Room A

Wednesday, May 29

INVITED LECTURES /AWARD LECTURES

K. Mashima, Presiding

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Masami Kamigaito 1

A. Matsumoto, Presiding

11:00 1A09IL Control of Surface/Interface Properties by Living Radical Polymerization and Its Application to New-material Development
Yoshinobu Tsujii 4

M. Fujiki, Presiding

12:30 1A12IL Frontiers of Organic Thin-film Transistors
Takao Someya 7

T. Nakaoki, Presiding

13:15 1A15IL Preparation and Functions of Organic-inorganic Hybrids for Photonics
Kimihiro Matsukawa 10

Y. Chujo, Presiding

14:00 1A18IL** Silsequioxane and Siloxane Based Functional Hybrid Polymer Materials
Richard M. Laine,Jae Hwan Jung,Joesph Furgal,Sarah Clark,Matthew Schwartz,Mozhgan Bahrami,Mitra K. Moghadam,Theodore Goodson III. 13

T. Sato, Presiding

15:00 1A22IL** Personal Views on the Self-assembly and Functions of Amphiphilic Polymers in Aqueous Media
Françoise M. Winnik 16

M. Ueda, Presiding

15:45 1A25IL** Patterned Structures for Microlithography and Related Advanced Polymeric Materials
Marie Krysak,Christine Ouyang,Rina Maeda,M. Elizabeth Welch,Christian Ohm,Christopher K. Ober 19

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13:15 2A15IL** Photoresponsive Polymer Thin Films Based on Molecular Alignment Controls
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POLYMERS TODAY AND BEYOND

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POLYMER PHYSICS

A. Toda, Presiding

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POLYMER PHYSICS

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POLYMER PHYSICS

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K. Urayama, Presiding

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POLYMER PHYSICS

Y. Matsuda, Presiding

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K. Kojio, Presiding

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11:00 2E09 Gelation by Complex Crystals of Poly(lactic Acid) and Solvents
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M. Okabe, Presiding

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13:00 2E14 Analysis of Phase Separated Structures of Poly(dimethyl Siloxane)-co-poly(hydrophilic Monomer) Network Gel by Small Angle X-ray Scattering
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13:15 2E15 Analysis of the Swelling-shrinking Dynamics of Self-oscillating Gel Using Coarse-grained Simulation
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H. Morita, Presiding

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14:00 2E18 Analytical Theory of Gelation for Network Formation From Precursors
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S. Ando, Presiding

14:15 2E19 On the Ductile Fracture Statistics Under Uniaxial Tension of Polypropylene
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Shinichi Ueno,Toshio Tada,Hiroyuki Kishimoto,Yuichi Masubuchi 694

14:45 2E21 Elastic Modulus of the Crystalline Regions of Polymers Derived From Castor Oil
Yoshihito Tanaka,Kenta Takahashi,Chizuru Hongo,Masaru Kotera,Takashi Nishino 695

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Jun Yamashita,Chisato Kogita,Yukihiro Nishikawa,Masaoki Takahashi,Masahiro Ohshima 696

15:15 2E23 Diffusion Behavior of Water in Poly(ethylene-ran-methacrylic Acid) Ionomers.
Akira Kamiya,Yohei Miwa,Kazuyuki Nakata,Yui Endo,Shoichi Kutsumizu 697

T. Nishino, Presiding

15:30 2E24 Thermal Molecular Motion and Charge-Transfer Dynamics of Semiconducting Polymers

Yudai Ogata,Keiji Tanaka 698
15:45 2E25 Photoconductive Properties of Polyimides Having Triphenylamine Structure in the Main Chain
Kazuhiro Takizawa,Shigeo Asai,Shinji Ando 699
16:00 2E26 Correlation between Aggregation Structure and Local Motion of Main Chain in the Thermal Expansion Behaviors of Polyimide Films
Tomohiro Okada,Masashi Mizoroki,Kenji Sekiguchi,Shinji Ando..... 700
16:15 2E27 Thermal Expansion Behaviors in the Out-of-plane Direction of Polyimide Films Formed on Substrate Observed by Optical Interferometry
Masashi Mizoroki,Tomohiro Okada,Shinji Ando 701

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POLYMER PHYSICS

K. Sakurai, Presiding

9:30 3E03 Effects of Molecular-Weight Distribution and Band Broadening on SEC-MALS Measurements in Aqueous Media
Yasushi Kondo,Yo Nakamura 702
9:45 3E04 Characterization of Nanomaterial Dispersion with Polymer Surfactant
Haruhisa Kato,Ayako Nakamura 703
10:00 3E05 Effects of Surfactants on Cloud Points in Aqueous Poly-N-isopropylacrylamide --- Fluorescence Probe Method
Masashi Osa,Yu Itoda,Yuki Suzuki,Ryota Watanabe 704

H. Kato, Presiding

10:15 3E06 Phase Separation Dynamics of Aqueous Poly(N-isopropylacrylamide) Solution: a Single Molecule Fluorescence Study
Yasuyuki Tsuboi,Takanori Tada,Noboru Kitamura,Yukiteru Katsumoto 705
10:30 3E07 Self-association of Thermosensitive Block Copolymers in Aqueous Solution Upon Heating
Takahiro Sato,Akiko Toyokura,Kohei Tanaka,Ken Terao,Xing-Ping Qiu,Francoise Winnik,Shin-ichi Yusa 706
10:45 3E08 Structural Analysis of Block Copolymer Micelles by SAXS and FFF-MALS
Yusuke Sanada,Isamu Akiba,Kouichi Shiraishi,Masayuki Yokoyama,Naoto Yagi,Yuya Shinohara,Yoshiyuki Amemiya,Kazuo Sakurai 707

T. Sato, Presiding

11:00 3E09 Study on Structural Change in PH-responsive Micelle with Anomalous Small-angle X-ray Scattering
Masaki Kinoshita,Aya Okura,Kazuo Sakurai,Isamu Akiba..... 708
11:15 3E10 Dispersion of Low Molecular Weight Compounds Included in Polymer Micelles
Isamu Akiba,Masaki Kinoshita,Aya Okura,Kazuo Sakurai..... 709
11:30 3E11R Monodisperse Aggregates of Amphiphilics Based on Calix[4]arene Frame
Yurika Kamibeppu,Shota Fujii,Yusuke Sanada,Kazuo Sakurai..... 710

K. Terao, Presiding

12:30 3E12 Aqueous Solution Property of Polymethacrylamide Derivatives with Optically Active Groups in their Side Chains
Takashi Aoki,Yui Okamoto,Shouhei Nishimori 711
12:45 3E13 Topological Constraint in Ring Polymers Under Theta Conditions

Studied by Monte-carlo Simulation
Jiro Suzuki,Atsushi Takano,Yushu Matsushita 712

13:00 3E14 Preparation and Topological Characterization of Knotted Ring Polyisoprenes
Hiroki Sawaki,Atsushi Takano,Yushu Matsushita 713

13:15 3E15 Precise Synthesis and Characterization of Tadpole-shaped Polymers with High Purity
Yuya Doi,Atsushi Takano,Yushu Matsushita..... 714

A. Takano, Presiding

13:30 3E16IL* Dilute Solution Properties of Non-linear Semiflexible Polymers: Crossover From the Rigid Chain to the Random Coil
Daichi Ida 101

14:00 3E18 Conformation of Single-stranded DNA in Aqueous Solution
Hiroki Ymamura,Keiko Tamada,Ken Terao,Takahiro Sato..... 715

Y. Nakamura, Presiding

14:15 3E19 Conformational Change of a Triple Helical Peptide with a Linker Domain at One End
Ken Terao,Takahiro Sato,Kazunori Mizuno,Hans Peter Bachinger 716

14:30 3E20 NMR Analysis of Silk, Water and Interaction between Silk and Water in Wet Silk
Yu Suzuki,Koutarou Isobe,Haruka Shimokawatoko,Koji Yazawa,Greg Boutis,Tetsuo Asakura 717

14:45 3E21 Study on Liquid-liquid Phase Transitions of Polymers.
Eiji Izumi,Mikihito Takenaka,Hirokazu Hasegawa 718

M. Takenaka, Presiding

15:00 3E22 Molecular Characteristics of Poly(l-lactic Acid) Elucidated by Ab Initio Statistical Mechanics
Daichi Touge,Yuji Sasanuma..... 719

15:15 3E23 Structure-property Relationships of PET, PTT, and PBT: Quantum Chemical Calculations of π - π Interaction Energies and Crystalline Moduli
Yuji Sasanuma,Yusuke Wagai,Nobuaki Suzuki 720

15:30 3E24 Cavitation in the Static Melt of Polymer
Masato Hashimoto,Susumu Fujiwara,Takashi Itoh 721

Room F

Wednesday, May 29

POLYMER PHYSICS

M. Oka, Presiding

10:00 1F05 Control of Helical Chirality of Poly(quinoxaline-2,3-diyl)s: Relationship between Structures of Chiral Side Chain and Asymmetric Helix Induction Properties
Yuuya Nagata,Tetsuya Yamada,Takumi Adachi,Yuto Akai,Takeshi Yamamoto,Michinori Suginome..... 722

10:15 1F06 Asymmetric Helical Structure of Poly(quinoxaline-2,3-diyl)s Bearing Chiral and Achiral Side Chains: Opposite Helix Inductions Depending on the Achiral Side Chains

Yuuya Nagata,Tsuyoshi Nishikawa,Michinori Suginome 723
10:30 1F07 Development of the Time-resolved CD Spectroscopy Measurement System with High Sensitivity for Structure Change Detection of Biomolecules
Makoto Murakami,Yoshiki Hamada,Yasuyuki Araki,Seiji Sakamoto,Takehiko Wada 724
10:45 1F08 Design, Synthesis, and Characterization of Aromatic Polythioester and Polydithioester with Different Numbers of Methylene Units in the Spacer
Daisuke Abe,Yuji Sasanuma 725
T. Wada, Presiding
11:00 1F09 Theoretical Conformation Analysis of Polypeptides Having the Tandem Repeats of Hydrophobic and Hydrophilic Amino-acid Residues Using Molecular Dynamics Simulations
Koji Inai,Yoshiaki Hirano,Masahito Oka 726
11:15 1F10 Inter-molecular Structure of *bombyx Mori* Silk Fibroin Studied by ^{13}C Solid-state NMR
Keiko Okushita,Tatsuya Ogawa,Akihiro Aoki,Tetsuo Asakura 727
11:30 1F11 The Synthesis of Trimer Model Compounds of Poly(lactic Acid) and the Analysis of the Stereoregularity by Solution NMR
Koto Suganuma,Ken Horiuchi,Hiroshi Hara,Hironori Matsuda,Risa Yahata,Miyuki Oshimura,Tomohiro Hirano,Koichi Ute,H.N. Cheng,Tetsuo Asakura 728
Y. Sasanuma, Presiding
12:30 1F12 Raft Polymerization of Glycopolymer and Molecular Structure Analysis.
Masaki Takara,Hirokazu Seto,Yu Hoshino,Yoshiko Miura 729
12:45 1F13 Control of Polymer Structure by Radical Polymerization of Chiral Vinyl Monomers Bearing the Dinaphthothiophene Moiety
Yoko Nambu,Satoshi Uchida,Toshikazu Takata..... 730
13:00 1F14 Solution Properties of the Rod Brushes and Preparation of Two- and Three-armed Phic Macromonomers
Norifumi Kaneko,Atsushi Narumi,Seigou Kawaguchi..... 731
13:15 1F15 Synthesis and Solution Properties of Rod Brushes Consisting of a Polymethacylate Main Chain
Yuta Saito,Moriya Kikuchi,Atsushi Narumi,Seigou Kawaguchi 732
M. Kawaguchi, Presiding
13:30 1F16 Discussion on Segmental Motions of Polymer Chains
Toshiyuki Shikata,Oumi Kaiga,Osamu Urakawa,Shin-ichi Yusa..... 733
13:45 1F17 Hydration/dehydration Behavior of Poly(ethylene Glycol)
Toshiyuki Shikata,Misumi Okuzono 734
14:00 1F18 Study on Multilayered Structure Found in Injection Molded Polymer Blend Using X-ray CT
Hiroo Katsuta,Yukihiro Nishikawa,Masaoki Takahashi..... 735
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Asuka Hayashi,Katsuhisa Tokumitsu,Sakiko Fukunishi,Taichi Nagashima,Masami Okamoto 736
T. Shikata, Presiding
14:30 1F20 Stabilization of Pickering Emulsions Prepared by PS Latexes with the Different Flocculated Structures
Takeshi Fuma,Masami Kawaguchi 737
14:45 1F21 Chain Length Effects of Alkane Dispersion Media on Viscoelastic

		Properties of Hydrophobic Fumed Silica Suspensions Risako Marunaka,Masami Kawaguchi	738
15:00	1F22	Effects of Heating and Pre-shearing on Rheological Behavior of Silicone Oil Greases Toshiaki Yamaguchi,Keisuke Kayano,Kazutaka Noro,Masami Kawaguchi	739
15:15	1F23	Rheology of Suspension Gels for Fumed Silica Modified by Various Silicone Oils Yuichi Kataoka,Masami Kawaguchi	740
		D. Yamaguchi, Presiding	
15:30	1F24	Liquid-crystalline Assembly of Bent Molecules Containing a Sulfonyl Group at the Middle Part of Molecules Masafumi Yoshio,Reiku Konishi,Takashi Kato	741
15:45	1F25	Effects of Hydrogen Isotope Chirality Incorporated to a Polymer Side-chain on their Liquid Crystalline Properties Takuya Mineo,Kouichi Asakura,Kunihiko Okano	742
16:00	1F26	Thermal Phase Transition of Complex Salts Composed of a Pair of Cholesterol Derivatives and Aliphatic Amines or Imidazolium Cations Taishi Kitaguchi,Koichi Tsuda,Yoshikuni Teramoto,Yoshiyuki Nishio	743
		Y. Okumura, Presiding	
16:15	1F27	Orientational Behavior of Linear Poly(aminourethane)s with Mesogenic Groups Masanori Nata,Genichiro Shimada,Seiji Ujiie	744
16:30	1F28	Analysis of Highly Periodic Scattering Data From a Colloidal Dsipersion of Plate-like Particles Daisuke Yamaguchi,Nobuyoshi Miyamaoto,Teruyuki Nakato,Satoshi Koizumi,Noboru Ohta,Naoto Yagi,Takeji Hashimoto,Toshihiro Kawakatsu	745
16:45	1F29	Liquid Crystalline Property of Cyclic Multi-block Amphiphiles Tatsuya Shima,Takahiro Muraoka,Kiyoshi Kanie,Atsushi Muramatsu,Kazushi Kinbara	746
		M. Yoshio, Presiding	
17:00	1F30	Synthesis and Characterization of New Liquid Crystalline Side Chain Polymer for Surface Functional Group Patterning in Thin Films Suguru Ushiro,Rina Maeda,Teruaki Hayakawa	747
17:15	1F31	Analysis of Three-dimensional Structures of Liquid Crystal Blue Phases by Confocal Laser Scanning Microscope Yasushi Okumura,Ryoichi Saito,Hiroki Higuchi,Hirotsugu Kikuchi	748
17:30	1F32	Electro-optical Effect Measurement of Polymer-stabilized Blue Phases Using High-speed Camera Yasushi Okumura,Noriaki Yukitake,Hiroki Higuchi,Hirotsugu Kikuchi	749

Thursday, May 30

FUNCTIONAL POLYMERS

M. Kunitake, Presiding

9:30	2F03	Construction of Coordination Polymer Based on Cyclic Molecules Involving Preorganized Acetylenes. Daisuke Yasumiya,Hajime Shigemitsu,Ichiro Hisaki,Norimitsu	

