

— FOURTH ANNUAL CONFERENCE ON CARBON CAPTURE & SEQUESTRATION —

AGENDA

Monday, May 2, 2005

12:00 **REGISTRATION OPENS**

3:00 **EXHIBITS OPEN**

6:00 **OPENING COCKTAIL RECEPTION
IN EXHIBIT AREA**

7:00 **OPENING CONFERENCE
WELCOME DINNER**
Host: EM Publication & Forums

Tuesday, May 3, 2005

7:00 **CONTINENTAL BREAKFAST**
Host: EM Publications & Forums

8:00 **OPENING KEYNOTE PLENARY**

WELCOME REMARKS

Scott Klara, Chair
Conference Steering Committee
Deputy Director, Off. of Coal & Power R&D
National Energy Technology Laboratory
U. S. Dept. of Energy

Carl Bauer, (Acting) Director
U.S. DOE NETL

8:05 **KEYNOTE ADDRESS**

MODERATOR: **Carl Bauer**, (Acting)
Director U.S. DOE NETL

Mark Maddox, Prin. Dep. Asst. Secy.
U.S. DOE Fossil Energy

OPEN DISCUSSION

8:45 **Moving to Utilize Carbon
Capture/Sequestration
Technologies—A Path Forward to
Reduce CO₂ Emissions**

*BP CO₂ Capture and Geological
Storage Technology Programme:
from Science to Field Application*

Gardiner Hill, Grp. Technology
Mgr., Environmental Technology
BP

*Climate Initiative and CO₂
Sequestration - A Schlumberger
Perspective*

T.S. Ramakrishnan, Science
Advisor, CO₂ Sequestration
Research, Schlumberger-Doll
Research

OPEN DISCUSSION

9:15 **Where We Are Today, What We Have
Learned Thus Far, What Remains to
Be Done to Further Facilitate the
Deployment of Carbon Capture,
Transmission and Sequestration
Technologies**

MODERATOR: **Scott Klara**,

U.S. DOE NETL

Bill Reynen, Co-Chair
Carbon Sequestration Leadership
Forum; CANMET Energy
Technology Centre, Ottawa, Canada

OPEN DISCUSSION

9:40 **What Is Needed to Facilitate
Commercial Deployment of Carbon
Capture, Transmission and
Sequestration Technologies**

Harry Audus, General Manager
Intl Energy Agency Greenhouse Gas
R&D Programme; IEA Environ.
Projects LTD

David Hawkins, Director
Air & Energy Programs
Natural Resource Defense Council

OPEN DISCUSSION

10:25 **COFFEE BREAK**
Host: EM Publications & Forums

10:45 **Assessment of the State of Development of
Carbon Sequestration Technologies in
North of America**

MODERATOR: **Sean Plasynski**
Sequestration Tech. Manager
U.S. DOE NETL

Terrestrial Sequestration

G. Phillip Robertson, Professor
Dept. of Crop & Soil Sciences
W.K. Kellogg Biological Station
Michigan State University

OPEN DISCUSSION

Geological Sequestration

Sally M. Benson, Head
CO₂ Capture and Storage Prog.
Earth Science Division
Lawrence Berkeley National Lab.

OPEN DISCUSSION

Capture Technology

Dr. Massoud Rostam-Abadi, Head
Energy & Environ. Engineering Sect.
Illinois State Geological Survey
MW Geol. Sequestration Consortium

OPEN DISCUSSION

Mineralization

Richard P. Walters, Assoc. Dir.
U.S. DOE Albany Research Ctr.

OPEN DISCUSSION

11:50 **What Has Been Learned, What Is the
Future Direction of Selected North
American Carbon Emission Reduction**

**Projects Utilizing Carbon Capture and
Sequestration**

MODERATOR: **Melissa Miller**, Los Alamos
National Laboratory

The Weyburn Project

Mike Monea, Executive Director
Petroleum Technology Research Centre

The Frio Project

Susan Hovorka, Research Scientist
Bureau of Economic Geology
University of Texas at Austin

OPEN DISCUSSION

12:30 **LUNCH**
Host: EM Publications & Forums

POSTER GROUP I SESSION A
*(Open for Browsing: Paper Authors Not
Required to Be Present)*

1:30 **TECHNICAL SESSIONS**

Capture and Separation - Sorbents (1)

Geologic - Frio Brine Field Project (1)

Public Outreach and Education

Sequest. Policy & Feasibility Studies (1)

Geologic - Monitoring, Mitigation and
Verification (1)

2:30 Weyburn Project

3:30 **COFFEE BREAK**
Host: EM Publications & Forums

4:00 **TECHNICAL SESSIONS**

Capture and Separation - Oxyfuel
Combustion

Geologic - Frio Brine Field Project (2)

Geologic Sequestration (1)

Sequest. Policy & Feasibility Studies (2)

Regulatory Analysis

5:00 Advanced Concepts - Biomass Offsets

6:20 **TECHNICAL SESSIONS END**

6:20 **POSTER GROUP I SESSION B**
(Paper Authors Required to be Present)

6:30 **COCKTAIL RECEPTION**
Host: EM Publications & Forums

— FOURTH ANNUAL CONFERENCE ON CARBON CAPTURE & SEQUESTRATION —

Wednesday, May 4, 2005

7:00 **CONTINENTAL BREAKFAST**
Host: EM Publications & Forums

8:00 **The Growing U.S. Global Partnership to Pursue and Support Development & Deployment of Carbon Capture, Transmission & Sequestration Technologies as a Step Toward a Hydrogen Economy**

MODERATOR: Edward L. Helminski
Conference Coordinator
President, EM Publications & Forums

John F. Turner, Asst. Secretary
Bureau of Oceans and International
Environmental and Scientific Affairs
U.S. State Department

OPEN DISCUSSION

8:30 **Overview/Status Report on Carbon Capture, Sequestration R&D & Deployment in Canada**

Graham R. Campbell
Director General, Office of Energy
Research & Development, Natural
Resources Canada

OPEN DISCUSSION

9:00 **Legal Issues That Need to Addressed to Facilitate Deployment of Carbon Capture, Transmission and Sequestration Technologies**

Jolyon Thomson
Legal Services, Int'l. Environment
Dept. for Env., Food & Rural Affairs
United Kingdom

OPEN DISCUSSION

9:25 **Update on the Upcoming Intergovernmental Panel on Climate Change Report on Carbon Capture and Sequestration**

Heleen de Coninck,
IPCC Working Group III Technical
Support Unit, Energy Research Centre of
the Netherlands

OPEN DISCUSSION

9:35 **Proposed U.S. Guidelines for Voluntary Reporting of Greenhouse Gas Emissions and Emission Reductions & their Possible Use in Carbon Trading Markets**

MODERATOR: Iain Wright, CO₂ Project
Manager, BP Technology Group

Mark Friedrichs, Policy Analyst
Off. of Policy & Int'l Affairs
U.S. DOE

William Hohenstein, Director
Global Change Program Office
U.S. Dept. of Agriculture

OPEN DISCUSSION

10:15 **COFFEE BREAK**
Host: EM Publications & Forums

10:30 **TECHNICAL SESSIONS**

Capture and Separation - Sorbents (2)

Geologic - Risk Assessment Issues

Geologic Sequestration (2)

Capture - Membranes

Terrestrial - Science, Technology &
Economics

12:30 **LUNCH**
Host: EM Publications & Forums

POSTER GROUP II SESSION A
*(Open for Browsing: Paper Authors Not
Required to Be Present)*

1:30 **TECHNICAL SESSIONS**

Capture - Feasibility Studies

Geologic Sequestration (3)

Advanced Conversion/Capture Concepts

Geologic - Coal Seams (1)

Terrestrial - Science, Technology &
Economics (2)

2:30 Geologic - Monitoring, Mitigation and
Verification (2)

