
CONFERENCE PRESENTATIONS/NON-REFEREED PUBLICATIONS 2006

The following are non-refereed publications and conference papers authored by CAER Staff. To see published articles in refereed/scholarly journals and books, select the "Refereed Publications" link.

Andrews, R; Weisenberger, M.C.; Rantell, T. "Thermomechanical properties of carbon nanotube composite materials," 34th Annual Conference of the North American Thermal Analysis Society, Aug. 5-9, Bowling Green, KY, 2006. **(2007 Jan/Feb)**

Ji, Y.; Toops, T.J.; Crocker, M. "Effect of Ceria addition on the regeneration of a model LNT catalyst," Southeastern Catalysis Society Fall Symposium, Sept. 18, Asheville, NC, 2006. **(2007 Jan/Feb)**

Araujo, C. V.; Barbanti, S. M.; Borrego, A. G.; David, P.; Hower, J.; Kalkreuth, W.; Littke, R.; Mendonça Filho, J.G.; Meneses, T.R.; Moore, N.; Newman, J.; Reimer K.; Schwarzbauer, J. "ICCP Thermal Indices Working Group: Interlaboratory Exercise of Year 2005," Latin American Association of Organic Geochemistry (ALAGO) Congress, Nov. 5-9, Salvador, Bahia, Brazil, 2006. **(2006 Nov/Dec)**

Crelling, J.; Glickson, M.; Huggett, W.; Borrego, M.A.G.; Hower, J.; Ligouis, B.; Mastalerz, M.; Misz, M.; Suárez-Ruiz, I.; Valentim, B, International Committee for Coal and Organic Petrology, Atlas of anthopogenic particles, Indiana Geological Survey, CD-ROM, 2006. **(2006 Nov/Dec)**

Crocker, M.; Crofcheck, C. "Biomass Conversion to Liquid Fuels and Chemicals," *Energieia*, 17, 1, 2006. **(2006 Nov/Dec)**

Jacobs, G.; Sarkar, A.; Ji, Y.; Patterson, P.; Das, T.K.; Davis, B.H. "Fischer-Tropsch Synthesis: Characterization of Interactions between Reduction Promoters and Co for Co/Al₂O₃?Based GTL Catalysts," AICHE 2006 National Meeting, Nov. 12-17, SanFrancisco, CA, 2006. **(2006 Nov/Dec)**

Lipka, S.; Swartz, C. "Templated LiMPO₄ Nanoelectrodes for Lithium-Ion Batteries," 210th Meeting of the Electrochemical Society, Oct. 29 - Nov. 3, Cancun, Mexico, 2006. **(2006 Nov/Dec)**

Lipka, S.M.; Swartz, C.R.; Harris, T.J.; Andrews, R.; Crocker, M. "Alternative Material Chemistries for Hybrid Aqueous Electrochemical Capacitors," 16th International Seminar on Double Layer Capcitors & Hybrid Energy Storage Devices, Dec. 4-6, Ft. Lauderdale, FL, 2006. **(2006 Nov/Dec)**

Luo, M.; Bao, S.; Keogh, R.A.; Sarkar, A.; Jacobs, G.; Davis, B.H. "Fischer-Tropsch Synthesis: a Comparison of Iron and Cobalt Catalysts," AICHE 2006 National Meeting, Nov. 12-17, SanFrancisco, CA, 2006. **(2006 Nov/Dec)**

Pigos, J.M.; Brooks, C.J.; Jacobs, G.; Davis, B.H. "Evidence of Enhanced Low Temperature Water-Gas Shift Rate with Sodium Promoted Pt/Zirconia-Based Catalysts Discovered by Combinatorial Methods," AICHE 2006 National Meeting, Nov. 12-17, SanFrancisco, CA, 2006. **(2006 Nov/Dec)**

Pigos, J.M.; Brooks, C.J.; Jacobs, G.; Davis, B.H. "DRIFTS Studies of platinum based zirconia catalyst promoted with sodium discovered by combinatorial methods," ACS, Division of Petroleum Chemistry, Preprints, 51(2) 510-511, 2006. **(2006 Nov/Dec)**

Sarkar, A.; Bao, S.; Keogh, R.A.; Davis, B.H. "Fischer-Tropsch Synthesis: Comparison of ¹⁴C Distributions and Analysis of Reaction Pathways When Labeled Acetic Acid Is Added," AIChE 2006 National Meeting, Nov. 12-17, San Francisco, CA, 2006. **(2006 Nov/Dec)**

