

University of Texas 2nd Conference on Carbon Capture and Storage (UTCCS-2)
A Technical Conference on CCS
Pickle Research Campus, Commons Learning Center, The University of Texas at Austin

Tuesday, January 28, 2014

8:00am	Welcome and Keynote (1.102)			
	<i>Welcome</i> Gary Rochelle, Texas Carbon Management Program (UT-TxCMP) Susan Hovorka, Gulf Coast Carbon Center (UT-GCCC) Steven Bryant, Geological CO ₂ Storage Joint Industry Project (UT-GCS JIP) Howard Herzog, Carbon Sequestration Initiative (MIT-CSI)			
	Julio Friedmann (Deputy Assistant Secretary for Clean Coal, US DOE): <i>A decade of projects: CCS to 2022</i>			
9:00	Technical Session #1			
	UT-TxCMP (1.102)	MIT-CSI (1.122)		UT-TxCMP (1.138)
	<i>Amine scrubbing: thermo, rates & solvents</i>	<i>Analyzing Large-Scale CCS Projects – Reasons for Success and Failure</i>		<i>No session</i>
	Lynn Li (UT Austin): <i>Rate measurement with blends</i>	Howard Herzog (MIT)		
	Yang Du (UT Austin): <i>AEP/PZ</i>	Wilfried Maas (Shell)		
	Cristina Perinu, Telemark: <i>NMR speciation</i>	Julio Friedmann (US DOE)		
10:30	Break			
11:00	Technical Session #2			
	UT-TxCMP (1.102)	UT-GCCC (1.108)	MIT-CSI (1.122)	UT-TxCMP (1.138)
	<i>Amine scrubbing: thermo, rates & solvents</i>	<i>Capacity Estimation</i>	<i>Status of Microalgae and Algal Biofuels</i>	<i>No session</i>
	H. Svensson (Lund U): <i>Amine /organic solvent</i>	David Carr (UT Austin): <i>Overview of capacity estimation</i>	John Benemann (MicroBio Engineering)	
	Koteswara Rao Putta (NTNU): <i>MEA rate interpretation</i>	Seyyed Hosseini (UT Austin): <i>Improving capacity assessment: Progress update of EASiTool</i>	Mathias Mostertz (Linde Innovation Management)	
	Mengxiang Fang (Zhejiang U): <i>Ammonia developments</i>	Seunghee Kim (UT Austin): <i>Pore pressure/stress coupling during fluid injection and its implications on CO₂ geological storage</i>	Discussion	

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12:30pm	Lunch in Atrium			
1:30	Technical Session #3			
	UT-TxCMP (1.102)	UT-GCCC (1.108)	MIT-CSI (1.122)	UT-TxCMP (1.138)
	<i>Amine scrubbing: Solvent Management I</i>	<i>Unconventional EOR and Knowledge Sharing</i>	<i>CCS in Europe</i>	<i>No session</i>
	Paul Nielsen (UT Austin): <i>Pilot plant degradation</i>	Vanessa Nuñez-Lopez (UT Austin): <i>Overview and Unconventional EOR Atlas</i>	David Reiner (U Cambridge, UKCCSRC)	
	William Mitch (Stanford U): <i>Nitrosamine formation</i>	Logan West (UT Austin): <i>Investigation of the origin and extent of residual oil zones in the Permian Basin</i>	John Gale (IEAGHG)	
	Nathan Fine (UT Austin): <i>Nitrosamine</i>	Juli Berwald (Gulf Coast Carbon Center): <i>Overview of knowledge sharing</i>		
		Ramón Treviño (UT Austin): <i>Short summaries of papers from the IJGGC journal Cranfield special issue</i>		
3:00	Break			
3:30	Technical Session #4			
	UT-TxCMP (1.102)	UT-GCCC (1.108)	MIT-CSI (1.122)	UT-TxCMP (1.138)
	<i>Amine Scrubbing: Solvent Management II</i>	<i>Monitoring Methods Optimization</i>	<i>Project Updates</i>	<i>No session</i>
	Steven Fulk (UT Austin): <i>Aerosols</i>	Changbing Yang (UT Austin): <i>Overview</i>	Olav Falk-Pedersen (Technology Center Mongstad)	
	Jesse G. Thompson (U Kentucky): <i>Aerosol controls</i>	Mike Patson (UTAustin): <i>Monitoring the transport of reactive dissolved gases</i>	Ming Sung (Clean Air Task Force)	
	Omkar Namjoshi (UT Austin): <i>Thermal degradation</i>	Katherine Romanak (UT Austin): <i>Activities and key outcomes from soil-gas monitoring research</i>		

