

Inverse design and demonstration of a compact and broadband on-chip wavelength demultiplexer

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1 Device Schematic

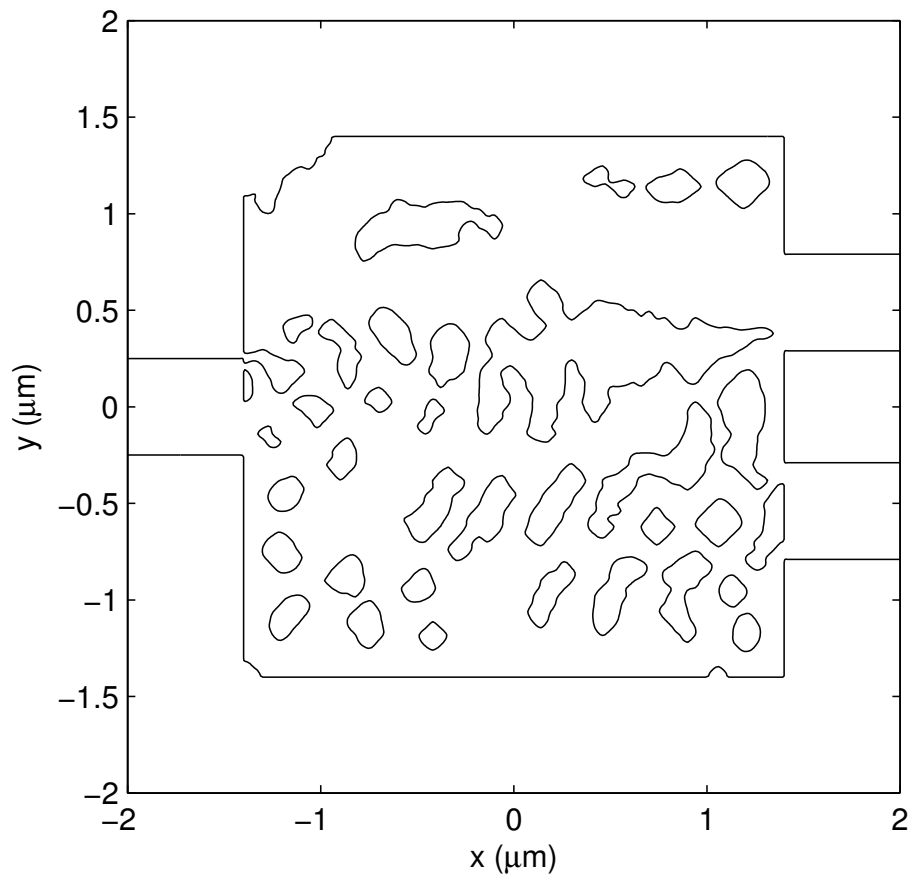


Figure 1: Detailed schematic of the compact wavelength demultiplexer.

2 Supplementary Movie

The supplementary movie visualizes the electromagnetic energy density,

$$U = \epsilon |\mathbf{E}|^2 + \mu |\mathbf{H}|^2, \quad (1)$$

in a horizontal slice through the middle of the device as a function of wavelength. Here, ϵ is the permittivity, μ is the magnetic permeability, and \mathbf{E} and \mathbf{H} are the E- and H-fields respectively. The wavelength is displayed in the bottom left corner of the movie. The white scalebar in the bottom right corner is 500 nm long.