		Tohnai,Mikiji Miyata	1022
9:45	2F04	Investigation of Diffusion and Re-orientation in Iodine/nylon 6 Complex [xi]; Introduction of Iodine to Commodity Resins(1). Akio Kawaguchi	1023
10:00	2F05	Co-crystalline Phase of Syndiotactic Polystyrene with Heteroaromatic Compounds Being Poorly Compatible Jun Mochizuki,Yuriko Ariga,Takumi Sano,Hideyuki Itagaki	1024
		Y. Kaneko, Presiding	
10:15	2F06	Enhance of Thermal Conductivity of HDPE/ Filler Composites and Measurement of Thermal Conductivity Using Hot Wire Method Yousuke Goto,Ayano Kon,Seiji Takahashi,Hideo Horibe	1025
10:30	2F07	Synthesis of Recyclable Carbon Fiber-reinforced Plastics with Degradable Epoxy Resins Ayaka Yamaguchi,Michio Urushisaki,Toshikazu Sakaguchi,Tamotsu Hashimoto	1026
10:45	2F08	Development of Lithium Ion Conductive Materials Using Imidazolium Hexafluorophosphate Terminated Ester-typed POSS-core Dendrimer Yasuyuki Irie,Kensuke Naka	1027
		I. Hisaki, Presiding	
11:00	2F09	Development of Alternate Siloxane Copolymers Bearing a Nano-cage and Flexible Chain Units by Equilibrium Polymerization Toshihiko Ohda,Yusuke Ohnagamitsu,Takashi Matsuo,Kiyoshi Sakai,Keiji Tanaka,Masashi Kunitake	1028
11:15	2F10	Facile Synthesis of Cage-like Octasilsesquioxanes Containing Heterogeneous Groups Miki Shoiriki,Tomonobu Mizumo,Yoshiro Kaneko	1029
11:30	2F11	Dispersion of Multi-walled Carbon Nanotube Using Ladder-like Polysilsesquioxane Containing Ammonium Groups Tomoyuki Arake,Takuo Sugioka,Yasutaka Sumida,Yoshiro Kaneko	1030
		A. Takasu, Presiding	
12:30	2F12IL*	Development of Organic/Inorganic Hybrids Based on Polymer Templates Tatsuya Nishimura	104
13:00	2F14	DNA Adsorption Characteristics of Hollow Spherical Allophane Nano-particles Yoko Matsuura,Fumitoshi Iyoda,Shuichi Arakawa,Masami Okamoto,Hidetomo Hayashi	1031
13:15	2F15	Hydroxyapatite-coated Poly(lactide-co-glycolide) Microspheres for Delivery of Anticancer Drug Chie Kojima,Kenji Watanabe,Takashi Nagayasu,Atsushi Nakahira	1032
		T. Nishimura, Presiding	
13:30	2F16	Construction of Mesoscale Assemblies Composed of Filamentous Virus and Gold Nanoparticle Toshiki Sawada,Takeshi Serizawa	1033
13:45	2F17	Design of Electrophoretic Polyesters and Hybridization with Inorganic Blocks Takuya Fukuoka,Akinori Takasu	1034
14:00	2F18	Architecture of Poly(ethylene Glycol)-hydroxyapatite Hybrid Material to Learn From Calcification of Polyurethane. Temmei Ito,Tetsushi Taguchi,Makoto Sasaki	1035
		T. Serizawa, Presiding	
14:15	2F19	Unidirectional Translational Motion of Rod-like Aggregates of	

Magnetic Particles Induced by Alternating Magnetic Fields
Shinji Kawazu,Yasushi Okumura,Hiroki Higuchi,Hirotsugu Kikuchi . 1036

14:30 2F20 Preparation of Dendritic-shaped Metallic Nanoparticle on a Graphene Nanosheet Toward High-performance PEFC
Hiroshi Endo,Yuto Saruhasi,Takeshi Kawai 1037

14:45 2F21 Preparation of Electrochemical Capacitor Based on 3D-microporous Graphene Structure
Hiroshi Endo,Kazumasa Kono,Takeshi Kawai..... 1038

C. Kojima, Presiding

15:00 2F22 Surface Functionalization of MWCNT by Introduction of Carbanions on the Surface
Masanori Terada,Kaoru Adachi,Yasuhisa Tsukahara..... 1039

15:15 2F23 Development of Carbon Nanotube/polybenzoxazole Composite Film by Using Non-covalent Approach
Tsuyohiko Fujigaya,Takahiro Fukumaru,Naotoshi Nakashima 1040

15:30 2F24 Coating of Carbon Nanotube by Gel in the Interior of Surfactant Micelles
Yusuke Tsutsumi,Tsuyohiko Fujigaya,Naotoshi Nakashima 1041

K. Adachi, Presiding

15:45 2F25 Resistivity-temperature Characteristics of Carbon-nanotube Dispersed Polymer Composites (2)
Hajime Nakano,Katsuya Shimizu,Yuto Koshimori,Yoji Nomura,Seiji Takahashi,Toshiaki Ougizawa,Hideo Horibe 1042

16:00 2F26 Flexible Molding Using by Polyioncomplex Graphene Nanofiller
Hiroshi Endo,Fumihiko Kono,Takeshi Kawai..... 1043

16:15 2F27 Hybridization of Tio2 Nanoparticle on a Cationic Polymer-grafted Graphene Nanosheet
Hiroshi Endo,Tomonari Kanasugi,Fumihiko Kono,Takeshi Kawai..... 1044

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FUNCTIONAL POLYMERS

Y. Teramoto, Presiding

9:30 3F03 Preparation of Cerium Oxide Nanoparticles in a Porous Coordination Polymer
Cho Rong Kim,Takashi Uemura,Susumu Kitagawa 1045

9:45 3F04 Formation of Calcium Carbonate Using Lyotropic Liquid Crystalline Hydrogels of All Aromatic Polyamide
Takashi Nishio,Kensuke Naka 1046

10:00 3F05 Vertically-aligned Mesoporous Titania Film Templated with Lyotropic Liquid Crystalline Phase of Block Copolymer by Sol-Gel Method
Yuko Kama,Mitsuo Hara,Shusaku Nagano,Takahiro Seki..... 1047

K. Naka, Presiding

10:15 3F06 Control of Aggregation Structure of Ring-shaped Polyoxometalate with Liquid-crystalline Molecules
Tatsuhiro Tsumori,Osamu Tsutsumi..... 1048

10:30 3F07 Mineralization in Mesomorphic Networks of Liquid-crystalline Cellulose Derivatives
Takuya Ogiwara,Yoshikuni Teramoto,Yoshiyuki Nishio 1049

10:45 3F08 Preparation of Optically Chiral Silica Monolith by Imprinting Cholesteric Architecture of Liquid-crystalline Polysaccharide

Phenylcarbamate Derivatives
Junichi Sato,Yoshikuni Teramoto,Yoshiyuki Nishio..... 1050

S. Nagano, Presiding

11:00 3F09 Photocatalytic Activity of a Variety of Fluoroalkyl Groups-containing Acrylate-acrylic Acid Cooligomers/titanium Oxide/silica Nanocomposites After Calcination at 1000 ℃
Sujuan Guo,Yoshihiro Kato,Hiroshi Kakehi,Masashi Miura,Norifumi Isu,Hideo Sawada..... 1051

11:15 3F10 Aldol Reactions of Ketones in Fluoroalkyl End-capped 2-acrylamide-2-methylpropanesulfonic Acid Oligomeric Nanoparticle Cores
Tetsushi Kijima,Masakazu Nishida,Haruhiko Fukaya,Masato Yoshida,Hideo Sawada 1052

11:30 3F11 Dispersion and Application of Polyaniline into Water by Using Fluoroalkyl End-capped Oligomer
Taiki Tsuzuki-ishi,Hideo Sawada..... 1053

S. Kanaoka, Presiding

12:45 3F13 Formation Mechanism of Aliphatic Epoxy Resin - Silica Composites with Aliphatic Epoxy and PHPS
Junichi Iida,Hiroshi Nakaseko,Yousuke Fujii,Reiko Saito..... 1054

13:00 3F14 The Thermal Diffusivity of Organic-silica Nanocomposite with Epoxidized Styrene-butadiene Block Copolymer
Hiroshi Nakaseko,Toshifumi Kanahara,Junko Morikawa,Reiko Saito 1055

H. Yabu, Presiding

13:15 3F15 Organic/inorganic Fusion Materials Mediated by Well-defined Block Copolymers with Various Functional Groups: Preparation of Novel Silica Nanostructures
Yukari Oda,Arihiro Kanazawa,Shokyoku Kanaoka,Sadahito Aoshima,Sachio Tsuboike,Shujun Zhou,Ayae Sugawara-narutaki,Atsushi Shimojima,Tatsuya Okubo 1056

13:30 3F16 Organic Crystalline Complexes with Basic/acidic Interface Play as Templates on Sol-Gel Reaction
Hiroki Murta,Hiroyuki Matsukizono,Ren-Hua Jin..... 1057

13:45 3F17 Preparation and Thermal Stability of Dimethylacrylamide Oligomer/silica Nanocomposites
Masakazu Kabutomori,Keita Okuno,Masakazu Nishida,Haruhiko Fukaya,Yoshio Hayakawa,Hideo Sawada..... 1058

R. Saito, Presiding

14:00 3F18 Long-term Thermal Stabilization of Polypropylene Nanocomposites by Synergy Effects of Nano Silica and Dendritic Polymer
Ikki Katada,Toshiaki Taniike,Minoru Terano 1059

14:15 3F19 Study of Physical Cross-linking Polypropylene / Polymer Grafted Silica Nanocomposites on Grafted Polymer Amount and Filler Content
Masahito Toyonaga,Toshiaki Taniike,Minoru Terano 1060

14:30 3F20 Formation of Composite Films by Self-assembly of Poly(butadiene) Particles and SiO2 Particles and Formation of Porous Films
Hiroki Sato,Masaaki Kanahara,Yuta Saito,Masatsugu Shimomura,Hiroshi Yabu..... 1061

T. Taniike, Presiding

14:45 3F21 Preparation and Microstructure of Poly(lactic Acid) Stereocomplex/silica Hybrid Films

Yuki Ohsawa,Kouhei Toyama,Yuichiro Koide,Hiroki Ikake,Masako Takada,Yoshio Muroga,Kimio Kurita,Shigeru Shimizu 1062

15:00 3F22 Preparation and Thermal Stability of Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomer/silica/calcium Silicide and /calcium Silicate Nanocomposites
Tomoya Saito,Yusei Tsushima,Hideo Sawada 1063

15:15 3F23 Preparation and Application of Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomer/silica/talc Nanocomposites
Yuri Oikawa,Tomoya Saito,Yukio Hasegawa,Hideo Sawada 1064

15:30 3F24 Preparation and Thermal Stability of Fluoroalkyl End-capped Oligomers/boric Acid/silica Nanocomposites
Takuto Shimamura,Saki Souma,Hideo Sawada 1065

Room G

Wednesday, May 29

POLYMER PHYSICS

S. Kawahara, Presiding

10:00 1G05 Complex Formations and Properties of Noria/Polyether Blends
Toshiyuki Kataoka,Hiroto Kudo,Takayuki Ikehara 750

10:15 1G06 Morphology Control and Characteristic Study of Salami Structure Alloy Formed by PP/PA11
Masayuki Kitou,Akio Amari,Osamu Kitou,Jumpei Kawada,Makoto Mouri,Osamu Watanabe,Arimitsu Usuki 751

10:30 1G07 Structure Analysis of Injection Molded PP/PA11 Alloy
Jumpei Kawada,Makoto Mouri,Osamu Watanabe,Arimitsu Usuki,Masayuki Kitou,Akio Amari,Osamu Kitou 752

10:45 1G08 Effects of Molecular Weight Distribution on Co-existing Fraction of Phase-separated Polymer Blends Studied by Using X-ray CT
Shota Uratani,Shogo Kojima,Yukihiro Nishikawa,Masaoki Takahashi 753

T. Kataoka, Presiding

11:00 1G09 Phase Structure Formation in Polymer Blends by Competition between Crystallization and Liquid-liquid Phase Separation
Fuminori Arai,Kazuya Shinohara,Hiroki Takeshita,Masamitsu Miya,Katsuhiko Takenaka,Tomoo Shiomi 754

11:15 1G10 Two Dimensional Order Structure of Immiscible Rubber Blends I; Formation Form Non-equilibrium Solutions
Junhyeok Jang,Tsuyoshi Inoue,Hirohisa Yoshida,Masayuki Kawazoe 755

11:30 1G11 Preparation and Properties of Soft-materials with Organic-inorganic Nanomatrix Structure
Seiichi Kawahara,Kenshi Noguchi,Yoshimasa Yamamoto 756

H. Takeshita, Presiding

12:30 1G12 Effect of the Surface Modification of SiO2 on the Crystallization of iPP/SiO2 Nano Composite
Yoshizo Fukuyama,Takahiko Kawai,Mari Senda,Shin-ichi Kuroda,Masahito Toyonaga,Toshiaki Taniike,Minoru Terano 757

12:45	1G13	Control of Nano-filler Structure Using Polypropylene Amorphous Region For Improved Viscoelastic Properties Kengo Takeuchi,Toshiaki Taniike,Minoru Terano	758
13:00	1G14	Dispersion Behavior of Polymer-adsorbed Fumed Silica in a Polymeric Matrix with Different Molecular Weights Yusuke Kondo,Naoya Torikai,Masami Kawaguchi	759
13:15	1G15	Microphase-separated Structures of Gold Nanoparticles Grafted with Two Immiscible Polymers and their Temperature Depedence Tatsuhiro Nakano,Daisuke Kawaguchi,Yushu Matsushita	760
		D. Kawaguchi, Presiding	
13:30	1G16	Crystallization Behavior of Crystalline-crystalline Diblock Copolymers Satoshi Osawa,Takuya Sakurai,Shuichi Nojima	761
13:45	1G17	Microphase Separation Structure of Photoresponsive Liquid Crystalline Block Copolymers Hiroki Takeshita,Ryousuke Kudoh,Masamitsu Miya,Katsuhiko Takenaka,Tomoo Shiomi	762
14:00	1G18	Disorientation of Aligned Cylindrical Microdomains Upon Heating and Spontaneous Reorientation Upon Cooling Shogo Tomita,Isamu Wataoka,Hiroshi Urakawa,Nobutaka Shimizu,Noriyuki Igarashi,Sono Sasaki,Shinichi Sakurai	763
14:15	1G19	Surface-induced Orientation of the BCC Lattice For Spherical Microdomains Formed in a Block Copolymer Thin Film Konomi Honda,Tsukasa Miyazaki,Hiroyasu Masunaga,Sono Sasaki,Shinichi Sakurai	764
		S. Sakurai, Presiding	
14:30	1G20	Ordered Bicontinuous Double-diamond Structure Appeared in Polystyrene-b-polyisoprene/homopolymer Blend System Kazuma Kanayama,Tsutomu Takasaki,Katsuhiro Yamamoto,Isamu Akiba,Shigeru Okamoto	765
14:45	1G21	Grain Formation and Evolution of BCC Structure in Diblock Copolymer Solution Studied by Rheology Akifumi Matsushita,Shigeru Okamoto,Tadashi Inoue,Eiko Tamura	766
15:00	1G22	Microphase-separated Structures with Large Difference in Refractive Indecies Yuya Yamamoto,Akifumi Matsushita,Shigeru Okamoto	767
15:15	1G23	Morphology of Acid-exposed Block Copolymers Yoshio Sageshima,Atsushi Noro,Yushu Matsushita	768
		S. Okamoto, Presiding	
15:30	1G24	Fabrication of Block Copolymer Photonic Films by Solvent-swelling Yusuke Tomita,Yoshio Sageshima,Atsushi Noro,Yushu Matsushita,Joseph Walish,Edwin Thomas	769
15:45	1G25	Formation of Nanoporous Structure From Block Copolymer / Homopolymer Blends Having Hydrogen Bonds Interaction Kohei Matsuoka,Atsushi Takano,Yushu Matsushita	770
16:00	1G26	Influence of Topology on the Miscibility of a Polymer Blend Yuki Kobayashi,Sarah Siti,Atsushi Takano,Yushu Matsushita	771
16:15	1G27	Synthesis of Block Copolymers via High Pressure RAFT Polymerization and their Morphological Observation Ryusuke Hiramatsu,Kota Higuchi,Yoshio Sageshima,Atsushi Noro,Yushu Matsushita	772

S. Sasaki, Presiding

16:45 1G29 Surfactant Free Seeded Emulsion Polymerization in the Presence of Hydrogel Particles
Daisuke Suzuki,Tomoyo Yamagata..... 773
17:00 1G30 Electrodynamic Phenomenon of Temperature-responsive Microgels
Takuma Kureha,Takaaki Sato,Daisuke Suzuki..... 774
17:15 1G31 Observation of the Distinctive Fracture Processes For Brittle and Ductile Double Network Gels Using Crossed Polarizers
Saika Ahmed,Tasuku Nakajima,Md. Anamul Haque,Takayuki Kurokawa,Jian Ping Gong..... 775
17:30 1G32 Structural Analysis of Sulfur in Butadiene Rubber Vulcanizates Using X-ray Absorption Near-edge Structure
Atitaya Tohsan,Yuko Ikeda..... 776

