signaling for artificial innervation of self-oscillating gels
Tsai-Ning Hu, Takafumi Enomoto, Aya Akimoto, Ryo Yoshida
- 14:45 1L20 Sol-gel Transition of Triblock Copolymer with UCST-type Thermo-responsive Zwitterionic Polymer Blocks
Akifumi Kawamura, Hiyori Matsui, Katsuhiko Yamamoto, Takashi Miyata

Kyoichi Tsurusaki, presiding

15:00	1L21	Photocrosslinkable polymer system to form strong gels under dilute conditions -mechanical properties and adhesion properties- <u>Kimio Sumaru</u> , Masaaki Okihara, Ayaka Tomoda, Toshiyuki Takagi
15:15	1L22	Preparation of bio-based polymer electrolyte membrane with nanomatrix channel <u>Yoshimasa Yamamoto</u> , Seiichi Kawahara
15:30	1L23	Analysis of Orientation Changes in Chiral-Nematic Liquid-Crystalline Polymer Particles under Applied Strain <u>Maki Ogata</u> , Matsumoto Kohsuke, Osamu Tsutsumi
15:45	1L24	Pressure-Induced Nanostructural Changes in Polystyrene Triggered by Baroplastic Incorporation <u>Takaya Okazaki</u> , Fanny Moses Gladys, Sota Kakesu, Ikuro Taniguchi
Ikuro Taniguchi, presiding		
16:00	1L25	Thermoplastic Ion Gels with Enhanced Stiffness and Ionic Conductivity via PEO Crystallization Masamune Tatsuiwa, <u>Kei Hashimoto</u> , Yohei Miwa, Shoichi Kutsumizu
16:15	1L26	Development of solid polymer electrolytes with superior toughness and reversibility via strain-induced crystallization <u>Shuto Fujisawa</u> , Kei Hashimoto, Takamasa Sakai, Koichi Mayumi, Shoichi Kutsumizu, Yohei Miwa
16:30	1L27	Design and Physicochemical Characterization of Gel Electrolytes Based on Lithium-Salt-Containing Deep Eutectic Solvents and Polyethylene Glycol <u>Yugo Ohshima</u> , Shoihi Kutsumizu, Yohei Miwa, Kei Hashimoto
16:45	1L28	Real-time observation of light-emitting phenomenon of shear-responsive materials by rheo-optics Hibiki Oota, <u>Kyoichi Tsurusaki</u> , Rika Takeda, Takumi Oomura, Shougo Morisako, Kyosuke Isoda

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Daisuke Aoki, presiding

17:00	1L29	Na ⁺ -Complexed Dendritic Polyglycerols for Recovery of Frozen Cells and Their Network in Media <u>Aram Shin</u> , Tae Kyung Won, Sang Yup Lee, Dong June Ahn, Byeong-Su Kim
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Daisuke Aoki, presiding

17:15	1L30	Tensile Properties Evaluation of Highly Stretchable Organogels Composed of Low-Hydrophobic and Amphiphilic Monomers <u>Hiroharu AJIRO</u> , Kokoro CHIDA, Hiroaki YOSHIDA
17:30	1L31	Fluorescence red shift and white light luminescence of polymer clusters cross-linked by photo-dimerization reaction

Shintaro Kawano, Takumi Ida, Masahiro Muraoka, Motohiro Shizuma

Shintaro Kawano, presiding

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| 17:45 | 1L32 | The effect of supramolecular crosslinkers based on γ -CD and PEG on the mechanical properties of rotaxane cross-linked polymers
<u>Yuki Sueyoshi</u> , Toyokazu Tsutsuba, Tatsuo Taniguchi, Daisuke Aoki |
| 18:00 | 1L33 | Development of biocompatible soft materials with stretch responses similar to those of soft biological tissues
<u>Yuya Kagami</u> , Taiki Hoshino, Masaru Tanaka, Yukikazu Takeoka |

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Shintaro Kawano, presiding

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| 18:15 | 1L34 | Conductive and self-healing composite gel material containing nanocellulose/carbon nanotubes based on highly deformable and adhesive hydrogel
<u>Tinghui Zhao</u> , Tsukuru Masuda, Madoka Takai |
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Junya Uchida, presiding

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| 9:00 | 2L01 | Geometric deformation and pneumatic performance of connected polyhedral based on origami open-close mechanism
<u>Hiroshi Endo</u> , Koya Takahashi |
| 9:15 | 2L02 | Locomotion performance of cylinder quadruped soft robot composed of parallel-typed bellows
<u>Tomoya Yamashita</u> , Hiroshi Endo |
| 9:30 | 2L03 | Photoresponsiveness of Self-Propelled Oil Droplets in the Presence of an Amphiphilic Polymer with an Azobenzene Skeleton
<u>Ayano Watanabe</u> , Kouichi Asakura, Taisuke Banno |

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Hiroshi Endo, presiding

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| 9:45 | 2L04 | Photoresponsive Actuator-Innovated Adhesion Systems for Selective Peeling, Substrate Recycling, and Solvent-Free Adhesive Reuse
<u>Yunpeng Qian</u> , Kenji Yamaoka, Sho Kosaba, Ryohei Ikura, Yoshinori Takashima |
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Hiroshi Endo, presiding

10:00	2L05	UCST control of temperature-responsive zwitterionic polymer by structural control and their self-assembly <u>Taiki Sugimura</u> , Ryota Nakanishi, Takashi Miyata, Akifumi Kawamura
10:15	2L06	Development of Functional Liquid-Crystalline Interfaces Using a Biotin Moiety <u>Junya Uchida</u> , Mina Hasome, Jumpei Inomata, Takashi Kato
Shohei Horike, presiding		
10:30	2L07	Toughness switching under constant elastic modulus of polymer network material based on Cu(I)-bis(bipyridine) complexes <u>Shun-ichiro Noguchi</u> , Hiroshi Masai, Jun Terao

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Shohei Horike, presiding		
10:45	2L08	Redox-responsive gel-sol transition of PEG hydrogel formed via dynamic crosslinking <u>Kan Matsui</u> , Hongyao Zhou, Teppei Yamada
11:00	2L09	Ion conduction in helical PEG complex <u>Hongyao Zhou</u> , Takuya Ono, Sakuya Nakagawa, Tetsuta Kurokawa, Genki Hatakeyama, Hideo Ando, Teppei Yamada
11:30	2L11	AI for Hydrogel Development: Data-Driven De Novo Design of Super-Adhesive Hydrogels <u>Hongguang LIAO</u> , Hailong FAN, Jian Ping GONG
Hiroshi Masai, presiding		
13:00	2L13	Preparation of tandem cross-linked tough hydrogels and their electrical resistance response to mechanical stimuli <u>May Myat Noe</u> , Akihide Sugawara, Yoshinori Takashima, Hiroshi Uyama
13:30	2L15	Bulk photovoltaic effect and polarization-induced electroluminescence of extended π -conjugated ferroelectric liquid crystals <u>Masahiro Funahashi</u> , Azumi Akiyama, Yasuko Koshiba, Shohei Horike, Shinobu Uemura

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Akifumi Kawamura, presiding		
14:00	2L17IL	Aqueous Ordered Structures Induced by Phase Separation of Zwitterionic Polymers <u>Yuji Higaki</u>
Hiroharu Ajiro, presiding		
15:00	2L21IL	Development of Functional Soft Materials Composed of Colloidal Building Blocks <u>Yukikazu Takeoka</u>
Maxym Tansky, presiding		
16:00	2L25	Mechanical properties of viologen-containing polymer with flexible counter anions <u>Kazuki Komine</u> , Khoa V. Le, Takeo Sasaki, Yumiko Naka

16:15	2L26	Reinforcement of Polycarbonate by Addition of Supramolecular Dimers and Mechanism of Mechanical Property Enhancement <u>Yuta Fukao</u> , Kenji Yamaoka, Ryohei Ikura, Hironobu Morishita, Yoshinori Takashima
16:30	2L27	Evaluation of Self -Healing Properties of Boronic Ester-Crosslinked Siloxane Networks Aimed at Improving Water Stability via Boron-Nitrogen Coordination <u>Hinata Tsunoda</u> , Kan Aoki, Huie Zhu, Aki Kashiwazaki, Masaya Mitsuishi
Ryohei Ikura, presiding		
16:45	2L28	A development of non-isocyanate thermoplastic coating utilizing bicyclic lactone containing polymer derived from CO ₂ <u>Kota Marumoto</u> , Lutz Marius, Kohei Takahashi, Kyoko Nozaki
17:00	2L29	Study on Enhanced Stability of Polymeric Materials by Phosphole Derivatives <u>Hibiki Saito</u> , Ryoyu Hifumi, Ikuyoshi Tomita

Room M

Tue. Sep 16

S5. Polymers for realizing next-generation electronics packaging

9:50	1MSO	Introductory Remarks S5 <u>Toshiyuki Oyama</u> , Yoshikuni Sasaki
Miyuki Harada, presiding		
10:00	1M05	Development of an Activating Ester-Type Epoxy Resin Hardeners supporting the proliferation of 5th generation mobile communication system <u>Kazuo Arita</u>
10:30	1M07	Enhancing the dismantlability of adhesives containing epoxy compounds with Diels-Alder adducts and thermally expandable microcapsules <u>Katsuma Kitamuro</u> , Masato Ootsu, Masato Imai, Kazuo Arita, Eriko Sato
11:00	1M09	Introduction of debondable adhesive technology for next-generation electronics <u>ATSUSHI YASUI</u>
Ryohei Ishige, presiding		
13:30	1M15	The development of intrinsic stretchable semiconducting polymers <u>Christine Keiko Luscombe</u> , Wissem Khelifi, Tom Wilfling
14:00	1M17	Heat curing of cyanate esters using multifunctional glycidylcarbamates as accelerators <u>Yoshiaki yoshida</u> , Yuki Yoshinaga, Yuta Tominaga
Keiko Ohtsuka, presiding		

