

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



Cortex Schefflerae Octophyllae

Source The dried bark of *Schefflera octophylla* (Lour.) Harms in the family Araliaceae

Property and Flavour Cool; bitter

Meridian Affinity Lung meridian

Actions To promote sweating and release the exterior, remove wind and eliminate dampness, relax tendons and unblock collaterals, remove swelling and alleviate pain

Production Area Mainly produced in Guangdong, Guangxi, etc.

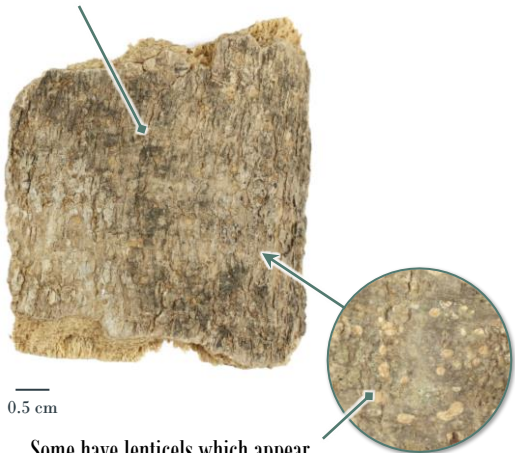




Macroscopic Identification Features

Shape In slices, appears rectangular or polygonal

Cork on the outer surface is greyish-brown or greyish-white, rough and has cracks



0.5 cm

Some have lenticels which appear sub-rounded or sub-oblong

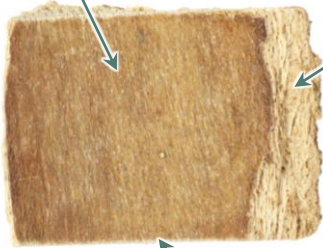
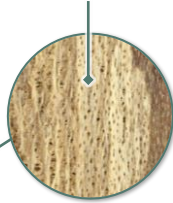


Cortex Schefflerae Octophyllae

Inner surface is light yellowish-brown, yellowish-brown or brown and has dense, short and straight striations



Some with distinct reticulate striations revealed where the surface has been shaved away



0.5 cm



Cut surface is light yellowish-brown or yellowish-brown and usually has cracks or irregular small holes



Texture Hard

Fracture Outer surface is granular, inner layer is fibrous



0.5 cm

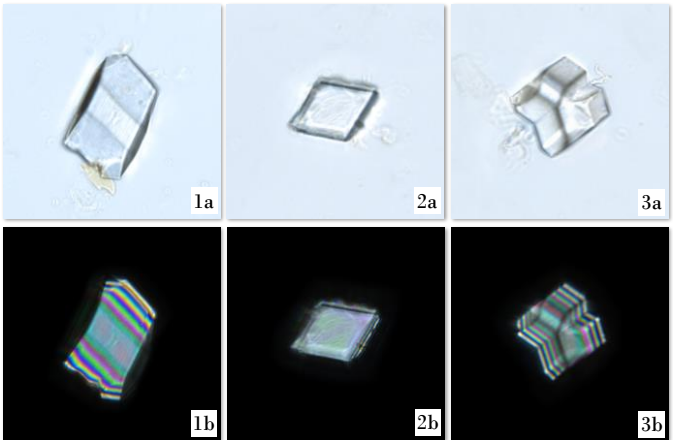
Odour Slight aroma



Features of Simplified Powder Microscopic Identification

- Crystal -

Prism of calcium oxalate



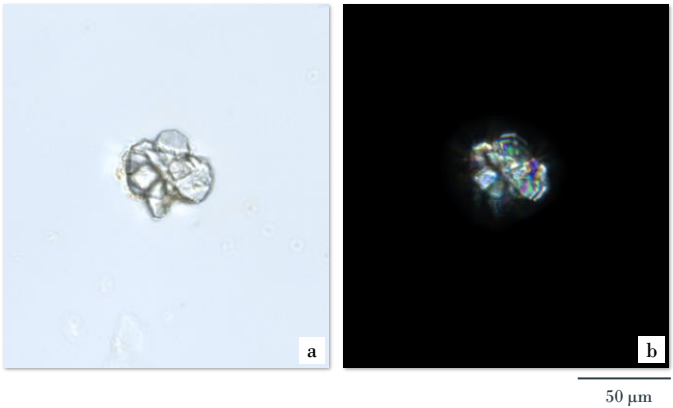
50 μm

Frequently found, usually scattered, appears rectangular (1), rhombic (2) or polygonal (3); polychromatic under polarized light microscope

