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# Review on Formulation and Evaluation of Papaya Herbal Face Pack

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#### Abstract

The human body's most delicate barrier against environmental pollutants is the skin. Masks and face packs made of herbs are used to clear impurities from pores, protect the skin's suppleness, stimulate circulation, and revitalize the skin. It takes a lot of labor to make herbal face pack using several herbal powders. Advantages of using natural cosmetic is numerous: they are entirely not harmful, reduce reactions to allergies and contain numerous ingredients which have been shown to be secure and efficient throughout time. Therefore, even though we discovered certain advantageous aspects the facial packs in our research, further it is necessary to conduct optimization study to evaluate the face packs' potential advantages when used as personal cosmetics. The purpose of this endeavor is to develop and assess a face pack made of herbs that promotes Using natural herbal compounds to achieve radiant skin. I purchased organic herbal materials like rice flour, papaya powder, milk powder, turmeric, sandalwood, saffron, and Multani Mitti in dried powder form from a close by market. Commercial papaya powder is made by shadedrying the fruit powder. To guarantee a consistent composition, all natural powder ingredients were precisely measured, sieved through a #80 mesh sieve, then geometrically blended. The powder was examined for stability, physiochemical, and morphological factors. As a result, we created a natural face pack that doesn't interfere with our current work.

**Keywords** - Cosmetic, Face Pack, Formulation, Evaluation, Papaya Powder, Turmeric, Rose Petal Powder, Neem Leaves Powder, Orange Peel, Aloe Vera.

### INTRODUCTION

In general, cosmetics are defined as readily available products that aim to clarify, enhance, encourage beauty, or change the skin's look. Many herbs have long been used for their management, cleansing, and aesthetic purposes. In the body, the skin is the biggest organ and among other things, contains products like fats, carbohydrates, and amino acids, which can be used as indicators of a person's health. As a result, maintaining the health, simplicity, and gloss of the skin requires a balanced diet. anti-inflammatory properties that could stop conditions caused on by redness, inflammation, etc. from getting worse. Different face types require different types of face packs, which are powders used in facial formulations. In order to reveal skin that has been enhanced, tightened, and cleansed, the preparation is applied to the face as a paste, let to air out, and then wiped off.<sup>[1]</sup> People have known for ages how important it is to employ programs for maintaining healthy skin. Cosmetics are products that are utilized for make one look better, cleaner, and more attractive. A diet high in fats, amino group, and organisms is necessary to maintain the skin's brightness, shine, and health. Ladies are taking great care to maintain their skin types and were particularly aware of their beauty. Numerous individuals, particularly in steep

and rural regions, still use organic medicines including plant portions such as those found in orange peels, sandalwood, aloe vera, turmeric, multani mitti, and other for a variety of cosmetic purposes. Cosmetics made with herbs are meant to purify and enhance the appearance of the skin. The primary benefits of using cosmetics made from herbs are their naturalness and lack of harmful consequences for the body. Men have tough skin, and when they don't take proper care of it from pollutants, and other causes cause it to darken. Everyone aspires to have lovely, pale skin. These days, dark circles, pimples, and black area on the head are commonly observed among young people who have acne. The products utilized to purified that improve the way the skin looks are called herbal cosmetics. Purity and lack of adverse effects on the human body are the primary benefits of utilizing herbal cosmetics. [2]

## Advantages of herbal Face pack

They help in quickly restoring the smoothness and shine of the skin.

They can help delaying the symptoms of wrinkles.

Natural face packs offer skin a tone that is healthy and youthful.

Because it contains natural ingredients, it can help lessen scars from acne and pimples.

## Disadvantage of herbal Face Pack

Not every face should be treated with the same face pack because the skin on our faces changes in different parts.

The drying time for face packing is sometimes very long.

It could irritate you.

It can be difficult to use a face pack on someone who has dry skin.

