CAIE Chemistry A-level

4: States of Matter

Definitions

Definitions and Concepts for CAIE Chemistry A-level

States of Matter

Boiling point: The temperature at which a substance changes from a liquid state to a gaseous state.

Electrical conductivity: A measure of the amount of electrical current a material can carry or its ability to carry the current.

Giant ionic lattice: A regular repeating structure made up of oppositely charged ions.

Giant metallic: A large structure made of positively charged ions and a sea of delocalised electrons.

Giant molecular structure: Large structures containing lots of atoms that are covalently bonded to each other, they are usually arranged in a regular lattice. E.g. Diamond.

Ideal gas: A model of gases that assumes that gas molecules are perfect spheres that move in straight lines at a constant speed.

Intermolecular forces: The forces which exist between molecules. The strength of the intermolecular forces impact physical properties like boiling/melting point.

Ionic compound: A compound made up of anions and cations which are held together by ionic bonds, which arise due to the electrostatic attraction between oppositely charged ions. These structures are neutral overall.

Melting point: The temperature at which a substance changes from solid state to liquid state.

Metallic bonding: Strong electrostatic attraction between positive metal ions and the sea of delocalised electrons that surround them.

Simple molecular structure: Atoms that are covalently bonded together to form molecules.

Solubility: The ability for a given substance to dissolve in a solvent.