

NANOPATTERNING WITH CONDUCTIVE DIAMOND COATED ATOMIC FORCE MICROSCOPY PROBES

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Nanopatterning silicon surfaces using atomic force microscopy (AFM) has emerged as a particularly effective tool for the fabrication of functional nanoscale device structures. Most previous studies made use of heavily doped silicon or metal coated AFM tips, both of which suffer from significant wear during extended use. To overcome this limitation, NU-NUSEC researchers demonstrated nanopatterning on silicon surfaces using wear-resistant, conductive diamond coated AFM tips. This important step forward improves both the reliability and reproducibility of the AFM nanopatterning process.

