Ole Bang - DTU Orbit (16/10/2018)

Bang, Ole
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Department of Photonics Engineering - Professor, Group Leader
Fiber Sensors and Supercontinuum Generation

Research outputs:

Multi-stage generation of extreme ultraviolet dispersive waves by tapering gas-filled hollow-core anti-resonant fibers
Research output: Research - peer-review › Journal article – Annual report year: 2018

Role of the Raman gain in the noise dynamics of all-normal dispersion silica fiber supercontinuum generation
Gonzalo, I. B. & Bang, O. 1 Sep 2018 In : Journal of the Optical Society of America B: Optical Physics. 35, 9, p. 2102-2110
Research output: Research - peer-review › Journal article – Annual report year: 2018

Dynamic mechanical characterization with respect to temperature, humidity, frequency and strain in mPOFs made of different materials
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fast Inscription of Long Period Gratings in Microstructured Polymer Optical Fibers
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fast and stable gratings inscription in POFs made of different materials with pulsed 248 nm KrF laser
Research output: Research - peer-review › Journal article – Annual report year: 2018

All-depth dispersion cancellation in spectral domain optical coherence tomography using numerical intensity correlations
Jensen, M., Israelsen, N. M., Maria, M., Feuchter, T., Podoleanu, A. & Bang, O. 2018 In : Scientific Reports. 8, 1, 10 p., 9170
Research output: Research - peer-review › Journal article – Annual report year: 2018

Bragg Grating Inscription With Low Pulse Energy in Doped Microstructured Polymer Optical Fibers
Min, R., Ortega, B., Nielsen, K., Bang, O. & Marques, C. 2018 In : Ieee Sensors Letters. 2, 2, 4 p., 5000604
Research output: Research - peer-review › Journal article – Annual report year: 2018

Direct nanoimprinting of moth-eye structures in chalcogenide glass for broadband antireflection in the mid-infrared
Research output: Research - peer-review › Journal article – Annual report year: 2018

Ge22As20Se58 glass ultrafast laser inscribed waveguides for mid-IR integrated optics
Research output: Research - peer-review › Journal article – Annual report year: 2018

High-pulse energy supercontinuum laser for high-resolution spectroscopic photoacoustic imaging of lipids in the 1650-1850 nm region
Dasa, M. K., Markos, C., Maria, M., Petersen, C. R., Moselund, P. M. & Bang, O. 2018 In : Biomedical Optics Express. 9, 4, 9 p., #320585

Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Supercontinuum applications in high resolution non invasive optical imaging

Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Thermal profile detection through high-sensitivity fiber optic chirped Bragg grating on microstructured PMMA fiber

Research output: Research - peer-review › Journal article – Annual report year: 2018

The value of ultrahigh resolution OCT in dermatology - delineating the dermo-epidermal junction, capillaries in the dermal papillae and vellus hairs
Israelsen, N. M., Maria, M., Mogensen, M., Bojesen, S., Jensen, M., Haedersdal, M., Podoleanu, A. & Bang, O. 2018 In : Biomedical Optics Express. 9, 5, p. 2225-2250

Research output: Research - peer-review › Journal article – Annual report year: 2018

Towards a table-top synchrotron based on supercontinuum generation

Research output: Research - peer-review › Journal article – Annual report year: 2018

Two optical coherence tomography systems detect topical gold nanoshells in hair follicles, sweat ducts and measure epidermis
Mogensen, M., Bojesen, S., Israelsen, N. M., Maria, M., Jensen, M., Podoleanu, A., Bang, O. & Haedersdal, M. 2018 (Accepted/In press) In : Journal of Biophotonics. 23 p., e201700348

Research output: Research - peer-review › Journal article – Annual report year: 2018

Ultra-low noise supercontinuum source for ultra-high resolution optical coherence tomography at 1300 nm

Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Optical measuring system with an interrogator and a polymer-based single-mode fibre optic sensor system
Nielsen, K. & Bang, O. 8 Jun 2017 G01D 5/353 A

Research output: Research › Patent – Annual report year: 2017

A comparative study of noise in supercontinuum light sources for ultra-high resolution optical coherence tomography

Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Annealing and etching effects on strain and stress sensitivity of polymer optical fibre Bragg grating sensors

Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Bandpass transmission filters based on phase shifted fiber Bragg gratings in microstructured polymer optical fibers

Research output: Research - peer-review › Article in proceedings – Annual report year: 2017
BDK-doped core microstructured PMMA optical fiber for effective Bragg grating photo-inscription

Compact multichannel high-resolution micro-electro-mechanical systems-based interrogator for Fiber Bragg grating sensing
Ganziy, D., Rose, B. & Bang, O. 2017 In : Applied Optics. 56, 12, p. 3622-3627

Compact multichannel MEMS based spectrometer for FBG sensing

Curvature and position of nested tubes in hollow-core anti-resonant fibers

Dispersion free full range spectral intensity optical coherence tomography

Effects of pre-strain on the intrinsic pressure sensitivity of polymer optical fiber Bragg-gratings

Efficient Mid-Infrared Supercontinuum Generation in Tapered Large Mode Area Chalcogenide Photonic Crystal Fibers

Fast bragg grating inscription in PMMA polymer optical fibres: Impact of thermal pre-treatment of preforms

Femtosecond laser micromachining of compound parabolic concentrator fiber tipped glucose sensors

Fibre Bragg Grating and Long Period Grating Sensors in Polymer Optical Fibres

Gabor fusion master slave optical coherence tomography
Cernat, R., Bradu, A., Israelsen, N. M., Bang, O., Rivet, S., Keane, P. A., Heath, D-G., Rajendram, R. & Podoleanu, A. 2017 In : Biomedical Optics Express. 8, 2, p. 813-827
Generation of multiple VUV dispersive waves using a tapered gas-filled hollow-core anti-resonant fiber
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2017

High power, ultra-broadband supercontinuum source based on highly GeO2 doped silica fiber
Research output: Research - peer-review » Article in proceedings – Annual report year: 2017

High-quality phase-shifted Bragg grating sensor inscribed with only one laser pulse in a polymer optical fiber
Research output: Research - peer-review » Article in proceedings – Annual report year: 2017

Hybrid photonic-crystal fiber
Research output: Research - peer-review » Journal article – Annual report year: 2017

Increased mid-infrared supercontinuum bandwidth and average power by tapering large-mode-area chalcogenide photonic crystal fibers
Research output: Research - peer-review » Journal article – Annual report year: 2017

Influence of dispersion of nonlinearity on coherent supercontinuum generation bandwidth in photonic crystal fibers pumped at 2 μm
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2017

Long-term strain response of polymer optical fiber FBG sensors
Research output: Research - peer-review » Journal article – Annual report year: 2017

Low Loss Polycarbonate Polymer Optical Fiber for High Temperature FBG Humidity Sensing
Research output: Research - peer-review » Journal article – Annual report year: 2017

Master/slave: A better tool for Gabor filtering optical coherence tomography imaging instruments
Research output: Research - peer-review » Journal article – Annual report year: 2017

Multiple soliton compression stages in mid-IR gas-filled hollow-core fibers
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2017

Noise study of all-normal dispersion supercontinuum sources for potential application in optical coherence tomography
Non-destructive testing of layer-to-layer fusion of a 3D print using ultrahigh resolution optical coherence tomography

Phase estimation for global defocus correction in optical coherence tomography

Phase-shifted Bragg grating inscription in PMMA microstructured POF using 248 nm UV radiation

Polarization extinction ratio and polarization dependent intensity noise in long-pulse supercontinuum generation (Conference Presentation)

Polymer optical fiber Bragg grating inscription with a single UV laser pulse
Pospori, A., Marques, A. T., Bang, O., Webb, D. J. & André, G. 2017 In : Optics Express. 25, 8, p. 9028-9038

Q-switch-pumped supercontinuum for ultra-high resolution optical coherence tomography

Simultaneous measurement of temperature and humidity with microstructured polymer optical fiber Bragg gratings

Soliton-plasma nonlinear dynamics in mid-IR gas-filled hollow-core fibers

Solution-Mediated Annealing of Polymer Optical Fiber Bragg Gratings at Room Temperature

Technology for Polymer Optical Fiber Bragg Grating Fabrication and Interrogation.
Thermal and chemical treatment of polymer optical fiber Bragg grating sensors for enhanced mechanical sensitivity
Research output: Research - peer-review › Journal article – Annual report year: 2017

Toward single-mode UV to near-IR guidance using hollow-core anti-resonant silica fiber
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Zeonex microstructured polymer optical fiber: fabrication friendly fibers for high temperature and humidity insensitive Bragg grating sensing
Research output: Research - peer-review › Journal article – Annual report year: 2017

Zeonex-PMMA microstructured polymer optical FBGs for simultaneous humidity and temperature sensing
Research output: Research - peer-review › Journal article – Annual report year: 2017

2-10 μm Mid-infrared Supercontinuum Light Sources
Research output: Research › Ph.D. thesis – Annual report year: 2017

3-D printed sensing patches with embedded polymer optical fibre Bragg gratings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Anisotropic anti-resonant elements gives broadband single-mode low-loss hollow-core fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Annealing effects on strain and stress sensitivity of polymer optical fibre based sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016
Antiresonant hollow core fiber with seven nested capillaries

Aviation Fuel Gauging Sensor Utilizing Multiple Diaphragm Sensors Incorporating Polymer Optical Fiber Bragg Gratings

Bragg grating photo-inscription in doped microstructured polymer optical fiber by 400 nm femtosecond laser pulses.

