Kiichi Hamamoto

List of Publications by Year
in descending order

106	995	623734	477307
papers	citations	14 h-index	29 g-index

108	108	108	466
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-Power (> 110 mW) Superluminescent Diodes by Using Active Multimode Interferometer. IEEE Photonics Technology Letters, 2010, 22, 721-723.	2.5	143
2	Thermal resistance reduction in high power superluminescent diodes by using active multi-mode interferometer. Applied Physics Letters, 2012, 100, .	3.3	139
3	1.55-Î¼m wavelength-selectable microarray DFB-LD's with monolithically integrated MMI combiner, SOA, and EA-modulator. IEEE Photonics Technology Letters, 2000, 12, 242-244.	2.5	90
4	High Power and Stable High Coupling Efficiency (66%) Superluminescent Light Emitting Diodes by Using Active Multi-Mode Interferometer. IEICE Transactions on Electronics, 2011, E94-C, 862-864.	0.6	77
5	First 8Ã—8 semiconductor optical matrix switches using GaAs/AlGaAs electro-optic guided-wave directional couplers. Electronics Letters, 1992, 28, 441.	1.0	43
6	4*4 GaAs/AlGaAs optical matrix switches with uniform device characteristics using alternating Delta beta electrooptic guided-wave directional couplers. Journal of Lightwave Technology, 1991, 9, 871-878.	4.6	33
7	Wavelength-selectable microarray light sources of multiple ranges simultaneously fabricated on single wafer. Electronics Letters, 2000, 36, 745.	1.0	26
8	Extremely low loss 4Ã—4 GaAs/AlGaAs optical matrix switch. Electronics Letters, 1993, 29, 1580.	1.0	22
9	Insertion-loss-free 2Ã—2 InGaAsP/InP optical switch fabricated using bandgap energy controlled selective MOVPE. Electronics Letters, 1995, 31, 1779-1781.	1.0	22
10	A transceiver PIC for bidirectional optical communication fabricated by bandgap energy controlled selective MOVPE. IEEE Photonics Technology Letters, 1996, 8, 361-363.	2.5	22
11	First demonstration of novel active multi-mode interferometer (MMI) LDs integrated with 1st order-mode permitted waveguides. IEICE Electronics Express, 2005, 2, 399-403.	0.8	18
12	Amplifier-assisted CRDS (cavity ring-down spectroscopy) toward compact breath sensing. Japanese Journal of Applied Physics, 2019, 58, SJJD01.	1.5	17
13	Narrow-stripe selective growth of high-quality MQWs by atmospheric-pressure MOVPE. Journal of Crystal Growth, 1998, 195, 466-473.	1.5	15
14	Active multi-mode-interferometer semiconductor optical amplifier. Electronics Letters, 2000, 36, 1218.	1.0	15
15	Single-transverse-mode active multi-mode- interferometer 1.45ÂÎ¼m high power laser diode. Applied Physics B: Lasers and Optics, 2001, 73, 571-574.	2.2	15
16	Single transverse mode active multimode interferometer InGaAsP/InP laser diode. Electronics Letters, 1998, 34, 462.	1.0	13
17	Bandwidth enhancement scheme demonstration on direct modulation active-MMI laser diode using multiple photon photon resonance. Applied Physics Letters, 2017, 111, .	3.3	13
18	Insertion-loss-free 1 Ã— 4 optical switch fabricated using bandgap-energy-controlled selective MOVPE. Electronics Letters, 1996, 32, 2265.	1.0	12

