



ABOUT US

TRUSTED SINCE 1999

Ohio Lumex began nearly 20 years ago with a cutting-edge mercury analyzer that quickly became the industry standard and continues to be a critical tool for industrial hygienists, first responders, and EPA offices throughout the United States.

Now a worldwide leader in environmental monitoring and consulting, the company has expanded into four core areas of focus:

- **Instruments**, including the design, manufacturing, and distribution of state-of-the-art Continuous Emissions Monitors (Hg, CO, CO₂, NO_x, O₂, others), Sorbent Trap Sampling Systems, and Optical Oxygen Sensors.
- **Sorbent Traps**, a wide range of the highest quality sorbent traps, including Hg, HCl, HBr, NH₃, SO₃, Se, As, customized to source conditions.
- **Laboratory Services**, a NELAP Accredited Laboratory with a specialty in EPA EMC Test Method Analysis, custom projects and methods development, and the industry's highest quality and fastest turnaround.
- **Field Services**, including environmental testing and consulting, instrument training and service, and onsite laboratory analysis.

Our sustained focus on research and development, drive to innovate, commitment to quality, and dedication to supporting our customers has made us into a recognized industry leader in our areas of expertise.

We pride ourselves on our small company feel and entrepreneurial spirit while producing big results for our customers.



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Core Areas of Expertise

Instruments

- Continuous Emissions Monitors (Hg, CO, CO₂, SO₂, NO_x, O₂, others)
- Continuous Process Monitors (NH₃, H₂S)
- Sorbent Trap Sampling Systems
- Optical Sensors (O₂, Temperature, pH)
- And More

Sorbent Traps

- Hg
- HCl & HBr
- NH₃
- SO₃
- Se & As
- Custom

Field Services

- Environmental Testing
- Consulting
- Instrument Training
- Instrument Service
- On-site Laboratory Analysis
- And More

Analytical Laboratory

- NELAP Accredited Laboratory
- EPA EMC Test Method Analysis
- Custom Projects & Methods Analysis
- Highest Quality
- Fastest Turnaround



Emissions Products

Learn more about our CEM and Emission Monitoring Systems



Natural Gas and Gaseous Fuels Products

Learn more about our available Natural Gas and Siloxane Monitors



Gas Chromatographs and Spectrometer

Learn more about our GC-IMS configuration options



Solids, Liquids and Complex Matrices

Learn more about our Analyzers available for Solids and Liquids



Optical Sensors and Meters

Learn more about our Optical O₂, pH and Temperature Sensors



Near Infrared Spectrometer

Learn more about our SpectraAnalyzer NIR Spectrometer



Effluent Limitations Guidelines Analyzer

Learn more about the Persee PF7 (ELG) metals in water analyzer



Laser Gas Analyzer

Learn more about the ISL-200 and its available measurements



Ambient Air Products

Learn more about our Ambient Air Analyzers and Monitors



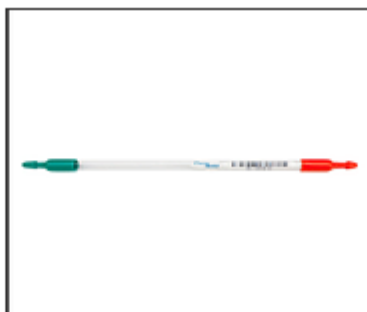
SORBENT TRAPS

Ohio Lumex is the most widely used sorbent trap manufacturer for environmental compliance. We earned this distinction by not only providing a superior product, but also the customer support, training, and service that goes with it. This unique measurement approach is a combination of three components: sorbent traps, sampling technique, and analysis.

Ohio Lumex is an expert in all three fields and is fully devoted to ensuring our customers' success by guiding them through the entire process.



Mercury Traps



HCl & HBr Traps



Hg in Natural Gas G...



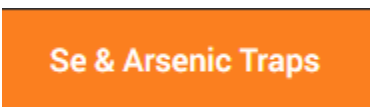
Ammonia Traps



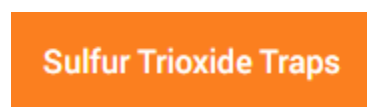
Trap Sampling Syst...



