

CHAPTER OVERVIEW

4: ORGANIC COMPOUNDS - CYCLOALKANES AND THEIR STEREOCHEMISTRY

LEARNING OBJECTIVES

After you have completed Chapter 4, you should be able to

1. fulfill all of the detailed objectives listed under each individual section.
2. draw the *cis-trans* isomers of some simple disubstituted cycloalkanes, and write the IUPAC names of such compounds.
3. define, and use in context, the key terms introduced in this chapter.

This chapter deals with the concept of stereochemistry and conformational analysis in cyclic compounds. The causes of various ring strains and their effects on the overall energy level of a cycloalkane are discussed. We shall stress the stereochemistry of alicyclic compounds.

[4.0: Chapter Objectives](#)

[4.1: Naming Cycloalkanes](#)

[4.2: Cis-Trans Isomerism in Cycloalkanes](#)

[4.3: Stability of Cycloalkanes - Ring Strain](#)

[4.4: Conformations of Cycloalkanes](#)

[4.5: Conformations of Cyclohexane](#)

[4.6: Axial and Equatorial Bonds in Cyclohexane](#)

[4.7: Conformations of Monosubstituted Cyclohexanes](#)

[4.8: Conformations of Disubstituted Cyclohexanes](#)

[4.9: Conformations of Polycyclic Molecules](#)

[4.S: Organic Compounds- Cycloalkanes and their Stereochemistry \(Summary\)](#)

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