Research outputs:

**Static and dynamic mode instabilities in dual-core fiber amplifiers**
Research output: Research - peer-review › Journal article – Annual report year: 2019

**Poor-man's model of hollow-core anti-resonant fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2019

**Static and dynamic mode coupling in a double-pass rod-type fiber amplifier**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Thermal Effects on Modal Properties of Dual-Core Yb-Doped Fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Cherenkov radiation from 1550 nm pumping in tapered photonic crystal fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Designing fiber tapers for tunable dispersive-wave generation from agile Yb-based pump lasers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Scaling relations for soliton compression and dispersive-wave generation in tapered optical fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Spatial beam cleanup by pure Kerr processes in multimode fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**The Bowtie effect in cylindrical waveguides**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Theory of thermo-optic instabilities in dual-core fiber amplifiers**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Azimuthal asymmetry in HE1,X modes analyzed**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

**Efficient simulation of multimodal nonlinear propagation in step-index fibers**
Research output: Research - peer-review › Journal article – Annual report year: 2017
Flexible cross-correlated (C2) imaging method for the modal content characterization in a broad range of wavelengths
Research output: Research - peer-review » Journal article – Annual report year: 2017

High precision Cross-correlated imaging in Few-mode fibers
Research output: Research - peer-review » Article in proceedings – Annual report year: 2017

Nonlinearity-tailored fiber laser technology for low-noise, ultra-wideband tunable femtosecond light generation
Research output: Research - peer-review » Journal article – Annual report year: 2017

85 μm core rod fiber amplifier delivering 350 W/m
Research output: Research - peer-review » Article in proceedings – Annual report year: 2016

High-power picosecond pulse delivery through hollow core photonic band gap fibers
Research output: Research - peer-review » Article in proceedings – Annual report year: 2016

Hollow-core fibers for high power pulse delivery
Research output: Research - peer-review » Journal article – Annual report year: 2016

Optimizing Yb concentration of fiber amplifiers in the presence of transverse modal instabilities and photodarkening
Research output: Research - peer-review » Journal article – Annual report year: 2016

Progress in Cherenkov femtosecond fiber lasers
Research output: Research - peer-review » Journal article – Annual report year: 2015

Stain-free histopathology by programmable supercontinuum pulses
Research output: Research - peer-review » Journal article – Annual report year: 2016

Static thermo-optic instability in double-pass fiber amplifiers
Research output: Research - peer-review » Journal article – Annual report year: 2016

Wavelength-tunable laser based on nonlinear dispersive-wave generation in a tapered optical waveguide.
Research output: Research » Patent – Annual report year: 2016

Wireless Distributed Antenna MIMO
Research output: Research » Patent – Annual report year: 2015

Fiber-based portable optical frequency standard for telecommunication
Research output: Research - peer-review » Article in proceedings – Annual report year: 2015

High Power Performance of Rod Fiber Amplifiers
Research output: Research - peer-review » Article in proceedings – Annual report year: 2015

High-power picosecond pulse delivery through hollow core photonic band gap fibers
Research output: Research - peer-review » Article in proceedings – Annual report year: 2015

Interferometric characterization of few-mode fibers (FMF) for mode-division multiplexing (MDM)
Research output: Research - peer-review » Article in proceedings – Annual report year: 2015

Intermodal and cross-polarization four-wave mixing in large-core hybrid photonic crystal fibers
Research output: Research - peer-review » Journal article – Annual report year: 2015
Large-mode-area hybrid photonic crystal fiber amplifier at 1178 nm
Research output: Research - peer-review › Journal article – Annual report year: 2015

Optical frequency stabilization using gas-filled hollow-core photonic crystal fibers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Optical frequency standard using acetylene-filled hollow-core photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Polarization switch of four-wave mixing in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Understanding transverse mode instability in rod fiber amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2014

Boundaries of Parametric Gain due to Four-wave Mixing in Hybrid Photonic Crystal Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Cladding defects in hollow core fibers for surface mode suppression and improved birefringence
Research output: Research - peer-review › Journal article – Annual report year: 2014

