

AS Chemistry Definitions

Structural Isomer	A compound with the same molecular formula however a different structural formula
Stereoisomer	A compound with the same structural formula however a different arrangement of atoms in space
Homolytic Fission	The breaking of a covalent bond where each atom takes one electron forming radicals
Heterolytic Fission	The breaking of a covalent bond where one atom takes both of the electrons forming cations and anions
Homologous series	A group of compounds with the same functional group however a different hydrocarbon chain length
Functional Group	A group of atoms responsible for the chemical properties of a compound
Curley Arrow	The movement of an electron pair either breaking or forming a covalent bond
Radical	A species with an unpaired electron
Nucleophile	A electron pair donor
Electrophile	An electron pair acceptor
Activation Energy	The minimum amount of energy required to start a chemical reaction
Standard conditions	25°C and 1 ATM
Enthalpy Change of Formation	The enthalpy change when one mole of a compound is formed from its constituent elements in their standard states under standard conditions (25°C and 1 ATM)
Enthalpy Change of Combustion	The enthalpy change where one mole of a compound is completely combusted in excess oxygen under standard conditions (25°C and 1 ATM)
Bond Enthalpy	The enthalpy change when breaking a bond within one mole of a given substance by homolytic fission in a gaseous state.
Average bond enthalpy	The average enthalpy change when a bond is broken in one mole of a specific substance by homolytic fission in a gaseous state