Crocker, M. "Development of Heterogeneous Catalysts for Bio-diesel Production," Tri-State Catalysis Society 2006 Symposium, Sept 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Eble, C.F.; Greb, S.F.; Hower, J.C. "New Perspectives on Kentucky's Coal Resources: Future Trends," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Graham, U.M.; Dozier, A.; Khatri, R.A.; Davis, B.H. "EELS-STEM investigation of the formation of nanozones in iron catalysts for Fischer-Tropsch Synthesis," Tri-State Catalysis Society 2006 Symposium, Sept 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Greb, S.F.; Eble, C.; Hower, J.C. "The environmental impacts of mining, processing, and using coal," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Groppo, J. "A Mineral Processing Perspective on Stored Combustion Ash Utilization," The International Conference on Coal Ash, Oct. 2-4, Pretoria, South Africa, 2006. **(2006 Sept/Oct)**

Guilants, V.V.; Korovchenko, P.; Dozier, A.; Graham, U.M. "M1 to M2 Phase Transformation in Mo-V-Te-O Catalysts for selective Ammoxidation of Propane," Tri-State Catalysis Society 2006 Symposium, Sept. 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Honaker, R.; Jain, M.; Parekh, B.K.; Saracoglu, M. "Optimized spiral separation performance for ultrafine coal cleaning," XV International Coal Preparation Congress and Exhibition, Oct 9-13, Beijing, China, Proceedings, 502-508, 2006. **(2006 Sept/Oct)**

Hower, J.C.; Thomas, G.A. "Distribution of selenium, arsenic, and mercury in ESP fly ashes," 232nd National Meeting of the American Chemical Society, Sept. 10-14, San Francisco, CA, 2006. **(2006 Sept/Oct)**

Hower, J.C.; Carmo, A.M.; Sun, T.; Elswick, E.R.; Mardon, S.M, "Sulfur and Carbon isotope geochemistry of coals and derived combustion by-products: An example from an eastern Kentucky power plant," 23rd Annual International Pittsburgh Coal Conference, Sept. 25-28, Pittsburgh, PA, Proceedings CD, 2006. **(2006 Sept/Oct)**

Hower, J.C.; Thomas, G.A. "Distribution of selenium, arsenic, and mercury in ESP fly ashes," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Jacobs, G.; Pigos, J.M.; Brooks, C.J.; Graham, U.M.; Davis, B.H. "Recent developments in metal/oxide low temperature water-gas shift catalysts for fuel processor applications," Tri-State Catalysis Society 2006 Symposium, Sept 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Jewell, L.; Davis, B.H. "Hydrogen and palladium: absorption and adsorption," Tri-State Catalysis Society 2006 Symposium, Sept 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Lipka, S.M. "Carbons for Electrochemical Energy Storage and Conversion," Carbon Technologies Workshop, Sept. 19, Corning, PA, Sept. 2006. **(2006 Sept/Oct)**

Mardon, S.M.; Hower, J.C.; Takacs, K.G.; Eble, C.F.; Mastalerz, M. "Determination of coalbed methane potential and gas adsorption capacity in Western Kentucky coals," 23rd Annual International Pittsburgh Coal Conference, Oct. 25-28, Pittsburgh, PA, Proceedings CD, 2006. **(2006 Sept/Oct)**

Mardon, S.M.; Takacs, K.G.; Hower, J.C.; Eble, C.F.; Mastalerz, M. "Determination of coalbed methane potential and gas adsorption capacity in Western Kentucky coals," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Marrs, B. "On the Path to Realization of High Performance Implantable Materials: MWNT - Boen Cement Composites," Seminar for the Center for Biomedical Engineering, Sept. 15, Lexington, KY, 2006. **(2006 Sept/Oct)**

O'Hara, K., Mizoguchi, K., Shimamoto, T., and Hower, J.C. "Experimental frictional heating and thermal pressurization of coal gouge at seismic slip rates: Evidence for devolatilization and thermal pressurization of gouge fluids," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

O'Keefe, J.M.K.; Hower, J.C. "Occurrence of Pyrolytic Carbon in Claiborne Group Lignites, Kentucky," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Parekh, B.K.; Patil, D.P.; Honaker, R.; Baczek, F. "Improving densification of fine coal refuse," XV International Coal Preparation Congress and Exhibition, October 9-13, Beijing, China, Oct, Proceedings, 549-554, 2006. **(2006 Sept/Oct)**

Ruppert, L.F.; Trippi, M.H.; Hower, J.C.; Grady, W.; Ryder, R.T.; Repetski, J.E., "Thermal maturity patterns based on vitrinite reflectance of Pennsylvanian-age coal-bearing rocks of the Appalachian Basin:," 23rd Annual Meeting of the Society for Organic Petrology, Sept 15-22, Beijing, China, 2006. **(2006 Sept/Oct)**