3:30 **COFFEE BREAK**
Host: EM Publications & Forums

3:40 **TECHNICAL SESSIONS**

Geologic - Coal Seams (2)

Sequestration Policy and Feasibility Studies
(3)

Geologic Sequestration (4)

Geologic - Monitoring, Mitigation and
Verification (3)

Ocean Sequestration

5:00 Geologic - Frio Brine (3)

6:20 **TECHNICAL SESSIONS END**

6:20 **POSTER GROUP II SESSION B**
(Paper Authors Required to be Present)

6:30 **COCKTAIL RECEPTION**
Host: EM Publications & Forums

— FOURTH ANNUAL CONFERENCE ON CARBON CAPTURE & SEQUESTRATION —

Thursday, May 5, 2005

7:00 **CONTINENTAL BREAKFAST**

Host: EM Publications & Forums

8:00 **OPENING PLENARY ADDRESS**

Working to Develop a Publicly Acceptable Regulatory Framework to Facilitate the Deployment of Carbon Capture, Transmission and Sequestration Technologies

MODERATOR: **Robert Finley**, Center Dir.
Illinois State Geological Survey

Jeff Holmstead, Asst. Administrator
Office of Air and Radiation
U.S. Environmental Protection
Agency

OPEN DISCUSSION

8:30 **REGIONAL PARTNERSHIPS**

The Regional Partnerships—Identifying the Most Promising Regional Carbon Sequestration Deployment Opportunities through Private and Public Partnerships

LEAD SPEAKER/MODERATOR:

John T. Litynski, Project Director
Regional Carbon Sequestration
Partnerships, U.S. DOE NETL

Dr. Robert J. Finley, Center Dir.
Illinois State Geological Survey
MW Geological Sequestration
Consortium

Dr. Gerald R. Hill, Technical Advisor
Southern States Energy Board
SE Reg. Carbon Sequestration
Partnership

Edward Steadman, Sr. Research
Advisor; Energy & Env.; Research Ctr.
Plains CO2 Reduction Partnership

Dr. Susan M. Capalbo, Dir. Spec.
Projs.; Montana State Univ.-Bozeman
Big Sky Regional Carbon Sequestration
Partnership

Dr. Brian J. McPherson,
NM Institute of Mining & Technology
Southwest Regional Partnership on
Carbon Sequestration

Dr. Larry Myer, Technical Director
California Energy Commission
West Coast Regional Carbon
Sequestration Partnership

David A. Ball, Manager,
Battelle; MW Reg. Carbon
Sequestration Partnership

10:00 **COFFEE BREAK**

Host: EM Publications & Forums

10:15 **An Assessment of Current and Potential Regulations Governing the Employment of Carbon Capture, Transmission and Sequestration Technologies**

MODERATOR: **Scott Reeves**, Executive
Vice President, Advanced Resources Int'l.

Larry Bengal, Director
Arkansas Oil and Gas Commission;
Chair, Interstate, Oil and Gas Commission
Carbon Sequestration Task Force

Bruce Kobelski, Team Leader
Underground Injection Control
Office of Water, U.S. EPA

(An EPA Regional Representative)

OPEN DISCUSSION

11:00 **An Overview of the U.S. DOE Programs and Priorities**

MODERATOR: **Edward L. Helminski**,
President, EM Publications & Forums

*Carbon Capture & Sequestration R&D
Supported by the DOE Office of Science
FY05/FY06*

Nick Woodward, Geosciences Res.
Prog., U.S. DOE Office of Science

OPEN DISCUSSION

*The DOE/NETL Comprehensive
FY05/FY06 Program to Support the
Development and Deployment of Carbon
Capture, Transmission & Sequestration
Technologies*

Scott Klara, Chair
Conference Steering Committee
Deputy Director, Office of Coal & Power R&D
U.S. DOE-NETL

OPEN DISCUSSION

12:00 **CLOSING REMARKS/OPEN FORUM WITH CONFERENCE PARTICIPANTS**

Scott Klara, Chair
Conference Steering Committee
Deputy Director, Off. of Coal & Power R&D
U.S. DOE-NETL

Conference Steering Committee Members

A Rapporteur's Observations

12:30 **CONFERENCE ADJOURNS**

TECHNICAL SESSIONS

CAPTURE AND SEPARATION – SORBENTS (1)

GEOLOGIC - FRIO BRINE FIELD PROJECT (1)

PUBLIC OUTREACH AND EDUCATION

SEQUESTRATION POLICY AND
FEASIBILITY STUDIES (1)

WEYBURN PROJECT

GEOLOGIC - MONITORING,
MITIGATION, AND VERIFICATION (1)

CAPTURE AND SEPARATION –
OXYFUEL COMBUSTION

GEOLOGIC - FRIO BRINE FIELD PROJECT (2)

GEOLOGIC SEQUESTRATION (1)

SEQUESTRATION POLICY AND
FEASIBILITY STUDIES (2)

REGULATORY ANALYSIS

ADVANCED CONCEPTS - BIOMASS OFFSETS

CAPTURE AND SEPARATION - SORBENTS (2)

GEOLOGIC - RISK ASSESSMENT ISSUES

GEOLOGIC SEQUESTRATION (2)

CAPTURE - MEMBRANES

TERRESTRIAL - SCIENCE,
TECHNOLOGY, AND ECONOMICS (1)

CAPTURE - FEASIBILITY STUDIES

GEOLOGIC SEQUESTRATION (3)

ADVANCED CONVERSION/
CAPTURE CONCEPTS

GEOLOGIC - COAL SEAMS (1)

TERRESTRIAL - SCIENCE,
TECHNOLOGY, & ECONOMICS (2)

GEOLOGIC - MONITORING,
MITIGATION, & VERIFICATION (2)

GEOLOGIC - COAL SEAMS (2)

SEQUESTRATION POLICY AND
FEASIBILITY STUDIES (3)

GEOLOGIC SEQUESTRATION (4)

GEOLOGIC - MONITORING,
MITIGATION, AND VERIFICATION (3)

GEOLOGIC - FRIO BRINE FIELD PROJECT (3)

