

ONLINE GAS ANALYZER EXPERTS

Combined French Expertise for Moisture Analysis in Gas : Chromatotec is acquiring part of the activity of Opta-Periph

OPTA-PERIPH

M. Pierre Barere, owner of the French company Opta-Periph and the Amiet family, owner of the French firm Chromatotec Group are pleased to announce that Chromatotec has taken over the activity "Moisture" of Opta-Periph. Chromatotec is with this purchase increasing its expertise in gas analysis and moisture measurement. Opta-Periph will continue to produce and sell sampling systems for LNG/LPG.

The two companies will be present during the exhibition "Industrial Analysis 2020" which will be held in Paris – Espace Champerret on September, 16th and 17th, on Chromatotec Group Booth (#C20).

After several years of collaboration, Opta-Periph and Chromatotec Group have

decided to combine their French expertise in gas analysis by integrating Opta-Periph's Moisture in gas analysis activity to Chromatotec portfolio.

With this transfer of technology, Chromatotec Group will then be able to offer complete solutions for moisture measurement in Chlorine (CL₂), pure gas, including pure gases with more than 30% of Oxygen (O₂) or Hydrogen (H₂) as well as in pharmacopoeia medical gases and air.

The moisture analyzers can be included in different type of instruments with sampling like sensors for OEM or engineering companies, online or portable detectors for moisture at low levels (in ppm or dew point), calibration case for moisture sensor, moist gas generation case or ATEX solution.

Chromatotec will integrate those sensors in its autoGC 866 analyzers to offer

complete integrated systems for process management, with moisture measurement, allowing analysis of gases both by GC or by specific sensors. It could be coupled to Vistachrom monitoring software, with alarms management.

This acquisition by Chromatotec is a first step in the collaboration of the two companies, which will continue to work on common actions in the future.



**Espace Champerret
16 - 17 September 2020
Booth C20**

airmoHCHO allows the analysis of acetaldehyde and methanol in addition to formaldehyde

Simultaneous on-line monitoring of formaldehyde (HCHO), acetaldehyde and methanol is achieved without interferences.

The new configuration includes a carrier gas back-flush to clean the GC of heavy components in the matrix.

Total cycle time is only 30 min as sample preparation is not required.

They are suitable for ambient air applications with LDL < 4ppb.

These cylinder free solutions include embedded gas generators and calibration at ppb level controlled by GC in rack or wall mounted box.

Results are automatically validated by an internal HCHO permeation tube.



Process GC for VOC analysis in liquid matrices for petrochemical applications

Chromatotec has developed an enhanced headspace sampling system designed to extract representative compounds from the liquid phase. The vaporized sample is preconcentrated using a trap to achieve quantification of VOCs at trace and ultra-trace levels (ppb and/or ppm). Then, it is injected automatically and in continuous mode into the **airmoVOC WMS** auto-GC-FID analyzer.

This solution has been deployed in refineries and petrochemical industries for the quantification of BTEX present in oily wastewater because of their water solubility and polarity. These contaminants may reach groundwater, leading to important health and environmental issues. The airmoVOC WMS allows to stay in compliance with wastewater discharge regulations from environmental protection agencies.

This fully automatic system does not require specialized person to operate. The detector can be operated continuously thanks to the integrated generators.



auto-GC-FID system

The internal calibration system provides automatic data validation. Only power supply and sampling lines are required to operate and obtain reliable and representative analysis without molecules losses.

METEOSIM partnership to deploy vigi e-nose units on FACSA WWTP (Spain)

FACSA, leader in water management in Spain, has just acquired its first vigi e-nose for odor monitoring in EDAR NORTE SEVILLA « San Jeronimo WWTP » in Sevilla, Spain. San Jeronimo WWTP serves a population equivalent to 350,000 people that may present odor complaints.

Together with METEOSIM, FACSA planned to take a global and complementary approach for odor monitoring. Initially, FACSA evaluated low-cost sensor solutions and standard e-nose sensor-based technologies. However, METEOSIM found that vigi e-nose answered to all limitations of existing solutions and coordinated with Chromatotec.

Thanks to the vigi e-nose, FACSA was able to increase sensitivity to offer better correlation with sensory panel, with no humidity limitation as Chromatotec has been able to verify after 30 years of experience in SIAAP Paris WWTP. A program is launched to deploy more units in coming months in others WWTP of the FACSA.



vigi e-nose analyzer

Associated with METEOSIM software, Chromatotec enlarges the compatibility of its products with dispersion software largely deployed over the world.



vigi e-nose secures air conditioning via free cooling in 'Orange' Data Centers exposed to environmental pollution

Orange (phone operator) will replace its 6 historical French datacenters by 3 more modern buildings located in Val De Reuil campus and Chartres areas on Paris surroundings. Engie will take care of this construction projects.

Each building of 900 m2 will be equipped with a last generation vigi e-nose network to secure air conditioning using direct free cooling in order to help reduce energy consumption in the facility. Fresh air is used at 92% to cool computer rooms, decreasing by half the environmental impact which comes generally with traditional air conditioning systems.

The solutions provided consist on mixed analyzers technology (GC-ED, PID, NH3 detection) located close to the intake air control system of a cooling device. If excessive pollution is detected, a real-time warning is generated to automatically disable the free cooling system and trigger the traditional air conditioners. This prevents contamination from polluted air with direct reduction of CO2 emissions by 5,000 tons.

*ED : electrochemical detector

Turnkey solution for emissions surveillance in harsh environment

Minakem is a manufacturer of fine chemicals, pharmaceutical intermediates and active pharmaceutical ingredients. The company is actively participating in and following-up on the evolutions of European requirements, rules and laws and constantly striving to improve procedures and processes to minimize the environmental impact and prevent health risks.

However, if incidents or plant malfunctions occur, the relevant corporate units must be immediately and comprehensively informed. The goal is to initiate the appropriate emergency response and damage repair measures as promptly and as precisely as possible, and to follow up with rigorous root cause analysis and comprehensive preventive and corrective actions.

In this context, the company located in North of France, equipped two areas of its site to monitor VOCs emissions in process gases. The challenge was to deploy turnkey solutions without any gas cylinder for harsh environment conditions to replace lab GC which was not providing reliable results. As users are experts in process but not in gas monitoring, they ask for reliable solutions to provide results at a glance, sharing data through a web platform.

The solution deployed in two areas allows monitoring on 10 specific VOC molecules classified in French legislation as possible CMR in addition to total VOCs contribution.



Users asked to integrate dynamic flow concentration to convert gas concentration into mass flow. Users must be warned if an error occurred during the process, so Chromatotec deployed its new report'air web-platform to send e-mails to authorized persons when concentration or mass flow exceed a specific value. In terms of environment, the solution deployed was GC FID based with two GC in a wall mounted box including tactile screen and gas generators. The solution is now running since several months with approbation of the environmental police who take care of the availability and validity of results.

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