Daniel J Bluementhal

List of Publications by Year
in descending order

299 papers	7,662 citations	71061 41 h-index	69214 77 g-index
300 all docs	300 docs citations	300 times ranked	3749 citing authors

#	Article	IF	Citations
1	Ultra-low-loss high-aspect-ratio Si_3N_4 waveguides. Optics Express, 2011, 19, 3163.	1.7	414
2	All-optical label swapping networks and technologies. Journal of Lightwave Technology, 2000, 18, 2058-2075.	2.7	375
3	Optical Performance Monitoring. Journal of Lightwave Technology, 2004, 22, 294-304.	2.7	372
4	Planar waveguides with less than 01 dB/m propagation loss fabricated with wafer bonding. Optics Express, 2011, 19, 24090.	1.7	367
5	Silicon Nitride in Silicon Photonics. Proceedings of the IEEE, 2018, 106, 2209-2231.	16.4	313
6	Sub-hertz fundamental linewidth photonic integrated Brillouin laser. Nature Photonics, 2019, 13, 60-67.	15.6	254
7	Photonic packet switches: architectures and experimental implementations. Proceedings of the IEEE, 1994, 82, 1650-1667.	16.4	189
8	Low-loss Si_3N_4 arrayed-waveguide grating (de)multiplexer using nano-core optical waveguides. Optics Express, 2011, 19, 14130.	1.7	173
9	2022 Roadmap on integrated quantum photonics. JPhys Photonics, 2022, 4, 012501.	2.2	152
10	A simple and robust 40-Gb/s wavelength converter using fiber cross-phase modulation and optical filtering. IEEE Photonics Technology Letters, 2000, 12, 846-848.	1.3	149
11	Tunable Laser Diodes and Related Optical Sources. , 2005, , .		132
12	422 Million intrinsic quality factor planar integrated all-waveguide resonator with sub-MHz linewidth. Nature Communications, 2021, 12, 934.	5.8	124
13	Ultra-high quality factor planar Si_3N_4 ring resonators on Si substrates. Optics Express, 2011, 19, 13551.	1.7	123
14	All-optical label swapping with wavelength conversion for WDM-IP networks with subcarrier multiplexed addressing. IEEE Photonics Technology Letters, 1999, 11, 1497-1499.	1.3	116
15	An 8$,imes,$8 InP Monolithic Tunable Optical Router (MOTOR) Packet Forwarding Chip. Journal of Lightwave Technology, 2010, 28, 641-650.	2.7	103
16	OPERA: an optical packet experimental routing architecture with label swapping capability. Journal of Lightwave Technology, 1998, 16, 2135-2145.	2.7	102
17	A comparison of optical buffering technologies. Optical Switching and Networking, 2008, 5, 10-18.	1.2	101
18	Picosecond microwave pulse generation. Applied Physics Letters, 1981, 38, 470-472.	1.5	98

#	Article	IF	Citations
19	Optical signal processing for optical packet switching networks. , 2003, 41, S23-S29.		89
20	Optical performance monitoring in reconfigurable WDM optical networks using subcarrier multiplexing. Journal of Lightwave Technology, 2000, 18, 1639-1648.	2.7	86
21	Ultra-low-loss Ta_2O_5-core/SiO_2-clad planar waveguides on Si substrates. Optica, 2017, 4, 532.	4.8	84
22	Three-dimensional mems photonic cross-connect switch design and performance. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 571-578.	1.9	79
23	Optical dispersion monitoring technique using double sideband subcarriers. IEEE Photonics Technology Letters, 2000, 12, 900-902.	1.3	78
24	SOA gate array recirculating buffer with fiber delay loop. Optics Express, 2008, 16, 8451.	1.7	74
25	GENI Design Principles. Computer, 2006, 39, 102-105.	1.2	70
26	Integrated Ultra-Low-Loss 4-Bit Tunable Delay for Broadband Phased Array Antenna Applications. IEEE Photonics Technology Letters, 2013, 25, 1165-1168.	1.3	70
27	Design of integrated hybrid silicon waveguide optical gyroscope. Optics Express, 2014, 22, 24988.	1.7	67
28	Photonic integration for UV to IR applications. APL Photonics, 2020, 5, .	3.0	67
29	Ultra-low loss Si_3N_4 waveguides with low nonlinearity and high power handling capability. Optics Express, 2010, 18, 23562.	1.7	63
30	Arrayed narrow linewidth erbium-doped waveguide-distributed feedback lasers on an ultra-low-loss silicon-nitride platform. Optics Letters, 2013, 38, 4825.	1.7	63
31	Erbium-doped waveguide DBR and DFB laser arrays integrated within an ultra-low-loss Si_3N_4 platform. Optics Express, 2014, 22, 10655.	1.7	61
32	Widely tunable monolithically integrated all-optical wavelength converters in InP. Journal of Lightwave Technology, 2005, 23, 1350-1362.	2.7	59
33	Interferometric Optical Gyroscope Based on an Integrated Si3N4 Low-Loss Waveguide Coil. Journal of Lightwave Technology, 2018, 36, 1185-1191.	2.7	57
34	Optical SCM data extraction using a fiber-loop mirror for WDM network systems. IEEE Photonics Technology Letters, 2000, 12, 897-899.	1.3	56
35	Monolithically integrated Mach-Zehnder interferometer wavelength converter and widely tunable laser in InP. IEEE Photonics Technology Letters, 2003, 15, 1117-1119.	1.3	56
36	A racetrack mode-locked silicon evanescent laser. Optics Express, 2008, 16, 1393.	1.7	54