Thursday, May 30

POLYMER PHYSICS *"English Session"*

Q. Tran-Cong Miyata, Presiding

9:30 2G03 Amplified Exfoliation of Graphite by Molecularly Engineered Ionic Liquids (1): High-speed Exfoliation
Michio Matsumoto,Chiyoung Park,Yusuke Saito,Takuzo Aida 777
9:45 2G04 Amplified Exfoliation of Graphite by Molecularly Engineered Ionic Liquids (2): Structural Effects of Ionic Liquids on High-speed Exfoliation
Yusuke Saito,Chiyoung Park,Michio Matsumoto,Takuzo Aida 778
10:00 2G05 Molecular Aggregation States of Isotactic Polystyrene Crystallized in Nanorods Characterized by Micro-beam X-ray Diffraction and Electron Diffraction
Hui Wu,Yan Cao,Ryohei Ishige,Yuji Higaki,Taiki Hoshino,Noboru Ohta,Hirohmi Watanabe,Hiroshi Jinnai,Atsushi Takahara 779
10:15 2G06ILA Size Effect in Micro-architectures of Polymer
David CC Lam..... 122

H. Jinnai, Presiding

10:45 2G08 Structural Parameters for Large-area Homeotropic Ordering of Polymer Brushes Carrying Rod-like Mesogens
Zhen Chen,Yi-Tsu Chan,Jose M. Lobez,Takashi Kajitani,Atsuko Kosaka,Takanori Fukushima,Takuzo Aida 780
11:00 2G09 Photochemical Grafting of Vinylferrocene Molecules Onto the Si(111) Surface
Marvin Ustaris Herrera,Takashi Ichii,Kuniaki Murase,Hiroyuki Sugimura..... 781
11:15 2G10ILA Improved PEG-Based Hydrogel Scaffolds Properties for Tissue Engineering Applications
Zuratul Ain Abdul Hamid,A. Blencowe,G. G. Qiao,G. Stevens..... 123

Y. Ikeda, Presiding

12:30 2G12 Structural Analyses of a Poly(oxyethylene) Crystal in Poly(d,l-lactide) / Poly(oxythylene) Blends and its Melting Behavior
Nguyen-Dung Tien,Noriyuki Igarashi,Nobutaka Shimizu,Sono Sasaki,Shinichi Sakurai..... 782
12:45 2G13 Temperature-dependent Vibrational Spectroscopic Study of

Poly(3-hydroxybutyrate)
Raghunatha Reddy Kummetha,Shigeki Yamamoto,Harumi Sato,Yukihiro Ozaki 783

13:00 2G14ILA Coconut-fiber Reinforced Polymer Composites Designed by Reaction-induced Phase Separation
Dan-Thuy Van-Pham,Qui Tran-Cong Miyata 124

S. Sakurai, Presiding

13:30 2G16 Ni(II) and Phenanthroline Based Metallo-supramolecular Polymers for Humidity Sensitive Conductivity
Rakesh Kumar Pandey,Md Delwar Hossain,Satoshi Moriyama,Masayoshi Higuchi..... 784

13:45 2G17 Liquid Crystalline and Charge Transport Properties of Octa-substituted Alkyl and Fluoroalkyl Phthalocyanines for a Bulk Heterojunction Layer in Organic Photovoltaics
Lydia Sosa-Vargas,Yo Shimizu,Fabien Nekelson,Yukimasa Matsuda,Minokazu Takahashi,Masanori Ozaki,Akihiko Fujii..... 785

14:00 2G18 Fabrication of Ultra-high Density Nanorod Arrays Through Directed Self-assembly of Liquid Crystalline Block Copolymer
Nanae Yamashita,Motonori Komura,Keiji Nagai,Tomokazu Iyoda,Kouhei Aida,Yashihiko Tada,Hiroshi Yoshida..... 786

FUNCTIONAL POLYMERS

K. Shinohara, Presiding

14:30 2G20 Fabrication of Antigen-antibody Reaction Interface with Silanes
Mutsuo Tanaka,Kyoko Yoshioka,Yoshiki Hirata,Makoto Fujimaki 1066

14:45 2G21 Adhesion of Rubbers Using Grafted Polyelectrolyte
Yasuhisa Minagawa,Motoyasu Kobayashi,Atsushi Takahara 1067

15:00 2G22 Improvement of Release Properties of An Ultraviolet-curable Resin Suitable for Ultraviolet Nanoimprinting Using Condensable Gas by Adding Silicone-based Additives
Shunya Ito,Shu Kaneko,Masaru Nakagawa..... 1068

15:15 2G23 Thermo-responsive Control of Water Droplet Adhesion on Superhydrophobic Surfaces
Daisuke Ishii,Akihito Takahashi,Masatsugu Shimomura..... 1069

D. Ishii, Presiding

15:30 2G24 Synthesis of Polymer-silica Nanocomposite Particles and Influence of Silica Nanoparticles on their Adhesion Properties
Yusuke Yamamoto,Syuji Fujii,Yoshinobu Nakamura,Shigeki Hikasa,Kazuko Fujiwara 1070

15:45 2G25 Preparation of Self-oscillating Polymer Brush Surface by SI-ATRP and Evaluation of the Dynamic Properties
Tsukuru Masuda,Mio Hidaka,Mari Yokozawa,Yoko Murase,Kenichi Nagase,Teruo Okano,Aya Akimoto Mizutani,Ryo Yoshida 1071

16:00 2G26 Single Molecules Imaging of Chiral Helical Conjugated Polymer and the Motion Analysis
Ken-ichi Shinohara,Yuu Makida..... 1072

16:15 2G27 Improvement in the Adhesive and Coating Properties of Chemically Stable Polymeric Materials by their Surface Modification
Hitoshi Kanazawa,Aya Inada,Masaki Omori,Satoshi Yokota 1073

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FUNCTIONAL POLYMERS

S. Fujii, Presiding

9:30 3G03 A Superhydrophobic and Highly Sensitive Dissolved Oxygen Sensor Based on Nanostructured Fluorinated Polymer Film
Yu Gao,Tao Chen,Masaya Mitsuishi,Tokuji Miyashita 1074

9:45 3G04 Preparation of Composite Raspberry-like Particles Utilizing Hydrogen-bonding Interaction
Cheng Chang,Toyoko Suzuki,Hideto Minami 1075

10:00 3G05 Quantification of ATRP Initiator Density on Polymer Latex Particles by Cupper-catalyzed Azide-alkyne Cycloaddition
Masakatsu Kasuya,Michinari Kohri,Tatsuo Taniguchi,Keiki Kishikawa,Takayuki Nakahira..... 1076

10:15 3G06 Surface-initiated Polymerization on Powder with Monomer From Vapor Phase
Hee-Sung Lee,Minato Wakisaka,Yoshito Ando,Haruo Nishida..... 1077

H. Minami, Presiding

10:30 3G07 Surface Modification of Substrates Using Bio-polymer Urushiol
Hirohmi Watanabe,Motoyasu Kobayashi,Aya Fujimoto,Rika Yamamoto,Atsushi Takahara 1078

10:45 3G08 Theoretical Study on the Adhesion between Metal and Epoxy Resin
Kazunari Yoshizawa,Takayuki Semoto,Yuta Tsuji..... 1079

11:00 3G09 Control of Wetting Properties for Silicon Containing Polymers
Tomoyasu Hirai,Masayuki Haraguchi,Masaaki Ozawa,Katsuaki Miyaji,Keiji Tanaka..... 1080

11:15 3G10 Surface Modification of POSS Copolymer Film by Deep UV Irradiation
Satoki Tsuruya,Kazuki Sonobe,Jun Matsui,Masaya Mitsuishi,Tokuji Miyashita 1081

11:30 3G11R Deformation of Two Dimensional Colloidal Array
Syuji Fujii,Eiji Haramatsu,Yoshinobu Nakamura,Hiroshi Morita 1082

T. Mori, Presiding

12:30 3G12 Structural Control in Assembly of Cellulosic Nanomaterials Grafted with Concentrated Polymer Brushes and their Superlubrication Property
Keita Sakakibara,Keishi Maeda,Kohji Ohno,Yoshinobu Tsujii..... 1083

12:45 3G13 Barnacle Settlement on Microstructured Surfaces 1 -antifouling Properties of Microstructured Surfaces-
Kentaro Abe,Tatsuya Jinno,Takayuki Murosaki,Yasuyuki Nogata,Masatsugu Shimomura 1084

13:00 3G14 Barnacle Settlement on Microstructured Surfaces 2 -exploring Behavior of Cyprid Larvae on Microstructured Surfaces-
Takayuki Murosaki,Tatsuya Jinno,Kentaro Abe,Yasuyuki Nogata,Masatsugu Shimomura 1085

13:15 3G15 SERS Properties of Flexible Metallic Wrinkle Film Based on Strain Engineering
Hiroshi Endo,Masahiro Tamura,Takeshi Kawai 1086

K. Yoshizawa, Presiding

13:30 3G16 Fabrication of 2D-crack Free Wrinkle Surface with Different Superhydrophobicity
Hiroshi Endo,Tamami Tsuji,Takeshi Kawai 1087

13:45 3G17 Fabrication of 3D-folding Liquid Plasticization From Wrinkle Thin Sheet
Hiroshi Endo,Tamami Tsuji,Takeshi Kawai 1088
14:00 3G18 AFM Force Mapping of Gb3 Ceramide in Lipid Membrane by Verotoxin-modified Tip
Toshiaki Mori,Shohei Koizumi,Yoshio Okahata..... 1089
14:15 3G19 Direct Observation of Binding and Decomposition Behavior of Chitinase Onto Chitin Film
Keisuke Shishido,Toshiaki Mori,Yoshio Okahata 1090

H. Endo, Presiding

14:30 3G20 A Novel Design for Cell Scaffolds Based on Mechanical Instability of Polymers
Hisao Matsuno,Shinichiro Shimomura,Toshiyuki Ohta,Keiji Tanaka 1091
14:45 3G21 Cell Adhesion on (rubber/glass) Multiphase Polymer Surfaces
Shinichiro Shimomura,Hisao Matsuno,Keiji Tanaka..... 1092
15:00 3G22 Patterned Cell Adhesion Based on Mechanical Instability of Scaffolds
Hiroki Komori,Hisao Matsuno,Yohei Kinoshita,Satoshi Fujimura,Keiji Tanaka..... 1093
15:15 3G23 Nano-sheet Structure Formation by Self-assembly of Nucleo-peptide
Tatsuya Ando,Kenji Nagata,Masahiro Higuchi 1094
15:30 3G24 Amphiphilic Polymer Containing Dopamine for Multi-layer Assemblies
Shun Uchiyama,Masaya Mitsuishi,Tokuji Miyashita..... 1095

Room H

Wednesday, May 29

FUNCTIONAL POLYMERS

A. Kawamura, Presiding

10:00 1H05 Fabrication of Hierarchical Molecular Assembly System From Photo-responsive Collagen-mimetic Oligopeptides
Ryo Yoshikawa,Tomoyuki Koga,Nobuyuki Higashi..... 1096
10:15 1H06 Design of Time-limitable Peptide Hydrogels and their Controlled-release Property
Go Miyazawa,Tomoyuki Koga,Nobuyuki Higashi..... 1097
10:30 1H07 Effect of Sequence Distribution of Network Chain on Thermoresponsive Properties of Polymer Gels
Shohei Ida,Toru Kawahara,Satoshi Tanimoto,Yoshitsugu Hirokawa .. 1098

S. Ida, Presiding

10:45 1H08 Controlled Recognition of Smart Hydrogels with Dynamic Molecular Recognition Sites by Network Structural Change
Yoshiaki Kuriu,Akifumi Kawamura,Tadashi Uragami,Takashi Miyata..... 1099
11:00 1H09 Introduction of Molecular Recognition Sites in Stimuli-responsive Gels That Undergo Conformational Changes
Kazuya Matsumoto,Akifumi Kawamura,Tadashi Uragami,Takashi Miyata..... 1100
11:15 1H10 The Intelligent Material Functions of Side Chain Crystalline Block

Co-polymer TR Fluid Function
Shigeru Yao,Toru Okuma,Chihiro Kumamaru,Hiroshi Sekiguchi,Satoshi Ichikawa,Daisuke Tatsumi 1101

11:30 1H11R Creation of Functional Materials by Applying the Novel Supramolecular Interactions of Side Chain Crystalline Block Copolymer.
Shigeru Yao,Yusuke Sano,Hiroshi Sekiguchi,Satoshi Ichikawa,Daisuke Tatsumi 1102

T. Asoh, Presiding

12:30 1H12 Fabrication of Tubular Self-oscillating Gels with Autonomic Transport Function and their Application
Yusuke Shiraki,Takashi Miyata,Ryo Yoshida 1103

12:45 1H13 Preparation of Shape Memory Gels That Respond to a Target Molecule
Takashi Miyata,Jun Goto,Akifumi Kawamura,Tadashi Uragami 1104

13:00 1H14 Thermo-reversible Gelation Based on Self-assembly of Triblock Copolymers in Ionic Liquids
Yuzo Kitazawa,Takeshi Ueki,Satoru Imaizumi,T. P. Lodge,Masayoshi Watanabe 1105

13:15 1H15 Development of Photo-healable Ion-gels Utilizing Photo-induced Sol-Gel Transition of Triblock Copolymers Containing Azobenzene Moiety
Ryoji Usui,Yutaro Nakamura,Shota Sawamura,Yuzo Kitazawa,Satoru Imaizumi,Takeshi Ueki,Hisashi Kokubo,Masayoshi Watanabe 1106

T. Miyata, Presiding

13:30 1H16IL* Physical Properties and Applications of Slide-ring Gels and Elastomers
Yasuhiro Sakai 107

14:00 1H18 Topological Transformation of Cyclic Polylactides by Photocleavage for the Modulation of Stereocomplex Formation
Naoto Sugai,Takuya Yamamoto,Yasuyuki Tezuka,Shigeo Asai 1107

14:15 1H19 Synthesis of Linear and Cyclic PLA-PEO Block Copolymers for the Investigation of Topology Effects on Hydrogel Formation
Kotaro Inoue,Naoto Sugai,Takuya Yamamoto,Yasuyuki Tezuka 1108

H. Shimizu, Presiding

14:30 1H20 Time-dependent Sol Transition of Cellulose Nanofiber-containing Hydrogels
Hiroki Fukuta,Toshiki Sawada,Takeshi Serizawa 1109

14:45 1H21 Selective Ion Sensing by Polyacrylic Acid Bearing Aggregation-induced Emissive Fluorophore
Hanako Hasebe,Fumitaka Ishiwari,Takao Someya,Takanori Fukushima 1110

15:00 1H22 Preparation of Sulfobetain Based Microparticles and the Characterization of Stimuli-responsive Properties.
Nobuyuki Morimoto,Tetsuichi Wazawa,Makoto Suzuki 1111

15:15 1H23 Preparation of Bioconjugated Hydrogel That Recognize Multiple Biomolecules Simultaneously and their Responsive Behavior
Akifumi Kawamura,Mayuko Morota,Tadashi Uragami,Takashi Miyata 1112

15:30 1H24 Preparation of Injectable Hydrogel with Hierarchical Network From Self-assembled Peptide and Chitosan/PEG
Daisuke Matsukuma,Masako Nagamura,Chihiro Takahashi,Hidenori Otsuka 1113

N. Morimoto, Presiding

15:45 1H25 Autoinducer-trapping Materials to Regulate Cell-cell

		Communication in Gram-negative Bacteria Takehiro Ogi,Takuto Umemura,Eri Nasuno,Ken-ichi Iimura,Norihiro Kato	1114
16:00	1H26	Designed-RNA induced Agarose Sol-Gel Transition So Umekage,Yo Kikuchi	1115
16:15	1H27	Synthesis of Star-shaped Poly(vinyl Ether) Polyols with Various Functional Groups and Properties of Crosslinked Polyurethanes Prepared Therefrom Daichi Ohashi,Michio Urushisaki,Toshikazu Sakaguchi,Tamotsu Hashimoto	1116
16:30	1H28	Preparation of Functional Polymer with Temperature- and PH-triggered Reversible Solubility Hidenobu Shimizu,Risei Wada,Masaru Okabe	1117
		S. Yao, Presiding	
16:45	1H29	Synthesis and Properties of Flexible and Stretchable Electro-conductive Double-network Gels Under Non-aqueous Condition Ryoichi Kishi,Aki Yoneyama,Toshiaki Miura,Tomohiko Yamaguchi,Hidenori Okuzaki,Yoshihito Osada	1118
17:00	1H30	Fabrication of Three-dimensional Scaffold by Electrophoretic Adhesion of Biodegradable Hydrogel Taka-Aki Asoh,Wataru Kawai,Kotomi Nariyama,Akihiko Kikuchi	1119
17:15	1H31	Preparation of Multi-layered Hydrogel Constructs Through Stabilization of Electrophoretically Adhered Gel-Interface. Taka-Aki Asoh,Eri Kawamura,Akihiko Kikuchi	1120
17:30	1H32	Electrophoretic Adhesion of Nonionic Hydrogels Utilizing Phenylborate-containing Polymers. Kohtaroh Takaishi,Taka-Aki Asoh,Akihiko Kikuchi	1121