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19	Active multimode interferometer laser diode demonstrated via 1.48 [micro sign]m high power application. Electronics Letters, 2000, 36, 138.	1.0	12
20	All-optical flip-flop operation based on asymmetric active-multimode interferometer bi-stable laser diodes. Optics Express, 2011, 19, B119.	3.4	12
21	Active MMI devices: concept, proof, and recent progress. Journal Physics D: Applied Physics, 2015, 48, 383001.	2.8	12
22	Proposal of optical mode switch. Japanese Journal of Applied Physics, 2014, 53, 08MB10.	1.5	11
23	Gas sensing demonstration by using silica high-mesa waveguide with amplified cavity ring down spectroscopy technique. IEICE Electronics Express, 2015, 12, 20150574-20150574.	0.8	11
24	High-power 0.98-/spl mu/m strained quantum-well lasers fabricated using in situ monitored reactive ion beam etching. IEEE Photonics Technology Letters, 1995, 7, 602-604.	2.5	10
25	High power with low electric power consumption active multi-mode-interferometer laser diode for fibre-amplifier. Electronics Letters, 2002, 38, 517.	1.0	10
26	CW single-wavelength emission by using novel asymmetric configuration for active multi-mode interferometer laser diodes. IEICE Electronics Express, 2012, 9, 1448-1453.	0.8	9
27	Electrically controlled optical-mode switch for fundamental mode and first order mode. Japanese Journal of Applied Physics, 2016, 55, 08RB06.	1.5	8
28	Low wavelength dependency design for MMI (multi-mode interference) mode converter. IEICE Electronics Express, 2015, 12, 20150727-20150727.	0.8	7
29	Split pump region in 1.55 Î¼m InGaAsP/InGaAsP asymmetric active multi-mode interferometer laser diode for improved modulation bandwidth. IEICE Transactions on Electronics, 2014, E97.C, 781-786.	0.6	7
30	Spot-size converter integrated semiconductor optical amplifiers for optical gate applications. IEEE Journal of Quantum Electronics, 1999, 35, 1067-1074.	1.9	6
31	Over 1â€…W output power with low driving voltage 14xx-nm pump laser diodes using active multimode-interferometer. Electronics Letters, 2004, 40, 1063.	1.0	6
32	Optical mode switch and mode selective light source toward flexible mode-division multiplexing network. , 2017, , .		6
33	Phase-Locked Array Laser Diodes (LDs) by Using $1imes N$ Active Multimode-Interferometer (MMI). IEEE Photonics Technology Letters, 2009, 21, 176-178.	2.5	5
34	Slot Waveguide by Using Double High-Mesa Structure for Optical Absorption Sensing. Japanese Journal of Applied Physics, 2010, 49, 122503.	1.5	5
35	Injection-Locked Flip-Flop Operation of a DBR Laser. IEEE Photonics Technology Letters, 2011, 23, 1261-1263.	2.5	5
36	Optical Mode Switch for High Speed Switching Network. , 2014, , .		5

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37	Low loss silica high-mesa waveguide for infrared sensing. Japanese Journal of Applied Physics, 2014, 53, 022502.	1.5	5
38	Proposal of two tangent air hole structure for higher sensitivity gas sensor. Japanese Journal of Applied Physics, 2019, 58, SJJD03.	1.5	5
39	Vertical field enhancement of a spot-size converter using a nanopixel waveguide and window structure. Optics Express, 2021, 29, 2757.	3.4	5
40	Fabrication and analysis of low-loss silicon high-mesa waveguides. Applied Optics, 2020, 59, 4964.	1.8	5
41	Low internal loss InP/InGaAsP laser diodes fabricated using inductively coupled plasma etching. , 0, , .		4
42	Low Hysteresis Threshold Current (39 mA) Active Multimode-Interferometer (MMI) Bistable Laser Diodes Using Lateral-Modes Bistability. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 1258-1263.	2.9	4
43	Polarization Beam Splitter With Different Core Widths and Its Application to Dual-Polarization Optical Hybrid. Journal of Lightwave Technology, 2015, 33, 408-414.	4.6	4
44	Mode crosstalk evaluation on optical mode switch. , 2015, , .		4
45	Fast Mode-Switching (60ns) by Using A 2 Ã— 2 Silicon Optical Mode Switch. IEICE Transactions on Electronics, 2017, E100.C, 782-788.	0.6	4
46	Mode Selective Active Multimode Interferometer Laser Diode with over 40 GHz Direct Modulation Bandwidth. , 2018, , .		4
47	Asymmetric-ration optical power couplers based on nano-pixel structure. OSA Continuum, 2021, 4, 556.	1.8	4
48	Proposal of Novel Strip High-Mesa Waveguide for Infrared Absorption Sensing. Applied Physics Express, 2012, 5, 062202.	2.4	4
49	The influence of unsteady state plasma on the properties of a-Si:H films formed by glow discharge-chemical vapour deposition. Thin Solid Films, 1989, 177, 161-170.	1.8	3
50	First direct observation of self-imaging effect in active multimode-interference semiconductor laser diodes. Applied Physics Letters, 2006, 89, 011106.	3.3	3
51	Reliability Improvement of superluminescent diodes emitting at 1.0 Âµm band using InGaAsP barrier structure. Electronics Letters, 2013, 49, 409-410.	1.0	3
52	High intrinsic modulation bandwidth InGaAsP/InGaAsP 1.55 Âµm asymmetric active multimode interferometer laser diode by using split pump configuration. Japanese Journal of Applied Physics, 2014, 53, 08MB09.	1.5	3
53	Bandwidth Enhancement Scheme Demonstration (from 5 GHz to 34 GHz) on Direct Modulation Laser Diode Using Multiple PPR (Photon-Photon Resonance) Active MMI. , 2017, , .		3
54	First Demonstration of Mode Selective Active Multimode Interferometer Laser Diode. IEICE Transactions on Electronics, 2017, E100.C, 775-781.	0.6	3

