

Yasushi Takahashi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9215969/publications.pdf>

Version: 2024-02-01

49
papers

1,710
citations

394286

19
h-index

360920

35
g-index

49
all docs

49
docs citations

49
times ranked

1318
citing authors

#	ARTICLE	IF	CITATIONS
1	Strong coupling between distant photonic nanocavities and its dynamic control. Nature Photonics, 2012, 6, 56-61.	15.6	219
2	A micrometre-scale Raman silicon laser with a microwatt threshold. Nature, 2013, 498, 470-474.	13.7	218
3	Photonic crystal nanocavity with a Q-factor of ~9 million. Optics Express, 2014, 22, 916.	1.7	173
4	High-Q nanocavity with a 2-ns photon lifetime. Optics Express, 2007, 15, 17206.	1.7	168
5	Photonic crystal nanocavity with a Q factor exceeding eleven million. Optics Express, 2017, 25, 1769.	1.7	156
6	Statistical studies of photonic heterostructure nanocavities with an average Q factor of three million. Optics Express, 2011, 19, 11916.	1.7	97
7	Effects of fluctuation in air hole radii and positions on optical characteristics in photonic crystal heterostructure nanocavities. Physical Review B, 2009, 79, .	1.1	86
8	Design and demonstration of high-Q photonic heterostructure nanocavities suitable for integration. Optics Express, 2009, 17, 18093.	1.7	43
9	Improvement in the quality factors for photonic crystal nanocavities via visualization of the leaky components. Optics Express, 2016, 24, 9541.	1.7	42
10	Biexciton Gain and the Mott Transition in GaAs Quantum Wires. Physical Review Letters, 2007, 99, 167403.	2.9	41
11	Ultra-high-Q photonic crystal nanocavities fabricated by CMOS process technologies. Optics Express, 2017, 25, 18165.	1.7	41
12	Analysis of high-Q photonic crystal L3 nanocavities designed by visualization of the leaky components. Optics Express, 2017, 25, 367.	1.7	37
13	Ultra-compact 32-channel drop filter with 100 GHz spacing. Optics Express, 2014, 22, 4692.	1.7	35
14	Ultra-high-Q photonic crystal nanocavities in wide optical telecommunication bands. Optics Express, 2012, 20, 22743.	1.7	33
15	Raman shift and strain effect in high-Q photonic crystal silicon nanocavity. Optics Express, 2015, 23, 3951.	1.7	27
16	High-Q resonant modes in a photonic crystal heterostructure nanocavity and applicability to a Raman silicon laser. Physical Review B, 2013, 88, .	1.1	26
17	Higher-order resonant modes in a photonic heterostructure nanocavity. Applied Physics Letters, 2008, 92, .	1.5	24
18	Photonic Crystal Nanocavities With an Average Q Factor of 1.9 Million Fabricated on a 300-mm-Wide SOI Wafer Using a CMOS-Compatible Process. Journal of Lightwave Technology, 2018, 36, 4774-4782.	2.7	21

