



## Applied Materials Offers Complete, Advanced Product Line for Copper Manufacturing

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Business Editors/High-tech Writers

SANTA CLARA, Calif.--(BUSINESS WIRE)--April 8, 1999--

New Electroplating and CMP Products Complete the Company's Comprehensive Line of Next-Generation Technologies to Enable Volume-Production of High-Performance Copper Chips

Applied Materials, Inc., the world's largest supplier of wafer fabrication systems and services to the global semiconductor industry, today introduced its new Millennia(TM) Electra(TM) ECP (ElectroChemical Plating) and Mirra(R) Electra CMP systems. These new systems complete the company's comprehensive line of products to enable the high-volume manufacturing of copper interconnect structures for high-speed semiconductor chips.

Volume production of copper interconnects will enable chipmakers to fabricate smaller, more cost-effective devices that operate with higher performance and lower power. Advanced data communications, computing, telecommunications, graphics and consumer electronics applications are all expected to benefit from the availability of copper chip designs. With the addition of next-generation electroplating technology and a production-capable copper CMP process, Applied Materials is the only company that offers products for all the key process steps required to build the interconnect structures of these advanced chips.

"We are pleased to be able to provide our customers with such a wide range of solutions to their manufacturing requirements," said Dr. David N.K. Wang, senior vice president and member of the Office of the President of Applied Materials. "In addition to offering a complete line of advanced individual copper production systems, we've also combined these technologies into a fully integrated equipment set that is optimized to deliver the performance and productivity required for cost-effective manufacturing. This Total Solutions(TM) approach provides customers with much greater leverage to quickly move their copper designs into volume production should the demand for these chips accelerate in the next several years as expected."

The new Millennia ECP and Mirra Cu CMP systems join Applied Materials' Endura(R) Barrier & Seed system to form the Electra Copper metal module of products for filling and polishing copper interconnect circuitry. These products are offered as individual systems or as part of Applied Materials' Copper Interconnect Equipment Set Solution(TM) which provides customers with the equipment, integrated process technology and guaranteed electrical results for manufacturing dual damascene interconnect structures. Customers can develop and test a complete copper interconnect process flow in Applied Materials' Equipment and Process Integration Center, the first facility of its kind in the industry to provide this advanced capability.

Applied Materials is the global market leader in most of the key technologies required for producing copper interconnects, including etch, dielectric chemical vapor deposition (CVD), physical vapor deposition (PVD), rapid thermal processing (RTP) and chemical mechanical polishing (CMP). The company's defect detection and metrology products also are strong performers in their markets.

Applied Materials, Inc. is a Fortune 500 global growth company and the world's largest supplier of wafer fabrication systems and services to the global semiconductor industry. Applied Materials is traded on the Nasdaq National Market System under the symbol "AMAT." Applied Materials' web site is [www.appliedmaterials.com](http://www.appliedmaterials.com).

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