

기초강연장_4월 5일 (수)		201호
기초강연		
PL-1	(16:20-17:00) Lifetime Endeavor on Block Copolymers: Past, Present, and Prospects 김진곤, 포항공과대학교	좌장: 박태호

기초강연장_4월 6일 (목)		201호
기초강연		
PL-2	(10:40-11:20) Slide-Ring Materials with Polyrotaxane Kohzo Ito, Graduate School of Frontier Sciences, The University of Tokyo	좌장: 이상수

Keynote 특별발표

제1회장_4월 6일 (목)		201호
분자전자 부문위원회 (I): 첨단 분자전자 소재와 소자 기술		
Organizer: 김범준(KAIST), 김선주(중앙대), 이근형(인하대)		

IL1-1	(13:30-14:10) Structure, Thermodynamic, and Thermomechanical Characteristics of Semiconducting Polymers: Nomenclature and Property Conundrums Harald Ade, Department of Physics and Organic and Carbon Electronics Laboratories (ORaCEL), North Carolina State University	좌장: 김선주
IL1-2	(14:10-14:35) All-in-one Process for Patterning Perovskite Quantum Dot Light-Emitting Diodes 이정윤, 한국과학기술원	
IL1-3	(14:35-15:00) Solution-processable Aqueous Dispersions of Organic Semiconductors for Optoelectronic Applications Bright Walker, 경희대학교	
IL1-4	(15:00-15:25) Liquid-State Dithiocarbonate-based Polymeric Additives with Monodispersity rendering Perovskite Solar Cells with Exceptionally-High Certified Photocurrent and Fill Factor 전 일, 성균관대학교	
IL1-5	(15:35-16:00) Polymer Gel Electrolytes for Indoor and Outdoor Dye-sensitized Solar Cells: Comprehensive Comparison and Perspectives 김환규, 고려대학교	좌장: 전 일
IL1-6	(16:00-16:25) Surface Engineering of Provkites for Highly Efficient Perovskite Solar Cells with Air Thermal Stability 홍창국, 전남대학교	
IL1-7	(16:25-16:50) Advanced Liquid Crystal Polymer Networks for the Application of Optical Thin Films and Smart Inks 정광운, 전북대학교	
IL1-8	(16:50-17:15) Nondestructive Photopatterning of Quantum Dots via Ligand Crosslinking 강문성, 서강대학교	
IL1-9	(17:15-17:40) 삼성미래기술육성사업 사업설명회 김현주, 삼성전자 미래기술육성센터	

Keynote 특별발표 신진연구자 특별 심포지엄

제2회장_4월 6일 (목)		202호
콜로이드 및 분자조립 부문위원회 (I): The Structure & Dynamics of Polymer and Colloid Interfaces		
Organizer: 우상혁(중앙대), 최창형(대구한인대)		

IL2-1	(13:30-14:10) Drop Friction on Polymer Surfaces Hans-Jürgen Butt, Max Planck Institute for Polymer Research	좌장: 우상혁
IL2-2	(14:10-14:35) Polymer Dynamics at Solid Interfaces Keiji Tanaka, Department of Applied Chemistry, Kyushu University	
IL2-3	(14:35-14:55) 2D Filler Orientation Control in Polymer Using Thermophoresis 김채빈, 부산대학교	
102-1	(14:55-15:10) High-throughput Synthesis of Liposomes <i>via</i> Microfluidic Mixings Within 3D-printed Thermoplastic Devices 한정연, 가천대학교	
102-2	(15:10-15:25) Quantum Tunneling-induced Rectifying Molecular Memristors 박준우, 서강대학교	
IL2-4	(15:35-15:55) Structures and Properties of Hydrogels Controlled by Coordination Bonds 손대원, 유정주*, 한양대학교 화학과, *한양대학교 기초과학융합연구소	좌장: 이효민

IL2-5	(15:55-16:20) All-time Harvesting Electricity <i>via</i> Solar-Driven Interfacial Evaporation Systems Van-Duong Dao, Chemistry and Environmental Engineering, Phenikaa University	
IL2-6	(16:20-16:40) Relaxation Mechanism of Complex Coacervate Core Hydrogels: Chain Length Asymmetry 최수형, 홍익대학교	
IL2-7	(16:40-17:05) Remove Proteins from Natural Rubber Latex with Magnetic Core-shell Al ₂ O ₃ Particles Phan Trung Nghia, Bui Thi Thanh Binh, Vu Thi Thuy, Nguyen Khanh Linh, Nguyen Ngoc Thang, Hanoi University of Science and Technology	
102-3	(17:05-17:20) Interfacial and Structural Characteristics of the Self-Assembled Copolymer Thin Films Analyzed by Synchrotron X-ray Scattering 이우섭, 포항공속기연구소	

제3회장_4월 6일 (목)		301호
एको소재 부문위원회: 탄소 및 폐기물 재료를 위한 소재 기술		
Organizer: 오동엽(KRICT), 윤명한(GIST)		

IL3-1	(13:30-13:55) Materials for Eco-Friendly Electronics 윤명한, GIST	좌장: 오동엽
IL3-2	(13:55-14:20) Sustainable Packaging Plastics and LCA 윤원재, SK Chemical Co., Ltd	
IL3-3	(14:20-14:45) Issues and Challenge of Eco-friendly Bio-based & Bio-degradable Adhesives 김현중, 류광현, 곽호욱, 서울대학교	
IL3-4	(14:45-15:10) Air Freshener-resistant ABS/PBT Blend to Remove PU Coatings for Automotive Interior Parts 서재식, 현대자동차 기초소재연구소, 친환경소재연구원	
IL3-5	(15:30-15:55) Interfacial Effects of Additives on Poly(lactic acid) Based Biodegradable Polymers and Their Application 이동윤, 경북대학교	좌장: 윤명한
IL3-6	(15:55-16:20) A Biodegradable and Sustainable Polymeric Nanocomposite with Enhanced Mechanical Properties Based on Functional Heterocyclic Surfactant and Cellulose Nanofiber 홍성우, 한국생산기술연구원	
IL3-7	(16:20-16:45) Towards Prevailing Bioplastics: Add a Little Seasoning 구준모, 박재영*, 오동엽**, 전현열**, 충남대학교; *서강대학교; **한국화학연구원	
IL3-8	(16:45-17:10) Smart Starpolymer Photocatalysts 조계용, 부경대학교	

Keynote 특별발표

제4회장_4월 6일 (목)		101호
의료용 고분자 부문위원회 (I): 의료용고분자를 이용한 조직 재생 소재 개발		
Organizer: 박경민(인천대), 이규리(경상대), 조우경(충남대)		

IL4-1	(13:30-14:10) Materials to Study Biology in 4D: Photoadaptable Hydrogels for the Growth and in situ Shape Modulation of Intestinal Organoids Kristi Anseth, F. Max Yavitt, Michael Blatchley, University of Colorado Boulder	좌장: 신홍수, 윤정기
IL4-2	(14:10-14:35) Diabetes and Immunoisolation Strategies 황석연, 서울대학교	
IL4-3	(14:35-15:00) Complex Coacervates for Bioactive Coating & Therapeutic Applications 정지훈, 서울대학교병원, 서울대학교 의과대학	
IL4-4	(15:00-15:25) Three-dimensional Microenvironment for Enhancing Direct Reprogramming 진윤희, 연세대학교	
IL4-5	(15:35-16:00) Preclinical Translation of Surface-Engineered Polymeric Nanofibrils 유혁상, 모 미, 부이덕황트영, 조원호, 팜 화이 호앙 란, 강원대학교	좌장: 방석호, 김한영
IL4-6	(16:00-16:25) Nanofiber-laden Hydrogels for Biomedical Applications 차재남, 울산과학기술원	
IL4-7	(16:25-16:50) Bioactive Hydrogels for <i>In-Situ</i> Tissue Regeneration 박경민, 인천대학교	
IL4-8	(16:50-17:15) Development of 3D Printable Bioink and Its Applications for Biomedical Device 허동녕, (주) 바이오프렌즈	

제5회장_4월 6일 (목) 102호

차세대 전자/에너지 소재 개발과 고분자 시뮬레이션

Organizer: 허수미(전남대), 손창윤(POSTECH)

- 1L5-1 (13:30-13:55) 좌장: 손창윤
The Present and Future of AI/Physics-Based Drug Discovery Platform: Pharmulator™
우상욱, 부경대학교/팜캐드
- 1L5-2 (13:55-14:20)
Molecular Simulation Study on Biomimetic Polymeric Adhesives
장준경, 부산대학교
- 1L5-3 (14:20-14:45)
에너지/환경 분야에의 응용을 위한 멀티스케일 모델링 기반 유기 신소재 설계
김기출, 건국대학교
- 1L5-4 (14:45-15:10)
How could AI Transform Chemical Research?
한세희, Materials Intelligence Lab, Applied AI Research Group, LG AI Research
- 1L5-5 (15:30-15:55) 좌장: 허수미
Exploring Fundamental Rheological Characteristics of flowing Polymeric Liquids via Nonequilibrium Simulations
백충기, 울산과학기술원
- 1L5-6 (15:55-16:20)
Modeling Nanostructured Materials Using Block Copolymers and Polyelectrolytes
조준환, 단국대학교
- 1L5-7 (16:20-16:45)
Crystallization Behavior of Polyvinylidene Fluorine (PVDF) in NMP/DMF Solvents
김용주, 국민대학교
- 1L5-8 (16:45-17:10)
Why Polymers are Charged by Triboelectricity
김용현, KAIST

제6회장_4월 6일 (목) 103-104호

[롯데케미칼 특별세션] 친환경 고분자: 바이오 기반 고분자 및 플라스틱 선순환 소재기술

Organizer: 김봉훈(KAIST), 윤명한(GIST), 김인철(롯데케미칼)

- 1L6-1 (13:30-13:55) 좌장: 김봉훈
재생가능 고분자 생산을 위한 바이오케미칼 기술 동향
엄문호, GS칼텍스
- 1L6-2 (13:55-14:20)
Upcycling of Polyethylene Using Hydrogenolysis and Oxidative Degradation
윤천재, 한국과학기술연구원
- 1L6-3 (14:20-14:45)
Biodegradable and Recyclable Nanopaper Composites for Carbon Sequestration
오동엽, 한국화학연구원
- 1L6-4 (14:45-15:10)
On-demand and Fast Recyclable Bio-epoxy and Application to Composites
고문주, 건국대학교
- 1L6-5 (15:30-15:55) 좌장: 김인철
Nanocellulose and Nanochitin
황동수, 포항공과대학교
- 1L6-6 (15:55-16:20)
Low Carbon Nylon Materials Development
홍채환, 현대자동차
- 1L6-7 (16:20-16:45)
A Novel Palm based-Green Chemical for Natural Rubber and Its Products
Siang Yin LEE, Malaysian Rubber Board, Technology and Engineering Division
- 1L6-8 (16:45-17:10)
Chemical and Enzymatic Depolymerization and Bioconversion of PET for One-pot Upcycling
Kyoung Heon Kim, Korea University
- 1L6-9 (17:10-17:35)
Chemical Recycling of Poly(Bisphenol A Carbonate)
김정곤, 전북대학교

제7회장_4월 6일 (목) 107-108호

[LG화학 특별세션] 친환경 고분자: 바이오 기반 및 재활용 소재 (I)

Organizer: 객민석(부경대), 홍성우(KITECH), 이충훈(LG화학)

- 1L7-1 (13:30-13:55) 좌장: 최정룡
Rapidly Biodegradable Polyesters Comprising Metal Fertilizer Ions
이분열, 아주대학교
- 1L7-2 (13:55-14:20)
탄소중립 실현을 위한 페플라스틱 열분해-연소 복합공정 기술 개발
남형석, 황병욱*, 경북대학교; *한국에너지기술연구원
- 1L7-3 (14:20-14:45)
Functionalized Polyolefins
홍석원, 광주과학기술원
- 1L7-4 (14:45-15:10)
생분해성 소재 기반 다공성 분리막 제조기술
김 정, 인천대학교

- 1L7-5 (15:30-15:55) 좌장: 김 정
Catalytic Conversion of Macro-algae Derived Polymers to Valuable Chemicals
김도희, 서울대학교
- 1L7-6 (15:55-16:20)
플라스틱 해중합 촉매기술: Catalyst Design for Waste Plastic Depolymerization
안광진, 울산과학기술원
- 1L7-7 (16:20-16:45)
Poly(disulfide)s from a Natural Molecule for Sustainable Polymer Networks
최정룡, 금오공과대학교
- 1L7-8 (16:45-17:10)
베타 락톤과 생분해성 소재인 PHA의 화학적 생산 기술
윤성호, 중앙대학교

제8회장_4월 6일 (목) 106호

Korea-Japan Joint Symposium: Functional Polymers for Energy Application (English)

Organizer: Younsoo Kim (POSTECH), JaeHong Park (Ewha Womans Univ.), Sheng Li (KAIST)

- 1L8-1 (13:30-13:55) Chair: Sheng Li
Effect of Polymer Aggregation on Photovoltaic Performance in Polymer Solar Cell
오우원, 순천향대학교
- 1L8-2 (13:55-14:20)
Charge Separation and Recombination in Polymer Solar Cells
Yasunari Tamai, Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University
- 1L8-3 (14:20-14:45)
Advanced Polymer Materials for Aqueous Zinc-ion Batteries
송우진, 충남대학교
- 1L8-4 (14:45-15:10)
Development of Porous Polyethylene Membranes for Lithium-ion Battery Separators Using Side-Chain Crystalline Copolymers
Aki Kashiwazaki, Tokumu Aoki*, Shigeru Yao*, Research Institute for the Creation of Functional and Structural Materials, Fukuoka University; *Research Institute for the Creation of Functional and Structural Materials/Department of Chemistry Science and Engineering, Fukuoka University
- 1L8-5 (15:30-15:55) Chair: JaeHong Park
Development of Carbazole Dendrimer Based Luminescent Materials and Application in Organic Light Emitting Diodes
Ken Albrecht, Institute for Materials Chemistry and Engineering, Kyushu University
- 1L8-6 (15:55-16:20)
Quantum dot-in-mechanoluminescent Matrix for Full-Color Implementation
최효성, 한양대학교
- 1L8-7 (16:20-16:45)
Exploration of Li⁺-conducting Polymer Composites Using Data Science
Kan Hatakeyama-Sato, Kenichi Oyaizu*, Department of Applied Chemistry, Waseda University/School of Materials and Chemical Technology, Tokyo Institute of Technology; *Department of Applied Chemistry, Waseda University
- 1L8-8 (16:45-17:10)
Cooling Textiles
김건우, 한국생산기술연구원

제9회장_4월 6일 (목) 105호

2022년을 빛낸 KIST 과학기술

Organizer: 성혜정(KIST), 박종혁(KIST)

