Incident Angle of Fiber Optic Displacement Sensor

In this paper, we employ an eccentric-core fiber (ECF), by grinding fiber tip to form wedge-shape with different angles, and research the relationship of SPR waveband and fiber grinding angle.

fiber based sensors are also presented in this chapter. The application of the FODSs in liquid refractive index measu ement is investigated theoretically and experimentally. In the last part of this chapter, a ...

We propose a novel dual-channel Surface Plasmon Resonance (SPR) fiber sensors based on the incident angle adjusting method. By grinding fiber tip to form wedge-

The dynamic range depends on the incident angle, and therefore, we propose an incident angle adjusting method that is implemented by grinding an eccentric-core fiber to different angles, which ...

B. R. Tittmann, "High sensitivity fiber optic angular displacement sensor and its application for detection of ultrasound", Appl. Opt., v. 51, n. 20, p. 4841-4851 (2012).

Accurate tilt-angle measurement is vital in applications ranging from aerospace to civil infrastructure monitoring, especially under harsh conditions where conventional inclinometers may fail. Here, we ...

In this paper three different types of Intensity Fiber Optic Displacement Sensors (I-FODS) are presented. Three configurations of I-FODS were realized in two varieties.

In this work, we present an analysis of the influence of geometrical parameters on the sensitivity and linear range of a fiber optic angular displacement sensor, through computational...

In this paper, a novel differential reflective intensity optical fiber angular displacement sensor was proposed. This sensor can directly measure the angular and axial linear displacement of ...

Differential intensity sensors based on optical fibers have been very successful. Nevertheless, an inefficient fiber bundle design limits their ultimate range and sensitivity. This paper ...

Here, we present a comprehensive analytical model for multi-axis tilt sensing based on intensity-modulated optical fiber sensors (OFDSs).

Here, we present a novel sensor structure for displacement measurement. The design is based on a hole in the one fiber"s core, whereas a second fiber is utilized to move inside the hole ...

Incident Angle of Fiber Optic Displacement Sensor

Web: https://www.tlaletsoglobal.co.za