Justin C Norman

List of Publications by Year
in descending order

104 papers	3,562 citations	136950 32 h-index	144013 57 g-index
106 all docs	106 docs citations	106 times ranked	1959 citing authors

#	Article	IF	Citations
1	High performance continuous wave 1.3â€‰<i>Î¼</i>m quantum dot lasers on silicon. Applied Physics Letters, 2014, 104, 041104.	3.3	285
2	Perspective: The future of quantum dot photonic integrated circuits. APL Photonics, 2018, 3, .	5.7	188
3	Observation of the Unconventional Photon Blockade. Physical Review Letters, 2018, 121, 043601.	7.8	163
4	Quantum dot lasers for silicon photonics [Invited]. Photonics Research, 2015, 3, B1.	7.0	157
5	13â€‰â€‰Î¼m submilliamp threshold quantum dot micro-lasers on Si. Optica, 2017, 4, 940.	9.3	142
6	High-channel-count 20â€‰â€‰GHz passively mode-locked quantum dot laser directly grown on Si with 41â€‰â€‰Tbit/s transmission capacity. Optica, 2019, 6, 128.	9.3	129
7	Electrically pumped continuous-wave 13â€‰â€‰Î¼m quantum-dot lasers epitaxially grown on on-axis (001)â€‰â€‰GaP/Si. Optics Letters, 2017, 42, 338.	3.3	127
8	Impact of threading dislocation density on the lifetime of InAs quantum dot lasers on Si. Applied Physics Letters, 2018, 112, .	3.3	127
9	Highly Reliable Low-Threshold InAs Quantum Dot Lasers on On-Axis (001) Si with 87% Injection Efficiency. ACS Photonics, 2018, 5, 1094-1100.	6.6	120
10	High efficiency low threshold current 1.3â€‰<i>Î¼</i>m InAs quantum dot lasers on on-axis (001) GaP/Si. Applied Physics Letters, 2017, 111, .	3.3	114
11	A Review of High-Performance Quantum Dot Lasers on Silicon. IEEE Journal of Quantum Electronics, 2019, 55, 1-11.	1.9	107
12	Electrically pumped continuous wave quantum dot lasers epitaxially grown on patterned, on-axis (001) Si. Optics Express, 2017, 25, 3927.	3.4	103
13	1.3-<inline-formula> <tex-math notation="LaTeX">mu </tex-math> </inline-formula>m Reflection Insensitive InAs/GaAs Quantum Dot Lasers Directly Grown on Silicon. IEEE Photonics Technology Letters, 2019, 31, 345-348.	2.5	83
14	Monolithically integrated InAs/InGaAs quantum dot photodetectors on silicon substrates. Optics Express, 2017, 25, 27715.	3.4	71
15	Semiconductor quantum dot lasers epitaxially grown on silicon with low linewidth enhancement factor. Applied Physics Letters, 2018, 112, .	3.3	63
16	Ultrabright Entangled-Photon-Pair Generation from an<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Al</mml:mi><mml:mi>Ga</mml:mi><mml:mi>As</mml:mi></mml:mrow></mml:math>-On-Ins Microring Resonator. PRX Quantum, 2021, 2, .	9.2	61
17	Analysis of the optical feedback dynamics in InAs/GaAs quantum dot lasers directly grown on silicon. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2780.	2.1	56
18	Directly modulated quantum dot lasers on silicon with a milliampere threshold and high temperature stability. Photonics Research, 2018, 6, 776.	7.0	55

