



2010 Annual Meeting

18–22 February • San Diego



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Can Geoengineering Save Us from Global Warming?

Saturday, February 20, 2010: 8:30 AM-11:30 AM
Room 6F (San Diego Convention Center)

Geoengineering schemes have been proposed to temporarily counteract global warming, as nations work to implement mitigation strategies to reduce greenhouse gas emissions. While many general geoengineering concepts have been put forward in recent years, no concrete proposals that address the range of scientific and social issues related to such activities have been submitted for consideration. This session focuses on climate modification through the manipulation of solar energy input to Earth, but also discusses ocean fertilization. Examples of the former include the injection of reflective aerosols into the lower stratosphere and seeding of marine clouds to modify their albedo, and placement of mirrors beyond the atmosphere to deflect incoming sunlight. Speakers will address the efficacy of proposed schemes as well as their side effects, which could include unwanted regional climate changes, ozone depletion, and reduction of solar power and blue skies. In addition, the practical, historical, and ethical dimensions will be discussed. Speakers will also discuss the fundamental problem that since a significant fraction of anthropogenic carbon dioxide will remain in the atmosphere forever (more than 1,000 years), geoengineering to reduce solar radiation would have to be maintained for a very long time, until current carbon dioxide emissions are eliminated and a large amount of the carbon dioxide already in the atmosphere is captured and sequestered.

Organizer: *Alan Robock, Rutgers University*

Co-Organizer: *Margaret Leinen, Climos Inc.*

Moderator: *Alan Robock, Rutgers University*

Discussant: *Eli Kintisch, AAAS/Science*

Speakers:

James R. Fleming, *Colby College*
[Fifty Years of Geoengineering Ideas](#)

David Keith, *University of Calgary*
[The Case for Geoengineering Research](#)

Ken Caldeira, *Stanford University*
[Can Intentional Interference in the Climate System Reduce Risk?](#)

Philip J. Rasch, *Pacific Northwest National Laboratory*
[Climate Effects of Geoengineering Using Cloud Seeding and Stratospheric Aerosols](#)

Kenneth Coale, *Moss Landing Marine Laboratory*
[Ocean Iron Fertilization](#)

Martin Bunzl, *Rutgers University*
[Geoengineering Research Reservations](#)

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