

*Top: Singular LED line generator.*

*Cover: Array projection optics for automotive lighting.*



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## Contact

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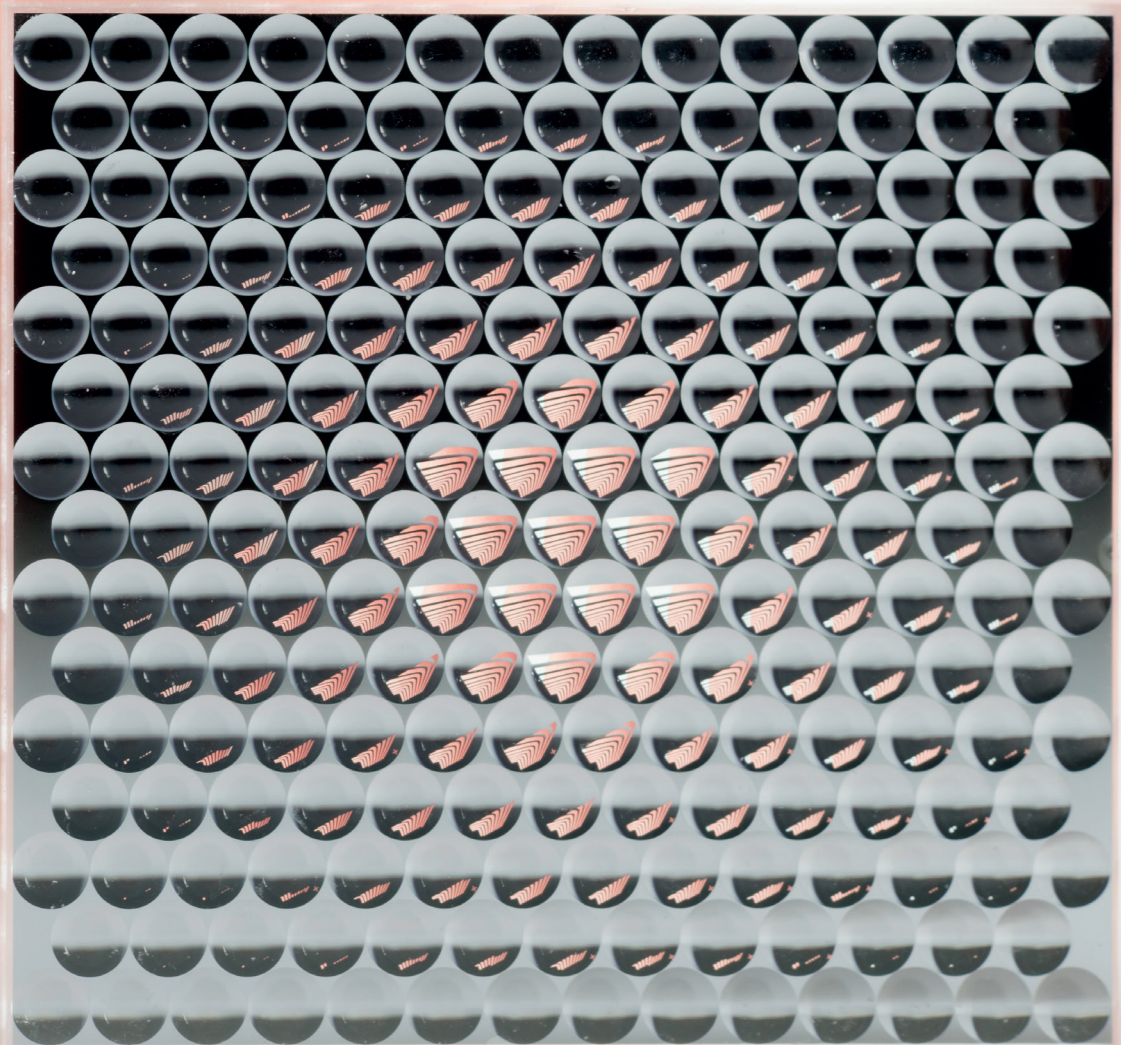
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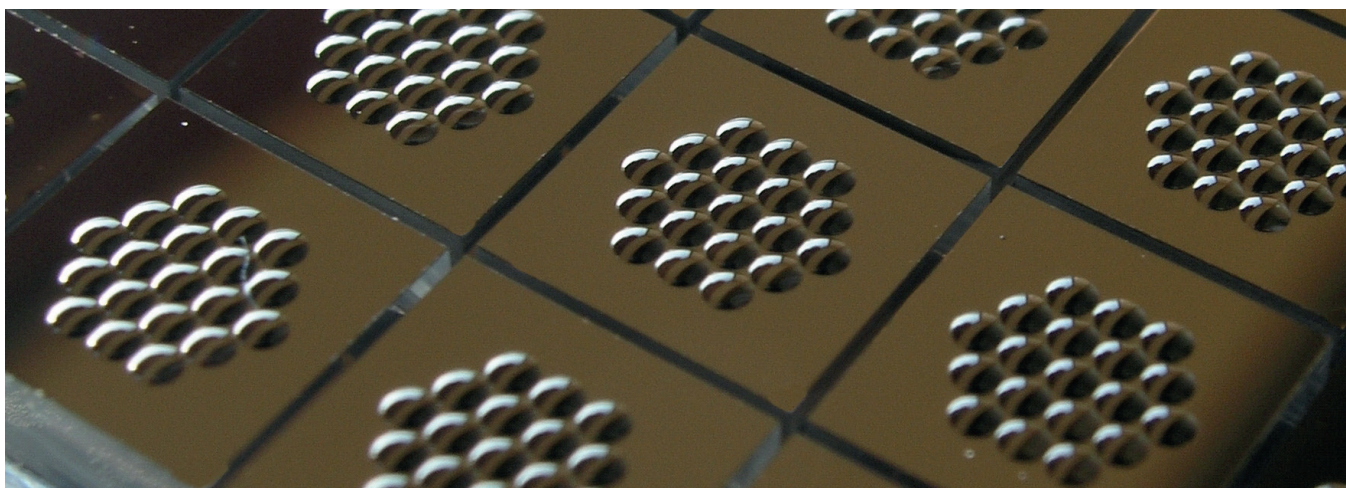




