

ARTICLES

- Synthesis and Properties of Optically Active Helical Polyethers Bearing Indole or Carbazole Derivatives
Chunhui Zhao, Kunbing Ouyang*, Nianfa Yang*, Jin Zhang, and Zhusheng Yang 393
- Evaluation of the Therapeutic Potential *In vitro* and *In vivo* of the SIS/PLGA Scaffolds for Costal Cartilage Regeneration
Se Rom Cha, Sun Ah Cho, Seon Eui Lee, Na Keum Jang, Sung Jun Cho, Jeong Eun Song, and Gilson Khang* 400
- Synthesis and Characterization of a Lateral Phthalonitrile Functionalized Main-Chain Polybenzoxazine Precursor
Jian Zheng*, Yan Zhang, Ying Wang, Jianqun Gan, Lu Shen, FuBin Luo, Liyan Liang, Kun Wu, and Mangeng Lu* 409
- Estimation of the Microbial Degradation of Biodegradable Polymer, Poly(lactic acid) (PLA) with a Specific Gas Production Rate
Jungheun Moon, Mi Yeon Kim, Bo Mi Kim, Jae Choon Lee, Myeon-Cheon Choi, and Jung Rae Kim* 415
- Ionic Interactions and Dielectric Relaxation of PEO/PVDF-Mg[(CF₃SO₂)₂N₂] Blend Electrolytes for Magnesium Ion Rechargeable Batteries
R. Rathika* and S. Austin Suthanthiraraj 422
- Wettability Control on Chitosan-Wrapped Carbon Nanotube Surface Through Simple Octanal-treatment: Selective Removing Phenol from Water
Eun-Jung Lee, Han-Sam Kim, and Ueon Sang Shin* 429
- Homogeneously Dispersed Silver Nanoparticles in EVA Laminating Film for Efficiency Enhancement of Silicon Photovoltaic Cells
Chang Kyu Son, Hong Suk Kang, Jin Woo Kim, Hongkyung Lee, Seong Ho Ahn, Jung-Ki Park*, and Hee-Tak Kim* 436
- π -Conjugated Polyelectrolytes Derived from 2-Ethynylpyridine: The Effect of Quaternization Agent and Reaction Conditions on the Polymer Structure and SERS Characterization of Nanocomposites with Ag-Nanoparticles
Tomáš Faulkner, Libor Slaný, Ivana Šloufová, Jiří Vohlídal, and Jiří Zedník* 441
- The Respective Roles of Metal Salts in The Dissolution Process of Poly(1-oxotrimethylene) in Their Aqueous Solutions
Youngho Eom, Tae Woo Kim, and Byoung Chul Kim* 450
- A New BDT-Based Conjugated Polymer with Donor-Donor Composition for Bulk Heterojunction Solar Cells
Yeon-Hee Ha, Ji Eun Lee, Moon-Chan Hwang, Yu Jin Kim, Joon-Hwa Lee*, Chan Eon Park*, and Yun-Hi Kim* 457
- Molecular Characterization on the Anomalous Viscosity Behavior of Cellulose Solutions in *N,N*-Dimethyl Acetamide and Lithium Chloride
Zubair Khaliq and Byoung Chul Kim* 463
- Acute Biocompatibility of X-Ray Visible Bioabsorbable Bone Plate Coated with β -Tricalcium Phosphate and Poly(lactic-co-glycolic acid)
Hye Sook Min, Woojune Hur, Won Seok Lee, Sung Yoon Choi, Hye Jeong Min, Seung Ho Lee, Young Bin Choy*, and Tae Hyun Choi* 471

NOTES

- Generation Dependency of Stimuli-Responsive Dendron-Gated Mesoporous Silica Nanocontainers
Jeonghun Lee, Hyewon Kim, and Chulhee Kim* 478

FEATURE ARTICLE

- Nanopatterned Bulk-Heterojunction Photovoltaic Cells Using Polyurethane Acrylate (PUA) Film Replica of Colloidal Crystal Arrays *via* Stamping Transfer Process
Woongsik Jang, Sunyong Ahn, Sol I Ahn, So Yeon Park, Hyunbin Son*, and Dong Hwan Wang* 483

ARTICLES

- Antibacterial Properties of Silver Doped TiO₂ Nanoparticles Synthesized *via* Sol-Gel Technique
Jitendra Bahadur, Shraddha Agrawal, Vinay Panwar, Azra Parveen, and Kaushik Pal* 488
- Synthesis of 1-Acryloyl-3-Phenyl Thiourea Based pH Sensitive Hydrogels for Removal of Samarium and Terbium
Nagella Siva Gangi Reddy, Kummara Madhusudana Rao, Kummari Subba Venkata Krishna Rao*, and Chang-Sik Ha* 494
- Swelling/Deswelling Self-Oscillating of Microgels Induced by the BZ Reaction with Fe(phen)₃ Catalyst
Jie Ren*, Jinfen Gu, Li Tao, Guangcheng Zhang, and Wu Yang 502
- Polypropylene Nanocomposite with Polypropylene-Grafted Graphene
Jae-Hun Woo and Soo-Young Park* 508
- Toughening Effect of Annealing-Induced Intermolecular Crystallization of PBA-g-PLLA in PLA Matrix
Hanna Lee and In-Joo Chin* 515
- Development and Characterization of Polyethylenimine Nanocarriers Processed by an Inductive Thermospraying Technique
Poh Yit Foo, Hui Shan Cheok, Thiago Coutinho Cavalcanti, Grace Lim Yik Shi, Eun-A Kwak, and Justyn Jaworski* 522
- Synthesis and Characterization of Thermosensitive Gelatin Hydrogel Microspheres in a Microfluidic System
Ki-Su Park, Chaeyeon Kim, Jin-Oh Nam, Sung-Min Kang, and Chang-Soo Lee* 529
- Organo-Phosphorus Flame Retardants for Unsaturated Polyester Derived from Recycled Poly(ethylene terephthalate)
DongQuy Hoang*, ThuHien Nguyen, Haiyan An, and Jinhwan Kim* 537
- Molecular Characterization of Thermoreversibility and Temperature Dependent Physical Properties of Cellulose Solution in *N,N*-Dimethylacetamide and Lithium Chloride
Zubair Khaliq and Byoung Chul Kim* 547
- Modification of Heat Storage Ability and Adhesive Properties of Core/Shell Structured Phase Change Material Nanocapsules
Wonseok Cho, Jun-Won Kook, Seung Mo Lee, Won-gun Koh, and Jung Hyun Kim* 556
- Fabrication of Cell Sheets with Anisotropically Aligned Myotubes Using Thermally Expandable Micropatterned Hydrogels
Jangsoo Lim, Indong Jun, Yu Bin Lee, Eun Mi Kim, Dongsuk Shin, Hojeong Jeon, Hansoo Park*, and Heungsoo Shin* 562

NOTES

- Well-Organized Mesoporous TiO₂ Film with High Porosity Made Using Alcohol-Assisted EC-g-PMMA Graft Copolymer
Chang Soo Lee, Jin Kyu Kim, Jung Tae Park*, and Jong Hak Kim* 573