

# Hongyan Fu

## List of Publications by Year in descending order

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Version: 2024-02-01

103  
papers

1,889  
citations

257450

24  
h-index

289244

40  
g-index

107  
all docs

107  
docs citations

107  
times ranked

1309  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pressure sensor realized with polarization-maintaining photonic crystal fiber-based Sagnac interferometer. <i>Applied Optics</i> , 2008, 47, 2835.	2.1	260
2	Edge Couplers in Silicon Photonic Integrated Circuits: A Review. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1538.	2.5	111
3	Grating Couplers on Silicon Photonics: Design Principles, Emerging Trends and Practical Issues. <i>Micromachines</i> , 2020, 11, 666.	2.9	110
4	Ultrasensitive temperature sensor with Vernier-effect improved fiber Michelson interferometer. <i>Optics Express</i> , 2021, 29, 1090.	3.4	83
5	Temperature-Insensitive Fiber Bragg Grating Based Tilt Sensor With Large Dynamic Range. <i>Journal of Lightwave Technology</i> , 2011, 29, 1714-1720.	4.6	77
6	Epsilon-near-zero photonics: infinite potentials. <i>Photonics Research</i> , 2021, 9, 1616.	7.0	75
7	Multiplexing of polarization-maintaining photonic crystal fiber based Sagnac interferometric sensors. <i>Optics Express</i> , 2009, 17, 18501.	3.4	52
8	State of the Art and Perspectives on Silicon Photonic Switches. <i>Micromachines</i> , 2019, 10, 51.	2.9	50
9	1.3-THz E-O bandwidth GaN-based micro-LED for multi-gigabit visible light communication. <i>Photonics Research</i> , 2021, 9, 792.	7.0	47
10	Encapsulation-Enabled Perovskite/PMMA Films Combining a Micro-LED for High-Speed White-Light Communication. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 54143-54151.	8.0	43
11	Inverse Design for Silicon Photonics: From Iterative Optimization Algorithms to Deep Neural Networks. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3822.	2.5	41
12	A Spectral Reconstruction Algorithm of Miniature Spectrometer Based on Sparse Optimization and Dictionary Learning. <i>Sensors</i> , 2018, 18, 644.	3.8	40
13	State-of-the-Art and Perspectives on Silicon Waveguide Crossings: A Review. <i>Micromachines</i> , 2020, 11, 326.	2.9	40
14	20-Gbps/30-m underwater optical wireless communication based on a single-layer quantum dot blue micro-LED. <i>Optics Letters</i> , 2020, 45, 2616.	3.3	39
15	High-speed fibre Bragg grating sensor interrogation using dispersion-compensation fibre. <i>Electronics Letters</i> , 2008, 44, 618.	1.0	36
16	Towards a 20 Gbps multi-user bubble turbulent NOMA UOWC system with green and blue polarization multiplexing. <i>Optics Express</i> , 2020, 28, 31796.	3.4	34
17	Ultra-broadband and ultra-compact polarization beam splitter based on a tapered subwavelength-grating waveguide and slot waveguide. <i>Optics Express</i> , 2021, 29, 28066.	3.4	33
18	Evolution of optical wireless communication for B5G/6G. <i>Progress in Quantum Electronics</i> , 2022, 83, 100398.	7.0	33

