

Poster Preview Presentation – Part 1

(Nov. 27, 14:40 – 18:00, Multipurpose Hall, Room 319)

- (PS-01) Ji Won Lee and Dae Seok Kim
(Pukyong National University)
Actuation and Energy Dissipation Behavior of Liquid Crystal Elastomers Incorporating a Tetra Acrylate Anisotropic Crosslinker
- (PS-02) Do Young Jung, Mina Kwon, and Ki Su Kim
(Pusan National University)
Dual-Syringe Microfluidic Fabrication of Gradient Hydrogels for 3D Skin Tissue Reconstruction
- (PS-03) Suzuka Morinaga, Yuriko Kakihana, and Mitsuru Higa
(Yamaguchi University)
Ionic Concentration in Cation Exchange Membranes in Multicomponent Ionic Systems
- (PS-04) Hyun-Ju Park, Jae-Hyung Park, Ji-Eun Lee, Jae-Wook Lim and Jin-Hong Lee
(Korea Institute of Materials Convergence Technology)
Manufacturing and Characterization of Polycarbonate-based Composite Materials for LDS
- (PS-05) Hyeyeon Moon, and Sejin Choi
(Pusan National University)
PM-repulsive biodegradable airfilter by using negative-charged biomaterials
- (PS-06) Takuma Nagao, Nanami Hano, and Makoto Takafuji
(Kumamoto University)
Preparation of compsite films containing polycyclic aromatic polymer with wavelength-selective transmission
- (PS-07) Soyun Park, Anjali Nagapadi Preman, Il Kim and Suk-kyun Ahn
(Pusan National University)
Advanced Thermoplastic Polyurethanes from CO₂-Derived Polyols with Adjustable Functionality
- (PS-08) Yerim Kim, Subin Lee, Jihye Choi and Sejin Choi
(Pusan National University)
Effects of Bio-filler on the Microstructure and Characteristics of Chemically Recycled Polyamide-6
- (PS-09) Daichi Tanoshiri, Akira Kimoto, Shigehisa Aoki, and Takayuki Narita
(Saga University)
Effects of Magnetic Collagen Films as Cellular Scaffolds on Cells in Ultra-Low Frequency Electromagnetic Fields
- (PS-10) Su Eun Jin and Jong S. Park
(Pusan National University)
Stretchable Electrochromic Device with Liquid Crystal Alignment for Encryption
- (PS-11) Hyeon J. Kim, and Mun H. Kim
(Pukyong National University)
Continuous Flow System for Cr(VI) Reduction Using Pickering polyHIPE Hydrogels Embedded with Pd Nanocatalysts
- (PS-12) Koki Fujioka, Tsuyohiko Fujigaya, and Tomohiro Shiraki
(Kyushu University)
Interface Effects on Sugar and pH Sensing using Color Center Photoluminescence of

