

Yaocheng Shi

List of Publications by Year in descending order

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96
papers

4,148
citations

101543

36
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118850

62
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96
all docs

96
docs citations

96
times ranked

2264
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon mode (de)multiplexer enabling high capacity photonic networks-on-chip with a single-wavelength-carrier light. Optics Letters, 2013, 38, 1422.	3.3	356
2	10-Channel Mode (de)multiplexer with Dual Polarizations. Laser and Photonics Reviews, 2018, 12, 1700109.	8.7	210
3	Silicon/2D-material photodetectors: from near-infrared to mid-infrared. Light: Science and Applications, 2021, 10, 123.	16.6	177
4	Low-loss and broadband 2-2 silicon thermo-optic Mach-Zehnder switch with bent directional couplers. Optics Letters, 2016, 41, 836.	3.3	159
5	High-performance silicon-graphene hybrid plasmonic waveguide photodetectors beyond 1.55-1/4m. Light: Science and Applications, 2020, 9, 29.	16.6	155
6	Low-loss ultracompact transverse-magnetic-pass polarizer with a silicon subwavelength grating waveguide. Optics Letters, 2014, 39, 4514.	3.3	144
7	Ultracompact and broadband polarization beam splitter utilizing the evanescent coupling between a hybrid plasmonic waveguide and a silicon nanowire. Optics Letters, 2013, 38, 3005.	3.3	135
8	Thermally tunable silicon photonic microdisk resonator with transparent graphene nanoheaters. Optica, 2016, 3, 159.	9.3	131
9	Ultra-Broadband and Ultra-Compact On-Chip Silicon Polarization Beam Splitter by Using Hetero-Anisotropic Metamaterials. Laser and Photonics Reviews, 2019, 13, 1800349.	8.7	117
10	Extremely small polarization beam splitter based on a multimode interference coupler with a silicon hybrid plasmonic waveguide. Optics Letters, 2014, 39, 259.	3.3	115
11	High-order microring resonators with bent couplers for a box-like filter response. Optics Letters, 2014, 39, 6304.	3.3	92
12	Metamaterial-Based Maxwell's Fisheye Lens for Multimode Waveguide Crossing. Laser and Photonics Reviews, 2018, 12, 1800094.	8.7	91
13	High-Speed and High-Responsivity Hybrid Silicon/Black-Phosphorus Waveguide Photodetectors at 2-um. Laser and Photonics Reviews, 2019, 13, 1900032.	8.7	91
14	Ultra-high-Q silicon racetrack resonators. Photonics Research, 2020, 8, 684.	7.0	86
15	Flat-Top CWDM (De)Multiplexer Based on MZI With Bent Directional Couplers. IEEE Photonics Technology Letters, 2018, 30, 169-172.	2.5	84
16	Ultra-Sharp Multi-Mode Waveguide Bending Assisted with Metamaterial-Based Mode Converters. Laser and Photonics Reviews, 2018, 12, 1700240.	8.7	79
17	Sub-1/4m^2 power splitters by using silicon hybrid plasmonic waveguides. Optics Express, 2011, 19, 838.	3.4	72
18	Ultra-broadband dual-mode 3-dB power splitter based on a Y-junction assisted with mode converters. Optics Letters, 2016, 41, 5047.	3.3	68