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19	A Novel Fiber Bragg Grating Sensor Configuration for Long-Distance Quasi-Distributed Measurement. IEEE Sensors Journal, 2008, 8, 1598-1602.	4.7	32
20	Solid-state FMCW LiDAR with two-dimensional spectral scanning using a virtually imaged phased array. Optics Express, 2021, 29, 16547.	3.4	28
21	Self-interaction of ultrashort pulses in an epsilon-near-zero nonlinear material at the telecom wavelength. Optics Express, 2019, 27, 37298.	3.4	27
22	Versatile multi-soliton patterns of noise-like pulses in a passively mode-locked fiber laser. Optics Express, 2020, 28, 912.	3.4	27
23	Compact PSR Based on an Asymmetric Bi-level Lateral Taper in an Adiabatic Directional Coupler. Journal of Lightwave Technology, 2016, 34, 985-991.	4.6	26
24	Analysis of Deep Neural Network Models for Inverse Design of Silicon Photonic Grating Coupler. Journal of Lightwave Technology, 2021, 39, 2790-2799.	4.6	26
25	OFDM-Based Generalized Optical MIMO. Journal of Lightwave Technology, 2021, 39, 6063-6075.	4.6	24
26	Digital Pre-Equalization for OFDM-Based VLC Systems: Centralized or Distributed?. IEEE Photonics Technology Letters, 2021, 33, 1081-1084.	2.5	23
27	Full-duplex high-speed indoor optical wireless communication system based on a micro-LED and VCSEL array. Optics Express, 2021, 29, 3891.	3.4	22
28	A compact and polarization-insensitive silicon waveguide crossing based on subwavelength grating MMI couplers. Optics Express, 2020, 28, 27268.	3.4	22
29	Tunable Electro- and All-Optical Switch Based on Epsilon-Near-Zero Metasurface. IEEE Photonics Journal, 2020, 12, 1-10.	2.0	21
30	Fiber Optic Temperature Sensor With Online Controllable Sensitivity Based on Vernier Effect. IEEE Sensors Journal, 2021, 21, 21555-21563.	4.7	17
31	115-MHz Linear NPE Fiber Laser Using All Polarization-Maintaining Fibers. IEEE Photonics Technology Letters, 2021, 33, 81-84.	2.5	16
32	State-of-the-Art Optical Microfiber Coupler Sensors for Physical and Biochemical Sensing Applications. Biosensors, 2020, 10, 179.	4.7	15
33	Comparative study on epsilon-near-zero transparent conducting oxides: High-order chromatic dispersions and modeling of ultrashort pulse interactions. Physical Review A, 2020, 102, .	2.5	15
34	Experimental investigation of 16.6 Gbps SDM-WDM visible light communication based on a neural network receiver and tricolor mini-LEDs. Optics Letters, 2021, 46, 2888.	3.3	15
35	Quasi-coherent noise-like pulses in a mode-locked fiber laser with a 3D rotatable polarization beam splitter. Optics Letters, 2021, 46, 1305.	3.3	13
36	Comparison Study of Multi-Slot Designs in Epsilon-Near-Zero Waveguide-Based Electro-Optical Modulators. IEEE Photonics Journal, 2021, 13, 1-12.	2.0	13

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37	Real-Time Multi-User Video Optical Wireless Transmission Based on a Parallel Micro-LEDs Bulb. IEEE Photonics Journal, 2021, 13, 1-11.	2.0	13
38	Ultra-compact dual-mode mode-size converter for silicon photonic few-mode fiber interfaces. Optics Express, 2021, 29, 33728.	3.4	13
39	Multi-user high-speed QAM-OFDMA visible light communication system using a 75-Åµm single layer quantum dot micro-LED. Optics Express, 2020, 28, 18332.	3.4	13
40	Net 4 Gb/s underwater optical wireless communication system over 2 m using a single-pixel GaN-based blue mini-LED and linear equalization. Optics Letters, 2022, 47, 1976.	3.3	13
41	Multigigabit Visible Light Communication Based on High-Bandwidth InGaN Quantum Dot Green Micro-LED. ACS Photonics, 2022, 9, 2354-2366.	6.6	13
42	Numerical investigations on the cascaded high harmonic and quasi-supercontinuum generations in epsilon-near-zero aluminum-doped zinc oxide nanolayers. Results in Physics, 2021, 24, 104086.	4.1	11
43	8.75-Åµm Gbps visible light communication link using an artificial neural network equalizer and a single-pixel blue micro-LED. Optics Letters, 2021, 46, 4670.	3.3	11
44	An all polarization-maintaining fiber laser mode locked by nonlinear amplifying loop mirror with different biases. Laser Physics, 2020, 30, 085104.	1.2	10
45	High-efficiency dual-band-multiplexing three-port grating coupler on 220-nm silicon-on-insulator with 248-nm deep-UV lithography. Optics Letters, 2021, 46, 3308.	3.3	10
46	Vernier effect assisted sucrose sensor based on a cascaded Sagnac interferometer with no-core fiber. Biomedical Optics Express, 2021, 12, 7338.	2.9	10
47	An Erbium-Doped Fiber Whispering-Gallery-Mode Microcavity Laser. IEEE Photonics Technology Letters, 2019, 31, 1650-1653.	2.5	9
48	Manipulation of epsilon-near-zero wavelength for the optimization of linear and nonlinear absorption by supercritical fluid. Scientific Reports, 2021, 11, 15936.	3.3	9
49	Parallel Mini/Micro-LEDs Transmitter: Size-Dependent Effect and Gbps Multi-User Visible Light Communication. Journal of Lightwave Technology, 2022, 40, 2329-2340.	4.6	9
50	Virtually imaged phased-array-based 2D nonmechanical beam-steering device for FMCW LiDAR. Applied Optics, 2021, 60, 2177.	1.8	8
51	3.8 Gb/s PAM-4 UOWC System Over a 2-m Underwater Channel Enabled by a Single-Pixel 175-Åµm GaN-Based Mini-LED. IEEE Photonics Journal, 2022, 14, 1-7.	2.0	8
52	Ultrafast dynamic switching of optical response based on nonlinear hyperbolic metamaterial platform. Optics Express, 2022, 30, 21634.	3.4	8
53	Optimization of Epsilon-Near-Zero Multilayers for Near-Perfect Light Absorption Using an Enhanced Genetic Algorithm. IEEE Photonics Journal, 2021, 13, 1-10.	2.0	7
54	Three-Port Dual-Wavelength-Band Grating Coupler for WDM-PON Applications. IEEE Photonics Technology Letters, 2021, 33, 159-162.	2.5	6

