Energy & Fuels Preprints Presented at the 247th ACS National Meeting & Exhibition 2014

Division of Energy & Fuels, American Chemical Society

Energy & Fuel Preprints Volume 59 #1

Dallas, Texas, USA
16-20 March 2014

ISBN: 978-1-63266-003-9

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Printed by Curran Associates, Inc. (2014)

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Bo Wang, Michael Severance, Lin Zhao, Winston Ho, Prabir Dutta

433Poly(ethylene glycol) containing functionalized polymer membranes for carbon dioxide separation

Natalia Blinova, Frantisek Svec

435Amine-impregnated mesostructured silica for high-performance CO2 capture

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437Pyrene-based benzimidizole-linked polymers for CO2 capture and seperation processes

Ali Sekizkardes, Hani El-Kaderi

438Porous Covalent Amorphous Polymers for Efficient CO2 Capture and Separation

Sang Je, Hasmukh Patel, Ali Coskun

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439Effect of acidity and metal dispersion of NiW catalysts on selective hydrodesulfurization to different structured sulfur compounds in FCC diesel

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442Analysis of ketones in fossil materials by ultrahigh resolution mass spectrometry

Ahmad Alhassan, Jan Andersson

446Metal Porphyrins Adsorption onto Asphaltene in Pentane: A Comparison between Vanadyl and Nickel Porphyrins

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447Asphaltenic heat-induced fouling

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449Intraparticle diffusion of heavy oil component in the well-defined catalyst under hydrodesulfurization condition

Zhigang Wang, Shengli Chen, Jianing Pei, Zheng Zhou, Aicheng Chen

450Transformation of sulfur compounds in atmospheric residua hydrotreating: Characterized by methylation followed by positive-ion electrospray ionization fourier transform-ion cyclotron resonance mass spectrometry

Mei Liu, Meng Wang, Quan Shi, Suoqi Zhao

452Anti-solvent assisting extraction of environmental-friendly rubber oil from furfural extract oil

Tao Luo, Jiuqi Li, Zhiming Xu, Xuewen Sun, Suoqi Zhao

453Multiscale strategy for the development of catalytic system for the hydrotreatment of petroleum residue

Pascal Chatron-Michaud, Bertrand Guichard, Mathieu Digne, Isabelle Guibard, Jan Verstraete

455Preparation of SiO2 and SiO2-Al2O3 catalysts by gel skeletal reinforcement and Elucidation of Their catalytic cracking properties as matrices

Atsushi Ishihara, Hiroaki Oono, Tadanori Hashimoto, Hiroyuki Nasu

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458ClathrateHydrate Inhibition by Hydrophobic Nanoparticles at Hydrate-Water Interfaces

Minjun Cha, Seungjun Baek, Jeffrey Morris, Jae Lee

459H2S as reactive hydrogen source

Jonas Baltrusaitis, Eric Patterson, Coen de Graaf, Ria Broer

461Investigation of various ilmenites as oxygen carriers for gasified coal chemical looping

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464Supported Oxides for Methane Conversion with Integrated CO2 Capture - Activation and Deactivation Studies

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466Chemical Looping Technology for Clean Energy Production: Integrating Aspen Plus and CFD

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468Impact of temperatures on tar formation from co-pyrolysis of coal and biomass blends

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470Portable GC for air, water and process hydrocarbon measurements in fracking operations

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9. Electrolyte Systems and Interfacial Processes in Energy Storage and Conversion

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495 Silicon Nanowire Lithium-ion Battery Anodes with ALD Deposited TiN Coatings Demonstrate a Major Improvement in Cycling Performance

David Mitlin, Alireza Kohandehghan, Peter Kalisvaart

498 Electrochemical studies of highly concentrated redox active species

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501 Organic battery materials based on conducting polymer backbones with high capacity pending groups

Martin Sjödin, Christoffer Karlsson, Hao Huang, Henrik Olsson, Li Yang, Adolf Gogoll, Leif Nyholm, Maria Strømme

