



VARIAN

Application Note SI-01316

Analysis of 370–550 °C Petroleum Fraction using a VF-5ht UltiMetal™ Column

Peter Heijnsdijk
Varian, Inc.

The hydrocarbon boiling point fraction of 370–550 °C mainly covers the C20–C40 hydrocarbons. These type of fractions may include heavy gas oil, petroleum waxes and lube stocks. On-column is the preferred injection mode for analyses of this type. The VF-5ht UltiMetal column can easily withstand the demanding conditions set for this analysis both in terms of robustness of column material and durability, and temperature stability of the VF-5ms liquid phase.

Conditions

Technique:	Varian GC
Column:	VF-5ht UltiMetal, 30 m x 0.25 mm, df = 0.1 μm (pn: CP9046)
Sample:	Petroleum Fraction 370–550 °C
Sample Solvent:	0.1 % in CS ₂
Carrier Gas:	Hydrogen, 55 kPa (8 psi)
Injector:	325 °C, on-column
Injection Volume:	1.0 μl
Temperature:	40 °C (0.5 min) to 400 °C @ 5 °C/min
Detection:	FID, 340 °C

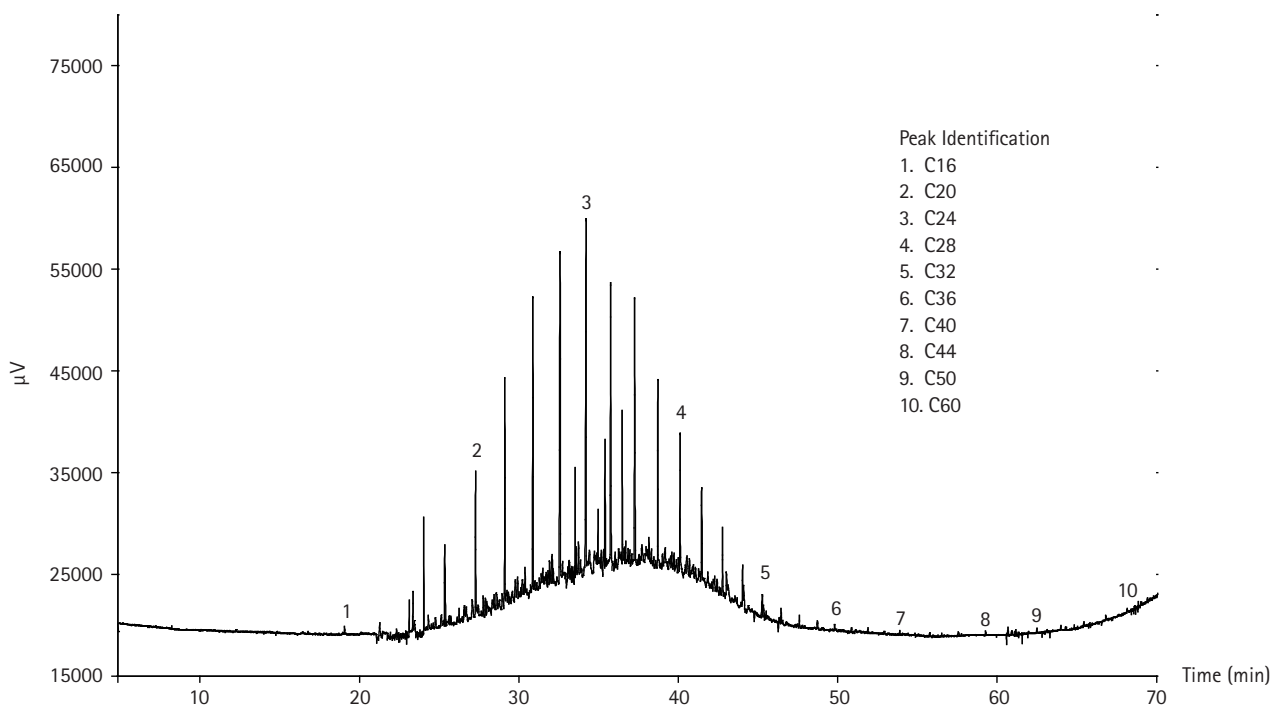


Figure 1. Low baseline at higher temperature enhancing signal-to-noise ratio and improving detection limits.

These data represent typical results.
For further information, contact your local Varian Sales Office.

factorFOUR™

UltiMetal, FactorFour, Varian and the Varian logo are trademarks or registered trademarks of Varian, Inc. in the U.S. and other countries.

© 2008 Varian, Inc.

Varian, Inc.
www.varianinc.com
North America: 800.926.3000 – 925.939.2400
Europe: *The Netherlands*: 31.118.67.1000
Asia Pacific: *Australia*: 613.9560.7133
Latin America: *Brazil*: 55.11.3238.0400



VARIAN