

Chris G H Roeloffzen

List of Publications by Year in descending order

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72
papers

3,198
citations

279798

23
h-index

289244

40
g-index

72
all docs

72
docs citations

72
times ranked

2146
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrated microwave photonics. <i>Laser and Photonics Reviews</i> , 2013, 7, 506-538.	8.7	614
2	Silicon Nitride in Silicon Photonics. <i>Proceedings of the IEEE</i> , 2018, 106, 2209-2231.	21.3	313
3	Programmable photonic signal processor chip for radiofrequency applications. <i>Optica</i> , 2015, 2, 854.	9.3	311
4	Silicon nitride microwave photonic circuits. <i>Optics Express</i> , 2013, 21, 22937.	3.4	268
5	Low-Loss Si ₃ N ₄ TriPleX Optical Waveguides: Technology and Applications Overview. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018, 24, 1-21.	2.9	243
6	On-chip CMOS compatible reconfigurable optical delay line with separate carrier tuning for microwave photonic signal processing. <i>Optics Express</i> , 2011, 19, 21475.	3.4	175
7	Low-loss, high-index-contrast Si ₃ N ₄ /SiO ₂ optical waveguides for optical delay lines in microwave photonics signal processing. <i>Optics Express</i> , 2011, 19, 23162.	3.4	136
8	A photonic chip based frequency discriminator for a high performance microwave photonic link. <i>Optics Express</i> , 2010, 18, 27359.	3.4	90
9	Hybrid integrated InP-Si ₃ N ₄ diode laser with a 40-Hz intrinsic linewidth. <i>Optics Express</i> , 2020, 28, 21713.	3.4	87
10	Multiwavelength-Integrated Optical Beamformer Based on Wavelength Division Multiplexing for 2-D Phased Array Antennas. <i>Journal of Lightwave Technology</i> , 2014, 32, 3509-3520.	4.6	78
11	Ring resonator-based on-chip modulation transformer for high-performance phase-modulated microwave photonic links. <i>Optics Express</i> , 2013, 21, 25999.	3.4	74
12	8–8 reconfigurable quantum photonic processor based on silicon nitride waveguides. <i>Optics Express</i> , 2019, 27, 26842.	3.4	70
13	Hybrid Integrated Semiconductor Lasers with Silicon Nitride Feedback Circuits. <i>Photonics</i> , 2020, 7, 4.	2.0	63
14	Towards a Scaleable 5G Fronthaul: Analog Radio-over-Fiber and Space Division Multiplexing. <i>Journal of Lightwave Technology</i> , 2020, 38, 5412-5422.	4.6	60
15	Analysis of a Multibeam Optical Beamforming Network Based on Blass Matrix Architecture. <i>Journal of Lightwave Technology</i> , 2018, 36, 3354-3372.	4.6	54
16	Optically Integrated InP-Si ₃ N ₄ Hybrid Laser. <i>IEEE Photonics Journal</i> , 2016, 8, 1-11.	2.0	51
17	Foundry Developments Toward Silicon Nitride Photonics From Visible to the Mid-Infrared. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-13.	2.9	47
18	Novel low-loss waveguide delay lines using Vernier ring resonators for on-chip multi-microwave photonic signal processors. <i>Laser and Photonics Reviews</i> , 2013, 7, 994-1002.	8.7	33

