

In this paper, a novel nested concentric circle anti-resonant hollow-core fiber with double-layer cladding structure and an outer cladding ring is proposed.

In conclusion, hollow-core fiber represents a compelling advancement for data-center optics. By swapping glass for air, it cuts loss and latency while expanding bandwidth and linearity.

This study innovatively presents a hollow-core anti-resonant fiber integrating double-tube nesting and a single-layer anti-resonant wall. Featuring an exclusive two-layer cladding configuration ...

This work presents an ultra-low loss hollow-core anti-resonant fiber design featuring a triple-nested cladding architecture with elliptical nested elements and six auxiliary compensation tubes located ...

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 ...

Discover hollow core fiber (HCF) technology: ultra-low loss, high-power handling, and low latency. Weunion's HCF solutions for telecom, data centers, and laser systems.

In this research, we propose a novel hollow-core anti-resonant fiber structure designed to enhance light confinement and reduce losses.

In conclusion, hollow-core fiber represents a compelling advancement for data-center optics. By swapping glass for air, it cuts loss and latency while ...

Recent advancements in a novel guidance mechanism, utilizing antiresonances from nested tubes, have significantly accelerated progress. As a result, hollow core technology now ...

A novel hollow core anti-resonant fiber with glass-sheet conjoined nested elliptical tubes is proposed and investigated numerically. The elliptical tubes are introduced to original HC-ANF with ...

Here, we report on the reduction of the core surface roughness of hollow-core fibers by modifying their fabrication technique.

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