#	ARTICLE	IF	CITATIONS
19	Strongly asymmetric wavelength dependence of optical gain in nanocavity-based Raman silicon lasers. <i>Optica</i> , 2018, 5, 1256.	4.8	20
20	Implementing a Raman silicon nanocavity laser for integrated optical circuits by using a (100) SOI wafer with a 45-degree-rotated top silicon layer. <i>OSA Continuum</i> , 2019, 2, 2098.	1.8	20
21	Strong photoabsorption by a single-quantum wire in waveguide-transmission spectroscopy. <i>Applied Physics Letters</i> , 2005, 86, 243101.	1.5	19
22	Lasing Dynamics of Optically-Pumped Ultralow-Threshold Raman Silicon Nanocavity Lasers. <i>Physical Review Applied</i> , 2018, 10, .	1.5	19
23	Ultrahigh-Q Photonic Nanocavity Devices on a Dual Thickness SOI Substrate Operating at Both 1.31- and 1.55- μm Telecommunication Wavelength Bands. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800258.	4.4	18
24	Raman silicon laser based on a nanocavity fabricated by photolithography. <i>OSA Continuum</i> , 2020, 3, 814.	1.8	16
25	Sub-100-nW-threshold Raman silicon laser designed by a machine-learning method that optimizes the product of the cavity Q-factors. <i>Optics Express</i> , 2021, 29, 17053.	1.7	14
26	Room-temperature excitonic absorption in quantum wires. <i>Applied Physics Letters</i> , 2005, 87, 223119.	1.5	12
27	Utilizing Broadband Light From a Superluminescent Diode for Excitation of Photonic Crystal High-Q Nanocavities. <i>Journal of Lightwave Technology</i> , 2019, 37, 2458-2466.	2.7	11
28	Detrimental Fluctuation of Frequency Spacing Between the Two High-Quality Resonant Modes in a Raman Silicon Nanocavity Laser. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2020, 26, 1-12.	1.9	11
29	Statistical evaluation of Q factors of fabricated photonic crystal nanocavities designed by using a deep neural network. <i>Applied Physics Express</i> , 2020, 13, 012002.	1.1	11
30	Detection of negatively ionized air by using a Raman silicon nanocavity laser. <i>Optics Express</i> , 2021, 29, 16228.	1.7	11
31	Imaging of emission patterns in a T-shaped quantum wire laser. <i>Applied Physics Letters</i> , 2003, 83, 4089-4091.	1.5	10
32	Enhanced radiative recombination rate for electron-hole droplets in a silicon photonic crystal nanocavity. <i>Physical Review B</i> , 2017, 96, .	1.1	8
33	1.2- μm -band ultrahigh-Q photonic crystal nanocavities and their potential for Raman silicon lasers. <i>Optics Express</i> , 2021, 29, 24396.	1.7	8
34	Breakthroughs in Photonics 2013: A Microwatt-Threshold Raman Silicon Laser. <i>IEEE Photonics Journal</i> , 2014, 6, 1-5.	1.0	5
35	Detection of ionized air using a photonic-crystal nanocavity excited by broadband light from a superluminescent diode. <i>Optics Express</i> , 2022, 30, 10694.	1.7	3
36	Design Characteristics of a Raman Silicon Nanocavity Laser for Efficient Emission of Light Into an Adjacent Waveguide. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
37	A sub-microwatt threshold Raman silicon laser using a high-Q nanocavity. , 2015, , .		1
38	Increasing the Q Factor and Controlling the Resonant Wavelength of Photonic Crystal Nanocavities. , 2009, , .		1
39	High-Q Nanocavity-Based Raman Laser Fabricated on a (100) SOI Substrate with a 45-Degree-Rotated Top Silicon Layer. , 2018, , .		1
40	Robust Excitation of High-Q Nanocavities via a Super-Luminescent Diode. , 2018, , .		1
41	Oscillation Interruption of a Raman Silicon Nanocavity Laser Induced by Positively Ionized-Air Irradiation. , 2021, , .		1
42	Enhanced light emission from silicon photonic crystal nanocavity. , 2008, , .		0
43	Observation of strong coupling between distant photonic nanocavities through a waveguide. , 2010, , .		0
44	Ultralow-threshold Continuous-wave Raman Silicon Laser Using a Photonic Crystal High-Q Nanocavity. , 2013, , .		0
45	Miniaturization of Semiconductor Lasers with Photonic Crystal Technologies. The Review of Laser Engineering, 2016, 44, 514.	0.0	0
46	Excitation Wavelength Dependence of a High-Q Nanocavity-based Raman Silicon Laser. , 2018, , .		0
47	Nondetrimental Surface Modification of Ultrahigh-Q Photonic Crystal Silicon Nanocavities. , 2018, , .		0
48	Raman Scattering Emission from a Silicon Photonic Nanocavity Excited by a Superluminescent Diode. , 2020, , .		0
49	Raman Silicon Laser Using a Photonic Crystal Nanocavity. The Review of Laser Engineering, 2020, 42, 250.	0.0	0