

## Room P

Event Hall										
Day		Booth No.	001	002	003	004	005	.....	125	126
May 26 Wed.	1P	9:00- 9:30								
		9:30-10:25 a								
		10:25-11:20 b								
	2P	11:20-11:30								
		12:00-12:30								
		12:30-13:25 c								
May 27 Thu.	2P	13:25-14:20 d								
		14:20-14:30								
		14:00-14:30								
May 28 Fri.	3P	14:30-15:25 e								
		15:25-16:20 f								
		16:20-16:30								

Presentation Time
  Mounting & Removing Time
  Display Time

### Wed. May 26

Poster1Pab(Remo)

Presentation Time

<a = 9:30~10:25>

<b = 10:25~11:20>

### A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 1Pa001    Synthesis of threonine-based zwitterionic copolymers and polyplex formation  
Yurika TANI,Yonenuma Ryo,Hideharu MORI
- 1Pb002    Synthesis and luminescence behavior of sulfide/sulfonium-containing aggregation-induced emission block copolymers  
Shotaro NOBE,Masaki FURUKAWA,Hideharu MORI
- 1Pa003    Synthesis of diphenylalanine-based zwitterionic block copolymers by RAFT polymerization and formation of tubular and fractal structures by self-assembly  
Ryo YONENUMA,Hideharu MORI
- 1Pb004    Synthesis and higher-order structure control of platinum-containing optically active polymers utilizing phosphine ligands  
Takashi Horiuchi,Soya Makino,Natsuhiko Sano,Hiromitsu Sogawa,Fumio Sanda
- 1Pa005    Synthesis of metal-containing conjugated polymers with various conjugation lengths: Structure control utilizing optically active diphosphine ligands  
Ryo Aoki,Souya Makino,Natsuhiko Sano,Hiromitsu Sogawa,Fumio Sanda
- 1Pb006    Synthesis of bipyridine-containing conjugated polymers bearing optically active amide groups, and control of the higher order structures utilizing metal-coordination  
Taichi Sotani,Mai Ooba,Hiromitsu Sogawa,Fumio Sanda
- 1Pa007    Synthesis and metal coordination of polyesters bearing bipyridine ligands  
Yousuke Fujiwara,Taichi Sotani,Hiromitsu Sogawa,Fumio Sanda
- 1Pb008    Synthesis of Mechanically-linked Cyclic Polymers using Exchange Reactions of Bis(hindered amino)disulfide linkages  
Rikito Takashima,Daisuke Aoki,Hideyuki Otsuka

- 1Pa009 Synthesis and Evaluation of Solid-State Near-Infrared Emissive Conjugated Polymers based on Azobenzene-Boron Complexes  
Masashi Nakamura, Masayuki Gon, Kazuo Tanaka
- 1Pb010 Synthesis of Near-Infrared Emissive Boron Complexes and their Molecular Design Focusing on the Frontier Molecular Orbitals of Nitrogen-Containing Aromatic Heterocycles  
Hiromasa Takahashi, Shunichiro Ito, Kazuo Tanaka
- 1Pa011 Construction and Luminescent Properties of  $\pi$ -Conjugated Systems Using Bismuth Complexes with ONO Ligands  
Kazuya Tanimura, Masayuki Gon, Kazuo Tanaka
- 1Pb012 Development of Solid-State Luminescent Conjugated Polymers Based on Modulation of Primary Structures of Boron Diiminate Complexes  
Shunichiro ITO, Miyako HASHIZUME, Kazuo TANAKA, Yoshiki CHUJO
- 1Pa013 Inclusion complex formation of helical syndiotactic PMMA with polycyclic aromatic hydrocarbons in toluene  
Tomohiro Ueno, Kouyuu Fumoto, Takehiro Kawauchi
- 1Pb014 Synthesis and Photoisomerization Behavior of Chiral Platinum Complexes Bearing Azobenzene Moieties  
Kohei Iwata, Shinichi Iba, Hiromitsu Sogawa, Fumio Sanda
- 1Pa015 Amino-acid-derived chiral 1,3,5-tri(benzimidazolyl)benzene derivatives: Synthesis and self-assembling behavior  
Takato Mizukoshi, Sota Kurokawa, Hiromitsu Sogawa, Humio Sanda
- 1Pb016 Synthesis and Physical Properties of Aryl-*o*-Carborane Derivatives with Intramolecular Interaction Sites  
Kazuhiro Yuhara, Junki Ochi, Kazuo Tanaka
- 1Pa017 Fabrication of higher-order gold nanostructure using dithiol-functionalized MOF  
Ikki Matsuda, Takashi Kitao, Takashi Uemura
- 1Pb018 Synthesis of 18/24-membered Binary Crownether Compound and Its Self-aggregation Behavior  
Kohei KITAMOTO, Kenjiro ONIMURA, Kazuhiro YAMABUKI
- 1Pa019 Synthesis of supramolecular sulfur polymers via hydrogen bonding of 2-ureido-4(1H)-pyrimidinones  
Yuki Yamagishi, Hiroyasu Yamaguchi, Yuichiro Kobayashi
- 1Pb020 Synthesis and characterization of anthracene derivatives with self-assembling capability  
Tetsuhiro Ohta, Syumpei Yonezawa, Tuyoshi Kawai, Takuya Nakashima

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 1Pa021 Relationship between  $\alpha 1$ - $\alpha 2$  Phase Transition and Reorganization of Isotactic Polypropylene Crystals : Influence of Initial Higher-Order Structure on the Phase Transition  
Misako Inagaki, Takahiro Miyoshi, Koji Nozaki
- 1Pb022 Higher-order Structure of Linear Low-molecular-weight Molecule/Bottlebrush Polymer Blends: *N*-alkane/Poly( $\alpha$ -olefin) Blends  
Seiya Honjyoh, Koji Nozaki, Yousuke Ookame, Tatsuya Kokumai
- 1Pa023 A study of the thermal behavior of styrene acrylonitrile copolymer by low frequency Raman spectroscopy.  
Hiromasa Yamamoto, Harumi Sato
- 1Pb024 Intermolecular hydrogen bondings of poly(butylene succinate) studied by infrared spectroscopy and quantum chemical calculations  
Kohei Ito, Harumi Sato
- 1Pa025 Additive effects of functional hydrocarbons on dynamic and static mechanical properties of high-density polyethylene  
Kisaki Matsudaira, Asae Ito, Koh-hei Nitta
- 1Pb026 An in-situ Raman spectroscopic study on morphology in mesomorphic isotactic polypropylene during heating and cooling processes  
Ryota Midorikawa, Misato Nabata, Yusuke Hiejima, Koh-hei Nitta

- 1Pa027 Theory and simulation on structural change of a polymer induced by beta decays of substituted tritium  
Susumu Fujiwara, Ryuta Kawanami, HAOLUN LI, Hiroaki Nakamura, Kazumi Omata
- 1Pb028 Spherulite growth of polymers from the melt under electric field  
Masahiro Oomori, Masato Hashimoto, Tomoko Mizuguchi, Susumu Fujiwara
- 1Pa029 Molecular Dynamics Simulation of Clustered DNA Damage Composed of Apurinic/Apyrimidinic Sites  
Kazushi Terakawa, Ryuta Kawanami, Haolun Li, Susumu Fujiwara, Tomoko Mizuguchi, Yoshiteru Yonetani, Hiroaki Nakamura
- 1Pb030 Crystal morphology of poly( $\gamma$ -benzyl-L-glutamate)-poly(ethylene oxide)-poly( $\gamma$ -benzyl-L-glutamate) triblock copolymer  
Miyuki Tominaga, Yukiteru Katsumoto, Kensuke Osada, Yusuke Sanada
- 1Pa031 Rheological properties of cellulose ester with biomass-based plasticizers  
Takeyoshi Kimura, Masayuki Yamaguchi
- 1Pb032 Modification of poly(vinyl alcohol) fibers incorporated with metal salt  
RIZA ASMAA BINTI SAARI, MUHAMMAD SHAHRULNIZAM BIN NASRI, MASAYUKI YAMAGUCHI, KAZUAKI MATSUMURA
- 1Pa033 Dynamics of Polymeric Microparticles in Surfactant Aqueous Solution Probed by Electrophoretic Dynamic Ultrasound Scattering Techniques  
Mao Yamada, Hideyuki Nakanishi, Tomohisa Norisuye
- 1Pb034 Structural Properties of Water Molecules around the PEG and alpha-Cyclodextrin onto Gold Surface by MD Simulation  
Yoshiki Ishii, Nhu Minh Tue Le, Van Sang Le, Hitoshi Washizu

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 1Pb036 Retention Behavior of Polymers on MOF Column Chromatography  
Kaoru Kioka, Nobuhiko Hosono, Takashi Uemura
- 1Pa037 Polymer Recognition Enabled by Coordination-Driven Insertion into  
Mizuki Asami, Biplab Manna, Nobuhiko Hosono, Takashi Uemura
- 1Pb038 Capturing of antibody by using nanofiber with ligand-immobilized gel layer on its surface  
Chihiro Naganuma, Kosuke Moriyama, Shin-ichiro Suye, Satoshi Fujita
- 1Pa039 Development of alginate-supported imidazolidinone organocatalysts  
Manaho Murakishi, Hiromitsu Sogawa, Fumio Sanda
- 1Pb040 Synthesis of Molecularly Imprinted Poly(dimethylaminoethyl methacrylate) for Atropine Detection and Its Application to an Organic Thin Film Transistor-based Sensor Device  
Qi Zhou, Tsuyoshi Minami
- 1Pa041 Fluorescence-Based Detection of Polymers through Peptide-Polymer Interactions  
Takuya Nonaka, Seigo Suzuki, Toshiki Sawada, Takeshi Serizawa
- 1Pb042 Development of novel polybenzoxazole membrane for gas separation  
Rena Kitagawa, Tomoyuki Suzuki
- 1Pa043 Permeation selectivity for composite membranes composed of poly(p-xylylene) films and MOF  
Satsuki Yoshida, Yu Kitazawa, Mutsumi Kimura
- 1Pb044 Improvement of Water Permeability for Poly(p-xylylene) thin films through structural tuning of amide side chains  
Mizuki Hayashi, Yu Kitazawa, Mutsumi Kimura
- 1Pa045 Preparation of asymmetric membranes containing surface-modified silica nanoparticles and the gas permeation properties  
Shiori Higashi, Masafumi Yamato, Hiroyoshi Kawakami
- 1Pb046 Gas transport properties of novel thermally rearranged polymer - silica hybrid membranes  
Ayumi Asano, Tomoyuki Suzuki

### D. BIOPOLYMERS AND BIORELATED POLYMERS

- 1Pa051 Development of tetraPEG-polymeric micelle hybrid gels for the use as tissue-adhesive materials  
Masato Ogawa, Yoshihiko Murakami
- 1Pb052 Development of tissue-adhesive polysaccharide sheets  
Aya Isoi, Takumi Sato, Yoshihiko Murakami
- 1Pa053 Structure-activity relationship of natural antimicrobial peptide mimicking calixarene derivatives  
Mizuki KAJI, Hideto KIBATA, Takuto NAKANO, Gwenael RAPENNE, Kazuma YASUHARA
- 1Pb054 Shape Control of Self-Assembly by Amphiphilic Polypeptides Having Various Amino Acids on Terminal of Hydrophobic Helix  
Mohammed Abosheasha, Toshiro Aigaki, Yoshihiro Ito, Motoki Ueda
- 1Pa055 Fabrication and functionalization of layered polymeric materials by assembling cellulose nanofibers  
Eriko Baba, Yuuka Fukui, Keiji Fujimoto
- 1Pb056 Quantification Analysis of Hydration Water of Carboxybetaine-type Polyzwitterion by Differential Scanning Calorimetry  
Shohei Shiimoto, Yuki Kuhara, Kaito Inoue, Hiroki Uehara, Masaru Tanaka, Motoyasu Kobayashi
- 1Pa057 Characterization of Hydration Water Bound to Poly(3-sulfopropyl methacrylate potassium salt) by Differential Scanning Calorimetry  
Kaito Inoue, Shouhei Shiimoto, Masaru Tanaka, Motoyasu Kobayashi
- 1Pa061 Design of pH-Responsive Polypeptide Nanoparticles with Molecular Binding Sites  
Tomoya Iwagaki, Masaaki Kanazawa, Akifumi Kawamura, Takashi Miyata
- 1Pb062 Design of Stimuli-responsive Polymers with Protein Recognition Sites and Their Recognition Behavior for Denatured Protein  
Kanoko Murayama, Akifumi Kawamura, Takashi Miyata
- 1Pa063 Control of Cell Migration by Using Nanofibers Geometry Towards Inhibition of Metastasis  
WAN YING HUANG, Shin-ichiro Suze, Satoshi Fujita
- 1Pb064 Synthesis of amino acid-based zwitterionic polymers and their recognition capability to amino acid transporters  
Shin Takano, Shota Fujii, Sakurai Kazuo
- 1Pa065 Design and function of immunoliposomes with transmembrane domain-fused single chain checkpoint antibody for cancer immunoregulation  
Keigo Nakamura, Risako Miura, Mitsuru Ando, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 1Pb066 Evaluation of Chaperone Activity of Modified UCST-Type Thermosensitive Ureido Polymers  
Yamato Tanaka, Chun Hao Niu, Naohiko Shimada, Atsushi Maruyama
- 1Pa067 Cicada wing-inspired antimicrobial poly(vinyl alcohol) materials  
Kazuma Fujimoto, Yohei Kotsuchibashi
- 1Pb068 Application of biodegradable injectable polymer systems to immune cell therapy  
Kenta Horii, Yuta Yoshizaki, Nobuo Murase, Yuichi Ohya
- 1Pa069 Fabrication of scaffold materials with microstructures composed of polymers from waste and PVA cryogel  
Yuta Hojo, Gouki Yoshida, Tetsu Mitsumata, Norio Tsubokawa, Qiliang Zhou, Yasuo Saijo, Takeshi Yamauchi
- 1Pb070 Development of thermosensitive oxygen releasable scaffolds by modulating oxidation state of myoglobin  
Daisuke Tomioka, Hirotaka Nakatsuji, Shigeru Miyagawa, Yoshiki Sawa, Michiya Matsusaki
- 1Pa071 Controlling Viscoelasticity of Support Polymer and Structural Optimization of 3D-Bio Printed Gel  
Nozomi Kasahara, Dong-Hee Kang, Louis Fiona, Michiya Matsusaki
- 1Pb072 Fabrication of high-concentrated collagen gels by nanosizing collagen fibers and their applications to cancer mechanobiology  
Tomoyuki Suezawa, Naoko Sasaki, Ryohei Katayama, Michiya Matsusaki
- 1Pa073 Design of Liquid Crystalline Polymer Films Exhibiting Phase Transition at Body Temperature and Cell Adhesion Behavior on Their Surface  
Yosuke Konno, Akifumi Kawamura, Takashi Miyata

- 1Pb074 Cytosolic delivery of the medium molecular-weight polypeptides by the cell-penetration PG-surfactants.  
Toyohiro Imai, Yasumichi Inoue, Naoki Umezawa, Toshihisa Mizuno
- 1Pa075 In situ gelation system for gelatin hydrogel with the controlled gelation kinetics and degradability based on tuning amine group number  
Shigehito Osawa, Takumi Shishikura, Hidenori Otsuka
- 1Pb076 3D analysis of cell aggregate by cell aggregation inducing peptide  
Ikumi Amimoto, Yoshiaki Hirano
- 1Pa077 Evaluation of barnacle adhesive beta-strand peptide scaffold for 3D culture  
Ami Takagi, Daisuke Fujii, Kei Kamino, Yoshiaki Hirano
- 1Pb078 Three-dimensional cell organization by controlling cell-polymer substrate interactions  
Michiharu Kawahara, Hiroki Uehara, Kei Nishida, Takahisa Anada, Masaru Tanaka
- 1Pa079 Application and Evaluation of PDMS Surface Stabilized with Extracellular Matrix for Cyclically Stretching Cell Culture  
Kazuaki Mori, Kosuke Kataoka, Yoshikatsu Akiyama, Toru Asahi

Poster1Pcd(Remo)