#	Article	IF	Citations
37	Visible light photonic integrated Brillouin laser. Nature Communications, 2021, 12, 4685.	5.8	52
38	Integrated Resonators in an Ultralow Loss Si₃N₄/SiO₂ Platform for Multifunction Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-9.	1.9	51
39	Monolithic Wavelength Converters for High-Speed Packet-Switched Optical Networks. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 49-57.	1.9	50
40	All-optical demultiplexing using fiber cross-phase modulation (XPM) and optical filtering. IEEE Photonics Technology Letters, 2001, 13, 875-877.	1.3	49
41	Integrated optical driver for interferometric optical gyroscopes. Optics Express, 2017, 25, 3826.	1.7	48
42	Demonstration of a deflection routing 2*2 photonic switch for computer interconnects. IEEE Photonics Technology Letters, 1992, 4, 169-173.	1.3	45
43	Detailed transfer matrix method-based dynamic model for multisection widely tunable GCSR lasers. Journal of Lightwave Technology, 2000, 18, 1274-1283.	2.7	43
44	Optical Packet Buffers for Backbone Internet Routers. IEEE/ACM Transactions on Networking, 2010, 18, 1599-1609.	2.6	43
45	Photonic integrated circuit optical buffer for packet-switched networks. Optics Express, 2009, 17, 6629.	1.7	42
46	Photonic switch with optically self-routed bit switching. , 1987, 25, 50-55.		41
47	WDM to OTDM multiplexing using an ultrafast all-optical wavelength converter. IEEE Photonics Technology Letters, 2001, 13, 1005-1007.	1.3	41
48	Integrated Photonics for Low-Power Packet Networking. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 458-471.	1.9	41
49	Fundamental noise dynamics in cascaded-order Brillouin lasers. Physical Review A, 2018, 98, .	1.0	41
50	12.5 Gbit/s fibre-optic network using all-optical processing. Electronics Letters, 1987, 23, 629.	0.5	40
51	Ultralow 0.034â€…dB/m loss wafer-scale integrated photonics realizing 720 million Q and 380 Î¼W threshold Brillouin lasing. Optics Letters, 2022, 47, 1855.	1.7	38
52	Compact 160-Gb/s Addâ€“Drop Multiplexer With a 40-Gb/s Base Rate Using Electroabsorption Modulators. IEEE Photonics Technology Letters, 2004, 16, 1564-1566.	1.3	37
53	Raman-enhanced regenerative ultrafast all-optical fiber XPM wavelength converter. Journal of Lightwave Technology, 2005, 23, 1105-1115.	2.7	37
54	Multilayer Platform for Ultra-Low-Loss Waveguide Applications. IEEE Photonics Technology Letters, 2012, 24, 876-878.	1.3	37

#	Article	IF	Citations
55	High index contrast photonic platforms for on-chip Raman spectroscopy. Optics Express, 2019, 27, 23067.	1.7	37
56	Ultralow-Loss Planar $hbox{Si}_{3}hbox{N}_{4}$ Waveguide Polarizers. IEEE Photonics Journal, 2013, 5, 6600207-6600207.	1.0	36
57	First demonstration of multihop all-optical packet switching. IEEE Photonics Technology Letters, 1994, 6, 457-460.	1.3	35
58	Fiber-optic links supporting baseband data and subcarrier-multiplexed control channels and the impact of MMIC photonic/microwave interfaces. IEEE Transactions on Microwave Theory and Techniques, 1997, 45, 1443-1452.	2.9	35
59	All-optical updating of subcarrier encoded packet headers with simultaneous wavelength conversion of baseband payload in semiconductor optical amplifiers. IEEE Photonics Technology Letters, 1997, 9, 827-829.	1.3	35
60	Self-Routing Photonic Switching Demonstration With Optical Control. Optical Engineering, 1987, 26, 265473.	0.5	34
61	Wavelength routing of 40 Gbit/s packets with 2.5 Gbit/s header erasure/rewriting using all-fibre wavelength converter. Electronics Letters, 2000, 36, 345.	0.5	33
62	160 Gb/s variable length packet/10 Gb/s-label all-optical label switching with wavelength conversion and unicast/multicast operation. Journal of Lightwave Technology, 2005, 23, 211-218.	2.7	32
63	An integrated recirculating optical buffer. Optics Express, 2008, 16, 11124.	1.7	32
64	Laser fabricated GaAs waveguiding structures. Applied Physics Letters, 1989, 54, 1839-1841.	1.5	31
65	Wavelength dependence and power requirements of a wavelength converter based on XPM in a dispersion-shifted optical fiber. IEEE Photonics Technology Letters, 2000, 12, 522-524.	1.3	31
66	Directional coupler wavelength filters based on waveguides exhibiting electromagnetically induced transparency. IEEE Journal of Quantum Electronics, 2003, 39, 608-613.	1.0	31
67	Sidewall gratings in ultra-low-loss Si_3N_4 planar waveguides. Optics Express, 2013, 21, 1181.	1.7	31
68	All-Optical Contention Resolution With Wavelength Conversion for Asynchronous Variable-Length 40 Gb/s Optical Packets. IEEE Photonics Technology Letters, 2004, 16, 689-691.	1.3	30
69	BER floors due to heterodyne coherent crosstalk in space photonic switches for WDM networks. IEEE Photonics Technology Letters, 1996, 8, 284-286.	1.3	29
70	Influence of gain saturation, gain asymmetry, and pump/probe depletion on wavelength conversion efficiency of FWM in semiconductor optical amplifiers. IEEE Journal of Quantum Electronics, 1996, 32, 1810-1816.	1.0	29
71	All-Optical 160-Gb/s Phase Reconstructing Wavelength Conversion Using Cross-Phase Modulation (XPM) in Dispersion-Shifted Fiber. IEEE Photonics Technology Letters, 2004, 16, 2520-2522.	1.3	29
72	36â€‰â€‰Hz integral linewidth laser based on a photonic integrated 4.0â€‰â€‰m coil resonator. Optica, 2022, 9, 770.	2.8	29

