

UNIT 10 – ALKENES AND ALKYNES

VTOC: [Alkenes & Alkynes](#)(nomenclature) [Alkene Configurational Isomers](#)

Alkenes: [Electrophilic Additions](#)
 [Strong Brønsted Acids](#)
 [Lewis Acids \(non-Proton Electrophiles\)](#)
 [Electrophilic Halogen Reagents](#)
 [Other Electrophilic Reagents](#)
 [Reduction](#)
 [Oxidation](#)

Alkynes [Addition Reactions](#)
 [Hydrogenation](#)
 [Electrophiles](#)
 [Nucleophilic Addition & Reduction](#)
 [Acidity of Terminal Alkynes \(Substitution of H\)](#)

Skills:

- 10A. Provide IUPAC names for chain and cyclic alkenes and alkynes including E/Z stereochemistry.
- 10B. Draw the mechanism of hydrohalogenation, hydration and halogenation reactions.
- 10C. Predict the products of the following addition reactions to alkenes: hydrohalogenation*, hydration, halogenation*, hydroboration-oxidation, hydrogenation*, sodium reduction*, epoxidation. Know regiochemistry and stereochemistry of each reaction. *Know for alkynes
- 10D. Synthesize substituted alkynes through acetylide ions.
- 10E. Propose multistep-syntheses of molecules.