Fast Separation of Oxygen and Nitrogen on a MolSieve 5A Channel Using the Agilent 490 Micro GC

Application Note

Micro Gas Chromatography, Permanent Gas Analysis

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Introduction

When a really fast separation of Oxygen and Nitrogen is required, the Agilent 490 Micro GC, equipped with a short MolSieve 5A column channel, delivers the speed you need.

This application note shows the fast separation of Oxygen and Nitrogen using a 4 m MolSieve 5A column channel instead of using the standard 10 m MolSieve 5A column channel. The advantage of the Agilent 490 Micro GC, in combination with this 4 m MolSieve 5A column channel, is the ease-of-use and the speed of analysis. Nitrogen will elute in less than 20 s.

Argon and Oxygen will not be separated on the 4 m MolSieve 5A column. These compounds will coelute. The separation of Argon and Oxygen requires the use of a 20 m MolSieve 5A column channel on a low temperature.

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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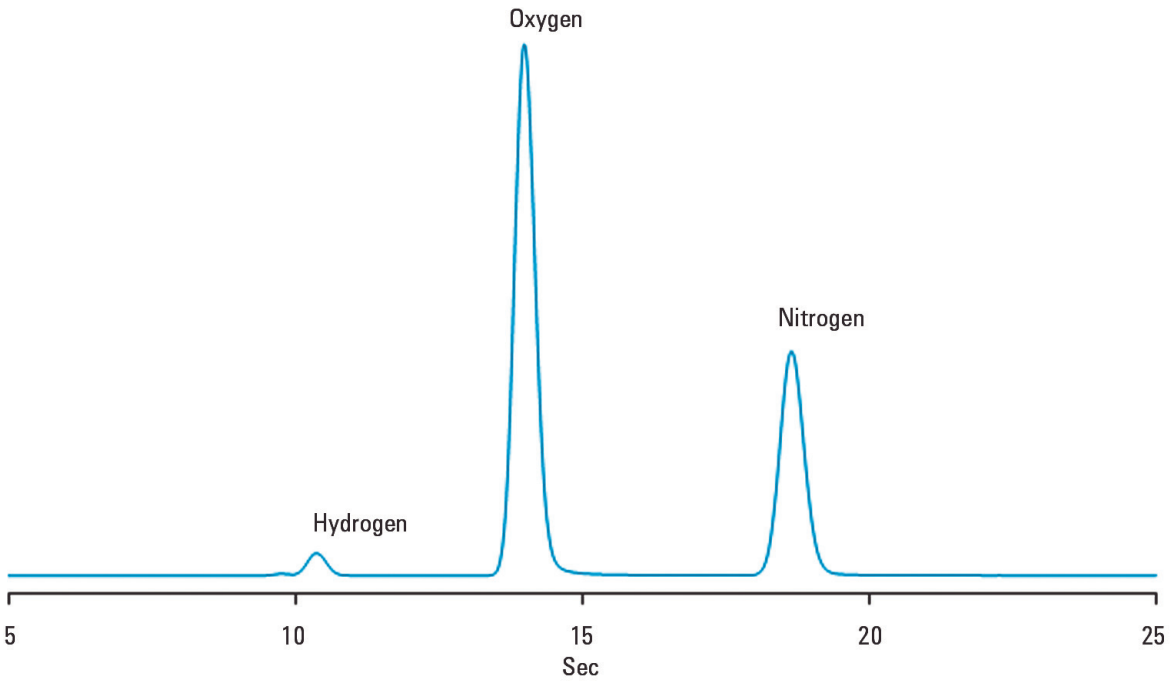
Instrumentation

Instrument	Agilent 490 Micro GC (G3581A)
Column channel	MolSieve 5A, 4 m
Column temperature	100 °C
Carrier gas	Helium, 100 kPa
Injection time	40 msec

Sample information

Hydrogen	1.0%
Oxygen	0.4%
Nitrogen	0.2%



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