

Customer care: from 9 am to 6 pm, we are at your disposal for service gas analyser/software/computer/ maintenance and calibration. To receive our news, send your email to info@chromatotec.com

SUMMARY

| | |
|---|----|
| Exhibitions 2008 | p1 |
| ChromaS application | p1 |
| AirMEDOR : integration in an industrial process | p1 |
| Option 1,3 Butadiene | p1 |
| AirmOZONE | p2 |
| Certifications 2007 | p2 |
| New instrument for measurement of formaldehyde | p2 |
| Measurement campaign on Ozone precursors | p2 |
| Vistachrom Software | p2 |

EXHIBITIONS 2008

EPTEE / CIEPEC 2008 - CHINA
Shanghai
27-29 April 2008
http://www.viaexpo.com/international-exhibition/ciepec_eptee_2008.html

A&WMA 2008 - USA
Portland (Oregon)
24 - 26 June 2008
<http://www.awma.org/ACE2008/>

ASGMT - AMERICAN SCHOOL OF GAS MEASUREMENT TECHNOLOGY - USA
Houston - TEXAS
16 - 18 September 2008
<http://www.asgmt.com/>

POLLUTEC 2008 - FRANCE
LYON Eurexpo
2 - 5 December 2008
<http://www.pollutec.com/>

ACHEMA 2009 - GERMANY
Frankfurt am Main
11 - 15 May 2009
<http://www.achema.de/>

Chromatotec Newsletter

CHROMA S application: emission monitoring in a paper mill

The **paper industry** uses large quantities of **sulphur substances** particularly during the process of cellulose cooking (Kraft burning). The release of these substances in the air is an issue for the environment in terms of odors and toxicity. These factories have to be equipped with gas cleaning systems to limit their emissions.

Chromatotec recently installed two **CHROMA S** analyzers to validate and follow up the operation of bioactive cleaning systems ; a **CHROMA S** analyzer was installed upstream of the cleaning system and another one downstream to monitor the **concentrations of COS and H₂S** between 0 and 1000 mg / m³.

Ref: C51000 ChromaS.



EPTEE/CIEPEC 2008 - CHINA



27 - 29 April 2008

Shanghai

airMEDOR : integration in an industrial process

The **recycling and valuation of wastes** is a major challenge for the conservation of the environment.

Chromatotec currently works with the research center of a large French industrial group to add an analyzer in their composting process.

The system includes a **supervisor**, a **multiplexer** and a **cabinet of analysis** with an **airMEDOR**, an analyzer for total hydrocarbons and an analyzer for ammonia.

The **airMEDOR** along with the **industrial system** enables the follow-up of the concentrations of sulphur compounds (**DMS, H₂S, Methyl-SH, DMS**) from **10 ppb to 20 ppm**.

Ref: M11000 airMEDOR.



Analysis cabinet for water cleaning plant

Option 1,3 Butadiene with GC 866 airmoBTX and GC 866 airTOXIC

Some VOC's like **1,3 butadiene** or **benzene** are known to be **carcinogenic**.

The ministerial recommendation (**DGS / SD 7 B no 2005-273 of February 25th, 2005**) relating to the evaluation of the consequences on health of air pollution due to traffic showed that those two compounds are critical. In petrochemicals, these compounds are also closely monitored. Today, **Chromatotec** offers a new option for the **simultaneous analysis of 1,3 Butadiene** and the **BTEX** (Benzene, Toluene, Ethylbenzene, Xylene) with the analysers **GC 866 airmoBTX (FID)** and **GC 866 airTOXIC(PID)**.

These instruments enable also to separate two interfering species : **Cyclohexane** (car traffic) and **Styrene** (petrochemicals).

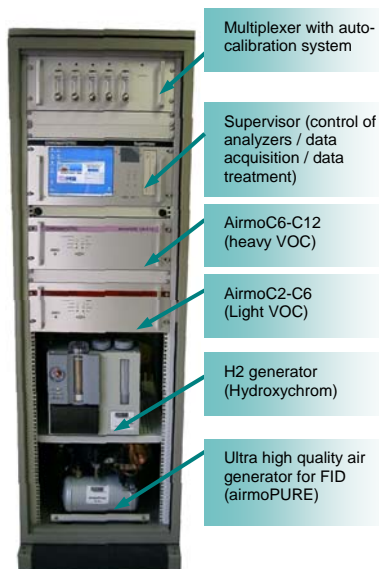
Ref: A31022 or A34022 airmoBTX1000 / A73022 or A74022 airTOXIC BTX.



