Identification of Easily Confused Species of Chinese Materia Medica in Hong Kong by Macroscopic and Microscopic Characteristics Project

Caulis Sinomenii versus Herba Paederiae





1 cm

Source

*Caulis Sinomenii

is the dried stem of Sinomenium acutum (Thunb.) Rehd. et Wils. or S. acutum (Thunb.) Rehd. et Wils. var. cinereum Rehd. et Wils. in the family Menispermaceae

Herba Paederiae

is the dried whole part of Paederia scandens (Lour.) Merr. in the family Rubiaceae

Overview

Both the Caulis Sinomenii and Herba Paederiae are listed in Schedule 2 of the Chinese Medicine Ordinance, whilst the former is also listed in the Chinese Pharmacopoeia (2020). According to the Zhong yao cai pin zhong lun shu, there are many different species found under the commodity name "Qing feng teng". In general, plant sources in most areas of China are Sinomenium acutum and S. acutum var. cinereum in the family Menispermaceae, but the plant source commonly found in Fujian is Paederia scandens in the family Rubiaceae. According to the Chinese Pharmacopoeia, the functions of Caulis Sinomenii are dispelling wind-dampness, unblock the meridians and collaterals, and promote diuresis. As stated in Zhong hua ben cao, the functions of Herba Paederiae are dispelling wind and eliminating dampness, resolve accumulation and promote digestion, detoxifying and dispersing swelling, activating blood and relieving pain. Due to the differences in functions of the two Chinese Materia Medica, they should be used accordingly.

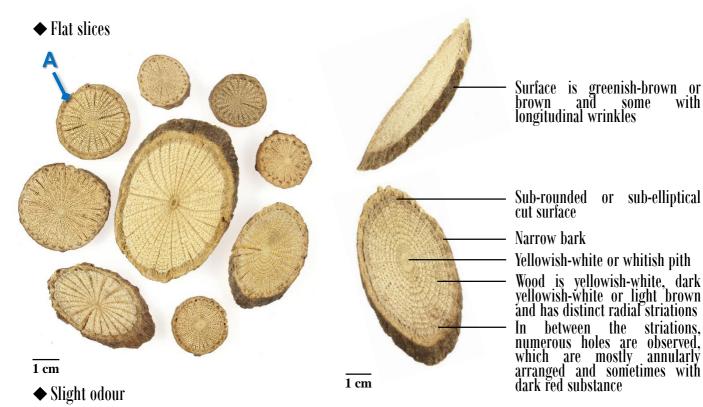
Note

^{*}Its name in the Chinese Pharmacopoeia (2020) is "Sinomenii Caulis".

Key identification features

Macroscopic features of Caulis Sinomenii decoction pieces





Micro-morphological features

A1: Bark is yellowish-brown. Phloem(→) is observable in deeper colour and crescentic or semi-circular in shape

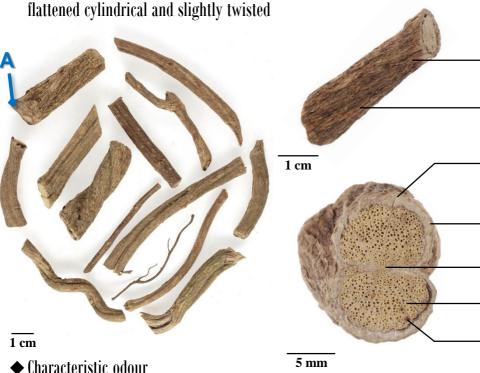
A2: Without exposed fibres



Macroscopic features of Herba Paederiae decoction pieces



◆ Irregular sections, mainly lianoid stem, mostly appear



Surface is greyish-brown, light greyish-brown or deep brown and has longitudinal wrinkles

Appears dark red at the exfoliated area of the periderm

Centre of both sides of the cut surface is frequently dented inward which appears slightly in the shape of figure "8"

Narrow bark

Pith is light brownish-white while a few is dark red. Some are indistinct

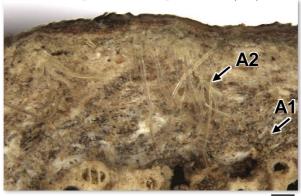
Wood is yellowish-white or whitish and has less distinct radial striations

In between the striations, numerous holes are observed, and sometimes with dark red substance

Micro-morphological features

A1: Bark is light brown or dark brown. Some phloems(->) are in deeper colour and arranged in connected ring

A2: Frequently with exposed fibres(→)

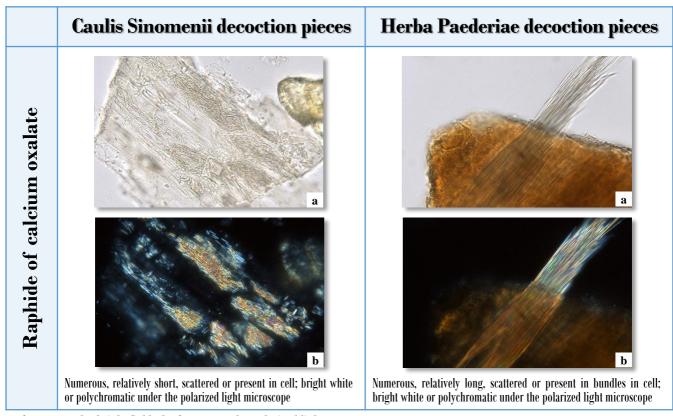


(Cut surface)

200 µm

Microscopic feature comparison of Caulis Sinomenii decoction pieces and Herba Paederiae decoction pieces powder





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

50 µm

Summary

Major differences in the features between Caulis Sinomenii decoction pieces and Herba Paederiae decoction pieces :

		Caulis Sinomenii decoction pieces	Herba Paederiae decoction pieces
Macroscopic and micro-morphological features	Cut surface	Sub-rounded or sub- elliptical	Appears slightly in the shape of figure "8"
	Odour	Slight	Characteristic
	Cut surface of bark	Without exposed fibres	Frequently with exposed fibres
Microscopic feature	Raphide of calcium oxalate	Relatively short	Relatively long



 $\label{lem:condition} \begin{tabular}{ll} Government Chinese Medicines Testing Institute \\ Department of Health \\ \end{tabular}$

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