Phenylboronic Acid-Modified Carbon Nanotubes

- (PS-13) Eunji Kim, Munho Kim, and Yun-Seok Jun
(Pukyong National University,)
Characterization and Washing of End-of-Life Vehicle-Derived Polyamide 6 Composites for Recycling Applications
- (PS-14) Hyerim Kim, Minchan Kim,, Kyu Hyun, and Hyun-jong Paik
(Pusan National University)
Long Chain Hyperbranched Polystyrene Synthesized via Sulfoxide-Functionalized ATRP
- (PS-15) Aoi Sato, Genki Matsuura, Kakeru Obayashi, and Ken Kojio
(Kyushu university)
Network structure and mechanical properties of cured epoxy resin incorporating high/lowcross-linking density
- (PS-16) Hyunseok Kim, and Ildoo chung
(Pusan National University)
UV-Curable and Cleavable Polyacrylic Adhesives Using Lipoic Acid-Derived Crosslinker
- (PS-17) Hayoon Cho, Aniket B. Gole, Young-up Jin, Won-Ki Lee
(Pukyong National University)
Blending of Bio-Based and Petroleum-Derived Polycarbonates: Degradation and Mechanical Properties
- (PS-18) N. Takeda, K. Murasaki, S. Sawada, K. Yoshimura, H. Koshikawa, T. Yamaki, Y. Kakihana, and M. Higa
(Yamaguchi University)
Evaluation of Water and Salt Permeability of Forward Osmosis Membranes Fabricated Using Ion-Track Graft Polymerization
- (PS-19) Anara Molkenova, Ki Su Kim
(Pusan National University)
Cryo-Enhanced Upconversion Photodynamic Therapy
- (PS-20) Seungwoo Lee and Suk-kyun Ahn
(Pusan National University)
Tailoring ROMP Copolymers for Enhanced Mechanical and Electrochemical Performance in Silicon Anodes
- (PS-21) Yudai Hayashi, Hironobu Tahara, and Hiroto Murakami
(Nagasaki University)
ESR Study on Inclusion Behavior of a Nitroxyl Radical in Cyclodextrin-Based Deep Eutectic Ionic Liquids
- (PS-22) Aniket B. Gole, Hayoon Cho, Won-Ki Lee
(Pukyong National University,)
Enhanced Iron Ore Pelletization Using Environment-Friendly MT-190 Polymer-Resol Composite Binder: A Sustainable Alternative to Bentonite
- (PS-23) R Ganga Ratnamma, Ildoo Chung
(Pusan National University)
Enhanced Stretchability and Adhesion in Acrylic Adhesives through Supramolecular Slidable Cross-linking
- (PS-24) Ayumu Yamada, and Isamu Akiba
(The University of Kitakyusyu)
Characterization of polyurethane containing a cyclic dimer of glycerin solution and

solid state

- (PS-25) Seunghyeon Lee, Seoyoung Lee, Minji Kim, Yerin Jang, Heungbae Jeon, Hyun-jong Paik
(Pusan National University)
Synthesis, Separation, and Analysis of Block Copolymers Prepared by a Thermally Initiated One-Pot Dual Functional Initiator System
- (PS-26) Qurrotun A. K. Nisa, Dong H. Son, Maulida Y. Nurul, Ji M. Son, Paramita S. Arta, Fan Z. Wen, and Joo H. Kim
(Pukyong National University)
Molecular Engineering of Thiophene-Bridged Cyclopenta[c]thiophene-4,6(5H)-dione Polymers with Tunable Alkoxy Chains for Enhanced Solar Cell Efficiency
- (PS-27) Koki Yamaura, and Isamu Akiba
(The University of Kitakyusyu)
UCST phase behavior found in aqueous solution of poly(acrylic acid)/bifunctional guanidyl compound mixtures
- (PS-28) Anjali N. Preman, Hyun-jong Paik, Il Tae Kim, and Suk-kyun Ahn
(Pusan National University)
Better Together: Integrating Adhesion and Ion Conductivity in Composite Binders for High-Performance Silicon Anodes
- (PS-29) Ellana Nabilah Nur Averina Ansar and Seong Il Yoo
(Pukyong National University)
Incorporation of Biomass-based Nanofillers for Polyamide 66 Composites via in situ Interfacial Polymerization
- (PS-30) Ichito Morimoto and Isamu Akiba
(The University of Kitakyushu)
Association of mixtures of polyglycerol fatty acid esters in aqueous solution
- (PS-31) Dikshita Chowdhury, Rahman Toru Sadia, Imjoo Jung, and Sunhee Lee
(Dong-A University)
Characterization of 3D Printed Support Shoe Pad for Flat Feet and Pes Cavus Using Microfoaming Filament
- (PS-32) Dikshita Chowdhury and Sunhee Lee
(Dong-A University)
Analysis of Various 3D Printed Lightweight Thermoplastic Polyurethane Materials for Soft Humanoid Applications
- (PS-33) Tomoki Endo, and Isamu Akiba
(The University of Kitakyushu)
Study on the association structure and rheology of mixtures of potassium oleate and L-arginine in aqueous solution
- (PS-34) Su Jeong Heo, Moonsuk Jang, and Dong Gi Seon
(Pusan National University)
Development of CNT Sheet-Carbon Fiber Hybrid Composite for Mitigating Joule Heating and Shock Wave Damage under Lightning Strikes
- (PS-35) Sieun Je, Seungrae Cho, Hyemi Lee, Juho Lee, Suwon Bae, Tae Ann Kim, Jaejun Lee
(Pusan National University)
Metal-Dependent Shock Wave Dissipation in Metal-Imidazole Crosslinked PDMS
- (PS-36) Nao Amamoto and Isamu Akiba
(The University of Kitakyushu)

