



EXTRACTION OF PERFUME FROM FLOWERS

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Abstract: Chemical terpenes, perfumes, tastes, cosmeceuticals, and health beverages are all derived from aromatic plants. The process of extracting involves utilizing certain solvents to separate the aromatically active parts of plant tissues. Percolation, maceration, and other general extraction methods for aromatic plants can be used. Plants can produce products in a liquid or semisolid condition that are relatively complicated combinations of metabolites. The phytochemical analysis of Magnolia Champaca, Holy Basil, and Rosa Indica revealed the presence of alkaloids, coumarins, flavonoids, tannins, terpenoids, leucoanthocyanins, steroids, anthocyanins, phlobatinins, essential oil, and saponins. Different processes of aromatic plant extracts and essential oils used for perfume formulation are reviewed. The choice of cosmetics by consumers is frequently influenced by fragrance, which is an essential component of cosmetic goods. As frequent ingredients in cosmetic formulations like fatty acids, oils, and surfactants, fragrances also play a significant role in disguising unpleasant odours. Furthermore, given the potential health risks associated with artificial fragrance chemicals, which are important components of cosmetics, the stoking demand for natural ingredients has significantly contributed to a renewed interest in the cosmetic and wellness industries in plant derivatives. As a result, well-known cosmetic companies now endorse natural fragrances and choose minimally processed natural ingredients

Key Words: The tincture, Herbal Perfume, Dioxygen, Maceration, Percolation etc.

I. INTRODUCTION

The word "perfume" comes from the Latin "per fumum," which means "through the smoke." Perfume is a fragrant liquid that is applied to the skin or clothes by spraying it on or rubbing it there to produce a pleasing odour. The practice of making perfume from various plant sources dates back to ancient times. In reality, locals from many tropical parts of the world have long extracted oil from a variety of oil-bearing plants. Humans have known how to obtain oil from their natural resources since antiquity.^[1]

-Tinctures are concentrated herbal extracts created by soaking one or more plants' bark, berries, leaves (either dried or fresh), or roots in alcohol or vinegar. The active components in the plant pieces are drawn out by alcohol or vinegar, which concentrates them into a liquid^[2]

-Maceration: It is an antiquated technique for making medicines. It is regarded as a popular and affordable method for producing natural products from plant material. The maceration is a technique for extracting solids from liquids. The powdered solid material is placed in a sealed vessel during this operation. the solvent is then included. It is permitted to stand for extended periods of time with some trembling. The solvent is given enough time to diffuse through the cell wall and solubilize the plant component.^[3]

Advantages:

1. Skilled operator not required.
2. Energy saving process.
3. Suitable method for less potent and cheap drugs.

Disadvantages:

1. Solvent required is more.
2. It is a slow process and time consuming
3. Not exhaustively extract the drug.

-Percolations: The method most frequently employed to extract active components for tincture and fluid extract preparation is this one. In a percolation, the solid ingredients are moistened with the proper amount of solvent and let to stand for around 4 hours in a tightly sealed container. The mass and mixture are then allowed to macerate in the closed percolation for 24 hours. The percolator's outlet is then opened, allowing the liquid inside to trickle gradually. Until the percolate equals about three-quarters of the required volume of the finished product, the additional solvent is added as needed. After pressing the extract, the liquid is added and allowed to percolate. ^[3]

Advantages:

1. Required less time than a maceration.
2. Extraction of thermolabile constituents can be possible
3. Suitable method for potent and costly drugs.

Disadvantages:

1. Required more time than soxhlations.
2. More solvent is required.
3. Skilled person is required.

Profile Study-**1) ROSE**

Botanical Name: *Rosa gallica* Linn

Family: Rosaceae

Division: Magnoliopsida

Parts Used: Flower Petals

Phytoconstituent:

Citronellol, phenyl ethanol, geraniol, neroli, farnesol, and steapoten are among the chemical constituents of rose oil. Nonanal, linalool, phenylacetaldehyde citral, carvone, citronellyl acetate, 2-Phenylmethyl acetate, methyl eugenol, and rose oxide are also present in trace amounts. ^[4,5]

