

Symposium Program

-Dec 14, Thursday

- 14:00~15:00 Registration
15:00~15:10 Opening ceremony
15:10~18:00 Poster Preview Presentation
18:00~ Welcome party
~ 23:00 Scientific Discussion

-Dec 15, Friday

- 8:00~9:00 Registration
9:00~9:45 Invited Lecture (IO-01)
IO-01 Polymer materials in shape-controlled synthesis of metal nanocrystals
○Mun Ho Kim (Pukyong National University)
9:45~10:05 General Lecture 1 (GO-01)
GO-01 Performance improvement of humidity sensors due to material properties
○Sejin Choi, and Han Seong Kim (Pusan National University)
10:05~10:25 General Lecture (GO-02)
GO-02 Discreteness and monodispersity in the aggregation number of sulfonatocalix[4]arene-based micelles
○Shota Fujii, Rintaro Takahashi, and Kazuo Sakurai (The University of Kitakyushu)
10:25~10:35 Coffee Break
10:35~11:20 Invited Lecture (IO-02)
IO-02 Molecular design in polymeric biomaterials: Intermediate water at hydrated biological and synthetic interfaces
○M. Tanaka, S. Kobayashi, T. Hoshiba, K. Fukushima, A. Kashiwazaki, F. Aratsu, and D. Mura (Kyushu University)
11:20~13:30 Lunch
13:30~15:30 Poster presentation
15:30~15:50 General Lecture (GO-03)

GO-03 Simultaneously enhanced light outcoupling efficiency and electrical properties of ITO-free organic light-emitting diodes using high refractive index polymer and silver nanowires

○Dong Woo Kim and Kwon Taek Lim (Pukyong National University)

15:50~16:10 General Lecture (GO-04)

GO-04 Peculiar aggregation states of a rubbery polymer at solid interfaces

○Manabu Inutsuka, Shin Sugimoto, Shinichiro Shimomura, Norifumi. L. Yamada,
Daisuke Kawaguchi and Keiji Tanaka (Kyushu University)

16:10~16:55 Invited Lecture (IO-03)

IO-03 Computational materials science in organic materials: Atomistic simulation approaches

○Seung Geol Lee (Pusan National University)

16:55~17:40 Invited Lecture (IO-04)

IO-04 Design and characterization of ionic liquid-crystalline polymers and their nonionic family

○Seiji Ujiie (Oita University)

18:00~ Banquet and Poster / Oral Presentation Award Ceremony

~ 23:00 Scientific Discussion

-Dec 16, Saturday

8:50~14:00 The joint meeting session for the branch of the Korean Fiber Society and the Polymer Society of Korea.

Poster Presentation

- P-001** Preparation of Soluble Polysilsesquioxane Containing Macrocyclic Structure by Sol-Gel Reaction of Dual-Site Silane Coupling Agent and Metal Ion Capture
○Daisuke Maeda,¹ Kimihiro Matsukawa,² Yasunari Kusaka,³ and Yoshiro Kaneko¹
(¹Kagoshima University, ²Kyoto Institute of Technology, ³Sekisui Chemical Co.Ltd.)
- P-002** Superacid-Catalyzed Preparation of Highly Dispersible Metal Oxide Nanoparticles without Hydrocarbon Components
○ Taishi Nakahara and Yoshiro Kaneko (Kagoshima University)
- P-003** Design and Control of Photo Driving Self-Swing Hydrogel System
○Momoka Yamanaka, Shunsuke Nakamura, Yushi Oishi, and Takayuki Narita (Saga University)
- P-004** Study of Brownian Motion of Platinum-Supported Hetero Particles.
○Kazuki Matsunaga, Yushi Oishi, Mitsunori Yada, and Takayuki Narita (Saga University)
- P-005** Transparent Conductive Oxide Layer and Hole Selective Layer Free Back-Contacted Hybrid Perovskite Solar Cell
○Zhaosheng Hu, Gaurav Kapil, Hiromitsu Shimazaki, Shyam Sudhir Pandey, Tingli Ma, and Shuzi Hayase (Kyushu Institute of Technology)
- P-006** Polymer-Stabilized Liquid Crystalline Blue Phase Designed for Low Voltage Operating
○Daisuke Yoshizawa,¹ Okumura Yasushi,^{1,2} Hiroki Higuchi,^{1,2} and Hirotsugu Kikuchi^{1,2}
(¹Kyushu University, ²JST-CREST)
- P-007** Salt Concentration Dependence of AC Driven Electroosmotic Pump using Porous Polymer Membrane
○Takumi Oho, Yasushi Okumura, Hiroki Higuchi and Hirotsugu Kikuchi (Kyushu University)
- P-008** Effect of Composition of Gel Particles on the Immobilization of Carbonic Anhydrase
○Ryutaro Honda,¹ Tomohiro Gyobu,¹ Hideto Shimahara,² Yoshiko Miura,¹ and Yu Hoshino¹
(¹Kyushu University, ²JAIST)
- P-009** Improvement of Reversible Salt Absorption Efficiency of Temperature Responsive Gel Particle Composite Membrane
○Mitsunori Moribe, Naoki Gondo, Masahiko Nakamoto, Yu Hoshino and Yoshiko Miura¹
(Kyushu University)
- P-010** Performance Analysis of Textile Touch Sensor Affected by Conductive Fiber Density and Thickness of Dielectric Layer.
○Hyo Jung Lee, Ju Yup Bang, and Han Seong Kim (Pusan National University)
- P-011** A Study on Power Generator Using Acoustic Energy Based on PVDF Nanoweb
○Young Jin Hwang, Ju Yup Bang, Sejin Choi, and Han Seong Kim (Pusan National