14:30	1M19	Thermal and Mechanical property of liquid crystalline cyanate ester system and effect of epoxy modification <u>Kantaro Nishio</u> , Miyuki Harada, Miyuki Miyamoto, Hiroaki Tadokoro, Yusuke Kawashima
15:00	1M21	The effect of imidazole catalysts on the physical properties of cross-linked cyanate ester polymers <u>Hajime Kishi</u> , Shunsuke Hayashi, Takemasa Mototsuka, Takeshi Kakibe, Satoshi Matsuda
Hiroyuki Maekawa, presiding		
15:30	1M23	Suppressed Thermal Volumetric Expansion based on Selective Crosslinking of Nanodomain-Interface formed by Silicone-containing Block Copolyimides <u>Atsuto Momoze</u> , Shinji Ando, Ryohei Ishige, Daisuke Miura, Tomoya Higashihara, Yoichiro Maruyama, Shintaro Fujitomi
16:00	1M25	Low-CTE Colorless Polyimides Obtained by Modified One-pot Polymerization Process <u>Masatoshi Hasegawa</u> , Takehiro Shinoda, Junichi Ishii
16:30	1M27	Photopatterning of polyimide or polyphenylene ether films by forming Semi-IPN structure <u>Taku Furukawa</u> , Daisuke Aoki, Koji Arimitsu
Koji Arimitsu, presiding		
17:00	1M29	Development of hybrid bonding technology using polyimide that contributes to high performance semiconductors <u>Masao Tomikawa</u>
17:30	1M31	Synthesis of hyperbranched tellurium-containing polymers by polyaddition reaction of tellurium tetrachloride with epoxides and oxetanes, and their application to non-chemically amplified positive resist materials <u>Ryosuke Taguchi</u> , Hiroto Kudo
18:00	1M33	Synthesis and resist properties of main-chain-scission type polyacetals for the development of high sensitive extreme ultraviolet resist material <u>Hiroto Kudo</u> , Kota Iwane, Riku Akabane

Wed. Sep 17

S5. Polymers for realizing next-generation electronics packaging

Hajime Kishi, presiding

9:00	2M01	Development of Aromatic Poly(ether)s with Phosphine Sulfide Groups toward Low Dielectric Materials <u>Ryoyu Hifumi</u> , Kotaro Ochiai, Ikuyoshi Tomita
9:30	2M03	Effect of terminal functional groups of polyrotaxane on the cured properties of polyrotaxane modified bismaleimide resin <u>Keiko Ohtsuka</u> , Shuichi Nakao, Yoshiro Hatanaka
10:00	2M05	Tailoring the Properties of Polymer Composites via Inorganic Functional Fillers <u>Yusuke IMAI</u>

Toshiyuki Oyama, presiding

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| 10:30 | 2M07IL | Development of High-Thermal-Conductivity and Low-Dielectric-Constant Polymer Materials for Next-Generation Electronics Packaging
<u>Teruaki Hayakawa</u> |
| 11:30 | 2M11 | Molecular-Calculation-Based Materials Informatics for using Biomass Materials in Devices
<u>Tomio Iwasaki</u> |

Yoshikuni Sasaki, presiding

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| 13:00 | 2M13 | Synthesis and characterization of a novel benzoxazine monomer with an epoxy group and its application as an additive
<u>Hiroyuki Maekawa</u> , Asumi Shrestha, Toshiyuki Oyama |
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Shunichiro Ito, presiding

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| 13:45 | 2M16 | Dispersion and orientation regulation of anisotropic CaCO ₃ filler in polylactic acid
<u>hara shuta</u> , Keiya Kawamura, Atushi Furukawa, Kohki Takahashi, Akihiro Fukawa, Koichi Takase, Mitsuaki Kogo, Yoshiyuki Kojima, Shigeru Shimizu, Hiroki Ikake |
| 14:00 | 2M17 | Luminescence properties of chiral Eu(III) coordination polymers featuring three types of organic ligands
<u>Yuki Tomita</u> , Mengfei Wang, Yuichi Kitagawa, Yasuchika Hasegawa |
| 14:15 | 2M18 | Morphological control and photophysical properties of Eu(III) coordination polymers
<u>Masaki Enokido</u> , Mengfei Wang, Yuichi Kitagawa, Yasuchika Hasegawa |
| 14:30 | 2M19 | Effect of Dispersant on Viscosity and Thermal Conductivity of Al ₂ O ₃ /PDMS Heat Dissipating Grease
<u>Keiichi Ishida</u> , Shuhei Kanmuri, Seisuke Inada, Hiroya Ishida, Naoya Torikai |

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Yasuchika Hasegawa, presiding

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| 14:45 | 2M20 | Polyphosphoester-stabilized photocatalytic silver nanocomposites
<u>Thanaporn Jullabuth</u> , Yota Okuno, Yasuhiko Iwasaki |
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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yasuchika Hasegawa, presiding

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| 15:00 | 2M21 | Development of ionic-conductive hybrids by combining deep eutectics and silsesquioxane
<u>Tomohito INOUE</u> , Hideharu MORI |
| 15:15 | 2M22 | Construction of Stimuli-Responsive Electrically Conductive Composites Employing a Powdered Liquid Metal and Polymer Matrices |

		<u>Shunichiro Ito</u> , Christopher Hiromi Shimamura, Kosei Yamada, Kazuo Tanaka
15:30	2M23	Director Rotation of Liquid Crystals inside the Pores of Pillared Layer MOFs as Temperature Shift <u>Yujiro Ichiko</u> , Kenta Kokado, Shizuka Anan
		Naoya Torikai, presiding
15:45	2M24	Reduction Behavior of Refractive Index in Fluorinated Polymer Hybrid Materials with Perfluoroalkylated POSS Fillers <u>Tatsuaki Kunimitsu</u> , Masayuki Gon, Kazuo Tanaka
16:00	2M25	Synthesis of fullerene C60 derivatives bearing functional carbohydrate residues <u>Mayu Morita</u> , Jin Motoyanagi, Masahiko Minoda
16:15	2M26	Mechanical Properties of Composite with a Clay Coated by a Flexible Polymer Layer <u>Tetsuro Kamada</u> , Takuya Matsumoto, Takashi Nishino
16:30	2M27	Effect of side chain mobility in polymerized ionic liquid-coated nanoparticles on ionic conductivity <u>Natsuki Netsu</u> , Yuna Kumasaka, Akito Masuhara
		Hiroshi Yabu, presiding
16:45	2M28	Circular Polarized Luminescence of Perovskite Quantum Dots synthesized in Chiral Supramolecular Gel <u>Hikaru Kashima</u> , Naoya Ryu, Nanami Hano, Yospanya Wijak, Reiko Oda, Makoto Takafuji
17:00	2M29	Electrical conductivity and mechanical durability of polymeric materials incorporating silver nanocrystals <u>Yuka Horiguchi</u> , Kohei Fukui, Hideyuki Nakanishi
17:15	2M30	Design and Properties of Novel Transparent Heat-Dissipating Materials <u>Tomoyuki Inoue</u>

Room N

Tue. Sep 16

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

		Yosuke Okamura, presiding
10:00	1N05	Bacterial capture and antibacterial properties of nanopillar hydrogels with different aspect ratios <u>Yohei Kotsuchibashi</u>
10:15	1N06	Towards combination therapy: chromophore-modified curdlan as a supramolecular theranostic material for saccharide recognition and singlet oxygen generation Yuna Urakami, Rio Ota, <u>Gaku Fukuhara</u>
10:30	1N07	Formation of polyion complex (PIC) aggregates consisting of anionic hyperbranched polymers and cationic linear diblock polymers

Tomoya Nishimura, Shigeru Yamago, Rintaro Takahashi, Shin-ichi Yusa

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Yosuke Okamura, presiding

- 10:45 1N08 Fabrication and characterization of
chitosan/poly(trimethylene carbonate) nanofibers by
electrospinning
Anchan Khankhuan, Ryohei Ikura, Hiroharu Ajiro

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Yohei Kotsuchibashi, presiding

- 11:00 1N09 Effects of Polymerization Rate on Nanocrystal Diffusion
Kazuto Uchida, Takuto Iwaki, Hideyuki Nakanishi
- 11:15 1N10 Fabrication of Non-Spherical Polystyrene Nanoparticles using
Dispersion Polymerization for Enhancing Antigen Detection
Sensitivity in a Turbidimetric Immunoassay
Hayato Yokose, Yosuke Okamura
- 11:30 1N11 Fabrication of Mesoporous Silica Discs Using Polymer
Microparticles as a Template for Controlled Release of
Fragrances
Noriko Yokemura, Hayato Yokose, Masashi Higuchi, Yosuke
Okamura
- 11:45 1N12 Extraction and functionalization of Cellulose Nanofibers from
Tunicate by Ammonium Persulfate Oxidation
Ryohei Kusumi, Shunsuke Murai, Daichi Kobayashi, Yu
Maekawa, Zhu Huie, Aki Kashiwazaki, Masaya Mitsuishi

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Sadayuki Asaoka, presiding

- 13:00 1N13 Control of optical chiral alignment and rotation of twisted
bipolar sphere
Makoto Okumura, Soh Kushida, Ken-ichi Yuyama, Yohei
Yamamoyo

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Sadayuki Asaoka, presiding

- 13:15 1N14 Extraction of Cellulose Nanocrystal from Soybean Okara by
Ammonium Persulfate Oxidation
Teruto Nagashima, Huie Zhu, Aki Kashiwazaki, Masaya
Mitsuishi
- 13:30 1N15 Slow oxygen diffusion into nanocrystalline micelles showing
oxygen-responsive persistent phosphorescence
characteristics
Riku Shimura, kikuya Hayashi, Shuzo Hirata

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Sadayuki Asaoka, presiding

- 13:45 1N16 Synthesis of Hollow Microsphere-immobilized Chinchonidium for Asymmetric Alkylation of Glycine Derivative
Lilla Bugovich, Naoki Haraguchi

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Masaya Mitsuishi, presiding

- 14:00 1N17 Chiroptical properties of helicene molecules assembled on the surface of helical nanosilica
Nanami Hano, Nicolas Zigon, Emilie Pouget, Sylvain Nlate, Fabien Durola, Narcis Avarvari, Makoto Takafuji, Reiko Oda
- 14:15 1N18 Elucidation of Light-Harvesting Mechanisms in Porphyrin-Based Cyclic Multilayer Assemblies and Their Application to Photoreduction Catalysis and Photovoltaic Devices
Yoshito Murata, Teppei Akiyama, Sadayuki Asaoka

