Justin C Norman

List of Publications by Year
in descending order

104 papers	3,562 citations	156536 32 h-index	162838 57 g-index
106 all docs	106 docs citations	106 times ranked	2259 citing authors

#	Article	IF	Citations
1	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.	1.9	4
2	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.	1.9	6
3	Monolithic Passiveâ˘'Active Integration of Epitaxially Grown Quantum Dot Lasers on Silicon. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, 2100522.	0.8	7
4	Optical degradation of InAs quantum-dot lasers on silicon: dependence on temperature and on diffusion processes. , 2022, , .		0
5	Analysis of dislocation-related and point-defects in III-As layers by extensive DLTS study. , 2022, , .		0
6	Bias-Dependent Carrier Dynamics and Terahertz Performance of ErAs:In(Al)GaAs Photoconductors. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 353-362.	2.0	6
7	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.	1.0	12
8	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.	0.8	48
9	Entangled Photon Pair Generation from an AlGaAs-on-Insulator Microring Resonator. , 2021, , .		0
10	Reliability of lasers on silicon substrates for silicon photonics. , 2021, , 239-271.		6
11	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, .	0.9	4
12	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, .	3.5	61
13	Quantum dot lasersâ€"History and future prospects. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	22
14	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, .	1.0	15
15	Artificial Coherent States of Light by Multiphoton Interference in a Single-Photon Stream. Physical Review Letters, 2021, 126, 143601.	2.9	10
16	Quantum Dot Lasers and Amplifiers on Silicon: Recent Advances and Future Developments. IEEE Nanotechnology Magazine, 2021, 15, 8-22.	0.9	19
17	Identification of dislocation-related and point-defects in III-As layers for silicon photonics applications. Journal Physics D: Applied Physics, 2021, 54, 285101.	1.3	7
18	Reduced dislocation growth leads to long lifetime InAs quantum dot lasers on silicon at high temperatures. Applied Physics Letters, 2021, 118, .	1.5	20

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19	Dynamics of epitaxial quantum dot laser on silicon subject to chip-scale back-reflection for isolator-free photonics integrated circuits. , 2021, , .		0
20	Dynamic performance and reflection sensitivity of quantum dot distributed feedback lasers with large optical mismatch. Photonics Research, 2021, 9, 1550.	3.4	11
21	Advances in heteroepitaxial integration of III-V and IV-VI semiconductors with electron channeling contrast imaging. Microscopy and Microanalysis, 2021, 27, 908-910.	0.2	0
22	Kinetically limited misfit dislocations formed during post-growth cooling in IIIâ€“V lasers on silicon. Journal Physics D: Applied Physics, 2021, 54, 494001.	1.3	7
23	1.3 Î¼m regrown quantum-dot distributed feedback lasers on (001) Si: a pathway to scale towards 1 Tbit/s. , 2021, , .		1
24	Degradation mechanisms of 1.3ÂÎ¼m C-doped quantum dot lasers grown on native substrate. Microelectronics Reliability, 2021, , 114222.	0.9	1
25	A Review of the Reliability of Integrated IR Laser Diodes for Silicon Photonics. Electronics (Switzerland), 2021, 10, 2734.	1.8	6
26	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.	1.9	13
27	Low Dark Current High Gain InAs Quantum Dot Avalanche Photodiodes Monolithically Grown on Si. ACS Photonics, 2020, 7, 528-533.	3.2	49
28	Epitaxial quantum dot lasers on silicon with high thermal stability and strong resistance to optical feedback. APL Photonics, 2020, 5, .	3.0	32
29	Recombination-enhanced dislocation climb in InAs quantum dot lasers on silicon. Journal of Applied Physics, 2020, 128, .	1.1	21
30	Defect filtering for thermal expansion induced dislocations in IIIâ€“V lasers on silicon. Applied Physics Letters, 2020, 117, .	1.5	38
31	Extended polarized semiclassical model for quantum-dot cavity QED and its application to single-photon sources. Physical Review A, 2020, 101, .	1.0	4
32	1.3ÂÂµm Quantum Dotâ€Distributed Feedback Lasers Directly Grown on (001) Si. Laser and Photonics Reviews, 2020, 14, 2000037.	4.4	40
33	Directly Modulated Singleâ€Mode Tunable Quantum Dot Lasers at 1.3ÂÂµm. Laser and Photonics Reviews, 2020, 14, 1900348.	4.4	24
34	On quantum-dot lasing at gain peak with linewidth enhancement factor <i>Î±</i>_{<i>H</i>} = 0. APL Photonics, 2020, 5, 026101.	3.0	18
35	Low Dark Current 1.55 Micrometer InAs Quantum Dash Waveguide Photodiodes. ACS Nano, 2020, 14, 3519-3527.	7.3	16
36	Low Voltage, High Optical Power Handling Capable, Bulk Compound Semiconductor Electro-Optic Modulators at 1550 nm. Journal of Lightwave Technology, 2020, 38, 2308-2314.	2.7	13

