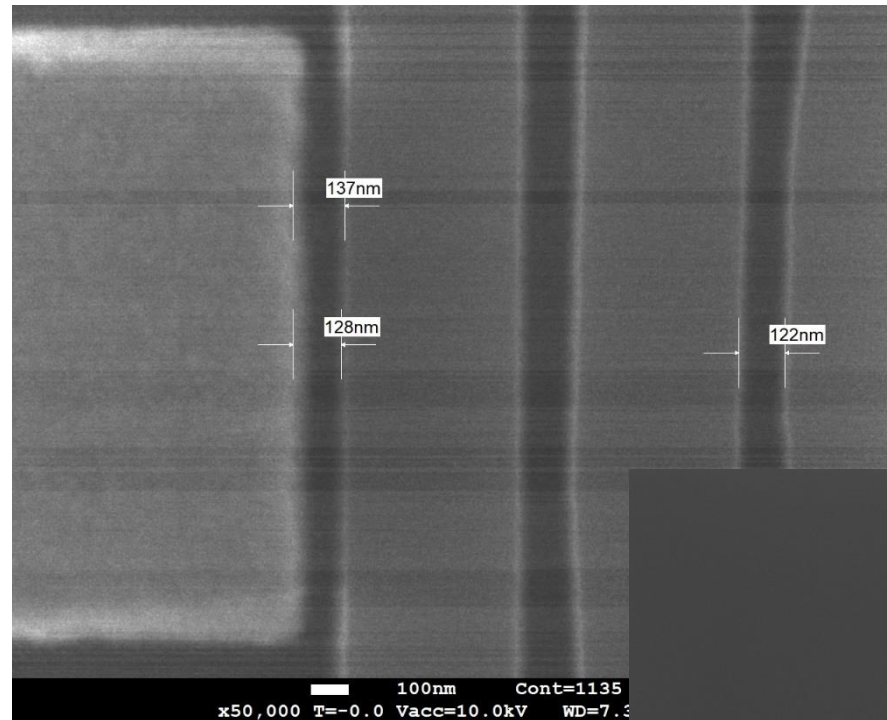
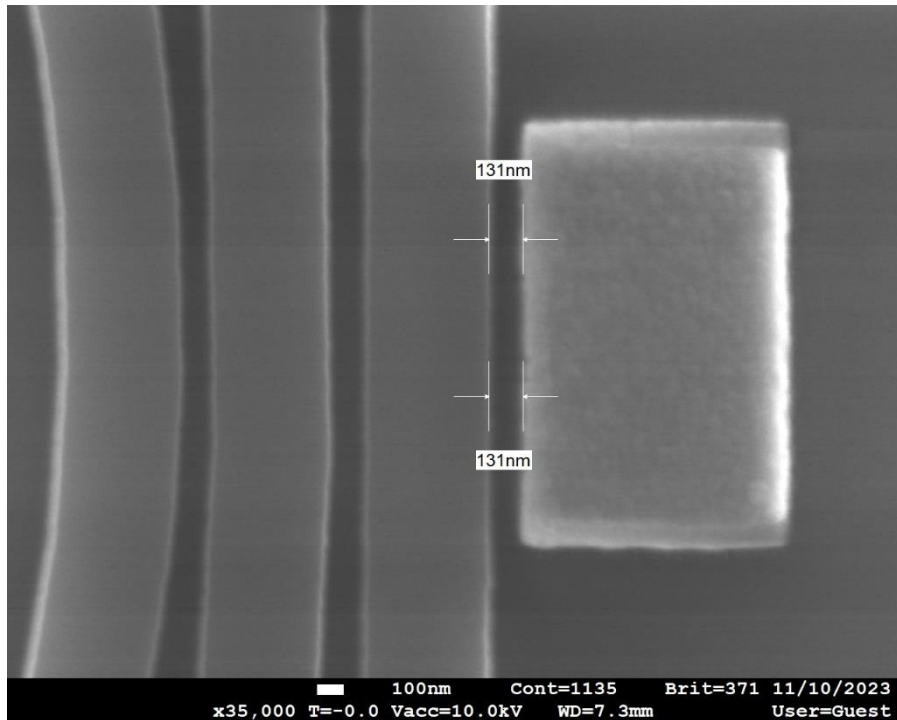
