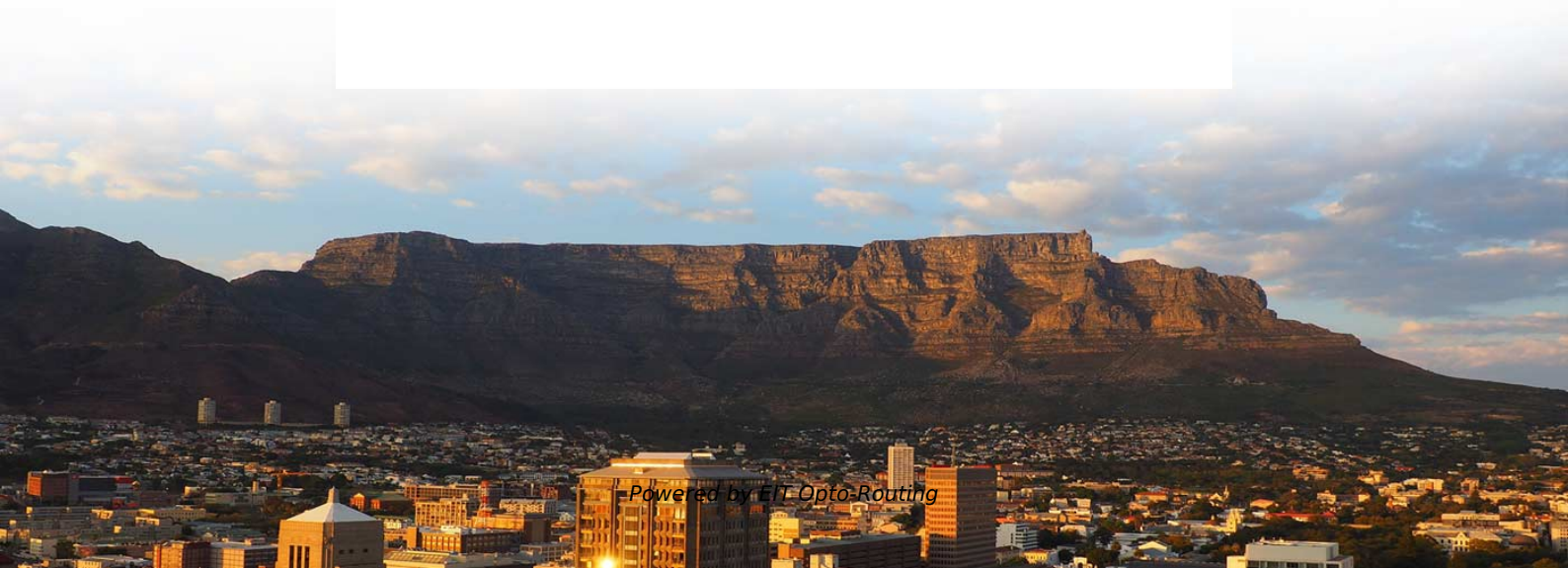
EIT Opto-Routing

Custom Process for Low-Loss Planar Waveguides in Security Applications



Ultra Low Loss Planar Waveguides and Their Applications

Provides a notice of upcoming special issue(s) or section(s) of interest to practitioners and researchers. May also include call(s) for papers.

Ultra-Low-Loss Silicon Waveguides for Heterogeneously

Integrated ultra-low-loss waveguides are highly desired for integrated photonics to enable applications that require long delay lines, high-Q resonators,

Towards monolithic low-loss silicon nitride waveguides on a mature

Silicon nitride photonics has enabled a broad class of low-loss integrated devices and chip-scale solutions that benefit from transparency over a wide wavelength range and compatibility

Fabrication techniques for low-loss silicon nitride

Here, we report the labs-scale process optimization and optical characterization of low-loss tunable photonic integrated circuits for single-photon

Ultra Low Loss Planar Waveguides and Their Applications

Prospective authors are requested to submit new, unpublished manuscripts for inclusion

in the upcoming event described in this call for papers.

Low-loss optical waveguides made with a high-loss material

Based on subwavelength gratings, here, we show that it is possible to create broadband, multimode waveguides with very low propagation losses despite using a strongly absorbing material.