Electrically-Tunable Multi-Color Ultrafast Cherenkov FiberLaser
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Extended parametric gain range in photonic crystal fibers with strongly frequency-dependent field distributions
Research output: Research - peer-review › Journal article – Annual report year: 2014

Fiber amplifiers under thermal loads leading to transverse mode instability
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Frequency conversion through spontaneous degenerate four wave mixing in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Hollow core fiber-based optical frequency standard
Research output: Research - peer-review › Poster – Annual report year: 2014

Impact of gain saturation on the mode instability threshold in high-power fiber amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2014

Numerical Methods in Photonics
Research output: Research - peer-review › Book – Annual report year: 2015

Tunable femtosecond Cherenkov fiber laser
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Estimating modal instability threshold for photonic crystal rod fiber amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2013
All-fiber femtosecond Cherenkov laser at visible wavelengths
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

All-fiber femtosecond Cherenkov source
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Bright broadband coherent fiber sources emitting strongly blue-shifted resonant dispersive wave pulses
Research output: Research - peer-review › Journal article – Annual report year: 2013

Cross-correlated imaging of distributed mode filtering rod fiber
Research output: Research - peer-review › Conference article – Annual report year: 2013

Cross-correlated imaging of single-mode photonic crystal rod fiber with distributed mode filtering
Research output: Research - peer-review › Journal article – Annual report year: 2013

Degenerate four wave mixing in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2013

Frequency resolved transverse mode instability in rod fiber amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2013

How long wavelengths can one extract from silica-core fibers?
Research output: Research - peer-review › Journal article – Annual report year: 2013

Intermodal parametric gain of degenerate four wave mixing in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Low-Noise Operation of All-Fiber Femtosecond Cherenkov Laser
Research output: Research - peer-review › Journal article – Annual report year: 2013

Modal instability of rod fiber amplifiers: a semi-analytic approach
Research output: Research - peer-review › Conference article – Annual report year: 2013

Nonlinear spatial mode imaging of hybrid photonic crystal fibers
Research output: Research - peer-review › Conference article – Annual report year: 2013

Resonant filtered fiber amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Tailoring the parametric gain in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Tailoring the parametric gain in large mode area hybrid photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Theoretical analysis of mode instability in high-power fiber amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2013

Thermally induced nonlinear mode coupling in high power fiber amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013
Thermal-recovery of modal instability in rod fiber amplifiers
Research output: Research - peer-review › Conference article – Annual report year: 2013

Advances in Solid Core Photonic Bandgap Fiber Amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

All-fiber femtosecond Cherenkov radiation source
Research output: Research - peer-review › Journal article – Annual report year: 2012

Coherent fiber supercontinuum laser for nonlinear biomedical imaging
Research output: Research - peer-review › Conference article – Annual report year: 2012

Cross-validation of theoretically quantified fiber continuum generation and absolute pulse measurement by MIIPS for a broadband coherently controlled optical source
Research output: Research - peer-review › Journal article – Annual report year: 2011

Design optimization of the distributed modal filtering rod fiber for increasing single mode bandwidth
Research output: Research - peer-review › Journal article – Annual report year: 2012

Distributed mode filtering rod fiber amplifier delivering 292W with improved mode stability.
Research output: Research - peer-review › Journal article – Annual report year: 2012

Distributed Mode Filtering Rod Fiber Amplifier With Improved Mode Stability
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Highly efficient high power single-mode fiber amplifier utilizing the distributed mode filtering bandgap rod fiber
Research output: Research - peer-review › Conference article – Annual report year: 2012

Hybrid Ytterbium-doped large-mode-area photonic crystal fiber amplifier for long wavelengths.
Research output: Research - peer-review › Journal article – Annual report year: 2012

Modal instabilities in very large mode area rod fiber amplifiers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Modeling of nonlinear propagation in fiber tapers
Research output: Research - peer-review › Journal article – Annual report year: 2012

Monolithic Highly Stable Yb-Doped Femtosecond Fiber Lasers for Applications in Practical Biophotonics
Research output: Research - peer-review › Journal article – Annual report year: 2012

Nineteen-port photonic lantern with multimode delivery fiber
Research output: Research - peer-review › Journal article – Annual report year: 2012