University)

- P-012** Low-Haze Transparent Glass Cloth Reinforced Polymer Film based on hybrid epoxy resin for flexible substrate
○Jeong Eun Jeon, Sae-mi Park, and Nam-Ju Jo (Pusan National University)
- P-013** Properties of Polymethylsiloxane Based Superhydrophobic Hybrid Materials
○Saravanan Nagappan, Sung Soo Park, Nam-Ju Jo, and Chang-Sik Ha (Pusan National University)
- P-014** Electrochemical Property of PEDOT-co-PFPT Copolymer Based Anode
○Seo-Young Jeon, Jung-Min Lee, and Nam-Ju Jo (Pusan National University)
- P-015** pH and Temperature Responsive Microtubes Fabricated Using Microfluidic Device
○Dongwan Kim, and Jinhwan Yoon (Pusan National University)
- P-016** Active Switchable Glazing with Bistable Grafted Hydrogels Achieved by Memory Function
○Dowan Kim, and Jinhwan Yoon (Pusan National University)
- P-017** Mechanical Properties of FRP Composite for Strengthening Underwater Structures by Mixing of S-glass and PP
Seolhee Jeon, ○Eunji Sung, Youngmee Baek, Jaechoon Im, and Seungkook An (Pusan National University)
- P-018** Photothermal-Response Hydrogel Actuators Consisting of Neodymium Acrylate/N-Isopropylacrylamide Copolymers
○Kenji Kojio, Satoshi Watanabe, and Masashi Kunitake (Kumamoto University)
- P-019** Associating Behavior of Bolaform Surfactant, Sophorolipid, in Aqueous Solution
○Aoi Taniguchi and Isamu Akiba (The University of Kitakyushu)
- P-020** Structural Analysis of Micelles of Mixtures of Surfactin with Cationic Surfactant in Aqueous Solution by Small-Angle X-Ray Scattering Combined with Contrast Variation
○Kazuyuki Ito, Eri Tabata, and Akiba Isamu (The University of Kitakyushu)
- P-021** Association Behavior of Comb-Like Polymer with Amphiphilic Side Chains
○Kengo Tsuboi and Isamu Akiba (The University of Kitakyushu)
- P-022** Reverse Micelle Formation of Lactone Type Sophorolipids in Organic Solvent
○Saki Izawa, Aoi Taniguchi, and Akiba Isamu (The University of Kitakyushu)
- P-023** Aggregation Behavior of Surfactant Bearing a Macromolecular Hydrophilic Group
○Hayata Matsumoto, Shota Fujii, Rintaro Takahashi, and Kazuo Sakurai (The University of Kitakyushu)
- P-024** Immobilization of a Micellar Structure by a Cross-Link Reaction with Click Chemistry
○Jun Matsuno,¹ Shota Fujii,^{1,2} Rintaro Takahashi,^{1,2} and Kazuo Sakurai^{1,2} (¹The University of Kitakyushu, ²JST-CREST)
- P-025** Solution Properties of a Biocompatible HPMA Polymer by Using Scattering Techniques

