

Chapter: Carbon and Hydrocarbons

Section 2: Organic Compounds

All organic compounds contain carbon

- Not all carbon containing compounds are organic

Organic compounds: covalently bonded compounds containing carbon, excluding carbonates and oxides

Catenation: the covalent bonding of an element to itself to form chains or rings

- Multitude of chains, branched-chain, and rings

Hydrocarbons: composed of only carbon and hydrogen

- They are the simplest organic compounds

Isomer: compounds that have the same molecular formula but different structures

Structural formula: the number and types of atoms present in a molecule and also shows the bonding arrangement of the atoms

- Write the hydrogen's out or use a condensed version

Structural isomers: isomers in which the atoms are bonded together in different orders

Geometric isomers: isomers in which the order of atom bonding is the same but the arrangement of atoms in space is different

- *cis*: same side of the molecule
- *trans*: opposite side of the molecule