- 1L9-1 (13:30-13:55) 좌장: 박종혁
State-of-the-Art Membranes and Ionomers for High Temperature Polymer Electrolyte Membrane Fuel Cells
이성수, 한국과학기술연구원
- 1L9-2 (13:55-14:20)
Study of CO₂ Conversion to e-Chemical Using Polymer Electrolyte Membrane Based Electrolyzer
오형석, 한국과학기술연구원
- 1L9-3 (14:20-14:45)
Development of Polymer Materials and Devices for Large-Area and Mechanically Stable Polymer Photovoltaics
손해정, 한국과학기술연구원
- 1L9-4 (14:45-15:10)
Direct Writing of Elastic Conductors for Three-Dimensional Skin-Mountable Electronics
정승준, 한국과학기술연구원
- 1L9-5 (15:30-15:55) 좌장: 성혜정
Integration of Reconfigurable Microchannels into Aligned Three-dimensional Neural Networks for Spatially Controllable Neuromodulation
최남원, 한국과학기술연구원(KIST)
- 1L9-6 (15:55-16:20)
Development of Bioinspired Metal-Nanomaterials for Therapy
이효진, 한국과학기술연구원
- 1L9-7 (16:20-16:45)
Brain-on-a-chip Models for Studying Brain Diseases

IL9-8 김홍남, 한국과학기술연구원 (16:45-17:10)
Structure Optimized Lipid-based Intradermal Delivery
김호준, 한국과학기술연구원

제10회장_4월 6일 (목) 209-211호

롯데산학연협력상 특별세션: 차세대 IT 테크놀로지용 고분자
Organizer: 이재민(KRICT)

- IL10-1** (13:30-13:55) **좌장: 이재민**
Eco-friendly Polyimide Synthesis and Application to Next-Generation Materials
원종찬, 김윤호, 박노균, 소유진, 김진수, 유성미, 박종민, 한국화학연구원
- IL10-2** (13:55-14:20)
Enabling Melt or Solution-Processing of the Covalently Cross-Linked Polymer Network
박지용, 남준식, 광주과학기술원
- IL10-3** (14:20-14:45)
Applications of Thermal Stable Polymers for Next Generation by Synthesis and Modification
이승우, 영남대학교
- IL10-4** (14:45-15:10)
Tunable Color Film Using Chiral Photonic Crystal
윤동기, 한국과학기술원

도레이고분자상 특별세션: 이차전지 바인더용 고분자 소재
Organizer: 김태일(성균관대)

- IL10-5** (15:30-15:55) **좌장: 김태일**
Multi-functional Binder Systems for Enhanced Li-S Battery
이영관, 성균관대학교
- IL10-6** (15:55-16:20)
Novel Binder Designs in Emerging Rechargeable Batteries
최강욱, 서울대학교 화학생명공학부
- IL10-7** (16:20-16:45)
Straightforward Fabrication of Solid State Lithium Batteries Using Multi-Functional Polymer Electrolytes
김덕준, 성균관대학교
- IL10-8** (16:45-17:10)
Polymeric Materials for Li-ion Batteries with Safe and High-Energy-Density
박수진, 포항공과대학교

제11회장_4월 6일 (목) 206-208호

PSK 펠로우 특별 심포지엄
Organizer: 권용구(인하대), 최우혁(인하대)

- IL11-1** (13:30-13:55) **좌장: 권용구**
Two Examples of Cellulose Based Nanocomposite Films
하창식, 부산대학교
- IL11-2** (13:55-14:20)
Synthesis of Organic Semiconducting Materials and Their Applications
이창진, 한국화학연구원
- IL11-3** (14:20-14:45)
고분자 합성 30년, 뒷이야기
이재석, 광주과학기술원
- IL11-4** (14:45-15:10)
Towards Commercialization of Flexible Perovskite Solar Cells with Roll-to-roll Processes
이재훈, 함동식, 최우진, 한국화학연구원
- IL11-5** (15:30-15:55) **좌장: 최우혁**
Targeted Drug Delivery Inspired by Real-Time Molecular Imaging
권익찬, 한국과학기술연구원
- IL11-6** (15:55-16:20)
Effect of the Molar Mass Change of a Matrix Polymer (Nylon 6) on the Deformation of Dispersed Phase (a thermotropic liquid crystalline polymer) Droplets in Shear Flow
서용석, 서울대학교
- IL11-7** (16:20-16:45)
Harnessing Energy Transfer Processes in Molecular Material System
박수영, 서울대학교
- IL11-8** (16:45-17:10)
Hydrogels-based Strategies to Therapeutic Applications
박기동, 아주대학교

제12회장_4월 6일 (목) 205호

Graduate Student Oral Session (I) (English)
Organizer: Jaeyoung Jang (Hanyang Univ.), Bongjun Yeom (Hanyang Univ.)

- 1012-1** (13:30-13:45) **Chair: Jeewoo Lim**
Direct Ink Written Chiral Photonic Elastomers: Unprecedented Optical and Mechanochromic Properties
최지혜, 최연규, 윤태훈, 안석균, 부산대학교

- 1012-2** (13:45-14:00)
Surface-conformable Thermoelectric Patches with Efficient Thermal Contact Properties
이택성, 오종규, 서의현, 경재민, 정용진*, 강재영, 한양대학교; *한국교통대학교
- 1012-3** (14:00-14:15)
Enhancing Electrochemical CO₂ Reduction Performance through Surface Modification of Ag Catalyst with Styrene-Based Ionomers
이찬우, 고재현, 한국과학기술연구원
- 1012-4** (14:15-14:30)
Tuning Thermoelectric Properties through Side Chains Engineering of Conducting Polymers
이순용, 이현정*, 우한영, 고려대학교; *국민대학교
- 1012-5** (14:30-14:45)
Acetal-Functionalized Indacenodithiophene (IDT): Controlling the Position of a Lewis Acidic Dopant for Improved Thermoelectricity
변진환, 김도원, 홍석원, 광주과학기술원
- 1012-6** (14:45-15:00)
A Crystalline Conducting Polymer for a top Electrode of See-Through Polymer Solar Cells
기태윤, 장채림, 진종성*, 김재한**, 강홍규, 이광희, 광주과학기술원; *한국기초과학지원연구원; **포항공과대학교
- 1012-7** (15:00-15:15)
Anisotropically Aligned Graphene Nanoplatelets in Polyurethane Films for Excellent In-plane Thermal Conductivity and Electromagnetic Interference Shielding
Mani Dineshkumar, Sebastian Anand, 정태형, 김준범, 김성룡, Korea National University of Transportation
- 1012-8** (15:30-15:45) **Chair: Bongjun Yeom**
Pupil Aperture Scalable Self-regulating Autonomously Controlled Artificial Iris Realized by Gradiently Engineered Reversible Photochromic Reaction
Asad Nauman, 이재원, Young-Min Cho, 최준찬*, 김학린, Kyungpook National University; *Korea Institute of Science and Technology
- 1012-9** (15:45-16:00)
Radiative-cooling Block Fabricated by Recycled Textiles
Tohid Otofouat, Sudip Kumar Pal, 배호연, 정수현, 김건우*, KITECH; *Korea Institute of Industrial Technology
- 1012-10** (16:00-16:15)
Designing of Oxygen-supplying Syringes to Create Hyperoxia-inducible Hydrogels
강전일, 박경민, 인천대학교
- 1012-11** (16:15-16:30)
Symmetric and Asymmetric Colloidal Clusters by Colloidal Fusion
김유진, 이기라, 포항공과대학교
- 1012-12** (16:30-16:45)
Assembly of the Biopolymer-based Scaffolds to Produce an Engineered Meat
이미래, 홍진기*, 연세대학교; *연세대학교 화공생명공학과
- 1012-13** (16:45-17:00)
Reduction of Line Edge Roughness in Nano-Patterning via Combination Directed Self-assembly (DSA) and Extreme Ultraviolet (EUV) Lithography
이창현, 안지훈, 허수미, 전남대학교
- 1012-14** (17:00-17:15)
Hydrogels with Multi-functional Tannic Acid-Magnesium Nanoparticles for Osteoimmunomodulation and Vascularization
경해우, 변하연, 신홍수, 한양대학교
- 1012-15** (17:15-17:30)
Topological Characteristics of Entangled Short-Chain Branched Polymers in Comparison to the Linear Analogs under Shear Flow
최동훈, 정승훈, 백충기, 울산과학기술원
- 1012-16** (17:30-17:45)
Versatile and Sustainable Synthesis for Highly Entangled Acrylic Pressure-sensitive Adhesives through Visible Light-Mediated Photoiniferter-RAFT Polymerization
황지원, 신상빈, 안도원, 이원주, 백현중*, 유영창, 한국화학연구원; *부산대학교

제13회장_4월 6일 (목) 204호

대학원생 구두발표 (I)
Organizer: 광민석(부경대), 왕동환(중앙대)

- 1013-1** (13:30-13:45) **좌장: 서성백, 임준원**
Dynamic Manipulation of Ligand Availability for Immunoregulation of Macrophages
김유리, 강희민, 고려대학교
- 1013-2** (13:45-14:00)
The Relationship between Rheological Properties and Morphology with Hydrophobicity of Inorganic Filler in Poly(lactic acid)/Low-density Polyethylene Blends
김민찬, 현 규, 부산대학교
- 1013-3** (14:00-14:15)
Acetylated Lignin Added PBAT Functional Film with Enhanced Dispersibility
김정규, 방준식, 박상우, 경민정, 정승우, 윤희철, 광운대학교
- 1013-4** (14:15-14:30)
Wireless Biosignals Monitoring Platform with Piezo-Driven Ion Dynamics in Tissue-Adaptive Bionogel
김지훈, 김주성, 최한빈, 김동준, 김보경, 김도환, 한양대학교

1013-5	(14:30-14:45) Quinoid Semiconductor Polymer Nanoparticles: An Emerging Nanoplatfor for <i>In vivo</i> Photothermal Therapy 최연수, 민기윤, 한나라, 양동성, 백정우, 송건창, 태기용, 김동유, 광주과학기술원
1013-6	(14:45-15:00) Demonstration of Correlation between Debye-Stokes-Einstein Breakdown and Dynamics Characteristics of Polymer Near the Glass Transition Temperature 이수현, 팽기욱, 성균관대학교
1013-7	(15:00-15:15) Foldable RF Energy Harvesting System Based on Vertically Layered Metal Electrodes within a Single Sheet of Paper 오인혁, 박의음, 임성준, 장석태, 중앙대학교
1013-8	(15:30-15:45) 좌장: 이보람, 박민석 Bridge-rich and Loop-less Hydrogel Networks through Suppressed Micellization of Multiblock Polyelectrolytes 한지훈, 김연수, 포항공과대학교
1013-9	(15:45-16:00) UCST Behavior of Guanidinium-Containing Polyelectrolyte Solutions: Thermodynamic Study 오승환, 최수형, 홍익대학교
1013-10	(16:00-16:15) Dealing with Architecture-Controlled Bottlebrush Copolymers System Using Graph Convolutional Network 황우섭, 권상우*, 이원보*, 김용주, 국민대학교; *서울대학교
1013-11	(16:15-16:30) Robust and High Conduction Hybrid Polymer Electrolytes for High-performance Integrated Energy Storage Devices 이다은, 최우혁*, 김재균, 한양대학교; *인하대학교
1013-12	(16:30-16:45) Facile Approach to Synthesis of Ionic Polymers and Copolymerization of Immiscible Monomers Using Ball-milling 이규선, 이현섭, 김정곤, 전북대학교
1013-13	(16:45-17:00) Strategic Design of Non-Fullerene Acceptor for High-Detectivity NIR Organic Photodetectors: Incorporating Asymmetric Donor Motif to Achieve Optimal Morphology and Low Dark Current 이이영, 하중운*, 은형주, 안형주**, 이창진*, 서덕원, 허준석, 윤성철*, 고서진*, 김종현, 아주대학교; *한국화학연구원; **포항가속기연구소
1013-14	(17:00-17:15) UV Responsive Solid Covalent Adaptable Network for Room Temperature Repairing 윤여명, 김재빈, 부산대학교
1013-15	(17:15-17:30) Cation Effect on Forward Osmosis Performance of Styrenesulfonate-based Draw Solute Having Lower Critical Solution Temperature 문지현, 강 효, 동아대학교
1013-16	(17:30-17:45) Molecular Design of De-bondable Adhesive Thermosets from Polymerizable Deep Eutectic Solvents 정세훈, 김형우, 전남대학교

신진연구자 특별 심포지엄

제1회장_4월 7일 (금) 201호

분자전자 부문위원회 (II): 첨단 분자전자 소재와 소자 기술

Organizer: 김범준(KAIST), 김선주(중앙대), 이근형(인하대)

2L1-1	(10:30-10:55) 좌장: 박희준 Thermal Stability of Non-Fullerene Polymer Solar Cells: The Role of Metal Oxide Diffusion and Materials Design 이원호, 금오공과대학교
2L1-2	(10:55-11:20) Chiral Semiconducting Materials for Next-Generation Optoelectronics 오준환, 서울대학교
2L1-3	(11:20-11:45) Infrared-Sensing Organic Field-Effect Transistors 김영규, 경북대학교
2L1-4	(11:45-12:10) Flexible Electronics for E-Skin Applications: Organic Electronics Utilizing Solvatochromic Mediums for Chemical Sensor Applications 이화성, 한양대학교
2L1-5	(14:00-14:25) 좌장: 이화성 Reduced Dark Current Density in Organic Photodiode with Conjugated Polymers Bearing Fluorinated Moiety 이지열, 황도훈*, 부경대학교; *부산대학교
2L1-6	(14:25-14:50) Highly Reliable Resistive Switching Memory for Neuromorphic Computing and Artificial Visual System 박희준, 한양대학교
2L1-7	(14:50-15:15) Soluble Acene/Polymer Blends: Structure-Property Relationships in Transistors and Sensors 이원형, 건국대학교
2L1-8	(15:15-15:40) Molecular Interaction-Assisted Stretchability Enhancement of Polymer

Conductors and Semiconductors

이병훈, 이화여자대학교

201-1	(15:50-16:10) 좌장: 이원호 Defect Engineering of Metal-Halide Perovskites for Next-Generation Optoelectronic Devices 김호범, 광주과학기술원
201-2	(16:10-16:30) Synthesis of High-κ Ultrathin Polymer Gate Dielectric Materials and Their Application to Organic Electronic Devices 최준환, 단국대학교
201-3	(16:30-16:50) 원자층증착법으로 제작한 비정질 알루미늄 유연 봉지재료의 신뢰성 향상 우정현, 유현지*, 김주영*, 한국원자력연구원; *울산과학기술원

제2회장_4월 7일 (금) 202호

콜로이드 및 분자조립 부문위원회 (II): 고분자/콜로이드 자기조립 및 응용

Organizer: 유필진(성균관대), 임재훈(성균관대)

2L2-1	(10:30-10:55) 좌장: 고재현 Tuning Stickiness on Polyelectrolyte Nanocarriers to Target Cells and Tissues Paula T. Hammond, Massachusetts Institute of Technology, Department of Chemical Engineering
2L2-2	(10:55-11:20) Bicontinuous Biphasic Liquid Emulsions from Ternary Fluid Mixtures Daeyeon Lee, University of Pennsylvania
2L2-3	(11:20-11:45) Understanding the Structure-Property-Performance Relationship of Elastomeric Electrolytes for Solid-State Lithium-Metal Battery Applications Seung Woo Lee, Michael J. Lee, Junghun Han*, Bumjoon J. Kim*, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology; *Department of Chemical and Biomolecular Engineering, KAIST Institute for the Nanocentury, Korea Advanced Institute of Science and Technology (KAIST)
2L2-4	(11:45-12:10) Shape-Controlled Block Copolymer Particles and Their Applications 김범준, 한국과학기술원
2L2-5	(14:00-14:25) 좌장: 류 진 Cryoprotective DNA Origami Nanoassembly 안동준, 고려대학교
2L2-6	(14:25-14:50) Preparing for Tomorrow with Materials Today Nam Joon Cho, Nanyang Technological University
2L2-7	(14:50-15:15) Superionic Polymer Electrolytes with Tailored Intermolecular Interactions 박문경, 포항공과대학교
2L2-8	(15:15-15:40) Colloid and Macromolecular Assemblies at Interfaces for Sustainable Applications 차국현, 서울대학교

