Travis J Anderson

List of Publications by Year
in descending order

67 papers	1,658 citations	257450 24 h-index	302126 39 g-index
67 all docs	67 docs citations	67 times ranked	1949 citing authors

#	Article	IF	Citations
1	Optimizing performance and yield of vertical GaN diodes using wafer scale optical techniques. Scientific Reports, 2022, 12, 658.	3.3	8
2	Impact of Anode Thickness on Breakdown Mechanisms in Vertical GaN PiN Diodes with Planar Edge Termination. Crystals, 2022, 12, 623.	2.2	4
3	Investigation of the Reverse Leakage Behavior and Substrate Defects in Vertical GaN Schottky and PIN Diodes. ECS Journal of Solid State Science and Technology, 2022, 11, 065006.	1.8	2
4	Reduced-stress nanocrystalline diamond films for heat spreading in electronic devices. , 2022, , 275-294.		0
5	Effect of GaN Substrate Properties on Vertical GaN PiN Diode Electrical Performance. Journal of Electronic Materials, 2021, 50, 3013-3021.	2.2	8
6	Process Optimization for Selective Area Doping of GaN by Ion Implantation. Journal of Electronic Materials, 2021, 50, 4642-4649.	2.2	4
7	Role of Capping Material and GaN Polarity on Mg Ion Implantation Activation. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900789.	1.8	5
8	A Study on the Impact of Mid-Gap Defects on Vertical GaN Diodes. IEEE Transactions on Semiconductor Manufacturing, 2020, 33, 546-551.	1.7	5
9	High-Resolution Thermoreflectance Imaging Investigation of Self-Heating in AlGaN/GaN HEMTs on Si, SiC, and Diamond Substrates. IEEE Transactions on Electron Devices, 2020, 67, 5415-5420.	3.0	24
10	Optical Investigation of Protonâ€Irradiated Metal Organic Chemical Vapor Deposition AlGaN/GaN Highâ€Electronâ€Mobility Transistor Structures. Physica Status Solidi (B): Basic Research, 2020, 257, 1900573.	1.5	0
11	(Invited) GaN Homoepitaxial Growth and Substrate-Dependent Effects for Vertical Power Devices. ECS Transactions, 2020, 98, 63-67.	0.5	3
12	Reduced Contact Resistance in GaN Using Selective Area Si Ion Implantation. IEEE Transactions on Semiconductor Manufacturing, 2019, 32, 478-482.	1.7	3
13	Polarity dependent implanted p-type dopant activation in GaN. Japanese Journal of Applied Physics, 2019, 58, SCCD07.	1.5	12
14	GaN-On-Diamond HEMT Technology With T_{AVG} = 176Â°C at P_{DC,max} = 56 W/mm Measured by Transient Thermoreflectance Imaging. IEEE Electron Device Letters, 2019, 40, 881-884.	3.9	52
15	Defect Characterization of Multicycle Rapid Thermal Annealing Processed p-GaN for Vertical Power Devices. ECS Journal of Solid State Science and Technology, 2019, 8, P70-P76.	1.8	9
16	Lateral GaN JFET Devices on Large Area Engineered Substrates. ECS Journal of Solid State Science and Technology, 2019, 8, Q226-Q229.	1.8	4
17	Lateral GaN JFET Devices on 200 mm Engineered Substrates for Power Switching Applications. , 2018, , .		4
18	Electrothermal Evaluation of AlGaN/GaN Membrane High Electron Mobility Transistors by Transient Thermoreflectance. IEEE Journal of the Electron Devices Society, 2018, 6, 922-930.	2.1	14

