

기조강연장_4월 7일 (목)

201호

기조강연

- PL-1 (10:40-11:20) **좌장: 권용구**
Physical Chemistry of Macromolecules: Solution, Interface, and Bulk
손대원, 한양대학교

상암고분자상 수상기념강연

- PL-2 (11:20-12:00) **좌장: 이택승**
Microstructure Controlled Network Polymers: Synthesis and Applications
장지영, 서울대학교

제1회장_4월 7일 (목)

201호

분자전자 부문위원회 (I)

Organizer: 손해정(KIST), 정대성(POSTECH), 이정용(KAIST)

- IL1-1 (13:00-13:25) **좌장: 고두현**
Development of Conductive and Adhesive Hydrogels of Imidazolium-Based Zwitterionic Polymers
김연수, 포항공과대학교
- IL1-2 (13:25-13:50)
Molecular Design Strategy of Vectorial Electron Transfer for Dye-Sensitized Solar Cells and Their Applications
권태현, 울산과학기술원
- IL1-3 (13:50-14:15)
Graphene Oxide Liquid Crystal for Real World Application
김상욱, KAIST-IBS
- IL1-4 (14:15-14:40)
Highly Oriented Liquid Crystal Semiconductors for Organic Electronics
윤종기, 한국과학기술원
- IL1-5 (15:00-15:25) **좌장: 윤동기**
Engineering Charge Transport Properties in Highly Doped Conjugated Polymers for Organic Thermoelectrics
조길원, 포항공과대학교
- IL1-6 (15:25-15:50)
Multi-Functional Emitting Materials for Organic Light-Emitting Diode Applications
진성호, 부산대학교
- IL1-7 (15:50-16:15)
Entropy Driven Strategy for Highly Efficient Organic Photovoltaics
고두현, 성균관대학교
- IL1-8 (16:15-16:40)
Energy Loss Analysis for Non-Fullerene Organic Solar Cells
조산욱, 울산대학교

: 신진연구자 특별 심포지움

제2회장_4월 7일 (목)

301호

의료용 고분자 부문위원회 (I): 의료용 고분자를 활용한 백신 및 나노치료제 개발
Organizer: 정성준(POSTECH), 성혜정(KIST), 남윤성(KAIST)

- IL2-1 (13:00-13:25) **좌장: 남윤성**
Engineering Strategies to Modulate the Gut Microbiome and Immune System
James J. Moon, Department of Pharmaceutical Sciences and Department of Biomedical Engineering, University of Michigan
- IL2-2 (13:25-13:50)
Zwitterionic Phospholipidation of Cationic Polymers Facilitates Systemic mRNA Delivery to Spleen and Lymph Nodes
Daniel Siegwart, UT Southwestern Medical Center
- IL2-3 (13:50-14:15)
Activatable Imaging Probe for Receptor-Ligand Binding
권익찬, 한국과학기술연구원
- IL2-4 (14:15-14:40)
Polymeric Nanomaterials for Immunotherapeutics
오유경, 서울대학교
- IL2-5 (15:00-15:25) **좌장: 이혁진**
Nanoengineered Synthetic Immune Niches for Enhanced Cancer Immunotherapy
임용택, 성균관대학교
- IL2-6 (15:25-15:50)
Development of RNA Therapeutics and Lipid Nanoparticle Formulation for *In vivo* Delivery

- IL2-7 (15:50-16:15)
Lipid-Modified Amphiphilic DNAs for Delivery of Biological Molecules
곽민석, 부경대학교
- 102-1 (16:15-16:35)
Hybrid Lipid Nanoparticles with Extracellular Vesicles for Efficient Cancer Treatment
박우람, 성균관대학교

제3회장_4월 7일 (목)

101-102호

클로이드 및 분자조립 부문위원회 (I)

Organizer: 박범준(경희대), 우상혁(중앙대), 유필진(성균관대)

- IL3-1 (13:00-13:25) **좌장: 유필진**
Hydrogel-Based Water Evaporators and Pumps Prepared by Crystal Engineering
이종환, 한지원, 이청천, 이서린, 김호연, 김준석, 조윤호, 중앙대학교 화학신소재 공학
- IL3-2 (13:25-13:50)
Self-assembled Polymer Li-ion Conductors
이상영, 연세대학교 화공생명공학과
- IL3-3 (13:50-14:15)
Interfacial Engineering of Polymer Nanofilms for Water Treatment
이정현, 고려대학교 화공생명공학과
- IL3-4 (14:15-14:40)
Nanocomposite Films of Polyethersulfone and Core-shell Nanoparticles for Flexible Display
김재현, Nguyen Xuan Viet Lan, Uddhav Kulkarni, 김찬호, 조성민, 유필진, 김덕준, Marc Schroeder*, 이기리**, 성균관대학교; *BASF Electronic Materials R&D Center Asia; **포항공과대학교
- IL3-5 (15:00-15:25) **좌장: 박범준**
Frank-Kasper Mesoscale Crystals from Apex-Dependent Dendron Assembly
전태석, 박현준*, 장우동*, Byeongdu Lee**, 류두열***, 연세대학교 화공생명공학과; *연세대학교 화학과; **Argonne National Laboratory, US; ***연세대학교
- IL3-6 (15:25-15:50)
Stretchable and Self-Recoverable Yoyo and Slinky Behaviors of Bio-Inspired Solid/Liquid Hybrid Structures
양희창, 인하대학교
- IL3-7 (15:50-16:15)
Unraveling Heteroepitaxy Reaction on Colloidal Semiconductor Nanocrystals and Its Implication for Efficient Quantum Dots
임재훈, 성균관대학교
- IL3-8 (16:15-16:40)
Colloidal Quantum Dots for Infrared Light-Harvesting and Detection
최민재, 동국대학교

제4회장_4월 7일 (목)

103-104호

미세플라스틱의 위해성 평가 및 청정화 기술

Organizer: 서성백(부산대)

- IL4-1 (13:00-13:25) **좌장: 서성백**
Chitosan-Based Micro-Beads for Industrial Applications and Biodegradation
추성빈, 박재영, KRICT
- IL4-2 (13:25-13:50)
Development of Bio-Risk Assessment Technology for Microplastics
김길수, 대구경북첨단의료산업진흥재단
- IL4-3 (13:50-14:15)
Membrane Fouling and Rejection of Microplastics in Membrane Separation Process
김정환, 인하대학교
- IL4-4 (14:15-14:40)
Recent Issues of Microplastics & International Standardization of Test Methods
정재환, 한국분석과학연구소

지속가능한 바이오접착제

Organizer: 김태안(KIST)

- IL4-5 (15:00-15:25) **좌장: 김태안**
Issues and Challenges of Sustainable Bio-Based Adhesives
김현중, 류광현, 한기연, 조지현, 서울대학교

- 1L4-6** (15:25-15:50)
목공예용 동물성 바이오 접착제 개발연구
정용재, 정선헌*, 류송이, 이현주, 김성은, 한국전통문화대학교 문화유산전문대학원
문화재수리기술학과; *한국전통문화대학교 문화재예방보존연구소
- 1L4-7** (15:50-16:15)
Adhesion-Driven Site-Specific Fabrication of Multifunctional Melanin-Like Pigment
홍선기, 대구경북과학기술원
- 1L4-8** (16:15-16:40)
Composting a Sticky Problem: Biodegradable Adhesive from a Citrate Complex
구준모, 천현열, 김효정, 김경미, 한국화학연구원

제5회장_4월 7일 (목)

107-108호

“보다 정밀한, 보다 정확한” 고분자 소재 분석 기술

Organizer: 이은지(GIST), 장경순(KBSI)

