

LECTURE 25 OXIDATION/REDUCTION

I. Electrochemical Cells

- A. Battery
- B. Anode (oxidation)
- C. Cathode (reduction)
- D. Faraday's Law
- E. Electrodes
 - 1. Pt electrode
 - 2. Hydrogen electrode

II. Relationship Between Cell Potential (ΔE_{cell}) and Gibbs Free Energy

- A. Standard states and cell potentials
 - 1. $\Delta G^{\circ}_{\text{cell}}$
 - 2. $\Delta E^{\circ}_{\text{cell}}$
 - 3. Galvanic cell
 - 4. Electrolytic cell
- B. Standard reduction potential, E°