

In this work, we proposed a dual-core fiber coupler. Identical long-period fiber grating is written in each core of the dual-core fiber by using point-by-point high-frequency CO₂ laser irradiation.

A long-period fiber grating (LPFG) couple light from the fundamental guided core mode to co-propagating cladding modes at specific resonance wavelengths. A LPFG can be fabricated by ...

In this study, we propose and demonstrate a dual-pitch staggered long-period fiber grating (DSP-LPFG) that enables mode conversion between two distinct mode pairs.

The strain response of a long-period fibre grating arise due to the physical elongation of the fibre, changing the grating pitch and the effective refractive index of the core and cladding due to the ...

In this paper, we have briefly review the developing history and recent advances made with regard to helical long-period fiber gratings (HLPGs) in three aspects, i.e., the mode-coupling ...

A long-period fiber grating couples light from a guided mode into forward propagating cladding modes where it is lost due to absorption and scattering. The coupling from the guided mode to cladding ...

Abstract: We propose to inscribe a compact and reproducible long-period fiber grating (LPFG) in a standard single-mode fiber by a CO₂-laser splicer that allows twisting the fiber stepwise ...

This paper presents a review of the evolution of LPFGs, with a specific focus on the progression and current trends of mechanically induced long-period fiber gratings.

Abstract To inscribe the long-period gratings (LPGs) in an index-guiding (or the solid-core) microstructured optical fiber (MOF), the opto-geometrical parameters of the fiber have to be ...

In this work, we developed and characterized a coupler based on long-period gratings (LPGs). The coupler consists of two single-mode fibers close to each other with similar LPGs...

In this paper, we have briefly review the developing history and recent advances made with regard to helical long-period fiber gratings (HLPGs) in three ...

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