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PRODUCTION OF PERFUME FROM THE EXTRACT OF AGAVE AMICA, PLUMERIA RUBRA, WHITE CHRYSANTHEMUM BY USING STREAM DISTILLATION AND SOLVENT EXTRACTION METHODS

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ABSTRACT:

Since the beginning of the perfume history, people like to wear different perfume. So, we conduct a study was undertaken to extract essential oils from Agave Amica, Plumeria Rubra, White Chrysanthemum using stream distillation method and solvent extraction method. We blend it to make a perfume, and named it **White Rainbow.** There is no chemicals used in this perfume. Its is a natural perfume. The benefit of using natural perfumes is they are non-toxic in nature. Natural fragrances don't contain harmful toxic substances. This is also non allergic to skin. This perfume can be blended in your home as per your choice and taste.

INTRODUCTION:

Perfume is a fragrant liquid made from an extract that has been distilled in Alcohol and water. Since the beginning of recorded history, humans have attempted to mask or Enhance their own odor by using perfume, which emulates nature's pleasant Smells. Many natural and man-made materials have been used to make perfume to Apply to the skin and clothing, to put in cleaners and cosmetics, or to scent the air. Because of difference in body chemistry, temperature, and body odors, no perfume will smell exactly the same on any two people. Perfume comes from the Latin "per" meaning "through" and "fume" or "smoke." Many ancient perfumes were made by extracting natural oils from plants through pressing and steaming. The oil was then burned to scent the air. Today, most perfume is used to scent bar soaps. Some products are even perfumed with industrial odorants to mask unpleasant smells or to appear "unscented" while fragrant liquids used for the body are often considered perfume, true perfumes are defined as extracts or essences and contain a percentage of oil distilled in alcohol.

A perfume is composed of three notes. The base note is what a fragrance will smell like after it has dried. The smell that develops after the perfume has mixed with unique body chemistry is referred to as the middle note. And the top note is the first smell experienced in an aroma. Each perfumery has a preferred perfume manufacturing process, but there are some basic steps. The notes unfold over time, with the immediate impression of the top note leading to the deeper middle notes, and the base notes gradually appearing as the final stage. These notes are created carefully with knowledge if the evaporation process of the perfume. The top note consists of small light molecules that evaporate quickly. The middle note forms the heart of the main body of a perfume and act to mask the often unpleasant initial impression of base notes.

Traditionally perfumes were made from plant and animal substances and prepared in the form of waters, oils, unguents, powders, and incense. This last method for fragrance gives us our word 'perfume' which means 'to smoke through'. Most modern perfumes are alcohol-based and contain synthetic scents .While the term 'perfume' usually refers to fragrances in general, in the more technical language of the perfumer, a perfume must contain over 15% of fragrance oils in alcohol. The preferred fragrances for perfumes are by no means universal, but differ according to cultural dictates and fashions. In the sixteenth century, for example, pungent animal scents such as musk and civet were very popular. In the nineteenth century, by contrast, such animal scents were generally considered too crude, and light floral fragrances were favored. Techniques involved in perfume extraction from plants include; solvent extraction, distillation and effleurage method. These methods to a certain extent, distort the odor of the aromatic compounds that are obtained from the raw materials.

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Important thing in relation to perfume making is that there are three key ingredients you will need to produce perfume:

- 1. Essential oils (there have been extracted from various plants (organic or nonorganic) and when combined give the smell of the perfume you are trying to produce.
- 2. Pure Grain Oil
- 3. Water

THE STORY OF PERFUME:

The word *perfume* derives from the Latin "*per fumum*", meaning through *smoke*. The French later gave the name "*parfum*". Perfumery, or the art of making perfumes, began in ancient Mesopotamia and Egypt and was further refined by the Romans and Persians.

The preparation of perfumes is a very ancient art that is met with among all peoples possessed of any degree of civilization. The is particularly the ancient nations of the Orient which had in truth become masters in the manufacture of numerous perfumes. The ancient **Greeks** can take credit for the first liquid perfume. But it was the development of distillation by the Arabs that made perfume manufacture viable. The first perfume was the fragrant flower; it has continued to be so to the present day: the sprig of dried lavender flowers which we lay in the clothes-press was probably used for the same purpose by the contemporaries of Aristotle. In the Orient, which we may look upon as the cradle of the art of perfumery, the idea suggested itself early to substitute for the delicious fragrance of the flowers some substances of lasting odor; various sweet-scented resins supplied the material for this purpose. The use of these aromatic resins must have been very extensive: the ancient Egyptians alone consumed extraordinary quantities for embalming their dead. The use of perfume is mainly associated with mystery, fantasy and imagination. We wear perfume to leave a good impression, to surround ourselves with a pleasing; lingering scent. Although perfume does have a long history, it has not always carried a hint of romance.

