

Odour Classification of Fragrance Materials

Classification on basis of their origin

Perfumery Materials

Mainly following groups

NATURAL SOURCE

- **1. Essential Oils** – Citronella oil Lemon grass oil, Sandalwood Oil, Orange Oil, Eucalyptus Oil, Lavender Oil, Clove Oil, Patchouli Oil etc.
- **2. Semi-synthetic Materials** – Origin will be natural – Subject to reactions
Ionone , Hydroxycitronellal, Vanillin
- **3. Animal Origin** – Musk, Civet

SYNTHETIC FRAGRANCE CHEMICALS

Synthetic fragrance chemicals began in the first half of the last century and ran parallel to the rapid development of organic chemistry

Some plant fragrance materials are difficult to extract from natural sources and therefore chemists have successfully produced them synthetically

.

Total range of synthetic fragrance is very vast and many of them are made from coal tar and petroleum routes.

Purely Synthetic Materials –

Lilial ,

Aldehyde C12MNA,

Amyl Cinnamic Aldehyde

Galaxolide etc.

Classification by Functional Groups

- Hydrocarbons – Open, Cyclic, Aromatic (Saturated or unsaturated)
- Alcohol – Primary, secondary, tertiary
- Aldehydes / Ketones
- Esters
- Ethers
- Lactones
- Phenols

Contd :

- Halogen containing compounds –
Rose crystals
- Nitrile –
Geranyl nitrile
- Sulphur contg –
Dimethyl Sulphides

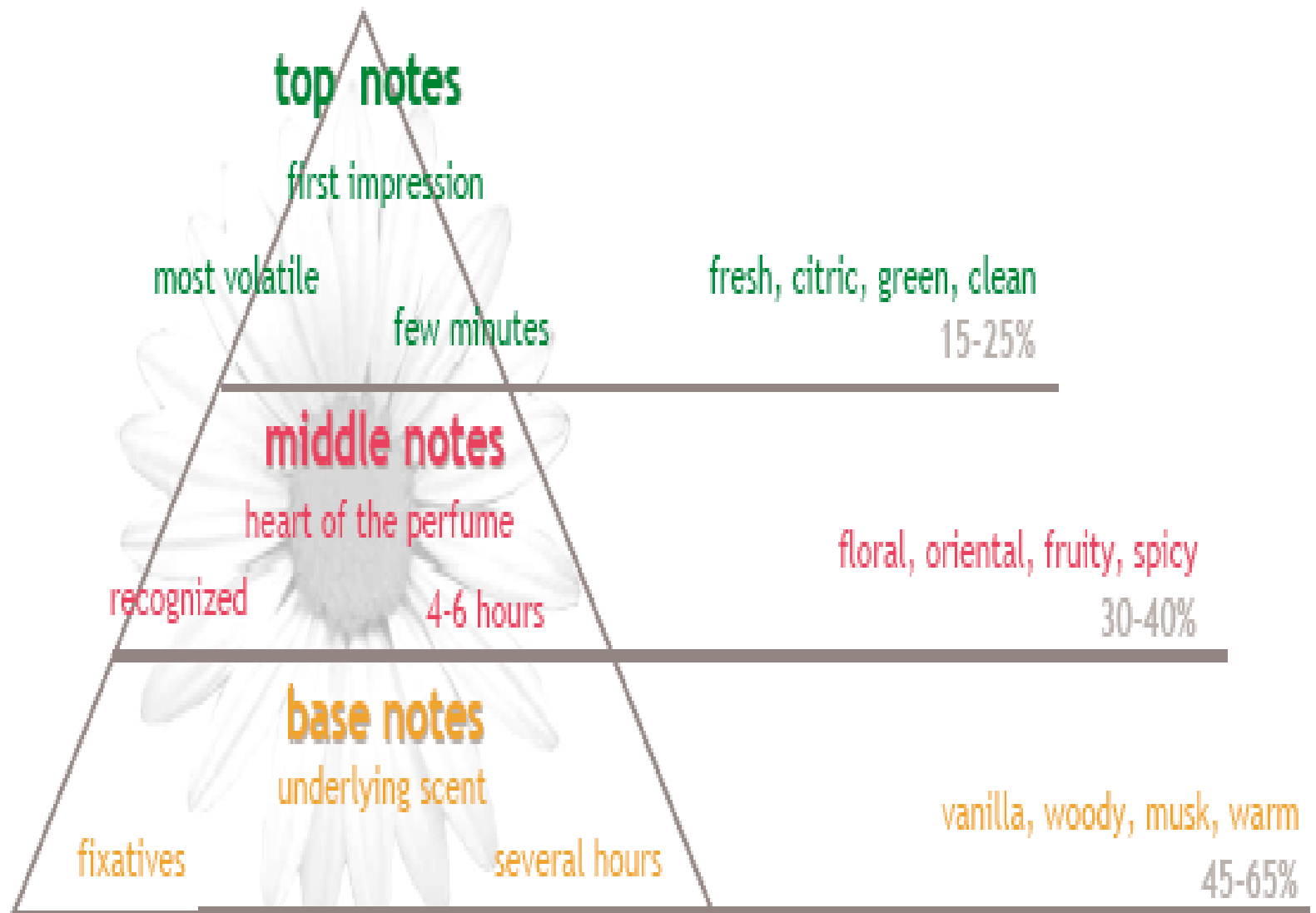
Perfume is a mixture of fragrant essential oils and aroma compounds, fixatives, and solvents used to give the human body, objects, and living **spices** a pleasant smell.

