

Room A

Wed. Sep 24

Invited Lecture

T. Niidome, presiding

10:25	1A04IL	Targeted Drug Delivery System using External Stimuli <u>Shigeru Kawakami</u>	3849
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J. Kadokawa, presiding

11:15	1A06IL	New Frontiers of Natural Polysaccharide Materials <u>Takuya Kitaoka</u>	3852
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S. Ujiie, presiding

12:55	1A08IL	Development of novel protein material from hornet silk <u>Tsunenori Kameda</u>	3855
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S. Yao, presiding

13:45	1A10IL	Computer simulation of polymer crystallization <u>Takashi Yamamoto</u>	3858
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H. Yokoyama, presiding

14:35	1A12IL	Creation of Periodic Nanostructures and Nanopores in Wholly Aromatic Polyimide Films <u>Teruaki Hayakawa</u>	3861
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S. Takenaka, presiding

15:25	1A14IL	The Role of Separation Materials and Polymer Chemistry for Environmental Conservation <u>Izumi Ichinose</u>	3864
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M. Kunitake, presiding

16:15	1A16IL	Synthesis, Polymerization, and Functionalities of Si- and Ge-Bridged New π -Conjugated Element-Blocks <u>Joji Ohshita</u>	3867
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T. Yasuda, presiding

17:05	1A18IL	Study on Lanthanide Coordination Polymers with Strong-Luminescence <u>Yasuchika Hasegawa</u>	3870
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Thu. Sep 25

Invited Lecture

H. Murakami, presiding

9:10	2A01IL	Science in Nanoimprint Lithography <u>Masaru Nakagawa</u>	3873
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Award Lecture

K. Naka, presiding

10:00	2A03AL	Development of Organocatalyzed Polymerization Toward Application of Functional Polymeric Materials <u>Toyochi Kakuchi</u>	3876
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T. Shimizu, presiding

10:50	2A05AL	Development of semiconductor devices by spray deposition using polymer diluted solution <u>Katsuhiko Fujita</u>	3879
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K. Ito, presiding

12:55	2A08AL	Thermal Molecular Motion of Polymers at Non-Solvent Interfaces <u>Keiji Tanaka</u>	3882
I. Ichinose, presiding			
14:10	2A11AL	Control of Cell Function and Construction Three-Dimensional Tissues Based on Polymer Science <u>Michiya Matsusaki</u>	3885
K. Fujita, presiding			
15:00	2A13AL	Research for Practical Applicable Organic Semiconductors Based on Bent-shaped π -Electron Core <u>Toshihiro Okamoto</u>	3888
S. Yokoyama, presiding			
15:50	2A15AL	Lithography process simulation studies using coarse-grained polymer models <u>Hiroshi Morita</u>	3891
H. Uyama, presiding			
16:40	2A17AL	Syntheses of Sulfated Glycopolymers for Control of Protein Functions <u>Yoshiko Miura</u>	3894

Fri. Sep 26

Invited Lecture

M. Yokoyama, presiding			
9:10	3A01IL	Next generation photodynamic therapy using novel DDS-type photosensitizers <u>Yuji Morimoto</u> , Nobuhiro Nishiyama, Akihiro Kishimura, Kazunori Kataoka.....	3897
H. Otsuka, presiding			
10:00	3A03IL	Development of Smart Nano Molecular Assembly Systems and Their Biomedical Applications <u>Kenji Kono</u>	3900
A. Ohira, presiding			
10:50	3A05IL	Study for improvement in reliability and durability of a polymer electrolyte fuel cell <u>Itou Hideki</u>	3903

Room B

Wed. Sep 24

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

T. Terashima, presiding			
10:00	1B03	ESR observation of solvent effects on radical polymerizations of various fumarates Ai Nakamura, Yumi Tomari, Kazuki Kajihara, <u>Atsushi Kajiwara</u>	3906
10:25	1B04	Spontaneous Polymerization of p-Substituted Styrenes with Substituted Quinoid Compounds <u>Hiromu Kawakita</u> , Takahiro Uno, Takahito Itoh, Masataka Kubo, Katsuyuki Hirai, Atsushi Kajiwara.....	3908
A. Kajiwara, presiding			
10:50	1B05	Functional Polymers via Living Radical Polymerization with Selective Transesterification: Sequence Regulation and End Functionalization <u>Yusuke Ogura</u> , Takaya Terashima, Mitsuo Sawamoto.....	3910
11:15	1B06	In-Chain Large Ring Polymers by Molecular Recognition-Assisted	

		Living Radical Cyclopolymerization: From Precision Synthesis to Functions <u>Yuichiro Miyabara</u> , Takaya Terashima, Mitsuo Sawamoto 3912	
11:40	1B07	Radical Accumulation Field by Self-Assembled Macromolecules <u>Shinya Tsuji</u> , Makoto Ouchi, Mitsuo Sawamoto 3914	
		A. Kanazawa, presiding	
12:55	1B08	Controlled radical copolymerization of vinyl monomers in a porous metal complex with coordinatively unsaturated sites <u>Shuto Mochizuki</u> , Takashi Uemura, Susumu Kitagawa 3916	
13:20	1B09	Controlled radical cyclopolymerization of 1,6-dienes in porous coordination polymers <u>Ryo Nakanishi</u> , Takashi Uemura, susumu Kitagawa 3918	
13:45	1B10	Radical Polymerization of Amino Acid-Based Oxazolidinone and Polymer Properties <u>Miki Niwa</u> , Hajime Norisada, Hitoshi Tanaka 3920	
14:10	1B11	Design of Thermally Latent Reductants and Controlled Decomposition of Polyperoxides <u>Michihiro Yuri</u> , Eriko Sato, Takashi Nishiyama, Akikazu Matsumoto, Hideo Horibe 3922	
		T. Uemura, presiding	
14:35	1B12	Radical Polymerization Process Inspired by Extreme Conditions in Deep Sea <u>Keigo Kinoshita</u> , Shigeru Deguchi 3924	
15:00	1B13	Synthesis and Characterization of Sequenced Polymer via Radical Alternating Copolymerization of Maleimides with Side-Chain Sequence-Regulated Acrylate/Styrene Trimer <u>Takamasa SOEJIMA</u> , Kotaro SATOH, Masami KAMIGAITO 3926	
15:25	1B14	Polymerization and Copolymerization of Fused Cyclic Conjugated Diene Monomer Derived from Cholesterol <u>Akira KANEDA</u> , Kotaro SATOH, Masami KAMIGAITO 3928	
		E. Sato, presiding	
15:50	1B15	Ternary Copolymerization of Limonene and Maleimide Derivatives for Novel Sequence-Regulated Copolymers <u>Masataka OJIKA</u> , Kotaro SATOH, Masami KAMIGAITO 3930	
16:15	1B16	Controlled Radical Polymerization Catalyzed by Hematin of Enzyme Mimetic Compound <u>Kazuya Yamamoto</u> , Kazuya Tanaka, Yuji Hoshino, Kazuya Yamashita, Jun-ichi Kadokawa 3932	
16:40	1B17	AFM observation of vapor-phase-deposition polymerization of a block copolymer on a substrate Saki Ito, Sayaka Oono, Shin-ichi Yusa, <u>Jiro Kumaki</u> 3934	
		K. Yamamoto, presiding	
17:05	1B18	Controlled Cationic Polymerization in Ionic Liquids: Direct Polymerization of Vinyl Ethers with Pendant Imidazolium Salt <u>Hayato Yoshimitsu</u> , Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 3936	
17:30	1B19	Controlled cationic polymerization of vinyl ethers using ammonium salts with long alkyl chains as additives: Possible formation of reverse micelle as special reaction field <u>Kota FUJIWARA</u> , Arihiro KANAZAWA, Shokyoku KANAOKA, Sadahito AOSHIMA 3938	
17:55	1B20	Precision Synthesis of Polymer Gels and Star Polymers with Microgel Core for Polymer-Support and Controlled Cationic Polymerization Catalyzed by Metal Complex Supported in Network Structures <u>Ryohei SAITOH</u> , Arihiro KANAZAWA, Shokyoku KANAOKA, Sadahito AOSHIMA 3940	

Thu. Sep 25

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

M. Furutani, presiding

- 9:10 2B01 Living Cationic Polymerization via Thioether-Mediated Degenerative Chain Transfer
Mineto Uchiyama, Kotaro SATOH, Masami KAMIGAITO 3942
- 9:35 2B02 Novel Bio-Based Polymer via Cationic Polymerization of Plant-Oil-Derived Terpene
Keishi OSAKI, Shinya SUZUKI, Yuji EGUCHI, Kotaro SATO, Masami KAMIGAITO 3944
- 10:00 2B03 Living Cationic Copolymerization of Benzofuran and Styrene Derivatives
Yuhei TANAKA, Kotaro SATOH, Masami KAMIGAITO 3946

K. Satoh, presiding

- 10:25 2B04 Photoinduced frontal polymerization with novel thermal acid generators
Masahiro Tagami, Masahiro Furutani, Koji Arimitsu, Kaori Takemoto 3948
- 10:50 2B05 Controlled Cationic Polymerization of 1-Methoxy-1,3-butadiene: Control of Propagating Reaction and Microstructure
Yukinori Togo, Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 3950
- 11:15 2B06 Living Cationic Polymerization Using Schiff-Base Type Ligands: Effects of Catalyst Structures on Polymerization Behaviors
Sensho Kigoshi, Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 3952
- 11:40 2B07 Controlled Cationic Polymerization of Vinyl Ethers Using Ruthenium Complexes as Catalysts: Precise Adjustment of Catalytic Activity Using Ligands and Additives
Koichiro Takii, Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 3954

T. Ishizone, presiding

- 12:55 2B08 Concurrent cationic vinyl-addition and ring-opening copolymerization of vinyl ethers and oxiranes: Toward the control of crossover reaction frequency
Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 3956
- 13:20 2B09 Cationic Copolymerization of Vinyl Ether and 1,3-Dioxepane through Concurrent Vinyl-Addition and Ring-Opening Mechanisms: Toward Controlled Copolymerization Mediated by Long-Lived Species
tomoka shirouchi, arihiro kanazawa, syoukyoku kanaoka, sadahito aoshima 3958
- 13:45 2B10 Synthesis and cationic ring-opening polymerization of cyclic carbonate carrying oxetane monomer via chemoselective addition of CO₂
Naoto Aoyagi, Takeshi Endo 3960
- 14:10 2B11 Synthesis of Quaternary Ammonium Salt-functionalized Polycarbonate Films by the ROP of Six-membered Cyclic Carbonates Initiated with Ethanol Amine Derivatives
Hiroyuki Matsukizono, Takeshi Endo 3962

T. Kitaura, presiding

- 14:35 2B12 Reversible Mechanistic Transformation between Living Radical and Anionic Polymerizations via Carbon-Halogen Bond
Toshifumi Kondo, Kotaro Satoh, Masami Kamigaito 3964
- 15:00 2B13 Synthesis and surface structure of amphiphilic diblock copolymer consisting of polydimethylsiloxane and poly[oligo(ethylene glycol) methacrylate] segments
Ling Hong, Yuya Amino, Raita Goseki, Takashi Ishizone, Manabu Inutsuka, Hideaki Yokoyama, Kohzo Ito 3966
- 15:25 2B14 Anionic polymerization of diisopropenylbenzenes

		<u>Suguru Onuki</u> , Shunsuke Tanaka, Raita Goseki, Akira Hirao, Takashi Ishizone	3968
15:50	2B15	Anionic Polymerization of Divinylbenzene Derivatives <u>Shunsuke Tanaka</u> , Raita Goseki, Akira Hirao, Takashi Ishizone	3970
		S. Kanaoka, presiding	
16:15	2B16	Anionic polymerization of exomethylene hydrocarbon monomers <u>Haruka OHISHI</u> , Yuki KOSAKA, Raita GOSEKI, Takashi ISHIZONE	3972
16:40	2B17	Anionic polymerization of hydrocarbon monomers possessing allylidene groups <u>Kota Togii</u> , Shogo Miyai, Raita Goseki, Takashi Ishizone	3974
17:05	2B18	Anionic polymerization of methacryloyl chloride and post-polymerization reaction therefrom Shun Nakano, <u>Takehiro Kitaura</u> , Tatsuki Kitayama	3976

Fri. Sep 26

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

N. Kanbayashi, presiding

9:10	3B01	Anionic Polymerization Using Flow Microreactors and Its Applications to Synthesis of Structurally Well-defined Fluorine-Containing Polymers <u>Aiichiro NAGAKI</u> , Kana AKAHORI, Yusuke TAKAHASHI, Jun-ichi YOSHIDA	3978
9:35	3B02	Control of stereoselectivity in the living polymerization of isoprene initiated by neodymium complex <u>Ryo Tanaka</u> , Kaede Yuuya, Hiroki Sato, Peter Eberhardt, Yuusyou Nakayama, Takeshi Shiono	3980
10:00	3B03	Control of molecular weight and molecular weight distribution of polypropylene using modified methylaluminoxane supported cocatalyst system <u>Kawahara Tomoyasu</u> , Takeshi Shiono, Yuushou Nakayama, Ryo Tanaka	3982
10:25	3B04	The addition effect of alkyl group on alkylphenoxyaluminum into cocatalyst ability of modified methylaluminoxane. <u>Takayuki Yamashita</u> , Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono	3984

Y. Nakayama, presiding

10:50	3B05	Yttrium-catalyzed isotactic block copolymerization of isoprene with myrcene Lixin Zhang, <u>Masayoshi Nishiura</u> , Xiaochao Shi, Zhaomin Hou	3986
11:15	3B06	Modular Synthesis of Optically Active Polymer via Asymmetric Allylic Amidation and Ring Closing Metathesis Reaction <u>Naoya Kanbayashi</u> , Taka-aki Okamura, Kiyotaka Onitsuka	3988
11:40	3B07	Elucidation of the relationship between structure and performance in Ziegler-Natta catalyst using multivariate analysis. <u>Toshiki Funako</u> , Toshiaki Taniike, Minoru Terano	3990

S. Motokucho, presiding

12:55	3B08	Cyclopolymerization of non-conjugated diene catalyzed by zirconium complexes with optically active [OSSO]-type ligands <u>Takanori Watanabe</u> , Norio Nakata, Akihiko Ishii	3992
13:20	3B09	Isospecific Styrene Polymerization by Aryl-substituted [OSSO]-Type Zirconium Complexes <u>Norio Nakata</u> , Tomoyuki Toda, Takanori Watanabe, Akihiko Ishii, Tsukasa Matsuo	3994
14:10	3B11	Investigation of effective ligands for catalyst-transfer Suzuki-Miyaura cross-coupling polymerization by using Pd precatalysts <u>Kentarou KOSAKA</u> , Yoshihiro OHTA, Tsutomu YOKOZAWA	3996

N. Nakata, presiding

14:35	3B12	Living polymerization of trimethylene carbonate by Al-Salen type complexes ~Substituent effects, polymerization abilities, and crystal geometries of the complexes~ <u>Nobutaka Taoka</u> , Nobuyoshi Nomura, Masataka Oishi 3998
15:00	3B13	Cycloaddition Reaction of Carbon Dioxide with Epoxide by the using Urethane Compound <u>Yuta Yamada</u> , Suguru Motokucho 4000
15:25	3B14	Effect of Solution Plasma to the Natural Starch <u>Yukihiro Muta</u> , Anyarat Watthanaphanit, Nagahiro Saito 4002

Room C**Wed. Sep 24****A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS****T. Yamamoto, presiding**

10:00	1C03	Synthesis and Dynamical Structure Analysis of Substituted Polyacetylenes Having a Long Branch Alkyl Chain <u>Yoshiaki Yoshida</u> , Takahiro Sasaki, Yasuteru Mawatari, Masayoshi Tabata 4004
10:25	1C04	Amylose Engineering: Chemo-Enzymatic synthesis of glyco hybrid polymers for a new glyco-biomaterials <u>Tomoki Nishimura</u> , Sadaatsu Mukai, Shinichi Sawada, Kazunari Akiyoshi 4006
10:50	1C05	Structural Control and Application of Exact Helical Foldamer Consisting of C2-chiral Spirobifluorene and Oligothiophene Moiety <u>Hiromitsu Sogawa</u> , Hitoshi Okuda, Toshikazu Takata 4008

Y. Mawatari, presiding

11:15	1C06	Study on the topology effects of vesicle self-assembled from cyclic amphiphilic block copolymers <u>Eisuke Baba</u> , Toshiaki Yatsunami, Takuya Yamamoto, Yasuyuki Tezuka 4010
11:40	1C07	Investigation of topology effects on self-assembly of cyclic and linear polyacrylates having perylene diimide counterions <u>Akihiro Kimura</u> , Takuya Yamamoto, Yasuyuki Tezuka 4012

H. Kudo, presiding

12:55	1C08	Investigation of the Chiroptical Properties in the Aggregation State of the Planar Chiral Tetrasubstituted [2.2]Paracyclophane-Based Compounds <u>Risa Sawada</u> , Masayuki Gon, Yasuhiro Morisaki, Yoshiki Chujo 4014
13:20	1C09	Efficient one-directional energy transfer of π -electron-system-layered oligomers through [2.2]paracyclophane <u>Shotaro Shibata</u> , Naoya Kawakami, Yasuhiro Morisaki, Yoshiki Chujo 4016
13:45	1C10	Design and synthesis of optically active conjugated bearing metals in the main chain <u>Yoshinori Otaki</u> , Yuki Takahashi, Yu Miyagi, Masashi Nakamura, Joji Ohshita, Sanda Fumio 4018
14:10	1C11	Preparation and Nanostructural Analysis of Single Component Optically Transparent Films of Star-shaped Isobutyl-substituted POSS Derivatives Linked by Alkylene Chains <u>Yuta Yasumoto</u> , Shinichi Sakurai, Kensuke Naka 4020

Y. Furusho, presiding

14:35	1C12	Synthesis and property of polycapsule based on t-butylcalix[8]arene <u>Norito Tarui</u> , Hiroto Kudo 4022
15:00	1C13	Synthesis and emission properties of gallafluorene polymers with diverse comonomers

		<u>Takuya Matsumoto</u> , Kazuo Tanaka, Yoshiki Chujo 4024
15:25	1C14	Synthesis of Functional Conjugated Polymers Based on Boron Diiminates <u>Amane Hirose</u> , Ryouusuke Yoshii, Kazuo Tanaka, Yoshiki Chujo 4026
		I. Tomita, presiding
15:50	1C15	Synthesis and Characterization of Conjugated Polymers Containing Azaphenylene in the Main chain <u>Masataka Hirose</u> , Kazuo Tanaka, Yoshiki Chujo 4028
16:15	1C16	Synthesis of Cationic Poly(phenylene)s by Catalyst Transfer Polycondensation (IV) -Evaluation of Self-organization- <u>Tsukasa Hara</u> , Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa 4030
16:40	1C17	Synthesis and characterization of self-doped conducting polyanilines bearing phosphonic acid <u>Yasushi Abe</u> , Toru Amaya, Yuh Inada, Toshikazu Hirao 4032
		Y. Morisaki, presiding
17:05	1C18	Synthesis of Redox-responsive Polymer Nanostructures Containing Ferrocene Moieties by Living Coordination Polymerization of Allene Derivatives <u>Hiroshi Eguchi</u> , Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita 4034
17:30	1C19	π -Allylnickel-catalyzed Living Coordination Dispersion Polymerization of Allene Derivatives. -Synthesis of Functionalized Polymer Particles by Sequential Copolymerization of Acetylene Derivatives- <u>Akira Yamauchi</u> , Takahiro Omura, Yoshiyuki Oguchi, Hiroshi Yamauchi, Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita 4036
17:55	1C20	Synthesis of Poly(diphenylacetylene) Derivatives Bearing Optically Active Pendants and Their Chiroptical Properties <u>Miyuki Maruta</u> , Kouhei Shimomura, Katsuhiko Maeda, Tomoyuki Ikai, Shigeyoshi Kanoh 4038

Thu. Sep 25

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

K. Adachi, presiding

9:10	2C01	Precise synthesis of miktoarm star polymers by using a dual- functional core agent on the basis of living anionic polymerization <u>Shotaro Ito</u> , Raita Goseki, Akira Hirao, Takashi Ishizone 4040
9:35	2C02	Synthesis and self-assembly of Miktoarm Star-branched Polymer by Utilized Dioxolane Difunctionalized 1,1-Diphenylethylene <u>Raita Goseki</u> , Emi Akemine, Akira Hirao, Takashi Ishizone 4042
10:00	2C03	Precise synthesis of multiblock copolymers containing a polyether segment by linking reactions based on living anionic polymerization <u>Yuri Matsuo</u> , Raita Goseki, Akira Hirao, Takashi Ishizone 4044

R. Goseki, presiding

10:25	2C04	Synthesis and properties arborescent graft polymers with different branched architecture <u>Katsuya MUKAI</u> , Nguyen Hai Thanh, Kaoru ADACHI, Yasuhisa TSUKAHARA 4046
10:50	2C05	Synthesis Of Sun-shaped Polymers Having Side Chains Of Different Polymers Via Cyclic Macroinitiator By Living Anionic Polymerization Takayuki Kono, Suguru Nakano, <u>Kaoru Adachi</u> , yasuhisa Tsukahara 4048
11:15	2C06	Preparation of polymer brushes with well-controlled stereoregularity by using a living anionic polymerization method and characterization of its physical property. <u>masanao sato</u> , yuji higaki, ken kojio, tomoyasu hirai, atsushi takahara 4050
11:40	2C07	Precise Control of Distance between Regiospecifically Accumulated Porphyrins on Microphase Segregation Interface

Takashi Tokuoka, Masashi Aotani, Gensuke Akimoto, Sadayuki Asaoka 4052

S. Sugihara, presiding

- 12:55 2C08 Precise Syntheses of Functional Ring Polymers via Ring-Expansion
Living Cationic Polymerization
Hajime Kammiyada, Makoto Ouchi, Mitsuo Sawamoto 4054
- 13:20 2C09 PMMA-PS Precision Block Copolymers for Fine Micro-Patterning:
Precise Design of Segment Sequence and Segment Joint
Hiroto Ono, Makoto Ouchi, Mitsuo Sawamoto 4056
- 13:45 2C10 Synthesis of amphiphilic copolymers having a diphenylalanine
moiety by RAFT polymerization and formation of ordered structures
Ai Ishizuki, Kazuhiro Nakabayashi, Hideharu Mori 4058
- 14:10 2C11 Synthesis thermoresponsive core cross-linked nanoparticles with
optoelectronic core
Daiki NODA, Kazuhiro NAKABAYASHI, Hideharu MORI 4060

H. Mori, presiding

- 14:35 2C12 Polymerization induced self-assemblies via RAFT aqueous
dispersion polymerization using reactive steric stabilizers
Shinji Sugihara, Tomoyasu Yudai, Yasushi Maeda 4062
- 15:00 2C13 Synthesis and Self-assembly of Pendant Imidazolyl Group-
containing Amphiphilic Block Copolymer by RAFT Polymerization
Using Novel CTA
Yoshihito Ishida, Takayo Sekiguchi, Takuya Sato, Mitsuru
Ueda, Atsushi Kameyama 4064
- 15:25 2C14 Single-Chain Folding Functional Polymers: Unique Nano-Space and
Structure via Primary Structure Control and Hydrogen Bonding
Kazuma Matsumoto, Takaya Terashima, Mitsuo Sawamoto 4066

A. Kameyama, presiding

- 15:50 2C15 Single-Chain Crosslinked Polymers via Living Radical
Polymerization and Molecular Imprinting: Precision Cavities for
Selective Molecular Recognition
Chitose Nagao, Takaya Terashima, Mitsuo Sawamoto 4068
- 16:15 2C16 Amphiphilic Star Copolymers with Multifunctional Initiators: Unique
Compartments Created by Self-Folding and Association in Water
Yuji Hirai, Takaya Terashima, Mitsuo Sawamoto 4070
- 16:40 2C17 Precision Synthesis of Functional Degradable Alternating, Block or
Gradient Copolymers with Concealed Functions and Properties
Suzuka Matsumoto, Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito
Aoshima 4072
- 17:05 2C18 Well-Controlled Splittable / Degradable Copolymers : Precision
Synthesis of "Metamorphosing" Polymers in Response to an
External Stimulus
Marie Kawamura, Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito
Aoshima 4074

Fri. Sep 26

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

M. Minoda, presiding

- 9:10 3C01 Effect of Side-chain Structure on Interfacial Aggregation States and
Blood-compatibility for Poly(vinyl ether)s
Cui Zhang, Yukari Oda, Hisao Matsuno, Norifumi L.
Yamada, Shokyoku Kanaoka, Sadahito Aoshima, Keiji Tanaka 4076
- 9:35 3C02 One-Shot Precision Synthesis of Functional Star Polymers by
Chemically- or Physically-Devised Methods

		<u>Shokyoku Kanaoka</u> , Mayuka Yamada, Ryohei Kimura, Arihiro Kanazawa, Sadahito Aoshima 4078
10:00	3C03	Well-Defined Star-Shaped Poly(alkoxystyrene)s via Living Cationic Polymerization: Control of Properties and Functions by Arm End Groups <u>Tomoya Yoshizaki</u> , Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 4080
10:25	3C04	Synthesis of Well-Defined Star Polymers by Novel "Docking" Reaction: Simultaneous Precise Control of Arm and Microgel Core Structures <u>Tatsuya Suzuki</u> , Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 4082
Y. Oda, presiding		
10:50	3C05	Synthesis, aggregates formation and photoluminescence properties of novel brush-shaped π -conjugated polymers having poly(vinyl ether) pendants <u>Taketo Ishikawa</u> , Jin Motoyanagi, Masahiko Minoda 4084
11:15	3C06	Synthesis of novel poly(vinyl ether)-grafted poly(phenyl acetylene)s by the two synthetic strategies <u>Shinya Kawamura</u> , Kiriko Higashi, Jin Motoyanagi, Masahiko Minoda 4086
11:40	3C07	Synthesis of dendrimers having dianhydroglucitol and their lithium ionic conductivities <u>Kouhei Nishimura</u> , Kouki Uchida, Keigo Aoi, Yuzo Ishigaki 4088
K. Aoi, presiding		
12:55	3C08	Precision Synthesis and Self-Assembly Behavior of Stimuli-Responsive Block Copolymers Consisting of Polylactide and Poly(vinyl ether) Segments <u>Yukiko Seki</u> , Yu Shinke, Arihiro Kanazawa, Shokyoku Kanaoka, Tomoko Fujiwara, Sadahito Aoshima 4090
13:20	3C09	Synthesis of Multibranched Copolymers via Selective and Controlled Cationic Polymerization of Monomers with Latent Initiating Sites <u>Norifumi Yokoyama</u> , Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 4092
13:45	3C10	Synthesis of various block copolymers via re-initiation reaction from terminal alkoxy groups of well-defined <i>p</i> -alkoxystyrene polymers <u>Natsuki Okada</u> , Arihiro Kanazawa, Shokyoku Kanaoka, Sadahito Aoshima 4094

Room D

Wed. Sep 24

S1. Polymer Chemistry based on Organocatalyst

9:50	1DSO	Introductory Remarks <u>Naoki Haraguchi</u> 4408
H. Iida, presiding		
10:00	1D03	Development of Polymer-Supported Flavin Organocatalysts <u>Yukihiro Arakawa</u> , Takahiro Oonishi, Takahiro Kohda, Fumiaki Sato, Keiji Minagawa, Yasushi Imada 4409
10:25	1D04	Hyperbranched Aromatic Polyetherketone with TEMPO terminals as Heterogeneous Catalyst for Aerobic Oxidation of Alcohols <u>Ying Shi</u> , Yuta Nabae, Teruaki Hayakawa, Masa-aki Kakimoto 4411
Y. Arakawa, presiding		
10:50	1D05	Synthesis of Poly(phenylacetylene)s Bearing Imidazolidinone Pendants and Their Application to Asymmetric Organocatalysis <u>Kohei SHIMOMURA</u> , Leandro M. S. TAKATA, Koutarou HAYASHI, Hiroki IIDA, Alcindo A. DOS SANTOS, Eiji YASHIMA 4413
11:15	1D06	Synthesis of main-chain polymers having MacMillan catalyst for

		asymmetric reaction using ionic bond(VI) <u>Nagisa Takenaka</u> , Naoki Haraguchi, Shinichi Itsuno	4415
11:40	1D07	Chiral polymeric catalysts prepared from didehydrogenated cinchonidinium salt for asymmetric synthesis of amino acid <u>Md. Mehadi Hassan</u> , Naoki Haraguchi, Shinichi Itsuno	4417
		N. Haraguchi, presiding	
12:55	1D08IL	Development of Resin-supported Peptide Catalysts <u>Kazuaki Kudo</u>	4419
		S. Uchida, presiding	
13:45	1D10	High-quality Polylactide Synthesis via Organocatalytic Polymerization in Supercritical Carbon Dioxide <u>Nobuyuki Mase</u> , Shoji Yamamoto	4422
14:10	1D11	A new organocatalyst involving concerted acid-base catalysis. Precise synthesis of linear- and branched- poly lactic acids and its applications <u>Joji Kadota</u> , Akinori Okada, Hiroshi Hirano, Yasuyuki Agari	4424
		N. Mase, presiding	
14:35	1D12	Cationic Ring-Opening Polymerization of 2-Oxazolines Initiated by Nf ₂ NMe and Hyblidization of Bioactive Glass <u>Terunari HAYASHI</u> , Akinori TAKASU	4426
15:00	1D13	Synthesis of Optically-Active Poly(mandelic acid)s Obtained by Direct Polycondensation Using Onium Salt Catalysts <u>Miyuki Oshimura</u> , Takahiro Hiura, Akinori Saito, Makoto Fukuoka, Yusuke Hemmi, Hikaru Momose, Tomohiro Hirano, Koichi Ute	4428
		S. Matsuoka, presiding	
15:25	1D14	Synthesis of macromolecular [2]rotaxanes by living ring-opining polymerization with organocatalyst and its application to the preparation of transformable polymers <u>Daisuke Aoki</u> , Satoshi Uchida, Toshikazu Takata	4430
15:50	1D15	Organocatalytic approach to smart biomaterials <u>Kazuki Fukushima</u> , Takayuki Ota, Shunya Takaoka, Shunsuke Sato, Kodai Matsuzaki, Kohei Kishi, Yuto Inoue, Masaru Tanaka	4432
		A. Goto, presiding	
16:15	1D16	Living ring-opening polymerization of cyclic ester using organic phosphoric acid as organocatalyst <u>Toshifumi Satoh</u> , Takuya Isono, Toyoji Kakuchi	4434
16:40	1D17	Tris(pentafluorophenyl)borane-catalyzed Group Transfer Polymerization of Dialkylacrylamide <u>Seiya Kikuchi</u> , Kodai Kitano, Yougen Chen, Shin-ichiro Satoh, Toyoji Kakuchi	4436
17:05	1D18	Group Transfer Polymerization of Acrylic Monomers by using Tris(pentafluorophenyl)boron as a Catalyst <u>Yougen Chen</u> , Shinji Tsuchida, Kodai Kitano, Seiya Kikuchi, Toshifumi Satoh, Toyoji Kakuchi	4438
		T. Satoh, presiding	
17:30	1D19	Dimerization and Polymerization of Polar Vinyl Monomers Catalyzed by N-Heterocyclic Carbene <u>Shin-ichi Matsuoka</u> , Terumasa Kato, Masanori Nakazawa, Yuki Fukumoto, Yuya Kamijyo, Masato Suzuki	4440
17:55	1D20	Design of Organic Catalysts for Living Radical Polymerization <u>Atsushi Goto</u> , Lin Lei, Miho Tanishima, Hironori Kaji	4442

Thu. Sep 25

A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

N. Yanai, presiding

- 9:10 2D01 Construction of Networked Polymers from Polyamides and Polycarboxylic Acids
Yoshio Furusho, Takeshi Endo 4096
- 9:35 2D02 Preparation of Cu- & Ni-Based Metallo-Supramolecular Polymers and the DNA Binding Properties
Md. Delwar Hossain, Masayoshi Higuchi 4098
- 10:00 2D03 Material Fabrication of Amphiphilic poly(N-vinylamide) Derivatives by Hydrogen Bond Interaction with Various Polymers
Yukie TAKEMOTO, Hiroharu AJIRO, Mitsuru AKASHI 4100

Y. Furusho, presiding

- 10:25 2D04 Photon Upconversion by triplet energy migration in organic crystal
Masanori Hosoyamada, Nobuhiro Yanai, Nobuo Kimizuka 4102
- 10:50 2D05 Supramolecular Self-assembly of Diamine-based Benzoxazine Dimers through Noncovalent Bonds Controlled by Their Alkyl Chain Lengths
Suwabun Chirachanchai, Pimsai Tanphibul, Kohji Tashiro 4104
- 11:15 2D06 Preparation of Inclusion Supramolecular Polymers by Vine-twining Polymerization Using Maltooligosaccharide-poly(lactide) Conjugates
Tomonari Tanaka, Shota Sasayama, Kazuya Yamamoto, Junji Tsutsui, Yoshiharu Kimura, Jun-ichi Kadokawa 4106

M. Akashi, presiding

- 11:40 2D07 Preparation of Supramolecular Polymer by Vine-twining Polymerization Using Maltooligosaccharide-poly(THF) conjugate
Shota Sasayama, Kazuya Yamamoto, Tomonari Tanaka, Jun-ichi Kadokawa 4108
- 12:55 2D08 Preparation of Supramolecular Network Material by Vine-twining Polymerization Using Polypeptide-*graft*-Polycaprolactone as Guest Polymer
Daisuke Hatanaka, Kazuya Yamamoto, Jun-ichi Kadokawa 4110

H. Otsuka, presiding

- 13:20 2D09 Synthesis of Tellurium-Containing Polymers by Reactions of Acetylene-Containing π -Conjugated Polymers
Takeru SUTO, Hiroki NISHIYAMA, Shinsuke INAGI, Ikuyoshi TOMITA 4112
- 13:45 2D10 Synthesis of Functional π Extended Conjugated Polymers Based on Polymer Reactions of Poly(p-phenylene-vinylene) Precursors Prepared by Three-Component Polycondensation
Sho WAKANA, Hiroki NISHIYAMA, Shinsuke INAGI, Ikuyoshi Tomita 4114
- 14:10 2D11 Crosslinking and decrosslinking behavior between polymers having vicinal tricarbonyl structures and hydroxy groups containing polymers
Tatsuya Yuki, Morio Yonekawa, Kozo Matsumoto, Ikuyoshi Tomita, Takeshi Endo 4116

S. Yamada, presiding

- 14:35 2D12 A novel post-polymerization modification reaction based on a three component reaction
Ryohei Kakuchi, Patrick Theato 4118
- 15:00 2D13 Mechanochromic Property of Dynamic Covalent Polymers with Diarylbibenzofuranone Functionality in the Center of Polymer Chains
Hironori Oka, Keiichi Imato, Tomoya Sato, Tomoyuki Ohishi, Raita Goseki, Hideyuki Otsuka 4120
- 15:25 2D14 Fabrication of anionic monoliths by thermally induced phase separation method
Hiroshi Ishii, Hiroshi Uyama 4122

R. Kakuchi, presiding

15:50	2D15	Adhesion of Gels and Substrates using Coupling Reactions <u>Tomoko SEKINE</u> , Yoshinori TAKASHIMA, Akira HARADA 4124
16:15	2D16	Synthesis of Polypeptide by Polycondensation of Urethane Derivative of Methionine Oxide and Its Application for Anti-Fouling Material against Cells and Proteins <u>Shuhei Yamada</u> , Mitsuaki Goto, Takeshi Endo 4126
16:40	2D17	Synthesis of Alternating Copolymers via Spontaneous Copolymerization of 1,3-Dehydroadamantanes with Electron- Deficient Monomers <u>Taisuke Nakamura</u> , Yuya Nakamura, Raita Goseki, Takashi Ishizone 4128
17:05	2D18	Polyaddition between bifunctional cyclic imino ethers and dicarboxylic acids : new polyaddition reaction via stable salt Kento Kakiuchi, Yasunori Nishiguchi, Yukiko Fujita, Naoko Hishida, <u>Masatoshi Miyamoto</u> 4130

Fri. Sep 26**A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS****H. Kanazawa, presiding**

9:10	3D01	Synthesis of multiblock copolymers based on polybenzamide as a hard segment, and polyester or polyether as a soft segment <u>Shinya Masukawa</u> , Shigeko Sasaki, Yuji Shibasaki, Atsuhiko Fujimori, Yoshiyuki Oishi 4132
9:35	3D02	High refractive index polyguanamines from arylamino-substituted triazine dichloride with aromatic diamines <u>Tomohiro Kotaki</u> , Yuji Shibasaki, Yoshiyuki Oishi 4134
10:00	3D03	Oxidative coupling polymerization of arbutin catalyzed with Copper-amine complex <u>Maria Hashimoto</u> , Satoko Iwabuchi, Yuji Shibasaki, Yoshiyuki Oishi 4136

