

In the first method, a double-field-of-view electronic speckle pattern interferometry system (ESPI) and an integrated deformation and load measurement system are employed, which allows in

Micro-/nanofibers (MNFs) are optical fibers with diameters close to or below the wavelength of the guided light. These tiny fibers can offer engineerable waveguiding properties including optical

During the development of miniature optical sensors, different materials and micro/nanostructures are reasonably designed and functionalized on ordinary single-mode optical fibers.

In this work, thin-core fiber Mach-Zehnder interferometer deposited with poly (acrylic acid) (PAA), poly (allyamine hydrochloride) (PAH) and single-walled carbon nanotubes (SWCNTs-COOH)

In this paper, theoretical model of cascaded Fabry-Perot interferometer (FPI) with thin film based on Vernier effect is established. The

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Now emerging in the marketplace is a revolutionary sensor: a spectral interferometry-based micro-head, engineered to measure individual

In this review, we first introduce the basics of MNF optics and MNF optical sensors from physical and chemical to biological applications and review the progress and current status of this field.

This paper reviews earlier studies focusing on thickness measurements of thin films less than one micrometer thick. Thin films are a

Here, we review the basic principles of microfiber-optic sensors based on a broad range of microstructures, nanostructures, and functional materials. We also introduce the recent progress and

This paper reviews some works on the integration of thin films with fiber micro-structures for sensing application, which are currently conducted at the National Engineering Laboratory for

We have successfully introduced fiber optic interferometry as an in-mold monitoring system of the filling process during the injection molding of polymeric materials.

Micro Nano Fiber Interferometry Sensing Thin Films

The combination of fiber optics with nano-structure technologies and sensitive thin films offers great potential for the realization of novel sensor concepts. Miniatured optical fiber sensors with thin films

Abstract and Figures The combination of fiber optics with nano-structure technologies and sensitive thin films offers great potential for the

References (21) Abstract We propose and demonstrate an extremely simple yet novel sensing strategy for measurements of a refractive index (RI) based on microwave-photon optical

On the one hand, the sensing and optical properties of micro/-nano-fiber devices can be optimized by introducing different micro/nano-structures through micro/-nano-processing technology (femtosecond

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