Peter Horak

List of Publications by Year
in descending order

109 papers	3,223 citations	218677 26 h-index	155660 55 g-index
109 all docs	109 docs citations	109 times ranked	2838 citing authors

#	Article	IF	Citations
1	Grating-induced slow-light enhancement of second-harmonic generation in periodically poled crystals. Physical Review A, 2022, 105, .	2.5	1
2	Cavities with nonspherical mirrors for enhanced interaction between a quantum emitter and cavity photons. Physical Review A, 2022, 105, .	2.5	7
3	Hollow-core fiber Fabryâ€"Perot interferometers with reduced sensitivity to temperature. Optics Letters, 2022, 47, 2510.	3.3	4
4	Optimization of flow path parameters for enhanced sensitivity lateral flow devices. Talanta, 2022, 248, 123579.	5.5	4
5	Evolutionary algorithm to design high-cooperativity optical cavities. New Journal of Physics, 2022, 24, 073028.	2.9	3
6	4-by-4 Integrated Waveguide Coupler Based on Bi-Directional Propagation in Two Single-Mode Waveguides. IEEE Photonics Journal, 2021, 13, 1-14.	2.0	0
7	Gas-induced differential refractive index enhanced guidance in hollow-core optical fibers. Optica, 2021, 8, 916.	9.3	15
8	Designing Out-of-Plane Tilted Bragg Gratings for Arbitrary Beam Shaping. , 2021, , .		0
9	Slow and stopped light in dynamic MoirÃ© gratings. Physical Review A, 2021, 104, .	2.5	2
10	All-fiber saturable absorber based on nonlinear multimode interference with enhanced modulation depth. Applied Optics, 2021, 60, 9007.	1.8	3
11	FCM_{PASS} Software Aids Extracellular Vesicle Light Scatter Standardization. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 569-581.	1.5	58
12	Multimodal spectral focusing CARS and SFG microscopy with a tailored coherent continuum from a microstructured fiber. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	21
13	Monolithically-integrated cytometer for measuring particle diameter in the extracellular vesicle size range using multi-angle scattering. Lab on A Chip, 2020, 20, 1267-1280.	6.0	2
14	Supercontinuum generation in tantalum pentoxide waveguides for pump wavelengths in the 900â€‰nm to 1500â€‰nm spectral region. Optics Express, 2020, 28, 32173.	3.4	12
15	Bandwidth enhancement of inter-modal four wave mixing Bragg scattering by means of dispersion engineering. APL Photonics, 2019, 4, 022902.	5.7	20
16	Tilted Bragg Gratings as an Efficient Platform for Integrated Multimode Interference Devices. , 2019, , .		0
17	Integrated polarizer based on 45Â° tilted gratings. Optics Express, 2019, 27, 11174.	3.4	22
18	Selective wavelength conversion in a few-mode fiber. Optics Express, 2019, 27, 24072.	3.4	10

