

# Kengo Nozaki

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/2509130/kengo-nozaki-publications-by-year.pdf>  
**Version:** 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
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	Excitonic nonlinear shifts in photonic crystal nanocavities with buried multiple quantum wells. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 111101	3.4	
78	Observing exceptional point degeneracy of radiation with electrically pumped photonic crystal coupled-nanocavity lasers. <i>Optica</i> , <b>2021</b> , 8, 184	8.6	6
77	Ultrashort low-loss gates for linear optical logic on Si photonics platform. <i>Communications Physics</i> , <b>2020</b> , 3,	5.4	2
76	All-Optical InAsP/InP Nanowire Switches Integrated in a Si Photonic Crystal. <i>ACS Photonics</i> , <b>2020</b> , 7, 10166-1021	6.9	20
75	Ultrafast and energy-efficient all-optical switching with graphene-loaded deep-subwavelength plasmonic waveguides. <i>Nature Photonics</i> , <b>2020</b> , 14, 37-43	33.9	127
74	Hybrid Nanowire Photodetector Integrated in a Silicon Photonic Crystal. <i>ACS Photonics</i> , <b>2020</b> , 7, 3467-3473	3.3	9
73	Femtofarad optoelectronic integration demonstrating energy-saving signal conversion and nonlinear functions. <i>Nature Photonics</i> , <b>2019</b> , 13, 454-459	33.9	41
72	Exceptional Point Transition of Electrically Pumped Photonic Crystal Nanolasers <b>2019</b> ,		1
71	High signal-to-noise ratio for high-impedance-loaded nano-photodetector toward attojoule optical reception. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 251107	3.4	
70	Forward-biased nanophotonic detector for ultralow-energy dissipation receiver. <i>APL Photonics</i> , <b>2018</b> , 3, 046101	5.2	6
69	Amplifier-Free Bias-Free Receiver Based on Low-Capacitance Nanophotodetector. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2018</b> , 24, 1-11	3.8	10
68	An Integrated Nanophotonic Parallel Adder. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , <b>2018</b> , 14, 1-20	1.7	11
67	Wideband slow short-pulse propagation in one-thousand slantingly coupled L3 photonic crystal nanocavities. <i>Optics Express</i> , <b>2018</b> , 26, 9552-9564	3.3	8
66	Ultracompact O-E-O converter based on fF-capacitance nanophotonic integration <b>2018</b> ,		3
65	Room temperature continuous-wave nanolaser diode utilized by ultrahigh-Q few-cell photonic crystal nanocavities. <i>Optics Express</i> , <b>2018</b> , 26, 26598-26617	3.3	4
64	Low-latency optical parallel adder based on a binary decision diagram with wavelength division multiplexing scheme <b>2018</b> ,		3
63	Direct modulation of a single InP/InAs nanowire light-emitting diode. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 251106	3.4	14