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		Alex Sun (UT Austin): <i>Pressure-based monitoring design: A new DOE/NETL project</i>		
		Mehdi Zeidouni (UT Austin): <i>Monitorability of the Leakage-Induced Thermal Signal</i>		
5:00	Pre-Dinner Events: Reception and Offshore Storage Tour (hosted by UT-GCCC)			
	Reception in Atrium, 5:00-6:00			
	Offshore Storage Tour (hosted by UT-GCCC), meet at registration desk at 5:30pm for 30-minute tour			
6:00	Dinner in Atrium			
8:00	Adjourn			

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8:00am	Technical Session #5, Plenary (1.102)			
	Gary Rochelle (UT Austin): <i>The future of CO₂ capture</i>			
	Abhoyjit Bhowm (Electric Power Research Institute): <i>The future of advanced technologies for CO₂ capture</i>			
9:30	Break			
10:00	Technical Session #6			
	UT-TxCMP (1.102)	UT-GCCC and MIT-CSI (1.122) Joint Session		UT-TxCMP (1.138)
	<i>Amine Scrubbing: contactors</i>	<i>Subsea CO₂ Storage</i>		<i>Thermo and Rates</i>
	Hallvard Svendsen (NTNU): <i>Membrane contactor modeling</i>	Tip Meckel (UT Austin): <i>Role of Subsea Geological Carbon Storage in the U.S. and Worldwide</i>		Firoz Chowdhury (RITE): <i>Screening rates and capacity</i>
	Chao Wang (UT Austin): <i>Packing Characterization</i>	Sarah Forbes (World Resources Institute): <i>Environmental NGO perspective</i>		Bill Buschle (U Edinburgh): <i>CO₂ loading measurement</i>
	Yash Tamhankar (OK State U): <i>Spray characterization</i>	Olav R. Hansen (Statoil): <i>Operational experience in subsea CO₂ storage</i>		Aly O. Eltayeb (MIT): <i>Electrochemical regeneration</i>
	Di Song (UT Austin): <i>Liquid film coefficient</i>	Discussion		Shahla Gondal (NTNU): <i>N₂O solubility</i>
12:00pm	Lunch in Atrium (UT-GCCC sponsors please bring your lunch to the 1.210 Dining Room for a luncheon meeting)			
1:30	Technical Session #7			
	UT-TxCMP (1.102)	UT-GCCC (1.122)	UT-GCS JIP (1.108)	UT-TxCMP (1.138)
	<i>Amine Scrubbing Modeling</i>	<i>Analog Studies and Regulatory/Policy</i>	<i>Overview and Novel Storage Mechanisms</i>	<i>No Session</i>
	Peter Frailie (UT Austin): <i>System economics</i>	Becky Smyth (UT Austin): <i>Subseabed geologic carbon dioxide sequestration worldwide synthesis and best management practices</i>		Steve Bryant (UT Austin): <i>Overview of UT GCS JIP</i>
	Brent Sherman (UT Austin): <i>Modeling 2 m PZ/PZ</i>	Toti Larson (UT Austin): <i>Bravo Dome</i>		Bo Ren (UT Austin): <i>Novel storage mechanisms: Influence of injection rates on local capillary trapping</i>

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	J.R. Heberle (EPRI): <i>Generic modeling</i>	Jacob Anderson (UT Austin): <i>Methane migration as a proxy for CO₂ monitoring</i>	Yuhao Sun (UT Austin): <i>Novel storage mechanisms: experimental assessment of persistence of local capillary trapping</i>	
3:00	Break			
3:30	Technical Session #8			
	UT-TxCMP (1.102)	UT-GCS JIP (1.108)		UT-TxCMP (1.138)
	<i>Amine Scrubbing Modeling</i>	<i>Novel Storage Mechanisms</i>		<i>Amine Scrubbing: Thermo, Rates & Solvents</i>
	Darshan Sachde (UT Austin): <i>Absorber intercooling</i>	Yun Wu (UT Austin): <i>Novel storage mechanisms: Optimization of field-scale surface dissolution with thermoelastic constraints</i>		Jason Bara (U Alabama): <i>Imidazole-amine hybrid solvents</i>
	Yue Zhang (UT Austin): <i>Absorber performance with high CO₂</i>	Reza Ganjdanesh (UT Austin): <i>Novel storage mechanisms: Integrating storage in geothermal reservoirs with novel capture schemes</i>		Cameron Lippert (Ky CAER): <i>Rate promoters</i>
	Junyuan Ding (UT Austin): <i>Stripper with high CO₂</i>	Valentina Prigiobbe (UT Austin): <i>Novel storage mechanisms: Mechanism of heavy metal transport due to CO₂-saturated brine</i>		Duong Phan (Newcastle): <i>Inorganic Promoters</i>
	Ashleigh Cousins (CSIRO): <i>Pilot plant results</i>			
5:00	Pilot Plant Tours (hosted by UT-TxCMP)			
6:00	Adjourn			

