Ozdal Boyraz

List of Publications by Year
in descending order

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109 papers	2,440 citations	331538 21 h-index	206029 48 g-index
110 all docs	110 docs citations	110 times ranked	1826 citing authors

#	Article	IF	Citations
1	Demonstration of a silicon Raman laser. Optics Express, 2004, 12, 5269.	1.7	730
2	All optical switching and continuum generation in silicon waveguides. Optics Express, 2004, 12, 4094.	1.7	223
3	Self-phase-modulation induced spectral broadening in silicon waveguides. Optics Express, 2004, 12, 829.	1.7	138
4	Femtosecond real-time single-shot digitizer. Applied Physics Letters, 2007, 91, 161105.	1.5	121
5	Demonstration of directly modulated silicon Raman laser. Optics Express, 2005, 13, 796.	1.7	92
6	Real-time optical imaging and tracking of micron-sized particles. Optics Communications, 2009, 282, 4672-4675.	1.0	84
7	Silicon-on-sapphire waveguides design for mid-IR evanescent field absorption gas sensors. Optics Communications, 2014, 313, 186-194.	1.0	76
8	Silicon-based optical leaky wave antenna with narrow beam radiation. Optics Express, 2011, 19, 8735.	1.7	69
9	Demonstration of 11dB fiber-to-fiber gain in a silicon Raman amplifier. IEICE Electronics Express, 2004, 1, 429-434.	0.3	63
10	Discrete parametric band conversion in silicon for mid-infrared applications. Optics Express, 2010, 18, 21981.	1.7	57
11	Pulse compression and modelocking by using TPA in silicon waveguides. Optics Express, 2007, 15, 6500.	1.7	56
12	Gain and noise characteristics of high-bit-rate silicon parametric amplifiers. Optics Express, 2008, 16, 13122.	1.7	54
13	Physical Layer Cryptographic Key Generation by Exploiting PMD of an Optical Fiber Link. Journal of Lightwave Technology, 2018, 36, 5903-5911.	2.7	48
14	Phase-gradient gap-plasmon metasurface based blazed grating for real time dispersive imaging. Applied Physics Letters, 2014, 104, .	1.5	46
15	Raman amplification and lasing in SiGe waveguides. Optics Express, 2005, 13, 2459.	1.7	42
16	Tera-sample per second real-time waveform digitizer. Applied Physics Letters, 2005, 87, 241116.	1.5	32
17	Spectral periodicity in soliton explosions on a broadband mode-locked Yb fiber laser using time-stretch spectroscopy. Optics Letters, 2018, 43, 1862.	1.7	32
18	An optical leaky wave antenna with Si perturbations inside a resonator for enhanced optical control of the radiation. Optics Express, 2012, 20, 21305.	1.7	31

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19	Noise Figure of Silicon Raman Amplifiers. Journal of Lightwave Technology, 2008, 26, 847-852.	2.7	26
20	Giant Resonance and Anomalous Quality Factor Scaling in Degenerate Band Edge Coupled Resonator Optical Waveguides. Journal of Lightwave Technology, 2018, 36, 3030-3039.	2.7	24
21	Theory of a Directive Optical Leaky Wave Antenna Integrated into a Resonator and Enhancement of Radiation Control. Journal of Lightwave Technology, 2014, 32, 1741-1749.	2.7	21
22	Electric field enhancement with plasmonic colloidal nanoantennas excited by a silicon nitride waveguide. Optics Express, 2016, 24, 28337.	1.7	20
23	Immunity of nanoscale magnetic tunnel junctions with perpendicular magnetic anisotropy to ionizing radiation. Scientific Reports, 2020, 10, 10220.	1.6	19
24	Experimental Demonstration of Directive Si3N4 Optical Leaky Wave Antennas With Semiconductor Perturbations. Journal of Lightwave Technology, 2016, 34, 4864-4871.	2.7	16
25	Ranging and velocimetry measurements by phase-based MTCW lidar. Optics Express, 2021, 29, 13552.	1.7	15
26	Influence of Pump-to-Signal RIN Transfer on Noise Figure in Silicon Raman Amplifiers. IEEE Photonics Technology Letters, 2008, 20, 2021-2023.	1.3	14
27	Single-shot ranging and velocimetry with a CW lidar far beyond the coherence length of the CW laser. Optics Express, 2021, 29, 42343.	1.7	14
28	Influence of nonlinear loss competition on pulse compression and nonlinear optics in silicon. Applied Physics Letters, 2007, 91, 201115.	1.5	13
29	Realization of Multitone Continuous Wave Lidar. IEEE Photonics Journal, 2019, 11, 1-10.	1.0	13
30	Fast Arbitrary Waveform Generation by Using Digital Micromirror Arrays. IEEE Photonics Journal, 2013, 5, 5500207-5500207.	1.0	12
31	Spectral dynamics on saturable absorber in mode-locking with time stretch spectroscopy. Scientific Reports, 2020, 10, 14460.	1.6	12
32	Dual-Wavelength Mode-Locked Fiber Laser With an Intracavity Silicon Waveguide. IEEE Photonics Technology Letters, 2008, 20, 1184-1186.	1.3	11
33	Impact of receiver architecture on small satellite optical link in the presence of pointing jitter. Applied Optics, 2020, 59, 10177.	0.9	11
34	Polarization Mode Dispersion-Based Physical Layer Key Generation for Optical Fiber Link Security. , 2017, , .		11
35	Simultaneous ranging and velocimetry with multi-tone continuous wave lidar. Optics Express, 2020, 28, 17241.	1.7	10
36	Observation of simultaneous Stokes and anti-Stokes emission in a silicon Raman laser. IEICE Electronics Express, 2004, 1, 435-441.	0.3	9

