



Short Communication

Utilization of Herbal Cosmetics: A brief overview

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ABSTRACT

The role of Indian herbs in herbal cosmetics is well-known throughout the world. Beauty and makeup are as old as humanity and society itself. As a result, women with herbs use various beauty items to appear attractive, and young women are fascinated with looking attractive. Herbal cosmetics are classified as beauty products containing herbal ingredients that have physiological benefits such as curing, smoothing, improving, and conditioning. Herbal cosmetics are a priceless gift from nature that is becoming increasingly common on the global market. There has been a lot of concern regarding herbal formulations, which have a high level of activity and virtually no side effects when compared to synthetic drugs. For thousands of years, spices and herbs have been used to keep the human body healthy and attractive. The above ingredients have been used by Indian women for centuries to care for their skin, hair, palms, and soles, and to perfume their bodies. The royal palaces in India used a variety of herbs to improve sensual appeal and maintain general hygiene. Shelf-stable herbal formulations, such as herbal face wash, shampoo, conditioner, soap, and the like, are frequently made and used daily. In the coming years, the industry is focusing on the growing market, which has a large range of possible growth.

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GRAPHICAL ABSTRACT

Introduction

The tale of cosmetics can be traced back through all of human history. Cosmetic comes from the Greek word "cosmtikos," which means "decorate, organise, and decorate" [1]. Man used colours to attract the creatures he wanted to hunt in prehistoric times (3000BC), and he even survived an enemy attack by colouring his skin and adorning his body for protection, instilling fear in his foe (whether man or animal)[2]. Hunting, combat, religion, and superstition all played a role in the development of cosmetics and, later, medicine[3]. Herbal cosmetics products contain ingredients that are lawful cosmetic ingredients used in formulation to develop a distinct combination of beneficial cosmetic properties that are made up of one or more herbs [4]. In the 1990s, the term "cosmeceuticals" was coined to describe skin care products with active ingredients, such as alphahydroxy acid, retinoic acid, ascorbic acid, and coenzyme Q10, that are also marketed as having medicinal benefits [3]. In other words, those active ingredients perform a variety of functions. Increased skin elasticity, delayed skin ageing by reducing wrinkles, antioxidant

resistance against UV radiation, and collagen degradation regulation, to name a few benefits [5]. People's skin and hair appearance is determined by their fitness, habits, daily work, environmental conditions, as well as maintenance [6]. Since the skin is dehydrated in the summer due to excessive heat exposure, wrinkles, freckles, blemishes, pigmentation, and sunburns are possible. During extremely harsh winters, the skin sustains damage like chapped lips, cuts, bruising, maceration, as well as infection [7]. Even people of all ages are susceptible to skin diseases, which can be caused by bacteria, chemical agents, or biological toxins in the water [8-10]. Their only source of information was Ayurveda, which has preserved natural wisdom over thousands of years. Ayurveda relied on a wide range of herbs and floral floras when creating cosmetics that were both for beauty and for protection from the environment. Botanicals that are "naturally occurring" don't have any side effects on the human body, other with enhancing your health with vitamins and minerals. Cosmetics are products that are used to wash, beautify, or

improve one's health [11]. A provisional drug approval does not apply to cosmetics. Herbal cosmetics are phytochemical preparations derived from various botanical sources that influence skin functions and provide nutrients for healthy skin and hair [12]. Herbal cosmetics are natural herbs and their extracts that are used in cosmetic preparations for their aromatic appeal [7]. Demand for natural products and natural extracts in cosmetic formulations has increased due to consumer awareness of the skin-toxic nature of conventional chemical-based cosmetics [7]. There has been a sharp increase in the demand for natural ingredients and new possibilities have emerged in the cosmetics industry. According to the Drug and Cosmetic Act, cosmetic herbs and essential oils must not penetrate into the skin's surface layers or have a medicinal effect [13]. Herbal cosmetics and other chemical ingredients used in cosmetic formulations must follow the same legal requirements and regulatory procedures [7].

Major Categories of Herbal Cosmetics[14]:

- Cosmetics for improving facial skin appearance
- Cosmetics for hair growth and care
- Cosmetics for skin care, especially in teenager[14, 15](acne, pimples and sustaining)
- Shampoos, soaps, powders and perfumery, etc.
- Miscellaneous products

Medicinal Herbs used in Cosmetics:

An Ayurvedic herb practitioner who has a vast knowledge of Ayurveda claims that one of the Ayurvedic herbs' main functions is to purify blood and extract vitiated doshas (vata, pitta, and kapha) from the body, which are primarily responsible for skin disorders and other diseases [16]. The CharakSamhita, a book about Ayurveda written by the Ayurvedic sage Charak, contains descriptions of various medicinal plants in Varnya Kashaya. To have a glowing complexion, you can use the herbs mentioned. Shwetadurva

Lata, Shwetadurva Nagkeshara, Shwetadurva Padmak, Shwetadurva Khus, Shwetadurva Yashtimadhu, Shwetadurva Manjistha, Shwetadurva Sariva, Shwetadurva Payasya, Shwetadurva Seta (shyamadurva)[16]. Generally, these herbs help to remove toxins from the body, brighten the complexion, and treat boils.

