

A Review on Medicinal Benefits and Applicability of Herbal Ingredients in Cosmeceuticals

Sanchari Chatterjee*¹, Aman Kataruka², Subhajit Mukherjee³, Arnab Adhikari⁴,
Dr.Arin Bhattacharjee⁵

Assistant Professor, Department of Pharmaceutics, Global College of Pharmaceutical Technology, Krishnagar, Nadia, West Bengal, India.

Student, Department of Pharmacy, Global College of Pharmaceutical Technology, Krishnagar, Nadia, West Bengal, India.

Student, Department of Pharmacy, Global College of Pharmaceutical Technology, Krishnagar, Nadia, West Bengal, India.

Student, Department of Pharmacy, Global College of Pharmaceutical Technology, Krishnagar, Nadia, West Bengal, India.

Principal, Department of Pharmacy, Global College of Pharmaceutical Technology, Krishnagar, Nadia, West Bengal, India.

ABSTRACT

It is possible to utilise herbal cosmetics to improve one's look. As a result of their lack of side effects and toxicity, herbal substances have been preferred over chemical ones. To maintain and enhance the natural look of the face and other body parts like the hand, mouth, finger, hair, eye, and so on, cosmetics are a useful chemical. All kinds of cosmetics, from face packs to moisturisers to shampoo to hair oils to nail polish to nail paint removers are included in this category. The skin and hair of a desirable individual should be smooth, shining, and free of blemishes. Microbes, chemical toxins, and chemicals all have the potential to cause skin injury. It has long been a tradition in India for people to utilise sandalwood, turmeric, and henna to treat their skin ailments. Traditional Indian class medicine was formerly widely used at India's imperial royal houses to enhance the ambiance's sensuous appeal while also maintaining the residence's fashionable orderliness. Natural face wash, homegrown conditioner, herbal cleanser, and homegrown cleaner are all examples of herbal spend or care products that may be made and used on a daily basis. Bio-active cosmetics, such as nutraceuticals and pharmacological therapies, are included in herbal cosmetics. Bioactive substances found in botanicals include antioxidants, vitamins and oils as well as essential oils, hydrocolloids, proteins, terpenoids, and other compounds. There may be a lot of value in using our traditional understanding of Ayurveda, Unani, Siddha, and Tibetan medicine to tap into the wealth of plants that nature has to offer in identifying phytochemicals.

KEYWORDS: Herbal Cosmetics, Nutraceuticals, Anti-aging, Antidandruff, Skin Care

Date of Submission: 13-06-2022

Date of acceptance: 27-06-2022

I. INTRODUCTION

At the moment, the most effective spices utilised in cosmeceutical manufacturing have been plainly moved ahead in tending instrument, and enhancing tending product is of vital worry. These are the materials used for cleaning, beautifying, enhancing the quality of participating, and altering with time while not piercing the edge's form or capabilities. From the Greek term for "vigour, orchestration, and excellence in adorning," "magnificence" derives its meaning. It began as a pastime for hunting, warfare, religion and eccentricity, and later evolved into a medical practise ^[1]. Many man-made compounds, synthetics, and colours have been shown in studies to cause a wide range of long-term skin and pores issues. As a consequence, we strive to improve our beauty care products as much as possible. There is a major arrangement of endlessly pores and skin health management perfection inside the, writing and unani and clinical as well as medical device. Anti-oxidant, calming, germicide, emollient, anti-seborrheic, anti-karyolytic, and anti-microorganism qualities are just a few examples of what a spice should have. Products that reduce wrinkles, treat skin diseases and alter oil production are created thereafter. Natural and man-made kinds of materials have been used for decades to protect the skin from the sun's harmful rays, treat skin irritation, and prevent the ageing process ^[2]. One's skin and hair are influenced by a variety of circumstances, including one's health, proclivities, repetition posture, natural situation settings, and care. The pores and skin will dry up in the middle of the year because of the uneven exposure to

