

# Antoine Brimont

## List of Publications by Year in descending order

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68  
papers

1,021  
citations

516710

16  
h-index

434195

31  
g-index

68  
all docs

68  
docs citations

68  
times ranked

1141  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-speed modulation of a compact silicon ring resonator based on a reverse-biased pn diode. Optics Express, 2009, 17, 21986.	3.4	162
2	Highly efficient crossing structure for silicon-on-insulator waveguides. Optics Letters, 2009, 34, 2760.	3.3	101
3	On-chip wireless silicon photonics: from reconfigurable interconnects to lab-on-chip devices. Light: Science and Applications, 2017, 6, e17053-e17053.	16.6	71
4	High speed silicon electro-optical modulators enhanced via slow light propagation. Optics Express, 2011, 19, 20876.	3.4	69
5	10 Gbit/s error-free DPSK modulation using a push-pull dual-drive silicon modulator. Optics Communications, 2013, 304, 107-110.	2.1	60
6	CMOS Compatible Silicon-on-Insulator Polarization Rotator Based on Symmetry Breaking of the Waveguide Cross Section. IEEE Photonics Technology Letters, 2012, 24, 2031-2034.	2.5	55
7	High performance silicon 2x2 optical switch based on a thermo-optically tunable multimode interference coupler and efficient electrodes. Optics Express, 2016, 24, 191.	3.4	51
8	High-contrast 40 Gb/s operation of a 500- $\mu$ m long silicon carrier-depletion slow wave modulator. Optics Letters, 2012, 37, 3504.	3.3	49
9	Ring-Assisted Mach-Zehnder Interferometer Silicon Modulator for Enhanced Performance. Journal of Lightwave Technology, 2012, 30, 9-14.	4.6	42
10	Compact and low-loss asymmetrical multimode interference splitter for power monitoring applications. Optics Letters, 2016, 41, 227.	3.3	41
11	Group-index engineering in silicon corrugated waveguides. Optics Letters, 2010, 35, 2708.	3.3	31
12	Toward Nonvolatile Switching in Silicon Photonic Devices. Laser and Photonics Reviews, 2021, 15, 2000501.	8.7	31
13	Slow-Light-Enhanced Silicon Optical Modulators Under Low-Drive-Voltage Operation. IEEE Photonics Journal, 2012, 4, 1306-1315.	2.0	27
14	Analytical Model for Calculating the Nonlinear Distortion in Silicon-Based Electro-Optic Mach-Zehnder Modulators. Journal of Lightwave Technology, 2013, 31, 3603-3613.	4.6	26
15	Low-Power Operation in a Silicon Switch Based on an Asymmetric Mach-Zehnder Interferometer. IEEE Photonics Journal, 2015, 7, 1-8.	2.0	18
16	Fiber-to-Chip Spot-Size Converter for Coupling to Silicon Waveguides in the O-Band. IEEE Photonics Technology Letters, 2019, 31, 31-34.	2.5	16
17	Increased sensitivity through maximizing the extinction ratio of SOI delay-interferometer receiver for 10G DPSK. Optics Express, 2012, 20, 14698.	3.4	15
18	Non-volatile epsilon-near-zero readout memory. Optics Letters, 2019, 44, 3932.	3.3	15

