Xaveer J M Leijtens

List of Publications by Year
in descending order

118 papers	3,108 citations	201575 27 h-index	168321 53 g-index
118 all docs	118 docs citations	118 times ranked	2203 citing authors

#	Article	IF	Citations
1	A fast low-power optical memory based on coupled micro-ring lasers. Nature, 2004, 432, 206-209.	13.7	587
2	An introduction to InP-based generic integration technology. Semiconductor Science and Technology, 2014, 29, 083001.	1.0	422
3	Generic foundry model for InP-based photonics. IET Optoelectronics, 2011, 5, 187-194.	1.8	113
4	InP-Based Photonic Multiwavelength Transmitter With DBR Laser Array. IEEE Photonics Technology Letters, 2013, 25, 352-354.	1.3	111
5	Fast random bits generation based on a single chaotic semiconductor ring laser. Optics Express, 2012, 20, 28603.	1.7	90
6	95ÂGHz millimeter wave signal generation using an arrayed waveguide grating dual wavelength semiconductor laser. Optics Letters, 2012, 37, 3657.	1.7	85
7	Extremely Small AWG Demultiplexer Fabricated on InP by Using a Double-Etch Process. IEEE Photonics Technology Letters, 2004, 16, 2478-2480.	1.3	74
8	JePPIX: the platform for Indium Phosphide-based photonics. IET Optoelectronics, 2011, 5, 202-206.	1.8	74
9	Multimode Interference Reflectors: A New Class of Components for Photonic Integrated Circuits. Journal of Lightwave Technology, 2013, 31, 3055-3063.	2.7	72
10	Optimizing imbalance and loss in 2 x 2 3-db multimode interference couplers via access waveguide width. Journal of Lightwave Technology, 2003, 21, 2305-2313.	2.7	61
11	InP photonic circuits using generic integration [Invited]. Photonics Research, 2015, 3, B60.	3.4	51
12	A compact integrated InP-based single-phasar optical crossconnect. IEEE Photonics Technology Letters, 1998, 10, 678-680.	1.3	50
13	InP/InGaAs Photodetector on SOI Photonic Circuitry. IEEE Photonics Journal, 2010, 2, 299-305.	1.0	45
14	S-matrix oriented CAD-tool for simulating complex integrated optical circuits. IEEE Journal of Selected Topics in Quantum Electronics, 1996, 2, 257-262.	1.9	43
15	A compact digitally tunable seven-channel ring laser. IEEE Photonics Technology Letters, 2002, 14, 753-755.	1.3	43
16	Monolithic AWG-based Discretely Tunable Laser Diode With Nanosecond Switching Speed. IEEE Photonics Technology Letters, 2009, 21, 905-907.	1.3	42
17	Integrated two-state AWG-based multiwavelength laser. IEEE Photonics Technology Letters, 2005, 17, 956-958.	1.3	41
18	Semiconductor Ring Laser With On-Chip Filtered Optical Feedback for Discrete Wavelength Tuning. IEEE Journal of Quantum Electronics, 2012, 48, 129-136.	1.0	39

