

Wednesday Morning, October 20, 2010

Exhibitors & Manufacturers Technology Spotlight

Room: Southwest Exhibit Hall - Session EW-WeM

Exhibitors & Manufacturers Technology Spotlight

Moderator: D.J. Surman, Kratos Analytical Inc., R.

Langley, Consultant

10:00am **EW-WeM7 TwisTorr: A New Molecular Drag Technology,**
W. Vissers, Agilent Technologies, Vacuum Products Division

Agilent Technologies presents the new TwisTorr molecular drag technology. Our new and innovative molecular drag stages, composed of a specific array of pumping channels with spiral design, greatly increase the pumping efficiency in a very compact space. This technology represents a next step in the evolution of hybrid turbo high vacuum pumps, providing significant improvements in pumping performance. The Turbo-V TwisTorr series represents a new category of Turbo Molecular Pumps offering unmatched performance in both pumping speed and compression ratio in the most compact space available. The innovative TwisTorr stages allow reaching the highest levels of compression ratio for light gases in commercially available Turbo Molecular Pumps. Using the patented TwisTorr molecular drag technology, Agilent has developed the Turbo-V 750 TwisTorr, the Turbo-V 850 TwisTorr and the Turbo-V 2300 TwisTorr.

10:20am **EW-WeM8 Measure Ion flux to Substrate with Novel**
OCTIV™ RF Current-Voltage Probe, M.B. Hopkins, D. O'Sullivan, D.
Gahan, P. Scullin, Impedans Ltd.

The Octiv Single Frequency VI Probe measures the Voltage, Current, Phase, Impedance, Harmonics, Real Power, Forward Power and Reflected Power delivered to a plasma chamber by an RF source. Octiv is a single frequency, inline RF VI Probe. The probe contains an RF VI sensor and high speed data acquisition system, utilising an ultra high-speed digital Fourier Transform for high accuracy measurement of fundamental RF voltage, current and phase.

The Octiv probe is housed in a single, compact enclosure, and is easily installed on all high power RF equipment encountered in the laboratory or industrial environment. A USB connection provides power and data access to the sensor. An adaptor kit can be supplied with the probe to enable connection with standard RF equipment. The Octiv also operates in Pulsed RF plasmas.

Impedans has recently added a unique feature to the Octiv product to allow the capture of the real and imaginary current to an RF biased electrode. In this presentation we will explain how this unique patent pending feature allows the user to measure the ion flux to an RF biased substrate in a processing plasma. The technique works well even when the Substrate is insulating. The ion flux is a key parameter in process control of many plasma processes.

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