746

Accession Number

12292861

Author

Anthony J. Leonhardt R. Leon-Saval SG. Argyros A.

Author Unabbreviated

Anthony Jessienta; Leonhardt Rainer; Leon-Saval Sergio G.; Argyros Alexander

Author/Editor Affiliation

Anthony J. Leonhardt R. : Physics Department, University of Auckland, Private bag 92019, Auckland 1010, New Zealand

Leon-Saval SG. Argyros A. : School of Physics, University of Sydney, Sydney, NSW 2006, Australia

Title

THz propagation in kagome hollow-core microstructured fibers

Source

Optics Express, vol.19, no.19, 12 Sept. 2011, 18470-8. Publisher: Optical Society of America, USA.

Abstract

We demonstrate single mode terahertz (THz) guidance in hollow-core kagome microstructured fibers over a broad frequency bandwidth. The fibers are characterized using a THz time-domain spectroscopy (THz-TDS) setup, incorporating specially designed THz lenses to achieve good mode overlap with the fundamental mode field distribution. Losses 20 times lower than the losses of the fiber material are observed in the experiments, as well as broad frequency ranges of low dispersion, characteristic of hollow-core fibers. (31 References).