#	Article	IF	Citations
73	Design and Performance of a Monolithically Integrated Widely Tunable All-Optical Wavelength Converter With Independent Phase Control. IEEE Photonics Technology Letters, 2004, 16, 2299-2301.	1.3	28
74	Optically synchronized fibre links using spectrally pure chip-scale lasers. Nature Photonics, 2021, 15, 588-593.	15.6	28
75	Routing Packets with Light. Scientific American, 2001, 284, 96-99.	1.0	27
76	Pulse restoration by filtering of self-phase modulation broadened optical spectrum. Journal of Lightwave Technology, 2002, 20, 1113-1117.	2.7	26
77	Ultra-low loss visible light waveguides for integrated atomic, molecular, and quantum photonics. Optics Express, 2022, 30, 6960.	1.7	26
78	Pulse extinction ratio improvement using SPM in an SOA for OTDM systems applications. IEEE Photonics Technology Letters, 2002, 14, 245-247.	1.3	24
79	Data Converter Interleaving: Current Trends and Future Perspectives. IEEE Communications Magazine, 2020, 58, 19-25.	4.9	24
80	Analysis of an Edge Router for Span-Constrained Optical Burst Switched (OBS) Networks. Journal of Lightwave Technology, 2004, 22, 2693-2705.	2.7	23
81	A single regrowth integration platform for photonic circuits incorporating tunable SGDBR lasers and quantum-well EAMs. IEEE Photonics Technology Letters, 2006, 18, 1630-1632.	1.3	23
82	Performance of an 8Ã—8 LiNbO3switch matrix as a gigahertz self-routing switching node. Electronics Letters, 1987, 23, 1359.	0.5	21
83	Regenerative 80-Gb/s fiber XPM wavelength converter using a hybrid Raman/EDFA gain-enhanced configuration. IEEE Photonics Technology Letters, 2003, 15, 1416-1418.	1.3	21
84	40-Gb/s Optical Clock Recovery Using a Compact Traveling-Wave Electroabsorption Modulator-Based Ring Oscillator. IEEE Photonics Technology Letters, 2004, 16, 1376-1378.	1.3	21
85	Integrated hybrid Si/InGaAs 50 Gb/s DQPSK receiver. Optics Express, 2012, 20, 19726.	1.7	21
86	Frequency-Stabilized Links for Coherent WDM Fiber Interconnects in the Datacenter. Journal of Lightwave Technology, 2020, 38, 3376-3386.	2.7	21
87	A novel transmitter architecture for combined baseband data and subcarrier-multiplexed control links using differential Mach-Zehnder external modulators. IEEE Photonics Technology Letters, 1997, 9, 1397-1399.	1.3	20
88	10-Gb/s agile wavelength conversion with nanosecond tuning times using a multisection widely tunable laser. Journal of Lightwave Technology, 2002, 20, 712-717.	2.7	20
89	Pulsewidth distortion monitoring in a 40-Gb/s optical system affected by PMD. IEEE Photonics Technology Letters, 2002, 14, 307-309.	1.3	20
90	Frequency modulated lasers for interferometric optical gyroscopes. Optics Letters, 2016, 41, 1773.	1.7	20

#	Article	IF	Citations
91	Low-loss low thermo-optic coefficient Ta2O5 on crystal quartz planar optical waveguides. APL Photonics, 2020, 5, .	3.0	20
92	Mode locked and distributed feedback silicon evanescent lasers. Laser and Photonics Reviews, 2009, 3, 355-369.	4.4	19
93	Integrated reference cavity with dual-mode optical thermometry for frequency correction. Optica, 2021, 8, 1481.	4.8	19
94	Fabrication of InP-based two-dimensional photonic crystal membrane. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 70.	1.6	18
95	40-GHz dual-mode-locked widely tunable sampled-grating DBR laser. IEEE Photonics Technology Letters, 2005, 17, 285-287.	1.3	18
96	Ultra-Low Loss Large Area Waveguide Coils for Integrated Optical Gyroscopes. IEEE Photonics Technology Letters, 2017, 29, 185-188.	1.3	18
97	Experimental demonstration of an all-optical routing node for multihop wavelength routed networks. IEEE Photonics Technology Letters, 1996, 8, 1391-1393.	1.3	17
98	High-speed optical time-division-multiplexed/WDM networks and their network elements based on regenerative all-optical ultrafast wavelength converters. Journal of Optical Networking, 2004, 3, 100.	2.5	17
99	Payload-envelope detection and label-detection integrated photonic circuit for asynchronous variable-length optical-packet switching with 40-gb/s RZ payloads and 10-gb/s NRZ labels. Journal of Lightwave Technology, 2006, 24, 3409-3417.	2.7	17
100	Monolithic Mode-Locked Laser and Optical Amplifier for Regenerative Pulsed Optical Clock Recovery. IEEE Photonics Technology Letters, 2007, 19, 641-643.	1.3	17
101	All-optical header erasure and penalty-free rewriting in a fiber-based high-speed wavelength converter. IEEE Photonics Technology Letters, 2000, 12, 663-665.	1.3	16
102	Single-Chip Wavelength Conversion Using a Photocurrent-Driven EAM Integrated With a Widely Tunable Sampled-Grating DBR Laser. IEEE Photonics Technology Letters, 2004, 16, 2093-2095.	1.3	16
103	MOSAIC: a multiwavelength optical subcarrier multiplexed controlled network. IEEE Journal on Selected Areas in Communications, 1998, 16, 1270-1285.	9.7	15
104	Optical clock recovery circuits using traveling-wave electroabsorption modulator-based ring oscillators for 3R regeneration. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 329-337.	1.9	15
105	Detailed characterization of slow and dispersive propagation near a mini-stop-band of an InP photonic crystal waveguide. Optics Express, 2005, 13, 4931.	1.7	15
106	Optical label swapping using payload envelope detection circuits. IEEE Photonics Technology Letters, 2005, 17, 1537-1539.	1.3	15
107	Variable Length Optical Packet Synchronizer. IEEE Photonics Technology Letters, 2008, 20, 1252-1254.	1.3	15
108	Cascadability properties of MZI-SOA-based all-optical 3R regenerators for RZ-DPSK signals. Optics Express, 2011, 19, 9330.	1.7	15

