Le Bulletin

Issue – June 2008

SUMMARY

EXHIBITIONS 2008

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/

Journées Informations Eaux - FRANCE
Poitiers
23 – 25 September 2008
http://apten.asso.univ-poitiers.fr/accueil.html

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

ANALYSE INDUSTRIELLE 2009 - FRANCE
CNIT Paris La Défense
3 – 5 February 2009

ACHEMA 2009 – GERMANY
Frankfurt am Main
11 - 15 May 2009

Chlorinated gas analysis in incinerator

Emissions of **Chlorobenzene** in the environment are generally rejected into the atmosphere. Their origins are mostly industrial releases from factories producing or using chlorobenzene. When used as a solvant or as a degreaser that is to say that it has not been transformed releases are even more important.

To develop this brand new application **"Chlorinated gas analysis in incinerator"**, we took a s a basis our model airTOXIC A73022 (with inbuilt computer and internal calibration) which standard version measures automatically and in continuous BTEX compounds at ppb or ppt range.

A variation of this instrument airTOXIC with PID detector is now dedicated to the measurement among others of VOC (Volatil Organic Compounds) : reference **airTOXIC VOC A77022.**
The specific VOC that we are looking for in this case are: BTEX, Chlorobenzene, Dichlorobenzene, Trichlorobenzene, Dioxine precursors.

TRSMEDOR : 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 TRSMEDOR, an analyzer for total hydrocarbons and an analyzer for ammonia**.

Analysis cabinet for water cleaning plant

The **TRSMEDOR** along with the **industrial system** enables the follow-up of the concentrations of sulphur compounds **(DMDS, H_2S, Methyl-SH, DMS)** from **10 ppb to 20 ppm**.

Ref: M52022 TRSMEDOR.

Option 1,3 Butadiene with GC 866 airmoBTEX 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

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

New instrument for measurement of formaldehyde: Airmo HCHO

2. Why measuring the formaldehyde


AirmoHCHO model

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

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**.

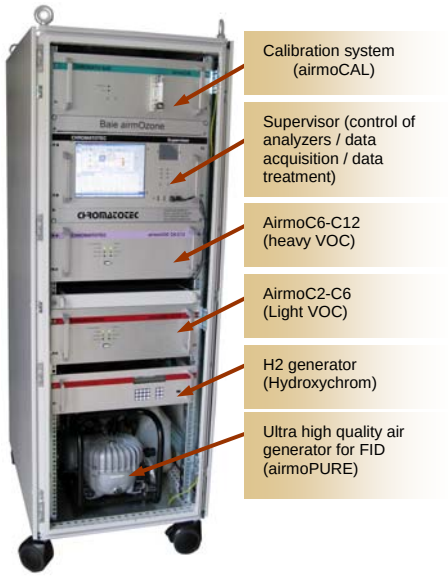
The minimum of detection is from **1 to 2 ppb of HCHO** in pure air (background pollution, background noises).

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 µg / m^3 or ppb. **Ref: A13000 airmoHCHO.**

COMPLETE AND AUTONOMOUS SYSTEM FOR ON-LINE ANALYSIS OF VOC C_2 TO C_{12}

These compounds usually of anthropogene origin are known for being precursors in the tropospherical 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**.

CNR **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**.

CNR 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 ".
No interference on Benzene.

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 H_2S** between 0 and 1000 mg / m^3.

Ref: C51000 ChromaS.

Bioactive cleaning system

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VistaCHROM software
Automation module

- ²Statistics calculation
- Calculation of rolling averages
- Filing (time recording)
- Alarms monitoring
- I/O monitoring
- G/C monitoring (default analyzer)
- **Auto-calibration** (automatic adjustment of sensivity factor from measurement of one reference gas with a known concentration)
- **Controlling the multiplexer**