

REVIEWS

- Polyelectrolyte Hydrogels for Replacement and Regeneration of Biological Tissues
Hyuck Joon Kwon*, Kazunori Yasuda, Jian Ping Gong, and Yoshihiro Ohmiya 227

COMMUNICATIONS

- Single-Handed Helical Poly-(α,β -unsaturated ketone) Synthesized *via* Anionic Polymerization of (S)-2'-Methyloxy-2-Acrylyl-1,1'-Binaphthyl
Ye Hui Chen, Li Wen Yang*, Nian Fa Yang*, and Jian Zhang 236

ARTICLES

- In situ* Sodium Alginate-Hyaluronic Acid Hydrogel Coating Method for Clinical Applications
Ying Liu, Li Jie Duan, Min Ji Kim, Ji-Heung Kim, and Dong June Chung* 240
- On-Line Monitoring of Reaction Temperatures During Anionic Polymerization of Poly(styrene-*b*-methyl methacrylate) and Poly(styrene-*b*-2-vinyl pyridine) with a 1,1-Diphenylhexyl Lithium Initiator in THF
Jeong-Su Kim, Jeong-Hae Lee, Jeong-Ohk Kweon, and Si-Tae Noh* 248
- Preparation and Characterization of Nylon 6 Compounds Using the Nylon 6-Grafted GO
Loan Nguyễn, Sung-Moon Choi, Dong-Hun Kim, Nak-Kyung Kong, Phil-Jung Jung, and Soo-Young Park* 257
- Synthesis and Characterization of Guanidinylated Polyethylenimine-Conjugated Chitosan for Gene Delivery Systems
Kitae Ryu, Kyunghwan Kim, and Tae-il Kim* 264
- Radiolabeled Chitosan Hydrogel Containing VEGF Enhances Angiogenesis in a Rodent Model of Acute Myocardial Infarction
Dae-Weung Kim, Chang-Moon Lee, Nam-Ho Kim, Sam Youn Lee, Moon Young Lee, Eul Sig Choi, Soon-Ah Park, Chang Guhn Kim, Hyosook Hwang, Seok Tae Lim, Myung-Hee Sohn, and Hwan-Jeong Jeong* 272
- Preparation, Structure and Properties of Poly(*p*-phenylene benzobisoxazole) Composite Fibers Reinforced with Graphene
Young Gyu Jeong*, Doo Hyun Baik, Jin Woo Jang, Byung Gil Min, and Kwan Han Yoon 279
- Microwell-Mediated Micro Cartilage-Like Tissue Formation of Adipose-Derived Stem Cell
Byung-Chul Kim, Jae Hyung Kim, Hyo Jung An, Wook Byun, Jae-Hong Park, Il Keun Kwon, Jin Seok Kim*, and Yu-Shik Hwang* 287
- Fabrication of Transparent Silk Fibroin Film for the Regeneration of Corneal Endothelial Cells; Preliminary Study
Hyeon Yoon, Eun Young Kim, Hyeongseok Kim, Chan Hum Park, Choun-Ki Joo, and Gilson Khang* 297
- Dielectric and Conductivity Properties of Poly(*L*-lactide) and Poly(*L*-lactide)/Ionic Liquid Blends
Pei Xu*, Hao Guan Gui, Shan Zhong Yang, Yun Sheng Ding*, and Qian Hao 304
- Bile Acid Conjugated Chitosan Oligosaccharide Nanoparticles for Paclitaxel Carrier
Jun-kyu Park, Tae-Hun Kim, Joung-Pyo Nam, Seong Cheol Park, YungHoon Park, Mi-Kyeong Jang*, and Jae-Woon Nah* 310
- Optimization Grafting Conditions and Characterization of Methyl Cellulose Grafted Polyacrylonitrile Copolymer
Hye Ryun Ahn and Tae Moon Tak* 318
- Synthesis of PS-*b*-P2VP Di-Block Copolymer Particles with Internal Structure *via* Simple Reprecipitation Method
Choong-Sun Lim, Jin Hyuck Heo, Myung Sang You, Sang Hyuk Im*, and Kyu Jung Chae* 324
- Block Copolymer-Templated Mineralization for pH-Responsive Robust Nanocarriers of 5-Fluorouracil
Gi Hyun Choi, Kyung Hyun Min, and Sang Cheon Lee* 329
- Biocompatible Ag Nanoparticle-Embedded Poly(2-hydroxyethyl methacrylate) Derivative Films with Bacterial Adhesion-Resistant and Antibacterial Properties
Jooyeon Ahn, Eun-Ho Sohn, Suk Ho Bang, Junil Kang, Taeyoung Kim, Hyunkee Hong, Seong-Eun Kim, Byung-Soo Kim, Jeyong Yoon, and Jong-Chan Lee* 337
- Enhanced Anticancer Effect of Liposome Encapsulated Choline Kinase-siRNA in Mice
Dae Hwan Shin, Jae-Yeon Shim, Jung Hyun Kim, Seung Youn Lee, Shuhua Xuan, Woo-Young Kim, Kwon Yeon Weon, and Jin-Seok Kim* 344