Thursday, May 30

FUNCTIONAL POLYMERS

		Y. Okumura, Presiding	
9:30	2H03	Synthesis of Rotaxane-cross-linked Polymer Gel Using Liquid Crystalline Monomer Keumhee Jang,Satoshi Uchida,Hisashi Okamura,Yasuhito Koyama,Toshikazu Takata	1122
9:45	2H04	Properties and Functionalization of Main-chain Type Liquid Crystalline Polymer Containing Rotaxane Moieties Yoko Abe,Hisashi Okamura,Satoshi Uchida,Toshikazu Takata	1123
10:00	2H05	Controlling the 3D Gel Structure with Microfluidic Device Yuta Takahashi,Norihiro Kato,Yukiko Matsunaga	1124
10:15	2H06	Preparation and Dynamic Structural Transition of Self-oscillating Micelles Takeshi Ueki,Mitsuhiro Shibayama,Ryo Yoshida	1125
		M. Ebara, Presiding	
10:30	2H07	Novel Cholesteric Liquid Crystalline Material Enabling Reversible Structural Color Control by External Electric Field Yoshimitsu Itoh,Yuya Yaguchi,Takuzo Aida	1126
10:45	2H08	Phase Stability and Electro-optical Properties of Polymer-stabilized Blue Phase Affected by Molecular Structure of Bifunctional	

		Monomer Hiroki Higuchi,Yuma Takeuchi,Yasushi Okumura,Mitsuhiro Kouda,Ryoichi Akaishi,Takanori Matsuyama,Jun-ichi Matsumoto,Hirotsugu Kikuchi	1127
11:00	2H09	Mechanochromism of Segmented Polyurethanes with Mechano-responsive Dynamic Covalent Bonds Hideyuki Otsuka,Takeshi Kanehara,Keiichi Imato,Tomoyuki Ohishi,Masayoshi Ito,Hirofumi Yajima,Atsushi Takahara	1128
11:15	2H10	Modification of Functional Groups on Cubic Gel Particles From Cyclodextrin Metal-organic Frameworks Yuki Furukawa,Takumi Ishiwata,Kenta Kokado,Kazuki Sada	1129
11:30	2H11	Stimuli-responsive Luminescence of Elastomer Cross-linked by AIE Molecule Ryosuke Taniguchi,Taihei Yamada,Kenta Kokado,Kazuki Sada	1130
		Y. Itoh, Presiding	
12:30	2H12	Self-assembly of Polyether-based Diblock Copolymers in Water and in Ionic Liquids Yumi Kobayashi,Takahiro Komori,Yuzo Kitazawa,Kazuhide Ueno,Hisashi Kokubo,Masayoshi Watanabe	1131
12:45	2H13	Polyurethane Gel Actuators with Stretchable PEDOT/PSS Electrodes Ryo Tanigawa,Satoshi Takagi,Hidenori Okuzaki	1132
13:00	2H14	the Photophysical Properties of Heterometallic Ions-based Organic-metallic Hybrid Polymers Takashi Sato,Masayoshi Higuchi	1133
13:15	2H15	Fabrication and Characterization of a Hydrogel Containing Dispersed Carbon Nanotubes for Photomechanical Materials Aya Nogami,Kouichi Asakura,Kunihiko Okano	1134
		H. Otsuka, Presiding	
13:30	2H16IL*	Controlled Synthesis of Poly(vinyl Ether)s Containing a Terminal Functionalized Moiety and their Self-assembling Property Jin Motoyanagi, Masahiko Minoda	110
14:00	2H18	Shape-memory Soft Materials with Dynamically Tunable Microchannel Geometry Mitsuhiro Ebara,Koichiro Uto,Naokazu Idota,Takao Aoyagi	1135
14:15	2H19	Supramolecular Organogel Using Inclusion Complexation of Crown Ether Taichi Ikeda,Dian Liu,Hans-Juergen Butt	1136
		T. Ikeda, Presiding	
14:30	2H20	Expansion-contraction of Photoresponsive Artificial Muscle Regulated by Host-guest Interactions. Shogo Hatanaka,Yoshinori Takashima,Masaki Nakahata,Takahiro Kakuta,Hiroyasu Yamaguchi,Akira Harada	1137
14:45	2H21	Superamphiphobic Marshmallow-like Gels Gen Hayase,Kazuyoshi Kanamori,Ayaka Maeno,Hironori Kaji,Kazuki Nakanishi	1138
15:00	2H22	Syntheses of Poly(methyl Methacrylate) Network Polymers with Poly(crown Ether) Complexes as Cross-linker Kazuhiro Yamabuki,Kenjiro Onimura,Tsutomu Oishi	1139
15:15	2H23	Control of the Interparticle Distance of Aunps for Surface Enhanced Raman Scattering Through Expansion and Shrinkage of the Hydrogel Hideyuki Mitomo,Kenta Horie,Naonobu Shimamoto,Yasutaka Matsuo,Kenichi Niikura,Yoshihito Osada,Kuniharu Ijiro	1140
		H. Mitomo, Presiding	

15:30 2H24 Super-structure Formation of Liquid Crystalline Polymer in Gels
Riku Takahashi,Arifuzzaman Md.,Tasuku Nakajima,Takayuki Kurokawa,Jian Ping Gong 1141
15:45 2H25 Micelle Shuttling between Aqueous and Organic Media: Precise Synthesis of Fluorinated Thermosensitive Block Copolymers
Yuji Yamanaka,Arihiro Kanazawa,Shokyoku Kanaoka,Sadahito Aoshima 1142
16:00 2H26 Precision Synthesis of Block Copolymers Having Various Vinyl Ethers with Styrene Derivatives and Controlled Surface Properties of the Films.
Tomoya Yoshizaki,Arihiro Kanazawa,Shokyoku Kanaoka,Sadahito Aoshima 1143
16:15 2H27 Influence of Plasticizer on the Electro-optic Effect of Plasticized PVC Gel.
Hiromu Sato,Yasuo Gotoh,Toshihiro Hirai 1144

Friday, May 31

FUNCTIONAL POLYMERS

M. Mitsuishi, Presiding

9:30 3H03 High Efficiency Blue Phosphorescent OLEDs Using Energy Transfer From Exiplex
Yuki Seino,Hisahiro Sasabe,Yong-Jin Pu,Junji Kido 1145

H. Sasabe, Presiding

9:45 3H04 Hybrid Polymer Assembly for Multicolor Electrochromism
Rie Kikuchi,Jun Matsui,Tokuji Miyashita 1146
10:00 3H05 Memory Behaviors of Functional Polymers Containing Donor and Acceptor Moieties
Kun-Li Wang,Po-Hao Chen,I-Hao Shih,Jian-Wei Lee 1147

T. Suga, Presiding

10:15 3H06 Sysnthesis of Polyaniline Analogs by Microwave Heating and their Physical Properties
Naoto Takase,Seong Jib Choi,Junpei Kuwabara,Takeshi Yasuda,Liyuan Han,Takaki Kanbara 1148
10:30 3H07 Electronic Property of Conjugated Polymer Synthesized via Direct Arylation of EDOT
Junpei Kuwabara,Yuta Nohara,Koutarou Yamazaki,Seong Jib Choi,Takeshi Yasuda,Liyuan Han,Takaki Kanbara 1149
10:45 3H08 Thermoelectric Properties of Conductive Polymer/CNT Composite
Ryo Nishio,Naoyuki Hayashi,Eri Takahashi,Yoichi Maruyama,Toshiaki Aoai 1150

Y. Shimizu, Presiding

11:00 3H09 Localized Charge-transport in Radical/Ion-functionalized Microdomains Using Scanning Probe Microscopy
Takeo Suga,Kohei Aoki,Hiroyuki Nishide 1151
11:15 3H10 Unidirectional Charge Transport by Rectification Devices Using TEMPO-containing Polymers
Hiroshi Tokue,Takashi Sukegawa,Kenichi Oyaizu,Hiroyuki Nishide... 1152
11:30 3H11 influence of Matrix Property on Piezoelectric-rubber of Particle Oriented Type
Shogo Mamada,Naoyuki Yaguchi,Masanori Hansaka,Masaki Ohashi,Hirohisa Yoshida,Masafumi Yamato 1153

M. Watanabe, Presiding

12:30 3H12 Miscibility of PCBM into Liquid Crystalline Phthalocyanines
Yukimasa Matsuda,Fabien Nekelson,Minokazu Takahashi,Lydia Sosa-Vargas,Hiroyuki Yoshida,Akihiko Fujii,Masanori Ozaki,Yo Shimizu 1154

12:45 3H13 Electronic Characteristics of Polymer Semiconductor Thin-films Prepared by Floating-film Transfer Method
Wataru Takashima,Shuichi Nagamatsu 1155

13:00 3H14 Piezoelectric Polymer
Yoshiro Tajitsu,Yuki Shiomi,Masashi Fukai,Takahiro Nagata,Takuo Nakiri..... 1156

13:15 3H15 Synthesis and Properties of Polythienylene Derivatives with 2-phenylnaphthalene Side Chain
Mari Watanabe,Masashi Kijima 1157

T. Kanbara, Presiding

13:30 3H16 Stochastic Resonance Observed in Poly(alkylthiophene)s
Naoki Asakawa,Koichiro Umemura,Yuta Ohno,Teruo Kanki 1158

13:45 3H17 Preparation of Ion Gels Constituted of Polythiophene and their Electrochemical Properties
Hisashi Kokubo,Takushi Tani,Satoru Imaizumi,Masayoshi Watanabe..... 1159

14:00 3H18 Synthesis of Highly Conductive PEDOT/PSS: the Effect of Molecular Weight of PSS
Masato Katsunuma,Yuechen Li,Hanae Hikawa,Tatsuhiro Horii,Hidenori Okuzaki..... 1160

14:15 3H19 Synthesis of Highly Conductive PEDOT/PSS: Optimization of Polymerization Conditions
Tatsuhiro Horii,Hanae Hikawa,Masato Katsunuma,Yuechen Ri,Hidenori Okuzaki..... 1161

H. Okuzaki, Presiding

14:30 3H20 Oriented Ultrathin Films of Poly(9,9-dioctylfluorenebithiophene) Prepared on Water Surface and their Field-effect Mobility
Hiroko Iwatsuki,Shusaku Nagano,Hisaaki Tanaka,Hiroshi Ito,Shin-ichi Kuroda,Takahiro Seki 1162

14:45 3H21 Synthesis of Helical Di-substituted Polyacetylene Derivative
Yuki Kudo,Kousuke Kawabata,Hiromasa Goto 1163

15:00 3H22 High Frequency Dielectric Property of MgO Filled Polymer Composites
Yusuke Imai,Susumu Takahashi,Akinori Kan,Yuji Hotta,Hirotaka Ogawa..... 1164

Room J

Wednesday, May 29

POLYMER INDUSTRY AND TECHNOLOGY

M. Watanabe, Presiding

10:00 1J05 Nano-wrinkle Type Anti- Fingerprint Film
Tadahiko Iwaya,Yasuyuki Ishida,Yasushi Takada..... 2084

10:15 1J06 Vacuum Ultra-violet Photochemical Surface Modification of Cyclo-olefine Polymer as a Pretreatment for Electroless Plating

Akihiro Nakamura,Takashi Ichii,Hiroyuki Sugimura 2085
10:30 1J07 Role of Zinc Oxide and Stearic Acid on Sulfur Cross-linking of Rubber
Yoritaka Yasuda,Hiroyuki Yokohama,Shinya Minoda,Takumi Ohashi,Tetsuo Honma,Yuko Ikeda 2086
10:45 1J08 New Reaction Mechanism of Sulfur Cross-linking Reaction of Rubber
Yuko Ikeda,Yoritaka Yasuda,Shinya Minoda,Takumi Ohashi..... 2087
11:00 1J09 Fabrication of Clear Superhydrophobic Surface by Squeegee Method and Evaluation of Anti-sebum Adhesion Properties
Seimei Shiratori 2088

FUNCTIONAL POLYMERS

M. Kimura, Presiding

11:15 1J10 Electropolymerized Macromolecular Metal Complexes and their Application to a Solid-state Dye-sensitized Solar Cell
Yoshito Sasada,Fumiaki Kato,Kenichi Oyaizu,Hiroyuki Nishide..... 1165
11:30 1J11 Adsorption Behavior of Redox Active Species on Nafion-coated Electrode and its Application to Dye-sensitized Solar Cell
Ryo Kato,Fumiaki Kato,Kenichi Oyaizu,Hiroyuki Nishide 1166

K. Oyaizu, Presiding

12:30 1J12IL* Ion Conductive Polymer Nanofibers: Application to Polymer Electrolyte Fuel Cells
Manabu Tanaka,Hiroyoshi Kawakami 113
13:00 1J14 Oxidative Polymerization Onto the Surface of Titanium Oxide Nanoparticles for Dye-sensitized Solar Cell
Naoki Sasagawa,Mutsumi Kimura..... 1167
13:15 1J15 Solution-processed Small-molecular Organic Solar Cells Using Indolocarbazole-linked Diketopyrrolopyrrole Dimers
Xu Lin,Yuki Tani,Ken-ichi Nakayama,Shiki Yagai..... 1168

H. Ohkita, Presiding

13:30 1J16 Improvement of Open Circuit Voltage of Bilayer Organic Photovoltaic Devices of Electrodeposited Polythiophene/methanofullerenes
Tatsuya Yamamoto,Takumi Ito,Yoshihiko Tezuka,Hitoshi Tanaka 1169
13:45 1J17 All-polymer Solar Cells Based on Fully Conjugated Donor-acceptor Block Copolymers
Kazuhiro Nakabayashi,Hideharu Mori..... 1170
14:00 1J18 Synthesis of D-A Type Copolymer with π-conjugated Side Chain and its Application to Organic Solar Cells
Takumu Sumi,Erjun Zhou,Kazuhito Hashimoto,Keisuke Tajima 1171
14:15 1J19 Synthesis of Thienopyrroledione-based P-conjugated Polymers and their HOMO Level Tuning Based on Substituent Effect
Tomoyuki Ikai,Masahiro Nagaki,Katsuhiro Maeda,Shigeyoshi Kanoh 1172

M. Tanaka, Presiding

14:30 1J20 Precise Characterization of Molecular Aggregation State in Ordered Heterojunction Organic Photovoltaics by Synchrotron Radiation X-ray Structure Analyses
Takamichi Shinohara,Taiki Hoshino,Yuji Higaki,Yasushi Okamoto,Takashi Aoki,Atsushi Takahara..... 1173
14:45 1J21 Singlet Fission in Polyfluorene Films
Hideo Ohkita,Yasunari Tamai,Hiroaki Benten,Shinzaburo Ito 1174

15:00 1J22 Highly Conductive Micro-domain Morphology of P3HT Thin Films and the Nanoscale Electronic Properties Studied by Conductive AFM
Miki Osaka,Hiroaki Benten,Hideo Ohkita,Shinzaburo Ito 1175
15:15 1J23 Nanoscale Phase Separation Morphology and the Local Carrier Transport Properties of Donor/acceptor Conjugated Polymer Blend Studied by Conductive AFM
Hiroaki Benten,Miki Osaka,Hideo Ohkita,Shinzaburo Ito 1176

E. Ohta, Presiding

15:30 1J24 Charge Carrier Dynamics in Polymer/polymer Solar Cells Based on Poly(3-hexylthiophene) and N-type Fluorene-based Copolymer Blends
Daisuke Mori,Hiroaki Benten,Hideo Ohkita,Shinzaburo Ito,Kunihito Miyake 1177
15:45 1J25 High Open-circuit Voltage of Polymer-polymer Blended Solar Cells
Kaoru Ogawa,Shunsuke Yamamoto,Hideo Ohkita,Hiroaki Benten,Shinzaburo Ito 1178
16:00 1J26 Synthesis of Poly(3-alkylthiophene)-based Diblock Copolymers with Thiol Groups and Application to Morphology Control in Organic-inorganic Hybrid Solar Cells
Sosuke Higuchi,Luis Martinez,Alexandros Stavrinadis,Silke Diedenhofen,Kazuhito Hashimoto,Gerasimos Konstantatos,Keisuke Tajima..... 1179
16:15 1J27 Absorption and Electrochemical Properties of Conjugated Polymers Consisting of Various Squaraine Dyes
Hitoshi Amitani,Takeshi Maeda,Shigeyuki Yagi,Hiroyuki Nakazumi .. 1180

