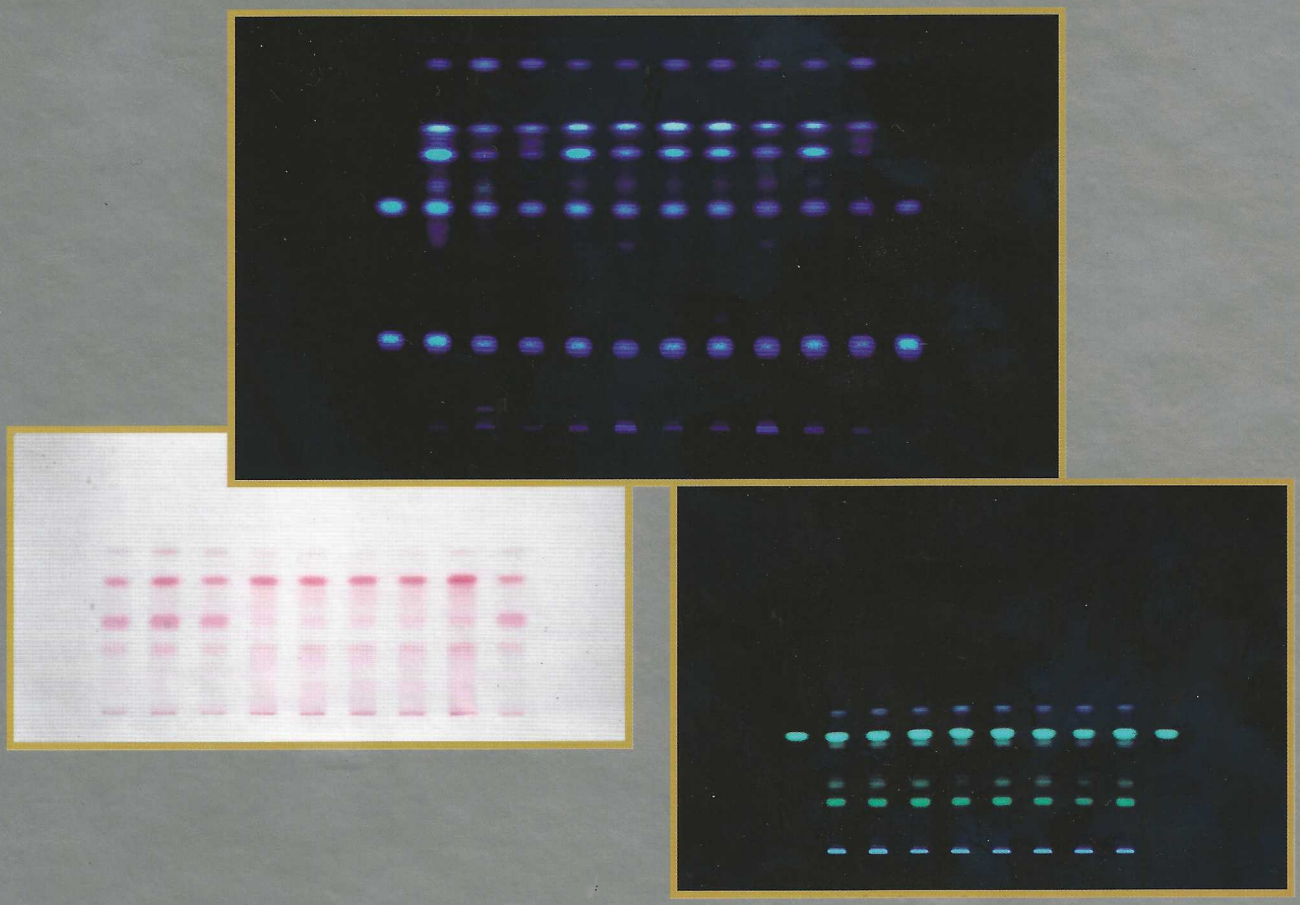
TLC Atlas of Chinese Crude Drugs in Pharmacopoeia of the People's Republic of China

