8 · Chemical analysis

AQA · GCSE · Chemistry · Vocabulary in context

Word	Example
chemical analysis /ˈkemɪkl əˈnæləsɪs/	**Chemical analysis** finds out what a substance contains.
observation /ɒbzəˈveɪʃn/	Write down each **observation**, such as a colour change.
conclusion /kənˈkluːʒn/	In your **conclusion**, sum up your main points.
pure substance /pjʊə ˈsʌbstəns/	A **pure substance** contains only one element or compound.
• **element** /ˈelɪmənt/	Each **element** of the array holds one value.
mixture /ˈmɪkstʃə/	Air is a **mixture** of gases.
impurity	An **impurity** lowers the melting point of a solid.
melting point /ˈmeltɪŋ pɔɪnt/	The **melting point** of ice is 0 °C. 0 °C
formulation /ˌfɔːmjʊˈleɪʃn/	Paint is a **formulation**: a mixture made to a set recipe.
pigment /ˈpɪgmənt/	A **pigment** gives paint its colour.
binder /ˈbaɪndə/	The **binder** holds the paint to the wall.
alloy /ˈælɔɪ/	Brass is an **alloy** containing copper and zinc.
fertiliser /ˈfɜːtəlaɪzə/	Farmers add **fertiliser** to help crops grow.
chromatography /krəʊməˈtɒgrəfi/	**Chromatography** separates the dyes in ink.

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stationary phase /ˈsteɪʃənəri feɪz/	The paper is the **stationary phase**.
solvent /ˈsɒlvənt/	Water is the **solvent** in salt water.
mobile phase /ˈməʊbaɪl feɪz/	The solvent is the **mobile phase**: it moves up the paper.
baseline /ˈbeɪslaɪn/	Draw the **baseline** in pencil near the bottom of the paper.
solvent front /ˈsɒlvənt frʌnt/	Mark the **solvent front** before the paper dries.
Rf value /ˌɑːˈref ˈvæljuː/	The **Rf value** is the distance the spot moves divided by the distance the solvent moves.
test tube	Put 2 cm^3 of the solution in a **test tube**. 2 cm^3
limewater /ˈlaɪmwɔːtə/	Carbon dioxide turns **limewater** cloudy.
flame test /fleɪm test/	In a **flame test**, sodium gives a yellow flame.
contamination /kənˌtæmɪˈneɪʃn/	Clean the wire loop to avoid **contamination** in the flame test.
precipitate /prɪˈsɪpɪteɪt/	A white **precipitate** forms when silver nitrate meets chloride ions.
excess /ekˈses/	Add the metal in **excess**, so all the acid reacts.
effervescence /ˌefəˈvesəns/	**Effervescence** means fizzing: a gas is being made.
silver nitrate /ˈsɪlvə ˈnaɪtreɪt/	**Silver nitrate** gives a white precipitate with chloride ions.

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barium chloride	**Barium chloride** gives a white precipitate with sulfate ions.
instrumental method /ˌɪnstrəˈmentl ˈmeθəd/	An **instrumental method** uses a machine to analyse a sample.
accurate	An **accurate** result is close to the true value.
sensitivity /ˌsensɪˈtɪvɪti/	A test with high **sensitivity** finds most people who have the disease.
calibration /ˌkælɪˈbreɪʃn/	**Calibration** checks a thermometer against known temperatures.
spectroscopy /spekˈtrɒskəpi/	**Spectroscopy** studies the light a substance gives out or takes in.
flame emission spectroscopy /fleɪm ɪˈmɪʃn spekˈtrɒskəpi/	**Flame emission spectroscopy** identifies metal ions from the light they give out.
spectroscope	A **spectroscope** splits light into its colours.
line spectrum /laɪn ˈspektrəm/	Hydrogen gas gives a **line spectrum** of a few bright colours.
wavelength /ˈweɪvleŋθ/	The **wavelength** is the distance from one crest to the next.
detection limit	The **detection limit** is the smallest amount a test can find.
qualitative /ˈkwɒlɪteɪtɪv/	A **qualitative** test tells you what is there, not how much.

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