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19	A Tri-Layer PECVD SiN Passivation Process for Improved AlGaN/GaN HEMT Performance. ECS Journal of Solid State Science and Technology, 2017, 6, P58-P61.	1.8	10
20	Hexagonal boron nitride particles for determining the thermal conductivity of diamond films based on near-ultraviolet micro-Raman mapping. Journal Physics D: Applied Physics, 2017, 50, 24LT01.	2.8	3
21	Dry Etching of High Aspect Ratio 4H-SiC Microstructures. ECS Journal of Solid State Science and Technology, 2017, 6, P207-P210.	1.8	14
22	Vertical GaN Junction Barrier Schottky Diodes. ECS Journal of Solid State Science and Technology, 2017, 6, Q10-Q12.	1.8	33
23	Quantifying substrate removal induced electrothermal degradation in AlGaN/GaN HEMTs. , 2017, , .		3
24	Deep reactive ion etching of 4H-SiC via cyclic SF₆/O₂ segments. Journal of Micromechanics and Microengineering, 2017, 27, 095004.	2.6	18
25	Electrothermal evaluation of thick GaN epitaxial layers and AlGaN/GaN high-electron-mobility transistors on large-area engineered substrates. Applied Physics Express, 2017, 10, 126501.	2.4	20
26	High Voltage GaN Lateral Photoconductive Semiconductor Switches. ECS Journal of Solid State Science and Technology, 2017, 6, S3099-S3102.	1.8	12
27	Optical characterization and thermal properties of CVD diamond films for integration with power electronics. Solid-State Electronics, 2017, 136, 12-17.	1.4	15
28	Vertical GaN Junction Barrier Schottky Rectifiers by Selective Ion Implantation. IEEE Electron Device Letters, 2017, 38, 1097-1100.	3.9	136
29	Electrical and Thermal Stability of ALD-Deposited TiN Transition Metal Nitride Schottky Gates for AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2016, 5, Q204-Q207.	1.8	6
30	Spatial Mapping of Pristine and Irradiated AlGaN/GaN HEMTs With UV Single-Photon Absorption Single-Event Transient Technique. IEEE Transactions on Nuclear Science, 2016, 63, 1995-2001.	2.0	20
31	Epitaxial Lift-Off and Transfer of III-N Materials and Devices from SiC Substrates. IEEE Transactions on Semiconductor Manufacturing, 2016, 29, 384-389.	1.7	41
32	Improvements in the Annealing of Mg Ion Implanted GaN and Related Devices. IEEE Transactions on Semiconductor Manufacturing, 2016, 29, 343-348.	1.7	30
33	Enhancement mode AlGaN/GaN MOS high-electron-mobility transistors with ZrO₂ gate dielectric deposited by atomic layer deposition. Applied Physics Express, 2016, 9, 071003.	2.4	30
34	Impact of Surface Passivation on the Dynamic ON-Resistance of Proton-Irradiated AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2016, 37, 545-548.	3.9	33
35	Nanocrystalline diamond capped AlGaN/GaN high electron mobility transistors via a sacrificial gate process. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 893-897.	1.8	22
36	Selective p-type Doping of GaN:Si by Mg Ion Implantation and Multicycle Rapid Thermal Annealing. ECS Journal of Solid State Science and Technology, 2016, 5, P124-P127.	1.8	43