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Masaya Mitsuishi, presiding

- 14:30 1N19 Elucidation of the mechanism of thermally induced VCD signal amplification observed in helical nano-silica
Yutaka Okazaki, Thierry Buffeteau, Ju-yeon Jo, Naoya Ryu, Kyohei Yoshida, Kan Hachiya, Takashi Sagawa, Reiko Oda

S3. Chemistry of dimensionally controlled polymers for novel functionality

- 15:50 1NSO Introductory Remarks S3
Seisuke Ata

Yuki Kitanaka, presiding

- 16:00 1N25 Rational Design of Poly(phenylene sulfide) Derivatives with Ultra-low Dielectric Loss: Tuning Polarizable Functions and Network Structures
Seigo Watanabe, Yuto Nakamura, Shuma Miura, Kenichi Oyaizu
- 16:30 1N27 Photopatterning and low dielectric properties using photo-insolubilizable and thermosetting polysiloxanes
Yukai Ito, Nobuhiro Ishikawa, Kenyu Sugita, Masashi Nakamura, Daisuke Aoki, Koji Arimitsu
- 17:00 1N29 Photopatterning of low dielectric polymer materials by developing with alkali using the Claisen rearrangement
Kaname Hoshino, Masashi Nakamura, Daisuke Aoki, Koji Arimitsu

Ryoyu Hifumi, presiding

17:30	1N31	Structural Control of Siloxane Polymers for Lowering Dielectric Constant and its Influence on Dielectric Properties <u>Masashi Nakamura</u> , Mitsuru Watanabe, Araki Masuyama, Seiji Watase
18:00	1N33	Surface coating of low-dielectric fluororesin via photo-assisted chemical solution deposition <u>Yuuki Kitanaka</u> , Junichi Nomoto, Tomohiko Nakajima

Wed. Sep 17

S3. Chemistry of dimensionally controlled polymers for novel functionality

Seisuke Ata, presiding

9:00	2N01	Development and Application of Low-Dielectric, Low-Loss Polymer Materials for High-Speed Data Transmission <u>Masayuki Morino</u>
9:30	2N03	Photonics-Electronics Fusion Device for Next Generation Mobile Communication Using Low-Dielectric Constant and Low-Dielectric Loss Material <u>Hiroshi Murata</u>
10:00	2N05	Improvement of Thermal Conductivity on Alumina PDMS Composite by the Alumina Surface Treatment <u>Masami SHINDO</u> , Keiichi ISHIDA, Shuhei KANMURI, Seisuke INADA, Hiroya ISHIDA, Naoya TORIKAI

Masayuki Morino, presiding

10:30	2N07	High Thermal Stability and Low Dielectric Resins Derived from Polysaccharide Esters <u>Yuya Fukata</u> , Satoshi Kimura, Tadahisa Iwata
11:00	2N09	3D-printed absorbers for millimeter-wave and sub-terahertz applications <u>Genki Kuwano</u> , Ryohei Hokari, Kazuma Kurihara, Kazuma Tsujioka, Yuya Tojima, Moto Kinoshita, Yuto Shoji
11:30	2N11	Synthesis of Semi-Aromatic Polyimides incorporating Double-Decker Shaped Silsesquioxane in the Main Chain for Low Dielectric Loss <u>Natsuko Sashi</u> , Erina Yoshida, Hayato Maeda, Kan Hatakeyama, Yuta Nabae, Ririka Sawada, Shinji Ando, Teruaki Hayakawa

Masatoshi Hasegawa, presiding

13:00	2N13	Changes in resist internal composition and shapes occurring in dry oxidative trimming processes of ultraviolet nanoimprinted resists for silicon meta-optics <u>Masaru Nakagawa</u> , Naoki Takano, Hiromasa Niinomi, Tomoya Oshikiri
13:30	2N15	Synthesis and Low Dielectric Properties of Cyclic Olefin Polymers Containing Phosphine Sulfide Moieties <u>Ryoyu Hifumi</u> , Dongdong Zhou, Ikuyoshi Tomita
14:00	2N17	Infrared Spectroscopic Analysis of Water Sorption and Hydration Structures of Various Polyimides and the Correlation with their Dielectric Properties Measured at 10 GHz

Ririka Sawada, Haonan Liu, Shinji Ando

Masaru Nakagawa, presiding

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| 14:30 | 2N19 | Broadband (10–330 GHz) Dielectric Characterization of Polyimides for 5G/6G Mobile Communication Applications
<u>Haonan Liu</u> , Ririka Sawada, Yoshiyuki Tsurusaki, Shana Yanagimoto, Yoshiyuki Yanagimoto, Shinji Ando |
| 15:00 | 2N21 | Modified Polyimides for use in Flexible Printed Circuit Boards for High-speed Data Communication (7)
<u>Masatoshi Hasegawa</u> , Taro Fukuda, Junichi Ishii |
| 15:30 | 2N23 | Development of a technology for forming smooth plated wiring on transparent polystyrene materials
<u>Soichiro Murakami</u> , Kazunori Suzuki, Yuta Sudo, Yumiko Miura, Mitsutoshi Toyama, Yasuhito Kimpara |

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Takeo Suga, presiding

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| 16:15 | 2N26 | A Development of Recyclable Acrylic Adhesive Balancing Toughness and Relaxation by Polymer Knitting
<u>Sho Kosaba</u> , Kenji Yamaoka, Ryohei Ikura, Takayuki Arai, Yoshinori Takashima |
| 16:30 | 2N27 | Glueing of polyethylene films by enzyme reaction
Takehiro Chiba, Atsushi Hoshi, Itsuki Hoshi, Keito Sugimori, Shiori Ujiie, Miwa Yamada, <u>Daisuke Sugimori</u> |
| 16:45 | 2N28 | Exploratory study on structure-property relationships of cyclic olefin copolymers (COCs) toward functional material development
<u>Minori Inazu</u> , Masanobu Naito, Kotohiro Nomura |
| 17:00 | 2N29 | The formation mechanism of unusual surface structures formed by the Breath-Figure method
<u>Masaki Kadoi</u> , Khoa V. Le, Takeo Sasaki, Yumiko Naka |
| 17:15 | 2N30 | Preparation of structural adhesives containing hydrogen-bonded block polymer-based thermoplastic elastomers
<u>Harumi Shimauchi</u> , Takato Kajita, Saya Yamada, Mio Nishimoto, Junko Horiuchi, Yoshiro Fujii, Kazumasa Sakaguchi, Kazuo Hattori, Hiroshi Tamura, Tatsuya Kano, Takenobu Sakai, Atsushi Noro |

Thu. Sep 18

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Masahiko Minoda, presiding

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| 9:00 | 3N01 | Anisotropic dismantling from an adhesion interface with spatially controlled chemical bond formation sites using a stimuli-responsive molecular layer
<u>Kento Higa</u> , Miho Aizawa, Atsushi Shishido |
| 9:15 | 3N02 | Preparation of hydrogels containing nanofillers and analysis of their bacterial adhesion properties
<u>Saneyuki Kumada</u> , Yuuki Hata, Takeshi Serizawa |

9:30	3N03	Photo-induced Controlled Radical Polymerization and Microphase Domain Control of UV-cured Adhesives <u>Takeo Suga</u> , Naoki Uchida, Keita Kikuchi, Kenichi Oyaizu
Jin Motoyanagi, presiding		
9:45	3N04	Adhesion by Azide-terminated Sulfobetaine-type Polymer-grafted Silica Nanoparticles <u>Kota Suda</u> , Raita Goseki, Motoyasu Kobayashi
10:00	3N05	Correlation between the functional evaluation of the tactile impression of writing comfort and the wettability and surface friction properties of paper <u>Sawa Ishihara</u> , Daishuke Ishii
10:15	3N06	Preparation of Amphiphilic Coatings Based on PDMS/PEG Multiblock Copolymers <u>Yuki Irie</u> , Tomoki Sato, Huie Zhu, Aki Kashiwazaki, Mitsuishi Masaya
Daisuke Ishii, presiding		
10:30	3N07	Designing of novel biomimetic adhesive materials based on dopamine-appended polyoxazolines and their adhesive properties <u>Mahiro Tsusaka</u> , Yuri Miyatake, Jin Motoyanagi, Masahiko Minoda
10:45	3N08	Construction of selective oil recovery system using superhydrophobic sponge including liquid metal <u>Kodai Moribayashi</u> , Hiroshi Endo, Makoto Gemmei

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

Daisuke Ishii, presiding

11:00	3N09	Synthesis and Functionalization of Bioinspired Adhesive with Deep Eutectic Solvents (DES) <u>Paola Maria Mir Ihara</u> , Masanobu Naito
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Room O

Tue. Sep 16

D. BIOPOLYMERS AND BIORELATED POLYMERS

Ryosuke Mizuta, presiding

11:00	1O09	Thermo-responsive micro-sized structured nanoparticles for targeted drug delivery <u>Sota Yamada</u> , Kenjiro Hanaoka
11:15	1O10	Manipulation of temperature-sensitive channels based on cell membrane immobilized near-infrared photothermal polymer nanoheaters <u>Masao Kamimura</u> , Yu Ochiai, Tomoki Iwashita, Yukino Nishikata, Hiroki Yamaguchi, Yutaro Matsushita

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| 11:30 | 1O11 | Design and Application of Artesunate-Containing Polymers in Cancer Therapy
<u>Natsumi Ito</u> , Ahmed Nabil, Koichiro Uto, Mitsuhiro Ebara |
| 11:45 | 1O12 | mRNA delivery using polysaccharide nanoparticles
<u>Toshinori Sato</u> , Yeoujia Lee, Yui Kaneko, Teruhiko Matsubara, Tohru Uchiyama |
| Tomonari Tanaka, presiding | | |
| 13:00 | 1O13IL | Engineering Biomembrane-Based Nano-Hybrids to Construct Functional Biointerfaces
<u>Yoshihiro Sasaki</u> |

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Shoichiro Asayama, presiding

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| 14:15 | 1O18 | Designable synthetic complex coacervates enabling protein delivery to cells
<u>Bing Jhang Li</u> , Biplab K. C., Teruki Nii, Takeshi Mori, Yoshiki Katayama, Akihiro Kishimura |
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D. BIOPOLYMERS AND BIORELATED POLYMERS

