Rate of a reaction

The change in concentration per unit time of any one reactant or product.

Instantaneous rate of a reaction

The change in concentration per unit time of any one reactant or product at a given moment in time.

Catalyst

A substance that alters the rate of a chemical reaction but is not consumed in the reaction.

Homogeneous catalysis

Catalysis where both the catalyst and reactants are in the same phase.

Heterogeneous catalysis

Catalysis where the catalyst is in a different phase to the reactants.

Activation energy

The minimum energy that colliding particles must have for a reaction to occur.

Catalytic convertor

A ceramic honeycomb lined with platinum, rhodium and palladium catalysts, which cause harmful gases in emissions to combine with each other.

Intermediate Formation Theory

The catalyst combines with one reactant to form a short-lived intermediate compound. This reacts with another reactant to form the products and regenerate the catalyst.

Surface Adsorption Theory

The molecules are adsorbed onto the surface of the catalyst, bringing them in contact and allowing them to react.

Autocatalysis

One of the products of a reaction also acts as a catalyst for the reaction.

Catalyst poison

A substance that destroys the activity of a catalyst.