Introduction

The analysis of complex samples such as essential oils is typically performed on 30 m x 0.25 mm columns. Using an Agilent FactorFour VF-5ms 0.15 mm id column, run time can be halved, with an identical separation.

For some separations where high concentrations are to be measured, the split ratio may have to be increased.
Conditions

Technique: GC-capillary

Column: Agilent FactorFour VF-5ms, 0.15 mm x 20 m (df = 0.3 μm) (Part no. CP98037)

Temperature: 75 °C, 4.3 min with 7.5 °C/min to 200 °C

Carrier Gas: Helium, 160 kPa, 1.6 bar

Injector: Split, 150 mL/min

T = 250 °C

Detector: FID

T = 300 °C

Sample: 2 μL

Concentration: 1%

Standard Dimensions

30m X 0.25mm, df = 0.5 micron, VF-5ms

Carrier: Helium, split 100 mL/min, 50 Kpa

Sample size: 2uL, 1%

Detector: FID

Temp prog: 75 °C (2min), 4 °C/min to 200 °C

FAST factorFour

20m X 0.15mm, df = 0.3 micron, VF-5ms

Carrier: Helium, split 150 mL/min, 160Kpa

Sample size: 2uL, 1%

Detector: FID

Temp prog: 75 °C (4.3min), 7.5 °C/min to 200 °C

40 minutes

21 minutes