Tiger's Tale

Quarterly Newsletter

Fall, 2017

New T-I Max™ Series for Ambient Molecular Contaminants

Building on the success of our proven ambient air monitors, we are proud to introduce the next-generation T-I Max series. Airborne Molecular Contamination (AMC) directly affects product yields and the performance of semi tools. Focused on detection of NH_3, HCl, and HF within cleanrooms, T-I Max analyzers offer significant improvements in detection limits and speed of response.

Continuous monitoring is gaining acceptance because of its benefits when facing the "often random" nature of AMC events. The high cost of die loss and / or equipment downtime means that it's no longer enough to know just "average concentration levels" by static testing or manifold sampling techniques. End-users must be able to view concentration levels in real-time and equate excursions with events happening across the manufacturing area and external environment.

Contact us for more info on the new T-I Max series!

New GO-cart™ Wheels Your T-I Max to the Tool!

At SEMICON West, Tiger Optics unveiled its new state-of-the-art GO-cart to transport its monitors right up to your microenvironment. The GO-cart can easily accommodate up to four T-I Max monitors, with two fitting comfortably in each of the two standard 19" racks. Small, light, yet sturdy, the cart also provides great convenience with its newest feature: a top-mounted central control touchscreen, with trending data, for the monitors. This graphical user interface (GUI) touchscreen also enables your access to all of the diagnostic indicators, as well as the system controls, like operation mode and settings.

Please contact us to get the firsthand information about the new GO-cart!

Measuring H_2O and HF Impurities in NF_3 Gas

Nitrogen Fluoride (NF_3) has several important industrial uses today, including manufacturing of semiconductor chips, flat panel displays and solar cells. With increasing demand for LED / OLED displays, the global market for NF_3 is expected to continue to soar over the next several years.

In the electronics industry, the main use for NF_3 gas is for cleaning process chambers in the manufacturing of silicon chips. The benefits of using NF_3 compared to other cleaning agents include safety, stability at room temperature, ease of handling, and lower greenhouse gas emissions than its predecessors.

Tiger Optics HALO product family can detect down to single-digit parts-per-billion (ppb) levels of H_2O and HF in NF_3, guaranteeing product purity for the end-users. The main advantages of Tiger's CRDS over incumbent technologies like FTIR, for this application, are:

- Significantly lower gas consumption
- Excellent accuracy
- Long term stability
- Ease of use

Please refer to our website for more information on our product offerings for NF_3.

Measuring Ammonia and Moisture in Nitrous Oxide

Nitrous Oxide (N_2O) is commonly used in semiconductor manufacturing for the diffusion and deposition processes, where the purity requirement for semiconductor grade N_2O is typically greater than 99.999%. Due to chemical reactivity, ammonia (NH_3) and moisture (H_2O) are two of the most critical impurities to control in the N_2O product. To ensure sufficient product purity for end-users, gas manufacturers must monitor these contaminants to ensure their concentrations are below sub parts-per-million (ppm) levels.

Tiger Optics' HALO analyzers are the perfect solution for trace NH_3 and H_2O analysis in N_2O product. They are ideally suited for ppb-to-ppm range measurements, with extremely fast response time (T90 < 3 minutes). The calibration-free advantage of Tiger analyzers also significantly decreases maintenance cost and total Cost-of-Ownership.

Please visit our website or contact us for more information.

Stay in Compliance; Stay in Situ

Don't forget our Annual Remote Certification, available for all Tiger analyzers, which verifies your unit is as accurate and reliable as the day it was shipped from Tiger Optics.

Plan ahead for your Tiger analyzer's annual certification by scheduling your performance verification with our Service Team today!

Upcoming Trade Show Announcements

SEMICON Taiwan 2017

Taipei Nangang Exhibition Center, Taipei, Taiwan

September 13-15, 2017

You are cordially invited to visit our Taiwan representative A-tech's booth #2334 and explore Tiger Optics' products!

ANALITICA São Paulo 2017

São Paulo Expo Rodovia dos Imigrantes, São Paulo/SP, Brazil

September 26-28, 2017

Come to visit our rep DP Union's booth #D110 and check out one of our Tiger Optics analyzers!

SEMICON Europa 2017

Messe München, Munich, Germany

November 14-17, 2017

Come to visit our booth B1-159 and see all the ways we support your Semi processes!

***About Tiger Optics*:** Founded in 2001, Tiger Optics offers a wide and proven array of customer-lauded trace gas analyzers, as well as atmospheric and cleanroom monitors. Based upon powerful Cavity Ring-Down Spectroscopy (CRDS), Tiger instruments afford outstanding detection capabilities, speed of response, dynamic range and accuracy, combined with continuous self-calibration, ease-of-use, and freedom from moving parts and consumables. From the cleanest of semiconductor fabs to the harshest coal-fired power plants, our analyzers work to improve your yields, reduce costs, and ease the burdens of regulatory compliance.

Please contact us at sales@tigeroptics.com for more information or to request a quote today!

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