

Contact information

John Doering

1-512-334-1202

jdoering@molecularimprints.com

**TOSHIBA VALIDATES IMPRINT LITHOGRAPHY FOR 22-NM NODE CMOS
DEVICE FABRICATION**
*BENEFITS OF MOLECULAR IMPRINTS' S-FIL[®] TECHNOLOGY HIGHLIGHTED AT
THE MICRO- AND NANO-ENGINEERING (MNE) CONFERENCE*

AUSTIN, TX. Oct 16, 2007 – Molecular Imprints, Inc. (MII) today announced that Toshiba Semiconductor Company, a global leader in the development and manufacturing of powerful semiconductor devices, has validated the use of MII's imprint lithography technology in developing 22-nm node CMOS devices. Toshiba fabricated narrow trench features at dimensions down to 18 nm using MII's Imprio[®] 250 system. Toshiba presented its findings in a paper titled "Nanoimprint Applications Toward 22-nm Node CMOS Devices" at the 33rd International Conference on Micro- and Nano-Engineering (MNE) in Copenhagen, Denmark.

Results detailed in the paper demonstrate the process capability and stability of MII's Step and Flash Imprint Lithography (S-FIL[®]) technology for next-generation semiconductor manufacturing. Significant enhancements over earlier performance in the areas of imaging, defectivity and overlay control were confirmed. Specifically, Toshiba leveraged MII's Imprio 250 system to pattern 18-nm isolated features and 24-nm dense features with <1-nm critical dimension uniformity (CDU) and <2-nm line edge roughness (LER). Defectivity levels of as low as <0.3 defects per cm squared were achieved, which are approaching those of immersion lithography. Device overlay results were also within Toshiba's required specifications.

"We applaud this impressive accomplishment by Toshiba in pioneering next-generation CMOS manufacturing, and we are pleased by their decision to leverage our Imprio 250 system in their efforts," said Mark Melliar-Smith, CEO of Molecular Imprints. "Their results, along with similarly strong tool performance findings from another leading chip manufacturer, further confirm the performance of the Imprio 250. Unlike extreme ultraviolet lithography, our technology builds on the existing optical lithography infrastructure—helping to make it ideally suited for the economic production of very-high-density CMOS devices. We believe our advanced S-FIL technology is a viable solution for critical device layer applications at the 32-nm node, and a superior solution at and beyond the 22-nm node."

About Molecular Imprints, Inc.

Molecular Imprints, Inc. (MII) is the technology and market leader of high-resolution imprint systems for nano patterning. The company has commercialized proprietary imprint lithography technologies (S-FIL[®] and Drop-on-Demand[™]) and demonstrated sub-20-nanometer resolution patterning capability. Molecular Imprints provides enabling lithography systems and technology for manufacturing applications in the areas of semiconductors, nano-devices, solid state lighting, micro optical components, and magnetic and solid state data storage applications. For more information, visit www.molecularimprints.com.