신진연구자 특별 심포지엄

제3회장_4월 7일 (금) 301호

기능성 고분자 (I): 자극 감응형 고분자 구조 및 센서

Organizer: 이지석(UNIST), 위정재(한양대)

2L3-1	(10:30-10:55) 좌장: 소순용 Stimuli-Responsive and Highly Functionalized Micro/Nano-Structured Materials for Artificial Sensory and Locomotive Organs 하민정, 광주과학기술원
2L3-2	(10:55-11:20) Integrating Dynamic Bonds into Polymer Networks for Advanced Stimuli-Responsive Macro-/Micro-Structures 김동균, 한국화학연구원
2L3-3	(11:20-11:45) Crosslinking Polymers Using Elastically Activated Peroxides 김정욱, 서강대학교
2L3-4	(11:45-12:10) Intelligent Polymeric Small Architectures for Sustainable Bioelectronics interface 방창현, 성균관대학교 화학공학과
2L3-5	(14:00-14:25) 좌장: 김동균 Stimulus-Responsive Colorimetric Polydiacetylene Sensors 김종만, 한양대학교
2L3-6	(14:25-14:50) Stimuli-Responsive Micro/Nanostructured Materials for Soft Sensors 고현협, 울산과학기술원
2L3-7	(14:50-15:15) Augmented Tactility Using Neuro-inspired Ion Dynamics 김도환, 한양대학교
2L3-8	(15:15-15:40) Biomimetic Approaches with Stretchable Ionics 선정윤, 서울대학교
2L3-9	(15:40-16:05) Switchable Two-Dimensional Materials by the Molecular Assembly and Their Biological Applications

- 2L3-10 김용주, 고려대학교 (16:05-16:30)
Tunable Photothermal Actuation Using Donor-Acceptor Stenhouse Adduct Photoswitch Conjugated Polymers
- 이재준, 부산대학교 (16:30-16:50)
Supercapacitor with Magnetic Responsive Active Material
- 이하준, 울산과학기술원

 : 신진연구자 특별 심포지엄

제4회장_4월 7일 (금) 101호

의료용 고분자 부문위원회 (II): 디지털 의약품 개발에서의 의료용고분자 활용

Organizer: 박경민(인천대), 이규리(경상대), 조우경(충남대)

- 2L4-1 (10:30-10:55) **좌장: 박성영, 이규리**
C. elegans - on - a - chip: 외부 자극에 대한 예쁜꼬마선충 반응 분석을 위한 미세유체 플랫폼
김선민, 전태준, 윤선희, 인하대학교
- 2L4-2 (10:55-11:20)
Multifunctional Magnetic Nanoscavengers for Treating Infectious Diseases
강주현, 울산과학기술원
- 2L4-3 (11:20-11:45)
Engineering Stem Cell-derived Small Extracellular Vesicles for Delivery of miRNA in Cardiac Repair
박현지, 아주대학교
- 2L4-4 (11:45-12:10)
고분자 디자인 및 나노입자 스크리닝을 위한 컴퓨팅 도구 활용
윤세열, 전에닷컴코리아

의료용 고분자 부문위원회 (II): 생체 유래 고분자 기반 진단 및 치료 기술

Organizer: 박경민(인천대), 이규리(경상대), 조우경(충남대)

- 2L4-5 (14:00-14:25) **좌장: 최준식, 차병현**
Engineering Polymeric Nanovehicles for Dermal Skincare Applications
김진용, 성균관대학교
- 2L4-6 (14:25-14:50)
Harnessing Extracellular Vesicles for Therapeutic and Diagnostic Applications
이원중, 인천대학교
- 2L4-7 (14:50-15:15)
Protein-like Functions of Sequence-Defined Biopolymers for Diagnostic and Therapeutic Applications
오승수, 포항공과대학교
- 2L4-8 (15:15-15:40)
RNAi Therapeutics: Beyond the Liver
김선화, 한국과학기술연구원
- 2O4-1 (15:50-16:10)
Random Amphiphilic Polyaspartamide Derivatives for *in vivo* Administration of mRNA
김현진, 인하대학교
- 2O4-2 (16:10-16:30)
Development of High-throughput Versatile iPSC-based Organoid Platform using 3D Bioprinting
이소아, 성균관대학교
- 2O4-3 (16:30-16:50)
Nanotechnology-based CRISPR Applications for Gene Editing and Targeted Therapy
강유경, 경상국립대학교

 : 신진연구자 특별 심포지엄

제5회장_4월 7일 (금) 102호

고분자가공/복합재료/재활용: 기능성 복합소재 및 공정

Organizer: 서성백(부산대), 성동기(부산대)

- 2L5-1 (10:30-10:55) **좌장: 성동기**
미래모빌리티를 위한 경량구조복합재료
장지운, 이혜성*, 김성륜*, 한양대학교; *전북대학교
- 2L5-2 (10:55-11:20)
A Practical use of Rheology for Characterizing the Structure and Processability of Nanocomposites
이두진, 전남대학교
- 2L5-3 (11:20-11:45)
Design and Implementation of Rheological Metamaterials from Hydrodynamic Perspective
송영석, 단국대학교
- 2L5-4 (11:45-12:10)
Multimaterial Thermal Drawing Process for Sustainable Energy Storage
이정태, 경희대학교
- 2L5-5 (14:00-14:25) **좌장: 서성백**
Organic Composite Electrode Materials for Future Battery Applications
권지연, 한국과학기술연구원
- 2L5-6 (14:25-14:50)
Analysis of Complex Behavior of Separator Materials Near the Melting Temperature
유제성, 박종화, 홍유식, LG화학

- 2L5-7 (14:50-15:15)
광경화 점-접착소재의 개발 및 응용
유영창, 안도원, 이원주, 황치원, 신상빈, 한국화학연구원
- 2L5-8 (15:15-15:40)
Structural Designs of Thermoconductive Nanocomposites with High EMI Shielding
김성룡, 한국교통대학교
- 2L5-9 (15:40-16:05)
A Whole New Fabrication Process for Functional Textile Composites
성동기, 강승인, 유중재, 김민경, 부산대학교
- 2O5-1 (16:05-16:25)
Polymer Nanostructured Dielectric Composites for Self-Powered Multifunctional Sensors
김민수, 순천대학교
- 2O5-2 (16:25-16:45)
Application of Radiative Cooling Technology: Window and Face Mask
Sudip Kumar Pal, Soohyun Jeong, Tohid Otoufat, Hoyeon Bae, 김건우, KITECH

제6회장_4월 7일 (금) 103-104호

다공성 배위 고분자 및 금속 유기 골격체 소재

Organizer: 최경민(숙명여대), 윤영수(고려대)

- 2L6-1 (10:30-10:55) **좌장: 윤영수**
Two-Dimensional Fused Aromatic Network Polymers as Electrocatalytic Platforms
백종범, 울산과학기술원
- 2L6-2 (10:55-11:20)
Hybrid Composite between Direct-Spun Carbon Nanotube Fibers and Metal-Organic Coordination Material for Future Technology
양승재, 인하대학교
- 2L6-3 (11:20-11:45)
Vinyl Group in MOFs for Versatile Covalent Connections between MOFs and Polymers
김민, 충북대학교
- 2L6-4 (11:45-12:10)
Branched Metal-Organic Frameworks in Mixed-Matrix Membranes to Enhance Plasticization Resistance and Gas Transport
지원석, 전남대학교
- 2L6-5 (14:00-14:25) **좌장: 최경민**
Fe-based Nanocomposite as Functional Electrode for high Performance Supercapacitor and Enhanced Hydrogen Production
이재범, Chungnam National University
- 2L6-6 (14:25-14:50)
Mass-Productive MOF & MOF-derived Carbon Synthesis and Characterization for Energy Applications
박제성, 한국생산기술연구원
- 2L6-7 (14:50-15:15)
Solvent Coordination Strength: An Essential Factor for Metal Catalytic Reactions
정낙천, 대구경북과학기술원
- 2L6-8 (15:15-15:40)
Recent Trends on Crystalline Porous Materials for Efficient Hydrogen Isotope Separation
오현철, 울산과학기술원
- 2L6-9 (15:40-16:05)
Reticular Materials for Atmospheric Water Harvesting: from Chemistry to Sustainable Applications
송우철, 포항공과대학교

 : 신진연구자 특별 심포지엄

제7회장_4월 7일 (금) 107-108호

[LG화학 특별세션] 친환경 고분자: 바이오 기반 및 재활용 소재 (II)

Organizer: 광민석(부경대), 홍성우(KITECH), 이충훈(LG화학)

- 2L7-1 (10:30-10:55) **좌장: 권용구**
바이오 기반 및 재활용 소재
이호우, LG화학
- 2L7-2 (10:55-11:20)
The Preparation of Promising DOE's12 Monomer-based Biodegradable Composite Materials
황성연, 경희대학교
- 2L7-3 (11:20-11:45)
Sustainable Bioplastic Packaging before and after the Pandemic
김영택, Virginia Tech
- 2L7-4 (11:45-12:10)
Biodegradability Assessment Techniques for Polymers in Versatile Environments
김정규, 방준식, 박상우, 정민경, 정승오, 윤희철, 곽효원, 서울대학교

기능성 고분자 (II)

Organizer: 이지석(UNIST), 위정재(한양대)

- 2O7-1 (14:00-14:20) **좌장: 엄태식**
Structure Engineering of Colloidal Semiconductor Heterostructures for

207-2	Light-Emitting Applications 정병국, 부산대학교 (14:20-14:40)
207-3	A Cautionary Tale of Singlet Fission 김우재, 연세대학교 (14:40-15:00)
207-4	Quasi-van der Waals Epitaxy of Organic Semiconductors on Graphene Templates 이효찬, 명지대학교 (15:00-15:20)
207-5	High Performance Perovskite Solar Cells by Fluorine Coating Process 이상진, 조은미, 한국화학연구원 (15:20-15:40)
207-6	Peptidomimetic Wet-Adhesive PEGtides with Synergistic and Multimodal Hydrogen Bonding 김민성, 박진우*, 이경민**, 박상규**, 이동욱*, 김병수, 연세대학교; *울산과학기술원; **고려대학교 (15:40-16:00)
207-7	Expanding the Synthetic Pathways of MXenes towards Controlled Surface Terminal Groups 오탈근, 한국과학기술연구원 (16:00-16:20)
207-8	Overcoming "PEG dilemma" in Amphiphilic PEG-b-PCL Using the Alternative Multifunctional Polyglycerol (PG) for the Hydrophilic Block and the modifiable crystalline poly(ϵ -caprolactone- ω -lactide) (PCLL) for the Hydrophobic Block 레김후엔창, 남윤성, 한국과학기술원(KAIST) (16:20-16:40)
	Reverse Mode Polymer Stabilized Liquid Crystal Films Based on Thiol and Acrylic Azobenzene MOhsin Saeed, 김기태, 최문영, 나준희, 충남대학교

□ : 신진연구자 특별 심포지엄

제8회장_4월 7일 (금) 106호

고분자 합성: 고분자 합성의 떠오르는 젊은 연구자

Organizer: 김병수(연세대), 임자우(경희대)

208-1	(10:30-10:50) Sustainable Synthetic Approaches of Polycaprolactones 김희중, 인하대학교 좌장: 김병수
208-2	(10:50-11:10) Integrating Charge Mobility, Stability and Stretchability Within Conjugated Polymer Films for Stretchable Electronic Applications 손성윤, 광운대학교
208-3	(11:10-11:30) Pharmacokinetic/Immungenic Impact on Polyglycerol-grafting on NPs Compared to PEGylation 신광수, 인하대학교
208-4	(11:30-11:50) Fast, High-resolution 3D Printing with Visible Light 안도원, 한국화학연구원
2L8-1	(14:00-14:25) Stimuli-Responsive PEG Hydrogels for Bio-applications 배세원, 제주대학교 좌장: 임자우
2L8-2	(14:25-14:50) Controlled Cationic Ring-Opening Polymerization of Hetero Diels-Alder Adducts 이인환, 아주대학교
2L8-3	(14:50-15:15) Catalytic Vinyl-Addition Polymerization of Substituted Norbornenes 채창근, 한국화학연구원
2L8-4	(15:15-15:40) Conjugated Aromatics and Polymers for Chemical Sensors 구병진, 단국대학교
2L8-5	(15:40-16:05) Utilization of Classical Polycondensation Towards Sustainable Plastics from a Synthetic Point of View 박제영, 서강대학교
2L8-6	(16:05-16:30) Force-induced Color Changing Reactions in Polymeric Media 김태안, 한국과학기술연구원

□ : 신진연구자 특별 심포지엄

제9회장_4월 7일 (금) 105호

고분자구조 및 물성: 전기화합소재 구조 및 물성

Organizer: 이은지(GIST), 안효성(전남대)

2L9-1	(10:30-10:55) 고분자 전해질 기반 KBSI 자유변형 견고체 전지 개발 김해진, 한국기초과학지원연구원 좌장: 안효성
209-1	(10:55-11:15) A Directed Coacervation for Battery Electrodes 류재진, 서강대학교
2L9-2	(11:15-11:40) Development of Functional Polymer for High-Performance Triboelectric

2L9-3	Nanogenerator and Their Applications 이주현, 대구경북과학기술원 (11:40-12:05)
2L9-4	Molecularly Imprinted Polymer-Based Electrochemical Sensors for the Detection of Trace Proteins 박진영, 경북대학교 (14:00-14:25) 좌장: 이은지
2L9-5	Anion Exchange Membranes and Ionomers for Fuel Cell and Water Electrolysis Chuan Hu, Nanjun Chen, 박종형, 강나윤, 이영준, 정승원, 이영문, 한양대학교 (14:25-14:50)
2L9-6	Efficient Solar Water Splitting <i>via</i> Organometal Halide Perovskite-Based dual Photoelectrodes 이상한, 광주과학기술원 (14:50-15:15)
2L9-7	Size Engineering of Perfluorinated Sulfonic Acid Ionomers via Supercritical Fluid Dispersion and Their Electrochemical Applications 이창현, 안주희, 임준현, 황진표, 단국대학교 (15:15-15:40)
2L9-8	Self-assembly of Aramid Nanofibrillar Separators for High-speed Lithium-metal Batteries 염봉준, 한양대학교 (15:50-16:15) 좌장: 하민정
209-2	Catecholic Polymer Binders for Enhancing Battery Performance 이동욱, 울산과학기술원 (16:15-16:35)
209-3	Engineering of Microenvironments near Copper Catalyst during Electrochemical Carbon Dioxide Reduction using Ionomer 김찬연, 대구경북과학기술원(DGIST) (16:35-16:55)
	Effect of Organic Hole Transport Layer Energetics On Iodine Species Diffusion In Halide Perovskite Devices 허성연, 서울과학기술대학교

□ : 우수논문발표상 응모

제10회장_4월 7일 (금) 209-211호

대학원생 구두발표 (II)

Organizer: 박민석(부경대), 왕동환(중앙대)

