

Section 1 - Mixtures and Solutions

Mixture	Made of substances that are not chemically joined
Compound	Made from atoms of different elements joined by chemical bonds.
Element	A substance made up of only one type of atom
Solution	A mixture of a liquid with a solid or gas dissolved in it
Solvent	A liquid in which a solute is dissolved
Solute	A solid or gas that dissolves in a solvent
Solubility	The solubility of a substance is the mass that dissolves in 100 g of water.

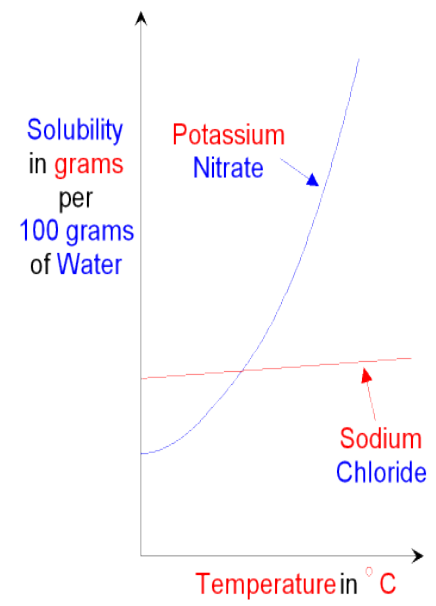
Section 4 Separation Definitions

Filtration	A way of separating pieces of solid that are mixed with a liquid or solution by pouring through filter paper.
Evaporation	A method for removing water from a solution using heat
Chromatography	A technique to separate mixtures of liquids that are soluble in the same solvent.
Distillation	A technique that uses evaporation and condensation to obtain a solvent from a solution.
Fractional Distillation	As distillation but used to separate more than two liquids by boiling point

Section 2- Solubility

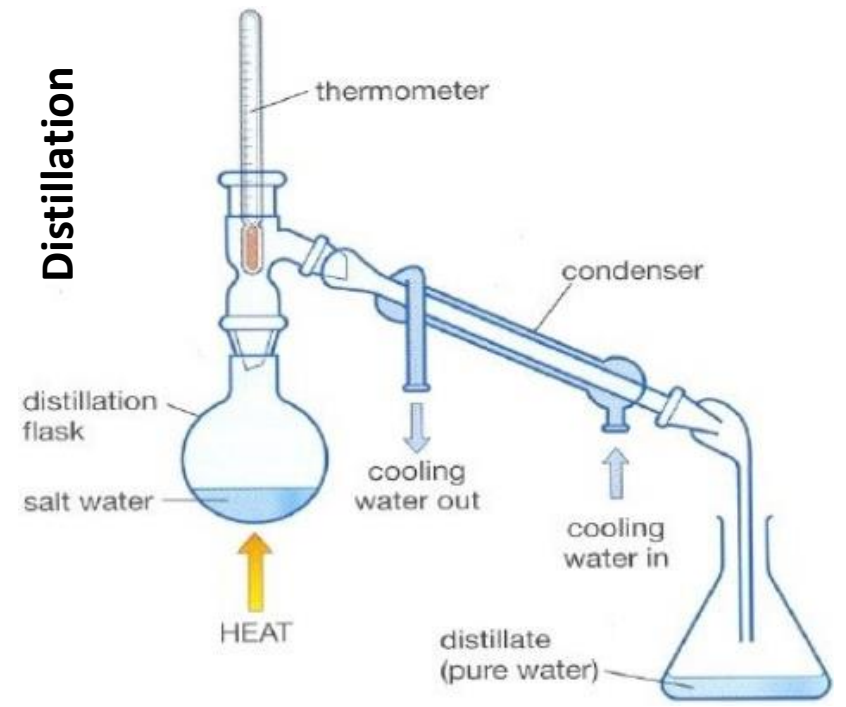
Soluble = can dissolve
 Insoluble = cannot dissolve

Solubility curves show the effect of temperature on solubility. Usually the higher the temperature the more solid can be dissolved. Here the Potassium Nitrate is more soluble at higher temperature