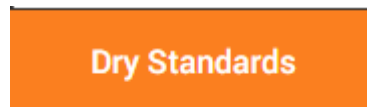
Trap Analysis System



Se & Arsenic Traps



Sulfur Trioxide Traps



Dry Standards



Oil & Gas

Ohio Lumex offers critical products and services to the oil & natural gas industry. From benzene and mercury analyzers to laboratory services, we are a trusted partner in meeting the unique challenges of this industry.

Our online natural gas monitor is specifically designed to meet the low-level detection limits required for this application and can be customized to operate in a variety of conditions including hazardous environments.



Applicable Products for Oil & Gas



Mercury in Natural Gas Monitor



Natural Gas Attachment RP91-NG



Mercury Analyzer PYRO-915

Utilities

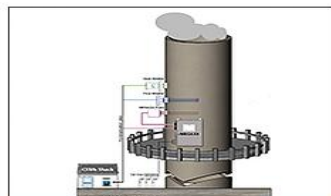
The electric utilities industry is among the most regulated and scrutinized in the world. Whether it is compliance with the Mercury and Air Toxics Standards (MATS) or the Effluent Limitation Guidelines (ELG), Ohio Lumex is here to help navigate both the compliance and engineering sides of these complex matters.

From our industry-leading and innovative products and services to our dedication to customer support, we have built our business on finding solutions to this industry's environmental and measurement challenges so that our customers can maintain focus on their core competency of generating power

Applicable Products for Utilities



Mercury CEM 915J



MEGA CEMs



Trap Sampling System



Trap Analysis System



PS12B Sorbent Traps



EPA Method 30B Sorbent ...



Other Sorbent Traps

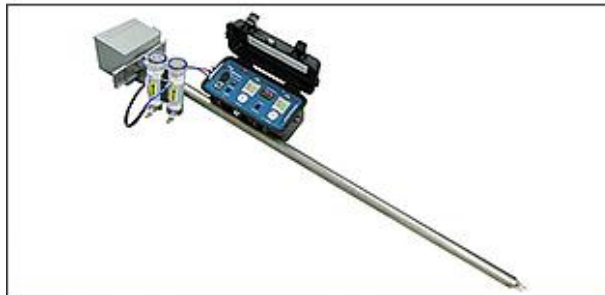


Cement

Ohio Lumex's intimate knowledge of the Cement MACT and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) is a key resource for our customers in the cement industry.

Our dedication to finding optimal solutions for environmental monitoring challenges, plus our commitment to quality and ongoing support are what distinguish us in this field

Applicable Products for Cement



Sorbent Trap Sampling System



Sorbent Trap Analysis System



EPA Method 30B Sorbent Traps



Mercury Continuous Emissions Monitor

EPA Method PS12B Sorbent Traps

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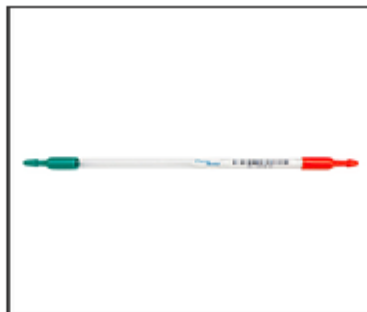
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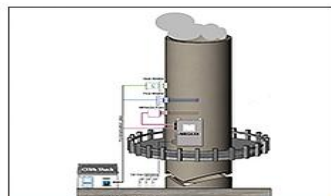
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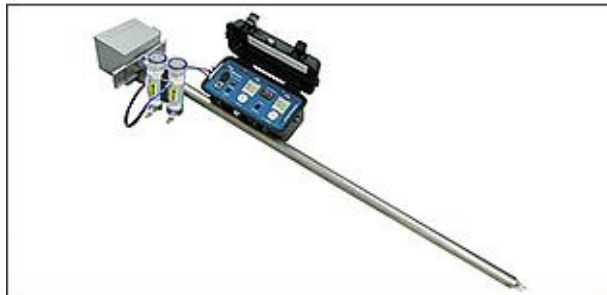