Shoichiro Asayama, presiding

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| 14:30 | 1O19 | Development of foreign antigen-presenting cancer cell for novel immunotherapy
<u>Shinichi Mochizuki</u> , Aki Kakinami, Momona Ota, Sayaka Oitate |
| 14:45 | 1O20 | Development of cancer cell membrane-coated nanoparticles and evaluation of cellular response
<u>Fuka Yamanaka</u> , Ryosuke Mizuta, Shin-ichi Sawada, Kazunari Akiyoshi, Yoshihiro Sasaki |
| 15:00 | 1O21 | Synthesis of well-defined star-shaped zwitterionic polymers for the development of nucleic acid carriers
<u>Yuta Yoshizaki</u> , Tomohiro Konno |

Masao Kamimura, presiding

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| 15:15 | 1O22 | Contribution of Chain Length of Polyglutamic Acid Derivatives Functionalized with Ligands of Proximal Enzymes on Cancer Cell Membrane to Proliferative Inhibition of Three-Dimensional Multicellular Tumor Spheroids
<u>Yuki Koba</u> , Masahiko Nakamoto, Severine Domenichini, Juliette Vergnaud, Melanie Hery, Simona Mura, Michiya Matsusaki |
| 15:30 | 1O23 | Structural optimization of estrogen-immobilized polyphosphodiester showing bone affinity and ability to reduce osteoporotic bone resorption.
<u>Sayako Takai</u> , Yota Okuno, Yasuhiko Iwasaki |
| 15:45 | 1O24 | Inhibition Effect of Abeta Aggregation by Cholesterol-End-Modified PEG Vesicles/Micelles
<u>Shoichiro ASAYAMA</u> , Shota WATANABE, Motoki UEDA |
| 16:00 | 1O25 | Synthesis of Protease-Responsive Cello-oligosaccharide Particles for Loading of Antimicrobial Peptides
<u>Thomas Takeru Sakata</u> , Yuuki Hata, Toshiki Sawada, Takeshi Serizawa |

Toshiki Sawada, presiding

- 16:15 1026 Rational design of gold nanoparticle-DNA-polymer monoconjugates for targeted nucleic acid carriers
Sota Wada, Koki Shimizu, Masao Kamimura, Yoshitsugu Akiyama
- 16:30 1027 Regulation of tumor microenvironment sensitive aggregation property of poly(vinyl alcohol) functionalized with ursodeoxycholic acid based on negative charge and hydrophobicity
Kazuki Moroishi, Masahiko Nakamoto, Ryohei Katayama, Michiya Matsuaki
- 16:45 1028 Mesenchymal Stem Cell Membrane-Coated Gelatin Nanoparticles for the Treatment of Liver Fibrosis
Mitsuru Ando, Keisuke Moriyama, Yasuhiko Tabata

Eiji Yuba, presiding

- 17:00 1029 Analysis of the enhancement of anti-cancer activity and binding to DNA by the polymerization effect of copper complexes and its active target with anti-immunogenic properties
Masatomo Kohro, Masaru Mukai, Hidenori Otsuka
- 17:30 1031 Functionalization of DNA Origami DDS carriers by DNA-drug conjugates
Motoki Nagayoshi, Hiroya Kurimoto, Kouichi Tanimoto, Akinori Kuzuya
- 18:00 1033 Intracellular behavior of DNA quadruplex gel-particles
Maria Hashimoto, Haruki Tanaka, Kohei Tatsumi, Kota Sakamoto, Yuichi Ohya, Akinori Kuzuya

Wed. Sep 17

D. BIOPOLYMERS AND BIORELATED POLYMERS

Akinori Kuzuya, presiding

- 9:00 2001 Development of M2 macrophage-targeting polysaccharide-based nanoparticles for photoacoustic imaging
Risako Miura, Akio Tsutsumi, Mahiro Kagami, Yu Kimura, Teruyuki Kondo
- 9:30 2003 Hydration and biodistribution of dendrimers conjugating biocompatible polymers with different lengths and bound numbers
Chie KOJIMA
- 10:00 2005 The kinetics of helix-contained disk-like polymeric micelles
Yuki Mochida, Horacio Cabral, Yutaka Miura, Kensuke Osada, Nobuhiro Nishiyama, Kazunori Kataoka

Chie Kojima, presiding

- 10:30 2007 Smart nanofibers toward local drug delivery
Mitsuhiro Ebara
- 11:00 2009 The development of nuclear-targeting nanocarrier for drug resistant cancer therapy
Souma Kawashima, Koji Nagahama

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Chie Kojima, presiding

- 11:30 2011 Folate-conjugated artificial viral capsids modified with perfluoro ether peptides for selective cancer cell-targeted delivery of doxorubicin
Avijit Ghosh, Yuka Yamamoto, Hiroshi Inaba, Takashi Okazoe, Yu Ota, Kazunori Matsuura

D. BIOPOLYMERS AND BIORELATED POLYMERS

Yuki Mochida, presiding

- 13:00 2013 Design of terminal-alkylated PEGs with imine spacer for pDNA delivery into unexplored space of skeletal muscle
SHOICHIRO ASAYAMA, RIKU OBA, YOKO TAKAHASHI, YOICHI NEGISHI
- 13:30 2015 Development of hyaluronic acid derivatives with anti-inflammatory activity and their application to treatment of rheumatoid arthritis model
Aino Komoda, Eiji Yuba

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Yuki Mochida, presiding

- 14:00 2017 Design of electrospun nanofiber loaded with AMPT targeting the sympathetic nerve for the treatment of aortic dissection
Kai Li, Hiromi Yanagisawa, Mitsuhiro Ebara

D. BIOPOLYMERS AND BIORELATED POLYMERS

Tetsuya Uchida, presiding

- 14:30 2019 Construction and Evaluation of Cancer Cell-Selective Drug Delivery System with Oligopeptide
Kodai Ishikawa, Hirari Kato, Ayuki Katayama, Risa Shirato, Kana Muto, Mitsuyo Matsumoto, Yuki Yoshida, Yasuyuki Araki, Ikuhiko Nakase, Asako Yamayoshi, Kazuhiko Igarashi, Takehiko Wada
- 15:00 2021 Gut Antioxidants and Systemic Disorders
Yukio Nagasaki
- 15:30 2023 Effect of Molecular Weight and Multivalency of Polyglutamic Acid Derivatives Targeting Carbonic Anhydrase IX Formed by Click Reaction on Cancer Cell Proliferation
Rentaro Sakamoto, Yuki Koba, Masahiko Nakamoto, Michiya Matsusaki
- 15:45 2024 Controlled Cysteine Release and Optimized Pharmacokinetics via Poly(cysteine)-Based Polymer Micelles
Yuta Koda, Yuna Kosaka, Reo Nishimoto, Aki Funahashi, Yukio Nagasaki

Akifumi Kawamura, presiding

16:00	2025	Fabrication of DDS carriers that releases the appropriate amount of insulin depending on blood glucose levels as a disease signal <u>Momona Iwata</u> , Shogo Matsubara, Masahiro Higuchi
16:15	2026	A Coacervate Formed from Thermoresponsive Peptoid for Proteins Protection <u>Akari Yasuda</u> , Yota Okuno, Akiyuki Ryoki, Tomoki Nishimura, Yasuhiko Iwasaki
16:30	2027	Design of a polymer chain having dipicolylamide structures and investigation on its metal complexes <u>Shigehito Osawa</u> , Tiancheng Wang, Iriki Uttagawa
Masahiro Higuchi, presiding		
16:45	2028	Size control and renal cell selectivity of L-serine-modified PEGylated nanoparticles. <u>Chinatsu Otsuka</u> , Shohei Shiimoto, Syuuhei Komatsu, Yoshitsugu Akiyama, Akihiko Kikuchi
17:00	2029	Design of pH-Responsive Gel Particles That Regulate Molecular Binding Ability by Conformational Changes <u>Yumemi Mizowaki</u> , Tomoya Iwagaki, Akifumi Kawamura, Takashi Miyata
17:15	2030	Construction and Function of Biomembrane Nanocarriers Equipped with Microwave-Responsive Inorganic Nanoparticles <u>Yuchen Sha</u> , Ryosuke Mizuta, Hikaru Takaya, Yoshihiro Sasaki, Kazunari Akiyoshi

Thu. Sep 18

D. BIOPOLYMERS AND BIORELATED POLYMERS

Akihiko Kikuchi, presiding

9:00	3001	Synthesis and nanoparticle characterization of Donor-Acceptor conjugated polymers for thermoresponsive DDS <u>Koyuru Suzuki</u> , Kazuaki Matsumura
9:15	3002	Zinc ion delivery into endoplasmic reticulum to reduce the oxidative stress <u>Motoki Ueda</u> , Misaki Shimuta, Shoichiro Asayama
9:30	3003	Self-assembly of chlorophyll dimers linked with diamide moieties and their supramolecular structural changes dependent on the π -linkages <u>Yusuke Hirose</u> , Tatsuma Ishii, Hitoshi Tamiaki, Shogo Matsubara
9:45	3004	Development of Surface-Engineered Nanotools for the Control and Visualization of Biomembrane Functions <u>Shoya Sarata</u> , Ryosuke Mizuta, Eisuke Kanao, Yasushi Ishihama, Kazunari Akiyoshi, Yoshihiro Sasaki

Sayaka Toita, presiding

10:00	3005	Physical Properties and Applications of PEG-Coated Hollow Microcapsules Based on Metal-Phenolic Networks. <u>Takeru Tsuda</u> , Yuto Honda, J. Joseph Richardson, Rintaro Takahashi, Kyohei Muguruma, Haochen Guo, Yutaka Miura, Nobuhiro Nishiyama
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| 10:30 | 3O07 | Automated Synthesis and Screening of Membrane-Active Amphiphilic Polymer Libraries
<u>Kazuma Yasuhara</u> , Yuiya Ishikawa, Sota Aoki, Gwenael Rapenne |
| Toshinori Fujie, presiding | | |
| 11:00 | 3O09 | Structure-Permeability Relationship of Sulfobetaine Polymers in GUV Membranes
<u>Sayaka TOITA</u> , Takuto TORIUMI, Nobuyuki MORIMOTO |
| 11:30 | 3O11 | Stabilized Enzyme function using zwitterionic copolymer nanogels
<u>Madoka Takai</u> , Satoshi Yamashita, Xuejin Huang |