### Benefits of using a facial pack

Give the skin nutrition. Fruits for the face provide the skin needed nutrients. Depending on the medical substances it contains, it helps to reduce acne, scars, and markings. Neem and Tulsi based face pads regularly help in the reduction of acne and pimples. Suggested packs for blackheads, acne, and acne regularly remove risky bacteria from wound and regulate the sebum secretion from the sebaceous glands. Using powder sandals, petals of roses and orange-colored lenses using face pack for acne will help reduce skin scars and markings. Regular application of the skin's texture and tone are enhanced by using natural masks by bringing light to it. To aid in preventing the skin from quickly aging. Using the natural contours of the face can help effectively control wrinkles, fine lines, and thin skin. Skin that has natural facial pockets is healthier and younger. [3]

### What are instructions for using a face pack

Select a facial bundle according to the skin type you have. Prior to applying a face pack see a natural healer or a skin skilled who is impacted. It is not recommended to keep the face pack on for longer than 15 to 20 minutes. Extended upkeep can cause the skin decrease, open pores to grow, and wrinkles to appear. Once a week, apply a face mask. Avoid attempting to remove or damage the dry face mask. This may cause harm to the skin below. Before taking off Use room-temperature water to spray the face after applying the dry face pack. Following the removal of the mask, roll the ice cube over your face. Tightens the 'skin' helps in blocking open pores. The skin is also made softer by it. Avoid providing your face an uncomfortable massage. Dark spots and bumps may result from this. Steer clear of heat when using a face pack. Keep clear of the "eye area" when using a face pack. The eye area has very sensitive skin. The skin surrounding the eyes may become damaged during the removal of the face pack. [4]

#### **Materials**

The dried powders of the entirety of nature items utilized in this research, which include neem extract, sandalwood, and papaya powder, were paid for locally. The following is a list of the specific plant materials which have been used to make the face pack.

# **Ingredients of Formulation**

### Papaya powder

It can also be used to soothe damaged skin and treat sunburns because it is rich in healing enzymes. Papaya Powder's flavonoids promote to the skin's increased production of collagen, giving it a supple, firm, and soft tone. Papaya face packs are well-liked for their all-natural skincare properties, particularly when the skin is brightened and revitalized. Papain an enzyme found in papayas, functions as a natural exfoliator to help eliminate dead skin cells and enhance the texture of the skin. Additionally, it has vitamins A, C and E which protect and nourish skin<sup>[5]</sup>

#### **Exfoliation**

Papaya encourages cell turnover and aids in the elimination of dead skin cells, resulting in softer, more radiant skin.

### **Brightening**

Because papain and vitamin C are present, regular use helps lighten pigmentation, sun tan, and dark spots.

## **Anti-aging**

By enhancing the formation of collagen, papaya's antioxidants, such as vitamins A and C, aid in the reduction of wrinkles and fine lines.

### **Acne Treatment**

Papaya's anti-inflammatory qualities helps in the reduction of redness or swelling associated with acne.

### Moisturizing

The skin is nourished and hydrated by the vitamins and natural enzymes, which leave it feeling silky and smooth.

### **Skin Firming**

The nutrients in papayas may help tighten and increase the softness of the skin.

Synonyms: Papayotin, vegetable pepsin.

**Biological Source:** The dried and refined latex of *carica papaya* leaves and green fruits is called *papaine*.

Family: Caricaceae

Chemical Composition: Saponins, tannins, flavonoids, glycosides.

Uses

Reduce dead skin cells.

Uses a lightening effect on the skin.



Figure 1: Papaya Powder

### Multani Mitti

Multani mitti is beneficial to the skin in a number of ways, including reducing pores, removing of blackheads and fading white spots, cooling sunscreen, cleaning the skin, enhancing blood flow, minimizing blemishes and acne, and making the skin look radiant because it contains healthy nutrients. Magnesium chloride is present in Multani Mitti.<sup>[6]</sup> One type of impurity that multani mitti helps in removing is dead skin cells, reducing pore size, removal of blackheads, curing sunburns, cleaning the skin, increasing blood flow, enhancing complexion, minimizing acne and blemishes, and giving skin a radiant appearance are just a few of the ways that Multani Mitti helps skin. Fuller's Earth or multani mitti, is a natural clay that has been used for skincare purposes for ages. Because of its ability to absorb oil and provide deep cleaning, it is especially well-liked in face packs. The following details pertain to Multani Mitti face packs

### **Deep Cleaning**

Multani Mitti is a popular option for people with oily or acne-prone skin because it works wonders at extracting dirt, pollutants, and extra oil from the skin.

### **Exfoliation**

It functions as a natural exfoliator, assisting in the removal of dead skin cells and resulting in softer skin.

