

## Room P

### Poster Presentation Time

Event Hall		Booth No.	001	002	003	004	005	.....	125	126
Day		Time								
May 23 Wed.	1P	9:30- 9:40								
		9:40-10:00								
		10:00-10:40	a	■		■		■		■
	10:40-11:20	b		■		■			■	■
	11:20-11:30									
	24 Thu.	2P	12:30-12:40							
12:40-13:00										
13:00-13:40		c	■		■		■		■	
13:40-14:20		d		■		■			■	■
25 Fri.	3P	14:20-14:30								
		14:30-14:40								
		14:40-15:00								
	15:00-15:40	e	■		■		■		■	
	15:40-16:20	f		■		■			■	■
		16:20-16:30								

■ Presentation Time

▨ Mounting & Removing Time

□ Display Time

#### Wed. May 23

Presentation Time

<a = 10:00~10:40>

<b = 10:40~11:20>

### B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 1Pa001 Synthesis of PVC hollow porous material  
Takahiro Matsunaga, Kazuaki Yamamoto, Susumu Yamada, Takeshi Kaikawa
- 1Pb002 Physical ageing response of a polystyrene glass subjected to large stresses: the increase in fictive temperature  
Yutaka Tanaka
- 1Pa003 Relation between local dynamics and tensile properties of antiplasticized polycarbonate  
Mai Maeda, Shogo Nobukawa, Katsuhiko Inomata
- 1Pb004 Molecular aggregation structure of poly(methyl methacrylate) based on in situ analysis methods in fatigue process  
Kento Fukada, Tatsuya Kubozono, Shiori Masuda, Chigusa Nagano, Shuhei Nozaki, Ken Kojio, Atsushi Takahara
- 1Pa005 Temperature dependence of styrene oligomer(A-2500) by dynamic light scattering  
Minato Sugisaki, Jun Fujimura, Itaru Tsukushi
- 1Pb006 The influence of high pressure hydrogen gas on the structure of solid-state polymers  
Fumitoshi Kaneko, Hirotaada Fujiwara, Shin Nishimura
- 1Pa007 The Xe sorption properties and Xe-129 NMR of glassy polymers at low temperatures  
Hajime Ishitani, Hiroaki Yoshimizu
- 1Pb008 Investigation on a formation process of poly(lactic acid) monoliths by light scattering method  
Shima Saito, Hideko T. Oyama, Yuno Ukaji, Hiromu Saito

- 1Pa009 Gas sorption properties and local molecular mobility of poly 4-methyl-1-pentene  
Yusuke Nomura, Hiroaki Yoshimizu
- 1Pb010 Higher-Order Structure of Polybutylene Terephthalate by Terahertz and Infrared Spectroscopy  
Yumiko Yamamoto, Hiromichi Hoshina, Harumi Sato
- 1Pa011 Study on Intermolecular Interaction of Polydioxanone by Infrared and Terahertz Spectroscopies  
Natsumi Okazaki, Hiromichi Hoshina, Harumi Sato
- 1Pb012 Crystallization and development of transient domains of poly(p-phenylene sulfide) around glass transition temperature  
Yasutoshi Tanzawa, Mitsuo Ando
- 1Pa013 Effects of Ring Size and Coverage on the Viscoelastic Behavior of Polyrotaxane Glass  
Kazuaki Kato, Akihiro Ohara, Kaito Nemoto, Koichi Mayumi, Hideaki Yokoyama, Kohzo Ito
- 1Pb014 Synthesis of ABA triblock copolymer containing photo cross-linkable A blocks and photo cross-linking effects on morphology  
Isamu Kawarazaki, Mikihiro Hayashi, Akinori Takasu
- 1Pa015 Real-Time High-Resolution AFM of Crystallization Process of Isotactic Poly(methyl methacrylate) Monolayer under High Humidity  
Yuki Ono, Jiro Kumaki
- 1Pb016 Change in Molecular Aggregation State and Fracture Mechanism of Amorphous Polymer Films during Bulge Deformation  
Chigusa Nagano, Aya Fujimoyo, Shiori Masuda, Chao Hung Cheng, Shuhei Nozaki, Hiohmi Watanabe, Ken Kojio, Astushi Takahara
- 1Pa017 Clarification of kinetics of structure formation for poly( $\epsilon$ -caprolactone) in spin-coating film-forming processes  
Jinkyu Park, Shun Miyamoto, Mami Goda, Junki Yamamoto, Shinichi Sakurai, Hiroyasu Masunaga, Takaaki Hikima, Sono Sasaki
- 1Pb018 Investigation of Edge-on/Flat-on type Lamellar Orientation in Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Thin Films and Its Influential Factors  
Mami Goda, Shinichi Sakurai, Hideki Yamane, Hiroyasu Masunaga, Takaaki Hikima, Masaki Takata, Tomoyasu Hirai, Atsushi Takahara, Sono Sasaki
- 1Pa019 Analysis of conformational change in the crystal phase transition of cellulose  
Satoshi Nomura, Shin-ichiro Sato, Tomoki Erata
- 1Pb020 Crystallization and Solid-state Structure of Isohexide-derived Polyesters  
Hironori MARUBAYASHI, Yuji SHINOZUKA, Takaaki USHIO, Shuichi NOJIMA
- 1Pa021 Crystallization and Solid-state Structure of Substituted Poly(lactic acid) Having sec-Butyl Side Chains  
Ryo Mizukami, Hironori Marubayashi, Shuichi Nojima
- 1Pb022 Inclusion complex formation kinetics of poly(ethylene glycol) and alpha-cyclodextrins  
Ken Fujita, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 1Pb024 The influence of annealing on toughness of polycarbonate  
Toshiki Sato, Shotaro Nishitsuji, Hiroshi Ito, Masaru Ishikawa
- 1Pa025 Photo plasticization of polymer matrix containing azobenzene  
Takuya Sumi, Syogo Nobukawa, Katsuhiko Inomata
- 1Pb026 Effects of Thermal History on Free Volume and Mechanical Properties of Amorphous Polymer  
Naoya Kurose, Hiroki Takeshita, Katsuhisa Tokumitsu
- 1Pa027 Syntheses and Optical Properties of Arsole-Fused Heteropentacenes Containing Chalcogen Atoms  
Toshiki Fujii, Susumu Tanaka, Hiroaki Imoto, Kensuke Naka
- 1Pb028 Effect of Chemical Structure, Molecular Chain Orientation on the Thermo-optic Coefficients and Refractive index of Polyimide Films Measured by Optical Interferometry.  
Megumi Fujita, Mari Harada, Ryohei Ishige, Shinji Ando

- 1Pa029 Deformation Behavior of Multi-Porous Polymer Film during Biaxial Stretching  
Takahiko Kawai, Mizuki Kataniwa, Shin-ichi Kuroda, Tomoyuki Nemoto, Shunsuke Koido
- 1Pb030 Luminescence and Slow Magnetic Relaxation of Lanthanide-based Metallopolymer  
Takefumi Yoshida, Masayoshi HIGUCHI
- 1Pa031 Tensile properties of poly(methyl methacrylate)-graft-poly(ethylene glycol) with lithium salt addition  
Manami Tsuge, Ryouta Noba, Shogo Nobukawa, Katsuhiko Inomata
- 1Pa033 Molecular conformation of poly(L-lactic acid) and polyglycolic acid in fluoroalcohol  
Yoshinori Suzuki, Takahiro Watanabe, Hiroki Kosugi, Moriya Kikuchi, Seigou Kawaguchi
- 1Pb034 Molecular dynamics study of poly(vinylidene fluoride) in solution  
Toshiyuki Shikata, Ayana Tagawa, Hideo Horibe
- 1Pa035 Solution properties of pH-responsive amphoteric diblock copolymer  
Koki Matsubara, Shin-ichi Yusa
- 1Pb036 Unusual photoresponsive behaviors of upper critical solution temperature of polymers in an azobenzene-doped liquid crystal  
Yuki Kawata, Takahiro Yamamoto, Hideyuki Kihara, Yasuhisa Yamamura, Kazuya Saito, Kohji Ohno
- 1Pa037 Thermo-responsive behavior of amphoteric diblock copolymers composed of anion and cation  
Yuuki Kawata, Shohei Kozuka, Shin-ichi Yusa
- 1Pb038 Main chain structure of poly(substitute methylene)s depending on their tacticity  
Kazuhiro Shikinaka, Kenta Suzuki, Hiroyasu Masunaga, Kiyotaka Shigehara
- 1Pa039 Aggregation of poly(ethyl-oxazoline) induced by inter-polymer hydrogen bonds and thermoresponsibility  
Yasuhiro Matsuda, Shota Morishima, Atsushi Takahara, Shigeru Tasaka
- 1Pb040 Structural analysis of resorcin[4]arene-based monodispersed reverse micelles using small-angle scattering techniques.  
Rika Miyake, Shota Fujii, Rintaro Takahashi, Kazuo Sakurai
- 1Pa041 Study of Chiral Induction of an Optically Active Polyfluorene derivative Using Computational Simulation of Dimer Model  
Yuki Hara, Yusuke Sanada, Yukiteru Katsumoto
- 1Pb042 Phase separation dynamics of poly(*N*-isopropylacrylamide) copolymerized with a hydrophilic monomer  
Moe Kitaba, Mitsuhiro Matsumoto, Taka-Aki Asoh, Tatsuya Shoji, Takashi Nishiyama, Hideo Horibe, Yasuyuki Tsuboi
- 1Pa043 A thermally-stable mesoporous monolith made of engineering plastics  
Sadaki SAMITSU
- 1Pb044 Solvent effects on conformation of rod brushes  
Kenta Watanabe, Moriya Kikuchi, Seigou Kawaguchi
- 1Pa045 Analysis of dynamics of polyrotaxane in solution and gel by magnetic nuclear relaxation time measurements  
Yuta Hidaka, Koichi Mayumi, Lan Jiang, Hideaki Yokoyama, Kohzo Ito
- 1Pb046 Micellization behavior of the alternating multi-block copolymer with the stereo-controlled PNIPAm  
Kazuaki Rikiyama, Yukiteru Katsumoto
- 1Pa047 Effect of Solubility on Structure of Diblock Copolymer Micelles in Mixture Solvents  
Hiroki Hamamoto, Katsuhiko Yamamoto

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 1Pa049 Wholly Aromatic Poly(ester imide)s with Low Thermal Expansion Properties, Optical Transparency, Heat Resistance, and Solution-Processability  
Masatoshi Hasegawa, Tomoki Hirai, Tomohiro Ishigami, Shinya Takahashi, Ishii Junichi

- 1Pb050 Polybenzoxazoles with Low Coefficient of Thermal Expansion (4). Effect of Amide-containing Bis(o-aminophenol)  
Junichi ISHII,Ryosuke WATANABE,Masatoshi HASEGAWA
- 1Pa051 Solution-processable Colorless Polyimides Derived from Hydrogenated Pyromellitic Dianhydride (H-PMDA) (5). Strategy for Improving Film Toughness and Low Thermal Expansion Property.  
Katsuki ICHIKAWA,Junichi ISHII,Masatoshi HASEGAWA
- 1Pb052 Solution-processable Transparent Polyimides (3). Solubility in Aqueous Solutions  
Yuri NAGASAWA,Junichi ISHII,Masatoshi HASEGAWA
- 1Pa053 Low-modulus Polyimides (12). Improvement of Adhesion Strength with Copper Foil  
Kota Suzuki,Mayumi Saeki,Junichi Ishii,Masatoshi Hasegawa
- 1Pb054 Synthesis of Polysiloxane-based Ionic Liquids with Ionic Pendant Moiety  
Yuya Katayose,Tsukasa Ichikawa,Nobukatsu Nemoto
- 1Pa055 The physical characteristics of volume phase transition gels crosslinked with silica nanoparticles  
Naoto Yoshida,Yuusuke Ishikawa,Takumi Sano,Syunsuke Tanahashi,Hideyuki Itagaki
- 1Pb056 A composite material possessing supramolecular bonding between cellulose fiber and polymer matrix  
Akihide Sugawara,Taka-Aki Asoh,Yoshinori Takashima,Akira Harada,Hiroshi Uyama
- 1Pa057 Toughening of thermoplastic elastomers by introduction of hydrogen bonds between hard and soft phases.  
Saki Kawana,Shuya Nakai,Shintaro Nakagawa,Naoko Yoshie
- 1Pb058 Properties of salt-in-polymer-type polymer solid electrolyte with homogeneous network  
Monami TOSA,Kei HASHIMOTO,Hisashi KOKUBO,Masayoshi WATANABE
- 1Pa059 Preparation and properties of cured polyimides from highly-soluble thermosetting imide oligomers containing triazine units  
Ryo Nagao,Yoshikazu Go-ukon,Mutsumi Kamiyama,Shigecko Sasaki,Yuji Shibasaki,Yoshiyuki Oishi
- 1Pb060 Application of low temperature curing composition using blocked isocyanate monomer.  
Mina Onishi,Katsutoshi Ono,Tomomitsu Kato,Kouji Ogawa,Songhai Shao,Yuki Watanabe
- 1Pa061 The characteristics of UV curing composite using multifunctional secondary thiol compounds  
Mina Onishi,Kenta Asakawa,Koji Mitani
- 1Pb062 Thermal and mechanical properties of polybenzoxazines derived from polyfunctional phenols  
Shunichiro Matsumura,Tsubasa Osawa,Tsutomu Takeichi,Takehiro Kawauchi
- 1Pa063 Correlation between primary structure and radical scavenging effects of nanocarbon materials as antioxidants.  
Koki Akamatsu,Hideko Oyama,Seisuke Ata
- 1Pb064 Improvement of adhesion strength for carbon fiber/polypropylene interface by microbubble treatment using electrophoretic method  
Akiyoshi Takeno,Shinya Takahashi,Daiki Ishida
- 1Pb066 Design of One-dimensional Supramolecular Assembly bearing Chiral [4n]annulene Core  
Michihisa Ueda,Yoshimitsu Itoh,Takuzo Aida
- 1Pa067 Environment-Dependent Fluorescence of PEGylated Viscosity Probe  
Hidetsugu Kitakado,Soichi Yokoyama,Shohei Saito,Atsuhiko Osuka
- 1Pb068 Photoluminescence behavior of gold polymer complex with NHC ligand  
Masaya Yamane,Shinya Nakamura,Sathyanarayana Arruri,Srinivas Katam,Prabusankar Ganesan,Osamu Tsutsumi
- 1Pa069 Synthesis and characterization of 2-nitrobenzyl photodegradable surface modifiers with siloxane bonds at 4-position  
Shundai Genda,Shoko Saito,Michiko Ito,Kazuo Yamaguchi
- 1Pb070 Development of hydrogel showing near infrared-to-blue photon upconversion

Yoichi Sasaki, Bharmoria Pankaj, Itsuki Ajioka, Nobuhiro Yanai, Nobuo Kimizuka

- 1Pa071 Evaluation of Photothermal Materials and Thermal-Responsiveness Polymers for a DNN Neural Device  
Shiori Konisho, Takuya Otsuka
- 1Pb072 Functional mechanisms of thermo-responsive polymers revealed by calorimetry and time-resolved fluorescence anisotropy measurements  
Chie Otsuka, Yasuo Asami, Akinobu Hayashi, Hidetoshi Tokuyama, Seiichi Uchiyama
- 1Pa073 Evaluation of gap distance change between gold nano-dots immobilized on the polyacrylic acid gel surface  
Satoru Hamajima, Hideyuki Mitomo, Yasutaka Matsuo, Kenichi Niikura, Kuniharu Ijro
- 1Pb074 Control of polymer gel degradation behavior  
Suguru Goshō, Yasutaka Anraku, Ichiro Sakuma, Yuki Akagi
- 1Pa075 Core-crosslinked star polymers with many arms for novel soft materials  
Shohei Ida, Keisuke Takimoto, Ryuichi Yoshida, Yuri Toyama, Chisato Maezawa, Shokyoku Kanaoka
- 1Pb076 Synthesis of a novel hydrogel from acrylated poly(arbutin) with poly(ethylene imine)  
Ayaka Seto, Hisayoshi Kofujita, Yoshiyuki Oishi, Yuji Shibasaki
- 1Pa077 Synthesis and property of a novel hydrogel by acrylated poly(arbutin) with itaconic acid  
Rika Kajiwara, Hisayoshi Kofujita, Yoshiyuki Oishi, Yuji Shibasaki
- 1Pb078 Precise control of sol-gel transition temperatures by simply mixing two different ABC triblock copolymer solutions  
Michika Onoda, Takeshi Ueki, Ryota Tamate, Aya Akimoto, Timothy Lodge, Ryo Yoshida
- 1Pa079 Grafting Effects of Poly(N-Isopropylacrylamide) on Water Adsorption and Desorption Properties  
Shunpei Katagiri, Hisashi Honda
- 1Pb080 Design of polymers consisting of three-armed oligo(ethylene glycol) enabling condensation of hydrophobic molecules  
Hidenari Kayano, Syuuhei Komatsu, Taka-Aki Asoh, Ryo Ishihara, Akihiko Kikuchi
- 1Pa081 The properties of surface modified with photodegradable silane coupling agents having POSS moieties  
Yuta Ono, Noriko Chikaraishi, Kazuo Yamaguchi
- 1Pb082 CO<sub>2</sub>-responsive liquid marble  
Shotaro Yukioka, Syuji Fujii, Yoshinobu Nakamura, Shin-ichi Yusa
- 1Pa083 Self-assembly polymer brush formation of liquid-crystalline block copolymer in dewetting process  
Koji Mukai, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 1Pb084 Preparation and molecular orientation evaluation of humidity-responsive azobenzene derivative thin film  
Ayaka Masuda, Mitsuo Hara, Shusaku Nagano, takahiro Seki
- 1Pa085 Fabrication of photodurable reoriented liquid crystalline copolymer films with benzoic acid and in situ formation of N-benzylideneaniline side groups  
Shogo Inada, Ryosuke Fujii, Tomoro Uchikawa, Mizuho Kondo, Nobuhiro Kawatsuki
- 1Pb086 Introduction of N-benzylideneaniline crosslinking point into crosslinked liquid crystalline polymer by using polymer reaction and photoinduced bending behavior.  
Koichi Kotera, Ryohei Fukae, Mizuho Kondo, Nobuhiro Kawatsuki
- 1Pa087 Photoinduced exfoliation behavior of hydrogen bonding N-benzylideneaniline liquid crystalline polymer  
Daijiro Kojima, Hiromi Ikoma, Mizuho Kondo, Nobuhiro Kawatsuki
- 1Pb088 Molecular Motion and Photoinduced orientation in Diblock/Random Copolymer Doped with N-Benzylideneaniline Derivatives  
Saki Fukunaga, Hiromi Ikoma, Mizuho Kondo, Nobuhiro Kawatsuki
- 1Pa089 Photoalignment and surface shape change of liquid crystalline polymer films with N-benzylideneaniline group by topological beams

Nahomi Waki, Mizuho Kondo, Nobuhiro Kawatsuki, Hiroshi Ono, Tomoyuki Sasaki, Moritsugu Sakamoto

- 1Pb090 Hetero-Smectic Structure of Random Copolymer with Azobenzene and Oligo(Methyl Methacrylate) Side Chains  
Ryota Higashi, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 1Pa091 Preparation of Liquid Mables by Using Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomers/Cellulose Fiber Composites  
Shunta Yamamoto, Yuri Oikawa, Hideo Sawada
- 1Pb092 Adsorption of Radical Polymerizable Monomers by Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomer/Cyclodextrin Polymer Composites Possessing Superoleophilic/Superhydrophobic Characteristic  
Takanobu Morimoto, Katsumi Yamashita, Jun-ichi Suzuki, Masaya Chiba, Hideo Sawada
- 1Pa093 Preparation of Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomer/Magnetite Composites - Application to the Separation of Oil and Water  
Seigo Okada, Katsumi Yamashita, Hideo Sawada
- 1Pb094 Preparation and Application of Fluorinated Aliphatic Diols/Organic Phosphonic Acids/Magnetite Nanocomposites  
Katsumi Yamashita, Yoshiyama Kaneumi, Tetsushi Kijima, Keisuke Kokin, Hideo Sawada
- 1Pa095 Fabrication of Fluoroalkyl End-capped Vinyltrimethoxysilane Oligomer/Poly(vinyl alcohol) Composite Films  
Yuta Aomi, Hideo Sawada
- 1Pb096 Preparation and Characterization of Polypyrrole-ITO Nanocomposite Conductive Inks  
Yukihiro Tsugita, Shuichi Maeda
- 1Pa097 Amperometric glucose sensor based on aqueous-dispersed single-walled carbon nanotubes wrapped with a redox polymer  
Hsiu-Pen Lin, Jun Akimoto, Yoshihiro Ito, Yaw-Kuen Li, Masuki Kawamoto
- 1Pb098 Preparation of zirconia nanoparticles dispersions surface-modified by an acid anhydride and its application to hybrid thin films  
Atsushi Sasaki, Hiroyuki Enomoto, Kazuhide Yoshiyama, Hiroaki Imoto, Kensuke Naka, Kimihiro Matsukawa
- 1Pa099 Lanthanide Oxides Prepared on the polymeric micro-spheres possessing comb-like polyethyleneimine  
Sarina Hattori, Daiki Soma, Katsuya Kaikake, Ren-Hua Jin
- 1Pb100 Superacid-catalyzed preparation of highly dispersible metal oxide nanoparticles without hydrocarbon components and their hybridization with organic polymer  
Taishi Nakahara, Yoshiro Kaneko
- 1Pa101 Radical Polymerization of Vinyl Monomers on Chiral Silica Matrix  
Rei Nemoto, Seiji Tsunega, Ren-Hua Jin
- 1Pb102 Effect of Enantiomer Excess in Template on the Formation of Chiral Silica  
Kei Ohta, Seiji Tsunega, Ren-Hua Jin
- 1Pa103 Preparation of organic-inorganic hybrid capsules consisting of biodegradable coacervate droplets coated with carbonate apatite  
Hokuto Santa, Yui Ikedo, Syuuhei Komatsu, Taka-Aki Asoh, Ryo Ishihara, Akihiko Kikuchi
- 1Pb104 Synthesis of polyamide and hydroxyapatite nanocomposite  
Tomoyo Kawamura, Toshiaki Ougisawa, Kenya Sonobe, Asami Ohashi, Harumi Watanabe, Katsushi Watanabe, Hiroshi Oyamada, Masaaki Aramaki
- 1Pa105 Polymorphs of CaCO<sub>3</sub> mineralized in interpenetrating polymer networks composed of alginic acid and poly(4-vinyl pyridine)  
Momoka Nakatani, Kazuki Sugimura, Yoshiyuki Nishio
- 1Pb106 Development of Functional Composite Materials Based on Cellulose Derivatives and Amorphous Calcium Carbonate  
David Kuo, Satoshi Kajiyama, Tatsuya Nishimura, Takashi Kato
- 1Pa107 Nanostructural Control of Calcium Phosphate/Organic Polymer Hybrid Thin Films with

## Macromolecular Templates

Rino ICHIKAWA, Satoshi KAJIYAMA, Misato IIMURA, Takashi KATO

- 1Pb108 Synthesis and properties of new silicon nanosheets with alkenyl and alkynyl substituents  
Yuki Matsuzawa, Yuki Tanaka, Yohei Adachi, Joji Ohshita, Masataka Ohashi, Hideyuki Nakano

