Laurent Vivien

List of Publications by Year
in descending order

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406 papers	9,784 citations	41344 49 h-index	48315 88 g-index
406 all docs	406 docs citations	406 times ranked	6599 citing authors

#	Article	IF	Citations
1	Roadmap on silicon photonics. Journal of Optics (United Kingdom), 2016, 18, 073003.	2.2	915
2	42 GHz pin Germanium photodetector integrated in a silicon-on-insulator waveguide. Optics Express, 2009, 17, 6252.	3.4	456
3	Zero-bias 40Gbit/s germanium waveguide photodetector on silicon. Optics Express, 2012, 20, 1096.	3.4	368
4	A packaged optical slot-waveguide ring resonator sensor array for multiplex label-free assays in labs-on-chips. Lab on A Chip, 2010, 10, 281-290.	6.0	238
5	Reduced pressureâ€“chemical vapor deposition of Ge thick layers on Si(001) for 1.3â€“1.55-Î¼m photodetection. Journal of Applied Physics, 2004, 95, 5905-5913.	2.5	209
6	High speed and high responsivity germanium photodetector integrated in a Silicon-On-Insulator microwaveguide. Optics Express, 2007, 15, 9843.	3.4	196
7	Integrated germanium optical interconnects on silicon substrates. Nature Photonics, 2014, 8, 482-488.	31.4	196
8	Carbon nanotubes for optical limiting. Carbon, 2002, 40, 1789-1797.	10.3	194
9	High-speed modulation of a compact silicon ring resonator based on a reverse-biased pn diode. Optics Express, 2009, 17, 21986.	3.4	162
10	Size Influence on the Propagation Loss Induced by Sidewall Roughness in Ultrasmall SOI Waveguides. IEEE Photonics Technology Letters, 2004, 16, 1661-1663.	2.5	134
11	Low loss and high speed silicon optical modulator based on a lateral carrier depletion structure. Optics Express, 2008, 16, 334.	3.4	130
12	Germanium-based integrated photonics from near- to mid-infrared applications. Nanophotonics, 2018, 7, 1781-1793.	6.0	128
13	Low-loss submicrometer silicon-on-insulator rib waveguides and corner mirrors. Optics Letters, 2003, 28, 1150.	3.3	126
14	Single-wall carbon nanotubes for optical limiting. Chemical Physics Letters, 1999, 307, 317-319.	2.6	118
15	Germanium avalanche receiver for low power interconnects. Nature Communications, 2014, 5, 4957.	12.8	112
16	23 GHz Ge/SiGe multiple quantum well electro-absorption modulator. Optics Express, 2012, 20, 3219.	3.4	108
17	Ultra-high on-chip optical gain in erbium-based hybrid slot waveguides. Nature Communications, 2019, 10, 432.	12.8	100
18	On-chip temperature compensation in an integrated slot-waveguide ring resonator refractive index sensor array. Optics Express, 2010, 18, 3226.	3.4	99