#	ARTICLE	IF	CITATIONS
19	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. <i>Optics Express</i> , 2016, 24, 5715.	3.4	33
20	Design and Application of Compact and Highly Tolerant Polarization-Independent Waveguides. <i>Journal of Lightwave Technology</i> , 2007, 25, 1276-1283.	4.6	30
21	Large-scale integrated optics using TriPLeX waveguide technology: from UV to IR. <i>Proceedings of SPIE</i> , 2009, , .	0.8	30
22	A 5G C-RAN Optical Fronthaul Architecture for Hotspot Areas Using OFDM-Based Analog IFoF Waveforms. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4059.	2.5	24
23	True Time Delay Optical Beamforming Network Based on Hybrid Inp-Silicon Nitride Integration. <i>Journal of Lightwave Technology</i> , 2021, 39, 5845-5854.	4.6	23
24	Characterization of Hybrid InP-TriPLeX Photonic Integrated Tunable Lasers Based on Silicon Nitride (Si) Tj ETQq0 0 0 rgBT /Overlock 10 T IEEE Photonics Journal, 2018, 10, 1-8.	2.0	21
25	A 5G Fiber Wireless 4Gb/s WDM Fronthaul for Flexible 360° Coverage in V-Band massive MIMO Small Cells. <i>Journal of Lightwave Technology</i> , 2021, 39, 1081-1088.	4.6	21
26	Reconfigurable Fiber Wireless IFoF Fronthaul With 60 GHz Phased Array Antenna and Silicon Photonic ROADM for 5G mmWave C-RANs. <i>IEEE Journal on Selected Areas in Communications</i> , 2021, 39, 2816-2826.	14.0	19
27	High-Selectivity On-Chip Optical Bandpass Filter With Sub-100-MHz Flat-Top and Under-2 Shape Factor. <i>IEEE Photonics Technology Letters</i> , 2019, 31, 455-458.	2.5	18
28	Fully reconfigurable coupled ring resonator-based bandpass filter for microwave signal processing. , 2014, , .		15
29	Dual-Frequency Distributed Feedback Laser With Optical Frequency Locked Loop for Stable Microwave Signal Generation. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 1431-1433.	2.5	14
30	CRIT-Alternative Narrow-Passband Waveguide Filter for Microwave Photonic Signal Processors. <i>IEEE Photonics Technology Letters</i> , 2014, 26, 1034-1037.	2.5	14
31	28 GBd PAM-8 transmission over a 100 nm range using an InP-Si ₃ N ₄ based integrated dual tunable laser module. <i>Optics Express</i> , 2021, 29, 16563.	3.4	13
32	Experimental Demonstration of Dynamic Optical Beamforming for Beyond 5G Spatially Multiplexed Fronthaul Networks. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-16.	2.9	13
33	Design and Performance Estimation of a Photonic Integrated Beamforming Receiver for Scan-on-Receive Synthetic Aperture Radar. <i>Journal of Lightwave Technology</i> , 2021, 39, 7588-7599.	4.6	13
34	Widely Tunable RF Signal Generation Using an InP/Si ₃ N ₄ Hybrid Integrated Dual-Wavelength Optical Heterodyne Source. <i>Journal of Lightwave Technology</i> , 2021, 39, 7664-7671.	4.6	12
35	Enhanced coverage though optical beamforming in fiber wireless networks. , 2017, , .		11
36	Separate carrier tuning scheme for integrated optical delay lines in photonic beamformers. , 2011, , .		9

