Michael H Frosz

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6633759/publications.pdf

Version: 2024-02-01

86 papers	2,713 citations	201674 27 h-index	182427 51 g-index
87 all docs	87 docs citations	87 times ranked	2385 citing authors

#	Article	IF	Citations
1	Broadband robustly single-mode hollow-core PCF by resonant filtering of higher-order modes. Optics Letters, 2016, 41, 1961.	3.3	222
2	The role of the second zero-dispersion wavelength in generation of supercontinua and bright-bright soliton-pairs across the zero-dispersion wavelength. Optics Express, 2005, 13, 6181.	3.4	196
3	Determination of optical scattering properties of highly-scattering media in optical coherence tomography images. Optics Express, 2004, 12, 249.	3.4	193
4	High average power and single-cycle pulses from a mid-IR optical parametric chirped pulse amplifier. Optica, 2017, 4, 1024.	9.3	165
5	Orbital-angular-momentum-preserving helical Bloch modes in twisted photonic crystal fiber. Optica, 2014, 1, 165.	9.3	133
6	Supercontinuum generation in a photonic crystal fiber with two zero-dispersion wavelengths tapered to normal dispersion at all wavelengths. Optics Express, 2005, 13, 7535.	3.4	132
7	Soliton collision and Raman gain regimes in continuous-wave pumped supercontinuum generation. Optics Express, 2006, 14, 9391.	3.4	120
8	Validation of input-noise model for simulations of supercontinuum generation and rogue waves. Optics Express, 2010, 18, 14778.	3.4	119
9	Three-photon head-mounted microscope for imaging deep cortical layers in freely moving rats. Nature Methods, 2020, 17, 509-513.	19.0	88
10	Highly sensitive and simple method for refractive index sensing of liquids in microstructured optical fibers using four-wave mixing. Optics Express, 2011, 19, 10471.	3.4	68
11	Generation of broadband mid-IR and UV light in gas-filled single-ring hollow-core PCF. Optics Express, 2017, 25, 7637.	3.4	65
12	Compressing Î¼J-level pulses from 250â€‰â€‰fs to sub-10â€‰â€‰fs at 38-MHz repetition rate using two gas-filled hollow-core photonic crystal fiber stages. Optics Letters, 2015, 40, 1238.	3.3	64
13	Analytical formulation for the bend loss in single-ring hollow-core photonic crystal fibers. Photonics Research, 2017, 5, 88.	7.0	64
14	Twist-induced guidance in coreless photonic crystal fiber: A helical channel for light. Science Advances, 2016, 2, e1601421.	10.3	62
15	Hollow-core optical fibre sensors for operando Raman spectroscopy investigation of Li-ion battery liquid electrolytes. Nature Communications, 2022, 13, 1651.	12.8	61
16	Kagome hollow-core photonic crystal fiber probe for Raman spectroscopy. Optics Letters, 2012, 37, 4371.	3.3	58
17	Seven-octave high-brightness and carrier-envelope-phase-stable light source. Nature Photonics, 2021, 15, 277-280.	31.4	57
18	Extraction of optical scattering parameters and attenuation compensation in optical coherence tomography images of multilayered tissue structures. Optics Letters, 2004, 29, 1641.	3.3	55