Structure of mixed micelles consisting of surfactine sodium salt and PEG-lipids

- (PS-37) Jiwoo Kim, and Jaegeun Lee
(Pusan National University)
Engineering Metal-Support Interactions for Enhanced CNT Crystallinity on Al₂O₃ and MgO
- (PS-38) Jiun Choi, and Ildoo chung
(Pusan National University)
Slide-Ring Polyrotaxane Crosslinked Methacrylated Polysaccharide Hydrogels for Enhanced Wound Healing Applications
- (PS-39) Hayato Ishii, Tao Takagaki, and Masayasu Totani Jun-ichi Kadokawa
(Kagoshima University)
Synthesis of block polysaccharides by glucan phosphorylase-catalyzed enzymatic polymerization
- (PS-40) Soo Yeon Eom and Jong Seung Park
(Pusan National University)
Electrochromic Actuators Integrating Visual and Tactile Feedback
- (PS-41) Yun Yeong Choi, Junyong Park, Hyeri Jeon, Sanghyuk Wooh and Chae Bin Kim
(Pusan National University)
Sustainable Adhesive via Reversible Polarity Switchable Polymer Coating for High-Efficiency Microplastic Filtration
- (PS-42) Mimi Tokunaga, Tao Takagaki, Masayasu Totani and Jun-ichi Kadokawa
(Kagoshima University)
Enzymatic synthesis and crystalline structure evaluation of cellulose-grafted poly(γ -glutamic acid)
- (PS-43) Sunwoo KIM, Yoko YAMAGUCHI, and Toshio YOSHIMURA
(Fukuoka Women's University)
Synthesis and Properties of Superabsorbent Polymers Based on Starch
- (PS-44) Gihun Lee, Seungwoo Lee, Hyerin Kang, Suraj Aswale, Suk-kyun Ahn, and Hyun-jong Paik
(Pusan National University)
Reactive Polyacrylate Binder with Composition-Tuned Network Formation for High-Performance Silicon Anode
- (PS-45) Kazuma Kumamoto, Atsuomi Shundo, Satoru Yamamoto and Keiji Tanaka
(Kyushu University)
Regulation of Heterogeneous Structure in Epoxy Resin via One-time Bond Exchange
- (PS-46) Min Seok Kang, Ki Su Kim
(Pusan National University)
Micro-patterned collagen scaffolds directing cellular alignment for enhanced epithelial regeneration
- (PS-47) Donghyun Lee, Hongkyun Woo, and Jaejun Lee
(Pusan National University)
Eco-friendly Cloud Seeding Using Cellulose Crystals with Controlled Morphology
- (PS-48) Hanyu Wang and Daisuke Tatsumi
(Kyushu University)
Acoustic Analysis of Porous Polymer Materials with Varied Void Patterns for Evaluation of Their Viscoelasticity

(PS-49) Jueun Shin, Song Hee Kim, Dayoung Kim and Dong Gi Seong (Pusan National University)
CNT Network-Induced Nanoconfinement for Enhanced Thermal Stability of Polyimide-Based CFRP

(PS-50) Dayoung Kim, Dahee Cho, Sumin Heo and Dong Gi Seong (Pusan National University)
Development of Thermally Insulating and Flame-Retardant Glass Fiber Reinforced Composite via Hollow Glass Microsphere/Polyethyleneimine Layer-by-Layer Assembly

