

BASIC CONCEPTS OF CHEMISTRY

Chapter 13

Acids, Bases, and Salts

Objectives:

- * List the general properties of acids and bases
- * Identify Bronsted acids and bases, and conjugate acid-base pairs in a proton exchange reaction
- * Calculate the hydronium ion concentration in a solution of strong acid and a weak acid given the initial concentration of the strong acid and the percent ionization of the weak acid
- * Write the molecular, total ionic, and net ionic equations for neutralization reactions
- * Using the ion product of water, relate the hydroxide ion and hydronium ion concentrations
- * Given the hydronium or hydroxide concentrations, calculate the pH and pOH, and vice versa
- * Write a hydrolysis reaction, if one occurs, for salt solutions, to determine whether they are acidic, basic, or neutral
- * Write equations illustrating how a buffer solution can absorb either added acid or base
- * Determine, if possible, whether a specific oxide is acidic or basic