

Advanced patterning for photonic devices, structures and applications

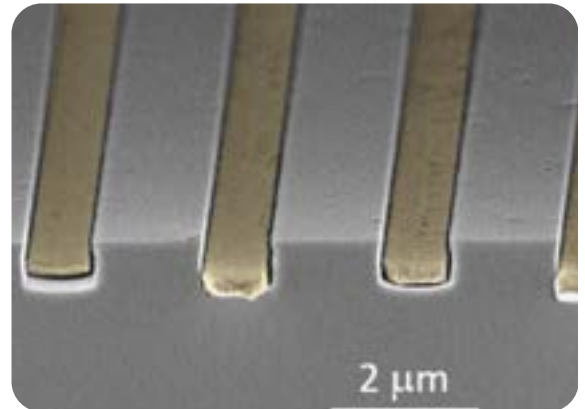
WE ARE MULTIDISCIPLINARY SKILLED GROUP WORKING ON ADVANCED MICRO- AND NANO PHOTONIC DEVICES AND STRUCTURES FABRICATION

OFFER

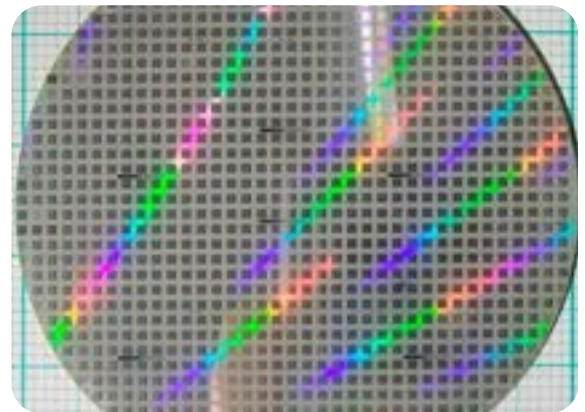
- Full processing of devices,
- Performing individual steps of technology,
- Prototyping of new concept

APPLICATION:

- Light sources: VCSEL, LED
- Photonic structures: gratings, photonic crystals, lenses, CGH, mask for GaN NWs SAGs
- Photomasks, NIL stamps, polymer replicas
- Diffractive optical elements:
 - Single microlens and arrays (spherical, cylindrical, elliptical)
 - Diffraction gratings, fan-out elements
 - Computer generated holograms
 - Apodised diffractive elements



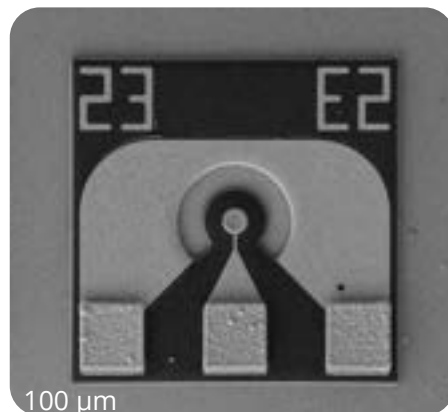
Transparent electrodes for IR



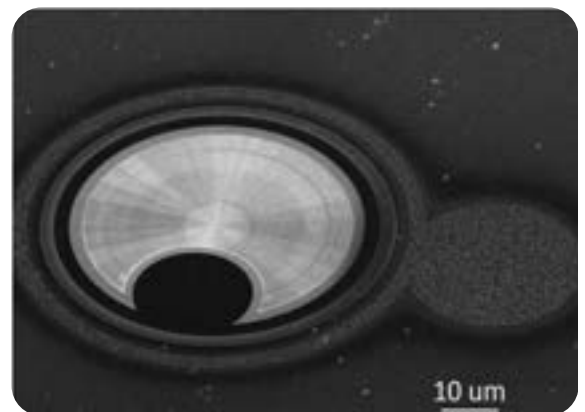
Lights sources: LEDs

TECHNIQUES:

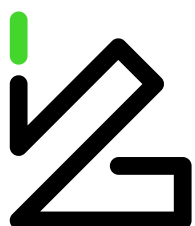
- Photolithography,
- Laser lithography,
- E-beam lithography,
- Nanoimprint,
- Plasma etching,
- PVD,
- PECVD,
- SEM



