

Akio Higo

List of Publications by Year in descending order

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73
papers

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1040056

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all docs

73
docs citations

73
times ranked

275
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental demonstration of self-aligned InP/InGaAsP polarization converter for polarization multiplexed photonic integrated circuits. <i>Optics Express</i> , 2013, 21, 6910.	3.4	36
2	Quantum size effects in GaAs nanodisks fabricated using a combination of the bio-template technique and neutral beam etching. <i>Nanotechnology</i> , 2013, 24, 285301.	2.6	33
3	Monolithic InP strictly non-blocking 8Å–8 switch for high-speed WDM optical interconnection. <i>Optics Express</i> , 2012, 20, 28734.	3.4	31
4	Light-Emitting Devices Based on Top-down Fabricated GaAs Quantum Nanodisks. <i>Scientific Reports</i> , 2015, 5, 9371.	3.3	31
5	Impact of silicon quantum dot super lattice and quantum well structure as intermediate layer on silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 774-780.	8.1	20
6	Observation of micromechanically controlled tuning of photonic crystal line-defect waveguide. <i>Applied Physics Letters</i> , 2006, 88, 011104.	3.3	19
7	Optical Study of Sub-10 nm In _{0.3} Ga _{0.7} N Quantum Nanodisks in GaN Nanopillars. <i>ACS Photonics</i> , 2017, 4, 1851-1857.	6.6	15
8	A transparent sheet display by plastic MEMS. <i>Journal of the Society for Information Display</i> , 2006, 14, 735.	2.1	14
9	A Calibration Technique for Simultaneous Estimation of Actual Sensing Matrix Coefficients on Modulated Wideband Converters. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 5561-5573.	5.4	10
10	Effect of passivation layer grown by atomic layer deposition and sputtering processes on Si quantum dot superlattice to generate high photocurrent for high-efficiency solar cells. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 032303.	1.5	9
11	Neutral beam process in AlGaIn/GaN HEMTs: Impact on current collapse. <i>Solid-State Electronics</i> , 2017, 137, 1-5.	1.4	9
12	Theoretical Analysis of Noise Figure for Modulated Wideband Converter. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 298-308.	5.4	8
13	High-Precision Sub-Nyquist Sampling System Based on Modulated Wideband Converter for Communication Device Testing. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2022, 69, 378-388.	5.4	8
14	SOI platform and III-V integrated active photonic device by direct bonding for data communication. , 2012, , .		7
15	Temperature-Dependent Operation of GaAs Quantum Nanodisk LEDs with Asymmetric AlGaAs Barriers. <i>IEEE Nanotechnology Magazine</i> , 2016, 15, 557-562.	2.0	7
16	A study on color-tunable MEMS device based on plasmon photonics. , 2010, , .		6
17	Development of a vertical optical coupler using a slanted etching of InP/InGaAsP waveguide. <i>IEICE Electronics Express</i> , 2013, 10, 20130116-20130116.	0.8	6
18	Impact of artificial lateral quantum confinement on exciton-spin relaxation in a two-dimensional GaAs electronic system. <i>AIP Advances</i> , 2014, 4, 107112.	1.3	6