Presentation Time

<c = 12:30~13:25>

<d = 13:25~14:20>

#### A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 1Pc001 Synthesis and Photoluminescence Properties of Conjugated Polymers Based on Hypervalent Tin-Fused Azobenzene Complexes  
Yusuke Morisaki, Kazuya Tanimura, Masayuki Gon, Kazuo Tanaka
- 1Pd002 Synthesis and Optical Evaluation of Luminescent Boron-Fused Azomethine Conjugated Polymers  
Misato Kanjo, Shunsuke Ohtani, Masayuki Gon, Kazuo Tanaka
- 1Pc003 Synthesis of Solid-State Emissive Boron-Fused Azomethine Polymers and Alkyl Chain Length Effect  
Shunsuke Ohtani, Natsumi Yamada, Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 1Pd004 Preparation of Near-Infrared Absorptive and Emissive  $\pi$ -Conjugated Polymers Based on Hypervalent Complexes  
Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 1Pc005 Control of Solvent-Dependent Emission of Conjugated Homopolymers Composed of Boron Dialdiminate Complexes with Side-Chain Engineering  
Yuki SAKAI, Shunichiro ITO, Kazuo TANAKA
- 1Pd006 Synthesis and properties of structurally symmetrical N,N'-dialkylated or N,N'-diacylated diazacyclooctane-containing ladder polymers  
Keiki Inoue, Fumitaka Ishiwari, Takanori Fukushima
- 1Pc007 Synthesis and properties of triptycene-appended block copolymers with two-dimensional self-assembling ability  
Ayami Itagaki, Fumitaka Ishiwari, Tomoya Fukui, Takanori Fukushima
- 1Pd008 Self-assembly and gelation properties of a telechelic PEG with tripodal triptycene termini  
Yugen Chen, Fumitaka Ishiwari, Tomoya Fukui, Takashi Kajitani, Takanori Fukushima
- 1Pc009 Amphiphilic Random Block Copolymer Micelles: Dynamic Self-Assembly and Thermoresponsive Properties  
Masayuki Hibino, Makoto Ouchi, Takaya Terashima
- 1Pd010 Precise Introduction of Oligopeptide to Block Copolymer Junction: Toward Peptide-Cooperative Phase Separation  
Tomoka Yoshimura, Tomofumi Morishita, Makoto Ouchi
- 1Pc011 Amphiphilic Random Copolymer Micelles: Reversible Control of Self-Sorting and Co-Self-Assembly  
Rikuto Kanno, Takaya Ikami, Makoto Ouchi, Takaya Terashima

- 1Pd012 Syntheses of Various Topological Polymers via Cyclopolymerization of Divinyl Monomers and the Specific Properties  
Hiroyuki Kubota, Makoto Ouchi
- 1Pc013 Synthesis of an imidazolium salt-containing poly(vinyl ether)s with carboxylate anion and their characteristic thermoresponsive behavior in water  
Naoki Matsuo, Tomo Yoshiki, Arihiro Kanazawa, Sadahito Aoshima
- 1Pd014 Precise Synthesis of Thermo-Responsive Block and Star-Shaped Polymers by Living Cationic Polymerization of Octadecyl Vinyl Ether and Their Gelation Behavior in Organic Solvents  
Mikiya Umemoto, Arihiro Kanazawa, Sadahito Aoshima
- 1Pc015 Synthesis and Cross-linking Reaction of Anthracene-derived Benzoxazine  
Masahide Goto, Tatsuo Yajima, Masaki Minami, Hiromitsu Sogawa, Fumio Sanda
- 1Pd016 Electric field induced reduction of electrophoretic non-ionic polymers  
Kota Oto, Akinori Takasu
- 1Pc017 Visualization of Polymeric Mechanoradicals in Bulk State with Fluorescent Molecular Probes  
Takumi Yamamoto, Sota Kato, Daisuke Aoki, Hideyuki Otsuka
- 1Pd018 Development of copper( I ) complex  $\pi$ -conjugated polymer hybrid materials targeting ethylene detection  
kazuki konno, tomoya higashihara
- 1Pc019 Synthesis and Reactions of Bottlebrush Polymers with Mechanochromic Properties  
Riho Shibata, Takuma Watabe, Daisuke Aoki, Hideyuki Otsuka
- 1Pd020 Synthesis of Polyurethane Having Secondary Ammonium Salts and Adsorption Characteristic of Hydrogen-bonding Compounds Utilizing Crownether Inclusion Complex  
Kaho Murakami, Kenjiro Onimura, Kazuhiro Yamabuki
- 1Pc021 Chemical Modification of Polybenzoxazine by Boronic Acids  
Yuki Tsukamoto, Jumpei Kida, Daisuke Aoki, Hideyuki Otsuka
- 1Pd022 Main chain scission of poly(conjugated ester)s by conjugated substitution reaction: Solvent-free reaction by mechanical comminution  
Rikuto Kimura, Yasuhiro Kohsaka
- 1Pc023 Synthesis of Figure-eight-shaped Polymers with Dynamic Covalent Bonds and Their Conversion to Cross-linked Polymers via Exchange Reaction  
Hirogi Yokochi, Daisuke Aoki, Hideyuki Otsuka
- 1Pd024 Transformation of cross-conjugated polymers having dendralene units into conjugated polymers via thiol-ene reactions  
Masayuki Munemoto, Yuichiro Tokoro, Shin-ichi Yamamoto, Toshio Koizumi
- 1Pc025 Adhesion of cross-linked polymers based on bond exchange reactions of hindered amino disulfides  
Sae Sakamoto, shimon Kataoka, Tsuruoka Ayuko, Aoki Daisuke, Otsuka Hideyuki
- 1Pd026 Synthesis and Evaluation of Mechanochromic Polymers Having Ionic Functionalities in the Side Chains  
Ryosuke Kasori, Takuma Watabe, Daisuke Aoki, Hideyuki Otsuka

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 1Pc027 Melt-drawing behavior of ultra-high molecular weight polyethylene having bimodal molecular weight distribution  
Ayaka Takazawa, Masaki Kakiage, Hiroki Uehara, Takeshi Yamanobe, Yui Shimizu, Takuya Ohnishi, Yasutake Wakabayashi, Kei Inatomi, Shigehiko Abe
- 1Pd028 Structural study on hydrocarbons covering insect bodies  
Fumitoshi Kaneko, Chihiro Katagiri, Ken Nagashima, Gen Sazaki
- 1Pc029 Molecular dynamics simulation of high pressure effects in polyethylene crystallization  
Takashi Yamamoto
- 1Pd030 Effect of amorphous grafted chains on crystallization of crystalline/amorphous graft copolymers  
Kyosuke Sugiura, Toshiyuki Kataoka, Manabu Inutsuka, Takayuki Ikehara

- 1Pc031 Molecular weight dependence on the behavior of atactic polystyrene near the glass transition range by using temperature-modulated DSC (TMDSC).  
Ritsuki Hayashi, Jun Fujimura, Itaru Tukushi
- 1Pd032 Molecular weight and crystallization behavior of poly (& epsilon; -caprolactone) grafted on a silicon substrate  
Yuudai Tega, Manabu Inutuka, Takayuki Ikehara
- 1Pc033 Higher-order structure - property relationship of aliphatic polyester films based on synchrotron X-ray measurement data  
Hiroteru Kikutake, Tomoko Kajiwaru, Kazutaka Kamitani, Ken Kojio, Kei Terayama, Yoshifumi Amamoto, Atsushi Takahara
- 1Pd034 Helix-sense Inversion and Surface Electrical Characteristics of Surface-grafted Polyaspartate Thin Films  
Ryota Murakami, Xiaobin Liang, Ken Nakajima, Hidemine Furuya
- 1Pc035 Study on the phase structure of PP/EPDM Thermoplastic Vulcanizates Using Nano-Palpation Atomic Force Microscopy  
Kaede Mogi, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 1Pd036 Electrostatic interaction of zwitterionic polymer  
Kengo Takagi, Shinichi Yusa
- 1Pc037 Thermal Residual Stress and Adhesion between Isotactic Polypropylene and Epoxy Resin  
Ryosuke Hosomi, Takuya Matsumoto, Takashi Nishino
- 1Pd038 Study on heat resistance properties of carbon-nanotube-filled fluororubber by nano-palpation atomic force microscope 2  
Toru Kobayashi, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 1Pc039 Interdiffusion and glass transition in thin polymer films  
Koji Fukao, BOWEN DENG, Yuki Ito, Jun Yosioka
- 1Pd040 Thermal Stability and Component Interfacial Segregation for a Polystyrene Thin Film by Blending a Diblock Copolymer  
Naoki Sugiura, Yoshihisa Fujii, L. Norifumi Yamada, Naoya Torikai
- 1Pc041 Reversible assembly of temperature responsive gold nanorods immobilized in a DNA brush substrate  
Jingyan Yang, Hideyuki Mitomo, Yu Sekizawa, Yusuke Yonamine, Kuniharu Ijiri
- 1Pd042 Bubbles stabilized with plate-shaped polymer particles  
Yuri Sakurai, Tomoyasu Hirai, Yoshinobu Nakamura, Syuji Fujii
- 1Pc043 Liquid and gas phase sorption behavior of hexane into weakly crosslinked PDMS rubber  
Mizuki Inoue, Ismail Edhuan, Hirofumi Kanoh, Izumi Ichinose
- 1Pd044 Concentration Gradient and Gelation Behavior of Aqueous Methylcellulose Solution at Substrate Interface  
Kenji Yamaoka, Norifumi Yamada, Yoshihisa Fujii, Naoya Torikai

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 1Pc045 Development of a New Synthetic Method for Creating Cylindrical Polymers from Polymerizable Columnar Liquid Crystals  
Hironobu Iwasawa, Tsubasa Kobayashi, Takahiro Ichikawa
- 1Pd046 Light scattering and adhesive properties of pseudo-polyrotaxane nanosheet  
Kimika Endo, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 1Pc047 Introduction of crosslinked structure in heat-resistant porous polymer and thermal properties  
Yayoi Yoshioka
- 1Pd048 Efficient Synthesis and Properties of Water-Soluble Silver Nanoparticles Coated by PEG-Modified Thiolates  
Kohei Abe, Midori Murakami, Yukatsu Shichibu, Katsuaki Konishi
- 1Pc049 Orientation of liquid crystals in MOFs with various functional groups  
Masaki Yamaguchi, Shizuka Anan, Yasushi Okumura, Hirotsugu Kikuchi

- 1Pd050 Preparation of Cellulose Nanofibers from Tunicate through Ammonium Persulfate Oxidation  
Shunsuke Murai, Huie Zhu, Masaya Mitsuishi
- 1Pc051 Lubrication Performances of Polyzwitterion Brush/ Albumin Conjugate Films  
Riku Furusawa, Yuji Higaki
- 1Pd052 Polyzwitterion Coating of PVDF Films through Thermal Annealing in Block Copolymer Aqueous Solutions  
Shogo Satoh, Yuji Higaki, Shingo Hikita
- 1Pc053 Development of highly adhesive material derived from alginic acid  
Soi Inata, Hiromitsu Sogawa, Fumio Sanda
- 1Pd054 Surface Properties and Adhesion of Polyamide 6 Irradiated by Electron Beam.  
Hiroyuki Nakamura, Takuya Matsumoto, Takashi Nishino
- 1Pc055 Density functional theory analysis of the interfacial interactions of epoxy resin with hydrated surfaces  
Shin Nakamura, Yuta Tsuji, Kazunari Yoshizawa
- 1Pd056 Patterning of Anion / Zwitterion-Containing Polymer Coatings  
Daichi Nakamura, Takeo Suga, Kenichi Oyaizu
- 1Pc057 Preparation of fluorine-functionalized plastic surfaces that are re-writable with fluorine molecules  
Takane Tsuchii, Kazuki Kaneko, Takashi Nishino, Tatsuo Maruyama

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 1Pc061 Construction of artificial virus capsid encapsulating enzymes  
Aoi Nakatsu, Hiroshi Inaba, Kazunori Matsuura
- 1Pd062 Fluorescence correlation spectroscopic analysis of formation of fluorescence-labeled artificial viral capsid synthesized by Click chemistry  
Satomi Yano, Risako Kobayashi, Hiroshi Inaba, Kazunori Matsuura
- 1Pc063 Synthesis and conformational study of a chain-branched peptide backbone  
Ryohei Kakami, Yoshihito Inai
- 1Pd064 Synthesis of a peptide backbone bearing aromatic side chains and investigation of its chiral molecular structure  
Kosuke Iijima, Yoshihito Inai
- 1Pc065 Preventing the function of melittin by indole derivatives  
Sayuki Kanemitsu, Yudai Tominaga, Kanon Nishimura, Haruka Sakurai, Atsuo Tamura, Tatsuo Maruyama
- 1Pd066 Self-assembly composed of a short L-peptide and a short D-peptide  
Shiho Seguchi, Takane Tsutii, Sayuki Kanemitsu, Ken-ichi Motira, Tatsuo Maruyama
- 1Pc067 Structural and interaction analyses of the proteins contained in natural rubber materials  
Takato Matsui, Choon Pin Foong, Katsuhiko Tsunoda, Yasuo Fukushima, Hirotaka Uji, Keiji Numata
- 1Pd068 Molecular distribution of the PG-surfactant-modified synthetic polymers at the inside or outside of mammalian cells.  
Tatsuki Nakakubo, Toshihisa Mizuno
- 1Pc069 Evaluation of enzymatic activity of the enzyme-encapsulated core-shell fibermats of nylon-6/poly (AA/DAAM).  
Taira Ishiguro, Toshihisa Mizuno
- 1Pd070 Structure of DNA aptamer forming G-quadruplex and their interaction with target molecules in hydrated ionic liquid  
Kyoko Fujita, Hiroyuki Ohno, Takuya Honda, Kaori Tsukakoshi, Kazunori Ikebukuro
- 1Pc071 Development of drug carrier-chitosan hybrid formulation for oral drug delivery  
Michihiro Beppu, Yoshihiko Murakami
- 1Pd072 Development of drug-releasing sheets formed from multiple polysaccharides  
Shoya Homma, Yoshihiko Murakami
- 1Pc073 Functional Regulation of Drug Molecules by Co-assembly with Oligopeptides  
Kenta Morita, Witta Kartika Restu, Yuya Nishimura, Jun Ishii, Tatsuo Maruyama



- 1Pd074 Basic study for formulation based on self-assembling peptides with enzyme reactivity  
Rie Wakabayashi, Ghazian Dzaky Syahid Fathullah, Honggang Cui, Noriho Kamiya, Masahiro Goto
- 1Pc075 Preparation of core-corona type degradable nanoparticles having transformable core around body temperature  
Satoshi YAMADA, Syuuhei KOMATSU, Akihiko KIKUCHI
- 1Pd076 Preparation of biocompatible poly(2-methacryloyloxyethyl phosphorylcholine) (PMPC) nanocapsules  
Sayaka Fujii, Kazuhiko Ishihara, Shin-ichi Yusa
- 1Pc077 Salt Concentration Dependency of Hydrated Swollen Thickness of Cholinephosphate-Type Polyelectrolyte Brush  
Takumi Komiya, Motoyasu Kobayashi

Poster1Pef(Remo)  
Presentation Time  
<e = 14:30~15:25>  
<f = 15:25~16:20>

## A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 1Pe001 Development of all- $\pi$ -conjugated p-type semiconducting polymer with twisted stress relaxation unit in the main chain  
Tomoya Yahagi, Yuto Ochiai, Tomoya Higashihara
- 1Pf002 Synthesis of Nitrogen-doped GNR in Metal-Organic Framework  
Shu Hiramoto, Takashi Kitao, Takashi Uemura
- 1Pe003 Synthesis and properties of thermo-responsive amphiphilic copolymers consisted of PNIPAM and polystyrenic block bearing theophylline pendants  
Haruka Takebuchi, Katsuya Kaikake, Ren-Hua Jin
- 1Pf004 Morphology Control via RAFT Aqueous Emulsion Polymerization-Induced Self-Assembly  
Atsushi Takashima, Daigo Tsubota, Shinji Sugihara, Yasushi Maeda
- 1Pe005 Design of Unique Supramolecular Polymer Consisting of Continuous Structure of Double-threaded [2] Rotaxane Dimer  
Risako Kamoto
- 1Pf006 Synthesis and Microphase Separation Behavior of ABA-type Triblock Copolymer Consisting of Cellooligosaccharide Derivative  
Satoshi Katsuhara, Yasuko Takagi, Naoki Sunagawa, Kiyohiko Igarashi, Motomitsu Kitaoka, Takuya Yamamoto, Takuya Isono, Kenji Tajima, Toshifumi Satoh
- 1Pe007 Preparation and Characterization of Multicyclic Polymer-Blended Silicone Rubbers  
Minami Ebe, Kaiyu Fujiwara, J. Brian Ree, Takuya Isono, Kenji Tajima, Hironori Marubayashi, Hiroshi Jinnai, Toshifumi Satoh
- 1Pf008 Fabrication of Microphase-separated Structures with 5 nm domain-spacing using Sugar-inorganic Hybrid Block Copolymers  
Taiki Nishimura, Satoshi Katsuhara, Chaehun Lee, Brian Ree, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Sato
- 1Pe009 Synthesis and optical properties of 1:1 cyclic compounds containing dialkoxynaphthalene and naphthalenediimide by means of Suzuki-Miyaura polycondensation  
Ryota SHIMADA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 1Pf010 Synthesis and Properties of Poly(ethylene oxide) Network with Movable Crosslinking  
Sotaro Mizuno, Seiya Tsuda, Takahiro Uno, Masataka Kubo, Takahito Itoh
- 1Pe011 Synthesis of poly(quinolylene-2,3-methylene) bearing various types of amino acid derivatives as the side chain: Stability of  $\pi$ Stacked Helical Structure  
Naoya Kanbayashi, Yuki Kataoka, Taka-aki Okamura, Kiyotaka Onitsuka
- 1Pf012 Synthesis and properties of helical polyphenylacetylene having alkylimidazolium groups at the 3,5-positions and dodecyloxy groups at the 4-positions.  
Ryoma Ozawa, Takashi Kaneko, Toshiki Aoki, Masahiro Teraguchi
- 1Pe013 Chiral Amplification Behavior of Poly(diphenylacetylene)s Bearing Carboxy groups and Their Application to Asymmetric Catalysts  
Takuro YOSHIMURA, Daisuke HIROSE, Shota SONA, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA

- 1Pf014 Synthesis and Higher-order Structural Characterization of Poly(4-vinyl pyridine)-b-Poly(2,2,2-trifluoroethyl methacrylate) via RAFT Polymerization  
Hitomi Kawahara, Yuta Nabae, Teruaki Hayakawa
- 1Pe015 Synthesis of polymers with hydrophilic / hydrophobic groups and polymer reaction toward GNR synthesis  
Ryotaro Tsunekawa, Koji Takagi, Kenji Tsukamoto
- 1Pe017 Relationship between Surface Functionality and Mechanical Sensitivity in Mechano-responsive Dendrimers  
Takuma Watabe, Daisuke Aoki, Hideyuki Otsuka
- 1Pf018 Synthesis of Sugar-based Polycarbonates and Development of Their Recycling System  
Takumi Abe, Rikito Takashima, Daisuke Aoki, Hideyuki Otsuka
- 1Pe019 Development of a method for removing residual mononuclear Al compounds in MAO using a crosslinked polymer containing phenolic hydroxyl groups  
Mari Nishizono, Ryo Tanaka, Yuusyo Nakayama, Takeshi Shiono
- 1Pf020 Side-functionalization of polyacrylate by means of ester-ester exchange reaction  
Takayoshi KATOH, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 1Pe021 Effect of Base on Electrochemical Epoxidation of Natural Rubber in Water Medium  
Yoshimasa Yamamoto, Seiichi Kawahara
- 1Pf022 Chiroptical properties of chiral compounds formed by photoinitiated reactions of side-chain polymers having aryloxynaphthacenequinones with low-molecular-weight chiral amines  
Yukiko Kawasoe, Ikumi Shimada, Nozomi Sugiura, Aya Miyashita, Takunori Harada, Masaya Moriyama
- 1Pe023 Precision Degradable Polymer Using Mechanistic Transformation of Bulky Monomer  
Nishiki Tomizawa, Tomohiro Kubo, Raita Goseki, Takashi Ishizone, Kotaro Satoh
- 1Pf024 Toward degradable vinyl polymers using trigger-responsive comonomers  
Sota Yamamoto, Tomohiro Kubo, Kotaro Satoh
- 1Pe025 Tertiary amino group modification followed by transformation to zwitterionic group of poly(vinyl alcohol) side chain and its evaluation  
Naoto Tanabe, Miyuki Oshimura, Tomohiro Hirano, Koichi Ute
- 1Pf026 Investigation toward induction of functions by dynamic exchange of polypeptide side chains in the presence of a target molecule  
Tatsumi Takano, Toshiyuki Oyama, Yuichiro Tokoro
- 1Pe027 Spin-Trapping Analysis for Thermal Degradation Mechanism of Poval  
Tomoki Hayasi, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi
- 1Pf028 Side chain modification and evaluation of poly(vinyl alcohol) by chemoselective transesterification using zinc ate complex  
Miyuki Oshimura, Ryo Kagitani, Tomohiro Hirano, Koichi Ute
- 1Pe029 Spin-Trapping Analysis of Thermal Degradation of Poly(propylene) Fiber  
Anh Thu Nguyen, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi, Satoko Okubayashi

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 1Pe031 Deformation Behavior on Thermoplastic Elastomer Using Nano-Palpation Atomic Force Microscope  
Airi Sato, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 1Pf032 Study on Improvement of Quantitative Polymer Viscoelasticity Measurement by Nanorheological Atomic Force Microscopy  
Yasuharu Kashimori, Makiko Ito, Xiaobin Liang, Ken Nakajima
- 1Pe033 Interdiffusion of miscible polymer blend investigated by atomic force microscopy 2  
Ren Tajiri, Ken Nakajima, Xiaobin Liang, Makiko Ito
- 1Pf034 Molecular interaction between fiber/polymers and low-molecular weight compounds 41. Adsorption characteristics of various fiber  
Aya Inada, Hitoshi Kanazawa
- 1Pe035 Effect of seawater immersion treatment on the hierarchical structure of polycaprolactone thin film  
Mamiko Takigawa, Kenshirou Kaji, Hiroyasu Masunaga, Taiki Hoshino, Shinichi Sakurai, Sono Sasaki

- 1Pf036 Evaluation of Water Retention Ability of Farm Products by Various Faming Procedures  
Honoka Sugiyama, Junki Miyamoto, Daisuke Ishii
- 1Pe037 Evaluation of Water Diffusion by Microscopic Contact Angle on Farm Product Surfaces  
Junki Miyamoto, Honoka Sugiyama, Daisuke Ishii
- 1Pf038 Material Composition Analysis of insect cuticle with Confocal Laser Scanning Microscope  
Masanori Yoshida, Rikima Kuwada, Shuto Itou, Daisuke Ishii
- 1Pe039 Shape of Ligia Exotica Imitation Protrusion Structure Coated by Metal Oxide and Its Wetting Behavior  
Sumire Isachi, Daisuke Ishii
- 1Pf040 Development of novel nanosuits made from plant-derived oils and the application to anti-adhesion materials  
Soma Kitamura, Daisuke Ishii

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 1Pe041 Synthesis and micellization of amphiphilic block copolymer bearing oxygen gas barrier block  
Tatsuki Ushimaru, Yosuke Niko, Shigeru Watanabe, Shingo Hadano
- 1Pf042 Peculiar growth of self-assembled nanosheet consisting of polyethylene glycol and  $\alpha$ -cyclodextrin  
Haruki Kazumi, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 1Pe043 Synthesis and Characterization of Radical-type Mechanophore with Two Cyclodextrins  
Yuki Sugita, Daisuke Aoki, Hideyuki Otsuka
- 1Pf044 Thin films of thiolated-Au<sub>25</sub> cluster through covalent networking  
Yuki Saito, Yukatsu Shichibu, Katsuaki Konishi
- 1Pe045 Doping effect on near infrared photoluminescence properties of locally functionalized single-walled carbon nanotubes  
Shunji Yorozyua, Keita Hayashi, Tsuyohiko Fujigaya, Tomohiro Shiraki
- 1Pf046 Synthesis of Cyclodextrin Nanosheet  
Yumi Shikano, Naoki Ando, Shuntaro Uenuma, Yokoyama Hideaki, Kohzo Ito
- 1Pe047 Adhesion and degradation properties of pseudo-polyrotaxane nanosheets  
Junshin Takeda, Kimika Endou, Shuntaro Uenuma, Hideaki Yokoyama, Kohzo Ito
- 1Pf048 Preparation of Oblate Spheroidal Polyimide Particles  
Akiko Nakahashi, Hideki Tachi
- 1Pe051 Fabrication and surface wettability measurements of glass microstructure  
Yoshiyuki Doi, Yuji Hirai, Masatsugu Shimomura
- 1Pf052 Regulation of protein adsorption owing to the conformational changes of surface-immobilized peptides  
Yuya Kobayashi, Masahiro Higuchi
- 1Pe053 Analysis of change in liquid behavior by cuticle-mimicking structure  
Takahiro Kawaguchi, Daisuke Ishii
- 1Pf054 The fabrication of channel having micro pillars of difference heights and assessment of liquid behavior  
Takahiro Doi, Daisuke Ishii
- 1Pe055 Synthesis of end-functional RCMP polymer using novel radical reaction and its application for pigment dispersion of inkjet ink  
Kanta Shimizu, Eri Oishi, Shigeki Takahashi, Tatsuhiko Takahashi, Masumi Takamura
- 1Pf056 Tribological Properties of Epoxy Composite Materials Containing Three-Dimensional Cellulose Nanofiber Networks and Various Layered Fillers  
Hiroki Uramatsu, Kenji Nagata, Hiroshi Eguchi
- 1Pe057 Direct observation of unidirectional processive motion of the complex molecule of an anionic polymer chain and a cationic polymer chain  
Yuga Onuki, Ken-ichi Shinohara

### D. BIOPOLYMERS AND BIORELATED POLYMERS

- 1Pe061 Development of the PG-surfactants, functioning as a cell-type-selective membrane permeation carrier.  
Momoka Yamada,Toshihisa Mizuno
- 1Pf062 Study on the method to induce cell-cell adhesion using the antibody-split intein conjugate.  
Kengo Asai,Shinya Tsukiji,Mitsuo Umetsu,Tsuyoshi Takahashi,Toshihisa Mizuno
- 1Pe063 Construction of artificial viral capsid modified with ribonuclease S by reconstruction  
YingBing Liang,Junpei Ota,Hiroshi Inaba,Kazunori Matuura
- 1Pf064 Construction of artificial viral capsid modified with DNA aptamer  
Kosuke Uchiyama,Hiroshi Inaba,Kazunori Matsuura
- 1Pe065 Selective cancer cells killing by tyrosine kinase-responsive peptide lipids  
Natsumi Shimizu,Sayuki Kanemitsu,Kanon Nishimura,Tomoko Yashiro,Tatsuo Maruyama
- 1Pf066 Investigation of encapsulation of peptide-plasmid DNA complex in PICsome targeting to plant mitochondria  
Naoya Abe,Seiya Fujita,Hiroataka Uji,Masashi Ohmae,Kousuke Tsuchiya,Keiji Numata
- 1Pe067 Chemical synthesis of multiblock polypeptides with sarcosine toward spider dragline silk proteins.  
Shota Sakamoto,Yuki Shimatani,Hiroataka Uji,Kousuke Tsuchiya,Keiji Numata
- 1Pf068 Role of helix modification for constructing hybrid ferritin cage  
Jiaxin Tian,Takeshi Murata,Kenji Yasuda,Basudev Maity,Satoshi Abe,Takafumi Ueno
- 1Pe069 preparation of hyaluronic acid - antigen protein conjugate to improve antigenicity of cancer cells  
Souichi Ogata,Reika Tsuji,Sinichi Mochizuki
- 1Pf070 Design of saccharide chain conjugated polylysine nanogels and their function as nucleic acid nanocarriers  
Kenta Okada,Tomoki Nishimura,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi
- 1Pe071 Development of hyaluronic acid gels for the controlled release of multiple drugs  
Shohei Komuro,Yoshihiko Murakami
- 1Pf072 Novel method for preparing porous sheets by using spontaneous emulsification  
Tuan Vu Bui,Shinnosuke Nishimura,Yoshihiko Murakami
- 1Pe073 Metal nanoparticles loaded hybrid vesicle covered by polyamine loop-clusters corona  
Ayaka Kanno,Wenli Wang,Ren-hua Jin
- 1Pf074 Analysis and Control of Lipid Membrane Vesicle-Sheet Transition by Peptide Chaperone Polymers  
Yuta Uei,Wakako Sakamoto,Tomoka Takenaka,Naohiko Shimada,Atsushi Maruyama
- 1Pe075 Constructing of peptide-pDNA complex utilizing artificial leucine zipper peptides  
Yuki Shimatani,Seiya Fujita,Hiroataka Uji,Keiji Numata
- 1Pf076 Facile and Rapid Quantification of Surface Charge Groups on Nanocelluloses Utilizing Dye Adsorption  
Jun Araki
- 1Pe077 Energy Transfer and Photocurrent Generation of Biohybrid Light-Harvesting 1-Reaction Center Core Complexes (LH1-RCs)  
Komei Kimoto,Genki Kasagi,Masaharu Kondo,Takehisa Dewa
- 1Pf078 Creation of core-crosslinked nanoparticles via nanoemulsions and control of surface polymer chain density  
Takuma Kanamaru,Shota Fujii,Kazuo Sakurai

#### **Thu. May 27**

Poster2Pab(Remo)

Presentation Time

<a = 9:30~10:25>

<b = 10:25~11:20>

#### **A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS**

- 2Pa001 RAFT Polymerization by Lewis pair catalysts  
Tomoko Koyama,Shin-ichi Matsuoka,Masato Suzuki

- 2Pb002 A chemically renewable vinyl monomer composed of both styrene and vinyl ester skeletons  
Yota Chiba, Akane Kazama, Yasuhiro Kohsaka
- 2Pa003 Design and synthesis of vinyl polymers toward main chain scission involving pendant groups  
Akane Kazama, Moe Kawauchi, Yasuhiro Kohsaka
- 2Pb004 Synthesis of Styrene-Based Sequence-Regulated Vinyl Polymers by Atom Transfer Radical Addition and Metathesis Reaction  
Kenta SOMA, Naoki FUJIWARA, Yusuke YAMADA, Masato MIYAJIMA, Mineto UCHIYAMA, Masami KAMIGAITO
- 2Pa005 Synthesis of Multiblock Copolymers by the Combination of Living Radical Polymerization and Thiol-Ene Reaction  
Genki Morikawa, Takayuki Tanimoto, Dasom YOO, Masato Miyajima, Mineto Uchiyama, Masami Kamigaito
- 2Pb006 Radical polymerization of metal salt-containing deep eutectic monomers and material characterization  
Yuta Tanaka, Ayaka Torii, Hideharu Mori
- 2Pa007 Copolymerization of (meth)acrylates with trifluoroethyl and ethylhexyl groups and the properties of the resulting polymers.  
Yuki Hirayama, Yoshimasa Matsumura, Bungo Ochiai
- 2Pb008 Terminal functionalization of polynorbornenes with platinum acetylide complexes  
Shoichiro Uchiyama, Taichi Sotani, Hiromitsu Sogawa, Fumio Sanda
- 2Pa009 Controlled Copolymerization by Metal Complexes [90] Copolymerization of CO<sub>2</sub> and Epoxide with Monocyclic Cycloalkyl Groups in Side Chains and the Thermal Properties of the Obtained Copolymers  
Masayoshi Honda, Rin Nomura, Hiroshi Sugimoto
- 2Pb010 Functionalization of polyphenylene at both ends by means of successive Kumada-Tamao catalyst-transfer condensation polymerization and Suzuki-Miyaura coupling reaction  
Lisa TAKIMOTO, Yuu TOKITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 2Pa011 Ru-complex-catalyzed dehydrogenation and dehydration polycondensations of aromatic diamines and diols  
Kohei Imoto, Rei Kotani, Aohan Wang, Isao Yamaguchi
- 2Pb012 Development of Well-Controlled Polymerization of Aliphatic Monosubstituted Acetylenes with Trienylrhodium Complexes  
Kosuke ITO, Shiori SAKAMOTO, Tsuyoshi TANIGUCHI, Tatsuya NISHIMURA, Katsuhiko MAEDA
- 2Pa013 Mechanochemical synthesis of aromatic substituted polyacetylenes  
Kouhei Takeya, Takase Mai, Yasuteru Mawatari
- 2Pb014 Synthesis of Functionalized Isotactic Polypropylene by Copolymerization of Alkenylboronic Acid Esters and Amides  
Hiroya Fujii, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 2Pb016 Relationship between volume resistivity and water absorption for poly(4,4'-Oxydiphenylene Pyromellitimide) Films  
Tsuyoshi Yamada, Takumi Noda, Kenji Takada, Tatsuo Kaneko, Mika Kawai, Tetsu Mitsumata
- 2Pa017 Tensile fracture behavior of poly(methyl methacrylate)  
Naoya Funasaki, Asae Ito, Koh-hei Nitta
- 2Pb018 Study of physical properties of polymers and liquid crystals by means of environmentally responsive fluorescent dye  
Gen-ichi Konishi
- 2Pa019 Molecular Aggregation State Analysis of Poly(methyl methacrylate) under Tensile Deformation  
Ryosuke Kawatoko, Tomoko Kajiwarra, Aya Fujimoto, Ken Kojio, Atsushi Takahara
- 2Pb020 Effect of cold-crystallization on the mechanical behavior of poly(L-lactic acid)  
Taiga Kawashima, Takahiko Kawai, Shin-ichi Kuroda