Coherent supercontinuum bandwidth limitations under femtosecond pumping at 2 µm in all-solid soft glass photonic crystal fibers

Compact multichannel demultiplexer for WDM-POF networks based on spatially overlapped FBGs
Saez-Rodriguez, D., Nielsen, K., Bang, O. & Ortega, B. 2016 In : Electronics Letters. 52, 8, p. 635-636

Creation of a microstructured polymer optical fiber with UV Bragg grating inscription for the detection of extensions at temperatures up to 125°C

Embedding silica and polymer fibre Bragg gratings (FBG) in plastic 3D-printed sensing patches

Fabrication and characterization of polycarbonate microstructured polymer optical fibers for high-temperature-resistant fiber Bragg grating strain sensors

Femtosecond few-cycle mid-infrared laser pulses

Fuel level sensor based on polymer optical fiber Bragg gratings for aircraft applications
Modulation-instability biosensing using an As2S3 chalcogenide tapered fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

M-type fiber for exploiting higher-order-modes dispersion for application in mid-IR supercontinuum generation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Multimode supercontinuum generation in chalcogenide glass fibres
Kubat, I. & Bang, O. 2016 In : Optics Express. 24, 3, p. 2513-2526
Research output: Research - peer-review › Journal article – Annual report year: 2016

Performance of low-cost few-mode fiber Bragg grating sensor systems: polarization sensitivity and linearity of temperature and strain response
Research output: Research - peer-review › Journal article – Annual report year: 2016

Polymer Optical Fiber Compound Parabolic Concentrator fiber tip based glucose sensor: In-Vitro Testing
Research output: Research - peer-review › Journal article – Annual report year: 2016

Polymer Optical Fibre Bragg Grating Humidity Sensor at 100ºC
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Record power, ultra-broadband supercontinuum source based on highly GeO2 doped silica fiber
Jain, D., Sidharthan, R., Moselund, P. M., Yoo, S., Ho, D. & Bang, O. 2016 In : Optics Express. 24, 23, p. 26667-26677
Research output: Research - peer-review › Journal article – Annual report year: 2016

Refractive index and dispersion control of ultrafast laser inscribed waveguides in gallium lanthanum sulphide for near and mid-infrared applications
Research output: Research - peer-review › Journal article – Annual report year: 2016

Sensitivity enhancement using annealed polymer optical fibre based sensors for pressure sensing applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Single mode step-index polymer optical fiber for humidity insensitive high temperature fiber Bragg grating sensors
Research output: Research - peer-review › Journal article – Annual report year: 2016

Spectral-temporal composition matters when cascading supercontinua into the mid-infrared
Petersen, C. R., Moselund, P. M., Petersen, C., Moller, U. V. & Bang, O. 2016 In : Optics Express. 24, 2, p. 749-758
Research output: Research - peer-review › Journal article – Annual report year: 2016
Study of doping non-PMMA polymer fibre canes with UV photosensitive compounds
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Temperature insensitive hysteresis free highly sensitive polymer optical fiber Bragg grating humidity sensor
Research output: Research - peer-review › Journal article – Annual report year: 2016

Towards supercontinuum-driven hyperspectral microscopy in the mid-Infrared
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Towards the mid-infrared optical biopsy
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Zeonex Microstructured Polymer Optical Fibre Bragg Grating Sensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

An efficient and fast detection algorithm for multimode FBG sensing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Angle dependent Fiber Bragg grating inscription in microstructured polymer optical fibers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Antiresonant guiding in a poly(methyl-methacrylate) hollow-core optical fiber
Markos, C., Nielsen, K. & Bang, O. 2015 In : Journal of Optics. 17, 10, 8 p., 105603
Research output: Research - peer-review › Journal article – Annual report year: 2015

Coherent multi-octave spanning supercontinuum in tapered sulphide fibres.
Research output: Research - peer-review › Paper – Annual report year: 2015

Compound parabolic concentrator optical fiber tip for FRET-based fluorescent sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Dielectric tube waveguides with absorptive cladding for broadband, low-dispersion and low loss THz guiding
Research output: Research - peer-review › Journal article – Annual report year: 2015
Dynamic gate algorithm for multimode fiber Bragg grating sensor systems
Research output: Research - peer-review › Journal article – Annual report year: 2015

Fabry-Perot micro-structured polymer optical fibre sensors for opto-acoustic endoscopy
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Fast Fiber Bragg Grating inscription in the Undoped Microstructured Polymer Optical Fibers
Research output: Research › Conference abstract for conference – Annual report year: 2015

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

Fiber-optic liquid level monitoring system using microstructured polymer fiber Bragg grating array sensors: performance analysis
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

High performance liquid-level sensor based on mPOFBG for aircraft applications
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

Humidity insensitive step-index polymer optical fibre Bragg grating sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Improved Low-loss Hollow Core Anti-Resonant Silica Mid-IR Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Long term strain behavior of PMMA based polymer optical fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Low Loss Double-clad Hollow Core Anti-Resonant Fibers in the Mid-IR
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015
Low-loss hollow-core silica fibers with adjacent nested anti-resonant tubes
Habib, S., Bang, O. & Bache, M. 2015 In : Optics Express. 23, 13, p. 17394-17406
Research output: Research - peer-review › Journal article – Annual report year: 2015

Mid infrared supercontinuum generation from chalcogenide glass waveguides and fibers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Mid-infrared supercontinuum generation in the fingerprint region
Research output: Research - peer-review › Poster – Annual report year: 2015

Mid-infrared supercontinuum generation spanning more than 11 μm in a chalcogenide step-index fiber
Research output: Research - peer-review › Journal article – Annual report year: 2015

Multi-milliwatt mid-infrared supercontinuum generation in a suspended core chalcogenide fiber
Research output: Research - peer-review › Journal article – Annual report year: 2015

Nonlinear Label-Free Biosensing With High Sensitivity Using As2S3 Chalcogenide Tapered Fiber
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
Triches, M., Michielotto, M., Hald, J., Lyngsøe, J. K., Laegsgaard, J. & Bang, O. 2015 In : Optics Express. 23, 9, p. 11227-11241
Research output: Research - peer-review › Journal article – Annual report year: 2015

Pmma fiber viscoelasticity in extremely low frequency regime
Research output: Research - peer-review › Journal article – Annual report year: 2015

Polarization effects in polymer FBGs: study and use for transverse force sensing
Research output: Research - peer-review › Journal article – Annual report year: 2015

Polymer optical fiber compound parabolic concentrator tip for enhanced coupling efficiency for fluorescence based glucose sensors
Hassan, H. U., Nielsen, K., Aasmul, S. & Bang, O. 2015 In : Biomedical Optics Express. 6, 12, 13 p.
Research output: Research - peer-review › Journal article – Annual report year: 2015
Polymer Optical Fibre Sensors for Endoscopic Opto-Acoustic Imaging
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Production and Characterization of Polycarbonate Microstructured Polymer Optical Fiber Bragg Grating Sensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Robust and accurate detection algorithm for multimode polymer optical FBG sensor system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Simple Room Temperature Method for Polymer Optical Fibre Cleaving
5 p.
Research output: Research - peer-review › Journal article – Annual report year: 2015

Thermally tunable bandgaps in a hybrid As$_2$S$_3$/silica photonic crystal fiber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Two-octave mid-infrared supercontinuum generation in As-Se suspended core fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Bragg grating writing in PMMA microstructured polymer optical fibers in less than 7 minutes
Bundalo, I-L., Nielsen, K., Markos, C. & Bang, O. 2014 In : Optics Express. 22, 5, p. 5270-5276
Research output: Research - peer-review › Journal article – Annual report year: 2014

Broadband Mid-Infrared Supercontinuum Generation in Suspended Core Chalcogenide Fibers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2014
Mid-infrared supercontinuum generation in concatenated fluoride and chalcogenide glass fibers covering more than three octaves

Mid-infrared supercontinuum generation to 12.5μm in large NA chalcogenide step-index fibres pumped at 4.5μm

Photo-acoustic imaging of coronary arteries with polymer optical fibers

Photosensitivity mechanism of undoped poly(methyl methacrylate) under UV radiation at 325 nm and its spatial resolution limit

PMMA mPOF Bragg gratings written in less than 10 min

POF based glucose sensor incorporating grating wavelength filters

Refractive index dispersion of chalcogenide glasses for ultra-high numerical-aperture fiber for mid-infrared supercontinuum generation

Single-mode pumped high air-fill fraction photonic crystal fiber taper for high-power deep-blue supercontinuum sources

Supercontinuum based mid-IR imaging spectroscopy for cancer detection

Supercontinuum generation from ultraviolet to mid-infrared

Supercontinuum light sources for food analysis
Gain-switched all-fiber laser with narrow bandwidth
Larsen, C., Giesberts, M., Nyga, S., Fitzau, O., Jungbluth, B., Hoffmann, H. D. & Bang, O. 2013 In : Optics Express. 21, 10, p. 12302-12308
Research output: Research - peer-review › Journal article – Annual report year: 2013

Gain-switched, Yb-doped, all-fiber laser with narrow bandwidth
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Highly photosensitive polymethyl methacrylate microstructured polymer optical fiber with doped core
Sáez-Rodríguez, D., Nielsen, K., Rasmussen, H. K., Bang, O. & Webb, D. J. 2013 In : Optics Letters. 38, 19, p. 3769-3772
Research output: Research - peer-review › Journal article – Annual report year: 2013

