: 우수논문발표상 응모

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- IPS-196In-Situ Crosslinakable Thermogel for 3D Bioprinting조민희, 김성은, 박수이\*, 허강무, 충남대학교; \*한국기계연구원
- 1PS-197 Precision-Activated Masked Antibodies Reduce Immune Toxicities in Checkpoint Blockade Cancer Therapy 조소현, 박재형, Ghosh Torsha, 성균관대학교
- IPS-198 Enhancing Tumor-Secreted Extracellular Vesicle Immunogenicity for Cancer Vaccine Development through Endoplasmic Reticulum Stress Preconditioning 조유건, 박재형, 한경희, 김찬호, 성균관대학교
- 1PS-199 Multiscale Biomechanical Gradient-Driven Hierarchical Tissue Interfaces for Osteochondral Defect Repair and Disease Modeling 최유립, 이준민, Pohang University of Science and Technology (POSTECH)
- 1PS-200Ultrathin Hydrogel Polymer Coatings Synthesized via iCVD for Long-term<br/>Implantable Neural Probes<br/>최윤영, 전우진\*, 조영학\*\*, 김학춘\*\*\*, 김대훈\*\*\*\*, 김예지\*\*\*\*, 문태진\*\*, 최인희\*\*\*,<br/>유영민\*\*\*\*\*, 임성갑\*\*\*\*, 박성준\*, 성혜정\*\*, KAIST/KIST; \*서울대학교; \*\*\*KIST;<br/>\*\*\*서울시립대학교; \*\*\*\*\*KAIST; \*\*\*\*\*\*KRICT
- IPS-201 Bioresorbable Electrical Stimulator with Isograft for Maximized Functional Recovery 황보정, 최연식, 연세대학교

## |콜로이드 및 분자조립 부문위원회|

- **1PS-202** Reversible Adhesion Control *via* Oxide Layer Modulation in Liquid Metal <u>강현수</u>, 이지은, 우상혁, 중앙대학교
- IPS-203Sustainable Fabrication of Uniform Colloidal Lignin Spheres via SolventRecovery구자경, 황의석, 박인경, 남재도, 성균관대학교
- 1PS-204Direct-Ink-Writing of Spiropyran-Incorporated Liquid Crystal Elastomers<br/>for Programmable Mechanoresponse Behavior<br/>김경완, 김태안\*, 안석균, 부산대학교; \*한국과학기술연구원
- 1PS-205 GHK Tripeptide Functionalized with Self-assembled Peptide-gold Nanoparticles for Therapeutic Applications 김리서, 전나영, 한은희\*, 이은지, 광주과학기술원; \*한국기초과학지원연구원
- 1PS-206 Asynchronous Fluorescence and Structural Color for Advanced Multilevel Sensing and Encryption
- 1PS-207 IPS-207 Fabrication of MXene Films and Flexible Patterned Supercapacitors Using Meniscus Dragging Deposition 김승연, 이용희, 한구희, 경북대학교
- 1PS-208 Water-in-oil High Internal Phase Pickering Emulsions Stabilized by TiO<sub>2</sub>: Influence of Particle Shape on Structural and Mechanical Properties 김예린, 김규한, 서울과학기술대학교
- 1PS-209 Enhancing Luminous Efficiency in Flexible OLEDs Using Self-Assembled DNA Films as a Light Scattering Layer
- <mark>1PS-210</mark> <mark>김주리, 연혜정, 최혜령\*, 최경철, 윤동기, 한국과학기술원; \*분당서울대병원 1PS-210 Design and Fabrication of DNA Patch Particles *via* DNA Origami Superlattice <u>김지성</u>, 이기라, 포항공과대학교</mark>
- IPS-211 Colloidal Nanostructures for Enhancing Bioavailability of Poorly Soluble Drugs 남유리, 박찬호, 허유진, 가천대학교
- 1PS-212

   Effect of Nanofiller on Photocuring and Printability in DLP 3D Printing of Polyurethane Elastomer Resins

   박성현, 양현승\*, 정과정\*, 박찬호, 가천대학교; \*한국전자기술연구원
- **IPS-213** Electrochemically Deposited Nanoarchitectured Nanograting Mesoporous Metal Film Using Block Copolymer Micelle for Ultra-sensitive SERS Sensor 박지수, 김정훈, 김가현, 김진보, 연세대학교
- 1PS-214 Underwater Microplastics Adhered and Absorption *via* Dynamic Imine Bond Crosslinking Polymer 박현웅, 박준용, 우상혁, 중앙대학교
- 1PS-215 Rectification in Cs₄PbBr<sub>6</sub>/CsPbBr<sub>3</sub> Metal Halide Perovskite Heterojunction Based on Ionic Migration
- <u>백상은</u>, 강영종\*, 한양대학교 ; \*한양대학교 화학과 Microemulsion Synthesis for High-Luminescence Metal Halide Perovskite Nanocrystals
  - <u>석경은</u>, 이보람, 이동현\*, 노용영\*, 성균관대학교; \*POSTECH
- 1PS-217 세포 손상 인화를 위한 해동용 2D 맥신 광열 나노시트 신진우, 원태경, 이고은, En Hao Cui, 박현지, 이은지, 김호정, 차의진, 안동준, 고려대학교
- 1PS-218 /n-situ CoS/PDA/NF electrodes for Oxygen Evolution Reaction in Alkaline Water Splitting 심다혜, 박정태, 연세대학교
- 1PS-219Development of Bio-Based Electrocatalysts from Lignin for High-PerformanceHydrogen Peroxide Production안수민, 윤홍석, 이영준\*, 한양대학교; \*한국과학기술연구원
- IPS-220 Enzymatic Reaction-Assisted Low-Voltage Hydrogen Production <u>양세운</u>, 이지은, 우상혁, 중앙대학교

- 1PS-221Development of Paraben-Conjugated Sunscreen Particles to Reduce Human<br/>Paraben Exposure<br/>이양우, 김지원\*, 최종훈\*, 구형준, 서울과학기술대학교; \*중앙대학교
- 1PS-222 pH Controlled Jamming in Nanoscale
- <u>이영준</u>, 김정욱\*, 송광호\*, 엄정인\*, 서강대학교; \*서울대학교
- 1PS-223 Self-assembly of Linear Block Copolymer into Inverse Photonic Glass Microparticles 이주영, 구강희, 울산과학기술원
- 1PS-224 Toward Maximizing Anisotropy of Cs<sub>3</sub>Cu<sub>2</sub>l<sub>5</sub>: From Solvent-Mediated Nanowire Growth to Lyotropic Self-Assembly 이런민, 강영종, 한양대학교
- IPS-225Mechanosensitive Cholesteric Liquid Crystal Elastomer Patch for Detecting<br/>Plastic Deformation in Commercial Plastics<br/>이혜주, 박준우\*, 이재준\*, 김대석, 국립부경대학교; \*부산대학교
- IPS-226 Isolation of Bovine Milk-derived Extracellular Vesicle *via* Serial Continuous Flow Membrane Filtration
- 장원익, 안일주, 조은화, 김원근, 한구희, 이은정, 유재범\*, 경북대학교; \*충남대학교 1PS-227 Polymer-Assisted Nitrogen Doping for Enhanced Carbon Electrocatalysts in PFMFCs
- 장윤아, 박재현\*, 이영준\*\*, 박찬호, 가천대학교; \*더카본스튜디오; \*\*한국과학기술연구원
- 1PS-228Isolation and Drug Loading of Bovine Milk-Derived Extracellular Vesicles조은화, 안일주, 장원익, 이은정, 한구희, 경북대학교
- **IPS-229** Facile Synthesis of ZnSe(Te) Quantum Dots with Alumina Passivation for Improved Blue QLED Performance <u>건우석</u>, 안소정, 정재한, 서울과학기술대학교
- 1PS-230 3D-printed Shadow Masks for Micro-patterned Electrodes <u>차찬욱</u>, 조은화, 김영준, 한구희, 경북대학교
- 1PS-231 Understanding Colloidal Particle Behavior at Water-Water Interfaces: A Novel Method for Interfacial Tension Analysis 최서영, 윤호준, 김규한, 서울과학기술대학교
- IPS-232 Surface Modification of 3D-Printed Negative Molds for Hydrogel-Based Microneedles 최성모, 박찬호, 가천대학교
- 1PS-233 Tunable Resonance Energy Transfer within pH-sensitive Polymer with Conformational Adaptation 표민경, 박찬호, 가천대학교
- 1PS-234 Development of an Infrared-Responsive Actuator Fibers with Polydopamine Coating Based on Photothermal Effects 하연경, 김대석, 국립부경대학교
- 1PS-235 Molecular LEGO: Building Functional Peptide Nanostructures *via* Multicomponent Tyrosine Crosslinking Induced Self-assembly 허윤미, 민경익, 경북대학교
- 1PS-236
  Biowaste-derived N-doped Lignin for Efficient Electrocatalysts in Seawater
  Batteries
  홍지환, 송인우, 조윤종, 이진훈, 백명진, 이동욱, 울산과학기술원
- 1PS-237
   Synthesis of Hollow Silica Nanoparticles with Controllable Size and Structure 활의석, 구자경, 백제준, 조재원, 주현준, 박인경, 김수찬, 남재도, 성균관대학교

# |에코소재 부문위원회|

- 1PS-238 Diffusion Dialysis Process for Purification of Biomass-derived Organic Acids and CO₂ Capture 강지은, 김정, 경희대학교
- 1PS-239Enhanced Compatibility and Mechanical Performance of TPEE/CNF Composites김효윤, 이동윤, 정예원, 박세계, 장백균, 경북대학교
- IPS-240 Ecotoxicity and Cytotoxicity of Additives in Biodegradable Single-Use Products: Implications for Environmental Communities and Human Health 안소연, 강동구, 인천대학교
- 1PS-241 Recyclable Poly (♂-amino esters) Covalent Adaptable Network Based Solid Polymer Electrolyte for Lithium Metal Batteries 양미옥, 전용하\*, 최우혁\*, 김채빈, 부산대학교; \*인하대학교
- 1PS-242 Stepwise Screening of PHA-producing Strains and Optimization of PHA production processes: Exploring Efficient Cultivating Conditions 양채연, 강동구, 인천대학교
- **1PS-243** Effect of Diol Structure on Crystallinity and Tensile Behavior of FDCA-Based Polyesters 이용재, 구준모\*, 이신영\*\*, 이가희\*\*, 전소영\*, 충남대학교 : \*충남대학교 고분자공학과;
- 1PS-244 Effect of Pressure on Bulk Depolymerization of Thiocarbonate Terminated PMMA
- 1PS-245 01개원, 곽영제\*, 숭실대학교; \*숭실대학교 신소재공학과 Biodegradation of Polylactic Acid by Superworms (*Zophobas atratus*) and Their Gut Microbiota 임선희, 강동구, 인천대학교
- 1PS-246
   Dispersion and Compatibility of Cellulose Nanofibers in SBR Matrix 장백균, 이동윤, 김효윤, 정예원, 박세계, 경북대학교

\*츳낚대학교 신소재공학과

- IPS-247Functional Aerogels for Renewable Solar Energy Driven Desalination:Optimization of Single and Hybrid Systems장지은, 김선우, 이동하, 김동균, 박지수, 김정환, 김정훈, 연세대학교
- IPS-248 Ca(OH)<sub>2</sub> Photocatalyst for Eco-friendly Decomposition of Polybutylene Adipate Terephthalate (PBAT) Mulching Film 강희주, 강동구, 인천대학교
- 1PS-249 Chemically Recyclable and Reusable High-Temperature Dynamic Covalent Polymer Adhesives 조하영, 남기호, 경북대학교
- 1PS-250 Enhancing Elasticity in Bio-Based Polyesters: FDCA-Derived Copolyesters

- with Odd-Even Structural Effects
- 최세훈, 황동기\*, 강상은\*\*, 유경철\*\*\*, 구준모\*\*, 충남대학교; \*충남대학교 바이오응용 화학연구소; \*\*충남대학교 유기재료공학과; \*\*\*충남대학교 신소재공학과
- Polarity-Switchable Maleic Anhydride-Containing Polymer for Eco-Friendly and Surface-Adaptable Pressure-Sensitive Adhesives <u>최윤영</u>, 박준용\*, 전혜리\*, 우상혁\*, 김채빈, 부산대학교; \*중앙대학교