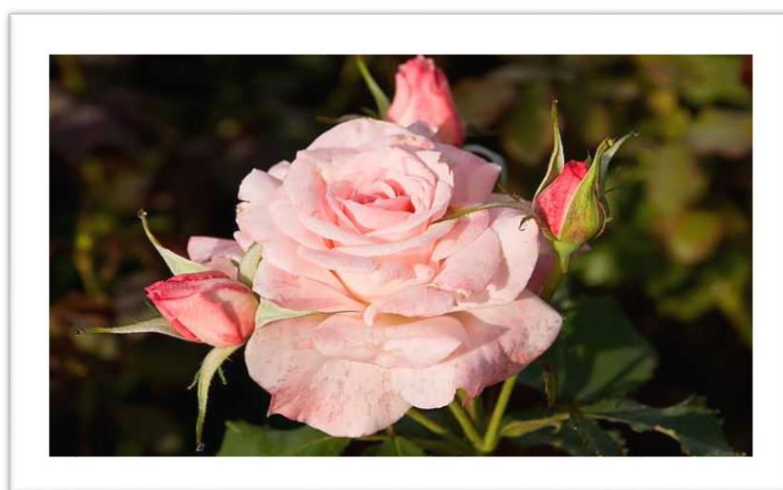


figure no 1: rose flower

2) MANJULA

Botanical Name: *Ocimum tenuiflorum*

Family: Lamiaceae

Division: Magnoliophyta

Parts Used: Plant Seeds

Phytoconstituent:

Eugenol, rosmarinic acid, apigenin, myretenal, luteolin, β -sitosterol, and carnosic acid. ^[6,7]



figure no 2: manjula

3) CHAMPAK

Botanical Name: *Magnolia champaca*

Family: Magnoliaceae

Division: Magnolia

Part Used: flower Petals

Phytoconstituent:

The essential oil isolated from flowers, leaves and fruit contains mono and sesquiterpenes. The plant also contains -sitosterol and its glucoside, parthenolide, dihydro-parthenolide, micheliolide, germacranolide, constinolide, Tridentine, machelineA6^[7]



figure no 3: champak

4) SHEVANTI

Botanical Name: *Chrysanthemum multifolium*.

Family: Asteraceae

Division: Chrysanthemum

Part used: flower Petals

Phytoconstituent:

chrysanthemum many phytoconstituents are present like flavonoids, tannins, terpenoids & Glycosides^[8]



figure no 4: shevanti

5) Gulchadi

Botanical Name: *Polianthes tuberosa L*

Family: Asparagaceae

Division: Agave

Parts used: flower petals

Phytoconstituent:

These pharmacological activities of the plant are due to its chemical constituents like diterpenoid lactones, glycosides, steroids, sesquiterpenoid, phenolics, aliphatic compounds, essential oils, a mixture of fatty acids, and polysaccharides and are present in different parts of the plant body, including root, stem, and whole part.^[9]



figure no 5: gulchadi

FLOWERS USED:**Table No 1: Plant and parts used**

Sr. No.	Code	Plant Name	Part of the flower used
1	F1	Rose	Petals
2	F2	Manjula	Seeds
3	F3	Champak	Petals
4	F4	Shevanti	Petals
5	F5	Gulchadi	Petals

Basic Procedure:

There are various ways to make tinctures, including percolation, the folk and ratio methods of maceration. Folk Method: Chop up fresh plant material, pack it into a jar to the top, and then seal the jar. Choose a fairly mattress texture. vodka with a 50% alcohol content to the brim, and let steep for 4-6 weeks. Fill the jar 1/4 to 1/3 full with dried plant material; if the material is fluffy, add a little more; then, cover it off with vodka. Steep for four to six weeks.

Cut up and weigh plant material using the ratio method. Put the desired ratio in a jar and add the right quantity of the water/alcohol mixture (at your preferred% abv). For example: if you want to make a 1:2 ratio and you have 4 ounces of fresh herb in the jar, add 8 ounces of menstruum. If you choose, you can also measure grammes in milliliters. For fresh plant matter, a ratio of 1:2 is optimum, whereas one of 1:5 is typical for dried plant matter. The traditional approach is frequently 1:5 or more diluted with fresh plant material.

Procedure:

Selection of flower: Select the flowers on the basis of their aroma.

Flowers with a high aroma can be used to make perfume.

Part of the flower used: Separate the petals and seeds.

Weigh the number of petals and seeds used.





figure no 6: flowers used for extraction

-Addition of Solvent: Select the suitable solvent for the process

Use Alcohol as a solvent and add 150 ml of alcohol to the petals. Keep the mixture for 48hr.

Covered the mixture with filter paper as alcohol is volatile in nature.

