

Korean Chemical Engineering Research

August 2015
Volume 53, Number 4

Korean Chem. Eng. Res., 53(4) 407-530(2015)
PISSN 0304-128X, EISSN 2233-9558

Article

Industrial Chemistry(Electrochemistry, Analytical Chemistry) · Drug Delivery System · Functional Coating Technology · Biomedical Materials

- Effect of Flow Rates of Feed and Sweep Gas on Oxygen Permeation Properties of $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}$ Membrane
..... Se Hyung Park, Jong Suk Sonn, Hong Joo Lee and Jung Hoon Park 407
- Measurement of Hydrogen Crossover During PEMFC Operation
..... Jaejin Jeong, Jaehyeun Jeong, Saehoon Kim, Byungki Ahn, Jaijoon Ko and Kwonpil Park 412
- Pretreatment of *Helianthus tuberosus* Residue by Two-Stage Flow Through Process
..... Yong Cheol Park and Jun Seok Kim 417
- Synthesis of ZSM-5 on the Surface of Foam Type Porous SiC Support
· Eunjn Jung, Yoon Joo Lee, Ji Yeon Won, Younghee Kim, Soo Ryong Kim, Dong-Geun Shin, Hyun Jae Lee and Woo Teck Kwon 425

Process System Engineering · Plant Design · Process Safety · Plant Engineering

- Safety Enhancement of LPG Terminal by LOPA & SIF Method
..... Il Jae Lee and Rae Hyun Kim 431

Separation Technology · Thermodynamics · Membrane Technology · Supercritical Fluid Extraction · Ionic Liquids

- Effects of Operating Variables on the Solid Circulation Rate in a Three-phase Circulating Fluidized Bed
..... Min Kon Kim, Sung Kyu Hong, Dae Ho Lim, Dong Jun Yoo and Yong Kang 440
- Extraction of Genistein from *Sophora flavescens* with Supercritical Carbon Dioxide
..... Chang-Nam Han and Choon-Hyoung Kang 445
- Simulation and Optimization Study on the Pressure-Swing Distillation of Ethanol-Benzene Azeotrope
..... Hoey Kyung Park, Dong Sun Kim and JungHo Cho 450
- Application of Emulsion Liquid Membrane to Removal of Fermentation Inhibitors from Simulated Hemicellulosic Hydrolysates
..... Sang Cheol Lee 457

Biochemical Engineering · Biochip Technology · Biomedical Technology

- The Nature of Acid-Catalyzed Acetalization Reaction of 1,2-Propylene Glycol and Acetaldehyde
..... Chen Cheng, Hui Chen, Xia Li, Jianli Hu and Baochen Liang 463
- An Analysis of Lipid Contents Produced from Three Different Microalgae Depending on the Lighting Period and Their Saccharification Conversion
..... Su-Bin Lim, Ji-Won Jeong, Jae-Sung Yeon, Na-Kyung Lee and Jong-In Won 468
- Increase in Voltage Efficiency of Picoinjection using Microfluidic Picoinjector Combined Faraday Moat with Silver Nanoparticles Electrode
..... Young Moo Noh, Si Hyung Jin, Seong-Geun Jeong, Nam Young Kim, Changhyun Rho and Chang-Soo Lee 472
- Effect of Reaction Factors on Reducing Sugar Production from *Enteromorpha intestinalis* Using Solid Acid Catalyst
..... Gwi-Taek Jeong and Don-Hee Park 478

Energy/Environment · New Renewable Energy · Waste Treatment/Energy Recovery Technology

- Experimental Evaluation Method of Mass Transfer Coefficient on Biotrickling Filtration for Air Pollution Control
..... Yang-Soo Won and Wan-Keun Jo 482
- Mass Transfer Model and Coefficient on Biotrickling Filtration for Air Pollution Control
..... Yang-Soo Won and Wan-Keun Jo 489
- A Study on the Comparison of Methods for the Measurement of Hydrocarbon Dew Point of Natural Gas
..... Kang-Jin Lee, Young-Cheol Ha, Jae-Young Her, Jin-Chun Woo, Yong-Doo Kim and Hyun-Kil Bae 496
- Adsorption of Ammonia on Municipal Solid Waste Incinerator Bottom Ash Under the Landfill Circumstance
..... Jun Yao, Qingna Kong, Huayue Zhu, Zhen Zhang, Yuyang Long and Dongsheng Shen 503

Materials(Inorganics/Organics, Electronics, Semiconductor) · Nano Technology · Semiconductor Technology · Microreactor

- Reduction Leaching of Manganese Dioxide Ore Using Black Locust as Reductant in Sulfuric Acid Solution
..... Jianrong Xue, Hong Zhong, Shuai Wang, Changxin Li, Jinzhong Li and Fangfang Wu 509
- Study on the Effects of Corrosion Inhibitor According to the Functional Groups for Cu Chemical Mechanical Polishing in Neutral Environment
..... Sang Won Lee and Jae Jeong Kim 517

Short Communication

- Optimization of Medium for Protease Production by *Enterobacteriaceae* sp. PAMC 25617 by Response Surface Methodology
..... Hyun-do Kim, Chul-Won Yun, Jong-il Choi and Se Jong Han 524