Nonlinear polarization dynamics in a weakly birefringent all-normal dispersion photonic crystal fiber: toward a practical coherent fiber supercontinuum laser
Research output: Research - peer-review › Journal article – Annual report year: 2012

Optimizing single mode robustness of the distributed modal filtering rod fiber amplifier.
Research output: Research - peer-review › Journal article – Annual report year: 2012

Thermal effects in Yb-doped double-cladding Distributed Modal Filtering rod-type fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012
Thermal-Induced Refractive Index Change Effects on Distributed Modal Filtering Properties of Rod-Type Photonic Crystal Fibers
Research output: Research › peer-review › Article in proceedings – Annual report year: 2012

Thermally induced mode coupling in rare-earth doped fiber amplifiers
Research output: Research › peer-review › Journal article – Annual report year: 2012

Ytterbium-doped distributed spectral filtering photonic crystal fibers for use at wavelengths above 1100 nm
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2012

Ytterbium-doped large-mode-area photonic crystal fiber amplifier with gain shaping for use at long wavelengths
Research output: Research › peer-review › Journal article – Annual report year: 2012

Construction and Characterization of Monolithic Femtosecond Fiber Lasers
Research output: Research › Ph.D. thesis – Annual report year: 2011

All-fiber 7x1 signal combiner for incoherent laser beam combining
Research output: Research › Conference article – Annual report year: 2011

Gap solitons in inhomogeneous high-index photonic bandgap fibers
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Millijoule Pulse Energy Second Harmonic Generation With Single-Stage Photonic Bandgap Rod Fiber Laser
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Modal analysis of a large-mode area photonic crystal fiber amplifier using spectral-resolved imaging
Research output: Research › peer-review › Journal article – Annual report year: 2011

Mode field diameter preserving fiber tapers
Research output: Research › peer-review › Journal article – Annual report year: 2011

Q-switching and efficient harmonic generation from a single-mode LMA photonic bandgap rod fiber laser
Research output: Research › peer-review › Journal article – Annual report year: 2011

Spatial and spectral imaging of LMA photonic crystal fiber amplifiers
Research output: Research › peer-review › Conference article – Annual report year: 2011

Thermal Effects In High-Power Fiber Amplifiers
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Thermo-optical effects in high-power Ytterbium-doped fiber amplifiers
Research output: Research › peer-review › Journal article – Annual report year: 2011

Trapping of slow solitons by longitudinal inhomogeneity in high-index photonic crystal fibers
Research output: Research › peer-review › Journal article – Annual report year: 2011

Zero-velocity solitons in high-index photonic crystal fibers
Research output: Research › peer-review › Journal article – Annual report year: 2010
Zero-velocity solitons in high-index photonic crystal fibers: Erratum
Research output: Research - peer-review › Journal article – Annual report year: 2011

7+1 to 1 pump/signal combiner for air-clad fiber with 15 m MFD PM single-mode signal feed-through
Research output: Research - peer-review › Conference article – Annual report year: 2010

Efficient multi-mode to single-mode conversion in a 61 port photonic lantern
Research output: Research - peer-review › Conference article – Annual report year: 2010

Higher-order mode suppression in rod-type photonic crystal fibers with sectioned doping and enlarged core
Research output: Research - peer-review › Conference article – Annual report year: 2010

Highly-stable monolithic femtosecond Yb-fiber laser system based on photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2010

Liquid crystal parameter analysis for tunable photonic bandgap fiber devices
Research output: Research - peer-review › Journal article – Annual report year: 2010

Monolithic Yb-fiber femtosecond laser with intracavity all-solid PBG fiber and ex-cavity HC-PCF
Research output: Research - peer-review › Conference article – Annual report year: 2010

Multi-mode to single-mode conversion in a 61 port photonic lantern
Research output: Research - peer-review › Journal article – Annual report year: 2010

Self-stabilization of a mode-locked femtosecond fiber laser using a photonic bandgap fiber
Research output: Research - peer-review › Journal article – Annual report year: 2010

Theory of second-harmonic generation in silica nanowires
Research output: Research - peer-review › Conference article – Annual report year: 2010

