

REVIEW

Recent advancements in polyethyleneimine (PEI)-grafted materials and composites as versatile adsorbents for water detoxification

Shambhuraj A. Kapase · Pranoti H. Patil · Sushilkumar A. Jadhav* 249

COMMUNICATION

Fluorescent nanoparticles using hyaluronic acid-histidine-based manganese dioxide for hydrogen peroxide imaging in inflammatory macrophages

Ji Yeon Hong · Ji Sun Park · Kyeongsoon Park* 271

ARTICLES

Surface engineering of zirconia with abaloparatide and nano-hydroxyapatite for synergistic osteogenic activity

Hong Jae Lee · Yong-Dae Kwon* · Sang Cheon Lee* 277

Stearyl polyoxyethylene-grafted heparin nanogel for oral delivery of Cisplatin: enhanced drug loading capacity and anticancer efficacy

Huong Nguyen Thi* · Thanh Vu Minh · Dung Vu Van · Huyen La Thi · Hong Phong Le Thi · Van Toan Nguyen · Le Hang Dang · Ngoc Quyen Tran · Phuong Le Thi* 289

Selective recognition of glucose by the pH-sensitive polymer incorporated porous honeycomb-patterned polymer film

Bo Kyoung Shin · Priyanka Kulshrestha · Do Sung Huh* 303

Water-soluble anionic polymer electrolytes based on polyfluorene as the universal interlayer for organic solar cells

Rahmatia Fitri Binti Nasrun · Dong Hwan Son · Joo Hyun Kim* 313

Rapid synthesis of biocompatible alginates for adsorption of chemical warfare agents

Jaekyung Bae · Sang Myeon Lee · Min-Kun Kim* 321

Synthesis of sustainable heterocyclic aryl sulfonamide derivatives: computational studies, molecular docking, and antibacterial assessment

Ajay Kumar · Sheerin Masroor · Savaş Kaya · Konstantin P. Katin · Avni Berisha · Mohammad Ehtisham Khan* · Wahid Ali · Syed Kashif Ali · Mohammad S. Alomar · Abdullateef H. Bashiri · Waleed Zakri 331

High biomass content in epoxy vitrimers: a study on bio-based and reprocessable thermosets

Jonghyeok Jeon · Chungryong Choi* 345

Facile, reproducible, and high-throughput production of human dermal fibroblast spheroids

A. Aslihan Gokaltun* 355

Synthesis and characterization of hyperbranched thiol hardener and their curing behavior in thiol-epoxy

Jin Han Song · Seung-Mo Hong · Seok Kyu Park · Hyeok Ki Kwon · Seok-Ho Hwang · Jong-Min Oh · Sang-Mo Koo · Giwon Lee* · Chulhwan Park* 367

Investigation of poly(benzodifurandione) for bioelectronics: high conductivity, electrical stability, and biocompatibility

Seungju Kang · Eun Chae Kim · Hyung Woo Kim* · Boseok Kang* 377

REVIEW

- Research progress of enzyme-like behavior nanoparticles in tumor treatment
Yilin Wang · Jiali Zhang · Qiang Liu* · Zhengzou Fang* 385

COMMUNICATIONS

- Polyacrylamide-based nanocomposite hydrogel prepared by synergistic solar light-induced polymerization
Nery M. Aguilar · Brenda L. Sanchez-Gaytan* · Guillermo Soriano-Moro 399
- Environmentally friendly non-isocyanate polyurethane binder for pigment dyeing
Haiyan Mao* · Yang Guo · Qin Han · Xuemei He · Chenghui Zheng 407
- Shockwave dissipation strategies harnessing soft composites with ionic liquid inclusion
Junwoo Park · Jaejun Lee* 415

ARTICLES

- Evaluation of shear yield stress and apparent viscosity of xanthan gum solutions: application of rheological models and analytical study
Kaci Chalah* · Dalila Hammiche · Imed Bennoui · Abdelbaki Benmounah 423
- Mapping the photocurrent and photovoltage of hybrid perovskite thin films under concentrated sunlight
Chandra Shakher Pathak* 439
- A Self-powered Kinetic Motion Sensor Fabricated from Electrospun MOF-5/PVDF-TrFE Composites
Piezoelectric Nanogenerators
Moon Sik Park · Min Ji Kim · Ju Yeong Jeong · Do Young Han · Soaram Kim · Geon-Tae Hwang ·
Hocheon Yoo* · Eun Kwang Lee* 451
- Optimization of the preparation of thiourea-based compounds modifying PVA adsorbents
Zhidong Shang · Cuiling Zhang* · Yichen He · Xidan Lin · Huiling Jia · Heyuan Zhang · Changchun Deng 463
- Wood polymer composite (WPC) formulation from Ethiopian indigenous lowland bamboo particles and post-consumer plastic blends: synergetic and dual effects of both coupling agent and organic crosslinking catalyst
Keresa Defa Ayana* · Jong-Man Yoo · Woohong Jeon · Kyung Man Choi · Chang-Sik Ha* ·
Abubeker Yimam Ali 479
- Extraction of active components from the bark of *Fraxinus Rhynchophylla* and their encapsulation
Hyeonho Jeong · So Mi Lee · Yong Min Kim* · Min Jae Shin* 497
- Synthesis and characterization of phosphonium-based ionic liquid anchored graphene functionalized ZnAl-Ldh nanocomposite for polystyrene applications
Mutawakkil Isah · Farrukh Shehzad · Muhammad Daud · Mamdouh A. Al-Harhi* 507
- Optimized activated carbon pellets for effective cobalt ion adsorption
Minji Park · Yeonjin Lee · Jaehyeok Kyung · Chang-Min Yoon* · Seulki Song* 523