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19	40 Gbit/s low-loss silicon optical modulator based on a pipin diode. Optics Express, 2012, 20, 10591.	3.4	99
20	Monolithically integrated stretchable photonics. Light: Science and Applications, 2018, 7, 17138-17138.	16.6	94
21	Graded SiGe waveguides with broadband low-loss propagation in the mid infrared. Optics Express, 2018, 26, 870.	3.4	93
22	Optical limiting properties of singlewall carbon nanotubes. Optics Communications, 2000, 174, 271-275.	2.1	92
23	Light injection in SOI microwaveguides using high-efficiency grating couplers. Journal of Lightwave Technology, 2006, 24, 3810-3815.	4.6	91
24	Polarization-independent single-mode rib waveguides on silicon-on-insulator for telecommunication wavelengths. Optics Communications, 2002, 210, 43-49.	2.1	90
25	High-directionality fiber-chip grating coupler with interleaved trenches and subwavelength index-matching structure. Optics Letters, 2015, 40, 4190.	3.3	89
26	GaN/AlGaN intersubband optoelectronic devices. New Journal of Physics, 2009, 11, 125023.	2.9	84
27	Integrated waveguide PIN photodiodes exploiting lateral Si/Ge/Si heterojunction. Optics Express, 2017, 25, 19487.	3.4	84
28	Recent Progress in High-Speed Silicon-Based Optical Modulators. Proceedings of the IEEE, 2009, 97, 1199-1215.	21.3	83
29	Ultrahigh speed germanium-on-silicon-on-insulator photodetectors for 1.31 and 1.55Î¼m operation. Applied Physics Letters, 2005, 87, 231109.	3.3	81
30	Propagation loss in single-mode ultrasmall square silicon-on-insulator optical waveguides. Journal of Lightwave Technology, 2006, 24, 891-896.	4.6	79
31	High efficiency silicon nitride surface grating couplers. Optics Express, 2008, 16, 328.	3.4	78
32	Pulse duration and wavelength effects on the optical limiting behavior of carbon nanotube suspensions. Optics Letters, 2001, 26, 223.	3.3	77
33	L-shaped fiber-chip grating couplers with high directionality and low reflectivity fabricated with deep-UV lithography. Optics Letters, 2017, 42, 3439.	3.3	77
34	Optical modulation by carrier depletion in a silicon PIN diode. Optics Express, 2006, 14, 10838.	3.4	76
35	Novel slow light waveguide with controllable delay-bandwidth product and utra-low dispersion. Optics Express, 2010, 18, 5942.	3.4	76
36	Compact, low cross-talk CWDM demultiplexer using photonic crystal superprism. Optics Express, 2008, 16, 17209.	3.4	66

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37	Low loss 40 Gbit/s silicon modulator based on interleaved junctions and fabricated on 300 mm SOI wafers. Optics Express, 2013, 21, 22471.	3.4	64
38	Quantum-confined Stark effect measurements in Ge/SiGe quantum-well structures. Optics Letters, 2010, 35, 2913.	3.3	61
39	High-quality photonic entanglement for wavelength-multiplexed quantum communication based on a silicon chip. Optics Express, 2016, 24, 28731.	3.4	59
40	Improvement of delay-bandwidth productâ€¨in photonic crystal slow-light waveguides. Optics Express, 2010, 18, 16309.	3.4	58
41	Low-loss Ge-rich Si_02Ge_08 waveguides for mid-infrared photonics. Optics Letters, 2017, 42, 105.	3.3	56
42	GaN/AlGaN waveguide quantum cascade photodetectors at Î»â€‰â‰ˆâ€‰1.55â€‰Î¼m with enhanced responsivity and â¼40â€‰GHz frequency bandwidth. Applied Physics Letters, 2013, 102, .	3.3	55
43	High-performance waveguide-integrated germanium PIN photodiodes for optical communication applications [Invited]. Photonics Research, 2013, 1, 140.	7.0	54
44	25â€‰â€‰Gbps low-voltage hetero-structured silicon-germanium waveguide pin photodetectors for monolithic on-chip nanophotonic architectures. Photonics Research, 2019, 7, 437.	7.0	54
45	Picosecond and nanosecond polychromatic pumpâ€“probe studies of bubble growth in carbon-nanotube suspensions. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 208.	2.1	53
46	Optical gain in carbon nanotubes. Applied Physics Letters, 2010, 96, .	3.3	53
47	Ten Gbit/s ring resonator silicon modulator based on interdigitated PN junctions. Optics Express, 2011, 19, 14690.	3.4	53
48	High-speed operation of GaN/AlGaN quantum cascade detectors at Î»â‰ˆ1.55â€‰Î¼m. Applied Physics Letters, 2008, 93, .	3.3	52
49	On-Chip Mid-Infrared Supercontinuum Generation from 3 to 13 Î¼m Wavelength. ACS Photonics, 2020, 7, 3423-3429.	6.6	52
50	Siliconâ€“germanium receivers for short-wave-infrared optoelectronics and communications. Nanophotonics, 2021, 10, 1059-1079.	6.0	51
51	Vertical multiple-slot waveguide ring resonators in silicon nitride. Optics Express, 2008, 16, 17237.	3.4	47
52	Light Emission in Silicon from Carbon Nanotubes. ACS Nano, 2012, 6, 3813-3819.	14.6	46
53	Wavelength dependence of Pockels effect in strained silicon waveguides. Optics Express, 2014, 22, 22095.	3.4	46
54	Highly sensitive refractive index sensing by fast detuning the critical coupling condition of slot waveguide ring resonators. Optics Letters, 2016, 41, 532.	3.3	46