VCSEL



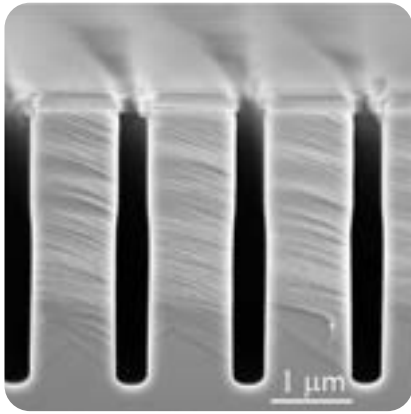
LEDs



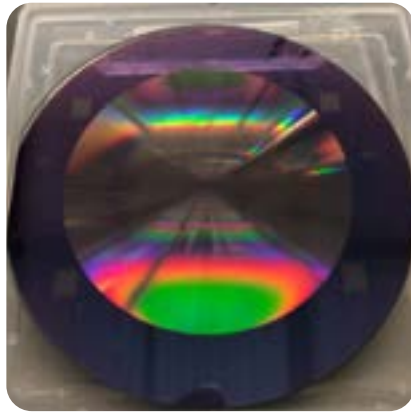
Łukasiewicz

Institute of
Microelectronics
and Photonics

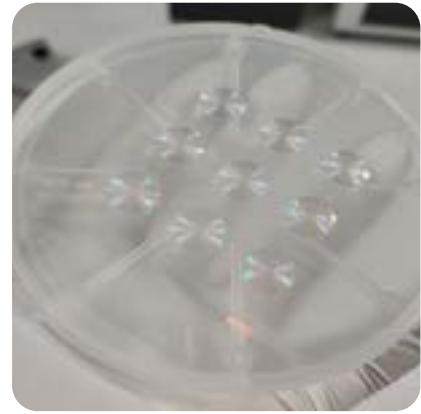
PHOTONIC STRUCTURES



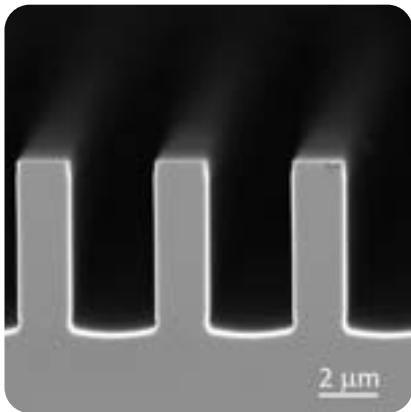
GaAs



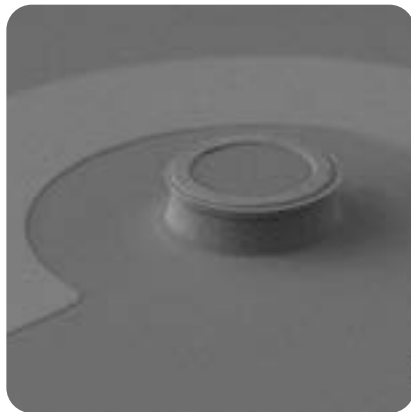
Lenses



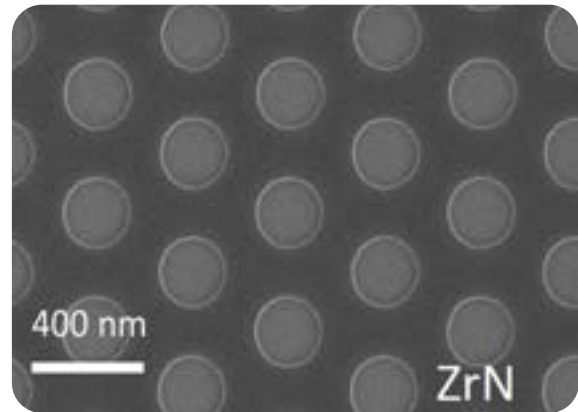
Lenses



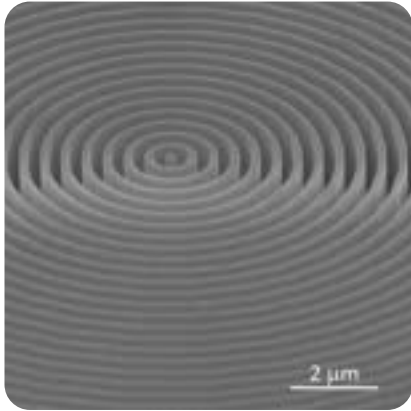
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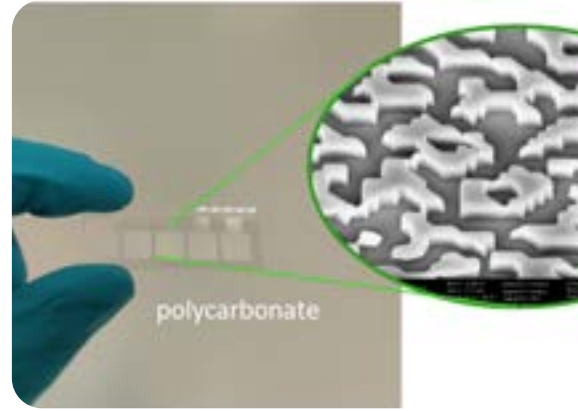
Lights sources: VCSEL



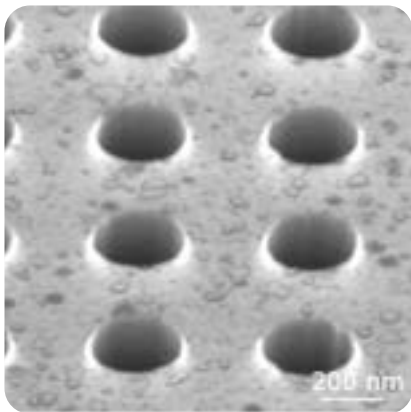
MASK FOR GaN NWs SAGs



GaN



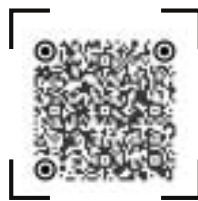
Computer Generated Hologram



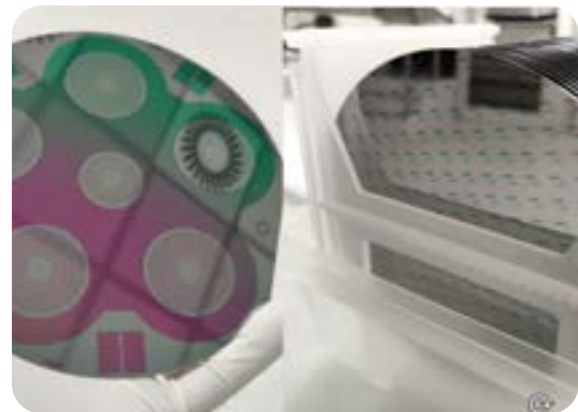
GaN



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SCAN ME



Fotolithography/e-beam lithography

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GaN technology, sensors, thin-film structures & porous materials