#	Article	IF	Citations
19	O-band electrically injected quantum dot micro-ring lasers on on-axis (001) GaP/Si and V-groove Si. Optics Express, 2017, 25, 26853.	3.4	53
20	Directly modulated 13 Î¼m quantum dot lasers epitaxially grown on silicon. Optics Express, 2018, 26, 7022.	3.4	51
21	Low Dark Current High Gain InAs Quantum Dot Avalanche Photodiodes Monolithically Grown on Si. ACS Photonics, 2020, 7, 528-533.	6.6	49
22	Tunable quantum dot lasers grown directly on silicon. Optica, 2019, 6, 1394.	9.3	49
23	A Pathway to Thin GaAs Virtual Substrate on Onâ€Axis Si (001) with Ultralow Threading Dislocation Density. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000402.	1.8	48
24	Fiber-Coupled Cavity-QED Source of Identical Single Photons. Physical Review Applied, 2018, 9, .	3.8	47
25	Ultrahigh-Q AlGaAs-on-insulator microresonators for integrated nonlinear photonics. Optics Express, 2020, 28, 32894.	3.4	42
26	The Importance of p-Doping for Quantum Dot Laser on Silicon Performance. IEEE Journal of Quantum Electronics, 2019, 55, 1-11.	1.9	41
27	1.3ÂÂµm Quantum Dotâ€Distributed Feedback Lasers Directly Grown on (001) Si. Laser and Photonics Reviews, 2020, 14, 2000037.	8.7	40
28	Defect filtering for thermal expansion induced dislocations in IIIâ€"V lasers on silicon. Applied Physics Letters, 2020, 117, .	3.3	38
29	Physics and applications of quantum dot lasers for silicon photonics. Nanophotonics, 2020, 9, 1271-1286.	6.0	38
30	Defect Characterization of InAs/InGaAs Quantum Dot p-i-n Photodetector Grown on GaAs-on-V-Grooved-Si Substrate. ACS Photonics, 2019, 6, 1100-1105.	6.6	37
31	Effects of modulation <i>p</i> doping in InAs quantum dot lasers on silicon. Applied Physics Letters, 2018, 113, .	3.3	35
32	Recent Advances in InAs Quantum Dot Lasers Grown on Onâ€Axis (001) Silicon by Molecular Beam Epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800602.	1.8	34
33	Linewidth Enhancement Factor in InAs/GaAs Quantum Dot Lasers and Its Implication in Isolator-Free and Narrow Linewidth Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	2.9	33
34	Epitaxial quantum dot lasers on silicon with high thermal stability and strong resistance to optical feedback. APL Photonics, 2020, 5, .	5.7	32
35	Low Threshold Quantum Dot Lasers Directly Grown on Unpatterned Quasi-Nominal (001) Si. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-9.	2.9	29
36	Purification of a single-photon nonlinearity. Nature Communications, 2016, 7, 12578.	12.8	28

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37	Attribution of Fano resonant features to plasmonic particle size, lattice constant, and dielectric wavenumber in square nanoparticle lattices. Photonics Research, 2014, 2, 15.	7.0	27
38	High-Performance O-Band Quantum-Dot Semiconductor Optical Amplifiers Directly Grown on a CMOS Compatible Silicon Substrate. ACS Photonics, 2019, 6, 2523-2529.	6.6	27
39	Non-radiative recombination at dislocations in InAs quantum dots grown on silicon. Applied Physics Letters, 2019, 115, .	3.3	27
40	ErAs:In(Al)GaAs photoconductor-based time domain system with 4.5â€‰â€‰THz single shot bandwidth and emitted terahertz power of 164â€‰â€‰ÂµW. Optics Letters, 2020, 45, 2812.	3.3	27
41	Dynamic and nonlinear properties of epitaxial quantum dot lasers on silicon for isolator-free integration. Photonics Research, 2019, 7, 1222.	7.0	27
42	Monolithic 9â€‰GHz passively mode locked quantum dot lasers directly grown on on-axis (001) Si. Applied Physics Letters, 2018, 113, 041108.	3.3	26
43	Low-dark current 10 Gbit/s operation of InAs/InGaAs quantum dot p-i-n photodiode grown on on-axis (001) GaP/Si. Applied Physics Letters, 2018, 113, .	3.3	25
44	Low-Threshold Continuous-Wave Operation of Electrically Pumped 1.55 Î¼m InAs Quantum Dash Microring Lasers. ACS Photonics, 2019, 6, 279-285.	6.6	24
45	Directly Modulated Singleâ€Mode Tunable Quantum Dot Lasers at 1.3ÂÂµm. Laser and Photonics Reviews, 2020, 14, 1900348.	8.7	24
46	Low-Threshold Epitaxially Grown 1.3-<i>Î¼</i>m InAs Quantum Dot Lasers on Patterned (001) Si. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-7.	2.9	23
47	Spectral patterns underlying polarization-enhanced diffractive interference are distinguishable by complex trigonometry. Applied Physics Letters, 2012, 101, .	3.3	22
48	Quantum dot lasersâ€”History and future prospects. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	22
49	Recombination-enhanced dislocation climb in InAs quantum dot lasers on silicon. Journal of Applied Physics, 2020, 128, .	2.5	21
50	Passively mode-locked semiconductor quantum dot on silicon laser with 400â€‰Hz RF line width. Optics Express, 2019, 27, 27256.	3.4	21
51	Effect of p-doping on the intensity noise of epitaxial quantum dot lasers on silicon. Optics Letters, 2020, 45, 4887.	3.3	21
52	Reduced dislocation growth leads to long lifetime InAs quantum dot lasers on silicon at high temperatures. Applied Physics Letters, 2021, 118, .	3.3	20
53	Quantum Dot Lasers and Amplifiers on Silicon: Recent Advances and Future Developments. IEEE Nanotechnology Magazine, 2021, 15, 8-22.	1.3	19
54	On quantum-dot lasing at gain peak with linewidth enhancement factor <i>Î±</i>_{<i>H</i>} = 0. APL Photonics, 2020, 5, 026101.	5.7	18

