Grooving on the surface of the fiber optic sensor substrate

The sensor is based on the macrobending POF with a V-groove structure fabricated by a simple die-press-print method, which is easy to implement and effectively reduces the complexity of ...

This paper investigates the refractive index and bending sensing of V-groove cladding SPR sensors of single-mode, graded-index multimode, and step-index multimode fibers.

One illustrative device disclosed herein includes a V-groove in a base semiconductor layer of a semiconductor-on-insulator (SOI) substrate, wherein the V-groove is adapted to have a fiber...

Two solutions are shown to reduce the influence of BAW for SAW micro sensors, which are arranged with acoustic absorbers at the ends of the substrate and in grooving in the piezoelectric ...

In this paper, we present a high sensitivity and simple liquid level sensor by using a POF with a V-groove structure that was fabricated on the surface of a POF by a metal mould using a simple die ...

This article proposes an ultrasensitivity fiber SPR strain sensor based on an asymmetric groove structure (AGS). Different depths of grooves are fabricated on both sides of the single-mode ...

Surface plasmon resonance (SPR) has many applications in optical fiber sensing. Herein, a single-mode optical fiber refractive index sensor based on the SPR is designed and analyzed. The sensor ...

In this work, a novel dual-core, dual-sided groove PQF-SPR sensor with a ZnO-Au composite film is designed, and the effects of the groove shape on the sensor are analyzed ...

A simple plastic optical fiber (POF) based surface plasmon resonance (SPR) sensor is proposed and demonstrated for simultaneous measurement of refractive index (RI) and temperature. The sensor ...

The groove structure provides precise alignment and firm attachment for the adhesive bonded optical fiber. Buried cavities or channels can be fabricated for liquid or gas flow to provide cooling ...

Grooving on the surface of the fiber optic sensor substrate

Web: https://www.busydoniemiecwaldii.pl