

You first create your effective refractive index by the help of suitable material then you can easily calculate the period of gratings with reflected wavelength. Got a technical question? Get...

Abstract: Flexibility of COMSOL multiphysics simulation tool makes it possible to estimate the behavior of the Fiber Bragg Grating (FBG) moisture sensor, analyzes mechanical deformation of FBG ...

Hollow-core fibers (HCFs) with an air-filled core and a periodic array of micro-structured cladding can be used to make a Fiber Bragg grating. The micro-structured cladding makes the grating. This work ...

The three dimensional design of the fiber Bragg grating was illustrated as shown previously in chapter two with the parameters stated in section 2.2.

In this paper we have demonstrated the versatility of COMSOL Multiphysics regarding the modeling and simulation of fiber optic sensor based on the use of the Fabry - Perot etalon composed of Bragg ...

In this paper, the concept of using a backing patch to mount the FBG on a cantilever-mass based accelerometer is thoroughly explored by simulations using COMSOL Multiphysics version-4.2a.

The 3D model of the FBG is used to study the modes of the fiber under varying grating period (1310 nm, 908.62 nm, and 454.31 nm) and with varying number of slabs in the grating (10, 50, and 100). The ...

New types of sensors are reflected in multi-addressed fiber Bragg structures for microwave-phonic sensor systems, its applications in load-sensing wheel hub bearings, and more complex influence in ...

This chapter presents the general background of optical fiber based sensing systems and then discusses the specific importance of fiber gratings in optical sensor field.

The effect of environmental parameters on the composite material machine part is observed by the modification of the length of the Fabry-Perot interferometer formed by two Bragg grating mirrors. This ...

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