

# Florian Merget

## List of Publications by Year in descending order

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71  
papers

1,329  
citations

430874

18  
h-index

361022

35  
g-index

72  
all docs

72  
docs citations

72  
times ranked

1502  
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon nitride CMOS-compatible platform for integrated photonics applications at visible wavelengths. Optics Express, 2013, 21, 14036.	3.4	167
2	Pockels effect based fully integrated, strained silicon electro-optic modulator. Optics Express, 2011, 19, 17212.	3.4	160
3	Optical Peaking Enhancement in High-Speed Ring Modulators. Scientific Reports, 2014, 4, 6310.	3.3	88
4	Electrical percolation characteristics of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> and Sn doped Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> thin films during the amorphous to crystalline phase transition. Journal of Applied Physics, 2005, 97, 083538.	2.5	84
5	Three-dimensional simulation model of switching dynamics in phase change random access memory cells. Journal of Applied Physics, 2007, 101, 064512.	2.5	82
6	Hybrid multi-chip assembly of optical communication engines by in situ 3D nano-lithography. Light: Science and Applications, 2020, 9, 71.	16.6	77
7	Low V <sub>π</sub> Silicon photonics modulators with highly linear epitaxially grown phase shifters. Optics Express, 2015, 23, 23526.	3.4	67
8	On the measurement of the Pockels effect in strained silicon. Optics Letters, 2015, 40, 1877.	3.3	49
9	Edge Couplers With Relaxed Alignment Tolerance for Pick-and-Place Hybrid Integration of III-V Lasers With SOI Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 369-379.	2.9	41
10	High-frequency electro-optic measurement of strained silicon racetrack resonators. Optics Letters, 2015, 40, 5287.	3.3	40
11	Visible wavelength silicon nitride focusing grating coupler with AlCu/TiN reflector. Optics Letters, 2013, 38, 2521.	3.3	39
12	Silicon photonics plasma-modulators with advanced transmission line design. Optics Express, 2013, 21, 19593.	3.4	34
13	Silicon photonics WDM transmitter with single section semiconductor mode-locked laser. Advanced Optical Technologies, 2015, 4, 119-145.	1.7	31
14	High-speed resonantly enhanced silicon photonics modulator with a large operating temperature range. Optics Letters, 2017, 42, 81.	3.3	28
15	Concept of floating-dot memory transistors on silicon-on-insulator substrate. Microelectronic Engineering, 2002, 61-62, 497-503.	2.4	27
16	8-channel WDM silicon photonics transceiver with SOA and semiconductor mode-locked laser. Optics Express, 2018, 26, 25446.	3.4	26
17	Lateral phase change random access memory cell design for low power operation. Microsystem Technologies, 2006, 13, 169-172.	2.0	21
18	Hybrid silicon photonics flip-chip laser integration with vertical self-alignment. , 2017, , .		21

#	ARTICLE	IF	CITATIONS
19	Reconfigurable Frequency-Selective Resonance Splitting in Chalcogenide Microring Resonators. ACS Photonics, 2020, 7, 499-511.	6.6	19
20	Alignment Tolerant Couplers for Silicon Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 765-778.	2.9	17
21	Silicon Photonics Transmitter with SOA and Semiconductor Mode-Locked Laser. Scientific Reports, 2017, 7, 13857.	3.3	17
22	Wideband multi-stage CROW filters with relaxed fabrication tolerances. Optics Express, 2018, 26, 4723.	3.4	17
23	Influence of Si and N additions on structure and phase stability of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> thin films. Journal of Physics Condensed Matter, 2009, 21, 435501.	1.8	16
24	Broadband couplers for hybrid silicon-chalcogenide glass photonic integrated circuits. Optics Express, 2019, 27, 13781.	3.4	14
25	Advances in silicon photonics segmented electrode Mach-Zehnder modulators and peaking enhanced resonant devices. , 2014, , .		12
26	Silicon nitride PIC-based multi-color laser engines for life science applications. Optics Express, 2021, 29, 8635.	3.4	12
27	8-channel 448 Gbit/s Silicon Photonic Transmitter Enabled by Photonic Wire Bonding. , 2017, , .		11
28	Silicon Photonics Integrated Circuits for Soliton based Long Haul Optical Communication. Journal of Lightwave Technology, 2022, , 1-1.	4.6	10
29	Optically Enabled ADCs and Application to Optical Communications. IEEE Open Journal of the Solid-State Circuits Society, 2021, 1, 209-221.	2.7	8
30	Calibrated Link Budget of a Silicon Photonics WDM Transceiver with SOA and Semiconductor Mode-Locked Laser. Scientific Reports, 2017, 7, 12004.	3.3	7
31	High-Q inverted silica microtoroid resonators monolithically integrated into a silicon photonics platform. Optics Express, 2018, 26, 27418.	3.4	7
32	Design of a high-speed germanium-tin absorption modulator at mid-infrared wavelengths. , 2017, , .		6
33	Semiconductor Laser Mode Locking Stabilization With Optical Feedback From a Silicon PIC. Journal of Lightwave Technology, 2019, 37, 3483-3494.	4.6	6
34	Silicon Nitride External Cavity Laser With Alignment Tolerant Multi-Mode RSOA-to-PIC Interface. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	2.9	6
35	Power-efficient lumped-element meandered silicon Mach-Zehnder modulators. , 2020, , .		6
36	Passively biased resonantly enhanced silicon photonics modulator with high optical bandwidth. Proceedings of SPIE, 2017, , .	0.8	4

