

Kengo Nozaki

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79 papers	2,946 citations	27 h-index	54 g-index
108 ext. papers	3,799 ext. citations	7 avg, IF	5.02 L-index

#	Paper	IF	Citations
79	Sub-femtojoule all-optical switching using a photonic-crystal nanocavity. <i>Nature Photonics</i> , 2010 , 4, 477-483	33.9	457
78	High-speed ultracompact buried heterostructure photonic-crystal laser with 13 fJ of energy consumed per bit transmitted. <i>Nature Photonics</i> , 2010 , 4, 648-654	33.9	224
77	Ultralow-power all-optical RAM based on nanocavities. <i>Nature Photonics</i> , 2012 , 6, 248-252	33.9	196
76	Large-scale integration of wavelength-addressable all-optical memories on a photonic crystal chip. <i>Nature Photonics</i> , 2014 , 8, 474-481	33.9	187
75	Room temperature continuous wave operation and controlled spontaneous emission in ultrasmall photonic crystal nanolaser. <i>Optics Express</i> , 2007 , 15, 7506-14	3.3	169
74	Few-fJ/bit data transmissions using directly modulated lambda-scale embedded active region photonic-crystal lasers. <i>Nature Photonics</i> , 2013 , 7, 569-575	33.9	147
73	Ultrafast and energy-efficient all-optical switching with graphene-loaded deep-subwavelength plasmonic waveguides. <i>Nature Photonics</i> , 2020 , 14, 37-43	33.9	127
72	Ultralow-energy and high-contrast all-optical switch involving Fano resonance based on coupled photonic crystal nanocavities. <i>Optics Express</i> , 2013 , 21, 11877-88	3.3	122
71	Refractive index sensing utilizing a cw photonic crystal nanolaser and its array configuration. <i>Optics Express</i> , 2008 , 16, 8174-80	3.3	86
70	Room-temperature continuous-wave operation of lateral current injection wavelength-scale embedded active-region photonic-crystal laser. <i>Optics Express</i> , 2012 , 20, 3773-80	3.3	82
69	Quasiperiodic photonic crystal microcavity lasers. <i>Applied Physics Letters</i> , 2004 , 84, 4875-4877	3.4	66
68	Laser characteristics with ultimate-small modal volume in photonic crystal slab point-shift nanolasers. <i>Applied Physics Letters</i> , 2006 , 88, 211101	3.4	62
67	Ultralow Operating Energy Electrically Driven Photonic Crystal Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013 , 19, 4900311-4900311	3.8	57
66	20-Gbit/s directly modulated photonic crystal nanocavity laser with ultra-low power consumption. <i>Optics Express</i> , 2011 , 19, 2242-50	3.3	57
65	Observation of fast spontaneous emission decay in GaInAsP photonic crystal point defect nanocavity at room temperature. <i>Applied Physics Letters</i> , 2004 , 85, 3989-3991	3.4	54
64	Continuous-wave operation and 10-Gb/s direct modulation of InAsP/InP sub-wavelength nanowire laser on silicon photonic crystal. <i>APL Photonics</i> , 2017 , 2, 046106	5.2	44
63	All-optical memory based on injection-locking bistability in photonic crystal lasers. <i>Optics Express</i> , 2011 , 19, 3387-95	3.3	44