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55	Impact of the H2 anneal on the structural and optical properties of thin and thick Ge layers on Si; Low temperature surface passivation of Ge by Si. Journal of Crystal Growth, 2010, 312, 532-541.	1.5	45
56	Optical pump-rejection filter based on silicon sub-wavelength engineered photonic structures. Optics Letters, 2017, 42, 1468.	3.3	45
57	2-d taper for low-loss coupling between polarization-insensitive microwaveguides and single-mode optical fibers. Journal of Lightwave Technology, 2003, 21, 2429-2433.	4.6	44
58	Ge-rich graded-index Si_1-xGex waveguides with broadband tight mode confinement and flat anomalous dispersion for nonlinear mid-infrared photonics. Optics Express, 2017, 25, 6561.	3.4	44
59	Dispersion Engineering of Wide Slot Photonic Crystal Waveguides by Bragg-Like Corrugation of the Slot. IEEE Photonics Technology Letters, 2011, 23, 1298-1300.	2.5	43
60	Germanium-on-silicon mid-infrared grating couplers with low-reflectivity inverse taper excitation. Optics Letters, 2016, 41, 4324.	3.3	43
61	Mid-infrared sensing between 52 and 66 Âµm wavelengths using Ge-rich SiGe waveguides [Invited]. Optical Materials Express, 2018, 8, 1305.	3.0	43
62	Ring-Assisted Machâ€“Zehnder Interferometer Silicon Modulator for Enhanced Performance. Journal of Lightwave Technology, 2012, 30, 9-14.	4.6	42
63	Optical microcavity with semiconducting single-wall carbon nanotubes. Optics Express, 2010, 18, 5740.	3.4	41
64	On-chip Fourier-transform spectrometer based on spatial heterodyning tuned by thermo-optic effect. Scientific Reports, 2019, 9, 14633.	3.3	41
65	Experimental demonstration of a low-loss optical H-tree distributionusing silicon-on-insulator microwaveguides. Applied Physics Letters, 2004, 85, 701-703.	3.3	40
66	Experimental GVD engineering in slow light slot photonic crystal waveguides. Scientific Reports, 2016, 6, 26956.	3.3	40
67	A 40 Gbit/s optical link on a 300-mm silicon platform. Optics Express, 2014, 22, 6674.	3.4	39
68	Nonlinear optical properties of integrated GeSbS chalcogenide waveguides. Photonics Research, 2018, 6, B37.	7.0	39
69	Response time analysis of SiGeâˆ•Si modulation-doped multiple-quantum-well structures for optical modulation. Journal of Applied Physics, 2004, 96, 6109-6112.	2.5	38
70	Novel Kind of Semislow Light Photonic Crystal Waveguides With Large Delay-Bandwidth Product. IEEE Photonics Technology Letters, 2010, 22, 844-846.	2.5	38
71	Ge/SiGe multiple quantum well photodiode with 30 GHz bandwidth. Applied Physics Letters, 2011, 98, .	3.3	38
72	High extinction ratio 10 Gbit/s silicon optical modulator. Optics Express, 2011, 19, 5827.	3.4	38

