Flavors and aromas
Determination of several food flavors and aromas

Application Note

Food Testing & Agriculture

Authors
Agilent Technologies, Inc.

Introduction
Gas chromatography using an Agilent CP-Wax 57 CB column separates 22 food flavors and aromas in 80 minutes.
### Conditions

<table>
<thead>
<tr>
<th>Technique</th>
<th>GC-capillary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
<td>Agilent CP-Wax 57 CB, 0.22 mm x 50 m fused silica WCOT CP-Wax 57 CB (0.2 µm) (Part no. CP97723)</td>
</tr>
<tr>
<td>Temperature</td>
<td>60 °C (10 min) → 200 °C, 2 °C/min</td>
</tr>
<tr>
<td>Carrier Gas</td>
<td>H₂, 130 kPa (1.3 bar, 19 psi) 42 cm/s</td>
</tr>
<tr>
<td>Injector</td>
<td>Splitter, 50 mL/min T = 270 °C</td>
</tr>
<tr>
<td>Detector</td>
<td>FID, 8 x 10⁻¹² Afs T = 300 °C</td>
</tr>
<tr>
<td>Sample Size</td>
<td>0.25 µL</td>
</tr>
</tbody>
</table>

### Peak identification

1. 2-methylbutyric acid ethylester
2. 3-methylbutyric acid ethylester
3. 2-methyl-1-butanol
4. isooamylalcohol
5. 1-octanol
6. 1-hexanol
7. 1-nonanol
8. n-tetradecane
9. n-pentadecane
10. isobutyrlic acid
11. n-hexadecane
12. decanoic acid ethylester
13. neral
14. n-heptadecane
15. geranial
16. undecanoic acid ethylester
17. ethyllaurate
18. propanoic acid-2-phenyl ethylester
19. 2-phenylethylalcohol
20. 2-ethylhexanoic acid
21. ethylvanillin
22. vanillin