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19	Intermodal frequency generation in silicon-rich silicon nitride waveguides. Photonics Research, 2019, 7, 615.	7.0	19
20	Efficiency and intensity noise of an all-fiber optical parametric oscillator. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 551.	2.1	1
21	Low-loss wavelength-selective integrated waveguide coupler based on tilted Bragg gratings. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1783.	2.1	4
22	Multi-Band Nonlinear SchrÃ¶dinger Equation for Efficient Simulation of Parametric Optical Amplifiers and Oscillators. , 2018, , .		0
23	Polarization-Insensitive Four-Wave-Mixing-Based Wavelength Conversion in Few-Mode Optical Fibers. Journal of Lightwave Technology, 2018, 36, 3678-3683.	4.6	16
24	Nonlinear dynamic of picosecond pulse propagation in atmospheric air-filled hollow core fibers. Optics Express, 2018, 26, 8866.	3.4	35
25	Frequency-banded nonlinear SchrÃ¶dinger equation with inclusion of Raman nonlinearity. Optics Express, 2018, 26, 21527.	3.4	3
26	Prospective Use of High-Refractive Index Materials for Single Molecule Detection in Flow Cytometry. Sensors, 2018, 18, 2461.	3.8	12
27	Harnessing the mode mixing in optical fiber-tip cavities. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 085503.	1.5	9
28	Tellurite Glass Fibers for Mid-infrared Nonlinear Applications. Springer Series in Materials Science, 2017, , 213-239.	0.6	5
29	Dual-Core Optical Fiber as Beam Splitter With Arbitrary, Tunable Polarization-Dependent Transfer Function. Journal of Lightwave Technology, 2017, 35, 4040-4046.	4.6	4
30	Fiber cavities with integrated mode matching optics. Scientific Reports, 2017, 7, 5556.	3.3	19
31	Intermodal Four-Wave Mixing and Parametric Amplification in Kilometer-Long Multimode Fibers. Journal of Lightwave Technology, 2017, 35, 5296-5305.	4.6	24
32	Cascade simulations of unidirectional fiber optical parametric oscillators. , 2017, , .		2
33	All-fiber fourth and fifth harmonic generation from a single source. Optics Express, 2016, 24, 21777.	3.4	3
34	A nanoporous gold membrane for sensing applications. Sensing and Bio-Sensing Research, 2016, 7, 133-140.	4.2	10
35	Comparative Numerical Studies of Ion Traps with Integrated Optical Cavities. Physical Review Applied, 2016, 6, .	3.8	10
36	Four-wave mixing UV generation in optical microfibers. , 2016, , .		0

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37	Phase matched parametric amplification via four-wave mixing in optical microfibers. Optics Letters, 2016, 41, 761.	3.3	15
38	UV generation in silica fibres. , 2016, , .		0
39	UV light generation in optical fibres. , 2016, , .		0
40	Development of Indium Phosphide MEMS for tunable optical buffering. , 2015, , .		0
41	Polarization-Assisted Phase-Sensitive Processor. Journal of Lightwave Technology, 2015, 33, 1166-1174.	4.6	34
42	Design and fabrication of indium phosphide air-bridge waveguides with MEMS functionality. Proceedings of SPIE, 2015, , .	0.8	0
43	Tunable optical buffer based on III-V MEMS design. , 2015, , .		0
44	A fiberized highly birefringent glass micrometer-size ridge waveguide. Optical Fiber Technology, 2015, 23, 137-144.	2.7	5
45	Design and Fabrication of Suspended Indium Phosphide Waveguides for MEMS-Actuated Optical Buffering. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 240-246.	2.9	7
46	Effect of intrinsic surface roughness on the efficiency of intermodal phase matching in silica optical nanofibers. Optics Letters, 2015, 40, 1318.	3.3	13
47	Optical Phase Quantizer Based on Phase Sensitive Four Wave Mixing at Low Nonlinear Phase Shifts. IEEE Photonics Technology Letters, 2014, 26, 2146-2149.	2.5	20
48	Electrostatic actuation of nanomechanical optical fibers with integrated electrodes. Proceedings of SPIE, 2014, , .	0.8	2
49	Nanomechanical Optical Fiber with Embedded Electrodes Actuated by Joule Heating. Materials, 2014, 7, 5591-5602.	2.9	7
50	Detailed study of four-wave mixing in Raman DFB fiber lasers. Optics Express, 2014, 22, 22917.	3.4	7
51	Fast and broadband fiber dispersion measurement with dense wavelength sampling. Optics Express, 2014, 22, 943.	3.4	15
52	Design of dual-core optical fibers with NEMS functionality. Optics Express, 2014, 22, 1065.	3.4	52
53	Suppression of Gain Variation in a PSA-Based Phase Regenerator Using an Additional Harmonic. IEEE Photonics Technology Letters, 2014, 26, 2074-2077.	2.5	8
54	Design and fabrication of InP free-standing optical waveguides for MEMS. , 2014, , .		1

