

EXPERTS IN GAS ANALYSIS

Issue – November 2011

SUMMARY

VISTACHROM 1.4.7	p1
CERTIFICATION MCERTS	p1
WEB SITE CUSTOMER SERVICE	p2
INSTRUMENTS FOR ONE LINE QUALITY CONTROL OF CO ₂ PRODUCTION	p2
ANALYSIS OF MERCAPTANS (DMS, DMDS) IN AIR OR WATER	p2
KOMBI : CH ₄ /NMTHC + BTEX ANALYSIS BY FID DETECTION	p2

VistaCHROM 1.4.7

VistaCHROM, the supervision programme for Chromatotec instruments will have a new version, 1.4.7 available from January 2012.

This new version is particularly optimised in order to provide not only analysis results, but also all functional parameters of the instrument. This list of parameters includes, for example:

- The « base sensitivity » of the chromatograph.
- Pressure readings (eg: head column pressure).
- Temperature readings (eg ; the temperature of the oven or the detector).

These readings may be retrieved by a « datalogger » through the Modbus driver.

These parameters may also be used by the MathModule, an additional VistaCHROM module which allows the running scripts in Pascal.

An example of this function include ; the activation of alarms on abnormal values of these values (eg ; loss of head column pressure). Finally, concerning the additional management module for the Modbus interface , this new version will also support ASCII mode as well as RTU mode.



Pollutec
HORIZONS

Stand G200
Hall 6



Customer Service



EXHIBITIONS 2012

POLLUTEC 2011 - FRANCE

Paris Nord Villepinte,
(29 Nov. - 2 Dec. 2011)

IE EXPO (中国环博会) - CHINA

(Ex IFAT China + EPTTE), Shanghai
(7 - 9 March 2012)

ANALYTICA 2012 - GERMANY

Munich
(17 - 20 April 2012)

WORLD GAS CONFERENCE 2012 - MALAYSIA

Kuala Lumpur
(4 - 8 June 2012)

ACHEMA 2012 - GERMANY

Frankfurt am Main
(18 - 22 June 2012)

Certification of in situ gas chromatographs measuring Benzene in compliance with EN 14662-3 under UK MCERTS scheme

MCERTS scheme under Environment Agency and SIRA certification service was chosen with NPL laboratory to operate the required tests. The choice criteria is almost the ISO 17025 accreditation that is the assurance of European acknowledgement. The MCERTS Scheme certifies that the CAMS (Continuous Ambient Air Monitoring System) of a manufacturer complies with the performance criteria of EN 14662-part 3 (Ambient Air Quality) Standard method for the measurement of benzene concentration - automated pumped sampling with in situ gas chromatography.



The substance tested is benzene but the number of substances tested has been increased in reference to the 31 VOC on the European list . The measurement range is between 5 µg/m³ (and 1/10 of this limit value for several tests) and 45 µg/m³.

Chromatotec has decided to certify 2 types of analysers at same time which increases the challenge of the certification because one single sample or standard cylinder is analysed by 4 instruments at same time.

- AirToxic (PID detector) for Benzene Toluène, Ethylbenzene, m&p-Xylene, o-Xylene
- AirmoVOC C₆C₁₂ (FID detector) for 12 VOC from European VOC list ranging from C₆ to C₁₂

These CAMS are completely autonomous and automatics and are driven by an internal PC.

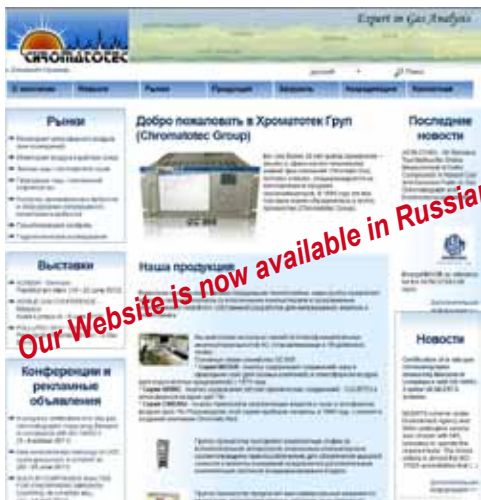
The price of such certification is a significative investment. It is necessary to manufacture two of each type of instrument and to organise preliminary tests, commissioning at the accredited laboratory. Six months are necessary to perform all the tests.

Even if it is a big investment, Instrument certification is very beneficial technically and commercially to continue to improve instrument quality in term of metrology and trueness. This certification allows validation of Chromatotec international experience and allows to improve current trueness from ± 8% to ± 5%.



