

# Fiber Bragg Grating Thermometry in North Africa

This review highlights significant advancements in Fiber Bragg Grating (FBG) sensors, detailing their operational principles, recent technological developments, and diverse applications in SHM, thereby ...

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, and ...

This paper proposes a fiber-optic Fabry-Perot sensor based on a microsphere lens to overcome the limited measurement range and accuracy in high-temperature strain sensing.

A fiber Bragg grating (FBG) is a type of distributed Bragg reflector constructed in a short segment of optical fiber that reflects particular wavelengths of light and transmits all others.

In this paper, we present a design framework for micro-engineering the temperature coefficients of FBGs over specified temperature ranges, while maintaining low loss and good spectral ...

In this paper, our objective is to review the various techniques to measure the temperature and strain using FBGs in different industrial sectors. An In-depth analysis of FBG is also incorporated ...

The temperature dependence of the FBG resonance derives from changes in the refractive index ( $n_e$ ) due to the thermo-optic effect and to a lesser extent changes in grating period due to thermal ...

In recent years there has been considerable interest in developing photonic temperature sensors such as the Fiber Bragg gratings (FBG) as an alternative to resistance thermometry. In this study we ...

This work proposes studying the sensors with Bragg gratings and analyzing temperature sensors based on this principle. The project theme fits into current trend.

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