

Zhenzhou Cheng

List of Publications by Year in descending order

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128
papers

3,350
citations

172457

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g-index

129
all docs

129
docs citations

129
times ranked

3861
citing authors

#	ARTICLE	IF	CITATIONS
1	Grating couplers beyond silicon TPA wavelengths based on MPW. Journal Physics D: Applied Physics, 2022, 55, 015109.	2.8	8
2	Temperature Compensation of Optical Fiber Current Sensors With a Static Bias. IEEE Sensors Journal, 2022, 22, 352-356.	4.7	13
3	Deep Learning-Assisted Enhanced Fano Resonances in Symmetry-Breaking SOI Metasurface. IEEE Photonics Journal, 2022, 14, 1-7.	2.0	3
4	Is Ge an Excellent Material for Mid-IR Kerr Frequency Combs Around 3-1¼m Wavelengths?. Journal of Lightwave Technology, 2022, 40, 2097-2103.	4.6	3
5	Ultra-compact spot size converter based on digital metamaterials. Optics Communications, 2022, 508, 127865.	2.1	6
6	Ultra-thin mid-infrared silicon grating coupler. Optics Letters, 2022, 47, 1226.	3.3	11
7	Corrections to "Deep Learning-Assisted Enhanced Fano Resonances in Symmetry-Breaking SOI Metasurface" [Feb 22 Art. no. 5702107]. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	0
8	Design of a Graphene-Enabled Dual-Mode Kerr Frequency Comb. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-7.	2.9	4
9	Attention-based neural network for polarimetric image denoising. Optics Letters, 2022, 47, 2726.	3.3	12
10	Unpaired underwater-image recovery with polarimetric generative adversarial network. Optics and Lasers in Engineering, 2022, 157, 107112.	3.8	14
11	In-Situ Study of Dynamics of Refractive Index Changes in Silicon Devices Induced by UV-light Irradiation. IEEE Photonics Journal, 2022, 14, 1-5.	2.0	0
12	Theoretical study of upconversion luminescence efficiency of Yb ³⁺ -Tm ³⁺ co-doped NaGdF ₄ nanoparticles. Optics Communications, 2021, 483, 126663.	2.1	6
13	Theoretical study of a water sensor based on a single upconversion microrod. Journal Physics D: Applied Physics, 2021, 54, 165103.	2.8	2
14	Underwater imaging enhancement based on a polarization filter and histogram attenuation prior. Journal Physics D: Applied Physics, 2021, 54, 175102.	2.8	16
15	NaYF ₄ :Yb/Tm@SiO ₂ -Dox/Cur-CS/OSA nanoparticles with pH and photon responses. Nanotechnology, 2021, 32, 255703.	2.6	5
16	All-dielectric chiral-field-enhanced Raman optical activity. Nature Communications, 2021, 12, 3062.	12.8	28
17	Surface-enhanced Raman spectroscopy chips based on two-dimensional materials beyond graphene. Journal of Semiconductors, 2021, 42, 051001.	3.7	11
18	Underwater Imaging by Suppressing the Backscattered Light Based on Mueller Matrix. IEEE Photonics Journal, 2021, 13, 1-6.	2.0	8

#	ARTICLE	IF	CITATIONS
19	Design of a Graphene-Based Waveguide-Integrated Multimode Phase Modulator. IEEE Photonics Journal, 2021, 13, 1-6.	2.0	4
20	In-situ host-transition-induced upconversion luminescence modulation of ZrW ₂ O ₇ (OH)·2H ₂ O:Yb ³⁺ /Er ³⁺ nanocrystals. Optical Materials, 2021, 118, 111218.	3.6	1
21	Control of transient states for upconversion emission color adjustment. Journal of Luminescence, 2021, 236, 118144.	3.1	1
22	Automatic underwater polarization imaging without background region or any prior. Optics Express, 2021, 29, 31283.	3.4	21
23	Polarization differential imaging in turbid water via Mueller matrix and illumination modulation. Optics Communications, 2021, 499, 127274.	2.1	11
24	Design of a Dual-Mode Graphene-on-Microring Resonator for Optical Gas Sensing. IEEE Access, 2021, 9, 56479-56485.	4.2	10
25	Subwavelength Silicon Photonics. Topics in Applied Physics, 2021, , 285-321.	0.8	0
26	Temperature Compensation of Optical Current Sensor Based on BP Neural Network. , 2021, , .		2
27	Electric-field-assisted resonance scanning spectroscopy based on a graphene-on-silicon dual-mode microring. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3435.	2.1	1
28	Mid-infrared subwavelength grating coupler. , 2021, , .		0
29	Temperature-controlled Upconversion Luminescence of Yb ³⁺ /Er ³⁺ Co-doped ZrV ₂ O ₇ Crystals. , 2021, , .		0
30	Polarimetric underwater image recovery for color image with crosstalk compensation. Optics and Lasers in Engineering, 2020, 124, 105833.	3.8	20
31	Dual-Mode GVD Tailoring in a Convex Waveguide. IEEE Photonics Journal, 2020, 12, 1-6.	2.0	2
32	Review of Recent Progress on Silicon Nitride-Based Photonic Integrated Circuits. IEEE Access, 2020, 8, 195436-195446.	4.2	39
33	Porous carbon nanowire array for surface-enhanced Raman spectroscopy. Nature Communications, 2020, 11, 4772.	12.8	86
34	On-Chip Optical Gas Sensors Based on Group-IV Materials. ACS Photonics, 2020, 7, 2923-2940.	6.6	50
35	Recent Progress in Waveguide-Integrated Graphene Photonic Devices for Sensing and Communication Applications. Frontiers in Physics, 2020, 8, .	2.1	14
36	Polarimetric underwater image recovery via deep learning. Optics and Lasers in Engineering, 2020, 133, 106152.	3.8	51

