

Junichi Fujikata

List of Publications by Year in descending order

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78
papers

1,505
citations

471509

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330143

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g-index

78
all docs

78
docs citations

78
times ranked

1434
citing authors

#	ARTICLE	IF	CITATIONS
1	Si Nano-Photodiode with a Surface Plasmon Antenna. Japanese Journal of Applied Physics, 2005, 44, L364-L366.	1.5	300
2	Efficient low-loss InGaAsP/Si hybrid MOS optical modulator. Nature Photonics, 2017, 11, 486-490.	31.4	166
3	On-Chip Optical Interconnect. Proceedings of the IEEE, 2009, 97, 1186-1198.	21.3	129
4	First Demonstration of Athermal Silicon Optical Interposers With Quantum Dot Lasers Operating up to 125 Å°C. Journal of Lightwave Technology, 2015, 33, 1223-1229.	4.6	106
5	First demonstration of high density optical interconnects integrated with lasers, optical modulators, and photodetectors on single silicon substrate. Optics Express, 2011, 19, B159.	3.4	90
6	Demonstration of 125-Gbps optical interconnects integrated with lasers, optical splitters, optical modulators and photodetectors on a single silicon substrate. Optics Express, 2012, 20, B256.	3.4	53
7	High-density and wide-bandwidth optical interconnects with silicon optical interposers [Invited]. Photonics Research, 2014, 2, A1.	7.0	40
8	5 mW/Gbps hybrid-integrated Si-photonics-based optical I/O cores and their 25-Gbps/ch error-free operation with over 300-m MMF. , 2015, , .		39
9	Thermal fluctuation aftereffect of exchange coupled films for spin valve devices. Journal of Applied Physics, 1998, 83, 7210-7212.	2.5	34
10	Low-resistance tunnel magnetoresistive head. IEEE Transactions on Magnetics, 2000, 36, 2549-2553.	2.1	34
11	Si Waveguide-Integrated Metal-Semiconductor-Metal and n-Type Ge Photodiodes Using Si-Capping Layer. Japanese Journal of Applied Physics, 2013, 52, 04CG10.	1.5	34
12	III-V/Si Hybrid MOS Optical Phase Shifter for Si Photonic Integrated Circuits. Journal of Lightwave Technology, 2019, 37, 1474-1483.	4.6	34
13	High-speed and high-efficiency Si optical modulator with MOS junction, using solid-phase crystallization of polycrystalline silicon. Japanese Journal of Applied Physics, 2016, 55, 042202.	1.5	32
14	Large Optical Transmission through a Single Subwavelength Hole Associated with a Sharp-Apex Grating. Japanese Journal of Applied Physics, 2005, 44, L170-L172.	1.5	23
15	Waveguide-Integrated Si Nano-Photodiode with Surface-Plasmon Antenna and its Application to On-chip Optical Clock Distribution. Applied Physics Express, 0, 1, 022001.	2.4	21
16	High-speed Ge/Si electro-absorption optical modulator in C-band operation wavelengths. Optics Express, 2020, 28, 33123.	3.4	21
17	A 25-Gb/s 5 Å– 5 mm ² Chip-Scale Silicon-Photonic Receiver Integrated With 28-nm CMOS Transimpedance Amplifier. Journal of Lightwave Technology, 2016, 34, 2988-2995.	4.6	20
18	Low resistance magnetic tunnel junctions and their interface structures. Journal of Applied Physics, 2001, 89, 7558-7560.	2.5	18