- 2Pa021 Unique association behavior of poly (2-ethyl-2-oxazoline) and poly (methacrylic acid) at various pH changes.  
Hiroto Emi, Hiroki Kanamori, Yasuhiro Matsuda
- 2Pb022 Molecular simulation of self-sorting of amphiphilic copolymers  
Nami Sato, Tsuyoshi Koga
- 2Pa023 Interaction of cationic diblock copolymer and anionic polysaccharide  
Kazushi Ogata, Mineo Hashizume, Shin-ishi Yusa
- 2Pb024 Analysis of structure of nanoemulsions by computer simulation  
Shunichi Utsumi, Tsuyoshi Koga
- 2Pa025 Solution Properties of Poly(ethylene oxide)-Poly(*N*-*t*-butylacrylamide) Alternating Multiblock Copolymers  
Mizuki Hirano, Kenji Sakanaya, Yusuke Sanada, Yukiteru Katsumoto
- 2Pb026 Development of a Noise Analysis Nanofishing using Atomic Force Microscopy  
Masato Mori, Xiaobin Liang, Ken Nakajima
- 2Pa031 Comparison of Characteristics of Single-Walled Carbon Nanotubes Obtained by Super-Growth CVD and Improved-Arc Discharge Methods Pertaining to Interfacial Film Formation and Nanohybridization with Polymer  
Ahmed ALMARASY, Takuto HAYASAKI, Yuna YAMADA, Youhei KAWABATA, Atsuhiko FUJIMORI
- 2Pb032 Proposal of Dispersibility Improvement Technology for Nanocomposite Preparation of Crystalline Fluorinated Polymer/Organo-modified Single-walled Carbon Nanotubes  
Takuto HAYASAKI, Ahmed A. ALMARASY, Atsuhiko FUJIMORI
- 2Pa033 Preparation and structural analysis of non-spherical hollow polymer particles  
Tomoya Hirano, Tatsuo Taniguchi, Takashi Karatsu
- 2Pb034 Synthesis of polystyrene particles by dispersion polymerization using stimulus-responsive branch polymer and their use as a pH-responsive foam stabilizer  
Sayaka Fukui, Tomoyasu Hirai, Yoshinobu Nakamura, Syuji Fujii
- 2Pa035 Research on cationic dispersion polymerization reactions for preparation of polymeric microspheres  
Yuri Akimoto, Takeshi Wakiya, Koji Arimitsu
- 2Pb036 Non-close-packed arrays of elastomer microspheres on solid substrates through evaporation of aqueous droplets  
Yuma Sasaki, Seina Hiroshige, Masaya Takizawa, Haruka Minato, Daisuke Suzuki
- 2Pa037 Elucidation of the Spheroidizing Mechanism of Nanofibers of Gemini-Type Diamide Derivative Having Two-Hydrocarbons with Thixotropic Ability  
Yuki MASHIYAMA, Haruka MARUYAMA, Eiichi SATOU, Atsuhiko FUJIMORI
- 2Pb038 Preparation of self-standing thin film by poly(*n*-butyl methacrylate)-grafted silica nanoparticles  
Yuki Kodama, Motoyasu Kobayashi

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 2Pa041 Synthesis of High-Molecular-Weight Benzoxazines from Aminophenols by Microwave Heating  
Yujie Chen, Takehiro Kawauchi
- 2Pb042 Thermal and mechanical properties of novel polybenzoxazines obtained from an oligonuclear phenolic compound and various amines with crosslinkable functional groups  
Taichi Shibatsuka, Takehiro Kawauchi
- 2Pa043 Preparation of Tough Methacrylic Resin Using Graft-copolymer Architecture with Molten main chain  
Kanta Yamawake, Mikihiro Hayashi, Akinori Takasu
- 2Pb044 Preparation and properties of bio-based self-healing materials using the Diels-Alder reactions of plant oils with a bismaleimide  
Mizuki Uzaki, Mitsuhiro Shibata, Naozumi Teramoto
- 2Pa045 Fabrication of Aligned Collagen Films Using Inclined Substrate with Surface Relief Structures  
Hirona Nakamura, Terumine Iino, Kohsuke Matsumoto, Miho Aizawa, Atsushi Shishido

- 2Pb046 Mechanically Robust and Humidity-resistant Self-healable Polymer Glass enabled by Nano-phase Separation  
Yuta Fujisawa, Yiling Nan, Yu Yanagisawa, Keiichi Yano, Itoh Yoshimitsu, Takuzo Aida
- 2Pa047 Controlled photoinduced electron transfer in polymer matrix  
Yilin Cao, Tomoe Takasaki, Hiroyasu Yamaguchi

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 2Pa051 Development of template-directed synthesis of L- $\alpha$ TNA for primer extension reaction by non-enzymatic chemical ligation  
Hikari Okita, Keiji Murayama, Hiroyuki Asanuma
- 2Pa053 Construction of a reduction-responsive oligonucleotide by a post-modification approach utilizing 4-nitrophenyl diazomethane  
Yugo Kawaki, Nanami Shirakami, Aya Shibata, Masato Ikeda
- 2Pb054 Nanogel formation and functional evaluation of nanogels of oligonucleotide-substituted polysaccharide modified with fluorescent probes  
Tomoya Arai, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 2Pa055 High-Speed AFM Observation of Light-Driven DNA Origami Molecular Machines  
Tomoki Nishikawa, Yuto Moritaka, Shumpei Ishikawa, Yuichi Ohya, Akinori Kuzuya
- 2Pb056 Single Molecule Analysis of Excluded Volume Effect Using DNA Origami-PEG Hybrid  
Yuta Okamoto, Shota Abe, Yoshihiro Iida, Kota Sakamoto, Yuichi Ohya, Akinori Kuzuya
- 2Pa061 Immuno-modulation by oligoethyleneimine and the application for the therapy of inflammatory diseases  
Akihiro Nishiguchi, Tetsushi Taguchi
- 2Pb062 Development of anti-cancer drug delivery system utilizing DNA quadruplex mesogels  
Haruki Tanaka, Daichi Inui, Kana Teragami, Kohei Tatsumi, Yuichi Ohya, Akinori Kuzuya
- 2Pa063 Combination therapy with anticancer drugs and immunostimulatory CpG DNA and SPG complexes  
Yusuke Miyashima, Mizuha Takaoka, Kazuo Sakurai
- 2Pb064 Selective Cell Death Caused by Random Copolymers Consisting of a Monosaccharide Monomer and a Vitamin E Monomers  
Moemi Matsuda, Takuya Kitazume, Toru Ooya
- 2Pa065 Preparation of conjugate hyaluronic acid-double-stranded RNA for inducing the presentation of cancer antigens  
Fuyu Yamamoto, Masashi Umeda, Shinichi Mochizuki
- 2Pb066 Development of temperature-responsive microparticles formed via sol-gel transition - application to pulmonary DDS-  
Takumi Sato, Yoshihiko Murakami
- 2Pa067 Preparation of emulsions and particles by using aqueous two-phase system for pulmonary DDS  
Kaho Moriguchi, Yoshihiko Murakami

#### **E. POLYMERS AND ENVIRONMENT**

- 2Pa071 Synthesis of poly(butylene furanoate) with amine functionality via ring-opening polymerization  
Yuushou Nakayama, Takumi Harada, Ryo Tanaka, Takeshi Shiono
- 2Pb072 Synthesis and Biodegradation of Poly(ester-thioether) Containing L-Malate Units  
Yuka Sato, Akinori Takasu, Shoko Uchiyama, Osamu Morimoto
- 2Pa073 Synthesis and Biodegradation of Polyurethanes Using Dianhydrohexitols  
Kaho Kataoka, Akinori Takasu
- 2Pb074 Synthesis of urethane materials using PHA oligoesters with various diol ends  
Tetsuo Sakurai, Shoji Mizuno, Ayaka Hiroe, Seiichi Taguchi, Takeharu Tsuge
- 2Pa075 Synthesis and Characterization of Bio-based Polyesters Derived from Silylated Divanillic Acid Monomers  
Kentaro Fujieda, Yukiko Enomoto, Tadahisa Iwata

- 2Pb076 Synthesis and characterization of bio-based polyketone and polyetherketone from divanillic acid  
Yukiko Enomoto, Tadahisa Iwata
- 2Pa077 Synthesis and Characterization of Biobased Polyamides Derived from Divanillic Acid  
Kazuma Yagura, Yukiko Enomoto, Tadahisa Iwata
- 2Pb078 Introduction of various phenol structures to lignin and application of the phenolized lignins to epoxy resins  
Shiho Fujita, Toshiyuki Oyama
- 2Pa079 Development of Kraft lignin-based Plastics via Selective Modification Method and Evaluation of Thermal Properties  
Shiori Suzuki, Tadahisa Iwata
- 2Pb080 Fabrication of multilayer materials composed of polysaccharide ester derivatives and P(3HB-co-3HHx) and assessment of the biodegradability  
Jobu Tateiwa, Satoshi Kimura, Hongyi Gan, Tadahisa Iwata

Poster2Pcd(Remo)

Presentation Time

<c = 12:30~13:25>

<d = 13:25~14:20>

## A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 2Pc001 Radical Polymerizations of Vinyl Boronate Derivatives: Molecular Design of the Boron Protecting Group  
Hiroshi Suzuki, Tsuyoshi Nishikawa, Makoto Ouchi
- 2Pd002 Precise Syntheses of End-Functionalized Poly(Alkenyl boronate)s: Control of Selective Cross Coupling at the Growing Chain End  
Tomoaki Kanazawa, Tsuyoshi Nishikawa, Makoto Ouchi
- 2Pc003 Precision Syntheses of Alternating Copolyacryamides: Molecular Design toward Higher Molecular Weight and Sequence Functions  
Kentaro Shibata, Makoto Ouchi
- 2Pd004 Synthesis of Novel Functional Bio-Based Polymers Derived from Caffeic Acid  
Shiho Tanizaki, Tomohiro Kubo, Kotaro Satoh
- 2Pc005 Radical copolymerization of glycerol-derived vinyl ethers for a new bio-based polymer  
Riko Kashima, Tomohiro Kubo, Kotaro Satoh
- 2Pd006 Synthesis of multi-arm poly(vinyl alcohol) through RAFT polymerization of vinyl acetate  
Gaishi Murakami, Tomohiro Kubo, Kotaro Satoh
- 2Pc007 Synthesis and chain-end Passerini three-component reaction of the well-defined polymers end-functionalized with aldehyde units  
Lichieh Chou, Arisa Hirama, Ryohei Kakuchi
- 2Pd008 Synthesis of Poly(arylene vinylene)s via Hydroarylation of alkynes  
Ryota Iwamori, Ryota Sato, Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara
- 2Pc009 Short-step synthesis of photovoltaic materials (PBDB-T) via direct arylation reaction  
Kota Hiyaji, Shuyang Guo, Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara
- 2Pd010 Pd-catalyzed, Ag-assisted system for direct arylation polymerization at room temperature  
Junhui Chen, Junpei Kuwabara, Takaki Kanbara
- 2Pc011 Synthesis of conjugated polymers via decarboxylative cross-coupling polycondensation using carboxy group as a reactive functional group  
Akihiro Takamoto, Yusuke Onose, Junpei Kuwabara, Takaki Kanbara
- 2Pd012 Polymerization of olefins by N-heterocyclic carbene silver catalysts  
Nanako Kimura, Daisuke Takeuchi, Sayoko Ogura, Sayaka Takazawa, Masaki Kakiage, Ken Yamanobe, Hiroki Uehara
- 2Pc013 Ethylene Polymerization by Metal Catalysts Supported on Glass  
Moeka Narasaki, Daisuke Takeuchi, Atsunobu Masuno, Sayoko Ogura, Ritsuki Harasawa, Ayaka Takazawa, Masaki Kakiage, Takeshi Yamanobe, Hiroki Uehara
- 2Pd014 Polymerization of diazoacetates initiated by Pd complexes with N-substituted maleimide ligands  
Hinano Hayashi, Hiroaki Shimomoto, Tomomichi Itoh, Eiji Ihara



- 2Pc015 Tandem polymerization of conjugated dialdehydes and vinyl ethers by cyclotrimerization and Tishchenko reaction: Synthesis of degradable linear polymers with both cyclic acetal and ester structures in the main chain  
Tadashi Naito, Arihiro Kanazawa, Sadahito Aoshima
- 2Pd016 Click Living Polymerization of Various Sugar-Based Monomers  
Sawako Doi, Tomohiro Kubo, Kotaro Satoh
- 2Pc017 Click Living Polymerization of AB Monomers with Various Ethylene Glycol Spacer  
Satoshi Sakai, Tomohiro Kubo, Kotaro Satoh
- 2Pd018 Ring-opening polymerization of cyclic esters catalyzed by quaternary ammonium salts.  
Satoru Takagi, Karoru Takojima, J. Ree Brian, Takuya Isono, Takuya Yamamoto, Kenji Tajima, Toshifumi Satoh
- 2Pc019 Synthesis of Host-Guest Cross-Copolymer by Urethane Formation  
Mariko Tsutsumi, Hiroki Amaya, Tokiyo Katou, Shizuka Anan, Kenta Kokado, Kazuki Sada

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 2Pc021 Induced highly ordered phases in side-chain liquid crystal polysiloxanes with binary mesogen mixtures by copolymerization and blending.  
Naoki Hida, Tatsunaga Nakajima, Mitsuo Hara, Syusaku Nagano, Takahiro Seki
- 2Pd022 Isotropic-liquid crystalline phase transition induced by swelling-shrinking of polypeptide gels immersed in various solvents  
Miyu Yamasaki, Shogo Nobukawa, Hideki Sugimoto, Katsuhiko Inomata
- 2Pc023 Uniaxial deformation of single-crystal-like lamellar microdomain formed by liquid crystalline block copolymers: effects of the molecular weight and amorphous segment on the stress and structural changes  
Masaaki Oguro, Seiichiro Yagi, Masatoshi Tokita
- 2Pd024 Liquid crystal structure and water repellency of poly(substituted methylene)s bearing perfluoroethyl groups at the side-chain ends  
Ayano Yoshitake, Masatoshi Tokita
- 2Pc025 Formation of Induced Liquid Crystal Phase in Binary Systems by mixing Semi-flexible Liquid Crystalline Polyurethane and Polar Molecules  
Ryo KURAHASHI, Shogo NAKAGAWA, Masanori NATA, Seiji UJIIE
- 2Pd026 Influence of Shape and Polarity in the Side-Chain for Liquid Crystal Formation of Side-Chain Liquid Crystal Polymers  
Shougo Nakagawa, Ryo Kurahashi, Masanori Nata, Seiji Ujiie
- 2Pc031 Adhesion function of polymer particle-stabilized bubble under water  
Sora Ashiwa, Tomoyasu Hirai, Yoshinobu Nakamura, Syuji Fujii
- 2Pd032 Photo-responsive liquid marbles stabilized with polypyrrole-stearic acid composite particles  
Yusuke Tsumura, Tomoyasu Hirai, Yoshinobu Nakamura, Syuji Fujii
- 2Pc033 Tuning of the responsive temperature of gold nanoparticle assembly by surface modification with temperature-responsive ligands  
Kun Xiong, Hideyuki Mitomo, Yier Shi, Yusuke Yonamine, Kuniharu Ijiri
- 2Pd034 Reversible formation of gold nanoparticle-vesicles responding to solvent  
Ryo Sugiyama, Hideyuki Mitomo, Yusuke Yonamine, Kuniharu Ijiri
- 2Pc035 Verification of structural Maintenance Function of Kink-Introduced Nano-Millefeuille Structural Matter by Deformation  
Takato OHASHI, Nanata KIKUCHI, Atsuhiko FUJIMORI
- 2Pd036 Evaluation of Structure Maintenance Properties of Kink-Introduced Nano-Millefeuille Structural Matter Under the Heating  
Nanata KIKUCHI, Takato OHASHI, Atsuhiko FUJIMORI
- 2Pc037 Hydrophobic polypyrrole derivatives synthesized by solvent-free chemical oxidative polymerization and their function as a stimuli-responsive liquid marble stabilizer  
Musashi Seike, Tomoyasu Hirai, Yoshinobu Nakamura, Syuji Fujii
- 2Pd038 Microgels adsorbed at the air/water interface of sessile droplets  
Haruka Minato, Daisuke Suzuki