- Kiyomasa Doi , Taisei Miura , Rintaro Takahashi , Shota Fujii and Kazuo Sakurai (The University of Kitakyushu)
- P-026** Core Cross-Linked Micelles Composed of a Polyethylene Glycol Bearing Amphiphile Containing Methacryloyl Group in its Hydrophobic Part
○Rena Tanaka, Shota Fujii, Rintaro Takahashi, and Kazuo Sakurai (The University of Kitakyushu)
- P-027** pH-Dependence of Micellar Characters of a Hydrophobic-Ionic Hydrophilic-Nonionic Hydrophilic Triblock Copolymer
○Shotaro Miwa,¹ Rintaro Takahashi,¹ Shota Fujii,¹ Carsten Rösse,² Felix H. Schacher,² and Kazuo Sakurai¹ (¹The University of Kitakyushu, ²Friedrich-Schiller University)
- P-028** Relationship between Alkyl Chain Length and Aggregation Number of Calix[4]arene-Based Micelles Bearing Primary Amines
○Masataka Araki,¹ Shota Fujii,^{1,2} Rintaro Takahashi^{1,2} and Kazuo Sakurai^{1,2} (¹The University of Kitakyushu, ²JST-CREST)
- P-029** Stimuli-Responsive Aggregation Behaviours of Calix[4]arene-Based Micelles
○Rika Miyake, Shota Fujii, and Kazuo Sakurai (The University of Kitakyushu)
- P-030** Polysaccharide Bearing Micelles for the Improvement of the Retention in Blood
○Kouichi Arai,¹ Mamiko Ishida, ^{1,2} Shota Fujii, Shinichi Mochizuki, and Kazuo Sakurai (¹The University of Kitakyushu, ²JST-CREST)
- P-031** Novel Preparation Method for Asymmetric LUV Using Langmuir Film
○Yuki Mitsutake, Yushi Oishi, and Takayuki Narita (Saga University)
- P-032** Study of pH Induced-Liposome Deformation Based on Membrane Area and Volume Change
○Yuji Sawada, Ryo Okazaki Yushi Oishi, and Takayuki Narita (Saga University)
- P-033** Shear Deformation Dependence of Mechanical Properties of Amorphous Plastics Thin Film.
○Natsumi Yamasaki, Patchiya Phanthong, Aya Tominaga, Keitaro Yamashita, Ryoko Nakano, Hiroshi Sekiguchi, Shigeru Yao (Fukuoka University)
- P-034** Evaluation of Molecular Aggregation Structure of Thermoplastic Polyurethane Elastomer during Elongation
○S. Masuda, S. Nozaki, K. Kojio, A. Takahara, K. Mita, and S. Yamasaki (Kyushu University)
- P-035** Aggregation Structure and Thermal Molecular Motion in Films of Poly(ethylene-co-vinylacetate) with Different Compositions
○Azumi Hamashima, Hisao Matsuno, Makoto Sawada, and Keiji Tanaka (Kyushu University)
- P-036** A Thinning Effect on Exciton Dynamics of Poly(3-hexylthiophene) in Films
○D. Kawaguchi, S. Yamaguchi, and K. Tanaka (Kyushu University)

- P-037** Self-assembly of Heterogeneous Nanoparticles in PS-PAA Micelles for Catalytic Application
 ○Chang Hyeon Song, Maulida Zakia, Joo Hyun Kim and Seong Il Yoo (Pukyong National University)
- P-038** Fabrication of Nanoporous Membrane by Nonsolvent-Induced Phase Separation of Block Copolymer
 ○Limpat Nulandaya, Chang Hyun Song, and Seong Il Yoo (Pukyong National University)
- P-039** Synthesis of Heterogeneous Nanoparticles in Diblock Copolymer Micelles and their Surface-Enhanced Raman Scattering
 ○Maulida Zakia, Chang Hyun Song, and Seong Il Yoo (Pukyong National University)
- P-040** Self-assembly of Calix[4]arene-Based Amphiphiles Bearing Polyethylene Glycols
 ○ Kenta Yoshida, Shota Fujii, and Kazuo Sakurai (The University of Kitakyushu)
- P-041** Fabrication of Fluorescent Helical Nano-silica by Doping Rare Earth Metal
 ○Hiroshi Yanagita,¹ Naoya Ryu,^{2,3} Tomohiro Shirosaki,^{2,3} Maki Horikawa,^{2,3} Shoji Nagaoka,^{2,3} Yutaka Kuwahara,¹ Makoto Takafuji,^{1,3} Yutaka Okazaki,⁴ Reiko Oda,⁴ and Hirotaka Ihara^{1,3} (¹Kumamoto University, ²Kumamoto Industrial Research Institute, ³PHOENICS, ⁴University of Bordeaux)
- P-042** Development of a New Class of Monodisperse, Carbon-like Spherical Particles
 ○Hitomi Yakuno,¹ Hiroki Noguchi,¹ Marzia Sultana,¹ Akiko Murakami,¹ Yutaka Kuwahara,¹ Makoto Takafuji,^{1,2} Shoji Nagaoka^{1,3} and Hirotaka Ihara^{1,2} (¹Kumamoto University, ²PHOENICS, ³Kumamoto Industrial Research Institute)
- P-043** Surface Wrinkling of Polymer Microspheres with Hard Shell Composed of Silica Nanoparticles ○Nanami Hano,¹ Makoto Takafuji,^{1,2} and Hirotaka Ihara^{1,2} (¹Kumamoto University, ²PHOENICS)
- P-044** Formation of Hetero Network Hydrogels Composed of Fibrous Self-assembly Crosslinked-Polymer
 ○Kenji Kawamoto,¹ Fataha Nur Robel,^{1,2} Makoto Takafuji,^{1,3} and Hirotaka Ihara^{1,3} (¹Kumamoto University, ²Noakhali Science and Technology University, ³PHOENICS)
- P-045** Effective Utilization of Plastics in Used Disposable Diapers
 ○Saki Takayama,¹ Rumiko Fujioka,¹ Toshio Yoshimura,¹ Yozo Yamada,¹ and Hitofumi Kazoe² (¹Fukuoka Women's University, ²Total Care System Co.)
- P-046** Synthesis of Superabsorbent Hydrogels based on Carboxymethylcellulose in Aqueous Media and their Properties
 ○Erika Tokumaru, Rumiko Fujioka, and Toshio Yoshimura (Fukuoka Women's University)
- P-047** Structure and Mechanical Property of Inorganic Particles Grafted with Glassy/Rubbery Block Copolymer

