



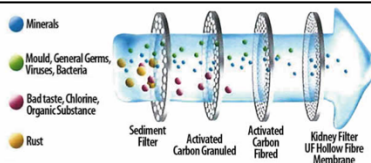
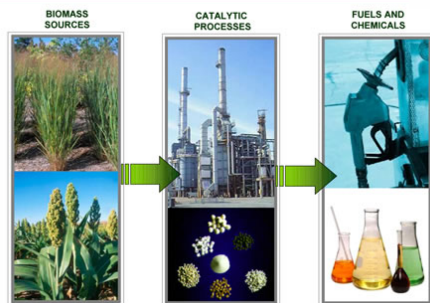
Mary Rezac, Chemical Engineering, Phillips 66 Professor of Sustainable Energy, rezac@ksu.edu

Academic / Industrial Experience

- BS 1987 Kansas State University Chemical Engineering
MS/PhD 1992/3 University of Texas Chemical Engineering
- Research Engineer, Phillips Petroleum, Bartlesville, OK, 1987-90
 - Assist & Assoc Professor (with tenure), Chemical Engineering, Georgia Tech, 1994 – 2002
 - Professor/Depart Head, Chemical Engineering, K-State, 2002-
 - Director, Center for Sustainable Energy, K-State, 2007-

Selected Industrial Applications

Catalytic Processing of Biomass



Laboratory Capabilities

Analytical: GCs, HPLCs, GC-MS with CDS Pyroprobe, Karl Fisher, CHNS analysis, IKA Calorimeter

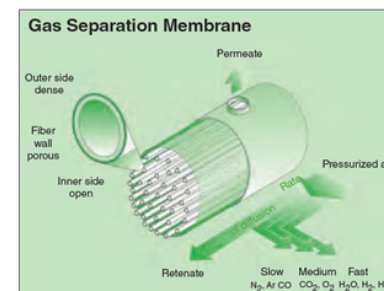
Reactors: Bench to small pilot scale Parr systems (6); Packed Bed systems (multiple), CSTRs (multiple)

Membrane Characterization: Constant Pressure-Variable Volume Systems (8), Constant Volume Variable Pressure Systems (6). Pressures to 20 atm, Temperature to 300 °C

Materials Characterization: Density Gradient Column; Gas Sorption, Vapor Sorption, BET surface area, WAXD

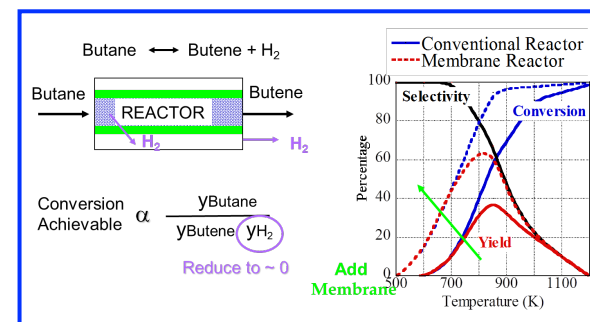
Research Interests

- Polymeric Membranes for Gas and Liquid Separation with enhanced chemical and thermal stability

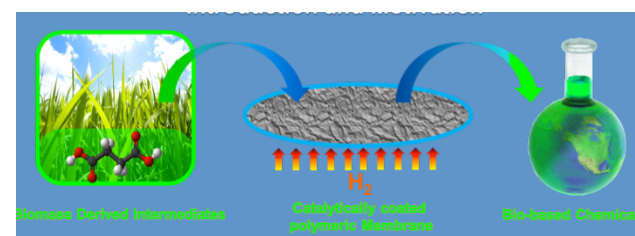


Design of Membrane Contactors for:

- Selective Removal of Reaction Product to shift equilibrium



- Selective addition of reactant to simplify process or promote product selectivity



Research Sponsors



KANSAS STATE UNIVERSITY