Volume I

Chinese Pharmacopoeia Commission



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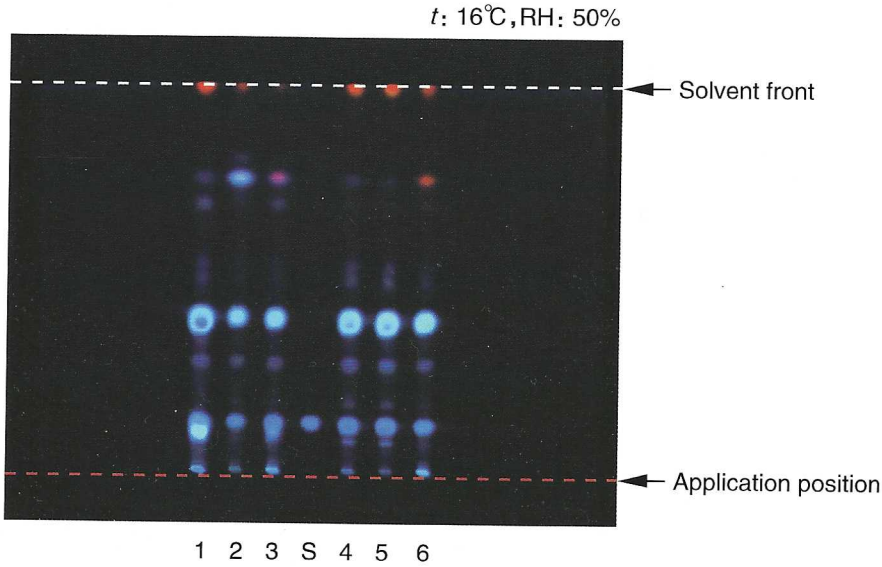
FLOS LONICERAE JAPONICAE

金 银 花

Jinyinhua



S, chlorogenic acid CRS; track 4, Flos Lonicerae Japonicae reference drug; track 1, Flos Lonicerae Japonicae, produced in Henan; tracks 2 and 3, produced in Shandong; tracks 5 and 6, produced in Henan

Test Solution	To 0.2 g of the powder, add 5 ml of methanol, macerate for 12 hours, and filter.
Reference Drug Solution	Prepare a solution of 0.2 g of Flos Lonicerae Japonicae reference drug in the same method as the test solution preparation.
Reference Solution	Dissolve a quantity of chlorogenic acid CRS in methanol to produce a solution containing 1 mg per ml.
Stationary Phase	TLC silica gel pre-coated plate (TLC pre-coated plate SIL G-25, MN).
Sample Application	Apply separately to the plate, as bands 2 mm, 10 μl of each of test solution, the reference drug solution and the reference solution, leaving 6 mm between the bands.
Mobile Phase	The upper layer of butyl acetate, formic acid and water (7 : 2.5 : 2.5), 20 ml.
Developing Chamber	Twin trough chamber, 10 cm×10 cm.
Development	Equilibrate the chamber with the mobile phase for 15 minutes, develop vertically for 7 cm.
Detection	Examine in ultraviolet light at 365 nm.

中华人民共和国药典

中药材及原植物彩色图鉴

A Colored Identification Atlas of Chinese Materia Medica and Plants as Specified in the Pharmacopoeia of the People's Republic of China

（下册）

Volume II

国家药典委员会

Chinese Pharmacopoeia Commission

中国医学科学院药用植物研究所

Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences

人民卫生出版社

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金银花 Jinyinhua

LONICERAE JAPONICAE FLOS

Japanese Honeysuckle Flower

本品为忍冬科植物忍冬*Lonicera japonica* Thunb.的干燥花蕾或带初开的花。夏初花开放前采收，干燥。

Honeysuckle Flower is the dried flower bud or opening flower of *Lonicera japonica* Thunb. (Fam. Caprifohaceae). The drug is collected before flowering in early summer, and dried.

【原植物 Pharmacopoeia Species】

忍冬*Lonicera japonica* Thunb.

【植物形态 Species Description】

参见“忍冬藤，Rendongteng”项

See the account “Lonicerae Japonicae Caulis”

【药材性状 Drug description】

本品呈棒状，上粗下细，略弯曲，长2～3cm，上部直径约3mm，下部直径约1.5mm。表面黄白色或绿白色（贮久色渐深），密被短柔毛。偶见叶状苞片。花萼绿色，先端5裂，裂片有毛，长约2mm。开放者花冠筒状，先端二唇形；雄蕊5，附于筒壁，黄色；雌蕊1，子房无毛。气清香，味淡、微苦。（图1-1）

