Our seminar

“INORGANIC MEMBRANES FOR ENERGY AND ENVIRONMENTAL SYSTEMS”

There are vast and growing needs in efficient molecular separation from a variety of gas and liquid mixtures. The recent increase of the natural gas production from shale gas has promoted the production of important molecules, particularly hydrogen and hydrocarbons. Vast amounts of wastewater also generates from conventional oilfields and demands for wastewater treatment will continue to grow. Conventional processes such as pressure swing adsorption and distillation are energy-intensive operations and would account for a large part of the total cost of production. Therefore, membrane-based separation is considered attractive as a conceptually simple, energy-saving alternative approach. This presentation will focus on the membranes for highly efficient molecular separation/reaction systems. The work on zeolite membranes will be presented for high temperature water gas shift reaction which is a key operation in pre-combustion carbon dioxide capture or hydrogen production from fossil and biomass stocks. In this presentation, Dr. Kim will discuss novel molecular engineering concepts of controlled pore modification of the membranes for chemical separations and water purifications for industrial applications in clean and sustainable energy technologies.

TUESDAY, SEPTEMBER 26, 2017
COOKIES AND COFFEE -- 2:50 P.M.
SEMINAR -- 3:00 P.M.
SARKEYS ENERGY CENTER, A-235

THIS IS A REQUIRED SEMINAR FOR CHE 5971

Accommodations on the basis of disability are available by contacting the office.