



BTEX VOC Mercaptans Solvents C₂-C₁₂ COS
 CS₂ Phenol PAMS Sulfurs
 Naphtalene H₂S Styrene/cyclohexane ETO 1,3-Butadiene
 Odor TMB Benzaldehyde C₂Cl₄ Polychlorobenzene



ONLINE GAS AND LIQUID ANALYZER EXPERTS

Manufacturing

Sales

Maintenance



Ambient Air and Odor Monitoring

Water surveillance

Hygiene Air Monitoring

Natural gas / LPG



Control Emission Monitoring

Pure gas / Gas manufacturers

Process Control

WWW.CHROMATOTEC.COM

MARKETS & EXPERTISES

Chromatotec® provides a full range of automated continuous and online analyzers using gas chromatography coupled with innovative detectors for ppt/ppb/ppm and % quantification levels:

- VOCs quantification with "**airmo**" products line (GC-FID, GC-PID, GC-MS, GC-TCD),
- Gas or air Impurities detection with "**chroma**" solutions (GC-FPD, GC-ED),
- Sulfur compounds in air, natural gas or biogas monitoring with "**MEDOR**" range (GC-ED).

Chromatotec® provides turnkey solutions for gas process. In addition to analyzers, Chromatotec provides all-in-one solutions including sampling device, multiplexer, internal calibration for data validation, gas generators, wall-mounted autoGC and integration in cabinets.

Chromatotec's analyzers have gained specific certifications relating to the relevant standards by worldwide recognized tests (mCERTs, GOST, ASTM D7493-08 and selected by US EPA).

Monitoring Applications:

- Ambient Air Monitoring indoor & outdoor (ppm or ppb)
- Odor Monitoring
- Emissions & Continuous Emissions Monitoring (CEM's)
- Pure Gases Manufacturer / Testing
- Natural Gases / Biogas / LPG Monitoring
- Process Monitoring
- Water Surveillance

VOCs COMPOUNDS MONITORING

- ✓ **Ozone precursors and toxics with airmOzone solution**
 - 31 VOCs European list
 - PAMS 56 or 61 / TO14 & TO15
 - Terpenes
 - PAHs up to C20
 - Detection of VOCs C₂-C₁₂ or up to C25 for linear alkanes
 - Cabinet systems
 - Detection Limit < 0.05 ppb
 - Chinese certification achieved in 2010
 - **European certification mCerts on EN14662-3 (2015)**
- ✓ **BTEX solution with FID airmVOC BTEX or PID airTOXIC BTEX**
 - GC/FID or PID analyzer with embedded PC with VISTACHROM software
 - Dedicated BTEX application with 8 compounds (7 peaks) (1.3 butadiene in option)
 - Automatic minimum detection limit: 10ppt
 - Robust with metallic capillary column
 - autoCALIBRATION function (recommended for PID)
 - Excellent separation without interference
 - High stability over the time
 - **TÜV approved in 1996. CNR 2007 Certification**
 - CNR 2006 certification
 - European certification EN 14662-3 (2015) / EN 15267-1 / EN 15267-2
 - US EPA tested and selected
- ✓ **Formaldehyde HCHO**
 - GC/FID analyzer with embeded computer or controlled by another GC
 - Detection limit < 1 ppb
 - Robust and fully automatic
 - Internal calibration with permeation tube, no interference



All-in-one cabinet
for VOCs & odor monitoring
airmOZONE



VOC analyzer airTOXIC system

ON-LINE AUTO GC-MS-FID FOR VOCs MONITORING

airmoSCAN^{XP}

It is a combination of two automatic and robust instruments, **airmoVOC expert GC analyzer** and **Mass Spectrometry (QMS)**, which allows quantification and identification of chemicals from % to low ppt levels.

The complementarity of the instruments allows the monitoring of low concentrations in 30 minutes or very fast detection of changes in concentration at ppm levels. **airmoSCAN^{XP}** is delivered with gas generators, calibration system (in compliance with **ISO 17025** for Benzene) and multiplexer.