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19	Low-loss, compact, and polarization independent PHASAR demultiplexer fabricated by using a double-etch process. IEEE Photonics Technology Letters, 2002, 14, 62-64.	1.3	38
20	Polarization independent dilated WDM cross-connect on InP. IEEE Photonics Technology Letters, 1999, 11, 1599-1601.	1.3	35
21	Reduced reflections from multimode interference couplers. Electronics Letters, 2006, 42, 465.	0.5	33
22	Low-Footprint Optical Interconnect on an SOI Chip Through Heterogeneous Integration of InP-Based Microdisk Lasers and Microdetectors. IEEE Photonics Technology Letters, 2009, 21, 522-524.	1.3	33
23	Integrated Tunable Quantum-Dot Laser for Optical Coherence Tomography in the 1.7 <formula formulatype="inline"><tex Notation="TeX">$mu{m m}$</tex></formula> Wavelength Region. IEEE Journal of Quantum Electronics, 2012, 48, 87-98.	1.0	33
24	A measurement of mixing in Z0 decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 252, 703-712.	1.5	32
25	Optical frequency comb generator based on a monolithically integrated passive mode-locked ring laser with a Machâ€“Zehnder interferometer. Optics Letters, 2016, 41, 1937.	1.7	31
26	Controlled multiwavelength emission using semiconductor ring lasers with on-chip filtered optical feedback. Optics Letters, 2013, 38, 2608.	1.7	30
27	A measurement of the forward-backward asymmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 252, 713-721.	1.5	28
28	An integrated 4 x 4-channel multiwavelength laser on InP. IEEE Photonics Technology Letters, 2003, 15, 368-370.	1.3	28
29	Arrayed Waveguide Gratings. , 2006, , 125-187.		28
30	InP-Based Integrated Optical Pulse Shaper: Demonstration of Chirp Compensation. IEEE Photonics Technology Letters, 2013, 25, 450-453.	1.3	28
31	Polarization-independent dilated InP-based space switch with low crosstalk. IEEE Photonics Technology Letters, 2000, 12, 284-286.	1.3	26
32	A Generic Foundry Model for InP-based Photonic ICs. , 2012, , .		25
33	Directional control of optical power in integrated InP/InGaAsP extended cavity mode-locked ring lasers. Optics Letters, 2011, 36, 2462.	1.7	24
34	Wavelength Switching Speed in Semiconductor Ring Lasers With On-Chip Filtered Optical Feedback. IEEE Photonics Technology Letters, 2014, 26, 520-523.	1.3	23
35	On-Chip Colliding Pulse Mode-locked laser diode (OCCP-MLLD) using multimode interference reflectors. Optics Express, 2015, 23, 14666.	1.7	23
36	Chirping of an MMI-PHASAR demultiplexer for application in multiwavelength lasers. IEEE Photonics Technology Letters, 1997, 9, 1116-1118.	1.3	22

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37	Monolithic Multistage Optoelectronic Switch Circuit Routing 160 Gb/s Line-Rate Data. Journal of Lightwave Technology, 2010, 28, 2984-2992.	2.7	22
38	Stability of a monolithic integrated filtered-feedback laser. Optics Express, 2012, 20, B270.	1.7	22
39	High Resolution Optical Frequency Domain Reflectometry for Analyzing Intra-Chip Reflections. IEEE Photonics Technology Letters, 2017, 29, 1379-1382.	1.3	22
40	Coupled Machâ€“Zehnder interferometer memory element. Optics Letters, 2005, 30, 1710.	1.7	21
41	Monolithic Nanosecond-Reconfigurable 4$,imes,$4 Space and Wavelength Selective Cross-Connect. Journal of Lightwave Technology, 2012, 30, 2913-2921.	2.7	21
42	Digitally tunable dual wavelength emission from semiconductor ring lasers with filtered optical feedback. Laser Physics Letters, 2013, 10, 075804.	0.6	21
43	Deep Trenches for Thermal Crosstalk Reduction in InP-Based Photonic Integrated Circuits. Journal of Lightwave Technology, 2014, 32, 4864-4870.	2.7	20
44	Multimode Interference Couplers With Reduced Parasitic Reflections. IEEE Photonics Technology Letters, 2014, 26, 408-410.	1.3	20
45	Integrated Optical Delay Lines for Time-Division Multiplexers. IEEE Photonics Journal, 2013, 5, 7902109-7902109.	1.0	19
46	A low-loss 16-channel polarization dispersion-compensated PHASAR demultiplexer. IEEE Photonics Technology Letters, 1998, 10, 382-384.	1.3	18
47	Fast and Robust Method for Measuring Semiconductor Optical Amplifier Gain. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-9.	1.9	18
48	On-chip mode-locked laser diode structure using multimode interference reflectors. Photonics Research, 2015, 3, 15.	3.4	17
49	High-Resolution AWG-Based Fiber Bragg Grating Interrogator. IEEE Photonics Technology Letters, 2016, 28, 2203-2206.	1.3	17
50	Crosstalk performance of integrated optical cross-connects. Journal of Lightwave Technology, 1999, 17, 1126-1134.	2.7	16
51	Monolithically integrated multi-wavelength laser by selective area growth with metal organic vapour phase epitaxy. Electronics Letters, 2001, 37, 296.	0.5	16
52	Ultrafast All-Optical Wavelength Routing of Data Packets Utilizing an SOA-Based Wavelength Converter and a Monolithically Integrated Optical Flipâ€“Flop. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 801-807.	1.9	15
53	Monolithic Multiband Nanosecond Programmable Wavelength Router. IEEE Photonics Journal, 2010, 2, 29-35.	1.0	15
54	Sidelobes in the response of arrayed waveguide gratings caused by polarization rotation. Optics Express, 2012, 20, 22660.	1.7	14

