



Oxygenated compounds, C₁ – C₁₂

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

GC separation of 37 oxygenated compounds on a highly selective Agilent Lowox multilayer column is achieved in 45 minutes.



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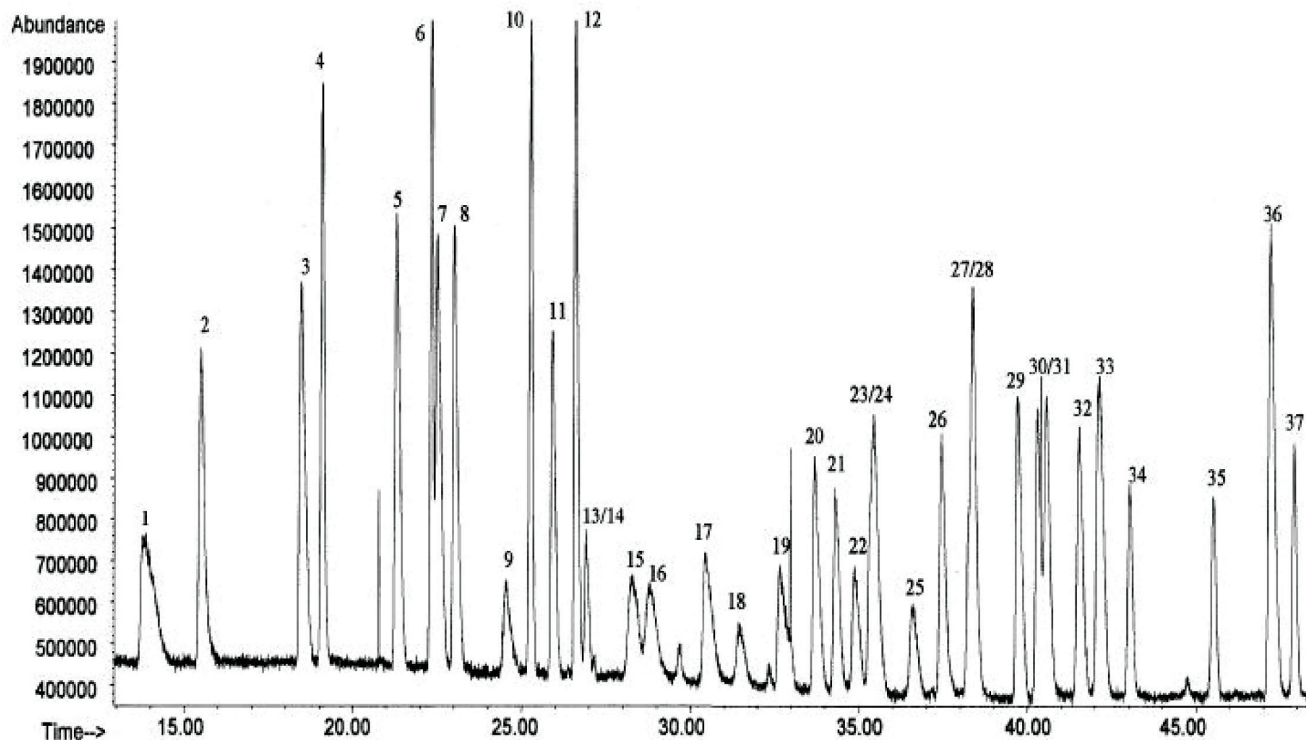
Conditions

Technique : GC/MS
Column : Agilent Lowox, 0.53 mm x 10 m fused silica
(Part no. CP8587)
Temperature : 40 °C, 5 °C/min → 350 °C
Carrier Gas : Helium, 3.5 mL/min, 10 kPa
Injector : Split,
Detector : MS
Concentration Range : ca. 2-5 ng each component on the column

Courtesy : U. Felix, K. Dettmer, W. Engewald,
Universität Leipzig, Institut für Analytische Chemie

Peak identification

- | | |
|------------------------------|-----------------------|
| 1. benzene | 20. isovaleraldehyde |
| 2. nonane | 21. pentanal |
| 3. toluene | 22. methylvinylketone |
| 4. decane | 23. 2-butanone |
| 5. ethyl benzene | 24. ethanol |
| 6. undecane | 25. crotonaldehyde |
| 7. p-xylene | 26. hexanal |
| 8. o-xylene | 27. isopropanol |
| 9. acetaldehyde | 28. 2-pentanone |
| 10. dodecane | 29. diisopropylketone |
| 11. tert. Butyl methyl ether | 30. heptanal |
| 12. 1,2,3-trimethylbenzene | 31. isobutanol |
| 13. propanal | 32. n-butanol |
| 14. acrolein | 33. benzaldehyde |
| 15. methacrolein | 34. octanol |
| 16. isobutyraldehyde | 35. nonanal |
| 17. butanal | 36. p-tolualdehyde |
| 18. methanol | 37. decanal |
| 19. acetone | |



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This information is subject to change without notice.

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Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A02251



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