William Peter Corcoran

List of Publications by Year
in descending order

84 papers	2,923 citations	331670 21 h-index	182427 51 g-index
84 all docs	84 docs citations	84 times ranked	2123 citing authors

#	Article	IF	Citations
1	11 TOPS photonic convolutional accelerator for optical neural networks. Nature, 2021, 589, 44-51.	27.8	550
2	Status and Potential of Lithium Niobate on Insulator (LNOI) for Photonic Integrated Circuits. Laser and Photonics Reviews, 2018, 12, 1700256.	8.7	435
3	Slow light enhancement of nonlinear effects in silicon engineered photonic crystal waveguides. Optics Express, 2009, 17, 2944.	3.4	221
4	Ultra-dense optical data transmission over standard fibre with a single chip source. Nature Communications, 2020, 11, 2568.	12.8	192
5	Injection locking-based pump recovery for phase-sensitive amplified links. Optics Express, 2013, 21, 14512.	3.4	134
6	Slow Light Enhanced Nonlinear Optics in Silicon Photonic Crystal Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 344-356.	2.9	132
7	Phase-Sensitive Amplified Transmission Links for Improved Sensitivity and Nonlinearity Tolerance. Journal of Lightwave Technology, 2015, 33, 710-721.	4.6	111
8	Fiber Optic Parametric Amplifier With 10-dB Net Gain Without Pump Dithering. IEEE Photonics Technology Letters, 2013, 25, 234-237.	2.5	86
9	Photonic Perceptron Based on a Kerr Microcomb for Highâ€Speed, Scalable, Optical Neural Networks. Laser and Photonics Reviews, 2020, 14, 2000070.	8.7	84
10	Silicon nanowire based radio-frequency spectrum analyzer. Optics Express, 2010, 18, 20190.	3.4	67
11	Photonic RF Arbitrary Waveform Generator Based on a Soliton Crystal Micro-Comb Source. Journal of Lightwave Technology, 2020, 38, 6221-6226.	4.6	62
12	Microwave and RF Photonic Fractional Hilbert Transformer Based on a 50 GHz Kerr Micro-Comb. Journal of Lightwave Technology, 2019, 37, 6097-6104.	4.6	61
13	Photonic RF Phase-Encoded Signal Generation With a Microcomb Source. Journal of Lightwave Technology, 2020, 38, 1722-1727.	4.6	55
14	Investigation of phase matching for third-harmonic generation in silicon slow light photonic crystal waveguides using Fourier optics. Optics Express, 2010, 18, 6831.	3.4	54
15	Silicon-Chip-Based Real-Time Dispersion Monitoring for 640 Gbit/s DPSK Signals. Journal of Lightwave Technology, 2011, 29, 1790-1796.	4.6	44
16	RF and Microwave Fractional Differentiator Based on Photonics. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2767-2771.	3.0	44
17	Phase and amplitude characteristics of a phase-sensitive amplifier operating in gain saturation. Optics Express, 2012, 20, 21400.	3.4	43
18	Chip-based Brillouin processing for carrier recovery in self-coherent optical communications. Optica, 2018, 5, 1191.	9.3	37