- Chao-Hung Cheng, Shiori Masud Chigusa Nagano, Shuhei Nozaki, Tomoyasu Hirai, Yuji Higaki, Ken Kojio, and Atsushi Takahara (Kyushu University)
- P-048** Wild Temperature Polymer Electrolyte Membrane Based on Acid-grafted Poly(2,5-benzimidazole) for Fuel Cell Applications
○Hoon Han,¹ Naotoshi Nakashima,¹ and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-049** Development of Alkaline Stabilized Imidazole Type Anion Electrolyte in Catalyst Layer of Anion Exchanged Membrane Fuel Cells
○Ziyi Han¹ and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-050** Effects of Chemical Structure of Flavin Derivatives on Solubilizing Semiconducting Single-Walled Carbon Nanotubes
○ Kanako Nishimura,¹ Fumiyuki Toshimitsu,¹ Naotoshi Nakashima,¹ and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-051** Sonication-Assisted Chirality Selective Modification of Single-Walled Carbon Nanotubes Dispersed Using Flavin Derivative
○Keita Ozono,¹ Fumiyuki Toshimitsu,¹ Naotoshi Nakashima,¹ and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-052** Study of Stability Mechanism of Air-Stable n-type Single-Walled Carbon Nanotube Films Doped with Benzimidazole Derivative
○Yuki Nakashima,¹ Wenxin Huang,¹ Aleksandar Staykov,¹ and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-053** Improved Pt Utilization Efficiency in Polybenzimidazole-Wrapped Carbon Black for Polymer Electrolyte Membrane Fuel Cells (PEMFC).
○Samindi Madhubha Jayawickrama¹, and Tsuyohiko Fujigaya^{1,2} (¹Kyushu University, ²JST-PRESTO)
- P-054** Cation Recognition Using Near-Infrared Photoluminescence of Crown Ether-Modified Single-Walled Carbon Nanotubes
○Hisashi Onitsuka, Naotoshi Nakashima, and Tomohiro Shiraki (Kyushu University)
- P-055** High Performance Shear Thickening Behavior of Polystyrene Particles with HEMA Shell
○Hoon Soo Son, Kyoung Ho Kim, Jun Hyeong Kim, Young Sil Lee, and Hyun-jong Paik (Pusan National University)
- P-056** Preparation and Properties of Emulsifier/N-methylpyrrolidone-Free Crosslinkable Waterborne Polyurethane-Acrylic Hybrid Emulsions Containing TiO₂
○Do-Young Ha, Ae-Li Kim, Young-Hee Lee, and Han-Do Kim (Pusan National University)
- P-057** Effect of Extraction Conditions on the Color Characteristics and Functional Properties of Moringa Oleifera Leaves Extract for Senior Products

- Young-Hee Lee, Ae-Li Kim, Eun-Kyung Hwang, and Han-Do Kim (Pusan National University)
- P-058** Multi-Functional Hybrid Nanomaterials for Photochemical Tissue Bonding
○Ki Su Kim (Pusan National University)
- P-059** Electrical Properties of Dip-Coated Aramid Knit Manufactured with Graphene/Waterborne Polyurethane (WPU) Composite
○Hyelim Kim,^{1,2} Sunhee Lee,¹ and Hanseong Kim² (¹Dong-A University, ²Busan National University)
- P-060** Hierarchically Controlled Microstructure by Enzymatic Grafting of Amylose on Chitin Nanofibers
○Naomichi Egashira, Kazuya Yamamoto, and Jun-ichi Kadokawa (Kagoshima University)
- P-061** Enzymatic Preparation of Supramolecular Network Materials Composed of Helical Structures of Amylose
○Saya Orio, Takuya Shoji, Kazuya Yamamoto, and Jun-ichi Kadokawa (Kagoshima University)
- P-062** Effect of pH on Associating Behavior of Colistin Having Cyclic Peptide Moiety
○Kosuke Morimoto, Satoshi Kanazawa, and Isamu Akiba (The University of Kitakyushu)
- P-063** Study on Spatial Distribution of Drug Molecules Incorporated in Polymer Micelles with Anomalous Small Angle X-ray Scattering near K-edge of Bromine
○Shota Sasaki, Kosuke Morimoto, and Isamu Akiba (The University of Kitakyushu)
- P-064** Preparation and Characterization of Antigen-Protein Modified Hyaluronic Acid
○A.Moritaka, K.Sakurai, and S.Mochizuki (The University of Kitakyushu)
- P-065** Complex Formation between an Organic Nanotube and a BSA in Aqueous Solution
○Hiroki Kawauchi,¹ Rintaro Takahashi,¹ Naohiro Kameta,² Toshimi Shimizu,² and Kazuo Sakurai¹ (¹The University of Kitakyushu, ²Advanced Industrial Science and Technology)
- P-066** Development of an HPMA Micelle Containing an Anticancer Drug and its pH-Responsive Drug Release Behavior
○Momoko Yanai, Taisei Miura, Rintaro Takahashi, Shota Fujii, and Kazuo Sakurai (The University of Kitakyushu)
- P-067** Interaction between Human Dectin-1 and DNA/SPG Complexes for Active-Targeting Delivery of Antisense DNA
○Nobuaki Fujiwara,¹ Hiroto Izumi,² Shinichi Mochizuki,¹ Yasuo Morimoto,² and Kazuo Sakurai¹ (¹The University of Kitakyushu, ²University of Occupational and Environmental Health)
- P-068** Anticancer Drugs Assay Using Three-Dimensional (3D) Tumor Spheroid
○Le Thi Lien,¹ Nguyen Thi Mai Phuong,² and Kazuo Sakurai¹ (The University of

