



U.S. DEPARTMENT OF
ENERGY



Carbon Management and Oil and Gas Research Project Review Meeting Carbon Dioxide Removal Research Virtual Session Agenda

All times designated in Eastern Daylight Time

Wednesday, August 18, 2021

Moderator: Carl Laird

10:00 AM Plenary Presentation

Shuchi Talati, Chief of Staff for the Department of Energy's Office of Fossil Energy and Carbon Management

10:25 AM Carbon Dioxide Removal Overview

Dan Hancu, Carbon Capture Technology Manager, National Energy Technology Laboratory, U.S Department of Energy

10:55 AM Plenary Presentation

Douglas Wicks, Program Director, ARPA-E

11:20 AM Transformational Sorbent Materials for a Substantial Reduction in the Energy Requirement for Direct Air Capture of CO₂ (FE0031953)

Ravi Jain, InnoSeptra, LLC

11:45 AM Development of Novel Materials for Direct Air Capture of CO₂: MIL-101 (CR)-Amine Sorbents Evaluation Under Realistic Direct Air Capture Conditions (FE0031952)

Christopher Jones, Georgia Tech Research Corporation

12:10 PM BREAK

Moderator: Mariah Richardson

1:00 PM Development Of Advanced Solid Sorbents For Direct Air Capture (FE0031954)

Mustapha Soukri, Research Triangle Institute

1:25 PM Advanced Integrated Reticular Sorbent-Coated System to Capture CO₂ from the Atmosphere (AIR2CO₂) (FE0031956)

David Moore, General Electric Company and Omar Yaghi, University of California, Berkeley

1:50 PM Low Regeneration Temperature Sorbents for Direct Air Capture of CO₂ (FE0031965)

James Zhou, Susteon, Inc. and Maohong Fan, University of Wyoming

Driving Innovation & Delivering Solutions



U.S. DEPARTMENT OF
ENERGY



Carbon Management and Oil and Gas Research Project Review Meeting Carbon Dioxide Removal Research Virtual Session Agenda

All times designated in Eastern Daylight Time

- 2:15 PM** **Tunable Rapid-uptake Amino Polymer Aerogels for Direct Air CO₂ Capture (TRAPS) (FE0031951)**
Mahati Chintapalli, PARC, A Xerox Company
- 2:40 PM** **Gradient Amine Sorbents for Low Vacuum Swing Carbon Dioxide Capture at Ambient Temperature (FE0031958)**
Steven Chuang, University of Akron
- 3:05 PM** **BREAK**
- 3:20 PM** **Next Generation Fiber-Encapsulated Nanoscale Hybrid Materials for Direct Air Capture with Selective Water Rejection (FE0031963)**
A.-H. Alissa Park, Columbia University
- 3:45 PM** **Direct Air Capture using Trapped Small Amines in Hierarchical Nanoporous Capsules on Porous Electrospun Fibers (FE0031969)**
Miao Yu, University at Buffalo and Bin Mu, Grand Canyon University
- 4:10 PM** **Membrane Adsorbents Comprising Self-Assembled Inorganic Nanocages (SINCs) for Super-Fast Direct Air Capture Enabled by Passive Cooling (FE0031960)**
Haiging Lin and James Tran, University at Buffalo, SUNY
- 4:35 PM** **NIST's Role in Direct Air Capture and Carbon Removal**
Craig M. Brown, NIST Fellow, National Institute of Standards and Technology
- 5:05 PM** **ADJOURN**



U.S. DEPARTMENT OF
ENERGY



Carbon Management and Oil and Gas Research Project Review Meeting Carbon Dioxide Removal Research Virtual Session Agenda

All times designated in Eastern Daylight Time

Thursday, August 19, 2021

Moderator: Carl Laird

- 10:00 AM** **Getting to Neutral – California’s Options for Negative Emissions**
Roger Aines, Energy Program Chief Scientist, Lawrence Livermore National Laboratory
- 10:30 AM** **BECCS Development at Drax Group**
Steve Drayton and Jason Shipstone, Drax Group
- 11:00 AM** **Bio-energy with Carbon Capture and Storage (BECCS): Achieving Net Zero and Beyond**
Derrick Carlson and Timothy Skone, National Energy Technology Laboratory
- 11:25 AM** **Capture Technology: Evaluation of the Impact of Coal and Biomass Blends on Pre- and Post-Combustion Carbon Capture Solvents**
Josh Stanislawski and John Kay, University of North Dakota, Energy and Environmental Research Center
- 11:50 AM** **Direct Air Capture Using Novel Structured Adsorbents (FE0031959)**
Deborah Jelen, Electricore, Inc. and Adelaide Calbry-Muzyka, Climeworks
- 12:15 PM** **BREAK**
- Moderator:** Nicole Shamitko-Klingensmith
- 1:00 PM** **Electrochemically-Driven Carbon Dioxide Separation (FE0031955)**
Yushan Yan, University of Delaware
- 1:25 PM** **Enhanced Depolarized Electro-Membrane System for Direct Capture of Carbon Dioxide from Ambient Air (FE0031962)**
Ayokunle Omosebi, University of Kentucky
- 1:50 PM** **Experimental Demonstration of Alkalinity Concentration Swing for Direct Air Capture of Carbon Dioxide (FE0031964)**
Daniel Schrag, Harvard University

Driving Innovation & Delivering Solutions



U.S. DEPARTMENT OF
ENERGY



Carbon Management and Oil and Gas Research Project Review Meeting Carbon Dioxide Removal Research Virtual Session Agenda

All times designated in Eastern Daylight Time

- 2:15 PM** **Demonstration of Direct Air Capture (DAC) of CO₂ with Building Air Handling Equipment (FWP-FEAA156)**
Kashif Nawaz, Oak Ridge National Laboratory
- 2:40 PM** **A Combined Water and CO₂ Direct Air Capture System (FE0031970)**
Will Kain, IWVC, LLC and Pete McGrail, Pacific Northwest National Laboratory
- 3:05 PM** **BREAK**
- 3:20 PM** **Demonstration of a Continuous-Motion Direct Air Capture (DAC) System (FE0031957)**
Miles Sakwa-Novak, Global Thermostat, LLC
- 3:45 PM** **Development of Hybrid Polymer Membranes for Direct Air Capture of Carbon Dioxide**
Maksudul Alam and Adrien Hosking, InnoSense LLC
- 4:10 PM** **Direct Air Capture Recovery of Energy for CCUS Partnership (DAC RECO₂UP) (FE0031961)**
Patricia Berry, Southern States Energy Board and Matt Atwood, AirCapture LLC
- 4:35 PM** **Panel Discussion: DAC Commercialization**
Eric Ping, Global Thermostat
Geoff Holmes, Carbon Engineering
Daniel Egger, Climeworks
- 5:25 PM** **ADJOURN**