

Chapter 5. Alkenes and Alkynes

Learning objectives:

1. Describe the three-dimensional structure of an alkene and reason the structure with the overlapping of hybridized and non-hybridized atomic orbitals of carbons.
2. Name alkenes including *cis-trans* and/or E-Z assignments when necessary.
3. Name alkynes.
4. Show the terpene units that can be fragmented from a naturally occurring compound.

Sections to be covered (in the order of delivery):

- 5.1 Structure
- 5.2 Nomenclature
- 5.3 Physical Properties
- 5.4 Naturally Occurring Alkenes - the Terpenes

Recommended additional problems

5.8 – 5.21, 5.25, 5.26