#	Article	IF	Citations
109	Performance optimization of an InP-based widely tunable all-optical wavelength converter operating at 40 Gb/s. IEEE Photonics Technology Letters, 2006, 18, 577-579.	1.3	14
110	Synchronously Loaded Optical Packet Buffer. IEEE Photonics Technology Letters, 2008, 20, 1757-1759.	1.3	14
111	SOA Gate Array Recirculating Buffer for Optical Packet Switching. , 2008, , .		14
112	40-Gb/s Optical Packet Clock Recovery With Simultaneous Reshaping Using a Traveling-Wave Electroabsorption Modulator-Based Ring Oscillator. IEEE Photonics Technology Letters, 2004, 16, 2640-2642.	1.3	13
113	Programmable eye-opener lattice filter for multi-channel dispersion compensation using an integrated compact low-loss silicon nitride platform. Optics Express, 2016, 24, 16732.	1.7	13
114	Integrated Ultra-Low-Loss Silicon Nitride Waveguide Coil for Optical Gyroscopes. , 2016, , .		13
115	WDM optical IP tag switching with packet-rate wavelength conversion and subcarrier multiplexed addressing. , 0, , .		12
116	Optical mode converter integration with InP-InGaAsP active and passive waveguides using a single regrowth process. IEEE Photonics Technology Letters, 2002, 14, 1249-1251.	1.3	12
117	Multimode interference-based two-stage 1 /spl times/ 2 light splitter for compact photonic integrated circuits. IEEE Photonics Technology Letters, 2003, 15, 706-708.	1.3	12
118	Monolithic widely tunable optical packet forwarding chip in InP for all-optical label switching with 40 Gbps payloads and 10 Gbps labels. , 2005, , .		12
119	The /spl lambda/-scheduler: A multiwavelength scheduling switch. Journal of Lightwave Technology, 2000, 18, 1049-1063.	2.7	11
120	Simultaneous all-optical demultiplexing of a 40-Gb/s signal to 4 x 10 Gb/s WDM channel's using an ultrafast fiber wavelength converter. IEEE Photonics Technology Letters, 2002, 14, 1725-1727.	1.3	11
121	Simultaneous 160-Gb/s Demultiplexing and Clock Recovery by Utilizing Microwave Harmonic Frequencies in a Traveling-Wave Electroabsorption Modulator. IEEE Photonics Technology Letters, 2004, 16, 608-610.	1.3	11
122	Compact optical 3R regeneration using a traveling-wave electroabsorption modulator. IEEE Photonics Technology Letters, 2005, 17, 486-488.	1.3	11
123	Broadband Notch Filters Based on Quasi-2-D Photonic Crystal Waveguides for InP-Based Monolithic Photonic-Integrated Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1164-1174.	1.9	11
124	Ultra-low-loss Single-mode Si3N4 Waveguides with 0.7 dB/m Propagation Loss. , 2011, , .		11
125	Chip-scale optical resonator enabled synthesizer (CORES) miniature systems for optical frequency synthesis. , 2016, , .		11
126	All-optical asynchronous variable-length optically labelled 40 Gbps packet switch. , 2005, , .		11

#	Article	IF	Citations
127	A transfer function approach to the small-signal response of saturated semiconductor optical amplifiers. Journal of Lightwave Technology, 2000, 18, 2151-2157.	2.7	10
128	Compact 160-Gb/s demultiplexer using a single-stage electrically gated electroabsorption modulator. IEEE Photonics Technology Letters, 2003, 15, 1458-1460.	1.3	10
129	2.5-Gb/s Error-Free Wavelength Conversion Using a Monolithically Integrated Widely Tunable SGDBR-SOA-MZ Transmitter and Integrated Photodetector. IEEE Photonics Technology Letters, 2004, 16, 1531-1533.	1.3	10
130	All-optical packet compression of variable length packets from 40 to 1500 B using a gated fiber loop. IEEE Photonics Technology Letters, 2006, 18, 322-324.	1.3	10
131	All-optical payload envelope detection for variable length 40-gb/s optically labeled packets. IEEE Photonics Technology Letters, 2006, 18, 1846-1848.	1.3	10
132	Single-chip, widely-tunable 10â€…Gbit/s photocurrent-driven wavelength converter incorporating a monolithically integrated laser transmitter and optical receiver. Electronics Letters, 2006, 42, 657.	0.5	10
133	Monolithically integrated dual-quadrature receiver on InP with 30 nm tunable local oscillator. Optics Express, 2011, 19, B716.	1.7	10
134	Introduction to the Special Issue on the U.S. Response to the Fukushima Accident. Health Physics, 2012, 102, 482-484.	0.3	10
135	Photonic Integrated Si3N4 Ultra-Large-Area Grating Waveguide MOT Interface for 3D Atomic Clock Laser Cooling. , 2019, , .		10
136	Optical Buffering and Switching for Optical Packet Switching. , 2006, , .		9
137	Design and Operation of a Monolithically Integrated Two-Stage Tunable All-Optical Wavelength Converter. IEEE Photonics Technology Letters, 2007, 19, 1248-1250.	1.3	9
138	40 Gb/s Autonomous Optical Packet Synchronizer. , 2008, , .		9
139	Ultra-Long Cavity Hybrid Silicon Mode-locked Laser Diode Operating at 930 MHz. , 2010, , .		9
140	Ultra-low loss silica-based waveguides with millimeter bend radius. , 2010, , .		9
141	Coherent crosstalk in multichannel FSK/DD lightwave systems due to four-wave mixing in semiconductor optical amplifiers. IEEE Photonics Technology Letters, 1996, 8, 133-135.	1.3	8
142	Extinction ratio improvement by strong external light injection and SPM in an SOA for OTDM pulse source using a DBR laser diode. IEEE Photonics Technology Letters, 2003, 15, 1419-1421.	1.3	8
143	Photocurrent-Assisted Wavelength (PAW) Conversion With Electrical Monitoring Capability Using a Traveling-Wave Electroabsorption Modulator. IEEE Photonics Technology Letters, 2004, 16, 530-532.	1.3	8
144	Dispersive phase response in optical waveguide-resonator system. Applied Physics Letters, 2007, 90, 191108.	1.5	8

