



**Identification of  
Tiny Seed and Fruit  
Types of Chinese  
Materia Medica**

# Fructus Ligustri Lucidi\*



## Source

The dried ripe fruit of *Ligustrum lucidum* Ait. in the family Oleaceae

## Property and flavour

Cool; sweet and bitter

## Meridian affinity

Liver and kidney meridians

## Actions

To nourish the liver and kidney; to brighten the eyes and blacken hairs

Note:

\* Its name in Chinese Pharmacopoeia (2020 Edition) is “Ligustri Lucidi Fructus”.

## Micro-morphological features

### Shape

Appears reniform in surface view



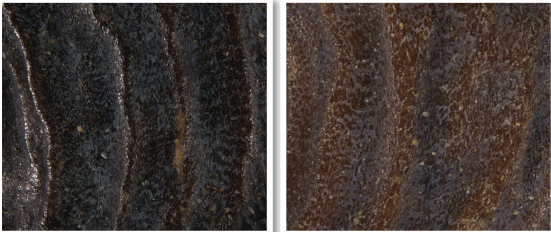
Base has fruit stalk scar, sometimes with persistent calyx and short stalk

1 mm

### Surface view

### Surface

Purplish-black or blackish-brown, shriveled and uneven, sometimes with longitudinal wrinkles

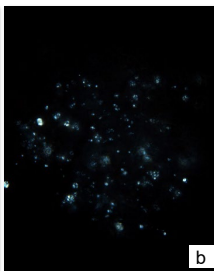
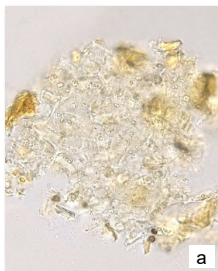


0.5 mm

## Powder microscopic features

### Crystal

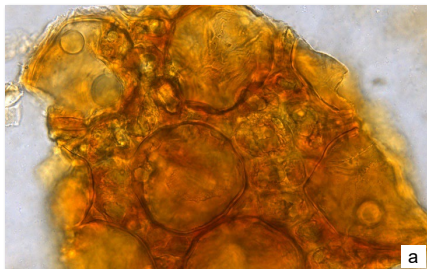
#### Crystal of calcium oxalate



Barely found, small, sub-rounded, sub-square or irregular, usually present in parenchymatous cell or endosperm cell; bright white under polarized light microscope

### Secretory tissue

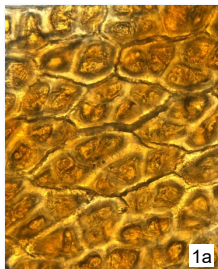
#### Secretory cell



Light brown or brown, sub-rounded, scattered in parenchymatous cell of testa, contains yellowish-brown secretion and oil droplets

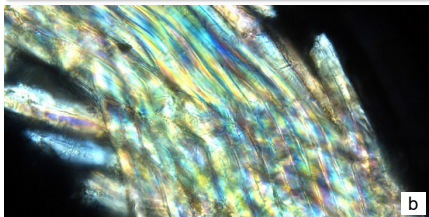
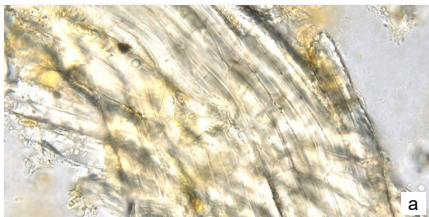
## Pericarp

### Exocarp cell



Yellowish-brown, appears sub-polygonal in surface view (1), with thick anticlinal wall, contains yellowish-brown substances, appears sub-square or sub-rectangular in lateral view (2), with thickened cuticle on outer wall, some with triangular protuberances extending into the lumina (→)

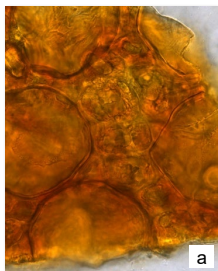
### Fibre of endocarp



Appears long strip-shaped, straight or slightly curved, usually present in bundles, some are overlapped with multiple layers, with thick wall; bright white, orange-yellow or polychromatic under polarized light microscope

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

50 μm

**Testa****Parenchymatous cell of testa**

Light brown or brown, usually broken, sub-square or sub-rectangular, some with indistinct cell boundaries and secretory cells scattered

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

50  $\mu$ m

## Key identification features

### Micro-morphology

- ⊙ Appears reniform in surface view
- ⊙ Base has fruit stalk scar, sometimes with persistent calyx and short stalk
- ⊙ Shriveled and uneven surface, sometimes with longitudinal wrinkles

### Powder microscopy

- ⊙ Secretory cell: scattered in parenchymatous cell of testa
- ⊙ Exocarp cell: with thick anticlinal wall in surface view, contains yellowish-brown substances

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

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