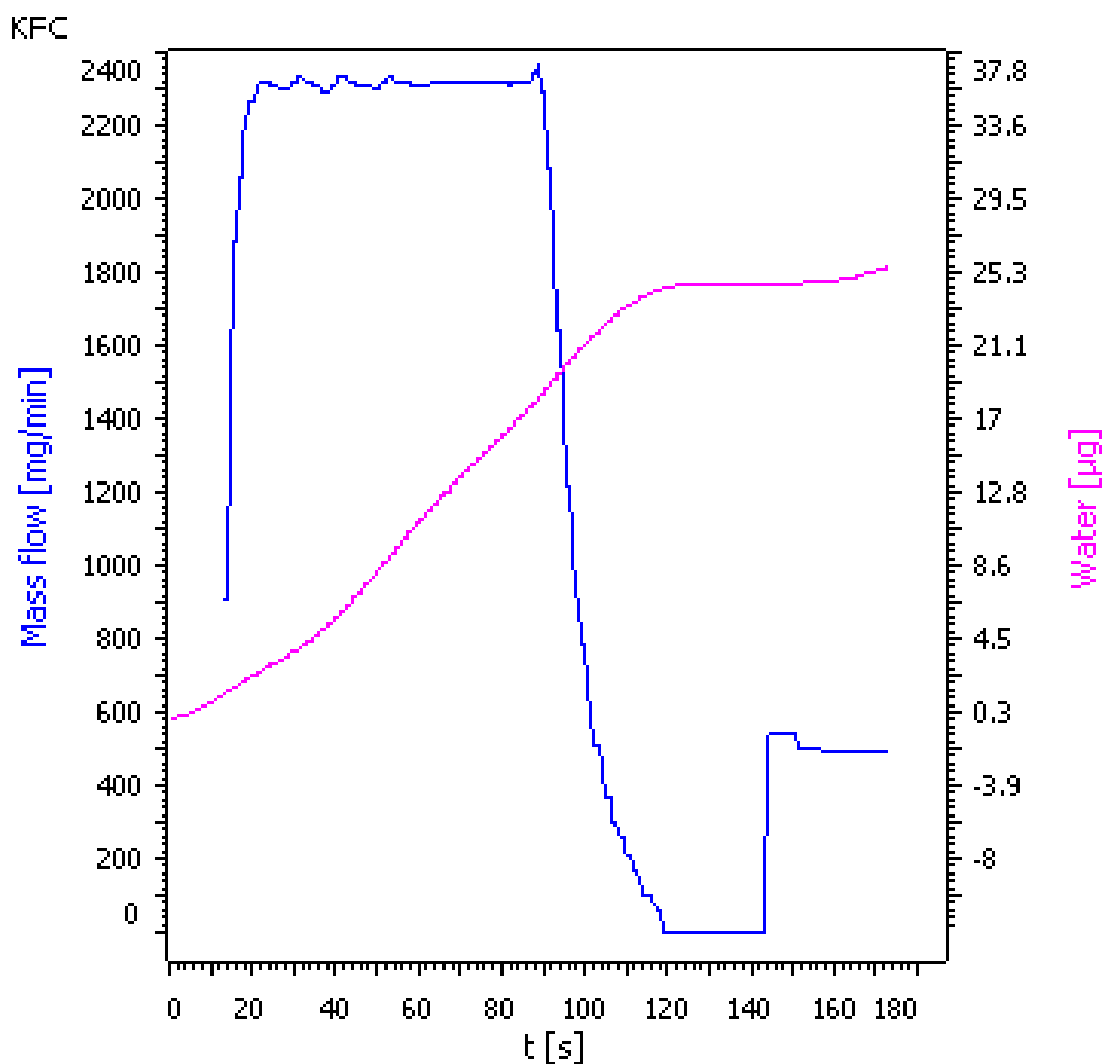


Determination of water in LPG and chloroethane



This Application Note describes the automated determination of the water content in liquid petroleum gas (LPG) and chloroethane using the 875 KF Gas Analyzer.

Method description

Samples

LPG (liquefied petroleum gas)
Chloroethane (ethyl chloride)

Sample preparation

The sample cylinder is connected to the 875 KF Gas Analyzer with the appropriate connectors. One time it is installed upside down to sample the liquid phase of the sample cylinder and one time the opposite way to sample the gas phase. This depends on which phase needs to be analyzed. Generally we recommend analyzing the liquid phase.

Configuration

875 KF Gas Analyzer	2.875.9020
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Reagents

HYDRANAL®-Coulomat AG-Oven	Fluka 34739
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HYDRANAL®-Coulomat CG	Fluka 34840
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Nitrogen (>99.999, < 5 ppm H ₂ O)

Analysis

System preparation

To prepare the system, it is first flushed with sample followed by drying with nitrogen. As the water content of the sample might be very low, it is important to have a low start drift.

Method

To measure the sample the method "Sample_measurement.mmet" is used. The method is preinstalled on every Gas Analyzer system.

Sample determination

The methods parameters predefined in the method were used.

Results

Sample	Mean / [ppm]	RSD / [%]
LPG (l)	27.8 (n = 7)	3.4
LPG (g)	172 (n = 5)	0.9
Chloroethane (l)	14.3 (n = 5)	6.3
Chloroethane (g)	67.3 (n = 6)	7.1

l: liquid phase; g: gas phase