

The role of fiber optic grating temperature compensation

Therefore, this study proposed a reasonable procedure for temperature compensation for the FBG sensors embedded in packaging material and host material. In particular, the thermal sensitivity of ...

This article introduces the temperature compensation methods and principles for fiber Bragg grating (FBG) strain sensors, addressing the question of whether FBG strain measurements ...

Theoretical and experimental investigation of a technique for creating a package for the passive temperature compensation of a fiber Bragg grating is presented.

This work presents a compact fiber Bragg grating (FBG)-based sensor that decouples curvature/strain and temperature effects using a configurable rectangular optical fiber design. The sensor structure ...

Temperature compensation is discussed by considering interfacial action between the monitored structure and bonded FBG sensors. Modified temperature-compensation function is ...

This paper summarizes the packaging methods and corresponding temperature compensation methods of the currently reported strain sensing FBGs, focusing especially on fully pasted FBG, pre-stretched ...

In this paper, we propose a simple passive method to efficiently stabilize B of MOFs designed for sensing purposes, over a significant temperature range. The principle of this method, based on the ...

Abstract: A temperature-insensitive sensing scheme for pressure measurement is presented. In the sensing scheme, a single optical fiber Bragg grating (FBG) is axially strained by its surrounding ...

The temperature detection grating is encapsulated in a stainless-steel capillary tube single-end fixed support structure to shield the device from wind pressure, achieve a rapid thermal ...

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