

Nano-stereolithography using evanescent light

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OBJECTIVES

Most desired fabrication method
(for PhC, NEMS, μ -TAS)

- Three-dimensional
- Submicrometer resolution
- High throughput

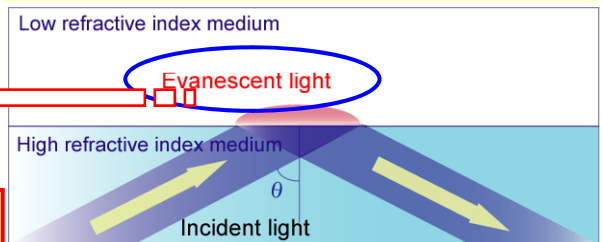
Stereolithography
(High throughput)

Introduction of **Evanescent light**
to Stereolithography

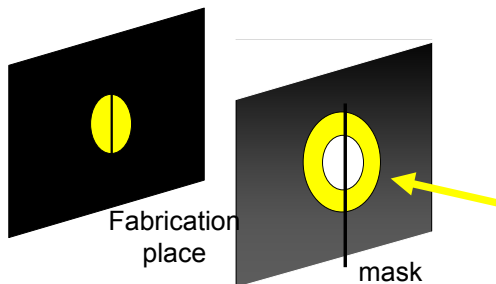
Nano-stereolithography

• Evanescent light

Partially localized energy which localizes
within only the range of the wavelength
under the condition where an incident
angle is set over the critical angle.

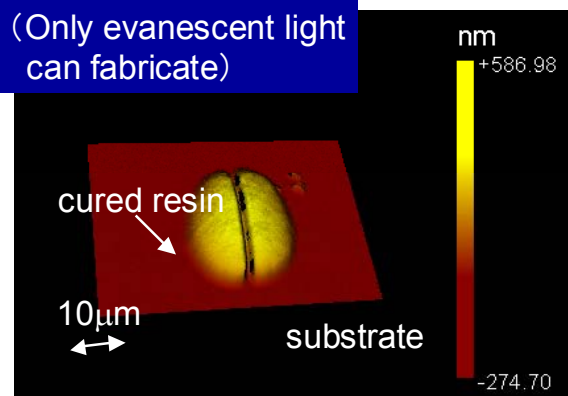


Nano structure made by using mask



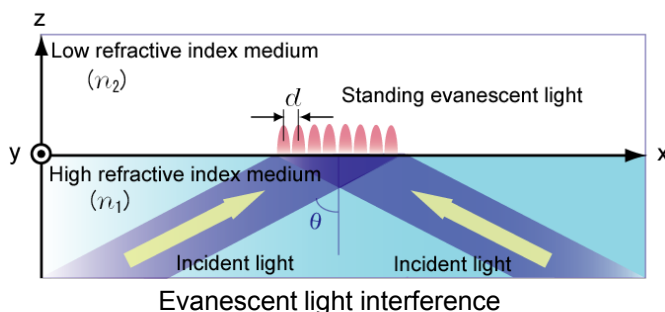
By using the mask, microchannel
with $1\mu\text{m}$ width was fabricated

Thickness: 300nm
(Only evanescent light
can fabricate)

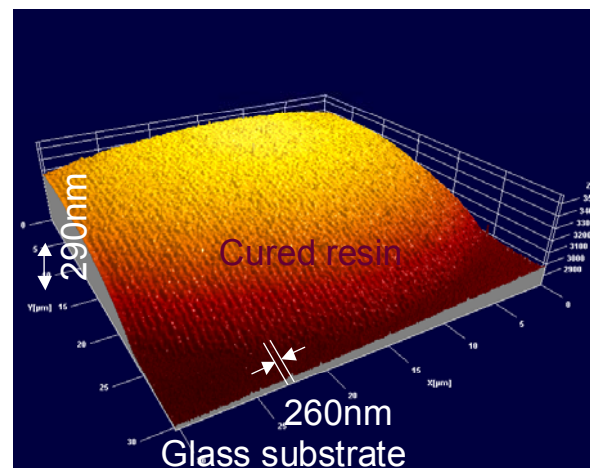


Nano structure made by using mask

Nano structure made by using evanescent light interference



By using evanescent light
interference, 260nm(half pitch)
lattice structure was fabricated



Nanolattice structure made by
evanescent light interference