High-Tg TOPAS mPOF strain sensing at 110 degrees
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

High-Tg TOPAS microstructured polymer optical fiber for fiber Bragg grating strain sensing at 110 degrees
Markos, C., Stefani, A., Nielsen, K., Rasmussen, H. K., Yuan, S. W. & Bang, O. 2013 In : Optics Express. 21, 4, p. 4758-4765
Research output: Research - peer-review › Journal article – Annual report year: 2013

Hole-Size Increasing PCFs for Blue-Extended Supercontinuum Generation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Influence of Phase Coherence on Seeded Supercontinuum Generation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Infrared Supercontinuum Generation in Soft-glass Fibers
Research output: Research › Ph.D. thesis – Annual report year: 2013

Intensity noise in normal-pumped picosecond supercontinuum generation, where higher-order Raman lines cross into anomalous dispersion regime
Møller, U. V. & Bang, O. 2013 In : Electronics Letters. 49, 1, p. 63-65
Research output: Research - peer-review › Journal article – Annual report year: 2013

Intensity Noise of Normal-Pumped Picosecond Supercontinuum Generation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Mid-infrared supercontinuum generation in tapered ZBLAN fiber with a standard Erbium mode-locked fiber laser
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013
Mid-infrared supercontinuum generation to 4.5 μm in uniform and tapered ZBLAN step-index fibers by direct pumping at 1064 or 1550 nm
Research output: Research - peer-review » Journal article – Annual report year: 2013

New horizons for Supercontinuum light sources: from UV to mid-IR
Research output: Research - peer-review » Conference article – Annual report year: 2013

Numerical demonstration of 3-12μm supercontinuum generation in large-core step-index chalcogenide fibers pumped at 4.5μm
Research output: Research - peer-review » Article in proceedings – Annual report year: 2013

Optimized ZBLAN fiber for efficient and broadband mid-infrared supercontinuum generation through direct pumping at 1550nm
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2013

Selective Serial Multi-Antibody Biosensing with TOPAS Microstructured Polymer Optical Fibers
Research output: Research - peer-review » Journal article – Annual report year: 2013

Zero-dispersion wavelength independent quasi-CW pumped supercontinuum generation
Research output: Research - peer-review » Journal article – Annual report year: 2013

Asymmetric Draw-Tower Tapers for Supercontinuum Generation and Verification of the Novel Concept of Group-Acceleration Matching
Research output: Research - peer-review » Article in proceedings – Annual report year: 2012

Cleaving of TOPAS and PMMA microstructured polymer optical fibers: Core-shift and statistical quality optimization
Deep-blue supercontinuum sources with optimum taper profiles – verification of GAM
Research output: Research - peer-review › Journal article – Annual report year: 2012

Describing supercontinuum noise and rogue wave statistics using higher-order moments
Sørensen, S. T., Bang, O., Wetzel, B. & Dudley, J. M. 2012 In : Optics Communications. 285, 9, p. 2451-2455
Research output: Research - peer-review › Journal article – Annual report year: 2012

Direct Writing of Fiber Bragg Grating in Microstructured Polymer Optical Fiber
Research output: Research - peer-review › Journal article – Annual report year: 2012

Dynamic Characterization of Polymer Optical Fibers
Research output: Research - peer-review › Journal article – Annual report year: 2012

Fabrication and characterization of porous-core honeycomb bandgap THz fibers
Bao, H., Nielsen, K., Rasmussen, H. K., Jepsen, P. U. & Bang, O. 2012 In : Optics Express. 20, 28, p. 29507-29517
Research output: Research - peer-review › Journal article – Annual report year: 2012

Fiber design and realization of point-by-point written fiber Bragg gratings in polymer optical fibers
Research output: Research - peer-review › Conference article in proceedings – Annual report year: 2012

Fiber Drawn 2D Polymeric Photonic Crystal THz Filters
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Higher-Order Moment Characterisation of Rogue Wave Statistics in Supercontinuum Generation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

High power supercontinuum generation in tapered photonic crystal fibers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

High Sensitivity Polymer Optical Fiber-Bragg-Grating-Based Accelerometer
Research output: Research - peer-review › Journal article – Annual report year: 2012

Influence of pump power and modulation instability gain spectrum on seeded supercontinuum and rogue wave generation
Research output: Research - peer-review › Journal article – Annual report year: 2012

Influence of two-photon absorption on soliton self-frequency shift
Research output: Research - peer-review › Journal article – Annual report year: 2012
IR microscopy utilizing intense supercontinuum light source
Research output: Research - peer-review › Journal article – Annual report year: 2012

Modulational instability and solitons in nonlocal media with competing nonlinearities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Nonlinear fiber-optic strain sensor based on four-wave mixing in microstructured optical fiber
Research output: Research - peer-review › Journal article – Annual report year: 2012

Nonlinear matching of Solitons - Continued redshift between silica and soft-glass fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Nonlinear Properties of Soft Glass Waveguides
Research output: Research › Ph.D. thesis – Annual report year: 2012

Optical fiber sensors fabricated by the focused ion beam technique
Research output: Research - peer-review › Conference article – Annual report year: 2012

Optimization of Tapered Photonic Crystal Fibers for Blue-Enhanced Supercontinuum Generation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Optimum PCF tapers for blue-enhanced supercontinuum sources
Research output: Research - peer-review › Journal article – Annual report year: 2012

Photonic crystal fibers for supercontinuum generation pumped by a gain-switched CW fiber laser
Research output: Research - peer-review › Conference article – Annual report year: 2012

Power dependence of supercontinuum noise in uniform and tapered PCFs
Research output: Research - peer-review › Journal article – Annual report year: 2012

Power dependence of supercontinuum noise in uniform and tapered PCFs: erratum
Møller, U., Sørensen, S. T., Jakobsen, C., Johansen, J., Moselund, P. M., Thomsen, C. L. & Bang, O. 2012 In : Optics Express. 20, 21, p. 23318-23319
Research output: Research - peer-review › Comment/debate – Annual report year: 2012
Polymer fiber waveguides for terahertz radiation
Research output: Research › Ph.D. thesis – Annual report year: 2011

870nm Bragg grating in single mode TOPAS microstructured polymer optical fibre
Research output: Research › peer-review › Conference article – Annual report year: 2011

All-solid birefringent hybrid photonic crystal fiber based interferometric sensor for measurement of strain and temperature
Gu, B., Yuan, S. W., Zhang, A. P. & Bang, O. 2011 In : Proceedings of SPIE, the International Society for Optical Engineering. 8311, p. 831121
Research output: Research › peer-review › Conference article – Annual report year: 2011

Bragg Grating Based Sensors in Microstructured Polymer Optical Fibers: Accelerometers and Microphones
Research output: Research › Ph.D. thesis – Annual report year: 2012

Dark solitons in nonlinear media with arbitrary degree of non locality
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Direct probing of evanescent field for characterization of porous terahertz fibers
Research output: Research › peer-review › Journal article – Annual report year: 2011

Gain-switched CW fiber laser for improved supercontinuum generation in a PCF
Research output: Research › peer-review › Journal article – Annual report year: 2011

Group-Acceleration Matching in Tapered Optical Fibers for Maximising the Power in the Blue-Edge of a Supercontinuum
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Higher order moment description of supercontinuum noise and rogue wave statistics
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2011

Highly sensitive and simple method for refractive index sensing of liquids in microstructured optical fibers using four-wave mixing
Frosz, M. H., Stefani, A. & Bang, O. 2011 In : Optics Express. 19, 11, p. 10471-10484
Research output: Research › peer-review › Journal article – Annual report year: 2011

Humidity insensitive TOPAS polymer fiber Bragg grating sensor
Yuan, S. W., Khan, L., Webb, D. J., Kalli, K., Rasmussen, H. K., Stefani, A. & Bang, O. 2011 In : Optics Express. 19, 20, p. 19731-19739
Research output: Research › peer-review › Journal article – Annual report year: 2011

Humidity sensitivity of TOPAS optical fibre Bragg grating
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2011
Improved thermal and strain performance of annealed polymer optical fiber Bragg gratings
Research output: Research - peer-review | Journal article – Annual report year: 2011

Influence of Two Photon Absorption on Soliton Self-Frequency Shift
Research output: Research - peer-review | Article in proceedings – Annual report year: 2011

Label-free biosensing with high sensitivity in dual-core microstructured polymer optical fibers
Markos, C., Yuan, W., Vlachos, K., Town, G. E. & Bang, O. 2011 In : Optics Express. 19, 8, p. 7790-7798
Research output: Research - peer-review | Journal article – Annual report year: 2011

Midinfrared optical rogue waves in soft glass photonic crystal fiber
Research output: Research - peer-review | Journal article – Annual report year: 2011

Mode profiling of THz fibers with dynamic aperture near-field imaging
Research output: Research - peer-review | Article in proceedings – Annual report year: 2011

Modulational instability and solitons in nonlocal media with competing nonlinearities
Research output: Research - peer-review | Journal article – Annual report year: 2011

Narrow Bandwidth 850-nm Fiber Bragg Gratings in Few-Mode Polymer Optical Fibers
Research output: Research - peer-review | Journal article – Annual report year: 2011

Nonlinear soliton matching between optical fibers
Research output: Research - peer-review | Journal article – Annual report year: 2011