Y. Oishi, presiding

10:25	3D04	Reexamination of Reactivity of N-Carboxy Amino Acid Anhydrides 55 Proposal of real reaction mechanisms and the availability of a new type topochemical polymerization in the solid state <u>Hitoshi Kanazawa</u> , Aya Inada 4138
10:50	3D05	Synthesis and Properties of Polycondensation-type Aromatic polymers containing Indolocarbazole <u>Syusei Nakama</u> , Ryota Ueno, Masaji Akimoto, Masuki Kawamoto, Yu Nagase 4140
11:15	3D06	Pd/C-catalyzed synthesis of various heteroarene-based π - conjugated alternating copolymers via direct arylation <u>Yoshihisa Kojima</u> , Shotaro Hayashi, Toshio Koizumi 4142

Y. Nagase, presiding

11:40	3D07	Ru-Catalyzed Polycondensation of Phenylpyridine Derivatives and Aromatic Dihalides Through C-H Activation Process <u>Akira Yamashita</u> , Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita 4144
12:55	3D08	Synthesis of π -Conjugated Polymer Thin Films by Electropolymerization of Functional Thiophene Oligomers via Titanacycle Intermediates <u>Hidenari Kanetaka</u> , Shiori Kawamata, Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita 4146

K. Onimura, presiding

13:20	3D09	microwave-assisted screening of substrate-selective solid catalyst for polycondensation <u>Takuya Hamamoto</u> , Takayuki Moroyose, Toshiaki Taniike 4148
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13:45	3D10	The Polycondensation Method of Elastin-Type Peptide by Using Microwave and Its Function <u>Mitsuaki Goto</u> , Takeshi Endo 4150
14:10	3D11	Preparation of Aromatic Polyesters by Boronic Acid-catalyzed Polymerization under Nonstoichiometric Condition -Kinetic consideration- Masahiro Kihara, Yuma Sakakiyama, Shinichi Yamazaki, <u>Kunio Kimura</u> 4152
K. Kimura, presiding		
14:35	3D12	Selective extraction of cyclic oligomer from direct polycondensate of L-lactic acid and its interaction with metal ions <u>Ryugo Shinmura</u> , Keiichiro Nomura, Yuji Aso, Hitomi Ohara 4154
15:00	3D13	Synthesis and Properties of Donor-Acceptor Type Conjugated Polymers Containing Isoindigo Framework in the Main Chain <u>Takaya UCHIYAMA</u> , Shinya NAKANO, Shino INUZUKA, Yasuhiro KAWAGUCHI, Kazuhiro YAMABUKI, Kenjiro ONIMURA 4156
15:25	3D14	Synthesis and Particlization of Conjugated Polymers Consisting of 3-Substituted Thiophene and Fluorene Derivatives <u>Manato SUZUKI</u> , Shinya NAKANO, Shino INUZUKA, Yasuhiro KAWAGUCHI, Kazuhiro YAMABUKI, Kenjiro ONIMURA 4158

Room E

Wed. Sep 24

S2. Structure Construction of Fusion Materials with New Functions through Molecular Control

9:50	1ESO	Introductory Remarks <u>Chikara Ohtsuki</u> , Yutaka Takaguchi 4444
A. Narutaki, presiding		
10:00	1E03	Development of Organic/Inorganic Hybrids with Hierarchical Structures Inspired by Mineralized Cuticles of Organisms <u>Shunichi Matsumura</u> , Satoshi Kajiyama, Tatsuya Nishimura, Takashi Kato 4445
10:25	1E04	Crystallization of hydroxyapatite in lyotropic liquid crystalline phases with simulated body fluid as crystal growth field <u>Kengo Nagaoka</u> , Hiroki Higuchi, Yasushi Okumura, Chikara Ohtsuki, Tatsuya Nishimura, Takashi Kato, Hirotsugu Kikuchi 4447
10:50	1E05	Effect of Polyelectrolyte Additives on Hydroxyapatite Deposition from Simulated Body Fluids <u>Mineo HASHIZUME</u> , Masamichi NAKAYA, Takaaki IZUMI, Ruriko IMAIZUMI, Keisuke SUZUKI, Kazutoshi IJIMA 4449
11:15	1E06	Adsorption behaviors of albumin and fibronectin on hydroxyapatite and alumina <u>Masakazu Kawashita</u> , Maki Hasegawa, Junpei Hayashi, Tada-aki Kudo, Hiroyasu Kanetaka, Toshiki Miyazaki, Masami Hashimoto 4451
11:40	1E07	Design of metal nanoparticle binding peptides using spot-synthesized peptide array <u>Mina Okochi</u> 4453
H. Higuchi, presiding		
12:55	1E08	Lyotropic liquid crystal materials designed for the vertical alignment of organic-inorganic hybrid nanostructures <u>Mitsuo Hara</u> , Shusaku Nagano, Takahiro Seki 4455
13:20	1E09	Preparation of Organic-Inorganic Composite Materials Using Polyhedral Polymer Gel <u>Kenta Kokado</u> , Yumi Mochizuki, Chihiro Oka, Takumi

		Ishiwata, Kazuki Sada	4457
13:45	1E10	Preparation and Characterization of Semiconductor Nanocrystal-Ionic Liquid Fusion Material <u>Takuya NAKASHIMA</u> , Midori MORI, Tsuyoshi KAWAI	4459
		Y. Takaguchi, presiding	
14:10	1E11	Creation of New Organic Thermoelectric Materials by Interfacing Carbon Nanotubes with Organic Complexes <u>Naoki TOSHIMA</u> , Keisuke OSHIMA, Yosuke OHKAWAUCHI, Yukihide SHIRAIISHI	4461
14:35	1E12	π -Conjugated Materials Fused with Redox Mediation Capabilities for Rechargeable Devices <u>Kenichi Oyaizu</u> , Hiroyuki Nishide	4463
15:00	1E13	Preparation of elastic artificial xylem with water resistance by ice-templating <u>Zhengze Pan</u> , Hirotomo Nishihara, Shinichiroh Iwamura, Takafumi Sekiguchi, Akihiko Satoh, Takashi Kyotani	4465
15:25	1E14IL	Synthesis of Endofullerenes Encapsulating Molecules by Chemical Transformation of the Cage <u>Yasujiro Murata</u>	4467
		K. Oyaizu, presiding	
16:15	1E16	Luminescent Fusion Materials of Pearl Proteins with Europium Complex <u>Chisaki Yamada</u> , Ayumi Ishii, Tomohisa Ogawa, Miki Hasegawa	4470
16:40	1E17	Fabrication of Biomimetic Scaffold Containing Elastin-Like Polypeptides <u>Ayae Narutaki</u> , Duc H. T. Le, Shintaro Oshiro, Tatsuya Okubo, Chikara Ohtsuki	4472
17:05	1E18	Preparation of polysaccharide-magnetite hybrid microspheres <u>Toshiki Miyazaki</u> , Yuki Shirosaki, Masakazu Kawashita	4474
17:30	1E19	Synthesis of Carbon Nanotube/Calcium Salt Hybrids Using Poly(amidoamine) Dendrimer Having 1,10-Bis(decyloxy)decane Core <u>Yutaka TAKAGUCHI</u> , Tatsuki HASEGAWA, Tomoyuki TAJIMA	4476

Thu. Sep 25

S2. Structure Construction of Fusion Materials with New Functions through Molecular Control

		Y. Takashima, presiding	
9:10	2E01	Creation of thixotropic molecular hydrogels by mixing low-molecular-weight hydrogelators <u>Yutaka Ohseido</u> , Masashi Oono, Kowichirou Saruhashi, Hisayuki Watanabe	4478
9:35	2E02	Development of stimuli-responsive supramolecular hydrogel <u>Masamichi Yamanaka</u> , Kazushige Yanai	4480
10:00	2E03	Drug release from supramolecular hydrogels formed by positively charged L-lysine gelator with a drug as a counter anion. <u>Ryosuke SUZUKI</u> , Kenji HANABUSA, Masahiro SUZUKI	4482
		M. Yamanaka, presiding	
10:25	2E04	Preparation of Organogels through Self-Assembly of α -Cyclodextrin Nanostructures <u>Ayumi TERAGAKI</u> , Toshiyuki KIDA, Mitsuru AKASHI	4484
10:50	2E05	Observation of selective macroscopic self-assembly using hydrogels through non-covalent bond and its regulation <u>Yoshinori Takashima</u> , Masaki Nakahata, Shoko Mori, Akira Harada	4486
11:15	2E06	Preparation of Fusion Materials Composed of Molecule-Responsive Gels and Gold Nanoparticles and Their Molecular Recognition Behavior <u>Masaya YAMADA</u> , Yuki MATSUBARA, Masanori TAKEE, Akifumi	

		KAWAMURA,Tadashi URAGAMI,Takashi MIYATA	4488
11:40	2E07	Preparation and functional control of fusion materials of AuNP and dynamic DNA origami architectures <u>Yuichi Ohya</u> ,Masashi Kaino,Ryosuke Watanabe,Akinori Kuzuya	4490
		M. Kobayashi, presiding	
12:55	2E08	Hydroxyapatite Formation on Organic Polymer Substrates in Solution Mimicking Inorganic Composition of Blood Plasma <u>Chikara Ohtsuki</u> ,Ayae Narutaki,Seira Moriya,Il Yong Kim,Toshiki Miyazaki	4492
13:20	2E09	Controlling Factors on the Hierarchical Macroscopic Organization of Inorganic Nanosheet Liquid Crystals <u>Teruyuki Nakato</u> ,Yoshihiro Nono,Emiko Mouri	4494
13:45	2E10	Study on Amorphous-to-Crystal Transformation of MOF inspired by the Crystallization of Calcium Phosphate <u>Satoshi Horike</u>	4496
		K. Kokado, presiding	
14:10	2E11	Photoluminescence switching of fluorescent anionic dye with Fe-based organic/metallic hybrid polymer <u>Takahiro Suzuki</u> ,Takashi Sato,Jian Zhang,Masayoshi Higuchi,Hideyuki Maki	4498
14:35	2E12	Reversible Size Control of Liquid Metal Nanoparticles under Ultrasonication <u>yu mashima</u> ,tomokazu iyoda,akihisa yamaguchi	4500
15:00	2E13	Metal nanostructures fabricated by alloying and dealloying of gallium <u>Akihisa Yamaguchi</u> ,Tomokazu Iyoda	4502
		T. Miyazaki, presiding	
15:25	2E14	Crystal Growth of Titania and Magnetite Particles Using Molecular Control Agents and Their High-Functionalities <u>Makoto Kobayashi</u> ,Junki Sato,Minoru Osada,Hideki Kato,Masato Kakihana	4504
15:50	2E15	Fabrication and optical property of structurally colored secondary particles by rotary stirring method <u>Motoki SUZUKI</u> ,Masanori IWATA,Midori TESHIMA,Yukikazu TAKEOKA,Takahiro SEKI	4506
16:15	2E16	Preparation of Fusion Materials Using Molecular Assemblies Formed by Amphiphilic Molecules and their Novel Functionality <u>Hideki Sakai</u> ,Takeshi Endo,Kanjiro Torigoe	4508
		C. Ohtsuki, presiding	
16:40	2E17IL	Structural Control and Functionalization of Monolithic Porous Materials in Organo-polysiloxane Systems <u>Kazuki Nakanishi</u> ,Kazuyoshi Kanamori,Gen Hayase	4510

Fri. Sep 26

S2. Structure Construction of Fusion Materials with New Functions through Molecular Control

M. Hara, presiding

9:10	3E01	Precision Synthesis of Block Copolymers Containing Primary Amine Groups Towards the Directed Formation of Well-Defined Silica Nanomaterials <u>Kira Landenberger</u> ,Yu Shinke,Yukari Oda,Sachio Tsuboike,Arihiro Kanazawa,Shokyoku Kanaoka,Sadahito Aoshima,Ayae Sugawara-Narutaki,Tatsuya Okubo,Atsushi Shimojima	4513
9:35	3E02	Chiral silica induced by complexes consisted of comb-like	

		polyethyleneimine and tartaric acid <u>Dong-Dong Yao</u> ,Ren-Hua Jin4515
10:00	3E03	Effects of metal loading and magnetic field strength on alignment of noncrystalline block copolymers doped with metal complexes <u>Hiroaki Wakayama</u> ,Hiroataka Yonekura,Masashi Harada4517
		S. Kanaoka, presiding
10:25	3E04	Fabrication of Integrated Au Nanostructures via Block Copolymer Template <u>Hideaki Komiyama</u> ,Tomokazu Iyoda,Takanobu Sanji.....4519
10:50	3E05	Development of side chain polymers and its self-assembled structures for creating the polar functional group surfaces <u>Teruaki Hayakawa</u> ,Suguru Ushiro,Rina Maeda4521
11:15	3E06	Influence of Sequential Ordering on Morphology of Poly(amide imide) Crystals by Reaction-induced Crystallization during Polymerization Ryota Adachi,Shinichi Yamazaki,tetsuya Uchida, <u>Kunio Kimura</u>4523
11:40	3E07	Direct measurement of the end-to-end distance of polymer chains solubilized in a polymer monolayer Fumiki Honma, <u>Jiro Kumaki</u>4525
		Y. Ikeda, presiding
12:55	3E08	Fabrication of organic-inorganic hybrids using porous calcium phosphate ceramics <u>Yuko Takeoka</u> ,Shingo Sato,Hanae Wakabayashi,Masahiro Fujita,Masahiro Rikukawa.....4527
13:20	3E09	Control of biointerface by micro-phase separation of PLLA copolymers (V) -Protein adsorption properties- <u>Hirona Iwane</u> ,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa4529
13:45	3E10	Preparation and cytocompatibility of chitosan-siloxane hybrid hydrogels <u>Yuki Shirosaki</u> ,Satoshi Hayakawa,Akiyoshi Osaka4531
		Y. Takeoka, presiding
14:10	3E11	Functional evaluation as a biomaterial and design of organic- inorganic hybrid nanogel <u>Riku Kawasaki</u> ,Kiyofumi Katagiri,Takeshi Nagasaki,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi4533
14:35	3E12	Neutron capture effect of yttrium orthoborate/cyclodextrin complex on tumor suppression <u>Takeshi Nagasaki</u> ,Shunsuke Iizuka,Koji Tomita,Shin-ichiro Masunaga,Koji Ono,Mitsunori Kirihata4535
15:00	3E13	Construction of organic-inorganic hybrid nanoparticle possessing anti-inflammatory activity for the efficient oral drug delivery <u>Yutaka Ikeda</u> ,Md. Amran Hossain,Long Binh Vong,Yukio Nagasaki.....4537

Room F

Wed. Sep 24

S3. Preparation and Functions of Polymeric Materials Based on Element-Blocks

9:50	1FSO	Introductory Remarks <u>Kimihiro Matsukawa</u> ,Yoshiro Kaneko.....4539
		Y. Kaneko, presiding
10:00	1F03	Synthesis and properties of polymers from bifunctional hexaisobutyl POSS derivatives <u>Takayuki Maegawa</u> ,Yasuyuki Irie,Kazuyoshi Tanaka,Hiroyuki Fueno,Kensuk Naka4540

10:25	1F04	Synthesis of new polymeric materials based on cage silsesquioxanes as element-blocks <u>Takahiro Gunji</u> 4542
10:50	1F05	Reversible cross-linking of POSS-containing polymers by dynamic cage scrambling reaction <u>Kousuke Tsuchiya, Yoshihito Ishida, Atsushi Kameyama</u> 4544
T. Gunji, presiding		
11:15	1F06	Toward Design of Magnetic Polymer Including POSS Block <u>Kazuyoshi Tanaka, Hiroyuki Fueno, Kensuke Naka</u> 4546
11:40	1F07	Ionic element block polymers based on polyhedral silsesquioxanes <u>Jun Matsui, Misaki Takeda, Takahiro Ogawa, Masaya Mitsuishi, Tokuji Miyashita</u> 4548
K. Naka, presiding		
12:55	1F08	Aggregation States and Platelet Adhesion Property of Polyhedral Oligomeric Silsesquioxane-Based Polymer Films <u>Ryota Tsukamoto, Kentaro Yamamoto, Yukari Oda, Tomoyasu Hirai, Hisao Matsuno, Keiji Tanaka</u> 4550
13:20	1F09	Fabrication of ultra-thin SiO ₂ films on flexible substrates from silsesquioxane based polymer nano sheets <u>Shunsuke Yamamoto, Kazuki Sonobe, Masaya Mitsuishi, Tokuji Miyashita</u> 4552
13:45	1F10	Sol-gel synthesis and characterization of ionic liquid containing silsesquioxane framework <u>Takuhiko Ishii, Toshiaki Enoki, Tomonobu Mizumo, Joji Ohshita, Yoshiro Kaneko</u> 4554
I. Tomita, presiding		
14:10	1F11	Surface properties of methacrylate copolymer with poly(dimethyl siloxane) side chains <u>Takashi Nishino, Miura Kyoko, Kawasaki Motoko, Takano Kiyofumi</u> 4556
14:35	1F12	Synthesis and Properties of Optically Active Conjugated Polymers Containing Late Transition Metals in the Main Chain <u>Yu MIYAGI, Fumio SANDA</u> 4558
15:00	1F13	Vapor-Phase Polymerization of Element Block Monomers toward High Ordered Structures <u>Takeo Suga, Ryota Nakajima, Hiroyuki Nishide</u> 4560
F. Sanda, presiding		
15:25	1F14	Synthesis and Properties of Novel Electron-Deficient Conjugated Systems Based on o-Carborane <u>Hirofumi Naitou, Yasuhiro Morisaki, Yoshiki Chujo</u> 4562
15:50	1F15	Synthesis of Organoboron-Containing Polymers Possessing Aggregation-Induced Emission Properties <u>Kazuo Tanaka, Ryousuke Yoshii, Yoshiki Chujo</u> 4564
16:15	1F16	Chain-Growth Polymerization of Silyl-Substituted Pi system <u>Takanobu Sanji, Tomokazu Iyoda</u> 4566
K. Tanaka, presiding		
16:40	1F17	Design of Poly(Silane/Borane) as "sigma-p" conjugated polymers <u>Noriyoshi Matsumi, Puhup Puneet, Raman Vedarajan</u> 4568
17:05	1F18	Photoelectrochemical water splitting using BIAN based conjugated polymer-ruthenium complex <u>Raman Vedarajan, Rohit Gagan Kumar, Noriyoshi Matsumi</u> 4570
17:30	1F19	Synthesis and Functions of π -Conjugated Polymers Containing Heavier Group 16 Elements in the Main Chain by Reactions of Organometallic Polymers Having Titanacyclopentadiene Units <u>Hiroki Nishiyama, Yusuke Komatsuzaki, Hiroyuki Fueno, Kazuyoshi</u>

		Tanaka, Shinsuke Inagi, Ikuyoshi Tomita 4572
17:55	1F20	Simultaneous Synthesis of π -Conjugated Polymers Possessing Multiple Elements-blocks by Reactions of Organometallic Polymers Having Titanacyclopentadiene Moieties with Plural Reagents <u>Yoshimasa Matsumura</u> , Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita 4574

Thu. Sep 25

S3. Preparation and Functions of Polymeric Materials Based on Element-Blocks

T. Kida, presiding

9:10	2F01	Hierarchical Construction and Functionalization of Porous Organic composed of Supramolecular Blocks <u>NORIMITSU TOHNAI</u> , ATSUSHI YAMAMOTO, ICHIRO HISAKI, MIKIJI MIYATA 4576
9:35	2F02	Development of near-IR luminescent material based on supramolecular multiporphyrin arrays <u>Mitsuhiko Morisue</u> , Yuki Hoshino, Masaki Shimizu, Yasuhisa Kuroda, Jun Matsui, Takayuki Nakanishi, Yasuchika Hasegawa, Shinobu Uemura, Jiro Hoshiba, Sono Sasaki, Shinichi Sakurai 4578
10:00	2F03	Synthesis and Properties of Element-Block Supramolecular Polymers <u>Takeharu Haino</u> , Kanashi Kinjo, Takehiro Hirao 4580

M. Morisue, presiding

10:25	2F04	Development of Functional Materials Fabricated from Element Blocks based on N-Heteroacene Framework <u>Kyosuke ISODA</u> , Makoto TADOKORO 4582
10:50	2F05	Preparation of Nanotubes from Nanocapsules Composed of Poly(vinyl alcohol) Multilayered Films <u>Toshiyuki KIDA</u> , Tomoya OHTA, Kenta KONDO, Mitsuru AKASHI 4584
11:15	2F06	Preparation of nanosheets/polymer hybrids using layered perovskite HLaNb ₂ O ₇ -xH ₂ O modified by branched fluoroalcohol <u>Kaori Kimura</u> , Yuta Asai, Naokazu Idota, Kimihiro Matsukawa, Yoshiyuki Sugahara 4586
11:40	2F07	Edge-selective immobilization of Metallic Nanoparticle Using Cationic Polymer-grafted Graphene Nanoparticle <u>Tomonari Kanasugi</u> , Hiroshi Endo, Takeshi Kawai 4588

R. Saito, presiding

12:55	2F08	Preparation of Photo-cured Thin Films by using Polymerizable Titania Nanoparticles and Their Properties <u>Kimihiro Matsukawa</u> , Ryota Imura, Koji Mitamura, Seiji Watase, Noboru Nishioka 4590
13:20	2F09	Novel Preparation of Epoxide Based Organic-Inorganic Nano-Hybrid Optical Materials <u>Kazushi Enomoto</u> , Moriya Kikuchi, Atsushi Narumi, Seigou Kawaguchi 4592
13:45	2F10	Heterojunction solar cell between titanium dioxide nanoparticle-high dielectric composites and Si <u>Akira Watanabe</u> , Toru Yumoto, Toshiyuki Hirano 4594

K. Matsukawa, presiding

14:10	2F11IL	Synthesis and Specific Interfacial Properties of Nanoparticle Element Blocks <u>Toshiharu Teranishi</u> 4596
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A. Watanabe, presiding

15:00	2F13	Direct incorporation of size controlled gold nanoparticles into PEG
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		and their photo property <u>Tetsu Yonezawa</u> , Taiki Sumi, Naoto Shirahata.....	4599
15:25	2F14	Creation and Function of Polymer Nanotubes from Inorganic Nanoparticle Element-Blocks <u>hisashi fujihara</u>	4601
15:50	2F15	Preparation of Photo-Responsive Organic-Inorganic Hybrid Films with Homogeneously Dispersed Metal Nanoparticles and Their Surface Patterning Properties <u>Nobuhiro AKIOKA</u> , Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA.....	4603
H. Fujihara, presiding			
16:15	2F16	Synthesis of silica shell type particles with perhydropolysilazane Hoshifumi Kanahara, Seigou kawaguchi, <u>Reiko Saito</u>	4605
16:40	2F17	Tuning of electrical property of single-walled carbon nanotube via atom encapsulation <u>Tsuyohiko Fujigaya</u> , Takahiro Fukumaru, Naotoshi Nakashima.....	4607
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Fri. Sep 26

S3. Preparation and Functions of Polymeric Materials Based on Element-Blocks

T. Uemura, presiding

9:10	3F01	Modular Synthesis of Multinuclear Heterometallic Macromolecules Kappamveetil Sajna, Alejandro Fracaroli, Omar Yaghi, <u>Kentaro Tashiro</u>	4611
9:35	3F02	Synthesis of Organic-Metallic Hybrid Polymers by Electropolymerization <u>Masayoshi Higuchi</u>	4613
10:00	3F03	Self-assembly of metal complexes via diblock copolypeptide amphiphiles <u>Keita Kuroiwa</u> , Tsubasa Arie, Yuya Ishimaru, Shinya Hayami.....	4615

M. Higuchi, presiding

10:25	3F04	Controlled Release of Guest Molecules from Stimuli-Responsive Polymer-Modified MOF using Coil-Globule Transition <u>Shunjiro Nagata</u> , Kenta Kokado, Kazuki Sada.....	4617
10:50	3F05	Compatibilization of Polymer Blends Using Metal-Organic Frameworks <u>Takashi Uemura</u> , Tetsuya Kaseda, Susumu Kitagawa.....	4619

K. Kokado, presiding

11:15	3F06	Ruthenium chloride gives adhesion of polymer gels <u>Aki Goto</u> , Takashi Nakamura, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada.....	4621
11:40	3F07	Preparation of poly(phenazasilane) and use as a functional additive for resin. <u>Hideki Hayashi</u> , Kouji Iida, Masaki Harada.....	4623

J. Ohshita, presiding

12:55	3F08	Development of Biofunctional Hybrid Nanogels for Potential Biomedical Applications <u>Yoshihiro Sasaki</u> , Sada-atsu Mukai, Shinichi Sawada, Kazunari Akiyoshi.....	4625
13:20	3F09	Photoacoustic tumor imaging utilizing hydrophobic dye-containing polymeric self-assemblies <u>Tatsuhiko Inoue</u> , Koji Miki, Hideki Matsuoka, Fumio Yamauchi, Tetsuya Yano, Kouichi Ohe.....	4627
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		<u>Kyosuke Watanabe</u> , Akio Takahashi, Toshiyuki Oyama.....	4629
14:10	3F11	Syntheses and Properties of Boron Containing Polymers <u>Yuko Uchimar</u> , Hiroshi Yamashita, Li-Biao Han.....	4631
		T. Oyama, presiding	
14:35	3F12	Polymerization of element-blocks using diazocarbonyl groups: palladium-mediated polymerization of diazoacetates having functionalized cyclophosphazene groups <u>hiroaki Shimomoto</u> , Hironori Asano, Tomomichi Itoh, Eiji Ihara	4633
15:00	3F13	Preparation of membranes from bridged alkoxysilanes with a parabanic acid unit, for water separation <u>Haruna Muragishi</u> , Joji Ohshita, Toshinori Tsuru	4635
15:25	3F14	Synthesis and optical properties of silyl-substituted H-shaped compounds <u>Akinobu Naka</u> , Joji Ohshita.....	4637

Room G

Wed. Sep 24

S4. Polymers and Supramolecules based on Accumulated π -Electron Systems

9:50	1GSO	Introductory Remarks <u>Tamaki Nakano</u>	4657
		I. Tomita, presiding	
10:00	1G03	Intramolecular Transfer Properties of Transition Metal Catalysts and Block Copolymerization Behavior in Catalyst-Transfer Condensation Polymerization <u>Masataka NOJIMA</u> , Koichiro MIKAMI, Yui MASUMOTO, Yoshihide MIZUKOSHI, Hajime SATO, Yoshihiro OHTA, Masanobu UCHIYAMA, Tsutomu YOKOZAWA.....	4658
10:25	1G04	Analyzing Elemental Steps on Catalyst Transfer Condensation Polymerization with a DFT calculation <u>Koichiro MIKAMI</u> , Yui MASUMOTO, Yoshihide MIZUKOSHI, Hajime SATO, Masataka NOJIMA, Tsutomu YOKOZAWA, Masanobu UCHIYAMA.....	4660
10:50	1G05	Polymerization of ortho-aryne <u>Koichiro MIKAMI</u> , Yoshihide MIZUKOSHI, Masanobu UCHIYAMA.....	4662
		K. Mikami, presiding	
11:15	1G06	Synthesis of Versatile Elements-block-containing π -Conjugated Polymers <u>Ikuyoshi Tomita</u> , Yoshimasa Matsumura, Jonghyoek Lee, Takeru Suto, Hiroki Nishiyama, Shinsuke Inagi	4664
11:40	1G07	Formal Aryne (Co)Polymerization to Form Novel ortho-Arylene Polymers <u>Wenhan Wang</u> , Keisuke Takahashi, Shingo Ito, Kyoko Nozaki.....	4666
		S. Asaoka, presiding	
12:55	1G08	Precise synthesis of optoelectronic polymers by RAFT polymerization of S-vinyl sulfides having thiazole and thiadiazole rings and metal complexation <u>Matsumura Aiko</u> , Kazuhiro Nakabayashi, Hideharu Mori	4668
13:20	1G09	A General Strategy for Controlled Synthesis of Porous Organic Polymer Thin Films <u>Cheng Gu</u> , Donglin Jiang	4670
13:45	1G10	High-density assembly of amphiphilic homopolymer with carbazole groups <u>Nanae Nishina</u> , Shunsuke Yamamoto, Masaya Mitsuishi, Tokuji Miyashita	4672

T. Haino, presiding

14:10	1G11	Construction of well-organized assemblies of dendrimers with conjugated backbones <u>Masatoshi Kozaki</u> , Saori Nishioka, Shirou Morita, Shuichi Suzuki, Keiji Okada.....	4674
14:35	1G12	Development of ionene polymers with imidazolium derivatives <u>Tomohiro Inada</u> , Tsutomu Ono.....	4676
15:00	1G13	Phase-segregated Nanostructure in Thin Film of Amphiphilic Diblock Copolymers Having Liquid Crystalline Organic Semiconductor Mesogens in Side Chain <u>Saki Tsujimura</u> , Masatoshi Ootonari, Tomoe Tanaka, Sadayuki Asaoka	4678

D. Jiang, presiding

15:25	1G14	Self-assembly and Optical Properties of Photo-functional Molecules Possessing Phenylisoxazolyl Units <u>Takeharu Haino</u> , Midori Takayama, Tatsuya Iijima, Toshiaki Ikeda, Ryo Sekiya.....	4680
15:50	1G15	Design of Discotic Liquid Crystalline Organic Semiconductors with Immiscible Side Chain Pairs <u>Yusuke Tsutsui</u> , Tsuneaki Sakurai, Shu Seki.....	4682
16:15	1G16	Highly-Efficient Plastic Solar Cells Based on Conjugated Polymer/Polymer Blend Films <u>Hiroaki Benten</u> , Daisuke Mori, Izumi Okada, Hideo Ohkita, Shinzaburo Ito.....	4684

H. Mori, presiding

16:40	1G17	Vertically aligned polyacetylene films synthesized in spontaneously vertical-aligned liquid crystal polymerization field <u>Hiromu Horikawa</u> , Satoshi Matsushita, Kazuo Akagi	4686
17:05	1G18	Phase behaviour and charge transport properties of novel perfluoroalkylated phthalocyanine/fullerene systems: how fluorophilic/phobic interactions work for the optimisation of carrier transport <u>Lydia Sosa-Vargas</u> , Yo Shimizu, Fabien Nekelson, Daiju Okuda, Minokazu Takahashi, Hiroyuki Yoshida, Akihiko Fujii, Masanori Ozaki.....	4688
17:30	1G19	Selective Recognition of Long Hydrocarbons by A Molecular Tube with Multi-Anthracene panels <u>Kohei Yazaki</u> , Yoshihisa Sei, Michito yoshizawa, Munetaka Akita	4690
17:55	1G20	Construction of Hydrogen-Bonded Low Density Hexagonal Networks Based on pi-Conjugated Macrocycles <u>Ichiro Hisaki</u> , Shoichi Nakagawa, Norimitsu Tohnai, Mikiji Miyata	4692

Thu. Sep 25**S4. Polymers and Supramolecules based on Accumulated π -Electron Systems****K. Takagi, presiding**

9:10	2G01	Synthesis of Helical Aromatic Conjugated Copolymers in Asymmetric Liquid Crystal Reaction Field with Thermally Switchable Helical Sense <u>Kazutoshi Tsuboi</u> , Tomohiro Yamashita, Sangbum Ahn, Kazuo Akagi	4694
9:35	2G02	Preparation of Uniaxial Orientation Polymer Films by Smectic Liquid Crystal Magnetic Electrochemical Polymerization <u>Hiroki Hayashi</u> , Kosuke Kawabata, Shigeki Nimori, Hiromasa Goto.....	4696
10:00	2G03	Synthesis of Network Polymers with Helical Structure and Morphology by Photopolymerization in Chiral Nematic Liquid Crystal Reaction Field. <u>Tianjiao Yu</u> , Jinwoo Park, Kazuo Akagi	4698

10:25	2G04	Chiral induction on ionic aromatic conjugated polymers using polar chiral compounds <u>Takumi Oshima</u> , Kazuyoshi Watanabe, Kazuo Akagi.....4700
T. Aoki, presiding		
10:50	2G05	Synthesis and Properties of Optically Active Carbon-rich Compounds Consisting of Stacked π -Electron Systems <u>Yasuhiro Morisaki</u> , Masayuki Gon, Kenichi Inoshita, Yoshiki Chujo.....4702
11:15	2G06	Helical Assemblies between Liquid Crystalline Conjugated Polymers and Chiral Compounds <u>Shunsuke Kondo</u> , Kazuyoshi Watanabe, Kazuo Akagi.....4704
11:40	2G07	π -Stack formed between the side chains of helical substituted aromatic polyacetylene <u>Yasuteru Mawatari</u> , Asahi Motoshige, Ranko Motoshige, Yoshiaki Yoshida, Takahiro Sasaki, Masayoshi Tabata4706
T. Nakano, presiding		
12:55	2G08IL	Design of π -Electronic Supramolecular and Polymer Assemblies: From Serendipity to Certainty <u>Takanori Fukushima</u>4708
E. Yashima, presiding		
13:45	2G10	Absolute Asymmetric Generation of π -Conjugative Polymers: The Effects of Circularly Polarized Light Wavelengths <u>MICHIYA FUJIKI</u> , YURI DONGURI, KANA YOSHIDA, AYAKO NAKAO.....4711
14:10	2G11	Chirality induction to p-electron systems using circularly polarized light <u>Tamaki Nakano</u> , Yue Wang, Shiqi Wang, Naofumi Naga, Yasuhito Koyama.....4713
14:35	2G12	Helix-sense-selective photodegradation (HSSD) of racemic cis-cisoidal polyphenylacetylene by highly selective photocyclic aromatization (SCAT) with circularly polarized light <u>Mari Miyata</u> , Masahiro Teraguchi, Takashi Kaneko, Toshiki Aoki.....4715
M. Fujiki, presiding		
15:00	2G13	Guest-binding Ability of a Double-Stranded Boron Helicate and Its Application <u>Shinya YAMAMOTO</u> , Hiroki IIDA, Eiji YASHIMA4717
15:25	2G14	Controlled alignment of π -electron system utilizing tertiary aromatic polyamide as the scaffold <u>Koji TAKAGI</u>4719
15:50	2G15	Order-N electronic structure calculations of natural and artificial DNAs towards their functional design <u>Yuuichi Orimoto</u> , Yuki Kawamura, Kai Liu, Yuriko Aoki.....4721
H. Ohkita, presiding		
16:15	2G16	Design and Semiconducting Properties of Electron-Donor/Acceptor Discotic Blends Using Shish-Kebab-Shaped Phthalocyanine Polymers <u>Tsuneaki Sakurai</u> , Satoru Yoneda, Shu Seki.....4723
16:40	2G17	Design and Electronic Property of Novel Photoconductive Brush Polymers Based on Shish-Kebab-Shaped Phthalocyanine Polymer as Main Chains <u>Satoru Yoneda</u> , Tsuneaki Sakurai, Shu Seki.....4725
17:05	2G18	Step- π -conjugated polymer as macromolecular wire and application for artificial photosynthesis <u>Hiroyuki Aota</u> , Akira Murata, Kouken Kaku, Tsuyoshi Kobayashi, Rie Nakabayashi, Sayaka Matsumoto, Kohei Watanabe, Daichi Ohshima.....4727

Fri. Sep 26

S4. Polymers and Supramolecules based on Accumulated π -Electron Systems

H. Aota, presiding

- 9:10 3G01 Triplet Energy Migration and Photon Upconversion in Ordered Arrays of π -Conjugated Moieties
Nobuhiro Yanai, Prasenjit Mahato, Angelo Monguzzi, Nobuo Kimizuka 4729
- 9:35 3G02 Reversible Multi Fluorescent Colors Change Produced by a Pyrene Derivatives with Six Alkyl Chains
Hiroyuki Takiguchi, Yohei Miwa, Shoichi Kutsumizu 4731

S. Seki, presiding

- 10:00 3G03 Self-assembled π -conjugated polymer spheres as fluorescent micro-resonators
Kenichi Tabata, Daniel Braam, Soh Kushida, Liang Tong, Jyunpei Kuwabara, Takaki Kanbara, Axcel Lorke, Yohei Yamamoto 4733
- 10:25 3G04 Phase Separation Behavior of Conductive Polymer Blends Formed in Super Fine Droplets prepared by the Subfemto-liter Inkjet Method
Tasuku Mizuno, Mitsuo Hara, Shusaku Nagano, Takahiro Seki 4735

Room H

Wed. Sep 24

S5. Novel Development of Sustainable Polymers

- 9:50 1HSO Introductory Remarks
Takeshi Serizawa 4737

H. Otsuka, presiding

- 10:00 1H03 Living Radical Polymerization with Iron (Fe) Complex Catalysts toward Sustainable Catalysis
Makoto Ouchi, Keita Nishizawa, Kojiro Fujimura, Kohei Kuraoka, Elijah Bultz, Mitsuo Sawamoto 4738
- 10:25 1H04 Living Cationic Polymerization and Copolymerization of Naturally-Occurring 4-Vinylguaiaicol as Vinylphenol Monomers
Hisaaki TAKESHIMA, Kotaro SATOH, Masami KAMIGAITO 4740

