

Kazuhiro Ikeda

List of Publications by Year in descending order

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148
papers

2,774
citations

186209

28
h-index

197736

49
g-index

148
all docs

148
docs citations

148
times ranked

2156
citing authors

#	ARTICLE	IF	CITATIONS
1	Wavelength (DE)MUX-and-Switch Based on 5.5% ⁺ -Silica PLC/Silicon Photonics Hybrid Platform. Journal of Lightwave Technology, 2022, 40, 1810-1814.	2.7	2
2	Path-Independent Insertion-Loss (PILOSS) 8 Å— 8 Silicon Photonics Switch with ≤ 8 nsec Switching Time. , 2022, , .		4
3	Recent Advances in Large-scale Optical Switches Based on Silicon Photonics. , 2022, , .		3
4	Strictly Non-Blocking 8 Å— 8 Silicon Photonics Switch Operating in the O-Band. Journal of Lightwave Technology, 2021, 39, 1096-1101.	2.7	6
5	Port-Alternated Switch-and-Select Optical Switches. Journal of Lightwave Technology, 2021, 39, 1102-1107.	2.7	2
6	Spin-Injected Birefringent VCSELs for Analog Radio-Over-Fiber Systems. IEEE Photonics Technology Letters, 2021, 33, 297-300.	1.3	8
7	Scalable and Fast Optical Circuit Switch Based on Colorless Coherent Detection: Design Principle and Experimental Demonstration. Journal of Lightwave Technology, 2021, 39, 2263-2274.	2.7	11
8	Silicon Based 1 Å— <i>M</i> Wavelength Selective Switch Using Arrayed Waveguide Gratings With Fold-Back Waveguides. Journal of Lightwave Technology, 2021, 39, 2413-2420.	2.7	5
9	Large-Scale Optical Switches Based on Silicon Photonics. , 2021, , .		2
10	Fully-Loaded Operation of 0.29-pJ/bit Wall-plug Efficiency, 81.9-Tb/s Throughput 32 Å— 32 Silicon Photonics Switch. , 2021, , .		4
11	Fast Optical Switch Utilizing Coherent Detection Enabled by Cooperative Filtering of Transmission Signal and Local Oscillator (LO) Wavelength Sourced from an LO Bank. , 2021, , .		2
12	5.5% ⁺ -PLC/Silicon Photonics Hybrid Wavelength MUX/DEMUX-and-Switch Device. , 2021, , .		2
13	Design and verification of a LO bank enabled by fixed-wavelength lasers and fast tunable silicon ring filters for creating large scale optical switches. Optics Express, 2021, 29, 39930.	1.7	8
14	Nonduplicate Polarization-Diversity 32 Å— 32 Silicon Photonics Switch Based on a SiN/Si Double-Layer Platform. Journal of Lightwave Technology, 2020, 38, 226-232.	2.7	36
15	Low-Loss, Low-Crosstalk, and Large-Scale Optical Switch Based on Silicon Photonics. Journal of Lightwave Technology, 2020, 38, 233-239.	2.7	37
16	Wavelength-Division Demultiplexing Enhanced by Silicon-Photonic Tunable Filters in Ultra-Wideband Optical-Path Networks. Journal of Lightwave Technology, 2020, 38, 1002-1009.	2.7	13
17	Silicon Photonics Wavelength Selective Switch With Unlimited Free Spectral Range. Journal of Lightwave Technology, 2020, 38, 3268-3272.	2.7	9
18	Large-scale silicon photonics switch based on 45-nm CMOS technology. Optics Communications, 2020, 466, 125677.	1.0	22