#### |에너지 부문위원회|

- 1PS-252 Electrocatalytic Oxygen Reduction Properties of a Trinuclear Cobalt Complex with a Pyridine-based Pincer Ligand: Synthesis, Structural Characterization, and Mechanistic Insights
- Sujoy Bandyopadhyay, Hanyang University

  1PS-253

  Tough and Highly Conductive Solid Electrolytes for Lithium-Sulfur Batteries
- <u>강</u>지수, 김덕준, 성균관대학교 1PS-254 Liquid Metal-Skinned Zn Powder Anodes Enabled by Capillary Suspension
- IPS-256 Atomic-Level Engineering of Mesoporous Carbon Ni SACs with N<sub>2</sub>O<sub>2</sub> Coordination by Block Copolymer and Polydopamine for Enhanced Hydrogen Evolution 김동균, 정성현\*, 김정훈\*, 연세대학교; \*연세대학교 화공생명공학과
- 1PS-257 High-Performance *in Situ* Polymerized Gel Polymer Electrolyte for Stable and Fast-Charging Lithium-lon Batteries 김민수, 권정현, 김영준, 이근형, 인하대학교
- 1PS-258 High-Performance Alkaline Zinc-Iron Flow Batteries Using a Blended SPEEK/PS Membrane
- 1만지, 잔나시파툴, Sangaraju Shanmugam, 대구경부과학기술원(DGIST)
  Scalable Manufacturing of Low-Tortuosity, Solvent-Free Thick Electrodes
  Controlled by Conductive Agents for High-Energy Lithium-Ion Batteries
  김병진, 유영재, 중앙대학교
- 1PS-260 Room Temperature Initiator-Free Self-Catalyzed Crosslinking of Zwitterionic Gel Electrolyte for Stable Zinc Metal Batteries <u>김세현</u>, 이상엽, 한동엽, 손무근\*, 정태훈, 지형민, 강준희\*, 박수진, 김연수, POSTECH; \*부사대학교
- IPS-261 Bottlebrush-structured Artificial Solid Electrolyte Interphases for Long-life Lithium Metal Batteries 김승현, 심지민, 서울대학교
- IPS-262 Lithium Silicate/PEO-based Hybrid Electrolytes for High-Performance All-Solid-State Lithium Metal Batteries Enabling Stable SEI Layer Formation and Ultra-Long Cycle Life 김기환, 장민철, 전남대학교
- IPS-263 Introduction of a Facile Plasma Treatment Method on Gel Electrolyte Improving the Electrochemical Performance 김찬교, 제갈석, 라윤호, 윤창민, 인하대학교
- 1PS-264 Ethanol Purification Enables High-quality α-phase FAPbl₃ Perovskite Microcrystals for Commercial Photovoltaic Applications 김현서, 정의혁, 한국에너지공과대학교
- IPS-265 Composite Gel Polymer Electrolytes with Enhanced Thermal and Mechanical Stabilities for Sodium Metal Batteries 선신영, 심지민, 서울대학교
- 1PS-266 Development of a Cross-linked Self-healing Polymer Binder for High-performance Silicon Anodes 송민주, 송우진, 충남대학교
- IPS-267 Development of Silicon/Carbon Composite Anodes Derived from Lignin-Based Precursors for Advanced Lithium-Ion Batteries 양채원, 김영빈, 김여원, 엄태식, 홍익대학교
- 1PS-268 Redox-Active Polyimide Porous Foam for a Flexible Battery Electrode with High-Rate Capability
- 1PS-269 1PS-269 High-Nickel Cathode Materials 원광빈, 심지민, 서울대학교
- IPS-270
   Scalable Synthesis of Heterolayered Hybrid Electrodes for Energy Storage

   요현승, 김수원, 유재우, 주민성\*, 윤현석, 전남대학교 고분자용합소재공학부; \*전남대학교 고부자공학과
- IPS-271 Interface Engineering of Si-based Anodes with Fluorinated Binder Enabling Lean-additive Lithium-ion Batteries 이상원, 박수진, 포항공과대학교
- IPS-272 Sequence-Controlled Polynorbornene Binders for Enhanced Silicon Anode Performance in Lithium-Ion Batteries 이승우, 안석균, 부산대학교
- 1PS-273 Development of a Self-Healing PAA-APDS Binder for High-Performance Silicon Anodes Using Reversible Disulfide Bonds 이해영, 송우진, 충남대학교
- **IPS-274** Eutectic Solution-Based Anti-Freezing Flexible Polymer Electrolyte for High-Performance Zinc-Ion Batteries 이효철, 김덕준, 성균관대학교
- 1PS-275 Nafion-Based Membranes for Zn-Br<sub>2</sub> Redox Flow Batteries: The Critical Role of Solvent in Nafion/MOF Compatibility
- 1PS-276 전나시파툴, 김민지, Sangaraju Shanmugam, 대구경북과학기술원(DGIST)
  Ion Diffusion Mechanisms in PEO-Based Electrolytes: A Computational Approach
  - <u>정승원</u>, **손창윤\***, POSTECH; \*서울대학교

- IPS-277High Performance Li-Organic Batteries Achieved by Rational Design of<br/>Phenoxazine-Based Cathode Materials for Multi-Electron Redox<br/>조동현, 송선우\*, 권민상\*, 권지언, 한국과학기술연구원; \*서울대학교
- 1PS-278 Cross-Linked Binder Materials with Enhanced Mechanical Properties and Adhesion for High-Nickel Cathode Materials 조민서, 심지민, 서울대학교
- **1PS-279** Effective Grain Growth and Stoichiometry Preservation *via* Anti-Solvent Treatment Methods in Perovskite Optoelectronic Devices <u>채가운</u>, 임지현, 김병기, 장웅식, 왕동환, 중앙대학교
- 1PS-280 Synergistic Improvement of Acidic Water Splitting through Chiral Plasmonics and Iridium Single-Atom Catalysts 채경희, 김동하, 이화여자대학교
- IPS-281Enhancement of Wide Bandgap Perovskite Photoanode with Additive into<br/>Antisolvent최수영, 이택호, 부산대학교 화학소재학과
- 1PS-282 Moisture-Driven Hydrovoltaic Systems Enhanced by Graphene Oxide 한다면, 정인우, 경북대학교

: 우수논문발표상 응모

# 포스터발표(II) 4월 17일(목)

 $(17:00 \sim 18:30)$ 

좌장: 김 환, 양지웅

우수논문발표상

## | 분자전자 부문위원회|

- 2PS-1 Impact of *meta* and *para*-Direction External Side Chains in Y-Series Acceptors on the Molecular Packing and Charge Carrier Dynamics of Organic Photovoltaics
  - 송옥요, 김윤희\*, 경상국립대학교; \*Department of Chemistry and RIMA, Gyeongsang National University
- 2PS-2
   Organic Heterojunction Nanoparticles for Enhanced Hydrogen Evolution via Spontaneous Charge Generation 수 날, 조새벽, 김진현\*, 권현민\*, 손민균\*\*, 오한별\*, 김현우\*, 김민성\*, 안희찬\*, 임성열\*,
- 성균관대학교 분자광전자연구실; \*성균관대학교; \*\*서울대학교

  2PS-3 lonic Material Supported Synaptic Transistor with Metallic Carbon Nanotube
- Channel
  <u>신동희</u>, 정범진\*, 부산대학교; \*부산대학교 응용화학공학부
- 2PS-4Polymer-wrapped High-purity Semiconducting CNTs for Synaptic Transistor<br/>Applications<br/>신재민, 김유정\*, 오세영\*, 김예담\*, 조병진\*, 임보규, 충북대학교 공업화학과; \*충북대학교
- 2PS-5Natural Rubber Microfibers Reinforced with Cellulose for Wireless Physiological Monitoring with Minimal Mechanical Hysteresis성 아르티, 윤진환\*, 부산대학교; \*서울시립대학교
- **2PS-6** Photophysical Origin of Energy Losses in Eco-friendly All Polymer Solar Cells 안회찬, 조새벽\*, 성균관대학교 : \*성균관대학교 화학공학부
- 2PS-7 Stretchable Piezoelectric BaTiO₃ Composite Hydrogel for Artificial Skin <u>엘레스타 프리스카 푸트리</u>, Kar Epsita\*, 윤진환\*\*, 부산대학교; \*Regional Institute of Education, Mysuru; \*\*서울시립대학교
- 2PS-8
   Monolithic Artificial Tactile Neuron Based Mechano-sensitive ion Dynamics

   엘비스, 권혁민, 김주성, 김동준, 최한빈, 이승결\*, 조정호\*\*, 김도환, 한양대학교; \*울산 과학기술원; \*\*연세대학교
- 2PS-9Silicone-Integrated Microlithography for High-Resolution OLEDs with<br/>Anti-Pixel Crosstalk<br/>오하영, 권혁민, 김선권\*, 하보리나, 이소연, 하지연, 강민수\*, 강문성\*\*, 조정호\*, 김도환,<br/>한양대학교; \*연세대학교; \*\*서강대학교
- **2PS-10** Synthesis of Crosslinkable Hydrophobic Membranes for Selective Hydrogen Permeability
- 원도연, 김원빈, Dixit V. Bhalani, 임보규, 충북대학교 공업화학과 Enhancing Efficiency and Stability in Perovskite Sky-Blue Light-Emitting Diodes *via* Buried Interface Passivation

유병준, 김호범, 광주과학기술원 신소재공학부

- 2PS-12Tailoring Indenoindole-Based Acceptor Enabling over 17% Efficiency in<br/>Organic Photovoltaics<br/>유건수, 건성호\*, Priyanka Yadav, 유국홍, 부산대학교 화학소재학과; \*부산대학교<br/>화학교육과
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- 이승재, 이영오, 박철홍, 고현협, 울산과학기술원
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  \*한양대학교
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- **2PS-92** Photocleavage Gelatin Hydrogel: Fabrication and Characterization for Controlled Drug Release 강연태, 이현종, 가천대학교
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- **2PS-98** Study on the Physical Properties of Visible Light-Cured Polyurethane Films for Water-Based Peel-Off Nail Art 김민진, 이현종, 가천대학교
- 2PS-99 Reduction of Polymeric Transfection Carrier-Induced Cellular Oxidative Stress by Antioxidative Components 김병덕, 정지훈, 유 빈, 신주화, 이지현, 성균관대학교
- **2PS-100** Fabrication and Evaluation of Biodegradable Polyhydroxybutyrate Ultrafine Fiber Sheets to Prevent Lung Air Leakage <u>김병주</u>, 권오형\*, 김은영\*, 금오콩과대학교; \*금오콩과대학교 고분자공학과
- **2PS-101** Surface Engineering of Stem Cells with Amphiphilic Lipids to Enhance Graft Integration in Liver Cirrhosis Treatment <u>김성준</u>, 김교범, 동국대학교

- **2PS-102** Polysaccharide-Iron Oxide Core-Shell Nanoparticles for Magnetic Resonance Lymphangiography and Their Clinical Applications 김영민, 김가현, 조민지, 김지욱, 신태현, 인벤테라
- **2PS-103** Materials and Technology Trends in 3D/4D Printing in Wound Healing <u>김영희</u>, (재)헬스케어스파산업진흥원
- 2PS-104
   Engineered Powder-Type Anti-Adhesion Agent: Enhancing Tissue Adhesiveness through Modified Starch for Advanced Surgical Applications

