Ionic Liquid Membranes

Lessons from Precombustion Capture

Background

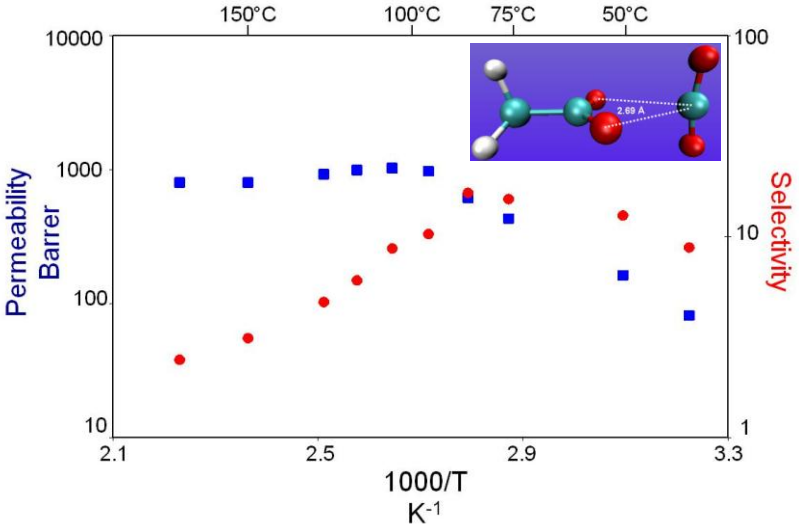
- **Ionic Liquids: Molten Organic Salts with CO_2 Affinity and Negligible Vapor Pressure**

Research

- **Molecular Simulation to Predict Transport and Thermodynamic Properties**
- **Computationally-guided Screening of CO_2 Sorption Capacity and Kinetic Parameters**
- **Development of Membrane Fiber Support**

Status

- **Demonstration of Ionic Liquid Membranes Stable to 300ºC**
- **Capture Properties and Contaminant Effects Measured in Model Ionic Liquids**
- **Supported Ionic Liquid Facilitated Transport Membrane Developed**



Membrane Fiber Bundle