2010-1	(10:30-10:45) A Bottom-Up Design of Functional Carbon Nanofibers to Reinforce 3D-Printed Cardiovascular Polymer Scaffolds 정송아, 김형우, 전남대학교 좌장: 왕동환, 최청룡
2010-2	(10:45-11:00) Low-K Polyimide with Tunable Pore Size Distribution by Thermally Induced Phase Separation 황윤찬, 김성준, 남기호, 경북대학교
2010-3	(11:00-11:15) Stabilizing Network Structures of Block Copolymers by End-Group and Linker Chemistry 이호준, 박문정, 포항공과대학교
2010-4	(11:15-11:30) Shape Fixation of Magneto-Mechanically Deformed Micropillar Arrays via Dynamic Covalent Bonds 문호준, 이재경, 조용비, 전지수*, 박정은, 위정재, 한양대학교; *Georgia Institute of Technology
2010-5	(11:30-11:45) Preservation 3D Nanoporous Structure of Pectin via Hydrogen Bonding with Hydrophobic Alcohols during Ambient Evaporation Process 이다빈, 박주현, 중앙대학교
2010-6	(11:45-12:00) Poly(poly(ethylene glycol) methyl ether acrylate) Micelles Blend Membranes for Enhanced CO ₂ Separation 성문숙, 이종석, 서강대학교
2010-7	(12:00-12:15) Rapid Detection of COVID-19 in Human Nasopharyngeal Swap Specimen with Polymer-assisted Nucleic Acid Extraction and Digital PCR 최윤영, 송윤성*, 조영학, 임성갑*, 성혜정, KIST; *KAIST
2010-8	(14:00-14:15) Investigating the Effect of Alkyl Chain Length on Assessment as LCST-type Draw Solutes in Forward Osmosis 조연수, 강 효, 동아대학교 좌장: 윤영수, 이창연
2010-9	(14:15-14:30) Nucleic Acid-based Nanoparticle Incorporated with siRNA for Lung Cancer Therapy 김해주, 박민석, 부경대학교 화학과
2010-10	(14:30-14:45) Indolocarbazole (ICZ)-SWNT Composite Cathode Showing Double Redox for Flexible Lithium-Organic Batteries 계효진, 김봉기*, 박수영**, 권지연, 한국과학기술연구원; *전국대학교; **서울대학교
2010-11	(14:45-15:00) Lyotropic Liquid Crystalline Mesophase of Carbon Nanotubes and Aramid Polymer for Robust Electrically Conducting Fibers 유기현, 김대윤, 한국과학기술연구원

2023년 춘계학술대회 연구논문 초록집

- 2010-12 (15:00-15:15)
Photopatterning of Silver Nanowire Electrode Using a Ethylene Glycol Based Crosslinking agent
조완훈, 김봉수, 박인철*, 조정호*, 울산과학기술원; *연세대학교
- 2010-13 (15:15-15:30)
Multifunctional Quasi-solid Polymer Electrolyte with High-capacitive and Stable Energy Storage Devices
김은수, 김재균, 한양대학교
- 2010-14 (15:30-15:45)
Insertion of Dipole Molecule at Electron Transport Layer: Interface Defect Healing Effect for High Efficiency Indoor Perovskite Solar Cells
신소경, 최민준, 전경국, 김중현, 아주대학교
- 2010-15 (15:45-16:00)
Versatile Engineering of Ligand Spacing on Nano- and Micro-assembly to Regulate Stem Cell Differentiation
이성규, 강희민, 고려대학교
- 2010-16 (16:00-16:15)
Waste-induced Polymeric Carbon with Graphite-like Nanodomains for Potassium-ion Storage
최연화, 윤영수*, KU-KIST 융합대학원; *KU-KIST 융합대학원/고려대학교
- 2010-17 (16:15-16:30)
Deformable Ionotronics based on Mechanically Robust and Highly Conductive Ionogels via Dynamic Metal-Ligand Bonding-Assisted Gelation Strategy
홍성현, 문홍철, 서울시립대학교
- 2010-18 (16:30-16:45)
Shape and Size Analysis of Non-spherical Graphite Utilizing Planar Elongational Flow in a Cross-slot Microchannel with Viscoelastic Particle Focusing
박지인, 홍사빈, 이승우*, 김주민, 아주대학교 에너지시스템학과; *School of Mechanical Engineering, Georgia Institute of Technology
- 2010-19 (16:45-17:00)
Photomultiplication-type Organic Photodetectors with Fast Response by Introducing a Gain-inducing Interlayer
한세교, 조길원, 포항공과대학교

□ : 우수논문발표상 응모

제11회장_4월 7일 (금) 206-208호

대학원생 구두발표 (III)

Organizer: **곽민석(부경대), 왕동환(중앙대)**

- 2011-1 (10:30-10:45) **좌장: 오동엽, 김재준**
Hierarchically Interpenetrated and Reentrant Micro-Cellular Frameworks for Stretchable Lithium Metal Batteries
안유준, 김나연*, 염봉준**, 손경곤*, KU-KIST 융합대학원/한국과학기술연구원; *한국과학기술연구원; **한양대학교
- 2011-2 (10:45-11:00)
Two Color of Light for 3d Printing, Healing and Erasing of Polymeric Materials
신상빈, 안도원, 이원주, 유영창, 박영은, 한국화학연구원
- 2011-3 (11:00-11:15)
Janus Effect on Ice Growth by Hyperbranched Polyglycerols Generating Dynamic Hydrogen Bonding
원태경, 이상엽, 김민성*, 홍영주*, 백승현, 김병수*, 안동준, 고려대학교; *연세대학교
- 2011-4 (11:15-11:30)
Microwave-assisted, Quick and Reversible Wettability Control of 3D Porous Graphene Networks
천수민, 오승수, 포항공과대학교
- 2011-5 (11:30-11:45)
One-Pot Synthesis Design for High-Purity CsPbClBr₂ Blue Light-Emitting Perovskite Quantum Dot
김진영, 장웅식, 왕동환, 중앙대학교
- 2011-6 (11:45-12:00)
The Study on the Alignment Patterns of Mammalian Cells on the Directional Ultrathin PDMS (Polydimethylsiloxane) Oligomers of Glass Substrates
성 은, 김병수, 채수상*, 정종진, 한남대학교 화학과; *LG디스플레이
- 2011-7 (12:00-12:15)
High Dipole Moment Small Molecules Inducing Uniform Charge Accumulation under Low-Intensity Light Environment towards Highly Efficient and Stable Indoor Perovskite Solar Cells
최민준, 이석우*, 이동현, 허진희**, 장재원*, 김중현, 아주대학교; *부경대학교; **한국재료연구원
- 2011-8 (14:00-14:15) **좌장: 정범진, 안도원**
Self-Immolative Poly(benzyl ether)-Based Amphiphiles: Synthesis and Demicellization via Head-to-Tail Depolymerization
김지우, 김형우, 전남대학교
- 2011-9 (14:15-14:30)
Semiconductor-to-Metal Transition in Colloidal Nanocrystal Solids
윤상은, 김용진, 김형준*, 권효근, 김은정, 이상연**, 박주현*, 서형탁, 박상규***, 김상욱, 김중현, 아주대학교; *UNIST; **KAIST; ***고려대학교
- 2011-10 (14:30-14:45)
Sprayable PEG-Modified Ti₃C₂ MXene/SA Hydrogel for Antibacterial and Wound Healing Drug Release System
박형택, 김 환, 한국교통대학교
- 2011-11 (14:45-15:00)
Polymer-Solvent Phase Separation in Quaternary Hybrid System for High

Temperature Low-K Dielectrics

김성준, 황윤찬, 남기호, 경북대학교

- 2011-12 (15:00-15:15)
Tailoring Polymer Gelator Design for High-Performance and Wearable Ionic Sensory Platform
권진한, 김용민, 문홍철, 서울시립대학교
- 2011-13 (15:15-15:30)
Controlled Porous Structures of Nitric Oxide-Releasing Inhaler for Pulmonary Vascular Recovery
오유경, 홍진기, 정세용, 연세대학교
- 2011-14 (15:30-15:45)
Synthesis and Properties of Vinylidene Fluoride-Based Self-Healable Antibacterial Elastomer
남의진, 한동제*, 백지훈, 허현준, 김주현, 박인준, 소원욱, 장봉준, 오명석, 이상규, 김종민, 이명숙, 홍진기**, 손은호, 한국화학연구원; *서울대학교; **연세대학교
- 2011-15 (15:45-16:00)
Mechanically Anisotropic Stretchable and Transparent Composite Substrates for Distortion-Free Display
오형수, 손경곤*, KU-KIST/한국과학기술연구원; *한국과학기술연구원
- 2011-16 (16:00-16:15)
Engineering 3D Vascularized Tissue Construct by Encapsulation of Co-cultured Stem Cell Spheroids with Endothelial Cells within GelMA Hydrogels
권현석, 이진규, 신홍수, 한양대학교
- 2011-17 (16:15-16:30)
Molecular Evolution of Leucosporidium-derived Ice-binding Protein (LeIBP)
박수현, 이상욱, 부경대학교
- 2011-18 (16:30-16:45)
Conjugated Oligoelectrolyte as a Conductive Ligand for Highly Emissive Metal Halide Perovskite Nanocrystal
한정민, 우한영, 고려대학교
- 2011-19 (16:45-17:00)
Multi-Functional Locomotion of Collectively Assembled 3D Shape-Morphable Electronics
조윤비, 강동준, 함민정, 한태희, 위정재, 한양대학교

제12회장_4월 7일 (금) 205호

Graduate Student Oral Session (II) (English)

Organizer: **Jaeyoung Jang (Hanyang Univ.), Bongjun Yeom (Hanyang Univ.)**

- 2012-1 (14:00-14:15) **Chair: Sheng Li, Tae-il Kim**
A Composite Thin Film of Polyvinyl Alcohol and Carbon Dots for UV Light Blocking and Sustainable Food Packaging
Akshay Patil, 손대원, Hanyang University
- 2012-2 (14:15-14:30)
Simplified Polymer-to-String Representation for Properties Prediction Deep Learning Network
Gabriella Pasya Irianti, 안지훈, 최여진, 허수미, 전남대학교
- 2012-3 (14:30-14:45)
Differential Electric Double Layer Capacitances of Fixed Polymeric Ions and Mobile Counter Ions
신희운, 김형준, 서강대학교
- 2012-4 (14:45-15:00)
IBPs-mimicking Nanocryoprotectants for Ice-water Interface Control
전나영, 이은지, 광주과학기술원
- 2012-5 (15:00-15:15)
Investigating Structural Effects of Quaternizing Additives on Shape Transitions of Block Copolymer Particles
Zhengping Tan, 김범준, KAIST
- 2012-6 (15:15-15:30)
High-stretchable and Self-healing Lithium Acrylate-Based Hydrogel Polymer Electrolytes for Hybrid Fiber Supercapacitors
Puji Lestari, 최우혁, Inha University
- 2012-7 (15:30-15:45)
Developing a Novel Block Isomer for Ionic Actuators
Van Hiep Nguyen, 오일권, KAIST
- 2012-8 (15:45-16:00)
Repairable Arrays of the aligned Cylindrical Microdomains from Block Copolymers Enabled by Photoplastic and Photodielectric Effects
조승연, 전희일, 전승배, 전태석, 문경우, 조정호, 류두열, 연세대학교
- 2012-9 (16:00-16:15)
Melamine Foams Implanted with Graphite/SnSe as a Hierarchical Structure with Bimodal Pores for Spontaneous Salt Rejection for Solar Desalination
최용우, 유필진, 성균관대학교

□ : 우수논문발표상 응모

제13회장_4월 7일 (금) 204호

대학원생 구두발표 (IV)

Organizer: **곽민석(부경대), 왕동환(중앙대)**

- 2013-1 (10:30-10:45) **좌장: 조세벽, 정소담**
Multimodal Enzyme-Carrying Supraparticles for Rapid and Sensitive Biocatalytic Cascade Reactions
이지은, Seong-Min Jo*, 김지혜, Katharina Landfester**, 이상혁, 중앙대학교; *UNIST; **KAIST

- *부산대학교; **Max Planck Institute for Polymer Research
- 2013-2** (10:45-11:00)
New Paradigm of anti-Aging with Self-Assembled Senolytic *via* the Intracellular Oligomerization
김도현, 김상필, 유자형, 울산과학기술원
- 2013-3** (11:00-11:15)
Effects of Interfacial Lithium-ion Concentration on Lithium Metal Anode
박지민, 윤영수*, 고려대학교 KU-KIST 융합대학원; *고려대학교 KU-KIST 융합대학원/고려대학교
- 2013-4** (11:15-11:30)
The Study on Nanostructural Changes in highly conductive PEDOT:PSS Thin Films in an Aqueous Solution
이인우, 이유성, 김예진, 박세정, 윤창훈, 전남대학교 고분자공학과
- 2013-5** (11:30-11:45)
Supramolecular Chirality Amplification in CPL-responsive Conjugated Polymer/Perovskite QDs Nanoassembly
민주홍, 이은지, 광주과학기술원
- 2013-6** (11:45-12:00)
Carrier Mobility-carrier Density Dependence of Highly Doped Conjugated Polymers with Different Molecular Orderings
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- 2013-7** (12:00-12:15)
QENS Study on Local Segmental Dynamics of Polyelectrolytes in Complex Coacervates
김소절, 이원보, Nicolas de Souza*, 최수형**, 서울대학교; *ANSTO; **홍익대학교
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Boron Nitride Nanotubes Non-covalently Functionalized with Poly Amic Acid Salt and Polymer Nanocomposites
진정운, 한재량*, 유남호, 한국과학기술연구원; *전북대학교
- 2013-9** (14:15-14:30)
High-energy-density Magnesium Ion Supercapacitors Fabricated by Using *in situ* Inverse Charge Process
이은지, 윤영수*, KU-KIST 융합대학원; *KU-KIST 융합대학원/고려대학교
- 2013-10** (14:30-14:45)
Alleviation of Cell-to-Module Efficiency Loss of Indoor Perovskite Solar Cells through Al₂O₃ Nanoparticles
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Solid Polymer Electrolyte of Ionic Liquids *via* a Bicontinuous Ion Transport Channel for Lithium Metal Batteries
조원장, 이기라, 포항공과대학교
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우수논문발표상 응모

포스터발표(1)_4월 6일 (목)
 (09:00 ~ 10:30) 좌장: 김태안, 김형준
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1PS-68 Highly CO₂-selective Mixed Matrix Membranes Containing Multivariate Zeolitic Imidazolate Frameworks
남기진, 이종석, 서강대학교 화공생명공학과

1PS-69 Effects of Polyketone-grafted Carbon Nanotube on the Thermal, Mechanical, and Electrical Properties of Polyketone Nanocomposites
당 불, 정영규, 충남대학교

1PS-70 Anode Minimized Lithium Metal Batteries Based on a Surface-engineered Polymeric Nanocarbon Electrode
박민혁, 윤영수, 고려대학교

1PS-71 Sensor Applications Using Carbon Photonic Ball
박신근, 이원목, 세종대학교

1PS-72 Utilization of Physical Anisotropy in MOFs via Alignment Control with Liquid Crystal
박영서, 박건형, 홍태균, 이창재, 박계현, 윤동기, 한국과학기술원

