Advances in the Chemistry of CO_2 Capture

A Webinar Hosted by the Chemical Sciences Roundtable
March 9, 2021
12:00—1:30 PM EST

Advances in carbon dioxide (CO_2) capture technologies are emerging rapidly as the need for climate solutions grows. Existing solutions for capturing CO_2 are proving insufficient and are prompting efforts to discover and demonstrate new technologies that are capable of economically concentrating CO_2 from both flue gases and the atmosphere. Traditional methods of carbon capture use regenerable base solutions or materials that require considerable energy to release the captured CO_2. New solid adsorbents, such as metal-organic frameworks (MOFs), offer the ability to tailor the structure and bonding of CO_2 and thus reduce energy consumption during desorption. Also being investigated are dual function materials that facilitate the simultaneous capture and conversion of CO_2, potentially saving processing steps and further improving the economics. This webinar hosted by the Chemical Sciences Roundtable will review available technologies, explore the chemical and engineering challenges in finding improved capture agents, and describe new technologies under development.

AGENDA

12:00 PM	**Welcome and Introductions** Ellen Mantus, *CSR Director*
12:05 PM	**Recent Advancements in CO_2 Capture Technologies** Raghubir Gupta, *Susteon*
12:25 PM	**Cooperative Carbon Dioxide Capture in Metal-Organic Frameworks** Jeffrey R. Long, *University of California, Berkeley*
12:45 PM	**Dual-Function Materials for CO_2 Capture and Conversion** Ana C. Alba-Rubio, *The University of Toledo*
1:05 PM	**Discussion** Moderated by David Myers, *GCP Applied Technologies*
1:30 PM	**Webinar Concludes**