

Exam 2 Concepts

Chapter 12 Kinetics

- Determine integrated rate law order from data provided. Use law to solve problems.
- Determine if reaction mechanism is viable, given rate law and proposed mechanism
- Catalysts - homogeneous vs heterogeneous, definition, characteristics

Chapter 13 Equilibrium

- Law of Mass Action
- K_p given K_c or vice versa
- Manipulate equation; effect on K
- Solve preequilibrium problems (i.e. tables)
- Determine K from given equilibrium and initial concentrations.
- Le Châtelier's Principle – equilibrium shift when we do X?

Chapter 14 Acid/Base Equilibrium

- Identify conjugate acid/base pairs
- Determine pH , pOH , $[H_3O^+]$, $[OH^-]$, concentration all equilibrium species, and percent dissociation given K_a/K_b and concentration of strong acid, weak acid, strong base, weak base.
- Determine K_a/K_b given equilibrium and initial concentrations.