502 Hydrothermal Synthesis of Hierarchical Cu2ZnSnS4 Nanostructures as a Novel Anode Material for Lithium Ion Battery

Jian Chiu, I Chen, Yian Tai

503 Analysis of capacitive charging and discharging behaviors in quartz nanopipettes by square wave voltammetry

Maksim Kvetny, Dengchao Wang, Yan Li, Warren Brown, Gangli Wang

505 Multifunctional binder-electrolyte for use in lithium battery electrodes

Nitash Balsara, Anna Javier, Shrayesh Patel

507 In-situ and Quantitative Analyses on Solid Electrolyte Interphase

Selena Russell, Arthur Cresce, David Baker, Kang Xu

508 Course of development of the lithium ion battey and outlook for the future

Akira Yoshino

509 Dendrite-suppression electrolytes for rechargeable lithium batteries

Wu Xu, Yaohui Zhang, Fei Ding, Jiangfeng Qian, Xilin Chen, Eduard Nasybulin, Ruiguo Cao, Mark Engelhard, Ji-Guang Zhang

510 New phosphonium ionic liquid electrolyte for high energy and high temperature stability lithium battery

Xinrong Lin, Qichao Hu, Mark Grinstaff

511 LITHIUM SOLID ELECTROLYTE AND ITS APPLICATION TO ALL SOLID-STATE BATTERIES

Ryoji Kanno, Masaaki Hirayama, Masao Yonemura

512 Specific Effect on LIB Electrodes by FSI-Based Ionic Liquid Electrolytes

Masashi Ishikawa, Masaki Yamagata

513Ion Clustering in Strong Electrolyte Aqueous Solutions

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514Determining the impact of electrolyte additives in lithium-ion batteries using isothermal microcalorimetry

Laura Downie, Kathlyne Nelson, Vincent Chevrier, Jeff Dahn

516Electrolyte and Adsorbate Contributions to Surface Stress Evolution in Batteries and Fuel Cells

Andrew Gewirth, Hadi Tavassol, Thao Hoang

517Strategies to improve the performance of one-electron redox systems in electrolytes for dyes-sensitized solar cells

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518Nanoscale Scanning Electrochemical Microscopy of Nanocarbon Electrodes

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519History-dependent Electrical Power Generation of Conical Nanopipette under Salinity Gradient

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520Mechanisms of capacitive charge storage in nanoconfinments

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521Curvature Effects on the Interfacial Capacitance of Carbon Nanotubes in an Ionic Liquid

Eunsu Paek, Alexander Pak, Gyeong Hwang

523Interconnected Carbon Nanosheets Derived from Hemp for Ultrafast Supercapacitors with High Energy

David Mitlin, Huanlei Wang, Zhi Li

526Modeling ion adsorption and dynamics in nanoporous carbon electrodes

Clarisse Péan, Céline Merlet, Benjamin Rotenberg, Barbara Daffos, Pierre-Louis Taberna, Paul Madden, Patrice Simon, Mathieu Salanne

528Time-dependent density functional theory for electro-osmotic diffusion in non-aqueous electrolyte systems

Jian Jiang, Jinzhong Wu

530Non-fluorinated ionic liquids and conducting salts for high-energy supercapacitors

Christian Wolff, Sangsik Jeong, Xiaofei Zhang, Andrea Balducci, Stefano Passerini

531Ion confinement effect af the carbon / electrolyte interface and its consequence on the capacitive behavior of nanostructured carbons

Wan-Yu TSAI, Pierre Louis Taberna, Barbara Daffos, Rongying Lin, Patrice Simon

533 Ultrahigh Purity Carbon for Energy Storage Applications: Parts per Million Characterization of Carbon Composition via Total Reflection X-Ray Fluorescence Spectrometry (T-XRF)

A. McAdie, A. Sakshaug, L Riley, K. Geramita

534 Cathode/electrolyte interface in solid-state lithium batteries with sulfide solid electrolytes

Kazunori Takada

536 Structure of Ionic liquids at Charged Interfaces

Steven Baldelli, Siyun Xu, Quan Vo, Chariz Penalber

537 Modeling Electrochemical Decomposition of Fluoroethylene Carbonateon Silicon Anode Surfaces in Lithium Ion Batteries}

Kevin Leung, Susan Rempe, Michael Foster, Yuguang Ma, Julibeth Martinez del la Hoz, Na Sai, Perla Balbuena

539 Insight into Structure and Transport in Electrolytes and SEI Components from MD Simulations and Experiments

Oleg Borodin, Joshua Allen, Dmitry Bedrov, Wesley Henderson, Marco Olguin

540 Dicationic Ionic Liquids in Bulk and at Carbon Surfaces

Guang Feng, Song Li, Peter Cummings

541 Density Functional Theory Study on Structural and Energetic Characteristics of Graphite Intercalation Compounds

Ken Tasaki

542 Neutron scattering probes of the structures and transport properties of electrolytes at carbon interfaces

David Wesolowski

544 Quantum analogies in ionic transport through nanochannels

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545 Controlling Ion Concentration Polarization for Higher Efficiency in Electrochemical System

