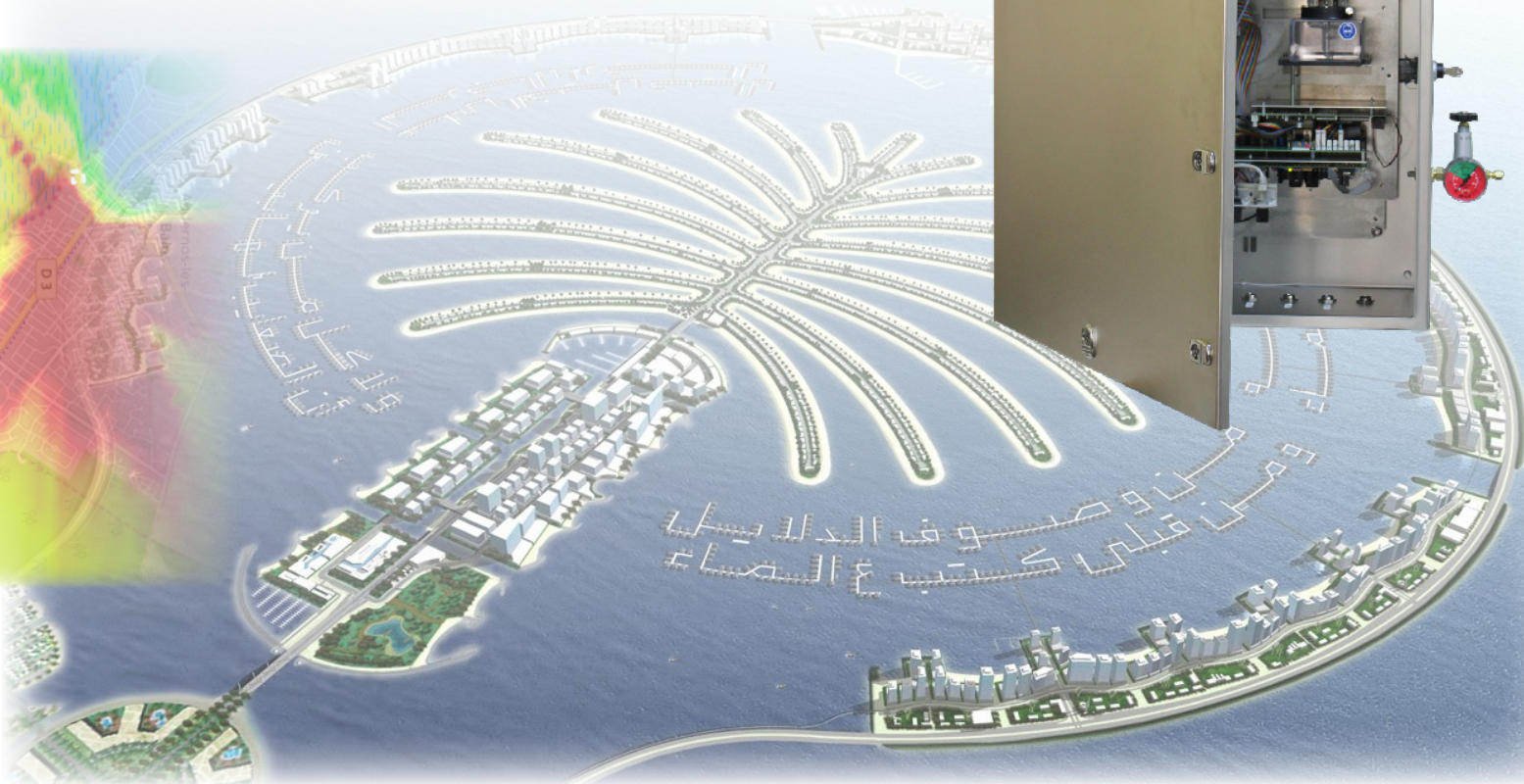


Online Odor Monitoring

vigi e-nose Analyzer

NEW E-NOSE GC BASED TECHNOLOGY

Waste • Industry • Composting • Water •
Rendering • Refineries



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

vigi e-nose analyzer

**Odor monitoring with speciation
of Sulfurs & VOCs at ppb levels**

Revolutionary network of field-based electronic nose

- Most sensitive e-nose on the market with detection lower than what the human nose can detect (as low as 1 ppb for H₂S)
- Capabilities to deploy unlimited number of units on industrial site
- Unique technology able to monitor tVOCs, Odor unit, Sulfurs speciation
- 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 mapping (odor & chemical impact)

Intelligent measurement

- Alerts when concentration levels exceed a specific defined value
- Integration of signal on PLC with servomechanism to start or stop a deodorizing process