Kitakyushu, Vietnam Academy of Science and Technology)

- P-069** Development of Tumor-Specific Double-Stranded RNA Delivery System Using Hyaluronic Acid
○Masashi Umeda, Atsushi Moritaka, Kazuo Sakurai, Shinichi Mochizuki
(The University of Kitakyushu)
- P-070** Evaluation of Interaction Between PEG-Modified β -glucan and poly dA
○Tomonori Nogami, Daiki Ito, Kazuo Sakurai, and Shinichi Mochizuki (The University of Kitakyushu)
- P-071** Alpha-Mangostin Inhibits Migration and Invasion of Cancer Cells
○Phan Thi Kieu Trang, Fahimeh Shahbazaddeh, and Takanori Kihara (The University of Kitakyushu)
- P-072** Optimization of Antisense DNA Sequence Targeting K-Ras
○Shogo Sasaki,¹ Nobuaki Fujiwara,¹ Hiroto Izumi,² Yasuo Morimoto,¹ Kazuo Sakurai,¹ and Shinichi Mochizuki¹ (¹The University of Kitakyushu, ²University of Occupational and Environmental Health)
- P-073** Synthesis and Dilute-Solution Properties of Biocompatible HPMA *co*-polymer and homopolymer for Drug Delivery Use
○T. Miura, R. Takahashi, and K. Sakurai (The University of Kitakyushu)
- P-074** Stripe Patterns Formed through Gelation of Collagen
○Yui Iwamoto, Yushi Oishi, and Takayuki Narita (Saga University)
- P-075** Transglutaminase-Mediated Conjugation of DNA-(protein)_n Polymer Using Primary Amine Clustered Substrates.
○Mari Takahara,^{1,2} Rie Wakabayashi,¹ Kosuke Minamihta,¹ Masahiro Goto,¹ and Norihiro Kamiya¹ (¹Kyushu University, ²National Institute of Technology, Kitakyushu College)
- P-076** Fabrication of a Micro Fibrous Gel Matrix with Tunable Elasticity for Selectively-Capturing Cancer Cells
○Daoxiang Huang and Satoru Kidoaki (Kyushu University)
- P-077** Development of Cellulose Nanofiber-Based Dispersion Culture System for Mesenchymal Stem Cell Keeping Highly-Qualified Stemness
○Midori Toratani, Yukie Tuji, Hisato Hayashi, Takehisa Iwama, Masato Horikawa and Satoru Kidoaki (Kyushu University)
- P-078** Development of Photo-Cross-Linked Collagen Gels Keeping the Native Triple Helix.
○Takahiro Fujisawa, and Satoru Kidoaki (Kyushu University)
- P-079** Analysis of Interaction between Interfacial Nano-Structures and Proteins at PMEA Analogues/Water Interfaces
○Tomoya Ueda, Daiki Murakami, and Masaru Tanaka (Kyushu University)
- P-080** Controlling the Molecular Recognition of Glycopolymer by the Sugar Chain Arrangement

- Kazuki Jono, Masanori Nagao, Shotaro Sonoda, Yu Hoshino, and Yoshiko Miura (Kyushu University)
- P-081** Design of Glycopolymers for Controlling the Interaction with Influenza Virus
○Masanori Nagao¹, Akane Kubo², Yurina Fujiwara², Teruhiko Matsubara², Yu Hoshino¹, Toshinori Sato², and Yoshiko Miura¹ (¹Kyushu University,²Keio University)
- P-082** Development of Cancer Cell Selective Gene Carrier for Systemic Administration
○Tomohiro Shuno, Shoko Toyama, Yuta Nakamura, Takeshi Mori, Akihiro Kishimura, and Yoshiki Katayama (Kyushu University)
- P-083** Effects of the Number of Functional Groups of Discrete Oligomer Ligands Affinity to Target Peptide
○Shohei Taniguchi, Sho Katakami, Yusuke Yonamine, Yu Hoshino, and Yoshiko Miura (Kyushu University)
- P-084** Encapsulation of a Nitric Oxide-Donor into a Liposome to Boost the Enhanced Permeation and Retention (EPR) Effect
○Haitao Feng, Yukina Mori, Takuma Yoshikawa, Akihiro Kishimura, Takeshi Mori, and Yoshiki Katayama (Kyushu University)
- P-085** Segregation Behavior of an Epoxy Resin System at Copper Interface by Spectroscopic Characterization
○Atsuomi Shundo,¹ Mika Aoki,¹ Manabu Inutsuka,¹ Kenji Okamoto,² Nobuyuki Sekine,² Tatsuya Ganbe,² and Keiji Tanaka¹ (¹Kyushu University,²Fuji Electric Co. Ltd.)
- P-086** Nanoparticle Based on L-tyrosine Polyurethane for Gene Carrier
○Soo Yong Park,¹ Dong Gi Seong,¹ Yang H. Yun,² and Ildoo Chung¹ (¹Pusan National University, ²The University of Akron)
- P-087** Synthesis and Characterization of 3D Printable Dental Resin Based on Catechol
○Eunbi Choi, Eunjin Shin, and Ildoo Chung (Pusan National University)
- P-088** Synthesis and Characterization of 3D Printable Dental Resin Based on PEEK
○Wanhee Jeong, Eunbi Choi, and Ildoo Chung (Pusan National University)
- P-089** Selective Oxidation of Primary Hydroxyl Group on β -cyclodextrin
○Injun Song and Ildoo Chung (Pusan National University)
- P-090** Synthesis of Nitrilotriacetic Acid-End-Functionalized Poly(ϵ -caprolactone) via Ring-Opening Polymerization and Their Bio-Conjugation with Histidine-Tagged Protein
○A Ran Hwang, Chaeyeon Lee, Hyun-jong Paik (Pusan National University)
- P-091** HeLa Cell Imaging by Using Stable Nanoparticle Encapsulated Lumogen Dye
○Mingyeong Kang, Jeonghwa Jeong, Sunjoo Park, and Minseok Kwak (Pukyong National University)
- P-092** Modular Delivery of CpG-Incorporated Lipid-DNAs in Vivo for Spleen Dendritic Cell

