

SAVE THE DATE

2020 Annual Affiliates Meeting & Workshop

Nov 19 & Nov 20, 2020

Dear 2020 SCCS Affiliate,

Please mark your calendars for the 2020 Annual Affiliates Meeting and Workshop. Nov 19 will focus on **student research results** and Nov 20 will focus on **CCUS in California**. We hope you will be able to join us for this event.

We had a busy winter quarter with a number of guest speakers and other research activities. Please take a look below at some of the highlights.

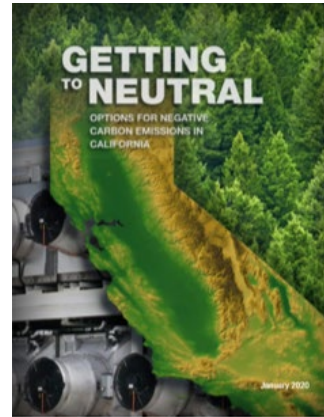
Recent guests in the SCCS Speaker Series:

Sarah Baker - Lawrence Livermore Nat'l Lab

Title "Getting to Neutral"

The report and presentation identify a robust suite of negative emissions technologies to help California reach carbon neutrality by 2045, and can serve as a resource for policymakers, government, academia and industry.

[Link to Slides](#)



Mark Coalmer - Oil and Gas Climate Investments

Title "\$1B+ for a sustainable Low-Emissions Future"

The Oil and Gas Climate Initiative consortium, created a \$1B+ Climate Investments fund to invest for a sustainable low-emissions future. Our growing portfolio includes "hard to abate" sectors across industrial and commercial transport, and this talk highlights these and our approach to implementing impactful solutions.

[Presentation Slides](#)

[Link to Video](#)

In Other News:

The California Council on Science and Technology (CCST) Expert Briefings are presentations by panels of relevant experts on a range of science or technology topics. On February 6, Sarah Saltzer (Managing Director, SCCS) participated on a panel to discuss "A Carbon Neutral California: The Role of Negative Emissions in Meeting the State's Climate Goals"

[Link to Video](#)





Sally Benson (Professor, co-director of the Precourt Institute for Energy and co-director of SCCS) received the 2019 International Health, Safety, and Environment Award from the Society of Petroleum Engineers. Sally was recognized for her outstanding leadership and contributions to the science of carbon capture and storage, demonstrating that reservoir engineering is key in addressing the environmental issue of greenhouse gasses

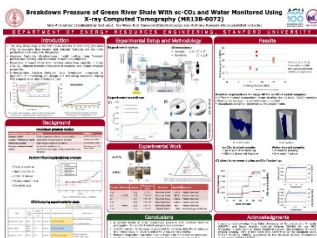
The NPC study entitled "Meeting the Dual Challenge" addresses the entire CCUS supply chain and details the actions needed to deploy carbon capture technologies at scale in the United States. Sally Benson was the co-team leader of chapter 7, "CO₂ Geologic Storage".

[Download entire study](#)

[Link to chapter 7](#)



AGU Highlights:



Talal Al Shafloot, Tae Wook Kim and Anthony Kovscek presented a poster entitled "Breakdown Pressure of Green River Shale With sc-CO₂ and Water Monitored Using X-ray Computed Tomography". This poster examines the behavior of sc-CO₂ as a fracturing agent and shows that mineral composition variation plays a major role in breakdown pressure. [Link to Poster](#)

Wen Song gave a talk on work completed as part of her Stanford PhD thesis entitled "Pore-Scale Controls of Reactive Transport in Carbonate Porous Media" which looks at the reactivity of carbonate reservoirs in the presence of CO₂ and the impact on CO₂ storage security, safety, and capacity. [Link to Slides](#)

Recent Publications:

Alnoaimi, K.R. & Kovscek, A.R., (2019). [Influence of Microcracks on Flow and Storage Capacities of Gas Shales at Core Scale](#). *Transport In Porous Media*, 27, 53–84.

de Chalendar, J. A., Glynn, P. W., et. al., (2019). [City-scale decarbonization experiments with integrated energy systems](#). *Energy & Environmental Sciences*, 2(5), 1695-1707.

Garing, C., & Benson, S. M. (2019). [CO2 wettability of sandstones: Addressing conflicting capillary behaviors](#). *Geophysical Research Letters*, 46, 776– 782.

Ni, H., Boon, M., et. al., (2019). [Predicting CO2 residual trapping ability based on experimental petrophysical properties for different sandstone types](#). *International Journal of Greenhouse Gas Control*, 86, 158-176.

Ni, H., Boon, M., et. al., (2019). [Coreflooding data on nine sandstone cores to measure CO2 residual trapping](#). *Data in Brief*, 25, 104249.

Wen, G. & Benson, S. M., (2019). [CO2 plume migration and dissolution in layered reservoirs](#). *International Journal of Greenhouse Gas Control*, 87, 66-79.

Zahasky, C. & Benson, S. M., (2019). [Spatial and Temporal Quantification of Spontaneous Imbibition](#). *Geophysical Research Letters*, 46, 21.

Zahasky, C., Kurotori, T., et. al. (2019). [Positron emission tomography in water resources and subsurface energy resources engineering research](#). *Advances in Water Resources*, 127, 39-52.



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Thanks,
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