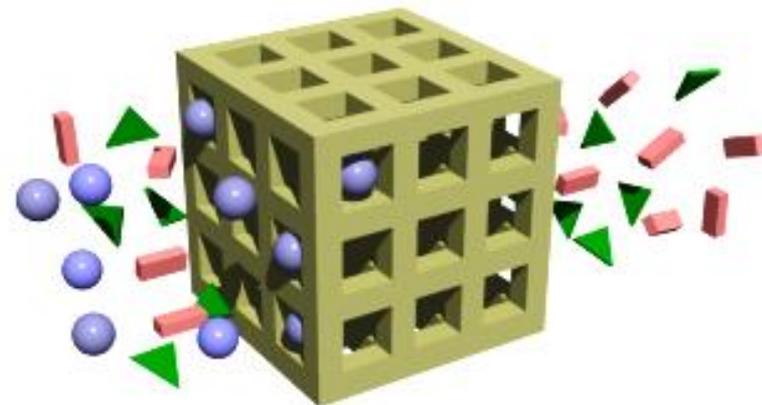


# Center for Gas Separations Relevant to Clean Energy Technologies (CGS) Jeffrey R. Long (University of California, Berkeley)

The aim of the CGS is to develop new materials and membranes that enable energy-efficient separation of gas mixtures, as required in the clean use of fossil fuels and in reducing emissions from industry. Particular emphasis is placed on (i) separations that reduce CO<sub>2</sub> emissions from power plants and (ii) energy-intensive gas separations in industry and agriculture.



<http://www.cchem.berkeley.edu/co2efrc/>

## RESEARCH PLAN

To reduce the industrial separation energy costs by employing more effective materials, new materials for the efficient separation of industrially-relevant gases will be developed. In particular, CGS is targeting novel adsorbents for CO<sub>2</sub> capture, the separation of O<sub>2</sub> from air and N<sub>2</sub> from methane, and for the shape-selective separation of hydrocarbons. New characterization methods and computational tools will be developed to guide and support these quests.