Advantages of Herbal Cosmetics:

Herbal cosmetics or herbal cosmetics may also be referred to as products of botanical origin in the cosmetics industry. The Drugs and Cosmetics Act of 1940 defines cosmetics as "any material intended to be rubbed, poured, sprinkled, or applied to human beings for the purpose of bathing, beautifying, or promoting beauty"[16]. Cosmetics comprising biologically active principles or plant-based ingredients that influence the consumer, or a combination of cosmetics and pharmaceuticals to improve the health and appearance of the skin, are known as cosmeceuticals[16, 17]. Herbal cosmetics are beauty products that contain herbal ingredients that have healthful purposes, such as healing, improving the look of skin, improving its overall strength, and enhancing the user's appearance. Many benefits of herbal makeup include:

- There is a natural source of medicinal plants, which is our only hope for a safe supply of cheaper drugs for the world's growing population;
- Herbal cosmetics have a long history of usage and acceptance, as well as increased patient tolerance[7].
- Producing and processing medicinal plants and herbal products in a manner that is not harmful to the environment
- The availability of medicinal plants is not an issue in developing countries like India, which has a diverse agro-climatic, cultural, and ethnic biodiversity.
- Herbal medicines' safety and efficacy can be demonstrated by long-term, apparently unobtrusive use [18].

Table 1: name of plants used for care of skin

S. No.	Common name of plant	Family	Uses	Ref.
1	Aaraar	Cupressaceae	In skin creams, the whole plant extract is beneficial for controlling skin rejuvenation.	[19, 20]
2	Aam	Anacardiaceae	Plant extract has anti-oxidant features.	[21, 22]
3	Akashbel	Convolvulaceae	Dermatitis, scratching, and ringworm are all treated with it.	[23, 24]
4	Aswagandha	Solanaceae	The entire plant extract is used to cleanse the skin and has antioxidant properties.	[25, 26]
5	Amla	Euphorbiaceae	The fruit extract has anti-oxidant properties.	[27, 28]
6	Babuna	Asteraceae	The extract of the leaves is used in anti-acne creams.	[29-31]
7	Babchi	Fabaceae	The extract from seeds has the ability to treat skin diseases.	[32, 33]
8	Banaba Leaf	Lythraceae	It is said to increase the skin's suppleness and reduce the signs of ageing. It's a fantastic addition to gel and lotion formulations.	[34]
9	Badam	Rosaceae	Sun creams and other formulations containing kernel extract are used to make skin fairer and beautify creams.	[35, 36]
10	Burdock Root	Asteraceae	It is commonly used in personal care products to deeply clean pores and remove impurities from the skin's surface. Many have used this ingredient in topical preparations for a long time, and it is commonly thought to be an excellent addition to hair care products.	[34]
11	Bile	Rosaceae	Seed extract is used to improve the appearance and protect the skin.	[37, 38]
12	Chandan	Santalaceae	A few drops of an essential oil can be added to creams, ointments, and lotions to help beautify skin and protect against sunburn.	[39-42]
13	Chameli	Oleaceae	Essential oil extracted from flowers is used in skin creams and lotions to control skin diseases. Mixtures of plant-based essential oils are used to protect the skin from sunburn.	[43, 44]
14	Cheretta	Gentianaceae	Bark powder extract has anti-inflammatory and antioxidant effects.	[45, 46]
15	Cucumber Peel	Cucurbitaceae	The calming and cooling properties of cucumber peel extract make it an excellent addition to skin care products.	[34]
16	Chotidhudhi	Euphorbiaceae	Ringworm and skin	[47, 48]

17	Dhak	Fabaceae	infections can be treated with a plant extract. Pimples benefit from leaf extract, while fungal infection and bruises benefit from seed extract.	[49, 50]
18	Grape Seed	Genus Vitis	Grape seed extract has components that can help prevent skin from losing its suppleness, making it soft and youthful-looking. Grape seed extract is a main ingredient in a number of facial moisturizers and can help skin remain supple.	[34]
19	Garlic	Alliaceae	It has been suggested that garlic oil can help with skin issues like boils, pimples, and acne. It is suitable for skin care formulations like lotions and creams.	[51]
20	HulKhusa	Lamiaceae	All kinds of skin disorders, from scabies to skin psoriasis to chronic skin to skin eruption to eczema, are treated using the juice of this plant.	[52]
21	Haldi	Zingiberaceae	Rhizome powder is beneficial to the skin because of its anti-inflammatory and anti-oxidant properties.	[53]
22	Kuth	Asteraceae	Ointments containing root extract are used to treat chronic skin diseases.	[54, 55]
23	Karela	Cucurbitaceae	Antioxidant properties are contained in plant extracts.	[56-58]
24	Kamala	Euphorbiaceae	Flower powder can be used to treat scabies, ringworm, and leprosy eruptions, among other things.	[21, 59]
25	Lavender	Lamiaceae	Essential oils are used to treat acne on the skin.	[60, 61]
26	Lalgulab	Rosaceae	A beauty product often contains a natural extract of flowers, used to harvest natural oils that can be used in various beauty products, such as lotions, creams, and sunburn balms.	[60, 62]
27	Lajwanti	Mimosaceae	To help control itching, herbal extracts are used in skin creams and lotions.	[63]