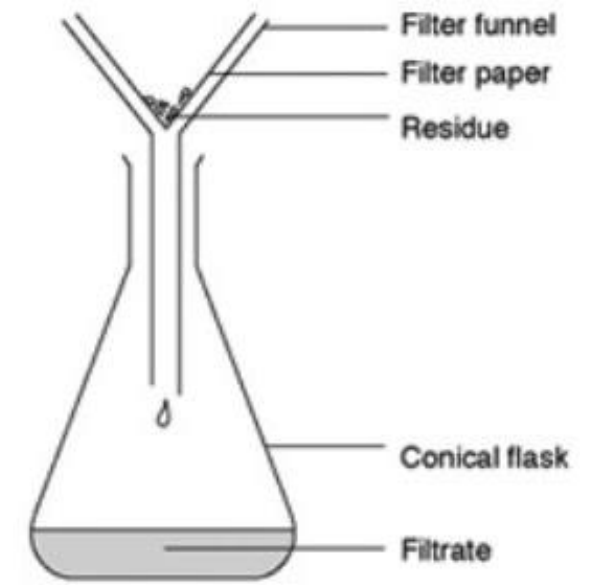


Section 3 - Filtering and Distillation

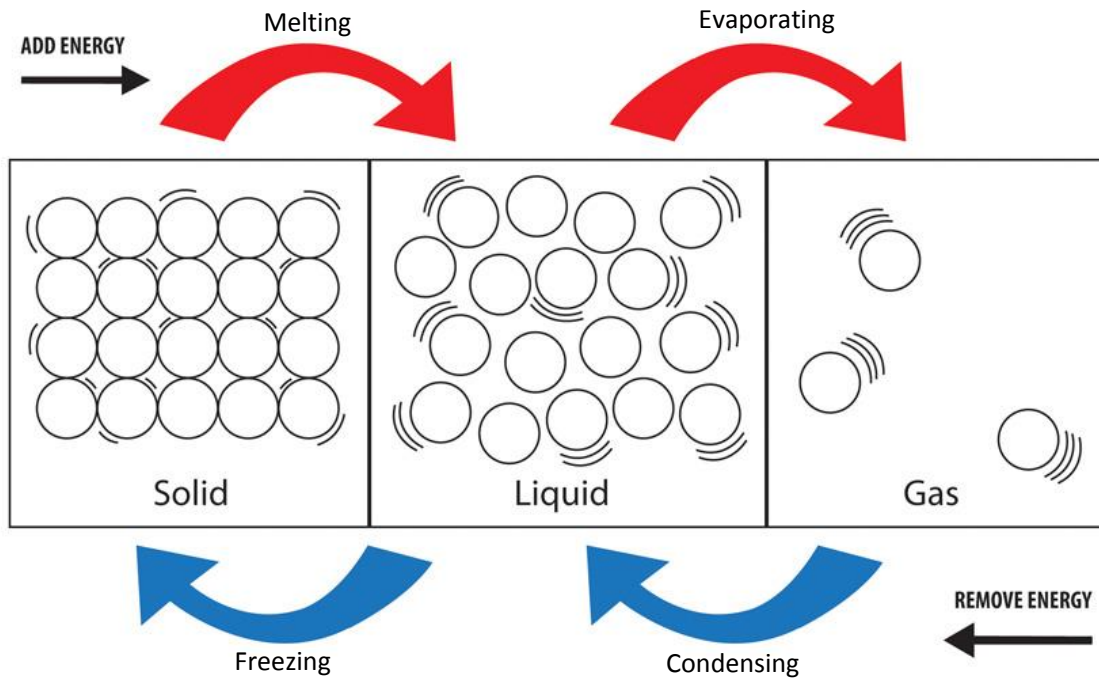
Distillation



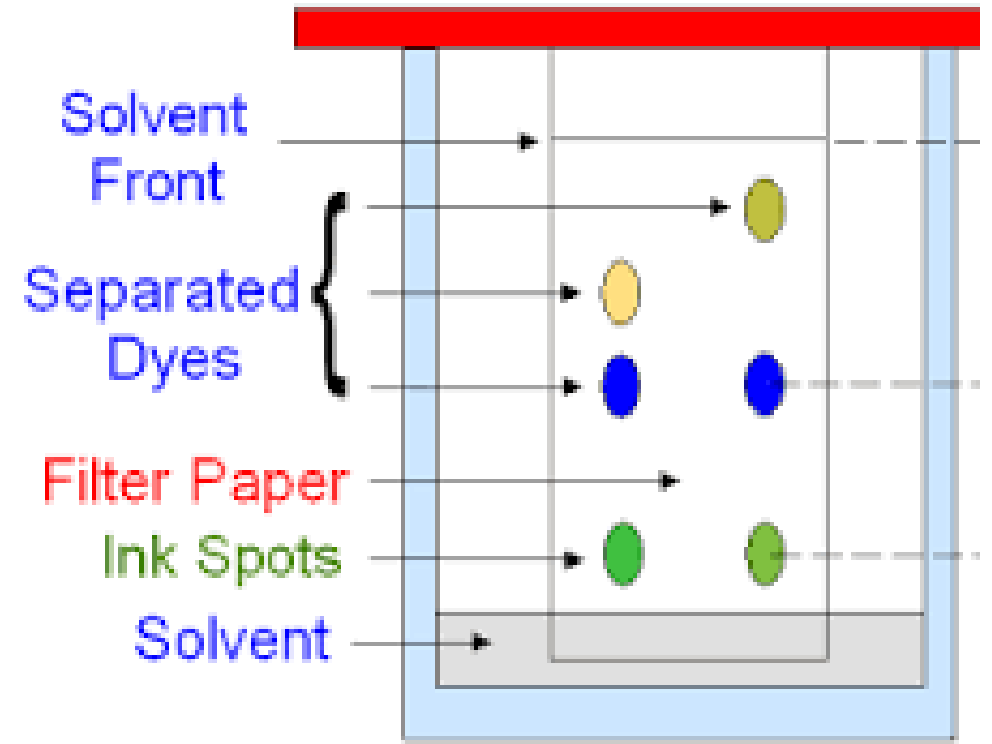
Filtering



Section 5 - Changing states



Section 6 - Chromatography



Section 6 - Chromatography

Chromatography is a method, which can be used to separate mixtures of substances dissolved in a solvent.

The more soluble a substance is the further it will be carried or “piggy backed” by the solvent up the paper.

The different substances will therefore be left at different points on the filter or blotting paper.

The image produced is called a chromatogram. A picture is shown to the right .

Each substance will always move the same distance up the paper if dissolved in the same solvent. The solvent (ink in the above) moves up the chromatogram (paper). Each ink has three parts above two are the same (blue and green) as travelled the same distance.