

## Mode resolved bend-loss analysis in few-mode fibers using spatially and spectrally resolved imaging - DTU Orbit (08/11/2017)

### Mode resolved bend-loss analysis in few-mode fibers using spatially and spectrally resolved imaging

The increasing use of few-mode fibers for high-speed optical communication systems in space division multiplexing has created a need for mode resolved characterization of few-mode fibers. In this Letter, we present a new method to characterize the bend loss of the individual modes in a few-mode fiber. This procedure uses a simple setup for spatially and spectrally resolved imaging and allows the measurement of the bend loss of each and every guided mode at once. It does not require the use of mode converters in contrast to other methods. Results for graded-index two-and four-mode fibers are presented, together with comparisons against direct bend-loss measurements for the four-mode and standard single-mode fibers. (C) 2015 Optical Society of America

#### General information

State: Published

Organisations: Department of Photonics Engineering, Nanophotonics Theory and Signal Processing, Fiber Optics, Devices and Non-linear Effects, OFS Optics

Authors: Leandro, L. (Intern), Grüner-Nielsen, L. E. (Ekstern), Rottwitt, K. (Intern)

Pages: 4583-4586

Publication date: 2015

Main Research Area: Technical/natural sciences

#### Publication information

Journal: Optics Letters

Volume: 40

Issue number: 20

ISSN (Print): 0146-9592

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 3.54 SJR 1.864 SNIP 1.658

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.142 SNIP 1.642 CiteScore 3.53

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.497 SNIP 2.056 CiteScore 3.86

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.458 SNIP 2.095 CiteScore 3.95

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.596 SNIP 1.95 CiteScore 3.52

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.518 SNIP 2.475 CiteScore 3.69

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.669 SNIP 2.293

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 1

Scopus rating (2009): SJR 3.167 SNIP 2.665

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 3.408 SNIP 2.378

Web of Science (2008): Indexed yes  
Scopus rating (2007): SJR 3.489 SNIP 2.102  
Web of Science (2007): Indexed yes  
Scopus rating (2006): SJR 3.143 SNIP 2.334  
Web of Science (2006): Indexed yes  
Scopus rating (2005): SJR 3.251 SNIP 2.483  
Web of Science (2005): Indexed yes  
Scopus rating (2004): SJR 3.521 SNIP 2.718  
Web of Science (2004): Indexed yes  
Scopus rating (2003): SJR 3.708 SNIP 2.573  
Web of Science (2003): Indexed yes  
Scopus rating (2002): SJR 3.702 SNIP 2.39  
Web of Science (2002): Indexed yes  
Scopus rating (2001): SJR 3.62 SNIP 2.244  
Web of Science (2001): Indexed yes  
Scopus rating (2000): SJR 3.416 SNIP 1.705  
Web of Science (2000): Indexed yes  
Scopus rating (1999): SJR 4.044 SNIP 1.699

Original language: English

OPTICS, OPTICAL-FIBERS

DOIs:

10.1364/ol.40.004583

Source: FindIt

Source-ID: 2282330238

Publication: Research - peer-review › Journal article – Annual report year: 2015