CLEAN AIR

International Journal on Energy for a Clean Environment

Volume 6, 2005

Number 1

- 1 Simulation of Mass and Energy Balances of a Chemical-Looping Combustion System
 - B. Kronberger, G. Löffler, and H. Hofbauer
- 15 Optimization of Thermal Processes of Gas-Fired Melting Furnaces for Secondary Aluminum
 - M. Brune, A. Giese, and D. Mackenstedt
- 25 Measuring and Controlling Pulverized Fuel on Coal-Fired Plant Jianyong Zhang, John Coulthard, Ruixue Cheng, and Ray Keech
- 37 Influence of Radiation on the Formation of NO and OH in Turbulent Non-Premixed Hydrogen Flames

 Guenther C. Krieger Filho
- 55 Mobile Emission Measurements for Assessing Low Emitting Vehicles Exemplified on a CRT-Equipped Bus
 - G. Lenaers and M. Van Poppel
- 71 Environmental Performances of Residential Fuel Cell CHP Systems under Various Energy Distribution Scenarios
 - F. Donatini, M. Schiavetti, R. Gabbrielli, G. Gigliucci, and A. La Mendola
- 83 NO_x Emissions and Combustibility Characteristics of Coal Blends *F. Rubiera, A. Arenillas, B. Arias, and J.J. Pis*

Number 2

- 99 Heat Transfer in a Boiler with Coal Reburn L. Ghiribelli
- 113 Combustion of Aromatics and Esters in an Atmospheric Bubbling Fluidized Bed Combustor, in Comparison with that of Natural Gas

M. Pilawska, J. Baron, and W. Zukowski

- 125 Food Recycling Oil-Methyl Ester: a Biodiesel Fuel for Small Diesel Engines with SCR and Oxidation Catalysts

 J. Lachenmaier-Koelch and R. Meyer-Pittroff
- 137 CRFD Studies for Boilers Fired with High Ash Containing and Slagging Lignites

B. Epple, B. Krohmer, A. Hoppe, H. Müller, and R. Leithner

- 157 CCSEM Analysis of Minerals in Coal and Thermal Performance of PC-Fired Boilers
 - R. P. Gupta, L. Yan, S. K. Gupta, T. F. Wall, T. Kiga, and S. Watanabe
- 171 Effect of Mixing on Selective Noncatalytic Nitric Oxide Reduction R. Rota, and E. F. Zanoelo
- 187 Emissions from Combustion of H₂ and CH₄ Mixtures in Catalytic Burners for Small-Scale Heat and Power Applications
- G. J. Rørtveit, A. H. Stromman, M. Ditaranto, and J. E. Hustad

Number 3

- 195 Turbulence-Chemistry Interaction Calculations for Improved NO_x Predictions
 - Y. Levy and P. Arfi
- **225** Fuel Processor for Fuel Cell Applications Based on Liquid Fuels *K. Lucka and H. Köhne*
- 239 Experimental Study on Emission Characteristics of Diesel Engines with Diesel Fuel Blended with Dimethyl Carbonate
 - C. S. Cheung, M. A. Liu, S. C. Lee, and K. Y. Pan
- 255 Hydrogen Energy for a Cleaner Environment T. K. Bose, P. Bénard and A. Hourri
- 267 Assessment of Two-Phase Flow Models for the Simulation of Pulverized Coal Combustion

- Bernd Epple, Woody Fiveland, Bernd Krohmer, Galen Richards, and Ali C. Benim
- 289 Generation of a Gaseous Fuel by Pyrolysis of Biomass and Sewage Sludge for Use as Reburn Gas in Coal-Fired Boilers

 C. Storm, H. Spliethoff, and K. R. G. Hein
- 329 Spectral Radiation Characteristics of Coal Ashes and Slags V. Scherer, S. Linka, and S. Wirtz
- 343 An Improvement on the Cryogenic Air Separation System of a CO₂ Recovery Power Plant with O₂/CO₂ Combustion
- T. Kakio, S. Maruyama, and S. Sakai

Number 4

- 357 Equilibrium Evaporation Spray Modeling for Application in Cool Flames
 - D. Kolaitis and M. Founti
- 375 Low-NO_x Combustion Technologies for Process Heating: Two Decades of Research and Development Activities at GWI Michael Flamme
- 393 Study of the Evolution of Nitrogen Compounds During Coal Devolatilization
 - A. Arenillas, F. Rubiera, A. H. Moreno, C. Pevida, and J. J. Pis
- 409 CFD-Based Analysis of Heat Transfer in a Front Wall Pulverized-Coal-Fired Boiler Including Superheaters
 - R. F. Reinaldo, E. Bazzo, and J. L. T Azevedo
- **423 Reduction of the NO**_x Emission in a Model Domestic Water Heater J. M. Most, G. Debenest, S. Jallais, V. Bertin, F. Vuillaume, and M. Tokac
- 439 Characterization of Biomass Chars: Reactivity and Morphology of Chars Obtained in Different Conditions
 - E. Biagini and L. Tognotti
- 459 Table of Contents
- 463 Author Index