Le Bulletin



ΙΝ ANALYSIS GAS EXPERTS

MEDOR celebrated its 35th anniversary on July 2010



Certifications of our instruments

MEDOR EX

Metrology and on-line Gas Chromatography on sulfur compounds in Natural Gas

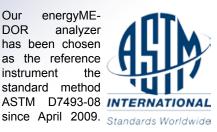
35 years of sulfur compounds

The word to users in the USA

Certifications of our instruments

Our Medor analyzers (on-line detection of sulfurs in air or natural gas/ LPG) have received the ISO 6326/2 norm in 1981 : gas chromatographic method for the gualitative and quantitative analysis of odoriferous sulfur compounds in natural gas.

Our energyME-DOR analyzer has been chosen as the reference instrument the standard method





Our latest instrument Medor *ɛxp* dedicated to the measurement of sulfur compounds in natural gas and fuels has been approved by CSA in June 2009. Specification Ex Class I Div 2, group C&D.



MEDOR EX

An automatic continuous online analyser dedicated to the analysis of sulfur compounds

• Ex specification Class 1, Div. 2, group C& D

Complies with:

- ASTM D7493-08
- ISO 6326/2
- DIN 51855/7
- Range:
- 0/10 or 0/100 or 0/1000 ppm or ppb

Calibration:

- Internal System Calibration DMS permeation
- tube Result validation & Autocalibration

Carrier gas: Dry air or N₂

Detection limit:

- energyMedor: H₂S and DMS : 0.1 ppm
- $(0.14 \text{ma}/\text{m}^3)$
- energyMedor ppb: H₂S : 5 ppb (7,0 μg/m³)

High Stability:

- RSD<5% on concentration over 48h
- RSD>0.6% on retention time over 48h

Vistachrom Software:

- Vizualisation and data storage
- Calculation module Daily average calculation on selected components.
- Result Transfer with communication protocol

May 25-26, 2010 Houston, Texas Marriott Westchase Hotel

Metrology and on-line Gas Chromatography on sulfur compounds in Natural Gas

Transport natural gas companies require to control qualitatively and quantitatively odorants species in natural gas for safety reasons. Chromatotec has introduced the energyMedor which is automated and online analyser designed to measure sulphur compounds in natural gas on site. Proven gas chromatography technique allows for excellent separation of chemical species. A calibration standard check up is included in each analysis to ensure repeatable measurements and good operation. In order to improve accuracy and to validate the results permanently, Chromatotec verify continuously the performances of the analyser testing performance criteria on uncertainty, linearity, repeatability, performing intercalibration, intercomparison in customers laboratories, working on method standardisation with ASTM and comparing results with other gas chromatography analysers (ChromaS FPD detector)

The EnergyMedor's specific detector is highly sensitive to sulfur compounds, PPM or PPB level at choice. Their unique gas chromatograph conception results in a very clear separation of the compounds, a good stability of the results and a validation of the results with permeation tube. The MEDORs are fully automatic rugged industrial analysers that need very low maintenance. The intercalibration and intercomparison studies allow to give more and more accuracy to the results obtained in Natural Gas odorisation measurements.

Customer care: from 9 am to 6 pm (CES Time), we are at your disposal for service / gas analyzers /software/computer/ maintenance and calibration. To receive our news, send your email to info@chromatec.com

www.chromatotec.com

Edition – May 2010

35 years of sulfur compounds analysis GC instrumentation



MEDOR 1975

Inside view - MEDOR 1975

MEDOR 8000 - 1985

American MEDOR with permeation tube - 1990







in Philadelphia, 2009 PA - 2009



Let's give the word to users in the USA

Over the past few years, our company has purchased twelve Energy Medors from Chromatotec. The analyzers continue to demonstrate their accuracy and reliability year after year. We employ the Energy Medors to measure particular mercaptans of interest, specifically, injected odorant levels in natural gas. The units are maintenance friendly. And following regular maintenance practices, over time the Medors have established remarkable reliability. We continue to purchase the Energy Medors for our use at new stations because of their proven track record.



Inside view - energy MEDOR

Here at PGW we have been using the Medor instrument at two locations with great success. We have one of the units connected to the plant nitrogen system which eliminates the need to change carrier gas cylinders. The only attention the Medor requires is the addition of water to the cell, as you indicated. We have archived a library of Odorization levels of our gas sent out to the City of Philadelphia.

When inspecting the Medor I often ask the workers "how do you like the Medor"? It is overwhelming to hear their response that they "love it". In the past with our old instrumentation the operators would have to count spaces on a chart recorder then multiply that number by a chart factor to arrive at the odor level. All they have to do now is call up the data on the computer for the hourly result.



Often we exhibit of Medor system to other natural gas utilities or suppliers with pride. The purchase of the Medor system has brought our company into the 21 St. century with its technology. We are pleased with its performance and reliability.

William Jackson, Philadelphia Gas, PA

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