Analysis of BTEX in Air using the Agilent 490 Micro GC

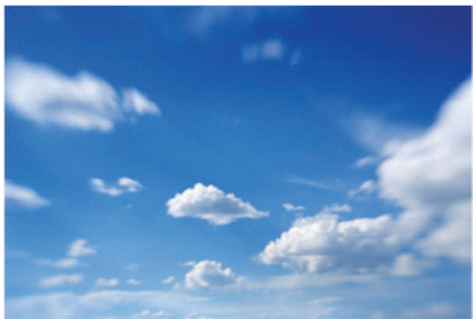
Application Note

Micro Gas Chromatography, Environmental Analysis

Authors

Pascal Vattaire,
Agilent Technologies, Inc.
Les Ulis
France

Remko van Loon,
Agilent Technologies, Inc.
Middelburg
The Netherlands



Introduction

Monocyclic aromatic hydrocarbons are a class of chemicals with a six membered ring structure and alternating double and single bonds between the carbon atoms. These compounds are considered to be toxic and therefore of interest for analysis.

This application note shows the analysis of benzene, toluene, ethylbenzene, and the xylenes in an air matrix using the Agilent 490 Micro GC. To separate all xylenes, including meta- and para-xylene, a special channel equipped with a 10-meter CP-Wax 52 CB column is used. The standard 4-meter CP-Wax 52 CB column channel can be used for the analysis of BTEX as well, however p- and m-xylene will co elute and reported as a single result.

The advantage of the 490 Micro GC, in combination with the CP-WAX 52 CB column channel, is the ease-of-use and the speed of analysis. The analysis of the BTEX compounds is performed in less than 150 seconds. The Agilent 490 Micro GC delivers lab-quality separations in an ultra-compact, portable instrument. You get the results you need in seconds - for faster, better decision making and confident process control.

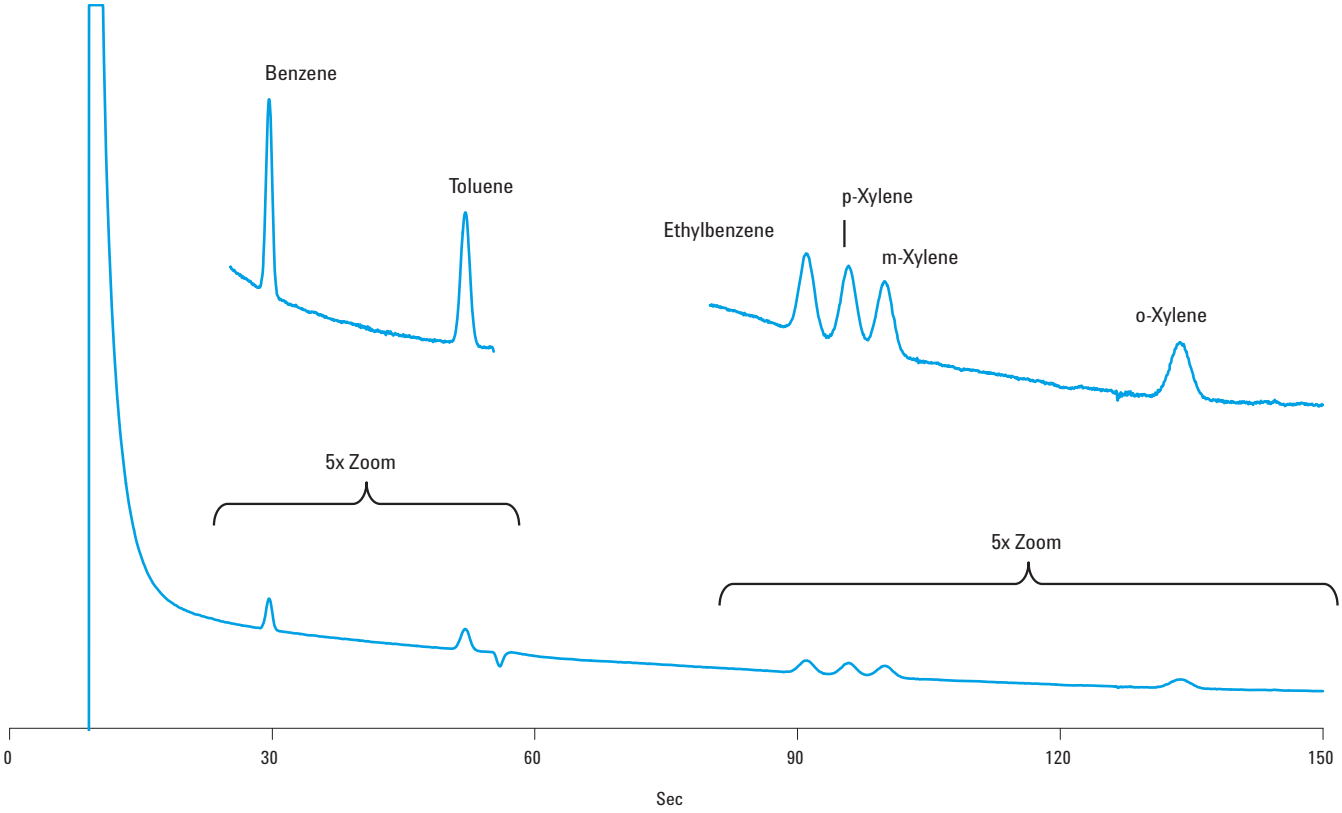
Agilent Technologies

Instrumentation

Instrument	Agilent 490 Micro GC (G3581A)
Column channel	CP-Wax 52 CB, 10 m (special channel)
Column temperature	50 °C
Carrier gas	Helium, 150 kPa
Injection time	50 msec

Sample information

Matrix	Air
Benzene	low ppm range
Toluene	low ppm range
Ethylbenzene	low ppm range
Xylenes	low ppm range



For More Information

These data represent typical results. For more information on our products and services, visit our Web site at www.agilent.com/chem.

www.agilent.com/chem/microgc

Printed in the USA
December 1, 2011
5990-9527EN

Agilent Technologies