

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

# Cortex Acanthopanax\*

**Source** The dried root bark of *Acanthopanax gracilistylus* W. W. Smith in the family Araliaceae

**Property and Flavour** Warm; pungent and bitter

**Meridian Affinity** Liver and kidney meridians

**Actions** To remove wind and eliminate dampness, tonify the liver and kidney, strengthen the sinews and bones, induce urination and resolve oedema

**Production Area** Mainly produced in Hubei, Henan, Anhui, etc.

Note:

\* Its name in Chinese Pharmacopoeia (2025 Edition) is “Acanthopanax Cortex”.



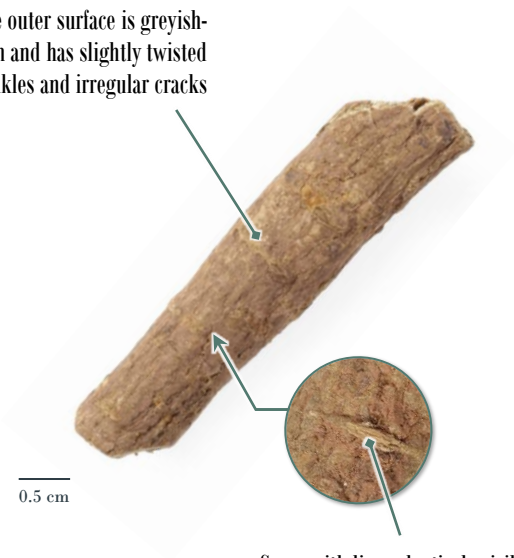
衛生署  
Department of Health



## Macroscopic Identification Features

**Shape** Irregularly-quitled, some in flat slices

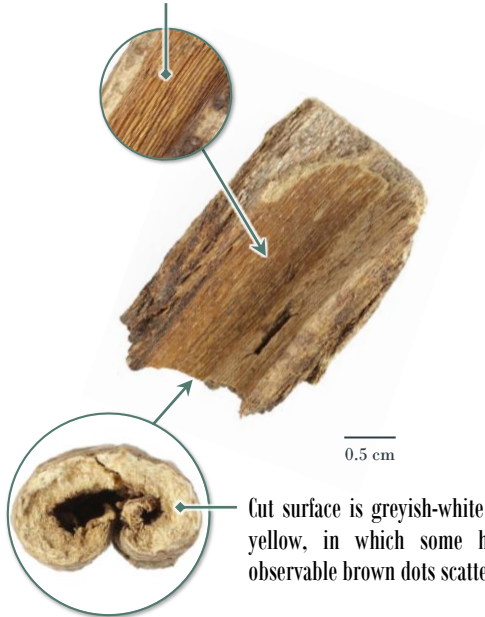
Cork on the outer surface is greyish-brown and has slightly twisted wrinkles and irregular cracks



Some with linear lenticels visible



Inner surface is greyish-yellow, light brown or light yellow and has fine straight striations

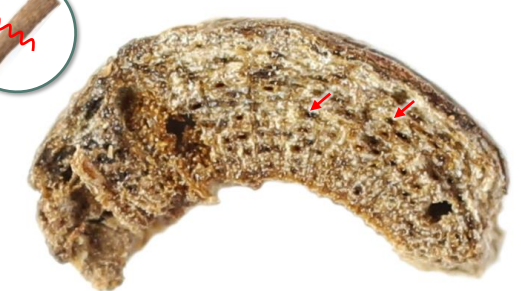


Cut surface is greyish-white or greyish-yellow, in which some have faintly observable brown dots scattered over



**Texture** Light, fragile, easily broken

**Fracture** Slightly uneven. Brown dots (→) are usually visible and more distinct than on cut surface



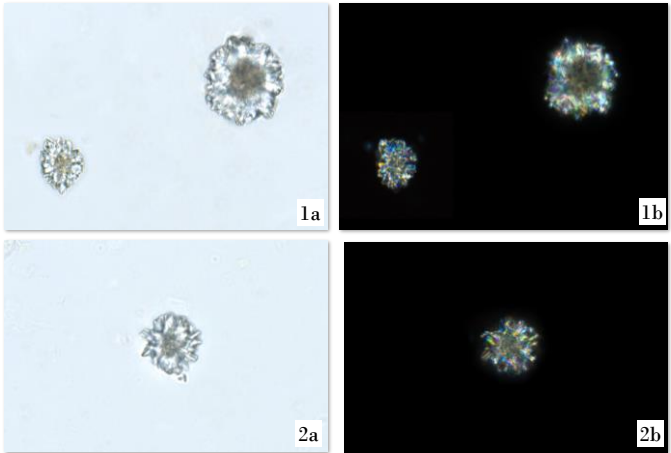
0.2 cm

**Odour** Slight aroma



■ ■ ■ Feature of Simplified Powder  
■ Microscopic Identification  
- Crystal -

Cluster of calcium oxalate



Scattered or present in parenchymatous cell, varies in size, angle is usually thick and short (1), while sometimes acute (2); polychromatic under polarized light microscope

