

Group of Electron Beam Lithography

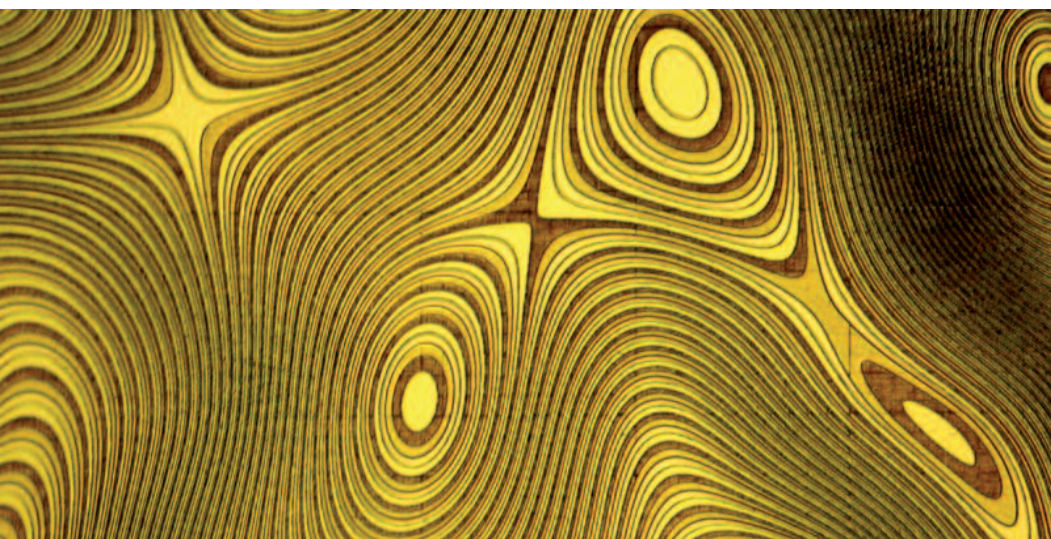
Department of New Technologies



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Example of a general Fresnel structure

THEMATIC RESEARCH FOCUS

Research area

Electron beam lithography

Excellence

Variable-shaped e-beam writer
Diffractive optically variable image devices (DOVIDs)

Mission

Planar micro- and nano-structures prepared by e-beam lithography

DEVELOPED TECHNOLOGIES

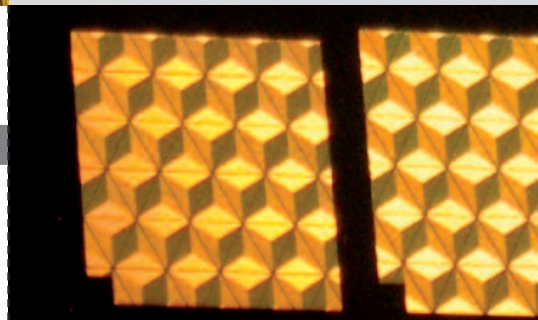
Content of research

- Variable-shaped e-beam pattern generator
- E-beam lithography using shaped beam writer and Gaussian beam writer
- Electron emitter preparation and characterization
- Optical diffractive, Fourier and Fresnel structures, DOVIDs
- Micro-sensors and calibration specimens

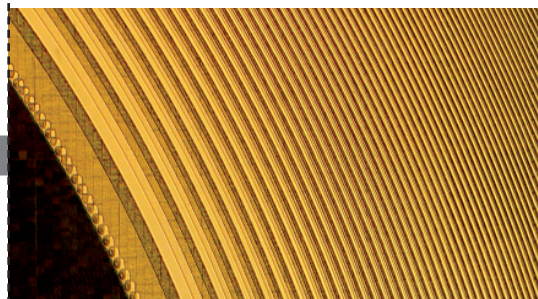
Main capabilities

Basic research

- Study and evaluation of electron scattering effects
- Electron emitter preparation and characterisation
- Calculation and optimization of computer generated holograms (CGH)



General Fresnel structure 20 x 20 mm²



Part of a Fresnel lens

Blazed grating (detail)

