Separation techniques

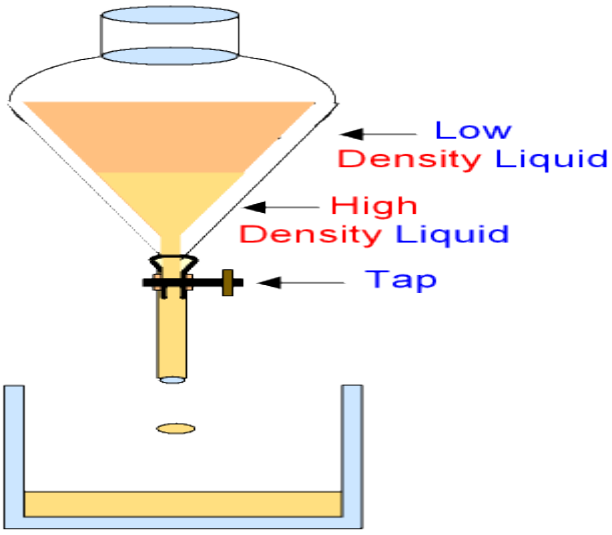
*Separation funnel:

What is a Separating Funnel?

A separating funnel is a glass funnel with a tap at the bottom.
A separating funnel is a separation technique that is used for two liquids that do not dissolve in each other.
Liquids that do not dissolve in each other are called immiscible.

How is a Separating Funnel used?

The mixture of liquids is placed inside the separating funnel and a container is put beneath.
The liquid with the lower density floats on top.



When the tap is opened, the liquid with the higher density starts to flow through the separating funnel into the container.
The tap is then closed just before the liquid with the lower density starts to flow through.
The liquid with the lower density remaining in the separating funnel can then be drained into a different container to separate the two liquids.

Plant in this Lab.
Cassia acutifolia
Uses: Laxative It is used to treat constipation and also to clear the bowel before diagnostic tests such as colonoscopy
Active part: Leaves & pods

Drug extracted from senna available in the pharmacy as tablet: SENADE

Side effect :

- severe stomach pain, severe diarrhea, watery diarrhea;
- weight loss
- worsening constipation after you stop taking senna
- nausea, upper stomach pain, itching, loss of appetite, dark urine, clay-colored stool

Procedure:

Aim : Isolation of glycoside (Anthraquinon) from senna pods

1gm of senna leaves in 100ml water heating to boil (decoction) filter the solution

↓

take the filtrate (10ml) add 2ml HCl heat for 1-2min

↓

Put the solution in separating funnel add 10-12ml organic

↓

Solvent (ethyl acetate or chloroform) shake at least 1min.

↓

collect organic layer.

Note : Chloroform density:1.5,Ethyl acetate density:0.8,Water density:1

Detection :

— **Borntrager's test -** separate the lower chloroform layer and shake with half its volume with dilute ammonia. A rose pink to red color is produced in the ammonical layer