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19	Gain-Integrated 8 Å— 8 Silicon Photonics Multicast Switch With On-Chip 2 Å— 4-ch. SOAs. Journal of Lightwave Technology, 2020, 38, 2930-2937.	2.7	6
20	2 Å— 2 16-ch silicon photonics wavelength-selective switch based on waveguide gratings. Optics Express, 2020, 28, 26861.	1.7	10
21	5.7-dB Fiber-to-Fiber Loss 8 Å— 8 Silicon Photonics Switch with Port-Alternated Switch-and-Select Architecture. , 2020, , .		1
22	O-Band Strictly Non-Blocking 8 Å— 8 Silicon-Photonics Switch. , 2020, , .		1
23	Scalable and Fast Optical Circuit Switch Created with Silicon-Photonic Tunable-Filter-based Local Oscillator Bank and Colorless Coherent Detection. , 2020, , .		2
24	Demonstration of 8-Step Single-Photon Quantum Walk using 32 x 32 Reconfigurable Silicon Photonics Switch. , 2020, , .		1
25	Strictly Non-Blocking Silicon Photonics Switches. IEICE Transactions on Electronics, 2020, E103.C, 627-634.	0.3	1
26	A 300-mm-wafer silicon photonics technology for advanced information systems. , 2019, , .		0
27	Low-Crosstalk Bandwidth Expansion in \$32imes 32\$ Silicon Optical Switch with Port-Exchanged Mach-Zehnder Switch. , 2019, , .		2
28	Characteristics of 1Å—2 Silicon Wavelength Selective Switch Using Arrayed - Waveguide Gratings with Fold-Back Waveguides. , 2019, , .		0
29	Low-Insertion-Loss and Power-Efficient 32 Å— 32 Silicon Photonics Switch With Extremely High-î” Silica PLC Connector. Journal of Lightwave Technology, 2019, 37, 116-122.	2.7	102
30	Hybrid-Integration of SOA on Silicon Photonics Platform Based on Flip-Chip Bonding. Journal of Lightwave Technology, 2019, 37, 307-313.	2.7	54
31	SOA-Integrated Silicon Photonics Switch and Its Lossless Multistage Transmission of High-Capacity WDM Signals. Journal of Lightwave Technology, 2019, 37, 123-130.	2.7	23
32	Ultra-compact silicon photonics switch with high-density thermo-optic heaters. Optics Express, 2019, 27, 10332.	1.7	18
33	SiN/Si double-layer platform for ultralow-crosstalk multiport optical switches. Optics Express, 2019, 27, 21130.	1.7	22
34	Polarization-Diversity 32 x 32 Si Photonics Switch with Non-Duplicate Diversity Circuit in Double-Layer Platform. , 2019, , .		4
35	Spin polarization modulation of 1.55-µm VCSELs for high-speed data communications. , 2019, , .		0
36	Fast Optical Circuit Switch Using Monolithically Integrated Silicon-Photonic Space Switch and Wavelength-Tuneable Filter. , 2018, , .		1