T. Ikai, Presiding

16:30 1J28 Development of Asymmetric Squarine Dye Derivatives for Organic Photovoltaic Cells
Yusuke Sasaki,Hisahiro Sasabe,Guo Chen,Ziruo Hong,Yang Yang,Junji Kido..... 1181
16:45 1J29 The Energy Gap Dependence of the CT State Recombination Rate in Polythiophene/fullerene Blend Films
Yuta Izumiya,Shunsuke Yamamoto,Hideo Ohkita,Hiroaki Benten,Shinzaburo Ito 1182
17:00 1J30 Charge Generation Dynamics in Crystalline Polymer Solar Cells
Kazuki Tsuda,Yasunari Tamai,Hideo Ohkita,Hiroaki Benten,Shinzaburo Ito 1183
17:15 1J31 Singlet Exciton Diffusion in Poly(3-hexylthiophene) Crystalline Domains
Yasunari Tamai,Yuu Matsuura,Hideo Ohkita,Hiroaki Benten,Shinzaburo Ito 1184

Thursday, May 30

FUNCTIONAL POLYMERS

M. Nishihara, Presiding

9:45 2J04 The Relationship of the Chemical Structure and Conductivity
Yuta Yamada,Suguru Motokucho,Ken Kojio,Kohji Yoshinaga 1185
10:00 2J05 Synthesis of Poly(acrylic Acid) Derivatives and Control of Detergency in Hydrophobic Solvent
Akane Kubotera,Suzuka Sumiyoshi,Reiko Saito 1186

10:15 2J06 Galvinoxyl Radical Polymer-based Photovoltaic Cells for Highly Open Circuit Voltage
Fumiaki Kato,Ken Muraoka,Takakazu Saito,Hironori Takeuchi,Kenichi Oyaizu,Naoki Hayashi,Michio Suzuka,Takashi Sekiguchi,Takeyuki Yamaki,Hiroyuki Nishide..... 1187

10:30 2J07 Synthesis and Properties of Radical Polymers for High Density Energy Storage
Kenichi Oyaizu,Haruka Agatsuma,Masafumi Koyano,Il Seok Che,Takashi Sukegawa,Hiroyuki Nishide 1188

K. Miyatake, Presiding

10:45 2J08 Development of Sulfonated Polyimide Polymer Electrolyte Membrane Including Charge-transfer Complex in the Membrane
Masamichi Nishihara,Liana Christiani,Aleksandar Staykov,Kazunari Sasaki..... 1189

11:00 2J09 Sulfonated Polyimide/protic Ionic Liquid Composite Membrane for Non-humidified Intermediate Temperature Fuel Cell
Tomohiro Yasuda,Yoshiyuki Honda,Jiazhi Wang,Masayoshi Watanabe..... 1190

11:15 2J10 Synthesis of Polyphenylene-based Polymer Electrolytes by Catalyst Transfer Polycondensation (VII) - Effect of Hydrophobic Blocks -
Tatsuya Oshima,Kensuke Umezawa,Masahiro Fujita,Akihiro Ohira,Yuko Takeoka,Masahiro Rikukawa..... 1191

11:30 2J11R Effect of Functional Side Chains on the PEFC Properties of Polypheneylene Based Polymer Electrolytes
Yuko Takeoka,Shinji Kohno,Yusuke Sakaki,Satoru Ohbayashi,Miru Yoshida,Masahiro Fujita,Masahiro Rikukawa..... 1192

S. Kuroki, Presiding

12:30 2J12 Synthesis and Properties of Novel Sulfonated Poly(arylene Ether) Electrolyte Membranes with Triphenylphosphine Oxide Moiety
Junpei Miyake,Masahiro Watanabe,Kenji Miyatake 1193

12:45 2J13 Anion Conductive Aromatic Polymer Electrolyte Membranes Containing Fluorenyl Moiety
Manai Shimada,Eriko Nishino,Koichiro Asazawa,Hirohisa Tanaka,Junpei Miyake,Masahiro Watanabe,Kenji Miyatake..... 1194

13:00 2J14 Anion Conductive Aromatic Polymer Electrolyte Membranes Containing Diphenyl Ether Moiety
Naoki Yokota,Eriko Nishino,Hideaki Ono,Koichiro Asazawa,Hirohisa Tanaka,Junpei Miyake,Masahiro Watanabe,Kenji Miyatake..... 1195

13:15 2J15 Fabrication of Ionic Liquid/polymer Monolith Composites as Membranes and their Application to Dye-sensitized Solar Cells
Yohei Nakanishi,Kyoko Konishi,Keita Sakakibara,Kohji Ohno,Norio Ishizuka,Takaya Sato,Yoshinobu Tsujii 1196

Y. Tsujii, Presiding

13:30 2J16 Preparation and Evaluation of Composite Electrolyte Membranes Containing Polymer Nanofibers Bearing Quarternized Ammonium Groups
Keisuke Kidoura,Tsukasa Watanabe,Manabu Tanaka,Hiroyoshi Kawakami 1197

13:45 2J17 An Application of Electrochemical NMR Spectroscopy for N-doped Carbon Electrochemical Catalysts
Shigeki Kuroki,Masahito Kanekiyo,Yuta Nabae 1198

14:00 2J18 An Impact of the Number of Atoms in a Platinum Cluster to the Catalytic Activity

Takane Imaoka,Hirokazu Kitazawa,Wang Jae Chun,Kimihisa Yamamoto 1199
14:15 2J19 Carbon Cloths Prepared From Cellulose Ones by Chemical Carbonization and Application to Electrodes of a Fuel Cell
Mutsumasa Kyotani,Satoshi Matsushita,Kazuo Akagi 1200

O. Sugihara, Presiding

14:30 2J20 Fabrication of Au split-ring resonator arrays responsive to a magnetic field at a visible frequency region by UV nanoimprint lithography.
Takuya Uehara,Tatsuya Tomioka,Shoichi Kubo,Morihisa Hoga,Masaru Nakagawa 1201
14:45 2J21 Micropatterning Using Phase Separation of Mixed Films Composed of Amorphous Molecular Materials and Quaternary Ammonium Salts
Ryoji Ichikawa,Hideyuki Nakano 1202
15:00 2J22 In-situ Observation of Photoinduced Mass Transport Using Azobenzene-based Photochromic Molecular Glasses
Hideyuki Nakano,Motoko Suzuki,Ryoji Ichikawa,Riku Matsui 1203

H. Nakano, Presiding

15:15 2J23 Fabrication and Optical Characterization of Light-induced Self-written Waveguides Incorporated with a Multilayer Filter Comprising Organic-inorganic Hybrid Materials.
Yota Ishito,Takuya Uehara,Masaru Nakagawa,Okihiro Sugihara 1204
15:30 2J24 Colloidal Synthesis of Luminescent Germanium Nanocrystals
Naoto Shirahata,Batu Ghosh 1205
15:45 2J25 Molecular Orientation and Optical Property of Cellulose Ester/additive Blends
Shogo Nobukawa,Yoshihiko Aoki,Hiroshi Yoshimura,Yutaka Tachikawa,Masayuki Yamaguchi..... 1206
16:00 2J26 DFB Laser Device Using Polymeric Thin Film
Ryo Yamazaki,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 1207
16:15 2J27 Photophysical Properties of Films of Polyaniline Analogs Containing Azobenzene Unit
Hikaru Yamada,Junpei Kuwabara,Takaki Kanbara,Ryo Miyabara,Kiyoshi Nishioka,Nobutaka Fujimoto 1208

Friday, May 31

FUNCTIONAL POLYMERS

T. Seki, Presiding

9:30 3J03 Synthesis and Circularly Polarized Light Emission of Hyperbranched, Optically Active Polyfluorene Derivatives
Kento Watanabe,Yasuhito Koyama,Tamaki Nakano,Nozomu Suzuki,Michiya Fujiki 1209
9:45 3J04 Highly Fluorescent Polyimides Containing Hydroxy Groups [v] : Fluorescence Properties of Imide Compounds and Polyimides Derived From 3,6-dihydroxyphthalic Acid
Kenta Kanosue,Junji Wakita,Shinji Ando 1210
10:00 3J05 The Microenvironment Effect of Up-conversion Based on Triplet-triplet Annihilation
Hideki Kawai,Jun Ito,Shinya Matsumoto..... 1211
10:15 3J06 Photorefractive Composite Based on Poly(4-(diphenylamino)benzyl-acrylate)

Ha Ngoc Giang,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 1212

S. Ando, Presiding

10:30 3J07 Synthesis of Photoinitiators Possessing Azobenzene Structure
Daichi Yamaoka,Mitsuo Hara,Shusaku Nagano,Takahiro Seki 1213

10:45 3J08 Effect of Preparation Condition on the Optical Properties of Solution-cast Films for Cellulose Derivatives
Hikaru Shimada,Kultida Songsurang,Shogo Nobukawa,Masayuki Yamaguchi 1214

11:00 3J09 Kinetics of Photo-induced Helix-coil Transition in Photochromic Poly(l-glutamate) Containing Spiropyran Units.
Toshihiro Hiejima,Akifumi Akai 1215

11:15 3J10 Properties of Polysilane Constrained in Coordination Nanospaces
Takashi Kitao,Takashi Uemura,Masanobu Naito,Susumu Kitagawa .. 1216

11:30 3J11 Polarization Detection with Hybrid Polymer Nano-assembly
Kenya Indo,Masaya Mitsuishi,Keiko Tawa,Junji Nishii,Tokuji Miyashita 1217

K. Arimitsu, Presiding

12:30 3J12 Holography of Monolithic Molecule (1)
Kanako Ogo,Takahiro Fukami,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi..... 1218

12:45 3J13 Holography of Monolithic Molecule (2)
Takahiro Fukami,Kanako Ogo,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi..... 1219

13:00 3J14 Photorefractivity of Main-chain Triphenylamine Polymer (1)
Hironori Shinkai,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 1220

13:15 3J15 Photoluminescent Behavior of Gold Complexes in Chiral Liquid-crystalline Phases
Nana Sugimoto,Sho Tamai,Kaori Fujisawa,Osamu Tsutsumi 1221

13:30 3J16 Photoluminescence Behavior of Polymer Liquid Crystals Containing Gold Complexes as a Calamitic Mesogen
Sho Tamai,Kaori Fujisawa,Osamu Tsutsumi 1222

O. Tsutsumi, Presiding

13:45 3J17 Fabrication of Positive-type Photoresist Through Multiphoton Excitation.
Asato Fukuda,Ryotaro Nakamura,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 1223

14:00 3J18 Photorefractivity of Main-chain Triphenylamine Polymer (2)
Kento Masumura,Hironori Shinkai,Sho Tsujimura,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi..... 1224

14:15 3J19 Optimization of the Photorefractive Properties of Triphenylamine-based Composites
Sho Tsujimura,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi 1225

14:30 3J20 Photo-reduction of Silver Ion Through Two-photon Excitation by Femtosecond Laser
Ryotaro Nakamura,Kenji Kinashi,Wataru Sakai,Naoto Tsutsumi..... 1226

N. Tsutsumi, Presiding

14:45 3J21 Curing Characteristics of Thiol/ene UV-curing Materials Using Photo-latent Thiols
Taku Ishii,Koji Arimitsu 1227

15:00 3J22 Photosensitivity Characteristics of Anionic UV-curing Materials Containing Photodecarboxylation-type Photobase Generators Sensitive to 365nm-light

Ken Fukuda,Koji Arimitsu,Nobuhiko Sakai 1228

15:15 3J23 Synthesis of Novel Base Amplifiers Soluble in Versatile Organic Solvents and their Application to Photoreactive Materials
Hiroshi Kitamura,Koji Arimitsu,Nobuhiko Sakai..... 1229

15:30 3J24 Properties of Anionic UV-curing Materials Containing Homogeneously Dispersed Pigment Particles
Ryousuke Yamamoto,Koji Arimitsu 1230

Room K

Wednesday, May 29

POLYMERS AND ENVIRONMENT *"English Session"*

N. Yoshie, Presiding

10:00 1K05 Biodegradation of Nylon 4 Under Marine Environments
Koichiro Tachibana,Yuichi Urano,Keiji Numata 2012

10:15 1K06 Synthesis of Polyhydroxyalkanoate (PHA) From Aromatic Carboxylic Acid as a Sole Carbon Source by PHA Accumulating Strains
Satoshi Tomizawa,Tomoka Watanabe,Keiji Numata..... 2013

10:30 1K07 Mitochondria Targeted Fusion Peptide for Gene Delivery into Plant Cells
Jo-Ann Chuah,Keiji Numata 2014

10:45 1K08 Papain Mediated Synthesis of Lysine-leucine Block Peptides
Peter James Baker,Keiji Numata 2015

K. Numata, Presiding

11:00 1K09 Self-healing Ability of Bio-based Furan Polymers Cross-linked with Various Bis-maleimide
Chao Zeng,Hidetake Seino,Jie Ren,Kenichi Hatanaka,Naoko Yoshie.. 2016

11:15 1K10 Synthesis and Characterization of Renewable Polyester Containing Oxabicyclic Dicarboxylate Derived From Furfural
Yuya Tachibana,Masayuki Yamahata,Ken-ichi Kasuya..... 2017

11:30 1K11R 1,4-butanediol as Biomass-based Monomer Synthesized From Furfural
Masao Kunioka,Yuya Tachibana,Takashi Masuda..... 2018

Y. Tachibana, Presiding

12:30 1K12 Peptidase K-mediated Synthesis of Oligo-l-phenylalanine Based Gelators
Jose Manuel Ageitos,Keiji Numata..... 2019

12:45 1K13 Plant Cell Wall-inspired Silk-pectin Hydrogel
Shoya Yamazaki,Naofumi Naga,Keiji Numata 2020

13:00 1K14 High Impact-resistant Films From Butyralization of O-(2,3-dihydroxypropyl) Cellulose
Chunyu Chang,Yoshikuni Teramoto,Yoshiyuki Nishio..... 2021

13:15 1K15 Syntheses of Bio-based Polyimides From Photodimers of Cinnamate Biochemicals
Phruetchika Suvannasara,Akio Miyasato,Seiji Tateyama,Tatsuo Kaneko..... 2022

13:30 1K16 Advanced Processing Technology for Recycling Plastics
Shigeru Yao,Aya Tominaga,Yohei Fujikawa,Hiroshi Sekiguchi,Eiichi

Takatori 2023

FUNCTIONAL POLYMERS

Y. Higaki, Presiding

14:00 1K18 Low-CTE and Thermoplastic Polyimides (7)
Masatoshi Hasegawa,Naoki Kobayashi,Miku Tsukui,Junichi Ishii 1231
14:15 1K19 Ultra-low-modulus Photosensitive Polybenzoxazoles (6)
Junichi Ishii,Hideyuki Yokotsuka,Masatoshi Hasegawa..... 1232
14:30 1K20 Synthesis and Properties of Diphenylaminotriazine-containing Aromatic Polyimides
Yu Saito,Shigeko Sasaki,Yuji Shibasaki,Yoshiyuki Oishi 1233
14:45 1K21 Development of Addition-type Polyimide Containing Pendant Phenyl Groups / Carbon Fiber Composites -examination of Fabrication Methods Using An Autoclave-
Yuichi Ishida,Toshio Ogasawara,Masahiko Miyauchi,Nobuaki Ohshiro,Rikio Yokota 1234
15:00 1K22 Thermal and Mechanical Properties of Asymmetric Thermoplastic / Thermosetting Polyimides Mixtures.
Shinpei Ito,Takashi Sawaguchi,Masahiko Miyauchi,Yuichi Ishida,Rikio Yokota 1235

Y. Ishida, Presiding

15:15 1K23 Development of Novel Monomers for Polybenzoxazole Having a High Molecular Weight
Yusuke Saegusa,Tsuyohiko Fujigaya,Naotoshi Nakashima..... 1236
15:30 1K24 Chain Dimension and Mechanical Properties of Poly(alpha-methylene-gamma-butyrolactone)
Yuji Higaki,Ryosuke Okazaki,Atsushi Takahara 1237
15:45 1K25 Mechanical and Thermal Properties of Antiplasticized Polycarbonate
Azusa Miyagawa,Shogo Nobukawa,Masayuki Yamaguchi 1238

