

A Review on Extraction, Isolation and Separation Technique Studies of *Cymbopogon Citratus*

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Abstract: *Cymbopogon citratus*, commonly known as lemongrass, is a perennial grass native to tropical regions of Asia and widely cultivated in tropical and subtropical areas worldwide. It is recognized for its lemony aroma due to the presence of citral, the primary component in its essential oil. This plant is of significant economic and medicinal value, often utilized in the culinary, pharmaceutical, and cosmetic industries. Lemongrass possesses a range of bioactive compounds, including citral, myrcene, limonene, and geraniol, which contribute to its antimicrobial, anti-inflammatory, antioxidant, and anticancer properties. It has shown potential in traditional and modern medicine for treating ailments such as infections, digestive disorders, and respiratory issues. The essential oil derived from lemongrass is also widely used in aromatherapy and as a natural insect repellent.

Keywords: *Cymbopogon citratus*, extraction methods, antioxidants, essential oils, antimicrobial properties