Yasushi Takahashi

List of Publications by Year
in descending order

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	Detection of ionized air using a photonic-crystal nanocavity excited by broadband light from a superluminescent diode. Optics Express, 2022, 30, 10694.	1.7	3
2	Detection of negatively ionized air by using a Raman silicon nanocavity laser. Optics Express, 2021, 29, 16228.	1.7	11
3	Sub-100-nW-threshold Raman silicon laser designed by a machine-learning method that optimizes the product of the cavity Q-factors. Optics Express, 2021, 29, 17053.	1.7	14
4	1.2-Âµm-band ultrahigh-Q photonic crystal nanocavities and their potential for Raman silicon lasers. Optics Express, 2021, 29, 24396.	1.7	8
5	Design Characteristics of a Raman Silicon Nanocavity Laser for Efficient Emission of Light Into an Adjacent Waveguide. , 2021, , .		2
6	Oscillation Interruption of a Raman Silicon Nanocavity Laser Induced by Positively Ionized-Air Irradiation. , 2021, , .		1
7	Detrimental Fluctuation of Frequency Spacing Between the Two High-Quality Resonant Modes in a Raman Silicon Nanocavity Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-12.	1.9	11
8	Statistical evaluation of Q factors of fabricated photonic crystal nanocavities designed by using a deep neural network. Applied Physics Express, 2020, 13, 012002.	1.1	11
9	Raman silicon laser based on a nanocavity fabricated by photolithography. OSA Continuum, 2020, 3, 814.	1.8	16
10	Raman Scattering Emission from a Silicon Photonic Nanocavity Excited by a Superluminescent Diode. , 2020, , .		0
11	Raman Silicon Laser Using a Photonic Crystal Nanocavity. The Review of Laser Engineering, 2020, 42, 250.	0.0	0
12	Utilizing Broadband Light From a Superluminescent Diode for Excitation of Photonic Crystal High-Q Nanocavities. Journal of Lightwave Technology, 2019, 37, 2458-2466.	2.7	11
13	Ultrahighâ€‹Q Photonic Nanocavity Devices on a Dual Thickness SOI Substrate Operating at Both 1.31â€•and 1.55â€Âµm Telecommunication Wavelength Bands. Laser and Photonics Reviews, 2019, 13, 1800258.	4.4	18
14	Implementing a Raman silicon nanocavity laser for integrated optical circuits by using a (100) SOI wafer with a 45-degree-rotated top silicon layer. OSA Continuum, 2019, 2, 2098.	1.8	20
15	Photonic Crystal Nanocavities With an Average <italic>Q</italic> 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
16	Lasing Dynamics of Optically-Pumped Ultralow-Threshold Raman Silicon Nanocavity Lasers. Physical Review Applied, 2018, 10, .	1.5	19
17	Strongly asymmetric wavelength dependence of optical gain in nanocavity-based Raman silicon lasers. Optica, 2018, 5, 1256.	4.8	20
18	High-Q Nanocavity-Based Raman Laser Fabricated on a (100) SOI Substrate with a 45-Degree-Rotated Top Silicon Layer. , 2018, , .		1

#	Article	IF	Citations
19	Excitation Wavelength Dependence of a High-Q Nanocavity-based Raman Silicon Laser. , 2018, , .		0
20	Nondetrimental Surface Modification of Ultrahigh-Q Photonic Crystal Silicon Nanocavities. , 2018, , .		0
21	Robust Excitation of High-Q Nanocavities via a Super-Luminescent Diode. , 2018, , .		1
22	Enhanced radiative recombination rate for electron-hole droplets in a silicon photonic crystal nanocavity. Physical Review B, 2017, 96, .	1.1	8
23	Analysis of high-Q photonic crystal L3 nanocavities designed by visualization of the leaky components. Optics Express, 2017, 25, 367.	1.7	37
24	Ultrahigh-Q photonic crystal nanocavities fabricated by CMOS process technologies. Optics Express, 2017, 25, 18165.	1.7	41
25	Photonic crystal nanocavity with a Q factor exceeding eleven million. Optics Express, 2017, 25, 1769.	1.7	156
26	Improvement in the quality factors for photonic crystal nanocavities via visualization of the leaky components. Optics Express, 2016, 24, 9541.	1.7	42
27	Miniaturization of Semiconductor Lasers with Photonic Crystal Technologies. The Review of Laser Engineering, 2016, 44, 514.	0.0	0
28	A sub-microwatt threshold Raman silicon laser using a high-Q nanocavity. , 2015, , .		1
29	Raman shift and strain effect in high-Q photonic crystal silicon nanocavity. Optics Express, 2015, 23, 3951.	1.7	27
30	Breakthroughs in Photonics 2013: A Microwatt-Threshold Raman Silicon Laser. IEEE Photonics Journal, 2014, 6, 1-5.	1.0	5
31	Photonic crystal nanocavity with a Q-factor of ~9 million. Optics Express, 2014, 22, 916.	1.7	173
32	Ultra-compact 32-channel drop filter with 100 GHz spacing. Optics Express, 2014, 22, 4692.	1.7	35
33	High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Q</mml:mi></mml:math>resonant modes in a photonic crystal heterostructure nanocavity and applicability to a Raman silicon laser. Physical Review B, 2013, 88, .	1.1	26
34	A micrometre-scale Raman silicon laser with a microwatt threshold. Nature, 2013, 498, 470-474.	13.7	218
35	Ultralow-threshold Continuous-wave Raman Silicon Laser Using a Photonic Crystal High-Q Nanocavity. , 2013, , .		0
36	Ultrahigh-Q photonic crystal nanocavities in wide optical telecommunication bands. Optics Express, 2012, 20, 22743.	1.7	33

#	Article	IF	Citations
37	Strong coupling between distant photonic nanocavities and its dynamic control. Nature Photonics, 2012, 6, 56-61.	15.6	219
38	Statistical studies of photonic heterostructure nanocavities with an average Q factor of three million. Optics Express, 2011, 19, 11916.	1.7	97
39	Observation of strong coupling between distant photonic nanocavities through a waveguide. , 2010, , .		0
40	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
41	Design and demonstration of high-Q photonic heterostructure nanocavities suitable for integration. Optics Express, 2009, 17, 18093.	1.7	43
42	Increasing the Q Factor and Controlling the Resonant Wavelength of Photonic Crystal Nanocavities. , 2009, , .		1
43	Enhanced light emission from silicon photonic crystal nanocavity. , 2008, , .		0
44	Higher-order resonant modes in a photonic heterostructure nanocavity. Applied Physics Letters, 2008, 92, .	1.5	24
45	Biexciton Gain and the Mott Transition in GaAs Quantum Wires. Physical Review Letters, 2007, 99, 167403.	2.9	41
46	High-Q nanocavity with a 2-ns photon lifetime. Optics Express, 2007, 15, 17206.	1.7	168
47	Room-temperature excitonic absorption in quantum wires. Applied Physics Letters, 2005, 87, 223119.	1.5	12
48	Strong photoabsorption by a single-quantum wire in waveguide-transmission spectroscopy. Applied Physics Letters, 2005, 86, 243101.	1.5	19
49	Imaging of emission patterns in a T-shaped quantum wire laser. Applied Physics Letters, 2003, 83, 4089-4091.	1.5	10