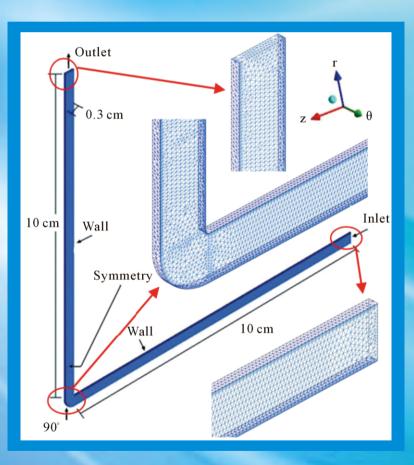


# Advances in Chemical Engineering and Science





www.scirp.org/journal/aces

# **Journal Editorial Board**

ISSN 2160-0392 (Print) ISSN 2160-0406 (Online) http://www.scirp.org/journal/aces

## **Editor in Chief**

Prof. SungCheal Moon

Korea Institute of Materials Science (KIMS), Korea (South)

## **Editorial Board**

Prof. Azzedine Abbaci	Université Badji Mokhtar, Algeria
Prof. Jose-Maria Bastidas	Spanish Council for Scientific Research (CSIC), Spain
Dr. Sampa Chakrabarti	University of Calcutta, India
Dr. Changle Chen	Celanese Corporation, USA
Prof. Juan A. Conesa	University of Alicante, Spain
Prof. Zhen Fang	Chinese Academy of Sciences, China
Prof. Chang-Sik Ha	Pusan National University, Korea (South)
Prof. Hasan Abdellatif Hasan	Jordan University of Science and Technology, Jordan
Dr. Christopher J. Koroneos	University of Western Macedonia, Greece
Prof. Bogdana Koumanova	University of Chemical Technology and Metallurgy (UCTM), Bulgaria
Prof. Roberto Fernández Lafuente	Consejo Superior de Investigaciones Científicas, Spain
Prof. Lubomir Lapcik	Tomas Bata University, Czech Republic
Prof. Fengshan Liu	National Research Council Canada, Canada
Dr. Muhammad Mansha	University of Engineering and Technology, Pakistan
Prof. Hamdaoui Oualid	University of Annaba, Algeria
Prof. K.S.M.S. Raghavarao	Central Food Technological Research Institute (CFTRI), India
Prof. Dewey Ryu	University of California, USA
Prof. Hristo Sapoundjiev	Natural Resources Canada, Canada
Prof. Chi-Min Shu	National Yunlin University of Science and Technology, Chinese Taipei
Prof. Georgiy Borisovich Shul'Pin	Russian Academy of Sciences, Russia
Dr. Ajaya Kumar Singh	Government VYT Post Graduate Autonomous College, India
Dr. Atul Tiwari	University of Hawaii at Manoa, USA
Dr. Neven Ukrainczyk	University of Zagreb, Croatia
Dr. Shuangzhen Wang	National Insistute of Standards and Technology, USA
Dr. Chunliang Wu	Louisiana State University, USA
Dr. Hongwei Wu	Beijing University of Aeronautics and Astronautics, China
Prof. Gennady Efremovich Zaikov	Moscow State Academy of Fine Chemical Technology, Russia
Dr. An Zhang	Biogen Idec, USA