### Oil Control

It is beneficial for those who battle excessive sebum production because it helps control the amount of oil produced on the skin.

## **Acne Treatment**

By thoroughly cleaning the pores, Multani Mitti's antibacterial qualities help lessen acne and blemishes.

### **Skin Brightening**

By enhancing skin tone and texture, regular usage of Multani Mitti might result in a complexion that is lighter in color.

### **Cooling Effect**

It might reduce skin irritation because of its calming and cooling properties.



Figure 2: Multani Mitti

#### **Sandal Wood**

Sandalwood offers anti-aging and hydrating qualities. In addition, it has numerous benefits for the skin, including cooling, medicinal, emollient, antibacterial, and toning effects. [7] Sandalwood is a common ingredient in fairness face packs since it naturally softens skin. Take one tablespoon each of besan and sandalwood powder. To prepare a thin paste, add a small amount of turmeric and the necessary amount of rose water. After using this paste on your face for 15 minutes of their homes, remove it with a gentle face cleanser because of its various skin advantages, sandalwood (*Santalum album*) is a common element in herbal face packs. It has long been a part of traditional and Ayurvedic skincare routines. The following is a synopsis of its advantages and its application in a face pack:

### **Reduces Skin irritation**

The anti-inflammatory qualities of sandalwood help reduce rashes, acne, sunburns, and other skin irritations.

### **Natural Cooling Agent**

It effectively treats heat-related skin issues such as redness and prickly heat by having a cooling impact on the skin.

### **Anti-Acne Properties**

Due to its antibacterial qualities, sandalwood is beneficial in the treatment of pimples and acne. It also lessens the scars left by acne.

## **Brightens Skin**

It promotes an even skin tone and a natural shine by assisting in the reduction of pigmentation, dark spots, and blemishes.

### **Anti-Aging**

Sandalwood's antioxidant content can aid in the prevention of aging symptoms including wrinkles and fine lines.

#### Exfoliation

It removes dead skin cells and leaves the skin clear and smooth in a mild scrubbing manner.

#### Oil Control

Sandalwood is good for oily skin types since it absorbs excess oil.

Synonyms: East Indian Sandal Wood

Biological Source: Dried stigma and extra elements of Crocus sativus styles

Family: Santalacear, santalaceae

#### Uses

Sandalwood has anti-aging and anti-tanning properties. Its multiple skin-benefitting qualities also include toning, emollient, antimicrobial, cooling, and therapeutic effects.



Figure 3: Sandal Wood

### Saffron

This prevents skin from breaking out and external infection-causing bacteria by acting as a natural brightening, toner, and antibacterial agent. Saffron helps to cure skin damage, lessen acne, pimples, and other blemishes, remove scars and discoloration, and restore firmness, elasticity, and age to the skin.<sup>[8]</sup> A natural skincare treatment consisting of saffron (*Crocus sativus*) and other advantageous substances is called a saffron herbal face pack. The anti-inflammatory, antioxidant, and skin-brightening qualities of saffron are well documented. Since long ago, it has been incorporated into conventional beauty treatments because of its capacity to enhance complexion and encourage glowing skin. A short overview of saffron face packs is provided below:

## 1.Brightening the Skin

Saffron is a natural substance that has the power to lighten dark spots and enhance the general tone of the skin.

### Anti-aging

By scavenging free radicals, its antioxidant qualities help minimize age indicators including wrinkles and fine lines.

#### **Moisturizing**

Saffron makes the skin hydrated, resulting in a silky, smooth texture.

### **Lightens Blemishes and Acne Scars**

It can reduce hyper-pigmentation and acne scars

### **Reduces Inflammation**

The anti-inflammatory qualities of saffron help less inflammation, redness, and puffiness.

#### **Enhances Glow**

Using saffron in skincare products regularly can provide skin with a healthy, glowing gloss.

Synonym: Saffron, Kesar

**Biological Source:** Dried stigma and topping portions of *Crocus sativus styles*.

Family: Iridaceae

Uses

It mostly contains terpenoids it contains a lot of carotenoids glycosides.

It gives skin a smooth tone.



