Low-loss propagation in hollow antiresonant fiber

This work proposes a novel hollow-core antiresonant fiber (HC-ARF) that provides low loss in the terahertz region. The fiber has a hollow core with four elliptical and circular ring cladding ...

This paper proposes a low-loss, high single-polarization hollow-core anti-resonant fiber (HC-ARF) with double-layer nested tubes and two resonant tubes. After structural parameter ...

A high-birefringence and low-loss terahertz (THz) hollow-core anti-resonant fiber (THz HC-ARF) is designed and analyzed numerically by the finite ...

In this paper, an ultra-low-loss hollow-core anti-resonant fiber (HC-ARF) operating in the near-infrared band is proposed. The ARF is based on six nested circular tubes made of silica.

In this paper we present a new hollow-core anti-resonant fiber (HC-ARF). The structural asymmetry is constructed by the introduction of elliptical quartz tubes in the core region, which can ...

In this paper, a low loss and high polarization-maintaining single-mode hollow-core anti-resonant fiber (PM-HC-ARF) is designed. The elliptical core in the PM-HC-ARF is formed by ...

Abstract: A novel hollow-core antiresonant fiber with a Bragg structure is proposed. It is numerically simulated using a commercial finite element method, and optical properties of the fiber, ...

A high-birefringence and low-loss terahertz (THz) hollow-core anti-resonant fiber (THz HC-ARF) is designed and analyzed numerically by the finite element method (FEM).

Our dual-ring fiber design introduces polarization-selective resonant coupling to lossy cladding modes, enabling strong polarization filtering without compromising transmission efficiency. ...

In this research, we propose a novel hollow-core anti-resonant fiber structure designed to enhance light confinement and reduce losses. Our simulation results indicate that the LP01 mode ...

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