

Huiping Tian

List of Publications by Year in descending order

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106
papers

1,703
citations

279798

23
h-index

315739

38
g-index

106
all docs

106
docs citations

106
times ranked

1086
citing authors

#	ARTICLE	IF	CITATIONS
1	Unique surface sensing property and enhanced sensitivity in microring resonator biosensors based on subwavelength grating waveguides. <i>Optics Express</i> , 2016, 24, 29724.	3.4	101
2	High sensitivity and high Q -factor nanoslotted parallel quadrabeam photonic crystal cavity for real-time and label-free sensing. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	92
3	Nanoscale photonic crystal sensor arrays on monolithic substrates using side-coupled resonant cavity arrays. <i>Optics Express</i> , 2011, 19, 20023.	3.4	91
4	Label-free optical sensor by designing a high-Q photonic crystal ring slot structure. <i>Optics Communications</i> , 2015, 335, 73-77.	2.1	87
5	High-Q and high-sensitivity width-modulated photonic crystal single nanobeam air-mode cavity for refractive index sensing. <i>Applied Optics</i> , 2015, 54, 1.	1.8	86
6	Improving the detection limit for on-chip photonic sensors based on subwavelength grating racetrack resonators. <i>Optics Express</i> , 2017, 25, 10527.	3.4	84
7	Slow Light Property Improvement and Optical Buffer Capability in Ring-Shape-Hole Photonic Crystal Waveguide. <i>Journal of Lightwave Technology</i> , 2011, 29, 3083-3090.	4.6	64
8	A Multilevel Artificial Neural Network Nonlinear Equalizer for Millimeter-Wave Mobile Fronthaul Systems. <i>Journal of Lightwave Technology</i> , 2017, 35, 4406-4417.	4.6	53
9	Bandwidth Enhancement of Monopole LWB Antenna With New Slots and EBG Structures. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2013, 12, 1550-1553.	4.0	49
10	Design of simultaneous high-Q and high-sensitivity photonic crystal refractive index sensors. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 2027.	2.1	49
11	Optimization of figure of merit in label-free biochemical sensors by designing a ring defect coupled resonator. <i>Optics Communications</i> , 2014, 332, 42-49.	2.1	43
12	Optimization of One Dimensional Photonic Crystal Elliptical-Hole Low-Index Mode Nanobeam Cavities for On-Chip Sensing. <i>Journal of Lightwave Technology</i> , 2016, 34, 3496-3502.	4.6	40
13	Nanoscale torsion-free photonic crystal pressure sensor with ultra-high sensitivity based on side-coupled piston-type microcavity. <i>Sensors and Actuators A: Physical</i> , 2013, 199, 30-36.	4.1	36
14	High-bandwidth and low-loss photonic crystal power-splitter with parallel output based on the integration of Y-junction and waveguide bends. <i>Optics Communications</i> , 2012, 285, 3752-3757.	2.1	35
15	Photonic crystal stress sensor with high sensitivity in double directions based on shoulder-coupled aslant nanocavity. <i>Sensors and Actuators A: Physical</i> , 2013, 193, 149-154.	4.1	35
16	Refractive index sensing utilizing parallel tapered nano-slotted photonic crystal nano-beam cavities. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 1746.	2.1	31
17	Integration of high transmittance photonic crystal H2 nanocavity and broadband W1 waveguide for biosensing applications based on Silicon-on-Insulator substrate. <i>Optics Communications</i> , 2014, 330, 175-183.	2.1	31
18	Ultrahigh- Q and Low-Mode-Volume Parabolic Radius-Modulated Single Photonic Crystal Slot Nanobeam Cavity for High-Sensitivity Refractive Index Sensing. <i>IEEE Photonics Journal</i> , 2015, 7, 1-8.	2.0	28