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19	Nanometer scale fabrication and optical response of InGaN/GaN quantum disks. Nanotechnology, 2016, 27, 425401.	2.6	6
20	PbS Quantum Dot / ZnO Nanowires Hybrid Test Structures for Infrared Photodetector. , 2019, , .		6
21	High-Resolution Piezoelectric Mems Scanner Fully Integrated With Focus-Tuning and Driving Actuators. , 2019, , .		6
22	Electrical pumping Fabry-Pérot lasing of a III-V layer on a highly doped silicon micro rib. Laser Physics Letters, 2014, 11, 115807.	1.4	5
23	Tuning of the electron factor in defect-free GaAs nanodisks. Physical Review B, 2015, 92, .	3.2	5
24	Neutral beam etching for device isolation in AlGaIn/GaN HEMTs. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600617.	1.8	5
25	Photoluminescence emission from GaAs nanodisks in GaAs/AlGaAs nanopillar arrays fabricated by neutral beam etching. Japanese Journal of Applied Physics, 2017, 56, 050308.	1.5	5
26	Microscale ultrahigh-frequency resonant wireless powering for capacitive and resistive MEMS actuators. Sensors and Actuators A: Physical, 2018, 275, 75-87.	4.1	5
27	Micro-scale Electrostatic Attach-detach Device for Self-reconfigurable Modular Robotic System. , 2020, , .		5
28	Fabrication of PbS QD/Silicon Hybrid Infrared Photodiode for LSI Platform. IEEJ Transactions on Sensors and Micromachines, 2018, 138, 307-311.	0.1	5
29	Effect of ALD-Al ₂ O ₃ Passivated Silicon Quantum Dot Superlattices on p/i/n+ Solar Cells. IEEE Transactions on Electron Devices, 2017, 64, 2886-2892.	3.0	4
30	Fabrication of PbS quantum dots and silicon device for near-infrared detection. , 2017, , .		4
31	Semiconductive properties of heterointegration of INP/INGAAS on high doped silicon wire waveguide for silicon hybrid laser. , 2009, , .		3
32	Electrical pumping to III-V layer from highly doped silicon micro wire to realize light emission by plasma-assisted bonding technology. , 2010, , .		3
33	TM mode waveguide isolator monolithically integrated with InP active devices. , 2010, , .		3
34	Optical properties of quantum energies in GaAs quantum nanodisks produced using a bio-nanotemplate and a neutral beam etching technique. Japanese Journal of Applied Physics, 2016, 55, 092101.	1.5	3
35	Photoluminescence of InGaAs/GaAs Quantum Nanodisk in Pillar Fabricated by Biotemplate, Dry Etching, and MOVPE Regrowth. ACS Applied Electronic Materials, 2019, 1, 1945-1951.	4.3	3
36	Improvement of ZnO/Si Heterojunctions With a Coaxial Circular Transmission Line Model Applicable to Both Ohmic and Schottky. IEEE Transactions on Semiconductor Manufacturing, 2021, 34, 256-261.	1.7	3

#	ARTICLE	IF	CITATIONS
37	Design of photonic crystal cavity for hexagonal islands. , 2012, , .		2
38	Narrow line-width photoluminescence spectrum of GaAs nanodisks fabricated using bio-template ultimate top-down processes. , 2014, , .		2
39	Temperature-dependent radiative and non-radiative dynamics of photo-excited carriers in extremely high-density and small InGaN nanodisks fabricated by neutral-beam etching using bio-nano-templates. Journal of Applied Physics, 2018, 123, 204305.	2.5	2
40	Continuity assessment for supercritical-fluids-deposited (SCFD) Cu film as electroplating seed layer. , 2019, , .		2
41	A Micro Racetrack Optical Resonator Test Structure to Optimize Pattern Approximation in Direct Lithography Technologies. , 2019, , .		2
42	Size dependence of emission enhancement of Tris(8-hydroxyquinolino) aluminum with plasmonic Al nanostructure. Thin Solid Films, 2020, 700, 137920.	1.8	2
43	Influence of Pretreatment on Adhesion Quality of Supercritical-fluid-deposited Cu Film on Si. Sensors and Materials, 2019, 31, 2481.	0.5	2
44	Area-selective Cu Film Growth on TiN and SiO ₂ by Supercritical Fluid Deposition. IEEJ Transactions on Sensors and Micromachines, 2020, 140, 31-36.	0.1	2
45	All-Optical Flip-Flop Based on Coupled-Mode DBR Laser Diode for Optically Clocked Operation. IEICE Transactions on Electronics, 2012, E95-C, 218-223.	0.6	1
46	Type-II Ge/Si quantum dot superlattice for intermediate-band solar cell applications. , 2013, , .		1
47	Photoluminescence of high-density and sub-20-nm GaAs nanodisks fabricated with a neutral beam etching process and MOVPE regrowth for high performance QDs devices. , 2013, , .		1
48	Electron g-factor and spin decoherence in GaAs quantum nanodisks fabricated by fully top-down lithography. Journal of Crystal Growth, 2015, 425, 295-298.	1.5	1
49	Damage Assessment Structure of Test-Pad Post-Processing on CMOS LSIs. , 2019, , .		1
50	Coaxial Circular Test Structure Applicable to both Ohmic and Schottky Characteristics for ZnO/Si Heterojunctions Assessment. , 2020, , .		1
51	Drop-in test structure chip to visualize residual stress of Ru/Cu film grown by atomic layer deposition and supercritical fluid deposition. , 2020, , .		1
52	Theoretical Analysis on Noise Performance of Modulated Wideband Converters for Analog Testing. , 2020, , .		1
53	Fabrication of Micro-tips by Lift off Process with Contact Shadow Masking. , 2007, , .		0
54	Design and Fabrication of Photonic MEMS Waveguide Modulators. , 2007, , .		0