Note: Optical fiber milled by focused ion beam and its application for Fabry-Pérot refractive index sensor
Research output: Research - peer-review | Journal article – Annual report year: 2011

Optical Cherenkov radiation by cascaded nonlinear interaction: an efficient source of few-cycle energetic near- to mid-IR pulses
Research output: Research - peer-review | Journal article – Annual report year: 2011

Optical Cherenkov radiation by cascaded nonlinear interaction: an efficient source of few-cycle near- to mid-IR pulses
Research output: Research - peer-review | Article in proceedings – Annual report year: 2011

Optical fibre Bragg grating recorded in TOPAS cyclic olefin copolymer
Analytical theory of dark nonlocal solitons
Research output: Research - peer-review › Journal article – Annual report year: 2010

Broadband polymer microstructured THz fiber coupler with downdoped cores
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Broadband terahertz fiber directional coupler
Research output: Research - peer-review › Journal article – Annual report year: 2010

Collisions and turbulence in optical rogue wave formation
Research output: Research - peer-review › Journal article – Annual report year: 2010

Design of microstructured waveguide devices for applications in optical sensing: [invited]
Town, G. E., McCosker, R., Yuan, S. W. & Bang, O. 2010 proceedings of the Optics and Photonics Congress. Optical Society of America (OSA), p. STuC1
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Few-cycle femtosecond optical pulses in the visible and near-Infrared: [invited]
Bache, M., Bang, O., Zhou, B., Krolikowski, W. & Wise, F. W. 2010 Proceedings WLMI.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Fiber-optical accelerometers based on polymer optical fiber Bragg gratings
Yuan, S. W., Stefani, A., Bang, O., Andresen, S., Jacobsen, T., Nielsen, F. K., Jacobsen, T., Rose, B. & Herholdt-Rasmussen, N. 2010 proceedings Optics and Photonics Congress. Optical Society of America (OSA), p. SWA5
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Fiber-optical microphones and accelerometers based on polymer optical fiber Bragg gratings: [invited]
Research output: Research - peer-review › Conference article – Annual report year: 2010

Grating writing and growth at 325nm in non-hydrogenated silica fiber
Town, G. E., Yuan, S. W., Stefani, A. & Bang, O. 2010
Research output: Research - peer-review › Poster – Annual report year: 2010

Increasing the blue-shift of a picosecond pumped supercontinuum
Research output: Research - peer-review › Book chapter – Annual report year: 2010

Microstructured optical fiber refractive index sensor
Town, G. E., McCosker, R., Yuan, S. W. & Bang, O. 2010 In : Optics Letters. 35, 6, p. 856-858
Research output: Research - peer-review › Journal article – Annual report year: 2010

Modelling of PCF Nonlinearities
Research output: Research - peer-review › Book chapter – Annual report year: 2010
**Nonlinear diffraction from a virtual beam**
Research output: Research - peer-review › Journal article – Annual report year: 2010

**Optical Cherenkov radiation in ultrafast cascaded second-harmonic generation**
Research output: Research - peer-review › Journal article – Annual report year: 2010

**Photonic crystal fibers for label-free biosensing: [invited]**
Bang, O., Yuan, S. W., Town, G. E., Frosz, M. H. & Simonsen, R. 2010 Proceedings EUROPT(RO)DE X.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

**Polymer microstructured fibers for guiding of THz radiation: [invited]**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

**Polymer optical fiber bragg grating sensors: measuring acceleration**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

**Refractive index sensing in an all-solid twin-core photonic bandgap fiber**
Research output: Research - peer-review › Journal article – Annual report year: 2010

**Tensile strain and temperature characterization of FBGs in preannealed Polymer Optical Fibers**
Yuan, S. W., Stefani, A., Andresen, S. & Bang, O. 2010 proceedings OECC. p. 9C4-1
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

**Theory of dispersive wave frequency shift via trapping by a soliton in an axially nonuniform optical fiber**
Research output: Research - peer-review › Journal article – Annual report year: 2010

**Thulium pumped high power supercontinuum in loss-determined optimum lengths of tellurite photonic crystal fiber**
Research output: Research - peer-review › Journal article – Annual report year: 2010

**Long-pulse Supercontinuum Light Sources**
Moselund, P. M., Bang, O. & Thomsen, C. L. Sep 2009 Kgs. Lyngby, Denmark: Technical University of Denmark (DTU). 142 p.
Research output: Research › Ph.D. thesis – Annual report year: 2009

**Bendable, low-loss Topas fibers for the terahertz frequency range**
Nielsen, K., Rasmussen, H. K., Adam, A. J. L., Planken, P. C. M., Bang, O. & Jepsen, P. U. 2009 In : Optics Express. 17, 10, p. 8592-8601
Research output: Research - peer-review › Journal article – Annual report year: 2009

**Broadband THz waveguiding and high-precision broadband time-resolved spectroscopy: [invited]**
Cooke, D., Iwaszcuk, K., Nielsen, K., Bang, O. & Jepsen, P. U. 2009 TeraTech. p. 2I-B5
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009
Dispersion-engineered and highly-nonlinear microstructured polymer optical fibres
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Dispersion-tailored, low-loss photonic crystal fibers for the THz range
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Dispersive waves in fs cascaded second-harmonic generation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Enhanced soliton self-frequency shift in a longitudinally varying taper
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

Infiltration liquid crystal in microstructured polymer optical fibers
Yuan, S. W., Wei, L. & Bang, O. 2009 Conference proceedings, CLEO/Europe - EQEC. IEEE
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Low-loss and bendable THz fiber with tailored dispersion
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Multiorder nonlinear diffraction in frequency doubling processes
Saltiel, S. M., Neshev, D. N., Krolikowski, W., Arie, A., Bang, O. & Kivshar, Y. S. 2009 In : Optics Letters. 34, 6, p. 848-850
Research output: Research - peer-review › Journal article – Annual report year: 2009

Multi-order nonlinear diffraction in second harmonic generation
Saltiel, S. M., Neshev, D., Krolikowski, W., Arie, A., Bang, O. & Kivshar, Y. S. 2009
Research output: Research - peer-review › Poster – Annual report year: 2009

Noise reduction of high-power supercontinuum sources by back seeding
Moselund, P. M., Frosz, M. H., Thomsen, C. L. & Bang, O. 2009 Conference abstract series, CLEO/Europe - EQEC. IEEE , p. 1-1
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Observation of two-dimensional nonlocal gap solitons
Research output: Research - peer-review › Journal article – Annual report year: 2009

Optical rogue waves and soliton turbulence in nonlinear fibre optics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Optimization of the soliton self-frequency shift in a tapered photonic crystal fiber
Research output: Research - peer-review › Journal article – Annual report year: 2009
Periodic refractive index modifications inscribed in polymer optical fibre by focussed IR femtosecond pulses
Stecher, M., Williams, R. J., Bang, O., Marschall, G. D., Withford, M. J. & Town, G. E. 2009
Research output: Research - peer-review › Paper – Annual report year: 2009

Thermal tunability of photonic bandgaps in liquid crystal infiltrated microstructured polymer optical fibers
Yuan, S. W., Wei, L., Alkeskjold, T. T., Bjarklev, A. O. & Bang, O. 2009 In : Optics Express. 17, 22, p. 19356-19364
Research output: Research - peer-review › Journal article – Annual report year: 2009

Ultrasensitive refractive index sensor based on twin-core photonic bandgap fibers
Yuan, S. W., Town, G. E. & Bang, O. 2009
Research output: Research - peer-review › Paper – Annual report year: 2009

Ultrasensitive twin-core photonic bandgap fiber refractive index sensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Light propagation in Liquid-infiltrated Microstructured Optical Fibres
Research output: Research › Ph.D. thesis – Annual report year: 2008

Photonic crystal fiber long-period gratings for biosensing
Research output: Research › Ph.D. thesis – Annual report year: 2008

Backseeded high-order parametric gain in supercontinuum generation
Moselund, P. M., Frosz, M. H., Thomsen, C. L. & Bang, O. 2008 In : Optics & Photonics News. 12, 35
Research output: Research - peer-review › Journal article – Annual report year: 2008

Back seeding of higher order gain processes in picosecond supercontinuum generation
Moselund, P. M., Frosz, M. H., Thomsen, C. L & Bang, O. 2008 In : Optics Express. 16, 16, p. 11954-11968
Research output: Research - peer-review › Journal article – Annual report year: 2008

Back seeding of picosecond supercontinuum generation in photonic crystal fibres
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Broadband light generation at ~1300 nm through spectrally recoiled solitons and dispersive waves
Research output: Research - peer-review › Journal article – Annual report year: 2008

Compression limits in cascaded quadratic soliton compression
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Controllable nonlocal behaviour by cascaded second-harmonic generation of fs pulses
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008
Degenerate four wave mixing in solid core photonic bandgap fibers
Rasmussen, P. D., Lægsgaard, J. & Bang, O. 2008 In : Optics Express. 16, 6, p. 4059-4068
Research output: Research - peer-review › Journal article – Annual report year: 2008

Geometry and transport in a model of two coupled quadratic nonlinear waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2008

Highly sensitive refractometer with a photonic-crystal-fiber long-period grating
Research output: Research - peer-review › Journal article – Annual report year: 2008

Increasing the blue-shift of a supercontinuum by modifying the fiber glass composition
Frosz, M. H., Moselund, P. M., Rasmussen, P. D., Thomsen, C. L. & Bang, O. 2008 In : Optics Express. 16, 25, p. 21076-21086
Research output: Research - peer-review › Journal article – Annual report year: 2008