The Romans, who were the pupils of the Greeks in all the arts, carried the luxury with perfumes perhaps even further. In ancient Rome there was a very numerous guild of perfumers called *unguentaria*; they are said to have had a street to themselves in Capua.

Islamic cultures contributed significantly to the development of Middle Eastern perfumery in two significant areas: perfecting the extraction of fragrances through steam distillation and introducing new raw materials. Both have greatly influenced Western perfumery and scientific developments, particularly chemistry. With a rise of Islam, Muslims improved perfume production and continued to use perfumes in daily life and in practicing religion. They used musk, roses and amber among other materials.

Knowledge of something perfumery came to Europe as early as the 14th century due partially to Arabic influences and knowledge. But it was the Hungarians who ultimately introduced the first modern perfume. The first modern perfume, made of scented oils blended in an alcohol solution, was made in 1370 at the command of Queen Elizabeth of Hungary and was known throughout Europe as Hungary Water.

Cultivation of flowers for their perfume essence, which had begun in the 14th century, grew into a major industry in the south of France mainly in Grasse now considered the world capital of perfume. During the Renaissance period, perfumes were used primarily by royalty and the wealthy to mask body odors resulting from the sanitary practices of the day. Partly due to this patronage, the western perfumery industry was created. Perfume enjoyed huge success during the 17th century. Perfumed gloves became popular in France and in 1656, the guild of glove and perfume-makers was established. Perfume substituted for soap and water. The use of perfume in France grew steadily. By the 18th century, aromatic plants were being grown in the Grasse region of France to provide the growing perfume industry with raw materials. Even today, France remains the centre of the European perfume design and trade.

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Perfume manufacture in Russia grew after 1861 and became globally significant by the early 20th century. The production of perfume in the Soviet Union became a part of the plannedeconomy in the 1930s, although output was not high. Perfumes use peaked in England during the regins of Henry VIII (reigned 1509-1547) and Queen Elizabeth I (reigned 1558-1603). All public places were scented during Queen Elizabeth's rule, since she could not tolerate bad smells. It was said that the sharpness of her nose was equalled only by the slyness of her tongue. Ladies of the day took great pride in creating delightful fragrances and they displayed their skill in mixing scents in a manor houses' still room. As with industry and the arts, perfume underwent profound change in the 19th century. Changing laid the foundations of modern chemistry laid the foundations of modern perfumery as alchemy gave way to chemistry. In early America, the first scents were colognes and scented water by French explorers in New France. Florida water, an uncomplicated mixture of eau de cologne with a dash of oil of cloves, cassia and lemongrass, was popular.

In more resent times the great extension of trade to the farthest countries of the globe, and still more the progress of chemistry, have made us familiar with a number of new perfumes. More than two hundred different aromatic substances are now known, and still they are far from being exhausted; every year new odoriferous plants become known, from which the chemist extracts perfumes. By this means, as well as by the enormous employment of perfumes in all grades of society, the art of their preparation has risen to a higher plane; out of empiricism, which alone prevailed a few decades ago, into the domain of the chemical sciences. The art of perfumery has made noteworthy progress both with reference to the knowledge of new aromatic substances and to improvement in the methods of their preparation; by the introduction of glycerine, solid and liquid vaselin, and salicylic acid into perfumery, one of its branches-hygienic cosmetics- has made an important advance.

At present it is particularly France and England whose perfumery industry is most extensive and which to some extent rule the markets of the world; southern France and Algiers especially furnish the best raw materials, the finest essential oils for the manufacture of perfumes at the chief centres, Paris and London.

