

Cosimo Lacava

List of Publications by Year in descending order

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68
papers

1,510
citations

361296

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h-index

302012

39
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69
all docs

69
docs citations

69
times ranked

1776
citing authors

#	ARTICLE	IF	CITATIONS
1	ML-Assisted Equalization for 50-Gb/s O-Band CWDM Transmission Over 100-km SMF. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	1.9	6
2	A Review of Capabilities and Scope for Hybrid Integration Offered by Silicon-Nitride-Based Photonic Integrated Circuits. Sensors, 2022, 22, 4227.	2.1	15
3	Roadmap on multimode photonics. Journal of Optics (United Kingdom), 2022, 24, 083001.	1.0	27
4	Polarization Control in Integrated Silicon Waveguides Using Semiconductor Nanowires. Nanomaterials, 2022, 12, 2438.	1.9	4
5	High-Speed DD Transmission Using a Silicon Receiver Co-Integrated With a 28-nm CMOS Gain-Tunable Fully-Differential TIA. Journal of Lightwave Technology, 2021, 39, 1138-1147.	2.7	10
6	Strategies for wideband light generation in nonlinear multimode integrated waveguides. Physical Review A, 2021, 103, .	1.0	3
7	4-Level Alternate-Mark-Inversion for Reach Extension in the O-Band Spectral Region. Journal of Lightwave Technology, 2021, 39, 2847-2853.	2.7	4
8	Silicon Nitride Photonics for the Near-Infrared. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-13.	1.9	40
9	Experimental Demonstration of Dual O+C-Band WDM Transmission Over 50-km SSMF With Direct Detection. Journal of Lightwave Technology, 2020, 38, 2278-2284.	2.7	23
10	Co-design of a differential transimpedance amplifier and balanced photodetector for a sub-pJ/bit silicon photonics receiver. Optics Express, 2020, 28, 14038.	1.7	14
11	Supercontinuum generation in tantalum pentoxide waveguides for pump wavelengths in the 900-nm to 1500-nm spectral region. Optics Express, 2020, 28, 32173.	1.7	12
12	High-speed multi-layer coded adaptive LACO-OFDM and its experimental verification. OSA Continuum, 2020, 3, 2614.	1.8	4
13	Beyond 100-Gb/s Direct-detection Transmission using an Optical Receiver Co-integrated with a 28-nm CMOS Gain-tunable Fully-differential TIA. , 2020, , .		1
14	Spectral Difference Interferometry for the Characterization of Optical Media. Laser and Photonics Reviews, 2019, 13, 1900007.	4.4	1
15	Roadmap on all-optical processing. Journal of Optics (United Kingdom), 2019, 21, 063001.	1.0	128
16	Cryptography in coherent optical information networks using dissipative metamaterial gates. APL Photonics, 2019, 4, 046102.	3.0	7
17	Intermodal Bragg-Scattering Four Wave Mixing in Silicon Waveguides. Journal of Lightwave Technology, 2019, 37, 1680-1685.	2.7	19
18	WDM Transmission With In-Line Amplification at 1.3 μ m Using a Bi-Doped Fiber Amplifier. Journal of Lightwave Technology, 2019, 37, 1826-1830.	2.7	29

#	ARTICLE	IF	CITATIONS
19	Si and Si-Rich Silicon-Nitride Waveguides for Optical Transmissions and Nonlinear Applications Around 2 μ m. , 2019, , .		0
20	Nonlinear control of coherent absorption and its optical signal processing applications. APL Photonics, 2019, 4, 106109.	3.0	1
21	Si-rich Si nitride waveguides for optical transmissions and toward wavelength conversion around 2 μ m. Applied Optics, 2019, 58, 5165.	0.9	6
22	Coupling strategies for silicon photonics integrated chips [Invited]. Photonics Research, 2019, 7, 201.	3.4	333
23	Intermodal frequency generation in silicon-rich silicon nitride waveguides. Photonics Research, 2019, 7, 615.	3.4	19
24	Apodized silicon photonic grating couplers for mode-order conversion. Photonics Research, 2019, 7, 1036.	3.4	11
25	Measurement of Optical Pulsewidth in the Picosecond Regime Using a Non-linear Fiber and Power Meter. , 2019, , .		0
26	Technique for the measurement of picosecond optical pulses using a non-linear fiber loop mirror and an optical power meter. Optics Express, 2019, 27, 6377.	1.7	0
27	Apodized silicon photonic grating couplers for mode-order conversion: publisher's note. Photonics Research, 2019, 7, 1221.	3.4	0
28	Fibre-optic metadvice for all-optical signal modulation based on coherent absorption. Nature Communications, 2018, 9, 182.	5.8	73
29	Group IV Compounds Modulators and Mid Index Waveguides for Enhanced CMOS Photonics. , 2018, , .		0
30	Silicon Photonics Wavelength Converter based on Inter-Modal Four Wave Mixing Bragg Scattering. , 2018, , .		0
31	Low-Temperature NH ₃ -Free Silicon Nitride Platforms for Integrated Photonics. , 2018, , .		1
32	Ultra Wide-Band Inductive Peaking VCO with Cascode Noise Reduction. , 2018, , .		2
33	Frequency comb generation in a silicon ring resonator modulator. Optics Express, 2018, 26, 790.	1.7	55
34	Picosecond all-optical switching and dark pulse generation in a fibre-optic network using a plasmonic metamaterial absorber. Applied Physics Letters, 2018, 113, .	1.5	15
35	A Fiberized Metamaterial Device for Ultrafast Control of Coherent Optical Signals. , 2018, , .		0
36	Material and optical properties of low-temperature NH ₃ -free PECVD SiN _x layers for photonic applications. Journal Physics D: Applied Physics, 2017, 50, 025106.	1.3	71

