

CAIE Chemistry A-level

12: Nitrogen and Sulfur Definitions

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Definitions and Concepts for CAIE Chemistry A-level Nitrogen and Sulfur

Brønsted-Lowry acid: Proton donors. These species release hydrogen ions in solution.

Brønsted-Lowry base: Proton acceptors.

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.

Combustion: A rapid exothermic reaction of a substance with oxygen. Complete combustion produces water and carbon dioxide only.

Complete combustion: When a compound is burnt in an excess of oxygen. When alkanes are completely combusted, the only products are water and carbon dioxide.

Displacement: A chemical reaction in which one element replaces another element in a compound. A halogen will displace a halide from solution if the halide is below it in the periodic table.

Incomplete combustion: When a compound is burnt in a limited supply of oxygen. When alkanes are incompletely combusted, water, carbon monoxide, carbon particulates and some carbon dioxide may be produced.

Oxidation: Loss of at least one electron, leading to an increase in oxidation number.

Polar bond: A covalent bond between two atoms in which the electrons in the bond are unevenly distributed. This causes a slight charge difference, inducing a dipole in the molecule.

Polarisability: The ability of a molecule to induce a dipole in another molecule.