Indus valley civilization is considered as an origin for Perfumes in India, which existed from 3300 BCE to 1300 BCE. On the basis of things found during excavation, it can be said that the social life of people during the Indus Valley civilization were excellent. Both men and women had great interest in different cosmetics such as lipstick, perfumes, soot, powder, etc. the custom of fragrance remained well perched beginning right from the Sindhu valley civilization to the Gupta period. India exported pearls, stones, perfumes, spices indigo, drugs, gold, silver, tin etc. Archaeologists believe that the art of making perfumes began in India during the Indus Valley civilization. They found a distillation apparatus made out of terracotta which dated back into 3000 BCE. Terracotta vessels were discovered that had plugged orifices and woven material that could be squeezed out to isolate the fragrant oils. Preparation or perfumes (Gandhayukti) is described in seventy seventh chapter of Brihat-Samhita. In this chapter there is a mention of different substance such as Tagara, Manjistha, Myrrh, sukti, Turuska and many more. Kautilya's Arthashastra was also written during this era, has mentioned various fragrant herbs like Chandan, Agaru, Tailaparnika.

In the Mughal period, perfumes were called 'Itra', 'Ittar' and 'attar' and, were used in huge amounts in the harems of the royals. According to historian, the popular Mughal emperor Akbar had a whole department of perfumery. Mughal emperors and their queens were fond of attar fragrance and this led to the discovery and development of attars in India.

After the decile of Mughal dynasty in the eighteenth century, the Nawabs governed Awadh and became its rulers. The late Nawab, Wajid Ali Shah, was a kathak dancer. The arts and crafts scene had flourished in Lucknow, the capital of India's Awadh province during the Nawab era. It is said that he sweated a lot during his dance practice, so he would wear the Henna attar. And Awadh promoted the cultivation and Ittar craftsmanship, which is continued till date.

TYPES OF PERFUME:

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- **Single Floral**: Fragrances dominated by a particular flower; in French called a *soliflore*.
- Floral Bouquet: Compound of several flower scents.
- **Leather**: A family of fragrances featuring honey, tobacco, wood and wood tars in the middle or base notes and a scent that alludes to leather.
- **Fougère**: Meaning *fern* in French, built on a base of lavender, coumarin and oakmoss, with a sharp herbaceous and woody scent. Named for Houbigant's *Fougère Royale*, many men's fragrances belong to this family.
- Amber or "Oriental": Large class featuring sweet, slightly animalic scents of ambergris or labdanum, often combined with vanilla, tonka bean, flowers and woods. Can be enhanced by camphorous oils and incense resins, evoking Victorian era "Oriental" imagery.
- **Chypre**: Meaning *Cyprus* in French, this includes fragrances built on bergamot, oakmoss, and labdanum. Named after oakmoss scent (**chypre** powder), popularized with the success of François Coty's *Chypre* (1917).
- **Woody**: Fragrances dominated by woody scents, typically agarwood, sandalwood, cedarwood, and vetiver. Patchouli, with its camphoraceous smell, is commonly found in these perfumes.
- **Citrus**: An old fragrance family that until recently consisted mainly of "freshening" eau de colognes, due to the volatility of citrus scents. Development of newer fragrance compounds has allowed for the creation of more tenacious citrus fragrances.
- **Green**: Lighter, more modern interpretation of the Chypre type, with pronounced cut grass, crushed green leaf and cucumber-like scents.
- **Fruity**: Featuring fruits other than citrus, such as peach, cassis (black currant), mango, passion fruit, and others.
- **Gourmand**: Scents with "edible" or "dessert-like" qualities, often containing vanilla, tonka bean, and coumarin, as well as synthetic components designed to resemble food flavors.
- **Bright Floral**: Combining Single Floral & Floral Bouquet traditional categories.
- Aquatic, Oceanic, Ozonic: The newest category, first appearing in 1988 Davidoff *Cool Water* (1988), Christian Dior *Dune* (1991). A clean smell reminiscent of the ocean, leading to many androgynous perfumes. Generally contains calone, a synthetic discovered in 1966, or more recent synthetics. Also used to accent floral, oriental, and woody fragrances.
- Eau de Perfume / Eau de Parfum: This is the perfume category with the next highest concentration of oils with around 15 to 20% essential oils or "perfume extract" in the fragrance blend. It is less expensive than perfume. It has slightly more alcohol and water in the ingredients, however, it still has a high level of perfume oils.
- **Eau de Cologne:** The category known as Eau de Cologne is one of the lightest fragrance concentrations with essential oils or "perfume extract" of between 2 to 4%. It is often thought of as a masculine formula, however, there are feminine eau de colognes as well.
- **Eau de Toilette:** This perfume category is for fragrances with essential oil or "perfume extract" concentrations of between 5 to 15%. Due to the low combination of essential oils and high percentage of alcohol, it tends to dissipate quickly.
- **Eau Fraiche:** This category is for perfumes that are the most diluted with essential oil and "perfume extract" concentrations of around 1 to 3%. The main ingredient is water as 'Eau Fraiche' means fresh water.