#	Article	IF	Citations
19	Back-seeding of higher order gain processes in picosecond supercontinuum generation. Optics Express, 2008, 16, 11954.	3.4	53
20	High-resolution wavefront shaping with a photonic crystal fiber for multimode fiber imaging. Optics Letters, 2016, 41, 497.	3.3	51
21	Damage-free single-mode transmission of deep-UV light in hollow-core PCF. Optics Express, 2014, 22, 15388.	3.4	49
22	Nanoengineering of photonic crystal fibers for supercontinuum spectral shaping. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 1692.	2.1	46
23	Nonlinear fiber-optic strain sensor based on four-wave mixing in microstructured optical fiber. Optics Letters, 2012, 37, 794.	3.3	46
24	Strong circular dichroism for the HE₁₁ mode in twisted single-ring hollow-core photonic crystal fiber. Optica, 2018, 5, 1315.	9.3	42
25	Supercontinuum generation in ZBLAN glass photonic crystal fiber with six nanobore cores. Optics Letters, 2016, 41, 4245.	3.3	36
26	Advanced modelling of optical coherence tomography systems. Physics in Medicine and Biology, 2004, 49, 1307-1327.	3.0	35
27	Current sensing using circularly birefringent twisted solid-core photonic crystal fiber. Optics Letters, 2016, 41, 1672.	3.3	33
28	Higher-order mode suppression in twisted single-ring hollow-core photonic crystal fibers. Optics Letters, 2017, 42, 2074.	3.3	29
29	Increasing the blue-shift of a supercontinuum by modifying the fiber glass composition. Optics Express, 2008, 16, 21076.	3.4	28
30	Enhanced optical activity and circular dichroism in twisted photonic crystal fiber. Optics Letters, 2015, 40, 4639.	3.3	25
31	MRI-guided robotic arm drives optogenetic fMRI with concurrent Ca2+ recording. Nature Communications, 2019, 10, 2536.	12.8	24
32	Fabrication and non-destructive characterization of tapered single-ring hollow-core photonic crystal fiber. APL Photonics, 2019, 4, .	5.7	24
33	Five-ring hollow-core photonic crystal fiber with 18ÂdB/km loss. Optics Letters, 2013, 38, 2215.	3.3	23
34	Scaling rules for high quality soliton self-compression in hollow-core fibers. Optics Express, 2021, 29, 19147.	3.4	23
35	Broadband light generation at ~1300 nm through spectrally recoiled solitons and dispersive waves. Optics Letters, 2008, 33, 621.	3.3	20
36	Stimulated Brillouin scattering in chiral photonic crystal fiber. Photonics Research, 2022, 10, 711.	7.0	19

#	Article	IF	Citations
37	Continuously wavelength-tunable high harmonic generation via soliton dynamics. Optics Letters, 2017, 42, 1768.	3.3	17
38	Generation of broadband circularly polarized supercontinuum light in twisted photonic crystal fibers. Optics Letters, 2019, 44, 3964.	3.3	17
39	Progress toward third-order parametric down-conversion in optical fibers. Physical Review A, 2020, 101, .	2.5	15
40	Excitation of higher-order modes in optofluidic photonic crystal fiber. Optics Express, 2018, 26, 30245.	3.4	15
41	Optofluidic Photonic Crystal Fiber Microreactors for In Situ Studies of Carbon Nanodot-Driven Photoreduction. Analytical Chemistry, 2021, 93, 895-901.	6.5	13
42	Real-time Doppler-assisted tomography of microstructured fibers by side-scattering. Optics Express, 2014, 22, 25570.	3.4	10
43	Extraction of tissue optical properties from optical coherence tomography images for diagnostic purposes (Invited Paper). , 2005, , .		9
44	Non-invasive real-time characterization of hollow-core photonic crystal fibers using whispering gallery mode spectroscopy. Optics Express, 2019, 27, 30842.	3.4	9
45	Polarization-Tailored Raman Frequency Conversion in Chiral Gas-Filled Hollow-Core Photonic Crystal Fibers. Physical Review Letters, 2019, 122, 143902.	7.8	8
46	Robust excitation and Raman conversion of guided vortices in a chiral gas-filled photonic crystal fiber. Optics Letters, 2020, 45, 1766.	3.3	7
47	Full-field characterization of helical Bloch modes guided in twisted coreless photonic crystal fiber. Optics Letters, 2019, 44, 5049.	3.3	7
48	Can pulse broadening be stopped?. Nature Photonics, 2007, 1, 611-612.	31.4	6
49	Spatio-temporal measurement of ionization-induced modal index changes in gas-filled PCF by prism-assisted side-coupling. Optics Express, 2019, 27, 14392.	3.4	6
50	Assessing blood vessel abnormality via extracting scattering coefficients from OCT images. , 2003, 5140, 12.		5
51	Cross-phase modulational instability of circularly polarized helical Bloch modes carrying optical vortices in a chiral three-core photonic crystal fiber. Optics Letters, 2021, 46, 174.	3.3	5
52	Bragg reflection and conversion between helical Bloch modes in chiral three-core photonic crystal fiber. Journal of Lightwave Technology, 2020, , 1-1.	4.6	4
53	Pump-probe multi-species CARS in a hollow-core PCF with a 20â€‰â€‰ppm detection limit under ambient conditions. Optics Letters, 2019, 44, 2486.	3.3	4
54	The role of the second zero-dispersion wavelength in generation of supercontinua and bright-bright soliton-pairs across the zero-dispersion wavelength: erratum. Optics Express, 2007, 15, 5262.	3.4	3