Cabinet integration

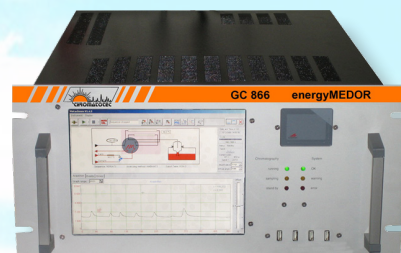
SULFURS & ODOROUS COMPOUNDS

○ AMBIENT AIR MONITORING

✓ TRSMEDOR® analyzer:

TRSMEDOR® is a gas chromatograph for Sulfur compounds analysis (H₂S, Mercaptans, Sulfides and Disulfides) present in different matrices

- Exceptionnal linear ED (Electrochemical Detector) with lifetime of up to 10 years including electrolyte
- Detection limit: 1 ppb
- Windows based software display for computer VistaCHROM
- Mercaptans / sulfides: option 0.01 / 5 ppb
- PID detector as option for odor application
- SO₂ as option
- **ISO 6326/2 / DIN 51855/7 / ASTM D7493-14**



energyMEDOR®

○ PROCESS MONITORING

✓ energyMEDOR® / THT MEDOR® / H₂S MEDOR®:

Dedicated solution for odorant Sulfur species in natural gas

- Exceptionnal linear ED (Electrochemical Detector) with lifetime of up to 10 years including electrolyte
- **ASTM D7493-14**

○ PROCESS MONITORING IN HAZARDOUS AREAS

✓ MEDOR® Exp or Exd:

- Designed for hazardous areas
- CSA certified class 1, div 2 group B, C&D
- ATEX / IECEx : Zones 1 and 2 GROUP IIC T4
- Rack / wall mounted version
- X purge or flameproof (Exd)
- Local and remote monitoring access in standard



MEDOR® Exp ATEX

✓ Chroma S (dual flame photometric detector):

Specific for detection of Sulfurous compounds in air, emissions and pure gases

- H₂S, Mercaptans, Sulfides, TBM, SO₂, **COS & CS₂**
- FPD detector
- Detection limit: 7 ppb (loop)
- LDL < ppb with trap (Mercaptans)
- Specific application (H₂, CO₂, CH₄)



Chroma S



Process GC with liquid sampling module

TURNKEY SOLUTIONS

Chromatotec develops tailor-made advanced analytical and GC solutions for industrial and energy markets.

- Process GC for the analysis of VOCs in liquid matrices
- GPC-UV analysis with compact liquid analyzer
- Monitoring of sulfur compounds in hazardous areas
- Control of moisture traces in gas samples
- And more ...



Mobile laboratory



*Purge & Trap cabinet
(Method 502-2)*

SAMPLING SOLUTIONS

When validating the results, it is difficult to ensure the quality of the sample sent to the instrument. Chromatotec® offers different sampling solutions according to customer needs.



Multiplexer 6 ways



Cabinet inside Shelter



*Industrial application
cabinet*

CALIBRATION MODULES

For auto-calibration, we provide permeation tubes, which are very stable at low concentration levels. Temperature and pressure are perfectly controlled. Our systems use external calibration gases and / or permeation tubes for intercalibration and intercomparison.

SOFTWARE AND IT SOLUTIONS

Chromatotec® has its own embedded Windows™ to drive and control the analyzers: VistaCHROM. IT solutions use communication protocols (Modbus, RTU, Jbus, German protocol, Analog output). The results are monitored by remote control.



*Wall mounted cabinet
integrated with touch screen*

GAS GENERATORS FOR HIGH STABILITY AND PURITY



HYDROXYCHROM
High purity hydrogen generator



airmoPURE
Zero air generator



NITROXYCHROM
Ultra high purity nitrogen generator