There are eleven criteria for lab tests. All of them have been successful met as certify the NPL letter here above

1. Lack of fit
2. Repeatability at 0,5 µg/m³
3. Repeatability at limit value
4. Influence of the interference of ozone
5. Influence of the interference from the sum of possible interfering organic compounds at span value
6. Influence of interference from relative humidity
7. Influence of surrounding temperature at span value
8. Influence of ambient pressure
9. Influence of voltage
10. Short term drift over 24 hours at span value
11. Carry over



Our Website is now available in Russian

Website «Customer Service»

The CHROMATOTEC support website is customized in order to answer your needs. This site has been designed to be a full technical platform. You will find numerous technical resources which will help you to use the full capacity of our products

Accessible at <http://support.chromatotec.com> the site is international thanks to its multilingual function, allowing you to choose between French, English and Chinese language.

You can find:

- User manuals and technical documents
- Starting-up and maintenance videos
- Vistachrom patches for more stability

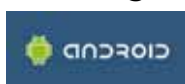
To make sure the website is accessible to all your colleagues we integrated a multi-account management. There will be one primary account from which you can create as many secondary accounts as necessary.

In order to offer you the best browsing experience, we designed our website with the latest technologies compatible with most web browser. You can have access from your computer but also from your Smartphone (Iphone and other Android phones) and from your tablet (iPad, TouchPad and other Android tablet).

You are a distributor: send your request by email to our Customer Service department (support@chromatotec.com) ; to get you login and password which allow you to access all data from our site.

You are a customer: visit our our web site, enter your email address in "First registration" box and follow the instructions.

We hope these pages will answer your needs, and we wish you a pleasant visit. Please try out this free service and if you have any feedback or comments regarding our new support site, feel free to let us know what you think at itadmin@chromatotec.com.



3 instruments for one line quality control of CO₂ production

Chromatotec are pleased to announce a recent installation in the pure gas market. With the collaboration of a world-wide soft drinks manufacturer, we have recently installed 3 instruments for quality control of their CO₂ production.

The three analysers (AirmoBTX / Chroma THC / Chroma S) installed in a cabinet, continuously monitor levels of Acetaldehyde, Benzene, Toluene, Xylenes (airmoBTX) Total sulphur (H₂S + COS + SO₂ + MM + EM + DMS + CS₂ + DES + DMDS) chromaS and Total Hydrocarbon (CH₄ + NMTHC) chromaTHC contained in the 3 x CO₂ streams destined to be added to their beverages.

Incorporated into our analysis bay, we have 3 x alarm thresholds set up to alert the production department should any of the levels exceed those defined by the regulatory body (International society of Beverage Technologists).

Alarm 1: Acetaldehyde + Benzene in µg/m³

Alarm 2: Total sulphur in µg/m³ or in sulphur equivalent

Alarm 3: THC = CH₄ + NMTHC in ppb Methane or in µg/m³

Alarm 4: H₂S in µg/m³

This install was as a result of many years of experience between Chromatotec and pure gas manufacturers worldwide.

Humidity is also analysed in this cabinet



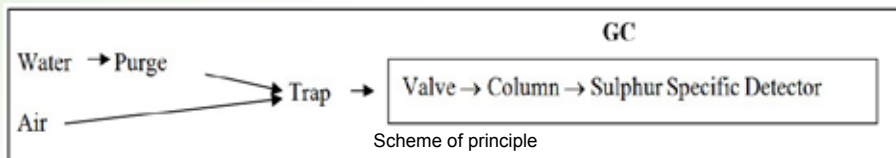
Analysis of mercaptans (DMS, DMDS) in air or water - « Purge & Trap » (Range 0.02 to 10 ppb)

Chromatotec analyzes sulphur compounds in gaseous form in the sea water or the air with a device which has a sulfur specific detector.

It allows in particular the measurement of dimethyl sulphide (DMS), volatile sulphur compound of biogenic origin, produced in 90 % in the oceans and which would be involved in the regulation of the greenhouse effect (concentration around 50 ppt).

The analysis of DMS requires a sensitive method. First, the sulphur compound must be concentrated before being analysed by Gas Chromatography. This step of pre-concentration is realised on a cooled trap (sampled volume ≈ 200 ml) after the purge of DMS.

The DMS is then thermo-desorbed, injected into the column and analysed by the specific detector.



KOMBI : CH₄/NMTHC + BTEX analysis by FID detection

To answer increasing worldwide demand on the analysis of VOCs in ambient air (ppb and even ppt) and most particularly CH₄/NMTHC + Benzene/Toluene/Ethyl-Benzene/M&P-Xylenes/O-Xylene, CHROMATOTEC now offers a complete and economical system including two analyzers with FID detectors (airmoBTX with in-built computer and chromaTHC) and only one generator 3U (air and hydrogen) for gas supply.

To analyze CH₄/NMTHC, the FID, detector installed in chromaTHC, is the only detector known and recognized worldwide. The use of FID necessarily requires air and hydrogen, these gases are then mandatorily supplied ; add the airmoBTX to analyze BTEX from ppt to ppb does not require any additional gas supply contrary to analyzers with PID detector (nitrogen).

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