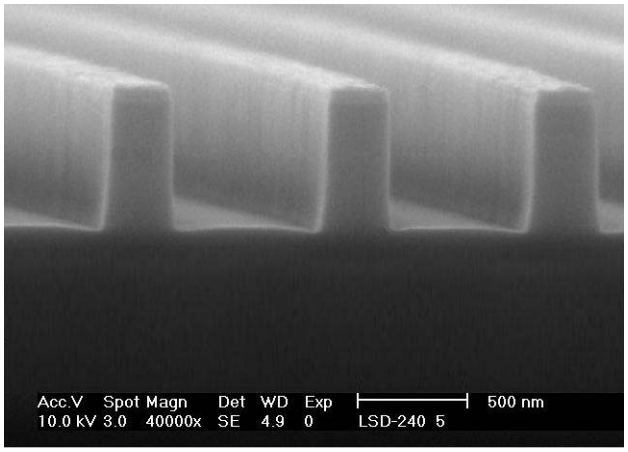
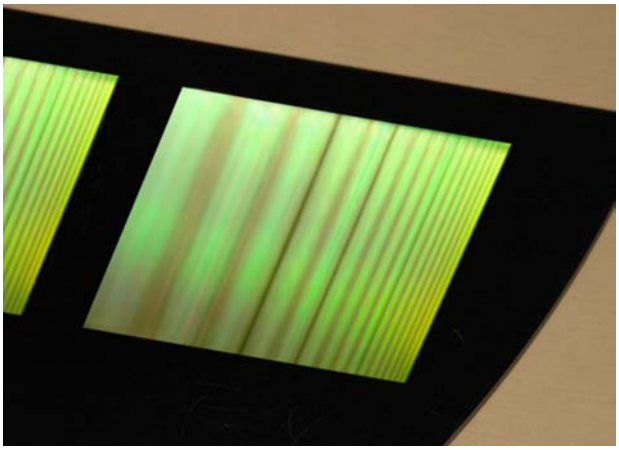
Nanostructured Diffraction Gratings

Crafting light for the Information Age

Photolithographic rendering of computer-generated designs provides for the fabrication of etched reflection or transmission gratings with arbitrarily curved and spaced lines and therefore opens the door to new generations of flat diffractive gratings combining both dispersive and focusing properties. Using holographic design methods, very general spatial wavefront transformations and apodizations can be programmed into the grating.





Features:

- Arbitrary line patterns
- Variable pitch
- Combine dispersive and imaging functions on flat substrate
- Diffraction-limited performance over 25 x 33 mm or smaller size
- Avoid imperfections of ruled and holographic gratings
- Stepper-based volume production of masters
- Groove-cross section: rectangular
- Groove aspect ratio : up to 5

Applications

- Spectrometers and Hyperspectral Imagers
- Industrial Production Process Monitoring
- Telecommunications
- Medical Diagnostics employing Bio-Optical Techniques
- Environmental Sampling and Remote Sensing
- Quality Control in Laser and Semiconductor Production

Specialty Applications

Custom Designs

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