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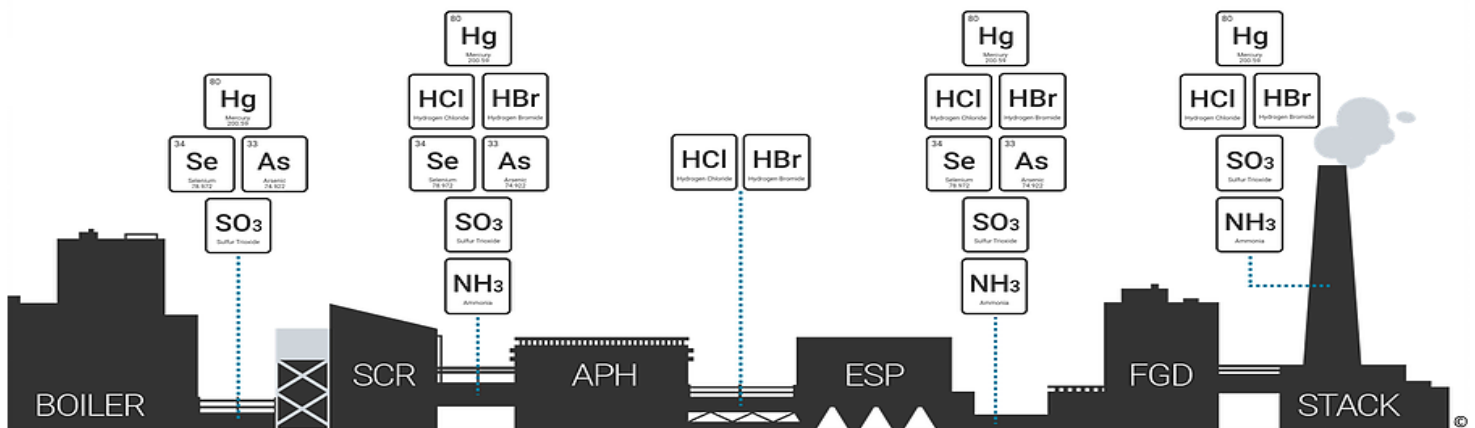
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Simple Gas Measurements

Using Ohio Lumex Sorbent Traps



Ambient Air Mercury Analyzers

Highest Sensitivity Coupled with Highest Accuracy





Effluent Limitation Guidelines (ELG) Compliance for Power Plants

The EPA has revisited the water standards and updated them for the newer technologies available for control. The targeted pollutants are Mercury, Arsenic, Selenium, Nitrates/Nitrites, and Total Dissolved Solids. It is critical to ensure you are getting the highest quality data to drive the decisions on your control options. Ohio Lumex offers products and services specifically for ELG compliance testing and control technology evaluation.

Products



Selenium and Arsenic Sorbent Traps

Designed specifically in response to ELG, Se and As sorbent traps can be sampled using the same sampling equipment as Mercury (Hg) sorbent traps. Many plants are considering reagent injection technologies pre-ESP in order to convert gas-phase selenium to particulate-bound selenium so that it can be removed before reaching the FGD. Ohio Lumex has developed the selenium sorbent trap as a means to obtaining accurate and cost-effective measurements.

Portable Sorbent Trap Sampling System

The OLM30B Sorbent Trap Sampling System is small, light-weight, durable, and compatible with our full line of sorbent traps including Selenium and Arsenic sorbent traps.



Atomic Fluorescence Spectrometer

Used for the analysis of selenium, arsenic, and other elements in effluent, the analyzer features excellent accuracy, high sensitivity, and simple operation.

Services

Laboratory Analysis

Ohio Lumex's laboratory specializes in analysis of sorbent traps, FGD slurry, and effluent. Our standard turnaround time is 3-5 business days, with expedited analysis available, including Same Day Rush.



Field Services

Ohio Lumex provides both on-site sorbent trap sampling and on-site analysis for challenging measurements such as Se, As, Hg, NH₃, SO₃, and HCl/HBr. Testing can be performed throughout the plant including difficult locations such as SCR, ESP, and FGD.



Sorbent Evaluation Services

Ohio Lumex offers Sorbent Evaluation Services for low cost/low impact testing of different control technologies without going through the hassle and expense of full scale trials. Our capabilities include determining the relative effectiveness of sorbents in removing mercury (Hg) and selenium (Se) from flue gas. For more information, please visit www.ohiolumex.com/sorbent-evaluation-services.



30350 Bruce Industrial Pkwy.
Cleveland, OH 44139 USA

SCR Support Services

Tools to help manage and optimize SCR performance

We use in-situ measurements to perform a direct, comprehensive assessment and characterization of the SCR, and provide the tools necessary to effectively manage catalysts. Additional benefits include the ability to predict the impacts of fuel and operational factors on deNO_x and Hg oxidation as well as the effects of ammonia slip and SO₃ on downstream equipment.