M. Kamigaito, presiding

- 10:50 1H05 Control of Degradation Property of Epoxide/Carbon Dioxide Copolymers by Introduction of Functional Groups on the Side Chain
Rika Tanno, Koji Nakano 4742
- 11:15 1H06 Synthesis and Properties of Carbon-Dioxide-Derived Comb-Like Copolymers
Satoshi Honda, Hiroshi Sugimoto 4744
- 11:40 1H07 Polymer Modification Based on Catalyst- and Solvent-free Click Reaction
Shunsuke Monjiyama, Chen-Gang Wang, Satoshi Uchida, Toshikazu Takata 4746

S. Kawahara, presiding

- 12:55 1H08 Synthesis of photoresponsive poly(N-vinylacetamide) bearing coumarin derivative
Hiroharu Ajiro, Mitsuru Akashi 4748
- 13:20 1H09 Design of Self-healing Polymers Based on Autonomously Exchangeable Dynamic Covalent Bonds
Keiichi Imato, Takahiro Kosuge, Tomoyuki Ohishi, Atsushi Takahara, Hideyuki Otsuka 4750
- 13:45 1H10 Upgrade Recycle of PET - Synthesis of Aramide from PET by Using Reaction-induced Crystallization during Polymerization -

Hiroataka Ishihara, Shinichi Yamazaki, Kunio Kimura 4752

K. Nakano, presiding

14:10 1H11 Bromination of Natural Rubber Through Anodic Oxidation in Water
Process in the Presence of Carbon Dioxide
Yoshimasa Yamamoto, Yudai Yamamura, Seiichi Kawahara 4754

14:35 1H12 Mechanical Properties of Natural Rubber with Filler-nanomatrix
Seiichi Kawahara, Yoshimasa Yamamoto 4756

15:00 1H13 Stress distribution of filler-reinforced rubbers analyzed by nano-
palpation atomic force microscope
Makiko Ito, Xiaobin Liang, So Fujinami, Ken Nakajima 4758

K. Tanaka, presiding

15:25 1H14IL Advanced structural characterization for sustainable materials
Hiroshi Jinnai 4760

16:15 1H16 Synthesis of Slide-ring Material Focusing on Cross-link
Kohsuke Minato, Kazuaki Kato, Koichi Mayumi, Yasuhiro
Sakai, Hideaki Yokoyama, Kohzo Ito 4763

S. Yao, presiding

16:40 1H17 Surface segregation phenomenon and the liquid crystal structure
due to side chain liquid crystalline block copolymer
Koji Mukai, Mitsuo Hara, Shusaku Nagano, Takahiro Seki 4765

17:05 1H18 Design of Hyperbranched Polymers towards Control of Interfacial
Functions in Water
Ryo Awane, Yukari Oda, Hisao Matsuno, Norifumi Yamada, Masayuki
Haraguchi, Masaaki Ozawa, Nobutomo Tsuruzoe, Keiji Tanaka 4767

17:30 1H19 Local Dynamics and Blood-compatibility of Polymers at Water
Interface
Toyoaki HIRATA, Daisuke KAWAGUCHI, Hisao MATSUNO, Tomoyasu
HIRAI, Norifumi YAMADA, MASARU TNAKA, Keiji TANAKA 4769

Thu. Sep 25

S5. Novel Development of Sustainable Polymers

T. Miyata, presiding

9:10 2H01 Hydrolytic Activity of Cellulose Nanosheets Prepared by Enzymatic
Polymerization
Mari Kato, Toshiki Sawada, Takeshi Serizawa 4771

9:35 2H02 One-pot enzymatic synthesis of multiphase cellulose
nanostructures
Yusuke Yataka, Toshiki Sawada, Takeshi Serizawa 4773

H. Yabu, presiding

10:00 2H03 Preparation of Stimuli-Responsive Hydrogels That Enable Selective
Recognition and Separation of Bisphenol A
Akifumi Kawamura, Tadashi Uragami, Takashi Miyata 4775

10:25 2H04 Effect of Permeant Charge on Molecular Permeability of
Polysaccharide Composite Films
Takayuki Kimura, Tomoki Takahashi, Kazutoshi Iijima, Mineo Hashizume 4777

10:50 2H05 Fast Proton Conduction in Two Dimension by Designing Polymer
Interfaces Using the Langmuir-Blodgett Technique
Takuma Sato, Jun Matsui, Masaya Mitsuishi, Tokuji
Miyashita, Shusaku Nagano, Makoto Gemmei 4779

S. Nagano, presiding

11:15 2H06 Efficiently Disturbing Roughness Structures for Energy Saving
Youhei Kotsuchibashi, Mitsuhiro Ebara, Hongbo Zeng, Ravin

		Narain, Takao Aoyagi.....	4781
11:40	2H07	Preparation of block copolymer nano-structures by using dewetting and observation of their internal micro-phase separated structures <u>Yutaro Hirai, Takeshi Higuchi, Hiroshi Yabu</u>	4783

S11. Recent Development of Polymer Surface Modification and Advanced Analysis

12:45	2HSO	Introductory Remarks <u>Naoki Man, Kiminori Uchida</u>	5523
		N. Man, presiding	
12:55	2H08IL	Soft Interfaces: Unique Properties and Functions <u>Mizuo Maeda</u>	5524
		K. Tanaka, presiding	
13:45	2H10	Theoretical considerations of wetting phenomena: Young's relation, pinning effect, lotus and petal effects <u>Hiroyuki Mayama</u>	5527
14:10	2H11	Preparation and functional evaluation of RGDS peptide-polyvinylpyridine modified silica surface <u>Yoshiaki Hirano, Akinori Hattori, Ayaka Terada, Syuji Fujii</u>	5529
14:35	2H12	Evaluation of formation process of phase-separated polyester-polyester interfaces and influence of molecular weight on interfacial thickness <u>Norihiro Fukuri, Hiroto Hayashi, Katsutoshi Aoki, Toshiaki Ougizawa</u>	5531
		S. Fujii, presiding	
15:00	2H13	Effect of Terminal-modification on Aggregation States of Polystyrene at Solid Interfaces <u>Shinichiro Shimomura, Manabu Inutsuka, Hisao Matsuno, Koichiro Tajima, Masaaki Nabika, Satoru Moritomi, Keiji Tanaka</u>	5533
15:25	2H14	Study on melt rheology and crystallization of polymer nanofiber composite <u>Takahiko Kawai, Shin-ichi Kuroda, Hisato Hayashi, Takuma Nagahama, Yoshinori Kasai</u>	5535
15:50	2H15	Thermal conductivity of iPP/iPP grafted nano silica composite <u>Takahiko Kawai, Yoshizo Fukuyama, Shin-ichi Kuroda, Masahito Toyonaga, Toshiaki Taniike, Minoru Terano</u>	5537
		T. Kawai, presiding	
16:15	2H16	Amorphous Structure and Physical Properties of Polar Polymers at Interfaces <u>Yasuhiro Matsuda, Shigeru Tasaka</u>	5539
16:40	2H17	Soft Adhesive/Adhesive Transition of Plant-derived Polymers Depending on The Molecular Weight <u>Kazuma Kuroda, Shougo Kinugawa, Daisaku Kaneko, Siqian Wang</u>	5541
17:05	2H18	Automatic transport of Water Droplet and Development of SERS Sensing Film on Open Typed Superhydrophobic Wrinkle Chanel <u>Tamami Tsuji, Takeshi Kawai, Hiroshi Endo</u>	5543

Fri. Sep 26

S11. Recent Development of Polymer Surface Modification and Advanced Analysis

K. Uchida, presiding

9:10	3H01	Molecular dynamics simulations using supercomputer for the study of interfacial phenomena of adhesives. <u>Akira Shimazu, Yoshiaki Ito, Yoshihiro Minamizaki, Kazushi Fujimoto, Masaki Okada, Susumu Okazaki</u>	5545
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9:35	3H02	Refined analysis of molecular interaction forces and understanding of protein adsorption process on polymer surfaces <u>Sho Sakata</u> , Yuuki Inoue, Kazuhiko Ishihara 5547
10:00	3H03	A study of AFM force measurement and contact mechanics for evaluation of soft materials <u>So Fujinami</u> , Makiko Ito, Xaiobin Liang, Ken Nakajima 5549
10:25	3H04	Generation mechanism of adhesive strength with meniscus formation between silica-particle and rubber Hiroaki Iikura, <u>Toshiaki Ougizawa</u> 5551
T. Ougizawa, presiding		
10:50	3H05	Investigation of the release coating surfaces and the alkyl-terminated dewetting interfaces using sum-frequency generation spectroscopy <u>Takayuki Miyamae</u> 5553
11:15	3H06	Present status and future development of the GISAXS measurements at SPRing-8 <u>Hiroki Ogawa</u> , Mikihiro Takenaka, Tsukasa Miyazaki, Keisuke Shimokita, Katsuhiko Yamamoto, Akihiko Fujiwara, Masaki Takata 5555
11:40	3H07	Influence of Surface Free Energy and Alkyl Side Chains upon Crystallization Behaviors of Blends of Poly (3-alkylthiophene) and Fullerene Derivatives in Spin-coating Processes <u>Yuki Tsuji</u> , Ryosuke Hata, Jiro Hoshiba, Shinichi Sakurai, Takaaki Hikima, Hiroyasu Masunaga, Masaki Takata, Kohji Tashiro, Sono Sasaki 5557
12:55	3H08	Temperature Dependence of Crystallization Rate and Surface Tension of Poly(3-hydroxybutyrate) Thin Films <u>Jiro Hoshiba</u> , Ryosuke Hata, Yuki Tsuji, Shinichi Sakurai, Takaaki Hikima, Hiroyasu Masunaga, Masaki Takata, Atsushi Takahara, Tomoyasu Hirai, Sono Sasaki 5559
H. Ogawa, presiding		
13:20	3H09	Functionalization effects of a silsesquioxane cage on surface dynamics of thin films studied by X-ray photon correlation spectroscopy <u>Taiki Hoshino</u> , Daiki Murakami, Masanao Sato, Tomoyasu Hirai, Yuji Higaki, Hiroshi Jinnai, Atsushi Takahara, Masaki Takata 5561
13:45	3H10	Time Evolution of Component Depth Distribution for Polystyrene Blend Thin Films with Different Molecular Weights during Thermal Annealing <u>Naoya Torikai</u> , Kazuhiro Azuma, Norifumi Yamada, Masami Kawaguchi 5563
14:10	3H11	Chemical bonding and molecular structure analyses of perfluoropolyether thin film coated on glass <u>Yuko Tachibana</u> 5565
Y. Tsujii, presiding		
14:35	3H12	Polymer aggregates with thermo-responsive binary shells formed by electrostatic interactions <u>Shinichi Yusa</u> , Nagae Atsushi, Keita Nakai, Ryusuke Enomoto, Kazuhiko Ishihara, Yasuhiko Iwasaki 5567
15:00	3H13	Segregation of amphiphilic block copolymer and spontaneous formation of dynamic polymer brush <u>Kazuma Inoue</u> , Hideaki Yokoyama, Kohzo Ito, Manabu Inutsuka, Masato Shirakawa, Keiji Tanaka, Norifumi Yamada 5569
15:25	3H14	Polyethylene particle concentration dependence of the function of Thermal Rheological Fluid <u>Yusuke Hasebe</u> , Toru Okuma, Hiroshi Sekiguchi, Ryoko Nakano, Shigeru Yao 5571

Room I

Wed. Sep 24

S8. Understanding of Polymer basic Properties for Development of Polymer Materials

9:50	1ISO	Introductory Remarks <u>Katsuhiro Inomata</u> , Sumio Shibahara.....	5346
T. Sakai, presiding			
10:00	1IO3	Coloring Phenomena of Colloidal Crystal Films in Various Solvents <u>Chihiro Katsura</u> , Tatsunori Ito, Katsuhiro Inomata, Hideki Sugimoto, Eiji Nakanishi.....	5347
10:25	1IO4	Effect of cross-linking density on strain-responsive structural color change of colloidal crystal elastomer <u>Reimi Emoto</u> , Tatsunori Ito, Katsuhiro Inomata, Hideki Sugimoto, Eiji Nakanishi.....	5349
10:50	1IO5	Theoretical study of network formation and mechanical property of physical gel with well-defined junction structure <u>Hiroto Ozaki</u> , Tsuyoshi Koga.....	5351
T. Koga, presiding			
11:15	1IO6	Tough amphiphilic co-network gels with large elastic deformation region and energy dissipation mechanism <u>Shinji Kondo</u> , Chung Ung-il, Takamasa Sakai.....	5353
11:40	1IO7	Correlation of network inhomogeneity and breaking strength of thermosetting resin <u>Toshio Nakao</u> , Yasuyuki Shudou, Atsushi Izumi, Mitsuhiko Shibayama.....	5355
T. Shimomura, presiding			
12:55	1IO8	A Short Polymer Chain Walks Processively with the 3-nm Step along a Long Chain of a Synthetic Helical Polymer Driven by a Thermal Fluctuation in a Non-Aqueous Media <u>Ken-ichi Shinohara</u> , Yuu Makida.....	5357
13:20	1IO9	Structural analysis of fibers in unwoven fabrics based on 3d image observations <u>Yoshinori Yagi</u> , Kenji Urayama, Yukihiro Nishikawa.....	5359
13:45	1II0	Light Scattering Study of Hydrophobe-Uptake Micellization of an ionic surfactant <u>Ken Morishima</u> , Takahiro Sato.....	5361
H. Yoshimizu, presiding			
14:10	1II1	Solution structure of branched peptides and polymer-peptide complexes in terms of the theories for branched polymers <u>Ken Terao</u>	5363
14:35	1II2	Complex Formed by a Block Copolymer of 2-Ethyl-2-Oxazoline and Ethylene Oxide and Poly(Methacrylic Acid) <u>Yasuhiro Matsuda</u> , Yasunori Shiokawa, Moriya Kikuchi, Atsushi Tahakara, Shigeru Tasaka.....	5365
15:00	1II3	Dehydration and Self-Association of a Novel Thermosensitive Block Copolymer Poly(2-isopropyl-2-oxazoline)-b-Poly(N-isopropylacrylamide) in Water-Methanol Mixtures <u>Rintaro Takahashi</u> , Xing-Ping Qiu, Na Xue, Takahiro Sato, Ken Terao, Francoise M. Winnik.....	5367
S. Shibahara, presiding			
15:25	1II4	Structural Analysis and Dynamics of <i>Bombyx mori</i> Silk Fibroin by Solid State NMR for Material Development <u>Keiko Okushita</u> , Atsushi Asano, Tetsuo Asakura.....	5369
15:50	1II5	NMR study on the higher-order structure in glassy state and gas transport properties	

		<u>Hiroaki Yoshimizu</u>	5371
16:15	1I16	Aggregation Structure and Water Sorption Kinetics of Nafion Thin Films with Carbon Nanotube <u>Yudai Ogata</u> , Daisuke Kawaguchi, Norifumi Yamada, Akihiko Yoshihara, Kiyashige Kojima, Keiji Tanaka	5373
Y. Matsuda, presiding			
16:40	1I17	Evaluation of mechanical properties of single nanofiber <u>Manabu Tanaka</u> , Tomoki Sato, Hiroyoshi Kawakami	5375
17:05	1I18	Electric properties and applications of conducting polymer nanofiber composted with conventional polymers <u>Takeshi Shimomura</u> , Noriyuki Ito, Morito Yagi	5377
17:30	1I19	Dynamics of Guest Molecules in Syndiotactic Polystyrene δ -form Co-crystal of Syndiotactic Polystyrenes : Orientational Stability of Guests <u>Hideo Kobayashi</u> , Sho Akazawa, Osamu Urakawa, Fumitoshi Kaneko, Tadashi Inoue	5379
17:55	1I20	Shape memory properties of polymer blends consisting of polyurethane elastomer and crystalline polyoxyethylene <u>Hiroki Matsunaga</u> , Yasuko Yamazaki, Katsuhiko Inomata, Hideki Sugimoto, Eiji Nakanishi	5381

Thu. Sep 25

S8. Understanding of Polymer basic Properties for Development of Polymer Materials

H. Marubayashi, presiding

9:10	2I01	Fddd phase boundary of polystyrene-block-polyisoprene diblock copolymer melts in polystyrene-rich region <u>Yi-Chin Wang</u> , Mikihiro Takenaka, Hirokazu Hasegawa	5383
9:35	2I02	Order-disorder transition of semi-fluorinated block copolymer induced by carbon dioxide swelling <u>Tomoaki Shinkai</u> , Hideaki Yokoyama, Kohzo Ito, Yasuhiro Sakai, Kenji Sugiyama	5385
10:00	2I03	Thermal Properties of Poly(ethylene oxide) in Microphase-Separated Liquid Crystalline Amphiphilic Triblock Copolymer <u>Shingo Hadano</u> , Akihiro Shimomoto, Ayano Matsuo, Shigeru Watanabe, Motonori Komura, Tomokazu Iyoda	5387

Q. Tran Cong-Miyata, presiding

10:25	2I04	Effects of Chain End Tethering on Crystallization of Spatially-confined Polymer Chains <u>Shintaro Nakagawa</u> , Takumi Tanaka, Shuichi Nojima, Takashi Ishizone, Kohei Kamimura, Kazuo Yamaguchi, Seiichi Nakahama	5389
10:50	2I05	Crystallization Dynamics of Double Crystalline Poly(β -propiolactone)- <i>block</i> -polyethylene Copolymers <u>Hironori Marubayashi</u> , Liang Huang, Rei Hijikawa, Shuichi Nojima	5391
11:15	2I06	Influence of topology on the miscibility of a polymer blend <u>Atsushi Takano</u> , Yuki Kobayashi, Yuya Doi, Sarah Siti, Yushu Matsushita	5393
11:40	2I07	An effect of linear polymer to ring polymer on chain conformation in bulk <u>Keita Kinoshita</u> , Yuya Doi, Atsushi Takano, Yoshiaki Takahashi, Yushu Matsushita	5395

M. Takenaka, presiding

12:55	2I08	Segregation at Interface between dPMMA and PMMA-b-dPnBA thin films by Neutron Reflectivity <u>Keisuke Shimokita</u> , Asuka Gomi, Yuka Sekiguchi, Tsukasa	
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		Miyazaki,Hiroki Ogawa,Katsuhiko Yamamoto,Norifumi Yamada.....	5397
13:20	2I09	Structural Development by Reaction-induced Phase Separation in Polymer Mixtures: Analysis of Early and Late stage Demixing, Computer Simulation under the Non-isoquench Depth <u>Keiichiro Nomura</u> ,Sadayuki Kobayashi.....	5399
13:45	2I10	Photopolymerization-induced phase separation in ternary polymer systems: phase separation kinetics, morphology and transport processes <u>Qui Tran-Cong-Miyata</u> ,Toshiya Shukutani,Kenzo Oya,Hideyuki Nakanishi,Tomohisa Norisuye	5401
K. Inomata, presiding			
14:10	2I11IL	Stochastic Study of the Ductile Fracture of Polypropylene <u>Koh-hei Nitta</u> ,Chun-yao Li	5403
15:00	2I13	3D Analysis of crystal structures of polypropylene/silica composite by STEM tomography <u>Shin Horiuchi</u> ,Hideki Hakukawa,Tomoki Uchio,Akio Nodera.....	5406
15:25	2I14	USAXAS/SAXS Study of Hierarchical Structure of Silica-Filled poly(dimethylsiloxane) <u>Kazunobu Senoo</u> ,Miki Fukuya, Noda,Hashimoto Takeji	5408
15:50	2I15	In-situ observation of crystallization behaviors of poly(phenylene sulfide) in injection molding process by means of synchrotron X-ray scattering <u>Takuro Matsunaga</u> ,Yoshihide Katagiri,Takuya Morishita,Masashi Harada,Kenzo Fukumori	5410
S. Horiuchi, presiding			
16:15	2I16	Relation between structure of melt-spun hollow fibers and their membrane properties after applying annealing and drawing processes Satoshi Sugiura, <u>Wataru Takarada</u> ,Takeshi Kikutani	5412
16:40	2I17	Photoelastic properties of polycarbonate - polyester oligomer blends (I) : Phenomenon and analysis <u>Teppei UJIHARA</u> ,Yusuke TAJIRI,Masato ISHIYAMA,Syogo NOBUKAWA,Masayuki YAMAGUCHI.....	5414
17:05	2I18	Photoelastic properties of polycarbonate - polyester oligomer blends (II): Antiplasticizing effect and mechanism <u>Yusuke TAJIRI</u> ,Teppei UJIHARA,Shougo NOBUKAWA,Masayuki YAMAGUCHI	5416

Fri. Sep 26

S8. Understanding of Polymer basic Properties for Development of Polymer Materials

H. Yamamoto, presiding

9:10	3I01	Periodic Change of Small and Wide Angle X-ray Scattering of Semi-crystalline Polymers Induced by Temperature Modulated [II] <u>Yuta Isobe</u> ,Keisuke Minami,Souichi Tatsumi,Haruhiko Yao,Yasuo Saruyama.....	5418
9:35	3I02	The Structure and Ultimate Mechanical Properties of Collagen Triple Helix of Analyzed by X-Ray Diffraction <u>Chizuru Hongo</u> ,Shogo Konoike,Masaru Kotera,Takashi Nishino.....	5420
10:00	3I03	High strength Polyvinyl alcohol prepared by using extended chain crystal as a nucleation agent <u>Takahiko Nakaoki</u> ,Taishi Fukumori.....	5422

T. Nakaoki, presiding

10:25	3I04	Details of the Formation Mechanism of Poly(vinyl alcohol)-Iodine Complexes <u>Siti Munirah Saharin</u> ,Tomohiko Takahama,Kohji Tashiro	5424
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10:50	3I05	Low-molecular-weight model compounds of regularly-Br-substituted Polyethylenes: the structure and phase transition behavior of variously Br-substituted n-alkane molecules <u>Hiroko Yamamoto</u> , Masafumi Tasaki, Kohji Tashiro 5426
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Room J

Wed. Sep 24

S7. Interplay Phenomena in Structure and Dynamics of Polymers

9:50	1JSO	Introductory Remarks <u>Yuichi Masubuchi</u> 5295
		T. Sato, presiding
10:00	1J03	High-Sensitive Hard-X-Ray Microscopy with Gratings — Possibility of Application to Observation of Hierarchic Structures in Polymer Macromolecules <u>Wataru Yashiro</u> 5296
10:25	1J04	Hierarchical structures in polymer/metal interphase investigated by electron microscopy <u>Shin Horiuchi</u> , Hideki Hakukawa, Takahiro Tominaga, Masami Itabashi 5298
10:50	1J05	Live cell snapshot imaging by X-ray laser diffraction <u>Yoshinori Nishino</u> , Takashi Kimura, Yasumasa Joti, Yoshitaka Bessho 5300
		S. Horiuchi, presiding
11:15	1J06	Quantifying Physical Quantities from Soft, Buried Interfaces <u>Akihisa Yamamoto</u> , Motomu Tanaka 5302
11:40	1J07	Hierarchical Self-Associations in Polymer Solutions <u>Takahiro Sato</u> , Rintaro Takahashi, Francoise M. Winnik 5304
		T. Hirai, presiding
12:55	1J08	Visualization of spatial distribution of low molecular weight compounds incorporated in polymer micelles with anomalous small-angle X-ray scattering <u>Isamu Akiba</u> , Masaki Kinoshita, Ryosuke Nakanishi, Kazuo Sakurai 5306
13:20	1J09	Macroscopic Alignment of Cylindrical Domains in Block Copolymer Films <u>Katsuhiko Yamamoto</u> , Tsukasa Miyazaki, Keisuke Shimokita 5308
13:45	1J10	Hierarchical Periodic Structures from ABC Star-shaped Terpolymer/DE Diblock Copolymer Blends with Hydrogen Bonding Interaction <u>Haruko Miyase</u> , Atsushi Takano, Yushu Matsushita 5310
		K. Yamamoto, presiding
14:10	1J11	New Tiling Patterns Created by Binary Blends of ABC Linear Block Terpolymers Yusuke Asai, Atsushi Takano, <u>Yushu Matsushita</u> 5312
14:35	1J12	Block Composition Effect for Hierarchical Structure of Fluorinated Strongly Segregated Crystalline Block Copolymers <u>Nojima Shiki</u> , Takamichi Shinohara, Ryohei Ishige, Noboru Ohta, Yuji Higaki, Ken Kojio, Atsushi Takahara 5314
15:00	1J13	Evaluation of effect of highly order structure in polymer with side chain functional group on material properties on the basis of synchrotron thin film X-ray measurement <u>Tomoyasu Hirai</u> , Makoto Kido, Shiki Nojima, Noboru Ohta, Kevin White, Yuji Higaki, Ken Kojio, Atsushi Takahara 5316
		T. Kanaya, presiding
15:25	1J14	Correlation between gas permeability and hierarchic structure of poly(lactic acid) films <u>Go Matsuba</u> , Tatsuki Nyuui, Shuichi Sato, Kazukiyo Nagai 5318

15:50	1J15	Interplay of hierarchical structure of crystalline polymer under extension <u>Mikihito Takenaka</u> , Sumiaki Fujii, Syotaro Nishitsuji..... 5320
G. Matsuba, presiding		
16:15	1J16	Hierarchical Structural Evolution of Polyoxymethylene in the Isothermal Crystallization Process from the Melt: Study of an Isotope Effect on the Melting and Crystallization Behaviors <u>Sreenivas Kummara</u> , Kohji Tashiro, Tomohiro Monma, Ken Horita..... 5322
16:40	1J17	Visualization of Hierarchical Structure in Flow-induced Polymer Crystallization <u>Toshiji Kanaya</u> , Rintaro Inoue, Hiroki Ogawa, Nobuaki Takahashi, Koji Nishida, Noboru Ohta 5324
17:05	1J18	Intimate relationship between crystal structure change and higher-order structure change in the II-I phase transition of isotactic poly(butene-1) <u>Jian Hu</u> , Kohji Tashiro 5326

Thu. Sep 25

S7. Interplay Phenomena in Structure and Dynamics of Polymers

Y. Masubuchi, presiding

9:10	2J01	Dispersion of Nafion in water/1-propanol and water/ethanol solutions <u>Makoto Yamaguchi</u> , Takuro Matsunaga, Kazuki Amemiya, Akihiro Ohira, Naoki Hasegawa, Kazuhiko Shinohara, Masaki Ando, Toshihiko Yoshida 5328
9:35	2J02	Hierarchical Structures of Helical Aggregates in 12-Hydroxystearic Acid Solutions <u>Hiroyuki Takeno</u> , Michina Yanagita, Yuho Motegi, Shingo Kondo..... 5330
10:00	2J03	Structural Analysis of Micelle Formed From Calix[4]arene Modified Dendron with SAXS and FFF-MALS <u>Genki Kubo</u> , Shota Fujii, Yusuke Sanada, Kazuo Sakurai 5332

K. Sakurai, presiding

10:25	2J04	Infrared spectroscopic study of polymers by high brilliant infrared synchrotron radiation source <u>Yuka Ikemoto</u> , Taro Moriwaki, Toyohiko Kinoshita..... 5334
11:15	2J06	Observation of Dynamics of Nanoparticles in Swollen Rubber with X-ray Photon Correlation Spectroscopy <u>Yuya SHINOHARA</u> , Naoko YAMAMOTO, Hiroyuki KISHIMOTO, Yoshiyuki AMEMIYA..... 5336

Y. Masubuchi, presiding

11:40	2J07	Structural Analysis of Polypod DNA by X-ray Scattering <u>Yusuke Sanada</u> , Shunsuke Sakamoto, Tomoki Shiomi, Tadashi Okobira, Efstratios Mylonas, Naoto Yagi, Makiya Nishikawa, Yoshinobu Takakura, Kazuo Sakurai 5338
12:55	2J08	Structural Analysis of Supramolecular Materials by Molecular Dynamics Simulation <u>Kazuya Uezu</u> , Tadashi Okobira..... 5340

K. Uezu, presiding

13:20	2J09	A multiscale molecular simulation method for predicting a viscoelastic behavior of polymer melts <u>Kazuaki Takahashi</u> , Nobuyoshi Yamato, Ryuto Nishimura, Kenji Yasuoka, Yuichi Masubuchi 5342
13:45	2J10	A Highly Coarse-Grained Multi-Chain Model for Entangled Polymers <u>Yuichi Masubuchi</u> , Takashi Uneyama 5344

Room K

Wed. Sep 24

S9.Forefront in Refined Analyses of Polymeric Materials in Terms of Polymer Chains

9:50	1KSO	Introductory Remarks <u>Susumu Fujiwara</u>	5428
H. Morita, presiding			
10:00	1K03	Simulation of mosaic two-lengthscale quasicrystals <u>Tomonari Dotera</u> , Tatsuya Oshiro, Zihelr Primoz.....	5429
10:25	1K04	Simulation study on the role of side-chain structures on the initial crystalization processes of conducting polymers <u>Toshiaki Miura</u> , Taiki Ito, Takeshi Shimomura.....	5431
10:50	1K05	Dissipative particle dynamics simulation of shape transformations of vesicles Yoshiyuki Ofuji, <u>Naohito Urakami</u> , Masayuki Imai, Takashi Yamamoto.....	5433
11:15	1K06	Single polymer chain viscoelasticity investigated by atomic force microscopy II <u>Xiaobin Liang</u> , Ken Nakajima.....	5435
M. Takenaka, presiding			
11:40	1K07	Single-Molecules Imaging of a Dynamic Structure in a Supramolecular Polymer Chain Self-Assembled Pentacene/ γ - Cyclodextrin Inclusion Complex <u>Ken-ichi Shinohara</u> , Yuu Makida, Nobuyuki Aoki.....	5437
12:55	1K08	Conformational analysis of single polymer chains in spin-coated films using super-resolution fluorescence microscopy <u>Hiroyuki Aoki</u> , Toru Asada.....	5439
13:20	1K09	Characterization of polymer microenvironment of fluorescent dye molecules probed by single molecule spectroscopy <u>Shinjiro Machida</u> , Yuki Tamashiro, Noriaki Ikeda.....	5441
13:45	1K10	Molecular Chain Rearrangement Induced by the Helix-sense Inversion of Poly(β -L-aspartate) in the Solid State <u>Yuki Suzuki</u> , Hidemine Furuya, Akihiro Abe.....	5443
S. Fujiwara, presiding			
14:10	1K11IL	Simulation based refined analyses of physics of polymeric materials <u>Katsumi Hagita</u>	5445
N. Urakami, presiding			
15:00	1K13	DNA sequence design for enhanced sensitivity in graphene oxide FRET aptasensor <u>Kazuaki Furukawa</u> , Yuko Ueno.....	5448
15:25	1K14	Molecular simulation on permeability of slide-ring gels <u>Kotaro Tanahashi</u> , Tsuyoshi Koga.....	5450
15:50	1K15	GHz viscoelastic measurement: a high-resolution approach in the atomistic computer-simulation study of polymers <u>Satoru Kuwajima</u>	5452
16:15	1K16	Expansion simulation of filler filled materials and polymer chain analysis in its process <u>Hiroshi Morita</u> , Katsumi Hagita.....	5454
S. Machida, presiding			
16:40	1K17	Direct imaging of uniaxial stretching isotactic polypropylene using Frequency-Modulation Atomic Force Microscopy <u>Kiminori Uchida</u> , Kazuki Mita, Osamu Matsuoka, Takeharu Isaki, kenjiro Kimura, Hiroshi Onishi.....	5456

17:05	1K18	Liquid-liquid phase transition in polymer melts <u>Mikihito Takenaka</u> , Eiji Izumi 5458
17:30	1K19	A variety of crystalline modifications and their structural phase transitions of strictly regularly halogen-sustituted polyethylenes: Discussion about a large effect of only one atomic substitution on these behaviors <u>Masafumi Tasaki</u> , Hiroko Yamamoto, Kohji Tashiro, Carolina Ruiz-Orta, Rufina G. Alamo, Emine Boz, Kenneth B. Wagener 5460
17:55	1K20	Effect of the Flexible Spacer on the Solution Properties of the Rod Brushes <u>Yuta Saito</u> , Moriya Kikuchi, Atsushi Narumi, Seigou Kawaguchi 5462

Thu. Sep 25

S10. Structural and Dynamics Characterization of Polymer Materials Toward Emergent Functionalities

9:25	2KSO	Introductory Remarks <u>Tomohiro Hirano</u> , Hikaru Momose 5464
		T. Hirano, presiding
9:35	2K02	Terminating Reaction of Stereospecific Anionic Polymerization of Methacrylates with α -(chloromethyl)acrylates: Analysis of Elemental Reactions from the Terminal Structure of Macromolecules <u>Yasuhiro Kohsaka</u> , Shoya Ishihara, Takashi Kurata, Tatsuki Kitayama 5465
10:00	2K03	Molecular weight dependence of chemical composition of acrylic copolymers as studied by SEC/NMR and DOSY <u>Ryuhei Nagao</u> , Akio Okumura, Koichi Ute 5467
10:25	2K04	Analysis of Graft Structure of Maleic Anhydride-Grafted Polyolefin by NMR Pulse Techniques <u>Koji Miyauchi</u> 5469
		R. Nagao, presiding
10:50	2K05	Quantitative Evaluation of solution ^{13}C NMR spectra of Polyolefin by Q-POMMIE <u>Fumika Moro</u> , Hiroko Sato, Mitsuhiko Onda 5471
11:15	2K06	Structural Determination of Novel Polyamine by Correlation Analysis of NMR and MS Spectra <u>Miyuki Oshimura</u> , Keigo Motoyama, Hiroyuki Kitayama, Yoshihiko Ikeda, Tomohiro Hirano, Koichi Ute 5473
11:40	2K07	Structural analysis of fluorinated polymeric materials by means of high-resolution time-of-flight mass spectrometry Yoji Nakajima, Yuko Arinami, <u>Yuko Tachibana</u> 5475
		Y. Nishikawa, presiding
13:20	2K09	Single molecular branch structure analysis of polymer <u>Makoto Takemasa</u> , Masahiro Fujita, Mizuo Maeda 5477
13:45	2K10	Thermal shrinkage behavior of high density polyethylene film <u>Kenichi Ibata</u> , Takashi Uneyama, Koh-hei Nitta 5479
14:10	2K11	Preparation of comb-shaped polymers with characteristic ring structures and their properties <u>Yuya Doi</u> , Atsushi Takano, Yoshiaki Takahashi, Yushu Matsushita 5481
		Y. Miwa, presiding
14:35	2K12	Observation of Polymer structure in Polymer-Stabilized Blue Phase by Transmission Electron Microscope. <u>Yukimasa Matsuda</u> , Yasushi Okumura, Hiroki Higuti, Hirotugu Kikuchi 5483
15:00	2K13	Effects of main chain stiffness for cylindrical rod brushes on graft density of side chain <u>Moriya Kikuchi</u> , Ryou Nakano, Atsushi Narumi, Seigou Kawaguchi 5485

15:25	2K14	Local strain during deformation of polymer foams studied by a high-contrast X-ray CT <u>Jun Yamashita</u> , Yukihiro Nishikawa, Kenji Urayama 5487
15:50	2K15	Construction of Monte Carlo Simulation Method for Extraction of 3-D Lamellar Stacking Structures of Crystalline Polymers Consistent with all the SAXS data measured in the Various Azimuthal Angles <u>Daisuke Tahara</u> , Kohji Tashiro 5489
A. Asano, presiding		
16:15	2K16	Stratified dipole-arrays model accounting for fluorinated compounds-specific bulk properties <u>Takeshi Hasegawa</u> 5491
16:40	2K17	NMR structure analysis of silk fibroin with polyalanine sequences <u>Shuto Kawanishi</u> , Hiroki Arai, Yu Suzuki, Toshimasa Yamazaki, Tetsuo Asakura 5493
17:05	2K18	Controlled Thermoresponsive Properties of Post-Crosslinked Gels by Precision Synthesis of the Prepolymers <u>Shohei Ida</u> , Tatsuya Ishikawa, Satoshi Tanimoto, Yoshitsugu Hirokawa 5495

Fri. Sep 26

S10. Structural and Dynamics Characterization of Polymer Materials Toward Emergent Functionalities

Y. Katsumoto, presiding

9:10	3K01	Higher Order Conformation and Dynamics of Polymer Observed by Terahertz Spectroscopy <u>Hiromichi Hoshina</u> , Hal Suzuki, Shinya Ishii, Shigeki Yamamoto, Yusuke Morisawa, Harumi Sato, Yukihiro Ozaki, Chiko Otani 5497
9:35	3K02	Physical properties and structure of nylon-6 investigated by terahertz spectroscopy <u>Hal Suzuki</u> , Shinya Ishii, Chiko Otani, Hiromichi Hoshina 5499
10:00	3K03	Relation Between Low-frequency Vibrational Modes and Intermolecular Interactions in Nylon 6 Explored by Low-frequency Raman and Terahertz Spectroscopy Combined with Quantum Chemical Calculation <u>Erika Onishi</u> , Shigeki Yamamoto, Harumi Sato, Daitaro Ishikawa, Hiromichi Hoshina, Yusuke Morisawa, Yukihiro Ozaki 5501