Hiong Yap Gan, Sang Van Pham, Sung Hee Ko, Jacob White, Jongyoon Han

546 Nanofluidic ion transport through reconstructed layered materials

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548 Bio-Inspired, Smart, Multiscale Interfacial Materials

Lei Jiang, Wei Guo

549 Quantification of the Dynamic Electrolyte Concentration Polarization inside Single Conical Nanopores

Dengchao Wang, Yan Li, Maksim Kvetny, Warren Brown, Gangli Wang

5513D modeling and computation of electro-diffusion processes: Ionic size effects to its distribution and transport properties in a charged environment

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552Development of Mg-Battery Electrolytes Based on Grignard Reagent

Dong Young Kim, Basab Roy, Youn Hee Lim, Seok Soo Lee

553Gold Rush Towards A Post Lithium Ion Battery

John Muldoon, Claudiu Bucur

554Single-ion nanocomposite polymer electrolytes for secondary Li and Mg batteries based on EMImCl, AlCl3 and δ-MgCl2

Vito Di Noto, Federico Bertasi, Keti Vezzù, Enrico Negro, Sandra Lavina, Giuseppe Pace

556Electrolytes for rechargeable magnesium batteries: Coordination and property

Yuyan Shao, Tianbiao Liu, Guosheng Li, Meng Gu, Jun Liu

558Protected lithium electrode for aqueous lithium/air rechargeable batteries

Nobuyuki Imanishi

559The role of electrolytes in Vanadium-Cerium flow batteries

Hubert Girault, Véronique Amstutz, Kathryn Toghill, Pekka Peljo

560Electrolyte Development for Energy Storage

Xiao-Guang Sun

561Li-ion conduction mechanisms in solid electrolytes for solid state battery

Santosh KC, Roberto Longo, Ka Xiong, Kyeongjae Cho, Weichao Wang

563Designed Electrolytes and Electrolyte-Electrode Interfacesfor High Performance Lithium-ion Batteries

Christopher Rhodes, Matthew Mullings, Xuguang Li, Jared Mike

564Dynamics of water in polyethylene oxide (PEO) matrix in the presence of Li+ ions

Zhe Zhang, Kunlun Hong, Niina Jalarvo, Michael Ohl, Changwoo Do

565Critical Role of Surfaces and Interfaces in Enhancing the Performance of Nanostructured Silicon-Based Anode Materials for Lithium Ion Batteries

Chia-Yun Chou, Gyeong Hwang

568The nature of hydroxide ion transportt in membranes for alkaline membrane fuel cells

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569Molecular Dyamics Study of Oxidation- and Reduction-Induced Solvent Decomposition Reactions in Model Battery Electrolytes

Marco Olguin, Oleg Borodin, Richard Jow, Adri Duin, Mahbubul Islam

570Ion Conductive Behavior of Low Molecular Weight Solid Organoboron Electrolyte for Lithium Ion Secondary Batteries

Prerna Joshi, Raman Vedarajan, Noriyoshi Matsumi

571Organoboron Ion-gel Electrolytes and Their Lithium Ion Conductive Properties

Noriyoshi Matsumi

572Ionic Liquid-based Electrolyte Systems for Energy Storage applications

Frank Stiemke, Jam Wimberg, Thomas Schubert

573New Insights on Solid Electrolyte Interface (SEI) Formation in Lithium-Ion Battery and Principle in Electrolyte Additive Design

Ye Zhu

10. Poster Session on Advances in energy and fuels processes, systems, materials and utilization

574Investigation of iron halide precursors for the synthesis of iron pyrite and their characteristics for solar cell applications

Christopher Otolski, Shenqiang Ren, Alec Kirkeminde

577Three-dimensional nanoporous thin-film electrodes for energy storage

Yang Yang, James Tour

579New Multi-functional Chalcogenides for Renewable Energy Applications

Jaeseok Heo, Ram Ravichandran, Geneva Laurita, Mas Subramanian, John Wager, Douglas Keszler

581Low Temperature Discharge Property of Organic-Radical Battery with GBL-based electrolytes

Motoharu Yasui, Takanori Nishi, Terumasa Shimoyama, Tomoo Murakami, Shigeyuki Iwasa

582Evaluating the potential offered by ion mobility spectrometry when coupled with additional separation techniques and mass spectrometric detection for crude oil analysis

