



## Primary amines

# Optical isomer separation of amphetamine and other amines on a capillary column

## Application Note

Forensic Toxicology

### Authors

Agilent Technologies, Inc.

### Introduction

Gas chromatography using an Agilent CP-Chirasil Val column separates eight optical isomers of amphetamine and other amines in just over 40 minutes.



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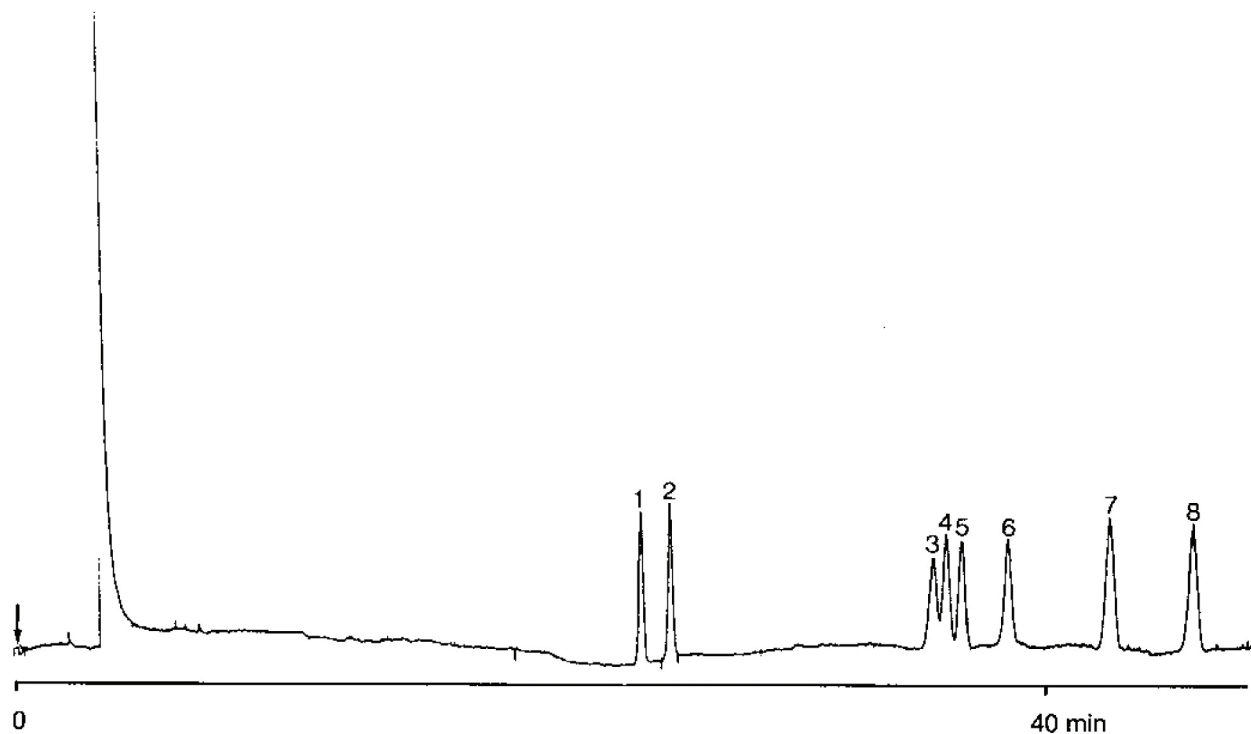
## Conditions

Technique : GC-capillary  
Column : Agilent CP-Chirasil Val, 0.22 mm x 25 m fused silica  
WCOT Chirasil Val (0.12  $\mu$ m) (Part no. CP7495)  
Temperature : 100 °C  
Carrier Gas : N<sub>2</sub>, 60 kPa (0.6 bar), 14 cm/s  
Injector : Splitter, 50 mL/min  
T = 250 °C  
Detector : FID, 4 x 10<sup>-12</sup> Afs  
T = 250 °C  
Sample size : 1.0  $\mu$ L  
Concentration range : 0.25 %/component (D+L)  
Solvent Sample : dichloromethane

## Peak identification

1. D- $\alpha$ -phenylethylamine
2. L- $\alpha$ -phenylethylamine
3. D-amphetamine
4. L-amphetamine
5. D- $\alpha$ -phenylpropylamine
6. L- $\alpha$ -phenylpropylamine
7. D- $\alpha$ -phenylisobutylamine
8. L- $\alpha$ -phenylisobutylamine

as TFA-derivatives



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Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A00025



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