#	Article	IF	Citations
145	Optical Interconnect for 3D Integration of Ultra-Low Loss Planar Lightwave Circuits. , 2013, , .		8
146	State of the art: widely tunable lasers. , 1997, 3001, 382.		7
147	Accelerated aging studies of multi-section tunable GCSR lasers for dense WDM applications. Journal of Lightwave Technology, 2000, 18, 2196-2199.	2.7	7
148	40-Gb/s Polarization Multiplexed RZ-ASK-DPSK Signal Wavelength Conversion using a 32-cm Bismuth-Oxide Highly Nonlinear Fiber. , 2007, , .		7
149	A Monolithic All-Optical Pushâ€“Pull Wavelength Converter. IEEE Photonics Technology Letters, 2007, 19, 1768-1770.	1.3	7
150	High Temperature Operation of an Integrated Erbium-Doped DBR Laser on an Ultra-Low-Loss Si3N4 Platform. , 2015, , .		7
151	Kerr Soliton Microcomb Pumped by an Integrated SBS Laser for Ultra-Low Linewidth WDM Sources. , 2020, , .		7
152	Quantum-well-intermixed monolithically integrated widely tunable all-optical wavelength converter operating at 10 Gb/s. IEEE Photonics Technology Letters, 2005, 17, 1689-1691.	1.3	6
153	Optical 2R and 3R Signal Regeneration in Combination with Dynamic Wavelength Switching Using a Monolithically Integrated, Widely Tunable Photocurrent Driven Wavelength Converter. , 2006, , .		6
154	Compact broadband photonic crystal filters with reduced back-reflections for monolithic InP-based photonic integrated circuits. IEEE Photonics Technology Letters, 2006, 18, 1155-1157.	1.3	6
155	Dual-Pump Four-Wave Mixing in Bismuth-Oxide Highly Nonlinear Fiber for Wide-Band DPSK Wavelength Conversion. , 2007, , .		6
156	Recent progress on LASOR optical router and related integrated technologies. , 2008, , .		6
157	All-Optical Clock Recovery with Retiming and Reshaping Using a Silicon Evanescent Mode Locked Ring Laser. , 2008, , .		6
158	Photonic interconnects for gigabit multicomputer communications. Ieee Lts, 1992, 3, 12-19.	0.6	5
159	Remote provisioning of a reconfigurable WDM multichannel add/drop multiplexer. IEEE Photonics Technology Letters, 1999, 11, 1060-1062.	1.3	5
160	Analog performance of an ultrafast sampled-time all-optical fiber XPM wavelength converter. IEEE Photonics Technology Letters, 2003, 15, 560-562.	1.3	5
161	Monolithically integrated InP-based tunable wavelength conversion. , 2004, 5349, 176.		5
162	Transmission measurement of tapered single-line defect photonic crystal waveguides. IEEE Photonics Technology Letters, 2005, 17, 2092-2094.	1.3	5

#	Article	IF	Citations
163	Integrated recirculating optical hybrid silicon buffers. , 2011, , .		5
164	Compact Programmable Monolithically Integrated 10-Stage Multi-Channel WDM Dispersion Equalizer on Low-Loss Silicon Nitride Planar Waveguide Platform. , 2015, , .		5
165	Chip-Scale, Optical-Frequency-Stabilized PLL for DSP-Free, Low-Power Coherent QAM in the DCI. , 2020, , .		5
166	Extended Reach 40km Transmission of C-Band Real-Time 53.125 Gbps PAM-4 Enabled with a Photonic Integrated Tunable Lattice Filter Dispersion Compensator. , 2018, , .		5
167	<title>Multiwavelength information processing in gigabit photonic switching networks</title>. , 1992, 1787, 43.		4
168	An optical communication design laboratory. IEEE Transactions on Education, 1999, 42, 138-143.	2.0	4
169	Low power penalty 80 to 10â€…Gbitâ•s OTDM demultiplexer using standing-wave enhanced electroabsorption modulator with reduced driving voltage. Electronics Letters, 2003, 39, 94.	0.5	4
170	A 40 Gb/s Asynchronous Optical Packet Buffer Based on an SOA Gate Matrix for Contention Resolution. , 2007, , .		4
171	Introduction to the Issue on High-Speed Photonic Integrated Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 1-2.	1.9	4
172	Multiple wavelength generation from a mode locked silicon evanescent laser. , 2008, , .		4
173	Novel application of quantum well intermixing implant buffer layer to enable high-density photonic integrated circuits in InP. , 2009, , .		4
174	Demonstration of Contention Resolution for Labeled Packets at 40 Gb/s Using Autonomous Optical Buffers. , 2009, , .		4
175	Polarization characteristics of low-loss nano-core buried optical waveguides and directional couplers. , 2010, , .		4
176	Frequency modulated laser optical gyroscope. , 2015, , .		4
177	The first integrated optical driver chip for fiber optic gyroscopes. , 2017, , .		4
178	Integrated combs drive extreme data rates. Nature Photonics, 2018, 12, 447-450.	15.6	4
179	Photonic Chip Recirculating Buffer for Optical Packet Switching. , 2008, , .		4
180	Monolithically Integrated Dual-Quadrature Coherent Receiver on InP with 30 nm Tunable SG-DBR Local Oscillator. , 2011, , .		4