28	Maharukh	Simaroubaceae	In skin creams and lotions, the extract from the leaves helps to prevent skin eruptions.	[64]
29	Nimbu	Rutaceae	To alleviate skin itching and nourish the skin, various oils are used. The resulting pulp, after juicing, can be used as a facial ingredient.	[65, 66]
30	Nariyal	Areceaceae	Coconut oil may be used to relieve itching and rashes on the skin.	[67]
31	Neem	Meliaceae	Diterpenes and strongly oxidised tetraner warmer parts triterpenoids like azadirachtin are found in the bark, seed, fruits, and leaves; antiseptic agent; useful in the treatment of wounds, skin diseases, leprosy, and ulcers.	[68]
32	Papaya	Caricaceae	The juice from unripe fruit is great for facial and face cream.	[69, 70]
33	Panwar	Caesalpiniaceae	Skin infections, ringworm, eruptions, and other skin problems may be treated with the leaves and seed extract.	[71, 72]
34	Sunflower	Genus Helianthus	Additional benefits can be found in skin and hair care products by using it. It helps prevent split ends, resulting in thicker, shinier hair.	[34]
35	Sea Buckthorn	Genus Hippophae	Sea Buckthorn extract is a one-of-a-kind ingredient that contains a natural reservoir of skin-friendly nutrients. It's a great addition to a variety of topical skin care items, particularly for mature skin.	[9]
36	Tulsi	Lamiaceae	The extract from the leaves can help with skin infection and rejuvenation.	[73-75]
37	Water lettuce	Araceae	The extract of the leaves is used to treat chronic skin conditions.	[71, 76, 77]

Table 2: name of plants used for care of hair

S. No.	Common name of plant	Family	Uses	Ref.
1	Aloe	Liliaceae	Aloe vera contains enzymes that are known to help break down dead skin cells and excess sebum, which can cause blockages in hair follicles.	[34, 78]
2	Amla	Euphorbiaceae	Oils containing fruit extract are used to promote hair growth.	[79, 80]
3	Akroot	Juglandaceae	Hair dye is made from the leaves and hulls of fruits.	[81, 82]
4	Bhringraj	Asteraceae	One of the most effective natural ways to promote hair growth is to use an Ayurvedic herb.	[9, 34]
5	Basil	Lamiaceae	Basil has anti-inflammatory, hair-preventing, and circulatory benefits, and it also helps to promote hair growth when used as a herbal rinse on the hair and scalp.	[24, 34, 83]
6	Behera	Combretaceae	Hair dyeing preparation may benefit from seed extract and oil.	[84, 85]
7	Banajwain	Lamiaceae	Hair tonics can be made with whole herb extract.	[86, 87]
8	Bargad	Moraceae	Aerial root powder is combined with coconut oil and massaged into the scalp to prevent hair loss.	[88, 89]
9	Brahmi	Apiaceae	Massage brahmi extract into the scalp with olive oil to improve circulation and encourage stronger hair growth.	[34]
10	Ginger	Zingiberaceae	Ginger root oil promotes better and faster hair growth by increasing circulation in hair follicles.	[34]
11	Henna	Lythraceae	The paste made from the leaves is used to colour and nourish hair.	[90-92]
12	Harra	Combretaceae	Hair care products include seed extract.	[93]
13	Jatamansi	Valerianaceae	Hair tonics often use rhizome extract to promote hair growth.	[94, 95]
14	Lavender	<i>Lavandula angustifolia</i>	It can benefit people of all skin types since it enhances blood flow in the scalp, encourages new hair growth, and regulates the scalp's natural oil production.	[34]
15	Mustard	Brassicaceae	Hair oil made from seeds is used to nourish hair.	[96, 97]
16	Marigold	Asteraceae	For a smoothing effect, flowers extract is used in hair creams.	[98, 99]
17	Peppermint	Lamiaceae	Peppermint oil can be used to treat a rash on the scalp.	[34]

18	Ritha	Sapindaceae	Fruit coat extract is a natural shampoo that is used as a hair cleanser in herbal shampoos [84, 100]
19	Shikakai	Mimosaceae	Pods extract is often used as a hair cleanser as well as a dandruff treatment. [101, 102]
20	Safflower	Asteracea	Hair tonics contain alcoholic extract. [34, 103]
21	Til	Pedaliaceae	A commonly used hair oil source is seed oil which is used in either its unrefined form or as a starting point for making specific hair oils. [104, 105]

Conclusion

The public is embracing herbal cosmetics. According to Herbal cosmetics' proponents, their intrinsic acceptability and efficacy are guaranteed, along with their relative lack of side effects when compared to synthetic cosmetics. Approximately 70% of the Indian population uses herbal cosmetics for health care. In daily use, commonly-formulated herbal cosmetics include herbal face wash, conditioner, soap, and shampoo. In the coming years, the industry will shift their focus towards a large segment with the opportunity for great manifold expansion.