   김요정, 권오형\*, 김병주\*, 금오공과대학교; \*금오공과대학교 고분자공학과
- 2PS-105 Electrospun Nerve Conduits with Milk-Derived Protein: A Novel Approach for Sciatic Nerve Regeneration 김은채, 김태오, 전 건\*, 이민석\*\*, 양희석, 단국대학교; \*한국과학기술연구원(KIST); \*\*Richard and Loan Hill Department of Biomedical Engineering, University of Illinois at Chicago
- 2PS-106 Shape-Changing Aptameric Structure for Sensing SARS-CoV-2 Variants <u>김재영</u>, 이민종, 오승수, 포항공과대학교
- 2PS-107 Novel All-Polymeric Microneedle Electrode with Ultra-Low Impedance Toward Long-Term ECG Monitoring 김주현, 황철진, 김대유, 인하대학교
- **2PS-108** Improving Biliary Stent Longevity *via* Surface Modification with Bio-inspired Anti-fouling Technology 김태영, 서정목\*, 연세대학교; \*연세대학교 전기전자공학
- **2PS-109** Enhanced Endosomal Uptake of Lipid-modified DNA *via* Cellular Membranes 김해주, 곽민석\*, 이상학, 부산대학교; \*부경대학교
- 2PS-110 Enhancement of Angiogenesis Induced by Simulated Microgravity Using Neutral Buoyancy 김호용, 이한나, 오세행, 단국대학교
- **2PS-111** 4D Printing of Shape Memory Polymer-Based Microneedle Patch with Enhanced Adhesion and Minimized Tissue Damage 남기영, 한대훈, 전남대학교
- 2PS-112Immunomodulatory Effects of Secretome Derived from Stem Cell SpheroidsEncapsulated in a Hyaluronic Acid-Collagen Hydrogel Matrix in AtopicDermatitis노채은, 이현종\*, 가천대학교 글로벌캠퍼스; \*가천대학교 화공생명배터리공학과
- **2PS-113** Zinc Peroxide-mediated *In Situ* Hydrogels for Endogenous Tissue Regeneration 박경민, 김연정, 인천대학교
- **2PS-114** Engineered Atopic Dermatitis Models for Recapitulating Hypoxic Conditions <u>박경민</u>, 나경석, 인천대학교
- **2PS-115** Building a Light-Responsive Explosive Anti-PD-L1 Factory Within Tumors for Advanced Immunotherapy <u>박미현</u>, 김원종, 포항공과대학교
- **2PS-116** Advanced Graft Jacket with Micro-Patterned and Shape Memory Polymers for Achilles Tendon Regeneration 박진희, 손유철, 전 진, 이민석, 양희석, 단국대학교
- 2PS-117 Enhanced Transdermal Delivery of Aconite Root with HA-PLGA Nanoparticles for Pain Relief 발태언, 김기수, 부산대학교
- 2PS-118Biodegradable Nanoplatform Enabled by Oxalate for Targeted CT Imaging of<br/>Thrombosis박현재, 안철희, 김동역\*, 서울대학교; \*동국대학교 일산병원 신경과

# 콜로이드 및 분자조립 부문위원회(I)

- **2PS-119** Polydopamine-integrated Cellulose/Graphene Oxide Monoliths: A Versatile Platform for Efficient Continuous-flow Iodine Capture and Photothermalenhanced Reduction of Cr(VI)
  Pradyasti Astrini, 김문호, 부경대학교
- **2PS-120** atactic-Polystyrene Crystallization by Rapid Thermal Quenching Method with Entropy Diluents

  Van Thanh Vu, 강영종\*, Hanyang University
- 2PS-121 Particle-Level Insights into Mechanical Properties in Binary Colloidal Alloys Measurements 강남희, 황혜림, 이화여자대학교
- **2PS-122** Comparison and Evaluation of Various Biodegradable Polymers for Optimal Design of Nanocarriers 김기성, 박찬호, 한수경, 가천대학교
- 2PS-123 Effect of Liquid Metal-coated Alumina on the Thermal and Damping Behavior of Thermal Interface Materials 김상호, 강영종\*, 한양대학교; \*한양대학교 화학과
- **2PS-124** Ligand-Assisted Synthesis and Growth Control of Cs<sub>2</sub>AgBiBr<sub>6</sub> Double Perovskites <u>김예린</u>, 곽영제, 숭실대학교
- 2PS-125 Preferential Surface Modification of Hydrogel Based on Nanoparticle-Assembly Engulfment 김지윤, 고종국\*, 가천대학교, \*\*가천대학교 화공생명공학과
- **2PS-126** Self-powered Sweat-responsive Structural Color Sensing Display <u>김태빈</u>, 김수한, 박철민, 연세대학교
- **2PS-127** Time-Resolved Morphological Evolution and Structural Color Shifts in Quaternized Janus Block Copolymer Colloids 김하영, 반수현, 이주영, 구강희, 울산과학기술원
- **2PS-128** Continuous-flow Catalytic Reactors Based on 1d Hydrogels for Catalytic Conversion and Photocatalytic Removal of Organic Materials in Water 김현정, 심현보, 김문호, 부경대학교
- **2PS-129** Starving Free Solvents: Toward Immiscible Binary Liquid Electrolytes for Li-Metal Full Cells 민서연, 이상영, 연세대학교

- **2PS-130** Scalable Liquid Metal Electrodes with Enhanced Stability for CO₂ Reduction 박다인, 이양우, 원종빈\*, 구형준, 서울과학기술대학교; \*University of Michigan
- 2PS-131 Enhancing Photodetector Efficiency *via* Halide Vacancy Passivation in Perovskite Quantum Dots <u>박병찬</u>, 조길원, 포항공과대학교
- **2PS-132** Polyampholyte lonomers for Tailoring Product Selectivity in Electrochemical CO₂ Reduction 박상준, 김찬술\*, 김형준, 서강대학교; \*한국과학기술연구원
- **2PS-133** Thermally Decomposable Molecular Splint for High  $\beta$ -Phase Poly (vinylidene fluoride) Films
  - <u>박승주</u>, 강영종, 한양대학교
- 2PS-134 CdSe Tetrapod-P3HT 기반 3D 마이크로 패터닝 광전자 소자의 제조 및 특성 분석 배현우, 정재한, 서울과학기술대학교
- **2PS-135** Self-assembly of Cyclic Peptides for Controlled Ice Crystal Growth <u>부잉지</u>, 김인혜\*, 이은지, 광주과학기술원; \*The Pennsylvania State University
- **2PS-136** Self-Assembled Heparin/Doxorubicin/Lenalidomide Nanocomplex for Inducing Immunogenic Cell Death in Cancer Immunotherapy 서민호, 서비손, 박주호, 건국대학교

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- **2PS-137** A Rapid and Portable Method for  $Ag^+$  and  $Cu^{2^+}$  lon Detection in Wastewater by Carbon dots
  - Akshay Patil, 손대원, Hanyang University
- **2PS-138** Fabrication of PLA/Polyethyleneimine Foam *via* Supercritical CO₂ Twin-Screw Extrusion for Oil Absorption Applications

  <u>Jakkree Intranuwong</u>, 신성규, 권용구, Inha University
- **2PS-139** Synthesis of Amphiph İllic Diblock Copolymers of Poly(r-phenyl- $\varepsilon$ -caprolactone) and Poly(ethylene glycol)

  Nutcha Nongyai, 권용구, Inha University
- **2PS-140** Synthesis and Characterization Bio-based Aromatic Polyester of Poly (divanillyl alcohol co-succinate) 김무현, 권용구, 인하대학교
- **2PS-141** Eco-friendly High-performance Organic NO<sub>2</sub> Gas Sensor Based on Poly(3-hexylthiophene) and Polybutylene Succinate Blending Film Using a Solvent-dependent Phase Separation <u>김성진</u>, 김범준, 강신혁, 박영돈, 인천대학교
- **2PS-142** PLLA-Macroinitiators for Emulsion-Templated Porous Materials with Eutectic Mixture of *L*-Lactide and *δ*-Valerolactone 김수익, Jakkree Intranuwong, 김아린, 권용구, 인하대학교
- **2PS-143** Effect of Blend Ratio on the Mechanical Properties of Fluorosilicone-Based Rubber Blends 박세계, 김효윤, 정예원, 장백균, 이동윤, 경북대학교
- **2PS-144** Biodegradability Assessment of Eco-Friendly Plastics in Various Conditions 성혜경, 조경렬, 박현호, 최병일, 한국화학융합시험연구원
- **2PS-145** Alternative Polystyrene Separator for Li-ion batteries from Waste Polystyrene by Exploiting Impurities as Porogens <u>신동건</u>, 하유진, 김희중, 인하대학교
- **2PS-146** Synthesis of N-doped Lignin Through the Mannich Reaction <u>신성규</u>, Jakkree Intranuwong, 권용구, 인하대학교
- 2PS-147 Characterization of Oxygen Barrier Film Coated with Graphene Oxide and Cellulose Nanofibers
  - <u>신은애</u>, 정제영, 강동호, 심진기, 한국생산기술연구원
- **2PS-148** Biocompatible Polymer-Coated Illite Fine Particles as Functional Cosmetic Raw Materials <u>이나연</u>, 이혜린, 이인혜, 이진현, 건국대학교
- **2PS-149** Characteristics of Low-molecular-weight Collagen and Alginate-based Hydrogels for Dermal Fillers <u>이인혜</u>, 이혜린, 이나연, 이진현, 건국대학교
- 2PS-150 Microfluidic-Based Real-Time Biodegradability Assessment of PBAT Micro-Particles Using Fluorescence Monitoring 임소진, 강동구, 인천대학교
- **2PS-151** Enhancing the Mechanical Properties of PLA/PBAT Blends Using Synthesized Chain Extender 정예원, 이동윤, 박세계, 김효윤, 장백균, 경북대학교
- 2PS-152 Enhancement of Mechanical Properties in Sustainable and Biodegradable Nanocomposites Based on Modified Cellulose Nanofibers <u>조고</u>은, 한경임, 방준하\*, 홍성우\*\*, 한국생산기술연구원/고려대학교; \*고려대학교; \*\*한국생산기술연구원

# 에너지 부문위원회(I)

- **2PS-153** Enhancing PTFE Fibrillation Dry-processed Cathodes for Lithium-Ion Batteries with Dispersion-assisted Carbon Nanotubes as a Conductive Agent Chi Nguyen Thi Linh, 김덕준\*, Chemical Engineering, Sungkyunkwan University; \*성귯관대학교
- **2PS-154** Graphene Sheets Organized into Three-dimensional Structures of Carbon Nanocomposites

  <u>Jiwan Acharya</u>, 박미라, 우석대학교
- 2PS-155 Elucidating Phosphoric Acid-Polymer Interactions in High-Temperature Proton Exchange Membrane Fuel Cells

  <u>Muhammad Farjad Ali</u>, 권후근, 민효준, 이혜진, 신동원, 배병찬, Korea Institute of
- Energy Research (KIER)/University of Science & Technology (UST)

  2PS-157 Enhancing Cathode-Electrolyte Interface Stability in High-Voltage Lithium

  Metal Batteries through Phase-Separated Cyano-Containing Copolymer-Based
  Polymer Electrolytes

