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

**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

**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 › Journal article – Annual report year: 2018

**High Pulse Energy Supercontinuum Laser for Photoacoustic Detection and Identification of Lipids in the 1650-1850 nm Wavelength Region**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

**Hollow-core fiber with nested anti-resonant tubes for low-loss THz guidance**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Multimaterial photonic crystal fibers**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

**Visible to Mid-infrared Supercontinuum Generation Using a Gas-filled Hollow-core Fiber**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

**Characterization of Industrial Coolant Fluids and Continuous Ageing Monitoring by Wireless Node-Enabled Fiber Optic Sensors**
Research output: Research - peer-review › Journal article – Annual report year: 2017

**Curvature and position of nested tubes in hollow-core anti-resonant fibers**
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017
Determining the refractive index dispersion and thickness of hot-pressed chalcogenide thin films from an improved Swanepoel method
Research output: Research - peer-review › Journal article – Annual report year: 2017

Efficient Mid-Infrared Supercontinuum Generation in Tapered Large Mode Area Chalcogenide Photonic Crystal Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

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

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

Low Loss Polycarbonate Polymer Optical Fiber for High Temperature FBG Humidity Sensing
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

Photo Contest 2017
Markos, C. 2017 In : Optics & Photonics News. 28, 12, p. 27-27
Research output: Research › Conference abstract in journal – Annual report year: 2017

Reconfigurable opto-thermal graded-index waveguiding in bulk chalcogenide glasses
Research output: Research - peer-review › Journal article – Annual report year: 2017

Simultaneous measurement of temperature and humidity with microstructured polymer optical fiber Bragg gratings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Soliton-plasma nonlinear dynamics in mid-IR gas-filled hollow-core fibers
Research output: Research - peer-review › Journal article – Annual report year: 2017
Soliton-plasma nonlinear dynamics in mid-IR gas-filled hollow-core fibers
Research output: Communication › Comment/debate – Annual report year: 2018

Toward single-mode UV to near-IR guidance using hollow-core antiresonant silica fiber
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

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

A Novel Low-Loss Diamond-Core Porous Fiber for Polarization Maintaining Terahertz Transmission
Research output: Research - peer-review › Journal article – Annual report year: 2016

Characterising refractive index dispersion in chalcogenide glasses
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Creation of a microstructured polymer optical fiber with UV Bragg grating inscription for the detection of extensions at temperatures up to 125°C
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Fabrication and characterization of polycarbonate microstructured polymer optical fibers for high-temperature-resistant fiber Bragg grating strain sensors
Research output: Research - peer-review › Journal article – Annual report year: 2016

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
Polymer Optical Fibre Bragg Grating Humidity Sensor at 100ºC
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

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

Thermo-tunable hybrid photonic crystal fiber based on solution-processed chalcogenide glass nanolayers
Markos, C. 2016 In : Scientific Reports. 6, 8 p., 31711
Research output: Research - peer-review › Journal article – Annual report year: 2016

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

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

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

Photonic-crystal fibre: Mapping the structure
Research output: Research - peer-review › Journal article – 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

Thermally tunable bandgaps in a hybrid As2S3/silica photonic crystal fiber
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
Projects:

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

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