high temperatures, resulting in wrinkles, spots, flaws, pigmentation, and sunburns ^[3]. Fractures, wounds, maceration, and infections in the skin are all made worse by the harsh winter conditions. The wide range of embellishing tending product or cosmetics includes creams, powders, perfumes, creams, consumer products, and other objects. Within the sport plans for beauty care goods, regular ingredients are plainly utilised, associated there are typically a constant producing leisure activity with within the energy in their systems of activity, to reach an extra today's engaged format of endlessly pores and healthy skin items ^[4]. The choice of boosting pharmaceuticals is quickly changing due to their permanently skin-friendly temperament and absence of half-results. Exhausted elements of the product are that it's made from spices and shrubs and that it's broken down into its component parts. Due to its high content of nutrients and eye-catching beneficial minerals, a home's large content texture material can no longer have a negative impact on living structures. Natural beauty care products, as opposed to big-ticket items, may be relied on time and time again. They've been dermatologist-tested and shown to be hypoallergenic, so you may use them anytime, anyplace. Using simple home goods, parents don't have to worry about endless skin rashes or the pleasure of endless skin irritation. Natural magnificence in the twenty-first century is organised around "new everlasting pores and healthy skin plan based totally on the best synergism between nature and innovation, restriction of the most unflawed bioactive components, and prime expense execution development." Ancient magnificent reasoning states, "Accept with within the cooperative energy of nature, in its finest form, on with the most matchless creativity." Despite the fact that there aren't many harmful materials around, modern house-sized opulence items are free of potentially harmful substances and work to promote our skin's natural radiance. Research on seasoning plants in outstanding tending products obtained in this study discusses both the components and the exercises associated with video games. Action sports-inspired beauty care items ^[1].

II. BENEFITS OF USING NATURAL COSMETICS

Easily accessible

All natural ingredients are used in the production of herbal cosmetics, which are devoid of any harmful synthetic chemical components. Aloe-vera gel and coconut oil, which are commonly available plant components and extracts, are exactly as effective as manufactured cosmetics. Some of these products are enriched with natural ingredients that nourish and enhance skin. As an example, aloe vera, which belongs to the liliaceous family, is a commonly accessible herbal plant species. Mineral oils may be utilised as components in a number of cosmetics, and some customers are worried about the usage of dangerous synthetic chemicals. Natural products with traceable and extra natural components, devoid of dangerous chemical compounds and effectiveness are demanded ^[5].

Using it is less risky

Using herbal cosmetics is preferable than using synthetics because of the inherent safety of herbal ingredients. Because dermatologists have examined and validated their safety, they are less allergenic, nontoxic, and may be safely used by everyone. Due to the fact that they are made from only natural ingredients ^[5].

Less side effects

Skin rashes may result from the usage of artificial beauty products. They may cause dryness or greasiness by clogging pores and skin pores. Natural cosmetics can no longer be avoided because of the risk of adverse effects. Due to the natural substances utilised, there are no negative effects and the product may be safely used on the skin^[6]. The most common preservative used in cosmetics, parabens, is not present in natural cosmetics. Then there's the theory that they're disrupting hormone synthesis (endocrine disruption) ^[7].

Suitable for use on all kinds of skin

There are a variety of herbal cosmetics that are good for all skin tones, including foundation, eye shadow, and lip gloss. Women with sensitive skin may use these products without fear of harming their skin ^[7].

III. METHODS

Cosmeceuticals derived from natural ingredients:

Beauty products that include cosmeceutical ingredients are the future of skin care. As well as developments in dermatological products, they constitute the modern-day backbone of skincare. Hybrids of cosmetics and pharmaceuticals, dubbed "cosmeceuticals," aim to enhance both the health and look of the skin. Natural and manufactured cosmeceuticals both include beneficial ingredients with medicinal, disease-preventing, or healing potential. American dermatologists helped popularise the term "cosmeceutical," which was coined by Raymond Reed, the society's founder. Pimples might occur from the irritation of your pores and skin caused by the use of synthetic cosmetics. It is quite probable that they will clog your pores and cause your skin to become either dry or greasy. Cosmetics made from natural ingredients no longer suffer from this issue.