- 권현수, 박진석, 김범준, 한국과학기술원
- **2PS-158** 3D Porous Interconnected Carbon Nanosheets for Multimodal Capturing Effects in High Performance Lithium-sulfur Battery Applications 김대겸, 유영재, 중앙대학교
- **2PS-159** Pulse-charging Energy Storage for Triboelectric Nanogenerator Based on Frequency Modulation 김민균, 이상영, 연세대학교
- 2PS-160Kosmotropic Aqueous Processing Solution for Green Lithium BatteryCathode Manufacturing김원영, 김중휘, 김세빈\*, 김정환, 이원보\*, 이상영, 연세대학교; \*서울대학교
- **2PS-161** Morphology Control of Active Layer for Effective Dark Current Suppression in Organic Photodetectors 김유리, 신동현, 이택호, 부산대학교
- 2PS-162Nickel-Regenerated Synthesis of Boc-Functionalized Polyphenylene Block<br/>Copolymer for Anion Exchange Membranes<br/>김지희, 권후근, 이혜진, 김종학\*, 강준희\*\*, 배병찬, 신동원, 한국에너지기술연구원;<br/>\*연세대학교; \*\*부산대학교
- 2PS-163 Fabrication of High-performance Asymmetric Supercapacitors Based on Carbon Nanofiber/Metal Oxide/PPy Composites 김찬교, 라윤호, 제갈석, 윤창민, 인하대학교
- **2PS-164** Enhancing Metal Ion Adsorption Capacity of Amidoxime-Based Nanofibers by Introducing TiO₂ Nanoparticles 김현석, 김영웅, 김태현, 이근우, 이택승, 충남대학교
- **2PS-165** Enhancing Lithium Metal Battery Stability: Suppression of Lithium Dendrites *via* PDMS-Integrated Crosslinked Solid Polymer Electrolytes 김현욱, 오준학, 유재열, 서울대학교
- **2PS-166** Development of Efficient and Stable Organic Photoelectrochemical Devices by Introducing Multifunctional Interlayers <u>나원주</u>, 이택호, 부산대학교
- **2PS-167** Fabrication of Mesoporous Carbon Nanosheets/PANI Composites and Its Application as Electric Double-Layer Capacitor Electrode Material <u>라운호</u>, 제갈석, 김찬교, 윤창민, 인하대학교
- 2PS-168 Electrochemical Performance and Structural Stability of Si-MWNT Composite Powder for Anode 박민지, 이정현, 이영실, 윤관한, 국립금오공과대학교
- **2PS-169** Enhanced Lithium-Ion Transport and Interfacial Stability in Silicon-Based Batteries Using a Semi-Interpenetrating Polymer Network Electrolyte 박보경, 하진희, 김덕준, 성균관대학교
- 2PS-170 High-performaning Indolocarbazole-Based Organic Electrodes for Low temperature battery 박성진, 계효진\*, 김봉기\*, 유영민\*\*, 권지언, KIST; \*건국대학교; \*\*연세대학교
- **2PS-171** Fluorinated Elastomeric Electrolyte for Lithium Metal Batteries Operating at Low Temperature 박진석, 김범준, 한국과학기술원
- 2PS-172 Engineering Plastic-based Block Copolymer for Enhanced Stability of Zn Metal Anodes in Aqueous Zn-Ion Batteries 백제준, 황의석, 김수찬, 성균관대학교
- **2PS-173** Sustainable Three-dimensional Crosslinked Binder Based on Biomaterials for Long-life Lithium-sulfur Batteries 여상구, 김수찬\*, 성균관대학교 : \*성균관대학교 화학공학부
- **2PS-174** Self-Assembled Hybrid Polymer Electrolyte with Enhanced Ionic Conductivity and Mechanical Stability for High-Performance Lithium-Sulfur Batteries 윤영민, 김덕준, 성균관대학교

## 고분자 합성(I)

- 2PS-175 Thermoresponsive PNIPAM-Zeolite Hydrogels for Atmospheric Water Harvesting Applications
  - Fathi Sakr, 김태동, 홍경오, 김운중, Hannam University
- **2PS-176** The Role of Backbone Planarity in Dithienopyrrole-Based Conjugated Copolymers for Enhancing Electrical Conductivity and Thermoelectric Performance

  <u>Karina Ayu Larasati</u>, 김윤희, Gyeongsang National University
- 2PS-177 Enhanced Anion Interaction by Polarity Control on CNTVT:SVS Copolymers for Improving Nonvolatile Characteristics in Neuromorphic Computing

  Landep Ayuningtias, 김윤희, Gyeongsang National University
- 2PS-178 Innovative Design of Stretchable Encapsulation Materials for Stretchable Solar Cells
  - Sze Yii Voon, 이정용, KAIST
- 2PS-179 Solvent-free Thermal Polymerization of Mesogenic Diallyls Based on Thiol-Ene System
  Thu Loan Dang, 구교선, 여현욱, Kyungpook National University
- 2PS-180 Design and Synthesis of Thermal Conductive Liquid Crystal Epoxy Resin with Aliphatic Chain 구교선, 여현욱, 경복대학교
- **2PS-181** Development of Bismaleimide Monomer for Reprocessable Thermosetting Resins 권우현, 구교선, 여현욱, 경북대학교
- **2PS-182** Investigating Side Chain Effects on Supramolecular Chirality and Chiral Amplification in the Sergeant and Soldier Principle 김강석, 서명은, 한국과학기술원
- **2PS-183** Vacuum-Deposited Organic Photodetectors with Tunable Wavelength Selectivity for High-Performance Image Sensors 김규리, 박재희, 신지영, 정인환, 한양대학교
- 2PS-184 Naphthalene-based Photobase Generators with Enhanced Absorption in Short Wavelength Region

- 김민재, 이병훈, 이화여자대학교
- 2PS-185 Precise Synthesis of Random Copolymers Containing Poly (4-Hydroxystyrene)
  Segment *via* Living Anionic Polymerization and Selective Deprotection
  김승기, 강범구, 장우재, 이송세\*, 김지엽\*, Department of Chemical Engineering,
  Soongsil University; \*Samsung Electronics Co. Ltd, Semiconductor R&D Center
- 2PS-186 Analysis of Mechanical and Thermal Properties According to the Monomer Composition Change of Polyurethane Oligomers and Epoxy Oligomers 김은혜, 김정욱, 이나원, 권영환, 대구대학교
- **2PS-187** Eco-friendly Recovery of Nitrogen Oxides: Recycling HNO<sub>3</sub> from Glucose-Nitric Acid Reactions <u>김이천</u>, 이주홍, 임원빈, 민진규, 이재룡, 이근호, 봉하송, 김성호, 배지홍, 허필호, 부산 대학교
- 2PS-188 Effect of Polyester-based Oligomer/Acrylate Monomers on Mechanical and Thermal Properties of UV-cured Polymers 김정욱, 김은혜, 이나원, 권영환, 대구대학교
- **2PS-189** Synthesis of Self-Healing Liquid Crystalline Thermoplastic Polyurethane-based Epoxy Resins <u>김주영</u>, 백세연, 임호선, 숙명여자대학교
- **2PS-190** Synthesis of Side-Chain Type Liquid Crystalline Polymer with Biphenyl 남은서, 구교선, 여현욱, 경북대학교
- **2PS-191** Modification of Mesogenic-based Polymeric Network by Chiral Epoxide Compounds 레밍황, 구교선, 여현욱, 경북대학교
- 2PS-192 Effect of Nanofiber Concentration on Physicochemical Properties of GelMA Hydrogels
- <u>박민하</u>, 김민희, 박건우, 이경민, 경북대학교 **2PS-193** Study of PEG-backbone Side Chain Liquid Crystal Polymer with Aliphatic Chain Network <u>박소정</u>, 구교선, 여현욱, 경북대학교
- **2PS-194** Post-Polymerization Modification for the Synthesis of Alkyl-Amide-Functionalized Vinyl-Addition Polynorbornenes <u>박준우</u>, 채창근\*, Ho Thi Nguyet Linh\*, 정규리\*, 한국화학연구원/연세대학교; \*한국화학연구원/연세대학교; \*한국화학연구원/연세대학교;
- **2PS-195** Synthesis of Hydroxyl-functionalized Polyimides for Enhanced Gas Separation Membrane <u>박혜린</u>, 백정주, 장기철, 김영훈, 고원건\*, 신교직, 한국생산기술연구원; \*연세대학교

# 기능성 고분자(I)

Technology

- 2PS-196 Tunable Synaptic Plasticity in Organic Electrochemical Diodes *via* Dopant Ion Size Modulation

  Alexander Mauricio Tipan Quishpe', 윤명한, Gwangju Institute of Science and
- **2PS-197** *N*-rich Triazine Core-based Porous Polymer Networks for Selective Removal of CrO<sub>4</sub><sup>2-</sup> Pollutants from Wastewater <u>Niraj Vishwakarma</u>, 변유영, 이은지, 광주과학기술원(GIST)
- 2PS-198 3D Generation of iPSC-derived Mesenchymal Stem Cells through Sequential Presentation of BMP4 and FGF2 *via* Gelatin Microparticles in Spheroids Nityanand Prakash, 이수홍, Dongguk University
- **2PS-199** Thiolated Cationic Poly (2-(dimethylamino)ethyl-*c*o-4-Hydroxybutyl methacrylate) Stabilized Platinum Nanoparticles for Efficient siRNA Delivery Panalee Pomseethong, 김진철, Kangwon National University
- **2PS-200** Viologen-Based Liquid Crystal Smart Windows: Polarization-Dependent and Color-Tunable Electrochromism with Polymer Stabilization Pham Huu Huan, 정광운, 전북대학교
- 2PS-201 Optimization of Difluorobenzotriazole-Based Polymers *via* Substituent Modifications for Solar Energy Applications
  Puspita sari, 이재훈, 진영읍, Pukyong National University
- 2PS-202 Hydrogel-functionalized Wood Membranes for Enhanced Salinity-gradient Energy Conversion
  Rahmi Lailatul, 유성일, Pukyong National University
- **2PS-203** Synthesis and Characterization of Polyrotaxane based Movable Cross-linkers with Vinylic, Lipoate, and Amine Functional Groups Rudru Gangaratnamma, 정일두, 부산대학교
- 2PS-204 Nanoplatform Based On Temperature-responsive Copolymers and Platinum Nanoparticles for Controlled Release Yuyuan Guo, 김진철, 강원대학교
- **2PS-205** Tailoring Molecular Interactions in Sulfonated Polymers 강경찬, 박문정, 포항공과대학교
- **2PS-206** Advanced Incorporation of PCL-TIB for Enhanced X-ray Visibility and Mechanical Strength in Fully Bioresorbable 3D-Printed Scaffolds <u>강수민</u>, 김형우, 전남대학교
- **2PS-207** Electrochemically Mediated CO<sub>2</sub> Capture with Redox-active Polymers <u>강수민</u>, 유필진\*, 문명운, 한국과학기술연구원; \*성균관대학교
- **2PS-208** Photothermally Enhanced Restoration of a Superhydrophobic Surface with Anti-Icing and De-Icing Functions for Outdoor Applications <u>강주형</u>, 정지은, 김진철, 박영일, 배미주\*, 이슬찬\*\*, 한국화학연구원 정밀화학센터; \*UNIST; \*\*KAIST
- **2PS-209** Construction of Orthogonal Absorption Axe *via* Host-Guest Chemistry and Topochemical Polymerization 고해요, 정광운, 전북대학교
- 2PS-210 pH-Sensitive Poly (vinyl alcohol)/Curcumin/Quercetin Nanofiber Membrane for Food Freshness Monitoring <u>구세린</u>, 윤영일\*, 박원호, 충남대학교; \*한국폴리텍대학
- 2PS-211 Enhancing Stability of Aqueous Zinc-Ion Batteries Using a Cosolvent-Based Single-Ion Conducting Hydrogel Electrolyte

