

Concentration analysis of volatile components in lavender - Using HandyTD Portable Thermal Desorber and MonoTrap Simplified Enrichment Tools

MonoTrap RGC18 TD and HandyTD TD265, were used to perform a simple screen and analysis of volatile constituents from lavender petals. MonoTrap RGC18 TD can be used to collect volatile components. Using the HandyTD TD265, volatile components concentrated on the trapping agent are introduced into a GC by thermal desorption.

Using HandyTD TD 265 and MonoTrap, it was possible to simplify the procedure from sampling to sample introduction. A number of flavor components were detected in the lavender, including Linalool and Linalyl acetate.

Preliminary processing procedure

Lavender

Place 2 g of lavender petals
in a 40 mL vial

Collection (HS)
MonoTrap RGC18 TD × 1

60 °C for 1 hour



HandyTD/GC/MS

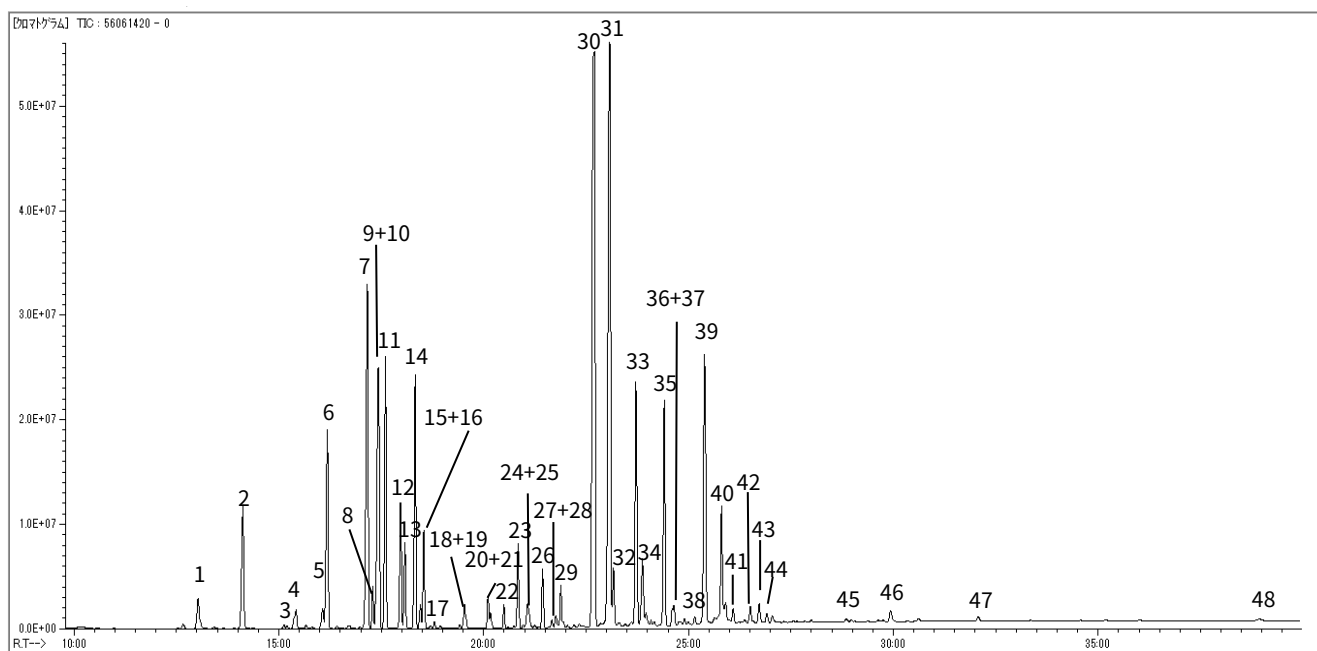


GC/MS Conditions

System : Thermal Desorption-GC/MS (HandyTD TD265)
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 Split 10:1
Detection : MS Scan (m/z 30-350)

HandyTD Conditions

Desorb Temp. : Room temperature- 45 °C/Sec
 - 200 °C (1.5 min)
Pre Desorb Press. 140 kPa



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

1. Pinene
2. Camphene
3. Pinene
4. Sabinene
5. Carene
6. Myrcene
7. Limonene
8. Butyl butyrate
9. Phellandrene
10. Cineole
11. Ocimene
12. Ocimene

13. Octanone
14. Hexyl acetate
15. Cymene
16. Cymene
17. Carene
18. Octyl acetate
19. Hexyl propionate
20. Octenyl acetate
21. Allo-Ocimene
22. Undecatriene
23. Hexyl butyrate
24. Acetic acid

25. 1-Octen-3-ol
26. Linalool Oxide
27. Terpineol
28. Nonenal
29. Linalool oxide
30. Linalool
31. Linalyl acetate
32. Camphor
33. Neryl acetate
34. Bornyl acetate
35. Caryophyllene
36. Farnesene

37. Lavandulol
38. Terpineol
39. Borneol
40. Geraniol acetate
41. Carvone
42. Cadinene
43. Cuminaldehyde
44. P-Cymen-8-ol
45. Verbenone
46. Caryophyllene oxide
47. Cadinol
48. Coumarin

Products

Absorbent

Description : MonoTrap RGC18TD

Cat.No. : 1050-74201

* Shipped in ample tube.



MonoTrap RGC18TD



MonoTrap Trial Kit for TD

Contents	Cat.No.
● MonoTrap TD 10 pcs (Select one from 3 types as below) MonoTrap RSC18 TD, RGC18 TD, RGPS TD ● Glass Tube 1 pc (Select a tube for OPTIC / LINE, or for T-Dex / ATD / TD-20) ● MT Holder 1 pc ● CLEAN PIN HOLE SEPTUM WITH VIAL 1 pc	1050-07800

Portable thermal desorber HandyTD TD265



Cat.No. :2709-80000

InertCap Pure-WAX



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

Cat.No. : 1010-67164

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