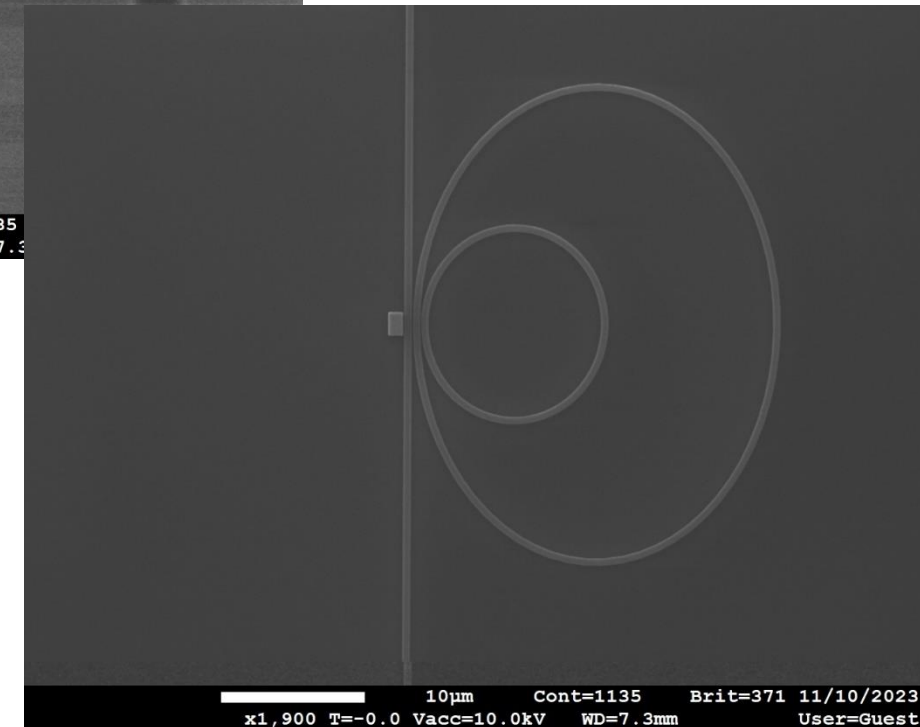