PERFUME NOTES:

Perfume is described in a musical metaphor as having three sets of *notes*, making the harmonious scent *accord*. These notes are created carefully with knowledge of the evaporation process of the perfume.

> **Top notes:** The scents that are perceived immediately on application of a perfume. Top notes consist of small, light molecules that evaporate quickly. They form a person's initial impression

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of a perfume and thus are very important in the selling of a perfume. Also called the *head notes*. Examples of top notes include mint, lavender and coriander.

- ➤ Middle notes: The scent of a perfume that emerges just prior to the dissipation of the top note. The middle note compounds form the "heart" or main body of a perfume and act to mask the often unpleasant initial impression of base notes, which become more pleasant with time. Also referred to as heart notes. Examples of middle notes include seawater, sandalwood and jasmine.
- ➤ Base notes: The scent of a perfume that appears close to the departure of the middle notes. The base and middle notes together are the main theme of a perfume. Base notes bring depth and solidity to a perfume. Compounds of this class of scents are typically rich and "deep" and are usually not perceived until 30 minutes after application. Examples of base notes include tobacco, amber and musk.

The scents in the top and middle notes are influenced by the base notes; conversely, the scents of the base notes will be altered by the types of fragrance materials used as middle notes. Manufacturers who publish perfume notes typically do so with the fragrance components presented as a *fragrance pyramid*, using imaginative and abstract terms for the components listed.

FORMULATION OF PERFUMES:

Perfume oils usually contain tens to hundreds of ingredients and these are typically organized in a perfume for the specific role they play. These ingredients can be roughly grouped into four groups:

- **Primary scents (Heart):** can consist of one or a few main ingredients for a certain concept such as —rose. Alternatively, multiple ingredients can be used together to create an —abstract primary scent that does not bear a resemblance to a natural ingredient. For instance, jasmine and rose scents are commonly blended for abstract floral fragrances.
- **Modifiers**: These ingredients alter the primary scent to give the perfume a certain desired character for instance fruit esters may be included in a floral the cherry scent in cherry cola can be considered a modifier.
- **Blenders**: A large group of ingredients that smooth out the transitions of a perfume between different ||layers|| or bases. These themselves can be used as a major component of the primary scent. Common blending ingredients include linalool and hydroxycitronellal.
- **Fixatives**: they are used to support the primary scent by bolstering it. Many resins, wood scents, and bases are used as fixatives. The top, middle, and base notes of a fragrance may have separate primary scents and supporting ingredients. The perfume's fragrance oils are then blended with ethyl alcohol and water aged in tanks for several weeks and filtered through processing equipment to respectively allow the perfume ingredients in the mixture to stabilize and to remove any sediment and particles before the solution can be filled into the perfume bottles.

EXTRACTION METHOD

Perfume is mixture of fragrant essential oils or aroma compounds (fragrance), fixatives and solvents, usually in liquid form, used to give the human body, animals, food, objects, and living-spaces an agreeable scent. The extraction of essential oils is generally carried out by two main techniques: azeotropic distillation (hydrodistillation, hydrodiffusion, and steam distillation) and extraction with solvents.

In this project we use steam distillation method to extract essential oils and use solvent extraction to separate the essential oil from the mixture of water and oil.

RAW MATERIALS:

❖ Agave Amica

Agave amica, formerly Polianthes tuberosa, the tuberose, is a perennial plant in the family Asparagaceae, subfamily Agavoideae, extracts of which are used as a note in perfumery. Now widely grown as an ornamental plant, the species was originally native to Mexico. The overwhelming fragrance of the tuberose has been distilled for use in perfumery since the 17th century, when the flower was first transported to Europe. French Queen Marie Antoinette used a perfume called *Sillage*

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de la Reine, also called Parfum de Trianon, containing tuberose, orange blossom, sandalwood, jasmine, iris and cedar.