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37	Switching Devices and Systems Based on Advanced Silicon Photonics. , 2018, , .		0
38	Ultra-Compact Silicon Photonics Switch with Ultra-Dense Thermo-Optic MZI Matrix and Multi-Layer Wiring. , 2018, , .		1
39	Spin polarization modulation for high-speed vertical-cavity surface-emitting lasers. Applied Physics Letters, 2018, 113, .	1.5	31
40	A Large-Scale Optical Circuit Switch Using Fast Wavelength-Tunable and Bandwidth-Variable Filters. IEEE Photonics Technology Letters, 2018, 30, 1439-1442.	1.3	11
41	Integrated silicon photonic wavelength-selective switch using wavefront control waveguides. Optics Express, 2018, 26, 13573.	1.7	15
42	Reconfigurable all-optical on-chip MIMO three-mode demultiplexing based on multi-plane light conversion. Optics Letters, 2018, 43, 1798.	1.7	32
43	Silicon photonics based 1 Å– 2 wavelength selective switch using fold-back arrayed-waveguide gratings. IEICE Electronics Express, 2018, 15, 20180532-20180532.	0.3	6
44	Silicon Photonic Multiport Optical Switch and Its Control Electronics. , 2018, , .		0
45	High-Speed Modulation of 1.55-μm VCSELs with Spin Polarization Modulation. , 2018, , .		2
46	Fast Frequency Tuning of Silicon-Photonic Thermo-optic MZI Filters using “Turbo Pulse” Method. , 2018, , .		9
47	Low Insertion Loss and Power Efficient 32 Å– 32 Silicon Photonics Switch with Extremely-High-μ” PLC Connector. , 2018, , .		12
48	In-line Optical Amplification for Silicon Photonics Platform by Flip-Chip Bonded InP-SOAs. , 2018, , .		8
49	32-Port 5.5%μ” Silica-Based Connecting Device for Low-Loss Coupling between SMFs and Silicon Waveguides. , 2018, , .		9
50	Reconfigurable 3-Channel All-Optical MIMO Circuit on Silicon Based on Multi-Plane Light Conversion. , 2018, , .		2
51	Next-Generation ROADM Employing Bandwidth-Adaptive Silicon-Photonic Filters for Flexible Drop Operation. , 2018, , .		2
52	1,024Å–1,024 Optical Circuit Switch Using Wavelength-Tunable and Bandwidth-Variable Silicon Photonic Filter. , 2018, , .		0
53	Lasing Polarization Characteristics in 1.55- μm Spin-Injected VCSELs. IEEE Photonics Technology Letters, 2017, 29, 711-714.	1.3	14
54	Silicon photonics C-band tunable filter for large-scale optical circuit switches. , 2017, , .		3

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55	Silicon photonic bandwidth-tunable filter based on 16-tap finite impulse response. , 2017, , .		1
56	2.5-dB loss, 100-nm Operating Bandwidth, and Low Power Consumption Strictly-Non-Blocking 8 Å– 8 Si Switch. , 2017, , .		11
57	Ultralow-crosstalk and broadband multi-port optical switch using SiN/Si double-layer platform. , 2017, , .		5
58	Polarization diversity circuit based on silica waveguides and photonic crystal waveplates for a 4Å–4 silicon optical switch. IEICE Electronics Express, 2017, 14, 20170252-20170252.	0.3	0
59	Broadband silicon photonics 8 Å– 8 switch based on double-Machâ€Zehnder element switches. Optics Express, 2017, 25, 7538.	1.7	62
60	Non-duplicate polarization-diversity 8 Å– 8 Si-wire PILOSS switch integrated with polarization splitter-rotators. Optics Express, 2017, 25, 10885.	1.7	31
61	Silicon-Photonics Polarization-Insensitive Broadband Strictly-Non-Blocking 8 Å– 8 Blade Switch. , 2017, , .		1
62	Accelerating Switching Speed of Thermo-optic MZI Silicon-Photonic Switches with â€œTurbo Pulseâ€in PWM Control. , 2017, , .		21
63	Fast and Accurate Automatic Calibration of a 32 Å– 32 Silicon Photonic Strictly-Non-Blocking Switch. , 2017, , .		9
64	Fully Integrated Non-Duplicate Polarization-Diversity 8 Å– 8 Si-Wire PILOSS Switch. , 2017, , .		1
65	A 300-mm-wafer silicon photonics technology for ultra-low-energy optical network systems. , 2017, , .		6
66	1Å–2 Silicon Wavelength Selective Switch Using Fold Back Arrayed-Waveguide Gratings. , 2017, , .		4
67	Novel PILOSS Port Assignment for Compact Polarization-Diversity Si-Wire Optical Switch. , 2016, , .		0
68	Novel polarization diversity without switch duplication of a Si-wire PILOSS optical switch. Optics Express, 2016, 24, 6861.	1.7	15
69	Silicon optical switch monolithically integrated with driver electronics and its power efficient driving. , 2016, , .		0
70	Off-Chip Polarization-Diversity \$4 ,, imes ,, 4\$ Si-Wire Optical Switch With Digital DGD Compensation. IEEE Photonics Technology Letters, 2016, 28, 457-460.	1.3	17
71	Polarization-Rotator-Free Polarization-Diversity 4 4 Si-Wire Optical Switch. IEEE Photonics Journal, 2016, 8, 1-7.	1.0	8
72	Multi-port Optical Switch Based on Silicon Photonics. , 2016, , .		1

