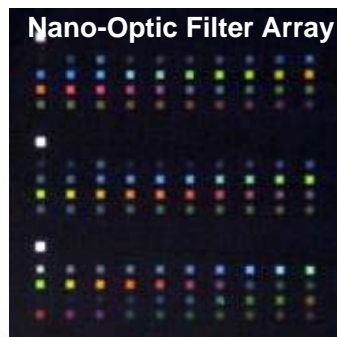
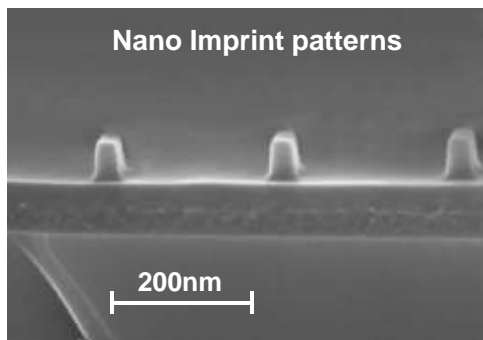


# Spectrum Sensor™ chip using nanoimprinting

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noninvasive health monitoring  
wearable & mobile



bio-chemical detection  
environment, security



initial focus



high-resolution  
color sensing



color filter for **MULTI/HYPER SPECTRAL** image sensor  
(automobile, medical applications)

- Goal is to develop the mass production technology of metallic nano-optic filter using cost efficient nano-imprint lithography (NIL) and metal etching techniques.
- Initial prototypes fabricated at the Penn State NNIN site provided a nano-optic filter array with reverse tone step & flash imprint lithography(S-FIL/R) and aluminum dry etch processes.
- Application: Spectrometer-on-a-chip™ for non-invasive health monitoring, bio-chemical detection, and high resolution color sensing.

S-FIL/R with Al dry-etching provides a cutting edge, low cost nano-optic filter production technology.

Penn State Site