62	Photonic-crystal nano-photodetector with ultrasmall capacitance for on-chip light-to-voltage conversion without an amplifier. <i>Optica</i> , 2016 , 3, 483	8.6	43
61	Photonic crystal nanolaser monolithically integrated with passive waveguide for effective light extraction. <i>Applied Physics Letters</i> , 2008 , 92, 021108	3.4	43
60	Ultralow threshold and single-mode lasing in microgear lasers and its fusion with quasi-periodic photonic crystals. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2003 , 9, 1355-1360	3.8	43
59	Toward fJ/bit optical communication in a chip. <i>Optics Communications</i> , 2014 , 314, 3-17	2	42
58	Femtofarad optoelectronic integration demonstrating energy-saving signal conversion and nonlinear functions. <i>Nature Photonics</i> , 2019 , 13, 454-459	33.9	41
57	Low-power nanophotonic devices based on photonic crystals towards dense photonic network on chip. <i>IET Circuits, Devices and Systems</i> , 2011 , 5, 84	1.1	41
56	Compact 1D-silicon photonic crystal electro-optic modulator operating with ultra-low switching voltage and energy. <i>Optics Express</i> , 2014 , 22, 28623-34	3.3	40
55	Deep-subwavelength plasmonic mode converter with large size reduction for Si-wire waveguide. <i>Optica</i> , 2016 , 3, 999	8.6	32
54	Photonic Crystal Point-Shift Nanolasers With and Without NanoslotsDesign, Fabrication, Lasing, and Sensing Characteristics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2011 , 17, 1632-1647	3.8	31
53	25-channel all-optical gate switches realized by integrating silicon photonic crystal nanocavities. <i>Optics Express</i> , 2014 , 22, 14263-74	3.3	29
52	Nanoslot laser. <i>Applied Physics Letters</i> , 2010 , 97, 161108	3.4	25
51	Systematic hole-shifting of L-type nanocavity with an ultrahigh Q factor. <i>Optics Letters</i> , 2014 , 39, 5780-33		21
50	InGaAs nano-photodetectors based on photonic crystal waveguide including ultracompact buried heterostructure. <i>Optics Express</i> , 2013 , 21, 19022-8	3.3	21
49	All-Optical InAsP/InP Nanowire Switches Integrated in a Si Photonic Crystal. <i>ACS Photonics</i> , 2020 , 7, 10166-1021	1.021	20
48	Photonic crystal lasers using wavelength-scale embedded active region. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 023001	3	20
47	Coherent control of high efficiency metasurface beam deflectors with a back partial reflector. <i>APL Photonics</i> , 2017 , 2, 046104	5.2	18
46	Photonic Molecules in Photonic Crystals. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 6108-6111	1.4	18
45	Ultralow-energy electro-absorption modulator consisting of InGaAsP-embedded photonic-crystal waveguide. <i>APL Photonics</i> , 2017 , 2, 056105	5.2	17

44	All-optical switching for 10-Gb/s packet data by using an ultralow-power optical bistability of photonic-crystal nanocavities. <i>Optics Express</i> , 2015 , 23, 30379-92	3.3	17
43	Photonic crystal point-shift nanolaser with ultimate small modal volume. <i>Electronics Letters</i> , 2005 , 41, 843	1.1	17
42	Carrier and photon analyses of photonic microlasers by two-dimensional rate equations. <i>IEEE Journal on Selected Areas in Communications</i> , 2005 , 23, 1411-1417	14.2	15
41	Direct modulation of a single InP/InAs nanowire light-emitting diode. <i>Applied Physics Letters</i> , 2018 , 112, 251106	3.4	14
40	Dipole mode photonic crystal point defect laser on InGaAsP/InP. <i>Journal of Crystal Growth</i> , 2006 , 292, 341-344	1.6	12
39	An Integrated Nanophotonic Parallel Adder. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , 2018 , 14, 1-20	1.7	11
38	Amplifier-Free Bias-Free Receiver Based on Low-Capacitance Nanophotodetector. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018 , 24, 1-11	3.8	10
37	InP Etching by HI/Xe Inductively Coupled Plasma for Photonic-Crystal Device Fabrication. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, L102-L104	1.4	10
36	40-Gb/s directly-modulated photonic crystal lasers under optical injection-locking. <i>Optics Express</i> , 2011 , 19, 17669-76	3.3	9
35	Narrow linewidth operation of buried-heterostructure photonic crystal nanolaser. <i>Optics Express</i> , 2012 , 20, 11643-51	3.3	9
34	Lasing Characteristics of 12-Fold Symmetric Quasi-periodic Photonic Crystal Slab Nanolasers. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 6087-6090	1.4	9
33	Hybrid Nanowire Photodetector Integrated in a Silicon Photonic Crystal. <i>ACS Photonics</i> , 2020 , 7, 3467-3473	3.3	9
32	Wideband slow short-pulse propagation in one-thousand slantingly coupled L3 photonic crystal nanocavities. <i>Optics Express</i> , 2018 , 26, 9552-9564	3.3	8
31	Ultralow bias power all-optical photonic crystal memory realized with systematically tuned L3 nanocavity. <i>Applied Physics Letters</i> , 2015 , 107, 221101	3.4	8
30	Forward-biased nanophotonic detector for ultralow-energy dissipation receiver. <i>APL Photonics</i> , 2018 , 3, 046101	5.2	6
29	Forward-biased photonic crystal photodetector towards amplifier-free bias-free receiver 2017 ,		6
28	Observing exceptional point degeneracy of radiation with electrically pumped photonic crystal coupled-nanocavity lasers. <i>Optica</i> , 2021 , 8, 184	8.6	6
27	Room temperature continuous-wave nanolaser diode utilized by ultrahigh-Q few-cell photonic crystal nanocavities. <i>Optics Express</i> , 2018 , 26, 26598-26617	3.3	4