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55	Low loss SOI-based high-mesa waveguides fabricated using neutral loop discharge (NLD) plasma etching for compact breath-sensing system. , 2007, , .		3
56	Mode Selective Active Multimode Interferometer Laser Diode â€" Mode Selection Principle, and High Speed Modulation â€". IEICE Transactions on Electronics, 2019, E102.C, 364-370.	0.6	3
57	Single-Wavelength Emission by Using 1 Ã— N Active Multi-Mode Interferometer Laser Diode. IEICE Transactions on Electronics, 2013, E96.C, 1413-1419.	0.6	3
58	First demonstration of electrically controlled mode switching. , 2015, , .		2
59	Dry etching for Germanium waveguides by using CHF3 inductively coupled plasma. , 2015, , .		2
60	Mode Crosstalk Evaluation Method by Using MMI Mode Filter for Optical Mode Switch. IEICE Transactions on Electronics, 2016, E99.C, 825-829.	0.6	2
61	Accurate dry etching technique for germanium waveguide by using CHF ₃ based inductively coupled plasma. Electronics Letters, 2016, 52, 1868-1869.	1.0	2
62	Surface improvement investigation of solâ€"gel SiO2 cladding for waveguide device passivation. Japanese Journal of Applied Physics, 2019, 58, SJJB04.	1.5	2
63	A Multi-Layer Stacked All Sol-Gel Fabrication Technique for Vertical Coupled Waveguide. Evergreen, 2017, 4, 12-17.	0.5	2
64	Integrated optical waveguide gas sensing using amplifier assisted technique. , 2020, , .		2
65	Space-mode compressor by using nano-pixel. Japanese Journal of Applied Physics, 2022, 61, SK1022.	1.5	2
66	Electrical properties of hydrogenated amorphous silicon layers on a polymer film substrate under tensile stress. Applied Physics Letters, 1989, 54, 1678-1680.	3.3	1
67	Preliminary Reliability Evaluations of GaAs/AlGaAs Electro-Optic Directional Coupler Switches. Japanese Journal of Applied Physics, 1993, 32, L390-L391.	1.5	1
68	1 V and Stable Dynamic Operation of Laser Diode Using Active Multi-Mode Interferometer. Japanese Journal of Applied Physics, 2006, 45, L14-L16.	1.5	1
69	Proposal of multiple-slot silica high-mesa waveguide for infrared absorption. IEICE Electronics Express, 2013, 10, 20130871-20130871.	0.8	1
70	Theoretical modelling of photon-photon resonance on active multimode interferometer laser diode toward 40Gbps. , 2015, , .		1
71	Demonstration of photon-photon resonance peak enhancement by waveguide design modification on active multimode interferometer laser diode. , 2015, , .		1
72	Multiple photon photon resonance by using active-multimode interferometer laser diode. , 2017, , .		1