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73	Ultra-compact 32 Å— 32 strictly-non-blocking Si-wire PILOSS switch. , 2016, , .		0
74	Strictly Non-Blocking Silicon Photonics Switches. , 2016, , .		1
75	In-band OSNR monitor based on 3 × 3 Si-wire MMI coupler. , 2015, , .		2
76	Evaluation of the phase error in Si-wire arrayed-waveguide gratings fabricated by ArF-immersion photolithography. IEICE Electronics Express, 2015, 12, 20150019-20150019.	0.3	3
77	Room temperature spin injection into (110) GaAs quantum wells using Fe/x-AlO _x contacts in the regime of current density comparable to laser oscillation. Journal of Applied Physics, 2015, 118, 163905.	1.1	8
78	4Å—4 Si-wire optical path switch with off-chip polarization diversity. , 2015, , .		2
79	Silicon photonics based switching technology for telecom, datacom and computercom. , 2015, , .		2
80	A 200-GHz spacing, 17-channel, 1×2 wavelength selective switch using a silicon arrayed-waveguide grating with loopback. , 2015, , .		3
81	Ultra-high-extinction-ratio 2 Å— 2 silicon optical switch with variable splitter. Optics Express, 2015, 23, 9086.	1.7	92
82	Ultra-compact 32 Å— 32 strictly-non-blocking Si-wire optical switch with fan-out LGA interposer. Optics Express, 2015, 23, 17599.	1.7	161
83	Effects of spin diffusion on electron spin relaxation time measured with a time-resolved microscopic photoluminescence technique. Journal of Applied Physics, 2015, 117, 053903.	1.1	2
84	Densely packed NxN wavelength cross-connect switch module. Proceedings of SPIE, 2015, , .	0.8	1
85	Analysis of Optical Output Characteristics in Waveguide Coupled HCG-VCSELs. IEICE Transactions on Electronics, 2014, E97.C, 369-376.	0.3	2
86	First demonstration of ultra-low-energy hierarchical multi-granular optical path network dynamically controlled through NSI-CS for video related applications. , 2014, , .		18
87	Compact 2 Å— 2 polarization-diversity Si-wire switch. Optics Express, 2014, 22, 29818.	1.7	21
88	Room temperature spin transport in undoped (110) GaAs/AlGaAs quantum wells. Applied Physics Letters, 2014, 104, 072406.	1.5	11
89	Electron spin relaxation time in (110) InGaAs/InAlAs quantum wells. Journal of Applied Physics, 2014, 116, 023507.	1.1	9
90	Multiport optical switches integrated on Si photonics platform. IEICE Electronics Express, 2014, 11, 20142011-20142011.	0.3	4