OCEAN SEQUESTRATION

TUES	1	2	3	4	5
Sub Topic	Capture and Separation - Sorbents 1	Geologic - Frio Brine Field Project (1)	Public Outreach and Education	Sequestration Policy and Feasibility Studies (1)	Geologic - Monitoring, Mitigation, and Verification (1)
Session Chair(s)	Jose D. Figueroa U. S. DOE - NETL	Susan Hovorka, Bureau of Econ. Geology, U of T of Austin and Sally Benson, LBNL	Melissa Miller Los Alamos National Laboratory	Ramesh Srivastava Science Applications International Corp.	Brian McPherson NM Institute of Mining & Technology
Room	Walnut	Plaza C Ballroom	Plaza A Ballroom	Plaza B Ballrom	Beech
1:30	Pilot Plant Testing of Aqueous Piperazine and Potassium Carbonate for CO ₂ ; Eric Chen, Gary Rochelle, Babatunde Oyekan; Paper 129	From Concept to Reality: A systematic management approach for field implementation of the Frio Brine Pilot Test ; Daniel J. Collins, Edward Miller, Susan D. Hovorka, Mark H. Holz, Larry R. Myer; Paper 48	Building Public Acceptance for the Regional Carbon Sequestration Partnerships; Sarah Wade, Hannes Leetaru , Judith Bradbury, Pamela Tomski, James Dobbs, Martha Krebs , 2 T.B.D.s ; Paper 41	A North American CO ₂ Storage Supply Curve: Key Findings and Implications for the Cost of CCS Deployment; RT Dahowski, JJ Dooley, CL Davidson, S Bachu, N Gupta, J Gale; Paper 11	A Survey of MM&V Technologies for Geologic Sequestration; Chuji Wang, Susan Scherrer, M. John Plodinec, and J. S. Lindner; Paper 166
1:50	Development of Na and K-Based Sorbents for CO ₂ Capture from Flue Gas; Chong Kul Ryu, Joong Beom Lee, Tae Hyoung Eom, Je Myung Oh, Chang Keun Yi; Paper 113	Subsurface Characterization of the Frio CO ₂ Brine Pilot Injection Site, Liberty County, Texas; Paper 240	Attitudes regarding CO ₂ Capture and Storage from a Swedish perspective; Anders Hansson and Märten Bryngelssonb; Paper 187	Scope for Deployment of Carbon Capture and Storage Technologies in the UK up to 2020; Jon Gibbins, Stuart Haszeldine, Sam Holloway, Jonathan Pearce, John Oakey, Simon Shackley and Carol Turley; Paper 216	Measurement, Modeling, and Analysis of CO ₂ in the Near-Surface Environment for Geologic Carbon Sequestration Verification; Jennifer L. Lewicki and Curtis M. Oldenburg; Paper 193
2:10	Energy Integrated CO ₂ Capture; L. E. Hakka, John Sarlis, Karl Stephenne; Paper 74	Flow Modeling for the Frio Brine Pilot; Christine Doughty, Karsten Pruess, Sally Benson; Paper 139	Top Ten Most-Asked Questions about Carbon Sequestration and How to Answer Them; Sarah Forbes, Scott Klara, Bob Kane; Paper 223	Assessment of full carbon budget of Italy: the CarBIUS project; Dario Papale, Andrea Vannini, Piermaria Corona, Stefano Grego, Paolo Cicciooli, Simona Castaldi, Paolo De Angelis, Franco Maglietta, Markus Reichstein, Riccardo Valentini; Paper 145	Implications of soil gas survey results over known CO ₂ systems for long-term monitoring; Rick Allis, Deborah Bergfeld, Joe Moore, Kevin McClure, Craig Morgan, Tom Chidsey, Jason Heath and Brian Macpherson; Paper 131
2:30	Integrating Monoethanolamine (MEA) Regeneration with CO ₂ Compression to Reduce CO ₂ Capture Costs; Kevin S. Fisher, Majeed Jassim, Gary T. Rochelle, Carrie Beitler, Curtis Rueter, Katherine Searcy, José D. Figueroa; Paper 38	Pressure Transient Data Collection and Analysis from the Frio Brine Pilot; Sally M. Benson, Christine Doughty, Karsten Pruess; Paper 3	Climate Change and Sequestration for Pre-Teens: Development of a Multi-Disciplinary School Curriculum; Jeremy Kranowitz, Brooke Carson, Rachel Pokrandt, Jeremy Kranowitz; Paper 233	4B Weyburn Project Mike Monea, Petroleum Tech. Research Centre Seismic Monitoring of CO ₂ Injection at the IEA GHG Weyburn CO ₂ Monitoring and Storage Site: What Have We Learned; Don White, Keith Hirsche, Tom Davis, and Shawn Maxwell; Paper 163	Application of Multi-Component Deformation Monitoring to CO ₂ Sequestration; Eric Davis, Jing Du , Scott Marsic, William Roadarmel; Paper 122
2:50	Temperature effect on the capture of carbon dioxide by immobilized amine sorbents; M. L. Gray, D. J. Fauth, Y. Soong, K. J. Champagne, H. Pennline, J. P. Baltrus, T. Filburn; Paper 239	Geochemistry of Water and Gases in the Frio Brine Pilot Test: Baseline Data and Changes During and Post CO ₂ Injection; Yousif K. Kharaka, David R. Cole, William D. Gunter, Kevin G. Knauss, Seay Nance; Paper 79	The “Stabilization Wedge” Game: A Tool for Communicating the Scale of the Greenhouse Gas Problem; Roberta Hotinski, Sarah Wade; Paper 134	A Mechanical Earth Model for the Weyburn CO ₂ Monitoring and Storage Project and its Relevance to Long-Term Performance Assessment; Rick Chalaturnyk, Jaime Jimenez and Steve Whittaker; Paper 236	
3:10	CO ₂ Capture: Enzyme vs. Amine; Michael C. Trachtenberg, Lihong Bao; Paper 128	Monitoring CO ₂ saturation using Pulsed Neutron Capture Method; N. Mueller, T. S. Ramakrishnan and A. Boyd, S. Sakurai; Paper 22		Prediction of CO ₂ Distribution and Storage Performance in Weyburn EOR Patterns with Different CO ₂ Injection Strategies; David H.-S. Law, David L. Cuthiell and Mafiz Uddin; Paper 161	
3:30	COFFEE BREAK				

