1999 Conference Proceedings
University Coal Research Contractors Review Conference

Papers and Presentations

Development of High Activity, Coal-Derived, Promoted Catalysts Systems for NOX Reduction at Low Temperatures [PDF-13KB]
Joseph Calo, Brown University

Optimization of Coal Particle Flow Patterns in Low-NOX Burners [PDF-15KB]
Jennifer Sinclair, Purdue University

Mechanistic Studies and Design of Highly Active Cuprate
Catalysts for the Direct Decomposition and Selective Reduction of Nitric Oxide by Hydrocarbons to Nitrogen for Abatement of Stack Emissions [PDF-17KB]
Ravindra Datta, University of Iowa

Minimization of NO Emissions from Multi-Burner Coal-Fired Boilers [PDF-18KB]
David Pershing, University of Utah

Development of a Novel Radiatively/Conductively Stabilized Burner for Significant Reduction of NOX Emissions for Advancing the Modeling and Understanding of Pulverized Coal Combustion and Emissions
Articles, Presentations, and Student Support [PDF-10KB]
Noam Lior, University of Pennsylvania

Development of Multi-Task Catalysts for Removal of NOX/Toxic Organic Compounds in Coal Combustion [PDF-22KB]
Panagiotis Smirniotis, University of Cincinnati

An Innovative Integrated Approach to Minimizing Gypsum
and Pyrite Waste by Conversion to Marketable Products [PDF-14KB]
Daniel Tao, University of Kentucky

On Line Measurement of Primary Fine Particulate Matter [PDF-14KB]
Dale R. Tree, Brigham Young University

Catalytic Coal Gasification using Eutectic Salt Mixtures [PDF-16KB]
Yaw Yeboah, Clark Atlanta University

Novel Supported Bimetallic Carbide Catalysts for Coprocessing of Coal with Waste Materials [PDF-17KB]
S. Ted Oyama, Virginia Polytechnic Institute & State University and Pennsylvania State University

Study of Solvent and Catalyst Interactions in Direct
Coal Liquefaction [PDF-20KB]

William Calkin, University of Delaware

Promoted Zinc catalysts for Higher Alcohol Synthesis
in a Slurry Reactor [PDF-12KB]
George W. Roberts, North Carolina State University

Attrition Resistant Catalysts for Slurry-Phase
Fischer-Tropsch Process [PDF-7KB]
K. Jothimurugesan, Hampton University

Supported Liquids Catalysts in-Situ Removal of High Temperture Fuel Cells Contaminants [PDF-12KB
Alan Weimer, University of Colorado

Coal Cleaning via Liquid-Fluidized Bed Classification (LFBC) with Selective Solvent Swelling [PDF-13KB]
Joseph M. Calo, Brown University

Improved Corrosion Protection by In-Situ Intermetallic Composite Coatings [PDF-15KB]
A. R. Marder, Lehigh University

Poster Presentations

Electrostatic Surface Structures of Coal and Mineral Particles [PDF-13KB]
Malay K. Mazumder, University of Arkansas

Development of a Calcium-Based Sorbent for Hot Gas Cleanup [PDF-13KB]
Thomas D. Wheelock, Iowa State University

Coal/Polymer Coprocessing with Efficient Use of Hydrogen [PDF-18KB]
Articles, Presentations, and Student Support [PDF-9KB]
Linda J. Broadbelt, Northwestern University

Coal and Coal Constituents Studied by Advanced EMR Techniques [PDF-10KB]
Articles, Presentations, and Student Support [PDF-12KB]
R. Linn Belford, University of Illinois at Urbana/Champaign

Pillared Clays as Superior Catalysts for Selective Catalytic Reduction of NO [PDF-19KB]
Ralph T. Yang, University of Michigan

Residues from Coal Conversion and Utilization: Advanced Mineralogical Characterization and Disposed By-Product Diagenesis [PDF-19KB]
Gregory J. McCarthy, North Dakota State University

Compositionally Graded Alumina/Mullite Coatings for Protection of Silicon Carbide Ceramic Components from Corrosion [PDF-13KB]
Stratis V. Sotirchos, University of Rochester

Phase Behavior of Light Gases in Hydrocarbon and Aqueous Solvents [PDF-16KB]
Khaled A.M. Gasem, Oklahoma State University

Aqueous Biphase Extraction for Processing of Fine Coals [PDF-21KB]
K. Osseo-Asare, Pennsylvania State University

Fundamental Study of Low-NOX Combustion Fly Ash Utilization [PDF-11KB]
R.H. Hurt, Brown University

Mechanisms and Optimization of Coal Combustion [PDF-18KB]
Kyriacos Zygourakis, Rice University

Development of an On-Line Coal Washibility Analyzer [PDF-12KB]
J.D. Miller, University of Utah

Investigation of Mixed Metal Sorbent/Catalysts for the Simultaneous Removal of Sulfur and Nitrogen Oxides [PDF-13KB]
Ates Akyurtlu, Hampton University

Attrition Resistant Iron-Based Fischer-Tropsch Catalysts [PDF-16KB]
K. Jothimurugesan, Hampton University

Atomic-Level Imaging of CO2 Disposal as a Carbonate Mineral: Optimizing Reaction Process Design [PDF-18KB]
Michael J. McKelvy, Arizona State University

Abstracts

Hindered Diffusion of Asphaltenes at Elevated Temperature and Pressure [PDF-9KB]
James A. Guin, Auburn University

Effects of Fly Ash on Mercury Oxidation During Post Combustion Conditions [PDF-12KB]
R.C. Brown, Iowa State University

Novel Slurry Phase Diesel Catalysts for Coal-Derived Syngas [PDF-19KB]
A.K. Datye, University of New Mexico

Computational and Experimental Modeling of Slurry -Bubble-Column Reactors [PDF-12KB]
Isaac K. Gamwo, University of Akron

Thermodynamic Analysis of Ammonia-Water-Carbon Dioxide Mixtures for Designing New Power Generation [PDF-258KB]
Ashish Gupta, University of New York@Buffalo

Catalysts for High Cetane Ethers as Diesel Fuels [PDF-18KB]
K. Klier, Lehigh University

CO2 Separation Using Zeolite Membranes [PDF-14KB]
Joseph C. Poshusta, University of Colorado

Combined Theoretical and Experimental Investigation of Mechanisms and Kinetics of Vapor-Phase Mercury Uptake by Carbonaceous Surfaces [PDF-15KB]
Radisav D. Vidic, University of Pittsburgh

Supported Dense Ceramic Membranes for Oxygen Separation [PDF-9KB]
T.L. Ward, University of New Mexico