

P Douglas Yoder

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Epitaxial Growth and Optically Pumped Stimulated Emission in AlGaIn/InGaIn Ultraviolet Multi-Quantum-Well Structures. Journal of Electronic Materials, 2020, 49, 2326-2331.	2.2	3
2	Corrections to "Lateral Current Spreading in III-N Ultraviolet Vertical-Cavity Surface-Emitting Lasers Using Modulation-Doped Short Period Superlattices" [Aug 18 Art. no. 2400507]. IEEE Journal of Quantum Electronics, 2019, 55, 1-1.	1.9	1
3	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
4	First Principles Study of Collector Transit Time Modulation in Double Heterojunction Bipolar Transistors. , 2019, , .		0
5	III-nitride emitters and detectors for UV optoelectronic applications grown by metalorganic chemical vapor deposition. , 2019, , .		0
6	Design of InP Segmented-collector DHBTs with Reduced Collector Transit Time T_{c} for Large Power Bandwidth Power Amplifiers. , 2018, , .		0
7	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
8	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
9	Negative differential resistance in GaN homojunction tunnel diodes and low voltage loss tunnel contacts. Applied Physics Letters, 2018, 112, .	3.3	27
10	Sub 250-nm deep-UV AlGaIn/AlN distributed Bragg reflectors. Applied Physics Letters, 2017, 110, .	3.3	29
11	Semi-analytical Model of Charge Domain Propagation and Its Device Application. IEEE Transactions on Electron Devices, 2017, 64, 400-406.	3.0	0
12	High Reflectivity Hybrid AlGaIn/Silver Distributed Bragg Reflectors for Use in the UV-Visible Spectrum. IEEE Journal of Quantum Electronics, 2017, 53, 1-8.	1.9	6
13	Inverse-Tapered p-Waveguide for Vertical Hole Transport in High-[Al] AlGaIn Emitters. IEEE Photonics Technology Letters, 2015, 27, 1768-1771.	2.5	9
14	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
15	Optically pumped AlGaIn quantum-well lasers at sub-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
16	Theoretical analysis of strategies for improving p-type conductivity in wurtzite III-nitride devices for high-power opto- and microelectronic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 828-831.	0.8	4
17	Deep-ultraviolet lasing at 243-nm from photo-pumped AlGaIn/AlN heterostructure on AlN substrate. Applied Physics Letters, 2013, 102, .	3.3	77
18	Sub-250-nm low-threshold deep-ultraviolet AlGaIn-based heterostructure laser employing HfO ₂ /SiO ₂ dielectric mirrors. Applied Physics Letters, 2013, 103, .	3.3	36

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19	Improved Hole Transport by $\text{In}_x\text{Ga}_{1-x}\text{N}$ Layer in Multiple Quantum Wells of Visible LEDs. IEEE Photonics Technology Letters, 2013, 25, 1789-1792.	2.5	2
20	Stimulated emission at 257 nm from optically-pumped AlGaIn heterostructure on AlN substrate. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1768-1770.	1.8	7
21	Polarization Matching in AlGaIn-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
22	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
23	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
24	NpN-GaN/InxGa1-xN/GaN heterojunction bipolar transistor on free-standing GaN substrate. Applied Physics Letters, 2011, 99, .	3.3	21
25	GaN/InGaIn Heterojunction Bipolar Transistors With $f_T > 5$ GHz. IEEE Electron Device Letters, 2011, 32, 1065-1067.	3.9	8
26	Lateral carrier confinement and threshold current reduction in InGaIn QW lasers with deeply etched mesa. Optical and Quantum Electronics, 2011, 42, 747-754.	3.3	9
27	Performance characteristics of InAlGaIn 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
28	Temperature- and Doping-Dependent Anisotropic Stationary Electron Velocity in Wurtzite GaN. IEEE Electron Device Letters, 2011, 32, 1522-1524.	3.9	9
29	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
30	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
31	Design Strategies for InGaIn-Based Green Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 238-245.	1.9	15
32	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
33	Control of Quantum-Confined Stark Effect in InGaIn-Based Quantum Wells. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1080-1091.	2.9	233
34	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
35	Geiger-Mode Operation of GaN Avalanche Photodiodes Grown on GaN Substrates. IEEE Photonics Technology Letters, 2009, 21, 1526-1528.	2.5	27
36	Nitride band-structure model in a quantum well laser simulator. Optical and Quantum Electronics, 2008, 40, 295-299.	3.3	6

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37	Introduction to the OQE special issue on numerical simulation of optoelectronic devices (2008). Optical and Quantum Electronics, 2008, 40, 1075-1076.	3.3	0
38	Growth and fabrication of high-performance GaN-based ultraviolet avalanche photodiodes. Journal of Crystal Growth, 2008, 310, 5217-5222.	1.5	31
39	Tablet PC Technology for the Enhancement of Synchronous Distributed Education. IEEE Transactions on Learning Technologies, 2008, 1, 105-116.	3.2	17
40	Anisotropic Transient and Stationary Electron Velocity in Bulk Wurtzite GaN. IEEE Electron Device Letters, 2008, 29, 1190-1192.	3.9	12
41	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
42	Growth and Characterization of High-Performance GaN and Al _x Ga _{1-x} N Ultraviolet Avalanche Photodiodes Grown on GaN Substrates. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	1
43	Bandwidth and Charge Balancing of Partially Depleted Absorber Photodiodes. IEEE Journal of Quantum Electronics, 2007, 43, 992-997.	1.9	1
44	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
45	Nitride Band-Structure Model in a Quantum Well Laser Simulator. , 2007, , .		0
46	Performance of Deep Ultraviolet GaN Avalanche Photodiodes Grown by MOCVD. IEEE Photonics Technology Letters, 2007, 19, 1744-1746.	2.5	71
47	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
48	Linear theory of the quasi-unipolar photodiode. Journal of Lightwave Technology, 2006, 24, 1937-1945.	4.6	7
49	Impact of oxide damage on the light emission properties of MOS tunnel structures. Solid-State Electronics, 2004, 48, 731-737.	1.4	4
50	Strain-Dependence of Electron Transport in Bulk Si and Deep-Submicron MOSFETs. VLSI Design, 2001, 13, 163-167.	0.5	2
51	Physical modeling of high-speed PIN photodetectors. , 2001, , .		0
52	Threshold energies in the light emission characteristics of silicon MOS tunnel diodes. Microelectronics Reliability, 2001, 41, 1071-1076.	1.7	10
53	Statistical Enhancement of Terminal Current Estimation for Monte Carlo Device Simulation. VLSI Design, 1998, 6, 303-306.	0.5	2
54	A generalized Ramo-Shockley theorem for classical to quantum transport at arbitrary frequencies. Journal of Applied Physics, 1996, 79, 1951-1954.	2.5	40

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55	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
56	Abinitioanalysis of the electronâ€phonon interaction in silicon. Journal of Applied Physics, 1993, 73, 4378-4383.	2.5	52
57	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