ABSTRACT

Natural ingredients derived from plants have been more commonly implemented in

cosmetics since they can be a 'greener' and 'safer' alternative and consumers want to avoid several

ingredients that can cause skin disorders, including fragrances, parabens, phthalates, and many

more. Calophyllum inophyllum is a plant whose oil is commonly being utilized in cosmetics. Its

utilization is due to its beneficial properties like antibacterial, antioxidant, anti-inflammatory, and

wound healing activities. The oil was fractionated with absolute ethanol to overcome some

drawbacks on its application. Phytochemical screening was performed to detect the appearance of

compounds in the plants in which quinones, tannins, and alkaloids were detected. Moreover, the

total flavonoid content and phenolic content were observed. Total flavonoid content was 6.4 mg

QE/g oils, while total phenolic content was 25.1 mg GAE/g oil. LC-MS/MS was used to identify the

flavonoids present in the oil in which calophyllolide, inophyllum B, inophyllum C, inophyllum E, and

calophyllic acid were detected.

Key words: Calophyllum inophyllum, flavonoids, calophyllolide, wound healing, natural

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