- ACS Style Guide: Citing References [PDF]
- Copyright & Permissions/Rightslink
- ACS Author & Reviewer Resource Center

- Subscriptions
- About the Journal
  - About the Journal
  - Editors
  - Editor Profile
  - Masthead [PDF]
  - Editorial Advisory Board [PDF]
  - Advertising

Previous Issue Next Issue

Table of Contents



Larger Cover

April 15, 2009
Volume 48, Issue 8
Pages 3703-4176

In this issue:

- Reviews
- Applied Chemistry
- Kinetics, Catalysis, and Reaction Engineering
- Materials and Interfaces
- Process Design and Control
- Separations
- General Research
- Research Notes

- Correlations
- Additions and Corrections

ACS AuthorChoice indicates the article is freely available through sponsorship by the author or related funding agency. More about this program.

☐ Select All For Selected Content:

Reviews

Hydrogen Generation from Chemical Hydrides

Eyma Y. Marrero-Alfonso, Amy M. Beaird, Thomas A. Davis and Michael A. Matthews
Publication Date (Web): March 20, 2009 (Review)
DOI: 10.1021/ie8016225
Abstract

- Full Text HTML
- Hi-Res PDF[531K]
- PDF w/ Links[201K]

☐

Methods for Pretreatment of Lignocellulosic Biomass for Efficient Hydrolysis and Biofuel Production

Parveen Kumar, Diane M. Barrett, Michael J. Delwiche and Pieter Stroeve
Publication Date (Web): March 20, 2009 (Review)
DOI: 10.1021/ie801542g
Abstract

- Full Text HTML
- Hi-Res PDF[1540K]
- PDF w/ Links[411K]

☐

Applied Chemistry

Synthesis and Characterization of Imprinted Polymers for Radioactive Waste Reduction

Anupkumar Bhaskarapillai, Narasimhan V. Sevilimedu and B[illegible]rje Sellergren
Publication Date (Web): March 18, 2009 (Article)
DOI: 10.1021/ie801640b
Abstract

- Full Text HTML
- Hi-Res PDF[226K]
- PDF w/ Links[176K]

☐

Biosurfactants from Urban Wastes As Auxiliaries for Textile Dyeing

Piero Savarino, Enzo Montoneri, Stefano Bottigliengo, Vittorio Boffa, Tommaso Guizzetti, Daniele G. Perrone and Raniero Mendichi
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801853x
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[1932K]
- PDF w/ Links[441K]

☐

Synthesis and Characterization of Polyol Poly-12-Hydroxy Stearic Acid: Applications in Preparing Environmentally Friendly Overbased Calcium Oleate Detergent

Yonglei Wang, Wumanjiang Eli, Ayixiamuguli Nueraimaiti and Yuanfeng Liu
Publication Date (Web): March 19, 2009 (Article)
DOI: 10.1021/ie8016016
Abstract

- Full Text HTML
- Hi-Res PDF[100K]
- PDF w/ Links[116K]

☐

Kinetics, Catalysis, and Reaction Engineering

Hydrogenation of Oxidized Wax and a Process To Produce Olefins from Paraffins by Autoxidation, Selective Hydrogenation, and Dehydration

F. H. A. Bolder, A. de Klerk and J. L. Visagie
Publication Date (Web): March 9, 2009 (Article)
DOI: 10.1021/ie8018092
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[95K]
- PDF w/ Links[110K]

☐

Kinetics of the Absorption of CO_2 in Aqueous Solutions of *N*-Methyldiethanolamine + Triethylene Tetramine

Jean-Marc G. Amann and Chakib Bouallou
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie800414v
Abstract

- Full Text HTML
- Hi-Res PDF[407K]
- PDF w/ Links[211K]

☐

Catalytic Properties of Pt–Re/Al_2O_3 Naphtha-Reforming Catalysts Modified by Germanium Introduced by Redox Reaction at Different pH Values

Silvana A. D'Ippolito, Carlos R. Vera, Florence Epron, Petrisor Samoila, Catherine Especel, Patrice Marécot, Laura B. Gutierrez and Carlos L. Pieck
Publication Date (Web): March 13, 2009 (Article)
DOI: 10.1021/ie801158j
Abstract

- Full Text HTML
- Hi-Res PDF[128K]
- PDF w/ Links[145K]

☐

Sensitivity Analysis and Kinetic Parameter Estimation in a Three Way Catalytic Converter

S. Koteswara Rao, Rayees Imam, Karthik Ramanathan and S. Pushpavanam
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801244w
Abstract