#	Article	IF	Citations
181	A Comparison of Approaches for Ultra-Low-Loss Waveguides. , 2012, , .		4
182	Thermal and driven noise in Brillouin lasers. Physical Review A, 2022, 105, .	1.0	4
183	Physical Limitations to Scalability of WDM All-Optical Networks. Optics and Photonics News, 1997, 8, 16.	0.4	3
184	Cross-phase modulation efficiency in offset quantum-well and centered quantum-well semiconductor optical amplifiers. IEEE Photonics Technology Letters, 2005, 17, 2364-2366.	1.3	3
185	Field modulated wavelength converters. , 2006, 6124, 364.		3
186	35 Gb/s Monolithic All-Optical Clock Recovery Pulse Source. , 2007, , .		3
187	Photonic integrated circuit switch matrix and waveguide delay lines for optical packet synchronization. , 2008, , .		3
188	All-optical regeneration of 25-Gb/s BPSK/DPSK signals with integrated MZI-SOA wavelength converter. , 2011, , .		3
189	Enhanced Brillouin amplification in Si. Nature Photonics, 2016, 10, 432-434.	15.6	3
190	Silicon Nitride Ring Resonators with 0.123 dB/m Loss and Q-Factors of 216 Million for Nonlinear Optical Applications. , 2019, , .		3
191	Wavelength Multicasting Using an Ultra High-Speed All-Optical Wavelength Converter. , 2001, , .		3
192	Optical packet switching and associated optical signal processing. , 0, , .		2
193	Guest editorial high-performance optical switches/routers for high-speed internet. IEEE Journal on Selected Areas in Communications, 2003, 21, 1013-1017.	9.7	2
194	Broadband rate-equation model including manybody gain for WDM traveling-wave SOAs. , 0, , .		2
195	Integrated optical payload envelope detection and label recovery device for optical packet switching networks. Optics Express, 2006, 14, 5073.	1.7	2
196	Extinction ratio regeneration, signal re-amplification (2R), and broadband wavelength switching using a monolithically integrated photocurrent driven wavelength converter. Optics Express, 2006, 14, 11348.	1.7	2
197	Widely tunable monolithically integrated 40â€…Gbit/s wavelength converter with label modulation function. Electronics Letters, 2006, 42, 1241.	0.5	2
198	Demonstration of 40â€…Gbitâ•s optical packet synchronisation using fibre Bragg gratings and fast-tunable wavelength converters. Electronics Letters, 2006, 42, 367.	0.5	2

#	Article	IF	Citations
199	SPM-Based 2R Regenerative 10Gbps Optically Linearly Controlled Delay Line with 0ps to 170ps Tuning Range. , 2007, , .		2
200	Tunable DPSK Wavelength Converter Using an SOA-MZI Monolithically Integrated with a Sampled-Grating Distributed Bragg Reflector. , 2007, , .		2
201	A 10-Gb/s Monolithically Integrated Filterless InGaAsP/InP Widely Tunable Wavelength Converter With Conversion Gain. Journal of Lightwave Technology, 2007, 25, 3748-3759.	2.7	2
202	All-optical ASK-DPSK signal regeneration using a semiconductor optical amplifier. , 2007, , .		2
203	Network Layer Modeling of WDM Fiber Optic Network Architectures for Aerospace Platforms. , 2007, , .		2
204	Silicon evanescent optical frequency comb generator. , 2008, , .		2
205	Advanced photonic integrated technologies for optical routing and switching. Proceedings of SPIE, 2009, , .	0.8	2
206	Synchronous Optical Packet Buffers. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1413-1421.	1.9	2
207	Design and Testing of a Graphite Foam-Based Supercooler for High-Heat-Flux Cooling in Optoelectronic Packages. Heat Transfer Engineering, 2014, 35, 913-923.	1.2	2
208	Ultra-low loss stitching for large-area waveguide based delay-line gyroscopes. , 2016, , .		2
209	Integrated Sagnac optical gyroscope sensor using ultra-low loss high aspect ratio silicon nitride waveguide coil. , 2017, , .		2
210	Effect of direct PRBS modulation on laser driven fiber optic gyroscope. , 2017, , .		2
211	Reducing Noise in a Ring-laser Gyro Based on Stimulated Brillouin Scattering. , 2019, , .		2
212	720 Million Quality Factor Integrated All-Waveguide Photonic Resonator. , 2021, , .		2
213	Integrated Ultra-Narrow Linewidth Ultra-Stable Brillouin Lasers and their Application to PNT Applications. , 2021, , .		2
214	Ultra-Low Loss 698 nm and 450 nm Silicon Nitride Visible Wavelength Waveguides for Strontium Atomic Clock Applications. , 2020, , .		2
215	Ultra-Narrow Linewidth Chip-Scale Heterogeneously Integrated Silicon/III-V Tunable Laser Pumped Si/Si3N4 SBS Laser. , 2020, , .		2
216	Large-Scale Photonic Integration for Advanced All-Optical Routing Functions. , 2010, , .		2