S. Tanimoto, Presiding

16:15 1K27 Design of a Fuel Cell Electrocatalyst Based on Polybenzimidazole-wrapped Graphene.
Shinsuke Hirata,Tsuyohiko Fujigaya,Naotoshi Nakashima..... 1239
16:30 1K28 Metal Loading Onto Carbon Nanotube Wrapped by Cation Polybenzimidazole
Chiori Saito,Naotoshi Nakashima,Tsuyohiko Fujigaya 1240
16:45 1K29 Palladium Nanoparticles (PdNPs) Incorporated Microporous Polymers: Further Insight into the Ligand Effect on PdNPs Morphology and Catalytic Performances
Yaoyao Yang,Shin Ogasawara,Shinji Kato 1241
17:00 1K30 Synthesis of Highly Active and Thermally Stable Nanostructured Pt/clay Materials by Clay Mediated in Situ Reduction
Dharmesh Varade,Kazutoshi Haraguchi..... 1242
17:15 1K31 Synthesis of Cyclic Carbonates From CO2 and Epoxides Using Guanidinium Salts Including Polymer Catalysts Under Ambient Conditions.
Naoto Aoyagi,Yoshio Furusho,Takeshi Endo..... 1243

Thursday, May 30

FUNCTIONAL POLYMERS

T. Sakaguchi, Presiding

9:30 2K03 Adsorption/dsorption of Rare Metal Ions Using Peptide-grafted Silica Particles Packed in a Glass Column
Noriyuki Nakamura,Shohei Ida,Yoshitsugu Hirokawa,Satoshi Tanimoto 1244

9:45 2K04 Removal of Polychlorobiphenyls From Oils by Crosslinked Cyclodextrin Polymers
Shintaro Kawano,Toshiyuki Kida,Kazuhiro Miyawaki,Eiichi Kato,Takeshi Nakano,Mitsuru Akashi 1245

10:00 2K05 Development of α-cyclodextrin Derivatives for Selective Removal of *trans*-fatty Acid Esters in Nonpolar Media
Mitsuyo Hamada,Toshiyuki Kida,Mitsuru Akashi 1246

10:15 2K06 Optimization of Polymer Ligands for Melittin
Haejoo Lee,Yusuke Wada,Yu Hoshino,Yoshiko Miura 1247

S. Kawano, Presiding

10:30 2K07 Synthesis and Gas Permeability of Poly(diphenylacetylene)s Having Nitro and Amino Groups
Toshikazu Sakaguchi,Yusaku Shinoda,Tamotsu Hashimoto 1248

10:45 2K08 Synthesis of Membranes of Poly(*p*-phenylenevinylene)s by Indirect Method and Gas Permeability
Yoshinori Nakao,Toshikazu Sakaguchi,Tamotsu Hashimoto 1249

11:00 2K09 Effect of Preparation and Measurement Conditions on CO2 Separation Property of Chitosan Membranes
Ruozhou Wang,Kazuhiro Tanaka,Izumi Kumakiri,Hidetoshi Kita 1250

11:15 2K10 Influence of Branch Structures on Gas Permeability of Composite Membranes.
Mika Nakajima,Manabu Tanaka,Hiroyoshi Kawakami 1251

11:30 2K11 Effect of Polymer Structures on Gas Permeation Properties of Surface Modified-silica Nanoparticles Composite Membranes.
Naoki Sakaguchi,Manabu Tanaka,Hiroyoshi Kawakami 1252

N. Haraguchi, Presiding

12:30 2K12 Synthesis of Crosslinked Membranes of Poly(vinyl Ether)s Having Oxyethylene Chains and their Carbon Dioxide Permeability
Fumiya Katsura,Toshikazu Sakaguchi,Tamotsu Hashimoto 1253

12:45 2K13 Synthesis of Poly(diphenylacetylene)s Bearing Imidazolium Salt and their Gas Permeability.
Hyuma Ito,Toshikazu Sakaguchi,Tamotsu Hashimoto 1254

13:00 2K14 Synthesis and Gas Permeability of Poly(diphenylacetylene) Membrane Containing Cathecol Units
Takuya Tsuzuki,Toshikazu Sakaguchi,Tamotsu Hashimoto 1255

13:15 2K15 CO2 Separation Properties of Dendrimer / Poly(vinyl Alcohol) Cross-linking Membranes
Kota Yamazaki,Shuhong Duan,Takashi Saito,Teruhiko Kai,Ken-ichi Ikeda 1256

S. Tanimoto, Presiding

13:30 2K16 Synthesis of Polymer-supported Chiral Catalysts and its Application to Asymmetric Transfer Hydrogenation of Imine
Yousuke Hashimoto,Naoki Haraguchi,Shinichi Itsuno 1257

13:45 2K17 Synthesis of Main-chain Chiral Polymers Derived From Cinchona Alkaloids and its Catalytic Application in Asymmetric Reactions

Itaru Kuroda,Naoki Haraguchi,Shinichi Itsuno 1258
14:00 2K18 Synthesis of Polymer Microsphere-supported MacMillan Catalyst by Inoic Bond
Takuma Kobayashi,Naoki Haraguchi,Shinichi Itsuno 1259
14:15 2K19 Pd-catalyzed Asymmetric Ring-opening Arylation of 1,4-epoxy-1,4-dihydronaphthalenes Using Chilal Helical Polymer Ligand
Yuto Akai,Takeshi Yamamoto,Michinori Suginome 1260

T. Hashimoto, Presiding

14:30 2K20 Control of Helical Chirality in Polyacetylenes Bearing Biphenyl Pendants with Dynamic Axial Chirality
Kouhei Shimomura,Katsuhiro Maeda,Tomoyuki Ikai,Shigeyoshi Kanoh,Eiji Yashima 1261
14:45 2K21 Improvement of Chiral Helical Polymer Ligand PQXphos on the Basis of Tuning of the Chiral Ether Side Chains
Takeshi Yamamoto,Takumi Adachi,Yuto Akai,Yuuya Nagata,Michinori Suginome 1262
15:00 2K22 Synthesis of Double-stranded Boron Helicates Bearing Fluorescent Moieties and their Functions
Daisuke Taura,Kaori Shimizu,Hiroki Iida,Eiji Yashima 1263
15:15 2K23 Guest-binding Ability and Structure of a Double-stranded Boron Helicate Bearing Porphyrin Units
Shinya Yamamoto,Hiroki Iida,Eiji Yashima 1264

K. Maeda, Presiding

15:30 2K24 Fluorescence Sensing of Organic Compounds Using a Cationic Riboflavin-containing Polymer
Hiroki Iida,Marie Miki,Soichiro Iwahana,Eiji Yashima 1265
15:45 2K25 Applications of Phosphole-containing π-conjugated Polymers Derived From Organometallic Polymers Having Titanacyclopentadiene Moieties as Turn-off Fluorescent Chemosensors.
Yoshimasa Matsumura,Shinsuke Inagi,Ikuyoshi Tomita 1266
16:00 2K26 Synthesis and Membrane Characterization of ABA-type Triblockcopolymer Derived From Polyimide Macroinitiator and Adamantyl Group-containing Methacrylate
Shota Ando,Yusuke Koyama,Sou Miyata,Shuichi Sato,Shinji Kanehashi,Kazukiyo Nagai 1267
16:15 2K27 Multivalent Interaction of Polymeric Metal-complex in Amphiphilic Block Polymer with DNA for Pharmaceutical Application
Akihiro Kamada,Riichi Takahashi,Koji Ueno,Koichi Kutsuzawa,Hidenori Otsuka 1268

Friday, May 31

FUNCTIONAL POLYMERS

M. Yoshikawa, Presiding

9:30 3K03 Hydrophilic Fluorinated Microgel-core Star Polymers for Recognition of Polyfluorinated Compounds in Water
Yuta Koda,Takaya Terashima,Mitsuo Sawamoto 1269
9:45 3K04 Living Radical Polymerization with Star Polymer Iron Catalysts: Designer Nanoreactors for Efficient and Robust Catalysis
Takaya Terashima,Sho Kitagawa,Mitsuo Sawamoto 1270
10:00 3K05 Molecular Recognition with a Rigid Dendrimer Cavity

Ken Albrecht,Kimihisa Yamamoto 1271

10:15 3K06 Molecular Recognition Materials Using Polymer-coated ZnoO Nanowire forest
Eriko Kunieda,Mutsumi Kimura,Tadashi Fukawa,Takashi Mihara 1272

T. Terashima, Presiding

10:30 3K07 Enantioselective Complex formation of Carboxylic Acid Dimers with Chiral Linkers
Wataru Makiguchi,Junki Tanabe,Hidekazu Yamada,Hiroki Iida,Daisuke Taura,Eiji Yashima 1273

10:45 3K08 Chiral Discrimination of Complementary Molecular Strands Through Salt Bridge Formation between Amidine and Carboxylic Acid Dimers
Junki Tanabe,Wataru Makiguchi,Hidekazu Yamada,Daisuke Taura,Eiji Yashima..... 1274

11:00 3K09 Electrospun Chitin Nanofiber Membranes for Multi-stage Optical Resolution
Kenta Shiomi,Masakazu Yoshikawa 1275

11:15 3K10 Polymeric Pseudo-liquid Membrane From Poly(octadecyl Methacrylate)
Hiroki Tsujimoto,Masakazu Yoshikawa 1276

11:30 3K11 Preparation of Smart Hydrogels That Recognize Protein Conformation and their Responsive Behavior
Yoshiaki Kuriu,Yuya Konishi,Akifumi Kawamura,Tadashi Uragami,Takashi Miyata 1277

A. Harada, Presiding

12:30 3K12 Effect of Monomer Composition of Temperature Responsible Nano-gel Particles on Reversible Absorption Capacity of CO2
Yu Hoshino,Kazushi Imamura,Kenta Imai,Yoshiko Miura..... 1278

12:45 3K13 Development of Proton Imprinted Nanogel Particles
Yu Hoshino,Ryohei Ohashi,Yoshiko Miura 1279

13:00 3K14 Development of Gels Having Thiourethane Structure for Selective Adsorption of Noble Metals From Seawater
Wataru Ida,Bungo Ochiai 1280

13:15 3K15 Immobilization of Nano-gel Particles on Porous Support for Protein Purification
Yuka Arata,Yu Hoshino,Aki Yamasaki,Katsuhiko Yano,Yoshiko Miura 1281

Y. Hoshino, Presiding

13:30 3K16 Vapor Permeation of Bioethanol Through Agarose Membranes
Yukiko Fujita,Masakazu Yoshikawa 1282

13:45 3K17 CO_2 Separation Property of Polyimide Composite Membranes Containing Ionic Liquid
Ryohei Shindo,Masanori Kishida,Takashi Kidesaki,Shuichi Sato,Shinji Kanehashi,Kazukiyo Nagai 1283

14:00 3K18 Characterization of Phenylboronic Acid Modified Polymer Brush to Recognize Sialic Acid on Carbohydrate with Selectivity
Yukie Maejima,Akira Matsumoto,Kazunori Kataoka,Yuji Miyahara,Hidenori Otsuka 1284

14:15 3K19 Control of Shuttling of α-cyclodextrin on Two-station Axis Molecules Composed of Substituted Pyridinium and Decamethylene Moieties
Akihiro Kuse,Akihito Hashidzume,Yoshinori Takashima,Hiroyasu Yamaguchi,Akira Harada 1285

H. Otsuka, Presiding

14:30 3K20 Development of Biomimetic Cell Surface Modification for Single Cell

		Analysis Yukihiro Okamoto,Manabu Tokeshi,Yoshinobu Baba	1286
14:45	3K21	Immobilization of Trypsin on Graphene Oxide Nanosheets for Increased Proteolytic Stability Shohei Sonoda,Aki Kuwahara,Asami Funatsu,Masayo Sakata	1287
15:00	3K22	Hydrolysis of Various Nucleotides by Crystalline Cellulose Nanofibers Yusuke Yataka,Toshiki Sawada,Takeshi Serizawa	1288
15:15	3K23	Chirality Selective Solubilization/extraction of Single-walled Carbon Nanotube Using Self-assembled Polymers Fumiyuki Toshimitsu,Kojiro Akazaki,Tsuyohiko Fujigaya,Naotoshi Nakashima	1289
15:30	3K24	Elution Behavior of Hydrophobic Bioactive Compounds Using Thermoresponsive Polystyrene Monolithic Capillaries. Takuya Koriyama,Kazumi Sakamoto,Taka-Aki Asoh,Akihiko Kikuchi	1290

Room L

Wednesday, May 29

FUNCTIONAL POLYMERS

M. Ohtani, Presiding

10:00	1L05	PPS Nanofiber Sheets Prepared by a Carbon Dioxide Laser Supersonic Multi-drawing. Yuta Watanabe,Hiroyuki Koyama,Akihiro Suzuki	1291
10:15	1L06	Fabrication of Polymer Nanofibers Using Anodic Porous Alumina Takashi Yanagishita,Kenichi Kobayashi,Yoshihiro Uozu,Kazuyuki Nishio,Hideki Masuda	1292
10:30	1L07	Preparation of Poly(l-lactic Acid) Block Copolymer Nanofibers and Evaluation for Scaffold Materials Yuko Takeoka,Yuri Shiomura,Kazusei Yoshida,Masahiro Fujita,Masahiro Rikukawa	1293
10:45	1L08	Production and Characterization of Biomass Nano-fiber Kota Ogura,Yuki Morimoto,Ikuko Inaba,Kenji Kondo,Gaku Sugino	1294

Y. Takeoka, Presiding

11:00	1L09	Breakthrough of the Internal Structure of Quasi-amyloid Fibers Takuma Minami,Tomonori Waku,Yusuke Sanada,Naoki Tanaka,Kazuo Sakurai	1295
11:15	1L10	Curing Mechanism of Photosensitive Carbon Nanotube Paste Kazuki Shigeta,Takejiro Inoue,Atsushi Ikeda,Yoko Momiyama,Kazuki Goto	1296
11:30	1L11	Anomalous Reaction Environment Composed of Magnetically Aligned Micelles of Carbon Nanotubes Masataka Ohtani,Yasuhiro Ishida,Takuzo Aida	1297

T. Fukushima, Presiding

12:30	1L12IL*	Construction of 'visible' Single-molecular Devices Utilizing Structural DNA Nanotechnology Akinori Kuzuya	116
13:00	1L14	Surface Patterning of Photo-responsive Polymer Films with Dynamic	

Crosslinks and their Applications to Cell Culture
Tomoyuki Kida,Akifumi Kawamura,Tadashi Uragami,Takashi Miyata 1298

13:15 1L15 Self-assembly of Amphiphilic Liquid Crystalline Polymer Exhibiting Phase Transition at Body Temperature and their Applications as Drug Carriers.
Kazuhito Takada,Akifumi Kawamura,Tadashi Uragami,Takashi Miyata 1299

A. Kuzuya, Presiding

13:30 1L16 Construction of Metallo Drug Coordinated 1D Nanostructures and their Sustainable Release Abilities
Naohiro Kameta,Mitsutoshi Masuda,Toshimi Shimizu 1300

13:45 1L17 Preparation and Function of Protein-polysaccharide Hybrid Nanogels
Yoshihiro Sasaki,Yuji Tsuchido,Shin-ichi Sawada,Kazunari Akiyoshi 1301

14:00 1L18 Self-assembly of Complementary-charged Fmoc Peptides into Beta-sheets
Toru Nakayama,Kentaro Tashiro,Yohei Yamamoto 1302

N. Kameta, Presiding

14:15 1L19 Formation of Poly(lactide)-protein Complexes by Inkjet Printing and their Potential Application
Takami Akagi,Tomoko Fujiwara,Mitsuru Akashi 1303

14:30 1L20 Janus-type Triptycenes: A Molecular Platform for High-density Integration of Functional Groups
Noriya Seiki,Yoshiaki Shoji,Takashi Kajitani,Takanori Fukushima 1304

14:45 1L21 Mixing Induced Enhancement of Low-molecular-weight Gelators with Different Alkyl Chains
Yutaka Ohsedo,Hisayuki Watanabe,Masashi Oono,Kowichiro Saruhashi 1305

15:00 1L22 Spherical Assemblies of 3D NHC Complexes: their Dynamic Behaviors in Response to Transmetalation
Masahide Tominaga,Taichi Kawaguchi,Isao Azumaya 1306

T. Akagi, Presiding

15:15 1L23 Interface Control of POSS Containing Block Copolymers for Low Line Edge Roughness
Shin Sugimoto,Rina Maeda,Teruaki Hayakawa 1307

