

Analysis of Tetrahydrothiophene (THT) in Natural Gas using the Agilent 490 Micro GC

Application Note

Micro Gas Chromatography, Natural Gas Analysis, Sulfur Compound Analysis

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Introduction

This application note shows the analysis of Tetrahydrothiophene (THT) in a Natural Gas matrix using the Agilent 490 Micro GC. THT consists of a five-membered ring containing a sulfur atom and four carbon atoms. THT is used as an odorant in Natural Gas, because of its smell.

The chromatogram clearly shows the separation of THT from the other compounds in the Natural Gas sample. The dimensions for the column channel used, a CP-Sil 19 CB for THT, are optimized for this application. Moreover, this column channel is factory tested to ensure the separation between THT and Nonane.

The advantage of the Agilent 490 Micro GC, in combination with the CP-Sil 19 CB column channel, is the ease-of-use and the speed of analysis. Tetrahydrothiophene elutes around 40 sec and the total analysis time is less than 90 sec.

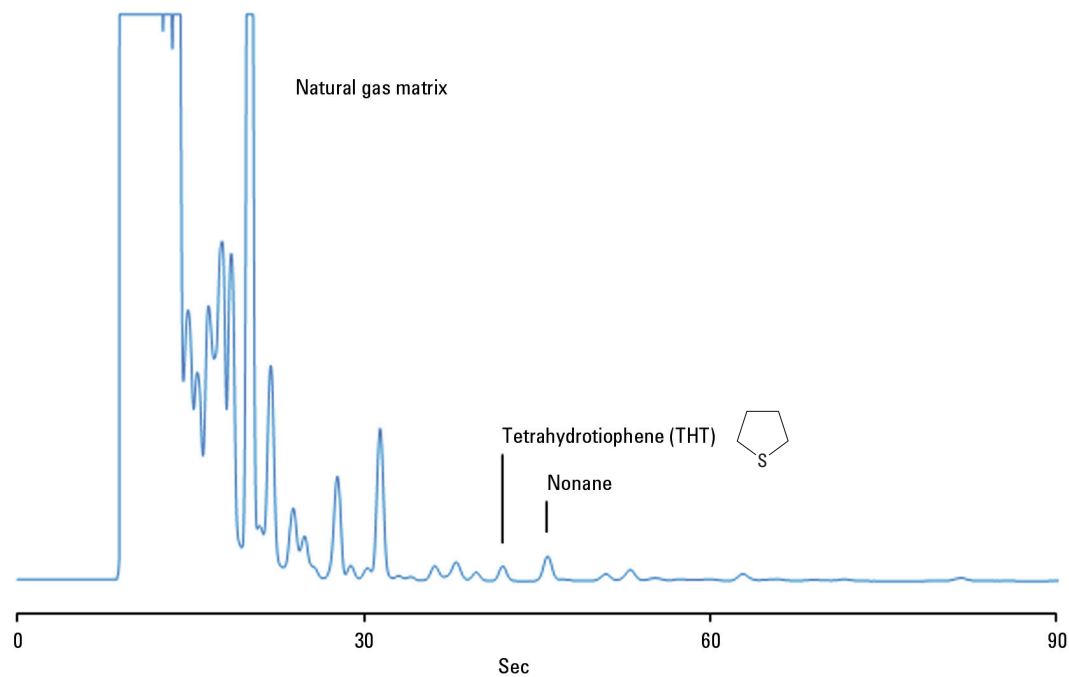
The Agilent 490 Micro GC is a rugged, compact, and portable lab-quality gas analysis platform. When the composition of gas mixtures is critical, count on this fifth generation micro gas chromatography.



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Instrumentation

Instrument	Agilent 490 Micro GC (G3581A)
Column channel	CP-Sil 19 CB for THT
Column temperature	90 °C
Carrier gas	Helium, 200 kPa
Injection time	255 msec
Injector temperature	110 °C
Sampling time	30 sec



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