COMMUNICATIONS

Fine Size Tuning of Polystyrene Building Blocks for Colloidal Photonic Crystals

Su Jin Lee, Sang Hyuk Im*, and Kyu Jung Chae* 357

ARTICLES

Preparation and Characterization of Chlorine Resistant Thin Film Composite Polyamide Membranes *via* the Adsorption of Various Hydrophilic Polymers onto Membrane Surfaces

Ji Won Rhim*, Boseong Lee, Hun Hwee Park, and Chang Hee Seo 361

Enhanced Gene Delivery System Using Disulfide-Linked Chitosan Immobilized with Polyamidoamine

Kihoon Nam, Ji Won Park, Heidi Bark, Jing Han, Jae-Woon Nah, Mi-Kyeong Jang, and Sung Wan Kim* 370

Fabrication of Three-Dimensional Poly(lactic-co-glycolic acid) Mesh by Electrospinning Using Different Solvents with Dry Ice

Hye-Lee Kim, Jeong-Hyun Lee, Hyok Jin Seo, Kyung Eun You, Mi Hee Lee, and Jong-Chul Park* 377

Comparison of Mechanical Properties of Blended and Synthesized Biodegradable Polyesters

Ye Jin Kim, Gyung Don Kang, Ki Cheol Yoon*, and O Ok Park* 382

Inhibition of Radical-Induced Oxidative DNA Damage by Antioxidants Loaded in Electrospun Polylactide Nanofibers

Elena Llorens, Luis J. del Valle*, and Jordi Puiggali 388

Dispersion Controlled Platinum/Multi-Walled Carbon Nanotube Hybrid for Counter Electrodes of Dye-Sensitized Solar Cells

Hee Hyun Gong, Soo Bong Hong, and Sung Chul Hong* 397

Enhanced Thermal Properties of Epoxy Composites by Using Hyperbranched Aromatic Polyamide Grafted Silicon Carbide Whiskers

Zhengkai Yuan, Jinhong Yu*, Baolin Rao, Hua Bai, Nan Jiang*, Jian Gao, and Shaorong Lu* 405

Development of pH-Responsive Chitosan-Coated Mesoporous Silica Nanoparticles

Muhammad Gulfam and Bong Geun Chung* 412

Preparation of Silver Core-Chitosan Shell Nanoparticles Using Catechol-Functionalized Chitosan and Antibacterial Studies

Thanh Son Cu, Van Du Cao, Cuu Khoa Nguyen, and Ngoc Quyen Tran* 418

Surface Modification of Cellulose Nanowhiskers and Their Reinforcing Effect in Polylactide

Joo Hyung Lee, Sang Ho Park, and Seong Hun Kim* 424

Water Sorption Behavior in Polyimide Thin Films Controlled by Inorganic Additives

Jinuk Kwon, Jinyoung Kim, Dongmyung Park, Jongchul Seo, Patrick Han, and Haksoo Han* 431

The Influence of Initiator Diol-BF₃ Complex Solubility and Other Factors on the Induction Period in BF₃ Catalyzed Cationic Ring Opening Polymerization of Epichlorohydrin

Jeong Su Kim, Du Ki Kim, Jeong Ohk Kweon, Jae Myung Lee, Si Tae Noh*, and Sun Young Kim 436

Simple Synthesis of Water-Dispersible and Photoactive Titanium Dioxide Nanoparticles Using Functionalized Poly(ethylene oxide)s

Seung-Hoon Bahng, Nan Hyun Kwon, Hyung Cheol Kim, Abu Bakkar Siddique, Ho-Jung Kang, Jae Yeol Lee, Joohoon Kim, Sehoon Kim, and Jungahn Kim* 445

NOTES

Electrochemical Performance of N-Enriched Polyvinylpyrrolidone-Based Porous Carbons

Long-Yue Meng and Soo-Jin Park* 457