- Full Text HTML
- Hi-Res PDF[307K]
- PDF w/ Links[313K]

A Two-Phase Reactor Model for the Hydrocracking of Fischer–Tropsch-Derived Wax

Klaus Müller, Philip le Grange and Carlo Accolla
Publication Date (Web): March 10, 2009 (Article)
DOI: 10.1021/ie801350p
Abstract

- Full Text HTML
- Hi-Res PDF[368K]
- PDF w/ Links[300K]

Preparation, Characterization, and Performance of HMS-Supported Ni Catalysts for Hydrodechlorination of Chorobenzene

Jixiang Chen, Jianjun Zhou, Rijie Wang and Jiyan Zhang
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie801792h
Abstract

- Full Text HTML
- Hi-Res PDF[1528K]
- PDF w/ Links[556K]

Influence of Supports on Structure and Performance of Nickel Phosphide Catalysts for Hydrodechlorination of Chlorobenzene

Jixiang Chen, Shaojun Zhou, Donghui Ci, Jianxiang Zhang, Rijie Wang and Jiyan Zhang
Publication Date (Web): March 10, 2009 (Article)
DOI: 10.1021/ie8018643
Abstract

- Full Text HTML
- Hi-Res PDF[198K]
- PDF w/ Links[205K]

☐

On the Introduction of a Qualitative Variable to the Neural Network for Reactor Modeling: Feed Type

Maryam Ghadrdan, Hamid Mehdizadeh, Ramin Bozorgmehry Boozarjomehry and Jafar Towfighi Darian
Publication Date (Web): March 16, 2009 (Article)
DOI: 10.1021/ie800794n
Abstract

- Full Text HTML
- Hi-Res PDF[242K]
- PDF w/ Links[176K]

☐

Experimental and Modeling Analysis of Methane Partial Oxidation: Transient and Steady-State Behavior of Rh-Coated Honeycomb Monoliths

Alessandra Beretta, Gianpiero Groppi, Matteo Lualdi, Ivan Tavazzi and Pio Forzatti
Publication Date (Web): March 13, 2009 (Article)
DOI: 10.1021/ie8017143
Abstract

- Full Text HTML

- Hi-Res PDF[3161K]
- PDF w/ Links[599K]

☐

Materials and Interfaces

Influence of the Conditions of Zincate on the Electroless Brass Plating of Steel

Carlos Domínguez-Ríos, Georgina Gardea-Hernández, Roal Torres-Sánchez, Lileana Licea-Jiménez, Arturo Mendoza-Galván, Alfredo Aguilar-Elguézabal and Jesús González-Hernández
Publication Date (Web): March 11, 2009 (Article)
DOI: 10.1021/ie8014445
Abstract

- Full Text HTML
- Hi-Res PDF[1578K]
- PDF w/ Links[413K]

☐

Modeling Sorption Kinetics of Carbon Dioxide in Glassy Polymeric Films Using the Nonequilibrium Thermodynamics Approach

Vito Carlà, Yazan Hussain, Christine Grant, Giulio C. Sarti, Ruben G. Carbonell and Ferruccio Doghieri
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie800655w
Abstract

- Full Text HTML
- Hi-Res PDF[175K]

- PDF w/ Links[189K]

☐

Factors Affecting Bubble Size on Foamed Polymer-Paperboard Composites

Sriram K. Annapragada and Sujit Banerjee
Publication Date (Web): March 10, 2009 (Article)
DOI: 10.1021/ie8015413
Abstract

- Full Text HTML
- Hi-Res PDF[535K]
- PDF w/ Links[159K]

☐

Reduction of Chemical Reaction Mechanism for Halide-Assisted Silicon Carbide Epitaxial Film Deposition

Rong Wang, Ronghui Ma and Michael Dudley
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie8017093
Abstract

- Full Text HTML
- Hi-Res PDF[850K]
- PDF w/ Links[210K]

☐

Application of FT-IR-ATR Spectroscopy to Evaluate the Penetration of Surface Sizing Agents into the Paper Structure

Paulo J. Ferreira, Jos[é] A. Gamelas, Isabel M. Moutinho, Ana G. Ferreira, Nuria G[ó]mez, Cristina Molleda and M. Margarida Figueiredo
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801765c
Abstract

- Full Text HTML
- Hi-Res PDF[141K]
- PDF w/ Links[155K]

☐

Process Design and Control

Time-Optimal Control of Startup Distillation of Nonideal Mixtures

Alexandru Woinaroschy
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801490r
Abstract

- Full Text HTML
- Hi-Res PDF[284K]
- PDF w/ Links[187K]

