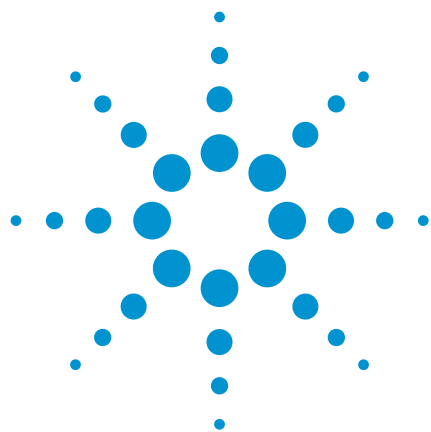




1,2-Dialkyl substituted cyclohexanes

Enantiomer separation of 1,2-dialkyl substituted cyclohexanes

Application Note

Materials Testing & Research

Authors

Agilent Technologies, Inc.

Introduction

Enantiomeric separation of four 1,2-dialkyl substituted cyclohexanes by gas chromatography with an Agilent CP-Cyclodextrin-B-2,3,6-M-19 column is accomplished in 12 minutes.



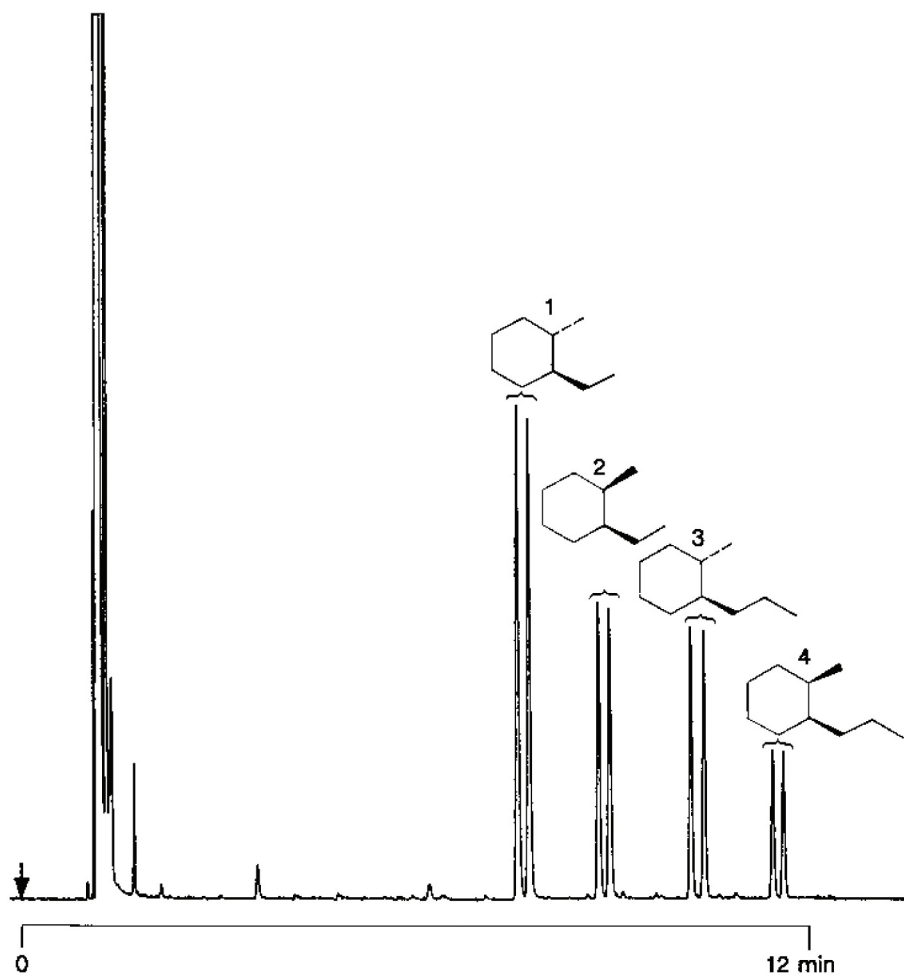
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Conditions

Technique : GC-capillary
Column : Agilent CP-Cyclodextrin-B-2,3,6-M-19, 0.25 mm x
25 m fused silica WCOT Cyclodextrin-B-2,3,6-M-19
(df = 25 µm) (Part no. CP7500)
Temperature : 60 °C, 5 min + 5 °C/min → 200 °C
Carrier Gas : H₂, 65 kPa (0.65 bar, 9.3 psi)
Injector : Split, 100 mL/min
T = 250 °C
Detector : FID, 4 x 10⁻¹² Afs
T = 275 °C
Concentration Range : 0.01% in hexane

Peak identification

1. trans-1-ethyl-2-methylcyclohexane
2. cis-1-ethyl-2-methylcyclohexane
3. trans-1-methyl-2-n-propylcyclohexane
4. cis-1-methyl-2-n-propylcyclohexane



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Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A00500



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