P Douglas Yoder

List of Publications by Year
in descending order

57 papers	1,191 citations	516710 16 h-index	377865 34 g-index
57 all docs	57 docs citations	57 times ranked	1214 citing authors

#	Article	IF	Citations
1	Control of Quantum-Confined Stark Effect in InGaN-Based Quantum Wells. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1080-1091.	2.9	233
2	Improvement of quantum efficiency by employing active-layer-friendly lattice-matched InAlN electron blocking layer in green light-emitting diodes. Applied Physics Letters, 2010, 96, .	3.3	89
3	Efficiency droop due to electron spill-over and limited hole injection in III-nitride visible light-emitting diodes employing lattice-matched InAlN electron blocking layers. Applied Physics Letters, 2012, 101, .	3.3	80
4	Deep-ultraviolet lasing at 243â€‰nm from photo-pumped AlGaN/AlN heterostructure on AlN substrate. Applied Physics Letters, 2013, 102, .	3.3	77
5	Performance of Deep Ultraviolet GaN Avalanche Photodiodes Grown by MOCVD. IEEE Photonics Technology Letters, 2007, 19, 1744-1746.	2.5	71
6	A comparison of numerical solutions of the Boltzmann transport equation for high-energy electron transport silicon. IEEE Transactions on Electron Devices, 1994, 41, 1646-1654.	3.0	66
7	Abinitioanalysis of the electronâ€phonon interaction in silicon. Journal of Applied Physics, 1993, 73, 4378-4383.	2.5	52
8	A generalized Ramoâ€“Shockley theorem for classical to quantum transport at arbitrary frequencies. Journal of Applied Physics, 1996, 79, 1951-1954.	2.5	40
9	Sub-250â€‰nm low-threshold deep-ultraviolet AlGaN-based heterostructure laser employing HfO2/SiO2 dielectric mirrors. Applied Physics Letters, 2013, 103, .	3.3	36
10	Design and Analysis of 250-nm AlInN Laser Diodes on AlN Substrates Using Tapered Electron Blocking Layers. IEEE Journal of Quantum Electronics, 2012, 48, 703-711.	1.9	34
11	Monte Carlo simulation of hot electron transport in Si using a unified pseudopotential description of the crystal. Semiconductor Science and Technology, 1992, 7, B357-B359.	2.0	33
12	Growth and fabrication of high-performance GaN-based ultraviolet avalanche photodiodes. Journal of Crystal Growth, 2008, 310, 5217-5222.	1.5	31
13	Sub 250â€‰nm deep-UV AlGaN/AlN distributed Bragg reflectors. Applied Physics Letters, 2017, 110, .	3.3	29
14	Geiger-Mode Operation of GaN Avalanche Photodiodes Grown on GaN Substrates. IEEE Photonics Technology Letters, 2009, 21, 1526-1528.	2.5	27
15	Negative differential resistance in GaN homojunction tunnel diodes and low voltage loss tunnel contacts. Applied Physics Letters, 2018, 112, .	3.3	27
16	NpN-GaN/InxGa1â^'xN/GaN heterojunction bipolar transistor on free-standing GaN substrate. Applied Physics Letters, 2011, 99, .	3.3	21
17	Tablet PC Technology for the Enhancement of Synchronous Distributed Education. IEEE Transactions on Learning Technologies, 2008, 1, 105-116.	3.2	17
18	Lateral Current Spreading in III-N Ultraviolet Vertical-Cavity Surface-Emitting Lasers Using Modulation-Doped Short Period Superlattices. IEEE Journal of Quantum Electronics, 2018, 54, 1-7.	1.9	16

#	Article	IF	Citations
19	Design Strategies for InGaN-Based Green Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 238-245.	1.9	15
20	Model Selection Under Limited Information Using a Value-of-Information-Based Indicator. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	2.9	14
21	Demonstration of Intrinsic Tristability in Double-Barrier Resonant Tunneling Diodes With the Wigner Transport Equation. IEEE Transactions on Electron Devices, 2010, 57, 3265-3274.	3.0	13
22	Optically pumped AlGaN quantumâ€well lasers at subâ€250 nm grown by MOCVD on AlN substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 258-260.	0.8	13
23	Theory and Design of Electron Blocking Layers for III-N-Based Laser Diodes by Numerical Simulation. IEEE Journal of Quantum Electronics, 2018, 54, 1-11.	1.9	13
24	Anisotropic Transient and Stationary Electron Velocity in Bulk Wurtzite GaN. IEEE Electron Device Letters, 2008, 29, 1190-1192.	3.9	12
25	Threshold energies in the light emission characteristics of silicon MOS tunnel diodes. Microelectronics Reliability, 2001, 41, 1071-1076.	1.7	10
26	A High-Linearity Modified Uni-Traveling Carrier Photodiode With Offset Effects of Nonlinear Capacitance. Journal of Lightwave Technology, 2009, 27, 4435-4439.	4.6	9
27	Lateral carrier confinement and threshold current reduction in InGaN QW lasers with deeply etched mesa. Optical and Quantum Electronics, 2011, 42, 747-754.	3.3	9
28	Temperature- and Doping-Dependent Anisotropic Stationary Electron Velocity in Wurtzite GaN. IEEE Electron Device Letters, 2011, 32, 1522-1524.	3.9	9
29	Inverse-Tapered p-Waveguide for Vertical Hole Transport in High-[Al] AlGaN Emitters. IEEE Photonics Technology Letters, 2015, 27, 1768-1771.	2.5	9
30	GaN/InGaN Heterojunction Bipolar Transistors With $f_{T} > hbox{5} hbox{GHz}$. IEEE Electron Device Letters, 2011, 32, 1065-1067.	3.9	8
31	Performance characteristics of InAlGaN laser diodes depending on electron blocking layer and waveguiding layer design grown by metalorganic chemical vapordeposition. Journal of Crystal Growth, 2011, 315, 272-277.	1.5	8
32	Polarization Matching in AlGaN-Based Multiple-Quantum-Well Deep Ultraviolet Laser Diodes on AlN Substrates Using Quaternary AlInGaN Barriers. Journal of Lightwave Technology, 2012, 30, 3017-3025.	4.6	8
33	Linear theory of the quasi-unipolar photodiode. Journal of Lightwave Technology, 2006, 24, 1937-1945.	4.6	7
34	Stimulated emission at 257â€‰nm from optically-pumped AlGaN/AlN heterostructure on AlN substrate. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1768-1770.	1.8	7
35	Nitride band-structure model in a quantum well laser simulator. Optical and Quantum Electronics, 2008, 40, 295-299.	3.3	6
36	High Reflectivity Hybrid AlGaN/Silver Distributed Bragg Reflectors for Use in the UV-Visible Spectrum. IEEE Journal of Quantum Electronics, 2017, 53, 1-8.	1.9	6