H. Hoshina, presiding

10:25	3K04	Characterization of Polymer Chain End by Deuterium Labeling <u>Yohei Miwa</u> , Osamu Urakawa, Shogo Nobukawa, Takuya Teramori, Tomohiro Hirano, Shoichi Kutsumizu 5503
10:50	3K05	Solvation and local structure of polymer chains in solution investigated by infrared spectroscopy <u>Yukiteru Katsumoto</u> 5505
11:15	3K06	Tacticity dependence of phase separation dynamics of aqueous thermo-responsive polymer solutions Takanori TADA, Yukiteru KATSUMOTO, Tomohiro HIRANO, Koichi UTE, Tatsuya SHOJI, Noboru KITAMURA, <u>Yasuyuki TSUBOI</u> 5507
11:40	3K07	Concentration-dependent phase separation dynamics of aqueous syndiotactic-rich PNIPAM solutions <u>Takanori TADA</u> , Tomohiro HIRANO, Koichi UTE, Tatsuya SHOJI, Noboru KITAMURA, Yasuyuki TSUBOI 5509

F. Moro, presiding

13:20	3K09	The relationship between spin-spin relaxation time in pulsed NMR and compression set for aged rubber seals <u>Kaori Numata</u> , Hideto Kurokawa, Sokei Sekine, Atsushi Asano 5511
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13:45	3K10	110 kHz MAS: new solid-state NMR methods at ultrafast MAS and its applications <u>Yusuke Nishiyama</u> 5513
14:10	3K11	Solid State ¹³ C NMR Spectral Change, Temperature dependence, and Relaxation time of Natural Rubber Rolled by MAS <u>Atsushi Asano</u> 5515
H. Momose, presiding		
14:35	3K12	Rheo-optical near-infrared spectroscopy for mechanical variation of polymers <u>Hideyuki Shinzawa</u> , Wataru Kanematsu 5517
15:00	3K13	Sorption Behavior of (Alcohol/Water) Mixture into Poly(methyl methacrylate) Thin Film <u>Koichiro Hori</u> , Ayanobu Horinouchi, Daisuke Kawaguchi, Erik Watkins, Norifumi Yamada, Keiji Tanaka 5519
15:25	3K14	Analysis of microdomain structure in copolymer-based elastomers during and after mechanical deformation using a on time resolved small angle X-ray scattering method <u>Genitirou Kawajiri</u> , Takuya Komatsu, Suguru Motokucho, Kohoji Yoshinaga, Ken Kojio 5521

Room L

Wed. Sep 24

S6.The Science of Polyurethanes

9:50	1LSO	Introductory Remarks <u>Ken Kojio</u> 5247
T. Ohishi, presiding		
10:00	1L03	The Effect of Hard Segment Content on Aggregation Structure and Mechanical Properties of Multi-block Copolymer with Rigid and Flexible Chains <u>Hiroko Ishii</u> , Suguru Motokucho, Kohji Yoshinaga, Ken Kojio, Raita Goseki, Teruaki Hayakawa 5248
10:25	1L04	Synthesis and property of polyritaxane bearing polyurethane unit <u>Natsumi Nonaka</u> , Rei Baba, Hiroto Murakami 5250
10:50	1L05	Development of polyurethane with high photoelasticity <u>Masahiko Mitsuzuka</u> , Satoshi Yamasaki, Yoshiro Tajitsu 5252
Y. Higaki, presiding		
11:15	1L06	Creation of Polyurethane Metal Complexes <u>Genichiro Shimada</u> , Masanori Nata, Seiji Ujiie 5254
11:40	1L07	Electrical and mechanical properties of polyurethane/ionic liquid gels and applications to soft actuators <u>Yuechen Li</u> , Ryo Tanigawa, Satoshi Takagi, Hidenori Okuzaki 5256
K. Kojio, presiding		
12:55	1L08IL	Development for Novel Polyurethanes with Environmental Load Reduction <u>Satoshi Yamasaki</u> 5258
A. Sudo, presiding		
13:45	1L10	Photo-induced Exchange Reactions of Polyurethanes Containing Aromatic Disulfides under Weak Intensity Photoirradiation <u>Tomoyuki Ohishi</u> , Yoko Iki, Yuji Higaki, Atsushi Takahara, Hideyuki Otsuka 5261
14:10	1L11	Thermal Properties and Liquid Crystalline Behavior of Cellulose

Urethanes
Seiji UJIIE, Yuko IWAMI, Shiori TOMITAKA, Masanori NATA 5263

S. Ujiie, presiding

- 14:35 1L12 Synthesis of Polyurethanes from myo-Inositol
 Shusuke Okamoto, Ayano Miyamoto, Yoshiya Shibata, Atsushi Sudo 5265
- 15:00 1L13 Synthesis and properties of Polyhydroxyurethanes Obtained by a
 Non-isocyanate Process
Shinya Maeda, Takeshi Endo 5267
- 15:25 1L14 Development of Flexible Gels via Cyclopolymerization in the
 Presence of Polyurethane Bearing PEG Segments
Tomonari Kiryu, Bungo Ochiai 5269

T. Yonezawa, presiding

- 15:50 1L15 Synthesis of Biocompatible Elastic Polyurethane Containing
 Phospholipid Moiety and the Fabrication of Nanosheet
Atsushi Iwano, Kohei Morita, Wariya Sirithap, Yosuke Okamura, Yu
 Nagase 5271
- 16:15 1L16 Syntheses and Physical Properties of Poly(ester-urethane)s
 Containing Phospholipid Moiety
Kohei Morita, Wariya Sirithap, Atsushi Iwano, Koji Higuchi, Yosuke
 Okamura, Yu Nagase 5273

H. Murakami, presiding

- 16:40 1L17 Polyurethane-imide: synthesis and physical properties
 Tomohiro Ueda, Shin-ichi Inoue 5275
- 17:05 1L18 Preparation of urethane resins directly incorporating nanoparticles
Tetsu Yonezawa, Matteo Porta 5277

S. Inoue, presiding

- 17:30 1L19 Efficient Transformation of Polyallylurethanes Using A Macrocyclic
 Catalyst and Physical Properties Change by It
HIKARU IWASAKI, MASAKI NAGASHIMA, MASAHIRO
 OGAWA, HIROMITSU SOGAWA, TOSHIKAZU TAKATA 5279
- 17:55 1L20 Analysis of the effect of diisocyanate on network structures of
 cross-linked polyurethanes based on X-ray scattering and
 microscopic methods
Hirohisa Ohike, Suguru Motokucho, Kohji Yoshinaga, Ken Kojio 5281

Thu. Sep 25

S6. The Science of Polyurethanes

E. Takatori, presiding

- 9:10 2L01 Ordered Structure Analysis at Fracture Front of Polyurethane
 Elastomers by High-Brilliance Synchrotron Radiation X-ray Source
 Ken Suzuki, Yuji Higaki, Noboru Ohta, Atsushi Takahara 5283
- 9:35 2L02 Analysis of healing behavior of polyurethane elastomer after
 mechanical deformation based on synchrotron radiation measurement
Shuhei Nozaki, Takuya Komatsu, Suguru Motokucho, Kohji
 Yoshinaga, Tomoyasu Hirai, Yuji Higaki, Ken Kojio, Atsushi Takahara 5285

H. Kouzai, presiding

- 10:00 2L03 Physical properties of the polyurethane based on 1,4-
 bis(isocyanatomethyl)cyclohexane as a novel polyisocyanate.
Daisuke Nishiguchi, Hirokazu Morita, Goro Kuwamura, Toshihiko
 Nakagawa, Daisuke Hasegawa, Satoshi Yamasaki 5287
- 10:25 2L04 Finite Deformation Behavior of Polyurethane Foams Characterized
 by Biaxial Stretching
Hiroki Iba, Jun Yamashita, Yukihiro Nishikawa, Kenji Urayama 5289

B. Ochiai, presiding

10:50	2L05	An investigation of reaction mechanisms of isocyanurate formation <u>Ryusuke Kishimoto</u> , Motomu Kita, Takaki Jouno, Satoshi Murayama 5291
11:15	2L06	Synthesis of Novel Polyurethane from Plant-based Materials <u>Nozomu Uchida</u> , Hiroaki Kouzai 5293

S15. Collaboration of Ionic Liquids and Polymers for New Processes and Advanced Materials

12:45	2LSO	Introductory Remarks <u>Masayoshi Watanabe</u> 6700
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M. Watanabe, presiding

12:55	2L08IL	Emergent Iontronics by Ionic Liquids <u>Yoshihiro Iwasa</u> 6701
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A. Noro, presiding

13:45	2L10	Thermo-reversible ion-gels using LCST thermo-sensitive self-assembly of triblock copolymers in an ionic liquid <u>Yuzo KITAZAWA</u> , Takeshi UEKI, Lucas McIntosh, Timothy P. Lodge, Masayoshi WATANABE 6704
14:10	2L11	Thermo- and Photo-sensitive Ion-Gels Using Tetra-arm Diblock Copolymers Containing Azobenzene Group <u>Xiaofeng Ma</u> , Ryoji Usui, Yuzo Kitazawa, Hisashi Kokubo, Masayoshi Watanabe 6706
14:35	2L12	Preparation of free-standing thermosensitive composite gel particles incorporating ionic liquid <u>Hideto Minami</u> , Hiroko Ichikawa, Toyoko Suzuki 6708

T. Ichikawa, presiding

15:00	2L13	Properties of chemical oscillation reaction using protic ionic liquids and development of self-oscillating polymers <u>Takeshi UEKI</u> , Ko MATSUKAWA, Tsukuru MASUDA, Ryo YOSHIDA 6710
15:25	2L14	Solubility of Poly(methyl methacrylate) in Ionic Liquids in Relation to Solvent Parameters <u>Kazuhide Ueno</u> , Toshimichi Fukai, Takeshi Ueki, Masayoshi Watanabe 6712
15:50	2L15	Architect design of ionic liquid-based solid electrolyte using ionic liquid-type polymer brush <u>Takashi Morinaga</u> , Ryo Shomura, Saika Honma, Shoko Marukane, Takaya Sato, Toshiyuki Mori, Kohji Ohno, Yoshinobu Tsujii 6714

T. Ueki, presiding

16:15	2L16	Design of Liquid-Crystalline Zwitterions and Functional Application Through the Control of Their Self-Organization <u>Takahiro Ichikawa</u> , Takuro Matsumoto, Junji Sakuda, Takashi Kato, Hiroyuki Ohno 6716
16:40	2L17	Optical properties of Block Copolymer Soft Photonic Films Swollen with Ionic Liquid Mixture <u>Maho Ohno</u> , Yoshio Sageshima, Atsushi Noro, Yushu Matsushita, Yuya Shinohara, Joseph Walish, Edwin Thomas 6718
17:05	2L18	High-toughness Ion Gel with Tetra-PEG Network and Its Application to CO ₂ Separation Membrane <u>Kenta Fujii</u> , Kei Hashimoto, Takamasa Sakai, Takashi Makino, Mitsuhiro Shibayama 6720

Fri. Sep 26**S15. Collaboration of Ionic Liquids and Polymers for New Processes and Advanced Materials**

M. Fujita, presiding

9:10	3L01	Development of tough interpenetrating polymer network ion-gels with high solute diffusivity <u>Tomoki Yasui</u> , Eiji Kamio, Hideto Matsuyama 6722
9:35	3L02	Application of Ionic Liquid-polymer System to Electrochemical Energy Storage Devices <u>Masashi Ishikawa</u> , Masaki Yamagata 6724
10:00	3L03	Charge-Discharge Characteristics of Lithium Ion Secondary Batteries Fabricated Using Borosilicate Based Ion-gels. <u>Kumar sai Smaran</u> , Raman Vedarajan, Noriyoshi Matsumi 6726
10:25	3L04	3D pattern fabrication by quantum beam irradiation to ionic liquid <u>Susumu Kuwabata</u> , Hiro Minamimoto, Tetsuya Tsuda 6728

H. Shimakoshi, presiding

10:50	3L05	LCST behavior of copolymers prepared from ionic liquid monomer and NIPAM. <u>Kamiya Jain</u> , Raman Vedarajan, Noriyoshi Matsumi, Masaki Watanabe, Mamoru Ishikiriya 6730
11:15	3L06	Structural Study on Cellulose-Ion Interaction in Phosphonate-type Ionic Liquid <u>kazu hirosawa</u> , kenta fujii, kei hashimoto, takumi kusano, mitsuhiro sibayama 6732
11:40	3L07	Synthesis and property of polyether having ionic liquid moiety Keisuke Ohta, Ban The Hoang, <u>Shigetaka Hayano</u> 6734

K. Fujita, presiding

12:55	3L08	Kinetics of supported lipid bilayer prepared in ionic liquid hydrate <u>Kazuaki Furukawa</u> , Hiroki Hibino 6736
13:20	3L09	Application of a Polymerized Ionic Liquid for Photocatalyst with Vitamin B12 Function <u>Hisashi Shimakoshi</u> , Noriyuki Houfuku, Wei Zhang, Yoshio Hisaeda 6738
13:45	3L10	Biorefinery using ionic liquids <u>Kenji Takahashi</u> 6740

K. Takahashi, presiding

14:10	3L11	Synthesis of polar ionic liquids and isolation of natural products from plant leaves <u>Masahiro Fujita</u> , Erina Kishi, Shingo Onda, Toyonobu Usuki, Yuko Takeoka, Masahiro Rikukawa 6742
14:35	3L12	Folding State of Concanavalin A Dissolved in Hydrated Cholinium Dihydrogen Phosphate <u>Kyoko FUJITA</u> , Hiroyuki OHNO 6744

Room M**Wed. Sep 24****S25. Creation of Novel Functionalities by Highly-Controlled Nano-Structured Polymers**

9:50	1MSO	Introductory Remarks <u>Hiroshi Yoshida</u> 7790
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T. Hayakawa, presiding

10:00	1M03	Synthesis and Property of Hyperbranched Polyacetals, and Their Application for Extreme Ultraviolet Resist Materials. <u>shuhe matsubara</u> , hiroto kudo 7791
10:25	1M04	Application of reaction development patterning to engineering plastics containing alkoxysilanes in order to improve development

		and pattern properties <u>Shinya IMABAYASHI</u> ,Toshiyuki OYAMA.....	7793
10:50	1M05	Individual Creation of 2D Structures in Isobutenyl Compounds via Odd-Even Effect <u>Yoshihiro Kikkawa</u> ,Kazuhisa Hiratani.....	7795
		H. Kudo, presiding	
11:15	1M06	Nano Structures of N-shaped pi-conjugated Materials and Thermally Durable Organic Transistors <u>Chikahiko Mitsui</u> ,Masayuki Kishi,Daisuke Hashizume,Masakazu Yamagishi,Hiroyasu Sato,Akihito Yamano,Jun Takeya,Toshihiro Okamoto.....	7797
11:40	1M07	Photocatalytic activity of metal-doping TiO ₂ helical nanotubes fabricated by sol-gel route and photodeposition method <u>Shin OI</u> ,Kenji HANABUSA,Masahiro Suzuki.....	7799
		H. Yoshida, presiding	
12:55	1M08IL	Nanofabrication of electronic devices utilizing the nanotechnology of protein supramolecules <u>Ichiro Yamashita</u>	7801
		K. Asakawa, presiding	
13:45	1M10	Sensitive multicolor fluorescence imaging of a cell with the plasmonic chip <u>KEIKO TAWA</u> ,CHISATO SASAKAWA,IZUMI SHIBATA,SHOHEI YAMAMURA,MASATOSHI KATAOKA	7804
14:10	1M11	Conduction Path Analysis and Application of Ordered Lattice Resister Networks <u>Tomokazu Iyoda</u> ,Shiho Torashima,Kaori Kamata,Takanobu Sanji.....	7806
14:35	1M12	Selective Dye Loading to Phase-Separated Heterojunction in Polymer Solar Cells <u>Hideo Ohkita</u> ,Huajun Xu,Hiroaki Benten,Shinzaburo Ito	7808
		T. Iyoda, presiding	
15:00	1M13	Spectrally-Narrowed Emissions from Layered Structures Comprising an Organic Crystal and an Inorganic Semiconductor Thin Film Equipped with a Diffraction Grating <u>Shohei Higashihara</u> ,Takeshi Yamao,Shu Hotta.....	7810
15:25	1M14	Formation of Nanowires via Dimension-controlled Solid-State Polymerization of Small Molecular Materials Using High Energy Single Particles <u>Yuki Takeshita</u> ,Tsuneaki Sakurai,Shu Seki	7812
15:50	1M15	Frequency-modulated GHz complex photoconductivity of TiO ₂ nanoparticles <u>Akinori Saeki</u> ,Yoshihiro Yasutani,Hikaru Oga,Shu Seki.....	7814
		S. Seki, presiding	
16:15	1M16	Photoinduced solid-liquid phase transitions by photochromic reactions and their application to solid-liquid patterning <u>Yasuo Norikane</u> ,Emi Uchida,Reiko Azumi,Haruhisa Akiyama,Hideyuki Kihara,Masaru Yoshida	7816
16:40	1M17	Photoalignment of polymer liquid crystals commanded by a photoresponsive layer at the free surface Kei Fukuhara,Mitsuo Hara,Shusaku Nagano, <u>Takahiro Seki</u>	7818
17:05	1M18	Photomodulation of elastic modulus by azobenzene polymer structure dependence and application to surface wrinkle patterns <u>Takahiro Takeshima</u> ,Mitsuo Hara,Syusaku Nagano,Takahiro Seki.....	7820
		T. Seki, presiding	

17:30	1M19	Molecular Alignment Controlled by Moving Light and Fabrication of Specialty Films <u>Kyohei Hisano</u> , Atsushi Shishido 7822
17:55	1M20	Thermally Reversible Phase Separation of Azobenzene-based Amorphous Molecular Materials-Poly(vinyl acetate) Hybrid Films and Photoinduced Deformation of the Domain Structures <u>Ryoji Ichikawa</u> , Hideyuki Nakano 7824

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S25. Creation of Novel Functionalities by Highly-Controlled Nano-Structured Polymers

H. Yokoyama, presiding

9:10	2M01	Synthesis and Nanostructure Formation of Block Copolymers Consisting of Oligosaccharide and Polycaprolactone <u>Takuya Isono</u> , Toyoji Kakuchi, Toshifumi Satoh 7826
9:35	2M02	Synthesis of Block Copolymers having Catechol Groups and Evaluation of Their Microphase-Separated Structures <u>Yuta Saito</u> , Mitsuo Hara, Shusaku Nagano, Takeshi Higuchi, Hiroshi Yabu 7828
10:00	2M03	Control of Position, Sequence, and Topology in Polymer Chains toward Functional Nano-Structures <u>Makoto Ouchi</u> 7830

M. Takenaka, presiding

10:25	2M04	Precise Control of Orientation of Porphyrin through Anchoring Star-shaped Amphiphilic Liquid Crystalline Block Copolymer to Phase Segregation Interface. <u>Mitsuharu Takahashi</u> , Syunnsuke Yamada, Masashi Aotani, Sadayuki Asaoka 7832
10:50	2M05	The Effect of Nano-pores on Thermal Conductivity of Polymers <u>Motoi Shiraga</u> , Hideaki Yokoyama, Kohzo Ito, Kenji Sugiyama 7834

I. Akiba, presiding

11:15	2M06	Effect of the solvent and polymeric species for the fabrication of the porous structures using block copolymer and mixed solvents <u>Toshiharu Sanada</u> , Kohzo Ito, Hideaki Yokoyama 7836
11:40	2M07	Functional nanostructures fabricated by directed self-assembly of unimodal nematic liquid crystalline polymers <u>Shoichi Kubo</u> , Masaru Nakagawa 7838

H. Yoshida, presiding

12:55	2M08	Directed Self-Assembly Application for Semiconductor Process <u>Makoto Muramatsu</u> , Takashi Yamauchi, Soichiro Okada, Tadatoshi Tomita, Gen You, Takanori Nishi, Takeo Nakano, Kosuke Yamamoto, Shinichiro Kawakami, Etsuo Iijima, Takahiro Kitano 7840
13:20	2M09	Directed Self-assembly (DSA) Lithography using Block Copolymer <u>Tsukasa Azuma</u> , Yuriko Seino, Hironobu Sato, Yusuke Kasahara, Katsutoshi Kobayashi, Katsuyoshi Koderu, Hideki Kanai, Naoko Kihara, Yoshiaki Kawamonzon, Shinya Minegishi, Ken Miyagi, Toshikatsu Tobana, Noriyuki Hirayanagi, Tomoharu Fujiwara, Teruaki Hayakawa 7842
13:45	2M10	Process and Materials Optimization of Block Copolymer Directed Self-Assembly <u>Kenji Yoshimoto</u> , Ken Fukawatase 7844

M. Nakagawa, presiding

14:10	2M11	DSA process simulations using coarse-grained models and analysis of polymer chain
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		<u>Hiroshi Morita</u> ,Yuki Norizoe 7846	
14:35	2M12	Structural Formation Mechanism and Control of Microphase Separated Film by Liquid Crystal Orientation <u>Motonori Komura</u> ,Tomokazu Iyoda 7848	
15:00	2M13	Development of Photo-Patternable Under Layer for Block copolymer Lithography <u>Atsushi Hieno</u> ,Shigeki Hattori,koji Asakawa 7850	
		M. Komura, presiding	
15:25	2M14	Control of alignment of ferritin protein molecules by using nano-patterns of block copolymers kaoru yamaguchi, <u>mikihito takenaka</u> ,SITI AISYAH BINTI SHAMSUDIN1,hirokazu hasegawa,go sakaguchi 7852	
15:50	2M15	UV Cured Resin Containing Sulfonic Acid and Its Application to Demolding Agent-free Resin Mold for Imprint Lithography <u>Haruyuki Okamura</u> ,Koji Kai,Masamitsu Shirai,Akikazu Matsumoto 7854	
16:15	2M16	The method for fabricating UV nanoimprinted patterns with an uniform residual layer by screen printing. <u>Takuya UEHARA</u> ,Kazuro NAGASE,Akira TANABE,Hiroaki IKEDO,Masaru NAKAGAWA 7856	

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C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

K. Fujita, presiding

9:10	3M01	Thermal molecular Motion and Electric Conductivity in [poly(3,4-ethylenedioxythiophene)/poly(styrenesulfonate)] <u>Yoshkazu Kamimura</u> ,Daisuke Kawaguchi,Keiji Tanaka 5573	
9:35	3M02	An effect of molecular weight on aggregation structure and photodynamics of monodisperse poly(3-hexylthiophene) in thin films <u>Ayano Higasayama</u> ,Yudai Ogata,Daisuke Kawaguchi,Yusyu Matsushita,Keiji Tanaka 5575	
10:00	3M03	Fabrication of Light-Emitting Devices by Laminating Organic and Inorganic Semiconductors and Comparison of their Performance <u>Hiroyuki Yamamoto</u> ,Keisei Yamada,Takeshi Yamao,Shu Hotta 5577	

A. Fujimori, presiding

10:25	3M04	Synthesis, Properties, and Semiconducting Properties of Polymers Containing Novel Pyradinodithiazole Unit. <u>Shohei Sasada</u> ,Yutaka Ie,Yoshio Aso 5579	
10:50	3M05	Electrical Breakdown Strength of Acrylic Pressure Sensitive Adhesives for Dielectric Elastomers <u>Shintaro Oku</u> ,Chizuru Hongo,Masaru Kotera,Takashi Nishino 5581	
11:15	3M06	Conformational Analysis and Magnetic Properties of Spirally Arranged Nitroxide Radical along the Polypeptide Chain. <u>Toshihiro Hiejima</u> ,Junpei Kaneko 5583	
11:40	3M07	Poly(lactic acid) piezoelectric film using the optical isomer <u>Tomoka Yoshimura</u> ,Tetsuo Yoshida,Atsuko Kato,Yoshiro Tajitsu 5585	

M. Higuchi, presiding

12:55	3M08	Flexible pressure sensor fabricated with polymer piezoelectric materials <u>Sei Uemura</u> ,Taiki Nobeshima,Heisuke Sakai,Heajeong Cheong,Kazuhiko Tokoro,Hideo Tokuhisa,Takehito Kodzasa,Manabu Yoshida 5587	
13:20	3M09	Ferroelectricity of Thin Film of Vinylidene Fluoride Trifluoroethylene Copolymer Doped with Nanoparticles <u>Ryusei Kosugi</u> ,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 5589	

S. Uemura, presiding

13:45	3M10	Synthesis and characterization of novel organic-metallic hybrid polymers containing pyridine-amide structure <u>Miki Kanao</u> , Masayoshi Higuchi 5591
14:10	3M11	Effects of glass transition temperature of the matrix polymer in organic resistive memory using Au nanoparticles / polystyrene composite film <u>Atsushi Fukushima</u> , Katsuhiko Fujita 5593
14:35	3M12	Thermo-responsive Switching of Dual Emission and Coloration by Novel Polymeric Film Containing Fluoran Dyes and Emissive Molecules <u>Kazuki Nakamura</u> , Kouki Ogasawara, Norihisa Kobayashi 5595

W. Sakai, presiding

15:00	3M13	Mechanism of memory properties of OTFTs fabricated with polypeptides having various side-chain structures. <u>Taihei Ikoga</u> , Kazuki Nakamura, Heisuke Sakai, Sei Uemura, Toshihide Kamata, Norihisa Kobayashi 5597
15:25	3M14	Surface control with the photoresponsive self-assembled monolayer containing 2-nitrobenzyl carbamate for application to organic thin film transistors <u>Tsubasa Konishi</u> , Michiko Ito, Kazuo Yamaguchi 5599

Room N**Wed. Sep 24****S16. Metal Complexes, Clusters, and Surfaces to Control the Polymer Functions**

9:50	1NSO	Introductory Remarks <u>Masayoshi Higuchi</u> 6746
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H. Takaya, presiding

10:00	1N03	Self-assembly of boroxine cages 3-mer, 6-mer and 12-mer <u>Kosuke Ono</u> , Nobuharu Iwasawa 6747
10:25	1N04	Polyaromatic Nanospace: Regulation of the Chemical Reactivity of Radical Initiators <u>Michito Yoshizawa</u> , Masahiro Yamashina 6749

K. Ono, presiding

10:50	1N05	Functionalization of Organic Semiconductors by Metal Complexation <u>Yutaka Matsuo</u> 6751
11:15	1N06	Precision Synthesis of Functionalized Metal Clusters <u>Yuichi Negishi</u> 6753
11:40	1N07	Catalysis of Metalated-Amino Acids and -Peptides <u>Hikaru Takaya</u> , Katsuhiko Isozaki, Ryota Yoshida, Tomoya Yokoi, Takeo Takenaka, Ran Itoh, Takahiro Iwamoto, Nobuhiro Yasuda, Koichi Yoshioka, Takashi Watanabe, Masaharu Nakamura 6755

R. Sakamoto, presiding

12:55	1N08	Synthesis of Metal Coordination Network from Polymer-Tethered Ligands <u>Takashi Kitao</u> , Takashi Uemura, Susumu Kitagawa 6757
13:20	1N09	Coordination chemistry in Supramolecular Proteins <u>Takafumi Ueno</u> 6759
13:45	1N10	Design and properties of conjugated molecules and polymers bearing a rotational unit <u>Masayuki Takeuchi</u> 6761

T. Ueno, presiding

14:10	1N11	Synthesis of the supramolecular-polymer type template for metal arrangement by crosslinking dendric polyphenyazomethines <u>Yuki Hirabayashi</u> , Ken Albrecht, Kimihisa Yamamoto.....	6763
14:35	1N12	Functionalization of self-assembled nanotubes formed from metal-complexes of peptide lipids <u>Masaki KOGISO</u> , Masaru AOYAGI, Mitsutoshi MASUDA.....	6765
15:00	1N13	"Bottom-up" metal complex nanosheet <u>Ryota Sakamoto</u> , Tatsuhiko Nagayama, Ryojun Toyoda, Hiroshi Nishihara.....	6767
M. Takeuchi, presiding			
15:25	1N14	Regioselective Accumulation of Photoreactive metal complex at Phase-segregation Interface of Highly Ordered Cylindrical Nanostructure in Amphiphilic Liquid Crystalline Diblock Copolymer Film. <u>Yoshiaki Tanio</u> , Masatoshi Otonari, Sadayuki Asaoka.....	6769
15:50	1N15	Fabrication of poly(ethylene glycol)-stabilized gold nanoclusters with near-infrared emission <u>Takumi Nagasawa</u> , Shunsuke Yamamoto, Masaya Mitsuishi.....	6771
16:15	1N16	Dimension Control of Organic-Metallic Hybrid Polymers and Their Electrochromic Properties <u>Masayoshi Higuchi</u>	6773
M. Higuchi, presiding			
16:40	1N17	Effect of Functional Moieties for 2D Porphyrin Molecular Assembly of and Design of New Nanostructures on Au Surface <u>Soichiro Yoshimoto</u> , Teppei Kawamoto.....	6775
17:05	1N18	Vapor-solid interface polymerization of conductive polymers on the surface of oxidant crystals <u>Kento Kuwabara</u> , Yuya Oaki, Hiroaki Imai.....	6777
17:30	1N19	Formation of self-assembled polymer monolayer on copper surface and resistance to oxidation <u>Tomoki TAKATA</u> , Juri TAKAGI, Takuya IKEDA, Kaoru ADACHI, Yasuhisa TSUKAHARA.....	6779
17:55	1N20	Formation of self-assembled monolayer of thiol terminated polymers on copper surfaces and electrochemical characterization of oxidation and heat resistant of the surfaces <u>Juri TAKAGI</u> , Tomoki TAKATA, Takuya IKEDA, Kaoru ADACHI, Yasuhisa TSUKAHARA.....	6781

Thu. Sep 25

S24. Design and Property Evaluation of Networked Polymers and Their Development to Novel Functional Materials

9:00	2NSO	Introductory Remarks <u>Kozo Matsumoto</u> , Hironao Fukuoka.....	7728
T. Terashima, presiding			
9:10	2N01	Development of Thermal Curing System by Ring-Opening Copolymerization of caprolactam and epoxide <u>Hiroto KUDO</u> , Kentaro BUYA.....	7729
9:35	2N02	Synthesis and Polymerization of Monomers with Rigid Skeletons Derived from myo-Inositol <u>Tomio Sakue</u> , <u>Atsushi Sudo</u>	7731
10:00	2N03	Synthesis and crosslinking reaction of styrene-based polymers undergoing non volume shrinkage during crosslinking <u>Takahiro Miyata</u> , Kozo Matsumoto, Takeshi Endo.....	7733
A. Sudo, presiding			
10:25	2N04	One-Pot Synthesis of Thermally Curable Hyperbranched Polymers	

		and Application to Solvent-Free Adhesives <u>Izumi Uehara</u> , Eriko Sato, Takashi Nishiyama, Akikazu Matsumoto, Hideo Horibe.....	7735
10:50	2N05	Precision Network Star Polymers via Living Radical Polymerization: From Microgels to Macrogels <u>Takaya Terashima</u>	7737
		H. Kudo, presiding	
11:15	2N06	Creation of Unusual Block Copolymer Nanostructures by Resol Crosslinking <u>Teruaki Hayakawa</u> , Yuki Tanaka, Rina Maeda.....	7739
11:40	2N07	Preparation of network polymers based on phenolic structure <u>Takahiro Okabe</u> , Tomoki Ogoshi, Tada-aki Yamagishi	7741
		E. Sato, presiding	
12:55	2N08	Copolymerization of vinyl-containing benzoxazines and vinyl monomers <u>Tsutomu Takeichi</u> , Soulideth Thongpradith, Takehiro Kawauchi.....	7743
13:20	2N09	Development of higher thermal resistance materials by synthesis and ring-opening polymerization of trifunctional benzoxazines <u>Motohisa Azechi</u> , Takeshi Endo	7745
		T. Takeichi, presiding	
13:45	2N10IL	Molecular Design of Networked Polymers and Approach to Novel Materials <u>Takeshi Endo</u>	7747
14:35	2N12	Crosslinking of poly(glycidyl methacrylate) monolith by ring- opening polymerization of an epoxide group <u>Hiroshi Ishii</u> , Hiroshi Uyama	7750
		T. Hayakawa, presiding	
15:00	2N13	Synthesis of cyclocarbonate resins and their application to anionic UV curing materials <u>Eri Nagai</u> , Masahiro Furutani, Koji Arimitsu	7752
15:25	2N14	Anionic UV curing of epoxy resins using novel non- decarboxylation-type base amplifiers <u>Shin Kawahara</u> , Masahiro Furutani, Koji Arimitsu.....	7754
15:50	2N15	Mechanical properties of ABA type triblock copolymers with bimodal hydrogen-bonding block length <u>Junsu Park</u> , Reishi Matsuoka, Naoko Yoshie	7756
		K. Arimitsu, presiding	
16:15	2N16	Property of rotaxane cross-linked polymers synthesized with rotaxane cross-linkers <u>Jun SAWADA</u> , Daisuke AOKI, Satoshi UCHIDA, Toshikazu TAKATA.....	7758
16:40	2N17	Synthesis and mechanical properties of polyelectrolyte gels synthesized by end-linking of tetra-arm polymers <u>Kazuyuki Oshima</u> , Yoshiro Mitsukami, Taku Fujimoto, Erina Minami.....	7760
17:05	2N18	Fracture behavior of polymer gels <u>Yuki Akagi</u> , Jian Ping Gong, Ung-il Chung, Takamasa Sakai	7762

Fri. Sep 26

S24. Design and Property Evaluation of Networked Polymers and Their Development to Novel Functional Materials

T. Oyama, presiding

9:10	3N01	Synthesis of Tough Double Network Elastomer with Poly (methyl methacrylate) <u>Yuki Maida</u> , Tasuku Nakajima, Takayuki Kurokawa, JianPing Gong	7764
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9:35	3N02	Electric and heat resistance properties of epoxy resin hardened by steam-exploded lignin. <u>Yoshiaki Okabe</u> , Hiroyuki Kagawa, Chizuru Sasaki, Yoshitoshi Nakamura 7766
10:00	3N03	Surface Treatment on BN filler for High-Thermal-Conductive BN / Epoxy Composite <u>Shingo Tanaka</u> , Fusao Hojo, Shi-hui Song, Yoshitaka Takezawa 7768
M. Mitsuishi, presiding		
10:25	3N04	Study of the influence of acrylic elastomers on the high-order structure of mesogenic epoxy resin <u>Shi-hui Song</u> , Seigou Kawaguchi, Yoshitaka Takezawa 7770
10:50	3N05	Analyses of fatigue fracture of toughened epoxy resins <u>Hajime Kishi</u> , Satoshi Matsuda, Yusuke Shimoda, Tomohiro Muraoka, Yoshio Furukawa 7772
H. Fukuoka, presiding		
11:15	3N06	Toughening of thermosetting resins composed of cyanate esters and benzoxazines by in situ polymerization method <u>Naohiro WADA</u> , Akio TAKAHASHI, Toshiyuki OYAMA 7774
11:40	3N07	Synthesis and Properties of Thiirinated Epoxy Resins with Fluorene Moiety Mitsukazu OCHI, <u>Hiroki KANO</u> , Junko OKUDA, Daich OSHIMA, Miyuki HARADA, Yuichiro YASUDA, Shinsuke MIYAUCHI 7776
M. Ochi, presiding		
12:55	3N08	Hybrid Network Polymer Films Based on Cyclosiloxane Monomers <u>Masaya Mitsuishi</u> , Ali Demirci, Shunsuke Yamamoto, Tokuji Miyashita 7778
13:20	3N09	Chiral zeolite analogue by the template polymerization of a liquid-crystal: large-area three-dimensional molecular ordering in a covalent framework <u>Yasuhiro Ishida</u> , Chunji Li, Joonil Cho, Kuniyo Yamada 7780
K. Matsumoto, presiding		
13:45	3N10	Design of Radical Alternating Copolymerization of Diene Monomers and Application to Degradable Thermosetting Resin Asuka Tsujii, Mika Nagashima, Limin Lou, Haruyuki Okamura, <u>Akikazu Matsumoto</u> 7782
14:10	3N11	Analysis of chain propagation in thiol/ene UV curing system using a reworkable dimethacrylate <u>Haruyuki Okamura</u> , Masaru Yamagaki, Masamitsu Shirai, Akikazu Matsumoto 7784
H. Okamura, presiding		
14:35	3N12	Crosslinking of Polycarbonate Bearing Five-membered Cyclic Carbonate Structure with Diamines and Its Decrosslinking <u>Yonekawa Morio</u> , Takeshi Endo 7786
15:00	3N13	Protection of isocyanate group by polymer effect in water: characteristics of reactions of copolymers containing isocyanate moieties in water and their development to network polymers <u>Ryota Seto</u> , Kozo Matsumoto, Takeshi Endo 7788

