



News Release

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WaferMasters Introduces the OSP-300 Optical Surface Profilometer for Non-Destructive Wafer Surface Profiling and Characterization

SAN JOSE, California - WaferMasters, Inc, a leading wafer-processing technology and equipment supplier has announced the release of its laser based Optical Surface Profilometer System (OSP-300). This system provides in-line non-contact surface profile characterization of blanket and device wafers between process steps for R&D and manufacturing applications.

In-line process monitoring has become an important tool to quickly identify and resolve process anomalies and resolve yield problems. The OSP-300, with its high resolution technology, provides local surface profile information which can be used to identify process anomalies that other surface profiling tools might miss. The data is plotted in a “visually intuitive” format which gives wafer flatness, curvature, contour maps and vector plots which can be compared to baseline data to reveal reproducibility issues. The scan sensitivity designed into this tool reveals local distortion as well as global warpage, twist, distortion, and pattern rotation.

Dr. Woo Sik Yoo, co-founder and CTO, pointed out that during the various process steps a wafer goes through, there are local (and global) stresses and strains from the chemical reactions and thermal processes which affect surface topology of the wafer. These can become depth of field and overlay complications for photolithography which can be major challenges at the critical dimensions for the 45 and 32 nm technology nodes. Process and manufacturing engineers need tools which can pinpoint process steps where topology issues can impact yield and performance. The OSP-300 can add insight into physical changes in the silicon wafer during various device fabrication steps and provide important clues to solve complex process integration problems.

The OSP-300 and its companion tool, the just announced MRS-300 (Multi-Wavelength Raman Spectrometer), were designed by WaferMasters to give process engineers the tools they need to improve process repeatability and device yield through improved knowledge of the physical condition of the wafer as it goes through sequential process steps.

About WaferMasters, Inc.

WaferMasters, Inc., founded in 1999, is a privately held manufacturer of thermal production and metrology tools used to fabricate advanced semiconductor devices. Reduced process monitoring and high equipment utilization, together with minimum consumables usage and maintenance contribute to the lowest COO in the industry. WaferMasters, Inc. maintains headquarters at 246 East Gish Road, San Jose, California 95112. Visit WaferMasters at Semicon/West, Booth #5317North or on the web at www.wafermasters.com