Figure 4: Saffron

#### Milk Powder

It provides firm, dry skin, which is highly beneficial for the skin nourished for extended periods of time<sup>[5]</sup> It gives the skin a more youthful appearance and aids in providing the face with deep nutrients. The skin has been colored to naturally eliminate flaws.<sup>[9]</sup> A natural skincare solution that combines the advantages of milk powder and herbal components is a milk powder herbal face pack. Lactic acid, vitamins, and minerals found in abundance in milk powder help exfoliate, brighten, and moisturize the skin. The face pack can treat a number of skin issues, including dryness, pigmentation, and acne, when mixed with herbs.

### **Exfoliation**

The lactic acid included in milk powder gently removes dead skin cells, resulting in skin that is smooth and radiant.

### **Hydration**

Milk powder deeply moisturizes the skin, which makes it perfect for dry skin.

# **Skin Brightening**

It contributes to a more even skin tone by reducing pigmentation and dark patches.

### **Calming**

Milk powder's proteins and lipids work to calm inflamed skin.



Figure 5: Milk Powder

## **Rice Flour**

Many skin diseases can be treated by applying rice flour. Ayurvedic practitioners in the Indian subcontinent appropriately provide uncooked rice water. It functions well as an ointment to reduce irritated skin and increases the development of beneficial bacteria for regular bowel movements because of its ability to brighten and scrub skin, rice flour is a common element in herbal face packs. Here's how it helps the skin and how to produce a basic herbal face pack made of rice flour: [10]

### **Exfoliation**

Rice flour's fine texture works as a mild scrub to remove dead skin cells and promote smooth skin.

# **Skin Brightening**

Vitamin B and antioxidants included in rice flour can aid to level out skin tone and brighten dull skin.

### Oil Absorption

It is a great component for oily or acne-prone skin since it absorbs excess oil.

## **Anti-Aging**

By increasing the creation of collagen, the antioxidants in rice flour help lessen the appearance of fine lines and wrinkles.

### **Calming and Cooling**

Rice flour is perfect for sensitive skin because it calms and cools irritated skin.



Figure 6: Rice Flour

#### Rose Petal Powder

Rose petal powder contains vitamin C, which increases the formation of collagen, regenerates skin cells, and lightens dark spots and blemishes on the skin. This rose petal powder face pack's natural astringent qualities help to eliminate extra oil from the skin without drying it out, preventing breakouts and pimples from growing stronger. [11] Rose petal powder is saturated with antibacterial properties and contains vitamins B, C, and K for further health advantages. There are also significant levels of antioxidants. Owing to its many skin benefits, rose petal powder is frequently used in herbal face packs.

#### **Natural Cleanser**

Aids in gently cleansing and exfoliating the skin.

### **Anti-inflammatory Properties**

Calms irritated and inflamed skin, making it ideal for sensitive skin.

## **Anti-aging Effects**

Packed with antioxidants, rose petal powder helps reduce wrinkles and fine lines.

### **Natural Toner**

Balances the pH of the skin and tightens pores.

### **Brightens Skin**

Consistent use can help lighten dark spots and provide a glowing complexion.

## **Moisturizing**

Hydrates and nutrition leave the skin soft and supple.

#### Uses

Use this face pack 2-3 times a week for great results; it works well on all skin types, but it works especially well on dry or sensitive skin.



Figure 7: Rose Petal Powder

#### **Neem Leaves Powder**

Moreover, neem leaf powder can help in controlling sebum production. You may achieve a matte finish and a natural glow on your skin with this oily-skin face pack. Rose water relaxes the skin, while lemon juice will help decreasing oiliness because neem leaf powder has so many benefits for the skin, it is commonly used in facial packs made of herbs. Due to its well-known antimicrobial properties antifungal and inflammatory-reducing qualities, Neem (*Azadirachta indica*) is a very helpful herb to treating a variety of skin disorders. Here's an in-depth book to utilizing neem powder in face masks: [12]

### **Treats Acne**

Neem's antibacterial qualities aid in the battle against bacteria that cause acne, minimizing outbreaks and averting more.

## **Regulates Oil Production**

Neem is great for oily skin and helps avoid clogged pores by helping to reduce excess oil secretion.

### **Soothes Inflammation**

It lessens swelling, redness, and irritation brought on by eczema, acne, and other skin disorders.

