

# Xiaoguang Tu

## List of Publications by Year in descending order

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51  
papers

1,897  
citations

331670

21  
h-index

361022

35  
g-index

51  
all docs

51  
docs citations

51  
times ranked

2226  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of Silicon Photonics Foundry Efforts. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 405-416.	2.9	310
2	Low power 50 Gb/s silicon traveling wave Mach-Zehnder modulator near 1300 nm. Optics Express, 2013, 21, 30350.	3.4	246
3	Highly sensitive Mach-Zehnder interferometer biosensor based on silicon nitride slot waveguide. Sensors and Actuators B: Chemical, 2013, 188, 681-688.	7.8	196
4	50-Gb/s silicon optical modulator with traveling-wave electrodes. Optics Express, 2013, 21, 12776.	3.4	144
5	Fabrication of low loss and high speed silicon optical modulator using doping compensation method. Optics Express, 2011, 19, 18029.	3.4	116
6	Thermal independent Silicon-Nitride slot waveguide biosensor with high sensitivity. Optics Express, 2012, 20, 2640.	3.4	105
7	Efficient silicon nitride grating coupler with distributed Bragg reflectors. Optics Express, 2014, 22, 21800.	3.4	74
8	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
9	High-efficiency Si optical modulator using Cu travelling-wave electrode. Optics Express, 2014, 22, 29978.	3.4	49
10	Silicon Mach-Zehnder modulator of extinction ratio beyond 10 dB at 100-125 Gbps. Optics Express, 2011, 19, B26.	3.4	48
11	An Ultracompact Directional Coupler Based on GaAs Cross-Slot Waveguide. IEEE Photonics Technology Letters, 2010, 22, 1324-1326.	2.5	46
12	Electrical tracing-assisted dual-microring label-free optical bio/chemical sensors. Optics Express, 2012, 20, 4189.	3.4	36
13	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
14	Thermo-Optically Tunable Silicon AWG With Above 600 GHz Channel Tunability. IEEE Photonics Technology Letters, 2015, 27, 2351-2354.	2.5	35
15	11-Gb/s 80-km transmission performance of zero-chirp silicon Mach-Zehnder modulator. Optics Express, 2012, 20, B350.	3.4	31
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	Coupled Fano resonators. Optics Express, 2010, 18, 18820.	3.4	27
18	Silicon-based traveling-wave photodetector array (Si-TWPDA) with parallel optical feeding. Optics Express, 2014, 22, 20020.	3.4	26

#	ARTICLE	IF	CITATIONS
19	Silicon optical modulator with shield coplanar waveguide electrodes. Optics Express, 2014, 22, 23724.	3.4	26
20	Low-loss high-speed silicon IQ modulator for QPSK/DQPSK in C and L bands. Optics Express, 2014, 22, 10703.	3.4	23
21	High efficiency silicon nitride grating coupler. Applied Physics A: Materials Science and Processing, 2014, 115, 79-82.	2.3	22
22	Simulation Demonstration and Experimental Fabrication of a Multiple-Slot Waveguide. IEEE Photonics Technology Letters, 2008, 20, 333-335.	2.5	21
23	Silicon-based optoelectronic integrated circuit for label-free bio/chemical sensor. Optics Express, 2013, 21, 17931.	3.4	21
24	Demonstration of a vertical pin Ge-on-Si photo-detector on a wet-etched Si recess. Optics Express, 2013, 21, 23325.	3.4	20
25	Fundamental characteristics and high-speed applications of carrier-depletion silicon Mach-Zehnder modulators. IEICE Electronics Express, 2014, 11, 20142010-20142010.	0.8	18
26	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
27	Low-Loss Multiple-Slot Waveguides Fabricated by Optical Lithography and Atomic Layer Deposition. IEEE Photonics Technology Letters, 2012, 24, 2074-2076.	2.5	13
28	Three-dimensional (3D) monolithically integrated photodetector and WDM receiver based on bulk silicon wafer. Optics Express, 2014, 22, 19546.	3.4	13
29	A microring resonator photodetector for enhancement in L-band performance. Optics Express, 2014, 22, 26976.	3.4	13
30	3D Silicon Photonics Packaging Based on TSV Interposer for High Density On-Board Optics Module. , 2016, , .		12
31	Analysis of the polarization rotation effect in the inversely tapered spot size converter. Optics Express, 2015, 23, 27776.	3.4	11
32	Low-Voltage Silicon Mach-Zehnder Modulator Operating at High Temperatures without Thermo-Electric Cooling. , 2016, , .		11
33	Low-loss high-speed silicon Mach-Zehnder modulator for optical-fiber telecommunications. Proceedings of SPIE, 2013, , .	0.8	8
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	3D Electro-Optical Integration Based on High-Performance Si Photonics TSV Interposer. , 2016, , .		6
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

#	ARTICLE	IF	CITATIONS
37	High-Performance Si Photonics Interposer Featuring RF Travelling-wave Electrode (TWE) via Cu-BEOL. , 2015, , .		5
38	Silicon-based phase shifters for high figure of merit in optical modulation. , 2016, , .		5
39	PN-type carrier-induced filter with modulatable extinction ratio. Optics Express, 2014, 22, 29914.	3.4	4
40	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
41	50 Gb/s Silicon Traveling Wave Mach-Zehnder Modulator near 1300 nm. , 2014, , .		2
42	First demonstration of CMOS compatible electrical programmable photonic memory cell. , 2016, , .		1
43	11-Gbps 80-km Transmission Performance of Zero-Chirp Silicon Mach-Zehnder Modulator. , 2012, , .		1
44	Ultra-low Loss CMOS Compatible Multi-Layer Si <sub>3</sub> N <sub>4</sub> -on-SOI Platform for 1310nm Wavelength. , 2015, , .		1
45	High performance Si<sup>3</sup>N<sup>4</sup> waveguide devices platform. , 2012, , .		0
46	50-Gb/s silicon Mach-Zehnder interferometer-based optical modulator with only 1.3 V<sup>pp</sup> driving voltages. , 2014, , .		0
47	Modeling and fabrication of traveling-wave electrode (TWE) of Si optical modulator via Cu-BEOL. , 2015, , .		0
48	High speed silicon photonics WDM link. , 2015, , .		0
49	Design and characterisation of high-speed monolithic silicon modulators for digital coherent communication. , 2015, , .		0
50	Characterization of Silicon Mach-Zehnder Modulator in 20-Gbps NRZ-BPSK Transmission. IEICE Transactions on Electronics, 2013, E96.C, 974-980.	0.6	0
51	Silicon microring-based integrated circuit for optical label-free biosensor with direct electrical readout. , 2013, , .		0