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37	Characterization method of a mid-infrared graphene-on-silicon microring with a monochromatic laser. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1683.	2.1	3
38	Temperature compensation of optical alternating magnetic field sensor via a novel method for on-line measuring. Optics Express, 2020, 28, 13682.	3.4	5
39	Learning-based denoising for polarimetric images. Optics Express, 2020, 28, 16309.	3.4	48
40	Graphene-based dual-mode modulators. Optics Express, 2020, 28, 18456.	3.4	12
41	Solution processable transition metal dichalcogenides-based hybrids for photodetection. Nano Materials Science, 2019, 1, 288-298.	8.8	5
42	Design of on-chip polarizers based on graphene-on-silicon nanowires. Applied Physics Express, 2019, 12, 072001.	2.4	7
43	Saturable absorption in graphene-on-waveguide devices. Applied Physics Express, 2019, 12, 032003.	2.4	23
44	Joint Noise Reduction for Contrast Enhancement in Stokes Polarimetric Imaging. IEEE Photonics Journal, 2019, 11, 1-10.	2.0	2
45	Subwavelength Engineering in Silicon Photonic Devices. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-13.	2.9	17
46	Pseudo-polarimetric Method for Dense Haze Removal. IEEE Photonics Journal, 2019, 11, 1-11.	2.0	11
47	Contrast optimization in broadband passive polarimetric imaging based on color camera. Optics Express, 2019, 27, 2444.	3.4	9
48	Waveguide-integrated graphene spatial mode filters for on-chip mode-division multiplexing. Optics Express, 2019, 27, 19188.	3.4	15
49	Mid-Infrared Germanium Photonics. , 2019, , .		1
50	Fully suspended slot waveguide platform. Journal of Applied Physics, 2018, 123, .	2.5	33
51	Wavelength tunable L Band polarization-locked vector soliton fiber laser based on SWCNT-SA and CFBG. Optics Communications, 2018, 412, 55-59.	2.1	9
52	High-Q germanium optical nanocavity. Photonics Research, 2018, 6, 925.	7.0	20
53	Patterned graphene on SiN waveguides for mode locking of fiber lasers. Japanese Journal of Applied Physics, 2018, 57, 102701.	1.5	5
54	Giant Optical Activity in an All-dielectric Spiral Nanoflower. Small, 2018, 14, e1800485.	10.0	9

