

# Novel Fabrication Technologies for Diverse Nano Structures

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This report is about different nanofabrication technologies, including FIB Stress-introducing technology, Spacer technology and OPEIR technology. FIB Stress-introducing technology is used for 3D nanofabrication and 3D assemblies. With this technology, nanosprings with nanoscale diameters are fabricated and a 3D cubic frame is assembled from 2D patterns. Spacer technology is used to fabricate nanowires and SiO<sub>2</sub>/Si nanonail arrays, the dimension and location of the nanonails can be controlled beyond photolithography limit. OPEIR technology is proposed to generate nanoresidues on different substrates, and these nanoresidues can be used as etching masks for nanopillars and other nanostructure forests.