

- [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](#)

September 17, 2008
Volume 47, Issue 18
Pages 6801-7130

In this issue:

- [Reviews](#)
- [Applied Chemistry](#)
- [Kinetics, Catalysis, and Reaction Engineering](#)
- [Materials And Interfaces](#)
- [Process Design And Control](#)
- [Separations](#)
- [General Research](#)
- [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

[Assessment of Noncatalytic Biodiesel Synthesis Using Supercritical Reaction Conditions](#)




Tanawan Pinnarat and Phillip E. Savage

pp 6801–6808

Publication Date (Web): August 23, 2008 (Review)

DOI: 10.1021/ie800542k

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[127K]
-  [PDF w/ Links](#)[164K]

Applied Chemistry

[Degradation of Aqueous *p*-Nitrophenol by Ozonation Integrated with Activated Carbon](#)




Li Gu, Xingwang Zhang and Lecheng Lei

pp 6809–6815

Publication Date (Web): August 20, 2008 (Article)

DOI: 10.1021/ie071584h

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[231K]
-  [PDF w/ Links](#)[228K]

Electrochemical Degradation of Methyl Red Using BDD and PbO₂ Anodes




Marco Panizza and Giacomo Cerisola

pp 6816–6820

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie8001292

[Abstract](#) | [Supporting Info](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[123K]
-  [PDF w/ Links](#)[170K]

Tripolyphosphate Made from Wet-Process Phosphoric Acid with the Use of a Rotary Kiln




Regina Kijkowska, Zygmunt Kowalski, Danuta Pawlowska-Kozinska, Zbigniew Wzorek and Katarzyna Gorazda

pp 6821–6827

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie800412q

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[587K]
-  [PDF w/ Links](#)[250K]

Thermal and Photocatalytic Degradation of Poly(methyl

[methacrylate\), Poly\(butyl methacrylate\), and Their Copolymers](#)




Nagu Daraboina and Giridhar Madras

pp 6828–6834

Publication Date (Web): August 8, 2008 (Article)

DOI: 10.1021/ie800883n

[Abstract](#) | [Supporting Info](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[177K]
-  [PDF w/ Links](#)[207K]

Kinetics, Catalysis, and Reaction Engineering

[A Novel Method for Studying Multicomponent Gas Uptake on Solid Adsorbent with Near-Infrared Process Analytical Technique](#)




Chen-Bo Cai, Qing-Juan Han, Li-Juan Tang, Yan Zhang and Ru-Qin Yu

pp 6835–6840

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie800003z

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1154K]
-  [PDF w/ Links](#)[259K]




[Effect of Metal Dispersion on the Liquid-Phase Hydrodechlorination of 2,4-Dichlorophenol over Pd/Al₂O₃](#)

Santiago Gómez-Quero, Fernando Cárdenas-Lizana and Mark A. Keane
pp 6841–6853

Publication Date (Web): August 13, 2008 (Article)

DOI: 10.1021/ie0716565

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[780K]
-  [PDF w/ Links](#)[458K]




Catalytic Hydrotreatment of Crude Waxes from Different Sources over a Ni–W/–Al₂O₃ Catalyst

Jesús Sánchez , María Fernanda Tallafigo , Miguel A. Gilarranz , Francisco Rodríguez
pp 6854–6861

Publication Date (Web): August 7, 2008 (Article)

DOI: 10.1021/ie800014u

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[94K]
-  [PDF w/ Links](#)[125K]




Three-Phase Catalytic Hydrogenation of a Functionalized Alkyne: Mass Transfer and Kinetic Studies with in Situ Hydrogen Monitoring

Andrea Bruehwiler, Natalia Semagina, Martin Grasemann, Albert Renken and Liubov Kiwi-Minsker, Axel Saaler, Hajo Lehmann, Werner Bonrath and Felix Roessler
pp 6862–6869

Publication Date (Web): August 6, 2008 (Article)

DOI: 10.1021/ie800070w

[Abstract](#) | [Supporting Info](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[174K]
-  [PDF w/ Links](#)[208K]




[Alkylate Technology Selection for Fischer–Tropsch Syncrude Refining](#)

Arno de Klerk and Philip L. de Vaal
pp 6870–6877

Publication Date (Web): July 30, 2008 (Article)

DOI: 10.1021/ie800288n

[Abstract](#) | [Supporting Info](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[118K]
-  [PDF w/ Links](#)[162K]

[Reducing Byproduct Formation during Conversion of Glycerol to Propylene Glycol](#)