#	Article	IF	Citations
217	Frequency Modulate Laser Based Interferometric Optical Gyroscope. , 2016, , .		2
218	Ultra-low loss silicon nitride ring modulator with low power PZT actuation for photonic control. , 2022, , .		2
219	All-Optical Label Swapping for the Future Internet. Optics and Photonics News, 2002, 13, 22.	0.4	1
220	Single-MMIC four-channel transmitter module for multichannel RF/optical subcarrier multiplexed communications applications. IEEE Transactions on Microwave Theory and Techniques, 2002, 50, 1173-1179.	2.9	1
221	Guest editorial high-performance electronic switches/routers for high-speed internet. IEEE Journal on Selected Areas in Communications, 2003, 21, 481-485.	9.7	1
222	40-GHz optical pulse generation using strong external light injection of a gain-switched high-speed DBR laser diode. IEEE Photonics Technology Letters, 2003, 15, 1767-1769.	1.3	1
223	Accurate measurement of high extinction ratios of ultrafast pulsed sources. IEEE Photonics Technology Letters, 2005, 17, 1917-1919.	1.3	1
224	Broadband return-to-zero wavelength conversion and signal regeneration using a monolithically integrated, photocurrent-driven wavelength converter. Electronics Letters, 2006, 42, 1479.	0.5	1
225	Simultaneous Slow-Light Delay and Pulse Reshaping of 10Gbps RZ Data in Highly Nonlinear Fiber-based Optical Parametric Amplifier with Clock-Modulated Pump. , 2007, , .		1
226	Monolithically Integrated Multi-Stage All-Optical 10Gbps Push-Pull Wavelength Converter. , 2007, , .		1
227	Comparing slow-light properties of 10Gbps RZ data in dispersion shifted fibers and highly nonlinear fibers based on Raman-assisted optical parametric amplification. , 2007, , .		1
228	Monolithically integrated widely tunable 40Gbits/s wavelength converter with optical label modulation function. Journal of Optical Networking, 2007, 6, 1014.	2.5	1
229	Integrated High-Performance Tunable Wavelength Converter Technologies for Future Terrestrial and Avionic Optical Networks. , 2007, , .		1
230	Analysis of Digital System Performance in EAM-Based Photocurrent Driven Wavelength Converter. IEEE Photonics Technology Letters, 2007, 19, 215-217.	1.3	1
231	Demonstration of contention resolution between two 40 Gb/s packet streams using multiple photonic chip optical buffers. , 2008, , .		1
232	End-to-End Asynchronous Optical Packet Transmission, Scheduling, and Buffering. , 2009, , .		1
233	Integrated recirculating optical buffers. , 2010, , .		1
234	A Real-Time Asynchronous Dynamically Re-Sizable Optical Buffer for Variable Length 40Gbps Optical Packets. , 2010, , .		1

#	Article	IF	Citations
235	25 Gbaud DQPSK receiver integrated on the hybrid silicon platform. , 2011, , .		1
236	Hybrid silicon DQPSK receiver. , 2011, , .		1
237	Ultra-low-loss (< 0.1 dB/m) Planar Silica Waveguide Technology. , 2011, , .		1
238	Monolithically integrated dual-channel coherent receiver with widely tunable local oscillator for 100â€‰â€‰Gbps dual-polarization quadrature phase shift keying applications. Optics Letters, 2015, 40, 4313.	1.7	1
239	Chip-scale optical gyros based on integrated ultra low loss waveguide coils and silicon photonic front ends. , 2016, , .		1
240	Narrow Linewidth Stimulated Brillouin Scattering (SBS) Lasers. , 2018, , .		1
241	Introduction to the Special Issue on Ultralow Loss Planar Waveguides and Their Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-3.	1.9	1
242	Frequency Stabilized Lasers for Coherent Fiber Interconnects in the Datacenter (Invited Talk). , 2019, , .		1
243	Independently Coupled and PZT Controllable Photonic Integrated Three-Resonator Photonic Molecule. , 2021, , .		1
244	Laser Frequency Drift Stabilization using an Integrated Dual-Mode Locking Si3N4 Waveguide Reference Cavity. , 2021, , .		1
245	Low-loss D-shape Silicon Nitride Waveguides Using a Dielectric Lift-off Fabrication Process. , 2020, , .		1
246	10 Gb/s Monolithically Integrated, Photocurrent Driven Wavelength Converter with Widely Tunable SGDBR Laser and Optical Receiver. , 2006, , .		1
247	Asynchronous 2Ã—2 Optical Packet Synchronization, Buffering, and Forwarding. , 2010, , .		1
248	Terabit Optical Ethernet and Enabling Integration Technologies. , 2011, , .		1
249	8-channel InP Monolithic Tunable Optical Router for Packet Forwarding. , 2011, , .		1
250	Demonstration of Cascadability and Phase Regeneration of SOA-Based All-Optical DPSK Wavelength Converters. , 2011, , .		1
251	Integrated Ultra-Narrow Linewidth Lasers and Their Applications. , 2019, , .		1
252	Higher Order Cascaded SBS Suppression Using Gratings in a Photonic Integrated Ring Resonator Laser. , 2019, , .		1

