

Simple Concentration Analysis of Lavender Flavor Components - Using MonoTrap RCC18 (solvent-extraction)

MonoTrap RCC18 was used to simply screen and analyze volatile compounds in lavender petals. MonoTrap RCC18 is used as a collector of volatile compounds. By using MonoTrap to collect volatile compounds followed by solvent extraction, we were able to simplify the process from sampling to analysis. Using MonoTrap it was possible to detect a number of flavor components, including Linalool and Linalyl acetate in lavender.

Preliminary processing procedure

Lavender

Place 2 g of lavender petals
in a 40 mL vial

Collection (HS)
One MonoTrap RCC18

60 °C for 1 hour



Solvent extraction

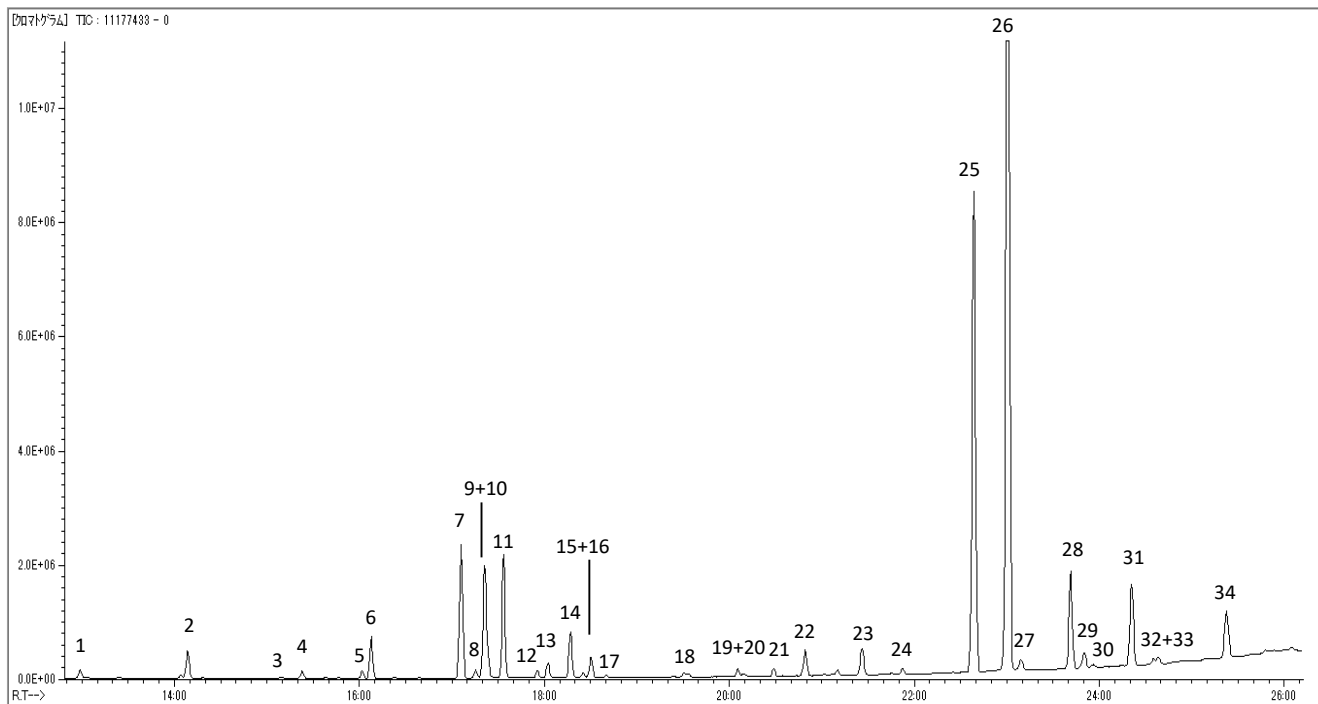
200 µL of
dichloromethane
5 minutes of
ultrasonication



GC/MS

GC/MS Conditions

System	: GC/MS
Column	: InertCap Pure-WAX 0.25 mm I.D. x 60 m, df = 0.5 µm
Col. Cat. No.	: 1010-68164
Col.Temp.	: 40 °C (5 min) - 10 °C/min - 250 °C
Carrier Gas	: He, 1 mL/min (constant flow)
GC Inlet	: 250 °C Splitless (1min)
Detection	: MS Scan (m/z 30-350)
Sample Size	: 1µL



※Standard samples are not used for qualitative analysis.
Results from a library search.

1. Pinene	10. Cineole	19. Octenyl acetate	28. Neryl acetate
2. Camphene	11. Ocimene	20. Allo-Ocimene	29. Bornyl acetate
3. Pinene	12. Ocimene	21. Undecatriene	30. Terpineneol
4. Sabinene	13. Octanone	22. Hexyl butyrate	31. Caryophyllene
5. Carene	14. Hexyl acetate	23. 1-Octen-3-ol	32. Farnesene
6. Myrcene	15. Cymene	24. Linalool Oxide	33. Lavandulol
7. Limonene	16. Cymene	25. Linalool	34. Borneol
8. Butyl butyrate	17. Carene	26. Linalyl acetate	
9. Phellandrene	18. Hexyl isobutyrate	27. Camphor	

Product used**MonoTrap RCC18**

Cat.No. :1050-72201

MonoTrap and Trial Kit for SE (for extracting solvents)**200 µL glass insert
(Flat Bottom)**

Cat.No. :1030-17211



Image of use

InertCap Pure-WAX

Size :0.25 mm I.D. × 60 m, df = 0.5 µm

Cat.No. : 1010-67164

* Used to elute from a rod-type MonoTrap.

- ① Set a glass insert in an autosampler vial.
- ② Place the extraction solvent in the glass insert.
- ③ Place the collected MonoTrap in the glass insert.
- ④ Add ultrapure water to a level higher than the MonoTrap in the autosampler vial
Enter the degree.
- ⑤ Irradiate the ultrasound (5 minutes).

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