Long-period fiber grating optical bistable

Decades have passed since the first demonstration of a long-period fiber grating (LPFG) and its practical application for sensors, and, in this period, manufacturing techniques, sensitivity ...

Long period Fiber Gratings Product Description: In comparison with a fiber Bragg grating, a long period Fiber Grating (LPFG) has a much longer period, which can considerably exceed the wavelength of ...

It is an optical fiber structure with the properties periodically varying along the fiber, such that the conditions for the interaction of several copropagating modes are satisfied. The period of such a ...

The unique attributes of optical fiber-based grating, including their miniaturized size, cost-effectiveness, and immunity to electromagnetic interference, have contributed significantly to various ...

The nonlinear phenomena of optical bistablity is investigated analytically in chalcogenide glass long period fiber grating. Using the basic sets of nonlinear coupled mode equation the ...

This paper presents mechanically induced long-period gratings (MILPGs) realized in standard and unconventional optical fibers, like not-photosensitive double-clad and photonic crystal fibers.

In this chapter we will make a review of the relevant aspects of LPFGs.

In this work, we reviewed the most important achievements of INESC TEC related to the fabrication of long-period fiber gratings using the electric arc technique.

In this paper, we propose a new technique to fabricate long period gratings (LPGs) by mechanically applying a force to an optical fiber enclosed in a low-cost periodic 3-D printed...

The paper summarizes the principle of mode coupling, the methods of theoretical analysis, fabrication techniques, and applications of the LPFGs in the field of optical fiber sensors and optical ...

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