Fabricated devices

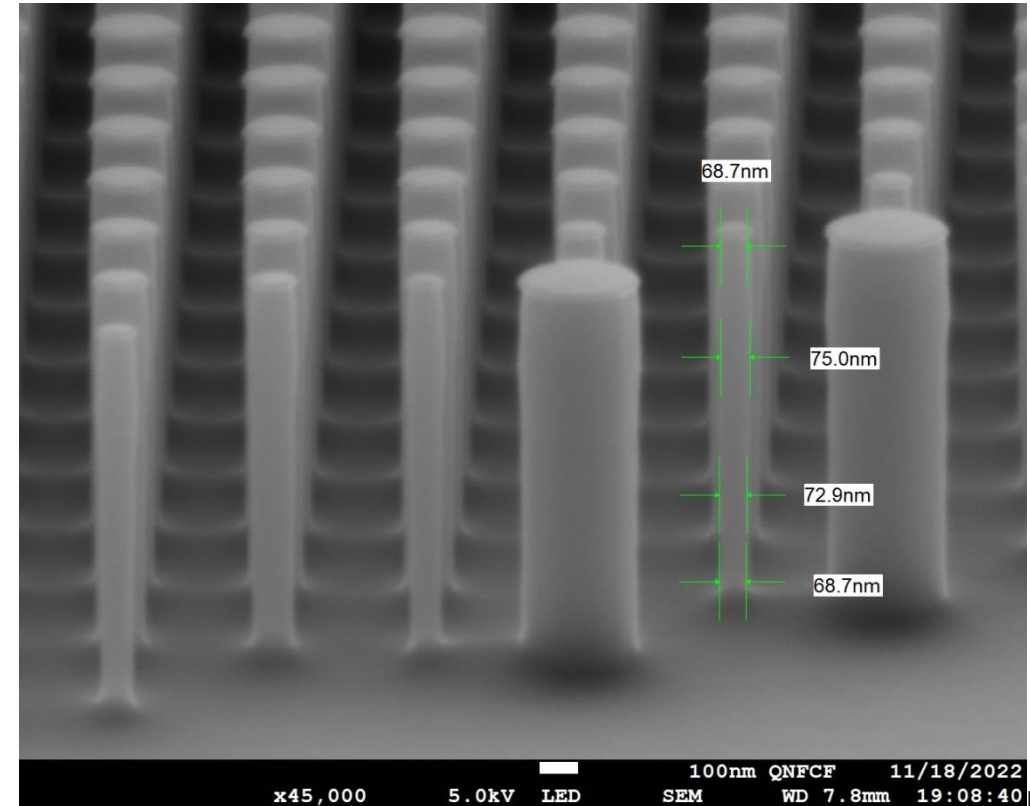
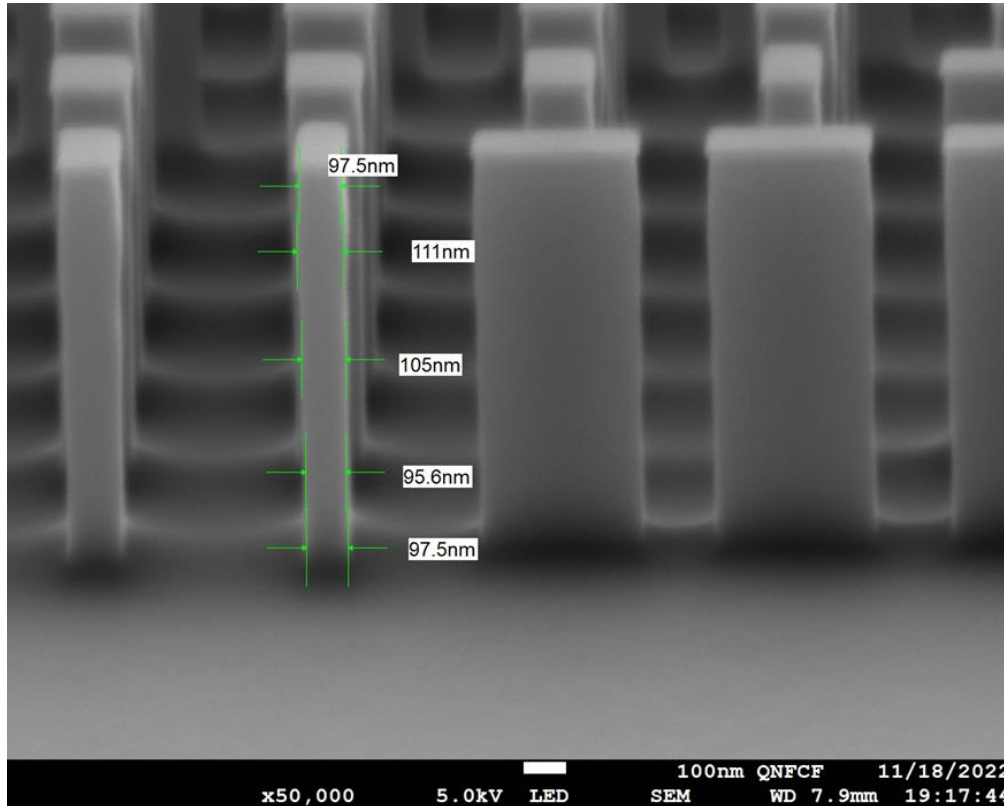


Si thickness: 280 nm (measured)
Au thickness: 210 nm (measured)