The Role of Planar Waveguides in Sensing Applications

The only non-vanishing components in the guided TM mode are E x, H y, and E z. Due to their high sensitivity, imperviousness to electromagnetic interference, short detection time, compactness, low

RH-Waveguide Platform

The typical propagation loss of ~5-10 dB/m in a planar silica waveguide is nearly five orders-of-magnitude larger than that in low loss optical fibers. This wide gap in loss performance has

Low losses Er3+-doped flexible planar waveguide: Toward an all-glass

One fundamental brick to obtain this features extension is the fabrication of low loss inorganic active planar waveguides on flexible glass substrate. Here, we present the preliminary

Low loss, high contrast planar optical waveguides based

Abstract A new class of integrated optical waveguide structures ("TriPleX") is presented, based on low cost CMOS-compatible LPCVD processing

Ultra-low-loss Ta2O5-core/SiO2-clad planar waveguides on Si

In this article, we report the demonstration of a record low propagation loss of 3 1 dB/m across the entire telecommunications C-band for a CMOS-compatible Ta2O5-core SiO2-clad planar

Ultra-low loss SOI waveguide crossings designed by a hybrid global

Due to the small footprint, ultra-low insertion loss, and easy fabrication step of the proposed designs, we believe such waveguide crossings can have great application potential in

Design and characterization of arrayed waveguide

Planar waveguides with ultra-low propagation loss are necessary for integrating optoelectronic systems that require long optical time delay or

250C Process for

In this work, we present the first demonstration of ultra-low losses of 2.0dB/m in silicon nitride waveguides and ring resonators with Q = 11.18 million, using a anneal-free process involving ICP

High Extinction, Broadband, and Low Loss Planar Waveguide Polarizers

Abstract: A technique for making high extinction and broadband polarizers in a low loss planar waveguideplatformispresentedandcharacterized. Extinction greater than 78 dB is obtained with

NTT Technical Review, July 2005, Vol. 3, No. 7

AbstractNewwaveguidefabricationtechniqueswill be needed to make highly functional next-generation pla-nar lightwave circuits (PLCs). After first reviewing the basic PLC fabrication process,

this article

Ultra-Low Loss Si3N4 Planar Waveguide Platform and Applications

The ultra low-loss Si 3 N 4 /Oxide on silicon waveguide platform has yielded a wide range of passive and active components that open up new PIC applications. Delay lines, 3D stacking, gratings, filters,

Additive manufacturing of planar waveguides for

This work supplies a novel pathway for the design and fabrication of a low-frequency THz PC waveguide with potential applications in communication,

Planar waveguide , Description, Example & Application

The waveguide's physical parameters, such as the core and cladding thickness, refractive index, and waveguide width, must be carefully controlled during the fabrication process.

Optical Waveguides: A Detailed Look at Their Design

Explore the fundamentals of optical waveguides and their pivotal role in modern photonics. Learn about different types of waveguides, such as planar, fiber optic,

Low-loss optical waveguides made with a high-loss material

tegrated waveguides that consist of pairs of integrated high-index-contrast gratings. To showcase this concept, we demonstrate guiding of visible light in the wavelength range of 550-650

Ultra-low-loss Ta2O5-core/SiO2-clad planar waveguides on Si

Ultra-low-loss Si3N4-core SiO2-clad planar waveguides / (ULLWs) on silicon provide the basis of an integration platform allowing for a broad variety of exceptional active and passive

Introduction to the Special Issue on Ultralow Loss Planar Waveguides

Abstract: The fifteen papers in this special issue focus on ultra low loss planar waveguides and the applications.

Optical Planar Waveguide Sensor with Integrated

Optical planar waveguide sensors, able to detect and process information from the environment in a fast, cost-effective, and remote fashion, are

The Hidden Power of Waveguide Low Pass Filter: Revealing Their

Understanding Waveguide Low Pass Filters: Fundamentals and Design Principles One way that these filters work is by using the special way that waves travel through waveguide

Low loss, high contrast planar opti cal waveguides ba sed on low-cost

Low loss, high contrast planar optical waveguides based on low-cost CMOS compatible LPCVD processing

Fabrication of Sub-micro Silicon Waveguide with

Keywords: silicon waveguide; vertical-sidewall; smooth sidewalls; low-loss; oxidation; **1. Introduction Fabrication of silicon waveguides and other silicon photonic structures with significantly**

Fabrication of buried waveguides in planar silica films using a direct

Abstract A CW CO 2 laser ablation technique is used to form buried waveguides in planar silica films. It is shown that the refractive index of a silica thin film is reduced sufficiently adjacent to

A Comparison of Approaches for Ultra-Low-Loss Waveguides

Abstract: We compare ultra-low-loss silica waveguides with PECVD SiO2, borophosphosilicate glass (BPSG), and wafer-bonded thermal oxide upper claddings. We demonstrate fiber-like (0.045 dB/m)

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