Le Bulletin

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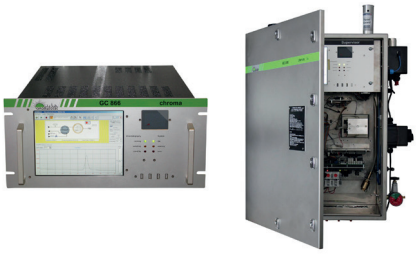
ONLINE GAS AND LIQUID ANALYZER EXPERTS

Turnkey solutions for biogas quality control

Chromatotec has developed an autonomous, robust and reliable solution to ensure continuous quality control of the biogas produced. This solution is based on a reference technology, gas chromatography with a TCD detector (GC TCD), which provides interference-free and precise results.

This solution integrates a hydrogen generator which supplies the GC TCD with the carrier gas it needs. It makes this solution completely autonomous, which only needs electricity. It is possible to analyze from 1 to 32 analysis channels automatically with a single system, which allows multi-point control.

The miniaturization and hardening of this technology makes it possible to have a compact and deployable device in an industrial environment with a very low level of bulk and maintenance. It can be installed in a 19 ”rack in a bay or in a wall box with a protection rating ranging from IP54 to IP 66. This wall box can be temperature regulated to ensure optimal performance even outdoors. An ATEX version up to Zone 1 allows the device to be installed in an explosive zone.



ChromEnergy Analyzer in rack and wall-mounted box

This solution has already been deployed on household waste anaerobic digestion sites, in particular to monitor levels of CH4, CO2 and H2S ; with the aim of continuously monitoring the compliance of the biogas produced and alerting if the concentration threshold is exceeded too high.

Tradeshows 2021

POLLUTEC

Lyon (France) - 12 to 15 October 2021
Nouvelle Aquitaine Region Pavilion
Booth #4-F104

ADIPEC

Abu Dhabi - 15 to 18 November 2021
French Pavilion
Booth #9231

Odor monitoring for the paper industry

The paper industry is recognized for its odor nuisance generated by the manufacturing process of pulp paper and other derived products.

Chromatotec has developed continuous analysis solutions for monitoring odorous molecules such as sulfur compounds. These control systems can be deployed at several locations on the industrial site, such as smoke extraction chimneys, washing and bleaching processes, lime production, etc.

Several paper mills in France and around the world are now equipped with trsMEDOR® allowing the identification and quantification of H2S, SO2, DMS, mercaptans from a few ppb and up to several%.

Equipped with vector gas generators, automatic calibration systems, industrial computer and embedded in a thermoregulated box, Chromatotec analyzers are all-in-one solutions.

Portable analyzers and detectors for moisture, BTEX and formaldehyde analysis

Chromatotec has recently integrated portable analyzers for BTEX and Formaldehyde monitoring. These portable instruments offer rapid and accurate measurements with detection limit lower than 1 ppb. Compact, they allow continuous and real-time qualification and quantification of Benzene, Toluene, Ethylbenzene (ETB) and Xylene (for µBTEX analyzer) and of Formaldehyde (for µF analyzer).

microF
Portable formaldéhyde analyzer

microBTEX
BTEX portable analyzer

DET H2O
Trace Moisture monitoring

4WAYS
4 ways sampling pumps

This range of portable instruments also includes an automatic multitubes air sampler (4 channels) allowing to program sampling sequences with fast implementation in every environment.

Previously, Chromatotec had expanded its offer with trace moisture probe to offer complete solutions for measurement of humidity in chlorine (CL2), in pure gases including gases with more than 30% oxygen (O2) or hydrogen (H2), as well as in medical air and gases.

Analyzing and monitoring water and wastewater quality

Historically specialized in gas chromatography, Chromatotec® has launched an analytical system, from liquid chromatography which has already proved its worth,: the airmoVOC WMS. This unique and efficient Mcerts certified GC-FID solution measures and analyzes VOCs and BTEX (Benzene, Toluene, Ethylbenzene and Xylene) dissolved in liquid matrices.

This instrument is today used for multiple applications like the analysis and monitoring of the quality of wastewater in refining processes or the analysis of trace BTEX in source water.
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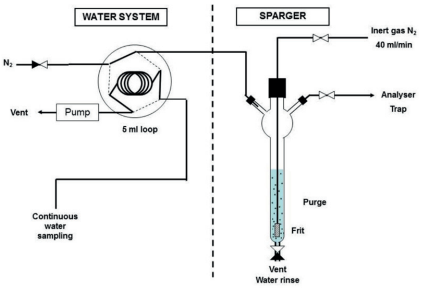
The airmoVOC WMS performs well in the analysis of contaminants in source water. The water may contain chemical species such as Benzene, Toluene, Ethylbenzene and Xylene, as well as other VOCs, including halogens. These compounds can result from various treatment processes, including iron removal. This iron removing is perform by reaction between iron and ozone, which also reacts with various compounds present in the water, such as Bromides and Chlorides, to form Bromoform and Chloroform. Subject to regulation, these levels, although minimal, must be followed closely, before and after the process. The airmoVOC WMS can either be adapted to take samples in stagnant water, or with a continuous and controlled flow, as in the example above.



Système Purge and Trap

This autonomous airmoVOC WMS is also used in the water markets for the food processing, the pharmaceutical industry, cosmetics and perfumery but also for monitoring drinking water (beverages or source water), surfaces and wastewater as well as other type of food liquids (milk, soda, wine, spirits, etc.) and organics liquids.

Chromatotec is improving collaboration with big industrial French groups

Chromatotec's expertise is increasingly recognized by big companies in France: In the past two years, several projects for developing customized analytical solutions for major chemical and petrochemical industries have been completed with success.

Our constant investment in research and development allows us to provide tailored solutions for specific-compounds (gas and liquid) monitoring in a unique analysis context.

Throughout this development, we maintain focus on the accuracy of the analysis at low levels and the sustainability of the instruments. With the implementation of the concepts, Chromatotec is solidifying its position as a technological leader in gas and liquid analysis.

Analysis and monitoring of wastewater quality for refinery processes

Industrial activities must meet compliance requirements on the quality of discharges of hazardous substances into water from environmental protection standards. Particularly targeted by these new guidelines, industrial companies must adapt their monitoring systems to meet these standards.

Chromatotec® has developed a solution equipped with an MCERTS-certified GC FID, analyzing VOCs dissolved in liquids using a purge & trap sampling system (according to the EPA 502-2 standard) or headspace. This system makes it possible to extract VOCs from a liquid and analyze them by GC, in order to identify and quantify all the contaminants in the water, including BTEX and light to SVOCs.

This cutting-edge technology includes an automatic water sampling system with a fast loop. The sample is taken below the surface of the liquid to avoid aspiration of floating particles and to stay away from the bottom of the tank to avoid extraction of sludge. This sampling system is placed outside a box, near the location where the source water is collected. A pump carries liquids to the sampling and filtration box, then to the instrument located inside the analytical shelter.

This all-in-one solution is composed of an airmoVOC analyzer, hydrogen generators, zero air catalyst and an internal calibration system, which generates reliable results in real time and without human interaction.

The airmoVOC WMS is used in the water markets of the food processing, pharmaceutical, cosmetics and perfumery industries, as well as in the analysis of drinking water, beverages, surfaces, and liquid, consumable products (e.g., milk, soda, wines, spirits, etc.).

airmoVOC WMS
Water Monitoring System

EUROPE
SAINT-ANTOINE - FRANCE

USA
HOUSTON - TEXAS

ASIA
BEIJING - CHINA

www.chromatotec.com