Room Q

Tue. Sep 16

D. BIOPOLYMERS AND BIORELATED POLYMERS

Masaru Tanaka, presiding

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| 10:00 | 1Q05 | Fabrication and Characterization of Oleylamine-Grafted Alginate for the Co-differentiation of Satellite Cells and Adipose-Derived Stem Cells
<u>Chika Nakadozono</u> , Kazuki Yoshida, Michiya Matsusaki |
| 10:15 | 1Q06 | Effects of Decellularized Tissue Drying and Electron Beam Irradiation on Collagen Conformational Changes on Physical Properties and Blood Response
<u>Yuji Yasui</u> , Sachiro Kakinoki, Tetsuji Yamaoka, Atsushi Mahara |

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Masaru Tanaka, presiding

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| 10:30 | 1Q07 | Transplantation of hepatocyte sheet tissues secreting angiogenic factors produced by VEGF mRNA delivery
<u>Jun Kobayashi</u> , Teruo Okano |
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D. BIOPOLYMERS AND BIORELATED POLYMERS

Masaru Tanaka, presiding

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| 10:45 | 1Q08 | Evaluation of cell capturing by water-soluble polymers modified with long-chain alkyl groups
<u>Erika Yoshihara</u> , Gracia Une, Kimio Sumaru |
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D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Tomoko Hashimoto, presiding

11:00	1Q09	Engineering the residence time and immune cloaking of mesenchymal stromal cells with microgel-coating to overcome chronic fibrotic remodeling <u>Iksung Cho</u> ,Jae-Won Shin,Masaru Tanaka
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D. BIOPOLYMERS AND BIORELATED POLYMERS

Tomoko Hashimoto, presiding

11:15	1Q10	Development of Photocurable Gelatin Hydrogel Fibers for Construction of Fibrous Cell Scaffolds <u>Hiroki Miyajima</u> ,Ke YANG,Naoya Hashimoto,Satoshi Fujita
11:30	1Q11	Synthesis of zwitterionic copolymers enhancing vitrification-induced preservation of three-dimensional tissues by intercellular permeation <u>Yusuke Taoka</u> ,komal Raje,Kazuaki Matsumura

Satoshi Fujita, presiding

13:00	1Q13	Elucidation of interactions between biomolecules and silk fibroin-based materials with different molecular structures <u>Tomoko Hashimoto</u> ,Kaho Kobayashi,Yichen Wang,Yasushi Tamada
13:15	1Q14	Development of biodegradable injectable gels with controlled mechanical properties by introducing branched structures and chemical cross-linking. <u>Yuki Shoda</u> ,Yusuke Taoka,Yuichi Ohya
13:30	1Q15	Phenotypic control of macrophages by oriented nanofiber substrates <u>Nao Kawata</u> ,Koichiro Uto,Mitsuhiro Ebara
13:45	1Q16	Optimal Design of Cell Separation Columns for Mesenchymal Stem Cell Separation <u>Kenichi Nagase</u> ,Akari Okada,Junnosuke Matsuda

Jun Nakanishi, presiding

14:00	1Q17	Cell Behavior on Photoresponsive Polypeptide Films That Undergo Conformational Changes by Light Exposure <u>Takashi Miyata</u> ,Yume Takao,Akifumi Kawamura
14:30	1Q19	Preparation of porous poly(ethylene glycol) hydrogels and application as cell scaffolds <u>Shohei ishikawa</u> ,Si Jinyan,Hironori Hojo,Takamasa Sakai
15:00	1Q21	Development of Functional Cell Scaffolds that Provide Oxygen and Nutrients Tomioka Daisuke, <u>Michiya Matsusaki</u>

Tsukuru Masuda, presiding

15:30	1Q23	Creation of photo-crosslinkable gelatin scaffold to adjust cellular senescence by control of elastic modulus <u>Kenta Homma</u> ,Tomoka Iida,Michiya Matsusaki
16:00	1Q25	Development of Fluid Cell Scaffolds and Their Application in Analyzing Cell Behavior <u>Jun Nakanishi</u>
16:30	1Q27	Construction of cell spheroids integrated with keratin-based artificial extracellular matrix

Hibiki Sakata, Yuki Tanaka, Wey Yih Heah, Hikaru Takaya, Youhei Yamamoto, Ryosuke Mizuta, Kazunari Akiyoshi, Yoshihiro Sasaki

Kazuo Tanaka, presiding

- 17:00 1Q29 Phase-Separation Induced Porous Polymer Nanosheets for Cell-Encapsulated Devices
Toshinori Fujie, Mahiro Suzuki, Atena Endo, Nanami Zushi, Nobuaki Shiraki, Shoen Kume
- 17:30 1Q31 The Second Wave of Formose Research
Akihito Hashidzume
- 18:00 1Q33 Evaluation of Cellular Responses to Degraded Organic Micro- and Nanoparticles
Naoto Washihira, Mako Kobayashi, Sho Fuji, Tadao Tanabe, Tsuyoshi Kimura, Masaya Yamamoto

Wed. Sep 17

D. BIOPOLYMERS AND BIORELATED POLYMERS

Hidenori Otsuka, presiding

- 9:15 2Q02 Development of glycopolymer-modified antibodies using glycocluster effect
Zenya Naraoka, Sakura Kawahara, Ryohei Miyagawa, Yoshiyuki Manabe, Koichi Fukase, Tomonari Tanaka
- 9:30 2Q03 Development and functional evaluation of LYTAC agents via Siglec-E using glycopolymers
Tsuyoshi Ochi, Masanori Nagao, Hikaru Matsumoto, Hirohiko Ise, Yoshiko Miura
- 9:45 2Q04 Evaluation of the effect of Hydration State of Glycopolymers on Molecular Recognition
Yoko Kitsuki, Nagao Masanori, hikaru Matsumoto, Masaru Tanaka, Yukiko Tanaka, Takumi Yamaguchi, Mafumi Hishida, Yoshiko Miura

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Hidenori Otsuka, presiding

- 10:00 2Q05 Amino Acid Functional Polymers for Cellulose Binding: Insights into Biomimetic Interactions of Synthetic Polymers
Oscar Carias, Tomonari Tanaka

D. BIOPOLYMERS AND BIORELATED POLYMERS

Jun-ichi Kadokawa, presiding

- 10:15 2Q06 Precise Synthesis of Cyclic Glycopolymers by Oligomer Conjugation
Yusuke Kumon, Masanori Nagao, Hikaru Matsumoto, Teruhiko Matsubara, Toshinori Sato, Yoshiko Miura

- 10:30 2Q07 Structural investigation and molecular conformation of the glucomannan extracted from the β -glucanase hydrolyzed cell wall of *Cyberlindnera jadinii*
Momoko Koide, Kazuto Yoshiba, Tadayoshi Katsumata, Yusuke Fukuda, yasuhito Yokoi
- 10:45 2Q08 Selective H/D exchange and Properties of Deuterated Bacterial Cellulose by Fabrication in Deuterium Oxide
Rintaro Furukawa, Takuya Matsumoto, Takashi Nishino
- 11:00 2Q09 Molecular Alignment Control of Terminally Hexylated Cello-oligosaccharides: Effects of Assembly Temperature and Oligosaccharide Chain Length
Ryosuke Hokimoto, Yuuki Hata, Takeshi Serizawa

Masanori Nagao, presiding

- 11:15 2Q10 Synthesis of Block Polysaccharides by Glucan Phosphorylase-Catalyzed Enzymatic Polymerization
Hayato Ishii, Tao Takagaki, Masayasu Totani, Jun-ichi Kadokawa
- 11:30 2Q11 Development of Injectable Hydrogels
Aoi Takahashi
- 11:45 2Q12 Block Copolymerization of Polymeric Transition Metal Complexes with Cationic Glycopolymers Improves Membrane Transmission and Enhances Anticancer Activity
Kazuki Anami, Masaru Mukai, Hidenori Otsuka

Tomonari Tanaka, presiding

- 13:00 2Q13 Fabrication, Properties, and Functions of All-chitin Composites
Masayasu Totani, Mako Eda, Hiroyuki Shinchi, Jun-ichi Kadokawa
- 13:30 2Q15 Effect of Structural Definition in Glycopolymers on Biomolecular Recognition Thermodynamics
Masanori Nagao, Daichi Yoshimatsu, Yu Hoshino, Yoshiko Miura
- 14:00 2Q17 Guanidinylated nanochitins dispersible at neutral pH
Hironori Izawa, Kensei Sone, Ando Sota

Kosuke Okeyoshi, presiding

- 14:30 2Q19 Development of antifouling coating materials by combining zwitterionic polymers and zeolites
Ayaka Moroto, Tadashi Nakaji, Akira Taguchi, Yoshikazu Horino, Shuhei Yasuda
- 14:45 2Q20 Regulation of Cell-Free Membrane Protein Synthesis Reactions for Developing a Flow-Based Synthesis System
Hikaru Kimura, Ryosuke Mizuta, Mitsuru Ando, Yoshihiro Sasaki
- 15:00 2Q21 Correlation between density of microstructures and microfriction forces on aqua-gel surfaces
Masaki Kato, Daisuke Ishii
- 15:15 2Q22 Synthesis and fundamental properties of fully biomolecular ionic gels for medical application.
Mana Ikezoe, Kazuki Murai

Yu Hoshino, presiding

15:30	2Q23	Fabrication of Cell Assembly technology Driven by Thermoresponsive Triple Helix Formation of Collagen Model Peptides <u>Kazuki Yoshida</u> , Michiya Matsusaki
15:45	2Q24	Design of enzyme-responsive polymers showing liquid-liquid phase separation Yuka Morioka, Rei Kusunose, Atsushi Maruyama, <u>Naohiko Shimada</u>
16:00	2Q25	Formation of periodic open-close microstructures as drying records of aqueous polymer dispersions <u>Masaya Ninomiya</u> , Yuto Watanabe, Kosuke Okeyoshi
16:15	2Q26	Development of target enzyme-gated photo-induced living radical polymerization and intracellular synthesis of poly L-phenylalanine methacrylamide <u>Kanta Ogura</u> , Masahiko Nakamoto, Michiya Matsusaki