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Conflict of interest

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References

- [1] S. Pandey, N. Meshya and D. Viral, Herbs play an important role in the field of cosmetics. *International Journal of PharmTech Research*, 2 (2010) 632-639.
- [2] V. Kapoor, Herbal cosmetics for skin and hair care. (2005)
- [3] Z. Draelos, Cosmetic Consultation Topical Anti-inflammatory Agents. *COSMETIC DERMATOLOGY-CEDAR KNOLLS-*, 16 (2003) 41-44.
- [4] D.A. Glaser, Anti-aging products and cosmeceuticals. *Facial plastic surgery clinics of North America*, 12 (2004) 363-72, vii.
- [5] C.G. Rousseaux and H. Schachter, Regulatory issues concerning the safety, efficacy and quality of

- herbal remedies. *Birth Defects Research Part B: Developmental and Reproductive Toxicology*, 68 (2003) 505-510.
- [6] P.L. Kole, H.R. Jadhav, P. Thakurdesai and A.N. Nagappa, Cosmetic potential of herbal extracts. (2005)
- [7] K. Sumit, S. Vivek, S. Sujata and B. Ashish, Herbal cosmetics: used for skin and hair. *Inven. J*, 2012 (2012) 1-7.
- [8] R.S. Pal, Y. Pal, N. Saraswat, P. Wal and A. Wal, Current Review on Herbs for Derma Care. *The Open Dermatology Journal*, 13 (2019)
- [9] I.A. Khan and E.A. Abourashed, *Leung's encyclopedia of common natural ingredients: used in food, drugs and cosmetics*. (2011): John Wiley & Sons.
- [10] A.K. Aarsand, P.H. Petersen and S. Sandberg, Estimation and application of biological variation of urinary δ -aminolevulinic acid and porphobilinogen in healthy individuals and in patients with acute intermittent porphyria. *Clinical chemistry*, 52 (2006) 650-656.
- [11] R.J. Ko, Adulterants in Asian patent medicines. *New England Journal of Medicine*, 339 (1998) 847-847.
- [12] S.C. Larsson, L. Bergkvist, I. Näslund, J. Rutegård and A. Wolk, Vitamin A, retinol, and carotenoids and the risk of gastric cancer: a prospective cohort study. *The American journal of clinical nutrition*, 85 (2007) 497-503.
- [13] S.K. Sathe, W.J. Wolf, K.H. Roux, S.S. Teuber, M. Venkatachalam and K.W.C. Sze-Tao, Biochemical characterization of amandin, the major storage protein in almond (*Prunus dulcis* L.). *Journal of agricultural and food chemistry*, 50 (2002) 4333-4341.
- [14] S. Sang, K. Lapsley, R.T. Rosen and C.-T. Ho, New prenylated benzoic acid and other constituents from almond hulls (*Prunus amygdalus* Batsch). *Journal of agricultural and food chemistry*, 50 (2002) 607-609.