Sarkar, A.; Davis, B.H. "Nano-iron catalysts for Fischer-Tropsch Synthesis," Tri-State Catalysis Society 2006 Symposium, Sept 13, Lexington, KY, 2006. **(2006 Sept/Oct)**

Sweeney, I.; Chin, K.; Hower, J.C.; Wolfe, D. "Different modes of wood preservation in an isotaphonomic setting of the Moreno Hill Formation (Turonian, middle Cretaceous) of New Mexico," 2006 Annual Meeting of the Geological Society of America, Oct. 22-25, Philadelphia, PA, Abstracts with Program, 38, 2006. **(2006 Sept/Oct)**

Tao, D.; Yu, S.; Parekh, B.K. "Picobubble enhanced flotation of fine coal," XV International Coal Preparation Congress and Exhibition, Oct 9-13, Beijing, China, Proceedings, 385-392, 2006. **(2006 Sept/Oct)**

Fisk, C.; Crofcheck, C.; Crocker, M.; Lewis, C.; Storey, J. "Novel catalytic approaches for bio-upgrading," American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting, July 9-13, Portland, OR, 2006. **(2006 July/Aug)**

Marrs, B.; Andrews, R.; Pienkowski, D. "The Fatigue Life of Physiologically Maintained Bone Cement is Enhanced by Multiwall Carbon Nanotubes," Carbon '06, July 16-20, Aberdeen, Scotland, 2006. **(2006 July/Aug)**

Schumaker, J.L.; Crofcheck, C.; Montross, M.; Tackett, S.A.; Crocker, M. "Evaluation of heterogeneous catalysts for improved biodiesel production," American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting, July 9-13, Portland, OR, 2006. **(2006 July/Aug)**

Weisenberger, M. "Carbon Nanotubes for Reinforcing Polymers: The Role of Dispersion," Carbon '06, July 16-20, Aberdeen Scotland, 2006. **(2006 July/Aug)**

Aslan, M.M.; Kunadian, I.; Andrews, R.; Menguc, M.P. "Bidirectional Evanescent and Transmitted Light Scattering Profiles of CVD synthesized Carbon Nanotubes (CNTs) for Ex-situ Characterization of Structural Formation," NSTI Nanotech 2006, May 7-11, Boston, MA, 2006. **(2006 May/June)**

Davis, B.H. "Fischer-Tropsch Synthesis: Impact of Water on Iron and Cobalt Based Processes," 19th Canadian Symposium on Catalysis, May 14-17, Saskatoon, Canada, 2006. **(2006 May/June)**

Groppo, J.; Price, C.; Boone, N. "INNOVATIVE APPROACHES TO COMBUSTION ASH AND GASIFICATION SLAG UTILIZATION," Electric Power Conference, May 2-4, Atlanta, GA, 2006. **(2006 May/June)**

Hower, J.C; Graham, U.M.; Dozier, A. "Transmission electron microscope study of the sites of mercury and other trace elements in a Kentucky fly ash," International Coal Ash Technology Conference, May 15-17, Birmingham, England, 2006. **(2006 May/June)**

Jewell, B. "A Standard Method for Preparing and Analyzing Ash Particle-Size Distribution," International Coal Ash Technology Conference, May 15-18, Birmingham, England, 2006. **(2006 May/June)**

Ji, Y.; Toops, T.J.; Graham, U.M.; Jacobs, G.; Crocker, M. "A Kinetic and DRIFTS Study of Supported Pt Catalysts for NO Oxidation," 9th Cross-cut Lean Exhaust Emissions Reduction Simulation (CLEERS) Workshop, May 3-4, Dearborn, MI, 2006. **(2006 May/June)**

Liu, Kunlei; Down, W.; Vecci, S.J. "The Next Power Generation – Pressurized Chemical Looping Combustion Combined Cycle," 31st International Technical Conference on Coal Utilization & Fuel Systems, May 21-26, Clearwater, FL, Proceedings Volume CD, Paper 89, 2006. **(2006 May/June)**

Myszkowska, A.; Hower, J.; Rajczyk, K. "Infiltration in fly ash and slay mixtures for geotechnical infill. Microstructure of the created bindings," International Coal Ash Technology Conference, May 15-17, Birmingham, England, 2006. **(2006 May/June)**

O'Hara, K.; Hower, J.C. "Stress Drop Estimates on Ancient Seismogenic Faults Based on Frictional Heating of Coal," Geological Society of America, Mar. 23-24, Knoxville, TN, Abstracts with Program, 38, 2006. **(2006 May/June)**

