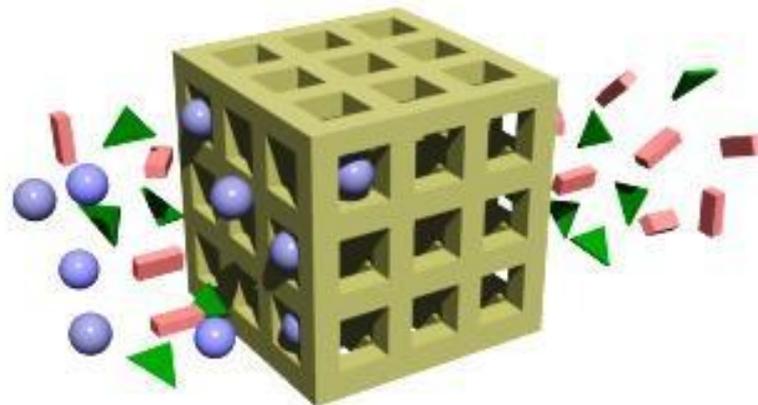


Center for Gas Separations (CGS)

Jeffrey R. Long (University of California, Berkeley); Class: 2009-2020

MISSION: To develop new metal–organic frameworks and membranes that enable energy-efficient separations of gas mixtures, as required in the clean use of fossil fuels and in reducing emissions from industry. Particular emphasis is placed on separations that reduce CO₂ emissions from power plants on energy-intensive gas separations in industry and agriculture.



www.cchem.berkeley.edu/co2efrc/

RESEARCH PLAN

New adsorbent materials will be developed that are capable of substantially reducing the energy costs associated with industrial gas separations. The CGS is targeting adsorbents for CO₂ capture, the separation of O₂ from air and N₂ from methane, and for the shape-selective separation of hydrocarbons, among other applications. New characterization methods and computational tools will be developed to guide and support these materials design efforts.