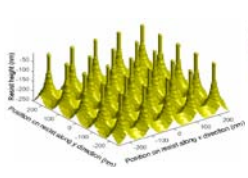


# Main research focus areas

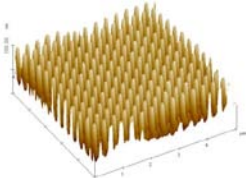
## Nanoscale Optics:

- Precision fabrication of micro and nano features
- Novel interferometric, evanescent Wave and plasmonic lithography.
- Optical metamaterials & energy harvesting



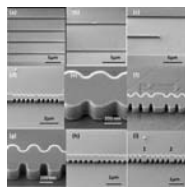
Sub-50nm pillars

(2008-12)



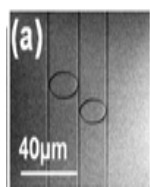
Nanopillars by SPIL

(2010-11)



micro-filter

(2011)

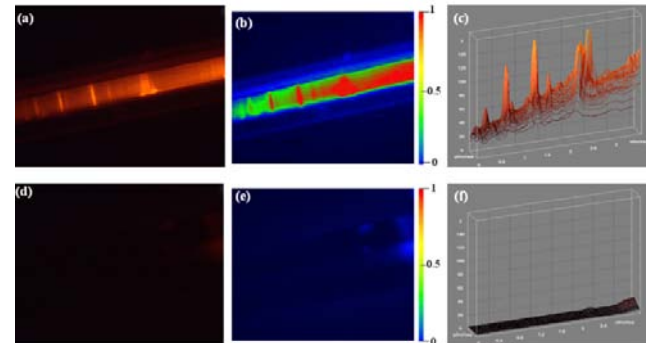


micro-ring resonator

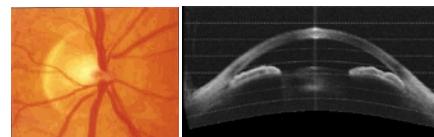
(2011)

## Bio medical optics/ Biomedical fiber optics (Imaging and sensing)

- High resolution multimodality bio-optical imaging
- Multispectral and hyperspectral imaging and Multi-analyte sensing
- High resolution probe imaging for angle closure glaucoma
- Photoacoustic imaging and spectroscopy
- Early cancer diagnosis/In-vivo optical biopsy
- Opto-fluidics and PCF



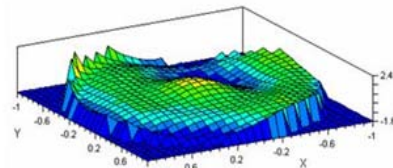
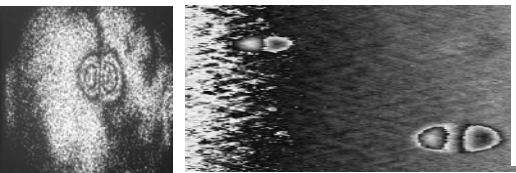
Highly sensitive detection of breast cancer cells at extremely low sample volume 2010



Angleclosure-2011

## Measurement, Inspection, and NDT

- Micro/ nano metrology,
- Nondestructive testing (NDT),
- Health monitoring of composite structures



Speckle Metrology & Full field optical NDT (1998-2010)