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55	Electrical current-driven dual-core optical fiber with embedded metal electrodes. , 2014, , .		2
56	Mechanical actuation of reconfigurable optical fibres. , 2014, , .		0
57	Polymer-coated compliant receivers for intact laser-induced forward transfer of thin films: experimental results and modelling. Applied Physics A: Materials Science and Processing, 2014, 116, 1939-1950.	2.3	6
58	Fabrication of multiple parallel suspended-core optical fibers by sheet-stacking. Optical Fiber Technology, 2014, 20, 395-402.	2.7	4
59	Signal Regeneration Techniques for Advanced Modulation Formats. , 2014, , .		2
60	Novel Polarisation-assisted Phase Sensitive Optical Signal Processor Requiring Low Nonlinear Phase Shifts. , 2014, , .		4
61	Reducing bit-error rate with optical phase regeneration in multilevel modulation formats. Optics Letters, 2013, 38, 5357.	3.3	21
62	Electrostatic control of dual-core optical fibre with NEMS functionality. , 2013, , .		0
63	Nanomechanical functionality of dual-core fibres. , 2013, , .		2
64	A Sheet-Stacking Technique for Making Multiple Air-Suspended-Core Optical Fibres. , 2013, , .		1
65	Laser-induced crystalline optical waveguide in glass fiber format. Optics Express, 2012, 20, B85.	3.4	5
66	Nanomechanical optical fiber. Optics Express, 2012, 20, 29386.	3.4	35
67	Nonlinear pulse dynamics in multimode silicon core optical fibers. Optics Letters, 2012, 37, 3351.	3.3	28
68	Spatio-Temporal Self-Focusing in Femtosecond Pulse Transmission Through Multimode Optical Fibers. Journal of Lightwave Technology, 2012, 30, 2764-2769.	4.6	4
69	Supercontinuum generation in non-silica fibers. Optical Fiber Technology, 2012, 18, 327-344.	2.7	89
70	1.06 mum Picosecond Pulsed, Normal Dispersion Pumping for Generating Efficient Broadband Infrared Supercontinuum in Meter-Length Single-Mode Tellurite Holey Fiber With High Raman Gain Coefficient. Journal of Lightwave Technology, 2011, 29, 3461-3469.	4.6	20
71	Continuously tunable optical buffer with a dual silicon waveguide design. Optics Express, 2011, 19, 12456.	3.4	51
72	Femtosecond surface plasmon pulse propagation. Optics Letters, 2011, 36, 250.	3.3	41

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73	Amplified optomechanics in a unidirectional ring cavity. Journal of Modern Optics, 2011, 58, 1342-1348.	1.3	6
74	High-flux capillary based XUV source via the direct engineering of a laser induced ionization profile. , 2011, , .		0
75	Flat, Broadband Supercontinuum Generation at Low Pulse Energies in a Dispersion-Tailored Lead-Silicate Fibre. , 2011, , .		2
76	Optical Cooling of Atoms in Microtraps by Time-Delayed Reflection. Journal of Computational and Theoretical Nanoscience, 2010, 7, 1747-1753.	0.4	2
77	Dispersion controlled highly nonlinear fibers for all-optical processing at telecoms wavelengths. Optical Fiber Technology, 2010, 16, 378-391.	2.7	51
78	Optomechanical Cooling with Generalized Interferometers. Physical Review Letters, 2010, 105, 013602.	7.8	22
79	High-Power Supercontinuum generation with picosecond pulses. , 2010, , .		0
80	Wavelength Conversion in a Short Length of a Solid Leadâ€“Silicate Fiber. IEEE Photonics Technology Letters, 2010, 22, 628-630.	2.5	21
81	Multichannel Wavelength Conversion of 40-Gb/s Nonreturn-to-Zero DPSK Signals in a Leadâ€“Silicate Fiber. IEEE Photonics Technology Letters, 2010, 22, 1153-1155.	2.5	5
82	Modal effects on pump-pulse propagation in an Ar-filled capillary. Optics Express, 2010, 18, 13279.	3.4	17
83	Near-zero dispersion, highly nonlinear lead-silicate W-type fiber for applications at 155Î¼m. Optics Express, 2010, 18, 15747.	3.4	29
84	Excitation of individual Raman Stokes lines in the visible regime using rectangular-shaped nanosecond optical pulses at 530 nm. Optics Letters, 2010, 35, 2433.	3.3	17
85	Applications of highly nonlinear dispersion tailored lead silicate fibres for high speed optical communications. , 2010, , .		1
86	Generation of ultra-high repetition rate pulses in a highly nonlinear dispersion-tailored compound glass fibre. , 2010, , .		2
87	Multichannel Wavelength Conversion of 40Gbit/s NRZ DPSK Signals in a Highly Nonlinear Dispersion Flattened Lead Silicate Fibre. , 2010, , .		2
88	Scattering theory of cooling and heating in optomechanical systems. Physical Review A, 2009, 79, .	2.5	49
89	Modification of the Er3+ radiative lifetime from proximity to silicon nanoclusters in silicon-rich silicon oxide. Optics Express, 2009, 17, 906.	3.4	13
90	Dynamics of femtosecond supercontinuum generation in multimode fibers. Optics Express, 2009, 17, 6134.	3.4	102