- 1L5-1** (13:00-13:25) **좌장: 장경순**
삼압광전자분석장치를 활용한 반응 과정 중 전기화학촉매/고분자전해질 계면의
화학적 상태 변화 연구
정범균, 한국기초과학지원연구원 소재분석연구부
- 1L5-2** (13:25-13:50)
Dynamics of Small Molecules in Polymer and Polymer Itself Investigated
by NMR Spectroscopy
한옥희, 한국기초과학지원연구원/충남대학교
- 1L5-3** (13:50-14:15)
Application of Monochromated Cs Corrected-TEM for Nano, Bio and
Polymer
장재현, 한국기초과학지원연구원/충남대학교
- 1L5-4** (14:15-14:40)
Neutron/X-ray Reflectivity Techniques for Nanoelectronic Devices and
Environmental Applications
구자승, 충남대학교
- 1L5-5** (15:00-15:25) **좌장: 이은지**
Label-Free Vibrational Imaging of Microplastics in Environmental and
Biological Samples
이한주, 한국기초과학지원연구원
- 1L5-6** (15:25-15:50)
Recent Developments in Pre-treatment and Analytical Techniques for
Synthetic Polymers by MALDI-TOF Mass Spectrometry
조 건, 한국기초과학지원연구원
- 1L5-7** (15:50-16:15)
Informed Morphogenesis of Polymeric Materials Enabled by 3D
Nanoscale Imaging-Analysis Platform
안효성, 전남대학교
- 1L5-8** (16:15-16:40)
Thermal Property Measuring Instruments and Thermally Conductive
Adhesives
이계행, 한국기초과학지원연구원
- 1L5-9** (16:40-17:05)
Introduction to “Basic Science Research Capacity Enhancement
Project”
Indong Yeo, Sungll Kwon, JungHan Park, National Research Facilities &
Equipment Center, Institute Korea Basic Science

제6회장_4월 7일 (목)

106호

데이터 및 기계학습을 이용한 고분자 과학

Organizer: 허수미(전남대), 손창윤(POSTECH)

- 1L6-1** (13:00-13:25) **좌장: 손창윤**
Chemical Material Research Using Machine Learning Platform
장승훈, 나경석, 강현주, 한국화학연구원
- 1L6-2** (13:25-13:50)
RetroTRAE: Retrosynthetic Translation of \ Atomic Environments with
Transformer
Umit V. Ucak, Islambek Ashyrmamatov, Junsu Ko*, Juyong Lee**,
Division of Chemistry and Biochemistry, Kangwon National University;
*Arontier Co.; **Division of Chemistry and Biochemistry, Kangwon National
University/Arontier Co.
- 1L6-3** (13:50-14:15)
AI to Serve Polymer Scientists and Engineers
정동현, (주)인실리코
- 1L6-4** (14:15-14:40)
Machine Learning Approach to the Migration Patterns of Dendritic Cells

- 1L6-5** (15:00-15:25) **좌장: 허수미**
Per-Atom Identification: Structure/Dynamics of Simple and Complex
Fluids
이원보, 서울대학교
- 1L6-6** (15:25-15:50)
A Machine Learning Study on the Glass Transitions and Crystalline
Orders
성봉준, 서강대학교
- 1L6-7** (15:50-16:15)
AI와 분자동역학을 이용한 타이어 복합재료 설계
류명신, 김형규, 김윤아, 한국타이어 연구개발본부
- 1L6-8** (16:15-16:40)
Multiscale Mechanical Modeling of Polymer Nanocomposites and
Data-Driven Analysis
신현성, 김수한, 왕호림, 김재훈, 이지훈, 인하대학교

제7회장_4월 7일 (목)

105호

Korea-Japan Joint Symposium: Emerging Biopolymers for
Advanced Applications (English)

Organizer: Sheng Li (KAIST), Ye-Jin Hwang (Inha Univ.), Younsoo Kim (POSTECH)

- 1L7-1** (13:00-13:25) **Chair: Sheng Li**
Simultaneous Measurement of Glass-Transition Temperature and
Crystallinity of As-Prepared Polymeric Films from Restitution
최시영, 박진원, KAIST
- 1L7-2** (13:25-13:50)
Development of Dual Stimulus-responsive Hydrogels Using Bio-Based
Biodegradable Polymers
Yu-I Hsu, Department of Applied Chemistry, Osaka University
- 1L7-3** (13:50-14:15)
Designer Biopolymers to Recreate 3D Matrices for Cellular Reprogramming
진윤희, 연세대학교
- 1L7-4** (14:15-14:40)
The Frontier of Self-Assembled Polymer Drugs for Controlled Metabolism
of Amino Acids
Yuta Koda, Department of Material Science, Faculty of Pure and Applied
Sciences, University of Tsukuba
- 1L7-5** (15:00-15:25) **Chair: Gregory Peterson**
Development of Self-assembling Peptide Tags for Intracellular Reconstitution
of Protein Assembly
Takayuki Miki, School of Life Science and Technology, Tokyo Institute of
Technology
- 1L7-6** (15:25-15:50)
Sequence-Defined Biopolymer Modifications for Complex Functionalities
오승수, 포항공과대학교
- 1L7-7** (15:50-16:15)
Different Chain Dimensions and Chiral Separation Abilities of Cyclic
Amylose Carbamates from the Corresponding Linear Polymers
Akiyuki Ryoki, Daichi Ida, Ken Terao*, Graduate School of Engineering,
Kyoto University; *Graduate School of Science, Osaka University
- 1L7-8** (16:15-16:40)
Relaxation Dynamics of ABA Triblock Copolymer Hydrogels
최수형, 홍익대학교

제8회장_4월 7일 (목)

204-205호

청정에너지 변환 및 저장을 위한 최신 연구동향

Organizer: 김찬훈(KITECH)

- 1L8-1** (13:00-13:25) **좌장: 김찬훈**
R&D Strategies and Roadmaps for Secondary Battery in Korea
송준호, 한국전기기술연구원 차세대전지연구센터, 한국산업기술평가관리원
- 1L8-2** (13:25-13:50)
Solid-State Organic/Inorganic Composite Electrolytes for All-Solid-State
Li-Based Batteries
김세희, 한국화학연구원
- 1L8-3** (13:50-14:15)
Interface Engineering Strategies to Achieve Efficient Magnesium Metal
Batteries
임희대, 한국과학기술연구원
- 1L8-4** (14:15-14:40)
Surface Engineering of All Inorganic Perovskite Nanocrystal Quantum
Dots for Air-Stable Light Harvesting Applications
우주영, 한국생산기술연구원

1L8-5	(15:00-15:25) Development of the Large-capacity ESS Using Seawater 김한기, 최지연, 이동건, 박정민, 기다림, 한국에너지기술연구원	좌장: 우주영
1L8-6	(15:25-15:50) Salinity Gradient Power by Reverse Electrodialysis Using Ultra-Thin Pore-Filling Membranes 최진연, 김한기, 정남조, 한국에너지기술연구원	
1L8-7	(15:50-16:15) Addressing the Stability Issue of Perovskite Solar Cells for Commercial Applications 이진욱, 성균관대학교	
1L8-8	(16:15-16:40) Stabilization of Zn Metal Anodes Using Polymers for Dendrite-Free Aqueous Zinc-Ion Batteries 김찬훈, 한국생산기술연구원	

제9회장_4월 7일 (목)

202호

제로웨이스트 사회 실현을 위한 생분해성 소재 기술

Organizer: 오동엽(KRICT), 남 진(아모레퍼시픽)

1L9-1	(13:00-13:25) Development of Biodegradable Materials and Breathable Multi-Use Masks for the Post COVID-19 황성연, 김해리, 전현열, 성혜경, 한국화학연구원	좌장: 오동엽
1L9-2	(13:25-13:50) 생분해성 고분자 기술 및 시장동향 김경연, SKC(주)	
1L9-3	(13:50-14:15) Improving Water Repellency, Mechanical Properties and Antimicrobial Activity of Degradable Plastics and Papers with Chitosan-Based Nanocomposite Coating 차채년, 울산과학기술원	
1L9-4	(14:15-14:40) 100% 바이오 함량의 투명하고 유연한 생분해성 원천 소재 김철웅, LG화학	
1L9-5	(15:00-15:25) 액상 화장품 적용 가능한 종이 용기 개발 정해원, 아모레퍼시픽	좌장: 남 진
1L9-6	(15:25-15:50) Valorization of Naturally-occurring Biopolymers for Wholly Bio-Based Bioplastics and Functional Biocomposites 진정호, 울산대학교	
1L9-7	(15:50-16:15) 연포장 부문의 바이오 패키징 기술개발 동향 권대현, 율촌화학	
1L9-8	(16:15-16:40) Development of PET Upcycling Technologies 김희택, 충남대학교 식품공학과	

