

Macroscopic and Microscopic Identification of Cortex type of Decoction Pieces Commonly Found in Hong Kong



Bombacis Cortex

Source The dried bark of *Bombax ceiba* L. in the family Bombacaceae

Property and Flavour Slightly cold; pungent and slightly bitter

Meridian Affinity Liver and kidney meridians

Actions To clear heat and drain dampness, remove toxins and resolve swelling, transform stasis and stop bleeding

Production Area Mainly produced in Hainan, Guangxi, Sichuan, Yunnan, etc.





Macroscopic Identification Features

Shape Appears strip-shaped, straight

Outer surface is greyish-brown or brown, has cracks and is usually uneven. Some cork is exfoliated. No lenticels

Some have protruding thorns

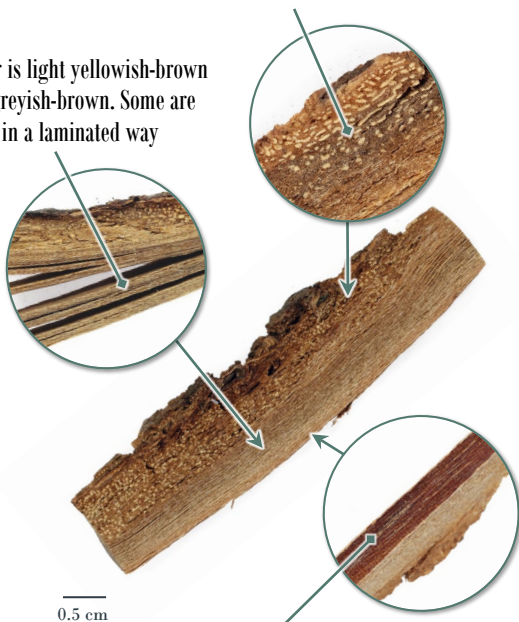


0.5 cm



Outer layer of cut surface is reddish-brown or yellowish-brown and usually has yellowish-white dot-like or linear striations

Inner layer is light yellowish-brown or light greyish-brown. Some are split in a laminated way



0.5 cm

Inner surface is reddish-brown or yellowish-brown and has fine and straight striations



Texture Tough

Fracture Fibrous



0.5 cm

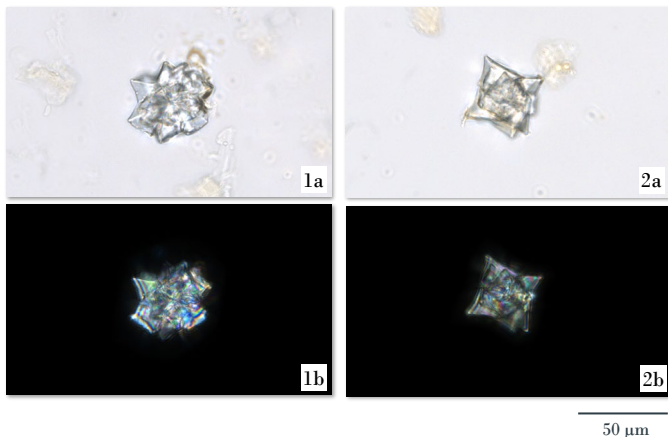
Odour Slight



Features of Easy Powder Microscopic Identification

- Crystal -

Cluster of calcium oxalate



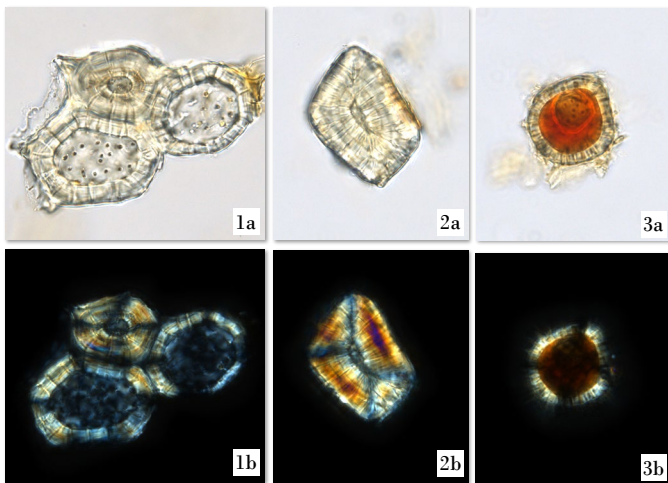
Mostly scattered, angle is usually wide (1), sometimes the angle is relatively few and the cluster of calcium oxalate slightly appears in prism form (2); polychromatic under polarized light microscope

a. features under bright field; b. features under polarized light



- Sclerenchyma -

Stone cell



Colourless or light yellow, in groups or singly scattered, appears sub-square, sub-rectangular or sub-polygonal, wall is thick (1) or extremely thick (2), with pit canals and pits which usually dense, usually with striations, some contain yellowish-brown substances (3); bright white, orange-yellow or polychromatic under polarized light microscope

