

# Yield Issues? Throughput a Challenge? Gas Quality Worries?



## Use the SEMI Standard: Tiger Optics Gas Analyzers.

Need to measure bulk or spec gas supplies, verify purifier lifetime, validate the readiness of Epi process chambers, or equip a mobile analytical cart? You'll find a field-proven Tiger solution. If atmospheric molecular contaminants are an issue in your cleanroom air, or your FOUPs, Tiger can help with real-time, online measurement "at the speed of light."

That's why our Continuous Wave Cavity Ring-Down Spectroscopy (CW-CRDS) technology is specified by SEMI's Standard F112 to determine the moisture dry-down characteristics of gas delivery systems (for both conventional and surface mounted systems). Issued in 2013, this Standard replaces APIMS technology (complex, bulky and costly) with CRDS.

Whether your contamination concerns are caused by moisture, oxygen, methane or other trace contaminants, Tigers can answer your questions.

Tigers are in use worldwide at all the major IDMs, virtually all the gas suppliers, process tool providers, component providers, such as purifier makers, and more.

In the past 18 months, Tiger has introduced a powerful new fleet-wide upgrade: the "3" series, including LaserTrace 3, HALO 3 and HALO KA. These analyzers boast detection limits 50% below the levels of our previous product family, with advances in software that provide speedier response and enhanced ease-of-use.

CRDS is an "absolute" technique, meaning it does not require external calibration sources. This, in part, accounts for the decision of 19 of the world's leading National Metrology Institutes to use Tigers as transfer standards. We are the only analyzer maker that offer world-class performance with dramatic savings in cost-of-ownership and manpower.

### Turn to Tiger Optics for your analyzer needs! Our analyzers are:

- ✓ Widely used by the semiconductor industry and designated the SEMI Standard for moisture dry down
- ✓ Solid state, with no moving parts – nothing to break or to replace
- ✓ Free of the need for external calibration sources, offering self-verification, supported by our "remote certification" program
- ✓ Easy to set up and operate (new sites are typically online and measuring in under 2 hours)
- ✓ Practical and affordable, with no scheduled maintenance and virtually no consumables

# Meet Our Analyzers for Semi!



The LaserTrace 3 verifies moisture, oxygen and other impurity levels with part-per-trillion accuracy, drift free stability, and virtually immediate response.

The LaserTrace 3x is designed to integrate with multi-chamber Epi tools for online go/no-go moisture measurement.

The HALO KA provides sub-ppb moisture detection in bulk gases and specialty gases, as well as gas mixtures.



The Tiger-i 2000 family measures atmospheric molecular contaminants such as HF, HCl and NH<sub>3</sub>.

The HALO 3 family offers ppt/ppb detection of moisture or other contaminants in most inert, corrosive and toxic gases in a compact and affordable package.



Tiger Optics LLC makes laser-based gas analyzers that help advance science and industry with the world's most powerful molecular analysis technique. More than 1,700 robust Tiger units are at work in semiconductor fabrication plants, gas manufacturers, chemical companies and environmental monitoring stations, as well as 19 national metrology institutes.

Please contact us at [sales@tigeroptics.com](mailto:sales@tigeroptics.com) or call + 1 (215) 343-6600.