

Expanding the nanolithography toolbox

Vasileios THEOFYLAKTOPOULOS - *Heidelberg Instruments Nano, Switzerland*

Thermal scanning probe lithography (tSPL) is an exciting solution for nanolithography & thermal modification. The NanoFrazor provides a platform to make nanostructures of arbitrary shapes on a wide range of substrate materials. It uses tSPL and direct laser sublimation to cover a wide range of dimensions. Thermal nanolithography is achieved through an ultrasharp heated tip. This is combined with in-situ real-time reading of written structures. The writing depth is actively controlled in a closed-loop system. Applications range from nanoelectronics, photonics, spintronics to nanofluidics.