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91	Dispersion-shifted all-solid high index-contrast microstructured optical fiber for nonlinear applications at 155Î¼m. Optics Express, 2009, 17, 20249.	3.4	36
92	Optical fiber nanowires and microwires: fabrication and applications. Advances in Optics and Photonics, 2009, 1, 107.	25.5	311
93	Atom cooling using the dipole force of a single retroflected laser beam. Physical Review A, 2009, 80, .	2.5	11
94	Effects of pulse self-focusing on supercontinuum generation in multimode optical fibers. , 2009, , .		1
95	Soliton Spectral Tunneling in Dispersion-Controlled Holey Fibers. IEEE Photonics Technology Letters, 2008, 20, 1414-1416.	2.5	27
96	Description of ultrashort pulse propagation in multimode optical fibers. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1645.	2.1	360
97	Single-mode tellurite glass holey fiber with extremely large mode area for infrared nonlinear applications. Optics Express, 2008, 16, 13651.	3.4	140
98	Designing Tapered Holey Fibers for Soliton Compression. IEEE Journal of Quantum Electronics, 2008, 44, 192-198.	1.9	22
99	Optical microfiber coil resonator refractometric sensor. Optics Express, 2007, 15, 7888.	3.4	215
100	Optical microfiber coil resonator refractometric sensor: erratum. Optics Express, 2007, 15, 9385.	3.4	19
101	Conical and biconical ultra-high-Q optical-fiber nanowire microcoil resonator. Applied Optics, 2007, 46, 570.	2.1	43
102	Feasibility Study of SOA-Based Noise Suppression for Spectral Amplitude Coded OCDMA. Journal of Lightwave Technology, 2007, 25, 394-401.	4.6	21
103	Optimized Design of Microcoil Resonators. Journal of Lightwave Technology, 2007, 25, 1561-1567.	4.6	49
104	Mid-IR Supercontinuum Generation From Nonsilica Microstructured Optical Fibers. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 738-749.	2.9	181
105	On the delayed self-heterodyne interferometric technique for determining the linewidth of fiber lasers. Optics Express, 2006, 14, 3923.	3.4	85
106	Supercontinuum generation at 1.06 Î¼m in holey fibers with dispersion flattened profiles. Optics Express, 2006, 14, 4445.	3.4	137
107	Cooling an atom in a weakly driven high-Qcavity. Physical Review A, 1998, 58, 3030-3042.	2.5	115
108	Cavity-Induced Atom Cooling in the Strong Coupling Regime. Physical Review Letters, 1997, 79, 4974-4977.	7.8	229

#	Article	IF	Citations
109	Multimode Nonlinear Fibre Optics: Theory and Applications. , 0, , .		19