



# Drugs of abuse in urine

## Application Note

Forensic Toxicology

### Authors

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### Introduction

An Agilent VF-DA GC column with GC/MS separates five drugs of abuse in a urine sample.



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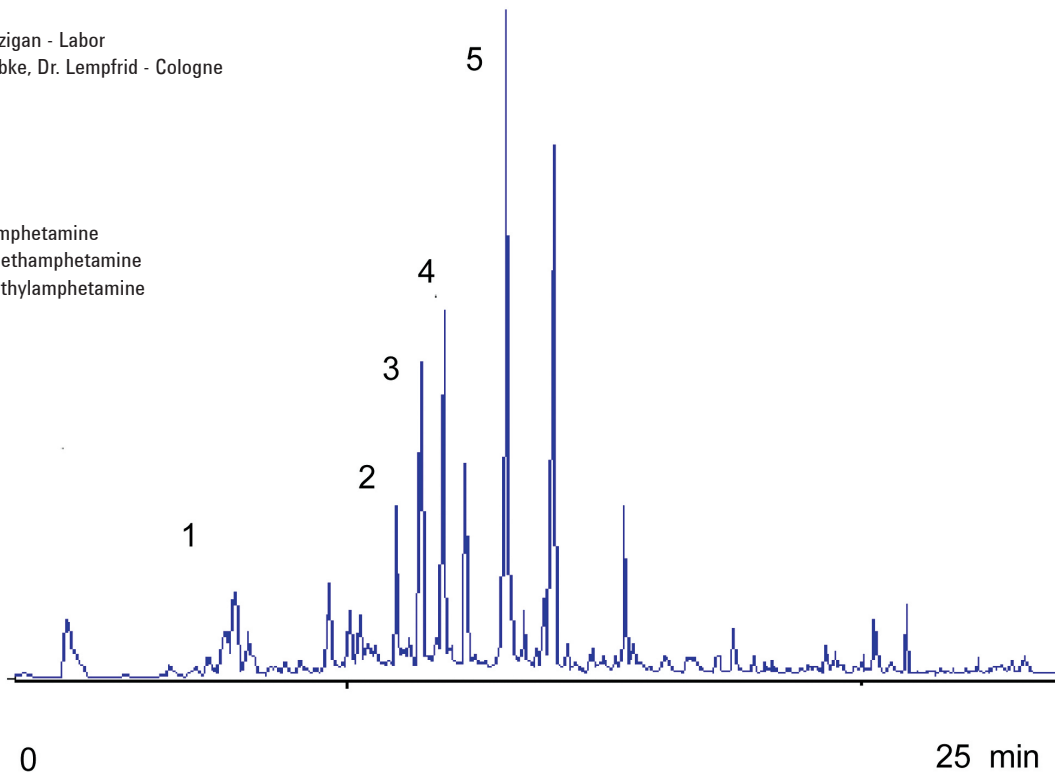
## Conditions

Technique : GC-capillary  
Column : Agilent VF-DA, 0.20 mm x 12 m (df = optimized)  
(Part no. CP8964)  
Temperature : 70 °C, 1.2 min → 200 °C, 20 °C/min, → 270 °C,  
7 °C/min, → 320 °C, 20 °C/min  
Carrier Gas : Helium, ca. 1.0 mL/min  
Pressure Program : 58.7 kPa, 2.2 min → 97 kPa, 58 kPa/min → 132 kPa,  
3 kPa/min → 180 kPa, 12 kPa/min  
Injector : Splitless  
Detector : MS  
Sample Size : 1 µL  
Solvent : methanol  
Derivatization : acetic acid anhydride to form acetates

Courtesy : Joerg Szigan - Labor  
Dr. Lembke, Dr. Lempfrid - Cologne

## Peak identification

1. amphetamine
2. MDA 3,4-methylenedioxyamphetamine
3. MDMA 3,4-methylenedioxymethamphetamine
4. MDE 3,4-methylenedioxy-ethylamphetamine
5. cotinine



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