Matteo Cherchi

List of Publications by Citations

52 papers	451 citations	11 h-index	19 g-index
72 ext. papers	594 ext. citations	2.5 avg, IF	3.26 L-index

#	Paper	IF	Citations
52	Dramatic size reduction of waveguide bends on a micron-scale silicon photonic platform. *Optics Express*, **2013**, 21, 17814-23	3.3	113
51	Titania inverse opals for infrared optical applications. *Optical Materials*, **2001**, 17, 11-14	3.3	32
50	Dual SOA-MZI Wavelength Converters Based on III-V Hybrid Integration on a $mu{rm m}$-Scale Si Platform. *IEEE Photonics Technology Letters*, **2014**, 26, 560-563	2.2	29
49	Exploiting the Optical Quadratic Nonlinearity of Zinc-Blende Semiconductors for Guided-Wave Terahertz Generation: A Material Comparison. *IEEE Journal of Quantum Electronics*, **2010**, 46, 368-376	2	23
48	Open-Access 3-□m SOI Waveguide Platform for Dense Photonic Integrated Circuits. *IEEE Journal of Selected Topics in Quantum Electronics*, **2019**, 25, 1-9	3.8	20
47	Integrated Optic Surface Plasmon Resonance Measurements in a Borosilicate Glass Substrate. *Sensors*, **2008**, 8, 7113-7124	3.8	19
46	Multicast-Enabling Optical Switch Design Employing Si Buffering and Routing Elements. *IEEE Photonics Technology Letters*, **2018**, 30, 712-715	2.2	17
45	On-Chip SOI Delay Line Bank for Optical Buffers and Time Slot Interchangers. *IEEE Photonics Technology Letters*, **2018**, 30, 31-34	2.2	16
44	Unconstrained splitting ratios in compact double-MMI couplers. *Optics Express*, **2014**, 22, 9245-53	3.3	16
43	Guided-wave frequency doubling in surface periodically poled lithium niobate: competing effects. *Journal of the Optical Society of America B: Optical Physics*, **2007**, 24, 1564	1.7	16
42	Method for characterization of Si waveguide propagation loss. *Optics Express*, **2013**, 21, 5391-400	3.3	12
41	Universal Charts for Optical Difference Frequency Generation in the Terahertz Domain. *IEEE Journal of Quantum Electronics*, **2010**, 46, 1009-1013	2	11
40	Wavelength-flattened directional couplers: a geometrical approach. *Applied Optics*, **2003**, 42, 7141-8	1.7	11
39	Second-harmonic generation in surface periodically poled lithium niobate waveguides: on the role of multiphoton absorption. *Applied Physics B: Lasers and Optics*, **2008**, 93, 559-565	1.9	8
38	Design scheme for Mach-Zehnder interferometric coarse wavelength division multiplexing splitters and combiners. *Journal of the Optical Society of America B: Optical Physics*, **2006**, 23, 1752	1.7	8
37	Optical Bloch-mode-induced quasi phase matching of quadratic interactions in one-dimensional photonic crystals. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 296	1.7	8
36	Compact multi-million Q resonators and 100 MHz passband filter bank in a thick-SOI photonics platform. *Optics Letters*, **2020**, 45, 3005-3008	3	6

35	MMI resonators based on metal mirrors and MMI mirrors: an experimental comparison. *Optics Express*, **2015**, 23, 5982-93	3.3	5
34	3-micron Silicon Photonics **2018**,		5
33	Low-loss spiral waveguides with ultra-small footprint on a micron scale SOI platform **2014**,		5
32	Thick-SOI Echelle grating for any-to-any wavelength routing interconnection in multi-socket computing environments **2017**,		4
31	Low loss GaInNAs/GaAs gain waveguides with U-bend geometry for single-facet coupling in hybrid photonic integration. *Applied Physics Letters*, **2018**, 113, 041104	3.4	4
30	Wavelength-flattened directional couplers for mirror-symmetric interferometers. *Journal of Lightwave Technology*, **2005**, 23, 4387-4392	4	4
29	Integrated multi-wavelength mid-IR light source for gas sensing **2018**,		4
28	GaSb diode lasers tunable around 2.6 μm using silicon photonics resonators or external diffractive gratings. *Applied Physics Letters*, **2020**, 116, 081105	3.4	4
27	Multi-wavelength mid-IR light source for gas sensing **2017**,		3
26	Faraday rotation in silicon waveguides **2017**,		3
25	Silicon wavelength-selective partial-drop broadcast filter bank. *Optics Letters*, **2014**, 39, 5459-62	3	3
24	The Euler bend: paving the way for high-density integration on micron-scale semiconductor platforms **2014**,		3
23	Frequency doubling in surface periodically poled lithium niobate waveguides: competing effects **2007**,		3
22	Exact analytic expressions for electromagnetic propagation and optical nonlinear generation in finite one-dimensional periodic multilayers. *Physical Review E*, **2004**, 69, 066602	2.4	3
21	Bloch analysis of finite periodic microring chains. *Applied Physics B: Lasers and Optics*, **2005**, 80, 109-113	1.9	3
20	Silicon photonics for optical connectivity: Small footprint with large dimensions **2015**,		2
19	Integrated SiGe Detectors for Si Photonic Sensor Platforms. *Proceedings (mdpi)*, **2017**, 1, 559	0.3	2
18	Flat-top MZI filters: a novel robust design based on MMI splitters **2016**,		2

17	Launching of multi-project wafer runs in ePIXfab with micron-scale silicon rib waveguide technology **2014**,		2
16	Fabrication-tolerant optical filters for dense integration on a micron-scale SOI platform **2014**,		2
15	The role of nonlinear optical absorption in narrowband difference-frequency terahertz-wave generation. *Journal of the Optical Society of America B: Optical Physics*, **2010**, 27, 222	1.7	2
14	Polarization splitting and rotating through adiabatic transitions **2003**,		2
13	DPSK-Demodulation based on Ultra-Compact micron-scale SOI platform **2015**,		2
12	Optical interconnects based on VCSELs and low-loss silicon photonics **2018**,		2
11	Fabrication tolerant flat-top interleavers **2017**,		1
10	Total internal reflection mirrors with ultra-low losses in 3 μm thick SOI waveguides **2015**,		1
9	Multi-wavelength transceiver integration on SOI for high-performance computing system applications **2015**,		1
8	VTT's micron-scale silicon rib+strip waveguide platform **2016**,		1
7	Dual-facet coupling of SOA array on 4-in silicon-on-insulator implementing a hybrid integrated SOA-MZI wavelength converter **2014**,		1
6	Dense photonics integration on a micron-scale SOI waveguide platform **2013**,		1
5	Proton exchange channel waveguides compatible with surface domain engineering in Lithium Niobate crystals **2006**,		1
4	Nanopatterned Ferroelectric Crystals for Parametric Generation **2006**,		1
3	Surface periodic poling in lithium niobate and lithium tantalate		1
2	Precise length definition of active GaAs-based optoelectronic devices for low-loss silicon photonics integration. *Optics Letters*, **2020**, 45, 943-946	3	1
1	Wavelength-flattened directional couplers: a geometrical approach: erratum.. *Applied Optics*, **2022**, 61, 1757	1.7	