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Hiroyasu Yamaguchi, presiding

16:30	2Q27	Serine Containing Synthetic Polymers: Study of Structure Based Interactive Behavior to Use as an Anti-inflammatory Agent <u>Sharker Komol Kanta</u> , Kosuke Sato, Mitsuhiro Ebara, Masayuki Yokoyama, Koichi Shiraishi
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D. BIOPOLYMERS AND BIORELATED POLYMERS

Hiroyasu Yamaguchi, presiding

16:45	2Q28	Development of a Target Peptide-Directed Dynamic Combinatorial Library for Rapid Screening of Precision Oligomers <u>Hayato Tada</u> , Honoka Moriguchi, Shota Iseri, Sotaro Tsuji, Yukiko Nagai, Yu Hoshino
17:00	2Q29	Development of Artificial Acylation Catalysts via Peptide Molecular Recognition and Local pKa Modulation in Hydrogel Nanoparticles <u>Sotaro Tsuji</u> , Yu Hoshino
17:15	2Q30	Construction of immune cell membrane-coated nanoparticles by biomembrane printing and evaluation of biological response <u>Fumino Ohtsu</u> , Yuki Yazawa, Ryosuke Mizuta, Yoshihiro Sasaki

Thu. Sep 18

D. BIOPOLYMERS AND BIORELATED POLYMERS

Yuji Teramura, presiding

9:00	3Q01	Multiphase Coacervates Prepared from Side-Chain-Modified Cationic Polymers and Their Phase-Selective Encapsulation of Proteins <u>Gakuto Takeda</u> , Hiroshi Kamizawa, Teruki Nii, Takeshi Mori, Akihiro Kishimura
9:30	3Q03	Design and application of bio-inspired polymers for selective recognition of heavy metal ions <u>Masaki Nakahata</u> , Yuri Kamon, Akihito Hashidzume
10:00	3Q05	Fabrication of stretchable adhesive films leveraging hydrogen bonds from gallol and urea derivatives <u>Daiki Sekita</u> , Hajime Fujita, Yosuke Mizuno, Tatsuhiko Horii, Takeshi Hata, Toshinori Fujie
Takeshi Mori, presiding		
10:30	3Q07	Nanostructuring of microfibrillar medical materials via self-assembly of cello-oligosaccharides for microorganism control <u>Yuuki Hata</u> , Sayaka Okamoto, Yudai Mizuuchi, Hiromi Miyazaki, Shingo Nakamura, Takeshi Serizawa
11:00	3Q09	Development of Fusion-Inducible Cell Interfaces via CPP-Conjugated PEG-Lipids <u>Yuya Sato</u> , Yuji Teramura

Room R

Tue. Sep 16

D. BIOPOLYMERS AND BIORELATED POLYMERS

Takehiko Wada, presiding

10:00	1R05	Design and selective delivery of antisense nucleic acids using acyclic artificial nucleic acids <u>Hiroyuki Asanuma</u> , Fuminori Sato, Kiyoka Sakashita, Yuhei Noda, Noritoshi Kato, Yukiko Kamiya
10:30	1R07	Artificial chaperone-enhanced DNA enzyme to sense blood microRNA Kenta Fujii, Kotaro Wakamatsu, Minako Saito, Naohiko Shimada, <u>Atsushi Maruyama</u>

Hiroyuki Asanuma, presiding

11:00	1R09	Developments of Artificial Nucleic Acid Drugs with Highly Efficient Catalytic Target RNA Cleavage Function Mion Kino, Yuki Igarashi, Ayuki Katayama, Risa Shirato, Kana Muto, Kazuyo Matsumoto, Yuki Yoshida, Masahito Inagaki, Yasuyuki Araki, Hironori Hayashi, Eiichi Kodama, Kazuhiko Igarashi, <u>Takehiko WADA</u>
11:30	1R11	Functional prediction of DNzyme using improved nearest-neighbor parameters <u>Shuntaro Takahashi</u> , Saptarshi Ghosh, Tomohiro Nishimura, Hisae Tateishi-Karimata, Tsukasa Fukunaga, Michiaki Hamada, Naoki Sugimoto

Shuntaro Takahashi, presiding

- 13:00 1R13 Induction of bundling of intracellular microtubules by tetrameric proteins and control of cell shapes
Soei Watari, Hiroshi Inaba, Takanari Inoue, Kazunori Matsuura
- 13:30 1R15 Intracellular Drug Delivery using Enveloped Viral Replica Equipped with Hemagglutinin.
Sosuke Nakamura, Hiroto Furukawa, Hiroshi Inaba, Yoshihiro Sasaki, Kazunari Akiyoshi, Kazunori Matsuura

Hiroshi Inaba, presiding

- 14:00 1R17 In-cell formation of rolled protein ribbon
Koki Date, Kosuke Kikuchi, Souta Masumura, Keiichi Okisawa, Toan PHAM Thuc, Hironari Kamikubo, Takafumi Ueno
- 14:30 1R19 Solid-solid phase transitions by designing interfaces of in-cell protein crystals
Kosuke Kikuchi, Misaki Nagama, Junko Tanaka, Haonan Kong, Satoshi Abe, Takafumi Ueno

Hiroyasu Yamaguchi, presiding

- 15:00 1R21IL Concept of Polymeric Materials for Medical Applications from a Clinical Perspective
Tooru Ooya

Takeshi Serizawa, presiding

- 16:00 1R25 Poly(sarcosine) conjugated protein: the effect of the protein structure and immune response of mice
Yota Okuno, Noritomo Tsuda, Akari Yasuda, Mitsuru Ando, Yasuhiko Iwasaki

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Takeshi Serizawa, presiding

- 16:15 1R26 Structure and function of the C-terminal domain in the self-assembly of spider dragline silk protein
Nur Alia Oktaviani, Ali Malay, Mami Goto, Keiji Numata

D. BIOPOLYMERS AND BIORELATED POLYMERS

Takeshi Serizawa, presiding

- 16:30 1R27 Design and Biomedical Application of Keratin Microspheres for controlled release of protein
YINONG HUANG, Yua Tanaka, Wey Yih Heah, Hikaru Takaya, Yohei Yamamoto, Hibiki Sakata, Ryosuke Mizuta, Kazunari Akiyoshi, Yoshihiro Sasaki
- 16:45 1R28 Investigation of Substrate Specificity and Identification of Key Residues for L-Thr Adenylation in Modules 2 and 10 of the Polymyxin D Non-ribosomal Peptide Synthetase from *Paenibacillus polymyxa*
Wataru Ando, Taichi Mano, Mai Nemoto, Toshihisa Mizuno

Yasuhiko Iwasaki, presiding

- 17:00 1R29 Biohybrid LH2 Bearing Fluorophores: Spectral Changes in B850 band and Energy Transfer from Fluorophores to B850

		<u>Seiya Takamori</u> , Ryoga Morishita, Sora Ishikawa, Kazuki Inada, Masaharu Kondo, Yukihiro Kimura, Yutaka Nagasawa, Takehisa Dewa
17:15	1R30	Construction of a Semi-Artificial Photosynthetic System Using Light-Harvesting 1 – Reaction Center Core Complex (LH1-RC) and Semiconductor Photocatalysts. <u>Ryo Kokubo</u> , Ryuki Ito, Akane Kakami, Masaharu Kondo, Hajime Suzuki, Ryu Abe, Takehisa Dewa
17:30	1R31	Protein contributions to the assembly and function of the pH-responsive protein ribbon <u>Souta Masumura</u> , Koki Date, Keiichi Okisawa, Kosuke Kikuchi, Takafumi Ueno
		Takehisa Dewa, presiding
17:45	1R32	Antigenicity of polycarboxybetaine: effect of particle size and antibody induction pathway <u>Tomonao Iwamoto</u> , Shingo Miyata, Shingo Kobayashi, Yuji Higaki, Teruki Nii, Akihiro Kishimura, Taro Shimizu, Yoshiki Katayama, Tatsuhiko Ishida, Chie Kojima, Masaru Tanaka, Mazaya Najmina, Takeshi Mori
18:00	1R33	Inhibition of Amyloid-Beta Peptide Aggregation Using Genetically Engineered Filamentous Viruses <u>Haruka Takahashi</u> , Takeshi Serizawa, Toshiki Sawada
18:15	1R34	Evaluation of Hydration state of a lysozyme aqueous solution induced by 280 GHz irradiation <u>Masahiro Iinomi</u> , Masahiko Imashimizu, Mizuki Yamamoto, Shinichiro Kuroki, Keiichiro Shiraga

Wed. Sep 17

D. BIOPOLYMERS AND BIORELATED POLYMERS

Yusuke Kambe, presiding

9:15	2R02	Synthesis of biocompatible polymers with long-term stability by radical copolymerization of zwitterionic vinyl ethers and N-alkylmaleimides <u>Moeka Hayakawa</u> , Michio Urushisaki, Toshikazu Sakaguchi, Tamotsu Hashimoto, Tadashi Nakaji
9:30	2R03	Synthesis of Biocompatible Vinyl Ether-based Polymers with Self-Standing Molding, High Heat Resistance and Excellent Optical Properties <u>Arisa Kozuka</u> , Michio Urushisaki, Toshikazu Sakaguchi, Tamotsu Hashimoto, Tadashi Nakaji
9:45	2R04	Supramolecular MR contrast agent consisting of rhodamine-conjugated 4-branched polyethylene glycol for microvessels MRI <u>Kinari Saitoh</u> , Tian Xin, Natsuo Bamura, Shigeyoshi Saito, Takahiko Nakaoki, Atsushi Mahara
10:00	2R05	Surface properties of retinal prosthesis with photoelectric dyes coupled to a polyethylene film surface using surface photovoltage measurements <u>Kohei Oka</u> , Chanmiya Sheikh Md, Naotaka Kimura, Tetsuya Uchida

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Hideyuki Mitomo, presiding

- 10:15 2R06 Design of Metal-Organic Framework Composite Nanofibers for Electrotherapy of Glioblastoma Cell
Shiqin Dai, Ahmed Nabil, Mitsuhiro Ebara