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 2Pc039 Electromagnetic properties of hemoglobin and polyaniline composite  
Mai Ichikawa, Hiromasa Goto
- 2Pd040 Development of Naphthalenediimide-based n-Type Semiconducting Polymer with Oligosiloxane Units in Main Chain  
Tetsuya Okazaki, Tomoya Higashihara
- 2Pc041 Electrochemical Transistors Blended with a Temperature Responsive Polymer  
Shuhei Kindaichi, Shunsuke Yamamoto, Masaya Mitsuishi
- 2Pd042 Dip Coating of Water-Insoluble PEDOT:PSS Films  
Ryusei Miyako, Shunsuke Yamamoto, Yuya Ishizaki, Ryota Maeda, Masaya Mitsuishi
- 2Pc043 Synthesis of Polyaniline in Cellulose derivatives.  
Ryo Miyashita, Hiromasa Goto
- 2Pd044 Development of Naphthalene-diimide-based n-Type Semiconducting Polymers with Precisely-designed Stress Relaxation Units  
Megumi Matsuda, Tomoya Higashihara
- 2Pc045 Coherence resonance in a nonlinear electric circuit driven by noise from a binary mixture of semicrystalline polymer with liquid crystalline molecule  
Sotaro Ariga, Makoto Ohtomo, Ryota Maruyama, Naoki Asakawa
- 2Pd046 Electron doping of single-walled carbon nanotube by pyridine-boryl radicals  
Aoi Hamasuna, Naoki Tanaka, Tsuyohiko Fujigaya
- 2Pc047 Synthesis and magnetic properties of polyaniline/gluconic acid iron  
Yusuke Koshikawa, Hiromasa Gotoh
- 2Pd048 Preparation of room temperature activated hydrogen sensor using graphene.  
Ryoga INOUE, Hirofumi MIYAKE, Takahiro MURAKAMI, Shuji HARADA, Tetsu MITSUMATA, Norio TSUBOKAWA, Takeshi YAMAUCHI
- 2Pc049 Preparation of direct-bonding body of low profile copper foil with OH and COOH groups introduced fluoropolymer by low-temperature plasma  
Seiryu Hirao, Kazuya Matymoto, Won Hwan Choi, Sintaro Hisatake, Kouhei Siraisi, Miyosi Yokura, Masatsugu Nagasima
- 2Pd050 Application of Benzenetricarboxamide Having Oligoethylene Oxide Chains as an Electrolyte Matrix  
Yuzo Ishigaki, Shigeki Habaue, Ryoichi Ichino

### D. BIOPOLYMERS AND BIORELATED POLYMERS

- 2Pc051 Preparation of porous biomaterials with ultra-low-density by using spontaneous emulsification -drug-release control for the pulmonary DDS application-  
Ryo Taguchi, Shinnosuke Nishimura, Yoshihiko Murakami
- 2Pd052 Fabrication of Calcium Carbonate coated Vesicles having target recognition ability and the Application for DDS Carrier  
Nana Kato, Kazuho Atsumi, Masahiro Higuchi
- 2Pc053 Fabrication of drug delivery nanocarriers that responded to slight pH and temperature changes.  
kourin wan, masahiro higuchi
- 2Pd054 Design of a boron atom delivery system using a pH-sensitive polymeric micelle having internal cross-linkings  
Manami Yamasaki, Ryoya Umeyama, Kengo Suzuki, Nobuo Murase, Yuichi Ohya
- 2Pc055 pH-responsive Mixed Charge Polymeric Micelles Targeting Weakly Acidic Environment of Tumors  
Yubuki Nakamura, Marina Nasu, Daniel Citterio, Yuki Hiruta
- 2Pd056 Intracellular delivery of p53 to human bladder cancer cells by cell-penetrating PG-surfactant  
Ryohei Kaie, Natsumi Sumito, Yasumichii Inoue, Naoki Umezawa, Toshihisa Mizuno
- 2Pc057 The effect of particle characteristics of a cyclodextrin-based drug carrier on anti-tumor activity  
Jun Katsuki, Van Doan, Shota Fujii, Kazuo Sakurai

- 2Pd058 Design of pH-Responsive Desorbable Nanogels Capable of Both Endosomal Escaping and Nuclear Transporting Abilities  
Yuta Hamada, Koji Nagahama
- 2Pc059 Synthesizing a-Mangostin-carried polymer for treating CT26 colon cancer cells  
Thu Duc Tran, Shinichi Mochizuki

## E. POLYMERS AND ENVIRONMENT

- 2Pc061 Syntheses of polyurea gels using bio-derived furandiamine and evaluation of thermo properties  
Takuya Kumakura, Kenji Takada, Tatsuo Kaneko
- 2Pd062 Development of functional biomass plastics derived from unutilized non-edible phenols  
Shinji Kanehashi, Kan Kato, Syotaro Kariya, Luis Asato, Serika Ito, Kenji Ogino
- 2Pc063 Self-degradation of enzyme-embedding biodegradable polyesters in aquatic environment  
Qiuyuan HUANG, Satoshi KIMURA, Tadahisa IWATA
- 2Pd064 Preparation of biodegradable plastics using general-purpose plastics  
Ryoya Masaki, Kensuke Miyazaki, Takashi Yoshida
- 2Pc065 Elucidation of The Effect of Crystallinity and Orientation of PBS and PBSA on Enzymatic Degradation Rate  
Daisuke Takaya, Hongyi Gan, Qiuyuan Huang, Satoshi Kimura, Tadahisa Iwata
- 2Pd066 Preparation and physical property of microbead derived from biodegradable polymers  
Hongyi Gan, Satoshi Kimura, Tadahisa Iwata
- 2Pc067 Biodegradability of plastic materials in marine environment under field and laboratory condition  
Hironori Taguchi, Takako Kikuchi, Nao Osaka, Shunsuke Nakamura
- 2Pd068 Effects on lab-BOD test of biodegradable polymer using seawater  
Atsuyoshi Nakayama, Naoko Yamano, Noriyuki Kawasaki, Tsutomu Nakamura
- 2Pc071 Development of high mechanical strength nanocomposites using polycaprolactone-grafted nanofibrillated bacterial cellulose  
Binti Hashim Hamidah, binti Emran Nur Aisyah Adlin, Satoshi Katsuhara, Hiroko Ninoyu, Takuya Isono, Tokuo Matsushima, Takuya Yamamoto, Toshifumi Satoh, Kenji Tajima
- 2Pd072 Cellulose nanocrystal / chitosan composite films having transparency, mechanical strength and sealing properties  
Kazuma Tsujioka, Yuji Hirai, Masatsugu Shimomura
- 2Pc073 Study on the Compatibility of glycol-lignin and Various Engineering Plastics  
Haruka Kato, Ayumi Kobayashi, Kohei Iritani, Thi Thi Nge, Tatsuhiko Yamada, Takashi Yamashita
- 2Pd074 Physical property and structural analysis of nigeran ester derivatives  
Azusa Togo, Keiko Uechi, Osamu Mizutani, Satoshi Kimura, Tadahisa Iwata
- 2Pc075 Highly Ordered Structure analyses of high strength and elastic microbial polyester fibers  
Taku Omura, Katsuya Komiyama, Akira Maehara, Taizo Kabe, Tadahisa Iwata
- 2Pd076 Relationship between the cell growth and the accumulation of P (3HB) using cysteine and glucose as carbon sources by *Ralstonia eutropha*  
Takahiko Nakaoki, Ryosuke Sumida
- 2Pc077 Production of spider's C-terminal domain of Major ampullate Silk protein (MaSp) in marine purple photosynthetic bacteria  
Takuma Kawaguchi, Choon Pin Foong, Ali D. Malay, Keiji Numata

Poster2Pef(Remo)  
Presentation Time  
<e = 14:30~15:25>  
<f = 15:25~16:20>

## A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 2Pe001 Analysis of reaction kinetics during bulk polymerization of methyl methacrylate using differential scanning calorimetry  
Ryutaro Mishima, Yasuhito Suzuki, Akikazu Matsumoto

- 2Pf002 Applicability of Living Radical Polymerization Using Amine Catalysts in Aqueous Dispersed Systems  
Daiki Tokura, Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 2Pe003 Post-synthetic modification of methacrylate to MOF and gelation by Crystal Cross-Linking  
Hiroki Amaya, Tokiyo Katou, Kenta Kokado, Kazuki Sada
- 2Pf004 Precision synthesis and unique solution properties of alternating copolymers of hydrophilic vinyl ether and maleimide derivative  
Kazuki Yano, Shohei Ida, Shokyoku Kanaoka
- 2Pe005 Synthesis and Polymerization of Glycerol-Derived Cyclic Monomer with Lactone Structure  
Yuki SAKATA, Yuki UCHIYAMA, Hayato YOSHIDA, Takenori NISHIDA, Mineto UCHIYAMA, Masami KAMIGAITO
- 2Pf006 Synthesis of triazole-containing nano-objects by polymerization induced self-assembly  
Chiharu KUMANO, Kazunori MASUKO, Hideharu MORI
- 2Pe007 Synthesis of side-chain-type carbazole/oxadiazole copolymers for thermally activated delayed fluorescence(TADF)  
Naomi ITO, Masaki FURUKAWA, Hideharu MORI
- 2Pf008 Synthesis of cyclic olefin polymers by ring-opening metathesis polymerization of norbornene derivative with spirofluorene moiety  
Saki Ishii, Shin-ichi Matsuoka, Masato Suzuki
- 2Pe009 Addition polymerization of norbornene derivatives catalyzed by  $\text{Ni}(\text{C}_6\text{F}_5)_2(\text{SbPh}_3)_2$   
Kazuha Izuma, Shinichi Matsuoka, Masato Suzuki
- 2Pf010 Ring-opening metathesis polymerization of norbornadiene dimers and post-polymerization modification  
Kazuki Hase, Shin-ichi Matsuoka, Masato Suzuki
- 2Pe011 Ring-opening metathesis polymerization of norbornene lactones  
Sae Kiyohara, Narumi Miyasako, Shin-ichi Matsuoka, Masato Suzuki
- 2Pf012 Ring-opening metathesis polymerization of polycyclic cyclobutene derivative containing lactone ring  
Yuta Asano, Shin-ichi Matsuoka, Masato Suzuki
- 2Pe013 Synthesis and Helicity Control of Water-Soluble Poly(biphenylacetylene)s Bearing Optically Active Oligoethylene Glycol Pendants  
Koshi Nakamura, Kosuke Mizumoto, Tomoyuki Ikai, Eiji Yashima
- 2Pf014 Synthesis of Poly(biphenylacetylene) Derivatives Bearing Optically Active 1-Ethoxyethoxy Groups in the Side-Chain and Their Chiral Amplification Behaviors  
Tsuyoshi Majima, Tomoyuki Ikai, Eiji Yashima
- 2Pe015 Synthesis of Poly(biphenylacetylene)s Bearing Optically Active Pendants in the Vicinity of the Main-Chain and Their Macromolecular Helicity Control  
Yuki Morita, Tsuyoshi Majima, Tomoyuki Ikai, Eiji Yashima
- 2Pe017 Photophysical Properties of Aluminum Dihydride Complexes of  $\beta$ -Diketiminato Ligands  
Keisuke Suwa, Shunichiro Ito, Kazuo Tanaka
- 2Pf018 Control of Luminescence Mechanisms of Aryl-Modified Carboranes by Changing Substitution Positions  
Junki Ochi, Kazuo Tanaka
- 2Pe019 Synthesis of polymers containing diarylbenzoarsoles in the main- and side-chains  
Kosuke Ishijima, Hiroaki Imoto, Kensuke Naka
- 2Pf020 Syntesis of gels having viologen units and evaluation as an electron transfer catalyst  
Koichi Miyazaki, Mayu Takahashi, Hiroto Asano, Kohei Shirai, Rikiya Sato

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 2Pe021 Examination of Arrangement Change by Linker Part Substitution of Cyclic Moieties-Containing Polyguanamine Derivatives Having Metal Scavenging Property  
Junto YAMAGUCHI, Yuto OTSUKI, Yuji SHIBASAKI, Atsuhiko FUJIMORI
- 2Pf022 Verification of Monolayer Conformation on the Water Surface of s-Triazine Derivatives Containing Fluorocarbons with Different Length  
Haruka MARUYAMA, Momo MAEDA, Atsuhiko FUJIMORI

- 2Pf024 Formation of Stimuli-Responsive Polyoxazoline/Poly(zwitterion) Block Copolymer Aggregates  
Naoki Kuraoka, Akane Shimizu, Yuji Higaki
- 2Pe025 Structure Modulation of Double Zwitterionic Block Copolymer Aggregates by Zwitterion-Specific Interactions  
Akane Shimizu, Masaya Takahashi, Yuji Higaki
- 2Pf026 Impact of Molecular Weight in Lyotropic Ordered Structure Transition of Zwitterionic Block Copolymers  
Masaya Takahashi, Akane Shimizu, Yuji Higaki
- 2Pe027 Elucidation of the dominant factors of luminescence properties in polymer materials exhibiting long-lived room temperature phosphorescence  
Shun Yamazaki, Tatsuo Taniguchi, Takashi Karatsu
- 2Pf028 Structural analysis of polyoxyethylene secondary alkyl ether micelles by small-angle X-ray scattering  
Mao NAKAGAWA, Atsushi OKADA, Toru INAOKA, Shiho YADA, Tomokazu YOSHIMURA
- 2Pe031 Theoretical Study on Pressure-Induced Phase Transition of Block Copolymers  
Hiroki Kodama, Tsuyoshi Koga
- 2Pf032 A study of Intermolecular interaction in PVA/PMMA blend using vibrational spectroscopy  
Erika Mitani, Harumi Sato
- 2Pe033 Dispersion State and Rheological Properties for the Polystyrene Composite with Fumed Silica Having Different Primary Particle Sizes  
Risako Ikeda, Yoshihisa Fujii, Naoya Torikai
- 2Pf034 Study of physical properties of silica/elastomer composites using nano-tactile atomic force microscopy  
Yuto Miyata, Makiko Ito, Xiaobin Liang, Ken Nakajima

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 2Pe035 Evaluation of chemiluminescence based POSS scaffolds  
Daisuke Iizuka, Masayuki Gon, Kazuo Tanaka
- 2Pf036 Synthesis and Physical Properties of Nonconventional Chromophore Based on Polyhedral Oligomeric Silsesquioxane  
Yusuke Taguchi, Hayato Narikiyo, Masayuki Gon, Kazuo Tanaka
- 2Pe037 Synthesis of New Hybrid Materials Using Ionic Liquids Based on POSS  
Natsumi Yamada, Masayuki Gon, Kazuo Tanaka
- 2Pf038 Preparation of photo-solidification electrically conductive polymer using graphene  
Alvin Lim Teik Zheng, Yoshito Andou
- 2Pe039 Fabrication of the proton conductive material composed of ionic liquids and filler for PEFC at low humidity operation  
Haruki Nakazaki, Keisuke Tabata, Yukina Suzuki, Toshihiko Arita, Akito Masuhara
- 2Pf040 Preparation of bio/artificial composite by marine life and conductive polymer and application for device  
Kyoka Komaba, Hiromasa Goto
- 2Pe041 Peptide beta-sheets/silver ion complex for antibacterial silk fabric without discolorment  
Monika Tsunoda, Hiroshi Yamagishi, Megumi Sumitani, Kentaro Tashiro, Yohei Yamamoto
- 2Pf042 Mechanical properties of organic-inorganic composites consisting of amphipathic polyester and hydroxyapatite  
Kohei Okuda, Tadashi Mizutani
- 2Pe043 Hybridization of Carboxyl-Functionalized Poly(phenylene sulfide) Derivatives with Inorganic Nanoparticles and Its Application to High Refractive Index Materials  
Teru Takayama, Seigo Watanabe, Kenichi Oyaizu
- 2Pf044 Development of specific nanostructure from diblock polypeptide amphiphiles with Lysine and Leucine with anionic polyoxometalate.  
Takayuki Tanaka, Yuya Tanimura, Keita Kuroiwa
- 2Pe045 Physical properties of Phosphorylated poly(ethylene-co-vinyl alcohol)  
Muneharu Kurosaki, Yukihiro Kishimoto, Takumi Okihara

- 2Pf046 Hydrogen generation using organic photocatalysts consisting of polydiacetylene nanocrystals  
Tsunenobu Onodera, Hidetoshi Oikawa