#	Article	IF	Citations
55	Dispersion-modulation by high material loss in microstructured polymer optical fibers. Optics Express, 2009, 17, 17950.	3.4	3
56	Reducing losses in solid-core photonic crystal fibers using chlorine dehydration. Optical Materials Express, 2016, 6, 2975.	3.0	3
57	Twist-Tuning of Higher-Order Mode Suppression in Single-Ring Hollow-Core Photonic Crystal Fibers. , 2016, , .		3
58	Efficient Excitation of High-Purity Modes in Arbitrary Waveguide Geometries. Journal of Lightwave Technology, 2022, 40, 1150-1160.	4.6	3
59	Dispersion-engineered and highly nonlinear microstructured polymer optical fibres. Proceedings of SPIE, 2009, , .	0.8	2
60	In-Situ Raman Spectroscopy of Reaction Products in Optofluidic Hollow-Core Fiber Microreactors l'? 17. , 2020, , .		2
61	Monte Carlo modeling of optical coherence tomography systems. , 2004, , .		1
62	Fabrication and Characterization of Tapered Single-Ring Hollow-Core Photonic Crystal Fibre. , 2019, , .		1
63	Non-Invasive Real-Time Characterization of Hollow-Core Photonic Crystal Fibres using Whispering Gallery Mode Spectroscopy. , 2019, , .		1
64	Excitation of higher-order modes in optofluidic hollow-core photonic crystal fiber. , 2018, , .		1
65	Cross-phase Modulational Instability of Vortex Modes in a Twisted Three-Core Photonic Crystal Fibre. , 2020, , .		1
66	Supercontinuum Generation with Circularly Polarized Vortex Modes in a Chiral Three-Core PCF. , 2020, , .		1
67	Seven-octave Ultra-bright Pulse Generation. , 2021, , .		1
68	Demonstration of the true-reflection OCT imaging algorithm on a heterogeneous multilayered structure. , 2004, , .		0
69	Supercontinuum generation in a photonic crystal fiber tapered to normal dispersion for all wavelengths. , 2005, , .		0
70	Nano-engineering of photonic crystal fibers for supercontinuum generation. , 2005, 5950, 185.		0
71	Supercontinuum generation in untapered and tapered photonic crystal fibers with two zero dispersion wavelengths. , 2005, 5733, 190.		0
72	Supercontinuum generation in photonic crystal fibers using quasi-CW pumping. , 2007, , .		0

#	Article	IF	Citations
73	Picosecond supercontinuum generation with back seeding of different spectral parts. , 2008, , .		0
74	Back seeding of picosecond supercontinuum generation in photonic crystal fibres. Proceedings of SPIE, 2008, , .	0.8	0
75	Low-loss anti-resonant hollow fibers with polygonal cores. , 2017, , .		0
76	Photoreduction in Optofluidic Hollow-Core Photonic Crystal Fiber. , 2019, , .		0
77	Optical Fibers: Materials and Applications. Optical Materials Express, 2021, 11, 1364.	3.0	0
78	Optical Fibers: Materials and Applications. Optical Materials Express, 2021, 11, 1364.	3.0	0
79	Importance of Topological Charge Preservation in Vectorial Modulational Instability in Chiral Three-Core PCF. , 2021, , .		0
80	Validation of Input-noise Model for Simulations of Supercontinuum Generation and Rogue Waves. , 2010, , .		0
81	Doppler-Assisted Tomography of Photonic Crystal Fiber Structure by Side-Scattering. , 2014, , .		0
82	Single-cycle, 9.6-W, mid-IR pulses via soliton selfcompression from a 21-W OPCPA at 3.25 Î¼m and 160 kHz. , 2017, , .		0
83	Broadband multi-species CARS in gas-filled hollow-core photonic crystal fiber. , 2018, , .		0
84	Spatio-temporal Measurement of Ionization-induced Modal Index Evolution in Gas-filled Hollow-core Photonic Crystal Fiber. , 2019, , .		0
85	Efficient Holographic Excitation of Modes in Hollow-Core Photonic Crystal Fibre. , 2021, , .		0
86	340 - 40,000 nm coherent light source. , 2021, , .		0