

Unit 11: Oxidation & Reduction and Electrochemistry

Assignments designated as “graded” assignments will be collected and scored. Other assignments may be collected at random and graded for effort.

Topics and Assignments

- Introduction to oxidation and reduction; introduction to electric circuits, currents and potential difference
Assignment 1: Read p.1, 2

- Plating Cells and electroplating
Assignment 2: Read p.3
p.4 problems 1, 2

- Table of Standard Reduction Potentials and electrolysis of aqueous solutions
Assignment 3: Look at the table on p.5 and read p.7-top of 8
p.8 problem 3

- Voltaic (or Galvanic) Cells
Assignment 4: Read p.9-10
p.11 problems 4, 5

- Predicting the spontaneity of redox reactions, the relationship between reduction potential and activity series.
Assignment 5: Read p.12
p.13 Problem 6

Labs

- 11:1 Electroplating a Nail with Zinc (DEMO) (p.15)
- 11:2 Making a Table of Reduction Potentials (DEMO?) (p.19)
- 11:3 Electrolysis of Aqueous Solutions (Lab Practical) (p.23)

Practice Test (p.31)

Homework Answers (p.37-38)