Label-free and selective nonlinear fiber-optical biosensing
Research output: Research - peer-review › Journal article – Annual report year: 2008

Limits to compression with cascaded quadratic soliton compressors
Bache, M., Bang, O., Krolikowski, W., Moses, J. & Wise, F. W. 2008 In : Optics Express. 16, 5, p. 3273-3287
Research output: Research - peer-review › Journal article – Annual report year: 2008

Nonlocal gap soliton in liquid infiltrated photonic crystal fibres
Research output: Research - peer-review › Poster – Annual report year: 2008

Picosecond supercontinuum generation with back seeding of different spectral parts
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Picosecond supercontinuum generation with back seeding of different spectral parts components
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Sensitivity of photonic crystal fiber grating sensors: biosensing, refractive index, strain, and temperature sensing
Research output: Research - peer-review › Journal article – Annual report year: 2008

Spatiotemporal control of light by Bloch-mode dispersion in multi-core fibers
Rasmussen, P. D., Sukhorukov, A. A., Neshev, D. N., Krolikowski, W., Bang, O., Lægsgaard, J. & Kivshar, Y. S. 2008 In : Optics Express. 16, 8, p. 5878-5891
Research output: Research - peer-review › Journal article – Annual report year: 2008

Spatiotemporal light localization in infiltrated waveguide arrays
Rasmussen, P. D., Neshev, D. N., Sukhorukov, A. A., Krolikowski, W., Bang, O., Lægsgaard, J. & Kivshar, Y. S. 2008
Research output: Research - peer-review › Poster – Annual report year: 2008
Localized biosensing with Topas microstructured Polymer Optical Fiber
In : Optics Letters. 32, 5, p. 460-462
Research output: Research - peer-review › Journal article – Annual report year: 2007

Localized biosensing with Topas microstructured polymer optical fiber: Erratum
Research output: Research - peer-review › Journal article – Annual report year: 2007

Methods of supercontinuum generation for effective down-conversion in photonic crystal fibers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Modulational instability in the nonlocal chi(2)-model
Research output: Research - peer-review › Journal article – Annual report year: 2007

Multi-antibody biosensing with Topas microstructured polymer optical fiber
Research output: Research - peer-review › Poster – Annual report year: 2007

Nonlocal explanation of stationary and nonstationary regimes in cascaded pulse compression
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Nonlocal explanation of stationary and nonstationary regimes in cascaded soliton pulse compression
Bache, M., Bang, O., Moses, J. & Wise, F. W. 2007 In : Optic Letters. 32, 17, p. 2490-2492
Research output: Research - peer-review › Journal article – Annual report year: 2007

Photonic crystal fiber gratings: prospects for label-free biosensors
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Recent developments of Bragg gratings in PMMA and TOPAS polymer optical fibers
Research output: Research - peer-review › Poster – Annual report year: 2007

Rigorous modeling of cladding modes in photonic crystal fibers
Rindorf, L. H. & Bang, O. 2007
Research output: Research - peer-review › Poster – Annual report year: 2007

Soliton compression to few-cycle pulses by cascaded quadratic nonlinearities
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

Spiralling solitons and multipole localized modes in nonlocal nonlinear media
Research output: Research - peer-review › Journal article – Annual report year: 2007

Supercontinuum generation in photonic crystal fibers using quasi-CW pumping

Temporal nonlinear beam dynamics in infiltrated photonic crystal fibers
Bennet, F., Rosberg, C. R., Neshev, D. N., Rasmussen, P. D., Bang, O., Krolikowski, W., Bjarklev, A. O. & Kivshar, Y. S. 2007 Research output: Research - peer-review › Poster – Annual report year: 2007

The role of the second zero-dispersion wavelength in generation of supercontinua and bright-bright soliton-pairs across the zero-dispersion wavelength: erratum
Frosz, M. H., Falk, P. A. & Bang, O. 2007 In : Optics Express. 15, 8, p. 5262-5263
Research output: Research - peer-review › Journal article – Annual report year: 2007

Tunable all-optical devices based on liquid-filled photonic crystal fibers
Rosberg, C. R., Bennet, F., Neshev, D. N., Rasmussen, P. D., Bang, O., Krolikowski, W., Bjarklev, A. O. & Kivshar, Y. S. 2007 Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Tunable Beam Diffraction in Infiltrated Microstructured Fibers

Tunable diffraction and self-defocusing in liquid-filled photonic crystal fibers
Rosberg, C. R., Bennet, F. H., Neshev, D. N., Rasmussen, P. D., Bang, O., Krolikowski, W., Bjarklev, A. O. & Kivshar, Y. S. 2007 In : Optics Express. 15, 19, p. 12145-12150
Research output: Research - peer-review › Journal article – Annual report year: 2007

Tunable nonlinear beam defocusing in infiltrated photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

A microstructured Polymer Optical Fiber Biosensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Biosensing using microstructured polymer optical fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Chromatic dispersion of liquid crystal infiltrated capillary tubes and photonic crystal fibers
Group-velocity matched nonlinear photonic crystal fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Localized biosensing with Topas microstructured polymer optical fiber
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2006

Microstructured Optical Fibers, fundamental properties and biosensor applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Microstructured polymer optical fiber biosensors for detection of DNA and antibodies
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2006

Modulational instability in generalized nonlinear optical media
Research output: Research - peer-review › Book chapter – Annual report year: 2006

MPOF Biosensors
Bang, O. 2006
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2006

Nanoengineering of photonic crystal fibers for supercontinuum spectral shaping
Frosz, M. H., Sørensen, T. & Bang, O. 2006 In : Journal of the Optical Society of America - B. 23, 8, p. 1692-1699
Research output: Research - peer-review › Journal article – Annual report year: 2006

Nonlocal description of X waves in quadratic nonlinear materials
Research output: Research - peer-review › Journal article – Annual report year: 2006

Observation of attraction between dark solitons
Research output: Research - peer-review › Journal article – Annual report year: 2006

Photonic crystal fiber long-period gratings for biochemical sensing
Research output: Research - peer-review › Journal article – 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
Soliton collision and Raman gain regimes in continuous-wave pumped supercontinuum generation
Frosz, M. H., Bang, O. & Bjarklev, A. O. 2006 In : Optics Express. 14, 20, p. 9391-9407
Research output: Research - peer-review › Journal article – Annual report year: 2006

Stability of two-dimensional spatial solitons in nonlocal nonlinear media
Research output: Research - peer-review › Journal article – Annual report year: 2006

Stability of two-dimensional spatial solitons in nonlocal nonlinear media
Skupin, S., Bang, O., Edmundson, D. & Krolikowski, W. 2006
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2006

Stable rotating dipole solitons in nonlocal media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Stable rotating dipole solitons in nonlocal optical media
Research output: Research - peer-review › Journal article – 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

The influence of input pump polarization on supercontinuum generation in photonic crystal fibers
Research output: Research - peer-review › Paper – Annual report year: 2006

Towards biochips using microstructured optical fiber sensors
Rindorf, L. H., Hoiby, P. E., Jensen, J. B., Pedersen, L. H., Bang, O. & Geschke, O. 2006 In : Analytical and Bioanalytical Chemistry. 385, 8, p. 1370-1375
Research output: Research - peer-review › Journal article – 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

Biomolecule detection with integrated photonic crystal fiber sensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Dark soliton formation and interaction in nonlocal nonlinear thermal media
Petersen, D. E., Krolikowski, W. Z., Neshev, D., Bang, O. & Wyller, J. 2005
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2005
Escape angles for out-of-phase nematicons
Rasmussen, P. D., Bang, O. & Krolikowski, W. Z. 2005
Research output: Research - peer-review › Poster – Annual report year: 2005

High-resolution, real-time imaging using a fiber-based optical coherence tomography system
Research output: Research - peer-review › Poster – Annual report year: 2005

Modulation instability in nonlocal chi2-model
Wyller, J., Krolikowski, W. Z., Bang, O., Petersen, D. E. & Rasmussen, J. J. 2005
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Nano-engineering of photonic crystal fibers for supercontinuum generation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Nonlinear wave dynamics in nonlocal media
Rasmussen, J. J., Bang, O., Krolikowski, W. & Wyller, J. 2005
Research output: Research › Conference abstract for conference – Annual report year: 2005

Observation of attraction forces between dark solitons
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Observation of attraction of dark solitons
Research output: Research › Article in proceedings – Annual report year: 2005

Ring vortex solitons in nonlocal nonlinear media
Research output: Research › Journal article – Annual report year: 2005

Ring vortex solitons in nonlocal nonlinear media
Research output: Research › Conference abstract in proceedings – Annual report year: 2005

Ring vortex solitons in nonlocal nonlinear media
Briedis, D., Petersen, D. E., Krolikowski, W., Edmundson, D. & Bang, O. 2005
Research output: Research › Conference abstract for conference – Annual report year: 2005

Ring vortex solitons in nonlocal nonlinear media
Briedis, D., Krolikowski, W., Petersen, D., Edmundson, D. & Bang, O. 2005
Research output: Research › Poster – Annual report year: 2005

Selective detection of antibodies in microstructured polymer optical fibers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Soliton interactions in nematic liquid crystals (NLC)
Rasmussen, P. D., Bang, O. & Krolikowski, W. Z. 2005
Research output: Research - peer-review › Poster – Annual report year: 2005