## **TABLE OF CONTENTS**

Volume 2	Number 3	<b>July 2012</b>
Enhanced Elec HEV Applicat	ectrochemical Properties of LiFePO $_4$ as Positive Electrode of Li-Ion Batteries for ation	
C. M. Julien, I	, K. Zaghib, A. Mauger, H. Groult	
-	rption of Naphthalene onto a Modified Clay Adsorbent: Effect of Acid, Base and Sal s of Clay on Sorption Kinetics	t
C. N. Owabor	or, U. M. Ono, A. Isuekevbo	
Application of	of Polymeric Membrane in CO <sub>2</sub> Capture from Post Combustion	
S. Z. Wang, Z	X. C. Han	
Kinetic Aspect Process	cts of Gold and Silver Recovery in Cementation with Zinc Power and Electrocoagula	ition Iron
G. V. F. Marti	tinez, J. R. P. Torres, J. L. V. García, G. C. T. Munive, G. G. Zamarripa	
Infrared Spect	ctroscopy and Thermal Stability Studies of Natural Rubber-Barium Ferrite Compos	ites
K. H. Mahmor	oud, M. H. Makled	
Antioxidant ar	and Antibacterial Properties of Mesembryanthemum crystallinum and Carpobrotus ea	lulis Extracts
B. Ibtissem, C	C. Abdelly, S. Sfar	
Arsenic Remo	oval from Drinking Water by Self-Made PMIA Nanofiltration Membrane	
C. W. Zhao, S	S. S. Du, T. Wang, J. Zhang, Z. K. Luan	
Recovery of Po	Pentachlorophenol from Aqueous Solution via Silicone Rubber Membrane	
J. Sawai, K. S	Sahara, T. Minami, M. Kikuchi	
Synthesis of Vi	Vildagliptin-β-O-Glucuronide	
Y. S. J. Lu, Y	Y. G. Liu, M. Prashad, WC. Shieh	
-	ations in the Inverse Fluidized Bed Biofilm Reactor When Used in Treatment of Indu of Various Strength	ıstrial
W. Sokół		
Dimerization of	of 1-Phenyl-1 <i>H</i> -tetrazole-5-thiol over Metalloporphyrin Catalysts	
Y. H. Wu, J. V	W. Yang, Y. Yan, S. L. Tong, D. Tan, J. Yu, L. Yu	
Coking Proper	erties of Tavantolgoi Coal from Mongolia	
J. Dugarjav, B	B. Tomorchuluun, B. Batdelger	



#### A Comparative Study on the Hydrocracking for Atmospheric Residue of Mongolian Tamsagbulag Crude Oil and Other Crude Oils

Ts. Tugsuu, S. Yoshikazu, B. Enkhsaruul, D. Monkhoobor	402
Chemical Treatment to Recover Molybdenum and Vanadium from Spent Heavy Gasoil Hydrodesulfurization Catalyst	
A. D. Rojas-Rodríguez, O. Flores-Fajardo, F. S. A. González, N. N. L. Castillo, M. J. C. Gómez	408
Supercritical Fluid Extraction of Uncrushed Jordanian Olives	
A. Al-Otoom, S. Al-Asheh, M. Allawzi, K. Mahshi, N. Alzenati, B. Banat, B. Alnimr	413

The figure on the front cover is from the article published in Advances in Chemical Engineering and Science, 2012, Vol. 2, No. 2, pp. 283-291 by Jose Luis Gomes Marinho, *et al*.

### Advances in Chemical Engineering and Science (ACES)

#### **Journal Information**

#### SUBSCRIPTIONS

The Advances in Chemical Engineering and Science (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$39 per issue. To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

#### SERVICES

Advertisements Advertisement Sales Department, E-mail: service@scirp.org

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA. E-mail: sub@scirp.org

#### COPYRIGHT

Copyright©2012 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact: E-mail: aces@scirp.org

# Call for Papers



# Advances in Chemical Engineering and Science

ISSN: 2160-0392 (Print), 2160-0406 (Online) www.scirp.org/journal/aces

Advances in Chemical Engineering and Science is an open access, peer-reviewed and fully refereed journal focusing on theories, methods and applications in chemical engineering and science. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of Advances in Chemical Engineering and Science.

# Editor-in-Chief

Prof. SungCheal Moon

Korea Institute of Materials Science (KIMS), Korea (South)

# Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Biochemical Engineering
- Bio-Engineering Materials
- Chemical Engineering Biotechnology
- Chemical Reaction
- Chemical Reaction Related Unit Operations
- Chemicals
- Composite Materials
- Electrochemistry of Nanomaterials and Applications
- Energy Engineering
- Environmental Engineering
- Fluid Mechanics

- Green Chemistry
- Molecular Assembly
- Nanomaterials
- Nano-Scale Phenomena
- Nanostructured Materials
- Nanotechnology
- Natural Products
- Optimization of Chemical Engineering Systems
- Petrochemical
- Pharmaceuticals Polymers
- Specialty Chemicals
- Transport Phenomena

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the **ACES**.

# **Notes for Intending Authors**

Submitted papers should not be previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers will be peer reviewed. For more derails about the submission, please access the website.

# Website and E-Mail

www.scirp.org/journal/aces

E-mail: aces@scirp.org