15:30 1L24 Microphase-separated Nanostructures of POSS-containing Triblock Copolymers
Fuminobu Kato,Rina Maeda,Teruaki Hayakawa 1308

15:45 1L25 ATRP Synthesis of Nematic Liquid Crystalline Block Copolymers and Analysis of the Microphase-separated Structure
Sho Kobayashi,Rei Taguchi,Shoichi Kubo,Shingo Hadano,Motonori Komura,Tomokazu Iyoda,Masaru Nakagawa 1309

S. Asaoka, Presiding

16:00 1L26 Microphase-separated Coordination Polymers Self-assembled From Birhodium Complexes and Multifunctional Bridging Ligands in Organic Media
Hidenori Furutani,Rempei Kuwahara,Hiroaki Iguchi,Nobuhiro Yanai,Masa-aki Morikawa,Nobuo Kimizuka 1310

16:15 1L27 Morphological Analysis for Asymmetric Triblock Copolymer
Ayaka Miyoshi,Mikihito Takenaka,Hirokazu Hasegawa 1311

16:30 1L28 Morphological Analysis for Triblock Copolymer Included Polydimethilsiloxane

Ayano Inoue,Hirokazu Hasegawa,Mikihito Takenaka 1312

T. Hayakawa, Presiding

16:45 1L29 The Study of Fddd Structure in Polystyrene-block-polyisoprene
Sho Sato,Mikihito Takenaka,Hirokazu Hasegawa 1313
17:00 1L30 Regiospecific Accumlation of Optical Functional Molecules by Template Highly Ordered Nanophase Separation
Masatoshi Otonari,Motonori Komura,Hirohisa Yoshida,Sadayuki Asaoka 1314
17:15 1L31 Fabrication of Donor-Acceptor Heterojunction at Microphase Segregation Interface in Normally Oriented Cylindrical Nanostructure Thin Film.
Gensuke Akimoto,Yuki Watanabe,Masashi Aotani,Motonori Komura,Hirohisa Yoshida,Sadayuki Asaoka 1315
17:30 1L32 Three-Dimensional Periodically Ordered Nanohetero Magnets From Self-assembled Block Copolymer Composites
Hiroaki Wakayama,Hirotaka Yonakura,Yasuaki Kawai 1316

Thursday, May 30

FUNCTIONAL POLYMERS

K. Niikura, Presiding

9:30 2L03 Thiophene Supramolecular Nanosheets
Taichi Ikeda,Yijun Zheng,Hans-Juergen Butt 1317
9:45 2L04 Formation of Supramolecular Assemblies Based on Cyclic Host Liquid Pillar[5]arene
Tomoki Ogoshi,Takamichi Aoki,Seita Ueda,Tada-aki Yamagishi 1318
10:00 2L05 Synthesis of Chiral Silica by Employing Supramolecular Crystalline Complexes
Yoshiaki Arai,Hiroyuki Matsukizono,Ren-Hua Jin 1319

T. Ogoshi, Presiding

10:15 2L06 Creation of Unique Nanoarchitecture in a Programable Microflow Space
Munenori Numata,Yusuke Takigami,Tomohiro Kozawa,Yuri Nishino,Ryouichirou Sakai 1320
10:30 2L07 Preparation of Inclusion Crystals of Naphthalene Diimide Derivatives Using Lewis Acid Base Adducts as Bulky Substituents and its Properties of Guest Dependent Solid State Fluorescence
Toshikazu Ono,Yoshio Hisaeda 1321
10:45 2L08 Supramolecular Enantiodifferentiating Photocyclodimerization of 2-anthracenecarboxylate with Proteins and Protein-polymer Hybrids as Chiral Reaction Media
Sakie Minato,Jinya Katamachi,Masaki Nishijima,Yutaka Ikeda,Yasuyuki Araki,Seiji Sakamoto,Yukio Nagasaki,Yoshihisa Inoue,Takehiko Wada 1322

M. Numata, Presiding

11:00 2L09 Membrane Permeation of Nanoparticles Driven by the Molecular Movement of Surface Ligand
Shota Sekiguchi,Kenichi Niikura,Yasutaka Matsuo,Kuniharu Ijiro 1323
11:15 2L10 Gold Nanoparticle Vesicles as a Drug Delivery Carrier Enabling Light-triggered Rapid Drug Release
Kenichi Niikura,Naoki Iyo,Yasutaka Matsuo,Kuniharu Ijiro 1324
11:30 2L11 Effect of the Additive to the Size Control of Metallic Copper Fine Particles

Tetsu Yonezawa,Yoshiki Uchida,Takashi Narushima 1325

T. Yonezawa, Presiding

12:30 2L12 Effect of PH and Hydrophobicity on the Membrane Disruption Behavior by Nanoparticles Composed of Amphiphilic Poly(amino Acid)
Fumiaki Shima,Takami Akagi,Mitsuru Akashi..... 1326

12:45 2L13 Synthesis of Acidic Polysaccharide-calcium Phosphate Hybrid Nanoparticles
Setsuko Yamane,Kana Nagaoka,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi..... 1327

13:00 2L14 Biomimetic Preparation of Chitosan/au Core-shell Type Microparticles
Satoshi Tanimoto,Ayaka Satoh,Shohei Ida,Yoshitsugu Hirokawa 1328

13:15 2L15 Fabrication of Phenylazomethine Dendrimer Nanoparticles and their Complexation Behavior
Akira Miura,Tsunenobu Onodera,Hitoshi Kasai,Takane Imaoka,Kimihisa Yamamoto,Hidetoshi Oikawa..... 1329

H. Kasai, Presiding

13:30 2L16 Synthesis of Surface-functionalized Cross-linked Polymer Particles by Living Dispersion Coordination Polymerization of Allene Derivatives.
Akira Yamauchi,Takahiro Omura,Hiroshi Yamauchi,Shinsuke Inagi,Ikuyoshi Tomita..... 1330

13:45 2L17 Controled Synthesis of Polymer Particles Templated by Porous Metal Complexes
Tetsuya Kaseda,Takashi Uemura,Susumu Kitagawa 1331

14:00 2L18 Molecular Design of Polymeric Nanoparticle Having Thermoresponsive Polymer with Controlled Chain Length on Corona Layer
Takuya Matsuyama,Ayaka Kimura,Taka-Aki Asoh,Akihiko Kikuchi... 1332

14:15 2L19 Synthesis and Biomolecular Recognition of Thermo-responsive Nanoparticles Having Terminal Functional Group of Corona Layer
Takuya Matsuyama,Hiroyuki Hayashi,Taka-Aki Asoh,Akihiko Kikuchi 1333

I. Tomita, Presiding

14:30 2L20 Preparation of Biodegradable Core-corona Type of Polymeric Nanoparticles Composed of Poly(ε-caprolactone) Core.
Takahito Nakajima,Taka-Aki Asoh,Akihiko Kikuchi..... 1334

14:45 2L21 Synthesis of Polyaniline/metal Nanocluster by Ligand Exchange Method
Tadayuki Isaji,Toru Amaya,Toshikazu Hirao..... 1335

15:00 2L22 Hybrid Materials Comprising Nanorods and Nematic Liquid Crystals Toward Uniaxial Orientation of ZnO Nanorods
Shoichi Kubo,Rei Taguchi,Ken-ichi Hayashida,Mamiko Narita,Shingo Hadano,Osamu Watanabe,Tomokazu Iyoda,Masaru Nakagawa 1336

T. Uemura, Presiding

15:15 2L23 Screening of An Optimal Ratio of Poly(thiophene) : Fullerene Mixed Thin-film for Organic Photovoltaics by Mist-coating Method
Jae-hyeong Lee,Susumu Yoshikawa,Takashi Sagawa..... 1337

15:30 2L24 Potential Dependent of Electrochemical Exfoliation for Graphene Synthesis
Haruya Okimoto,Syun Takabayashi,Yuhei Sobe,Masahito Sano 1338

15:45 2L25 Electrochemical Synthesis of Graphene in Organic Solvents.
Yuhei Sobe,Haruya Okimoto,Masahito Sano..... 1339

16:00 2L26 Preparation of An Optically Active Polyfluorene Derivative Using

Circularly Polarized Light and Properties of the Polymer
Yue Wang,Yasuhito Koyama,Tamaki Nakano..... 1340
16:15 2L27 Synthesis of Stereregular Poly(4-phenylstyrene) and Preparation of its Optically Active form Using Circularly Polarized Light
Yasuhito Koyama,Nan Xiao,Naofumi Naga,Tamaki Nakano 1341

Friday, May 31

BIOPOLYMERS *"English Session"*

M. Ohmae, Presiding

9:30 3L03 Strain-induced Crystallization of Natural Rubber Clones
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9:45 3L04 Structural Analysis of Silk by Using High Resolution ^{1}H Solid State NMR Under Ultra-high Field and Fast Mas.
Koji Yazawa,Takuya Ohata,Yusuke Nishiyama,Katsuyuki Nishimura,Tetsuo Asakura..... 1700
10:00 3L05 Chemical Modification of Protein Crystal Surface Toward Artificial Extracellular Matrix
Yu Tokura,Sanghamitra Nusrat Jahan,Hiroyasu Tabe,Hiromune Ando,Susumu Kitagawa,Makoto Kiso,Hajime Mori,Takafumi Ueno.... 1701
10:15 3L06 Functional Modulation of Photosynthetic Antenna Complex (LH2) Through Chemical Modification
Takehisa Dewa,Daisuke Komori,Tomoyasu Noji,Hisanori Yamakawa,Shigeru Itoh,Mamoru Nango..... 1702
10:30 3L07 Directed Evolution of Multimeric Enzyme Using Liposome with Defined Volume
Takehiro Nishikawa,Takeshi Sunami,Tomoaki Matsuura,Tetsuya Yomo..... 1703

T. Dewa, Presiding

10:45 3L08 Ribosome Display Selection of Epidermal Growth Factor Binding to Titanium Surface
Seiichi Tada,Takashi Kitajima,Yoshihiro Ito..... 1704
11:00 3L09 Adsorption Property of Polypeptides 3 : Relation between the Adsorption Property of Organic Compounds to Various Polypeptides and the Kind of the Amino Acid Residues of Polypeptides
Aya Inada,Hitoshi Kanazawa 1705
11:15 3L10 Influence of the Organic Solvent on the Self-assembly of "double Hydrophobic" Elastin-like Block Polypeptides
Duc H.T. Le,Ayae Sugawara-Narutaki,Tatsuya Okubo 1706
11:30 3L11 Next Generation of Pegylation Technology for the Development of Therapeutic Protein Drugs
Yutaka Ikeda,Jinya Katamachi,Yukio Nagasaki 1707

S. Takenaka, Presiding

12:30 3L12 Phase Separation in Molecular Assemblies Composed of Amphiphilic Helical Peptides with Different Helix Lengths and Helicity
Tsuguaki Uebayashi,Motoki Ueda,Akihiro Uesaka,Shunsaku Kimura..... 1708
12:45 3L13 Relation of Morphologies of Self-assemblies Composed of Amphiphilic Block Polypeptides with Constituent Residues in the Hydrophobic Helical Blocks
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13:00 3L14 Tumor Imaging Using Host-guest-type Molecular Assemblies Composed of Dendrimer Template and Amphiphilic Helical Polypeptides
Hisato Matsui,Motoki Ueda,Kaori Togashi,Shunsaku Kimura..... 1710

H. Kashida, Presiding

13:30 3L16 Thermal-responsive Polymer-grafted Silicon Nanostructures to Capture and Preserve Circulating Cancer Cells
Shyh-Chyang Luo,Haichao Zhao,Aiko Nakao,Hsiao-hua Yu,Shuang Hou,Libo Zhao,Qinglin Shen,Hsian-Rong Tseng 1711

13:45 3L17 Photo-clipping of Cell Sheet Using PAG-polymer-functionalized Culture Substrates
Kimio Sumaru,Kana Morishita,Toshiyuki Takagi,Taku Satoh,Toshiyuki Kanamori 1712

H. Asanuma, Presiding

14:00 3L18IL* Synthetic Biology of Nano-structured Nucleic Acids.
Hiroshi Abe 119

14:30 3L20 Mechanistic Study on pDNA Folding Process into Rod or Globule Structures Within Polyplex Micelles -consideration From PEG Effect on Packaging Process-
Kaori Machitani,Kensuke Osada,Theofilus Tockary,Qixian Chen,Anjaneyulu Dirisala,Kazunori Kataoka..... 1713

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14:45 3L21 Development of High-performance Fluorometric Potassium Ion-imaging Reagent
Kojiro Sota,Shinsuke Ohzawa,Shinobu Sato,Yukiko Yoshiura,Koji Nakazawa,Tomoki Matsuda,Takeharu Nagai,Shigeori Takenaka..... 1714

15:00 3L22 Development of Modified siRNA for Improvement of RNAi Activity and Monitoring in Cells
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15:15 3L23 A Study on Fret System between Dyes Introduced Within DNA Duplex
Hiromu Kashida,Tomohiro Kato,Hideo Kishida,Hiroyuki Yada,Hiroshi Okamoto,Hiroyuki Asanuma 1716

15:30 3L24 Photoregulation of 3D Microstructure by Photo-driven DNA Nanodevice
Hiroyuki Asanuma,Takahiro Muro,Xingguo Liang,Kazunori Matsuura,Yukiko Kamiya..... 1717

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A. Saeki, Presiding

10:00 1M05 Ferroelectric Ultrathin Films by Langmuir-blodgett Technique for Nanoelectronic Applications
Huie Zhu,Masaya Mitsuishi,Jun Matsui,Tokuji Miyashita 1342

10:15 1M06 The First Intrinsically Stretchable Electrochromic Devices with All-polymer Constitution

Jian Zhang,Masayoshi Higuchi 1343
10:30 1M07 Electrochromic Properties of Cross-linked Organic-metallic Hybrid Polymers
Chih-Wei Hu,Takashi Sato,Satoshi Moriyama,Masayoshi Higuchi 1344
10:45 1M08 Covalent Organic Frameworks with Built-in Donor-acceptor Heterojunctions via Pore Surface Engineering
Long Chen,Atsushi Nagai,Donglin Jiang,Yuping Dong 1345
J. Zhang, Presiding
11:00 1M09 A Donor-acceptor Covalent Organic Framework with Spatially Predesigned Photoinduced Electron Transfer Pathways
Shangbin Jin,Atsushi Nagai,Donglin Jiang 1346
11:15 1M10 Design of Zero-zero-birefringence Polymer in a Quaternary Copolymerization System and Clarification of the Mechanism of Generating Birefringence
Houran Shafiee,Shuhei Iwasaki,Akihiro Tagaya,Yasuhiro Koike 1347
11:30 1M11R Gold Nanoparticle Assisted Self-assembly and Enhancement of Charge Carrier Mobilities of a Conjugated Polymer
Akinori Saeki,Chakooth Vijayakumar,Bijitha Balan,Tetsuya Tsuda,Susumu Kuwabata,Shu Seki 1348
D. Jiang, Presiding
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Dahui Zhao,Qifan Yan,Tian Li,Yuanpeng Fan,Kang Cai,Zhouyang Luo 125
13:00 1M14 Photocatalytic Activation of Molecular Oxygen Using Conjugated Microporous Polymers
Yanhong Xu,Atsushi Nagai,Donglin Jiang 1349
13:15 1M15 Lyotropic Chiral Nematic Liquid Crystalline Aliphatic Conjugated Polymers Based on Disubstituted Polyacetylene Derivatives That Exhibit High Dissymmetry Factors in Circularly Polarized Luminescence
Benedict Arcena San Jose,Satoshi Matsushita,Kazuo Akagi 1350
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13:30 1M16 Development of Organic Solar Cells Based on Low Band Gap Liquid Crystalline Conjugated Molecules
Woong Shin,Takuma Yasuda,Chihaya Adachi 1351
13:45 1M17 Bilayer Homeotropic Alignment of Cross-linked Liquid Crystalline Order Structures Towards Excellent Anisotropic Electrical Conductors
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14:00 1M18 Synthesis of All-conjugated Donor-acceptor-donor Triblock Copolymers via Externally Initiated Kumada Catalyst-transfer Polycondensation
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14:15 1M19 Polymer Electrolyte Membranes Based on Poly(phenylene Ether)s with Sulfonic Acid via Long Alkyl Side Chains
Li Sheng,Xuan Zhang,Teruaki Hayakawa,Mitsuru Ueda,Tomoya Higashihara 1354
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14:30 1M20ILA Programmable Responsive Shaping Gels by Multi-dimensional Gradients of Magnetic Nanoparticles
Yang Liu,Makoto Takafuji,Hirotaka Ihara,Meifang Zhu,Mingshan Yang,Kai Gu,Wenli Guo 126

