Dual-wavelength fiber optic temperature sensor

The temperature sensing characteristics of Mg 0.388 Al 2.408 O 4: Mn 2+ /Mn 4+ powders in a full fiber system were studied, which can provide thermal-sensitive emissions at dual ...

This paper reviews the sensing principle, structural design, and temperature measurement performance of fiber-optic high-temperature sensors, as well as recent significant ...

Here, authors design a dual-wavelength emitting material Li2ZnSiO4:Mn2+ and present a wearable optical fibre temperature sensor, functioning in both contact and noncontact modes.

High-sensitivity refractive index and temperature sensor based on cascaded dual-wavelength fiber laser and SNHNS interferometer

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 ...

This study proposes the development of a dual-wavelength optical fiber sensor (DWOFS) that integrates two optical fiber structures in a multimode transmission line to measure the ...

In this paper, we report an FBG temperature sensor based on the dual-wavelength differential detection method. In this technique, the reflection intensities of two wavelength pulse ...

We describe a theoretical and experimental study of an intensity-based, dual-wavelength referenced fiber optic temperature sensor utilizing temperature-induced spectral shifts of optical thin-film ...

We report a dual-wavelength fiber laser sensor based on a uniform fiber Bragg grating (UFBG) and a Polyvinyl alcohol (PVA) film-coated long-period grating (LPG) as sensor probe for ...

In this dual-wavelength system, one wavelength of light is used as a reference and the other one is used for temperature sensing, so this design can effectively eliminate the negative influences of unstable ...

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