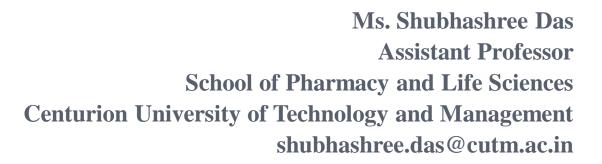
# **MACERATION**



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 In this process solid ingredients are placed in a stoppered container with the whole of the solvent and allowed to stand for a period of at least 3 days (3 - 7 days) with frequent agitation, until soluble matter is dissolved.

 The mixture is then strained (through sieves / nets), the marc pressed and the combined liquids clarified (cleaned by filtration).

- TYPES OF MACERATION :
- Simple maceration: for organized and unorganized Crude drug
- e.g. i) Tincture of Orange
  - ii) Tincture of Lemon
- Double maceration : Concentrated infusion of orange
- Triple maceration: The maceration process may be carried out with help of heat or stirring

Maceration with Adjustment

- SIMPLE MACERATION: for organized drugs e.g. roots, stems, leaves etc.
- Alcohol is used as a menstruum.
- In this process, the drug is placed with the menstruum in a closed vessel for seven days.
- At this period shaking is done occasionally.
- After seven days, the liquid is strained & marc is pressed.
- The expressed liquid is mixed with strained liquid.
- Then again filter for obtaining the clear liquid.
- The final volume is not adjusted.

- MODIFIED MACERATION or MACERATION WITH ADJUSTMENT: for Unorganized drugs e.g. Gum, Resins, Gum-resins, Oleo gum-resins.
- In this process, the unorganized drug is placed with 4/5<sup>th</sup> volume of menstruum in a closed vessel for seven days.
- At this period shaking is done occasionally.
- After the stated period, the liquid is filtered & not necessary to press the marc.
- After that, the final volume is adjusted with the remaining quantity of 1/5<sup>th</sup> volume of menstruum through the filter.

- DOUBLE MACERATION PROCESS: it is carried out in the same way as simple maceration process, but menstruum used in divided into two parts.
- In that process drug is macerated twice by using the menstruum which is divided into two parts in a such manner that the same volume is used for each maceration.
- The volume of menstruum required is calculated as follows
  - Volume of menstruum req. for first maceration

<u>Total Vol.of menstruum - Vol.to be retained by the drug</u> + Vol.to be retained by the drug

2

ii. Volume of menstruum req. for second maceration

Total vol.of menstrum – Vol. of menstruum used in first maceration

- In that process the whole drug is macerated for 48 hrs with quty. of menstruum for first maceration.
- Strain the liquid & press the marc after 48 hrs.
- Then again macerated for 24 hrs with remaining quty. of menstruum for second maceration.
- Strain the liquid & press the marc after 24 hrs.
- Then mix the liquids obtained from the two maceration & allows it to stand for 14 days & then filter.
- e.g. Concentrated infusion of orange
  Concentrated compound infusion of chirata

#### Cont..

- TRIPLE MACERATION PROCESS: it is carried out in the same way as simple maceration process, but menstruum used in divided into three parts.
- In that process drug is macerated thrice by using the menstruum which is divided into three parts in a such manner that the same volume is used for each maceration.
- The volume of menstruum required is calculated as follows
- Volume of menstruum req. for first maceration

<u>Total Vol.of menstruum - Vol.to be retained by the drug</u> + Vol.to be retained by the drug

3

ii. Volume of menstruum req. for 2nd & 3rd maceration

Total vol.of menstrum - Vol. of menstruum used in first maceration

### Cont...

- In that the drug is macerated for one hour with a part of menstruum req. for first maceration & strained.
- Macerated again for one hour with a part of menstruum for second maceration & strained.
- Macerated again for one hour with a part of menstruum for third maceration & strained.
- After that, marc is pressed lightly.
- Then combine the liquids obtained from 2<sup>nd</sup> & 3<sup>rd</sup> maceration & evaporated it to a specified extent.
- Then, mix it with the liquid obtained from 1<sup>st</sup> maceration & add alcohol 90% equal to 1/4<sup>th</sup> of the volume of the finished product.
- Then adjust the volume with water.
- Allow this solution for 14 days & then filter.
- e.g. Concentrated infusion of Quassia, Liquid extract of senna