Perfume is associated in many cultures with the sensual and romantic side of life.



Typical >3000 -material perfumer's palette,
24% natural,
11% nature identical
Balance – Mainly synthetics , semi-synthetics

The increased availability of natural and organic ingredients of course provides perfumers more hedonically acceptable products, but there remain problems with coloration, limits of certain notes such as musks, allergens, cost, etc.



Classification on --FRAGRANCE FAMILY

1. FLORAL

Green

2. CITRUS

2. FRUITY

3. WOODY

4. HERBAL

5. SPICY

6. MUSKY / ANIMALIC

7. ALDEHYDIC

FLORALS

ROSE

JASMINE

LAVENDER

WHITE FLOWER

(MUGUET,LILY , TUBEROSE)

CITRUS

- LEMON
- ORANGE
- BERGAMOT
- GRAPE FRUIT

FRUITY

A vibrant assortment of fresh fruits including apples, oranges, grapes, watermelon, cantaloupe, pineapple, and strawberries.

- **APPLE**
- **RASBERRY**
- **STRAWBERRY**
- **PEACH**
- **GRAPE FRUIT**

Example : Boss and Happy

WOODY

The background of the slide is a photograph showing a pile of light-colored wood chips on the left and a glass jar with a lid containing a reddish-brown liquid, likely an essential oil, on the right. The jar is surrounded by more wood chips. The overall scene is set against a dark, textured background.

- CEDARWOOD
- SANDALWOOD
- VETIVER
- PATCHOULI

Example : Fahrenheit and Samsara

HERBAL

- LEMONGRASS
- CITRONELLA
- PEPPERMINT
- SPEARMINT

SPICY

A vibrant collection of various spices and herbs. In the foreground, there are several cinnamon sticks, some whole and some broken. To the left, there are bright red chili peppers. In the center, there are dark brown cloves and star-shaped nutmeg. The background is filled with other spices, including what looks like turmeric powder and more cinnamon sticks. The overall scene is a rich, colorful display of aromatic ingredients.

- CINNAMON
- CLOVE
- NUTMEG

Example : Opium, Tommy Hilfiger

ALDEHYDIC

- Aldehyde C-10
- Aldehyde C-11
- Aldehyde C-12
- Aldehyde C-14

Example : Chanel no.5

ANIMALIC

- **CIVET**
- **MUSK**
- **CASTORIUM**
- **SYNTHETIC MUSKS**

Conclusions

- Fragrances are made by blending individual fragrant materials
- These Ingredients can be Natural or Semi-synthetic or synthetics
- Materials can be classified based on their Origin, Chemical Structure and Functional groups
- The most common and practical approach –
- Materials are generally classified based on their odour character

Demo

Individual's Association with
each odour class is very
important and key for
creativity