CAIE Chemistry A-level

31: Halogen Compounds

(A-level only)

Definitions

Definitions and Concepts for CAIE Chemistry A-level

Halogen Compounds

Aromatic compound/Arene: A compound containing at least one benzene ring.

Benzene: A 6-membered carbon ring (C_6H_6) containing a delocalised π system. Benzene has a planar structure and an intermediate bond length between a single and double bond. Delocalisation of the p electrons into the π system makes benzene more stable than expected.

Catalyst: A substance that increases the rate of a reaction without being changed in chemical composition or amount. They work by providing an alternative reaction pathway with a lower activation energy.

Delocalisation of p electrons: In benzene, the empty p orbital on each carbon atom overlaps with the others to form a delocalised π system that contains 6 electrons.

Halogen: Any element found in Group 7 of the periodic table is a halogen. E.g. Fluorine.

Halogenoalkane: A saturated molecule where one or more of the hydrogen atoms in an alkane has been substituted for a halogen.

Halogenoarene: A molecule with a benzene ring directly attached to a halogen atom.

Substitution: A reaction in which one atom/group of atoms replaces another.