1PS-73 Enhanced Coloration Time of Electrochromic Device Using Integrated WO₃@PEO Electrodes for Wearable Devices
권하늘, 김수현, 함미림, 박예원, 김혜경*, 이원목, 이현정**, 국민대학교; *영남대학교; **세종대학교

1PS-74 MXene/Ni-coated PET Fabrics with High Electromagnetic Interference Shielding Performance and Flexibility
박진혁, 정영규, 충남대학교

1PS-75 Graphene Oxide/Fe₃O₄/Epoxy Composite for High Thermal Conductivity and Interfacial Property
박효원, 성동기, 부산대학교

1PS-76 Application of Metal-Polyphenol Surface Treatment to Supramolecular Xanthene Dye Hydrogen Photosynthesis System
부석형, 조완수, 박치영, 대구경북과학기술원

1PS-77 Fabrication and Characterization of Piezoelectric Hybrid Nanocomposite Films Based on Anionic Waterborne Polyurethane, Barium Titanate, and Boron Nitride Nanosheet
서민영, 정영규, 충남대학교

1PS-78 Mixed Matrix Membranes-Containing Multivariate Zeolitic Imidazolate Frameworks for C₂H₄/C₂H₆ Kinetic Separation
설정호, 이종석, 서강대학교

1PS-79 Development of Flame Retardant Polyurethane Foam Based on Polyimide Coating
신하은, 고흥조*, 유남호, 한국과학기술연구원; *광주과학기술원

1PS-80 Fabrication of Wet-Laid Thermotropic Liquid Crystalline Polyester Nonwoven on the Electroless Nickel Plating for Efficient Electromagnetic Interference Shielding Properties

1PS-81 Waste Vegetable Oils as Sustainable Raw Materials for the Synthesis of Non-Isocyanate Polyurethanes
이수영, 김 일, 부산대학교

1PS-82 Analysis of Thin Film through Crosslinking of Non-reactive Polymers Using Peroxides
이재연, 김정욱, 서강대학교

1PS-83 Dual-modification of UiO-66-NH₂ Metal-Organic Frameworks for Dehumidifying Thin-film Nanocomposite Membranes
이호준, 이종석, 서강대학교

1PS-84 Reptation-guided Deep-learning for Polymer Discovery from Rheological Measurement
자바드, 이현상, 동아대학교

1PS-85 Development of Pyridinium Salt Functionalized Graphene Oxide and Polyimide Nanocomposites
정채은, 손래*, 유남호, 한국과학기술연구원; *조선대학교

1PS-86 One-pot Preparation of Lignin-derived Mesoporous Carbon through Metal Coordination Self-assembly for CO₂ Adsorption
조경희, 조은범, 서울과학기술대학교

1PS-87 Excluded Volume Effect on the Extensional Rheology of Carbon Nanotubes: A Mesoscopic Theory
최경민, 이현상, 동아대학교

1PS-88 A New Type of Cultured Meat: High-protein Cell Meat Powder
최범규, 홍진기, 연세대학교

1PS-89 MFI Nanosheet Addition on MMM: Investigation of Physical and Permeation Properties
최우영, 김대우, 연세대학교

1PS-90 3D-nanostructured Electrode Materials for Aluminum Metal Anode
허영훈, 윤영수, 고려대학교

1PS-91 Effect Of PNIPAM Nano Hydrogel Particles On Dynamic Interfacial Tension Of Paraffin Oil
후세인 아사르, 이현상, 동아대학교

| 고분자구조 및 물성 |

1PS-92 Fabrication of Porous SiO₂@MXene Freestanding Electrode for Minimal Volumetric Expansion
권하늘, 이현정, 국민대학교

1PS-93 A Highly Transparent Self-healable Elastic Coating Material with Enhanced Mechanical Surface Properties and Folding Reliability
노아현, 고민재, 김용주, 최기원, 홍성우*, 한양대학교; *한국생산기술연구원

1PS-94 Sustainable Gas Separation Membranes: Biopolymer and Green Solvent
류정욱, 이종석, 서강대학교

1PS-95 Salt-in-polyampholyte for High-voltage Aqueous Quasi-solid Supercapacitors
박선민, 최우혁, 인하대학교

1PS-96 Pump-Probe Spectroscopy on Intersystem Crossing Dynamics in Cyanine Derivatives for ¹O₂ Generation
방지은, 박재홍, Nghia Nguyen, 윤주영, 이화여자대학교

1PS-97 Electrochemical Removal of Water Pollutants Using Laser Synthesized Graphene Adsorbents Derived from Polyimides
손정민, 황윤찬, 남기호, 경북대학교

1PS-98 A New Method of Polymerization Based on Body Temperature-triggered Peroxide Reaction in Hydrogel Network
엄정민, 송광호, 김정욱, 서강대학교

1PS-99 Modulating Ion Penetration of Dual-mode Switching Organic Electrochemical Transistors Based on Conjugated Polyelectrolytes
이성현, 박채연*, 우한영*, 이현정, 국민대학교; *고려대학교

1PS-100 Controlling Dynamic Bond Exchange Kinetics and Transition Temperatures of Covalent Adaptable Networks Using Removable Small Molecule Additives
전두표, 김채민, 부산대학교

1PS-101 Correlation between Ion and Charge Transport Mechanism according to Time through Organic Electrochemical Transistor
정창환, 이순용*, 우한영*, 이현정, 국민대학교; *고려대학교

1PS-102 Comparison of Mobility (μ) and Volumetric Capacitance (C^*) in Naphthalenediimide-Based Polymer and Perylene Diimide-Based Polymer
정현호, 이현정, 우한영*, 국민대학교; *고려대학교

1PS-103 Directly Assembled Nanostructure of Photosystems and Protonated Carbon Nitride Nanosheets for Efficient Light Harvesting
조녕민, 남윤성, 한국과학기술원

1PS-104 Recyclable Bio-Based Vitrimer for Digital Light Processing 4D Printing
채윤민, 김동균, 류두열*, 김용석, 박성민, 한국화학연구원; *연세대학교

1PS-105 Simple and Eco-Friendly Pressure Sensitive Adhesive Manufacturing Method by Using Organic Eutectic Liquid
최경환, 김채민, 부산대학교

1PS-106 Simulations of Solution Assembly of Amphiphilic Multi-Component Polymers: Penta-block copolymers and Grafting Polymers
최여진, 김태이, 박주혜*, Abelardo Ramirez-Hernandez, 허수미**, 전남대학교; *The University of Chicago; **The University of Texas at San Antonio

| 분자전자 부문위원회 |

1PS-107 How We can Improve the Thermal Stability of Polymer Solar Cell Performance: "Photocrosslinkable Conjugated Polymer"
Hong Diem Chau, 박수홍, 권나연, 박진경, 강민지, 정성훈, 박채영, 광하은, 조민주, 최동훈, 고려대학교

IPS-108 Fabrication of Room-Temperature Phosphorescent Nanoparticles Assembled with Peptide-Aptamer
강민준, 안동준, 김성호, 이예담, 최의범, 고려대학교 화공생명공학과

IPS-109 Universal Polymeric Hole Transporting Material for Solution-Processable Green and Blue Thermally Activated Delayed Fluorescence-OLEDs
권나연, 제현두, 박수홍, 박진영, 강민지, 박재영, 곽하은, 조민주, 최동훈, 고려대학교

IPS-110 Memory-augmented Synthetic Transistor Based on Mechano-sensitive Ion Dynamics
권혁민, 김주성, 김성찬*, 강혜수**, 김동준, 최한빈, 이승걸***, 조정호****, 김도환, 한양대학교; *성균관대학교; **일리노이 대학교; ***부산대학교; ****연세대학교

IPS-111 Molecular Engineering of Organic Fluorescent Dyes for NIR-II Bioimaging
김다솔, 이재원, 충남대학교

IPS-112 폴리프로필렌 폐기물을 업사이클링한 리튬 이온 전지의 음극 소재 개발
김민경, 엄태식, 홍익대학교

IPS-113 Stable Dark Current *via* pH-Controlled PEDOT:PSS for Organic Photodetector
김수연, 임지현, 장웅식, 왕동환, 중앙대학교

IPS-114 Multiscale Study of Strain-Dependent Charge Transport in Deformable Conjugated Polymers
김승현, 조길원, POSTECH

IPS-115 A semi-crystalline Polymer Semiconductor with Thin Film Stretchability Exceeding 200%
김예진, 안형주*, 성민기**, 유현진, 이정훈**, 이병훈, 이화여자대학교; *포항공가속기 연구소; **동서대학교

IPS-116 Investigating the Optical Properties of 0D Perovskites Synthesized *via* Mechanochemical Synthesis
김용진, 조재훈, 백경윤*, 이택희, 강기훈, 서울대학교; *Harvard University

IPS-117 Development of Fluorinated Gel Polymer Electrolytes for Lithium-ion Batteries Enabled by *In-situ* Polymerization
김재현, 엄태식, 홍익대학교

IPS-118 Low-voltage Operating Organic Thin Film Transistors with Ultrathin Polymer Gate Insulator Synthesized *via* iCVD
김정준, 성혜정, 한국과학기술연구원

IPS-119 Functional Group Engineering of a Highly Doped Conjugated Polymer
김희민, 윤태웅, 강보석, 성균관대학교

IPS-120 Humanlike Spontaneous Motion Coordination of Robotic Fingers through Spatial Multi-input Spike Signal Multiplexing
노동규, 호동해, 조정호, 연세대학교

IPS-121 Direct Optical Lithography of Photocurable Perovskite Composite for Stretchable Applications
박선재, 조희찬, 한국과학기술원

IPS-122 Impedance Spectroscopic Analysis of Charge Generation Layer of Organic Light Emitting Diodes
박소미, 부소영, 장은경, Akeem Raji, 이재현, 한밭대학교

IPS-123 Unusually High Thermal Stability of *pseudo*-Ternary Polymer Solar Cell Performance Enabled by Conjugated Donor Block Copolymer
박수홍, 권나연, 정성훈, 박재영, 곽하은, 조민주, 최동훈, 고려대학교

IPS-124 Multi-Layered Triboelectric Nanogenerator as an Artificial Synaptic Device for Human-Machine Interface
박용진, 노윤구, 고현협, 울산과학기술원

IPS-125 Achieving Metal-like Carrier Transport by Hybrid Doping of D-D' type Polymer
박재연, Ayushi Tripathi, 정창화*, 이현정*, 우한영**, Department of Chemistry, College of Science, Korea University; *School of Materials Science and Engineering, Kookmin University; **고려대학교 화학과 유기광전자재료연구소

IPS-126 Induced Chiroptical Properties to Achiral DPP-Based Conjugated Polymer by Blending Chiral Small Molecules
백정은, 문이나, 양동성, 한나라, 최연수, 송건창, 김동유, 광주과학기술원

IPS-127 Efficient Product Selectivity Modulation of Mn(II) Complex-Based Catalysis by Introduction of Alcohol and Alkylxy Tethering Groups in the Secondary Coordination Sphere
불민중, 이대환, 최민수, 강상욱, 손호진, 고려대학교

IPS-128 Alkylxy-Directed ligand Tethering: An Efficient Strategy for Mn(II) Complex-Based CO₂ Reduction Catalysis
불민중, 이대환, 최민수, 강상욱, 손호진, 고려대학교

IPS-129 Multi-valued Logic Inverter by Resistance Control of Molecular Switch
소 찬, 정대성, 포항공과대학교

IPS-130 Effect of Thermal Annealing of ZnO Layer on Dark Current and Specific Detectivity of Near-Infrared Organic Photodetectors
손지연, 은형주, 서경옥, 이아영, 김중현, 아주대학교

IPS-131 Improved Device Performance and Stability in Organic Solar Cells *via* Morphology Control Using Size-Controlled Chevron-Shaped Blades
송건창, 한나라, 양동성, 최연수, 백정은, 김동유, 광주과학기술원

IPS-132 Boosting the Performances of Solution Processed Vertical Organic Schottky Barrier Transistors *via* Silane-Based SAM Treatment
심혜륜, 정대성, 포항공과대학교

IPS-133 Improving the Hydrogen Evolution Rate of Linear Conjugated Polymer by Incorporating Fluorinated Backbone and Ethylene Glycol Side-Chain
안상현, Ziang Wu*, 정하영, 이주혁, 이원중**, 김선규**, 임종철**, 차효정***, 정상영*, 우한영*, 정대성, 포항공과대학교; *고려대학교; **충남대학교; ***경북대학교

IPS-134 Impedance Analysis of Polymer Composites of PEDOT and Natural Polysaccharides
오승희, 김동욱, 은종명, 김선주, 중앙대학교

IPS-135 폴리피롤/리그닌 복합체를 이용한 리튬이온배터리 음극재 개발
오정연, 엄태식, 홍익대학교

IPS-136 Photopatternable Ionic-electronic Mixed Polymer Semiconductor Based on Ion Compatible Crosslinker

IPS-137 Enhanced Ambipolarity of Cyclopentadithiophene-co-pyridylthiadiazole D-A-A-D-type Polymers
윤현진, 성민기*, 안형주**, 양도현, 최유경, 이정훈*, 이병훈, 이화여자대학교; *동서대학교; **포항공가속기연구소

IPS-138 Effects of Fluorination Density in Solution-Processed Polyimide Gate Dielectric on Its Surface Crystal Growth and Device Operation Stability
윤태웅, 김희민, 강보석, 성균관대학교

IPS-139 Benzodithiophene Derivative 2D Spacer as a Defect Passivation Material in Metal-halide Perovskite Solar Cells
이경민, 김효정, 부산대학교

IPS-140 Deep Red to Near-Infrared Emitting Materials for Biomedical Application
이경석, 박용진*, 이우찬*, 유승협*, 최경철*, 김윤희, 경상국립대학교; *한국과학기술원

IPS-141 Polariton Mediated SWIR Detection
이상준, 정대성, 포항공과대학교

IPS-142 Anti-solvent Free Process p-i-n Perovskite Solar Cell Using Alkyl Amines as Additive
이성훈, 김효정, 부산대학교

IPS-143 Ultrasensitive Shape Memory Strain Sensor with Tunable Sensitivity and Selectivity
이승재, 고현협, 울산과학기술원

IPS-144 High-k Dielectric with Bis-acetylacetonate Azide-crosslinker for High-performance Solution-processed Oxide Transistors
이주혁, 정대성, 포항공과대학교

IPS-145 Defect-Covered Perovskite Optoelectronics *via* Tailoring PDI-derivative Interface for Optimized Current Generation under Various Illumination
이준민, 왕동환, 김병기, 중앙대학교

IPS-146 Highly Efficient UV-blocking and Antireflective Polydimethylsiloxane (PDMS) Film for Improving the Stability of Photovoltaics
이한빈, 김효정, 부산대학교

IPS-147 Low-Voltage Stretchable Electroluminescent Loudspeakers with Synchronous Sound and Light Generation
이혜진, 강동희, 고현협, 울산과학기술원

IPS-148 Monodispersed and Highly Aligned BaTiO₃ Nanoparticles-Based Piezoelectric Composites for Flexible and Self-powered Pressure Sensors
이호석, 하민경, 광주과학기술원

IPS-149 Intrinsically-Stretchable and Non-Halogenated Solvent Processed Polymer Solar Cells Enabled by Hydrophilic Flexible Spacer-Incorporated Polymers
임철희, 이진우, 이선우, 전연지, 이승진, 김택수, 이정용, 김범준, 한국과학기술원

