TROPEL

CONTACT: Moira Young
Market development manager
(716) 377-3200

TROPEL PRODUCES NEW LENS SYSTEM FOR MAKING FASTER, SMALLER, MORE POWERFUL COMPUTER CHIPS

ROCHESTER, NY, August 8, 2000--Making computer chips faster, more powerful and smaller is taking a great leap forward thanks to Rochester-based Tropel Corporation, and International SEMATECH, the world's premier consortium of chip and computer makers, is coming to town to recognize the advancement.

International SEMATECH members are AMD, Conexant, Hewlett-Packard, Hyundai, Infineon Technologies, IBM, Intel, Lucent Technologies; Motorola, Phillips, STMicroelectronics, TSMC and Texas Instruments.

Rochester's Tropel Corporation has just produced the first lithographic lens system that can transmit light in the 157-nanometer (nm) wavelength range. A nanometer is about the 1/100,000 the width of a human hair.

Tropel's new lens system will be used in equipment that creates lines and space patterns on computer chips. Chipmakers have been waiting for a system that would use a smaller wavelength to help them meet demand for faster and more powerful memory and processor chips. The Tropel 157nm lens, mounted in a "microstepper" made by United Kingdom-based Exitech Ltd., was installed at International SEMATECH in Austin, TX., where it received full acceptance from the industry group in July.

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Designing and manufacturing a lens that works in the 157nm-wavelength range presented a variety of new challenges for Tropel. One of the most formidable was the limited choice of lens materials. Light in this wavelength does not transmit through conventional materials such as optical glass. The only suitable material is calcium fluoride, a crystalline material whose physical properties differ from other materials used in lens manufacturing. Tropel's optical designers and fabricators forged new ground, developing new polishing techniques and anti-reflective coatings to produce surfaces that would meet the design specifications.

The 157nm lithography program is a cooperative effort between International SEMATECH, a 13-member research consortium, Exitech Limited of Oxford, UK, and Tropel Corporation. Tropel, a leading supplier of precision optical systems and sub-micron form metrology instruments, employs 155 people and is located in Fairport, NY.

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