

Xiaoguang Tu

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,897
citations

331670

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51
docs citations

51
times ranked

2226
citing authors

#	ARTICLE	IF	CITATIONS
1	3D Silicon Photonics Packaging Based on TSV Interposer for High Density On-Board Optics Module. , 2016, , .		12
2	Silicon-based phase shifters for high figure of merit in optical modulation. , 2016, , .		5
3	First demonstration of CMOS compatible electrical programmable photonic memory cell. , 2016, , .		1
4	3D Electro-Optical Integration Based on High-Performance Si Photonics TSV Interposer. , 2016, , .		6
5	Low-Voltage Silicon Mach-Zehnder Modulator Operating at High Temperatures without Thermo-Electric Cooling. , 2016, , .		11
6	Modeling and fabrication of traveling-wave electrode (TWE) of Si optical modulator via Cu-BEOL. , 2015, , .		0
7	Analysis of the polarization rotation effect in the inversely tapered spot size converter. Optics Express, 2015, 23, 27776.	3.4	11
8	High speed silicon photonics WDM link. , 2015, , .		0
9	High-Performance Si Photonics Interposer Featuring RF Travelling-wave Electrode (TWE) via Cu-BEOL. , 2015, , .		5
10	Thermo-Optically Tunable Silicon AWG With Above 600 GHz Channel Tunability. IEEE Photonics Technology Letters, 2015, 27, 2351-2354.	2.5	35
11	Mach-Zehnder interferometer (MZI) point-of-care system for rapid multiplexed detection of microRNAs in human urine specimens. Biosensors and Bioelectronics, 2015, 71, 365-372.	10.1	55
12	Design and characterisation of high-speed monolithic silicon modulators for digital coherent communication. , 2015, , .		0
13	Ultra-low Loss CMOS Compatible Multi-Layer Si ₃ N ₄ -on-SOI Platform for 1310nm Wavelength. , 2015, , .		1
14	50-Gb/s silicon Mach-Zehnder interferometer-based optical modulator with only 1.3 V_{pp} driving voltages. , 2014, , .		0
15	Efficient silicon nitride grating coupler with distributed Bragg reflectors. Optics Express, 2014, 22, 21800.	3.4	74
16	Mode size converter between high-index-contrast waveguide and cleaved single mode fiber using SiON as intermediate material. Optics Express, 2014, 22, 23652.	3.4	29
17	Low-loss high-speed silicon IQ modulator for QPSK/DQPSK in C and L bands. Optics Express, 2014, 22, 10703.	3.4	23
18	Three-dimensional (3D) monolithically integrated photodetector and WDM receiver based on bulk silicon wafer. Optics Express, 2014, 22, 19546.	3.4	13