62	Coherent control of high efficiency metasurface beam deflectors with a back partial reflector. <i>APL Photonics</i> , <b>2017</b> , 2, 046104	5.2	18
61	Ultralow-energy electro-absorption modulator consisting of InGaAsP-embedded photonic-crystal waveguide. <i>APL Photonics</i> , <b>2017</b> , 2, 056105	5.2	17
60	Continuous-wave operation and 10-Gb/s direct modulation of InAsP/InP sub-wavelength nanowire laser on silicon photonic crystal. <i>APL Photonics</i> , <b>2017</b> , 2, 046106	5.2	44
59	Sub-fF-Capacitance Photonic-Crystal Photodetector Towards fJ/bit On-Chip Receiver. <i>IEICE Transactions on Electronics</i> , <b>2017</b> , E100.C, 750-758	0.4	2
58	Forward-biased photonic crystal photodetector towards amplifier-free bias-free receiver <b>2017</b> ,		6
57	Photonic-crystal nano-photodetector with ultrasmall capacitance for on-chip light-to-voltage conversion without an amplifier. <i>Optica</i> , <b>2016</b> , 3, 483	8.6	43
56	An integrated optical parallel adder as a first step towards light speed data processing <b>2016</b> ,		3
55	Deep-subwavelength plasmonic mode converter with large size reduction for Si-wire waveguide. <i>Optica</i> , <b>2016</b> , 3, 999	8.6	32
54	Ultralow bias power all-optical photonic crystal memory realized with systematically tuned L3 nanocavity. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 221101	3.4	8
53	All-optical switching for 10-Gb/s packet data by using an ultralow-power optical bistability of photonic-crystal nanocavities. <i>Optics Express</i> , <b>2015</b> , 23, 30379-92	3.3	17
52	Ultralow-power and integrated operation of all-optical switches/memories in a photonic crystal chip <b>2014</b> ,		1
51	Photonic crystal lasers using wavelength-scale embedded active region. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 023001	3	20
50	Large-scale integration of wavelength-addressable all-optical memories on a photonic crystal chip. <i>Nature Photonics</i> , <b>2014</b> , 8, 474-481	33.9	187
49	Photonic-crystal-based InGaAs photodetector connected to load resistor for receiver-less light-to-voltage conversion on chip <b>2014</b> ,		1
48	Systematic hole-shifting of L-type nanocavity with an ultrahigh Q factor. <i>Optics Letters</i> , <b>2014</b> , 39, 5780-33		21
47	High-responsivity 1.7- $\mu\text{m}$ -long InGaAs photodetectors based on photonic crystal with ultrasmall buried heterostructure <b>2014</b> ,		1
46	Compact 1D-silicon photonic crystal electro-optic modulator operating with ultra-low switching voltage and energy. <i>Optics Express</i> , <b>2014</b> , 22, 28623-34	3.3	40
45	25-channel all-optical gate switches realized by integrating silicon photonic crystal nanocavities. <i>Optics Express</i> , <b>2014</b> , 22, 14263-74	3.3	29

44	Toward fJ/bit optical communication in a chip. <i>Optics Communications</i> , <b>2014</b> , 314, 3-17	2	42
43	Large Q factor enhancement of Ln nanocavity by a unified hole-shifting rule <b>2013</b> ,		3
42	InGaAs nano-photodetectors based on photonic crystal waveguide including ultracompact buried heterostructure. <i>Optics Express</i> , <b>2013</b> , 21, 19022-8	3.3	21
41	Ultralow-energy and high-contrast all-optical switch involving Fano resonance based on coupled photonic crystal nanocavities. <i>Optics Express</i> , <b>2013</b> , 21, 11877-88	3.3	122
40	InGaAs nano-photodetectors based on photonic crystal waveguide including ultracompact buried heterostructure <b>2013</b> ,		1
39	Ultralow Operating Energy Electrically Driven Photonic Crystal Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2013</b> , 19, 4900311-4900311	3.8	57
38	Few-fJ/bit data transmissions using directly modulated lambda-scale embedded active region photonic-crystal lasers. <i>Nature Photonics</i> , <b>2013</b> , 7, 569-575	33.9	147
37	Femtojoule/bit integrated nanophotonics based on photonic crystals. <i>IEICE Electronics Express</i> , <b>2013</b> , 10, 20132003-20132003	0.5	1
36	Photonic Crystals. <i>Series in Optics and Optoelectronics</i> , <b>2013</b> , 287-332		
35	Wavelength-Addressable Multi-Bit Optical Memory Based on a Large-Scale Array of Photonic Crystal Nanocavities <b>2013</b> ,		1
34	Ultra-low threshold current CW operation of photonic crystal nanocavity laser with InAlAs sacrificial layer <b>2012</b> ,		2
33	Room-temperature continuous-wave operation of lateral current injection wavelength-scale embedded active-region photonic-crystal laser. <i>Optics Express</i> , <b>2012</b> , 20, 3773-80	3.3	82
32	Ultralow-power all-optical RAM based on nanocavities. <i>Nature Photonics</i> , <b>2012</b> , 6, 248-252	33.9	196
31	10-Gbit/s Direct Modulation of Electrically Driven Photonic Crystal Nanocavity Laser <b>2012</b> ,		3
30	Narrow linewidth operation of buried-heterostructure photonic crystal nanolaser. <i>Optics Express</i> , <b>2012</b> , 20, 11643-51	3.3	9
29	Continuous-Wave Operation of Electrically Driven Wavelength-Scale Embedded Active-Region Photonic-Crystal Lasers at Room Temperature <b>2012</b> ,		1
28	High-Temperature Operation of Photonic-Crystal Lasers for On-Chip Optical Interconnection. <i>IEICE Transactions on Electronics</i> , <b>2012</b> , E95.C, 1244-1251	0.4	3
27	Optical Random Access Memory Based on Photonic Crystal Nanocavities. <i>The Review of Laser Engineering</i> , <b>2012</b> , 40, 363	0	