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73	Single-etch subwavelength engineered fiber-chip grating couplers for 13 Âµm datacom wavelength band. Optics Express, 2016, 24, 12893.	3.4	38
74	Ultra-wideband Ge-rich silicon germanium integrated Machâ€“Zehnder interferometer for mid-infrared spectroscopy. Optics Letters, 2017, 42, 3482.	3.3	38
75	Sub-decibel silicon grating couplers based on L-shaped waveguides and engineered subwavelength metamaterials. Optics Express, 2019, 27, 26239.	3.4	38
76	Room temperature direct gap electroluminescence from Ge/Si0.15Ge0.85 multiple quantum well waveguide. Applied Physics Letters, 2011, 99, .	3.3	37
77	Effect of Radiation on a Machâ€“Zehnder Interferometer Silicon Modulator for HL-LHC Data Transmission Applications. IEEE Transactions on Nuclear Science, 2015, 62, 329-335.	2.0	37
78	Dispersion control of silicon nanophotonic waveguides using sub-wavelength grating metamaterials in near- and mid-IR wavelengths. Optics Express, 2017, 25, 19468.	3.4	36
79	Coherencyâ€Broken Bragg Filters: Overcoming Onâ€Chip Rejection Limitations. Laser and Photonics Reviews, 2019, 13, 1800226.	8.7	36
80	Pump-probe experiments at 1064 nm in singlewall carbon nanotube suspensions. IEEE Journal of Quantum Electronics, 2000, 36, 680-686.	1.9	35
81	Optical limiting properties of carbon nanotubes. Physica B: Condensed Matter, 2002, 323, 233-234.	2.7	35
82	40â€‰â€‰Gbps heterostructure germanium avalanche photo receiver on a silicon chip. Optica, 2020, 7, 775.	9.3	34
83	Direct and Sensitive Phase Readout for Integrated Waveguide Sensors. IEEE Photonics Journal, 2013, 5, 6800906-6800906.	2.0	33
84	Demonstration of integrated polarization control with a 40â€‰â€‰dB range in extinction ratio. Optica, 2015, 2, 1019.	9.3	33
85	Simplified modeling and optimization of silicon modulators based on free-carrier plasma dispersion effect. Optics Express, 2016, 24, 26332.	3.4	33
86	Low voltage 25Gbps silicon Mach-Zehnder modulator in the O-band. Optics Express, 2017, 25, 11217.	3.4	33
87	Integration of germanium waveguide photodetectors for intrachip optical interconnects. Optical Engineering, 2005, 44, 075402.	1.0	32
88	Integrated broadband dual-polarization Ge-rich SiGe mid-infrared Fourier-transform spectrometer. Optics Letters, 2018, 43, 5021.	3.3	32
89	Broadband supercontinuum generation in nitrogen-rich silicon nitride waveguides using a 300â€‰â€‰mm industrial platform. Photonics Research, 2020, 8, 352.	7.0	32
90	Electrooptical Modulator at Telecommunication Wavelengths Based on GaNâ€“AlN Coupled Quantum Wells. IEEE Photonics Technology Letters, 2008, 20, 724-726.	2.5	31

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91	Polarization dependence of quantum-confined Stark effect in Ge/SiGe quantum well planar waveguides. Optics Letters, 2011, 36, 1794.	3.3	31
92	Enhancement of semiconducting single-wall carbon-nanotube photoluminescence. Optics Letters, 2009, 34, 3845.	3.3	30
93	Experimental demonstration of light bending at optical frequencies using a non-homogenizable graded photonic crystal. Optics Express, 2012, 20, 4776.	3.4	30
94	Subwavelength engineering and asymmetry: two efficient tools for sub-nanometer-bandwidth silicon Bragg filters. Optics Letters, 2018, 43, 3208.	3.3	30
95	Quantum-confined Stark effect at 13ÂÎ¼m in Ge/Si_035Ge_065 quantum-well structure. Optics Letters, 2012, 37, 3960.	3.3	29
96	Controlling carbon nanotube photoluminescence using silicon microring resonators. Nanotechnology, 2014, 25, 215201.	2.6	28
97	Analysis of silicon-on-insulator slot waveguide ring resonators targeting high Q-factors. Optics Letters, 2015, 40, 5566.	3.3	28
98	Nonlinear Properties of Ge-rich Si1â^'xGex Materials with Different Ge Concentrations. Scientific Reports, 2017, 7, 14692.	3.3	28
99	Fast linear electro-optic effect in a centrosymmetric semiconductor. Communications Physics, 2018, 1, .	5.3	28
100	Broadband Polarization Beam Splitter on a Silicon Nitride Platform for O-Band Operation. IEEE Photonics Technology Letters, 2018, 30, 1679-1682.	2.5	28
101	Advances Toward Ge/SiGe Quantum-Well Waveguide Modulators at 1.3Î¼m. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 33-39.	2.9	27
102	Recent progress in GeSi electro-absorption modulators. Science and Technology of Advanced Materials, 2014, 15, 014601.	6.1	27
103	Engineering third-order optical nonlinearities in hybrid chalcogenide-on-silicon platform. Optics Letters, 2019, 44, 5009.	3.3	27
104	Design of a SiGe-Si quantum-well optical modulator. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 747-754.	2.9	26
105	Short-Wavelength Light Propagation in Graded Photonic Crystals. Journal of Lightwave Technology, 2011, 29, 1937-1943.	4.6	26
106	Low-Power consumption Franz-Keldysh effect plasmonic modulator. Optics Express, 2014, 22, 11236.	3.4	26
107	Enhanced light emission from carbon nanotubes integrated in silicon micro-resonator. Nanotechnology, 2015, 26, 345201.	2.6	26
108	Recent Progress on Ge/SiGe Quantum Well Optical Modulators, Detectors, and Emitters for Optical Interconnects. Photonics, 2019, 6, 24.	2.0	26