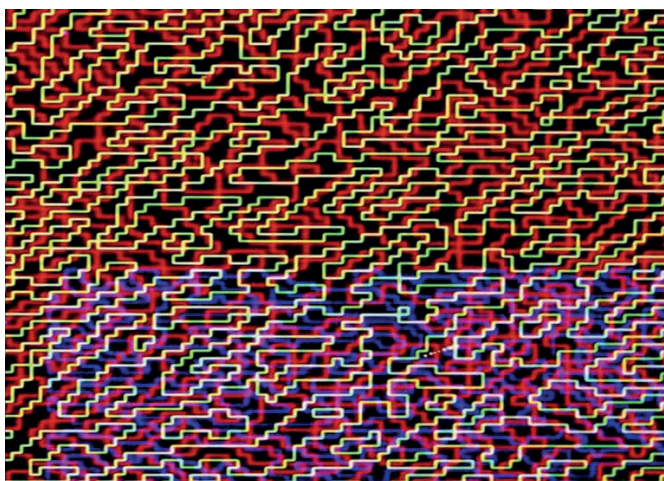
## Complex micro-optical modules

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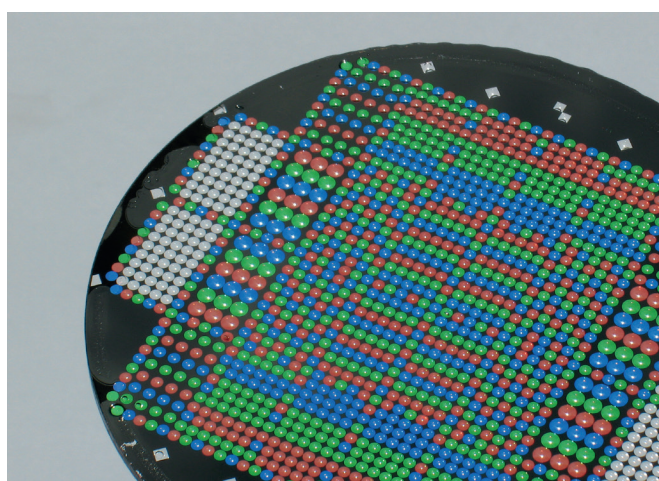




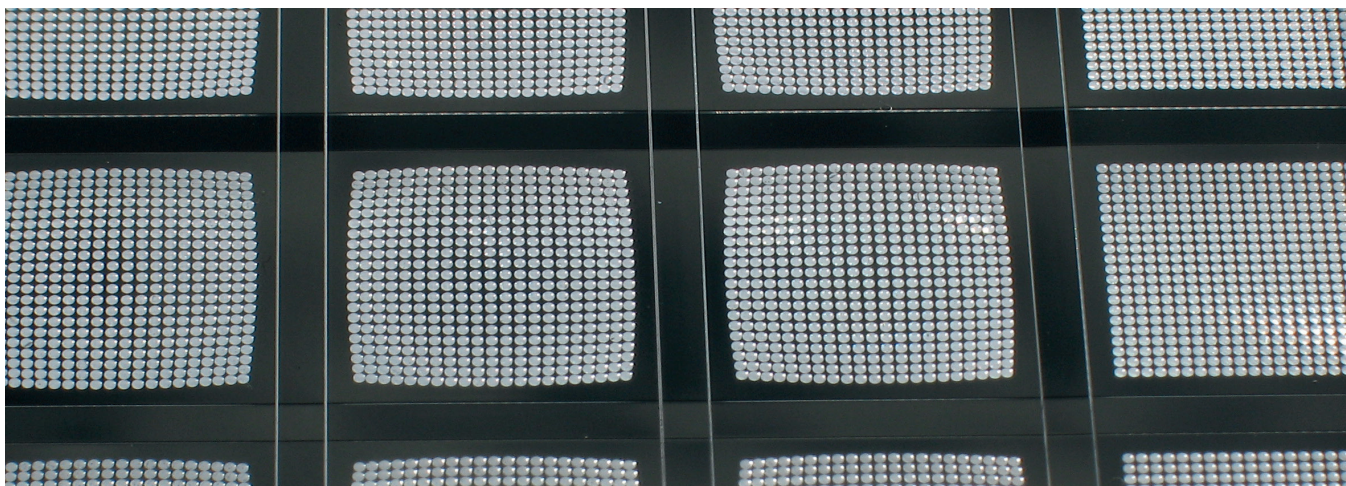
*Sensor chips including anti-reflection coated microlens arrays, black apertures and pinholes after dicing (see example l).*