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



Cluster of calcium oxalate



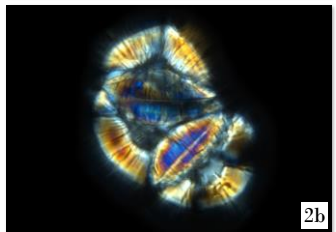
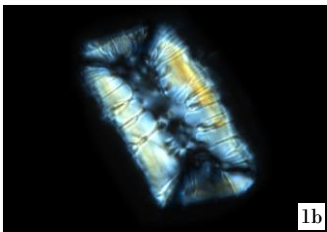
Occasionally found, usually scattered, angle is wide and in relatively small amount; polychromatic under polarized light microscope

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



- Sclerenchyma -

Stone cell



50 μ m

Singly scattered (1) or in groups (2), appears sub-rectangular, sub-polygonal or irregular, wall is thick or extremely thick, with pit canals, pits and striations, pit canals are usually thick and distinct; bright white, orange-yellow or polychromatic under polarized light microscope

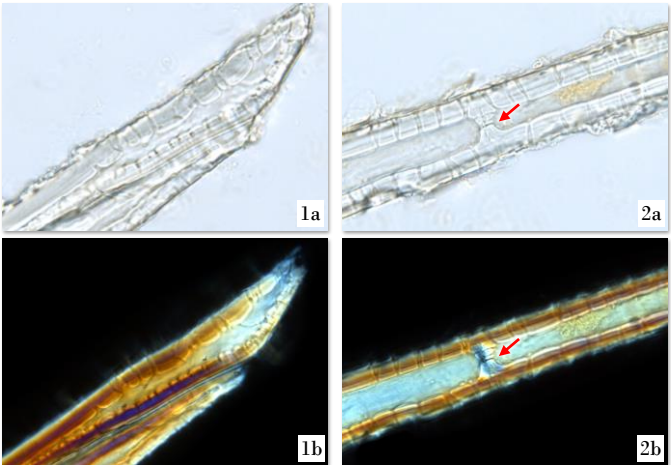
a. features under bright field; b. features under polarized light



Additional Features of Powder Microscopic Identification

- Sclerenchyma -

Fibre



50 µm

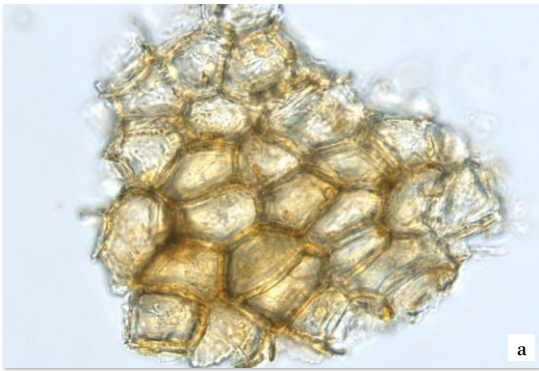
In bundles (1) or singly scattered (2), wall is thick, usually has pit canals and pits, some with septa (→); bright white, orange-yellow or polychromatic under polarized light microscope

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



- Protective tissue -

Cork cell



50 μ m

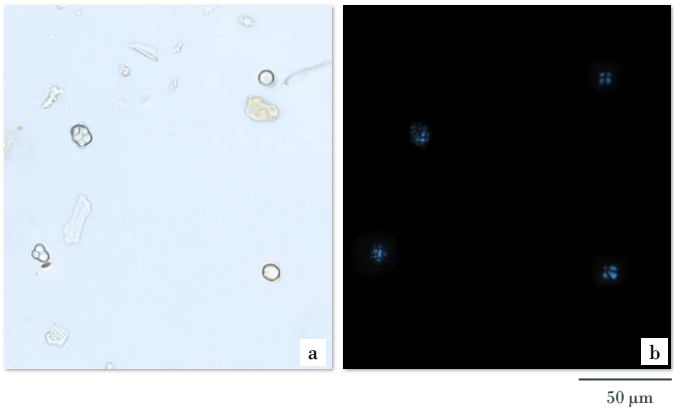
Brown or yellowish-brown, appears polygonal or sub-polygonal in surface view

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



- Starch -

Starch granule



Simple granule appears sub-rounded, compound granule consists of 2-9 units; relatively dim, and black and cruciate-shaped under polarized light microscope

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





Key Identification Features

- Macroscopic features -

- ◇ Cork on the outer surface is greyish-brown or greyish-white and rough. Some have lenticels
- ◇ Inner surface has dense, short and straight striations. Some with distinct reticulate striations revealed where the surface has been shaved away
- ◇ Outer layer of fracture is granular, while inner layer is fibrous

- Powder microscopic features -

- ◇ Prism of calcium oxalate is frequently found and appears rectangular, rhombic or polygonal
- ◇ Cluster of calcium oxalate is occasionally found. Its angle is wide and in relatively small amount
- ◇ Stone cell has thick or extremely thick wall, pit canals, pits and striations. Pit canals are usually thick and distinct

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