☐

Advanced Control Strategies for the Regulation of Hypnosis with Propofol

Sreenivas Yelneedi, Lakshminarayanan Samavedham and G. P. Rangaiah
Publication Date (Web): March 10, 2009 (Article)
DOI: 10.1021/ie800695b
Abstract

- Full Text HTML
- Hi-Res PDF[466K]
- PDF w/ Links[449K]

☐

Rolling Operation Algorithm for Solving Complex Scheduling Problems

Barbara Czuczai, Tivadar Farkas, Endre Rev and Zoltan Lelkes
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie801037k
Abstract

- Full Text HTML
- Hi-Res PDF[1124K]
- PDF w/ Links[300K]

☐

Comprehensive Simulation of an Intensified Process for H_2 Production from Steam Gasification of Biomass

Peijun Ji, Wei Feng and Biaohua Chen
Publication Date (Web): March 11, 2009 (Article)
DOI: 10.1021/ie801191g
Abstract

- Full Text HTML
- Hi-Res PDF[600K]
- PDF w/ Links[248K]

☐

Enhancing Abnormal Events Management by the Use of Quantitative Process Hazards Analysis Results

Ignacio Yélamos, Aarón Bojarski, Girish Joglekar, Venkat Venkatasubramanian and Luis Puigjaner
Publication Date (Web): March 11, 2009 (Article)
DOI: 10.1021/ie800405n
Abstract

- Full Text HTML
- Hi-Res PDF[773K]
- PDF w/ Links[280K]

Multilinear Model Control of Hammerstein-like Systems Based on an Included Angle Dividing Method and the MLD-MPC Strategy

Jingjing Du, Chunyue Song and Ping Li
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie8009395
Abstract

- Full Text HTML
- Hi-Res PDF[272K]
- PDF w/ Links[280K]

MPC Constraint Analysis Bayesian Approach via a Continuous-Valued Profit Function

Seyi Akande, Biao Huang and Kwan Ho Lee
Publication Date (Web): March 16, 2009 (Article)

DOI: 10.1021/ie8011566
Abstract

- Full Text HTML
- Hi-Res PDF[906K]
- PDF w/ Links[235K]

☐

Multifactor Statistical Analysis of H_2O_2-Enhanced Photodegradation of Nicotine and Phosphamidon

Amanda M. Nienow, Inez Hua, Irene C. Poyer, Juan César Bezares-Cruz and Chad T. Jafvert
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801311f
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[1211K]
- PDF w/ Links[266K]

☐

Optimization and Management of Flotation Deinking Banks by Process Simulation

Davide Beneventi, Elisa Zeno, Patrice Nortier, Bruno Carré and Gilles Dorris
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801753j
Abstract

- Full Text HTML
- Hi-Res PDF[1611K]
- PDF w/ Links[442K]

Separations

Selective Extraction of Neutral Nitrogen-Containing Compounds from Straight-Run Diesel Feed Using Polymer-Supported Ionic Liquid Moieties

Li–Li Xie, Alain Favre-Reguillon, Xu-Xu Wang, Xianzhi Fu, Michel Vrinat and Marc Lemaire
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie900142p
Abstract

- Full Text HTML
- Hi-Res PDF[86K]
- PDF w/ Links[103K]

Enhancing Capacity of Activated Carbons for Hydrogen Purification

Filipe V. S. Lopes, Carlos A. Grande, Ana M. Ribeiro, Eduardo L. G. Oliveira, José M. Loureiro and Alírio E. Rodrigues
Publication Date (Web): March 18, 2009 (Article)
DOI: 10.1021/ie801132t
Abstract

- Full Text HTML
- Hi-Res PDF[288K]
- PDF w/ Links[283K]

Characterization of Surface-Bound Zr(IV) and Its Application to Removal of As(V) and As(III) from Aqueous Systems Using Phosphonic Acid Modified Nanoporous Silica Polyamine Composites

Varadharajan Kailasam, Edward Rosenberg and Daniel Nielsen
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie8016362
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[243K]
- PDF w/ Links[245K]

☐

Organic–Inorganic Hybrid Membranes: Solving the Trade-off Phenomenon Between Permeation Flux and Selectivity in Pervaporation

Mahadevappa Y. Kariduraganavar, Jolly G. Varghese, Santosh K. Choudhari and Robert H. Olley
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie8016626
Abstract

- Full Text HTML
- Hi-Res PDF[618K]
- PDF w/ Links[372K]

☐

Germanium(IV) Adsorption from Aqueous Solution Using a Kelex-100 Functional Adsorbent