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37	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.	1.9	29
38	1.3-Âµm passively mode-locked quantum dot lasers epitaxially grown on silicon: gain properties and optical feedback stabilization. JPhys Photonics, 2020, 2, 045006.	2.2	11
39	Ultrahigh-Q AlGaAs-on-insulator microresonators for integrated nonlinear photonics. Optics Express, 2020, 28, 32894.	1.7	42
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.	1.7	27
41	Effect of p-doping on the intensity noise of epitaxial quantum dot lasers on silicon. Optics Letters, 2020, 45, 4887.	1.7	21
42	Integrated dispersion compensated mode-locked quantum dot laser. Photonics Research, 2020, 8, 1428.	3.4	16
43	Physics and applications of quantum dot lasers for silicon photonics. Nanophotonics, 2020, 9, 1271-1286.	2.9	38
44	Traveling Wave GaAs/AlGaAs Electro-optic Modulators Directly Grown on Silicon. , 2020, , .		0
45	1.3 qm tunable quantum dot lasers. , 2020, , .		1
46	GaAs epitaxy on (001) Si: below 1Ã—106 cm-2 dislocation density with 2.4 pm buffer thickness. , 2020, , .		0
47	Demonstration of current-dependent degradation of quantum-dot lasers grown on silicon: role of defect diffusion processes. , 2020, , .		1
48	Epitaxial integration of high-performance quantum-dot lasers on silicon. , 2020, , .		3
49	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.	1.9	23
50	The Importance of p-Doping for Quantum Dot Laser on Silicon Performance. IEEE Journal of Quantum Electronics, 2019, 55, 1-11.	1.0	41
51	High-Performance O-Band Quantum-Dot Semiconductor Optical Amplifiers Directly Grown on a CMOS Compatible Silicon Substrate. ACS Photonics, 2019, 6, 2523-2529.	3.2	27
52	High performance lasers on Si. , 2019, , .		0
53	Non-radiative recombination at dislocations in InAs quantum dots grown on silicon. Applied Physics Letters, 2019, 115, .	1.5	27
54	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.	1.3	83

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55	Quantum dot microcavity lasers on silicon substrates. Semiconductors and Semimetals, 2019, , 305-354.	0.4	7
56	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.	1.9	33
57	Physical Origin of the Optical Degradation of InAs Quantum Dot Lasers. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.0	16
58	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.	3.2	37
59	A Review of High-Performance Quantum Dot Lasers on Silicon. IEEE Journal of Quantum Electronics, 2019, 55, 1-11.	1.0	107
60	O-Band Quantum Dot Semiconductor Optical Amplifier Directly Grown on CMOS Compatible Si Substrate. , 2019, , .		0
61	Low-Threshold Continuous-Wave Operation of Electrically Pumped 1.55 Î¼m InAs Quantum Dash Microring Lasers. ACS Photonics, 2019, 6, 279-285.	3.2	24
62	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.	0.8	34
63	Thermally insensitive determination of the chirp parameter of InAs/GaAs quantum dot lasers epitaxially grown onto silicon. , 2019, , .		1
64	Passively mode-locked semiconductor quantum dot on silicon laser with 400â€‰Hz RF line width. Optics Express, 2019, 27, 27256.	1.7	21
65	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.	4.8	129
66	Tunable quantum dot lasers grown directly on silicon. Optica, 2019, 6, 1394.	4.8	49
67	Dynamic and nonlinear properties of epitaxial quantum dot lasers on silicon for isolator-free integration. Photonics Research, 2019, 7, 1222.	3.4	27
68	Linewidth broadening factor and optical feedback sensitivity of silicon based quantum dot lasers. , 2019, , .		0
69	Impact of threading dislocation density on the lifetime of InAs quantum dot lasers on Si. Applied Physics Letters, 2018, 112, .	1.5	127
70	Highly Reliable Low-Threshold InAs Quantum Dot Lasers on On-Axis (001) Si with 87% Injection Efficiency. ACS Photonics, 2018, 5, 1094-1100.	3.2	120
71	Perspective: The future of quantum dot photonic integrated circuits. APL Photonics, 2018, 3, .	3.0	188
72	Fiber-Coupled Cavity-QED Source of Identical Single Photons. Physical Review Applied, 2018, 9, .	1.5	47