Supercontinuum generation in a photonic crystal fiber tapered to normal dispersion for all wavelengths
Supercontinuum generation in a photonic crystal fiber with two zero-dispersion wavelengths tapered to normal dispersion at all wavelengths
Research output: Research - peer-review › Journal article – Annual report year: 2005

Supercontinuum generation in photonic crystal fibers: The role of the second zero dispersion wavelength
Research output: Research › Conference abstract in proceedings – Annual report year: 2005

Supercontinuum generation in untapered and tapered photonic crystal fibers with two zero dispersion wavelengths
Research output: Research › Conference article – Annual report year: 2005

Theory of nonlocal soliton interaction in nematic liquid crystals
Research output: Research › Journal article – Annual report year: 2005

The role of tapering and second zero dispersion wavelength for supercontinuum generation in Photonic Crystal Fibers
Falk, P. A., Frosz, M. H. & Bang, O. 2005
Research output: Research › Poster – Annual report year: 2005

The role of the second zero-dispersion wavelength in generation of supercontinua and bright-bright soliton-pairs across the zero-dispersion wavelength
Research output: Research › Journal article – Annual report year: 2005

Attraction of nonlocal dark optical solitons
Research output: Research › Journal article – Annual report year: 2004

A nonlocal description of two-color parametric solitons
Nikolov, N. I., Neshev, D., Bang, O., Krolikowski, W. Z. & Wyller, J. 2004
Research output: Research › Poster – Annual report year: 2004

Bubble generation in a twisted and bent DNA-like model
Research output: Research › Journal article – Annual report year: 2004

Cob-web microstructured fibers optimized for supercontinuum generation with picosecond pulses
Sørensen, N. T., Nikolov, N. I., Bang, O., Bjarklev, A. O., Hougaard, K. G., Hansen, KI. P. & Rasmussen, J. J. 2004
Research output: Research › Journal article – Annual report year: 2004

Complete modulational-instability gain spectrum of nonlinear quasi-phase-matching gratings
Research output: Research › Journal article – Annual report year: 2004
Dispersion engineered cob-web photonic crystal fibers for efficient supercontinuum generation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Dispersion engineered nano-structured cob-web photonic crystal fibres for efficient supercontinuum generation
Sørensen, N. T., Nikolov, N. I., Frosz, M. H., Bang, O., Bjarklev, A. O. & Rasmussen, J. J. 2004
Research output: Research - peer-review › Poster – Annual report year: 2004

Energy funneling in a bent chain of Morse oscillators with long-range coupling
Research output: Research - peer-review › Journal article – Annual report year: 2004

Modulation instability in a nonlocal $x(2)$ - model
Wyller, J., Krolikowski, W., Bang, O. & Rasmussen, J. J. 2004
Research output: Research - peer-review › Poster – Annual report year: 2004

Modulation instability, solitons and beam propagation in spatially nonlocal nonlinear media
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nonlinear wave propagation in nonlocal media
Rasmussen, J. J., Bang, O., Krolikowski, W. & Wyller, J. 2004
Research output: Research - peer-review › Paper – Annual report year: 2004

Nonlocal incoherent solitons
Krolikowski, W. Z. & Bang, O. 2004
Research output: Research - peer-review › Paper – Annual report year: 2004

Nonlocal incoherent solitons
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nonlocal incoherent solitons in materials with a logarithmic nonlinearity
Bang, O., Wyller, J. & Krolikowski, W. 2004
Research output: Research › Paper – Annual report year: 2004

Nonlocal solitons
Bang, O. 2004
Research output: Research › Paper – Annual report year: 2004

Optical beams and spatial solitons in nonlocal nonlinear media
Research output: Research - peer-review › Paper – Annual report year: 2004

Phase- and group velocity matching in triangular photonic crystal fibres
Nielsen, H., Lægsgaard, J., Bang, O. & Bjarklev, A. O. 2004 In : DOPS NYT. 19, 4, p. 5-7
Research output: Research › Journal article – Annual report year: 2004

Photonic crystal fiber based antibody detection
Research output: Research - peer-review › Paper – Annual report year: 2004
Photonic crystal fiber based antibody detection

Photonic crystal fiber design for broadband directional coupling

Photonic crystal structures in sensing technology

Second-harmonic generation in microstructured fibres: simultaneous phase-and groupvelocity matching
Nielsen, H., Lægsgaard, J., Bang, O. & Bjarklev, A. O. 2004

Designing the dispersion for optimum supercontinuum bandwidth using picosecond pulses

Improving efficiency of supercontinuum generation in photonic crystal fibers

Improving efficiency of supercontinuum generation in photonic crystal fibres by direct degenerate four-wave mixing

Large amplitude spatial fluctuations in the boundary region of the Bose-Einstein condensate in the Gross-Pitaevskii regime

Nonlinear waves in nonlocal media
Królikowski, W., Bang, O., Wyller, J. & Rasmussen, J. J. 2003

Nonlocal solitons

Optical Beams in Nonlocal Nonlinear Media
Soliton engineering with two-period QPM gratings
Research output: Research › Article in proceedings – Annual report year: 2002

Soliton interaction in weakly nonlocal nonlinear media
Research output: Research › Article in proceedings – Annual report year: 2002

Accurate switching intensities and length scales in quasi-phase-matched materials
Research output: Research - peer-review › Journal article – Annual report year: 2001

Accurate switching intensities and length scales in quasi-phase-matched materials
Research output: Research › Article in proceedings – Annual report year: 2001

Asymmetric induced cubic nonlinearities in homogeneous and quasi-phase-matched quadratic materials: signature and importance
Bang, O. & Corney, J. F. 2001 In : Optics & Photonics News. 12, 12, p. 42
Research output: Research - peer-review › Journal article – Annual report year: 2001

Determination of escape angles in quadratic bulk experiments with two identical solitons
Research output: Research › Article in proceedings – Annual report year: 2001

Modulational instability in nonlocal Kerr media
Research output: Research › Article in proceedings – Annual report year: 2001

Modulational instability in periodic quadratic nonlinear materials
Research output: Research - peer-review › Journal article – Annual report year: 2001

Nonlinearity and disorder: Classification and stability of nonlinear impurity modes
Research output: Research - peer-review › Journal article – Annual report year: 2001
Nonlinearity and disorder: Theory and applications
Research output: Research - peer-review › Book – Annual report year: 2001

Parametric localized modes in quadratic nonlinear photonic structures
Research output: Research - peer-review › Journal article – Annual report year: 2001

Rigorous proof of soliton stability and absence of collapse in Kerr media and Bose-Einstein condensates with a general nonlocal nonlinearity
Research output: Research › Article in proceedings – Annual report year: 2001

Solitons in nonlocal nonlinear media: Exact solutions
Research output: Research - peer-review › Journal article – Annual report year: 2001

Solitons in quadratic nonlinear photonic crystals
Research output: Research - peer-review › Journal article – Annual report year: 2001

Collapse suppression and soliton stabilization through nonlocality in bulk Kerr media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Effective nonlinearities and multi-wavelength second-harmonic generation in modulated quasi-phase-matching gratings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Effective nonlinearities in modulated QPM gratings
Bang, O. & Clausen, C. A. B. 2000 In : DOPS Nyt - Danish Optical Society News, Special issue on Northern Optics. 15, p. 5-6
Research output: Research - peer-review › Journal article – Annual report year: 2000

Effects of linear gratings in quasi-phased-matched quadratic materials with induced Kerr effects
Research output: Research › Journal article – Annual report year: 2000

Engineering of effective quadratic and cubic nonlinearities in two-period QPM gratings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Fusion arrest and collapse phenomena due to Kerr-nonlinearity in quadratic media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Influence of Four-Wave Mixing and Walk-Off on the Self-Focusing of Coupled Waves
Research output: Research - peer-review › Journal article – Annual report year: 2000
Modulational stability and dark solitons in periodic quadratic nonlinear media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Multi-component optical solitary waves
Research output: Research - peer-review › Journal article – Annual report year: 2000

Multi-wavelength and multi-colour temporal and spatial optical solitons
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Optical spatial solitons in nonlocal nonlinear medium
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Robustness of quadratic solitons with periodic gain
Torner, L., Torres, J. P. & Bang, O. 2000 In : Optics Communications. 185, p. 479-485
Research output: Research - peer-review › Journal article – Annual report year: 2000

Soliton collisions in quadratic bulk media with aj nonvanishing Kerr non-linearity
Research output: Research › Journal article – Annual report year: 2000

Soliton interaction in quadratic and cubic bulk media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Spatial solitons in nonlinear photonic crystals
2 p.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Unified model for partially coherent solitons in logarithmically nonlinear media
Research output: Research - peer-review › Journal article – Annual report year: 2000

Collapse of Incoherent Light Beams In Inertial Bulk Kerr Media
Research output: Research - peer-review › Journal article – Annual report year: 1999

Engineering competing nonlinearities
Research output: Research - peer-review › Journal article – Annual report year: 1999

Fusion, collapse, and stationary bound states of incoherently coupled waves in bulk cubic media
Research output: Research - peer-review › Journal article – Annual report year: 1999
**Quasiperiodic Envelope Solitons**  
Research output: Research - peer-review › Journal article – Annual report year: 1999