- 김기현, 최우혁, 인하대학교
- 2PS-212Agarose Hydrogel-based Ionic Power Device Inspired by Electric Eels김동혁, 구형준, 김성현, 박예일, 서울과학기술대학교
- **2PS-213** Transparent Photoaddressable Polymers for High-Efficiency Optical Fourier Volumes in AR Displays <u>김문근</u>, 홍승재, 손희주, 이승우, 방준하, 고려대학교
- **2PS-214** Autonomous Self-Healing 3D Electroluminescent Device for Advanced Optoelectronic Applications 김민성, 고종국, 가천대학교
- **2PS-215** Development of Fluorinated Diazonaphthoquinone (DNQ) Derivative and its Mixtures with Fluoropolymers for Organic Light-Emitting Diode (OLED) Pixel Formation 김서연, 김가영, 김두홍\*, 강석민, 박다인, 이진석, 정병준\*, 이진균, 인하대학교; \*서울
- **2PS-216** Amphiphilic Diacetylene with Imidazolium-Functionalized: Secret Code Decryption Using Heating and Polarizer <u>김송은</u>, 정광운, 전북대학교
- **2PS-217** Thermally and Photoinduced Monotropic Phase Transition for Optical Switching in Cyanostilbene-Based AlEgen Smart Films 김승훈, 정광운, 전북대학교
- **2PS-218** Humidity-Induced Decolorization of 1D Photonic Multilayers for Anti-Counterfeiting Applications <u>김예진</u>, 정서현, 김지현, 이종훈\*, 정유진, 나한아, 황가은, 이형일\*\*, 황도훈\*\*\*, 한국화학 연구원; \*한국화학연구원/부산대학교; \*\*\*울산대학교; \*\*\*부산대학교
- 2PS-219 Cationically Polymerized Phthalaldehyde Copolymers and Their Use for Dry-developable Photopatterning Materials 도수희, 박주영, 윤상민, 김명웅, 인하대학교
- 2PS-220 Nanoparticle-to-Nanoparticle Aggregation Strategy for Enhanced Tumor Targeting and Immune Activation *via* Ferroptosis Induction <u>마가은</u>, 박주호, 양성빈, 서비손, 건국대학교
- **2PS-221** Engineering Conjugated Polymer Nanoparticles for Enhanced Photodynamic Effects 민경선, 홍선주, 박주현, 중앙대학교
- **2PS-222** Enhancing the Sensitivity of EUV Photoresists *via* Polyanion Complexation <u>박민우</u>, 김형준, 김용수, 신희운, 서강대학교
- **2PS-223** Critical Role of Thermomechanical Properties of Sulfur-Rich Polymers in Triboelectric Nanogenerators <u>박민기</u>, 위정재, 조웅비, 김성수, 한양대학교
- **2PS-224** Preparation of Thermally Stable Solid Polymerbased on Alicyclic Polyimide 박수빈, 서하니, 조남주, 부산대학교
- **2PS-225** Thermally Stable PSA Film for Residue-Free, Easy Removal from Silicon Wafers After Heat and UV Treatment <u>박수빈</u>, 홍유선\*, 김형준\*, 심지혜\*, 안철희, 서울대학교; \*삼성전자
- 2PS-226A Star-shaped Macrocyclic Diacetylene: Self-assembly and Polymerization박개형, 정우민\*, 김종만\*\*, 한양대학교; \*한양대학교 나노과학기술연구소; \*\*한양대학교 나노과학기술연구소
- **2PS-227** Accessible Cationic Polymerization for the Synthesis of Acid-decomposable Polymers and Their Applications <u>박주영</u>, 김승준, 김명웅, 인하대학교
- **2PS-228** Tunable Fluorescence Properties in Polycarbonate Films: A Spectroscopic Study
- 박주영, 강 혁, 이대준, 김연준, 김용석, 세종대학교 **2PS-229** Near-infrared (NIR)-sensitive Sheath/core Fibers Scaffold Composed of Hyaluronic Acid and Collagen for Removal of Residual Cancer Cells and Tissue Regeneration After Surgery
  박주향, 김가희, 손준식, 한국성유개발연구원
- **2PS-230** Fabrication of Sulfur-rich Polymer-based Infrared Fresnel Lens *via* Thermal-imprinting 배경면, 조웅비, 위정재, Jeffrey Pyun\*, 한양대학교; \*University of Arizona
- 2PS-231 Transparent Self-Healing Hard Coatings Based on Facile Thiol-Modified Polysilsesquioxanes 백정주, 장기철, 김영훈, 신교직, 한국생산기술연구원
- **2PS-232** Observation of Changes in the Properties of High Heat-resistant Epoxy Molding Compound by Adding Multi-functional Resins 백지원, ㈜인케미컬
- **2PS-233** Uniform Colloidal Clusters of Hollow Silica Nanospheres for Controlled UV Scattering 김가민, 이기라, 포항공과대학교
- **2PS-234** Molecular Design of Developed Chiroptical Smart Paints <u>서성민</u>, 정광운, 전북대학교
- **2PS-235** Pt(II)-Terpyridine Based Metallomesogen Films for Advanced Optical Anticounterfeiting Materials 성강현, 정광운, 전복대학교

# 고분자가공/복합재료/재활용(I)

- 2PS-236 Surface Characteristics and Thermal Properties of Surface-Modified Nanocellulose in Nylon Composites
  Ellana Nabilah Nur Averina Ansar, 유성일, Pukyong National University
- 2PS-237 Three-Dimensional Nanoporous Cu<sub>2</sub>O-TiO<sub>2</sub> Heterostructures for Catalysis and Energy Conversion
  - <u>Hendri Setiyanto</u>, 여경은, 이다영, 박지웅, 윤명한, Gwangju Institute of Science and Technology
- 2PS-238 Biomass-derived Activated Hierarchical Porous Biochar by One-step Pyrolysis Technique and Sodium Hydroxide Chemical Activation Method as an Efficient Electrode Material

- Jiwan Acharya, 김지연, 박미라, 우석대학교
- 2PS-239 Metal Ion-Crosslinked Cellulose Papers with Sugar-Functionalized Graphene Fluoride for Enhanced Thermal Conductivity, Mechanical Strength, and Electrical Insulation Mani Dineshkumar, 정태형, 김성룡, 한국교통대학교
- $\begin{tabular}{ll} \bf 2PS-240 & Solution-Processible \, Network \, Thin-film \, Composite \, Membrane \, for \, Molecular \\ Separation & \\ \end{tabular}$
- Marbert Pinque, 박지웅, Gwangju Institute of Science and Technology 2PS-241 Influence of Formic Acid/Alcohol Co-solvent on the Uniformity and Properties
- of Nanocellulose-Reinforced Polyamide 6 Composites
  <u>Yuli Nurul Maulida</u>, 유성일, Pukyong National University
- 2PS-242 Analysis of Interlaminar Bonding Strength of Cellulose Nanofiber Composite Materials 강구혁, Marcel Laux, Björn Beck, 박영빈\*, Frank Henning, Fraunhofer ICT; \*울산 과학기술원
- **2PS-243** A Highly Porous Poly(Ethylene Glycol)/Nanocellulose Separator with Fast Redox Kinetics in Lithium-Ion Batteries <u>고영상</u>, 이아정, 신영은, 전정담, 박주영, 이정태\*, 유정목\*, 박태훈, 한국재료연구원; \*경희대학교
- **2PS-244** Enhancing Mechanical Properties of Wood Flour/ASA Composites *via*Addition of Polyolefin Elastomer and Application of Processing Technique
  권대율, 유영재, 중앙대학교
- **2PS-245** Ultrahigh Mass Loading, Binder-Free Synthetic Approach for Mesoporous Graphitic Carbon in 3D Current Collector for High Energy Lithium-Ion Batteries 김건우, 김진곤, 포항공과대학교
- **2PS-246** Improving the Performance of TPS/PLA/PHA Blends through Compatibilizer <u>김경민</u>, 임세라, 이준영, 황기섭, 한국생산기술연구원
- 2PS-247 A Novel Application of Bis-Hydroxy Urethane Diol Derived from CO<sub>2</sub>-Based Ethylene Carbonate and Bio-Based Diamine: An Additive for Enhancing Epoxy Toughness 김규리, 권민상, 서울대학교
- **2PS-248** Repairing Surface Damages of Recycled Carbon Fiber Using Cellulose Nanocrystal for Composite Applications <u>김동욱</u>, 정융희, 박영빈, 울산과학기술원
- **2PS-249** Development of Eco-friendly Cellulose-based Mixed Matrix Membranes (MMM) with Enhanced Porosity and Adsorption Properties 김민경, 이호익, 한국생산기술연구원
- **2PS-250** Enhanced Performance of Eco-friendly Castor Oil Based Bio PA610 Nanocomposites *via* Melt Extrusion with Cellulose Nanofiber <u>김연진</u>, 정정설, 한국화학융합시험연구원
- **2PS-251** Optimizing Stretchability and Charge Mobility in DPP-Based Donor-Acceptor Polymers Using Conjugation Breaker Spacers 김은진, 오준학, 박하영, 서울대학교
- 2PS-252 Fabrication and Mechanical Performance of Styrene-Butadiene Rubber Composites Reinforced with Aramid Nanofibers and Glycidyl Methacrylate <u>김인희</u>, 정영규\*, 충남대학교 유기응용재료공학과; \*충남대학교 유기재료공학과
- **2PS-253** Photocatalytic Fiber Increased Efficiency Using Photothermal Effects 김채현, 박주현\*, 중앙대학교; \*중앙대학교 지능형에너지융합학
- **2PS-254** Sustainable Plant Biomass-based Coating for Fire-resistant and UV-protective Application 김한인, 이수정, 배지열, 백소영, 오성직, 한국건설기술연구원
- **2PS-255** Impact of Polymer Molecular Weight and Glass Transition Temperature on EUV Lithography 김현석, 안지훈, 허수미, 전남대학교
- **2PS-256** Thermally Conductive Silicone Adhesives Hybridized with Well-Dispersed Boron Nitrides 김형규, 안태욱, 김희숙, 한국과학기술연구원
- 2PS-257 Bayesian Optimization and Structural Analysis for Optimizing Spherical Filler Formulation in Thermal Interface Materials
- <u>나채성</u>, 신상수, 안효성\*, 이재근, 김채빈, 부산대학교; \*전남대학교 **2PS-258** Composite of N-acetylcysteine and Catechin Prepared by Antisolvent Crystallization
- <u>남</u>윤아, 이종휘\*, 중앙대학교; \*중앙대학교 화학공학과 **2PS-259** Synergistic Enhancement of EMI Shielding Effectiveness in Epoxy Composites
  Using MXene and SWCNT
  <u>남현욱</u>, 윤지환, 김정현, 윤근병, 경북대학교
- 2PS-260 폴리 아닐린 기반 나노 입자를 첨가한 알긴산 하이드로겔의 광열 및 기계적 특성 분석 연구 노정원, 박주현\*, 중앙대학교; \*중앙대학교 지능형에너지산업융합학과
- **2PS-261** Evaluation of Biomass Coating Effects on Non-woven Fabrics for Adsorption Capability 박재현, 이민호\*, 장선진, 박재형, 경북대학교; \*코오롱인더스트리
- 2PS-262Flexible Capacitive Textile-Based Gas Sensor for Selective Detection ofVolatile Organic Compounds (VOCs)배지인, 박다인, 구형준, 소주희\*, 서울과학기술대학교; \*\*한국생산기술연구원 소재부품융합연구부문
- **2PS-263** Selective Sorting of CNTs *via* Liquid Crystalline Phase for High Performance CNT Fiber 백철민, 유기현, 김대윤, 한국과학기술연구원
- **2PS-264** Robust and Flexible Fiber-like Multifunctional Sensor for Use As Smart Textiles 선정윤, 이화성, 한양대학교 ERICA
- **2PS-265** UV and Thermal Curing of Urushiol/Lignin Coatings: A Comparative Study on Crosslinking Mechanisms and Mechanical Properties 신예린, 정영규\*, 충남대학교 유기응용재료공학과: \*충남대학교 유기재료공학과
- 2PS-266 Polypropylene Carbonate (PPC) Coating for Improved Thermal Conductivity and Moisture Resistance in AIN/Epoxy Composites

- 심경민, 임민섭, 좌용호, 이화성, 한양대학교
- **2PS-267** Development of Stick Slip Reduced PC+ABS for Automotive Interior Parts 아부여 현대자동차
- 2PS-268 Study on Thermal and Mechanical Properties of Polypropylene/Crushed Phenolic Resin Waste Composites Modified by Silane Treatment and Crosslinking