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Thursday, January 30, 2014

8:00am	Technical Session #9		
	UT-TxCMP (1.102)	UT-GCS JIP (1.108)	UT-TxCMP (1.138)
	Amine Scrubbing Modeling	Storage Security	Amine Scrubbing: Solvent Management II
	Nina Enaasen (NTNU): <i>Absorption process dynamics</i>	Qing Tao (UT Austin): <i>Storage security: Effective permeabilities of real leaking wells and their implications for CO₂ containment</i>	Sara Badr (ETH Zurich): <i>Hazard and life cycle analysis</i>
	Matt Walters (UT Austin): <i>Dynamic modeling</i>	Nick Huerta (UT Austin): <i>Storage security: Evidence for self-sealing wellbore leakage pathways for CO₂-saturated brine</i>	Camille Gouedard (IFP): <i>MEA degradation</i>
	Yu-Jeng Lin (UT Austin): <i>Stripper configurations</i>	James Patterson, Mohammad Shafiei (UT Austin): <i>Storage security: Application of pH-triggered polymer gels for repairing leaking wells</i>	Kent Fischer (UT Austin): <i>Metals removal</i>
9:30	Break		
10:00	Technical Session #10		
	UT-TxCMP (1.102)	UT-GCS JIP (1.108)	UT-TxCMP (1.138)
	Amine Scrubbing Modeling	Storage Efficiency	Amine Scrubbing: Solvent Management
	Maria Sanchez del Rio (U Edinburgh): <i>Capture for coal with supply gas</i>	Roy Wung (UT Austin): <i>Storage efficiency: Influence of surface treated nanoparticles on storage efficiency of CO₂ injected into brine reservoirs</i>	Daniel Hatchell (UT Austin): <i>Thermal degradation of linear diamines</i>
	Debangsu Bhattacharyya (W Virginia U): <i>UQ with MEA</i>	Archawin Aroonsri (UT Austin): <i>Storage efficiency: Stabilizing CO₂ foams in fractured reservoirs for increased sweep efficiency</i>	Hanbi Liu (UT Austin): <i>Oxidative degradation of linear diamines</i>
	Brice Freeman (MTR): <i>Hybrid amine/membrane process</i>	Abraham Frei-Pearson (UT Austin): <i>Storage efficiency: Resource utilization and achievable storage rates for large-scale sequestration</i>	
11:30	Lunch in Atrium		
12:30pm	Technical Session #11		
	UT-TxCMP (1.102)	UT-GCS JIP (1.108)	UT-TxCMP (1.138)
	Amine scrubbing: Pilot plants and modeling	Storage Security	No session

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	Jozsef Gaspar (Tech U Denmark): <i>CAPCO2 rate modeling</i>	Sayantana Bhowmik (UT Austin): <i>Storage security: Plume monitoring by combining pressure/rate data with surface deflection measurements</i>	
	Betty Pun (Chevron): <i>CCP phase 3</i>	Jake Taylor (UT Austin): <i>Storage security: Constraints on propagation distance for injection-induced fractures from CO₂ injectors</i>	
	Nick Booth (EON): <i>Octavius</i>	Hariharan Ramachandran (UT Austin): <i>Storage security: Effect of phase changes on leakage rates of stored CO₂</i>	
2:00	Break		
2:30	Technical Session #12		
	UT-TxCMP (1.102)		UT-TxCMP (1.138)
	<i>Amine scrubbing: modeling</i>		<i>No session</i>
	Abhoyjit Bhowm (EPRI): <i>Impact of extracting steam</i>		
	Eric Chen (UT Austin): <i>PZ pilot plant</i>		
3:30	Adjourn		