Plumeria Rubra

Plumeria rubra is a deciduous plant species belonging to the genus Plumeria. Originally native to Mexico, Central America, Colombia and Venezuela, it has been widely cultivated in subtropical and tropical climates worldwide and is a popular garden and park plant, as well as being used in temples and cemeteries. It grows as a spreading tree to 7–8 m (23–26 ft) high and wide, and is flushed with fragrant flowers of shades of pink, white and yellow over the summer and autumn.

White chrysanthemum

Chrysanthemums sometimes called mums or chrysanths are flowering plants of the genus Chrysanthemum in the family Asteraceae. They are native to East Asia and northeastern Europe. Most species originate from East Asia and the center of diversity is in China. Countless horticultural varieties and cultivars exist.

ESSENTIAL OIL EXTRACTION:

- Take the raw materials and dried it well for 10 minutes.
- After 10 minutes smashed it well and put it in a conical flask.
- Pour distilled water in it.
- Put the conical flask into a water bath and connected the conical flask with a condenser.
- Place the another conical flask in the end of the condenser.
- Then heat the conical flask which contain the raw material with distilled water.
- Due to the influence of hot water and stream, the essential oil is freed from the oil glands in the plant tissue.
- The vapour mixture of water and oil is condensed by indirect cooling with water.
- Then take the mixture of water and oil, pour it into the separating funnel.
- The distillate flows into a separator, where oil separates automatically from the distillate water.
- Then take the essential oils separately.



PREPARTION OF PERFUME:

- Take 20ml of Agave Amica essential oil for top notes.
- Take it in a clean beaker.
- Then take 30 ml of Plumeria Rubra essential oil for middle notes.
- Pour it in a same beaker that contain Agave Amica.
- Blend it well.
- Next add 50ml of White chrysanthemum essential oil for Base notes.
- Pour it in a same beaker.
- Blend it well with glass rod.
- Now we get 100ml of perfume.
- We named it White rainbow.

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OTHER RESOURCES OF FRAGRANCE:

Fragrance sources are divided into three types.

- Plant source
- Animal source
- Synthetic source

PLANT SOURCE:

Plants have long been used in perfumery as a source of essential oils and aroma compounds. The sources of these compounds may be derived from various parts of a plant

Flowers and blossoms (rose, jasmine, Osmanthus, plumeria, mimosa, tuberose), Leaves and twigs (lavender leaf, patchouli, sage, violets, rosemary, citrus leaves), Woods(Highly important in providing the base notes to a perfume, wood oils and distillates are indispensable in perfumery), Resins (labdanum, frankincense /olibanum, myrrh, balsam of Peru, benzoin), Seeds (tonka bean, carrot seed, coriander, caraway, cocoa, nutmeg, mace, cardamom, and anise), Fruits(Fresh fruits such as apples, strawberries), Bark (cinnamon and cascarilla), Roots, rhizomes and bulbs (iris rhizomes, vetiver roots, various rhizomes of the ginger family).

ANIMAL SOURCE:

- **Ambergris**: Lumps of oxidized fatty compounds, whose precursors were secreted and expelled by the sperm whale.
- **Hyraceum**: Commonly known as "Africa stone", is the petrified excrement of the rock hyrax.
- Musk: Originally derived from a gland (sac or pod) located between the genitals and the umbilicus of the Himalayan male musk deer Moschus moschiferus, it has now mainly been replaced by the use of synthetic musks sometimes known as "white musk".
- **Civet**: Also called civet musk, this is obtained from the odorous sacs of the civets, animals in the family Viverridae, related to the mongoose. World Animal Protection investigated African civets caught for this purpose.
- Castoreum: Obtained from the odorous sacs of the North American beaver.
- **Honeycomb**: From the honeycomb of the honeybee. Both beeswax and honey can be solvent extracted to produce an absolute. Beeswax is extracted with ethanol and the ethanol evaporated to produce beeswax absolute.

SYNTHETIC SOURCE

Many modern perfumes contain synthesized odorants. Synthetics can provide fragrances which are not found in nature. For instance, Calone, a compound of synthetic origin, imparts a fresh ozonous metallic marine scent that is widely used in contemporary perfumes. Synthetic aromatics are often used as an alternate source of compounds that are not easily obtained from natural sources. For example, linalool and coumarin are both naturally occurring compounds that can be inexpensively synthesized from terpenes. Orchid scents (typically salicylates) are usually not obtained directly from the plant itself but are instead synthetically created to match the fragrant compounds found in various orchids.