: 우수논문발표상 응모

제10회장_4월 7일 (목)

206-208호

Graduate Student Oral Session (I) (English)

Organizer: Byeong-Su Kim (Yonsei Univ.), Hyejeong Seong (KIST)

1O10-1	(13:00-13:15) Asymmetric A-DA'D-A Type Nonfullerene Acceptors for Efficient and Stable Organic Solar Cells 최희정, Peddaboodi Gopikrishna, 김도희*, 조신욱*, 김봉수, 울산과학기술원; *울산대학교	Chair: Hyejeong Seong
1O10-2	(13:15-13:30) The Self-Assembly Behavior of Bilayer-Folded Lamellar by Tuning the Hydrophobicity in an Aqueous Solution 신민중, 서명은, 한국과학기술원	
1O10-3	(13:30-13:45) Exceptional Thermal Stability of 1D/2A Terpolymer-Based Polymer Solar Cells Processed with Nonhalogenated Solvent 정현우, 이윤구, DGIST	
1O10-4	(13:45-13:00) A Novel Swelling-Diffusion Strategy for Modifying the Structural and Chemical Properties of Polyamide Membranes 신민규, 이정현, 고려대학교 화공생명공학과	

1O10-5	(14:00-14:15) Stretchable and Patternable Optical Paints from Cyanostilbene-Based Liquid Crystal Polysiloxanes 구자현, 정광운, 전북대학교	
1O10-6	(14:15-14:30) Optimized Tissue Vitalizing Bioelectronics Using Conductive, Ultrasoft Hydrogel 정성원, 박소현, 최우진, 홍진기, 연세대학교	
1O10-7	(14:30-14:45) Surface Functionalization of 3D Printed Scaffold with Minerals and Pro-Angiogenic Growth Factor for Vascularized Bone Regeneration 허승재, 이진규, 신희수, 한양대학교	
1O10-8	(14:45-14:00) Liquid Crystal Elastomers with Slide-Ring Cross-Links 최수빈, 서지훈*, 안석균, 부산대학교; *고려대학교	
1O10-9	(15:10-15:25) Novel Colorimetric and Fluorescent Probes for Hydrogen Sulfide Detection: Controlling Reaction-rate Modulation Using Organo-fluorine Functional Group 오병민, 조나영, 이은혜, 전혜원, 김중현, 아주대학교	Chair: Byeong-Su Kim
1O10-10	(15:25-15:40) The Quasi-Solid-State Dye-Sensitized Solar Cells by Triblock Copolymer Gel Electrolytes for Low Energy Consumed Electronics and Autonomous IoT Devices Masud, 김환규, 고려대학교	
1O10-11	(15:40-15:55) Synthesis of Polyethers with Carboxylic Acid Pendant Group <i>via</i> Anionic Ring-Opening Polymerization 박진태, 유예지, 이주원, 김병수, 연세대학교	
1O10-12	(15:55-16:10) Dynamic Actuating Reversible Wrinkles Enabled by Liquid Metal Fillers on Polymeric Bilayer 위유문, 김시연, 김시현, 천진위, 박성준, 전북대학교	
1O10-13	(16:10-16:25) Fabrication of Mechanically Tough Dry-Free Ionogel Microfibers Swollen in Aqueous Electrolyte by Microfluidic Devices 피트리야 게아, 윤진환, 부산대학교	
1O10-14	(16:25-16:40) Enzymatic Fabrication of NIR-responsive Polycatecholic Pigment in a Site-specific Manner 정해진, 홍선기, 대구경북과학기술원	

: 우수논문발표상 응모

제11회장_4월 7일 (목)

209-211호

대학원생 구두발표 (I)

Organizer: 조정호(연세대), 우상혁(중앙대)

1O11-1	(13:00-13:15) Semi-Automated Synthesis of Sequence-Defined Polymers for Information Storage 이정민, 김경택, 서울대학교	좌장: 조정호
1O11-2	(13:15-13:30) Visco-poroelastic Electrochemiluminescence Skin Based on Piezo-ionic Effect for Mechanosensitive Visualization 최하빈, 이종익*, 김주성, 강문성*, 김도환, 한양대학교; *서강대학교	
1O11-3	(13:30-13:45) Degradable n-Type Organic Semiconductor for High-Performance and Transient Electronics 박현정, 김영권, 이승진, 김동욱*, 김선주*, 김범준, KAIST; *중앙대학교	
1O11-4	(13:45-13:00) Investigation of the Microstructural Deformation of Cellulose-Based Hydrogels Mediated by Metal-Carboxylate Coordination Bonding <i>via</i> Large Amplitude Oscillatory Shear (LAOS) Tests 송예은, 이두진, 전남대학교	
1O11-5	(14:00-14:15) Fully Recyclable Vitrimer Composite with Segregated Filler Structures for Efficient Heat Dissipation 전도표, 윤여명, 서한열, 박진영, 김채빈, 부산대학교	
1O11-6	(14:15-14:30) Self-Crosslinkable Chitosan-Gallol Conjugate Hydrogels for 3D Bioprinting 곽민아, 이수진, 박원호, 충남대학교	
1O11-7	(14:30-14:45) Branch-controlled ATRP Utilizing Sulfoxide Chemistry 김동우, 경석현, 조홍열, 전홍배*, 백현중, 부산대학교; *광운대학교	

1011-8	(14:45-14:00) A Self-Healable, Tough, and Conductive Hydrogel with a Dynamic Network Ensures the Long-Term Functionality of Bioelectronics 박재근, 서정목, 연세대학교	
1011-9	(15:10-15:25) Enhanced Photo-Luminescence Stability and Efficiency of Dehydrate Perovskite Quantum Dots <i>via</i> Water-Selective Capture 김진영, 왕동환, 장웅식, 김병기, 중앙대학교	좌장: 우상혁
1011-10	(15:25-15:40) Shape-Fixable Vitrimers Microarrays <i>via</i> Magneto-Thermomechanical Stimuli 이재경, 문호준, 조웅비, 전지수, 박정은, 위정재, 인하대학교 첨단소재연구실	
1011-11	(15:40-15:55) Polymer-Silver Nanowire Hybrid Electrodes for the Fully Vacuum-Free Fabrication of Polymer Light Emitting Diodes 김예진, 박세정, 윤창훈, 전남대학교	
1011-12	(15:55-16:10) Rich Phase Behaviors of Colloids with Realistic Pair Potentials 박상현, 황해림*, 김신현, KAIST; *이화여자대학교	
1011-13	(16:10-16:25) Fabrication of Nanoporous Reduced Graphene Oxide/Conjugated Polymer Composite Thin-Films for High-Performance Gas Sensors 신서영, 장민철, 전남대학교	
1011-14	(16:25-16:40) Ionic-Liquid Doping of Carbon Nanotubes with [HMIM][BF ₄] for High Performance Flexible Thermoelectric Generators 정재민, 서의현, 정영재, 오종규, 장재영, 한양대학교	
1011-15	(16:40-16:55) Polysaccharide Derivative-Based Multifunctional Coating of Intravascular Catheters: A Simple and Biocompatible Method to Improve Antimicrobial and Antithrombotic Activities 박세경, 신재학*, 정재희*, 최동윤, 이동윤**, 유승화***, 한국생산기술연구원; *세종대학교; **경북대학교; ***전북대학교	
1011-16	(16:55-17:10) Solution- and Solid-state Mechanochemistry of Polymers from Varying Macromonomers 노진경, Gregory Peterson*, 최태림, 서울대학교; *Incheon Nat'l University	

신진연구자 특별 심포지움

제1회장_4월 8일 (금)

201호

분자전자 부문위원회 (II)

Organizer: 손해정(KIST), 정대성(POSTECH), 이정용(KAIST)