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37	Silicon nitride photonic integrated circuits for multi-color optical engines with application in flow cytometry. , 2017, , .		4
38	Sub-wavelength tunneling barrier in rib waveguide microring modulators with vanishing bending losses. Optics Letters, 2022, 47, 2626.	3.3	4
39	Misalignment tolerant couplers for hybrid integration of semiconductor lasers with silicon photonics parallel transmitters. , 2014, , .		3
40	High speed WDM interconnect using silicon photonics ring modulators and mode-locked laser. , 2015, , .		3
41	Stabilization and Frequency Control of a DFB Laser With a Tunable Optical Reflector Integrated in a Silicon Photonics PIC. Journal of Lightwave Technology, 2016, 34, 5467-5473.	4.6	3
42	Laser Phase Noise in Ring Resonator Assisted Direct Detection Data Transmission. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-12.	2.9	3
43	Silicon Photonics External Cavity Laser with Misalignment Tolerant Multi-mode RSOA to PIC Interface. , 2019, , .		3
44	Fabrication tolerant high-speed SiP ring modulators and optical add-drop multiplexers for WDM applications. , 2020, , .		3
45	Experimental Demonstration of a Silicon-Photonics WDM NFT Soliton Transmitter. , 2021, , .		3
46	Packaged MZIs passively balanced by means of multimode grating couplers. , 2016, , .		2
47	Co-integration of a temperature tolerant low impedance resonantly enhanced silicon photonics modulator. , 2017, , .		2
48	Broadband, temperature tolerant and passively biased resonantly enhanced Mach-Zehnder modulators. , 2018, , .		2
49	High-efficiency gate-defined quantum dot to single mode fiber interface assisted by a photonic crystal cavity. AIP Advances, 2020, 10, 115016.	1.3	2
50	Miniaturized PIC multi-color laser engines for the life sciences. , 2019, , .		2
51	Silicon Photonics Integrated Circuits for Nonlinear Fourier Transform Based Transmission. , 2021, , .		2
52	Silicon nitride C-band grating couplers with reduced waveguide back-reflection. , 2022, , .		2
53	Optimized hourglass-shaped resonators for efficient thermal tuning of CROW filters with reduced crosstalk. , 2021, , .		2
54	Improved Light Outcoupling from OLED by Non-Wave-Guiding Anode Designs. Materials Research Society Symposia Proceedings, 2014, 1627, 1.	0.1	1

#	ARTICLE	IF	CITATIONS
55	Silicon photonics WDM interconnects based on resonant ring modulators and semiconductor mode locked laser. , 2015, , .		1
56	Epitaxially grown vertical junction phase shifters for improved modulation efficiency in silicon depletion-type modulators. , 2015, , .		1
57	Theoretical investigation of a Si RRM assisted SSB-OFDM modulator operated with a semiconductor MLL. , 2019, , .		1
58	Silicon nitride back-end optics for biosensor applications. Proceedings of SPIE, 2013, , .	0.8	0
59	Novel transmission lines for Si MZI modulators. , 2013, , .		0
60	Peaking in ring modulators and application to ISI reduction. , 2014, , .		0
61	High frequency electro-optic measurement of strained silicon racetrack resonators. , 2016, , .		0
62	Passively biased resonantly enhanced silicon photonics carrier depletion modulator with high optical bandwidth. , 2016, , .		0
63	Time resolved electro-optic measurements in strained silicon racetrack resonators. , 2016, , .		0
64	WDM transceiver with semiconductor mode locked laser. , 2016, , .		0
65	Reconfigurable Microring Resonator-Based Optical Transmitter for Elastic Optical Networks. , 2018, , .		0
66	Polarization-diverse silicon photonics WDM receiver with a reduced number of OADMs and balanced group delays. , 2020, , .		0
67	Glass Molded Optical Interposers for Wafer Scale Datacom Component Packaging. , 2021, , .		0
68	Simulation-based comparison of cell design concepts for phase change random access memory. Journal of Nanoscience and Nanotechnology, 2007, 7, 298-305.	0.9	0
69	Flip-chip-integrated silicon nitride ECL at 640nm with relaxed alignment tolerances. , 2022, , .		0
70	High-efficient spin qubit to photon interface assisted by a photonic crystal cavity. , 2022, , .		0
71	External Cavity Laser with Alignment Tolerant III-V Gain Chip to PIC Edge Coupler in Silicon Nitride. , 2021, , .		0