

# 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)

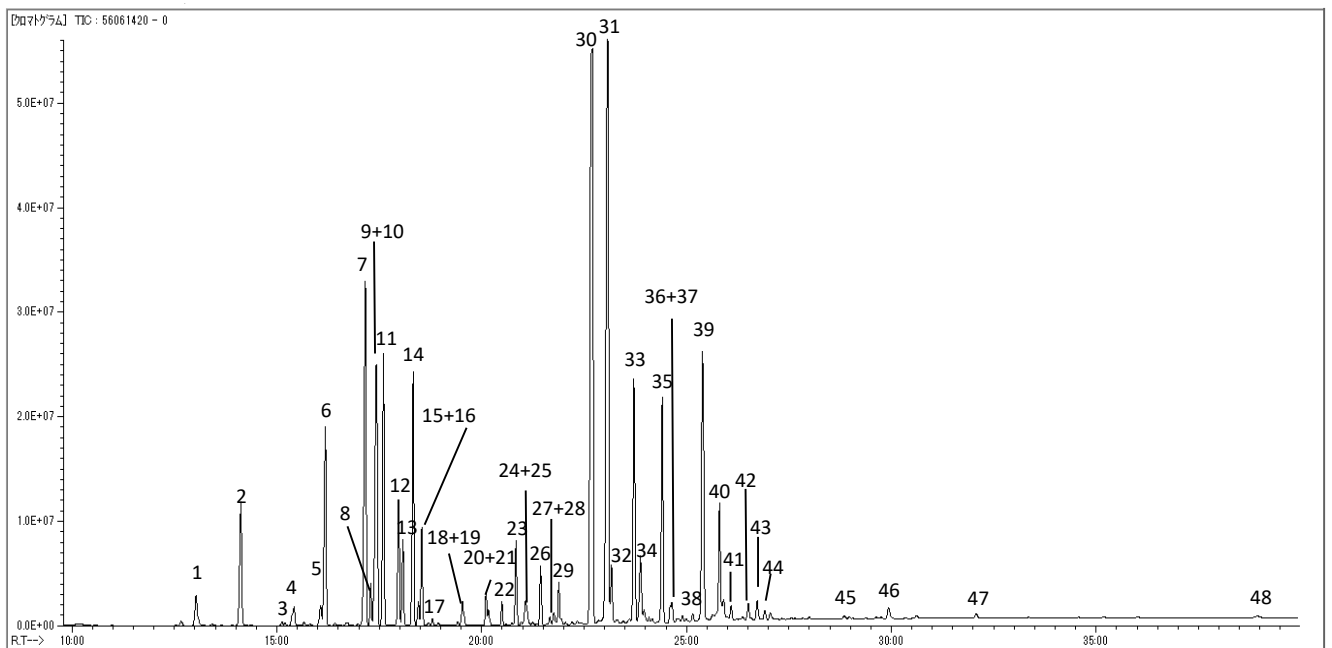
**GC Inlet** : 250 °C Split 10:1

**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         | 13. Octanone         | 25. 1-Octen-3-ol    | 37. Lavandulol          |
| 2. Camphene       | 14. Hexyl acetate    | 26. Linalool Oxide  | 38. Terpineol           |
| 3. Pinene         | 15. Cymene           | 27. Terpineol       | 39. Borneol             |
| 4. Sabinene       | 16. Cymene           | 28. Nonenal         | 40. Geraniol acetate    |
| 5. Carene         | 17. Carene           | 29. Linalool oxide  | 41. Carvone             |
| 6. Myrcene        | 18. Octyl acetate    | 30. Linalool        | 42. Cadinene            |
| 7. Limonene       | 19. Hexyl propionate | 31. Linalyl acetate | 43. Cuminaldehyde       |
| 8. Butyl butyrate | 20. Octenyl acetate  | 32. Camphor         | 44. P-Cymen-8-ol        |
| 9. Phellandrene   | 21. Allo-Ocimene     | 33. Neryl acetate   | 45. Verbenone           |
| 10. Cineole       | 22. Undecatriene     | 34. Bornyl acetate  | 46. Caryophyllene oxide |
| 11. Ocimene       | 23. Hexyl butyrate   | 35. Caryophyllene   | 47. Cadinol             |
| 12. Ocimene       | 24. Acetic acid      | 36. Farnesene       | 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.
<ul style="list-style-type: none"> <li>● MonoTrap TD 10 pcs (Select one from 3 types as below) MonoTrap RSC18 TD, RGC18 TD, RGPS TD</li> <li>● Glass Tube 1 pc ( Select a tube for OPTIC / LINE, or for T-Dex / ATD / TD-20)</li> <li>● MT Holder 1 pc</li> <li>● CLEAN PIN HOLE SEPTUM WITH VIAL 1 pc</li> </ul>	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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