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37	Thermal Design Considerations for III-N Vertical-Cavity Surface-Emitting Lasers Using Electro-Opto-Thermal Numerical Simulations. IEEE Journal of Quantum Electronics, 2019, 55, 1-8.	1.9	6
38	Impact of oxide damage on the light emission properties of MOS tunnel structures. Solid-State Electronics, 2004, 48, 731-737.	1.4	4
39	High-performance GaN and Al x Ga 1-x N ultraviolet avalanche photodiodes grown by MOCVD on bulk III-N substrates. , 2007, 6739, 361.		4
40	Soft Error Trends and New Physical Model for Ionizing Dose Effects in Double Gate Z-RAM Cell. IEEE Transactions on Nuclear Science, 2007, 54, 2363-2370.	2.0	4
41	Theoretical analysis of strategies for improving pâ€type conductivity in wurtzite IIIâ€nitride devices for highâ€power optoâ€and microelectronic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 828-831.	0.8	4
42	Epitaxial Growth and Optically Pumped Stimulated Emission in AlGaN/InGaN Ultraviolet Multi-Quantum-Well Structures. Journal of Electronic Materials, 2020, 49, 2326-2331.	2.2	3
43	Statistical Enhancement of Terminal Current Estimation for Monte Carlo Device Simulation. VLSI Design, 1998, 6, 303-306.	0.5	2
44	Strain-Dependence of Electron Transport in Bulk Si and Deep-Submicron MOSFETs. VLSI Design, 2001, 13, 163-167.	0.5	2
45	Perfectly matched layer boundary conditions for quantum phase space transport. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 367, 288-290.	2.1	2
46	Improved Hole Transport by ${m p}hbox{-}{m In}_{x}{m Ga}_{1-x}{m N}$ Layer in Multiple Quantum Wells of Visible LEDs. IEEE Photonics Technology Letters, 2013, 25, 1789-1792.	2.5	2
47	Growth and Characterization of High-Performance GaN and AlxGa1â^'xN Ultraviolet Avalanche Photodiodes Grown on GaN Substrates. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	1
48	Bandwidth and Charge Balancing of Partially Depleted Absorber Photodiodes. IEEE Journal of Quantum Electronics, 2007, 43, 992-997.	1.9	1
49	Corrections to â€œLateral Current Spreading in III-N Ultraviolet Vertical-Cavity Surface-Emitting Lasers Using Modulation-Doped Short Period Superlatticesâ€•[Aug 18 Art. no. 2400507]. IEEE Journal of Quantum Electronics, 2019, 55, 1-1.	1.9	1
50	Physical modeling of high-speed PIN photodetectors. , 2001, , .		0
51	Nitride Band-Structure Model in a Quantum Well Laser Simulator. , 2007, , .		0
52	Introduction to the OQE special issue on numerical simulation of optoelectronic devices (2008). Optical and Quantum Electronics, 2008, 40, 1075-1076.	3.3	0
53	Beyond intervalley transfer: damped Bloch oscillation and negative differential drift velocity at very high fields in wide bandgap III-nitride materials. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 879-882.	0.8	0
54	Semi-analytical Model of Charge Domain Propagation and Its Device Application. IEEE Transactions on Electron Devices, 2017, 64, 400-406.	3.0	0

#	Article	IF	Citations
55	Design of InP Segmented-collector DHBTs with Reduced Collector Transit Time Ï„_c for Large Power Bandwidth Power Amplifiers. , 2018, , .		0
56	First Principles Study of Collector Transit Time Modulation in Double Heterojunction Bipolar Transistors. , 2019, , .		0
57	III-nitride emitters and detectors for UV optoelectronic applications grown by metalorganic chemical vapor deposition. , 2019, , .		0