#	Article	IF	Citations
253	Ultra-Stable Integrated Lasers and Low-Cost, Low-Energy Coherent Data Center Interconnect. , 2019, , .		1
254	Evidence of visible wavelength spontaneous Brillouin scattering in Si3N4 waveguides. , 2020, , .		1
255	Low loss, low power, silicon nitride PZT stress-optic microresonator modulator for control functions. , 2021, , .		1
256	Precision Laser Stabilization using Photonic Integrated Coil Resonator. , 2021, , .		1
257	Integrated Ultra-Narrow Linewidth Stabilized SBS Lasers. , 2022, , .		1
258	Fully monolithic four channel transmitter IC for RF/optical subcarrier multiplexed communications. , 2000, 10, 282-284.		0
259	<title>Intelligent optical networking with photonic cross connections</title>. , 2002, , .		0
260	Performance evaluation of optical subcarrier multiplexed systems using transient analysis. , 2003, 4989, 111.		0
261	InP photonic crystal membrane structures: Fabrication accuracy and optical performance. Applied Physics Letters, 2004, 85, 522-524.	1.5	0
262	Perspectives on the application of InP-based photonic crystal waveguides for optical signal processing. , 2005, , .		0
263	Demonstration of Simultaneous Multiplexing/Demultiplexing Operation of an All-Optical 2x2 Packet Switch with Asynchronous Variable-length Optically Labeled 40Gbps Packets. , 2006, , .		0
264	All-Optical Payload Envelope Detection for Packets with 40 Gbps Payloads and 10 Gbps Labels. , 2006, , .		0
265	Regeneration of Return-to-Zero 10 Gb/s Fiber Transmission Impairments using a Monolithically Integrated, Widely-Tunable, Photocurrent Driven Wavelength Converter. , 2007, , .		0
266	Concave Low-Loss Total Internal Reflection Mirrors in Indium Phosphide for High Fabrication Tolerance. , 2007, , .		0
267	All-Optical ASK-DPSK Signal Regeneration Using a Semiconductor Optical Amplifier. , 2007, , .		0
268	Experimental Study of the Impact of Input Signal Suppression on the Performance of a Cascaded SOA-MZI Wavelength Converter. , 2007, , .		0
269	Hybrid silicon photonic integrated circuits for optical networking. , 2008, , .		0
270	Reference physical layer analysis of WDM fiber optic network for aerospace platforms. , 2008, , .		0

#	Article	IF	Citations
271	Technologies and systems of optical switching. , 2009, , .		0
272	Photonic technologies for an integrated optical node for avionic networks. , 2009, , .		0
273	Design and Testing of a Carbon Foam Based Supercooler for High Heat Flux Cooling in Optoelectronic Packages. , 2009, , .		0
274	Integration technologies for an 8×8 InP-based monolithic tunable optical router with 40GB/S line rate per port. , 2010, , .		0
275	Terabit optical Ethernet for avionics. , 2011, , .		0
276	An adaptation layer for real-time interoperability between legacy 100MbE and 40Gb/s (and beyond) optical label switched networks. , 2011, , .		0
277	Demonstration of Edge Interoperability, Re-Shaping and Re-Timing using Hybrid Mode-Locking within a 40Gb/s Optical Packet Router. , 2013, , .		0
278	Ultra-Low Loss Si<inf>3</inf>N<inf>4</inf> Planar Waveguide Platform and Applications. , 2017, , .		0
279	Photonic Integration Beyond Silicon. , 2018, , .		0
280	Tantalum Pentoxide Slot Waveguides for Waveguide Enhanced Raman Spectroscopy. , 2021, , .		0
281	Milliwatt Threshold Ultra-Low Linewidth Photonic Integrated Si3N4 Brillouin Laser. , 2021, , .		0
282	Broadband Optically Preamplified Receiver Using an Interferometric Wavelength Converter. , 2000, , .		0
283	Optical Network Channel Protection Switching Demonstration using a Bi-Directional Reconfigurable Multichannel Add/Drop Multiplexer. , 2000, , .		0
284	Techniques for All-Optical Label Swapping using SOA-Based Wavelength Conversion and Subcarrier Multiplexing. , 2000, , .		0
285	Simulation of Sub-Wavelength Metal Gratings for On-Chip Applications in Optical Communications. , 2008, , .		0
286	Photonic Integrated Circuits for Optical Routing and Switching Applications. , 2008, , .		0
287	Photonic Integration for Optical Switching Applications. , 2008, , .		0
288	Novel Fabrication of Sub-Wavelength High Aspect Ratio Metal/Dielectric Gratings on InP Semiconductor Platforms. , 2009, , .		0

#	Article	IF	Citations
289	Fabrication and Demonstration of a Pure Silica-Core Waveguide Utilizing a Density-Based Index Contrast. , 2011, , .		0
290	Photonic Integrated Circuits for Optical Routing and Switching Applications. , 2011, , .		0
291	Demonstration of End-to-End Interoperability between Legacy 100MbE and a 40Gb/s Optical Label Switched Network Layer. , 2011, , .		0
292	High Extinction, Broadband, and Low Loss Planar Waveguide Polarizers. , 2012, , .		0
293	Homodyne Dual-Quadrature Coherent Receiver with Injection-Locked Monolithically Integrated Local Oscillator. , 2012, , .		0
294	Analysis of WDM and OTDM 256-QAM for 1 Tb/s Transmission Link. , 2013, , .		0
295	Apodized and Un-Apodized Sidewall Grating Filters with Low Coupling Constants in Ultra-Low-Loss Si3N4 Planar Waveguides. , 2013, , .		0
296	Self-Similar Ultra-High Q Si3N4 Integrated Resonators for Brillouin Laser Linewidth Narrowing and Stabilization. , 2021, , .		0
297	Silicon Nitride Bus-Coupled Spiral-Ring Resonator for Dual-Mode Locking Temperature Stabilization. , 2021, , .		0
298	Ultra-Narrow Linewidth Frequency Stabilized Photonic Integrated Lasers. , 2021, , .		0
299	Narrow Linewidth Lasers for Low-Energy Coherent Communications. , 2022, , .		0