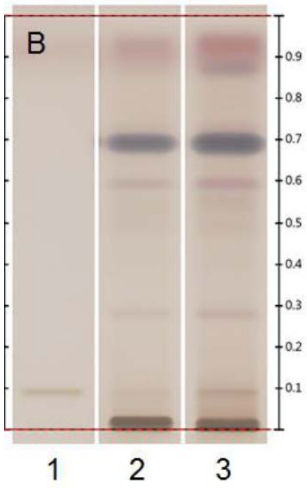
USP U.S. Pharmacopeial Convention Herbal Medicines Compendium

Sphaeranthus indicus Aerial Parts – Identification

Thin-Layer Chromatography



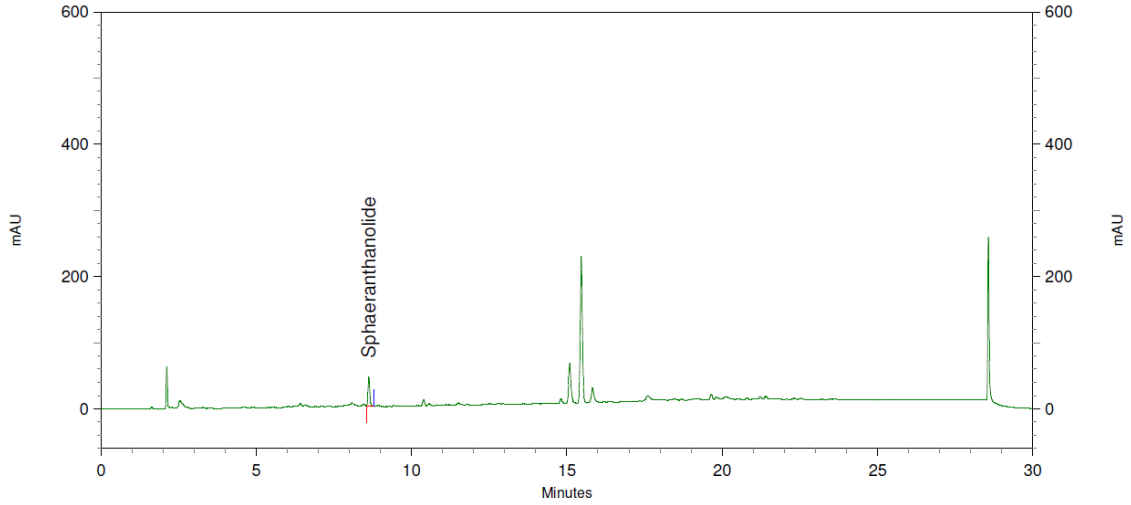
Typical HPTLC Chromatogram

These chromatograms are supplied for information only

Track assignment: 1) Sphaeranthanolide (1 mg/mL); 2) *Sphaeranthus indicus* raw material; 3) *Sphaeranthus indicus* extract.

Sample solutions:	according to the monograph
Standard solutions:	in methanol
Plate:	HPTLC, Silica gel 60 F_{254}, 5 µm
Application volume:	5 µL, as 8-mm bands
Relative Humidity:	about 33%
Developing solvent system:	dichloromethane and methanol (70:9.2)
Developing distance:	7 cm
Derivatization reagent:	sulfuric acid reagent (add 20 mL sulfuric acid to 180 mL methanol)
Detection:	derivatize, heat at 105°C for 5 min, and examine under visible light.

HPLC (Sphaeranthanolide)



Representative chromatogram of Content of Sphaeranthanolide in *Sphaeranthus indicus* Aerial Parts

This chromatogram is supplied for information only

Solution preparation:	according to the monograph
Mode:	HPLC
Detector:	UV, 206 nm
Column:	4.6-mm × 25-cm; 5 µm packing L1 (similar to Zorbax XDB C_{18})
Flow rate:	1.0 mL/min
Injection volume:	10 µL
Solution A:	acetonitrile
Solution B:	water
Mobile phase:	see *Table 1*

Table 1

Time (min)	Solution A (%)	Solution B (%)
0	5	95
20	100	0
25	100	0
27	5	95
30	5	95
30	90	10