Kai Shi

List of Publications by Year
in descending order

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75 papers	1,665 citations	331670 21 h-index	315739 38 g-index
75 all docs	75 docs citations	75 times ranked	1435 citing authors

#	Article	IF	Citations
1	SSBI Mitigation and the Kramersâ€“Kronig Scheme in Single-Sideband Direct-Detection Transmission With Receiver-Based Electronic Dispersion Compensation. Journal of Lightwave Technology, 2017, 35, 1887-1893.	4.6	245
2	Beyond 100-Gb/s Indoor Wide Field-of-View Optical Wireless Communications. IEEE Photonics Technology Letters, 2015, 27, 367-370.	2.5	109
3	Spectrally Shaped DP-16QAM Super-Channel Transmission with Multi-Channel Digital Back-Propagation. Scientific Reports, 2015, 5, 8214.	3.3	100
4	Real time dynamic strain monitoring of optical links using the backreflection of live PSK data. Optics Express, 2016, 24, 22303.	3.4	88
5	Sirius. , 2020, , .		88
6	Sparse Adaptive Frequency Domain Equalizers for Mode-Group Division Multiplexing. Journal of Lightwave Technology, 2015, 33, 311-317.	4.6	69
7	A 50 Gb/s Transparent Indoor Optical Wireless Communications Link With an Integrated Localization and Tracking System. Journal of Lightwave Technology, 2016, 34, 2510-2517.	4.6	63
8	Investigation of bandwidth loading in optical fibre transmission using amplified spontaneous emission noise. Optics Express, 2017, 25, 19529.	3.4	63
9	Comparison of Low Complexity Coherent Receivers for UDWDM-PONs ($lambda$-to-the-User). Journal of Lightwave Technology, 2018, 36, 3453-3464.	4.6	52
10	Design and Demonstration of a 400 Gb/s Indoor Optical Wireless Communications Link. Journal of Lightwave Technology, 2016, 34, 5332-5339.	4.6	51
11	Mode Coupling Effects in Ring-Core Fibers for Space-Division Multiplexing Systems. Journal of Lightwave Technology, 2016, 34, 3365-3372.	4.6	50
12	Polarization-Insensitive Single-Balanced Photodiode Coherent Receiver for Long-Reach WDM-PONs. Journal of Lightwave Technology, 2016, 34, 2034-2041.	4.6	45
13	Nonlinearity-Free Coherent Transmission in Hollow-Core Antiresonant Fiber. Journal of Lightwave Technology, 2019, 37, 909-916.	4.6	43
14	Dual correlated pumping scheme for phase noise preservation in all-optical wavelength conversion. Optics Express, 2013, 21, 15568.	3.4	35
15	Two-Stage Linearization Filter for Direct-Detection Subcarrier Modulation. IEEE Photonics Technology Letters, 2016, 28, 2838-2841.	2.5	34
16	Spectrally Efficient 168 Gb/sÎ» WDM 64-QAM Single-Sideband Nyquist-Subcarrier Modulation With Kramersâ€“Kronig Direct-Detection Receivers. Journal of Lightwave Technology, 2018, 36, 1340-1346.	4.6	34
17	Comparison of digital signal-signal beat interference compensation techniques in direct-detection subcarrier modulation systems. Optics Express, 2016, 24, 29176.	3.4	33
18	Synchronous subnanosecond clock and data recovery for optically switched data centres using clock phase caching. Nature Electronics, 2020, 3, 426-433.	26.0	32