Room O

Wed. Sep 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

S. Kurihara, presiding

10:00	1O03	Advancement of the Technology for Formation of Glass Barrier Ribs
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		on a Plasma Display Panel Using Photosensitive Glass Paste. <u>Takahiro Tanino</u> , Yasuhiro Kobayashi, Youhei Yamamoto, Tsubasa Hamano, Yuichiro Iguchi.....	5601
10:25	1O04	Optimization of Diffraction Gratings for Organic Light-Emitting Device Applications <u>Yuki Obama</u> , Satoru Sugimoto, Takeshi Yamao, Shu Hotta	5603
10:50	1O05	Development of novel diamine type photobase generators and their application to anionic UV curing of epoxy resins <u>Yuya Maruyama</u> , Masahiro Furutani, Koji Arimitsu.....	5605
11:15	1O06	Photosensitivity characteristics of photoreactive materials containing novel base amplifiers without gas generation <u>Kazuki Tomota</u> , Kenji Kudou, Masahiro Furutani, Koji Arimitsu	5607
		S. Yokoyama, presiding	
11:40	1O07	Dry process photopatterning of conducting polymers using photoacid generating reactions <u>Shun Kubodera</u> , Masahiro Furutani, Koji Arimitsu.....	5609
12:55	1O08	Development of acid amplifiers generating various acids and their application to EUV lithography <u>Kentaro Takahashi</u> , Masahiro Furutani, Koji Arimitsu.....	5611
13:20	1O09	Design and synthesis of zero-zero-birefringence polymer using N-phenylmaleimide <u>Shotaro Beppu</u> , Shuhei Iwasaki, Houran Shafiee, Akihiro Tagaya, Yasuhiro Koike.....	5613
13:45	1O10	Control of birefringence dispersion using N-substituted maleimide <u>Hikaru Hotta</u> , Shotaro Beppu, Houran Shafiee, Akihiro Tagaya, Yasuhiro Koike.....	5615
		N. Tsutsumi, presiding	
14:10	1O11	Fabrication of Organic Semiconductor Devices with an Inorganic Two-dimensional Diffraction Grating <u>Takenori KITAZAWA</u> , Keisei YAMADA, Takeshi YAMAO, Shu HOTTA	5617
14:35	1O12	Solid State Phosphorescence Behavior of Platinum-Acetylide Polymers Based on Their High Density Cyclic Insulation Effects <u>Hiroshi Masai</u> , Jun Terao, Tetsuaki Fujihara, Yasushi Tsuji	5619
15:00	1O13	Photo-current generation in helical peptide monolayers having porphyrins and fullerenes <u>Hiroataka Uji</u> , Syunsaku Kimura	5621
		S. Hotta, presiding	
15:25	1O14	Synthesis of end-cap EO polymer by ATRP <u>Naoyuki Hayashi</u> , Yokoyama Shiyoshi, Kazuhiro Yamamoto, Andrew Spring	5623
15:50	1O15	Preparation of the high-performance electro-optics polymer by the high solubility chromophores <u>Hiroki Miura</u> , Shiyoshi Yokoyama, Kazuhiro Yamamoto, Andrew Spring	5625
16:15	1O16	Fabrication of electro-optic waveguide using dispersed CNT polymer cladding. <u>Hiromu Sato</u> , Shiyoshi Yokoyama, Daisuke Maeda, Masaaki Ozawa, Keisuke Odoi, Akira Otomo	5627
		A. Tagaya, presiding	
16:40	1O17	Holographic property of azobenzene molecule composite film <u>Yuuki Yabuhara</u> , kenji Kinashi, Wataru Sakai, Naoto Tsutsumi	5629
17:05	1O18	Organic thin film dye laser <u>Saori Nagi</u> , Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi	5631
17:30	1O19	Development of high-response photorefractive device with main-	

		chain triphenylamine polymer <u>Kenji Kono</u> , sho Tsujimura, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi 5633
17:55	1020	Enhanced Photorefractivity in a Poly(triarylamine) Device <u>Kento Masumura</u> , Sho Tsujimura, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi 5635

Thu. Sep 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

N. Tsutsumi, presiding

9:10	2001	Light manipulation in the liquid crystals including a high-speed response azobenzene molecule <u>Ryo Izumi</u> , Yutaka Kuwahara, Sunnam Kim, Tomonari Ogata, Seiji Kurihara 5637
9:35	2002	Surface Wettability Controllable Polyimides Bearing Long-Chain Alkyl Groups via Phenyl Ester and Benzophenone Groups by UV Light Irradiation <u>Yusuke Tsuda</u> , Syouma Kawabata, Yudai Kawashima, Ryouyusuke Shiki 5639

Y. Miura, presiding

10:00	2003	Chiroptical Properties and Selective Oligosaccharide-Sensing of Porphyrin-modified Curdlans in Aqueous Media <u>Mayuko Sasaki</u> , Gaku Fukuhara, Tadashi Mori, Yoshihisa Inoue 5641
10:25	2004	Synthesis of chiral organocatalysts attached to polymer microsphere and their application to asymmetric reaction. <u>Takuma Kobayashi</u> , Naoki Haraguchi, Shinichi Itsuno 5643
10:50	2005	Catalytic Ability of Metal Complexed Organic Nanotubes in Organic Oxidation <u>Masaru Aoyagi</u> , Masaki Kogiso, Toshimi Shimizu, Mitsutoshi Masuda 5645
11:15	2006	Formose Reaction Using Reverse Micelles as a Reaction Medium <u>Tomohiro Michitaka</u> , Makoto Masaoka, Toru Imai, Akihito Hashidzume, Takahiro Sato 5647

S. Itsuno, presiding

11:40	2007	Preparation and evaluation of multi-functional linear polymer library for IgG <u>Yuka Arata</u> , Yu Hoshino, Yoshiko Miura 5649
12:55	2008	Synthesis and characterization of polythiophenes having phosphonium groups (IV) -Effect of phosphonium structure- <u>Erika Yamaguchi</u> , Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa 5651
13:20	2009	Thickness and density dependency of specific polymer ligand thin layer on the specific binding of a target protein <u>Yuri Kamon</u> , Yukiya Kitayama, Akiko Itakura, Toshifumi Takeuchi 5653
13:45	2010	Molecular Recognition by Cyclodextrin (CD) in Organic Solvents : Effect of CD Dimerization <u>Chizuru Kogame</u> , Toshiyuki Kida, Mitsuru Akashi 5655

M. Kunitake, presiding

14:10	2011	Development of salt-absorbing material consisting of both acidic and basic nano gel particles <u>Naoki Gondo</u> , Kenta Imai, Ryohei Ohashi, Mengchen Yue, Hirokazu Seto, Yu Hosino, Yoshiko Miura 5657
14:35	2012	L-Lactate-derived Polyquinoxalines Exhibiting Ether Solvent-dependent Helix Inversion and Their Applications for Chiral Polymer Ligands <u>Yuuya Nagata</u> , <u>Takuma Kuroda</u> , Keisuke Takagi, Michinori Suginome 5659
15:00	2013	Induction of Helical Chirality of Poly(quinoxaline-2,3-diyl)s Bearing

		Boronic Acid Pendants <u>Takeshi Yamamoto</u> , Ryo Murakami, Satoko Komatsu, Michinori Suginome 5661
15:25	2014	Enantioseparation on Poly(diphenylacetylene) Derivatives Prepared by Chiral Induction and Memory Effect as Chiral Stationary Phase for HPLC <u>Kazuki KAJIO</u> , Katsuhiro MAEDA, Tomoyuki IKAI, Shigeyoshi KANO 5663
		T. Kida, presiding
15:50	2015	Diastereoselective Duplex Formation of Complementary Molecular Strands Connected through Chiral Linkers with Different Sequences <u>Junki Tanabe</u> , Wataru Makiguchi, Hidekazu Yamada, Daisuke Taura, Eiji Yashima 5665
16:15	2016	Affinity purification of multifunctional polymers having affinity for a peptide and evaluation of their peptide-binding ability <u>shinnosuke shimohara</u> , yu hoshino, yoshiko miura 5667
16:40	2017	Selective recognition of semiconducting single-walled carbon nanotubes by using polyfluorenes carrying mono-alkyl chain <u>Takahiro Fukumaru</u> , Fumiyuki Toshimitsu, Tsuyohiko Fujigaya, Naotoshi Nakashima 5669
17:05	2018	Facile sorting of semiconducting single-walled carbon nanotubes based on dynamic formation of hydrogen-bond polymers <u>Fumiyuki Toshimitsu</u> , Naotoshi Nakashima 5671

Fri. Sep 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

H. Kawakami, presiding

9:10	3O01	Synthesis of poly(diphenylacetylene)s having imidazolium salts and the gas permeability of their membranes <u>Toshikazu Sakaguchi</u> , Hyuma Ito, Tamotsu Hashimoto 5673
9:35	3O02	Carbon dioxide permeability of membranes of poly(vinyl ether)s having oxyethylene chains <u>Toshikazu Sakaguchi</u> , Fumiya Katsura, Tamotsu Hashimoto 5675
10:00	3O03	Improvement of Separation Property by the Nanosheet Coating on the Highly Permeable Membrane <u>Yu Nagase</u> , Kosuke Taira, Tatsuma Oda, Kana Ando, Yosuke Okamuta 5677

S. Fujikawa, presiding

10:25	3O04	Synthesis and gas permeation properties of polyimide membranes containing cage type POSS <u>Akihiro Yoshida</u> , Shota Ando, Sou Miyata, Shuichi Sato, Shinji Kanehashi, Kazukiyo Nagai 5679
10:50	3O05	Water vapor sorption property of ABA-type triblock copolymer membranes derived from polyimide and adamantyl methacrylate <u>Shota Ando</u> , Shimpei Konishi, Akihiro Yoshida, Sou Miyata, Shuichi Sato, Shinji Kanehashi, Kazukiyo Nagai 5681
11:15	3O06	Gas separation and CO ₂ sorption properties of polyimide composite membranes containing ionic liquid <u>Ryohei Shindo</u> , Hideaki Sawa, Masanori Kishida, Takashi Kidesaki, Shuichi Sato, Shinji Kanehashi, Kazukiyo Nagai 5683
11:40	3O07	Preparation of high CO ₂ permeable membrane by surface-modified silica nanoparticles possessing nano-space Naoki SAKAGUCHI, Manabu TANAKA, <u>Hiroyoshi KAWAKAMI</u> 5685

M. Kunitake, presiding

12:55	3O08	Synthesis and properties of novel aromatic asymmetric PIs with thermoplasticity, and application for next generation solar sail.
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		<u>Ryunosuke Kodama</u> , Shinji Ichikura, Takashi Sawaguchi, Masahiko Miyauchi, Yuichi Ishida, Rikio Yokota 5687
13:20	3O09	Transparent Thermoplastic Polyimides (7). Thermal and UV-stability <u>Junichi ISHII</u> , Naomi SHINDO, Masatoshi HASEGAWA, Tomoyasu SUNAGA 5689
13:45	3O10	Development of Novel Fabrication Method of Polybenzoxazole Film and Evaluation of Ring closing Behavior. <u>Yusuke Saegusa</u> , Fujigaya Tsuyohiko, Naotoshi Nakashima 5691
14:10	3O11	Effect of supermolecular structures of polyoxymethylene with different primary structures on uniaxial tensile behavior <u>Misato Saeiki</u> , Koh-hei Nitta, Daisuke Kobayashi 5693
T. Fujigaya, presiding		
14:35	3O12	Biaxially-oriented PPS film with heat-sealing-characteristics and its applications <u>Yoko Wakahara</u> , Takashi Tanaka, Tetsuya Machida, Takuji Higashioji, Masanori Sueoka 5695
15:00	3O13	Development of Addition-type Polyimide Containing Pendant Phenyl Groups / Carbon Fiber Composites - Examination of Double Vacuum-Bag Debulk System II - <u>Yuichi ISHIDA</u> , Toshio OGASAWARA, Masahiko MIYAUCHI, Nobuaki OHSHIRO, Rikio YOKOTA 5697
15:25	3O14	High-throughput evaluation of polymer lifetime using chemiluminescence imaging and investigation of synergistic effects of antioxidants <u>Naoki Aratani</u> , Toshiaki Taniike 5699

Room Q

Wed. Sep 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

Y. Ishida, presiding

10:00	1Q03	Characteristic of Optical Properties of Functionalized Gels Including Boron Ketoiminate <u>Kazumasa Suenaga</u> , Ryousuke Yoshii, Kazuo Tanaka, Yoshiki Chujo 5701
10:25	1Q04	Thermal Actuation of Polydomain Liquid Crystal Elastomers Utilizing the Soft Elasticity <u>Haruhisa Ashida</u> , Kenji Urayama 5703
10:50	1Q05	Charge Transport and Rectification Behavior of TEMPO-containing Redox Gels <u>Hiroshi Tokue</u> , Keita Kakitani, Kenichi Oyaizu, Hiroyuki Nishide 5705
11:15	1Q06	Effects of thickness on swelling property and elution behavior of sheet-like PVA cast gels <u>Saori Sasaki</u> , Atsushi Suzuki 5707
11:40	1Q07	Reversible photo-regulation of structural transition and cell adhesion on the functional surfaces modified with diblock copolymer containing spiropyran group <u>Di He</u> , Yoshinori Arisaka, Naoya Takeda 5709

S. Yusa, presiding

12:55	1Q08	Design and function of polysaccharide-nanoball cross-linked hydrogel. <u>Keiji Okita</u> , Shigeo Takeda, Yoshihide Hashimoto, Sadaatsu Mukai, Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi 5711
13:20	1Q09	Bioimaging and antigen delivery with Functional nanogels <u>Yukihiro Inuzuka</u> , Yoshiro Tahara, Sada-atsu Mukai, Shin-ichi

		Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi	5713
13:45	1Q10	Preparation and function of protein nanogels with bio-crosslinker <u>Takahiro Yoshimura</u> ,Tomoki Nishimura,Shinichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi	5715
14:10	1Q11	Design and function of photodegradable physically-cross linked nanogels <u>Masahiro Takara</u> ,Tomoki Nishimura,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi	5717
T. Ubukata, presiding			
14:35	1Q12	Design and synthesis of photo-reactive and stimuli-sensitive liponano-capsules by layer-by-layer deposition of polypeptides onto a liposome <u>Maya Hirakawa</u> ,Yuuka Fukui,Keiji Fujimoto.....	5719
15:00	1Q13	Preparation and modification of enzyme-incorporated gel capsules to create novel functions <u>akane muto</u> ,yuuka fukui,keiji fuzimoto	5721
15:25	1Q14	Functionalization of nano-objects built from polymer-grafted proteins <u>Daiki Sakai</u> ,Yuuka Fukui,Keiji Fujimoto	5723
15:50	1Q15	Photonic crystals based on the lamellar structure of uniaxially oriented inorganic nanosheets <u>Koki Sano</u> ,Younsoo Kim,Yasuho Ebina,Takayoshi Sasaki,Yasuhiro Ishida,Takuzo Aida.....	5725
16:15	1Q16	Anomalous Anisotropic Thermoresponse of NIPAM-based Hydrogels Doped with Uniformly Aligned Inorganic Nanosheets <u>Younsoo KIM</u> ,Mingjie Liu,Yasuhiro Ishida,Yasuo Ebina,Takayoshi Sasaki,Takuzo Aida.....	5727
S. Mukai, presiding			
16:40	1Q17	Preparation and Disintegration of Stimuli-responsive Liquid Marbles <u>Keita Nakai</u> ,Keita Kuroda,Hinari Nakagawa,Masashi Morihara,Syuji Fujii,Yoshinobu Nakamura,Shin-ichi Yusa.....	5729
17:05	1Q18	Polymer Micelle and Vesicle Formed from pH-responsive Diblock Copolymer <u>Ryusuke Enomoto</u> ,Khimani Mehul,Pratap Bahadur,Shin-ichi Yusa.....	5731
17:30	1Q19	Formation of Photoreaction-induced Surface Relief on Bisanthracene Film Taishi Sonoda,Megumi Nakayama,Hideyuki Kihara, <u>Takashi Ubukata</u>	5733
17:55	1Q20	Development of a new ointment material by functionalizing PEO that has allyl groups in the side chain <u>Daichi Asai</u> ,Yuusuke Ichiki,Keiji Yamasita,Yasuhiro Noda	5735

Thu. Sep 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

N. Kimizuka, presiding

9:10	2Q01	Reversible Solubility Change of pH-Sensitive Functional Polymers with Acid Insoluble Carboxy Groups <u>Hidenobu Shimizu</u> ,Risei Wada,Masaru Okabe	5737
9:35	2Q02	Acid-/Thermo-Responsive Polymer Prepared by Radical Polymerization of β -Amino Acid Ester Bearing Polymerizable Vinyl Group <u>Yusuke Matsumoto</u> ,Yasuhiro Kohsaka,Tatsuki Kitayama.....	5739
10:00	2Q03	Synthesis and Fluorescent Study of Thermo-responsibility of Fluorescence Probe Labeled Poly(L-lactic acid)-block-poly(N- isopropylacrylamide) and Its Molecular Assembly <u>Itsuko NAKAMURA</u> ,Kaoru IWAI.....	5741

10:25	2Q04	Molecular alignment induced by dynamic photopolymerization process: effect of doped precision polymer <u>Wataru Nakano</u> , Atsushi Shishido 5743
T. Kitayama, presiding		
10:50	2Q05	Development of Nanostructured Ion Conductive materials by Control of Intermolecular Interactions between Liquid-Crystalline Molecules and Ionic Liquids <u>Akihiro Yamashita</u> , Masafumi Yoshio, Takashi Kato 5745
11:15	2Q06	Development of photon upconversion properties in ionic liquids <u>Shouta Hisamitsu</u> , Nobuhiro Yanai, Nobuo Kimizuka 5747
11:40	2Q07	Fabrication and Characterization of Photosensitive Self-Assembled Monolayers using Photodegradable 2-Nitrophenethyl Linker <u>Michiko ITO</u> , Daiki SATO, Tomoya YAMADA, Kazuo YAMAGUCHI 5749
S. Sawada, presiding		
12:55	2Q08	Preparation of redox-responsive supramolecular hydrogel using host-guest interaction <u>Kohei Miyamae</u> , Masaki Nakahata, Takahiro Kakuta, Yoshinori Takashima, Akira Harada 5751
13:20	2Q09	Preparation of supramolecular gel actuator attributed to the sliding motion of [c2]rotaxanes. <u>Kazuhisa IWASO</u> , Yoshinori TAKASHIMA, Hiroyasu YAMAGUCHI, Akira HARADA 5753
13:45	2Q10	Adhesion between polymeric gels using various non-covalent interactions <u>Masaki Nakahata</u> , Yoshinori Takashima, Akira Harada 5755
A. Harada, presiding		
14:10	2Q11	Syntheses of Rotaxane Network Polymers Consisting of a 24-Membered Crown Ether Complex Having Long Alkene Groups and Bifunctional spacer <u>Tomomi SAKASHITA</u> , Kenjiro ONIMURA, Kazuhiro YAMABUKI 5757
14:35	2Q12	The evaluation of self-oscillating polymer brush surface modified on porous glass substrate <u>Kenta Homma</u> , Tsukuru Masuda, Aya Mizutani Akimoto, Kenichi Nagase, Teruo Okano, Ryo Yoshida 5759
15:00	2Q13	Regulated phase transition behavior of thermoresponsive polymeric micelles through the characteristic of surface-introduced phenylboronic acid <u>Masamichi Nakayama</u> , Jun Akimoto, Teruo Okano 5761
Y. Higaki, presiding		
15:25	2Q14	Study on Construction of Transparent Film of Crystalline Fluorinated Copolymer / Organo-modified Inorganic Particles Nanocomposite <u>Youichi Soutome</u> , Xiao Zhang, Yusuke Kasahara, Takuma Kanehira, Shuichi Akasaka, Atsuhiko Fujimori 5763
15:50	2Q15	Fine Structural Estimation of Fluorinated Copolymer / Organo-modified Nanodiamond Two-dimensional Nanohybrids <u>Nanami Honda</u> , Masamichi Hashimoto, Rie Yamato, Kyohei Ohmura, Shuichi Akasaka, Atsuhiko Fujimori 5765
16:15	2Q16	Fabrication of Photo-Sensitive Polymer Nanowires by Single Particle Nanofabrication Technique Hoi Lok Cheng, Michael T. Tang, Wasin Tuchinda, <u>Kazuyuki Enomoto</u> , Atsuya Chiba, Saito Yoichi, Kamiya Takahiro, Masaki Sugimoto, Akinori Saeki, Shu Seki 5767
16:40	2Q17	Fabrication of carbon-coated anodic aluminum oxide molds with sub-20 nm structures and its application to thermal and ultraviolet nanoimprinting <u>Akifumi Nakaya</u> , Yasuto Hoshikawa, Haruya Kasa, Junji

Nishii, Takashi Kyotani, Nakagawa Masaru 5769

K. Kojio, presiding

17:05 2Q18 The Study of Surface Modification Effect of Polyethylene with Side Chain Crystalline Block Co-polymer
Fumiharu Yamasaki, Ryoko Nakano, Hihoshi Sekiguchi, Shigeru Yao 5771

Fri. Sep 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

M. Nakagawa, presiding

9:10 3Q01 Photografting Polymerization of Acrylic Acid on the Electrospun Polyurethane Nanofibers
Joto Yasuda, Atsushi Hotta 5773

9:35 3Q02 Synthesis and Characterization of Amphiphilic Diblock Copolymers Having Sulfonic Acid Groups (IV) -Evaluation of Micelle Forming Ability-
Takahiro Kato, Ken Akitsuki, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa 5775

10:00 3Q03 Cooperative Self-Assembly Induced by Stacking of Hydrogen-Bonded Cyclic Supramolecules
Mitsuaki Yamauchi, Katsuya Ishiwatari, Shiki Yagai 5777

Y. Takeoka, presiding

10:25 3Q04 Manufacturing of Cellulose Nanofiber and Applications
Yuichi Noguchi 5779

10:50 3Q05 Functions of polar solvent type TR fluid with a side chain crystalline block copolymer having a hydrophilic unit.
Koki Hirakawa, Toru Okuma, Ryoko Nakano, Hiroshi Sekiguti, Shigeru Yao 5781

11:15 3Q06 Study of minimum molding period for high-throughput ultraviolet nanoimprinting
Yota ISHITO, Masaru NAKAGAWA 5783

11:40 3Q07 Preparation of hybrid nanoparticles composed of polysaccharide hydrogel and magnetic nanoparticles by W/O miniemulsion method
Akihiro Koyama, Yuuka Fukui, Keiji Fujimoto 5785

N. Nakashima, presiding

12:55 3Q08 Preparation and Mechanical Properties of Well-aligned and Well-oriented isotactic Polypropylene Nanofibers
Yuji Asahina, Chizuru Hongo, Masaru Kotera, Takashi Nishino 5787

13:20 3Q09 Characterization of Electrospun Poly(butylene terephthalate) Fibers
Hirofumi Kabayama, Ryohei Ishige, Noboru Ohta, Yuji Higaki, Ken Kojio, Atsushi Takahara 5789

13:45 3Q10 One-dimensional alignment of chiral nano silica in polymer film
Yutaka Okazaki, Makoto Takafuji, Emilie Pouget, Reiko Oda, Hirotaka Ihara 5791

14:10 3Q11 Control of Surface Nanostructure and Molecular Arrangement in Organized Molecular Film of the Polymer with π -conjugated Functional Groups
Takahiro Kikkawa, Shunntaro Miura, Yuji Shibasaki, Atsuhiko Fujimori 5793

H. Ihara, presiding

14:35 3Q12 Formation of photocleavable polymersome and the release of an encapsulated substance : Analysis using amphiphilic diblock copolymers with precisely-controlled molecular weight and field flow fractionation method
Shota Yamamoto, Hidemi Tochigi, Jun Nakanishi, Seiichi Nakahama, Kazuo Yamaguchi 5795

15:00	3Q13	Preparation and Surface Modification of Nanofibers by Using Crystallization from Dilute Solution <u>Tetsuya Uchida</u> , Masashi Furukawa, Fumiaki Iwaguro 5797
15:25	3Q14	Layer-by-Layer Assembly of Trivalent Metal Cation and Anionic Polymer in Nanoporous Anodic Aluminum Oxide <u>Takao Sada</u> , Tsuyohiko Fujigaya, Naotoshi Nakashima 5799

Room R

Wed. Sep 24

S23. Water Processing Technology and Polymer

9:50	1RSO	Introductory Remarks <u>Shigeru Yao</u> 7639
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H. Yoshimizu, presiding

10:00	1R03	Adsorption and removal of metal ions dissolved in the water using a surface modification porous membrane <u>Ryoko Nakano</u> , Fumiharu Yamasaki, Hiroshi Sekiguchi, Shigeru Yao 7640
10:25	1R04	Preparation and characterization of PVA based charge-mosaic membranes <u>Mitsuru Higa</u> , Naoki Shigeta, Tetsuro Maeda, Yuriko Kakihana 7642

R. Nakano, presiding

10:50	1R05	Development of polysilsesquioxane-related reverse osmosis membranes from alkoxysilanes having a hydrophilic group <u>Kazuki Yamamoto</u> , Joji Ohshita, Toshinori Tsuru 7644
11:15	1R06	Development of Porous Polyimide Membranes and Their Applications <u>SHINJI ANDO</u> , DAISUKE ARIMA, HIDENORI KUROKI, HIDENORI OHASHI, SHIGERU YAO, TAKEO YAMAGUCHI 7646
11:40	1R07	Transport phenomena across hollow fiber amphoteric charged membranes <u>Ryotaro Kiyono</u> , Kotaro Ikeda, Kayoko Hata 7648

M. Higa, presiding

12:55	1R08	Characterization of diffusivities of the water molecules in polymers by NMR methods <u>Hiroaki Yoshimizu</u> 7650
13:20	1R09	Morphology of floc formed of PSL-particles with an addition of polyelectrolytes <u>Yasuhisa Adachi</u> , Tsbasa Takanashi, Motoyoshi Kobayashi 7652
13:45	1R10	Subnanoscopic Free-volume Holes in Polymeric Hollow-fiber Separation Membranes Elucidated by Low-energy Positron Annihilation Lifetime Technique <u>KENJI ITO</u> , NAGAYASU OSHIMA, HIDEAKI HAGIHARA, BRIAN O'ROURKE, HIROSHI YANAGISHITA 7654

Y. Adachi, presiding

14:10	1R11	Leachate treatment by membrane technology <u>Kenichi Ushikoshi</u> 7656
14:35	1R12	Development of low-fouling membranes from the viewpoint of microscopic water structure <u>Kazuki Akamatsu</u> , Shin-ichi Nakao 7658

K. Akamatsu, presiding

15:00	1R13	Molecularly imprinted polyacrylonitrile adsorbent aimed for capture of cesium ion <u>Hironao Iwasaki</u> , Masakazu Yoshikawa 7660
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15:25	1R14	Fabrication of polymer nanosheet with calix crown derivatives <u>Sato Katsunori</u> , Gen Noguchi, Kohei Asao, Atsushi Murata, Toshinori Fujie, Yu Nagase, Shinji Takeoka 7662
15:50	1R15	Usage of organic polymers in water supplies in Japan <u>Masaki Itoh</u> , Masahiro Otaki, Shinobu Yamamoto 7664
M. Yoshikawa, presiding		
16:15	1R16	Flocculation/consolidation of inorganic sludge utilizing hydrophilic/hydrophobic transition of thermosensitive polymer <u>Shuji Sakohara</u> , Naoki Uda 7666
16:40	1R17	Effect of polymer composition for flocculation on sludge dehydration. <u>Satoshi Takebayashi</u> , Shigeru Sato, Katsutoshi Kubo 7668

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

M. Inutsuka, presiding

17:05	1R18	Surface modification of inorganic particles utilizing thermal decomposition of polymers <u>Kohei Seki</u> , Masahiro Furutani, Koji Arimitsu, Hiroshi Yoshitani, Shoji Nozato, Akira Nakasuga 5801
17:30	1R19	Photoswitching of Wettability on Rough Surfaces of Polymer Films with Azobenzene Groups <u>Ken Komiya</u> , Masahiro Furutani, Koji Arimitsu 5803
17:55	1R20	UV curing of siloxane-epoxy resins containing TiO ₂ and their application to self-cleaning materials <u>Yuka Tachibana</u> , Masahiro Furutani, Koji Arimitsu 5805

Thu. Sep 25

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

K. Tanaka, presiding

9:10	2R01	Dielectric Composites with Anisotropic Ceramics Fillers for High Frequency Applications Susumu Takahashi, <u>Yusuke Imai</u> , Akinori Kan, Yuji Hotta, Hirotaka Ogawa 5807
9:35	2R02	Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [XIV]; Introduction of Iodine to Commodity Resins(2). <u>Akio Kawaguchi</u> 5809
10:00	2R03	Nanocomposites Based on Isotactic Polypropylene Incorporated with Nanodiamond <u>Tomoki Yodate</u> , Chizuru Hongo, Masaru Kotera, Takashi Nishino, Kimiya Goto, Katsuhiko Hata 5811
10:25	2R04	All-polyimide Nanocomposite by Electrospinning <u>Keiko MIZOGUCHI</u> , Masaru KOTERA, Chizuru HONGO, Takashi NISHINO 5813

C. Hongo, presiding

10:50	2R05	Additional effects of PPC modified by ionic liquids on tensile properties of iPP <u>Makiko Nakahara</u> , Koh-hei Nitta, Kiyoshi Nishioka, Nobutaka Fujimoto 5815
11:15	2R06	Mechanical Properties of Epoxy/Mica Nano-composites prepared with Epoxy Polymerization Initiated from Interlayer Gallery <u>Nobutake Tsuyuno</u> , Shogo Nakai, Miyuki Harada, Mitsukazu Ochi 5817
11:40	2R07	One-pot synthesis of gold-polymer hybrid nanoparticles in mini-emulsion droplets to tune their structures and functions <u>Kaori Fujino</u> , Yuuka Fukui, Keiji Fujimoto 5819

Y. Sasaki, presiding

12:55	2R08	High Concentration Solubilization of Fullerene Using Biocompatible
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		Polymer <u>Tetsuya Ohata</u> , Shin-ichi Yusa, Kazuhiko Ishihara, Yasuhiko Iwasaki 5821	
13:20	2R09	Preparation and evaluation of the collagen complex gel with fibrillized structure applicable for tissue regeneration template <u>Kwangwoo Nam</u> , Tsuyoshi Kimura, Akio Kishida 5823	
13:45	2R10	Addition of an enzyme-like activity into artificially simple peptides and these application to self-supplied mineralization <u>Kazuki Murai</u> , Takatoshi Kinoshita, Kenji Nagata, Masahiro Higuchi 5825	
14:10	2R11	Suppression of chalking effect for photocatalytic polymer sheet using apatite-coated titanium oxide particles <u>Hayato Honda</u> , Masahiko Maeda 5827	
		K. Fujimoto, presiding	
14:35	2R12	Preparation of functional Biomaterials using inorganic particles as template <u>Iki Taketani</u> , Shun Shikura, Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi 5829	
15:00	2R13	Preparation of ladder-like polysilsesquioxanes containing imido groups and their functions <u>Shunya Miyauchi</u> , Tomoyuki Arake, Takuo Sugioka, Yasutaka Sumida, Toshiaki Enoki, Joji Ohshita, Yoshiro Kaneko 5831	
15:25	2R14	Development of Network Polymer Based on POSS and Selective Encapsulation Properties <u>Takahiro KAKUTA</u> , Kazuo TANAKA, Yoshiki CHUJO 5833	
15:50	2R15	Preparation of hydrophobic ladder-like polysilsesquioxanes and their dispersion in organic polymers <u>Hitomi Imamura</u> , Takuo Sugioka, Yasutaka Sumida, Yoshiro Kaneko 5835	
		Y. Kaneko, presiding	
16:15	2R16	Polymer-Heteropoly Acids Hybrid for High Refractive Index and Transparent Materials <u>Hirokuni Jintoku</u> , Shota Izumi, Mirai Kuroki, Makoto Takafuji, Hirotaka Ihara 5837	
16:40	2R17	Near-infrared electrochromism in organic-heterometallic hybrid polymers <u>Takashi SATO</u> , Masayoshi HIGUCHI 5839	
17:05	2R18	Spontaneous formation of mucous fibers consisting of detonation nanodiamonds with polymers <u>Naoto Miwa</u> , Ozawa Masaki, Ito Tadamasa 5841	

Fri. Sep 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

M. Inutsuka, presiding

9:10	3R01	Preparation of Transparent Hybrid Films Based on the Specific Dispersion - Agglomeration Behavior of Hydroxypropyl Cellulose (HPC) / SiO ₂ Hybrid Suspension <u>Tsuyoshi Tadano</u> , Shota Suzuki, Rui Zhu, Toru Hoshi, Daisuke Sasaki, Toshiki Hagiwara, Takashi Sawaguchi 5843
9:35	3R02	Metal Nanoparticles Formed in the Nanospace of Redox Active Polymer Nanotubes and Their Catalytic Activity <u>Nishiura Asuka</u> , Tsukasa Nakahodo, Hisashi Fujihara 5845
10:00	3R03	Characterization of environmentally-responsive membrane using amphiphilic diblock copolymers having poly(oxazoline) <u>Kento Onaka</u> , Atushi Kimoto, Junji Watanabe, Yoshiyuki Ikeda 5847
10:25	3R04	Micropattern structure and surface enrichment of hydrophilic

chain formed by humid environment for wettability
Wataru Yakami, Atsushi Kimoto, Junji Watanabe, Yoshiyuki Ikeda 5849

E. Sato, presiding

- 10:50 3R05 Lubrication of polymer-surfactant complex film prepared through sequential adsorption
Kenji Hisada, Takayuki Wakano, Masaki Goto, Yoshiaki Hirano 5851
- 11:15 3R06 Preparation of self-assembled polymer thin film of ionic amphiphilic diblock polymers and investigation on its nanostructure and properties.
naoto okuno, hideki matsuoka 5853
- 11:40 3R07 A highly sensitive dissolved oxygen sensor based on the superhydrophobic surface
Gao Yu, Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi 5855

Y. Oda, presiding

- 12:55 3R08 Novel adhesive polymer utilizing thymine-adenine interaction and thymine photodimerization
Nobuhiro Ishikawa, Masahiro Furutani, Koji Arimitsu 5857
- 13:20 3R09 Design of Dismantlable Adhesives Using Side-Chain Reactive Acrylic Polymers and Evaluation of Dismantling Behavior
Eriko Sato, Keisuke Yamanishi, Kentaro Taniguchi, Hideo Horibe, Akikazu Matsumoto 5859
- 13:45 3R10 Microwrinkle Formation Using Thermal Expansion of Elastomers and Application to Wettability Control
Chika Matoba, Eriko Sato, Takashi Nishiyama, Akikazu Matsumoto, Hideo Horibe 5861

K. Kojio, presiding

- 14:10 3R11 Preparation of polymer thin films having hierarchically ordered surface structure by utilizing anodically-oxidized porous alumina as a template
Tomomi Uemura, Motoki Sumida, Jin Motoyanagi, Masahiko Minoda 5863
- 14:35 3R12 Formation of Surface Relief Structures by Photochromism of Naphthacenequinone Dendrimers
Masaya Moriyama, Tomomi Ueshima, Naohiro Kawano, Shuhei Kai, Takahiro Takeshima, Shusaku Nagano, Takahiro Seki 5865
- 15:00 3R13 Scaffold Surface Treatment for Enhancing Cell Behaviors by Ultrafine Bubble Water
Toshiyuki OHTA, Hisao MATSUNO, Atsuomi SHUNDO, Yasuo FUKUNAGA, Keiji TANAKA 5867
- 15:25 3R14 Precision Design of Vinyl Polymers towards Control of Their Water Interfaces
Yukari Oda, Cui Zhang, Hisao Matsuno, Norifumi L. Yamada, Keiji Tanaka 5869

Room S

Wed. Sep 24

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

S. Kuroki, presiding

- 10:00 1S03 Influence of crystallization condition on proton conductivity of crystalline/amorphous block copolymers
Toshiyuki Kataoka, Keitaro Oyasu, Takayuki Ikehara 5871
- 10:25 1S04 Syntheses of Rotaxane Network Polymer by Metathesis Reaction of 24-membered Crown Ether Complexes Having a Long Alkenyloxy Group

		<u>Haruka Inoue</u> , Kenjiro Onimura, Kazuhiro Yamabuki.....	5873
10:50	1S05	Preparation of graft-type polymer electrolyte membranes consisting of aromatic hydrocarbon polymer/inorganic nanoparticle composites and their properties <u>Hideyuki Fukasawa</u> , Shin Hasegawa, Yasunari Maekawa.....	5875
T. Ikehara, presiding			
11:15	1S06	Solid State NMR Study for Polyaniline-Iron-C Cathode catalysts for Oxygen Reduction in Fuel Cells II <u>Shigeki Kuroki</u>	5877
11:40	1S07	Hierarchical Structures and Fuel Cell Properties of Imidazolium-Containing Anion Conducting Polymer Electrolyte Membranes Prepared by Radiation-Induced Grafting <u>Kimio Yoshimura</u> , Yue Zhao, Hiroshi Koshikawa, Tetsuya Yamaki, Hideyuki Shishitani, Susumu Yamaguchi, Hirohisa Tanaka, Satoshi Koizumi, Yasunari Maekawa	5879
A. Shundo, presiding			
12:55	1S08	Influence of bending to flexible organic thin film solar cell <u>Daiki Kato</u> , Atsushi Aoki, Takayuki Abe	5881
13:20	1S09	Fabrication of organic thin film solar cells and their characterization <u>Naoki Iwamoto</u> , Takeshi Yamao, Shu Hotta	5883
13:45	1S10	Fabrication of organic thin film solar cells using thiophene/phenylene co-oligomers and fullerene <u>Masashi Nakamura</u> , Takeshi Yamao, Shu Hotta	5885