Chuang-Wei Chiu, Ali Tekeei, Joshua M. Ronco, Mona-Lisa Banks and Galen J. Suppes
pp 6878–6884

Publication Date (Web): August 5, 2008 (Article)

DOI: 10.1021/ie800300a

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[470K]

-  [PDF w/ Links](#)[191K]




[Biodiesel Production by Esterification of Oleic Acid with Methanol Using a Water Adsorption Apparatus](#)

Izabelly L. Lucena, Giovanilton F. Silva and Fabiano A. N. Fernandes
pp 6885–6889

Publication Date (Web): July 30, 2008 (Article)

DOI: 10.1021/ie800547h

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[427K]
-  [PDF w/ Links](#)[158K]

[Deep Oxidative Desulfurization of Fuels Using Peroxophosphomolybdate Catalysts in Ionic Liquids](#)




Lining He, Huaming Li, Wenshuai Zhu, Junxiang Guo, Xue Jiang, Jidong Lu and Yongsheng Yan

pp 6890–6895

Publication Date (Web): August 6, 2008 (Article)

DOI: 10.1021/ie800857a

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[594K]
-  [PDF w/ Links](#)[217K]

[Evolution with the Temperature of the Compounds Obtained in](#)

the Catalytic Pyrolysis of Polyethylene over HUSY




A. Marcilla, M. I. Beltrán and R. Navarro

pp 6896–6903

Publication Date (Web): August 6, 2008 (Article)

DOI: 10.1021/ie800520u

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1525K]
-  [PDF w/ Links](#)[373K]

Ultradeep Adsorption–Desulfurization of Gasoline with Ni/Al–SiO₂ Material Catalytically Facilitated by Ethanol




Miron V. Landau, Moti Herskowitz, Rajeev Agnihotri and James E. Kegerreis

pp 6904–6916

Publication Date (Web): August 13, 2008 (Article)

DOI: 10.1021/ie800590x

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1746K]
-  [PDF w/ Links](#)[472K]

Hydrodynamics of a Multistage Countercurrent Fluidized Bed Reactor with Downcomer for Lime-Dolomite Mixed Particle System




C. R. Mohanty, Sivaji Adapala and B. C. Meikap

pp 6917–6924

Publication Date (Web): August 12, 2008 (Article)

DOI: 10.1021/ie8007693

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1152K]
-  [PDF w/ Links](#)[341K]

Materials And Interfaces

[Electrochemical Behavior of *Serratia marcescens* ACE2 on Carbon Steel API 5L-X60 in Organic/Aqueous Phase](#)




Aruliah Rajasekar, Sundaram Maruthamuthu and Yen-Peng Ting

pp 6925–6932

Publication Date (Web): August 1, 2008 (Article)

DOI: 10.1021/ie8005935

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1271K]
-  [PDF w/ Links](#)[327K]

[Role of Water in the Development of New Isocyanate-Based Bituminous Products](#)

Maria J. Martín-Alfonso, Pedro Partal, Francisco J. Navarro, Moisés García-Morales and Cr




ispulo Gallegos

pp 6933–6940

Publication Date (Web): July 31, 2008 (Article)

DOI: 10.1021/ie800243w

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[304K]
-  [PDF w/ Links](#)[227K]

Process Design And Control




Development of a Continuous Manufacturing Process for Silica Sols via the Ion-exchange of a Waterglass

Taeyoun Kim, Sungwoo Hwang and Sanghoon Hyun
pp 6941–6948

Publication Date (Web): August 14, 2008 (Article)

DOI: 10.1021/ie071009d

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[769K]
-  [PDF w/ Links](#)[303K]




Nonlinear Model Predictive Control of Reactive Distillation Based on Stochastic Optimization

Ch. Venkateswarlu and A. Damodar Reddy
pp 6949–6960

Publication Date (Web): August 13, 2008 (Article)

DOI: 10.1021/ie070972g

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[172K]
-  [PDF w/ Links](#)[204K]

[Fault Detection and Diagnosis of Nonlinear Processes Using Improved Kernel Independent Component Analysis \(KICA\) and Support Vector Machine \(SVM\)](#)




Yingwei Zhang

pp 6961–6971

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie071496x

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[413K]
-  [PDF w/ Links](#)[265K]

[Application of Principal Component Analysis for Monitoring and Disturbance Detection of a Hydrotreating Process](#)




Stella Bezergianni and Aggeliki Kalogianni

pp 6972–6982

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie0714605

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[3688K]
-  [PDF w/ Links](#)[630K]