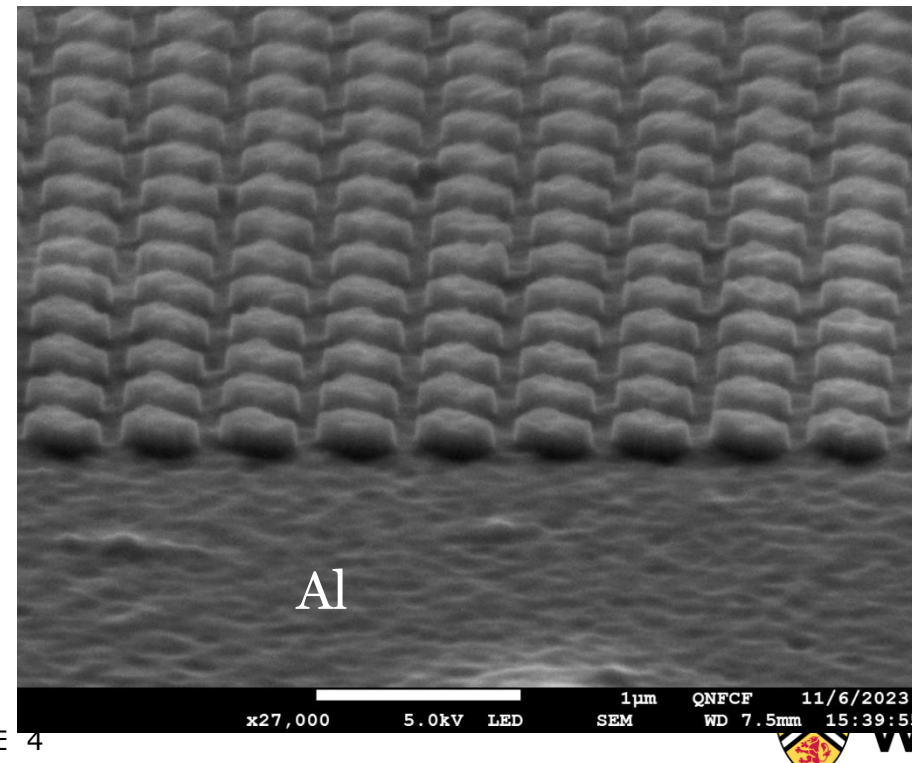
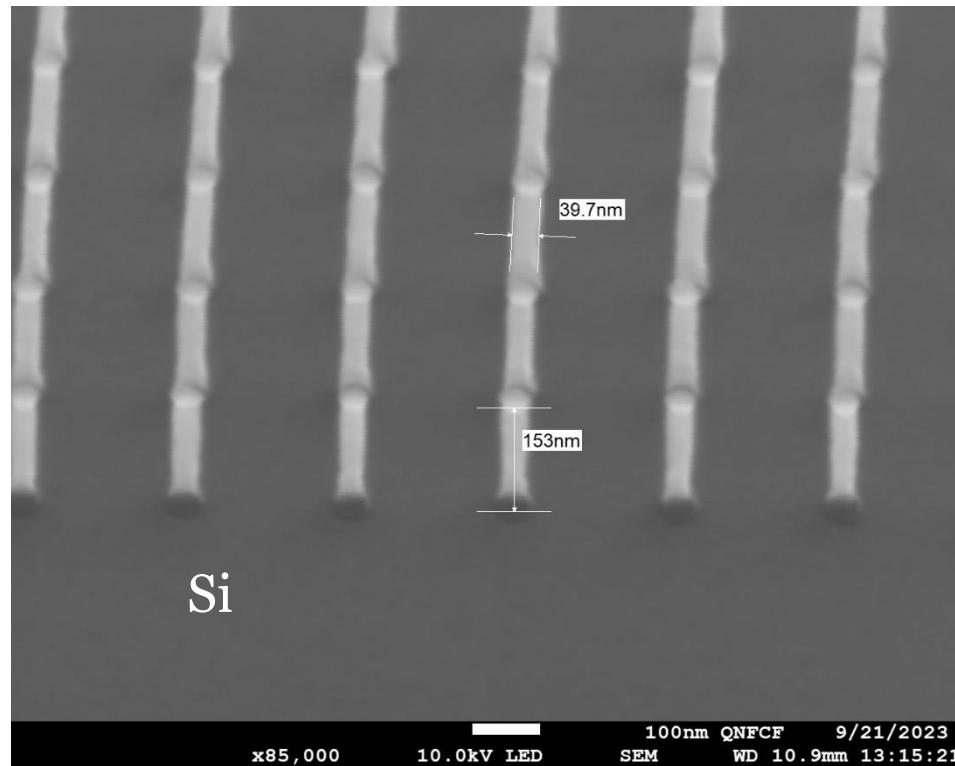
2. Metalens