### **Combats Skin Infections**

Neem's antibacterial and antifungal qualities guard against skin infections.

### **Anti-Aging**

Neem's quantity of antioxidants helps reduce fine lines, dark spot.

## **Brightens Skin**

By cleansing and detoxifying the skin, neem powder face packs can regularly leave your skin looking radiant.

Synonym: Melia azadirachta

**Biological Source:** It is composed of *Azadirachtea indica* leaves and other aerial elements.

Family: Meliaceae

**Chemical Constituent:** The most different and important constituent is nimbolininimbin, along with sodium nimbinate, gedunin, nimbidin, and nimbidol.

### Uses

Neem is anti-inflammatory Antibacterial, Antifungal, Antiseptic

Anti-inflammatory



Figure 8: Neem leaves powder

## **Turmeric**

The primary application of turmeric is renewal of the skin. In addition to having antimicrobial and inflammatory-reducing qualities, also delayed appearance wrinkles and other indicators of aging. It is the best source of purifying blood. Because of its antiseptic and antibacterial qualities, which combat breakouts acne and give your skin a more youthful appearance. Beneficial in treating acne. Additionally, it reduces the sebaceous glands' production of oil. Natural treatment for fairness and skin whitening that naturally brightens the color of your skin and removes of unattractive facial hair. Reduces damage and pigmentation / Removal of acne and pimples Widely used as a bath

powder, Kasthuri manjal cures against skin conditions without reducing the skin of its natural oils.<sup>[13]</sup>

Synonyms: Curcuma longa

**Biological Source:** Turmeric is the dried rhizome of *curcoma* 

Family: Zingiberaceae

Uses

Turmeric is included in the herbal medicine due of its ability to cleanse blood qualities antimicrobial action, it promotes healing of wounds. Blood impurity-related skins problems are improved by it. It is an excellent medication that reduces inflammation and allergies.



Figure 9: Turmeric

### **Lemon Peel Powder**

Because it contains a lot of vitamin C, organic lemon peel powder works great for naturally removing pigmentation and sun tan lines. It can be used to scrub and lighten skin, erasing dark circles, blemishes, and signs of acne by making the skin tone darker. Because lemons are high in vitamin C, they can help improve skin tone and get rid of black patches that come from sun exposure. Because lemon peel powder has a high concentration of vitamin C, citric acid, and natural antioxidants, it is a versatile ingredient that is frequently used in herbal face packs. It has many advantages for skin care.

## **Brightens Skin**

By lowering pigmentation and dark spots, the high vitamin C level in vitamin C helps lighten and brighten the skin.

### **Exfoliation**

Lemon peel powder's natural exfoliating qualities, which include citric acid, aid in dead skin cells is being removed from the skin, leaving it feeling smooth and renewed.

### Fights Acne

By cleaning pores, its antibacterial and antimicrobial qualities can aid in the reduction of acne and control of breakouts.

#### **Reduces Oiliness**

Those with oily or combination skin might benefit from using lemon peel powder as it helps remove extra oil from the skin.



Figure 10: Lemon Peel Powder

## **Orange Peel**

It guards against oxidative stress on the skin free radical damage, dehydration. It quick glowing properties and help to avoid wrinkles, blemishes, acne and aging.<sup>[15]</sup> Dried orange peels are used to make a natural skincare product called an orange peel herbal face pack. It's well-liked for its exfoliating and skin-brightening qualities. Here is a guide explaining its uses, advantages, and how to prepare it:

### **Exfoliation**

Your skin will be softer and smoother after using orange peel's natural acids to help eliminate dead skin cells.

## **Brightening**

Orange peel's vitamin C brightens the skin and helps fade dark spots and discoloration.

### **Oil Control**

It is excellent for skin that is prone to oiliness or acne due to its naturally occurring astringent qualities, which aid in reducing excess oil and acne.

### **Anti-aging**

Orange peel's antioxidants combat free radicals, which can lessen the visibility of wrinkles and fine lines.

### **Natural Cleanser**

It lessens whiteheads and blackheads by clearing clogged pores.

Scientific Name: Citrus reticulate Synonym: Adorable Orange

Family: Rutaceae

**Chemical Constituents:** Comprising of at least 2.5% volatile oil, it also contains 90% limonene, 4% citral, aurumerinic, 39% octanol, 42% decanal and 91% monoterpene."

