

2.996 Fundamentals of Advanced Energy Conversion Lecture Memo

Lecture number: 10

Date: March 8th, 2004

- **Examples for cell potential calculations: H₂/O₂ and Zn/Cu cells**
- **Review of Gibbs-Faraday equilibrium equation**
- **Review of fugacity and activity**
- **Nernst equation for ideal gases, liquid solutions and solids**
- **Overall redox reaction in a galvanic cell**

- **Chemical kinetics**
- **Rate processes: chemical reaction rate, transport rate and flowrate convection**
- **Elementary, global and chain reactions.**