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91	Silicon nanophotonics integration for chip-scale optical communication. Proceedings of SPIE, 2014, , .	0.8	0
92	Crystal growth of InGaAs/InAlAs quantum wells on InP(110) by MBE. Journal of Crystal Growth, 2013, 364, 95-100.	0.7	12
93	155- $\hat{1}$ / ₄ m VCSEL with polarization-independent HCG mirror on SOI. Optics Express, 2013, 21, 28685.	1.7	35
94	Silicon nanophotonic devices for chip-scale optical communication applications [Invited]. Applied Optics, 2013, 52, 613.	0.9	10
95	Polarization-independent high-index contrast grating and its fabrication tolerances. Applied Optics, 2013, 52, 1049.	0.9	30
96	Lasing-Polarization-Dependent Output from Orthogonal Waveguides in High-Index-Contrast Subwavelength Grating Vertical-Cavity Surface-Emitting Laser. Applied Physics Express, 2013, 6, 092106.	1.1	9
97	Design and fabrication of a polarization-independent HCG. , 2013, , .		0
98	Metallic nanowire lasers. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1981.	0.9	3
99	Comparison of measurement techniques for electron spin relaxation time in a GaAs/AlGaAs multiple quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 1176-1181.	1.3	1
100	Circularly polarized lasing over wide wavelength range in spin-controlled (110) vertical-cavity surface-emitting laser. Solid State Communications, 2012, 152, 1518-1521.	0.9	2
101	Pump Probe Measurement of Electron Spin Relaxation Time in (110)-Oriented GaAs/AlGaAs Multiple Quantum Well Microposts. Applied Physics Express, 2012, 5, 122401.	1.1	2
102	Analog signal processing/filtering. , 2011, , .		0
103	All-Optical Flip-Flop Operation at 1-mA Bias Current in Polarization Bistable Vertical-Cavity Surface-Emitting Lasers With an Oxide Confinement Structure. IEEE Photonics Technology Letters, 2011, 23, 1811-1813.	1.3	11
104	All-optical flip-flop operation of polarization bistable VCSELs with an oxide confinement structure. , 2011, , .		0
105	Modified long-range surface plasmon polariton modes for laser nanoresonators. Journal of Applied Physics, 2011, 110, 063106.	1.1	16
106	Wide bandwidth, low loss 1 by 4 wavelength division multiplexer on silicon for optical interconnects. Optics Express, 2011, 19, 2401.	1.7	71
107	Optically-pumped circularly polarized lasing in a (110) VCSEL with GaAs/AlGaAs QWs at room temperature. , 2011, , .		0
108	Correlation between morphology and electron spin relaxation time in GaAs/AlGaAs quantum wells on misoriented GaAs(110) substrates. Journal of Applied Physics, 2011, 110, 043516.	1.1	2

#	ARTICLE	IF	CITATIONS
109	Room temperature circularly polarized lasing in an optically spin injected vertical-cavity surface-emitting laser with (110) GaAs quantum wells. Applied Physics Letters, 2011, 98, .	1.5	96
110	Spin-controlled switching of lasing circular polarizations in (110)-oriented VCSELs. , 2011, , .		0
111	Control of Electron Spin Relaxation Dynamics and Circularly Polarized Lasing in Semiconductor Lasers. Hyomen Kagaku, 2011, 32, 755-760.	0.0	0
112	Self-alignment and instability of waveguides induced by forces of guided and radiated fields. Proceedings of SPIE, 2010, , .	0.8	0
113	Coupled vertical gratings on silicon for applications in wavelength division multiplexing. , 2010, , .		0
114	High Temperature Characteristics of Diamond SBDs. Materials Science Forum, 2010, 645-648, 1231-1234.	0.3	15
115	Group velocity dispersion and self phase modulation in silicon nitride waveguides. Applied Physics Letters, 2010, 96, .	1.5	112
116	Carrier Lifetime and Electron Spin Relaxation Time in (110)-Oriented GaAs ϵ AlGaAs Quantum-Well Micro-Posts. IEEE Photonics Technology Letters, 2010, 22, 1689-1691.	1.3	7
117	Transverse and Longitudinal Optical Forces of Self-Alignment in Waveguides. , 2010, , .		0
118	Self-alignment and instability of waveguides induced by optical forces. Physical Review A, 2009, 80, .	1.0	5
119	Coupled chirped vertical gratings for on-chip group velocity dispersion engineering. Applied Physics Letters, 2009, 95, .	1.5	53
120	Heterodyne near-field scanning optical microscopy with spectrally broad sources. Optics Letters, 2009, 34, 1327.	1.7	8
121	Cladding-modulated Bragg gratings in silicon waveguides. Optics Letters, 2009, 34, 1357.	1.7	107
122	Switching of Lasing Circular Polarizations in a (110)-VCSEL. IEEE Photonics Technology Letters, 2009, 21, 1350-1352.	1.3	24
123	Increase in Reverse Operation Limit by Barrier Height Control of Diamond Schottky Barrier Diode. IEEE Electron Device Letters, 2009, 30, 960-962.	2.2	62
124	Fabrication of a field plate structure for diamond Schottky barrier diodes. Diamond and Related Materials, 2009, 18, 292-295.	1.8	40
125	Device scaling of pseudo-vertical diamond power Schottky barrier diodes. Diamond and Related Materials, 2009, 18, 1196-1199.	1.8	39
126	Recent Progress of Diamond Device toward Power Application. Materials Science Forum, 2009, 615-617, 999-1002.	0.3	10