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73	Continuous Tuning of Gain Peak Linewidth Enhancement Factor from Negative to Positive with p Doping in InAs QD Laser on Si. , 2018, , .		3
74	Physical Properties of 1.3 Î¼m InAs-Based Quantum Dot Laser on Silicon. , 2018, , .		0
75	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
76	Electro-optic polarization tuning of microcavities with a single quantum dot. Optics Letters, 2018, 43, 4280.	1.7	9
77	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, .	1.5	25
78	Semiconductor quantum dot lasers epitaxially grown on silicon with low linewidth enhancement factor. Applied Physics Letters, 2018, 112, .	1.5	63
79	Monolithic 9â€‰GHz passively mode locked quantum dot lasers directly grown on on-axis (001) Si. Applied Physics Letters, 2018, 113, 041108.	1.5	26
80	Directly modulated quantum dot lasers on silicon with a milliampere threshold and high temperature stability. Photonics Research, 2018, 6, 776.	3.4	55
81	Directly modulated 13 Î¼m quantum dot lasers epitaxially grown on silicon. Optics Express, 2018, 26, 7022.	1.7	51
82	Observation of the Unconventional Photon Blockade. Physical Review Letters, 2018, 121, 043601.	2.9	163
83	Effects of modulation <i>p</i> doping in InAs quantum dot lasers on silicon. Applied Physics Letters, 2018, 113, .	1.5	35
84	Intensity and Phase Modulators at 1.55 Î¼m in GaAs/AlGaAs Layers Directly Grown on Silicon. Journal of Lightwave Technology, 2018, 36, 4205-4210.	2.7	7
85	High performance quantum dot lasers epitaxially integrated on Si. , 2018, , .		3
86	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.	0.9	56
87	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, .	1.5	114
88	Reliability of quantum well and quantum dot lasers for silicon photonics (invited). , 2017, , .		2
89	A fiber coupled source of identical single photons. , 2017, , .		1
90	Electrically pumped continuous wave quantum dot lasers epitaxially grown on patterned, on-axis (001) Si. Optics Express, 2017, 25, 3927.	1.7	103

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91	O-band electrically injected quantum dot micro-ring lasers on on-axis (001) GaP/Si and V-groove Si. Optics Express, 2017, 25, 26853.	1.7	53
92	Monolithically integrated InAs/InGaAs quantum dot photodetectors on silicon substrates. Optics Express, 2017, 25, 27715.	1.7	71
93	13â€‰â€‰Î¼m submilliamp threshold quantum dot micro-lasers on Si. Optica, 2017, 4, 940.	4.8	142
94	Quantum dot lasers grown on (001) Si substrate for integration with amorphous Si waveguides. , 2017, , .		2
95	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.	1.7	127
96	Purification of a single-photon nonlinearity. Nature Communications, 2016, 7, 12578.	5.8	28
97	Quantum dot lasers for silicon photonics [Invited]. Photonics Research, 2015, 3, B1.	3.4	157
98	Aqueous dispersion of plasmonic hollow metal nanoparticles. Materials Letters, 2014, 117, 241-243.	1.3	6
99	High performance continuous wave 1.3â€‰<i>Î¼</i>m quantum dot lasers on silicon. Applied Physics Letters, 2014, 104, 041104.	1.5	285
100	Attribution of Fano resonant features to plasmonic particle size, lattice constant, and dielectric wavenumber in square nanoparticle lattices. Photonics Research, 2014, 2, 15.	3.4	27
101	Polylogarithm-Based Computation of Fano Resonance in Arrayed Dipole Scatterers. Journal of Physical Chemistry C, 2014, 118, 627-634.	1.5	8
102	Modulation of plasmonic Fano resonance by the shape of the nanoparticles in ordered arrays. Journal Physics D: Applied Physics, 2013, 46, 485103.	1.3	12
103	Spectral patterns underlying polarization-enhanced diffractive interference are distinguishable by complex trigonometry. Applied Physics Letters, 2012, 101, .	1.5	22
104	Four-wave mixing in 1.3 Î¼m epitaxial quantum dot lasers directly grown on silicon. Photonics Research, 0, , .	3.4	7