

# SEMATECH PARTNERS WITH NOVELLUS TO DEVELOP ULTRA LOW-K DEPOSITION AND UVTP CURING TECHNOLOGY

SAN JOSE, Calif., and AUSTIN, Texas, June 7, 2005--Novellus Systems, Inc. (Nasdaq NM: NVLS) and global technology research consortium SEMATECH today announced that they are partnering to develop and evaluate low-k dielectric films with k-values of less than 2.2, and explore the limits of ultra low-k integration. As part of the joint development agreement, SEMATECH will purchase a VECTOR® PECVD system for depositing ultra low-k films and a novel UVTP (ultraviolet thermal processing) system for post-deposition film curing. Both systems will be delivered to SEMATECH in October of 2005. Novellus will provide bulk film development and support, while SEMATECH will contribute its technical expertise in the integration of porous low-k films.

In the BEOL (back-end-of-line) process sequence, integrating porous low-k materials with reliable performance has presented a significant challenge for the industry. Although providing good bulk film mechanical and electrical performance is a requirement, avoiding film damage during further processing steps such as etch, strip, and CMP is critical. The combination of Novellus' ULK deposition and UVTPTM cure processes provides a film with a unique "closed pore" structure that optimizes mechanical and electrical properties as well as stability during integration. The film also demonstrates good compatibility with advanced ultra-thin barrier deposition processes such as ion induced ALD (iALDTM).

"Novellus has been leading the industry in the development of ultraviolet thermal processing technology, so we are pleased to be partnering with SEMATECH on this program," said Ming Xi, vice president and general manager of Novellus' PECVD business unit. "Unlike e-beam curing technology, UV curing does not damage underlying film layers, and UV energy can be easily tuned to achieve the best porogen removal and hardening results. We believe that our ULK deposition and UVTP technology will meet the critical requirements for successful copper/ULK interconnect integration beyond 45nm."

SEMATECH has designated low-k dielectrics and process compatibility as one of its top challenges for 2005 and 2006, as part of its exploration of the limits of integrating porous low-k materials. In addition to identifying and evaluating ultra low-k materials, the consortium's engineers also are working to ensure that low-k structures reflect a k-effective value of 2.5 for the 45 nm technology node.

"We're pleased to be working with a willing partner whose aggressive roadmap matches ours," said Klaus Pfeifer, program manager of copper low-k module integration at SEMATECH. "Through this project on low-k deposition and curing technologies, we will aim to help our member companies understand and resolve integration issues for porous dielectrics and accelerate the implementation of ultra low-k films into volume production."

The Novellus ultra low-k dielectric films are deposited in the 300-mm VECTOR system which incorporates the company's multistation sequential deposition (MSSD) architecture, combining high throughput with wafer-to-wafer and within-wafer uniformity. This multistation sequential architecture is also incorporated into the post-deposition UVTP cure tool, providing the capability to individually control cure intensity and temperature in each of the four cure stations.

"Safe Harbor" Statement Under the Private Securities Litigation Reform Act of 1995:

The statements regarding (i) the details of our anticipated partnership with SEMATECH; (ii) our expectations that SEMATECH will purchase a VECTOR PECVD system and a novel UVTP system and that both systems will be delivered to SEMATECH in October, 2005; (iii) Novellus' provision of development support and SEMATECH's contribution of technical low-k film integration expertise; (iv) the ability of Novellus' combined ULK deposition and UVTP cure processes to optimize mechanical and electrical properties as well as stability during integration; (v) our belief that UV energy can be easily tuned to achieve the best porogen removal and hardening results; and (vi) our belief that our ULK deposition and UVTP technology will meet the critical requirements for successful copper/ULK interconnect integration beyond 45 nm, as well as other matters discussed in this news release that are not purely historical data, are forward-looking statements. The forward-looking statements involve risks and uncertainties, including, but not limited to, unanticipated difficulties in coordination between Novellus and SEMATECH, SEMATECH's failure to order the VECTOR PECVD and the novel UVTP systems, or a delay in SEMATECH's order or Novellus' delivery of such systems, technical difficulties with the combined ULK deposition and UVTP cure processes, the failure of the resulting films to perform as expected, our inaccurate

assessment of the ease of tuning UV energy, the inability of our ULK and UVTP technology to perform successfully at 45nm, and other risks indicated in our filings with the Securities and Exchange Commission (SEC). Actual results could differ materially. We do not assume, and expressly disclaim, any obligation to update this information. For more details, please refer to our SEC filings, including our Annual Report on Form 10-K for the year ended December 31, 2004, our Quarterly Report on Form 10-Q for the quarter ended April 2, 2005, and our Current Reports on Form 8-K filed or furnished April 7, 2005, April 18, 2005, April 29, 2005, and May 5, 2005.

#### 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, Italy, Israel, 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).

#### About SEMATECH:

SEMATECH is the world's catalyst for accelerating the commercialization of technology innovations into manufacturing solutions. By setting global direction, creating opportunities for flexible collaboration, and conducting strategic R&D, SEMATECH delivers significant leverage to our semiconductor and emerging technology partners. In short, we are accelerating the next technology revolution. For more information, please visit our website at [www.sematech.org](http://www.sematech.org). SEMATECH, the SEMATECH logo, AMRC, Advanced Materials Research Center, ATDF, the ATDF logo, Advanced Technology Development Facility, ISMI and International SEMATECH Manufacturing Initiative are service marks of SEMATECH, Inc.

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