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73	Multi-layer stacking scheme of sol-gel based SiO₂ towards thicker (>0.8 Âµm) cladding layers for optical waveguides. IEICE Electronics Express, 2018, 15, 20180783-20180783.	0.8	1
74	Proposal of 1xN Optical Mode Switch Based on Spatial Single Dimensional Mode. , 2019, , .		1
75	Spatial Single Dimensional Mode De-multiplexer Based on Rowland Circle Waveguide. , 2019, , .		1
76	Observation of 60 GHz and 20 GHz Multiple Photon-Photon Resonances Using Active Multimode Interferometer Laser Diodes. , 2019, , .		1
77	1:9 and 1:99 Optical Power Couplers Based on Nano-Pixel Structure. , 2020, , .		1
78	Spatial Single Dimensional Mode Based De-Multiplexer Using Slab Waveguide. IEICE Transactions on Electronics, 2021, E104.C, 164-167.	0.6	1
79	Demonstration of resonance frequency enhancement effect by using split pumping region in active multi-mode interferometer laser diode. , 2013, , .		1
80	Active-MMI laser diode toward high-speed direct modulation based on multiple photon-photon resonance. , 2018, , .		1
81	Demonstration of Equal Input (Intensity and Phase) MMI Like Power Coupler by using Nano-Pixel Structure. , 2021, , .		1
82	Affection analysis of frequency response with photon-photon-resonance (PPR) to directly modulated 40 Gbps signal. , 2021, , .		1
83	Vertical Field Enhancement of Spot Size Converter by Using Nano-Pixel Waveguide and Window Structure. , 2020, , .		1
84	Novel Active Multi-Mode-Interferometer (MMI) Laser Diodes Integrated with 1st Order-Mode Permitted Waveguides. , 0, , .		0
85	Low hysteresis threshold current (39mA) demonstration using active multi-mode interferometer bi-stable laser diodes. , 2010, , .		0
86	Proposal of 128ch coupled multi-core fiber configuration using coil-shape (MCF). , 2015, , .		0
87	Design criteria for wavelength independent MMI mode converter. , 2015, , .		0
88	Preliminarily propagation loss evaluation of core-top etched waveguide for step-core LP21 mode converter. , 2015, , .		0
89	Proposal of novel optical mode demultiplexer based on angled-multimode interference (a-MMI) waveguide. , 2015, , .		0
90	Single-step dry-etched lateral PIN by using trench structure for optical mode switch. , 2015, , .		0

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91	Demonstration of photonâ€“photon resonance peak enhancement by waveguide configuration modification on active multimode interferometer laser diode. Japanese Journal of Applied Physics, 2016, 55, 08RD04.	1.5	0
92	A space mode selective light source with over 40 GHz direct modulation bandwidth. Japanese Journal of Applied Physics, 2019, 58, SJJA05.	1.5	0
93	Greetings from the General Co-Chairs of OECC/PSC 2019. , 2019, , .		0
94	Significant Propagation Loss Reduction on Silicon High-Mesa Waveguides Using Thermal Oxidation Technique. , 2019, , .		0
95	Propagation Mode Retention Using Strongly Coupled Multi-Core Fiber. , 2019, , .		0
96	Mode Crosstalk Improvement of Active-MMI Mode Selective Laser Diode using Slit Structure. , 2019, , .		0
97	Concept Demonstration of 3D Waveguides Shuffle Converter for Multi-Core Fiber/Single-Mode Fiber Fan-in Fan-out Configuration Toward Over 1,000 Port Count. IEICE Transactions on Electronics, 2021, E104.C, 34-36.	0.6	0
98	Microoptics. Japanese Journal of Applied Physics, 2016, 55, 08R001.	1.5	0
99	Microoptics. Japanese Journal of Applied Physics, 2019, 58, SJ0001.	1.5	0
100	Active-MMI SOA on Quantum-Dots toward High Saturation Output Power under High Temperature. , 2021, , .		0
101	Rapid automatic waveguide recognition using YOLO for 3D waveguide drawing. , 2021, , .		0
102	Proposal of space-mode â€œcompressorâ€•by using nano-pixel. , 2021, , .		0
103	Feasibility study of 1Ã—4 optical mode switch based on single dimensional mode-set. , 2020, , .		0
104	Sensing Accuracy Improvement for Waveguide CRDS toward Compact Breath Sensing. , 2020, , .		0
105	ASE Spectrum Analysis on Active-MMI SOA toward High Saturation Output Power at High Temperature. , 2021, , .		0
106	Active multi-mode interferometer semiconductor optical amplifier on quantum-dots toward high saturated output power under high temperature. Japanese Journal of Applied Physics, 0, , .	1.5	0