

Simple Concentration and Analysis of Flavor Components in Grated Ginger - with Easy-to-use Enrichment Tool MonoTrap

Preliminary processing procedure

Grated ginger

Commercially available
tube-type 3.8 g 40 mL vialsCollection (HS)
MonoTrap DCC181

60 °C for 2 h

Solvent extraction

200 µL of dichloromethane
Ultrasonication 5 min

GC-MS

Conditions

System : GC - MS

Column : InertCap Pure-WAX

0.25 mm I.D. x 60 m df = 0.25 µm

Col.Temp. : 40 °C (5 min hold) - 6 °C/min - 250 °C

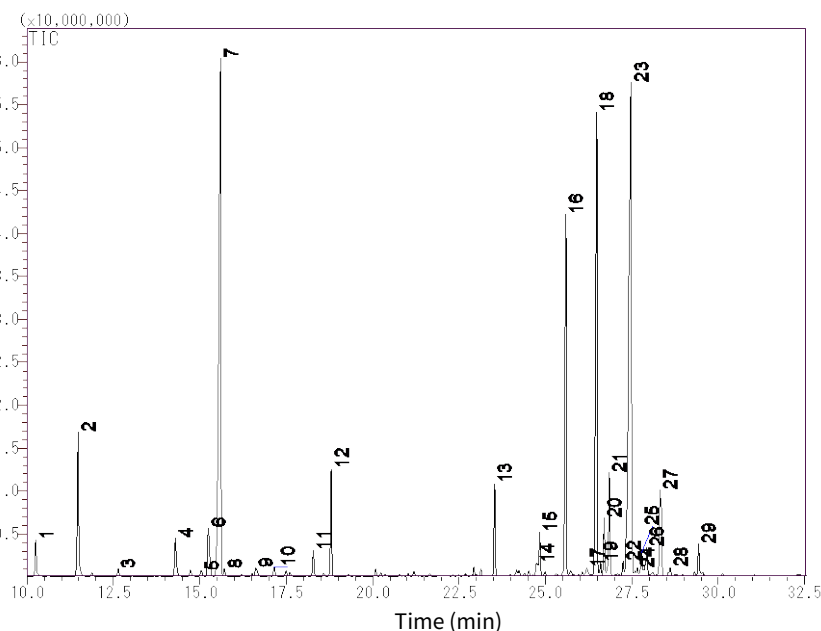
Carrier Gas : He 1.2 mL/min

Injection : Splitless

250 °C

Detection : MS Scan (*m/z*: 28.5 - 600)

1. α-Pinene
2. Camphene
3. β-Pinene
4. β-Myrcene
5. 2,5-Dimethylhex-5-en-3-yn-2-ol
6. D-Limonene
7. Eucalyptol
8. 1,4-Cyclohexadiene, 3-ethenyl-1,2-dimethyl-
9. Bicyclo[3.2.1]oct-2-ene, 3-methyl-4-methylene-
10. M-Cymene
11. 2-Heptanol
12. 5-Hepten-2-one, 6-methyl-
13. Linalool
14. β-Terpineol
15. 4-Terpineol
16. Cyclohexanol, 1-methyl-4-(1-methylethyl)-
17. Isobornyl formate
18. Citral
19. Cis-Carveol
20. P-menth-1-en-8-ol



21. Borneol
22. Unknown
23. Citral
24. Naphthalene, 2,3,4,4a,5,6-hexahydro-1,4a-dimethyl-7-(1-methylethyl)-
25. α-Farnesene
26. Citronellol
27. β-Sesquiphellandrene
28. 2,6-Octadien-1-ol, 3,7-dimethyl-, (Z)-

*Standard samples are not used for qualitative analysis. Results in a library search.

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