2L1-1	(10:30-10:55) Vertical Organic Thin Film Transistors: Overcoming Limitation of Next Generation 임경근, 한국표준과학연구원	좌장: 백세웅
2L1-2	(10:55-11:20) Strategies for Improving Color Purity and Efficiency in Organic Light-Emitting Diodes 이정환, 인하대학교	
2L1-3	(11:20-11:45) Dimensions of Transport Channels for Charge Carriers and Ions in Polymer Electrochemical Transistors 김선주, 중앙대학교	
2L1-4	(11:45-12:10) Engineering Aggregation-Resistant MXene Nanosheets as Highly Conductive and Stable Inks for All-Printed Electronics 김세현, 영남대학교	
2L1-5	(13:30-13:55) Continuous Tuning of Fermi-level in Disorder Engineered Films for Thermoelectric Applications 이현정, 국민대학교	좌장: 손해정
2L1-6	(13:55-14:20) Molecular Doping of Conjugated Polymers for Organic Thermoelectrics 장재영, 한양대학교	
2L1-7	(14:20-14:45) Physical Intercalation of Polymers into Graphene Sheets: A Route to Functional Nanohybrid Electrodes 윤현석, 전남대학교 고분자융합소재공학부	
2L1-8	(14:45-15:10) Tailoring Piezoelectric Polymer Nanofibers for Energy Harvesting 김미소, 성균관대학교	

201-1	(15:20-15:40) Colloidal Quantum Dots for Shortwave Infrared Optoelectronics 백세웅, 고려대학교	좌장: 정대성
201-2	(15:40-16:00) Design of Micro/Nano-Structured Materials for Wearable and Interactive Electronics 하민정, 광주과학기술원	
201-3	(16:00-16:20) Patterning Quantum Dot Light-Emitting Diodes with <i>in-situ</i> Ligand Exchange 조희찬, KAIST	

제2회장_4월 8일 (금)

301호

의료용 고분자 부문위원회 (II): 고분자를 활용한 의료용 전자소자 개발 Organizer: 정성준(POSTECH), 성혜정(KIST), 남윤성(KAIST)

2L2-1	(10:30-10:55) Skin-inspired Electronics for Bioelectronics Applications Zhenan Bao, Department of Chemical Engineering, Stanford University	좌장: 정성준
2L2-2	(10:55-11:20) Wireless Smart Contact Lenses for Ubiquitous Healthcare 한세광, 이진희, 김수경, 포항공과대학교	
2L2-3	(11:20-11:45) Self-powered Flexible Devices: Piezo-sensor and microLED 이진재, 한국과학기술원	
2L2-4	(11:45-12:10) Hydrogel Nano-/Microstructures with Predefined Geometry and Controlled Swelling <i>via</i> Hydrogelification 윤명환, 광주과학기술원	
2L2-5	(13:30-13:55) Intrinsically-Soft Electronic Materials for Skin-mountable Bioelectronics 김태현, 서울대학교, 나노입자연구단(IBS)	좌장: 성혜정
2L2-6	(13:55-14:20) Skin-Inspired Deformable Devices for Artificial Skins and Healthcare 정우룡, 포항공과대학교	
2L2-7	(14:20-14:45) Surface Hydrophobicity Modulates the Key Characteristics of Cancer Spheroids through the Interaction with the Adsorbed Proteins 임성갑, KAIST	
2L2-8	(14:45-15:10) Biophotonic Waveguide of DNA-Organic Semiconductor Hybrid Assemblies 안동준, 고려대학교	
202-1	(15:20-15:40) Polymer Electronics for Biomedical Sensors 이원철, 한국과학기술연구원	좌장: 정성준
202-2	(15:40-16:00) Multi-Functional Soft Composites for Safety-Engineering of Skin-Interfaced Devices 조동환, 한국화학연구원	
2L2-9	(16:00-16:25) Bioelectronic Tools to Study the Gut-Brain Axis Róisín M. Owens, Department of Chemical Engineering and Biotechnology, University of Cambridge	

제3회장_4월 8일 (금)

101-102호

콜로이드 및 분자조립 부문위원회 (II)

Organizer: 박범준(경희대), 우상혁(중앙대), 유필진(성균관대)

2L3-1	(10:30-10:55) Liquid-Suspended and Liquid-Bridged Liquid Metal Microdroplets 이준형, 명지대학교	좌장: 최창형
2L3-2	(10:55-11:20) Complex-Shape Photonic Droplets for Optical Applications 박수영, 경북대학교	
2L3-3	(11:20-11:45) 2-D Nanoplatelet Surfactants with Polymer-Grafted Amphiphilic Faces 김진용, 성균관대학교	
2L3-4	(11:45-12:10) Self-Assembled Structures for Energy Applications 장지현, 울산과학기술원	

2L3-5	(13:30-13:55) Superhydrophobic Thin Films from Silica Nanoparticles and Polyfluorosilane and Their Perfect Anticorrosion Properties Huu Van Nguyen, Quoc Bang Ha, <u>Tran Hung Nguyen</u> , Hanoi Institute of Chemistry and Materials Science	좌장: 임재훈
2L3-6	(13:55-14:20) Learning from Nature: Biomimetic Materials and Their Applications <u>김해경</u> , 고려대학교	
2O3-1	(14:20-14:40) Functional Organic Materials for Directed Self-assembly of Block Copolymers <u>고재현</u> , 한국과학기술연구원	
2L3-7	(14:40-15:05) Exploring Rheology of Complex Fluids Using Mesoscale Simulation Schemes <u>이영기</u> , 한경대학교 식품생명화학공학부	
2O3-2	(15:15-15:35) 미세유체 플랫폼을 이용한 고분자 마이크로입자의 배열 <u>김재경</u> , 홍익대학교	좌장: 임재훈
2L3-8	(15:35-16:00) Hydrogel Microcapsules with an Interstitial Thin Oil Layer: Smart Controlled Release via Diverse Stimuli <u>최창현</u> , 대구한의대학교	
2O3-3	(16:00-16:20) Multiplex DNA Library Purification by Synthesis and Selection <u>최영재</u> , 광주과학기술원	

제4회장_4월 8일 (금)

103-104호

고분자 합성

Organizer: 김병수(연세대), 임지우(경희대)

2L4-1	(10:30-10:55) Photo-Vitrimerization of Thermosetting Polymer <u>김채빈</u> , 부산대학교	좌장: 류 진
2L4-2	(10:55-11:20) Cooperative Hydrogen Bonding on the Topology Controlled Polyether Toward Advanced Adhesive Materials <u>김준희</u> , <u>이상호</u> , 한국화학연구원	
2L4-3	(11:20-11:45) Thermal Conducting Polymer Development Based on Liquid Crystalline Materials <u>여현우</u> , 경북대학교	
2L4-4	(11:45-12:10) Postpolymerization Modification of Commodity Polymers <u>김정근</u> , <u>김세종*</u> , <u>홍은지*</u> , <u>이남주*</u> , 전북대학교; *전북대학교 화학과	
2O4-1	(13:30-13:50) Synthesis of Tough Self-Healing Network <u>김진형</u> , 한국과학기술원	좌장: 임지우
2O4-2	(13:50-14:10) Tuning the Composition of Graft Polymers to Modulate Mechanochemical Degradability <u>Gregory Peterson</u> , <u>Jinkyung Noh*</u> , <u>Tae-Lim Choi*</u> , Incheon National University; *Seoul National University	
2O4-3	(14:10-14:30) Strategy for Synthesis of Statistically Sequence-Controlled Uniform PLGA <u>류 진</u> , 한국과학기술연구원	
2L4-5	(14:40-15:05) Fluorinated Thiophene-Based Heterocycles <u>박태호</u> , <u>김민준*</u> , 포항공과대학교 화학공학과; *Emergent Supramolecular Materials Research Team, RIKEN Center for Emergent Matter Science	좌장: 강지형
2L4-6	(15:05-15:30) Application of Solid Additives in Organic Solar Cells <u>양철덕</u> , 울산과학기술원	
2L4-7	(15:30-15:55) Poly(lactide) Architectures for Elastomeric, Toughening, Degradable, and Flexible <u>신지훈</u> , 한국화학연구원/UST	

제5회장_4월 8일 (금)

107-108호

기능성 고분자

Organizer: 이종석(서강대), 장세규(KIST)