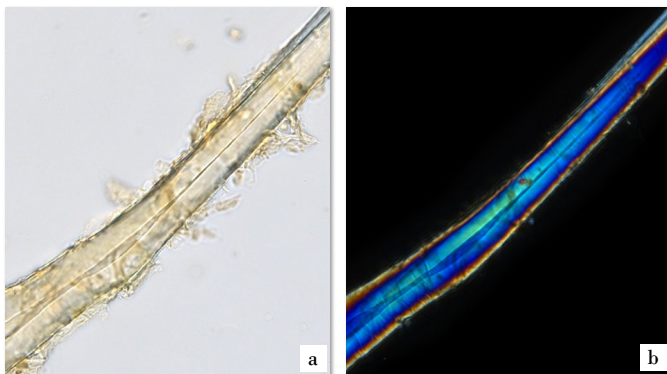
a. features under bright field; b. features under polarized light



Additional Features of Powder Microscopic Identification

- Sclerenchyma -

Fibre



50 µm

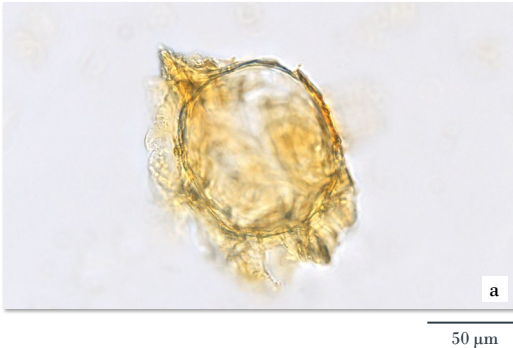
In bundles or singly scattered, wall is thick or extremely thick, narrow lumen; orange yellow or polychromatic under polarized light microscope

a. features under bright field; b. features under polarized light



- Secretory tissue -

Mucilage cell



Scattered or present in parenchyma, appears sub-rounded, wall is thin or slightly thick

a. features under bright field; b. features under polarized light



- Protective tissue -

Cork cell



50 μ m

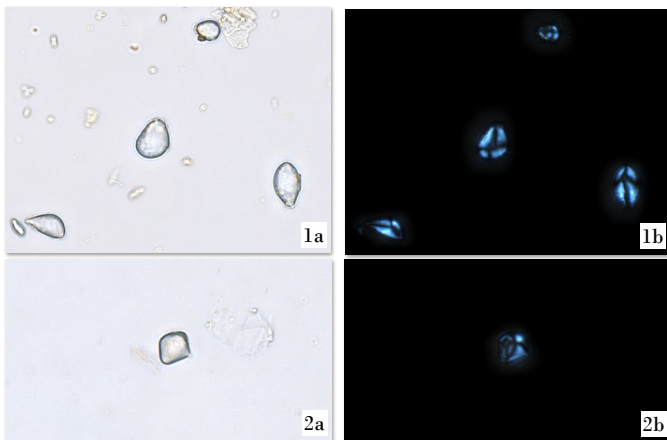
Yellowish-brown, appears sub-polygonal in surface view

a. features under bright field; b. features under polarized light



- Starch -

Starch granule



Appears sub-rounded, sub-ovate, sub-triangular or irregular, mainly is simple granule (1), semi-compound granule barely found; black and cruciate-shaped under polarized light microscope, semi-compound granule has 2 or above black cruciform

a. features under bright field; b. features under polarized light





Key Identification Features

- Macroscopic features -

- ◇ Outer surface has cracks and is usually uneven. Some have protruding thorns
- ◇ Fracture is fibrous
- ◇ Outer layer of the cut surface usually has yellowish-white dot-like or linear striations

- Powder Microscopic features -

- ◇ Angle of cluster of calcium oxalate is usually wide. The angle is sometimes relatively few and the cluster of calcium oxalate slightly appears in prism form
- ◇ Stone cell has thick or extremely thick wall, and pit canals and pits which are usually dense. It usually has striations. Some contain yellowish-brown substances

Government Chinese Medicines Testing Institute

Department of Health

Enquiry hotline: 3188 8079

Website: www.cmro.gov.hk

The information in this pamphlet may be re-disseminated or reproduced, provided that the Government Chinese Medicines Testing Institute (GCMTI), as the source of information, is acknowledged and that the re-dissemination or reproduction is for non-commercial use. Any reproduction, adaptation, distribution, dissemination or making available of the information in this pamphlet for commercial use is strictly prohibited unless prior written authorisation is obtained from the GCMTI.