

# Simple Concentration and Analysis of Maple Syrup Flavor Components - Using Sorptive Media MonoTrap

MonoTrap RGC18TD, a simple enrichment tool was used to screen and analyze the flavor components in maple syrup. MonoTrap RGC18TD is individually packaged in ampoules, with no pre-conditioning required and no risk of contamination.

## Preliminary processing procedure

Maple syrup

Place 20 g in 40 mL vials

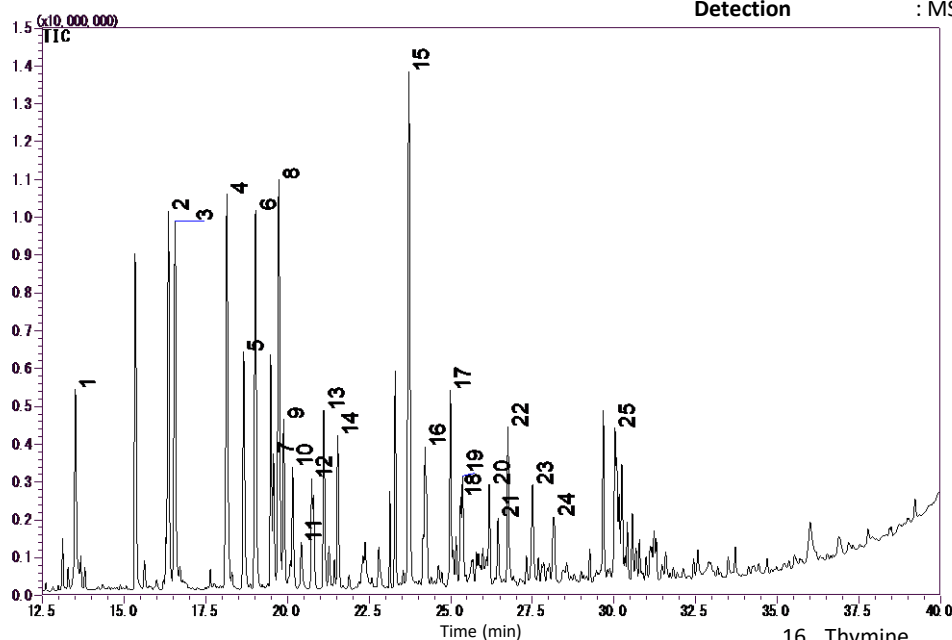
Collection (HS)  
One MonoTrap RGC18TD

60 °C for 12 h

TD-GC-MS

## Conditions

<b>System</b>	: GC-MS-Thermal Desorption
<b>Column</b>	: InertCap Pure-WAX 0.25 mm I.D. x 60 m df = 0.25 µm
<b>Col.Temp.</b>	: 40 °C (5 min) - 6 °C/min - 250 °C
<b>Carrier Gas</b>	: He 1 mL/min (constant flow)
<b>Desorb Temp.</b>	: 200 °C
<b>Time</b>	: 5 min
<b>Flow</b>	: 5 mL/min
<b>Split</b>	: 25 mL/min
<b>Cryo Trapping</b>	: -150 °C
<b>Injection Temp.</b>	: 250 °C
<b>Detection</b>	: MS Scan ( <i>m/z</i> : 28.5 - 600)



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

- |                           |   |   |
|---------------------------|---|---|
| 1. Isobutyl alcohol       | 9. Ethylpyrazine  | 16. Thymine                               |
| 2. D-Limonene             | 10. Dimethylpyrazine  | 17. 2,3-Butanediol                        |
| 3. Isopentyl alcohol      | 11. 2-Cyclopenten-1-one   | 18. Propylene Glycol                      |
| 4. Methylpyrazine         | 12. 2-Methyl-2-cyclopentenone                                       | 19. 3-Methylenedihydro-2(3H)-furanone     |
| 5. Acetyl methyl carbinol | 13. 2-Ethyl-6-methylpyrazine  | 20. M-Methoxytoluene                      |
| 6. Hydroxyacetone         | 14. Trimethylpyrazine   | 21. 2-Acetyl-4-methylpyridine             |
| 7. Dimethylpyrazine       | 15. 5-c-Acetyl-1,4-anhydro-2,6-dideoxy-1,4-dimethylhex-1-en-3-ulose | 22. 2-Furanmethanol                       |
| 8. Dimethylpyrazine       |   | 23. 3-Ethyl-2-hydroxy-2-cyclopenten-1-one |
|                           |   | 24. 3-Methyl-2(5H)-furanone               |
|                           |   | 25. 2-Hydroxy-1-methylcyclopenten-3-one   |

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