



Drugs

Separation of underivatized drugs

Application Note

Forensic Toxicology

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with a custom-made Agilent CP-Sil 8 column separates 20 underivatized drugs in 18 minutes.



Agilent Technologies

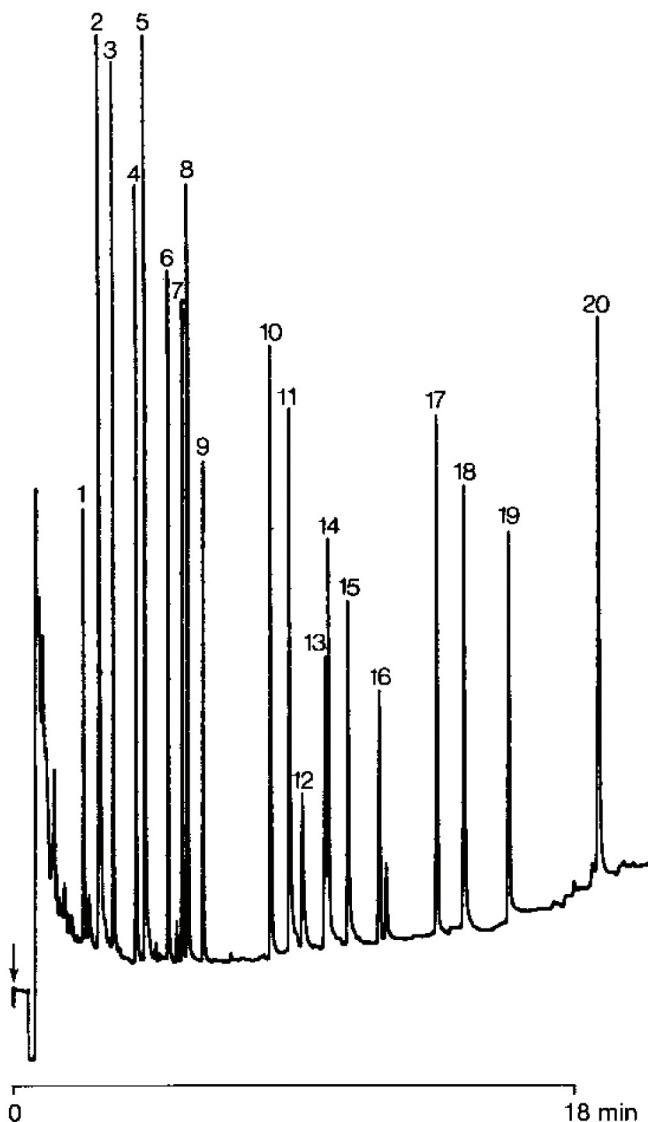
Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 8, 0.32 mm x 10 m fused silica WCOT
CP-Sil 8 (0.44 μm) (Custom-made*)
Temperature : 210 $^{\circ}\text{C}$ \rightarrow 300 $^{\circ}\text{C}$, 5 $^{\circ}\text{C}/\text{min}$
Carrier Gas : He, 30 kPa (0.3 bar, 4.4 psi), 18 cm/s
Injector : Splitless
Detector : NPD, 128×10^{-12} Afs
Sample Size : 1 μL
Concentration range : 0.5 - 2 ng/component

Courtesy : J.van der Verren & P. Demedts
Department of Toxicology,
State University of Ghent (Belgium)

Peak identification

| | |
|---------------------------|-------------------|
| 1. pethidine HCl | 500 μg |
| 2. caffeine | 500 μg |
| 3. phencyclidine HCl | 1 ng |
| 4. metapyrilene HCl | 500 μg |
| 5. procaine | 2 ng |
| 6. normethadone | 1 ng |
| 7. methadone | 1 ng |
| 8. metaqualone | 1 ng |
| 9. cocaine | 1 ng |
| 10. codeine | 1 ng |
| 11. morphine | 2 ng |
| 12. hydromorfone | 2 ng |
| 13. acetylcodeine | 1 ng |
| 14. 6-mono-acetylmorphine | 1 ng |
| 15. nalorphine | 2 ng |
| 16. heroine | 1 ng |
| 17. diacetylnalorphine | 2 ng |
| 18. phenoperidine | 2 ng |
| 19. palfium | 1 ng |
| 20. strychnine | 2 ng |



* When ordering please specify: Part no. CP99927, internal diameter, length, film thickness and liquid phase

www.agilent.com/chem

For Forensic Use.

This information is subject to change without notice.

© Agilent Technologies, Inc. 2011

Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A00116



Agilent Technologies