양세준, 남병욱, 배진우, 이태민, 최인규, 한국기술교육대학교

### 고분자구조 및 물성(I)

- **2PS-269** Characterization of Polyimides with Different Side Chains for High Dielectric Constants <u>강경윤</u>, 이승우, 박수빈, 영남대학교
- **2PS-270** Rheological Behavior of Metal Ion-Catecholate Crosslinked Hydrogels <u>강민정</u>, 유정주, 손대원, 한양대학교
- **2PS-271** InAs Quantum Dot Arrangement Strategy for Enhanced Charge Transport <u>김다인</u>, 강문성, 서강대학교 화공생명공학과
- **2PS-272** Magnetically Actuacted Multi-Network Self-Healing Hydrogel Based Rod-Like Robot for Ultrasensitive Cardiac Troponin I Detection 김동환, 고원건, 연세대학교
- 2PS-273Effects of Curing Condition on the Dynamic Mechanical Properties of<br/>One-Component Moisture-Cured Polyurethane김성수, 문호준, 조웅비, 전재철\*, 위정재, 한양대학교; \*현대자동차 표면처리재료개발팀
- 2PS-274 A Comparative Study on the Electrical and Chemical Properties of Bisphenol-A and Bisphenol-F Epoxy Resin 김성영, 곽준호, 김재영, 효성중공업
- **2PS-275** Design of a Heterogeneous Stiffness Composite Substrate for High-Performance Stretchable Organic Field-Effect Transistors 김유민, 이화성\*, 한양대학교; \*한양대학교 ERICA
- 2PS-276 Thermal-Oxidative Decomposition of PAG oil: Characterization and Lifetime Prediction 김종원, 심상은, 인하대학교
- **2PS-277** Crosslinking of Polymers from Monofunctional Acrylates *via* C-H Bond Activation <u>김준규</u>, 권민상, 서울대학교
- **2PS-278** Layer-Specific Crystalline and Compositional Investigation of Polyolefin Films Using Advanced X-ray and Electron Microscopy <u>김준수</u>, 이승재, 류두열, 연세대학교
- 2PS-279 Tunable Thermomechanical Properties of Semi-IPN Polyimide-Glycol Gel for Shape-Deformable Displays 김지오, 조규형, 구강희, 울산과학기술원
- 2PS-280 SWIR Organic Photodetectors Utilizing Indanone-Derived Non-Fullerene Acceptors with Malononitrile 김하정, 이재원, 조길원\*, 정민영\*, 충남대학교; \*포항공과대학교
- 2PS-281Measurement and Analysis Protocols for Substance Identification of Polymers노예철, 송영철, 송동섭, 이보름, 한국화학연구원
- 2PS-282 Molecular Distance Correlation with Thermal Expansion in Amorphous
- Polymers Revealed by WAXS 박민근, 임성오, 류두열, 연세대학교
- **2PS-283** Synthesis and Charicterization of Transparent Copolyimides Containing Amide Groups of Various Compositions <u>박수빈</u>, 이승우, 이주현, 영남대학교
- **2PS-284** Copolyimides Formation Utilizing Monomer with Benzoxazole Unit for a Robust Main Chain <u>박장환</u>, 이승우, 강경윤, 영남대학교
- **2PS-285** Coarse-graine Molecular Dynamics Study on Thermal Degradation of Thermoplastic Elastomers <u>박형식</u>, 박상인\*, 성봉준, 서강대학교; \*현대자동차
- **2PS-286** A Study on DNA Sequence Dependency in Bacteriophage Packaging Process Using Molecular Simulation 성지민, 성봉준, 서강대학교
- **2PS-287** Mechanical Shutdown of Battery Separators: Silicon Anode Failure 서지영, 김중휘\*, 김수환\*\*, 이상영, 이용민, 연세대학교; \*PNNL; \*\*DGIST
- **2PS-288** Origin of High Conductivity and Thermoelectric Performance of PEDOT:PSS by Super Acid-treatment 송정한, 곽정훈, 서울대학교
- **2PS-289** Porous Cross-Linked PVA Films for Optimized Crystallization and Electrical Performance of Polymer Semiconductors in OECTs 송정혜, 이은광, 부경대학교
- **2PS-290** A Highly Transparent Optical Film with Excellent Mechanical Properties *via* Enhanced Charge Transfer Complex Interactions 신혜원, 한경임, 임상혁\*, 홍성우, 한국생산기술연구원; \*고려대학교

### 포스터발표(III)\_4월 18일(금)

(08:30 ~ 10:00)

좌장: 구강희, 박민주

## 분자전자 부문위원회(II)

- 3PS-1 Solvent Effects on the Selective Dispersion of Semiconducting Single-Walled Carbon Nanotubes 백민서, 이승훈, 공주대학교
- 3PS-2 Sol-Gel Derived Self-Aligned Copper Oxide for Large-Area Multi-Valued Logic Devices 백석현, 박성준, 아주대학교
- **3PS-3** Surface Treated Hole Transport Layers for Efficient Quasi-2D Perovskite Blue

- Light-Emitting Diodes 백승민, 김기환, 경상국립대학교
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- 3PS-60 Precise Sensing of Targeted Ovarian Cancer Biomarkers Using an Aptamer-Functionalized Graphene FET Sensor 전민상, Johny Bajgai\*, Rokeya Akter\*, 이종한\*, 오준화, 서울대학교; \*연세대학교 3PS-61 Terpene-Based Solvent Processing of Polymer Solar Cells: Controlling

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- **3PS-94** Long-Term Stabilization of Nucleic Acids Using Ionic Liquids 으화진, 정설영, 오승수, 포항공과대학교
- **3PS-95** Microneedle-Induced Drug Delivery to Cancer-Draining Lymph Nodes for Synergistic Chemoimmunotherapy in Metastatic Cancer 유 빈, 김병덕\*, 신주화\*, 이지현\*, 정지훈\*, 성균관대학교 약학대학원; \*성균관대학교
- 3PS-96 Visible Light-Crosslinkable Multilength Network-Forming Bioinks for 3D Bioprinting of Artificial Cornea 인경원, Ajeesh Chandrasekharan, Subhadeep Roy\*, Akash Thamarappalli, Binapani Mahaling\*, 이혜선, 성금용, Sourabh Ghosh\*, 양승윤, 부산대학교; \*ITT
- 3PS-97 Silica Nanoparticles with Second-Scale Room-Temperature Phosphorescenceand in situ Generated Carbonaceous Defects for Theragnostic Applications 이 그림, 한세광, 포항공과대학교
- 3PS-98 In Vivo Evaluations Study for Dental Materials and Devices Performance Verification using Animal Models; Rats, Rabbits and Beagles <u>이동현</u>, 안상현, 김준식, 전령훈, 이경호, 정연섭, 김현오, 대구경북첨단의료산업진흥재단
- 3PS-99 Initiated Chemical Vapor Deposition of Cationic Copolymer Interfaces on Nanoneedles for Intracellular Gene Delivery Platforms 이소원, 장예림\*, 조영학\*, 성혜정\*, 한국과학기술연구원; \*한국과학기술연구원 뇌과학
- **3PS-100** DNA-Mediated Force Transmission for Precise and Efficient Mechanophore Activation 이소윤, 구민정, 곽민석, 국립부경대학교
- **3PS-101** Applications of Cu<sup>2+</sup>-Loaded Silica Nanoparticles to Photothermal Therapy and Tumor-Specific Fluorescence Imaging 이승호, 안철희, 서울대학교
- 3PS-102 Selective Cytotoxicity of KLA Peptide with Activatable Cell Penetrating Sequence Triggered by Matrix Metalloproteinase-2 이정훈, 김철희\*, 고려대학교; \*인하대학교
- 3PS-103 Injectable Hydrogel Systems Crosslinked by Enzyme: Crosslinking Mechanism,
  Control of Physicochemical Properties, and Biomedical Applications
  이중원, 차기두, 중앙대학교
- 3PS-104 CO<sub>2</sub> Bubble Burst-Based Energy Transfer for Activating Sonoimmunotherapy <u>이주연</u>, 유동길\*, 박재형\*\*, 성균관대학교; \*한국공학대학교; \*\*성균관대학교 화학공학과
- **3PS-105** A Skin-compatible Thermogel Interface for Continuous Health Monitoring <u>이</u>준학, 최연식, 연세대학교 신소재공학과
- 3PS-106 Improved Osteogenic Differentiation of Human Mesenchymal Stem Cells In Vitro Using a Hybrid Hyaluronic Acid/Calcium Phosphate Gene Delivery System 이지현, 김병덕, 신주화, 유 빈, 정지훈, 성균관대학교
- 3PS-107 The Development of Sustained-release Microspheres for Anti-VEGF Drugs in the Treatment of Subfoveal Choroidal Neovascularization 이지현, 김병덕, 신주화, 유 빈, 정지훈, 성균관대학교
- 3PS-108 Enhanced Cranial Dural Repair and Bone Regeneration *via* Photocrosslinkable Hyaluronic Acid-based Biodegradable Sealants <u>이혜선</u>, 성금용, 강수빈, 신수런\*, 남경협\*\*, 양승윤, 부산대학교; \*Harvard Medical School, Brigham and Women's Hospital; \*\*부산대학교 병원
- 3PS-109 Development of Novel Collagen Stimulator Based on Polycaprolactone-Poly(ethylene glycol)-Polycaprolactone Block Copolymer 전현진, 송학진, 이우성, ㈜로즈랩
- **3PS-110** Polynucleotide and Hyaluronic Acid Mixture for Skin Wound Dressing <u>성근재</u>, 양대혁, 전흥재, 가톨릭대학교
- 3PS-111 Oral Delivery of Anti-inflammatory Agents *via* Milk Exosomes for Inflammatory Bowel Disease Therapy <u>정동호</u>, 길기철, 김선화, 한국과학기술연구원
- 3PS-112 Milk-derived Casein Protein-based Thermosensitive Hydrogel Loaded PCL-PLGA conduit for Achilles Tendon Regeneraiton 점영도, 전 전\*, 양희석\*\*, 단국대학교 천안캠퍼스; \*한국과학기술연구원(KIST); \*\*단국대학교
- **3PS-113** A Study on the Development of a Test Method to Evaluate the Characteristics of Hyaluronic Acid Microneedles for Intradermal Injection of Drug <u>정</u>지희, 천예지, 최안나, 엄준호, 박해대, 이용태, 식품의약품안전평가원
- 3PS-114 Wireless Power Transfer System for Smart Drug Delivery and Healthcare Systems
- 조동철, 신상배\*, 한세광, 포항공과대학교 신소재공학과; \*PHI BioMed 3PS-115 Controlled Release of Quercetin Using GelMA Hydrogel-Incorporated FMSNs for Enhanced Anti-adipogenic Effect 천소희, 이현종\*, 가천대학교; \*가천대학교 화공생명배터리공학과
- 3PS-116 A Study on the Development of a Test Method to Evaluate the Characteristics of Polylactic Acid Microneedles for Intradermal Injection of Drug

- 천예지, 정지희, 최안나, 엄준호, 박해대, 이용태, 식품의약품안전평가원
- **3PS-117** Macrophage-targeted Gene Delivery Systems Based on PEI-conjugated Zymosan

<u>최서진,</u> 박서연, 김태일, 서울대학교

**3PS-118** Light-Triggered Drug Release System Based on Modified Hyaluronic Acid Hydrogels <u>표가연</u>, 이현종, 가천대학교

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- 3PS-119 MXene Solution Processing for Fabrication of Nanoscale Thin Films 성다운, 발태현, 충남대학교
- 3PS-120 Tunable Structural Colors in Block Copolymer Particles *via* Additive-Driven Quaternization <u>안영현</u>, Zhengping Tan, 김범준, 한국과학기술원
- 3PS-121 Exceptional Solubility of 2,3-Butandiol for Organic Crystalline Ingredients in Aqueous Phase through Preferential Spatial Association 양예지, 양종렬, 김진웅, 성균관대학교
- 3PS-122 Shear-Induced Assembly of Multilayer Colloidal Composites for the Production of Overlapping Structural Color Films 오치영, 심태섭, 아주대학교
- 3PS-123 Facile Synthesis and Applications of Hollow Polydopamine Nanoparticles with an Open Hole on the Surface 이명주, 김문호, 국립부경대학교
- **3PS-124** Co-assembly of Ceramide ENP into Ceramide-Based Multi-lamellar Particles for Improved Skin Barrier Function 이보령, 김건웅, 성균관대학교
- 3PS-125 Stretchable Polymer Electrolytes for Wearable Ionic Thermoelectric Devices 이세영, 박태현, 충남대학교
- 3PS-126 Digital Image Analysis for Quantifying Mechanochromic Behavior in Photonic Crystals <u>이유진</u>, 황혜림, 이화여자대학교
- 3PS-127 Stabilization of High Internal Phase Water-in-water Emulsions for *in situ* Polymerizable All-aqueous Gels <u>이은석</u>, 김예린, 최서영, 김규한, 서울과학기술대학교
- 3PS-128 Metal-Organic Membrane-Enveloped Cellulose Nanofibrils for Controlled Sol-Gel Transitions *via* Introducing Metal Ion Linkers in Aqueous Media 임은정, 이승재, 양종렬, 김진웅, 성균관대학교
- 3PS-129 Study on the Phase Separation of Mixed Systems of Ionic Liquids with Different Alkyl Chain Lengths and Polyvinylpyrrolidone Based on Molecular Dynamics Simulation 자오밍거, 장신위에\*, 조준한\*, 단국대학교 고분자공학과; \*단국대학교
- 3PS-130 분자 동역학 시뮬레이션을 통한 PNVCL 단일 사슬의 수용액 내 LCST 상행위 거동 연구 장신위에, 자오밍거, 조준한, 단국대학교
- **3PS-131** Computational Study of Depolymerization of Recyclable, Topochemically Synthesized Polymers with Elongated C-C Bonds 전병준, 서범준, 서울과학기술대학교
- **3PS-132** Tuning the Morphology and Interconnectivity of Poly-Pickering HIPE Films *via* Photopolymerization <u>정이라</u>, 김규한, 서울과학기술대학교
- 3PS-133 Self-Healing of Defects in Uniaxially Aligned Semiconducting Polymer Crystals *via* Molecular Doping: Insights into Crystallization from Transient vs. Settled Amorphous Phases 점호경, 강영종, 한양대학교
- 3PS-134 Magnetic Field-Driven Janus Micromotors with Structural Color for Real-Time Motion Visualization 조진혁, 구강희, 울산과학기술원
- 3PS-135 Understanding iCosahedral Colloidal Clusters through Self-assembly of Large Silica Nanospheres 주면서, 황혜림, 이화여자대학교
- 3PS-136 Fluorescence Detection of Biomarker for Neurological Diseases Using Semiconducting Polymer Dot through Electron Transfer to Cofactor 홍규원, 이동훈, 이택승, 충남대학교

