

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

Workshop on Geologic Capture and Sequestration of Carbon

Stanford University
Y2E2 Building, Room 299
Palo Alto, California
November 28, 2017

Agenda

8:15 Breakfast available outside meeting room

8:45 Welcome and overview of the National Academies study
Steve Pacala, Princeton, Committee Chair

Agenda and goals of the workshop
Peter Kelemen, Lamont-Doherty Earth Observatory, Moderator

9:00 Session 1: In Situ Carbon Mineralization for Direct Air Capture and Storage

Moderator: Peter Kelemen

1a. Kinetics and locations (30 minute talks + 15 minutes of discussion)

9:00 Subsurface kinetics, basalt sites
Todd Schaef, Pacific Northwest National Laboratory

9:45 Carbfix
Edda Aradóttir, Reykjavik Energy

10:30 Break

10:45 Multi-mineral carbonation kinetics, peridotite sites
Greeshma Gadikota, University of Wisconsin

1b. Processes: cracking, clogging, swelling, quaking (30 minute talks + 10 minutes of discussion)

11:15 Reaction-driven cracking, natural systems
Marc Spiegelman, Columbia University

12:00 Pressure management, induced seismicity
Jonny Rutqvist, Lawrence Berkeley National Laboratory

12:45 Working lunch

1:30

Session 2: Storage in Subsurface Pore Space

Moderator: Sally Benson

2a. Experience (20 minute talks + 10 minutes of discussion, or panels)

1:30 CO₂ storage in Norway
Phil Ringrose, Statoil and Norwegian University of Science and Technology (remote)

2:00 CO₂-EOR, oil field/gas formation storage
Lynn Orr, Stanford University

2:30 Break

2:45 CO₂ storage in Canada
Don White, Geological Survey of Canada

3:15 Pilot and commercial scale storage test results
Susan Hovorka, University of Texas

3:45 Break

2b. Monitoring (20 minute talks + 10 minutes of discussion, or panels)

4:00 Monitoring CO₂ storage
Tom Daley, Lawrence Berkeley National Laboratory

4:30 Leakage and multiphase flow
Mike Celia, Princeton University

5:00 Workshop adjourns