#	ARTICLE	IF	CITATIONS
127	Thermally Stable Schottky Barrier Diode by Ru/Diamond. Applied Physics Express, 2009, 2, 011202.	1.1	67
128	Nanophotonics for Information Systems. Lecture Notes in Computer Science, 2009, , 2-4.	1.0	1
129	Chip-scale dispersion engineering using chirped vertical gratings. Optics Letters, 2008, 33, 3013.	1.7	81
130	Thermal and Kerr nonlinear properties of plasma-deposited silicon nitride/ silicon dioxide waveguides. Optics Express, 2008, 16, 12987.	1.7	334
131	Dispersion compensation for on-chip ultrafast signal processing. , 2008, , .		0
132	Metamaterials for free space on a chip applications. Proceedings of SPIE, 2008, , .	0.8	0
133	Wavelength selective coupler with vertical gratings on silicon chip. Applied Physics Letters, 2008, 92, .	1.5	50
134	Inhomogenous Dielectric Metamaterials with Space-Variant Polarizability. Physical Review Letters, 2007, 98, 243901.	2.9	107
135	Nanophotonics for information systems. , 2007, , .		0
136	Resonant waveguide device with vertical gratings. Optics Letters, 2007, 32, 539.	1.7	49
137	Effects produced by metal-coated near-field probes on the performance of silicon waveguides and resonators. Optics Letters, 2007, 32, 2602.	1.7	12
138	Processing advantages of linear chirped fiber Bragg gratings in the time domain realization of optical frequency-domain reflectometry. Optics Express, 2007, 15, 15464.	1.7	23
139	Enhanced optical nonlinearity in amorphous silicon and its application to waveguide devices. Optics Express, 2007, 15, 17761.	1.7	68
140	Tunable Transmission Resonant Filter and Modulator With Vertical Gratings. Journal of Lightwave Technology, 2007, 25, 1147-1151.	2.7	48
141	Material and structural criteria for ultra-fast Kerr nonlinear switching in optical resonant cavities. Solid-State Electronics, 2007, 51, 1376-1380.	0.8	14
142	Nonlinear Fabry-Perot resonator with a silicon photonic crystal waveguide. Optics Letters, 2006, 31, 3486.	1.7	15
143	Nearfield investigation of subwavelength structured graded-index lens. , 2006, , .		0
144	Devices Utilizing Free-space Optics on a Chip. , 2006, , .		0

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145	Tunable Transmission Resonant Filter and Modulator with Vertical Gratings. , 2006, , .		3
146	PMD Compensator With Second-Order PMD Mitigation Using Mode-Coupled Fixed Delay. IEEE Photonics Technology Letters, 2004, 16, 105-107.	1.3	2
147	Device Characteristics Dependence on Diamond SDBs Area. Materials Science Forum, 0, 615-617, 1003-1006.	0.3	2
148	Polarization-Insensitive Local-Oscillator-Carrier Loopback Modulation for Cost-effective and High-port-count Wavelength Routing Optical Switch. Optics Letters, 0, , .	1.7	0