26	20-Gbit/s directly modulated photonic crystal nanocavity laser with ultra-low power consumption. <i>Optics Express</i> , <b>2011</b> , 19, 2242-50	3.3	57
25	All-optical memory based on injection-locking bistability in photonic crystal lasers. <i>Optics Express</i> , <b>2011</b> , 19, 3387-95	3.3	44
24	40-Gb/s directly-modulated photonic crystal lasers under optical injection-locking. <i>Optics Express</i> , <b>2011</b> , 19, 17669-76	3.3	9
23	Low-power nanophotonic devices based on photonic crystals towards dense photonic network on chip. <i>IET Circuits, Devices and Systems</i> , <b>2011</b> , 5, 84	1.1	41
22	Photonic Crystal Point-Shift Nanolasers With and Without Nanoslots Design, Fabrication, Lasing, and Sensing Characteristics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2011</b> , 17, 1632-1647	3.8	31
21	Optically injection-locked photonic crystal laser with >67 GHz modulation bandwidth. <i>Electronics Letters</i> , <b>2011</b> , 47, 1240	1.1	2
20	High-speed ultracompact buried heterostructure photonic-crystal laser with 13 fJ of energy consumed per bit transmitted. <i>Nature Photonics</i> , <b>2010</b> , 4, 648-654	33.9	224
19	Sub-femtojoule all-optical switching using a photonic-crystal nanocavity. <i>Nature Photonics</i> , <b>2010</b> , 4, 477-483	39.9	457
18	20-Gbit/s directly modulated buried heterostructure photonic crystal laser with 8.76-fJ/bit operating energy <b>2010</b> ,		2
17	Nanoslot laser. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 161108	3.4	25
16	Ultra-small InGaAsP/InP buried heterostructure photonic crystal laser <b>2009</b> ,		2
15	Photonic crystal nanolaser monolithically integrated with passive waveguide for effective light extraction. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 021108	3.4	43
14	Refractive index sensing utilizing a cw photonic crystal nanolaser and its array configuration. <i>Optics Express</i> , <b>2008</b> , 16, 8174-80	3.3	86
13	Resonantly photopumped lasing and its switching behavior in a photonic crystal nanolaser. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 021501	3.4	1
12	Room temperature continuous wave operation and controlled spontaneous emission in ultrasmall photonic crystal nanolaser. <i>Optics Express</i> , <b>2007</b> , 15, 7506-14	3.3	169
11	InP Etching by HI/Xe Inductively Coupled Plasma for Photonic-Crystal Device Fabrication. <i>Japanese Journal of Applied Physics</i> , <b>2006</b> , 45, L102-L104	1.4	10
10	Laser characteristics with ultimate-small modal volume in photonic crystal slab point-shift nanolasers. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 211101	3.4	62
9	Photonic Molecules in Photonic Crystals. <i>Japanese Journal of Applied Physics</i> , <b>2006</b> , 45, 6108-6111	1.4	18

8	Lasing Characteristics of 12-Fold Symmetric Quasi-periodic Photonic Crystal Slab Nanolasers. <i>Japanese Journal of Applied Physics</i> , <b>2006</b> , 45, 6087-6090	1.4	9
7	Dipole mode photonic crystal point defect laser on InGaAsP/InP. <i>Journal of Crystal Growth</i> , <b>2006</b> , 292, 341-344	1.6	12
6	Photonic Crystal/Quasicrystal Nanolasers and Spontaneous Emission Control. <i>The Review of Laser Engineering</i> , <b>2006</b> , 34, 756-760	0	
5	Carrier and photon analyses of photonic microlasers by two-dimensional rate equations. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2005</b> , 23, 1411-1417	14.2	15
4	Photonic crystal point-shift nanolaser with ultimate small modal volume. <i>Electronics Letters</i> , <b>2005</b> , 41, 843	1.1	17
3	Observation of fast spontaneous emission decay in GaInAsP photonic crystal point defect nanocavity at room temperature. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 3989-3991	3.4	54
2	Quasiperiodic photonic crystal microcavity lasers. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 4875-4877	3.4	66
1	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> , <b>2003</b> , 9, 1355-1360	3.8	43