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55	Progress on Waveguide-Integrated Graphene Optoelectronics. <i>Advances in Condensed Matter Physics</i> , 2018, 2018, 1-9.	1.1	7
56	Mid-infrared high-Q germanium microring resonator. <i>Optics Letters</i> , 2018, 43, 2885.	3.3	39
57	Optical Activity: Giant Optical Activity in an All-Dielectric Spiral Nanoflower (Small 31/2018). <i>Small</i> , 2018, 14, 1870142.	10.0	0
58	Tailorable dual-wavelength-band coupling in a transverse-electric-mode focusing subwavelength grating coupler. <i>Optics Letters</i> , 2018, 43, 2985.	3.3	33
59	Optimal ellipsometric parameter measurement strategies based on four intensity measurements in presence of additive Gaussian and Poisson noise. <i>Optics Express</i> , 2018, 26, 34529.	3.4	11
60	Mid-infrared germanium photonic integrated circuits for on-chip biochemical sensing. , 2018, , .		0
61	Graphene-on-silicon hybrid plasmonic-photonic integrated circuits. <i>Nanotechnology</i> , 2017, 28, 245201.	2.6	29
62	Interplay of hot electrons from localized and propagating plasmons. <i>Nature Communications</i> , 2017, 8, 771.	12.8	64
63	Fully suspended mid-infrared racetrack resonator with subwavelength grating cladding. , 2017, , .		2
64	Mid-infrared germanium photonic crystal cavity. <i>Optics Letters</i> , 2017, 42, 2882.	3.3	27
65	Fully suspended slot waveguides for high refractive index sensitivity. <i>Optics Letters</i> , 2017, 42, 1245.	3.3	42
66	Focusing subwavelength grating coupler for mid-infrared suspended membrane germanium waveguides. <i>Optics Letters</i> , 2017, 42, 2094.	3.3	76
67	Forward stimulated Brillouin scattering in silicon microring resonators. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	9
68	Contribution of electrostriction and radiation pressure to Kerr-like nonlinearities in silicon pedestal waveguides. , 2017, , .		1
69	Fully suspended nanophotonic waveguide resonators with high quality factor and tailorable operational bandwidth. , 2017, , .		1
70	Enhancement of self-phase modulation induced spectral broadening in silicon suspended membrane waveguides. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 055503.	2.2	11
71	Design of Mid-infrared electro-optic modulators based on aluminum nitride waveguides. <i>Journal of Lightwave Technology</i> , 2016, , 1-1.	4.6	21
72	Optical time-stretch imaging: Principles and applications. <i>Applied Physics Reviews</i> , 2016, 3, 011102.	11.3	93

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73	Progress on mid-IR graphene photonics and biochemical applications. <i>Frontiers of Optoelectronics</i> , 2016, 9, 259-269.	3.7	15
74	Design of electro-optic modulators based on graphene-on-silicon slot waveguides. <i>Optics Letters</i> , 2016, 41, 2501.	3.3	104
75	Design of waveguide-integrated graphene devices for photonic gas sensing. <i>Nanotechnology</i> , 2016, 27, 505206.	2.6	15
76	High-responsivity graphene-on-silicon slot waveguide photodetectors. <i>Nanoscale</i> , 2016, 8, 13206-13211.	5.6	98
77	Amplitude and Phase Modulation of UWB Monocycle Pulses on a Silicon Photonic Chip. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 248-251.	2.5	10
78	Hyperuniform Disordered Network Polarizers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 288-294.	2.9	34
79	Photoresponse of Graphene-on-Silicon Nitride Microring Resonator. , 2016, , .		2
80	High Responsivity, Broadband, and Fast Graphene/Silicon Photodetector in Photoconductor Mode. <i>Advanced Optical Materials</i> , 2015, 3, 1207-1214.	7.3	141
81	Graphene photodetector integrated on silicon nitride waveguide. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	46
82	Graphene absorption enhancement using silicon slot waveguides. , 2015, , .		2
83	Graphene on Silicon-on-Sapphire Waveguide Photodetectors. , 2015, , .		2
84	Optical Absorption in Graphene-on-Silicon Nitride Microring Resonators. <i>IEEE Photonics Technology Letters</i> , 2015, 27, 1765-1767.	2.5	37
85	Optical Absorption and Thermal Nonlinearities in Graphene-on-Silicon Nitride Microring Resonators. , 2015, , .		4
86	Relaxation Dynamics of Optically Generated Carriers in Graphene-on-Silicon Nitride Waveguide Devices. , 2015, , .		2
87	Enhanced self-phase modulation in silicon suspended membrane waveguides. , 2015, , .		0
88	Silicon waveguide dispersion changes induced by graphene overlay. , 2014, , .		0
89	Scalable Optical Multicasting and Receiver for Networks- on-Chip. , 2014, , .		0
90	Experimental demonstration of polarization-insensitive air-cladding grating couplers for silicon-on-insulator waveguides. <i>Optics Letters</i> , 2014, 39, 2206.	3.3	73