Activation

○Soyoung Jang,¹ Haein Park,¹ Jun-O Jin,² and Minseok Kwak¹ (¹Pukyong National University, ²Fudan University)

P-093 Administration of Immunostimulatory Nanoparticle via Multiple Routes of Injection

○Haejoo Kim,¹ Jun-O Jin,² and Minseok Kwak¹ (¹Pukyong National University, ²Fudan University)

P-094 Cell Separation by Glycopolymer Modified Interface for Cell Separation

○Yuki Taguchi, Yuhei Terada, Yu Hoshino, and Yoshiko Miura (Kyushu University)

P-095 Biodegradable Nanoparticles Loaded with Anti-parkinson and Anti-neuroinflammation Prodrugs for Trans-Blood Brain Barrier Delivery

○Kwonyoung Lee,^{1,2} Takuro Niidome,² and Aeju Lee² (¹Kangwon National University, ²Kumamoto University)

P-096 Controlled Corrosion Resistant and Sirolimus Release by Double Layer Coating for Vascular Stent Application

○Wei Xu,¹ Yuuki Koga,² Makoto Sasaki,² and Takuro Niidome¹ (¹Kumamoto University, ²Japan Medical Technology)

P-097 Properties of Polyurethane Elastomers Crosslinked by Polyrotaxanes

○Juae Lim, Naoya Tabata, and Hiroto Murakami (Nagasaki University)

P-098 Heat Resistance of an Acrylic PSA Bearing a Mesogenic Group

○Ryu Nakanishi,¹ Satoshi Yamaguchi,^{1,2} Minoru Nanchi,² Shin'ichiro Kawahawa,² and Hiroto Murakami¹ (¹Nagasaki University, ²Nitta Co. Ltd.)

P-099 Fabrication of Cellulose Nanofiber (CNF)/PEDOT-Au with Core/Shell Structure

○Taku Omura, Chan Chi Hoong, Minato Wakisaka, and Haruo Nishida (Kyushu Institute of Technology)

P-100 Reversible Broad-Spectrum Control of Selective Reflections of Cholesteric Liquid Crystal Materials with Closed-/Open-Type Photoswitchable Dopants

○Hiroya Nishikawa, Daigou Mochizuki, Hiroki Higuchi, Yasushi Okumura, and Hirotugu Kikuchi (Kyushu University)

P-101 Time-Dependent Heterogeneity in a Poly(*N*-isopropylacrylamide) Solution at a Temperature below the Cloud Point

○Takuro Kogo,¹ Atsuomi Shundo,¹ Chi Wang,² and Keiji Tanaka¹ (¹Kyushu University, ²National Chen Kung University)

P-102 Photocontrolled Formation of Arylazopyrazole Polar Crystals

○Yuki Nagai, Keita Ishibashi, Ryosuke Yamamoto, Masa-aki Morikawa, and Nobuo Kimizuka (Kyushu University)

P-103 Dynamic Nuclear Polarization of MOF Protons Utilizing Photo-Excited Triplet Electrons

