Analysis of Experimental Results of Temperature Measurement Using Fiber Optic Sensor

Studying high-sensitivity fiber-optic temperature sensors is vital in pursuing high-precision temperature measurement. We propose a liquid-sealed multimode interference fiber temperature sensor with a ...

The paper deals with the overview of fiber optic methods suitable for temperature measurement and monitoring. The aim is to evaluate the current research of temperature measurements in the interval ...

A high-sensitive fiber-optic Fabry-Perot sensor with parallel polymer-air cavities based on Vernier effect for simultaneous measurement of pressure and temperature.

We present criteria to guide selection of optical fiber for the sensor and describe installation setup for a jet mixing experiment. We illustrate sensor baselining, which links readings to an absolute ...

This work demonstrates a novel fiber-optic sensing architecture that successfully breaks the conventional trade-off between measurement range and sensitivity in interferometric temperature ...

To improve the sensitivity measurement of temperature sensors, a fiber optic temperature sensor structure based on the harmonic Vernier effect with two parallel fiber Sagnac ...

Recognizing the major developments in the field of optical fibers, this article provides recent progress in temperature sensors utilizing several sensing configurations including...

This work implements a temperature sensor based on the enhanced Vernier effect principle, which is comprised of a Fabry-Perot interferometer and a fiber optic Sagnac interferometer with slightly ...

In this article, we have reviewed several optical fiber-based temperature sensors reported in recent decades, including their design, fabrication, sensing materials, and performance.

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