## D. BIOPOLYMERS AND BIORELATED POLYMERS

- 1Pb110 Multifunctional Gold Nanoparticles for Protein Degradation  
Kiyoshi Morishita, Reika Tei, Kou Okuro, Takuzo Aida
- 1Pa111 Preparation of keratin nanoparticles with thermosensitivity and plasmonic property  
Kaori Ito, Yuuka Fukui, Keiji Fujimoto
- 1Pb112 Construction and its characterization of hybrid nanoparticle with biological membranes  
Momoka Nakura, Riku Kawasaki, Shin-ichi Sawada, Yoshihiro Sasaki, Kazunari Akiyoshi
- 1Pa113 Functionalization of Light-Harvesting 1/Reaction Center (LH1-RC) for a Photocurrent Generation Device  
Hiromi Harada, Nobutaka Takeda, Masaharu Kondo, Mamoru Nango, Zheng-Yu Wang-Otomo, Takehisa Dewa
- 1Pb114 Construction and evaluation of multilayered planar lipid membrane containing photosynthetic light-harvesting complexes (LH2)  
Momoka Akaike, Soichiro Hayashi, Masaharu Kondo, Takehisa Dewa
- 1Pa115 Development of multifunctional immunity-inducing system using chondroitin sulfate derivative-modified liposomes  
Minori Okubo, Eiji Yuba, Atsushi Harada, Kenji Kono
- 1Pb116 Surface Characterization and Synthesis of Zwitterionic Polyelectrolytes Containing Inverse-phosphorylcholine Units  
Motoyasu Kobayashi, Saori Mihara, Kazuo Yamaguchi
- 1Pa117 Preparation of structurally stable micelles in vivo by crosslinking of hydrophobic core of micelle  
Rena Tanaka, shota Fujii, Rintaro Takahashi, Kazuo Sakurai
- 1Pb118 Synthesis of Catalase Microtube Having Self-Propelling Ability in Aqueous Medium  
Natsuho Sugai, Yoko Nakai, Yoshitsugu Morita, Teruyuki Komatsu
- 1Pa119 Synthesis of amphiphilic block copolymer including sulfobetaine and stimuli-response evaluation  
Hiroki Uehara, Aki Kashiwazaki, Shingo Kobayashi, Masaru Tanaka
- 1Pb120 Preparation of polyion complex micelles made from pH-responsive diblock copolymer having membrane destructivity.  
Ken Gotoh, Yusuke Onuma, Syuuhei Komatsu, Ryo Ishihara, Glen S. Kwon, Akihiko Kikuchi
- 1Pa121 Intracellular delivery of proteins with polyphosphoester vesicles  
Masayuki Fujita, Shin-ichi Yusa, Yasuhiko Iwasaki
- 1Pb122 Preparation of DNA quadruplex nanogels for DDS.  
Kohei TATSUMI, Shizuma TANAKA, Kota SAKAMOTO, Shinsuke YUKAMI, Akinori KUZUYA, Yuichi OHYA
- 1Pa123 Formation and optical properties of supramolecular nanosheet formed from the binary self-assembly of inosinic acid-bearing bolaamphiphile and DNA  
Rika IWAURA
- 1Pb124 Dynamic Properties of Protein Needles fused with Functional Molecules  
Yuki Hishikawa, Satoshi Abe, Takafumi Ueno
- 1Pa125 Stimuli-responsive crystallization of the amino acid derivatives triggered with the triboelectric charged surface  
Hisashi Takeuchi, Masayoshi Tanaka

Presentation Time  
<c = 13:00~13:40>  
<d = 13:40~14:20>

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

- 1Pc001 Spin-Trapping Analysis for Degradation Mechanism of Butadiene Rubber  
Satsuki Cho, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi, Ryohei Shindo, Koichiro Miyoshi, Yuko Sekine
- 1Pd002 Spin-Trapping Analysis of Oxygen Effect on Thermal Degradation of Isoprene Rubber  
Ai Hasegawa, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi, Ryohei Shindo, Koichiro Miyoshi, Yuko Sekine
- 1Pc003 Spin-Trapping Analysis for Degradation of Poly(methyl methacrylate)  
Shota Ichise, Kenji Kinashi, Wataru Sakai, Naoto Tutumi
- 1Pd004 Spin-Trapping Analysis for Mechanical Degradation Mechanism of Polystyrene  
Masaki Fujinami, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi
- 1Pc005 Synthesis of core cross-linked polymeric nanoparticles containing thiophene and sulfur using elemental sulfur.  
Hiroki Otsuka, Kazuhiro Nakabayashi, Hideharu Mori
- 1Pd006 Post-Modification of Cross-Linked Polymer Gels via Freezing-Induced Radical Generation  
Sota Kato, Daisuke Aoki, Hideyuki Otsuka
- 1Pc007 Main chain-scission and -exchange reactions of poly(conjugated ester)s via conjugate substitution of  $\alpha$ -(oxymethyl)acrylate  
Takumi Miyazaki, Yasuhiro Kohsaka
- 1Pd008 Stabilization reactions of poly(butylene terephthalate) with epoxy compounds studied by MALDI-MS and pyrolysis-GC-MS  
masahiro Kurimoto, Hajime Ohtani, Hiroaki Akutsu, Kazufumi Watanabe
- 1Pc009 Cross-linking of unsaturated bond-containing polymers with bifunctional rotaxane cross-linker  
Momoko Ofuchi, Tadashi Tsukamoto, Toshikazu Takata
- 1Pd010 Reaction of an Algal Oil Botryococcene with Hydrosilylated Polyethylene Glycol  
Moe Saito, Hidehisa Kawashima, Masashi Kijima
- 1Pc011 Direct synthesis of block copolymer containing poly(3-hexylthiophene) segment by polymer linking reaction  
Tomoya Higashihara, Yamato Shoji
- 1Pd012 Pd-catalyzed synthesis of polydimethylsiloxanes with functional end groups and their applications  
FENGTAO ZHENG, Takashi Kai, Yohei Adachi, Joji Ohshita
- 1Pc013 A basic study on degradation behavior of three-dimensional network structure  
Yusuke Kitazaki, Katsuhisa Takeshita, Katsuhisa Tokumitsu
- 1Pd014 A study on the degradation of polyolefin in addition of polysilane materials  
Hideya Suzuki, Katsuhisa Tokumitsu, Hiroki Takeshita

#### **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

- 1Pd016 In-situ Secondary Structure Analysis of Polyaspartate Exhibiting Reversible Helix-Helix Transition by Synchrotron X-ray Scattering  
Yuki Orito, Hiroyasu Masunaga, Hidemine Furuya, Akihiro Abe
- 1Pc017 Establishment of the electron density imaging of the poly(3-hydroxybutyrate) paracrystal structure on the basis of maximum entropy method and the powder X-ray diffraction.  
Junki Yamamoto, Miho Nagao, Shinichi Sakurai, Kenichi Kato, Masaki Takata, Sono Sasaki
- 1Pd018 Structure change of polyisobutylene / nanoparticle interface  
Akira Ushio, Yasuhiro Matsuda, Shigeru Tasaka
- 1Pc019 Preparation of synthetic isoprene rubber with nano matrix structure



Hironari Nishioka, Seiichi Kawahara, Yoshimasa Yamamoto

- 1Pd020 Evaluation of dispersion state of silica particles in rubber during deformation by Reverse Monte Carlo method  
Tomotaka Nakatani, Shinji Kohara, Taiki Hoshino, So Fujinami, Masaki Takata
- 1Pc021 Internal structural response of elongated Flemion membrane by small-angle/wide-angle X-ray scattering  
So Fujinami, Taiki Hoshino, Tomotaka Nakatani, Masaki Takata
- 1Pd022 Raman spectroscopic study of microscopic deformation of HDPE with various molecular weight distribution under uniaxial stretching.  
Takumitsu Kida, Yusuke Hiejima, Koh-hei Nitta
- 1Pc023 Rate of strain-induced crystallization of natural rubber under constant supercooling  
Masatoshi Tosaka
- 1Pd024 Morphology and polymorphism of propylene-ethylene random copolymer crystals grown in thin films  
Ken Taguchi, Akihiko Toda, Toru Imai, Koji Yamada
- 1Pc025 Crystal morphology of bi-drawn polyethylene films on various molecular weight components  
Go Matsuba, Yo Okawa, Shin-ichi Takata
- 1Pd026 The annealing effects of microscopic morphology in HDPE using in-situ Raman spectroscopy.  
Misato Nabata, Takumitsu Kida, Koh-hei Nitta
- 1Pc027 Development of Large-Area and Thin Membrane Ultra-High Molecular Weight Polyethylene by Biaxial Melt-Drawing Technique and Subsequent Preparation of Porous Membrane  
Daiki Tomiya, Yui Shimizu, Daiki Nara, Takeshi Yanobe, Hiroki Uehara
- 1Pd028 Structural Development during Drawing of Linear Low Density Polyethylene and Stimulus Response As Evaluated by In-Situ X-ray Measurement  
Hiroaki Yoshizawa, Daiki Nara, Takeshi Yamanobe, Hiroki Uehara, Koki Aoyama, Hiroyasu Masunaga, Maki Hiraoka, Naoki Hayashi
- 1Pc029 Crystallization Behavior during Annealing Process of Ethylene/Vinyl Alcohol Copolymer with different Compositions.  
Shusuke Nishida, Takahiko Nakaoki
- 1Pd030 Melting Behavior of Ultrahigh Molecular Weight Polyethylene annealed under tension.  
Koichiro Nishida, Takahiko Nakaoki, Hideaki Ishihara
- 1Pc031 Helical structure model of micro-monoclinic multi-domain of Isotactic Polypropylene  
Atsuhiko Kunishige
- 1Pd032 Membrane Preparation of Novel Cyclic Polyolefin and Its Structural and Property Change Induced by Drawing  
Daiki Nara, Tomoki Okushio, Hiroki Uehara, Takeshi Yamanobe, Daisuke Takeuchi, Kohtaro Osakada
- 1Pc033 Effect of Molecular Structure on Melt-Drawing Behavior of Metallocene-Catalyzed Ultra-High Molecular Weight Polyethylene  
Takuya Ohnishi, Yasutake Wakabayashi, Kei Inatomi, Shigehiko Abe, Chihiro Narita, Yui Shimizu, Hiroki Uehara, Takeshi Yamanobe
- 1Pd034 Effect of Fatty Acids on Local Glass Transition Temperature around Ionic Aggregates and Tensile Behavior of Ethylene Ionomers.  
Koike Manato, Yohei Miwa, Yu Kohbara, Shoichi Kutsumizu
- 1Pc035 Formation and Growth of nano-void during hot drawing of polypropylene  
Syota Soeno, Takahiko Kawai, Shin-ichi Kuroda, Tomoyuki Nemoto, Shunsuke Koido
- 1Pd036 Study of the Orthorhombic-to-Trigonal Crystal Phase Transition of Polyoxymethylene on the Basis of Synchrotron X-ray Structure Analysis and Density-Functional-Theoretical Estimation of Thermodynamic Functions  
Kohji Tashiro, Hiroko Yamamoto, Kuniyoshi Sugimoto

- 1Pc037 Trace of Hierarchical Structural Change of Poly(vinylidene Fluoride) Subjected to High Electric Field on the Basis of in-situ Time-resolved Simultaneous Measurement of Wide-angle and Small-angle X-ray Scatterings and Transmission Infrared Spectra  
Kohji Tashiro, Hiroko Yamamoto, Kouki Aoyama, Hiroshi Sekiguchi, Hiroyuki Iwamoto
- 1Pc039 Molecular weight dependence of amphiphilic polymers on lamellar film formation by humid annealing.  
Kazuki Ebata, Yuki Hashimoto, Shunsuke Yamamoto, Masaya Mitsuishi, Jun Matsui
- 1Pd040 Lamellar structure formation of acrylate polymers using humid annealing method  
Keiko Tanaka, Kohei Matsunaga, Jun Matsui
- 1Pc041 Control of helical handedness of microphase separated structures by introduction of chiral compounds at the interfaces of polymer phases  
Takeshi Higuchi, Tomohiko Nagao, Hiroshi Jinnai
- 1Pd042 Sequential Assembly of Polyelectrolyte-surfactant Complex Thin Films on Solid Substrate  
Toyoaki Hirata, Ayaka Kondo, Shota Uchida, Kenji Hisada
- 1Pc043 Effect of Solubility of Water and Volatility of Solvents on Morphology of Polystyrene Thin Film  
Atsushi Miyata, Yuta Yamada, Yoshihisa Fujii, Naoya Torikai
- 1Pd044 Effect of quantum beam irradiation on the structure and properties of polymer films.  
Ayaka Masuda, Ryunosuke Iwabuchi, Hiroki Uehara, Takeshi Yamanobe, Natsuki Hayashi, Noriaki Seko
- 1Pc045 Orientation Control of Polymer Thin Films by Polarized UV-assisted Vapor Deposition Polymerization  
Masanori Kamiya, Yan Tan, Ryosuke Matsubara, Atsushi Kubono
- 1Pd046 Droplet Volume Dependency of Precursor Film Evolution on Line-patterned Polyelectrolyte Brushes Surface  
Shohei Shiimoto, Kazuo Yamaguchi, Motoyasu Kobayashi
- 1Pc047 Adsorption/desorption behavior of dendritic viologen-arranged molecules with thiol groups on gold surface  
Shuhei Nishida, Takehiro Kawauchi
- 1Pd048 Influence of surface chemical compositions on settlement of barnacles  
Ai Momose, Yuta Segawa, Takayuki Murosaki, Yuji Hirai, Yasuyuki Nogata, Masatsugu Shimomura
- 1Pc049 Synthesis and Stimuli-responsivity of Diblock Copolymers Composed of Sulfobetaine and Ionic Blocks: Influence of Block Ratio and Salt Effect  
Dongwook Kim, Hideki Matsuoka, Yoshiyuki Saruwatari
- 1Pd050 Complex Formation and Temperature Responsivity of Zwitterionic Betaine Surfactant and Ionic Polymers  
Hitomi Sakamoto, Dongwook Kim, Hideki Matsuoka, Yoshiyuki Saruwatari
- 1Pc051 Micellization behavior and thermo-responsivity of amphiphilic diblock copolymer containing sulfobetaine  
Shinya Hayashi, Hideki Matsuoka, Yoshiyuki Saruwatari
- 1Pd052 Association behavior of comb-like polymer with amphiphilic side chains in aqueous solution  
Kengo Tsuboi, Isamu Akiba
- 1Pd054 Nanofiber Formation and Its Chirality of Newly Synthesized Trefoil-like Triamide Derivatives having Three Hydrocarbons with Thixotropy Inducing Ability  
Yuto Nakagawa, Yuma Moriya, Eiichi Sato, Yuji Shibasaki, Atsuhiko Fujimori
- 1Pc055 Structural and Functional Properties of Amphiphilic Block Copolymers in Simulated Body Fluids  
Kanaho Yamaguchi, Kazutoshi Iijima, Mineo Hashizume
- 1Pd056 Formation of aggregates by polymerization-induced self-assembly due to electrostatic interactions  
Yusuke Kinoshita, Kazuhiko Ishihara, Shin-ichi Yusa

- 1Pc057 Creation of non-disintegrating micelles aiming at improvement of blood retention  
Jun Matsuno, Shota Fujii, Rintaro Takahashi, Kazuo Sakurai
- 1Pd058 Synthesis of highly pure cyclic amphiphilic block copolymers and structural control of vesicles by self-assembly  
Satoru Chimura, Takuya Yamamoto
- 1Pc059 Salt effect on the nanostructure of polybetaine brush at the air/water interface  
Ryota Matsuda, Koichiro Mae, Hideki Matsuoka, Yoshiyuki Saruwatari
- 1Pd060 Nanostructure and Temperature Responsivity of Polysulfobetaine Brushes at the Air-Water Interface  
Koichiro Mae, Ryota Matsuda, Hideki Matsuoka, Yoshiyuki Saruwatari

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 1Pd062 Synthesis and Thin Film Preparation of Liquid-Crystalline Perylene Tetracarboxylic Bisimide Derivative Bearing a Crown Ether as an Ion-Conductive Unit  
Taiki Taga, Masahiro Funahashi
- 1Pc063 Synthesis of Liquid Crystalline Perylene Bisimide Derivatives with Cyclotetrasiloxane Rings and an Imidazolium moiety  
Kosei Okamoto, Masahiro Funahashi
- 1Pd064 Polymerization of bicontinuous cubic liquid crystals for proton conductive materials  
Tsubasa Kobayashi, Takahiro Ichikawa
- 1Pc065 Fabrication and Functionalization of Nanostructured Membranes Using Zwitterionic Liquid Crystals  
Kyoya ADACHI, Takeshi SAKAMOTO, Ruka MATSUBARA, Masafumi YOSHIO, Takashi KATO
- 1Pd066 Synthesis of organogels incorporating a liquid crystalline luminophore  
Shohei Sugiyama, Osamu Tsutsumi
- 1Pc067 Gelation Behavior and Mesomorphic Behavior of the Complexes Based of Tartaric Acid and Amines  
Hiroaki Tomita, Takuya Senda, Ayumi Tomatsu, Kazuhiro Yabuuchi
- 1Pd068 Preparation of supramolecular materials with cyclodextrin and photo-responsive molecule  
Nanami Okano, Yoshinori Takashima, Akira Harada, Hiroyasu Yamaguchi
- 1Pc069 Self-healing property of hetero network hydrogels composed of supramolecular nanofiber-crosslinked polymer  
Kenji Kawamoto, Makoto Takafuji, Hirotaka Ihara
- 1Pd070 Reversible Control of Mechanical Strength of the Polymer Gels Using Dimerization Reaction of Triphenylimidazole Moieties  
Tetsuya Miura, Shinichiro Ushimaru, Masaya Moriyama, Kazuhiro Yabuuchi
- 1Pc071 Photo-healing ion gels via photo-induced dimerization  
Ryota Tamate, Aya Saruwatari, Hisashi Kokubo, Masayoshi Watanabe
- 1Pd072 Sol-gel transition of slide-ring gel using Diels-Alder reaction for Crosslinking  
Kenichiro Kishinami, Masatoshi Kidowaki, Kohzo Ito, Yuki Hayashi
- 1Pc073 Water-based synthesis and thermal decomposition behavior of polyrotaxane using Diels-Alder reaction for end-capping  
Masaya Watanabe, Tomoaki Tsuchiya, Masatoshi Kidowaki
- 1Pd074 Redox responsive actuator cross-linked by inclusion complex of cyclodextrin with viologen derivatives  
Hikaru Aramoto, Yoshinori Takasima, Akira Harada, Hiroyasu Yamaguchi
- 1Pc075 Preparation of Novel Nano-structured Stimuli-responsive Gels Using Block Copolymer Lithography  
Kosuke Karakane, Kenichi Ogata, Ryuichi Nakatani, Akifumi Kawamura, Teruaki Hayakawa, Takashi Miyata

- 1Pd076 Design of Stimuli-responsive Polypeptide Hydrogels That Regulate Their Molecular Binding Ability by Structural Transition  
Masaaki Kanazawa, Kazuya Matsumoto, Akifumi Kawamura, Takashi Miyata
- 1Pc077 Design of semi-closed self-oscillating gel by using surface grafted structure  
Mami Furusawa, Younsoo Kim, Ko Matsukawa, Aya Akimoto, Ryo Yoshida
- 1Pd078 Preparation of the Self-Oscillating Polymer Brushes with Varied Graft Densities and Their Characterizations by Atomic Force Microscopy  
Kenta Homma, Yuji Ohta, Aya Mizutani Akimoto, Ryo Yoshida
- 1Pc079 Electromechanical Properties of Electrothermal Actuators Using Elastomers  
Yukino Fujiwara, Naoya Katsuyama, Hidenori Okuzaki
- 1Pd080 Development of Patterned Multiple Electrode by Surface Modification with Ion Implantation  
Masanori Hatashita, Eiichi Shoji
- 1Pc081 Optical Properties of Strain-Responsive Cholesteric Liquid-Crystalline Elastomers  
Seiya Kimura, Kyosun Ku, Kaori Fujisawa, Osamu Tsutsumi, Norihisa Akamatsu, Atsushi Shishido
- 1Pd082 Photoinduced Deformation of Crosslinked Azobenzene Liquid-Crystalline Polymer Films at Cryogenic Temperature  
Shunya Ogikubo, Gaku Hashimoto, Toru Ube, Masayuki Suda, Hiroshi Yamamoto, Tomiki Ikeda
- 1Pc083 Changes in Alignment of Mesogens and Molding of Crosslinked Liquid-Crystalline Polymers with Main-Chain Dynamic Covalent Bonds  
Masaya Matsushita, Kyohei Kawasaki, Toru Ube, Tomiki Ikeda
- 1Pd084 Optical reorientation behaviors for photoresponsive liquid crystalline block copolymers with chirality  
Marina Ueda, Mitsuo Hara, Syusaku Nagano, Takahiro Seki
- 1Pc085 Development of Lyotropic Liquid Crystalline Semiconducting Block Copolymers Realized by Incorporation of Rod-Shaped Helical Polymer  
Hiroki Hayashi, Shigeki Nimori, Hiromasa Goto
- 1Pd086 Synthesis of o-position methyl substituted poly(phenylisocyanides) having chiral side chain  
Takuya Yonehara, Hiroki Hayashi, Hiromasa Goto
- 1Pd088 Preparation of polysilsesquioxane adhesives containing polyhydric phenol structures in side chains  
Yusaku Sainohira, Yoshiro Kaneko
- 1Pc089 Synthesis and ion-conductive properties of deep eutectic silsesquioxane nanoparticles.  
Yuma Tanizaki, Kazuhiro Nakabayashi, Hideharu Mori
- 1Pd090 Preparation of ammonium-group-containing POSSs with two kinds of substituents and their application to ionic liquids  
Ryoya Hasebe, Yoshiro Kaneko
- 1Pc091 Correlation between the structures and reaction temperatures/pressures/times on the preparation of ammonium-group-containing POSSs using a superacid catalyst  
Takatoshi Matsumoto, Yoshiro Kaneko
- 1Pd092 Preparation of polyhedral oligomeric silsesquioxane containing carboxyl groups in side chains  
Tomoya Kozuma, Yoshiro Kaneko
- 1Pc093 Substitution effects with polyhedral oligomeric silsesquioxane on electrochemiluminescence of ruthenium complex  
Ryota Nakamura, Hayato Narikiyo, Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo
- 1Pd094 Preparation of silsesquioxane copolymers containing ammonium, mercapto, and polymerizable groups in side-chains and their adhesive properties to inorganic materials  
Kento Oshima, Yoshiro Kaneko
- 1Pc095 Thermal properties of necklace-type silsesquioxane polymers

kenta Kumeda,Tsubasa Natsuaki,Satoshi Watanabe,Masashi Kunitake,Kazuya Suwa,Tomoyuki Ooba

- 1Pd096 Fabrication and properties of polymer films with incompletely condensed cage-silsesquioxane fillers  
Yuri Sato,Sota Yuasa,Hiroaki Imoto,Kensuke Naka
- 1Pc097 Emission behavior of terbium complex sensitized by fluorene derivative hybridized to polysilsesquioxane thin film  
Ryohei ONO,NAKAMURA NAKAMURAc,Haruka SUZUKI,Satoshi MINAMI,Koji MITAMURA,Hiroyuki ENOMOTO,Seiji WATASE
- 1Pd098 Porous SiO<sub>2</sub> Nanofilm Fabrication from Silsesquioxane-Containing Block Copolymer LB Films as a Template  
Yuya Ishizaki,Shunsuke Yamamoto,Tokuji Miyashita,Masaya Mitsuishi
- 1Pc099 Structural control of liquid crystal substituted double decker-shaped polyhedral silsesquioxane  
Naoya Takahashi,Miyashita Tokuji,Jun Matsui
- 1Pd100 Shape memory characteristics of carbon fiber / epoxy resin composite materials  
Yusuke Masutani,Shougo Nobukawa,Katsuhiko Inomata
- 1Pc101 Composite polymer gel hybridized with monodisperse mesoporous silica particles  
Hiroki Ishii,Tomoyo Koga,Shinya Anraku,Tatsuo Kimura,Nobuyoshi Miyamoto
- 1Pd102 Fabrication of Stretchable and Highly Conductive Polymer Hydrogels  
YingJun An,Kana Iwashita,Hidenori Okuzaki
- 1Pc103 Composites of Cellulose and Functionalised acetylene black for improving electrocatalytic and mechanical properties,  
Santhosh Bukka,Noriyoshi Matsumi
- 1Pd104 Organic/Inorganic Hybrid of Polyfluorene Carrying Aggregation-Induced Emission (AIE)-Active Moiety with Silica  
Shun Otoro,Takahiro Uno,Takahito Itoh,Masataka Kubo
- 1Pc105 Biomineralization-inspired fabrication of chitosan/calcium carbonate core-shell type composite microparticles as a drug carrier  
Izuka Nishii,Shokyoku Kanaoka,Satoshi Tanimoto
- 1Pd106 Biomineralization-inspired fabrication of chitosan/hydroxyapatite core-shell type composite microparticles  
Sayuri Takeshima,Shokyoku Kanaoka,Satoshi Tanimoto