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91	Optical Nyquist filters based on silicon coupled resonator optical waveguides. Optics Communications, 2014, 329, 23-27.	2.1	11
92	Stabilization of a multiwavelength erbium-doped fiber laser using a nonlinear silicon waveguide. Applied Physics B: Lasers and Optics, 2014, 114, 367-371.	2.2	12
93	Increase of the grating coupler bandwidth with a graphene overlay. Applied Physics Letters, 2014, 104, .	3.3	9
94	In-Plane Optical Absorption and Free Carrier Absorption in Graphene-on-Silicon Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 43-48.	2.9	75
95	Increasing the grating coupler bandwidth with a high numerical-aperture fiber. , 2014, , .		1
96	In-Plane Mid-Infrared Optical Absorption of Graphene on Silicon-on-Sapphire Waveguides. , 2014, , .		1
97	High-responsivity graphene/silicon-heterostructure waveguide photodetectors. Nature Photonics, 2013, 7, 888-891.	31.4	731
98	Mode-locked fiber laser using graphene on silicon waveguide. , 2013, , .		2
99	Apodized focusing subwavelength gratings for simultaneous coupling of TE and TM modes. , 2013, , .		0
100	100 GHz passive mode-locked laser based on nonlinear silicon microring resonator. , 2013, , .		1
101	Compatibility of Silicon Mach-Zehnder Modulators for Advanced Modulation Formats. Journal of Lightwave Technology, 2013, 31, 2550-2554.	4.6	46
102	Spectral hole burning in silicon waveguides with a graphene layer on top. Optics Letters, 2013, 38, 1930.	3.3	9
103	UWB monocycle pulse generation based on colourless silicon photonic integrated circuit. Electronics Letters, 2013, 49, 1291-1293.	1.0	4
104	Polarization dependent loss of graphene-on-silicon waveguides. , 2013, , .		1
105	In-plane saturable absorption of graphene on silicon waveguides. , 2013, , .		2
106	Performance of silicon coupled resonator waveguides for integrated Nyquist filter. , 2013, , .		1
107	Focusing Subwavelength Grating Couplers. , 2013, , .		0
108	Focusing subwavelength grating coupler for mid-infrared suspended membrane waveguide. Optics Letters, 2012, 37, 1217.	3.3	83

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109	Demodulation of 20 Gbaud/s differential quadrature phase-shift keying signals using wavelength-tunable silicon microring resonators. <i>Optics Letters</i> , 2012, 37, 3462.	3.3	10
110	Tunable integrated variable bit-rate DPSK silicon receiver. <i>Optics Letters</i> , 2012, 37, 4738.	3.3	17
111	Wideband subwavelength gratings for coupling between silicon-on-insulator waveguides and optical fibers. <i>Optics Letters</i> , 2012, 37, 3483.	3.3	89
112	Broadband focusing grating couplers for suspended-membrane waveguides. <i>Optics Letters</i> , 2012, 37, 5181.	3.3	52
113	Mid-infrared Suspended Membrane Waveguide and Ring Resonator on Silicon-on-Insulator. <i>IEEE Photonics Journal</i> , 2012, 4, 1510-1519.	2.0	151
114	Apodized focusing subwavelength grating couplers for suspended membrane waveguides. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	65
115	Mid-infrared suspended membrane waveguides on silicon-on-insulator. , 2012, , .		0
116	Characterization of Mid-Infrared Silicon-on-Sapphire Microring Resonators With Thermal Tuning. <i>IEEE Photonics Journal</i> , 2012, 4, 1095-1102.	2.0	26
117	An Ultracompact OSNR Monitor Based on an Integrated Silicon Microdisk Resonator. <i>IEEE Photonics Journal</i> , 2012, 4, 1365-1371.	2.0	6
118	Design and applications of silicon waveguide grating couplers. <i>Proceedings of SPIE</i> , 2012, , .	0.8	7
119	Monolithic suspended membrane ring resonator for mid-infrared applications. , 2012, , .		0
120	Bit-Rate-Variable DPSK Demodulation Using Silicon Microring Resonators With Electro-Optic Wavelength Tuning. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 1221-1223.	2.5	16
121	Mid-Infrared Grating Couplers for Silicon-on-Sapphire Waveguides. <i>IEEE Photonics Journal</i> , 2012, 4, 104-113.	2.0	54
122	OSNR Monitoring for NRZ-PSK Signals Using Silicon Waveguide Two-Photon Absorption. <i>IEEE Photonics Journal</i> , 2011, 3, 968-974.	2.0	10
123	Mid-infrared micro-ring resonator on silicon-on-sapphire characterized by thermal tuning. , 2011, , .		1
124	Effects of Ce ³⁺ on the spectroscopic properties of transparent phosphate glass ceramics co-doped with Er ³⁺ /Yb ³⁺ . <i>Optics Communications</i> , 2009, 282, 2045-2048.	2.1	26
125	Temperature dependence of luminescence behavior in Er ³⁺ /Yb ³⁺ co-doped transparent phosphate glass ceramics. <i>Optical Materials</i> , 2009, 31, 1645-1649.	3.6	35
126	Numerical investigation of gain characteristics of Er ³⁺ /Yb ³⁺ co-doped fiber amplifiers. <i>Optical and Quantum Electronics</i> , 2008, 40, 1021-1031.	3.3	5

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127	Comparison of optical parameters and luminescence between Er ³⁺ /Yb ³⁺ codoped phosphate glass ceramics and precursor glasses. Journal of Applied Physics, 2008, 104, .	2.5	34
128	Compact high power broadband Er ³⁺ ~Yb ³⁺ -codoped superfluorescent fiber source. Applied Physics Letters, 2008, 93, 091108.	3.3	9