Eleanor Riches, Michael O[apos]Leary, Peter Alden, Jérémie Ponthus, Douglas Stevens

583Stable Alloy Nanowire Configurations and Their Electronic Band Characteristics via First-Principles

Teck Tan, Man-Fai Ng

584Biodiesel from alligator fat: A comparison between supercritical and conventional transesterification conditions

Thomas Junk, Patrick Spiller, August Gallo, Rakesh Bajpai, Cecile Dupont

586Preparation and Thermal Property Study of Mixed Molten Salt with Low Melting Point

Yuting Wu, Nan Ren, Chongfang Ma, Lixia Sang

592Electrically Driven Molecule Transport within a series of Ionomers and Improvement of Electrodialysis Process

Donghui Wang, Chris Cornelius

594High performance of algae-oil extraction: The effect of azeotropic mixtures on cell wall penetration

Alexis Pacheco-Laracuente, Sigfredo Villarin-Ayala, Tulio Chavez-Gil

595Synergistic effect of RGO on ethanol electrooxidation at PtRu/C

Fengxing Jiang, Congcong Liu, Jingkun Xu, Weiqiang Zhou, Yukou Du

598Electrochemical impedance analysis of alloy/ hybrid counter electrodes for DSSC by cyclic electrodeposition

Sindhu Swaminathan, Navaneeth Arayangat, Jabeen Fatima Jaffarali, Clement Raj, Prasanth Ravindran

599Arid lands biofuel

Bishnu Neupane, Glenn Miller

600Fabrication of graphene/carbon nanotube paper decorated with nanoneedle manganese oxide on the outermost graphene sheets for supercapacitors

Myeongjin Kim, Yongseon Hwang, Myeongyeol Yoo, Kiho Kim, Jooheon Kim

607Comparison of Hildebrand solubility parameter and bulk properties of three different types of crude oils

Ward Strickland, Ryan Turkekul, Mitchell Horten, Geoffrey Klein

609Robust Hybrid Film Containing Pseudocapacitive MnO2 for Large Areal Capacitance

Inho Nam, Gil-Pyo Kim, Minzae Lee, Won Gyun Moon, Seongjun Bae, Jongheop Yi, Soomin Park

610A Microporous Hydrogen-Bonded Organic Framework for HighlySelective C2H2/C2H4 Separation at Ambient Temperature

Peng Li, Banglin Chen

613Molecular Simulation Study on improving low temperature flow properties of diesel fuel

Yan Li, Yi Zhao, Han Zhou, Qinghua Duan, Zuoxin Huang

615Effect of amphiphilic comb-like copolymers mixed with ligninsulfonate on rheology and stability of coal

water slurry

Chao Cui, Jing Huang, Hang Liu, Jun Xu, Li Li, Xuhong Guo

617Effect of pendant length of comb-type copolymer on flow ability of Liaohe extra-heavy crude oil

Hejian Jiang, Jun Xu, Tongshuai Wang, Weina Wang, Li Li, Xuhong Guo

619Synthesis of poly(α-olefin-co- maleic acid alkylamide)s and their impact on cold flow improvement for waxy crude oil

Tongshuai Wang, Jun Xu, Hejian Jiang, Li Li, Xuhong Guo

622Molecular simulation on deposition of wax and asphaltene inhibited by comb-type copolymers in pipeline

Tao Yang, Jun Xu, Hejian Jiang, Tongshuai Wang, Li Li, Xuhong Guo

624Preparation of polyurethane-modified epoxy resin and its application in sand consolidation

Han Zhang, Jun Xu, Li Li, Xuhong Guo

627Stabilization of Immiscible Polymer Blends Using Structure Directing Metal Organic Frameworks (MOFs)

Nimanka Panapitiya, Kenneth Balkus, Inga Musselman, John Ferraris

628Low Temperature Growth of ZnO Nanorods Doped with Metals and Quantum Dots Using Anodized Aluminum Oxide Membranes as a Template

Echo Adcock Smith, Hari Paremeshwarwar, Kenneth Roberts, Kevin Farmer

629The Oxidative Addition of Bromobenzene on Palladium ZSM-5: A Mechanistic Study

Bundet Boekfa, Masahiro Ehara, Hidehiro Sakurai, Thana Maihom, Jumras Limtrakul

632Novel glucose and cellulose derived dual-functional Ni/C-SO3H catalyst for liquid phase phenol hydrodeoxygenation