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

- 1Pd108 Bioethanol production from kraft pulp using cellulase and yeast  
Aierkentai Gulibusitan,Takashi Yoshida,Toshiyuki Uryu
- 1Pc109 Synthesis of periodic glycopolymers as mimics of naturally occurring bioactive polysaccharides  
Kanae Shimomura,Tomomi Otsubo,Jin Motoyanagi,Tomonari Tanaka,Masahiko Minoda
- 1Pd110 Conformational characterization of a water-soluble beta-(1,3)(1,6)-D-glucan from Aureobasidium pullulans  
Hiroyuki Kono,Nobuhiro Kondo,Katsuki Hirabayashi,Makoto Ogata,Shinya Ikematsu
- 1Pc111 Modification of the properties of monodisperse amylose using deuterium isotope effects  
Yuto Miyata,Takuya Yamamoto
- 1Pd112 Synthesis of guanidinylated aminopolysaccharides  
Mizuki Kinai,Hironori Izawa,Shinsuke Ifuku,Minoru Morimoto,Hiroyuki Saimoto
- 1Pc113 Anionic polysaccharide-sensing with excimer/monomer switching of a 1,8-naphthalimide derivative with a cationic receptor  
Mayuko Wada,Hironori Izawa,Shinsuke Ifuku,Minoru Morimoto,Hiroyuki Saimoto
- 1Pd114 Development of bioadhesive using photo-curable chitin derivatives  
Atsushi Sawada,Junko Hashimoto,Hironori Izawa,Minoru Morimoto,Shinsuke

Ifuku,Hiroyuki Saimoto

- 1Pc115 Acylation of chitin in ionic liquid  
Hiroki Hirayama,Junpei Yoshida,Kazuya Yamamoto,Jun-ichi Kadokawa
- 1Pd116 Synthesis of network materials composed of amylose inclusion complexes by vine-  
twining polymerization  
Saya Orio,Takuya Shoji,Kazuya Yamamoto,Jun-ichi Kadokawa
- 1Pc117 Fabrication of Hierarchical Structures by Means of Enzymatic Chain-elongation of  
Amylose  
Jun-ichi KADOKAWA,Naomichi EGASHIRA,Saya ORIO,Kazuya YAMAMOTO
- 1Pd118 Pickering emulsion polymerization using self-assembled chitin nanofibers  
Seiichiro Noguchi,Koki Sato,Kazuya Yamamoto,Jun-ichi Kadokawa
- 1Pc119 Enhanced mechanical properties of natural rubber with cellulose nanofiber prepared  
from octenyl succinic anhydride-modified pulp  
Ryuji Hirase,Asahiro Nagatani
- 1Pd120 Preparation of N-acetylglucosamine-modified silk fibroin and analysis of its interaction  
with lectins  
Yohko Gotoh,Toshimasa Yamazaki,Hirohiko Ise
- 1Pc121 Design of Benzoxaborole Group Pendent Polymers and Evaluation of Sugar Recognition  
Function as Artificial Lectin.  
Yasuhiro Nakagawa,Hiroaki Tateno,Mitsuhiro Ebara
- 1Pd122 Antiviral mechanism of sulfated polysaccharides  
Tungalag Battulga,Oyunjargal Tumurbaatar,Takashi Yoshida
- 1Pc123 Preparation and properties of chiral materials from LC cellulose derivatives  
Takuto Maeda,Takahiro Kakuta,Tomoki Ogoshi,Tada-aki Yamagishi,Akihiko Takada
- 1Pd124 Design and function of nanogel crosslinked porous gel with biodegradability  
Ryo Hirose,Shinichi Sawada,Sadaatsu Mukai,Yoshihiro Sasaki,Kazunari Akiyoshi
- 1Pc125 PH-dependent properties of phosphorylated polysaccharides gel  
Kohei SADARI,Takumi OKIHARA

Presentation Time

<e = 15:00~15:40>

<f = 15:40~16:20>

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

- 1Pe001 Excited-state Aggregation and Chiral Complex Formation of a Near-infrared Dye  
Yue Wang,Rong Wang,Xinhua Wan,Tamaki Nakano
- 1Pf002 Synthesis and properties of metallo-supramolecular polymers using a bifunctional T8-  
cage monomer  
Mari Hashimoto,Shunichi Fuji,Hiroaki Imoto,Kensuke Naka
- 1Pe003 Luminescence properties and structures of one-dimensional gold(I)-thiolate coordination  
polymer in solution  
Midori Murakami,Riku Matsumine,Takeya Ono,Yukatsu Shichibu,Noriko  
Horimoto,Yasuhiro Ishida,Kasuaki Konishi
- 1Pf004 Preparation of Cluster Array Templates Composed of Dendrimer Supramolecular Polymer  
Ken Minagawa,Ken Albrecht,Narumi Miyata,Kimihisa Yamamoto
- 1Pe005 Molecular recognition in perylene diimide-based one dimensional aggregates  
Kosuke Kamiya,Masaya Okabe,Norifumi Fujita
- 1Pf006 Preparation of coordination polymer gel from phenol derivative  
Kenta Saito,Takahiro Kakuta,Tomoki Ogoshi,Tada-aki Yamagishi
- 1Pe007 Preparation of polymer alloys based on inclusion complex formation of st-PMMA and  
[60]fullerene  
Kouta Kajihara,Takehiro Kawauchi

## B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES

- 1Pe009 Formation of nano-oriented crystals of P(VDF-TFE) in elongational crystallization  
Kiyoka OKADA, Toshiyuki FUKUSHIMA, Kyouhei SAWAKI, Ken OKANISHI, Taizo KABE, Hiroyasu MASUNAGA, Masamichi HIKOSAKA
- 1Pf010 Structure of vinylidene fluoride-based polymer at silver interface  
Masatoshi Ohura, Kanta Iwamoto, Yasuhiro Matsuda, Shigeru Tasaka
- 1Pe011 Temperature-Dependent Morphological Properties in Thin Films of Polythiophene Derivatives with Fluoroaryl Side-Chains  
Yuto Ochiai, Tomoya Higashihara
- 1Pf012 A Study on Crystallization of Furandicarboxylic Acid-derived Polyesters with Long Alkyl Groups  
Yunfan Zhang, Hironori Marubayashi, Shuichi Nojima
- 1Pe013 Molecular weight and thickness dependence of crystallization kinetics in thin polymer films  
Taiki Satou, Toshiyuki Kataoka, Takayuki Ikehara
- 1Pf014 Preparation of poly(p-phenylene terephthalamide) single crystal and annealing effect  
Tomoyasu Takaki, Yutaro Hara, Tetsuya Uchida
- 1Pe015 Preparation of Biaxial Drawn Membrane of Ethylene-Styrene Random Copolymer and Resultant Tensile Characteristics Analyzed by In-Situ X-ray Measurement  
Tsukino Fukushima, Ayako Masuda, Hiroki Uehara, Takeshi Yamanobe, Hiroyasu Masunaga, Koki Aoyama
- 1Pf016 Microphase-separated structure of diblock copolymers comprising rod-like  $\alpha$ -helix polypeptide and coil amorphous segments  
Shiho Chiba, Minh anh Troung, Masatoshi Tokita
- 1Pe017 Synthesis and spherulitic growth rate of a crystalline triblock copolymers  
Yuki Ishisaki, Toshiyuki Kataoka, Takayuki Ikehara
- 1Pf018 Effects of Uniaxial Elongation on Lamellar Microphase-Separated Structure of ABA Triblock Copolymers Comprising a Main-Chain Liquid Crystalline Polyester B segment  
Junpei Kuribayashi, Masatoshi Tokita
- 1Pe019 Effects of Chain-end Tethering and Nanodomain Size on the Crystallization of Polymer Chains Confined in Lamellar Nanodomains  
Yuki Yoneguchi, Hironori Marubayashi, Takashi Ishizone, Shuichi Nojima, Kazuo Yamaguchi, Seiichi Nakahama
- 1Pf020 Melt memory effect on the crystal growth of polymer spherulite  
Ryoko Ogino, Akifumi Nabe, Masato Hashimoto, Tomoko Mizuguchi, Susumu Fujiwara
- 1Pe021 Magnetic orientation using a permanent magnet of the layered structure formed from the liquid crystalline polyester with alkyl side chains  
Daiki Shouji, Hiroaki Yoshimizu
- 1Pf022 Crystalline Morphology of Crystalline ABC Star-Shaped Terpolymers  
Satoshi Osawa, Kentaro Oishi, Raita Goseki, Hironori Marubayashi, Shuichi Nojima
- 1Pe023 Fabrication and crystalline morphologies of polyamide brushes on Si substrates  
Yuta Suzuki, Toshiyuki Kataoka, Takayuki Ikehara
- 1Pf024 CST behaviors of polymerized ionic liquid induced by metal nano particles  
Surabhi Gupta, Noriyoshi Matsumi
- 1Pe025 Crystallization and melting behaviors of polyoxamide crystals: Influence of hydrocarbon-chains between the oxamide bonds.  
Gaku KONO, Makoto EZUMI, Koji NOZAKI, Akihiko TODA, Syuichi MAEDA, Tomoyuki NAKAGAWA
- 1Pf026 Synthesis and spherulitic growth rate of a block copolymer consisting of poly(hydroxybutyrate) and poly(ethylene oxide)  
Issei Tanaka, Toshiyuki Kataoka, Takayuki Ikehara

- 1Pe027 Development of 3D Hierarchical Structure Analysis by the Computer Simulation Technique for a Series of Wide-Angle and Small-Angle X-ray Scattering Data  
Daisuke Tahara,Kohji Tashiro
- 1Pf028 Two-dimensional Correlation Raman Scattering Spectroscopy Analysis of the Reversible Helix-sense Inversion of Poly( $\beta$ -phenylpropyl L-aspartate) in the Solid State  
Yuki Matsumoto,Yuki Suzuki,Hidemine Furuya
- 1Pe029 Periodic structure change of crystalline polymers studied with temperature modulated X-ray diffractometry  
Chihiro Nakai,Yasuo Saruyama,Haruhiko Yao,Soichi Tatsumi
- 1Pf030 Synthesis and spherulitic growth rates of crystalline/amorphous graft copolymer  
Kyousuke Sugiura,Toshiyuki Kataoka,Takayuki Ikehara
- 1Pe031 Density fluctuations during induction period of crystallization in poly(trimethylene terephthalate) II  
Takashi Konishi,Daisuke Tadokoro,Yoshitaka Kawahara,Koji Fukao,Yoshihisa Miyamoto
- 1Pf032 Effect of Intermolecular Hydrogen Bonds on the Infrared Absorption Spectra of Poly(vinyl Alcohol)-Iodine Complexes  
Tomohiko Takahama,Kohji Tashiro
- 1Pe033 Success of X-ray Crystal Structure Analysis of Monomer and Polymer Single Crystals of Distyrylpyrazine and the Confirmation of Photo-induced Solid-State Polymerization Reaction Mechanism  
Kohji Tashiro,Hiroko Yamamoto,Kunihisa Sugimoto,Masaki Hasegawa
- 1Pf034 Formation of Crystal-like Iodine Complex in the Oriented Amorphous Poly(vinyl Acetate) Sample  
Kohji Tashiro,Mengfan Wang
- 1Pe035 Investigation of Diffusion and Re-orientation in Iodine/Nylon 6 Complex [20]; Consideration for Re-orientation of Crystallite Induced by Inner Diffusion of Polyiodides.(5) - Difference in  $\alpha$ -Crystal Structure: Oriented Samples vs. Non-oriented Ones -  
Akio Kawaguchi
- 1Pe037 Investigation of Amphiphilic Molecules Containing Naphthalene Diimide Capable of Forming Monolayer  
Keiichirou HIRASHIMA,Shunsuke YAMAMOTO,Masaya MITSUISHI
- 1Pf038 Self-assembled Polydopamine-gelatin composite film formed at air/water interface  
Hiroya Abe,Tomokazu Matsue,Hiroshi Yabu
- 1Pe039 RAFT Block Copolymerization and Monolayer Behavior of Amphiphilic Acrylamide Copolymer  
Shunsuke Yamamoto,Tokuji Miyashita,Masaya Mitsuishi
- 1Pf040 Formation of Gibbs Monolayers of Water-Soluble Biomolecules and Their Adsorbed Immobilization on Single Particle Layers of Organo-Modified Magnetic Nanoparticle  
Takeru Yunoki,Shuhei Hirayama,Atsuhiko Fujimori
- 1Pe041 Formation of Single Particle Layer of Fluorinated Phosphonate-Modified Nanodiamond and their Nano-dispersion in Crystalline Fluorinated Polymer Matrix  
Yifei Guo,Hiroki Machida,Shuichi Akasaka,Atsuhiko Fujimori
- 1Pf042 Attempt on Creation of Monolayer on the Water Surface and Nanohybridization with Polymers of Organo-Modified Single-Walled Carbon Nanotubes  
Shuhei Hirayama,Takeru Yunoki,Atsuhiko Fujimori
- 1Pe043 Attempt of Stationary Nano-Dispersion of Organo-Modified Nanodiamond in Solvent Aimed for Lubricant Application and Observation of Behavior as Its Organized Film Formation  
Hiroki Machida,Yifei Guo,Atsuhiko Fujimori
- 1Pf044 Locomotion and stability control of particle-stabilized bubble capsules with photothermal property  
Masaya ITO,Hisato KAWASHIMA,Hiroyuki MAYAMA,Yoshinobu NAKAMURA,Syujii FUJII
- 1Pe045 Liquid marble stabilized with micrometer-sized polymer particle monolayer



Yuta ASAUMI, Hisato KAWASHIMA, Yoshinobu NAKAMURA, Syuji FUJII

- 1Pf046 Deformation of Hydrogel Microspheres at the Air/Water Interface  
Haruka Minato, Masaya Takizawa, Takumi Watanabe, Daisuke Suzuki
- 1Pe047 Investigation of spatio-temporal structures of the Belousov-Zhabotinsky reaction in the presence of hydrogel microspheres  
Keito Ishikawa, Kouhei Inui, Takumi Watanabe, Shusuke Matsui, Daisuke Suzuki
- 1Pf048 Assembly of microgel binary mixture at the Air-water interface  
Kenshiro Honda, Takumi Watanabe, Yuka Saduka, Masaya Takizawa, Daisuke Suzuki
- 1Pe049 Preparation of Functionalized Cellulose Particles Utilizing TEMPO oxidation  
Yuki Fujii, Kaori Imagawa, Taro Omura, Toyoko Suzuki, Hideto Minami
- 1Pf050 Preparation of Poly(ionic liquid) Particles Having Cation Exchange Property  
Takanori Nakano, Mitsuyosi Yamane, Aya Kurozuka, Hideto Minami
- 1Pe051 Element-block polymer particles synthesized by stabilizer-assisted polymerization-induced self assembly dispersion polymerization  
Haruka HANOCHI, Nobuaki NISHIZAWA, Yoshinobu NAKAMURA, Syuji FUJII
- 1Pf052 Fabrication of Nano-Line Patterns composed of Organic / Inorganic Hybrid by bio-mineralization.  
Kanta Fujiwara, Airi Yajima, Takatoshi Kinoshita, Masahiro Higuchi
- 1Pe053 Preparation of Temperature-Responsive Fluorescent Probe Using DNA-Conjugated Polymer  
Takafumi Sako, Masahiro Fujita, Mizuo Maeda
- 1Pf054 Inclusion of Metal Cations in Hollow Nanofibers with Hydrophilic Interior Consisting of Cyclic Peptide Amphiphiles  
Kosuke Morimoto, Shota Sasaki, Isamu Akiba
- 1Pe055 Synthesis of silica capsules templating W/O emulsion by SPG method  
Hana Kiyosawa, Kaoru Kuramochi, Reiko Saito
- 1Pf056 Preparation of various amylose nanocapsules and examination of their one-dimensional fusion behavior.  
Masahiro Norikuni, Masashi Wada, Hajime Shigemitsu, Toshiyuki Kida
- 1Pe057 Magneto-responsive and NIR excitable SERS particles based on polymer core-shell particles.  
Yutaro Hirai, Yasutaka Matsuo, Hiroshi Yabu

### **C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS**

- 1Pe059 Evaluation of diffusion behavior of heavy metal ions through the polymeric spiropyran gel by color changes analysis.  
Masahide Shimazaki, Takayuki Suzuki
- 1Pf060 Logistic regression analysis of pH-responsible polymer gels showing color change.  
Mami Igarashi, Takayuki Suzuki
- 1Pe061 Thermodynamic evaluation of oxygen-binding reaction in crosslinked membranes of polymeric cobalt(II) salen complexes.  
Kyohei Tomura, Takayuki Suzuki
- 1Pf062 Hollow Sphere Organic Nanocapsules with Stimuli Responsive Properties  
Masaki Kogiso, Yusuke Hara
- 1Pe063 Fabrication of nano-structured coacervates using mixture of ABA- and AB- type block copolymers and evaluation of the temperature dependency of their nanostructures  
Takumi Egashira, Yujiro Hamada, Takeshi Mori, Yoshiki Katayama, Akihiro Kishimura
- 1Pf064 Incorporation of metal nanoparticles into nano-structured polyion complexes prepared from ABA type all-hydrophilic triblock copolymer and evaluation of its viscoelastic property  
Yujiro Hamada, Takumi Egashira, Yuji Higaki, Ken Kojio, Atsushi Takahara, Takeshi Mori, Yoshiki Katayama, Akihiro Kishimura

- 1Pe065 Fabrication of Functionalized Polymer Particles with beta-diketone Groups  
mikiya Yamamoto,Michinari Kohri,Tatsuo Taniguchi,Keiki Kishikawa
- 1Pf066 Preparation of colorless magnetic particles functionalized by magnetically responsive polymer brushes  
Kotona Kohaku,Michinari Kohri,Tatsuo Taniguchi,Keiki Kishikawa
- 1Pe067 Preparation of functional polymeric microspheres that allows controlled uptake and release halogen compounds  
Yuichiro Nishizawa,Takuma Kureha,Daisuke Suzuki
- 1Pf068 Synthesis of functional microspheres crosslinked with rotaxane structure  
Seina Hiroshige,Takuma Kureha,Jun Sawada,Daisuke Aoki,Toshikazu Takata,Daisuke Suzuki
- 1Pe069 Fabrication of functional shape memory particles that function at body temperature  
Koichiro Uto,Mitsuhiro Ebara
- 1Pf070 Fabrication of biodegradable polymer thin films with nanopatterns for tissue engineering application  
Koichiro Uto,Takao Aoyagi,Deok-Ho Kim,Mitsuhiro Ebara
- 1Pe071 Design of shape memory nanofiber mesh for mechanobiology study  
Kanta Tanabe,Eri Niyama,Koichiro Uto,Mitsuhiro Ebara
- 1Pf072 Fabrication and application of AOB-entrapping macroporous gel beads  
Ryo Aoyagi,Ryuichi Sato,Akihiko Terada,Hideaki Tokuyama
- 1Pe073 Preparation and Characterization of Films Composed of Filamentous Viruses Based on the Control of their Assembled Structure  
Naoki Ueda,Toshiki Sawada,Hironori Marubayashi,Shuichi Nojima,Takeshi Serizawa
- 1Pf074 3D Network formation of Self-assembled Cellulose Oligomers  
Tohru Maeda,Toshiki Sawada,Takeshi Serizawa
- 1Pe075 Preparation of hybrid gel of synthetic polymer and biopolymer cross-linked by amino acid modified with vinyl group through enzymatic reaction  
Tomoaki SHIMADA,Masaki NAKAHATA,Shinji SAKAI,Masahito TAYA
- 1Pf076 High functionalization by control of introduction amount of hydrophilic group of gel ointment base using PEO having allyl group and PO unit in side chain  
Yuto Funato,Keiji Yamashita,Yasuhiro Noda
- 1Pe077 Preparation and thermo response of glucomannan-carrageenan gel  
Koumei Harajiri
- 1Pf078 Lithographic fabrication of semi 3-D hydrogel microstructures for novel cell culture systems  
Atsushi Tsuyukubo,Kimio Sumaru,Toshiyuki Kanamori
- 1Pe079 Drug release of temperature-responsive hydrogel prepared from physically cross-linking chitosan and poly(N-isopropylacrylamide).  
Hiroki Ueoka,Osamu Shimomura,Kayoko Ueda,Katsuhiko Inada,Ryoki Nomura
- 1Pf080 Cytotoxicity evaluation of supramolecular gelators that are highly responsive to a small pH change  
Shota Yamamoto,Yuki Nishida,Tomoyuki Morimoto,Tatsuo Maruyama
- 1Pe081 Synthesis and O<sub>2</sub>-Binding Property of Hydrogel Containing Hemoglobin-Albumin Cluster  
Tomonori Kashima,Kazuki Osada,Yoshitsugu Morita,Teruyuki Komatsu
- 1Pf082 Preparation and Mechanical Properties of Poly(vinyl Alcohol) Hydrogel Composite Materials for the Application to Organ Model  
Yutaka Kasai,Tooru Okayama
- 1Pe083 Simple Functionalization of Poly(vinyl alcohol) (PVA) using Benzoxaborole-based Copolymers  
Yoko Kudo,Yohei Kotsuchibashi
- 1Pe085 Optical properties of epoxy resin/ZrO<sub>2</sub> nanoparticles hybrids prepared by surface modifier-free hybridization  
Kazushi Enomoto,Moriya Kikuchi,Atsushi Narumi,Seigou Kawaguchi

- 1Pf086 Palladium Nanoparticle Electrocatalysts Prepared via Elimination of Surface Passivation  
Hiroki Minami, Hideyuki Nakanishi, Tomohisa Norisuye, Qui Tran-Cong-Miyata
- 1Pe087 Improvement of mechanical property of a metal-organic framework by polymer introduction  
Tomoya Iizuka, Kayako Honjo, Takashi Uemura
- 1Pf088 Synthesis of metal complex consisting of asymmetric  $\pi$ -conjugated oligomers  
Mizuki Okawa, Fumihito Amemiya, Kimihisa Yamamoto, Takane Imaoka
- 1Pe089 Influence of Fiber Modification on Mechanical Properties of Cellulose Nanofiber/Epoxy Composites  
Nao Mizuno, Kenji Nagata, Shotaro Sago
- 1Pf090 An Alternating Copolymer of Arsole and Fluorene Exhibiting Highly Efficient Single Oxygen Generation  
Susumu Tanaka, Hiroaki Imoto, Toshiaki Enoki, Yousuke Ooyama, Joji Ohshita, Kensuke Naka
- 1Pe091 Influence of Polymer Matrix on Electrical conductive properties of graphene / PS / PC Composites  
Akihiro Kondo, Kenji Nagata
- 1Pf092 Thermal conductivity control of graphite-polymer composite sheet using orientation-promoting particles  
Naoki Kawamoto, Nanami Hano, Koji Ashiba, Aki Koukami, Keigo Oowashi, Shoji Nozato, Yutaka Kuwahara, Makoto Takafuji, Hirota Iihara
- 1Pe093 ZnO nanorod growth on  $\beta$ -diketone-containing polymer film  
Yuki Wakai, Shunsuke Yamamoto, Masaya Mitsuishi
- 1Pf094 Preparation of organic-inorganic hybrid capsules utilizing biodegradable coacervate droplets toward bone regeneration  
Yui Ikedo, Syuuhei Komatsu, Taka-Aki Asoh, Ryo Ishihara, Akihiko Kikuchi
- 1Pe095 Biaxial stretching of inorganic nanosheet/pNIPA composite gel film with macroscopic in-plane anisotropy  
Takumi Inadomi, Nobuyoshi Miyamoto, Kenji Urayama
- 1Pf096 Macrocyclic Platinum Thiolate Oligomers for Atom Precise Synthesis of Platinum Clusters  
Yuki Akanuma, Takane Imaoka, Kimihisa Yamamoto
- 1Pe097 Characterization of crystalline and amorphous ZrO<sub>2</sub> nano-particles, and preparation of hybrid materials  
Masahiko Nakano, Kazushi Enomoto, Moriya Kikuchi, Seigou Kawaguchi
- 1Pf098 Mechanical properties of polyamide with cellulose nanofiber (CNF) modified by Cardo material  
Hirokazu Sato, Katsuhisa Tokumitsu, Hiroki Takeshita, Akihiro Yamada, Masayuki Sugimoto
- 1Pe099 Highly sensitive photofabrication of organic-inorganic hybrid coating films having gradient structure by using thioxanthone-type photobase generators  
Ayano Sasaki, Koki Takeue, Masahiro Furutani, Koji Arimitsu
- 1Pf100 Preparation of surface-modified titania particles with polysilanes and evaluation of their photocatalytic activities  
Miki Kudo, Masahiro Furutani, Koji Arimitsu
- 1Pe101 Electrical and Mechanical Properties of Conducting Polymer/Polyurethane Composites  
Kazumasa Marumo, YingJun An, Kazuki Kudo, Hirokazu Yano, Hidenori Okuzaki
- 1Pf102 Toughening of epoxy resins and carbon fiber-reinforced plastics (CFRPs) with core-shell particles containing functional groups  
Takahiro Kawachi, Michio Urushizaki, Toshikazu Sakaguchi, Tamotsu Hashimoto, kazumasa Kawabe, Keiichi Kondo, Hirohumi Iyo
- 1Pe103 Development of composite of UHMWPE and MWCNT by the process utilizing microwave heating  
Takumi OKIHARA, Kazuki MIYAMAE