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19	Dual-mode waveguide crossing utilizing taper-assisted multimode-interference couplers. Optics Letters, 2016, 41, 5381.	3.3	67
20	On-chip reconfigurable optical add-drop multiplexer for hybrid wavelength/mode-division-multiplexing systems. Optics Letters, 2017, 42, 2802.	3.3	66
21	Proposal for an Ultracompact Polarization-Beam Splitter Based on a Photonic-Crystal-Assisted Multimode Interference Coupler. IEEE Photonics Technology Letters, 2007, 19, 825-827.	2.5	65
22	Experimental demonstration of an ultracompact Si-nanowire-based reflective arrayed-waveguide grating (de)multiplexer with photonic crystal reflectors. Optics Letters, 2010, 35, 2594.	3.3	58
23	Polarization-insensitive broadband 2 \times 2 3-dB power splitter based on silicon-bent directional couplers. Optics Letters, 2017, 42, 3738.	3.3	53
24	Anisotropic metamaterial-assisted all-silicon polarizer with 415-nm bandwidth. Photonics Research, 2019, 7, 1432.	7.0	49
25	Subwavelength-grating-assisted silicon polarization rotator covering all optical communication bands. Optics Express, 2019, 27, 5588.	3.4	48
26	Subwavelength silicon photonics for on-chip mode-manipulation. Photonix, 2021, 2, .	13.5	47
27	Ultra-broadband silicon polarization splitter-rotator based on the multi-mode waveguide. Optics Express, 2017, 25, 18485.	3.4	45
28	Polarization-insensitive four-channel coarse wavelength-division (de)multiplexer based on Mach-Zehnder interferometers with bent directional couplers and polarization rotators. Optics Letters, 2018, 43, 1483.	3.3	44
29	High sensitivity temperature sensor based on cascaded silicon photonic crystal nanobeam cavities. Optics Express, 2016, 24, 23037.	3.4	41
30	Silicon Integrated Nanophotonic Devices for On-Chip Multi-Mode Interconnects. Applied Sciences (Switzerland), 2020, 10, 6365.	2.5	41
31	Proposal for an ultra-broadband polarization beam splitter using an anisotropy-engineered Mach-Zehnder interferometer on the x-cut lithium-niobate-on-insulator. Optics Express, 2020, 28, 10899.	3.4	41
32	Novel Ultracompact Triplexer Based on Photonic Crystal Waveguides. IEEE Photonics Technology Letters, 2006, 18, 2293-2295.	2.5	39
33	Simultaneous measurement of refractive index and temperature using a dual polarization ring. Applied Optics, 2016, 55, 3537.	2.1	39
34	Compact Eight-Channel Thermally Reconfigurable Optical Add/Drop Multiplexers on Silicon. IEEE Photonics Technology Letters, 2016, 28, 1874-1877.	2.5	39
35	On-Chip Silicon TE-Pass Polarizer Based on Asymmetrical Directional Couplers. IEEE Photonics Technology Letters, 2017, 29, 861-864.	2.5	39
36	Silicon photonic filters. Microwave and Optical Technology Letters, 2021, 63, 2252-2268.	1.4	39

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37	Ultra-compact channel drop filter based on photonic crystal nanobeam cavities utilizing a resonant tunneling effect. <i>Optics Letters</i> , 2014, 39, 6973.	3.3	38
38	Design of a Polarization Insensitive Triplexer Using Directional Couplers Based on Submicron Silicon Rib Waveguides. <i>Journal of Lightwave Technology</i> , 2009, 27, 1443-1447.	4.6	36
39	Thermally-Reconfigurable Silicon Photonic Devices and Circuits. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2020, 26, 1-20.	2.9	36
40	Ultra-compact polarization-independent directional couplers utilizing a subwavelength structure. <i>Optics Letters</i> , 2017, 42, 5202.	3.3	34
41	Four-Channel CWDM (de)Multiplexers Using Cascaded Multimode Waveguide Gratings. <i>IEEE Photonics Technology Letters</i> , 2020, 32, 192-195.	2.5	33
42	Low-crosstalk and fabrication-tolerant four-channel CWDM filter based on dispersion-engineered Mach-Zehnder interferometers. <i>Optics Express</i> , 2021, 29, 20617.	3.4	31
43	Ultra-broadband on-chip multimode power splitter with an arbitrary splitting ratio. <i>OSA Continuum</i> , 2020, 3, 1212.	1.8	30
44	Ultra-compact and highly efficient polarization rotator utilizing multi-mode waveguides. <i>Optics Letters</i> , 2017, 42, 771.	3.3	29
45	On-chip simultaneous sensing of humidity and temperature with a dual-polarization silicon microring resonator. <i>Optics Express</i> , 2019, 27, 28649.	3.4	28
46	Temperature insensitive lower-index-mode photonic crystal nanobeam cavity. <i>Optics Letters</i> , 2015, 40, 264.	3.3	27
47	Ultra-Compact and Ultra-Broadband Guided-Mode Exchangers on Silicon. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000058.	8.7	27
48	Inverse Design of Ultra-Compact Multimode Waveguide Bends Based on the Free-Form Curves. <i>Laser and Photonics Reviews</i> , 2021, 15, 2100162.	8.7	27
49	A Polarization-Insensitive 1310/1550-nm Demultiplexer Based on Sandwiched Multimode Interference Waveguides. <i>IEEE Photonics Technology Letters</i> , 2007, 19, 1789-1791.	2.5	25
50	Silicon waveguide grating coupler for perfectly vertical fiber based on a tilted membrane structure. <i>Optics Letters</i> , 2016, 41, 820.	3.3	23
51	Efficient Hybrid Integration of Long-Wavelength VCSELs on Silicon Photonic Circuits. <i>Journal of Lightwave Technology</i> , 2020, 38, 5100-5106.	4.6	22
52	Broadband Arbitrary Ratio Power Splitters Based on Directional Couplers With Subwavelength Structure. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 479-482.	2.5	22
53	An On-Chip Triplexer Based on Silicon Bragg Grating-Assisted Multimode Interference Couplers. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 63-65.	2.5	21
54	Compact high-efficiency perfectly-vertical grating coupler on silicon at O-band. <i>Optics Express</i> , 2017, 25, 22032.	3.4	21