Stanislav Kasakov, Chen Zhao, Zizwe Chase, John Fulton, Donald Camaioni, Aleksei Vjunov, Johannes Lercher

633Electron Transfer in Electrostatic Assembly of Organometallic Cluster Cations and p-Expanded Carboxylate-Containing Porphyrins

Peng Luo, Pierre Harvey

634Conjugated polymers as anodes in organic matter based batteries

Li Yang, Viorica-Alina Mihali, Christoffer Karlsson, Martin Sjödin, Maria Strømme, Daniel Brandell

635Hydrogen-evolving photoanode of TiO2 nanoparticles film deposited by femtosecond laser

Lixia Sang, Xiaochang Ni, Hongjie Zhang

637 Quinone pending groups on Polypyrrole affect the backbone doping behavior

Christoffer Karlsson, Hao Huang, Li Yang, Maria Strømme, Adolf Gogoll, Martin Sjödin

638 Thermodynamic assessment of the phase diagram of the ternary system Y-Mg-Ni (Y<50 at.%)

Wang Zhaolong, Li Qian

641 Fabrication of asymmetric ZIF-8/polyimide mixed matrix membranes (MMMs) using a spin coating technique for gas separations

Sumudu Wijenayake, Kenneth Balkus Jr., Inga Musselman, John Ferraris

642 Fundamental study of interface layer formation in reactive Al-based reactive thin films

Yingzhen Lu, Yves Chabal, Ludovic Glavier, Carole Rossi, Alain Estève

645 Development of oxygen reduction electrocatalyst (ORE) based on electrochemically reduced graphene oxide (ERGO)

ABM Zakaria, Danuta Leszczynska

646 Reforming of naphthalene and anthracene as model tar using char-supported nickel catalyst

Kezhen Qian, Ajay Kumar

648 Dehydrogenation of Ethanol to Acetaldehyde over Au-exchanged ZSM-5 Zeolite: A DFT Study

Thana Maihom, Sippakorn Wannakao, Bundet Boekfa, Jumras Limtrakul

651 Catalytic cracking characteristics of catalysts using various oxides with different pore diameter as matrices

Atsushi Ishihara, Kosuke Tatebe, Hiroyuki Nasu, Tadanori Hashimoto

653 Electrochemical reduction of CO2 on highly porous tin foam electrodes

Sujat Sen, Dan Liu, Tayhas Palmore

655 Core-shell reactive aluminum nanoparticles with a photodegradable polymer shell

Jasmin Becic, Ashish Patel, Steven Buckner, Paul Jelliss

657 Intermediate Liquid Cellulose: Pathways, Properties and Applications

Andrew Teixeira, Paul Dauenhauer

659 Bio-oil Upgrading to Hydrocarbons by the Water Gas Shift Reaction with Syngas

Yan Luo, Philip Steele, Vamshi Krishna Guda

660 Small Molecular Additives to Prevent Ultraviolet-damage of ZnO Transport Layer in an Inverted Bulk Hetero-Junction Organic Photovoltaic

Cheng Chi, Min Yang, Yian Tai

661Microwave Assisted Syntheses of Cyclic Carbonates from Olefins Utilizing Sodium Bicarbonates in a Green Pathway

Jie Wu, Xiaoqing Yang, Timothy Jamison, T. Alan Hatton

6633D Graphene Based Thin Film Electrodes for Energy Storage Applications

Johnathan O[apos]Donnell, Enoch Nagelli, Liming Dai

668Layer-by-layer assembled ferrocene-modified polyethylenimine redox polymers

Nicholas Godman, Jared DeLuca, Daniel Glatzhofer, David Schmidtke

669Polymer-coated tubular membrane reactor for water-gas shift reaction and gas separation

Yu Huang, Edson Perez, Kenneth Balkus, John Ferraris, Inga Musselman

670Characterization of microalgal lipids for optimization of biofuels

Brynn Umbach, Erin Gehlhausen, Charles Sweet

671EFFECT OF FUNCTIONALIZATION OF METAL ORGANIC FRAMEWORK (MOF) AND METAL ORGANIC POLYHEDRA (MOP) MATERIALS IN POLYIMIDES FOR GAS SEPARATIONS AT HIGH PRESSURE AND HIGH TEMPERATURE

Edson Perez, Grace Kalaw, Kenneth Balkus, Jr., John Ferraris, Inga Musselman, Edson Perez, Grace Kalaw, Kenneth Balkus, Jr., John Ferraris, Inga Musselman, Edson Perez, Grace Kalaw, Kenneth Balkus, Jr., John Ferraris, Inga Musselman, Edson Perez, Grace Ka