### Uses

Lighten and make skin more radiant.

The build-up of cells surrounding pore accentuates the darkness and enlarges the pores Watery skin that is dehydrated.

Supports a radiant complexion.



Figure 11: Orange Peel

### Aloe Vera

Aloe Vera is a fantastic moisturizer for skin care. Aloe moisturizes, renews, maintaining its freshness over time. Because aloe vera has antimicrobial properties, it is the perfect remedy for acne. [16] Due to its calming, moisturizing, and restorative qualities, aloe vera is a widely used natural component in skincare products. Numerous skin diseases can be treated with its help including dryness and sunburn, when added to a herbal face pack. Here are some instructions for creating and applying a herbal face pack made of aloe vera:

#### **Moistens Skin**

Due to its high-water content, aloe vera gel is an excellent natural moisturizer that moisturizes skin without leaving it oily.

### **Calms Irritation**

Its anti-inflammatory qualities soothe irritated or inflamed skin, particularly following small cuts or sun exposure.

### **Fights Acne**

Aloe vera contains antibacterial qualities that may aid in the reduction of microorganisms that cause acne. Additionally, salicylic acid is present, which aids in pore cleaning and skin exfoliation.

## **Anti-Aging**

Packed with antioxidants, such as beta-carotene, vitamin C, and vitamin E, aloe vera helps reduce indications of aging by improving the firmness and suppleness of the skin.

## **Heals Skin**

Due to its healing qualities, minor wounds, blemishes, and scars appear less noticeable.



Figure 12: Aloe Vera

Scientific Name: Aloe barbadensis

Synonym: Aloe, kumara Family: Asphodelaceae

Chemical Constituent: There are 90% sesquiterpenics alcohols, of which 50%–60% are tricyclic

alpha santalol and 20–25% are beta santalol.

#### Uses

A moisturizing ingredient gives the skin a smoothing effect.

Stop dead skin cells.

Sunburn and acene treatment.

Sr. No	Ingredients	Uses	Quantity in gm
1	Papaya Powder	Antioxident	5 gm
2	Multani Mitti	Reducing Agent	3 gm
3	Turmeric	Anti-inflammatory	3 gm
4	Sandal Wood	Antioxident	2 gm
5	Saffron	Antioxident	1 gm
6	Milk Powder	Glowing Skin	4 gm
7	Rice Flour	Antioxident	2 gm
8	Lemon Peel	Exfoliant	1 gm
9	Rose Petal Powder	Antioxident	2 gm
10	Neem	Antibacterial	2 gm

Table 1: Ingredients used in formulation

### Methodology

### Step 1

Weighing every component required to create the papaya herbal face pack was done accurately.<sup>[17]</sup>

#### Step 2

Before being placed in the mortar and pestle, the medications were triturated.

### Step 3

Sieve No. 80 was used to filter the prepared mixture of herbal powders in order to produce homogeneous medicinal ground powder for the facial pack.<sup>[18]</sup>

### Step 4

Produced facial pack powder was put into a container to be applied as a papaya herbal face pack. [19]

### Procedure for application of papaya herbal face pack

In a dish, combine the prepared papaya herbal face pack powder with rose water.

In order to get the perfect paste thickness, thoroughly blend.

Use a brush to apply it uniformly around the face.

Protect up any acne and blemish areas.

After a 15-minute drive, wash your face with cool water.

### **Evaluation Parameter**

### **Total Ash Content**

Add around 2g of the ground, air-dried material to a crusible. Spread the material evenly and ignite it. Slowly increase the heat to 100–105°C until it turns white, signifying the carbon's absence. Weigh in a desiccator after chilling. Calculate the total amount of ash in the material that has been air-dried.<sup>[20]</sup>

#### **Particle Size**

Weigh the substance exactly. Remove it from the 80-mesh sieve.

### **Loss On Drying**

Weigh the medication powder until it weighs around 2 grams in a porcelain plate. It is dried in a hot air oven until the difference is 105°C in weight in between two successive weigh-ins no more than 0.5 mg. Measure, then chill in a desiccator. The weight loss is typically believed to be moisture.