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 2Pe051 Relationship between morphology and expression of pDNA complex by muscular injection  
Shoichiro Asayama, Yuki Kobayashi, Kei Nirasawa, Yoichi Negishi
- 2Pf052 Evaluation on gene transfection to cells using nucleic-acids-loaded polyplexes through coordination bond with polymers having zinc complexes and oligo(ethylene glycol)s  
Erika Nasu, Sayaka Kubo, Remi Watanabe, Shigehito Osawa, Hidenori Otsuka
- 2Pe053 Investigation of pharmacokinetics of DNA quadruplex mesogels injected to mouse tail vein  
Daichi INUI, Kohei TATSUMI, Yuta YOSHIKAZI, Yuichi OHYA, Akinori KUZUYA
- 2Pf054 Boron neutron capture therapy using drug delivery systems composed of poly(vinyl alcohol) and D-4-boronophenylalanine  
Kakeru Konarita, Takahiro Nomoto, Kaito Kanamori, Minoru Suzuki, Makoto Matsui, Yutaka Miura, Nobuhiro Nishiyama
- 2Pe055 Preparation of TiO<sub>2</sub> nanoparticles-entrapped polyion complex micelles bearing ROS-responsive functional groups  
Mio Tsuji, Yukiya Kitayama, Eiji Yuba, Atsushi Harada
- 2Pf056 Synthesis of polyoxazoline-modified albumin as a plasma expander for animals  
Wataru Okamoto, Tomone Usui, Mitsutomo Kohnno, Kazuaki Taguchi, Teruyuki Komatsu
- 2Pe057 Synthesis of hemoglobin-albumin cluster incorporating protoporphyrin IX as a photosensitizer for cancer treatment  
Taiga Yamada, Teruyuki Komatsu
- 2Pf058 Near-Infrared Photothermal Nanoparticles for Manipulation of Thermo-Sensitive Ion Channels of Neuron  
Wei-Hsu Chen, Taiki Onoe, Masao Kamimura

#### **E. POLYMERS AND ENVIRONMENT**

- 2Pe061 Effect of chemical composition on the hydrolysis reaction of polyurethane by carbonic acid  
Suguru Motokucho, Kohki Hashimoto, Ryota Oshima
- 2Pf062 Effect of cross-linking density for hydrolysis reaction of cross-linked polyurethane by carbonic acid  
Ryota Oshima, Suguru Motokucho
- 2Pe063 Development of reactive polymer materials for separation and recovery of platinum group metals  
Naoya Kaneko, Masayuki Nakagawa, Tatsuo Taniguchi, Takashi Karatsu, Ryuhei Motokawa, Hirokazu Narita
- 2Pf064 Molding and mechanical properties of hybrid fiber reinforced composite material using a new compatibilizer(iPP-PAA)  
Tomoya Kawarada, Takayuki Tsukegi, Osamu Yoshimura
- 2Pe065 Challenge to the weight reduction of automotive parts by RTM method using biomass fiber as reinforcement  
Shougo Fujita, Takayuki Tsukegi, Osamu Yoshimura
- 2Pf066 Photo-excited relaxation processes of non-conjugated native lignin derivatives prepared from different wood species.  
Yuka Morishige, Mitsuru Aoyagi
- 2Pe067 Development of industrial waste filled polymer composite using olive pomace and marble sludge  
Tessei Kawano, Yoshito Andou, Esra YEL

#### **F. INDUSTRIAL POLYMERS AND TECHNOLOGY**

- 2Pe071 Examination of spinning conditions for silicone-modified polyimide nanofibers  
Toshihisa Tanaka, Shingo Yamashita, Shinji Irifune, Daisuke Noda, Masaki Tanaka

- 2Pf072 Preparation and physical properties of transparent acryl / glass cloth composites with high tensile strength  
Kosuke Kondo, Ryo Yamaguchi, Hideki Sugimoto, Shogo Nobukawa, Katsuhiro Inomata
- 2Pe073 Surface Modification of Polypropylene Non-woven Fabric by Photooxidation with Chlorine Dioxide  
Keita Yamamoto, Haruyasu Asahara, Tsuyoshi Inoue
- 2Pf074 Preparation and physical properties of transparent alumina / cyclic olefin copolymer hybrid materials  
Kaito Suzuki, Haruka Yoneki, Hideki Sugimoto, Shogo Nobukawa, Katsuhiro Inomata
- 2Pe075 Development of multiblock copolyimide with oligoisobutylene unit in main chain  
Naoki Matsuda, Ryohei Ishige, Shohei Hara, Shintarou Fujitomi, Yooichiroh Maruyama, Mitsuru Ueda, Shinji Ando, Tomoya Higashihara
- 2Pf076 Preparation and physical properties of flexible acrylic / alumina transparent hybrid materials using surface graft polymerization  
Nanaho Shiota, Taro Usami, Hideki Sugimoto, Shogo Nobukawa, Katsuhiro Inomata
- 2Pe077 Physical properties of PEEK composite reinforced by carbon fiber and multiwall carbon nanotube  
Yoshiki Takata, Daichi Yamamoto, Takumi Okihara
- 2Pf078 Preparation and Physical Properties of silica-containing PMMA / PVB transparent hybrid materials  
Nobue Kojima, Hideki Sugimoto, Shogo Nobukawa, Katsuhiro Inomata

#### **Fri. May 28**

Poster3Pab(Remo)

Presentation Time

<a = 9:30~10:25>

<b = 10:25~11:20>

#### **A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS**

- 3Pa001 Anionic polymerization of alkyl acrylates initiated by N-heterocyclic carbene and subsequent ring-closing  
Yuki Muramatsu, Akinori Takasu
- 3Pb002 One-pot synthesis of sequence-controlled oligomers by means of living anionic addition reaction  
Kazuki Takahata, Raita Goseki, Takashi Ishizone
- 3Pa003 Synthesis of sequence-controlled oligomer composed of 1,1-diphenylethylene derivatives by living anionic addition reaction  
Tomohiko Nishijima, Kazuki Takahata, Raita Goseki, Takashi Ishizone
- 3Pb004 Anionic polymerization of styrene derivatives carrying 1,3-dioxolane skeletons at para position  
Kana Miyata, Kazuki Takahata, Raita Goseki, Takashi Ishizone
- 3Pa005 Evaluation of self-alternating polymerizability of AB typed monomer having two vinyl groups with different reactivity  
Yoshito Itaya, Hamin Kim, Raita Goseki, Takashi Ishizone
- 3Pb006 Anionic polymerization of 2-naphthyl 4-styryl ketone  
Yuki Kamiya, Kana Miyata, Raita Goseki, Takashi Ishizone
- 3Pa007 Anionic Polymerization of 1-(4-vinylphenyl)-1-phenylethylene derivatives  
Hamin Kim, Raita Goseki, Takashi Ishizone
- 3Pb008 Lewis pair polymerization of n-butyl acrylate using  $B(C_6F_5)_3$   
Yuka Naganawa, Kazumasa Mori, Shin-ichi Matsuoka, Masato Suzuki
- 3Pa009 Anionic Polymerization of (Meth)acrylic Thioester Initiated by Alkoxides  
Shuhei Nakagawa, Shin-ichi Matsuoka, Koji Takagi, Masato Suzuki
- 3Pb010 Design of Novel Living Anionic Polymerization Based on Reversible Chain-Transfer Mechanism with Active Proton  
Natsumi OHIRA, Mineto UCHIYAMA, Masami KAMIGAITO

- 3Pa011 Synthesis of Poly(thienylene vinylene) Having an Aryl Group in the Side Chain Based on the Environment-Friendly Polymerization Method  
Keitaro Kanno, Keiichiro Sato, Tomoya Higashihara
- 3Pb012 Synthesis of poly(thioether) degradable via efficient E1cB reaction: Polymerization by conjugate substitution and addition reactions  
Keito Hagiwara, Yasuhiro Kohsaka
- 3Pa013 Intramolecular transfer of Pd catalyst on acceptor benzo-fused ring dibromoarylene and A<sub>2</sub> + B<sub>2</sub> unstoichiometric Suzuki-Miyaura polycondensation  
Sana KOBAYASHI, Hajime SUGITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 3Pb014 9,9-Diallylfluorenes with Styrene Skeletons: Synthesis and Polyaddition with dithiols via Spiro-Ring Formation  
Sae Tezuka, Akira Hiramatsu, Yasuhiro Kohsaka, Rie Yasuda, Miyauchi Shinsuke
- 3Pa015 Additive-controlled topology switching from cyclic to linear polymer  
So MIYAZAKI, Takeru KAMIGAWARA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 3Pb016 Synthesis of Aromatic Poly(amide-imide)s by Thermal Polycondensations of Hemimellitic Acid and Aromatic Diamines  
Ryoga Suzuki, Kazuya Matsumoto, Mitsutoshi Jikei
- 3Pa017 Synthesis of perfluoroalkylene-containing polyarylene ethers  
Kazuki Watanabe, Tadashi Tsukamoto, Yuji Shibasaki, Yoshiyuki Oishi

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 3Pa021 Correlation between Mechanical Properties and Helix-sense of Single Polyaspartate Chain by Atomic Force Microscopy  
Tomonari Watanabe, Xiaobin Liang, Ken Nakajima, Hidemine Furuya
- 3Pb022 Mechanical Properties of Single  $\alpha$ -Helical Poly( $\gamma$ -benzyl L-glutamate) Chain by Atomic Force Microscopy  
Yuta Onozawa, Xiaobin Liang, Ken Nakajima, Hidemine Furuya
- 3Pa023 Investigation of the formation mechanism of hydrogel microspheres  
Yuichiro Nishizawa, Haruka Minato, Takumi Inui, Takayuki Uchihashi, Daisuke Suzuki
- 3Pb024 Controlled Ordered Structure of Liquid Crystalline Epoxy Resin using Layered Clay Interface  
Hiroya Yamamoto, Saki Ota, Miyuki Harada
- 3Pa025 Shape Transition of Liquid Crystal Elastomers with Various Twisted Nematic Configuration  
Atsushi Joto, Haruka Doi, Valerio Varano, Luciano Teresi, Kenji Urayama
- 3Pb026 Temperature effect of Strain-induced Crystallization in Slide-ring Gels.  
Sohei Kawahara, Chang Liu, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 3Pa027 Synthesis of Triple Interpenetrating Polymer Networks by Sequential-Simultaneous Hybrid Method Using Polysiloxane with Silanol Residue  
Junta SANO, Shigeki HABAUE
- 3Pb028 Design of Ionic Silicone Elastomer/Titanate Nanosheet Nanocomposites  
Hayato Nakamura, Yohei Miwa, Takehito Ohya, Ami Hamajima, Takayuki Ban, Shoichi Kutsumizu
- 3Pa029 Effects of Metal Cation Type and Neutralization Degrees on Morphology and Mechanical Properties of Ionic Silicone Elastomers  
Rina Sawada, Yohei Miwa, Takehito Ohya, Shoichi Kutsumizu
- 3Pb030 Synthesis and properties of silica-dispersed NIPAM gel via intramolecular condensation of reactive polysiloxane with silanol residue  
Daisuke SATO, Junta SANO, Yuuki TANAKA, Shigeki HABAUE

## C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 3Pa031 In-situ observation by X-ray computed tomography for the chain structure of magnetic elastomers  
Mayuko Watanabe, Yoshihiro Takeda, Takayuki Maruyama, Akihisa Takeuchi, Masayuki Uesugi, Motohiro Suzuki, Mika Kawai, Tetsu Mitsumata



- 3Pb032 Mechanical and optical evaluation of structural colored elastomers with amorphous structure formed by highly concentrated silica particles  
Daiki MIYAKE, Fumio ASAI, Mitsuo HARA, takahiro SEKI, Yukikazu TAKEOKA
- 3Pa033 Preparation of mesoporous silica thin films modified with hygroscopic groups  
Atsuki Kodama, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 3Pb034 Synthesis of polymer gels with homogeneous network structure by photodimerization between the terminations of tetra-branched poly(N-isopropylacrylamide)  
Yuria Otsuka, Ikuya Ohshima, Xiang Li, Taiki Hoshino, Mitsuo Hara, Takahiro Seki, Yukikazu Takeoka
- 3Pa035 Analysis of mechanical properties and thermal deformation behavior of liquid crystalline elastomer containing gold-coated fine particles  
Takumi Shimon, Reina Nakamura, Haoxuan GUO, Hiroyuki Aota, Takahiro Yamamoto, Hirosato Monobe
- 3Pb036 Synthesis and Physical Properties of Thermo-sensitive gel particles with Controlled Network Structure  
Yuka Hiei, Ikuya Ohshima, Taiki Hoshino, Mituo Hara, Takahiro Seki, Yukikazu Takeoka
- 3Pa037 Aggregation of heat-responsive gel particles by electrostatic interaction and characterization  
Tomohito ENOMOTO, Shinji ABE, Tetsu MITSUMATA, Norio TSUBOKAWA, Takeshi YAMAUCHI
- 3Pb038 Aggregation and Gel Adhesion Behaviors of Polyacrylamide in the Presence of Ruthenium Ions  
Yusuke Kiuchi, Aki Goto, Yuichiro Kobayashi, Akira Harada, Hiroyasu Yamaguchi
- 3Pa039 Preparation of Hollow-type Spherical Bacterial Cellulose Gels Encapsulating Poly(N-Methacryloylglycine) Gels  
Daisuke Sawaguchi, Toru Hoshi, Takao Aoyagi
- 3Pb040 Polysaccharide gels responding to temperature and pH  
Koumei Harajiri
- 3Pa041 Evaluation of drying properties of hydrogels mimicking the structure of desiccation-tolerant organisms  
Kayo Migita, Shunsuke Nagahama, Shigeki Sugano
- 3Pb042 Thermo-responsive structural colored spherical porous hydrogel acquired from spherical colloidal crystal  
Tomoya Hayashi, Yukikazu Takeoka, Mitsuo Hara, Takahiro Seki
- 3Pa043 Preparation and characterization of gelatin gel with inorganic surface layer for drug carriers  
Yusuke KADOKURA, Syuuhei KOMATSU, Akihiko KIKUCHI
- 3Pb044 Preparation of PEG-grafted degradable hydrogels with low swelling behavior at physiological temperature  
Naoki Kamei, Tatsuki Kamiya, Syuuhei Komatsu, Akihiko Kikuchi
- 3Pa045 Development of Hydrogels using Tetra-functional Crosslinker that Have Azobenzene Moiety  
Jun MIYOSHI, Kenro TOTANI, Toshiyuki WATANABE
- 3Pb046 Characterization of poly(substituted methylene)s with azobenzene side-chains  
Chikara Kawakami, Mitsuo Hara, Shusaku Nagano, Yoshitaka Yorimoto, Hiroaki Shimomoto, Eiji Ihara, Takahiro Seki
- 3Pa047 Relationship between mechanical properties and responsiveness of photo-responsive materials based on isomerization of azobenzene  
Yuki Shimizu, Junsu Park, Motofumi Osaki, Hiroyasu Yamaguchi, Akira Harada, Yoshinori Takashima
- 3Pb048 Supramolecular gelation and photoresponsive properties of tartrates containing azobenzene moiety  
Manami Kobayashi, Kazuhiro Yabuuchi, Masaya Moriyama
- 3Pa051 Step- $\pi$ -conjugated polymers (147) Synthesis of macromolecular wire consisting of blocks with different energy levels.  
Kota Tanaka, Haoxuan Guo, Hiroyuki Aota

- 3Pb052 Step- $\pi$ -conjugated polymers (151) Synthesis of amphiphilic macromolecular wires using energy levels Difference and elucidation of charge transfer process  
Mitsuhiro Funo, Haoxuan GUO, Hiroyuki Aota
- 3Pa053 Introducing proton conductivity to a side-chain liquid crystalline polymer and photoalignment  
Kazuya Hirata, Kota Suetsugu, Fangfang Wang, Yuki Nagao, Takahiro Seki, Shusaku Nagano
- 3Pb054 Step- $\pi$ -conjugated polymer (155) Preparing a macromolecular device on Au electrode  
Yuriko Takemura, Haoxuan GUO, Hiroyuki Aota
- 3Pa055 Step- $\pi$ -conjugated polymers (154) Ferrocene introduced macromolecular wire bonding to Au electrode  
Yuga Shibaike, Haoxuan GUO, Hiroyuki Aota
- 3Pb056 Step- $\pi$ -conjugated polymers (148) Photoinduced electron transfer evaluation of macromolecular-wire with donor and acceptor at terminals  
Daisuke Kitayama, Haoxuan GUO, Hiroyuki Aota
- 3Pa057 Step- $\pi$ -conjugated polymers (153) Ferrocene and perylene introduced macromolecular wire bonding to Au electrode  
Takumu Yanai, Haoxuan GUO, Hiroyuki Aota
- 3Pb058 Induced smectic E phase in binary polymer blends of in side-chain liquid crystal polymers.  
Tatsunaga Nakajima, Naoki Hida, Takahiro Seki, Shusaku Nagano
- 3Pa059 Step- $\pi$ -conjugated polymers (152) Synthesis of amphiphilic macromolecular wire using pseud-living polymerization  
Yusuke Uda, Haoxuan GUO, Hiroyuki Aota
- 3Pa061 Measurement of ionic self-diffusion coefficients of polycarbonate-based electrolytes using pulsed-field gradient NMR  
Ayana Takaoka, Yoichi Tominaga
- 3Pb062 Preparation and properties of polycarbonate-based composite electrolytes filled with boehmite nanofiber  
Shunsuke Miura, Akira Saito, Yoichi Tominaga
- 3Pa063 Preparation and characterization of poly(ethylene carbonate)/cellulose composite electrolytes  
Taiga Fukuda, Yoichi Tominaga
- 3Pb064 Analysis of particular ionic dissolution in polycarbonate-based electrolytes  
Wei Tan, Yoichi Tominaga
- 3Pa065 Effect of addition of lithium nitrate on battery properties of polymer electrolytes  
Zhenxing Cui, Shoichi Inoue, Hassoun Jusef, Yoichi Tominaga
- 3Pb066 Lithium ion conductive characteristics of nanofiber-based poly(ethylene carbonate) electrolyte membranes with high-salt concentrations  
Nana Terasoba, Manabu Tanaka, Hiroyoshi Kawakami
- 3Pa067 Properties of Solid Polymer Electrolyte Using Exomethylene-Ethylene Carbonate  
Yuka Okuda, Takahiro Uno, Masataka Kubo, Takahito Itoh
- 3Pb068 Investigations of ionic transport mechanism of polyether-based polymer electrolytes for all-solid-state batteries  
Yui Otake, Yuji Yokomaku, Yuna Okabe, Hibiki Miyauchi, Masayoshi Watanabe, Shiro Seki

