Definitions and Concepts for AQA Chemistry GCSE

Topic 8 - Organic Chemical Analysis

*Definitions in **bold** are for higher tier only*

Definitions marked by '' are for separate sciences only*

Definitions have been taken, or modified from the AQA Specification for GCSE Chemistry, 8462, Version 1.1 04 October 2019.

Chromatogram: A graph that shows the result of separating the components of a mixture by chromatography.

Chromatography: A technique used to separate mixtures due to the distribution of the substances between the stationary and mobile phase. It can give information to help identify substances.

***Flame emission spectroscopy:** An instrumental method used to analyse metal ions in solutions.

***Flame test:** Qualitative test used to identify metal ions (cations). Carried out by inserting a nichrome wire loop with the unknown compound on into a flame and observing the colour.

Formulation: A mixture that has been designed as a useful product. They are made by mixing the components in carefully measured quantities to ensure that the product has the required properties.

Impure substance: A substance made up of two or more elements or compounds that are not bonded together chemically.

***Instrumental methods:** Instrumental methods can be used to detect and identify elements and compounds. They are accurate, sensitive and rapid.

Litmus paper: Paper stained with litmus which can be used to indicate the acidity or alkalinity of a substance. Used in the test for chlorine.

Mobile phase: Where the molecules can move during chromatography. It is always a liquid or gas.

Precipitation: The creation of a solid from a solution.

Pure substance: In chemistry a pure substance is a single element or compound, not mixed with any other substance. In everyday language, a pure substance can mean a substance that has had nothing added to it, so it is unadulterated and in its natural state.

Rf value: The ratio of the distance moved by a compound to the distance moved by the solvent.

Stationary phase: Where the molecules are stationary during chromatography. It is a solid or a liquid supported on a solid.