

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)

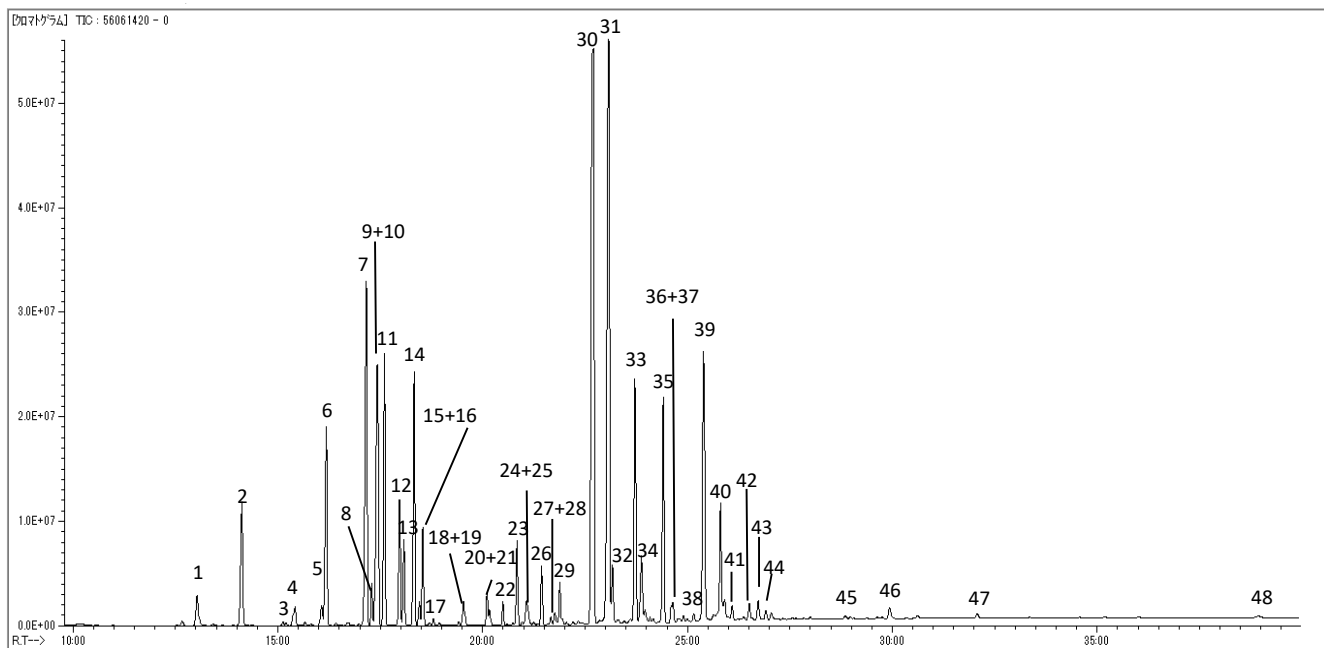
GC Inlet : 250 °C Split 10:1

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"> ● 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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GL Sciences, Inc. Japan

22-1 Nishishinjuku 6-Chome
Shinjuku-ku, Tokyo,
163-1130, Japan
Phone: +81-3-5323-6620
Fax: +81-3-5323-6621
Email: world@glsc.co.jp
Web: www.glsciences.com

GL Sciences B.V.

De Sleutel 9
5652 AS Eindhoven
The Netherlands
Phone: +31 (0)40 254 95 31
Email: info@glsciences.eu
Web: www.glsciences.eu

GL Sciences, Inc. USA

4733 Torrance Blvd. Suite 255
Torrance, CA 90503
Phone: 310-265-4424
Fax: 310-265-4425
Email: info@glsciencesinc.com
Web: www.glsciencesinc.com

GL Sciences (ShangHai) Ltd.

Tower B, Room 2003,
Far East International Plaza,
NO,317 Xianxia Road,
Changning District.
Shanghai, China P.C. 200032
Phone: +86 (0)21-6278-2272
Email: contact@glsciences.com.cn
Web: www.glsciences.com.cn

International Distributors

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