TUES	6	7	8	9	10A
Subtopic	Capture and Separation - Oxyfuel Combustion	Geologic - Frio Brine Field Project (2)	Geologic Sequestration (1)	Sequestration Policy and Feasibility Studies (2)	Regulatory Analysis
Session Chair(s)	George Guthrie Los Alamos National Laboratory	Susan Hovorka, Bureau of Economic Geology, University of Texas at Austin Sally Benson, LBNL	Scott Reeves Advanced Resources International	Jared Ciferno U. S. DOE - NETL	Anhar Kerimjee U. S. Environmental Protection Agency
Room	Walnut	Plaza C Ballroom	Plaza A Ballroom	Plaza B Ballroom	Beech
4:00	Decarbonized Electricity Production from Coal by Means of Oxygen Transport Membranes; M. Romano, S. Napoletano, P. Chiesa and S. Consonni ; Paper 188	Surface Environmental Monitoring At the Frio CO2 Sequestration Test Site, Texas; H. S. Nance, Henry Rauch, Brian Strazisar, Grant Bromhal, National Energy Technology Laboratory, Art Wells, Rod Diehl, Ron Klusman, Jennifer Lewicki, Curt Oldenburg, Yousif K. Kharaka, Evangelos Kakouros; Paper 95	CO2 Sequestration Capacity Classification; Scott M. Frailey and Robert J. Finley; Paper 64	Carbon, Hydrogen and Energy Flow Chart: Insights and Implications for the US in 2050; Gene Berry, John Ziagos and Julio Friedmann; Paper 55	Regulatory Aspects of Deep (Geological) CO2 Storage; M. Stenhouse, J. Gale, M. Wilson and H. Herzog; Paper 175
4:20	CO2 Compression Units for Oxy-Fuel Combustion; Kourosh E. Zanganeh, Ahmed Shafeen, Carlos Salvador, Murlidhar Gupta, and Bill Pearson; Paper 228	Use of Gas Phase Tracers for Monitoring CO2 Injection at the Frio Test Site; Karsten Pruess, Barry Freifeld, Mack Kennedy, Curt Oldenburg, Tommy J. Phelps and M.C. van Soest; Paper 152	Models for Environmentally Sound and Economically Viable Carbon Dioxide Sequestration Opportunities; Timothy R. Carr, Alan P. Byrnes, Martin K. Dubois, Scott W. White and Richard G. Nelson; Paper 57 (1)	Policy Implications from Regional Energy Growth; David Shropshire, Susan Capalbo; Paper 19	Regulatory Considerations for Geologic Sequestration of Carbon Dioxide; Michel J. Paque, John A. Veil, Paul Jehn, and Ben Grunewald, Robert F. Van Voorhees; Paper 210
4:40	Performance Simulation and Cost Assessment of Oxy-Combustion Process for CO2 Capture from Coal-Fired Power Plants; Rajani K Varagani, Fabienne Châtel-Pélagé, Pavol Pranda, Hamid Farzan, Stanley J. Vecchi, Massoud Rostam-Abadi, Yongqi Lu, Arun C. Bose; Paper 5	Monitoring Geologically Sequestered CO2 during the Frio Brine Pilot Test using Perfluorocarbon Tracers; Scott D. McCallum Tommy J. Phelps, David E. Riestenberg, Dave R. Cole, Barry M. Freifeld, Robert C. Trautz, Susan D. Hovorka; Paper 43	Volumetric Equations for CO2 Storage in Coalbeds, Oil and Gas Reservoirs, and Saline Formations; Andrew Anderson, Scott M. Frailey, Hannes Leetaru and Akanni Lawal; Paper 62	“Wedge” analysis of stabilization scenario based on SRES ; Jeffery B. Greenblatt, Robert H. Socolow, Keywan Riahi ; Paper 126	Review of Existing Injection Well Permit Regulations and Expectations of Future Geologic Sequestration CO2 Regulations with Monitoring Conditions ; Philip W. Papadeas, Daniel J. Collins, Susan D. Hovorka, Mark H Holz, Paul Knox ; Paper 33
5:00	The Potential for Clean Energy Production Using Oxy-Fuel Combustion and Integrated Pollutant Removal; Thomas Ochs, Danylo Oryshchyn, Thomas Weber, Cathy Summers; Paper 26	Comparison of Single and Multiphase Tracer Test Results from the Frio CO2 Pilot Study, Dayton, Texas; Robert Trautz, Barry Freifeld, and Christine Doughty; Paper 135	Reservoir Selection for Optimised Geological Injection and Storage of Carbon Dioxide: A Combined Geochemical and Stratigraphic Perspective; Maxwell N. Watson and Catherine M. Gibson-Poole; Paper 110	The Electricity Supply Wedge: A Strategic Plan to Reduce the Carbon Dioxide Intensity of Power Generation in the United States; Phil DiPietro, Vello Kuuskraa, Jason Hummel; Paper 52	10B Advanced Concepts - Biomass Offsets Robin Graham, ORNL Carbon sequestration from coal and propane combustion gases at industrial scale using microalgae; M Olaizola, S Flores, T Nakamura; Paper 17 (NOT PRESENTED)
5:20	Improvement of NI Based Oxygen Carriers for Chemical Looping Combustion; Juan Adánez, F. García-Labiano, P. Gayán, J. Celaya, A. Abad ; Paper 138	Time-Lapse Monitoring of CO2 Injection with Vertical Seismic Profiles (VSP) at the Frio Project; T.M. Daley*, L.R. Myer, G.M. Hoversten, E.L. Majer; Paper 61	An Assessment of the Geologic Storage Capacity of California Sedimentary Basins; Larry Myer, Sally Benson, John Clinkenbeard, Cameron Downey, Howard Herzog ; Paper 123	Carbon Accounting Rules and Guidelines for the United States Forest Sector; Richard A. Birdsey; Paper 87	Co-Firing Biomass Fuels with Coal and the Potential Impact on Terrestrial Sequestration; John Kadyszewski, Aaron Dushku, Nick Martin, Tim Pearson, and Sandra Brown; Paper 225
5:40	Advanced Oxy-fuel Boilers for Cost-Effective CO2 Capture; G. Maxwell Christie, Bart van Hassel, Juan Li and Leonard Switzer; Paper 215	Time-Lapse Crosswell EM and Seismic Imaging of a CO2 Plume; M. Wilt, J. Little, P Zhang Schlumberger, T Daly, L Myer, M Hoversten, K Dodds, D Sherlock; Paper 120	The Development of a Performance Assessment Framework for Geologic CO2 Sequestration; H.S. Viswanathan, G. Guthrie, R. Pawar, P.H. Stauffer, S. Chipera, P.C. Lichtner, J.W. Carey ; Paper 130	Sequestered Carbon: a Thermodynamic-Based Policy Proposal; Jonathan E. Schrag, Klaus S. Lackner; Paper 105 (NOT PRESENTED)	Gasification-Based Liquid Fuels and Electricity from Biomass with Carbon Capture; Eric D. Larson, Haiming Jin Robert H. Williams, Fuat E. Celik; Paper 80
6:00	A comparison of Oxygen Supply Systems for Combustion Applications; Bart VanHassel, Juan Li, John Sirman; Paper 243	Joint inversion of crosswell seismic and EM data for CO2 saturation; G. M. Hoversten, T Daly, L. Myer, M. Wilt, J. Little, P Zhang, K Dodds, D Sherlock; Paper 73	Microbially Enhanced Geologic Sequestration of Supercritical CO2; A. B. Cunningham, R. Gerlach, A. Phillips, and L. Spangler; Paper 150	Alternative Approaches to Reducing Petroleum Use and CO2 Emissions By Means of a Hydrogen Economy: Technology and Economic Modeling and Scenario Analysis; Peter Balash, Donald Hanson, John Ruether, David Schmalzer, John Molburg, Dale Keairns, Kenneth Kern, Kathy Stirling, John Marano, Jeffrey Price and Robert Vagnetti; Paper 181	Cost-Competitive, Low-GHG-Emitting Synthetic Liquid Fuels Via Coordinated Energy Production with CO2 Capture and Storage from Coal and Biomass; Robert H. Williams; Paper 77