D. BIOPOLYMERS AND BIORELATED POLYMERS

Hideyuki Mitomo, presiding

- 10:30 2R07 Decellularized ECM hydrogels for vascular tissue regeneration
Chisato Oishi, Mia Morimoto, Sachiro Kakinoki, Takahiko Nakaoki, Atsushi Mahara
- 10:45 2R08 Development of photoelectric dyes immobilized retinal prosthesis using TEMPO-oxidized cellulose pulp with swollen fibers
Ayato Nishimura, Naotaka Kimura, Tetsuya Uchida
- 11:00 2R09 Surface modification of poly(lactic acid)-based biomaterials with novel biocompatible peptides.
Ryoto Mizuno, Tetsuji Yamaoka, Tomoko Hashimoto

Tetsuji Yamaoka, presiding

- 11:15 2R10 Blood Purification System Using Nano-NaCoHCF Loaded Nanofibers
Makoto Sasaki, Mitsuhiro Ebara
- 11:30 2R11 Phenylglyoxaldehyde-Functionalized Nanofibers for Chemically Adsorptive Urea Removal from Blood
Keigo Sugahara, Makoto Sasaki, Mitsuhiro Ebara
- 11:45 2R12 Enhanced degradation/solubility of silk fibroin film for preventing post-operative adhesion
Yusuke Kambe, Makoto Sasaki, Tsunenori Kameda

Kazuma Yasuhara, presiding

- 13:00 2R13 Stent coating for intracranial aneurysm treatment and in vitro and in vivo evaluation of endothelialization
Yuji Teramura, Naoki Inuzuka, Yasuhiro Shobayashi, Tateshima Satoshi
- 13:30 2R15 Bipodal DNA walker sensor on gold nanoparticles for microRNA Detection in Cells
Wenting Wei, Han Lin, Kuniharu Ijiri, Hideyuki Mitomo
- 14:00 2R17 Analysis of blood-compatible polymer hydration state and polymer dynamics using NMR
Naoya Kurahashi, Yukikazu Takeoka, Masaru Tanaka

Koji Nagahama, presiding

- 14:30 2R19 Microvascular imaging on MRI with supramolecular structure of MR contrast agents
Atsushi Mahara, Xin Tian, Kinari Saito, Sara Yano, Takahiko Nakaoki
- 15:00 2R21 Cello-oligosaccharide Nanosheets as Solid Supports for Anti-PEG Antibody Assays

		<u>Kai Sugiura</u> , Yuuki Hata, Koichiro Ishibashi, Koichi Shiraishi, Toshiki Sawada, Hiroshi Tanaka, Go Watanabe, Takeshi Serizawa
15:30	2R23	Fabrication of water-repellent nanosheet for wide, deep, and minimally invasive brain imaging accessories <u>Yosuke Okamura</u> , Taiga Takahashi, Hong Zhang, Rai Uchida, Sota Iwasawa, Kenji Yarinome, Kohei Otomo, Tomomi Nemoto
		Yosuke Okamura, presiding
16:00	2R25	Correlation of biocompatibility and side-chain orientation of polymers Kentaro Saito, Masaru Tanaka, <u>Daiki Murakami</u>
16:30	2R27	Stimuli-responsive and self-assembled materials forming tissue protective ultra thin layer <u>Tetsuji Yamaoka</u> , Ayane Murakami, Remi Sato
17:00	2R29	Development of Glowing Surgical Devices Dyed with Indocyanine Green and Evaluation for Clinical Applications <u>Shinji Ando</u> , Yoshihiko Tashiro, Hidekazu Yasunaga

Thu. Sep 18

E. POLYMERS AND ENVIRONMENT

Yasuteru Mawatari, presiding

9:00	3R01	Analysis of polymer decomposition at the water interface <u>Manabu Inutsuka</u> , Hirohmi Watanabe, Masaru Aoyagi
9:15	3R02	Evaluation of degradation in PET bottles exposed under outdoor weathering for long time <u>Hiejima Hiejima</u> , Tatsuki Tsukuba, Shin-ichi Kuroda
9:30	3R03	Peptide Sensor-Based Identification and Surface Characterization of Polymeric Nanoparticles <u>Shion Hasegawa</u> , Toshiki Sawada, Yuzo Kitazawa, Masahiro Nagaoka, Takuya Kaneda, Takeshi Serizawa

Takeshi Serizawa, presiding

10:00	3R05	Mechanochemical Synthesis of Poly(arylacetylene)s and the Effect of Additives on Molecular Structure <u>Haruki Ikushima</u> , Yasuteru Mawatari
10:15	3R06	Synthesis of polysulfide polymers in water at room temperature and degradability characterization of sulfur-containing polymers from waste sulfur <u>Ryunosuke Kamioka</u> , Yuichiro Kobayashi, Hiroyasu Yamaguchi

Hiroyasu Yamaguchi, presiding

10:45	3R08	Change in Crystal Orientation of Isotactic Polypropylene Induced by UV Irradiation <u>Kai Chen</u> , YingJun An, Akemi Kumagai, Tomoko Kajiwarra, Tomohiro Miyata, Atsushi Takahara, Hiroshi Jinnai
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E. POLYMERS AND ENVIRONMENT “English Session”

Hiroyasu Yamaguchi, presiding

- 11:00 3R09 Facile chemical degradation and upcycling of Nitrile butadiene rubber
Yahui Gu, Masanobu Naito

E. POLYMERS AND ENVIRONMENT

Hiroyasu Yamaguchi, presiding

- 11:15 3R10 Preparation of dismantlable hot-melt adhesive using the photothermal effect of lignin
Daiki Morimoto, Akihide Sugawara, Hiroshi Uyama
- 11:30 3R11 Alkylation of Cellulose with Epoxide by Addition of Bulky Organic Superbase Catalyst
Yume Takanishi, Tatsuya Nishida, Daisuke Hirose, Katsuhiro Maeda

Ikuyoshi Tomita, presiding

- 13:00 3R13 Performance Enhancement of Silica Nanoparticle-Embedded Polymer Gas Separation Membranes for Resource-Circulating Direct Air Capture
Masafumi Yamato, Chisato Minami, Hiroyoshi Kawakami
- 13:30 3R15 Memory effect on physical property recovery of recycled PP materials
Shuichi Maeda, Hideaki Obuchi, Shigeru Yao
- 14:00 3R17 Dissolution, Dispersion and Reaction of Hardly Soluble Polymers by the Addition of Bulky Organic Superbase
Tatsuya Nishida, Daisuke Hirose, Katsuhiro Maeda

Daisuke Hirose, presiding

- 14:30 3R19 Dimethyl Carbonate-aided Methanolysis Combined with Ball-milling Approach
Shinji Tanaka, Azusa Togo, Atsuko Ogawa, Hibiki Ogiwara, Yumiko Nakajima, Masaru Yoshida
- 15:00 3R21 Polythiophene Film-Based Photoanode to Oxidize Water at Tremendously Low Onset Potential
Hiromi SHINOHARA, Hiroyuki NISHIDE
- 15:30 3R23 Degradation of polyphenylene ether and its derivatives under acidic conditions. -Study on degradation behavior and its application to decross-linking process-
Tsuyoshi Takano, Ryoyu Hifumi, Ikuyoshi Tomita

Room S

Tue. Sep 16

E. POLYMERS AND ENVIRONMENT

Fumio Sanda, presiding

- 13:00 1S13IL Pressure Sensitive Polymer Opportunities

Ikuo Taniguchi

Yuko Takeoka, presiding

- 14:00 1S17 Elucidation of the Enzymatic Degradation Mechanism of Degradable block copolymers with Low-Temperature Formability
Yutaro Shimizu, Ikuo Taniguchi
- 14:15 1S18 Mechanical Properties of Natural Rubber Composites with Calcium-Crosslinked Alginate
Tianyi Ma, Hiromitsu Sogawa, Fumio Sanda
- 14:30 1S19 Solid-State Synthesis and Depolymerization of Optically Active Aromatic Schiff Base Polymers
Hiroya Endo, Hiromitsu Sogawa, Fumio Sanda

Hiromitsu Sogawa, presiding

- 14:45 1S20 Surface modification of biodegradable polymer / hydroxyapatite complex (III) -Investigation of surface grafting of PLLA-
Rin Ito, Masahiro Fujita, Masahiro Rikukawa, Yuko Takeoka
- 15:00 1S21 Development of high-tough composite materials consisting of biodegradable polymers and hydroxyapatite (III) -Effect of hydroxyapatite -
SHENGTAO WANG, Masahiro Fujita, Masahiro Rikukawa, Yuko Takeoka
- 15:15 1S22 Evaluation of catalytic activity of calcium phosphate ceramics for biodegradable polymers (V) - The effect of substituted metal species -
Misaki Okamura, Masahiro Fujita, Masahiro Rikukawa, Yuko Takeoka
- 15:30 1S23 Interface control of biodegradable polymer/phosphate ceramics composites (V) - Effect of modification by using hydroxy acids -
Rumi Nishimura, Masahiro Fujita, Masahiro Rikukawa, Yuko Takeoka

Harumi Sato, presiding

- 15:45 1S24 The Development of Thermoplastic Cellulose Material through Mixed Esterification of Long and Short Side Chains
Ruochun WANG, Tadahisa IWATA
- 16:00 1S25 Improvement of Thermoformability and Mechanical Properties of Low-Substituted Cellulose Acetate Using Marine-Biodegradable Lactic Acid Oligomers
Jin Ho Seok, Tadahisa Iwata

Koji Yamada, presiding

- 16:15 1S26 Marine degradation process of P(3HB) and P(3HB-co-4HB) by Raman spectroscopy
Yuma Yamada, Harumi Sato
- 16:30 1S27 Measurement of PBSA intermediates during biodegradation: Implications for degradation processes in marine environments
Ryo Fujita, Chihiro Nouda, Tetsuhiro Watano, Takaki Mine, Hiroaki Takemori, Makoto Yasojima
- 17:00 1S29 Photodegradation and Marine Biodegradation of Poly(butylene succinate) and Poly(butylene succinate-co-adipate)