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19	Design Low Crosstalk Ring-Slot Array Structure for Label-Free Multiplexed Sensing. <i>Sensors</i> , 2014, 14, 15658-15668.	3.8	27
20	A Novel ANN Equalizer to Mitigate Nonlinear Interference in Analog-RoF Mobile Fronthaul. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1675-1678.	2.5	27
21	Nanoscale Low Crosstalk Photonic Crystal Integrated Sensor Array. <i>IEEE Photonics Journal</i> , 2014, 6, 1-7.	2.0	26
22	Multiplexed Simultaneous High Sensitivity Sensors with High-Order Mode Based on the Integration of Photonic Crystal 1 Å– 3 Beam Splitter and Three Different Single-Slot PCNCs. <i>Sensors</i> , 2016, 16, 1050.	3.8	25
23	Parabolic Tapered Coupled Two Photonic Crystal Nanobeam Slot Cavities for High-FOM Biosensing. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1281-1284.	2.5	23
24	The properties of lattice-shifted microcavity in photonic crystal slab and its applications for electro-optical sensor. <i>Sensors and Actuators A: Physical</i> , 2011, 171, 146-151.	4.1	22
25	Ultra-compact air-mode photonic crystal nanobeam cavity integrated with bandstop filter for refractive index sensing. <i>Applied Optics</i> , 2017, 56, 4363.	2.1	21
26	Anti-External Interference Sensor Based on Cascaded Photonic Crystal Nanobeam Cavities for Simultaneous Detection of Refractive Index and Temperature. <i>Journal of Lightwave Technology</i> , 2019, 37, 2209-2216.	4.6	21
27	Simultaneous sensing of refractive index and temperature based on a three-cavity-coupling photonic crystal sensor. <i>Optics Express</i> , 2019, 27, 26471.	3.4	21
28	Nanomechanical three dimensional force photonic crystal sensor using shoulder-coupled resonant cavity with an inserted pillar. <i>Sensors and Actuators A: Physical</i> , 2014, 209, 33-40.	4.1	20
29	An Adaptive Activated ANN Equalizer Applied in Millimeter-Wave RoF Transmission System. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1935-1938.	2.5	20
30	Nanoscale radius-graded photonic crystal sensor arrays using interlaced and symmetrical resonant cavities for biosensing. <i>Sensors and Actuators A: Physical</i> , 2014, 216, 223-230.	4.1	18
31	A Wide Band-Gap Slot Fractal UC-EBG Based on Moore Space-Filling Geometry for Microwave Application. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2017, 16, 33-37.	4.0	18
32	Tunable slow light and buffer capability in photonic crystal coupled-cavity waveguides based on electro-optic effect. <i>Optics Communications</i> , 2012, 285, 2760-2764.	2.1	17
33	A Long-Distance Millimeter-Wave RoF System With a Low-Cost Directly Modulated Laser. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1396-1399.	2.5	17
34	Mitigation of Multi-user Access Impairments in 5G A-RoF-based Mobile Fronthaul utilizing Machine Learning for an Artificial Neural Network Nonlinear Equalizer. , 2018, , .		17
35	Radius vertical graded nanoscale interlaced-coupled photonic crystal sensors array. <i>Optics Communications</i> , 2015, 355, 331-336.	2.1	16
36	Improved line defect structures for slow light transmission in photonic crystal waveguide. <i>Optics Communications</i> , 2007, 279, 214-218.	2.1	14

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37	Design on-chip width-modulated line-defect cavity array structure for multiplexing complex refractive index sensing. <i>Sensors and Actuators A: Physical</i> , 2017, 257, 8-14.	4.1	13
38	High figure of merit ultra-compact 3-channel parallel-connected photonic crystal mini-hexagonal-H1 defect microcavity sensor array. <i>Optics Communications</i> , 2017, 396, 71-77.	2.1	13
39	Side-coupled nanoscale photonic crystal structure with high-Q and high-stability for simultaneous refractive index and temperature sensing. <i>Journal of Modern Optics</i> , 2019, 66, 1339-1346.	1.3	13
40	Portable Automatic Microring Resonator System Using a Subwavelength Grating Metamaterial Waveguide for High-Sensitivity Real-Time Optical-Biosensing Applications. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 1894-1902.	4.2	13
41	Group index and dispersion properties of photonic crystal waveguides with circular and square air-holes. <i>Optics Communications</i> , 2010, 283, 1768-1772.	2.1	12
42	Special cascade LMS equalization scheme suitable for 60-GHz RoF transmission system. <i>Optics Express</i> , 2016, 24, 10599.	3.4	12
43	Performance investigation of side-coupled interlaced symmetric-shaft-shape photonic crystal sensor arrays. <i>Optics Communications</i> , 2016, 381, 146-151.	2.1	11
44	Multiplexing dual-parameter sensor using photonic crystal multimode nanobeam cavities. <i>Optics Communications</i> , 2018, 427, 382-389.	2.1	11
45	The study of electro-optical sensor based on slotted photonic crystal waveguide. <i>Optics Communications</i> , 2011, 284, 4986-4990.	2.1	10
46	Ultra-broadband and ultra-low-loss photonic crystal with band-flatness waveguide 60° bend obtained based on lattice-shifted optimization. <i>Optics Communications</i> , 2014, 322, 227-233.	2.1	10
47	Design of side-coupled cascaded photonic crystal sensors array with ultra-high figure of merit. <i>Optics Communications</i> , 2017, 392, 68-72.	2.1	10
48	Double-layer Fano resonance photonic-crystal-slab-based sensor for label-free detection of different size analytes. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 215.	2.1	10
49	Research on the Dispersion Compensation of Slot Photonic Crystal Waveguide. <i>IEEE Photonics Technology Letters</i> , 2011, 23, 1222-1224.	2.5	9
50	Ultracompact ring resonator microwave photonic filters based on photonic crystal waveguides. <i>Applied Optics</i> , 2013, 52, 1218.	1.8	9
51	Artificial neural networks assisting the design of a dual-mode photonic crystal nanobeam cavity for simultaneous sensing of the refractive index and temperature. <i>Applied Optics</i> , 2022, 61, 4802.	1.8	9
52	Large-Dynamic-Range Dual-Parameter Sensor Using Broad FSR Multimode Photonic Crystal Nanobeam Cavity. <i>IEEE Photonics Journal</i> , 2018, 10, 1-14.	2.0	8
53	Simultaneous detection of refractive index, temperature and stress realized by using a three-mode planar photonic crystal L5 cavity. <i>Optics Communications</i> , 2018, 427, 13-20.	2.1	8
54	Bandwidth-Enhanced PAM-4 Transmissions Using Polarization Modulation and Direct Detection With a Tunable Frequency Range. <i>Journal of Lightwave Technology</i> , 2019, 37, 1014-1022.	4.6	8

