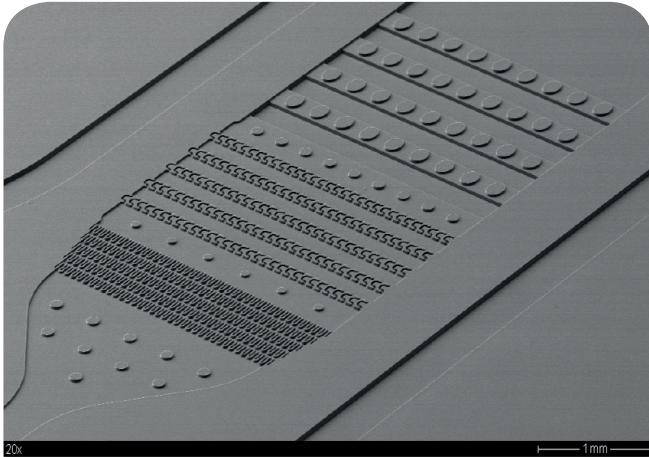


MASTERING

SILICON PRECISION IN PLASTICS



SEM picture of an injection molded polymer part
(lithography master, 2-heights)

Application

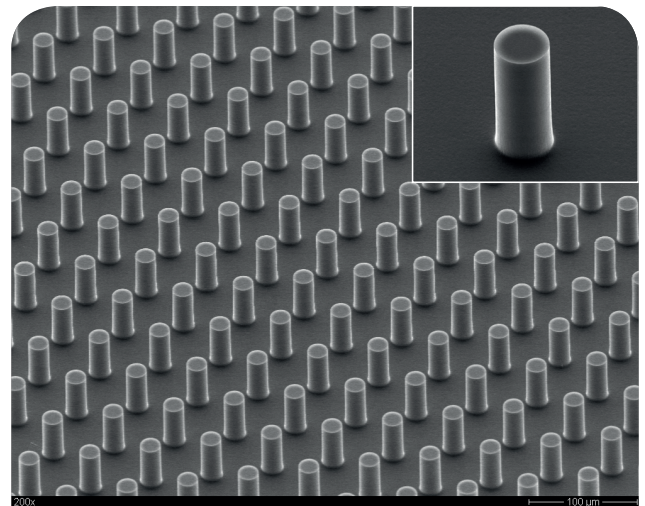
multi height structures, aspect ratios up to 12:1, structure sizes down to 150nm

WHAT WE CONSIDER

- standard methods
 - precision milling
 - diamond milling
- advanced methods
 - mask based lithography
 - phase transition mastering – based on high resolution master technology for Blu-ray discs
 - silicon etching (DRIE)
 - electroforming of silicon or glass master supplied by customer

YOUR BENEFITS

- design review and design for manufacturing
- reliable manufacturing of micro/nano features
 - high aspect ratio, low side wall roughness and adjustable draft angle (less than 0°-10°)
- realization of sophisticated multi-level designs for microfluidic components
 - e.g. flow rate controller, mixer/merging chambers, particle filter, cell sorter, well arrays
- combination of micro-/nanometer features with fluidic components
 - e.g. surface structured fluidic channels
- high-class measurement equipment to verify customer design specifications (e.g. AFM, SEM, laser microscope, optical profilometry)



SEM picture of an injection molded polymer part
(silicon DRIE etched master)