- Saiya Fujiwara,¹ Masanori Hosoyamada,¹ Nobuhiko Yanai,^{1,2} Kenichiro Tateishi,³ Tomohiro Uesaka,³ Nobuo Kimizuka¹ (¹Kyushu University, ²JST-PRESTO, ³RIKEN)
- P-104** Dyeing characteristics of Nylon Artificial Suede Dyed with Sulphur Black Using Pad-Steam Method
 ○Min Ju Lee,¹ Jeong Hoon Lee,¹ Dae-Ho Jung,² Mikyung Lee,³ Jae Wang Ko,⁴ and Seung Geol Lee¹ (¹Pusan National University, ²Jeongsan International Co. Ltd, ³ICEI Woobang Co. Ltd., ⁴Korea Institute of Footwear & Leather Technology)
- P-105** Dyeing Properties of 400denier High Tenacity Polyethylene (HTPE) Filament and Fabric Using Solvent Dyes
 ○Beom Young Lee,¹ Jeong Hoon Lee,¹ Gyeong Yong Choi,² Seung O Lee,³ Jung Su Kim,⁴ Jae Wang Ko,⁴ Seong Hyen Kwak,⁵ and Seung Geol Lee¹ (¹Pusan National University, ²Kyungeun Textile Industrial Co., Ltd., ³Dongmyung Technology, ⁴Korea Institute of Footwear & Leather Technology, ⁵Korea Textile Development Institute)
- P-106** Dyeing Properties of Nylon Suede Fabric with Sulphur Dye Using Antioxidants in Continuous Process
 ○MinSeok Kim, Jeong Hoon Lee, and Seung Geol Lee (Pusan National University)
- P-107** Theoretical Research for Improving Mechanical Properties of Carbon Fiber-Reinforced CNT Composites from Molecular Dynamics (MD)
 ○Sojeong Heo,¹ Han Gi Chae,² and Seung Geol Lee¹ (¹Pusan National University, ²Ulsan National Institute of Science and Technology)
- P-108** LIPSS Patterns of Organic Layer for OPTs
 ○Hyejin Kim,¹ Sangmin Chae,¹ Jiyeon Choi,² and Hyojung Kim¹ (¹Pusan National University, ²Korea Institute of Machinery and Materials)
- P-109** PDMS Anti-Reflector for Organic Photovoltaics
 ○Kuk Hyun Jo,¹ Sangmin Chae,¹ Ahra Yi,¹ Hanbin Lee,¹ Jiyeon Choi,² and Hyo Jung Kim¹ (¹Pusan National University, ²Korea Institute of Machinery and Materials)
- P-110** Synthesis and Electrochromic Properties of Phenyl Viologens with Alkylated and Perfluorinated Substituents
 ○Gaurav K. Pande and Jong Seung Park (Pusan National University)
- P-111** Investigation into the Electrochromic Properties of Self-Assembled Metallo-Supramolecular Polymers Made of Cobalt and Functionalized ProDOT-Biterpyridine Complexes
 ○Jae Yun Jeong and Jong Seung Park (Pusan National University)
- P-112** Noncovalent Functionalization of Single-Walled Carbon Nanotubes Using Fluoronated Alkyl Metallophthalocyanines
 ○Son, Hoseung, Park, and Jong Seung (Pusan National University)

- P-113** Environmental-Friendly Synthesis of Graphene Using Electrochemical Method
○ Dae-Geon Yoo,¹ Sung Soo Park,¹ Chi Woo Noh,² and Chang-Sik Ha¹ (¹Pusan National University, ²Changwon #1 Factory of NDT Engineering & Aerospace Co., Ltd)
- P-114** Effect of Temperature on Mechanical Properties and Formability of Coatings for Pre-Coated Metal
○ Seong-Guk Bae, Geon-Ho Noh, Bong Lee, and Won-Ki Lee (Pukyong National University)
- P-115** Study on Waterborne Polyurethane Adhesives with Various Diisocyanates
○ Seung-Jae Lee, Seong-Guk Bae, Geon-Ho Noh, Chan-Young Park, and Won-Ki Lee (Pukyong National University)
- P-116** Preparation of Carboxyl-Group-Containing POSS and Its Isolation Using Clay Mineral
○ Jiahao Liu and Yoshiro Kaneko (Kagoshima University)
- P-117** Correlation between Molecular Sizes and Reaction Temperatures on the Superacid-Catalyzed Preparation of Ammonium-Group-Containing POSSs
○ Takatoshi Matsumoto, and Yoshiro Kaneko (Kagoshima University)
- P-118** Preparation of CO₂-Adsorbable Amine-Functionalized Polysilsesquioxanes with Crosslinked Structures
○ Yusaku Sainohira, and Yoshiro Kaneko (Kagoshima University)
- P-119** Fabrication of Nanomembrane with Self-Organized Molecular Channels and their CO₂ Separation Property
Nao Hirakawa, Shigenori Fujikawa, and Nobuo Kimizuka (Kyushu University)
- P-120** Recycling of Glass Fiber Reinforced Polymer (GFRP) via Superheated Steam (SHS)
○ Chi Hoong Chan, Minato Wakisaka, and Haruo Nishida (Kyushu Institute of Technology)
- P-121** Synthesis and Blood Compatibility Evaluation of Novel Polymers with Hydroxy Groups via Regio-/Stereoselective Ring-opening Metathesis Polymerization.
○ Naoki Fujita,¹ Shingo Kobayashi,¹ and Masaru Tanaka² (¹Kyushu University, ²Yamagata University)
- P-122** Self-Polishing Copolymer Paint Based on Polyurethane and tert-butyl dimethylsilyl Methacrylate Using RAFT Polymerization
○ Chang-Rock Lee, Dae-hui Kim, and Nam-Ju Jo (Pusan National University)
- P-123** Synthesis of Hollow Dimpled Polystyrene Microparticles by Dispersion Polymerization
○ Sung Hwan Park, Jinwoo Kim, and Mun Ho Kim (Pukyong National University)
- P-124** Green Synthesis of Triangular Silver Nanoplates: Chemical Stability and Sensing Application
○ Yosia Nico Wijaya, and Mun Ho Kim (Pukyong National University)
- P-125** Free Energy Change in Guest Molecule Desorption Observed in the Cellulose I_β/EDA Complex Crystal Models