Clavate, stout in upper part and tapered downwards, slightly curved, 2-3cm long, about 3mm in diameter in upper part and 1.5mm in diameter in lower part. Externally yellowish-white or greenish-white, gradually darken on keeping, densely pubescent. Foliaceous bracts occasionally visible. Calyx green, 5-lobed at the apex, lobes pubescent, about 2mm long. Corolla tubular when open, apex 2-lipped; stamens 5, epipetalous, yellow; pistil 1, ovary glabrous. Odour, delicately aromatic; taste, weak and slightly bitter. (Fig1-1)

图1-1 金银花 (Fig1-1 Jinyinhua, LONICERAE JAPONICAE FLOS)

【历版《中国药典》及植物志收载的植物拉丁学名 Scientific Latin Names in Earlier *CP* Editions and Main Chinese Flora】

《中国药典》1963～2005年版：同《中国药典》2010年版

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山银花 Shanyinhua

LONICERAE FLOS

Honeysuckle Flower

本品为忍冬科植物灰毡毛忍冬 *Lonicera macranthoides* Hand.-Mazz.、红腺忍冬 *Lonicera hypoglauca* Miq.、华南忍冬 *Lonicera confusa* DC. 或黄褐毛忍冬 *Lonicera fulvotomentosa* Hsu et S. C. Cheng 的干燥花蕾或带初开的花。夏初花开放前采收，干燥。

Honeysuckle Flower is the dried flower bud or opening flower of *Lonicera macranthoides* Hand.-Mazz.、*Lonicera hypoglauca* Miq.、*Lonicera confusa* DC. or *Lonicera fulvotomentosa* Hsu et S. C. Cheng (Fam. Caprifoliaceae). The drug is collected before flowering in early summer, and dried.

【原植物 Pharmacopoeia Species Ⅰ】

灰毡毛忍冬 *Lonicera macranthoides* Hand.-Mazz.

别名 Chinese vernacular names：拟大花忍冬 Ni-Da-Hua-Ren-Dong

【植物形态 Species Description】

藤本，幼枝或其顶梢及总花梗均被薄绒状短糙伏毛，有时兼有微腺毛。叶革质，卵状披针形，长6～14cm，下面被极短糙毛，并散生暗橘黄色微腺毛，网脉明显隆起。萼筒常有蓝白色粉，无毛，有时上半部或全部有毛；花冠长3.5～4.5（～6）cm，连同萼齿背面均密被倒生短糙伏毛和少数橘黄色腺毛，下唇长约与花冠筒近相等。花期6～7月，果熟期10～11月。（图1-1）

Climbers. Young branches and peduncles thinly tomentose with short adpressed hairs, sometimes mixed with minute glandular hairs. Leaf leathery, blade ovate-lanceolate, 6-14cm long, abaxially with short stiff hairs, and with scattered dark orange-yellow minute glandular hairs, adaxially glabrous, reticulate veins raised and conspicuously beehive-like. Calyx tube often with blue-white powder, glabrous or sometimes hairy in upper half or throughout; Corolla 3.5-4.5 (-6) cm, outside strigose and orange-yellow glandular hairy, bilabiate; tube equaling or slightly exceeding labia. Flowering in Jun.-Jul., fruiting in Oct.-Nov.. (Fig1-1)

生境分布 Habitat and Distribution：

生于海拔500～1800m山谷溪旁，山坡或山顶混交林、灌丛中。分布于安徽、浙江、福建、江西、湖南、广东、广西、云南、贵州、四川、湖北。

Growing in mixed forests, scrubs; altitude 500-1800m. Distributed in Anhui, Zhejiang, Fujian, Jiangxi, Hunan, Guangdong, Guangxi, Yunnan, Guizhou, Sichuan, Hubei.

图1-1 灰毡毛忍冬 (Fig1-1 *Lonicera macranthoides* Hand.-Mazz.)

【药材性状 Drug description】

灰毡毛忍冬　呈棒状而稍弯曲，长3～4.5cm，上部直径约2mm，下部直径约1mm。表面绿棕色至黄白色。总花梗集结成簇，开放者花冠裂片不及全长之半。质稍硬，手捏之稍有弹性。气清香。味微苦甘。（图1-2）

Flower of Lonicera macranthoides　Clavate，slightly curved，3-4.5cm long，about 2mm in diameter in upper part and 1mm in diameter in lower part. Externally greenish-brown or yellowish-white. Flowers grouped in clusters，the length of lobes of corolla shorter than the 1/2 of the whole length of opened flowers. Texture slightly hard and springy. Odour，delicately aromatic；taste，slightly bitter and sweet.（Fig1-2）

图1-2 灰毡毛忍冬　（Fig1-2 Flower of *Lonicera macranthoides*，LONICERAE FLOS）

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【原植物 Pharmacopoeia Species Ⅱ】

红腺忍冬 *Lonicera hypoglauca* Miq.