Natural ingredients mean there are no side effects, so you may take them whenever and wherever you please. Among natural cosmetics, parabens, the most often used preservative in cosmetics, are not utilised [8].

IV. SKIN CARE

Sunflower oil: (Figure No.1)

Helianthus Annuus, a member of the Asteraceae family, produces a non-hazardous oil. Sunflower contains a variety of nutrients, including lecithin, tocopherols, carotenoids, and waxes. It has emollient and non-comedogenic characteristics. Used for millennia in a wide variety of face and body products as an inexpensive yet effective base oil [9].



Figure No. 1: Sunflower

Aloe vera: (Figure No.2)

Though Aloe vera is linked to other Liliaceae plants found in northern Africa, it has only recently been recognised as a natural species with no long-term populations. For cleansing, aloe vera has saponin glycosides and amino acids like leucine and isoleucine. It also has minerals like A and C and folic acid. Aloe vera also has choline and folic acid [10].



Figure No. 2: Aloe vera

Olive oil: (Figure No.3)

This oil is made from *Olea europaea* fruit, a member of the Oleaceae family. Triolein, tripalmitin, trilinolein, tristearate, monosterate, triarachidine, squalene, -sitosterol, and tocopherol are all key ingredients. As a skin and hair conditioner, it may be found in cosmetics like lotions and shampoos. A well-known fatty acid penetration accelerator, it has been utilised in many face and body emulsions for a long time [9].



Figure No. 3: Olive oil

Coconut oil: (Figure No.4)

Oil derived from the fruit or seed of the *Cocosnucifera* palm tree belongs to the family of Arecaceae plants. The dried copra kernel, which contains 60–65 percent oil, is crushed to make it. Short-chain fatty acids and glycerides are found in large quantities in coconut oil. Because of its melting point of 24 to 25°C (75 to 76°F), coconut oil may be used in both liquid and solid bureaucracies. Baked goods and cooking are two more common uses for it [11].**Figure No. 4: Coconut oil**



The oil of jojoba: (Figure No. 5)

To make it, chemists used a mixture of long-chain linear wax esters produced from the seeds of desert plant *Simmondsiachinensis* (family Simmondaceae). Because of its oxidative stability and ease of refinement to remove odours and stains, jojoba oil is widely used in cosmetics as a moisturiser and carrier oil for exotic scents [12].

Figure No. 5: The oil of jojoba

Oat: (Figure No. 6)

An excellent source of antioxidants, oat oil also functions as an excellent moisturiser. Face oils, moisturisers, and lotions often include it [13].



Figure No. 6: Oat



Chandan: (Figure No. 7)

It was used to remove dead skin cells in facial cleansers and packs. Rejuvenates the skin by stimulating the production of new cells. It may also be used as a sunburn therapy detaining agent ^[13].



Figure No. 7: Chandan

Multani mittens: (Figure No. 8)

Natural baby powder from Fuller's Earth, Multani Mittens. For centuries, people have used clay masks to draw out oils from their faces, as well as to moisturise their skin, their teeth, and their gums, as well as to cure pimples, unclog pores, and remove flakes and grime from their skin ^[13].



Figure No. 8: Multani mittens

V. PROTECTING SKIN FROM HARM

Turmeric: (Figure No. 9)

UV sunburn cells are reduced in mice by a bright yellow-orange powder. Curcumin, eugenol, mtetrahydrocurcumin, triethylcurcumin and turmerones are some of the phytochemicals contained in turmeric, which is also known as turmeric. Antibacterial, analgesic, anti-inflammatory, antioxidant, antimalarial, and insect repellent are just a few of the many uses of turmeric ^[14].



Figure No. 9: Turmeric

Shikakai: (Figure No. 10)

Leguminosae plant *Acacia concinna* Linn thrives in southern Asian tropical rainforests as a therapeutic remedy. This plant's final product is used to clean hair, promote hair growth, and as an expectorant, emetic, and purgative. Saponins, alkaloids, sugar, tannin, flavanoids, and anthraquinoneglycosides are all found in the powdered form of *Acacia Concinna* Linn ^[15].