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55	Monolithically Integrated All-Optical Regenerator for Constant Envelope WDM Signals. Journal of Lightwave Technology, 2013, 31, 322-327.	2.7	14
56	Open Standards for Automation of Testing of Photonic Integrated Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	1.9	13
57	InP-Based Monolithically Integrated Tunable Wavelength Filters in the 1.6–1.8 <formula formulatype="inline"><tex Notation="TeX">mu</tex> </formula>m Wavelength Region for Tunable Laser Purposes. Journal of Lightwave Technology, 2011, 29, 2818-2830.	2.7	12
58	Multifunctional Current-Controlled InP Photonic Integrated Delay Interferometer. IEEE Journal of Quantum Electronics, 2012, 48, 1453-1461.	1.0	12
59	An integrated coupled-cavity 16-wavelength digitally tunable laser. IEEE Photonics Technology Letters, 2002, 14, 1653-1655.	1.3	11
60	High-Performance InP-Based Photodetector in an Amplifier Layer Stack on Semi-Insulating Substrate. IEEE Photonics Technology Letters, 2008, 20, 1941-1943.	1.3	11
61	New Analytical Arrayed Waveguide Grating Model. Journal of Lightwave Technology, 2013, 31, 3309-3314.	2.7	11
62	InP-Based Membrane Couplers for Optical Interconnects on Si. IEEE Photonics Technology Letters, 2009, 21, 337-339.	1.3	10
63	Current Status and Prospects of Photonic IC Technology. Indium Phosphide and Related Materials Conference (IPRM), IEEE International Conference on, 2007, , .	0.0	8
64	Monolithically Integrated Multiwavelength Laser With Optical Feedback: Damped Relaxation Oscillation Dynamics and Narrowed Linewidth. IEEE Photonics Journal, 2018, 10, 1-8.	1.0	7
65	Photonic Integrated Multichannel WDM Modulators for Data Read-Out Units. Journal of Lightwave Technology, 2014, 32, 4481-4489.	2.7	6
66	Amplitude and Phase Error Correction Algorithm for $3imes 3$ MMI Based Machâ€“Zehnder Interferometers. Journal of Lightwave Technology, 2015, 33, 2233-2239.	2.7	6
67	Method for Polarization-Resolved Measurement of Electroabsorption. IEEE Photonics Journal, 2018, 10, 1-11.	1.0	6
68	Test Methods and Processes in Manufacturing Chain of Photonic Integrated Circuits. , 2018, , .		6
69	InP-based photodetector bonded on CMOS with Si<inf>3</inf>N<inf>4</inf> interconnect waveguides. , 2009, , .		5
70	A dual purpose, all optical multiplexer circuit in InP, for multiplexing clock and NRZ data, and for transmultiplexing WDM to TDM. Optics Express, 2012, 20, 29577.	1.7	5
71	Monolithically Integrated 8-Channel WDM Reflective Modulator. , 2013, , .		5
72	Increasing the Speed of an InP-Based Integration Platform by Introducing High Speed Electroabsorption Modulators. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	1.9	5

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73	55GHz EAM bandwidth and beyond in InP active-passive photonic integration platform. , 2018, , .		5
74	Sagnac loop reflector and arrayed waveguide grating-based multi-wavelength laser monolithically integrated on InP. IET Optoelectronics, 2011, 5, 207-210.	1.8	4
75	Integrated Filtered-Feedback Multi-Wavelength Laser. , 2012, , .		4
76	Analysis of parasitic effects in PICs using circuit simulation. , 2013, , .		4
77	High Density Multi-Channel Passively Aligned Optical Probe for Testing of Photonic Integrated Circuits. IEEE Photonics Journal, 2021, 13, 1-15.	1.0	4
78	Anti-reflection subwavelength gratings for InP-based waveguide facets. Optics Letters, 2021, 46, 3701.	1.7	4
79	Photonic integrated circuits: where are the limits?. , 2005, , IWB1.		3
80	160Gb/s Serial Line Rates in a Monolithic Optoelectronic Multistage Interconnection Network. , 2009, , .		3
81	Developments in arrayed waveguide grating devices for photonic integrated circuits. , 2009, , .		3
82	AWG-DBR-based WDM Transmitter fabricated in an InP Generic Foundry Platform. , 2014, , .		3
83	S-matrix-oriented CAD tool for photonic integrated circuits. , 1998, , .		2
84	Miniaturization of passive devices for photonic integration. , 2005, 6020, 366.		2
85	Integrated tunable optical filters on InP for continuously tunable lasers. , 2009, , .		2
86	Feedback Phase Influence on an Integrated Filtered-Feedback Laser. IEEE Photonics Technology Letters, 2012, 24, 2195-2197.	1.3	2
87	A 40Gb/s InP-monolithically integrated DPSK-demodulator enhanced by cross-gain-compression in an SOA. Optics Communications, 2015, 340, 155-158.	1.0	2
88	Novel lasers using multimode interference reflector. , 2011, , .		1
89	Sidelobes caused by polarization rotation in arrayed waveguide gratings. , 2011, , .		1
90	Millimeter-wave signal generation by optical heterodyne of two channels from an arrayed waveguide grating-based multi-wavelength laser. , 2012, , .		1

