# Semivolatile organic compounds

## Analysis of semivolatile compounds in indoor air

Application Note

Environmental


### Authors

Agilent Technologies, Inc.


### Introduction

Gas chromatography with an Agilent CP-Sil 8 CB column separates 27 semivolatiles in indoor air in 40 minutes.

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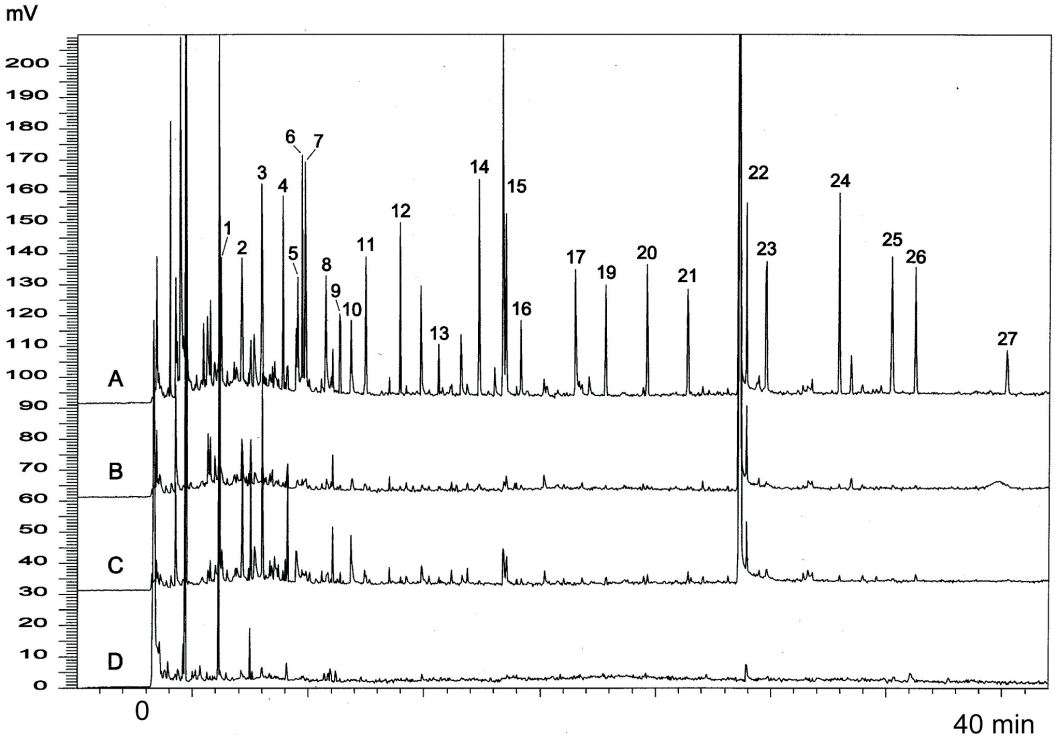
## Conditions

| | | |
|---|---|---|
| Technique | : | GC |
| Column | : | Agilent CP-Sil 8 CB, 0.32 mm x 50 m fused silica (df = 0.12 µm) (Part no. CP7751) |
| Temperature | : | 35 °C → 160 °C, 25 °C/min → 280 °C, 5 °C/min, (26 min), → 300 °C, 5 °C/min, (22 min) |
| Carrier Gas | : | Helium, 2.7 mL/min |
| Injector | : | TDAS 5000 thermal desorber, using Tenax tubes |
| Detector | : | MS |
| Sample Size | : | 48 - 300 L of indoor air |
| Concentration Range | : | low ppb level |
| Courtesy | : | Axel Clausen, National Institute of Occupational Health, Copenhagen, Denmark |

## Peak identification

1. decane
2. undecane
3. naphthalene
4. tridecane
5. isomer 1 of 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate (texanol)
6. isomer 2 of texanol
7. biphenyl
8. 1-dodecanol
9. 2,6-di-tert-butyl-1-hydroxy-toluene (BHT)
10. dodecanoic acid
11. di-isobutyrate
12. heptadecane
13. octadecane
14. o-terphenyl
15. dibutyl phthalate
16. eicosane
17. pyrene
18. stearic acid
19. docosane
20. tricosane
21. tetracosane
22. di-(2-ethylhexyl)-phthalate (DEHP)
23. hexacosane
24. octacosane
25. 1,3,5-triphenylbenzene
26. triacontane
27. dotriacontane

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