LIGHT 4 LIFE workshop - INTERNATIONAL DAY OF LIGHT 2024



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Fabrication of metalenses: fundamentals and key aspects

In recent years metalenses have shown great potential in many applications such as optical tweezing and microscopy. Their power stems from sub-wavelength-sized nanopillars, the so-called meta-atoms, which allows control of light in all of its degrees of freedom. Given their small size and tight tolerances, meta-atoms must be fabricated with precise semiconductor processing, such as Electron Beam Lithography. Here I will present the processes involved in the fabrication of metalenses and how their functionality is affected by fabrication constraints.

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