Calendula: (Figure No. 11)

According to research, the herb *calendula officinalis* has anti-inflammatory, antioxidant, and wound-healing properties. In a previous study, researchers found that the essential oil of *calendula* contained -thujene, -pinene, 1, 8-cineole, dihydrotageton, and muurolol ^[16].

Figure No. 11: Calendula

Figure No. 10:



Rose oil: (Figure No. 12)

For this reason, roses are sometimes referred to as the world's most popular flower. Roses are divided into four groups for the purpose of oil production. In Latin, *Rosa amascene* mill refers to the plant. Gallical has three species: *R. gallical*, *R. moschataherm*, and *R. centifolia* L., all of which are subspecies of *R. gallical*. Medicinal properties may be found in both rose oil and rose water ^[17].



Figure No. 12: Rose oil

VI. DANDRUFF TREATMENT

Henna: (Figure No. 13)

Henne powder is made from a plant called *Lawsoniainermis*, which belongs to the family Lythraceae and includes the colour molecule Lawsone. In addition, mucilage and alkaloid properties are present in small amounts in gallic acid, glucose, mannitol, lipids, and organic compounds (2 percent). Oil-inexperienced resins, such as henna, are formed by the leaves and may be extracted with both ether and alcohol ^[18].

Figure No. 13: Henna

Neem: (Figure No. 14)

Mahagony's botanical cousin, margosa, is often referred to as neem. The Meliaceae family includes it. In addition to its antifungal and antibacterial properties, neem is also used to treat dandruff because of its analgesic and anti-inflammatory properties ^[19].

Figure No. 14: Neem



VII. ANTIAGING

Green tea: (Figure No. 15)

Epigallocatechin (EGC), EGC-3-gallate, EC, and EGCG are the four most common polyphenoliccatechins discovered in *Camellia sinensis* tea leaves. DMBA and 12-O-tetra-decanoylphorbol 13-acetate [TPA] have been demonstrated to suppress two-stage chemical carcinogenesis, as have green tea extracts or the solitary green tea polyphenol (GTPP), epigallocatechin (ECC)-3-gallate (EGCG) ^[20].

Figure No. 15: Green tea

Carrot: (Figure No. 16)

Daucuscarota, a member of the Apiaceae family, is the source of this ingredient. Because of its high quantities of Vitamin A and other essential vitamins, it has long been regarded as a healthy plant. To ward against ageing, carrot seed oil is a rejuvenating and energising agent in its own right. In addition to -carotene, carrots contain lower levels of -carotene and Car-carotene, all of which contribute to the bright orange colour. And-carotenes are converted to vitamin A in the body in little amounts ^[21].

Figure No. 16: Carrot

Ginkgo: (Figure No. 17)

To treat a range of medical conditions, including poor circulation, high blood pressure, dementia, memory loss, and depression, the Ginkgoaceae family member *G. biloba* (*G. biloba*) has been used for thousands of years; it is also used to treat male impotence. Anti-inflammatory and antioxidant properties are emerging as well. Flavone glycosides (33 percent) and terpenes (6 percent) make up the *G. biloba* extract EGb 761, which has been demonstrated to reduce UVB-induced sunburn cells in mice ^[22].

Figure No. 17: Ginkgo



VIII. HAIR MANAGEMENT

Hibiscus: (Figure No. 18)

A crimson pigment made from *Hibiscus sabdariffa* extract, a member of the Malvaceae family. Preventing hair loss and premature greying is one of the many benefits of consuming Hibiscus, which contains calcium, phosphorus, iron, and Vitamin B1 ^[13].