**Two-Color Nonlinear Localized Modes in Photonic Crystals**  
Sukhorukov, A. A., Kivshar, Y. S., Bang, O., Martorell, J., Trull, J. & Vilaseca, R. 1999 In : Optics & Photonics News. 10, 12, p. 34-35  
Research output: Research - peer-review › Journal article – Annual report year: 1999

**Two-color nonlinear localized photonic modes**  
Research output: Research - peer-review › Journal article – Annual report year: 1999

**Stationary solutions and self-trapping in discrete quadratic nonlinear systems**  
Research output: Research - peer-review › Journal article – Annual report year: 1998

**Spatial Solitons and Induced Kerr Effects in Quasi-Phase-Matched Quadratic Media**  
Research output: Research - peer-review › Journal article – Annual report year: 1997

**Temperature effects in a nonlinear model of monolayer Scheibe aggregates**  
Research output: Research - peer-review › Journal article – Annual report year: 1994

**Projects:**

**High-Speed Time-stretch Optical coherence tomography**  
Jensen, M., Bang, O. & Israelsen, N. M.  
Samfinansierede - Virksomhed  
01/09/2017 → 31/08/2020  
Project: PhD

**Polymer Optical Fiber Bragg Gratings for high sensitivity distributed biochemical sensors**  
Inglev, R., Bang, O., Janling, J. & Nielsen, K.  
Samfinanseret - Andet  
01/09/2017 → 31/08/2020  
Project: PhD

**Gas-filled Hollow-Core Photonic Crystal Fibers for sensing applications and ultrafast non-linear optics**  
Adamu, A. I., Markos, C. & Bang, O.  
Forskningsrådsfinansiering  
01/08/2017 → 31/07/2020  
Project: PhD

**Multi-tone supercontinuum sources for food control applications with IR spectroscopy**  
Kwarkye, K. & Bang, O.  
Marie Curie (EU-stipendium)  
01/06/2017 → 31/05/2020  
Project: PhD
High-power visible-near-IR Supercontinuum sources for spectroscopic photoacoustic microscopy
Dasa, M. K., Bang, O., Jain, D. & Markos, C.
Marie Curie (EU-stipendium)
01/02/2017 → 31/01/2020
Project: PhD

Rekonfigurerbare optiske bølgelederstrukturer genereret ved solitonvekselvirkning
Larsen, P. U. V., Sørensen, M. P., Bang, O., Christiansen, P. L., Hjorth, P. G., Rasmussen, J. J. & Wyller, J. A.
DTU-lønnet stipendie
01/09/2002 → 15/05/2006
Project: PhD

Modellering og udvikling af fotoniske krystal bølgeledere
Bergbäck Knudsen, E., Bjarklev, A. O., Broeng, J., Bang, O., Andersen, P. E. & Andrés, M. V.
DTU-lønnet stipendie
01/02/2000 → 31/07/2003
Project: PhD

Low noise femtosecond supercontinuum sources
Grundforskningsfonden
01/09/2015 → 31/08/2018
Project: PhD

Low-noise supercontinuum lasers for Optical Coherence Tomography systems
Engelsholm, R. D., Bang, O. & Thomsen, C. L.
Institut stipendie (DTU)
01/05/2015 → 31/10/2018
Project: PhD

Design and fabrication of UV waveguiding polymer tube
Pedersen, J. K. M., Nielsen, K., Bang, O., Lindvold, L. R., Kalli, K. & Webb, D. J.
Samfinansieret - Andet
01/09/2014 → 11/01/2018
Project: PhD

Ultrafast mid-IR nonlinear optics in gas-filled hollow-core photonic crystal fibers
Habib, S., Bache, M., Bang, O., Lægsgaard, J., Biancalana, F. & Joly, N.
Institut stipendie (DTU)
15/04/2014 → 14/06/2017
Project: PhD

Speciality and Microstructured Polymer Optical FBG Sensors
Woyessa, G., Bang, O., Markos, C., Nielsen, K., Lindvold, L. R., Kalli, K. & Schuster, K.
Marie Curie (EU-stipendium)
01/03/2014 → 23/08/2017
Project: PhD

POF based Glucose Sensor Incorporating Grating Wavelength Filters
Hassan, H. U., Bang, O., Aasmul, S., Nielsen, K., Jepsen, P. U., Selleri, S. & Sugden, K.
Eksternt EU-finansieret
15/01/2014 → 08/03/2017
Project: PhD

Optical Fiber based Biosensors
InnovationsPhD
01/11/2004 → 29/01/2008
Project: PhD

Polymer fiber-optical microphones
Stefani, A., Bang, O., Yuan, S. W., Rottwitt, K., Keiding, S. R. & Schuster, K.
Offentlig finansiering
01/01/2009 → 22/03/2012
Project: PhD

Photonic crystal rod amplifiers: Understanding a new class of active optical waveguides
Hansen, K. R., Lægsgaard, J., Broeng, J., Bang, O., Bischoff, S. & Dajani, I. A.
Forskningsrådsfinansiering
01/01/2010 → 04/04/2013
Project: PhD

Coherent energy transport, thermal effects, and radiative decay in ordered molecular monolayers by nonlinear dynamical models
Bang, O.
Gammel ordning u/skema-SU
01/08/1991 → 01/01/1995
Project: PhD

Spatial solitons, vortices, and patterns in non-linear optical media
Bache, M., Christiansen, P. L., Bang, O., Rasmussen, J. J., Saffman, M., Tromborg, B., Firth, W. J. & Pedersen, T. G.
DTU, Samfinansiering
01/04/1999 → 08/11/2002
Project: PhD

Nonlinear Photonic Crystals
DTU, Samfinansiering
01/02/2001 → 18/08/2004
Project: PhD

Nonlinear dynamics of optical polymers
Johansen, S. K., Bang, O., Sørensen, M. P., Torner, L., Bjarklev, A. O., Baldi, P. & Rasmussen, J. J.
DTU, Samfinansiering
01/06/1999 → 15/11/2002
Project: PhD

Fibre Laser based broadband THz imaging systems
Eichhorn, F., Jepsen, P. U., Pedersen, J. E., Bang, O., Keil, U. D. F. & Koch, M.
1/3 DTU-stip, 2/3 FUR/andet
01/08/2006 → 03/03/2010
Project: PhD

Biomedical Applications of Photonic Crystal Fibres
Frosz, M. H., Bjarklev, A. O., Andersen, P. E., Bang, O., Broeng, J., Rottwitt, K., Dudley, J. M. & Keiding, S. R.
DTU-lønnet stipendie
01/09/2003 → 05/02/2007
Project: PhD

Liquid Crystal Filled Microstructured Polymer Optical Fibres
Rasmussen, P. D., Bang, O., Lægsgaard, J., Rottwitt, K., Broeng, J. & Skryabin, D. V.
DTU-lønnet stipendie
01/08/2005 → 25/09/2008
Project: PhD
Advanced devices for ultra-high capacity optical communication systems
Öhman, F., Mørk, J., Bischoff, S., Tromborg, B., Bang, O., Jacobsen, G. & Shtaif, M.
DTU-lønnet stipendie
01/09/2001 → 18/03/2005
Project: PhD

Infrared Supercontinuum Generation in Soft Glass Fibers
Agger, C., Bang, O., Lægsgaard, J., Vlachos, K. G. & Wyller, J. A.
Institut stipendie (DTU) Samf.
15/10/2009 → 18/12/2012
Project: PhD

THz-BREW: Terahertz Broadband Relaxtion dynamics of Electons in Water
Wang, T., Jepsen, P. U., Cooke, D., Bang, O., Planken, P. C. M. & Zeitler, J. A.
Eksternt finansieret virksomhed
15/06/2012 → 09/11/2015
Project: PhD

Long-pulse Super-continuum Light Sources
Moselund, P. M., Bang, O., Thomsen, C. L., Dudley, J. M., Keiding, S. R. & Rottwitt, K.
1/3 DTU-stip, 2/3 FUR/andet
01/04/2006 → 23/09/2009
Project: PhD

Hollow-core fibers for high power laser applications
Michieletto, M., Bang, O., Lyngsøe, J. K., Lægsgaard, J., Bache, M., Belardi, W. & Correra, R. A.
Eksternt EU-finansieret
01/01/2013 → 30/09/2016
Project: PhD

Laser frequency standards based on gas-filled hollow-core fibres
Triches, M., Bang, O., Hald, J., Lægsgaard, J., Bache, M., Arlt, J. & Corwin, K.
Eksternt EU-finansieret
01/02/2013 → 02/11/2016
Project: PhD

2-10um mid-infrared supercontinuum light sources
Petersen, C. R., Bang, O., Møller, U. V., Bache, M., Buczynski, R. & Dudley, J. M.
Offentlig finansiering
01/08/2013 → 02/11/2016
Project: PhD

Topas microstructured polymer optical fibers for biosensing and terahertz waveguides
Nielsen, K., Bang, O., Jepsen, P. U., Rasmussen, H. K., Lægsgaard, J., Keiding, S. R. & Koch, M.
Institut stipendie (DTU) Samf.
01/02/2008 → 20/04/2011
Project: PhD

Modelling of Mid-ir supercontinuum Generation in Chalcogendie Fibers
Kubat, I., Bang, O., Meller, U. V., Lægsgaard, J., Keiding, S. R. & Taylor, J. R.
Institut, samfinansiering
01/11/2012 → 27/01/2016
Project: PhD