- [15] USDA-NRCS. (2012), World Wide Web publication.
- [16] A. Prashar, I.C. Locke and C.S. Evans, Cytotoxicity of lavender oil and its major components to human skin cells. *Cell proliferation*, 37 (2004) 221-229.
- [17] A. Gurib-Fakim, *Lesser-known and under-utilised plant resources*. (2005).
- [18] V. Dubey and M. Tiwari, Comparative Study of different Herbal Brands: A Appraisal. *International Journal of Pharmacy & Life Sciences*, 11 (2020)
- [19] C. Cabral, V. Francisco, C. Cavaleiro, M. Gonçalves, M. Cruz, F. Sales, M. Batista and L. Salgueiro, Essential oil of *Juniperus communis* subsp. *alpina* (Suter) Čelak needles: chemical composition, antifungal activity and cytotoxicity. *Phytotherapy Research*, 26 (2012) 1352-1357.
- [20] M. McCabe, D. Gohdes, F. Morgan, J. Eakin, M. Sanders and C. Schmitt, Herbal therapies and diabetes among Navajo Indians. *Diabetes care*, 28 (2005) 1534-1535.
- [21] J.C. Barreto, M.T. Trevisan, W.E. Hull, G. Erben, E.S. De Brito, B. Pfundstein, G. Würtele, B. Spiegelhalder and R.W. Owen, Characterization and quantitation of polyphenolic compounds in bark, kernel, leaves, and peel of mango (*Mangifera indica* L.). *Journal of agricultural and food chemistry*, 56 (2008) 5599-5610.
- [22] P. Scartezzini and E. Speroni, Review on some plants of Indian traditional medicine with antioxidant activity. *Journal of ethnopharmacology*, 71 (2000) 23-43.
- [23] E. Anis, I. Anis, S. Ahmed, G. Mustafa, A. Malik, N. Afza, S.M.A. Hai and M.I. Choudhary, α -glucosidase inhibitory constituents from *Cuscuta reflexa*. *Chemical and pharmaceutical bulletin*, 50 (2002) 112-114.
- [24] L. Yang, Q. Chen, F. Wang and G. Zhang, Antiosteoporotic compounds from seeds of *Cuscuta chinensis*. *Journal of ethnopharmacology*, 135 (2011) 553-560.
- [25] D. Sukanya, A. Loksha, G. Datta and K. Himabindu, Phytochemical diversity in ashwagandha (*Withania somnifera*). *Open Access Journal of Medicinal and Aromatic Plants*, 1 (2010)
- [26] L.-C. Mishra, B.B. Singh and S. Dagenais, Scientific basis for the therapeutic use of *Withania somnifera* (ashwagandha): a review. *Alternative medicine review*, 5 (2000) 334-346.
- [27] Habib-ur-Rehman, K.A. Yasin, M.A. Choudhary, N. Khaliq, Atta-ur-Rahman, M.I. Choudhary and S. Malik, Studies on the chemical constituents of *Phyllanthus emblica*. *Natural Product Research*, 21 (2007) 775-781.
- [28] V. Tiwari, A. Kuhad and K. Chopra, *Emblica officinalis* corrects functional, biochemical and molecular deficits in experimental diabetic neuropathy by targeting the oxido-nitrosative stress mediated inflammatory cascade. *Phytotherapy research*, 25 (2011) 1527-1536.
- [29] J.A. Pino, F. Bayat, R. Marbot and J. Agüero, Essential oil of chamomile *Chamomilla recutita* (L.) Rausch. from Iran. *Journal of Essential Oil Research*, 14 (2002) 407-408.
- [30] A. Pirzad, H. Alyari, M. Shakiba, S. Zehtab-Salmasi and A. Mohammadi, Essential oil content and composition of German chamomile (*Matricaria chamomilla* L.) at different irrigation regimes. *Journal of Agronomy*, 5 (2006) 451-455.
- [31] O. Singh, Z. Khanam, N. Misra and M.K. Srivastava, Chamomile (*Matricaria chamomilla* L.): an overview. *Pharmacognosy reviews*, 5 (2011) 82.
- [32] B. Ruan, L.-Y. Kong, Y. Takaya and M. Niwa, Studies on the chemical constituents of *Psoralea corylifolia* L. *Journal of Asian Natural Products Research*, 9 (2007) 41-44.
- [33] G. Zhao, S. Li, G.-W. Qin, J. Fei and L.-H. Guo, Inhibitive effects of *Fructus Psoraleae* extract on dopamine transporter and noradrenaline transporter. *Journal of ethnopharmacology*, 112 (2007) 498-506.
- [34] R.K. Bijauliya, S. Alok, M. Kumar, D.K. Chanchal and S. Yadav, A comprehensive review on herbal cosmetics. *International Journal of Pharmaceutical Sciences and Research*, 8 (2017) 4930-4949.
- [35] S. Sang, K. Lapsley, W.-S. Jeong, P.A. Lachance, C.-T. Ho and R.T. Rosen, Antioxidative phenolic compounds isolated from almond skins (*Prunus amygdalus* Batsch). *Journal of Agricultural and Food Chemistry*, 50 (2002) 2459-2463.
- [36] A.J. Esfahlan, R. Jamei and R.J. Esfahlan, The importance of almond (*Prunus amygdalus* L.) and its by-products. *Food chemistry*, 120 (2010) 349-360.
- [37] A.P. Oliveira, J.A. Pereira, P.B. Andrade, P. Valentão, R.M. Seabra and B.M. Silva, Phenolic profile of *Cydonia oblonga* Miller leaves. *Journal of agricultural and food chemistry*, 55 (2007) 7926-7930.
- [38] B.M. Silva, P.B. Andrade, P. Valentão, F. Ferreres, R.M. Seabra and M.A. Ferreira, Quince (*Cydonia oblonga* Miller) fruit (pulp, peel, and seed) and jam: antioxidant activity. *Journal of Agricultural and Food Chemistry*, 52 (2004) 4705-4712.
- [39] X.H. Zhang, J.A.T. da Silva, Y.X. Jia, J.T. Zhao and G.H. Ma, Chemical composition of volatile oils from the pericarps of Indian sandalwood (*Santalum album*) by different extraction methods. *Natural*