IPS-150 MXene Thermoacoustic Loudspeaker for Directivity-Tunable Sound Generation
정건영, 고현협, 울산과학기술원

IPS-151 Short Response Time Photomultiplication Type Organic Photodetectors by Introducing Perovskite Quantum Dot Interlayer
정민영, 한세교, 조길원, POSTECH

IPS-152 Phosphine Oxide-Based Passivator for Defect Passivation in Metal Halide Perovskites
정준하, 최현민, 이석우, 김예은*, 우재용*, 노유진**, 노용영**, 이택희*, 강기훈, 서울대학교 재료공학부; *서울대학교 물리학과; **포항공과대학교 화학공학과

IPS-153 Photocurable and Charge-Transporting Smart Ligands for Patterning Emissive Perovskite Nanocrystals
조나영, 오병민, 김중현, 아주대학교

IPS-154 Vertically Stacked Hybrid Active Channels for Ambipolar Electrochemical Transistors
조일영, 정다현*, 김범준*, 윤명환, 광주과학기술원; *한국과학기술원

IPS-155 Self-Healable Films with Ion Accumulation Multilayer Structures for High-Performance Piezoelectric Self-Powered Tactile Sensor
조하령, 고현협, 울산과학기술원

IPS-156 고분자 이온 액체 기반 리튬 이온 폴리머 전지 용 겔 전해질 개발
주예리, 엄태식, 홍익대학교

IPS-157 Colloidal Synthesis of High-stability InP Magic-sized Clusters for Ga Exchange
주창현, 이재환, 조희찬, 카이스트 신소재공학과

IPS-158 Defect Passivation in 2-D Lead-free Perovskite Field-Effect Transistor by Lewis-base Small Molecules
최현민, 이석우, 정준하, 김예은, 우재용, 노유진*, 노용영*, 이택희, 강기훈, 서울대학교; *포항공과대학교

IPS-159 Low-energy Patternable 3-dimensional Crosslinkers Based on Reactive Carbene Chemistry
하지연, 성유진*, 권혁민, 정욱진, 최석란, 하보리나, 김봉수*, 김도환, 한양대학교; *울산과학기술원

IPS-160 P-Type Doping Using Formic Acid for Controlling Short Circuit Current and Fill Factor in Organic Solar Cells
한나라, 양동성, 최연수, 백정은, 송건창, 김동유, 광주과학기술원

IPS-161 Individually Observed Surface Passivation and Linking Effects of Oleylamine on Metal Halide Perovskite Films
홍승연, 김효정, 부산대학교

[의료용 고분자 부문위원회]

IPS-162 Curcumin-Based Universal Coating Scaffold for Grafting Antifouling Polymer Brushes
김선희, 최준식*, 조우경, 충남대학교 화학과; *충남대학교 생화학과

IPS-163 Hyaluronic Acid Based Hydrogel Filler Encapsulating Adipose Derived Stem Cell Extracellular Vesicles Reprograms the Dermis Microenvironment
김소희, 유동길, 안재운, 엄우림*, 정재민, 전주은, 박재형, 성균관대학교; *부경대학교

IPS-164 Substance P1 Loaded, EDC/NHS Crosslinked Small Intestine Submucosa (SIS) Sheet for Wound Healing by MSCs Recruiting
김신아, 김문석, 아주대학교

IPS-165 Gelatin-Based Bioactive Hydrogels Incorporating Cell-derived ECM for *In Situ* Tissue Regeneration
김연정, 방석호*, 박경민, 인천대학교; *성균관대학교

IPS-166 Reprogramming of Macrophage by Metabolically Engineered Stem Cell-derived Exosome for the Treatment of Rheumatoid Arthritis
김정윤, 유동길, 임경택, 송석호, 박재형, 성균관대학교

IPS-167 Wireless Theranostic Smart Contact Lens for Monitoring and Control of Intraocular Pressure in Glaucoma
김태연, 한세광, 포항공과대학교

IPS-168 Dendrimer-like Porous Hybrid Particles for Cancer Immunotherapy
김태현, 홍진기, 연세대학교

IPS-169 Fabrication of Universal Anti-fouling Surfaces *via* Visible Light Cross-linked Zwitterionic Hydrogel Coating
노수준, 이강원*, 정영미**, 류 진**, 한국과학기술연구원/서울대학교; *서울대학교 융합과학기술연구소/서울대학교; **한국과학기술연구원

IPS-170 Creation of the Highly Robust Multilamellar Lipid Nanovesicles Through Hydrolyzed Collagen Peptides Induced Intervesicular Self-assembly
라피아, 구분일, 남윤성, 한국과학기술원

IPS-171 A Novel Self-Degradable Prodrug Blend Thermogel System for Injectable Drug Delivery to Inner Ear
레티푼, Yang Yu*, 박용호*, 허강무, 충남대학교 고분자공학과; *충남대학교 병원

IPS-172 Ti₃C₂T_x MXene Composite Hydrogel for Sensitive Detection of Neurotransmitters
문정혜, 양은영, 김민아, 김선준, 성혜정, 한국과학기술연구원

IPS-173 Directly and Site-selectively Modifying a Native Protein with Electrophile Ligand-tagged Nucleic Acid Biopolymers
변지윤, 조혜성, 오승수, 포항공과대학교

IPS-174 Preparation of an Injectable *in situ* Forming Hydrogel Combined with BMP2 for the Osteogenic Differentiation of hPLSCs
이민영, 박승훈, 김문석, 아주대학교

IPS-175 Membrane Receptor-mimicking Hybrid Biopolymers for Binding Tolerance of Viral Variants
이민중, 오승수, 포항공과대학교

IPS-176 Evaluation of Click-crosslinked Hyaluronic Acid Hydrogels Containing Anti-inflammatory Peptides for Treating Rheumatoid Arthritis
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IPS-177 Antifouling Coatings through Zr(IV)-mediated Coordination of Zwitterionic Materials
이은정, 조우경, 충남대학교 화학과

IPS-178 Spheroids-laden Hydrogel with Spatially Confined Delivery of Signaling Molecules for Engineering 3D Complex Tissue
이은진, 이진규*, 신희수*, 한양대학교; *한양대학교 생명공학과

IPS-179 Fabrication of 3D Adipose Tissue Using Engineered 3T3-L1 Spheroids
이정복, 신희수, 한양대학교

IPS-180 Targeting CD47 pathway in Tumor Using the Protein-siRNA Conjugate
이종원, 김선화, KIST

IPS-181 High-aspect-ratio Nanoneedle Arrays Fabricated *via* UV-nanoimprint Lithography for Guided Cell Culture and Differentiation
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IPS-182 Controlled Antimicrobial Peptide Delivery Supramolecular Injectable Hydrogels for Diabetic Chronic Wound Healing
정삼훈, 한세광, 포항공과대학교

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IPS-184 Inkjet Printing-Based Melanin-like Pigment Fabrication for Photothermal Cell Ablation
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IPS-186 Improved Antibacterial Activity of 3D Wrinkled Graphene Oxide Films Implemented with Shape-memory Polymer
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IPS-187 Encapsulating Organic Ultraviolet Filters in Chitosan-coated Mesoporous Silica Particles for High Stability and Suppressed Photochemical Reactivity
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IPS-188 Ultrasound-responsive Gold-crosslinked Hyaluronic Acid Depot as a Potential Carrier for On-demand Cargo Release in Cancer Therapy
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IPS-189 Electrostatic Interaction between Anionic Adapalene and Cationic Polycaprolactone Emulsifier to the Treatment of Acne Vulgaris
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IPS-190 Development of Multi-functional Extracellular Matrix (ECM)-mimetic 3D Scaffold for Vascularized Bone Tissue Regeneration
허승재, 이진규, 신희수, 한양대학교

IPS-191 Multi-functional Hydrogels Incorporating Mineral-coated Composite Nano Fibers with Magnetic Nanoparticles for Photothermal Therapy and Bone Tissue Regeneration
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| 콜로이드 및 분자조립 부문위원회 |

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IPS-193 Designing Mechanically-Stable Microcapsules with Double-Network Hydrogel Shells
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IPS-194 Dual-mode Stretchable Triboelectric Nanogenerator Based on Wrinkled Structures
구민보, 이수연, 최영민, 정성목, 김태수, 한국화학연구원

IPS-195 Studying Adhesion Mechanism of XDI-PU and H₆XDI-PU Oligomers Using a Surface Forces Apparatus (SFA)
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김민지, 김중빈, 김신현, 한국과학기술원

IPS-197 Enzyme-responsive Disulfide Polymerization for Transforming Nanostructure Inside Mitochondria
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IPS-198 Molecular Stamping Using 3D Tetrahedral DNA Origami Structure
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IPS-199 Three-dimensional Carbon Structure with Pseudo-capacitive Shell for Thin Film Micro-supercapacitor
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김철호, 문준혁, 서강대학교

IPS-201 Quantum Yield Enhancement of Blue-Emissive Quantum Dots *via* Surface Passivation with Organozinc Halide Ligands
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박기은, 유자형, 울산과학기술원

IPS-204 Super-adhesive Biomimetic Air Filter Using Liquid Thin Films
박준용, 문찬식, 이지민, 김상문*, Jonathan T. Pham**, Hans-jürgen Butt***, Michael Kappl***, 우상혁, 중앙대학교; **University of Cincinnati; ***Max Planck Institute for Polymer Research

IPS-205 Pressure Sensitive Adhesive for Flexible Display with High Adhesion and Fast Recovery by Introducing Flexible Crosslinker H₆XDI-PEG Diacrylate
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IPS-206 Single-exposure Production of Doubly Re-entrant Microstructures through Reaction-Diffusion Photolithography for Omniphobic Surfaces
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IPS-207 Controlling Band gap of Triphenylamine-Based Conjugated Polymers for Efficient Blue Quantum Dot Light Emitting Diodes: Effects of Electron-Withdrawing Groups
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IPS-208 Evaporation Driven Polymer Particle Synthesis by Controlled Dewetting on Micro-Wetting Patterns
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IPS-209 Improved Interfacial Adhesion between Polymer Substrates and Copper Nanoparticle films through Silane Coupling Agents
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IPS-210 Deep-learning Segmentation on Organic Particle Assembly
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윤지우, 김병수, 연세대학교

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이근중, 박건형, 윤동기, 한국과학기술원

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IPS-215 Stationary Liquids as a Hydrogel Marble for Efficient Gas Absorption
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IPS-217 Effect of Carboxymethyl Cellulose (CMC) and Graphite on the Rheological Properties of Anode Slurries for Lithium-ion Battery
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IPS-218 Non-canonical Cohesion of Sericin from *Saturnia japonica* Cocoon Provides Robust Protection Against Its Predators
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IPS-221 Transformation of Block Copolymer Micelles to Compound Micelles Driven by Photo-induced Decarbonylation
장해인, 임지우, 경희대학교

IPS-222 Ninhydrin Loaded Microcapsules for Detection of Natural Free Amino Acid
정수희, 서성백, 부산대학교

IPS-223 Molecular Interpretation of Water Impermeability Across the Liquid-ordered Membrane under Hypertonic Conditions
정우현, 백지민, 유용상*, 안동준, 고려대학교; *한국과학기술연구원

IPS-224 Development of Centrifugal Microreactor for Generation of Multicompartment Alginate Hydrogel
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IPS-225 Temperature-Range Tunable Hydrogel Microcapsules for Controlled Active Release
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IPS-226 Designing Photonic Crystals with Ultranarrow Stopband through Spontaneous Crystallization of Polymeric Colloids Swollen by Resin
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IPS-227 Clathrate-water Control for Ice Recrystallization Inhibition with Polymeric Nanosheets
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IPS-228 Catecholic Polymer Binder with Strong Underwater Adhesion and Electrolyte Wettability for Seawater Battery Cathodes
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IPS-230 Fabrication of Low-Profile Flexible Copper Clad Laminate for High-Frequency Communication
황정희, 이수연, 최영민, 정성목, 김태수, 한국화학연구원

친환경 고분자: 바이오 기반 및 재활용 소재

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IPS-232 Fabrication and Characterization of a Powder-type Anti-adhesion Agent with Improved Tissue Adhesiveness
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IPS-239 Polytetrafluoroethylene 및 Silica 입자가 함께 분산된 Polyimide 복합 필름 제조 연구
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IPS-243 Effect of Amine-treated Graphite Nanofibers on Thermal Conductivity and Fracture Resistance of Polymer Composites
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IPS-245 A Study on the Correlation between Flexibility and Transmittance of Polymer-wood Composites
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IPS-246 Preparation of Nitrogen Oxides Direct Decomposition Catalysts Using Ion Exchange Resin-derived Carbon Molecular Sieves
김영훈, 이슬이*, 박수진, 인하대학교; *수소기반 차세대 기계시스템 KIURI 연구단

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IPS-248 Human Muscle inspired Actuator Based Artificial Muscle with Reversible Percolation
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IPS-249 Improved Mechanical Properties and Anti-inflammatory Effect of Poly (L-lactic acid) Composites with Formation of Stereocomplex Structure and Surface-modified Magnesium Hydroxide
김준형, 백승운*, 송덕현, 박천권*, 한동근, 차의과학대학교; *성균관대학교

IPS-250 Fabrication of Fluorescent Nanoparticles Using Star-shaped Block Copolymer
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IPS-251 PLA/PBAT/clay 나노복합 필름의 연신특성 및 생분해 거동
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IPS-253 동물 기피제 함유 PET 직물의 제조 및 기피특성
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IPS-254 A Study on the Change in Properties of Composites through GNP Content and Surface Treatment
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IPS-255 케이블 노화상태 감시를 위한 Cable Deposit 활용
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IPS-256 Thermal and Mechanical Properties of 3D Printed CFRP Using Continuous Carbon Fiber/Epoxy Filament Produced by Pultrusion Process
박민선, 조동환, 최주란*, 이우나*, 김기영*, 금오공과대학교; *유일랩

IPS-257 Effects of Annealing Temperature on the Recrystallization Behavior and Thermal Properties of Environment-Friendly Kenaf Fiber/PLA Biocomposites
박범창, 조동환, 금오공과대학교

IPS-258 Fabrication of Ni Nanoparticle-loaded Lignin/PAN-derived Carbon Fibers
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IPS-259 Thermal and Mechanical Properties of Biodegradable Polymers Mixed with Nano- and Micron-sized Cellulose Fiber
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IPS-260 A Study on the Analysis of the Main Factors Related to the Thickness Reduction and Bowing Phenomenon in the Battery Separator Stretching Process
박종화, 유제성, 홍유식, LG화학

IPS-261 Preparation of Carboxyl-functionalized Graphitic Nanoplatelets for Improved Performance of Poly(vinyl alcohol)
박희애, 전인엽, 원광대학교

IPS-262 MgAl-layered Double Hydroxides Decorated with Pd-doped SnS Nanoparticles: a Novel Photocatalyst for Efficient Dye Degradation and Cr(VI) Reduction In Water
순 호, 박수진, 인하대학교

IPS-263 Construction of Novel Ternary SnS/NiAl-LDH/g-C₃N₄ Hybrid Photocatalysts for Highly Efficient Degradation of Tetracycline
순 호, 박수진, 인하대학교

IPS-264 Recent Progress and Future Prospects in Metal Sulfide-Based Photocatalytic Hydrogen Production by Water Splitting
순 호, 박수진, 인하대학교

