

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



Cortex Magnoliae Officinalis*

Source The dried stem bark, root bark or branch bark of *Magnolia officinalis* Rehd. et Wils. or *Magnolia officinalis* Rehd. et Wils. var. *biloba* Rehd. et Wils. in the family Magnoliaceae

Property and Flavour Warm; bitter and pungent

Meridian Affinity Spleen, stomach, lung and large intestine meridians

Actions To dry dampness and transform phlegm, direct qi downward, and disperse fullness

Production Area *Magnolia officinalis* mainly produced in Sichuan, Hubei, Shaanxi, Gansu, Guizhou, etc.; *Magnolia officinalis* var. *biloba* mainly produced in Anhui, Zhejiang, Jiangxi, Fujian, Hunan, Guangdong, Guangxi, etc.

Note:

* Its name in Chinese Pharmacopoeia (2020 Edition) is “Magnoliae Officinalis Cortex”.



衛生署

Department of Health

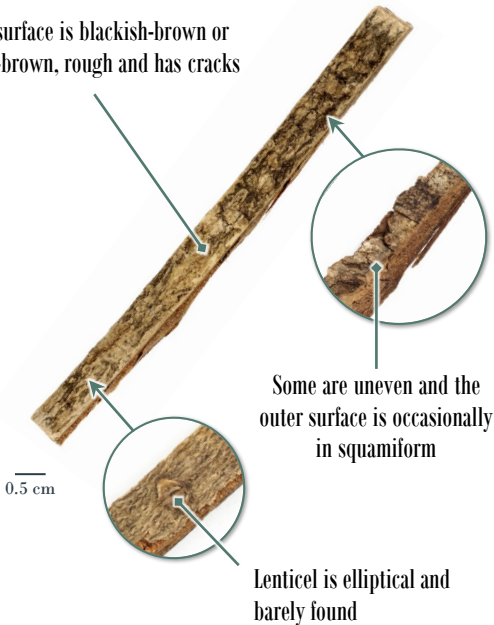


Macroscopic Identification Features

Cortex Magnoliae Officinalis (Slivers)

Shape Appears strip-shaped, straight

Outer surface is blackish-brown or greyish-brown, rough and has cracks



Inner surface is purplish-brown or blackish-brown, and has fine and straight striations

An oily scratch is visible after the inner surface is scratched with sharp object, and is customarily called “Youhen” (oily trace)



Cut surface is brown or yellowish-brown and usually has the exposure of yellowish-white fibres

Some have reflective and small crystals which are customarily called “Xiaoliangxing” (little bright star)



Texture Hard, not easily broken

Fracture Outer layer is granular, inner layer is fibrous



0.2 cm

Odour Aromatic



Cortex Magnoliae Officinalis (Slices)

Shape In slices, usually curved in “U” shape

Outer surface is blackish-brown or greyish-brown, rough and has cracks

Some are uneven and the outer surface is occasionally in squamiform



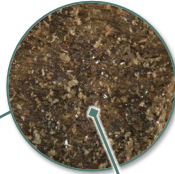
Lenticel is elliptical and barely found



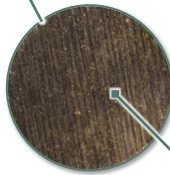
Cut surface is brown or yellowish-brown



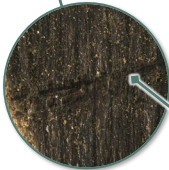
0.5 cm



Some have reflective and small crystals which are customarily called “Xiaoliangxing” (little bright star)



Inner surface is purplish-brown or blackish-brown, and has fine and straight striations



An oily scratch is visible after the inner surface is scratched with sharp object, and is customarily called “Youhen” (oily trace)



Texture Hard, not easily broken

Fracture Outer layer is granular, inner layer is fibrous



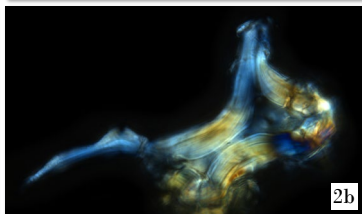
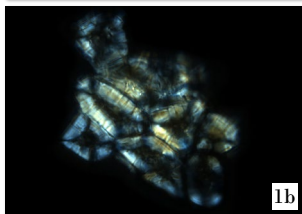
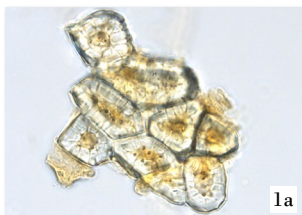
0.2 cm

