

Carbon Capture Workshop  
May 26-27, 2011  
STANFORD UNIVERSITY  
Stanford, California



## Day 1

8:30 – 9:00 **CONTINENTAL BREAKFAST**

### Overview and Introduction

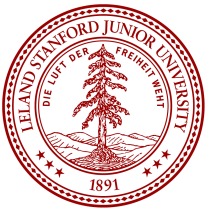
**Chair: Sally Benson**

9:00	GCEP Welcome and Workshop Objectives	Sally Benson, Director, <i>Stanford Global Climate and Energy Project</i>
9:15	Overview of Carbon Capture Methods	Jennifer Wilcox, <i>Stanford University</i>
9:45	How to Reduce the Cost of Carbon Capture	Edward Rubin, <i>Carnegie Mellon University</i>
10:15-10:30	<b>BREAK</b>	
10:30	Carbon Capture: Technology Development at GE GRC	Robert Perry, <i>GE Global Research</i>
11:00	Panel Discussion: Current Industry and Government Funded Activities	Timothy Fout, <i>NETL</i> Mark Hartney, <i>ARPA-E</i> Karl Gerdes, <i>Chevron</i> Abhoyjit Bhowan, <i>EPRI</i> Holly Krutka, <i>ADA</i>
12:00-1:00	<b>LUNCH</b>	

### Underpinning Processes and Novel Applications

**Chair: Jennifer Wilcox**

1:00	Combustion with Carbon Capture	Christopher Edwards, <i>Stanford University</i>
1:30	Chemical Looping Technology for Clean Fossil Energy Conversions	Liang-Shih (LS) Fan, <i>Ohio State University</i>
2:00	Mass Transfer is Key	Edward Cussler, <i>University of Minnesota</i>
2:30	Carbon Capture by Adsorption: General Principles and Economics	Douglas Ruthven, <i>University of Maine</i>
2:45-3:00	<b>BREAK</b>	
3:00	Design and Assessment of Metal-Organic Frameworks for Carbon Capture	Randall Snurr, <i>Northwestern University</i>
cancelled	Absorption Practices in Industry	Kevin McCauley, <i>Babcock &amp; Wilcox</i>
3:30	Kinetics of CO <sub>2</sub> Absorption	Nicola McCann, <i>Technical University Kaiserslautern, Germany</i>
4:00	Carbon Capture Using Small-Molecule Catalysts That Mimic Carbonic Anhydrase	Roger Aines, <i>Lawrence Livermore National Laboratory</i>
4:30 – 5:30	<b>RECEPTION</b>	



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## Day 2

8:30 – 9:00 **CONTINENTAL BREAKFAST**

### Underpinning Processes and Novel Applications

**Chair: Jennifer Wilcox**

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|-------|--|--|
| 9:00  | Developing Membranes for Carbon Capture  | Richard Baker, <i>Membrane Technology and Research, Inc.</i> |
| 9:30  | CO <sub>2</sub> Separations Using Room-temperature Ionic Liquids and Membranes | Richard Noble, <i>University of Colorado</i>                 |
| 10:00 | Advanced CO <sub>2</sub> Separation Using Molecular Gates                      | Shingo Kazama, <i>RITE</i>                                   |

10:30-10:45 **Break**

### Expanding the Portfolio of Carbon Capture

- |            |   |   |
|------------|---|---|
| 10:45      | CO <sub>2</sub> Reduction Electrocatalysis                                  | Andrew Peterson, <i>Stanford University</i>               |
| 11:15      | Role of Algae in Carbon Capture   | Himadri Pakrasi, <i>Washington University</i>             |
| 11:45      | Supported Amine Materials & Hollow Fiber Rapid Temperature Swing Adsorption | Christopher Jones, <i>Georgia Institute of Technology</i> |
| 12:15-1:45 | <b>Working Lunch &amp; Breakout Sessions</b>                                |   |
| 1:45       | Panel Report from Breakout Session  |   |
| 2:45       | <b>Closing Remarks</b>  |   |