S17. Structures and Emergent Functions of Nano- and Micro-sized Particles

14:25	1SSO	Introductory Remarks <u>Makoto Takafuji</u> , Tatsuo Taniguchi.....	6783
H. Ishii, presiding			
14:35	1S12	Preparation and Application of Fluorinated Oligomeric Nanoparticles <u>HIDEO SAWADA</u>	6784
15:00	1S13	Preparation of High Performance Aramide Hollow Spheres by Reaction-induced Phase Separation during Polymerization <u>Hirofumi Nakayama</u> , Tetsuya Uchida, Shinichi Yamazaki, Kunio Kimura	6786
15:25	1S14	Synthesis of polylactide derivatives with ionic liquids group applicable for the particle formation <u>Tatsuo Shigemori</u> , Tsutomu Ono	6788
H. Sawada, presiding			
15:50	1S15	Control over the location of submicron-sized, movable particles incorporated into hollow silica by an external field <u>Kanako Watanabe</u> , Haruyuki Ishii, Daisuke Nagao, Mikio Konno.....	6790
16:15	1S16	Monodisperse latex nanoparticles synthesized in aqueous media at low surfactant concentrations <u>Haruyuki ISHII</u> , Motohiro ISHII, Daisuke NAGAO, Mikio KONNO	6792
16:40	1S17	Internal Microscopic Structures of Thermosensitive Hydrogel Particles Investigated by means of Small-Angle X-ray Scattering <u>Takuma Kureha</u> , Takaaki Sato, Daisuke Suzuki.....	6794
H. Ishii, presiding			
17:05	1S18	Synthesis and Characterization of a Calix[4]arene Amphiphilic Bearing Quaternized Amine <u>Shimpei Yamada</u> , Shota Fujii, Yusuke Sanada, Kazuo Sakurai.....	6796
17:30	1S19	Studies on Dynamics of Submicron Particles in Suspensions Probed by High Frequency Dynamic Ultrasound Scattering Techniques <u>Tomohisa Norisuye</u> , Kenta Igarashi, Keisuke Kobayashi, Kazuki	

		Sugita,Hideyuki Nakanishi,Qui TRAN-CONG MIYATA 6798
17:55	1S20	Scattering analysis for highly oriented colloidal dispersion consisting of sheet-like inorganic particles <u>Daisuke Yamaguchi</u> ,Teruyuki Nakato,Nobuyoshi Miyamoto,Satoshi Koizumi,Naoto Yagi,Noboru Ohta,Toshihiro Kawakatsu,Takeji Hashimoto..... 6800

Thu. Sep 25

S17. Structures and Emergent Functions of Nano- and Micro-sized Particles

R. Nishiyabu, presiding

9:10	2S01	Fabrication of functional particles based on a colorless polydopamine coating <u>Michinari Kohri</u> ,Kanao Uradokoro,Yuri Nannichi,Hiroto Kohma,Tatsuo Taniguchi,Keiki Kishikawa..... 6802
9:35	2S02	Synthesis and Applications of Polydivinylbenzene Core-Poly(acrylic acid) Corona Particles <u>Suzuka SUMIYOSHI</u> ,Akane KUBOTERA,Reiko SAITO..... 6804
10:00	2S03	Anionic UV curing of epoxy resins enhanced by base-amplifying microcapsules <u>Yune Kumazawa</u> ,Masahiro Furutani,Koji Arimitsu 6806

M. Kohri, presiding

10:25	2S04	Effect of chemical structures of polymer shells on property of acid- amplifying microcapsules <u>Shota Amano</u> ,Masahiro Furutani,Koji Arimitsu 6808
10:50	2S05	Precision Synthesis and Functionalization of Polymer Particles Based on Living Coordination Dispersion Polymerization of Allene Derivatives <u>Ikuyoshi Tomita</u> ,Akira Yamauchi,Harumi Okumura,Tomoko Sekiya,Hiroki Nishiyama,Shinsuke Inagi,Takahiro Omura,Yoshiyuki Oguchi,Hiroshi Yamauchi..... 6810
11:15	2S06	Preparation and Characterization of Extra-high Density Star- shaped Polymer Particles via RAFT Polymerization in Heterogeneous System <u>Sumika Sato</u> ,Moriya Kikuchi,Atsushi Narumi,Seigou Kawaguchi 6812
11:40	2S07	A white-light emitting chemosensor based on hierarchical assemblies of boronate polymers <u>Ryuhei Nishiyabu</u> ,Yasuyuki Sugino,Yuji Kubo 6814

K. Niikura, presiding

12:55	2S08	Does the encapsulated heat storage materials really keep the original thermal properties ? Preeyaporn Chaiyasat,Syrung Noppalit,Amorn Chaiyasat, <u>Masayoshi Okubo</u> 6816
13:20	2S09	Particle synthesis using soap-free emulsion polymerization in a microchannel slug flow <u>Tsutomu Ono</u> ,Takuya Soga,Kouki Tawara..... 6818
13:45	2S10	Structural Control of Polylactide Microspheres Using Solvent Diffusion <u>Takaichi Watanabe</u> ,Tsutomu Ono 6820
14:10	2S11	One-step Synthesis of Rattle-like Capsules via Suspension Polymerization <u>Toyoko Suzuki</u> ,Ayumi Osumi,Hideto Minami..... 6822

T. Suzuki, presiding

14:35	2S12	Benefits of Polymeric microspheres in bio-sensing --- Focusing on highly sensitive detection of telomerase by SPR bio-sensor Ryuuji Hara, <u>Haruma Kawaguchi</u> 6824
15:00	2S13	Gold nanoparticles with amphiphilic surface designed for efficient

		siRNA delivery <u>Kenichi Niikura</u> , Kenya Kobayashi, Chie Takeuchi, Takafumi Ninomiya, Shuko Takahara, Naoki Fujitani, Yoshihito Osada, Yoshihiro Ito, Kuniharu Ijro 6826
15:25	2S14	Polymeric gamma-cyclodextrin particles for selective removal of endotoxin <u>Masayo Sakata</u> , Kasane Kimura, Taku Matsuo, Masami Todokoro 6828
15:50	2S15	Synthesis of Monodispersed Micrometer-Sized Particles Having Human Serum Albumin Recognition Ability Using Microchannel <u>Kyohei Takimoto</u> , Eri Takano, Yukiya Kitayama, Toshifumi Takeuchi 6830
		M. Sakata, presiding
16:15	2S16	Inhibition of Angiogenesis by Catechol-supported Micelles <u>Masaki Moriyama</u> , Stephanie Metzger, Martin Ehrbar, Andre J. van der Vlies, Hiroshi Uyama, Urara Hasegawa 6832
16:40	2S17	Highly Sensitive Detection of Biomarker Protein with Polymeric- ligand Immobilized Gold Nanoparticles Prepared by Surface- Initiated Atom Transfer Radical Polymerization <u>Yukiya Kitayama</u> , Toshifumi Takeuchi 6834
17:05	2S18	Anisotropic Magnetic Nanoparticles Having Cytocompatible Surface for Intracellular Stirring <u>Kensuke Yoshie</u> , Yuuki Inoue, Kazuhiko Ishihara 6836

Fri. Sep 26

S17. Structures and Emergent Functions of Nano- and Micro-sized Particles

S. Nagaoka, presiding

9:10	3S01	Synthesis of inorganic hollow nanoparticles by templating polymeric micelles with core-shell-corona architecture <u>Kenichi Nakashima</u> 6838
9:35	3S02	Control over assembled structures of polymer composite particles with asymmetric shapes <u>Hayato Takahashi</u> , Haruyuki Ishii, Daisuke Nagao, Mikio Konno 6840
10:00	3S03	Preparation of functional materials by surface modification of polymer particles and hybridization with inorganic nano particles. <u>Hiroki Satoh</u> , Masaaki Kanahara, Yuta Saito, Takeshi Higuchi, Hiroshi Yabu 6842
10:25	3S04	Electroless nickel plating on polymer particles Hiroyuki Hamasaki, Hiroaki Takeoka, Takaaki Tsuruoka, Kensuke Akamatsu, Yoshinobu Nakamura, <u>Syuuji Fujii</u> 6844

T. Taniguchi, presiding

10:50	3S05	Oxygen reduction characteristics of exfoliated acetyleneblack/Pt nano particle composite <u>Rajashekar Badam</u> , Raman Vedarajan, Noriyoshi Matsumi 6846
11:15	3S06	Preparation of Zirconia Nanoparticle Dispersion using Dual-site Silane Coupling Agents and Their Application to Hybrid Thin Films <u>Kimihiro Matsukawa</u> , Takashi Fukuda, Koji Mitamura, Seiji Watase, Noboru Nishioka 6848
11:40	3S07	Development of boron nitride/cellulose core/shell microbeads provided high thermal conductivity <u>Shoji Nagaoka</u> , Takuma Jyodai, Yoshihiro Kameyama, Maki Horikawa, Tomohiro Shirosaki, Makoto Takafuji, Hirotaka Ihara 6850

H. Endo, presiding

12:55	3S08	Preparation of Nanosized Metal and Metal Oxide Particles Derived from Liquid Metal Nanoparticles
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		<u>Shinya Sudo</u> ,Kenta Kokado,Kazuki Sada.....	6852
13:20	3S09	Preparation and sintering of polymer-stabilized metallic copper fine particles <u>Tetsu Yonezawa</u> ,Hiroki Tsukamoto,Masaki Matsubara.....	6854
13:45	3S10	Formation of colloid foams and colloid sponges by assembling core-shell nanoparticles <u>Yuya Akutsu</u> ,Yuuka Fukui,Keiji Fujimoto.....	6856
M. Takafuji, presiding			
14:10	3S11	Interfacial properties of core-shell polystyrene latex particle-monolayers spread at the air-water interface <u>Hiroki Asao</u> ,Masami Kawaguchi.....	6858
14:35	3S12	Colloidal Crystallization of Poly(Vinylidene Fluoride) Nanoparticles and their β Phase Transformation <u>Daichi Okada</u> ,Hideki Kaneko,Katsuhiko Kato,Seichi Furumi,Masaki Takeguchi,Yohei Yamamoto	6860
15:00	3S13	Free-standing Topological Array of Connected-Janus Particle Fabricated By Wrinkle Pattern <u>Yoshiyuki Mochizuki</u> ,Hiroshi Endo,Takeshi Kawai	6862
15:25	3S14	Structure and Properties of Polymer-grafted Particles at Soft Interfaces <u>Emiko Mouri</u> ,Toshiki Takaki,Hayami Sakamori,Kohji Yoshinaga,Teruyuki Nakato	6864

Room T

Wed. Sep 24

S13. Electron- and Ion-Transport Polymers and Their Applications

9:50	1TSO	Introductory Remarks <u>Masahiro Rikukawa</u>	6509
N. Matsumi, presiding			
10:00	1T03	Properties of Slide-ring Gels Swollen with Lithium-ion electrolytes <u>Naoki SUGIHARA</u> ,Yasuhiro SAKAI,Yoishi TOMINAGA,Takeshi SHIMOMURA,Kohzo ITO	6510
10:25	1T04	Studies on dynamics of polycarbonate-based electrolytes using broadband dielectric spectroscopy. <u>Joh Motomatsu</u> ,Hidekazu Kodama,Takeo Furukawa,Yoichi Tominaga	6512
10:50	1T05	Synthesis and characterization of liquid zwitterions (VII) - Characterization of lithium ion conduction- <u>Mitsutake Suematsu</u> ,Seitarou Yamaguchi,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa	6514
M. Fujita, presiding			
11:15	1T06	Ionic Transport Property in Polymer Gel Electrolytes Based on Lithium Solvate Ionic Liquids <u>Ryosuke KIDO</u> ,Kaori IWATA,Yuzo KITAZAWA,Satoru IMAIZUMI,Kazuhide UENO,Kaoru DOKKO,Masayoshi WATANABE.....	6516
11:40	1T07	Polymer electrolytes using self-assembly of triblock copolymers in solvate ionic liquids <u>Yuzo KITAZAWA</u> ,Kaori IWATA,Ryosuke KIDO,Toshihiko MANDAI,Kazuhide UENO,Hisashi KOKUBO,Kaoru DOKKO,Masayoshi WATANABE	6518
Y. Tominaga, presiding			
12:55	1T08	Ion Conductive Properties of Cyclic Low Molecular Weight	

		Organoboron Electrolytes <u>Prerna Joshi</u> , Raman Vedarajan, Noriyoshi Matsumi	6520
13:20	1T09	Quick Response AC-operated Electrochemiluminescent Cell with DNA/Ru(bpy) ₃ ²⁺ Film-modified Electrode <u>Ryota Takahashi</u> , Kazuki Nakamura, Norihisa Kobayashi	6522
13:45	1T10	Development of single component solid electrolytes based on imidazolium terminated polyhedral octasilicate core dendrimers <u>Yasuyuki Irie</u> , Kensuke Naka	6524

M. Rikukawa, presiding

14:10	1T11	Effect of ammonium groups on the properties of poly(arylene ether)-based anion conductive membranes <u>Takefumi Mikami</u> , Takahiro Sato, Manai Shimada, Naoki Yokota, Masahiro Watanabe, Kenji Miyatake	6526
14:35	1T12IL	Systematic design of electrolyte membranes for Polymer Electrolyte Fuel Cells and Solid Alkaline Fuel Cells <u>Takeo Yamaguchi</u>	6528

J. Matsui, presiding

15:25	1T14	Development of highly cross-linked pore filling anion exchange membranes towards high performance solid-state alkaline fuel cells <u>Shoji Miyanishi</u> , Sailaja G.S., Takeo Yamaguchi	6531
15:50	1T15	Synthesis and Properties of Proton Conductive Ladder-Type Polymers <u>Junpei Miyake</u> , Mayu Sakai, Yaojian Zhang, Masahiro Watanabe, Kenji Miyatake	6533
16:15	1T16	Proton Conductance of Mo(II)-Phenanthroline-Based Metallo- Supramolecular Polymers <u>Rakesh Kumar Pandey</u> , Md. Delwar Hossain, Satoshi Moriyama, Masayoshi Higuchi	6535

K. Miyatake, presiding

16:40	1T17	Synthesis and Characterization of Poly(phenylene)-Based Electrolytes Having Hydrophobic Groups (III)- Effect of Alkyl Group on Fuel Cell Performance - <u>Yusuke Kawano</u> , Satoru Obayashi, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa	6537
17:05	1T18	Synthesis of polyphenylene-based polymer electrolytes by catalyst transfer polycondensation (X) -High-order structure of triblock copolymers- <u>Tatsuya Oshima</u> , Ayaka Kodera, Yue Zhao, Masahiro Fujita, Akihiro Ohira, Yuko Takeoka, Masahiro Rikukawa	6539
17:30	1T19	Lyotropic Liquid Crystal Nanostructure of High Proton Conductive Polyimide in Thin Film <u>Shusaku Nagano</u> , Hiroko Iwatsuki, Masaki Noro, Karthik Krishnan, Mitsuo Hara, Nagao Yuki	6541
17:55	1T20	Preparation of composite electrolyte membranes consisted of acid- doped nanofibers. <u>Yasushi Takeda</u> , Takeru Wakiya, Kaori Harigaya, Yuuta Wakamoto, Tatsunori Ito, Takashi Tarao, Manabu Tanaka, Hiroyoshi Kawakami	6543

Thu. Sep 25

S13. Electron- and Ion-Transport Polymers and Their Applications

T. Fujigaya, presiding

9:10	2T01	Application of charge-transfer complex hybrid films for high- temperature PEFC <u>Masamichi Nishihara</u> , Liana Christiani, Kazunari Sasaki	6545
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9:35	2T02	Study of structure and property of ionomer on platinum dispersed carbon electrodes <u>Akihiro Ohira</u> , Sei-ichi Kuroda, Kanba Nomura 6547
10:00	2T03	In-situ observation of water at fuel cell catalyst using a scanning electron microscope. -To develop visualization technic of water in PEFC in a generating state.- <u>Satoru Ueda</u> , Satoshi Koizumi 6549
M. Nishihara, presiding		
10:25	2T04	Microstructure of Catalyst on Polymer Electrolyte Fuel Cell Observed by Grazing Incident Neutron Scattering Method <u>Satoshi Koizumi</u> , Satoru Ueda, Akihiro Ohira, Kanba Numura 6551
10:50	2T05	Synthesis and Evaluation of Poly(phenylene)-Based Ionomers with π -Conjugated Unit (VI) -Evaluation of Charge Transport- <u>Kohei Seto</u> , Ken Akitsuki, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa 6553
A. Ohira, presiding		
11:15	2T06	Development of the Electron and Ion Conductive Materials Based on Polymer-Functionalized Carbon Nanotube <u>Tsuyohiko Fujigaya</u> , Akiyo Nagashima, Chiori Saito, Naotoshi Nakashima 6555
11:40	2T07	Electron transfer direction control in polymer nano assembly for electrochemical device application. <u>Jun Matsui</u> , Kenta Hojyo, Rie Kikuchi, Tokuji Miyashita 6557
12:55	2T08	Synthesis and Properties of Electro-Conductive, Mechanically Tough Polymer Hydrogels <u>Ryoichi Kishi</u> , Kosuke Ikenaga, Tatsuhiro Horii, Toshiaki Miura, Tomohiko Yamaguchi, Masaru Okabe, Hidenori Okuzaki, Yoshihito Osada 6559
K. Fujita, presiding		
13:20	2T09	Temperature dependence of optical conductivity of PEDOT:PSS thin films investigated by THz-IR spectroscopy <u>Yusuke Yamada</u> , Masatsugu Yamashita, Kenichiro Hashimoto, Takahiko Sasaki, Hidenori Okuzaki, Chiko Otani 6561
13:45	2T10	Temperature dependence of THz conductivity spectra of conducting polymer PEDOT:Tos thin films <u>Masatsugu Yamashita</u> , Yusuke Yamada, Chiko Otani, Xavier Crispin 6563
14:10	2T11	Photoconductive Properties of Polyimides with Enhanced CT Interaction by Fluorinated Dianhydrides <u>Sho Fukuchi</u> , Kazuhiro Takizawa, Shigeo Asai, Shinji Ando 6565
M. Yamashita, presiding		
14:35	2T12	Fabrication and Characterization of Organic Light-Emitting Transistors Combined with Inorganic Semiconductor <u>Keiji Obara</u> , Keisei Yamada, Takeshi Yamao, Shu Hotta 6567
15:00	2T13	Orientation Control and Device Application of Organic Thin Films by the Friction-Transfer Technique <u>Masashi Koda</u> , Ryuji Hirase, Toshifumi Katagiri, Yuji Yoshida, Takeshi Yamao, Shu Hotta 6569
15:25	2T14	n type doping of polymer semiconductors by ESDUS technique <u>Kazunori Hayashida</u> , naoki mizutani, katsuhiko fujita 6571
15:50	2T15	Synthesis of organic semiconducting copolymers with polydimethylsiloxane as side chains for application to organic electronic devices <u>Inori Onishi</u> , Kazuhito Hashimoto, Keisuke Tajima 6573
S. Hotta, presiding		
16:15	2T16	Synthesis and Optoelectronic Properties of π -Conjugated Polymers Possessing Diverse Elements-blocks

		<u>Ikuyoshi Tomita</u> , Yoshimasa Matsumura, Hiroki Nishiyama, Shinsuke Inagi, Masayuki Miyazaki, Joji Ohshita	6575
16:40	2T17	Crystallization-induced Energy Level Change of [6,6]-Phenyl-C61-butyric Acid Methyl Ester (PCBM) Film and Its Effects on Organic Solar Cells <u>Yufei Zhong</u> , Seiichiro Izawa, Kazuhito Hashimoto, <u>Keisuke Tajima</u> , Tomoyuki Koganezawa, Hiroyuki Yoshida	6577
17:05	2T18	Development of charge-transport and photovoltaic materials based on molecular organization of organic semiconductors <u>Takuma Yasuda</u> , Yu Seok Yang, Woong Shin, Chihaya Adachi	6579

Fri. Sep 26

S13. Electron- and Ion-Transport Polymers and Their Applications

I. Osaka, presiding

9:10	3T01	Structure control in bulk heterojunction organic thin film solar cells by use of columnar liquid crystalline semiconductors <u>Yo Shimizu</u> , Yukimasa Matsuda, Yumi Higuchi, Takaya Nakao, Daiju Okuda, Fabien Nekelson, Hiromichi Itani, Minomazu Takahashi, Lydia Sosa-Vargas, Hangbum Boo, Akihiko Fujii, Masanori Ozaki	6581
9:35	3T02	Carrier Transport Properties of Liquid Crystalline Phthalocyanine and Its Doping Effects in Polymer Bulk-Heterojunction Thin-Film Solar Cells <u>Akihiko Fujii</u> , Gilles De Romeo Banoukepa, Taishi Kumada, Yo Shimizu, Masanori Ozaki	6583
10:00	3T03	Photo-electronic Conversion Devices using Polymeric Dye Monolayers on Titanium oxide <u>Mutsumi Kimura</u> , Naoki Sasagawa, Eri Amasawa, Minoru Taya	6585
10:25	3T04	Synthesis of highly pure conjugated polymers and evaluation for organic solar cells <u>Junpei Kuwabara</u> , Yuta Nohara, Takaki Kanbara	6587

K. Nakamura, presiding

10:50	3T05IL	Redox Polymers with Charge Transport Capability for Energy Conversion <u>Kenichi Oyaizu</u>	6589
11:40	3T07	Fabrication of Thin Film Solar Cells using Organic Oligomers <u>Junki Nakamoto</u> , Takeshi Yamao, Shu Hotta	6592

M. Kimura, presiding

12:55	3T08	Studies on Structure-Property Relationships in Organic Photovoltaics using Phenanthrothiophene-based Semiconducting Polymers <u>Hiroki Mori</u> , Shuhei Nishinaga, Yasushi Nishihara	6594
13:20	3T09	High efficiency solar cells using a naphthobisthiadiazole-based polymer <u>Itaru Osaka</u> , Varun Vohra, Kazuaki Kawashima, Takeshi Kakara, Tomoyuki Koganezawa, Kazuo Takimiya, Hideyuki Murata	6596
13:45	3T10	Control of Donor Acceptor Interface in Polymer Solar Cells by Surface Segregated Monolayers <u>Seiichiro Izawa</u> , Kazuhito Hashimoto, Keisuke Tajima	6598

A. Fujii, presiding

14:10	3T11	The Influence of Crystallization on The Improvement of Charge Transport in Poly(3-hexylthiophene) Thin Films Studied by Conductive Atomic Force Microscopy <u>Miki Osaka</u> , Hiroaki Bente, Hideo Ohkita, Shinzaburo Ito, Hiroki Ogawa, Toshiji Kanaya	6600
14:35	3T12	Charge Separation between Domain-selectively Introduced P-type Organic Semiconductor and Site-specifically Accumulated	

Room U

Wed. Sep 24

S14. Self-Organized/Assembled Materials with Dynamic Motion

9:50	1USO	Introductory Remarks <u>Akihiro Kishimura</u> , Shiki Yagai 6604
		K. Matsuura, presiding
10:00	1U03	Manipulation of morphology and motion of artificial cells <u>Tsutomu Hamada</u> 6605
10:25	1U04	Toward construction of an Autonomous Artificial Amoeba <u>Shin-ichiro NOMURA</u> , Yoshiaki TANAKA, Yuichi HIRATSUKA, Kei FUJIWARA, Satoshi MURATA 6607
10:50	1U05	Self-propelled motion of cell-sized molecular aggregates in surfactant solution <u>Taro Toyota</u> 6609
		A. Kishimura, presiding
11:15	1U06	Development and Functions of MOF Motors <u>Takashi Uemura</u> , Gosuke Washino, Susumu Kitagawa, Yasuhiro Ikezoe, Hiroshi Matsui 6611
11:40	1U07	Unveiling motions of biological and artificial molecular machines with single-molecule techniques <u>Ryota Iino</u> 6613
		S. Nomura, presiding
12:55	1U08	Dissipative structure formed by biomolecular motors and its response to mechanical stress <u>Arif Md. Rashedul Kabir</u> , Daisuke Inoue, Hiroyuki Mayama, Kazuki Sada, Akira Kakugo 6615
13:20	1U09	Grafted copolymer / peptide complexes to control lipid membrane structure <u>Takuma Umegae</u> , Naohiko Shimada, Atsushi Maruyama 6617
13:45	1U10	Allosteric control of rigid nanomechanical DNA origami devices. <u>Ryosuke Watanabe</u> , Erina Kigoshi, Masafumi Kaino, Akinori Kuzuya, Yuichi Ohya 6619
		A. Kishimura, presiding
14:10	1U11	Real-space analysis of single molecule dynamics in polymer thin films <u>Hiroyuki Aoki</u> 6621
14:35	1U12	Function design based on a spatio-temporal structuration of block copolymers <u>Takeshi UEKI</u> , Ryota TAMATE, Michika ONODA, Mitsuhiro SHIBAYAMA, Ryo YOSHIDA 6623
15:00	1U13	Self-oscillating vesicles: spontaneous cyclic structural changes of synthetic diblock copolymers <u>Ryota Tamate</u> , Takeshi Ueki, Mitsuhiro Shibayama, Ryo Yoshida 6625
		A. Kikuchi, presiding
15:25	1U14	Dynamics simulation study of self oscillating gel including experimentally obtained results <u>Hiroshi Morita</u> , Yusuke Hara 6627
15:50	1U15	Development of a gel-pump-equipped microchip <u>Yusuke Hara</u> , Yoshinori Yamaguchi 6629

16:15	1U16	Control of dynamic structures of PEG-poly(sulfobetaine) block copolymer microsphere <u>Nobuyuki Morimoto</u> , Kanna Muramatsu, Yurina Sekine, Makoto Suzuki 6631
T. Ueki, presiding		
16:40	1U17	Development of curdlan derivatives possessing stimuli-responsive units <u>Shun-ichi Tamaru</u> , Kaori Hori, Seiji Shinkai 6633
17:05	1U18	Synthesis of biodegradable thermoresponsive polymer and their ability of coacervate formation. <u>Syuuhei KOMATSU</u> , Taka-Aki ASOH, Ryo ISHIIHARA, Akihiko KIKUCHI 6635
17:30	1U19	Installing autonomous responses in supramolecular hydrogel-enzyme hybrids <u>Tatsuyuki YOSHII</u> , Masato IKEDA, Tatsuya TANIDA, Kazuya KUROTANI, Shoji ONOGI, Itaru HAMACHI 6637
17:55	1U20	Synthesis of Multiple Stimuli-Responsive Polymers That Undergo Sol-Gel Phase Transition in Response to Both Light and Biomolecule <u>Kohei OKUMA</u> , Kazuma OKITA, Miho MUKADA, Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA 6639

Thu. Sep 25

S14. Self-Organized/Assembled Materials with Dynamic Motion

K. Uchida, presiding

9:10	2U01	Photo-induced Phase-Crossover Materials Self-assembled from Ionic Azobenzene Compounds <u>Keita Ishiba</u> , Yuya Nagao, Chie Chikara, Yasuhiro Toyama, Mika Kawakita, Masa-aki Morikawa, Teppei Yamada, Nobuo Kimizuka 6641
9:35	2U02	Control of viscosity coefficient in solution of semiflexible polymer containing azobenzene moiety by light irradiation <u>Toshiyuki Watanabe</u> , Tamami Karube, Ryota Ohshima 6643
10:00	2U03	Photoinduced liquefaction and solidification of azobenzene arm hexamer <u>Haruhisa Akiyama</u> , Hideyuki Kihara, Masaru Yoshida, Yasuo Norikane, Reiko Azumi 6645

M. Funahashi, presiding

10:25	2U04	A novel liquid crystalline material exhibiting discotic columnar and calamitic smectic liquid crystalline phases by shape change of molecules: Triphenylene derivatives having six alkoxyazobenzen units <u>Yo Shimizu</u> , Daisuke Tanaka, Daiju Okuda, Hisato Ishiguro, Ryota Minobe, Kazuki Chikamori, Kingo Uchida 6647
10:50	2U05	Photoinduced Phase Transitions of Triphenylene Derivatives Having six Azobenzen Mesogens between Discotic Columnar and Calamitic Smectic Liquid Crystalline Phases <u>Kingo Uchida</u> , Daisuke Tanaka, Daiju Okuda, Hisato Ishiguro, Ryota Minobe, Kazuki Chikamori, Yo Shimizu 6649
11:15	2U06	Magnetic Field Response and Model of Macroscopic Fluctuations in Dissipative Structures of Nematics <u>Yoshiki Hidaka</u> , Misato Iino, Takaho Kuroda, Fahrudin Nugroho, Hirotaka Okabe, Kazuhiro Hara 6651
11:40	2U07	Creation of growing system for peptide nanofibers induced by photocleavage reaction <u>Kazunori MATSUURA</u> , Masahiro FURUTANI, Akihito UEMURA, Akira SHIGENAGA, Chiaki KOMIYA, Akira OTAKA 6653

S. Yagai, presiding

13:20	2U09IL	Mechanical stress-induced change in crystal structure and photoluminescence of gold (I) complexes
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		<u>Hajime Ito</u>	6655
14:10	2U11	Vapochromic and mechanochromic tetrahedral gold(I) complexes with diphosphine ligands <u>masahisa osawa</u>	6658
14:35	2U12	Dynamic Functional Materials Based on Flexible pi-Conjugated Systems <u>Shohei Saito</u>	6660
		S. Saito, presiding	
15:00	2U13	Photoinduced Single-Crystal-to-Single-Crystal Phase Transition of Gold Isocyanide Complex Through Contraction of Auophilic Bonds <u>Tomohiro seki</u> , Kenta Sakurada, Hajime Ito	6662
15:25	2U14	Thermally Driven Mechanical Motions of Single Crystals <u>Takahiro Muraoka</u> , Tatsuya Shima, Norihisa Hoshino, Tomoyuki Akutagawa, Kazushi Kinbara	6664
15:50	2U15	Self-assembly of Functional Organic Liquids <u>Takashi Nakanishi</u>	6666
		T. Nakanishi, presiding	
16:15	2U16	Preparation and host capability of a molecular capsule composed of tape-shaped amphiphiles with multi-anthracene rings <u>Akira Suzuki</u> , Michito Yoshizawa, Munetaka Akita	6668
16:40	2U17	Dynamic Aggregation of Donor-acceptor Dyes That Produces Red Light Emission in Polar Aqueous Media <u>Tsutomu Ishii</u> , Ryuichiro Hashimoto, Michiaki Ogawa	6670
17:05	2U18	Stereo-Controlled Polymers Formed via Polymerization of Vinyl Monomers Bearing a Dynamic Thiahelixene Moiety <u>Yoko Nambu</u> , Satoshi Uchida, Toshikazu Takata	6672

Fri. Sep 26

S14. Self-Organized/Assembled Materials with Dynamic Motion

Y. Hoshino, presiding

9:10	3U01	Harvesting 3D-Tissues Using Reductant-Responsive Gel films with Controlled Degradability <u>Akihiro Nishiguchi</u> , Michiya Matsusaki, Mitsuru Akashi	6674
9:35	3U02	Photo-switchable water-repellent polymer coated surfaces for the dynamic control of cell adhesion/detachment <u>Tomonori Kanno</u> , Masamichi Nakayama, Akihiko Kikuchi, Teruo Okano	6676
10:00	3U03	Biomimetic materials consisting of multi-transformable block copolymers <u>Youhei Kotsuchibashi</u> , Mitsuhiko Ebara, Takao Aoyagi	6678

Y. Kotsuchibashi, presiding

10:25	3U04	Conversion of Chiral Information by Dynamic Polymer Interface <u>Atsuomi Shundo</u> , Koichiro Hori, Norifumi Yamada, Keiji Tanaka	6680
10:50	3U05	Thermosensitive Nano Films prepared by Interface Click Reaction <u>Zizhao Xu</u> , Takahide Higashi, Takashi Takesita, Masashi Kunitake	6682
11:15	3U06	Effect of surfacial property on the selectivity of 'gate effect' of molecularly imprinted polymer <u>Yasuo Yoshimi</u>	6684
11:40	3U07	Development of molecular separation media by taking advantage of volume phase transition of nanogel particles <u>Yu Hoshino</u> , Mengchen Yue, Kenta Imai, Naoki Gondo, Chie Yamashita, Yoshiko Miura	6686

A. Shundo, presiding

12:55	3U08	Dynamic Interparticle Distance Changes of DNA-Functionalized Gold Nanoparticle Oligomers with Beads-on-a-String-Like Structures Induced by Terminal Base-Pairing <u>Yoshitsugu Akiyama</u> , <u>Hiroto Shikagawa</u> , <u>Naoki Kanayama</u> , <u>Masahiro Fujita</u> , <u>Tohru Takarada</u> , <u>Mizuo Maeda</u> 6688
13:20	3U09	Preparation of Artificial Elastin Materials Based on Dendrimers and Linear Polymers <u>Chie Kojima</u> , <u>Daichi Fukushima</u> , <u>Ugir. H. Sk</u> 6690
13:45	3U10	Temperature-controllable side-chain crystalline acrylic PSA <u>Ryo Shibahara</u> , <u>Kento Mori</u> , <u>Satoshi Yamaguchi</u> , <u>Shin'ichiro Kawahara</u> , <u>Hiroto Murakami</u> 6692
C. Kojima, presiding		
14:10	3U11	Humidity responsive structural change and stress generation mechanism of the polymers with inter- and intra-molecular hydrogen bonds as exemplified by the case of silks and poly(vinyl alcohol) -Changes of structural response depending on the applied conditions of external force- <u>Taiyo Yoshioka</u> , <u>Kohji Tashiro</u> 6694
14:35	3U12	Preparation of transformable thermo-responsive core-corona type nanoparticle <u>Takuma SUZUKI</u> , <u>Takuya MATSUYAMA</u> , <u>Taka-Aki ASOH</u> , <u>Ryo ISHIHARA</u> , <u>Akihiko KIKUCHI</u> 6696
15:00	3U13	Regulation of protein adsorption by charged thermoresponsive core-corona type nanospheres <u>Takuya Matsuyama</u> , <u>Taka-Aki Asoh</u> , <u>Ryo Ishihara</u> , <u>Akihiko Kikuchi</u> 6698

Room V

Wed. Sep 24

S18. Biomimetic New Functional Materials and Next-Generation Fabrication Techniques based on Biomimetics

9:50	1VSO	Introductory Remarks <u>Olaf Karthaus</u> , <u>Yoshihiro Uozu</u> 6866
O. Karthaus, presiding		
10:00	1V03	Barnacle settlement on honeycomb-patterned microstructured surfaces <u>Takayuki Murosaki</u> , <u>Kentaro Abe</u> , <u>Yasuyuki Nogata</u> , <u>Masatsugu Shimomura</u> 6867
10:25	1V04	Fabrication of omniphobic lubricated surfaces based on self-organized honeycomb and pillared films <u>Jun Kamei</u> , <u>Hiroshi Yabu</u> 6869
M. Kobayashi, presiding		
10:50	1V05	Formation and control of line defects caused by tectonics of water droplet arrays during self-organized honeycomb-patterned polymer film formation <u>hidekazu yamazaki</u> , <u>kojyu ito</u> , <u>masakazu shimomura</u> , <u>hiroshi yabu</u> 6871
11:15	1V06	Preparations and surface property measurements of self-organized hierarchical microstructures <u>Yuji Hirai</u> , <u>Aki Sato</u> , <u>Takuya Ohzono</u> , <u>Masatsugu Shimomura</u> 6873
11:40	1V07	Oil/Water separation by Antagonistic Superhydrophobic/Superoleophobic Polymer Brush Meshes <u>Gary Dunderdale</u> , <u>Chihiro Urata</u> , <u>Atsushi Hozumi</u> 6875
Y. Uozu, presiding		
12:55	1V08IL	Miracles happen to those who believe in them

Tateo SHIMOZAWA 6877

H. Mayama, presiding

- 13:45 1V10 Friction control by shape-tunable wrinkles
Kosuke SUZUKI, Yuji HIRAI, Takuya OHZONO 6880
- 14:10 1V11 Antigouling surface developed by serine-containing zwitterionic
poly(methacrylate) brush
Makoto Ikeda, Kazuo Yamaguchi, Motoyasu Kobayashi 6882
- 14:35 1V12 Polymer Brush Growth from Patterned Urushiol Thin Films
Hirohmi Watanabe, Aya Fujimoto, Rika Yamamoto, Jin Nishida, Yuji
Higaki, Atsushi Takahara 6884
- 15:00 1V13 Change in thermal diffusivity of coating by mobility of molecular
chains
Hirohmi Maeda, Takaaki Mokuno, Toshihiro Kasuga, Norifumi Isu 6886