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55	Ultra-high sensitive surface plasmon sensor using a nanofilm coated D-type photonic crystal fiber. <i>Applied Optics</i> , 2021, 60, 2591.	1.8	6
56	Fluorescent concentrator based MISO-NOMA for visible light communications. <i>Optics Letters</i> , 2022, 47, 902.	3.3	6
57	Highly sensitive refractive index sensor based on plastic optical fiber balloon structure. <i>Optics Letters</i> , 2022, 47, 1697.	3.3	6
58	LiDAR integrated IR OWC system with the abilities of user localization and high-speed data transmission. <i>Optics Express</i> , 2022, 30, 20796.	3.4	6
59	4-bit DAC based 6.9Gb/s PAM-8 UOWC system using single-pixel mini-LED and digital pre-compensation. <i>Optics Express</i> , 2022, 30, 28014.	3.4	6
60	Misalignment Analysis of a High-Speed Uplink OWC System Based on a 940-nm VCSEL. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 1022-1025.	2.5	5
61	High-speed Visible Light Communication System Based on a Packaged Single Layer Quantum Dot Blue Micro-LED with 4-Gbps QAM-OFDM. , 2020, , .		5
62	Dual-wavelength-band Multiplexed Grating Coupler on Multilayer SiN-on-SOI Photonic Integrated Platform. , 2020, , .		5
63	Inverse Design of High-Dimensional Nanostructured 2 <sup>A</sup> –2 Optical Processors Based On Deep Convolutional Neural Networks. <i>Journal of Lightwave Technology</i> , 2022, 40, 2926-2932.	4.6	5
64	Large-Coverage White-Light Controller Combining Adaptive QoS-Enhanced Mqam-NOMA for High-Speed Visible Light Communication. <i>Journal of Lightwave Technology</i> , 2022, 40, 415-422.	4.6	4
65	Multi-user accessible indoor infrared optical wireless communication systems employing VIPA-based 2D optical beam-steering technique. <i>Optics Express</i> , 2021, 29, 20175.	3.4	4
66	VCSEL-Based Multi-user Optical Wireless Communication System Using Non-Orthogonal Multiple Access. , 2020, , .		4
67	Application and comparison of active and transfer learning approaches for modulation format classification in visible light communication systems. <i>Optics Express</i> , 2022, 30, 16351.	3.4	4
68	Dual-Wavelength-Band Grating Coupler on 220-nm Silicon-on-Insulator With High Numerical Aperture Fiber Placed Perfectly Vertically. <i>Journal of Lightwave Technology</i> , 2021, 39, 5902-5909.	4.6	3
69	A High-Speed Visible Light Communication System Using Pairs of Micro-Size LEDs. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 1026-1029.	2.5	3
70	High-Order Harmonic Generations in Epsilon-Near-Zero Aluminum-Doped Zinc Oxide Nanopyramid Array. , 2020, , .		3
71	Kerr Frequency Comb Generation in Microsphere Resonators With Normal Dispersion. <i>Journal of Lightwave Technology</i> , 2022, 40, 1092-1097.	4.6	3
72	Silicone Rubber Coated Non-Adiabatic Tapered Fiber Combined With Online Vernier Interferometer for Temperature Detection. <i>IEEE Sensors Journal</i> , 2022, 22, 8530-8536.	4.7	3