*Stack of 3 diffractive patterns fabricated by repetitive UV-molding and dielectric coating (see example g).*



*Wafer with chirped lens arrays, apertures and color filters (see example q).*



*Chirped (+ regular) lens arrays for LED beam forming elements after dicing (corresponds to example o).*

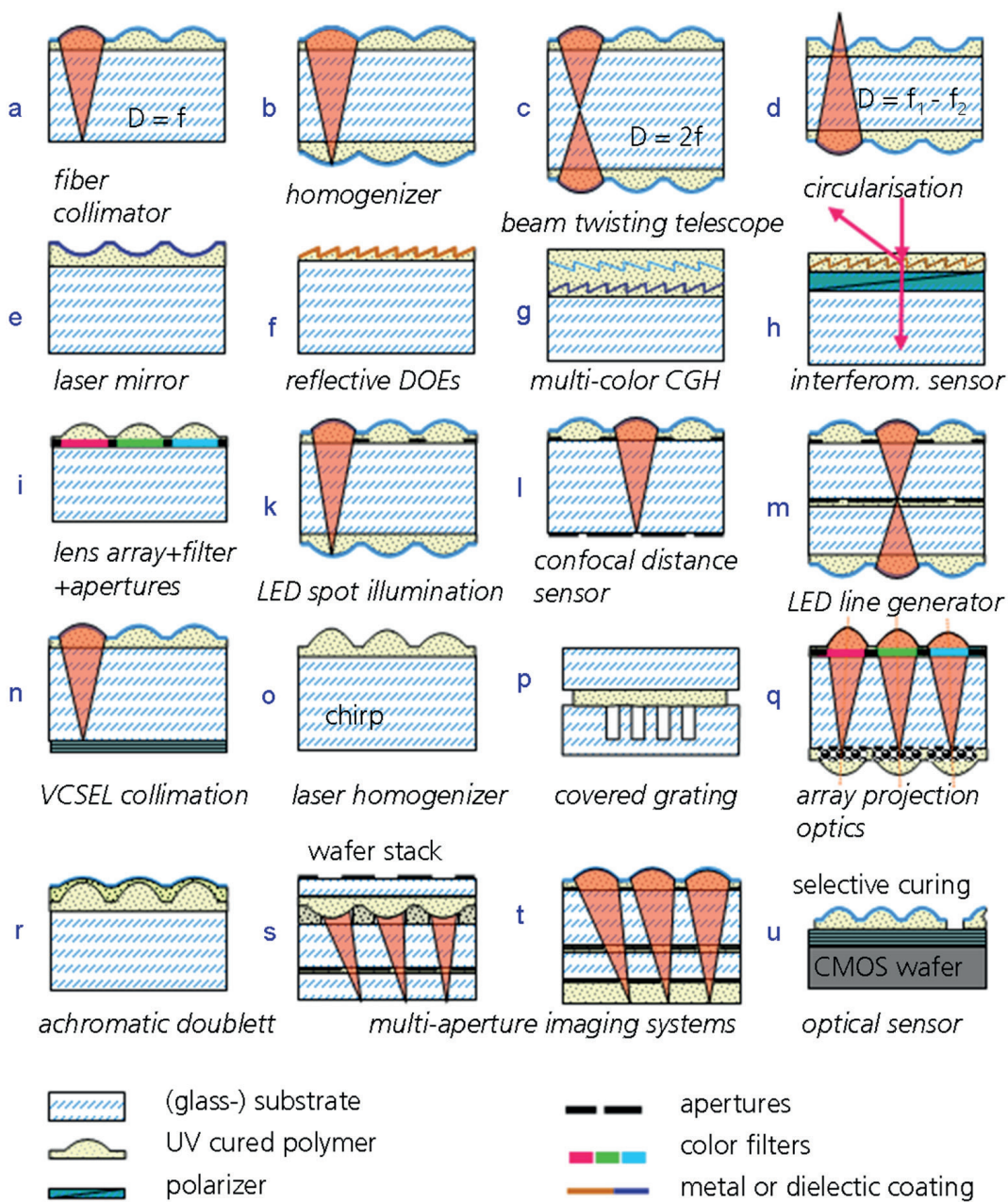


## Objective

The wafer-scale fabrication of hybrid integrated micro-optic modules for illumination, beam shaping, sensors, and display applications generated by lithography, UV-molding, coating and separation is the objective.

## Technological approach

- Stacking of optical functional surfaces / wafers
- UV molding of micro-optical elements
- Metal and dielectric coating
- Lithographical patterning of apertures, filters, or metal gratings



Examples of realized micro-optical systems.