26	Large Q factor enhancement of Ln nanocavity by a unified hole-shifting rule 2013 ,		3
25	10-Gbit/s Direct Modulation of Electrically Driven Photonic Crystal Nanocavity Laser 2012 ,		3
24	Ultracompact O-E-O converter based on fF-capacitance nanophotonic integration 2018 ,		3
23	High-Temperature Operation of Photonic-Crystal Lasers for On-Chip Optical Interconnection. <i>IEICE Transactions on Electronics</i> , 2012 , E95.C, 1244-1251	0.4	3
22	Low-latency optical parallel adder based on a binary decision diagram with wavelength division multiplexing scheme 2018 ,		3
21	An integrated optical parallel adder as a first step towards light speed data processing 2016 ,		3
20	Ultrashort low-loss gates for linear optical logic on Si photonics platform. <i>Communications Physics</i> , 2020 , 3,	5.4	2
19	Sub-fF-Capacitance Photonic-Crystal Photodetector Towards fJ/bit On-Chip Receiver. <i>IEICE Transactions on Electronics</i> , 2017 , E100.C, 750-758	0.4	2
18	Ultra-low threshold current CW operation of photonic crystal nanocavity laser with InAlAs sacrificial layer 2012 ,		2
17	20-Gbit/s directly modulated buried heterostructure photonic crystal laser with 8.76-fJ/bit operating energy 2010 ,		2
16	Ultra-small InGaAsP/InP buried heterostructure photonic crystal laser 2009 ,		2
15	Optically injection-locked photonic crystal laser with >67 GHz modulation bandwidth. <i>Electronics Letters</i> , 2011 , 47, 1240	1.1	2
14	Ultralow-power and integrated operation of all-optical switches/memories in a photonic crystal chip 2014 ,		1
13	Photonic-crystal-based InGaAs photodetector connected to load resistor for receiver-less light-to-voltage conversion on chip 2014 ,		1
12	High-responsivity 1.7- μ m-long InGaAs photodetectors based on photonic crystal with ultrasmall buried heterostructure 2014 ,		1
11	InGaAs nano-photodetectors based on photonic crystal waveguide including ultracompact buried heterostructure 2013 ,		1
10	Femtojoule/bit integrated nanophotonics based on photonic crystals. <i>IEICE Electronics Express</i> , 2013 , 10, 20132003-20132003	0.5	1
9	Wavelength-Addressable Multi-Bit Optical Memory Based on a Large-Scale Array of Photonic Crystal Nanocavities 2013 ,		1

- 8 Continuous-Wave Operation of Electrically Driven Wavelength-Scale Embedded Active-Region Photonic-Crystal Lasers at Room Temperature **2012**, 1
- 7 Resonantly photopumped lasing and its switching behavior in a photonic crystal nanolaser. *Applied Physics Letters*, **2008**, 92, 021501 3-4 1
- 6 Exceptional Point Transition of Electrically Pumped Photonic Crystal Nanolasers **2019**, 1
- 5 Photonic Crystals. *Series in Optics and Optoelectronics*, **2013**, 287-332
- 4 Photonic Crystal/Quasicrystal Nanolasers and Spontaneous Emission Control. *The Review of Laser Engineering*, **2006**, 34, 756-760 O
- 3 Optical Random Access Memory Based on Photonic Crystal Nanocavities. *The Review of Laser Engineering*, **2012**, 40, 363 O
- 2 Excitonic nonlinear shifts in photonic crystal nanocavities with buried multiple quantum wells. *Applied Physics Letters*, **2021**, 118, 111101 3-4
- 1 High signal-to-noise ratio for high-impedance-loaded nano-photodetector toward attojoule optical reception. *Applied Physics Letters*, **2019**, 115, 251107 3-4