Hyung-Jun Park and Lawrence L. Tavlarides
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801733d
Abstract

- Full Text HTML
- Hi-Res PDF[145K]
- PDF w/ Links[162K]

☐

Effect of Ammonia on the Absorption Kinetics of Carbon Dioxide into Aqueous 2-Amino-2-methyl-1-propanol Solutions

Won-Joon Choi, Byoung-Moo Min, Jong-Beom Seo, Sang-Wook Park and Kwang-Joong Oh
Publication Date (Web): March 11, 2009 (Article)
DOI: 10.1021/ie8018438
Abstract

- Full Text HTML
- Hi-Res PDF[227K]
- PDF w/ Links[188K]

☐

Effect of H_2S on the Performance and Long-Term Stability of Pd/Cu Membranes

Natalie Pomerantz and Yi Hua Ma
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801947a
Abstract

- Full Text HTML
- Hi-Res PDF[659K]

- PDF w/ Links[277K]

☐

General Research

Experimental Study of Shell-Side Heat Transfer Coefficient and Pressure Drop for an Integrally Helical Baffled Heat Exchanger Combined with Different Enhanced Tubes

Zhengguo Zhang, Changshun Wu, Xiaoming Fang, Xuenong Gao and Zhenyong Wang
Publication Date (Web): March 19, 2009 (Article)
DOI: 10.1021/ie801339s
Abstract

- Full Text HTML
- Hi-Res PDF[315K]
- PDF w/ Links[149K]

☐

Measurements of Hydrate Dissociation Temperature of Methane, Ethane, and CO_2 in the Absence of Any Aqueous Phase and Prediction with the Cubic Plus Association Equation of State

Z. Youssef, A. Barreau, P. Mougin, J. Jose and I. Mokbel
Publication Date (Web): March 16, 2009 (Article)
DOI: 10.1021/ie801351e
Abstract

- Full Text HTML
- Hi-Res PDF[283K]
- PDF w/ Links[154K]

Solubility of Carbon Dioxide and Hydrogen Sulfide in Aqueous N-Methyldiethanolamine Solutions

P. J. G. Huttenhuis, N. J. Agrawal and G. F. Versteeg
Publication Date (Web): March 11, 2009 (Article)
DOI: 10.1021/ie801336j
Abstract

- Full Text HTML
- Hi-Res PDF[921K]
- PDF w/ Links[259K]

A Coupled DEM and CFD Simulation of Flow Field and Pressure Drop in Fixed Bed Reactor with Randomly Packed Catalyst Particles

Hua Bai, Jörg Theuerkauf and Paul A. Gillis, Paul M. Witt
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie801548h
Abstract

- Full Text HTML
- Hi-Res PDF[4270K]
- PDF w/ Links[782K]

Mass Transfer and Solubility of CO and H_2 in Ionic Liquid. Case of [Bmim][PF_6] with Gas-Inducing Stirrer Reactor

Amit Sharma, Carine Julcour, Ashutosh A. Kelkar, Raj M. Deshpande and Henri Delmas
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801584p
Abstract

- Full Text HTML
- Hi-Res PDF[1130K]
- PDF w/ Links[358K]

☐

Fire Extinction Using Carbon Dioxide Hydrate

Takashi Hatakeyama, Eisuke Aida, Takeshi Yokomori, Ryo Ohmura and Toshihisa Ueda
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie8019533
Abstract

- Full Text HTML
- Hi-Res PDF[1525K]
- PDF w/ Links[276K]

☐

A Model To Predict the Concentration of Dispersed Solid Particles in an Aqueous Medium Confined inside Horizontal Cylindrical Channels

Herbert Lor[1]a and Pedro Pereira-Almao, Carlos E. Scott
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801518p
Abstract

- Full Text HTML
- Hi-Res PDF[374K]

- PDF w/ Links[156K]

☐

A Model To Predict the Concentration of Submicrometer Solid Particles in Viscous Media Confined inside Horizontal Cylindrical Channels

Herbert Lor[i]a and Pedro Pereira-Almao , Carlos E. Scott
Publication Date (Web): March 20, 2009 (Article)
DOI: 10.1021/ie801519e
Abstract

- Full Text HTML
- Hi-Res PDF[203K]
- PDF w/ Links[159K]

☐

Study on Systems Based on Coal and Natural Gas for Producing Dimethyl Ether

Li Zhou, Shanying Hu, Dingjiang Chen, Yourun Li, Bing Zhu and Yong Jin
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie8006177
Abstract

- Full Text HTML
- Hi-Res PDF[192K]
- PDF w/ Links[198K]