别名 Chinese vernacular names：菰腺忍冬 Gu-Xian-Ren-Dong，大银花 Da-Yin-Hua

【植物形态 Species Description】

木质藤本，幼枝被淡黄褐色短柔毛。叶对生，叶片坚纸质，卵形至卵状长圆形，长3～10cm，宽1.5～5cm，先端短渐尖，基部钝或圆形至近心形，叶背面粉绿色，密被柔毛，并杂有具极短柄或无柄的橘黄色或橘红色蘑菇状腺体。双花的总花梗单生或有时多对集生于侧生短枝上；苞片钻状披针形，长3.5～4mm，小苞片圆状卵形，长1mm；花冠先白色，有时带淡红晕，后转黄色，略有香气，细管状，长3～4.5cm，外面有稀疏柔毛和腺毛，二唇形，唇瓣短于冠筒。果近球形，直径7～8mm，熟时黑色，有时具白粉；种子椭圆形，长约4mm。花期4～5月，果熟期10～11月。（图2-1）

Climbers. Young branches densely yellowish gray pubescent. Leaf blade thick papery, ovate to ovate-oblong, 3-10cm long, 1.5-5cm wide, base subrounded or subcordate, apex acuminate or acute, abaxially sometimes powdery-green, densely pubescent, with yellow to orange-red mushroom-like glands. Flower pairs solitary or several clustered on lateral short branches; bracts linear-lanceolate, 3.5-4mm long; bracteoles orbicular-ovate, 1mm long; Corolla white, sometimes with reddish hue, later yellow, slight fragrant, tubular, 3-4.5cm long, bilabiate; tube slightly longer than labia, outside sparsely adpressed pubescent or glabrous, with or without sessile or shortly stipitate glands. Fruit black when mature, subglobose, sometimes pruinose, 7-8mm in diameter; seeds ellipsoid, about 4mm in diameter. Flowering in Apr.-May, fruiting in Oct.-Nov.. (Fig2-1)

图2-1 红腺忍冬 (Fig2-1 *Lonicera hypoglauca* Miq.)

生境分布 Habitat and Distribution：

生于灌丛或疏林中，海拔200 ~ 700（~ 1800)m；分布于浙江、安徽、江西、福建、台湾、湖南、湖北、广东、广西、贵州、四川、云南。

Growing in scrub, sparse forests; altitude 200-700 (-1800) m. Distributed in Zhejiang, Anhui, Jiangxi, Fujian, Taiwan, Hunan, Hubei, Guangdong, Guangxi, Guizhou, Sichuan, Yunnan.

【药材性状 Drug description】

红腺忍冬　长2.5 ~ 4.5cm，直径0.8 ~ 2mm。表面黄白至黄棕色，无毛或疏被毛，萼筒无毛，先端5裂，裂片长三角形，被毛，开放者花冠下唇反转，花柱无毛。(图2-2)

Flower of Lonicera hypoglauca 2.5-4.5cm long, 0.8-2mm in diameter. externally yellowish-white to yellowish-brown, glabrous of sparsely pubescent. Calyx tube glabrous, 5-lobed at the apex, lobes long-triangular, pubescent. The lower lip of corolla recurved when open. Style glabrous. (Fig2-2)

图2-2 红腺忍冬 (Fig2-2 Flower of *Lonicera hypoglauca*, LONICERAE FLOS)

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【原植物 Pharmacopoeia Species Ⅲ】

华南忍冬 *Lonicera confusa* DC.

