

Methods for Separating Mixtures

Part of what identifies a mixture, as a mixture, is that it can be separated into distinct components through physical means. This was discussed briefly in the Discussion Section in the first week of classes. Here are methods of separation that were discussed

Ways to separate components of a mixture that contains solids and liquids.

- Filtration
- Centrifugation (Spinning the sample around so that the solid collects at the bottom of the container.)

Ways to separate a heterogeneous mixture made of liquids that do not mix.

- Removing the less dense liquid from the top of the mixture, or removing the denser liquid from the bottom of the mixture.
- Distillation
- Changing the temperature so that one of the liquids solidifies and then removing this solid.

Ways to separate components of a homogenous mixture that is a liquid.

- Distillation
- Filtration – Of the type seen in water filters.
- Dialysis
- Evaporation –This can be used to separate a dissolved solid (or solids) from a liquid.

There are many other types of physical separation of compounds and elements. We will see more of these as we proceed through the course.