

Electrochemistry Study Guide

Chapter 18

General Concepts

- Assigning oxidation numbers
- Balancing Redox reaction
- Recognizing # of e⁻ transferred
- Reduction
- Oxidation
- Anode
- Cathode
- Current
- Electrochemical cell
 - Voltaic (galvanic)
 - Electrolytic
- Half cell
- Electrode
- Ampere (A)
- Potential difference
- Volt (V)
- Electromotive force (emf)
- Standard conditions
- Standard hydrogen electrode (SHE)
- Faraday's constant (F)
- Battery
- Rechargeable battery
- Electrolysis
- Electroplating
- Inert electrode
- Corrosion

Suggested Figures to Review

- 18.1
- 18.2
- 18.4
- 18.7
- 18.8
- 18.9
- 18.10
- 18.11
- 18.12
- 18.15
- 18.21
- 18.22
- 18.23
- 18.26

Calculations

- Cell potential (cell emf) (E_{cell})
- Standard cell potential (standard emf) (E°_{cell})
- $\Delta G^{\circ} = -nFE^{\circ}_{\text{cell}}$

Laboratory Techniques

- Redox Titration
- Endpoint