

Study Guide for Exam 3

Chapters 10, 11, 12, 13 and 14

Stereoselective vs. Stereospecific

Anti vs. Syn Addition

Resonance

Nomenclature of Dienes

Dienes: Conjugated vs. Isolated

Nomenclature of Alkynes

Synthesis of Alkynes

Dehydrohalogenation of Vicinal Dihalides

Coupling of Metal Acetylides with $1^{\circ}/\text{CH}_3$ Alkyl Halides

Reactions of Alkynes

Addition of H_2 (reduction)

Addition of X_2

Addition of HX

Addition of H_2O , H^+

As Acids

Ag^+

Oxidation

Markovnikov/ Anti-Markovnikov

Nomenclature of Alicyclics

Synthesis of Alicyclics

Modification of a Ring Compound

Reduction of Cycloalkenes

Reduction of Cyclic halides

Hydrolysis of Grignard reagent

Active Metal and Acid

Ring Closures

The "Chair" Conformations of Cyclohexane

Reactions of Alicyclics (same as Alkenes)

Addition of H_2 (reduction)

Addition of X_2

Addition of HX

Addition of H_2SO_4

Addition of H_2O , H^+

Addition of $\text{X}_2/\text{H}_2\text{O}$

Oxymercuration-Demercuration

Hydroboration-Oxidation

Addition of Carbenes

Epoxidation

Hydroxylation

Allylic Halogenation

Ozonolysis

Vigorous Oxidation

Aromaticity: What does it mean?

Benzene

Pi Electrons

Structure

Nomenclature