

Definitions and Concepts for CAIE Chemistry IGCSE

Topic 13 - Carbonates

Definitions in **bold** are for extended supplement only

Definitions have been taken, or modified from the [CAIE Specification for GCSE Chemistry, 0971, Version 1 September 2020](#)

Cement: Used as an ingredient in building materials like mortar and concrete. Made by heating powdered limestone with clay.

Flue gas: The gas released from industrial combustion plants. It contains a mixture of gases such as carbon dioxide, sulfur dioxide, oxides of nitrogen and carbon monoxide.

Flue gas desulfurisation: The process used to remove sulfur dioxide from flue gases. The flue gas is mixed with a lime or limestone slurry to form insoluble calcium sulfite (CaSO_3) which can then be easily removed. This limits the amount of sulfur dioxide in the atmosphere.

Lime: An inorganic compound, also known as calcium oxide (CaO), which is produced from the thermal decomposition of limestone.

Limestone: An inorganic compound, also known as calcium carbonate (CaCO_3), which is produced when carbon dioxide reacts with limewater.

Limewater: An inorganic compound, also known as calcium hydroxide (Ca(OH)_2), which is produced when slaked lime is dissolved in water. Limewater reacts with carbon dioxide to produce limestone.

Slaked lime: A solid inorganic compound, also known as calcium hydroxide (Ca(OH)_2), which is produced when lime is mixed with water. Used to neutralise acidic lakes.

Thermal decomposition: The breaking down of a compound by heating.

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