#	ARTICLE	IF	CITATIONS
19	High linear ring-assisted MZI electro-optic silicon modulators suitable for radio-over-fiber applications. , 2012, , .		14
20	Ultra-Compact Optical Switches Using Slow Light Bimodal Silicon Waveguides. Journal of Lightwave Technology, 2021, 39, 3495-3501.	4.6	12
21	Low-Loss and Compact Silicon Rib Waveguide Bends. IEEE Photonics Technology Letters, 2016, 28, 299-302.	2.5	11
22	Microwave index engineering for slow-wave coplanar waveguides. Scientific Reports, 2018, 8, 5672.	3.3	11
23	Alignment tolerant, low voltage, 0.23 Vcm, push-pull silicon photonic switches based on a vertical pn junction. Optics Express, 2019, 27, 32409.	3.4	11
24	Strong electro-optical modulation enhancement in a slow wave corrugated waveguide. Optics Express, 2009, 17, 9204.	3.4	10
25	Silicon slow-light-based photonic mixer for microwave-frequency conversion applications. Optics Letters, 2012, 37, 1721.	3.3	8
26	Silicon-based electro-optic modulators for linear and nonlinear radio-over-fiber applications. , 2012, , .		7
27	Co-Package Technology Platform for Low-Power and Low-Cost Data Centers. Applied Sciences (Switzerland), 2021, 11, 6098.	2.5	6
28	Enhancing Pockels effect in strained silicon waveguides. Optics Express, 2019, 27, 26882.	3.4	6
29	A Photonic Microwave Filter Based on an Asymmetric Silicon Mach-Zehnder Modulator. IEEE Photonics Journal, 2013, 5, 5501006-5501006.	2.0	5
30	Optical Phase Characterization of Photonic Integrated Devices. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 417-421.	2.9	5
31	Silicon cross-slot waveguides insensitive to polarization. , 2009, , .		4
32	Method for measuring waveguide propagation losses by means of a Mach-Zehnder Interferometer structure. Optics Communications, 2012, 285, 1144-1147.	2.1	4
33	A Silicon Differential Receiver With Zero-Biased Balanced Detection for Access Networks. IEEE Photonics Technology Letters, 2013, 25, 1207-1210.	2.5	4
34	Low drive voltage 10 Gb/s and high contrast 40 Gb/s silicon slow wave modulators. , 2012, , .		3
35	Low-crosstalk in silicon-on-insulator waveguide crossings with optimized-angle. , 2007, , .		2
36	Experimental demonstration of moderately low group velocity in silicon rib photonic wire Bragg gratings. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
37	High-speed modulation of a compact silicon ring resonator. , 2009, , .		2
38	Silicon-based optical modulation within the HELIOS project. Proceedings of SPIE, 2011, , .	0.8	2
39	10-Gb/s Error-Free Silicon Optical Modulator for Both TE and TM Polarized Light. IEEE Photonics Technology Letters, 2011, 23, 1799-1801.	2.5	2
40	Silicon 2&#x00D7;2 optical switch based on optimized multimode interference coupler to minimize power consumption. , 2015, , .		2
41	Group index engineering in silicon corrugated waveguides. , 2010, , .		1
42	Slow light enhanced carrier depletion modulators with 1V drive voltage. Proceedings of SPIE, 2012, , .	0.8	1
43	Silicon CMOS photonics platform for enabling high-speed DQPSK transceivers. , 2013, , .		1
44	Optimized micro-heater structures for tunable silicon multimode interferometers. , 2014, , .		1
45	Compact and efficient silicon 2&#x00D7;2 switches based on a reverse biased vertical pn junction. , 2014, , .		1
46	Single Mode Optical Interconnects for future data centers. , 2016, , .		1
47	Advanced high speed slow-light silicon modulators in the O-band for low power optical interconnects in data centers. , 2017, , .		1
48	The 5G fronthaul and enabling silicon photonics technology. , 2019, , .		1
49	Undertaking research in the field of silicon optical modulators in the framework of the Helios and UK silicon photonics projects. , 2010, , .		0
50	Silicon optical modulators for high data rate applications. , 2011, , .		0
51	Low profile silicon photonics packaging approach featuring configurable multiple electrical and optical connectivity. , 2011, , .		0
52	Enhancing the performance of carrier depletion based silicon electro-optical modulators via slow light propagation. , 2011, , .		0
53	Compact silicon differential receiver with integrated zero biased balanced detection. , 2012, , .		0
54	High Speed Silicon based optical modulators. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
55	High performance silicon optical modulators. Proceedings of SPIE, 2012, , .	0.8	0
56	Chirp characterization of a single-arm asymmetric silicon carrier depletion modulator. , 2013, , .		0
57	Modeling of the nonlinear distortion in an electro-optic silicon-based Mach-Zehnder modulator. , 2013, , .		0
58	A silicon Mach Zehnder comb switch for low power operation in on-chip optical data communications. Proceedings of SPIE, 2014, , .	0.8	0
59	Fabrication of modulators and 2 $\times$ 2 switches in SOI based on the carrier depletion mechanism for optical interconnects. , 2014, , .		0
60	Silicon on insulator optical modulators for integration in photonic optical circuits. Proceedings of SPIE, 2014, , .	0.8	0
61	Silicon CMOS compatible transition metal dioxide technology for boosting highly integrated photonic devices with disruptive performance. , 2014, , .		0
62	A novel technique for minimizing power consumption in MZI based silicon switches. , 2014, , .		0
63	Design of an ultra-compact hybrid VO <sub>2</sub> /silicon switch. , 2015, , .		0
64	A programmable Si-photonic node for SDN-enabled Bloom filter forwarding in disaggregated data centers. Proceedings of SPIE, 2017, , .	0.8	0
65	Non-Volatile Indium Tin Oxide Electro-Optic Switch. , 2019, , .		0
66	New Molecular-Based Materials for Enabling Electro-Optical Bistability in the Silicon Photonics Platform. , 2019, , .		0
67	Low Voltage Silicon Photonic Modulators and Switches for High Radix Integrated Transmitters. , 2020, , .		0
68	Nonlinear couplers based on plasmonic waveguides. Optica Pura Y Aplicada, 2012, 45, 169-175.	0.1	0