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55	An Ultracompact Silicon Triplexer Based on Cascaded Bent Directional Couplers. <i>Journal of Lightwave Technology</i> , 2017, 35, 5260-5264.	4.6	19
56	Silicon-Waveguide-Integrated High-Quality Metagrating Supporting Bound State in the Continuum. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900430.	8.7	19
57	Compact Racetrack Resonator on LiNbO ₃ . <i>Journal of Lightwave Technology</i> , 2021, 39, 1770-1776.	4.6	19
58	Polarization Multiplexing Silicon-Photonic Optical Phased Array for 2D Wide-Angle Optical Beam Steering. <i>IEEE Photonics Journal</i> , 2021, 13, 1-6.	2.0	19
59	Diffraction engineering for silicon waveguide grating antenna by harnessing bound state in the continuum. <i>Nanophotonics</i> , 2020, 9, 1439-1446.	6.0	19
60	On-Chip Silicon Triplexer Based on Asymmetrical Directional Couplers. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1265-1268.	2.5	17
61	Ultracompact directional couplers realized in InP by utilizing feature size dependent etching. <i>Optics Letters</i> , 2008, 33, 1927.	3.3	14
62	Flat-Top CWDM (De)Multiplexers Based on Contra-Directional Couplers With Subwavelength Gratings. <i>IEEE Photonics Technology Letters</i> , 2019, 31, 2003-2006.	2.5	14
63	Ultra-Broadband Dual-Polarization Power Splitter Based on Silicon Subwavelength Gratings. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 765-768.	2.5	14
64	Polarization-insensitive silicon waveguide crossing based on multimode interference couplers. <i>Optics Letters</i> , 2018, 43, 5961.	3.3	14
65	All-Solid-State Beam Steering via Integrated Optical Phased Array Technology. <i>Micromachines</i> , 2022, 13, 894.	2.9	14
66	Optical bistability in a high-Q racetrack resonator based on small SU-8 ridge waveguides. <i>Optics Letters</i> , 2013, 38, 2134.	3.3	13
67	A Polarization-Insensitive Dual-Wavelength Multiplexer Based on Bent Directional Couplers. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1975-1978.	2.5	13
68	High Efficiency Silicon Edge Coupler Based On Uniform Arrayed Waveguides With Un-Patterned Cladding. <i>IEEE Photonics Technology Letters</i> , 2020, 32, 1077-1080.	2.5	13
69	Analysis of the Underwater Wireless Optical Communication Channel Based on a Comprehensive Multiparameter Model. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6051.	2.5	13
70	Ultra-compact electro-optic modulator based on etchless lithium niobate photonic crystal nanobeam cavity. <i>Optics Express</i> , 2022, 30, 20839.	3.4	13
71	Design of a Single Nanoparticle Trapping Device Based on Bow-Tie-Shaped Photonic Crystal Nanobeam Cavities. <i>IEEE Photonics Journal</i> , 2019, 11, 1-8.	2.0	12
72	Subwavelength-Structure-Assisted Ultracompact Polarization-Handling Components on Silicon. <i>Journal of Lightwave Technology</i> , 2022, 40, 1784-1801.	4.6	12