One of the most commonly used classes of synthetic aromatics by far are the white musks. These materials are found in all forms of commercial perfumes as a neutral background to the middle notes. These musks are added in large quantities to laundry detergents in order to give washed clothes a lasting "clean" scent.

CHEMICALS USED IN PERFUMERY

In the manufacture of perfumery a considerable number of chemical products find application; in this place, however, we shall describe only those which are used very frequently and generally, and discuss the characteristics of those employed more rarely in connection with the

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articles of perfumery into which they enter. According to their application we may divide these substances into several groups, namely:

- 1. Chemicals used for the Extraction of Aromatic Substances.
- 2. Chemical Products used for the Preparation of Perfumes.
- 3. The Colors used in Perfumery.

Chemicals used for the Extraction of Aromatic Substances:

For the extraction of aromatic substances from plants a number of bodies are used which possess great solvent power for essential oils, and are besides very volatile, or have a low boiling-point. These are particularly ether, chloroform, petroleum ether, and bisulphide of carbon.

- Ether
- Chloroform
- Petroleum Ether
- Benzin

Chemical Products used for the Preparation of Perfumes:

Among all the substances belonging under this head, there is one which plays a prominent part in the manufacture of most perfumes. In handkerchief perfumes it is one of the most important substances, as it forms not only the greatest bulk, but the perfection of the perfume depends upon its quality.

- Alcohol
- Alloxan
- Ammonia
- Benzoic Acid (Acidum Benzoicum)
- Carbonate Of Ammonia
- Fats
- Fruit Ethers
- Nitrous Ether
- Glycerin
- Oil Of Mirbane

The Colors used in Perfumery:

In perfumes in which next to odor, the appearance is of importance, the colors play a prominent part.

- Yellow Colours: Saffron, Palm Oil, Jonquille Pomade, Curcuma or Turmeric.
- **Red Colours:** Rhatany, Carmine, Alkanet, Carthamin Red.
- **Green Colours:**Chlorophyll.
- Blue Colours.
- Violet Colours
- Brown Colours
- Black Colours

MERITS OF PERFUME:

- **Fragrance:** Perfume has been historically used primarily for fragrance. It helps keep unwanted body odor at bay and ensures that you smell good throughout the day.
- **Boosts Health:** There is no scientific evidence to ascertain the efficacy of perfume's health boosting properties. However, perfume helps enhance mood, which can keep stress and other anxiety related issues at bay. You can use your favorite fragrance to beat your anxiety blues and lift your spirits.
- **Aromatherapy:** Perfume has many relaxing and therapeutic benefits. Citrus fruit, floral and winter spice perfumes help calm the mind and soothe the body. These perfumes ensure your stress levels are in control.
- **Trigger Memories:** Perfume can also be an important trigger of a happy memory. One tends o associate people with particular fragrances. Many women who wear their mother's signature

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scent do so to revive memories. Try new perfumes every time you travel and wear them. The different perfumes will remind you of each vacation and help you relive those moments.

- **Cures A Headache:** It is another therapeutic effect of perfume. Wearing a perfume can help you cure that nagging headache. However, this isn't true for perfumes that contain essential oils that compound headache.
- **Treats Insomnia:** Another one of the therapeutic effects of perfume is that it helps you sleep better at night. Perfumes, which contain essential oils, can help you relax and enjoy a peaceful slumber at night.

RESULTS AND CONCLUSION:

- In the process we prepare 100ml of perfume from extract Agave Amica, Plumeria Rubra, White chrysanthemum. And we named it White rainbow.
- The perfume we made is a natural perfume. The most vital benefit of using natural perfumes is they are non-toxic in nature. Natural fragrances don't contain harmful toxic substances.
- As naturals perfumes don't contain any harmful ingredients; these perfumes are safe for all types of people and animals.
- Natural fragrance oils are typically hypo-allergenic; therefore, natural perfume blends are gentle to your skin and natural fragrance sprays are suitable for your lungs too.
- When you use natural perfumes, you don't need to worry about allergic reactions like skin rashes.
- As in the preparing processes of natural fragrances, no harmful chemicals such as petroleum derivatives and phthalates are used, natural perfumes are gentle in the environment including water, soil, and air. So it is eco-friendly.
- Natural perfumes can be blended in your home as per your choice and taste. While mixing synthetic perfumes could smell very unpleasant, natural perfumes can be used separately or mixed with other natural perfumes to create diverse various scents according to your mood.

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