Parekh, B.K. "The Effect of Polymer Flocculant Properties and Mode of Addition on the Flocculation of Fine Coal Refuse," American Filtration Congress Meeting, May 8-10, Chicago, IL, 2006. **(2006 May/June)**

Parekh, B.K. "Picobubble flotation of fine coal," 31st International Technical Conference on Coal Utilization & Fuel Systems, May 22-25, Clearwater, FL, 2006. **(2006 May/June)**

Parekh, B.K.; Patil, D.P.; Honaker, R.; Baczek, F. "Densification of Fine Coal Refuse Slurries to Eliminate Slurry Ponds," 31st International Technical Conference on Coal Utilization & Fuel Systems, May 21-26, Clearwater, FL, Proceedings Volume CD, Paper 45, 2006. **(2006 May/June)**

Suárez-Ruiz, I.; Hower, J.C.; Thomas, G.A. "Petrology and chemistry of fly ashes derived from the combustion of complex coal blends in Spanish power plants," International Coal Ash Technology Conference, May 15-17, Birmingham, England, 2006. **(2006 May/June)**

Chen, G; Tao, D.; Parekh, B.K.; Honaker, H. "Flocculation Dewatering of Phosphatic Clays," Society for Mining, Metallurgy and Exploration Annual Meeting, Mar 27-29, St. Louis, MO, SME Pre-Print No. 06-029, 2006. **(2006 Mar/Apr)**

Crofcheck, C.; Crocker, M.; Shumaker, J.; Montross, M. "Evaluation of Heterogeneous Catalysts for Improved Biodiesel Production," 2006 Institute of Biological Engineering Meeting, Mar. Tucson, AZ, 2006. **(2006 Mar/Apr)**

Davis, B.H. "Overview of retorting of eastern oil shale," AIChE 2006 Spring National Meeting, Apr. 23-27, Orlando, FL, paper 228b, 2006. **(2006 Mar/Apr)**

Fisk, C.; Crofcheck, C.; Crocker, M.; Lewis, S.; Storey, J. "Novel Catalytic Approaches for Bio-Oil Upgrading.," Institute of Biological Engineering Annual Meeting, Mar. Tuscon, AZ, 2006. **(2006 Mar/Apr)**

Honaker, R.; Patil, D. "Development of an Advanced Deshaling Technology to Improve the Energy Efficiency of Coal Handling, Processing, and Utilization," Society for Mining, Metallurgy and Exploration Annual Meeting, Mar 27-29, St. Louis, MO, 2006. **(2006 Mar/Apr)**

Jacobs, G.; Ricote, S.; Ji, Y.; Patterson, P.M.; Davis, B.H. "Metal promoted binary oxides of ceria and zirconia for low temperature water-gas shift," AIChE 2006 Spring National Meeting, Apr. 23-27, Orlando, FL, paper 128b, 2006. **(2006 Mar/Apr)**

Luo, M.; LeViness, S.C.; Jacobs, G.; Davis, B.H. "Overview of Fischer-Tropsch products and their upgrading to useful products," AIChE 2006 Spring National Meeting, Apr. 23-27, Orlando, FL, paper 181a, 2006. **(2006 Mar/Apr)**

Sarkar, A.; Graham, U.M.; Neathery, J.K.; Spicer, R.L.; Davis, B.H. "Nano-scale Growth of Iron-based Catalysts in Fischer-Tropsch Synthesis," 231st American Chemical Society National Meeting, Catalysis and Surface Science Secretariat, Mar. 26-30, Atlanta, GA, 2006. **(2006 Mar/Apr)**

Sarkar, A.; Graham, U.M.; Neathery, J.K.; Spicer, R.L.; Davis, B.H. "Fischer-Tropsch Synthesis with ultrafine iron-based catalyst: nano-scale growth of particles," AIChE 2006 Spring National Meeting, Apr. 23-27, Orlando, FL, paper 181b, 2006. **(2006 Mar/Apr)**

Taulbee, D, ""Reducing the Explosion Potential of Ammonium Nitrate by Coating with Low-Cost, Coal Combustion By-Products", " Hometown Security Project Review Meeting, April 18-20, Washington, DC, 2006. **(2006 Mar/Apr)**

Jacobs, G.; Das, T.K.; Li, J; Patterson, P.M.; Luo, M.; Davis, B.H. "Fischer-Tropsch Synthesis: Impact of water on the activity and lifetime of cobalt catalysts," 10th International Symposium on Catalyst Deactivation, Feb 3-7, Berlin, Germany, 2006. **(2006 Jan/Feb)**

Parekh, B.H. "Dry Separation of Coal," East Kentucky Coal Preparation Society Meeting, Febr. 22, Pikeville, KY, 2006. **(2006 Jan/Feb)**