Theory of surface second-harmonic generation in silica nanowires
Research output: Research - peer-review › Journal article – Annual report year: 2010

Zero-velocity solitons in high-index photonic crystal fibers
Research output: Research - peer-review › Paper – Annual report year: 2010

All-PM monolithic fs Yb-fiber laser, dispersion-managed with all-solid photonic bandgap fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Analysis of liquid crystal properties for photonic crystal fiber devices
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Biased liquid crystal infiltrated photonic bandgap fiber
Research output: Research - peer-review › Journal article – Annual report year: 2009

Compression of realistic laser pulses in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2009

Enhancing the capacity of light: biowatch: it's time for a healthcheck
Research output: Communication › Book chapter – Annual report year: 2009
Guided mode gain competition in Yb-doped rod-type photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Guiding and amplification properties of rod-type photonic crystal fibers with sectioned core doping
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Influence of air pressure on soliton formation in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2009

Linear and nonlinear modeling of light propagation in hollow-core photonic crystal fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Monolithic all-PM femtosecond Yb-doped fiber laser using photonic bandgap fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Monolithic femtosecond Yb-fiber laser with photonic crystal fibers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Pump combiner for air-clad fiber with PM single-mode signal feed-through
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Sectioned Core Doping Effect on Higher-Order Mode Amplification in Yb-Doped Rod-Type Photonic Crystal Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Single-mode amplification in Yb-doped rod-type photonic crystal fibers for high brilliance lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Single-mode regime in large-mode-area rare-earth-doped rod-type PCFs
Research output: Research - peer-review › Journal article – Annual report year: 2009

Soliton formation in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2009

Suppression of Higher-Order Modes by Segmented Core Doping in Rod-Type Photonic Crystal Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Theoretical analysis of a biased photonic crystal fiber infiltrated with a negative dielectric anisotropy liquid crystal
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Theory of adiabatic pressure-gradient soliton compression in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2009

Yb-doped rod-type photonic crystal fibers for single-mode amplification
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

All-Silica Hollow-Core Microstructured Bragg Fibers for Biosensor Application
Research output: Research - peer-review › Journal article – Annual report year: 2008

Avoided-crossing-based liquid-crystal photonic-bandgap notch filter
Research output: Research - peer-review › Journal article – Annual report year: 2008
Biased liquid crystal photonic bandgap fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Control of fiber laser mode-locking by narrow-band Bragg gratings
Research output: Research - peer-review › Journal article – Annual report year: 2008

Degenerate four wave mixing in solid core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Dispersive pulse compression in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Dispersive pulse compression in hollow-core photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Guided mode cutoff in rare-earth doped rod-type PCFs
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Guiding Properties of Silica/Air Hollow-Core Bragg Fibers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Monolithic all-PM femtosecond Yb-fiber laser stabilized with a narrow-band fiber Bragg grating and pulse-compressed in a hollow-core photonic crystal fiber
Research output: Research - peer-review › Journal article – Annual report year: 2008

Monolithic Femtosecond Yb-fiber Lasers with Photonic Crystal Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Monolithic stabilized Yb-fiber All-PM laser directly delivering nJ-level femtosecond pulses
Research output: Research › Article in proceedings – Annual report year: 2008

Monolithic Yb-fiber femtosecond laser using photonic crystal fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Simulating the Bandgap Shift of a Biased Liquid Crystal Infiltrated Photonic Crystal Fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Spatiotemporal control of light by Bloch-mode dispersion in multi-core fibers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Spatiotemporal light localization in infiltrated waveguide arrays
Research output: Research - peer-review › Poster – Annual report year: 2008

Spatiotemporal light localization in infiltrated waveguide arrays
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Analysis of the dependence of the guided mode field distribution on the silica bridges in hollow-core Bragg fibers
Research output: Research - peer-review › Conference article – Annual report year: 2007

Confinement less spectral behavior in hollow-core Bragg fibers
Research output: Research - peer-review › Journal article – Annual report year: 2007
Designing quadratic nonlinear photonic crystal fibers for soliton compression to few-cycle pulses
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Electrically and mechanically induced long period gratings in liquid crystal photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2007