Direct In-Situ Measurements

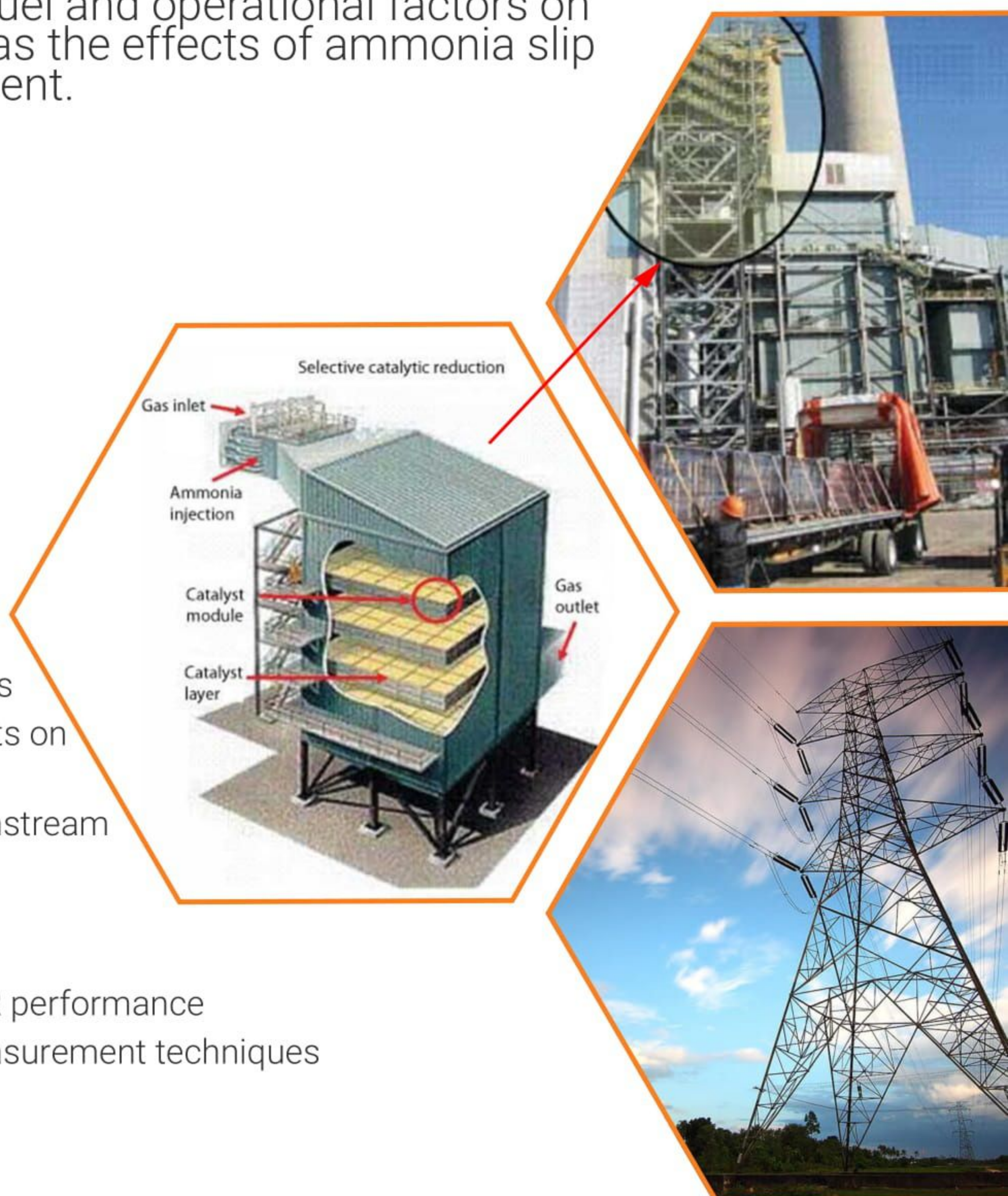
- ▶ Inlet, outlet, interlayer
 - ▷ NH₃
 - ▷ Hg Oxidation
 - ▷ SO₂ to SO₃ Conversion
 - ▷ deNO_x
 - ▷ As
 - ▷ Hydrogen Halides (HCl, HBr, etc.)

