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HISTOCHEMICAL LOCALIZATION OF PLANT: A BASIC TOOL FOR DETECTION AND CHARACTERIZATION OF PLANT METABOLITE

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ABSTRACT

Histochemical strategies play a considerable role in the identity and classification of plants. By using diverse staining techniques and observing tissue-particular chemical compounds, these histochemical studies enable a deeper knowledge of the plant's shape and biochemical composition. Additionally, advancements in histochemical staining, virtual imaging, and molecular integration have improved plant identification processes. A low-cost and incredibly informative analytical method, histolocalization makes it simple to map the distribution of metabolites in newly discovered medicinal plants, the drug portion that contains the metabolites that need to be investigated will then require any further effort. This review discusses the standards, methodologies, and applications of histochemical strategies in plant identification, highlighting their importance in taxonomy, ecology, and pharmacognosy. This less invasive method eliminates the need for additional preparation beyond what is needed for previous methods and enables direct work on fresh raw materials and herbal medications.

KEYWORDS*: Pharmacognosy, Taxonomy, Histochemical, Ecology, Identification Method.*