CHROMATOTEC®

ONLINE ANALYTICAL SOLUTIONS EXPERTS

Chromatotec® celebrates
1975
40 YEARS OF EXPERTISE
2015
in on-line instrumentation

Online Odor Monitoring

vigi e-nose Solutions
REFERENCE E-NOSE autoGC BASED TECHNOLOGY

Waste · Industry · Composting · Water · Rendering · Refineries

Ex   CSA®   ASTM INTERNATIONAL Standards Worldwide   CE   PCT 0000

VOCs • H2S • MERCAPTANS • SULFIDES • ODORANTS • ODOR • NH3

vigi e-nose Solutions

Odor monitoring with speciation of Sulfurs & VOCs at ppb or ppt levels

Revolutionary network of field-based electronic nose

- Most sensitive e-nose of the market with detection lower than human nose perception (olfactive ordor threshold < 1 ppb for H2S)
- Capabilities to deploy unlimited number of units on industrial site to map odor origin and transport.
- Unique technology able to monitor tVOCs, Odor unit, Sulfurs speciation, NH3, amines, cl2, mercaptans, aldehydes, ketones etc...
- Odor intensity monitoring by default without training based on odor thresholds
- Odor unit concentration calculation when trained with EN13725 or ASTM 679-E04 using dynamic olfactometry
- Analytical part of the vigiOdor continuous monitoring platform used for odor maping (odor & chemical impact)

Intelligent measurement

- Alerts when concentration or odor levels exceed a specific defined value
- Integration of signal on PLC with servomechanism to start or stop a deodorizing process (sulfurisation for instance in waste water treatment plants)

Reliable data & secure results

- Automatic data validation using certified permeation tubes installed inside analyzer.
- Repeatability of the results despite process variation,
- No cross interferences with other molecules (no sensors used, no drift)
- Speciation of compounds to understand possible odor contamination

Scalable solution to predict odor nuisance

- Modular solution with capabilities to plug additive analyzer on vigiOdor web platform to deploy network of e-noses. GC-MS addition for unknown/unpredicted molecules identification.
- Capabilities to integrate multiplexer option to collect automatically samples on several points and do analysis with unique instruments (48 sample paths)

Easy and low maintenance

- No need of training to predict odor intensity web process varies
- Remote access on analyzer and accessories
- Complete transfer of all data including and temperature,flow delivered by gas generators, alarms on all instrument components by Ethernet, Wifi etc...

vigi e-nose analyzer
Network for continuous monitoring
of odor & pollutant gases
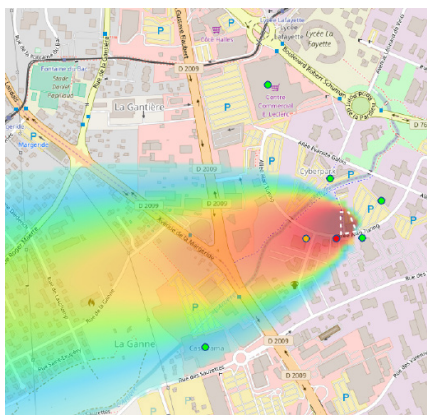
CONTINUOUS MEASUREMENT OF CONCENTRATIONS

- Odor, in odor unit (EN 13725, ASTM E679)

- Pollutant gases, in ppb or ppm :

tVOCs or NH3, Sulfurs (H2S / Mercaptans /Thiols: MeSH, EthylSH, PropylSH/ Sulfides : DMS / DMDS) amines, aldehydes, ketones and more at ppb levels

DYNAMIC DISPERSION PLUME IN THE NEIGHBORHOOD

- Dynamic 3D mapping of dispersion plumes

- Calculations of concentrations in the vicinity of the site(s)

- Automated dispersion reports

REAL-TIME ALERTS

- Configurable alert thresholds per molecule, odor or group of molecule

- Notification by warning siren, flashing light, sms, email, etc

CONTROL OF AIR TREATMENT FACILITIES

- Automatic activation & deactivation based on emissions levels

- Amount of additives adjusted to the odor concentration

- Same system can analyse multiple points   like inlet and outlet of odor control units.

Technical Specifications

Parameters measured	• Sulfurs with speciation (H2S, MeSH, EtSH, Propyl-SH, DMS, DMDS), Odor concentration and Total Sulfur, • T-VOCs including NH3, Amines, Sulfurs, BTEX and more • VOCs with speciation such as: aldehydes, ketones and others • Amines with speciation • With integrated sensors: Cl2, N2O, CH4, CO2, NH3 and others on request
Technologies	Mixed technologies with autoGC with electrochemical wet cell with reservoir for long term stability & PID detector,GC-FID, GC-MS, NDIR, sensors, FTUV, HPLC
Detection limits	Down to 1 ppb for H2S, DMS, MM, EM, SO2 50 ouE/m3 limited of the olfactometer -Down to 10ppt for Benzene
Range	Adjustable depending on application: 0/10 or 0/100 or 0/1000 (ppb or ppm) Calculation , mgS/m3, UO e/m3, tVOCs
Relative standard deviation	RSD < 3% on concentration over 48 h RSD < 0,5 % on retention time over 48 h
Cycle Time	- H2S/TS in 120s - H2S, SO2, MM, EM, DMS, DMDS, DES, IPM in 600s - H2S, SO2, MM, EM, DMS, DMDS, DES, IPM TBM, NPM, 2BM, IBM, NBM, MES and THT in 1200 s - VOCs from 2 to 30 minutes
Supervisor	Embeded computer Windows® based with LCD display & 128 GB of Hardware storage on SSD memory
Communication	Ethernet for remote control, 4G modem
Power Supply	Main: 230V 60Hz or 115V / 50Hz
Electrical Consumption	Mean power consumption 100 W
Dimensions and weights	Rack: 19" (5U) • Height: 222 mm • Width: 482 mm • Depth: 660 mm • Net weight: 22 Kg Wall mounted box :XXX934 • Height: 800 mm • Width: 600 mm • Depth: 300 mm • Net weight: 45 Kg Shelter • Height: 1900 mm • Width: 800 mm • Depth: 1102 mm • Weight: *Depends on application*
Norms and certifications	Fully compliant to ASTM D7493-22, ISO 19739:2004, DIN 51855/7 CSA Class 1 Division 2 group B, C&D ATEX : Zones 1 and 2 GROUP IIC T4 EN 13725, ASTM E679 EPA Method 16