# NOVELLUS LAUNCHES SABRE® NExT™

NOVELLUS LAUNCHES SABRE® NExTSAN JOSE, Calif. and TOKYO, Dec. 1, 2003--Novellus Systems, Inc. (Nasdaq NM: NVLS), the productivity and innovation leader in advanced deposition, surface preparation and chemical mechanical planarization (CMP) processes for the global semiconductor industry, today announced the introduction of SABRE NExT (Nano Era xT), a major enhancement of the company's market-dominating SABRE Electrofill system. The new tool builds on the industry-leading production track record of Novellus' SABRE xT, offering enhanced chemistry, process refinements and new hardware features designed to tackle the complex process requirements of sub-90-nm interconnects.

Sony Corporation is among the first companies to place an order for the new Novellus tool, with the system destined for Sony's facility in Atsugi, Japan. There, the SABRE NExT will be used for the development of eDRAM and advanced devices at the 45-nm technology node and beyond. Shipment of the system is expected to occur in the first quarter of 2004.

"At the core of Sony's world-class consumer electronics devices is our innovative semiconductor technology," said Yutaka Okamoto, senior general manager of Process Development Division, Semiconductor Technology Development Group, Semiconductor Solutions Network Company, Sony Corporation. "Building the advanced integrated circuits (ICs) required to fuel such consumer devices is dependent on best-in-class IC manufacturing process technology. With the help of the new SABRE NExT, we will be able to do our development work on a production-ready platform."

Dominating the Market

SABRE NExT marks a new success milestone in the history of Novellus' Electrofill tool, the semiconductor industry's first production-worthy copper electroplating system. The 1998 introduction of SABRE accelerated the industry's transition from aluminum to copper interconnects, and the Novellus system has since become the tool of choice for copper electrochemical deposition in fabs around the world. With more than 150 systems installed worldwide, successive generations of SABRE tools have processed nearly 80 percent of the total copper interconnect output to date. SABRE is the process tool of record for nine of the top 10 copper IC producers, with a manufacturing installed base that is four times the size of its next largest competitor.

"We're delighted to count an industry leader like Sony among the first of our SABRE NExT customers," said Tim Archer, vice president and general manager of Novellus' Electrofill products business unit in Tualatin, Ore. "SABRE NExT embodies the learning from our overwhelming manufacturing experience lead, and it is equipped to tackle the challenges associated with building advanced copper interconnect structures."

Tackling Advanced Process Challenges

As device geometries continue to shrink, copper electroplating faces a number of new challenges, including void-free filling of extremely narrow and deep features, plating on thin seed layers and reducing plating defects. In addition, at today's advanced nodes, the electroplating process step can be an enabling technology for the subsequent CMP process, generating improvements in total planarity and reducing cost.

The SABRE NExT has been specifically designed to tackle these emerging needs. At the core of the system is a proprietary single-step chemistry that provides highly reproducible fill at advanced nodes, with reduced defects and an optimal profile for CMP. In addition, a new anode cell design capitalizes on continuing developments in plating chemistry technology, reducing the level of contaminants in the plating bath, while dramatically cutting chemical consumption. For advanced chemistry development, the SABRE NExT can be configured with a remote bath, enabling production and development efforts on the same tool.

Built upon the highly reliable SABRE xT, the SABRE NExT incorporates a number of enhancements gleaned from the SABRE xT's lengthy track record in high-volume manufacturing environments. SABRE systems routinely run with production availabilities of greater than 90 percent worldwide. The new SABRE NExT configuration reduces chemical costs by over 30 percent, and, when combined with an improved throughput, cuts overall cost of ownership by over 10 percent on what is already a highly productive process.

Note to editors: A technical fact sheet on SABRE NExT is available upon request.

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, 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

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