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- 3PS-137 Interface Engineering of High-Nickel Cathodes Using Functional Polymeric Binders for High-Voltage Lithium Batteries 이경록, 문흥철\*, 서울시립대학교; \*KAIST
- 3PS-138 Role of Mechanical Properties of Elastomeric Electrolyte for Stable Operation of Solid-State Lithium Metal Batteries 이동규, 김범준, 한국과학기술원
- **3PS-139** Enhanced Piezoelectric Performance of Triglycine Sulfate Fibers <u>이서현</u>, 박종진, 전남대학교
- **3PS-140** High-Mass-Loading Gel Electrolyte Cathodes for High-Energy Lithium Metal Batteries 이석주, 이상영, 연세대학교
- 3PS-141 Integration of Deformable Matrix and Lithiophilic Sites for Stable and Stretchable Lithium Metal Batteries 이유빈, 박수진, POSTECH
- 3PS-142 PVA-based Semi-IPN Polymer Electrolyte with UV-Initiated PEG-PVEC for Enhanced Ionic Conductivity and Mechanical Strength for Solid-state Lithium-ion Battey 이지연, 김덕준\*, 성균관대학교; \*성균관대학교 화학공학과
- 3PS-143 Highly Efficient Ion Extraction with Phosphorylated Micro-sized Hydrogels 광영빈, 오승수, 포항공과대학교

- **3PS-144** Covalent Adaptable Network Polymers as Electrolytes and Binders for Reprocessable Lithium Metal Batteries 건용하, 최우혁\*, 인하대학교; \*인하대학교 고분자공학과
- **3PS-145** All Fluorine-free Lithium-ion Batteries with High-rate Capability <u>전이소</u>, 남서하, 박수진, 성훈모\*, 김광인\*, 포항공과대학교; \*한솔케미칼
- **3PS-146** Novel Hydrophilic Porogen-based Preparation of PPS Separator of Tailored Porous Structure for Next Li Batteries 건호윤, 이상수, 한국과학기술연구원
- 3PS-147 Development of Highly Adhesive and Conductive Polymers as Primer Coating
  Layer for Stable Large-area Lithium Metal Powder Electrode
  정민석, 연세대학교
- 3PS-148 Comparative Study on Ti₃C₂Tx and Nb₂CTx MXene Nanosheets as Additives for PEDOT:PSS Catalyst in Hybrid Solar Cells 정소연, 구주희, 한윤수, 대구가톨릭대학교
- **3PS-149** Artificial Solid Electrolyte Interphases for Dendrite-free and Long-life Lithium Metal Batteries 성영훈, 심지민, 서울대학교
- **3PS-150** Optimizing Additive Formulations for Enhanced NCM811 Dry Electrode Characteristics 정현지, 유영재, 중앙대학교
- **3PS-151** Polypyrrole-coated Heated Tobacco Biomass-derived Materials as Active Materials for Supercapacitor Applications 제갈석, 라윤호, 김찬교, 윤창민, 인하대학교
- **3PS-152** Significant Suppression of Exothermic Heat Flow in Silicon Anodes *via in situ* Polymerization of Phosphonium Ionic Liquids <u>조원강</u>, 이기라, 포항공과대학교
- 3PS-153 Influence of PEO Molecular Weight on Electrochemical Performance and Interface Stability in Anode-Free Lithium Metal Batteries 조개원, 황의석, 김수찬, 성균관대학교
- 3PS-154 Block Copolymer Soft-Template Synthesis of Mesoporous Nb₂ O₅ and MXene Nanocomposites for Li-lon Energy Storage Devices 조항준, 김진곤, 포항공과대학교
- 3PS-155 Enhancement of Electromagnetic Interference (EMI) Shielding Performance through Structural Design of Hybrid Fillers in a Polymer Matrix 주현준, 황의석, 남재도, 김수찬, 성균관대학교
- **3PS-156** Infiltration of Poly (ethylene oxide)/Li-salts into Nanoporous Covalent Framework <u>최수연</u>, 박지웅, 광주과학기술원
- 3PS-157 High-Efficiency Nitrogen-Doped Porous Carbon Supported Single-Atom Catalysts for CO₂ Electroreduction 최애정, 김건우, 한정우\*, 김진곤, 포항공과대학교; \*서울대학교
- **3PS-158** Morphology-controlled Sulfur Polymers and Their Electrochemical Properties <u>최웅식</u>, 박문정, 포항공과대학교
- **3PS-159** Preparation of Nitrogen-Doped Porous Carbon Nanofibers *via* Electrospinning of Coffee Waste for EDLC Supercapacitors <u>추연룡</u>, 임지수, 박규식, 윤창민, 인하대학교
- 3PS-160 Dendrite-Free, Conformal Deposition of Lithium Metal on Electroactive Organic Materials <u>청</u> 철, 이상영\*, 김승혁\*, 연세대학교; \*연세대학교 화공생병공학과
- 3PS-161 Synthesis of Ti<sub>2</sub>CTx MXene Nanosheet and Its Application for Catalyst in Combination with PEDOT:PSS in Hybrid Solar Cells <u>홍기원</u>, 박동호, 한윤수, 대구가톨릭대학교

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- 3PS-162 Synthesis and Photophysics of Novel Color-Pure Blue Emitters Based on Poly-Heteroaromatic Omni-Delocalization 송선우, 권민상\*, 서울대학교 신소재공동연구소: \*서울대학교 재료공학부
- 3PS-163 Synthesis of a Thiophene Vinyl-linked Imide (TVI) as a Building Block for Polymer Semiconductors <u>송승진</u>, 김동욱, 김영석, 황예진\*, 김선주, 중앙대학교; \*인하대학교
- **3PS-164** Facile synthesis of Glycidyl Azide Polymer (GAP) in Tetrabutylammonium Bromide-ethylene Glycol Based Deep Eutectic Solvent 신정아, 정지혜, 문영택, 이세진, 국방과학연구소
- 3PS-165 Synthesis and Characterization of Piperazinium-based Network Ionic Polymer Electrolytes 신종찬, 이민재, 국립군산대학교
- **3PS-166** Block Polymer Monolith with Kinetically Induced Ordered Morphology *via*Polymerization-induced Microphase Separation by High Beta System
  여원준, 서명은, 한국과학기술원
- 3PS-167 Green Chemistry for Superabsorbent Polymers: Incorporation of Cleavable Ester Bonds *via* Cyclic Ketene Acetal 오진영, 서명은, 한국과학기술원
- **3PS-168** Living Polymerization of Glycidyl Progargyl Ether Using Various Initiators Facilitated by Organocatalysis 요병우, 백진수, 김병수, 연세대학교
- 3PS-169 Blend Polymer system with Controlled Polymer Mobility and Self-Healing Properties through Intermolecular Interactions <u>요소</u>미, 김영남\*, 위정제\*\*\*, 청용제\*\*\*\*, 한국과학기술연구원/한양대학교; \*한국과학기술연구원/한국기계연구원; \*\*한양대학교 유기나노공학과; \*\*\*한국과학기술연구원
- 3PS-170 A Novel Synthesis of Low-viscosity ZrC Precursors for Ultra-high-temperature Ceramics (UHTCs) 이건호, 소재일, 한국재료연구원
- 3PS-171 Polyamide 6,6 Polymerization Through High Efficiency Catalytic Reaction and Process Pressure Control 이근호, 이주홍, 임원빈, 이재룡, 이승현, 변상욱, 이지원, 배지홍, 허필호, 부산대학교

- 3PS-172 Effects of Hydrogenated Urethane Acrylate-based Oligomers and Acrylate Monomers on the Thermal and Mechanical Properties of UV Cured Polymers 이나워, 권영환, 대구대학교
- 3PS-174 Exploring Synthesis Techniques for an Imidazole-based One-component Epoxy Latent Curing Agent: Chemical Capping and Mechano-chemical Capsuling 정한결, 김재우, 임덕재, 안소현, 한국과학기술연구원
- **3PS-175** Designing Cyanoarene-Based Photocatalysts to Overcome Deactivation Challenges in Photoinduced Organocatalyzed Atom Transfer Radical Polymerization
  - <u>전우진</u>, 권민상, 서울대학교
- **3PS-176** Achieving sub-10nm Lamellar Pattern with Bottlebrush Block Copolymer <u>정재원</u>, 오혜진, 방준하, 고려대학교
- **3PS-177** A Study of PEDOT:PSS-T Composites for Conductive Hydrogel Membranes <u>정지수</u>, 김태동, 김윤, 황현지, 한남대학교
- **3PS-178** Synthesis of GAP-based Vitrimer *via* Amino-yne Reaction for Enhanced Composite Propellant Applications <u>성해지</u>, 신정아, 정지혜, 이세진, 국방과학연구소
- 3PS-180 Enhancing the Mechanical Properties of Biodegradable PLA/PCL Blends
  Using Bottlebrush Copolymers as a Compatibilizer
  주진혁, 최기홍, 방준하, 고려대학교
- 3PS-182 Low-dielectric Liquid Poly(phyenylene ether) for Enhanced Processability and Compatibility <u>홈헤빈</u>, 임호선\*, 숙명여자대학교; \*숙명여자대학교 화공생명공학부

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- 3PS-183 High-Performance Organic Electrochemical Transistors for Electrophysiological Signal Amplification <u>손서영</u>, 윤창훈\*, 박성연, 전남대학교 고분자공학과; \*전남대학교 고분자융합소재공학부
- RPS-184 Stimuli-driven Ion Transport in Hydrogel Composites with Nanocellulose for High-Performance Pressure Sensors 손지민, 이해원, 유성일, 부경대학교
- 3PS-185 Self-Polymerizing Nanoparticles Formed *via* Peroxide Generation from Ambient Oxygen <u>송광호</u>, 김정욱\*, 엄정인\*, 이영준\*\*, 서울대학교 산학협력단; \*서울대학교; \*\*서강 대학교
- 3PS-186 Design of Polymer-Based High-Density Flexible Lithium Ion Battery Electrode 송승욱, 오민섭, 현승민, 윤태광\*, 한국기계연구원; \*아주대학교 분자과학기술학과
- 3PS-187 Rational Design of Crosslinkable Polyester Electrolytes for Post-PEO for All-solid-state Lithium Metal Batteries 송현준, 유필진, 성균관대학교
- **3PS-188** Optimization of Photoalignment *via* Crosslinking between Polymers and Liquid Crystals <u>송효진</u>, 장기철, 백정주, 김영훈, 신교직, 김명길\*, 한국생산기술연구원; \*성균관대학교
- 3PS-189 Antibacterial Composite Film Containing Bio-based Materials 신주영, 손하영, 홍혜빈, 김주영, 정수정, 임호선, 숙명여자대학교
- **3PS-191** Physically Unclonable Functional Device Using Bi<sub>2</sub>S₃ and Two Self-assembled Monolayer Mixture 신희빈, 이동현, 유호천\*, 가천대학교; \*한양대학교
- 3PS-192 Surface Functionalization of MXene for Improving Cathode Performance in Lithium-Ion Batteries 김재영, 김선재, 어 진, 김주항, 박영호, Jeevan Kumar Reddy Modigunta, G. Murali,
- 이승준, 인인식, 국립한국교통대학교 **3PS-193** Enhancing Photoneuromorphic Near-Infrared Sensitivity in Organic Field-Effect Transistors Using a Quantum Dot and a Ferroelectric Dielectric Layer <u>우성빈</u>, 김용희, 이은광, 국립부경대학교
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- 이다혜, 박주영, 윤상민, 허수미\*, 김명웅, 인하대학교; \*전남대학교
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- **3PS-214** High Strength, Self-healing Polyimide: Disulfide Dynamics Coupled with Alkyl Chain-assisted Recovery <u> 장지수</u>, 강홍석, 인하대학교
- 3PS-215 Self-crosslinking Cellulose-Based injectable Hydrogel for Vocal Fold Regeneration 전기훈, 조승우, 한상윤\*, 최수정\*\*, 최지숙\*, 권성근\*, 연세대학교; \*서울대학교 의과대학;
- 3PS-216 Super-adhesive Cellulose-based Patch for Urgent Hemostatic Material 전기훈, 최이선\*, 안수환\*, 이미정\*, 한승엽\*, 조승우\*, 연세대학교 : \*연세대학교 생명공학과