Y. Uozu, presiding

- 15:25 1V14 Wetting behaviors of bio-mimetic surfaces based on theoretical
considerations
Hirohmi Mayama 6888
- 15:50 1V15 Single molecule interaction force measurement of polyphenol
analog monomers
Shogo Kinugawa, Kazuma Kuroda, Siqian Wang, Daisaku
Kaneko, Akihiko Tsuge 6890
- 16:15 1V16 Surface Modification of Elastomeric Sheet Materials for the Self-
Resilience Bio-Interface
Kiyokazu Yasuda, Kensuke Kuroda, Masazumi Okido 6892

K. Yasuda, presiding

- 16:40 1V17 Surface properties of organogels possessing secretion function
Chihiro Urata, Gary Dunderdale, Atsushi Hozumi 6894
- 17:05 1V18 Structure of The Outermost Layer of HAp coated DN Hydrogel for
Bonding Osteogenesis
Takayuki Nonoyama, Ryuji Kiyama, Takayuki Kurokawa, Tasuku
Nakajima, Jian Ping Gong 6896
- 17:30 1V19 Development of Organic/Inorganic Hybrid Materials with
Hierarchically Ordered Structures through Self-Organization
Processes
Takeshi SAKAMOTO, Tatsuya NISHIMURA, Takashi KATO 6898
- 17:55 1V20 Development of High Sensitive and High Time-Resolve Circular
Dichroism Detection Method -Toward the Analyses of
Supramolecular Chirality and Dynamics-
Takehiko WADA, Makoto MURAKAMI, Makoto KURONUMA, Yutaka
SANO, Yasuyuki ARAKI, Tadashi MORI, Tomoo MIYAHARA, Katsuji
HASEGAWA, Hiroshi NAKATSUJI, Yoshihisa INOUE 6900

Thu. Sep 25

S18. Biomimetic New Functional Materials and Next-Generation Fabrication Techniques based on Biomimetics

D. Ishii, presiding

- 9:10 2V01 Structure-Specific Function of Metallic Microcoil Fabricated by
Biotemplating Process
Kaori Kamata, Zhenzi Piao, Yuka Akimoto, Tomokazu Iyoda 6902
- 9:35 2V02 Synthesis and templating features of cross-linked polyamines gels
Daiki Souma, Ren-hua Jin 6904
- 10:00 2V03 Fabrication of moth-eye structures by nanoimprinting using
ordered anodic porous alumina molds

		<u>Takashi Yanagishita</u> , Hideki Masuda.....	6906
		T. Hariyama, presiding	
10:25	2V04IL	Contacting between nanoimprinted fine structures and biomimetics <u>Akihiro Miyauchi</u>	6908
		T. Yanagishita, presiding	
11:15	2V06	The NanoSuit - a thin plymer membrane enhances survival across the continuum between air and high vacuum <u>Takahiko Hariyama</u> , Yasuharu Takaku, Isao Ohta, Hiroshi Suzuki, Yoshinori Muranaka, Satoshi Hirakawa, Hideaki Kawasaki, Daisuke Ishii, Masatsugu Shimomura.....	6911
11:40	2V07	Photothermal properties of carbon nanomaterial and amphiphilic molecules hybrid plasma-polymerized films <u>Hideto SHIBAGAKI</u> , Ryohei KAWAMURA, Daisuke ISHII	6913
		N. Asakawa, presiding	
12:55	2V08	Gyroid-type photonic crystal in the wing scale of a butterfly: crystal orientation and polarization dependent reflection <u>Shinya Yoshioka</u>	6915
13:20	2V09	From observations of insect ultrastructures to creation of the platform of biomimetic studies <u>Shuhe Nomura</u>	6917
13:45	2V10	Biomimetics Data Retrieval Platform and its Applications for New Material Development <u>Miki Haseyama</u>	6919
14:10	2V11	Surface processing for soft materials using Bio-TRIZ <u>Takeshi Yamauchi</u> , Hidetoshi Kobayashi, kazuhiko Fukami, Shingo Tamesue, Tetsu Mitsumata, Norio Tsubokawa	6921
		S. Nomura, presiding	
14:35	2V12	Bioinspired signal processing device using polymer dynamics <u>Naoki Asakawa</u> , Teruo Kanki, Hidekazu Tanaka, Masataka Tansho, Tadashi Shimizu, Koji Yazawa	6923
15:00	2V13	Cellular Active Touch Sensing of Substrate Rigidity <u>Takeshi Kobayashi</u> , Masahiro Sokabe	6925
15:25	2V14	Micromechanical engineering of cell culture matrix for motility phenotypic diagnosis <u>Satoru Kidoaki</u> , Yosuke Uemura, Hiroyuki Sakashita	6927
15:50	2V15	Vibration signals in cerambycid beetles and their application to pest control <u>Takuma Takanashi</u> , Remi Tsubaki	6929
		T. Takanashi, presiding	
16:15	2V16	Biokleptics from polymer chemistry <u>Shigeru Deguchi</u> , Mikiko Tsudome, Kohsuke Uchimura, Tohru Kobayashi.....	6931
16:40	2V17	Micro-channels with a smart fail-safe system learning from the wharf roach <u>Daisuke Ishii</u> , Yuji Hirai, Masatsugu Shimomura, Takahiko Hariyama.....	6933
17:05	2V18	Long Distance Water Transport of Gel-like Capillaries mimicking Xylems of Tree <u>Kohei SUGAYA</u> , Daisuke ISHII	6935

Fri. Sep 26

S18. Biomimetic New Functional Materials and Next-Generation Fabrication Techniques based on Biomimetics

K. Niikura, presiding

9:10	3V01	Chaperone-mimetic nanomaterials for protein folding <u>Shigeo Takeda</u> ,Akiko Kubo,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi	6937
9:35	3V02	Initial cell adhesion process on stealth polymer surface from proteins <u>Yuuki Inoue</u> ,Kazuhiko Ishihara	6939
10:00	3V03	Modular proteins for unraveling biological adhesives <u>Kei Kamino</u> ,Kousaku Ohkawa,Makoto Tadokoro	6941
10:25	3V04	A peptide map created with a simplified RIFS sensor surface that mimics blood kinetics of peptides <u>Yukiko Tenokuchi</u> ,Hiroyuki Kabata	6943
M. Ishii, presiding			
10:50	3V05	Chemoenzymatic synthesis and adhesion function of mussel-inspired peptides <u>Keiji Numata</u>	6945
11:15	3V06	Creation of artificial viral capsid dressed up with proteins <u>Takahide Honjo</u> ,Yuriko Shiomi,Toshifumi Mizuta,Takashi Iwasaki,Kazunori Matsuura	6947
11:40	3V07	Fabrication of organic nanosheets inspired by protein folding and self-assembly <u>Taichi Ikeda</u>	6949
K. Ijiro, presiding			
12:55	3V08	Fabrication of non-iridescence structural color materials based on black particles that mimic melanin granules <u>Yuri Nannichi</u> ,Kosuke Hamada,Michinari Kohri,Tatsuo Taniguchi,Keiki Kishikawa	6951
13:20	3V09	Fabrication of high quality colloidal crystal gels by simple processes and their applications to tunable photonic crystal lasers <u>Tsutomu Sawada</u>	6953
13:45	3V10	Solvent and emulsifier-free synthetic route towards composite microspheres developed based on particle-stabilized dispersed system <u>Syuiji Fujii</u> ,Kazuyuki Ueno,Shizuka Sawada,Erica Wanless,Yoshinobu Nakamura	6955
T. Sawada, presiding			
14:10	3V11	Fabrication of Size-Controllable Gold Nanoparticle Assembly Using Fluorinated Surface Ligand <u>Jinjian Wei</u> ,Kenichi Niikura,Hideyuki Mitomo,Takafumi Ninomiya,Kuniharu Ijiro	6957
14:35	3V12	Preparation of porous conductive polymer utilizing agar particles as template and evaluation of its actuation property <u>Kentaro OBATA</u> ,Kumi HASHIMOTO,Shingo TAMESUE,Takeshi YAMAUCHI,Norio TSUBOKAWA	6959
15:00	3V13	Self-Organization Fabrication of Polymer-Immobilized Colloidal Crystals and their Possibility as Materials Masahiko ISHII, <u>Hiroshi NAKAMURA</u>	6961
15:25	3V14	2-D Microstructures: Monitoring local supersaturation levels <u>Viktor Fischer</u> ,Olaf Karthaus	6963

Room W

Wed. Sep 24

S12. Hierarchical Design and Innovation around Gels

9:50	1WSO	Introductory Remarks <u>Hidemitsu Furukawa</u> ,Takashi Miyata	6401
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A. Matsumoto, presiding

10:00	1W03	Precision Synthesis of Star Polymers with Layered Structures Consisting of Microgel Core and Functional Arm Chains <u>Shokyoku Kanaoka</u> , Arihiro Kanazawa, Sadahito Aoshima 6402
10:25	1W04	Preparation of anisotropically swelling gels utilizing anisotropic Metal-Organic Framework as template <u>Takumi ISHIWATA</u> , Kenta KOKADO, Kazuki SADA 6404
10:50	1W05	Preparation and characterization of thermo-responsive gel composed of four-arm-branched poly(N-isopropylacrylamide) macromer. <u>Shohei Sato</u> , Akira Matsumoto, Tatsuro Goda, Akihiko Kikuchi, Yuji Miyahara 6406

S. Kanaoka, presiding

11:15	1W06	Controlling structure and physical properties of nanogel-crosslinked materials <u>Sada-atsu Mukai</u> , Yoshihide Hashimoto, Yoshiro Tahara, Shin-ichi Sawada, Kazunari Akiyoshi 6408
11:40	1W07	Fabrication of boronate hydrogel based on polyvinyl alcohol matrix and development of a multi-color emissive chemosensor <u>Ryuhei Nishiyabu</u> , Shiho Ushikubo, Yuka Kamiya, Yuji Kubo 6410
12:55	1W08	Boronate Gel Based Self-Regulated Insulin-Delivery System <u>Akira Matsumoto</u> , Takehiko Ishii, Kazunori Kataoka, Hiroko Matsumoto, Takayoshi Suganami, Miyako Tanaka, Yoshihiro Ogawa, Yuji Miyahara 6412

T. Kaneko, presiding

13:20	1W09	Controlled Synthesis of Tetra-Arm Star-Block Copolymers and Fabrication of Gel with Homogeneous Network Structure <u>Ryohei Ishige</u> , Katsuya Kida, Keita Sakakibara, Koji Ohno, Yoshinobu Tsujii 6414
13:45	1W10	Fe(II)-responsive gelation of terpyridine-grafted PVA aqueous solution <u>Satoshi Tanimoto</u> , Yoshinori Konishi, Shohei Ida, Yoshitsugu Hirokawa 6416
14:10	1W11	Controlled gelation by stereocomplexation of photocleavable cyclic polylactide block copolymers <u>Takuya Yamamoto</u> , Kotaro Inoue, Naoto Sugai, Yasuyuki Tezuka 6418

S. Tanimoto, presiding

14:35	1W12	Importance of Solvents at Gel/Solid Interfaces <u>Masahito Sano</u> , Shinya Hirayama, Kouhei Matuska 6420
15:00	1W13	Control of swelling-deswelling behavior of self-oscillating gel by designing the chemical structure <u>Tsukuru Masuda</u> , Ayako Terasaki, Aya Akimoto Mizutani, Kenichi Nagase, Teruo Okano, Ryo Yoshida 6422
15:25	1W14	Preparation of anisotropic gels from extracellular polysaccharide of cyanobacteria, sacran. <u>Ryosuke Mishima</u> , Maiko Okajima, Seiji Tateyama, Tatsuo Kaneko 6424

M. Yamato, presiding

15:50	1W15	Structure Study on Amphiphilic Ideal Co-network Gel <u>Takashi Hiroi</u> , Shinji Kondo, Takamasa Sakai, Mitsuhiro Shibayama 6426
16:15	1W16	Photo-control of 2.5-dimensional structure of hydrogel sheet on thin layer of PAG-polymer <u>Kimio Sumaru</u> , Toshiyuki Takagi, Taku Satoh, Toshiyuki Kanamori 6428
16:40	1W17	Preparation of hybrid-gels of supergiant sugar-chains, sacran, using molecular size effects <u>Maiko Okajima</u> , Ryosuke Mishima, Kittima Amornwachirabodee, Tatsuo Kaneko 6430

K. Sumaru, presiding

17:05	1W18	Mechanistic study on pDNA packaging into rod or globule shapes within polyplex micelles and their biological function as a gene delivery carrier <u>Kaori Takeda</u> , Kensuke Osada, Theofilus Tockary, Qixian Chen, Anjaneyulu Dirisala, Kazunori Kataoka 6432
17:30	1W19	Development of Anisotropic NC gel using Magnetic Alignment of Clay <u>Masafumi Yamato</u> , Kiyomasa Suzuki, Noriyuki Hirota 6434
17:55	1W20	Preparation of Stimuli-Responsive Hydrogels That Change Molecular Recognition Ability by Structural Transition and Their Molecule Release Behaviors <u>Kazuya MATSUMOTO</u> , Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA 6436

Thu. Sep 25

S12. Hierarchical Design and Innovation around Gels

H. Furukawa, presiding

9:10	2W01L	Correlation between network structure and mechanical properties of polymer gels <u>Takamasa Sakai</u> 6438
10:00	2W03	Properties of gel emulsions using a low molecular weight gelators <u>Haruka Uematsu</u> , Kenji Hanabusa, Masahiro Suzuki 6441

T. Kurokawa, presiding

10:25	2W04	A stable polymeric associate formed by hydrogen bonds between guanidium-carboxyl anion groups <u>Takashi AOKI</u> , Yoshitsugu NISHINO 6443
10:50	2W05	Preparation and mechanical properties of supramolecular soft materials composed of coordination and hydrogen bonded cross-linkings <u>Mikihiro Hayashi</u> , Satoru Matsushima, Atsushi Noro, Yushu Matsushita 6445
11:15	2W06	Effect of ring size for viscoelastic relaxation of slide-ring gels <u>Kazuaki Kato</u> , Kanae Karube, Nanako Nakamura, Ito Kohzo 6447
11:40	2W07	Effects of Cross-link Concentration on Finite Deformation Behavior of Swollen Gels Characterized by Biaxial Stretching <u>Ryosuke Mishima</u> , Kenji Urayama 6449

K. Urayama, presiding

12:55	2W08	Stress strain relation of highly deformable dual crosslink gels having permanent and transient crosslinks <u>Mayumi Koichi</u> , Rong Long, Chung-Yuen Hui, Costantino Creton, Tetsuharu Narita 6451
13:20	2W09	Tough and Self-healing Hydrogels from Polyampholytes Based on Reversible Sacrificial Bonds <u>Abu Bin Ihsan</u> , Tao Lin Sun, Takayuki Nonoyama, Tasuku Nakajima, Takayuki Kurokawa, Jian Ping Gong 6453
13:45	2W10	Establishment of methodology for fragmentation test of cytoskeletal filaments <u>Arif Md. Rashedul Kabir</u> , Daisuke Inoue, Hiroyuki Mayama, Kazuki Sada, Akira Kakugo 6455

H. Okuzaki, presiding

14:10	2W11	Volume transition of hydrogels composed of ureido-derivatized copolymers <u>Naohiko Shimada</u> , Hiroto Miyake, Minako Saito, Atsushi Maruyama 6457
14:35	2W12	Electrical Actuation of Cholesteric Liquid Crystal Gels Yuuta Fuchigami, Toshikazu Takigawa, <u>Kenji Urayama</u> 6459
15:00	2W13	Mechanism of Transparency in Shape Memory Gel

		<u>Jin Gong</u> , Masanori Arai, Hiroaki Kumagai, Hasnat M. Kabir, Hidemitsu Furukawa 6461
15:25	2W14	Synthesis and functions of platinum-nanocomposite gels fabricated via exfoliated clay-mediated in situ reduction <u>Kazutoshi Haraguchi</u> , Dharmesh Varade 6463
		K. Ito, presiding
15:50	2W15	Highly conductive polymer gels fabricated by optimizing hierarchical structure <u>Tatsuhiko Horii</u> , Hanae Hikawa, Masato Katsunuma, Hiromi Takezawa, Yuechen Li, Hidenori Okuzaki 6465
16:15	2W16	Control of Hierarchical Structure of Conductive Polymers and its Application to Capacitors <u>Masato Katsunuma</u> , Hiromi Takezawa, Hiroki Amemiya, Tatsuhiko Horii, Yuechen Li, Hidenori Okuzaki 6467
16:40	2W17	Study on dynamics of micelle network composed of hydrophobically end-capped PNIPAM in semi-dilute regime <u>Soichiro Tsuji</u> , Mortensen Kell, Masahiko Annaka 6469
17:05	2W18	Creation of soft material having function of active molecular incorporation <u>Kyohei Nitta</u> , Atsushi Kimoto, Junji Watanabe, Yoshiyuki Ikeda 6471

Fri. Sep 26

S12. Hierarchical Design and Innovation around Gels

T. Asoh, presiding

9:10	3W01	Autonomous swelling/shrinking behavior of polymer originated by intramolecular recognition <u>Hidenori Ohashi</u> , Toshiki Takei, Hidenori Kuroki, Shoji Miyamishi, Takeo Yamaguchi 6473
9:35	3W02	Photodimerization of 2-Antracene-carboxylic Acid in the Reaction Sites of Molecular Imprinted Polymers <u>Satoshi Nakai</u> , Eri Takano, Hirobumi Sunayama, Yukiya Kitayama, Takehiko Wada, Toshifumi Takeuchi 6475
10:00	3W03	Creation and evaluation of the multiblock copolymers that oscillates viscoelastic property of solution <u>Michika Onoda</u> , Takeshi Ueki, Mitsuhiro Shibayama, Ryo Yoshida 6477

K. Haraguchi, presiding

10:25	3W04	Rheological properties of thixotropic gels based on L-Lysine derivatives <u>Yuta HAYAKAWA</u> , Kenji HANABUSA, Masahiro SUZUKI 6479
10:50	3W05	Chemical evidence of internal chain scission in DN gels <u>Takahiro Matsuda</u> , Tasuku Nakajima, Takayuki Kurokawa, Takayuki Nonoyama, JianPing Gong 6481
11:15	3W06	Deformation behavior of agar gel on a soft substrate during instrumental compression and its computer simulation <u>Makoto Nakauma</u> , Sayaka Ishihara, Takahiro Funami, Takeshi Yamamoto, Mitsuru Higashimori 6483
11:40	3W07	Developments of basic polymer nanogel catalyst <u>Hirokazu Seto</u> , Tamami Yoneda, Yu Hoshino, Yoshiko Miura 6485

T. Yamaguchi, presiding

12:55	3W08	Preparation of Tetra-PEG Ion-gel Using Addition Reaction and Their Application to Ionic Polymer Actuator <u>Shunta Ishii</u> , Satoru Imaizumi, Hisashi Kokubo, Masayoshi Watanabe 6487
13:20	3W09	Photo-healable Ion Gels Utilizing Photo-induced Self-assembly Change of Triblock Copolymers in an Ionic Liquid

		<u>ryoji usui</u> ,yutaro nakamura,shota sawamura,yuzo kitazawa,satoru imaizumi,takeshi ueki,hisashi kokubo,masayoshi watanabe.....	6489
13:45	3W10	Fabrication of hierarchical hydrogel constructs by gel-beads assembly <u>Taka-Aki ASOH</u> ,Akihiko KIKUCHI	6491
14:10	3W11	Artificial extracellular matrix using with cytocompatible and reversible phospholipid polymer hydrogel <u>Tomohiro Konno</u> ,Kazuhiko Ishihara	6493
T. Miyata, presiding			
14:35	3W12	Preparation of redox-responsive micro-gel particles composed of three-armed oligo(ethylene glycol) and release behavior of immobilized protein <u>Koya YAMAWAKI</u> ,Taka-Aki ASOH,Ryo ISHIHARA,Akihiko KIKUCHI.....	6495
15:00	3W13	Development of transdermal anticancer vaccine by combination of faint electricity and antigen peptide-loaded nanogels <u>Kentaro Kogure</u> ,Mao Toyoda,Susumu Hama,Yutaka Ikeda,Yukio Nagasaki.....	6497
15:25	3W14	A new application of thermoresponsive polymers: hydrogel that retains its original shape and mechanical properties under physiological conditions <u>Hiroyuki Kamata</u> ,Ung-il Chung,Takamasa Sakai	6499

Room X

Wed. Sep 24

S19. New materials and processes created by combining nano, bio and polymer chemistry

9:50	1XSO	Introductory Remarks <u>Kuniharu Ijro</u>	7263
K. Niikura, presiding			
10:00	1X03	Supramolecular Enantiodifferentiating Photocyclodimerization of 2-Anthracenecarboxylate with Proteins and Protein-Polymer Hybrids as Chiral Reaction Medias <u>Takehiko WADA</u> ,Noboru OKUGI,Haruhiko SASAKI,Masaki NISHIJIMA,Yohei MATSUDA,Yutaka IKEDA,Seiji SAKAMOTO,Yoshihisa INOUE,Yasuyuki ARAKI	7264
10:25	1X04	Spontaneous phase separation of liquid state protein-condensate from aqueous solution <u>Tatsuya Nojima</u> ,Tomokazu Iyoda	7266
T. Wada, presiding			
10:50	1X05	Physical properties of peptide nanotubes prepared from cyclic-beta-peptides containing aromatic groups at the side chains <u>Hyunji Kim</u> ,Shota Mitani,Shunsaku Kimura	7268
11:15	1X06	Design of a brain-permeable peptide nanofiber with chaperone-like activity for the treatment of Alzheimer's diseases Nobuhiko Tsuchiya,Sayaka Kumo,Tomonori Waku, <u>Naoki Tanaka</u>	7270
11:40	1X07	Relationship between adjuvant effect and hydrophobicity of NPs composed of amphiphilic poly(γ -glutamic acid) Fumiaki Shima, <u>Takami Akagi</u> ,Mitsuru Akashi	7272
N. Tanaka, presiding			
12:55	1X08	Morphology control of self-assemblies composed of amphiphilic polypeptides by using stereo-complex formation and mismatch of hydrophobic block lengths <u>Naoki Watabe</u> ,Cheol Joo Kim,Motoki Ueda,Shunsaku Kimura	7274

13:20	1X09	Morphology control of molecular assemblies prepared from amphiphilic helical polypeptides having chromophores <u>Cheol Joo KIM</u> , Motoki Ueda, Shunsaku Kimura 7276
13:45	1X10	Creation of artificial viral capsids encapsulated fluorescent nanoparticles <u>Seiya FUJITA</u> , Kazunori MATSUURA 7278
14:10	1X11	RNA degradation reaction in the inner space of virus capsule <u>Natoshi Sugimura</u> , Kenichi Niikura, Kyoji Hagiwara, Hideyuki Mitomo, Hirofumi Sawa, Kuniharu Ijiro 7280
K. Ijiro, presiding		
14:35	1X12	Single molecule binding and decomposing analysis of chitin with chitinases by using Atomic Force Microscopy <u>Saki Kato</u> , Yuko Nakagawa, Toshiaki Mori 7282
15:00	1X13IL	Single-Molecule Analysis of Biopolymers <u>Masateru Taniguchi</u> 7284
H. Asanuma, presiding		
15:50	1X15	Preparation of hydrogels using DNA-PEG-DNA triblock copolymers <u>Shizuma Tanaka</u> , Kazuki Hukushima, Akinori Kuzuya, Yuichi Ohya 7287
16:15	1X16	Control of pDNA folding within polyplex micelle into distinct rod- or toroid- shape for promoted bio-functions <u>Kensuke Osada</u> , Yanmin Li, Qixian Chen, Theofilus Tockary, Kaori Machitani, Satoshi Uchida, Keiji Itaka, Kazunori Kataoka 7289
16:40	1X17	Structural insights for design inhibitors targeting microRNA 2 <u>Jumpei Ariyoshi</u> , Asako Yamayoshi, Nao Eimori, Akio Kobori, Akira Murakami 7291
N. Kanayama, presiding		
17:05	1X18	Design of photo-crosslinking group introduced into RNA for analysis of interaction between pre-miRNA and Dicer <u>Kouki Tsuda</u> , Kenji Yoshida, Tetsuya Doi, Yukiko Kamiya, Hiroyuki Asanuma 7293
17:30	1X19	Design of linear probe that can stabilize duplex and its application to the fluorescent labeling of DNA duplex by strand invasion. <u>Rie NIWA</u> , Mariko AKAHANE, Hiromu KASHIDA, Hiroyuki ASANUMA 7295
17:55	1X20	DNA structure regulation depending on the linker chain length of ferrocenylnaphthalene diimide carrying bata-cyclodextrin Yuta Umeda, Saori Yagawa, Shinobu Sato, <u>Shigeori Takenaka</u> 7297

Thu. Sep 25

S19. New materials and processes created by combining nano, bio and polymer chemistry

K. Matsuura, presiding

9:10	2X01	Development of carbon monoxide-releasing nanoparticles <u>Ryosuke Inubushi</u> , Andre J. van der Vlies, Hiroshi Uyama, Urara Hasegawa 7299
9:35	2X02	Biological Activity of Hydrogen Sulfide-Releasing Micelles <u>Urara Hasegawa</u> , Andre J. van der Vlies 7301
10:00	2X03	Coupling Stimuli-Responsive Magnetic Nanoparticles with Antibody-Antigen Detection in Immunoassays (PVIA method) <u>Noriyuki Ohnishi</u> , Xiaomao Xie, Hideyuki Hata, Takeshi Watanabe, Hiroshi Saitoh, Satoru Sugita, Akihiko Kondo 7303
10:25	2X04	Preparation of biofunctional dendrimer-gold nanorod hybrids and their application to nanomedicine <u>Kenji Kono</u> , Xiaojie Li, Phan Binh, Eiji Yuba, Atsushi Harada 7305

K. Kono, presiding

10:50	2X05	Development of Novel Layer-by-Layer Assembly for Polymer Nanofilm Coating on The Surface of Human iPS Cell-derived Cardiac Myoblasts and Construction of Three-Dimensional Cardiac Tissues. <u>Yuto Amano</u> , Akihiro Nishiguchi, Michiya Matsusaki, Shigeru Miyagawa, Yoshiki Sawa, Mitsuru Akashi 7307
11:15	2X06	Micelle/clay nanocomposite gels having nanoscale cellular environments enabling live cell encapsulation, three dimensional proliferation, and cellular assembly. <u>Naho Oyama</u> , Hiromasa Minami, Koji Nagahama 7309
11:40	2X07	Synthesis of Novel Photo-Responsive Films with Micropatternable Surfaces and Their Cell Patterning Properties <u>Takumi MORIYAMA</u> , Tomoyuki KIDA, Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA 7311

T. Sato, presiding

12:55	2X08	Development of method for direct cell sorting using antibody-modified liposome <u>Wataru Hatanaka</u> , Masafumi Takeo, Akihiro Kishimura, Takeshi Mori, Yoshiki Katayama 7313
13:20	2X09	Force mapping of sialic acid expressed of cancer cell using phenylboronic acid functionalized probe <u>Hidenori Otsuka</u> , Yukie Maejima, Ryutaro Sato, Akira Matsumoto, Kazunori Kataoka, Yuji Miyahara 7315
13:45	2X10	Construction of Three-dimensional Multi-layered Lipid Membranes, Artificial Thylakoid, by Using Bicelle <u>Takehisa Dewa</u> , Tatsuki Yamada, Koji Momota, Mamoru Nango 7317
14:10	2X11	Control of the formation of bionanotubes by nanoparticle tracking method <u>Hiroki Yoshitake</u> , Shinichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi 7319

T. Dewa, presiding

14:35	2X12	Functionalization and Hybridization of Organic Nanotubes for Sustained DDS Materials <u>Wuxiao Ding</u> , Mitsutoshi Masuda, Yoshiko Yamazaki, takao Sato 7321
15:00	2X13	Selective cancer cell-death induced by self-assembly of small molecules <u>Tatsuo Maruyama</u> , Akiko Tanaka, Yuki Fukuoka, Takafumi Honjo, Daisuke Koda, Masahiro Goto 7323
15:25	2X14	Fabrication of Time-limitable Hydrogels through Programmed Peptide Self-assembly <u>Tomoyuki Koga</u> , Go Miyazawa, Yusuke Matsuyama, Yuji Nikaido, Nobuyuki Higashi 7325
15:50	2X15	Drug delivery using nanogel-cross-linked microsphere and polysaccharide-based nanogels <u>Yoshiro Tahara</u> , Yukishiro Inuzuka, Sada-atsu Mukai, Shin-ichi Sawada, Kazunari Akiyoshi 7327

K. Akiyoshi, presiding

16:15	2X16	Functional analyses of nano particles formed by polysaccharide complexes <u>Toshinori Sato</u> , Keisuke Koizumi, Akari Hisada, Toshiaki Mori, Hiroyuki Furusawa 7329
16:40	2X17	Synthesis of Glycopolymers with Sialic Acid and Their Interaction with Influenza Virus <u>hideki Ishitani</u> , Tomonari Tanaka, Yoshiko Miura, Kenta Oishi, Tadanobu Takahashi, Takashi Suzuki 7331
17:05	2X18	Fabrication of poly(lactide)-protein complexes by inkjet printing and their potential application for DDS

Takami Akagi, Tomoko Fujiwara, Mitsuru Akashi 7333

Fri. Sep 26

S19. New materials and processes created by combining nano, bio and polymer chemistry

T. Mori, presiding

- 9:10 3X01 Construction and thermophysical characterization of liquid crystalline films composed of filamentous viruses
Toshiki Sawada, Yuta Murata, Junko Morikawa, Takeshi Serizawa 7335
- 9:35 3X02 Fabrication of oriented collagen film by self-assembly approach
Takahiro Oguma, Norihisa Akamatsu, Atsushi Shishido 7337
- 10:00 3X03 A novel post-stretching technique enhancing the molecular orientation of regenerated silk fibroin - Study on the structural development of the oriented silk-II crystals -
Taiyo Yoshioka, Kohji Tashiro 7339

T. Serizawa, presiding

- 10:25 3X04 Fabrication of Collagen-templated Nanostructured Silica
Seiya Suzuki, Tomokazu Iyoda, Tatsuya Nojima 7341
- 10:50 3X05 Development of small diameter vascular graft using silk fibroin with high functionality and NMR analysis
Haruka Shimokawatoko, Yusuke Ozai, Toshiharu Fukayama, Ryo Tanaka, Hideki Sedutsu, Nobuo Kuwabara, Yasumoto Nakazawa, Tetsuo Asakura 7343
- 11:15 3X06 Protein crystallization by femtosecond laser and inkjet. (I)
Nucleation and growth of lysozyme crystal
Tomoaki HINOUE, Kazunori OKANO, Atsushi MIURA, Hiroshi MASUHARA, Mitsuru AKASHI 7345
- 11:40 3X07 Construction of supramolecular structures by utilizing protein crystals
Hashiru NEGISHI, Satoshi ABE, Hajime MORI, Takafumi UENO 7347

T. Morii, presiding

- 12:55 3X08 Redox-activity of PEG-b-Poly(pyridine) with Regulated Molecular Sequence and Auto-reducing Behavior of Noble Metal Ions
Daisuke Matsukuma, Akene Takagi, Yukie Maejima, Hidenori Otsuka 7349
- 13:20 3X09 Novel photophysical properties of chiral Eu(III) chelate-doped DNA-CTMA complex
Wataru Watanabe, Kazuki Nakamura, Norihisa Kobayashi 7351
- 13:45 3X10 Studies on Introduction of Phenylboronic Acid Moiety into Peptide Ribonucleic Acid (PRNA) and PRNA-DNA Chimera toward Development of Intercellular Environment Responsible Artificial Nucleic Acids-
Takehiko WADA, Ryohei UEMATSU, Ayaka SUGAI, Junpei ARIYOSHI, Asako YAMAYOSHI, Yasuyuki ARAKI, Seiji SAKAMOTO, Naohiko SHIMADA, Atsushi MARUYAMA, Hiromu KASHIDA, Hiroyuki ASANUMA, Akira MURAKAMI, Yoshihisa INOUE 7353
- 14:10 3X11 DNA detection by deoxyribozyme and cationic polymers
Tomoya Oyanagi, Jueyuan Gao, Naohiko Shimada, Atsushi Maruyama 7355

A. Maruyama, presiding

- 14:35 3X12 Development of the molecular switchboard by site-specific immobilization of functional proteins on DNA origami
Eiji Nakata, Tien Anh Ngo, Huyen Dinh, Shun Nakano, Masayuki Saimura, Tsutomu Kodaki, Takashi Morii 7357
- 15:00 3X13 Molecular design of DNA brush surface for nano-biomaterials
Naoki Kanayama, Satomi Kishi, Tohru Takarada, Mizuo Maeda 7359

15:25	3X14	Dynamic recognition behavior of stimuli-responsive hydrogel with biomolecular recognition sites formed by molecular imprinting <u>Yoshiaki KURIU</u> , Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA 7361
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Room Y

Wed. Sep 24

S20. Hybrid biomaterials

9:50	1YSO	Introductory Remarks <u>Atsushi Harada</u> , Jun Kobayashi 7363
J. Kobayashi, presiding		
10:00	1Y03	Mechanobio-materials for stem cell manipulation <u>Satoru Kidoaki</u> , Shuhei Jinnouchi, Ayaka Utsumi 7364
10:25	1Y04	Novel stiffness-controlled photoactivatable substrates for mechanobiology of collective cell migration <u>Masao KAMIMURA</u> , Kazuo YAMAGUCHI, Jun NAKANISHI 7366
10:50	1Y05	Integrin-integrin crosstalks promote and/or suppress cell adhesion on the various integrin specific binding peptide conjugated polysaccharide matrices <u>Kentaro Hozumi</u> , Chikara Fujimori, Fumihiko Katagiri, Yamato Kikkawa, Motoyoshi Nomizu 7368
J. Nakanishi, presiding		
11:15	1Y06	The effect of cell adhesion molecules immobilized on the phospholipid polymer brush surface to cellular responses <u>Harue Togawa</u> , Yuuki Inoue, Kazuhiko Ishihara 7370
11:40	1Y07	Structural changes of silk fibroins and fixations of functional molecules by wet-heating treatments <u>Tomoko Hashimoto</u> , Rika Yoshikawa, Tsunenori Kameda, Yasushi Tamada, Hiromichi Kurosu 7372
K. Miyata, presiding		
12:55	1Y08	Gene Delivery for Immune Cell Using Micelles Composed of Mannose and Cationic Lipids <u>Ichiki Fukuda</u> , Shinichi Mochizuki, Mizuha Sakashita, Kazuo Sakurai 7374
13:20	1Y09	Enhanced the Antitumor Effect by Nitric Oxide Sustained-Release Stealth Liposomes <u>Yu Tahara</u> , Zahangir Hosain, Takeshi Mori, Tatsuhiko Yamamoto, Akihiro Kishimura, Yoshiki Katayama 7376
13:45	1Y10	The therapy of inherited metabolic disorders based on the intracellular dissociative supermolecules <u>Tamura Atsushi</u> , Yui Nobuhiko 7378
14:10	1Y11	Gelation properties of organogelators possessing carboxy drugs <u>Mitsuo ISHIMARU</u> , Kenji HANABUSA, Masahiro SUZUKI 7380
A. Tamura, presiding		
14:35	1Y12	The mechanism of cell killing effect by sonication of TiO ₂ nanoparticles-incorporated polyion complex micelles. <u>Satoshi Yamamoto</u> , Eiji Yuba, Atsushi Harada, Kenji Kono 7382
15:00	1Y13	Efficient photothermal therapy using cellular targeted Au@Ag core-shell nanorod <u>Hidenori Otsuka</u> , Yuki Muramatsu, Daisuke Matsukuma, Hironao Shimada 7384
15:25	1Y14	Preparation of Small Nanocarriers with Unit Polyion Complexes and Gold Nanoparticles for Systemic siRNA Delivery to Solid Tumor

Kanjiro Miyata, Hyun Jin Kim, Yu Yi, Kazunori Kataoka 7386

A. Mahara, presiding

15:50 1Y15 Fabrication of drug-loaded nanosheets and evaluation as wound dressing material
Shinji Takeoka, Keisuke Ito, Toshinori Fujie, Manabu Kinoshita, Hiromi Miyazaki, Daizo Saito 7388

16:15 1Y16 Functionalization of polymer nanosheets using microfabrication technique towards tissue engineering application
Toshinori Fujie, Xuetao Shi, Serge Ostrovidov, Shinji Takeoka, Ali Khademhosseini 7390

16:40 1Y17 Biodegradable Bioadhesive Hydrogels for Hemostatics and Adhesion Barriers
Yoshiyuki Koyama, Masazumi Eriguchi, Tomoko Ito 7392

T. Fujie, presiding

17:05 1Y18 Rapid endothelialization of peptide-modified decellularized vascular graft
Atsushi Mahara, Shota Somekawa, Marina Kitai, Yuichi Ohya, Yoshiharu Kimura, Tetsuji Yamaoka 7394

17:30 1Y19 Thermoresponsive block copolymer coating onto cell culture surfaces for cell sheet fabrication
Masamichi Nakayama, Yurika Kimura, Yuki Toyoshima, Hideko Kanazawa, Akihiko Kikuchi, Masayuki Yamato, Teruo Okano 7396

