

Fiber Bragg gratings are reflective structures in the core of an optical fiber with a periodic or aperiodic perturbation of the effective refractive index.

This embedded fiber approach has the unique potential to continuously monitor the detonation velocity inside new explosive compounds as well as to track the changes in detonation velocity as the ...

Basic fundamentals of FBG and recent progress of fiber Bragg grating-based sensors used in various applications for temperature, pressure, liquid level, strain, and refractive index sensing have been ...

Based on the principle of the Fiber Bragg Grating sensor, a sensor for monitoring the flow velocity and direction in real-time is designed in this paper. Meanwhile, the theoretical calculation formulas of flow ...

Fiber Bragg grating (FBG) sensors have emerged as advanced tools for monitoring a wide range of physical parameters in various fields, including structural health, aerospace, biochemical, ...

This article presents a fiber-optic method for measuring the velocity of a liquid flow, taking into account the flow direction. The proposed method is based on the use of an optical fiber with an ...

In this work, we show how to design an optical fiber sensor based on FBGs with different coatings for measuring water flow in pipes. We start by giving a general outline of the mechanical ...

Discover the advantages of measurement with fibre-optic sensors equipped with Bragg grating technology, developed by Scaime.

The dotted square represents the optical system comprised of a commercial Bragg Meter (Spectral Eye 400 from FOS& S) that consists of an ASE (Amplified Spontaneous Emission) broadband source ...

In this work, optical fiber Bragg grating sensors were used to measure water velocity and examine how it was distributed in open channels.

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