WED	11	12	13	14	15
Subtopic	Capture and Separation - Sorbents 2	Geologic - Risk Assessment Issues	Geologic Sequestration (2)	Capture - Membranes	Terrestrial - Science, Technology, and Economics (1)
Session Chair(s)	Jose D. Figueroa U. S. DOE - NETL	Brian McPherson NM Institute of Mining & Technology	Bruce Kobelski U. S. Environmental Protection Agency	Geo Richards U. S. DOE - NETL	F. Blaine Metting, Pacific Northwest National Laboratory Charles Rice, University of Kansas
Room	Walnut	Plaza C Ballroom	Plaza A Ballroom	Plaza B Ballroom	Beech
10:30	CO2 capture by anti-sublimation Thermo-economic process evaluation; D. Clodic, R. El Hitti, M. Younes, Alain Bill & François Casier; Paper 24	Potential for gas leakage along fracture conduits within the proposed national CO2 Storage Test Site, Teapot Dome (NPR-3), Wyoming; Sean T. Brennan, Kristin Dennen, Robert C. Burruss; Paper 107	Enhanced isolation performance of geologic CO2 storage sites through mineral trapping: Experimental and field assessment of model predictions; James W. Johnson*, Kevin G. Knauss, S. Julio Friedmann, Scott H. Stevens; Paper 9	Membrane-based hybrid process to capture CO2 from warm flue gas; Yingjie Qin, Yong Pu, Huifang Fan, P. Kosaraju, G. Obuskovic, & K. K. Sirkar; Paper 142	Managing and Enhancing Carbon in Soils through Soil Aggregation; Rice et al; Paper 245
10:50	Dry Regenerable Carbonate Sorbents for Capture of Carbon Dioxide from Flue Gas; David Coker, David A. Green, Raghbir P. Gupta, Thomas O. Nelson, Jeffrey W. Portzer, José D. Figueroa; Paper 67	HSE Screening Risk Assessment for Geologic CO2 Storage Sites; Curtis M. Oldenburg; Paper 96	Design of a CO2 Geological Sequestration Pilot Project in Basalt Formations of North Western India; Balesh Kumar, K. Prasad Saripalli, and Prasad Saripalli, Ph.D., P.E; Paper 220	Combined Power Generation and Carbon Sequestration Using Direct FuelCell ; Hossein Ghezel-Ayagh, Robert Sanderson, Dilip Patel, and Mohammad Farooque; Paper 173	Enhancing Soil Humification: Laboratory Studies with a Model System; JE Amonette, J Kim, CT Garten, Jr., CC Trettin, RS Arvidson, and A Luttg; Paper 219
11:10	Novel Lithium Silicate-based Sorbents for High Temperature Carbon Dioxide Removal; Weijiong Li, Brian S. Turk, Santosh K. Gangwal, Thomas O. Nelson, Raghbir P. Gupta; Paper 51	The impact of a well bore failure during CO2 sequestration operation ; Rajesh Pawar, Hans Ziock, and George Zvoloski; Paper 212	Geochemical effects of CO2 sequestration in sandstones under simulated in-situ conditions; Marcus Wigand, Hartmut Schütt, Erik Spangenberg; Paper 121	Elaboration of Zero Emissions Membrane Piston Engine System (ZEMPES) for Propane Fuelling; Shokotov M., McGovern J., Bolton, Shokotov V., Foy K., Yantovski E.; Paper 109	Advanced Genetic Studies Seek to Enhance Carbon Sequestration in Plants and Soils; Wullscheleger; Paper 246
11:30	Enzymatically Driven, Cost-Efficient, Capture of Flue Gas CO2; Michael C. Trachtenberg, Lihong Bao, David A. Smith, Stefanie L. Goldman, Xioqiu Wu; Paper 127	Degradation of Well Cements Exposed to Carbonated Brine; Andrew Duguid, Mileva Radonjic and George Scherer; Paper 186	Tests of In-Situ CO2-Water-Rock Reactions During Carbon Dioxide Injections in Basaltic Rocks: Toward permanent sequestration of CO2; Juerg M. Matter, David S Goldberg, Taro Takahashi; Paper 91	Design and Evaluation of Ionic Liquids as Novel CO2 Absorbents for Sequestration; Edward J. Maginn, Joan F. Brennecke, JaNeille K. Dixon, Jessica L. Anderson and Haizhong Zhang; Paper 209	In Field Soil Carbon Determination Using A Noninvasive INS Method In Comparison With Conventional Soil Core And Excavations; Lucian Wielopolski, Sudeep Mitra, George Hendrey, Ram Oren, and Kurt Johnsen; Paper 56
11:50	CO2 Capture Utilizing Solid Sorbents; Ranjani Siriwardane and Edward Fisher; Paper 192	Mitigation strategies for the risk of CO2 migration through wellbores ; V. Barlet, TS Ramakrishnan, B. Goffé, K. Bennaceur, M. Supp, and E. Nelson; Paper 151	Mineral Trapping of CO2 with H2S and SO2 in Sandstone-Shale Formation; Tianfu Xu, John A. Apps, Karsten Pruess and Hajime Yamamoto; Paper 118	Novel Polymeric-Metallic Composite Membranes for CO2 Separations at Elevated Temperatures; K.A. Berchtold, J.S. Young, A.R. Greenberg, V. Khare, E.S. Peterson, J.R. Klaehn, J. Acquaviva, F. Onorato, S.D. Hopkins; Paper 116	Modeling soil carbon sequestration as affected by long-term management and water erosion; Izaurrealde, RC, JR Williams, WM Post, AM Thomson, WB McGill, LB Owens, and R Lal; Paper 247
12:10	Feasibility Test for CO2 Capture by Dry sorbents in Two Fluidized Bed Reactors; Chang Keun Yi, S.H. Jo, Y.W. Seo, S.D. Park, K.H. Moon, J.S. Yoo, J.B. Lee, C.K. Ryu; Paper 103	Modeling Critical Leakage Pathways in a Risk Assessment Framework: Representation of Abandoned Wells; M.A. Celia, S. Bachu, J. Nordbotten, D. Kavetski, S. Gasda; Paper 115		New Soluble N-Substituted Polybenzimidazoles by Post-Polymerization Modification ; John R. Klaehn, Thomas A. Luther, Christopher J. Orme, Michael G. Jones, Alan K. Wertsching, and Eric S. Peterson, Jennifer S. Young, Kathryn A. Berchtold, Alan R. Greenberg, Vivek Khare, Jim Acquaviva, Frank Onorato, Scott Hopkins, and Pall Corporation; Paper 199	Opportunities and Challenges of Sequestering Carbon in the Terrestrial Ecosystems of the Midwestern Region; R. Lal, L. Biehl, S. Duiker, P. Grace, W. McFee, B. Needleman, X. Niu, P. Robertson, M. Sperow, Z. Tan; Paper 60
12:30	LUNCH				

WED	16	17	18	19	20
Subtopic	Capture - Feasibility Studies	Geologic Sequestration (3)	Advanced Conversion/ Capture Concepts	Geologic - Coal Seams (1)	Terrestrial - Science, Technology, & Economics (2)
Session Chair(s)	Timothy Fout U. S. DOE - NETL	Charryl Berger Los Alamos National Laboratory	Rich Walters U.S. DOE, Albany Research Center	David Hyman U. S. DOE - NETL	F. Blaine Metting, Pacific Northwest National Laboratory Charles Rice, University of Kansas
Room	Walnut	Plaza C Ballroom	Plaza A Ballroom	Plaza B Ballroom	Beech
1:30	A new 'capture ready' power plant project in Saskatchewan; Max Ball, Bob Stobbs, Larry Ward, Jon Gibbins and Malcolm Wilson ; Paper 218	Deep Saline Reservoirs as a Carbon Sequestration Target in the Illinois Basin; H. E. Leetaru, S. C. Rittenhouse, S. M. Frailey, D. A. Keefer, D. G. Morse, R. J. Finley and J. H. McBride; Paper 178	Exploring the Potential to Enhance Aqueous Olivine Carbonation Reactivity, while Avoiding the Cost of Mineral Pretreatment Activation ; Michael J. McKelvy, Andrew V.G. Chizmeshya, Kyle Squires, Kringan Saha, Hamdallah Béarat, Firas Alawneh, R.W. Carpenter, and Youngchul Kim ; Paper 83	Opportunities and Constraints on Carbon Dioxide Sequestration and Enhanced Coalbed Methane Recovery in coal in British Columbia ; Barry Ryan, Dave Richardson, and Dave Hughes; Paper 182	Terrestrial carbon pools in southeast and south-central United States: State level inventories, potentials, and economic impacts ; Fengxiang X. Han, M. John Plodinec, Yi Su, and David L. Monts ; Paper 153
1:50	Conceptual Design of a Fossil Hydrogen Infrastructure with Capture and Sequestration of Carbon Dioxide: Case Study in Ohio; Joan Ogden, Ph.D., Nils Johnson, Christopher Yang, Jason Ni, José Figueroa; Paper 31	Reactive transport modeling using Toughreact of the long term CO2 storage at Sleipner, North Sea; P. Audigane, I. Gaus, K. Pruess , T. Xu; Paper 101	Accelerated cation release during non-steady state dissolution of Mg-silicates: Implications for mine tailings and sequestration of CO2 ; James Thom, Greg Dipple; Paper 29	Geologic CO2 Sequestration Potential of Coal deposits in the Northern Great Plains; Dr. Charles R. Nelson; Paper 49	West Coast Partnership: Opportunities for Reducing Emissions by Managing Forest Fuel Loads ; John Kadyszewski, Aaron Dushku, Sandra Brown, Sean Grimland, and Tim Pearson; Paper 224
2:10	A Zero-Emission Multi-Fuel Power Plant Demonstration Facility With Carbon Capture and Sequestration Capabilities; R. Anderson, S. Doyle, B. Griffin, K. Pronske, and F. Viteri; Paper 172	Uncertainty in carbon dioxide sequestration capacity estimates in saline aquifers using geochemical models; Douglas E Allen, Brian Strazisar, Yee Soong, Sheila Hedges, Bob Dilmore, PJ Pique; Paper 76	Carbon Dioxide Sequestration in Cement Kiln Dust; Deborah N. Beach, John S. Gierke, and Jennifer Numrich; Paper 99	The Coal-Seq II Consortium: Advancing the Science of CO2 Sequestration in Deep, Unmineable Coalseams; Scott R. Reeves; Paper 82	Methods to Simulate Terrestrial Carbon Sequestration Activities: from Process Models to Economics; Ronald D. Sands, Cesar Izaurralde, Bruce A. McCarl; Paper 25
2:30	Summary of Phase I Capture and Separation Activities of the Regional Carbon Sequestration Partnerships Program; José Figueroa, Neeraj Gupta, Dennis Leppin, Mark Musich, John Plodinec, Massoud Rostam-Abadi, John Ruby, David Shropshire ; Paper 104	Effective Use of Brines for Biomimetic CO2 Sequestration; G M Bond, S Date, N Liu, Teri Dunn, T Villanova, C Hockensmith, J Stringer, B J McPherson; Paper 86	Sequestration of CO2 in Combustion Byproduct-Augmented Brine Solutions; R M. Dilmore, Y. Soong, S. W. Hedges, and P.J. Pique; Paper 185	The Low Cost of Geological Assessment: Policy and Economic Implications for Underground CO2 Storage; Julio Friedmann and James J. Dooley; Paper 191 (NOT PRESENTED)	Geologic - Monitoring, Mitigation, & Verifi. (2) John Litynski, DOE - NETL Feasibility of seismic monitoring of CO2 sequestration in the deep formations in the Ohio River Valley Region; Haibin Xu, Ben Flack, Richard Salter, and Randal Utech, Neeraj Gupta, T.S.Ramakrishnan and Austin Boyd; Paper 133
2:50	Alstom's Development of Advanced CFB Based CO2 Mitigation Technologies ; David G. Turek, Gregory N. Liljedahl, Nsakala ya Nsakala, and Herbert E. Andrus; Paper 208	"CASTOR" - CO2 from Capture to Storage - An innovative European Integrated Project; P. Le Thiez, T.A. Torp, P. Feron, P. Zweigel, E. Lindeberg; Paper 204	Material Resource Considerations for Ex Situ Carbon Sequestration; S. J. Gerdemann, D. C. Dahlin, W. K. O'Connor, L. R. Penner, and H. Rush; Paper 125		Instrumentation of Deep Monitoring Well at the Penn West CO2-EOR Pilot; Rick Chalaturnyk, Gord Wichert, Bill Gunter, Don Lawton and Stefan Bachu; Paper 222
3:10	COFFEE BREAK				