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55	Physical Origin of the Optical Degradation of InAs Quantum Dot Lasers. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.9	16
56	Low Dark Current 1.55 Micrometer InAs Quantum Dash Waveguide Photodiodes. ACS Nano, 2020, 14, 3519-3527.	14.6	16
57	Integrated dispersion compensated mode-locked quantum dot laser. Photonics Research, 2020, 8, 1428.	7.0	16
58	Dynamic and nonlinear properties of epitaxial quantum-dot lasers on silicon operating under long- and short-cavity feedback conditions for photonic integrated circuits. Physical Review A, 2021, 103, .	2.5	15
59	Investigation of Current-Driven Degradation of 1.3 <i>Î¼</i>m Quantum-Dot Lasers Epitaxially Grown on Silicon. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-8.	2.9	13
60	Low Voltage, High Optical Power Handling Capable, Bulk Compound Semiconductor Electro-Optic Modulators at 1550 nm. Journal of Lightwave Technology, 2020, 38, 2308-2314.	4.6	13
61	Modulation of plasmonic Fano resonance by the shape of the nanoparticles in ordered arrays. Journal Physics D: Applied Physics, 2013, 46, 485103.	2.8	12
62	Degradation of 1.3 Î¼m InAs Quantum-Dot Laser Diodes: Impact of Dislocation Density and Number of Quantum Dot Layers. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	12
63	Dynamic performance and reflection sensitivity of quantum dot distributed feedback lasers with large optical mismatch. Photonics Research, 2021, 9, 1550.	7.0	11
64	1.3-Âµm passively mode-locked quantum dot lasers epitaxially grown on silicon: gain properties and optical feedback stabilization. JPhys Photonics, 2020, 2, 045006.	4.6	11
65	Artificial Coherent States of Light by Multiphoton Interference in a Single-Photon Stream. Physical Review Letters, 2021, 126, 143601.	7.8	10
66	Electro-optic polarization tuning of microcavities with a single quantum dot. Optics Letters, 2018, 43, 4280.	3.3	9
67	Polylogarithm-Based Computation of Fano Resonance in Arrayed Dipole Scatterers. Journal of Physical Chemistry C, 2014, 118, 627-634.	3.1	8
68	Intensity and Phase Modulators at 1.55 Î¼m in GaAs/AlGaAs Layers Directly Grown on Silicon. Journal of Lightwave Technology, 2018, 36, 4205-4210.	4.6	7
69	Quantum dot microcavity lasers on silicon substrates. Semiconductors and Semimetals, 2019, , 305-354.	0.7	7
70	Identification of dislocation-related and point-defects in III-As layers for silicon photonics applications. Journal Physics D: Applied Physics, 2021, 54, 285101.	2.8	7
71	Kinetically limited misfit dislocations formed during post-growth cooling in IIIâ€"V lasers on silicon. Journal Physics D: Applied Physics, 2021, 54, 494001.	2.8	7
72	Monolithic Passiveâ˘'Active Integration of Epitaxially Grown Quantum Dot Lasers on Silicon. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, 2100522.	1.8	7