2L5-1	(10:30-10:55) New Strategies for Economically Feasible CO ₂ Electroreduction Using	좌장: 이종석
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	a Porous Membrane in Zero-gap Configuration <u>오형석</u> , Korea Institute of Science and Technology (KIST)	
2L5-2	(10:55-11:20) Stable Battery Separator Based on Cellulose Materials <u>강상용</u> , 상명대학교 화학에너지공학과	
2L5-3	(11:20-11:45) Hollow Fiber Nanocomposite Membranes for Water Vapor Separation <u>전재덕</u> , 한국에너지기술연구원	
2L5-4	(11:45-12:10) Emerging Carbon Shell-Encapsulated Metal Nanocatalysts for Fuel Cell and Water Electrolysis <u>유성준</u> , 한국과학기술연구원	
2L5-5	(13:30-13:55) Decarbonization Membranes: CO ₂ Mineralization through Hollow Fiber Membranes <u>고동연</u> , KAIST	좌장: 장세규
2L5-6	(13:55-14:20) Ultra-Thin Polymer Membrane for Hydrogen Purification <u>이종영</u> , <u>박채영*</u> , <u>공창인</u> , <u>이재혁*</u> , <u>문소영</u> , 한국화학연구원; *안전성평가연구소	
2L5-7	(14:20-14:45) Shape-Controlled Block Copolymer Particles and Their Applications <u>김범준</u> , 한국과학기술원	
2L5-8	(14:55-15:20) Sustainable Fabrication of Solvent Resistant Biodegradable Membranes <u>김 정</u> , 인천대학교	
2L5-9	(15:20-15:45) Low-Voltage Reversible Electro-Adhesion of Ionoelastomer Junctions <u>김형준</u> , 서강대학교	
2O5-1	(15:45-16:05) Vertically Aligned Cellulose-Based Superhydrophobic Sorbent for Enhanced Sorption Capacity and Reusability <u>남창우</u> , <u>김현구*</u> , <u>강진혁</u> , 전북대학교; *UNIST	

제6회장_4월 8일 (금)

106호

고분자구조 및 물성

Organizer: 최우혁(인하대), 홍성우(KITECH)

2L6-1	(10:30-10:55) Charged Polymers with Various Ionic Additives <u>박문정</u> , 포항공과대학교	좌장: 홍성우
2L6-2	(10:55-11:20) Multispectral Electromagnetic Shielding of 2D MXene Materials <u>구종민</u> , 성균관대학교	
2L6-3	(11:20-11:45) Metal/Polymer Adhesion Using Anodizing Treatment <u>이제욱</u> , 경희대학교	
2L6-4	(11:45-12:10) High Functional Surface Coatings for Interior Materials <u>TaeYi Choi</u> , <u>BoBin Lee</u> , <u>DaSol Kim</u> , <u>EuiJong Kim</u> , <u>BomYi Lee</u> , LX Hausys	
2L6-5	(13:30-13:55) Transforming Crystalline Thermosetting Urea-Formaldehyde Resins to Amorphous Resins <u>박병대</u> , 경북대학교	좌장: 최우혁
2L6-6	(13:55-14:20) Self-Assembly of Lightly Charged Block Copolymers into Nonclassical Morphologies <u>심지민</u> , 한국과학기술연구원 (KIST)	
2L6-7	(14:20-14:45) Nanocomposite Materials Absorb Heat from Solar Energy Based on Polyurethane Resin and Nanoparticles: Fabrication and Application <u>Nguyen Vu Giang</u> , <u>Mai Duc Huynh</u> , <u>Tran Huu Trung</u> , <u>Nguyen Tuan Dat</u> , Vietnam Academy of Science and Technology	
2L6-8	(14:45-15:10) Structural Design of Micro/Nanostructured Polymers for High-Performance Soft Sensors <u>고현형</u> , 울산과학기술원	
2O6-1	(15:20-15:40) Sustainable Polysalicylates: Synthesis, Properties, Blend Miscibility, and Degradation <u>김희준</u> , 인하대학교	좌장: 홍성우
2O6-2	(15:40-16:00) Semiconducting Polymers as Promising Materials for Photoelectrochemical Water Splitting <u>조한희</u> , <u>Dan Zhang*</u> , <u>Liang Yao**</u> , <u>Kevin Sivula*</u> , UNIST; *Institute of Chemical Sciences and Engineering, École polytechnique fédérale de Lausanne (EPFL); **Max Planck Institute for Solid State Research	

206-3 (16:00-16:20)
Electroactive Crystalline Polymers for Semiconductor Device Solutions
정법진, 부산대학교

제7회장_4월 8일 (금)

105호

고분자가공/복합재료/재활용

Organizer: 최우진(KRICT), 윤명환(GIST)

- 2L7-1 (10:30-10:55) **좌장: 최우진**
Enhanced Thermal Conductivity Approaches for Polymer Composites
김남일, 한국자동차연구원
- 2L7-2 (10:55-11:20)
Chemical Recycling for Polyester
김한석, 조현준, 이종인, 김성기, 이유진, SK케미칼 화학연구소
(11:20-11:45)
- 2L7-3 Biodegradable Polymer Composite Film with Gradient Composition
박종진, 차석준, 최형섭, 안다혜, 전남대학교 고분자융합소재공학부
(11:45-12:10)
- 2L7-4 AI Vision 기반의 Deep Learning을 이용한 무인사출조건 최적화
김원룡, LG화학
- 2L7-5 (13:30-13:55) **좌장: 윤명환**
Improving the ILSS and Impact Strength of CFRTP by Introducing MWNT Anchored on the Carbon Fiber
김민국, 임준우*, 천진실**, 한국과학기술연구원; *전북대학교; **한국섬유기계융합연구원
- 2L7-6 (13:55-14:20)
SK geo centric's Green Biz and R&D
함형택, SK geo centric/SK innovation
- 2L7-7 (14:20-14:45)
난연 섬유용 Poly(vinylidene chloride-co-acrylonitrile)의 중합 및 특성 분석
윤지호, 최호원, 인하대학교 화학공학과
- 2L7-8 (14:45-15:10)
PET Chemical Recycling 기술 동향
홍성민, 임성수, 롯데케미칼
- 2L7-9 (15:10-15:35)
Nondestructive Analysis of Carbon Fiber Reinforced Composite Using Acoustic Emission
나원진, 한국과학기술연구원
- 207-1 (15:45-16:05) **좌장: 윤명환**
Processing Strategies of Liquid Crystal Elastomers and Their Composites for High-performance Smart Actuators
김 현, 한국화학연구원
- 207-2 (16:05-16:25)
반응액상성형을 이용한 고분자 복합재료 제조 및 친환경 수지 기반 복합재료 제조로의 응용
유형민, 한국기술교육대학교 기계공학부
- 207-3 (16:25-16:45)
Rheological Study of Biodegradable Nanocomposite of Poly(butylene succinate)/Cellulose Nanocrystals
김효경, 엄영호, 부경대학교 고분자공학과

제8회장_4월 8일 (금)

204-205호

Programmable Soft Materials and Their Applications

Organizer: 김용석(KRICT), 안석균(부산대), 위정재(인하대)

- 2L8-1 (10:30-10:55) **좌장: 김용석**
Poly(phenylene polysulfide) Networks from Elemental Sulfur and p-Diiodobenzene for Stretchable, Healable, and Reprocessable Applications
김용석, 한국화학연구원
- 2L8-2 (10:55-11:20)
Embedding Intelligence in Polymers via Liquid Crystal Units
안석균, 부산대학교
- 2L8-3 (11:20-11:45)
Flexible Piezoelectric Elastomer Formed by Optimal Crosslinking of Polyrotaxane
서지훈, 고려대학교
- 2L8-4 (11:45-12:10)
Shape Memory Vitrimers for Extrusion-Based 4D Printings with Reprocessable, Recyclable and Weldable Properties
박성민, 김동균, 김용석, 한국화학연구원
- 2L8-5 (13:30-13:55) **좌장: 안석균**
Biomimetic Multi-Functional Nanocomposites from Naturally Derived Anisotropic Nanomaterials
심봉섭, 인하대학교

