Materials for Sputter & Evaporation

xtronix
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Wet Semiconductor Process

Solutions for Hydrofluoric Acid, HF Concentration, BHF, FPM, SC-1, SC-2 & Particle Count

HORIBA The CM-200 & 210 are highly precise instruments developed to monitor **hydrofluoric acid** concentration during the etching of wafers. The instruments measure the concentration of hydrofluoric acid through the use of electromagnetic induction and display measurement results in real time. For high diluted applications model HF-96 is suitable to monitor in the low ppm range.

HORIBA The CS-137 is a high-precision chemical solution concentration monitor designed to meet the strict demands of semiconductor wet-etching processes. Etching processes use **BHF solution** to etch silicon oxide and remove particles from the wafer surface. The CS-137 continually monitors each component of the BHF solution ($NH_4F/HF/H_2O$), alerting the user each time the solution is replaced or replenished. This allows you to maintain the concentration of the BHF solution within the tolerance range, while eliminating unnecessary solution replacement.

HORIBA CS-150 is a high-precision chemical concentration monitor that measures, in real time, the concentrations of the components of **FPM** (HF, H_2O_2, and H_2O), which is used for photoresist stripping.

An alarm notifies the operator when H_2SO_4 H_2O_2 concentration is out of allowable range; this provides vital information for spiking control.

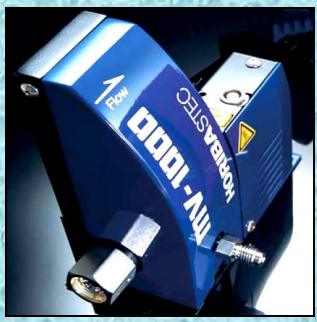
HORIBA CS-151 & CS151C (with cooling system) are high-precision chemical concentration monitors developed for use with the **SC-2 solutions** used in semi cleaning processes. Featuring fast response and a compact size, they continually monitors the concentrations of the various components of the SC-2 solutions ($HCl/H_2O_2/H_2O$) used to remove metal ions. Feedback control based on the monitor output is used to keep the concentrations of the SC-2 solutions within the allowable ranges and to eliminate unnecessary replacement of chemicals. A short measuring cycle allows the accurate tracking of chemical concentrations, while the compact design facilitates integration with a cleaning device

HORIBA CS-131 & CS131C (with cooling system) are high-precision chemical concentration monitors for use with the **SC-1 solutions** in cleaning processes during semiconductor manufacturing. They offer a faster response speed and a more compact size than anything available to date and monitor concentrations of the various components of the SC-1 solutions ($NH_3/H_2O_2/H_2O$) used to remove particles and organic substances on an ongoing basis. Feedback control based on the monitor output is used to keep the concentrations of the SC-1 solutions within the allowable ranges and eliminate unnecessary replacement of chemicals.

HORIBA PLCA-800 **counts the number of particles** found in the various solutions used in the semiconductor fabrication process. In particular, the wet cleaning process is an effective way of removing particles. In this connection, sensors that can detect particles in liquids in real time are becoming an indispensable part of the process. It can detect particles as small as 0.1 µm in diameter.

HORIBA FG-100A Series of **FTIR gas analyzers** enables the detection and measurement of a wide variety of substances, such as PFCs, greenhouse gases and semiconductor/FPD process gases, which must be reduced due to their contribution to global warming. To provide effective on-site gas measurement, these single cell and dual cell models have been made much more compact. The FG-100A Series is available as a total system, including software that is ideal for semiconductor/FPD process gas analysis, an extensive library, and a portable sampling unit.

HORIBASTEC **Vaporization** solutions. In the realm of sub-micron semiconductor technology the RC delay is considered the dominant factor. To facilitate further improvements, IC manufacturers are forced to resort to new materials and a variety of liquid sources are used to produce the thin films. HoribaSTEC proposes a number of vaporization solutions to accurately control the precursor. These vaporizers are suitable for films using precursors for high-k dielectric constants such as TDEAH, TDMAS & TAETO, or low-k as HMDSO & TMCTS as well as others like BTBAS, TEOS, TEPO, TEB, $TiCl_4$, IPA, H_2O, etc.



P.P.
1027 Lonay

xtronix
www.x-tronix.com

Avenue de Morges 52 ● 1027 Lonay ● Switzerland
☏ +41 (0)21 802 54 90 ● 🖷 +41 (0)21 802 54 91 ● 💻 info@xtronix.ch

HORIBASTEC Mass Flow Meters & Controllers cover a broad range of application in gas flow measurement and control. From the economical E-series with solenoid valve to the cutting edge features-packed Z500 digital / piezo-valve series. Single, 2-ch, 4-ch & 6-ch readout / control units, field calibration standards and other peripheral products are available, including custom designed gas panels / blending systems and a complete range of MFC and vaporization instruments for liquids.

xtronix is active in vacuum techniques, surface science, helium cryogenics, high energy particle physics and thin film technology. Our customers are in over 25 countries, from Scandinavia to South Africa and from Asia to North America.