Research outputs:

Deep-UV to Mid-IR Supercontinuum Generation driven by Mid-IR Ultrashort Pulses in a Gas-filled Hollow-core Fiber
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Single-mode, low loss hollow-core antiresonant fiber designs
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Extreme UV Light Generation Through Dispersive Wave Trapping in a Tapered Gas-Filled Hollow Fiber
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Monitoring of ammonia in an aqueous environment using a supercontinuum-based photoacoustic sensing system
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

Multispectral photoacoustic sensing for accurate glucose monitoring using a supercontinuum laser
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

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

Single Mode, Low-Loss 5-Tube Nested Hollow-Core Anti-Resonant Fiber
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

Towards Accurate and Label-free Monitoring of Bio-analytes using Supercontinuum based Multispectral Photoacoustic Spectroscopy in the Extended Near-infrared Wavelength regime
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

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

Supercontinuum laser for spectroscopic photoacoustic imaging of lipids in the extended near-infrared region
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review
Direct nanoimprinting of moth-eye structures in chalcogenide glass for broadband antireflection in the mid-infrared

High-pulse energy supercontinuum laser for high-resolution spectroscopic photoacoustic imaging of lipids in the 1650-1850 nm region

High Pulse Energy Supercontinuum Laser for Photoacoustic Detection and Identification of Lipids in the 1650-1850 nm Wavelength Region

Hollow-core fiber with nested anti-resonant tubes for low-loss THz guidance

Multimaterial photonic crystal fibers

Visible to Mid-infrared Supercontinuum Generation Using a Gas-filled Hollow-core Fiber

Characterization of Industrial Coolant Fluids and Continuous Ageing Monitoring by Wireless Node-Enabled Fiber Optic Sensors

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

Determining the refractive index dispersion and thickness of hot-pressed chalcogenide thin films from an improved Swanepoel method

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

Generation of multiple VUV dispersive waves using a tapered gas-filled hollow-core anti-resonant fiber

Hybrid photonic-crystal fiber

Increased mid-infrared supercontinuum bandwidth and average power by tapering large-mode-area chalcogenide photonic crystal fibers

Low Loss Polycarbonate Polymer Optical Fiber for High Temperature FBG Humidity Sensing
Photo-induced changes in a hybrid amorphous chalcogenide/silica photonic crystal fiber
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

PMMA mPOF Bragg gratings written in less than 10 min
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

THz waveguides, devices and hybrid polymer-chalcogenide photonic crystal fibers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

THz Waveguides, Devices and Hybrid Polymer-chalcogenidePhotonic Crystal Fibers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

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

High-Tg TOPAS microstructured polymer optical fiber for fiber Bragg grating strain sensing at 110 degrees
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

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

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

Speciality and Microstructured Polymer Optical FBG Sensors
Project: PhD