Hydrocarbons, $C_1 \text{ – } C_4$

Application Note

Energy & Fuels

**Introduction**

Gas chromatography using an Agilent PoraPLOT Q-HT column separates nine $C_1$ to $C_4$ hydrocarbons in 12 minutes.

**Authors**

Agilent Technologies, Inc.
PoraPLOT Q-HT is not sensitive for moisture; retention times of compounds will not change upon water introduction.

 Conditions

<table>
<thead>
<tr>
<th>Technique</th>
<th>GC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
<td>Agilent PoraPLOT Q-HT, 0.53 mm x 25 m fused silica PoraPLOT Q-HT (df = 20 μm) (Part no. CP7559)</td>
</tr>
<tr>
<td>Temperature</td>
<td>35 °C, 2 min → 150 °C, 10 °C/min</td>
</tr>
<tr>
<td>Carrier Gas</td>
<td>H2, 35 kPa, (0.35 bar)</td>
</tr>
<tr>
<td>Injector</td>
<td>Split</td>
</tr>
<tr>
<td>Detector</td>
<td>FID</td>
</tr>
<tr>
<td>Sample Size</td>
<td>1% in N₂ containing trace water</td>
</tr>
</tbody>
</table>

Peak identification

1. methane
2. ethylene
3. acetylene
4. ethane
5. propylene
6. propane
7. propadiene
8. methylacetylene (propyne)
9. C⁴-isomers