

Alkynes Learning Objectives

Here are the skills you should have for your chapter on alkynes:

- 1) Understand the differences between internal and terminal alkynes
- 2) Be able to name compounds containing alkyne functional groups
- 3) Be able to name compounds with more than one functional group
- 4) Be able to compare the physical properties of alkynes with that of other compounds
- 5) Be able to compare the acidity of terminal alkynes with the acidity of other functional groups
- 6) Know the relative acid strengths of several common acids
- 7) Understand what a π complex is, know what reactions involve them, and understand how they affect the stereochemistry of a reaction
- 8) Be able to recognize when keto-enol tautomerization will occur
- 9) Reactions of alkynes: for each of the reactions shown on the back of this page, be able to:
 - a) provide a mechanism for the reactions (unless otherwise noted in class) and for slight variations of these reactions
 - b) predict the product(s) of the reactions
 - c) predict the regiochemistry and stereochemistry of the products
 - d) use the reaction in a synthesis