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Cultivation, Extraction, Identification and Various Pharmacological Activity of Citrus Oil

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Abstract: *Citrus Limon, commonly known as lemon, is a fruit rich in essential oils with a wide range of potential health benefits. This review paper explores the chemical composition, extraction methods, and biological activities of Citrus limon essential oil (CLEO). The major constituents of CLEO include limonene, β-pinene, γ-terpinene, and citral. These compounds have been shown to possess antimicrobial, antioxidant, anti-inflammatory, and anticancer properties. The potential applications of CLEO in various fields, including food preservation, cosmetics, and pharmaceuticals, are also discussed. Further research is needed to fully understand the mechanisms of action of CLEO and to explore its potential as a safe and effective natural remedy.This review paper explores various extraction techniques for obtaining essential oil from Citrus limon, including traditional methods like hydrodistillation and cold pressing, as well as modern techniques such as microwave-assisted extraction and ultrasound-assisted extraction. The chemical composition of the extracted essential oil, primarily consisting of limonene and citral, is discussed, along with its potential health benefits and applications. The paper also highlights the importance of sustainable extraction practices and the potential for valorizing citrus by-products to obtain valuable essential oils.*

Keywords: citrus oil, cultivation, identification, antioxidant property, Anticancer, antioxidant, antiulcer, antidiabetic, antimicrobial