- 1Pe105 Synthesis and Solid-State Emission of Pentaarylarsoles and Gold(I) complexes  
Aya Urushizaki, Ikuo Kawashima, Hiroaki Imoto, Kensuke Naka
- 1Pf106 Cytotoxicity evaluation of tyrosin-containing peptide lipids  
Kanon Nishimura, Shota Yamamoto, Takashi Aoi, Tatsuo Maruyama
- 1Pe107 Control of Self-organized structures made from 9,9'-bifluornylidene derivatives  
Kengo Kuribayashi, Mutsumi Kimura
- 1Pf108 Syntheses of organoarsenic ligands by using practical carbon-arsenic bond formation reactions and their transition metal complexes  
Masafumi Konishi, Hiroshi Sasaki, Hiroaki Imoto, Kensuke Naka
- 1Pe109 Preparation of Densely Hydrogen Bonded Polymer Blends and Their Healing Properties  
Yiling Nan, Yu Yanagisawa, Takuzo Aida

#### D. BIOPOLYMERS AND BIORELATED POLYMERS

- 1Pe111 Synthesis of amino acid-derived vinyl polymer containing fluorescent moiety and application to thermosensor  
Erina Takaoka, Nobuyuki Higashi, Tomoyuki Koga
- 1Pf112 Synthesis of novel block copolymer composed of amino acid-derived vinyl polymer and PEG and its gelation properties.  
Yuki Hashimoto, Nobuyuki Higashi, Tomoyuki Koga
- 1Pe113 UCST-type thermosensitivity of phenylalanine-modified dendrimers with carboxy termini  
Mamiko Tamaki, Daichi Fukushima, Chie Kojima
- 1Pf114 Design of single layer beta-hairpin peptides and peptide hydrogel incorporating the RGDS sequence  
Ryosuke Yokokawa, Sachiro Kakinoki, Yoshiaki Hirano
- 1Pe115 Synthesis and platelet adhesion property of hyperbranched poly(L-lactide)s having hydrophilic terminals  
Mitsutoshi Jikei, Yuuki Kobayashi, Kazuya Matsumoto, Noriko Tan, Shigeharu Ueki
- 1Pf116 Synthesis and evaluation of benzoxaborole containing polymers having sugar chain affinity (II) - Effect of boronic acid species on sugar binding ability -  
yuui suzuki, masahiro fuzita, yuko takeoka, masahiro rikukawa
- 1Pe117 pH-response properties of carboxylated poly-L-lysine with various spacer structure  
Yasumichi Yazaki, Eiji Yuba, Atsushi Harada
- 1Pf118 Control and function of membrane morphogenesis by manipulation of nanoparticles  
Fumihito Inoue, Yoshihiro Sasaki, Shin-ichi Sawada, Kazunari Akiyoshi
- 1Pe119 Observation of microstructures of swelling samples by the Nanosuit SEM and microCT methods  
Rin Kadowaki, Daisuke Ishii
- 1Pf120 Fabrication and characterization of biomimetic microfine channel structures by template procedure  
Tarou Yaeo, Daisuke Ishii
- 1Pe121 Preparation of firebrat's scale mimicking surfaces using cross-linked PVA  
Shun Uemura, Yuji Hirai, Masatsugu Shimomura
- 1Pf122 Adhesive Force Measurement of Tentacles of Live Cypris Larvae in Sea Water  
Yuka Yamaguchi, Shohei Shiomoto, Kazuo Yamaguchi, Yasuyuki Nogata, Motoyasu Kobayashi
- 1Pe123 Preparation and Characterization of Collagen/Hydroxyapatite Hybrid Structures  
Yadong Chai, Mitsuhiro Okuda, Motohiro Tagaya
- 1Pf124 Structural control of the ordered nano-space composed of grafted nucleo-peptide assembly and biomineralization using the nano-spaces as template  
Sayaka Minoshima, Kaede Inagaki, Masahiro Higuchi, Takatoshi Kinishita

Presentation Time  
<a = 10:00~10:40>  
<b = 10:40~11:20>

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

- 2Pa001 Precise synthesis of photo-responsive polymers by controlled cationic polymerization  
Haruna Kagasaki, Arihiro Kanazawa, Sadahito Aoshima
- 2Pb002 Synthesis of pendant polymers utilizing incompletely condensed cage silsesquioxanes as monomers  
Ryoichi Katoh, Hiroaki Imoto, Kensuke Naka
- 2Pa003 Synthesis of ladder-type polymer by direct arylation of polystyrene derivatives  
Hidetoshi Tanaka, Koji Takagi
- 2Pb004 Effects of topology on the self-assembly of amphiphilic block copolymer having AIE properties  
Shinichi Yamamoto, Muhammad Fardana, Tomoyuki Ono, Shotaro Hayashi, Toshio Koizumi
- 2Pa005 Properties and Functionalization of Star Polymers with Many Hydrophobic Arms  
Riona Mukai, Chisato Maezawa, Shohei Ida, Shokyoku Kanaoka
- 2Pb006 Newly found characteristics of core-crosslinked star polymers with ordinary chemical structures  
Shokyoku Kanaoka, Yuri Toyama, Chisato Maezawa, Keisuke Takimoto, Shohei Ida
- 2Pa007 Synthesis and thermoresponsive properties of a star polymer based on polyoxazoline  
Akari Yamada, Masato Kishiwaki, Keigo Aoi
- 2Pb008 Synthesis and oxidation-reduction potential of poly(acrylic acid) star polymer composed with  $\beta$ -cyclodextrin as a core  
Arashi Hayami, Reiko Saito
- 2Pa009 Synthesis and Self-Assembly Behavior of Tripodal Triptycene-Appended Vinylic Polymers and Copolymers  
Haonan Liu, Fumitaka Ishiwari, Takashi Kajitani, Takanori Fukushima
- 2Pb010 Coordination Star Polymers: Synthesis of Branched Macromolecules with a Nanocage Core  
Nobuhiko Hosono, Susumu Kitagawa
- 2Pa011 Synthesis and Microphase Separation Behaviors of Star-Block Copolymers Consisting of Polycaprolactone and Maltotriose  
Takuya Isono, Nao Kawakami, Redouane Borsali, Kenji Tajima, Toshifumi Satoh
- 2Pb012 One-pot synthesis of 3-component hyperbranched copolymer from 9,9-Bis(4-aminophenyl)fluorene, m-Phenylenediamine, Cyanuric chloride  
Rina Sasahara, Yoshiyuki Oishi, Yuji Shibasaki
- 2Pa013 Synthesis of multicyclic telechelic precursors and their grafting processes for the amplification of topological effect  
Tsubasa Taniguchi, Syansyan Chan, Takuya Yamamoto, Yasuyuki Tezuka
- 2Pa015 Polycondensation of methacrylates through dimerization and transesterification reaction  
Aoi Fukumoto, Miharuru Arimoto, Shin-ichi Matsuoka, Masato Suzuki
- 2Pb016 Tail-to-tail dimerization of functionalized (meth)acrylates catalyzed by N-heterocyclic carbene and application to polyaddition  
Hiroki Kawai, Shin-ichi Matsuoka, Masahito Suzuki
- 2Pa017 Synthesis of Polyesters by Hydrogen-Transfer and Condensation-Addition Polymerizations of Acrylic Acid  
Shin-ichi Matsuoka, Takuya Murase, Masato Suzuki
- 2Pb018 Polymerization reactions of tetraethoxysilane in the presence of glass beads studied by Py-GC-MS and high-resolution MALDI-MS  
Eri Sakamoto, Hajime Ohtani, Masuo Iida
- 2Pa019 Synthesis of Polyurethanes through Polyaddition of 1,1'-Bi(2-naphthol) with

Diisocyanates

Heshuang Dai, Yue Wang, Tamaki Nakano

- 2Pb020 Development of soluble wholly aromatic polyurethane by using aromatic diols  
Satoshi Aihara, Katsuya Maeyama
- 2Pa021 Development of heat-resistant aromatic polyketones using a trifunctional acyl-acceptant monomer  
Motohiro Omiya, Katuya Maeyama
- 2Pb022 Construction of Azobenzene-Based Photoisomerization/Depolymerization System of Polyamide/Phenyleneethynylenes  
Shinichi Iba, Takahiro Ishida, Fumio Sanda
- 2Pa023 Synthesis of poly(conjugated ester) by polycondensation of  $\alpha$ -(chloromethyl)acryloyl chloride via acyl- and conjugate-substitution  
Koki Nagai, Takumi Miyazaki, Yasuhiro Kohsaka
- 2Pb024 Synthesis of poly(conjugated diene) with 1,3-butadiene backbone via polycondensation of allyl halide dimer  
Akira Hiramatsu, Yasuhiro Kohsaka, Keito Hagiwara
- 2Pa025 Synthesis of polymers with imine linkages by polycondensation of diformylated N-hetero-ortho-phenylenes and diamines  
Yoshihiro Hamada, Yuichiro Tokoro, Toshiyuki Oyama
- 2Pb026 Intramolecular transfer of Pd catalyst on two bromoarylenes connected to various functional groups and their application to unstoichiometric polycondensation  
Natsumi Harada, Hajime Sugita, Yoshihiro Ohta, Tsutomu Yokozawa
- 2Pa027 Synthesis of hydrogen-bonded complexes between a bisoxazoline with a dicarboxylic acid and their polyaddition within themselves.  
Hideto Goshima, Masatoshi Miyamoto
- 2Pb028 Attempt to synthesize of highly crosslinked polymers by polyaddition reaction between bis-oxazine and tri- or tetrafunctional carboxylic acid.  
Yuichi Okamoto, Masatoshi Miyamoto
- 2Pa029 Copper(I)-catalyzed azide-alkyne cycloaddition of *N*-ethynyl-4-azidobenzenesulfonylamide derivatives  
Tatsuya Harada, Akihito Hashidzume
- 2Pb030 Copper(I)-Catalyzed Azide-Alkyne Cycloaddition (CuAAC) Polymerization of 3-Azido-1-propyne Derivatives: Polymerization and Stepwise Oligomerization of *tert*-Butyl 4-Azidohex-5-ynoate by CuAAC  
Shota Yamasaki, Akihito Hashidzume
- 2Pa031 Synthesis of end-functionalized linear polyester by means of transesterification of cyclic polyester, obtained by  $A_2 + B_2$  polycondensation, with diester  
Ryouichi Okabayashi, Yoshihiro Ohta, Tsutomu Yokozawa
- 2Pb032 Functionalization of both ends of poly(ether sulfone) by means of  $A_2 + B_2$  polycondensation using exchange reagent  
Kenichiro Shirai, Ryouichi Okabayashi, Yoshihiro Ohta, Tsutomu Yokozawa
- 2Pa033 Synthesis of cyclic unsaturated polyester by means of unstoichiometric Suzuki-Miyaura coupling polymerization and control over molecular weight and end-functional groups by cross metathesis with functional alkenes  
Tsuyoshi NAMEKAWA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 2Pb034 Synthesis of cyclic poly(stilbene-phenylene) by means of unstoichiometric Suzuki-Miyaura coupling polymerization and control over molecular weight and end-functional groups by cross metathesis with functional alkenes  
Naoki Tanaka, Tsuyoshi Namekawa, Yoshihiro Ohta, Tsutomu Yokozawa
- 2Pa035 Synthesis of cyclic polyphenylene with halogen moieties and grafting  
Taisuke KIMURA, Hajime SUGITA, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 2Pb036 Control of Regioselectivity during Oxidative Coupling Copolymerization of 2,6-Dimethylphenol with Alkoxyphenols  
Daisuke YASUE, Minami KIMURA, Yuki TAKAMUSI, Shigeki HABAUE

- 2Pa037 Synthesis of polythioamides from aliphatic diamines and sulfur  
Masaru Yoneyama, Takeshi Yamanobe, Arisa Moriyama
- 2Pb038 Self-polycondensation of AB-type monomer via protonation-deprotonation in superacid  
Shuko Hasegawa, Kazuya Matsumoto, Mitsutoshi Jikei
- 2Pa039 Synthesis of Novel Siloxane-Based Polymers Having Fluoroalkyl Chains.  
Kazuhiko Machida, Nobukatsu Nemoto, Tsuyoshi Noguchi
- 2Pb040 Synthesis of linear polyester by mean of  $A_2 + B_2$  condensation polymerization via ester-ester exchange reaction  
Takayoshi Kato, Yukiko Ogawa, Yoshihiro Ohta, Tsutomu Yokozawa
- 2Pa041 Synthesis of Imidazole-containing Polymers by Three-component Polymerization and Their Application for Functionalized Materials  
Susumu Soga, Makoto Sakata, Hiroki Nishiyama, Shinsuke Inagi, Ikuyoshi Tomita

## **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

- 2Pa043 New Type of Network Polymer Based on Low Temperature Curable New Thermosetting Imide Compound  
Hajime Kimura, Keiko Ohtsuka, Akihiro Matsumoto, Morio Yonekawa
- 2Pb044 Preparation of thermoresponsive gel from polymerizable functional group-containing cellulose derivatives using photopolymerization  
Yuuki Ehara, Toru Hoshi, Takao Aoyagi
- 2Pa045 Preparation of metallo-supramolecular polyesters utilizing coordination bonds between pyridine units and metal ions  
Keisuke Shibata, Mikihiro Hayashi, Akinori Takasu
- 2Pb046 Synthesis and Structural properties of hydrogel having a sodium p-styrenesulfonate skeleton  
Marina Hoshino, Hayata Takeda, Daisuke Nagai, Masaru Yoneyama, Hiroki Uehara, Takeshi Yamanobe, Shinzi Ozoe
- 2Pa047 Synthesis and properties of joint-linker type gels and porous polymers from multifunctional amine compounds and poly(ethylene glycol) diacrylate  
Mitsusuke sato, kensuke Mori, Naofumi Naga, Hassan Nageh, Tamaki Nakano
- 2Pa049 Investigation on Mechanism of Intermolecular Trans-Esterification Based Gelation for Linear Polyester Including Multiple Free OH Groups  
Ryoto Yano, Mikihiro Hayashi, Akinori Takasu
- 2Pb050 Structure and mechanical property of polyrotaxane/clay composite gel  
Takeya Aoki, Koichi Mayumi, Rina Maeda, Hideaki Yokoyama, Kohzo Ito
- 2Pa051 Synthesis and Physical Properties of Copolymer Gels composed of Homogeneous Network Structure with Different Monomer Arrangement  
Dowoo Kwon, Yuto Jochi, Yukikazu Takeoka, Takahiro Seki, kotaro Satoh, Masami Kamigaito
- 2Pb052 Viscoelasticity of Crosslinked Polydimethylsiloxane (PDMS) Particles in Suspension Probed by Ultrasound Scattering Techniques  
Kazuto Tsuji, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 2Pa053 Structure and Elastic Property of Porous Films Investigated by Air-Coupled Ultrasonic Spectroscopy  
Takuya Yoshioka, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 2Pb054 Development of tough inorganic/organic ion gels composed of silica particle-based nanoclusters as sacrificial bonds  
Tomoki Yasui, Eiji Kamio, Yu Iida, Hideto Matsuyama
- 2Pa055 Preparation of Anhydrous Proton Conductive Membranes Swollen with Nonvolatile Acidic Liquids  
Takato KAJITA, Haruka TANAKA, Atsushi NORO, Yushu MATSUSHITA, Naoki NAKAMURA
- 2Pb056 Preparation and Characteristics of Ion-Conductive Soft Elastomers  
Atsushi NORO, Takuya HAYASHI, Takato KAJITA, yushu MATSUSHITA

- 2Pa057 Development of high toughness inorganic-organic composite material by complexing colloidal crystals of silica fine particles and visualization of stress  
eiji miwa,kenta watanabe,yukikazu takeoka,takahiro seki,kenji urayama
- 2Pb058 The synthesis of polymer gel with homogeneous network structure consisting of star methacrylate polymer  
Yusuke Baba,Dowoo Kwon,Yuumi okaya,Yuto Jyochi,Yukikazu Takeoka,Takahiro Seki,Kotaro Sato,Masami Kamigaito
- 2Pa059 Large deformation behavior of slide-ring gels with different ring coverage ratio  
Chang Liu,Kyohei Hayashi,Lan Jiang,Koichi Mayumi,Hideaki Yokoyama,Kohzo Ito
- 2Pb060 Synthesis and mechanical property of rotaxane-based polyurethane  
Jun Sawada,Hiromitsu Sogawa,Toshikazu Takata
- 2Pa061 Preparation and Mechanical Properties of Chemically Cross-linked Elastomers Having Polypeptide as Crosslinking Point  
Yunosuke Tsuboi,Syogo Nobukawa,Hideki Sugimoto,Katsuhiko Inomata
- 2Pb062 Preparation and mechanical properties of physically cross-linked polyurea elastomer containing polypeptide blocks.  
Yuma Sawada,Yunosuke Tsuboi,Syogo Nobukawa,Hideki Sugimoto,Katsuhiko Inomata
- 2Pa063 High Tg effect by addition of tetrafunctional mesogenic epoxy resin  
Yuuka Fujiwara,Miyuki Harada
- 2Pb064 Influence of curing agent and curing temperature on ordered network structure and toughness of liquid crystalline epoxy resins  
Kousuke Yamaguchi,Takuya Matsumoto,Miyuki Harada
- 2Pa065 Theoretical study of mechanical properties of gels consisting of polymer network and nanoparticle  
Tsutomu Furuya,Keita Yamamoto,Tsuyoshi Koga
- 2Pb066 Effects of hydrophobically modification on mechanical properties of elastin hydrogels  
Yuki Nakayama,Ryota Azumi,Shogo Nobukawa,Hideki Sugimoto,Shukei Sugita,Katsuhiko Inomata
- 2Pa067 Study in structure of physical cross-linking point of nanocomposite gel by using transition enthalpy  
Masafumi Yamato,Kazumasa Komine,Hiroyoshi Kawakami
- 2Pb068 Properties of epoxy resin modified with polyrotaxane as stress relaxation material  
Keiko OHTSUKA,Hajime KIMURA,Morio YONEKAWA

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 2Pb070 Syntheses and properties of narrow-bandgap polymers (16) Synthesis of a novel narrow bandgap polymer for application to organic thin film solar cell  
Taisuke Karasuda,Haoxuan GUO,Hiroyuki Aota
- 2Pa071 Syntheses and properties of narrow-bandgap polymers(17) Syntheses of narrow bandgap polymers having reactive groups for crosslinking  
Yusuke Imai,Takahiro Ohashi,Haoxuan GUO,Hiroyuki Aota
- 2Pb072 step- $\pi$ -conjugated polymers (24) Synthesis and evaluation of amphiphilic A, B-block type macromolecular wire with energy level difference in molecule wire.  
Sora Hirata,Haoxuan Guo,Hiroyuki Aota
- 2Pa073 Step- $\pi$ -conjugated polymers (25) Synthesis of benzene type amphiphilic macromolecular wire for long-lived charge separation state.  
Misa Nishimura,Chihiro Fujiwara,Haoxuan GUO,Hiroyuki Aota
- 2Pb074 Photoformation of Surface Relief on Mixed Thin Film of Bislophine Derivative and 5CB  
Masaki Hatase,Masato Toyoda,Takashi Ubukata
- 2Pa075 Photoinduced cratering behavior in liquid crystalline (LC) polymer heterointerfaces  
Kazuaki Oishi,Issei Kitamura,Mitsuo Hara,Shusaku Nagano,Takahiro Seki
- 2Pb076 Photo-isomerization and birefringence change of polycarbonate film doped azobenzene



Asami Hara, Shogo Nobukawa, Katsuhiko Inomata

- 2Pa077 Photoalignment of Hetero-Smectic Lamellar Structure of LC Random Copolymer with Azobenzene monomer and acrylic acid  
Kota Suetsugu, Ryosuke Goto, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 2Pb078 Photocontrol of mesogen alignment and appeared higher ordered smectic phases by means of random copolymerization of different oriented mesogens  
Ryota Imanishi, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 2Pa079 New angle-independent color materials by Mie resonances  
Yui Naoi, Yukikazu Takeoka, Takahiro Seki
- 2Pb080 Synthesis and Optical Properties of Phosphine Oxide-containing Aromatic Poly(ether)s  
Ryoyu Hifumi, Ikuyoshi Tomita
- 2Pa081 Refractive index of transparent cellulose nanopaper  
Norihisa Tanio, Atsushi Hatano, Yuto Ueno, Sugumi Matsushita, Hitomi Yagyu, Masaya Nogi
- 2Pb082 Reflective and transmissive type conductive polymer film electrochromic devices using semi-solid electrolyte  
Kouki Kumagai, Atsushi Aoki, Shota Makiura, Sigeki Watanabe
- 2Pa083 Development of molecular resist material based on tellurium compound for extreme ultraviolet laser  
Yoshiaki Iwamoto, Hiroto Kudo
- 2Pb084 Positive-tone photopatterning of chemically-modified polyhydroxyimide with photobase generators  
Misaki Takashima, Yasutaka Mitsui, Masahiro Furutani, Koji Arimitsu
- 2Pa085 Photopatterning of polysilane films sensitized with photobase generators to generate superbases  
Shun Kikuchi, Kunihiro Noda, Dai Shiota, Masahiro Furutani, Koji Arimitsu
- 2Pb086 Photosensitivity enhancement of chemically amplified resist materials by acid amplifiers generating superacids  
Kyohei Akiyama, Masahiro Furutani, Koji Arimitsu
- 2Pa087 Study on high-photosensitive radical UV curing systems of methacrylate monomers  
Yuina Kokai, Masahiro Furutani, Koji Arimitsu
- 2Pb088 Photoinitiated radical polymerization with charge transfer complexes absorbing visible light  
Kengo Takemura, Masahiro Furutani, Koji Arimitsu
- 2Pb090 Photocatalytic reaction by metal complexes accumulated on normally oriented one-dimensional cylindrical channel surface  
Keita Nakao, Yoshiaki Tanio, Shigeo Suita, Shinichi Sakurai, Sadayuki Asaoka
- 2Pa091 Gas transport properties of polybenzoxazole-silica hybrid membranes prepared by different thermal treatments  
Azumi Saito, Tomoyuki Suzuki
- 2Pb092 Preparation of high gas permeable polyimide - silica hybrid membranes  
Shou Yamasaki, Tomoyuki Suzuki
- 2Pa093 Water Permeation Behavior of Vertically-Aligned Carbon Nanotube Array/Polymer Composite Membranes  
Hidetoshi Matsumoto, Shiho Shirahama, Shaoling Zhang, Motohiro Aiba, Hirotaka Inoue, Yasuhiko Hayashi, Shuji Tsuruoka
- 2Pb094 Polymeric photosensitizer mediated cross-coupling reactions via photoinduced electron transfer  
Gen-ichi Konishi, Yusuke Matsufuji, Kazuhiko Mizuno
- 2Pa095 Synthesis of cinchona alkaloid squaramide polymer which incorporated peptide in the main chain and its application to an asymmetric catalyst  
Yuki Gonda, Ikuhide Fujisawa, Naoki Haraguchi, Shinichi Itsuno
- 2Pb096 Gas permeation properties of composite membranes containing surface-modified silica

nanoparticles.