#	ARTICLE	IF	CITATIONS
19	Excitonic molecule in a quantum dot: Photoluminescence lifetime of a single InAs/GaAs quantum dot. <i>Physical Review B</i> , 2005, 72, .	3.2	18
20	Numerical Study of Near-Infrared Photodetectors with Surface-Plasmon Antenna for Optical Communication. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 2921-2923.	1.5	18
21	Magnetoresistance effects in spin-valve structures with CoO/NiO superlattices. <i>IEEE Transactions on Magnetism</i> , 1995, 31, 3936-3938.	2.1	16
22	High-performance MOS-capacitor-type Si optical modulator and surface-illumination-type Ge photodetector for optical interconnection. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 04EC01.	1.5	15
23	Low-loss Silicon Oxynitride Waveguides and Branches for the 850-nm-Wavelength Region. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 6739-6743.	1.5	14
24	First demonstration of SiGe-based carrier-injection Mach-Zehnder modulator with enhanced plasma dispersion effect. <i>Optics Express</i> , 2016, 24, 1979.	3.4	14
25	25-Gbps error-free operation of chip-scale Si-photonics optical transmitter over 70°C with integrated quantum dot laser. , 2016, , .		13
26	Underlayer effect on magnetoresistance of top- and bottom-type spin valves. <i>Journal of Applied Physics</i> , 1999, 85, 5021-5023.	2.5	12
27	1.2 Tbps/cm ² Enabling Silicon Photonics IC Technology Based on 40-nm Generation Platform. <i>Journal of Lightwave Technology</i> , 2018, 36, 4701-4712.	4.6	12
28	Differential receivers with highly -uniform MSM Germanium photodetectors capped by SiGe layer. <i>Optics Express</i> , 2013, 21, 23295.	3.4	11
29	InGaAs Nano-Photodiode Enhanced Using Polarization-Insensitive Surface-Plasmon Antennas. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 120201.	1.5	10
30	Thermal stability of spin valve with NiO/Fe ₂ O ₃ bilayer antiferromagnets. <i>IEEE Transactions on Magnetism</i> , 1998, 34, 954-956.	2.1	9
31	High-speed and highly efficient Si optical modulator with strained SiGe layer. <i>Applied Physics Express</i> , 2018, 11, 032201.	2.4	9
32	High speed and highly efficient Si optical modulator with MOS junction for 1.55 μm and 1.3 μm wavelengths. , 2013, , .		8
33	High-density optical interconnects by using silicon photonics. <i>Proceedings of SPIE</i> , 2014, , .	0.8	8
34	Study on the effects of the Si capping layer growth conditions on the leakage current of Ge photodetector. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 102201.	1.5	8
35	Demonstration of record-low injection-current variable optical attenuator based on strained SiGe with optimized lateral pin junction. <i>Optics Express</i> , 2015, 23, 12354.	3.4	7
36	Taperless Si hybrid optical phase shifter based on a metal-oxide-semiconductor capacitor using an ultrathin InP membrane. <i>Optics Express</i> , 2020, 28, 35663.	3.4	7

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37	Underlayer Effect on Magneto-Resistance in Spin-Valves. Japanese Journal of Applied Physics, 1997, 36, L1161-L1164.	1.5	6
38	High density optical and electrical interfaces for chip-scale silicon photonic receiver. , 2017, , .		6
39	High-efficiency and high-speed narrow-width MOS capacitor-type Si optical modulator with TM mode excitation. Optics Express, 2021, 29, 10104.	3.4	6
40	Magnetoresistance in spin-valve structures with Ni-oxide/Co-oxide bilayer antiferromagnets. IEEE Transactions on Magnetics, 1996, 32, 4621-4623.	2.1	5
41	25-Gbps 5mm chip-scale silicon-photonic receiver integrated with 28-nm CMOS transimpedance amplifier. , 2015, , .		5
42	112 Gb/s PAM-4 Silicon Photonics Receiver Integrated With SiGe-BiCMOS Linear TIA. IEEE Photonics Technology Letters, 2022, 34, 189-192.	2.5	5
43	Differential signal transmission in silicon-photonics integrated circuit for high density optical interconnects. , 2011, , .		4
44	First Demonstration of High Density Optical Interconnects Integrated with Lasers, Optical Modulators and Photodetectors on a Single Silicon Substrate. , 2011, , .		4
45	Demonstration of 12.5-Gbps Optical Interconnects Integrated with Lasers, Optical Splitters, Optical Modulators and Photodetectors on a Single Silicon Substrate. , 2012, , .		4
46	Demonstration of 25-Gbps optical data links on silicon optical interposer using FPGA transceiver. , 2014, , .		4
47	Modulation bandwidth improvement of III-V/Si hybrid MOS optical modulator by reducing parasitic capacitance. Optics Express, 2022, 30, 22848.	3.4	4
48	Highly Efficient Surface-Plasmon Antenna and its Application to Si Nano-Photodiode. , 2006, , .		3
49	InGaAs Nano-Photodiode Enhanced Using Polarization-Insensitive Surface-Plasmon Antennas. Japanese Journal of Applied Physics, 2011, 50, 120201.	1.5	3
50	High performance PIN Ge photodetector and Si optical modulator with MOS junction for photonics-electronics convergence system. , 2013, , .		3
51	High speed and highly efficient Si optical modulator with strained SiGe layer. , 2015, , .		3
52	High-performance Si optical modulator with strained p-SiGe layer and its application to 25 Gbps optical transceiver. , 2017, , .		3
53	Highly Enhanced Speed and Efficiency of Si Nano- Photodiode with a Surface-Plasmon Antenna. , 2005, , .		3
54	SiGe-based carrier-injection Mach-Zehnder modulator with enhanced plasma dispersion effect in strained SiGe. , 2015, , .		3

