Korean Chemical Engineering Research

August 2017 Volume 55, Number 4 Korean Chem. Eng. Res., 55(4) 443-578(2017) PISSN 0304-128X, EISSN 2233-9558

Review A Brief review of Aragonite Precipitated Calcium Carbonate (PCC) Synthesis Methods and Its Applications	442
Chilakala Ramakrishna, Thriveni Thenepalli and Ji Whan Ahn Analysis of Particle Morphology Change and Discrete Element Method (DEM) with Different Grinding Media in Metal-based Composite Fabrication Process Using Stirred Ball Mill	443
Uyanga Batjargal, Amgalan Bor, Ichinkhorloo Batchuluun, Jehyun Lee and Heekyu Choi	456
Article Industrial Chemistry(Electrochemistry, Analytical Chemistry) · Drug Delivery System · Functional Coating Technology · Biomedical Material Chemistry (Electrochemical Properties of Activated Carbon Supecapacitor Adopting Poly(acrylonitrile) Separator Coated by Polymer-Alkaline Electrolytes	
The Effect of Membrane Thickness on Durability and Performance of Proton Exchange Membrane Fuel Cell Byungchan Hwang, Hyeri Lee and Kwonpil Park	467
Degradation of MEA and Characteristics of Outlet Water According to Operation Condition in PEMFC	473
Deposition of Functional Organic and Inorganic Layer on the Cathode for the Improved Electrochemical Performance of Li-S Battery Hiesang Sohn	478 483
Process System Engineering · Plant Design · Process Safety · Plant Engineering	
Steady State Design for the Separation of Acetone-Chloroform Maximum Boiling Azeotrope Using Three Different Solvents	490
A Study on the Importance of Uninsured (Indirect) Cost Item of Workplace Accidents Cecil Jung and Jong-Bae Baek	497
Separation Technology · Thermodynamics · Membrane Technology · Supercritical Fluid Extraction · Ionic Liquids Precious Metals Extraction Processing in Chloride Media by Using Ionic Liquids as Novel Extractant Systems	
A Preliminary Study of Patchouli Oil Extraction by Microwave Air-Hydrodistillation Method Heri Septya Kusuma, Ali Altway and Mahfud Mahfud	503
Adsorption Equilibrium, Kinetic and Thermodynamic Parameter Studies of Acid Green 27 Using Activated Carbon	510
Viscometric Studies of Molecular Interactions in Binary Mixtures of Formamide with Alkanol at 298.15 and 308.15 K	514
Suman Gahlyan, Sweety Verma, Manju Rani and Sanjeev Maken Chitosan as a Flocculant: An Approach to Improve its Solubility for Efficient Harvesting of Microalgae Attia Sajjad, Muhammad Rizwan, Ghulam Mujtaba and Naim Rashid	520
Commercialization of Ion Exchange Fiber System for Recovering Valuable Metals in Plating Wastewater Seong-sik You	530 535
· · · · · · · · · · · · · · · · · · ·	
Biochemical Engineering · Biochip Technology · Biomedical Technology Process Development for Production of Antioxidants from Lipid Extracted Microalgae Using Ultrasonic-assisted Extraction	542
Energy/Environment · New Renewable Energy · Waste Treatment/Energy Recovery Technology Numerical Simulation on the Effects of Air Staging for Pulverized Coal Combustion in a Tangential-firing Boiler	548
Materials(Inorganics/Organics, Electronics, Semiconductor) · Nano Technology · Semiconductor Technology · Microreactor Fabrication of Hemoglobin/Silver Nanoparticle Heterolayer for Electrochemical Signal-enhanced Bioelectronic Application	556
Catalysis/Reaction Engineering · Reactor Development/Modeling · Numerical Analysis · Transport Phenomena Numerical Simulation of Heat and Flow Behaviors in Butt-fusion Welding Process of HDPE Pipes with Curved Fusion Surface	561
Oxidative Desulfurization of Marine Diesel Using WO _x /SBA-15 Catalyst and Hydrogen Peroxide Hyeonwoo Oh, Ji Man Kim, Kwang-Sun Huh and Hee Chul Woo	567
Short Communication Preliminary Study: Comparison of Kinetic Models of Oil Extraction from Vetiver (<i>Vetiveria Zizanioides</i>)	
by Microwave Hydrodistillation Heri Septya Kusuma, Taufik Imam Rohadi, Edwin Fatah Daniswara, Ali Altway and Mahfud Mahfud	574