New generation of our airTOXIC

airmOZONE

It is a **complete** and **autonomous** system for on-line **analysis of VOC C₂ to C₁₂**. These compounds usually of anthropogenic origin are known for being precursors in the tropospheric ozone synthesis.



Certifications 2007: CNR approval for AirmoBTX1000

In the **FID range** our **airmoBTX 1000** has just received the **CNR Certification** in Roma, on **July 30th 2007**.



This **European certification** made in Italy is an **update of our TÜV certification (Germany)** obtained in 1996 which deals with the **automatic monitoring of benzene in ambient air** but also of **Toluene, Ethylbenzene and Xylenes**.



This certification refers to the **European Directive 2000/69/CE** relative to the **limit values of benzene in ambient air** and follows the requirements of the measuring methods mentioned in the **Norm CEN 14 662 - 3** "active automatic sampling with analysis in situ".

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New instrument for measurement of formaldehyde: Airmo HCHO

2. Why measuring the formaldehyde

The HCHO is part of the **COV ozone precursors** list as a substance listed by the **Directive 2002/3/CE** and **PAMS (US)**.



AirmoHCHO model

It is **dangerous for health**, mainly by inhalation and cutaneous contact in indoor ambient air in the professional environment. It can cause irritations and the corrosion of mucous membranes and **can have carcinogenic effects**. Toxicological Index: **VME: 500 ppb, VLE: 1000 ppb**.

Some sources of emission : exhaust gas of motor vehicles, binding materials of wood.

3. Chromatotec's analyser AirmoHCHO

This instrument which detects and quantifies formaldehyde **on-line and in continuous** as well as other compounds such as acetaldehyde, methanol, and acetone is articulated around the model **airmoVOC**.

The minimum of detection is from **1 to 2 PPB of HCHO** in pure air (background pollution, background noises).

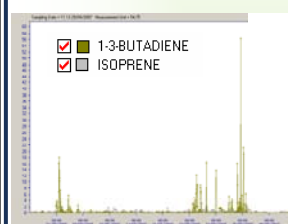
Data are stored on hard disk of the integrated computer thanks to the analyser functioning software and the presentation of the results "**Vistachrom**". The oven and the permeation tube allow auto-calibration of the analyser in continuous.

Advantage: automatic software of presentation of the results in $\mu\text{g} / \text{m}^3$ or ppb. **Ref: A13000 airmoHCHO**.

Measurement campaign on Ozone precursors

Our complete system **airmoOzone** is the solution chosen by most of our customers to monitor in continuous the **VOC concentration in ambient air**.

In Europe, the **European directive 2002/3/CE** recommends the monitoring of **31 VOC**; **56 VOC in the US** (PAMS program) and **58 VOC in Asia** (α and β -pinene added up to the US 56 VOC). Our **airmoOzone** system has been tested to be able to identify all of these compounds, through **1-hour or 30-minute cycle times** for the analysis.



1,3-BUTADIENE and ISOPRENE concentration trend ($\mu\text{g}/\text{m}^3$) over **1 month** (May 2007) on a site in an outer-urban zone (Bordeaux): **airmoVOC C2-C6, 30-minute method 31 COV**

We have currently several months of non-stop follow-up on several sites all over the world, which proves the **reliability and stability** of our analysers. **Ref: A52000 airmoOzone C₂-C₁₂**.



VOC measure campaign : Beijing - July 2007

VistaCHROM software Automation module

- Statistics calculation
- Calculation of rolling averages
- Filing
- Alarms monitoring
- I/O monitoring
- G/C monitoring (default analyzer)
- **Auto-calibration** (automatic adjustment of sensitivity factor from measurement of one reference gas with a known concentration)