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- **3PS-217** Highly Absorbent Tissue-adhesive Starch-based Powder for Hemostatic Application
- <u>전지훈</u>, 인수환\*, 한승엽\*, 이미정\*, 오태경\*, 조승우, 연세대학교; \*연세대학교 생명공학과 **3PS-218** Enhancing Organic Neuromorphic Devices through Tailored Morphology and Electrical Properties of P3HT:PS Blends <u>정승환</u>, 송정혜, 이은광, 국립부경대학교
- 3PS-219 Suppressed Leakage Current *via* Transfer Printing of Neutralized PEDOT:PSS for Enhanced Detectivity in Organic Photodetectors <u>정재현</u>, 임지현, 박형욱, 장웅식, 왕동환, 중앙대학교
- 3PS-220 Optimization of Fabrication Conditions for Improved Thermoelectric Performance in Doped PBTTT Films 정지현, 곽정훈, 서울대학교
- 3PS-221 Water-assisted Transfer를 이용한 이중층 구조의 유기태양전지 제작 및 실내 적용 연구
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- 3PS-222 Enhancing the Durability of Optical Systems in Autonomous Vehicles through a Near-Infrared-induced Self-healing Process <u>정찬영</u>, 배형은\*, 정효철\*, 박영일\*, 진영재\*, 정지은\*, 김진철\*, 한국화학연구원/울산과학 기술원; \*한국화학연구원
- 3PS-223 Towards Uniform Coating and High Dielectric Properties of Electrophoretically
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- 3PS-224 Sulfur-Rich Polymer Nanocomposites for High-Performance Triboelectric Nanogenerator
  - 조웅비, 김성수, 이현후, 한나라\*, 김현기\*\*, 이민백\*\*, 한태희, 위정재, 한양대학교; \*SUNY ESF; \*\*인하대학교
- 3PS-225 Application of Mechanochemically Synthesized Piezo-photocatalytic MoS<sub>2</sub> Supramolecular Heterostructure for Ecofriendly Energy Production and Chemical Conversion 조한희, 박치영\*, 대구경북과학기술원; \*대구경북과학기술원 에너지공학과
- 3PS-226 High Thermoelectric, Strength CNT Fibers Achieved through Structural Modification *via* an Annealing Process <u>최유현</u>, 이동주, 김진영\*, 구본철, 김희숙, 한국과학기술연구원; \*서울대학교
- 3PS-227 In-situ Fabricated Solid Polymer Electrolyte Based on Poly (ethylene glycol) 최재민, 송교준, 조남주, 부산대학교
- 3PS-230 Bioadhesive Muscle Extracellular Matrix Composite Hydrogel Injection for Treatment of Muscle Atrophy <u>한승엽</u>, 안수환, 건은제\*, 김무현, 송영석, 전지훈, 박장웅, 조승우\*\*, 연세대학교; \*세라트젠; \*\*연세대학교/세라트젠

- 3PS-231 Endoscopic Injection of Therapeutic Stem Cells *via in situ* Crosslinkable and Bioadhesive Hydrogel for Alleviation of Esophageal Stricture 한승엽, 정현수\*, 안수환, 전지훈, 이용찬\*\*, 조승우\*\*\*, 연세대학교; \*서울대학교; \*\*연세대학교 의과대학; \*\*\*\*연세대학교/세라트젠
- **3PS-232** Mimicking Natural Movements: Chiroptical Actuators for 3D Morphing and Practical Applications 한승희, 김대윤, 한국과학기술연구원
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- 3PS-235 Suspension Rheology of Ferrite Nanoparticle-supplemented Carbonyl Iron System Under an Applied Magnetic Field 왕시조, 박채원\*, 최형진, 권용구, 인하대학교; \*동진쎄미켐
- **3PS-236** Lyotropic Liquid Crystal Assisted Self-assembly of Carbon Nanotubesand Aramid Polymer for High-Performance Electrically Conducting Fibers 유기현, 백철민, 김대윤, 한국과학기술연구원
- **3PS-237** Fabrication of Porous Ceramic Fibers *via* Electrospinning of Silsesquiazane 유한규, 곽영제, 숭실대학교
- **3PS-238** Self-Assembly of Amphiphilic Molecular Mixed Micelles into Liquid Crystalline Structure 윤영진, 양동철, 윤대희, 김태환, 전북대학교
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- Graphene Oxide (rGO) Foam on Electromagnetic Interference (EMI) Shielding Performance 윤지환, 남현욱, 김정현, 윤근병, 경북대학교
- 3PS-240 Fabrication of Carbon Aerogel Having Vertical Porous Channel from MOF and Agarose Polymer: Efficient Interfacial Solar Desalination 이동하, 장지은, 김동균, 김정훈, 연세대학교 화공생명공학과
- 3PS-241 Enhanced Thermomechanical Properties of TPU Composites Utilizing Waste Lignin *via* Hydrogen Bonds 이세민, 위정재\*, 이서구\*, 한양대학교 : \*한양대학교 유기나노공학
- 3PS-242 Electrically Conductive Fibers Offering Adjustable Performance for Washable Strain Sensors and Conductive Threads 이연서, 손정곤, 강병철, 김희숙, 한국과학기술연구원
- 3PS-243 Enhanced Thermal Interface Materials *via* Controlling the Interfacial Interaction between Alumina Fillers and Polymer Matrix 이예은, 손정곤, 김희숙, 한국과학기술연구원(KIST)
- 3PS-244 Utilizing Cu Mesh Template to Construct Three-Dimensional (3-D) Thermal Networks in Boron Nitride-Epoxy-Based Composites for Improved Thermal Conductivity 임민섭, 문형진, 좌용호, 이화성, 한양대학교
- 3PS-245 Effect of Biaxial Stretching and Montmorillonite Content on the Crystallinity and Mechanical Properties of Poly (butylene adipate-co-terephthalate) graft-Maleic anhydride Nanocomposites 임채원, 이준혁\*, 강동호\*, 심진기\*, 한국생산기술연구원/고려대학교; \*한국생산기술
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- 3PS-248 Thermoplastic Polyether Ester Elastomer (TPEE)/Multiwalled Carbon Nanotube (MWNT) Nanocomposites Prepared by Melt Blending in the Presence of a Polymeric Epoxy Functional Chain Extender 장유진, 장영욱, 황주희, 한양대학교
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- 3PS-254 LbL Assembled Film Composed of Cellulose Acetate Phthalate and PEI with Enhanced Oxygen Barrier Even Under High Humidity <u>정제영</u>, 신은애, 강동호, 심진기, 한국생산기술연구원
- 3PS-255 Facile Supramolecular Approaches to Recyclable Adaptive Polymers for Consistent Sensory Applications 조한희, 박치영\*, 대구경북과학기술원; \*대구경북과학기술원 에너지공학과

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- 3PS-262 Crystallization-driven CO₂ Capture of N,N'-Di-tert-butylethylenediamine Hydrate on the Polymer Support 최진순, 박지웅, 광주과학기술원
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- 3PS-265 Reliable Conductivity Measurement of Enhanced Biochar *via* Polymer Composite <u>표민경</u>, 최원창, 강승범, 박찬호, 가천대학교
- 3PS-266 Thermoplastic Nanocomposite Insulation Materials with Improved High-Temperature Dielectric Properties for High-Voltage Application 한진아, 조문정, 한세원, 이대호, 한국전기연구원
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- 3PS-268 표면에너지 미세제어 기술을 이용한 수용성 고분자 함침형 은나노와이어 전극패터닝 기술 <u>황규와</u>, 김종복, 정진욱, 마요한, 고동욱, 박지환, 이주헌, 금오공과대학교

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- **3PS-271** Phase Behavior of A(AB<sub>3</sub>)<sub>3</sub> Dendron-shaped Miktoarm Star Copolymer <u>우도경</u>, 윤형건, 김진곤, 포항공과대학교
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- 3PS-273 Interface Strengthening of Cellulose Composites by Mechanical and Chemical Modification 이다면, 이중휘, 중앙대학교

- 3PS-274 NIR OPD with High Responsivity Using Low-Bandgap Acceptor Achieved by Enhanced Molecular Stacking through π-Bridge Insertion 이맹강, 이재원, 정민영\*, 조길원\*, 충남대학교; \*포항공과대학교
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- **3PS-276** Synthesis and Characterization of Polyimide Using Urethane-Containing Diamines for Enhanced Tensile Strength 이주현, 이승우, 박정환, 영남대학교
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- 3PS-278 Regulating Electrostatic Phenomena by Cationic Polymer Binder for Scalable High-areal-capacity Li Battery Electrodes 임지섭, 이상영, 연세대학교
- **3PS-279** Glass Transition Temperatures of PSMANa Ionomers Containing Both Polar and Nonpolar Plasticizers <u>정도영</u>, 김준섭, 조선대학교
- 3PS-280 Analysis of Thermal Properties and Additives of Polymer Materials Using TGA TOF-MS 진병권, ASTA
- 3PS-281 Investigating the Relationship Between Polyurethane Foam Chemical Structureand the Dependence on Isocyanate Index Using Fourier Transform Infrared Spectroscopy: Information on NCO, C-O-C, and C-H Bonds 최준원, 박원화, 대한솔루션
- **3PS-282** Advancing Thermoplastic Polyurethane Engineering: A Novel Approach Using α, ω-Hydroxyl End-Functionalized Polyacrylates <u>최진호</u>, 권민상, 서울대학교
- 3PS-283 Effectiveness of PHA Recovery from Oil-Fermented *Cupriavidus necator*Using Detergent and High-Temperature Treatment
  <u>최태</u>림, 황기연, 체트리기타, 전종민, 김준석\*, 오경근\*\*, 양영한\*\*\*, 윤정준, 한국생산기술
  연구원; \*경기대학교 화학공학과; \*\*단국대학교 화학공학과; \*\*\*건국대학교 생물공학과
- 3PS-284 Improving Sound Absorption Performance of Polyurethane Foam by Impregnating Non-Oxidized Graphene Nanoplates 코치멜텐, 박원화, 대한솔루션
- **3PS-285** Microphase Separation and Self-Healing in Diels-Alder Crosslinked Acrylate Copolymers 한경록, 정인우, 경북대학교
- **3PS-286** Effect of Network Topology on Vitrimer Recyclability 홍경민, 최용석, 한국과학기술연구원
- 3PS-287 Rapid and Deep Photocuring in UV-Opaque Environments Using a Visible-Light-Driven Dual-Initiator System 확대형 권민상, 서울대학교
- **3PS-288** Monitoring the Dynamic Micellar Self-Assembly in an Aqueous Medium **황준호**, 이은지, 광주과학기술원
- 3PS-289 Development of High-Performance Monolithic SiC Aerogel with Low Thermal Conductivity 황호영, 소재일\*, 한국재료연구원; \*한국재료연구원 극한재료연구소
- 3PS-290 Development of Biomimetic Xeno-derived Meniscal Scaffold through Complex Decellularization for Meniscus Regeneration 점혼희, 류영우, 이상훈, 정상현, 박신영, 이유진, 심영복, ㈜엔젠솔루션