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91	A generic approach to InP-based photonic ICs. , 2013, , .		1
92	AWG-Based Photonic Transmitter With DBR Mirrors and Machâ€“Zehnder Modulators. IEEE Photonics Technology Letters, 2014, 26, 710-713.	1.3	1
93	Comparison of photonic integrated circuits for millimeter-wave signal generation between dual-wavelength sources for optical heterodyning and pulsed mode-locked lasers. Proceedings of SPIE, 2015, , .	0.8	1
94	Millimeter and sub-terahertz wave generation with an on-chip colliding pulse mode-locked laser diode. , 2015, , .		1
95	A Novel Method for Characterization of Distributed Bragg Reflectors in Photonic Integrated Circuits. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	1
96	Design study of integrated photonic transmitters for application in Fiber-to-the-Home networks. Photonics Letters of Poland, 2010, 2, .	0.2	1
97	Stability of a Monolithically Integrated Filtered-feedback Laser. , 2012, , .		1
98	Photonic Multiwavelength Transmitters with DBR Laser Array for Optical Access Networks. , 2013, , .		1
99	Corrections to "An integrated coupled-cavity 16-wavelength digitally tunable laser". IEEE Photonics Technology Letters, 2003, 15, 353-353.	1.3	0
100	Developments in photonic integrated circuits for WDM applications. , 2003, , .		0
101	High Bit-Rate All-Optical Packet Switching. , 2006, , .		0
102	Design of integrated photonic transmitter for application in fiber-to-the-home systems. Proceedings of SPIE, 2010, , .	0.8	0
103	160â€…Gbit/s line-rate data routing through monolithic multi-stage optical switch circuit. Electronics Letters, 2010, 46, 1209.	0.5	0
104	Integrated optical pulse shaping devices for mode-locked lasers in the 1.5 μm region. , 2012, , .		0
105	Tuning the emission wavelength of semiconductor ring lasers with on-chip filtered optical feedback. Proceedings of SPIE, 2012, , .	0.8	0
106	Fast random bit generation based on a single chaotic semiconductor ring laser. , 2013, , .		0
107	Dual-wavelength operation of monolithically integrated arrayed waveguide grating lasers for optical heterodyning. Proceedings of SPIE, 2013, , .	0.8	0
108	Laser research on an InP-based generic integration platform. , 2014, , .		0

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109	Integrated tunable semiconductor ring laser with fast wavelength switching using filtered optical feedback. , 2014, , .		0
110	Multi-wavelength emission using compact semiconductor ring laser with filtered optical feedback. Proceedings of SPIE, 2014, , .	0.8	0
111	Wavelength tuning speed in semiconductor ring lasers using on-chip filtered optical feedback. Proceedings of SPIE, 2014, , .	0.8	0
112	A Photonic-Integrated Transceiver for Data Readout Systems. Journal of Lightwave Technology, 2015, 33, 4278-4283.	2.7	0
113	High resolution optical frequency domain reflectometry for measurement of waveguide group refractive index. , 2017, , .		0
114	Characterization of Distributed Bragg Reflectors using Optical Frequency Domain Reflectometry. , 2018, , .		0
115	Method for Polarization-Resolved Measurement of Electroabsorption. , 2018, , .		0
116	112 Gb/s PAM-4 Transmission over 1.5 km with an EAM in Generic Integration Platform. , 2019, , .		0
117	Photonic Integrated Circuits from Small Batches to Volumes: Standardization and Automation of Test. , 2020, , .		0
118	Photonic integrated circuits â€“ a new approach to laser technology. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2012, 60, 683-689.	0.8	0