Poster Preview Presentation – Part 2

(Nov. 27, 14:40 – 18:00, Room 212 (on the second floor))

- (PS-51) Shuji Morita, Yuma Morimitsu, Shiho Tanizaki, Tomohiro Kubo, Satoru Yamamoto, Kotaro Satoh and Keiji Tanaka
(Kyushu University)
Visualization of Segment-like Dynamics in Isolated Poly(Styrene-r-Vinyl Catechol) Chains on Al₂O₃
- (PS-52) Hyunji Kim, Young-Ki Kim, Dae Seok Kim
(Pukyong National University)
Lowering Liquid Crystal Actuation Temperature via Network Component Design
- (PS-53) Astrini Pradyasti, and Mun H. Kim
(Pukyong National University)
Cellulose-Based Composite Monoliths for Efficient Continuous-Flow Water Remediation
- (PS-54) Honori Tajima, Yuji Yasukochi, Tatsuki Abe and Keiji Tanaka
(Kyushu University)
Interfacial Mobility of Epoxy Segments at a Buried Adhesion Interface by Fluorescence Lifetime Measurement
- (PS-55) Chae Won Lee, Nankyung Kim, SeungHyun Park, and Dae Seok Kim
(Pukyong National University)
Photomechanical Snap-Through Actuation of Azobenzene-LCE Films Enabling Microneedle Skin Penetration
- (PS-56) Hye Joo Lee, Se-Um Kim, Hyo Seok Oh, Soon Mo Park, Jaeyub Hyun, Young-Seok Kim, and Dae Seok Kim
(Pukyong National University)
Tomographic Strain Indicator of Chiral Liquid Crystalline Elastomer
- (PS-57) Issei Onoda, Hironori Izawa, Toshifumi Yui and Takuya Uto
(University of Miyazaki)
Development and evaluation of carbohydrate force field for molecular simulation
- (PS-58) Dong H. Son, Rahmatia F. B. Nasrun, Qurrotun A. K. Nisa, and Joo H. Kim
(Pukyong National University)
Synergistic Efficiency Improvement of Organic Solar Cells Using Perovskite Quantum Dots
- (PS-59) Rahmatia F. B. Nasrun, Dong H. Son, Qurrotun A. K. Nisa, and Joo H. Kim
(Pukyong National University)
Influence of tert-Butyl Functionalization on Carbazole Self-Assembled Monolayers: Insights into Charge Recombination and Photodegradation Pathways
- (PS-60) Satoshi Okiba, Yu Kaneko, and Takuya Uto
(University of Miyazaki)
Molecular dynamics simulation and machine learning for predicting cellulose solubility