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37	Scaling laws of nonlinear silicon nanophotonics. , 2005, , .		8
38	Analytical study on arbitrary waveform generation by MEMS micro mirror arrays. Optics Express, 2012, 20, 27542.	1.7	8
39	Nanoscale signal regeneration. Nature Photonics, 2008, 2, 12-13.	15.6	7
40	On-Chip Bimetallic Plasmo-Thermomechanical Detectors for Mid-Infrared Radiation. IEEE Photonics Technology Letters, 2017, 29, 1459-1462.	1.3	7
41	Realization of Omnidirectional CubeSat Crosslink by Wavelength-Selective Optical Transceiver. IEEE Journal on Miniaturization for Air and Space Systems, 2020, 1, 47-55.	1.9	7
42	Effect of magnesium oxide adhesion layer on resonance behavior of plasmonic nanostructures. Applied Physics Letters, 2020, 116, .	1.5	7
43	Plasmo-thermomechanical radiation detector with on-chip optical readout. Optics Express, 2018, 26, 29638.	1.7	7
44	Acoustooptic Coherent Mode Coupling in Polarization-Maintaining Fiber and Its Application as a Variable-Polarization-Dependent Loss Element. IEEE Photonics Technology Letters, 2007, 19, 665-667.	1.3	6
45	Silicon based optical pulse shaping and characterization. , 2009, , .		6
46	Theory of Optical Leaky-Wave Antenna Integrated in a Ring Resonator for Radiation Control. Journal of Lightwave Technology, 2017, 35, 10-18.	2.7	6
47	Omnidirectional Optical Crosslinks for CubeSats: Transmitter Optimization. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 4556-4566.	2.6	6
48	Wireless Communication Technologies in Omnidirectional CubeSat Crosslink: Feasibility Study and Performance Analysis. IEEE Journal on Miniaturization for Air and Space Systems, 2021, 2, 157-166.	1.9	6
49	Performance Evaluation of Nondegenerate Wavelength Conversion in a Silicon Nanowire Waveguide. Journal of Lightwave Technology, 2010, , .	2.7	5
50	An optical leaky wave antenna with silicon perturbations for electronic control. Proceedings of SPIE, 2011, , .	0.8	5
51	Demonstration of CW Raman gain with zero electrical power dissipation in p-i-n silicon waveguides. , 2006, , .		4
52	Demonstration of <inline-formula> <tex-math notation="TeX">V_{pi}</tex-math></inline-formula> Reduction in Electrooptic Modulators Using Modulation Instability. IEEE Photonics Journal, 2014, 6, 1-9.	1.0	4
53	Mechanical design and thermal analysis of a 12U CubeSat MTCW lidar based optical measurement system for littoral ocean dynamics. , 2021, , .		4
54	A Basic Approach for Speed Profiling of Alternating Targets with Photonic Doppler Velocimetry. , 2019, , .		4

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55	Selective and efficient infrared detection by plasmonically heated vanadium-dioxide nanowire. , 2020, , .		4
56	Control of the radiation of a silicon-based optical leaky wave antenna through optical pumping. , 2011, , .		3
57	Fast Dispersive Laser Scanner by Using Digital Micro Mirror Arrays. Journal of Micro and Nano-Manufacturing, 2014, 2, .	0.8	3
58	Highly nonlinear sub-micron silicon nitride trench waveguide coated with gold nanoparticles. , 2015, , .		3
59	Experimental demonstration of directive Si3N4optical leaky wave antennas with semiconductor perturbations at near infrared frequencies. , 2015, , .		3
60	Metalens wide-angle receiver for free space optical communications. , 2021, , .		3
61	High Sensitivity Long-Wave Infrared Detector Design Based on Integrated Plasmonic Absorber and VOâ„‚ Nanobeam. IEEE Journal of Quantum Electronics, 2021, 57, 1-11.	1.0	3
62	Enhancing the multi-tone continuous-wave lidar with phase detection. , 2021, , .		3
63	Array of symmetric nanohole dimers with high sensitivity for detection of changes in an STT-RAM ultrathin dielectric layer. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 3090.	0.9	3
64	Omnidirectional optical transceiver design techniques for multi-frequency full duplex CubeSat data communication. , 2018, , .		3
65	Inter-satellite omnidirectional optical communicator for remote sensing. , 2018, , .		3
66	Silicon Raman amplifiers lasers and their applications. , 2005, , .		2
67	Enhancing radiation control of an optical leaky wave antenna in a resonator. Proceedings of SPIE, 2012, , .	0.8	2
68	Nonlinear Optics in Silicon. Series in Optics and Optoelectronics, 2013, , 197-248.	0.0	2
69	Optical leaky-wave antenna integrated in ring resonator. , 2014, , .		2
70	Infrared polarizing reflectarray metasurfaces. , 2014, , .		2
71	Multi Tone Continuous Wave Lidar. , 2019, , .		2
72	Optical Leaky Wave Antenna Experiment Demonstration and Electronic Modulation Investigation. , 2015, , .		2