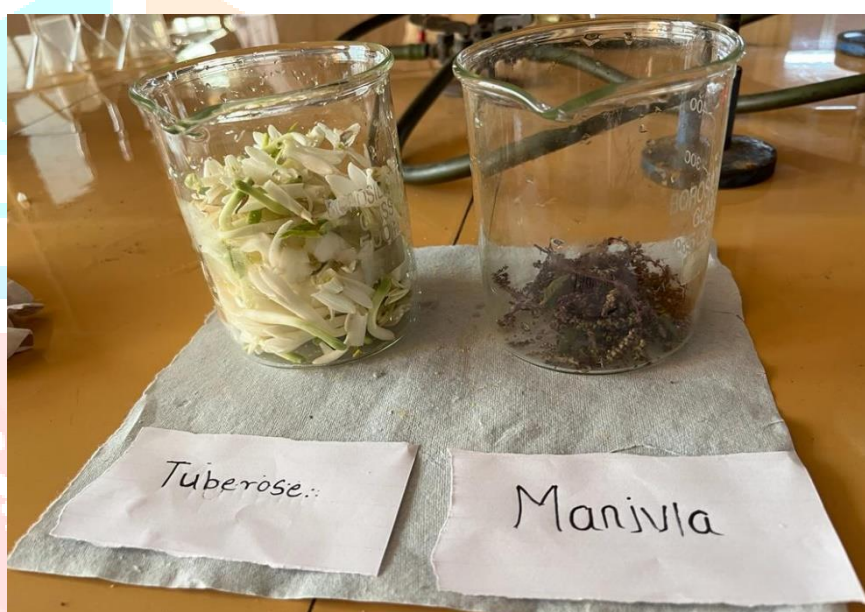


figure no: 7

Filter the mixture: Separate the petals and alcohol **-after** that wash the petals again with 50 ml alcohol. Mix the two filtrates together. heat the mixture to the required concentration.



figure no: 8

-Heat the filtrate in the boiling water bath the alcohol gets evaporates and the required quantity of test sample is obtained. Store the sample in a well-closed container

table no. 02

Sr no	Fn	Weight Of Patels	Amount Of Alcohol Added	Concentration Obtained after heating
1	F1	40.15gm	150ml	10ml
2	F2	35.13 gm	150ml	10 ml
3	F3	43.00gm	150ml	8 ml
4	F4	41.50 gm	150ml	9 ml
5	F5	66.9gm	150ml	8 ml

EVALUATION TEST FOR PERFUME:

Organoleptic characteristics:

Various aspects of perfume preparations, including colour, consistency, and scent, were observed (Hernani, 2012). To gauge how much people liked and accepted the preparation's colour, taste, scent, and consistency, an organoleptic test was conducted (Lamassu er al., 2012). The table below shows observations of the organoleptic test of colour, scent, and consistency of stick perfume formulations.

Table no. 03

Sr no	Fn	Colour	Odour	pH
1	F1	Brown	Characteristic smell	3
2	F2	Light Green	Characteristic smell	5
3	F3	Reddish Brown	Characteristic smell	6
4	F4	Pale Yellow	Characteristic smell	5
5	F5	Reddish Brown	Characteristic smell	4

Homogeneity Test:

For a preparation to be irritant-free, it must be uniform and flat. According to the findings of homogeneity tests, none of the scent formulations when applied to transparent glass displayed any coarse grains. This demonstrated the uniform placement of the preparations. Because the components utilized are soluble in essential oils, all homogenous preparations showed that all formula ingredients were thoroughly blended, as there were no lumps or coarse grains in the preparations. Taken, applied to the glass mixture, and then covered with glass was 0.5 g of perfume. After that, it was checked visually for the presence of coarse grains (Mappa et al., 2013).

Table no. 04

Fn	Observation	Conclusion
F1	One Phase	Homogeneous
F2	No Corse grain	Homogeneous
F3	One Phase	Homogeneous
F4	One Phase	Homogeneous
F5	No Corse grains	Homogeneous

Sensitivity and Irritation Test

On the inner upper arm of 30 panellists, an open patch test was the technique used. Men and women between the ages of 20 and 30 who are willing to participate in an irritation test panel and who have no history of allergic illness must meet the following inclusion criteria. There were 30 unusual and unskilled panellists. In order to do an open patch test, preparations were applied to the attachment site in a certain region (2.5 2.5 cm), left open, and the area was then monitored. Three days in a row, this test was run three times daily.

Redness, itching, or swelling in the treated area of the inner forearm were signs of a good irritation reaction. The presence of red skin was marked (+), itching (+), swelling (**), and skin that did not show any reaction is marked 0) (Nazlinawaty et al., 2012).

Table no.05

Sr No	Fn	Observation	Conclusion
1	F1	No irritation	Compatible With Skin
2	F2	No irritation	Compatible With Skin
3	F3	No irritation	Compatible With Skin
4	F4	No irritation	Compatible With Skin
5	F5	No irritation	Compatible With Skin

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