Publications:

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

Direct nanoimprinting of moth-eye structures in chalcogenide glass for broadband antirefection in the mid-infrared
Publication: 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
Publication: 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

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

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

Visible to Mid-infrared Supercontinuum Generation Using a Gas-filled Hollow-core Fiber
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2017

Curvature and position of nested tubes in hollow-core anti-resonant fibers
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2017
Efficient Mid-Infrared Supercontinuum Generation in Tapered Large Mode Area Chalcogenide Photonic Crystal Fibers
Publication: 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
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

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

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

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

Photo Contest 2017
Publication: Research › Conference abstract in journal – Annual report year: 2017

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

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

Soliton-plasma nonlinear dynamics in mid-IR gas-filled hollow-core fibers
Publication: Research - peer-review › Journal article – Annual report year: 2017

Soliton-plasma nonlinear dynamics in mid-IR gas-filled hollow-core fibers
Publication: Communication › Comment/debate – Annual report year: 2018

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

Toward single-mode UV to near-IR guidance using hollow-core antiresonant silica fiber
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

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

Characterising refractive index dispersion in chalcogenide glasses
Publication: 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
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2016

Modulation-instability biosensing using an As2S3 chalcogenide tapered fiber
Publication: 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Polymer Optical Fibre Bragg Grating Humidity Sensor at 100ºC
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Thermo-tunable hybrid photonic crystal fiber based on solution-processed chalcogenide glass nanolayers
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Antiresonant guiding in a poly(methyl-methacrylate) hollow-core optical fiber
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Nonlinear Label-Free Biosensing With High Sensitivity Using As2S3 Chalcogenide Tapered Fiber
Publication: Research - peer-review › Journal article – Annual report year: 2015

Photonic-crystal fibre: Mapping the structure
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Thermally tunable bandgaps in a hybrid As2S3/silica photonic crystal fiber
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Bragg grating writing in PMMA microstructured polymer optical fibers in less than 7 minutes
Publication: Research - peer-review › Journal article – Annual report year: 2014
Publication: Research - peer-review › Comment/debate – Annual report year: 2014

Hybrid polymer photonic crystal fiber with integrated chalcogenide glass nanofilms
Publication: Research - peer-review › Journal article – Annual report year: 2014

Photo-induced changes in a hybrid amorphous chalcogenide/silica photonic crystal fiber
Publication: Research - peer-review › Journal article – Annual report year: 2014

PMMA mPOF Bragg gratings written in less than 10 min
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

THz waveguides, devices and hybrid polymer-chalcogenide photonic crystal fibers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

THz Waveguides, Devices and Hybrid Polymer-chalcogenide Photonic Crystal Fibers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

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

High-T_g TOPAS microstructured polymer optical fiber for fiber Bragg grating strain sensing at 110 degrees
Publication: Research - peer-review › Journal article – Annual report year: 2013

Projects:

Gas-filled Hollow-Core Photonic Crystal Fibers for sensing applications and ultrafast non-linear optics
Project: PhD

High-power visible-near-IR Supercontinuum sources for spectroscopic photoacoustic microscopy
Project: PhD

Speciality and Microstructured Polymer Optical FBG Sensors
Project: PhD