SCR Management

- ▶ OEM, advanced, and regenerated catalysts
- ▶ Predictions of fuel and operational impacts on deNO_x and Hg Oxidation
- ▶ Effects of ammonia slip and SO₃ on downstream equipment

Key Factors

- ▶ Fast, complete, direct assessment of SCR performance
- ▶ Use of state-of-the-art non-extractive measurement techniques





Sorbent Traps

Easily Measure Hg, HCl, HBr, Se, As, NH₃ & SO₃

Key Ohio Lumex Advantages

- ▶ Highly Accurate, NIST Traceable, Precise Methods of Analysis
- ▶ Inexpensive, Reliable & Durable
- ▶ Proven Track Record
- ▶ Virtually No Limit of Quantification
- ▶ Rigorous Chain of Custody Controls
- ▶ Self-Validating
 - ✓ Paired Agreement
 - ✓ Breakthrough
 - ✓ Leak Check
 - ✓ Spike Recovery

Novel method of gas analysis,
for even the toughest measurements.

OhioLumex.com/Sorbent-Traps



WORLDWIDE LEADER IN ENVIRONMENTAL MONITORING

Mercury Sorbent Traps

Hg-EPA Method 30B



Applications

- ▶ EPA Method 30B, Relative Accuracy Test Audits (RATA)
- ▶ Low Emitter EGU (LEE) testing
- ▶ Measure total mercury for process/engineering purposes

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Standard equip for stack locations
- ▶ Upstream locations may require particulate and/or temp controls

Analysis

- ▶ Thermal desorption atomic absorption spectrometry with M324 Analysis System
- ▶ Laboratory or onsite service

Hg-EPA PS12B



Applications

- ▶ EPA Performance Specification 12B (PS12B)
- ▶ Continuous mercury monitoring

Sampling

- ▶ Compatible with any PS12B sorbent trap sampling system
- ▶ Sample flow rate must be proportional to stack flow rate

Analysis

- ▶ Thermal desorption atomic absorption spectrometry with M324 Analysis System
- ▶ Laboratory or onsite service

Hg-Speciation



Applications

- ▶ Distinguish between elemental and oxidized mercury species
- ▶ Process/engineering purposes (oxidation efficiency of AQC systems, halogen additives, etc.)
- ▶ Determine FGD mercury reemission

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Standard equip for stack locations
- ▶ Upstream locations may require particulate and/or temp controls

Analysis

- ▶ Thermal desorption atomic absorption spectrometry with M324 Analysis System
- ▶ Laboratory or onsite service

Hg-Natural Gas & Other Fuels



Applications

- ▶ ASTM Method D5954
- ▶ Determine mercury concentration in natural gas and other fuels

Sampling

- ▶ Hazardous sample areas may require special equipment
- ▶ Model NG SS-D5954 sampling system – for Class 1 Division 2
- ▶ ASTM Method D5954 Procedures

Analysis

- ▶ Thermal desorption atomic absorption spectrometry per ASTM Method D5954
- ▶ Laboratory or onsite service

Additional Sorbent Traps

HCl, HBr & HF



Applications

- ▶ EPA ALT-129 allows the use of OTM-40 for HCl quarterly compliance testing and RATAs
- ▶ Measure HCl/HBr/HF for process/engineering purposes

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Standard equip for stack locations
- ▶ Upstream locations may require particulate and/or temp controls

Analysis

- ▶ Halide extraction ion chromatography
- ▶ Laboratory or onsite service

Se & As



Applications

- ▶ Measure selenium & arsenic for process/engineering purposes
- ▶ Measure Se/As in flue gas for ELG

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Upstream locations may require particulate and/or temp controls

Analysis

- ▶ Hydride generation atomic fluorescence
- ▶ Available as laboratory service

SO₃



Applications

- ▶ Measure SO₃ at stack for opacity
- ▶ Measure SO₃ downstream of SCR for SO₂ to SO₃ conversion
- ▶ Measure SO₃ at various locations for corrosion concerns

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Upstream locations may require particulate and/or temp controls
- ▶ Isokinetic sampling recommended for flue gas temperatures <200° C

