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Areca catechu L. (*A. catechu*) is a familiar fruit grown commonly in many countries of South

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Metabolite profiling of sea buckthorn dried fruits (*Hippophae rhamnoides* L.) by unconventional methods through UHPLC-Q-Exactive-MS/MS analysis

Annunziata Paolillo ^{a, b}, Maria Assunta Crescenzi ^a, Paola Montoro ^a, Sonia Piacente ^a

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Received 26 May 2025, Revised 8 September 2025, Accepted 16 September 2025, Available online 17 September 2025, Version of Record 29 September 2025.

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
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
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ORIGINAL ARTICLE: PHARMACEUTICAL STANDARDIZATION

Exploring synergistic potential of Turmeric (*Curcuma longa* L.) and Green tea (*Camellia sinensis* [L.] Kuntze) against skin extracellular matrix enzymes, antioxidant and anti-inflammatory activity

Narwaria, Avinash^{1,2,*}; Chakrabarty, Anirban Kr^{1,2}; Rai, Rajiva Kumar³; Sharma, Swapnil³; Katiyar, Chandra Kant³; Dubey, Sunil Kumar^{1,2}

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Volume 164, September 2025, 108818

From food waste to anti-aging solution: Harnessing the bioactive potential of pomegranate peel microparticles in skincare


Katarina Šavikin ^a, Ana Alimpić Aradski ^b, Aleksandra Jovanović ^c, Andrea Pirković ^c, Milica Radan ^a, , Nada Čujić Nikolić ^a, Jelena Živković ^a


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RESEARCH ARTICLE

Bioactive Compounds From *Rosa canina* L. Roots With Anti-Collagenase, Anti-Tyrosinase, and Antioxidant Activities: In Vitro and In Silico Approaches

Tuğba Subaş, Ufuk Özgen, Şeyda Kanbolat ✉, Merve Badem, Uğur Uzuner, Gonca Özdemir, Şule Zeytineli, Şeyma Altunışık, Halide Cangul, Özgür Eminağaoğlu

First published: 13 June 2025 | <https://doi.org/10.1002/cbdv.202500357> | Citations: 1

Funding: This study was funded by The Scientific and Technological Research Council of Türkiye (TUBITAK) (Grant Number: 1919B012337704) and Office of Scientific Research Projects of Karadeniz Technical University (Grant Number: TLO-2023-11098).

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ABSTRACT

The study aimed to investigate the anti-aging, skin-whitening, and antioxidant capacities of the extracts and constituents from the roots of *Rosa canina* L. by anti-collagenase, anti-tyrosinase activity, ferric-reducing antioxidant power (FRAP), cupric-reducing antioxidant capacity (CUPRAC) assays, and the Folin-Ciocalteu method (for the extracts). Enzyme inhibitory activities, pharmacokinetics, and drug-likeness properties of the compounds were evaluated in silico. According to the results of activity studies, the ethyl acetate subextract exhibited the highest anti-tyrosinase activity, and the remaining aqueous subextract demonstrated the highest anti-collagenase activity. The isolation studies led to the purification of euscaphic acid (1), tormentic acid (2), kaji-ichigoside F1 (3), rosamultin

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Toxicological and Cosmetic Functional Properties of Microwave-Assisted *Pereskia bleo* (Kunth) DC Leaves Extract

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 Corresponding Author: Siti Salwa Abd Gani

ABSTRACT

Cosmetic products are gaining attention due to the difficulty in identifying the toxicity status of animal-based ingredients commonly used in the market. Medicinal plants offer a natural and viable alternative for cosmetic formulations. *Pereskia bleo* (Kunt) DC, known locally in Malaysia as “Pokok Jarum Tujuh Bilah” is a medicinal plant from the Cactaceae family, traditionally used for treating various ailments because of its high antioxidant, anti-inflammatory, and antimicrobial properties. Despite its known medicinal uses, its potential as a cosmeceutical ingredient has not been widely studied. A non-conventional microwave-assisted extraction (MAE) method was used to prepare *P. bleo* leaf extract. The extract demonstrated significant cosmeceutical properties, showing 80.14% anti-collagenase, 74.04% anti-tyrosinase, and 48.03% anti-elastase inhibition activities. It also exhibited a sun protection factor (SPF) value of 23.74, indicating strong potential for use in functional cosmetics. The proximate composition of the leaves was analyzed, consisting of 20.26% crude protein, 3.55% crude fat, 11.13% crude fiber, 16.5% ash, 9.36% moisture, and 39.2% carbohydrates. Toxicity evaluations, including heavy metal analysis via ICP-MS and a brine shrimp lethality bioassay, showed that concentrations of arsenic, cadmium, chromium, lead, and mercury were all below the specific release limits set by FAO, WHO, and EFSA. No lethal concentration of minerals or heavy metals was detected, and the extract

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Intan Balqis-Wong¹, Siti Salwa Abd Gani^{2,3,*}, Uswatun Hasanah Zaidan⁴, Mohd Izuan Effendi Halmi⁵

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ABSTRACT

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Formulation and evaluation of herbal antioxidant cream from selected plants collected from the Nepalese Himalayan region

^{1,3}Paudel, P.N., ^{1,2}Acharya, A., ^{1,2}Paudel, A., ^{1,2}Shrestha, A., ⁴Satyal, P., ⁵Setzer, W.N. and ^{1,2,*}Gyawali, R.

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Article history:
Received: 1 March 2024
Received in revised form: 17 June 2024
Accepted: 21 January 2025
Available Online: 5 May 2025

Keywords:
Herbals,
Crude extracts,
Cream,
Antioxidants,
Tyrosinase inhibition

DOI:
[https://doi.org/10.26656/fr.2017.9\(3\).054](https://doi.org/10.26656/fr.2017.9(3).054)

Abstract
Due to the strong tyrosinase inhibition and antioxidant effects, green tea and licorice are valuable herbal sources in the cosmetic industry for their beneficial effects on the skin. However, data on the addition of essential oils, green tea and licorice, to cream formulations to examine antioxidant activities is limited. Herbal antioxidants fight against radicals, UV rays, and unstable oxygen molecules that affect skin cells and produce wrinkles. The purpose of this study was to develop and assess herbal creams' antioxidant and tyrosinase-inhibitory characteristics using crude aqueous extracts of green tea and licorice loaded with essential oils. To load the best concentration on cream formulations, plant aqueous extracts were designed, evaluated, and correlated in terms of total phenolic content (TPC), total flavonoid content (TFC), and 2,2-diphenyl-1-picrylhydrazyl (DPPH) scavenging activity. Moreover, *Ocimum tenuiflorum* and *O. basilicum* essential oils were extracted and added to a cream formulation. The spreadability profile, water washability, centrifugation test, and organoleptic characteristics of the formulated oil-in-water cream were all satisfactory. The cream exhibited a non-Newtonian rheological profile and a pH range of 6.353±0.065 to 6.467±0.050 over successive 0, 1, 2, and 3 months at normal room temperature. The 60% inhibition concentrations shown by the herbal cream were

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