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109	Performance Evolutions of Carrier Depletion Silicon Optical Modulators: From p-n to p-i-p-i-n Diodes. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 179-184.	2.9	25
110	Analytical model for depletion-based silicon modulator simulation. Optics Express, 2011, 19, 3919.	3.4	25
111	Polarization- and wavelength-agnostic nanophotonic beam splitter. Scientific Reports, 2019, 9, 3604.	3.3	25
112	Comprehensive Study on Chip-Integrated Germanium Pin Photodetectors for Energy-Efficient Silicon Interconnects. IEEE Journal of Quantum Electronics, 2020, 56, 1-9.	1.9	25
113	Broadband integrated racetrack ring resonators for long-wave infrared photonics. Optics Letters, 2019, 44, 407.	3.3	25
114	10-Gb/s Ge/SiGe Multiple Quantum-Well Waveguide Photodetector. IEEE Photonics Technology Letters, 2011, 23, 1430-1432.	2.5	24
115	Electro-refractive effect in Ge/SiGe multiple quantum wells. Applied Physics Letters, 2013, 102, .	3.3	23
116	Giant electro-optic effect in Ge/SiGe coupled quantum wells. Scientific Reports, 2015, 5, 15398.	3.3	23
117	40 Gb/s surface-illuminated Ge-on-Si photodetectors. Applied Physics Letters, 2009, 95, .	3.3	22
118	Silicon chips lighten up. Nature, 2015, 528, 483-484.	27.8	21
119	Optical modulation in Ge-rich SiGe waveguides in the mid-infrared wavelength range up to 11 Âµm. Communications Materials, 2020, 1, .	6.9	21
120	Ge-rich graded SiGe waveguides and interferometers from 5 to 11â€…Âµm wavelength range. Optics Express, 2020, 28, 12771.	3.4	21
121	Metal-semiconductor-metal Ge photodetectors integrated in silicon waveguides. Applied Physics Letters, 2008, 92, 151114.	3.3	20
122	Generating Fano Resonances in a Single-Waveguide Silicon Nanobeam Cavity for Efficient Electro-Optical Modulation. ACS Photonics, 2018, 5, 4229-4237.	6.6	20
123	Enhancing Si₃N₄ Waveguide Nonlinearity with Heterogeneous Integration of Few-Layer WS₂. ACS Photonics, 2021, 8, 2713-2721.	6.6	20
124	Erbium-doped hybrid waveguide amplifiers with net optical gain on a fully industrial 300 mm silicon nitride photonic platform. Optics Express, 2020, 28, 27919.	3.4	20
125	Design, Realization, and Characterization of 3-D Taper for Fiber/Micro-Waveguide Coupling. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1354-1358.	2.9	19
126	Integration issues of a photonic layer on top of a CMOS circuit. , 2006, 6125, 97.		19