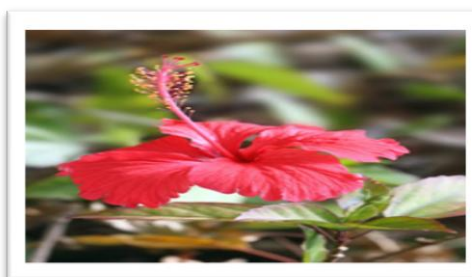


Figure No. 18: Hibiscus

Oil of eucalyptus: (Figure No. 19)

Steam distillation of Eucalyptus leaves, such as *E. cinerea*, is used to make this product. *E. aueriana*, *E. smithii*, R. T. Baker, and *E. bridgesiana*. R. T. Baker and *E. microtheca*. In addition to *E. pulverulenta* Sims, *E. propinqua* Deane and Maiden, *E. erythrocorys*, *E. foecunda* Schuur Faustino Muell. I'm talking about *E. pulverulenta* Sims, and I'm talking about *E. pulverulenta* Sims, *E. pulverulenta* Sims, and *E. pulverulenta* Sims, and EUP's Eucalyptus oil monograph includes the following chromatographic profiles: pinene (2-4%), limonene (4-12%), phellandrene (much less than 1.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.5%), camphor (much less than 0.1 percent) ^[13].



IX. DENTAL CARE

Walnut: (Figure No. 20)

Tree of Juglance's Regia family: Walnut to treat dandruff and other symptoms of eczema, the leaves of the Juglandaceae family may be applied to the scalp and used as an herbal remedy ^[13].



Figure No. 20: Walnut

Meswak: (Figure No. 21)

Chewing sticks, or Meswak (*Salvadorapersica*), are common across the Indian subcontinent, and people of many ethnicities use Meswak as a traditional toothbrush to keep their teeth clean. It's a cheap way to keep your teeth clean. Antiplaque and antigingivitis agents have been included into dentifrices in recent years. Increasing salivary secretions by chewing on these stems is considered to help in mouth cleaning and plate ^[13].



Figure No. 21: Meswak

Red clover: (Figure No. 22)

If your gums are inflamed or otherwise unhealthy, a red clover mouthwash might be beneficial. After making red clover tea, make an ointment using the leaves. Squeezed-out flowers and leaves. To treat abscessed gums caused by a sore, root canal treatment, or any other dental surgery, rub an antibiotic-containing mind on the gums ^[13].

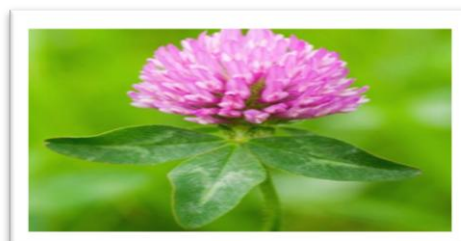


Figure No. 22: Red clover

Peppermint oil: (Figure No. 23)

Peppermint oil contains menthol, along with methyl acetate, tannic acid, and vitamin C. Peppermint oil is used to treat a toothache while soaking. Once you've soaked it in oil, you may either use it to massage the tooth or place it in the hole. Mint mouthwash may be used to treat gingivitis ^[13].



Figure No. 23: Peppermint oil

Rosemary: (Figure No. 24)

The extracts and essential oils of *Rosmarinus officinalis* L. have a high concentration of phenol chemicals, which are responsible for the plant's medicinal properties. Rosemary extracts include antioxidants and volatile components such as phenolic acids, flavonoids, and diterpenoids. Rosemary's leaves, flowers, roots, and stems contain seven major flavonoids. Rosemary oil is a skin hydrator and oil regulator in one. By supplying the skin with an antibacterial surface, it also aids in the prevention of acne.



Hesperidin, genepain, diosmin, hesperidin, isoscutellarein, and isoscutulin are all 7-O-glucosides, as is hispidulin. Numerous studies have been conducted on 7-O-glucoside. In the anti-aging process, they play a crucial role ^[23]. **Figure No. 24: Rosemary**

X. PROTECTING SKIN FROM DISCOLORATION

Papaya: (Figure No. 25)

In addition to carpine enzymes, dehydrocarpine enzymes, ascorbic acid, and saponin-rich saponins, the *Carica papaya* leaf includes myrosine, alkaloids, rutin, resin, and tannins. Aromatic and aliphatic hydrocarbons contribute to the odour. However, lycopene, cryptoxanthin, and carotene are improved throughout development when paired with vitamin C. A popular ingredient in face cleansers, carotenoids aid in the lightening and lightening of skin pigmentation and tans ^[24].