17:55 1Y20 Evaluation of stretchable temperature-responsive cell culture surfaces and its supplication to the cell sheet detachment
Yoshikatsu Akiyama, Miki Matsuyama, Naoya Takeda, Masayuki Yamato, Teruo Okano 7398

Thu. Sep 25

S20. Hybrid biomaterials

S. Mochizuki, presiding

9:10 2Y01 Formulation and function of hybrid exosome
Shin-ichi Sawada, Shinpei Ikeda, Kaori Umezaki, Asako Shimoda, Yuko Sato, Kazunari Akiyoshi 7400

9:35 2Y02 Enhancement of therapeutic effect in cancer immunotherapy by hybridization of immune controlling factors into pH-sensitive polymer-based antigen delivery system
Eiji Yuba, Shinya Uesugi, Yuhei Kanda, Atsushi Harada, Kenji Kono 7402

10:00 2Y03 Development of highly active vaccine carrier using Toll like receptor ligands-hybridized pH-sensitive polymer-modified liposomes
Yuta Yoshizaki, Eiji Yuba, Naoki Sakaguchi, Kazunori Koiwai, Atushi Harada, Kenji Kono 7404

E. Yuba, presiding

10:25 2Y04 For developing cancer vaccine, Adjuvant delivery to specific antigen presenting cells by novel complex made from polysaccharide SPG and DNA
noriko miyamoto, shinichi mochizuki, kazuo sakurai 7406

10:50 2Y05 Applection of petide/CpG-DNA/b-1,3-glucan complex for novel cancer vaccine
Shinichi Mochizuki, Hiromi Morishita, Kazuo Sakurai 7408

11:15 2Y06 Development of polyion complex micelles to overcome blood-brain barrier and their effect of ligand density
Yu Fukusato, Yasutaka Anraku, Akihiro Mizogushi, Takehiko Ishii, Yu Matsumoto, Kazuko Toh, Hiroya Kuwahara, Takanori Yokota, Kazunori Kataoka 7410

11:40	2Y07	Orally Administered Redox Polymeric Nanoparticle That Internalizes in Cancer Tissues and Inhibits the Colitis-Associated Colon Cancer <u>Long Binh Vong</u> , Toru Yoshitomi, Hirofumi Matsui, Yukio Nagasaki 7412
Y. Okamura, presiding		
12:55	2Y08	Construction of Blood and Lymph Capillary Models with Open Pores by Accurate Control of Cell Location and In Vitro Drug and Cell Permeability Assays <u>Michiya Matsusaki</u> , Daichi Hikimoto, Akihiro Nichiguchi, Mitsuru akashi 7414
13:20	2Y09	Development and characterization of nanogel-crosslinked hybrid gels with porous structure <u>Yoshihide Hashimoto</u> , Sada-atsu Mukai, Shin-ichi Sawada, Kazunari Akiyoshi 7416
13:45	2Y10	Water-soluble polysaccharide-based hybrid biomaterials for bio-imaging of regenerative therapy <u>Jun-ichiro JO</u> , Yasuhiko TABATA 7418
M. Matsusaki, presiding		
14:10	2Y11	Development of biodegradable temperature-responsive injectable polymer formulation which enables easy change of gel-forming pH region <u>Yasuyuki YOSHIDA</u> , Akinori KUZUYA, Yuichi OHYA 7420
14:35	2Y12	Development of Multi-layered Nanosheet as a Wound Dressing in Partial Hepatectomy <u>Takuya Komachi</u> , Hideaki Sumiyoshi, Yutaka Inagaki, Yu Nagase, Yosuke Okamura 7422
15:00	2Y13	Preparation and blood compatibility evaluation of fragmented nanosheets consisted of polyimide containing phospholipid moiety <u>Kohei Asao</u> , Mari Ogino, Yosuke Okamura, Yu Nagase 7424
15:25	2Y14	Plasmid DNA Mono-ion Complex: Alkylimidazolium End-Modified Poly(ethylene glycol) with Primary Amide for Enhancing in Vivo Gene Transfection <u>Shoichiro Asayama</u> , Atsushi Nohara, Yoichi Negishi, Hiroyoshi Kawakami 7426
S. Asayama, presiding		
15:50	2Y15	Evaluation of transcriptional efficiency of polyplexes surrounded by multi-arm PEGs using real-time PCR. <u>Kenta Nomura</u> , Ryuta Aono, Eiji Yuba, Atsushi Harada, Kenji Kono 7428
16:15	2Y16	Polycation-induced DNA coil-globule transition observed by a flow stretching method <u>Tomoshige Takada</u> , Naohiko Shimada, Atsushi Maruyama 7430
16:40	2Y17	Development of a completely artificial oligonucleotide as a fluorescent probe for visualization of RNA in living cell <u>Keiji Murayama</u> , Yukiko Kamiya, Hiromu Kashida, Hiroyuki Asanuma 7432
17:05	2Y18	Label-free detection of C-reactive protein using MPC polymer-coated gold nanoparticles <u>Yasuhiko Iwasaki</u> , Toshihiro Kimura, Tatsuro Goda, Shinichi Yusa 7434

Fri. Sep 26

S20. Hybrid biomaterials

Y. Iwasaki, presiding

9:10	3Y01	Effect of molecular structure of aliphatic ester polymers on platelet adhesion and hydration <u>Kazuki Fukushima</u> , Meng-Yu Tsai, Takayuki Ota, Yuto Inoue, Kohei Kishi, Masaru Tanaka 7436
9:35	3Y02	Synthesis of sequence-specific polymers via regioselective ROMP

		and biomaterial applications <u>Shingo Kobayashi</u> , Kousaku Fukuda, Keisuke Herai, Erika Kitakami, Maiko Kataoka, Kouhei Osawa, Masaru Tanaka 7438
10:00	3Y03	Effect of inorganic salt additives on self-initiated photopolymerization of MPC on the PEEK surface. <u>Taro Shiojima</u> , Yuuki Inoue, Masayuki Kyomoto, Kazuhiko Ishihara 7440
10:25	3Y04	Effect of free-terminal on PEG interface on protein adsorption and platelet adhesion <u>Sachiro Kakinoki</u> , Takuya Nakagoshi, Yuichi Ohya, Tetsuji Yamaoka 7442
Y. Inoue, presiding		
10:50	3Y05	Control of interaction for biomolecules on thermoresponsive brush grafted polymer monolithic capillaries <u>Takuya KORIYAMA</u> , Taka-Aki ASOH, Ryo ISHIHARA, Akihiko KIKUCHI 7444
11:15	3Y06	Evaluation of protein interaction to modified surfaces with thermoresponsive polymer brush having controlled primary structure. <u>Masaki Ishikawa</u> , Takuya Koriyama, Taka-Aki Asoh, Ryo Ishihara, Akihiko Kikuchi 7446
11:40	3Y07	Preparation of thermo-responsive copolymer brush modified silica beads possessing strong ion exchange groups and characterization of them as chromatographic matrices <u>Kenichi Nagase</u> , Jun Kobayashi, Akihiko Kikuchi, Yoshikatsu Akiyama, Hideko Kanazawa, Teruo Okano 7448
T. Mori, presiding		
12:55	3Y08	Development of oral care material based on phosphorylated pullulan <u>Takumi Okihara</u> , Hiroki Okajima, Shogo Kamenoue, Naoko Namba, Noriyuki Nagaoka, Shogo Takashiba, Yasuhiro Yoshida 7450
13:20	3Y09	Environmentally-corrosive, high-performance biopolyamides derived from itaconic acid and their composites with montmorillonite <u>Mohammad Asif Ali</u> , Nupur Tandon, Seiji Tateyama, Tatsuo Kaneko 7452
13:45	3Y10	Synthesis of Dual Stimuli-Responsive Gel Particles for Intracellular Environment-Responsive Delivery Carrier <u>Shunsuke UENO</u> , Akifumi KAWAMURA, Tadashi URAGAMI, Takashi MIYATA 7454
A. Harada, presiding		
14:10	3Y11	Development of Small Molecule for Cytotoxicity Induction by Utilizing Ubiquitous Endogenous IgG <u>Daiki Funamoto</u> , Takeshi Mori, Daisuke Asai, Akihiro Kishimura, Kazuki Sato, Yoko Yamaguchi, Yoshiki Katayama 7456
14:35	3Y12	Development of polysaccharide-based DDS carrier that delivers protein and nucleic acid simultaneously <u>Daiziro Tanohata</u> , Ayako Minohoshi, Shinichi Mochizuki, Kazuo Sakurai 7458
15:00	3Y13	Structural analysis a molecular weight dependence of the polysaccharide schizophyllan <u>Shoi Mochidome</u> , Shinichi Mochiduki, Kazuo Sakurai 7460

Room Z

Wed. Sep 24

S22.Green Chemistry of Polymeric Materials Relating to New Energies Supply and Renewable Resources Application

9:50	1ZSO	Introductory Remarks <u>Haruo Nishida</u> 7595
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N. Kihara, presiding

10:00	1Z03	Effects of photodegradation of polystyrene/multiwall carbon nanotube composite <u>Masato Hamadate</u> , Ryosaku Sato, Kensuke Miyazaki, Noriyasu Okazaki, Hisayuki Nakatani 7596
10:25	1Z04	Polystyrene photodegradation with a photocatalyst/poly(ethylene oxide)/ unsaturated fatty acid ester under visible light <u>Kensuke Miyazaki</u> , Hisayuki Nakatani 7598
10:50	1Z05	Ring-opening polymerization of lactide and its addition with alcohol by using bulky Lewis pairs <u>Yuushou Nakayama</u> , Shunsuke Kosaka, Kentaro Yamaguchi, Ryo Tanaka, Shiono Takeshi 7600
Y. Andou, presiding		
11:15	1Z06	Preparation of Transparent Hybrid Film Based on Dispersion-Agglomeration Behavior in Hydroxypropylcellulose/Nanoparticle Aqueous Suspension <u>Takashi Sawaguchi</u> , Tsuyoshi Tadano, Shota Suzuki, Yangye Qiao, ZHU Rui, Toru Hoshi, Daisuke Sasaki, Toshiki Hagiwara 7602
11:40	1Z07	Oxidatively degradable epoxy resin <u>Nobuhiro Kihara</u> , Takahiro Oguri 7604
H. Nishida, presiding		
12:55	1Z08IL	Kitakyushu Smart Community Creation Project <u>Atsushi Tahara</u> 7606
13:45	1Z10	Smart Community Technology <u>Kiyotaka Fuji</u> 7609
T. Sawaguchi, presiding		
14:10	1Z11	Development of Biomass Plastics to Imaging Devices, and Approach to Resources Recycling <u>Tadakatsu Harada</u> , Yasushi Akiba 7611
14:35	1Z12	Application to Home Appliances of Bio-based polymer <u>Yoko Fukushima</u> 7613
T. Harada, presiding		
15:00	1Z13	Improved Evaluating Method on Reduction of Environmental Load for Sustainable Resource Recovery from Plastic Waste <u>Akihiro IZUMI</u> 7615
15:25	1Z14	Renewable resource - Recycling of Expanded Polystyrene <u>Michihiro Takeda</u> 7617
15:50	1Z15	Functional group transformation of PVC and PVA in supercritical carbon dioxide <u>Masaaki Yoshida</u> , Hiroshi Sato 7619
I. Okajima, presiding		
16:15	1Z16	Hydrolysis of PET by water under pressurized microwave conditions <u>Kazutoshi Ikenaga</u> , Takahiro Inoue, Ken Suxuki, Shin-ichiro Kanamori, Hiroyuki Kato 7621
16:40	1Z17	Liquefaction of FRP liquefied petroleum gas cylinder by using recycled solvent <u>Tohru Kamo</u> , Hiroyoshi Ito, Hideki Nakagome, Yuichi Ooki, Kouichi Hosokawa 7623
K. Ikenaga, presiding		
17:05	1Z18	CFRP Recycling Technology Using Depolymerization of Epoxy Resin under Ordinary Pressure Nobuo Watanabe, Tomoyuki Baba, Koichi Aoyagi, <u>Katsuji Shibata</u> 7625
17:30	1Z19	Recycling of FRP using sub- or supercritical fluids <u>Idzumi Okajima</u> , Yoshinobu Shimamura, Takeshi Sako 7627

17:55	1Z20	Recycling of Fiber-Reinforced Plastics by Super-Heated Steam <u>Haruo NISHIDA</u> , Nobuko MOURI	7629
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Thu. Sep 25

S22.Green Chemistry of Polymeric Materials Relating to New Energies Supply and Renewable Resources Application

T. Tsukegi, presiding

9:10	2Z01	Synthesis and thermal properties of epoxy resins cured with acylated lignin <u>Shigeo Hirose</u>	7631
9:35	2Z02	Development of the low carbon type lightweight reinforced plastic composite using a bamboo fiber <u>Kazuhiko Katsumi</u>	7633

S. Hirose, presiding

10:00	2Z03	Bamboo-based Micro-Fiber/Plastic Composites: Antistatic and Flame-retardant Properties <u>keisaku yamashiro</u> , takayuki tsukegi, haruo nishida	7635
10:25	2Z04	One-pot nano-fibrillation and nano-composite preparation process of biomass <u>Takayuki Tsukegi</u> , Yuuji Fukuda, Keisaku Yamashiro, Haruo Nishida	7637

S21. Frontiers of Biomass Polymer Generating Technology

11:05	2ZSO	Introductory Remarks <u>Hideki Abe</u>	7534
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K. Tachibana, presiding

11:15	2Z06	One-pot, metal-free synthesis of macromonomer via direct polycondensation of lactic acid and radical synthesis of graft and comb polymers <u>Misato Nojiri</u> , Yui Yoshimura, Maho Arimoto, Kiyoaki Ishimoto, Yuji Aso, Hitomi Ohara, Shirou Kobayashi	7535
11:40	2Z07	Emulsion polymerization by a bacterially produced biosurfactant <u>Hideyuki TOKUSHIMA</u> , Takashi AOKI, Yoshiharu KIMURA, Kazuhiko TAMAI, Takuto NAGANO	7537

T. Aoki, presiding

12:55	2Z08	Hardening properties of epoxy resin with oxa-bycicleo acid anhydride derived from furfural <u>Yuya Tachibana</u> , Junko Torii, Ken-ichi Kasuya, Funabashi Masahiro, Kunioka Masao	7539
13:20	2Z09	Controlled Ring-Opening Radical Polymerization of Pinocarvone Derived from Naturally-Occurring α -Pinene for Novel Bio-Based Polymer <u>Hisanari MIYAJI</u> , Kotaro SATOH, Masami KAMIGAITO	7541
13:45	2Z10	Recycable, High-performances bio-based Polymers from 4-aminocinnamic acid <u>Seiji Tateyama</u> , Syunsuke Masuo, Naoki Takaya, Tatsuo Kaneko	7543
14:10	2Z11	Developments of bio-based liquid crystalline materials having photoresponsive mesogens from 4-aminocinnamic acid. <u>Kohei Goto</u> , Siqian Wang, Seiji Tateyama, Naoki Takaya, Tatsuo Kaneko	7545

Y. Tachibana, presiding

14:35	2Z12	Syntheses of bio-based poly-benzoxazoles using streptmyces metabolite 3-amino-4-hydroxybenzoicacid <u>Hiroshi Shimosegawa</u> , Seiji Tateyama, Yasuo Ohnishi, Tatsuo Kaneko	7547
15:00	2Z13	Syntheses of Novel Biopolybenzimidazoles from Aromatic Renewables.	

		<u>Hirotooshi Kawamoto</u> ,Seiji Tateyama,Tatsuo Kaneko.....	7549
15:25	2Z14	Creating high-performance bio-based polyimide composite having a stilbene structure <u>Takahiro Noda</u> ,Seiji Tateyama,Shunsuke Masuo,Naoki Takaya,Tatsuo Kaneko.....	7551
15:50	2Z15	Synthesis and property of a novel bio-based polyurethane derived from vanillin and lysine monomers <u>Koichiro Tachibana</u> ,Hideki Abe	7553
		A. Nakayama, presiding	
16:15	2Z16	Chemoenzymatic synthesis of peptide with nylon backbone <u>Kenjiro Yazawa</u> ,Keiji Numata	7555
16:40	2Z17	Structure-function Relationship of Poly(aspartic acid) Hydrolase-1 from Pedobacter sp. KP-2 <u>Tomohiro HIRAISHI</u> ,Tamao HISANO,Hideki ABE,Yoshitsugu SHIRO,Mizuo MAEDA	7557
17:05	2Z18	Crystal Structure of Poly(aspartic acid) Hydrolase-1 <u>Tamao Hisano</u> ,Tomohiro Hiraishi,Kosuke Minami,Eriko Masuda,Hideki Abe,Mizuo Maeda,Yoshitsugu Shiro.....	7559

Fri. Sep 26

S21. Frontiers of Biomass Polymer Generating Technology

M. Ashiuchi, presiding

9:10	3Z01	Morphology Controlled PP/PA11 bioplastic alloy <u>Jumpei KAWADA</u> ,Makoto MOURI,Osamu WATANABE,Arimitsu USUKI,Masayuki KITOU,Osamu KITOU	7561
9:35	3Z02	Thermal stability and processability of melt-spun fibers consisted microbial polyesters <u>Taizo KABE</u> ,Tadahisa IWATA,Ken'ichiro MATSUMOTO,Seiichi TAGUCHI,Takeharu TSUGE,Takaaki HIKIMA,Masaki TAKATA	7563
10:00	3Z03	Plant Oil-based Green Composite Using Porous Poly(3-hydroxybutyrate) <u>Nao Hosoda</u> ,Tsujiimoto Takashi,Uyama Hiroshi	7565

H. Uyama, presiding

10:25	3Z04	Synthesis and high-functionability of polysaccharide ester derivatives <u>Tadahisa Iwata</u>	7567
10:50	3Z05	PGAIC, novel bio-inspired plastics with anti-infective, wide-applicable coating performance <u>Makoto Ashiuchi</u> ,Shota Oike,Shigeo Shibatani,Hirofumi Hakuba,Nogiho Oka,Ryo Hirata	7569
11:15	3Z06	Ultimate mechanical property of biomass polymers from castor oil <u>Takashi Nishino</u> ,Yoshito Tanaka,Chizuru Hongo,Masaru Kotera	7571
11:40	3Z07	Improvement of the glass transition temperature of epoxy resin hardened by steam-exploded lignin <u>Hiroyuki Kagawa</u> ,Yoshiaki Okabe,Chizuru Sasaki,Yoshitoshi Nakamura	7573

T. Iwata, presiding

12:55	3Z08	Imparting Functionality to Plant-Derived Polyphenol Capsule <u>Hiroataka Ejima</u> ,Frank Caruso.....	7575
13:20	3Z09	Recyclability of degradable polymers with low-temperature formability <u>Ikuo Taniguchi</u>	7577
13:45	3Z10	Crystal structure analysis of Poly(lactic acid) stereocomplex and its formation mechanism <u>Kohji Tashiro</u> ,Naoto Kouno,Hideto Tsuji.....	7579
14:10	3Z11	Relationship between Mechanical and Thermal Properties and	

Crystalline Phase Transition of Biaxially-Oriented Poly(L-lactic Acid) Samples
Piyawanee Jariyasakoolroj, Wannee Chinsirikul, Noppadon Kerddonfag,
Suwabun Chirachanchai, Kohji Tashiro, Wang Hai, Hiroko Yamamoto..... 7581

H. Abe, presiding

- 14:35 3Z12 Development of novel drug release system by copolymer of lactide and trimethylene carbonate
Hiroharu AJIRO, Kazuya TAKEMURA, Yoshikazu TAKAHASHI, Tomoko FUJIWARA, Mitsuru AKASHI..... 7583
- 15:00 3Z13 Study on stereocomplexes of poly(lactic acid) copolymers and their biodegradation
Atsuyoshi Nakayama, Norioki Kawasaki, Naoko Yamano, Koichi Uegaki, Yuu Nagahara, Yoshiaki Kimura..... 7585
- 15:25 3Z14 Preparation and Crystalline Orientation of Poly(lactic acid) Blend Films under Magnetic Field
Rei Nakayama, Yuki Akai, Hiroki Ikake, Masako Takada, Yoshio Muroga, Kimio Kurita, Shigeru Shimizu, Satoshi Kurumi, Kaoru Suzuki, Kohki Takahashi, Kazuo Watanabe 7587

Room ESA

Wed. Sep 24

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

S. Okamoto, presiding

- 10:00 1ESA03 Stereochemical study of the formation mechanism of the various types of complexes of poly(ethylene imine) with organic compounds
Kohji Tashiro, Nguyen To Hoai, Yuki Kanda 4785
- 10:25 1ESA04 Refinement of crystal structures of aliphatic polyesters, poly(3-hydroxybutyrate) and poly(ethylene adipate) on the basis of X-ray structural analysis
Hai Wang, Kohji Tashiro, Hiroko Yamamoto, Taiyo Yoshioka 4787
- 10:50 1ESA05 Crystalline Structure and Thermal Behavior of Poly(butylene succinate) Studied by Infrared and Raman Spectroscopy
Shota Noma, Harumi Sato, Yukihiko Ozaki 4789
- 11:15 1ESA06 Shear-induced structure formation process of isotactic polystyrene above nominal melting temperature
Momoko Murakami, Tomohiko Matsuura, Nobuaki Takahashi, Koji Nishida, Toshiji Kanaya 4791

K. Tashiro, presiding

- 12:55 1ESA08 Effect of Particle Distortion on SAXS from OBDD studied using Paracrystalline Theory
Kengo Nomura, Shigeru Okamoto 4793
- 13:20 1ESA09 Dispersion of Refractive Indices of Thiophene/Phenylene Co-oligomers Crystal
Tomoki Sugimoto, Yusaku Sakurai, Takeshi Yamao, Shu Hotta 4795

T. Sakai, presiding

- 13:45 1ESA10 Structural Analyses of Substituted Polyacetylene Having a Carbazole Moiety in Solution Using ESR and NMR Methods
Takahiro Sasaki, Yoshiaki Yoshida, Yasuteru Mawatari, Masayoshi Tabata 4797
- 14:10 1ESA11 Theoretical model for electrophoresis of non-ionic polymer
Yuki Uematsu 4799
- 14:35 1ESA12 Intermolecular Hydrogen Bonds and Rheological Behavior of Poly(urethane-urea)s

Osamu Urakawa,Yoshiyuki Ogihara,Osamu Yamane,Tadashi Inoue4801

K. Naka, presiding

15:00 1ESA13 Frustrated phases of block copolymers under 3D confinements:preparation by self-organization process and observation of 3D structures
Takeshi Higuchi4803

15:25 1ESA14 Precise Control of Swellability in Polymer Gels
Takamasa Sakai.....4805

K. Sakurai, presiding

15:50 1ESA15 Structural and Optical Profiling of DNA-Guided π -Systems
Dong June Ahn,Jin-Hyuk Park,Seung-Hyuk Paik,Chunzhi Cui4807

16:15 1ESA16 Self-Assembled Polymer Nanomaterials
Atsushi Noro4809

T. Miyata, presiding

16:40 1ESA17 Oxidative stress regulating engineered polymers for the treatment of cancer and inflammatory diseases
Dongwon Lee.....4811

17:05 1ESA18 Next-Generation of Poly(Ethylene Glycol) : Polyglycerol and Its Application in Drug Delivery
Suhyun Son,Byeong-Su Kim.....4813

K. Tanaka, presiding

17:30 1ESA19 Directed Self-assembly of High-Molecular-Weight Block Copolymer with Period greater than 100 nm
Du Yeol Ryu,Eunyoung Choi,Sungmin Park,Yeongsik Kim4815

17:55 1ESA20 Multi-stage Swelling of Nafion Thin Films in Water
Daisuke Kawaguchi,Yudai Ogata,Norifumi Yamada,Keiji Tanaka.....4817

Thu. Sep 25

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

O. Urakawa, presiding

9:10 2ESA01 Electrophoretic Mobility of Double-Stranded DNA in Polymer Solutions and Gels with Tuned Structures
Xiang Li,Kateryna Khairulina,Ung-il Chung,Takamasa Sakai4819

9:35 2ESA02 Retardation mechanism of rigid double stranded DNA molecules in polymer gels with controlled connectivity
Kateryna Khairulina,Xiang Li,Chung Ung-il,Takamasa Sakai4821

10:00 2ESA03 Self-assembly and non-linear rheology of smectic liquid crystals formed from exfoliated nanoplatelets in liquid epoxy pre-polymer
Kevin Lee White,Minhao Wong,Atsushi Takahara,Hung-Jue Sue.....4823

Y. Higaki, presiding

10:25 2ESA04 Structural analysis of highly-oriented nanofilms composed of triangular organic molecules
Yao Junpei,Makiura Rie4825

10:50 2ESA05 Formation of Polybetaine Brush at the Air/Water Interface and Salt Ion Selectivity of Interaction between Betaine Brush and Salt Ions
Amiko Sakamoto,Yuta Yamakawa,Hideki Matsuoka4827

Y. Oishi, presiding

11:15 2ESA06 Structure and dynamics of polyelectrolyte brushes studied by coarse-grained molecular simulations
Hitoshi Washizu,Tomoyuki Kinjo,Hiroaki Yoshida4829

11:40 2ESA07 Synthesis of Liquid Crystalline Ionic Liquids and their Chirality Induction

Shohei Yamakawa, Sangbum Ahn, Kazuo Akagi 4831

H. Matsuoka, presiding

- 12:55 2ESA08 Mechanical Properties of Two-step crosslinked networks
Takuya Katashima, Ung-il Chung, Takamasa Sakai 4833
- 13:20 2ESA09 Polyion-complex hydrogel with high toughness and rebuildability
Feng Luo, TaoLin Sun, Tasuku Nakajima, Takayuki Kurokawa, Jian Ping Gong 4835
- 13:45 2ESA10 Two-step polymerization: a novel method for preparing polymer-supported lipid bilayer hydrogel
Xufeng Li, Tasuku Nakajima, Takayuki Nonoyama, Takayuki Kurokawa, Jianping Gong 4837

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

N. Tsutsumi, presiding

- 14:10 2ESA11 Electro-optic Polymeric Materials derived from High Tg Norbornene-Dicarboximide (NDI) Homopolymers and NDI / MMA Polymer Brushes.
Andrew Mark Spring, Shiyoshi Yokoyama 5887
- 14:35 2ESA12 Temperature Dependence Control of Birefringence of Photonics Polymers
Mio Shikanai, Akihiro Tagaya, Yasuhiro Koike 5889
- 15:00 2ESA13 Triphenylamine-based Photoconductive Polymers for High Performance Photorefractive Devices
Ha Ngoc Giang, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi 5891

H. Furukawa, presiding

- 15:25 2ESA14 Pt(II)-Based Metallo-Supramolecular Polymers with Unidirectional Polarity for Enhanced Electronic Properties
Chanchal Chakraborty, Satoshi Moriyama, Masayoshi Higuchi 5893
- 15:50 2ESA15 Concentrated Polymer Brushes as functional membranes for ion sensing
Sungchul Baek, Yohei Nakanishi, Yoshinobu Tsujii, Fumihiro Dasai, Koichi Okumura, Toshiaki Hattori, Kazuaki Sawada 5895
- 16:15 2ESA16 Surface Molecular Aggregation States and Scratching Behavior of Acrylic Hard Coatings Containing Polyhedral Oligomeric Silsesquioxanes
Patcharida Chouwatat, Tomoyasu Hirai, Ken Kojio, Masaya Kotaki, Masahiro Miyamoto, Richii Nishimura, Atsushi Takahara 5897

D. Kawaguchi, presiding

- 16:40 2ESA17 Mussel Adhesive Inspired Functional Polymers Used for Fabrication of Advanced Interfaces
Wei Ma, Atsushi Takahara 5899
- 17:05 2ESA18 Studies of friction mechanism on polymer hydrogels using the resonance shear measurement: the PAMPS/PDMAAm DN gel, PAMPS gel and PDMAAm gel
Huaiyin Ren, Masashi Mizukami, Tadao Tanabe, Hidemitsu Furukawa, Kazue Kurihara 5901

Fri. Sep 26

C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS “English Session”

K. Kojio, presiding

- 9:10 3ESA01 Porous Conjugated Network Protected Palladium Nanocrystals as Heterogeneous Catalyst
Ning Huang, Donglin Jiang 5903
- 9:35 3ESA02 Designing Covalent Organic Frameworks as Highly Active Asymmetric Catalysts
Hong Xu, Donglin Jiang 5905

10:00	3ESA03	Poly(2-vinylloxazoline)-grafted silica: a highly hydrophilic and nonionic organic phase for hydrophilic interaction chromatography <u>Abul K. Mallik</u> , Makoto Takafuji, Hirotaka Ihara 5907
K. Sakurai, presiding		
10:25	3ESA04	Highly efficient purification of semiconducting single-walled carbon nanotubes based on dynamic supramolecular coordination chemistry <u>Fumiyuki Toshimitsu</u> , Naotoshi Nakashima 5909
10:50	3ESA05	Composite Gel with Metallo-Supramolecular Polymers <u>Jian Zhang</u> , Satoshi Moriyama, Masayoshi Higuchi 5911
11:15	3ESA06	Thermo-responsive properties of silica nanoparticle-crosslinked hybrid polymer hydrogels <u>Md. Ashraful Alam</u> , Makoto Takafuji, Hirotaka Ihara 5913
A. Shishido, presiding		
11:40	3ESA07	Electrochromic Properties of a Co(II)-Based Metallo-Supramolecular Polymer in Aqueous Solution <u>Chih-Yu Hsu</u> , Jian Zhang, Satoshi Moriyama, Masayoshi Higuchi 5915
12:55	3ESA08	Fabrication of Silica Nanorod Array and Pattern-transfer to Gold nanohole array through Liquid Crystalline Diblock Copolymer Thin Films as Templates. <u>Nanae Yamashita</u> , Keiji Nagai, Tomokazu Iyoda 5917
13:20	3ESA09	Effect of Light on Self-assembled Supermolecules Constructed by Azobenzene-Containing Amphiphilic Phosphate <u>Su Ma</u> , Tomonari Ogata, Sunnam Kim, Natsuki Sasade, Kiyoshi Kanie, Atsushi Muramatsu, Seiji Kurihara 5919
S. Kurihara, presiding		
13:45	3ESA10	Photoinduced Motions of Azobenzene Mesogens in Homo and Diblock Copolymer Polymer Brushes <u>Hafiz Ashraful Haque</u> , Shusaku Nagano, Takahiro Seki 5921
14:10	3ESA11	Preparation of cobalt oxide hollow nanoparticles by templating tri-block copolymer micelle with core-shell-corona structure <u>Minh Nhut Dang</u> , Mohammad Alam, Shin-ichi Yusa, Kenichi Nakashima 5923
14:35	3ESA12	Physical polyampholyte hydrogels reinforced by glass fiber <u>Yiwan Huang</u> , Taolin Sun, Tasuku Nakajima, Takayuki Kurokawa, Jian Ping Gong 5925
K. Kanie, presiding		
15:00	3ESA13	Design of Hyaluronic acid/Halloysite Nanocomposite Hydrogels for Releasing Carrier of Curcumin and Ibuprofen. <u>Kyung-Lynne Park</u> , Wei Ma, Yuji Higaki, Atsushi Takahara 5927
15:25	3ESA14	Selectively Modified Halloysite Nanotubes as Inorganic Nanocarriers for Drug Delivery Applications <u>Di Tao</u> , Wei Ma, Yuji Higaki, Atsushi Takahara 5929

Room ESB

Wed. Sep 24

D. BIOPOLYMERS AND BIORELATED POLYMERS “English Session”

Y. Nagasaki, presiding

10:00	1ESB03	Secondary structure change of polyacetylenes bearing amino groups and application for thermoresponsive gene vector <u>Kayo Terada</u> , Tsuyoshi Ando, Mime Kobayashi, Masao Tanihara 6973
10:25	1ESB04	Resisting ability to protein adsorption of hydrophilic/hydrophobic heteroarm star polymer -coated surface

		<u>Masayasu Totani</u> , Kayo Terada, Mime Kobayashi, Tsuyoshi Ando, Masao Tanihara	6975
10:50	1ESB05	Synthesis of Helical Metallo-Supramolecular Polymers and their DNA Binding Study <u>Utpal Rana</u> , Masayoshi Higuchi	6977
		K. Nam, presiding	
11:15	1ESB06	High Performance Boron Neutron Capture Therapeutics Assisted by Boron-containing Redox Nanoparticles: Low Dose and Suppressing Side Effect <u>Zhenyu Gao</u> , Yukichi Horiguchi, Kei Nakai, Akira Matsumura, Minoru Suzuki, Koji Ono, Yukio Nagasaki	6979
11:40	1ESB07	Design of polyplex micelles with core protective palisades formed from thermo-responsive poly(oxazoline) segments <u>Shigehito Osawa</u> , Kensuke Osada, Shigehiro Hiki, Takehiko Ishii, Kazunori Kataoka	6981
		K. Osada, presiding	
12:55	1ESB08	Ternary Supramolecular Metal Complexes as Catalase Mimics <u>Riku Kubota</u> , Shoichiro Asayama, Hiroyoshi Kawakami	6983
13:20	1ESB09	Preparation of the fibrillized collagen microparticle possessing similar native tissue microstructure using W/O emulsion technique <u>Kwangwoo Nam</u> , Matsuhashi Aki, Tsuyoshi Kimura, Akio Kishida	6985
13:45	1ESB10	The use of anisotropic cell sheets for controlling cellular networks in engineered tissue construct <u>Hironobu Takahashi</u> , Tatsuya Shimizu, Masamichi Nakayama, Masayuki Yamato, Teruo Okano	6987
14:10	1ESB11	Construction and myogenic differentiation of three-dimensional myoblast tissues fabricated by fibronectin-gelatin nanofilm coating <u>Varvara Gribova</u> , Michiya Matsusaki, Catherine Picart, Mitsuru Akashi	6989
		Y. Hoshino, presiding	
14:35	1ESB12	Utilization of Solution Plasma Process for Biomedical Application <u>Anyarat Watthanaphanit</u> , Nagahiro Saito	6991
15:00	1ESB13	Chemoenzymatic Synthesis of Cysteine-based Polypeptides <u>Yinan Ma</u> , Jose Manuel Ageitos, Zhibo Li, Keiji Numata	6993
15:25	1ESB14	Simplified chemo-enzymatic synthesis of cationic peptides for gene delivery <u>Jose Manuel Ageitos</u> , Keiji Numata	6995
		K. Numata, presiding	
15:50	1ESB15	Effect of protein recognition process of nanogel particles on their inhibition activity of protein aggregation <u>Masahiko Nakamoto</u> , Yu Hoshino, Yoshiko Miura	6997
16:15	1ESB16	Analysis of glycopolymer-brush structure using optical biosensor <u>Yuhei Terada</u> , Shuhei Shinohara, Hirokazu Seto, Yu Hoshino, Kaoru Tamada, Yoshiko Miura	6999
16:40	1ESB17	Ethanol synthesis from alkaline pretreated cellulosic biomass <u>Xianxiang Liang</u> , Xuzhe Zhao, Takashi Yoshida, Toshiyuki Uryu	7001
		E. POLYMERS AND ENVIRONMENT “English Session”	
		G. Matsuba, presiding	
17:05	1ESB18	Mechanical properties and biodegradability of polylactide (PLA) with poly(vinyl alcohol) (PVA) nanofibers <u>Naruki Kurokawa</u> , Atsushi Hotta	7462
17:30	1ESB19	Characterization of polyhydroxyalkanoate synthases from Halomonas: Site directed mutagenesis and recombinant expression.	

Mulyana Ilham, Satoko Nakanomori, Takahiro Kihara, Ayaka
Hokamura, Hiromi Matsusaki, Takeharu Tsuge, Kouhei Mizuno 7464

Thu. Sep 25

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

J. Kadokawa, presiding

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| 9:10 | 2ESB01 | A topochemical approach towards poly[n]catenanes
<u>Junji Sakamoto</u> 4160 |
| 9:35 | 2ESB02 | Synthesis and Nanostructures of Ionic Paired Diblock Copolymers
with liquid crystalline side chains from Sulfonate- and Ammonium-
End-functionalized Polymers
<u>Yan Zi</u> , Hiroki Nishiyama, Jun Sawayama, Yusuke Hibi, Keiji
Nagai, Tomokazu Iyoda 4162 |
| 10:00 | 2ESB03 | Study on Pre-vulcanization of Isoprene Rubber
<u>Kewwarin Sae-heng</u> , Seiichi Kawahara 4164 |

J. Sakamoto, presiding

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| 10:25 | 2ESB04 | An efficient post-polymerization modification reaction based on a
multi-component reaction
<u>Ryohei Kakuchi</u> , Patrick Theato 4166 |
| 10:50 | 2ESB05 | Synthesis of Functional Cellulose Materials by Pulsed Electrical
Discharges in Solutions
<u>Shimpei Nemoto</u> , Anyarat Watthanaphanit, Nagahiro Saito 4168 |
| 11:15 | 2ESB06 | A Triangular Topology for Covalent Organic Frameworks
<u>Sasanka Dalapati</u> , Donglin Jiang 4170 |