Adchara Padermshoke, Yingjun An, Tomoko Kajiwara, Hiroyasu Masunaga, Yutaka Kobayashi, Hiroshi Ito, Sono Sasaki, Hiroshi Noguchi, Atsushi Kusuno, Atsushi Takahara

Toshikazu Sakaguchi, presiding

- 17:15 1S30 Modification of aliphatic polycarbonates through the incorporation of cyclodextrin and their ammonolysis
Shuto Uchiumi, Toyokazu Tsutsuba, Tatsuo Taniguchi, Daisuke Aoki
- 17:30 1S31 Synthesis of carbohydrate-based aliphatic polycarbonate containing oxalate linkages and its recycle system
Shunsuke Fujimata, Tatsuo Taniguchi, Daisuke Aoki
- 17:45 1S32 Synthesis of Block Copolymers Containing Catechol and Its Analogues and Evaluation of the Interaction with Metal Substrate
Haruki Sekiya, Kaori Tanimoto, Shiho Tanizaki, Hexuan Mao, Xiaobin Liang, Ken Nakajima, Tomohiro Kubo, Kotaro Satoh

Kotaro Satoh, presiding

- 18:00 1S33 Development of Chemically Recyclable Phenolic Resins with Acetal Bonds
Sae Urano, Michio Urushisaki, Toshikazu Sakaguchi, Tamotsu Hashimoto
- 18:15 1S34 Synthesis of Various Types of Polypropylenes Having Maleic Anhydride Units at Their Terminals and Development of High-Performance Thermoplastic Carbon Fiber-Reinforced Plastics Using Them
Kazuki Akimoto, Michio Urushisaki, Ayaka Yamaguchi, Hideyuki Uematsu, Toshikazu Sakaguchi, Tamotsu Hashimoto

Wed. Sep 17

E. POLYMERS AND ENVIRONMENT

Olaf Karthaus, presiding

- 9:00 2S01 Synthesis and Characterization of Biobased Elastomers Consisting of Carbohydrate-Derived Components
Yu Oishi, Sho Fukushima, Weeranuch Lang, Takuya Yamamoto, Feng Li, Redouane Borsali, Toshifumi Satoh, Takuya Isono
- 9:15 2S02 Sustainable Polysaccharides/Polyacetals Synthesized from Cellulose-Derived Compounds
Feng Li, Yuta Mizukami, Yuto Kakehi, Takayuki Nagai, Takuya Yamamoto, Kenji Tajima, Takuya Isono, Toshifumi Satoh
- 9:30 2S03 Synthesis and Characterization of Fully Biobased Triblock Copolymers Bearing Poly(vinylcatechol) Segments for Tough Adhesive Applications
Shin Inagaki, Hideki Abe

Toshifumi Satoh, presiding

- 9:45 2S04 Basic research for the preparation of alternative materials for plastics of Fomes Fomentarius
Ryuya Abe, Olaf Karthaus, Tomohisa Suzuki

10:00	2S05	Preparation and biodegradability evaluation of naturally derived polyisoprene rubber with controlled crosslink structure <u>Amane Tamaki</u> , Dian Zhang, Shintaro Nakagawa, Naoko Yoshie
10:15	2S06	Synthesis of bio-based polymers from tartaric acid <u>Taisuke Jindai</u> , Shinnosuke Nishimura, Tomoyuki Koga Yoshikuni Teramoto, presiding
10:30	2S07	Synthesis and Characterization of Aromatic Polyesters from α -Resorcylic Acid <u>Tatsuya Goto</u> , Kanta Tominaga, Yukihide Shiraishi
10:45	2S08	Synthesis and properties of bio-epoxy resins derived from natural phenol compounds <u>Shinji Kanehashi</u> , Kaito Furukawa

E. POLYMERS AND ENVIRONMENT “English Session”

Yoshikuni Teramoto, presiding

11:00	2S09	Influence of Photooxidation on the Surface Chemistry and Biodegradability of Aliphatic Polyamide <u>Yingjun AN</u> , Adchara PADERMSHOKE, Tomoko KAJIWARA, Dai-ichiro KATO, Haruki MOKUDAI, Takashi MASAKI, Hiroyasu MASUNAGA, Yutaka KOBAYASHI, Hiroshi ITO, Sono SASAKI, Atsushi TAKAHARA
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Shinnosuke Nishimura, presiding

11:15	2S10	Role of a baroplastic copolymer on the efficient processing of poly(L-lactide) <u>Neha Sharma</u> , Tsuyoshi Koga, Shigeru Deguchi, Ikuo Taniguchi
11:30	2S11	Chemically Recyclable Polythioesters via Ring-opening Polymerization of a Vitamin C-derived Monomer <u>Maxym Tansky</u> , Tomohiro Kubo, Kotaro Satoh
11:45	2S12	Assessment of Zein Solubility in Various Solvents via NMR Relaxation and Hansen Parameters: Film Fabrication and Comparison with Conventional Industrial Solvent <u>Soubani Baidya</u> , Bapan Adak, Toshiyuki Takano, Yoshikuni Teramoto

E. POLYMERS AND ENVIRONMENT

Keita Sakakibara, presiding

13:00	2S13	Synthesis of Novel Polymers by Ring-Opening Polymerization of Epoxides Derived from Cellulose Pyrolysates <u>Hiroto Ayakawa</u> , Tianle Gao, Takuya Yamamoto, Feng Li, Takuya Isono, Toshifumi Satoh
13:30	2S15	Improvement of Thermal Stability in Cellulose Fatty Acid Esters through Crystallization Control <u>Yoshiki Nakashima</u> , Shinobu Yokokawa, Hideki Tanaka, Naoyuki Toyoda, Midori Yamashiro, Shukichi Tanaka
14:00	2S17	Polymerization of bis-limonene cyclic carbonate and its properties <u>Hisatoyo Morinaga</u> , Takumi Inoue

Hisatoyo Morinaga, presiding

- 14:30 2S19 Synthesis of Various Branched Polyacetal with Polyaddition of Glycerol
Yusaku Tajima, Tomohiro Kubo, Kotaro Satoh
- 15:00 2S21 Fabrication and Mechanical Property Evaluation of Highly Dispersed Nanocellulose Composites Using PP Reactor Powder
Koyuru Nakayama, Toru Wada, Toshiaki Taniike, Keita Sakakibara
- 15:30 2S23 Manufacturing, functionality, and observation of porous-fiber using microbial polyester
Taizo Kabe, Kohei Toyosaki, Tadahisa Iwata

Taizo Kabe, presiding

- 16:00 2S25 Effect of Material Morphology on Biodegradation of Bacterial P(3HB) by Varioborax sp.
Daisuke Ishii, Mayu Tsuruga, Chihiro Mimura, Souta Kinoshita, Tomoko Seyama, Haruhiko Masaki, Masatake Kanai
- 16:30 2S27 Synthesis and biodegradability of alternating copoly(ester-amide)s with amino acid of different stereocompositions
Senri Hayashi, Tomohiro Hiraishi, Hideki Abe
- 17:00 2S29 Development of High-Strength Microfibers Based on Nanofibrillated Bacterial Cellulose
Ryosuke Yokota, Yui Kawabata, Haruto Tsujisaki, Chaehun Lee, Moe Araida, Yoshifumi Yamagata, Takuya Isono, Toshifumi Satoh, Hirofumi Tani, Kenji Tajima

Thu. Sep 18

E. POLYMERS AND ENVIRONMENT

Akihide Sugawara, presiding

- 9:00 3S01 Bamboo Liquefaction for Synthesis of Polyurethane as Sustainable Materials
Ruozhu Wang, Yoshito Ando
- 9:30 3S03 Depolymerization of Methacrylic Resins Promoted by Trityl Pendants Incorporated by Copolymerization or Post-polymerization Modification
Yota Chiba, Shoji Hirabayashi, Yasuhiro Kohsaka
- 10:00 3S05 Marine PHBH-degrading bacterium and its PHBH degradation behavior
Tomohiro Hiraishi, Senri Hayashi, Momoko Kitamura, Noriyuki Asakura, Hideki Abe

Tomohiro Hiraishi, presiding

- 10:30 3S07 Synthesis and Degradability of Aliphatic Polycarbonates Containing Aromatic Moieties in the Side Chains
Kazuki Fukushima, Yuki Tachiwana, Takashi Kato
- 11:00 3S09 Disintegration field test of plastics under water environmental conditions
Atsuyoshi Nakayama, Naoko Yamano, Shodai Hino, Takashi Ohmoto, Hayato Yamanaka, Hiroshi Hirano, Akihiko Masui, Takahiro Nagahama, Takeshi Kanzawa, Yoji

- Kojima, Hiroto Munetsuna, Hisaya Myoga, Masaya Watanabe, Mami Tanaka, Hideo Okamura
- 11:30 3S11 Development of enzyme-embedded biodegradable plastics and improvement of enzyme embedding for practical use
Qiuyuan Huang, Satoshi Kimura, Tadahisa Iwata
- Qiuyuan Huang, presiding**
- 13:00 3S13 Preparation of Chitin and Chitosan Monoliths for Flow-Based Applications
Akihide Sugawara, Emil Hajili, Hiroshi Uyama

E. POLYMERS AND ENVIRONMENT “English Session”

- Qiuyuan Huang, presiding**
- 13:30 3S15 PBAT/Hectorite clay nanocomposite coated paper-based packaging materials
Bapan Adak, Yoshikuni Teramoto
- 14:00 3S17 Polyrotaxane-Engineered Biopolyesters with Enhanced Toughness and Marine Degradability
Cong Liu, Shota Ando, Yingjun An, Sinan Feng, Ailifeire Fulati, Atsushi Takahara, Kohzo Ito
- Daisuke Ishii, presiding**
- 14:30 3S19 Mechanochemical Synthesis of Thermoplastic Cellulose Mixed Esters for Plastic Film.
Lease Jacqueline, Yoshito Andou
- 15:00 3S21 Thermo- and pH-Responsive Hydrogels Based on Cellulose Succinate and Amines: Elucidating the Gelation Mechanism
Chandran Bharath, Andou Yoshito
- 15:30 3S23 Simultaneous multimodal-multitask learning for structure/dynamics-degradability relationships of biopolymers powered by NMR data science.
XINYU NI, YOSHIFUMI AMAMOTO, JUN KIKUCHI