Flavors and aromas

Analysis of a beefsteak plant

Application Note

Food Testing & Agriculture

Authors

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Introduction

Gas chromatography with an Agilent CP-Wax 52 CB column separates ten components in a sample of a beefsteak plant (*Perilla* sp.) in 40 minutes.

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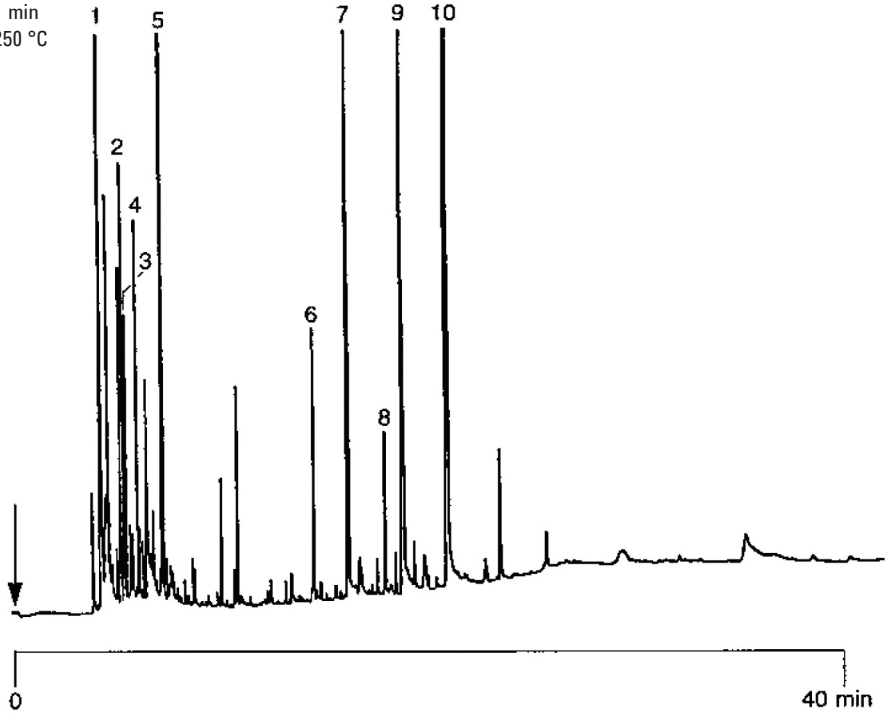
Conditions

Technique	: GC-TCT (Off-Line Purging on Tenax TA TCT Tube)	
Column	: Agilent CP·Wax 52 CB, 0.25 mm x 50 m fused silica WCOT CP-Wax 52 CB (df = 0.2 µm) (Part no. CP7723)	
Temperature	: 80 °C → 220 °C, 5 °C/min	
Injector	: TCT	
	Cold trap	: CP-Sil 8 CB 0.53 mm; df = 5 µm
	Purge time	: 10 min
	Purge flow	: 50 mL/min
	Purge temp.	: 25 °C
	Cryofocussing	: -130 °C
	Precool time	: 3 min
	Desorb time	: 15 min
	Desorb flow	: 10 mL/min
	Desorption oven temp.	: 220 °C
	Injection temp.	: 210 °C
	Injection time	: 1 min
	GC-injection block temp.	: 250 °C
Detector	: FID T = 250 °C	
Sample Size	: 20 g	
Sample Temperature	: 40 °C	
Concentration Range	: ppb/ppm	
Courtesy	: GL Sciences, Japan	



Peak identification

1. acetone
2. α-pinene
3. toluene
4. β-pinene
5. D-limonene
6. linalool
7. β-caryophylene
8. α-caryophylene
9. α-farnesene
10. perillaldehyde

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