Takuya Muramoto, Hiroto Mikami, Manabu Tanaka, Masafumi Yamato, Hiroyoshi Kawakami

- 2Pa097 Synthesis and gas permeability of fluorine-containing novel poly (diphenylacetylene)  
Keita Inoue, Toshikazu Sakaguchi, Tamotsu Hashimoto
- 2Pb098 Synthesis and biosensing of polythiophene having phosphonium group (III) -Analysis of DNA sensing -  
Kiyoshiro Fukui, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 2Pa099 Control of Permeability for Crosslinked Microporous Polyethylene Nanofilms  
Takeshi Shii, Mutsumi Kimura
- 2Pb100 Synthesis of high gas-permeable polymers with bulky twisted structure in the main chain and improvement of the gas separation performance  
takaaki kamimizu, toshikazu sakaguchi, tamotsu hashimoto
- 2Pa101 Gas Separation Properties in Polyimide Membranes with Molecular Sieve-like Chemical/Physical Dual Crosslinking  
Ryosui Iwasa, Takahiro Suizu, Haruka Yamaji, Tetsuro Yoshioka, Kazukiyo Nagai
- 2Pb102 Water Vapor Sorption Properties of Alginic Acid and Alginates  
Miho Imai, Nina Shimanuki, Solhee Yoon, Yukiko Moriizumi, Hajime Fukuda, Kazukiyo Nagai
- 2Pa103 Synthesis and Properties of Acrylamide / Silicone Copolymers  
Ren Hamada, Keisuke Ikeda, Wataru Kawasko, Yohei Sasago, Kazukiyo Nagai
- 2Pb104 Membrane Structure Analysis and Membrane Properties of ABA type Triblock Copolymers Derived from Polyimide with Fluorine-containing Methacrylate  
Wataru Kawasoko, Ren Hamada, Yohei Sasago, Akihiro Yoshida, Kazukiyo Nagai
- 2Pa105 Effect of Temperature on CO<sub>2</sub> Solubility of Adamantyl Group Containing Polymer Membranes  
Hajime Fukuda, Tsubasa Uno, shinpei Konishi, Kazukiyo Nagai
- 2Pb106 Water Vapor Permeation Property of Poly(lactic acid)/Montmorillonite Nanocomposite Membranes  
Kisato Nishida, Hajime Fukuda, Yoichi Takahashi, Johta Yamauchi, Kazukiyo Nagai
- 2Pa107 Permeable Palladium Catalyst Membranes  
Shunya Araki, Hideyuki Nakanisi, Tomohisa Norisuye, Qui Tran-Cong-Miyata

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

- 2Pa109 Heavy metal sensing system using channel structure composed of PEG-peptide  
Yuriko Ito, Tomohiro Miura, Masahiro Higuchi
- 2Pb110 Internalization of Artificial Viral Capsids modified with His16 into Cell  
Yuki Sato, Takashi Iwasaki, Seiya Fujita, Hiroshi Inaba, Kazunori Matsuura
- 2Pa111 Introduction of iron oxide nanoparticles into interior space of microtubule  
Mayuki Yamada, Takahisa Yamamoto, Hiroshi Inaba, Arif Md. Rashedul Kabir, Akira Kakugo, Kazuki Sada, Kazunori Matsuura
- 2Pb112 A DNA/graphene oxide conjugates array to fingerprint characteristics of antibody degradations  
Shunsuke Tomita, Ayumi Matsuda, Suguru Nishinami, Ryoji Kurita, Kentaro Shiraki
- 2Pa113 Design, synthesis, and structural analysis of a novel dendritic backbone possessing a specific amino acid residue  
Nanase Moriguchi, Yoshihito Inai
- 2Pb114 Synthesis and conformational features of a periodic polypeptide backbone for functional molecules  
Moe NAKAMOTO, Yoshihito INAI
- 2Pa115 Effect of chemical structure on structural properties of a functional peptide helix  
Kouki Yuhara, Yoshihito Inai

- 2Pb116 A theoretical evaluation of shapes and structural features of a branched peptide polymer  
Yoshihito Inai
- 2Pa117 Preparation of core-shell nonwoven fabric of nonwoven fabric encapsulating and immobilizing hydrolytic enzyme  
Shogo Kihira, Yuya Ido, Akiko Obata, Toshihiro Kasuga, Toshihisa Mizuno
- 2Pb118 Enantioselective secondary structural transition of PEGylated  $\alpha$ -helical peptides at the solid-water interface  
Yosuke Oishi, Masayoshi Tanaka
- 2Pa119 Screening of Peptides that Specifically Bind to Dextran by Phage Display Methods  
Tatsuya Niwa, Toshiki Sawada, Takeshi Serizawa
- 2Pb120 Interaction between Antazoline and Human Serum Albumin  
Masami Tanaka, Keiji Minagawa, Yasushi Imada, Yukihiro Arakawa
- 2Pa121 In vivo crystallization of fusion proteins using polyhedra crystals  
Mariko Kojima, Satoshi Abe, Takafumi Ueno
- 2Pb122 Fabrication and characterization of pH-responsible protein nano-capsules using novel amphiphilic proteins  
Natsumi Sumito, Kento Sugiura, Toshihisa Mizuno
- 2Pa123 Suppression of pathological protein aggregation by pegylated egg white proteins.  
Taiga Hamawaki, Mei Wada, Tomonori Waku, Naoki Tanaka
- 2Pb124 Reconstitution of zinc protoporphyrin IX with maltose binding protein fused transmembrane cytochrome *b* and its characterization  
Hiroki Kojima, Youko Kondou, Masaharu Kondou, Masaki Ihara, Takehisa Dewa
- 2Pa125 Synthesis of Recombinant(Hemoglobin-Albumin) Cluster as an Artificial O<sub>2</sub>-Carrier  
Ryosuke Funaki, Wataru Okamoto, Yoshitsugu Morita, Teruyuki Komatsu

Presentation Time

<c = 13:00~13:40>

<d = 13:40~14:20>

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

- 2Pc001 Radical Initiating Ability of Tri-sec-butylborane under Various Polymerization Conditions  
Shuichi Kanno
- 2Pd002 Effects of Additives on the Polymerization of Styrene Initiated with Tributylborane under an Atmosphere of Air  
Shuichi Kanno
- 2Pc003 Reaction Control on the Radical Polymerization Initiated with S-Alpine-Borane under an Atmosphere of Air  
Shuichi Kanno
- 2Pd004 Properties of Isouronium Ionic Liquids as a Specific Initiator of Radical Polymerization  
Shuichi Kanno
- 2Pc005 High-Speed Radical Polymerization of *N,N*-Diethylacrylamide in High-Temperature Water  
Akinori Sezai, Yasuhiro Kohsaka, Mitsumasa Osada, Shigeru Deguchi
- 2Pd006 Novel Radical Polymerization Based on Homolytic Cleavage of Silyl Ketene Acetal  
Mao Hotta, Masato Konya, Takenori Nishida, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito
- 2Pc007 Novel Hydrogen-Transfer Radical Polymerization for Synthesis of Sequence-Regulated Vinyl Polymers  
Misaki Goto, Masato Miyajima, Yoshiki Tanaka, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito
- 2Pd008 Radical Copolymerization of Various Plant-Derived Cinnamic Acid Derivatives  
Shizuka Sugihara, Tomonari Nagai, Hisaaki Takeshima, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito

- 2Pc009 Radical Copolymerization of Naturally-occurring Valencene and Various Vinyl Monomers  
Hiroaki Hashimoto,Tomonari Nagai,Hisaaki Takeshima,Mineto Uchiyama,Kotaro Satoh,Masami Kamigaito
- 2Pd010 Precise Construction of Polymer Chains Carrying Sequence-Defined Segment via Living Polymerization and Iterative Single Monomer Addition  
Tomofumi Morishita,Yuki Sano,Dongyoung Oh,Takaya Terashima,Makoto Ouchi
- 2Pc011 Controlled synthesis of periodic copolymers by direct RAFT copolymerization of an alkyne-substituted vinyl ether and maleimides and their application to click reactions with azides  
Tomomi OTsubo,Hitoshi Kumadani,Jin Motoyanagi,Tomonari Tanaka,Masahiko Minoda
- 2Pd012 End group purity of polymers obtained by RAFT miniemulsion polymerization  
Kosuke Araya,Moriya Kikuchi,Seigou Kawaguchi
- 2Pc013 Synthesis and Properties of N-isopropylacrylamide Gel Using alpha-Substituted Acrylate Derivative with Amino Alcohol Group  
Kouhei SHIMIZU,Tomonari YOKOYAMA,Disuke NAKAGAWA,Shigeki HBAUE
- 2Pd014 Synthesis and Properties of Copolymer Using alpha-Substituted Acrylate Derivative with Amino Alcohol Group  
Tomonari YOKOYAMA,Daisuke NAKAGAWA,Shigeki HABAUE
- 2Pc015 Synthesis of N-isopropylacrylamide gel using alpha-(aminomethyl)acrylate derivatives  
Ryoma ITO,Shigeki HABAUE
- 2Pd016 Copolymerization of Dibenzofulvene with Acrylic Monomers Leading to pi-Stacked Polymers  
Jiyue Luo,Yue Wang,Tamaki Nakano
- 2Pc017 Synthesis of Macromolecular Ligand through Radical Polymerization of 5-Vinyl-2,2'-bipyridine  
Soma Kasai,Yue Wang,Tamaki Nakano
- 2Pd018 Synthesis and properties of [3.3](3,9)carbazolophane derivatives having polymerizable group at bridged aniline moiety  
Kanae Miyanaga,Kazushige Hori,Keita Tani,Kenta Goto,Fumito Tani,Keita Sakakibara,Yoshinobu Tsujii
- 2Pc019 Synthesis, characterization, and post-functionalization of polyvinylselenophenes  
Airi WATANABE,Kazuhiro NAKABAYASHI,Hideharu MORI
- 2Pd020 Crystal Structure and Polymerization Reactivity in Solid State of Tetrakis(chlorophenoxyethoxycarbonyl)quinodimethanes  
Shiori YAMAMOTO,Takahiro UNO,Masataka KUBO,Takahito ITOH,Norimitsu TOHNAI,Mikiji MIYATA
- 2Pc021 Solid-State Polymerization of 7-Haloethoxycarbonyl-7,8,8-tris(methoxycarbonyl)quinodimethanes  
Takumi SUZUKI,Takahiro UNO,Masataka KUBO,Takahito ITOH,Norimitsu TOHNAI,Mikiji MIYATA
- 2Pd022 Solid-State Polymerization Reactivity of Cocrystals Composed of Tricyanoquinone Methide Imine and Tetrakis(alkoxycarbonyl)quinodimethanes  
Yuta WASHIO,Takahiro UNO,Masataka KUBO,Takahito ITOH,Norimitsu TOHNAI,Mikiji MIYATA
- 2Pd024 Photoresponsivity of glucosamine derivative bearing caffeic acid with various hydrogen bonding substituents  
Hiroharu AJIRO,Kenta YAMATANI
- 2Pc025 Polymerization of N-substituted propiolamides  
Atsuki Shimomura,Yuzo Ishigaki,Shigeki Habaue
- 2Pd026 Radical ring-opening polymerization and properties of vinylcyclopropane containing two same mesogenic groups  
Shota Ando,Naoya Takahashi,Shuhei Yamada,Takeshi Endo,Nobuo Yasuike,Takashi Okada
- 2Pc027 Stochastic polymerization of monomers forming MOF crystals

Shizuka Anan, Yumi Mochizuki, Kenta Kokado, Kazuki Sada

2Pd028 Two-stage curing of novel epoxy-acryl hybrid monomers  
Yuji Kamachi, Yoshimasa Matsumura, Bungo Ochiai

## **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

2Pd030 Toughening of polymers by controlled arrangement of dynamic bonds  
Kei Kondo, Syuya Nakai, Shintaro nakagawa, Naoko Yoshie, Hideko T. Oyama

2Pc031 Preparation and Elastic Properties of Supramolecular Elastomers Based on Styrenic Block Copolymer  
Takato KAJITA, Haruka TANAKA, Atsushi NORO, Yushu MATSUSHITA, Kosuke ISOBE, Sadaharu HASHIMOTO, Atsushi NOZAWA, Ryoji KAMEYAMA

2Pd032 Preparation and Characteristics of Block Copolymer Soft Photonic Films Swollen with Acidic Liquids  
Atsushi YAMAMOTO, Atsushi NORO, Yushu MATSUSHITA

2Pc033 Structure Control of Physical Gels Composed of End-functionalized Tetra-arm Polymers  
Koki Ueha, Tsuyoshi Koga

2Pd034 Characterization of polymer network formed from two kinds of four-arm star poly(ethylene oxide)s  
Takashi Noda, Yuya Doi, Atsushi Takano, Yushu Matsushita

2Pc035 Analysis of Sol-Gel Transition Behavior for Methylcellulose Aqueous with Quartz Crystal Microbalance  
Kenji Yamaoka, Yoshihisa Fujii, Naoya Torikai

2Pd036 Synthesis of ionomers having poly(dimethyl siloxane) backbones  
Kenjiro Taira, Yohei Miwa, Junosuke Kurachi, Shoichi Kutsumizu

2Pc037 X-ray Scattering Analysis of Internal Structure of Double Network Hydrogels  
Kazuki Fukao, Takayuki Nonoyama, Tasuku Nakajima, Takayuki Kurokawa, Jian Ping Gong

2Pd038 Stretch induced microphase separation and mechanical properties of polyrotaxane gel consisting of triblock copolymer  
Masayuki Taniguchi, Rina Maeda, Shuntaro Uenuma, Koichi Masayumi, Kazuaki Kato, Hideaki Yokoyama, Kohzo Ito

2Pc039 Mechanical properties and fracture dynamics of crosslinked phenolic resin using molecular dynamics simulation with reactive force field  
Yasuyuki Shudo, Atsushi Izumi, Katsumi Hagita, Mitsuhiro Shibayama

2Pd040 Guiding principles to develop tough rubber materials: An exactly solvable model  
Naoyuki Sakumichi, Ko Okumura

2Pc041 Synthesis of Organic-Inorganic Hybrid-Type Interpenetrating Polymer Networks by Simultaneous Gelation Using Silicone Polymer with Silanol Residue  
Junta SANQ, Shigeki HABAUE

2Pd042 Effect of Molecular Weight and Ionic Group Content on Properties of Dynamic Ion-Crosslink Elastomer  
Junosuke Kurachi, Yohei Miwa, Yusuke Sugino, Shoichi Kutsumizu

2Pc043 Gel-sol transition of xanthan gum / locust bean gum mixtures  
Mika Iijima, Takahiro Motofuji, Tatsuko Hatakeyama, Hyoe Hatakeyama

2Pd044 Study on dynamics of aggregates in rubber filling system  
Mikihito Takenaka, Yu Nishimura

2Pc045 Characterization of Antibacterial PVA/Chitosan Hydrogel film  
Risei Wada, Yoshiki Oda, Akinori Zukeran, Jun Sawai, Hidenobu Shimizu, Masaru Okabe

2Pd046 Development of Polymeric Materials with Controlled Dissolution Temperature  
Hiroshi Mori, Hiroaki Yoshida

2Pc047 Relationships between structure and mechanical properties of thermoplastic elastomer made of PR derivative

Ryota Kobayashi,Maeda Rina,Mayumi Koichi,Yokoyama Hideaki,Ito Kozo

- 2Pd048 Thermodynamic analysis of polymer gel elasticity  
Yuki Yoshikawa,Takamasa Sakai
- 2Pc049 Molecular Simulation of Relaxation of Elastomers: Effects of Dangling Chain  
Teruki Tsurimoto,Tsuyoshi Koga
- 2Pd050 Fatigue Fracture of Tough and Self-Healing Polyampholyte Hydrogel  
Xueyu Li,Taolin Sun,Kunpeng Cui,Takayuki Kurokawa,Jian Ping Gong
- 2Pc051 Osmotic description of polymer gel and analogy with C\* theorem  
Ikuo Fujinaga,Takamasa Sakai
- 2Pd052 Evaluation of Rubber Elasticity Characteristics of Network Polymers using Molecular Dynamics Simulations  
Hiroshi Sasaki
- 2Pc053 Polyrotaxane network materials cross-linked with protein  
Rui Yoshioka,Rina Maeda,Hideaki Yokoyama,Kohzo Ito
- 2Pd054 Synthesis and properties of the network of polymer with controlled chain length using vitrimer-like cross-linking  
Yasuyuki Nakamura,Akinori Moriya,Masanobu Naito
- 2Pc055 Visualization of Sliding Dynamics and Orientation of Figure-of-Eight Cross-links in Slide-Ring gels using Coarse-Grained Molecular Dynamics Simulations  
Yusuke Yasuda,Masatoshi Toda,Koichi Mayumi,Hideaki Yokoyama,Hiroshi Morita,Kohzo Ito
- 2Pd056 Synthesis and Mechanical Properties of Homogeneous Transient Networks formed by Dynamic Covalent Bonds  
Yu Kashiwagi,Takuya Katashima,Tadashi Inoue

### **C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS**

- 2Pd058 Step- $\pi$ -conjugated polymers (26) Synthesis and performance evaluation of macromolecular wire with donor and acceptor at the terminal.  
Koki Iwamura,Hiroyuki Mitani,Haoxuan GUO,Hiroyuki Aota
- 2Pc059 Step- $\pi$ -conjugated polymers (27) Synthesis of macromolecular wire having microscopically different polarity and its interaction with platinum colloid.  
Kaho Matsumura,Haoxuan GUO,Hiroyuki Aota
- 2Pd060 Step- $\pi$ -conjugated polymers (28) Synthesis of polymer with photosensitizer for multi-step electron transfer  
Takayuki Kasugai,Haoxuan GUO,Hiroyuki Aota
- 2Pc061 Syntheses of step- $\pi$ -conjugated polymers (29) Attempt to synthesize high density charge storage polymer.  
Shingo Asai,Kota Maruyama,Haoxuan GUO,Hiroyuki Aota
- 2Pd062 Step- $\pi$ -conjugated polymers (30)Synthesis of porphyrin for introducing into macromolecular wire  
Arata Oyama,Kouken Kaku,Hiroyuki Aota
- 2Pc063 Analysis of Photoluminescence Behavior of Room-Temperature Phosphorescent Polyimide Films under Very High Pressure  
Yutaro Ando,Eisuke Fujiwara,Ryoji Orita,Ryohei Ishige,Shinji Ando
- 2Pd064 Control of Fluorescence and Phosphorescence Properties of co-Polyimides Based on Energy Transfer  
Mayuko Nara,Ryoji Orita,Kenta Kanosue,Ryohei Ishige,Shingi Ando
- 2Pc065 Synthesis and Characterization of Luminescent Nanoparticles with Cross-linked Aggregation-Induced Emission Structure  
Kazuhiro Nakabayashi,Mizuki Takata,Hideharu Mori
- 2Pd066 Synthesis and photophysical properties of polycarbonates having 9,10-(N,N-dialkylamino)anthracene dye

Gen-ichi Konishi, Kuwahara Kohei, Tomohisa Oizumi, Sasaki Shunsuke

- 2Pc067 Photophysical properties of macrocycles having highly twisted amino group-modified naphthalene moiety  
Gen-ichi Konishi, Oizumi Tomohisa
- 2Pd068 Single Polymer Materials for White-Color Luminescence  
Osama Younis, Osamu Tsutsumi
- 2Pc069 Synthesis and Characterization of Polymeric Materials having Room Temperature Phosphorescent Properties  
Daichi Furuya, Toshiyuki Watanabe, Kenro Totani
- 2Pd070 Synthesis of block and random copolymers with carbazole and (di)phenylanthracene in the side chains toward application of organic electronics.  
Jun Kosai, Chen-Tsyrr Lo, Kazuhiro Nakabayashi, Hideharu Mori
- 2Pc071 Tuning the luminescence properties of bithiazole-based  $\pi$ -conjugated polymer using its coordination property  
Risa Deguchi, Junpei Kuwabara, Takaki Kanbara
- 2Pd072 Effects of One Cyano-substituted Oligo(phenylene-vinylene) into Linear Polymer Segment  
Shotaro Hayashi, Tomoyuki Ono, Toshio Koizumi, Shin-ichi Yamamoto
- 2Pc073 High Slope Efficiency Organic Dye Laser Device with P(VDF-TrFE) Layer  
Yoshinori Hirano, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi
- 2Pd074 Behavior of the fluorescent polymer in the hydroxyl terminated polyester / lysine triisocyanate blend  
Hideki Hayashi, Masaki Marada, Yuzo Ishigaki, Yukio Onouchi
- 2Pc075 Fabrication of highly oriented DNA nanofilms by dielectrophoretic trapping method and its photo-electro functionalization  
Tsukasa Miyazaki, Kazuki Nakamura, Norihisa Kobayashi
- 2Pd076 Fabrication of UV-cured films using tertiary amines generated via intramolecular photocyclization reaction  
Takafumi Akiyama, Masahiro Furutani, Koji Arimitsu
- 2Pc077 Anionic UV curing of epoxy/bismaleimide mixed resins  
Nene Hatakeyama, Yusuke Hakamata, Masahiro Furutani, Koji Arimitsu
- 2Pd078 Construction of anionic UV curing systems for thick films utilizing novel chain curing agents  
Kouta Ooki, Tomoaki Matsuda, Masahiro Furutani, Koji Arimitsu
- 2Pd080 Effects of Aging on Poly(1-trimethylsilyl-1-propyne) Membranes Irradiated with Vacuum Ultraviolet for Gas Separation  
Tetsuro Yoshioka, Yoshiki Miyashita, Taichi Motoo, Kentaro Saito, Kazukiyo Nagai
- 2Pc081 Reserch on Biodegradable Plastics for Packaging Materials  
Shuhei Suzuki, Keito Tabata, Yuntaek Choi, Meigin Sho, Kazukiyo Nagai
- 2Pd082 Gas Permeation Property of Diacetylene-containing Polymer Membranes Derived from Dicarboxylic Acid with Different Carbon Chain Length  
Tomoya Tamaki, Shuhei Suzuki, Sumito Nagahama, Shun Kato, Daichi Watabe, Kazukiyo Nagai
- 2Pc083 Synthesis and Structure Analysis of Acrylamide / Silicone Copolymers  
Keisuke Ikeda, Ren Hamada, Wataru Kawasoko, Yohei Sasago, Kazukiyo Nagai
- 2Pd084 Gas Barrier and Physical Property of Diacetylene-Containing Polymer Membranes Derived from Cinnamic Acid Derivative  
Sumito Nagahama, Keisuke Ikeda, Tomoya Tamaki, Shun Kato, Kazukiyo Nagai
- 2Pc085 Synthesis of Poly(biphenylacetylene) Derivatives Bearing a Variety of Functional Pendants and Their Application  
Mitsuka Ando, Ryoma Ishidate, Katsuhiko Maeda, Eiji Yashima
- 2Pd086 Sensing of biomolecules using cationic  $\pi$ -conjugated polymers -Anion substitution effect-  
Yui Shimada, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa

- 2Pc087 Development of reusable Pd nanowire network catalyst  
Daisuke Matsubara, Yoshimasa Matsumura, Bungo Ochiai
- 2Pd088 Diffusion properties of ethylene vinyl alcohol copolymer swollen by water  
Haruka Matsushita, Hiroaki Yoshimizu
- 2Pc089 <sup>13</sup>C NMR measurement of CO<sub>2</sub> in polymeric gas separation membranes  
Masafumi Yamato, Eiko Ito, Manabu Tanaka, Hiroyoshi Kawakami
- 2Pd090 Controlling Vapor Permeation Behavior of Polyelectrolyte Membranes via different Cross-linking degree Polyelectrolyte and Inserting Additives  
Ye Ji Son, So Jeong Kim, Byeongil Jeon, Kyung-Hye Jung
- 2Pc091 Synthesis of Environmentally Responsive Cyclodextrin Polymer Capsules for Controlled Cargo Release  
Shintaro Kawano, Daisuke Ono
- 2Pd092 Synthesis and Catalytic Reaction Activity with Gold Nanoparticles/Diblock Ionomers (VI) -Relationship between Dispersibility of Composite Catalysts and Catalytic Activity -  
Hinako Inoue, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 2Pc093 Anion Sensing Properties of Helical Poly(diphenylacetylene) Derivatives Bearing Chiral Pendant Groups  
Yoichi Shimizu, Daisuke Hirose, Tatsuya Nishimura, Tomoyuki Ikai, Katsuhiko Maeda
- 2Pd094 Recovery of platinum group metals by using amphiphilic block polymers  
Akihiro Hirate, Michinari Kohri, Tatsuo Taniguchi, Keiki Kishikawa, Takeshi Ogata, Hirokazu Narita, Ryuhei Motokawa
- 2Pc095 The higher-ordered structures, molecular mobilities, and transport properties of syndiotactic polystyrene studies by NMR methods  
Mika Ito, Hiroaki Yoshimizu
- 2Pd096 Analysis of higher-ordered structures of poly methyl methacrylates prepared by several physical treatments by means of Xe-129 NMR  
Eriko Nishiguchi, Hiroaki Yoshimizu
- 2Pc097 Evaluation of the gas diffusion properties of rubbery polymers using NMR  
Asami Miyashiro, Hiroaki Yoshimizu
- 2Pd098 Enantioseparation on Optically Active Poly(phenylacetylene) Derivatives Showing Helix-Sense Enhancement Based on a Chiral-to-Chiral Communication Mechanism as a Chiral Stationary Phase for HPLC  
Mayu Fukuda, Asahi Isobe, Daisuke Hirose, Freire Felix, Katsuhiko Maeda
- 2Pc099 Control of Permeability for Parylene nanofilms having various amide side chains  
Mizuki Goto, Mutsumi Kimura

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

- 2Pd102 fabrication of multi-stimuli responsive peptide-coated mesoporous silica as a dds carrier  
Yuichiro Suzuki, Masahiro Higuchi
- 2Pc103 Development of novel porous particles for pulmonary DDS -evaluation of pulmonary delivery-  
Shinnosuke Nishimura, Yoshihiko Murakami
- 2Pd104 Development of novel porous particles for pulmonary DDS -evaluation of drug release-  
Tsutomu Takahashi, Yoshihiko Murakami
- 2Pc105 Development of lipid-polymeric micelle for oral drug delivery -evaluation of formation and structure of polymeric micelles -  
Ichihiko Okita, Yoshihiko Murakami
- 2Pd106 Development of temperature-responsive microparticles formed via sol-gel transition  
Takumi Sato, Yoshihiko Murakami
- 2Pc107 Development of hollow protein nanoparticles for possible incorporation of hydrophilic compounds  
Seiichi Sonotaki, Keiichi Noguchi, Masafumi Yohda, Yoshihiko Murakami



- 2Pd108 Fabrication of Calcium Carbonate coated Vesicles by Biomineralization and the Application for DDS Carrier  
Chiho Miyamaru,Mao Koide,Masahiro Higuchi
- 2Pc109 Preparation of boronic acid-binding block polymer micelle aiming for boron neutron capture therapy  
Ryoya UMEYAMA,Yuta YODHIZAKI,Akinori KUZUYA,Yuichi OHYA
- 2Pd110 Preparation of multistimuli-responsive hydrogels for stimuli-responsive loading and release of proteins  
Moeno Tago,Hidenari Kayano,Taka-Aki Asoh,Ryo Ishihara,Akihiko Kikuchi
- 2Pc111 Preparation of Hydrophobically Modified Hydroxypropyl Methylcellulose/Cyclodextrin Thermoresponsive Hydrogels for Use in Drug Delivery  
Daisuke Iohara,Masanori Okubo,Makoto Anraku,Kaneto Uekama,Fumitoshi Hirayama
- 2Pd112 Delivering positively charged peptide/drug using crosslinked and pH responsive nanomachine  
Amit Ranjan Maity,Sabina Quader,Shigehito Osawa,Kazunori Kataoka
- 2Pc113 An oral administration of sorafenib-loaded silica-containing redox nanoparticle for treatment of liver fibrosis  
Hao Tran Thi,Long Binh Vong,Yuji Nishikawa,Yukio Nagasaki
- 2Pc115 Controlling the tertiary structure of DNA with reduction-responsive guanine derivatives  
Ayaka Banno,Yukiko Hayakawa,Masato Ikeda
- 2Pd116 Development of tumor-specific double-stranded RNA delivery system using hyaluronic acid  
Masashi Umeda,Atsushi Moritaka,Kazuo Sakurai,Shinichi Mochizuki
- 2Pc117 Photoregulation of SNA duplex by using reversible [2+2] cycloaddition reaction  
Yuuhei Yamano,Keiji Murayama,Hiroyuki Asanuma
- 2Pd118 Assembling messenger RNA using RNA cross-linkers for improving nuclease stability  
Kurimoto Shota,Eol Cho,Naoto Yoshinaga,Yuki Mochida,Satoshi Uchida,Horacio Cabral
- 2Pc119 Measurement of Interparticle Force between DNA-grafted Microbeads by Optical Tweezers  
Hiroya Nakauchi,Mizuo Maeda,Naoki Kanayama
- 2Pd120 Adsorption Behavior of DNA-functionalized Gold Nanoparticles on the Surface-Modified Glass Substrates  
Naoki Kanayama,Seika Imamura,Mizuo Maeda
- 2Pc121 Photo-Regulation of Protein Expression by Visible Light Responsive 10-23 DNAzyme  
Yu Arimura,Hideaki Ooi,Kenjiro Kato,Xingguo Liang,Yukiko Kamiya,Hiroyuki Asanuma
- 2Pd122 Conjugation of siRNA and a polymer with coil-globule transition property and precise control of gene-silencing effect in response to the small temperature difference around body condition  
Sayaka Onodera,Hiroyasu Takemoto,Takahiro Nomoto,Keishiro Tomoda,Makoto Matsui,Nobuhiro Nishiyama
- 2Pc123 Preparation of functionalized hydrogel containing dye-oligomers synthesized by large scale liquid phase synthesis  
Yuki Shigematsu,Keiji Murayama,Hiroyuki Asanuma
- 2Pd124 Sphere-shaped polyplex micelle based on ssDNA and its delivery appeal towards hypopermeable pancreatic tumor  
Theofilus A. Tockary,Wanling Foo,Anjaneyulu Dirisala,Xueying Liu,Satoshi Uchida,Yuki Mochida,Horacio Cabral,Kensuke Osada,Kataoka Kataoka
- 2Pc125 Development of chiral amplification system by using higher-order structure formation of artificial nucleic acid  
Keiji Nishikawa,Toshiki Miyagawa,Yuhei Hattori,Hiromu Kashida,Hiroyuki Asanuma

Presentation Time

<e = 15:00~15:40>

<f = 15:40~16:20>

## A. POLYMER CHEMISTRY: SYNTHESIS AND REACTIONS

- 2Pe001 Asymmetric Anionic Polymerization of Quinone Methide with Cyano and Phosphonate Groups  
Shun UCHIYAMA, Yuka FUYADA, Takahiro UNO, Masataka KUBO, Takahito ITOH
- 2Pf002 Controlled cationic polymerization of vinyl ethers using initiating systems consisting of various phenoxyimine ligands and metal halides  
Takuya Yamamoto, Sensho Kigoshi, Arihiro Kanazawa, Sadahito Aoshima
- 2Pe003 Photo-Switchable Cationic/Radical Copolymerization Using Photoredox Catalyst and Lewis Acids  
Zhihong SUN, Nagisa ITO, Yuuma FUJIKI, Mineto UCHIYAMA, Kotaro SATOH, Masami KAMIGAITO, Jiangtao Xu, Cyrille Boyer
- 2Pf004 Asymmetric Living Cationic Polymerization of Benzofuran  
Daichi Watanabe, Masahiro Osumi, Masato Miyajima, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito
- 2Pe005 Synthesis and Controlled Cationic Polymerization of Vinyl Ether Derived from Naturally-Occurring Furfural  
Tomoaki Yokota, Teigo Okoshi, Takenori Nishida, Mineto Uchiyama, Kotaro Satoh, Masami Kamigaito
- 2Pf006 Various halogen-bonding organic catalysts control the cationic polymerization of vinyl monomer  
Hiroto Murakata, Koji Yamauchi, Hiroki Yano, Koji Takagi
- 2Pe007 Vinyl polymerization of (meth)acrylates catalyzed by Lewis pairs in water  
Atsushi Shimizu, Shin-ichi Matsuoka, Masahito Suzuki
- 2Pf008 Polymerization of Cyclopentadiene Catalyzed by Various Lewis Pairs  
Kazumasa Mori, Shin-ichi Matsuoka, Masahito Suzuki
- 2Pe009 Ring-Expansion Living Cationic Polymerization using MgBr<sub>2</sub> as a Lewis Acid Catalyst  
Yuji Daito, Reina Kojima, Takaya Terashima, Makoto Ouchi
- 2Pf010 Synthesis and Expansion of Cyclic Vinyl Polymers Initiated by N-Heterocyclic Carbene in the Presence of Lewis acid  
Yuhei Hosoi, Akinori Takasu, Shin-ichi Matsuoka, Mikihiro Hayashi
- 2Pe011 Synthesis of stereoregular poly(lactide) using N-heterocyclic carbene/Lewis acids  
Keiji Naruse, Akinori Takasu, Mikihiro Hayashi
- 2Pf012 Ring-opening polymerization of lactones in the presence of cyclic compounds  
Yosuke Oga, Akinori Takasu
- 2Pe013 Zwitter ionic polymerization of acrylic thioester  
Yuna Ishikawa, Takumi Kaneko, shin-ichi Matsuoka, koji Takagi, Masahito Suzuki
- 2Pf014 Ring-opening homo- and co-polymerization of thioglycolide and thiolactide  
Aya Watanabe, Kazumasa Makimura, Shin-ichi Matsuoka, Koji Takagi, Masahito Suzuki
- 2Pe015 Synthesis of Polypeptoids by Ring-Opening Polymerization of 1,3-Oxazolidin-5-ones and N-dithiocarboxy anhydrides  
Hiromu Yamasaki, Renta Otsuka, Naoki Yoshida, Shin-ichi Matsuoka, Koji Takagi, Masahito Suzuki
- 2Pf016 Ring-opening polymerization of cyclic acrylate containing hemiacetal ester skeletons to fabricate degradable poly(conjugated esters)  
Yosuke Matsushashi, Shuji Yamashita, Yasuhiro Kohsaka
- 2Pf018 Ring-Opening Metathesis Polymerization of Sequence-Regulated Cyclic Oligomers Prepared by Iterative Atom Transfer Radical Additions of Vinyl Monome  
Masato Miyajima, Kotaro Satoh, Masami Kamigaito
- 2Pe019 Ring-opening polymerization of (oxa)norbornene lactones  
Narumi Miyasako, Shin-ichi Matsuoka, Masato Suzuki
- 2Pf020 Synthesis and emission properties of poly(diphenylacetylene)s having long alkyl chain

groups

Koji Yoshimura,Toshikazu Sakaguchi,Tamotsu Hashimoto

- 2Pe021 Study on the effect of substituents on the emission property of poly(diphenylacetylene)  
Tepei Hinagata,Toshikazu Sakaguchi,Tamotsu Hashimoto
- 2Pf022 Synthesis and gas permeability of diphenylacetylene polymers having vinyl and vinyloxy groups  
Junya Minami,Toshikazu Sakaguchi,Tamotsu Hashimoto
- 2Pe023 Synthesis and gas permeability of polar group-containing disubstituted acetylene polymers  
Takuya Fujimoto,Toshikazu Sakaguchi,Tamotsu Hashimoto
- 2Pf024 Polycondensation of dissymmetrical AB-type monomer via cross-dehydrogenative-coupling reaction  
Hideaki Aoki,Hitoshi Saito,Junpei Kuwabara,Takaki Kanbara
- 2Pe025 Synthesis of tetrafluorobenzene-based conjugated polymers consisting of three-component units by cross-dehydrogenative-coupling polycondensation  
Chie Tanaka,Hideaki Aoki,Hitoshi Saito,Junpei Kuwabara,Takaki Kanbara
- 2Pf026 Synthesis of donor-acceptor polymer *via* direct arylation polycondensation of benzodithiophene-4,8-dione  
Xin Jiang,Junpei Kuwabara,Takaki Kanbara
- 2Pe027 Additive controlled switching of molecular weight and end groups of polyphenylene in unstoichiometric Suzuki-Miyaura polycondensation  
takeru KAMIGAWARA,Hajime SUGITA,Yoshihiro OHTA,Tsutomu YOKOZAWA
- 2Pf028 Random copolymerization of lactide with trimethylenecarbonate using salen-type Al catalyst  
Tomohiro Fukuta,Nobuyoshi Nomura
- 2Pe029 Polymerization of 2-alkoxytrimethylene carbonates derived from glycerol  
Reiji Yoshimura,Nobuyoshi Nomura
- 2Pf030 Controlled Copolymerization by Metal Complexes [81] Development of Metalloporphyrin Catalyst System for Copolymerization of Carbon Dioxide and Oxetane  
Ryo Nakamura,Hiroshi Sugimoto
- 2Pe031 Structure analysis of high purity poly propylene glycol prepared by cooperative catalyst of organic base-Lewis acid  
Yoshiaki Inoue,Toshihide Yamamoto,Yukio Tsunetoh,Katsuaki Mori

## **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

- 2Pf034 Two dimensional tiling from ABAC tetrablock copolymers  
Jiro Suzuki,Atsushi Takano,Yushu Matsushita
- 2Pe035 Microphase-Separated Structure Formed from ABCD Tetrablock Quarterpolymers  
Masayuki Asano,Atsushi Takano,Jiro Suzuki,Yoshitaka Aoyama,Tomohiro Mihira,Yushu matsushita
- 2Pf036 Bicontinuous microphase separation structures formed by a diblock copolymer blend having a chain length difference  
Wataru Takagi,Jiro Suzuki,Atsushi Takano,Yushu Matsushita
- 2Pe037 Peculiar Behavior of Small-angle X-Ray Scattering Profiles from Phase Separated Structure of Block Copolymer with Low Electron Density Difference  
Kenichi Yoshimori,Katsuhiko Yamamoto
- 2Pf038 STEM analysis of the compatibilization of PVDF/PLLA reactive blends  
Shin Horiuchi,Hideki Hakukawa,Wenyong Dong,Yongjin Li
- 2Pe039 Development of Crystal Structure Control Techniques in Acrylic Polymer/PVDF Blends  
Tatsuhiko Hiraoka,Masashi Ikawa,Hiroshi Niinou,Eiko Okamoto,Hiroshi Hosokawa,Hironu Saito
- 2Pf040 Melt crystallization behavior of poly(phenylene sulfide)/poly(N-vinyl pyrrolidone) blends

Kazuhiro Watanabe, T. Hideko Oyama, Saori Nara, Takuya Nishida, Koji Tanaka

- 2Pe041 A study of small angle scattering profiles calculated from large-volume 3D-data of fillers in rubbers  
Katsumi Hagita, Takeshi Higuchi, Hiroshi Jinnai
- 2Pf042 Properties of Natural Rubber with Nanodiamond-nanomatrix Structure  
Seiichi Kawahara, Asangi Gannoruwa, Yoshimasa Yamamoto
- 2Pe043 Toughening Poly(lactide) with sliding graft copolymer  
Wenshun Shi, Guan Li, Chang Liu, Rina Maeda, Koichi Mayumi, Hideki Yokoyama, Kohzo Ito
- 2Pf044 A Study of modification technology of various polymeric materials with gamma irradiation  
Atsushi Kanaya, Hiroki Takeshita, Katsuhisa Tokumitsu, Takayuki Hironiwa, Atsushi Matsumoto
- 2Pe045 Morphology Observation and Inorganic Additive Effect for Polysulfone Membrane via Phase Separation Process  
Keigo Itakura, Yoshihisa Fujii, Naoya Torikai
- 2Pf046 Mechanical and Hydrogen gas barrier properties of blends of BVOH modified PVOH  
Shogo Sumino, Katsuhisa Tokumitsu, Hiroki Takeshita, Mitsuo Shibutani, Shin Nishimura, Hirotada Fujiwara
- 2Pe047 Proton conductive membranes composed of crystalline polymers and amorphous networks  
Shougo Yaguchi, Toshiyuki Kataoka, Takayuki Ikehara
- 2Pf048 SAXS analyses of epoxy resin/ZrO<sub>2</sub> nanoparticles hybrids  
Kazushi Enomoto, Moriya Kikuchi, Atsushi Narumi, Seigou Kawaguchi
- 2Pe049 Molecular Simulation of Aggregate Structure of Polymers containing POSS in Their Main Chains  
Tomonori Nakagawa, Kensuke Naka, Tsuyoshi Koga

### **C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS**

- 2Pe051 Performance of semitransparent organic thin film solar cell with Ag nanowires as top electrode  
Yukika Asano, Atsusi Aoki
- 2Pf052 Optimization of solar hydrogen production module using PTB7 polymer solar cell  
Shinnosuke Watanabe, Shinpei Goto, Atsushi Aoki
- 2Pe053 Charge dynamics in nonfullerene organic solar cells  
Yasunari Tamai, S. Matthew Menke, Yeli Fan, Vincent O. Kim, Kostiantyn Ziabrev, Akshay Rao, Stephen Barlow, Seth R. Marder, Richard H. Friend
- 2Pf054 Analysis of Fill Factor Based on Charge Recombination in Crystalline Polymer Solar Cells  
Tomohiro Fukuhara, Yasunari Tamai, Hideo Ohkita
- 2Pe055 Fabrication of P3HT fibers by Forcespinning method  
Kohei Hayashi, Takato Iwata, Kenji Kinashi, Wataru Sakai, Naoto Tsutsumi
- 2Pf056 Development of dye-sensitized solar cell based on circularly arranged porphyrin array thin film  
Sadaaki Kawasaki, Ryouhei Okazaki, Sadayuki Asaoka
- 2Pe057 Two-dimensional exciton diffusion dynamics in crystalline conjugated polymer thin films  
Yasuhiro Murata, Yasunari Tamai, Hideo Ohkita
- 2Pf058 Effect of doping levels on thermoelectric properties of alkyl-substituted polythiophene  
Ichiro Imae, Ryosuke Akazawa, Yutaka Harima
- 2Pe059 Heat treatment effect of charge-transfer complex blend films as polymer electrolyte membranes for PEFC  
Masamichi Nishihara, Shiyang Feng, Liana Christiani, Kazunari Sasaki, Shoichi Kondo, Taichi Nakazawa, Takamasa Kikuchi

- 2Pf060 Synthesis and application of polyelectrolyte with super acid group (V) - Evaluation of water transport phenomena -  
Miho Asano, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 2Pe061 Synthesis and evaluation of cationic polyphenylenes having phosphonium groups (III)- Alkaline resistance of alkyl phosphonium group -  
Tomohisa Oshima, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 2Pf062 Fabrication of polymer nanofibers containing sulfonic and phosphoric acid groups and fuel cell characterizations of the composite membranes.  
Risa Sakaguchi, Manabu Tanaka, Hiroyoshi Kawakami
- 2Pe063 Fabrication of lithium ion conductive polymer nanofiber framework composite electrolyte membranes for future secondary battery applications  
Shun Nakazawa, Yuta Inafune, Kaito Takenaka, Manabu Tanaka, Hiroyoshi Kawakami
- 2Pf064 Bifunctional PEG-based Cross-linked Network Polymer Electrolytes for Lithium Ion Batteries  
Manjit Singh Grewal, Manabu Tanaka, Hiroyoshi Kawakami
- 2Pe065 Water-soluble supramolecular system for hydrogen production  
Riku Kubota, Taiga Takabe, Hiroyoshi Kawakami
- 2Pf066 Property of polymer gel electrolyte for lithium ion battery  
Sahori Takeda, Shigemasa Yamagami, Yuria Saito, Toshiki Yagi, Keisuke Watanabe, Shota Kobayashi
- 2Pe067 Rapid Charge of Poly TEMPO-Substituted Ether / LiFePO<sub>4</sub> Hybrid Electrode Based on Charge Mediation  
Yusuke Sasaki, Kan Sato, Kenichi Oyaizu, Hiroyuki Nishide
- 2Pf068 Polyborosiloxane based binders for Li-ion battery anodes  
Sai Gourang Patnaik, Noriyoshi Matsumi
- 2Pe069 Preparation and evaluation of lithium secondary batteries using end-capped poly(ethylene carbonate) electrolytes  
Yukino Kinno, Yoichi Tominaga
- 2Pf070 Preparation and Characterization of Lithium Ion Batteries Using Polycarbonate Blend-based Concentrated Electrolytes  
Zhenguang Li, Ronnie Mogensen, Jonas Mindemark, Tim Bowden, Daniel Brandell, Yoichi Tominaga
- 2Pe071 Lithium Sulfur Battery Using Poly(propyl methacrylate)s with Highly Dissociative Ionic Pendant Groups as Electrolyte Membrane  
Masaki Sakamoto, Kenichi Oyaizu, Hiroyuki Nishide
- 2Pf072 Electrochemical characterization of crosslinked poly(tetrahydrofuran)-based Mg gel electrolytes  
Sawako Kato, Yuki Shoda, Yoichi Tominaga
- 2Pe073 Synthesis of Tetrabenzo Crown Ether by Thiol-ene Reaction and the application of Gel Electrolyte  
Junichi Tokomoto, Kazuhiro Yamabuki, Kenjiro Onimura
- 2Pf074 Effect of chain architectures of star-shaped poly(ethylene glycol) macromonomers on mechanical property and ionic conductivity of polymer electrolyte membranes  
Ryo Onozuka, Camilo Rendon Piedrahita, Shoki Nakano, Kaoru Adachi, Yasuhisa Tsukahara, Thein Kyu
- 2Pe075 Redox Flow Battery Using Redox Polymer Particles as Cathode and Anode Active Materials  
Nagano Takashi, Kenichi Oyaizu, Hiroyuki Nishide
- 2Pf076 Non-precious Metal Catalyst Derived from ZIF-8/FAB for Oxygen Reduction Reactions in Non-aqueous Medium  
Ankit Singh, Noriyoshi Matsumi
- 2Pe077 Carbon nitride/polyacrylonitrile nanofibers as effective cathode catalyst in microfluidic fuel cells  
Amandeep Jindal, Suddhasatwa Basu, Neha Chauhan, Tomofumi Ukai, Sakthi Kumar

- 2Pf078 Energy storage performance of carbon nanofiber electrodes derived from cross-linked aromatic polyimide  
So Jeong Kim,Ye Ji Son,Byeongil Jeon,Kyung-Hye Jung
- 2Pe079 Solution Plasma Treatment of Precursor Polymer Nanofibers for Carbon Nanofiber Electrode  
Ye Ji Son,So Jeong Kim,Byeongil Jeon,Kyung-Hye Jung
- 2Pf080 Electrical properties of carbon catalysts obtained by baking different metal supported poly metal phthalocyanines  
Shun Miyata,Naoki Wakuzawa,Shota Shingai,Izuru Kobayashi,Nobukatsu Nemoto,Masaji Akimoto,Kazuto Umezu
- 2Pe081 Construction of Layer Structures Consisting of  $\pi$ -Conjugated Molecules with Poly(4-vinylpyridine) Brushes  
Romu Nakayama,Toru Ube,Kenji Katayama,Masa-aki Haga,Tomiki Ikeda