IPS-265 폴리메틸렌 기반 통기성 보온필름의 제조
이정연, 정재훈, 김태영, 김영권, 한명동*, 염정현, 경북대학교; * (주)한스인테크

IPS-266 셀룰로오스 나노피브릴 함유 PVA 고배향 나노섬유의 제조
이정연, 임종철*, 김미경**, 김기영***, 염정현, 경북대학교; * (주)그린패키지솔루션; **다이텍연구원; *** (주)아이제이에스

IPS-267 통기성 PE 멀칭필름의 제조 및 필드 실증연구
이정연, 정재훈, 김태영, 김영권, 한명동*, 염정현, 경북대학교; * (주)한스인테크

IPS-268 Recycled Polyester 내일광 직물의 제조 및 응용
정재훈, 이정연, 배은아*, 김영권, 염정현, 경북대학교; * (주)포이즈

IPS-269 천연물인 함유된 마릴림방지 코팅용액 제조
정재훈, 김영권, 배은아*, 김태영, 염정현, 경북대학교; * (주)포이즈

IPS-270 Suppression of Significant Dark Current in Organic Photodetectors through Side Chain Fluorination of Conjugated Polymers
정주형, 박병욱, 임태희, 이현비*, 박성준*, 경민주, 고서진, 엄승훈, 이승훈, 이창진, 윤성철, 한국화학연구원; *아주대학교

IPS-271 Highly Stretchable and Conductive Polymer Electrode for Efficient Optoelectronic Devices
조세은, 이승현, 고서진, 한국화학연구원

IPS-272 High Performance Ternary Blend Organic Photovoltaic Cells for Indoor Applications
문주영, 이승현, 고서진, 한국화학연구원

포스터발표(II)_4월 6일 (목)

(17:00 ~ 18:30) **좌장: 김세현, 최재원**

차세대 전자/에너지 소재 개발과 고분자 시뮬레이션

2PS-1 Cost-effective Synthesis of Ti₃C₂T_x MXene Produced Using Recycled TiO₂ Source: Atomic Scale Analysis & Characterizations
Aamir Iqbal, Hyerim Kim*, Jung-Min Oh**, Hanjung Kwon***, 구중민****, 성균관대학교; *Korea Institute of Science & Technology; **R&D center, INNOMXENE Co., Ltd.; ***Division of Advanced Materials Engineering, College of Engineering, Jeonbuk National University; ****School of Advanced Materials Science and Engineering, Sungkyunkwan University

2PS-2 Sodium Ion Flexible Battery in Poly-Acrylic Acid with Vinyl Silica Nano Particle Grafted Gel Electrolyte
 김준수, 홍정우, 박호석, 성균관대학교

2PS-3 Inorganic-organic Double Network Ionogel for Flexible Supercapacitor
 박정희, 박호석, 김준수, 홍정우, 성균관대학교

2PS-4 Fabrication of Oligo(EDOT)/Crosslinked PVA/SiO₂ Composite Based Solid Polymer Electrolyte for All Solid Polymer Battery
 서한비, 김민수, 조남주, 부산대학교

2PS-5 Fabrication of Heat Dissipation Composite with Sandwich Structure for Electrical and Electronic Applications
 송교준, 김민규, 조남주, 부산대학교

2PS-6 Anoin-exchanged Hydrogel Electrolytes for High Ionic Conductible and Flexible Aqueous Sodium Ion Hybrid Device
 홍정우, 박호석, 성균관대학교

2PS-7 Polymer Anode Based on Thiophene Derivative Copolymer for all Solid Polymer Battery
 황주원, 전서영, 조남주, 부산대학교

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2PS-8 Facile Synthesis of Polynorbornene-Based Binder through Ring-Opening Metathesis Polymerization (ROMP) for Silicon Anodes
 Anjali Nagapadi Preman, 안석균, Pusan National University

2PS-9 Synthesis of Branched Polycarbonate Polyols *via* Ring-Opening Multibranching Copolymerization of Glycidol and CO₂
 Hoang Chinh Tran, 김 일, 부산대학교

2PS-10 Design a Novel Bismaleimide System with a Highly Rigid Structure
 Kien Hoang Van, 구교선, 여현욱, Kyungpook National University

2PS-11 Preparation of Hydrogel Thin Films through Photoinduced Electron/Energy Transfer Reversible Addition-fragmentation Chain Transfer Polymerization
 Minh Chien Tran, 윤진환, Pusan National University

2PS-12 Synthesis and Analysis Polyimide Including Benzoxazole Monomer
 권준영, 이승우, 영남대학교

2PS-13 Surfactant-free and Size-controllable Synthesis of Monodispersed ZIF-8 by Scalable Reaction Control
 김동균, 박진현, 박지수, 장지은, 김정훈, 연세대학교

2PS-14 ATP-Independent Intracellular Gene Delivery Mediated by Polymeric Biomimetics of Amphiphilic Bile Acid-PEI
 김병덕, 임수연, 김다훤, 여사연, 박채은, 정준구, 신주화, 이지현, 유 빈, 정지훈, 성균관대학교

2PS-15 Reprocessable Crosslinked Polyurethane Elastomer Based on Dynamic Thiourethane Bond Exchange
 김예진, 장영욱, 한양대학교

2PS-16 Controlling the Structural Parameters and Resulting Morphologies of Poly(vinylpyridine)-Containing Brush Block Copolymers by Combining Grafting-through and Grafting-to Approaches
 김은지, 신재만*, 이규선**, 허수미***, 김경곤**, 김범준, KAIST; *숭실대학교; **전북대학교; ***전남대학교

2PS-17 Thermally Cross-linked Sulfonated Poly(ether ether ketone) Membranes Containing a Basic Polymer-grafted Graphene Oxide for Vanadium Redox Flow Battery Application
 김정하, 김정환, 한주성, 김혜진, 김기현, 이현희, 김은기, 최원재, 이종찬, 서울대학교

2PS-18 Development of High Refractive Index Polyphosphonates including Phosphine Sulfide and Phosphine Selenide
 류 덕, 손홍래*, 유남호, 한국과학기술연구원; *조선대학교

2PS-19 Highly Active Prussian Blue Analogue Catalysts for the Synthesis of Polyester Polyols
 문병렬, 김소영, 김 일, 부산대학교

2PS-20 MOF-derived Carbon/PANI Nanorod Composite Electrodes For High Performance Supercapacitor
 박진현, 김동균, 김정훈, 연세대학교

2PS-21 New Non-fullerene Acceptors Containing Selenium for Organic Solar Cells
 박혜연, 김윤희, 경상국립대학교

2PS-22 High Efficiency Organic Photovoltaic Devices with ITIC-Based Photoactive Acceptor under Halogen Light Illumination
 송승훈, 김윤희, 경상국립대학교

2PS-23 Synthesis and Structure-Property Relationship of Thermotropic Liquid Crystalline Poly(ester amide)s with Combined Aromatic-Aliphatic Segmental Units
 송영기, 정영규*, 충남대학교; *충남대학교 유기응용재료공학과

2PS-24 Rivoceranib Sustained Release Microspheres for the Treatment of Angiogenesis
 여사연, 임수연, 김다훤, 신주화, 이지현, 유빈, 정준구, 박채은, 김병덕, 정지훈, 성균관대학교

2PS-25 Synthesis of Isosorbide-Based Polycaprolactone Polyols for the Preparation of Biodegradable Thermoplastic Poly(ester ester) Elastomers
 우정재, 김 일, 부산대학교

2PS-26 Enhanced Cancer Vaccination *via* Nanomicelle-Formed by Dissolving Microneedles
 유 빈, 임수연*, 김다훤*, 여사연*, 박채은*, 김병덕*, 정준구*, 신주화*, 이지현*, 정지훈*, 성균관대학교 약학대학원; *성균관대학교

2PS-27 Synthesis and Characterization of Inverse Vulcanized Sulfur Polymers with Significantly Improved Infrared Transmittance
 이미연, 박종진*, 유남호, 한국과학기술연구원; *전남대학교

2PS-28 Doping and Thermoelectric Behaviors of Donor-Acceptor Polymers with Extended Planar Backbone

이수빈, 김윤희, 경상국립대학교

2PS-29 Lithium Dendrite Suppression by Single-ion Conducting Gel Polymer Electrolyte Cross-linked with Graphene Oxide
 이희원, 정다운, 육진술, 홍동기, 이종찬, 서울대학교

2PS-30 PEDOT:Poly(SSA-co-MA) Nanoparticle from Dual Acid-Based Anionic Polyelectrolyte: Toward Efficient Photothermal Cancer Ablation
 정민석, 정성현*, 김정훈*, 연세대학교; *연세대학교 화공생명공학과

2PS-31 Synthesis of Polyether and Polycarbonate Polyols Using Double Metal Cyanide Catalysts
 최하경, 김 일, 허주영, 부산대학교

2PS-32 Design and Synthesis of Hollow Mesoporous Zirconia by Tannic Acid/Formaldehyde Resin
 최호준, 김정훈, 연세대학교

2PS-33 Synthesis of Linseed oil-Derived Non-Isocyanate Polyurethanes
 한 별, 김 일, 부산대학교

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2PS-34 Thermally Controlled 3D Printable and Modulus Tunable Hydrogel
 Kusuma Betha Cahaya Imani, 윤진환, 고연경, Pusan National University

2PS-35 Triboelectric Nanogenerator with Mechanoluminescence Layer for Movement Sensor
 Nabilah Anindita Febrilia, 윤진환, Pusan National University

2PS-36 Synthesis and Characterization of Two-Dimensional Titanium Nitride (Ti₄N₃T_x) MXene
 Tufail Hassan, 구종민, Sungkyunkwan University

2PS-37 Sulfur-crosslinked Natural Rubber Strain Sensor with Adjustable Modulus
 강보경, 윤진환, 부산대학교

2PS-38 Carbonization of Polyimide Films: Effect of Structure of Polyimide Precursor
 박현우, 김병석*, 유남호**, 한국과학기술연구원/전북대학교; *전북대학교; **한국과학기술연구원

2PS-39 Real-time Visualization of Spatiotemporal Membrane Reconstitution in Formation of Death-inducing Signaling Complex
 국시현, 이현로, 오승수, 포항공과대학교

2PS-40 Synthesis and Characterization of Cardanol-Based Surfactant and Its Application as Cathode Coating Material for Lithium-Sulfur Batteries
 권 진, 정다운*, 이종찬, 서울대학교; *한국과학기술연구원

2PS-41 The Effect of Zwitterion on Electrochemical Properties of Quasi-Solid-State Polymer Electrolyte for Supercapacitors
 권혁수, 김선호, 최우혁, 인하대학교

2PS-42 Organic Pseudohalide Ligands for Surface Treatments of Green and Blue Perovskite Light-emitting Diodes
 김기태, 고재원*, 방중하*, 고려대학교; *고려대학교 화공생명공학과

2PS-43 PEDOT:PSS Electrode for Stretchable Perovskite Solar Cell
 김동현, 김지혜, 구형준, 서울과학기술대학교

2PS-44 Polarized Light Emissive Thin Films by Uniaxial Orientation and Subsequent Polymerization of AIE Luminogen
 김상희, 정광운, 전북대학교

2PS-45 Enhancement of Thermal Conductivity in Liquid Crystal Polymer Networks through Magnetic Alignment of the Molecules
 김수빈, 정광운, 전북대학교

2PS-46 Tetrathiafulvalene Based Shape Memory Thermoactuator with High Thermal Conductivity
 김우진, 정광운, 전북대학교

2PS-47 Thermally Conductive Liquid Crystalline Network Based on Reactive Mesogens
 김이현, 임호선, 숙명여자대학교

2PS-48 Fabrication of Ultrafiltration Membrane Coated with Amphiphilic Copolymers having POSS Group and Zwitterionic Moieties for Enhanced Antifouling Properties
 김재준, 이종찬, 서희란, 김문현, 서울대학교

2PS-49 Poly(vinyl alcohol)-tannin Nanofibrous Membranes coated with Ag NPs for Wound Dressing
 김준태, 박윤희, 충남대학교

2PS-50 Controlled Release of Antibiotics and BMP-2 Using Gelatin Microspheres for Optimal Bone Regeneration
 김지유, 홍진기, 연세대학교

2PS-51 Reprocessable Thermosetting Polyurethane/lignin Composites with Light-triggered Shape Memory Effect
 김태훈, 김예진, 안정현, 장영욱, 한양대학교

2PS-52 Synthesis of Cyclic Olefin Polymers with Oxanorbornene to Control Thermal and Optical Properties
 김희경, 구민후, 구교선, 여현욱, 경북대학교

2PS-53 Patterning Organic-Semiconductors by Solution Coating and Controlling Crystallinity on a Large-Area
 남기범, 이동윤, 경북대학교

2PS-54 Preparation and Characterization of PVA-Based Hydrogel Strain Sensors
 남지우, 박원호*, 충남대학교; *충남대학교 유기재료공학과

2PS-55 Dissolving Hydrogel Microneedles Extracting Exosomes for Early Detection of Colorectal Cancer
 박원찬, 한세광, 포항공과대학교

2PS-56 Synthesis of Cyano-Substituted Conjugated Polymers as Additives for Perovskite Solar Cell
 박일훈, 이재원, 충남대학교

2PS-57 Selective Locomotion of Living Worms by Magnetically Reconfigurable Microtopography

박정은, 윤선희*, 전태준*, 이승우**, 김선민*, 위정재, 한양대학교 첨단소재연구실; *인하대학교; **울산대학교

2PS-58 Applications of Antifouling and Bactericidal Copolymers with Plant-Based Cardanol in Polymer Coatings
박진용, 김진석, 이시영, 이종찬, 서울대학교

2PS-59 Super-hydrophobic PVA/cellulose Nanocrystal Nanofibrous Membrane for Selective Removal of Oily Substances from Water
박준식, 박상우, 김경규, 정민정, 정승오, 윤희철, 곽효원, 서울대학교

2PS-60 Synthesis of Self-Healable Liquid-Crystalline Thermoplastic Polyurethane Containing Mesogenic Groups
백세연, 임호선, 숙명여자대학교

2PS-61 Synthesis of Bottlebrush Block Copolymer and Inducement of Perpendicularly Oriented Lamellar Nano-patterns with Supra-100 nm Domain Spacing
송인규, 김기현, 방준하, 고려대학교

2PS-62 Continuous Microfluidic Fabrication of Conductive Hydrogel Optical Fibers
심아르티, 피트리아 게아, 윤진환, 부산대학교

2PS-63 Reprocessable Polyolefin Elastomer/POSS Hybrid Vitrimer Based on Dynamic Transesterification Reaction
안혁준, 장영욱, 한양대학교

2PS-64 Photo-switchable Hydrogel with Reversibly Tunable Mechanical Characteristics through Host-guest Interaction
엘레스타 프리스카 푸트리, 유기용, 윤진환, 부산대학교

2PS-65 Remote Controllable Photoactuators Based on Dendronized Polynorbornenes with Azobenzene
오민택, 정광운, 전북대학교

2PS-66 Tough Liquid Crystal Elastomer Fiber with Double-network
오승준, 안석균, 부산대학교

2PS-67 Steering Stability of Magnetic Microrobots by Nanoscale Distribution of Magnetic Nanoparticles in Polymer Nanocomposites
원수경, 위정재, 한양대학교

2PS-68 Electrochemical Low-grade Waste Heat Harvesting Enhanced by Hydrogel Electrolyte
원종빈, 구형준, 서울과학기술대학교