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73	Optical Uplink, D2D and IoT Links Based on VCSEL Array: Analysis and Demonstration. Journal of Lightwave Technology, 2022, 40, 5083-5096.	4.6	3
74	Compact Mach-Zehnder Interferometer for Practical Vernier Effect Sensing System With High Extinction Ratio. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	3
75	Long-distance and quasi-distributed FBG sensor system using a SOA based ring cavity scheme. , 2007, , .		2
76	Sub-Pulses Releasing From Noise-Like Pulses in a Passively Mode-Locked Fiber Laser. IEEE Photonics Technology Letters, 2020, 32, 925-928.	2.5	2
77	Observation of Soliton Molecules in a Robust All PM Mode-Locked Fiber Laser With Nonreciprocal Phase Bias. IEEE Photonics Journal, 2021, 13, 1-10.	2.0	2
78	Precise Tuning of Epsilon-Near-Zero Properties in Indium Tin Oxide Nanolayer by Supercritical Carbon Dioxide. , 2020, , .		2
79	High-speed Long-distance Optical Wireless Communication Based on a 940-nm VCSEL with 4.46-Gbps QAM-OFDM. , 2020, , .		2
80	Gbps Spatial Diversity Visible Light Communication System Using a Pair 75- $\mu$ m Micro-LED. , 2020, , .		2
81	Pulse interactions in periodic and genetic-algorithm-optimized aperiodic epsilon-near-zero multilayers. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 258.	2.1	2
82	Fiber Tip Temperature Sensor Based on PVA Filled Silica Tube Fabry-Perot Interferometer. , 2020, , .		2
83	High-speed Spectral-scanning FMCW LiDAR System Based on Tunable VCSEL. , 2021, , .		2
84	Light arrays measure up on a chip the size of a fingertip. Nature, 2022, 603, 232-233.	27.8	2
85	Real-Time Receive-Forward NLOS Visible Light Communication System Based on Multiple Blue Micro-LED Nodes. Photonics, 2022, 9, 211.	2.0	2
86	Robust all polarization-maintaining femtosecond fiber laser with various phase bias. , 2019, , .		1
87	Stimulated Brillouin Scattering by Dual Lasers Pumping in WGM Microcavities. IEEE Photonics Journal, 2020, 12, 1-8.	2.0	1
88	Dual-layer SiNx-on-SOI grating coupler as an efficient higher-order fiber mode multiplexer. , 2021, , .		1
89	Giant Enhancement of Third- and Fifth-Harmonic Generations in Epsilon-Near-Zero Nanolayer. , 2020, , .		1
90	Commensalism of quasi-coherent noise-like and conventional soliton pulse in a simplified NPE mode-locked fiber laser. , 2021, , .		1

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91	High Performance In-line Mach-Zehnder Interferometer as Reference Arm for Vernier Effect Generation. , 2021, , .		1
92	Fiber-Chip Bi-Wavelength Multiplexing With Subwavelength Single-Etch Grating Coupler and Diplexer. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	1
93	Demultiplexing of photonic crystal fibre sagnac interferometric pressure sensors using discrete wavelet transform. , 2009, , .		0
94	Linear Polarization-maintaining Fiber Laser Mode-locked by Nonlinear Polarization Evolution. , 2021, , .		0
95	Quasi-coherent noise-like pulses in a simplified nonlinear polarization evolution mode-locked fiber laser. , 2021, , .		0
96	Silicon Photonic Vertical Few-mode Fiber Interface Designed by Adjoint Optimization. , 2020, , .		0
97	Deep Learning-Assisted Design of Integrated 2 $\mu$ m <sup>2</sup> Linear Optical Processors. , 2021, , .		0
98	Silicon-on-insulator grating couplers for dual-band and triple-band multiplexing. , 2021, , .		0
99	Dynamic Epsilon-Near-Zero Wavelength Tuning and Switching Properties of Hyperbolic Metamaterials. , 2021, , .		0
100	Compact Solid-state Coherent LiDAR based on In-fiber Beam Scanner. , 2021, , .		0
101	Ultra-compact linear mode-locking fiber laser in all polarization-maintaining fibers. , 2021, , .		0
102	Supercontinuum comb generated by soliton molecule pulse laser injecting into a nonlinear amplifying loop mirror. Optics and Laser Technology, 2022, 150, 107884.	4.6	0
103	Spectrally Scanning LiDAR Based on Wide-Angle Agile Diffractive Beam Steering. IEEE Photonics Technology Letters, 2022, 34, 850-853.	2.5	0