Electrically tunable long-period gratings in liquid crystal photonic bandgap fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Finite-difference modeling of Bragg fibers with ultrathin cladding layers via adaptive coordinate transformation
Research output: Research - peer-review › Poster – Annual report year: 2007

General covariance in computational electrodynamics
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2007

Integrating liquid crystal based optical devices in photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2007

Integrating optical devices in microstructured optical fibers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Liquid filling of photonic crystal fibres for grating writing
Research output: Research - peer-review › Journal article – Annual report year: 2007

Lysets vej: Lyslederens anatomi, udviklingshistorie og fremtidsudsigter
Research output: Research - peer-review › Book chapter – Annual report year: 2007

Mode profile dispersion in the generalised nonlinear Schrödinger equation
Research output: Research - peer-review › Journal article – Annual report year: 2007

Phase matching conditions for single-pump parametric amplification in photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2007

Silica Bridge Impact on Hollow-core Bragg Fiber Transmission Properties
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Soliton compression to few-cycle pulses using quadratic nonlinear photonic crystal fibers: A design study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Soliton compression to ultra-short pulses using cascaded quadratic nonlinearities in silica photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Tailoring the dispersion properties of photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Tailoring the dispersion properties of photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2007

Are hollow-core fibers attractive for high-power fiber lasers?
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006
Chromatic dispersion of liquid crystal infiltrated capillary tubes and photonic crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2006

Control of the wavelength dependent thermo-optic coefficients in structured fibres
Research output: Research - peer-review › Journal article – Annual report year: 2006

Designing a photonic bandgap fiber for thermo-optic switching
Research output: Research - peer-review › Journal article – Annual report year: 2006

Group-velocity matched nonlinear photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

High dn/dT liquid crystals and their applications in a thermally tunable liquid crystal photonic crystal fiber
Research output: Research - peer-review › Journal article – Annual report year: 2006

Highly tunable large core single-mode liquid crystal photonic bandgap fiber
Research output: Research - peer-review › Journal article – Annual report year: 2006

Highly tunable large core single-mode liquid crystal photonic bandgap fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Microstructured optical fibers - Fundamentals and applications
Research output: Research - peer-review › Journal article – Annual report year: 2006

Microstructured Optical Fibres
Research output: Research - peer-review › Book chapter – Annual report year: 2006

Modeling of a liquid crystal capillary waveguide
Research output: Research - peer-review › Journal article – Annual report year: 2006

Optical Amplifiers
Research output: Research - peer-review › Book chapter – Annual report year: 2006

Second-harmonic generation with zero group-velocity mismatch in nonlinear photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Second-harmonic Generation with Zero Group-Velocity Mismatch in Nonlinear Photonic Crystal Fibers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2006

Supercontinuum generation in fibers infiltrated with liquid crystals
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2006

Tuning quadratic nonlinear photonic crystal fibers for zero group-velocity mismatch
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Tuning quadratic nonlinear photonic crystal fibers for zero group-velocity mismatch
Research output: Research - peer-review › Journal article – Annual report year: 2006

Directional coupling in a twin-core photonic bandgap fiber
Research output: Research - peer-review › Journal article – Annual report year: 2005
Directional coupling in a twin-core photonic bandgap fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

High $dn_c/dT$ liquid crystals and their applications in a thermally tunable liquid crystal photonic crystal fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Light guiding in microstructures of purely imaginary refractive index contrasts
Research output: Research - peer-review › Journal article – Annual report year: 2005

Optically tunable photonic bandgap fiber
Research output: Research - peer-review › Journal article – Annual report year: 2005

Perturbative modeling of Bragg-grating-based biosensors in photonic-crystal fibers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Photonic crystal fibers infiltrated with liquid crystals - theory and experiment
Research output: Research › Article in proceedings – Annual report year: 2005

All-optical modulation in dye-doped nematic liquid crystal photonic bandgap fibers
Research output: Research - peer-review › Journal article – Annual report year: 2004

All-silica photonic bandgap fibre with zero dispersion and a large mode area at 730 nm
Research output: Research - peer-review › Journal article – Annual report year: 2004