#### D. BIOPOLYMERS AND BIORELATED POLYMERS

- 2Pf084 Photo-assisted DNA delivery by using malachite green copolymer  
Ryoko Uda,Takanori Mori,Kai Torng Ang,Keita Hayashi
- 2Pe085 Fabrication of drug loaded core shell nanofibers for long term drug release behavior control  
Toshiya Hibino,Shin-ichiro Suye,Satoshi Fujita
- 2Pf086 Protein-Coated Nanocaplet for Active-Targeting siRNA Delivery  
Ai Kohata,Hashim P.K.,Kou Okuro,Takuzo Aida
- 2Pe087 Development of tissue-adhesive tetraPEG-polymeric micelle hybrid gel for the sustained drug release.  
Masato Ogawa,Yoshihiko Murakami
- 2Pf088 Synthesis of polymers for protein immobilization by using a novel RAFT agent and evaluation of their gelation properties  
Yuta Mori,Yoshihiko Murakami
- 2Pe089 Glycaemic control boosts glucosylated nanocarrier crossing the BBB into the brain  
Yasutaka Anraku,Hiroya Kuwahara,Takanori Yokota,Kazunori Kataoka
- 2Pf090 Relationship between kind of hydrophilic group of DDS nanomicell and retention in blood  
Koichi Arai,Syota Fujii,Shinnichi Motizuki,Kazuo Sakurai
- 2Pe091 Improvement of mRNA loaded polyion complexes by the introduction of guanidinium groups  
Mao Hori,Naoto Yoshinaga,Satoshi Uchida,Horacio Cabral,Kazunori Kataoka
- 2Pf092 Design of acid-labile polyrotaxane-drug conjugates for releasing anticancer drugs in response to tumor microenvironments.  
Mamoru Osawa,Atsushi Tamura,Nobuhiko Yui
- 2Pe093 Evaluation of molecular state of poloxamer 407 on the surface of drug nanoparticle  
Kenjiro Higashi,Yosuke Kuroiwa,Keisuke Ueda,Kunikazu Moribe
- 2Pf094 Design of intracellular environment-responsive peptide nanofibers for antigen delivery.  
Saori Takeshima,Sayaka Koeda,Tomonori Waku,Naoki Tanaka
- 2Pe095 Development of poly(amino acid)-based carrier that loads gemcitabine via reversible linkage and its evaluation in pancreatic cancer model  
Xiaomeng Liu,Hiroyasu Takemoto,Takahiro Nomotoq,Makoto Matsui,Keishiro Tomoda,Nobuhiro Nishiyama
- 2Pf096 Application of biodegradable injectable polymer formulation exhibiting temperature-responsive irreversible gelation as a hemostatic agent  
Soichiro Fujiwara,etsushi Yamaji,Keisuke Kawahara,Yasuyuki Yoshida,Yuta Yoshizaki,Akinori Kuzuya,Yuichi Ohya
- 2Pe097 Development of nanohybrids of extracellular vesicle with magnetic nanogel and evaluation of their function as nanocarriers  
ryosuke mizuta,riku kawasaki,Shinichi Sawada,yoshihiro Sasaki,kazunari Akiyoshi

- 2Pf098 Development of polymeric nanoparticles toward facile encapsulation of boronic drugs with high stability in blood stream  
Yuya Suzuki,Ahram Kim,Yukio Nagasaki
- 2Pe099 Poly(ornithine) based nanomedicine for liver diseases  
Yota Ibayashi,Long Binh Vong,Yukio Nagasaki
- 2Pf100 Development of Shape-memory Balloon for Bone Tumor Treatment  
Sosuke OUCHI,Eri NIIYAMA,Koichiro UTO,Akihiko KIKUCHI,Mitsuhiro EBARA
- 2Pe101 Protein corona analysis of albumin-imprinted nanogels in human serum  
Kentaro Kiguchi,Yukiya Kitayama,Toshifumi Takeuchi
- 2Pf102 Cellular uptake of albumin-imprinted nanogels into living cells  
Natsuki Hayakawa,Takuya Yamada,Yukiya Kitayama,Toshifumi Takeuchi

## F. INDUSTRIAL POLYMERS AND TECHNOLOGY

- 2Pe105 Lowering effect of curing temperature of cyanate ester resin caused by various curing accelerators  
Keisuke Izu,Yuichiro Tokoro,Toshiyuki Oyama
- 2Pf106 Synthesis of a novel polycyclic epoxy resin with bulky structure  
Hiroko Iwakiri,Yuichiro Tokoro,Toshiyuki Oyama
- 2Pe107 Creation and Controlling Mechanical Property of Tough Composite Materials Using Macroscopic Sacrificial Bonds  
Tsuyoshi OKUMURA,Riku TAKAHASHI,Daniel R. KING,Tasuku NAKAJIMA,Takayuki NONOYAMA,Takayuki KUROKAWA,Jian Ping GONG
- 2Pf108 Microfabrication of high strength gel with a 3d printer  
Kyuichiro Takamatsu,Hiroyuki Sasaki,Masaru Kawakami,Hidemitsu Furukawa
- 2Pe109 Fabrication of Line & Space Structure and Wiring on 3D Surface features with Imprinting Process  
Shogo Ota,Akihiko Nemoto,Yunfeng Zheo,Takashi Kurose,Hiroshi Ito
- 2Pf110 Structure and Properties of Poly(ethylene terephthalate) Fiber Webs Prepared through Laser-Heated Electrospinning and Biaxial Stretching Processes  
Tomoki Tokuda,Takuya Hara,Atsuya Odake,Wataru Kita,Midori Takasaki,Haruki Kobayashi,Katsufumi Tanaka,Wataru Takarada,Takeshi Kikutani
- 2Pe111 Thermally Conductive One-Dimensional Polymer Nanostructures Obtained by Nanoimprinting with Aluminum Oxide Template  
Paritat Muanchan,Yunfeng Zhao,Takashi Kurose,Hiroshi Ito
- 2Pf112 Synthesis of fluoropolymer with cage silsesquioxane  
Moeka Sano,Tadashi Kanbara,Tomoko Yajima
- 2Pf114 Surface treatment for silicone elastomer by Atrp  
Kunio Johnin
- 2Pe115 Antifouling surface treatment of aluminum  
Nobuhito Katsumura,Hideo Sotokawa,Yuta Tnanida,Norihisa Okada
- 2Pf116 Novel transparent inter-layer film of poly-blend for laminated organic glass  
yoshikatsu mizukami,eiji Akiba
- 2Pe117 Adhesion Mechanism of Pressure-Sensitive Adhesive Using Force Curve Measured by Atomic Force Microscopy  
Shun Okada,Syuji Fujii,Yoshinobu Nakamura,Yoshiaki Urahama,Ken Nakajima,Makiko Ito,Xiaobin Liang
- 2Pf118 Mechanical properties and tensile rate dependency of crosslinked polyacrylic pressure-sensitive adhesives  
Yusuke Kashihara,Shun Okada,Syuji Fujii,Yoshinobu Nakamura,Yoshiaki Urahama,Shigeki Hikasa,Kazuko Fujiwara
- 2Pe119 Lowering of water absorption of inorganic particle-filled epoxy resin by the addition of silane coupling agent

Takashi Nakamura, Ryota Tsutsumi, Syuji Fujii, Yoshinobu Nakamura

- 2Pf120 Surface modification of PEN substrates by layer-by-layer assembly of polyelectrolyte multilayer thin films for their electroless deposition  
Toshiyuki TAMAI, Mitsuru WATANABE, Yasuyuki KOBAYASHI, Yoshio NAKAHARA, Setsuko YAJIMA
- 2Pe121 Preparation and physical properties of transparent flexible materials using reactive poly(vinyl butyral)  
Miku Nakagawa, Yuya Aoki, Hideki Sugimoto, Shogo Nobukawa, Katsuhiko Inomata, Eiji Nakanishi
- 2Pf122 The effects of matrix component and the silica particle addition on the physical properties of glass cloth/acryl composite materials  
Kazuhiro Sakai, Shumma Tonouchi, Hideki Sugimoto, Shogo Nobukawa, Katsuhiko Inomata
- 2Pe123 Preparation and physical properties of acryl based transparent hybrid materials with various alumina fillers  
Haruka Yoneki, Chiko Naruse, Hideki Sugimoto, Syougo Nobukawa, Katsuhiko Inomata, Eiji Nakanishi
- 2Pf124 Development of modified cellulose synthesis method using temperature controlled type milling machine  
Takuma Aida, Tomonori Koda, Ken Miyata, Taichi Nishio, Bungo Ochiai, Akihiro Nishioka
- 2Pe125 Report about ultraviolet deterioration of plastic plate.  
Hanae Kobayashi, Hitomi Ejiri, Norio Urayama

### **Fri. May 25**

Presentation Time

<a = 10:00~10:40>

<b = 10:40~11:20>

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

- 3Pa001 Synthesis and secondary structure of poly(m-phenylene vinylene) having triethylene glycol via glutamic acid in the side chain  
Moeka Inoue, Kayo Terada, Mime Kobayashi, Tsuyoshi Ando
- 3Pb002 Synthesis of fluorine-containing  $\pi$ -conjugated polymers having ring-fused pyridinium salts via intramolecular cyclization reaction  
Honoka Nishimi, Yuki Asanuma, Hiroki Nishiyama, Ikuyoshi Tomita, Shinsuke Inagi
- 3Pa003 In-plane growth of PEDOT films by bipolar electropolymerization  
Tempei Watanabe, Hiroki Nishiyama, Ikuyoshi Tomita, Shinsuke Inagi
- 3Pb004 Synthesis Fully  $\pi$ -Conjugated Regioregular Macrocyclic Poly(3-Hexylthiophene)  
Minato Nakamura, Masaaki Hosokawa, Takuya Yamamoto
- 3Pa005 Synthesis of poly(arylene alkynylene ketone)s via Sonogashira coupling polymerization  
soshun ono, Katsuya Maeyama
- 3Pb006 Synthesis of Bifacial  $\pi$ -Conjugated Polymers  
Daiki Abe, Fumitaka Ishiwari, Takanori Fukushima
- 3Pa007 Synthesis of electron-deficient semiconducting polymers with arylsilylalkyl side chains  
Tomoya Higashihara, Uran Sato
- 3Pb008 Synthesis and photoluminescence property of polystyrene bearing with oligofluorene graft chains  
Risa Hashimoto, Yuta Shiihashi, Kenji Sugiyama
- 3Pa009 Preparation of polyfluorene brush by surface-initiated polymerization  
Naoya Kitamura, Takehiro Kawauchi
- 3Pb010 Development and evaluation of optical properties of regioregular conjugated polymers based on boron element-blocks  
Kazuo Tanaka, Misuzu Fukuyama, Shunichiro Ito, Yoshiki Chujo



- 3Pa011 Synthesis of  $\pi$ -conjugated polymers possessing ketoimine complex unit at the side chain  
Kohei Teki, Hiroki Saito, Atsushi Kimoto
- 3Pb012 Synthesis of  $\pi$ -conjugated polymer complex possessing dicyanoethylene-substituted quinacridone with near infrared absorption  
Tomoka Fujii, Atsushi Kimoto
- 3Pa013 Synthesis and functions of conjugated polymers containing dithienoarsole via transition metal-catalyzed coupling reactions.  
Chieko Yamazawa, Hiroaki Imoto, Kensuke Naka

## **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

- 3Pa017 Depth-resolved analysis of phase-separated structure in an elastomer thin films of ABA-type triblock copolymer utilizing X-ray and neutron beam  
Eri Miura, Katsuhiko Yamamoto
- 3Pb018 in-situ measurement of self-assembling blockcopolymer thin film with GISAXS  
Takuya Omosu, Mikihito Takenaka, Hiroki Ogawa, Kenji Yoshimoto, Tsukasa Azuma, Katsuyoshi Kodera
- 3Pa019 Observation of Crystallization Behavior near the Surface of PET Thin Film via Time-resolved Tender X-ray GISAXS Measurement  
Shogo Tomita, Hiromasa Ohta, Hideaki Takagi, Noriyuki Igarashi, Nobutaka Shimizu
- 3Pb020 Development of GISAXS-CT combined with total variation minimization.  
Hiroki Ogawa, Shunsuke Ono, Yukihiro Nishikawa, Mikihito Takenaka, Akihiko Fujiwara
- 3Pa021 Direct observation of spin coating process of polystyrene-b-poly (2-vinylpyridine) thin film under selective solvent  
Tsubasa Matsunaga, Hiroki Ogawa, Mikihito Takenaka, Tsukasa Miyazaki, Taizo Kabe
- 3Pb022 Glass transition and interfacial dynamics in stacked thin PMMA films  
Megumi Ooe, Kohei Suzuki, Koji Fukao, Koichiro Sadakane, Norifumi Yamada
- 3Pa023 Structure and Lubrication of Cationic Polymer Brush / Sacran Multilayered Films  
Kosuke Igata, Yoshihiro Inutsuka, Tatsunori Sakamaki, Keiko Higaki, Norifumi Yamada, Maiko Okajima, Yuji Higaki, Tatsuo Kaneko, Atsushi Takahara
- 3Pb024 Neutron reflectivity measurements for phase separation and dewetting in dPS/P2ClS thin films  
Takuto Fuwa, Hiroki Ogawa, Mikihito Takenaka, Toshiji Kanaya, Norifumi Yamada
- 3Pa025 Interfacial Segregation by Spin-Coating in Immiscible Polymer Blend Thin Films and Their Thermal Stability  
Shumpei Sakai, Seita Hamasaki, Yishihisa Fujii, Naoya Torikai
- 3Pb026 Crystalline morphology of poly(butylene succinate) and its copolymer immobilized on silicon substrates  
Risako Oka, Toshiyuki Kataoka, Takayuki Ikehara
- 3Pa027 Highly ordered smectic phase in amphiphilic liquid crystal diblock copolymer  
Hidemi Tsunemine, Sadayuki Asaoka
- 3Pb028 The deposition mechanism of plasma polymerized-thin film "Nano Suit"  
Nanami Sawayama, Rin Kadowaki, Daisuke Ishii
- 3Pa029 Detection of dynamic polymer brush formation by high speed dynamic contact angle measurement  
Miharu Nakamura, Kohzo Ito, Hideaki Yokoyama
- 3Pb030 Analysis of dynamic polymer brush by adhesion force measurement  
Taihei Aoki, Hirokazu Tanoue, Norifumi Yamada, Kohzo Ito, Hideaki Yokoyama
- 3Pa031 Tuning morphology of nano-patterned polymer brushes by crosslinking  
Shunsuke Nishimura, Shintaro Nakagawa, Naoko Yoshie
- 3Pb032 Hydration State of Poly(sulfobetaine) Brushes Depending on the Interaction with Coexisting Ions  
Tatsunori Sakamaki, Yoshihiro Inutsuka, Yuji Higaki, L. Norifumi Yamada, Atsushi

Takahara

- 3Pa033 Stereocomplex formation to polymer brush and surface wettability evaluation  
Nobuyuki Otozawa, Tomoki Kato, Masanao Sato, Hitoshi Shimamoto, Tomoyasu Hirai, Atsushi Takahara
- 3Pb034 Molecular structural analysis of concentrated polymer brushes in a swollen state by pMAIRS  
Kosuke Nishiumi, Keita Sakakakibara, Yoshinobu Tsujii, Takafumi Shimoaka, Takeshi Hasegawa
- 3Pa035 Aggregation States of Maleic Anhydride Grafted Polypropylene Hybridized with Silica Particles  
Kouichi Kouka, Shigeki Hikasa, Yukari Oda, Daisuke Kawaguchi, Keiji Tanaka
- 3Pb036 Low Temperature Crystallization from Metastable State of Bisphenol-A Polycarbonate and nano-particles Mixtures  
Kazuma Matsuyama, Yasuhiro Matsuda, Shigeru Tasaka
- 3Pa037 Preparation of a Si(111) atomically flat substrate via a wet process and evaluation as an AFM substrate for observations of polymer chain structures  
Yuki Sasahara, Yuya Miyake, Jiro Kumaki
- 3Pb038 Development of in-situ tensile 3D TEM holder for soft materials  
Takeshi Higuchi, Yasuhiro Sakamoto, Takashi Gondo, Hiroya Miyazaki, Keizo Akutagawa, Takashi Shimizu, Hideo Nishioka, Yoshihiro Okura, Hiroshi Jinnai
- 3Pa039 Influence of Sample Preparation on Measurements of Elastic Modulus of Cured Epoxy Resins by AFM  
Shinichiro Sakurai, Kyoko Adachi, Genki Takeuchi, Yuichi Taniguchi, Keiichi Hayashi, Shin-etsu Fujimoto
- 3Pb040 Preparation of graphene oxide-cationic carbon nitrides membranes for water purification  
Takuya Gou, Daichi Tada, Shinobu Uemura
- 3Pa041 In-situ observation of thin film formation during vapor deposition polymerization by simultaneous measurement using infrared spectroscopy and quartz crystal microbalance technique.  
Takaaki Tanaka, Keita Nonaka, Akira Tsuji, Ryosuke Matsubara, Atsushi Kubono
- 3Pb042 Evaluation of Physical Properties of Anisotropic Polysaccharide Composite Films Prepared by Roll Press Technique  
Masahiro Sakaguchi, Yuichi Nikaido, Kazutoshi Iijima, Mineo Hashizume

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 3Pa045 Electrophoretic Deposition and the Temperature-Switching of Non-Ionic Thermoresponsive Polymers  
Ken Kimizu, Mikihiro Hayashi, Akinori Takasu
- 3Pb046 Development of Easily Peelable and Heat-Resistant Pressure Sensitive Adhesives  
Hiroto Murakami, Satoshi Yamagushi, Minoru Nanchi
- 3Pa047 Preparation of thermo-responsive wrinkled surfaces  
Hironori Izawa, Jun-ichi Ishitobi, Shinsuke Ifuku, Minoru Morimoto, Hiroyuki Saimoto
- 3Pb048 A Cu-free clickable surface prepared by polymer coating and quantification of clickable groups on a surface  
Koki Miyahara, Rika Sakai, Tatsuo Maruyama
- 3Pa049 Surface-modifying coating for polypropylene just by painting  
Manami Hara, Keisuke Nishimori, Shigeru Kitahata, Takashi Nishino, Tatsuo Maruyama
- 3Pb050 Functionalization of a cellulose surface by coating a fluorine-containing surfactant and a PEGylated polymer  
Kazuki Kaneko, Manami Hara, Takashi Nishino, Tatsuo Maruyama
- 3Pa051 A novel method to quantitate an amount of azide groups on material surfaces using a clickable fluorescent compound  
Rika Sakai, Hiroki Iguchi, Tatsuo Maruyama

- 3Pb052 Fabrication and Liquid Transport of Flexible Microfluidics Devices Imitating Legs of *Ligia Exotica*  
Tsubasa Kashima, Koki Kawai, Daisuke Ishii
- 3Pa053 Fabrication of Hydrophobic Surfaces with Pentafluorosulfanyl Groups  
Yijun Xie, Takuya Matsumoto, Chizuru Hongo, Takashi Nishino
- 3Pb054 Directional Liquid Transport by Surface Structure Imitated with Hair Cuticle and Wetting Evaluation  
Shingo ITO, Nozomi ITO, Daisuke ISHII
- 3Pa055 Synthesis of zwitterionic dynamic polymer blush  
Kazuho Miyajima, Norifumi Yamada, Kozo Ito, Hideaki Yokoyama
- 3Pb056 Synthesis and Surface Properties of Poly(substituted methylene)s with Hydrophilic or Hydrophobic Groups in its Side Chain  
Eichi Kannan, Takuya Matsumoto, Chizuru Hongo, Takashi Nishino
- 3Pa057 Display of carboxy groups on an outermost surface using surface-segregation of synthetic polymer  
Keisuke Nishimori, Shigeru Kitahata, Takashi Nishino, Tatsuo Maruyama
- 3Pb058 Development of molecular tripods that enable the vertical orientation of functional molecular units on solid substrates  
Saho Ohsawa, Hiromu Tago, Fumitaka Ishiwari, Takanori Fukushima, Shintaro Fujii, Manabu Kiguchi, Tomofumi Tada
- 3Pa059 Control of polymer/water interfacial structures by random copolymerization and effect on blood-compatibility  
Yuto Segami, Tomoya Ueda, Daiki Murakami, Masaru Tanaka
- 3Pb060 Modification of Chemically Stable Polymeric Materials 100. Improvement in the Adhesion of FRP or CFRP and Stainless Steel  
Hitoshi Kanazawa, Aya Inada
- 3Pa061 Relationship between dynamic wettability and initial tackiness of polyacrylates with different alkyl chain length  
Leo Ozeki, Akiyoshi Takeno, Shinnya Takahashi
- 3Pb062 Preparation of solid phase extraction agent with properties of antifouling and metal separation.  
Kohei Takiyama, Yutaka Sugahara, Shigehiro Kagaya, Makoto Gemmei-Ide
- 3Pa063 Surface Wettability and Nanostructure Formation of Fluorinated Polymer Self-Assemblies  
Yongjoon Im, Yu Gao, Huie Zhu, Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi

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

- 3Pb066 Structure and stability of the retinal prosthesis composed of a polyethylene film coupled photoelectric dyes  
Koichiro Yamashita, Yuki Teraoka, Tetsuya Uchida, Toshihiko Matsuo
- 3Pa067 Fabrication of PLLA/ceramics composites with urethane bond (III) - Effect of biphasic calcium phosphates -  
Mika Saito, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 3Pb068 Hydrophobically-modified poly (vinyl alcohol) as antithrombogenic materials  
XI CHEN, Ryo Mizuta, Akihiro Nishiguchi, Tetsushi Taguchi
- 3Pa069 Effect of the side-chain spacing of PMEA on blood compatibility and hydration state  
Toshiki Sonoda, Shingo Kobayashi, Masaru Tanaka
- 3Pb070 Correlation between survivability of cancer cells and blebbing-like formation on polymer surfaces with intermediate water  
Shogo Sekida, Aki Kashiwazaki, Asuka Sekishita, Tsai Meng-Yu, Humihiro Aratsu, Masaru Tanaka
- 3Pa071 Surface properties of anti-biofouling star polymer coating conjugated with cell-adhesive peptide.  
Fumitoki Nagura, Masayasu Totani, Mime Kobayashi, Kayo Terada, Tsuyoshi Ando

- 3Pb072 Synthesis of anti-biofouling star polymer coating silyl groups and its anti-biofouling ability as a coating on silicone rubber  
toshihiro Takahashi, Masayasu Totani, Mime Kobayashi, Kayo Terada, Tsuyoshi Ando
- 3Pa073 Preparation of gelatin nanoparticles incorporating Molecular Beacon to visualize intracellular mRNA  
Yuki Murata, Jun-ichiro Jo, Yasuhiko Tabata
- 3Pb074 Deep Tissue in vivo Imaging Based on Near-Infrared Fluorescent Polymer Nanoparticles  
Masao KAMIMURA, Kohei SOGA
- 3Pa075 Surface modification of TiO<sub>2</sub> photonic crystal with cationic polymer bearing PEG grafts  
Tatsuki Toda, Eiji Yuba, Tatsuro Endo, Atsushi Harada
- 3Pb076 Quantification of the interaction force between proteins and thermoresponsive polymer brush surfaces modified with ligands  
Koki Uehara, Ryo Ishihara, Akihiko Kikuchi
- 3Pa077 Potentiometric biosensing based on electron transfer between enzyme and conducting polymer  
Mamoru Kameda, Mizuki Kondo, Takashi Kuwahara, Masato Shimomura
- 3Pb078 Effect of dopant ions on the electron transfer from poly(3,4-ethylenedioxythiophene) films to laccase  
Takashi Kuwahara, Mamoru Kameda, Mizuki Kondo, Masato Shimomura
- 3Pa079 Preparation of a microchip toward cancer-specific extracellular vesicle detection  
Ryo MATSUI, Ryo ISHIHARA, Tadaaki NAKAJIMA, Asuka KATAGIRI, Kazuo HOSOKAWA, Mizuo MAEDA, Yasuhiro TOMOOKA, Akihiko KIKUCHI
- 3Pb080 Post-imprinting modified molecularly imprinted polymers for highly sensitive fluorescent detection of biomarker glycoprotein.  
Takahiro Morishige, Eri Takano, Yuri Kamon, Yukiya Kitayama, Toshifumi Takeuchi
- 3Pa081 Specific binding nano-cavities for biomarker glycoproteins capable of glycans and size/shape recognition  
Tetsuro Saeki, Hirobumi Sunayama, Eri Takano, Yuri Kamon, Yukiya Kitayama, Toshifumi Takeuchi
- 3Pb082 Molecularly imprinted polymers conjugated with antibodies as interaction sites for exosome fluorescent sensing  
Kisho Mori, Takahiro Morishige, Eri Takano, Yukiya Kitayama, Toshifumi Takeuchi
- 3Pb084 A composite scaffold of gelatin and iron oxide nanoparticles for photothermal cancer therapy  
Naoki Kawazoe, Jing Zhang, Guoping Chen
- 3Pa085 Fabrication and in vitro degradation of silk fibroin based biomaterial scaffolds for tissue engineering material  
Natsui Hattori, Kaori Numata, Yasumoto Nakazawa
- 3Pb086 Development of Silk Fibroin Film Immobilized Functional Molecule  
Ryosei Hori, Yuya Ichida, Kodai Takahama, Kazumi Shimada, Ryou Tanaka, Yasumoto Nakazawa
- 3Pa087 Surface-tethering of vascular endothelial growth factor onto culture substrates based on sulfonated polyrotaxanes  
Yoshinori Arisaka, Katsuya Hyodo, Satoshi Yamaguchi, Nobuhiko Yui
- 3Pb088 Preparation of stepwise myogenesis-mimicking matrices  
Takashi Hoshiba, Natsumi Yokoyama
- 3Pa089 Effect of extracellular matrix remodeling on epithelial-mesenchymal transition during tumor progression.  
Takashi Hoshiba
- 3Pb090 Effects of elastic modulus of hydrogels forming 3-D microstructure on cancer cell migration  
Tomohiro Yaginuma, Keiichiro Kushiro, Madoka Takai
- 3Pa091 Application of biobased wrinkled films for cell culture substrates

