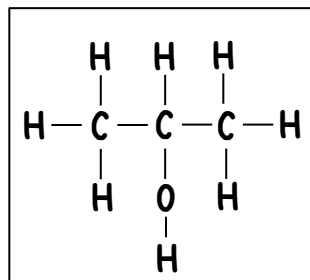


Actual ratio of atoms of each element in a compound

Molecular formula

Smallest whole number ratio of atom of each element in the compound

Empirical formula



Displayed formula

Shows all the bonds between every atom in the compound

Naming compounds

IUPAC rules

Nomenclature

1. Identify the longest carbon chain that contains the functional group

2. Identify the functional group on the chain. This gives you the suffix or prefix of the name

3. Count along the carbon chain so that the functional group has the lowest number

4. Add any side chains or less important functional groups as prefixes in alphabetical order

Chemical Formulas

3.1 INTRODUCTION TO ORGANIC CHEMISTRY

Structural formula

Shows the arrangement of atoms in the molecule of a compound

Doesn't show all of the bonds between them e.g. $\text{CH}_3\text{CH}_2\text{COCH}_3$

General formula

Represents the composition of the atoms present in the compound

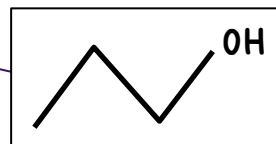
E.g. Alkanes have the general formula $\text{C}_n\text{H}_{2n+2}$

n is the number of carbon atoms in the molecule

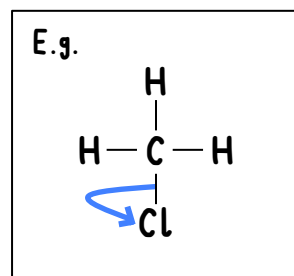
Skeletal formula

Lines represent bonds between atoms

Atoms are represented by their symbol



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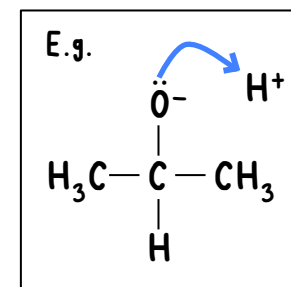


Balanced equations

Dot represents the unpaired electron

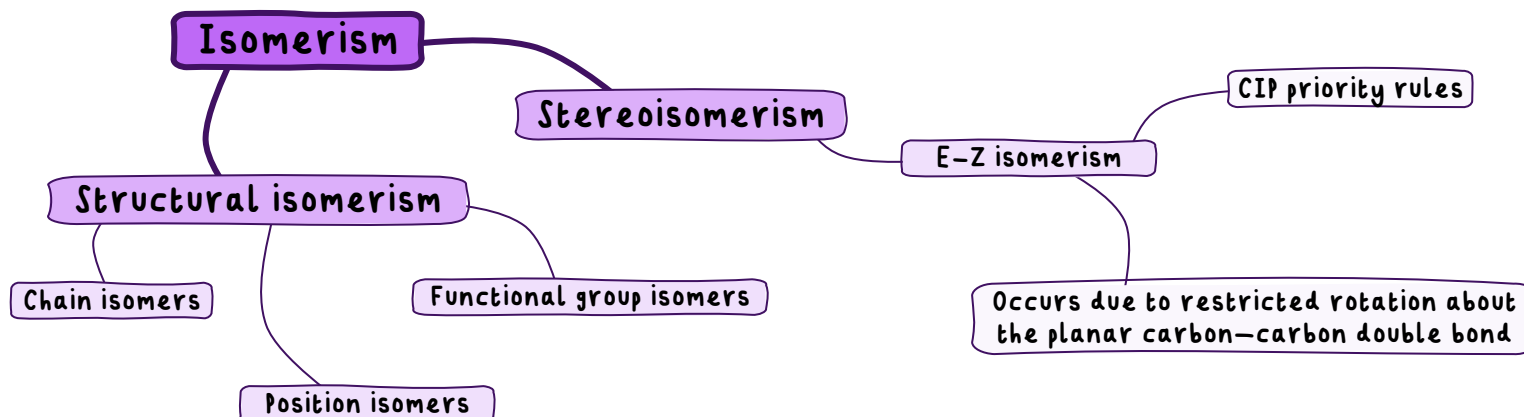
E.g. Cl ·

Free radical mechanisms



Reaction Mechanisms

3.1 INTRODUCTION TO ORGANIC CHEMISTRY



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