

Surface-mount packaging structure for optical fiber gratings

In order to develop the surface-bonded packaged sensors, a novel technique is developed for sensor packaging, which can be used for SHM of aircraft applications. In this ...

L. Liu, J. Zhang, C. Zhang, S. Wang, C. Jin, Y. Chen, K. Chen, T. Xiang, and Y. Shi, "Silicon waveguide grating coupler for perfectly vertical fiber based on a tilted membrane structure," *Opt. Lett.* 41, 820 ...

Here, a polydimethylsiloxane (PDMS) packaging with a microarray structure that provides gecko-inspired dry adhesion is proposed for strain-free FBG-based temperature sensing.

This paper describes the structure design, parameters optimization, and performance test of a fiber Bragg grating strain sensor with features of surface-mounting and reusability.

For simplicity and commercialization, C-FBG can be packaged as a single sensor for measuring both radial and axial. The study intends to report the use of bare and packaged C-FBG ...

The ultimate goal of the overriding program is the demonstration and validation of a large area vibration-based structural health monitoring system on a composite sub-structure using simulated ...

Coupling to silicon nano photonic waveguides through high-index contrast gratings is attractive because of the relaxed alignment tolerances when single mode optical fibers are used. The focus of this work ...

To ensure a stable reflectivity response of FBGs and their survival at elevated temperatures, we are using surface relief fiber Bragg gratings (SR-FBG).

The packaging of the optical fiber can compensate for this temperature dependence by attaching the long-period fiber grating to a negative or positive thermal expansion substrate.

In this article, we propose and experimentally validate a simple and straightforward athermal packaging solution for FBG to counteract the changes in the central wavelength due to ...

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