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73	Toward calibration-free Mach-Zehnder switches for next-generation silicon photonics. <i>Photonics Research</i> , 2022, 10, 793.	7.0	12
74	Dual Polarization and Bi-Directional Silicon-Photonic Optical Phased Array With Large Scanning Range. <i>IEEE Photonics Journal</i> , 2022, 14, 1-5.	2.0	12
75	Optical integrated chips with micro and nanostructures for refractive index and SERS-based optical label-free sensing. <i>Nanophotonics</i> , 2015, 4, 419-436.	6.0	11
76	Ultracompact on-chip photothermal power monitor based on silicon hybrid plasmonic waveguides. <i>Nanophotonics</i> , 2017, 6, 1121-1131.	6.0	11
77	Direct-access mode-division multiplexing switch for scalable on-chip multi-mode networks. <i>Nanophotonics</i> , 2021, 10, 4551-4566.	6.0	10
78	Silicon-based on-chip diplexing/triplexing technologies and devices. <i>Science China Information Sciences</i> , 2018, 61, 1.	4.3	9
79	Ultra-compact Broadband TM-pass Polarizer Using a Silicon Hybrid Plasmonic Waveguide Grating. , 2013, , .		9
80	Low-Loss Calibration-Free 2 × 2 Mach-Zehnder Switches With Varied-Width Multimode-Interference Couplers. <i>Journal of Lightwave Technology</i> , 2022, 40, 5254-5259.	4.6	9
81	Reconfigurable hybrid silicon waveguide Bragg filter using ultralow-loss phase-change material. <i>Applied Optics</i> , 2022, 61, 1660.	1.8	8
82	An Integrated Optical Mixer Based on SU8 Polymer for PDM-QPSK Demodulation. <i>IEEE Photonics Technology Letters</i> , 2011, 23, 1490-1492.	2.5	7
83	Athermal Narrow-Band Filters Based on Side-Modulated Bragg Gratings. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1226-1229.	2.5	7
84	All-Optical Switching of Silicon Nanobeam Cavities with an Ultra-compact Heater Utilizing the Photothermal Effect. <i>ACS Photonics</i> , 2022, 9, 197-202.	6.6	7
85	Integrated Optical Chemical Sensor Based on an SOI Ring Resonator Using Phase-Interrogation. <i>IEEE Photonics Journal</i> , 2014, 6, 1-7.	2.0	5
86	Design and experimental verification of all waveguide type triplexers using cascaded MMI couplers. <i>Optical and Quantum Electronics</i> , 2015, 47, 1151-1156.	3.3	5
87	Reconfigurable add-drop filter based on an antisymmetric multimode photonic crystal nanobeam cavity in a silicon waveguide. <i>Optics Express</i> , 2022, 30, 17332.	3.4	5
88	Fabrication-Friendly On-Chip Silicon Polarizer Based on Polarization-Selective Corner Mirrors. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 652-655.	2.5	4
89	Photonic-circuited resonance fluorescence of single molecules with an ultrastable lifetime-limited transition. <i>Nature Communications</i> , 2022, 13, .	12.8	4
90	Demonstration of an Ultra-Sensitive Temperature Sensor Using an Asymmetric Mach-Zehnder Interferometer. <i>IEEE Photonics Journal</i> , 2021, 13, 1-5.	2.0	3

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91	Fabrication of Polymer Optical Waveguides by Digital Ultraviolet Lithography. Journal of Lightwave Technology, 2022, 40, 163-169.	4.6	3
92	Optical phased array based on silicon waveguides with non-uniform widths. , 2018, , .		2
93	Fabrication of High Precision Self-Aligned V-Grooves Integrated on Silica-on-Silicon Chips. IEEE Photonics Technology Letters, 2014, 26, 1169-1171.	2.5	1
94	On-Chip Coarse Wavelength Division Multiplexers Based on Silicon Subwavelength Gratings. , 2018, , .		1
95	Design, optimization and fabrication of two-dimension high contrast subwavelength grating (HCG) mirror on Silicon-on-insulator. , 2015, , .		0
96	Silicon Nanophotonics for Light Manipulation. , 2019, , .		0