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127	Third-order nonlinear optical susceptibility of crystalline oxide yttria-stabilized zirconia. Photonics Research, 2020, 8, 110.	7.0	19
128	Ultracompact splitter for submicrometer silicon-on-insulator rib waveguides. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2180.	1.5	18
129	Light coupling and distribution for <inline-formula> <math display="inline" overflow="scroll"><mrow><msub><mi mathvariant="normal">Si</mi><mn>3</mn></msub><msub><mi mathvariant="normal">N</mi><mn>4</mn></msub><mo>â^•</mo><mi mathvariant="normal">Si</mi><msub><mi mathvariant="normal">O</mi><mn>2</mn></msub></mrow></math></inline-formula> integrated multichannel single-mode sensing system. Optical Engineering, 2009, 48, 014401.	1.0	18
130	Highly tolerant tunable waveguide polarization rotator scheme. Optics Letters, 2012, 37, 3534.	3.3	18
131	High speed all-silicon optical modulator. Journal of Luminescence, 2006, 121, 387-390.	3.1	17
132	O-band quantum-confined Stark effect optical modulator from Ge/Si0.15Ge0.85 quantum wells by well thickness tuning. Journal of Applied Physics, 2014, 116, .	2.5	17
133	Modeling TID Effects in Mach-Zehnder Interferometer Silicon Modulator for HL-LHC Data Transmission Applications. IEEE Transactions on Nuclear Science, 2015, 62, 2971-2978.	2.0	17
134	Polarizationâ€Sensitive Singleâ€Wall Carbon Nanotubes Allâ€inâ€One Photodetecting and Emitting Device Working at 1.55 Âµm. Advanced Functional Materials, 2017, 27, 1702341.	14.9	17
135	Supercontinuum generation in silicon photonics platforms. Photonics Research, 2022, 10, A43.	7.0	17
136	Mid-infrared Integrated Electro-optic Modulator Operating up to 225 MHz between 6.4 and 10.7 Î¼m Wavelength. ACS Photonics, 2022, 9, 249-255.	6.6	17
137	GaN-based quantum cascade photodetector with 1.5â€…[micro sign]m peak detection wavelength. Electronics Letters, 2010, 46, 1685.	1.0	16
138	Potential for large optical gain improvement of erbium-doped slot waveguide amplifiers in silicon photonics. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2021.	2.1	16
139	Hybrid silicon slotted photonic crystal waveguides: how does third order nonlinear performance scale with slow light?. Photonics Research, 2016, 4, 257.	7.0	16
140	Electro-Optical Ring Modulator: An Ultracompact Model for the Comparison and Optimization of p-n, p-i-n, and Capacitive Junction. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 89-98.	2.9	16
141	Bond orbital description of the strain-induced second-order optical susceptibility in silicon. Physical Review B, 2016, 93, .	3.2	16
142	On-chip Bragg grating waveguides and Fabry-Perot resonators for long-wave infrared operation up to 84 Âµm. Optics Express, 2018, 26, 34366.	3.4	16
143	Compact wavelength-insensitive fabrication-tolerant silicon-on-insulator beam splitter. Optics Letters, 2010, 35, 3700.	3.3	15
144	Sharp bends and Mach-Zehnder interferometer based on Ge-rich-SiGe waveguides on SiGe graded buffer. Optics Express, 2015, 23, 30821.	3.4	15

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145	Silicon-Germanium Avalanche Receivers With fJ/bit Energy Consumption. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-8.	2.9	15
146	DAC-less PAM-4 generation in the O-band using a silicon Mach-Zehnder modulator. Optics Express, 2019, 27, 9740.	3.4	15
147	Ultralow loss successive divisions using silicon-on-insulator microwaveguides. Applied Physics Letters, 2005, 87, 211102.	3.3	14
148	Influence of waveguide geometry on scattering loss effects in submicron strip silicon-on-insulator waveguides. IET Optoelectronics, 2008, 2, 1-5.	3.3	14
149	Analysis of Si3N4 waveguides for on-chip gas sensing by optical absorption within the mid-infrared region between 2.7 and 3.4ÂÂµm. Results in Physics, 2020, 16, 102957.	4.1	14
150	Broadband Fourier-transform silicon nitride spectrometer with wide-area multiaperture input. Optics Letters, 2021, 46, 4021.	3.3	14
151	Integrated SiN on SOI dual photonic devices for advanced datacom solutions. , 2018, , .		14
152	Ultra-wideband Ge-rich silicon germanium mid-infrared polarization rotator with mode hybridization flattening. Optics Express, 2019, 27, 9838.	3.4	14
153	Polarization independent and temperature tolerant AWG based on a silicon nitride platform. Optics Letters, 2020, 45, 6559.	3.3	14
154	O-band Energy-efficient Broadcast-friendly Interconnection Scheme with SiPho Mach-Zehnder Modulator (MZM) & Arrayed Waveguide Grating Router (AWGR). , 2018, , .		14
155	Strong quantum-confined Stark effect from light hole related direct-gap transitions in Ge quantum wells. Applied Physics Letters, 2013, 102, .	3.3	13
156	Tailoring carbon nanotubes optical properties through chirality-wise silicon ring resonators. Scientific Reports, 2018, 8, 11252.	3.3	13
157	Comparison between strip and rib SOI microwaveguides for intra-chip light distribution. Optical Materials, 2005, 27, 756-762.	3.6	12
158	Intersubband optics in GaN-based nanostructures - physics and applications. Physica Status Solidi (B): Basic Research, 2010, 247, 1622-1627.	1.5	12
159	Dual-band fiber-chip grating coupler in a 300 mm silicon-on-insulator platform and 193 nm deep-UV lithography. Optics Letters, 2021, 46, 617.	3.3	12
160	High-quality crystalline yttria-stabilized-zirconia thin layer for photonic applications. Physical Review Materials, 2018, 2, .	2.4	12
161	Silicon subwavelength modal Bragg grating filters with narrow bandwidth and high optical rejection. Optics Letters, 2020, 45, 5784.	3.3	12
162	Photonics and electronics integration in the HELIOS project. , 2010, , .		11