2PS-69 Discotic Liquid Crystal for High Thermal Conducting Materials
위영재, 정광운, 전북대학교

2PS-70 Optically Tunable Multifunctional Film Based on Photo-Functionalized Asymmetric Amphiphile
유동민, 정광운, 전북대학교

2PS-71 A Hole-Transporting Furan-Substituted Polymer for Colloidal Quantum Dot Solar Cells
유형철, 최종민*, DGIST; *DGIST 에너지공학

2PS-72 Electrochemical and Rheological Studies of Single-ion Conducting Gel Polymer Electrolytes Containing Zwitterions for Lithium Metal Batteries
윤수성, Puji, 최우혁, 인하대학교

2PS-73 Preparation and Characterization of Regenerated Cellulose/Polyethyleneimine Hydrogel for Humic Acid Removal
윤희철, 방준식, 박상우, 김경규, 정민정, 정승오, 곽효원, 서울대학교

2PS-74 Zwitter-ion-hydrogel Electrolytes with Anti-freezing Properties for Aqueous Zinc-ion Batteries
이예지, 최우혁, 인하대학교

2PS-75 Fabrication of Fibrous Liquid Crystalline Polymer *via* Confinement
이재경, 김재광*, 위정재, 한양대학교; *텍사스 A&M 대학교

2PS-76 Transparent and Long-term Comfortable Skin Electrodes Based on Grid-Type Conducting Polymer Microfiber Mesh and Ion Gel Composites
이종원, 윤명환, 광주과학기술원

2PS-77 Synthesis of Highly Flexible Polyurethane Crosslinked with Poly(propylene glycol)-methyl- β -cyclodextrin Polyrotaxane
이지현, 정일두, 곽수민, 정진웅*, 부산대학교; *동아화학

2PS-78 Synthesis and Characterization of Polyrotaxane-Based Polyurethane with Improved Mechanical Strength and Elongation
이지현, 곽수민, 정일두, 정진웅*, 부산대학교; *동아화학

2PS-79 Synthesis and Characterization of Polyrotaxane Based on Mono-6-deoxy-6-(p-tolylsulfonyl)- β -cyclodextrin
이재준, 정일두, 이지현, 곽수민, 정진웅*, 부산대학교; *동아화학

2PS-80 Synthesis of β -Cyclodextrin Based Polyrotaxane Polyurethane Crosslinked Stretchable Gel
이재준, 정일두, Md Hasan Turabee, 정진웅*, 부산대학교; *동아화학

2PS-81 Light-actuated Shape Memory Thermoplastic Based on Poly(ϵ -caprolactone)/Natural Rubber/Lignin Blends
이환, 장영욱, 한양대학교

2PS-82 Cross-linked Anion Exchange Membrane of 3D Shape Multi-functional Groups with Improved Physicochemical Properties for Water Electrolysis
임해람, 민지현, 박태호, 포항공과대학교

2PS-83 Control of Molecular Arrangement Using Programmed Reactive Mesogens for Negative Dispersion Retardation
장은지, 정광운, 전북대학교

2PS-84 Stimuli-Responsive Optical Sensors from Hydrogen-Bondable Cyanostilbene Based Monomers
장준화, 정광운, 전북대학교

2PS-85 Multifunctional Polyurethane/MXene Composite: Oxidation Stability, Self-healing, Flame Retardancy, Electromagnetic Interference Shielding
정성민, 구종민, 성균관대학교 신소재공학과, 화학공학과

2PS-86 Design and Synthesis of Non-Fused Type Narrow Bandgap Non-Fullerene Acceptor for NIR Organic Photodetector
정연욱, 이재원, 충남대학교

2PS-87 Ecofriendly Starch-Based Wood Adhesives with Improved Adhesion, Antioxidant and Antimicrobial Properties
정유진, 박원호, 충남대학교

2PS-88 Flexible Potentiometric pH Sensor Based on Textile Electrode
최민영, 구형준, 이민지, 소주희*, 서울과학기술대학교; *한국생산기술연구원

2PS-89 Dynamic- and Mechanical-Damping in Liquid Crystal Elastomers Consisting of Slidable Cross-Links
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2PS-90 Easily Detachable Double-network Hydrogel Adhesives
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2PS-91 Fabrication of Highly Hydrophobic Transparent UV Cured Coatings with a Thiol Terminated Perfluorinated Hyperbranched Polysiloxane and Polyurethane Acrylate
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2PS-92 One Side-coated MXene Membrane for Electrically Accelerated Osteogenesis
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2PS-93 Planarity Control of Hierarchical Superstructure for High Thermal Conductivity
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2PS-94 Construction of Optical Fourier Volumes Using Photoaddressable Polymers and Epoxy-Based Photopolymers
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2PS-95 A Highly Flexible Electromagnetic Interference Shielding Nanocomposite Film Based on Electrochemically Exfoliated Graphene and T-shaped Conducting Surfactant
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2PS-96 Synergistic Engineering of Thermal Activation and Plasma: Low-Temperature Synthetic Approach for Mesoporous Metal Oxide
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2PS-97 Fabrication and Structure-Property Relationship of Poly(lactide/Poly(3-hydroxy propionate) Blend Films
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2PS-98 메틸셀룰로오스/PVA/Clay 나노복합필름의 제조 및 특성 분석
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2PS-100 Mesoporous Graphene Derived from Block Copolymer Templates for High-Energy Density Supercapacitor
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2PS-101 Optimization of Silica Elimination Process to Extra Pores on Pine Con-derived Activated Carbons for Carbon Dioxide Capture
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2PS-102 Synthesis of Spend Coffee Ground-Based Activated Carbons for Carbon Dioxide Capture
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2PS-103 Control of Biodegradable Polymer Physical Properties through Hydrolysis for Sustainable Hot-melt Adhesives
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2PS-104 Polypyrrole Laminated Core-Shell Carbon Fiber Mesh for Supercapacitor Application
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2PS-105 Evaluation of Potential Threat for Environmentally Mimicked Nano Plastic Fragmented *via* Ultrasonication
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2PS-106 Effects of Lignocellulosic Components Addition on Physicochemical Properties of Starch-Based Biocomposites
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2PS-107 Effect of the Halogen End Group of the ITIC-Based Acceptor on the Properties of Substances
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2PS-108 Fabrication and Characterization of PLA/PBAT Blends for Biodegradable Hygiene Products
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2PS-109 Multi-Functional Swarm of Magnetic Microrobots through Programming Magnetization anisotropy
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2PS-110 A Study of the Structural Properties of Lignin in Lignin-Containing Thermoplastic Polyurethane Composites
이서규, 이희은, 양기준*, Mandeep Poonia**, 김광호***, Chang Geun Yoo**, 위정재*, 인하대학교; *한양대학교; **SUNY College of Environmental Science and Forestry; ***한국과학기술연구원

2PS-111 Metal-organic Framework and Agarose Polymer-derived Carbon Aerogels for Efficient and Cost-Effective Solar Desalination
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2PS-112 Improved Mechanical Property of PLA/PBAT-Based Nanocomposites with Selective Localized Nano-filler *via* Melt Blending Technique
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2PS-113 Morphology, Mechanical, and Thermal Properties of Ternary blended system, Poly(lactic acid) (PLA)/Poly(hydroxyalkanoates) (PHA)/Poly(butylene

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2PS-114 Microwave Assisted Biomass Lignin-Derived Activated Carbon Preparation Process and Application as Efficient Ionic Dye Adsorbent
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2PS-116 셀룰로오스 나노피브릴 함유 Pullulan/Ag 향균 필름의 제조
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2PS-117 Energy harvesting Using a Microplastic-incorporated TENG system
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2PS-118 Improving Mechanical Properties of Biomass Composites by Using CNF Blended Ternary Master Batch
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2PS-119 Environmentally Sustainable Superhydrophobic Membrane Made of Cellulose and Grafted with PVDF for Separating Oil and Water
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2PS-120 A Highly Flexible and Robust Electromagnetic Interference Shielding Nanocomposite Film Based on Graphene Nanoplate and Conjugated Polyelectrolyte Surfactant With Superior Folding Reliability
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2PS-121 Elastic PEDOT:PSS Composite with Conjugated Polyelectrolyte for Stretchable Organic Solar Cells
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2PS-122 Asymmetric π -Bridge Engineering of Cyclopentadithiophene Based Acceptor for Sensitive NIR Organic Photodetectors
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2PS-123 Enhanced Thermal Conductivity of Liquid Crystal Epoxide by Phase-controlled Topochemical Polymerization
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2PS-124 Synthesis and Characterization of Photosensitive Polyimide According to Cross-linker Content
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2PS-125 A Biodegradable and Sustainable Bio-nanocomposite with Enhanced Mechanical Properties Based on Cellulose Nanofiber
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2PS-126 A Highly Self-Healable Elastic Coating Material Based on Heterocyclic Moieties With Superior Optical and Mechanical Properties for Flexible Displays
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2PS-127 Effect of Polystyrene-Modified Ceramic-Coating Separator on Thermal and Electrochemical Properties for Lithium Ion Batteries
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2PS-128 Property Control of Optically Clear Pressure Sensitive Adhesive Using Polymerization Induced Microphase Separation
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2PS-129 Effect of Alkyl Spacer Length on Light-Responsive Block Copolymer Particles in Photo-Responsive Surfactants
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2PS-130 End-on Chain Orientation of Poly(3-hexylthiophene)-Based Diblock Copolymers
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2PS-131 Thermophysical Properties of Polymer Thin Films Measured on Ionic Liquid 이다혜, 박진석, 김동준, 오은성, 박현정, 김택수, 김범준, 한국과학기술원

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2PS-133 Improved Compatibility of Rubber Blends Using Fumed Silica
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2PS-134 A Highly Stable all Inorganic Perovskites Solar Cells with 3-Dimensional Zwitterions
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2PS-135 Fabrication of Mobile Displays' Acrylic Pressure Sensitive Adhesives via Visible Light Active Photoredox Catalysis
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2PS-137 Synthesis of Multifunctional Thermogel Materials with High Absorbance in the NIR-I Band and High Luminescence in the NIR-II Band through Electron Donor-acceptor Alternation
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2PS-138 Importance of Polymer Ligand Conformation to the Entropy-Driven Assembly Behavior of Polymer-Grafted Nanoparticles within 3D-Confined Block Copolymers
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2PS-139 Design Strategy Using Halogen Substitution for Improving Small Molecule Based Tandem Solar Cell
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2PS-140 Synthesis and Analysis of Polyimide with Different Number of Chains for Better Elongation
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2PS-141 Polymerization of Styrene-Vinylpyridine Copolymers to Improve Thermal Stability of Lithium Ion Battery Separators through Emulsion Polymerization
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2PS-143 Spherical to Cylindrical Microdomains Transition in A(AB)₃ Dendrimer-like Miktoarm Star Copolymer
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2PS-144 Mechanical and Adhesive Behavior of UV Curable Acrylic Pressure-sensitive Adhesives Containing Modified Cellulose Nanofiber
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2PS-146 Conjugated Polymer Turning Grain Boundary Beneficial for Highly Efficient and Stable Perovskite Solar Cells
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2PS-147 Bottlebrush Polymer for Soft and Elastic Pressure-Sensitive Adhesives
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2PS-148 A Biodegradable and Sustainable Polymeric Nanocomposite Based on Modified Cellulose Fiber with Enhanced Mechanical Properties
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2PS-149 Acceleration of Cancer Progression and Resistance of Cancer Therapies According to the Polymer Type and Physical Properties
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2PS-150 Structure-Property Relationships of Exchangeable Liquid Crystal Elastomers Comprising Dynamic Thiourea Bonds
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2PS-153 Highly Thermal Conductivity in Poly(acrylic acid) Sheet with Ethylene Glycol Diglycidyl Ether
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2PS-154 Synthesis and Properties of Thermally Conductive Liquid Crystalline Epoxy with Flexible Chains
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2PS-155 Importance of Bicontinuous Structure in Elastomeric Electrolytes Enabling High-Energy Solid-State Lithium-Metal Batteries
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2PS-156 Photomechanical Jumping of Liquid Crystalline Polymer Network Soft Robots with Varied Crosslinking Density
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2PS-157 Transparent Multilayered Thin-Film Passivation Based on Parylene C-Ain for OLEDs Using a Single Deposition Chamber
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2PS-158 Enhancing the External Quantum Efficiency of Organic Light-emitting Transistors
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2PS-160 High-Performance Narrow Band Gap Terpolymer Enabled Dopant-Free Perovskite Solar Cells
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2PS-162 Significantly Enhanced Voltage Output of Flexible Triboelectric Nanogenerator Based on FAPbI₃ Perovskite Embedded PVDF Composite Film
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- 2PS-171 Highly Transparent Conductive Ionic Hydrogel Electrodes for Optoelectronic devices
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- 2PS-172 Effects of Polymeric Additives on Li-Battery Performance
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- 2PS-173 Highly Efficient Stretchable Organic Solar Cells Enabled by Electro-Active Third Component
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- 2PS-175 Solid-state Ligand Exchange of Perovskite Nanocrystals in Film Using Conjugated Polyelectrolytes
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- 2PS-176 The Impact of Molecular Weight of Conjugated Polymers on the Performance of Organic Cathode Lithium-ion Batteries
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- 2PS-177 High-performance Visible Light Communication Systems Comprising Wavelength-matched All-organic Receiving/emitting Diodes
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- 2PS-178 Versatile Processability by Breaking the Symmetrical Chemical Structure of Nonfullerene Acceptors
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- 2PS-179 Halogenated Solvent Processed Ternary Organic Electronics for Efficient Photo and Dark Current
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- 2PS-180 A Transparent, Stretchable, Free-Standing Triboelectric Nanogenerator Based on Ionic Conductor
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- 2PS-181 Geometrically Confined Diffused Energy Transfers from Metal to Ligand : Carbazole and Naphthalene Substituents Effect of Deep-blue Phosphorescent Isomer of Homoleptic N-heterocyclic Carbene (NHC) Based Ir(III) Complexes
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2PS-257 Synthesis and Characterization of L-threonine Polyurethane (LTHU) Nanoparticles for Drug Delivery
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2PS-258 Hyaluronate-Au@Pt Bimetallic Nanoparticles for Non-Invasive Skin Cancer Theragnosis
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2PS-272 High Ionic Conductivity and Lithium Transference Number of Composite Solid Electrolyte *via* ionic-liquid@MOF-in-COF
카일러, 유필진, 성균관대학교

포스터발표(III)_4월 7일 (금)

(09:00 ~ 10:30)

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3PS-188 New Phenolic Quinololinium-Based Organic Nonlinear Optical Crystals with X-Shaped Structures for THz Wave Sources
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3PS-189 Highly Elastic, Ionically Conductive, and Self-Healable Polymer Electrolytes
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3PS-193 Development of New Organic Nonlinear Optical Salt Crystals Introducing Phonon-Suppressing Groups
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3PS-195 Efficient LBL Ternary Organic Solar Cells through Morphology Control with Donor-Selective Additive
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3PS-211 Soft Artificial Fingertip Electronics for Multimodal Sensing
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3PS-212 New Organic Nonlinear Optical Salt Crystals with Brominated Aryl Sulfonate Anion for THz Wave Generation
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3PS-221 Study on Charge Carrier Dynamics of Non-Fullerene Acceptor for Highly Efficient Organic Photovoltaics via Transient Absorption Spectroscopy
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