- 2L8-6 (13:55-14:20)
Continuous and Programmable Photomechanical Jumping by Using Topological Transitions of Liquid Crystalline Polymeric Film
최준창, 전지수*, 이 혁**, 이재원, 조용비*, 김재광*, 이광석**, 주경일, 조맹효**, 위정재*, 김학린, 경북대학교; *인하대학교; **서울대학교
- 2L8-7 (14:20-14:45)
Simulation and Design of Multi-materials for Structural and Electrical Actuation with 3D/4D Printing
김주형, 인하대학교
- 2L8-8 (14:45-15:10)
Static and Dynamic Covalent Dual-Crosslinked Liquid Crystalline Networks for Transformable Soft Robotic Applications
김동균, 황재혁, 강홍석, 이종찬*, 한국화학연구원; *서울대학교

제10회장_4월 8일 (금)

206-208호

Graduate Student Oral Session (II) (English)

Organizer: Byeong-Su Kim (Yonsei Univ.), Hyejeong Seong (KIST)

- 2010-1 (10:30-10:45) **Chair: Sungbaek Seo**
Synthesis of Conductive Liquid Network in Polymers Enabling Elastic Printed Circuit Board Technology
이원범, 김현준, 강지형, KAIST
- 2010-2 (10:45-11:00)
Simultaneous Improvement of Proton Conductivity and Chemical Stability of Nafion Membranes via Embedment of Surface-Modified Ceria Nanoparticles in Membrane Surface
브영트, 김덕준, 성균관대학교
- 2010-3 (11:00-11:15)
Design of Smart Polymer Printer via Regulating Chain Reaction over the Liquid Crystals
오광석, 김혜민, 최영선, 김명기, 포항공과대학교
- 2010-4 (11:15-11:30)
DNA Optoelectronics: Versatile Systems for On-Demand Functional Electrochemical Applications
김용민, 문홍철, 서울시립대학교
- 2010-5 (11:30-11:45)
Superhydrophobic PVDF-Based Cellulose Membranes Prepared via Surface-Grafting Polymerization
허 윤, 방준하, 고려대학교
- 2010-6 (11:45-12:00)
Minimizing Non-Radiative Recombination Loss in Perovskite Solar Cells Using Novel Non-Conjugated Polyelectrolyte
김주현, 이광희, 광주과학기술원
- 2010-7 (12:00-12:15)
Photo-Mechanical Responsive Liquid Crystal Elastomer with Azobenzene Side Groups
판보배, 이경진, 충남대학교
- 2010-8 (13:30-13:45) **Chair: Jin-Kyun Lee**
Tailored Morphology and Ion Transport Properties of Phosphonated Polymers by Controlling Intermolecular Interactions
강세준, 박문경, 포항공과대학교
- 2010-9 (13:45-14:00)
Reversible Stepwise Magnetic Self-Assembly of Micropillar Arrays
박점은, 위정재, 인하대학교 첨단소재연구원
- 2010-10 (14:00-14:15)
MOF Nanoparticles with Ice Surface-Microcurvature Control for Efficient Cell-Cryopreservation
전나영, 이지연, 정인호*, 박현우**, 이희정**, 이창환*, 이은지, 광주과학기술원; *서울아산병원; **한국재료연구원
- 2010-11 (14:15-14:30)
Monovalent Salt Induced Liquid-Liquid Phase Separation of Polyguanidinium
오승환, 이진호*, 이민환**, 김슬우**, 이원보**, 이동욱*, 최수형, 홍익대학교; *UNIST; **서울대학교
- 2010-12 (14:30-14:45)
Universal Suzuki-Miyaura Catalyst-Transfer Polymerization for Precision Synthesis of Various Donor-Acceptor Conjugated (Co)polymers
이재호, 최태림, 서울대학교

제11회장_4월 8일 (금)

209-211호

대학원생 구두발표 (II)

Organizer: 조정호(연세대), 우상혁(중앙대)

- 2011-1 (10:30-10:45) **좌장: 오동업**
Self-healing Soft Robots
정재훈, 이선우, 강지형, KAIST

- 2011-2 (10:45~11:00)
Strengthening of Polyamide 6 by Reactive Extrusion with Eco-Friendly Copolyester
장동진, 이주형, 이재진, 김성훈, 한양대학교
- 2011-3 (11:00~11:15)
Poly(vinylidene fluoride) (PVDF)-Based Nanofibrous Membranes with High Filtration Performance and Durability for Reusable Air Filters
김형경, 이수경, 신예림, 최윤남, 윤종선, 류 민, 이정욱, 이효민, 포항공과대학교
- 2011-4 (11:15~11:30)
Stress Dissipative Amino Acid Crosslink for the Elastoplastic Silk Fibroin Electrode of Wearable Bioelectronics
최우진, 정성원, 최문현, 홍진기, 연세대학교
- 2011-5 (11:30~11:45)
Design of As(III) Sensor via Liquid Crystalline Film Doped with Biomass-Derived Carbon Dot
김혜인, 임준경, 오광석, 최영선, 김영기, 포항공과대학교
- 2011-6 (11:45~12:00)
Length Effect on Molecular Exchange Kinetics in Complex Coacervate Core Micelles
허태연, 최수형, 홍익대학교
- 2011-7 (12:00~12:15)
Liquid Metal Coated Magnetic Particles Toward Writable and Non-Wettable Stretchable Circuit Boards
김서연, 김시현, 김은선, 배예진, 문선우, 박성준, 전북대학교
- 2011-8 (13:30~13:45) **좌장: 김태안**
Bioprinting Cell-Laden Tissue Constructs Using Visible Light Crosslinkable Bioinks
이경원, Ajeesh Chandrasekharan, 김소담, 성금용, 양승윤, Department of Biomaterials Science (BK21 Four Program), Pusan National University
- 2011-9 (13:45~14:00)
A Development of Highly Efficient Perovskite Solar Cells under Indoor Light Condition through Modified Precursor Solution by Surfactant Insertion
전경국, 윤상은*, 신소정*, 최민준*, 고서진**, 박노창, 김중현*, 김진철, 한국전자기술연구원; *아주대학교; **한국화학연구원
- 2011-10 (14:00~14:15)
Rational Molecular Design of Electrochromic Conjugated Polymers: Toward High-Performance Systems with Ultrahigh Coloration Efficiency
인예령, 한지민*, 권지연**, 김봉기*, 문홍철, 서울시립대학교; *건국대학교; **한국과학기술연구원
- 2011-11 (14:15~14:30)
Low-Voltage Linear Motion Actuators Based on Multilayer Design
한현성, 박문경, 포항공과대학교
- 2011-12 (14:30~14:45)
The Mechanism of Local Disorder in the Amorphous Network of a Solution-Processed Indium-Tin Oxide (ITO) on Polyimide Thin Film
김병수, 정종진*, 한남대학교 생명 나노과학대학; *한남대학교 화학과
- 2011-13 (14:45~15:00)
3D-stacked Thin-Film Transistors for Signal Decoupling of Pressure and Temperature
조영민, 정성준, 포항공과대학교
- 2011-14 (15:00~15:15)
Photostability of Semi-Transparent Organic Photovoltaics Using Omo Electrodes
박기영, 이광희, 강홍규, 오주희, 이산성, 광주과학기술원
- 2011-15 (15:15~15:30)
Effect of Various Amine-Based Chain Extenders on the Mechanical Properties and Gloss of Waterborne Polyurethane
권용록, 김해관, 김은진, 김경수, 장영욱*, 김동현, 한국생산기술연구원; *한양대학교

우수논문발표상 응모

포스터발표(I) _ 4월 7일 (목)

(09:00 ~ 10:30)

좌장: 김소연, 남수지

고분자 합성

- IPS-1 Systematic Control of Sulfur Chain Length of High Refractive Index, Transparent Sulfur-containing Polymers with Enhanced Thermal Stability
최건우, 장원태, 최지성*, 차국현**, 임지우*, 임성갑, 한국과학기술원; *경희대학교; **서울대학교
- IPS-2 Catalyst-free Acrylic Vitrimers with β -Amino Esters
이규리, 최수비, 안석균, 부산대학교
- IPS-3 High Adhesive Polyimide Binder via Water-processable Synthesis for Silicon Anodes in Lithium-ion Batteries
소유진, 김진수*, 경희태**, 원종찬*, 유영현***, 김윤호*, 한국화학연구원/한국