#	Article	IF	Citations
19	Experimental demonstrations of dual polarization CO-OFDM using mid-span spectral inversion for nonlinearity compensation. Optics Express, 2014, 22, 10455.	3.4	35
20	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. Optics Express, 2016, 24, 5715.	3.4	33
21	Ultracompact 160 Gbaud all-optical demultiplexing exploiting slow light in an engineered silicon photonic crystal waveguide. Optics Letters, 2011, 36, 1728.	3.3	32
22	All-optical self-switching in optimized phase-shifted fiber Bragg grating. Optics Express, 2009, 17, 5083.	3.4	26
23	Photonic RF and Microwave Integrator Based on a Transversal Filter With Soliton Crystal Microcombs. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3582-3586.	3.0	23
24	Highly Versatile Broadband RF Photonic Fractional Hilbert Transformer Based on a Kerr Soliton Crystal Microcomb. Journal of Lightwave Technology, 2021, 39, 7581-7587.	4.6	21
25	Nyquist-Filtering (De)Multiplexer Using a Ring Resonator Assisted Interferometer Circuit. Journal of Lightwave Technology, 2016, 34, 1732-1738.	4.6	20
26	Single-photodiode per polarization receiver with signal-signal beat interference suppression through heterodyne detection. Optics Express, 2018, 26, 3075.	3.4	20
27	Multi-Impairment Monitoring at 320 Gb/s Based on Cross-Phase Modulation Radio-Frequency Spectrum Analyzer. IEEE Photonics Technology Letters, 2010, 22, 428-430.	2.5	19
28	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. Journal of Lightwave Technology, 2016, 34, 1824-1830.	4.6	18
29	Photonic Circuit Topologies for Optical OFDM and Nyquist WDM. Journal of Lightwave Technology, 2017, 35, 781-791.	4.6	14
30	Subcarrier Pairwise Coding for Short-Haul L/E-ACO-OFDM. IEEE Photonics Technology Letters, 2017, 29, 1584-1587.	2.5	14
31	Integral order photonic RF signal processors based on a soliton crystal micro-comb source. Journal of Optics (United Kingdom), 2021, 23, 125701.	2.2	14
32	Phase-Sensitive Amplified Optical Link Operating in the Nonlinear Transmission Regime. , 2012, , .		13
33	Inter-channel nonlinear phase noise compensation using optical injection locking. Optics Express, 2018, 26, 5733.	3.4	13
34	Frequency comb distillation for optical superchannel transmission. Journal of Lightwave Technology, 2021, , 1-1.	4.6	13
35	Nonlinear loss dynamics in a silicon slow-light photonic crystal waveguide. Optics Letters, 2010, 35, 1073.	3.3	12
36	Nyquist-WDM With Low-Complexity Joint Matched Filtering and Adaptive Equalization. IEEE Photonics Technology Letters, 2014, 26, 2323-2326.	2.5	12

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37	Optoelectronic method for inline compensation of XPM in long-haul optical links. Optics Express, 2015, 23, 859.	3.4	11
38	Enhanced Kramers-Kronig Single-Sideband Receivers. Journal of Lightwave Technology, 2020, 38, 3229-3237.	4.6	11
39	Photonic High-Bandwidth RF Splitter With Arbitrary Amplitude and Phase Offset. IEEE Photonics Technology Letters, 2014, 26, 2122-2125.	2.5	10
40	Distributed Nonlinearity Compensation of Dual-Polarization Signals Using Optoelectronics. IEEE Photonics Technology Letters, 2016, 28, 2141-2144.	2.5	10
41	Experimental Characterization of a Phase-Sensitive Four-Mode Fiber-Optic Parametric Amplifier. , 2012, , .		9
42	Time-lenses for time-division multiplexing of optical OFDM channels. Optics Express, 2015, 23, 29788.	3.4	9
43	Polarization independent optical injection locking for carrier recovery in optical communication systems. Optics Express, 2017, 25, 21216.	3.4	9
44	Filtered Carrier Phase Estimator for High-Order QAM Optical Systems. Journal of Lightwave Technology, 2018, 36, 2980-2993.	4.6	9
45	Wide-range optical carrier recovery via broadened Brillouin filters. Optics Letters, 2021, 46, 166.	3.3	8
46	All-optical generation of DFT-S-OFDM superchannels using periodic sinc pulses. Optics Express, 2014, 22, 27026.	3.4	6
47	Real-Time Demonstration of Augmented-Spectral-Efficiency DMT Transmitter Using a Single IFFT. Journal of Lightwave Technology, 2017, 35, 4796-4803.	4.6	5
48	Simple optoelectronic frequency-offset estimator for coherent optical OFDM. Optics Express, 2017, 25, 32161.	3.4	5
49	All-optical OFDM demultiplexing with optical partial Fourier transform and coherent sampling. Optics Letters, 2019, 44, 443.	3.3	5
50	Compensating XPM Using a Low-Bandwidth Phase Modulator. IEEE Photonics Technology Letters, 2017, 29, 699-702.	2.5	4
51	Distributed Nonlinear Compensation Using Optoelectronic Circuits. Journal of Lightwave Technology, 2018, 36, 1326-1339.	4.6	4
52	Effects of Receiver-Side Optical Filtering On Optical Superchannel System Performance. Journal of Lightwave Technology, 2021, 39, 6097-6106.	4.6	4
53	Optimising microring resonator based optical frequency comb distillation for optical communications systems. Optics Express, 2022, 30, 17836.	3.4	4
54	Photonic-Chip-Based Ultrafast Waveform Analysis and Optical Performance Monitoring. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 834-846.	2.9	3