Odour Aromatic



Feature of Easy Powder Microscopic Identification - Sclerenchyma -

Stone cell



50 μ m

Mostly in groups, varies in size, smaller one (1) mostly appears sub-rectangular, sub-square or sub-polygonal, larger one (2) mostly appears irregular or branched; wall is thick or extremely thick, usually with pit canals, pits and striations, some contain yellowish-brown substances in lumina; orange-yellow or bright white under polarized light microscope

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

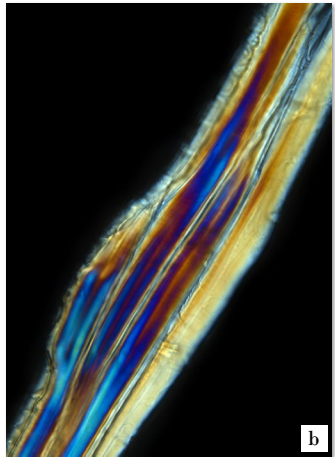
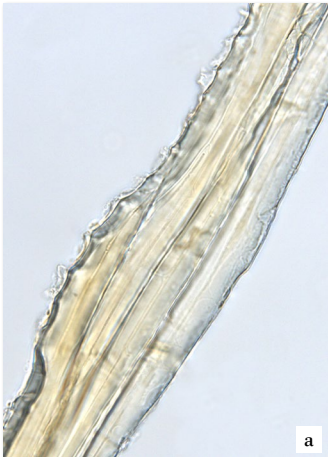




Additional Features of Powder Microscopic Identification

- Sclerenchyma -

Fibre



50 μm

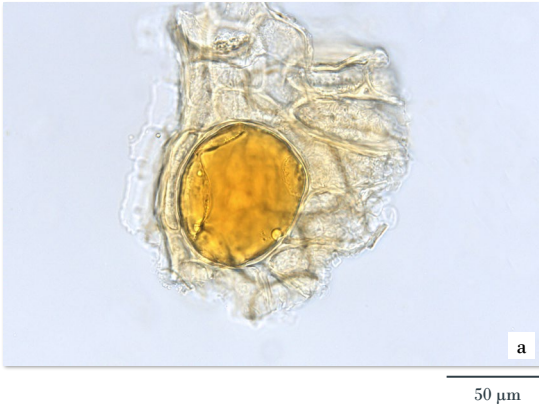
In bundles or singly scattered, wall is extremely thick, narrow lumen; bright white or polychromatic under polarized light microscope

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



- Secretory tissue -

Oil cell



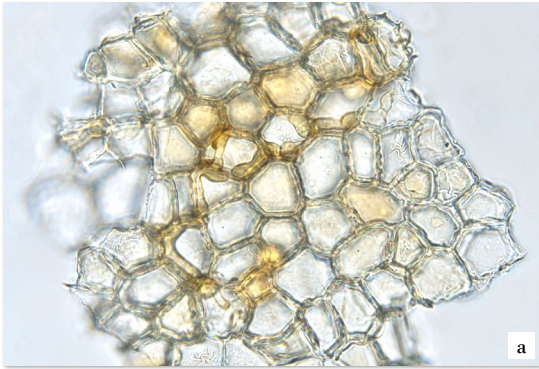
Present in parenchyma or scattered, appears sub-rounded or sub-elliptical, usually contains yellowish-brown substances

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



- Protective tissue -

Cork cell



50 μ m

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

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



- Starch -

Starch granule



Mostly gelatinized, mostly filled in parenchymatous cell in masses

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





Key Identification Features

- Macroscopic features -

- ◇ Outer surface is rough and lenticel is barely found
- ◇ Outer layer of fracture is granular, while inner layer is fibrous
- ◇ Some cut surface have reflective and small crystals which are customarily called “Xiaoliangxing” (little bright star)

- Powder Microscopic features -

- ◇ Stone cell varies in size. Smaller one mostly appears sub-rectangular, sub-square or sub-polygonal; larger one mostly appears irregular or branched

For more information, please refer to [website of the Hong Kong Chinese Materia Medica Standards](#):

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