- product communications, 7 (2012) 1934578X1200700132.
- [40] B.B. Misra and S. Dey, Evaluation of in vivo anti-hyperglycemic and antioxidant potentials of α -santalol and sandalwood oil. *Phytomedicine*, 20 (2013) 409-416.
- [41] B.B. Misra and S. Dey, Differential extraction and GC-MS based quantification of sesquiterpenoids from immature heartwood of East Indian sandalwood tree. *Journal of Natural Sciences Research*, 2 (2012) 29-33.
- [42] B.B. Misra and S. Dey, Shikimic acid (tamiflu precursor) production in suspension cultures of East Indian sandalwood (*Santalum album*) in air-lift bioreactor. *Journal of Postdoctoral Research*, 1 (2013) 1-9.
- [43] S.K. Sadhu, M.S. Khan, T. Ohtsuki and M. Ishibashi, Secoiridoid components from *Jasminum grandiflorum*. *Phytochemistry*, 68 (2007) 1718-1721.
- [44] A.P. Chaturvedi and Y.B. Tripathi, Methanolic extract of leaves of *Jasminum grandiflorum* Linn modulates oxidative stress and inflammatory mediators. *Inflammopharmacology*, 19 (2011) 273-281.
- [45] J.S. Negi, P. Singh and B. Rawat, Chemical constituents and biological importance of *Swertia*: a review. *Curr Res Chem*, 3 (2011) 1-15.
- [46] Y. Chen, B. Huang, J. He, L. Han, Y. Zhan and Y. Wang, In vitro and in vivo antioxidant effects of the ethanolic extract of *Swertia chirayita*. *Journal of Ethnopharmacology*, 136 (2011) 309-315.
- [47] Y. Liu, N. Murakami, H. Ji, P. Abreu and S. Zhang, Antimalarial Flavonol Glycosides from *Euphorbia hirta*. *Pharmaceutical Biology*, 45 (2007) 278-281.
- [48] E. Williamson, China: Churchill Livingstone; 2002. *Major Herbs of Ayurveda*,
- [49] N.M. Ammar, M.S. Hefnawy and D.A. Mohamed, Phytochemical and biological studies of *butea frondosa* Roxb. leaves growing in Egypt. *Medical Journal of Islamic World Academy of Sciences*, 109 (2011) 1-8.
- [50] R. Londonkar and R. Ranirukmini, Antimicrobial activity of *Butea frondosa* Roxb. (2010)
- [51] S. Lyantagaye, Ethnopharmacological and phytochemical review of *Allium* species (sweet garlic) and *Tulbaghia* species (wild garlic) from Southern Africa. *Tanzania Journal of Science*, 37 (2011)
- [52] M. Shah, M. Prajapati, J. Patel and K. Modi, *Leucas aspera*: a review. *Pharmacogn Rev*, 4 (2010) 85.
- [53] P. Awasthi and S. Dixit, Chemical composition of *Curcuma Longa* leaves and rhizome oil from the plains of Northern India. *Journal of Young Pharmacists*, 1 (2009) 312.
- [54] T. Zhang, H. Wang, G. Du and R. Chen, Study on chemical constituents from roots of *Saussurea lappa*. *Zhongguo Zhong yao za zhi= Zhongguo zhongyao zazhi= China journal of Chinese materia medica*, 34 (2009) 1223-1224.
- [55] J.M. Jia, C.F. Wu, W. Liu, H. Yu, Y. Hao, J.H. Zheng and Y.R. Ji, Antiinflammatory and analgesic activities of the tissue culture of *Saussurea involucrata*. *Biological and Pharmaceutical Bulletin*, 28 (2005) 1612-1614.
- [56] T. Akihisa, N. Higo, H. Tokuda, M. Ukiya, H. Akazawa, Y. Tochigi, Y. Kimura, T. Suzuki and H. Nishino, Cucurbitane-type triterpenoids from the fruits of *Momordica charantia* and their cancer chemopreventive effects. *Journal of Natural Products*, 70 (2007) 1233-1239.
- [57] N. Beloin, M. Gbeassor, K. Akpagana, J. Hudson, K. de Soussa, K. Koumaglo and J.T. Arnason, Ethnomedicinal uses of *Momordica charantia* (Cucurbitaceae) in Togo and relation to its phytochemistry and biological activity. *Journal of ethnopharmacology*, 96 (2005) 49-55.
- [58] A.J. Shah and A.H. Gilani, The calcium channel blocking and phosphodiesterase inhibitory activities of the extract of *Andropogon muricatus* explains its medicinal use in airways disorders. *Phytotherapy Research*, 26 (2012) 1256-1258.
- [59] P. Oudhia, Kamala or kamopillaka (*Mallotus philippinensis* Muell.). *Society for Parthenium Management (SOPAM)*, (2013)
- [60] A. Mostafavi and D. Afzali, Chemical composition of the essential oils of *Rosa damascena* from two different locations in Iran. *Chemistry of Natural Compounds*, 45 (2009) 110-113.
- [61] M.R. Zuzarte, A.M. Dinis, C. Cavaleiro, L.R. Salgueiro and J.M. Canhoto, Trichomes, essential oils and in vitro propagation of *Lavandula pedunculata* (Lamiaceae). *Industrial Crops and Products*, 32 (2010) 580-587.
- [62] E.G. Kovatcheva-Apostolova, M.I. Georgiev, M.P. Ilieva, L.H. Skibsted, A. Rødtjer and M.L. Andersen, Extracts of plant cell cultures of *Lavandula vera* and *Rosa damascena* as sources of phenolic antioxidants for use in foods. *European Food Research and Technology*, 227 (2008) 1243-1249.
- [63] S.K. Behera, A. Panda, S.K. Behera and M.K. Misra, Medicinal plants used by the Kandhas of Kandhamal district of Orissa. (2006)
- [64] S. Laskar, A brief resume on the genus *Ailanthus*: chemical and pharmacological aspects. *Phytochemistry Reviews*, 9 (2010) 379-412.

