



## **NEXX Systems and SEMATECH to Collaborate on 3D Interconnect Research at UAlbany NanoCollege**

**Albany, NY and Billerica, MA (29 January 2009)** – SEMATECH, a global consortium of chip-makers, and NEXX Systems, Inc., a leading provider of process equipment for advanced wafer-level packaging applications, today announced that NEXX Systems has become a member of SEMATECH's 3D Interconnect Program located at the College of Nanoscale Science and Engineering (CNSE) of the University at Albany.

As a member of SEMATECH's 3D program, NEXX will collaborate with SEMATECH in leading-edge research on innovative electrodeposition technology and the development of high yield, low cost copper electroplating solutions that will enable high density 3D through-silicon-vias (TSVs).

Dr. Tom Walsh, NEXX Systems, President and CEO, "We are excited to be part of the SEMATECH 3D Interconnect program, working with the most advanced 300 mm equipment and technologists in developing this leading-edge technology. Our Stratus electrodeposition platform is uniquely suited to achieve significant improvements in both the reliability and cost-effectiveness of 3D devices, aiding their rapid adoption into mainstream electronics."

"We all recognize that collaboration among various disciplines across the industry will be required to realize the full potential of 3D. Launched two years ago, the 3D program has been actively engaging with leading edge equipment and materials suppliers and leveraging their expertise to deliver manufacturable process solutions," said John Warlaumont, SEMATECH vice president of advanced technology. "NEXX's membership is the latest example of this new collaborative model that encourages participation with SEMATECH members in focused, cooperative R&D."

Richard Brilla, vice president for strategy, alliances and consortia at CNSE, said, "We are delighted to welcome NEXX Systems to the UAlbany NanoCollege, where it joins a host of the world's leading high-tech companies engaged in next-generation nanoelectronics research and development. This new partnership is further evidence that SEMATECH's expansion at CNSE is paying significant dividends, not only in world-class education and cutting-edge research, but also in economic outreach and growth."

"NEXX is well known for its innovation and expertise in the area of advanced wafer-level packaging items, and their participation in SEMATECH's 3D program will be very valuable," said Sitaram Arkalgud, SEMATECH's 3D program director. "Our mission is to make 3D-TSV both manufacturable and cost effective, and we look forward to working with NEXX to deliver processes that will accelerate progress toward industry-wide implementation."

The goal of SEMATECH's 3D IC program at the UAlbany NanoCollege is to ready TSV technology by addressing the infrastructure and development challenges in 3D-TSV, including materials characterization, unit processes and integration, equipment hardening, reliability, cost and benefit to device and circuit performance. Eventually, 3D



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interconnects will provide cost-effective ways to integrate diverse CMOS technologies and chips with emerging technologies such as micro- and nano- electromechanical systems (MEMS, NEMS) and bio-chips.

**About NEXX Systems:**

NEXX Systems brings exceptional technical expertise to advanced packaging and 3D integration. Our product lines provide the most efficient, yet affordable, systems of their kind: Apollo and Nimbus for multi-layer sputter deposition of metals, and Stratus for high throughput electro-deposition of metals. Additional information can be found at: [www.nexxsystems.com](http://www.nexxsystems.com).

**About CNSE:**

The UAlbany CNSE is the first college in the world dedicated to research, development, education, and deployment in the emerging disciplines of nanoscience, nanoengineering, nanobioscience, and nanoeconomics. In May 2007, it was ranked as the world's number one college for nanotechnology and microtechnology in the Annual College Ranking by Small Times magazine. CNSE's Albany NanoTech complex is the most advanced research enterprise of its kind at any university in the world: a \$4.5 billion, 450,000-square-foot complex that attracts corporate partners from around the world and offers students a one-of-a-kind academic experience. The UAlbany NanoCollege houses the only fully-integrated, 300mm wafer, computer chip pilot prototyping and demonstration line within 65,000 square feet of Class 1 capable cleanrooms. More than 2,000 scientists, researchers, engineers, students, and faculty work on site at CNSE's Albany NanoTech complex, from companies including IBM, AMD, SEMATECH, Toshiba, ASML, Applied Materials, Tokyo Electron, Vistec Lithography and Freescale. An expansion currently underway will increase the size of CNSE's Albany NanoTech complex to over 800,000 square feet, including over 80,000 square feet of Class 1 capable cleanroom space, to house over 2,500 scientists, researchers, engineers, students, and faculty by mid-2009. For more information, visit <http://www.cnse.albany.edu/>.

**About SEMATECH:**

For 20 years, SEMATECH® ([www.sematech.org](http://www.sematech.org)) has set global direction, enabled flexible collaboration, and bridged strategic R&D to manufacturing. Today, we continue accelerating the next technology revolution with our nanoelectronics and emerging technology partners.

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