673Modular system for fast quantification of kinetics and oxygen yield of homogeneous water oxidation catalysts

James Vickers, Jordan Sumliner, Yurii Geletii, Mike Morris, Craig Hill

675Comaprison of nonthermal argon plasma treatment versus traditional hydrogenation on ionic liquid loaded silica-supported palladium catalysts for selective hydrogenation of acetylene

Kristine Jang, Syed Zia ul Quasim ul Quasim, Ben W.-L. Jang

677Synthesis and Characterization of Cu-Ni/TiO2 for Steam Reforming of Methanol

Vishwanath Deshmane, Srilanka Owen, Debasish Kuila

679Investigating mixed metal oxide semiconductor materials for CO2 conversion: Application to renewable energy sources

Paige Anunson, Trevor Sires, Jennifer Schuttlefield Christus

681Photocatalytic study of composite material based upon Bi-MOF and Bismuth Niobium Oxides.

Shiba Adhikari, Abdou Lachgar

682Conversion of formateto energy in the alkaline direct formate fuel cell

John Haan, Tien Nguyen, Amissi Sadiki, Jennifer Noborikawa

683Synthesis and physico-chemical characterization of biodiesel fuel from microalgae

Haider Khan, Haniff Baccas, William Mayberry, Loubna Pagnotti, Daniel Schadler, Karen Schmeichel, Monte Wolf, Md. Humayun Kabir

684Enhanced thermoelectric performance in gradient Sn-doped Bi2Te2.7Se0.3 thin films deposited by DC sputtering

Daryl Lawrence, Goh Rong, Raghunath Pradeep, Sun Ting, Hng Hoon

686Preparation of hierarchical SAPO-11 in the presence of glucose and its application on n-dodecane hydroisomerization

Zhen Liu, Hao Song, Zifeng Yan

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688Design, Synthesis, and Catalysis of Highly Functionalized Polyoxometalates

Noritaka Mizuno

689From supported nanoparticles on thin oxide films to thin glass and thin zeolites

Hajo Freund

690Kinetics and mechanism for the ketonization of carboxylic acids with different carbon chain lengths on Ru/TiO2 catalysts

Daniel Resasco, Tu Pham, Steven Crossley, Tawan Sooknoi

691Hydrotreating reactions on Pt and Ir Promoted RuS2/SBA catalysts

A. Infantes-Molina, A. Romero-Perez, C.V. Loricera, B. Pawelec, J.L.G. Fierro, A. Jimenez-Lopez, E. Rodriguez-Castellon

694Transition metal phosphides prepared from phosphite type precursors for S- N- and O removal

Enrique Rodriguez-Castellon, Antonia Infantes-Molina, Juan Antonio Cecilia, Antonio Jimenez-Lopez

697A catalytic membrane reactor configuration for the direct synthesis of propene oxide (PO) from propene, hydrogen and oxygen

Emila Kertalli, Dulce Perez Ferrandez, Jaap Schouten, Xander Nijhuis

12. ACS Award for Affordable Green Chemistry: Symposium in Honor of Arthur Ragauskas

698Ion exchange synthesis, thermal characterization and application of some ammonium based ionic liquids

Vasishta Bhatt, Kuldipsinh Gohil

703 Synthesis of Selective Bimetallic Phosphide Catalysts for the Deoxygenation of Lignin

Jason Hicks, Dallas Rensel, Marshall Abbott

704 Revealing the chemical structure of biomass and biochar by advanced solid state 2D NMR

Yann LeBrech

706 Inhibitory Activity of Carbonyl Compounds on Alcoholic Fermentation by Saccharomyces cerevisiae

Maobing Tu

708 Alkaline extraction of hemicelluloses from dried distillers' grains and the production of paper coatings

Zhouyang Xiang, Renil Antony, Jamison Watson, Troy Runge

710 Delignification and recalcitrance ; influence of the lignin structure

Nicolas BROSSE, Yakindra Timilsena

712 On the conflicting Findings on Role of Cellulose Crystallinity in Enzyme Hydrolysis of Biomass

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716 Design and Synthesis of carbon solid acid from brown grease solid residue and its application on biomass transformation

Iman Noshadi, Baishali Kanjilal, Louis Paulsen, William Hale, Tahereh Jafari, Richard Parnas