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55	High-efficiency, Low-loss Optical Phase Modulator based on III-V/Si Hybrid MOS Capacitor. , 2018, , .		3
56	Low Parasitic Capacitance III-V/Si Hybrid MOS Optical Modulator toward High-speed Modulation. , 2020, , .		3
57	Development of Nano-Photodiodes with a Surface Plasmon Antenna. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	2
58	Si Nano-Photodiode with a Surface-Plasmon Antenna for SiON Waveguide-Integrated Structure. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	2
59	Waveguide-integrated Si nano-photodiode with surface-plasmon antenna and its application to on-chip optical clock signal distribution. , 2008, , .		2
60	Photodetector Using Surface-Plasmon Antenna for Optical Interconnect. Materials Research Society Symposia Proceedings, 2008, 1145, 1.	0.1	2
61	Carrier injection refractive index changes in low-temperature grown silicon waveguide. , 2014, , .		2
62	High-performance silicon photonics process platform for low-power photonic integrated circuits. , 2016, , .		2
63	(Invited) High-Performance Si Optical Modulator and Ge Photodetector and Their Application to Silicon Photonics Integrated Circuit. ECS Transactions, 2018, 86, 17-25.	0.5	2
64	High-density Silicon Optical Interposer for Inter-chip Interconnects based on Compact and High Speed Components. , 2013, , .		2
65	Taper-less III-V/Si Hybrid MOS Optical Phase Shifter using Ultrathin InP Membrane. , 2020, , .		2
66	High-uniformity waveguide-integrated metal-semiconductor-metal germanium photodetector with sige capping layer and its application to differential receivers. , 2012, , .		1
67	Bit error rate analysis of a silicon optical interposer using its equivalent circuit. IEICE Electronics Express, 2015, 12, 20141084-20141084.	0.8	1
68	High-Efficiency of Narrow-Width MOS Capacitor Type Si Optical Modulator with TM Mode Excitation. , 2019, , .		1
69	Advances in High-Density Inter-Chip Interconnects with Photonic Wiring. IEICE Transactions on Electronics, 2013, E96.C, 958-965.	0.6	1
70	Development and applications of a Si nanophotodiode with a surface plasmon antenna. , 2006, , .		0
71	Coherent control of exciton in a single InAs/GaAs quantum dot. , 2007, , .		0
72	First demonstration of athermal silicon optical interposers with quantum dot lasers operating up to 125 °C. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
73	Observation of suppressed dark current of Ge on Si (100) using ultrathin Ge seed layer. , 2014, , .		0
74	Athermal silicon optical interposers operating up to 125Å° C. Proceedings of SPIE, 2015, , .	0.8	0
75	III-V/Si Hybrid MOS Optical Phase Modulator for Si Photonic Integrated Circuits. , 2018, , .		0
76	Silicon Photonics Devices for Optical Interconnection. , 2011, , .		0
77	Fully Integrated Silicon Optical Interposers with High Bandwidth Density. , 2014, , .		0
78	High-extinction-ratio Si optical modulator loaded with integrated polarizer. Japanese Journal of Applied Physics, 0, , .	1.5	0