Free fatty acids

Application Note

Materials Testing & Research

Authors

Agilent Technologies, Inc.

Introduction

The trifluoropropyl phase of Agilent VF-200ms is very stable, which allows the analysis of aggressive compounds. Loadability of the thin film columns, as shown here, is quite limited especially for C_3 acids and a thicker film would be preferred. For acetic acid solubility is relatively high which results in a narrow peak.

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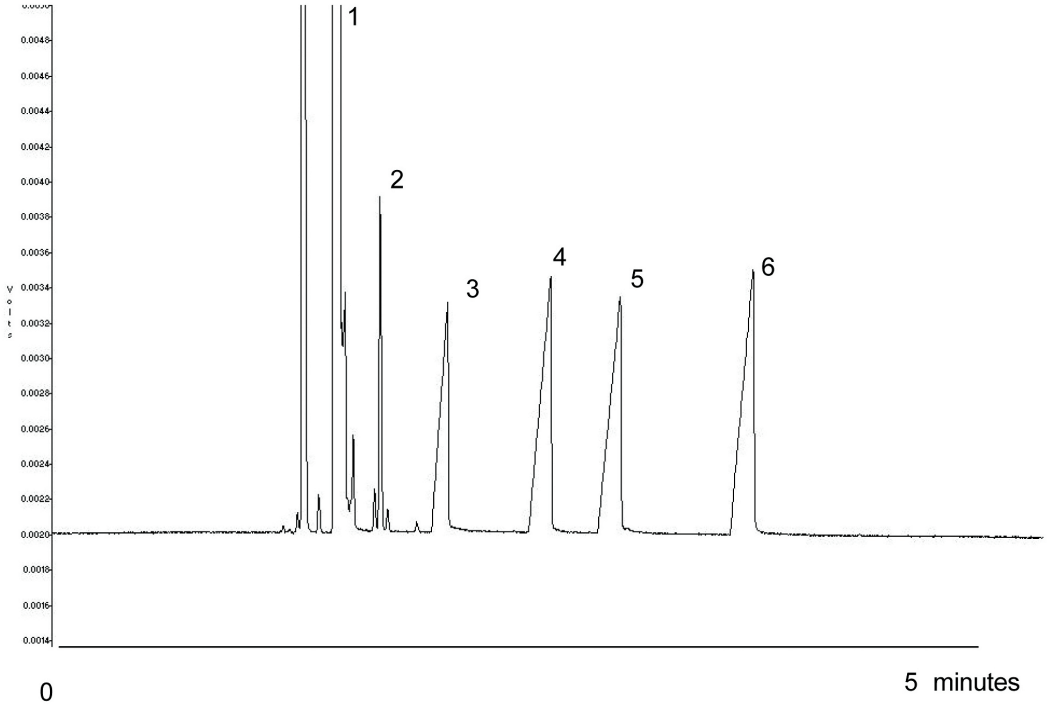
Conditions

Technique	:	GC
Column	:	Agilent FactorFour VF-200ms, 0.25 mm x 30 m (df = 0.25 µm) (Part no. CP8858)
Temperature	:	45 °C, 10 °C/min ⟶ 325 °C
Carrier Gas	:	Helium, ca. 1.0 mL/min
Pressure program	:	60 kPa
Injector	:	Split/Splitless, in split mode, 1:100
Detector	:	FID
Sample Size	:	1 µL
Solvent	:	cyclohexane, 0.1% w/v

Courtesy : Jane Peene, Agilent Application Laboratory, Middelburg, The Netherlands

Peak identification

1. cyclohexane
2. acetic acid
3. propionic acid
4. iso-butyric acid
5. butyric acid
6. iso-valeric acid



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