# pН

Dissolve one gram of face pack powder in 100 milliliters of water. The utilized pH meter is a standard model with either one or two electrodes. pH 7 and pH 9.2 distilled water is used to calibrate the device. Take a reading [1] after letting the electrode sit in the fluid for three or four minutes.

# **Angle of Repose**

A total of 25 grams of powder were put into the funnel. There will be a heap when the funnel is raised. The radius and height of the heap are noted. One uses the formula to find the angle of repose (?).<sup>[21]</sup>

? = tan-1(h/r)
Where
? \_ Angle of Repose
h \_ Height of the heap
r Radius of the base

# **Bulk density**

The relationship between a powder's mass and bulk volume is known as bulk density. After the powder has dried, the necessary amount is put into a 50 milli litre measuring cylinder [22] The cylinder is then dropped from a height of one inch onto a hard wood surface every two seconds. The quantity of powder is measured. The powder is then weighed after that. This process is repeated to get average outcomes. The following formula may be used to get the bulk density. [23]

## **Bulk Density = Mass of the powder/ volume of the powder**

### **Tapped density**

Weight powder exactly into the measurement cylinder of the mechanical shaker after it has been introduced. After the measurement of powder mass / volume, 100 mechanical taps are made on the measurement cylinder<sup>[24]</sup>

# Formula of Tapped density = Mass of powder /tapped volume.

#### Carr's index

Carr's Index is computed using formula provided below.

## **Tapped Density= Bilk density / tapped density**

## Hausner's ratio

To compute Hausner's ratio, use the formula below.<sup>[25]</sup>

### **Hausner Ratio= Tapped Density / Bulk density**

To evaluate the herbal face pack, the facial features listed in the table were examined. The mixture was colored pale yellow. The produced formulations had a pleasant and satisfying smell, which made them perfect for use in cosmetic formulations. Texture and smoothness were suitable for the requirements of cosmetic formulae. [26]

Sr. No	Parameter	Observation
1	Appearance	Smooth
2	Colour	Cream
3	Odour	Pleasant
4	Texture	Fine
5	Smoothness	Smooth

Table 2: Morphological Parameter

Sr. No	Parameter	Observation
1	Particle Size	177 μ
2	Ash Content	76 w/w
3	Ph	7.3
4	Loss On Drying	9.5 %

Table 3: Physicochemical Evaluation

Sr. No	Parameter	Observation
1	Tapped Density	0.71 gm/ml
2	Bulk Density	0.51 gm/ml
3	Angle Of Repose	24.22°
4	Hausner's Ratio	13.9 %
5	Carr's Index	0.28

**Table 4:** Evaluation of flow properties

### **CONCLUSION**

For a variety of skin diseases, people need therapies that have no adverse effects. Natural face masks are regarded as a long-lasting and effective method of improving skin look. As a result, naturally occurring components including rice flour, milk powder, Saffron, Papaya, Turmeric, Sandalwood, and Neem leaf extract were employed to create the current piece. It is proposed that the created creation was physiochemically stable and owned the qualities of a typical cosmeceutics recipe for skin care.

### REFERENCE

- 1. Bhutkar M. K., Shah. M. M., Formulation and Evaluation of Herbal Antibacterial Face Pack, Journal of Emerging Technologies and Innovative Research 2019:6(5):201-204.
- 2. Sachin B. Aglawe., Amol U. Gayke., Formulation and Evaluation of Herbal Face Pack, International Journal of Pharmacy and Biological Science, Dec 2018:8(9):49-52.
- 3. Londhe S. S., Bhosale M. G., Joshi A. A., Formulation and Evaluation of Skin Whitening Lightening Herbal Facewash, Asian Journal of Pharmacy and Technology 2020:10(4):245-249.
- 4. Avinash O. Maske., Manisha Pandhare., Ashwin D. Wanjari., Formulation and Evaluation of Herbal Face Pack for Glowing Skin, International Journal of Advances in Pharmaceutics, 2019:8(1):1-5.