☐

Modeling of Aqueous Biomolecules Using a New Free-Volume

Group Contribution Model

G. R. Pazuki, V. Taghikhani and M. Vossoughi
Publication Date (Web): March 16, 2009 (Article)
DOI: 10.1021/ie8009389
Abstract

- Full Text HTML
- Hi-Res PDF[125K]
- PDF w/ Links[138K]

☐

Unsteady State Heat Transfer from Cylinders to Air in Normal and Parallel Flow

Vishnu T. Marla, Robert L. Shambaugh and Dimitrios V. Papavassiliou
Publication Date (Web): March 16, 2009 (Article)
DOI: 10.1021/ie800946a
Abstract

- Full Text HTML
- Hi-Res PDF[179K]
- PDF w/ Links[195K]

☐

Compositional Polydispersity in Linear Low Density Polyethylene

Aleksandra Dominik and Walter G. Chapman, Robert D. Swindoll and David Eversdyk, Prasanna K. Jog and Rakesh Srivastava
Publication Date (Web): March 18, 2009 (Article)
DOI: 10.1021/ie800982z
Abstract

- Full Text HTML
- Hi-Res PDF[833K]
- PDF w/ Links[397K]

Rheological Modification of Lubricating Greases with Recycled Polymers from Different Plastics Waste

J. E. Martín-Alfonso, C. Valencia, M. C. Sánchez, J. M. Franco and C. Gallegos
Publication Date (Web): March 12, 2009 (Article)
DOI: 10.1021/ie801359g
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[189K]
- PDF w/ Links[200K]

Linear Free Energy Relationship Correlations for Room Temperature Ionic Liquids: Revised Cation-Specific and Anion-Specific Equation Coefficients for Predictive Applications Covering a Much Larger Area of Chemical Space

Laura M. Sprunger, Jennifer Gibbs, Amy Proctor, William E. Acree, Jr., Michael H. Abraham, Yunjing Meng, Cong Yao and Jared L. Anderson
Publication Date (Web): March 23, 2009 (Article)
DOI: 10.1021/ie801898j
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[130K]
- PDF w/ Links[142K]

Research Notes

Technology for Processing Ammonium Rhodanide of Coking Plants into High-Purity Ammonium Thiocyanate and Thiourea

Farit Kh. Urakaev
Publication Date (Web): March 23, 2009 (Research Note)
DOI: 10.1021/ie800880h
Abstract

- Full Text HTML
- Hi-Res PDF[95K]
- PDF w/ Links[113K]

Neural Network Prediction of Interfacial Tension at Crystal/Solution Interface

K. Vasanth Kumar
Publication Date (Web): March 18, 2009 (Research Note)
DOI: 10.1021/ie801666u
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[88K]
- PDF w/ Links[104K]

Correlations

Variable Molecular Connectivity Indices for Predicting the

Diamagnetic Susceptibilities of Organic Compounds

Lailong Mu, Hongmei He, Weihua Yang and Changjun Feng
Publication Date (Web): March 11, 2009 (Correlation)
DOI: 10.1021/ie801252j
Abstract | Supporting Info

- Full Text HTML
- Hi-Res PDF[1178K]
- PDF w/ Links[340K]

☐

Additions and Corrections

Group Contribution Method for Predicting Melting Points of Imidazolium and Benzimidazolium Ionic Liquids

Yan Huo, Shuqian Xia and Yan ZhangPeisheng Ma
Publication Date (Web): March 11, 2009 (Addition/Correction)
DOI: 10.1021/ie900347d
Abstract

- Full Text HTML
- Hi-Res PDF[30K]
- PDF w/ Links[49K]

☐

Optimal Wavelet Packets for Characterizing Surface Quality

Daeyoun Kim, Chonghun Han and J. Jay Liu
Publication Date (Web): March 11, 2009 (Addition/Correction)
DOI: 10.1021/ie900356m
Abstract

- Full Text HTML
- Hi-Res PDF[30K]
- PDF w/ Links[49K]

☐

☐ Select All For Selected Content:

Previous Issue Next Issue



Browse By Issue

Select Decade
Select Volume
Select Issue
List of Issues

Stay Current

Get your research ASAP.

e-Alerts | RSS Feeds

Advertisements



Info for Advertisers

Copyright © 2009 American Chemical Society
1155 Sixteenth Street N.W., Washington, DC 20036

Journals A–Z| Books| Authors & Reviewers| Librarians| ACS Members| Help

PORTICO COUNTER crossref ACS Publications is a partner of:

Technology Partner - Atypon Systems, Inc.