



Impurities in propylene

Analysis of hydrocarbon impurities in propylene

Application Note

Energy & Fuels

Authors

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Introduction

Often ppm levels of hydrocarbon impurities must be measured and the response for such low levels must be accurate and reproducible over time. The Agilent Select Al_2O_3 MAPD is extensively deactivated, which results in highest response for traces of polar hydrocarbons, including acetylenes and dienes. Selectivity of this Al_2O_3 PLOT column is very high, separating all C_1 - C_5 hydrocarbons. Temperature stability is 200 °C.



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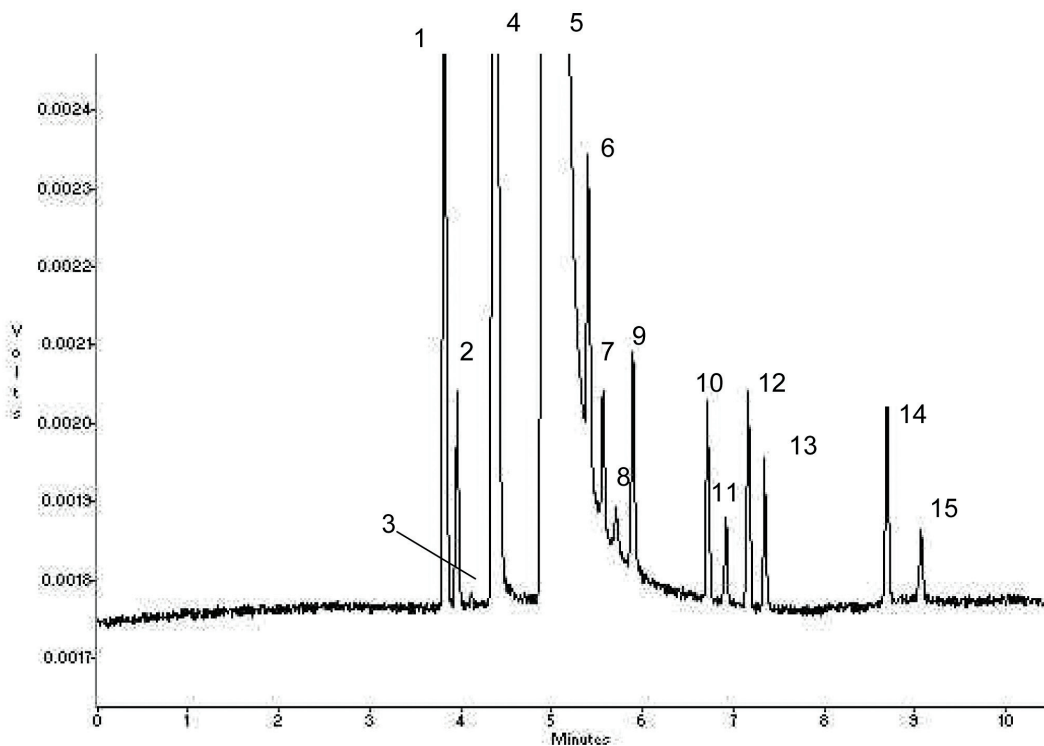
Conditions

Technique : GC
Column : Agilent Select Al₂O₃ MAPD, 0.32 mm x 50 m fused silica, Part no. CP7431
Temperature : 80 °C, → 200 °C, 10 °C/min
Carrier Gas : He, 95 kPa, 13,5 psi
Injector : Split 60 mL/min
Detector : FID
Sample Size : 100 µL
Concentration Range : 4 -100 ppm in propylene

Courtesy : C. Duvekot, Agilent Application Laboratory,
Middelburg, The Netherlands

Peak identification

1. methane
2. ethane
3. ethylene
4. propane
5. propylene
6. cyclopropane
7. butane
8. propadiene
9. acetylene
10. trans-2-butylene
11. butylene
12. iso-butylene
13. cis-2-butylene
14. 1,3-butadiene
15. methylacetylene



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This information is subject to change without notice.

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