

COMMUNICATIONS

- Amphiphilic Coatings on Cobalt Boride Nanocatalysts for Stability in Hydrogen Generation Applications
Jin Yeong Kim and Justyn Jaworski* 223
- Thermosensitive Gold Nanoparticles Based on Star-Shaped Poly(*N*-isopropylacrylamide) with a Cubic Silsesquioxane Core
Xiaojing Zhang*, Yuelei Hu, Ruixue Liu*, Jiashu Sun, and Shaoming Fang 227

ARTICLES

- Crystallization, Rheology and Foam Morphology of Branched PLA Prepared by Novel Type of Chain Extender
Mi Zhou*, Ping Zhou, Ping Xiong, Xin Qian, and Haha Zheng 231
- Blood-Compatible and Biodegradable Polymer-Coated Drug-Eluting Stent
Jun-kyu Park, Dong-Gon Kim, In Ho Bae, Kyung Seob Lim, Myung Ho Jeong, Changyong Choi, Soo-Kyung Choi, Sang Chai Kim, and Jae-Woon Nah* 237
- Embryoid Body Size-Mediated Differential Endodermal and Mesodermal Differentiation Using Polyethylene Glycol (PEG) Microwell Array
Jae Min Cha, Hojae Bae, Nasser Sadr, Sam Manoucheri, Faramarz Edalat, Keekyoung Kim, Sang Bok Kim, Il Keun Kwon, Yu-Shik Hwang*, and Ali Khademhosseini* 245
- Poly(vinyl alcohol)/Silica Nanoparticles Based Anion-Conducting Nanocomposite Membrane for Fuel-Cell Applications
Gautam Das, Biplab Kr. Deka, Seok Hee Lee, Young-Bin Park, and Young Soo Yoon* 256
- Nonisothermal Crystallization Behaviors of Nanocomposites Prepared by *In situ* Polymerization of High-Density Polyethylene on Tungsten Oxide Particles
Kyounghwan Oh, Wei Huan Chua, Sung Eun Park, Jihun Kim, Soonjong Kwak, Sehyun Kim, and Yongsok Seo* 265
- Crystallization Kinetics of PVDF Filled with Multi Wall Carbon Nanotubes Modified by Amphiphilic Ionic Liquid
Ali Bahader*, Haoguan Gui, Yu Li, Pei Xu, and Yunsheng Ding* 273
- Fabrication of Natural Rubber/Epoxidized Natural Rubber/Nanosilica Nanocomposites and Their Physical Characteristics
Cuong Manh Vu*, Huong Thi Vu, and Hyoung Jin Choi* 284
- Effect of PVP, Lithium Chloride, and Glycerol Additives on PVDF Dual-Layer Hollow Fiber Membranes Fabricated Using Simultaneous Spinning of TIPS and NIPS
Jinwon Lee, Bumjin Park, Jongpyo Kim, and Seung Bin Park* 291
- Human Hair Keratin-Based BioFilm for Potent Application to Periodontal Tissue Regeneration
Hanna Lee, Yu-Shik Hwang, Hyo-Seol Lee, Suji Choi, So Yeon Kim, Ji-Hoi Moon, Jae Hyung Kim, Kwang Chul Kim, Dong-Wook Han, Hyun-Jin Park, and Hojae Bae* 300

COMMUNICATIONS

- Construction of Crystalline Zn-Salphen Microporous Polymer Frameworks and Their Nanostructured Carbons
Through Supramolecular Assembly of 1D Shape-Persistent Polymers
Jiaying Wang, Wei Huang, Lili Pan, Haijiang Wang, Chaoliang Zhang, and Xikui Liu* 309

ARTICLES

- Synthesis of Lithium Ion Selective Porous Phenolic Microsphere Adsorbents with Lithium Manganese Oxide (LMO)
by Template and Their Lithium Ion Adsorption Properties
Chi Won Hwang, Sung Gyu Park, and Taek Sung Hwang* 313
- Cure Behaviors and Thermal Stabilities of Tetrafunctional Epoxy Resin Toughened by Polyamideimide
Soo-Jin Park*, Gun-Young Heo, and Fan-Long Jin 320
- Steady-State Relaxation Kinetics Observed on Fluoropolymers Modified by Ambient Air Plasma Treatment
Sang-Wha Lee* 325
- Effect of Castor Oil/Polycaprolactone Hybrid Polyols on the Properties of Biopolyurethane
Kyung Kyu Choi, Sang Ho Park, Kyung Wha Oh*, and Seong Hun Kim* 333
- Photopolymerization Kinetic Studies of UV-Curable Sulfur-Containing Difunctional Acrylate Monomers Using Photo-DSC
Jin-Seung Kim, Si-Tae Noh, Jeong-Ohk Kweon, and Bong-Sang Cho* 341
- Impact of Cholesterol Grafting on Molecular Interactions and Low Temperature Flexibility of Polyurethanes
Yong-Chan Chung, Ha Youn Kim, Jung-Hoon Yu, and Byoung Chul Chun* 350
- Application of Synthesized Anion and Cation Exchange Polymers to Membrane Capacitive Deionization (MCDI)
Ji Sun Kim, Cheong Seek Kim, Hyun Soo Shin, and Ji Won Rhim* 360
- Synthesis and Characterization of Conjugated Oligoelectrolytes Based on Fluorene and Carbazole Derivative and
Application of Polymer Solar Cell as a Cathode Buffer Layer
Thu Trang Do, Hee Seob Hong, Ye Eun Ha, Seong Il Yoo, Yong Sun Won, Myoung-Jun Moon, and Joo Hyun Kim* 367
- Murine Ovarian Follicle Culture in PEG-Hydrogel: Effects of Mechanical Properties and the Hormones FSH and LH on Development
Jong Eun Ihm, Seung Tae Lee, Dong Keun Han, Jeong M. Lim, and Jeffrey A. Hubbell* 377
- Improved Biocompatibility of Polyethylenimine (PEI) as a Gene Carrier by Conjugating Urocanic Acid: *In vitro* and *In vivo*
Jong Eun Ihm*, Irina Krier, Jeong M. Lim, Sujin Shim, Dong Keun Han, and Jeffrey A. Hubbell 387
- Preparation and Characterization of Expanded Graphite Intercalation Compound/UV-Crosslinked Acrylic Resin
Pressure Sensitive Adhesives
**Gyu-Dae Park, Hyun-Ok Jung, Kyung-Min Kim, Jung-Hyurk Lim, Ju-Won Lee,
Sung-Goo Lee, Jae Heung Lee, and Sung-Ryong Kim*** 396