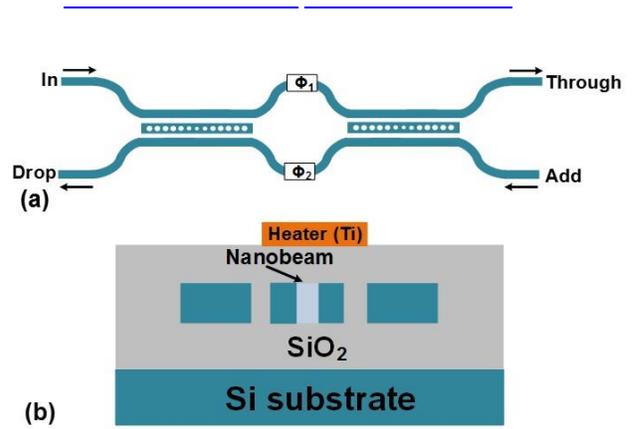
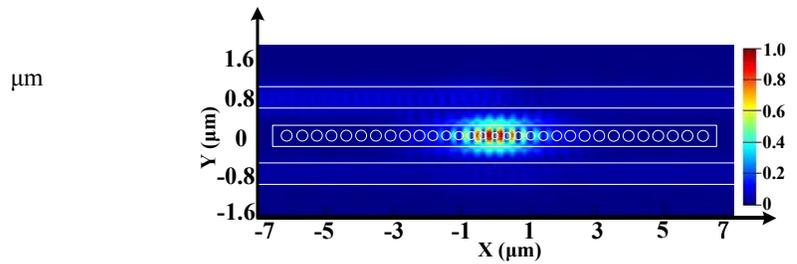


Abstract — We propose and experimentally demonstrate a 2×2 thermo-optic (TO) switch implemented by dual photonic crystal nanobeam (PCN) cavities. This structure can achieve low switching power owing to the small mode volumes of the PCN cavities. Extinction ratio of ~15 dB is achieved at through port.

Keywords — integrated optics devices, photonic crystals, optical switching devices.



PCN cavities. The phase difference between the two arms ($\Phi - \Phi$) is equal to π .

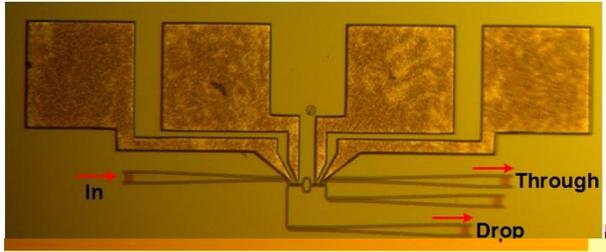


fundamental limit of $V = (\lambda/2n)$

is only 2 μm

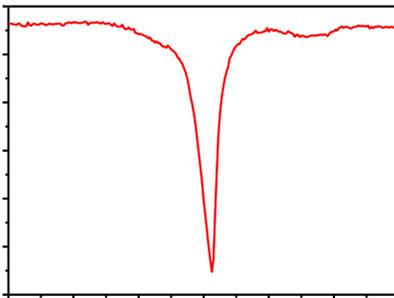
π phase difference

μm

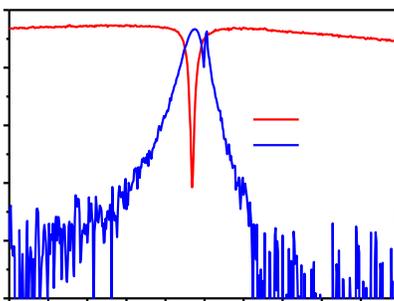


layer of 1.5 μm of silicon dioxide

μm



μ



μ

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