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19	Sub-Nanosecond Clock and Data Recovery in an Optically-Switched Data Centre Network. , 2018, , .		30
20	Joint Optimisation of Resampling Rate and Carrier-to-Signal Power Ratio in Direct-Detection Kramers-Kronig Receivers. , 2017, , .		27
21	Digital Linearization of Direct-Detection Transceivers for Spectrally Efficient 100 Gb/s/Î» WDM Metro Networking. Journal of Lightwave Technology, 2018, 36, 27-36.	4.6	27
22	Bidirectional wavelength-division multiplexing transmission over installed fibre using a simplified optical coherent access transceiver. Nature Communications, 2017, 8, 1043.	12.8	26
23	Phase shift keyed systems based on a gain switched laser transmitter. Optics Express, 2009, 17, 12668.	3.4	24
24	Characterization of a tunable three-section slotted Fabryâ€“Perot laser for advanced modulation format optical transmission. Optics Communications, 2011, 284, 1616-1621.	2.1	24
25	Bridging the Last Mile for Optical Switching in Data Centers. , 2018, , .		23
26	Design, Characterization, and Applications of Index-Patterned Fabryâ€“PÃ©rot Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 1621-1631.	2.9	18
27	Performance improvement of 10Gb/s direct modulation OFDM by optical injection using monolithically integrated discrete mode lasers. Optics Express, 2011, 19, B289.	3.4	15
28	Frequency Diversity MIMO Detection for DP- QAM Transmission. Journal of Lightwave Technology, 2015, 33, 1388-1394.	4.6	15
29	Dynamic Linewidth Measurement Method via an Optical Quadrature Front End. IEEE Photonics Technology Letters, 2011, 23, 1591-1593.	2.5	14
30	Optical Burst-Switched SSB-OFDM Using a Fast Switching SG-DBR Laser. Journal of Optical Communications and Networking, 2013, 5, 994.	4.8	14
31	Implementation of a cost-effective optical comb source in a WDM-PON with 107Gb/s data to each ONU and 50km reach. Optics Express, 2010, 18, 15672.	3.4	13
32	168 Gb/s/Î» Direct-Detection 64-QAM SSB Nyquist-SCM Transmission over 80 km Uncompensated SSMF at 4.54 b/s/Hz net ISD using a Kramers-Kronig Receiver. , 2017, , .		13
33	Static and dynamic analysis of side-mode suppression of widely tunable sampled grating DBR (SG-DBR) lasers. Optics Communications, 2009, 282, 81-87.	2.1	11
34	Novel Frequency Chirp Compensation Scheme for Directly Modulated SG DBR Tunable Lasers. IEEE Photonics Technology Letters, 2009, 21, 340-342.	2.5	11
35	Linewidth of SG-DBR laser and its effect on DPSK transmission. Optics Communications, 2010, 283, 5040-5045.	2.1	9
36	Two-Photon-Absorption-Based OSNR Monitor for NRZ-PSK Transmission Systems. IEEE Photonics Technology Letters, 2010, 22, 275-277.	2.5	9

