



## **Novellus Introduces Industry's First Production-Ready UVTP System For Sub-90 Nanometer Dielectrics**

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San Jose, Calif. - December 6, 2005 - Novellus Systems, Inc. (Nasdaq NM: NVLS), the productivity and technology leader in advanced deposition, surface preparation and chemical mechanical planarization processes for the global semiconductor industry, today introduced SOLA, the industry's first standalone ultraviolet thermal processing (UVTP) system targeted at the post-deposition processing of advanced dielectric films. Designed for high-volume manufacturing at 300 mm, SOLA addresses the requirements for new materials and manufacturing technologies necessitated by the next generation of consumer electronic products.

SOLA is a key enabler for a variety of advanced film applications, including transistor-level high-stress nitrides (HSN) and interconnect-level dense or porous low-k dielectrics. Using a combination of UV light and heat, SOLA makes post-deposition treatment of these films possible at lower temperatures, a necessity when integrating with new materials such as nickel silicide. Wafers with a previously deposited plasma-enhanced chemical vapor deposition (PECVD) film are introduced into SOLA, where they are exposed to a uniform UV lamp source to modify the film properties. At the same time, the wafer is heated to a uniform temperature, typically 450 C or less. With HSN films, SOLA's UV radiation promotes bond rearrangement and volume contraction to generate the higher stress levels required to enhance device performance. With porous low-k films, UV radiation facilitates removal of porogen, and mechanically strengthens the dielectric film for further processing.

SOLA's proprietary lamp assembly includes dual linear lamps and custom optical reflectors optimally arranged to provide uniform UV light exposure on a 300mm wafer. This arrangement minimizes infrared (IR) light that causes undesirable wafer heating and non-homogeneous treatment results. SOLA's patented multi-station sequential treatment (MSST) architecture results in both high throughput and an industry-leading treatment non-uniformity of less than 2 percent.

SOLA is also the first UVTP system on the market to offer independent control of UV light intensity, temperature and process time at each treatment station. "The radiant energy delivered by SOLA can be adjusted to meet the treatment needs of a variety of thin films," said Tim Archer, senior vice president and general manager of Novellus' PECVD and Electrofill business units. "While current applications are focused on porous low-k and HSN films, we foresee that there may well be other films that can benefit from the process flexibility afforded by SOLA."

The highly-productive SOLA platform also incorporates proprietary purge hardware that minimizes clean requirements during wafer processing. More than 100 porogen-containing wafers may be processed in SOLA before a chamber clean is required, a purge efficacy that's as much as 20 times higher than the industry average.

According to Dr. Tom Caulfield, Novellus' executive vice president of sales, marketing and customer satisfaction, "We have already shipped SOLA to customers in Europe, North America and Asia. Leading integrated device manufacturers and foundries are reporting that SOLA delivers excellent post-UVTP film properties for both front-end-of-line (FEOL) and back-end-of-line (BEOL) applications."

#### **"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995:**

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including the statements regarding SOLA's addressing certain manufacturing challenges, SOLA's generation of high throughput and uniformity, frequency of SOLA chamber cleanings, SOLA's availability and use of SOLA by customers in Europe, North America, and Asia; as well as other matters discussed in this news release that are not purely historical data. Forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those contemplated by the forward-looking statements. Such risks and uncertainties include, but are not limited to, technical or operational difficulties precluding the optimal performance of SOLA, the introduction of standalone UVTP systems competitive with or superior to SOLA, difficulties in extending SOLA beyond porous low-k and HSN films and limited customer acceptance of SOLA, as well as other risks indicated in our filings with the Securities and Exchange Commission (SEC). We assume no obligation to update this information. For more details, please refer to our SEC filings and the amendments thereto, including our Annual Report on Form 10-K and 10-K/A for the year ended December 31, 2004, our Quarterly Reports on Form 10-Q and 10-Q/A for the quarters ended July 2, 2005, April 2, 2005 and October 1, 2005 and our Current Reports on Form 8-K.

#### **About Novellus:**

Novellus Systems, Inc., an S&P 500 company, manufactures, markets and services advanced deposition, surface preparation and chemical mechanical planarization equipment for today's advanced integrated circuits. Our products are designed for high-volume production of advanced, leading-edge semiconductor devices at the lowest possible cost. Headquartered in San Jose, Calif., with subsidiaries throughout the United States, as well as in the United Kingdom, France, Germany, the Netherlands, Ireland, Israel, Italy, India, China, Japan, Korea, Malaysia, Singapore and Taiwan, we are a publicly traded company on the Nasdaq stock exchange (Nasdaq: NVLS) and a component of the Nasdaq-100 Index. Additional information about Novellus is available on our home page at [www.novellus.com](http://www.novellus.com).