- 5. Rashmi S. Pal., Yogendra Pal., Pranay Wal., In-House Preparation and Standardization of Herbal Face Pack, The Open Dermatology Journal, 2017:11(5):72-80.
- 6. Yadav N., and Yadav R., Preparation and Evaluation of Herbal Face Pack, International Journal of Recent Scientific Research 2015:6(5):4334-4337.
- 7. Rokade Priya., Khadke Anand., Devale Rasika., Preparation and Evaluation of Herbal Antiacne Face Pack, World Journal of Pharmaceutical Research 2017:6(6):1000-1010.
- 8. Naresh G., Swetha P., Shilpa G., Formulation and Evaluation of Face Pack Containing Oats and Other Natural Ingredients, International Journal of Chem Pharmacy Science 2013:1(1):28-34.
- 9. Arora R., Aggarwal G., Dhingra A. G., Nagpal M., Herbal Actives for Skin, Asian Journal of Pharmaceutical and Clinical Research 2019:12(9): 7-15.
- 10. Dureja H, Kaushik. D, Gupta M, Kumar V, Lather V., Cosmeceuticals: An Emergingconcept, Indian Journal of Pharmacology, 2005:37(3):155-159.
- 11. Koli D. S., Mane A. N., Kumbhar V. M., Shaha K. S., Formulation & Evaluation of Herbal Anti- Acne Face Wash, World Journal of Pharmacy Science 2016:5(6):2001-2007.
- 12. Mieloch M., Witulska M., Evaluation of Skin Colouring Properties of Curcuma Longa Extract, International Journal of Pharmacy Science, 2014:76(4): 374-378.
- 13. Rani S., Hiremanth R., Formulation and Evaluation of Poly-herbal Face wash gel, World Journal of Pharmacy Science 2015:4(6):585-588.
- 14. Rajeswari R., Umadevi M., Rahale C. S., Pushpa R. Selvavenkadesh S., Sampath K. P., Bhowmilk D., Aloe Vera the Miracle Plant its Medicinal and Traditional Uses in India,
- 15. Journal of Pharmacognosy Phytochemistry, 2012:1(4):118-124.
- 16. Sachin B. Aglawe., Amol U. Gayke., Suraj A. Mindhe., Varsha G. Rane., Formulation and Evaluation of Herbal Face Pack, International Journal of Pharmacy and Biological Science, 2018:8(4):49-52.
- 17. Kumar R. Komal., Formulation and Evaluation of Herbal Face Pack, Asian Journal of Pharmaceutical Research, 2021:11(1):9-12.
- 18. Okereke J. N., Udebuani A. C., Ezeji E. U., Obasi K. O., Nnoli M. C., Possible Health Implications Associated with Cosmetics A Review, Science Journal of Public Health 2015:3(5-1):58-63.
- 19. K. Kumar K., Sasikanth M., Sabareesh and N. Dorababu., Formulation and Evaluation of Diacerein Cream, Asian Journal of Pharmacy Clinical Research, 2011:4(2):93-98.
- 20. Himaja N., Ashok Kumar A., Bhart Kumar B., Preparation and Evaluation of Poly Herbal Fruit Face Mask, Journal of Research Pharmacy Science 2015:2(11):07-13.
- 21. Sowmya K. V., Darsika C., X.Grace F., Shanmuganathan S., Formulation and Evaluation of Poly-herbal Face Wash Gel., World Journal of Pharmacy Science, 2015:4(6):585-588.
- 22. M. S. Ashawat., Banchor M., Saraf S., Herbal cosmetics Trends in Skin Care Formulation Pharmacognosy Reviews 2009:3(5):82-89.
- 23. S. D. Sonawane, S. K. Bais, Suyash Kamble, Quality Control and Quality Assurance in Pharmaceuticals International Journal of Advanced Research in Science Communication and Technology, January 2023, 3(1):543.
- 24. Amol V. Pore, Sanjay K. Bais, Tejshree. H. Kale, Quality Aspects of Herbal Drugs and its Formulation, International Journal of Advanced Research in Science, Communication and Technology, 2023:3(2):6-29.

- 25. Yogesh B. Raut, Sanjay K. Bais, Nandini Regoti, Advanced Herbal Technology International Journal of Pharmacy and Herbal Technology, 2023:1(3):105-123.
- 26. Shirish B. Nagansurkar, Sanjay K. Bais, Amol V. Pore, Sarfaraz M. Kazi, Ajay B. Lawate, Formulation and Evaluation of in Vitro Polyherbal Antifungal Gel, International Journal of Pharmacy and Herbal Technology2022:6(3):30-32.