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37	High-efficiency grating-couplers: demonstration of a new design strategy. Scientific Reports, 2017, 7, 16670.	1.6	146
38	Si-rich Silicon Nitride for Nonlinear Signal Processing Applications. Scientific Reports, 2017, 7, 22.	1.6	111
39	Tunable index back end of line platform for enhanced integrated photonics. , 2017, , .		0
40	Spectrally Efficient DMT Transmission over 40 km SMF Using an Electrically Packaged Silicon Photonic Intensity Modulator. , 2017, , .		2
41	Wavelength conversion of complex modulation formats in a compact SiGe waveguide. Optics Express, 2017, 25, 3252.	1.7	13
42	Group-velocity dispersion in SOI-based channel waveguides with reduced-height. Optics Express, 2017, 25, 9761.	1.7	10
43	Experimental comparison of direct detection Nyquist SSB transmission based on silicon dual-drive and IQ Mach-Zehnder modulators with electrical packaging. Optics Express, 2017, 25, 19332.	1.7	17
44	496 Gb/s direct detection DMT transmission over 40 km single mode fibre using an electrically packaged silicon photonic modulator. Optics Express, 2017, 25, 29798.	1.7	4
45	Nonlinear Silicon Photonic Signal Processing Devices for Future Optical Networks. Applied Sciences (Switzerland), 2017, 7, 103.	1.3	34
46	Low-Loss Micro-Resonator Filters Fabricated in Silicon by CMOS-Compatible Lithographic Techniques: Design and Characterization. Applied Sciences (Switzerland), 2017, 7, 174.	1.3	21
47	Flexible Scheme for Measuring Chromatic Dispersion Based on Interference of Frequency Tones. , 2017, , .		1
48	Silicon Photonic Modulators for High Speed Optical Analog Links. , 2017, , .		1
49	Reflector-less Grating-Coupler with a -0.9 dB Efficiency Realized in 260-nm Silicon-On-Insulator Platform. , 2017, , .		0
50	Reduced nonlinearities in 100-nm high SOI waveguides. Proceedings of SPIE, 2016, , .	0.8	3
51	Ultra-low-power silicon photonics wavelength converter for phase-encoded telecommunication signals. Proceedings of SPIE, 2016, , .	0.8	0
52	Silicon photonic Mach Zehnder modulators for next-generation short-reach optical communication networks. , 2016, , .		1
53	Ultra-Compact Amorphous Silicon Waveguide for Wavelength Conversion. IEEE Photonics Technology Letters, 2016, 28, 410-413.	1.3	21
54	Design and characterization of low-loss 2D grating couplers for silicon photonics integrated circuits. Proceedings of SPIE, 2016, , .	0.8	7

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55	Advanced nonlinear signal processing in silicon-based waveguides. , 2015, , .		0
56	Tunable Q-factor silicon microring resonators for ultra-low power parametric processes. Optics Letters, 2015, 40, 1274.	1.7	31
57	Performance of 2D-Grating couplers designed through full 3D-FDTD numerical simulations. , 2014, , .		1
58	Nonlinear properties of AlGaAs waveguides in continuous wave operation regime. Optics Express, 2014, 22, 5291.	1.7	41
59	Ultra-low power Four Wave Mixing wavelength conversion in silicon micro-ring resonators with tunable Q-factor. , 2014, , .		1
60	Nonlinear characterization of hydrogenated amorphous silicon waveguides and analysis of carrier dynamics. Applied Physics Letters, 2013, 103, .	1.5	22
61	40 GHz nonlinear all optical switching in a Mach-Zehnder interferometer integrated device. , 2013, , .		0
62	Four wave mixing efficiency in hydrogenated amorphous silicon waveguides. , 2013, , .		0
63	Integrated nonlinear Mach Zehnder for 40 Gbit/s all-optical switching. Optics Express, 2013, 21, 21587.	1.7	34
64	Silicon micro-ring resonators with tunable Q-factor for ultra-low power parametric signal generation. , 2013, , .		0
65	Tailoring of dispersion in silicon vertical slot waveguides. , 2013, , .		0
66	Low TPA and free-carrier effects in silicon nanocrystal-based horizontal slot waveguides. Optics Express, 2012, 20, 23838.	1.7	23
67	Four-wave-mixing efficiency and conversion bandwidth in silicon-nanocrystals slot waveguides fabricated by PECVD. , 2011, , .		0
68	Ultra-high four wave mixing efficiency in slot waveguides with silicon nanocrystals. Applied Physics Letters, 2011, 99, .	1.5	31