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73	Graphene-incorporated plasmo-thermomechanical infrared radiation detection. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 774.	0.9	2
74	A Physical Layer Security Key Generation Technique for Inter-Vehicular Visible Light Communication. , 2017, , .		2
75	Graphene-coated Suspended Metallic Nanostructures for Fast and Sensitive Optomechanical Infrared Detection. , 2019, , .		2
76	Array of Symmetric Nanohole Dimers for STT-RAM Ultrathin Layer Sensing. , 2019, , .		2
77	Silicon Raman laser, amplifier, and wavelength converter (Keynote Paper). , 2005, , .		1
78	Optical continuum generation on a silicon chip. , 2005, , .		1
79	Performance analysis of a FTTH link utilizing asymmetric data transmission. Optics Communications, 2007, 280, 431-434.	1.0	1
80	Ultrafast pulse characterization by cross-phase modulation in silicon waveguide. , 2008, , .		1
81	Fast arbitrary waveform generation by using digital micro-mirror arrays. , 2012, , .		1
82	Fast Dispersive Laser Scanner by Using Digital Micro Mirror Arrays. , 2013, , .		1
83	Concept of an optical leaky-wave antenna embedded in a Fabry-Pérot resonator. , 2013, , .		1
84	V-pi reduction by using modulation index booster (MiBo) in RF links. , 2015, , .		1
85	Electronically-controlled optical tweezing using space-time-wavelength mapping. , 2015, , .		1
86	Broadband Wavelength Conversion by Nondegenerate Four-Wave Mixing in a Silicon-On-Insulator Waveguide. , 2010, , .		1
87	Electronic control of optical tweezers using space-time-wavelength mapping. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 313.	0.9	1
88	Plasmonic detection of possible defects in multilayer nanohole array consisting of essential materials in simplified STT-RAM cell. , 2017, , .		1
89	Triggerable Continuum Source for Single-shot Ultra-fast Applications. , 2006, , .		0
90	Effect of TPA and FCA Interplay on Pulse Compression in Silicon. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0

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91	An All-fiber Tunable Polarization-Dependent Loss Element. , 2007, , .		0
92	Pulse Compression and Modelocking by Using TPA in Silicon Waveguides. , 2007, , .		0
93	High-Repetition-Rate Pulsed-Pump Optical Parametric Amplification in Silicon Waveguides. , 2008, , .		0
94	Dual-wavelength mode-locked laser in silicon. , 2008, , .		0
95	Laser modelocking and dual wavelength lasing in silicon. , 2008, , .		0
96	Silicon-based ultra-wide discrete band conversion. Proceedings of SPIE, 2010, , .	0.8	0
97	Noise Performance of Time Stretch System with Distributed and Discrete Amplifiers. , 2011, , .		0
98	Erbium-based plasmonic-assisted vertical emitter. , 2011, , .		0
99	Radiation properties of an integrated optical leaky wave antenna with periodic silicon perturbations. , 2012, , .		0
100	Optical leaky wave antennas integrated with resonator topologies. , 2014, , .		0
101	Uniform and non uniform optical leaky-wave antennas for field shaping. , 2015, , .		0
102	Editorial for the Special Issue on Silicon Photonics Bloom. Micromachines, 2020, 11, 670.	1.4	0
103	Optoelectronic Readout of STT-RAM Based on Plasmon Drag Effect. IEEE Journal of Quantum Electronics, 2021, 57, 1-7.	1.0	0
104	Optoelectronic Readout of STT-RAM Memory Cells Using Plasmon Drag Effect. , 2021, , .		0
105	Silicon Raman Laser. , 2005, , .		0
106	Silicon and Silicon-Germanium Raman Laser. , 2005, , .		0
107	Noise figure of high-repetition-rate optical parametric amplifiers in silicon. , 2008, , .		0
108	Pump to Signal RIN Transfer in Silicon Raman Amplifiers. , 2009, , .		0

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109	Electrically Controlled Pulse Compression Using a Silicon Waveguide. , 2011, , .		0