WED	21	22	23	24	25
Subtopic	Geologic - Coal Seams (2)	Sequestration Policy and Feasibility Studies (3)	Geologic Sequestration (4)	Geologic - Monitoring, Mitigation, and Verification (3)	Ocean Sequestration
Session Chair(s)	Tony Kavscek Stanford University	Jared Ciferno U. S. DOE - NETL	Geo Richards U. S. DOE - NETL	Sarah Forbes U. S. DOE - NETL	Heino Beckett U. S. DOE - NETL
Room	Walnut	Plaza C Ballroom	Plaza A Ballroom	Plaza B Ballrom	Beech
3:40	Effects of Gas-Induced Shrinkage and Swelling on Economics for Sequestration of CO2 in Coal Seams; Grant S. Bromhal, F. Burcu Gorucu, Sinisha Jikich, W. Neal Sams, Turgay Ertekin, Duane H. Smith; Paper 90	Identifying Cost-Effective CO2 Control Levels for Coal-Fired Power Plant; Anand B. Rao, Chao Chen and Edward S. Rubin; Paper 137	The In Salah CO2 Storage Assurance Project: Report on Year 1; Mohammed Keddam, Pal Ingsøy, Iain Wright; Paper 112	Numerical analysis of plume evolution patterns using two different equations in a CO2 Pilot injection test area ; Weon Shik Han, Brian J.O.L. McPherson, Rajesh Pawar, Jason Heath; Paper 20	Progress In Carrying Out Ocean CO2 Perturbation Experiments; Peter G. Brewer, Edward T. Peltzer; Paper 238
4:00	Heterogeneous Permeability in Appalachian Coal: Implications for Carbon Sequestration and Enhanced Coalbed Methane Recovery; Jack C. Pashin, Richard E. Carroll, J. Matthew Conrad, Michael J. Miller, Michael T. Karmis, Nino Ripepi ; Paper 132	Regional Differences in CO2 Capture and Storage Potential and Economics: an Integrated Modeling Analysis of CO2 Sources and Reservoirs for three Key Electric Power Regions; MA Wise, RT Dahowski, JJ Dooley, CL Davidson; Paper 45	CO2 Capture Project – Phase 2: Breaking the technology mold; Gardiner Hill & Linda Curran; Paper 78	PFLOTRAN: Massively Parallel 3-D Simulator for CO2 Sequestration in Geologic Media; Chuan Lu and Peter Lichtner; Paper 40	Mass Transfer from CO2 Drops and the Apparent Solubility of CO2 under Deep-Ocean Conditions; Yi Zhanga, Ronald J. Lynnb, Gerald D. Holderc and Robert P. Warzinski; Paper 190
4:20	Measurement and Modeling of Sorption-Induced Coal Strain; Eric P. Robertson and Richard Christiansen; Paper 196	Models of CO2 Transport and Storage Costs and Their Importance in CCS Cost Estimates; Sean T. McCoy and Edward S. Rubin; Paper 92	Analysis of In-Situ Stress Regime in the Alberta Basin, Canada, for Performance Assessment of CO2 Geological Sequestration Sites ; Christopher D. Hawkes, Stefan Bachu, Kristine Haug, and Osman H. Ahmed; Paper 202	Assessment of Potential Well Leakage in the Weyburn Site Using a Stochastic Approach; W. Zhou, M. Stenhouse, and R. Arthur; Paper 53	Numerical Simulation of Mortality of Zooplankton Caused by Direct Injection of Carbon Dioxide in the Ocean; Toru Sato, Yuji Watanabe and Koji Toyota; Paper 198
4:40	Laboratory Investigation of Coalbed Methane Recovery by Gas Injection; G.-Q. Tang, W. Lin, and A. R. Kavscek; Paper 179	Coupling CO2 Capture and Storage with Coal Gasification: Defining “Sequestration-Ready” IGCC; Jennie C. Stephens; Paper 144	Impact of Flowing Formation Water on Residual CO2 Saturations in Deep Aquifers; P.H.Stauffer, R. Pawar, H.S. Viswanathan; Paper 84	Analysis of 30-year CO2-Brine interaction with a West Texas oil-well completion; J. William Carey, Scott Wehner, Michael Hirl, Michael Raines, Rajesh Pawar George Guthrie Jr.; Paper 241	CO2-in-Water Globulsion Stabilized by Pulverized Limestone for Benign Ocean Storage; D. Golomb, E. Barry, D. Ryan, C. Lawton, P. Swett, R. Warzinski, R. Lynn; Paper 206
5:00		CO2 for Enhanced Oil Recovery Needs Enhanced Incentives; J. Michael Austell, Michael E. Moore, Dr. Carl-W. Hustad; Paper 72	Carbon Dioxide Sequestration in Saline Aquifers: Evaporation, Precipitation and Compressibility Effects; Mohammad Piri, Jean H. Prevost, and Richard Fuller; Paper 149	Geologic - Frio Brine Field Project (3) Susan Hovorka, Bureau of Econ. Geology, Univ. of Texas at Austin Sally Benson, LBNL Integrated work for measuring, monitoring, and verifying CO2 distribution; Shinichi Sakurai, Nadja Mueller, T. S. Ramakrishnan, Austin Boyd, Tom Daley, Mike Hoversten; Paper 21	Optimum CO2 sequestration using Ocean Nourishment; Ian S F Jones and Mohammednoor Altarawneh; Paper 235
5:20		National Gasification Strategy for Energy Independence & Carbon Progress; William G. Rosenberg and Michael R. Walker; Paper 200 (NOT PRESENTED)	Numerical Simulations of CO2 Injection in the Altmark Natural Gas Field, Germany; D. Rebscher, F. May, C.M. Oldenburg, Bundesanstalt für Geowissenschaften und Rohstoffe (BGR); Paper 35	Preliminary Reactive Transport Modeling and Laboratory Experiments Conducted in Support of the Frio Pilot Test; Kevin G. Knauss , James W. Johnson, Yousif K. Kharaka; Paper 27	Field Studies of CO2/Water Coflow Injection for Ocean Carbon Sequestration; Costas Tsouris, David Riestenberg, Peter Brewer, Edward Peltzer, Peter Walz, Aaron Chow, Eric Adams; Paper 1
5:40		Technological options for CO2 capture in India; R.R.Sonde; Paper 171 (NOT PRESENTED)	Comparison of Ion Transport Membranes; Kirsten Foy, Jim McGovern; Paper 111	Lessons Learned and Questions Restated as a Result of the Frio Brine Pilot ; Susan D. Hovorka, Sally Benson, Larry Myer; Paper 230	Simulation of Sinking CO2 Hydrate Composite Plumes; Eric Adams, Aaron Chow , Costas Tsouris; Paper 108