#	ARTICLE	IF	CITATIONS
19	Silicon-based traveling-wave photodetector array (Si-TWPDA) with parallel optical feeding. Optics Express, 2014, 22, 20020.	3.4	26
20	Silicon optical modulator with shield coplanar waveguide electrodes. Optics Express, 2014, 22, 23724.	3.4	26
21	A microring resonator photodetector for enhancement in L-band performance. Optics Express, 2014, 22, 26976.	3.4	13
22	PN-type carrier-induced filter with modulatable extinction ratio. Optics Express, 2014, 22, 29914.	3.4	4
23	High-efficiency Si optical modulator using Cu travelling-wave electrode. Optics Express, 2014, 22, 29978.	3.4	49
24	50 Gb/s Silicon Traveling Wave Mach-Zehnder Modulator near 1300 nm. , 2014, , .		2
25	High efficiency silicon nitride grating coupler. Applied Physics A: Materials Science and Processing, 2014, 115, 79-82.	2.3	22
26	Review of Silicon Photonics Foundry Efforts. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 405-416.	2.9	310
27	Fundamental characteristics and high-speed applications of carrier-depletion silicon Mach-Zehnder modulators. IEICE Electronics Express, 2014, 11, 20142010-20142010.	0.8	18
28	Highly sensitive Mach-Zehnder interferometer biosensor based on silicon nitride slot waveguide. Sensors and Actuators B: Chemical, 2013, 188, 681-688.	7.8	196
29	Silicon Optical Interconnect Device Technologies for 40 Gb/s and Beyond. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8200312-8200312.	2.9	36
30	Slope efficiency and spurious-free dynamic range of silicon Mach-Zehnder modulator upon carrier depletion and injection effects. Optics Express, 2013, 21, 16570.	3.4	16
31	Silicon-based optoelectronic integrated circuit for label-free bio/chemical sensor. Optics Express, 2013, 21, 17931.	3.4	21
32	Demonstration of a vertical pin Ge-on-Si photo-detector on a wet-etched Si recess. Optics Express, 2013, 21, 23325.	3.4	20
33	Low power 50 Gb/s silicon traveling wave Mach-Zehnder modulator near 1300 nm. Optics Express, 2013, 21, 30350.	3.4	246
34	Carrier-Induced Silicon Bragg Grating Filters With a p-i-n Junction. IEEE Photonics Technology Letters, 2013, 25, 810-812.	2.5	7
35	50-Gb/s silicon optical modulator with traveling-wave electrodes. Optics Express, 2013, 21, 12776.	3.4	144
36	Silicon Mach-Zehnder modulator using low-loss phase shifter with bottom PN junction formed by restricted-depth doping. IEICE Electronics Express, 2013, 10, 20130552-20130552.	0.8	5

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37	Low-loss high-speed silicon Mach-Zehnder modulator for optical-fiber telecommunications. Proceedings of SPIE, 2013, , .	0.8	8
38	Characterization of Silicon Mach-Zehnder Modulator in 20-Gbps NRZ-BPSK Transmission. IEICE Transactions on Electronics, 2013, E96.C, 974-980.	0.6	0
39	Silicon microring-based integrated circuit for optical label-free biosensor with direct electrical readout. , 2013, , .		0
40	11-Gb/s 80-km transmission performance of zero-chirp silicon Mach-Zehnder modulator. Optics Express, 2012, 20, B350.	3.4	31
41	Electrical tracing-assisted dual-microring label-free optical bio/chemical sensors. Optics Express, 2012, 20, 4189.	3.4	36
42	High performance Si ₃ N ₄ waveguide devices platform. , 2012, , .		0
43	Low-Loss Multiple-Slot Waveguides Fabricated by Optical Lithography and Atomic Layer Deposition. IEEE Photonics Technology Letters, 2012, 24, 2074-2076.	2.5	13
44	Thermal independent Silicon-Nitride slot waveguide biosensor with high sensitivity. Optics Express, 2012, 20, 2640.	3.4	105
45	11-Gbps 80-km Transmission Performance of Zero-Chirp Silicon Mach-Zehnder Modulator. , 2012, , .		1
46	Fabrication of low loss and high speed silicon optical modulator using doping compensation method. Optics Express, 2011, 19, 18029.	3.4	116
47	Silicon Mach-Zehnder modulator of extinction ratio beyond 10 dB at 100-125 Gbps. Optics Express, 2011, 19, B26.	3.4	48
48	An Ultracompact Directional Coupler Based on GaAs Cross-Slot Waveguide. IEEE Photonics Technology Letters, 2010, 22, 1324-1326.	2.5	46
49	Coupled Fano resonators. Optics Express, 2010, 18, 18820.	3.4	27
50	Simulation Demonstration and Experimental Fabrication of a Multiple-Slot Waveguide. IEEE Photonics Technology Letters, 2008, 20, 333-335.	2.5	21
51	A high-performance Si-based MOS electrooptic phase Modulator with a shunt-capacitor configuration. Journal of Lightwave Technology, 2006, 24, 1000-1007.	4.6	3