【植物形态 Species Description】

藤本，被柔毛。叶卵形或卵状长圆形，长3 ~ 6（~ 7）cm，宽约2cm，先端钝，幼时两面被短糙毛，老时上面变秃净。花近无梗，两面成对，约6 ~ 8朵合成头状花序或短聚伞花序，生于叶腋或顶生的花序柄上；苞片极小，长1 ~ 2mm，披针形，非叶状；萼齿三角状披针形，连同萼筒外面密被短糙毛；花冠长3.2 ~ 5cm，先白色后转黄色，外被稍开展的糙毛及腺毛。花期4 ~ 5月，有时秋季也开花，果熟期10月。（图3-1）

Climbers. Branches pubescent. Leaf blade ovate to ovate-oblong, 3-6 (-7) cm long, about 2cm wide, apex obtuse, both surfaces stiffly hairy when young, adaxially glabrescent when old. Peduncle lacking, flowers 6-8 in each head or cyme. Flower pairs axillary or clustered into short racemes; bracts lanceolate, 1-2mm long, not leaf-shaped; calyx-tooths deltoid lanceolate, calyx-tooths and calyx tube with short stiff hairs outside; corolla white, later yellow, 3.2-5cm long, with spreading stiff hairs and glandular hairs. Flowering in Apr.-May, sometimes in autumn, fruiting in Oct.. (Fig3-1)

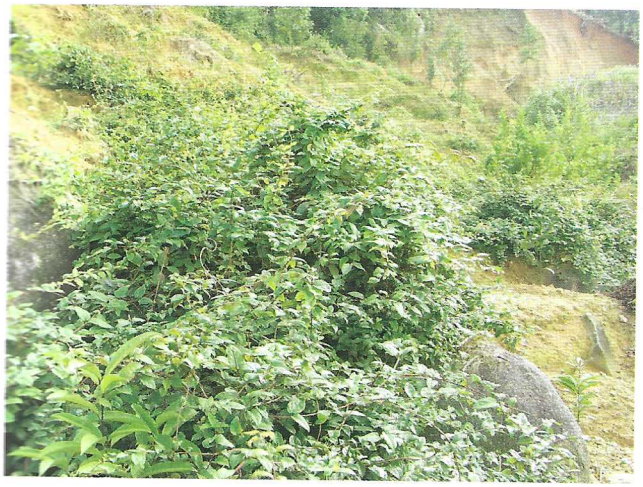

图3-1 华南忍冬 (Fig3-1 *Lonicera confusa* DC.)

生境分布 Habitat and Distribution：

生于丘陵地的山坡杂木林或灌丛中，平原旷野，路旁或河边。野生或栽培。分布于广东、广西、贵州、海南。

Cultivated or growing in wild on mountain slopes, mixed forests, scrub, roadsides of plains, river sides. Distributed in Guangdong, Guangxi, Guizhou, Hainan.

【药材性状 Drug description】

华南忍冬　长1.6 ~ 3.5cm，直径0.5 ~ 2mm。萼筒和花冠密被灰白色毛，子房有毛。（图3-2）

Flower of Lonicera confusa 1.6-3.5cm long, 0.5-2mm in diameter. Calyx tube and corolla densely covered with grayish-white hairs. Ovary hairy. (Fig3-2)

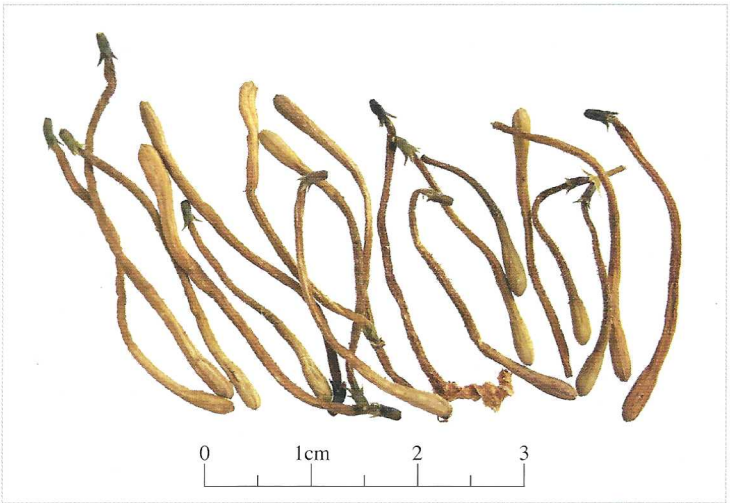

图3-2 华南忍冬 (Fig3-2 Flower of *Lonicera confuse*, LONICERAE FLOS)

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【原植物 Pharmacopoeia Species Ⅳ】