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73	Four-wave mixing in 1.3 Î¼m epitaxial quantum dot lasers directly grown on silicon. Photonics Research, 0, , .	7.0	7
74	Aqueous dispersion of plasmonic hollow metal nanoparticles. Materials Letters, 2014, 117, 241-243.	2.6	6
75	Reliability of lasers on silicon substrates for silicon photonics. , 2021, , 239-271.		6
76	Origin of the Diffusion-Related Optical Degradation of 1.3 Î¼m Inas QD-LDs Epitaxially Grown on Silicon Substrate. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	2.9	6
77	A Review of the Reliability of Integrated IR Laser Diodes for Silicon Photonics. Electronics (Switzerland), 2021, 10, 2734.	3.1	6
78	Bias-Dependent Carrier Dynamics and Terahertz Performance of ErAs:In(Al)GaAs Photoconductors. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 353-362.	3.1	6
79	Extended polarized semiclassical model for quantum-dot cavity QED and its application to single-photon sources. Physical Review A, 2020, 101, .	2.5	4
80	Material properties and performance of ErAs:In(Al)GaAs photoconductors for 1550 nm laser operation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	4
81	Carrier Recombination Properties of Low-Threshold 1.3 Î¼m Quantum Dot Lasers on Silicon. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	2.9	4
82	Continuous Tuning of Gain Peak Linewidth Enhancement Factor from Negative to Positive with p Doping in InAs QD Laser on Si. , 2018, , .		3
83	High performance quantum dot lasers epitaxially integrated on Si. , 2018, , .		3
84	Epitaxial integration of high-performance quantum-dot lasers on silicon. , 2020, , .		3
85	Reliability of quantum well and quantum dot lasers for silicon photonics (invited). , 2017, , .		2
86	Quantum dot lasers grown on (001) Si substrate for integration with amorphous Si waveguides. , 2017, , .		2
87	A fiber coupled source of identical single photons. , 2017, , .		1
88	NRZ and PAM-4 Direct Modulation of <tex>$1.3 mumathrm{m}$</tex> Quantum Dot Lasers Grown Directly on On-Axis (001) Si. , 2018, , .		1
89	1.3 Î¼m regrown quantum-dot distributed feedback lasers on (001) Si: a pathway to scale towards 1 Tbit/s. , 2021, , .		1
90	Thermally insensitive determination of the chirp parameter of InAs/GaAs quantum dot lasers epitaxially grown onto silicon. , 2019, , .		1

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91	Degradation mechanisms of 1.3Âµm C-doped quantum dot lasers grown on native substrate. Microelectronics Reliability, 2021, , 114222.	1.7	1
92	1.3 qm tunable quantum dot lasers. , 2020, , .		1
93	Demonstration of current-dependent degradation of quantum-dot lasers grown on silicon: role of defect diffusion processes. , 2020, , .		1
94	Physical Properties of 1.3 µm InAs-Based Quantum Dot Laser on Silicon. , 2018, , .		0
95	High performance lasers on Si. , 2019, , .		0
96	O-Band Quantum Dot Semiconductor Optical Amplifier Directly Grown on CMOS Compatible Si Substrate. , 2019, , .		0
97	Entangled Photon Pair Generation from an AlGaAs-on-Insulator Microring Resonator. , 2021, , .		0
98	Dynamics of epitaxial quantum dot laser on silicon subject to chip-scale back-reflection for isolator-free photonics integrated circuits. , 2021, , .		0
99	Advances in heteroepitaxial integration of III-V and IV-VI semiconductors with electron channeling contrast imaging. Microscopy and Microanalysis, 2021, 27, 908-910.	0.4	0
100	Linewidth broadening factor and optical feedback sensitivity of silicon based quantum dot lasers. , 2019, , .		0
101	Traveling Wave GaAs/AlGaAs Electro-optic Modulators Directly Grown on Silicon. , 2020, , .		0
102	GaAs epitaxy on (001) Si: below 1Ã—106 cm-2 dislocation density with 2.4 pm buffer thickness. , 2020, , .		0
103	Optical degradation of InAs quantum-dot lasers on silicon: dependence on temperature and on diffusion processes. , 2022, , .		0
104	Analysis of dislocation-related and point-defects in III-As layers by extensive DLTS study. , 2022, , .		0