#	ARTICLE	IF	CITATIONS
37	A broadband high dynamic range analog photonic link using push-pull directly-modulated semiconductor lasers. , 2008, , .		7
38	Integrated microwave photonics for 5G. , 2018, , .		7
39	Enhanced Dynamic Range in a Directly Modulated Analog Photonic Link. IEEE Photonics Technology Letters, 2009, 21, 1810-1812.	2.5	6
40	Automatic Delay Tuning of a Novel Ring Resonator-Based Photonic Beamformer for a Transmit Phased Array Antenna. Journal of Lightwave Technology, 2019, 37, 4976-4984.	4.6	6
41	High power, tunable, narrow linewidth dual gain hybrid laser. , 2019, , .		6
42	Hybrid interconnection of InP and TriPleX photonic integrated circuits for new module functionality. , 2019, , .		5
43	Control and Management Scheme in a DWDM EPON. , 2006, , .		4
44	On-chip, CMOS-compatible, hardware-compressive integrated photonic beamformer based on WDM. , 2013, , .		4
45	Ring resonator-based on-chip PM-IM convertor for high-performance microwave photonic links. , 2013, , .		4
46	High spectral purity microwave generation using a dual-frequency hybrid integrated semiconductor-dielectric waveguide laser. OSA Continuum, 2021, 4, 2133.	1.8	4
47	Lossless 1 Å– 4 Silicon Photonic ROADM Based on a Monolithic Integrated Erbium Doped Waveguide Amplifier on a Si₃N₄ Platform. Journal of Lightwave Technology, 2022, 40, 1718-1725.	4.6	4
48	Corrections to “Characterization of Hybrid InP-TriPleX Photonic Integrated Tunable Lasers Based on Silicon Nitride (Si ₃ N ₄ /SiO ₂) Microring Resonators for Optical Coherent System” IEEE Photonics Journal, 2018, 10, 1-1.	2.0	3
49	Programmable Integrated Microwave Photonic Filter using a Modulation Transformer and a Double-Injection Ring Resonator. , 2021, , .		3
50	Self-mode-locking in a high-power hybrid silicon nitride integrated laser. Optics Letters, 2022, 47, 198.	3.3	3
51	Ultra-low power stress-based phase actuation in TriPleX photonic circuits. , 2022, , .		3
52	Flexible V-band mmWave Analog-RoF Transmission of 5G and WiGig signals using an InP-SiN Integrated Laser Module. , 2021, , .		3
53	Smart Antennas in aerospace applications. , 2010, , .		2
54	Low-loss and programmable integrated photonic beamformer for electronically-steered broadband phased array antennas. , 2011, , .		2

#	ARTICLE	IF	CITATIONS
55	Arrays of surface-normal electroabsorption modulators for the generation and signal processing of microwave photonics signals. , 2011, , .		2
56	Photonic integration and components development for a K<inf>u</inf>-band phased array antenna system. , 2011, , .		2
57	CMOS-compatible integrated optical delay line for broadband K<inf>u</inf>-band satellite communications. , 2012, , .		2
58	Integrated microwave photonics for phase modulated systems. , 2012, , .		2
59	Waveguide filter-based on-chip differentiator for microwave photonic signal processing. , 2013, , .		2
60	Ultra-low-power stress-based phase actuator for microwave photonics. , 2017, , .		2
61	High power integrated laser for microwave photonics. , 2020, , .		2
62	Flexible Optical and Millimeter-Wave Analog-RoF Transmission with a Silicon-based Integrated Dual Laser Module. , 2021, , .		2
63	Wavelength & mm-Wave Flexible Converged Optical Fronthaul With a Low Noise Si-Based Integrated Dual Laser Source. Journal of Lightwave Technology, 2022, 40, 3307-3315.	4.6	2
64	Continuously tunable photonic fractional Hilbert transformer using ring resonators for on-chip microwave photonic signal processing. , 2012, , .		1
65	Broadband Continuously Tuneable Delay Microwave Photonic Beamformer for Phased Array Antennas. , 2019, , .		1
66	Broadband Continuously Tuneable Delay Microwave Photonic Beamformer for Phased Array Antennas. , 2019, , .		1
67	Silicon nitride integrated mode-locked laser with widely tunable line spacing. , 2021, , .		1
68	Performance comparison of two analog photonic links employing a pair of directly modulated lasers and a balanced photodetector. , 2009, , .		0
69	Si3N4 Reconfigurable Linear Optical Network for Quantum Information Processing. , 2019, , .		0
70	Analog IFoF/mmWave 5G Optical Fronthaul Architecture for Hot-Spots Using Multi-channel OFDM-Based WDM Signals. Lecture Notes in Computer Science, 2020, , 504-515.	1.3	0
71	Intra-Data Centre Flexible PAM Transmission System Using an Integrated InP-Si₃N₄ Dual Laser Module. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	0
72	Photonic-Based Microwave Signal Generation using and Hybrid Integrated Optical Heterodyne Source. , 2021, , .		0