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55	A novel etching-oxidation fabrication method for 3D nano structures on silicon and its application to SOI symmetric waveguide and 3D taper spot size converter. , 2008, , .		0
56	Self-assembled SiO ₂ particle coating on 2 layer anti-reflection films for efficiency enhancement of GaAs PV cells. , 2010, , .		0
57	Transmission color control by stacked wire-grid polarizers with in-plane rotation. , 2011, , .		0
58	Design and Simulation of InP 1*N Planar Optical Switch Based on Beam Deflection. IEICE Transactions on Electronics, 2012, E95-C, 213-217.	0.6	0
59	The effect of thin gap insertion layer on InP nanostructure grown by metal-organic vapour phase epitaxys. Canadian Journal of Chemical Engineering, 2012, 90, 915-918.	1.7	0
60	Self-Aligned InP/InGaAsP Polarization Converter for Polarization-Multiplexed Photonic Integrated Circuits. , 2013, , .		0
61	Fabrication of InGaN/GaN nanodisk structure by using bio-template and neutral beam etching process. , 2015, , .		0
62	The effect of neutral beam etching on device isolation in AlGaN/GaN HEMTs. , 2016, , .		0
63	Publisher's Note: Tuning of the electron g factor in defect-free GaAs nanodisks [Phys. Rev. B 92 , 245423 (2015)]. Physical Review B, 2016, 93, .	3.2	0
64	Defect-free fabrication of nano-disk and nano-wire by fusion of bio-template and neutral beam etching. Proceedings of SPIE, 2016, , .	0.8	0
65	Transient photoluminescence in InGaN nano-disks fabricated by nano-scale neutral-beam etching utilizing bio-nano templates. , 2016, , .		0
66	Pump-probe study of temperature-dependent spin relaxation in GaAs quantum disks fabricated by fully top-down lithography using Bio-templates. , 2016, , .		0
67	Low-temperature InGaAs oxidation using oxygen neutral beam. Japanese Journal of Applied Physics, 2018, 57, 070305.	1.5	0
68	Test structure for electrical assessment of UV laser direct fine patterned material. , 2018, , .		0
69	High Throughput 16 NM Nanogap by Variable Shaped Beam Method Using F7000S-VD02 EB Lithography. , 2021, , .		0
70	Drop-In Test Structure to Evaluate Residual Stress in Conformally Grown Films. IEEE Transactions on Semiconductor Manufacturing, 2021, 34, 270-277.	1.7	0
71	Demonstration of 1 μ m–8 silicon photonic switch based on optical phased array. , 2013, , .		0
72	A Device for Localized Measurement of Small Particles with Electrode-Integrated Small Pores. IEEJ Transactions on Sensors and Micromachines, 2019, 139, 271-276.	0.1	0

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73	PbS Colloidal Quantum Dots/ZnO/Si Hybrid Photodiode with Various Reverse Bias Voltages. IEEJ Transactions on Sensors and Micromachines, 2022, 142, 8-12.	0.1	0