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55	High-sensitivity broad free-spectral-range two-dimensional three-slot photonic crystal sensor integrated with a 1D photonic crystal bandgap filter. <i>Applied Optics</i> , 2019, 58, 5997.	1.8	8
56	Modeling and design of a coupled PhC slab sensor for simultaneous detection of refractive index and temperature with strong anti-interference ability. <i>Optics Express</i> , 2020, 28, 22151.	3.4	8
57	A bend-resistant low bending loss and large mode area two-layer core single-mode fiber with gradient refractive index ring and multi-trench. <i>Optical Fiber Technology</i> , 2018, 45, 235-243.	2.7	7
58	Low-loss, efficient, wide-angle 1×4 power splitter at 1550nm wavelengths for four play application with a monolithic photonic crystal slab. <i>Applied Optics</i> , 2014, 53, 8012.	2.1	6
59	A security evaluation model for multi-source heterogeneous systems based on IOT and edge computing. <i>Cluster Computing</i> , 2023, 26, 303-317.	5.0	6
60	Wide stopband miniaturized co-lattice EBG with DGS. <i>Microwave and Optical Technology Letters</i> , 2018, 60, 44-50.	1.4	5
61	Load-balanced adaptive routing flexible grouping spectrum and core assignment in SDM-EONs based on mixed super-channel. <i>Optical Fiber Technology</i> , 2019, 51, 6-16.	2.7	5
62	Soliton propagation optimization and dynamic modulation in photonic crystal waveguide with polystyrene background. <i>Optics Communications</i> , 2012, 285, 171-177.	2.1	4
63	Wide-bandwidth, high-gain, low-temperature cofired ceramic magneto-electric dipole antenna and arrays for millimeter wave radio-over-fiber systems. <i>Photonics Research</i> , 2014, 2, B40.	7.0	4
64	Silicon based On-chip Sub-Wavelength Grating Ring and Racetrack Resonator BioSensors. <i>MRS Advances</i> , 2017, 2, 1577-1589.	0.9	4
65	High sensitivity and anti-external interference dual-parameter sensor based on a multimode slotted photonic crystal nanobeam cavity. <i>Journal of Modern Optics</i> , 2021, 68, 357-364.	1.3	4
66	Anti-external interference sensor based on cascaded side-coupled photonic crystal nanobeam cavities for simultaneous sensing of the refractive index and temperature. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 3850.	2.1	4
67	Realization of Tunable Frequency Response in Polarization Modulation and Direct Detection Scheme for High-speed Optical Access System. , 2018, , .		4
68	Wideband quasi-isotropic H-shaped slot fractal UC-EBGs with alternately arranged symmetrical unit cells. <i>Journal of Electromagnetic Waves and Applications</i> , 2013, 27, 962-968.	1.6	3
69	Photonic crystal nanoslotted parallel quadrabeam integrated cavity for refractive index sensing with high figure of merit. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2015, 15, 124-129.	2.0	3
70	A 60-GHz RoF System With Blind VSS-DD-LMS Equalizer for Optical-Wireless Transmission. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 2383-2386.	2.5	3
71	Highly Sensitive 1 × 8 Parallel Multiplexing of Ultra-Compact Integrated 1D Photonic Crystal Sensor Array Based on Silicon-on-Insulator Platform. <i>IEEE Access</i> , 2020, 8, 65179-65186.	4.2	3
72	Simultaneous detection of complex refractive index and temperature using a compact side-coupled photonic crystal nanobeam cavity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 2765.	2.1	3