A novel photonic crystal fibre design for dispersion compensation
Research output: Research - peer-review › Journal article – Annual report year: 2004

Coupling reducing k-points for supercell models of defects in three-dimensional photonic crystals
Research output: Research - peer-review › Journal article – Annual report year: 2004

Gap formation and guided modes in photonic bandgap fibres with high-Index rods
Research output: Research - peer-review › Journal article – Annual report year: 2004

Low index-contrast photonic bandgap fiber for transmission of short pulsed light
Research output: Research - peer-review › Journal article – Annual report year: 2004

Phase- and group velocity matching in triangular photonic crystal fibres
Research output: Research › Journal article – Annual report year: 2004

Photonic crystal fiber design for broadband directional coupling
Research output: Research - peer-review › Journal article – Annual report year: 2004

Photonic crystal fibres with large nonlinear coefficients
Research output: Research - peer-review › Journal article – Annual report year: 2004

Photonic crystal structures in sensing technology
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Reduction of coupling loss to photonic crystal fibers by controlled hole collapse: A numerical study
Research output: Research - peer-review › Journal article – Annual report year: 2004
Second-harmonic generation in microstructured fibres: simultaneous phase-and groupvelocity matching
Research output: Research - peer-review › Poster – Annual report year: 2004

Simultaneous phase- and group-velocity matching in photonic crystal fibres
Research output: Research - peer-review › Paper – Annual report year: 2004

Small-core photonic crystal fibres with weakly disordered air-hole cladding
Research output: Research - peer-review › Journal article – Annual report year: 2004

Very low zero-dispersion wavelength predicted for single-mode modified-total-internal-reflection crystal fibre
Research output: Research - peer-review › Journal article – Annual report year: 2004

A "poor man's approach" to modelling micro-structured optical fibres
Research output: Research - peer-review › Journal article – Annual report year: 2003

Chromatic dispersion in photonic crystal fibres: fast and accurate scheme for calculation
Research output: Research - peer-review › Journal article – Annual report year: 2003

Coupling-reducing k-points for photonic crystal fibre calculations
Research output: Research - peer-review › Journal article – Annual report year: 2003

Dispersion properties of photonic crystal fibers-issues and opportunities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Doped photonic bandgap fibres for short-wavelength nonlinear devices
Research output: Research - peer-review › Journal article – Annual report year: 2003

Material effects in airguiding photonic bandgap fibres
Research output: Research - peer-review › Journal article – Annual report year: 2003

Mode areas and field energy distributions in honeycomb photonic bandgap fibres
Research output: Research - peer-review › Journal article – Annual report year: 2003

Photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Photonic crystal fibers: fundamental properties and applications within sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Photonic crystal fibre based sensors
Research output: Research › Journal article – Annual report year: 2003

Photonic crystal fibres
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Photonic crystal fibres - optical power guidance in air and waveguide dispersion
Research output: Research - peer-review › Poster – Annual report year: 2003

Radial deformation losses in photonic crystal fibres
Research output: Research - peer-review › Journal article – Annual report year: 2003
Scalar modelling of photonic crystal fibres in Matlab
Research output: Research › Article in proceedings – Annual report year: 2003

Dissolution of rare-earth clusters in SiO2 by Al codoping: A microscopic model
Research output: Research › peer-review › Journal article – Annual report year: 2002

Electronic structure and hyperfine parameters of substitutional Al and P impurities in silica
Research output: Research › peer-review › Journal article – Annual report year: 2002

Photonic crystal fibres - The state of the art
Research output: Research › peer-review › Paper – Annual report year: 2002

Photonic Crystal Fibres - the State-of-the-Art
Research output: Research › peer-review › Article in proceedings – Annual report year: 2002

Single mode waveguidance in photonic crystal fibres: criteria for a well-confined mode
Research output: Research › peer-review › Journal article – Annual report year: 2002

Theory of Al2O3 incorporation in SiO2
Research output: Research › peer-review › Journal article – Annual report year: 2002

Triplet states at an O vacancy in alpha-quartz
Research output: Research › peer-review › Journal article – Annual report year: 2002