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163	Narrow-linewidth carbon nanotube emission in silicon hollow-core photonic crystal cavity. Optics Letters, 2017, 42, 2228.	3.3	11
164	Dual-polarization silicon nitride Bragg filters with low thermal sensitivity. Optics Letters, 2019, 44, 4578.	3.3	11
165	Gigahertz modulation of tunable terahertz radiation from photomixers driven at telecom wavelengths. Applied Physics Letters, 2008, 93, .	3.3	10
166	Ge quantum well optoelectronic devices for light modulation, detection, and emission. Solid-State Electronics, 2013, 83, 92-98.	1.4	10
167	SOI Slotted Photonic Crystal Cavities Spanning From 1.3 to <inline-formula> <tex-math notation="LaTeX">$1.6~mu ext{m}$ </tex-math></inline-formula> With <inline-formula> <tex-math notation="LaTeX">Q/V </tex-math></inline-formula> Factors Above 800 000. IEEE Photonics Technology Letters, 2015, 27, 2138-2141.	2.5	10
168	Integration of Carbon Nanotubes in Silicon Strip and Slot Waveguide Micro-Ring Resonators. IEEE Nanotechnology Magazine, 2016, 15, 583-589.	2.0	10
169	Comprehensive description of the electro-optic effects in strained silicon waveguides. Journal of Applied Physics, 2017, 122, 153105.	2.5	10
170	Wideband Ge-Rich SiGe Polarization-Insensitive Waveguides for Mid-Infrared Free-Space Communications. Applied Sciences (Switzerland), 2018, 8, 1154.	2.5	10
171	Diffraction-less propagation beyond the sub-wavelength regime: a new type of nanophotonic waveguide. Scientific Reports, 2019, 9, 5347.	3.3	10
172	Silicon photonic on-chip spatial heterodyne Fourier transform spectrometer exploiting the Jacquinotâ€™s advantage. Optics Letters, 2021, 46, 1341.	3.3	10
173	Stretching the spectra of Kerr frequency combs with self-adaptive boundary silicon waveguides. Advanced Photonics, 2020, 2, 1.	11.8	10
174	Comparison between electrical and optical global clock distributions for CMOS integrated circuits. Optical Engineering, 2005, 44, 105402.	1.0	9
175	Germanium Photodetectors for Photonics on CMOS. ECS Transactions, 2006, 3, 771-777.	0.5	9
176	Ultracompact tapers for light coupling into two-dimensional slab photonic-crystal waveguides in the slow light regime. Optical Engineering, 2008, 47, 014602.	1.0	9
177	Low loss poly-silicon for high performance capacitive silicon modulators. Optics Express, 2018, 26, 5983.	3.4	9
178	SiGe-enhanced Si capacitive modulator integration in a 300 mm silicon photonics platform for low power consumption. Optics Express, 2019, 27, 17701.	3.4	9
179	Metamaterial-Engineered Silicon Beam Splitter Fabricated with Deep UV Immersion Lithography. Nanomaterials, 2021, 11, 2949.	4.1	9
180	Mid-infrared Fourier-transform spectrometer based on metamaterial lateral cladding suspended silicon waveguides. Optics Letters, 2022, 47, 810.	3.3	9

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181	DAPHNE silicon photonics technological platform for research and development on WDM applications. , 2016, , .		8
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