[Set-Point Weighted PID Controller Tuning for Time-Delayed](#)

Unstable Processes




Chan-Cheng Chen, Hsia-Ping Huang and Horng-Jang Liaw

pp 6983–6990

Publication Date (Web): August 6, 2008 (Article)

DOI: 10.1021/ie800001m

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1231K]
-  [PDF w/ Links](#)[261K]

Separations

Spectroscopic Monitoring of Carbamazepine Crystallization and Phase Transformation in Ethanol–Water Solution




Haiyan Qu, Jarno Kohonen, Marjatta Louhi-Kultanen, Satu-Pia Reinikainen and Juha Kallas

pp 6991–6998

Publication Date (Web): August 1, 2008 (Article)

DOI: 10.1021/ie071642z

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1806K]
-  [PDF w/ Links](#)[384K]

Analysis of Fixed-Bed Column Adsorption of Reactive Yellow 176 onto Surfactant-Modified Zeolite




Ayşegül Faki, Mustafa Turan, Ozgur Ozdemir and Abdullah Zahid Turan

pp 6999–7004

Publication Date (Web): August 5, 2008 (Article)

DOI: 10.1021/ie800097k

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[245K]
-  [PDF w/ Links](#)[253K]




[Interpretation of CO₂ Solubility and Selectivity in Nitrile-Functionalized Room-Temperature Ionic Liquids Using a Group Contribution Approach](#)

Trevor K. Carlisle, Jason E. Bara, Christopher J. Gabriel, Richard D. Noble and Douglas L. Gin
pp 7005–7012

Publication Date (Web): August 20, 2008 (Article)

DOI: 10.1021/ie8001217

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[454K]
-  [PDF w/ Links](#)[206K]




[Isolation and Purification of Fatty Acid Steryl Esters from Soybean Oil Deodorizer Distillate](#)

Setiyo Gunawan, Cynthia Fabian and Yi-Hsu Ju
pp 7013–7018

Publication Date (Web): September 10, 2008 (Article)

DOI: 10.1021/ie800346x

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[101K]
-  [PDF w/ Links](#)[126K]




[Adsorption Equilibrium and Kinetics of Water Vapor on Different Adsorbents](#)

Ana M. Ribeiro, Ticiane P. Sauer, Carlos A. Grande, Regina F. P. M. Moreira, José M. Loureiro
and Alírio E. Rodrigues
pp 7019–7026

Publication Date (Web): August 13, 2008 (Article)

DOI: 10.1021/ie701732x

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[879K]
-  [PDF w/ Links](#)[276K]




[Liquid-Phase Guard Bed for Removal of Synthesis Gas Contaminants](#)

Robert Quinn and Bernard A. Toseland
pp 7027–7030

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie8003418

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[62K]
-  [PDF w/ Links](#)[73K]

General Research




Hemicellulose Extraction of Mixed Southern Hardwood with Water at 150 °C: Effect of Time

M. Sefik Tunc and Adriaan R. P. van Heiningen
pp 7031–7037

Publication Date (Web): August 16, 2008 (Article)

DOI: 10.1021/ie8007105

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[132K]
-  [PDF w/ Links](#)[168K]




Performance of Anticorrosive Coatings Containing Tripolyphosphates in Aggressive Environments

M. Dey[†], A. R. Di Sarli, B. del Amo and R. Romagnoli
pp 7038–7047

Publication Date (Web): July 31, 2008 (Article)

DOI: 10.1021/ie071544d

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[180K]
-  [PDF w/ Links](#)[216K]

Motion of Taylor Bubbles and Taylor Drops in Liquid–Liquid

Systems




Tapas K. Mandal, Gargi Das, Prasanta K. Das

pp 7048–7057

Publication Date (Web): August 26, 2008 (Article)

DOI: 10.1021/ie8004429

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1575K]
-  [PDF w/ Links](#)[425K]

Numerical Simulation of the Gas–Solid Flow in Three-Dimensional Pneumatic Conveying Bends




K. W. Chu and A. B. Yu

pp 7058–7071

Publication Date (Web): August 20, 2008 (Article)

DOI: 10.1021/ie800108c

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[2692K]
-  [PDF w/ Links](#)[771K]

Optimization of an Artificial Neural Network by Selecting the Training Function. Application to Olive Oil Mills Waste




José S. Torrecilla, José M. Aragón and María C. Palancar

pp 7072–7080

Publication Date (Web): August 1, 2008 (Article)