Bragg gratings and poling
Research output: Research › peer-review › Journal article – Annual report year: 2001

Hole trapping at Al impurities in silica: A challenge for density functional theories
Research output: Research › peer-review › Journal article – Annual report year: 2001

Parameter-free calculation of K alpha chemical shifts for Al, Si, and Ge oxides
Research output: Research › peer-review › Journal article – Annual report year: 2001

Pseudopotential description of rare earths in oxides: The case of Er2Si2O7
Research output: Research › peer-review › Journal article – Annual report year: 2001

Local chemistry of Al and P impurities in silica
Research output: Research › peer-review › Journal article – Annual report year: 2000

Projects:

Photonic crystal fiber technology for energy in rod fiber amplifiers
Project: PhD

Photonic crystal fiber technology for narrow linewidth amplifiers
Project: PhD

UV fotofølsomhed i optiske bølgeledere
Project: PhD
Low noise femtosecond supercontinuum sources
Project: PhD

Low-noise supercontinuum lasers for Optical Coherence Tomography systems
Project: PhD

Ultrafast mid-IR nonlinear optics in gas-filled hollow-core photonic crystal fibers
Project: PhD

Fused combiners for photonic crystal fibers
Project: PhD

Optical Fiber based Biosensors
Project: PhD

Design, construction and characterization of monolithic high-power femtosecond fiber lasers
Project: PhD

Optical Methods for Characterization of Surface or Interface Structures on a Nanometer Scale
Project: PhD

Photonic crystal rod amplifiers: Understanding a new class of active optical waveguides
Project: PhD

Photonic crystal rod amplifiers: Understanding a new class of active optical waveguides
Project: PhD

Quantum Photonics in Nanostructured Media
Project: PhD

Fotoniske Krystal Fibre i Nye Materialer
Project: PhD

Optiske Fibre med stor Indekskontrast
Project: PhD

Infrared fiberlaser utilising novel semiconductor optical fibers
Project: PhD

Liquid Crystal Filled Microstructured Polymer Optival Fibres
Project: PhD

Infrared Supercontinuum Generation in Soft Glass Fibers
Project: PhD

Hollow-core fibers for high power laser applications
Project: PhD

Laser frequency standards based on gas-filled hollow-core fibres
Project: PhD
Design of optical fibres with advanced modal control properties  
Project: PhD

Topas microstructured polymer optical fibers for biosensing and terahertz waveguides  
Project: PhD

Modelling of Mid-ir supercontinuum Generation in Chalcogendie Fibers  
Project: PhD

Optical Processing of High Dimensionality Signals  
Project: PhD

Cascaded Quadratic Soliton Compression in Waveguide Structures  
Project: PhD

Liquid Crystal Materials for Advanced Fiber-Optic Components  
Project: PhD

Modal instabilities in large mode area fiber amplifiers and lasers  
Project: PhD

Photonic crystal fiber amplifiers and lasers with distributed gain shaping  
Project: PhD

Fiber Laser Based Short and Long Wavelength Sources  
Project: PhD

Fiber Bragg grating (FBG) strain sensors in all-solid microstructured polymer optical fibers  
Project: PhD

Deep-blue Supercontinuum Light Sources based on Tapered Photonic Crystal Fibres  
Project: PhD

Optical Amplification for Terabit-per-Second Ultra-High Speed Communication Systems  
Project: PhD

Nonlinear properties of soft glass waveguides  
Project: PhD

Fibre Design for Advanced Space-division Multiplexing  
Project: PhD

All-fiber femtosecond near-infrared, visible, and ultraviolet source for practical biophotonics  
Project: Research

Active Waveguides  
Project: Research

Photonic crystal rod amplifiers : Understanding a new class of active optical waveguides  
Project: Research
Microstructured optical fibres for intelligent communications
Project: Research

Activities:

Photonics Global
Activity: Talks and presentations › Conference presentations

Photonics Global 2010
Activity: Talks and presentations › Conference presentations

Photonics Europe
Activity: Talks and presentations › Conference presentations

Photonics Europe: Photonic Crystal Fibers IV
Activity: Talks and presentations › Conference presentations