

REVIIEWS

Research roadmap for sustainable polymeric materials in Korea

Jeong F. Kim · Hee Joong Kim · Jeyoung Park · Hyeonyeol Jeon · Jeung Gon Kim · Chungryong Choi · Ki-Ho Nam · Giyoung Shin · Sae Hume Park · Jihoon Shin · Dong-Ku Kang · Dongyeop X. Oh* · Dong Yun Lee* · Sung Woo Hong* · Gi-Ra Yi*

535

Advanced strategies for thermal conductivity enhancement in polymer composites for application as thermal management materials

Soo Jeong Jeong · Ho Sun Lim* 553

ARTICLES

Effect of glyoxal concentration and nanoparticles reinforcement on the functional properties of composite hydrogel for biomedical applications

Devara Venkata Krishna · Mamilla Ravi Sankar* · Thopireddy Nagendra Reddy 569

Hydrogel-based wet adhesive with enhanced adhesion and stretchability

Byeong Su Kang · Jin-Young Yu · Min Bae · Sei Bin Kim · Minsu Cho · Yong Min Kim* · Seong Min Kang* 593

Preparation of self-healing pHEMA hydrogels using dynamic covalent crosslinkers

Jung-Hyun Choi · Byoung-Ki Cho* 601

Electrochemical sensor for the detection of mercury in seawater using carbon dots-carboxymethyl chitosan hydrogel

S. Arundhathi · R. Gopika · P. Muhammed Ashraf* · P. K. Binsi 611

Unveiling novel grub-style pentacene crystals driven by hierarchical self-assembled crystallization

Jungyoon Seo · Taehoon Hwang · Jisu Park · Yumin Kim · Hwa Sung Lee* 625

Synthesis of NAD-functionalized organic semiconducting polymer dots for fluorometric γ -aminobutyric acid sensing

Dong Hoon Lee · Jong Woo Kim · Tae Hyeon Kim · Kune-Woo Lee · Taek Seung Lee* 633

Effect of conjugation length on conjugated polymer-mediated intracellular protein delivery

Golam Sabbir Sarker · Carlos R. Romagosa · Joong Ho Moon* 643

FGF-7 treatment accelerates wound healing in concentration-dependent manner by regulating TGF- β 1 and VEGF expression

Young-Sik Kim · Gun-Jae Jeong · Jung Soo Lee · Ju Woong Jang · Sae Hyun Kim · Heung Jae Chun · Dae Hyeok Yang* 655

Solvent casting-salt leaching synthesis, characterization, and biocompatibility of three-dimensional porous chitosan/nano-hydroxyapatite scaffolds for bone tissue engineering

Nguyen Kim Nga* · Tran Thanh Hoai · Nguyen Thi Ngoc Anh · Sujin Kim · Sihyun Kim · Hwan D. Kim* · Kang Moo Huh 667

REVIIEWS

- Electrical stimulation of bone regeneration in infected defects: biomaterial approaches
Jinwoo Na · Hwan D. Kim* 683

- Non-invasive wearable sensors for monitoring plant health
Hyeongmin Park · Jaehie Han · Sumin Myoung · Minwoo Kim · Hyeona Lim · Daegun Kim* · Giwon Lee* 691

ARTICLES

- The interlaminar failure behavior and compression deformation characteristics of continuous carbon fiber reinforced polycarbonate-based multilayer composites
Han Liu · Xianliang Yang · Mengchun You · Erqiang Liu* · Xin Hao* · Gesheng Xiao · Jinbao Lin 703

- Adsorbing odor via antibacterial activated carbon fiber derived from waste textiles
Woo Seok Cho · Joon Hyuk Lee · Sang Sun Choi* 715

- A cornea-mimetic electrospun fiber-reinforced hydrogel platform for ocular surface applications
Karen Chen* · Euisun Song · Wong-Gun Koh · David Myung 725

- pH-triggered prodrug micelles loaded with curcumin-terminated mono, di-pyrimidine as visual antitumor agents: study of simulated sustained release in gastrointestinal tract, fluorescence imaging, and bioactivity evaluation
Jiankang Feng · Shuo Wang · Tiantian Chai · Mengtong Zhang · Jingnan Hu · Xibing Feng · Junhua Shi* · Shihe Shao* · Chichong Lu* · Guofan Jin* 737

- Switchable passive radiative cooling via mechanical stress for stretchable smart window
Tae-Ho Kim · Sang Jun Kim · Su Hwan Lee · Sang Woo Bae · Min Ku Kim* · Young-Hoon Kim* 759

- Tailoring hole transport polymers with substituent control for green perovskite LEDs with increased luminance and reduced efficiency roll-off
Chanbin Park · Young Seo Cho · Gwang-il Kim · Yurim Mo · Seon Joo Lee · Hyejin Na · Sungbo Choi · Jaemin Lee* 767

- Enzyme-crosslinked hyaluronic acid-based multifunctional hydrogel promotes diabetic wound healing
Qiang Cheng · Jun Zhu · Su Tu · Xiaochun Fan* 779

- Oxygen-generating gelatin-based cryogels for enhanced hemostasis and skin wound healing
Sol Kim · Jeon Il Kang · Kyung Min Park* 789

- Synthesis and characterization of difluorophenazine-based conjugated polymers for organic photovoltaics
JinHan Lee · Hyun-Seock Yang · Chan-gi Shin · Suhee Song* · Won-Ki Lee · Jin Young Kim* · Sung Heum Park* · Youngeup Jin* 805

- Effect of surface morphology on the drug release in temperature responsive poly(*N*-isopropylacrylamide) hydrogel film through a high surface area patterned film
Ambedkar Gandamalla · Priyanka Kulshrestha · Bo Kyoung Shin · Komal Prajapati · Do Sung Huh* 815