

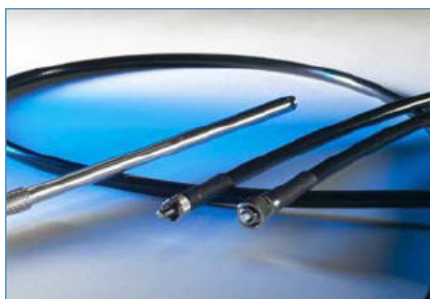
APM SPECTROMETER: NH₃:H₂O₂:H₂O

Product Description – APM solutions are used during the cleaning process to remove particles and organic substances from wafer surfaces during semiconductor manufacturing. TreLytics' Spectrometer is a compact monitor for determining the percentages of ammonia, hydrogen peroxide and water in APM solutions. The Spectrometer provides a typical integrated measurement time of less than 0.1 seconds.



TRELYTICS SPECTRAL MONITOR FEATURES:

- Diffuse transmittance/reflectance spectrophotometers with fiber optic remote probes
- Available in single dedicated approaches or in a multiplexed hardware solution
- Proprietary flow cell FluentChem™ which provides sampling at a low pressure drop
- UV-SNIR and NIR models employ TE cooled CCD array detectors (200-1050 nm), InGaAs array (920-1700 nm), and PbS array (1100-2900 nm) detection systems, respectively for optimal UV, VIS, and NIR measurement sensitivity and dynamic range
- High intensity and long lifetime illumination sources and high speed detection systems, enabling fast spectral capturing of 20 to more than 100 spectra per second
- USB 1.1/2.0 interface providing plug-and-play computer connectivity



Concentration

Ammonia (NH₃)	0 – 10 wt%
Hydrogen Peroxide (H₂O₂)	0 – 10 wt%
Water (H₂O)	80 – 100 wt%

TreLytics will optimize the hardware set to provide the best solution for your application. This selection process is the result of decades of in line, in situ and inert to process experience with real time, on site fab testing and qualification by TreLytics' team of analytical experts. We provide all of this without the custom price.

Analytical Specifications

Supply Power	100 – 240 VAC 50/ 60 HZ 20 VA
Wavelengths	NIR (available UV/VIS NIR midIR and RAMAN)
Lamp	Precision-mounted Tungsten-Halogen bulb; StabLamp optical feedback Stabilization of output; ~8 months bulb life (depends on wavelengths required)
Photometric Drift	<2 mAU over 2-3 weeks with +/-5 C variation
Wavelength Drift	0.2 nm at 1450 nm
Dynamic Range	3.6 AU typical near 1450 nm (non-linearity <1% at 1.6 AU)
Outputs	USB 2.0/1.1
Sampling rate	20 to > 100 spectra per second
Fiber Optics	1 pair of 3 m long, 400 μ m core fiber optic cables; SMA 905 connectors
Flow Cell	Teflon flow cell with 2 mm optical path and 1/2" tube fittings. All wetted parts of Teflon, Sapphire or Kalrez.
Environmental	0-50 C; 10-90% RH, non-condensing
Dimension & Weight	6.30 x 13.2 x 5.98 inches : approximately 10 lbs