Femtosecond few-cycle mid-infrared laser pulses
Liu, X., Bache, M., Zhou, B., Bang, O., Jedrzewicz, O. & Minardi, S.
Modal instabilities in large mode area fiber amplifiers and lasers
Johansen, M. M., Lægsgaard, J., Alkeskjold, T. T., Bang, O., Dong, L. & Misas, C. J.
Institut stipendie (DTU)
01/01/2012 → 14/06/2017
Project: PhD

Photonic crystal THz fibres and functional fibres devices
Bao, H., Bang, O., Jepsen, P. U., Broeng, J., Koch, M. & Town, G.
Institut stipendie (DTU)
15/11/2011 → 27/02/2015
Project: PhD

Photonic Cristal Fiber based Sensors for Label-Free Detection of Biomolecules
Emiliyanov, G. A., Bang, O., Jensen, J. B., Pedersen, L. H., Jepsen, P. U., Kristensen, M. L. & Ludvigsen, H.
1/3 DTU-stip, 2/3 FUR/andet
15/01/2005 → 29/05/2008
Project: PhD

Fiber Bragg grating (FBG) strain sensors in all-solid microstructured polymer optical fibers
Bundalo, I., Bang, O., Nielsen, K., Lægsgaard, J., Kalli, K. & Webb, D. J.
Institut stipendie (DTU)
01/03/2013 → 07/12/2016
Project: PhD

Continuous Wave Supercontinuum Light Sources based on Tapered Photonic Crystal Fibres
Larsen, C., Bang, O., Hansen, K. P., Mattsson, K. E., Bache, M., Alam, S. & Ludvigsen, H.
Institut stipendie (DTU) Samf.
01/08/2010 → 19/03/2014
Project: PhD

Deep-blue Supercontinuum Light Sources based on Tapered Photonic Crystal Fibres
Serensen, S. T., Bang, O., Thomsen, C. L., Lægsgaard, J., Genty, G. & Travers, J. C.
Institut stipendie (DTU) Samf.
01/05/2010 → 21/06/2013
Project: PhD

Nonlinear properties of soft glass waveguides
Steffensen, H., Rottwitt, K., Bang, O., Jepsen, P. U., Lægsgaard, J., Dudley, J. M. & Planken, P. C. M.
Institut stipendie (DTU)
01/09/2009 → 21/06/2013
Project: PhD

Technology for POFBG fabrication and interrogation
Ganziy, D., Bang, O., Rose, B., Jepsen, P. U., Albert, J. & Caucheteur, C.
Eksternt EU-finansieret
01/03/2014 → 14/06/2017
Project: PhD

Light and Food
Møller, U. V., Bang, O. & Petersen, C. R.
InnovationsFonden
01/05/2013 → 30/04/2017
Project: Research
MINERVA: MId- to NEaR infrared spectroscopy for improVed medical diAgnostics (MINERVA)
Bang, O., Møller, U. V. & Kubat, I.
01/11/2012 → 31/10/2016
Project: Research

Femto-VINIR: Few-cycle femtosecond optical pulses in the visible and near-infrared
Bache, M., Bang, O., Krolikowski, W., Jepsen, P. U., Cooke, D. & Wise, F. W.
Forskningsrådene - STVF
01/04/2009 → 31/03/2012
Project: Research

Optical transducer systems: Optical microphones, accelerometers and pressure transducers based on FBG (Fiber Bragg Grating) technology and optical detectors
Jacobsen, T., Rose, B., Sørensen, O. B., Nielsen, F. K., Hübner, J. & Bang, O.
Forsk. Andre offentlige og private - Nordiske
01/09/2008 → 31/08/2011
Project: Research

Infrared high-power lasers and broadband light sources based on novel soft glass fiber technology
Thomsen, C. L., Broeng, J., Bang, O. & Keiding, S. R.
Forsk. Andre offentlige og private - Nordiske
01/09/2009 → 31/08/2012
Project: Research

ITRUS: Intelligent Tapers and Seeding for taming the optical Rogue wave and develop stable deep-blue Supercontinuum light sources
Bang, O., Frosz, M. H., Møller, U. V., Dudley, J. M., Thomsen, C. L. & Matsson, K.
Forskningsrådene - Andre
01/05/2010 → 30/04/2013
Project: Research

Polymer-fibre based biosensor based on nonlinear optical effects
Frosz, M. H., Bang, O., Dudley, J. & Pedersen, L.
Forskningsrådene - STVF
01/03/2008 → 01/03/2011
Project: Research

Træktårn til mikrostrukturerede optiske polymerfibre
Bang, O.
Forskningsrådene - STVF
01/10/2004 → 30/09/2005
Project: Research

Jorck og Hustrus Fond Pris
Bang, O.
Forsk. Private danske - Fonde
01/07/2004 → 31/10/2010
Project: Research

All-Optical Signal Processing in Quadratic Nonlinear Materials
Bang, O. & Corney, J. F.
Ukendt
01/09/1999 → 31/03/2002
Project: Research
Activities:

Polarization noise study in all-normal dispersion fiber supercontinuum generation
Bravo Gonzalo, I. (Speaker), Engelsholm, R. D. (Other), Mieritz, A. F. (Other), Sørensen, M. P. (Other), Bang, O. (Other)
29 Jan 2018
Activity: Talks and presentations › Conference presentations

Ultra-low noise supercontinuum source for ultra-high resolution optical coherence tomography at 1300 nm
Bravo Gonzalo, I. (Speaker), Maria, M. (Other), Engelsholm, R. D. (Other), Thomas Feuchter (Other), Lasse Leick (Other), Peter Morten Moseland (Other), Adrian Podoleanu (Other), Bang, O. (Other)
28 Jan 2018
Activity: Talks and presentations › Conference presentations

Optical Coherence Tomography, General aspects and use in Laryngology
Israelsen, N. M. (Lecturer), Jain, D. (Other), Bang, O. (Other)
8 Dec 2017
Activity: Talks and presentations › Conference presentations

Phase estimation for global defocus correction in optical coherence tomography
Jensen, M. (Speaker), Israelsen, N. M. (Guest lecturer), Bang, O. (Guest lecturer), Adrian Podoleanu (Guest lecturer)
8 Sep 2017
Activity: Talks and presentations › Conference presentations

Versatile hand-held master-slave optical coherence tomography instrument for non-destructive testing
Manual Marques (Other), Adrian Bradu (Lecturer), Sylvain Rivet (Other), Ramona Cernat (Other), Israelsen, N. M. (Other), Bang, O. (Other), Adrian Podoleanu (Other)
8 Sep 2017
Activity: Talks and presentations › Conference presentations

Resolution dependence on phase extraction by the Hilbert transform in phase calibrated and dispersion compensated ultrahigh resolution spectrometer based OCT
Israelsen, N. M. (Lecturer), Maria, M. (Other), Thomas Feuchter (Other), Adrian Bradu (Other), Adrian Podoleanu (Other), Bang, O. (Other)
7 Sep 2017
Activity: Talks and presentations › Conference presentations

Noise study of all-normal dispersion supercontinuum sources for potential application in optical coherence tomography
Bravo Gonzalo, I. (Speaker), Engelsholm, R. D. (Other), Bang, O. (Other)
6 Sep 2017 → 9 Sep 2017
Activity: Talks and presentations › Conference presentations

Master/slave: a better tool for Gabor filtering optical coherence tomography imaging instruments
Ramona Cernat (Other), Adrian Bradu (Lecturer), Israelsen, N. M. (Other), Bang, O. (Other), Sylvain Rivet (Other), David-Garway Heath (Other), Ranjan Rajendram (Other), Adrian Podoleanu (Other)
29 Jun 2017
Activity: Talks and presentations › Conference presentations

Non-destructive testing of layer-to-layer fusion of a 3D print using ultrahigh resolution optical coherence tomography
Israelsen, N. M. (Lecturer), Michael Maria (Other), Thomas Feuchter (Other), Adrian Podoleanu (Other), Bang, O. (Other)
26 Jun 2017
Activity: Talks and presentations › Conference presentations

Hvorledes kan man udvikle en optiksensor i Danmark
Bang, O. (Speaker)
28 Oct 2010
Activity: Other
Optik i Arbejdstøj
Bang, O. (Speaker)
28 Oct 2010
Activity: Talks and presentations › Conference presentations

2nd Workshop on Specialty Optical Fibers and Their Applications
Bang, O. (Speaker)
13 Oct 2010
Activity: Talks and presentations › Conference presentations

2nd Workshop on Specialty Optical Fibers and Their Applications
Bang, O. (Speaker)
13 Oct 2010 → 15 Oct 2010
Activity: Talks and presentations › Conference presentations

OSA Optics & Photonics Congress: Nonlinear Photonics
Bang, O. (Organizer)
21 Jun 2010 → 24 Jun 2010
Activity: Attending an event › Participating in or organising a conference

COST Action 299, Optical Fibers for New Challenges Facing the Information Society
Bang, O. (Speaker)
15 Mar 2010 → 17 Mar 2010
Activity: Talks and presentations › Conference presentations

Optical Fibers for New Challenges Facing the Information Society
Bang, O. (Speaker)
5 Mar 2010 → 17 Mar 2010
Activity: Talks and presentations › Conference presentations

Biosensing with microstructured polymer optical fibers
Bang, O. (Speaker)
2 Apr 2009 → 3 Apr 2009
Activity: Talks and presentations › Conference presentations

Enhanced soliton self-frequency shift by intelligent tapering
Bang, O. (Participant)
10 Feb 2009 → 13 Feb 2009
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.