

Korean Chemical Engineering Research

May 2021
Volume 59, Number 2

Korean Chem. Eng. Res., 59(2) 153-304 (2021)
PISSN 0304-128X, EISSN 2233-9558

Article

Industrial Chemistry(Electrochemistry, Analytical Chemistry)

- In Vitro Evaluation of Antioxidant Potential of Date Palm Collected in Algeria using Electrochemical and Spectrophotometrical Techniques
..... Cheyma Bensaci, Zineb Ghiaba, Messaouda Dakmouche, Assia Belfar, Mahdi Belguidoum, Fatima Zohra Bentebba, Mokhtar Saidi and Mohamed Hadjadj **153**
- Investigation on Electrochemical Property of CNT Fibers and its Non-enzymatic Sensing Performance for Glucose Detection
..... Min-Jung Song **159**
- Preparation of UV Curable Anti-Glare Coating Films Using Micrometer-Sized Silica Particles
..... Tae Hyoung Kim and Ki Chang Song **165**
- Fabrication of K-PHI Zeolite Coated Alumina Hollow Fiber Membrane and Study on Removal Characteristics of Metal Ions in Lignin Wastewater
..... XueLong Zhuang, Min Chang Shin, Byeong Jun Jeong, Seung Hwan Lee and Jung Hoon Park **174**

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

- A Study on the Calculation of Minimum Safety Distance during Storage and Combustion Test of Solid Propellants for Launch Vehicles
..... Ahn-Tae Shin, Byung-Mun Park and Hun-Soo Byun **180**
- Feasibility Analysis of Korea TURA Reflecting Fuzzy Weights
..... Daniel Jongsoo Yoon and Hun-Soo Byun **186**
- Prediction of Distillation Column Temperature Using Machine Learning and Data Preprocessing
..... Yechan Lee, Yeongryeol Choi, Hyungtae Cho and Junghwan Kim **191**
- Design and Analysis of Hydrogen Production and Liquefaction Process by Using Liquefied Natural Gas
..... Wonjun Noh, Sihwan Park and Inkyu Lee **200**
- AutoML and Artificial Neural Network Modeling of Process Dynamics of LNG Regasification Using Seawater
..... Yongbeom Shin, Sangwoo Yoo, Dongho Kwak, Nagyeong Lee and Dongil Shin **209**

Separation Technology · Thermodynamics and Molecular Simulation · Membrane Technology · Supercritical Fluid Extraction · Ionic Liquids

- Evaluation of Water Softening with the Removal of Calcium Ion by Ion Flotation Approach
..... Azadeh Mafi and Gholam Khayati **219**

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

- Assessment of the Risks of Fire and Explosion through the Spontaneous Ignition Temperature and Activation Energy of Sesame Seed Oil Cakes
..... Sung-Ho Byun, Yu-Jung Choi, Doo-Yeol Yoo, Kyoung-Su Kim, Jae-Geun Oh, Byung-Seon Moon and Jae-Wook Choi **225**
- Steam Reforming of Toluene Over Ni/Coal Ash Catalysts: Effect of Coal Ash Composition
..... Jinyoung Jang, Gunung Oh, Ho Won Ra, Sung Min Yoon, Tae Young Mun, Myung Won Seo, Jihong Moon, Jae-Goo Lee and Sang Jun Yoon **232**
- Characteristics of Heat Absorption by Gas in a Directly-irradiated Fluidized Bed Particle Receiver
..... Sae Han Park and Sung Won Kim **239**

Transport Phenomena · Drug Delivery System · Functional Coating Technology · Biomedical Materials

- Coalescence of Two Oppositely Charged Droplets at Constant Electric Potential
..... Dong Woog Lee and In Seok Kang **247**

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

- Optical and Electrical Characteristics of Fluorocarbon Films Deposited in a High-Density C₄F₈ Plasma
..... Hyeokkyu Kwon, Sanghyun You, Jun-Hyun Kim and Chang-Koo Kim **254**
- Comparative Study on Convective and Microwave-Assisted Heating of Zeolite-Monoethanolamine Adsorbent Impregnation Process for CO₂ Adsorption
..... Rama Oktavian, Bambang Poerwadi, Kristian Pardede and Zuh Rotul Aulia **260**

Catalysis/Reaction Engineering · Reactor Development/Modeling · Numerical Analysis

- Development of the Highly Dispersed Palladium-Nickel Catalysts for Catalytic Partial Oxidation of Methane
..... Seunghyun Lee, Jonghyun Jeon, Juchan Kim and Kyoung-Su Ha **269**
- Oxygen Transfer Rate from Liquid Free Surface in Reciprocally Shaking Vessel
..... Seung-Tae Koh **276**
- Selective Synthesis of Acetonitrile via Direct Amination of Ethanol Over Ni/SiO₂-Al₂O₃ Mixed Oxide Catalysts
..... Hanna Kim and Chae-Ho Shin **281**
- Decomposition of Low-toxic Propellant by Cu-La-Al/honeycomb Catalysts
..... Munjeong Kim, Dalsan Yoo, Jeongsub Lee and Jong-Ki Joen **296**