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37	Defect reduction in MBE-grown AlN by multicycle rapid thermal annealing. Electronic Materials Letters, 2016, 12, 133-138.	2.2	12
38	Effect of Reduced Extended Defect Density in MOCVD Grown AlGaN/GaN HEMTs on Native GaN Substrates. IEEE Electron Device Letters, 2016, 37, 28-30.	3.9	57
39	Control of the in-plane thermal conductivity of ultra-thin nanocrystalline diamond films through the grain and grain boundary properties. Acta Materialia, 2016, 103, 141-152.	7.9	97
40	Comparison of AlN Encapsulants for Bulk GaN Multicycle Rapid Thermal Annealing. ECS Journal of Solid State Science and Technology, 2015, 4, P403-P407.	1.8	12
41	UV Single-Photon Absorption Single-Event Transient Testing of Pristine and Irradiated AlGaN/GaN HEMTs. , 2015, , .		3
42	Degradation mechanisms of 2â€‰MeV proton irradiated AlGaN/GaN HEMTs. Applied Physics Letters, 2015, 107, .	3.3	32
43	Characterization of an Mgâ€implanted GaN pâ€“iâ€“n diode. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2772-2775.	1.8	32
44	Thermal etching of nanocrystalline diamond films. Diamond and Related Materials, 2015, 59, 116-121.	3.9	9
45	Characterization of a selective AlN wet etchant. Applied Physics Express, 2015, 8, 036501.	2.4	15
46	Symmetric Multicycle Rapid Thermal Annealing: Enhanced Activation of Implanted Dopants in GaN. ECS Journal of Solid State Science and Technology, 2015, 4, P382-P386.	1.8	45
47	Proton Radiation-Induced Void Formation in Ni/Au-Gated AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2014, 35, 1194-1196.	3.9	30
48	Comparison of AlN encapsulants for high-temperature GaN annealing. Applied Physics Express, 2014, 7, 121003.	2.4	10
49	Degradation mechanisms of AlGaN/GaN HEMTs on sapphire, Si, and SiC substrates under proton irradiation. , 2014, , .		9
50	Multicycle rapid thermal annealing optimization of Mg-implanted GaN: Evolution of surface, optical, and structural properties. Journal of Applied Physics, 2014, 116, .	2.5	39
51	Substrate-Dependent Effects on the Response of AlGaN/GaN HEMTs to 2-MeV Proton Irradiation. IEEE Electron Device Letters, 2014, 35, 826-828.	3.9	78
52	Large-Signal RF Performance of Nanocrystalline Diamond Coated AlGaN/GaN High Electron Mobility Transistors. IEEE Electron Device Letters, 2014, 35, 1013-1015.	3.9	29
53	Crystal polarity role in Mg incorporation during GaN solution growth. Journal of Crystal Growth, 2014, 403, 90-95.	1.5	1
54	Impact of Intrinsic Stress in Diamond Capping Layers on the Electrical Behavior of AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2013, 60, 3149-3156.	3.0	37

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55	Atomic Layer Epitaxy AlN for Enhanced AlGaN/GaN HEMT Passivation. IEEE Electron Device Letters, 2013, 34, 1115-1117.	3.9	45
56	Nanocrystalline Diamond-Gated AlGaN/GaN HEMT. IEEE Electron Device Letters, 2013, 34, 1382-1384.	3.9	18
57	Efficient Incorporation of Mg in Solution Grown GaN Crystals. Applied Physics Express, 2013, 6, 111001.	2.4	8
58	GaN Power Transistors with Integrated Thermal Management. ECS Transactions, 2013, 58, 279-286.	0.5	7
59	Degradation of dynamic ON-resistance of AlGaN/GaN HEMTs under proton irradiation. , 2013, , .		14
60	Improved Passivation Techniques for AlGaN/GaN Hemts. ECS Meeting Abstracts, 2013, , .	0.0	0
61	Bilayer graphene by bonding CVD graphene to epitaxial graphene. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 03D110.	1.2	10
62	Reduced Self-Heating in AlGaN/GaN HEMTs Using Nanocrystalline Diamond Heat-Spreading Films. IEEE Electron Device Letters, 2012, 33, 23-25.	3.9	100
63	Electrical and Optical Characterization of AlGaN/GaN HEMTs with InÂSitu and ExÂSitu Deposited SiN x Layers. Journal of Electronic Materials, 2010, 39, 2452-2458.	2.2	27
64	On the high curvature coefficient rectifying behavior of nanocrystalline diamond heterojunctions to 4H-SiC. Applied Physics Letters, 2010, 97, .	3.3	8
65	Technique for the Dry Transfer of Epitaxial Graphene onto Arbitrary Substrates. ACS Nano, 2010, 4, 1108-1114.	14.6	190
66	An AlN/Ultrathin AlGaN/GaN HEMT Structure for Enhancement-Mode Operation Using Selective Etching. IEEE Electron Device Letters, 2009, 30, 1251-1253.	3.9	30
67	Comparative Study of Ohmic Contact Metallizations to Nanocrystalline Diamond Films. Materials Science Forum, 0, 645-648, 733-735.	0.3	4