

January 2017



ONLINE GAS ANALYZER EXPERTS

Chromatotec partner of the 2016 Sino-French Joint Workshop on Atmospheric Environment

Chromatotec® has been pleased to sponsor the Sino-French Joint Workshop on Atmospheric Environment which held in Xi'an (China) on October, 11th to 14th 2016.



For its 5th edition, the event focused on sciences, technologies and solutions developed for air quality improvement and future challenges.



Alternatively held in France and China, this meeting aims at bringing together scientists from different fields (chemistry physics, meteorology, epidemiology,...), industry and representatives of local governments (e.g., cities, regions...), in order to share their recent research progress relating to regional complex air pollution.

Acting in ambient and industrial air analysis since 40 years, Chromatotec® has a strong presence in China and is then proud to accompany the organizers of this relevant international event.

More information : https://sfjw2016.sciencesconf.org/

Exhibitions 2017



PITTCON - USA, Chicago 5-9 March 2017 Booth #5216

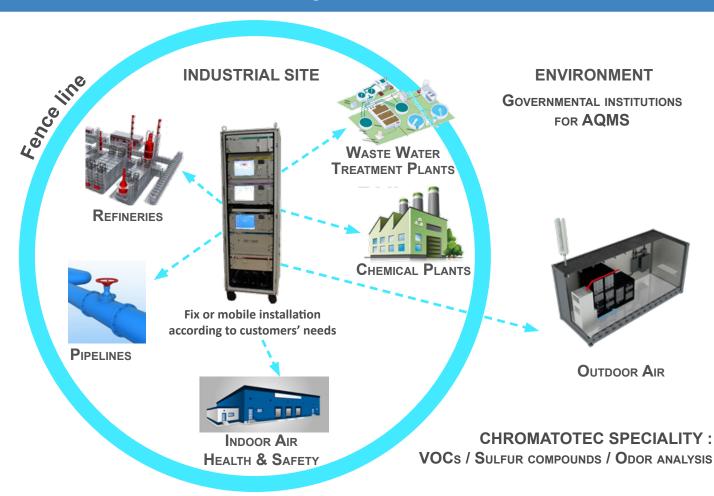


ANALYSE INDUSTRIELLE France, Paris 15-16 March 2017 Booth #L9



ARAB LAB - UAE, Dubai 20-23 March 2017 Booth #932 Hall S2

Versatile turnkey solution for Air Quality and Process Gas Monitoring in Urban and Industrial Sites



Complete solution for tracking VOCs in water and air

Chromatotec® has developed a unique analyzer for identification and measurement of volatile organic compounds both in air and water.

The airmoPurge extract VOCs from water in compliance with 502.2 method (US EPA: 60 compounds).



Associated with VOCs analyzers, this complete solution offer capabilities to track VOCs in industrial or dirty water. It is convenient for a wide range of applications such as: dirty water, river water, rain water, finished drinking water, bottled water analysis and surface water in addition to ambient air.

No need to go and change the configuration, the system is able to change from liquid to gas without human intervention.

More specifically, the detection range varies from

0.5 to $20\mu g/L$ for surface water and for finished drinking water.

In order to be analyzed, 5mL of water sample are inserted inside a sparger. Then, an inert gas (e.g. nitrogen is used to purge the sample and to send the gaseous compounds to the detector. Finally, the detector identifies and quantifies the compounds. The sampling time occurs during 11min and an automatic rinse is done after the measurement.

With airmoPurge analyzer, it is now possible to detect contamination of river in case of industrials spills due to the rainwater falling; this may occur contamination due to hydrocarbons or VOCs presence.

Same solution can be designed with Sulfur analyzer for individual sulfur quantification in water.

ENCE Pulp and paper (P&P) selects vigi e-nose analyzer as reference for odor and sulfur monitoring

The vigi e-nose is a new solution for odor monitoring. This unique solution allows monitoring odor concentration when trained with sensory panel in addition to sulfurs concentration (TRS, H2S, mercaptans and sulfides) with the option to provide total VOCs concentration. This solution appears as revolutionary for pulp and paper market where legislation tracks sulfurs compounds. Classical monitoring



solutions use molecules conversion method with indirect measurement and interferences which affects results quality. The interest for unique solution to monitor Sulfurs, VOCs and odors with same equipment is huge as the interest to evaluate the impact on neighborhood.

vigiODOR webplatorm developed by Chromatotec® with Numtech allows integrating Chromatotec® data analyzers, weather forecasting and topographic data including specific modeling software for plume tracking. As the communication protocol of the analyzer is open, data can feed any other type of software according to customer preferences.

This is the context of use of Chromatotec® analyzer by ENCE to prevent odor events around wastewater treatment and industrial plant of the P&P site. ENCE paper pulp mill developed along the last six years amount of investments in order to reduce its Sulfurs emissions around the site. They have acquired complete solution using CALMET/CALPUFF Lagrangian modeling software associated with vigi e-nose analyzer. In the measurements H2S & DMS were analyzed. None significant DMDS and methylmercaptan emissions were observed. These concentrations associated to odor were used as input to estimate hourly odor levels using the Stevens laws. Also, as Calpuff outputs are obtained in hourly-basis, short odor events (less than 1 hour) were estimated using peak-to mean ratio. The systems runs every day to obtain an odor forecast 72 h in advance, and both average and peak hourly odorants concentration (µg/m3) and odor levels (OU/m3) were predicted considering local meteorology data and topography. During the 5 months of intensive observation due to high pressure of neighborhood, 32 events were detected and confirmed by the paper pulp mill staff outside its plant. Some fugitive events due to H2S emission were observed at low concentration. All the events were explained except one which may be related to the mixing layer depth estimation as it is significant parameter in the short-term plume dispersion.

Monitoring of 120 VOCs on site without risk of contamination

CHROMATOTEC is continuously developing new applications with one common objective: providing automatic field expertise and sensitive solutions.

The last application sold for industrial area in Shanghai was designed for the continuous monitoring of more than 120 Volatile Organic Compounds (VOCs) with auto GC 866 FID/MS (airmoSCAN XPERT). This system is totally designed for automatic online monitoring in fixed or mobile station and can be implemented on site. This plug and play solution includes a calibration system based on the principle of permeation tubes. This allows an automatic validation of data directly on site without human intervention.

The huge advantage of this solution is to avoid onsite sampling with contamination risk of the sample during transportation as VOCs are highly reactive. The airmoSCAN XPERT requires only power supply as fuel gases (zero air and hydrogen) are produced by generators and calibration is done by internal permeation tube for daily automatic data validation.

This solution can be easily implemented near industrial sites where an important quantity of compounds can be emitted and can be found in ambient air. This global solution offers double check measurement to ensure accurate identification in spite of possible coelution effects. To get a complete finger print of the area, it is also possible to add to this complete and scalable solution an analyzer dedicated to the measurement of Total HydroCarbons and an analyzer for the measurement of sulfur compounds.



Auto GC 866

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