- Yuta Kodama,¹ Takuya Uto,² and Toshifumi Yui¹ (¹University of Miyazaki, ²Kagoshima University)
- P-126** Dynamics Behaviors of the Cellulose Synthase Subunit D Octamer from *Acetobacteraceae* with Oligosaccharide
○Tsutomu Yonekura,¹ Takuya Uto,² Masahiro Mizuno,³ Yoshihiko Amano,³ and Toshifumi Yui¹ (¹University of Miyazaki, ²Kagoshima University, ³Shinshu University)
- P-127** Application of Dot Blot Assay to Detect Methylation Profile of RASSF1A and GSTP1 in Breast and Prostate Cancer
○Doan Thi Hong Van^{1,2} and Vo Thi Thuong Lan¹ (¹Vietnam National University of Science, ²The University of Kitakyushu)
- P-128** Discontinuous Transition from Dodecamer to Icosamer After an Induction Time in a Calixarene-Derived Surfactant Monitored through Time-Resolved SAXS1
○Rintaro Takahashi,^{1,2} Sakiko Matsumoto,² Shota Fujii,² Theyencheri Narayanan,¹ and Kazuo Sakurai² (¹ESRF-The European Synchrotron, ²The University of Kitakyushu)
- P-129** X-ray Scattering/Absorption Studies on the Microphase-Separated Structure of Thiourethane Elastomers during Deformation Process
○Rahmawati, Shuhei Nozaki, Yusuke Nagae, Kazutaka Kamitani, Kazutoshi Yokomachi, Tomoyasu Hirai Ken Kojio, and Atsushi Takahara (Kyushu University)
- P-130** Rheological Investigation of Proteoglycan in Well-Defined Shear Flow Fields
○Eon-Ju Park, Hye-Jin Ahn, and Ki-Won Song (Pusan National University)
- P-131** PH-Dependent Rheological Characterization of Snail Secretion Filtrate
○Geun-Seok Choi, Hye-Jin Ahn, Hyo-Gyoung Lim, and Ki-Won Song (Pusan National University)
- P-132** Fundamental Rheological Investigation of Carbomorph: A Suitable Material for 3D Printing
○Ha-Lin Jung, Hye-Jin Ahn, Jin-Young Park, and Ki-Won Song (Pusan National University)
- P-133** Phenomenological Rheology of Hyaluronic Acid Crosslinked with 1,4-Butanediol Diglycidyl Ether
○Hyo-Gyoung Lim, Hye-Jin Ahn, Eon-Ju Park, and Ki-Won Song (Pusan National University)
- P-134** Concentration-Dependent Rheological Comparison of Hyaluronic Acid Crosslinked with Adipic Dihydrazide
○Jin-Young Park, Hye-Jin Ahn, Sang-Hoon Lee, and Ki-Won Song (Pusan National University)
- P-135** Temperature/Time-Dependent Rheological Properties of 3D Printing Materials: PLA (Polylactic Acid) and ABS (Acrylonitrile Butadiene Styrene)
○Sang-Hoon Lee, Hye-Jin Ahn, Ha-Lin Jung, and Ki-Won Song (Pusan National University)

- P-136** Preparation of Amylose-Poly(THF-*b*-oxazoline) Inclusion Complex by Vine-Twining Polymerization
○Keisuke Yano, Saya Orio, Kazuya Yamamoto, and Jun-ichi Kadokawa (Kagoshima University)
- P-137** Preparation of Irrefragible Hydrogels Using Water-Soluble Cyclotetrasiloxane and POSS Containing Polymerizable Groups as Cross-linkers
○Makoto Yanagie and Yoshiro Kaneko (Kagoshima University)
- P-138** Synthesis of Necklace Shaped Dimethylsiloxane Polymers Bearing Polyhedral Oligomeric Silsesquioxane Cages with Chain Length Arrangements
○Kenta Kumeda,¹ Tsubasa Natsuaki,¹ Yusaku Kan,¹ Naohiro Katsuta,¹ Satoshi Watanabe,¹ Kazuya Suwa,² Tomoyuki Ooba,² and Masashi Kunitake¹ (¹Kumamoto University, ²JNC Petrochemical Co.)
- P-139** Precise Synthesis of Triblock Copolymer with Well-Controlled Stereoregularity and Characterization of its Physical Property
○Hitoshi Shimamoto, Tomoki Kato, Masanao Sato, Tomoyasu Hirai, and Atsushi Takahara (Kyushu University)
- P-140** Synthesis of Imine-Rich Nitrogen-Doped Graphene for Oxygen Reduction Reaction
Min Seok Lee, and ○Dong Wook Chang (Pukyong National University)