15:00 1M22 Heterogeneous Organocatalysts with Built-in Catalytic Sites in the Open Channels of Covalent Organic Frameworks
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Md. Masud Parvez,Naoki Haraguchi,Shinichi Itsuno 1356
15:30 1M24 Improvement of Polylactides by Conjugation of Bio-based Compounds at Both Polymer Chain Ends
Hiroharu Ajiro,Thi Hang Tran,Tomoko Fujiwara,Mitsuru Akashi 1357

Y. Ito, Presiding

15:45 1M25 Formation of Self-healable Supramolecular Hydrogel Based on Molecular Recognition
Takahiro Kakuta,Yoshinori Takashima,Hiroyasu Yamaguchi,Akira Harada 1358
16:00 1M26 Redox-responsive Artificial Molecular Muscle: Contraction-expansion Supramolecular Materials formed by Host-guest Polymers
Masaki Nakahata,Yoshinori Takashima,Hiroyasu Yamaguchi,Akira Harada 1359
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Yoshitaka Umeda,Daisuke Suzuki 1360

S. Itsuno, Presiding

16:30 1M28 Highly Controlled Azobenzene Liquid Crystalline Brush Unveiled by Ring Opening Metathesis Polymerization
Hafiz Ashraful Haque,Shusaku Nagano,Takahiro Seki 1361
16:45 1M29 In Vitro Selection of a Photo-responsive Peptide Aptamer Containing An Azobenzene Residue
Qingmin Zang,Seiichi Tada,Wei Wang,Mingzhe Liu,Daisuke Kiga,Masayuki Yamamura,Yoshihiro Ito 1362
17:00 1M30 Chiral Solid-state Host by the Template Polymerization of a Liquid-crystalline Salt: Formation and Application of a Covalent Framework Three-dimensionally Ordered Over a Large Area
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Thursday, May 30

FUNCTIONAL POLYMERS *"English Session"*

A. Takahara, Presiding

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Zha Li,Takanori Uzawa,Eiry Kobatake,Yoshihiro Ito 1365
10:00 2M05 Microdomain Structures in Polystyrene-block-poly(methyl Methacrylate) Diblock Copolymer / Homopolystyrene Blends
Yi-Chin Wang,Hirokazu Hasegawa,Mikihito Takenaka 1366
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Seira Morimune,Takashi Nishino,Takuya Goto 1367

Y. Liu, Presiding

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10:45 2M08 Multifunctional Polymer Surface Using Segregated Poly(ethylene Oxide) Side Chains
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13:00 2M14IL** Aqueous Metal-catalyzed Living Radical Polymerization: Highly Active Water-assisted Catalysis
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F. Sanda, Presiding

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T. Haino, Presiding

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9:45 3M04 Radical Crossover Reactions between Alkoxyamine-modified Nanoparticles and Alkoxyamine-terminated Polymers
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12:30 3M12 Chirality Induction of Metal Complex Nanotube by Optically Active Anions
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14:30 3M20 Direct Effect of Photooxidized Poly(3-hexylthiophene) on the Device Characteristics in BHJ Solar Cell
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Room N

Wednesday, May 29

BIOPOLYMERS *"English Session"*

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10:00 1N05 Cell Surface Modification of Endocytic Receptor Enables Efficient Antigen Protein Delivery
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K. Sakurai, Presiding

10:45 1N08ILA Chitin/chitosan Nanoemulsion for Drug Delivery
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11:30 1N11 Control of the Hydrolytic Activity of Cellulose Nanofibers
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S. Deguchi, Presiding

12:30 1N12 Worm-like Micelles Consisting of Glyco/aliphatic-linked Styrenic Amphiphiles and Thier Polymerizations
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12:45 1N13 Structural-color Biosensor Immobilized with Sugar-incorporating Nanoparticles
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13:00 1N14 Syntheses of Glycosaminoglycan Model Polymers and Analyses of its BACE-1 Inhibitory Activity
Yuri Nishimura,Hirokazu Seto,Yu Hoshino,Yoshiko Miura 1725

13:15 1N15 Sialyllactose -modified 3-way Junction DNA as a Inhibitor of Influenza Hemagglutinin
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T. Serizawa, Presiding

13:30 1N16 The Synthesis of Homogeneous Glycopeptides From Mannobiouse Containing Polysaccaride as a Novel Starting Material
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13:45 1N17 Parallel Glycopeptide Synthesis by Combining Solid-phase Peptide Synthesis and Dendrimer-supported Enzymatic Sugar Modifications
Takahiko Matsushita,Kentaro Naruchi,Fayna Garcia-Martin,Hiroshi Hinou,Shin-Ichiro Nishimura 1728

14:00 1N18ILA Artificial Inorganic Leafs for Efficient Photochemical Hydrogen Production Inspired by Natural Photosynthesis
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14:30 1N20 Molecular Recognition of Proteins and Bacteria on the Dendrimer Interface
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Y. Miura, Presiding

14:45 1N21 Ion Permeation by Folding and Self-assembly of a Multiblock Amphiphilic Oligomer
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15:00 1N22 Preparation and Oxygen-affinity of Hemoglobin-albumin Cluster
Takuya Kimura,Risa Haruki,Taketoshi Fushimi,Teruyuki Komatsu .. 1731

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Riku Kubota,Shoichiro Asayama,Hiroyoshi Kawakami 1732

15:30 1N24 Molecular Glue Convertible From Adhesion to Fixation by Light for Hybridization with Biomolecules
Noriyuki Uchida,Kou Okuro,Takayuki Ariga,Michio Tomishige,Takuzo Aida 1733

M. Matsusaki, Presiding

15:45 1N25 Development of Photoclickable Molecular Glues for Enhanced Adhesiveness by Light
Yu Fukusato,Kou Okuro,Takuzo Aida 1734

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Takeshi Sato,Mitsuhiro Ebara,Shinji Tanaka,Taka-Aki Asoh,Akihiko Kikuchi,Takao Aoyagi 1735

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Ryo Ishihara,Hideyuki Arata,Kazuo Hosokawa,Mizuo Maeda..... 1736
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T. Aoyagi, Presiding

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17:15 1N31 Construction of 3D-vascularized Granulation Tissue Models by Coating of Extracellular Matrix Nanofilms on Cell Surfaces to Evaluate in Vitro Tumor Invasion Process
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Thursday, May 30

BIOPOLYMERS *"English Session"*

H. Tamura, Presiding

9:30 2N03 Design of pDNA-loaded Polymeric Micelles for a Gene Carrier Containing a Thermoresponsive Poly(oxazoline) Segment as a Hydrophobic Middle Layer ~synthesis of Tri-block Copolymer and Thermoresponsivity of the Middle Segment Within the Polymeric Micelles~
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Shuntaro Kizuka,Yuichi Yamasaki 1743
10:00 2N05 Preparation of Circulating Tumor Cell-specific Macrophage Based on Cell Surface Modification for Supression of Cancer Metastasis
Masafumi Takeo,Takeshi Mori,Takuro Niidome,Yoshiki Katayama 1744
10:15 2N06 Histidinated-PLL Based Vectors for PH-sensitive and Cancer-specific Gene Delivery
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K. Osada, Presiding

10:30 2N07 Acid-degradable Polyrotaxanes for Promoting Endosomal Escape of siRNA
Atsushi Tamura,Nobuhiko Yui 1746
10:45 2N08 Controlled Release System of Antisense Molecule From Atelocollagen Gel for Hyperlipemia Treatment
Genki Mihara,Jeong-Hun Kang,Takahiko Nakaoki,Hidetaka Torigoe,Mariko Harada-Shiba,Satoshi Obika,Tetsuji Yamaoka 1747
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		Nano-assemblies Tomonori Waku,Yuichi Kitagawa,Kazufumi Kawabata,Shigeru Kunugi,Naoki Tanaka	1748
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11:30	2N11	Preparation and Characterization of Stimuli-responsive Unimer Nanoparticles Composed of Hydrophobized Poly(amino Acid) Phassamon Piyapakorn,Takami Akagi,Mitsuru Akashi	1750
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13:00	2N14	Bioactive Polymeric Metallosomes Self-assembled Through Block Copolymer-metal Complexation Kensuke Osada,Horacio Cabral,Yuki Mochida,Yasutaka Anraku,Akihiro Kishimura,Nobuhiro Nishiyama,Kazunori Kataoka	1753
13:15	2N15	Modification of Single-walled Carbon Nanotubes with Collagen for Improved Dispersibility and Cellular Uptake Hongli Mao,Naoki Kawazoe,Guoping Chen	1754
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13:30	2N16	Preparation of Poly(ethylene Glycol)-modified PAMAM Dendrimers-gold Nanorod Conjugates for Photothermo- and Chemo-Combined Cancer Therapy Xiaojie Li,Eiji Yuba,Atsushi Harada,Kenji Kono	1755
13:45	2N17	Multi-functional Conjugated Polymer Nanoparticles for Biomedical Applications Hui Chong,Qiong Yang,Shu Wang	1756
14:00	2N18	Evaluation of Physical Properties and Hemostatic Ability of H12-(ADP)liposome as Artificial Platelet.(review by the Administration After Hemorrhage) Mami Doi,Manabu Kinoshita,Kosuke Hagisawa,Kahoko Nishikawa,Rimpei Yanagawa,Makoto Handa,Yasuo Ikeda,Shinji Takeoka	1757
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	G. Chen, Presiding		
14:30	2N20	Development of Regenerated Biomaterials of *bombyx Mori* Silk Fibroin and Polyurethane by Electrospinning Method Toshiki Saotome,Mari Sugimoto,Yasumoto Nakazawa,Shintaro Nemoto,Tetsuo Asakura	1759
14:45	2N21	Analysis of in Vivo Inflammatory Responses to Polyethylene Porous Scaffolds Yusuke Sakai,Sachiro Kakinoki,Taro Takemura,Nobutaka Hanagata,Toshiya Fujisato,Kazuhiko Ishihara,Tetsuji Yamaoka	1760

15:00 2N22ILA Artificial Protein Biomaterials for Tissue Regeneration and Repair
M. S. Tjin,A. W. C. Chua,D. R. Ma,S. T. Lee,Eileen Fong..... 133

A. Kishida, Presiding

15:30 2N24 Preparation of Functional Collagen-hyaluronic Acid Scaffolds for Tissue Engineering
Shangwu Chen,Qin Zhang,Naoki Kawazoe,Guoping Chen 1761

15:45 2N25 Improvement in the Mechanical Properties of Collagen Scaffolds by Controlling Pore Structures Using Ice Particulates as a Porogen Material
Qin Zhang,Hongxu Lu,Naoki Kawazoe,Guoping Chen..... 1762

16:00 2N26 Preparation of Biomimetic Osteogenic and Adipogenic Matrices
Rong Cai,Tomoko Nakamoto,Takashi Hoshiba,Naoki Kawazoe,Guoping Chen..... 1763

16:15 2N27 Iinfluence of Micropattern Width on Differentiation of Human Mesenchymal Stem Cells
Tomoko Nakamoto,Xinlong Wang,Naoki Kawazoe,Guoping Chen..... 1764

Friday, May 31

BIOPOLYMERS *"English Session"*

Y. Ohya, Presiding

9:30 3N03 Functionalization of Aliphatic Polycarbonates Towards Application in Regenerative Medicines
Kazuki Fukushima,Yuto Inoue,Masaru Tanaka..... 1765

9:45 3N04 Regulation of Cell Adhesion Behavior by Designing Dynamic Polyrotaxane Block Copolymer Surfaces
Ji-Hun Seo,Sachiro Kakinoki,Yuuki Inoue,Tetsuji Yamaoka,Kazuhiko Ishihara,Nobuhiko Yui..... 1766

10:00 3N05 Investigation of the Behavior of the Collagen Adsorption and Fibrillization on the Dynamic Surface
Kwangwoo Nam,Ji-Hun Seo,Tsuyoshi Kimura,Nobuhiko Yui,Akio Kishida 1767

10:15 3N06 Investigation of Protein Permeability of Decellularized Aorta Using Diffusion Chamber System
Pingli Wu,Tsuyoshi Kimura,Hiroko Tadokoro,Kwangwoo Nam,Akio Kishida 1768

10:30 3N07 Tuning of Sol-Gel Transition in the Aqueous Dispersion of Polylactide-poly(ethylene Glycol) Diblock and Triblock Copolymers
Yu-i Hsu,Kazunari Masutani,Tetsuji Yamaoka,Yoshiharu Kimura..... 1769

M. Tanaka, Presiding

10:45 3N08 Effect of Processing Condition on Mechanical Properties for Poly(lactic Acid)
Tong Huang,Shogo Nobukawa,Masayuki Yamaguchi..... 1770

11:00 3N09 Effects on Cell Behavior by Electro-stimuli Under Conducting Polymer NanoInterface
Jun Sekine,Shyh-Chyang Luo,Bo Zhu,Hsiao-hua Yu..... 1771

11:15 3N10 An Electrochemically Switchable Organic Conducting Biomaterial Toward Dynamic Coupling with Cells and Tissues
Hsing-An Lin,Shyh-Chyang Luo,Bo Zhu,Yoshiro Yamashita,Hsiao-hua Yu..... 1772

11:30 3N11R Small-caliber Long-bypass Graft by Using Decellularized Ostrich

Carotid Artery and Peptide Modification
Atsushi Mahara,Shota Somekawa,Naoki Kobayashi,Yoshiaki Hirano,Yoshiharu Kimura,Toshiya Fujisato,Tetsuji Yamaoka 1773

M. Tanihara, Presiding

12:30 3N12 Micropatterned Thermoresponsive Cell Culture Substrates for Regulating Orientation of Myoblasts and Myotubes
Hironobu Takahashi,Tatsuya Shimizu,Masamichi Nakayama,Masayuki Yamato,Teruo Okano 1774

12:45 3N13 Control of Cell Adhesion and Detachment on Thermo-responsive Block Copolymer Langmuir Films
Morito Sakuma,Yoshikazu Kumashiro,Masamichi Nakayama,Nobuyuki Tanaka,Kazuo Umemura,Masayuki Yamato,Teruo Okano..... 1775

13:00 3N14 Effect of Molecular Architecture of PEG Chains Immobilized on Material Surface on Protein Adsorption and Platelet Adhesion
Takuya Nakagoshi,Sachiro Kakinoki,Yuichi Ohya,Tetsuji Yamaoka... 1776

13:15 3N15 Mechanistic Study on Antibody Recognition to PEG Conjugates
Kouichi Shiraishi,Kumi Kawano,Yoshie Maitani,Taiki Aoshi,Ken Ishii,Masayuki Yokoyama..... 1777

S. Asayama, Presiding

13:30 3N16 Direct Peptide Immobilization via Tyrosine Residue Onto Polymeric Substrates for Functional Biomaterials
Sachiro Kakinoki,Kensuke Takasaki,Yoshiaki Hirano,Tetsuji Yamaoka 1778

13:45 3N17 Biodegradable PLA-PEG Multiblock Copolymer Hydrogels for Treatment of Myocardial Infarction
Shota Somekawa,Atsushi Mahara,Kazunari Masutani,Yu-i Hsu,Yoshiharu Kimura,Tetsuji Yamaoka..... 1779

14:00 3N18 Efficient Intracellular Delivery of Polymeric MRI Contrast Agent for Mesenchymal Stem Cell Transplantation to Myocardial Infarction
Naoki Kobayashi,Atsushi Mahara,Jun-ichiro Enmi,Akihide Yamamoto,Hidehiro Iida,Yoshiaki Hirano,Tetsuji Yamaoka..... 1780

14:15 3N19 Hydrophobically Modified Gelatin-film with No Cross-linker Adhering to Moistened Organs
Keiko Yoshizawa,Tetsushi Taguchi 1781

T. Yamaoka, Presiding

14:30 3N20 Synthesis of Heteroarm Star Polymers and Inhibition of Platelet and Bacteria Adhesion on their Coated Surface
Masayasu Totani,Tsuyoshi Ando,Chuanwu Xi,Kayo Terada,Kenichi Kuroda,Masao Tanihara 1782

14:45 3N21 Antimicrobial Activity of Various Oligomes with Dipicolylamine Sidechains
Kazuma Yasuhara,Koyo Kusuda,Jun-ichi Kikuchi..... 1783

15:00 3N22 Development of Novel Photoactive Yellow Protein Mutants for Accelerated Labeling Reactions and the Application for Live Cell Imaging
Yuko Kamikawa,Yuichiro Hori,Kazuya Kikuchi 1784