Analysis

- ▶ Ion chromatography
- ▶ Laboratory or onsite service

NH₃



Applications

- ▶ Measure NH₃ at stack or upstream locations including SCR outlet to determine NH₃ slip

Sampling

- ▶ Compatible with any 30B or PS12B sorbent trap sampling system
- ▶ Upstream locations may require particulate and/or temp controls

Analysis

- ▶ Ion chromatography
- ▶ Laboratory or onsite service

Sorbent Traps

Sorbent Trap	Analyte	Sample Matrix	Analysis Method	Analysis Method Description
Hg-EPA Method 30B	Total Mercury	Combustion Gas	EPA 7473	Thermal Desorption AA Spectrometry
Hg-EPA PS12B	Total Mercury	Combustion Gas	EPA 7473	Thermal Desorption AA Spectrometry
Hg-Speciation	Speciated Mercury	Combustion Gas	EPA 7473	Thermal Desorption AA Spectrometry
Hg-Natural Gas	Total Mercury	Fuel gas	ASTM D5954	Thermal Desorption AA Spectrometry
HCl/HBr/HF	Gas Phase Hydrogen Halides	Combustion Gas	EPA 300.1/OTM-40	Halide Extraction Ion Chromatography
Se/As	Total Selenium & Arsenic	Combustion Gas	EPA 3114	Hydride Generation Atomic Fluorescence
SO ₃	SO ₃ /H ₂ SO ₄	Combustion Gas	EPA 300.1	Ion Chromatography
NH ₃	Gas Phase Ammonia	Combustion Gas	EPA 300.1	Ion Chromatography

Sorbent Trap Sampling System



OLM30B

Key Features

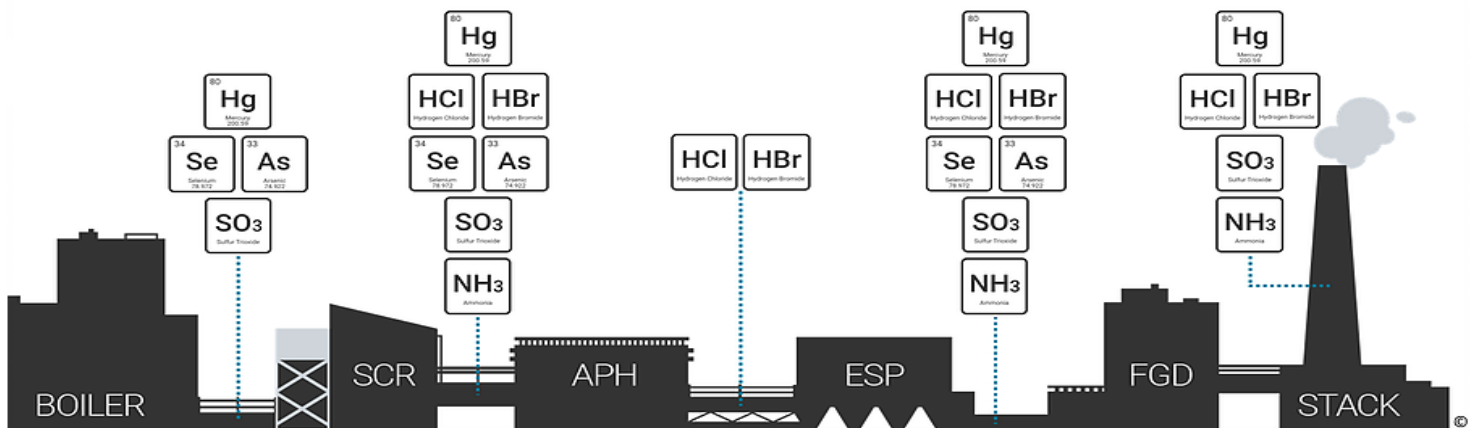
- ▶ Portable, lightweight, compact
- ▶ Probe heating/cooling capability
- ▶ Automatically corrects sample volume for pressure and temperature
- ▶ Ability to sample at low flow rates
- ▶ Oxygen sensor (optional)
- ▶ In-line thermocouple for maximum temperature control (optional)
- ▶ Compatible with all Ohio Lumex Sorbent Traps
- ▶ Popular Uses: EPA Method 30B (RATA), Pre-RATA Spot Checks, PS 12A Readings, Control Technology Optimization, and Engineering Studies

GET YOUR QUOTE TODAY



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