黄褐毛忍冬 *Lonicera fulvotomentosa* Hsu et S. C. Cheng

【植物形态 Species Description】

藤本。全株被开展或弯伏黄褐色毡毛状糙毛，幼枝和叶两面散生橘红色腺毛。叶柄长5 ~ 7mm；叶纸质，卵状长圆形或长圆状披针形，长3 ~ 8（~ 11）cm，基部圆、浅心形或近平截，上面疏生糙伏毛，中脉毛较密；双花排成腋生或顶生短总状花序；花序梗长达1cm，总花梗长约2mm，下托小形叶1对；苞片钻形，长5 ~ 7mm。小苞片卵形或线状披针形；萼筒倒卵状椭圆形，长约2mm，无毛，萼齿条状披针形，长2 ~ 3mm；花冠白至黄色，长3 ~ 3.5cm，唇形，冠筒稍短于唇瓣，外面密被黄褐色倒伏毛和开展腺毛，上唇裂片长圆形，长约8mm；雄蕊和花柱均高出花冠，无毛。花期6 ~ 7月。（图4-1）

Climbers. Whole plant densely velutinous with spreading or adpressed, yellow-brown stiff hairs, and with scattered short orange-red glandular hairs on young branches and both surfaces of leaves. Petiole 5-7mm long; leaf papery, blade ovate-oblong to oblong-lanceolate, 3-8 (-11) long, base rounded, shallowly cordate, or subtruncate, adaxially sparsely shortly strigose, more densely hairy on midvein. Flower in pairs, arranged into axillary or terminal short racemes; inflorescence axis up to 1cm long; peduncle about 2mm long, subtended by a pair of small leaves; bracts subulate, 5-7mm long; bracteoles ovate to linear- lanceolate. Calyx tube obovate-elliptic, about 2mm long, glabrous; lobes linear-lanceolate, 2-3mm long. Corolla white at first, later yellow, 3-3.5cm long, bilabiate; tube slightly shorter than labia, outside densely yellow-brown adpressed hairy and

spreading shortly glandular hairy; lobes of upper labium narrowly orbicular, about 8mm long. Stamens and styles exceeding corolla, glabrous. Flowering in Jun.-Jul.. (Fig4-1)

图4-1 黄褐毛忍冬 (Fig4-1 *Lonicera fulvotomentosa* Hsu et S. C. Cheng)

生境分布 Habitat and Distribution:

生于海拔850 ~ 1300m山坡岩旁灌木林或林中。分布于湖南、广西、贵州及云南。

Growing in scrub, forests; altitude 850-1300m. Distributed in Hunan, Guangxi, Guizhou, Yunnan.

【药材性状 Drug description】

黄褐毛忍冬 长1 ~ 3.4cm，直径1.5 ~ 2mm。花冠表面淡黄棕色或黄棕色，密被黄色茸毛。(图4-2)

Flower of Lonicera fulvotomentosa 1-3.4cm long, 1.5-2mm in diameter. Corolla externally light yellow-brown or yellowish- brown, densely yellow tomentose. (Fig4-2)

图4-2 黄褐毛忍冬 (Fig4-2 Flower of *Lonicera fulvotomentosa*, LONICERAE FLOS)

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Florae Republicae Popularis Sinicae: Same as ***CP*** 2010 editions

Higher Plants of China: Same as ***CP*** 2010 editions

303. 金银花——忍冬 Flos Lonicerae Japonicae

(英) Honeysuckle Flower (日) キンギンカ

别名 银花、双花、二宝花。

来源 为忍冬科植物忍冬 Lonicera japonica Thunb. 的花蕾或带初开的花。

植物形态 缠绕半灌木，常绿。幼枝密被柔毛和腺毛，老枝棕褐色，呈条状剥离，中空。叶对生，卵形至长卵形，长 3～8cm，宽 1.5～4cm，初时两面有毛，后则上面无毛。花成对腋生，花梗及花均有短柔毛；花冠初开时白色，后变黄色，外被柔毛和腺毛，花冠筒细长；雄蕊 5，伸出花冠外；子房下位。浆果球形，熟时黑色。花期 4～6 月，果期 7～10 月。