POSTER SESSIONS

GROUP I

DETERMINATION OF THE
CONTRIBUTION OF NATURAL
SINKS/PROCESSES OF CARBON
SEQUESTRATION & CAPTURE

EDUCATION AND OUTREACH

INTERNATIONAL INITIATIVES
AND PROGRAMS

RISK ASSESSMENT

SEPARATION AND CAPTURE

TECHNOLOGY/SYSTEMS FOR THE
MEASUREMENT, MONITORING AND
VERIFICATION OF CARBON EMISSIONS

SEQUESTRATION OF CARBON
EMISSIONS IN GEOLOGIC FORMATIONS

GROUP II

ADVANCED CONVERSION/
CAPTURE CONCEPTS

ENHANCING NATURAL SINKS/
TERRESTRIAL SEQUESTRATION

MODELING AND ASSESSMENT

OCEAN SEQUESTRATION

SEPARATION AND CAPTURE

TECHNOLOGY/SYSTEMS FOR THE
MEASUREMENT, MONITORING AND
VERIFICATION OF CARBON EMISSIONS

TERRESTRIAL SEQUESTRATION

SEQUESTRATION OF CARBON
EMISSIONS IN GEOLOGIC FORMATIONS

TUES GROUP I	1	2	3	4	5
Subtopic	Determination of the Contribution of Natural Sinks/Processes of Carbon Sequestration & Capture	Education and Outreach	International Initiatives and Programs	Risk Assessment	Separation and Capture
	Spatial and Temporal Variations of SOC in Reclaimed Minesoils; M. K. Shukla and R. Lal; #195 (NOT PRESENTED)	Audience-Pleasing Physical Models to Support CO2 Outreach; Susan D. Hovorka, Roberta Hotinski, Samuel J. Friedmann; #232	Carbon sequestration through reforestation projects in China and Argentina: a multiple benefit approach; Lucia Perugini*; Riccardo Valentini; Antonio Lumericisi; #167	Societal Attitudes To Clean Coal Energy– An Exercise In Knitting Fog; Anna Littleboy, Peta Ashworth, Ann Pisarski, Simon Niemeyer, Margaret Gooch and Naomi Boughen; #229	CO2 Capture by Formation of Hydrates – Economic Analysis and New Promoter Process; S.S. Tam, Gordon Deppe, R.P. Currier, and D.F. Spencer; #50 (UNAVAILABLE)
					The Design of Metal Organic Frameworks for the Separation of Carbon Dioxide from Flue Gas and Gasification Streams; John J. Low, Randall Snurr, Omar Yaghi; #234
					Carbon Dioxide Capture And Separation Techniques For Power Generation Point Sources; Henry Pennline*, McMahan Gray, James Hoffman, Kenneth Jones, David Luebke, Ranjani Siriwardane, and James Yeh; Poster 1
	6	7			
Subtopic	Technology/Systems for the Measurement, Monitoring and Verification of Carbon Emissions	Sequestration of Carbon Emissions in Geologic Formations			
	GIS Knowledge Integration for Carbon Sequestration: the Cyberinfrastructure Approach; G.N. Keating, P.M. Rich, M.S. Witkowski, and H.S.Viswanathan; #28	Two micron continuous wave laser for optical detection of carbon dioxide; Kevin S. Repasky, Christopher Melton, John L. Carlsten, Joseph A. Shaw, and Lee Spangler; #0	A first-order assessment of potential CO2 storage capacity in U.S. basalt formations Casie L Davidson, H Todd Schaefer, Robert T Dahowski; #10	The U-Tube: A Novel System for Sampling and Analyzing Multi-phase Borehole Fluid Samples during the Frio Brine Pilot Test; Barry M. Freifeld, Robert C. Trautz, Yousif K. Kharaka, Tommy J. Phelps, Larry R. Myer, Susan D. Hovorka, and Daniel J. Collins; #37	CO2/Brine/Carbonate Rock Interactions: Dissolution and Precipitation; Reid B. Grigg and Robert K. Svec, Peter C. Lichtner and William Carey, and Charles E. Lesher; #47
	NATCARB carbon cyberinfrastructure: A Federation of Distributed Resources and Distributed Multidisciplinary Expertise; J. D. Bartley; Timothy R. Carr; Asif Iqbal; Melissa Moore; Kurt Look; and Kenneth Nelson; #57(2)	Findings of Storage Potential Assessment in Deep Saline Formations in the Ohio River Valley Region; Neeraj Gupta, P. Jagucki, J. J. Dooley, M. J. Mudd, and C. W. Byrer; #6	The SECARB Stacked Storage Project; Ian Duncan Ph.D , Alan Lee Brown Ph.D.; #13 (UNAVAILABLE)	Reservoir geology of the Morrow Formation, eastern Colorado and western Kansas: implications for CO2 sequestration and EOR; David W. Bowen; #39	Aerometric Measurement of CO2 flux from Crystal Geyser, UT: Implications for Health, Safety, and Environmental Consequences of CO2 Leakage for a deep storage site; Frank Gouveia; #54
	Application of the API Compendium and SANGEATM Software to Geologic Sequestration Projects; Steven Crookshank, Susann Nordrum, Mahesh Gundappa, Terri Shires; #69 (UNAVAILABLE)	Sequestration in Carbonate Aquifers: Rock and Brine Alterations during Super-Critical CO2 Injection in San Andres Formation, West Texas; Gloria S. Garcia, L.P. Snyder, Necip Guven, Lorne A. Davis ; #7	Enhanced Gas Hydrate Recovery with CO2 Sequestration; H. Todd Schaefer, B. Peter McGrail, Antoinette T. Owen, Bob Hunter, and Tao Zhu; #15 (UNAVAILABLE)	Numerical simulation of CO2 injection and sequestration in saline and hydrate bearing aquifers; M. D. White, B. P. McGrail; #42 (UNAVAILABLE)	Basinwide Implications of Large CO2 Injected Volumes into Deep Saline Formations; Scott M. Frailey, Hannes Leetaru, Ed Mehnert, Mark A. Person and Victor Bense; #63
	UK Works on CCS and the EU ETS; Tim Dixon; #140	2-D Numerical Modeling of a Fault Zone Leaking Carbon Dioxide in East Central Utah and Implications for MMV Protocols; B.J. McPherson, J. Heath, and W Han; #8	The Stability of Dawsonite; John P. Kaszuba, J. William Carey, Dale Counce; #23 (UNAVAILABLE)	Deep Basalt Formations: A Reactive Reservoir for Permanent Carbon Dioxide Storage; B. Peter McGrail, H. Todd Schaefer, and Frank A. Spane; #44 (UNAVAILABLE)	Studies of Carbon Dioxide Sorption on Argonne Premium Coals via Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy; Ryan N. Favors, Megan M. Hill, Angela L. Goodman, and John W. Larsen; #158 (UNAVAILABLE)