Reliable data & secure results

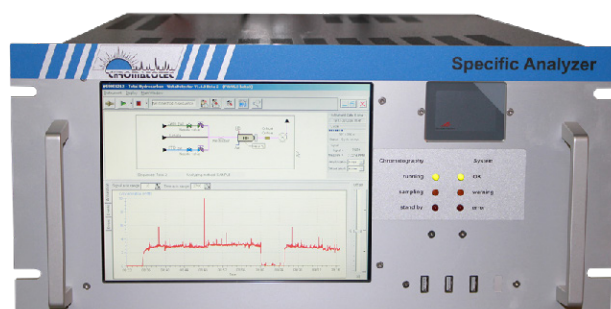
- Automatic data validation using internal permeation tube to check data results
- Repeatability of the results despite process variation,
- No cross interferences with other molecules (no sensors used, no drift)
- Speciation of compounds to understand possible odor contamination

Scalable solution to predict odor nuisance

- Modular solution with capabilities to plug additive analyzer on vigiOdor web platform to deploy network of e-noses
- Capabilities to integrate multiplexer option to automatically collect samples on several points and perform analysis with unique instruments

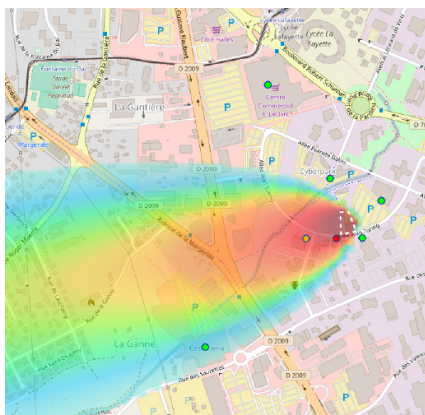
Easy maintenance

- No need for training to predict odor intensity ; web process varies
- Remote access to analyzer and accessories



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 : MeSH, EthylSH, PropylSH/ Sulfides : DMS / DMDS) 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 molecules
- 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

Technical Specifications

Parameters measured	Sulfurs (H ₂ S, MeSH, Ethyl-SH, Propyl-SH, DMS, DMDS), Odor concentration and Total Sulfur, tVOCs including NH ₃ , Amines, Sulfurs, BTEX and more										
Technologies	Mixed technologies with autoGC with electrochemical wet cell with reservoir for long term stability & PID detector										
Detection limits	Down to 1 ppb for H ₂ S, DMS, MM, EM, SO ₂ 50 ouE/m ³ limited of the olfactometer										
Range	Adjustable depending on application: 0/10 or 0/100 or 0/1000 (ppb or ppm) Calculation , mgS/m ³ , UO e/m ³ , tVOCs										
Relative standard deviation	RSD < 3% on concentration over 48 h RSD < 0,5 % on retention time over 48 h										
Cycle Time	- H ₂ S/TS in 120s - H ₂ S, SO ₂ , MM, EM, DMS, DMDS, DES, IPM in 600s - H ₂ S, SO ₂ , MM, EM, DMS, DMDS, DES, IPM TBM, NPM, 2BM, IBM, NBM, MES and THT in 1200 s										
Supervisor	Embedded computer Windows® based with LCD display & 128 GB of Hardware storage on SSD memory										
Communication	Ethernet for remote control, 3G modem										
Power Supply	Main: 230V 60Hz or 115V / 50Hz										
Electrical Consumption	Mean power consumption 100 W										
Dimensions and weights	<table><tr><td>Rack: 19'' (5U)</td><td>Wall mounted box :</td></tr><tr><td>• Height: 222 mm</td><td>• Height: 222 mm</td></tr><tr><td>• Width: 482 mm</td><td>• Width: 482 mm</td></tr><tr><td>• Depth: 660 mm</td><td>• Depth: 660 mm</td></tr><tr><td>• Net weight: 22 Kg</td><td>• Net weight: 22 Kg</td></tr></table>	Rack: 19'' (5U)	Wall mounted box :	• Height: 222 mm	• Height: 222 mm	• Width: 482 mm	• Width: 482 mm	• Depth: 660 mm	• Depth: 660 mm	• Net weight: 22 Kg	• Net weight: 22 Kg
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Norms and certifications	Fully compliant with ASTM D7493-08, ISO 19739:2004, DIN 51855 CSA Class 1 Division 2 group B, C&D ATEX : Zones 1 and 2 GROUP IIC T4 EN 13725, ASTM E679										

AMERICA / US
CHROMATOTEC Inc.
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CHROMATOTEC Europe
Bordeaux - FRANCE

ASIA - OCEANIA
CHROMATOTEC Asia
Beijing - CHINA