生于路旁、山坡灌丛或疏林中。全国大部分地区有分布。

采制 夏初花开放前采收，干燥，或用硫磺熏后干燥。

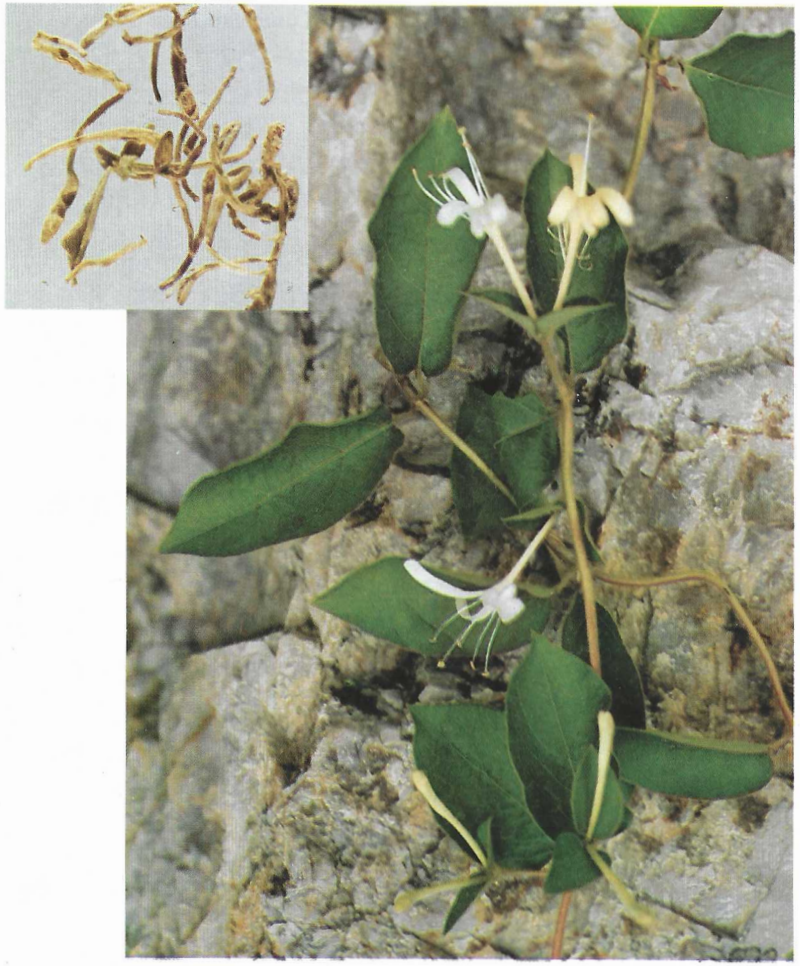
性状 花蕾棒状，上粗下细，略弯曲，长 2～3cm，上部直径约 3mm，下部直径约 1.5mm。表面黄白色或绿白色，贮久色变深，密被短柔毛。花萼绿色，萼筒类球形；开放者花冠筒状，先端 2 唇形。气清香，味淡、微苦。

化学成分 含挥发油，油中主要为双花醇、芳樟醇；并含木犀草素、氯原酸、异氯原酸、番木鳖甙(loganin)、肌醇。

性味 性寒，味甘。

功能主治 清热解毒，凉散风热。用于痈肿疔疮、喉痹、丹毒、热血毒痢、风热感冒、温病发热。

附注 同属多种植物的花蕾在不同地区作金银花药用。忍冬的茎枝亦作药用，称“忍冬藤”，能清热解毒、疏风通络。



(由朱雅东提供)

303. 金银花——忍冬

Jing Yin Hua

304. 金银花——山银花 Flos Lonicerae Capr钅fol钅u银

(英) Wild Honeysuckle Flower (日) サンギンカ

别名 山金银花、土忍冬、土银花。

来源 为忍冬科植物山银花 Lonicera confusa DC. 的花蕾或带初开的花。

植物形态 木质藤本，长 2～4m。树皮黄褐色渐次变为白色，嫩时有短柔毛。叶对生，卵圆形至椭圆形，长 4～8cm，宽 3.5～5cm，上面绿色，主脉上有短疏毛，下面带灰白色，密生白色短柔毛。花成对腋生，有 6～8 朵合成头状花序或短的聚伞花序，有短柔毛；花冠管状，长 1.6～2cm，稍被柔毛，初开时白色，后变黄色。花期 6～9 月，果期 10～11 月。

生于溪边、旷野疏林下或灌木丛中。产于四川、广东、广西、湖南、贵州、云南。

采制 同金银花。

性状 花蕾棒状，略弯曲，长 1～3cm。表面红棕色或灰棕色，唇部与冠部近相等，被短糙毛，萼筒亦密生灰白色或淡黄色小硬毛。气清香，味微苦。

化学成分 含挥发油，其中有双花醇；并含氯原酸、异氯原酸等。

性味及功能主治 同金银花。

(由朱雅东提供)

304. 金银花——山银花

Jin Yin Hua