

Powdered Crude Drug Microscopy of Leaves and Barks

Vidhu Aeri, Professor and Head, Department of Pharmacognosy and Phytochemistry, School of Pharmaceutical Education and Research, Jamia Hamdard, Hamdard Nagar, New Delhi, India; D.B. Anantha Narayana, Chief Scientific Officer, Ayurvidye Trust, Bangalore, India and Dharya Singh, Department of Pharmacognosy and Phytochemistry, School of Pharmaceutical Education and Research, Jamia Hamdard, Hamdard Nagar, New Delhi, India

ISBN: 978-0-12-818092-1

VOLUME: EDITION: 1

PUB DATE: December 2019 LIST PRICE: \$200.00 DISCOUNT: Non-serials FORMAT: Paperback

TRIM: 6w x 9h **PAGES:** c. 250

Approx. 500 illustrations (500 in full

color)

A complete resource for the microscopic identification and authentication of herbal drugs

KEY FEATURES

- Provides a fundamental understanding of the macroscopic and microscopic characteristics of crude drugs
- Includes specific characteristics and sub-features for identifying barks, including stone cells, calcium oxalate crystals, starch grains, medullary rays, fibers, sclereids, cork, isolated oil cells, tubular lactiferous canals, phloem parenchyma, masses, rhytidoma, parenchyma, and secretory canals
- Includes specific characteristics for identifying leaves, such as epidermis, stomata, trichomes, calcium oxalate crystals, fibers, cell contents, cystoliths, lamina, starch grains, tracheids, lactiferous canals and xylem vessels
- Provides photographs of the macroscopy and microscopical characters of the crude drug

DESCRIPTION

Powdered Crude Drug Microscopy of Leaves and Bark is a complete resource for the microscopic identification and authentication of herbal drugs. Various microscopic techniques and the structural and cellular features of herbs are examined for the determination of botanical origin. This method is useful for identifying species with similar morphological characters. Today, there are a variety of methods available to authenticate herbal drugs, ranging from simple morphological examination, to physical and chemical analysis, and DNA molecular biology. Botanical microscopy is a unique, valuable, rapid and cost-effective assessment tool, and plays an important role in the authentication and assessment of medicinal plants.

This book is an essential resource for students and researchers involved in the study of plants and natural products.

TABLE OF CONTENTS

- 1. Introduction to powder microscopy
- 2. Grinding of Plant materials
- 3. Microscopic identifying features of barks and leaves
- 4. Processing and optimized method of preparation of slides
- 5. Microscopy / Monograph of powdered bark drugs
- 6. Microscopy / Monograph of powdered leaf drugs
- 7. Microscopy / Monograph of adulterants and substitutes of powdered bark and leaf drugs



*Prices are subject to change without notice. All Rights Reserved.