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37	Theoretical Analysis of Tunable Three-Section Slotted Fabryâ€“Perot Lasers Based on Time-Domain Traveling-Wave Model. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1-8.	2.9	9
38	Frequency diversity MIMO detection for dual-carrier DP-16QAM transmission. , 2014, , .		7
39	SLM-Based Mode Division Multiplexing System With $6 imes 6$ Sparse Equalization. IEEE Photonics Technology Letters, 2015, 27, 1687-1690.	2.5	7
40	Time-resolved chirp measurement for 100GBaud test systems using an ideal frequency discriminator. Optics Communications, 2012, 285, 2039-2043.	2.1	6
41	Detailed experimental phase noise characterization of Y-branch lasers for use in coherent communication systems. , 2013, , .		6
42	Simplified Impulse Response Characterization for Mode Division Multiplexed Systems. , 2016, , .		6
43	Characterization of time-resolved laser differential phase using 3D complementary cumulative distribution functions. Optics Letters, 2012, 37, 1769.	3.3	5
44	Time Resolved Bit Error Rate Analysis of a Fast Switching Tunable Laser for Use in Optically Switched Networks. Journal of Optical Communications and Networking, 2012, 4, A77.	4.8	5
45	Increased Bit Rate Direct Modulation AMO-OFDM Transmission by Optical Injection Using Monolithically Integrated Lasers. IEEE Photonics Technology Letters, 2012, 24, 879-881.	2.5	5
46	Linear and nonlinear impairment mitigation in a Nyquist spaced DP-16QAM WDM transmission system with full-field DBP. , 2014, , .		5
47	Discrete mode lasers for communications applications. Proceedings of SPIE, 2009, , .	0.8	4
48	Characterization of a Novel Three-Section Tunable Slotted Fabry-Perot Laser. , 2010, , .		4
49	Degenerate mode-group division multiplexing using MIMO digital signal processing. , 2013, , .		4
50	Degenerate Mode-Group Division Multiplexing using Delayed Adaptive Frequency-Domain Equalization. , 2014, , .		4
51	246 GHz Digitally Stitched Coherent Receiver. , 2017, , .		4
52	Self-Coherent Optical Transmission Using a Narrow Linewidth Tunable Slotted Fabry-Perot Laser. , 2010, , .		3
53	Fast Wavelength Switching Digital Coherent OFDM Transceiver. , 2013, , .		3
54	Record High Capacity (6.8 Tbit/s) WDM Coherent Transmission in Hollow-Core Antiresonant Fiber. , 2017, , .		3

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55	SG-DBR tunable laser linewidth and its impact on advanced modulation format transmission. , 2009, , .		2
56	Linewidth Calibration of SG-DBR Lasers. IEEE Photonics Technology Letters, 2010, 22, 1729-1731.	2.5	2
57	Fast Switching Slotted Fabryâ€“Perot Laser for Phase Modulated Transmission Systems. Journal of Lightwave Technology, 2010, , .	4.6	2
58	Direct modulation of a tuneable slotted Fabry-PÃ©rot laser with adaptive modulation OFDM. Optics Express, 2012, 20, B399.	3.4	2
59	Influence of facet reflection of SOA on SOA-integrated SGDBR laser. Frontiers of Optoelectronics, 2012, 5, 390-394.	3.7	2
60	SLM-based mode division multiplexing system with 6Ã—6 sparse equalization. , 2015, , .		2
61	Low linewidth lasers for enabling high capacity optical communication systems. , 2012, , .		1
62	Fast Optical Spectrum Estimation Using a Digital Coherent Receiver. , 2013, , .		1
63	Effect of nonlinear gain on the phase noise of Y-branch lasers: Numerical study. , 2016, , .		1
64	Effect of nonlinear gain on the phase noise of Y-branch lasers. Optical and Quantum Electronics, 2017, 49, 1.	3.3	1
65	Characterization of Wavelength Tunable Lasers for Future Optical Communication Systems. Journal of Networks, 2010, 5, .	0.4	1
66	DSP for Single-sideband Direct-detection Systems. , 2018, , .		1
67	Direct modulation optical OFDM performance enhancement by external optical injection. , 2011, , .		0
68	DQPSK optical packet switching using an SG-DBR laser. , 2011, , .		0
69	Coherent phase modulation detection for self-heterodyne phase noise measurement. Proceedings of SPIE, 2011, , .	0.8	0
70	Performance enhancement of 10Gb/s direct modulation optical OFDM by external optical injection. Optics Communications, 2012, 285, 136-139.	2.1	0
71	Theoretical modeling of tunable three-section slotted Fabry-Perot lasers. , 2013, , .		0
72	Theoretical study on linewidth characteristics of SGDBR lasers for coherent optical communications. , 2013, , .		0

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73	Fast and Uniform Optically-Switched Data Centre Networks Enabled by Amplitude Caching. , 2021, , .		0
74	DSP Complexity Growth in MIMO-MDM Systems for Short Reach Networks. , 2015, , .		0
75	Towards Stable and Ultra-Fast Converging Equalizers for Multimode Fiber Transmission Systems. , 2016, , .		0