Figure No. 25: Papaya

Cucumber: (Figure No. 26)

In addition to vitamin C and vitamin A, the extract contains a number of other nutrients that are beneficial to your skin. Leaf and gel masks may be made using it. Cucumber has a lot of promise for soothing and rehydrating sunburned or irritated skin. In skin care, cucumber extract is often used to combat wrinkles, sunburn, and other signs of ageing. The skin-loving benefits of cucumber extract are well known. The bulk of the juice is composed of proteins, lipids, vitamin C, and other minerals, all of which are moisturising and relaxing. As an astringent, it may help reduce the appearance of swollen and puffy skin ^[25].



Figure No. 26: Cucumber

Manjistha: (Figure No. 27)

Blood, skin and urine disorders are routinely treated with manjistha, a blood purifier. Manjistha and honey are used externally on severe burns, lentils, and spots. Major skin problems respond well to this therapy. *Rubiocordifolia* methanol extract prevents acne. To cure external inflammations such as wounds and skin problems, it is an astringent. When compared to normal clindamycin gel, anthraquinones, a high plant content in gel formulation, have anti-acne effects against propionibacterium acne, *Staphylococcus epidermis*, and *Malassezia furfur*. Gel and ointment versions of manjishtha are readily accessible ^[26-29].



Figure No. 27: Manjistha

Vitamin E: (Figure No. 28)

Lipophilic antioxidants are the most common in plasma membranes and tissues (Alpha-tocopherol). Natural Vitamin E is a set of 30 compounds that all exhibit vitamin E activity, four tocopherols and four tocotrienols included. A major activity is chain arrest reproduction and lipid peroxidation, which traps peroxy radicals and protects the cell membrane ^[30].

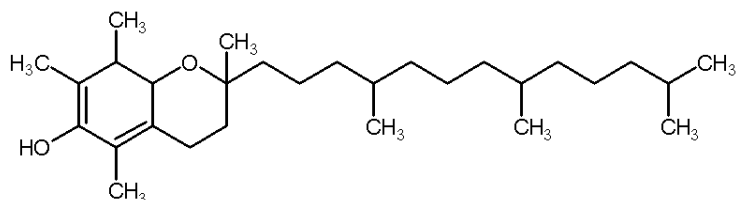


Figure No. 28: Structure of Vitamin E

Witch hazel: (Figure No. 29)

Sorcery is a powerful herbal astringent because of its high tannin content. When it comes to the leaves and bark, they're unbeatable. Witchcraft may be used to protect one's skin. For future stains, the herb might be utilised ^[31].



Figure No. 29: Witch hazel

White oak: (Figure No. 30)

White oak, a large tree native to North America, is another potent astringent. The astringent qualities of the crust have now been identified. Tannins and iron are also abundant in this plant. There are a number of skin care products created from white oak as well. Also, white oak has been connected to the treatment and prevention of illnesses and infections ^[32].



Figure No. 30: White oak

XI. CONCLUSION

Herbal cosmetics are products that include phytochemicals derived from a range of plant source, which impact skin functions and give nutrients for healthy skin and hair. There is a common perception that chemical-based cosmetics are damaging to the skin, which increases consumer awareness of herbal solutions. Natural cosmetics are made by combining one or more herbal substances to heal and beautify various skin conditions. Cosmeceuticals are substances that preserve and nourish the skin, and they can be derived from the herbal drugs mentioned in this article. Cosmetic goods are the finest alternative for reducing skin issues including hyperpigmentation, wrinkles, ageing, and rough skin texture, among others. Herbal cosmetics are becoming increasingly popular. As a result of their efficacy, herbal cosmetics have the upper hand over synthetic cosmeceuticals.