- IPS-4 과학기술원; *한국화학연구원; **한국과학기술원; ***한밭대학교
폴리올의 분자량을 이용한 아이소소바이드계 폴리우레탄 합성 및 특성 연구
모영현, 민진규, 임원빈, 배지홍, 허필호, 이주홍, 김시우, 부산대학교
- IPS-5 Synthesis and Characterization of Polyacrylonitrile via Electron Beam
황태순, 김경민, 임정혁, 한국교통대학교 나노고분자공학과
- IPS-6 Synthesis and Characterization of Movable Polyrotaxane Polyurethane Crosslinked Stretchable Gel
하 산, 정진웅*, 정일두, 부산대학교; *동아화학
- IPS-7 Removal of Aqueous Heavy Metal Ions by Hyperbranched Poly (amide dihydrazide) Particles
최호중, 김태형, 김상율, 한국과학기술원
- IPS-8 Synthesis of 1,1,2,2-tetrakis(4-(bromomethyl)phenyl)-ethylene as Precursor for Aggregation-Induced Emission Materials
최한경, 김 일, 부산대학교 고분자공학과 고분자합성연구실
- IPS-9 Polycaprolactone Polyol-Based Thermoplastic Poly(ester ester) Elastomers showing High-End Properties
최진혁, 김 일, 부산대학교 고분자합성연구실
- IPS-10 Synthesis of PVDF Bottlebrush Polymer and Architecture Effect on PVDF Crystalline Phases
최진우*, 최진우*, 노승혁**, 이원보**, 강영중*, 방준하, 고려대학교; *한양대학교; **서울대학교
- IPS-11 Synthesis and Characterization of Thermotropic Liquid Crystalline Polyesters Containing Heterocyclic Aromatic Moieties
최은지, 정영규, 충남대학교
- IPS-12 Controlling Graphene Wrinkles Using the Phase Transition of a Low Critical Solution Temperature Polymer
권민호, 양지연, 김한영, 주혜영, 주상우*, 이영실**, 이혜정***, 정승열***, 한종훈****, 백현중, 부산대학교; *충남대학교; **금오공과대학교; ***한국전기연구원; ****충남대학교
- IPS-13 Bio-Based Poly(1-adamantyl acrylate)-*b*-Poly(lauryl acrylate)-*b*-Poly(1-adamantyl acrylate) Triblock Copolymers: Synthesis and Characterizations
조웅현, 강범구, 숭실대학교
- IPS-14 Synthesis of Highly Soluble NIR-Absorbing Conjugated Polymers for Semi-Transparent Organic Light Dependent Resistors
조연환, 김태훈, 이용기, 이철연, 김화경, 김영규, 경북대학교
- IPS-15 Synthesis of Conjugated Polymer-Based Plastic Scintillator for the Detection of Gamma-Ray from Radioactive Nuclides
조선영, 이택승, 충남대학교
- IPS-16 An Ionically Conjugated Polymer with Trimellitic Anhydride Substituents
제갈영수, 진성호*, 심상연**, 임권택***, 경일대학교; *부산대학교; **강릉원주대학교; ***부경대학교
- IPS-17 PP중합용 Zigler-Natta 촉매에서 내부전자공여체의 영향 연구
정윤성, 고영수, 강현성, 임정민, 공주대학교
- IPS-18 Anionic Polymerization of Isoprene with Alkyl Metals as Additives
정예원, 류상욱, 충북대학교
- IPS-19 Polymer Brush Growth by Oxygen-Initiated RAFT Polymerization on Various Substrates
정승연, 조민기, 서현지, 이지훈, 조우경, 손경선, 충남대학교
- IPS-20 Synthesis of Core-Extended Triarylamine Derivatives and Chiral Self-Assembly with Circularly Polarized Light
정성욱, 박창준*, 김동휘, 김상율, KAIST; *Samsung Elec Etd
- IPS-21 Sulfoxide Based Branch-Controlled SARA ATRP
정석현, 김동우, 조홍열, 백현중, 부산대학교
- IPS-22 Nuclear Magnetic Resonance Sequencing of Enantiopure Oligoesters Synthesized by Flow Chemistry
장희정, 김경택, 서울대학교
- IPS-23 Well-Defined Polymers Containing Triphenylamine Group: Living Anionic Polymerization and Characterizations
장우재, 강범구, 숭실대학교
- IPS-24 Improvement of Piezoelectricity and Electroluminescence Performance by Controlling PVDF Chain Length of Light Emitting PVDF Graft Copolymer
임병진, 이진규, 인하대학교
- IPS-25 Synthesis and Hydrodynamic Phase Transition of Mono-Substituted Polyacetylene Containing an Imide Group
이진은, 김영래, 박기섭, 경북대학교
- IPS-26 Synthesis and Characterization of Photoreactive Polyimide for Application to Optical Retardation Film
이진은, 박기섭, 경북대학교
- IPS-27 Synthesis of Low Covered Polyrotaxane Based on Poly(propylene glycol) and Methyl- β -cyclodextrin
이지현, 정일두, 박수민, 하 산, 정진웅*, 부산대학교; *동아화학
- IPS-28 Electrohydrodynamic Jet-Printed Phthalimide-Derived Conjugated Polymer for Organic Field-Effect Transistors and Logic Gates
이지근, 영남대학교

- 1PS-29 Synthesis and Characterization of Non-Fullerene Polymer Solar Cells by Amide Functionalized Monomeric Unit
박준영, Sanchari Shome*, Li Yifan, 신희정*, Shuo Chen*, 임대희**, 권순기, 조서진**, Metin Ak***, 강동원****, 이보람****, 김윤희, 최효성*, 경상국립대학교; *한양대학교; **한국화학연구원; ***Pamukkale University; ****중앙대학교; *****부경대학교
- 1PS-30 Synthesis and Thin Film Properties of Novel Photocurable Polyimide Gate Insulator with the Epoxy-Containing Crosslinker
이재경, 유성미*, 김윤호*, 안 태, 경성대학교; *한국화학연구원
- 1PS-31 Synthesis and Characterization of a Photo-patternable Polyimide Containing Urethane Linkages as Gate Dielectric for Thin Film Transistor
이재경, 유성미*, 김윤호*, 안 태, 경성대학교; *한국화학연구원
- 1PS-32 Synthesis of Cyclic Carbonate Terminated Polycarbonates as Precursors for Non-Isocyanate Polyurethane
이은경, 김 일, 부산대학교 고분자공학과 고분자합성연구실
- 1PS-33 On-Surface RAFT Polymerization Using Oxygen to form Triblock Copolymer Brushes
이승연, 이지훈, 서현지, 조우경, 손경선, 충남대학교
- 1PS-34 Self-assembly of Cyclic Block Copolymers with Discrete Molecular Weights
이슬우, 김경택, 서울대학교
- 1PS-35 Morphological Diversity from the Solution Self-Assembly of Block Copolymer Blends Containing High Molecular-Weight Hydrophobic Blocks
이소정, 김경택, 서울대학교
- 1PS-36 Synthesis of Vegetable Oil-Based Non-Isocyanate Polyurethanes
이수영, 한 별, 김 일, 부산대학교 고분자공학과 고분자합성연구실
- 1PS-37 Synthesis and Characterization of High-Performance Semi-Aromatic Polyamides Using Biomass-Based Monomers
이소정, 정영규, 충남대학교
- 1PS-38 Synthesis of Sustainable Polyol *via* Ring-Opening Polymerization of Eugenol Epoxide Using Heterogeneous Catalysts
Rimesh Augustine, 우정재, 김 일*, 부산대학교; *부산대학교 고분자공학과 고분자합성연구실
- 1PS-39 How to Make Nanoporous Polymers more Robust for Battery Separator Applications
오택, 최락현, 변해령, 서명은, 한국과학기술원
- 1PS-40 Manufacturing and Physical Properties of Sol-Gel Hybrid Contact Lenses Using New Silane Sol Made Using a Thiol-Ene Click Reaction
여홍기, 광기섭, 경북대학교
- 1PS-41 Synthesis and Characterization of Polyimide Film Containing Amdie Group
여지현, 이승우, 채다정, 영남대학교
- 1PS-42 Synthesis and Self-assembly of Branched Rod-coil Molecules
앞선우, 서명은, 이은지*, 한국과학기술원; *광주과학기술원
- 1PS-43 Synthesis and Characterizations of Midblock-Quaternized Poly(styrene-*b*-2-bromoethyl acrylate-*b*-styrene) Triblock Copolymers for Anion Exchange Membranes
안종현, 강범구, 숭실대학교
- 1PS-44 Anionic Polymerization of Hydroxy Protected Monomers for Photoresist Application
신동진, 류상욱, 충북대학교
- 1PS-45 A Triblock Copolymer Containing Cyclic Midblock: Synthesis and Characterization
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- 1PS-46 Ambipolar Organic Phototransistors with Bulk Heterojunction Films of P-Type and N-Type Conjugated Polymers
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조민기, 강호중, 정윤재*, 이은혜*, 단국대학교; *CJ제일제당
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전태현, Minh Canh Vu, Mani Dineshkumar, Sebastian Anand, 김준범, Nguyen Vo Anh Thao, 김성룡, Korea National University of Transportation