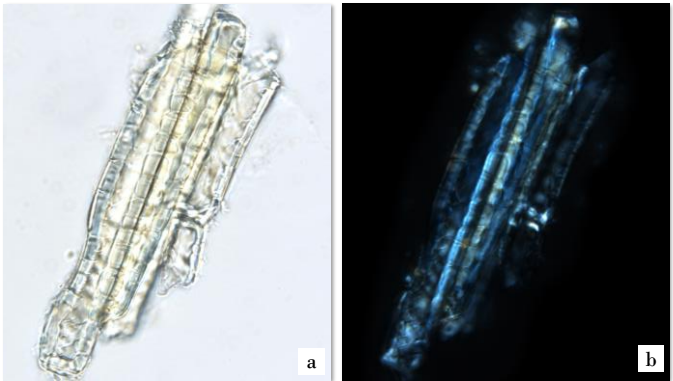
*a. features under bright field; b. features under polarized light*



# Additional Features of Powder Microscopic Identification

## - Sclerenchyma -

### Phloem fibre



50 µm

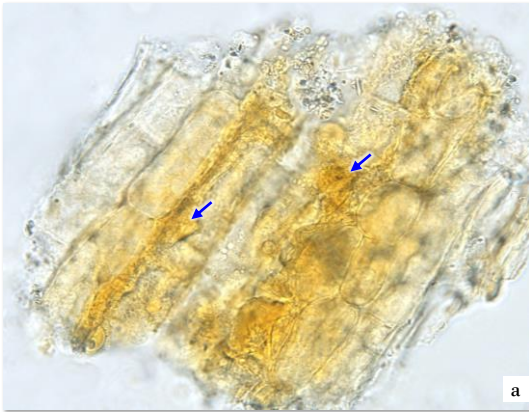
Singly scattered or several in bundles, with thick or slightly thick wall, pits and pit canals are usually sparse; bright white, orange-yellow or polychromatic under polarized light microscope

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



- Secretory tissue -

Fragment of secretory canal



50 μm

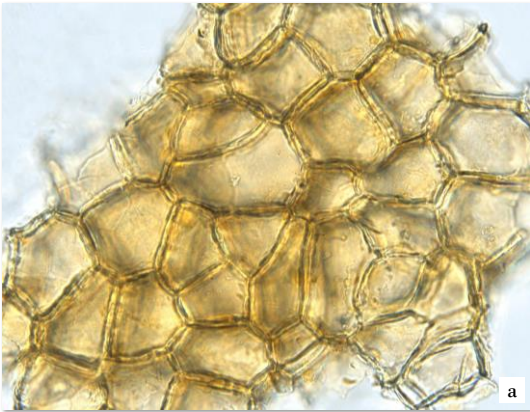
Contains light yellow or yellowish-brown secretions(→)

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



- Protective tissue -

Cork cell



50  $\mu$ m

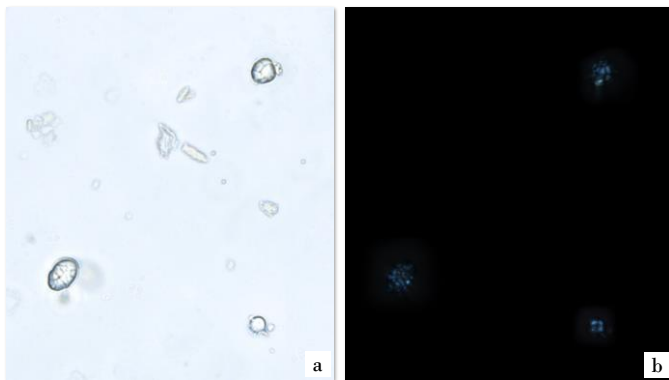
Light yellow or light yellowish-brown, appears sub-polygonal or sub-square in surface view

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



## - Starch -

### Starch granule



Small, simple granule is fewer, sub-rounded, compound granule consists of several to tens 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 has slightly twisted wrinkles and irregular cracks, in which some have lenticels visible
- ◇ Fracture is slightly uneven and usually with brown dots visible

### - Powder microscopic feature -

- ◇ Angle of cluster of calcium oxalate is usually thick and short

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

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