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 3Pa071 Aqueous one-pot chemoenzymatic synthesis of glycopolymers from unprotected sugars  
Tomonari Tanaka, Ayane Matsuura
- 3Pb072 Synthesis of Network Polysaccharides from Water-soluble Chitosan and Carboxylate-terminated Maltooligosaccharide  
Aina Nakamichi, Seiya Kitasono, Kazuya Yamamoto, Jun-ichi Kadokawa
- 3Pa073 Synthesis of monomer and polymers bearing water-soluble activated ester groups which are stable in water  
Sotaro Tsuji, Kazuma Kobayashi, Tomonari Tanaka

- 3Pb074 Synthesis of Chitin Naphthoate Derivatives in Ionic Liquids and their Properties  
Kaho Kohori, Kazuya Yamamoto, Jun-ichi Kadokawa
- 3Pa075 Investigation of immunosuppressants by sialic acid-containing glycopolymers.  
Takato Ishida, Takahiro Oh, Masanori Nagao, Yu Hoshino, Yoshiko Miura
- 3Pb076 Development of a rapid synthesis method for immunoregulatory sialyl sulfated oligosaccharides  
Yuki Ito, Keiji Numata, Masashi Ohmae

Poster3Pcd(Remo)

Presentation Time

<c = 12:30~13:25>

<d = 13:25~14:20>

## A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 3Pc001 Anionic polymerization of  $\alpha$ -methylstyrene derivatives using proton abstraction  
Daisuke Tanioka, Kaoru Adachi
- 3Pd002 Synthesis and Polymerization of Cyclic Vinyl Monomers with exo-Methylene Group Derived from Naturally-Occurring Cyclic Ketone  
Yuki UCHIYAMA, Mineto UCHIYAMA, Mitsuo HARA, Tomoyuki IKAI, Takahiro SEKI, Eiji YASHIMA, Masami KAMIGAITO
- 3Pc003 Living cationic polymerization of various  $\alpha$ -methyl vinyl ethers  
Kouhei Watanabe, Takeshi Namikoshi, Shinji Watanabe
- 3Pd004 Design of Cationic RAFT Polymerization Using Various exo-Methylene-Type Chain-Transfer Agents and Precision Polymer Synthesis  
Takayuki TANIMOTO, Mineto UCHIYAMA, Masami KAMIGAITO
- 3Pc005 Photocontrolled Cationic and Radical Polymerization Using Acridinium Salt as Photoredox Catalyst  
Marina MATSUDA, Mineto UCHIYAMA, Masami KAMIGAITO
- 3Pd006 Controlled Polymerization of Silyl Isopropenyl Ethers: Cationic Polymerization and Aldol GTP  
Naoki FUJIWARA, Mineto UCHIYAMA, Masami KAMIGAITO
- 3Pc007 Controlled Cationic Polymerization of Cyclic Isopropenyl Ether Derived from Naturally-Occurring Furfural  
Ryoya KAMIKI, Marina MATSUDA, Yukihiro MURAKAMI, Takenori NISHIDA, Mineto UCHIYAMA, Masami KAMIGAITO
- 3Pd008 Chain-End Functionalization in Controlled Cationic Alternating Copolymerization of Vinyl Ethers and Conjugated Aldehydes: Synthesis of Degradable Telechelic Polymers with Alternating Sequences  
Tomoki Nara, Arihiro Kanazawa, Sadahito Aoshima
- 3Pc009 Acceleration by UV irradiation of metal-free living cationic polymerization using diaryliodonium salts as organic Lewis acid catalysts  
Yuji Mishima, Rui Haraguchi, Arihiro Kanazawa, Sadahito Aoshima
- 3Pd010 Cationic copolymerization of various bulky enol ethers: Alternating and/or controlled copolymerization with *o*-phthalaldehyde  
Keisuke Hayashi, Arihiro Kanazawa, Sadahito Aoshima
- 3Pc011 The thermal and optical properties of poly(tetraphenylsilylenesiloxane) derivatives having cardo-structure in the main chain  
Atsuyuki Miyajima, Ruri Okura, Tsukasa Ichikawa, Nobukatu Nemoto
- 3Pd012 Synthesis of polythiourethanes from cyclic sulfur  
Akiyoshi Horiguchi, Yuki Yamagishi, Yuichiro Kobayashi, Hiroyasu Yamaguchi
- 3Pc013 Polycondensation of tetra azacalixarene triazine dichloride with amino group-containing PDMS  
Ryota Shibata, Tadashi Tsukamoto, Yuji Shibasaki, Yoshiyuki Oishi
- 3Pd014 Synthesis of low dielectric constant polycyanurates with alicyclic structure  
Kenta Ishizuka, Tadashi Tsukamoto, Yuji Shibasaki, Yoshiyuki Oishi
- 3Pc015 Direct Synthesis of Silyl ether-Carbosilane Alternating Copolymers Using Borane Catalyst  
Naoki Yoshida, Huie Zhu, Masaya Mitsuishi

- 3Pd016 Novel synthesis of polybenzothiazoles by oxidative cyclopolymerization of aromatic diamines, aromatic dialdehydes, and element sulfur  
Masaru Yoneyama, Takeshi Yamanobe, Keita Nakamura
- 3Pc017 Synthesis and properties of polysiloxane derivatives with ether bonds in the main chain  
Tsukasa Ichikawa, Sayo Mugikura, Nobukatsu Nemoto
- 3Pc021 Synthesis and chiral recognition ability of star-shaped optically active polyacetylenes  
Shota Mino, Masahide Goto, Hiromitsu Sogawa, Fumio Sanda
- 3Pd022 Sequence effect of poly(acrylic acid) blocks on stimuli-responsive property of core-crosslinked star polymers  
Hiroomi Kitajima, Shohei Ida, Shin-ichi Yusa, Shokyoku Kanaoka
- 3Pc023 Characteristic Thermoresponsive Behavior of Multiarm Star Poly(N-isopropylacrylamide) with Various Functional End Structures  
Shimon Matsumoto, Shohei Ida, Shokyoku Kanaoka
- 3Pd024 Design of Zwitterionic Polymers with 4-Armed Structure and Their Photoresponsive Gelation  
Kurumi Fukao, Akifumi Kawamura, Takashi Miyata
- 3Pc025 Synthesis and thermoresponsive properties of novel dendrimers with an oxazoline unit on the surface  
Makoto Kishi, Keigo Aoi
- 3Pd026 Control of the end groups of hyperbranched polyphenylene by means of unstoichiometric  $A_2 + B_3$  Suzuki-Miyaura polycondensation through intramolecular catalyst transfer.  
Ryusuke SHIMADA, Yuuki TAKAHASHI, Hajime SUGITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 3Pc027 Synthesis and properties of well-defined, end-functionalized hyperbranched polyamide  
Hiroki Kobayashi, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 3Pd028 Synthesis and surface characterization of cyclic polycaprolactone bearing with perfluoroheptyl group  
Kota Manabe, Kenji Sugiyama
- 3Pc029 Synthesis of hyperbranched polyimides from sterically-hindered asymmetric triamine and dianhydride  
Shu Tsushima, Kazuya Matsumoto, Mitsutoshi Jikei

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 3Pc031 Synthesis of Ternary Semi-IPN Gels via Simultaneous Method with Polysiloxane Containing Silanol Residue  
Reina Tomita, Junta Sano, Tatsuya Tsunoda, Shigeki Habaue
- 3Pd032 Synthesis of silica-dispersed-type NIPAM gel using reactive polysiloxane with dendron unit  
Minghao CHEN, Junta SATO, Junta SANO, Shigeki HABAUE
- 3Pc033 Structure-property relationship of acrylamide-based hydrogels on surface adhesiveness  
Yuto Nakano, Ying Gao, Aya Akimoto, Yuji Ohta, Xiang Li, Mitsuhiro Shibayama, Nobuyuki Tanaka, Yo Tanaka, Ryo Yoshida, Takafumi Enomoto
- 3Pd034 Rheological properties of Poly(vinyl alcohol) Gels with Transient Cross-links  
Takuro Taniguchi, Kenji Urayama
- 3Pc035 Design of Anisotropic Hydrogels by Radical Polymerization in the Presence of Oriented Inorganic Nanoparticles under Magnetic Field  
Yuki Ishida, Shohei Ida, Jeyadevan Balachandran, Shokyoku Kanaoka
- 3Pd036 Correlation between Morphology under Stretching and Mechanical Properties of Ionic Polyisoprene Elastomers  
Shinichiro Hamajima, Yohei Miwa, Masatoshi Tsunoda, Shoichi Kutsumizu
- 3Pc037 Position dependence of microphase-separated structure of polyurethane adhesive of single lap joint under shear deformation  
Kakeru Obayashi, Chien-Wei Chu, Ken Kojio, Atsushi Takahara

## C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 3Pd038 Anisotropic photo-triggered mass transfer in photoaligned liquid crystal Azobenzene polymer films  
Reona Kanazu, Issei Kitamura, Mitsuo Hara, Syusaku Nagano, Takahiro Seki

- 3Pc039 Photo- and Force-Controlled Helical Axis Alignment in Chiral Liquid Crystal Polymers  
Yudai Fuwa, Maki Yanagihara, Kyohei Hisano, Osamu Tutumi
- 3Pd040 Mechano-optical behavior of polymer-dispersed liquid crystal elastomers  
Yo Nakano, Kyouhei Hisano, Osamu Tsutsumi
- 3Pc041 Development of liquid crystalline perylene bisimide derivatives bearing a zwitter ionic moiety  
Satoshi Sugiyama, Masahiro Funahashi
- 3Pd042 New design of a liquid-crystalline zwitterion monomer for creating a gyroid nanostructured soft membrane having a 3D continuous proton conduction pathway  
Misato Takeyama, Hikaru Ohshiro, Asako Maekawa, Tsubasa Kobayashi, Takahiro Ichikawa
- 3Pc043 Rheology analysis of blue phases and polymer-stabilized blue phases under potential gradient.  
Yuki Ito, Jun Yoshioka, Koji Hukao
- 3Pd044 Extension of  $\pi$ -conjugated unit and bulk photovoltaic effect in ferroelectric liquid crystals bearing a lactate ester moiety  
Yuji Matoba, Masahiro Funahashi
- 3Pc045 Liquid-Crystalline Properties of Side-Chain Liquid-Crystalline Polymers Having Phenyl Benzoate Moieties Synthesized by Atom Transfer Radical Polymerization  
Daisuke Taguchi, Shoichi Kubo, Atsushi Shishido
- 3Pd046 Supramolecular Copolymerization in Liquid Crystalline Phase  
Daiki Morishita, Xujie Zhang, Yoshimitsu Itoh, Takuzo Aida
- 3Pc047 Fabrication of shape memory polymer actuator that responds to multiple stimuli  
Motoki NOZAKI, Tetsu MITSUMATA, Norio TSUBOKAWA, Takeshi YAMAUCHI
- 3Pd048 Creation of self-catalyzed vitrimer by using polyesters bearing amino side groups  
Takaya Inaba, Mikuhiko Hayashi, Akinori Takasu
- 3Pc049 Structural Analysis of Dynamic Network in Deformed Thermoplastic Elastomer using Delaunay Triangulation  
Haonan Liu, Xiaobin Liang, Ken Nakajima
- 3Pd050 Preparation and properties of self-healing castor oil based polyurethane utilizing thermally reversible Diels-Alder reaction  
Nobuharu Yatabe, Mitsuhiro Shibata, Naozumi Teramoto
- 3Pc051 Step- $\pi$ -conjugated polymers (149) Photoinduced electron transfer evaluation of system with a donor and an acceptor at the terminal  
Maki Tanaka, Haoxuan GUO, Hiroyuki Aota
- 3Pd052 Preparation of Microspheres of Azobenzene-based Photochromic Amorphous Molecular Materials and Their Photomechanical Behaviors  
Hajime Nigorikawa, Motona Matsubara, Hideyuki Nakano
- 3Pc053 Synthesis of amino acid-derived latent curing reagents having a disulfide bond and their application to photo-reactive materials  
Masahiro Furutani, Arata Tanaka, Kako Maeno
- 3Pd054 Step- $\pi$ -conjugated polymers (150) Synthesis of branched polymers for antenna-reaction centers of artificial photosynthesis  
Haruki Kai, Haoxuan GUO, Hiroyuki Aota
- 3Pc055 Photoalignment and photo patterning of liquid crystal polymeric film containing in-situ-formed Schiff-base end groups  
Ayaka Sakai, Toshiaki Nishizono, Mizuho Kondo, Nobuhiro Kawatsuki
- 3Pd056 Hybrid photoinduced orientation of liquid crystalline copolymer films with Schiff base and biphenylcarboxylic acid side groups  
Takehiro Uematsu, Nanaka Doi, Mizuho Kondo, Nobuhiro Kawatsuki
- 3Pc057 Deformation Analysis Using Chiral-Liquid-Crystal Polymer Particles  
Naoya Fukui, Tomoki Shigeyama, Kyohei Hisano, Osamu Tsutsumi
- 3Pd058 Fabrication of Ruthenium Light-Emitting Electrochemical Cells using Polymer Gel with Ionic Liquid  
Kazuto Ogura, Atsushi Aoki
- 3Pc061 Aromatic polymers as solid polymer electrolytes for solid-state lithium-ion batteries  
Momoka Umeki, Kan Hatakeyama, Kenichi Oyaizu

- 3Pd062 BIAN Based Low Cost and Durable Polymer Cathode Materials for Li Air Battery Application  
Badam Rajashekar, Shibuya Mayu, Bharat Srimitra Mantripragada, Noriyoshi Matsumi
- 3Pc063 Crosslinked BIAN-Based Polymer Matrices to Stabilize Silicon Anode in Lithium Ion Secondary Batteries  
Agman Gupta, Badam Rajashekar, Noriyoshi Matsumi
- 3Pd064 BIAN Based Covalent Organic Framework as Anodic Active Material in Lithium-ion Battery  
Bharat Srimitra Mantripragada, Badam Rajashekar, Noriyoshi Matsumi
- 3Pc065 Bio-derived Lithium-ion Battery Anode Material for Fast Charging and Long-cycle Life  
Kottisa Sumala Patnaik, Yueying Peng, Badam Rajashekar, Tatsuo Kaneko, Noriyoshi Matsumi
- 3Pd066 Fabrication and evaluation of anion conductive polymer electrolyte membranes for water electrolysis  
Yuri Nara, Manabu Tanaka, Hiroyoshi Kawakami
- 3Pc067 Effect of Conjugated Polymer Support on Electrocatalytic Activity of IrO<sub>2</sub> Nanoparticles  
Yusaku Asai, Badam Rajashekar, Badam, Noriyoshi Matsumi
- 3Pd068 Development of tape type hydrogen sensor operating at room temperature  
Yuma SATO, Hirofumi MIYAKE, Takahiro MURAKAMI, Shuji HARADA, Tetsu MITSUMATA, Norio TSUBOKAWA, Takeshi YAMAUCHI