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우수논문발표상 응모

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우수는발표대상 응모

포스터발표(III) _ 4월 8일 (금)

(09:00 ~ 10:30)

좌장: 김동균, 왕동환

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	Enabled by <i>in-situ</i> Polymerization 채욱일, 엄태식, 홍익대학교
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3PS-9	Photo-patternable, Elastic Polymer Network Electrolytes for High Scalability to Skin Electronics 정욱진, 권혁민, 하보리나, 최석란, 김도환, 한양대학교
3PS-10	Length-modulated Nitrene Induced Photo-crosslinking Networks in near-Amorphous Conjugated Polymer for Stretchable Electronics 정세인, 김승현, 조길원, 포항공과대학교
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3PS-15	Green Solvent-Printed High-Performance Perovskite Solar Cells 이민오, 김민복*, 한나라, 문이나, 양동성, 김영효, 김동유, 광주과학기술원 (GIST); *광주과학기술원 차세대에너지연구소 (RISE)
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- 3PS-249 End-group Effect of Spirobifluorene-based Non-fullerene Acceptors for the Environmentally Benign Process
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Virtual Lightning Talk Session

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- VLT-2 Synthesis and Hybridizations of Copper Microplates for Catalytic Applications
Yuhuan Li, Jinming Zhou, Hebei Normal University
- VLT-3 Bioinspired Tough and Strong Hierarchical Fibers with Controlled Structure
Yao Xiao, Dong Chen, Zhejiang University
- VLT-4 Interfacial Engineering of Attractive Pickering Emulsion Gel-Templated Porous Materials for Enhanced Solar Vapor Generation
Xiaoxiao Yan, Zhejiang University, Zhejiang University
- VLT-5 Highly Reliable and Efficient Encoding and Decoding Algorithm for Hexadecimal Polypeptide-based Data Storage
Xiaowei Zhai, Dong Chen, Zhejiang University
- VLT-6 Synthesis of Green Chitosan-Silver Nanoparticle Composite Material: Parameter Optimization and Physicochemical Characterization
Tran Thi Y Nhi, Do Trung Thien, Trinh Duc Cong, Lai Thi Thuy, Le Thi Thanh Ha, Nguyen Thi Thuc, Ngo Trinh Tung, Vietnam Academy of Science and Technology
- VLT-7 Visualization and Quantitative Evaluation of Mechanoradicals Using Fluorescent Radical Precursors in the Bulk State
Takumi Yamamoto, Daisuke Aoki, Hideyuki Otsuka, Tokyo Institute of Technology
- VLT-8 Lasing Action from Destructive Interference of Optical Multipole Resonances
Son Tung Ha, Mengfei Wu, Sushant Shendre*, Emek G. Durmusoglu*, Weon-Kyu Koh*, Ramón Paniagua-Domínguez, Hilmi Volkan Demir*, Arseniy I. Kuznetsov, Agency for Science; *Nanyang Technological University
- VLT-9 Aggregation States and Degradation Behaviors of Thin Polyamide 4 Films
Shunta Tamura, Haruki Mokudai*, Takashi Masaki*, Norifumi L. Yamada**, Hisao Matsuno, Keiji Tanaka, Kyushu University; *Central Research Center, KUREHA Corp; **High Energy Accelerator Research Organization
- VLT-10 Design, Simulation and Rapid Manufacturing of Plate Micro Reactor
Shikai Zhang, Qinglin Wu, Dong Chen, Zhejiang University
- VLT-11 A Highly Sensitive and Selective Phthalazine Derivative based Fluorescent Organic Nanoparticles for Simultaneous Detection of Cr⁶⁺ and Mn⁷⁺ in Aqueous Media
Saubai B. Wakshe, Govind B. Kolekar, Shivaji University
- VLT-12 Polymer Research for Scientific Discovery and Engineering Applications
Sangwoo Lee, Rensselaer Polytechnic Institute
- VLT-13 Control of Crosslinking Density to Tune Mechanical Properties of Reversible Epoxies
Samantha Lindholm, Gaeun Kim, Youngmin Lee, New Mexico Tech
- VLT-14 Bicyclic Nitroxyl Mediated Biopolymer Degradation Under Mild Conditions
Saerona Kim, Hyeon Cheol Kang*, Shuya Li, Kicheon Yoo*, Jae Joon Lee*, Gyu Leem**, State University of New York; *Dongguk University; **State University of New York/The Michael M. Szwarc Polymer Research Institute

- VLT-15 High-Rate Dynamics and Fracture Behavior of Model Polymer Network Characterized by Seeded Laser-Induced Cavitation
Sachita Tiwari, Ipek Sadigil, Yue Zheng*, Zhaoqiang Song*, Christopher W. Barney, Alfred J. Crosby, Shengqiang Cai*, Gregory N. Tew, Jae-Hwang Lee, University of Massachusetts Amherst; *University of California San Diego
- VLT-16 Fractions of "Bonded" and "Unbonded" Monomers Determine POSS-Containing Nanocomposite T_g
Reika Katsumata, Walter W. Young, Joseph P. Saez, University of Massachusetts Amherst
- VLT-17 Design of Protein Sequences with High Strength and Toughness Based on Generative Adversarial Networks
Qinglin Wu, Dong Chen, Zhejiang University
- VLT-18 Utilization of Polyurethane and Sodium Polyacrylate for the Synthesis of Carbon Dots and their Sensing and Energy Storage Applications
Peerasak Paoprasert, Wasinee Pholauyphon, Kulpriya Phetcharee, Natee Sirisit, Jedsada Manyam*, Insik In**, Thammasat University; *National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA); **Korea National University of Transportation
- VLT-19 Simulation of Polyelectrolytes in Combination of Flow and Electric Fields
Patrick Underhill, Rensselaer Polytechnic Institute
- VLT-20 One-step Fabrication of Biocompatible Oil-core Microcapsules with Controlled Release
Pan Shi, Dong Chen, Zhejiang University
- VLT-21 Synthesis of Ag-Ag₂S Hybrid Nanoplates with Unique Heterostructure and Their Photocatalytic Application
Pan Jia, Jinming Zhou, Hebei Normal University
- VLT-22 Designing, Preparation and Applications of Carbon-based Composite Hydrogels
Omkar S. Nille, Akshay S. Patil*, Anil H. Gore**, Govind B. Kolekar, Shivaji University; *Hanyang University; **Shivaji University/Uka Tarsadia University
- VLT-23 Nanoscale IR Imaging and Spectroscopic Characterization of Polymer Nanocomposites Using s-SNOM
Nicolai Hartmann, Aina Reich, Lars Mester, Andreas Huber, attocube systems AG
- VLT-24 Effect of Difference in Chemical Structure on Reaction Kinetics of Epoxy Resins
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- VLT-46** Novel TPE Based Luminogen Possessing Aggregation-induced Emission with Mechanochromic Phenomenon for Detection of Hg⁺² and Mn⁺⁷ in Aqueous Media
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