

International Journal of Chemical Engineering and Applications

CONTENTS

Volume 6, Number 6, December 2015

• **Materials and Processing Technology**

New Complex for Enhancing Drag Reduction Efficiency.....385
Emsalem Faraj Hawege and Hayder A. Bari

Effect of Zirconia and Nickel Doping on the Reduction Behavior of Tungsten Oxide in Carbon Monoxide
Atmosphere.....389
*Fairous Salleh, Tengku Shafazila Tengku Saharuddin, Alinda Samsuri, Rizafizah Othaman, and Mohd.
Ambar Yarmo*

Modification of Porous Materials by Saturated Fatty Amine as CO₂ Capturer.....395
Maratun Najiha Abu Tahari, Azizul Hakim, Mohamed Wahab Mohamed Hisham, and Mohd. Ambar Yarmo

Effects of Microwave — Induced Torrefaction on Waste Straw Upgrading.....401
Yi-Li Lin

Influence of Noble Metal (Ru, Os and Ag) on the Reduction Behaviour of Iron Oxide Using Carbon Monoxide:
TPR and Kinetic Studies.....405
*Tengku Shafazila Tengku Saharuddin, Fairous Salleh, Alinda Samsuri, Rizafizah Othaman, and Mohd
Ambar Yarmo*

• **Microbiological and Chemical**

Studies Regarding the Influence of the Ultrasonication Conditions on the Adsorption Performance of Obtained
Ionic Liquid Impregnated Materials.....410
L. Lupa, A. Negrea, M. Ciopec, R. Vodă, and P. Negrea

Using Ionic Liquids for the Separation of Carbohydrates.....417
Mohamed K. Hadj-Kali and Inas M. AlNashef

Hydrolysis of Empty Fruit Bunches of Palm Oil (*Elaeis Guineensis Jacq.*) by Chemical, Physical, and
Enzymatic Methods for Bioethanol Production.....422
N. Richana, C. Winarti, T. Hidayat, and B. Prastowo

Recrystallization and Micronization of 4-Dimethylaminoantipyrine Using the Rapid Expansion of Supercritical
Solution (RESS) Process.....427
Chai-Siah Lee, Muoi Tang, Sheau-Ling Ho, and Yan-Ping Chen

Using Plasma Treatment for Enhancing the Coating for Rechargeable Antimicrobial Finishing of Cotton Fabric
.....432
Chi-Wai Kan

Production of Biodiesel from Waste Canola Cooking Oil in Pakistan.....436

Zaibunnisa Hussain, Saeed Ahmad Nagra, and Mehwish Jamil

Microbial Flora, Proximate Composition and Vitamin Content of Juices of Three Fruits Bought from a Local Market in Nigeria.....440

Ositadinma C. Ugbogu and Alloysius C. Ogodo

• **General Mechanical Engineering and Thermodynamics**

Equilibrium, Kinetics and Thermodynamic of Dye Adsorption by Low — Cost Adsorbents.....444

S. Sawasdee and P. Watcharabundit

Kinetic Model of Nitric Oxide Reduction on CuFe/SUZ-4 Catalyst in Packed Bed Column.....450

P. Worathanakul, T. Layakul, and P. Juengsura

Electrical Properties of the Thin Films Using a Low Temperature Supercritical Carbon Dioxide Fluid Process455

Kai-Huang Chen, Sean Wu, and Chien-Min Cheng

Theoretical Study of Single Phase Heat Transfer in a Helically Coiled Tube of Small Diameter.....460

Ashish Kumar Pandey, P. K. Mishra, and K. K. Srivastava