We developed the nanofabrication process for fabricating a series of metalenses for imaging systems. This process includes e-beam lithography, DRIE silicon etching, film growth, etc.



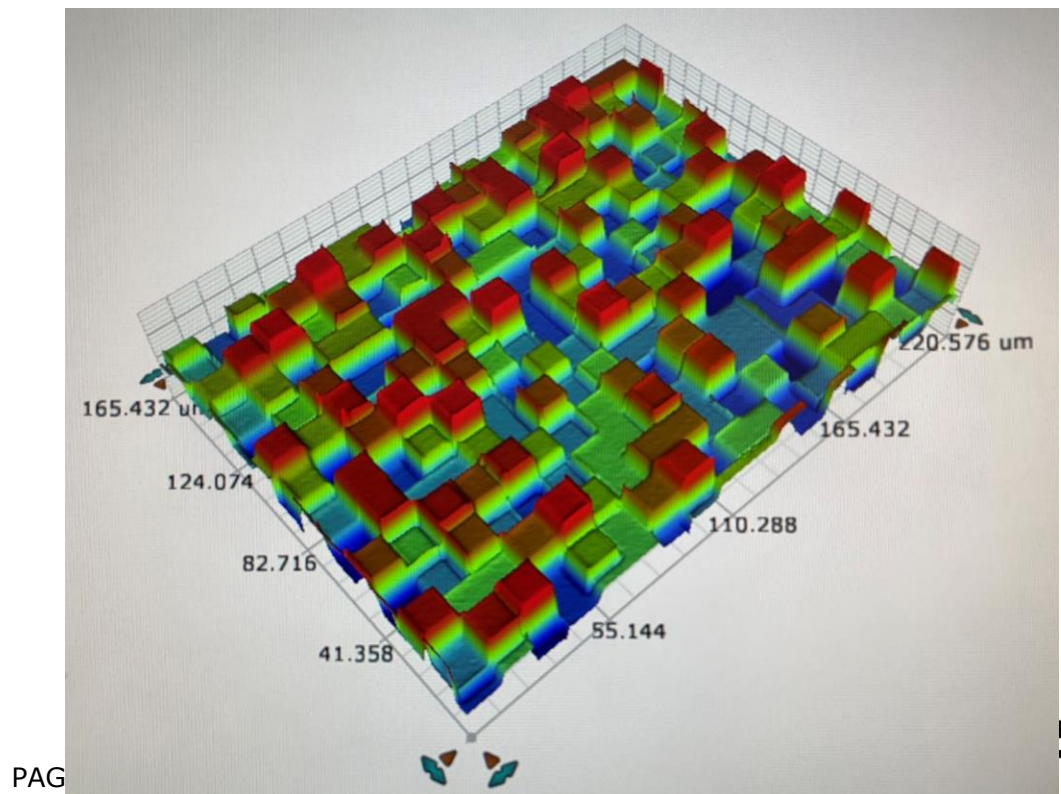
3. Full-color printing metasurfaces

Based on the interaction between photons and silicon/metal nanostructures, full-color printing metasurfaces were fabricated using e-beam lithography and dry etching. Those nanostructures can change the phase and the amplitude of light, leading full-color images made of nanostructures only.



4. Multi-step imaging optical elements

We carried out 3 times of optical lithography and dry etching and fabricated 8-step patterns on quartz substrates. The individual steps can tune the phase of the incident light and improve the imaging performance.



5. Large-area and 2D gratings

We investigated the critical issues during multiple times of e-beam lithography and oxide etching, and fabricated large-area and 2D gratings with sharp corners and nanoscale patterns.