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 3Pc071 Preparation of Ionic Composite Materials from Scale-down Chitin Nanofibers  
Takuya Hashiguchi, Kazuya Yamamoto, Jun-ichi Kadokawa
- 3Pd072 Formation of Hydrogels by Introduction of Several Sugar Residues on Scaled-down Chitin Nanofibers  
Ryuta Watanabe, Kazuya Yamamoto, Jun-ichi Kadokawa
- 3Pc073 Sustained release mechanism of CPC from the complex of CPC and phosphorylated pullulan  
Kaho Asano, Takumi Okihara
- 3Pd074 Preparation of disulfide-crosslinked microparticles derived from a trehalose derivative having two mercapto groups and enzymatically synthesized oligocysteine  
Tetsu Sakai, Mitsuhiro Shibata, Naozumi Teramoto
- 3Pc075 Direct observation of one molecule of surface immobilization and hydrolase enzyme activity of glycosaminoglycans  
Kouta Imai, Atushi Hirose, Tosiaki Mori

Poster3Pef(Remo)  
Presentation Time  
<e = 14:30~15:25>  
<f = 15:25~16:20>

#### **A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS**

- 3Pe001 Cationic Ring-Opening Copolymerization of Cyclic Acetals and  $\gamma$ -Butyrolactone: For Sequence Control by Main-Chain Scrambling Reactions  
Kana Takebayashi, Arihiro Kanazawa, Sadahito Aoshima
- 3Pf002 Cationic Copolymerization of Vinyl Acetate with Cyclic Acetals or 1,3-Dioxolan-4-one: Copolymerization via Crossover Reactions  
Junichi Azuma, Arihiro Kanazawa, Sadahito Aoshima
- 3Pe003 Synthesis of ABC-type Periodic Terpolymer : Selective Cyclodimerization of Oxiranes and Aldehydes and Subsequent Controlled Cationic Copolymerization with Vinyl Monomers  
Kazuya Maruyama, Arihiro Kanazawa, Sadahito Aoshima
- 3Pf004 Cationic Copolymerization of 3-Alkoxyphthalide and Oxiranes  
Yuka Takahashi, Arihiro Kanazawa, Sadahito Aoshima
- 3Pe005 Cationic Co- and Terpolymerization of 1,3-Dioxo-2-silacycloalkanes and Vinyl Compounds, Cyclic Ethers, or Carbonyl Monomers: Synthesis of Polymers with Selective Degradability  
Ryosuke Hada, Arihiro Kanazawa, Sadahito Aoshima

- 3Pf006 Design of Initiating Systems for Stereospecific Living Cationic Polymerization of Vinyl Ethers  
Hironobu Watanabe,Arihiro Kanazawa,Sadahito Aoshima
- 3Pe007 Cationic Ring-Opening Polymerization of Dithio NCA  
Reina Oki,Mei Uchiyama,Shin-ichi Matsuoka,Koji Takagi,Masato Suzuki
- 3Pf008 Living ring-opening polymerization of lactones under ambient condition induced by conjugate substitution reaction  
Keito Hagiwara,Yasuhiro Kohsaka
- 3Pe009 Alkali Metal Carboxylate-Catalyzed Ring-opening Polymerization of Epoxides  
Tianle Gao,Xiaochao Xia,Takuya Isono,Kenji Tajima,Toshifumi Satoh
- 3Pf010 Ring-opening polymerization of cyclic carbonate using polymer-supported alkali metal carboxylates  
Itsuki Takahashi,Satoru Takagi,Takuya Isono,Takuya Yamamoto,Kenji Tajima,Toshifumi Satoh
- 3Pe011 Synthesis and properties of an optically active polyurethane bearing fluorene units in the main chain  
Zhiyi Song,Heshuang Dai,Masayoshi Bando,Tamaki Nakano
- 3Pf012 Synthesis and structure of poly(benzene-1,4-diyl) derivatives bearing bulky side-chain groups  
Qingyu Wang,Zhiyi Song,Masayoshi Bando,Tamaki Nakano
- 3Pe013 Synthesis and properties of optically active poly(fluorenevinylene) derivatives with linear and hyperbranched structures  
Pengfei Wu,Masayoshi Bando,Zhiyi Song,Tamaki Nakano
- 3Pf014 Synthesis and structure of poly(phenanthrene-9,10-diyl)  
Masayoshi Bando,Zhiyi Song,Tamaki Nakano
- 3Pe015 Synthesis and Properties of Polyconjugated Ester Ketones Composed of fluorene skeletons  
Masatoshi Ohyama,Rie Yasuda,Shinsuke Miyauchi,Yasuhiro Kohsaka
- 3Pf016 Synthesis of poly(*N*-alkyl-2,7-carbazole) via catalyst-transfer polycondensation of triolborate salt monomer  
Saburo Kobayashi,Mayoh Ashiya,Brian J. Ree,Takuya Isono,Takuya Yamamoto,Kenji Tajima,Toshifumi Satoh
- 3Pe017 Synthesis of linear poly(*N*-alkyl-3,6-carbazole) via Suzuki-Miyaura catalyst-transfer condensation polymerization of AB-type 3,6-substituted carbazole monomer.  
Mayoh Ashiya,Saburo Kobayashi,Brian Ree,Takuya Isono,Takuya Yamamoto,Kenji Tajima,Toshifumi Satoh
- 3Pe021 Pendant Microphase Separation of Random Copolymers for Nanostructure Control and Material Design  
Sahori Imai,Makoto Ouchi,Takaya Terashima
- 3Pf022 Synthesis of hydrogels with amphiphilic random copolymer micelles as crosslinking points  
Hiroaki Asai,Naomasa Kusuyama,Makoto Ouchi,Takaya Terashima
- 3Pe023 Precision Synthesis of Graft Copolymers Consisting of Polylactide Graft Chains and Thermoresponsive Poly(Vinyl Ether)s via Controlled Cationic Copolymerization  
Yuya Asada,Arihiro Kanazawa,Sadahito Aoshima
- 3Pf024 Design, synthesis and properties of carbazole dendrimer with doublet-excited luminescent radical as core  
Xiaotian Rui,Ken Albrecht
- 3Pe025 Development of TADF-assisted fluorescent film with solution-processable TADF dendrimer  
Xinyan Li,Eri Hisamura,Ken Albrecht
- 3Pf026 Systematic synthesis and characterization of graft polymers with multicyclic side chains via cyclopolymerization of star-shaped macromonomers  
Yoshinobu Mato,Maho Sudo,Takuya Isono,Takuya Yamamoto,Kenji Tajima,Hironori Marubayashi,Hiroshi Jinnai,Toshifumi Satoh
- 3Pe027 Synthesis of Hyperbranched Polymer via Ring-opening Alternating Copolymerization of Cyclic Anhydride and Epoxide  
Ryota Suzuki,Xiaochao Xia,Takuya Yamamoto,J. Brian Ree,Takuya Isono,Kenji Tajima,Toshifumi Satoh

- 3Pf028 Self-Organization of Amphiphilic Poly( $\alpha$ -substituted acrylate)s Bearing Poly(ethylene glycol) Chain  
Daiki Arai, Kohei Hashimoto, Takahiro Uno, Masataka Kubo, Takahito Itoh
- 3Pe029 Synthesis of multibranched polymers from trimethylsilyl protected poly(*p*-methylstyrene)  
Kosuke Nakano, Kaoru Adachi

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 3Pe031 Toughening effect of alicyclic epoxy thermoset modified with POSS containing flexible side chains  
Yosuke Hosaka, Kohei Yabuta, Miyuki Harada, Daisuke Tanida, Yoko Onji, Akihiro Sibamoto
- 3Pf032 Molecular Simulation of Damping Elastomers with Dangling Chains  
Koki Yoshitomi, Tsuyoshi Koga
- 3Pe033 Mechanical properties of homo-IPN acrylic elastomers with interpenetrating stretched and unperturbed chains  
Toshiki Ogawa, Hayato Sakama, Syougo Nobukawa, Katuhiro Inomata
- 3Pf034 Physical Gelation of Polyacrylonitrile(PAN) Solution by Freezing and Thawing Method: Swelling Properties in PAN Gels  
Yutaka Tanaka, Daisuke Takenaka, Keigo Samoto
- 3Pe035 Preparation of movable cross-linked cellulose nanofiber composites and with its mechanical properties evaluation  
Yuki Asaki, Garry Sinawang, Motohumi Osaki, Taka-aki Asoh, Hiroyasu Yamaguchi, Akira Harada, Hiroshi Uyama, Yoshinori Takashima
- 3Pf036 Influence of the structure and concentration of crosslinkers on the tensile properties of polyacrylamide hydrogels  
Kousuke Kotani, Mitsuhiko Shibata, Naozumi Teramoto
- 3Pe037 DNA gel with near ideal 3D network structure and predictable rheological property  
Masashi Ohira, Takuya Katashima, Mitsuru Naito, Daisuke Aoki, Takamasa Sakai, Mitsuhiko Shibayama, Xiang Li

## C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 3Pf038 Meniscus Climbing of Near Infrared-responsive Shape Memory Polymer  
Yui Tsunekawa, Shin-ichi Yusa, Syuji Fujii, Yoshinobu Nakamura
- 3Pe039 Characterization of chiral oligo(*p*-phenylenevinylene) derivatives aimed at electroluminescence device  
Masaki Kunihiro, Masahiro Funahashi
- 3Pf040 The development of rotaxane-based supramolecular mechanophores showing reversible/irreversible change in their photoluminescent property  
Tatsuya Muramatsu, Yoshimitsu Sagara
- 3Pe041 Effect of DB24C8 Crosslinker in Temperature Responsive NIPAAm Network Polymer on the LCST  
Miho Yamagata, Kenjiro Onimura, Kazuhiro Yamabuki
- 3Pf042 Development of Highly Oil-absorbent Resin Having Secondary Ammonium Salt and Control of Swelling Degree  
Kenichiro Nagayama, Kenjiro Onimura, Kazuhiro Yamabuki
- 3Pe043 Grafting of poly(*N*-isopropylacrylamide) by atom transfer radical polymerization onto the surface of polyethylene composite prepared using scCO<sub>2</sub>  
Natsuki Takizawa, Toru Hoshi, Takao Aoyagi
- 3Pf044 Effect of glassy membrane properties on Oxygen-binding response time and oxygenation life time in water of polymeric cobalt(II) salen complex membranes.  
Haruki Funako, Takayuki Suzuki
- 3Pe045 Preparation of the composite materials of the silane-coupled glass non-woven fabric containing polymer spiropyrans and evaluation of their photo-responsive adsorption of metal ions on chromaticity coordinates  
Shuping Ji, Takayuki Suzuki



- 3Pf046 Evaluation of the effect of hydrophobic crosslinking sites on pH-responsive color change of the polymer dye films by statistical method  
Karen Kitano, Takayuki Suzuki
- 3Pe047 The behavior of oxygen binding of the polymer cobalt(II) complexes coordinating with a thermally stable azobenzene in the Z-form as an axial base  
Ayumi Negi, Takayuki Suzuki
- 3Pf048 Analysis of Periodic Phase-separated Structures Spontaneously Formed by Photopolymerization Using Scanning Light  
Hirona Nakamura, Yoshiaki Kobayashi, Miho Aizawa, Norihisa Akamatsu, Shoichi Kubo, Atsushi Shishido
- 3Pe049 Polymeric Micelles with Super pH-Sensitive PEG-Detachment in Intratumoral Space  
Louise Hespel, Keita Masuda, Horacio Cabral, Kazunori Katakoka
- 3Pf050 Highly Stretchable and Designable Elastomer Film with Auxetic Channel Structure  
Yukihide Tashiro, Hiroshi Endo
- 3Pe051 Force-Controlled Luminescence in Elastomers Containing Luminophores with Aggregation-Induced Emission Property  
Rina Masaki, Kyohei Hisano, Osamu Tsutsumi
- 3Pf052 Novel molecular design for short-time development of photosensitive alicyclic polyimides based on the reaction development patterning  
Momoko Komi, Yuichiro Tokoro, Toshiyuki Oyama, Daisuke Watanabe
- 3Pe053 Near infrared photoluminescence properties of locally functionalized single-walled carbon nanotubes synthesized by ortho-substituted aryl modification  
Sadahito Naka, Tsuyohiko Fujigaya, Tomohiro Shiraki
- 3Pf054 Photoinduced orientation of liquid crystalline film with schiff base and its deactivation to UV light  
Hinano Yamaguchi, Akari Ito, Yunosuke Norisada, Mizuho Kondo, Nobuhiro Kawatsuki
- 3Pe055 Induced highly ordered smectic phases in side-chain liquid crystal copolymers with a binary mesogen mixture  
Yuma Shibuya, Chika Ushiku, Naoki Hida, Takahiro Seki, Shusaku Nagano
- 3Pf056 Pollutant sensing by microporous optical resonator  
Noriharu Tanji, Hiroshi Yamagishi, Ketaro Fujita, Yohei Yamamoto
- 3Pe057 Even-odd effects on the emission of soluble gold(I)-thiolate coordination polymers in solution  
Midori Murakami, Yukatsu Shichibu, Katsuaki Konishi
- 3Pf058 Effect of Host Liquid Crystal on Photophysical Molecular Reorientation of Oligothiophene-Doped Liquid Crystals.  
Junki Yokota, Kohsuke Matsumoto, Koji Usui, Atsushi Shishido
- 3Pe059 Photoinduced phase transition of compatible polymer blends of side-chain liquid crystalline polymers containing azobenzene mesogens  
Takumi KOKUBO, Tatsunaga NAKAJIMA, Naoki HIDA, Takahiro SEKI, Shusaku NAGANO
- 3Pe061 Fabrication of proton conducting membrane composed of acid-grafted polybenzimidazole copolymer  
Hiroto Miura, Hoon Han, Yuki Motoishi, Naoki Tanaka, Tsuyohiko Fujigaya
- 3Pf062 Electrochemical properties of platinum alternative oxygen reduction catalyst for polymer electrolyte fuel cells composed of metallic phthalocyanine composite  
Hiroki Matsumoto, Kento Arai, Tsukasa Ichikawa, Izuru Kobayashi, Nobukatsu Nemoto, Yudai Kitagawa, Kotaro Yoshioka, Masaji Akimoto
- 3Pe063 Fabrication and characterizations of acid / base blend polymer nanofiber composite membranes for high temperature and low humidity fuel cell operation  
Kazuto Suzuki, Manabu Tanaka, Hiroyoshi Kawakami
- 3Pf064 Evaluation of Silicon-based Anodic Electrode for Lithium Ion Secondary Battery Using Poly(vinylphosphonic acid) as Anodic Binder  
Noriyuki Takamori, Tadashi Yamazaki, Rajashekar Badam, Noriyoshi Matsumi
- 3Pe065 Study of cathode binder materials for lithium-ion batteries using poly-carbonate based solid polymer electrolyte  
Yang Sun, Yoichi Tominaga

- 3Pf066 Ion-conductive properties of polycarbonate-based electrolyte/lignin composites  
Zitong Liu, Yoichi Tominaga, Kazuhiro Shikinaka, Yuichiro Otsuka, Masaya Nakamura
- 3Pe067 Synthesis of novel poly(borosiloxane) binder with pyridyl group and stabilization of silicon anode in lithium ion batteries  
Krishna Prasad Gannavarapu, Badam Rajashekar, Noriyoshi Matsumi
- 3Pf068 Lithium Borate Type Polymer Derived from Caffeic Acid as Water Soluble Binder for Lithium Ion Battery Anode  
Anusha Pradhan, Badam Rajashekar, Noriyoshi Matsumi

#### **D. BIOPOLYMERS AND BIORELATED POLYMERS**

- 3Pe071 Effect of polymer side-chain structure and spacing on cold crystallization of water in polymer matrix  
Chiaki Umakoshi, Toshiki Sonoda, Shingo Kobayashi, Masaru Tanaka
- 3Pf072 Impact of Polymer Chain End for Hydration Structure of Poly(2-methoxyethyl acrylate)  
Shinnosuke Nishimura, Tomouya Ueda, Daiki Murakami, Masaru Tanaka
- 3Pe073 Observation of the Hydrated Polymer Layer at PMEA/Water Interface by Frequency Modulation Atomic Force Microscopy  
Tomoki Otsuka, Shinnosuke Nishimura, Tomoya Ueda, Daiki Murakami, Masaru Tanaka
- 3Pf074 Synthesis of crosslinked MPC polymers with different hydrophobic anchoring moieties and the surface modification  
Kazuto Uchida, Tsukuru Masuda, Shintaro Hara, Madoka Takai
- 3Pe075 Protein adsorption behavior to poly (L-lactide-co-glycolide) -poly (1,5-dioxepan-2-one) multi-block copolymer  
Yoshiki Kaneda, Kazuya Matsumoto, Mitsutoshi Jikei, Masaki Hikida
- 3Pf076 Creation of degradable hydrogel surfaces with maintained PEG-grafts for removal of adsorbed protein layer  
Syuuhei Komatsu, Tatsuki Kamiya, Akihiko Kikuchi
- 3Pe077 Synthesis of urethane elastomers containing polyphosphoesters.  
Yuma Fujita, Yasuhiko Iwasaki