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73	A 60-GHz RoF System Employing Variable Step Size LMS Equalizer with Fast Convergence Speed. , 2016, , .		3
74	Integration of Photonic Crystal Splitter and Slow Light Waveguide for a Microwave Photonic Filter. IEEE Photonics Journal, 2013, 5, 5501311-5501311.	2.0	2
75	Low detection limit sensor based on subwavelength grating racetrack resonator. , 2017, , .		2
76	Capacity allocation mechanism based on differentiated QoS in 60 GHz radio-over-fiber local access network. Optics Communications, 2017, 387, 290-295.	2.1	2
77	An Effective Artificial Neural Network Equalizer with S-shape Activation Function for High-speed 16-QAM Transmissions using Low-cost Directly Modulated Laser. , 2018, , .		2
78	An Artificial Neural Network MIMO Demultiplexer for Small-Cell MM-Wave RoF Coordinated Multi-Point Transmission System. , 2018, , .		2
79	Artificial neural networks applied in fast-designing ultrabroad bandgap elliptical hole dielectric mode photonic crystal nanobeam cavity. Applied Optics, 2021, 60, 8977.	1.8	2
80	Higher Q factor and higher extinction ratio with lower detection limit photonic crystal parallel-integrated sensor array for on-chip optical multiplexing sensing. Applied Optics, 2016, 55, 10078.	2.1	2
81	EBG ME-dipole antenna with enhanced gain for intelligent radio-over-fiber systems. , 2013, , .		1
82	A tunable electro-optic microwave photonic filter based on photonic crystal for 60GHz radio over fiber system. , 2013, , .		1
83	Broadband and low-power bright soliton propagation in line-defect photonic crystal waveguide. Optical Engineering, 2013, 52, 055006.	1.0	1
84	Ultra-compact low-voltage and slow-light MZI electro-optic modulator based on monolithically integrated photonic crystal. Optics Communications, 2014, 315, 138-146.	2.1	1
85	Multi-directional ultra-high sensitive pressure sensor based on the integration of optimized double 60° bend waveguides and modified center-defect photonic crystal microcavity. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 116-123.	2.0	1
86	Bandwidth and gain enhancement of optically transparent 60-GHz CPW-fed antenna by using BSIS-LUC-EBG structure. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 99-108.	2.0	1
87	Ultra-compact dual-parameter sensing based on a photonic crystal rectangular holes nanobeam multimode microcavity. , 2017, , .		1
88	A 60-GHz RoF System Providing 5-Gbps BPSK Signal Employing LMS Equalizer. , 2015, , .		1
89	Wide-band transmission of slow light in one-dimensional photonic crystal coupled resonator optical waveguide. , 2007, , .		0
90	Investigation of slow light utilized as optical storage in photonic crystal coupled resonator optical waveguide. , 2008, , .		0

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91	Dynamic tuning of slow light transmission in manual nanostructure photonic crystal waveguide. , 2008, , .		0
92	Ultra-narrow bandwidth filter in fractal photonic crystal containing negative material. , 2008, , .		0
93	The effects on band gaps for the cross section's Shape of the medium column in 2-D photonic crystals. , 2008, , .		0
94	Dynamic tuning of slow light transmission in manual nanostructure photonic crystal waveguide. International Journal of Nanotechnology, 2009, 6, 715.	0.2	0
95	The properties and structure optimization of slot photonic crystal waveguide. , 2010, , .		0
96	A potential candidate design for nanosecond-order delay based on high-group index four rows optimized air holes line-defect photonic crystal waveguide. Journal of Modern Optics, 2017, 64, 1419-1428.	1.3	0
97	Highly sensitive one chip eight channel sensing of ultra-compact parallel integrated photonic crystal cavities based on silicon-on-insulator platform. , 2017, , .		0
98	A load-balanced adaptive routing and wavelength assignment algorithm based on cost updating. , 2017, , .		0
99	Infrared perfect metamaterial absorber and its potential application as strain sensor. , 2013, , .		0
100	Ultra-high-transmittance and High-extinction-ratio Biosensor Based on Photonic Crystal Slab Using H2-type Resonator. , 2013, , .		0
101	High-Q, high sensitivity and wide bandgap low-index-mode elliptical holes photonic crystal nanobeam cavities biosensors. , 2016, , .		0
102	Subwavelength grating racetrack resonator based ultrasensitive refractive index sensor. , 2017, , .		0
103	Inverse design of a bend-resistant low bending loss and large mode area single-mode fiber by Neural Network. , 2020, , .		0
104	Ultra-compact Sensor Based on a single-cavity dual-mode Photonic Crystal Nanobeam for Simultaneous Detection of Relative Humidity and Temperature. , 2020, , .		0
105	High Figure of Merit Magnetic Field Sensor Based on Photonic Crystal Slab Supporting Quasi Bound States in The Continuum. , 2021, , .		0
106	Analysis About Low Differential Mode Delay Based on Wavelength Dependence of Effective Refractive Index in Few Mode Fibers Around 1550nm. , 2021, , .		0