- (PS-61) Yeomyung Yoon, Hojun Moon, Woongbi Cho, Dongwook Lee, Sohdam Jeong, Jeong Jae Wie² and Chae Bin Kim
(Pusan National University)
Spatiotemporal Shape-Fixation of Staggered-Overlapped Microstructures via UV Responsive Covalent Adaptable Networks
- (PS-62) Jimin Park and Jong Seung Park
(Pusan National University)
Near-Infrared Absorbing Diimmonium Dyes for Smart Textile Applications through Photothermal Conversion
- (PS-63) Sonoko Kugimoto, Tsuyohiko Fujigaya, and Tomohiro Shiraki
(Kyushu University)
Emission properties of boron nitride nanotubes with color centers created by a chemical reaction using azide compounds
- (PS-64) Jieon Kim, Jaejun Lee
(Pusan National University)
Synthesis of Solution-Processable Borosiloxane Networks toward Flame-Retardant Applications
- (PS-65) Jongwook Ahn, Hanyoung Kim, Aruna Kumar Mohanty, Dawit Moges Tadesse, Suraj Aswale, Solmoi Park, Younggil Ju, and Hyun-jong Paik
(Pusan National University)
Microstructure Control of Carboxylate-Sulfonate Contained Copolymers for High-Performance Gypsum Superplasticizers
- (PS-66) Sora Okamoto, Takahiro Honda, Yushi Oishi and Takayuki Narita
(Saga University)
Preparation and Evaluation of Glucose-Responsive Self-Oscillating Capsules via Enzymatic Reaction
- (PS-67) Taekyun Kwon and Jin Hong Lee
(Pusan National University)
Enhanced Polysulfides Immobilization and Structural Integrity of Sulfur Cathode via Rational Designed Binder with Polysulfides-Affinitive Cationic Moieties and Robust Network Structures
- (PS-68) Rahman Toru Sadia, Imjoo Jung, and Lee Sunhee
(Dong-A University)
Characterization of 3D Printed Polyvinylidene Fluoride (PVDF) Manufactured by Hot Pressing Conditions
- (PS-69) Mizuki Kodama, Shingo Yokota
(Kyushu University)
Gas-Phase Surface Functionalization of Nanocellulose Immobilized on Polymer Spheres
- (PS-70) Miock Yang, Yongha Jeon, U Hyeok Choi and Chae Bin Kim
(Pusan National University)
Adhesive and Sustainable Poly(β -Amino Ester) Covalent Adaptable Solid Polymer Electrolytes for Lithium Metal Batteries
- (PS-71) Han-su Lee, Il Kim and Suk-kyun Ahn
(Pusan National University)
Impact of Carbonate Content in CO₂-Based Poly (propylene carbonate) polyols on the Properties of Thermoplastic Polyurethanes

- (PS-72) Kazuki Nakamitsu, Shingo Yokota
(Kyushu University)
Interfacial design of cellulose nanofibrils as nano-building blocks through localized surface modification
- (PS-73) Eunsu Yang and Jaegeun Lee
(Pusan National University)
Influence of Sequence of Metal Precursor Addition on Impregnated Co-Mo Bimetallic Catalysts for Carbon Nanotube Synthesis
- (PS-74) Imjoo Jung and Sunhee Lee
(Dong-A University)
A Study on Stereolithography 3D printed Lattice Structures Using Different Hardness Resin Materials for Protective Textile Applications
- (PS-75) Hina Fukumoto, Yu Ishibashi and Takayuki Narita
(Saga University)
Morphological Changes in Calcium Phosphate-Containing Collagen Gels and the Formation of Liesegang Patterns
- (PS-76) Moonsuk Jang , Seung Mo Son, Su Jeong Heo, SeungWoo Jung, and Dong Gi Seong
(Pusan National University)
Polyamide-based Carbon Fiber Reinforced Plastic with Alleviated Hydrolytic Stability and Tunable Mechanical Properties
- (PS-77) Yeongin Seo, Jinhyeong Kim and Sejin Choi
(Pusan National University)
Change in Mechanical and Electrochemical Characteristics of Nafion Nano-Membrane Based on Their Electrospinning Behavior
- (PS-78) Li Jiawei, Tatsumi Daisuke
(Kyushu University)
Structure-Property Evaluation of Conductive Dispersed Systems by Electrical Impedance Spectroscopy
- (PS-79) Mingi Sung, Jae-Hyung Park, Ji-Eun Lee, Jin-Woo Lee and Hyun-Ju Park
(Korea Institute of Materials Fusion)
Effect of Thermal Stabilizer Type and Contents on the Thermal, Optical and Mechanical Stability of PVC
- (PS-80) Jeongmin Lee, and Ildoo chung
(Pusan National University)
Synthesis and Characterization of 3D Printable PEKK-Based Resins with Multifunctional Groups for High-Performance Dental Applications
- (PS-81) Yuki Matsui, Yasuhiro Eguchi, Yuji Higaki
(Oita University)
Microphase Separation of Zwitterionic Diblock Copolymers with Dipole Orientation Asymmetry
- (PS-82) Yuli Nurul Maulida, Seong Il Yoo
(Pukyong National University)
Effect of Formic Acid-Alcohol Solvent Mixtures on the Morphology and Properties of Solvent-Cast Polyamide-6 Films
- (PS-83) Sumin Heo, Tae Kyeom Kim, and Dong Gi Seong
(Pusan National University)
Enhanced Resin Impregnation of Carbon Nanotube Film via Ionic Liquid-assisted Electrical Process

