Geochemistry Division Symposia
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Environmental and Geochemical Aspects of Carbon Sequestration

Abstract Submission Due: October 26, 2009

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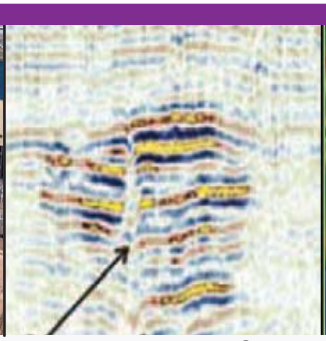
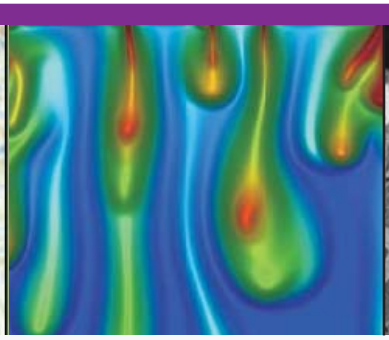
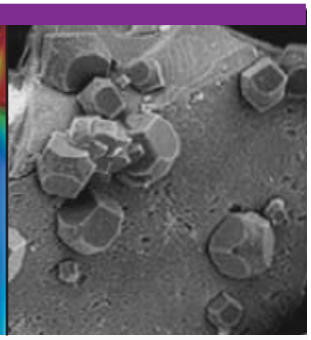
CO_2 capture, Elements 2008



Sesmic image of CO_2 Elements 2008



CO_2 fluids Physics Today 2008



Mineralization Chem. Geology 2005

Geological carbon sequestration has the potential to mitigate anthropogenic carbon dioxide emissions that have perturbed the global carbon cycle and are impacting the global climate. Geological carbon sequestration will involve the development and deployment of technologies that couple chemical reactions and transport on very large scales. Current research is generating new information on geochemical and environmental reactions that are essential to designing sequestration strategies, predicting their performance, and assessing potential risks. Relevant processes include dissolution-precipitation reactions and other interfacial reactions at the high pressures and temperatures of sequestration formations. Multi-phase reactive transport experiments and simulations are important in predicting sequestration performance. Environmental aspects of geological carbon sequestration include monitoring and remediating leaks from formations and assessing the integrity of capping formations and well seals.

This symposium welcomes papers for presentations that describe advances in our understanding of environmental and geochemical aspects of carbon sequestration. Topics of interest include, but are not limited to, laboratory investigations of sequestration processes, field-scale characterization and assessment of sequestration systems, and modeling of reactions and transport at multiple scales.

Confirmed Invited Speakers Include:

Susan Carroll (Lawrence Livermore National Laboratory)
David Cole (Oak Ridge National Laboratory),
Don DePaolo (Lawrence Berkeley National Laboratory / University of California-Berkeley)
Catherine Peters (Princeton University)
Alexandre Tartakovsky (Pacific Northwest National Laboratory)