

This study presents a new process using inductively a coupled plasma dry etching method to manufacture a long-period fiber grating filter with exact period, vertical sidewalls, and smooth etched ...

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 polymeric ...

This review provides a comprehensive analysis of the primary fabrication techniques enabling this approach, including CO₂ laser inscription, femtosecond laser micromachining, electric ...

Abstract This study proposes a facile method for fabricating long-period fiber gratings. Optical designs were created so that laser light could be written into the grating structure on the fiber cladding without ...

In this study, we propose a photoresist-free, laser-assisted wet chemical etching process used to control the grating depth of a long-period fiber grating (LPFG) termed laser-assisted...

The fabrication of long period fiber gratings (LPFGs) based on thin-cladding fiber (TCF) has been demonstrated by adopting electric-arc discharge (EAD) technique.

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 ...

In this study, we propose a photoresist-free, laser-assisted wet chemical etching process used to control the grating depth of a long-period fiber ...

This study presents a square-wave double-sided long-period fiber grating sensor that was fabricated using pattern inscription by laser-assisted etching with a KrF 248-nm excimer and an ...

In the last 15 years, alternative writing methods of long-period fibre gratings have been proven after the demonstration of UV radiation method. Some of the most used methods include; the heating, the ...

In this paper, a newly designed reconfigurable phase-shifted long period grating using the partial etching technique is presented. In the locally etched long-period grating, there are discontinuities in the ...

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