

Timo Aalto

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55
papers

660
citations

14
h-index

24
g-index

80
ext. papers

857
ext. citations

2.9
avg, IF

3.44
L-index

#	Paper	IF	Citations
55	Dramatic size reduction of waveguide bends on a micron-scale silicon photonic platform. <i>Optics Express</i> , 2013 , 21, 17814-23	3.3	113
54	Sub-8 switching time in silicon-on-insulator Mach-Zehnder thermo-optic switch. <i>IEEE Photonics Technology Letters</i> , 2004 , 16, 2039-2041	2.2	70
53	Low-error and broadband microwave frequency measurement in a silicon chip. <i>Optica</i> , 2015 , 2, 751	8.6	49
52	Adiabatic and Multimode Interference Couplers on Silicon-on-Insulator. <i>IEEE Photonics Technology Letters</i> , 2006 , 18, 2287-2289	2.2	48
51	Low-loss converters between optical silicon waveguides of different sizes and types. <i>IEEE Photonics Technology Letters</i> , 2006 , 18, 709-711	2.2	38
50	Open-Access Silicon Photonics Platforms in Europe. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-18	3.8	37
49	Dual SOA-MZI Wavelength Converters Based on III-V Hybrid Integration on a μm -Scale Si Platform. <i>IEEE Photonics Technology Letters</i> , 2014 , 26, 560-563	2.2	29
48	Dry-etched silicon-on-insulator waveguides with low propagation and fiber-coupling losses. <i>Journal of Lightwave Technology</i> , 2005 , 23, 3875-3880	4	26
47	Efficient Bragg waveguide-grating analysis by quasi-rigorous approach based on Redheffer's star product. <i>Optics Communications</i> , 2001 , 198, 265-272	2	24
46	Development of multi-step processing in silicon-on-insulator for optical waveguide applications. <i>Journal of Optics</i> , 2006 , 8, S455-S460		23
45	Open-Access 3- μm SOI Waveguide Platform for Dense Photonic Integrated Circuits. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-9	3.8	20
44	Multicast-Enabling Optical Switch Design Employing Si Buffering and Routing Elements. <i>IEEE Photonics Technology Letters</i> , 2018 , 30, 712-715	2.2	17
43	On-Chip SOI Delay Line Bank for Optical Buffers and Time Slot Interchangers. <i>IEEE Photonics Technology Letters</i> , 2018 , 30, 31-34	2.2	16
42	Unconstrained splitting ratios in compact double-MMI couplers. <i>Optics Express</i> , 2014 , 22, 9245-53	3.3	16
41	. <i>Journal of Lightwave Technology</i> , 2018 , 36, 1527-1536	4	13
40	Method for the rotational alignment of polarization-maintaining optical fibers and waveguides. <i>Optical Engineering</i> , 2003 , 42, 2861	1.1	12
39	Investigation of thin polymer layers for biosensor applications. <i>Applied Surface Science</i> , 2013 , 281, 66-72.6.7		11

38	Hybrid integration of InP lasers with SOI waveguides using thermocompression bonding 2008 ,		10
37	MMI resonators based on metal mirrors and MMI mirrors: an experimental comparison. <i>Optics Express</i> , 2015 , 23, 5982-93	3-3	5
36	3-micron Silicon Photonics 2018 ,		5
35	Low-loss spiral waveguides with ultra-small footprint on a micron scale SOI platform 2014 ,		5
34	Smoothing of microfabricated silicon features by thermal annealing in reducing or inert atmospheres. <i>Physica Scripta</i> , 2010 , T141, 014017	2.6	5
33	Design of Tight Bends in Silicon-on-Insulator Ridge Waveguides. <i>Physica Scripta</i> , 2004 , T114, 209-212	2.6	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. <i>Applied Physics Letters</i> , 2018 , 113, 041104	3-4	4
30	Advances in miniature spectrometer and sensor development 2014 ,		4
29	Ellipsometric characterization of thin nanocomposite films with tunable refractive index for biochemical sensors. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1352, 81		4
28	ESSentIAL: EPIXfab services specifically targeting (SME) industrial takeup of advanced silicon photonics 2012 ,		4
27	The Euler bend: paving the way for high-density integration on micron-scale semiconductor platforms 2014 ,		3
26	ePIXfab: the silicon photonics platform 2013 ,		3
25	Fast 100-channel wavelength selectors integrated on silicon 2011 ,		3
24	Design and process development of a photonic crystal polymer biosensor for point-of-care diagnostics 2011 ,		3
23	Silicon photonics for optical connectivity: Small footprint with large dimensions 2015 ,		2
22	Flat-top MZI filters: a novel robust design based on MMI splitters 2016 ,		2
21	Launching of multi-project wafer runs in ePIXfab with micron-scale silicon rib waveguide technology 2014 ,		2

20	Fabrication-tolerant optical filters for dense integration on a micron-scale SOI platform 2014 ,		2
19	GaAs-SOI integration as a path to low-cost optical interconnects 2011 ,		2
18	Integration of InP-based optoelectronics with silicon waveguides 2009 ,		2
17	NIL fabrication of a polymer-based photonic sensor device in P3SENS project 2012 ,		2
16	DPSK-Demodulation based on Ultra-Compact micron-scale SOI platform 2015 ,		2
15	Optical interconnects based on VCSELs and low-loss silicon photonics 2018 ,		2
14	Data transmission at 1300 nm using optical interposer comprising hybrid integrated silicon waveguide and dilute nitride electroabsorption modulator. <i>Optics Express</i> , 2018 , 26, 34336-34345	3.3	2
13	Fabrication tolerant flat-top interleavers 2017 ,		1
12	Total internal reflection mirrors with ultra-low losses in 3 μ m thick SOI waveguides 2015 ,		1
11	Multi-wavelength transceiver integration on SOI for high-performance computing system applications 2015 ,		1
10	VTT's micron-scale silicon rib+strip waveguide platform 2016 ,		1
9	Dual-facet coupling of SOA array on 4- μ m silicon-on-insulator implementing a hybrid integrated SOA-MZI wavelength converter 2014 ,		1
8	Dense photonics integration on a micron-scale SOI waveguide platform 2013 ,		1
7	Instantaneous frequency measurement system using four-wave mixing in an ultra-compact long silicon waveguide 2015 ,		1
6	AWG Based DWDM Multiplexers Combined with Attenuators on SOI 2006 ,		1
5	Precise length definition of active GaAs-based optoelectronic devices for low-loss silicon photonics integration. <i>Optics Letters</i> , 2020 , 45, 943-946	3	1
4	Self-assembled three-dimensional inverted photonic crystals on a photonic chip. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1700039	1.6	0
3	Optical Modeling of MEMS 2015 , 313-332		

2 Optical modeling of MEMS **2020**, 325-344

1 Optical Modeling of MEMS **2010**, 239-258