- [65] G. Kamal, F. Anwar, A. Hussain, N. Sarri and M. Ashraf, Yield and chemical composition of Citrus essential oils as affected by drying pretreatment of peels. *International Food Research Journal*, 18 (2011) 1275.
- [66] E. González-Molina, R. Domínguez-Perles, D. Moreno and C. García-Viguera, Natural bioactive compounds of Citrus limon for food and health. *Journal of pharmaceutical and biomedical analysis*, 51 (2010) 327-345.
- [67] J.W. Yong, L. Ge, Y.F. Ng and S.N. Tan, The chemical composition and biological properties of coconut (Cocos nucifera L.) water. *Molecules*, 14 (2009) 5144-5164.
- [68] S. Siddiqui, T. Mahmood, S. Faizi and B.S. Siddiqui, Studies in the chemical constituents of Azadirachta indica A. Juss (meliaceae). Part 10. Isolation and structure elucidation of isonimolicinolide, the first 17-acetoxy tetranortriterpenoid and nimolicinoic acid, the first hexanortriterpenoid with an apoeuphane (apotirucallane) skeleton. *Journal of the Chemical Society, Perkin Transactions 1*, (1987) 1429-1432.
- [69] P. Chávez-Quintal, T. González-Flores, I. Rodríguez-Buenfil and S. Gallegos-Tintoré, Antifungal activity in ethanolic extracts of Carica papaya L. cv. Maradol leaves and seeds. *Indian journal of microbiology*, 51 (2011) 54-60.
- [70] K.M. Sadek, Antioxidant and immunostimulant effect of Carica papaya Linn. aqueous extract in acrylamide intoxicated rats. *Acta Informatica Medica*, 20 (2012) 180.
- [71] P. Tripathi, R. Kumar, A. Sharma, A. Mishra and R. Gupta, Pistia stratiotes (Jalkumbhi). *Pharmacognosy Reviews*, 4 (2010) 153.
- [72] A. Mazumder, V. Lahkar, J. Sahay, A. Oraon, R. Mazumder and A. Pattnaik, Pharmacognostical studies on the leaves of Cassia tora Linn. (Fam. Caesalpinaceae). *Ancient science of life*, 25 (2005) 74.
- [73] A.I. Hussain, F. Anwar, S.T.H. Sherazi and R. Przybylski, Chemical composition, antioxidant and antimicrobial activities of basil (Ocimum basilicum) essential oils depends on seasonal variations. *Food chemistry*, 108 (2008) 986-995.
- [74] P. Prakash and N. Gupta, Therapeutic uses of Ocimum sanctum Linn (Tulsi) with a note on eugenol and its pharmacological actions: a short review. *Indian journal of physiology and pharmacology*, 49 (2005) 125.
- [75] M. Maqbool, I. Gani and M.A. Dar, Anti-diabetic effects of some medicinal plants in experimental animals: a review. *Asian Journal of Pharmaceutical Research and Development*, 7 (2019) 66-69.
- [76] T. Tulika and A. Mala, Pharmaceutical potential of aquatic plant Pistia stratiotes (L.) and Eichhornia crassipes. *Journal of Plant Science, Special Issue: Medicinal Plants*, 3 (2015) 10-18.
- [77] M. Maqbool, M.A. Dar, I. Gani, S.A. Mir and M. Khan, Herbal medicines as an alternative source of therapy: a review. *World Journal of Pharmacy and Pharmaceutical Sciences*, 3 (2019) 374-380.
- [78] I. Ara, M. Maqbool, B. Bukhari, N. Ara and T.A. Hajam, Present status, standardization and safety issues with herbal drugs. *International Journal of Research in Pharmaceutical Sciences and Technology*, 1 (2020) 95-101.
- [79] L.-Z. Zhang, W.-H. Zhao, Y.-J. Guo, G.-Z. Tu, S. Lin and L.-G. Xin, Studies on chemical constituents in fruits of Tibetan medicine Phyllanthus emblica. *Zhongguo Zhong yao za zhi= Zhongguo zhongyao zazhi= China journal of Chinese materia medica*, 28 (2003) 940-943.
- [80] S. Mirunalini and M. Krishnaveni, Therapeutic potential of Phyllanthus emblica (amla): the ayurvedic wonder. *Journal of basic and clinical physiology and pharmacology*, 21 (2010) 93-105.
- [81] M. Venkatachalam and S.K. Sathe, Chemical composition of selected edible nut seeds. *Journal of agricultural and food chemistry*, 54 (2006) 4705-4714.
- [82] R. Gaur, Traditional dye yielding plants of Uttarakhand, India. (2008)
- [83] S. Rasool and M. Maqbool, An overview about Hedychium spicatum: A review. *Journal of Drug Delivery and Therapeutics*, 9 (2019) 476-480.
- [84] J. Oliveira, I. Vasconcelos, L. Bezerra, S. Silveira, A. Monteiro and R. Moreira, Composition and nutritional properties of seeds from Pachira aquatica Aubl, Sterculia striata St Hil et Naud and Terminalia catappa Linn. *Food Chemistry*, 70 (2000) 185-191.
- [85] R. Misra, Modern drug development from traditional medicinal plants using radioligand receptor-binding assays. *Medicinal research reviews*, 18 (1998) 383-402.
- [86] U. Paaver, A. Orav, E. Arak, U. Mäeorg and A. Raal, Phytochemical analysis of the essential oil of Thymus serpyllum L. growing wild in Estonia. *Natural product research*, 22 (2008) 108-115.
- [87] S. Jarić, Z. Popović, M. Mačukanović-Jocić, L. Djurdjević, M. Mijatović, B. Karadžić, M. Mitrović and P. Pavlović, An ethnobotanical study on the usage of wild medicinal herbs from Kopaonik Mountain (Central Serbia). *Journal of ethnopharmacology*, 111 (2007) 160-175.
- [88] F. Ahmed and A. Urooj, Traditional uses, medicinal properties, and phytopharmacology of