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55	Experimental comparison between Nyquist-WDM and continuous DFT-S-OFDM systems. , 2014, , .		3
56	Sub-band pairwise coding for inter-channel-interference mitigation in superchannel transmission systems. , 2015, , .		3
57	Widely-tunable low-phase-noise coherent receiver using an optical Wadley loop. Optics Express, 2015, 23, 19891.	3.4	3
58	Mitigation of Electrical Bandwidth Limitations using Optical Pre-Sampling. , 2017, , .		3
59	Cyclic spectra for wavelength-routed optical networks. Optics Letters, 2017, 42, 1101.	3.3	3
60	Optimizing DC restoration in Kramers-Kronig optical single-sideband receivers. Optics Express, 2022, 30, 2825.	3.4	3
61	Folded orthogonal frequency division multiplexing. Optics Express, 2016, 24, 29670.	3.4	2
62	Effective linewidth reduction in self-homodyne coherent reception by stimulated Brillouin scattering-based optical carrier recovery. Optics Express, 2021, 29, 25697.	3.4	2
63	Full C-band Nyquist-WDM Interleaver Chip. , 2017, , .		2
64	EDFA-band Coverage Broadband SBS Filter for Optical Carrier Recovery. , 2020, , .		2
65	Phase-Sensitive Amplifiers for Optical Links. , 2013, , .		1
66	Single IFFT Augmented Spectral Efficiency DMT Transmitter. , 2017, , .		1
67	Demonstration of DP-16QAM WDM link with in-line nonlinearity compensation. , 2017, , .		1
68	Nanosecond-Latency IM/DD/DSB to Coherent/SSB Converter. , 2018, , .		1
69	Nanosecond-Latency IM/DD/DSB Short-Haul to Coherent/SSB Long-Haul Converter. Journal of Lightwave Technology, 2019, 37, 5333-5339.	4.6	1
70	Versatile, high bandwidth, RF and microwave photonic Hilbert transformers based on Kerr micro-combs. , 2022, , .		1
71	Optical Neuromorphic Processor at 11 TeraOPs/s based on Kerr Soliton Crystal Micro-combs. , 2022, , .		1
72	Slow light enhanced nonlinear photonic functionalities. , 2010, , .		0

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73	Silicon-chip-based THz bandwidth radio-frequency spectrum analyser. , 2010, , .		0
74	Silicon chip based instantaneous dispersion monitoring for a 640 Gbit/s DPSK signal. , 2010, , .		0
75	All-optical signal processing using slow light enhanced nonlinearities in silicon waveguides. , 2011, , .		0
76	Single ring resonator QPSK modulator. , 2015, , .		0
77	Cyclic-spectrum pulse shaping for increased nonlinear tolerance. , 2017, , .		0
78	Fiber-optic Parametric Amplifiers Without Pump Dithering. , 2013, , .		0
79	Optical sampling to enhance Nyquist-shaped signal detection under limited receiver bandwidth. Optics Express, 2019, 27, 24007.	3.4	0
80	Broadband SBS Filter for Optical Carrier Recovery Applications in Telecommunication Systems. , 2020, , .		0
81	Microcombs for Ultradense Optical Communications. , 2021, , .		0
82	Effective Linewidth Reduction in Self-Homodyne Coherent Reception Enabled by stimulated Brillouin scattering. , 2021, , .		0
83	Clamping of noise from a stimulated Brillouin scattering amplifier through optical injection locking. , 2020, , .		0
84	Pilot-Tone-Assisted Stimulated-Brillouin-Scattering-Based Optical Carrier Recovery for Kramers-Kronig Reception. Journal of Lightwave Technology, 2022, 40, 4642-4648.	4.6	0