DOI: 10.1021/ie8001205

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1858K]
-  [PDF w/ Links](#)[349K]

[Correlation and Prediction of Phase Behavior of Organic Compounds in Ionic Liquids Using the Nonrandom Two-Liquid Segment Activity Coefficient Model](#)




Chau-Chyun Chen, Luke D. Simoni, Joan F. Brennecke and Mark A. Stadtherr

pp 7081–7093

Publication Date (Web): August 14, 2008 (Article)

DOI: 10.1021/ie800048d

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[2474K]
-  [PDF w/ Links](#)[532K]

[Mathematical Modeling of the Destabilization of Crude Oil Emulsions Using Population Balance Equation](#)

Roberto E. P. Cunha, Montserrat Fortuny, Claudio Dariva and Alexandre F. Santos

pp 7094–7103

Publication Date (Web): August 6, 2008 (Article)

DOI: 10.1021/ie800391v

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[283K]

-  [PDF w/ Links](#)[212K]




[Steel Converter Slag as a Raw Material for Precipitation of Pure Calcium Carbonate](#)

Sanni Eloneva, Sebastian Teir, Justin Salminen, Carl-Johan Fogelholm and Ron Zevenhoven
pp 7104–7111

Publication Date (Web): August 1, 2008 (Article)

DOI: 10.1021/ie8004034

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1702K]
-  [PDF w/ Links](#)[444K]




[Numerical Simulation of Gas Dispersion in an Aerated Stirred Reactor with Multiple Impellers](#)

Jian Min, Yuyun Bao, Lei Chen, Zhengming Gao and John M. Smith
pp 7112–7117

Publication Date (Web): August 22, 2008 (Article)

DOI: 10.1021/ie800490j

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[1417K]
-  [PDF w/ Links](#)[300K]

[Energy and Hydrogen Coproduction from \(Athabasca Bitumen\)](#)

Coke Gasification with CO₂ Capture




S. Nourouzi-Lavasani, F. Larachi and M. Benali

pp 7118–7129

Publication Date (Web): August 19, 2008 (Article)

DOI: 10.1021/ie800773a

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[709K]
-  [PDF w/ Links](#)[243K]

Additions and Corrections

Intrinsic Kinetics Study of Dimethyl Ether Synthesis from Methanol on γ -Al₂O₃ Catalysts




Majid Mollavali, Fereydoon Yaripour, Hossein Atashi and Saeed Sahebdehfar

p 7130

Publication Date (Web): August 28, 2008 (Addition/Correction)

DOI: 10.1021/ie8011984

[Abstract](#)

-  [Full Text HTML](#)
-  [Hi-Res PDF](#)[20K]
-  [PDF w/ Links](#)[21K]

Select All For Selected Content:

[Previous Issue](#) [Next Issue](#)



Browse By Issue

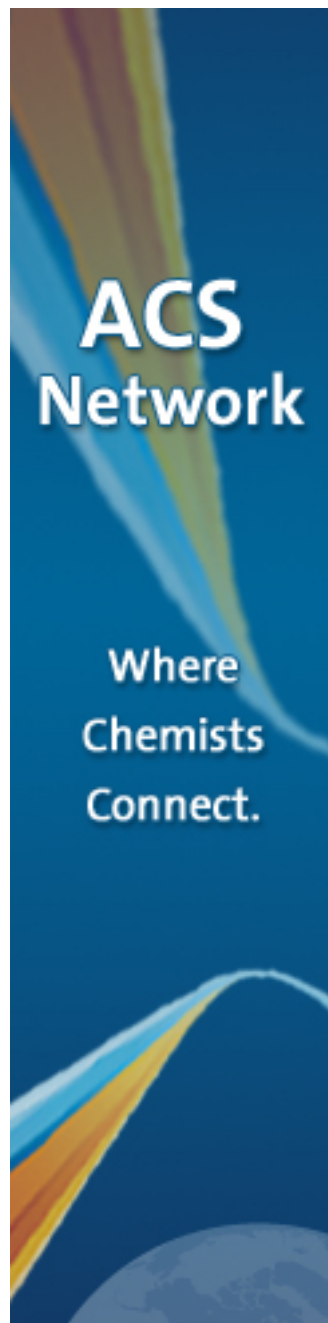
[List of Issues](#)

Stay Current

Get your research ASAP.

[e-Alerts](#) | [RSS Feeds](#) 

Advertisements





REGISTER
NOW!

[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](#)

   ACS Publications is a partner of:

Technology Partner - [Atypon Systems, Inc.](#)