REFERENCES

- [1]. Kumar S, Vivek S, Sharma S, And Baldi A. Herbal Cosmetics: Used for Skin and Hair. *Inventi Rapid: Cosmeceuticals*, 2012. 2012 (4): P. 1-7.
- [2]. Joshi, L.S., And Pawar, H.A. Herbal Cosmetics and Cosmeceuticals: An Overview. *Natural products chemistry & research*, 2015. 3 (2): P. 1-8.
- [3]. Kapoor, V. P. Herbal Cosmetics for Skin and Hair care. *Natural product Radiance*, 2005. 4(4): P. 306-314.
- [4]. Larsson, S. C., Bergkvist, L., Näslund, I., Rutegård, J., And Wolk, A. Vitamin A, retinol, and carotenoids and the risk of gastric cancer: a prospective cohort study. *The American journal of clinical nutrition*, 2007. 85(2): P. 497-503.
- [5]. Escamilla M, Ferre A, Hidalgo C, Fuentes N, Kaps R. Revision of European Ecolabel Criteria for Soaps, Shampoos and Hair Conditioners. *Joint Research Centre European Commission*, 2012. P. 1-40.
- [6]. "ParabensIn Cosmetics". 2022. U.S. Food And Drug Administration. <https://www.fda.gov/cosmetics/cosmetic-ingredients/parabens-cosmetics>.
- [7]. Suzuki D. The "Dirty Dozen" Ingredients Investigated in the David Suzuki Foundation Survey of Chemicals in Cosmetics. *Backgrounder*, 2010. P. 1-15.
- [8]. Wanjar N, Waghmare J. A Review on Latest Trend of Cosmetics-Cosmeceuticals. *International Journal of Pharma Research & Review*, 2015. 4(5): P. 45-51.
- [9]. Gediya SK, Mistry RB, Patel UK, Blessy M, Jain HN. Herbal Plants: used as cosmetics. *Journal of Natural Product and Plant Resources*, 2011. 1(1): P. 24-32.
- [10]. Akinyele BO, Odiyi AC. Comparative study of the vegetative Morphology and the existing taxonomic status of Aloe vera. *Journal of Plant sciences*, 2007. 2(5): P. 558-563.
- [11]. Athar M, Syed M N. Taxonomic perspective of plant species yielding vegetable oils used in cosmetics and skin care products. *African Journal of Biotechnology*, 2005. 4(1): P. 36-44.
- [12]. Rabasco AAM, Gonzalez RML. Lipids in pharmaceutical and Cosmetic preparations. *Grasas y Aceites*, 2000. 51: P. 74-96.
- [13]. Dongare PN, Bakal RL, Ajmire PV, Patinge PA, More MP, Manwar JV. An Overview on Herbal Cosmetics and Cosmeceutical. *International Journal of Pharmaceutical Sciences Review and Research*, 2021. 68(1): P. 75-78.
- [14]. Ozkur MK, Bozkurt MS, Balabanli B, Aricioglu A, IlterN, The effects of EGB 761 on lipid peroxide leaves and superoxide Dismutase activity in sunburn. *Photodermatolphotoimmunolphotomd*, 2002. 18: P. 117-120.
- [15]. Khanpara K, Renuka V, Shukla J, Harsha CR. A Detailed Investigation of shikakai (*Acacia concinna* Linn) fruit. *Journal of Current Pharmaceutical Research*, 2012. 9: P. 06-10.
- [16]. Okoh OO, Sadimenko AP, Asekeen OT, Afolayan AJ. The effects Of Drying on the chemical components of Essential oils of *Caledulaofficinalis* L. *African Journal of Biotechnology*, 2008. 7(10): P. 1500-1502.
- [17]. Fujiyama-Fujiwara Y, Umeda R, Igarashi O. Effects of sesamin and curcumin on delta 5-desaturation and chain elongation of polyunsaturated fatty acid metabolism in primary cultured rat hepatocytes. *Journal of nutritional science and vitaminology*, 1992. 38(4): P. 353-363.
- [18]. Chaudhary G, Goyal S, Poonia P. *Lawsoniainermis* Linnaeus: A Phytopharmacological Review. *International Journal of Pharmaceutical Sciences and Drug Research*, 2010. 2(2): P. 91-98.
- [19]. Anand N, Aquicio JM, Anand A. Antifungal properties of Neem (*Azadirachta indica*) leaves extract to treat Hair Dandruff. *E-International Scientific Research Journal*, 2010. 2(3): P. 244-252.