Tomoe Yonemura,Hironori Izawa,Kohei Kuroda,Mayuko Noda,Norihiko Ito,Shinsuke Ifuku,Minoru Morimoto,Hiroyuki Saimoto

- 3Pb092 Preparation of composite cryogel with soluble eggshell membrane protein and polyvinyl alcohol for application of cell culture scaffold  
Goki YOSHIDA,Mizuki SUGAWARA,Ghamra RIFAI,Tetsu MITSUMATA,Norio TSUBOKAWA,Qiliang ZHOU,Yasuo SAIJO,Takeshi YAMAUCHI
- 3Pa093 Fabrication of functional culture surfaces by physical block copolymers coating and cell adhesion/ detachments behavior.  
Hiroshi CHINEN,Masamichi NAKAYAMA,Junichi TONEGAWA,Akihiko KIKUCHI,Masayuki YAMATO,Teruo OKANO
- 3Pb094 Construction of hybrid of cell spheroids with self-assembled nanogel  
Hiroataka Kubo,Riku Kawasaki,Sada-atsu Mukai,Shin-ichi Sawada,Yoshihiro Sasaki,Kazunari Akiyoshi
- 3Pa095 Design of cultural surface having ability of scavenging reactive oxygen species for maintaining stemness of mesenchymal stem cells  
Naoki Inuzuka,Yutaka Ikeda,Mitsuaki Goto,Toshihiro Akaike,Yukio Nagasaki
- 3Pb096 Synthesis of gradient di-block polymer brushes and their effect on cell adhesion  
Taishi Matsushita,Tomoyuki Azuma,Keiichirou Kushiro,Madoka Takai
- 3Pa097 The Network Structure of Biodegradable IPN hydrogel and Cartilage Tissue Engineering  
Shohei Ishikawa,Kazutoshi Iijima,Mineo Hashizume,Michihiro Iijima,Hidenori Otsuka
- 3Pb098 Development of functional polymeric glue with complementary interaction for spatial cells arrangement  
Taihei Nishimoto,Ko Matsukawa,Kenichi Nagase,Hideko Kanazawa,Aya Mizutani Akimoto,Ryo Yoshida
- 3Pa099 Synthesis and characterization of biodegradable thermoresponsive hydrogel and cellular adhesion evaluation  
Syuhei Komatsu,Taka-Aki Asoh,Ryo Ishihara,Akihiko Kikuchi

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

- 3Pa103 Conversion of oleic acid to thermos-cross-linkable polyolefin and its water repellency  
Yusuke Onose,Kazuhisa Ohtake,Junpei Kuwabara,Takaki Kanbara
- 3Pb104 The application of hybrid polymer consisting of algal oil and sulfur to infrared optical materials  
Kaho Oi,Syuhei Oishi,Junpei Kuwabara,Takashi Fukuda,Hideo Watanabe,Makoto Watanabe,Takaki Kanbara
- 3Pa105 Synthesis of polyester dendrimers having dianhydromannitol units  
Seiya Itokawa,Rie Suzuki,Yuzo Ishigaki,Keigo Aoi
- 3Pb106 Synthesis and lithium ion conductivity of electrolytes based on carbonate derived from dianhydromannitol and ethylene glycol units  
Sayaka Watanabe,Yuzo Ishigaki,Keigo Aoi
- 3Pa107 Ring opening polymerization of 6-membered ring cyclic carbonate with side groups  
Masayoshi Honda,Hideki Abe
- 3Pb108 Synthesis and Properties of Aromatic Polyesters Containing Bio-based Anthraquinone Derivatives  
Tatsuya GOTO,Hideki ABE,Tadahisa IWATA
- 3Pa109 Biosynthesis of Block Copolymer metabolized from Phenylalkanoic Acid and Nonanoic Acid as carbon sources by *P.putida*  
Yuki Tanaka,Takahiko Nakaoki
- 3Pb110 Biosynthesis and Physical Property of PHBV-b-PHB-b-PHBV triblock copolymer by *R.eutropha*  
Tomo Komaeda,Takahiko Nakaoki
- 3Pa111 Fabrication of P(3HB-co-3HH) fibers and nanofibers with antimicrobial properties  
Rina Afiani Rebia,Nurul Shaheera Binti Sadon,Toshihisa Tanaka

- 3Pb112 Low-temperature formability of bio-based poly(carbonate-ester) block copolymers  
Thi Thu Thao Nguyen, Ikuo Taniguchi
- 3Pa113 Improvement of physical properties of poly(L-lactic acid) by addition of Eucommia elastomer  
Ginga Hoshi, Taka-Aki Asoh, Hiroshi Uyama, Kinkoh Sho, Yoshihisa Nakazawa
- 3Pb114 The effect of talc modified by using lactic acid on crystallization of polylactic acid  
Satsuki Oohigashi, Joji Kadota, Akinori Okada, Hiroshi Hirano, Yasuyuki Agari
- 3Pa115 Physicochemical, structural and biodegradable properties of poly(ethylene carbonate) and poly(lactic acid) blends  
Nur Azrini Binti RAMLEE, Yoichi TOMINAGA
- 3Pb116 Preparation of Porous Materials Using Biodegradable Polymers and Application to Scaffolds (I) - Fabrication of Porous Materials based on Poly(L-lactic acid) Using NIPS Method -  
Marika Mukai, Masahiro Fujita, Yuko Takeoka, Masahiro Rikukawa
- 3Pa117 Biodegradation of Polyamide 4 with Titanium(IV) oxide  
Atsuyoshi Nakayama, Norioki Kawasaki, Naoko Yamano, Akihiko Masui
- 3Pb118 Antibacterial of polyamide 4 controlled biodegradation  
Akihiko Masui, Satoshi Ikawa, Atsuyoshi Nakayama, Naoko Yamano
- 3Pa119 Comparison of phosphate adsorption performance in column and practical evaluation of phosphate adsorbent "Fe<sup>3+</sup>(vinylon fiber-g-poly-4-vinyl pyridine)" under various synthesis conditions  
Moeri Takada, Shota Nishimura, Keiji Yamashita
- 3Pb120 Addition of stimulus responsiveness to Cs<sup>+</sup> adsorbent immobilizing Prussian Blue and evaluation of Cs adsorption performance under practical conditions  
Masumi Sakakibara, Kouki Kobayashi, Fumika Takashi, Keiji Yamashita
- 3Pa121 Formaldehyde decomposition with sheath-core type electrospun PVA nanofibers containing titanium oxide and enzyme.  
Yuichi Yoshida, Tomonori Waku, Naoki Tanaka
- 3Pb122 Miscibility maps of cellulose propionate/poly(vinyl alcohol) blends: Effect of substituent distribution on the blend miscibility  
Kento Kaseda, Kazuki Sugimura, Yoshiyuki Nishio
- 3Pa123 Microphase-separated structure of cellulose acetate/diblock copolymer blends  
Shota Morimoto, Kazuki Sugimura, Yoshiyuki Nishio
- 3Pb124 Development of Anti-fouling RO Membrane  
Yohei Adachi, Tuiyoshi Hamada, Jyun Okabe, Takahumi Ogawa, Masahiro Kimura

Presentation Time

<c = 13:00~13:40>

<d = 13:40~14:20>

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

- 3Pc001 Synthesis of block copolymers consisting of hyperbranched or linear polyamide and polyethyleneimine and transcription of their self-assembled structures to silica by silicification  
Kohei Uchida, Geng ZHANG, Yoshihiro OHTA, Tsutomu YOKOZAWA
- 3Pd002 Synthesis of hybrid nanomaterials by means of self-assembly and silicification of poly(3-hexylthiophene)-*b*-poly(ethyleneimine) and their optical properties  
Geng Zhang, Yoshihiro Ohta, Tsutomu Yokozawa
- 3Pc003 Synthesis of a poly(guanamine) having cyclic guanamine unit  
Haruki Sasaki, Tomohiro Kotaki, Yoshiyuki Oishi, Yuji Shibasaki
- 3Pd004 Synthesis and Morphological Analysis of Monodisperse Block Copolymers Consisting of Saccharide and Polyterpene  
Takuya Isono, Nao Kawakami, Kenji Tajima, Toshifumi Satoh

- 3Pc005 Synthesis and solution behavior of amphiphilic block copolymer containing cinnamoyl groups  
Hiroki Kabata, Shunta Nakajima, Kenji Sugiyama
- 3Pd006 Synthesis and surface characterization of block copolymers composed poly(perfluoroalkoxysilyl methacrylate) segment  
Kumi Nakamura, Kei Fukumoto, Kenji Sugiyama
- 3Pc007 Synthesis and biodegradability of end-functionalized polycaprolactone with perfluoroalkyl group  
Kazuho Hirose, Kenji Sugiyama
- 3Pd008 Elucidation of relation between molecular aggregation structure in poly(methacrylic acid) with well-controlled stereoregularity and its surface physical properties  
Kiyu Uno, Tomoyasu Hirai, Yuji Higaki, Atsushi Takahara
- 3Pc009 Synthesis of star block copolymers containing PNIPAM and temperature responsive of micelles  
Taiga Tamura, Soichiro Hirokawa, Kenji Sugiyama
- 3Pd010 Preparation of Temperature-Responsive Gel with Movable Cross-Linking Points via Polypseudorotaxane  
Takuro Kawashima, Uno Takahiro, Itoh Takahito, Kubo Masataka
- 3Pc011 Synthesis of polyrotaxane by inclusion atom transfer radical polymerization, using the bulky initiator  
Fukito Kuramoto, Masatoshi Kidowaki, Kohzo Ito, Yuki Hayashi
- 3Pd012 Preparation of polyrotaxane using reversible addition-fragmentation chain transfer polymerization  
Yu-Cheng Wang, Rina Maeda, Hideaki Yokoyama, Kohzo Ito
- 3Pc013 Synthesis of Multi-branched Crown Ether Compounds by Thiol-ene Reaction and its Supramolecular Material  
Masanari Okubashi, Kazuhiro Yamabuki, Kenjiro Onimura
- 3Pd014 Nonlinear Effect in the Helix Formation of Poly(diphenylacetylene) Derivatives Bearing Chiral Pendant Groups  
Hidetaka ISHIBASHI, Daisuke HIROSE, Tatsuya NISHIMURA, Tomoyuki IKAI, Katsuhiko MAEDA

## **B. POLYMER PHYSICS: STRUCTURE AND PROPERTIES**

- 3Pc015 Effect of Molecular Weight and Composition Distributions on Microphase-Separated Structures of a Block Copolymer  
Komei Isono, Takeshi Higuchi, Katsumi Hagita, Isamu Kuroki, Hiroshi Jinnai
- 3Pd016 Solution properties of a biocompatible HPMA polymer by using scattering techniques  
Kiyomasa Doi, Rintaro Takahashi, Shota Fujii, Kazuo Sakurai
- 3Pc017 Composition Distribution Analysis of Polypropylene Compounds by Advanced Chromatographic Techniques  
Mako Fujiki, Sumie Yamamoto, Takumi Yamanoue
- 3Pd018 End-Group Amplification based on <sup>1</sup>H and <sup>19</sup>F qNMR using Cross Reference Technique  
Makoto Obata
- 3Pc019 Similarity of Critical Conditions on HPLC for Miscible Polymer Pairs  
Satoru Matsushima, Yuki Kobayashi, Yuya Doi, Atsushi Takano, Yushu Matsushita
- 3Pd020 Molecular interaction between fiber/polymers and low-molecular weight compounds 28. Difference in adsorption characteristics of polyethylene, polyvinyl chloride, polyvinylidene chloride  
Aya Inada, Hitoshi Kanazawa
- 3Pc021 Characterization of cellulosic Janus-type bottlebrushes with different side chain length in dilute solutions  
Yuji Kinose, Keita Sakakibara, Yoshinobu Tsujii
- 3Pc023 Study on nonsolvent induced phase separation by in-situ small angle X-ray scattering

Shun Shimura, Masayuki Hanakawa, Takaaki Yasuda, Hiroki Eimura, Masaru Nakada, Kazuyuki Okada, Masahiro Kimura

- 3Pd024 Molecular Simulation of Gelation of Associating Polymers II: Competition between Intra- and Intermolecular Association  
Motoki Shibata, Tsutomu Furuya, Tsuyoshi Koga
- 3Pc025 Studies on Dynamics of Highly Turbid Suspensions Observed by Electrophoretic Ultrasound Scattering Techniques  
Shuzo Kaji, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 3Pd026 Dynamics of Concentrated Nanoparticle Suspensions Probed by Dynamic Ultrasound Scattering Techniques  
Masashi Fujisawa, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 3Pc027 Studies on Structure and Elastic Properties of Microparticles in Suspension during Polymerization by Ultrasonic Spectroscopy  
Sota Okura, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 3Pd028 Ultrasonic Scattering Studies on Nanobubbles  
Kimika Tanimori, Tomohisa Norisuye, Hideyuki Nakanishi, Qui Tran-Cong-Miyata
- 3Pc029 Influence of cross-linking density and distribution on rheological properties of polymer microgel  
Kazuki Shibasaki, Hiroki Takeshita, Koiti Hirao, Katsuhisa Tokumitsu
- 3Pd030 Synthesis of Various Molecular Weight Side Chain Crystalline Block Copolymer and their Influence for Thermal Rheological Fluid Effect  
Taiga Hiromori, Sho Hirai, Ryoko Nakano, Hiroshi Sekiguchi, Shigeru Yao
- 3Pc031 Dissipative Particle Dynamics Simulation of Self-Assembly in a Symmetric Bolaamphiphilic Solution  
Susumu Fujiwara, Yoshiki Iida, Takehide Tsutsui, Tomoko Mizuguchi, Masato Hashimoto
- 3Pc033 Long-range ordered smectic phase induced by random copolymerization  
Keisuke Takishima, Mitsuo Hara, Shusaku Nagano, Takahiro Seki
- 3Pd034 Thermotropic liquid crystals formed by syndiotactic polymethylenes with mesogenic moieties in the side groups  
Hiroyuki Kudo, Mihoko Nishimura, Masatoshi Tokita
- 3Pc035 Synthesis and phase transition behavior of liquid crystalline polyesters with sulfur linkages in the main chains  
Yuki Arakawa, Yukito Sasaki, Hideto Tsuji
- 3Pd036 Phase Transition Behavior of Side-Chain Liquid Crystal Polymers Grafted on Nanoparticles  
Kenta Yazawa, Naoto Iwata, Masatoshi Tokita
- 3Pc037 Phase Behavior of Random Copolymers Having Side-Chain Liquid Crystalline Groups with Different Spacer Lengths  
Ryohei Suzuki, Hiroki Takeshita, Katsuhisa Tokumitsu
- 3Pd038 Synthesis and Orientational Behavior of Ionic Liquid-Crystalline Polymers exhibiting Nematic Phase  
Taiki Watanabe, Genichiro Shimada, Seiji Ujiie
- 3Pc039 Thermotropic liquid-crystalline behavior of hydroxypropyl cellulose derivatives having an imidazolium group in the side chains  
Itaru Nakajima, Kazuki Sugimura, Yoshiyuki Nishio
- 3Pd040 Development of Liquid-Crystalline Organophosphates for Ion Transport  
Masafumi Yoshio
- 3Pc041 Dielectric relaxation and electrode polarization in imidazolium-based ionic liquid crystals II  
Toshiharu Yamane, Koji Fukao
- 3Pd042 Anisotropic thermal diffusivity of reactive mesogen with a photo-initiator in photo-polymerization measured by temperature wave analysis  
Moena Oku, Meguya Ryu, Junko Morikawa



- 3Pc043 Time-resolved behavior and mechanism for optical switching between lamellar and gyroid structures in thermotropic liquid crystalline systems  
Shoichi Kutsumizu,Aya Nagai,Hideaki Kondo,Yohei Miwa,Tomonori Kondo,Yasuhisa Yamamura,Kazuya Saito
- 3Pd044 Synthesis, phase transition behavior and optical properties of asymmetric rod-like liquid crystalline molecules with alkoxy and alkylthio groups  
Yuko Ishida,Yukito Sasaki,Yuki Arakawa,Hideto Tsuji
- 3Pc045 Synthesis and Self-assembly of Nanofabricating Liquid Crystalline Molecules  
Mana Aoki,Kenta Shimokawa,Yuta Nabae,Teruaki Hayakawa
- 3Pc047 Surface Dilational Modulus of a Bubble Adsorbed by Polymers  
Midori Yamamoto,Masami Kawaguchi
- 3Pd048 Interfacial tension measurement by measuring change in size of thin films on the water: Analysis of dynamic polymer brushes interface  
Masayuki Saito,Kohzo Ito,Hideaki Yokoyama
- 3Pc049 Preparation of Poly-ε-Caprolactone Grafted Hollow-type Spherical Bacterial Cellulose Gel using Guanidine type Organic base Catalyst  
Yutaka Sato,Toru Hoshi,Takao Aoyagi
- 3Pd050 Micro-analysis of a single poly(*N,N*-diethylacrylamide) particle formed by coupling a photothermal effect and an optical force in water  
Mitsuhiro Matsumoto,Taka-Aki Asoh,Tatsuya Shoji,Takashi Nishiyama,Hideo Horibe,Yukiteru Katsumoto,Yasuyuki Tsuboi
- 3Pc051 Analysis of Polymer Concentration in a single Poly(*N*-isopropylacrylamide) droplet Formed by Optical Force : Molecular Weight Dependence  
Kayo Fujiwara,Tatsuya Shoji,Mitsuhiro Matsumoto,Taka-Aki Asoh,Hideo Horibe,Takashi Nishiyama,Yasuyuki Tsuboi
- 3Pd052 Evaluation of Surface Characteristics of Hydrogels with Controlled Network Structure  
Hayato Mizuno,Eiki Tan,Ichiro Sakuma,Yuki Akagi
- 3Pc053 Study on surface structure of gel material for contact lens by neutron reflectometry  
Eri Ito,Daisuke Sutoh,Masaki Baba,Hiromi Maruyama,Katsuhiko Yamamoto
- 3Pd054 Evaluation of anisotropic dynamic wettabilities of a cuticle structure  
Nozomi ITO,Shingo ITO,Daisuke ISHII
- 3Pc055 Recrystallization of Water and Methanol in Polystyrenes  
Ryuta Yamada,Risa Tomita,Shigehiro Kagaya,Makoto Gemmei-Ide
- 3Pd056 Temperature Dependence of Water Transportation in Epoxy Adhesive Layer  
Daiki Shomura,Yoshihisa Fujii,Masanobu Naito,Naoya Torikai
- 3Pc057 Molecular Dynamics Simulation of Adhesion Behavior in Metal Polymer Surfaces  
Toshiaki Miura,Maki Funada,Yukihiro Shimoi,Hiroshi Morita
- 3Pd058 All-atom MD simulation of Molecular Walking along a Helical Polymer Chain as a Macromolecular Motor  
Ken-ichi Shinohara,Yuu Makida
- 3Pc059 Water sorption behavior in thin Aquivion films  
Shigeki Yonemori,Norifumi L. Yamada,Daisuke Kawaguchi,Keiji Tanaka
- 3Pd060 Evaluation of surface properties of aromatic amphiphilic diblock copolymer on solid substrates (I) - Observation of adsorption -  
Ayane Morikawa,Hinako Inoue,Masahiro Fujita,Yuko Takeoka,Masahiro Rikukawa
- 3Pc061 Molecular Polarization Change Accompanying Helix-sense Inversion of Surface-grafted Polyaspartate Thin Films  
Kazuho Hosokawa,Xiaobin Liang,Hidemine Furuya,Shinji Ando,Ken Nakajima
- 3Pd062 Friction and wear behavior of aliphatic polyamide reinforced with semi-aromatic polyamide fiber  
Tomoya Omata,Hiroki Uehara,Takeshi Yamanobe,Yuna Kamata,Masaki Kakiage
- 3Pc063 Evaluation of interfacial thickness between deuterated and non-deuterated polyamide 66  
Naoki Shimoura,Takuya Matsumoto,Chizuru Hongo,Takashi Nishino

3Pd064 Preparation and gradient properties of molecular weight gradient thin film of poly(ethylene oxide)  
Norikazu Tanaka,Takuya Matsumoto,Takashi Nishino

### C. FUNCTIONAL POLYMERS AND POLYMER FUNCTIONS

- 3Pd066 Energy storage density of thin films of ferroelectric vinylidene fluoride terpolymers  
Rikiya Tanaka,Naoto Tsutsumi,Wataru Sakai,Kenji Kinashi
- 3Pc067 Spectral sensitization for anomalous photovoltaic effect in ferroelectric liquid crystals  
Yuki Mori,Masahiro Funahashi,Atushi Seki
- 3Pd068 Stochastic Resonance of Organic Transistor with Internal Noise  
Yoshiharu Suzuki,Teruo Kanki,Hidekazu Tanaka,Naoki Asakawa
- 3Pc069 Fabrication of synapse-inspired field effect transistor using dynamics of pi-conjugated polymer  
Riho Miyazaki,Ayumi Matsuoka,Yoshiharu Suzuki,Naoki Asakawa
- 3Pd070 Fabrication of stochastic delay-derivative device element using low-molecular liquid crystal / polymer mixture.  
Makoto Ohtomo,Ryota Maruyama,Naoki Asakawa
- 3Pc071 Synthesis of helical conjugated polymer with phenoxy radical  
Masashi Otaki,Hiromasa Goto
- 3Pd072 Synthesis of Sequential Poly(1,3-phenyleneethynylene)-Based Foldamers Bearing Phenylnitronylnitroxides and a (p-Ethynylphenyl)nitronylnitroxide and Their Formation of Folded Helical Conformation  
Yoshiki Nagai,Issei Oida,Masahiro Teraguchi,Toshiki Aoki,Takashi Kaneko
- 3Pc073 Development and assessment of quinoidal index for designing of low band gap polymers  
Yoshihiro Hayashi,Susumu Kawauchi
- 3Pd074 Fabrication and characterization of uniaxially stretch-oriented semiconducting polymer films  
Masahi Nitani,Kazuki Maeda,Masaki Nishimura,Mayumi Uno,Yoshiaki Sakurai
- 3Pc075 Highly Conductive Microfibers Fabricated by Wet-Spinning  
Ayana Tomioka,Kazuki Kudo,Kazumasa Marumo,Hirokazu Yano,Hidenori Okuzaki
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