- (PS-84) Chuya Sato, Kakeru Obayashi, Shuichi Nakazato, Aya Fujimoto, Ken Kojio
(Kyushu Univ)
Permeation mechanism of CO₂ through polymer membranes by in-situ microscopic Raman spectroscopy and X-ray scattering
- (PS-85) Youngjae Cheon, Hyerin Kang, Suraj Aswale, Haryeong Cho, Chung Hyeon Noh, Maeng Gi Kim, Gihun Lee, Woochan Hyung, Hong Y. Cho, Hyunhyub Ko, Seung Man Noh, Hyun-jong Paik
(Pusan National University)
Eco-friendly waterborne polyurethane 2 K clearcoats through reactive surfactants and internal particle crosslinking
- (PS-86) Dongjun Lee, Hyun-jong Paik
(Pusan National University)
Synthesis of SBR via ab initio RAFT Emulsion Polymerization
- (PS-87) Taito Nakamura, Naoki Tanaka, Tsuyohiko Fujigaya
(Kyushu Univ)
Polarity control of ionic thermoelectric generation based on thermally induced interfacial polarization between electrolyte and electrode
- (PS-88) Seokhyeon Jang, and Jaegun Lee
(Pusan National University)
Binder-Free CNT Aerogels via Bile-Salt-Driven Colloidal Gelation
- (PS-89) Yeon Gyeong Ha, Dae Seok Kim
(Pukyong National University)
Infrared-Driven Soft Actuation of Polydopamine-Coated Liquid Crystal Fibers
- (PS-90) Youngeun Jung, Jaeguen Lee
(Pusan National University)
Fabrication of Metal-Decorated Carbon Nanotube Aerogels via Surfactant-Assisted Approach
- (PS-91) Wei Zhang, Jong Seung Park
(Pusan National University)
Dual-Band Electrochromic Devices for Energy Saving and Power Generation
- (PS-92) In-sun Jeong, Jin-Hyeong Lee, Suk-kyun Ahn
(Pusan National University)
Mesophase Alignment Engineering in LCE Fibers Enables Tunable Actuation : From Contraction to Elongation
- (PS-93) Songhee Choi, Fenni Woro Hastuti, Mun Ho Kim
(Pukyong National University)
Colourimetric detection of Pd(II) and Pt(II) ions in water using silver nanoprism-based probes and reusability of bimetallic nanostructures
- (PS-94) Eujin Bae and Hyun-jong Paik
(Pusan National University)
Liquid Chromatography at Critical Adsorption Point Enables Living-Chain Isolation in Block Copolymers
- (PS-95) Juan Anthony Prayogo, Yu Kyung Lee, Soo Yeon Lee, Annisa Nurul Syabila, Chaeyeon Hong, Jian Yoo, Yunseo Oh, Doyeon Kim, Nahyun Kim, Jeonghye Kwon, and Jaewon Chang
(Pukyong National University)
Molecular Engineering of Surface Passivators for Tin Perovskite Transistors

- (PS-96) Soeun Park and Yoon-Ho Hwang (Pukyong National University)
Continuous and Scalable Production of RNA-Lipid Nanoparticles using Antifouling Microfluidic Devices
- (PS-97) Jaemoon Lee and Yoon-Ho Hwang (Pukyong National University)
Robust and Continuous Production of Microparticles using a 3D-Printed Milli-Fluidic Platform
- (PS-98) Su-Bin Shin and Yoon-Ho Hwang (Pukyong National University)
One-Step Preparation of 3D Mesoporous SiC Ceramic Monoliths via Microphase-Separated Block Polymer Precursors