

CHM 102
Exam II Topics

CHAPTER 14

Definitions

Arrhenius

Brønsted-Lowry

Conjugate acid/base pairs

Reactions of acids with bases, carbonates, bicarbonates, and oxides

Balance acid-base equations

Perform calculations relating to acid-base reactions

Titration

Strong and weak acids and bases

$K_w = 1.00 \times 10^{-14} = [H^+][OH^-]$

Conceptual meaning of pH scale

$pH = -\log [H^+]$

Buffers

CHAPTER 15

$K_{eq} = \frac{[\text{products}]^n}{[\text{reactants}]^m}$

Perform calculations relating to equilibrium systems

Conceptual meaning of K_{eq}

Heterogeneous equilibria

Le Châtelier's principle: equilibrium position shifts

Change in concentrations

Change in volume

Change in pressure

Change in temperature

Solubility equilibria

K_{sp} , the solubility product constant

Kinetics

Catalysis