- [20]. Mukhtar, H., Katiyar, S. K., & Agarwal, R. (1994). Green tea and skin--anticarcinogenic effects. *The Journal of investigative dermatology*, 1994, 102(1): P. 3–7.
- [21]. Strube M, Dragsted. Naturally occurring Antitumourigens. IV. Carotenoids except β carotene (1999).
- [22]. Korać, R. R., & Khambholja, K. M. Potential of herbs in skin protection from ultraviolet radiation. *Pharmacognosy reviews*, 2011, 5(10): P. 164–173.
- [23]. Olmedo RH, Nepote V, Grosso NR. Preservation of sensory and chemical properties in flavoured cheese prepared with cream cheese base using oregano and rosemary essential oils. *LWT- Food Science and Technology*, 2013, 53: P. 409-17.
- [24]. Karina A. Evaluation of volatiles from ripening papaya (*Carica papaya* L., var. Maradolroja). *Food Chem*, 2004, 86(1): P. 127-130.
- [25]. Flath RA, Light DM, Jang EB, Mon TR, John JO. Headspace examination of volatile emissions form ripening papaya (*Carica papaya* L., Solo variety). *Journal of Agricultural and Food Chemistry Family*, 1990, 38: P. 1060-1063.
- [26]. Jain, A., & Basal, E. Inhibition of *Propionibacterium acnes*-induced mediators of inflammation by Indian herbs. *Phytomedicine: international journal of phytotherapy and phytopharmacology*, 2003, 10(1): P. 34–38.
- [27]. Khan N, Karodi R, Siddiqui A, Thube S, Rub R. Development of antiacne gel formulation of anthraquinones rich fraction from *Rubiocordifolia* (Rubiaceae). *International Journal of Applied Research in Natural Products*, 2012, 4(4): P. 28-36.
- [28]. Antarkar DS, Chinwalla T, Bhatt N. Anti-inflammatory activity of *Rubiocordifolia* Linn. In rats. *Indian Journal of Pharmacology*, 1983, 15(3): P. 185-188.
- [29]. Tripathi YB, Sharma M, Shukla S, Tripathi P, Thyagaraju K, Reddanna P. *Rubiocordifolia* inhibits potato lipoxygenase. *Indian Journal of Experimental Biology*, 1995, 33: P. 109-112.
- [30]. Kapoor LD. *CRC Handbook of Ayurvedic Medicinal Plants* Boca Raton. FL: CRC Press 1990.
- [31]. Pal RS, Pal Y, Saraswat N, Wal P, Wal A. Current Review on Herbs for Derma Care. *The Open Dermatology Journal*, 2019, 13: P. 41-46.
- [32]. Mengoli F, Herbal cosmetic compsns-contg. Herbs in mixture of Surfactants, essential oils, etc. DE4133085 A1, 1993, April 1.
- [33]. Venkatachalam D, Samuel TB, Vincy VK, Vinod KR. REVIEW ON HERBAL COSMETICS IN SKIN CARE. *Indo American Journal of Pharmaceutical Sciences*, 2019, 06 (01): P 781-789.

Sanchari Chatterjee, et. al. "A Review on Medicinal Benefits and Applicability of Herbal Ingredients in Cosmeceuticals." *International Journal of Pharmaceutical Science Invention*, vol. 11(03), 2022, pp 01-09. Journal DOI- 10.35629/6718