

# Carl Zeiss Opens Customer Demo Laboratory for Nano-imprint Technology

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The Nano Technology Systems Division (NTS) at Carl Zeiss SMT AG today opened a customer demo laboratory for sales support of Step & Flash Imprint Lithography (S-FILTM) equipment from Molecular Imprints, Inc. During the last months, NTS created the required infrastructure including clean rooms, imprint systems, process technology and measuring equipment, and built up a group of dedicated experts. The first tool, an Imprio 100 demo system, has already been installed, while a second system and additional equipment for the implementation of the entire process chain will follow.

First customer presentations will already take place in December. S-FILTM, which was developed by the US company Molecular Imprints Inc. (MII, Austin/Texas), is a cost-effective step and repeat, nano-imprint lithography technology for the replication of  $\mu\text{m}$  and nm patterns in components, such as devices with optical and photonic structures (diffractive optical elements, optoelectronics), MEMS / NEMS, micro displays, compound semiconductor devices and many more.

MII is the market leader in nano-imprint lithography. Carl Zeiss SMT AG has placed an equity investment in MII in 2003 and is exclusive distributor for MII's systems in Europe. Today MII manufactures three different nano-imprint systems, the Imprio 50/55 and the Imprio 100. The new customer demo laboratory offers customers the opportunity to experience and test the potential of this technology for their applications.

Dr. Harry Bauer, Member of the Board at Carl Zeiss NTS GmbH, considers S-FILTM technology a promising complementary technology to optical lithography, in particular for emerging markets: "Step and Flash Imprint Technology will be widely employed in rapidly-growing development and application fields in nanotechnology. Furthermore, it delivers many synergies with our current product portfolio. For example, the electron-optical technologies produced by NTS can be used for manufacturing, quality control and repair of templates, which represent the patterning elements for S-FIL technology."

Dr. Norman E. Schumaker, Chairman, CEO and President of Molecular Imprints expressed his pleasure at the opening of the facility: "This marks an important milestone for our Company. With the opening of the Carl Zeiss NTS demo facility in Oberkochen, we can now provide our European customers a high level of applications and technology support, similar to our US customers. We look forward to exploring the wide range of applications that S-FIL technology provides to our customers."

Along with sales support, the application laboratory is set up to present and evaluate technology based on Step & Flash Imprint Lithography. NTS has already applied for funding for the development of nano-optical components and templates from the German Ministry of Education and Research as well as from the Research Directorate Industrial Technologies of the European Commission. The latter project has already been successfully evaluated.

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