WED GROUP II	8	9	10	11	12
Subtopic	Advanced Conversion/Capture Concepts	Enhancing Natural Sinks/Terrestrial Sequestration	Modeling and Assessment	Ocean Sequestration	Separation and Capture
	Carbon Dioxide Sequestration Potential of Calcifying Cyanobacteria; Brady D. Lee, William A. Apel and Michelle R. Walton; #157	Forestry and Agriculture Greenhouse Gas Modeling Forum: Improving Representation of Terrestrial Sequestration in U.S. and Canadian Biophysical and Economic Models; Kenneth Andrasko, Steven Rose, Ralph Alig, Jan Lewandrowski, Robert MacGregor, Brian Murray; #34 (NOT PRESENTED)	Opportunities for Low-Cost CO2 Capture and Storage Demonstration Projects in China; Kyle Meng, Michael Celia, Robert H. Williams; #226	Advanced technology for assessing the effects of CO2 sequestration on deep-sea organisms: A seafloor respiration system and a hyperbaric fish-trap respirometer; Barry, JP, Buck, KR, Drazen, J, Okuda, C., Levesque, C., Risi, M., Parker, M., Bird, L.; #16	Comparative study of the factors affecting CO2 adsorption on coals; Vyacheslav Romanov (presenter), Ph.D., Angela Goodman, Ph.D., Yee Soong, Ph.D.; Poster 4 (UNAVAILABLE)
	Accelerated Carbonation of Contaminated Land and Waste Residues as a Contribution to Carbon Sequestration; S.J.R. Simons, M. Fernández Bertos, C.D. Hills and P. Carey; #205	Assessing carbon sequestration in a northern deciduous forest of Michigan, USA, 1999-2003; C.M. Gough, C.S. Vogel, H.P. Schmid, H-B. Su, P.S. Curtis; #75	Improvement on reflectance based carbon estimation models; S. Chod Stephens, V. Phil Rasmussen, R. Douglas Ramsey, Ralph E. Whitesides, Gregory S. Searle, Robert L. Newhall; #14	Formation And Dissolution Of Co2 Hydrate Composite Particles In A High-Pressure Water Tunnel Facility; Robert P. Warzinski, Ronald J. Lynn, David E. Riestenberg, Jorge Gabitto, Costas Tsouris; #85(1)	Sequestration potential in Illinois Basin coal beds: Facts and uncertainties Agnieszka Drobniak, Christopher Korose, Maria Mastalerz, Thomas R. Moore, John Rupp; Poster 5
		Measuring Soil Carbon and Nitrogen Using Laser-Induced Breakdown Spectroscopy (LIBS); Ronny D. Harris, Michael H. Ebinger, Clifton W. Meyer and David A. Cremers; Poster 3	A Spatially Explicit Assessment of Carbon Sequestration Potential in the Southwest Carbon Partnership Region; Robert Blaisdell, Joel Brown, Jay Angerer, Jerry Stuth; #30		Southwest Regional Partnership on Carbon Sequestration: A Test Case Model in the San Juan Basin; David Borne, Peter Kobos, Len Malczynski and Orman Paananen; #155
			A Potential Role for "Slipstream" H2 from Coal IGCC with CO2 Capture and Storage in an Emerging H2 Economy for Transportation; Thomas G. Kreutz; #2 (UNAVAILABLE)		Amino-acid salts for CO2 capture from flue gases; J.P. Brouwer, P.H.M. Feron, N.A.M. ten Asbroek; #147
	13	14	15		
Subtopic	Technology/Systems for the Measurement, Monitoring and Verification of Carbon Emissions	Terrestrial Sequestration	Sequestration of Carbon Emissions in Geologic Formations		
	A promising remote sensing approach for mapping ecosystem carbon sequestration; Abdullah F. Rahman and Daniel A. Sims; #156	Effects of nitrogen fertilization and crop rotation on soil carbon and nitrogen dynamics on a silt loam soil in west central Illinois; Sindhu Jagadamma, Rattan Lal, Robert G. Hoeft, Eric A. Adee; #136 (NOT PRESENTED)	CO2 Sequestration and Enhanced Oil Recovery Potential in Illinois Basin Oil Reservoirs; Rex Knepp, Damon Garner, Scott M. Frailey, Beverly Seyler, John Grube, Don Keefer, and Sarah Rittenhouse; #65	Mapping and Characterization for Geologic Sequestration by the Midwest Regional Carbon Sequestration Partnership (MRCSP); Wickstrom, Lawrence H., Erik R. Venter, John A. Rupp, Stephen F. Greb, Gerald R. Baum, William B. Harrison, Kristin M. Carter Michael E Hohn; #98 (UNAVAILABLE)	Comparison of Gas Flux And Soil Gas Composition at Two Oil Fields: Rangely, Colorado With CO2-EOR, and Teapot Dome, Wyoming at Baseline Condition; Ronald W. Klusman; #197 (NOT PRESENTED)
	Airborne VHF Radar for the Remote Sensing of Biomass and Carbon; Patrick W. Johnson; #203 (UNAVAILABLE)	Chemical and thermal oxidation procedures for routine determination of coal carbon in the reclaimed mined soils; D.A.N. Ussiri and R. Lal; #141 (NOT PRESENTED)	Identification of Favorable Reservoir Properties for CO2 Sequestration and Enhanced Coalbed Methane Production in the Illinois Basin; Andrew Anderson, Thomas R. Moore, Scott M. Frailey, John A. Rupp, Cortland F. Eble; #66	CO2 Sequestration and Leakage Calculation using Enhanced Coalbed Methane Recovery Simulator; Yuki Funahashi, Sohei Shimada, Koji Yamamoto, Osamu Kitamura; #114 (UNAVAILABLE)	Stability, Reactivity, and Crystal Structure of Na-K Dawsonite; J. William Carey, Ren-Guan Duan, Steve Chipera, Rahul Dastidar; #242
		Increased Plant Productivity in Coal Spoil-Amended Soils; J.E. Fessenden-Rahn, M.H. Ebinger, and P.J. Unkefer; #244 (NOT PRESENTED)	An Inexpensive and Safe CO2 Capture and Storage Option Using Water Co-Produced with Oil; Greg H. Rau, Kevin Knauss, Ken Caldeira, Julio Friedmann; #71	Horizontal Well for ECBM Recovery and CO2 Storage in Unminable Thin Seams: Pure CO2 vs CO2 Enriched Flue Gas; Sevet Durucan and Ji-Quan Shi; #143 (UNAVAILABLE)	Cavity Ringdown in MMV Technologies for Carbon Sequestration; Chuji Wang, Susan T. Scherrer, M. John Plodinec, and Jeff Lindner; #183
			Estimating CO2 sequestration capacity in aquifers and oil fields of the PCOR Partnership Region; Steven A. Smith, James A. Sorensen, Erin O'Leary, Edward N. Steadman, and John A. Harju; #94 (UNAVAILABLE)	CO2 Sequestration in Gas Shales of Kentucky; Brandon C. Nuttall, James A. Drahovzal, Cortland F. Eble, and R. Marc Bustin; #165	Pre-CO2 Injection Reservoir Assessment, Naval Petroleum Reserve No. 3, Natrona County, Wyoming; Kristin Dennen, William Burns, Robert Burruss, Kendra Hatcher; #106
			Pore-scale studies of CO2 sequestration in geologic formations; Qinjun Kang and Peter C. Lichtner; #97	History Matching of the Allison Unit CO2-ECBM Pilot and Albert Flue Gas Injection Micro-Pilot Test: Validation and Application of a Dynamic Permeability Model; Ji-Quan Shi and Sevet Durucan; #194	Development of an empirical model to assess the CO2-ECBM potential of a poorly explored basin; Ben Laenen and Alexandra Hildenbrand; #221