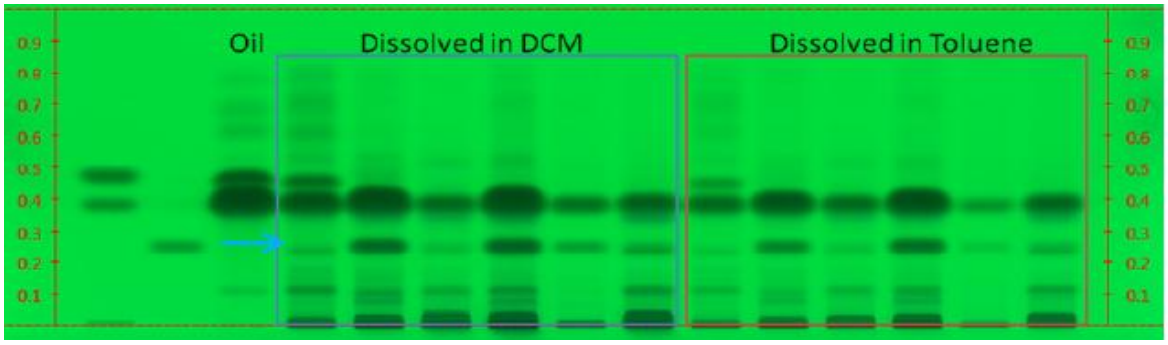
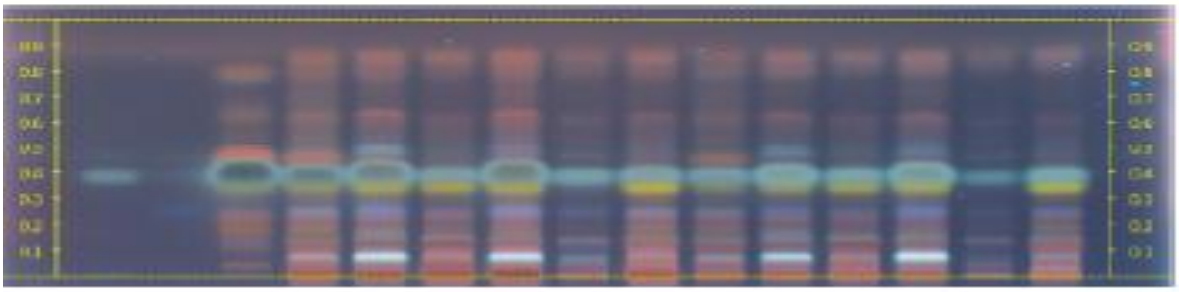
Cinnamomum cassia Twig — Identification

Thin-Layer Chromatography

Under UV 254 nm



After dipping with derivatization reagent, under UV 366 nm



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Typical HPTLC Chromatograms

These chromatograms are supplied for information only

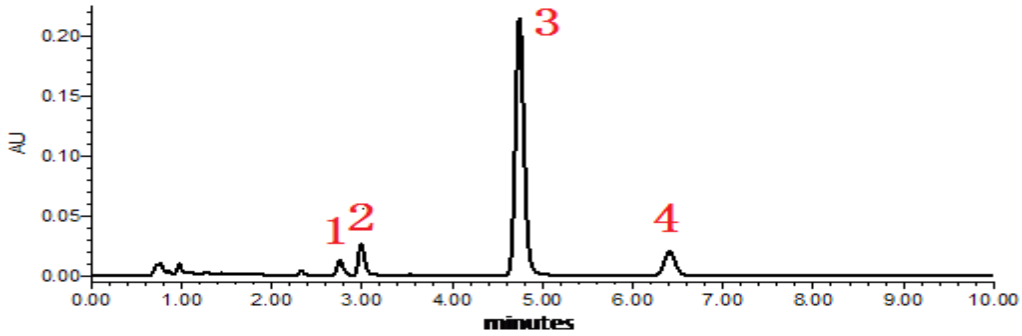
1. **Track assignment: 1)** Cinnamaldehyde; **2**) Coumarin; **3**) *C. verum* oil; **4, 10**) *C. verum* bark; **5,11**) *C. cassia* bark; **6, 9, 12,15**) *C. cassia* twig; **7, 13**) *C. bejolghota* bark; **8,14**) *C. burmanni* bark

Sample solutions:	according to the monograph, dissolved in toluene or dichloromethane (DCM)
Standard solutions:	in methanol
Plate:	HPTLC, Si 60 F254
Saturation Time:	saturated chamber (20 min with filter paper)
Application volume:	2 µL of reference, 6 µL of samples, as 8-mm bands
Relative Humidity:	about 33%
Developing solvent system:	toluene, ethyl acetate (95:5)

Developing distance: 7 cm

Derivatization reagent: 10 mL of sulfuric acid are carefully added to an ice-cooled mixture of 170 mL of methanol and 20 mL of acetic acid. To this solution, 1 mL of p-anisaldehyde is added.

HPLC Chromatography



*1) Co-elute of coumarin and cinnamic alcohol; 2) Cinnamic acid; 3)Cinnamaldehyde; 4) 2'-methoxycinnamaldehyde

Representative chromatogram of *Content of cinnamaldehyde* in *Cinnamomum cassia* Twig

This chromatogram is supplied for information only

Solutions preparation: according to the monograph

Detector: UV, 290 nm

Column: 4.6-mm × 10-cm; 3.5-µm packing L1 (Similar Agilent Zorbax Stable Bond C18)

Column temperature: 30°

Flow rate: 1.2 mL/min

Injection volume: 5 µL

Solution A: 0.01% Phosphoric acid in water

Solution B: Acetonitrile

Mobile phase: *Solution A* and *Solution B* (65:35)