- Ficus racemosa: A review. *Pharmaceutical biology*, 48 (2010) 672-681.
- [89] P.M. Paarakh, Ficus racemosa Linn.-an overview. (2009)
- [90] A.B. Hsouna, M. Trigui, G. Culioli, Y. Blache and S. Jaoua, Antioxidant constituents from Lawsonia inermis leaves: Isolation, structure elucidation and antioxidative capacity. *Food Chemistry*, 125 (2011) 193-200.
- [91] B.S. Siddiqui, M.N. Kardar, S.T. Ali and S. Khan, Two new and a known compound from Lawsonia inermis. *Helvetica Chimica Acta*, 86 (2003) 2164-2169.
- [92] I.K. Makhija, D. Dhananjaya, V.S. Kumar, R. Devkar, D. Khamar, N. Manglani and S. Chandrakar, Lawsonia inermis-from traditional use to scientific assessment. *African journal of pharmaceutical sciences and pharmacy*, 2 (2011)
- [93] Z. Ali and I. Khan, Chemical constituents of Terminalia chebula. *Planta Medica*, 75 (2009) P-41.
- [94] V.R. Gottumukkala, T. Annamalai and T. Mukhopadhyay, Phytochemical investigation and hair growth studies on the rhizomes of Nardostachys jatamansi DC. *Pharmacognosy magazine*, 7 (2011) 146.
- [95] G. Amatya and V. Sthapit, A note on Nardostachys jatamansi. *Journal of Herbs, Spices & Medicinal Plants*, 2 (1994) 39-47.
- [96] K.H. Miean and S. Mohamed, Flavonoid (myricetin, quercetin, kaempferol, luteolin, and apigenin) content of edible tropical plants. *Journal of agricultural and food chemistry*, 49 (2001) 3106-3112.
- [97] M. Liu, L. Zhang, S.L. Ser, J.R. Cumming and K.-M. Ku, Comparative phytonutrient analysis of broccoli by-products: The potentials for broccoli by-product utilization. *Molecules*, 23 (2018) 900.
- [98] J. Chalchat, R.P. Garry and A. Michet, Chemical composition of essential oil of Calendula officinalis L.(Pot Marigold). *Flavour and Fragrance Journal*, 6 (1991) 189-192.
- [99] J.C.C. Ferreira Filho, B.L.C. Gondim, D.A. da Cunha, C.C. de Figueiredo and A.M.G. Valença, Physical properties and antibacterial activity of herbal tinctures of Calendula (Calendula officinalis L.) and Cashew Tree (Anacardium occidentale L.). *Pesquisa Brasileira em Odontopediatria e Clinica Integrada*, 14 (2014) 49-53.
- [100] R. Sinha, K. Majumdar and S. Sinha, Somatic embryogenesis and plantlet regeneration from leaf explants of Sapindus mukorossi Gaertn.: a soapnut tree. *Current Science*, (2000) 620-623.
- [101] C. Mutai, D. Abatis, C. Vagias, D. Moreau, C. Roussakis and V. Roussis, Cytotoxic lupane-type triterpenoids from Acacia mellifera. *Phytochemistry*, 65 (2004) 1159-1164.
- [102] K. Karanth, Forest use and human-wildlife conflicts in Bhadra Wildlife Sanctuary, Karnataka, India. *Forest use and human-wildlife conflicts in Bhadra Wildlife Sanctuary, Karnataka, India.*, 22 (2003) 48-58.
- [103] E.S. Bassil and S.R. Kaffka, Response of safflower (Carthamus tinctorius L.) to saline soils and irrigation: I. consumptive water use. *Agricultural water management*, 54 (2002) 67-80.
- [104] Y.-M. Hu, W.-C. Ye, Z.-Q. Yin and S.-X. Zhao, Chemical constituents from flos Sesamum indicum L. *Yao xue xue bao= Acta pharmaceutica Sinica*, 42 (2007) 286-291.
- [105] K.P. Suja, A. Jayalekshmy and C. Arumughan, Free radical scavenging behavior of antioxidant compounds of sesame (Sesamum indicum L.) in DPPH• system. *Journal of agricultural and food chemistry*, 52 (2004) 912-915.

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