

Separation of substances

The tea is been separated from the mixture of tea and tea leaves with the help of a strainer. The tea leaves are the impurities which are not required after the tea is made. The other examples from our day to day life are churning of milk to obtain butter and removing stones from grains.



We separate some substances from a mixture because they act as impurities or become harmful or useless. Like the tea leaves become **useless** after the tea is made. If stones are not removed from the grains they become **harmful** to us as we consume them with grains. When we churn milk for butter, both remain **useful**.

Methods of Separation

Handpicking

It is the method of separating impurities from a mixture by hands. It can be used to separate only impurities that are larger in size like separating stones from grains.



Threshing

The process in which the stalks of wheat from beaten to free it from seeds is called threshing. The grain seeds are separated from stalks by threshing.



Winnowing

Winnowing is a process used to separate heavier and lighter components of a mixture by wind or by blowing air. Chaff and husk can be separated from grains.



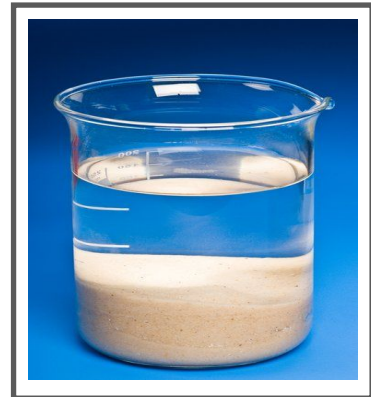
Sieving

The process of separating slightly larger particles from a mixture with the help of a sieve is called sieving. Separating pebbles from sand at construction sites, bran from flour.



Sedimentation

When the heavier component in a mixture settles after water is added to it, the process is called sedimentation. To separate dust and soil from pulses, rice.



Decantation

Decantation is a fast method for separating a mixture of a liquid and a heavier solid. In this process, first the solid impurities are allowed to sediment at the bottom of the container. Then, the pure liquid is poured out carefully from the container into another container. For example separating sand from water



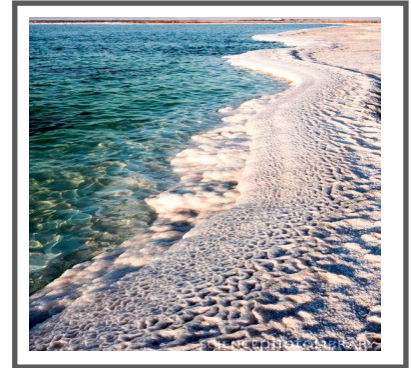
Filtration

The process of separating solid impurities from a liquid with the help of a filter is called filtration like separating lemon seeds from lemon juice.



Evaporation

The process of conversion of water into its vapour form is called evaporation. Salts from sea are formed by evaporation and common salt is obtained by purification from the mixture. This method can be used to separate out salt from water.



Condensation

The process in which vapour gets converted into liquid is called as condensation. Condensation is involved in the regulation of water cycle.

